

AMPLIFIERS

- AFS SERIES
- JS SERIES



- LOW NOISE
- OCTAVE
- MEDIUM POWER
- WIDEBAND
- ULTRA-WIDEBAND
- GaAs FED DESIGN
- SPACE-QUALIFIED DESIGN
- HIGH-RELIABILITY
- SCREENING AVAILABLE



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FEDERAL SUPPLY CODE

Our Federal Supply Code is: 33592

INTRODUCTION

This catalog provides the design engineer with a broad overview of the AFS/JS Series of amplifier products currently available from MITEQ. The devices presented here represent specific existing designs and the levels of performance they provide.

In addition to these standard products, much of MITEQ's production is devoted to *custom designs*, specifically tailored to meet individual customer requirements. Key amplifier parameters, such as frequency range, gain, gain slope, noise figure, VSWR, linearity and phase/gain tracking, can be *optimized to meet your specific needs*.

GENERAL INFORMATION

CIRCUIT DESCRIPTIONS

MITEQ's amplifiers utilize gallium arsenide transistors (GaAs FETs) and incorporate design techniques established at MITEQ along with others commonly used throughout the industry. The primary approach used by MITEQ's AFS/AFD Department is based upon what is commonly known as a single-ended design architecture. This approach uses a single transistor per stage with either series or parallel feedback designs to facilitate matching the amplifiers' impedance to 50 ohms.

Series feedback is also known as "lossless" feedback because there are no additional lossy circuits added to the input of the FET.

This approach is the basis for the design that drives MITEQ's state-of-the-art noise figure performance. Although difficult to optimize, a lossless feedback design provides the lowest noise figures available in the industry today.

Before MITEQ established proficiency in using feedback to match the impedance of the transistor, other approaches were utilized, including a balanced amplifier design. Most of MITEQ's AFD series amplifiers are based upon this approach, where each amplifier stage utilizes 90° hybrids at the input and output to feed two discrete transistors.

Utilizing 90° hybrids at the input and output of each

stage, plus having two FETs per stage, offer the following advantages:

- Good VSWR characteristics due to the reflections adding in the termination of the 90° hybrid.
- Multiple stages are easily cascadable since interstage matching is not a problem due to the 90° hybrids.
- Easy power matching due to 90° hybrids; therefore, amplifiers can be optimized for noise figure.
- Improved output power performance due to multiple devices per stage.

In implementing this type of design, the designer must consider that the loss of the 90° hybrid will degrade the minimum achievable noise figure. In addition, this design is bandwidth limited due to

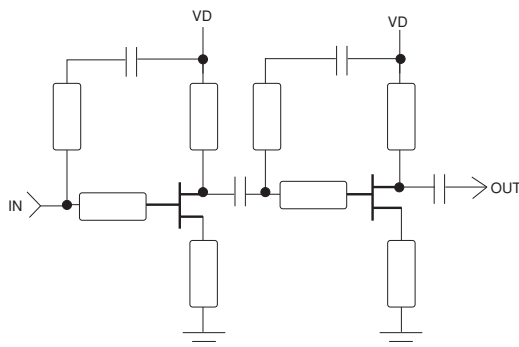
the problems in realizing multioctave 90° hybrids.

Although MITEQ offers a wealth of catalog amplifier designs, the majority of our requirements are in supplying amplifiers to custom applications. To meet this demand, our engineers combine all available amplifier circuits in a variety of combinations to achieve desired performance not attainable through standard designs or catalog MMIC circuits.

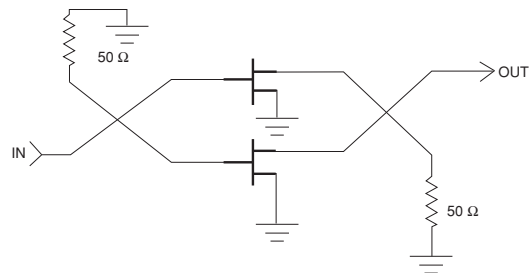
MITEQ's JS series uses a quasi-lumped element approach, which results in rugged designs, which are easily modified for special applications. With little modification, these designs can operate from cryogenic temperatures to over 85°C. These amplifiers are designed to meet high vibration



ENVIRONMENTAL TESTING



SINGLE-ENDED FEEDBACK DESIGN



BALANCED AMPLIFIER DESIGN

GENERAL INFORMATION (CONT.)

levels, and all but a few of the JS series are hermetically sealed.

MITEQ specializes in low noise broadband amplifiers. Their 18 to 40 GHz designs have been a low noise industry standard for many years, but we have done many state of the art specials for instrumentation, communications, military, space, radio astronomy, and high data rate digital applications.

DESIGN TECHNIQUE NOTES

Most of the JS series designs are single ended with many being combinations of single ended stages and distributed stages. The higher power units may use balanced stages. Where appropriate, MMICs are used. The standard types of feedback may be used in conjunction with special techniques developed at MITEQ.

For special applications, our design techniques allow for not just optimization but also for repeatable optimized performance. Our goal is to eliminate the necessity for tuning units for even difficult applications.

Of course we are always looking for better and newer techniques and devices. Creativity has been the hallmark of the all MITEQ amplifier designs.

CONSTRUCTION

MITEQ's amplifiers are manufactured using our internal thin film hybrid manufacturing process. This type of microwave integrated circuit construction (MIC), was introduced by MITEQ during the early 1970s and has

been the main manufacturing technique of our amplifiers ever since. Our expertise in this form of micro miniature integration has allowed MITEQ to achieve truly state-of-the-art performance, particularly in the areas of low noise figure and broadband amplifier design.



THIN FILM LAB

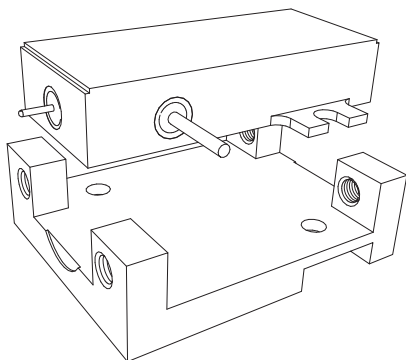
All AFS, JS and AFD amplifiers use a technique where the FETs and substrates are mounted directly to the chassis. This "direct solder" technique was developed at MITEQ in the early 1980s and has allowed MITEQ to

achieve a physically smaller mechanical interface between the input stage and the coaxial transition, making lower noise figures possible. In addition, the tighter interstage tolerances assist in achieving the broader bandwidths that both of these series require. Through the use of our extensive in-house machining capabilities, tight tolerances not available through outside machine shops have

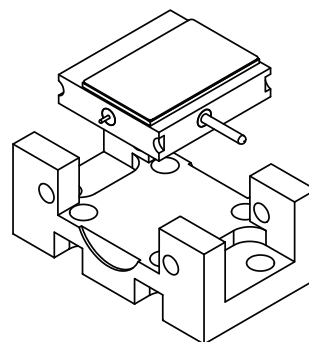
made this technique the main approach to amplifier design within MITEQ.

PACKAGING AND CONNECTOR OPTIONS

MITEQ's amplifiers are available in various outline configurations. The AFS chassis is a two-part construction that includes the amplifier housing mounted in a fixture to which the SMA connectors are attached. This chassis has proven extremely versatile in adapting to either coaxial or microstrip applications by offering a pin height above ground plane of only .070" when the mounting fixture is removed.



AFS AMPLIFIER WITH CARRIER ASSEMBLY



JS AMPLIFIER WITH CARRIER ASSEMBLY

GENERAL INFORMATION (CONT.)

Due to its size, the AFS chassis can support only single-ended designs. When balanced designs are required, the AFD style outline is utilized. Along with these two coaxial packages, there are a variety of application-specific mechanical designs which are offered as standard catalog items, including:

- Surface mount
- Substrate
- Coaxial in-line

The primary JS series chassis is a miniature (11 mm x 9.8 mm x 1.2 mm) metallic connector-less chassis, which is normally mounted in a fixture to which various connectors; 3.5 mm, 2.9 mm, 2.4 mm and most high frequency waveguides can be attached. This chassis is also used for drop-in microstrip applications having a pin height above ground plane of only .047" (1.2 mm). Special enclosures are also available for lab use where these small housings are given extra protection against abuse.



THREE-MODULE CASCADE

TEMPERATURE COMPENSATION

Temperature compensation can be added to most existing amplifier designs. The additional circuitry is relatively low cost, has virtually no effect on the performance at the maximum operating temperature compared to the standard product, and often can be adjusted to overcompensate for temperature variations. Overcompensation can be very useful in system design, as most other devices will have their minimum gain at the highest temperature.

INPUT POWER LIMITING

Various input power limiters can also be integrated into these amplifiers. Integrating the limiters into the amplifier housing saves space and insertion loss (lowered NF). Some input FETs and designs are sensitive to drive levels in the range of 13 to 20 dBm. This is common for the multi-octave designs. That being the case, we developed very low loss techniques to protect these sensitive devices for levels to at least 20 dBm and in some cases to 30 dBm without significantly affecting the noise figure.

LIMITING AMPLIFIERS

There are several types of microwave limiting amplifiers built at MITEQ. Designed for high data rate systems (with other possible applications), there is a type

of limiting amplifier where the output and the zero crossing of the digital signal are approximately constant typically over a 30 dB input range. Keeping the zero crossing constant requires that both the voltage and current compression track each other over the input range. For a 10 Gb/s amplifier, the output frequency response needs to be flat from approximately 30 kHz to near 10 GHz. A second type (used in clock recovery) is designed to keep the phase as well as the amplitude of the fixed clock frequency constant over the input range. At MITEQ, we also design limiting amplifiers where the strongest frequency in a given band is limited while suppressing other smaller signals.



HYBRID MIC ASSEMBLY

CONNECTORLESS CASCADED APPROACH

A special interconnect measuring 0.078" (2 mm) was developed for the JS type housings. As a result of its small size, there is relatively no ripple when two modules are connected compared to other techniques.

One advantage of this development is that we can

quickly combine various existing devices such as filters, variable attenuators, power dividers, frequency multipliers and mixers. Shielding is not a problem, size is minimized, and various combinations can be tested. With this technique, special housings can be generated with little additional cost or time delay.

AUTOMATED TESTING

The first use of automated testing at MITEQ started in 1988, and is now almost universally used. Our goal in developing our own software was to obtain the best accuracy and most complete documentation in a practical way. This is of course critical when you are designing state-of-the-art amplifiers. Normally the amplifiers are supplied with S-parameter, noise figure, and compression data. Our automated test equipment is capable of measuring many other measurements such as two-tone third order, gain flatness, phase linearity, harmonics, special compression measurements, etc.

When useful, we have written programs which calculate gain and phase ripple over many contiguous sections of the band as part of the gain or loss measurements.

When desired, this data can be supplied in electronic form as an Excel spreadsheet.

SPECIFICATION DEFINITIONS

GENERAL SPECIFICATIONS

Most of the amplifiers listed in this catalog are classified by several specifications. They are based on operation at normal room ambient conditions of 23°C. For amplifier requirements at other temperatures and environments, please consult the factory or your local representative.

- Operating frequency range
- Gain
- Gain flatness
- Noise figure or noise temperature
- Output power at 1 dB compression
- Input and output VSWR
- DC supply voltage and current consumption

We also can provide data on phase linearity, intermodulation and harmonics, amplitude linearity.

OPERATING FREQUENCY RANGE

The operating frequency range is the range of frequencies over which the amplifier will meet or exceed the specification parameters. The amplifier may perform beyond this frequency range, and in cases where the amplifier is specified over less than an octave, the actual frequency response may be significantly greater than the specified operating frequency range.

PLEASE NOTE: If an engineer is interested in limiting the response beyond the specified operating frequency range, this should be defined as a separate specification item. In this case, MITEQ can usually incorporate band-limiting elements to meet the desired response.

GAIN

Gain is defined as the ratio of the power measured at the output of an amplifier to the power provided to the input port. It is usually expressed in decibels and is typically measured in a swept fashion across the operating frequency range. Unless specified, 100% test data supplied by MITEQ will include gain data taken at several points within the band; however, in all cases, the amplifier gain has been measured in a swept fashion with performance verified over the entire frequency band.

Test data supplied with our amplifiers will include swept gain plots taken at least 100 to 1600 points within the band. Tabular data can also be supplied if required.

GAIN FLATNESS

Gain flatness describes the variation in an amplifier's gain over the operating frequency range at any fixed temperature within the operating temperature range. As such, it does not include the variation of gain as a function of temperature (see Gain Variation vs. Temperature).

The gain flatness of an amplifier is measured by viewing the swept gain and determining the difference between the minimum gain and the maximum gain recorded over the operating frequency range. Unless the amplifier is specified to operate over a defined temperature range, this measurement is performed at room ambient temperature (23°C). If a range of temperatures is specified, the measurement must also be verified at the temperature extremes.



CLASS 100,000 CLEAN ROOM

NOISE FIGURE

Noise figure is classically defined as the ratio of the signal to noise ratio at the input divided by the signal to noise ratio at the output with the input noise equivalent to that from a matched load at 290 degrees kelvin. All physical bodies emit noise related to its physical temperature. This noise for a matched load is given by the formula KTB , where K is Boltzman's constant, T is the temperature in degrees Kelvin, and B is the Bandwidth. For a 1 MHz bandwidth, and $T = 290$ degrees K, the noise power is -114 dBm.

$$\text{Noise figure} = \frac{S_i/N_i}{S_o/N_o} = \frac{\text{Signal-to-noise ratio at the amplifier input}}{\text{Signal-to-noise ratio at the amplifier output}}$$

Since all amplifiers add thermal noise, the signal-to-noise ratio at the output will be degraded. Therefore, the noise figure will be a ratio greater than one, or when expressed in decibels, a positive number i.e. $NF \text{ dB} = 10 \text{ Log}_{10} (NF \text{ Ratio})$. The additive noise of an amplifier can also be expressed in a parameter referred to as noise temperature. In this approach, the noise temperature of the amplifier is equal to the temperature (in Kelvin) of a 50 ohm termination at the input of an ideal noiseless amplifier with the same gain and generating the same output noise power.

SPECIFICATION DEFINITIONS (CONT.)

NOISE TEMPERATURE

Noise figure was defined at a time when the background noise and system physical temperatures were close to 290 degrees K. With satellite applications, however, the space background temperature is near 4 degrees Kelvin and the noise sources in front of the amplifier are small. In this case, the relationship of the signal-to-noise ratio at the input vs. the signal-to-noise ratio at the output is not simply related to the noise figure definition. It is more intuitive to work with what is called noise temperature. By definition, all noise sources in an amplifier are referred to the input. The noise temperature of the amplifier is defined as the temperature (in Kelvin) of a matched termination at the input of an ideal noiseless amplifier with the same gain and (the load) generating the same output noise power.

The relationship between noise figure and noise temperature is:

$$\text{Noise Figure} = 10 \text{ Log}_{10} \left\{ \frac{\text{Noise Temp. (}^\circ\text{K)} + 1}{290 \text{ degrees K}} \right\}$$

Noise figure or noise temperature data is measured at discrete frequencies throughout the band. Test data is supplied at +23°C unless specified otherwise.

OUTPUT POWER AT 1 dB COMPRESSION

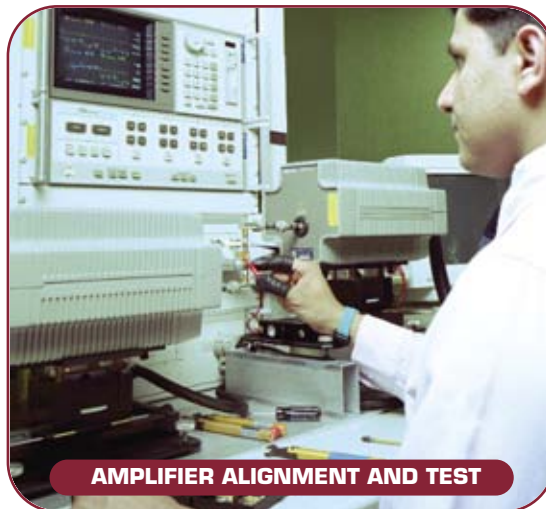
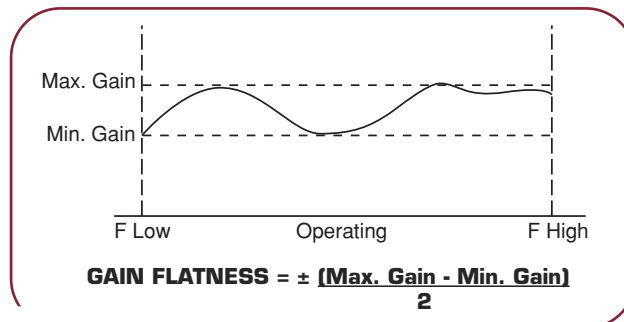
The 1 dB output compression point of an amplifier is simply defined as the output power level at which the gain drops 1 dB below the small signal level.

All active components have a linear dynamic range. This is the range over which the output power varies linearly with respect to the input power. As the output power increases to near its maximum, the device will begin to saturate. The point at which the saturation effects are 1 dB from linear is defined as the 1 dB compression point. Because of the nonlinear relation between the input and output power at this point, the following relationship holds:

$$P_{\text{out } 1 \text{ dB}} = P_{\text{IN } 1 \text{ dB}} + \text{Linear Gain} - 1 \text{ dB}$$

INPUT AND OUTPUT VSWR

Most RF and microwave systems are designed around a 50 ohm impedance system. An amplifier's impedance is designed to be as close as possible to 50 ohms; however, this is not always possible, especially



when attempting to simultaneously achieve a good noise figure. The Voltage Standing Wave Ratio (VSWR) of an amplifier is a measure of an amplifier's actual impedance (Z) with respect to the desired impedance (Zo), in most cases 50 ohms.

The VSWR is derived from the reflection coefficient Γ , where Γ is a ratio of the normalized impedance:

$$\Gamma = \frac{Z - Z_0}{Z + Z_0}$$

and:

$$\text{VSWR} = \frac{1 + |\Gamma|}{1 - |\Gamma|}$$

VSWR is "measured" with either a scalar or vector network analyzer. The reflection coefficients are determined by comparing the incident power and the reflected power at both ports of the device which in turn are converted and displayed as a VSWR. The ratio of the reflected power to the incident power is also known as the return loss.

DC SUPPLY VOLTAGE AND CURRENT CONSUMPTION

Amplifiers, being active devices, require DC power for their operation. MITEQ's amplifiers typically require 15 volts and include an internal voltage regulator. The use of a regulator allows for specification compliant operation even in the presence of power supply voltage variations, as long as minimum voltage supplied is greater than the specified drop-out voltage of the regulator. MITEQ also includes reverse voltage protection diodes on the DC line to prevent damage due to the accidental application of a negative DC voltage.

ADDITIONAL SPECIFICATIONS

In addition to the electrical specifications for most of the models within this catalog, there are additional

SPECIFICATION DEFINITIONS (CONT.)

specifications useful to the engineer designing around stringent system requirements:

- Gain variation vs. temperature
- Overall gain window
- Output intercept point
- Dynamic range
- Harmonic suppression
- Reverse isolation
- Phase and amplitude matching and tracking
- Phase linearity
- Recovery from saturation

GAIN VARIATION VS. TEMPERATURE

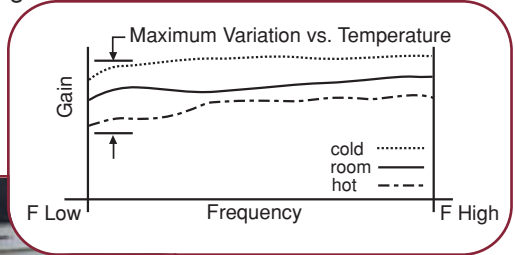
Gain variation versus temperature defines the maximum allowable variation of the linear gain due to temperature at any discrete frequency. As a result, this parameter does not account for drift over frequency.

Gain variation versus temperature is measured by performing swept gain measurements at the specified temperature extremes and com-



AUTOMATED TEST STATION

plifier; however, it does impact the price due to the additional testing and alignment required by adding this constraining parameter.



INTERCEPT POINT

Solid state amplifiers use field effect transistors and/or MMICs, to provide gain. Although these devices are generally used in a linear mode (except in the case of other than a Class A amplifier), they still exhibit nonlinear phenomenon, such as intermodulation effects and harmonic generation. These effects are evident in spurious

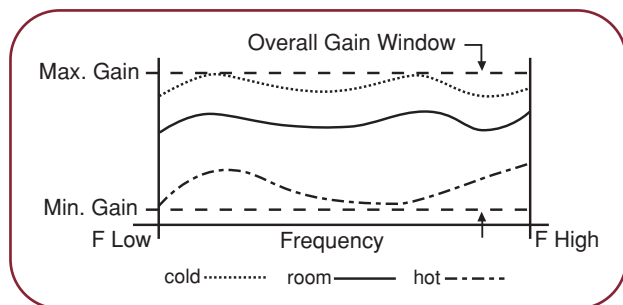
products present at the output. In the case of the single-tone condition, the spurious signals are the harmonics of the fundamental input signal. In the case of the two-tone condition, the spurious signals are a product of mixing two input signals at the frequencies f_1 and the other at f_2 . The most common are the second order and the third order two-tone spurs.

Second order two-tone spurs are the sum and difference product of the fundamental input frequencies, i.e.,

$$f_{\text{SPUR}} = f_1 \pm f_2$$

These spurious signals are only of concern when the band is greater than one octave. If the frequency range is less than one octave, the two-tone second order spurs will be out of band.

These spurious signals are characterized with respect to the input signal by means of a theoretical tool called an intercept point. These points are defined as the point where the linear curve of input vs. output power of the fundamental would intersect with the linear curve of the spurious signal if saturation effects would not limit the output levels of these signals. Since it is known that the second order spurious products have a slope of 2:1 with respect to the fundamental input power, the value of the spurs can be estimated if the



paring the deviations between the two sweeps at each frequency to determine the greatest change.

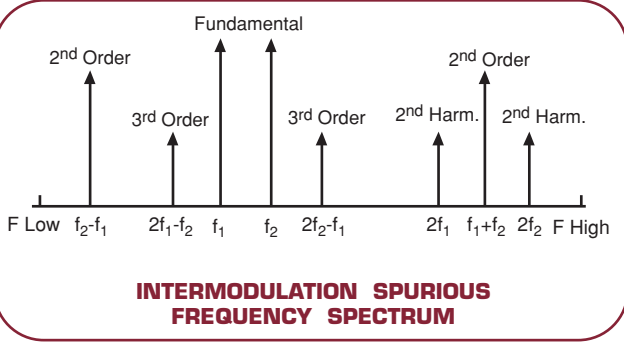
When a \pm value is used, then the delta is taken at both temperature extremes with respect to room temperature (23°C). (For typical gain variation values vs. temperature see Thermal Considerations section.)

OVERALL GAIN WINDOW

An overall gain window specification defines the absolute minimum and maximum gain values over both temperature and frequency.

In reality, it is the most complete way to specify an am-

SPECIFICATION DEFINITIONS (CONT.)



input signal power (P_{IN}) and the output second order intercept point (OIP_2) are known. The relationship is as follows:

$$\text{Two-tone second order spurious suppression} = OIP_2 - (P_{IN} + G)$$

$$\text{Two-tone second order spurious level} = 2 (P_{IN} + G) - OIP_2$$

Third order spurious products result from combinations of the fundamental signal and the second harmonics.

$$f_{SPUR} = |2f_1 \pm f_2| \text{ or } |f_1 \pm 2f_2|$$

The slope of third order spurious signal is 3:1 with respect to the fundamental input power, and again the value of the spurs can be estimated if the input signal power (P_{IN}) and the output third order intercept point (OIP_3) are known. The relationship is as follows:

$$\text{Two-tone third order spurious suppression} = 2 \{OIP_3 - (P_{IN} + G)\}$$

$$\text{Two-tone third order spurious level} = 3 (P_{IN} + G) - 2 OIP_3$$

Note: A rule of thumb is that the two-tone third order is 10 dB above the 1 dB compression point, but this is often not the case. In many amplifiers, compression is not monotonic (such as with gain expansion) vs. input level. This depends upon the type of FET and to some degree its bias conditions. When this happens, the third order intercept is degraded. Degradation of the third order intercept can also occur when two or more stages are compressing at the same time. At the same time there can be significant measurement error. This is possible as more than one stage is contributing to the generation of spurs, and depending on the phase of the separately generated spur, the sum of the two sources can cancel or add.

DYNAMIC RANGE

Dynamic range can be defined in several ways. The

two classical methods are to define the linear dynamic range and the spurious free dynamic range.

The linear dynamic range defines the difference between the Minimum Detectable Signal (MDS), referred to the input of the amplifier or receiver and the maximum signal level at which the amplifier remains linear. This is typically defined by the input 1 dB compression point ($P_{IN} 1 \text{ dB}$). The minimum detectable signal is defined by system constraints, such as noise figure, bandwidth and predetection signal-to-noise ratio.

Spurious free dynamic range is defined as the difference between the minimum detectable signal and the point at which the intermodulation signals generated from two equal tones would either equal this MDS or some other acceptable level. The dynamic range can be easily derived by the following relationship:

$$\text{Two-tone spurious free dynamic range} = (2/3) (IP^3_{INPUT} - \text{MDS})$$

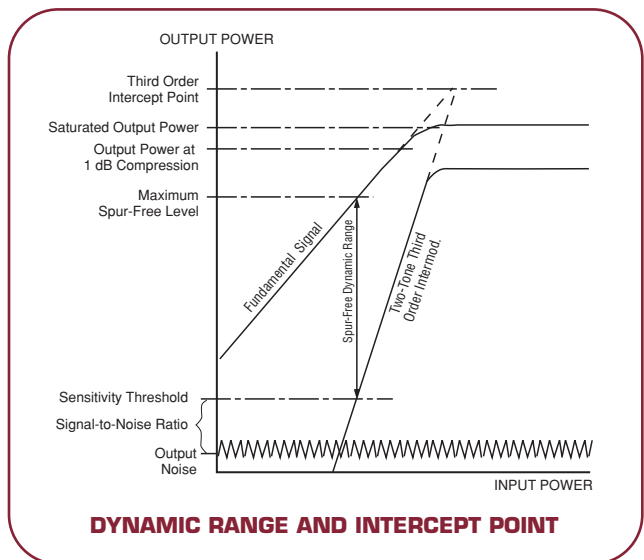
$$\text{MDS (dBm)} = -114 + 10 \log_{10} (\text{BW in MHz}) + \text{N.F.} + \text{SNR}$$

REVERSE ISOLATION

Reverse isolation simply defines the isolation between the input and output of an amplifier. It is tested by injecting a signal into the output port and measuring its level at the input. Ideally, the isolation should be at least 10 dB greater and preferably 15 dB greater than the amplifiers gain. With low isolation, the load VSWR can affect the input VSWR and possibly affect the gain flatness and phase. Single stage amplifiers will often have lower isolation, and should be considered in a system's design.

PHASE LINEARITY

The phase of a signal versus frequency will be dis-



SPECIFICATION DEFINITIONS (CONT.)

torted due to the nonlinear phase elements within the amplifier. This distortion is called phase linearity and is measured by means of a vector network analyzer across the operating frequency range.

The phase non-linearity of a device can be defined as the deviation in phase from that of a matched transmission line of the same average electrical length. This is equivalent to variations in the transit time through a device as a function of frequency. This variation causes the distortion of modulated signals.

Phase linearity in an amplifier is affected by the internal interaction of reactance's, some types of feedback, and impedance mismatches (reflections). Thus narrow bandwidth amplifiers will have worse phase linearity than broadband designs as narrow bandwidth amplifiers require tuned (reactive) circuits.

In general, MITEQ amplifier designs are inherently broadband, which results in excellent phase linearity and low amplitude ripple.

PHASE MATCHING

Phase matching, in the strict sense, is defined as the difference in insertion phase between any two or more units. This parameter is usually defined across the operating frequency band, however, in some cases it is defined over frequency segments (ΔF) within the overall operating band.

In the case of the definition over the entire band, the insertion phase is measured by means of a vector network analyzer, stepped across the band. The values at each frequency for two amplifiers are subtracted to provide a delta plot across frequency. Since each system has its own peculiarities, there are a wide variety of variations of this definition. Therefore, if your system requirements are such that this definition does not accurately meet your needs, or if this level of definition exceeds your real need and results in higher cost, you should contact MITEQ's engineering staff to discuss the most cost effective options.

PHASE TRACKING

Phase tracking is very similar to phase matching. However, an arbitrary fixed offset exists between the amplifiers that can usually be compensated by the system software. The offset, sometimes referred to as the DC component (because all that remains is the phase versus frequency ripple and slope), is calculated at each temperature based upon an average over the band. As with phase matching, there are many variations on this theme that also should be discussed with MITEQ's

engineering before committing to a final specification.

AMPLITUDE MATCHING

Same as phase matching, except substitute gain for phase.

AMPLITUDE TRACKING

Same as phase tracking, except substitute gain for phase.

AM TO PM CONVERSION

This specification parameter defines the change in phase at any fixed frequency within the operating band relative to the input signal power. It is usually defined in terms of degrees per dB ($^{\circ}/\text{dB}$) over a specified input dynamic range. Most GaAs FET amplifiers exhibit well-behaved AM/PM conversion (less than $1^{\circ}/\text{dB}$) up to a few dB below the 1 dB compression point. Beyond the 1 dB compression point, the variation can be quite large, depending on the devices and biasing conditions used.

AM to PM is primarily due to the changes in the input and output VSWR of the various stages and their interaction. This can be visualized as phase shifts due to the changing reflections between stages. As a rough rule of thumb, the phase shift increases 1 or 2 degrees per 1 dB of compression.

PULSE CONDITIONS

A variety of pulse conditions can be specified for an amplifier, including amplitude or phase overshoot and ringing, amplitude or phase settling time, recovery time, etc. In general, our broadband amplifiers have excellent pulse recovery characteristics. We build many special pulse amplifiers with risetimes as low as in the tens of pico-seconds. We have amplifiers for high-data rates such as for 12 Gb/s applications with rise times near 30 pS.

As with the matching and tracking specifications, they are typically system dependent and rarely fall into a standard definition. Therefore, it is best to contact MITEQ's engineering staff when attempting to define the operation of an amplifier in the presence of pulsed signals.

MAXIMUM INPUT POWER

Most low noise figure amplifiers will withstand an input level of 13 dBm CW. In the event that you require a higher input level, an input limiter can be added to the front end of the amplifier in order to protect it. The problem with the addition of the limiter is that its insertion loss is directly additive when calculating the overall noise figure.

THERMAL CONSIDERATIONS

The following information can be used as a guide relative to the changes in performance of an amplifier as a function of temperature.

GAIN

The gain of a typical amplifier, that is not temperature compensated, tends to decrease as the operating temperature of the device increases. Since most low-noise amplifiers have their specifications defined at 23°C, the difference in the gain caused by temperature is approximately 0.01 dB/°C/stage for driver stages and 0.015 dB/°C/stage for power stages. By temperature compensating the amplifiers, improvements of 1/4 to 1/2 of the uncompensated gain change can be realized depending on the frequency bandwidth, gain, power, and temperature extremes.

1 dB COMPRESSION POINT

The 1 dB compression point of a low-noise amplifier varies inversely proportional to the operating temperature. As the temperature increases over room temperature (23°C), the 1 dB compression point will typically decrease up to 0.01 dB/°C, but this is not an absolute rule. Deviations from this characteristic may not hold at cold temperatures and with temperature compensation.

THE SATURATED OUTPUT LEVEL RELATIVE TO THE 1 dB COMPRESSION POINT

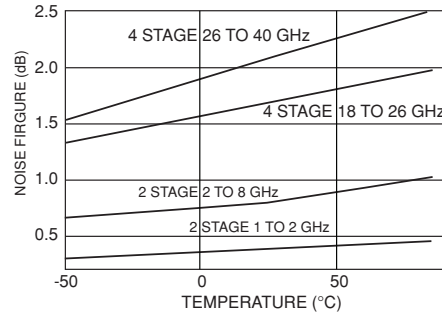
The maximum output of an amplifier relative to the 1 dB compression point is not a fixed number. The pHEMT FETs used in many of our low noise products have a soft limited output, and the maximum output can be 5 or 6 dB above the 1 dB compression point. Other FETs may hard limit at 1.5 to 2 dB above the 1 dB compression point.

NOISE FIGURE VS TEMPERATURE

The noise figure variation as a function of temperature is dependent upon the noise figure at room temperature, the gain per input stage(s), and the type of FET used.

As you can see in the following graph, we can have a .001 dB per degree C slope for low noise figures, to 0.007 dB per degree C for the 26 to 40 GHz amplifier. The slope will be steeper for higher noise figure ampli-

NOISE FIGURE VS. TEMPERATURE FOR VARIOUS AMPLIFIERS



fiers, and for amplifiers with lower gain input stages. The variation of the first stage gain vs temperature for a low gain stage will cause a larger slope (due to the following second stage contribution to the noise figure) than just the change in temperature of the amplifier noise sources would explain.

NOISE FIGURE

The noise figure of a typical amplifier will increase as the operating temperature of the device increases over room temperature (23°C). This rise in noise figure is typically 0.01 dB/°C. Thus, if the noise figure of an amplifier is defined by

the manufacturer as 0.9 dB, and the unit has to operate at 85°C, the expected noise figure will be approximately:

$$[85^{\circ} - 23^{\circ}\text{C}] [0.01 \text{ dB}/^{\circ}\text{C}] + 0.9 \text{ dB} = 1.52 \text{ dB}$$

Similarly, for cold temperatures, the noise figure decreases at the same rate.

HEATSINKING

All of MITEQ's amplifiers utilize active components that generate heat when bias is applied. As such, proper mounting must be achieved in order to maintain the proper junction temperatures of the devices and ensure specification compliant operation. This is done via conduction cooling of the amplifier case to a baseplate or mounting surface. It is recommended that the mounting surface is smooth and clear of any foreign substances, so that there is a clear thermal path between the baseplate of the amplifier and that of the mounting surface. We also recommend that thermal grease be used wherever possible to enhance the conductivity of the thermal path.

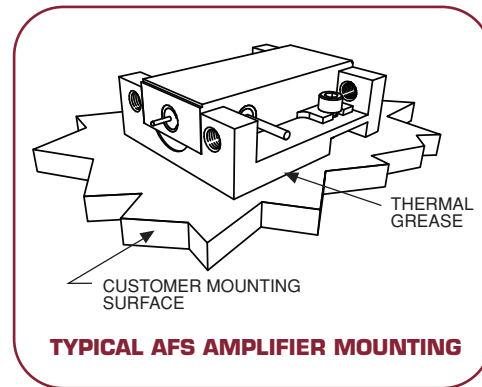
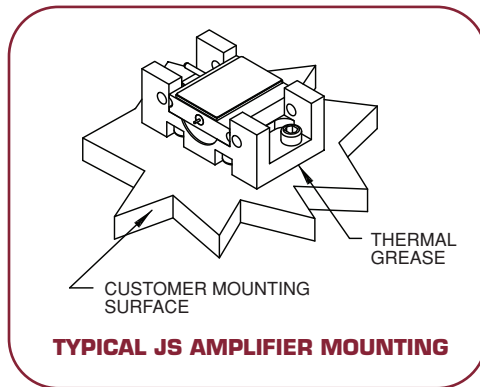


AUTOMATED EPOXY AND DIE PLACEMENT

THERMAL CONSIDERATIONS (CONT.)

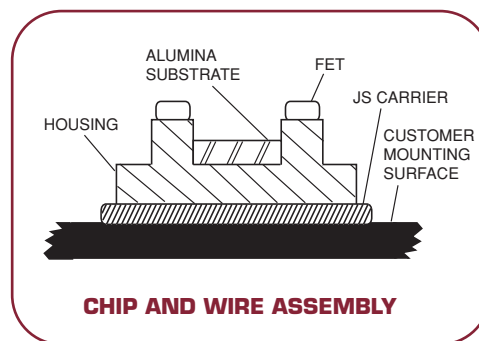
Since the amplifiers are sealed, there is no way to remove the heat other than by conduction, even if the ambient temperature is significantly below that of the baseplate. For higher power models, heatsinks are required. Please consult the factory for details.

In order to increase the efficiency and reduce the thermal stress on the components in our amplifiers, MITEQ has done extensive research on the thermal effects of the heat generating devices in our amplifier designs. Most of our designs use either aluminum, copper/tungsten, or Kovar for the chassis, and aluminum for the mounting fixture, as shown below.



TYPICAL MEDIUM POWER AMPLIFIER CONFIGURATION

It is important for the user to understand that in addition to the thermal resistance of the chassis metal, every interface, starting with the mounting of the FET into the amplifier package, results in a thermal gradient. As such, one should try to minimize these various interfaces by direct attachment wherever possible.



In order to minimize the amount of heat dissipated, MITEQ either eutectically bonds or epoxies the FETs directly to the housing. Since most of the FETs are less than 20 x 20 x 5 mils and the mounting posts are large, there is a good thermal path between the FET and the chassis. Typical power dissipation for the FETs in a two-stage low-noise amplifier is in the order of 100 mW. For a medium power FET with a gate-to-gate spacing of 56 μm and a gate finger width of 200 μm (two fingers/FET), the maximum channel temperature can be calculated to be 135°C, for a baseplate temperature of 85°C. The equation is as follows:

$$T_J = T_{\text{case}} + (V_{DS})(I_{DS})(R_{\theta JC})$$

THERMAL CONSIDERATIONS (CONT.)

To further guarantee a good thermal path, the base of both the amplifier and mounting fixture should be machined to very fine tolerance (i.e., 0.001"/inch). This equates to a contact conductance of approximately 550 BTU/hr-ft²-F.

TYPICAL GaAs FET SPECIFICATIONS

CHARACTERISTICS	MEDIUM POWER	HIGHER POWER
Dimension (inches)	0.022 x 0.014 x 0.004	0.019 x 0.014 x 0.004
Gate finger width	200 μm	100 μm
Gate-to-gate spacing	56 μm	25 μm
# FETs	2	2
# Gate fingers/FET	2	5
Power dissipation (W)	0.16	0.16
Total periphery	0.8 mm	1.0 mm
Q ccb (C/W)	80	86
ΔT (C)	12.8	13.8

TYPICAL THERMAL CONDUCTIVE EPOXIES

TYPE	THERMAL CONDUCTIVITY BTU/in./ft. 2hr. °F	MAXIMUM OPERATING TEMP. CONTINUOUS °C
H20E	11.5	125
H31D	11.5	150
H35-175MP	11	175

QUALITY ASSURANCE

QUALITY ASSURANCE

MITEQ believes that quality must be built into all of the products that we manufacture. As such, we take extreme care in maintaining a complete and detailed product assurance program. Our product quality is structured to and operates within the precepts of ISO 9001:2000 and to MIL-I-45208. This, in turn, allows us to meet the rigorous requirements generated by our customers in the aerospace, military, and commercial sectors. Internal procedures are used to relate all functions affecting quality, from initial design through final acceptance. These procedures detail the responsibilities and functions necessary to maintain effective controls and to provide a means for evaluating quality disciplines during all phases of a job's performance.

Beginning with the audit of the customer's contract, our Quality Assurance Department will review and evaluate the contract and all of the specifications applicable to the job. Quality requirements and characteristics are highlighted and adequate plans are implemented to ensure the incorporation of all aspects pertaining to overall product quality. Quality assurance activities will be coordinated with engineering, manufacturing, and procurement during all phases of an order to ensure the

transmittal of complete quality information to all manufacturing centers and inspection stations in a manner consistent with schedule requirements.

MITEQ, through our Quality Assurance and Purchasing Departments, is responsible for the quality of all purchased items. Procurement sources will be selected and approved, based upon the supplier's quality history records, facility and quality system surveys, or coordinated industry records. Approved sources will be required to maintain a quality program that is commensurate with the requirements of the items being purchased and in compliance with the contract.

Copies of MITEQ's Quality Manual and Workmanship Standard, that define the methods used for both quality and process control, are available upon request.

TEST EQUIPMENT

MITEQ maintains a complete inventory of the latest state-of-the-art mechanical, electrical, and manufacturing test equipment. Equipment calibration and maintenance is performed and is traceable to the requirements of MIL-STD-45662A.

MEAN TIME BETWEEN FAILURE (MTBF)

For the past 40 years, MITEQ has supplied thousands of different models of microwave hybrid amplifiers to the industry.

Reliability calculations have been performed in accordance with MIL-HDBK-217F for ground benign equipment at 23°C. From these calculations MITEQ has concluded that these amplifiers are extremely reliable.

CASE I

A low-noise amplifier built to commercial standards using commercial parts.

CASE II

The same amplifier built in a Kovar chassis, hermetically sealed, using commercial parts, but screened in accordance with a test flow similar to that of MIL-PRF-38534 Class H.

CASE III

The same amplifier built in a Kovar chassis, hermetically sealed but, consisting of specially purchased high-reliability components and screened in accordance with a test flow similar to that of MIL-PRF-38534 Class K

Our low-noise amplifiers are estimated to have a minimum MTBF per the following table:

MTBF (HOURS)				
CASE	ONE-STAGE AMPLIFIER	TWO-STAGE AMPLIFIER	THREE-STAGE AMPLIFIER	FOUR-STAGE AMPLIFIER
CASE I	300,000	200,000	120,000	115,000
CASE II	3,000,000	2,000,000	1,200,000	1,100,000
CASE III	12,000,000	8,200,000	4,900,000	4,400,000

The MTBF of low-noise amplifiers with more than four gain stages can be estimated by using the equations in the following table:

MTBF (HOURS)	
CASE	EQUATION
CASE I	$MTBF = 100,000 \text{ HRS.} \times 3/N$
CASE II	$MTBF = 1,000,000 \text{ HRS.} \times 3/N$
CASE III	$MTBF = 4,000,000 \text{ HRS.} \times 3/N$

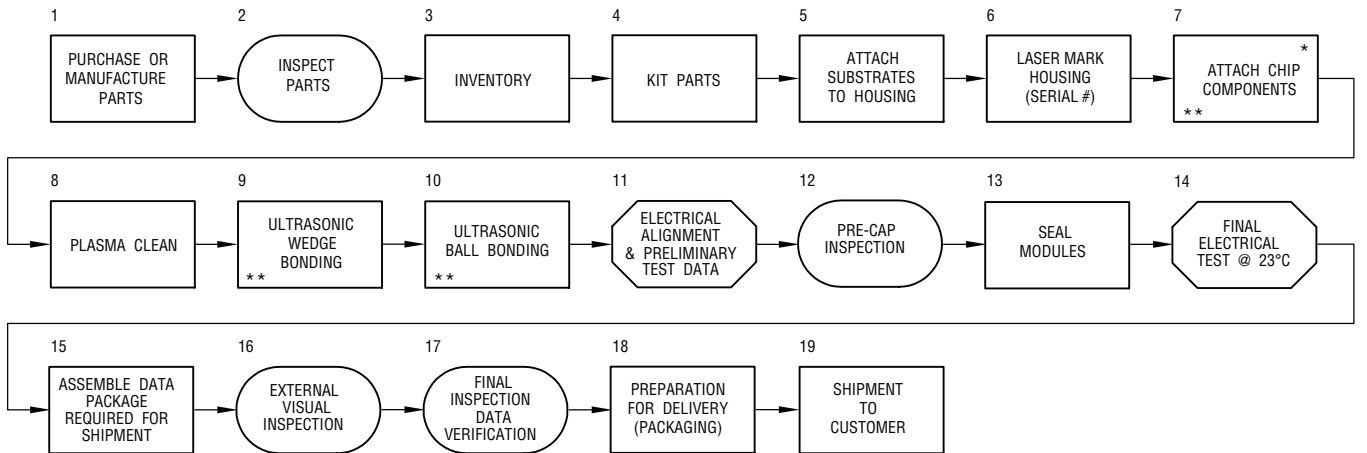
Where N is the number of stages in the amplifier.

The above analysis is only relevant for low-noise low-power amplifiers (amplifiers where the 1 dB compression point is 10 dBm or less). High-power amplifiers require individual calculations and usually result in significantly lower calculations for the MTBF.

MANUFACTURING FLOW DIAGRAMS

The following diagrams depict the process flow for both our commercial and high-reliability amplifiers:

COMMERCIAL GRADE AMPLIFIERS

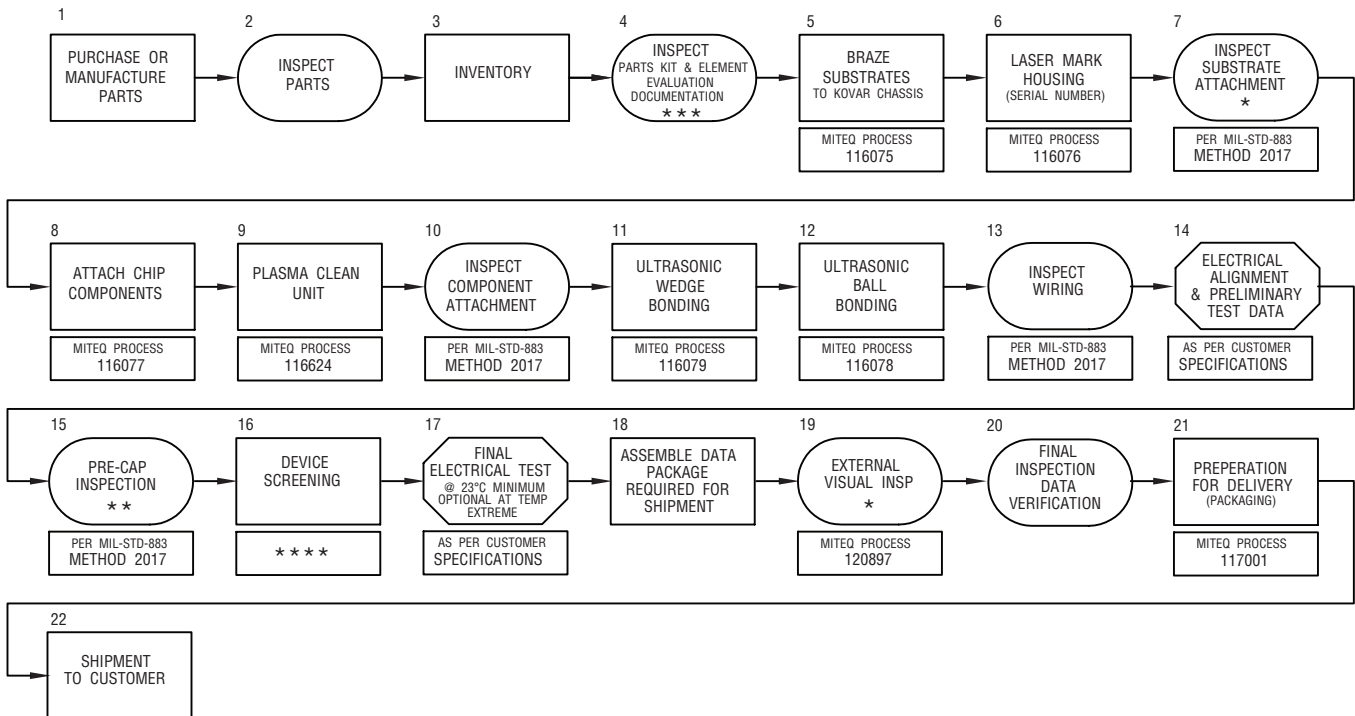


* CURED IN CONTROLLED BELT FURNACE. MANUAL AND AUTOMATED CAPABILITIES
 ** DAILY BOND SCHEDULE AND EPOXY CURING SCHEDULE VERIFICATION

LEGEND



HIGH RELIABILITY HERMETICALLY SEALED AMPLIFIERS



* FOR MIL-PRF-38534 CLASS K EQUIVALENT RADIOGRAPHIC INSPECTION REQUIRED ALSO
 ** FOR MIL-PRF-38534 CLASS K EQUIVALENT 100% WIRE BOND PULL REQUIRED
 *** IF REQUIRED BY CONTRACT
 **** PERFORMED PER MIL-PRF-38534 TABLE C-1X EQUIVALENT OR MODIFIED TO MEET CUSTOMER REQUIREMENTS

LEGEND



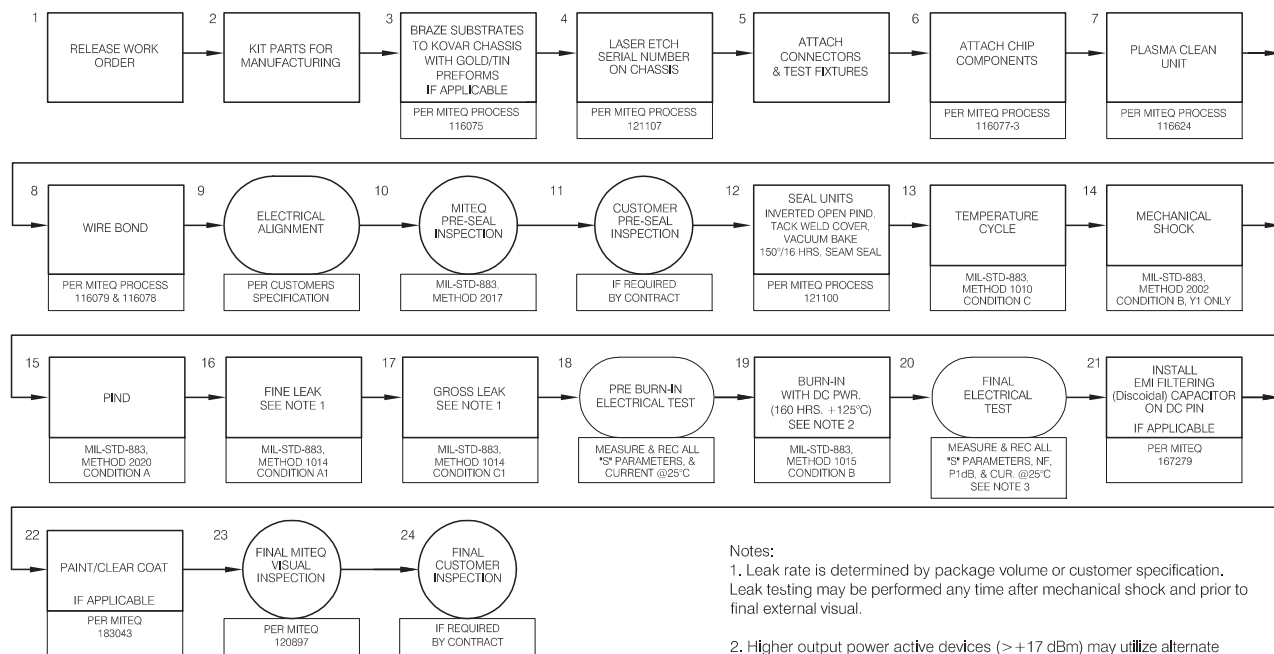
TYPICAL MITEQ DEVICE SCREENING

MITEQ maintains an assortment of its own environmental testing equipment to further ensure product quality and facilitate the testing of our products. Our environmental lab is capable of testing the following:

- Mechanical shock
- Vibration
- Burn-in
- Temperature cycling
- Thermal shock
- Gross leak
- Fine leak

The optional device screening shown here is as per MIL-PRF-38534E Table C-1X Class H and MITEQ Screening Flow 184004.

ASSEMBLY, SCREENING FLOW CHART FOR HIGH RELIABILITY, MICROWAVE (Ref. MIL-PRF-38534 Table C-1X, Class H Equivalent Test Flow)

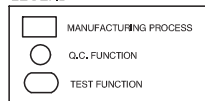


Notes:
1. Leak rate is determined by package volume or customer specification. Leak testing may be performed any time after mechanical shock and prior to final external visual.

2. Higher output power active devices (> +17 dBm) may utilize alternate burn-in profile as agreed by customer. Enter Duration, Temperature, and Voltage on Traveler.

3. Test data provided at +23°C only. Test at temperature extremes only if required by P.O.

LEGEND



GENERAL SPECIFICATIONS

MITEQ's standard amplifiers have been designed to meet the following environmental conditions:

Operating temperature	-54 to +85°C
Storage temperature	-65 to +125°C
Humidity	95% relative humidity, Noncondensing
Vibration	7 g's rms, 50-5000 CPS, per MIL-STD-810B, Method 514, Procedure 5
Data curves are at 23°C	There will be some variation in the typical data shown as a function of temperature

SPACE-QUALIFIED AMPLIFIERS

MITEQ is a leading supplier of RF and microwave components, equipment, and systems for both commercial and defense applications, including; satellite, avionics, reconnaissance, surveillance, radar, and electronic countermeasure systems. Our continued advancements in the state-of-the-art and unique capability have led to wide acceptance of our company as a forerunner in the field of low-noise amplifier technology for space applications. We are confident that based on our experience we can offer you the following:

- Mature technology with heritage on space flight platforms.
- An organization dedicated to developing and manufacturing the very best low-noise amplifiers for space use.

- A staff of amplifier experts with state-of-the-art experience in both space and military type amplifiers.
- Cost competitive products.
- Low risk (both technical and schedule), through an extensive inventory of standard designs.
- Very high reliability.

MITEQ's Space-Qualified Quality Assurance Plan establishes the actions and controls necessary to provide confidence that the end-item will meet the quality, reliability, and electrical performance required for space qualified applications. This plan includes the use of parts, materials, process controls, product screening, traceability, configuration control, and destructive physical analysis. Please contact MITEQ for a copy of our Space-Qualified Quality Assurance Plan.

CONFORMANCE TO CUSTOMER QUALITY REQUIREMENTS

MITEQ's involvement in various high-reliability space programs represents a spectrum of programmatic and quality requirements ranging from **MIL-STD-883 Class B** for cost sensitive programs, to requirements based on a process and test flow similar to that of **Class S** and **MIL-PRF-38534 Class H** and **K**.

All open-die, thin-film products are manufactured and tested within MITEQ's clean rooms (FED-STD-209, Class 100,000 and Class 10,000) according to program requirements.

In addition to compliance to stringent manufacturing controls, MITEQ possesses the capabilities to support the **program management** and extensive **documentation requirements** of your space contracts including:

- Configuration Control
- Design Reviews
- Traceability
- Design Analysis
- FMECA
- MTBF
- WCA
- Thermal Analysis
- Parts Derating
- Parts, Processes Materials
- Dynamic Stress
- Process Documentation
- EMI/EMC

All analysis and support provided is based upon individual custom requirements as set forth in the customer Statement of Work and/or Specifications. MITEQ has established controls, procedures and a philosophy with the customer in mind. **Conformance to customer requirements** has been paramount in all the programs we have supported throughout our history. It is this philosophy that had secured our successes in the past, and will guarantee our success in the future.

SPACE HERITAGE

MITEQ has supplied hardware for space-flight missions for over twenty-eight years. Our emphasis is predominantly in technically challenging requirements, particularly in the area of:

- Low-noise amplifiers
- High-performance microwave mixers
- Frequency synthesizers
- Oscillators
- Frequency synthesizers
- Logarithmic amplifiers
- Custom designed assemblies

For many years MITEQ's primary space products have been low-noise amplifiers. However, MITEQ has been able to provide a wide spectrum of designs and custom assemblies by utilizing mature technology delivered on other high-reliability programs. With our extensive space experience, we have been able to use qualification data from our existing designs while delivering custom-engineered units; thereby offering reduced cost and shorter delivery times to our customers.

Below is a list of previous and existing space programs which MITEQ has supported:

MITEQ CUSTOMER	END USER	PROGRAM
Northrop Grumman	Various	NPOESS, Corvair
NT-Space	JAXA	Global Precipitation Measurement
Comdev	JPL	Cloudsat
NASA	NASA	Aquarius
ASTRIUM GmbH	DLR	Tandem
ASTRIUM SAS	ISRO	Megatropics
MacDonald Dettwiler	CSA	Radarsat II
ALCATEL Space	Various	Sar-Lupe, Jason-2
Lockheed Martin	U.S.A.F.	Alpha Extension
University of Bordeaux	ESA	Herschel
SRON	ESA	Herschel
Technologica	CSA	Herschel
Max Plank Inst.	ESA I	Hersche
Dornier	DLR	Terrasar X
Jet Propulsion Labs	NASA	Mars Science Lab, Miro
Jet Propulsion Labs	NASA	Cloudsat, EOS-MILS
Assurance Technology	U.S. Navy	Windsat
ITT	U.S.A.F	Alpha I-IV
Motorola/GD	U.S.A.F	P-94-99, 02
E- Systems	JPL	SEAWINDS, GEOSAT
Matra Marconi	EUMESAT	MHS
Aerojet	U.S.A.F	SSMIS, AMSU-B
Millitech	U.S.A.F.	SSMIS
Lockheed	U.S.A.F.	STS-54
Applied Physics Lab	U.S. Navy	Seasat, Spinsat, Topex, Extended Test Bed, New Horizons
Millitech	Ball Aerospace	Global Microwave Imager
Harris	U.S.A.F.	Alpha Extension

HIGH-RELIABILITY PROGRAM CHECKLIST

Process Control Requirements

- Process control drawings
- Assembly travelers
- Test plans
- Test procedures

Parts Procurement Control

- Source control drawings for die and packaged parts only, or including substrates, passive parts, housings, etc. Should also include definition of element evaluation profile (100% and lot basis)
- Traceability logs
- Parts storage requirements
- Age limitations
- Customer parts approval

Reports

- Status reports (_____ interval)
- Customer interface meetings (_____ interval)
- Design reviews (_____ number)

Configuration Control

Reports and Analysis

- Thermal analysis
- Mean time between failure (MTBF)
- Failure analysis
- Failure mode effects analysis (FMECA)
- Worst case analysis (electrical performance)
- Stability analysis
- Parts derating
- Radiation susceptibility analysis/test
- EMI/EMC analysis/test

Customer Source Inspections

- Production documentation review
- Precap visual
- Final source inspection (testing and documentation review)

Component Screening

- MITEQ 883 Screening
- MIL-STD-883, Class _____ Equivalent test flow
- MIL-PRF-38534, Class _____ Equivalent test flow
- Customer defined

100% Unit Screening

- MITEQ 883 Screening
- MIL-STD-883, Class _____
- MIL-PRF-38534, Class _____
- Customer defined

Unit Quality Control Inspection (QCI) Testing

- MIL-STD-883 Group B testing
- Additional testing
- Customer defined

Qualification Testing

- MIL-STD-883 Group C and D testing
- Additional testing
- Customer defined

Process Qualification

- Process verification testing, (e.g., extended life tests, extended temperature cycles, destructive physical analysis, etc.)

Lot Requirements

- Manufactured timing constraints (homogeneous lot restrictions)
- Build vs. pass percentage for lot acceptance

RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VOL. IN/O
0.1-12	AFS2-00101200-55-8P-2	15	1.5	5.5	8	2:1
0.1-12	JS2-00101200-40-8P	15	1.7	4	8	2.5:1
0.1-12	JS2-00101200-42-8P	15	1.7	4.2	8	2.5:1
0.1-12	JS2-00101200-45-8P	15	1.7	4.5	8	2.5:1
0.1-12	AFS3-00101200-40-20P-4	18	1.5	4	20	2:1
0.1-12	AFS3-00101200-35-ULN	20	1.75	3.5	20	2:1
0.1-12	AFS4-00101200-40-20P-4	20	1.5	4	20	2:1
0.1-12	AFS4-00101200-45-20P-4	20	1.75	4	20	2:1
0.1-12	AFS3-00101200-42-10P	20	1.5	4	10	2:1
0.1-12	IFS3-00101200-42-LN	22	1.5	4	10	2:1
0.1-12	IFS3-00101200-15P-LP	22	2	4.5	20	2:1
0.1-12	JS3-00101200-45-LP	22	1.75	4.2	20	2:1
0.1-12	JS3-00101200-22-10P	22	2	4.2	10	2:1
0.1-12	JS3-00101200-24-10P	24	2	4.2	10	2:1
0.1-12	JS3-00101200-28-10P	24	1.7	4.5	15	2:1
0.1-12	NSM4-00101200-30-10P	24	1.7	2.2	8	2:1
0.1-12	NSM4-00101200-28-10P-4	24	1.7	2.4	10	2:1
0.1-12	AFS3-00101200-22-10P-4	24	1.7	2.8	10	2.5:1
0.1-12	AFS3-00101200-40-10P-4	25	1.5	3	10	2.5:1
0.1-12	AFS3-00101200-50-10P-4	25	1.5	3	10	2.5:1
0.1-12	AFS3-00101200-55-10P-4	25	1.5	3	10	2.5:1
0.1-12	AFS3-00101200-60-10P-4	25	1.5	3	10	2.5:1
0.1-12	NSP1200-PFG	25	1.5	3	10	2.5:1
0.1-12	AFS4-00101200-20P-MP	25	1.5	3	10	2.5:1
0.1-12	AFSW3-00101200-30	25	1.5	3	10	2.5:1
0.1-12	AFSW4-00101200-30	26	2.25	6	10	2:1
0.1-12	AFTL4-00101200-24	26	2	5.5	10	2:1
0.1-12	AVG4-00101200-DET-8	26	1.5	5.3	20	2:1
0.1-12	JS3-00101200-65-17P	26	1.5	3	20	2:1
0.1-12	JS3-00101200-65-18P	26	1.5	3	10	2:1
0.1-12	AFS5-00101200-60-20P-6	27	1.25	2.4	10	2:1
0.1-12	AFPD44-00101200-20P	27	1.7	3	10	2:1
0.1-12	AFS4-00101200-25-10P-4	28	1.7	6.5	10	2:1
0.1-12	AFS4-00101200-30-10P-4	30	2.5	6.5	10	2:1
0.1-12	AFS4-00101200-35-10P-4	30	2.5	6	17	2:1
0.1-12	AFS4-00101200-40-10P-4	30	1.5	6	18	2.3:1
0.1-12	AFS4-00101200-45-10P-4	30	1.5	2.5	20	2.3:1
0.1-12	AFS4-00101200-50-10P-4	30	1.5	3	20	2.5:1
0.1-12	NSP1200-NFG	30	1.5	3.5	10	2:1
0.1-12	JS4-00101200-22-10P	30	1.5	4	10	2:1
0.1-12	JS4-00101200-24-10P	30	1.5	4.5	10	2:1
0.1-12	JS4-00101200-26-10P	31	2	5	10	2:1
0.1-12	JS4-00101200-28-10P	31	1.7	2.5	10	2:1
0.1-12	AFPD44-00101200-30-10P	31	1.7	2.2	10	2:1
0.1-12	NSP1200-NVG	31	1.7	2.4	10	2:1
0.1-12	NSP1200-PVG	31	1.7	2.6	10	2:1
0.1-12	FS4-00101200-22-10P-4	32	1.7	2.8	10	2.5:1
0.1-12	FS6-00101200-35-10P-6	32	2	3	10	2.5:1
0.1-12	S42-00101200-S-20P-42	34	2.5	3	10	2.5:1
0.1-12	S42-00101200-22-10P-42	34	1.5	2.5	10	2.5:1
0.1-12	T-00101200-22-10P	35	1.75	5.5	10	2:1
0.1-12	T-00101200-24-10P	38	1.75	2.2	20	2:1
0.1-12	T-00101200-26-10P	40	2	3.5	10	2:1
0.1-12	T-00101200-28-10P	40	2	4.5	10	2:1
0.1-12	T-00101200-30-10P	40	2	2.2	20	2:1
0.1-12	T-00101200-22-10P	40	2	2.2	10	2:1
0.1-12	T-00101200-24-10P	40	2	2.4	10	2:1

Amplifiers BY FREQUENCY

AMPLIFIERS BY FREQUENCY

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.000003-10	JSMF3-02K1000-30-10P	23	1.5	3.2	10	2:01	180	127122	
0.000003-10	JSMF4-02K1000-30-10P	32	1.5	3.2	10	2:01	210	128553	
0.000003-12	JSMF3-02K1200-30-10P	23	1.5	3.5	10	2:01	200	127122	
0.000003-12	JSMF3-02K1200-30-10P	23	1.5	3.2	10	2:01	180	127122	
0.000003-12	JSMF4-02K1200-30-10P	32	1.5	3.2	10	2:01	210	128553	
0.000003-15	JSMF3-02K1200-30-10P	23	1.5	3.5	10	2:01	200	127122	
0.000003-15	JSMF3-02K1500-30-10P	23	1.5	3.2	10	2:01	200	127122	
0.000003-15	JSMF3-02K150-40-10P	23	1.5	4	10	2:01	200	127122	
0.000003-15	JSMF3-02K150-50-10P	23	1.5	5	10	2:01	200	127122	
0.000003-15	JSMF3-02K1500-30-10P	23	1.5	3.2	10	2:01	180	127122	
0.000003-15	JSMF4-02K1500-30-10P	30	1.5	3.2	10	2:01	210	128553	
0.000003-15	JSMF4-02K150-32-10P	32	1.5	3.2	10	2:01	210	128553	
0.000003-15	JSMF4-02K150-32-10P	32	1.5	3.2	10	2:01	210	128553	
0.000003-15	JSMF4-02K1500-30-10P	32	1.5	3.2	10	2:01	210	128553	
0.000003-15	JSMF4-02K1900-35-10P	30	1.5	3.5	10	2:01	210	128553	
0.000003-16	JSMF3-02K1600-35-10P	23	1.5	3.5	10	2:01	180	127122	
0.000003-18	JSMF3-02K180-30-10P	25	2	3	10	2:1/2.5:1	180	127122	
0.000003-18	JSMF4-02K1800-30-10P	30	1.5	3.2	10	2:01	210	128553	
0.000003-12	JSTD-30K1200-34-10P	25	0.75	3.4	10	2:01	180	140735	
0.000003-15	JSTD-30K1500-34-10P	25	0.75	3.4	10	2:01	180	140735	
0.000003-15	JSTD-30K1500-40-10P	25	1	4	10	2:01	180	140735	
0.01-1	AFS1-00010100-20-25P-4	16	1.5	2	25	2.5:1	200	113384-4	
0.01-1	AFS2-00010100-16-25P-6	25	1.5	1.6	25	2:1/2.5:1	275	113384-6	
*	0.01-1	AFS2-00010100-30-25P-6	25	1.5	3	2:1/2.5:1	250	113384-6	
0.01-3	AFS3-00010300-18-5P-4	28	1	1.8	5	2:1	75	113384-4	
0.04-2	AFS1-00040200-12-10P-4	15	1.5	1.2	10	2:1	50	113384-4	
0.05-1	AFS2-00050100-20-27P-6	28	1.5	2	27	2:1/2.5:1	275	113384-6	
0.05-1	AFS3-00050100-15-27P-6	36	1.5	1.5	27	2:1/2.5:1	300	113384-6	
*	0.05-1	AFSM1-00050100-18-20P	13	1	1.8	2.5:1/2.2:1	150	133720	
0.1-0.5	AFS2-00100050-13-LN	25	1	1.3	10	2:1	125	113384-2	
0.1-0.5	AFSX2-00100050-15-8P	25	1	1.5	8	2:1	125	141108	
0.1-1	AFS1-00100100-11-10P-4	14	1	1.1	10	2.5:1	50	113384-4	
*	0.1-1	AFS1-00100100-16-23P-4	15	1	1.6	23	2:1	125	113384-4
0.1-1	AFS1-00100100-18-23P-4	13	1	1.8	23	2:1	175	113384-4	
0.1-1	AFS2-00100100-10-10P-2	25	1	1	10	2:1	100	113384-2	
0.1-1	AFS2-00100100-15-25P-6	25	2	1.5	25	2:1	225	113384-6	
0.1-1	AFS2-00100100-25-25P-6	22	2	2.5	25	2:1/2.5:1	225	113384-6	
0.1-1	AFS3-00100100-09-10P-4	38	1	0.9	10	2:1	125	113384-4	
0.1-1	AFS3-00100100-15-27P-6	35	2	1.5	27	2:1	300	113384-6	
0.1-1	AFS4-00100100-09-10P-4	45	1	0.9	10	2:1	175	113384-4	
0.1-1	AFS4-00100100-15-27P-6	45	2	1.5	27	2:1	350	113384-6	
0.1-1	AFS4-00100100-20-27P-6	44	2	2	27	2:1/2.5:1	350	113384-6	
*	0.1-1	AFSX4-00100100-16-18P	13	1	1.6	18	2.5:1	175	141108
0.1-1	JS1-00100100-18-12P	14.5	1	1.8	12 ⁽¹⁾	2:1	175	128749	
0.1-1	JS1-00100100-21-12P	14.5	1	2.1	12 ⁽¹⁾	2:1	175	128749	
0.1-1	JS1-00100100-25-12P	14.5	1	2.5	12 ⁽¹⁾	2:1	175	128749	
0.1-1	JS1-00100100-30-12P	14.5	1	3	12 ⁽¹⁾	2:1	175	128749	
0.1-1	JS2-00100100-08-10P	35	1	0.8	10 ⁽¹⁾	2:1	250	127140	
0.1-1	JS2-00100100-09-10P	35	1	0.9	10 ⁽¹⁾	2:1	250	127140	
0.1-1	JS2-00100100-10-10P	35	1	1	10 ⁽¹⁾	2:1	250	127140	
0.1-1	JS2-00100100-11-10P	35	1	1.1	10 ⁽¹⁾	2:1	250	127140	
0.1-1	JS2-00100100-12-10P	35	1	1.2	10 ⁽¹⁾	2:1	250	127140	
*	0.1-1	MPN1-00100100-23P	15	1	1.5	23	2:1	150	134923
0.1-2	AFS1-00100200-11-12P-4	14	1.5	1.1	12	2:1	75	113384-4	
0.1-2	AFS1-00100200-16-20P-4	12	1.75	1.6	20	2:1	175	113384-4	
0.1-2	AFS1-00100200-18-20P-4	14	1.75	1.8	20	2:1	175	113384-4	
0.1-2	AFS2-00100200-10-12P-2	23	1	1	12	2:1	100	113384-2	
0.1-2	AFS2-00100200-20-23P-2	22	1.5	2	23	2:1	225	113384-2	
*	0.1-2	AFS2-00100200-25-23P-2	22	1.5	2.5	23	2:1	225	113384-2
0.1-2	AFS2-00100200-30-23P-4	22	1.5	3	23	2:1	200	113384-4	
0.1-2	AFS3-00100200-10-15P-4	38	1	1	15	2:1	150	113384-4	
*	0.1-2	AFS3-00100200-10-CR-4	38	1	1	5	2:1	70	113384-4
0.1-2	AFS3-00100200-15-ULN	36	1	1.5	10	2:1	150	113384-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (1) Noise figure is higher below 250 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.1-2	AFS3-00100200-18-LN	36	1	1.8	10	2:1	150	113384-4	
0.1-2	AFS3-00100200-20-27P-6	34	1.5	2	27	2:1	300	113384-6	
0.1-2	AFS4-00100200-10-15P-4	46	1.5	1	15	2:1	175	113384-4	
0.1-2	AFS4-00100200-20-27P-6	44	1.75	2	27	2:1	350	113384-6	
*	0.1-2	AFSM1-00100200-16-16P	12	1	1.6	16	2:1	80	133720
*	0.1-2	AFSM2-00100200-12-8P	22	1	1.2	8	2:1	80	133720
*	0.1-2	AFSX3-00100200-15-10P	36	1	1.5	10	2:1	150	141108
0.1-2	JS1-00100200-19-12P	14	1.2	1.9	12 ⁽¹⁾	2:1	175	128749	
0.1-2	JS1-00100200-22-12P	14	1.2	2.2	12 ⁽¹⁾	2:1	175	128749	
0.1-2	JS1-00100200-25-12P	14	1.2	2.5	12 ⁽¹⁾	2:1	175	128749	
0.1-2	JS1-00100200-30-12P	14	1.2	3	12 ⁽¹⁾	2:1	175	128749	
**	0.1-2	JS2-00100200-08-10P	35	1.2	0.8	10 ⁽¹⁾	2:1	195	127140
**	0.1-2	JS2-00100200-09-10P	35	1.2	0.9	10 ⁽¹⁾	2:1	195	127140
**	0.1-2	JS2-00100200-10-10P	35	1.2	1	10 ⁽¹⁾	2:1	195	127140
**	0.1-2	JS2-00100200-11-10P	35	1.2	1.1	10 ⁽¹⁾	2:1	195	127140
**	0.1-2	JS2-00100200-12-10P	35	1.2	1.2	10 ⁽¹⁾	2:1	195	127140
*	0.1-2	NSM3-00100200-14-10P-4	30	1	1.4	10	2:1	150	120175
0.1-3	AFS1-00100300-14-8P-4	10	1.5	1.4	8	2:1	75	113384-4	
0.1-3	AFS2-00100300-12-10P-2	20	1.25	1.2	10	2:1	100	113384-2	
0.1-3	AFS2-00100300-30-20P-4	20	1.25	3	20	2:1	200	113384-4	
0.1-3	AFS3-00100300-12-10P-4	32	1	1.2	10	2:1	125	113384-4	
0.1-3	AFS3-00100300-25-23P-6	28	1.5	2.5	23	2:1	275	113384-6	
0.1-3	AFS4-00100300-12-10P-4	40	1.5	1.2	10	2:1	150	113384-4	
0.1-3	AFS4-00100300-20-23P-6	33	1.75	2	23	2:1	300	113384-6	
0.1-3	AFS6-01001300-25-10P-6	32	2	2.5	10	2.5:1	250	113384-6	
*	0.1-3	AFSM2-00100300-12-8P	20	1	1.2	8	2:1	80	133720
*	0.1-4	AFPD44-00100400-20P	30	2	4	20	2:1	450	116630
0.1-4	AFPD44-00100400-25	32	2	2.5	10	2:1	375	116630	
0.1-4	AFS2-00100400-15-10P-4	20	1.25	1.5	10	2:1	80	113384-4	
0.1-4	AFS2-00100400-25-10P-2	20	1.5	2.5	10	2:1	80	113384-2	
0.1-4	AFS2-00100400-27-10P-2	20	1.5	2.7	10	2:1	80	113384-2	
0.1-4	AFS2-00100400-30-10P-2	20	1.5	3	10	2:1	80	113384-2	
0.1-4	AFS2-00100400-35-10P-2	20	1.5	3.5	10	2:1	80	113384-2	
0.1-4	AFS3-00100400-13-10P-4	30	1	1.3	10	2:1	125	113384-4	
0.1-4	AFS3-00100400-17-10P-4	28	1.25	1.7	10	2:1	125	113384-4	
0.1-4	AFS3-00100400-18-10P-4	28	1	1.8	10	2:1	125	113384-4	
0.1-4	AFS3-00100400-18-ULN	24	1.3	1.8	10	2:1	150	113384-4	
0.1-4	AFS3-00100400-20-10P-4	28	1	2	10	2:1	150	113384-4	
0.1-4	AFS3-00100400-22-LN	28	1.25	2.2	10	2:1	125	113384-4	
0.1-4	AFS3-00100400-26-20P-4	32	1.5	2.6	20	2:1	250	113384-4	
0.1-4	AFS3-00100400-30-10P-4	30	1	3	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-13-S-4	36	1	1.3	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-15-10P-4	36	1	1.5	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-18-10P-4	36	1.5	1.8	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-20-10P-4	36	1.5	2	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-22-10P-4	36	1.5	2.2	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-25-10P-4	36	1.5	2.5	10	2:1	150	113384-4	
0.1-4	AFS4-00100400-25-20P-4	38	1.5	2.5	20	2:1	300	113384-4	
0.1-4	AFS4-00100400-30-10P-4	36	1.5	3	10	2:1	175	113384-4	
0.1-4	AFS4-00100400-35-10P-4	36	1.5	3.5	10	2:1	175	113384-4	
*	0.1-4	AFSM2-00100400-18-8P	20	1	1.8	8	2:1	80	133720
*	0.1-4	AFSX3-00100400-22-10P	28	1	2.2	10	2:1	150	141108
0.1-4	AFTL3-00100400-13	28	1.25	1.3	10	2:1	125	127846	
*	0.1-4	AVG4-00100400-14	32	1	1.4	10	2:1	120	142051
0.1-4	IFS3-00100400-30-LP	24	1.5	3	8	2:1	150	127362	
0.1-4	JS1-00100400-20-12P	14	1.2	2	12 ⁽²⁾	2:1	175	128749	
0.1-4	JS1-00100400-25-12P	14	1.2	2.5	12 ⁽²⁾	2:1	175	128749	
0.1-4	JS1-00100400-30-12P	14	1.2	3	12 ⁽²⁾	2:1	175	128749	
0.1-4	JS1-00100400-35-12P	14	1.2	3.5	12 ⁽²⁾	2:1	175	128749	
0.1-4	JS2-00100400-11-10P	29	1.2	1.1	10 ⁽²⁾	2:1	195	127140	
0.1-4	JS2-00100400-13-10P	29	1.2	1.3	10 ⁽²⁾	2:1	195	127140	
0.1-4	JS2-00100400-15-10P	29	1.2	1.5	10 ⁽²⁾	2:1	195	127140	
0.1-4	JS2-00100400-18-10P	29	1.2	1.8	10 ⁽²⁾	2:1	195	127140	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (1) Noise figure is higher below 250 MHz. (2) Noise figure is higher below 500 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
		GAIN (dB, Min.)	FLATNESS (±dB, Max.)						
*	0.1-4	NSM3-00100400-14-10P-4	28	1	1.4	10	2:1	150	120175
	0.1-6	AFS2-00100600-15-10P-2	16	1.25	1.5	10	2:1	100	113384-2
	0.1-6	AFS2-00100600-25-10P-2	16	1.2	2.5	10	2:1	100	113384-2
	0.1-6	AFS2-00100600-30-10P-2	20	1.2	3	10	2:1	100	113384-2
	0.1-6	AFS2-00100600-35-10P-2	20	1.2	3.5	10	2:1	100	113384-2
	0.1-6	AFS2-00100600-40-10P-2	20	1.2	4	10	2:1	100	113384-2
	0.1-6	AFS2-00100600-45-10P-2	20	1.2	4.5	10	2:1	100	113384-2
	0.1-6	AFS3-00100600-13-10P-4	30	1.25	1.3	10	2:1	125	113384-4
	0.1-6	AFS3-00100600-15-10P-4	28	1.5	1.5	10	2:1	125	113384-4
	0.1-6	AFS3-00100600-20-10P-4	28	1	2	10	2:1	125	113384-4
	0.1-6	AFS3-00100600-20-U LN	30	1.5	2	10	2:1	150	113384-4
	0.1-6	AFS3-00100600-20P-MP	32	1.5	4.6	20	2:1	250	113384-4
	0.1-6	AFS3-00100600-25-LN	30	1.5	2.5	10	2:1	150	113384-4
	0.1-6	AFS3-00100600-30-10P-4	28	1	3	10	2:1	125	113384-4
	0.1-6	AFS3-00100600-35-10P-4	28	1	3.5	10	2:1	125	113384-4
	0.1-6	AFS3-00100600-45-10P-4	28	1	4.5	10	2:1	125	113384-4
	0.1-6	AFS4-00100600-13-10P-4	36	1.5	1.3	10	2:1	150	113384-4
	0.1-6	AFS4-00100600-14-10P-4	36	1.5	1.4	10	2:1	175	113384-4
	0.1-6	AFS4-00100600-20-10P-4	36	1.5	2	10	2:1	175	113384-4
	0.1-6	AFS4-00100600-25-10P-4	36	1.5	2.5	10	2:1	175	113384-4
	0.1-6	AFS4-00100600-25-20P-4	36	1.5	2.5	20	2:1	300	113384-4
	0.1-6	AFS4-00100600-30-10P-4	36	1.5	3	10	2:1	175	113384-4
	0.1-6	AFS4-00100600-35-10P-4	36	1.5	3.5	10	2:1	175	113384-4
	0.1-6	AFS4-00100600-40-10P-4	36	1.5	4	10	2:1	175	113384-4
*	0.1-6	AFSM2-00100600-18-8P	18	1.5	1.8	8	2:1	80	133720
*	0.1-6	AFSW3-00100600-16	28	1.2	1.6	10	2:1	125	127846
*	0.1-6	AFSX4-00100600-46-10P	20	2	4.6	10	2:1	175	141108
	0.1-6	AFTL3-00100600-15	28	1.25	1.5	10	2:1	125	127846
*	0.1-6	AVG4-00100600-15	32	1	1.5	10	2:1	120	142051
	0.1-6	IFS3-00100600-15P-LP	22	2	5	15	2:1	150	127362
	0.1-6	IFS3-00100600-35-LP	24	1.5	3.5	8	2:1	150	127362
	0.1-6	JS1-00100600-36-8P	9	1	3.6 ⁽²⁾	8	2.2:1	125	128749
	0.1-6	JS1-00100600-40-8P	9	1	4 ⁽²⁾	8	2.2:1	125	128749
	0.1-6	JS1-00100600-45-8P	9	1	4.5 ⁽²⁾	8	2.2:1	125	128749
	0.1-6	JS2-00100600-14-8P	24	1.5	1.4 ⁽²⁾	8	2.2:1	175	128749
	0.1-6	JS2-00100600-16-8P	24	1.5	1.6 ⁽²⁾	8	2.2:1	175	128749
	0.1-6	JS2-00100600-18-8P	24	1.5	1.8 ⁽²⁾	8	2.2:1	175	128749
	0.1-6	JS2-00100600-20-8P	24	1.5	2 ⁽²⁾	8	2.2:1	175	128749
*	0.1-6	NSM3-00100600-15-10P-4	28	1.5	1.5	10	2:1	150	120175
*	0.1-6	NSM3-00100600-18-8P-4	28	1.5	1.8	8	2:1	150	120175
	0.1-8	AFS2-00100800-15-S-2	20	1.5	1.5	10	2:1	80	113384-2
	0.1-8	AFS2-00100800-20-8P-2	20	1.5	2	8	2:1	80	113384-2
	0.1-8	AFS2-00100800-25-8P-2	20	1.5	2.5	8	2:1	80	113384-2
	0.1-8	AFS2-00100800-33-10P-2	20	1.2	3.3	10	2:1	100	113384-2
	0.1-8	AFS2-00100800-35-10P-2	20	1.2	3.5	10	2:1	100	113384-2
	0.1-8	AFS2-00100800-35-8P-2	20	1.2	3.5	8	2:1	80	113384-2
	0.1-8	AFS2-00100800-40-10P-2	20	1.2	4	10	2:1	150	113384-2
	0.1-8	AFS2-00100800-45-10P-2	20	1.2	4.5	10	2:1	150	113384-2
	0.1-8	AFS3-00100800-14-S-4	30	1.5	1.4	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-20-10P-4	30	1.5	2	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-25-10P-4	30	1.3	2.5	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-25-U LN	30	1.5	2.5	10	2:1	150	113384-4
	0.1-8	AFS3-00100800-30-10P-4	30	1.3	3	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-30-20P-4	32	1.5	3	20	2:1	250	113384-4
	0.1-8	AFS3-00100800-32-LN	30	1.5	3.2	10	2:1	150	113384-4
	0.1-8	AFS3-00100800-33-10P-4	30	1.3	3.3	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-35-10P-4	30	1.3	3.5	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-40-10P-4	30	1.3	4	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-45-10P-4	30	1.3	4.5	10	2:1	125	113384-4
	0.1-8	AFS3-00100800-65-20P-4	32	1.5	6.5	20	2.5:1	125	113384-4
	0.1-8	AFS4-00100800-14-10P-4	36	1.5	1.4	10	2:1	150	113384-4
	0.1-8	AFS4-00100800-20P-MP	32	2	4.8	20	2:1	250	113384-4
	0.1-8	AFS4-00100800-22-10P-4	36	1.5	2.2	10	2:1	175	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (2) Noise figure is higher below 500 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.1-8	AFS4-00100800-25-10P-4	36	1.5	2.5	10	2:1	175	113384-4	
0.1-8	AFS4-00100800-28-20P-4	34	1.5	2.8	20	2:1	300	113384-4	
0.1-8	AFS4-00100800-30-10P-4	36	1.5	3	10	2:1	175	113384-4	
0.1-8	AFS4-00100800-35-10P-4	36	1.5	3.5	10	2:1	175	113384-4	
0.1-8	AFS4-00100800-40-10P-4	36	1.5	4	10	2:1	175	113384-4	
0.1-8	AFS4-00100800-60-20P-4	32	1.5	6	20	2:1	250	113384-4	
*	0.1-8	AFSW3-00100800-20	26	1.2	2	10	2:1	125	127846
*	0.1-8	AFSX4-00100800-48-10P	18	2	4.8	10	2:1	175	141108
0.1-8	AFTL3-00100800-16	26	1.25	1.6	10	2:1	125	127846	
*	0.1-8	AVG4-00100800-18	36	1.5	1.8	10	2:1	120	119393
*	0.1-8	AVG4-00100800-DET-8	26	1	2.8	10	2:1	175	164073
0.1-8	IFS3-00100800-15P-LP	22	2	5.5	15	2:1	150	127362	
0.1-8	IFS3-00100800-37-LP	24	2	3.7	8	2:1	150	127362	
0.1-8	JS1-00100800-38-8P	9	1.2	3.8 ⁽²⁾	8	2.3:1	125	128749	
0.1-8	JS1-00100800-40-8P	9	1.2	4 ⁽²⁾	8	2.3:1	125	128749	
0.1-8	JS1-00100800-45-8P	9	1.2	4.5 ⁽²⁾	8	2.3:1	125	128749	
0.1-8	JS2-00100800-14-8P	23	1.6	1.4 ⁽²⁾	8	2.3:1	175	128749	
0.1-8	JS2-00100800-16-8P	23	1.6	1.6 ⁽²⁾	8	2.3:1	175	128749	
0.1-8	JS2-00100800-18-8P	23	1.6	1.8 ⁽²⁾	8	2.3:1	175	128749	
0.1-8	JS2-00100800-20-8P	23	1.6	2 ⁽²⁾	8	2.3:1	175	128749	
0.1-8	JS2-00100800-22-8P	23	1.6	2.2 ⁽²⁾	8	2.3:1	175	128749	
*	0.1-8	NSM3-00100800-18-10P-4	24	1.5	1.8	10	2:1	175	120175
0.1-10	AFS2-00101000-22-8P-2	16	1.5	2.2	8	2:1	100	113384-2	
0.1-10	AFS2-00101000-46-8P-2	16	1.5	4.6	8	2:1	100	113384-2	
0.1-10	AFS2-00101000-50-8P-2	16	1.5	5	8	2:1	100	113384-2	
0.1-10	AFS2-00101000-55-8P-2	16	1.5	5.5	8	2:1	100	113384-2	
0.1-10	AFS2-00101000-60-8P-2	16	1.5	6	8	2:1	100	113384-2	
0.1-10	AFS3-00101000-20-10P-4	26	1.5	2	10	2:1	125	113384-4	
0.1-10	AFS3-00101000-30-10P-4	26	1.5	3	10	2:1	150	113384-4	
0.1-10	AFS3-00101000-32-ULN	20	1.5	3.2	10	2:1	150	113384-4	
0.1-10	AFS3-00101000-38-LN	22	1.5	3.8	10	2:1	150	113384-4	
0.1-10	AFS3-00101000-40-10P-4	26	1.5	4	10	2:1	150	113384-4	
0.1-10	AFS3-00101000-40-20P-4	28	1.5	4	20	2:1	250	113384-4	
0.1-10	AFS3-00101000-50-10P-4	26	1.5	5	10	2:1	150	113384-4	
0.1-10	AFS3-00101000-60-10P-4	26	1.5	6	10	2:1	150	113384-4	
0.1-10	AFS4-00101000-20-10P-4	30	1.5	2	10	2:1	150	113384-4	
0.1-10	AFS4-00101000-30-10P-4	30	1.5	3	10	2:1	150	113384-4	
0.1-10	AFS4-00101000-35-10P-4	30	1.5	3.5	10	2:1	150	113384-4	
0.1-10	AFS4-00101000-40-10P-4	30	1.5	4	10	2:1	150	113384-4	
0.1-10	AFS4-00101000-40-20P-4	27	2	4	20	2:1	300	113384-4	
0.1-10	AFS4-00101000-80-15P-4	27	2.5	8	15	2.5:1	360	113384-4	
0.1-10	AFS44-00101000-20-10P-44	55	2.5	2	10	2:1	350	140941	
*	0.1-10	AFSX4-00101000-38-10P	20	2	3.8	10	2:1	175	141108
0.1-10	JS1-00101000-45-8P	9	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749	
0.1-10	JS1-00101000-50-8P	9	1.5	5 ⁽³⁾	8	2.5:1	125	128749	
0.1-10	JS1-00101000-55-8P	9	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749	
0.1-10	JS2-00101000-40-8P	15	1.7	4 ⁽³⁾	8	2.2:1	125	128749	
0.1-10	JS2-00101000-42-8P	15	1.7	4.2 ⁽³⁾	8	2.2:1	125	128749	
0.1-10	JS2-00101000-45-8P	15	1.7	4.5 ⁽³⁾	8	2.2:1	125	128749	
0.1-10	JS3-00101000-21-10P	24	1.5	2.1 ⁽³⁾	10	2.5:1	175	125424	
0.1-10	JS3-00101000-23-10P	24	1.5	2.3 ⁽³⁾	10	2.5:1	175	125424	
0.1-10	JS3-00101000-25-10P	24	1.5	2.5 ⁽³⁾	10	2.5:1	175	125424	
0.1-10	JS3-00101000-28-10P	24	1.5	2.8 ⁽³⁾	10	2.5:1	175	125424	
0.1-10	JS3-00101000-30-10P	24	1.5	3 ⁽³⁾	10	2.5:1	175	125424	
0.1-10	JS3-00101000-65-18P	28	1.5	6.5 ⁽³⁾	18	2.3:1	350	128749	
0.1-10	JS3-00101000-65-19P	28	1.5	6.5 ⁽³⁾	19	2.3:1	350	128749	
0.1-10	JS4-00101000-21-10P	31	1.5	2.1 ⁽³⁾	10	2.5:1	195	125424	
0.1-10	JS4-00101000-23-10P	31	1.5	2.3 ⁽³⁾	10	2.5:1	195	125424	
0.1-10	JS4-00101000-25-10P	31	1.5	2.5 ⁽³⁾	10	2.5:1	195	125424	
0.1-10	JS4-00101000-28-10P	31	1.5	2.8 ⁽³⁾	10	2.5:1	195	125424	
0.1-10	JS4-00101000-30-10P	31	1.5	3 ⁽³⁾	10	2.5:1	195	125424	
0.1-10	JS41-00101000-21-10P	40	2	2.1 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS41-00101000-23-10P	40	2	2.3 ⁽³⁾	10	2.5:1	295	147321	

NOTES: * Specialized Amplifiers (pages 102 to 128).

** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

(2) Noise figure is higher below 500 MHz.

(3) Noise figure is higher below 800 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.1-10	JS41-00101000-25-10P	40	2	2.5 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS41-00101000-28-10P	40	2	2.8 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS41-00101000-30-10P	40	2	3 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS42-00101000-21-10P	47	2	2.1 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS42-00101000-23-10P	47	2	2.3 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS42-00101000-25-10P	47	2	2.5 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS42-00101000-28-10P	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321	
0.1-10	JS42-00101000-30-10P	47	2	3 ⁽³⁾	10	2.5:1	295	147321	
*	0.1-10	NSM4-00101000-26-10P-4	30	1.5	2.6	10	2:1	175	120175
	0.1-12	AFPD44-00101200-20P	24	2.5	6	20	2:1	500	116630
*	0.1-12	AFPD44-00101200-30	32	2	3	10	2:1	375	116630
	0.1-12	AFS2-00101200-25-8P-2	14	1.5	2.5	8	2:1	80	113384-2
	0.1-12	AFS2-00101200-48-8P-2	15	1.5	4.8	8	2:1	175	113384-2
	0.1-12	AFS2-00101200-50-8P-2	15	1.5	5	8	2:1	175	113384-2
	0.1-12	AFS2-00101200-55-8P-2	15	1.5	5.5	8	2:1	175	113384-2
	0.1-12	AFS3-00101200-22-10P-4	25	1.5	2.2	10	2:1	100	113384-4
	0.1-12	AFS3-00101200-35-ULN	27	1.75	3.5	10	2:1	150	113384-4
	0.1-12	AFS3-00101200-40-10P-4	27	1.5	4	10	2:1	150	113384-4
	0.1-12	AFS3-00101200-40-20P-4	27	2	4	20	2:1	250	113384-4
	0.1-12	AFS3-00101200-42-LN	27	1.75	4.2	10	2:1	150	113384-4
	0.1-12	AFS3-00101200-50-10P-4	27	1.5	5	10	2:1	150	113384-4
	0.1-12	AFS3-00101200-55-10P-4	27	1.5	5.5	10	2:1	150	113384-4
	0.1-12	AFS3-00101200-60-10P-4	27	1.5	6	10	2:1	125	113384-4
	0.1-12	AFS4-00101200-20P-MP	26	2	5.3	20	2:1	250	113384-4
	0.1-12	AFS4-00101200-22-10P-4	30	1.5	2.2	10	2:1	150	113384-4
	0.1-12	AFS4-00101200-25-10P-4	30	1.5	2.5	10	2:1	175	113384-4
	0.1-12	AFS4-00101200-30-10P-4	30	1.5	3	10	2:1	175	113384-4
	0.1-12	AFS4-00101200-35-10P-4	30	1.5	3.5	10	2:1	175	113384-4
	0.1-12	AFS4-00101200-40-10P-4	30	1.5	4	10	2:1	175	113384-4
	0.1-12	AFS4-00101200-40-20P-4	27	2	4	20	2:1	300	113384-4
	0.1-12	AFS4-00101200-45-10P-4	30	1.5	4.5	10	2:1	175	113384-4
	0.1-12	AFS4-00101200-45-20P-4	27	1.5	4.5	20	2:1	300	113384-4
	0.1-12	AFS4-00101200-50-10P-4	30	1.5	5	10	2:1	175	113384-4
	0.1-12	AFS42-00101200-22-10P-42	38	2.5	2.2	10	2:1	220	151239
	0.1-12	AFS42-00101200-S-20P-42	35	2.5	4.5	20	2:1	350	151239
	0.1-12	AFS6-00101200-35-10P-6	34	1.75	3.5	10	2:1	200	113384-6
*	0.1-12	AFSW3-00101200-30	26	1.5	3	10	2:1	150	127846
*	0.1-12	AFSW4-00101200-30	26	1.5	3	10	2:1	150	127846
*	0.1-12	AFSX4-00101200-42-10P	20	2	4.2	10	2:1	175	141108
	0.1-12	AFTL4-00101200-24	26	1.5	2.4	10	2:1	150	127846
*	0.1-12	AVG4-00101200-DET-8	26	1.25	3	10	2:1	185	164073
	0.1-12	IFS3-00101200-15P-LP	22	2	6	15	2:1	150	127362
	0.1-12	IFS3-00101200-45-LP	22	2	4.5	8	2:1	150	127362
	0.1-12	JS1-00101200-45-8P	8	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
	0.1-12	JS1-00101200-50-8P	8	1.5	5 ⁽³⁾	8	2.5:1	125	128749
	0.1-12	JS1-00101200-55-8P	8	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
	0.1-12	JS2-00101200-40-8P	15	1.7	4 ⁽³⁾	8	2.5:1	125	128749
	0.1-12	JS2-00101200-42-8P	15	1.7	4.2 ⁽³⁾	8	2.5:1	125	128749
	0.1-12	JS2-00101200-45-8P	15	1.7	4.5 ⁽³⁾	8	2.5:1	125	128749
	0.1-12	JS3-00101200-22-10P	24	1.7	2.2 ⁽³⁾	10	2.5:1	175	125424
	0.1-12	JS3-00101200-24-10P	24	1.7	2.4 ⁽³⁾	10	2.5:1	175	125424
	0.1-12	JS3-00101200-28-10P	24	1.7	2.8 ⁽³⁾	10	2.5:1	175	125424
	0.1-12	JS3-00101200-30-10P	24	1.7	3 ⁽³⁾	10	2.5:1	175	125424
	0.1-12	JS3-00101200-65-17P	27	1.7	6.5 ⁽³⁾	17	2.3:1	350	128749
	0.1-12	JS3-00101200-65-18P	27	1.7	6.5 ⁽³⁾	18	2.3:1	350	128749
	0.1-12	JS4-00101200-22-10P	31	1.7	2.2 ⁽³⁾	10	2.5:1	195	125424
	0.1-12	JS4-00101200-24-10P	31	1.7	2.4 ⁽³⁾	10	2.5:1	195	125424
	0.1-12	JS4-00101200-26-10P	31	1.7	2.6 ⁽³⁾	10	2.5:1	195	125424
	0.1-12	JS4-00101200-28-10P	31	1.7	2.8 ⁽³⁾	10	2.5:1	195	125424
	0.1-12	JS4-00101200-30-10P	31	1.7	3 ⁽³⁾	10	2.5:1	195	125424
	0.1-12	JS41-00101200-22-10P	40	2	2.2 ⁽³⁾	10	2.5:1	295	147321
	0.1-12	JS41-00101200-24-10P	40	2	2.4 ⁽³⁾	10	2.5:1	295	147321

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.1-12	JS41-00101200-26-10P	40	2	2.6 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS41-00101200-28-10P	40	2	2.8 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS41-00101200-30-10P	40	2	3 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS42-00101200-22-10P	47	2	2.2 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS42-00101200-24-10P	47	2	2.4 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS42-00101200-26-10P	47	2	2.6 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS42-00101200-28-10P	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321	
0.1-12	JS42-00101200-30-10P	47	2	3 ⁽³⁾	10	2.5:1	295	147321	
*	0.1-12	NSM4-00101200-28-10P-4	30	1.5	2.8	10	2:1	175	120175
*	0.1-12	NSM4-00101200-32-10P-4	30	1.5	3.2	10	2:1	175	120175
	0.1-14	AFS2-00101400-30-5P-2	14	1.5	3	5	2.5:1	100	113384-2
*	0.1-14	AFS3-00101400-23-8P-4	19	1.75	2.3	8	2.5:1	150	113384-4
	0.1-14	AFS4-00101400-23-10P-4	24	2	2.3	10	2.5:1	200	113384-4
	0.1-14	AFS5-00101400-23-10P-6	28	2.25	2.3	10	2.5:1	225	113384-6
	0.1-14	AFS6-00101400-23-10P-6	32	2.5	2.3	10	2.5:1	250	113384-6
	0.1-15	JS1-00101500-45-8P	8	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
	0.1-15	JS1-00101500-50-8P	8	1.5	5 ⁽³⁾	8	2.5:1	125	128749
	0.1-15	JS1-00101500-55-8P	8	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
	0.1-15	JS2-00101500-42-8P	15	1.8	4.2 ⁽³⁾	8	2.5:1	125	128749
	0.1-15	JS2-00101500-45-8P	15	1.8	4.5 ⁽³⁾	8	2.5:1	125	128749
	0.1-15	JS2-00101500-48-8P	15	1.8	4.8 ⁽³⁾	8	2.5:1	125	128749
	0.1-15	JS3-00101500-23-10P	24	1.8	2.3 ⁽³⁾	10	2.5:1	175	125424
	0.1-15	JS3-00101500-25-10P	24	1.8	2.5 ⁽³⁾	10	2.5:1	175	125424
	0.1-15	JS3-00101500-27-10P	24	1.8	2.7 ⁽³⁾	10	2.5:1	175	125424
	0.1-15	JS3-00101500-29-10P	24	1.8	2.9 ⁽³⁾	10	2.5:1	175	125424
	0.1-15	JS3-00101500-31-10P	24	1.8	3.1 ⁽³⁾	10	2.5:1	175	125424
	0.1-15	JS3-00101500-65-16P	27	1.8	6.5 ⁽³⁾	16	2.5:1	350	128749
	0.1-15	JS3-00101500-65-17P	27	1.8	6.5 ⁽³⁾	17	2.5:1	350	128749
	0.1-15	JS4-00101500-23-10P	31	1.8	2.3 ⁽³⁾	10	2.5:1	195	125424
	0.1-15	JS4-00101500-25-10P	31	1.8	2.5 ⁽³⁾	10	2.5:1	195	125424
	0.1-15	JS4-00101500-27-10P	31	1.8	2.7 ⁽³⁾	10	2.5:1	195	125424
	0.1-15	JS4-00101500-29-10P	31	1.8	2.9 ⁽³⁾	10	2.5:1	195	125424
	0.1-15	JS4-00101500-31-10P	31	1.8	3.1 ⁽³⁾	10	2.5:1	195	125424
	0.1-15	JS41-00101500-23-10P	40	2	2.3 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS41-00101500-25-10P	40	2	2.5 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS41-00101500-27-10P	40	2	2.7 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS41-00101500-29-10P	40	2	2.9 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS41-00101500-31-10P	40	2	3.1 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS42-00101500-23-10P	47	2	2.3 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS42-00101500-25-10P	47	2	2.5 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS42-00101500-27-10P	47	2	2.7 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS42-00101500-29-10P	47	2	2.9 ⁽³⁾	10	2.5:1	295	147321
	0.1-15	JS42-00101500-31-10P	47	2	3.1 ⁽³⁾	10	2.5:1	295	147321
	0.1-16	AFS2-00101600-30-8P-2	12	1.5	3	8	2.5:1	125	113384-2
	0.1-16	AFS3-00101600-23-8P-4	18	1.75	2.3	8	2.5:1	150	113384-4
	0.1-16	AFS4-00101600-23-10P-4	24	2	2.3	10	2.5:1	175	113384-4
	0.1-16	AFS5-00101600-23-10P-6	30	2.25	2.3	10	2.5:1	200	113384-6
	0.1-16	AFS6-00101600-23-10P-6	36	2.5	2.3	10	2.5:1	250	113384-6
	0.1-18	AFS2-00101800-30-8P-2	12	2	3	8	2.5:1	125	113384-2
	0.1-18	AFS2-00101800-55-8P-2	12	2	5.5	8	2.5:1	125	113384-2
	0.1-18	AFS2-00101800-65-8P-2	12	1.5	6.5	8	2.5:1	150	113384-2
	0.1-18	AFS3-00101800-25-S-4	22	2	2.5	8	2.5:1	150	113384-4
	0.1-18	AFS3-00101800-45-8P-4	22	2	4.5	8	2.5:1	150	113384-4
	0.1-18	AFS3-00101800-60-8P-4	22	2	6	8	2.5:1	150	113384-4
	0.1-18	AFS4-00101800-25-10P-HG-4	32	2	2.5	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-25-S-4	25	2	2.5	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-30-10P-4	25	2	3	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-35-10P-4	25	2	3.5	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-38-10P-4	25	2	3.8	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-40-ULN	22	2.5	4	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-42-10P-4	25	2	4.2	10	2.5:1	175	113384-4
	0.1-18	AFS4-00101800-45-10P-4	25	2	4.5	10	2.5:1	175	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
0.1-18	AFS4-00101800-50-10P-4	25	2	5	10	2.5:1	175	113384-4
0.1-18	AFS4-00101800-55-LN	20	2.5	5.5	10	2.5:1	175	113384-4
0.1-18	AFS4-00101800-65-10P-4	25	2	6.5	10	2.5:1	175	113384-4
0.1-18	AFS4-00101800-70-15P-4	32	2.5	7	15	2.5:1	250	113384-4
0.1-18	AFS42-00101800-25-S-42	35	2.75	2.5	10	2.5:1	225	151239
0.1-18	AFS42-00101800-35-10P-42	35	2.75	3.5	10	2.5:1	225	151239
0.1-18	AFS42-00101800-43-10P-42	35	2.75	4.3	10	2.5:1	300	151239
0.1-18	AFS42-00101800-45-10P-42	35	2.75	4.5	10	2.5:1	275	151239
0.1-18	AFS42-00101800-50-10P-42	35	2.75	5	10	2.5:1	275	151239
0.1-18	AFS42-00101800-60-10P-42	35	2.75	6	10	2.5:1	275	151239
0.1-18	AFS44-00101800-25-10P-44	40	2.75	2.5	10	2.5:1	295	140941
*	AFSW5-00101800-35	25	2	3.5	10	2.2:1	200	127846
*	AFSX4-00101800-55-10P	18	3	5.5	10	2.5:1	175	141108
*	AFTL5-00101800-25	25	2.25	2.5	10	2:1	200	127846
0.1-18	AVG4-00101800-35	24	2.5	3.5	10	2.5:1	175	119393
*	AVG4-00101800-DET-8	26	2.5	3.5	10	2.5:1	180	164073
0.1-18	JS1-00101800-45-8P	8	1.7	4.5 ⁽³⁾	8	2.5:1	125	128749
0.1-18	JS1-00101800-50-8P	8	1.7	5 ⁽³⁾	8	2.5:1	125	128749
0.1-18	JS1-00101800-55-8P	8	1.7	5.5 ⁽³⁾	8	2.5:1	125	128749
0.1-18	JS2-00101800-44-8P	14	1.8	4.4 ⁽³⁾	8	2.5:1	125	128749
0.1-18	JS2-00101800-47-8P	14	1.8	4.7 ⁽³⁾	8	2.5:1	125	128749
0.1-18	JS2-00101800-49-8P	14	1.8	4.9 ⁽³⁾	8	2.5:1	125	128749
0.1-18	JS3-00101800-24-10P	23	1.8	2.4 ⁽³⁾	10	2.5:1	175	125424
0.1-18	JS3-00101800-26-10P	23	1.8	2.6 ⁽³⁾	10	2.5:1	175	125424
0.1-18	JS3-00101800-28-10P	23	1.8	2.8 ⁽³⁾	10	2.5:1	175	125424
0.1-18	JS3-00101800-30-10P	23	1.8	3 ⁽³⁾	10	2.5:1	175	125424
0.1-18	JS3-00101800-32-10P	23	1.8	3.2 ⁽³⁾	10	2.5:1	175	125424
0.1-18	JS3-00101800-65-15P	27	2	6.5 ⁽³⁾	15	2.5:1	350	128749
0.1-18	JS3-00101800-65-16P	27	2	6.5 ⁽³⁾	16	2.5:1	350	128749
0.1-18	JS4-00101800-26-10P	29	1.8	2.6 ⁽³⁾	10	2.5:1	195	125424
0.1-18	JS4-00101800-28-10P	29	1.8	2.8 ⁽³⁾	10	2.5:1	195	125424
0.1-18	JS4-00101800-30-10P	29	1.8	3 ⁽³⁾	10	2.5:1	195	125424
0.1-18	JS4-00101800-32-10P	29	1.8	3.2 ⁽³⁾	10	2.5:1	195	125424
0.1-18	JS41-00101800-24-10P	40	2.5	2.4 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS41-00101800-26-10P	40	2.5	2.6 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS41-00101800-28-10P	40	2.5	2.8 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS41-00101800-30-10P	40	2.5	3 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS41-00101800-32-10P	40	2.5	3.2 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS42-00101800-24-10P	47	2.5	2.4 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS42-00101800-26-10P	47	2.5	2.6 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS42-00101800-28-10P	47	2.5	2.8 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS42-00101800-30-10P	47	2.5	3 ⁽³⁾	10	2.5:1	295	147321
0.1-18	JS42-00101800-32-10P	47	2.5	3.2 ⁽³⁾	10	2.5:1	295	147321
*	NSM4-00101800-45-8P-4	22	2.5	4.5	8	2.5:1	175	120175
*	NSM4-00101800-55-10P-4	22	2.5	5.5	10	2.5:1	175	120175
*	AFPD44-00102000-50	32	3	5	10	2.5:1	400	116630
0.1-20	AFS2-00102000-40-5P-2	10	2	4	5	2.5:1	75	113384-2
0.1-20	AFS3-00102000-35-8P-4	18	2.25	3.5	8	2.5:1	100	113384-4
0.1-20	AFS4-00102000-30-10P-4	22	2.5	3	10	2.5:1	125	113384-4
0.1-20	AFS4-00102000-50-ULN	22	2.8	5	10	2.5:1	175	113384-4
0.1-20	AFS4-00102000-60-LN	22	2.75	6	10	2.5:1	175	113384-4
0.1-20	AFS44-00102000-30-10P-44	32	3	3	10	2.5:1	300	140941
*	AFSM3-00102000-50-8P	16	2.75	5	8	2.5:1	100	133720
*	AFSX4-00102000-60-10P	18	3	6	10	2.5:1	175	141108
0.1-20	JS1-00102000-46-8P	8	1.8	4.6 ⁽³⁾	8	2.5:1	125	128749
0.1-20	JS1-00102000-50-8P	8	1.8	5 ⁽³⁾	8	2.5:1	125	128749
0.1-20	JS1-00102000-55-8P	8	1.8	5.5 ⁽³⁾	8	2.5:1	125	128749
0.1-20	JS2-00102000-45-8P	14	1.9	4.5 ⁽³⁾	8	2.5:1	125	128749
0.1-20	JS2-00102000-47-8P	14	1.9	4.7 ⁽³⁾	8	2.5:1	125	128749
0.1-20	JS2-00102000-49-8P	14	1.9	4.9 ⁽³⁾	8	2.5:1	125	128749
0.1-20	JS3-00102000-27-10P	23	1.9	2.7 ⁽³⁾	10	2.5:1	175	125424
0.1-20	JS3-00102000-29-10P	23	1.9	2.9 ⁽³⁾	10	2.5:1	175	125424
0.1-20	JS3-00102000-31-10P	23	1.9	3.1 ⁽³⁾	10	2.5:1	175	125424

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.1-20	JS3-00102000-33-10P	23	1.9	3.3 ⁽³⁾	10	2.5:1	175	125424	
0.1-20	JS3-00102000-35-10P	23	1.9	3.5 ⁽³⁾	10	2.5:1	175	125424	
0.1-20	JS3-00102000-65-15P	27	2.2	6.5 ⁽³⁾	15	2.5:1	350	128749	
0.1-20	JS3-00102000-65-16P	27	2.2	6.5 ⁽³⁾	16	2.5:1	350	128749	
0.1-20	JS4-00102000-29-10P	29	1.9	2.9 ⁽³⁾	10	2.5:1	195	125424	
0.1-20	JS4-00102000-31-10P	29	1.9	3.1 ⁽³⁾	10	2.5:1	195	125424	
0.1-20	JS4-00102000-33-10P	29	1.9	3.3 ⁽³⁾	10	2.5:1	195	125424	
0.1-20	JS4-00102000-35-10P	29	1.9	3.5 ⁽³⁾	10	2.5:1	195	125424	
0.1-20	JS41-00102000-27-10P	40	2.2	2.7 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS41-00102000-29-10P	40	2.2	2.9 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS41-00102000-31-10P	40	2.2	3.1 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS41-00102000-33-10P	40	2.2	3.3 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS41-00102000-35-10P	40	2.2	3.5 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS42-00102000-27-10P	47	2.2	2.7 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS42-00102000-29-10P	47	2.2	2.9 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS42-00102000-31-10P	47	2.2	3.1 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS42-00102000-33-10P	47	2.2	3.3 ⁽³⁾	10	2.5:1	295	147321	
0.1-20	JS42-00102000-35-10P	47	2.2	3.5 ⁽³⁾	10	2.5:1	295	147321	
0.1-22	AFS3-00102200-40-8P-4	18	2.5	4	8	2.5:1	150	113384-4	
0.1-22	AFS4-00102200-40-10P-4	22	2.5	4	10	2.5:1	135	113384-4	
0.1-22	AFS4-00102200-45-10P-4	22	2.5	4.5	10	2.5:1	175	113384-4	
0.1-22	AFS4-00102200-50-10P-4	22	2.5	5	10	2.5:1	175	113384-4	
0.1-22	AFS4-00102200-55-10P-4	22	2.5	5.5	10	2.5:1	175	113384-4	
0.1-22	AFS42-00102200-40-10P-42	30	2.75	4	10	2.5:1	200	151239	
0.1-22	AFS44-00102200-40-10P-44	34	3	4	10	2.5:1	270	140941	
0.1-22	AFS44-00102200-50-10P-44	34	3.5	5	10	2.5:1	300	140941	
0.1-26	JS3-00102600-30-5P	21	2.3	3 ⁽³⁾	5	2.5:1	175	125424	
0.1-26	JS3-00102600-30-10P	21	2.3	3 ⁽³⁾	10	2.5:1	175	125424	
0.1-26	JS3-00102600-33-5P	21	2.3	3.3 ⁽³⁾	5	2.5:1	175	125424	
0.1-26	JS3-00102600-35-5P	21	2.3	3.5 ⁽³⁾	5	2.5:1	175	125424	
0.1-26	JS3-00102600-38-5P	21	2.3	3.8 ⁽³⁾	5	2.5:1	175	125424	
*	0.1-26	JS4-00102600-30-10P	28	2.5	3 ⁽³⁾	10	2.5:1	195	125424
*	0.1-26	JS4-00102600-33-10P	28	2.5	3.3 ⁽³⁾	10	2.5:1	195	125424
*	0.1-26	JS4-00102600-35-10P	28	2.5	3.5 ⁽³⁾	10	2.5:1	195	125424
*	0.1-26	JS4-00102600-38-10P	28	2.5	3.8 ⁽³⁾	10	2.5:1	195	125424
0.1-26.5	AFS2-00102650-55-8P-4	8	2.5	5.5	8	2.5:1	100	113384-4	
0.1-26.5	AFS3-00102650-42-8P-4	20	2.5	4.2	8	2.5:1	120	113384-4	
0.1-26.5	AFS4-00102650-42-8P-4	24	2.5	4.2	8	2.5:1	135	113384-4	
0.1-26.5	AFS4-00102650-65-8P-4	24	2.5	6.5	8	2.5:1	150	113384-4	
0.1-26.5	AFS4-00102650-70-10P-4	24	2.5	7	10	2.5:1	150	113384-4	
0.1-26.5	AFS42-00102650-42-10P-42	30	2.75	4.2	10	2.5:1	200	151239	
0.1-26.5	AFS44-00102650-42-10P-44	35	3	4.2	10	2.5:1	275	140941	
0.1-26.5	AFS44-00102650-65-10P-44	35	3.5	6.5	10	2.5:1	275	140941	
*	0.1-26.5	AFTL4-00102650-40	18	2.5	4	8	2.5:1	150	127846
0.1-40	JS1-00104000-87-5P	10	3	8.7 ⁽³⁾	5	2.5:1	100	128749	
0.1-40	JS1-00104000-89-5P	10	3	8.9 ⁽³⁾	5	2.5:1	100	128749	
0.1-40	JS3-00104000-62-5P	23	2.7	6.2 ⁽³⁾	5	2.5:1	200	128749	
0.1-40	JS3-00104000-65-5P	23	2.7	6.5 ⁽³⁾	5	2.5:1	200	128749	
0.1-40	JS32-00104000-58-5P	45	3.5	5.8 ⁽³⁾	5	2.5:1	375	129007	
0.1-40	JS32-00104000-62-5P	45	3.5	6.2 ⁽³⁾	5	2.5:1	375	129007	
0.1-40	JS32-00104000-65-5P	45	3.5	6.5 ⁽³⁾	5	2.5:1	375	129007	
0.1-40	JS4-00104000-58-5P	30	3	5.8 ⁽³⁾	5	2.5:1	250	128749	
0.1-40	JS4-00104000-62-5P	30	3	6.2 ⁽³⁾	5	2.5:1	250	128749	
0.1-40	JS4-00104000-65-5P	30	3	6.5 ⁽³⁾	5	2.5:1	250	128749	
0.1-40	JS41-00104000-58-5P	40	3.3	5.8 ⁽³⁾	5	2.5:1	375	129007	
0.1-40	JS41-00104000-62-5P	40	3.3	6.2 ⁽³⁾	5	2.5:1	375	129007	
0.1-40	JS41-00104000-65-5P	40	3.3	6.5	8	2.5:1	375	129007	
0.12-0.25	AFS1-00120025-10-13P-4	15	0.75	1	13	2.5:1/2:1	75	113384-4	
0.12-0.25	AFS2-00120025-09-10P-2	25	0.5	0.9	10	2:1	100	113384-2	
0.12-0.25	AFS3-00120025-09-10P-4	38	0.5	0.9	10	2:1	125	113384-4	
0.12-0.25	AFS4-00120025-09-10P-4	46	0.5	0.9	10	2:1	150	113384-4	
*	0.2-2	MPN2-00200200-27P	24	1	1.8	2:1	250	134923	
0.24-0.27	AFS1-00240027-08-10P-4	16	0.25	0.8	10	2:1	50	113384-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
0.24-0.27	AFS2-00240027-08-10P-2	28	0.25	0.8	10	2:1	75	113384-2	
0.24-0.27	AFS3-00240027-08-10P-4	38	0.25	0.8	10	2:1	100	113384-4	
0.24-0.27	AFS4-00240027-08-10P-4	46	0.5	0.8	10	2:1	150	113384-4	
0.25-0.5	AFS1-00250050-09-10P-4	16	0.5	0.9	10	2:1	50	113384-4	
0.25-0.5	AFS2-00250050-08-10P-2	25	0.5	0.8	10	2:1	75	113384-2	
0.25-0.5	AFS3-00250050-08-10P-4	38	0.5	0.8	10	2:1	125	113384-4	
0.25-0.5	AFS4-00250050-08-10P-4	46	0.5	0.8	10	2:1	150	113384-4	
0.3-1.4	AFS1-00300140-10-10P-4	14	1	1	10	2:1	50	113384-4	
0.3-1.4	AFS2-00300140-09-10P-4	25	1	0.9	10	2:1	100	113384-4	
0.3-1.4	AFS3-00300140-09-10P-4	38	1	0.9	10	2:1	125	113384-4	
0.3-1.4	AFS4-00300140-09-10P-4	44	1	0.9	10	2:1	150	113384-4	
0.4-3.5	AFS2-00400350-12-10P-4	22	1.5	1.2	10	2:1	80	113384-4	
0.4-3.5	AFS3-00400350-12-10P-4	32	1	1.2	10	2:1	110	113384-4	
0.4-3.5	AFS4-00400350-12-10P-4	42	1	1.2	10	2:1	150	113384-4	
0.4-3.5	AFS5-00400350-12-10P-6	52	1.5	1.2	10	2:1	175	113384-6	
0.5-0.6	AFS1-00500060-08-15P-4	17	0.25	0.8	15	1.8:1	100	113384-4	
0.5-0.6	AFS2-00500060-06-10P-6	25	0.25	0.6	10	1.8:1	125	113384-6	
0.5-0.6	AFS3-00500060-06-10P-6	38	0.25	0.6	10	1.8:1	150	113384-6	
0.5-0.6	AFS4-00500060-06-10P-6	46	0.5	0.6	10	1.8:1	175	113384-6	
0.5-0.7	JS2-00500070-07-10P	35	0.5	0.7	10	1.8:1	175	127140	
0.5-0.7	JS2-00500070-09-10P	35	0.5	0.9	10	1.8:1	175	127140	
0.5-0.7	JS2-00500070-11-10P	35	0.5	1.1	10	1.8:1	175	127140	
0.5-1	AFS1-00500100-08-10P-4	16	1	0.8	10	2:1	50	113384-4	
*	0.5-1	AFS1-00500100-50-17P-4	10	1	5	17	2.5:1	150	113384-4
0.5-1	AFS2-00500100-06-10P-6	28	0.75	0.6	10	2:1/1.5:1	100	113384-6	
0.5-1	AFS2-00500100-10-ULN	23	1	1	10	2:1	125	113384-2	
0.5-1	AFS2-00500100-12-LN	23	1	1.2	10	2:1	125	113384-2	
0.5-1	AFS3-00500100-06-10P-6	38	0.75	0.6	10	2:1/1.5:1	150	113384-6	
0.5-1	AFS4-00500100-06-10P-6	48	0.75	0.6	10	2:1/1.5:1	175	113384-6	
*	0.5-1	AFSM2-00500100-08-8P	25	1	0.8	8	2:1	80	133720
*	0.5-1	AFSX2-00500100-16-10P	24	1	1.6	10	2:1	125	141108
0.5-1	JS2-00500100-07-10P	35	1.2	0.7	10	2:1	175	127140	
0.5-1	JS2-00500100-09-10P	35	1.2	0.9	10	2:1	175	127140	
0.5-1	JS2-00500100-10-10P	35	1.2	1	10	2:1	175	127140	
0.5-1	JS2-00500100-12-10P	35	1.2	1.2	10	2:1	175	127140	
*	0.5-1	MPN2-00500100-30P	28	1	1.5	30	2:1	500	127651
*	0.5-2	AFPD44-00500200-20	35	2	2	10	2:1	350	116630
*	0.5-2	AFPD44-00500200-20P	35	2	4	20	2:1	650	116630
0.5-2	AFS1-00500200-10-10P-4	14	1.5	1	10	2:1	50	113384-4	
0.5-2	AFS2-00500200-08-15P-2	25	1	0.8	15	2:1	100	113384-2	
0.5-2	AFS3-00500200-08-15P-4	38	1	0.8	15	2:1	125	113384-4	
*	0.5-2	AFS3-00500200-27P-CT-6	33	0.75	1.4	27	2:1	250	113384-6
*	0.5-2	AFS4-00500200-08-15P-4	46	1	0.8	15	2:1	175	113384-4
*	0.5-2	AFS4-00500200-27P-CT-6	40	0.75	1	27	2:1/2.5:1	250	113384-6
0.5-4	AFS2-00500400-20P-MP	24	1.5	4	20	2:1/2.5:1	250	113384-4	
*	0.5-18	AFS3-00501800-45-20P-4	20	3	6	20	2.5:1	350	113384-4
*	0.5-18	AFS4-00501800-40-20P-6	25	2.75	6	20	2.5:1/2.8:1	375	113384-6
*	0.5-18	AFS5-00501800-40-20P-6	30	2.75	4	20	2.5:1	400	113384-6
*	0.5-18	AFS8-00501800-40-20P-8	38	3	4	20	2.5:1	450	113384-8
*	0.5-20	AFPD44-00102000-20P	26	3	6	20	2.5:1	650	116630
*	0.5-20	AFS3-00502000-50-18P-4	20	2.5	5	18	2.5:1/2.2:1	350	113384-4
*	0.5-20	AFS5-00502000-50-18P-6	25	2.5	5	18	2.5:1/2.2:1	360	113384-6
0.5-20	AFS6-00502000-45-18P-6	32	3	4.5	18	2.5:1/2.2:1	400	113384-6	
0.7-0.8	AFS1-00700080-08-13P-4	16	0.5	0.8	13	1.8:1	80	113384-4	
0.7-0.8	AFS2-00700080-06-10P-6	28	0.5	0.6	10	1.8:1	90	113384-6	
0.7-0.8	AFS3-00700080-06-15P-6	42	0.5	0.6	15	1.8:1	150	113384-6	
0.7-0.8	AFS4-00700080-06-15P-6	52	0.5	0.6	15	1.8:1	175	113384-6	
0.7-0.9	JS2-00700090-07-10P-F	35	0.5	0.7	10	1.8:1	175	127140	
0.7-0.9	JS2-00700090-09-10P-F	35	0.5	0.9	10	1.8:1	175	127140	
0.7-0.9	JS2-00700090-11-10P-F	35	0.5	1.1	10	1.8:1	175	127140	
0.8-1	AFS1-00800100-08-13P-4	16	0.5	0.8	13	1.8:1	80	113384-4	
0.8-1	AFS3-00800100-05-15P-6	44	0.5	0.5	15	1.8:1	150	113384-6	
0.8-1	AFS4-00800100-05-15P-6	54	0.5	0.5	15	1.8:1	175	113384-6	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
0.8-1	JS2-00800100-05-10P-F	35	0.5	0.55	10	1.8:1	175	127140
0.8-1	JS2-00800100-07-10P-F	35	0.5	0.7	10	1.8:1	175	127140
0.8-1	JS2-00800100-09-10P-F	35	0.5	0.9	10	1.8:1	175	127140
0.8-1	JS2-00800100-11-10P-F	35	0.5	1.1	10	1.8:1	175	127140
* 0.82-0.86	AFS3-00820086-27P-CT-6	31	0.25	0.8	27	1.5:1/2:1	275	113384-6
* 0.82-0.86	AFS4-00820086-27P-CT-6	42	0.25	0.8	27	2:1	325	113384-6
* 0.88-0.93	AFS3-00880093-27P-CT-6	31	0.25	0.8	27	2:1	275	113384-6
* 0.88-0.93	AFS4-00880093-27P-CT-6	42	0.25	0.8	27	2:1	325	113384-6
0.9-1.2	AFS1-00900120-08-13P-4	16	0.5	0.8	13	1.5:1	80	113384-4
0.9-1.2	AFS2-00900120-06-10P-6	28	0.5	0.6	10	1.8:1	90	113384-6
0.9-1.2	AFS3-00900120-06-13P-6	40	0.5	0.6	13	1.5:1	150	113384-6
0.9-1.2	AFS4-00900120-05-15P-6	50	0.5	0.5	15	1.5:1	175	113384-6
0.9-1.2	JS2-00900120-06-10P	35	0.5	0.65	10	2:1	195	127140
0.9-1.2	JS2-00900120-08-10P	35	0.5	0.8	10	2:1	195	127140
0.9-1.2	JS2-00900120-10-10P	35	0.5	1	10	2:1	195	127140
0.9-1.2	JS2-00900120-12-10P	35	0.5	1.2	10	2:1	195	127140
* 0.95-1.45	AFS1-00950145-08-10P-4	16	0.5	0.8	10	1.5:1	80	113384-4
* 0.95-1.45	AFS3-00950145-06-13P-6	40	0.5	0.6	13	1.5:1	150	113384-6
* 0.95-1.45	AFS4-00950145-05-15P-6	50	0.5	0.5	15	1.5:1	175	113384-6
0.95-1.45	JS2-00950145-06-10P	34	0.7	0.65	10	2:1	195	127140
0.95-1.45	JS2-00950145-08-10P	34	0.7	0.8	10	2:1	195	127140
0.95-1.45	JS2-00950145-10-10P	34	0.7	1	10	2:1	195	127140
0.95-1.45	JS2-00950145-12-10P	34	0.7	1.2	10	2:1	195	127140
* 0.95-1.75	AFS1-00950175-08-10P-4	14	0.5	0.8	10	1.8:1	80	113384-4
* 0.95-1.75	AFS2-00950175-06-10P-6	26	0.5	0.6	10	1.8:1	90	113384-6
0.95-1.75	AFS3-00950175-06-13P-6	38	0.5	0.6	13	1.8:1	150	113384-6
0.95-1.75	AFS4-00950175-06-15P-6	50	0.5	0.6	15	1.8:1	175	113384-6
1-2	AFD1-010020-17P	11	0.75	3.5	17	2:1	125	109888
1-2	AFD1-010020-20P	11	0.75	3.5	20	2:1	150	109888
1-2	AFD1-010020-23P	11	0.75	4	23	2:1	200	109888
1-2	AFD1-010020-23P-SP	11	1	4	23	2:1	200	109888
1-2	AFD1-010020-25P	11	0.75	4.5	25	2:1	250	109888
1-2	AFD1-010020-25P-MP	12	1	4	25	2:1	250	109888
1-2	AFD2-010020-10	25	0.75	1	8	2:1	100	113427
1-2	AFD2-010020-11	16	0.75	1.1	5	2:1	80	113427
1-2	AFD2-010020-12-LN	22	1	1.2	10	2:1	100	113427
1-2	AFD2-010020-13	16	0.75	1.3	5	2:1	80	113427
1-2	AFD2-010020-14-SP	20	1.5	1.4	10	2:1	100	113427
1-2	AFD2-010020-17	16	0.75	1.7	5	2:1	80	113427
1-2	AFD2-010020-17P	25	1.25	3.5	17	2:1	200	113427
1-2	AFD2-010020-20P	25	1.25	3.5	20	2:1	250	113427
1-2	AFD2-010020-23P	25	1.25	4	23	2:1	275	113427
1-2	AFD2-010020-23P-SP	25	1.5	3.5	23	2:1	325	113427
1-2	AFD2-010020-25P	25	1.25	4	25	2:1	350	113427
1-2	AFD3-010020-06	36	1	0.6	10	2:1	150	113427
1-2	AFD3-010020-07	36	1	0.7	10	2:1	100	113427
1-2	AFD3-010020-08	36	1	0.8	10	2:1	100	113427
1-2	AFD3-010020-09	36	1	0.9	10	2:1	100	113427
1-2	AFD3-010020-10	36	1	1	10	2:1	100	113427
1-2	AFD3-010020-10-LN	32	1	1	10	2:1	100	113427
1-2	AFD3-010020-11	36	1	1.1	10	2:1	100	113427
1-2	AFD3-010020-12-LN	32	1	1.2	10	2:1	100	113427
1-2	AFD3-010020-14-SP	34	1.25	1.4	10	2:1	120	113427
1-2	AFD3-010020-17	35	1	1.7	10	2:1	120	113427
1-2	AFD3-010020-17P	33	1.5	2.5	17	2:1	100	113427
1-2	AFD3-010020-20P	33	1.5	3	10	2:1	300	113427
1-2	AFD3-010020-23P	30	1.5	3.5	23	2:1	325	113427
1-2	AFD3-010020-25P	30	1.5	3.5	25	2:1	330	113427
1-2	AFD3-010020-30P	30	1.5	3	30	2:1	675	113427
1-2	AFD4-010020-06	44	1.25	0.6	10	2:1	175	113427
1-2	AFD4-010020-07	43	1.25	0.7	10	2:1	135	113427
1-2	AFD4-010020-11	42	1.5	1.1	10	2:1	135	113427
1-2	AFD4-010020-13	42	1.5	1.3	10	2:1	135	113427

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
1-2	AFD4-010020-17	42	1.5	1.7	10	2:1	135	113427
1-2	AFS1-01000200-11-15P-4	14	1	1.1	15	2:1	75	113384-4
*	AFS1-01000200-14-20P-4	16	0.5	1.4	20	2:1	100	113384-4
*	AFS1-01000200-16-20P-4	14	0.75	1.6	20	2:1	150	113384-4
1-2	AFS2-01000200-05-10P-6	28	1	0.5	10	2:1	100	113384-6
*	AFS2-01000200-07-HE-6	27	1	0.7	0	2:1	25	113384-6
*	AFS2-01000200-15-TC-6	25	1	1.5	5	2:1	125	113384-6
*	AFS2-01000200-18-23P-2	22	1.5	1.8	23	2:1	175	113384-2
1-2	AFS3-01000200-05-10P-6	38	1	0.5	10	2:1	150	113384-6
*	AFS3-01000200-06-CR-6	38	1	0.6	5	2:1	75	113384-6
*	AFS3-01000200-07-HE-6	38	1	0.7	0	2:1	40	113384-6
*	AFS3-01000200-10-ULN	34	1	1	10	2:1	150	113384-6
*	AFS3-01000200-15-LN	34	1	1.5	10	2:1	150	113384-6
*	AFS3-01000200-15-TC-6	36	1	1.5	5	2:1	125	113384-6
*	AFS3-01000200-18-27P-6	32	1.5	1.8	27	2:1	350	113384-6
1-2	AFS4-01000200-05-10P-6	46	1	0.5	10	2:1	175	113384-6
*	AFSM1-01000200-16-20P	13	1	1.6	20	2:1	150	133720
*	AFSM2-01000200-08-8P	25	1	0.8	8	2:1	80	133720
*	AFSM2-01000200-16-20P	25	1	1.6	20	2:1	80	133720
*	AFSX3-01000200-15-10P	30	1	1.5	10	2:1	125	141108
1-2	JS1-01000200-19-12P	14	1	1.9	12	2:1	175	128749
1-2	JS1-01000200-22-12P	14	1	2.2	12	2:1	175	128749
1-2	JS1-01000200-25-12P	14	1	2.5	12	2:1	175	128749
1-2	JS1-01000200-30-12P	14	1	3	12	2:1	175	128749
1-2	JS2-01000200-06-10P	34	1.2	0.65	10	2:1	195	127140
1-2	JS2-01000200-07-10P	34	1.2	0.7	10	2:1	195	127140
1-2	JS2-01000200-08-10P	34	1.2	0.8	10	2:1	195	127140
1-2	JS2-01000200-10-10P	34	1.2	1	10	2:1	195	127140
1-2	JS21-01000200-06-10P	48	1.5	0.65	10	2:1	365	127864
1-2	JS21-01000200-07-10P	48	1.5	0.75	10	2:1	365	127864
1-2	JS21-01000200-08-10P	48	1.5	0.85	10	2:1	365	127864
1-2	JS21-01000200-09-10P	48	1.5	0.9	10	2:1	365	127864
1-2	JS21-01000200-10-10P	48	1.5	1	10	2:1	365	127864
1-2	LCA-0102	30	1	1.3	10	2:1	125	154709
1-2	LCN-0102	30	1	1.2	15	2:1	125	154709
*	MPN2-01000200-28P	28	1	1.5	28	2:1	350	127651
*	NSM3-01000200-10-S-4	32	1	1	10	2:1	150	120175
1-4	AFS1-01000400-13-10P-4	10	1.5	1.3	10	2:1	75	113384-4
1-4	AFS2-01000400-10-10P-4	20	1	1	10	2:1	100	113384-4
1-4	AFS3-01000400-10-10P-4	30	1.5	1	10	2:1	125	113384-4
1-4	AFS4-01000400-10-10P-4	40	1.5	1	10	2:1	175	113384-4
1-4	JS1-01000400-20-12P	14	1.2	2	12	2:1	175	128749
1-4	JS1-01000400-25-12P	14	1.2	2.5	12	2:1	175	128749
1-4	JS1-01000400-30-12P	14	1.2	3	12	2:1	175	128749
1-4	JS1-01000400-35-12P	14	1.2	3.5	12	2:1	175	128749
1-4	JS2-01000400-11-10P	29	1.2	1.1	10	2:1	195	127140
1-4	JS2-01000400-13-10P	29	1.2	1.3	10	2:1	195	127140
1-4	JS2-01000400-15-10P	29	1.2	1.5	10	2:1	195	127140
1-4	JS2-01000400-18-10P	29	1.2	1.8	10	2:1	195	127140
1-4	JS3-01000400-11-10P	40	1.2	1.1	10	2:1	250	127140
1-4	JS3-01000400-13-10P	40	1.2	1.3	10	2:1	250	127140
1-4	JS3-01000400-15-10P	40	1.2	1.5	10	2:1	250	127140
1-4	JS3-01000400-18-10P	40	1.2	1.8	10	2:1	250	127140
1-8	AFS4-01000800-20-10P-4	34	1.5	2	10	2:1	175	113384-4
1-8	AFS4-01000800-22-10P-4	34	1.5	2.2	10	2:1	175	113384-4
1-8	AFS4-01000800-25-10P-4	34	1.5	2.5	10	2:1	175	113384-4
1-8	AFS4-01000800-30-10P-4	34	1.5	3	10	2:1	175	113384-4
1-10	AFS4-01001000-55-15P-4	32	2	5.5	15	2:1	250	113384-4
1-10	AFS4-01001000-35-10P-4	32	2	3.5	10	2:1	150	113384-4
1-10	JS3-01001000-21-10P	24	1.4	2.1	10	2.5:1	175	125424
1-10	JS3-01001000-23-10P	24	1.4	2.3	10	2.5:1	175	125424
1-10	JS3-01001000-25-10P	24	1.4	2.5	10	2.5:1	175	125424
1-10	JS3-01001000-28-10P	24	1.4	2.8	10	2.5:1	175	125424
1-10	JS3-01001000-30-10P	24	1.4	3	10	2.5:1	175	125424

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
1-10	JS4-01001000-21-10P	31	1.4	2.1	10	2.5:1	195	125424
1-10	JS4-01001000-23-10P	31	1.4	2.3	10	2.5:1	195	125424
1-10	JS4-01001000-25-10P	31	1.4	2.5	10	2.5:1	195	125424
1-10	JS4-01001000-28-10P	31	1.4	2.8	10	2.5:1	195	125424
1-10	JS4-01001000-30-10P	31	1.4	3	10	2.5:1	195	125424
1-18	AFS4-01001800-43-10P-4	25	2	4.3	10	2.5:1	175	113384-4
1-18	AFS42-01001800-28-10P-42	35	2.5	2.8	10	2.5:1	250	151239
1-18	AFS42-01001800-35-10P-42	35	2.5	3.5	10	2.5:1	250	151239
1-18	AFS44-01001800-42-10P-44	40	3	4.2	10	2.5:1	400	140941
1-18	AFS44-01001800-45-10P-44	40	2.75	4.5	10	2.5:1	275	140941
1-26	AFS43-01002600-38-8P-44	35	3	3.8	8	2.5:1	225	140941
1-26	AFS43-01002600-40-8P-44	35	3	4	8	2.5:1	225	140941
1.1-1.8	AFS1-01100180-08-10P-4	16	0.5	0.8	10	1.7:1	80	113384-4
1.1-1.8	AFS2-01100180-06-10P-6	28	0.5	0.6	10	1.7:1	90	113384-6
1.1-1.8	AFS3-01100180-06-13P-6	40	0.5	0.6	13	1.7:1	150	113384-6
1.1-1.8	AFS4-01100180-06-15P-6	50	0.5	0.6	15	1.7:1	175	113384-6
1.1-1.8	JS2-01100180-06-10P	34	0.1	0.65	10	2:1	195	127140
1.1-1.8	JS2-01100180-08-10P	34	0.1	0.8	10	2:1	195	127140
1.1-1.8	JS2-01100180-10-10P	34	0.1	1	10	2:1	195	127140
1.2-1.3	AFD3-012013-07	36	0.25	0.7	10	1.5:1	125	113427
1.2-1.4	AFD3-012014-07	36	0.35	0.7	10	1.5:1	125	113427
1.2-1.4	AFD3-012014-09-LN	34	0.25	0.9	15	1.5:1	125	113427
* 1.2-1.4	AFS1-01200140-08-10P-4	14	1.5	0.8	10	1.5:1	80	113384-4
* 1.2-1.4	AFS2-01200140-05-10P-6	28	0.5	0.5	10	1.8:1	90	113384-6
1.2-1.4	AFS3-01200140-05-13P-6	40	0.5	0.5	13	1.5:1	150	113384-6
1.2-1.4	AFS4-01200140-05-15P-6	50	0.5	0.5	15	1.5:1	175	113384-6
1.2-1.4	JS2-01200140-05-10P	35	0.5	0.55	10	1.5:1	225	130384
1.2-1.4	JS2-01200140-07-10P	35	0.5	0.7	10	1.5:1	225	130384
1.2-1.4	JS2-01200140-09-10P	35	0.5	0.9	10	1.5:1	225	130384
1.2-1.4	JS2-01200140-11-10P	35	0.5	1.1	10	1.5:1	225	130384
* 1.2-1.6	AFD3-012016-12L-BTO	30	0.75	3	10	1.5:1	125	113427
* 1.2-1.6	AFS1-01200160-08-10P-4	14	1.5	0.8	10	2:1/2.5:1	80	113384-4
* 1.2-1.6	AFS2-01200160-05-10P-6	28	0.5	0.5	10	1.8:1	90	113384-6
1.2-1.6	AFS3-01200160-05-13P-6	40	0.5	0.5	13	1.5:1	150	113384-6
1.2-1.6	AFS4-01200160-05-15P-6	50	0.5	0.5	15	1.5:1	175	113384-6
1.2-1.6	JS2-01200160-05-10P	34	0.7	0.55	10	1.8:1	225	130384
1.2-1.6	JS2-01200160-07-10P	34	0.7	0.7	10	1.8:1	225	130384
1.2-1.6	JS2-01200160-09-10P	34	0.7	0.9	10	1.8:1	225	130384
1.2-1.6	JS2-01200160-11-10P	34	0.7	1.1	10	1.8:1	225	130384
1.2-2.4	AFD3-012024-11-LN	34	1	1.1	10	2:1	100	113427
1.2-2.4	AFS1-01200240-09-10P-4	14	1	0.9	10	2:1	75	113384-4
1.2-2.4	AFS2-01200240-09-8P-2	23	1	0.9	8	2:1	100	113384-2
1.2-2.4	AFS3-01200240-06-10P-6	34	1	0.6	10	2:1	150	113384-6
1.2-2.4	AFS4-01200240-06-10P-6	44	1	0.6	10	2:1	175	113384-6
1.3-1.4	AFD3-013014-07	36	0.25	0.7	10	1.5:1	125	113427
1.3-1.4	AFS1-01300140-08-10P-4	16	0.5	0.8	10	1.5:1	80	113384-4
1.3-1.4	AFS2-01300140-05-10P-6	28	0.5	0.5	10	1.5:1	90	113384-6
1.3-1.4	AFS3-01300140-05-13P-6	40	0.5	0.5	13	1.5:1	150	113384-6
1.3-1.4	AFS4-01300140-05-15P-6	50	0.5	0.5	15	1.5:1	175	113384-6
1.4-1.5	AFD3-014015-07	36	0.25	0.7	10	1.5:1	125	113427
1.4-1.6	AFD3-014016-07	36	0.35	0.7	10	1.5:1	125	113427
1.4-1.7	AFS1-01400170-08-10P-4	15	0.5	0.8	10	1.5:1	80	113384-4
1.4-1.7	AFS2-01400170-06-10P-6	28	0.5	0.6	10	1.5:1	90	113384-6
1.4-1.7	AFS3-01400170-06-13P-6	40	0.5	0.6	13	1.5:1	150	113384-6
1.4-1.7	AFS4-01400170-06-13P-6	50	0.5	0.6	13	1.5:1	175	113384-6
1.4-2.4	AFD3-014024-08	34	0.5	0.8	10	1.5:1	125	113427
1.5-1.6	AFD3-015016-06	36	0.25	0.6	10	1.5:1	125	113427
* 1.5-1.6	AFS1-01500160-08-10P-4	15	0.5	0.8	10	1.5:1	80	113384-4
* 1.5-1.6	AFS2-01500160-05-10P-6	28	0.5	0.5	10	1.8:1	90	113384-6
1.5-1.6	AFS3-01500160-05-13P-6	40	0.5	0.5	13	1.5:1	150	113384-6
1.5-1.6	AFS4-01500160-05-13P-6	50	0.5	0.5	13	1.5:1	175	113384-6
1.5-1.6	JS2-01500160-05-10P	35	0.5	0.55	10	1.7:1	225	130384
1.5-1.6	JS2-01500160-07-10P	35	0.5	0.7	10	1.7:1	225	130384

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
1.5-1.6	JS2-01500160-09-10P	35	0.5	0.9	10	1.7:1	225	130384
1.5-1.6	JS2-01500160-11-10P	35	0.5	1.1	10	1.7:1	225	130384
1.5-1.7	AFD3-015017-07	36	0.25	0.7	10	1.5:1	125	113427
1.5-1.8	AFS1-01500180-08-10P-4	16	0.5	0.8	10	1.5:1	80	113384-4
1.5-1.8	AFS2-01500180-06-10P-6	28	0.5	0.6	10	1.5:1	90	113384-6
1.5-1.8	AFS3-01500180-06-13P-6	40	0.5	0.6	13	1.5:1	150	113384-6
1.5-1.8	AFS4-01500180-06-13P-6	50	0.5	0.6	13	1.5:1	175	113384-6
1.5-1.8	JS2-01500180-05-10P	34	0.7	0.55	10	1.8:1	225	127140
1.5-1.8	JS2-01500180-07-10P	34	0.7	0.7	10	1.8:1	225	127140
1.5-1.8	JS2-01500180-09-10P	34	0.7	0.9	10	1.8:1	225	127140
1.5-1.8	JS2-01500180-11-10P	34	0.7	1.1	10	1.8:1	225	127140
1.5-2	AFD3-015020-08	36	0.5	0.8	10	1.5:1	125	113427
1.5-2.5	AFS1-01500250-08-10P-4	14	0.5	0.8	10	2:1	80	113384-4
1.5-2.5	AFS2-01500250-06-10P-6	28	0.5	0.6	10	1.8:1	90	113384-6
1.5-2.5	AFS3-01500250-06-13P-6	38	1	0.6	13	1.8:1	150	113384-6
1.5-2.5	AFS4-01500250-06-13P-6	46	1	0.6	13	1.8:1	175	113384-6
1.6-1.7	AFD3-016017-06	36	0.25	0.6	10	1.5:1	125	113427
1.6-1.8	AFD3-016018-07	36	0.35	0.7	10	1.5:1	125	113427
1.7-1.8	AFD3-017018-06	36	0.25	0.6	10	1.5:1	125	113427
1.7-1.9	AFS1-01700190-08-10P-4	14	0.5	0.8	10	1.5:1	80	113384-4
1.7-1.9	AFS2-01700190-06-10P-6	25	0.5	0.6	10	1.5:1	90	113384-6
1.7-1.9	AFS3-01700190-06-13P-6	38	0.5	0.6	13	1.5:1	150	113384-6
1.7-1.9	AFS4-01700190-06-13P-6	46	0.5	0.6	13	1.5:1	175	113384-6
1.7-1.9	JS2-01700190-05-10P	34	0.7	0.55	10	1.8:1	225	127140
1.7-1.9	JS2-01700190-07-10P	34	0.7	0.7	10	1.8:1	225	127140
1.7-1.9	JS2-01700190-09-10P	34	0.7	0.9	10	1.8:1	225	127140
1.7-1.9	JS2-01700190-11-10P	34	0.7	1.1	10	1.8:1	225	127140
1.7-2.1	JS2-01700210-06-10P	34	0.7	0.6	10	2:1	225	127140
1.7-2.1	JS2-01700210-10-10P	34	1.2	1	10	2:1	225	127140
1.7-2.1	JS2-01700210-12-10P	34	0.7	1.2	10	2:1	225	127140
1.7-2.4	AFD3-017024-10	34	0.5	1	10	2:1/1.5:1	125	113427
1.8-1.9	AFD3-018019-07	36	0.25	0.7	10	1.5:1	125	113427
1.8-2	AFD3-018020-08	36	0.35	0.8	10	1.5:1	125	113427
1.8-2.2	AFS1-01800220-08-10P-4	14	0.5	0.8	10	2:1	80	113384-4
1.8-2.2	AFS2-01800220-06-10P-6	25	0.5	0.6	10	1.5:1	90	113384-6
1.8-2.2	AFS3-01800220-06-13P-6	38	0.5	0.6	13	1.5:1	150	113384-6
1.8-2.2	AFS4-01800220-06-13P-6	46	0.5	0.6	13	1.5:1	175	113384-6
1.8-2.2	JS2-01800220-06-10P	33	0.7	0.65	10	2:1	225	127140
1.8-2.2	JS2-01800220-08-10P	33	0.7	0.8	10	2:1	225	127140
1.8-2.2	JS2-01800220-10-10P	33	0.7	1	10	2:1	225	127140
1.8-2.2	JS2-01800220-12-10P	33	0.7	1.2	10	2:1	225	127140
2-2.1	AFD3-020021-07	36	0.25	0.7	10	1.5:1	125	109962
2-2.1	AFD3-020021-09	34	0.25	0.9	10	1.5:1	125	109962
2-2.1	AFD3-020021-12	34	0.25	1.2	10	1.5:1	125	109962
2-2.1	AFD3-020021-15	34	0.25	1.5	10	1.5:1	125	109962
2-2.1	AFD3-020021-18	34	0.25	1.8	10	1.5:1	125	109962
2-2.2	AFD3-020022-07	34	0.35	0.7	10	1.5:1	125	109962
2-2.2	AFD3-020022-10	34	0.35	1	10	1.5:1	125	109962
2-2.2	AFD3-020022-13	34	0.35	1.3	10	1.5:1	125	109962
2-2.2	AFD3-020022-16	34	0.35	1.6	10	1.5:1	125	109962
2-2.2	AFD3-020022-18	34	0.35	1.8	10	1.5:1	125	109962
2-2.5	AFD3-020025-12	35	0.5	1.2	10	1.5:1	125	109962
2-2.5	AFD3-020025-14	35	0.5	1.4	10	1.5:1	125	109962
2-2.5	AFD3-020025-16	35	0.5	1.6	10	1.5:1	125	109962
2-2.5	AFD3-020025-18	35	0.5	1.8	10	1.5:1	125	109962
2-2.5	AFD3-020025-20	35	0.5	2	10	2:1/1.5:1	125	109962
2-2.5	AFS4-02000250-10-10P-6	40	1.5	1	10	2:1	250	113384-6
2-2.7	AFD3-020027-23P-SP	22	1.25	4.5	23	2:1	350	113427
2-2.7	AFD3-020027-25P-MP	22	1	4.5	25	1.5:1/2:1	350	113427
2-4	AFD2-020040-17P	18	1	5	17	2:1	200	113427
2-4	AFD2-020040-20P	16	1	5.5	20	2:1	250	113427
2-4	AFD2-020040-23P	16	1	5.5	23	2:1	300	113427
2-4	AFD2-020040-25P	15	1.25	6	25	2:1	375	113427
2-4	AFD3-020040-13-LN	30	1.5	1.3	10	2:1	100	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
2-4	AFD3-020040-17P	27	1.25	4	17	2:1	250	113427	
2-4	AFD3-020040-20P	24	1.25	4.5	20	2:1	300	113427	
2-4	AFD3-020040-23P	24	1.25	4.5	23	2:1	350	113428	
2-4	AFD3-020040-25P	24	1.25	5	25	2:1	425	113429	
2-4	AFD4-020040-17P	36	1.5	4	17	2:1	300	113427	
2-4	AFD4-020040-20P	32	1.5	4	20	2:1	350	113427	
2-4	AFD4-020040-23P	32	1.5	4	23	2:1	400	113427	
2-4	AFD4-020040-25P	32	1.5	4	25	2:1	475	113427	
2-4	AFS1-02000400-12-10P-4	10	1	1.2	10	2:1	50	113384-4	
2-4	AFS2-02000400-07-8P-4	24	1	0.7	8	2:1	75	113384-4	
*	2-4	AFS2-02000400-08-HE-4	22	1	0.8	0	2:1	25	113384-4
*	2-4	AFS2-02000400-15-TC-6	22	1	1.5	5	2:1	125	113384-6
2-4	AFS2-02000400-32-20P-4	24	1.5	3.2	20	2:1	175	113384-4	
2-4	AFS3-02000400-06-10P-4	32	1	0.6	10	2:1	125	113384	
2-4	AFS3-02000400-07-10P-4	32	1	0.7	10	2:1	125	113384-4	
*	2-4	AFS3-02000400-08-CR-4	28	1	0.8	5	2:1	75	113384-4
*	2-4	AFS3-02000400-08-HE-4	34	1	0.8	0	2:1	40	113384-4
2-4	AFS3-02000400-10-ULN	28	1	1	10	2:1	150	113384-4	
2-4	AFS3-02000400-13-LN	28	1	1.3	10	2:1	150	113384-4	
2-4	AFS3-02000400-15-LN	28	1	1.5	10	2:1	150	113384-4	
*	2-4	AFS3-02000400-15-TC-6	26	1	1.5	5	2:1	125	113384-6
2-4	AFS4-02000400-06-10P-6	40	1.5	0.6	10	2:1	150	113384-6	
2-4	AFS4-02000400-20-25P-4	36	1.5	2	25	2:1	275	113384-4	
*	2-4	AFSM2-02000400-10-8P	21	1	1	8	2:1	80	133720
*	2-4	AFSX3-02000400-15-10P	30	1	1.5	10	2:1	125	141108
2-4	JS1-02000400-20-12P	14	1.2	2	12	2:1	175	128749	
2-4	JS1-02000400-25-12P	14	1.2	2.5	12	2:1	175	128749	
2-4	JS1-02000400-30-12P	14	1.2	3	12	2:1	175	128749	
2-4	JS1-02000400-35-12P	14	1.2	3.5	12	2:1	175	128749	
2-4	JS1-02000400-85-5P	10	2.5	8.5	8	2.5:1	100	128749	
2-4	JS2-02000400-05-10P	32	1	0.5	10	2:1	195	127140	
2-4	JS2-02000400-06-10P	32	1	0.6	10	2:1	195	127140	
2-4	JS2-02000400-07-10P	32	1	0.7	10	2:1	195	127140	
2-4	JS2-02000400-08-10P	32	1	0.8	10	2:1	195	127140	
2-4	JS2-02000400-09-10P	32	1	0.9	10	2:1	195	127140	
2-4	JS2-02000400-85-5P	22	2.5	8.5	8	2.5:1	175	128749	
2-4	JS21-02000400-06-10P	47	1.6	0.6	10	2:1	350	127864	
2-4	JS21-02000400-07-10P	47	1.6	0.7	10	2:1	350	127864	
2-4	JS21-02000400-08-10P	47	1.6	0.8	10	2:1	350	127864	
2-4	JS21-02000400-09-10P	47	1.6	0.9	10	2:1	350	127864	
2-4	JS21-02000400-10-10P	47	1.6	1	10	2:1	350	127864	
2-4	LCA-0204	30	1	1.5	10	2:1	125	154709	
2-4	LCN-0204	30	1	1.2	13	2:1	125	154709	
*	2-4	MPN3-02000400-25P	30	1.5	2	25	2:1	300	132485
*	2-4	NSM3-02000400-12-S-4	30	1	1.2	10	2:1	150	120175
2-6	AFD2-020060-15P	15	1	4.5	15	2:1	160	110228-2	
2-6	AFD2-020060-20P	13	1.25	5.5	20	2:1	250	110228-2	
2-6	AFD2-020060-23P	11	1.25	6.5	23	2:1	270	110228-2	
2-6	AFD2-020060-25	17	1	2.5	8	2:1	100	110228-2	
2-6	AFD2-020060-30	17	1	3	5	2:1	100	110228-2	
2-6	AFD2-020060-35	17	1	3.5	10	2:1	100	110228-2	
2-6	AFD2-020060-45	17	1	4.5	10	2:1	100	110228-2	
2-6	AFD3-020060-15P	24	1	3.5	15	2:1	210	110228-3	
2-6	AFD3-020060-20P	22	1.5	4.5	20	2:1	300	110228-3	
2-6	AFD3-020060-23P	20	1.5	5.5	23	2:1	320	110228-3	
2-6	AFD3-020060-25	26	1.25	2.5	10	2:1	160	110228-3	
2-6	AFD3-020060-30	26	1.3	3	10	2:1	160	110228-3	
2-6	AFD3-020060-35	26	1.3	3.5	10	2:1	160	110228-3	
2-6	AFD4-020060-15P	32	1.25	3.5	15	2:1	260	133554-4	
2-6	AFD4-020060-20P	30	2	4.5	20	2:1	350	133554-4	
2-6	AFD4-020060-23P	28	2	4.5	23	2:1	370	110228-3	
2-6	AFD4-020060-25	35	1.5	2.5	10	2:1	220	133554-4	
2-6	AFD4-020060-30	35	1.5	3	10	2:1	220	133554-4	
2-6	AFD4-020060-35	35	1.5	3.5	10	2:1	220	133554-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
2-6	AFD5-020060-25	44	1.75	2.5	10	2:1	280	133554-5	
2-6	AFD5-020060-30	44	2	3	10	2:1	280	133554-5	
2-6	AFD5-020060-35	44	2	3.5	10	2:1	280	133554-5	
2-6	AFS1-02000600-20-5P-2	9	1	2	5	2:1	50	113384-2	
2-6	AFS2-02000600-09-8P-2	18	1	0.9	8	2:1	70	113384-2	
2-6	AFS2-02000600-18-8P-2	18	1	1.8	8	2:1	100	113384-2	
2-6	AFS3-02000600-09-10P-4	28	1	0.9	10	2:1	125	113384-4	
2-6	AFS3-02000600-12-10P-4	28	1	1.2	10	2:1	125	113384-4	
2-6	AFS3-02000600-12-ULN	24	1	1.2	10	2:1	150	113384-4	
2-6	AFS3-02000600-13-10P-4	28	1	1.3	10	2:1	150	113384-4	
2-6	AFS3-02000600-14-10P-4	28	1	1.4	10	2:1	125	113384-4	
2-6	AFS3-02000600-15-10P-4	28	1	1.5	10	2:1	150	113384-4	
2-6	AFS3-02000600-15-LN	24	1	1.5	10	2:1	150	113384-4	
2-6	AFS3-02000600-16-10P-4	28	1	1.6	10	2:1	150	113384-4	
2-6	AFS3-02000600-18-10P-4	28	1	1.8	10	2:1	150	113384-4	
2-6	AFS3-02000600-20-10P-4	28	1	2	10	2:1	150	113384-4	
2-6	AFS3-02000600-25-10P-4	28	1	2.5	10	2:1	150	113384-4	
2-6	AFS3-02000600-30-10P-4	28	1	3	10	2:1	150	113384-4	
2-6	AFS3-02000600-65-18P-4	28	1	6.5	18	2:1	300	113384-4	
2-6	AFS32-02000600-20-10P-44	45	1.5	2	10	2:1	225	140941	
2-6	AFS32-02000600-35-10P-44	45	1.5	3.5	10	2:1	225	140941	
2-6	AFS4-02000600-09-10P-4	36	1	0.9	10	2:1	150	113384-4	
2-6	AFS4-02000600-16-10P-4	36	1	1.6	10	2:1	175	113384-4	
2-6	AFS4-02000600-20-10P-4	36	1	2	10	2:1	175	113384-4	
*	2-6	AFSD4-020060-20-27P	35	1.5	2	27	2:1	750	121045
*	2-6	AFSM2-02000600-12-8P	20	1	1.2	8	2:1	80	133720
	2-6	IFS3-02000600-20-LP	24	1.5	2	8	2:1	150	127362
*	2-6	NSM3-02000600-13-10P-4	24	1	1.3	10	2:1	150	120175
2-8	AFD2-020080-15P	15	1	5.5	15	2:1	160	110228-2	
2-8	AFD2-020080-20P	13	1.25	5.5	20	2:1	250	110228-2	
2-8	AFD2-020080-23P	11	1.25	6.5	23	2:1	270	110228-2	
2-8	AFD2-020080-25	16	1	2.5	8	2:1	100	110228-2	
2-8	AFD2-020080-30	16	1	3	5	2:1	100	110228-2	
2-8	AFD2-020080-35	16	1	3.5	5	2:1	100	110228-2	
2-8	AFD2-020080-40	16	1	4	10	2:1	100	110228-2	
2-8	AFD2-020080-50	16	1	5	10	2:1	120	110228-2	
2-8	AFD3-020080-15P	24	1.5	3.5	15	2:1	210	110228-3	
2-8	AFD3-020080-20P	22	1.5	4.5	20	2:1	300	122987	
2-8	AFD3-020080-20P-SP	18	1.5	6	20	2:1	350	110228-3	
2-8	AFD3-020080-23P	20	1	5.5	23	2:1	320	122987	
2-8	AFD3-020080-25	24	1.5	2.5	10	2:1	160	110228-3	
2-8	AFD3-020080-30	26	1.5	3	10	2:1	160	122987	
2-8	AFD3-020080-33-LN	24	1.5	3.3	10	2:1	150	110228-3	
2-8	AFD3-020080-35	24	1.5	3.5	10	2:1	160	110228-3	
2-8	AFD3-020080-40	24	1.5	4	10	2:1	160	110228-3	
2-8	AFD3-020080-40-SP	23	1.5	4	10	2:1	160	122987	
2-8	AFD3-020080-50	24	1.5	5	10	2:1	180	110228-3	
2-8	AFD4-020080-15P	32	1.25	4.5	15	2:1	260	133554	
2-8	AFD4-020080-20P	30	2	4.5	20	2:1	350	133554-4	
2-8	AFD4-020080-23P	28	2	3.5	23	2:1	370	133554	
2-8	AFD4-020080-25	33	1.5	2.5	10	2:1	220	133554-4	
2-8	AFD4-020080-30	33	2	3	10	2:1	220	133554-4	
2-8	AFD4-020080-35	33	2	3.5	10	2:1	220	133554-4	
2-8	AFD4-020080-40	33	2	4	10	2:1	220	133554-4	
2-8	AFD4-020080-50	33	2	5	10	2:1	260	133554-4	
2-8	AFD5-020080-15P	40	2	4.5	15	2:1	300	133554-5	
2-8	AFD5-020080-20P	38	2	4.5	20	2:1	390	133554-5	
2-8	AFD5-020080-23P	36	2	4.5	23	2:1	420	133554-5	
2-8	AFD5-020080-25	41	1.75	2.5	10	2:1	280	133554-5	
2-8	AFD5-020080-35	41	2.5	3.5	10	2:1	280	133554-5	
2-8	AFD5-020080-40	41	2.5	4	10	2:1	280	133554-5	
2-8	AFD5-020080-50	41	2.5	5	10	2:1	300	133554-5	
2-8	AFS2-02000800-09-10P-2	23	1	0.9	10	2:1	100	113384-2	
*	2-8	AFS2-02000800-40-TC-2	20	1.5	4	5	2:1	100	113384-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
2-8	AFS3-02000800-09-10P-4	26	1	0.9	10	2:1	125	113384-4	
2-8	AFS3-02000800-18-ULN	24	1.5	1.8	10	2:1	150	113384-4	
2-8	AFS3-02000800-20-10P-4	28	1.5	2	10	2:1	150	113384-4	
2-8	AFS3-02000800-24-LN	24	1.5	2.4	10	2:1	150	113384-4	
2-8	AFS3-02000800-25-10P-4	28	1.5	2.5	10	2:1	150	113384-4	
*	2-8	AFS3-02000800-30-TC-4	22	1.5	3	8	2:1	150	113384-4
2-8	AFS3-02000800-35-10P-4	28	1.5	3.5	10	2:1	150	113384-4	
2-8	AFS3-02000800-40-10P-4	28	1.5	4	10	2:1	150	113384-4	
2-8	AFS3-02000800-45-10P-4	28	1.5	4.5	10	2:1	150	113384-4	
2-8	AFS32-02000800-50-10P-42	42	2	5	10	2:1	250	151239	
2-8	AFS4-02000800-09-10P-4	34	1.5	0.9	10	2:1	150	113384-4	
2-8	AFS4-02000800-13-10P-4	34	1.25	1.3	10	2:1	175	113384-4	
2-8	AFS4-02000800-15-10P-4	34	1.5	1.5	10	2:1	175	113384-4	
2-8	AFS4-02000800-20-10P-4	34	1.5	2	10	2:1	175	113384-4	
2-8	AFS4-02000800-20P-MP	30	1.5	5.8	20	2:1	175	113384-4	
2-8	AFS4-02000800-22-20P-4	30	1.5	2.2	20	2:1	275	113384-4	
2-8	AFS4-02000800-25-10P-4	34	1.5	2.5	10	2:1	150	113384-4	
2-8	AFS4-02000800-26-TC-4	30	1.5	2.6	8	2:1	175	113384-4	
2-8	AFS4-02000800-30-10P-4	34	1.5	3	10	2:1	150	113384-4	
2-8	AFS4-02000800-30-22P-4	34	1.5	3	22	2:1	275	113384-4	
2-8	AFS4-02000800-35-10P-4	34	1.5	3.5	10	2:1	150	113384-4	
2-8	AFS4-02000800-35-15P-4	32	1.5	3.5	15	2:1	175	113384-4	
2-8	AFS4-02000800-40-10P-4	34	1.5	4	10	2:1	150	113384-4	
2-8	AFS4-02000800-40-20P-4	30	1.5	4	20	2:1	275	113384-4	
2-8	AFS4-02000800-45-10P-4	32	1.5	4.5	10	2:1	150	113384-4	
2-8	AFS4-02000800-45-23P-4	26	1.5	4.5	23	2:1	295	113384-4	
2-8	AFS4-02000800-50-20P-4	30	1.5	5	20	2:1	275	113384-4	
2-8	AFS4-02000800-60-23P-4	26	1.5	6	23	2:1	295	113384-4	
*	2-8	AFSD5-020080-22-26P	35	1.5	2.2	26	2:1	750	121045
*	2-8	AFSW3-02000800-15	26	1	1.5	10	2:1	125	127846
*	2-8	AFSX4-02000800-24-10P	20	2	2.4	10	2:1	150	141108
2-8	AFTL3-02000800-11	26	1	1.1	10	2:1	125	127846	
*	2-8	AVG4-02000800-20	32	1.25	2	10	2:1	120	119393
*	2-8	AVG4-02000800-DET-8	28	1	2.5	10	2:1	175	119393
2-8	IFS3-02000800-15P-LP	22	2	6	15	2:1	150	127362	
2-8	IFS3-02000800-30-LP	24	2	3	8	2:1	150	127362	
**	2-8	JS2-02000800-10-4P	21	2.5	1	4	2:1	175	128749
**	2-8	JS2-02000800-12-4P	21	2.5	1.2	4	2:1	175	128749
**	2-8	JS2-02000800-14-4P	21	2.5	1.4	4	2:1	175	128749
2-8	JS22-02000800-10-4P	42	2.5	1	4	2:1	325	129007	
2-8	JS22-02000800-12-4P	42	2.5	1.2	4	2:1	325	129007	
2-8	JS22-02000800-14-4P	42	2.5	1.4	4	2:1	325	129007	
2-8	JS22-02000800-16-4P	42	2.5	1.6	4	2:1	325	129007	
*	2-8	NSM3-02000800-14-10P-4	24	1	1.4	10	2:1	150	120175
2-12	JS3-02001200-22-10P	24	1.5	2.2	10	2.5:1	175	125424	
2-12	JS3-02001200-24-10P	24	1.5	2.4	10	2.5:1	175	125424	
2-12	JS3-02001200-26-10P	24	1.5	2.6	10	2.5:1	175	125424	
2-12	JS3-02001200-28-10P	24	1.5	2.8	10	2.5:1	175	125424	
2-12	JS3-02001200-30-10P	24	1.5	3	10	2.5:1	175	125424	
2-12	JS4-02001200-22-10P	31	1.5	2.2	10	2.5:1	195	125424	
2-12	JS4-02001200-24-10P	31	1.5	2.4	10	2.5:1	195	125424	
2-12	JS4-02001200-26-10P	31	1.5	2.6	10	2.5:1	195	125424	
2-12	JS4-02001200-28-10P	31	1.5	2.8	10	2.5:1	195	125424	
2-12	JS4-02001200-30-10P	31	1.5	3	10	2.5:1	195	125424	
*	2-18	AFPD44-02001800-20P	35	3	8	20	2.5:1	600	116630
2-18	AFPD44-02001800-28	30	2.5	2.8	10	2:1	400	116630	
2-18	AFS1-02001800-80-20P-2	8	1.5	8	20	2.5:1/2:1	275	113384-2	
2-18	AFS2-02001800-29-S-2	12	2.5	2.9	8	2.5:1	75	113384-2	
2-18	AFS2-02001800-50-10P-2	10	2.5	5	10	2.5:1	50	113384-2	
2-18	AFS3-02001800-24-10P-4	25	2.5	2.4	10	2.5:1	125	113384-4	
2-18	AFS3-02001800-35-10P-4	22	2.5	3.5	10	2.5:1	125	113384-4	
2-18	AFS3-02001800-45-20P-4	20	2	4.5	21	2:1	300	113384-4	
2-18	AFS3-02001800-55-10P-4	22	2.5	5.5	10	2.5:1	150	113384-4	
2-18	AFS3-02001800-80-13P-4	22	2.5	8	13	2.5:1	175	113384-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
2-18	AFS4-02001800-24-10P-4	35	2.5	2.4	10	2.5:1	175	113384-4	
2-18	AFS4-02001800-25-20P-4	34	2.5	2.5	20	2.5:1	300	113384-4	
2-18	AFS4-02001800-28-10P-4	30	2.5	2.8	10	2.5:1	175	113384-4	
2-18	AFS4-02001800-30-10P-4	30	2.5	3	10	2.5:1	175	113384-4	
2-18	AFS4-02001800-35-10P-4	30	2.5	3.5	10	2.5:1	175	113384-4	
2-18	AFS4-02001800-35-20P-4	32	1.5	3.5	20	2:1	350	113384-4	
2-18	AFS4-02001800-35-ULN	22	2.5	3.5	10	2:1	175	113384-4	
2-18	AFS4-02001800-40-10P-4	25	2.5	4	10	2.5:1	150	113384-4	
2-18	AFS4-02001800-45-10P-4	25	2.5	4.5	10	2.5:1	150	113384-4	
*	2-18	AFS4-02001800-45-TC-5	25	1.5	4.5	8	2.2:1	175	113384-5
2-18	AFS4-02001800-50-LN	20	2.5	5	10	2:1	175	113384-4	
2-18	AFS4-02001800-60-10P-4	25	2.5	6	10	2.5:1	125	113384-4	
2-18	AFS4-02001800-60-13P-4	25	2.5	6	13	2.5:1	200	113384-4	
2-18	AFS4-02001800-60-15P-4	25	2.5	6	15	2.5:1	250	113384-4	
2-18	AFS42-02001800-65-15P-42	35	2.5	6.5	15	2.5:1	375	151239	
2-18	AFS44-02001800-24-10P-44	40	3	2.4	10	2.5:1	275	140941	
2-18	AFS5-02001800-40-20P-6	30	2.5	4	20	2:1	400	113384-6	
*	2-18	AFS5-02001800-45-TC-6	28	1.5	4.5	8	2.2:1	250	113384-6
2-18	AFS6-02001800-35-10P-6	38	2.75	3.5	10	2.5:1	165	113384-6	
2-18	AFS6-02001800-60-10P-6	38	2.75	6	10	2.5:1	225	113384-6	
*	2-18	AFSM3-02001800-40-8P	18	2.75	4	8	2.5:1	100	133720
*	2-18	AFSX4-02001800-50-8P	20	3	5	8	2:1	175	141108
2-18	AFTL4-02001800-25	20	2	2.5	10	2:1	175	127846	
2-18	AVG4-02001800-30	25	2.25	3	10	2.5:1	180	119393	
*	2-18	AVG4-02001800-DET-8	26	2.5	3	10	2.5:1	180	142299
2-18	IFS3-02001800-60-LP	22	2.75	6	8	2.5:1	150	127362	
2-18	JS3-02001800-24-10P	23	1.8	2.4	10	2.5:1	175	125424	
2-18	JS3-02001800-26-10P	23	1.8	2.6	10	2.5:1	175	125424	
2-18	JS3-02001800-28-10P	23	1.8	2.8	10	2.5:1	175	125424	
2-18	JS3-02001800-30-10P	23	1.8	3	10	2.5:1	175	125424	
2-18	JS3-02001800-32-10P	23	1.8	3.2	10	2.5:1	175	125424	
2-18	JS4-02001800-24-10P	29	1.8	2.4	10	2.5:1	195	125424	
2-18	JS4-02001800-26-10P	29	1.8	2.6	10	2.5:1	195	125424	
2-18	JS4-02001800-28-10P	29	1.8	2.8	10	2.5:1	195	125424	
2-18	JS4-02001800-30-10P	29	1.8	3	10	2.5:1	195	125424	
2-18	JS4-02001800-32-10P	29	1.8	3.2	10	2.5:1	195	125424	
2-18	LCA-0218	25	2	4.5	10	2.2:1	150	154709	
2-18	LCN-0218	28	2	4	10	2.5:1	150	154709	
*	2-18	MPN3-02001800-20P	23	1.5	4.5	20	2:1	450	134923
*	2-18	MPN4-02001800-23P	24	1.5	4.5	23	2:1	650	134923
*	2-18	NSM4-02001800-30	22	2.5	3	8	2.5:1	150	120175
*	2-20	AFSM2-02002000-70-19P	12	2.75	7	19	2.5:1	200	133720
2-26	JS3-02002600-30-5P	21	2.1	3	5	2.5:1	175	125424	
2-26	JS3-02002600-33-5P	21	2.1	3.3	5	2.5:1	175	125424	
2-26	JS3-02002600-35-5P	21	2.1	3.5	5	2.5:1	175	125424	
2-26	JS3-02002600-38-5P	21	2.1	3.8	5	2.5:1	175	125424	
2-26	JS4-02002600-30-10P	28	2.2	3	10	2.5:1	195	125424	
2-26	JS4-02002600-33-10P	28	2.2	3.3	10	2.5:1	195	125424	
2-26	JS4-02002600-35-10P	28	2.2	3.5	10	2.5:1	195	125424	
2-26	JS4-02002600-38-10P	28	2.2	3.8	10	2.5:1	195	125424	
2-40	JS1-02004000-86-5P	10	3	8.6	5	2.5:1	100	128749	
2-40	JS1-02004000-88-5P	10	3	8.8	5	2.5:1	100	128749	
2-40	JS3-02004000-57-5P	23	2.7	5.7	5	2.5:1	200	128749	
2-40	JS3-02004000-61-5P	23	2.7	6.1	5	2.5:1	200	128749	
2-40	JS3-02004000-64-5P	23	2.7	6.4	5	2.5:1	200	128749	
2-40	JS32-02004000-57-5P	45	3.5	5.7	5	2.5:1	375	129007	
2-40	JS32-02004000-61-5P	45	3.5	6.1	5	2.5:1	375	129007	
2-40	JS32-02004000-64-5P	45	3.5	6.4	5	2.5:1	375	129007	
2-40	JS4-02004000-57-5P	30	3	5.7	5	2.5:1	250	128749	
2-40	JS4-02004000-61-5P	30	3	6.1	5	2.5:1	250	128749	
2-40	JS4-02004000-64-5P	30	3	6.4	5	2.5:1	250	128749	
2-40	JS41-02004000-57-5P	40	3.3	5.7	5	2.5:1	375	129007	
2-40	JS41-02004000-61-5P	40	3.3	6.1	5	2.5:1	375	129007	
2-40	JS41-02004000-64-5P	40	3.3	6.4	5	2.5:1	375	129007	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
2.1-2.2	AFD3-021022-07	34	0.25	0.7	10	1.5:1	125	109962
2.1-2.2	AFD3-021022-07-S	34	0.25	0.7	10	1.5:1	125	109962
2.2-2.3	AFD3-022023-07-S	34	0.25	0.7	10	1.5:1	125	109962
2.2-2.3	AFD3-022023-10-LN	30	0.5	1	10	1.5:1	125	109962
2.2-2.3	AFD3-022023-12-SP	30	0.5	1.2	10	1.5:1	100	109962
2.2-2.3	AFS1-02200230-08-10P-4	14	0.5	0.8	10	1.5:1	80	113384-4
2.2-2.3	AFS2-02200230-06-10P-4	25	0.5	0.6	10	1.5:1	90	113384-4
2.2-2.3	AFS3-02200230-06-13P-4	38	0.5	0.6	13	1.5:1	150	113384-4
2.2-2.3	AFS3-02200230-15-10P-6	38	0.5	1.5	10	1.5:1	150	113384-6
2.2-2.3	AFS4-02200230-06-13P-6	46	0.5	0.6	13	1.5:1	175	113384-6
2.2-2.3	JS2-02200230-05-10P	32	0.3	0.5	10	1.7:1	195	127140
2.2-2.3	JS2-02200230-06-10P	32	0.3	0.6	10	1.7:1	195	127140
2.2-2.3	JS2-02200230-07-10P	32	0.3	0.7	10	1.7:1	195	127140
2.2-2.3	JS2-02200230-08-10P	32	0.3	0.8	10	1.7:1	195	127140
2.2-2.4	AFD3-022024-08-S	34	0.35	0.8	10	1.5:1	125	109962
2.2-2.4	AFD3-022024-10	34	0.35	1	10	1.5:1	125	109962
2.2-2.4	AFD3-022024-13	34	0.35	1.3	10	1.5:1	125	109962
2.2-2.4	AFD3-022024-16	34	0.35	1.6	10	1.5:1	125	109962
2.2-2.4	AFD3-022024-18	34	0.35	1.8	10	1.5:1	125	109962
2.2-2.4	JS2-02200240-05-10P	32	0.5	0.5	10	1.8:1	195	127140
2.2-2.4	JS2-02200240-06-10P	32	0.5	0.6	10	1.8:1	195	127140
2.2-2.4	JS2-02200240-07-10P	32	0.5	0.7	10	1.8:1	195	127140
2.2-2.4	JS2-02200240-08-10P	32	0.5	0.8	10	1.8:1	195	127140
2.3-2.7	AFD3-023027-08-S	34	0.35	0.8	10	1.5:1	125	109962
2.3-2.7	AFD3-023027-10-LN	30	0.5	1	10	1.5:1	125	109962
2.3-2.7	AFD3-023027-12-SP	30	0.5	1.2	10	1.5:1	125	109962
2.3-2.7	AFS1-02300270-08-10P-4	14	0.5	0.8	10	2:1	80	113384-4
2.3-2.7	AFS2-02300270-06-10P-4	26	0.5	0.6	10	1.5:1	90	113384-4
2.3-2.7	AFS3-02300270-06-13P-6	36	0.5	0.6	13	1.5:1	150	113384-6
2.3-2.7	AFS4-02300270-06-13P-6	46	0.5	0.6	13	1.5:1	175	113384-6
2.3-2.7	JS2-02300270-05-10P	32	0.5	0.5	10	1.8:1	195	127140
2.3-2.7	JS2-02300270-06-10P	32	0.5	0.6	10	1.8:1	195	127140
2.3-2.7	JS2-02300270-07-10P	32	0.5	0.7	10	1.8:1	195	127140
2.3-2.7	JS2-02300270-08-10P	32	0.5	0.8	10	1.8:1	195	127140
2.4-2.6	AFD3-024026-08	32	0.35	0.8	10	1.5:1	125	109962
2.4-2.6	AFD3-024026-10	30	0.35	1	10	1.5:1	125	109962
2.4-2.6	AFD3-024026-13	30	0.35	1.3	10	1.5:1	125	109962
2.4-2.6	AFD3-024026-16	30	0.35	1.6	10	1.5:1	125	109962
2.4-2.6	AFD3-024026-18	30	0.35	1.8	10	1.5:1	125	109962
2.5-3	AFD3-025030-08	32	0.5	0.8	10	1.5:1	125	109962
2.5-3	AFD3-025030-13	30	0.5	1.3	10	1.5:1	125	109962
2.5-3	AFD3-025030-16	30	0.5	1.6	10	1.5:1	125	109962
2.5-3	AFD3-025030-18	30	0.5	1.8	10	1.5:1	125	109962
2.5-3	AFD3-025030-20	30	0.5	2	10	1.5:1	125	109962
2.6-2.9	JS2-02600290-05-10P	32	0.5	0.5	10	1.5:1	200	130384
2.6-2.9	JS2-02600290-06-10P	32	0.5	0.6	10	1.5:1	200	130384
2.6-2.9	JS2-02600290-07-10P	32	0.5	0.7	10	1.5:1	200	130384
2.6-2.9	JS2-02600290-08-10P	32	0.5	0.8	10	1.5:1	200	130384
2.6-3.1	JS2-02600310-05-10P	32	0.5	0.5	10	1.7:1	200	130384
2.6-3.1	JS2-02600310-06-10P	32	0.5	0.6	10	1.7:1	200	130384
2.6-3.1	JS2-02600310-07-10P	32	0.5	0.7	10	1.7:1	200	130384
2.6-3.1	JS2-02600310-08-10P	32	0.5	0.8	10	1.7:1	200	130384
2.6-5.2	AFS2-02600520-14-8P-2	20	1	1.4	8	2:1	100	113384-2
2.6-5.2	AFS3-02600520-10-10P-4	28	1	1	10	2:1	125	113384-4
2.6-5.2	AFS4-02600520-10-10P-4	36	1	1	10	2:1	150	113384-4
2.7-2.9	AFD3-027029-08	32	0.35	0.8	10	1.5:1	125	113427
2.7-2.9	AFD3-027029-10	30	0.35	1	10	1.5:1	125	113427
2.7-2.9	AFD3-027029-13	30	0.35	1.3	10	1.5:1	125	113427
2.7-2.9	AFD3-027029-16	30	0.35	1.6	10	1.5:1	125	113427
2.7-2.9	AFD3-027029-18	30	0.35	1.8	10	1.5:1	125	113427
2.7-2.9	AFS1-02700290-09-8P-4	14	0.5	0.9	8	2:1	80	113384-4
2.7-2.9	AFS2-02700290-06-8P-4	23	0.5	0.6	8	1.5:1	90	113384-4
2.7-2.9	AFS3-02700290-06-13P-6	32	0.5	0.6	13	1.5:1	150	113384-6
2.7-2.9	AFS4-02700290-06-13P-6	42	0.5	0.6	13	1.5:1	175	113384-6

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
2.7-3	AFS1-02700300-10-8P-4	14	0.5	1	8	2:1	80	113384-4
2.7-3	AFS2-02700300-06-8P-4	25	0.5	0.6	8	1.5:1	90	113384-4
2.7-3	AFS3-02700300-06-13P-6	34	0.5	0.6	13	1.5:1	150	113384-6
2.7-3	AFS4-02700300-06-13P-6	45	0.5	0.6	13	1.5:1	175	113384-6
2.7-3.1	AFD2-027031-18-17P	26	0.5	1.8	17	2:1	180	109962
2.7-3.1	AFD2-027031-25P-MP	22	1	4.5	25	1.5:1/2:1	350	109962
2.7-3.1	AFD3-027031-08	30	0.35	0.8	10	1.5:1	125	109962
2.7-3.1	AFD3-027031-10-LN	30	0.5	1	10	1.5:1	125	109962
2.7-3.1	AFD3-027031-12-SP	30	0.5	1.2	10	1.5:1	125	109962
2.7-3.1	AFD3-027031-23P-SP	22	1.25	4.5	23	2:1	400	109962
2.7-3.1	AFD3-027031-25P-MP	22	1	4.5	25	2:1	450	109962
2.7-3.1	AFD3-027031-45-23P	22	1	4.5	23	2:1	500	109962
2.7-3.1	AFD3-027031-45-26P	26	0.8	4.5	26	2:1	500	109962
2.9-3.1	AFD3-029031-08	30	0.35	0.8	10	1.5:1	125	109962
2.9-3.1	AFD3-029031-10	30	0.35	1	10	1.5:1	125	109962
2.9-3.1	AFD3-029031-13	30	0.35	1.3	10	1.5:1	125	109962
2.9-3.1	AFD3-029031-16	30	0.35	1.6	10	1.5:1	125	109962
2.9-3.1	AFD3-029031-18	30	0.35	1.8	10	1.5:1	125	109962
2.9-3.1	AFS1-02900310-10-5P-4	12	0.5	1	5	2:1	80	113384-4
2.9-3.1	AFS2-02900310-06-10P-4	23	0.5	0.6	10	1.5:1	90	113384-4
2.9-3.1	AFS3-02900310-06-13P-6	32	0.5	0.6	13	1.5:1	150	113384-6
2.9-3.1	AFS4-02900310-06-13P-6	40	0.5	0.6	13	1.5:1	180	113384-6
2.9-3.1	AFS6-02900310-06-13P-6	46	0.5	0.6	13	1.5:1	200	113384-6
2.9-3.1	JS2-02900310-05-10P	32	0.5	0.5	10	1.5:1	200	130384
2.9-3.1	JS2-02900310-06-10P	32	0.5	0.6	10	1.5:1	200	130384
2.9-3.1	JS2-02900310-07-10P	32	0.5	0.7	10	1.5:1	200	130384
2.9-3.1	JS2-02900310-08-10P	32	0.5	0.8	10	1.5:1	200	130384
3-3.5	AFD3-030035-08	30	0.5	0.8	10	1.5:1	125	109962
3-3.5	AFD3-030035-11	34	0.5	1.1	10	1.5:1	80	109962
3-3.5	AFD3-030035-13	34	0.5	1.3	10	1.5:1	80	109962
3-3.5	AFD3-030035-16	34	0.5	1.6	10	1.5:1	80	109962
3-3.5	AFD3-030035-18	34	0.5	1.8	10	1.5:1	80	109962
3-3.5	AFD3-030035-20	32	0.5	2	10	1.5:1	80	109962
3-3.5	AFS1-03000350-10-10P-4	10	0.5	1	10	2:1	80	113384-4
3-3.5	AFS2-03000350-06-10P-4	23	0.5	0.6	10	1.5:1	90	113384-4
3-3.5	AFS3-03000350-06-10P-4	29	0.5	0.6	10	1.5:1	150	113384-4
3-3.5	AFS4-03000350-06-13P-6	36	0.5	0.6	13	1.5:1	175	113384-6
3-3.5	JS2-03000350-05-10P	32	0.5	0.5	10	1.8:1	200	127140
3-3.5	JS2-03000350-06-10P	32	0.5	0.6	10	1.7:1	200	127140
3-3.5	JS2-03000350-07-10P	32	0.5	0.7	10	1.7:1	200	127140
3-3.5	JS2-03000350-08-10P	32	0.5	0.8	10	1.7:1	200	127140
3.1-3.3	AFD3-031033-08	30	0.5	0.8	10	1.5:1	125	109962
3.1-3.5	AFD3-031035-10-LN	30	0.5	1	10	1.5:1	125	109962
3.1-3.5	AFD3-031035-12-SP	30	0.5	1.2	10	1.5:1	125	109962
3.1-3.5	JS2-03100350-05-10P	32	0.5	0.5	10	1.7:1	200	127140
3.1-3.5	JS2-03100350-06-10P	32	0.5	0.6	10	1.5:1	200	127140
3.1-3.5	JS2-03100350-07-10P	32	0.5	0.7	10	1.5:1	200	127140
3.1-3.5	JS2-03100350-08-10P	32	0.5	0.8	10	1.5:1	200	127140
3.1-4.2	AFD2-031042-25P-MP	22	1	4.5	25	1.5:1/2:1	350	122987
3.1-4.2	AFD3-031042-23P-SP	22	1.25	4.5	23	2:1	350	122987
3.4-3.7	JS2-034000370-05-10P	32	0.5	0.5	10	1.8:1	195	127140
3.4-3.7	JS2-034000370-06-10P	32	0.5	0.6	10	1.8:1	195	127140
3.4-3.7	JS2-034000370-07-10P	32	0.5	0.7	10	1.8:1	195	127140
3.4-3.7	JS2-034000370-08-10P	32	0.5	0.8	10	1.8:1	195	127140
3.4-4.2	AFS1-03400420-10-5P-4	10	0.5	1	5	2:1	100	113384-4
3.4-4.2	AFS2-03400420-06-8P-4	20	0.5	0.6	8	1.75:1	150	113384-4
3.4-4.2	AFS3-03400420-06-13P-4	28	0.5	0.6	13	1.75:1	175	113384-4
*	3.4-4.2	AFS4-03400420-10-13P-6	40	0.5	1	1.5:1	200	113384-6
3.4-4.2	JS2-034000420-05-10P	32	0.5	0.55	10	2:1	195	127140
3.4-4.2	JS2-034000420-06-10P	32	0.5	0.65	10	2:1	195	127140
3.4-4.2	JS2-034000420-08-10P	32	0.5	0.8	10	2:1	195	127140
3.4-4.2	JS2-034000420-09-10P	32	0.5	0.9	10	2:1	195	127140
3.7-4.2	AFD3-037042-08	30	0.5	0.8	10	1.5:1	125	109962
3.7-4.2	AFD3-037042-10-LN	30	0.5	1	10	1.5:1	125	109962

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
3.7-4.2	AFD3-037042-12-SP	30	0.5	1.2	10	1.5:1	125	109962	
3.7-4.2	AFD3-037042-13	32	0.5	1.3	10	1.5:1	125	109962	
3.7-4.2	AFD3-037042-16	32	0.5	1.6	10	1.5:1	80	109962	
3.7-4.2	AFD3-037042-18	32	0.5	1.8	10	1.5:1	80	109962	
3.7-4.2	AFD3-037042-20	32	0.5	2	10	1.5:1	80	109962	
4-8	ABIT5-04000800-25-25P	30	1	2.5	25	2:1	500	132155	
4-8	AFD2-040080-17P	14	1	4	17	2:1	200	110228-2	
4-8	AFD2-040080-20P	14	1	5.5	20	2:1	250	110228-2	
4-8	AFD2-040080-23P	13	1	6.5	23	2:1	300	110228-2	
4-8	AFD2-040080-25	17	0.75	2.5	5	2:1	80	110228-2	
4-8	AFD2-040080-25P	12	1	6.5	25	2:1	375	110228-2	
4-8	AFD2-040080-30	17	0.75	3	5	2:1	80	110228-2	
4-8	AFD2-040080-35	17	0.75	3.5	5	2:1	80	110228-2	
4-8	AFD2-040080-40	17	0.75	4	10	2:1	120	110228-2	
4-8	AFD3-040080-17P	23	1	3.5	17	2:1	250	122987	
4-8	AFD3-040080-20P	23	1	4.5	20	2:1	300	122987	
4-8	AFD3-040080-23	27	1	2.3	12	2:1	150	122987	
4-8	AFD3-040080-23P	20	1	5.5	23	2:1	350	122987	
4-8	AFD3-040080-23P-SP	20	1.25	5.5	23	2:1	350	122987	
4-8	AFD3-040080-25	27	1	2.5	10	2:1	150	122987	
4-8	AFD3-040080-25P	20	1	5.5	25	2:1	425	122987	
4-8	AFD3-040080-25P-MP	20	1	5	25	2:1	400	122987	
4-8	AFD3-040080-28-LN	25	1	2.8	10	2:1	100	122987	
4-8	AFD3-040080-30	27	1	3	10	2:1	150	122987	
4-8	AFD3-040080-35-SP	24	1.25	3.5	10	2:1	150	122987	
4-8	AFD3-040080-40	27	1	4	10	2:1	180	122987	
4-8	AFD4-040080-17P	31	1.25	3.5	17	2:1	300	133554-4	
4-8	AFD4-040080-20P	31	1.25	4.5	20	2:1	350	133554-4	
4-8	AFD4-040080-23	34	1.5	2.3	12	2:1	220	133554-4	
4-8	AFD4-040080-23P	27	1.25	4.5	23	2:1	400	133554-4	
4-8	AFD4-040080-25	34	1.5	2.5	10	2:1	220	133554-4	
4-8	AFD4-040080-25P	27	1.25	4.5	25	2:1	475	133554-4	
4-8	AFD4-040080-30	34	1.5	3	10	2:1	220	133554-4	
4-8	AFD4-040080-35	34	1.5	3.5	10	2:1	220	133554-4	
4-8	AFD4-040080-40	34	1.5	4	10	2:1	240	133554-4	
4-8	AFD5-040080-17P	38	1.5	3.5	17	2:1	350	133554-5	
4-8	AFD5-040080-20P	38	1.5	4.5	20	2:1	400	133554-5	
4-8	AFD5-040080-23	42	1.75	2.3	12	2:1	290	133554-5	
4-8	AFD5-040080-23P	36	1.5	4.5	23	2:1	450	133554-5	
4-8	AFD5-040080-25	42	2	2.5	10	2:1	290	133554-5	
4-8	AFD5-040080-25P	36	1.5	4.5	25	2:1	525	133554-5	
4-8	AFD5-040080-30	42	2	3	10	2:1	290	133554-5	
4-8	AFD5-040080-35	42	2	3.5	10	2:1	290	133554-5	
4-8	AFD5-040080-40	42	2	4	10	2:1	300	133554-5	
4-8	AFS1-04000800-13-5P-2	15	1	1.3	5	2:1	50	113384-2	
4-8	AFS1-04000800-20-5P-2	15	1.5	2	5	2:1	50	113384-2	
4-8	AFS1-04000800-25-5P-2	15	1.25	2.5	5	2:1	50	113384-2	
4-8	AFS1-04000800-30-5P-2	15	1.25	3	5	2:1	50	113384-2	
4-8	AFS1-04000800-35-5P-2	15	1.25	3.5	5	2:1	50	113384-2	
4-8	AFS2-04000800-08-8P-2	20	1	0.8	8	2:1	70	113384-2	
*	4-8	AFS2-04000800-11-HE-2	20	1	1.1	0	2:1	40	113384-2
4-8	AFS2-04000800-15-8P-2	20	1	1.5	8	2:1	80	113384-2	
4-8	AFS2-04000800-16-8P-2	20	1	1.6	8	2:1	80	113384-2	
4-8	AFS2-04000800-18-8P-2	20	1	1.8	8	2:1	80	113384-2	
4-8	AFS2-04000800-20-8P-2	20	1	2	8	2:1	80	113384-2	
*	4-8	AFS2-04000800-20-TC-2	17	1	2	5	2:1	80	113384-2
4-8	AFS2-04000800-25-8P-2	20	1	2.5	8	2:1	80	113384-2	
4-8	AFS2-04000800-30-8P-2	20	1	3	8	2:1	80	113384-2	
4-8	AFS2-04000800-40-20P-2	20	1	4	20	2:1	150	113384-2	
4-8	AFS3-04000800-07-10P-4	32	1	0.7	10	2:1	100	113384-4	
4-8	AFS3-04000800-08-10P-4	28	1	0.8	10	2:1	100	113384-4	
*	4-8	AFS3-04000800-09-CR-4	31	1	0.9	5	2:1	60	113384-4
4-8	AFS3-04000800-10-10P-4	28	1	1	10	2:1	100	113384-4	
*	4-8	AFS3-04000800-10-HE-4	30	1	1	0	2:1	60	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
4-8	AFS3-04000800-10-ULN	28	1	1	10	2:1	100	113384-4	
4-8	AFS3-04000800-12-10P-4	28	1	1.2	10	2:1	100	113384-4	
4-8	AFS3-04000800-13-10P-4	28	1	1.3	10	2:1	100	113384-4	
4-8	AFS3-04000800-14-10P-4	28	1	1.4	10	2:1	100	113384-4	
4-8	AFS3-04000800-15-10P-4	28	1	1.5	10	2:1	100	113384-4	
4-8	AFS3-04000800-16-10P-4	28	1	1.6	10	2:1	100	113384-4	
4-8	AFS3-04000800-16-LN	24	1	1.6	10	2:1	100	113384-4	
4-8	AFS3-04000800-18-10P-4	28	1	1.8	10	2:1	100	113384-4	
*	4-8	AFS3-04000800-18-TC-4	25	1	1.8	8	2:1	80	113384-4
4-8	AFS3-04000800-20-10P-4	28	1	2	10	2:1	100	113384-4	
4-8	AFS3-04000800-20P-MP	25	1.25	3.8	20	2:1	150	113384-4	
4-8	AFS3-04000800-25-10P-4	28	1	2.5	10	2:1	100	113384-4	
4-8	AFS3-04000800-40-22P-4	24	1	4	22	2:1	200	113384-4	
4-8	AFS4-04000800-07-10P-4	37	1	0.7	10	2:1	125	113384-4	
4-8	AFS4-04000800-10-10P-4	35	1	1	10	2:1	125	113384-4	
4-8	AFS4-04000800-11-10P-4	35	1	1.1	10	2:1	125	113384-4	
4-8	AFS4-04000800-12-10P-4	35	1	1.2	10	2:1	125	113384-4	
4-8	AFS4-04000800-15-10P-4	35	1	1.5	10	2:1	125	113384-4	
4-8	AFS4-04000800-16-10P-4	35	1	1.6	10	2:1	125	113384-4	
4-8	AFS4-04000800-18-10P-4	35	1	1.8	10	2:1	125	113384-4	
4-8	AFS4-04000800-20-10P-4	35	1	2	10	2:1	125	113384-4	
4-8	AFS4-04000800-25-10P-4	35	1	2.5	10	2:1	125	113384-4	
4-8	AFS4-04000800-25-23P-4	28	1.5	2.5	23	2:1	300	113384-4	
4-8	AFS4-04000800-30-10P-4	35	1	3	10	2:1	125	113384-4	
4-8	AFS4-04000800-30-23P-4	28	1.5	3	23	2:1/2.3:1	300	113384-4	
4-8	AFS4-04000800-40-23P-4	28	1	4	23	2:1	300	113384-4	
4-8	AFS43-04000800-30-15P-44	40	1.5	3	15	2:1	175	140941	
4-8	AFS43-04000800-30-20P-44	38	2	3	20	2:1	350	140941	
4-8	AFS43-04000800-35-23P-44	52	1.5	3.5	23	2:1	400	140941	
4-8	AFS6-04000800-20-10P-6	45	1.5	2	10	2:1	250	113384-6	
*	4-8	AFSD5-040080-20-27P	30	1.5	2	27	2:1	650	121045
4-8	AFSD5-040080-30-27P	30	1.5	3	27	2:1	450	121045	
*	4-8	AFSM2-04000800-20-8P	20	1	2	8	2:1	100	133720
*	4-8	AFSW3-04000800-10	30	1	1	10	2:1	125	127846
4-8	AFSX3-04000800-15-10P	28	1	1.5	10	2:1	125	141108	
*	4-8	AFTL3-04000800-09	30	1	0.9	10	2:1	125	127846
*	4-8	AVG4-04000800-DET-8	32	1	1.8	10	2:1	125	142299
4-8	AVG5-04000800-12	30	1	1.2	10	2:1	150	142051	
4-8	IFS3-04000800-15P-LP	22	2	5	15	2:1	150	127362	
4-8	IFS3-04000800-22-LP	24	1.5	2.2	8	2:1	150	127362	
4-8	JS2-04000800-09-10P	23	1	0.9	10	2:1	175	128749	
4-8	JS2-04000800-10-10P	21	1	1	10	2:1	175	128749	
4-8	JS2-04000800-12-10P	21	1	1.2	10	2:1	175	128749	
4-8	JS2-04000800-14-10P	21	1	1.4	10	2:1	175	128749	
4-8	JS2-04000800-16-10P	21	1	1.6	10	2:1	175	128749	
4-8	JS22-04000800-09-10P	42	1.7	0.9	10	2:1	325	129007	
4-8	JS22-04000800-11-10P	42	1.7	1.2	10	2:1	325	129007	
4-8	JS22-04000800-13-10P	42	1.7	1.3	10	2:1	325	129007	
4-8	JS22-04000800-15-10P	42	1.7	1.5	10	2:1	325	129007	
4-8	JS22-04000800-17-10P	42	1.7	1.7	10	2:1	325	129007	
4-8	JS3-04000800-08-10P	35	1.2	0.8	10	2:1	195	127140	
4-8	JS3-04000800-10-10P	35	1.2	1	10	2:1	195	127140	
4-8	JS3-04000800-12-10P	35	1.2	1.2	10	2:1	195	127140	
4-8	JS3-04000800-14-10P	35	1.2	1.4	10	2:1	195	127140	
4-8	JS3-04000800-16-10P	35	1.2	1.6	10	2:1	195	127140	
4-8	LCA-0408	25	1	1.5	10	2:1	150	154709	
4-8	LCN-0408	28	1	1.5	10	2:1	150	154709	
*	4-8	NSM3-04000800-10-S-4	24	1	1	10	2:1	150	120175
4-12	AFD2-040120-15P	10	1.25	5.5	15	2:1	275	109174-2	
4-12	AFD2-040120-20P	8	1.25	6.5	20	2:1	275	109174-2	
4-12	AFD2-040120-23P	8	1.25	6.5	23	2:1	300	109174-2	
4-12	AFD2-040120-30	13	1	3	10	2:1	120	109174-2	
4-12	AFD2-040120-45	13	0.8	4.5	10	2:1	120	109174-2	
4-12	AFD2-040120-50	13	0.8	5	10	2:1	120	109174-2	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
4-12	AFD2-040120-60	13	0.8	6	10	2:1	120	109174-2
4-12	AFD3-040120-15P	16	1.5	5.5	15	2:1	200	109174-2
4-12	AFD3-040120-18P-SP	15	1.75	6.5	18	2:1	350	109174-2
4-12	AFD3-040120-20P	14	1.5	5.5	20	2:1	280	109174-2
4-12	AFD3-040120-20P-MP	15	1.5	6	20	2:1	350	109174-2
4-12	AFD3-040120-23P	13	1.5	6.5	23	2:1	260	109174-3
4-12	AFD3-040120-30	19	1.25	3	10	2:1	180	109174-2
4-12	AFD3-040120-45	19	1.4	4.5	10	2:1	180	109174-2
4-12	AFD3-040120-47-LN	19	1.5	4.7	10	2:1	150	109174-2
4-12	AFD3-040120-50	19	1.4	5	10	2:1	180	109174-2
4-12	AFD3-040120-55-SP	18	1.5	5.5	10	2:1	150	109174-2
4-12	AFD3-040120-60	19	1.4	6	10	2:1	180	109174-2
4-12	AFD4-040120-15P	23	1.75	5.5	15	2:1	250	109174-4
4-12	AFD4-040120-20P	20	1.75	5.5	20	2:1	340	109174-4
4-12	AFD4-040120-23P	19	1.75	5.5	23	2:1	320	109174-3
4-12	AFD4-040120-30	25	1.5	3	10	2:1	260	109174-4
4-12	AFD4-040120-45	25	1.6	4.5	10	2:1	260	109174-4
4-12	AFD4-040120-50	25	1.6	5	10	2:1	260	109174-4
4-12	AFD5-040120-15P	29	1.75	5.5	15	2:1	300	109174-5
4-12	AFD5-040120-20P	26	2	5.5	20	2:1	400	109174-5
4-12	AFD5-040120-23P	25	2	5.5	23	2:1	370	109174-5
4-12	AFD5-040120-30	31	1.75	3	10	2:1	300	109174-5
4-12	AFD5-040120-45	31	1.8	4.5	10	2:1	300	109174-5
4-12	AFD5-040120-50	31	1.8	5	10	2:1	300	109174-5
4-12	AFD5-040120-60	31	1.8	6	10	2:1	300	109174-5
4-12	AFS3-04001200-25-10P-4	25	1	2.5	10	2:1	175	113384-4
4-12	AFS3-04001200-30-10P-4	25	1	3	10	2:1	175	113384-4
4-12	AFS3-04001200-35-10P-4	25	1	3.5	10	2:1	175	113384-4
4-12	AFS3-04001200-40-10P-4	25	1	4	10	2:1	175	113384-4
4-12	AFS32-04001200-25-10P-42	40	1.5	2.5	10	2:1	250	151239
4-12	AFS4-04001200-25-10P-4	28	1.5	2.5	10	2:1	175	113384-4
4-12	AFS4-04001200-30-10P-4	28	1.5	3	10	2:1	175	113384-4
4-12	AFS4-04001200-35-10P-4	28	1.5	3.5	10	2:1	175	113384-4
4-12	AFS4-04001200-40-10P-4	28	1.5	4	10	2:1	175	113384-4
4-12	AFS5-04001200-25-10P-6	34	1.75	2.5	10	2:1	175	113384-6
*	AFSD5-040120-35-25P	25	1.5	3.5	25	2:1	550	121045
4-12	JS3-04001200-18-10P	32	1.5	1.8	10	2:1	195	128749
4-12	JS3-04001200-20-10P	32	1.5	2	10	2:1	195	128749
4-12	JS3-04001200-22-10P	32	1.5	2.2	10	2:1	195	128749
4-12	JS3-04001200-24-10P	32	1.5	2.4	10	2:1	195	128749
4-12	JS3-04001200-26-10P	32	1.5	2.6	10	2:1	195	128749
4-20	JS3-04002000-19-8P	32	1.7	1.9	8	2.2:1	195	128749
4-20	JS3-04002000-21-8P	32	1.7	2.1	8	2.2:1	195	128749
4-20	JS3-04002000-23-8P	32	1.7	2.3	8	2.2:1	195	128749
4-20	JS3-04002000-25-8P	32	1.7	2.7	8	2.2:1	195	128749
4.3-4.8	AFS3-04300480-07-S-4	30	0.5	0.7	10	1.5:1	100	113384-4
4.3-4.8	AFS4-04300480-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
4.3-4.8	AFS42-04300480-07-10P-44	55	0.75	0.7	10	1.5:1	200	140941
4.3-4.8	JS2-043000480-08-10P	25	0.5	0.8	10	1.7:1	195	128749
4.3-4.8	JS2-043000480-09-10P	25	0.5	0.9	10	1.7:1	195	128749
4.3-4.8	JS2-043000480-10-10P	25	0.5	1	10	1.7:1	195	128749
4.3-4.8	JS2-043000480-11-10P	25	0.5	1.1	10	1.7:1	195	128749
4.3-4.8	JS3-043000480-08-10P	35	0.5	0.8	10	1.7:1	195	127140
4.3-4.8	JS3-043000480-09-10P	35	0.5	0.9	10	1.7:1	195	127140
4.3-4.8	JS3-043000480-10-10P	35	0.5	1	10	1.7:1	195	127140
4.3-4.8	JS3-043000480-11-10P	35	0.5	1.1	10	1.7:1	195	127140
4.3-4.8	JS3-043000480-15-18P	33	0.5	1.5	18	1.7:1	225	128749
4.3-4.8	JS3-043000480-17-18P	33	0.5	1.7	18	1.7:1	225	128749
4.3-4.8	JS3-043000480-19-18P	33	0.5	1.9	18	1.7:1	225	128749
4.4-5	AFS2-04400500-13-8P-2	18	0.5	1.3	8	1.5:1	50	113384-2
4.4-5	AFS2-04400500-14-8P-2	18	0.5	1.4	8	1.5:1	50	113384-2
4.4-5	AFS2-04400500-16-8P-2	18	0.5	1.6	8	1.5:1	50	113384-2
4.4-5	AFS2-04400500-18-8P-2	18	0.5	1.8	8	1.5:1	50	113384-2
4.4-5	AFS3-04400500-08-10P-4	28	0.5	0.8	10	1.5:1	80	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
4.4-5	AFS3-04400500-10-10P-4	28	0.5	1	10	1.5:1	80	113384-4
4.4-5	AFS3-04400500-11-10P-4	28	0.5	1.1	10	1.5:1	80	113384-4
4.4-5	AFS3-04400500-12-10P-4	28	0.5	1.2	10	1.5:1	80	113384-4
4.4-5	AFS3-04400500-13-10P-4	28	0.5	1.3	10	1.5:1	80	113384-4
4.4-5	AFS3-04400500-14-10P-4	28	0.5	1.4	10	1.5:1	80	113384-4
4.4-5	AFS3-04400500-16-10P-4	28	0.5	1.6	10	1.5:1	80	113384-4
4.4-5	AFS3-04400500-18-10P-4	28	0.5	1.8	10	1.5:1	80	113384-4
4.4-5	AFS4-04400500-10-10P-4	36	0.5	1	10	1.5:1	120	113384-4
4.4-5	AFS4-04400500-11-10P-4	36	0.5	1.1	10	1.5:1	120	113384-4
4.4-5	AFS4-04400500-12-10P-4	36	0.5	1.2	10	1.5:1	120	113384-4
4.4-5	AFS4-04400500-13-10P-4	36	0.5	1.3	10	1.5:1	120	113384-4
4.4-5	AFS4-04400500-25-23P-4	20	0.75	2.5	23	2:1	300	113384-4
4.4-5	AFS4-04400500-30-23P-4	20	0.75	3	23	2:1	300	113384-4
4.4-5	AFS5-04400500-11-10P-5	38	1	1.1	10	1.5:1	120	113384-5
4.4-5	AFS5-04400500-12-10P-5	38	0.75	1.2	10	1.5:1	120	113384-5
4.4-5.1	AFS3-04400510-07-S-4	30	0.5	0.7	10	1.5:1	100	113384-4
4.4-5.1	AFS4-04400510-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
4.4-5.1	AFS42-04400510-07-10P-44	50	0.75	0.7	10	1.5:1	150	140941
4.4-5.1	JS2-044000510-08-10P	23	0.5	0.8	10	1.7:1	195	128749
4.4-5.1	JS2-044000510-09-10P	23	0.5	0.9	10	1.7:1	195	128749
4.4-5.1	JS2-044000510-10-10P	23	0.5	1	10	1.7:1	195	128749
4.4-5.1	JS2-044000510-11-10P	23	0.5	1.1	10	1.7:1	195	128749
4.4-5.1	JS3-044000510-08-10P	35	0.5	0.8	10	1.7:1	195	127140
4.4-5.1	JS3-044000510-09-10P	35	0.5	0.9	10	1.7:1	195	127140
4.4-5.1	JS3-044000510-10-10P	35	0.5	1	10	1.7:1	195	127140
4.4-5.1	JS3-044000510-11-10P	35	0.5	1.1	10	1.7:1	195	127140
4.4-5.1	JS3-044000510-15-18P	33	0.5	1.5	18	1.7:1	225	128749
4.4-5.1	JS3-044000510-17-18P	33	0.5	1.7	18	1.7:1	225	128749
4.4-5.1	JS3-044000510-19-18P	33	0.5	1.9	18	1.7:1	225	128749
4.5-4.8	AFS3-04500480-07-S-4	30	0.5	0.7	10	1.5:1	100	113384-4
4.5-4.8	AFS4-04500480-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
4.5-4.8	AFS42-04500480-07-10P-44	50	0.75	0.7	10	1.5:1	150	140941
5-5.4	AFS4-05000540-07-8P-4	35	0.75	0.7	8	2:1	120	113384-4
5-5.4	AFS4-05000540-10-8P-4	35	0.75	1	8	2:1	120	113384-4
5-10	AFD2-050100-15P	12	1	4.5	15	2:1	150	109174-2
5-10	AFD2-050100-20P	11	1	5	20	2:1	220	109174-2
5-10	AFD2-050100-23P	10	1	6	23	2:1	280	109174-2
5-10	AFD3-050100-15P	19	1.25	4.5	15	2:1	200	109174-3
5-10	AFD3-050100-20P	18	1.25	5	20	2:1	280	109174-3
5-10	AFD3-050100-23P	16	1.25	5	23	2:1	340	109174-3
5-10	AFD4-050100-15P	26	1.5	4.5	15	2:1	250	109174
5-10	AFD4-050100-20P	25	1.5	5	20	2:1	340	109174
5-10	AFD4-050100-23P	23	1.5	5	23	2:1	400	109174-3
5-10	AFD5-050100-15P	33	1.75	5	15	2:1	300	109174-5
5-10	AFD5-050100-20P	32	1.75	5	20	2:1	400	109174-5
5-10	AFD5-050100-23P	30	1.75	5	23	2:1	460	109174-5
5-10	AFD6-050100-15P	40	2	4.5	15	2:1	350	169423
5-10	AFD6-050100-20P	39	2	5	20	2:1	460	169423
5-10	AFD6-050100-23P	37	2	5	23	2:1	520	169423
5-10	AFS2-05001000-18-5P-2	18	1	1.8	5	2:1	170	113384-2
5-10	AFS2-05001000-20-5P-2	18	1	2	5	2:1	170	113384-2
5-10	AFS2-05001000-25-5P-2	18	1	2.5	5	2:1	170	113384-2
5-10	AFS2-05001000-30-5P-2	18	1	3	5	2:1	170	113384-2
5-10	AFS2-05001000-35-5P-2	18	1	3.5	5	2:1	170	113384-2
5-10	AFS3-05001000-12-8P-4	27	1	1.2	8	2:1	125	113384-4
5-10	AFS3-05001000-14-8P-4	27	1	1.4	8	2:1	125	113384-4
5-10	AFS3-05001000-18-8P-4	27	1	1.8	8	2:1	150	113384-4
5-10	AFS3-05001000-20-8P-4	27	1	2	8	2:1	150	113384-4
5-10	AFS3-05001000-25-8P-4	27	1	2.5	8	2:1	150	113384-4
5-10	AFS3-05001000-30-8P-4	27	1	3	8	2:1	150	113384-4
5-10	AFS3-05001000-35-8P-4	27	1	3.5	8	2:1	150	113384-4
5-10	AFS4-05001000-12-10P-4	32	1.25	1.2	10	2:1	150	113384-4
5-10	AFS4-05001000-14-10P-4	32	1.25	1.4	10	2:1	150	113384-4
5-10	AFS4-05001000-18-10P-4	32	1.25	1.8	10	2:1	150	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
5-10	AFS4-05001000-20-10P-4	32	1.25	2	10	2:1	150	113384-4
5-10	AFS4-05001000-25-10P-4	32	1.25	2.5	10	2:1	150	113384-4
5-10	AFS4-05001000-30-10P-4	32	1.25	3	10	2:1	150	113384-4
5-10	AFS4-05001000-35-10P-4	32	1.25	3.5	10	2:1	150	113384-4
5-10	AFS44-05001000-35-10P-44	42	1.5	3.5	10	2:1	150	140941
5-10	AFS5-05001000-12-10P-5	35	1.5	1.2	10	2:1	150	113384-5
5-10	AFS5-05001000-18-10P-5	34	1.5	1.8	10	2:1	150	113384-5
5-10	AFS5-05001000-20-10P-5	34	1.4	2	10	2:1	150	113384-5
5-10	AFS5-05001000-25-10P-5	34	1.4	2.5	10	2:1	150	113384-5
5-10	AFS5-05001000-30-10P-5	34	1.4	3	10	2:1	150	113384-5
5-10	AFS5-05001000-35-10P-5	34	1.4	3.5	10	2:1	150	113384-5
5-10	JS3-05001000-17-10P	28	1.4	1.7	10	2:1	150	128749
5-10	JS3-05001000-19-10P	28	1.4	1.9	10	2:1	150	128749
5-10	JS3-05001000-21-10P	28	1.4	2.1	10	2:1	150	128749
5-10	JS3-05001000-23-10P	28	1.4	2.3	10	2:1	150	128749
5-10	JS3-05001000-25-10P	28	1.4	2.5	10	2:1	150	128749
5.2-5.4	AFS4-05200540-16-10P-4	35	0.75	1.6	10	2:1	120	113384-4
5.2-5.4	AFS4-05200540-18-10P-4	35	0.75	1.8	10	2:1	120	113384-4
5.2-6	AFS3-05200600-12-8P-2	18	0.5	1.2	8	1.5:1	50	113384-2
5.2-6	AFS3-05200600-07-10P-4	30	0.5	0.7	10	1.5:1	100	113384-4
5.2-6	AFS3-05200600-10-10P-4	28	0.75	1	10	1.5:1	100	113384-4
5.2-6	AFS3-05200600-11-10P-4	28	0.75	1.1	10	1.5:1	100	113384-4
5.2-6	AFS3-05200600-15-10P-4	28	0.75	1.5	10	1.5:1	100	113384-4
5.2-6	AFS3-05200600-60-20P-6	27	1	6	20	2:1	150	113384-6
5.2-6	AFS4-05200600-07-10P-4	38	0.5	0.7	10	1.5:1	125	113384-4
5.2-6	AFS4-05200600-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
5.2-6	AFS4-05200600-11-10P-4	38	0.75	1.1	10	1.5:1	125	113384-4
5.4-5.9	AFS2-05400590-13-10P-2	18	0.5	1.3	10	1.5:1	50	113384-2
5.4-5.9	AFS3-05400590-07-S-4	26	0.5	0.7	10	1.5:1	100	113384-4
5.4-5.9	AFS4-05400590-07-S-4	32	0.5	0.7	10	1.5:1	125	113384-4
5.4-5.9	JS2-054000590-08-10P	23	0.5	0.8	10	1.7:1	195	128749
5.4-5.9	JS2-054000590-09-10P	23	0.5	0.9	10	1.7:1	195	128749
5.4-5.9	JS2-054000590-10-10P	23	0.5	1	10	1.7:1	195	128749
5.4-5.9	JS2-054000590-11-10P	23	0.5	1.1	10	1.7:1	195	128749
5.4-5.9	JS3-054000590-08-10P	35	0.5	0.8	10	1.7:1	195	127140
5.4-5.9	JS3-054000590-15-18P	33	0.5	1.5	18	1.7:1	225	128749
5.4-5.9	JS3-054000590-19-18P	33	0.5	1.9	18	1.7:1	225	128749
5.4-5.9	JS3-05400590-08-10P	35	0.5	0.8	10	1.7:1	195	127140
5.4-5.9	JS3-05400590-09-10P	35	0.5	0.9	10	1.7:1	195	127140
5.4-5.9	JS3-05400590-10-10P	35	0.5	1	10	1.7:1	195	127140
5.4-5.9	JS3-05400590-11-10P	35	0.5	1.1	10	1.7:1	195	127140
5.4-5.9	JS3-05400590-15-18P	33	0.5	1.5	18	1.7:1	225	128749
5.4-5.9	JS3-05400590-17-18P	33	0.5	1.7	18	1.7:1	225	128749
5.4-5.9	JS3-05400590-19-18P	33	0.5	1.9	18	1.7:1	225	128749
5.5-6.5	AFS3-05500650-11-8P-4	28	0.75	1.1	8	1.5:1	80	113384-4
5.5-6.5	AFS3-05500650-12-8P-4	28	0.75	1.2	8	1.5:1	80	113384-4
5.5-6.5	AFS4-05500650-11-10P-4	34	0.75	1.1	10	1.5:1	100	113384-4
5.7-5.9	AFS42-05700590-20-20P-42	40	1	2	20	1.5:1	200	151239
5.8-6.5	AFS3-05800650-07-S-4	30	0.5	0.7	10	1.5:1	100	113384-4
5.8-6.5	AFS4-05800650-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
5.8-6.5	AFS42-05800650-07-10P-44	45	0.75	0.7	10	1.5:1	150	140941
5.8-6.5	JS2-058000650-08-10P	25	0.5	0.8	10	1.7:1	195	128749
5.8-6.5	JS2-058000650-09-10P	25	0.5	0.9	10	1.7:1	195	128749
5.8-6.5	JS2-058000650-10-10P	25	0.5	1	10	1.7:1	195	128749
5.8-6.5	JS2-058000650-11-10P	25	0.5	1.1	10	1.7:1	195	128749
5.8-6.5	JS3-058000650-08-10P	35	0.5	0.8	10	1.7:1	195	127140
5.8-6.5	JS3-058000650-09-10P	35	0.5	0.9	10	1.7:1	195	127140
5.8-6.5	JS3-058000650-10-10P	35	0.5	1	10	1.7:1	195	127140
5.8-6.5	JS3-058000650-11-10P	35	0.5	1.1	10	1.7:1	195	127140
5.8-6.7	AFS3-05800670-07-S-4	30	0.5	0.7	10	1.5:1	80	113384-4
5.8-6.7	AFS4-05800670-07-S-4	38	0.5	0.7	10	1.5:1	100	113384-4
5.8-6.7	AFS42-05800670-07-10P-44	45	0.75	0.7	10	1.5:1	150	140941
5.9-6.4	AFS2-05900640-13-8P-2	18	0.5	1.3	8	1.5:1	50	113384-2
5.9-6.4	AFS2-05900640-14-8P-2	18	0.5	1.4	8	1.5:1	50	113384-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
5.9-6.4	AFS2-05900640-16-8P-2	18	0.5	1.6	8	1.5:1	50	113384-2	
5.9-6.4	AFS2-05900640-18-8P-2	18	0.5	1.8	8	1.5:1	50	113384-2	
5.9-6.4	AFS3-05900640-07-S-4	30	0.5	0.7	10	1.5:1	80	113384-4	
5.9-6.4	AFS3-05900640-12-10P-4	30	0.75	1.2	10	1.5:1	80	113384-4	
5.9-6.4	AFS3-05900640-13-10P-4	30	0.75	1.3	10	1.5:1	80	113384-4	
5.9-6.4	AFS3-05900640-14-10P-4	30	0.75	1.4	10	1.5:1	80	113384-4	
5.9-6.4	AFS4-05900640-07-S-4	38	0.5	0.7	10	1.5:1	100	113384-4	
5.9-6.4	AFS4-05900640-08-10P-4	38	0.75	0.8	10	1.5:1	100	113384-4	
5.9-6.4	AFS4-05900640-10-10P-4	38	0.75	1	10	1.5:1	100	113384-4	
5.9-6.4	AFS4-05900640-12-10P-4	38	0.75	1.2	10	1.5:1	100	113384-4	
5.9-6.4	AFS4-05900640-15-10P-4	38	0.75	1.5	10	1.5:1	100	113384-4	
5.9-6.4	AFS4-05900640-20-10P-4	38	0.75	2	10	1.5:1	100	113384-4	
6-12	AFS2-06001200-18-5P-2	14	1.5	1.8	5	2:1	60	113384-2	
6-12	AFS3-06001200-12-8P-4	24	1.5	1.2	8	2:1	80	113384-4	
6-12	AFS3-06001200-15-8P-4	24	1.5	1.5	8	2:1	80	113384-4	
6-12	AFS3-06001200-30-8P-4	24	1.5	3	8	2:1	80	113384-4	
6-12	AFS4-06001200-12-10P-4	30	1.5	1.2	10	2:1	120	113384-4	
6-12	AFS4-06001200-15-10P-4	30	1.5	1.5	10	2:1	120	113384-4	
6-12	AFS4-06001200-18-10P-4	30	1	1.8	10	2:1	120	113384-4	
6-12	AFS4-06001200-23-10P-4	30	1	2.3	10	2:1	120	113384-4	
6-12	AFS4-06001200-25-10P-4	30	1	2.5	10	2:1	120	113384-4	
6-12	AFS4-06001200-60-22P-4	20	1.5	6	22	2:1	300	113384-4	
6-12	AFS42-06001200-12-10P-42	40	1.75	1.2	10	2:1	175	151239	
6-12	AFS42-06001200-15-10P-42	40	1.75	1.5	10	2:1	175	151239	
6-12	AFS5-06001200-12-10P-5	34	1.5	1.2	10	2:1	125	113384-5	
*	6-12	AFSD5-060120-30-26P	26	1.5	3	26	2:1	650	121045
*	6-12	AVG4-06001200-19	24	1.5	1.9	10	2:1	125	142051
6-12	JS1-06001200-28-8P	8	1.2	2.8	8	2:1	80	128749	
6-12	JS1-06001200-30-8P	8	1.2	3	8	2:1	80	128749	
6-12	JS1-06001200-33-8P	8	1.2	3.3	8	2:1	80	128749	
6-12	JS2-06001200-26-8P	14	1.2	2.6	8	2:1	125	128749	
6-12	JS2-06001200-29-8P	14	1.2	2.9	8	2:1	125	128749	
6-12	JS2-06001200-33-10P	14	1.2	3.3	10	2:1	150	128749	
6-12	JS2-06001200-35-10P	14	1.2	3.5	10	2:1	150	128749	
6-12	JS3-06001200-14-8P	28	1	1.4	8	2:1	150	128749	
6-12	JS3-06001200-16-8P	28	1	1.6	8	2:1	150	128749	
6-12	JS3-06001200-18-10P	28	1	1.8	10	2:1	165	128749	
6-12	JS3-06001200-20-10P	28	1	2	10	2:1	165	128749	
6-12	JS4-06001200-14-8P	34	1	1.4	8	2:1	195	128749	
6-12	JS4-06001200-16-8P	34	1	1.6	8	2:1	195	128749	
6-12	JS4-06001200-18-10P	34	1	1.8	10	2:1	195	128749	
6-12	JS4-06001200-20-10P	34	1	2	10	2:1	195	128749	
6-12	JS41-06001200-14-8P	42	1.4	1.4	8	2:1	250	129007	
6-12	JS41-06001200-16-8P	42	1.4	1.6	8	2:1	250	129007	
6-12	JS41-06001200-18-8P	42	1.4	1.8	8	2:1	250	129007	
6-12	JS41-06001200-20-8P	42	1.4	2	8	2:1	250	129007	
6-12	JS42-06001200-14-10P	50	1.6	1.4	10	2:1	285	129007	
6-12	JS42-06001200-16-10P	50	1.6	1.6	10	2:1	285	129007	
6-12	JS42-06001200-18-10P	50	1.6	1.8	10	2:1	285	129007	
6-12	JS42-06001200-20-10P	50	1.6	2	10	2:1	285	129007	
6-18	AFS2-06001800-25-5P-2	12	1.5	2.5	5	2:1	50	113384-2	
6-18	AFS2-06001800-48-15P-LPN	15	1	4.8	15	2:1	100	113384-2	
*	6-18	AFS3-06001800-24-10P-4	20	1.5	2.4	10	2:1	100	113384-4
6-18	AFS3-06001800-25-HE-4	14	2	2.5	0	2:1	25	113384-4	
6-18	AFS4-06001800-22-10P-4	25	2	2.2	10	2:1	125	113384-4	
*	6-18	AFS4-06001800-25-HE-4	26	2	2.5	0	2:1	40	113384-4
*	6-18	AFS4-06001800-35-TC-6	22	1	3.5	8	2:1	150	113384-6
6-18	AFS4-06001800-35-ULN	18	2	3.5	10	2:1	175	113384-4	
6-18	AFS4-06001800-40-LN	18	2	4	10	2:1	175	113384-4	
6-18	AFS5-06001800-22-10P-6	30	2	2.2	10	2:1	150	113384-6	
6-18	AFS5-06001800-50-20P-6	23	2	5	20	2:1	365	113384-6	
6-18	AFS6-06001800-22-10P-6	34	2	2.2	10	2:1	175	113384-6	
6-18	AFS7-06001800-50-20P-8	35	2.5	5	20	2:1	400	113384-8	
6-18	AFSX4-06001800-28-8P	23	2	2.8	8	2:1	150	141108	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
		GAIN (dB, Min.)	FLATNESS (±dB, Max.)						
*	6-18	AVG4-06001800-25	22	2	2.5	10	2.3:1	185	119393
	6-18	JS1-06001800-30-8P	8	1.3	3	8	2.3:1	80	128749
	6-18	JS1-06001800-33-8P	8	1.3	3.3	8	2.3:1	80	128749
	6-18	JS1-06001800-35-8P	8	1.3	3.5	8	2.3:1	80	128749
	6-18	JS2-06001800-28-8P	14	1.5	2.8	8	2.2:1	125	128749
	6-18	JS2-06001800-31-8P	14	1.5	3.1	8	2.2:1	125	128749
	6-18	JS2-06001800-35-10P	14	1.5	3.5	10	2.2:1	150	128749
	6-18	JS2-06001800-38-10P	14	1.5	3.8	10	2.2:1	150	128749
	6-18	JS3-06001800-17-8P	27	1.5	1.7	8	2:1	150	128749
	6-18	JS3-06001800-18-8P	27	1.5	1.8	8	2:1	150	128749
	6-18	JS3-06001800-20-10P	27	1.5	2	8	2:1	165	128749
	6-18	JS3-06001800-22-10P	27	1.5	2.2	8	2:1	165	128749
**	6-18	JS4-06001800-16-8P	32	1.5	1.6	8	2:1	195	128749
**	6-18	JS4-06001800-18-8P	32	1.5	1.8	8	2:1	195	128749
**	6-18	JS4-06001800-22-8P	32	1.5	2.2	8	2:1	195	128749
	6-18	JS41-06001800-16-8P	40	2	1.6	8	2.2:1	250	129007
	6-18	JS41-06001800-18-8P	40	2	1.8	8	2.2:1	250	129007
	6-18	JS41-06001800-20-8P	40	2	2	8	2.2:1	250	129007
	6-18	JS41-06001800-22-8P	40	2	2.2	8	2.2:1	250	129007
	6-18	JS42-06001800-16-8P	48	2.2	1.6	8	2.2:1	285	129007
	6-18	JS42-06001800-18-8P	48	2.2	1.8	8	2.2:1	285	129007
	6-18	JS42-06001800-20-10P	48	2.2	2	10	2.2:1	295	129007
	6-18	JS42-06001800-22-10P	48	2.2	2.2	10	2.2:1	295	129007
	6-18	LCA-0618	25	1.5	3	10	2:1	150	154709
	6-18	LCN-0618	28	1.5	2.8	10	2:1	150	154709
	6.4-7.2	AFS3-06400720-07-S-4	30	0.5	0.7	10	1.5:1	100	113384-4
	6.4-7.2	AFS3-06400720-08-10P-4	30	0.5	0.8	10	1.5:1	100	113384-4
	6.4-7.2	AFS4-06400720-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
	6.4-7.2	AFS4-06400720-08-10P-4	38	0.5	0.8	10	1.5:1	125	113384-4
	6.4-7.2	AFS42-06400720-08-10P-44	45	0.75	0.8	10	1.5:1	200	140941
	6.4-7.2	JS2-064000720-08-10P	25	0.5	0.8	10	1.7:1	195	128749
	6.4-7.2	JS2-064000720-09-10P	25	0.5	0.9	10	1.7:1	195	128749
	6.4-7.2	JS2-064000720-10-10P	25	0.5	1	10	1.7:1	195	128749
	6.4-7.2	JS2-064000720-11-10P	25	0.5	1.1	10	1.7:1	195	128749
	6.4-7.2	JS3-064000720-08-10P	35	0.5	0.8	10	1.7:1	195	127140
	6.4-7.2	JS3-064000720-09-10P	35	0.5	0.9	10	1.7:1	195	127140
	6.4-7.2	JS3-064000720-10-10P	35	0.5	1	10	1.7:1	195	127140
	6.4-7.2	JS3-064000720-11-10P	35	0.5	1.1	10	1.7:1	195	127140
	6.7-7.1	AFS3-06700710-07-S-4	30	0.5	0.7	10	1.5:1	100	113384-4
	6.7-7.1	AFS4-06700710-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
	6.7-7.1	AFS42-06700710-07-10P-44	45	0.75	0.7	10	1.5:1	200	140941
	7-12	AFD2-070120-45	13	0.75	4.5	5	2:1	120	109174-2
	7-12	AFD2-070120-55	13	0.75	5.5	10	2:1	120	109174-2
	7-12	AFD3-070120-40	19	1.5	4	10	2:1	180	109174-3
	7-12	AFD3-070120-45	19	1.5	4.5	10	2:1	180	109174-3
	7-12	AFD3-070120-55	19	1.5	5.5	10	2:1	180	109174-3
	7-12	AFD4-070120-45	25	1.6	4.5	10	2:1	240	109174-4
	7-12	AFD4-070120-55	25	1.6	5.5	10	2:1	240	109174-4
	7-12	AFD5-070120-45	31	1.7	4.5	10	2:1	300	109174-5
	7-12	AFD5-070120-55	31	1.7	5.5	10	2:1	300	109174-5
	7-12	AFD6-070120-45	37	2	4.5	10	2:1	360	169423
	7-12	AFD6-070120-55	37	2	5.5	10	2:1	360	169423
	7.2-7.8	AFS2-07200780-14-8P-2	20	0.5	1.4	8	1.5:1	50	113384-2
	7.2-7.8	AFS2-07200780-18-8P-2	20	0.5	1.8	8	1.5:1	50	113384-2
	7.2-7.8	AFS2-07200780-20-8P-2	20	0.5	2	8	1.5:1	50	113384-2
	7.2-7.8	AFS2-07200780-25-8P-2	20	0.5	2.5	8	1.5:1	50	113384-2
	7.2-7.8	AFS2-07200780-30-8P-2	20	0.5	3	8	1.5:1	50	113384-2
	7.2-7.8	AFS3-07200780-12-10P-4	28	0.75	1.2	10	1.5:1	80	113384-4
	7.2-7.8	AFS3-07200780-14-10P-4	28	0.75	1.4	10	1.5:1	80	113384-4
	7.2-7.8	AFS3-07200780-16-10P-4	28	0.75	1.6	10	1.5:1	80	113384-4
	7.2-7.8	AFS3-07200780-18-10P-4	28	0.75	1.8	10	1.5:1	80	113384-4
	7.2-7.8	AFS3-07200780-20-10P-4	28	0.75	2	10	1.5:1	80	113384-4
	7.2-7.8	AFS3-07200780-30-10P-4	28	0.75	3	10	1.5:1	80	113384-4
	7.2-7.8	AFS4-07200780-08-10P-4	34	0.75	0.8	10	1.5:1	125	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
7.2-7.8	AFS4-07200780-10-10P-4	34	0.75	1	10	1.5:1	125	113384-4
7.2-7.8	AFS4-07200780-11-10P-4	34	0.75	1.1	10	1.5:1	125	113384-4
7.2-7.8	AFS4-07200780-12-10P-4	34	0.75	1.2	10	1.5:1	125	113384-4
7.2-7.8	AFS4-07200780-14-10P-4	34	0.75	1.4	10	1.5:1	125	113384-4
7.2-7.8	AFS4-07200780-16-10P-4	34	0.75	1.6	10	1.5:1	125	113384-4
7.2-7.8	AFS4-07200780-20-10P-4	34	0.75	2	10	1.5:1	125	113384-4
7.2-7.8	AFS4-07200780-30-10P-4	34	0.75	3	10	1.5:1	125	113384-4
7.25-7.75	AFS3-07250775-06-10P-4	30	0.5	0.6	10	1.5:1	80	113384-4
7.25-7.75	AFS3-07250775-07-S-4	30	0.5	0.7	10	1.5:1	80	113384-4
7.25-7.75	AFS4-07250775-07-S-4	38	0.5	0.7	10	1.5:1	125	113384-4
7.25-7.75	JS2-07250775-08-10P	25	0.5	0.8	10	1.8:1	195	128749
7.25-7.75	JS2-07250775-09-10P	25	0.5	0.9	10	1.8:1	195	128749
7.25-7.75	JS2-07250775-10-10P	25	0.5	1	10	1.8:1	195	128749
7.25-7.75	JS2-07250775-11-10P	25	0.5	1.1	10	1.8:1	195	128749
7.3-8.4	AFS3-07300840-07-S-4	30	0.5	0.7	10	1.5:1	80	113384-4
7.3-8.4	AFS3-07300840-08-10P-4	30	0.5	0.8	10	1.5:1	80	113384-4
7.3-8.4	AFS4-07300840-07-S-4	38	0.5	0.7	10	1.5:1	100	113384-4
7.3-8.4	AFS4-07300840-08-10P-4	38	0.5	0.8	10	1.5:1	100	113384-4
7.3-8.4	AFS42-07300840-07-10P-44	45	0.75	0.7	10	1.5:1	150	140941
7.3-8.4	AFS42-07300840-08-10P-44	45	0.75	0.8	10	1.5:1	150	140941
7.9-8.4	AFS2-07900840-16-8P-2	20	0.5	1.6	8	1.5:1	50	113384-2
7.9-8.4	AFS2-07900840-18-8P-2	20	0.5	1.8	8	1.5:1	50	113384-2
7.9-8.4	AFS2-07900840-20-8P-2	20	0.5	2	8	1.5:1	50	113384-2
7.9-8.4	AFS2-07900840-25-8P-2	20	0.5	2.5	8	1.5:1	50	113384-2
7.9-8.4	AFS2-07900840-30-8P-2	20	0.5	3	8	1.5:1	50	113384-2
7.9-8.4	AFS3-07900840-07-S-4	30	0.5	0.7	10	1.5:1	80	113384-4
7.9-8.4	AFS3-07900840-10-10P-4	28	0.75	1	10	1.5:1	100	113384-4
7.9-8.4	AFS3-07900840-12-10P-4	28	0.75	1.2	10	1.5:1	80	113384-4
7.9-8.4	AFS3-07900840-14-10P-4	28	0.75	1.4	10	1.5:1	80	113384-4
7.9-8.4	AFS3-07900840-16-10P-4	28	0.75	1.6	10	1.6:1/1.5:1	80	113384-4
7.9-8.4	AFS3-07900840-18-10P-4	28	0.75	1.8	10	1.5:1	80	113384-4
7.9-8.4	AFS3-07900840-20-10P-4	28	0.75	2	10	1.5:1	80	113384-4
7.9-8.4	AFS4-07900840-07-S-4	38	0.5	0.7	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-08-10P-4	34	0.5	0.8	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-10-10P-4	34	0.75	1	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-11-10P-4	34	0.75	1.1	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-12-10P-4	34	0.75	1.2	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-14-10P-4	34	0.75	1.4	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-20-10P-4	34	0.75	2	10	1.5:1	100	113384-4
7.9-8.4	AFS4-07900840-30-10P-4	34	0.75	3	10	1.5:1	100	113384-4
8-8.5	AFS3-08000850-07-S-4	26	0.5	0.7	10	1.5:1	80	113384-4
8-8.5	AFS4-08000850-07-S-4	34	0.5	0.7	10	1.5:1	100	113384-4
8-8.5	AFS42-08000850-07-10P-44	45	0.75	0.7	10	1.5:1	150	140941
8-8.5	JS3-08000850-09-10P	30	0.5	0.95	10	1.8:1	175	128749
8-8.5	JS3-08000850-11-10P	30	0.5	1.1	10	1.8:1	175	128749
8-8.5	JS3-08000850-13-10P	30	0.5	1.3	10	1.8:1	175	128749
8-10	AFS2-08001000-40-10P-2	9	0.5	4	10	2:1	50	113384-2
8-10	AFS3-08001000-15-10P-4	26	1	1.5	10	2:1	80	113384-4
8-10	AFS3-08001000-20-10P-4	26	1	2	10	2:1	80	113384-4
8-10	AFS3-08001000-25-10P-4	26	1	2.5	10	2:1	80	113384-4
8-10	AFS4-08001000-40-15P-4	30	0.75	4	15	2:1	150	113384-4
8-12	ABIT5-08001200-25-24P	27	1	2.5	24	2:1	520	132155
8-12	AFD2-080120-15P	11	1	5	15	2:1	275	109174-2
8-12	AFD2-080120-20P	9	1	6	20	2:1	275	109174-2
8-12	AFD2-080120-23P	9	1	6	23	2:1	300	109174-2
8-12	AFD2-080120-30	13	1	3	10	2:1	120	109174-2
8-12	AFD2-080120-40	13	0.75	4	5	2:1	120	109174-2
8-12	AFD2-080120-45	13	0.75	4.5	5	2:1	120	109174-2
8-12	AFD2-080120-55	13	0.75	5.5	5	2:1	120	109174-2
8-12	AFD3-080120-15P	17	1.25	5	15	2:1	200	134972
8-12	AFD3-080120-20P-SP	15	1.25	5	20	2:1	350	134972
8-12	AFD3-080120-23P	14	1.25	6	23	2:1	350	134972
8-12	AFD3-080120-23P-MP	16	1.25	6	23	2:1	300	134972
8-12	AFD3-080120-25	19	1	2.5	12	2:1	180	109174-3

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
8-12	AFD3-080120-40	19	1.4	4	10	2:1	180	134972	
8-12	AFD3-080120-42-LN	20	1	4.2	10	2:1	100	134972	
8-12	AFD3-080120-45	19	1.4	4.5	10	2:1	180	134972	
8-12	AFD3-080120-50-SP	18	1.25	5	10	2:1	150	134972	
8-12	AFD3-080120-55	19	1.4	5.5	10	2:1	180	134972	
8-12	AFD4-080120-15P	24	1.5	5	15	2:1	250	109174-4	
8-12	AFD4-080120-20P	21	1.5	5	20	2:1	340	109174-4	
8-12	AFD4-080120-23P	20	1.5	5	23	2:1	380	109174-4	
8-12	AFD4-080120-25	25	1	2.5	12	2:1	240	109174-4	
8-12	AFD4-080120-40	25	1.5	4	10	2:1	240	109174-4	
8-12	AFD4-080120-45	25	1.5	4.5	10	2:1	240	109174-4	
8-12	AFD4-080120-55	25	1.5	5.5	10	2:1	240	109174-4	
8-12	AFD5-080120-15P	30	1.75	5	15	2:1	300	109174-5	
8-12	AFD5-080120-20P	27	2	5	20	2:1	400	109174-5	
8-12	AFD5-080120-23P	26	2	5	23	2:1	400	109174-5	
8-12	AFD5-080120-25	31	1.25	2.5	12	2:1	300	109174-5	
8-12	AFD5-080120-40	31	1.6	4	10	2:1	300	109174-5	
8-12	AFD5-080120-45	31	1.6	4.5	10	2:1	300	109174-5	
8-12	AFD6-080120-15P	36	2.25	5	15	2:1	350	169423	
8-12	AFD6-080120-20P	33	2.25	5	20	2:1	460	169423	
8-12	AFD6-080120-23P	32	2.25	5	23	2:1	480	113384-4	
8-12	AFD6-080120-25	37	1.5	2.5	12	2:1	360	169423	
8-12	AFD6-080120-40	37	2	4	10	2:1	360	169423	
8-12	AFD6-080120-45	37	2	4.5	10	2:1	360	169423	
8-12	AFD6-080120-55	37	2	5.5	10	2:1	360	169423	
8-12	AFS2-08001200-12-5P-2	16	1	1.2	5	2:1	75	113384-2	
8-12	AFS2-08001200-14-5P-2	16	1	1.4	5	2:1	75	113384-2	
8-12	AFS2-08001200-20-5P-2	16	1	2	5	2:1	75	113384-2	
8-12	AFS2-08001200-30-5P-2	16	1	3	5	2:1	75	113384-2	
*	8-12	AFS2-08001200-30-TC-2	12	1	3	5	2:1	50	109174-2
8-12	AFS2-08001200-35-5P-2	16	1	3.5	5	2:1	50	113384-2	
8-12	AFS2-08001200-40-5P-2	16	1	4	5	2:1	50	113384-2	
8-12	AFS3-08001200-09-10P-4	28	1	0.9	10	2:1	80	113384-4	
8-12	AFS3-08001200-10-10P-4	26	1	1	10	2:1	80	113384-4	
8-12	AFS3-08001200-12-10P-4	26	1	1.2	10	2:1	80	113384-4	
*	8-12	AFS3-08001200-14-HE-4	20	1	1.4	0	2:1	50	113384-4
8-12	AFS3-08001200-14-ULN	25	1	1.4	10	2:1	80	113384-4	
8-12	AFS3-08001200-15-10P-4	26	1	1.5	10	2:1	80	113384-4	
8-12	AFS3-08001200-16-10P-4	26	1	1.6	10	2:1	80	113384-4	
8-12	AFS3-08001200-18-10P-4	26	1	1.8	10	2:1	80	113384-4	
8-12	AFS3-08001200-20-10P-4	26	1	2	10	2:1	80	113384-4	
8-12	AFS3-08001200-20-15P-4	24	1	2	15	2:1	125	113384-4	
8-12	AFS3-08001200-22-LN	22	1	2.2	10	2:1	80	113384-4	
*	8-12	AFS3-08001200-22-TC-4	24	1	2.2	8	2:1	80	113384-4
8-12	AFS3-08001200-23-10P-4	26	1	2.3	10	2:1	80	113384-4	
8-12	AFS3-08001200-25-10P-4	26	1	2.5	10	2:1	80	113384-4	
8-12	AFS3-08001200-28-10P-4	26	1	2.8	10	2:1	80	113384-4	
8-12	AFS3-08001200-30-10P-4	26	1	3	10	2:1	80	113384-4	
8-12	AFS3-08001200-35-20P-4	20	1.25	3.5	20	2:1	150	113384-4	
8-12	AFS3-08001200-40-20P-4	20	1.25	4	20	2:1	150	113384-4	
8-12	AFS3-08001200-S-20P-4	20	1.25	4	20	2:1	150	113384-4	
8-12	AFS4-08001200-09-10P-4	32	1	0.9	10	2:1	100	113384-4	
8-12	AFS4-08001200-10-10P-4	32	1	1	10	2:1	100	113384-4	
8-12	AFS4-08001200-10-CR-4	32	1	1	5	2:1	60	113384-4	
8-12	AFS4-08001200-11-HE-4	30	1	1.1	0	2:1	60	113384-4	
8-12	AFS4-08001200-15-10P-4	32	1.25	1.5	10	2:1	100	113384-4	
8-12	AFS4-08001200-20-10P-4	32	1.25	2	10	2:1	100	113384-4	
*	8-12	AFS4-08001200-20-TC-4	30	1	2	8	2:1	100	113384-4
8-12	AFS4-08001200-20P-MP	20	1	4.8	20	2:1	175	113384-4	
8-12	AFS4-08001200-23-10P-4	32	1.25	2.3	10	2:1	100	113384-4	
8-12	AFS4-08001200-25-10P-4	32	1.25	2.5	10	2:1	100	113384-4	
8-12	AFS4-08001200-25-20P-4	32	1	2.5	20	2:1	175	113384-4	
8-12	AFS4-08001200-25-20P-4-LPN	32	1	2.5	20	2:1	175	113384-4	
8-12	AFS4-08001200-28-10P-4	32	1.25	2.8	10	2:1	100	113384-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
8-12	AFS4-08001200-30-20P-4	30	1.25	3	20	2:1	175	113384-4
8-12	AFS4-08001200-35-10P-4	32	1.25	3.5	10	2:1	100	113384-4
8-12	AFS4-08001200-40-20P-4	30	1.25	4	20	2:1	175	113384-4
8-12	AFS4-08001200-40-23P-4	24	1.5	4	23	2:1	200	113384-4
8-12	AFS4-08001200-60-22P-4	24	1.5	6	22	2.5:1	200	113384-4
8-12	AFS4-08001200-S-20P-4	25	1.25	4	20	2:1	175	113384-4
8-12	AFS42-08001200-09-10P-42	40	1.5	0.9	10	2:1	175	151239
8-12	AFS42-08001200-10-10P-42	40	1.5	1	10	2:1	175	151239
8-12	AFS42-08001200-20-10P-42	40	1.5	2	10	2:1	175	151239
8-12	AFS42-08001200-30-20P-42	36	1.5	3	20	2:1	225	151239
8-12	AFS43-08001200-30-15P-44	40	1.5	3	15	2:1	225	140941
8-12	AFS44-08001200-30-20P-44	40	1.5	3	20	2:1	250	140941
8-12	AFS5-08001200-12-10P-6	32	1	1.2	10	2:1	125	113384-6
8-12	AFSD5-08001200-25-26P	28	1.5	2.5	26	2:1	600	121045
*	AFSD5-080120-25-26P	28	1.5	2.5	26	2:1	600	121045
8-12	AFSD5-080120-25-26P-LPN	28	1.5	2.5	26	2:1	600	121045
8-12	AFSD5-080120-40-26P	28	1.5	4	26	2:1	600	121045
*	AFSM2-08001200-15-8P	20	1	1.5	8	2:1	100	133720
*	AFSW4-08001200-11	32	1	1.1	10	2:1	150	127846
*	AFSX3-08001200-28-10P	26	1	2.8	10	2:1	125	141108
*	AFTL4-08001200-11	32	1	1.1	10	2:1	150	127846
8-12	AVG4-08001200-DET-8	28	1	2	10	2:1	125	142299
8-12	IFS3-08001200-15P-LP	22	2	5	15	2:1	100	127362
8-12	IFS3-08001200-25-LP	24	1.5	2.5	8	2:1	80	127362
8-12	JS2-08001200-14-10P	15	1	1.4	10	2:1	125	128749
8-12	JS2-08001200-16-10P	15	1	1.8	10	2:1	125	128749
8-12	JS2-08001200-20-10P	15	1	2	10	2:1	125	128749
8-12	JS3-08001200-12-10P	28	1.2	1.2	10	2:1	175	128749
8-12	JS3-08001200-14-10P	28	1.2	1.4	10	2:1	175	128749
8-12	JS3-08001200-16-10P	28	1.2	1.6	10	2:1	175	128749
8-12	JS3-08001200-18-10P	28	1.2	1.8	10	2:1	175	128749
8-12	JS32-08001200-12-10P	43	1.7	1.2	10	2:1	295	129007
8-12	JS32-08001200-14-10P	43	1.7	1.4	10	2:1	295	129007
8-12	JS32-08001200-16-10P	43	1.7	1.6	10	2:1	295	129007
8-12	JS32-08001200-18-10P	43	1.7	1.8	10	2:1	295	129007
8-12	JS4-08001200-12-10P	35	1.2	1.2	10	2:1	200	128749
8-12	JS4-08001200-14-10P	35	1.2	1.4	10	2:1	200	128749
8-12	JS4-08001200-16-10P	35	1.2	1.6	10	2:1	200	128749
8-12	JS4-08001200-18-10P	38	1.2	1.8	10	2:1	200	128749
8-12	LCA-0812	25	1	1.8	10	2:1	150	154709
8-12	LCN-0812	25	1	1.8	10	2:1	150	154709
*	NSM3-08001200-11	24	1	1.1	8	2:1	80	120175
8-12.4	AFD2-080130-40	13	0.75	4	5	2:1	120	109174-2
8-12.4	AFD2-080130-45	13	0.75	4.5	5	2:1	120	109174-2
8-12.4	AFD2-080130-55	13	0.75	5.5	10	2:1	120	109174-2
8-12.4	AFD3-080130-40	19	1.5	4	10	2:1	180	109174-3
8-12.4	AFD3-080130-45	19	1.5	4.5	10	2:1	180	109174-3
8-12.4	AFD3-080130-55	19	1.5	5.5	10	2:1	180	109174-3
8-12.4	AFD4-080130-40	25	1.6	4	10	2:1	240	109174-4
8-12.4	AFD4-080130-45	25	1.6	4.5	10	2:1	240	109174-4
8-12.4	AFD4-080130-55	25	1.6	5.5	10	2:1	240	109174-4
8-12.4	AFD5-080130-40	31	1.7	4	10	2:1	300	109174-5
8-12.4	AFD5-080130-45	31	1.7	4.5	10	2:1	300	109174-5
8-12.4	AFD5-080130-55	31	1.7	5.5	10	2:1	300	109174-5
8-12.4	AFD6-080130-40	37	2	4	10	2:1	360	109174-6
8-12.4	AFD6-080130-45	37	2	4.5	10	2:1	360	109174-6
8-12.4	AFD6-080130-55	37	2	5.5	10	2:1	360	109174-6
8-16	AFS2-08001600-15-5P-2	16	1.5	1.5	5	2:1	50	113384-2
8-16	AFS3-08001600-15-8P-4	28	1	1.5	8	2:1	100	113384-4
8-16	AFS4-08001600-14-10P-4	34	1	1.4	10	2:1	125	113384-4
8-16	AFS5-08001600-14-10P-6	38	1	1.4	10	2:1	165	113384-6
8-16	AFS6-08001600-14-10P-6	42	1.5	1.4	10	2:1	200	113384-6
8-18	AFS2-08001800-25-5P-2	14	1.5	2.5	5	2:1	50	113384-2
8-18	AFS3-08001800-24-8P-4	20	1.5	2.4	8	2:1	100	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
8-18	AFS3-08001800-50-21P-4	18	2	5	21	2:1	275	113384-4	
8-18	AFS4-08001800-22-10P-4	28	2	2.2	10	2:1	125	113384-4	
8-18	AFS4-08001800-30-ULN	20	1.75	3	10	2:1	175	113384-4	
8-18	AFS4-08001800-35-LN	20	1.75	3.5	10	2:1	175	113384-4	
8-18	AFS5-08001800-22-13P-6	32	2	2.2	13	2:1	175	113384-6	
8-18	AFS5-08001800-40-21P-6	26	2.5	4	21	2:1	400	113384-6	
8-18	AFS6-08001800-22-15P-6	36	2	2.2	15	2:1	200	113384-6	
8-18	AFS8-08001800-40-21P-8	34	2.5	4	21	2:1	450	113384-8	
*	8-18	AFSX4-08001800-35-10P	20	2	3.5	10	2:1	150	141108
8-18	JS1-08001800-30-8P	8	1.2	3	8	2.3:1	80	128749	
8-18	JS1-08001800-33-8P	8	1.2	3.3	8	2.3:1	80	128749	
8-18	JS1-08001800-35-8P	8	1.2	3.5	8	2.3:1	80	128749	
8-18	JS2-08001800-28-8P	14	1.4	2.8	8	2.2:1	125	128749	
8-18	JS2-08001800-31-8P	14	1.4	3.1	8	2.2:1	125	128749	
8-18	JS2-08001800-35-10P	14	1.4	3.5	10	2.2:1	150	128749	
8-18	JS2-08001800-38-10P	14	1.4	3.8	10	2.2:1	150	128749	
8-18	JS3-08001800-16-8P	27	1.4	1.6	8	2:1	150	128749	
8-18	JS3-08001800-18-8P	27	1.4	1.8	8	2:1	150	128749	
8-18	JS3-08001800-20-10P	27	1.4	2	10	2:1	165	128749	
8-18	JS3-08001800-22-10P	27	1.4	2.2	10	2:1	165	128749	
8-18	JS4-08001800-16-8P	32	1.4	1.6	8	2:1	195	128749	
8-18	JS4-08001800-18-8P	32	1.4	1.8	8	2:1	195	128749	
8-18	JS4-08001800-20-8P	32	1.4	2	8	2:1	195	128749	
8-18	JS4-08001800-22-8P	32	1.4	2.2	8	2:1	195	128749	
8-18	JS41-08001800-16-8P	40	1.9	1.6	8	2.2:1	250	129007	
8-18	JS41-08001800-18-8P	40	1.9	1.8	8	2.2:1	250	129007	
8-18	JS41-08001800-20-8P	40	1.9	2	8	2.2:1	250	129007	
8-18	JS41-08001800-22-8P	40	1.9	2.2	8	2.2:1	250	129007	
8-18	JS42-08001800-16-8P	48	2	1.6	8	2.2:1	285	129007	
8-18	JS42-08001800-18-8P	48	2	1.8	8	2.2:1	285	129007	
8-18	JS42-08001800-20-10P	48	2	2	10	2.2:1	295	129007	
8-18	JS42-08001800-22-10P	48	2	2.2	10	2.2:1	295	129007	
8.5-9.6	AFS2-08500960-20-8P-2	16	0.5	2	8	1.5:1	60	113384-2	
8.5-9.6	AFS2-08500960-25-8P-2	16	0.5	2.5	8	1.5:1	60	113384-2	
8.5-9.6	AFS2-08500960-30-8P-2	16	0.5	3	8	1.5:1	60	113384-2	
8.5-9.6	AFS3-08500960-09-S-4	26	0.5	0.9	10	1.5:1	80	113384-4	
8.5-9.6	AFS3-08500960-15-10P-4	26	0.75	1.5	10	1.5:1	80	113384-4	
8.5-9.6	AFS3-08500960-20-10P-4	26	0.75	2	10	1.5:1	80	113384-4	
8.5-9.6	AFS3-08500960-25-10P-4	26	0.75	2.5	10	1.5:1	80	113384-4	
8.5-9.6	AFS3-08500960-30-10P-4	26	0.75	3	10	1.5:1	80	113384-4	
8.5-9.6	AFS4-08500960-09-S-4	32	0.75	0.9	10	1.5:1	125	113384-4	
8.5-9.6	AFS4-08500960-10-10P-4	32	0.5	1	10	1.5:1	125	113384-4	
8.5-9.6	AFS4-08500960-12-10P-4	32	0.75	1.2	10	1.5:1	125	113384-4	
8.5-9.6	AFS4-08500960-15-10P-4	32	0.75	1.5	10	1.5:1	125	113384-4	
8.5-9.6	AFS4-08500960-20-10P-4	32	0.75	2	10	1.5:1	125	113384-4	
8.5-9.6	AFS4-08500960-25-10P-4	32	0.75	2.5	10	1.5:1	125	113384-4	
8.5-9.6	AFS4-08500960-30-10P-4	32	0.75	3	10	1.5:1	125	113384-4	
8.5-9.6	AFS43-08500960-09-10P-44	50	1	0.9	10	1.5:1	200	140941	
8.5-9.6	JS3-08500960-11-10P	30	0.5	1.1	10	2:1	175	128749	
8.5-9.6	JS3-08500960-13-10P	30	0.5	1.3	10	2:1	175	128749	
8.5-9.6	JS3-08500960-15-10P	30	0.5	1.5	10	2:1	175	128749	
8.5-10.5	AFS3-08501050-20-10P-4	26	1	2	10	2:1	80	113384-4	
8.5-10.5	AFS3-08501050-25-10P-4	26	1	2.5	10	2:1	80	113384-4	
8.5-11.6	AFS2-08501160-15-8P-2	18	0.5	1.5	8	1.5:1	60	113384-2	
8.5-11.6	AFS3-08501160-09-S-4	26	0.5	0.9	10	1.5:1	100	113384-4	
8.5-11.6	AFS4-08501160-09-S-4	32	0.75	0.9	10	1.5:1	125	113384-4	
8.5-11.6	AFS4-08501160-14-10P-4	30	0.75	1.4	10	1.5:1	125	113384-4	
8.5-11.6	AFS4-08501160-18-10P-4	30	0.75	1.8	10	1.5:1	125	113384-4	
8.5-11.6	AFS43-08501160-09-10P-44	50	1	0.9	10	1.5:1	200	140941	
8.7-9.6	AFS3-08700960-30-10P-4	26	0.75	3	10	2:1	80	113384-4	
8.7-9.6	AFS3-08700960-60-20P-4	26	0.75	6	20	2:1	175	113384-4	
9-9.2	AFS3-09000920-08-S-4	26	0.5	0.8	10	1.5:1	80	113384-4	
9-9.2	AFS3-09000920-14-10P-4	24	0.75	1.4	10	1.5:1	80	113384-4	
9-9.2	AFS4-09000920-08-S-4	32	0.75	0.8	10	1.5:1	100	113384-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
9-9.2	AFS4-09000950-14-10P-4	28	0.75	1.4	10	1.5:1	100	113384-4
9-9.2	AFS6-09000920-14-10P-6	36	1.25	1.4	10	1.5:1	100	113384-6
9-9.5	AFS2-09000950-18-8P-2	18	0.75	1.8	8	1.5:1	60	113384-2
9-9.5	AFS3-09000950-09-10P-4	26	0.75	0.9	10	1.5:1	80	113384-4
9-9.5	AFS3-09000950-14-10P-4	25	0.75	1.4	10	1.5:1	80	113384-4
9-9.5	AFS4-09000950-08-S-4	32	0.75	0.8	10	1.5:1	125	113384-4
9-9.5	AFS4-09000950-10-10P-4	28	0.75	1	10	1.5:1	100	113384-4
9-9.5	AFS4-09000950-13-10P-4	28	0.75	1.3	10	1.5:1	100	113384-4
9-9.5	AFS4-09000950-16-10P-4	28	0.75	1.6	10	1.5:1	100	113384-4
9-9.5	AFS43-09000950-08-10P-44	45	1	0.8	10	1.5:1	150	140941
9-10	AFS3-09001000-09-S-4	26	0.5	0.9	10	1.5:1	100	113384-4
9-10	AFS4-09001000-09-S-4	32	0.75	0.9	10	1.5:1	125	113384-4
9-10	AFS43-09001000-09-10P-44	45	1	0.9	10	1.5:1	150	140941
9-10	AFS6-09001000-18-18P-6	30	1	1.8	18	2:1	175	113384-6
9-10	JS3-09001000-11-10P	30	0.7	1.1	10	2:1	175	128749
9-10	JS3-09001000-13-10P	30	0.7	1.3	10	2:1	175	128749
9-10	JS3-09001000-15-10P	30	0.7	1.5	10	2:1	175	128749
9-11	AFS3-09001100-09-S-4	26	0.5	0.9	10	1.5:1	80	113384-4
9-11	AFS4-09001100-09-S-4	32	0.75	0.9	10	1.5:1	100	113384-4
9-11	AFS4-09001100-14-10P-4	28	1	1.3	10	1.7:1	100	113384-4
9-11	AFS43-09001100-09-10P-44	45	1	0.9	10	1.5:1	175	140941
9-11	JS3-09001100-12-10P	30	1	1.2	10	2:1	175	128749
9-11	JS3-09001100-14-10P	30	1	1.4	10	2:1	175	128749
9-11	JS3-09001100-16-10P	30	1	1.6	10	2:1	175	128749
9.2-10.3	AFS3-09201030-30-13P-4	24	0.75	3	13	2:1	100	113384-4
9.3-9.5	AFS2-09300950-18-8P-2	18	0.75	1.8	8	1.5:1	60	113384-2
9.3-9.5	AFS3-09300950-08-S-4	26	0.5	0.8	10	1.5:1	80	113384-4
9.3-9.5	AFS3-09300950-14-10P-4	26	0.75	1.4	10	1.5:1	80	113384-4
9.3-9.5	AFS4-09300950-08-S-4	30	0.75	0.8	10	1.5:1	100	113384-4
9.3-9.5	AFS4-09300950-15-10P-4	28	0.75	1.5	10	1.5:1	100	113384-4
9.3-9.5	AFS43-09300950-08-10P-44	45	1	0.8	10	1.5:1	150	140941
9.3-9.5	AFS5-09300950-08-10P-5	36	0.75	0.8	10	1.5:1	150	113384-5
9.4-9.9	AFS2-09400990-20-8P-2	15	0.5	2	8	1.5:1	60	113384-2
9.4-9.9	AFS2-09400990-25-8P-2	15	0.5	2.5	8	1.5:1	60	113384-2
9.4-9.9	AFS2-09400990-30-8P-2	15	0.5	3	8	1.5:1	60	113384-2
9.4-9.9	AFS3-09400990-16-10P-4	26	0.75	1.6	10	1.5:1	80	113384-4
9.4-9.9	AFS3-09400990-20-10P-4	26	0.75	2	10	1.5:1	80	113384-4
9.4-9.9	AFS3-09400990-25-10P-4	26	0.75	2.5	10	1.5:1	80	113384-4
9.4-9.9	AFS3-09400990-30-10P-4	26	0.75	3	10	1.5:1	80	113384-4
9.4-9.9	AFS4-09400990-16-10P-4	30	0.75	1.6	10	1.5:1	100	113384-4
9.4-9.9	AFS4-09400990-20-10P-4	30	0.75	2	10	1.5:1	100	113384-4
9.4-9.9	AFS4-09400990-25-10P-4	30	0.75	2.5	10	1.5:1	100	113384-4
9.4-9.9	AFS4-09400990-30-10P-4	30	0.75	3	10	1.5:1	100	113384-4
9.4-10.2	AFS6-09401020-10-20P-6	36	1	1	20	2:1	200	113384-6
9.4-10.2	AFS6-09401020-15-20P-6	36	1	1.5	20	2:1	200	113384-6
9.5-10.5	AFS2-09501050-25-8P-2	15	0.5	2.5	8	1.5:1	60	113384-2
9.5-10.5	AFS2-09501050-30-8P-2	15	0.5	3	8	1.5:1	60	113384-2
9.5-10.5	AFS2-09501050-35-8P-2	15	0.5	3.5	8	1.5:1	60	113384-2
9.5-10.5	AFS2-09501050-40-8P-2	15	0.5	4	8	1.5:1	60	113384-2
9.5-10.5	AFS3-09501050-09-S-4	26	0.5	0.9	10	1.5:1	100	113384-4
9.5-10.5	AFS3-09501050-16-10P-4	26	0.75	1.6	10	1.5:1	100	113384-4
9.5-10.5	AFS3-09501050-20-10P-4	26	0.75	2	10	1.5:1	100	113384-4
9.5-10.5	AFS3-09501050-25-10P-4	26	0.75	2.5	10	1.5:1	100	113384-4
9.5-10.5	AFS3-09501050-30-10P-4	26	0.75	3	10	1.5:1	100	113384-4
9.5-10.5	AFS3-09501050-35-10P-4	26	0.75	3.5	10	1.5:1	100	113384-4
9.5-10.5	AFS4-09501050-09-S-4	32	0.75	0.9	10	1.5:1	125	113384
9.5-10.5	AFS4-09501050-20-10P-4	30	0.75	2	10	1.5:1	125	113384-4
9.5-10.5	AFS4-09501050-22-10P-4	30	0.75	2.2	10	1.5:1	125	113384-4
9.5-10.5	AFS4-09501050-25-10P-4	30	0.75	2.5	10	1.5:1	125	113384-4
9.5-10.5	AFS4-09501050-30-10P-4	30	0.75	3	10	1.5:1	125	113384-4
9.5-10.5	AFS4-09501050-35-10P-4	30	0.75	3.5	10	1.5:1	125	113384-4
9.5-10.5	AFS4-09501050-50-23P-4	30	1	5	23	2:1	225	113384-4
9.5-10.5	AFS5-09501050-09-10P-5	36	0.75	0.9	10	1.5:1	150	113384-5
9.5-10.5	AFS5-09501050-18-10P-5	32	1	1.8	10	1.5:1	150	113384-5

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
9.5–10.5	JS3-09501050-12-10P	30	0.7	1.2	10	1.8:1	175	128749
9.5–10.5	JS3-09501050-14-10P	30	0.7	1.4	10	1.8:1	175	128749
9.5–10.5	JS3-09501050-16-10P	30	0.7	1.6	10	1.8:1	175	128749
10–26	JSW42-10002600-23-10P	54	3.5	2.3	10	2.75:1	350	153613
10.2–10.8	JS3-10201080-11-10P	30	0.7	1.1	10	1.8:1	175	128749
10.2–10.8	JS3-10201080-13-10P	30	0.7	1.3	10	1.8:1	175	128749
10.2–10.8	JS3-10201080-15-10P	30	0.7	1.5	10	1.8:1	175	128749
10.5–10.7	AFS2-10501070-18-8P-2	18	0.75	1.8	8	1.5:1	60	113384-2
10.5–10.7	AFS3-10501070-09-S-4	26	0.5	0.9	10	1.5:1	100	113384-4
10.5–10.7	AFS3-10501070-18-10P-4	26	0.75	1.6	10	1.5:1	100	113384-4
10.5–10.7	AFS4-10501070-09-S-4	32	0.75	0.9	10	1.5:1	125	113384-4
10.5–10.7	AFS4-10501070-14-10P-4	32	0.75	1.4	10	1.5:1	125	113384-4
10.5–10.7	AFS4-10501070-16-10P-4	32	0.75	1.6	10	1.5:1	125	113384-4
10.5–10.7	AFS4-10501070-17-10P-4	32	0.75	1.7	10	1.5:1	125	113384-4
10.5–10.7	AFS43-10501070-09-10P-44	55	1	0.9	10	1.5:1	200	140941
10.5–10.7	AFS5-10501070-09-10P-5	32	0.75	0.9	10	1.5:1	125	113384-5
10.5–10.7	AFS5-10501070-16-10P-5	30	1	1.6	10	1.5:1	125	113384-5
10.5–10.7	AFS6-10501070-16-10P-6	34	1	1.6	10	1.5:1	125	113384-6
10.6–10.8	JSWS3-10601080-095-0P-40T	25	0.5	0.95	0	1.5:1	125	129698
10.7–11.7	AFS2-10701170-20-8P-2	16	0.5	2	8	1.5:1	60	113384-2
10.7–11.7	AFS2-10701170-25-8P-2	16	0.5	2.5	8	1.5:1	60	113384-2
10.7–11.7	AFS2-10701170-30-8P-2	16	0.5	3	8	1.5:1	60	113384-2
10.7–11.7	AFS2-10701170-35-8P-2	16	0.5	3.5	8	1.5:1	60	113384-2
10.7–11.7	AFS2-10701170-40-8P-2	16	0.5	4	8	1.5:1	60	113384-2
10.7–11.7	AFS3-10701170-09-S-4	26	0.5	0.9	10	1.5:1	100	113384-4
10.7–11.7	AFS3-10701170-15-10P-4	26	0.75	1.5	10	1.5:1	100	113384-4
10.7–11.7	AFS3-10701170-18-10P-4	26	0.75	1.8	10	1.5:1	100	113384-4
10.7–11.7	AFS3-10701170-20-10P-4	26	0.75	2	10	1.5:1	100	113384-4
10.7–11.7	AFS3-10701170-25-10P-4	26	0.75	2.5	10	1.5:1	100	113384-4
10.7–11.7	AFS3-10701170-30-10P-4	26	0.75	3	10	1.5:1	100	113384-4
10.7–11.7	AFS3-10701170-35-10P-4	26	0.75	3.5	10	1.5:1	100	113384-4
10.7–11.7	AFS4-10701170-09-S-4	30	0.75	0.9	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-10-10P-4	30	0.5	1	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-12-10P-4	30	0.75	1.2	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-14-10P-4	30	0.75	1.4	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-15-10P-4	30	0.75	1.5	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-20-10P-4	30	0.75	2	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-22-10P-4	30	0.75	2.2	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-25-10P-4	30	0.75	2.5	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-30-10P-4	30	0.75	3	10	1.5:1	125	113384-4
10.7–11.7	AFS4-10701170-35-10P-4	30	0.75	3.5	10	1.5:1	125	113384-4
10.7–11.7	AFS43-10701170-09-10P-44	50	1	0.9	10	1.5:1	200	140941
10.7–11.7	AFS5-10701170-09-S-5	34	0.75	0.9	10	1.5:1	150	113384-5
10.7–11.7	AFS5-10701170-15-10P-5	32	1	1.5	10	1.5:1	150	113384-5
10.7–11.7	AFS6-10701170-15-10P-6	36	1	1.5	10	1.5:1	150	113384-6
10.7–11.7	JS3-10701170-12-10P	30	0.7	1.2	10	1.8:1	175	128749
10.7–11.7	JS3-10701170-14-10P	30	0.7	1.4	10	1.8:1	175	128749
10.7–11.7	JS3-10701170-16-10P	30	0.7	1.6	10	1.8:1	175	128749
10.7–13.7	AFS2-10701370-22-10P-4	15	0.75	2.2	10	1.5:1	150	113384-4
10.7–13.7	AFS2-10701370-25-8P-2	14	0.5	2.5	8	1.5:1	80	113384-2
10.7–13.7	AFS3-10701370-20-10P-6	26	0.75	2	10	1.5:1	200	113384-6
10.7–13.7	AFS3-10701370-24-10P-4	18	0.75	2.4	10	1.5:1	250	113384-4
10.7–13.7	AFS4-10701370-18-10P-6	32	0.75	1.8	10	1.5:1	250	113384-6
10.7–13.7	AFS4-10701370-20-10P-4	24	0.75	2	10	1.5:1	150	113384-4
10.7–13.7	AFS5-10701370-18-10P-6	36	0.75	1.8	10	1.5:1	125	113384-6
10.7–13.7	AFS5-10701370-20-10P-5	28	0.75	2	10	1.5:1	150	113384-5
10.7–13.7	AFS6-10701370-20-10P-6	32	1	2	10	1.5:1	150	113384-6
10.95–11.75	AFS3-10951175-09-S-4	28	0.5	0.9	10	1.5:1	100	113384-4
10.95–11.75	AFS4-10951175-09-S-4	32	0.75	0.9	10	1.5:1	125	113384-4
10.95–11.75	AFS43-10951175-09-S-44	55	1	0.9	10	1.5:1	200	140941
10.95–11.75	AFS5-10951175-09-10P-5	36	0.75	0.9	10	1.5:1	150	113384-5
11.3–12.3	AFS4-11301230-17-10P-4	27	0.75	1.7	10	2:1	125	113384-4
11.3–12.3	AFS4-11301230-20-10P-4	27	0.75	2	10	2:1	125	113384-4
11.7–12.2	AFS2-11701220-20-8P-2	14	0.5	2	8	1.5:1	60	113384-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
11.7-12.2	AFS2-11701220-25-8P-2	14	0.5	2.5	8	1.5:1	60	113384-2	
11.7-12.2	AFS2-11701220-30-8P-2	14	0.5	3	8	1.5:1	60	113384-2	
11.7-12.2	AFS2-11701220-35-8P-2	14	0.5	3.5	8	1.5:1	60	113384-2	
11.7-12.2	AFS2-11701220-40-8P-2	14	0.5	4	8	1.5:1	60	113384-2	
11.7-12.2	AFS3-11701220-09-S-4	28	0.5	0.9	10	1.5:1	100	113384-4	
11.7-12.2	AFS3-11701220-15-10P-4	28	0.75	1.5	10	1.5:1	100	113384-4	
11.7-12.2	AFS3-11701220-21-10P-4	28	0.75	2.1	10	1.5:1	100	113384-4	
11.7-12.2	AFS3-11701220-25-10P-4	28	0.75	2.5	10	1.5:1	100	113384-4	
11.7-12.2	AFS3-11701220-30-10P-4	28	0.75	3	10	1.5:1	100	113384-4	
11.7-12.2	AFS3-11701220-35-10P-4	28	0.75	3.5	10	1.5:1	100	113384-4	
11.7-12.2	AFS4-11701220-09-S-4	32	0.75	0.9	10	1.5:1	125	113384-4	
11.7-12.2	AFS4-11701220-15-10P-4	32	0.75	1.5	10	1.5:1	125	113384-4	
11.7-12.2	AFS4-11701220-21-10P-4	32	0.75	2.1	10	1.5:1	125	113384-4	
11.7-12.2	AFS4-11701220-22-10P-4	32	0.75	2.2	10	1.5:1	125	113384-4	
11.7-12.2	AFS4-11701220-25-10P-4	32	0.75	2.5	10	1.5:1	125	113384-4	
11.7-12.2	AFS4-11701220-30-10P-4	32	0.75	3	10	1.5:1	125	113384-4	
11.7-12.2	AFS4-11701220-35-10P-4	32	0.75	3.5	10	1.5:1	125	113384-4	
11.7-12.2	AFS43-11701220-09-S-44	55	1	0.9	10	1.5:1	200	140941	
11.7-12.2	AFS5-11701220-09-10P-5	34	0.75	0.9	10	1.5:1	150	113384-5	
11.7-12.2	AFS5-11701220-15-10P-5	34	1	1.5	10	1.5:1	150	113384-5	
11.7-12.2	AFS6-11701220-15-10P-6	36	1	1.5	10	1.5:1	150	113384-6	
11.7-12.2	JS3-11701220-12-10P	30	0.7	1.2	10	2:1	175	128749	
11.7-12.2	JS3-11701220-14-10P	30	0.7	1.4	10	2:1	175	128749	
11.7-12.2	JS3-11701220-16-10P	30	0.7	1.6	10	1.8:1	175	128749	
12-18	AFS2-12001800-25-8P-2	12	1.5	2.5	8	2:1	75	113384-2	
*	12-18	AFS3-12001800-18-10P-4	20	1.5	1.8	10	2:1	100	113384-4
	12-18	AFS3-12001800-20-HE-4	15	1.5	2	0	25	113384-4	
*	12-18	AFS3-12001800-40-20P-4	18	1.25	4	20	350	113384-4	
	12-18	AFS4-12001800-16-CR-4	30	1.5	1.8	5	75	113384-4	
	12-18	AFS4-12001800-18-10P-4	28	1.5	1.8	10	125	113384-4	
*	12-18	AFS4-12001800-20-HE-4	28	1.5	2	0	40	113384-4	
	12-18	AFS4-12001800-28-ULN	20	1.5	2.8	10	175	113384-4	
	12-18	AFS4-12001800-32-LN	20	1.5	3.2	10	175	113384-4	
*	12-18	AFS5-12001800-18-10P-6	36	1.5	1.8	10	150	113384-6	
*	12-18	AFS5-12001800-40-20P-6	28	1	4	20	275	113384-6	
	12-18	AFS6-12001800-18-10P-6	40	1.75	1.8	10	200	113384-6	
	12-18	AFS6-12001800-30-20P-6	28	2	3	20	425	113384-6	
	12-18	AFS8-12001800-30-20P-8	36	1.5	3	20	450	113384-8	
*	12-18	AFSM3-12001800-25-8P	20	1	2.5	8	125	133720	
*	12-18	AFSX4-12001800-32-10P	20	2	3.2	10	125	141108	
	12-18	JS2-12001800-27-8P	14	1	2.7	8	125	128749	
	12-18	JS2-12001800-30-8P	14	1	3	8	125	128749	
	12-18	JS2-12001800-34-10P	14	1	3.4	10	150	128749	
	12-18	JS2-12001800-37-10P	14	1	3.7	10	150	128749	
	12-18	JS3-12001800-16-8P	31	1.2	1.6	8	200	128749	
	12-18	JS3-12001800-18-8P	31	1.2	1.8	8	200	128749	
	12-18	JS3-12001800-20-10P	31	1.2	2	10	200	128749	
	12-18	JS3-12001800-22-10P	31	1.2	2.2	10	200	128749	
	12-18	JS31-12001800-14-10P	44	1.6	1.4	8	250	129007	
	12-18	JS31-12001800-16-10P	44	1.6	1.6	8	250	129007	
	12-18	JS31-12001800-18-10P	44	1.6	1.8	8	250	129007	
	12-18	JS31-12001800-20-10P	44	1.6	2	8	250	129007	
	12-18	JS31-12001800-22-10P	44	1.6	2.2	8	250	129007	
	12-18	LCA-1218	25	1.5	2.8	10	150	154709	
	12-18	LCN-1218	30	1.5	2.8	10	150	154709	
*	12-24	AFS2-12002400-32-5P-2	10	1.5	3.2	5	40	113384-2	
	12-24	AFS3-12002400-30-5P-4	18	1.5	3	8	60	113384-4	
	12-24	AFS33-12002400-30-10P-44	36	2	3	10	120	140941	
	12-24	AFS4-12002400-30-10P-4	24	2	3	10	85	113384-4	
	12-26	AFS3-12002600-32-5P-4	16	2.5	3.2	5	125	113384-4	
	12-26	AFS32-12002600-32-5P-42	24	2.75	3.2	5	175	151239	
	12-26	AFS33-12002600-32-5P-44	32	3	3.2	5	250	140941	
	12-26	JS4-12002600-25-8P	33	2	2.5	8	195	125424	
	12-26	JS4-12002600-27-8P	33	2	2.7	8	195	125424	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
12-26	JS4-12002600-30-8P	33	2	3	8	2.2:1	195	125424	
12.2-12.8	AFS2-12201280-12-5P-2	14	0.75	1.2	5	1.4:1/1.5:1	80	113384-2	
12.2-12.8	AFS3-12201280-12-12P-4	20	0.75	1.2	12	1.3:1/1.5:1	150	113384-4	
12.2-12.8	AFS4-12201280-12-12P-4	25	0.75	1.2	12	2:1	200	113384-4	
12.2-12.8	JS3-12201280-13-8P	30	0.5	1.3	8	2:1	175	128749	
12.2-12.8	JS3-12201280-15-8P	30	0.5	1.5	8	2:1	175	128749	
12.2-12.8	JS3-12201280-17-8P	30	0.5	1.7	8	2:1	175	128749	
12.7-13.3	AFS2-12701330-13-5P-2	12	0.75	1.3	5	1.5:1	80	113384-2	
12.7-13.3	AFS3-12701330-13-10P-4	22	0.75	1.3	10	1.5:1	125	113384-4	
12.7-13.3	AFS4-12701330-13-10P-4	30	0.75	1.3	10	1.5:1	175	113384-4	
12.7-13.3	JS3-12701330-13-8P	30	0.5	1.3	8	2:1	175	128749	
12.7-13.3	JS3-12701330-15-8P	30	0.5	1.5	8	2:1	175	128749	
12.7-13.3	JS3-12701330-17-8P	30	0.5	1.7	8	2:1	175	128749	
13.2-14	AFS2-13201400-14-5P-2	12	0.75	1.4	5	1.5:1	80	113384-2	
13.2-14	AFS3-13201400-14-10P-4	22	0.75	1.4	10	1.5:1	125	113384-4	
13.2-14	AFS4-13201400-14-10P-4	30	0.75	1.4	10	1.5:1	175	113384-4	
13.2-14	JS3-13201400-14-8P	30	0.7	1.4	8	2:1	175	128749	
13.2-14	JS3-13201400-16-8P	30	0.7	1.6	8	2:1	175	128749	
13.2-14	JS3-13201400-18-8P	30	0.7	1.8	8	2:1	175	128749	
14-14.5	AFS2-14001450-14-10P-2	12	0.75	1.4	10	1.5:1	80	113384-2	
14-14.5	AFS3-14001450-14-10P-4	22	0.75	1.4	10	1.5:1	125	113384-4	
14-14.5	AFS4-14001450-14-10P-4	30	0.75	1.4	10	1.5:1	175	113384-4	
14-14.5	JS3-14001450-14-8P	30	0.7	1.4	8	2:1	175	128749	
14-14.5	JS3-14001450-16-8P	30	0.7	1.6	8	2:1	175	128749	
14-14.5	JS3-14001450-18-8P	30	0.7	1.8	8	2:1	175	128749	
14.5-15.5	AFS2-14501550-15-8P-2	12	0.75	1.5	8	1.5:1	80	113384-2	
14.5-15.5	AFS3-14501550-15-10P-4	22	0.75	1.5	10	1.5:1	125	113384-4	
14.5-15.5	AFS4-14501550-15-10P-4	30	0.75	1.5	10	1.5:1	175	113384-4	
14.5-15.5	JS4-14501550-15-8P	35	0.7	1.5	8	2:1	195	128749	
14.5-15.5	JS4-14501550-17-8P	35	0.7	1.7	8	2:1	195	128749	
14.5-15.5	JS4-14501550-19-8P	35	0.7	1.9	8	2:1	195	128749	
15.5-16.5	JS4-15501650-15-8P	35	0.7	1.5	8	2:1	195	128749	
15.5-16.5	JS4-15501650-17-8P	35	0.7	1.7	8	2:1	195	128749	
15.5-16.5	JS4-15501650-19-8P	35	0.7	1.9	8	2:1	195	128749	
16.4-17.1	JS4-16401710-15-8P	35	0.7	1.5	8	2:1	195	128749	
16.4-17.1	JS4-16401710-17-8P	35	0.7	1.7	8	2:1	195	128749	
16.4-17.1	JS4-16401710-19-8P	35	0.75	1.9	8	2:1	195	128749	
17-17.5	AFS2-17001750-16-8P-2	10	0.75	1.6	8	1.8:1	80	113384-2	
17-17.5	AFS3-17001750-16-10P-4	18	0.75	1.6	10	1.8:1	125	113384-4	
17-17.5	AFS4-17001750-16-10P-4	26	0.75	1.6	10	1.8:1	175	113384-4	
17.1-18.4	JS4-17101840-17-8P	35	0.7	1.7	8	2:1	195	128749	
17.1-18.4	JS4-17101840-19-8P	35	0.7	1.9	8	2:1	195	128749	
17.1-18.4	JS4-17101840-21-8P	35	0.7	2.1	8	2:1	195	128749	
17.9-19.2	JS3-17901920-17-8P	27	0.8	1.7	8	2:1	195	128749	
17.9-19.2	JS3-17901920-19-8P	27	0.8	1.9	8	2:1	195	128749	
17.9-19.2	JS3-17901920-21-8P	27	0.8	2.1	8	2:1	195	128749	
18-26	JS2-18002600-35-5P	13	1.5	3.5	5	2.3:1	100	128749	
18-26	JS2-18002600-40-5P	13	1.5	4	5	2.3:1	100	128749	
18-26	JS2-18002600-45-5P	13	1.5	4.5	5	2.3:1	100	128749	
**	18-26	JS4-18002600-22-10P	35	1.5	2.2	10	2:1	195	125424
**	18-26	JS4-18002600-24-10P	35	1.5	2.4	10	2:1	195	125424
**	18-26	JS4-18002600-26-10P	35	1.5	2.6	10	2:1	195	125424
**	18-26	JS4-18002600-28-10P	35	1.5	2.8	10	2:1	195	125424
**	18-26	JS42-18002600-23-5P	48	2.5	2.3	5	2.3:1	300	147321
**	18-26	JS42-18002600-25-5P	48	2.5	2.5	5	2.3:1	300	147321
**	18-26	JS42-18002600-27-5P	48	2.5	2.7	5	2.3:1	300	147321
**	18-26	JS42-18002600-29-5P	48	2.5	2.9	5	2.3:1	300	147321
**	18-26	JSW4-18002600-20-5A	34	1.5	2	5	2:1	200	162868
**	18-26	JSW4-18002600-21-8P	34	1.5	2.1	8	2.3:1	200	162868
18-26.5	AFS2-18002650-35-5P-2	10	1.75	3.5	5	2.2:1/2:1	50	113384-2	
18-26.5	AFS3-18002650-30-8P-4	18	1.75	3	8	2.2:1	125	113384-4	
18-26.5	AFS32-18002650-30-8P-42	30	2.5	3	8	2.2:1	175	151239	
18-26.5	AFS33-18002650-30-8P-44	38	3	3	8	2.2:1	200	140941	
18-40	JS2-18004000-40-5P	11	2.5	4	5	2.5:1	100	128749	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING	
18-40	JS2-18004000-45-5P	11	2.5	4.5	5	2.5:1	100	128749	
18-40	JS2-18004000-50-5P	11	2.5	5	5	2.5:1	100	128749	
18-40	JS3-18004000-35-5P	16	2.5	3.5	5	2.5:1	150	128749	
18-40	JS3-18004000-40-5P	16	2.5	4	5	2.5:1	150	128749	
18-40	JS3-18004000-43-15P	32	2.5	4.3	15	2.5:1	600	128446	
18-40	JS3-18004000-45-15P	32	2.5	4.5	15	2.5:1	600	128446	
18-40	JS3-18004000-45-5P	16	2.5	4.5	5	2.5:1	150	128749	
18-40	JS3-18004000-50-15P	32	2.5	5	15	2.5:1	600	128446	
18-40	JS3-18004000-55-15P	32	2.5	5.5	15	2.5:1	600	128446	
**	18-40	JS4-18004000-33-8P	23	2.5	3.3	8	2.5:1	200	128749
**	18-40	JS4-18004000-35-8P	23	2.5	3.5	8	2.5:1	200	128749
**	18-40	JS4-18004000-40-8P	23	2.5	4	8	2.5:1	200	128749
**	18-40	JS4-18004000-45-8P	23	2.5	4.5	8	2.5:1	200	128749
**	18-40	JS42-18004000-33-5P	35	3.5	3.3	5	2.5:1	300	129007
**	18-40	JS42-18004000-35-5P	35	3.5	3.5	5	2.5:1	300	129007
**	18-40	JS42-18004000-40-5P	35	3.5	4	5	2.5:1	300	129007
**	18-40	JS42-18004000-45-5P	35	3.5	4.5	5	2.5:1	300	129007
	18-40	JS44-18004000-33-8P	48	3.5	3.3	8	2.5:1	400	129007
	18-40	JS44-18004000-35-8P	48	3.5	3.5	8	2.5:1	400	129007
	18-40	JS44-18004000-40-8P	48	3.5	4	8	2.5:1	400	129007
	18-40	JS44-18004000-45-8P	48	3.5	4.5	8	2.5:1	400	129007
	18-40	JSDW4-18004000-35-5P	22	3.2	3.5	5	2.5:1	180	131031
	18-40	JSW4-18004000-35-5A	21	2.5	3.5	5	2.5:1	250	131031
18.5-19.5	JS3-18501950-18-8P	27	0.7	1.8	8	2:1	195	128749	
18.5-19.5	JS3-18501950-20-8P	27	0.7	2	8	2:1	195	128749	
18.5-19.5	JS3-18501950-22-8P	27	0.7	2.2	8	2:1	195	128749	
19.2-20.2	JS3-19202020-18-8P	27	0.7	1.8	8	2:1	195	128749	
19.2-20.2	JS3-19202020-20-8P	27	0.7	2	8	2:1	195	128749	
19.2-20.2	JS3-19202020-22-8P	27	0.7	2.2	8	2:1	195	128749	
19.2-20.2	JSWK4-19202020-30-10P	34	1	3	10	2:1	220	142455	
*	20.2-21.2	AFS2-20202120-30-5P-2	10	1	3	5	1.5:1	40	113384-2
	20.2-21.2	AFS3-20202120-25-8P-4	18	1	2.5	8	1.5:1	80	113384-4
	20.2-21.2	AFS4-20202120-25-8P-4	24	1	2.5	8	1.5:1	175	113384-4
	20.2-21.2	JS3-20202120-18-8P	27	0.7	1.8	8	2:1	195	128749
	20.2-21.2	JS3-20202120-20-8P	27	0.7	2	8	2:1	195	128749
	20.2-21.2	JS3-20202120-22-8P	27	0.7	2.2	8	2:1	195	128749
	21-22	JS3-21002200-19-8P	27	0.7	1.9	8	2:1	195	128749
	21-22	JS3-21002200-21-8P	27	0.7	2.1	8	2:1	195	128749
	21-22	JS3-21002200-23-8P	27	0.7	2.3	8	2:1	195	128749
	21-24	JS4-21002400-21-10P	36	1	2.1	10	2:1	200	125424
	21-24	JS4-21002400-25-10P	36	1	2.5	10	2:1	200	125424
	21-24	JS42-21002400-20-5P	50	1.6	2	5	2:1	300	147321
	21-24	JS42-21002400-24-5P	50	1.6	2.4	5	2:1	300	147321
	21-24	JS42-21002400-28-5P	50	1.6	2.8	5	2:1	300	147321
*	21.2-24	AFS2-21202400-35-5P-2	8	1	3.5	5	2:1	40	113384-2
	21.2-24	AFS3-21202400-28-8P-4	16	1	2.8	8	2:1	80	113384-4
	21.2-24	AFS4-21202400-28-10P-4	23	1	2.8	10	2:1	100	113384-4
	22-26.5	JS4-22002650-23-8P	36	1.3	2.3	8	2.3:1	200	125424
	22-26.5	JS4-22002650-25-8P	36	1.3	2.5	8	2.3:1	200	125424
	26-33	JS4-26003300-26-8P	27	1.8	2.6	8	2:1	200	125424
	26-33	JS4-26003300-30-8P	25	1.8	3	8	2.3:1	200	128749
	26-33	JS4-26003300-35-8P	25	1.8	3.5	8	2.3:1	200	128749
	26-40	JS1-26004000-100-16P	17	2.5	10	16	2.5:1	600, 100 ⁽⁴⁾	131484
	26-40	JS1-26004000-100-17P	17	2.5	10	17	2.5:1	600, 100 ⁽⁴⁾	131484
	26-40	JS1-26004000-100-18P	17	2.5	10	18	2.5:1	600, 100 ⁽⁴⁾	131484
	26-40	JS1-26004000-100-19P	17	2.5	10	19	2.5:1	600, 100 ⁽⁴⁾	131484
	26-40	JS2-26004000-40-5P	12	2.5	4	5	2.5:1	100	128749
	26-40	JS2-26004000-45-5P	12	2.5	4.5	5	2.5:1	100	128749
	26-40	JS2-26004000-50-5P	12	2.5	5	5	2.5:1	100	128749
	26-40	JS3-26004000-35-5P	17	2.5	3.5	5	2.5:1	150	128749
	26-40	JS3-26004000-40-5P	17	2.5	4	5	2.5:1	150	128749
	26-40	JS3-26004000-43-15P	32	2.5	4.3	15	2.5:1	600, 100 ⁽⁴⁾	128446
	26-40	JS3-26004000-45-15P	32	2.5	4.5	15	2.5:1	600, 100 ⁽⁴⁾	128446

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (4) Requires both ±15 VDC.

AMPLIFIERS BY FREQUENCY (CONT.)

FREQUENCY RANGE (GHz)	MODEL NUMBER	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
26-40	JS3-26004000-45-5P	17	2.5	4.5	5	2.5:1	150	128749
26-40	JS3-26004000-50-15P	32	2.5	5	15	2.5:1	600, 100 ⁽⁴⁾	128446
26-40	JS3-26004000-55-15P	32	2.5	5.5	15	2.5:1	600, 100 ⁽⁴⁾	128446
26-40	JS4-26004000-28-8P	22	2.8	2.8	8	2.2:1	200	125424
26-40	JS4-26004000-33-10P	23	2.5	3.3	10	2.5:1	200	128749
26-40	JS4-26004000-35-10P	23	2.5	3.5	10	2.5:1	200	128749
26-40	JS4-26004000-40-10P	23	2.5	4	10	2.5:1	200	128749
26-40	JS4-26004000-45-10P	23	2.5	4.5	10	2.5:1	200	128749
26-40	JS41-26004000-35-18P	43	3.8	3.5	18	2.5:1	800, 100 ⁽⁴⁾	144663
26-40	JS41-26004000-40-18P	43	3.8	4	18	2.5:1	800, 100 ⁽⁴⁾	144663
26-40	JS41-26004000-45-18P	43	3.8	4.5	18	2.5:1	800, 100 ⁽⁴⁾	144663
26-40	JS41-26004000-50-18P	43	3.8	5	18	2.5:1	800, 100 ⁽⁴⁾	144663
26-40	JS41-26004000-55-18P	43	3.8	5.5	18	2.5:1	800, 100 ⁽⁴⁾	144663
26-40	JS42-26004000-31-5P	37	3.5	3.1	5	2.5:1	300	129007
26-40	JS42-26004000-33-5P	37	3.5	3.3	5	2.5:1	300	129007
26-40	JS42-26004000-35-5P	37	3.5	3.5	5	2.5:1	300	129007
26-40	JS42-26004000-40-5P	37	3.5	4	5	2.5:1	300	129007
26-40	JS42-26004000-45-5P	37	3.5	4.5	5	2.5:1	300	129007
26-40	JSDWK42-26004000-35-5P	37	4.2	3.5	5	2.5:1	325	137623
26-40	JSW3-26004000-90-21P	17	2	9	20	2:1	350	132079
26-40	JSW4-26004000-27-8P	25	2.5	2.7	8	2:1	200	149788
26-40	JSW4-26004000-28-5A	25	2.5	2.8	5	2.2:1/2:1	200	148788
26.5-40	JSW4-26004000-29-8P	28	2.8	2.9	5	2.5:1	180	149788
27.5-31	JS4-27503100-26-8P	27	1.6	2.6	8	2:1	200	125424
27.5-31	JS4-27503100-30-8P	25	1.5	3	8	2:1	200	128749
27.5-31	JS4-27503100-35-8P	25	1.5	3.5	8	2:1	200	128749
28-30	JS4-28003000-26-8P	27	1	2.6	8	2:1	200	125424
28-30	JS4-28003000-30-8P	25	1	3	8	2:1	200	128749
28-30	JS4-28003000-35-8P	25	1	3.5	8	2:1	200	128749
30-30.5	JSW4-30003050-70-12P	16	0.35	7	12	1.5:1	250	149788
30-33	JS4-30003300-26-8P	27	1.4	2.6	8	2:1	200	125424
30-33	JS4-30003300-30-8P	25	1.2	3	8	2:1	200	128749
30-33	JS4-30003300-35-8P	25	1.2	3.5	8	2:1	200	128749
30-40	JS4-30004000-30-8P	24	2.3	3	8	2.5:1	200	128749
30-40	JS4-30004000-33-8P	24	2.3	3.3	8	2.5:1	200	128749
30-40	JS4-30004000-36-8P	24	2.3	3.6	8	2.5:1	200	128749
30-50	JSW4-30005000-45-5A	21	2.5	4.5	5	2.5:1	250	130002
32-36	JS4-32003600-27-8P	28	1.8	2.7	8	2:1	200	125424
32-36	JS4-32003600-30-8P	25	1.5	3	8	2:1	200	128749
32-36	JS4-32003600-33-8P	25	1.5	3.3	8	2:1	200	128749
32-36	JS4-32003600-36-8P	25	1.5	3.6	8	2:1	200	128749
32.2-33	JSWK4-32203300-36-0P	20	1	3.6	5	2:1	100	142463
33-35	JSW4-33003500-30-10P	23	2	3	15	1.5:1	200	132076
*	33-36	JSW4-33003600-30-13P	21	2	3	2:1	120	132076
34-34.3	JSW4-34003430-30-14P	25	0.5	2.8	14	1.5:1	115	132076
36-38	JSWK4-36003800-28-0P-40T	25	0.5	2.5	0	1.5:1	125	142463
36-40	JS4-36004000-28-8P	27	1.8	2.8	8	2.2:1	200	125424
36-40	JS4-36004000-30-8P	24	1.6	3	8	2.3:1	200	128749
36-40	JS4-36004000-33-8P	24	1.6	3.3	8	2.3:1	200	128749
36-40	JS4-36004000-36-8P	24	1.6	3.6	8	2.3:1	200	128749
40-60	JS5-40006000-60-0P	20	2.5	6	5	2.75:1	150	138658
40-60	JSW4-40006000-55-0A	16	2.5	5.5	0	2.5:1	250	130001
40-60	JSW4-40006000-60-0A	18	2.5	6	5	2.5:1	175	130001
40-60	JSWV4-40006000-60-0P	20	2.8	6		2.75:1	150	129013
45.5-51	JSW5-45505100-45-0P	20	2.5	4.5	27	2.5:1	120	130002
50.5-51.5	JSW4-50505150-40-0P	25	2	4	0	2:1	250	130001
55-67	JDM2W-55006700-50-10P	25	2.5	5	13	3:1/2.75:1	150	148727

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (4) Requires both ±15 VDC.

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NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (\pm dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT @ 1 dB @ (dBm, Min.)
JS4-00101800-28-10P	0.1-18	29			
JS4-00101800-30-10P	0.1-18	29			
JS4-00101800-32-10P	0.1-18	29			
JS4-00102000-29-10P	0.1-20	29	1.8	2.8	
JS4-00102000-31-10P	0.1-20	29	1.8	3	10
JS4-00102000-33-10P	0.1-20	29	1.8	3.2	10
JS4-00102600-30-10P	0.1-20	29	1.9	2.9	10
JS4-00102600-33-10P	0.1-20	29	1.9	3.1	10
JS4-00102600-35-10P	0.1-26	28	1.9	3.3	10
JS4-00104000-55-5P	0.1-26	28	2.5	3.5	10
JS4-00104000-58-5P	0.1-26	28	2.5	3	10
JS4-00104000-62-5P	0.1-40	28	2.5	3.3	10
JS4-00101000-21-10P	0.1-40	30	2.5	3.5	10
JS4-00101000-23-10P	0.1-40	30	3	3.8	10
JS4-00101000-25-10P	0.1-10	30	3	5.5	10
JS4-00101000-28-10P	0.1-10	30	3	6	10
JS4-00101000-30-10P	0.1-10	30	3	6	10
JS4-00101200-22-10P	0.1-10	30	3	6	10
JS4-00101200-24-10P	0.1-10	30	3	6	10
JS4-00101200-26-10P	0.1-10	30	3	6	10
JS4-00101200-28-10P	0.1-12	40	3	6	10
JS4-00101200-30-10P	0.1-12	40	3	6	10
JS4-00101500-23-10P	0.1-12	40	3	6	10
JS4-00101500-25-10P	0.1-12	40	3	6	10
JS4-00101500-27-10P	0.1-12	40	3	6	10
JS4-00101500-29-10P	0.1-15	40	2.2	10	2.5:1
JS4-00101500-31-10P	0.1-15	40	2.4	10	2.5:1
JS4-00101500-33-10P	0.1-15	40	2.6	10	2.5:1
JS4-00101500-35-10P	0.1-15	40	2.8	10	2.5:1
JS4-00101500-37-10P	0.1-15	40	3	10	2.5:1
JS4-00101500-39-10P	0.1-18	40	2.3	10	2.5:1
JS4-00101500-41-10P	0.1-18	40	2.5	10	2.5:1
JS4-00101500-43-10P	0.1-18	40	2.7	10	2.5:1
JS4-00101500-45-10P	0.1-18	40	2.9	10	2.5:1
JS4-00101500-47-10P	0.1-18	40	3.1	10	2.5:1
JS4-00101500-49-10P	0.1-20	40	2.4	10	2.5:1
JS4-00101500-51-10P	0.1-20	40	2.6	10	2.5:1
JS4-00101500-53-10P	0.1-20	40	2.8	10	2.5:1
JS4-00101500-55-10P	0.1-20	40	3	10	2.5:1
JS4-00101500-57-10P	0.1-20	40	3.2	10	2.5:1
JS4-00101500-59-10P	0.1-20	40	2.7	10	2.5:1
JS4-00101500-61-10P	0.1-40	40	2.9	10	2.5:1
JS4-00101500-63-10P	0.1-40	40	3.1	10	2.5:1
JS4-00101500-65-10P	0.1-40	40	3.3	10	2.5:1
JS4-00101500-67-10P	0.1-40	40	3.5	10	2.5:1
JS4-00101500-69-10P	0.1-10	40	5.8	10	2.5:1
JS4-00101500-71-10P	0.1-10	47	6.2	10	2.5:1
JS4-00101500-73-10P	0.1-10	47	6.5	10	2.5:1
JS4-00101500-75-10P	0.1-10	47	2.1	8	2.5:1
JS4-00101500-77-10P	0.1-12	47	2.3	8	2.5:1
JS4-00101500-79-10P	0.1-12	47	2.5	10	2.5:1
JS4-00101500-81-10P	0.1-12	47	2.8	10	2.5:1
JS4-00101500-83-10P	0.1-12	47	3	10	2.5:1

Amplifiers

BY CATEGORY

LOW NOISE

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFD1-010020-17P	1-2	11	0.75	3.5	17	2:1	125	109888
AFD1-010020-20P	1-2	11	0.75	3.5	20	2:1	150	109888
AFD1-010020-23P	1-2	11	0.75	4	23	2:1	200	109888
AFD1-010020-23P-SP	1-2	11	1	4	23	2:1	200	109888
AFD1-010020-25P	1-2	11	0.75	4.5	25	2:1	250	109888
AFD1-010020-25P-MP	1-2	12	1	4	25	2:1	250	109888
* AFPD44-00100400-20P	0.1-4	30	2	4	20	2:1	450	116630
AFPD44-00100400-25	0.1-4	32	2	2.5	10	2:1	375	116630
* AFPD44-00101200-20P	0.1-12	30	2.5	6	20	2:1	500	116630
* AFPD44-00101200-30	0.1-12	32	2	3	10	2:1	375	116630
* AFPD44-00102000-20P	0.5-20	26	3	6	20	2.5:1	650	116630
* AFPD44-00102000-50	0.1-20	32	3	5	10	2.5:1	400	116630
* AFPD44-00500200-20	0.5-2	35	2	2	10	2:1	350	116630
* AFPD44-00500200-20P	0.5-2	35	2	4	20	2:1	650	116630
AFS1-00010100-20-25P-4	0.01-1	16	1.5	2	25	2.5:1	200	113384-4
AFS1-00040200-12-10P-4	0.04-2	15	1.5	1.2	10	2:1	50	113384-4
AFS1-00100100-11-10P-4	0.1-1	14	1	1.1	10	2.5:1	50	113384-4
* AFS1-00100100-16-23P-4	0.1-1	15	1	1.6	23	2:1	125	113384-4
AFS1-00100100-18-23P-4	0.1-1	13	1	1.8	23	2:1	175	113384-4
AFS1-00100200-11-12P-4	0.1-2	14	1.5	1.1	12	2:1	75	113384-4
AFS1-00100200-16-20P-4	0.1-2	12	1.75	1.6	20	2:1	175	113384-4
AFS1-00100200-18-20P-4	0.1-2	14	1.75	1.8	20	2:1	175	113384-4
AFS1-00100300-14-8P-4	0.1-3	10	1.5	1.4	8	2:1	75	113384-4
AFS1-00120025-10-13P-4	0.12-0.25	15	0.75	1	13	2.5:1/2:1	75	113384-4
AFS1-00240027-08-10P-4	0.24-0.27	16	0.25	0.8	10	2:1	50	113384-4
AFS1-00250050-09-10P-4	0.25-0.5	16	0.5	0.9	10	2:1	50	113384-4
AFS1-00300140-10-10P-4	0.3-1.4	14	1	1	10	2:1	50	113384-4
AFS1-00500060-08-15P-4	0.5-0.6	17	0.25	0.8	15	1.8:1	100	113384-4
AFS1-00500100-08-10P-4	0.5-1	16	1	0.8	10	2:1	50	113384-4
* AFS1-00500100-50-17P-4	0.5-1	10	1	5	17	2.5:1	150	113384-4
AFS1-00500200-10-10P-4	0.5-2	14	1.5	1	10	2:1	50	113384-4
AFS1-00700080-08-13P-4	0.7-0.8	16	0.5	0.8	13	1.8:1	80	113384-4
AFS1-00800100-08-13P-4	0.8-1	16	0.5	0.8	13	1.8:1	80	113384-4
AFS1-00900120-08-13P-4	0.9-1.2	16	0.5	0.8	13	1.5:1	80	113384-4
AFS1-00950145-08-10P-4	0.95-1.45	16	0.5	0.8	10	1.5:1	80	113384-4
AFS1-00950175-08-10P-4	0.95-1.75	14	0.5	0.8	10	1.8:1	80	113384-4
AFS1-01000200-11-15P-4	1-2	14	1	1.1	15	2:1	75	113384-4
* AFS1-01000200-16-20P-4	1-2	14	0.75	1.6	20	2:1	150	113384-4
AFS2-00010100-16-25P-6	0.01-1	25	1.5	1.6	25	2:1/2.5:1	275	113384-6
* AFS2-00010100-30-25P-6	0.01-1	25	1.5	3	25	2:1/2.5:1	250	113384-6
AFS2-00050100-20-27P-6	0.05-1	28	1.5	2	27	2:1/2.5:1	275	113384-6
AFS2-00100050-13-LN	0.1-0.5	25	1	1.3	10	2:1	125	113384-2
AFS2-00100100-10-10P-2	0.1-1	25	1	1	10	2:1	100	113384-2
AFS2-00100100-15-25P-6	0.1-1	25	2	1.5	25	2:1	225	113384-6
AFS2-00100100-25-25P-6	0.1-1	22	2	2.5	25	2:1/2.5:1	225	113384-6
AFS2-00100200-10-12P-2	0.1-2	23	1	1	12	2:1	100	113384-2
AFS2-00100200-20-23P-2	0.1-2	22	1.5	2	23	2:1	225	113384-2
* AFS2-00100200-25-23P-2	0.1-2	22	1.5	2.5	23	2:1	225	113384-2
AFS2-00100200-30-23P-4	0.1-2	22	1.5	3	23	2:1	200	113384-4
AFS2-00100300-12-10P-2	0.1-3	20	1.25	1.2	10	2:1	100	113384-2
AFS2-00100300-30-20P-4	0.1-3	20	1.25	3	20	2:1	200	113384-4
AFS2-00100400-15-10P-4	0.1-4	20	1.25	1.5	10	2:1	80	113384-4
AFS2-00100400-25-10P-2	0.1-4	20	1.5	2.5	10	2:1	80	113384-2
AFS2-00100400-27-10P-2	0.1-4	20	1.5	2.7	10	2:1	80	113384-2
AFS2-00100400-30-10P-2	0.1-4	20	1.5	3	10	2:1	80	113384-2
AFS2-00100400-35-10P-2	0.1-4	20	1.5	3.5	10	2:1	80	113384-2
AFS2-00100600-15-10P-2	0.1-6	16	1.25	1.5	10	2:1	100	113384-2
AFS2-00100600-25-10P-2	0.1-6	16	1.2	2.5	10	2:1	100	113384-2
AFS2-00100600-30-10P-2	0.1-6	20	1.2	3	10	2:1	100	113384-2
AFS2-00100600-35-10P-2	0.1-6	20	1.2	3.5	10	2:1	100	113384-2
AFS2-00100600-40-10P-2	0.1-6	20	1.2	4	10	2:1	100	113384-2
AFS2-00100600-45-10P-2	0.1-6	20	1.2	4.5	10	2:1	100	113384-2
AFS2-00100800-15-S-2	0.1-8	20	1.5	1.5	10	2:1	80	113384-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS2-00100800-20-8P-2	0.1-8	20	1.5	2	8	2:1	80	113384-2
AFS2-00100800-25-8P-2	0.1-8	20	1.5	2.5	8	2:1	80	113384-2
AFS2-00100800-33-10P-2	0.1-8	20	1.2	3.3	10	2:1	100	113384-2
AFS2-00100800-35-10P-2	0.1-8	20	1.2	3.5	10	2:1	100	113384-2
AFS2-00100800-35-8P-2	0.1-8	20	1.2	3.5	8	2:1	80	113384-2
AFS2-00100800-40-10P-2	0.1-8	20	1.2	4	10	2:1	150	113384-2
AFS2-00100800-45-10P-2	0.1-8	20	1.2	4.5	10	2:1	150	113384-2
AFS2-00101000-22-8P-2	0.1-10	16	1.5	2.2	8	2:1	100	113384-2
AFS2-00101000-46-8P-2	0.1-10	16	1.5	4.6	8	2:1	100	113384-2
AFS2-00101000-50-8P-2	0.1-10	16	1.5	5	8	2:1	100	113384-2
AFS2-00101000-55-8P-2	0.1-10	16	1.5	5.5	8	2:1	100	113384-2
AFS2-00101000-60-8P-2	0.1-10	16	1.5	6	8	2:1	100	113384-2
AFS2-00101200-25-8P-2	0.1-12	14	1.5	2.5	8	2:1	80	113384-2
AFS2-00101200-48-8P-2	0.1-12	15	1.5	4.8	8	2:1	175	113384-2
AFS2-00101200-50-8P-2	0.1-12	15	1.5	5	8	2:1	175	113384-2
AFS2-00101200-55-8P-2	0.1-12	15	1.5	5.5	8	2:1	175	113384-2
AFS2-00101400-30-5P-2	0.1-14	14	1.5	3	5	2.5:1	100	113384-2
AFS2-00101600-30-8P-2	0.1-16	12	1.5	3	8	2.5:1	125	113384-2
AFS2-00101800-30-8P-2	0.1-18	12	2	3	8	2.5:1	125	113384-2
AFS2-00101800-55-8P-2	0.1-18	12	2	5.5	8	2.5:1	125	113384-2
AFS2-00101800-65-8P-2	0.1-18	12	1.5	6.5	8	2.5:1	150	113384-2
AFS2-00102000-40-5P-2	0.1-20	10	2	4	5	2.5:1	75	113384-2
AFS2-00102650-55-8P-4	0.1-26.5	8	2.5	5.5	8	2.5:1	100	113384-4
AFS2-00120025-09-10P-2	0.12-0.25	25	0.5	0.9	10	2:1	100	113384-2
AFS2-00240027-08-10P-2	0.24-0.27	28	0.25	0.8	10	2:1	75	113384-2
AFS2-00250050-08-10P-2	0.25-0.5	25	0.5	0.8	10	2:1	75	113384-2
AFS2-00300140-09-10P-4	0.3-1.4	25	1	0.9	10	2:1	100	113384-4
AFS2-00400350-12-10P-4	0.4-3.5	22	1.5	1.2	10	2:1	80	113384-4
AFS2-00500060-06-10P-6	0.5-0.6	25	0.25	0.6	10	1.8:1	125	113384-6
AFS2-00500100-06-10P-6	0.5-1	28	0.75	0.6	10	2:1/1.5:1	100	113384-6
AFS2-00500100-10-ULN	0.5-1	23	1	1	10	2:1	125	113384-2
AFS2-00500100-12-LN	0.5-1	23	1	1.2	10	2:1	125	113384-2
AFS2-00500200-08-15P-2	0.5-2	25	1	0.8	15	2:1	100	113384-2
AFS2-00500400-20P-MP	0.5-4	24	1.5	4	20	2:1/2.5:1	250	113384-4
AFS2-00700080-06-10P-6	0.7-0.8	28	0.5	0.6	10	1.8:1	90	113384-6
AFS2-00900120-06-10P-6	0.9-1.2	28	0.5	0.6	10	1.8:1	90	113384-6
* AFS2-00950175-06-10P-6	0.95-1.75	26	0.5	0.6	10	1.8:1	90	113384-6
AFS3-00010300-18-5P-4	0.01-3	28	1	1.8	5	2:1	75	113384-4
AFS3-00050100-15-27P-6	0.05-1	36	1.5	1.5	27	2:1/2.5:1	300	113384-6
AFS3-00100100-09-10P-4	0.1-1	38	1	0.9	10	2:1	125	113384-4
AFS3-00100100-15-27P-6	0.1-1	35	2	1.5	27	2:1	300	113384-6
AFS3-00100200-10-15P-4	0.1-2	38	1	1	15	2:1	150	113384-4
* AFS3-00100200-10-CR-4	0.1-2	38	1	1	5	2:1	70	113384-4
AFS3-00100200-15-ULN	0.1-2	36	1	1.5	10	2:1	150	113384-4
AFS3-00100200-18-LN	0.1-2	36	1	1.8	10	2:1	150	113384-4
AFS3-00100200-20-27P-6	0.1-2	34	1.5	2	27	2:1	300	113384-6
AFS3-00100300-12-10P-4	0.1-3	32	1	1.2	10	2:1	125	113384-4
AFS3-00100300-25-23P-6	0.1-3	28	1.5	2.5	23	2:1	275	113384-6
AFS3-00100400-13-10P-4	0.1-4	30	1	1.3	10	2:1	125	113384-4
AFS3-00100400-17-10P-4	0.1-4	28	1.25	1.7	10	2:1	125	113384-4
AFS3-00100400-18-10P-4	0.1-4	28	1	1.8	10	2:1	125	113384-4
AFS3-00100400-18-ULN	0.1-4	24	1.3	1.8	10	2:1	150	113384-4
AFS3-00100400-20-10P-4	0.1-4	28	1	2	10	2:1	150	113384-4
AFS3-00100400-22-LN	0.1-4	28	1.25	2.2	10	2:1	125	113384-4
AFS3-00100400-26-20P-4	0.1-4	32	1.5	2.6	20	2:1	250	113384-4
AFS3-00100400-30-10P-4	0.1-4	30	1	3	10	2:1	150	113384-4
AFS3-00100600-13-10P-4	0.1-6	30	1.25	1.3	10	2:1	125	113384-4
AFS3-00100600-15-10P-4	0.1-6	28	1.5	1.5	10	2:1	125	113384-4
AFS3-00100600-20-10P-4	0.1-6	28	1	2	10	2:1	125	113384-4
AFS3-00100600-20-ULN	0.1-6	30	1.5	2	10	2:1	150	113384-4
AFS3-00100600-20P-MP	0.1-6	32	1.5	4.6	20	2:1	250	113384-4
AFS3-00100600-25-LN	0.1-6	30	1.5	2.5	10	2:1	150	113384-4
AFS3-00100600-30-10P-4	0.1-6	28	1	3	10	2:1	125	113384-4
AFS3-00100600-35-10P-4	0.1-6	28	1	3.5	10	2:1	125	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS3-00100600-45-10P-4	0.1-6	28	1	4.5	10	2:1	125	113384-4
AFS3-00100800-14-S-4	0.1-8	30	1.5	1.4	10	2:1	125	113384-4
AFS3-00100800-20-10P-4	0.1-8	30	1.5	2	10	2:1	125	113384-4
AFS3-00100800-25-10P-4	0.1-8	30	1.3	2.5	10	2:1	125	113384-4
AFS3-00100800-25-ULN	0.1-8	30	1.5	2.5	10	2:1	150	113384-4
AFS3-00100800-30-10P-4	0.1-8	30	1.3	3	10	2:1	125	113384-4
AFS3-00100800-30-20P-4	0.1-8	32	1.5	3	20	2:1	250	113384-4
AFS3-00100800-32-LN	0.1-8	30	1.5	3.2	10	2:1	150	113384-4
AFS3-00100800-33-10P-4	0.1-8	30	1.3	3.3	10	2:1	125	113384-4
AFS3-00100800-35-10P-4	0.1-8	30	1.3	3.5	10	2:1	125	113384-4
AFS3-00100800-40-10P-4	0.1-8	30	1.3	4	10	2:1	125	113384-4
AFS3-00100800-45-10P-4	0.1-8	30	1.3	4.5	10	2:1	125	113384-4
AFS3-00100800-65-20P-4	0.1-8	32	1.5	6.5	20	2.5:1	125	113384-4
AFS3-00101000-20-10P-4	0.1-10	26	1.5	2	10	2:1	125	113384-4
AFS3-00101000-30-10P-4	0.1-10	26	1.5	3	10	2:1	150	113384-4
AFS3-00101000-32-ULN	0.1-10	20	1.5	3.2	10	2:1	150	113384-4
AFS3-00101000-38-LN	0.1-10	22	1.5	3.8	10	2:1	150	113384-4
AFS3-00101000-40-10P-4	0.1-10	26	1.5	4	10	2:1	150	113384-4
AFS3-00101000-40-20P-4	0.1-10	28	1.5	4	20	2:1	250	113384-4
AFS3-00101000-50-10P-4	0.1-10	26	1.5	5	10	2:1	150	113384-4
AFS3-00101000-60-10P-4	0.1-10	26	1.5	6	10	2:1	150	113384-4
AFS3-00101200-22-10P-4	0.1-12	25	1.5	2.2	10	2:1	100	113384-4
AFS3-00101200-35-ULN	0.1-12	27	1.75	3.5	10	2:1	150	113384-4
AFS3-00101200-40-10P-4	0.1-12	27	1.5	4	10	2:1	150	113384-4
AFS3-00101200-40-20P-4	0.1-12	27	2	4	20	2:1	250	113384-4
AFS3-00101200-42-LN	0.1-12	27	1.75	4.2	10	2:1	150	113384-4
AFS3-00101200-50-10P-4	0.1-12	27	1.5	5	10	2:1	150	113384-4
AFS3-00101200-55-10P-4	0.1-12	27	1.5	5.5	10	2:1	150	113384-4
AFS3-00101200-60-10P-4	0.1-12	27	1.5	6	10	2:1	125	113384-4
* AFS3-00101400-23-8P-4	0.1-14	19	1.75	2.3	8	2.5:1	150	113384-4
AFS3-00101600-23-8P-4	0.1-16	18	1.75	2.3	8	2.5:1	150	113384-4
AFS3-00101800-25-S-4	0.1-18	22	2	2.5	8	2.5:1	150	113384-4
AFS3-00101800-45-8P-4	0.1-18	22	2	4.5	8	2.5:1	150	113384-4
AFS3-00101800-60-8P-4	0.1-18	22	2	6	8	2.5:1	150	113384-4
AFS3-00102000-35-8P-4	0.1-20	18	2.25	3.5	8	2.5:1	100	113384-4
AFS3-00102200-40-8P-4	0.1-22	18	2.5	4	8	2.5:1	150	113384-4
AFS3-00102650-42-8P-4	0.1-26.5	20	2.5	4.2	8	2.5:1	120	113384-4
AFS3-00120025-09-10P-4	0.12-0.25	38	0.5	0.9	10	2:1	125	113384-4
AFS3-00240027-08-10P-4	0.24-0.27	38	0.25	0.8	10	2:1	100	113384-4
AFS3-00250050-08-10P-4	0.25-0.5	38	0.5	0.8	10	2:1	125	113384-4
AFS3-00300140-09-10P-4	0.3-1.4	38	1	0.9	10	2:1	125	113384-4
AFS3-00400350-12-10P-4	0.4-3.5	32	1	1.2	10	2:1	110	113384-4
AFS3-00500060-06-10P-6	0.5-0.6	38	0.25	0.6	10	1.8:1	150	113384-6
AFS3-00500100-06-10P-6	0.5-1	38	0.75	0.6	10	2:1/1.5:1	150	113384-6
AFS3-00500200-08-15P-4	0.5-2	38	1	0.8	15	2:1	125	113384-4
* AFS3-00500200-27P-CT-6	0.5-2	33	0.75	1.4	27	2:1	250	113384-6
* AFS3-00501800-45-20P-4	0.5-18	20	3	6	20	2.5:1/2.2:1	350	113384-4
* AFS3-00502000-50-18P-4	0.5-20	20	2.5	5	18	2.5:1/2.2:1	350	113384-4
AFS3-00700080-06-15P-6	0.7-0.8	42	0.5	0.6	15	1.8:1	150	113384-6
AFS3-00800100-05-15P-6	0.8-1	44	0.5	0.5	15	1.8:1	150	113384-6
* AFS3-00820086-27P-CT-6	0.82-0.86	31	0.25	0.8	27	1.5:1/2:1	275	113384-6
* AFS3-00880093-27P-CT-6	0.88-0.93	31	0.25	0.8	27	2:1	275	113384-6
AFS3-00900120-06-13P-6	0.9-1.2	40	0.5	0.6	13	1.5:1	150	113384-6
* AFS3-00950145-06-13P-6	0.95-1.45	40	0.5	0.6	13	1.5:1	150	113384-6
AFS3-00950175-06-13P-6	0.95-1.75	38	0.5	0.6	13	1.8:1	150	113384-6
AFS4-00100100-09-10P-4	0.1-1	45	1	0.9	10	2:1	175	113384-4
AFS4-00100100-15-27P-6	0.1-1	45	2	1.5	27	2:1	350	113384-6
AFS4-00100100-20-27P-6	0.1-1	44	2	2	27	2:1/2.5:1	350	113384-6
AFS4-00100200-10-15P-4	0.1-2	46	1.5	1	15	2:1	175	113384-4
AFS4-00100200-20-27P-6	0.1-2	44	1.75	2	27	2:1	350	113384-6
AFS4-00100300-12-10P-4	0.1-3	40	1.5	1.2	10	2:1	150	113384-4
AFS4-00100300-20-23P-6	0.1-3	33	1.75	2	23	2:1	300	113384-6
AFS4-00100400-13-S-4	0.1-4	36	1	1.3	10	2:1	150	113384-4
AFS4-00100400-15-10P-4	0.1-4	36	1	1.5	10	2:1	150	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFS4-00100400-18-10P-4	0.1-4	36	1.5	1.8	10	2:1	150	113384-4
AFS4-00100400-20-10P-4	0.1-4	36	1.5	2	10	2:1	150	113384-4
AFS4-00100400-22-10P-4	0.1-4	36	1.5	2.2	10	2:1	150	113384-4
AFS4-00100400-25-10P-4	0.1-4	36	1.5	2.5	10	2:1	150	113384-4
AFS4-00100400-25-20P-4	0.1-4	38	1.5	2.5	20	2:1	300	113384-4
AFS4-00100400-30-10P-4	0.1-4	36	1.5	3	10	2:1	175	113384-4
AFS4-00100400-35-10P-4	0.1-4	36	1.5	3.5	10	2:1	175	113384-4
AFS4-00100600-13-10P-4	0.1-6	36	1.5	1.3	10	2:1	150	113384-4
AFS4-00100600-14-10P-4	0.1-6	36	1.5	1.4	10	2:1	175	113384-4
AFS4-00100600-20-10P-4	0.1-6	36	1.5	2	10	2:1	175	113384-4
AFS4-00100600-25-10P-4	0.1-6	36	1.5	2.5	10	2:1	175	113384-4
AFS4-00100600-25-20P-4	0.1-6	36	1.5	2.5	20	2:1	300	113384-4
AFS4-00100600-30-10P-4	0.1-6	36	1.5	3	10	2:1	175	113384-4
AFS4-00100600-35-10P-4	0.1-6	36	1.5	3.5	10	2:1	175	113384-4
AFS4-00100600-40-10P-4	0.1-6	36	1.5	4	10	2:1	175	113384-4
AFS4-00100800-14-10P-4	0.1-8	36	1.5	1.4	10	2:1	150	113384-4
AFS4-00100800-20P-MP	0.1-8	32	2	4.8	20	2:1	250	113384-4
AFS4-00100800-22-10P-4	0.1-8	36	1.5	2.2	10	2:1	175	113384-4
AFS4-00100800-25-10P-4	0.1-8	36	1.5	2.5	10	2:1	175	113384-4
AFS4-00100800-28-20P-4	0.1-8	34	1.5	2.8	20	2:1	300	113384-4
AFS4-00100800-30-10P-4	0.1-8	36	1.5	3	10	2:1	175	113384-4
AFS4-00100800-35-10P-4	0.1-8	36	1.5	3.5	10	2:1	175	113384-4
AFS4-00100800-40-10P-4	0.1-8	36	1.5	4	10	2:1	175	113384-4
AFS4-00100800-60-20P-4	0.1-8	32	1.5	6	20	2:1	250	113384-4
AFS4-00101000-20-10P-4	0.1-10	30	1.5	2	10	2:1	150	113384-4
AFS4-00101000-30-10P-4	0.1-10	30	1.5	3	10	2:1	150	113384-4
AFS4-00101000-35-10P-4	0.1-10	30	1.5	3.5	10	2:1	150	113384-4
AFS4-00101000-40-10P-4	0.1-10	30	1.5	4	10	2:1	150	113384-4
AFS4-00101000-40-20P-4	0.1-10	27	2	4	20	2:1	300	113384-4
AFS4-00101000-80-15P-4	0.1-10	27	2.5	8	15	2.5:1	360	113384-4
AFS4-00101200-20P-MP	0.1-12	26	2	5.3	20	2:1	250	113384-4
AFS4-00101200-22-10P-4	0.1-12	30	1.5	2.2	10	2:1	150	113384-4
AFS4-00101200-25-10P-4	0.1-12	30	1.5	2.5	10	2:1	175	113384-4
AFS4-00101200-30-10P-4	0.1-12	30	1.5	3	10	2:1	175	113384-4
AFS4-00101200-35-10P-4	0.1-12	30	1.5	3.5	10	2:1	175	113384-4
AFS4-00101200-40-10P-4	0.1-12	30	1.5	4	10	2:1	175	113384-4
AFS4-00101200-40-20P-4	0.1-12	27	2	4	20	2:1	300	113384-4
AFS4-00101200-45-10P-4	0.1-12	30	1.5	4.5	10	2:1	175	113384-4
AFS4-00101200-45-20P-4	0.1-12	27	1.5	4.5	20	2:1	300	113384-4
AFS4-00101200-50-10P-4	0.1-12	30	1.5	5	10	2:1	175	113384-4
AFS4-00101400-23-10P-4	0.1-14	24	2	2.3	10	2.5:1	200	113384-4
AFS4-00101600-23-10P-4	0.1-16	24	2	2.3	10	2.5:1	175	113384-4
AFS4-00101800-25-S-4	0.1-18	25	2	2.5	10	2.5:1	175	113384-4
AFS4-00101800-25-10P-HG-4	0.1-18	32	2	2.5	10	2.5:1	175	113384-4
AFS4-00101800-30-10P-4	0.1-18	25	2	3	10	2.5:1	175	113384-4
AFS4-00101800-35-10P-4	0.1-18	25	2	3.5	10	2.5:1	175	113384-4
AFS4-00101800-38-10P-4	0.1-18	25	2	3.8	10	2.5:1	175	113384-4
AFS4-00101800-40-ULN	0.1-18	22	2.5	4	10	2.5:1	175	113384-4
AFS4-00101800-42-10P-4	0.1-18	25	2	4.2	10	2.5:1	175	113384-4
AFS4-00101800-45-10P-4	0.1-18	25	2	4.5	10	2.5:1	175	113384-4
AFS4-00101800-50-10P-4	0.1-18	25	2	5	10	2.5:1	175	113384-4
AFS4-00101800-55-LN	0.1-18	20	2.5	5.5	10	2.5:1	175	113384-4
AFS4-00101800-65-10P-4	0.1-18	25	2	6.5	10	2.5:1	175	113384-4
AFS4-00101800-70-15P-4	0.1-18	32	2.5	7	15	2.5:1	250	113384-4
AFS4-00102000-30-10P-4	0.1-20	22	2.5	3	10	2.5:1	125	113384-4
AFS4-00102000-50-ULN	0.1-20	22	2.8	5	10	2.5:1	175	113384-4
AFS4-00102000-60-LN	0.1-20	22	2.75	6	10	2.5:1	175	113384-4
AFS4-00102200-40-10P-4	0.1-22	22	2.5	4	10	2.5:1	135	113384-4
AFS4-00102200-45-10P-4	0.1-22	22	2.5	4.5	10	2.5:1	175	113384-4
AFS4-00102200-50-10P-4	0.1-22	22	2.5	5	10	2.5:1	175	113384-4
AFS4-00102200-55-10P-4	0.1-22	22	2.5	5.5	10	2.5:1	175	113384-4
AFS4-00102650-42-8P-4	0.1-26.5	24	2.5	4.2	8	2.5:1	135	113384-4
AFS4-00102650-65-8P-4	0.1-26.5	24	2.5	6.5	8	2.5:1	150	113384-4
AFS4-00102650-70-10P-4	0.1-26.5	24	2.5	7	10	2.5:1	150	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS4-00120025-09-10P-4	0.12-0.25	46	0.5	0.9	10	2:1	150	113384-4
AFS4-00240027-08-10P-4	0.24-0.27	46	0.5	0.8	10	2:1	150	113384-4
AFS4-00250050-08-10P-4	0.25-0.5	46	0.5	0.8	10	2:1	150	113384-4
AFS4-00300140-09-10P-4	0.3-1.4	44	1	0.9	10	2:1	150	113384-4
AFS4-00400350-12-10P-4	0.4-3.5	42	1	1.2	10	2:1	150	113384-4
AFS4-00500060-06-10P-6	0.5-0.6	46	0.5	0.6	10	1.8:1	175	113384-6
AFS4-00500100-06-10P-6	0.5-1	48	0.75	0.6	10	2:1/1.5:1	175	113384-6
* AFS4-00500200-08-15P-4	0.5-2	46	1	0.8	15	2:1	175	113384-4
* AFS4-00500200-27P-CT-6	0.5-2	40	0.75	1	27	2:1/2.5:1	250	113384-6
* AFS4-00501800-40-20P-6	0.5-18	25	2.75	6	20	2.5:1/2.8:1	375	113384-6
AFS4-00700080-06-15P-6	0.7-0.8	52	0.5	0.6	15	1.8:1	175	113384-6
AFS4-00800100-05-15P-6	0.8-1	54	0.5	0.5	15	1.8:1	175	113384-6
* AFS4-00820086-27P-CT-6	0.82-0.86	42	0.25	0.8	27	2:1	325	113384-6
* AFS4-00880093-27P-CT-6	0.88-0.93	42	0.25	0.8	27	2:1	325	113384-6
AFS4-00900120-05-15P-6	0.9-1.2	50	0.5	0.5	15	1.5:1	175	113384-6
AFS4-00950145-05-15P-6	0.95-1.45	50	0.5	0.5	15	1.5:1	175	113384-6
AFS4-00950175-06-15P-6	0.95-1.75	50	0.5	0.6	15	1.8:1	175	113384-6
AFS42-00101200-22-10P-42	0.1-12	38	2.5	2.2	10	2:1	220	151239
AFS42-00101200-S-20P-42	0.1-12	35	2.5	4.5	20	2:1	350	151239
AFS42-00101800-25-S-42	0.1-18	35	2.75	2.5	10	2.5:1	225	151239
AFS42-00101800-35-10P-42	0.1-18	35	2.75	3.5	10	2.5:1	225	151239
AFS42-00101800-43-10P-42	0.1-18	35	2.75	4.3	10	2.5:1	300	151239
AFS42-00101800-45-10P-42	0.1-18	35	2.75	4.5	10	2.5:1	275	151239
AFS42-00101800-50-10P-42	0.1-18	35	2.75	5	10	2.5:1	275	151239
AFS42-00101800-60-10P-42	0.1-18	35	2.75	6	10	2.5:1	275	151239
AFS42-00102200-40-10P-42	0.1-22	30	2.75	4	10	2.5:1	200	151239
AFS42-00102650-42-10P-42	0.1-26.5	30	2.75	4.2	10	2.5:1	200	151239
AFS44-00101000-20-10P-44	0.1-10	55	2.5	2	10	2:1	350	140941
AFS44-00101800-25-10P-44	0.1-18	40	2.75	2.5	10	2.5:1	295	140941
AFS44-00102000-30-10P-44	0.1-20	32	3	3	10	2.5:1	300	140941
AFS44-00102200-40-10P-44	0.1-22	34	3	4	10	2.5:1	270	140941
AFS44-00102200-50-10P-44	0.1-22	34	3.5	5	10	2.5:1	300	140941
AFS44-00102650-42-10P-44	0.1-26.5	35	3	4.2	10	2.5:1	275	140941
AFS44-00102650-65-10P-44	0.1-26.5	35	3.5	6.5	10	2.5:1	275	140941
AFS5-00101400-23-10P-6	0.1-14	28	2.25	2.3	10	2.5:1	225	113384-6
AFS5-00101600-23-10P-6	0.1-16	30	2.25	2.3	10	2.5:1	200	113384-6
AFS5-00400350-12-10P-6	0.4-3.5	52	1.5	1.2	10	2:1	175	113384-6
* AFS5-00501800-40-20P-6	0.5-18	30	2.75	4	20	2.5:1/2.2:1	400	113384-6
* AFS5-00502000-50-18P-6	0.5-20	25	2.5	5	18	2.5:1/2.2:1	360	113384-6
AFS6-00101200-35-10P-6	0.1-12	34	1.75	3.5	10	2:1	200	113384-6
AFS6-00101400-23-10P-6	0.1-14	32	2.5	2.3	10	2.5:1	250	113384-6
AFS6-00101600-23-10P-6	0.1-16	36	2.5	2.3	10	2.5:1	250	113384-6
AFS6-00502000-45-18P-6	0.5-20	32	3	4.5	18	2.5:1/2.2:1	400	113384-6
AFS6-01001300-25-10P-6	0.1-3	32	2	2.5	10	2.5:1	250	113384-6
* AFS8-00501800-40-20P-8	0.5-18	38	3	4	20	2.5:1	450	113384-8
* AFSM1-00050100-18-20P	0.05-1	13	1	1.8	20	2.5:1/2.2:1	150	133720
* AFSM1-00100200-16-16P	0.1-2	12	1	1.6	16	2:1	80	133720
* AFSM1-01000200-16-20P	1-2	13	1	1.6	20	2:1	150	133720
* AFSM2-00100200-12-8P	0.1-2	22	1	1.2	8	2:1	80	133720
* AFSM2-00100300-12-8P	0.1-3	20	1	1.2	8	2:1	80	133720
* AFSM2-00100400-18-8P	0.1-4	20	1	1.8	8	2:1	80	133720
* AFSM2-00100600-18-8P	0.1-6	18	1.5	1.8	8	2:1	80	133720
* AFSM2-00500100-08-8P	0.5-1	25	1	0.8	8	2:1	80	133720
* AFSM3-00102000-50-8P	0.1-20	16	2.75	5	8	2.5:1	100	133720
* AFSW3-00100600-16	0.1-6	28	1.2	1.6	10	2:1	125	127846
* AFSW3-00100800-20	0.1-8	26	1.2	2	10	2:1	125	127846
* AFSW3-00101200-30	0.1-12	26	1.5	3	10	2:1	150	127846
* AFSW4-00101200-30	0.1-12	26	1.5	3	10	2:1	150	127846
* AFSW5-00101800-35	0.1-18	25	2	3.5	10	2.2:1	200	127846
* AFSX2-00100050-15-8P	0.1-0.5	25	1	1.5	8	2:1	125	141108
* AFSX2-00500100-16-10P	0.5-1	24	1	1.6	10	2:1	125	141108
* AFSX3-00100200-15-10P	0.1-2	36	1	1.5	10	2:1	150	141108
* AFSX3-00100400-22-10P	0.1-4	28	1	2.2	10	2:1	150	141108
* AFSX4-00100100-16-18P	0.1-1	13	1	1.6	18	2.5:1	175	141108

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
* AFSX4-00100600-46-10P	0.1-6	20	2	4.6	10	2:1	175	141108
* AFSX4-00100800-48-10P	0.1-8	18	2	4.8	10	2:1	175	141108
* AFSX4-00101000-38-10P	0.1-10	20	2	3.8	10	2:1	175	141108
* AFSX4-00101200-42-10P	0.1-12	20	2	4.2	10	2:1	175	141108
* AFSX4-00101800-55-10P	0.1-18	18	3	5.5	10	2.5:1	175	141108
* AFSX4-00102000-60-10P	0.1-20	18	3	6	10	2.5:1	175	141108
AFTL3-00100400-13	0.1-4	28	1.25	1.3	10	2:1	125	127846
AFTL3-00100600-15	0.1-6	28	1.25	1.5	10	2:1	125	127846
AFTL3-00100800-16	0.1-8	26	1.25	1.6	10	2:1	125	127846
AFTL4-00101200-24	0.1-12	26	1.5	2.4	10	2:1	150	127846
* AFTL4-00102650-40	0.1-26.5	18	2.5	4	8	2.5:1	150	127846
* AFTL5-00101800-25	0.1-18	25	2.25	2.5	10	2:1	200	127846
* AVG4-00100400-14	0.1-4	32	1	1.4	10	2:1	120	142051
* AVG4-00100600-15	0.1-6	32	1	1.5	10	2:1	120	142051
AVG4-00100800-18	0.1-8	36	1.5	1.8	10	2:1	120	119393
* AVG4-00100800-DET-8	0.1-8	26	1	2.8	10	2:1	175	164073
* AVG4-00101200-DET-8	0.1-12	26	1.25	3	10	2:1	185	164073
AVG4-00101800-35	0.1-18	24	2.5	3.5	10	2.5:1	175	119393
* AVG4-00101800-DET-8	0.1-18	26	2.5	3.5	10	2.5:1	180	164073
IFS3-00100400-30-LP	0.1-4	24	1.5	3	8	2:1	150	127362
IFS3-00100600-15P-LP	0.1-6	22	2	5	15	2:1	150	127362
IFS3-00100600-35-LP	0.1-6	24	1.5	3.5	8	2:1	150	127362
IFS3-00100800-15P-LP	0.1-8	22	2	5.5	15	2:1	150	127362
IFS3-00100800-37-LP	0.1-8	24	2	3.7	8	2:1	150	127362
IFS3-00101200-15P-LP	0.1-12	22	2	6	15	2:1	150	127362
IFS3-00101200-45-LP	0.1-12	22	2	4.5	8	2:1	150	127362
JS1-00100100-18-12P	0.1-1	14.5	1	1.8 ⁽¹⁾	12	2:1	175	128749
JS1-00100100-21-12P	0.1-1	14.5	1	2.1 ⁽¹⁾	12	2:1	175	128749
JS1-00100100-25-12P	0.1-1	14.5	1	2.5 ⁽¹⁾	12	2:1	175	128749
JS1-00100100-30-12P	0.1-1	14.5	1	3 ⁽¹⁾	12	2:1	175	128749
JS1-00100200-19-12P	0.1-2	14	1.2	1.9 ⁽¹⁾	12	2:1	175	128749
JS1-00100200-22-12P	0.1-2	14	1.2	2.2 ⁽¹⁾	12	2:1	175	128749
JS1-00100200-25-12P	0.1-2	14	1.2	2.5 ⁽¹⁾	12	2:1	175	128749
JS1-00100200-30-12P	0.1-2	14	1.2	3 ⁽¹⁾	12	2:1	175	128749
JS1-00100400-20-12P	0.1-4	14	1.2	2 ⁽²⁾	12	2:1	175	128749
JS1-00100400-25-12P	0.1-4	14	1.2	2.5 ⁽²⁾	12	2:1	175	128749
JS1-00100400-30-12P	0.1-4	14	1.2	3 ⁽²⁾	12	2:1	175	128749
JS1-00100400-35-12P	0.1-4	14	1.2	3.5 ⁽²⁾	12	2:1	175	128749
JS1-00100600-36-8P	0.1-6	9	1	3.6 ⁽²⁾	8	2.2:1	125	128749
JS1-00100600-40-8P	0.1-6	9	1	4 ⁽²⁾	8	2.2:1	125	128749
JS1-00100600-45-8P	0.1-6	9	1	4.5 ⁽²⁾	8	2.2:1	125	128749
JS1-00100800-38-8P	0.1-8	9	1.2	3.8 ⁽²⁾	8	2.3:1	125	128749
JS1-00100800-40-8P	0.1-8	9	1.2	4 ⁽²⁾	8	2.3:1	125	128749
JS1-00100800-45-8P	0.1-8	9	1.2	4.5 ⁽²⁾	8	2.3:1	125	128749
JS1-00101000-45-8P	0.1-10	9	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101000-50-8P	0.1-10	9	1.5	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101000-55-8P	0.1-10	9	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101200-45-8P	0.1-12	8	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101200-50-8P	0.1-12	8	1.5	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101200-55-8P	0.1-12	8	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101500-45-8P	0.1-15	8	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101500-50-8P	0.1-15	8	1.5	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101500-55-8P	0.1-15	8	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101800-45-8P	0.1-18	8	1.7	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101800-50-8P	0.1-18	8	1.7	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101800-55-8P	0.1-18	8	1.7	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00102000-46-8P	0.1-20	8	1.8	4.6 ⁽³⁾	8	2.5:1	125	128749
JS1-00102000-50-8P	0.1-20	8	1.8	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00102000-55-8P	0.1-20	8	1.8	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00104000-87-5P	0.1-40	10	3	8.7 ⁽³⁾	5	2.5:1	100	128749
JS1-00104000-89-5P	0.1-40	10	3	8.9 ⁽³⁾	5	2.5:1	100	128749
JS1-01000200-19-12P	1-2	14	1	1.9	12	2:1	175	128749
JS2-00100100-08-10P	0.1-1	35	1	0.8 ⁽¹⁾	10	2:1	250	127140

NOTES: * Specialized Amplifiers (pages 102 to 128).

** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

(2) Noise figure is higher below 500 MHz.

(1) Noise figure is higher below 250 MHz.

(3) Noise figure is higher below 800 MHz.

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
JS2-00100100-09-10P	0.1-1	35	1	0.9 ⁽¹⁾	10	2:1	250	127140
JS2-00100100-10-10P	0.1-1	35	1	1 ⁽¹⁾	10	2:1	250	127140
JS2-00100100-11-10P	0.1-1	35	1	1.1 ⁽¹⁾	10	2:1	250	127140
JS2-00100100-12-10P	0.1-1	35	1	1.2 ⁽¹⁾	10	2:1	250	127140
JS2-00100200-08-10P	0.1-2	35	1.2	0.8 ⁽¹⁾	10	2:1	195	127140
JS2-00100200-09-10P	0.1-2	35	1.2	0.9 ⁽¹⁾	10	2:1	195	127140
JS2-00100200-10-10P	0.1-2	35	1.2	1 ⁽¹⁾	10	2:1	195	127140
JS2-00100200-11-10P	0.1-2	35	1.2	1.1 ⁽¹⁾	10	2:1	195	127140
JS2-00100200-12-10P	0.1-2	35	1.2	1.2 ⁽¹⁾	10	2:1	195	127140
JS2-00100400-11-10P	0.1-4	29	1.2	1.1 ⁽²⁾	10	2:1	195	127140
JS2-00100400-13-10P	0.1-4	29	1.2	1.3 ⁽²⁾	10	2:1	195	127140
JS2-00100400-15-10P	0.1-4	29	1.2	1.5 ⁽²⁾	10	2:1	195	127140
JS2-00100400-18-10P	0.1-4	29	1.2	1.8 ⁽²⁾	10	2:1	195	127140
JS2-00100600-14-8P	0.1-6	24	1.5	1.4 ⁽²⁾	8	2.2:1	175	128749
JS2-00100600-16-8P	0.1-6	24	1.5	1.6 ⁽²⁾	8	2.2:1	175	128749
JS2-00100600-18-8P	0.1-6	24	1.5	1.8 ⁽²⁾	8	2.2:1	175	128749
JS2-00100600-20-8P	0.1-6	24	1.5	2 ⁽²⁾	8	2.2:1	175	128749
JS2-00100800-14-8P	0.1-8	23	1.6	1.4 ⁽²⁾	8	2.3:1	175	128749
JS2-00100800-16-8P	0.1-8	23	1.6	1.6 ⁽²⁾	8	2.3:1	175	128749
JS2-00100800-18-8P	0.1-8	23	1.6	1.8 ⁽²⁾	8	2.3:1	175	128749
JS2-00100800-20-8P	0.1-8	23	1.6	2 ⁽²⁾	8	2.3:1	175	128749
JS2-00100800-22-8P	0.1-8	23	1.6	2.2 ⁽²⁾	8	2.3:1	175	128749
JS2-00101000-40-8P	0.1-10	15	1.7	4 ⁽³⁾	8	2.2:1	125	128749
JS2-00101000-42-8P	0.1-10	15	1.7	4.2 ⁽³⁾	8	2.2:1	125	128749
JS2-00101000-45-8P	0.1-10	15	1.7	4.5 ⁽³⁾	8	2.2:1	125	128749
JS2-00101200-40-8P	0.1-12	15	1.7	4 ⁽³⁾	8	2.5:1	125	128749
JS2-00101200-42-8P	0.1-12	15	1.7	4.2 ⁽³⁾	8	2.5:1	125	128749
JS2-00101200-45-8P	0.1-12	15	1.7	4.5 ⁽³⁾	8	2.5:1	125	128749
JS2-00101500-42-8P	0.1-15	15	1.8	4.2 ⁽³⁾	8	2.5:1	125	128749
JS2-00101500-45-8P	0.1-15	15	1.8	4.5 ⁽³⁾	8	2.5:1	125	128749
JS2-00101500-48-8P	0.1-15	15	1.8	4.8 ⁽³⁾	8	2.5:1	125	128749
JS2-00101800-44-8P	0.1-18	14	1.8	4.4 ⁽³⁾	8	2.5:1	125	128749
JS2-00101800-47-8P	0.1-18	14	1.8	4.7 ⁽³⁾	8	2.5:1	125	128749
JS2-00101800-49-8P	0.1-18	14	1.8	4.9 ⁽³⁾	8	2.5:1	125	128749
JS2-00102000-45-8P	0.1-20	14	1.9	4.5	8	2.5:1	125	128749
JS2-00102000-47-8P	0.1-20	14	1.9	4.7	8	2.5:1	125	128749
JS2-00102000-49-8P	0.1-20	14	1.9	4.9	8	2.5:1	125	128749
JS2-00500070-07-10P	0.5-0.7	35	0.5	0.7	10	1.8:1	175	127140
JS2-00500070-09-10P	0.5-0.7	35	0.5	0.9	10	1.8:1	175	127140
JS2-00500070-11-10P	0.5-0.7	35	0.5	1.1	10	1.8:1	175	127140
JS2-00500100-07-10P	0.5-1	35	1.2	0.7	10	2:1	175	127140
JS2-00500100-09-10P	0.5-1	35	1.2	0.9	10	2:1	175	127140
JS2-00500100-10-10P	0.5-1	35	1.2	1	10	2:1	175	127140
JS2-00500100-12-10P	0.5-1	35	1.2	1.2	10	2:1	175	127140
JS2-00700090-07-10P-F	0.7-0.9	35	0.5	0.7	10	1.8:1	175	127140
JS2-00700090-09-10P-F	0.7-0.9	35	0.5	0.9	10	1.8:1	175	127140
JS2-00700090-11-10P-F	0.7-0.9	35	0.5	1.1	10	1.8:1	175	127140
JS2-00800100-05-10P-F	0.8-1	35	0.5	0.55	10	1.8:1	175	127140
JS2-00800100-07-10P-F	0.8-1	35	0.5	0.7	10	1.8:1	175	127140
JS2-00800100-09-10P-F	0.8-1	35	0.5	0.9	10	1.8:1	175	127140
JS2-00800100-11-10P-F	0.8-1	35	0.5	1.1	10	1.8:1	175	127140
JS2-00900120-06-10P	0.9-1.2	35	0.5	0.65	10	2:1	195	127140
JS2-00900120-08-10P	0.9-1.2	35	0.5	0.8	10	2:1	195	127140
JS2-00900120-10-10P	0.9-1.2	35	0.5	1	10	2:1	195	127140
JS2-00900120-12-10P	0.9-1.2	35	0.5	1.2	10	2:1	195	127140
JS2-00950145-06-10P	0.95-1.45	34	0.7	0.65	10	2:1	195	127140
JS2-00950145-08-10P	0.95-1.45	34	0.7	0.8	10	2:1	195	127140
JS2-00950145-10-10P	0.95-1.45	34	0.7	1	10	2:1	195	127140
JS2-00950145-12-10P	0.95-1.45	34	0.7	1.2	10	2:1	195	127140
JS3-00101000-21-10P	0.1-10	24	1.5	2.1 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-23-10P	0.1-10	24	1.5	2.3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-25-10P	0.1-10	24	1.5	2.5 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-28-10P	0.1-10	24	1.5	2.8 ⁽³⁾	10	2.5:1	175	125424

NOTES: * Specialized Amplifiers (pages 102 to 128).

** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

(2) Noise figure is higher below 500 MHz.

(1) Noise figure is higher below 250 MHz.

(3) Noise figure is higher below 800 MHz.

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
JS3-00101000-30-10P	0.1-10	24	1.5	3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-65-18P	0.1-10	28	1.5	6.5 ⁽³⁾	18	2.3:1	350	128749
JS3-00101000-65-19P	0.1-10	28	1.5	6.5 ⁽³⁾	19	2.3:1	350	128749
JS3-00101200-22-10P	0.1-12	24	1.7	2.2 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-24-10P	0.1-12	24	1.7	2.4 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-28-10P	0.1-12	24	1.7	2.8 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-30-10P	0.1-12	24	1.7	3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-65-17P	0.1-12	27	1.7	6.5 ⁽³⁾	17	2.3:1	350	128749
JS3-00101200-65-18P	0.1-12	27	1.7	6.5 ⁽³⁾	18	2.3:1	350	128749
JS3-00101500-23-10P	0.1-15	24	1.8	2.3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101500-25-10P	0.1-15	24	1.8	2.5 ⁽³⁾	10	2.5:1	175	125424
JS3-00101500-27-10P	0.1-15	24	1.8	2.7 ⁽³⁾	10	2.5:1	175	125424
JS3-00101500-29-10P	0.1-15	24	1.8	2.9 ⁽³⁾	10	2.5:1	175	125424
JS3-00101500-31-10P	0.1-15	24	1.8	3.1 ⁽³⁾	10	2.5:1	175	125424
JS3-00101500-65-16P	0.1-15	27	1.8	6.5 ⁽³⁾	16	2.5:1	350	128749
JS3-00101500-65-17P	0.1-15	27	1.8	6.5 ⁽³⁾	17	2.5:1	350	128749
JS3-00101800-24-10P	0.1-18	23	1.8	2.4 ⁽³⁾	10	2.5:1	175	125424
JS3-00101800-26-10P	0.1-18	23	1.8	2.6 ⁽³⁾	10	2.5:1	175	125424
JS3-00101800-28-10P	0.1-18	23	1.8	2.8 ⁽³⁾	10	2.5:1	175	125424
JS3-00101800-30-10P	0.1-18	23	1.8	3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101800-32-10P	0.1-18	23	1.8	3.2 ⁽³⁾	10	2.5:1	175	125424
JS3-00101800-65-15P	0.1-18	27	2	6.5 ⁽³⁾	15	2.5:1	350	128749
JS3-00101800-65-16P	0.1-18	27	2	6.5 ⁽³⁾	16	2.5:1	350	128749
JS3-00102000-27-10P	0.1-20	23	1.9	2.7 ⁽³⁾	10	2.5:1	175	125424
JS3-00102000-29-10P	0.1-20	23	1.9	2.9 ⁽³⁾	10	2.5:1	175	125424
JS3-00102000-31-10P	0.1-20	23	1.9	3.1 ⁽³⁾	10	2.5:1	175	125424
JS3-00102000-33-10P	0.1-20	23	1.9	3.3 ⁽³⁾	10	2.5:1	175	125424
JS3-00102000-35-10P	0.1-20	23	1.9	3.5 ⁽³⁾	10	2.5:1	175	125424
JS3-00102000-65-15P	0.1-20	27	2.2	6.5 ⁽³⁾	15	2.5:1	350	128749
JS3-00102000-65-16P	0.1-20	27	2.2	6.5 ⁽³⁾	16	2.5:1	350	128749
JS3-00102600-30-5P	0.1-26	21	2.3	3 ⁽³⁾	5	2.5:1	175	125424
JS3-00102600-33-5P	0.1-26	21	2.3	3.3 ⁽³⁾	5	2.5:1	175	125424
JS3-00102600-35-5P	0.1-26	21	2.3	3.5 ⁽³⁾	5	2.5:1	175	125424
JS3-00102600-38-5P	0.1-26	21	2.3	3.8 ⁽³⁾	5	2.5:1	175	125424
JS3-00104000-58-5P	0.1-40	23	2.7	5.8 ⁽³⁾	5	2.5:1	200	128749
JS3-00104000-62-5P	0.1-40	23	2.7	6.2 ⁽³⁾	5	2.5:1	200	128749
JS3-00104000-65-5P	0.1-40	23	2.7	6.5 ⁽³⁾	5	2.5:1	200	128749
JS32-00104000-58-5P	0.1-40	45	3.5	5.8 ⁽³⁾	5	2.5:1	375	129007
JS32-00104000-62-5P	0.1-40	45	3.5	6.2 ⁽³⁾	5	2.5:1	375	129007
JS32-00104000-65-5P	0.1-40	45	3.5	6.5 ⁽³⁾	5	2.5:1	375	129007
JS4-00101000-21-10P	0.1-10	31	1.5	2.1 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-23-10P	0.1-10	31	1.5	2.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-25-10P	0.1-10	31	1.5	2.5 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-28-10P	0.1-10	31	1.5	2.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-30-10P	0.1-10	31	1.5	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-22-10P	0.1-12	31	1.7	2.2 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-24-10P	0.1-12	31	1.7	2.4 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-26-10P	0.1-12	31	1.7	2.6 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-28-10P	0.1-12	31	1.7	2.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-30-10P	0.1-12	31	1.7	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-23-10P	0.1-15	31	1.8	2.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-25-10P	0.1-15	31	1.8	2.5 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-27-10P	0.1-15	31	1.8	2.7 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-29-10P	0.1-15	31	1.8	2.9 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-31-10P	0.1-15	31	1.8	3.1 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-26-10P	0.1-18	29	1.8	2.6 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-28-10P	0.1-18	29	1.8	2.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-30-10P	0.1-18	29	1.8	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-32-10P	0.1-18	29	1.8	3.2 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-29-10P	0.1-20	29	1.9	2.9 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-31-10P	0.1-20	29	1.9	3.1 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-33-10P	0.1-20	29	1.9	3.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-35-10P	0.1-20	29	1.9	3.5 ⁽³⁾	10	2.5:1	195	125424

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN	NOISE	OUTPUT PWR.	VSWR IN/OUT	DC POWER	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)	FIGURE (dB, Max.)	@ 1 dB COMP. (dBm, Min.)		@ +15 V (mA, Nom.)	
JS4-00102600-30-10P	0.1-26	28	2.5	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00102600-33-10P	0.1-26	28	2.5	3.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00102600-35-10P	0.1-26	28	2.5	3.5 ⁽³⁾	10	2.5:1	195	125424
JS4-00102600-38-10P	0.1-26	28	2.5	3.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00104000-58-5P	0.1-40	30	3	5.8 ⁽³⁾	5	2.5:1	250	128749
JS4-00104000-62-5P	0.1-40	30	3	6.2 ⁽³⁾	5	2.5:1	250	128749
JS4-00104000-65-5P	0.1-40	30	3	6.5 ⁽³⁾	5	2.5:1	250	128749
JS41-00101000-21-10P	0.1-10	40	2	2.1 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-23-10P	0.1-10	40	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-25-10P	0.1-10	40	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-28-10P	0.1-10	40	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-30-10P	0.1-10	40	2	3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-22-10P	0.1-12	40	2	2.2 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-24-10P	0.1-12	40	2	2.4 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-26-10P	0.1-12	40	2	2.6 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-28-10P	0.1-12	40	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-30-10P	0.1-12	40	2	3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-23-10P	0.1-15	40	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-25-10P	0.1-15	40	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-27-10P	0.1-15	40	2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-29-10P	0.1-15	40	2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-31-10P	0.1-15	40	2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-24-10P	0.1-18	40	2.5	2.4 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-26-10P	0.1-18	40	2.5	2.6 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-28-10P	0.1-18	40	2.5	2.8 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-30-10P	0.1-18	40	2.5	3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-32-10P	0.1-18	40	2.5	3.2 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-27-10P	0.1-20	40	2.2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-29-10P	0.1-20	40	2.2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-31-10P	0.1-20	40	2.2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-33-10P	0.1-20	40	2.2	3.3 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-35-10P	0.1-20	40	2.2	3.5 ⁽³⁾	10	2.5:1	295	147321
JS41-00104000-58-5P	0.1-40	40	3.3	5.8 ⁽³⁾	5	2.5:1	375	129007
JS41-00104000-62-5P	0.1-40	40	3.3	6.2 ⁽³⁾	5	2.5:1	375	129007
JS41-00104000-65-5P	0.1-40	40	3.3	6.5 ⁽³⁾	8	2.5:1	375	129007
JS42-00101000-21-10P	0.1-10	47	2	2.1 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-23-10P	0.1-10	47	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-25-10P	0.1-10	47	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-28-10P	0.1-10	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-30-10P	0.1-10	47	2	3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-22-10P	0.1-12	47	2	2.2 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-24-10P	0.1-12	47	2	2.4 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-26-10P	0.1-12	47	2	2.6 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-28-10P	0.1-12	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-30-10P	0.1-12	47	2	3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-23-10P	0.1-15	47	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-25-10P	0.1-15	47	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-27-10P	0.1-15	47	2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-29-10P	0.1-15	47	2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-31-10P	0.1-15	47	2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-24-10P	0.1-18	47	2.5	2.4 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-26-10P	0.1-18	47	2.5	2.6 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-28-10P	0.1-18	47	2.5	2.8 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-30-10P	0.1-18	47	2.5	3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-32-10P	0.1-18	47	2.5	3.2 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-27-10P	0.1-20	47	2.2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-29-10P	0.1-20	47	2.2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-31-10P	0.1-20	47	2.2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-33-10P	0.1-20	47	2.2	3.3 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-35-10P	0.1-20	47	2.2	3.5 ⁽³⁾	10	2.5:1	295	147321
JSMF3-02K120-30-10P	0.000003-12	23	1.5	3.5	10	2:1	200	127122
JSMF3-02K180-30-10P	0.000003-18	25	2	3	10	2:1/2.5:1	180	127122
JSMF4-02K150-32-10P	0.000003-15	32	1.5	3.2	10	2:1	210	128553

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

LOW NOISE (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)						
* MPN1-00100100-23P	0.1-1	15	1	1.5	23	2:1	150	134923	
* MPN2-00200200-27P	0.2-2	24	1	1.8	27	2:1	250	134923	
* MPN2-00500100-30P	0.5-1	28	1	1.5	30	2:1	500	127651	
* NSM3-00100200-14-10P-4	0.1-2	30	1	1.4	10	2:1	150	120175	
* NSM3-00100400-14-10P-4	0.1-4	28	1	1.4	10	2:1	150	120175	
* NSM3-00100600-15-10P-4	0.1-6	28	1.5	1.5	10	2:1	150	120175	
* NSM3-00100600-18-8P-4	0.1-6	28	1.5	1.8	8	2:1	150	120175	
* NSM3-00100800-18-10P-4	0.1-8	24	1.5	1.8	10	2:1	175	120175	
* NSM4-00101000-26-10P-4	0.1-10	30	1.5	2.6	10	2:1	175	120175	
* NSM4-00101200-28-10P-4	0.1-12	30	1.5	2.8	10	2:1	175	120175	
* NSM4-00101200-32-10P-4	0.1-12	30	1.5	3.2	10	2:1	175	120175	
* NSM4-00101800-45-8P-4	0.1-18	22	2.5	4.5	8	2.5:1	175	120175	
* NSM4-00101800-55-10P-4	0.1-18	22	2.5	5.5	10	2.5:1	175	120175	
* NSM4-00102000-50-8P-4	0.1-20	18	2.5	5	8	2.5:1	175	120175	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

LOW-NOISE WAVEGUIDE AND 40-60 GHz LOW-NOISE AMPLIFIERS

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)						
JSW42-10002600-23-10P	10-26	54	3.5	2.3	10	2.75:1	350	153613	
** JSW4-18002600-20-5A	18-26	34	1.5	2	5	2:1	200	162868	
JSW4-18002600-21-8P	18-26	34	1.5	2.1	8	2.3:1	200	162868	
JSDW4-18004000-35-5P	18-40	22	3.2	3.5	5	2.5:1	180	131031	
JSDWK42-26004000-35-5P	26-40	37	4.2	3.5	5	2.5:1	325	137623	
JSW4-26004000-29-8P	26.5-40	28	2.8	2.9	5	2.5:1	180	149788	
** JSW4-40006000-55-0A	40-60	16	2.5	5.5	0	2.5:1	250	130001	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA LOW NOISE MEDIUM POWER

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS2-00100050-13-LN	0.1-0.5	25	1	1.3	10	2:1	125	113384-2
AFS3-00100200-15-ULN	0.1-2	36	1	1.5	10	2:1	150	113384-4
AFS3-00100200-18-LN	0.1-2	36	1	1.8	10	2:1	150	113384-4
AFS3-00100400-18-ULN	0.1-4	24	1.3	1.8	10	2:1	150	113384-4
AFS3-00100400-22-LN	0.1-4	28	1.25	2.2	10	2:1	125	113384-4
AFS3-00100600-20-ULN	0.1-6	24	1.5	2	10	2:1	150	113384-4
AFS3-00100600-25-LN	0.1-6	24	1.5	2.5	10	2:1	150	113384-4
AFS3-00100800-25-ULN	0.1-8	24	1.5	2.5	10	2:1	150	113384-4
AFS3-00100800-32-LN	0.1-8	24	1.5	3.2	10	2:1	150	113384-4
AFS3-00101000-32-ULN	0.1-10	20	1.5	3.2	10	2:1	150	113384-4
AFS3-00101000-38-LN	0.1-10	22	1.5	3.8	10	2:1	150	113384-4
AFS3-00101200-35-ULN	0.1-12	20	1.75	3.5	10	2:1	150	113384-4
AFS3-00101200-42-LN	0.1-12	22	1.75	4.2	10	2:1	150	113384-4
AFS4-00101800-40-ULN	0.1-18	22	2.5	4	10	2.5:1	175	113384-4
AFS4-00101800-55-LN	0.1-18	20	2.5	5.5	10	2.5:1	175	113384-4
AFS4-00102000-50-ULN	0.1-20	16	2.8	5	10	2.5:1	175	113384-4
AFS4-00102000-60-LN	0.1-20	16	2.75	6	10	2.5:1	175	113384-4
AFS2-00500100-10-ULN	0.5-1	23	1	1	10	2:1	125	113384-2
AFS2-00500100-12-LN	0.5-1	23	1	1.2	10	2:1	125	113384-2
AFD2-010020-12-LN	1-2	22	1	1.2	10	2:1	100	113427
AFD3-010020-10-LN	1-2	32	1	1	10	2:1	100	113427
AFD3-010020-12-LN	1-2	32	1	1.2	10	2:1	100	113427
* AFS3-01000200-10-ULN	1-2	34	1	1	10	2:1	150	113384-6
* AFS3-01000200-15-LN	1-2	34	1	1.5	10	2:1	150	113384-6
AFD3-012014-09-LN	1.2-1.4	34	0.25	0.9	15	1.5:1	125	113427
AFD3-012024-11-LN	1.2-2.4	34	1	1.1	10	2:1	100	113427
AFD3-020040-13-LN	2-4	30	1.5	1.3	10	2:1	100	113384-4
AFS3-02000400-10-ULN	2-4	28	1	1	10	2:1	150	113384-4
AFS3-02000400-13-LN	2-4	28	1	1.3	10	2:1	150	113384-4
AFS3-02000400-15-LN	2-4	28	1	1.5	10	2:1	150	113384-4
AFS3-02000600-12-ULN	2-6	24	1	1.2	10	2:1	150	113384-4
AFS3-02000600-15-LN	2-6	24	1	1.5	10	2:1	150	113384-4
AFD3-020080-33-LN	2-8	24	1.5	3.3	10	2:1	150	110228-3
AFS3-02000800-18-ULN	2-8	24	1.5	1.8	10	2:1	150	113384-4
AFS3-02000800-24-LN	2-8	24	1.5	2.4	10	2:1	150	113384-4
AFS4-02001800-35-ULN	2-18	22	2.5	3.5	10	2:1	175	113384-4
AFS4-02001800-50-LN	2-18	20	2.5	5	10	2:1	175	113384-4
AFD3-022023-10-LN	2.2-2.3	30	0.5	1	10	1.5:1	125	109962
AFD3-023027-10-LN	2.3-2.7	30	0.5	1	10	1.5:1	125	109962
AFD3-027031-10-LN	2.7-3.1	30	0.5	1	10	1.5:1	125	109962
AFD3-031035-10-LN	3.1-3.5	30	0.5	1	10	1.5:1	125	109962
AFD3-037042-10-LN	3.7-4.2	30	0.5	1	10	1.5:1	125	109962
AFD3-040080-28-LN	4-8	25	1	2.8	10	2:1	100	122987
AFS3-04000800-10-ULN	4-8	28	1	1	10	2:1	100	113384-4
AFS3-04000800-16-LN	4-8	24	1	1.6	10	2:1	150	113384-4
AFD3-040120-47-LN	4-12	19	1.5	4.7	10	2:1	150	109174-2
AFS2-06001800-48-15P-LPN	6-18	15	1	4.8	15	2:1	100	113384-2
AFS4-06001800-35-ULN	6-18	18	2	3.5	10	2:1	175	113384-4
AFS4-06001800-40-LN	6-18	18	2	4	10	2:1	175	113384-4
AFD3-080120-42-LN	8-12	20	1	4.2	10	2:1	100	134972
AFS3-08001200-14-ULN	8-12	25	1	1.4	10	2:1	80	113384-4
AFS3-08001200-22-LN	8-12	22	1	2.2	10	2:1	80	113384-4
AFS4-08001200-25-20P-4-LPN	8-12	32	1	2.5	20	2:1	175	113384-4
AFSD5-080120-25-26P-LPN	8-12	28	1.5	2.5	26	2:1	600	121045
AFS4-08001800-30-ULN	8-18	20	1.75	3	10	2:1	175	113384-4
AFS4-08001800-35-LN	8-18	20	1.75	3.5	10	2:1	175	113384-4
AFS4-12001800-28-ULN	12-18	20	1.5	2.8	10	2:1	175	113384-4
AFS4-12001800-32-LN	12-18	20	1.5	3.2	10	2:1	175	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA-WIDEBAND

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFD2-020080-15P	2-8	15	1	5.5	15	2:1	160	110228-2
AFD2-020080-20P	2-8	13	1.25	5.5	20	2:1	250	110228-2
AFD2-020080-23P	2-8	11	1.25	6.5	23	2:1	270	110228-2
AFD2-020080-25	2-8	16	1	2.5	8	2:1	100	110228-2
AFD2-020080-30	2-8	16	1	3	5	2:1	100	110228-2
AFD2-020080-35	2-8	16	1	3.5	5	2:1	100	110228-2
AFD2-020080-40	2-8	16	1	4	10	2:1	100	110228-2
AFD2-020080-50	2-8	16	1	5	10	2:1	120	110228-2
AFD2-040120-15P	4-12	10	1.25	5.5	15	2:1	275	109174-2
AFD2-040120-20P	4-12	8	1.25	6.5	20	2:1	275	109174-2
AFD2-040120-23P	4-12	8	1.25	6.5	23	2:1	300	109174-2
AFD2-040120-30	4-12	13	1	3	10	2:1	120	109174-2
AFD2-040120-45	4-12	13	0.8	4.5	10	2:1	120	109174-2
AFD2-040120-50	4-12	13	0.8	5	10	2:1	120	109174-2
AFD2-040120-60	4-12	13	0.8	6	10	2:1	120	109174-2
AFD3-020080-15P	2-8	24	1.5	3.5	15	2:1	210	110228-3
AFD3-020080-20P	2-8	22	1.5	4.5	20	2:1	300	122987
AFD3-020080-20P-SP	2-8	18	1.5	6	20	2:1	350	110228-3
AFD3-020080-23P	2-8	20	1	5.5	23	2:1	320	122987
AFD3-020080-25	2-8	24	1.5	2.5	10	2:1	160	110228-3
AFD3-020080-30	2-8	26	1.5	3	10	2:1	160	122987
AFD3-020080-33-LN	2-8	24	1.5	3.3	10	2:1	150	110228-3
AFD3-020080-35	2-8	24	1.5	3.5	10	2:1	160	110228-3
AFD3-020080-40	2-8	24	1.5	4	10	2:1	160	110228-3
AFD3-020080-40-SP	2-8	23	1.5	4	10	2:1	160	122987
AFD3-020080-50	2-8	24	1.5	5	10	2:1	180	110228-3
AFD3-040120-15P	4-12	16	1.5	5.5	15	2:1	200	109174-2
AFD3-040120-18P-SP	4-12	15	1.75	6.5	18	2:1	350	109174-2
AFD3-040120-20P	4-12	14	1.5	5.5	20	2:1	280	109174-2
AFD3-040120-20P-MP	4-12	15	1.5	6	20	2:1	350	109174-2
AFD3-040120-23P	4-12	13	1.5	6.5	23	2:1	260	109174-3
AFD3-040120-30	4-12	19	1.25	3	10	2:1	180	109174-2
AFD3-040120-45	4-12	19	1.4	4.5	10	2:1	180	109174-2
AFD3-040120-47-LN	4-12	19	1.5	4.7	10	2:1	150	109174-2
AFD3-040120-50	4-12	19	1.4	5	10	2:1	180	109174-2
AFD3-040120-55-SP	4-12	18	1.5	5.5	10	2:1	150	109174-2
AFD3-040120-60	4-12	19	1.4	6	10	2:1	180	109174-2
AFD4-020080-15P	2-8	32	1.25	4.5	15	2:1	260	133554
AFD4-020080-20P	2-8	30	2	4.5	20	2:1	350	133554-4
AFD4-020080-23P	2-8	28	2	3.5	23	2:1	370	133554
AFD4-020080-25	2-8	33	1.5	2.5	10	2:1	220	133554-4
AFD4-020080-30	2-8	33	2	3	10	2:1	220	133554-4
AFD4-020080-35	2-8	33	2	3.5	10	2:1	220	133554-4
AFD4-020080-40	2-8	33	2	4	10	2:1	220	133554-4
AFD4-020080-50	2-8	33	2	5	10	2:1	260	133554-4
AFD4-040120-15P	4-12	23	1.75	5.5	15	2:1	250	109174-4
AFD4-040120-20P	4-12	20	1.75	5.5	20	2:1	340	109174-4
AFD4-040120-23P	4-12	19	1.75	5.5	23	2:1	320	109174-3
AFD4-040120-30	4-12	25	1.5	3	10	2:1	260	109174-4
AFD4-040120-45	4-12	25	1.6	4.5	10	2:1	260	109174-4
AFD4-040120-50	4-12	25	1.6	5	10	2:1	260	109174-4
AFD5-020080-15P	2-8	40	2	4.5	15	2:1	300	133554-5
AFD5-020080-20P	2-8	38	2	4.5	20	2:1	390	133554-5
AFD5-020080-23P	2-8	36	2	4.5	23	2:1	420	133554-5
AFD5-020080-25	2-8	41	1.75	2.5	10	2:1	280	133554-5
AFD5-020080-35	2-8	41	2.5	3.5	10	2:1	280	133554-5
AFD5-020080-40	2-8	41	2.5	4	10	2:1	280	133554-5
AFD5-020080-50	2-8	41	2.5	5	10	2:1	300	133554-5
AFD5-040120-15P	4-12	29	1.75	5.5	15	2:1	300	109174-5
AFD5-040120-20P	4-12	26	2	5.5	20	2:1	400	109174-5
AFD5-040120-23P	4-12	25	2	5.5	23	2:1	370	109174-5
AFD5-040120-30	4-12	31	1.75	3	10	2:1	300	109174-5
AFD5-040120-45	4-12	31	1.8	4.5	10	2:1	300	109174-5

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY		GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)						
AFD5-040120-50	4-12	31	1.8	5	10	2:1	300	109174-5	
AFD5-040120-60	4-12	31	1.8	6	10	2:1	300	109174-5	
* AFPD44-00101200-20P	0.1-12	30	2.5	6	20	2:1	500	116630	
* AFPD44-00101200-30	0.1-12	32	2	3	10	2:1	375	116630	
* AFPD44-00102000-20P	0.5-20	26	3	6	20	2.5:1	650	116630	
* AFPD44-00102000-50	0.1-20	32	3	5	10	2.5:1	400	116630	
* AFPD44-02001800-20P	2-18	35	3	8	20	2.5:1	600	116630	
* AFPD44-02001800-28	2-18	30	2.5	2.8	10	2:1	400	116630	
AFS1-02001800-80-20P-2	2-18	8	1.5	8	20	2.5:1/2:1	275	113384-2	
AFS2-00100800-15-S-2	0.1-8	22	1.5	1.5	10	2:1	80	113384-2	
AFS2-00100800-20-8P-2	0.1-8	16	1.5	2	8	2:1	80	113384-2	
AFS2-00100800-25-8P-2	0.1-8	16	1.5	2.5	8	2:1	80	113384-2	
AFS2-00100800-33-10P-2	0.1-8	16	1.2	3.3	10	2:1	100	113384-2	
AFS2-00100800-35-10P-2	0.1-8	16	1.2	3.5	10	2:1	100	113384-2	
AFS2-00100800-35-8P-2	0.1-8	16	1.2	3.5	8	2:1	80	113384-2	
AFS2-00100800-40-10P-2	0.1-8	16	1.2	4	10	2:1	150	113384-2	
AFS2-00100800-45-10P-2	0.1-8	16	1.2	4.5	10	2:1	150	113384-2	
AFS2-00100800-50-20P-2	0.1-8	14	1.5	5	20	2.2:1	200	113384-2	
AFS2-00101000-22-8P-2	0.1-10	16	1.5	2.2	8	2:1	100	113384-2	
AFS2-00101000-46-8P-2	0.1-10	16	1.5	4.6	8	2:1	100	113384-2	
AFS2-00101000-50-8P-2	0.1-10	16	1.5	5	8	2:1	100	113384-2	
AFS2-00101000-55-20P-2	0.1-10	10	1.5	5.5	20	2.2:1	200	113384-2	
AFS2-00101000-55-8P-2	0.1-10	16	1.5	5.5	8	2:1	100	113384-2	
AFS2-00101000-60-8P-2	0.1-10	16	1.5	6	8	2:1	100	113384-2	
AFS2-00101200-25-8P-2	0.1-12	14	1.5	2.5	8	2:1	80	113384-2	
AFS2-00101200-48-8P-2	0.1-12	15	1.5	4.8	8	2:1	175	113384-2	
AFS2-00101200-50-8P-2	0.1-12	15	1.5	5	8	2:1	175	113384-2	
AFS2-00101200-55-20P-2	0.1-12	10	1.5	5.5	20	2.2:1	200	113384-2	
AFS2-00101200-55-8P-2	0.1-12	15	1.5	5.5	8	2:1	175	113384-2	
AFS2-00101400-30-5P-2	0.1-14	14	1.5	3	5	2.5:1	100	113384-2	
AFS2-00101600-30-8P-2	0.1-16	12	1.5	3	8	2.5:1	125	113384-2	
AFS2-00101800-30-8P-2	0.1-18	12	2	3	8	2.5:1	125	113384-2	
AFS2-00101800-55-8P-2	0.1-18	12	2	5.5	8	2.5:1	125	113384-2	
AFS2-00101800-65-8P-2	0.1-18	12	1.5	6.5	8	2.5:1	150	113384-2	
AFS2-00102000-40-5P-2	0.1-20	10	2	4	5	2.5:1	75	113384-2	
AFS2-00102650-55-8P-4	0.1-26.5	8	2.5	5.5	8	2.5:1	100	113384-4	
AFS2-02000800-09-10P-2	2-8	23	1	0.9	10	2:1	100	113384-2	
* AFS2-02000800-40-TC-2	2-8	20	1.5	4	5	2:1	100	113384-2	
AFS2-02001800-29-S-2	2-18	12	2.5	2.9	8	2.5:1	75	113384-2	
AFS2-02001800-50-10P-2	2-18	10	2.5	5	10	2.5:1	50	113384-2	
AFS2-06001200-18-5P-2	6-12	14	1.5	1.8	5	2:1	100	113384-2	
AFS2-06001800-25-5P-2	6-18	12	1.5	2.5	5	2:1	50	113384-2	
AFS2-06001800-48-15P-LPN	6-18	15	1	4.8	15	2:1	100	113384-2	
AFS2-08001600-15-5P-2	8-16	16	1.5	1.5	5	2:1	50	113384-2	
AFS2-08001800-25-5P-2	8-18	14	1.5	2.5	5	2:1	50	113384-2	
AFS2-12001800-25-8P-2	12-18	12	1.5	2.5	8	2:1	75	113384-2	
* AFS2-12002400-32-5P-2	12-24	10	1.5	3.2	5	2:1	40	113384-2	
AFS2-18002650-35-5P-2	18-26.5	10	1.75	3.5	5	2.2:1/2:1	50	113384-2	
AFS3-00100800-14-S-4	0.1-8	28	1.5	1.4	10	2:1	125	113384-4	
AFS3-00100800-20-10P-4	0.1-8	28	1.5	2	10	2:1	125	113384-4	
AFS3-00100800-25-10P-4	0.1-8	28	1.3	2.5	10	2:1	125	113384-4	
AFS3-00100800-25-ULN	0.1-8	24	1.5	2.5	10	2:1	150	113384-4	
AFS3-00100800-30-10P-4	0.1-8	28	1.3	3	10	2:1	125	113384-4	
AFS3-00100800-30-20P-4	0.1-8	28	1.5	3	20	2:1	250	113384-4	
AFS3-00100800-32-LN	0.1-8	24	1.5	3.2	10	2:1	150	113384-4	
AFS3-00100800-33-10P-4	0.1-8	28	1.3	3.3	10	2:1	125	113384-4	
AFS3-00100800-35-10P-4	0.1-8	28	1.3	3.5	10	2:1	125	113384-4	
AFS3-00100800-40-10P-4	0.1-8	28	1.3	4	10	2:1	125	113384-4	
AFS3-00100800-45-10P-4	0.1-8	28	1.3	4.5	10	2:1	125	113384-4	
AFS3-00100800-65-20P-4	0.1-8	26	1.5	6.5	20	2.5:1	125	113384-4	
AFS3-00101000-20-10P-4	0.1-10	26	1.5	2	10	2:1	125	113384-4	
AFS3-00101000-30-10P-4	0.1-10	26	1.5	3	10	2:1	150	113384-4	
AFS3-00101000-32-ULN	0.1-10	20	1.5	3.2	10	2:1	150	113384-4	
AFS3-00101000-38-LN	0.1-10	22	1.5	3.8	10	2:1	150	113384-4	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS3-00101000-40-10P-4	0.1-10	26	1.5	4	10	2:1	150	113384-4
AFS3-00101000-40-20P-4	0.1-10	18	1.5	4	20	2:1	250	113384-4
AFS3-00101000-50-10P-4	0.1-10	26	1.5	5	10	2:1	150	113384-4
AFS3-00101000-60-10P-4	0.1-10	26	1.5	6	10	2:1	150	113384-4
AFS3-00101000-70-20P-4	0.1-10	18	1.75	7	20	2.5:1	250	113384-4
AFS3-00101200-22-10P-4	0.1-12	25	1.5	2.2	10	2:1	100	113384-4
AFS3-00101200-35-ULN	0.1-12	20	1.75	3.5	10	2:1	150	113384-4
AFS3-00101200-40-10P-4	0.1-12	25	1.5	4	10	2:1	150	113384-4
AFS3-00101200-40-20P-4	0.1-12	18	1.5	4	20	2:1	250	113384-4
AFS3-00101200-42-LN	0.1-12	22	1.75	4.2	10	2:1	150	113384-4
AFS3-00101200-50-10P-4	0.1-12	25	1.5	5	10	2:1	150	113384-4
AFS3-00101200-55-10P-4	0.1-12	25	1.5	5.5	10	2:1	150	113384-4
AFS3-00101200-60-10P-4	0.1-12	25	1.5	6	10	2:1	125	113384-4
* AFS3-00101400-23-8P-4	0.1-14	19	1.75	2.3	8	2.5:1	150	113384-4
AFS3-00101600-23-8P-4	0.1-16	18	1.75	2.3	8	2.5:1	150	113384-4
AFS3-00101800-25-S-4	0.1-18	22	2	2.5	8	2.5:1	150	113384-4
AFS3-00101800-45-8P-4	0.1-18	22	1.75	4.5	8	2.5:1	150	113384-4
AFS3-00101800-60-8P-4	0.1-18	22	1.75	6	8	2.5:1	150	113384-4
AFS3-00102000-35-8P-4	0.1-20	15	2.25	3.5	8	2.5:1	100	113384-4
AFS3-00102200-40-8P-4	0.1-22	18	2.5	4	8	2.5:1	150	113384-4
AFS3-00102650-42-8P-4	0.1-26.5	20	2.5	4.2	8	2.5:1	120	113384-4
* AFS3-00501800-45-20P-4	0.5-18	20	2.5	4	20	2.5:1/2.2:1	300	113384-4
* AFS3-00502000-50-18P-4	0.5-20	20	2.5	5	18	2.5:1/2.2:1	350	113384-4
AFS3-02000800-09-10P-4	2-8	26	1	0.9	10	2:1	125	113384-4
AFS3-02000800-18-ULN	2-8	24	1.5	1.8	10	2:1	150	113384-4
AFS3-02000800-20-10P-4	2-8	28	1.5	2	10	2:1	150	113384-4
AFS3-02000800-24-LN	2-8	24	1.5	2.4	10	2:1	150	113384-4
AFS3-02000800-25-10P-4	2-8	28	1.5	2.5	10	2:1	150	113384-4
AFS3-02000800-30-TC-4	2-8	22	1.5	3	8	2:1	150	113384-4
AFS3-02000800-35-10P-4	2-8	28	1.5	3.5	10	2:1	150	113384-4
AFS3-02000800-40-10P-4	2-8	28	1.5	4	10	2:1	150	113384-4
AFS3-02000800-45-10P-4	2-8	28	1.5	4.5	10	2:1	150	113384-4
AFS3-02001800-24-10P-4	2-18	25	2.5	2.4	10	2.5:1	125	113384-4
AFS3-02001800-35-10P-4	2-18	22	2.5	3.5	10	2.5:1	125	113384-4
AFS3-02001800-45-20P-4	2-18	20	2	4.5	21	2:1	300	113384-4
AFS3-02001800-55-10P-4	2-18	22	2.5	5.5	10	2.5:1	150	113384-4
AFS3-02001800-80-13P-4	2-18	22	2.5	8	13	2.5:1	175	113384-4
AFS3-04001200-25-10P-4	4-12	25	1	2.5	10	2:1	175	113384-4
AFS3-04001200-30-10P-4	4-12	25	1	3	10	2:1	175	113384-4
AFS3-04001200-35-10P-4	4-12	25	1	3.5	10	2:1	175	113384-4
AFS3-04001200-40-10P-4	4-12	25	1	4	10	2:1	175	113384-4
AFS3-06001200-12-8P-4	6-12	24	1.5	1.2	8	2:1	80	113384-4
AFS3-06001200-15-8P-4	6-12	24	1.5	1.5	8	2:1	80	113384-4
AFS3-06001200-30-8P-4	6-12	24	1.5	3	8	2:1	80	113384-4
AFS3-06001800-24-10P-4	6-18	20	1.5	2.4	10	2:1	100	113384-4
* AFS3-06001800-25-HE-4	6-18	14	2	2.5	0	2:1	25	113384-4
AFS3-08001600-15-8P-4	8-16	28	1	1.5	8	2:1	100	113384-4
AFS3-08001800-24-8P-4	8-18	20	1.5	2.4	8	2:1	100	113384-4
AFS3-08001800-50-21P-4	8-18	18	2	5	21	2:1	275	113384-4
AFS3-12001800-18-10P-4	12-18	20	1.5	1.8	10	2:1	100	113384-4
* AFS3-12001800-20-HE-4	12-18	15	1.5	2	0	2:1	25	113384-4
AFS3-12001800-40-20P-4	12-18	18	1.25	4	20	2:1	350	113384-4
AFS3-12002400-30-5P-4	12-24	18	1.5	3	8	2:1	60	113384-4
AFS3-12002600-32-5P-4	12-26	16	2.5	3.2	5	2.5:1	125	113384-4
AFS3-18002650-30-8P-4	18-26.5	18	1.75	3	8	2.2:1	125	113384-4
AFS32-02000800-50-10P-42	2-8	42	2	5	10	2:1	250	151239
AFS32-04001200-25-10P-42	4-12	40	1.5	2.5	10	2:1	250	151239
* AFS32-12002600-32-5P-42	12-26	24	2.75	3.2	5	2.5:1	175	151239
AFS32-18002650-30-8P-42	18-26.5	30	2.5	3	8	2.2:1	175	151239
AFS33-12002400-30-10P-44	12-24	36	2	3	10	2:1	120	140941
AFS33-12002600-32-5P-44	12-26	32	3	3.2	5	2.5:1	250	140941
AFS33-18002650-30-8P-44	18-26.5	38	3	3	8	2.2:1	200	140941
AFS4-00100800-14-10P-4	0.1-8	36	1.5	1.4	10	2:1	150	113384-4
AFS4-00100800-20P-MP	0.1-8	24	2	4.8	20	2:1	250	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFS4-00100800-22-10P-4	0.1-8	34	1.5	2.2	10	2:1	175	113384-4
AFS4-00100800-25-10P-4	0.1-8	34	1.5	2.5	10	2:1	175	113384-4
AFS4-00100800-28-20P-4	0.1-8	34	1.5	2.8	20	2:1	300	113384-4
AFS4-00100800-30-10P-4	0.1-8	34	1.5	3	10	2:1	175	113384-4
AFS4-00100800-35-10P-4	0.1-8	34	1.5	3.5	10	2:1	175	113384-4
AFS4-00100800-40-10P-4	0.1-8	34	1.5	4	10	2:1	175	113384-4
AFS4-00100800-60-20P-4	0.1-8	30	1.5	6	20	2:1	250	113384-4
AFS4-00101000-20-10P-4	0.1-10	30	1.5	2	10	2:1	150	113384-4
AFS4-00101000-30-10P-4	0.1-10	30	1.5	3	10	2:1	150	113384-4
AFS4-00101000-35-10P-4	0.1-10	30	1.5	3.5	10	2:1	150	113384-4
AFS4-00101000-40-10P-4	0.1-10	30	1.5	4	10	2:1	150	113384-4
AFS4-00101000-40-20P-4	0.1-10	27	1.5	4	20	2:1	300	113384-4
AFS4-01001000-55-15P-4	1-10	32	2	5.5	15	2:1	250	113384-4
AFS4-00101000-80-15P-4	0.1-10	17	2.5	8	15	2.5:1	200	113384-4
AFS4-00101200-20P-MP	0.1-12	26	2	5.3	20	2:1	250	113384-4
AFS4-00101200-22-10P-4	0.1-12	34	1.5	2.2	10	2:1	150	113384-4
AFS4-00101200-25-10P-4	0.1-12	30	1.5	2.5	10	2:1	175	113384-4
AFS4-00101200-30-10P-4	0.1-12	30	1.5	3	10	2:1	175	113384-4
AFS4-00101200-35-10P-4	0.1-12	30	1.5	3.5	10	2:1	175	113384-4
AFS4-00101200-40-10P-4	0.1-12	30	1.5	4	10	2:1	175	113384-4
AFS4-00101200-40-20P-4	0.1-12	20	1.5	4	20	2:1	300	113384-4
AFS4-00101200-45-10P-4	0.1-12	30	1.5	4.5	10	2:1	175	113384-4
AFS4-00101200-45-20P-4	0.1-12	20	1.5	4.5	20	2:1	300	113384-4
AFS4-00101200-50-10P-4	0.1-12	30	1.5	5	10	2:1	175	113384-4
AFS4-00101400-23-10P-4	0.1-14	24	2	2.3	10	2.5:1	200	113384-4
AFS4-00101600-23-10P-4	0.1-16	24	2	2.3	10	2.5:1	175	113384-4
AFS4-00101800-25-S-4	0.1-18	25	2	2.5	10	2.5:1	175	113384-4
AFS4-00101800-30-10P-4	0.1-18	25	2	3	10	2.5:1	175	113384-4
AFS4-00101800-35-10P-4	0.1-18	25	2	3.5	10	2.5:1	175	113384-4
AFS4-00101800-38-10P-4	0.1-18	25	2	3.8	10	2.5:1	175	113384-4
AFS4-00101800-40-U LN	0.1-18	22	2.5	4	10	2.5:1	175	113384-4
AFS4-00101800-42-10P-4	0.1-18	25	2	4.2	10	2.5:1	175	113384-4
AFS4-00101800-45-10P-4	0.1-18	25	2	4.5	10	2.5:1	175	113384-4
AFS4-00101800-50-10P-4	0.1-18	25	2	5	10	2.5:1	175	113384-4
AFS4-00101800-55-LN	0.1-18	20	2.5	5.5	10	2.5:1	175	113384-4
AFS4-00101800-65-10P-4	0.1-18	25	2	6.5	10	2.5:1	175	113384-4
AFS4-00101800-65-13P-4	0.1-18	25	2	6.5	13	2.5:1	200	113384-4
AFS4-00101800-70-15P-4	0.1-18	25	2	7	15	2.5:1	250	113384-4
AFS4-00102000-30-10P-4	0.1-20	20	2.5	3	10	2.5:1	125	113384-4
AFS4-00102000-50-U LN	0.1-20	16	2.8	5	10	2.5:1	175	113384-4
AFS4-00102000-60-LN	0.1-20	16	2.75	6	10	2.5:1	175	113384-4
AFS4-00102200-40-10P-4	0.1-22	22	2.5	4	10	2.5:1	135	113384-4
AFS4-00102200-45-10P-4	0.1-22	20	2.5	4.5	10	2.5:1	175	113384-4
AFS4-00102200-50-10P-4	0.1-22	20	2.5	5	10	2.5:1	175	113384-4
AFS4-00102200-55-10P-4	0.1-22	20	2.5	5.5	10	2.5:1	175	113384-4
AFS4-00102650-42-8P-4	0.1-26.5	24	2.5	4.2	8	2.5:1	135	113384-4
AFS4-00102650-65-8P-4	0.1-26.5	24	2.5	6.5	8	2.5:1	150	113384-4
AFS4-00102650-70-10P-4	0.1-26.5	22	2.5	7	10	2.5:1	150	113384-4
* AFS4-00501800-40-20P-6	0.5-18	25	2.75	4	20	2.5:1/2.2:1	350	113384-6
AFS4-01000800-20-10P-4	1-8	34	1.5	2	10	2:1	175	113384-4
AFS4-01000800-22-10P-4	1-8	34	1.5	2.2	10	2:1	175	113384-4
AFS4-01000800-25-10P-4	1-8	34	1.5	2.5	10	2:1	175	113384-4
AFS4-01000800-30-10P-4	1-8	34	1.5	3	10	2:1	175	113384-4
AFS4-01001000-35-10P-4	1-10	32	2	3.5	10	2:1	150	113384-4
AFS4-01001800-43-10P-4	1-18	25	2	4.3	10	2.5:1	175	113384-4
AFS4-02000800-09-10P-4	2-8	34	1.5	0.9	10	2:1	150	113384-4
AFS4-02000800-13-10P-4	2-8	34	1.25	1.3	10	2:1	175	113384-4
AFS4-02000800-15-10P-4	2-8	34	1.5	1.5	10	2:1	175	113384-4
AFS4-02000800-20-10P-4	2-8	34	1.5	2	10	2:1	175	113384-4
AFS4-02000800-20P-MP	2-8	30	1.5	5.8	20	2:1	175	113384-4
AFS4-02000800-22-20P-4	2-8	30	1.5	2.2	20	2:1	275	113384-4
AFS4-02000800-25-10P-4	2-8	34	1.5	2.5	10	2:1	150	113384-4
* AFS4-02000800-26-TC-4	2-8	30	1.5	2.6	8	2:1	175	113384-4
AFS4-02000800-30-10P-4	2-8	34	1.5	3	10	2:1	150	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS4-02000800-30-22P-4	2-8	34	1.5	3	22	2:1	275	113384-4
AFS4-02000800-35-10P-4	2-8	34	1.5	3.5	10	2:1	150	113384-4
AFS4-02000800-35-15P-4	2-8	32	1.5	3.5	15	2:1	175	113384-4
AFS4-02000800-40-10P-4	2-8	34	1.5	4	10	2:1	150	113384-4
AFS4-02000800-40-20P-4	2-8	30	1.5	4	20	2:1	275	113384-4
AFS4-02000800-45-10P-4	2-8	32	1.5	4.5	10	2:1	150	113384-4
AFS4-02000800-45-23P-4	2-8	26	1.5	4.5	23	2:1	295	113384-4
AFS4-02000800-50-20P-4	2-8	30	1.5	5	20	2:1	275	113384-4
AFS4-02000800-60-23P-4	2-8	26	1.5	6	23	2:1	295	113384-4
AFS4-02001800-24-10P-4	2-18	35	2.5	2.4	10	2.5:1	175	113384-4
AFS4-02001800-25-20P-4	2-18	34	2.5	2.5	20	2.5:1	300	113384-4
AFS4-02001800-28-10P-4	2-18	30	2.5	2.8	10	2.5:1	175	113384-4
AFS4-02001800-30-10P-4	2-18	30	2.5	3	10	2.5:1	175	113384-4
AFS4-02001800-35-10P-4	2-18	30	2.5	3.5	10	2.5:1	175	113384-4
AFS4-02001800-35-20P-4	2-18	32	1.5	3.5	20	2:1	350	113384-4
AFS4-02001800-35-ULN	2-18	22	2.5	3.5	10	2:1	175	113384-4
AFS4-02001800-40-10P-4	2-18	25	2.5	4	10	2.5:1	150	113384-4
AFS4-02001800-45-10P-4	2-18	25	2.5	4.5	10	2.5:1	150	113384-4
* AFS4-02001800-45-TC-5	2-18	25	1.5	4.5	8	2.2:1	175	113384-5
AFS4-02001800-50-LN	2-18	20	2.5	5	10	2:1	175	113384-4
AFS4-02001800-60-10P-4	2-18	25	2.5	6	10	2.5:1	125	113384-4
AFS4-02001800-60-13P-4	2-18	25	2.5	6	13	2.5:1	200	113384-4
AFS4-02001800-60-15P-4	2-18	25	2.5	6	15	2.5:1	250	113384-4
AFS4-04001200-25-10P-4	4-12	28	1.5	2.5	10	2:1	175	113384-4
AFS4-04001200-30-10P-4	4-12	28	1.5	3	10	2:1	175	113384-4
AFS4-04001200-35-10P-4	4-12	28	1.5	3.5	10	2:1	175	113384-4
AFS4-04001200-40-10P-4	4-12	28	1.5	4	10	2:1	175	113384-4
AFS4-06001200-12-10P-4	6-12	30	1.5	1.2	10	2:1	120	113384-4
AFS4-06001200-15-10P-4	6-12	30	1.5	1.5	10	2:1	120	113384-4
AFS4-06001200-18-10P-4	6-12	30	1	1.8	10	2:1	120	113384-4
AFS4-06001200-23-10P-4	6-12	30	1	2.3	10	2:1	120	113384-4
AFS4-06001200-25-10P-4	6-12	30	1	2.5	10	2:1	120	113384-4
AFS4-06001200-60-22P-4	6-12	22	1.5	6	22	2:1	300	113384-4
AFS4-06001800-22-10P-4	6-18	25	2	2.2	10	2:1	125	113384-4
* AFS4-06001800-25-HE-4	6-18	26	2	2.5	0	2:1	40	113384-4
* AFS4-06001800-35-TC-6	6-18	22	1	3.5	8	2:1	150	113384-6
AFS4-06001800-35-ULN	6-18	18	2	3.5	10	2:1	175	113384-4
AFS4-06001800-40-LN	6-18	18	2	4	10	2:1	175	113384-4
AFS4-08001600-14-10P-4	8-16	34	1	1.4	10	2:1	125	113384-4
AFS4-08001800-22-10P-4	8-18	28	2	2.2	10	2:1	125	113384-4
AFS4-08001800-30-ULN	8-18	20	1.75	3	10	2:1	175	113384-4
AFS4-08001800-35-LN	8-18	20	1.75	3.5	10	2:1	175	113384-4
* AFS4-12001800-16-CR-4	12-18	30	1.5	1.8	5	2:1	75	113384-4
AFS4-12001800-18-10P-4	12-18	28	1.5	1.8	10	2:1	125	113384-4
* AFS4-12001800-20-HE-4	12-18	28	1.5	2	0	2:1	40	113384-4
AFS4-12001800-28-ULN	12-18	20	1.5	2.8	10	2:1	175	113384-4
AFS4-12001800-32-LN	12-18	20	1.5	3.2	10	2:1	175	113384-4
AFS4-12002400-30-10P-4	12-24	24	2	3	10	2:1	85	113384-4
AFS42-00101200-22-10P-42	0.1-12	38	2	2.2	10	2:1	220	151239
AFS42-00101200-S-20P-42	0.1-12	35	1.75	4.5	20	2:1	350	151239
AFS42-00101800-25-S-42	0.1-18	35	2.75	2.5	10	2.5:1	225	151239
AFS42-00101800-35-10P-42	0.1-18	35	2.75	3.5	10	2.5:1	225	151239
AFS42-00101800-43-10P-42	0.1-18	35	2.75	4.3	10	2.5:1	300	151239
AFS42-00101800-45-10P-42	0.1-18	35	2.75	4.5	10	2.5:1	275	151239
AFS42-00101800-50-10P-42	0.1-18	35	2.75	5	10	2.5:1	275	151239
AFS42-00101800-60-10P-42	0.1-18	35	2.75	6	10	2.5:1	275	151239
AFS42-00102200-40-10P-42	0.1-22	30	2.75	4	10	2.5:1	200	151239
AFS42-00102650-42-10P-42	0.1-26.5	30	2.75	4.2	10	2.5:1	200	151239
AFS42-01001800-28-10P-42	1-18	35	2.5	2.8	10	2.5:1	250	151239
AFS42-01001800-35-10P-42	1-18	35	2.5	3.5	10	2.5:1	250	151239
AFS42-02001800-65-15P-42	2-18	35	2.5	6.5	15	2.5:1	375	151239
AFS42-06001200-12-10P-42	6-12	40	1.75	1.2	10	2:1	175	151239
AFS42-06001200-15-10P-42	6-12	40	1.75	1.5	10	2:1	175	151239
AFS43-01002600-38-8P-44	1-26	35	3	3.8	8	2.5:1	225	140941

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFSX4-06001800-28-8P	6-18	23	2	2.8	8	2:1	150	141108
* AFSX4-08001800-35-10P	8-18	20	2	3.5	10	2:1	150	141108
* AFSX4-12001800-32-10P	12-18	20	2	3.2	10	2:1	125	141108
AFTL3-00100800-16	0.1-8	26	1.25	1.6	10	2:1	125	127846
AFTL3-02000800-11	2-8	26	1	1.1	10	2:1	125	127846
AFTL4-00101200-24	0.1-12	26	1.5	2.4	10	2:1	150	127846
AFTL4-00102650-40	0.1-26.5	18	2.5	4	8	2.5:1	150	127846
AFTL4-02001800-25	2-18	20	2	2.5	10	2:1	175	127846
* AFTL5-00101800-25	0.1-18	25	2.25	2.5	10	2:1	200	127846
* AVG4-00100800-18	0.1-8	32	1.5	1.8	10	2:1	120	119393
* AVG4-00100800-DET-8	0.1-8	26	1	2.8	10	2:1	175	164073
* AVG4-00101200-DET-8	0.1-12	26	1.25	3	10	2:1	185	164073
AVG4-00101800-35	0.1-18	24	2.5	3.5	10	2.5:1	175	119393
* AVG4-00101800-DET-8	0.1-18	26	2.5	3.5	10	2.5:1	180	164073
* AVG4-02000800-20	2-8	32	1.25	2	10	2:1	120	119393
* AVG4-02000800-DET-8	2-8	28	1	2.5	10	2:1	175	119393
AVG4-02001800-30	2-18	25	2.25	3	10	2.5:1	180	119393
* AVG4-02001800-DET-8	2-18	26	2.5	3	10	2.5:1	180	142299
* AVG4-06001200-19	6-12	24	1.5	1.9	10	2:1	175	142051
* AVG4-06001800-25	6-18	22	2	2.5	10	2.3:1	185	119393
IFS3-00100800-15P-LP	0.1-8	22	2	5.5	15	2:1	150	127362
IFS3-00100800-37-LP	0.1-8	24	2	3.7	8	2:1	150	127362
IFS3-00101200-15P-LP	0.1-12	22	2	6	15	2:1	150	127362
IFS3-00101200-45-LP	0.1-12	22	2	4.5	8	2:1	150	127362
IFS3-02000800-15P-LP	2-8	22	2	6	15	2:1	150	127362
IFS3-02000800-30-LP	2-8	24	2	3	8	2:1	150	127362
IFS3-02001800-60-LP	2-18	22	2.75	6	8	2.5:1	150	127362
JDM2W-55006700-50-10P	55-67	25	2.5	5	13	3:1/2.75:1	150	148727
JS1-00100800-38-8P	0.1-8	9	1.2	3.8 ⁽²⁾	8	2.3:1	125	128749
JS1-00100800-40-8P	0.1-8	9	1.2	4 ⁽²⁾	8	2.3:1	125	128749
JS1-00100800-45-8P	0.1-8	9	1.2	4.5 ⁽²⁾	8	2.3:1	125	128749
JS1-00101000-45-8P	0.1-10	9	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101000-50-8P	0.1-10	9	1.5	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101000-55-8P	0.1-10	9	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101200-45-8P	0.1-12	8	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101200-50-8P	0.1-12	8	1.5	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101200-55-8P	0.1-12	8	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101500-45-8P	0.1-15	8	1.5	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101500-50-8P	0.1-15	8	1.5	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101500-55-8P	0.1-15	8	1.5	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101800-45-8P	0.1-18	8	1.7	4.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101800-50-8P	0.1-18	8	1.7	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00101800-55-8P	0.1-18	8	1.7	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00102000-46-8P	0.1-20	8	1.8	4.6 ⁽³⁾	8	2.5:1	125	128749
JS1-00102000-50-8P	0.1-20	8	1.8	5 ⁽³⁾	8	2.5:1	125	128749
JS1-00102000-55-8P	0.1-20	8	1.8	5.5 ⁽³⁾	8	2.5:1	125	128749
JS1-00104000-87-5P	0.1-40	10	3	8.7 ⁽³⁾	8	2.5:1	100	128749
JS1-00104000-89-5P	0.1-40	10	3	8.9 ⁽³⁾	8	2.5:1	100	128749
JS1-02004000-86-5P	2-40	10	3	8.6	5	2.5:1	100	128749
JS1-02004000-88-5P	2-40	10	3	8.8	5	2.5:1	100	128749
JS1-06001200-28-8P	6-12	8	1.2	2.8	8	2:1	80	128749
JS1-06001200-30-8P	6-12	8	1.2	3	8	2:1	80	128749
JS1-06001200-33-8P	6-12	8	1.2	3.3	8	2:1	80	128749
JS1-06001800-30-8P	6-18	8	1.3	3	8	2.3:1	80	128749
JS1-06001800-33-8P	6-18	8	1.3	3.3	8	2.3:1	80	128749
JS1-06001800-35-8P	6-18	8	1.3	3.5	8	2.3:1	80	128749
JS1-08001800-30-8P	8-18	8	1.2	3	8	2.3:1	80	128749
JS1-08001800-33-8P	8-18	8	1.2	3.3	8	2.3:1	80	128749
JS1-08001800-35-8P	8-18	8	1.2	3.5	8	2.3:1	80	128749
JS1-26004000-100-16P	26-40	17	2.5	10	16	2.5:1	600	131484
JS1-26004000-100-17P	26-40	17	2.5	10	17	2.5:1	600	131484
JS1-26004000-100-18P	26-40	17	2.5	10	18	2.5:1	600	131484
JS1-26004000-100-19P	26-40	17	2.5	10	19	2.5:1	600	131484

NOTES: * Specialized Amplifiers (pages 102 to 128).

** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

(2) Noise figure is higher below 500 MHz.

(3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
JS2-00100800-14-8P	0.1-8	23	1.6	1.4	8	2.3:1	175	128749
JS2-00100800-16-8P	0.1-8	23	1.6	1.6	8	2.3:1	175	128749
JS2-00100800-18-8P	0.1-8	23	1.6	1.8	8	2.3:1	175	128749
JS2-00100800-20-8P	0.1-8	23	1.6	2 ⁽²⁾	8	2.3:1	175	128749
JS2-00100800-22-8P	0.1-8	23	1.6	2.2 ⁽²⁾	8	2.3:1	175	128749
JS2-00101000-40-8P	0.1-10	15	1.7	4 ⁽³⁾	8	2.2:1	125	128749
JS2-00101000-42-8P	0.1-10	15	1.7	4.2 ⁽³⁾	8	2.2:1	125	128749
JS2-00101000-45-8P	0.1-10	15	1.7	4.5 ⁽³⁾	8	2.2:1	125	128749
JS2-00101200-40-8P	0.1-12	15	1.7	4 ⁽³⁾	8	2.5:1	125	128749
JS2-00101200-42-8P	0.1-12	15	1.7	4.2 ⁽³⁾	8	2.5:1	125	128749
JS2-00101200-45-8P	0.1-12	15	1.7	4.5 ⁽³⁾	8	2.5:1	125	128749
JS2-00101500-42-8P	0.1-15	15	1.8	4.2 ⁽³⁾	8	2.5:1	125	128749
JS2-00101500-45-8P	0.1-15	15	1.8	4.5 ⁽³⁾	8	2.5:1	125	128749
JS2-00101500-48-8P	0.1-15	15	1.8	4.8 ⁽³⁾	8	2.5:1	125	128749
JS2-00101800-44-8P	0.1-18	14	1.8	4.4 ⁽³⁾	8	2.5:1	125	128749
JS2-00101800-47-8P	0.1-18	14	1.8	4.7 ⁽³⁾	8	2.5:1	125	128749
JS2-00101800-49-8P	0.1-18	14	1.8	4.9 ⁽³⁾	8	2.5:1	125	128749
JS2-00102000-45-8P	0.1-20	14	1.9	4.5 ⁽³⁾	8	2.5:1	125	128749
JS2-00102000-47-8P	0.1-20	14	1.9	4.7 ⁽³⁾	8	2.5:1	125	128749
JS2-00102000-49-8P	0.1-20	14	1.9	4.9 ⁽³⁾	8	2.5:1	125	128749
** JS2-02000800-10-4P	2-8	21	1.2	1	4	2:1	175	128749
** JS2-02000800-12-4P	2-8	21	1.2	1.2	4	2:1	175	128749
** JS2-02000800-14-4P	2-8	21	1.2	1.4	4	2:1	175	128749
JS2-06001200-26-8P	6-12	14	1.2	2.6	8	2:1	125	128749
JS2-06001200-29-8P	6-12	14	1.2	2.9	8	2:1	125	128749
JS2-06001200-33-10P	6-12	14	1.2	3.3	10	2:1	150	128749
JS2-06001200-35-10P	6-12	14	1.2	3.5	10	2:1	150	128749
JS2-06001800-28-8P	6-18	14	1.5	2.8	8	2.2:1	125	128749
JS2-06001800-31-8P	6-18	14	1.5	3.1	8	2.2:1	125	128749
JS2-06001800-35-10P	6-18	14	1.5	3.5	10	2.2:1	150	128749
JS2-06001800-38-10P	6-18	14	1.5	3.8	10	2.2:1	150	128749
JS2-08001800-28-8P	8-18	14	1.4	2.8	8	2.2:1	125	128749
JS2-08001800-31-8P	8-18	14	1.4	3.1	8	2.2:1	125	128749
JS2-08001800-35-10P	8-18	14	1.4	3.5	10	2.2:1	150	128749
JS2-08001800-38-10P	8-18	14	1.4	3.8	10	2.2:1	150	128749
JS2-12001800-27-8P	12-18	14	1	2.7	8	2:1	125	128749
JS2-12001800-30-8P	12-18	14	1	3	8	2:1	125	128749
JS2-12001800-34-10P	12-18	14	1	3.4	10	2:1	150	128749
JS2-12001800-37-10P	12-18	14	1	3.7	10	2:1	150	128749
JS2-18002600-35-5P	18-26	13	1.5	3.5	5	2.3:1	100	128749
JS2-18002600-40-5P	18-26	13	1.5	4	5	2.3:1	100	128749
JS2-18002600-45-5P	18-26	13	1.5	4.5	5	2.3:1	100	128749
JS2-18004000-40-5P	18-40	11	2.5	4	5	2.5:1	100	128749
JS2-18004000-45-5P	18-40	11	2.5	4.5	5	2.5:1	100	128749
JS2-18004000-50-5P	18-40	11	2.5	5	5	2.5:1	100	128749
JS2-26004000-40-5P	26-40	12	2.5	4	5	2.5:1	100	128749
JS2-26004000-45-5P	26-40	12	2.5	4.5	5	2.5:1	100	128749
JS2-26004000-50-5P	26-40	12	2.5	5	5	2.5:1	100	128749
JS22-02000800-10-4P	2-8	42	2	1	4	2:1	325	129007
JS22-02000800-12-4P	2-8	42	2	1.2	4	2:1	325	129007
JS22-02000800-14-4P	2-8	42	2	1.4	4	2:1	325	129007
JS22-02000800-16-4P	2-8	42	2	1.6	4	2:1	325	129007
JS3-00101000-21-10P	0.1-10	24	1.5	2.1 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-23-10P	0.1-10	24	1.5	2.3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-25-10P	0.1-10	24	1.5	2.5 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-28-10P	0.1-10	24	1.5	2.8 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-30-10P	0.1-10	24	1.5	3 ⁽³⁾	10	2.5:1	175	125424
JS3-00101000-65-18P	0.1-10	28	1.5	6.5 ⁽³⁾	18	2.3:1	350	128749
JS3-00101000-65-19P	0.1-10	28	1.5	6.5 ⁽³⁾	19	2.3:1	350	128749
JS3-00101200-22-10P	0.1-12	24	1.7	2.2 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-24-10P	0.1-12	24	1.7	2.4 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-28-10P	0.1-12	24	1.7	2.8 ⁽³⁾	10	2.5:1	175	125424
JS3-00101200-30-10P	0.1-12	24	1.7	3 ⁽³⁾	10	2.5:1	175	125424

NOTES: * Specialized Amplifiers (pages 102 to 128).

** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

(2) Noise figure is higher below 500 MHz.

(3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY		GAIN		NOISE	OUTPUT PWR.		DC POWER	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)	FIGURE (dB, Max.)	@ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	@ +15 V (mA, Nom.)		
JS3-00101200-65-17P	0.1-12	27	1.7	6.5 ⁽³⁾	17	2.3:1	350	128749	
JS3-00101200-65-18P	0.1-12	27	1.7	6.5 ⁽³⁾	18	2.3:1	350	128749	
JS3-00101500-23-10P	0.1-15	24	1.8	2.3 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101500-25-10P	0.1-15	24	1.8	2.5 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101500-27-10P	0.1-15	24	1.8	2.7 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101500-29-10P	0.1-15	24	1.8	2.9 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101500-31-10P	0.1-15	24	1.8	3.1 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101500-65-16P	0.1-15	27	1.8	6.5 ⁽³⁾	16	2.5:1	350	128749	
JS3-00101500-65-17P	0.1-15	27	1.8	6.5 ⁽³⁾	17	2.5:1	350	128749	
JS3-00101800-24-10P	0.1-18	23	1.8	2.4 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101800-26-10P	0.1-18	23	1.8	2.6 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101800-28-10P	0.1-18	23	1.8	2.8 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101800-30-10P	0.1-18	23	1.8	3 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101800-32-10P	0.1-18	23	1.8	3.2 ⁽³⁾	10	2.5:1	175	125424	
JS3-00101800-65-15P	0.1-18	27	2	6.5 ⁽³⁾	15	2.5:1	350	128749	
JS3-00101800-65-16P	0.1-18	27	2	6.5 ⁽³⁾	16	2.5:1	350	128749	
JS3-00102000-27-10P	0.1-20	23	1.9	2.7 ⁽³⁾	10	2.5:1	175	125424	
JS3-00102000-29-10P	0.1-20	23	1.9	2.9 ⁽³⁾	10	2.5:1	175	125424	
JS3-00102000-31-10P	0.1-20	23	1.9	3.1 ⁽³⁾	10	2.5:1	175	125424	
JS3-00102000-33-10P	0.1-20	23	1.9	3.3 ⁽³⁾	10	2.5:1	175	125424	
JS3-00102000-35-10P	0.1-20	23	1.9	3.5 ⁽³⁾	10	2.5:1	175	125424	
JS3-00102000-65-15P	0.1-20	27	2.2	6.5 ⁽³⁾	15	2.5:1	350	128749	
JS3-00102000-65-16P	0.1-20	27	2.2	6.5 ⁽³⁾	16	2.5:1	350	128749	
JS3-00102600-30-5P	0.1-26	21	2.3	3 ⁽³⁾	5	2.5:1	175	125424	
JS3-00102600-33-5P	0.1-26	21	2.3	3.3 ⁽³⁾	5	2.5:1	175	125424	
JS3-00102600-35-5P	0.1-26	21	2.3	3.5 ⁽³⁾	5	2.5:1	175	125424	
JS3-00102600-38-5P	0.1-26	21	2.3	3.8 ⁽³⁾	5	2.5:1	175	125424	
JS3-00104000-58-5P	0.1-40	23	2.7	5.8 ⁽³⁾	5	2.5:1	200	128749	
JS3-00104000-62-5P	0.1-40	23	2.7	6.2 ⁽³⁾	5	2.5:1	200	128749	
JS3-00104000-65-5P	0.1-40	23	2.7	6.5 ⁽³⁾	5	2.5:1	200	128749	
JS3-01001000-21-10P	1-10	24	1.4	2.1	10	2.5:1	175	125424	
JS3-01001000-23-10P	1-10	24	1.4	2.3	10	2.5:1	175	125424	
JS3-01001000-25-10P	1-10	24	1.4	2.5	10	2.5:1	175	125424	
JS3-01001000-28-10P	1-10	24	1.4	2.8	10	2.5:1	175	125424	
JS3-01001000-30-10P	1-10	24	1.4	3	10	2.5:1	175	125424	
JS3-02001200-22-10P	2-12	24	1.5	2.2	10	2.5:1	175	125424	
JS3-02001200-24-10P	2-12	24	1.5	2.4	10	2.5:1	175	125424	
JS3-02001200-26-10P	2-12	24	1.5	2.6	10	2.5:1	175	125424	
JS3-02001200-28-10P	2-12	24	1.5	2.8	10	2.5:1	175	125424	
JS3-02001200-30-10P	2-12	24	1.5	3	10	2.5:1	175	125424	
JS3-02001800-24-10P	2-18	23	1.8	2.4	10	2.5:1	175	125424	
JS3-02001800-26-10P	2-18	23	1.8	2.6	10	2.5:1	175	125424	
JS3-02001800-28-10P	2-18	23	1.8	2.8	10	2.5:1	175	125424	
JS3-02001800-30-10P	2-18	23	1.8	3	10	2.5:1	175	125424	
JS3-02001800-32-10P	2-18	23	1.8	3.2	10	2.5:1	175	125424	
JS3-02002600-30-5P	2-26	21	2.1	3	5	2.5:1	175	125424	
JS3-02002600-33-5P	2-26	21	2.1	3.3	5	2.5:1	175	125424	
JS3-02002600-35-5P	2-26	21	2.1	3.5	5	2.5:1	175	125424	
JS3-02002600-38-5P	2-26	21	2.1	3.8	5	2.5:1	175	125424	
JS3-02004000-54-5P	2-40	23	2.7	5.4	5	2.5:1	200	128749	
JS3-02004000-57-5P	2-40	23	2.7	5.7	5	2.5:1	200	128749	
JS3-02004000-61-5P	2-40	23	2.7	6.1	5	2.5:1	200	128749	
JS3-02004000-64-5P	2-40	23	2.7	6.4	5	2.5:1	200	128749	
JS3-04001200-18-10P	4-12	32	1.5	1.8	10	2:1	195	128749	
JS3-04001200-20-10P	4-12	32	1.5	2	10	2:1	195	128749	
JS3-04001200-22-10P	4-12	32	1.5	2.2	10	2:1	195	128749	
JS3-04001200-24-10P	4-12	32	1.5	2.4	10	2:1	195	128749	
JS3-04001200-26-10P	4-12	32	1.5	2.6	10	2:1	195	128749	
JS3-04002000-19-8P	4-20	32	1.7	1.9	8	2.2:1	195	128749	
JS3-04002000-21-8P	4-20	32	1.7	2.1	8	2.2:1	195	128749	
JS3-04002000-23-8P	4-20	32	1.7	2.3	8	2.2:1	195	128749	
JS3-04002000-25-8P	4-20	32	1.7	2.7	8	2.2:1	195	128749	
JS3-06001200-14-8P	6-12	28	1	1.4	8	2:1	150	128749	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)					
JS3-06001200-16-8P	6-12	28	1	1.6	8	2:1	150	128749
JS3-06001200-18-10P	6-12	28	1	1.8	10	2:1	165	128749
JS3-06001200-20-10P	6-12	28	1	2	10	2:1	165	128749
JS3-06001800-17-8P	6-18	27	1.5	1.7	8	2:1	150	128749
JS3-06001800-18-8P	6-18	27	1.5	1.8	8	2:1	150	128749
JS3-06001800-20-10P	6-18	27	1.5	2	8	2:1	165	128749
JS3-06001800-22-10P	6-18	27	1.5	2.2	8	2:1	165	128749
JS3-08001800-16-8P	8-18	27	1.4	1.6	8	2:1	150	128749
JS3-08001800-18-8P	8-18	27	1.4	1.8	8	2:1	150	128749
JS3-08001800-20-10P	8-18	27	1.4	2	10	2:1	165	128749
JS3-08001800-22-10P	8-18	27	1.4	2.2	10	2:1	165	128749
JS3-12001800-16-8P	12-18	31	1.2	1.6	8	2:1	200	128749
JS3-12001800-18-8P	12-18	31	1.2	1.8	8	2:1	200	128749
JS3-12001800-20-10P	12-18	31	1.2	2	10	2:1	200	128749
JS3-12001800-22-10P	12-18	31	1.2	2.2	10	2:1	200	128749
JS3-18004000-35-5P	18-40	16	2.5	3.5	5	2.5:1	150	128749
JS3-18004000-40-5P	18-40	16	2.5	4	5	2.5:1	150	128749
JS3-18004000-43-15P	18-40	32	2.5	4.3	15	2.5:1	600	128446
JS3-18004000-45-15P	18-40	32	2.5	4.5	15	2.5:1	600	128446
JS3-18004000-45-5P	18-40	16	2.5	4.5	5	2.5:1	150	128749
JS3-18004000-50-15P	18-40	29	2.5	5	15	2.5:1	600	128446
JS3-18004000-55-15P	18-40	29	2.5	5.5	15	2.5:1	600	128446
JS3-26004000-35-5P	26-40	17	2.5	3.5	5	2.5:1	150	128749
JS3-26004000-40-5P	26-40	17	2.5	4	5	2.5:1	150	128749
JS3-26004000-43-15P	26-40	32	2.5	4.3	15	2.5:1	600	128446
JS3-26004000-45-15P	26-40	32	2.5	4.5	15	2.5:1	600	128446
JS3-26004000-45-5P	26-40	17	2.5	4.5	5	2.5:1	150	128749
JS3-26004000-50-15P	26-40	32	2.5	5	15	2.5:1	600	128446
JS3-26004000-55-15P	26-40	32	2.5	5.5	15	2.5:1	600	128446
JS31-12001800-14-10P	12-18	44	1.6	1.4	8	2:1	250	129007
JS31-12001800-16-10P	12-18	44	1.6	1.6	8	2:1	250	129007
JS31-12001800-18-10P	12-18	44	1.6	1.8	8	2:1	250	129007
JS31-12001800-20-10P	12-18	44	1.6	2	8	2:1	250	129007
JS31-12001800-22-10P	12-18	44	1.6	2.2	8	2:1	250	129007
JS32-00104000-58-5P	0.1-40	45	3.5	5.8	8	2.5:1	375	129007
JS32-00104000-62-5P	0.1-40	45	3.5	6.2	8	2.5:1	375	129007
JS32-00104000-65-5P	0.1-40	45	3.5	6.5	8	2.5:1	375	129007
JS32-02004000-57-5P	2-40	45	3.5	5.7	5	2.5:1	375	129007
JS32-02004000-61-5P	2-40	45	3.5	6.1	5	2.5:1	375	129007
JS32-02004000-64-5P	2-40	45	3.5	6.4	5	2.5:1	375	129007
JS4-00101000-21-10P	0.1-10	31	1.5	2.1 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-23-10P	0.1-10	31	1.5	2.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-25-10P	0.1-10	31	1.5	2.5 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-28-10P	0.1-10	31	1.5	2.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00101000-30-10P	0.1-10	31	1.5	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-22-10P	0.1-12	31	1.7	2.2 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-24-10P	0.1-12	31	1.7	2.4 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-26-10P	0.1-12	31	1.7	2.6 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-28-10P	0.1-12	31	1.7	2.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00101200-30-10P	0.1-12	31	1.7	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-23-10P	0.1-15	31	1.8	2.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-25-10P	0.1-15	31	1.8	2.5 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-27-10P	0.1-15	31	1.8	2.7 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-29-10P	0.1-15	31	1.8	2.9 ⁽³⁾	10	2.5:1	195	125424
JS4-00101500-31-10P	0.1-15	31	1.8	3.1 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-26-10P	0.1-18	29	1.8	2.6 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-28-10P	0.1-18	29	1.8	2.8 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-30-10P	0.1-18	29	1.8	3 ⁽³⁾	10	2.5:1	195	125424
JS4-00101800-32-10P	0.1-18	29	1.8	3.2 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-29-10P	0.1-20	29	1.9	2.9 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-31-10P	0.1-20	29	1.9	3.1 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-33-10P	0.1-20	29	1.9	3.3 ⁽³⁾	10	2.5:1	195	125424
JS4-00102000-35-10P	0.1-20	29	1.9	3.5 ⁽³⁾	10	2.5:1	195	125424

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR.		DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)	@ 1 dB COMP. (dBm, Min.)		VSWR IN/OUT			
JS4-00102600-30-10P	0.1–26	28	2.5	3 ⁽³⁾	10	2.5:1	195	125424	
JS4-00102600-33-10P	0.1–26	28	2.5	3.3 ⁽³⁾	10	2.5:1	195	125424	
JS4-00102600-35-10P	0.1–26	28	2.5	3.5 ⁽³⁾	10	2.5:1	195	125424	
JS4-00102600-38-10P	0.1–26	28	2.5	3.8 ⁽³⁾	10	2.5:1	195	125424	
JS4-00104000-58-5P	0.1–40	30	3	5.8 ⁽³⁾	8	2.5:1	250	128749	
JS4-00104000-62-5P	0.1–40	30	3	6.2 ⁽³⁾	8	2.5:1	250	128749	
JS4-00104000-65-5P	0.1–40	30	3	6.5 ⁽³⁾	8	2.5:1	250	128749	
JS4-01001000-21-10P	1–10	31	1.4	2.1	10	2.5:1	195	125424	
JS4-01001000-23-10P	1–10	31	1.4	2.3	10	2.5:1	195	125424	
JS4-01001000-25-10P	1–10	31	1.4	2.5	10	2.5:1	195	125424	
JS4-01001000-28-10P	1–10	31	1.4	2.8	10	2.5:1	195	125424	
JS4-01001000-30-10P	1–10	31	1.4	3	10	2.5:1	195	125424	
JS4-02001200-22-10P	2–12	31	1.5	2.2	10	2.5:1	195	125424	
JS4-02001200-24-10P	2–12	31	1.5	2.4	10	2.5:1	195	125424	
JS4-02001200-26-10P	2–12	31	1.5	2.6	10	2.5:1	195	125424	
JS4-02001200-28-10P	2–12	31	1.5	2.8	10	2.5:1	195	125424	
JS4-02001200-30-10P	2–12	31	1.5	3	10	2.5:1	195	125424	
JS4-02001800-24-10P	2–18	29	1.8	2.4	10	2.5:1	195	125424	
JS4-02001800-26-10P	2–18	29	1.8	2.6	10	2.5:1	195	125424	
JS4-02001800-28-10P	2–18	29	1.8	2.8	10	2.5:1	195	125424	
JS4-02001800-30-10P	2–18	29	1.8	3	10	2.5:1	195	125424	
JS4-02001800-32-10P	2–18	29	1.8	3.2	10	2.5:1	195	125424	
JS4-02002600-30-10P	2–26	28	2.2	3	10	2.5:1	195	125424	
JS4-02002600-33-10P	2–26	28	2.2	3.3	10	2.5:1	195	125424	
JS4-02002600-35-10P	2–26	28	2.2	3.5	10	2.5:1	195	125424	
JS4-02002600-38-10P	2–26	28	2.2	3.8	10	2.5:1	195	125424	
JS4-02004000-54-5P	2–40	30	3	5.4	5	2.5:1	250	128749	
JS4-02004000-61-5P	2–40	30	3	6.1	5	2.5:1	250	128749	
JS4-02004000-64-5P	2–40	30	3	6.4	5	2.5:1	250	128749	
JS4-06001200-14-8P	6–12	34	1	1.4	8	2:1	195	128749	
JS4-06001200-16-8P	6–12	34	1	1.6	8	2:1	195	128749	
JS4-06001200-18-10P	6–12	34	1	1.8	10	2:1	195	128749	
JS4-06001200-20-10P	6–12	34	1	2	10	2:1	195	128749	
JS4-06001800-16-8P	6–18	32	1.5	1.6	8	2:1	195	128749	
JS4-06001800-18-8P	6–18	32	1.5	1.8	8	2:1	195	128749	
JS4-06001800-22-8P	6–18	32	1.5	2.2	8	2:1	195	128749	
JS4-08001800-16-8P	8–18	32	1.4	1.6	8	2:1	195	128749	
JS4-08001800-18-8P	8–18	32	1.4	1.8	8	2:1	195	128749	
JS4-08001800-20-8P	8–18	32	1.4	2	8	2:1	195	128749	
JS4-08001800-22-8P	8–18	32	1.4	2.2	8	2:1	195	128749	
JS4-12002600-25-8P	12–26	33	2	2.5	8	2.2:1	195	125424	
JS4-12002600-27-8P	12–26	33	2	2.7	8	2.2:1	195	125424	
JS4-12002600-30-8P	12–26	33	2	3	8	2.2:1	195	125424	
JS4-18002600-22-10P	18–26	35	1.5	2.2	10	2:1	195	125424	
JS4-18002600-24-10P	18–26	35	1.5	2.4	10	2:1	195	125424	
JS4-18002600-26-10P	18–26	35	1.5	2.6	10	2:1	195	125424	
JS4-18002600-28-10P	18–26	35	1.5	2.8	10	2:1	195	125424	
JS4-18004000-33-8P	18–40	23	2.5	3.3	8	2.5:1	200	128749	
JS4-18004000-35-8P	18–40	23	2.5	3.5	8	2.5:1	200	128749	
JS4-18004000-40-8P	18–40	23	2.5	4	8	2.5:1	200	128749	
JS4-18004000-45-8P	18–40	23	2.5	4.5	8	2.5:1	200	128749	
JS4-26003300-26-8P	26–33	27	1.8	2.6	8	2:1	200	125424	
JS4-26003300-30-8P	26–33	25	1.8	3	8	2.3:1	200	128749	
JS4-26003300-35-8P	26–33	25	1.8	3.5	8	2.3:1	200	128749	
JS4-26004000-33-10P	26–40	23	2.5	3.3	10	2.5:1	200	128749	
JS4-26004000-35-10P	26–40	23	2.5	3.5	10	2.5:1	200	128749	
JS4-26004000-40-10P	26–40	23	2.5	4	10	2.5:1	200	128749	
JS4-26004000-45-10P	26–40	23	2.5	4.5	10	2.5:1	200	128749	
JS4-27503100-26-8P	27.5–31	27	1.6	2.6	8	2:1	200	125424	
JS4-27503100-30-8P	27.5–31	25	1.5	3	8	2:1	200	128749	
JS4-27503100-35-8P	27.5–31	25	1.5	3.5	8	2:1	200	128749	
JS4-30004000-30-8P	30–40	24	2.3	3	8	2.5:1	200	128749	
JS4-30004000-33-8P	30–40	24	2.3	3.3	8	2.5:1	200	128749	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
JS4-30004000-36-8P	30-40	24	2.3	3.6	8	2.5:1	200	128749
JS41-00101000-21-10P	0.1-10	40	2	2.1 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-23-10P	0.1-10	40	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-25-10P	0.1-10	40	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-28-10P	0.1-10	40	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS41-00101000-30-10P	0.1-10	40	2	3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-22-10P	0.1-12	40	2	2.2 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-24-10P	0.1-12	40	2	2.4 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-26-10P	0.1-12	40	2	2.6 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-28-10P	0.1-12	40	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS41-00101200-30-10P	0.1-12	40	2	3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-23-10P	0.1-15	40	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-25-10P	0.1-15	40	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-27-10P	0.1-15	40	2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-29-10P	0.1-15	40	2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS41-00101500-31-10P	0.1-15	40	2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-24-10P	0.1-18	40	2.5	2.4 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-26-10P	0.1-18	40	2.5	2.6 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-28-10P	0.1-18	40	2.5	2.8 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-30-10P	0.1-18	40	2.5	3 ⁽³⁾	10	2.5:1	295	147321
JS41-00101800-32-10P	0.1-18	40	2.5	3.2 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-27-10P	0.1-20	40	2.2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-29-10P	0.1-20	40	2.2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-31-10P	0.1-20	40	2.2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-33-10P	0.1-20	40	2.2	3.3 ⁽³⁾	10	2.5:1	295	147321
JS41-00102000-35-10P	0.1-20	40	2.2	3.5 ⁽³⁾	10	2.5:1	295	147321
JS41-00104000-58-5P	0.1-40	40	3.3	5.8 ⁽³⁾	8	2.5:1	375	129007
JS41-00104000-62-5P	0.1-40	40	3.3	6.2 ⁽³⁾	8	2.5:1	375	129007
JS41-00104000-65-5P	0.1-40	40	3.3	6.5 ⁽³⁾	8	2.5:1	375	129007
JS41-02004000-57-5P	2-40	40	3.3	5.7	5	2.5:1	375	129007
JS41-02004000-61-5P	2-40	40	3.3	6.1	5	2.5:1	375	129007
JS41-02004000-64-5P	2-40	40	3.3	6.4	5	2.5:1	375	129007
JS41-06001200-14-8P	6-12	42	1.4	1.4	8	2:1	250	129007
JS41-06001200-16-8P	6-12	42	1.4	1.6	8	2:1	250	129007
JS41-06001200-18-8P	6-12	42	1.4	1.8	8	2:1	250	129007
JS41-06001200-20-8P	6-12	42	1.4	2	8	2:1	250	129007
JS41-06001800-16-8P	6-18	40	2	1.6	8	2.2:1	250	129007
JS41-06001800-18-8P	6-18	40	2	1.8	8	2.2:1	250	129007
JS41-06001800-20-8P	6-18	40	2	2	8	2.2:1	250	129007
JS41-06001800-22-8P	6-18	40	2	2.2	8	2.2:1	250	129007
JS41-08001800-16-8P	8-18	40	1.9	1.6	8	2.2:1	250	129007
JS41-08001800-18-8P	8-18	40	1.9	1.8	8	2.2:1	250	129007
JS41-08001800-20-8P	8-18	40	1.9	2	8	2.2:1	250	129007
JS41-08001800-22-8P	8-18	40	1.9	2.2	8	2.2:1	250	129007
JS41-26004000-35-18P	26-40	43	3.8	3.5	18	2.5:1	800	144663
JS41-26004000-40-18P	26-40	43	3.8	4	18	2.5:1	800	144663
JS41-26004000-45-18P	26-40	43	3.8	4.5	18	2.5:1	800	144663
JS41-26004000-50-18P	26-40	43	3.8	5	18	2.5:1	800	144663
JS41-26004000-55-18P	26-40	43	3.8	5.5	18	2.5:1	800	144663
JS42-00101000-21-10P	0.1-10	47	2	2.1 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-23-10P	0.1-10	47	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-25-10P	0.1-10	47	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-28-10P	0.1-10	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS42-00101000-30-10P	0.1-10	47	2	3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-22-10P	0.1-12	47	2	2.2 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-24-10P	0.1-12	47	2	2.4 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-26-10P	0.1-12	47	2	2.6 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-28-10P	0.1-12	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS42-00101200-30-10P	0.1-12	47	2	3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-23-10P	0.1-15	47	2	2.3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-25-10P	0.1-15	47	2	2.5 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-27-10P	0.1-15	47	2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS42-00101500-29-10P	0.1-15	47	2	2.9 ⁽³⁾	10	2.5:1	295	147321

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
JS42-00101500-31-10P	0.1-15	47	2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-24-10P	0.1-18	47	2	2.4 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-26-10P	0.1-18	47	2	2.6 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-28-10P	0.1-18	47	2	2.8 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-30-10P	0.1-18	47	2	3 ⁽³⁾	10	2.5:1	295	147321
JS42-00101800-32-10P	0.1-18	47	2	3.2 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-27-10P	0.1-20	47	2.2	2.7 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-29-10P	0.1-20	47	2.2	2.9 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-31-10P	0.1-20	47	2.2	3.1 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-33-10P	0.1-20	47	2.2	3.3 ⁽³⁾	10	2.5:1	295	147321
JS42-00102000-35-10P	0.1-20	47	2.2	3.5 ⁽³⁾	10	2.5:1	295	147321
JS42-06001200-14-10P	6-12	50	1.6	1.4	10	2:1	285	129007
JS42-06001200-16-10P	6-12	50	1.6	1.6	10	2:1	285	129007
JS42-06001200-18-10P	6-12	50	1.6	1.8	10	2:1	285	129007
JS42-06001200-20-10P	6-12	50	1.6	2	10	2:1	285	129007
JS42-06001800-16-8P	6-18	48	2.2	1.6	8	2.2:1	285	129007
JS42-06001800-18-8P	6-18	48	2.2	1.8	8	2.2:1	285	129007
JS42-06001800-20-10P	6-18	48	2.2	2	10	2.2:1	295	129007
JS42-06001800-22-10P	6-18	48	2.2	2.2	10	2.2:1	295	129007
JS42-08001800-16-8P	8-18	48	2	1.6	8	2.2:1	285	129007
JS42-08001800-18-8P	8-18	48	2	1.8	8	2.2:1	285	129007
JS42-08001800-20-10P	8-18	48	2	2	10	2.2:1	295	129007
JS42-08001800-22-10P	8-18	48	2	2.2	10	2.2:1	295	129007
JS42-18002600-23-5P	18-26	48	2.5	2.3	5	2.3:1	300	147321
JS42-18002600-25-5P	18-26	48	2.5	2.5	5	2.3:1	300	147321
JS42-18002600-27-5P	18-26	48	2.5	2.7	5	2.3:1	300	147321
JS42-18002600-29-5P	18-26	48	2.5	2.9	5	2.3:1	300	147321
JS42-18004000-33-5P	18-40	35	3.5	3.3	5	2.5:1	300	129007
JS42-18004000-35-5P	18-40	35	3.5	3.5	5	2.5:1	300	129007
JS42-18004000-40-5P	18-40	35	3.5	4	5	2.5:1	300	129007
JS42-18004000-45-5P	18-40	35	3.5	4.5	5	2.5:1	300	129007
JS42-26004000-33-5P	26-40	37	3.5	3.3	5	2.5:1	300	129007
JS42-26004000-35-5P	26-40	37	3.5	3.5	5	2.5:1	300	129007
JS42-26004000-40-5P	26-40	37	3.5	4	5	2.5:1	300	129007
JS42-26004000-45-5P	26-40	37	3.5	4.5	5	2.5:1	300	129007
JS44-18004000-33-8P	18-40	48	3.5	3.3	8	2.5:1	400	129007
JS44-18004000-35-8P	18-40	48	3.5	3.5	8	2.5:1	400	129007
JS44-18004000-40-8P	18-40	48	3.5	4	8	2.5:1	400	129007
JS44-18004000-45-8P	18-40	48	3.5	4.5	8	2.5:1	400	129007
JS5-40006000-60-0P	40-60	20	2.5	6	5	2.75:1	150	138658
JSDW4-18004000-35-5P	18-40	22	3.2	3.5	5	2.5:1	180	131031
JSDWK42-26004000-35-5P	26-40	37	4.2	3.5	5	2.5:1	325	137623
** JSW3-26004000-90-21P	26-40	17	2	9	20	2:1	350	132079
** JSW4-18002600-20-5A	18-26	34	1.5	2	5	2:1	200	162868
JSW4-18002600-21-8P	18-26	34	1.5	2.1	8	2.3:1	200	162868
** JSW4-18004000-35-5A	18-40	21	2.5	3.5	5	2.5:1	250	131031
JSW4-26004000-27-8P	26-40	25	2.5	2.7	8	2:1	200	149788
** JSW4-26004000-28-5A	26-40	25	2.5	2.8	5	2.2:1/2:1	200	148788
JSW4-26004000-29-8P	26.5-40	28	2.8	2.9	5	2.5:1	180	149788
** JSW4-30005000-45-5A	30-50	21	2.5	4.5	5	2.5:1	250	130002
** JSW4-40006000-55-0A	40-60	16	2.5	5.5	0	2.5:1	250	130001
JSW4-40006000-60-0A	40-60	18	2.5	6	0	2.5:1	175	130001
JSWV4-40006000-60-0P	40-60	20	2.8	6	0	2.75:1	150	129013
LCA-0218	2-18	25	2	4.5	10	2.2:1	150	154709
LCA-0618	6-18	25	1.5	3	10	2:1	150	154709
LCA-1218	12-18	25	1.5	2.8	10	2:1	150	154709
LCN-0218	2-18	28	2	4	10	2.5:1	150	154709
LCN-0618	6-18	28	1.5	2.8	10	2:1	150	154709
LCN-1218	12-18	30	1.5	2.8	10	2:1	150	154709
* MPN3-02001800-20P	2-18	23	1.5	4.5	20	2:1	450	134923
* MPN4-02001800-23P	2-18	24	1.5	4.5	23	2:1	650	134923
* NSM3-00100800-18-10P-4	0.1-8	24	1.5	1.8	10	2:1	175	120175
* NSM3-02000800-14-10P-4	2-8	24	1	1.4	10	2:1	150	120175

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (3) Noise figure is higher below 800 MHz.

ULTRA-WIDEBAND (CONT.)

MODEL NUMBER	FREQUENCY RANGE	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	(GHz)							
* NSM4-00101000-26-10P-4	0.1-10	30	1.5	2.6	10	2:1	175	120175
* NSM4-00101200-28-10P-4	0.1-12	30	1.5	2.8	10	2:1	175	120175
* NSM4-00101200-32-10P-4	0.1-12	30	1.5	3.2	10	2:1	175	120175
* NSM4-00101800-45-8P-4	0.1-18	22	2.5	4.5	8	2.5:1	175	120175
* NSM4-00101800-55-10P-4	0.1-18	22	2.5	5.5	10	2.5:1	175	120175
* NSM4-02001800-30	2-18	22	2.5	3	8	2.5:1	150	120175

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MULTIOCTAVE BAND

MODEL NUMBER	FREQUENCY RANGE	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	(GHz)							
AFD2-020060-15P	2-6	15	1	4.5	15	2:1	160	110228-2
AFD2-020060-20P	2-6	13	1.25	5.5	20	2:1	250	110228-2
AFD2-020060-23P	2-6	11	1.25	6.5	23	2:1	270	110228-2
AFD2-020060-25	2-6	17	1	2.5	8	2:1	100	110228-2
AFD2-020060-30	2-6	17	1	3	5	2:1	100	110228-2
AFD2-020060-35	2-6	17	1	3.5	10	2:1	100	110228-2
AFD2-020060-45	2-6	17	1	4.5	10	2:1	100	110228-2
AFD2-020080-15P	2-8	15	1	5.5	15	2:1	160	110228-2
AFD2-020080-20P	2-8	13	1.25	5.5	20	2:1	250	110228-2
AFD2-020080-23P	2-8	11	1.25	6.5	23	2:1	270	110228-2
AFD2-020080-25	2-8	16	1	2.5	8	2:1	100	110228-2
AFD2-020080-30	2-8	16	1	3	5	2:1	100	110228-2
AFD2-020080-35	2-8	16	1	3.5	5	2:1	100	110228-2
AFD2-020080-40	2-8	16	1	4	10	2:1	100	110228-2
AFD2-020080-50	2-8	16	1	5	10	2:1	120	110228-2
AFD2-040120-15P	4-12	10	1.25	5.5	15	2:1	275	109174-2
AFD2-040120-20P	4-12	8	1.25	6.5	20	2:1	275	109174-2
AFD2-040120-23P	4-12	8	1.25	6.5	23	2:1	300	109174-2
AFD2-040120-30	4-12	13	1	3	10	2:1	120	109174-2
AFD2-040120-45	4-12	13	0.8	4.5	10	2:1	120	109174-2
AFD2-040120-50	4-12	13	0.8	5	10	2:1	120	109174-2
AFD2-040120-60	4-12	13	0.8	6	10	2:1	120	109174-2
AFD3-020060-15P	2-6	24	1	3.5	15	2:1	210	110228-3
AFD3-020060-20P	2-6	22	1.5	4.5	20	2:1	300	110228-3
AFD3-020060-23P	2-6	20	1.5	5.5	23	2:1	320	110228-3
AFD3-020060-25	2-6	26	1.25	2.5	10	2:1	160	110228-3
AFD3-020060-30	2-6	26	1.3	3	10	2:1	160	110228-3
AFD3-020060-35	2-6	26	1.3	3.5	10	2:1	160	110228-3
AFD3-020080-15P	2-8	24	1.5	3.5	15	2:1	210	110228-3
AFD3-020080-20P	2-8	22	1.5	4.5	20	2:1	300	122987
AFD3-020080-20P-SP	2-8	18	1.5	6	20	2:1	350	110228-3
AFD3-020080-23P	2-8	20	1	5.5	23	2:1	320	122987
AFD3-020080-25	2-8	24	1.5	2.5	10	2:1	160	110228-3
AFD3-020080-30	2-8	26	1.5	3	10	2:1	160	122987
AFD3-020080-33-LN	2-8	24	1.5	3.3	10	2:1	150	110228-3
AFD3-020080-35	2-8	24	1.5	3.5	10	2:1	160	110228-3
AFD3-020080-40	2-8	24	1.5	4	10	2:1	160	110228-3
AFD3-020080-40-SP	2-8	23	1.5	4	10	2:1	160	122987
AFD3-020080-50	2-8	24	1.5	5	10	2:1	180	110228-3
AFD3-040120-15P	4-12	16	1.5	5.5	15	2:1	200	109174-2
AFD3-040120-18P-SP	4-12	15	1.75	6.5	18	2:1	350	109174-2
AFD3-040120-20P	4-12	14	1.5	5.5	20	2:1	280	109174-2
AFD3-040120-20P-MP	4-12	15	1.5	6	20	2:1	350	109174-2
AFD3-040120-23P	4-12	13	1.5	6.5	23	2:1	260	109174-3

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MULTIOCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFD3-040120-30	4-12	19	1.25	3	10	2:1	180	109174-2
AFD3-040120-45	4-12	19	1.4	4.5	10	2:1	180	109174-2
AFD3-040120-47-LN	4-12	19	1.5	4.7	10	2:1	150	109174-2
AFD3-040120-50	4-12	19	1.4	5	10	2:1	180	109174-2
AFD3-040120-55-SP	4-12	18	1.5	5.5	10	2:1	150	109174-2
AFD3-040120-60	4-12	19	1.4	6	10	2:1	180	109174-2
AFD4-020060-15P	2-6	32	1.25	3.5	15	2:1	260	133554-4
AFD4-020060-20P	2-6	30	2	4.5	20	2:1	350	133554-4
AFD4-020060-23P	2-6	28	2	4.5	23	2:1	370	110228-3
AFD4-020060-25	2-6	35	1.5	2.5	10	2:1	220	133554-4
AFD4-020060-30	2-6	35	1.5	3	10	2:1	220	133554-4
AFD4-020060-35	2-6	35	1.5	3.5	10	2:1	220	133554-4
AFD4-020080-15P	2-8	32	1.25	4.5	15	2:1	260	133554
AFD4-020080-20P	2-8	30	2	4.5	20	2:1	350	133554-4
AFD4-020080-23P	2-8	28	2	3.5	23	2:1	370	133554
AFD4-020080-25	2-8	33	1.5	2.5	10	2:1	220	133554-4
AFD4-020080-30	2-8	33	2	3	10	2:1	220	133554-4
AFD4-020080-35	2-8	33	2	3.5	10	2:1	220	133554-4
AFD4-020080-40	2-8	33	2	4	10	2:1	220	133554-4
AFD4-020080-50	2-8	33	2	5	10	2:1	260	133554-4
AFD4-040120-15P	4-12	23	1.75	5.5	15	2:1	250	109174-4
AFD4-040120-20P	4-12	20	1.75	5.5	20	2:1	340	109174-4
AFD4-040120-23P	4-12	19	1.75	5.5	23	2:1	320	109174-3
AFD4-040120-30	4-12	25	1.5	3	10	2:1	260	109174-4
AFD4-040120-45	4-12	25	1.6	4.5	10	2:1	260	109174-4
AFD4-040120-50	4-12	25	1.6	5	10	2:1	260	109174-4
AFD5-020060-25	2-6	44	1.75	2.5	10	2:1	280	133554-5
AFD5-020060-30	2-6	44	2	3	10	2:1	280	133554-5
AFD5-020060-35	2-6	44	2	3.5	10	2:1	280	133554-5
AFD5-020080-15P	2-8	40	2	4.5	15	2:1	300	133554-5
AFD5-020080-20P	2-8	38	2	4.5	20	2:1	390	133554-5
AFD5-020080-23P	2-8	36	2	4.5	23	2:1	420	133554-5
AFD5-020080-25	2-8	41	1.75	2.5	10	2:1	280	133554-5
AFD5-020080-35	2-8	41	2.5	3.5	10	2:1	280	133554-5
AFD5-020080-40	2-8	41	2.5	4	10	2:1	280	133554-5
AFD5-020080-50	2-8	41	2.5	5	10	2:1	300	133554-5
AFD5-040120-15P	4-12	29	1.75	5.5	15	2:1	300	109174-5
AFD5-040120-20P	4-12	26	2	5.5	20	2:1	400	109174-5
AFD5-040120-23P	4-12	25	2	5.5	23	2:1	370	109174-5
AFD5-040120-30	4-12	31	1.75	3	10	2:1	300	109174-5
AFD5-040120-45	4-12	31	1.8	4.5	10	2:1	300	109174-5
AFD5-040120-50	4-12	31	1.8	5	10	2:1	300	109174-5
AFD5-040120-60	4-12	31	1.8	6	10	2:1	300	109174-5
*AFPD44-00500200-20	0.5-2	35	2	2	10	2:1	350	116630
*AFPD44-00500200-20P	0.5-2	35	2	4	20	2:1	650	116630
AFS1-00500200-10-10P-4	0.5-2	14	1.5	1	10	2:1	50	113384-4
AFS1-01000400-13-10P-4	1-4	10	1.5	1.3	10	2:1	75	113384-4
AFS1-02000600-20-5P-2	2-6	9	1	2	5	2:1	50	113384-2
AFS2-00500200-08-15P-2	0.5-2	25	1	0.8	15	2:1	100	113384-2
AFS2-01000400-10-10P-4	1-4	20	1	1	10	2:1	100	113384-4
AFS2-02000600-09-8P-2	2-6	18	1	0.9	8	2:1	70	113384-2
AFS2-02000600-18-8P-2	2-6	18	1	1.8	8	2:1	100	113384-2
AFS2-02000800-09-10P-2	2-8	23	1	0.9	10	2:1	100	113384-2
AFS2-02000800-40-TC-2	2-8	20	1.5	4	5	2:1	100	113384-2
AFS2-06001800-25-5P-2	6-18	12	1.5	2.5	5	2:1	50	113384-2
AFS2-06001800-48-15P-LPN	6-18	15	1	4.8	15	2:1	100	113384-2
AFS3-00500200-08-15P-4	0.5-2	38	1	0.8	15	2:1	125	113384-4
*AFS3-00500200-27P-CT-6	0.5-2	33	0.75	1.4	27	2:1	250	113384-6
AFS3-01000400-10-10P-4	1-4	30	1.5	1	10	2:1	125	113384-4
AFS3-02000600-09-10P-4	2-6	28	1	0.9	10	2:1	125	113384-4
AFS3-02000600-12-10P-4	2-6	28	1	1.2	10	2:1	125	113384-4
AFS3-02000600-12-U LN	2-6	24	1	1.2	10	2:1	150	113384-4
AFS3-02000600-13-10P-4	2-6	28	1	1.3	10	2:1	150	113384-4
AFS3-02000600-14-10P-4	2-6	28	1	1.4	10	2:1	125	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MULTIOCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS3-02000600-15-10P-4	2-6	28	1	1.5	10	2:1	150	113384-4
AFS3-02000600-15-LN	2-6	24	1	1.5	10	2:1	150	113384-4
AFS3-02000600-16-10P-4	2-6	28	1	1.6	10	2:1	150	113384-4
AFS3-02000600-18-10P-4	2-6	28	1	1.8	10	2:1	150	113384-4
AFS3-02000600-20-10P-4	2-6	28	1	2	10	2:1	150	113384-4
AFS3-02000600-25-10P-4	2-6	28	1	2.5	10	2:1	150	113384-4
AFS3-02000600-30-10P-4	2-6	28	1	3	10	2:1	150	113384-4
AFS3-02000600-65-18P-4	2-6	28	1	6.5	18	2:1	300	113384-4
AFS3-02000800-09-10P-4	2-8	26	1	0.9	10	2:1	125	113384-4
AFS3-02000800-18-ULN	2-8	24	1.5	1.8	10	2:1	150	113384-4
AFS3-02000800-20-10P-4	2-8	28	1.5	2	10	2:1	150	113384-4
AFS3-02000800-24-LN	2-8	24	1.5	2.4	10	2:1	150	113384-4
AFS3-02000800-25-10P-4	2-8	28	1.5	2.5	10	2:1	150	113384-4
*AFS3-02000800-30-TC-4	2-8	22	1.5	3	8	2:1	150	113384-4
AFS3-02000800-35-10P-4	2-8	28	1.5	3.5	10	2:1	150	113384-4
AFS3-02000800-40-10P-4	2-8	28	1.5	4	10	2:1	150	113384-4
AFS3-02000800-45-10P-4	2-8	28	1.5	4.5	10	2:1	150	113384-4
AFS3-04001200-25-10P-4	4-12	25	1	2.5	10	2:1	175	113384-4
AFS3-04001200-30-10P-4	4-12	25	1	3	10	2:1	175	113384-4
AFS3-04001200-35-10P-4	4-12	25	1	3.5	10	2:1	175	113384-4
AFS3-04001200-40-10P-4	4-12	25	1	4	10	2:1	175	113384-4
AFS3-06001800-24-10P-4	6-18	20	1.5	2.4	10	2:1	100	113384-4
*AFS3-06001800-25-HE-4	6-18	14	2	2.5	0	2:1	25	113384-4
AFS32-02000600-20-10P-44	2-6	45	1.5	2	10	2:1	225	140941
AFS32-02000600-35-10P-44	2-6	45	1.5	3.5	10	2:1	225	140941
AFS32-04001200-25-10P-42	4-12	40	1.5	2.5	10	2:1	250	151239
*AFS4-00500200-08-15P-4	0.5-2	46	1	0.8	15	2:1	175	113384-4
*AFS4-00500200-27P-CT-6	0.5-2	40	0.75	1	27	2:1/2.5:1	250	113384-6
AFS4-01000400-10-10P-4	1-4	40	1.5	1	10	2:1	175	113384-4
AFS4-02000600-09-10P-4	2-6	36	1	0.9	10	2:1	150	113384-4
AFS4-02000600-16-10P-4	2-6	36	1	1.6	10	2:1	175	113384-4
AFS4-02000600-20-10P-4	2-6	36	1	2	10	2:1	175	113384-4
AFS4-02000800-09-10P-4	2-8	34	1.5	0.9	10	2:1	150	113384-4
AFS4-02000800-13-10P-4	2-8	34	1.25	1.3	10	2:1	175	113384-4
AFS4-02000800-15-10P-4	2-8	34	1.5	1.5	10	2:1	175	113384-4
AFS4-02000800-20-10P-4	2-8	34	1.5	2	10	2:1	175	113384-4
AFS4-02000800-20P-MP	2-8	30	1.5	5.8	20	2:1	175	113384-4
AFS4-02000800-22-20P-4	2-8	30	1.5	2.2	20	2:1	275	113384-4
AFS4-02000800-25-10P-4	2-8	34	1.5	2.5	10	2:1	150	113384-4
*AFS4-02000800-26-TC-4	2-8	30	1.5	2.6	8	2:1	175	113384-4
AFS4-02000800-30-10P-4	2-8	34	1.5	3	10	2:1	150	113384-4
AFS4-02000800-30-22P-4	2-8	34	1.5	3	22	2:1	275	113384-4
AFS4-02000800-35-10P-4	2-8	34	1.5	3.5	10	2:1	150	113384-4
AFS4-02000800-35-15P-4	2-8	32	1.5	3.5	15	2:1	175	113384-4
AFS4-02000800-40-10P-4	2-8	34	1.5	4	10	2:1	150	113384-4
AFS4-02000800-40-20P-4	2-8	30	1.5	4	20	2:1	275	113384-4
AFS4-02000800-45-10P-4	2-8	32	1.5	4.5	10	2:1	150	113384-4
AFS4-02000800-45-23P-4	2-8	26	1.5	4.5	23	2:1	295	113384-4
AFS4-02000800-50-20P-4	2-8	30	1.5	5	20	2:1	275	113384-4
AFS4-02000800-60-23P-4	2-8	26	1.5	6	23	2:1	295	113384-4
AFS4-04001200-25-10P-4	4-12	28	1.5	2.5	10	2:1	175	113384-4
AFS4-04001200-30-10P-4	4-12	28	1.5	3	10	2:1	175	113384-4
AFS4-04001200-35-10P-4	4-12	28	1.5	3.5	10	2:1	175	113384-4
AFS4-04001200-40-10P-4	4-12	28	1.5	4	10	2:1	175	113384-4
AFS4-06001800-22-10P-4	6-18	25	2	2.2	10	2:1	125	113384-4
*AFS4-06001800-25-HE-4	6-18	26	2	2.5	0	2:1	40	113384-4
*AFS4-06001800-35-TC-6	6-18	22	1	3.5	8	2:1	150	113384-6
AFS4-06001800-35-ULN	6-18	18	2	3.5	10	2:1	175	113384-4
AFS4-06001800-40-LN	6-18	18	2	4	10	2:1	175	113384-4
AFS42-02000800-50-10P-42	2-8	38	2	5	10	2:1	250	151239
AFS5-04001200-25-10P-6	4-12	34	1.75	2.5	10	2:1	175	113384-6
AFS5-06001800-22-10P-6	6-18	30	2	2.2	10	2:1	150	113384-6
AFS5-06001800-50-20P-6	6-18	23	2	5	20	2:1	365	113384-6
AFS6-06001800-22-10P-6	6-18	34	2	2.2	10	2:1	175	113384-6

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MULTIOCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS7-06001800-50-20P-8	6-18	35	2.5	5	20	2:1	400	113384-8
* AFSD4-020060-20-27P	2-6	35	1.5	2	27	2:1	750	121045
* AFSD5-020080-22-26P	2-8	35	1.5	2.2	26	2:1	750	121045
* AFSD5-040120-35-25P	4-12	25	1.5	3.5	25	2:1	550	121045
* AFSM2-02000600-12-8P	2-6	20	1	1.2	8	2:1	80	133720
* AFSW3-02000800-15	2-8	26	1	1.5	10	2:1	125	127846
* AFSX4-02000800-24-10P	2-8	20	2	2.4	10	2:1	150	141108
AFSX4-06001800-28-8P	6-18	23	2	2.8	8	2:1	150	141108
AFTL3-02000800-11	2-8	26	1	1.1	10	2:1	125	127846
* AVG4-02000800-20	2-8	32	1.25	2	10	2:1	120	119393
* AVG4-02000800-DET-8	2-8	28	1	2.5	10	2:1	175	119393
* AVG4-06001800-25	6-18	22	2	2.5	10	2.3:1	185	119393
IFS3-02000600-20-LP	2-6	24	1.5	2	8	2:1	150	127362
IFS3-02000800-15P-LP	2-8	22	2	6	15	2:1	150	127362
IFS3-02000800-30-LP	2-8	24	2	3	8	2:1	150	127362
JS1-01000400-20-12P	1-4	14	1.2	2	12	2:1	175	128749
JS1-01000400-25-12P	1-4	14	1.2	2.5	12	2:1	175	128749
JS1-01000400-30-12P	1-4	14	1.2	3	12	2:1	175	128749
JS1-01000400-35-12P	1-4	14	1.2	3.5	12	2:1	175	128749
JS1-06001800-30-8P	6-18	8	1.3	3	8	2.3:1	80	128749
JS1-06001800-33-8P	6-18	8	1.3	3.3	8	2.3:1	80	128749
JS1-06001800-35-8P	6-18	8	1.3	3.5	8	2.3:1	80	128749
JS2-01000400-11-10P	1-4	29	1.2	1.1	10	2:1	195	127140
JS2-01000400-13-10P	1-4	29	1.2	1.3	10	2:1	195	127140
JS2-01000400-15-10P	1-4	29	1.2	1.5	10	2:1	195	127140
JS2-01000400-18-10P	1-4	29	1.2	1.8	10	2:1	195	127140
JS2-02000800-10-4P	2-8	21	1.2	1	4	2:1	175	128749
JS2-02000800-12-4P	2-8	21	1.2	1.2	4	2:1	175	128749
JS2-02000800-14-4P	2-8	21	1.2	1.4	4	2:1	175	128749
JS2-06001800-28-4P	6-18	14	1.5	2.8	4	2.2:1	125	128749
JS2-06001800-31-8P	6-18	14	1.5	3.1	8	2.2:1	125	128749
JS2-06001800-35-10P	6-18	14	1.5	3.5	10	2.2:1	150	128749
JS2-06001800-38-10P	6-18	14	1.5	3.8	10	2.2:1	150	128749
JS22-02000800-10-4P	2-8	42	2	1	4	2:1	325	129007
JS22-02000800-12-4P	2-8	42	2	1.2	4	2:1	325	129007
JS22-02000800-14-4P	2-8	42	2	1.4	4	2:1	325	129007
JS22-02000800-16-4P	2-8	42	2	1.6	4	2:1	325	129007
JS3-01000400-11-10P	1-4	40	1.2	1.1	10	2:1	250	127140
JS3-01000400-13-10P	1-4	40	1.2	1.3	10	2:1	250	127140
JS3-01000400-15-10P	1-4	40	1.2	1.5	10	2:1	250	127140
JS3-01000400-18-10P	1-4	40	1.2	1.8	10	2:1	250	127140
JS3-04001200-18-10P	4-12	32	1.5	1.8	10	2:1	195	128749
JS3-04001200-20-10P	4-12	32	1.5	2	10	2:1	195	128749
JS3-04001200-22-10P	4-12	32	1.5	2.2	10	2:1	195	128749
JS3-04001200-24-10P	4-12	32	1.5	2.4	10	2:1	195	128749
JS3-04001200-26-10P	4-12	32	1.5	2.6	10	2:1	195	128749
JS3-04002000-19-8P	4-20	32	1.7	1.9	8	2.2:1	195	128749
JS3-04002000-21-8P	4-20	32	1.7	2.1	8	2.2:1	195	128749
JS3-04002000-23-8P	4-20	32	1.7	2.3	8	2.2:1	195	128749
JS3-04002000-25-8P	4-20	32	1.7	2.7	8	2.2:1	195	128749
JS3-06001800-17-8P	6-18	27	1.5	1.7	8	2:1	150	128749
JS3-06001800-18-8P	6-18	27	1.5	1.8	8	2:1	150	128749
JS3-06001800-20-10P	6-18	27	1.5	2	8	2:1	165	128749
JS3-06001800-22-10P	6-18	27	1.5	2.2	8	2:1	165	128749
JS4-06001800-16-8P	6-18	32	1.5	1.6	8	2:1	195	128749
JS4-06001800-18-8P	6-18	32	1.5	1.8	8	2:1	195	128749
JS4-06001800-22-8P	6-18	32	1.5	2.2	8	2:1	195	128749
JS41-06001800-16-8P	6-18	40	2	1.6	8	2.2:1	250	129007
JS41-06001800-18-8P	6-18	40	2	1.8	8	2.2:1	250	129007
JS41-06001800-20-8P	6-18	40	2	2	8	2.2:1	250	129007
JS41-06001800-22-8P	6-18	40	2	2.2	8	2.2:1	250	129007
JS42-06001800-16-8P	6-18	48	2.2	1.6	8	2.2:1	285	129007
JS42-06001800-18-8P	6-18	48	2.2	1.8	8	2.2:1	285	129007
JS42-06001800-20-10P	6-18	48	2.2	2	10	2.2:1	295	129007

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MULTIOCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY		GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)						
JS42-06001800-22-10P	6-18	48	2.2	2.2	2.2	10	2.2:1	295	129007
LCA-0618	6-18	25	1.5	3	3	10	2:1	200	154709
LCN-0618	6-18	28	1.5	2.8	2.8	10	2:1	200	154709
*NSM3-02000600-13-10P-4	2-6	24	1	1.3	1.3	10	2:1	150	120175
*NSM3-02000800-14-10P-4	2-8	24	1	1.4	1.4	10	2:1	150	120175

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND

MODEL NUMBER	FREQUENCY		GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)						
AFS1-00120025-10-13P-4	0.12-0.25	15	0.75	1	1	13	2.5:1/2:1	75	113384-4
AFS2-00120025-09-10P-2	0.12-0.25	25	0.5	0.9	0.9	10	2:1	100	113384-2
AFS3-00120025-09-10P-4	0.12-0.25	38	0.5	0.9	0.9	10	2:1	125	113384-4
AFS4-00120025-09-10P-4	0.12-0.25	46	0.5	0.9	0.9	10	2:1	150	113384-4
AFS1-00250050-09-10P-4	0.25-0.5	16	0.5	0.9	0.9	10	2:1	50	113384-4
AFS2-00250050-08-10P-2	0.25-0.5	25	0.5	0.8	0.8	10	2:1	75	113384-2
AFS3-00250050-08-10P-4	0.25-0.5	38	0.5	0.8	0.8	10	2:1	125	113384-4
AFS4-00250050-08-10P-4	0.25-0.5	46	0.5	0.8	0.8	10	2:1	150	113384-4
*AFS1-00500100-50-17P-4	0.5-1	10	1	5	5	17	2.5:1	150	113384-4
AFS1-00500100-08-10P-4	0.5-1	16	1	0.8	0.8	10	2:1	50	113384-4
AFS2-00500100-10-ULN	0.5-1	23	1	1	1	10	2:1	125	113384-2
AFS2-00500100-12-LN	0.5-1	23	1	1.2	1.2	10	2:1	125	113384-2
*AFSX2-00500100-16-10P	0.5-1	24	1	1.6	1.6	10	2:1	125	141108
*AFSM2-00500100-08-8P	0.5-1	25	1	0.8	0.8	8	2:1	80	133720
AFS2-00500100-06-10P-6	0.5-1	28	0.75	0.6	0.6	10	2:1/1.5:1	100	113384-6
*MPN2-00500100-30P	0.5-1	28	1	1.5	1.5	30	2:1	500	127651
JS2-00500100-07-10P	0.5-1	35	1.2	0.7	0.7	10	2:1	175	127140
JS2-00500100-09-10P	0.5-1	35	1.2	0.9	0.9	10	2:1	175	127140
JS2-00500100-10-10P	0.5-1	35	1.2	1	1	10	2:1	175	127140
JS2-00500100-12-10P	0.5-1	35	1.2	1.2	1.2	10	2:1	175	127140
AFS3-00500100-06-10P-6	0.5-1	38	0.75	0.6	0.6	10	2:1/1.5:1	150	113384-6
AFS4-00500100-06-10P-6	0.5-1	48	0.75	0.6	0.6	10	2:1/1.5:1	175	113384-6
AFD1-010020-17P	1-2	11	0.75	3.5	3.5	17	2:1	125	109888
AFD1-010020-20P	1-2	11	0.75	3.5	3.5	20	2:1	150	109888
AFD1-010020-23P	1-2	11	0.75	4	4	23	2:1	200	109888
AFD1-010020-23P-SP	1-2	11	1	4	4	23	2:1	200	109888
AFD1-010020-25P	1-2	11	0.75	4.5	4.5	25	2:1	250	109888
AFD1-010020-25P-MP	1-2	12	1	4	4	25	2:1	250	109888
*AFSM1-01000200-16-20P	1-2	13	1	1.6	1.6	20	2:1	150	133720
AFS1-01000200-11-15P-4	1-2	14	1	1.1	1.1	15	2:1	75	113384-4
*AFS1-01000200-16-20P-4	1-2	14	0.75	1.6	1.6	20	2:1	150	113384-4
JS1-01000200-19-12P	1-2	14	1	1.9	1.9	12	2:1	175	128749
JS1-01000200-22-12P	1-2	14	1	2.2	2.2	12	2:1	175	128749
JS1-01000200-25-12P	1-2	14	1	2.5	2.5	12	2:1	175	128749
JS1-01000200-30-12P	1-2	14	1	3	3	12	2:1	175	128749
AFD2-010020-11	1-2	16	0.75	1.1	1.1	5	2:1	80	113427
AFD2-010020-13	1-2	16	0.75	1.3	1.3	5	2:1	80	113427
AFD2-010020-17	1-2	16	0.75	1.7	1.7	5	2:1	80	113427
*AFS1-01000200-14-20P-4	1-2	16	0.5	1.4	1.4	20	2:1	100	113384-4
AFD2-010020-14-SP	1-2	20	1.5	1.4	1.4	10	2:1	100	113427
AFD2-010020-12-LN	1-2	22	1	1.2	1.2	10	2:1	100	113427
*AFS2-01000200-18-23P-2	1-2	22	1.5	1.8	1.8	23	2:1	175	113384-2
AFD2-010020-10	1-2	25	0.75	1	1	8	2:1	100	113427

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR.		VSWR IN/OUT	DC POWER		OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)	@ 1 dB COMP. (dBm, Min.)		@ +15 V (mA, Nom.)					
AFD2-010020-17P	1-2	25	1.25	3.5	17	2:1	200	113427			
AFD2-010020-20P	1-2	25	1.25	3.5	20	2:1	250	113427			
AFD2-010020-23P	1-2	25	1.25	4	23	2:1	275	113427			
AFD2-010020-23P-SP	1-2	25	1.5	3.5	23	2:1	325	113427			
AFD2-010020-25P	1-2	25	1.25	4	25	2:1	350	113427			
* AFS2-01000200-15-TC-6	1-2	25	1	1.5	5	2:1	125	113384-6			
* AFSM2-01000200-08-8P	1-2	25	1	0.8	8	2:1	80	133720			
* AFSM2-01000200-16-20P	1-2	25	1	1.6	20	2:1	80	133720			
* AFS2-01000200-07-HE-6	1-2	27	1	0.7	0	2:1	25	113384-6			
AFS2-01000200-05-10P-6	1-2	28	1	0.5	10	2:1	100	113384-6			
* MPN2-01000200-28P	1-2	28	1	1.5	28	2:1	350	127651			
AFD3-010020-23P	1-2	30	1.5	3.5	23	2:1	325	113427			
AFD3-010020-25P	1-2	30	1.5	3.5	25	2:1	330	113427			
AFD3-010020-30P	1-2	30	1.5	3	30	2:1	675	113427			
* AFSX3-01000200-15-10P	1-2	30	1	1.5	10	2:1	125	141108			
LCA-0102	1-2	30	1	1.3	10	2:1	125	154709			
LCN-0102	1-2	30	1	1.2	15	2:1	125	154709			
AFD3-010020-10-LN	1-2	32	1	1	10	2:1	100	113427			
AFD3-010020-12-LN	1-2	32	1	1.2	10	2:1	100	113427			
* AFS3-01000200-18-27P-6	1-2	32	1.5	1.8	27	2:1	350	113384-6			
* NSM3-01000200-10-S-4	1-2	32	1	1	10	2:1	150	120175			
AFD3-010020-17P	1-2	33	1.5	2.5	17	2:1	100	113427			
AFD3-010020-20P	1-2	33	1.5	3	10	2:1	300	113427			
AFD3-010020-14-SP	1-2	34	1.25	1.4	10	2:1	120	113427			
* AFS3-01000200-10-ULN	1-2	34	1	1	10	2:1	150	113384-6			
* AFS3-01000200-15-LN	1-2	34	1	1.5	10	2:1	150	113384-6			
JS2-01000200-06-10P	1-2	34	1.2	0.65	10	2:1	195	127140			
JS2-01000200-07-10P	1-2	34	1.2	0.7	10	2:1	195	127140			
JS2-01000200-08-10P	1-2	34	1.2	0.8	10	2:1	195	127140			
JS2-01000200-10-10P	1-2	34	1.2	1	10	2:1	195	127140			
AFD3-010020-17	1-2	35	1	1.7	10	2:1	120	113427			
AFD3-010020-06	1-2	36	1	0.6	10	2:1	150	113427			
AFD3-010020-07	1-2	36	1	0.7	10	2:1	100	113427			
AFD3-010020-08	1-2	36	1	0.8	10	2:1	100	113427			
AFD3-010020-09	1-2	36	1	0.9	10	2:1	100	113427			
AFD3-010020-10	1-2	36	1	1	10	2:1	100	113427			
AFD3-010020-11	1-2	36	1	1.1	10	2:1	100	113427			
* AFS3-01000200-15-TC-6	1-2	36	1	1.5	5	2:1	125	113384-6			
AFS3-01000200-05-10P-6	1-2	38	1	0.5	10	2:1	150	113384-6			
* AFS3-01000200-06-CR-6	1-2	38	1	0.6	5	2:1	75	113384-6			
* AFS3-01000200-07-HE-6	1-2	38	1	0.7	0	2:1	40	113384-6			
AFD4-010020-11	1-2	42	1.5	1.1	10	2:1	135	113427			
AFD4-010020-13	1-2	42	1.5	1.3	10	2:1	135	113427			
AFD4-010020-17	1-2	42	1.5	1.7	10	2:1	135	113427			
AFD4-010020-07	1-2	43	1.25	0.7	10	2:1	135	113427			
AFD4-010020-06	1-2	44	1.25	0.6	10	2:1	175	113427			
AFS4-01000200-05-10P-6	1-2	46	1	0.5	10	2:1	175	113384-6			
JS21-01000200-06-10P	1-2	48	1.5	0.65	10	2:1	365	127864			
JS21-01000200-07-10P	1-2	48	1.5	0.75	10	2:1	365	127864			
JS21-01000200-08-10P	1-2	48	1.5	0.85	10	2:1	365	127864			
JS21-01000200-09-10P	1-2	48	1.5	0.9	10	2:1	365	127864			
JS21-01000200-10-10P	1-2	48	1.5	1	10	2:1	365	127864			
AFS1-01200240-09-10P-4	1.2-2.4	14	1	0.9	10	2:1	75	113384-4			
AFS2-01200240-09-8P-2	1.2-2.4	23	1	0.9	8	2:1	100	113384-2			
AFD3-012024-11-LN	1.2-2.4	34	1	1.1	10	2:1	100	113427			
AFS3-01200240-06-10P-6	1.2-2.4	34	1	0.6	10	2:1	150	113384-6			
AFS4-01200240-06-10P-6	1.2-2.4	44	1	0.6	10	2:1	175	113384-6			
AFS1-02000400-12-10P-4	2-4	10	1	1.2	10	2:1	50	113384-4			
JS1-02000400-85-5P	2-4	10	2.5	8.5	8	2.5:1	100	128749			
JS1-02000400-20-12P	2-4	14	1.2	2	12	2:1	175	128749			
JS1-02000400-25-12P	2-4	14	1.2	2.5	12	2:1	175	128749			
JS1-02000400-30-12P	2-4	14	1.2	3	12	2:1	175	128749			
JS1-02000400-35-12P	2-4	14	1.2	3.5	12	2:1	175	128749			
AFD2-020040-25P	2-4	15	1.25	6	25	2:1	375	113427			

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFD2-020040-20P	2-4	16	1	5.5	20	2:1	250	113427
AFD2-020040-23P	2-4	16	1	5.5	23	2:1	300	113427
AFD2-020040-17P	2-4	18	1	5	17	2:1	200	113427
*AFSM2-02000400-10-8P	2-4	21	1	1	8	2:1	80	133720
*AFS2-02000400-08-HE-4	2-4	22	1	0.8	0	2:1	25	113384-4
*AFS2-02000400-15-TC-6	2-4	22	1	1.5	5	2:1	125	113384-6
JS2-02004000-85-5P	2-4	22	2.5	8.5	8	2.5:1	175	128749
AFD3-020040-20P	2-4	24	1.25	4.5	20	2:1	300	113427
AFD3-020040-23P	2-4	24	1.25	4.5	23	2:1	350	113428
AFD3-020040-25P	2-4	24	1.25	5	25	2:1	425	113429
AFS2-02000400-07-8P-4	2-4	24	1	0.7	8	2:1	75	113384-4
AFS2-02000400-32-20P-4	2-4	24	1.5	3.2	20	2:1	175	113384-4
AFS3-02000400-15-TC-6	2-4	26	1	1.5	5	2:1	125	113384-6
AFD3-020040-17P	2-4	27	1.25	4	17	2:1	250	113427
AFS3-02000400-08-CR-4	2-4	28	1	0.8	5	2:1	75	113384-4
AFS3-02000400-10-ULN	2-4	28	1	1	10	2:1	150	113384-4
AFS3-02000400-13-LN	2-4	28	1	1.3	10	2:1	150	113384-4
AFS3-02000400-15-LN	2-4	28	1	1.5	10	2:1	150	113384-4
AFD3-020040-13-LN	2-4	30	1.5	1.3	10	2:1	100	113384-4
*AFSX3-02000400-15-10P	2-4	30	1	1.5	10	2:1	125	141108
LCA-0204	2-4	30	1	1.5	10	2:1	125	154709
LCN-0204	2-4	30	1	1.2	13	2:1	125	154709
*MPN3-02000400-25P	2-4	30	1.5	2	25	2:1	300	132485
*NSM3-02000400-12-S-4	2-4	30	1	1.2	10	2:1	150	120175
AFD4-020040-20P	2-4	32	1.5	4	20	2:1	350	113427
AFD4-020040-23P	2-4	32	1.5	4	23	2:1	400	113427
AFD4-020040-25P	2-4	32	1.5	4	25	2:1	475	113427
AFS3-02000400-06-10P-4	2-4	32	1	0.6	10	2:1	125	113384
AFS3-02000400-07-10P-4	2-4	32	1	0.7	10	2:1	125	113384-4
JS2-02000400-05-10P	2-4	32	1	0.5	10	2:1	195	127140
JS2-02000400-06-10P	2-4	32	1	0.6	10	2:1	195	127140
JS2-02000400-07-10P	2-4	32	1	0.7	10	2:1	195	127140
JS2-02000400-08-10P	2-4	32	1	0.8	10	2:1	195	127140
JS2-02000400-09-10P	2-4	32	1	0.9	10	2:1	195	127140
*AFS3-02000400-08-HE-4	2-4	34	1	0.8	0	2:1	40	113384-4
AFD4-020040-17P	2-4	36	1.5	4	17	2:1	300	113427
AFS4-02000400-20-25P-4	2-4	36	1.5	2	25	2:1	275	113384-4
AFS4-02000400-06-10P-6	2-4	40	1.5	0.6	10	2:1	150	113384-6
JS21-02000400-06-10P	2-4	47	1.6	0.6	10	2:1	350	127864
JS21-02000400-07-10P	2-4	47	1.6	0.7	10	2:1	350	127864
JS21-02000400-08-10P	2-4	47	1.6	0.8	10	2:1	350	127864
JS21-02000400-09-10P	2-4	47	1.6	0.9	10	2:1	350	127864
JS21-02000400-10-10P	2-4	47	1.6	1	10	2:1	350	127864
AFS2-02600520-14-8P-2	2.6-5.2	20	1	1.4	8	2:1	100	113384-2
AFS3-02600520-10-10P-4	2.6-5.2	28	1	1	10	2:1	125	113384-4
AFS4-02600520-10-10P-4	2.6-5.2	36	1	1	10	2:1	150	113384-4
AFS1-04000800-20-5P-2	4-8	15	1.5	2	5	2:1	50	113384-2
AFS1-04000800-25-5P-2	4-8	15	1.25	2.5	5	2:1	50	113384-2
AFS1-04000800-30-5P-2	4-8	15	1.25	3	5	2:1	50	113384-2
AFS1-04000800-35-5P-2	4-8	15	1.25	3.5	5	2:1	50	113384-2
AFS1-04000800-13-5P-2	4-8	15	1	1.3	5	2:1	50	113384-2
AFD2-040080-25P	4-8	12	1	6.5	25	2:1	375	110228-2
AFD2-040080-23P	4-8	13	1	6.5	23	2:1	300	110228-2
AFD2-040080-17P	4-8	14	1	4	17	2:1	200	110228-2
AFD2-040080-20P	4-8	14	1	5.5	20	2:1	250	110228-2
AFS2-04000800-40-20P-2	4-8	20	1	4	20	2:1	150	113384-2
AFD2-040080-25	4-8	17	0.75	2.5	5	2:1	80	110228-2
AFD2-040080-30	4-8	17	0.75	3	5	2:1	80	110228-2
AFD2-040080-35	4-8	17	0.75	3.5	5	2:1	80	110228-2
AFD2-040080-40	4-8	17	0.75	4	10	2:1	120	110228-2
*AFS2-04000800-20-TC-2	4-8	17	1	2	5	2:1	80	113384-2
AFD3-040080-23P	4-8	20	1	5.5	23	2:1	350	122987
AFD3-040080-23P-SP	4-8	20	1.25	5.5	23	2:1	350	122987

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)					
AFD3-040080-25P	4-8	20	1	5.5	25	2:1	425	122987
AFD3-040080-25P-MP	4-8	20	1	5	25	2:1	400	122987
AFS2-04000800-08-8P-2	4-8	20	1	0.8	8	2:1	70	113384-2
*AFS2-04000800-11-HE-2	4-8	20	1	1.1	0	2:1	40	113384-2
AFS2-04000800-15-8P-2	4-8	20	1	1.5	8	2:1	80	113384-2
AFS2-04000800-16-8P-2	4-8	20	1	1.6	8	2:1	80	113384-2
AFS2-04000800-18-8P-2	4-8	20	1	1.8	8	2:1	80	113384-2
AFS2-04000800-20-8P-2	4-8	20	1	2	8	2:1	80	113384-2
AFS2-04000800-25-8P-2	4-8	20	1	2.5	8	2:1	80	113384-2
AFS2-04000800-30-8P-2	4-8	20	1	3	8	2:1	80	113384-2
*AFSM2-04000800-20-8P	4-8	20	1	2	8	2:1	100	133720
IFS3-04000800-15P-LP	4-8	22	2	5	15	2:1	150	127362
AFD3-040080-17P	4-8	23	1	3.5	17	2:1	250	122987
AFD3-040080-20P	4-8	23	1	4.5	20	2:1	300	122987
JS2-04000800-09-10P	4-8	23	1	0.9	10	2:1	175	128749
JS2-04000800-10-10P	4-8	21	1	1	10	2:1	175	128749
JS2-04000800-12-10P	4-8	21	1	1.2	10	2:1	175	128749
JS2-04000800-14-10P	4-8	21	1	1.4	10	2:1	175	128749
JS2-04000800-16-10P	4-8	21	1	1.6	10	2:1	175	128749
AFD3-040080-35-SP	4-8	24	1.25	3.5	10	2:1	150	122987
AFS3-04000800-16-LN	4-8	24	1	1.6	10	2:1	100	113384-4
AFS3-04000800-40-22P-4	4-8	24	1	4	22	2:1	200	113384-4
IFS3-04000800-22-LP	4-8	24	1.5	2.2	8	2:1	150	127362
*NSM3-04000800-10-S-4	4-8	24	1	1	10	2:1	150	120175
AFD3-040080-28-LN	4-8	25	1	2.8	10	2:1	100	122987
*AFS3-04000800-18-TC-4	4-8	25	1	1.8	8	2:1	80	113384-4
AFS3-04000800-20P-MP	4-8	25	1.25	3.8	20	2:1	150	113384-4
LCA-0408	4-8	25	1	1.5	10	2:1	150	154709
AFD3-040080-23	4-8	27	1	2.3	12	2:1	150	122987
AFD3-040080-25	4-8	27	1	2.5	10	2:1	150	122987
AFD3-040080-30	4-8	27	1	3	10	2:1	150	122987
AFD3-040080-40	4-8	27	1	4	10	2:1	180	122987
AFD4-040080-23P	4-8	27	1.25	4.5	23	2:1	400	133554-4
AFD4-040080-25P	4-8	27	1.25	4.5	25	2:1	475	133554-4
AFS3-04000800-08-10P-4	4-8	28	1	0.8	10	2:1	100	113384-4
AFS3-04000800-10-10P-4	4-8	28	1	1	10	2:1	100	113384-4
AFS3-04000800-10-UJLN	4-8	28	1	1	10	2:1	100	113384-4
AFS3-04000800-12-10P-4	4-8	28	1	1.2	10	2:1	100	113384-4
AFS3-04000800-13-10P-4	4-8	28	1	1.3	10	2:1	100	113384-4
AFS3-04000800-14-10P-4	4-8	28	1	1.4	10	2:1	100	113384-4
AFS3-04000800-15-10P-4	4-8	28	1	1.5	10	2:1	100	113384-4
AFS3-04000800-16-10P-4	4-8	28	1	1.6	10	2:1	100	113384-4
AFS3-04000800-18-10P-4	4-8	28	1	1.8	10	2:1	100	113384-4
AFS3-04000800-20-10P-4	4-8	28	1	2	10	2:1	100	113384-4
AFS3-04000800-25-10P-4	4-8	28	1	2.5	10	2:1	100	113384-4
AFS4-04000800-25-23P-4	4-8	28	1.5	2.5	23	2:1	300	113384-4
AFS4-04000800-30-23P-4	4-8	28	1.5	3	23	2:1/2.3:1	300	113384-4
AFS4-04000800-40-23P-4	4-8	28	1	4	23	2:1	295	113384-4
AFSX3-04000800-15-10P	4-8	28	1	1.5	10	2:1	125	141108
LCN-0408	4-8	28	1	1.5	10	2:1	150	154709
ABIT5-04000800-25-25P	4-8	30	1	2.5	25	2:1	500	132155
*AFS3-04000800-10-HE-4	4-8	30	1	1	0	2:1	60	113384-4
*AFSD5-040080-20-27P	4-8	30	1.5	2	27	2:1	650	121045
AFSD5-040080-30-27P	4-8	30	1.5	3	27	2:1	450	121045
*AFSW3-04000800-10	4-8	30	1	1	10	2:1	125	127846
*AFTL3-04000800-09	4-8	30	1	0.9	10	2:1	125	127846
AVG5-04000800-12	4-8	30	1	1.2	10	2:1	150	142051
AFD4-040080-17P	4-8	31	1.25	3.5	17	2:1	300	133554-4
AFD4-040080-20P	4-8	31	1.25	4.5	20	2:1	350	133554-4
*AFS3-04000800-09-CR-4	4-8	31	1	0.9	5	2:1	60	113384-4
AFS3-04000800-07-10P-4	4-8	32	1	0.7	10	2:1	100	113384-4
*AVG4-04000800-DET-8	4-8	32	1	1.8	10	2:1	125	142299
AFD4-040080-23	4-8	34	1.5	2.3	12	2:1	220	133554-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN	NOISE	OUTPUT PWR.	VSWR IN/OUT	DC POWER	OUTLINE DRAWING
	RANGE (GHz)		FLATNESS (±dB, Max.)	FIGURE (dB, Max.)	@ 1 dB COMP. (dBm, Min.)		@ +15 V (mA, Nom.)	
AFD4-040080-25	4-8	34	1.5	2.5	10	2:1	220	133554-4
AFD4-040080-30	4-8	34	1.5	3	10	2:1	220	133554-4
AFD4-040080-35	4-8	34	1.5	3.5	10	2:1	220	133554-4
AFD4-040080-40	4-8	34	1.5	4	10	2:1	240	133554-4
AFS4-04000800-10-10P-4	4-8	35	1	1	10	2:1	125	113384-4
AFS4-04000800-11-10P-4	4-8	35	1	1.1	10	2:1	125	113384-4
AFS4-04000800-12-10P-4	4-8	35	1	1.2	10	2:1	125	113384-4
AFS4-04000800-15-10P-4	4-8	35	1	1.5	10	2:1	125	113384-4
AFS4-04000800-16-10P-4	4-8	35	1	1.6	10	2:1	125	113384-4
AFS4-04000800-18-10P-4	4-8	35	1	1.8	10	2:1	125	113384-4
AFS4-04000800-20-10P-4	4-8	35	1	2	10	2:1	125	113384-4
AFS4-04000800-25-10P-4	4-8	35	1	2.5	10	2:1	125	113384-4
AFS4-04000800-30-10P-4	4-8	35	1	3	10	2:1	125	113384-4
JS3-04000800-08-10P	4-8	35	1.2	0.8	10	2:1	195	127140
JS3-04000800-10-10P	4-8	35	1.2	1	10	2:1	195	127140
JS3-04000800-12-10P	4-8	35	1.2	1.2	10	2:1	195	127140
JS3-04000800-14-10P	4-8	35	1.2	1.4	10	2:1	195	127140
JS3-04000800-16-10P	4-8	35	1.2	1.6	10	2:1	195	127140
AFD5-040080-23P	4-8	36	1.5	4.5	23	2:1	450	133554-5
AFD5-040080-25P	4-8	36	1.5	4.5	25	2:1	525	133554-5
AFS4-04000800-07-10P-4	4-8	37	1	0.7	10	2:1	125	113384-4
AFD5-040080-17P	4-8	38	1.5	3.5	17	2:1	350	133554-5
AFD5-040080-20P	4-8	38	1.5	4.5	20	2:1	400	133554-5
AFS43-04000800-30-20P-44	4-8	38	2	3	20	2:1	350	140941
AFS43-04000800-30-15P-44	4-8	40	1.5	3	15	2:1	250	140941
AFD5-040080-23	4-8	42	1.75	2.3	12	2:1	290	133554-5
AFD5-040080-25	4-8	42	2	2.5	10	2:1	290	133554-5
AFD5-040080-30	4-8	42	2	3	10	2:1	290	133554-5
AFD5-040080-35	4-8	42	2	3.5	10	2:1	290	133554-5
AFD5-040080-40	4-8	42	2	4	10	2:1	300	133554-5
AFS6-04000800-20-10P-6	4-8	45	1.5	2	10	2:1	250	113384-6
JS22-04000800-09-10P	4-8	42	1.7	0.9	10	2:1	325	129007
JS22-04000800-11-10P	4-8	42	1.7	1.2	10	2:1	325	129007
JS22-04000800-13-10P	4-8	42	1.7	1.3	10	2:1	325	129007
JS22-04000800-15-10P	4-8	42	1.7	1.5	10	2:1	325	129007
JS22-04000800-17-10P	4-8	42	1.7	1.7	10	2:1	325	129007
AFS43-04000800-35-23P-44	4-8	52	1.5	3.5	23	2:1	400	140941
AFD2-050100-23P	5-10	10	1	6	23	2:1	280	109174-2
AFD2-050100-20P	5-10	11	1	5	20	2:1	220	109174-2
AFD2-050100-15P	5-10	12	1	4.5	15	2:1	150	109174-2
AFS2-05001000-18-5P-2	5-10	18	1	1.8	5	2:1	170	113384-2
AFS2-05001000-20-5P-2	5-10	18	1	2	5	2:1	170	113384-2
AFS2-05001000-25-5P-2	5-10	18	1	2.5	5	2:1	170	113384-2
AFS2-05001000-30-5P-2	5-10	18	1	3	5	2:1	170	113384-2
AFS2-05001000-35-5P-2	5-10	18	1	3.5	5	2:1	170	113384-2
AFD3-050100-23P	5-10	16	1.25	5	23	2:1	340	109174-3
AFD3-050100-20P	5-10	18	1.25	5	20	2:1	280	109174-3
AFD3-050100-15P	5-10	19	1.25	4.5	15	2:1	200	109174-3
AFD4-050100-23P	5-10	23	1.5	5	23	2:1	400	109174-3
AFS3-05001000-12-8P-4	5-10	27	1	1.2	8	2:1	125	113384-4
AFS3-05001000-14-8P-4	5-10	27	1	1.4	8	2:1	125	113384-4
AFS3-05001000-18-8P-4	5-10	27	1	1.8	8	2:1	150	113384-4
AFS3-05001000-20-8P-4	5-10	27	1	2	8	2:1	150	113384-4
AFS3-05001000-25-8P-4	5-10	27	1	2.5	8	2:1	150	113384-4
AFS3-05001000-30-8P-4	5-10	27	1	3	8	2:1	150	113384-4
AFS3-05001000-35-8P-4	5-10	27	1	3.5	8	2:1	150	113384-4
AFD4-050100-20P	5-10	25	1.5	5	20	2:1	340	109174
AFD4-050100-15P	5-10	26	1.5	4.5	15	2:1	250	109174
AFS4-05001000-12-10P-4	5-10	32	1.25	1.2	10	2:1	150	113384-4
AFS4-05001000-14-10P-4	5-10	32	1.25	1.4	10	2:1	150	113384-4
AFS4-05001000-18-10P-4	5-10	32	1.25	1.8	10	2:1	150	113384-4
AFS4-05001000-20-10P-4	5-10	32	1.25	2	10	2:1	150	113384-4
AFS4-05001000-25-10P-4	5-10	32	1.25	2.5	10	2:1	150	113384-4
AFS4-05001000-30-10P-4	5-10	32	1.25	3	10	2:1	150	113384-4

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS4-05001000-35-10P-4	5-10	32	1.25	3.5	10	2:1	150	113384-4
JS3-05001000-17-10P	5-10	28	1.4	1.7	10	2:1	150	128749
JS3-05001000-19-10P	5-10	28	1.4	1.9	10	2:1	150	128749
JS3-05001000-21-10P	5-10	28	1.4	2.1	10	2:1	150	128749
JS3-05001000-23-10P	5-10	28	1.4	2.3	10	2:1	150	128749
JS3-05001000-25-10P	5-10	28	1.4	2.5	10	2:1	150	128749
AFD5-050100-23P	5-10	30	1.75	5	23	2:1	460	109174-5
AFD5-050100-20P	5-10	32	1.75	5	20	2:1	400	109174-5
AFD5-050100-15P	5-10	33	1.75	5	15	2:1	300	109174-5
AFS5-05001000-18-10P-5	5-10	34	1.5	1.8	10	2:1	150	113384-5
AFS5-05001000-20-10P-5	5-10	34	1.4	2	10	2:1	150	113384-5
AFS5-05001000-25-10P-5	5-10	34	1.4	2.5	10	2:1	150	113384-5
AFS5-05001000-30-10P-5	5-10	34	1.4	3	10	2:1	150	113384-5
AFS5-05001000-35-10P-5	5-10	34	1.4	3.5	10	2:1	150	113384-5
AFS5-05001000-12-10P-5	5-10	35	1.5	1.2	10	2:1	150	113384-5
AFD6-050100-23P	5-10	37	2	5	23	2:1	520	169423
AFD6-050100-20P	5-10	39	2	5	20	2:1	460	169423
AFD6-050100-15P	5-10	40	2	4.5	15	2:1	350	169423
AFS44-05001000-35-10P-44	5-10	42	1.5	3.5	10	2:1	150	140941
JS1-06001200-28-8P	6-12	8	1.2	2.8	8	2:1	80	128749
JS1-06001200-30-8P	6-12	8	1.2	3	8	2:1	80	128749
JS1-06001200-33-8P	6-12	8	1.2	3.3	8	2:1	80	128749
AFS2-06001200-18-5P-2	6-12	14	1.5	1.8	5	2:1	100	113384-2
JS2-06001200-26-8P	6-12	14	1.2	2.6	8	2:1	125	128749
JS2-06001200-29-8P	6-12	14	1.2	2.9	8	2:1	125	128749
JS2-06001200-33-10P	6-12	14	1.2	3.3	10	2:1	150	128749
JS2-06001200-35-10P	6-12	14	1.2	3.5	10	2:1	150	128749
AFS4-06001200-60-22P-4	6-12	20	1.5	6	22	2:1	300	113384-4
AFS3-06001200-12-8P-4	6-12	24	1.5	1.2	8	2:1	125	113384-4
AFS3-06001200-15-8P-4	6-12	24	1.5	1.5	8	2:1	125	113384-4
AFS3-06001200-30-8P-4	6-12	24	1.5	3	8	2:1	125	113384-4
*AVG4-06001200-19	6-12	24	1.5	1.9	10	2:1	125	142051
*AFSD5-060120-30-26P	6-12	26	1.5	3	26	2:1	650	121045
JS3-06001200-14-8P	6-12	28	1	1.4	8	2:1	150	128749
JS3-06001200-16-8P	6-12	28	1	1.6	8	2:1	150	128749
JS3-06001200-18-10P	6-12	28	1	1.8	10	2:1	165	128749
JS3-06001200-20-10P	6-12	28	1	2	10	2:1	165	128749
AFS4-06001200-12-10P-4	6-12	30	1.5	1.2	10	2:1	120	113384-4
AFS4-06001200-15-10P-4	6-12	30	1.5	1.5	10	2:1	120	113384-4
AFS4-06001200-18-10P-4	6-12	30	1	1.8	10	2:1	120	113384-4
AFS4-06001200-23-10P-4	6-12	30	1	2.3	10	2:1	120	113384-4
AFS4-06001200-25-10P-4	6-12	30	1	2.5	10	2:1	120	113384-4
AFS5-06001200-12-10P-5	6-12	34	1.5	1.2	10	2:1	125	113384-5
JS4-06001200-14-8P	6-12	34	1	1.4	8	2:1	195	128749
JS4-06001200-16-8P	6-12	34	1	1.6	8	2:1	195	128749
JS4-06001200-18-10P	6-12	34	1	1.8	10	2:1	195	128749
JS4-06001200-20-10P	6-12	34	1	2	10	2:1	195	128749
AFS42-06001200-12-10P-42	6-12	40	1.75	1.2	10	2:1	175	151239
AFS42-06001200-15-10P-42	6-12	40	1.75	1.5	10	2:1	175	151239
JS41-06001200-14-8P	6-12	42	1.4	1.4	8	2:1	250	129007
JS41-06001200-16-8P	6-12	42	1.4	1.6	8	2:1	250	129007
JS41-06001200-18-8P	6-12	42	1.4	1.8	8	2:1	250	129007
JS41-06001200-20-8P	6-12	42	1.4	2	8	2:1	250	129007
JS42-06001200-14-10P	6-12	50	1.6	1.4	10	2:1	285	129007
JS42-06001200-16-10P	6-12	50	1.6	1.6	10	2:1	285	129007
JS42-06001200-18-10P	6-12	50	1.6	1.8	10	2:1	285	129007
JS42-06001200-20-10P	6-12	50	1.6	2	10	2:1	285	129007
AFS2-08001600-15-5P-2	8-16	16	1.5	1.5	5	2:1	50	113384-2
AFS3-08001600-15-8P-4	8-16	28	1	1.5	8	2:1	100	113384-4
AFS4-08001600-14-10P-4	8-16	34	1	1.4	10	2:1	125	113384-4
AFS5-08001600-14-10P-6	8-16	38	1	1.4	10	2:1	165	113384-6
AFS6-08001600-14-10P-6	8-16	42	1.5	1.4	10	2:1	200	113384-6
AFS2-12002400-32-5P-2	12-24	10	1.5	3.2	5	2:1	40	113384-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

OCTAVE BAND (CONT.)

MODEL NUMBER	FREQUENCY	GAIN		NOISE	OUTPUT PWR.	VSWR IN/OUT	DC POWER	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)	FIGURE (dB, Max.)	@ 1 dB COMP. (dBm, Min.)		@ +15 V (mA, Nom.)	
AFS3-12002400-30-5P-4	12–24	18	1.5	3	8	2:1	60	113384-4
AFS4-12002400-30-10P-4	12–24	24	2	3	10	2:1	85	113384-4
AFS33-12002400-30-10P-44	12–24	36	2	3	10	2:1	120	140941

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MEDIUM POWER

MODEL NUMBER	FREQUENCY	GAIN		NOISE	OUTPUT PWR.	VSWR IN/OUT	DC POWER	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)	FIGURE (dB, Max.)	@ 1 dB COMP. (dBm, Min.)		@ +15 V (mA, Nom.)	
AFS4-00101800-65-13P-4	0.1–18	25	2	6.5	13	2.5:1	200	113384-4
AFS1-00120025-10-13P-4	0.12–0.25	15	0.75	1	13	2.5:1/2:1	75	113384-4
AFS1-00700080-08-13P-4	0.7–0.8	16	0.5	0.8	13	1.8:1	80	113384-4
AFS1-00800100-08-13P-4	0.8–1	16	0.5	0.8	13	1.8:1	80	113384-4
AFS1-00900120-08-13P-4	0.9–1.2	16	0.5	0.8	13	1.5:1	80	113384-4
AFS3-00900120-06-13P-6	0.9–1.2	40	0.5	0.6	13	1.5:1	150	113384-6
AFS3-00950145-06-13P-6*	0.95–1.45	40	0.5	0.6	13	1.5:1	150	113384-6
AFS3-00950175-06-13P-6	0.95–1.75	38	0.5	0.6	13	1.8:1	150	113384-6
AFS3-01100180-06-13P-6	1.1–1.8	40	0.5	0.6	13	1.7:1	150	113384-6
AFS3-01200140-05-13P-6	1.2–1.4	40	0.5	0.5	13	1.5:1	150	113384-6
AFS3-01200160-05-13P-6	1.2–1.6	40	0.5	0.5	13	1.5:1	150	113384-6
AFS3-01300140-05-13P-6	1.3–1.4	40	0.5	0.5	13	1.5:1	150	113384-6
AFS3-01400170-06-13P-6	1.4–1.7	40	0.5	0.6	13	1.5:1	150	113384-6
AFS4-01400170-06-13P-6	1.4–1.7	50	0.5	0.6	13	1.5:1	175	113384-6
AFS3-01500160-05-13P-6	1.5–1.6	40	0.5	0.5	13	1.5:1	150	113384-6
AFS4-01500160-05-13P-6	1.5–1.6	50	0.5	0.5	13	1.5:1	175	113384-6
AFS3-01500180-06-13P-6	1.5–1.8	40	0.5	0.6	13	1.5:1	150	113384-6
AFS4-01500180-06-13P-6	1.5–1.8	50	0.5	0.6	13	1.5:1	175	113384-6
AFS3-01500250-06-13P-6	1.5–2.5	38	1	0.6	13	1.8:1	150	113384-6
AFS4-01500250-06-13P-6	1.5–2.5	46	1	0.6	13	1.8:1	175	113384-6
AFS3-01700190-06-13P-6	1.7–1.9	38	0.5	0.6	13	1.5:1	150	113384-6
AFS4-01700190-06-13P-6	1.7–1.9	46	0.5	0.6	13	1.5:1	175	113384-6
AFS3-01800220-06-13P-6	1.8–2.2	38	0.5	0.6	13	1.5:1	150	113384-6
AFS4-01800220-06-13P-6	1.8–2.2	46	0.5	0.6	13	1.5:1	175	113384-6
AFS3-02001800-80-13P-4	2–18	22	2.5	8	13	2.5:1	175	113384-4
AFS4-02001800-60-13P-4	2–18	25	2.5	6	13	2.5:1	200	113384-4
AFS3-02200230-06-13P-4	2.2–2.3	38	0.5	0.6	13	1.5:1	150	113384-4
AFS4-02200230-06-13P-6	2.2–2.3	46	0.5	0.6	13	1.5:1	175	113384-6
AFS3-02300270-06-13P-6	2.3–2.7	36	0.5	0.6	13	1.5:1	150	113384-6
AFS4-02300270-06-13P-6	2.3–2.7	46	0.5	0.6	13	1.5:1	175	113384-6
AFS3-02700290-06-13P-6	2.7–2.9	32	0.5	0.6	13	1.5:1	150	113384-6
AFS4-02700290-06-13P-6	2.7–2.9	42	0.5	0.6	13	1.5:1	175	113384-6
AFS3-02700300-06-13P-6	2.7–3	34	0.5	0.6	13	1.5:1	150	113384-6
AFS4-02700300-06-13P-6	2.7–3	45	0.5	0.6	13	1.5:1	175	113384-6
AFS3-02900310-06-13P-6	2.9–3.1	32	0.5	0.6	13	1.5:1	150	113384-6
AFS4-02900310-06-13P-6	2.9–3.1	40	0.5	0.6	13	1.5:1	180	113384-6
AFS6-02900310-06-13P-6	2.9–3.1	46	0.5	0.6	13	1.5:1	200	113384-6
AFS4-03000350-06-13P-6	3–3.5	36	0.5	0.6	13	1.5:1	175	113384-6
AFS3-03400420-06-13P-4	3.4–4.2	28	0.5	0.6	13	1.75:1	175	113384-4
* AFS4-03400420-10-13P-6	3.4–4.2	40	0.5	1	13	1.5:1	200	113384-6
AFS5-08001800-22-13P-6	8–18	32	2	2.2	13	2:1	175	113384-6
AFS3-09201030-30-13P-4	9.2–10.3	24	0.75	3	13	2:1	100	113384-4
** JSW4-33003600-30-13P	33–36	21	2	3	13	2:1	120	132076
JDM2W-55006700-50-10P	55–67	25	2.5	5	13	3:1/2.75:1	150	148727

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MEDIUM POWER (CONT.)

MODEL NUMBER	FREQUENCY		GAIN		NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)	GAIN (dB, Min.)	FLATNESS (±dB, Max.)						
** JSW4-34003430-30-14P	34-34.3	25	0.5	2.8	14	1.5:1	115	132076	
AFS3-00100200-10-15P-4	0.1-2	38	1	1	15	2:1	150	113384-4	
AFS4-00100200-10-15P-4	0.1-2	46	1.5	1	15	2:1	175	113384-4	
IFS3-00100600-15P-LP	0.1-6	22	2	5	15	2:1	150	127362	
IFS3-00100800-15P-LP	0.1-8	22	2	5.5	15	2:1	150	127362	
AFS4-00101000-80-15P-4	0.1-10	17	2.5	8	15	2.5:1	200	113384-4	
IFS3-00101200-15P-LP	0.1-12	22	2	6	15	2:1	150	127362	
AFS4-00101800-70-15P-4	0.1-18	25	2	7	15	2.5:1	250	113384-4	
JS3-00101800-65-15P	0.1-18	27	2	6.5	15	2.5:1	350	128749	
JS3-00102000-65-15P	0.1-20	27	2.2	6.5	15	2.5:1	350	128749	
AFS1-00500060-08-15P-4	0.5-0.6	17	0.25	0.8	15	1.8:1	100	113384-4	
AFS2-00500200-08-15P-2	0.5-2	25	1	0.8	15	2:1	100	113384-2	
AFS3-00500200-08-15P-4	0.5-2	38	1	0.8	15	2:1	125	113384-4	
* AFS4-00500200-08-15P-4	0.5-2	46	1	0.8	15	2:1	175	113384-4	
AFS3-00700080-06-15P-6	0.7-0.8	42	0.5	0.6	15	1.8:1	150	113384-6	
AFS4-00700080-06-15P-6	0.7-0.8	52	0.5	0.6	15	1.8:1	175	113384-6	
AFS3-00800100-05-15P-6	0.8-1	44	0.5	0.5	15	1.8:1	150	113384-6	
AFS4-00800100-05-15P-6	0.8-1	54	0.5	0.5	15	1.8:1	175	113384-6	
AFS4-00900120-05-15P-6	0.9-1.2	50	0.5	0.5	15	1.5:1	175	113384-6	
AFS4-00950145-05-15P-6	0.95-1.45	50	0.5	0.5	15	1.5:1	175	113384-6	
AFS4-00950175-06-15P-6	0.95-1.75	50	0.5	0.6	15	1.8:1	175	113384-6	
AFS1-01000200-11-15P-4	1-2	14	1	1.1	15	2:1	75	113384-4	
AFS4-01001000-55-15P-4	1-10	32	2	5.5	15	2:1	250	113384-4	
AFS4-01100180-06-15P-6	1.1-1.8	50	0.5	0.6	15	1.7:1	175	113384-6	
AFD3-012014-09-LN	1.2-1.4	34	0.25	0.9	15	1.5:1	125	113427	
AFS4-01200140-05-15P-6	1.2-1.4	50	0.5	0.5	15	1.5:1	175	113384-6	
AFS4-01200160-05-15P-6	1.2-1.6	50	0.5	0.5	15	1.5:1	175	113384-6	
AFS4-01300140-05-15P-6	1.3-1.4	50	0.5	0.5	15	1.5:1	175	113384-6	
AFD2-020060-15P	2-6	15	1	4.5	15	2:1	160	110228-2	
AFD3-020060-15P	2-6	24	1	3.5	15	2:1	210	110228-3	
AFD4-020060-15P	2-6	32	1.25	3.5	15	2:1	260	133554-4	
AFD2-020080-15P	2-8	15	1	5.5	15	2:1	160	110228-2	
IFS3-02000800-15P-LP	2-8	22	2	6	15	2:1	150	127362	
AFD3-020080-15P	2-8	24	1.5	3.5	15	2:1	210	110228-3	
AFD4-020080-15P	2-8	32	1.25	4.5	15	2:1	260	133554	
AFS4-02000800-35-15P-4	2-8	32	1.5	3.5	15	2:1	175	113384-4	
AFD5-020080-15P	2-8	40	2	4.5	15	2:1	300	133554-5	
AFS4-02001800-60-15P-4	2-18	25	2.5	6	15	2.5:1	250	113384-4	
AFS42-02001800-65-15P-42	2-18	35	2.5	6.5	15	2.5:1	375	151239	
IFS3-04000800-15P-LP	4-8	22	2	5	15	2:1	150	127362	
AFS43-04000800-30-15P-44	4-8	40	1.5	3	15	2:1	175	140941	
AFD2-040120-15P	4-12	10	1.25	5.5	15	2:1	275	109174-2	
AFD3-040120-15P	4-12	16	1.5	5.5	15	2:1	200	109174-2	
AFD4-040120-15P	4-12	23	1.75	5.5	15	2:1	250	109174-4	
AFD5-040120-15P	4-12	29	1.75	5.5	15	2:1	300	109174-5	
AFD2-050100-15P	5-10	12	1	4.5	15	2:1	150	109174-2	
AFD3-050100-15P	5-10	19	1.25	4.5	15	2:1	200	109174-3	
AFD4-050100-15P	5-10	26	1.5	4.5	15	2:1	250	109174	
AFD5-050100-15P	5-10	33	1.75	5	15	2:1	300	109174-5	
AFD6-050100-15P	5-10	40	2	4.5	15	2:1	350	169423	
AFS4-08001000-40-15P-4	8-10	30	0.75	4	15	2:1	150	113384-4	
AFD2-080120-15P	8-12	11	1	5	15	2:1	275	109174-2	
AFD3-080120-15P	8-12	17	1.25	5	15	2:1	200	134972	
IFS3-08001200-15P-LP	8-12	22	2	5	15	2:1	100	127362	
AFD4-080120-15P	8-12	24	1.5	5	15	2:1	250	109174-4	
AFS3-08001200-20-15P-4	8-12	24	1	2	15	2:1	125	113384-4	
AFD5-080120-15P	8-12	30	1.75	5	15	2:1	300	109174-5	
AFD6-080120-15P	8-12	36	2.25	5	15	2:1	350	169423	
AFS43-08001200-30-15P-44	8-12	40	1.5	3	15	2:1	225	140941	
AFS6-08001800-22-15P-6	8-18	36	2	2.2	15	2:1	200	113384-6	
JS3-18004000-43-15P	18-40	32	2.5	4.3	15	2.5:1	600	128446	
JS3-18004000-45-15P	18-40	32	2.5	4.5	15	2.5:1	600	128446	
JS3-18004000-50-15P	18-40	32	2.5	5	15	2.5:1	600	128446	
JS3-18004000-55-15P	18-40	32	2.5	5.5	15	2.5:1	600	128446	

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MEDIUM POWER (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
JS3-26004000-43-15P	26-40	33	2.5	4.3	15	2.5:1	600, 100 ⁽⁴⁾	128446
JS3-26004000-45-15P	26-40	33	2.5	4.5	15	2.5:1	600, 100 ⁽⁴⁾	128446
JS3-26004000-50-15P	26-40	33	2.5	5	15	2.5:1	600, 100 ⁽⁴⁾	128446
JS3-26004000-55-15P	26-40	33	2.5	5.5	15	2.5:1	600, 100 ⁽⁴⁾	128446
JSW4-33003500-30-10P	33-35	23	2	3	15	1.5:1	200	132076
* AFSM1-00100200-16-16P	0.1-2	12	1	1.6	16	2:1	80	133720
JS3-00101500-65-16P	0.1-15	27	1.8	6.5	16	2.5:1	350	128749
JS3-00101800-65-16P	0.1-18	27	2	6.5	16	2.5:1	350	128749
JS3-00102000-65-16P	0.1-20	27	2.2	6.5	16	2.5:1	350	128749
JS1-26004000-100-16P	26-40	17	2.5	10	16	2.5:1	600, 100 ⁽⁴⁾	131484
JS3-00101200-65-17P	0.1-12	27	1.7	6.5	17	2.3:1	350	128749
JS3-00101500-65-17P	0.1-15	27	1.8	6.5	17	2.5:1	350	128749
* AFS1-00500100-50-17P-4	0.5-1	10	1	5	17	2.5:1	150	113384-4
AFD1-010020-17P	1-2	11	0.75	3.5	17	2:1	125	109888
AFD2-010020-17P	1-2	25	1.25	3.5	17	2:1	200	113427
AFD3-010020-17P	1-2	33	1.5	2.5	17	2:1	100	113427
AFD2-020040-17P	2-4	18	1	5	17	2:1	200	113427
AFD3-020040-17P	2-4	27	1.25	4	17	2:1	250	113427
AFD4-020040-17P	2-4	36	1.5	4	17	2:1	300	113427
AFD2-027031-18-17P	2.7-3.1	26	0.5	1.8	17	2:1	180	109962
AFD2-040080-17P	4-8	14	1	4	17	2:1	200	110228-2
AFD3-040080-17P	4-8	23	1	3.5	17	2:1	250	122987
AFD4-040080-17P	4-8	31	1.25	3.5	17	2:1	300	133554-4
AFD5-040080-17P	4-8	38	1.5	3.5	17	2:1	350	133554-5
JS1-26004000-100-17P	26-40	17	2.5	10	17	2.5:1	600, 100 ⁽⁴⁾	131484
AFSX4-00100100-16-18P	0.1-1	13	1	1.6	18	2.5:1	175	141108
JS3-00101000-65-18P	0.1-10	28	1.5	6.5	18	2.3:1	350	128749
JS3-00101200-65-18P	0.1-12	27	1.7	6.5	18	2.3:1	350	128749
* AFS3-00502000-50-18P-4	0.5-20	20	2.5	5	18	2.5:1/2.2:1	350	113384-4
* AFS5-00502000-50-18P-6	0.5-20	25	2.5	5	18	2.5:1/2.2:1	360	113384-6
AFS6-00502000-45-18P-6	0.5-20	36	2.75	4.5	18	2.5:1/2.2:1	400	113384-6
AFS3-02000600-65-18P-4	2-6	28	1	6.5	18	2:1	300	113384-4
AFD3-040120-18P-SP	4-12	15	1.75	6.5	18	2:1	350	109174-2
JS3-043000480-15-18P	4.3-4.8	33	0.5	1.5	18	1.7:1	225	128749
JS3-043000480-17-18P	4.3-4.8	33	0.5	1.7	18	1.7:1	225	128749
JS3-043000480-19-18P	4.3-4.8	33	0.5	1.9	18	1.7:1	225	128749
JS3-044000510-15-18P	4.4-5.1	33	0.5	1.5	18	1.7:1	225	128749
JS3-044000510-17-18P	4.4-5.1	33	0.5	1.7	18	1.7:1	225	128749
JS3-044000510-19-18P	4.4-5.1	33	0.5	1.9	18	1.7:1	225	128749
JS3-054000590-15-18P	5.4-5.9	33	0.5	1.5	18	1.7:1	225	128749
JS3-054000590-19-18P	5.4-5.9	33	0.5	1.9	18	1.7:1	225	128749
JS3-05400590-15-18P	5.4-5.9	33	0.5	1.5	18	1.7:1	225	128749
JS3-05400590-17-18P	5.4-5.9	33	0.5	1.7	18	1.7:1	225	128749
JS3-05400590-19-18P	5.4-5.9	33	0.5	1.9	18	1.7:1	225	128749
AFS6-09001000-18-18P-6	9-10	30	1	1.8	18	2:1	175	113384-6
JS1-26004000-100-18P	26-40	17	2.5	10	18	2.5:1	600, 100 ⁽⁴⁾	131484
JS41-26004000-35-18P	26-40	43	3.8	3.5	18	2.5:1	800, 100 ⁽⁴⁾	144663
JS41-26004000-40-18P	26-40	43	3.8	4	18	2.5:1	800, 100 ⁽⁴⁾	144663
JS41-26004000-45-18P	26-40	43	3.8	4.5	18	2.5:1	800, 100 ⁽⁴⁾	144663
JS41-26004000-50-18P	26-40	43	3.8	5	18	2.5:1	800, 100 ⁽⁴⁾	144663
JS41-26004000-55-18P	26-40	43	3.8	5.5	18	2.5:1	800, 100 ⁽⁴⁾	144663
JS3-00101000-65-19P	0.1-10	28	1.5	6.5	19	2.3:1	350	128749
* AFSM2-02002000-70-19P	2-20	12	2.75	7	19	2.5:1	200	133720
JS1-26004000-100-19P	26-40	17	2.5	10	19	2.5:1	600, 100 ⁽⁴⁾	131484
* AFSM1-00050100-18-20P	0.05-1	13	1	1.8	20	2.5:1/2.2:1	150	133720
AFS1-00100200-16-20P-4	0.1-2	12	1.75	1.6	20	2:1	175	113384-4
AFS1-00100200-18-20P-4	0.1-2	14	1.75	1.8	20	2:1	175	113384-4
AFS2-00100300-30-20P-4	0.1-3	20	1.25	3	20	2:1	200	113384-4
AFS2-00100400-35-20P-2	0.1-4	16	1.5	3.5	20	2.2:1	80	113384-2
AFS3-00100400-26-20P-4	0.1-4	26	1.5	2.6	20	2:1	250	113384-4
* AFPD44-00100400-20P	0.1-4	30	2	4	20	2:1	450	116630
AFS4-00100400-25-20P-4	0.1-4	33	1.5	2.5	20	2:1	300	113384-4
AFS2-00100600-35-20P-2	0.1-6	16	1.5	3.5	20	2.2:1	200	113384-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).
 (4) Requires both ±15 VDC.

MEDIUM POWER (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS3-00100600-20P-MP	0.1-6	24	1.5	4.6	20	2:1	250	113384-4
AFS4-00100600-25-20P-4	0.1-6	33	1.5	2.5	20	2:1	300	113384-4
AFS2-00100800-50-20P-2	0.1-8	14	1.5	5	20	2.2:1	200	113384-2
AFS4-00100800-20P-MP	0.1-8	24	2	4.8	20	2:1	250	113384-4
AFS3-00100800-65-20P-4	0.1-8	26	1.5	6.5	20	2.5:1	125	113384-4
AFS3-00100800-30-20P-4	0.1-8	28	1.5	3	20	2:1	250	113384-4
AFS4-00100800-60-20P-4	0.1-8	30	1.5	6	20	2:1	250	113384-4
AFS4-00100800-28-20P-4	0.1-8	34	1.5	2.8	20	2:1	300	113384-4
AFS2-00101000-55-20P-2	0.1-10	10	1.5	5.5	20	2.2:1	200	113384-2
AFS3-00101000-40-20P-4	0.1-10	18	1.5	4	20	2:1	250	113384-4
AFS3-00101000-70-20P-4	0.1-10	18	1.75	7	20	2.5:1	250	113384-4
AFS4-00101000-40-20P-4	0.1-10	27	1.5	4	20	2:1	300	113384-4
AFS2-00101200-55-20P-2	0.1-12	10	1.5	5.5	20	2.2:1	200	113384-2
AFS3-00101200-40-20P-4	0.1-12	18	1.5	4	20	2:1	250	113384-4
AFS4-00101200-40-20P-4	0.1-12	20	1.5	4	20	2:1	300	113384-4
AFS4-00101200-45-20P-4	0.1-12	20	1.5	4.5	20	2:1	300	113384-4
AFS4-00101200-20P-MP	0.1-12	26	2	5.3	20	2:1	250	113384-4
AFS5-00101200-60-20P-6	0.1-12	28	2.5	6	20	2.5:1	350	113384-6
* AFPD44-00101200-20P	0.1-12	30	2.5	6	20	2:1	500	116630
AFS42-00101200-S-20P-42	0.1-12	35	1.75	4.5	20	2:1	350	151239
* AFPD44-00500200-20P	0.5-2	35	2	4	20	2:1	650	116630
AFS2-00500400-20P-MP	0.5-4	24	1.5	4	20	2:1/2.5:1	250	113384-4
* AFS3-00501800-45-20P-4	0.5-18	20	2.5	4	20	2.5:1/2.2:1	300	113384-4
* AFS4-00501800-40-20P-6	0.5-18	25	2.75	4	20	2.5:1/2.2:1	350	113384-6
* AFS5-00501800-40-20P-6	0.5-18	30	2.75	4	20	2.5:1/2.2:1	400	113384-6
* AFS8-00501800-40-20P-8	0.5-18	38	2.75	4	20	2.5:1/2.2:1	450	113384-8
* AFPD44-00102000-20P	0.5-20	26	3	6	20	2.5:1	650	116630
AFD1-010020-20P	1-2	11	0.75	3.5	20	2:1	150	109888
* AFSM1-01000200-16-20P	1-2	13	1	1.6	20	2:1	150	133720
* AFS1-01000200-16-20P-4	1-2	14	0.75	1.6	20	2:1	150	113384-4
* AFS1-01000200-14-20P-4	1-2	16	0.5	1.4	20	2:1	100	113384-4
AFD2-010020-20P	1-2	25	1.25	3.5	20	2:1	250	113427
* AFSM2-01000200-16-20P	1-2	25	1	1.6	20	2:1	80	133720
AFD2-020040-20P	2-4	16	1	5.5	20	2:1	250	113427
AFD3-020040-20P	2-4	24	1.25	4.5	20	2:1	300	113427
AFS2-02000400-32-20P-4	2-4	24	1.5	3.2	20	2:1	175	113384-4
AFD4-020040-20P	2-4	32	1.5	4	20	2:1	350	113427
AFD2-020060-20P	2-6	13	1.25	5.5	20	2:1	250	110228-2
AFD3-020060-20P	2-6	22	1.5	4.5	20	2:1	300	110228-3
AFD4-020060-20P	2-6	30	2	4.5	20	2:1	350	133554-4
AFD2-020080-20P	2-8	13	1.25	5.5	20	2:1	250	110228-2
AFD3-020080-20P-SP	2-8	18	1.5	6	20	2:1	350	110228-3
AFD3-020080-20P	2-8	22	1.5	4.5	20	2:1	300	122987
AFS4-02000800-20P-MP	2-8	24	1.5	5.8	20	2:1	175	113384-4
AFD4-020080-20P	2-8	30	2	4.5	20	2:1	350	133554-4
AFS4-02000800-22-20P-4	2-8	30	1.5	2.2	20	2:1	275	113384-4
AFS4-02000800-40-20P-4	2-8	30	1.5	4	20	2:1	275	113384-4
AFS4-02000800-50-20P-4	2-8	30	1.5	5	20	2:1	275	113384-4
AFD5-020080-20P	2-8	38	2	4.5	20	2:1	390	133554-5
AFS1-02001800-80-20P-2	2-18	8	1.5	8	20	2.5:1/2:1	275	113384-2
* MPN3-02001800-20P	2-18	23	1.5	4.5	20	2:1	450	134923
AFS5-02001800-40-20P-6	2-18	30	2.5	4	20	2:1	400	113384-6
AFS4-02001800-25-20P-4	2-18	34	2.5	2.5	20	2.5:1	300	113384-4
* AFPD44-02001800-20P	2-18	35	3	8	20	2.5:1	600	116630
AFD2-040080-20P	4-8	14	1	5.5	20	2:1	250	110228-2
AFS2-04000800-40-20P-2	4-8	20	1	4	20	2:1	150	113384-2
AFD3-040080-20P	4-8	23	1	4.5	20	2:1	300	122987
AFS3-04000800-20P-MP	4-8	25	1.25	3.8	20	2:1	150	113384-4
AFD4-040080-20P	4-8	31	1.25	4.5	20	2:1	350	133554-4
AFD5-040080-20P	4-8	38	1.5	4.5	20	2:1	400	133554-5
AFS43-04000800-30-20P-44	4-8	38	2	3	20	2:1	350	140941
AFD2-040120-20P	4-12	8	1.25	6.5	20	2:1	275	109174-2
AFD3-040120-20P	4-12	14	1.5	5.5	20	2:1	280	109174-2

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

MEDIUM POWER (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFD3-040120-20P-MP	4-12	15	1.5	6	20	2:1	350	109174-2
AFD4-040120-20P	4-12	20	1.75	5.5	20	2:1	340	109174-4
AFD5-040120-20P	4-12	26	2	5.5	20	2:1	400	109174-5
AFD2-050100-20P	5-10	11	1	5	20	2:1	220	109174-2
AFD3-050100-20P	5-10	18	1.25	5	20	2:1	280	109174-3
AFD4-050100-20P	5-10	25	1.5	5	20	2:1	340	109174
AFD5-050100-20P	5-10	32	1.75	5	20	2:1	400	109174-5
AFD6-050100-20P	5-10	39	2	5	20	2:1	460	169423
AFS3-05200600-60-20P-6	5.2-6	27	1	6	20	2:1	150	113384-6
AFS42-05700590-20-20P-42	5.7-5.9	40	1	2	20	1.5:1	200	151239
AFS5-06001800-50-20P-6	6-18	23	2	5	20	2:1	365	113384-6
AFS7-06001800-50-20P-8	6-18	35	2.5	5	20	2:1	400	113384-8
AFD2-080120-20P	8-12	9	1	6	20	2:1	275	109174-2
AFD3-080120-20P-SP	8-12	15	1.25	5	20	2:1	350	134972
AFS3-08001200-35-20P-4	8-12	20	1.25	3.5	20	2:1	150	113384-4
AFS3-08001200-40-20P-4	8-12	20	1.25	4	20	2:1	150	113384-4
AFS3-08001200-S-20P-4	8-12	20	1.25	4	20	2:1	150	113384-4
AFS4-08001200-20P-MP	8-12	20	1	4.8	20	2:1	175	113384-4
AFD4-080120-20P	8-12	21	1.5	5	20	2:1	340	109174-4
AFS4-08001200-S-20P-4	8-12	25	1.25	4	20	2:1	175	113384-4
AFD5-080120-20P	8-12	27	2	5	20	2:1	400	109174-5
AFS4-08001200-30-20P-4	8-12	30	1.25	3	20	2:1	175	113384-4
AFS4-08001200-40-20P-4	8-12	30	1.25	4	20	2:1	175	113384-4
AFS4-08001200-25-20P-4	8-12	32	1	2.5	20	2:1	175	113384-4
AFS4-08001200-25-20P-4-LPN	8-12	32	1	2.5	20	2:1	175	113384-4
AFD6-080120-20P	8-12	33	2.25	5	20	2:1	460	169423
AFS42-08001200-30-20P-42	8-12	36	1.5	3	20	2:1	225	151239
AFS44-08001200-30-20P-44	8-12	40	1.5	3	20	2:1	250	140941
AFS3-08700960-60-20P-4	8.7-9.6	26	0.75	6	20	2:1	175	113384-4
AFS6-09401020-10-20P-6	9.4-10.2	36	1	1	20	2:1	200	113384-6
AFS6-09401020-15-20P-6	9.4-10.2	36	1	1.5	20	2:1	200	113384-6
AFS3-12001800-40-20P-4	12-18	18	1.25	4	20	2:1	350	113384-4
* AFS5-12001800-40-20P-6	12-18	28	1	4	20	2:1	275	113384-6
AFS6-12001800-30-20P-6	12-18	28	2	3	20	2:1	425	113384-6
AFS8-12001800-30-20P-8	12-18	36	1.5	3	20	2:1	450	113384-8
** JSW3-26004000-90-21P	26-40	17	2	9	20	2:1	350	132079

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

HIGH POWER

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS3-02001800-45-20P-4	2-18	20	1.5	4.5	21	2:1	300	113384-4
AFS3-08001800-50-21P-4	8-18	18	2	5	21	2:1	275	113384-4
AFS5-08001800-40-21P-6	8-18	26	2.5	4	21	2:1	400	113384-6
AFS8-08001800-40-21P-8	8-18	34	2.5	4	21	2:1	450	113384-8
AFS4-00100400-45-22P-4	0.1-4	30	1.75	4.5	22	2.5:1	350	113384-4
AFS3-00100600-45-22P-4	0.1-6	23	1.5	4.5	22	2:1	450	113384-4
AFS6-00100600-60-22P-6	0.1-6	35	2.5	6	22	2.5:1	490	113384-6
AFS4-02000800-30-22P-4	2-8	34	1.5	3	22	2:1	275	113384-4
AFS3-04000800-40-22P-4	4-8	24	1	4	22	2:1	200	113384-4
AFS4-06001200-60-22P-4	6-12	18	1.5	6	22	2:1	375	113384-4
AFS4-08001200-60-22P-4	8-12	24	1.5	6	22	2.5:1	300	113384-4
AFS1-00100100-18-23P-4	0.1-1	13	1	1.8	23	2:1	175	113384-4
* AFS1-00100100-16-23P-4	0.1-1	15	1	1.6	23	2:1	125	113384-4
* MPN1-00100100-23P	0.1-1	15	1	1.5	23	2:1	150	134923
AFS2-00100200-20-23P-2	0.1-2	22	1.5	2	23	2:1	225	113384-2
* AFS2-00100200-25-23P-2	0.1-2	22	1.5	2.5	23	2:1	225	113384-2
AFS2-00100200-30-23P-4	0.1-2	22	1.5	3	23	2:1	200	113384-4
AFS3-00100300-25-23P-6	0.1-3	28	1.5	2.5	23	2:1	275	113384-6
AFS4-00100300-20-23P-6	0.1-3	33	1.75	2	23	2:1	300	113384-6
AFS3-00100400-45-23P-6	0.1-4	23	1.5	4.5	23	2.5:1	250	113384-6
AFS4-00100600-60-23P-4	0.1-6	22	2.5	6	23	2.5:1	350	113384-4
AFD1-010020-23P	1-2	11	0.75	4	23	2:1	200	109888
AFD1-010020-23P-SP	1-2	11	1	4	23	2:1	200	109888
* AFS2-01000200-18-23P-2	1-2	22	1.5	1.8	23	2:1	175	113384-2
AFD2-010020-23P	1-2	25	1.25	4	23	2:1	275	113427
AFD2-010020-23P-SP	1-2	25	1.5	3.5	23	2:1	325	113427
AFD3-010020-23P	1-2	30	1.5	3.5	23	2:1	325	113427
AFD3-020027-23P-SP	2-2.7	22	1.25	4.5	23	2:1	350	113427
AFD2-020040-23P	2-4	16	1	5.5	23	2:1	300	113427
AFD3-020040-23P	2-4	24	1.25	4.5	23	2:1	350	113428
AFD4-020040-23P	2-4	32	1.5	4	23	2:1	400	113427
AFD2-020060-23P	2-6	11	1.25	6.5	23	2:1	270	110228-2
AFD3-020060-23P	2-6	20	1.5	5.5	23	2:1	320	110228-3
AFD4-020060-23P	2-6	28	2	4.5	23	2:1	370	110228-3
AFD2-020080-23P	2-8	11	1.25	6.5	23	2:1	270	110228-2
AFD3-020080-23P	2-8	20	1	5.5	23	2:1	320	122987
AFS4-02000800-45-23P-4	2-8	26	1.5	4.5	23	2:1	295	113384-4
AFS4-02000800-60-23P-4	2-8	26	1.5	6	23	2:1	295	113384-4
AFD4-020080-23P	2-8	28	2	3.5	23	2:1	370	133554
AFD5-020080-23P	2-8	36	2	4.5	23	2:1	420	133554-5
* MPN4-02001800-23P	2-18	24	1.5	4.5	23	2:1	650	134923
AFD3-027031-23P-SP	2.7-3.1	22	1.25	4.5	23	2:1	400	109962
AFD3-027031-45-23P	2.7-3.1	22	1	4.5	23	2:1	500	109962
AFD3-031042-23P-SP	3.1-4.2	22	1.25	4.5	23	2:1	350	122987
AFD2-040080-23P	4-8	13	1	6.5	23	2:1	300	110228-2
AFD3-040080-23P	4-8	20	1	5.5	23	2:1	350	122987
AFD3-040080-23P-SP	4-8	20	1.25	5.5	23	2:1	350	122987
AFD4-040080-23P	4-8	27	1.25	4.5	23	2:1	400	133554-4
AFS4-04000800-25-23P-4	4-8	28	1.5	2.5	23	2:1	300	113384-4
AFS4-04000800-30-23P-4	4-8	28	1.5	3	23	2:1/2.3:1	300	113384-4
AFS4-04000800-40-23P-4	4-8	28	1	4	23	2:1	300	113384-4
AFD5-040080-23P	4-8	36	1.5	4.5	23	2:1	450	133554-5
AFS43-04000800-35-23P-44	4-8	52	1.5	3.5	23	2:1	400	140941
AFD2-040120-23P	4-12	8	1.25	6.5	23	2:1	300	109174-2
AFD3-040120-23P	4-12	13	1.5	6.5	23	2:1	260	109174-3
AFD4-040120-23P	4-12	19	1.75	5.5	23	2:1	320	109174-3
AFD5-040120-23P	4-12	25	2	5.5	23	2:1	370	109174-5
AFS4-04400500-25-23P-4	4.4-5	20	0.75	2.5	23	2:1	300	113384-4
AFS4-04400500-30-23P-4	4.4-5	20	0.75	3	23	2:1	300	113384-4
AFD2-050100-23P	5-10	10	1	6	23	2:1	280	109174-2
AFD3-050100-23P	5-10	16	1.25	5	23	2:1	340	109174-3
AFD4-050100-23P	5-10	23	1.5	5	23	2:1	400	109174-3
AFD5-050100-23P	5-10	30	1.75	5	23	2:1	460	109174-5

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

HIGH POWER (CONT.)

MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFD6-050100-23P	5-10	37	2	5	23	2:1	520	169423
AFD2-080120-23P	8-12	9	1	6	23	2:1	300	109174-2
AFD3-080120-23P	8-12	14	1.25	6	23	2:1	350	134972
AFD3-080120-23P-MP	8-12	16	1.25	6	23	2:1	300	134972
AFD4-080120-23P	8-12	20	1.5	5	23	2:1	380	109174-4
AFS4-08001200-40-23P-4	8-12	24	1.5	4	23	2:1	200	113384-4
AFD5-080120-23P	8-12	26	2	5	23	2:1	400	109174-5
AFD6-080120-23P	8-12	32	2.25	5	23	2:1	480	113384-4
AFS4-09501050-50-23P-4	9.5-10.5	24	1	5	23	2:1	300	113384-4
ABIT5-08001200-25-24P	8-12	30	1	2.5	24	2:1	475	132155
AFS1-00010100-20-25P-4	0.01-1	16	1.5	2	25	2.5:1	200	113384-4
AFS2-00010100-16-25P-6	0.01-1	25	1.5	1.6	25	2:1/2.5:1	275	113384-6
* AFS2-00010100-30-25P-6	0.01-1	25	1.5	3	25	2:1/2.5:1	250	113384-6
AFS2-00100100-25-25P-6	0.1-1	22	2	2.5	25	2:1/2.5:1	225	113384-6
AFS2-00100100-15-25P-6	0.1-1	25	2	1.5	25	2:1	225	113384-6
AFD1-010020-25P	1-2	11	0.75	4.5	25	2:1	250	109888
AFD1-010020-25P-MP	1-2	12	1	4	25	2:1	250	109888
AFD2-010020-25P	1-2	25	1.25	4	25	2:1	350	113427
AFD3-010020-25P	1-2	30	1.5	3.5	25	2:1	330	113427
AFD3-020027-25P-MP	2-2.7	22	1	4.5	25	1.5:1/2:1	350	113427
AFD2-020040-25P	2-4	15	1.25	6	25	2:1	375	113427
AFD3-020040-25P	2-4	24	1.25	5	25	2:1	425	113429
* MPN3-02000400-25P*	2-4	30	1.5	2	25	2:1	300	132485
AFD4-020040-25P	2-4	32	1.5	4	25	2:1	475	113427
AFS4-02000400-20-25P-4	2-4	36	1.5	2	25	2:1	275	113384-4
AFD2-027031-25P-MP	2.7-3.1	22	1	4.5	25	1.5:1/2:1	350	109962
AFD3-027031-25P-MP	2.7-3.1	22	1	4.5	25	2:1	450	109962
AFD2-031042-25P-MP	3.1-4.2	22	1	4.5	25	1.5:1/2:1	350	122987
AFD2-040080-25P	4-8	12	1	6.5	25	2:1	375	110228-2
AFD3-040080-25P	4-8	20	1	5.5	25	2:1	425	122987
AFD3-040080-25P-MP	4-8	20	1	5	25	2:1	400	122987
AFD4-040080-25P	4-8	27	1.25	4.5	25	2:1	475	133554-4
ABIT5-04000800-25-25P	4-8	30	1	2.5	25	2:1	500	132155
AFD5-040080-25P	4-8	36	1.5	4.5	25	2:1	525	133554-5
* AFSD5-040120-35-25P*	4-12	25	1.5	3.5	25	2:1	550	121045
* AFSD5-020080-22-26P*	2-8	35	1.5	2.2	26	2:1	750	121045
AFD3-027031-45-26P	2.7-3.1	26	0.8	4.5	26	2:1	500	109962
* AFSD5-060120-30-26P*	6-12	26	1.5	3	26	2:1	650	121045
AFSD5-08001200-25-26P	8-12	28	1.5	2.5	26	2:1	600	121045
* AFSD5-080120-25-26P*	8-12	28	1.5	2.5	26	2:1	600	121045
AFSD5-080120-25-26P-LPN	8-12	28	1.5	2.5	26	2:1	600	121045
AFSD5-080120-40-26P	8-12	28	1.5	4	26	2:1	500	121045

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

FIBER OPTIC

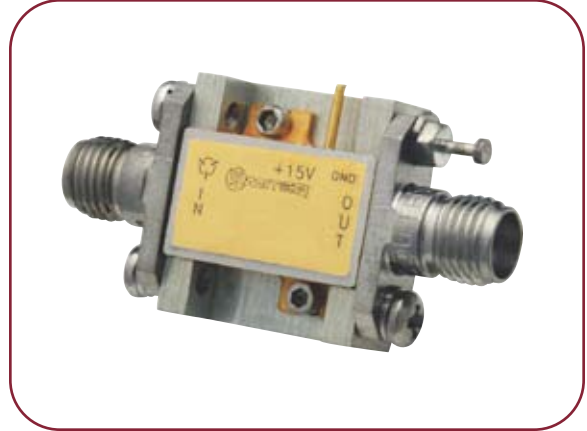
MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
JSTD-30K1200-34-10P	30-12	25	0.75	3.4	10	2:1	180	140735
JSTD-30K1500-34-10P	30-15	25	0.75	3.4	10	2:1	180	140735
JSTD-30K1500-40-10P	30-15	25	1	4	10	2:1	180	140735
JSMF3-02K120-30-10P	3-12	23	1.5	3.5	10	2:1	200	127122
JSMF4-02K150-32-10P	3-15	32	1.5	3.2	10	2:1	210	128553
JSMF3-02K150-30-10P	3-15	23	1.5	3.2	10	2:1	200	127122
JSMF3-02K150-40-10P	3-15	23	1.5	4	10	2:1	200	127122
JSMF3-02K150-50-10P	3-15	23	1.5	5	10	2:1	200	127122
JSMF4-02K150-30-10P	3-15	30	1.5	3.2	10	2:1	210	128553
JSMF3-02K1000-30-10P	3-10	23	1.5	3.2	10	2:1	180	127122
JSMF4-02K1000-30-10P	3-10	32	1.5	3.2	10	2:1	210	128553
JSMF3-02K1200-30-10P	3-12	23	1.5	3.2	10	2:1	180	127122
JSMF4-02K1200-30-10P	3-12	32	1.5	3.2	10	2:1	210	128553
JSMF3-02K1500-30-10P	3-15	23	1.5	3.2	10	2:1	180	127122
JSMF4-02K1500-30-10P	3-15	32	1.5	3.2	10	2:1	210	128553
JSMF3-02K1600-35-10P	3-16	23	1.5	3.5	10	2:1	180	127122
JSMF4-02K1800-30-10P	3-18	30	1.5	3.2	10	2:1	210	128553
JSMF4-02K1900-35-10P	3-19	30	1.5	3.5	10	2:1	210	128553

NOTES: * Specialized Amplifiers (pages 102 to 128).
 ** Typical JS Series Amplifier Performance Datasheet (pages 130 to 143).

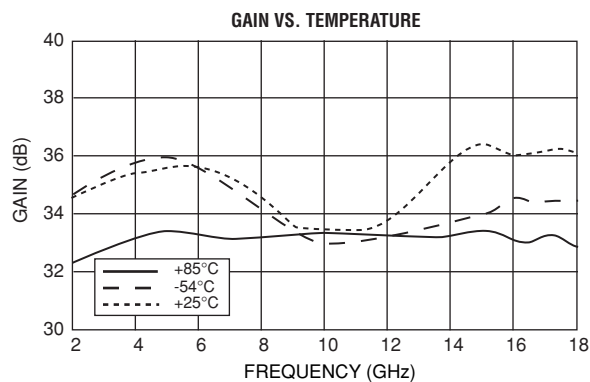
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TEMPERATURE COMPENSATED AMPLIFIERS

In any solid state amplifier, both the gain and the noise figure will vary as a function of temperature. The overall gain of an uncompensated amplifier tends to decrease as the base plate temperature increases, while the noise figure will exhibit the opposite effect and increase as the temperature rises. The amount of change in gain is directly proportional to the number of stages in the device, the operating frequency, and the way the individual stages have been biased. In order to reduce this variation, it is often necessary to temperature compensate the amplifier.



AFS4-02001800-45-TC-5 TYPICAL DATA



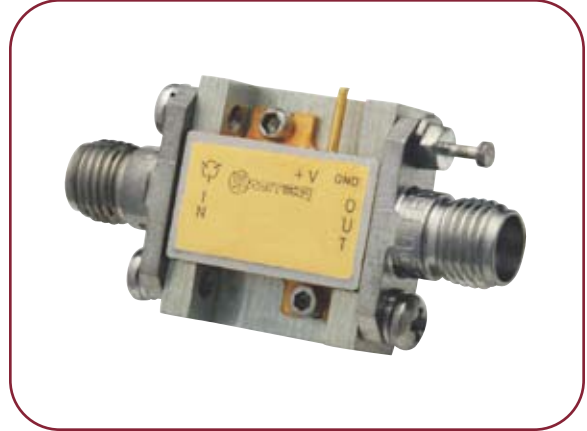
MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFS2-01000200-15-TC-6	1-2	25	1	1.5	5	2:1	125	113384-6
AFS3-01000200-15-TC-6	1-2	36	1	1.5	5	2:1	125	113384-6
AFS2-02000400-15-TC-6	2-4	22	1	1.5	5	2:1	125	113384-6
AFS3-02000400-15-TC-6	2-4	26	1	1.5	5	2:1	125	113384-6
AFS4-02000800-26-TC-4	2-8	30	1.5	2.6	8	2:1	175	113384-4
AFS2-02000800-40-TC-2	2-8	20	1.5	4	5	2:1	100	113384-2
AFS3-02000800-30-TC-4	2-8	22	1.5	3	8	2:1	150	113384-4
AFS5-02001800-45-TC-6	2-18	28	1.5	4.5	8	2.2:1	250	113384-6
AFS4-02001800-45-TC-5	2-18	18	1.5	4.5	8	2.2:1	175	113384-5
AFS2-04000800-20-TC-2	4-8	17	1	2	5	2:1	100	113384-2
AFS3-04000800-18-TC-4	4-8	25	1	1.8	8	2:1	80	113384-4
AFS4-06001800-35-TC-6	6-18	22	1	3.5	8	2:1	150	113384-6
AFS2-08001200-30-TC-2	8-12	12	1	3	5	2:1	100	109174-2
AFS3-08001200-22-TC-4	8-12	24	1	2.2	8	2:1	80	113384-4
AFS4-08001200-20-TC-4	8-12	30	1	2	8	2:1	100	113384-4

NOTES: All specifications guaranteed -54 to +85°C.
Please contact the factory for other frequencies, noise figures, and gain options.

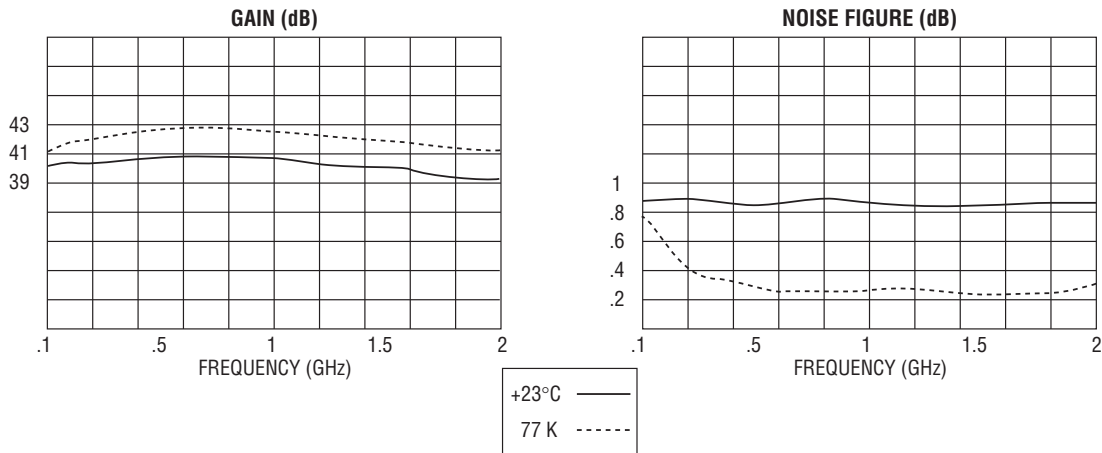
CRYOGENIC AMPLIFIERS

In addition to our standard low-noise amplifiers, MITEQ can support your needs for amplifiers that operate in cryogenic environments. MITEQ has supplied units cooled to liquid nitrogen temperatures (77 K), as well as units operating at helium (4 K) temperatures. These units utilize our extremely low-noise amplifier designs, which are packaged in hermetically sealed Kovar housings.

Due to the fact that silicon-based products do not work well under cryogenic conditions, we have removed the internal voltage regulator and reverse protect diode. As such, the amplifiers can operate at much lower voltages, thus significantly reducing the total power dissipated by the devices within the amplifier.



AFS3-00100200-09-CR-4 TYPICAL DATA



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFS3-00100200-10-CR-4	0.1–2	38	1	1	5	2:1	70	113384-4
AFS3-01000200-06-CR-6	1–2	38	1	0.6	5	2:1	75	113384-6
AFS3-02000400-08-CR-4	2–4	28	1	0.8	5	2:1	75	113384-4
AFS3-04000800-09-CR-4	4–8	31	1	0.9	5	2:1	60	113384-4
AFS4-08001200-10-CR-4	8–12	32	1	1	5	2:1	60	113384-4
AFS4-12001800-16-CR-4	12–18	30	1.5	1.8	5	2:1	75	113384-4

NOTES: The above specifications listed at 77 K were taken on several typical amplifiers. Please contact the factory for actual temperature data. Lower gain and other bands are also available.

LOW CURRENT CONSUMPTION AMPLIFIERS

FEATURES

- Low voltage operation at 6 V for battery-driven applications
- Small size for tight packaging requirements
- AFS noise figure performance

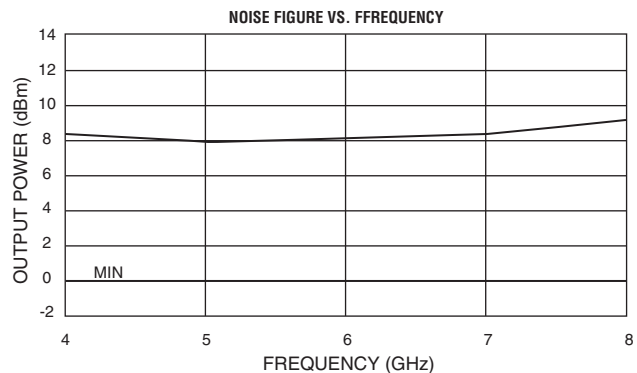
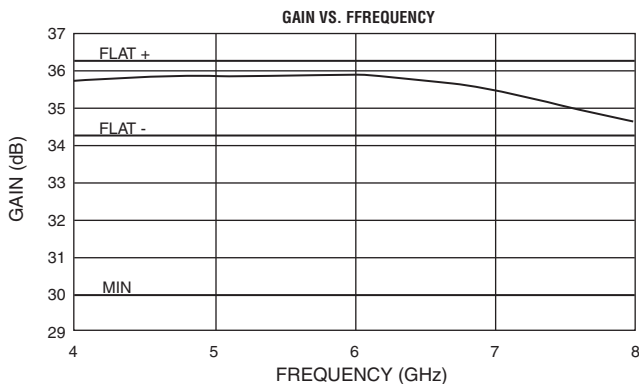
OPTIONS

- Operation to 4 V is available for some models
- Customized gain, noise figure, etc.
- Temperature compensated designs
- Alternative packages and military screening



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFS2-01000200-07-HE-6	1–2	27	1	0.7	0	2:1	25	113384-6
AFS3-01000200-07-HE-6	1–2	38	1	0.7	0	2:1	40	113384-6
AFS2-02000400-08-HE-4	2–4	22	1	0.8	0	2:1	25	113384-4
AFS3-02000400-08-HE-4	2–4	34	1	0.8	0	2:1	40	113384-4
AFS3-04000800-10-HE-4	4–8	30	1	1	0	2:1	60	113384-4
AFS2-04000800-11-HE-2	4–8	20	1	1.1	0	2:1	40	113384-2
AFS3-06001800-25-HE-4	6–18	14	2	2.5	0	2:1	25	113384-4
AFS4-06001800-25-HE-4	6–18	26	2	2.5	0	2:1	40	113384-4
AFS3-08001200-14-HE-4	8–12	20	1	1.4	0	2:1	50	113384-4
AFS3-12001800-20-HE-4	12–18	15	1.5	2	0	2:1	25	113384-4
AFS4-12001800-20-HE-4	12–18	28	1.5	2	0	2:1	40	113384-4
AFS2-12002400-32-5P-2	12–24	10	1.5	3.2	5	2:1	40	113384-2
AFS2-20202120-30-5P-2	20.2–21.2	10	1	3	5	1.5:1	40	113384-2
AFS2-21202400-35-5P-2	21.2–24	8	1	3.5	5	2:1	40	113384-2

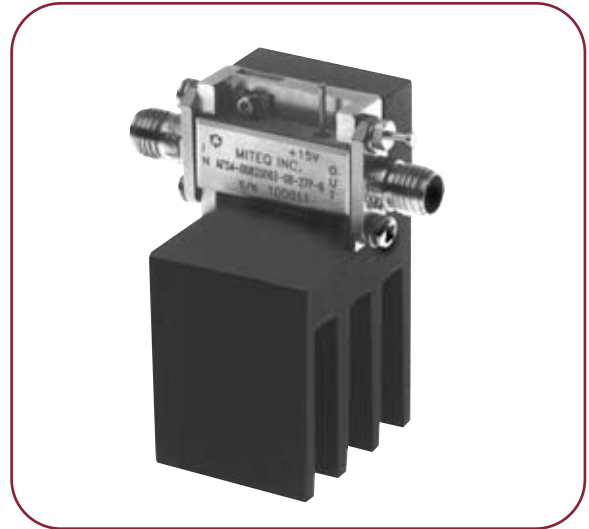
NOTES: These units are unregulated and operate off a 6 V supply.
Optimized frequency ranges, gains, and supply voltages are available.



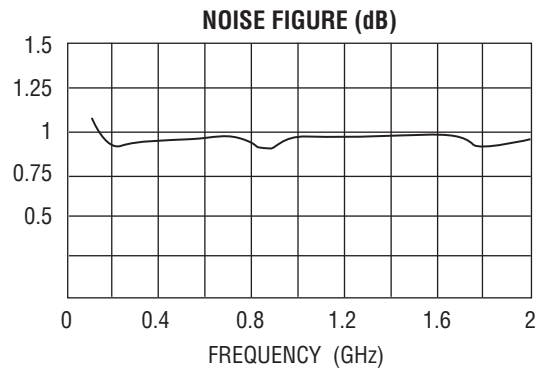
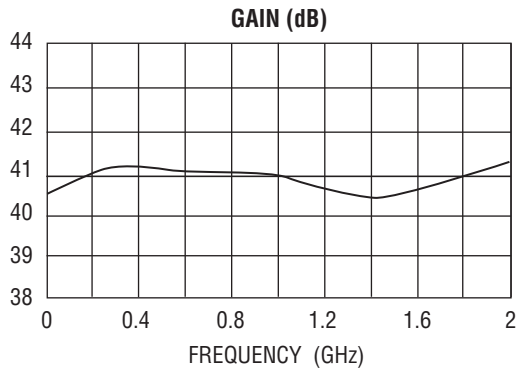
LOW-NOISE HIGH INTERCEPT AMPLIFIERS

FEATURES

- Ultra low-noise PHEMT input stages
- Optimized bands from 800 to 930 MHz
- Noise figures from 0.8 dB
- 38 dBm intercept point
- Higher frequency ranges available
- Cellular telephony applications



AFS4-00100200-27P-CT-6 TYPICAL DATA



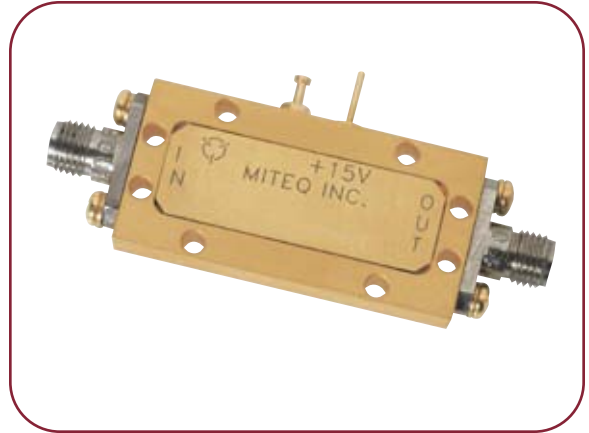
MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	VSWR IN/OUT (Max.)	OUTPUT POWER @ 1 dB COMP. (dB, Min.)	OUTPUT IP3 (dBm, Typ.)	OUTLINE DRAWING
AFS3-00500200-27P-CT-6	0.5–2	33	0.75	2	2:1/2.5:1	27	38	113384-6
AFS4-00500200-27P-CT-6	0.5–2	40	0.75	1	2:1/2.5:1	27	38	113384-6
AFS3-00820086-27P-CT-6	0.82–0.86	31	0.25	0.8	1.5:1/2:1	27	38	113384-6
AFS3-00880093-27P-CT-6	0.88–0.93	31	0.25	0.8	2:1/2:1	27	38	113384-6
AFS4-00820086-27P-CT-6	0.82–0.86	42	0.25	0.8	2:1/2:1	27	38	113384-6
AFS4-00880093-27P-CT-6	0.88–0.93	42	0.25	0.8	2:1/2:1	27	38	113384-6

NOTE: Please contact the factory for other frequency bands.

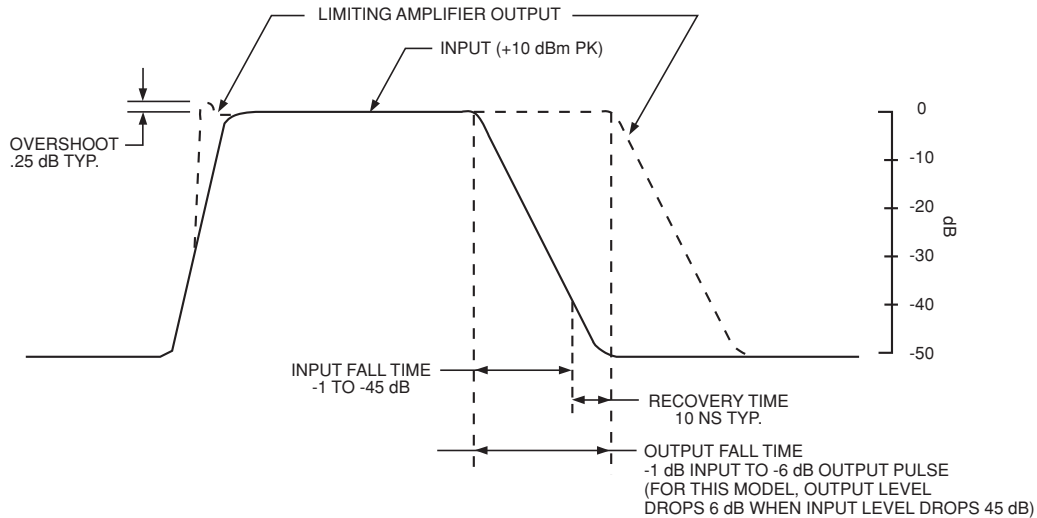
LIMITING AMPLIFIERS

Octave and multioctave limiting amplifiers are widely used in instantaneous frequency measurement receivers. Three of the most important performance requirements of limiting amplifiers are:

- To minimize output power variations and provide a constant output over a wide input dynamic range.
- To minimize the harmonic output power under limiting conditions.
- High fidelity to pulsed input signals by minimizing overshoot and recovery times.



DEFINITION OF LIMITING AMPLIFIER PULSE RESPONSE

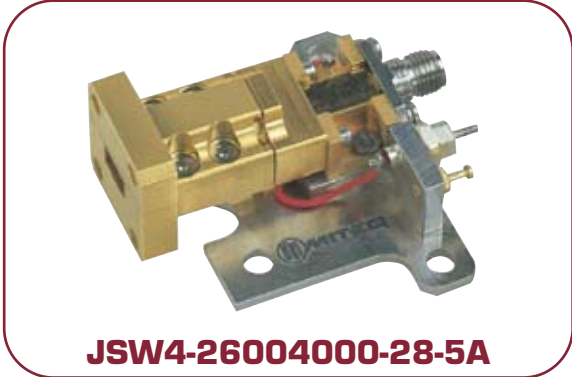


MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFD3-012016-12L-BTO	1.2–1.6	30	0.75	3	10	1.5:1	125	113427
JSW4-33003600-30-13P	33–36	21	2	3	13	2:1	120	132076

NOTES: Please contact the factory for outline.
 Harmonic output -10 dBc maximum, typical.
 Input/output VSWR 2:1 typical.
 Higher gain options available.

JSW SERIES LOW-NOISE WAVEGUIDE AMPLIFIERS

MITEQ offers a complete line of waveguide amplifiers. Listed below is a sample of MITEQ's noise figure capabilities as a function of frequency. Various options for bandwidth, gain, noise figure, VSWR and output power are available. Please contact the factory with your specific requirements. All amplifiers are available with either waveguide or SMA (K) connectors on both input and output ports.



JSW4-26004000-28-5A

SPECIFICATIONS

PARAMETERS *	UNITS	JSW4-26004000-28-5A
Frequency	GHz	26–40
Gain	dB, min.	25
Gain flatness	dB, max.	±2.5
Noise figure	dB, max.	2.8
Input/output VSWR	Max.	2.2:1
Output power at 1 dB compression	dBm, min.	5
DC power supply, 12 to 20 volts	mA, typ.	200

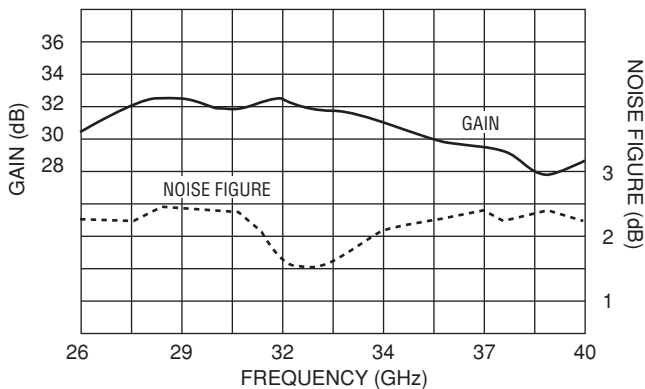
* Electrical parameters are specified at 23°C.

TYPICAL SPECIFICATIONS

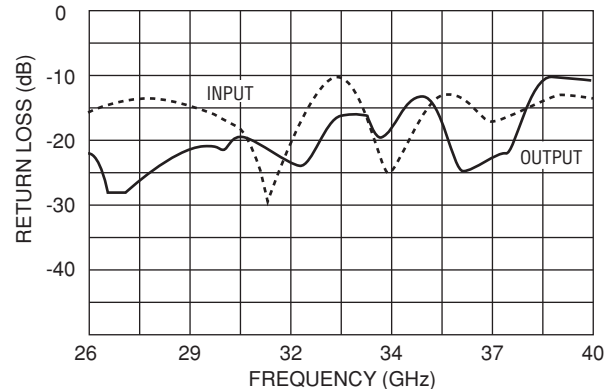
MODEL NUMBER	FREQUENCY (GHz)	FLANGE TYPE	NOISE FIGURE (dB, Max.)
JSWS3-10601080-095-0P-40T	10.6-10.8	WR90	0.45
JSW4-34003430-30-14P	34-34.3	WR28	0.65 (see graph)
JSW4-30003050-70-12P	30-30.5	WR28	0.65
JSWK4-19202020-30-10P	19.2-20.2	WR42	0.9
JSW4-50505150-40-0P	50.5-51.5	WR19	1.4
JSW4-33003500-30-5P	33-35	WR28	1.5
JSWK4-36003800-28-0P-40T	36-38	WR22	2
JSW4-33003600-30-13P	33-36	WR28	3
JSW5-45505100-45-0P	45.5-51	WR22	4.5
JSW4-18002600-20-5A	18-26	WR42	2
JSW3-26004000-90-21P	26-40	WR28	9
JSW4-26004000-28-5A	26-40	WR28	2.8
JSW4-30005000-45-5A	30-50	WR22	4.5
JSW4-40006000-55-0A	40-60	WR19	5.5
JSW4-18004000-35-5A	18-40	WRD180	3.5

JSW4-26004000-28-5A

GAIN AND NOISE FIGURE vs. FREQUENCY



INPUT/OUTPUT RETURN LOSS



COAXIAL IN-LINE AMPLIFIERS

FEATURES

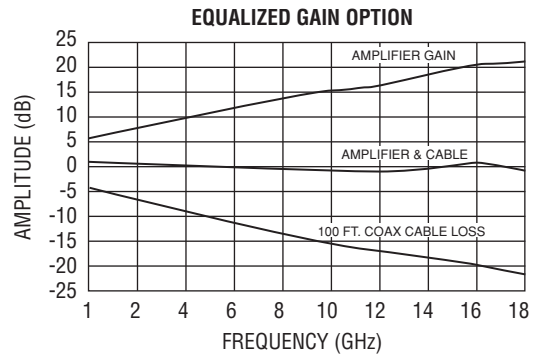
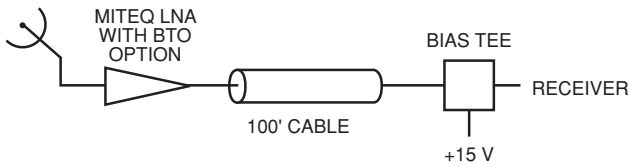
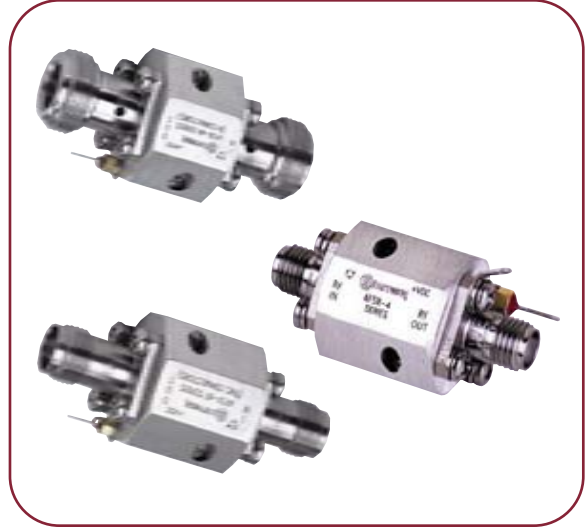
- In-line package
- Lower noise figure and customized designs are available

OPTIONS

- Equalized gain
- Matched sets
- “SMA”, “TNC”, or “N” connectors
- Bias through RF output (-BTO)

APPLICATIONS

- Active slope equalizers
- Receiver front ends
- Lossless dividers



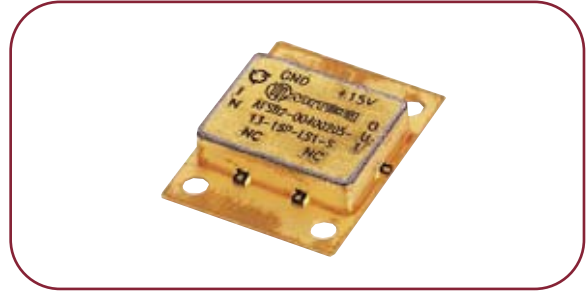
MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFSX2-00100050-15-8P	0.1–0.5	25	1	1.5	8	2:1	125	141108
AFSX4-00100100-16-18P	0.1–1	13	1	1.6	18	2.5:1	175	141108
AFSX3-00100200-15-10P	0.1–2	36	1	1.5	10	2:1	150	141108
AFSX3-00100400-22-10P	0.1–4	28	1	2.2	10	2:1	150	141108
AFSX4-00100600-46-10P	0.1–6	20	2	4.6	10	2:1	175	141108
AFSX4-00100800-48-10P	0.1–8	18	2	4.8	10	2:1	175	141108
AFSX4-00101000-38-10P	0.1–10	20	2	3.8	10	2:1	175	141108
AFSX4-00101200-42-10P	0.1–12	20	2	4.2	10	2:1	175	141108
AFSX4-00101800-55-10P	0.1–18	18	3	5.5	10	2.5:1	175	141108
AFSX4-00102000-60-10P	0.1–20	18	3	6	10	2.5:1	175	141108
AFSX2-00500100-16-10P	0.5–1	24	1	1.6	10	2:1	125	141108
AFSX3-01000200-15-10P	1–2	30	1	1.5	10	2:1	125	141108
AFSX3-02000400-15-10P	2–4	30	1	1.5	10	2:1	125	141108
AFSX4-02000800-24-10P	2–8	20	2	2.4	10	2:1	150	141108
AFSX4-02001800-50-8P	2–18	20	3	5	8	2:1	175	141108
AFSX3-08001200-28-10P	8–12	26	1	2.8	10	2:1	125	141108
AFSX4-08001800-35-10P	8–18	20	2	3.5	10	2:1	150	141108
AFSX4-12001800-32-10P	12–18	20	2	3.2	10	2:1	125	141108

NOTE: Above specifications are with flat gain.

SUBSTRATE AMPLIFIERS

FEATURES

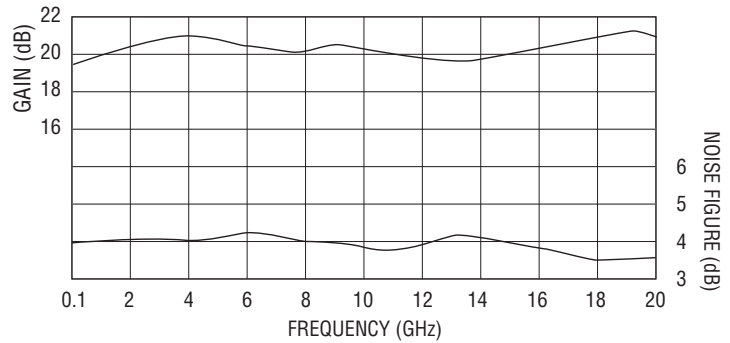
- Ideal for gain blocks and drivers
- Ideal building blocks for your own design: low-noise, interstage and output modules
- Available with low and medium power levels
- 25 mil 50 ohm microstrip interface



OPTIONS

- Hermetic sealing
- Lower noise figure and customized designs available

AFSB-00102000-45-10P TYPICAL DATA



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
AFS2-00010100-30-25P-6	0.01-1	25	1.5	3	25	2:1/2.5:1	250	113384-6
AFS1-00100100-16-23P-4	0.1-1	15	1	1.6	23	2:1	125	113384-4
AFS2-00100200-25-23P-2	0.1-2	22	1.5	2.5	23	2:1	225	113384-2
AFS3-00101400-23-8P-4	0.1-14	19	1.75	2.3	8	2.5:1	150	113384-4
AFS1-00500100-50-17P-4	0.5-1	10	1	5	17	2.5:1	150	113384-4
AFS4-00500200-08-15P-4	0.5-2	46	1	0.8	15	2:1	175	113384-4
AFS3-00501800-45-20P-4	0.5-18	20	3	6	20	2.5:1	350	113384-4
AFS4-00501800-40-20P-6	0.5-18	25	2.75	6	20	2.5:1/2.8:1	375	113384-6
AFS5-00501800-40-20P-6	0.5-18	30	2.75	4	20	2.5:1	400	113384-6
AFS8-00501800-40-20P-8	0.5-18	38	3	4	20	2.5:1	450	113384-8
AFS3-00502000-50-18P-4	0.5-20	20	2.5	5	18	2.5:1/2.2:1	350	113384-4
AFS5-00502000-50-18P-6	0.5-20	25	2.5	5	18	2.5:1/2.2:1	360	113384-6
AFS3-00950145-06-13P-6	0.95-1.45	40	0.5	0.6	13	1.5:1	150	113384-6
AFS2-00950175-06-10P-6	0.95-1.75	26	0.5	0.6	10	1.8:1	90	113384-6
AFS1-01000200-16-20P-4	1-2	14	0.75	1.6	20	2:1	150	113384-4
AFS1-01000200-14-20P-4	1-2	16	0.5	1.4	20	2:1	100	113384-4
AFS2-01000200-18-23P-2	1-2	22	1.5	1.8	23	2:1	175	113384-2
AFS2-01000200-15-TC-6	1-2	25	1	1.5	5	2:1	125	113384-6
AFS3-01000200-18-27P-6	1-2	32	1.5	1.8	27	2:1	350	113384-6
AFS3-01000200-10-ULN	1-2	34	1	1	10	2:1	150	113384-6
AFS3-01000200-15-LN	1-2	34	1	1.5	10	2:1	150	113384-6
AFS3-01000200-15-TC-6	1-2	36	1	1.5	5	2:1	125	113384-6
AFS2-01200140-05-10P-6	1.2-1.4	28	0.5	0.5	10	1.8:1	90	113384-6
AFS2-01200160-05-10P-6	1.2-1.6	28	0.5	0.5	10	1.8:1	90	113384-6
AFD3-012016-12L-BTO	1.2-1.6	30	0.75	3	10	1.5:1	125	113427
AFS2-01500160-05-10P-6	1.5-1.6	28	0.5	0.5	10	1.8:1	90	113384-6
AFS4-03400420-10-13P-6	3.4-4.2	40	0.5	1	13	1.5:1	200	113384-6
AFS4-06001800-25-HE-4	6-18	26	2	2.5	0	2:1	40	113384-4
AFS4-12001800-20-HE-4	12-18	28	1.5	2	0	2:1	40	113384-4
AFS5-12001800-40-20P-6	12-18	28	1	4	20	2:1	275	113384-6
AFS5-12001800-18-10P-6	12-18	36	1.5	1.8	10	2:1	150	113384-6

SURFACE MOUNT AMPLIFIERS

FEATURES

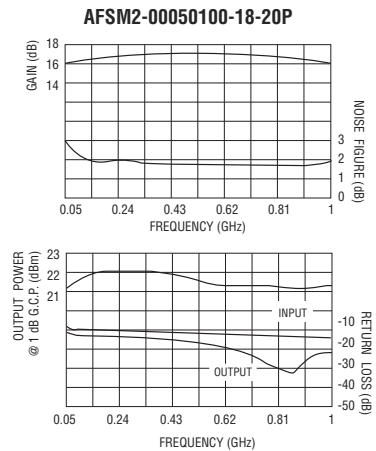
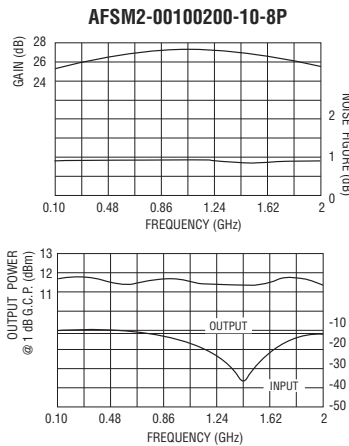
- Low noise at competitive prices in a surface mount amplifier
- Reduce assembly costs at the system level
- Substantial size reduction at the system or board level
- Both high and low frequency designs available (0.1–20 GHz)
- High reliability due to:
 - Hermetic sealing
 - High input to output isolation
 - Mechanically rugged internal assembly



CONNECTORIZED OPTION



TYPICAL DATA

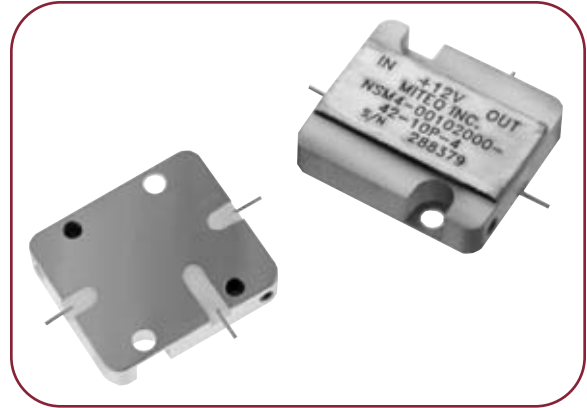


MODEL NUMBER	FREQUENCY	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
	RANGE (GHz)							
AFSM1-00050100-18-20P	0.05–1	13	1	1.8	20	2.5:1/2.2:1	150	133720
AFSM1-00100200-16-16P	0.1–2	12	1	1.6	16	2:1	80	133720
AFSM1-01000200-16-20P	1–2	13	1	1.6	20	2:1	150	133720
AFSM2-00100200-12-8P	0.1–2	22	1	1.2	8	2:1	80	133720
AFSM2-00100300-12-8P	0.1–3	20	1	1.2	8	2:1	80	133720
AFSM2-00100400-18-8P	0.1–4	20	1	1.8	8	2:1	80	133720
AFSM2-00100600-18-8P	0.1–6	18	1.5	1.8	8	2:1	80	133720
AFSM2-00500100-08-8P	0.5–1	25	1	0.8	8	2:1	80	133720
AFSM2-01000200-08-8P	1–2	25	1	0.8	8	2:1	80	133720
AFSM2-01000200-16-20P	1–2	25	1	1.6	20	2:1	80	133720
AFSM2-02000400-10-8P	2–4	21	1	1	8	2:1	80	133720
AFSM2-02000600-12-8P	2–6	20	1	1.2	8	2:1	80	133720
AFSM2-02002000-70-19P	2–20	12	2.75	7	19	2.5:1	200	133720
AFSM2-04000800-20-8P	4–8	20	1	2	8	2:1	100	133720
AFSM2-08001200-15-8P	8–12	20	1	1.5	8	2:1	100	133720
AFSM3-00102000-50-8P	0.1–20	16	2.75	5	8	2.5:1	100	133720
AFSM3-02001800-40-8P	2–18	18	2.75	4	8	2.5:1	100	133720
AFSM3-12001800-25-8P	12–18	20	1	2.5	8	2:1	125	133720

CONNECTORIZED/SURFACE MOUNT AMPLIFIERS

FEATURES

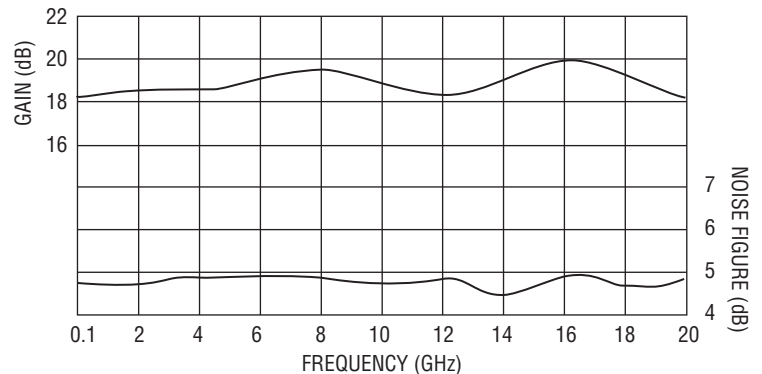
- Removable SMA connectors, test fixture, and EMI DC feedthru
- Usable as a true surface mount
- Hermetically sealed housings even for commercial applications
- 0-80 mounting hardware included
- Various bandwidth, gain, noise figure, power and VSWR options available



TEST/MOUNTING FIXTURE



NSM4-00102000-50-8P-4 TYPICAL DATA



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
NSM3-00100200-14-10P-4	0.1-2	30	1	1.4	10	2:1	150	120175
NSM3-00100400-14-10P-4	0.1-4	28	1	1.4	10	2:1	150	120175
NSM3-00100600-15-10P-4	0.1-6	28	1.5	1.5	10	2:1	150	120175
NSM3-00100600-18-8P-4	0.1-6	28	1.5	1.8	8	2:1	150	120175
NSM3-00100800-18-10P-4	0.1-8	24	1.5	1.8	10	2:1	175	120175
NSM3-01000200-10-S-4	1-2	32	1	1	10	2:1	150	120175
NSM3-02000400-12-S-4	2-4	30	1	1.2	10	2:1	150	120175
NSM3-02000600-13-10P-4	2-6	24	1	1.3	10	2:1	150	120175
NSM3-02000800-14-10P-4	2-8	24	1	1.4	10	2:1	150	120175
NSM3-04000800-10-S-4	4-8	24	1	1	10	2:1	150	120175
NSM3-08001200-11	8-12	24	1	1.1	8	2:1	150	120175
NSM4-00101000-26-10P-4	0.1-10	30	1.5	2.6	10	2:1	175	120175
NSM4-00101200-28-10P-4	0.1-12	30	1.5	2.8	10	2:1	175	120175
NSM4-00101200-32-10P-4	0.1-12	30	1.5	3.2	10	2:1	175	120175
NSM4-00101800-45-8P-4	0.1-18	22	2.5	4.5	8	2.5:1	175	120175
NSM4-00101800-55-10P-4	0.1-18	22	2.5	5.5	10	2.5:1	175	120175
NSM4-02001800-30	2-18	22	2.5	3	8	2.5:1	150	120175

PULSE MODULATED AND POWER GATED AMPLIFIERS

FEATURES

PULSE MODULATED

- Modulation rates up to 500 kHz PRF
- Video leakage approximately 250 mV
- Rise time < 50 ns
- Fall time < 250 ns

POWER GATED

- Power can be turned “on” or “off” by applying a TTL signal
- On/off rates up to 10 kHz
- Rise time < 1.2 μ s
- Fall time < 3.5 μ s

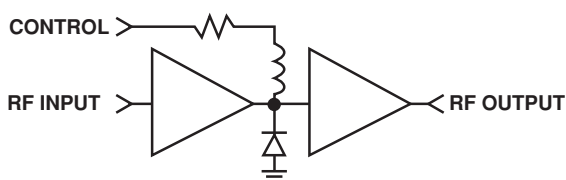


MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (\pm dB, Max.)	NOISE FIGURE (dB, Max.)	VSWR IN/OUT (Max.)	OUTPUT POWER @ 1 dB COMP. (dBm, Min.)	NOM. DC POWER (+15 V, mA)
PULSE MODULATED AMPLIFIERS							
AFSW3-04000800-10	4–8	30	1	1	2:1	10	125
AFSW4-08001200-11	8–12	32	1	1.1	2:1	10	150
AFSW3-02000800-15	2–8	26	1	1.5	2:1	10	125
AFSW3-00100600-16	0.1–6	28	1.2	1.6	2:1	10	125
AFSW3-00100800-20	0.1–8	26	1.2	2	2:1	10	125
AFSW4-00101200-30	0.1–12	26	1.5	3*	2:1	10	150
AFSW5-00101800-35	0.1–18	25	2	3.5*	2.2:1	10	200
POWER GATED AMPLIFIERS							
AFTL3-04000800-09	4–8	30	1	0.9	2:1	10	125
AFTL4-08001200-11	8–12	32	1	1.1	2:1	10	150
AFTL3-02000800-15	2–8	26	1	1.5	2:1	10	125
AFTL3-00100600-16	0.1–6	28	1.25	1.6	2:1	10	125
AFTL3-00100800-20	0.1–8	26	1.25	2	2:1	10	125
AFTL4-00101200-30	0.1–12	26	1.5	3*	2:1	10	150
AFTL5-00101800-35	0.1–18	25	2	3.5*	2.2:1	10	200
AFTL5-00101800-25	0.1–18	25	2.25	2.5*	2:1	10*	200
AFTL4-00102650-40	0.1–26.5	18	2.5	4*	2.5:1	8*	150

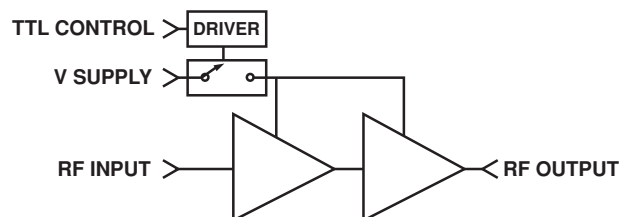
* Above 500 MHz.
Note: See outline drawing 127846.

BLOCK DIAGRAMS

PULSE MODULATED



POWER GATED



POWER MONITORING AMPLIFIERS

GAIN CONTROL WITH POWER MONITORING SERIES

FEATURES

- 15 dB minimum gain control
- Continuous power monitoring
- Hermetically sealed unit
- Diode detector for sampling the output power
- Removable SMA connectors and test fixture for drop-in use

OPTIONS

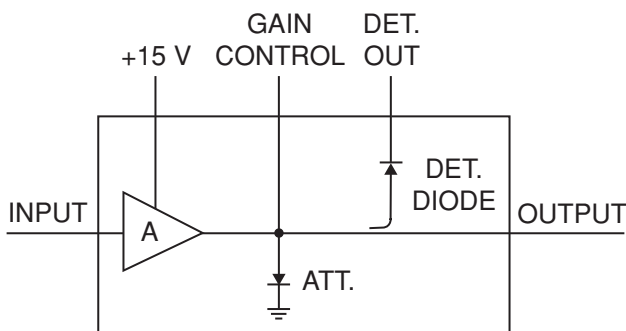
- Military screening for high reliability programs
- Instrumentation configuration available
- Custom designs for higher power out is available



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (\pm dB, Max.)	NOISE FIGURE (dB, Max.)	VSWR IN/OUT (Max.)	OUTPUT POWER @ 1 dB COMP. (dBm, Min.)	NOM. DC POWER (+15 V, mA)
AVG4-00100800-DET-8	0.1–8	26	1	2.8	2:1	10	175
AVG4-00101200-DET-8	0.1–12	26	1.25	3	2:1	10	185
AVG4-00101800-DET-8	0.1–18	26	2.5	3.5	2.5:1	10	180
AVG4-04000800-DET-8	4–8	32	1	1.8	2:1	10	125
AVG4-08001200-DET-8	8–12	28	1	2	2:1	10	125
AVG4-02000800-DET-8	2–8	28	1	2.5	2:1	10	175
AVG4-02001800-DET-8	2–18	26	2.5	3	2.5:1	10	180

NOTES: The detected output voltage range can be from 0 to 600 mV depending on power output.
 The gain control range is 0 to 15 dB.
 Specifications are with 0 dB of attenuation.
 See outline drawing 164073.

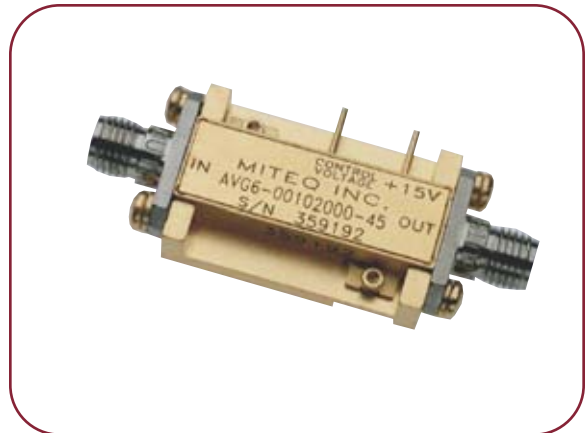
BLOCK DIAGRAM



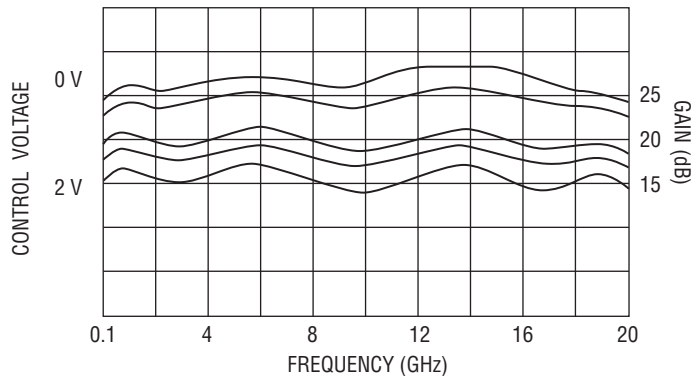
VARIABLE GAIN AMPLIFIERS

FEATURES

- Gain can be adjusted continuously (0–15 dB) by applying a DC control voltage to the control pin with an external resistor in series (X 470 ohms)
- Covers entire 0.1–20 GHz range
- Ideal for broadband receiver AGC and CFAR circuits
- Various bandwidth, gain, noise figure, and power options are available



TYPICAL DATA



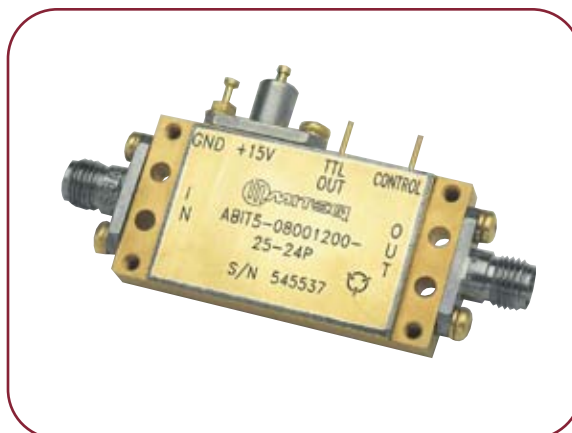
MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (\pm dB, Max.)	NOISE FIGURE (dB, Max.)	VSWR IN/OUT (Max.)	OUTPUT POWER @ 1 dB COMP. (dBm, Min.)	NOM. DC POWER (+15 V, mA)
AVG4-00100400-14	0.1–4	32	1	1.4*	2:1	10	120
AVG4-00100600-15	0.1–6	32	1	1.5*	2:1	10	120
AVG4-00100800-18	0.1–8	36	1.5	1.8*	2:1	10	120
AVG4-02000800-20	2–8	32	1.25	2	2:1	10	120
AVG6-00102000-45	0.1–20	24	2.5	4.5*	2.5:1	10	250
AVG4-06001200-19	6–12	24	1.5	1.9	2:1	10	175
AVG4-06001800-25	6–18	22	2	2.5	2.3:1	10	185
AVG4-02001800-40	2–18	25	2.25	4	2.5:1	10	180

* Noise figure increases below 500 MHz.
 NOTES: All above specifications at 0 dB attenuation.
 See outline drawing 119393.

BUILT-IN TEST DETECTOR AMPLIFIERS

FEATURES

- External threshold control via voltage divider or external power supply
- Independent TTL output
- Up to 1/2 watt CW power output
- Hermetically sealed Kovar chassis capable of meeting rigorous military environments
- Available with various other electrical parameters, alternate connectors, and detect output only (no RF)



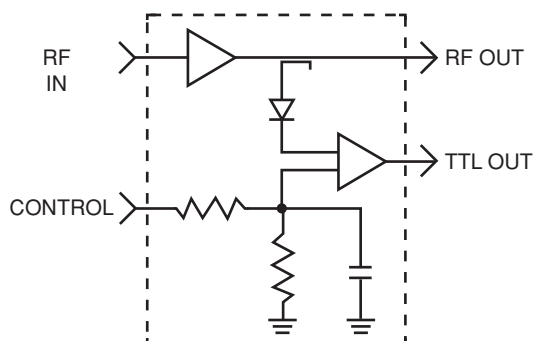
SPECIFICATIONS

Model Number	ABIT5-08001200-25-24P	ABIT5-04000800-25-25P
Frequency range	8–12 GHz	4–8 GHz
Gain	27 dB minimum	30 dB minimum
Noise figure	2.5 dB maximum	2.5 dB maximum
1 dB gain compression	24 dBm minimum	25 dBm minimum
BIT detector threshold	< 20 dBm*	< 20 dBm*
BIT detection format	TTL single ended	TTL single ended
Output power	Logic 1 = +3.7 ±1.3 VDC Logic 1 = +0.4 ±0.4 VDC	Logic 1 = +3.7 ±1.3 VDC Logic 1 = +0.4 ±0.4 VDC

* Other levels available via adjustment to the threshold control.

NOTE: See outline drawing 132155.

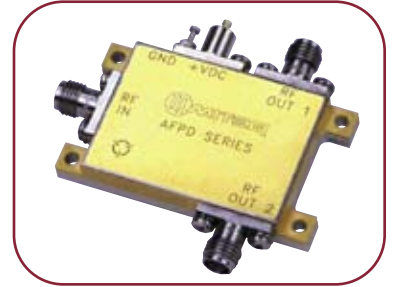
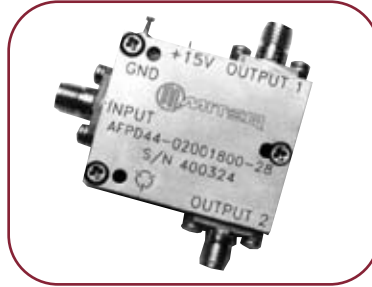
BLOCK DIAGRAM



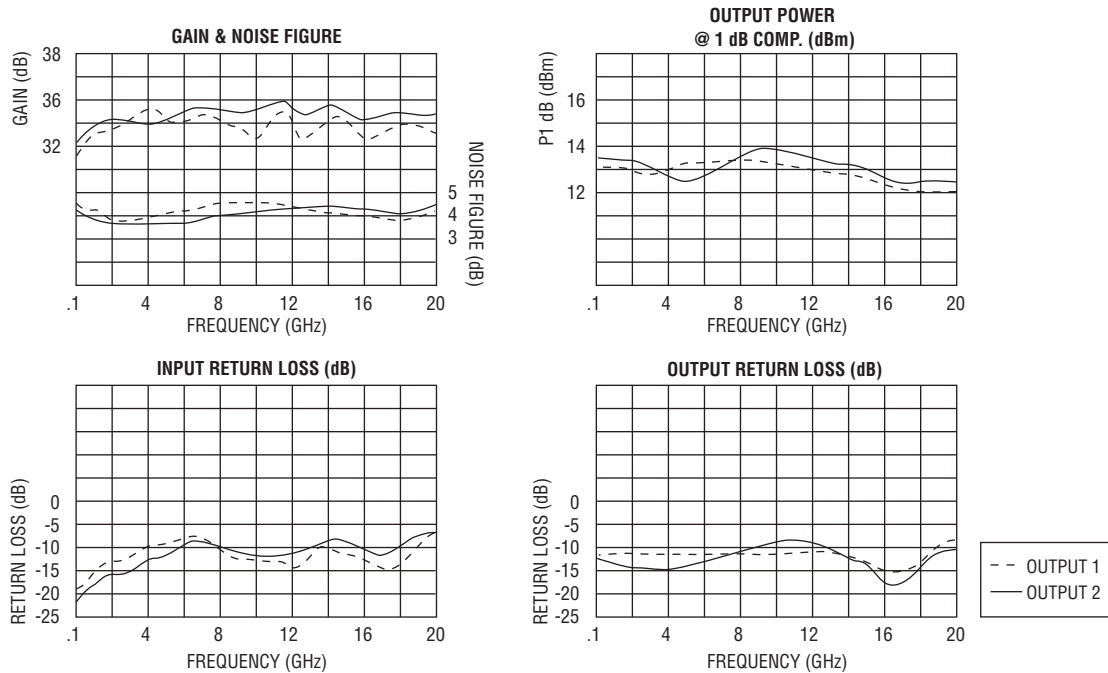
DUAL OUTPUT AMPLIFIERS

FEATURES

- Useful for bench and lab use
- 30 dB typical output port-to-port isolation
- Optional gain and phase tracking between output ports
- Three output port option



AFPD44-00102000-50 TYPICAL DATA



NOTE: Above data is for both output ports.

MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (\pm dB, Max.)	NOISE FIGURE (dB, Max.)	VSWR IN/OUT (Max.)	OUTPUT POWER @ 1 dB COMP. (dBm, Min.)	NOM. DC POWER (+15 V, mA)
AFPD44-00500200-20	0.5–2	35	2	2	2:1	10	350
AFPD44-00500200-20P	0.5–2	35	2	4	2:1	20	650
AFPD44-00100400-20P	0.1–4	30	2	4	2:1	20	450
AFPD44-00101200-30	0.1–12	32	2	3	2:1	10	375
AFPD44-00101200-20P	0.1–12	30	2.5	6	2:1	20	500
AFPD44-02001800-20P**	2–18	35	3	8	2.5:1	20	600
AFPD44-00102000-50**	0.1–20	32	3	5*	2.5:1	10	400
AFPD44-00102000-20P**	0.5–20	26	3	6*	2.5:1	20	650

* Noise figure increases below 500 MHz.
 ** Available in hermetic package.
 NOTE: See outline drawing 116630.

DESKTOP INSTRUMENTATION PREAMPLIFIERS

FEATURES

- Broadband frequency 0.1–40 GHz
- Fixed gain or variable up to 15 dB
- Built-in CE approved power supply
- SMA input/output connectors

OPTIONS

- Dual output, input limiter, DC block and temperature compensation
- Various combinations of frequency, bandwidth, gain, noise figure, power and VSWR
- Other connector types available



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	* NOISE FIGURE (dB, Max.)	VSWR IN/OUT	* OUTPUT POWER @ 1 dB COMP. (dBm, Min.)	OUTLINE DRAWING
LOW-NOISE, VARIABLE GAIN AMPLIFIERS							
NSP1000-NVG	0.1–10	35	2	2.3	2:1	10	152602
NSP1200-NVG	0.1–12	32	2	2.5	2:1	10	152602
NSP1800-NVG	0.3–18	30	2.5	4	2.5:1	10	152602
NSP2000-NVG	0.3–20	34	3	6.5	2.5:1	20	152602
NSP2200-NVG	0.3–22	30	2.75	4.5	2.5:1	8	152602
NSP4000-NVG	0.3–40	28	3†	6	2.5:1	6	189270
MEDIUM POWER, VARIABLE GAIN AMPLIFIERS							
NSP1000-PVG	0.1–10	35	2	5	2:1	20	152602
NSP1200-PVG	0.1–12	32	2.5	5.5	2:1	20	152602
NSP1800-PVG	0.3–18	30	2.75	6.5	2.5:1	20	152602
NSP2000-PVG	0.3–20	30	3	7	2:1	20	152602
LOW-NOISE, FIXED GAIN AMPLIFIERS							
NSP1000-NFG	0.1–10	28	2	2.3	2:1	10	155418
NSP1200-NFG	0.1–12	28	2	2.5	2:1	10	155418
NSP1800-NFG	0.3–18	20	2.5	3.5	2.5:1	10	155418
NSP2650-NFG	0.3–26.5	22	2.75	4.5	2.5:1	8	155418
NSP4000-NFG	0.3–40**	22	3	5	2.5:1	8	160008
MEDIUM POWER, FIXED GAIN AMPLIFIERS							
NSP1000-PFG	0.1–10	25	2	5	2:1	20	155418
NSP1200-PFG	0.1–12	25	2.25	5.5	2:1	20	155418
NSP1800-PFG	0.3–18	18	2.75	8	2.5:1	20	155418
NSP2000-PFG	0.3–20	18	3	8	2.5:1	20	155418
NSP2200-PFG	0.3–22	18	3	8	2.5:1	20	155418

* Specification applies above 500 MHz.

** Split into 2 separate bands (0.1–26.5 GHz and 26.5–40 GHz).

NOTES: Noise figure, VSWR, and output power are specified at maximum gain for variable gain amplifiers.

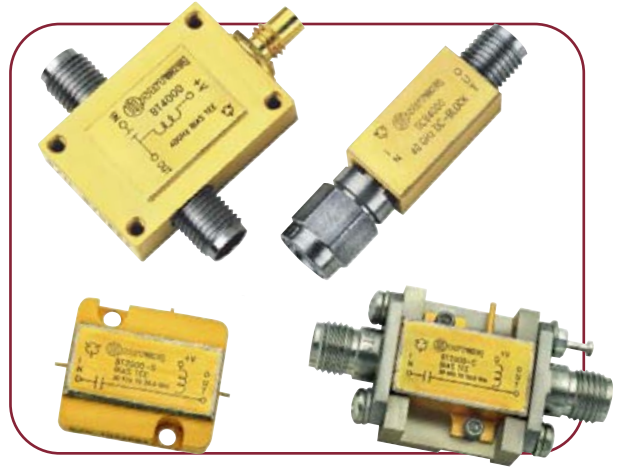
Power supply 100-240 VAC, 40–60 Hz.

† Above 500 MHz.

BIAS TEE'S AND DC BLOCKS

FEATURES

- Ultra broadband performance to 40 GHz
- Low insertion loss
- Off-the-shelf delivery
- Compact design
- Suitable for 40 Gb systems
- OC768 transmitters and receivers
- General purpose test and measurement systems
- Multiple chassis configurations



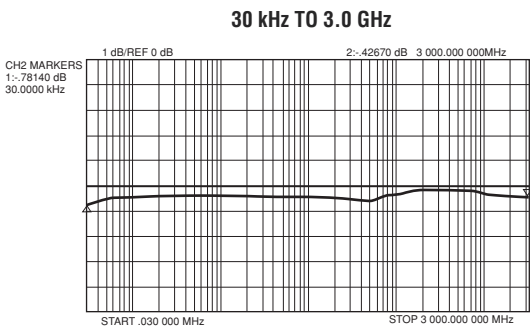
OPTIONS

- Custom frequency bandwidths
- Different connector outputs

MODEL NUMBER	FREQUENCY RANGE (GHz)	INSERTION LOSS (dB)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
BT0200-S	0.00003–2	0.8	2:1	150	157372
BT0200-C	0.00003–2	0.6	2:1	150	157373
BT0400-S	0.00003–4	0.9	2:1	150	157372
BT0400-C	0.00003–4	0.6	2:1	150	157373
BT0600-S	0.00003–6	1	2:1	150	157372
BT0600-C	0.00003–6	0.7	2:1	150	157373
BT0800-S	0.00003–8	1.2	2:1	150	157372
BT1200-S	0.00003–12	1.4	2:1	150	157372
BT1200-C	0.00003–12	1	2:1	150	157373
BT1800-S	0.00003–18	1.5	2:1	150	157372
BT1800-C	0.00003–18	1.2	2:1	150	157373
BT2000-S	0.00003–20	1.6	2:1	150	157372
BT2000-C	0.00003–20	1.5	2:1	150	157373
BT2650	0.00003–26.5	1.4	2:1	150	161170
BT4000	0.00003–40	1.5	2:1	150	145306

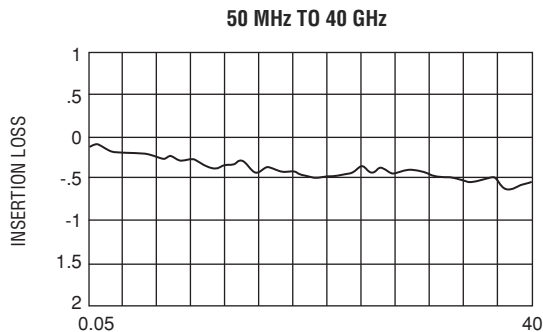
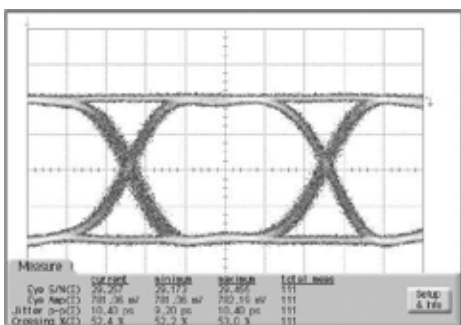
BIAS TEE'S AND DC BLOCKS (CONT.)

BIAS TEE TYPICAL DATA



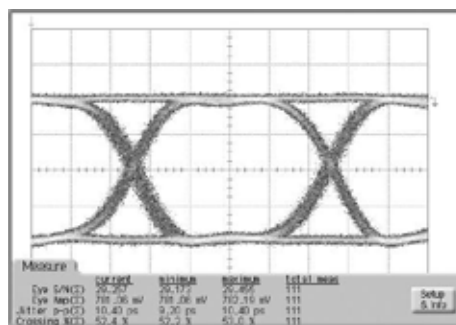
FREQUENCY (MHz)

INPUT TO BIAS TEE



FREQUENCY (GHz)

BIAS TEE OUTPUT



DC BLOCK

MODEL NUMBER	FREQUENCY RANGE (GHz)	INSERTION LOSS (dB)	VSWR IN/OUT	OUTLINE DRAWING
DCB0200-C	0.00003-2	0.5	1.5:1	113384-4
DCB0400-C	0.00003-4	0.7	1.5:1	113384-4
DCB0800-C	0.00003-8	0.8	1.5:1	113384-4
DCB1200-C	0.00003-12	1	1.8:1	113384-4
DCB1800-C	0.00003-18	1.1	2:1	113384-4
DCB2650	0.00003-26.5	1.2	2:1	145573
DCB4000	0.00003-40	1.3	2:1	145573

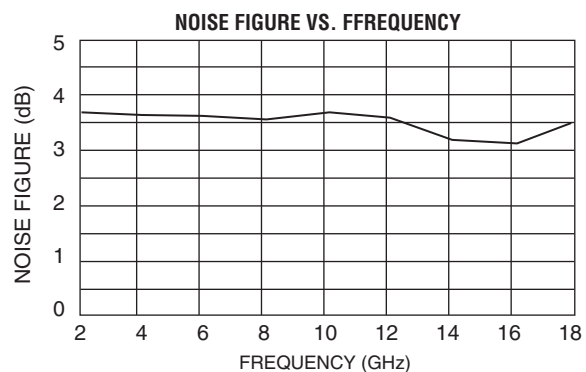
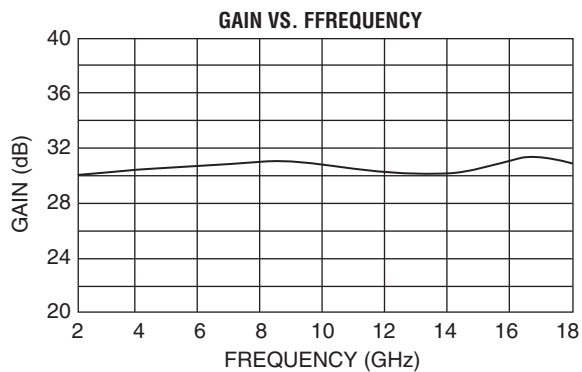
LOW COST - HIGH PERFORMANCE - HIGH VALUE AMPLIFIERS

FEATURES

- Industry standard hermetic housing
- Operating temperature: 0 to 50°C
- Removable SMA connectors
- Drop-in compatibility



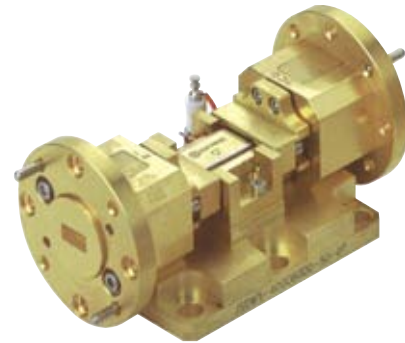
MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	OUTPUT PWR. @ 1 dB COMP. (dBm, Min.)	VSWR IN/OUT	DC POWER @ +15 V (mA, Nom.)	OUTLINE DRAWING
HIGH PERFORMANCE AMPLIFIERS								
LCN-0102	1-2	30	1	1.2	15	2:1	125	154709
LCN-0204	2-4	30	1	1.2	13	2:1	125	154709
LCN-0218	2-18	28	2	4	10	2.5:1	150	154709
LCN-0408	4-8	28	1	1.5	10	2:1	150	154709
LCN-0618	6-18	28	1.5	2.8	10	2:1	150	154709
LCN-0812	8-12	25	1	1.8	10	2:1	150	154709
LCN-1218	12-18	30	1.5	2.8	10	2:1	150	154709
HIGH VALUE AMPLIFIERS								
LCA-0102	1-2	30	1	1.3	10	2:1	125	154709
LCA-0204	2-4	30	1	1.5	10	2:1	125	154709
LCA-0218	2-18	25	2	4.5	10	2.2:1	150	154709
LCA-0408	4-8	25	1	1.5	10	2:1	150	154709
LCA-0618	6-18	25	1.5	3	10	2:1	150	154709
LCA-0812	8-12	25	1	1.8	10	2:1	150	154709
LCA-1218	12-18	25	1.5	2.8	10	2:1	150	154709



40 TO 60 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Low noise figure up to 60 GHz
- Linear phase and group delay
- WR22 and WR19 waveguide interfaces available
- Miniaturized for drop-in applications
- Hermetic sealed package
- Military temperature range applications



JSW4-40006000-55-0A

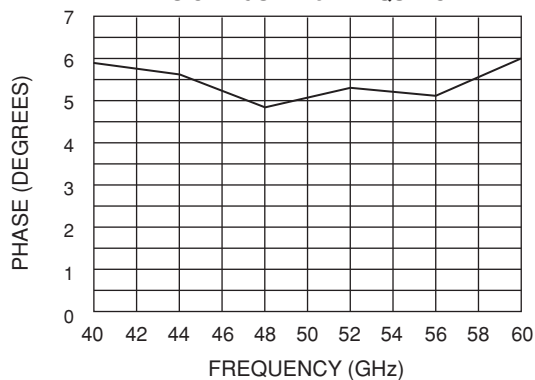
SPECIFICATIONS

PARAMETERS*	UNITS	JSW4-40006000-55-0A
Frequency range	GHz	40–60
Gain	dB, min.	16
Gain flatness	dB	±2.5
Noise figure (including WG loss)	dB	5.5
Input/output VSWR	Max.	2.5:1
Reverse isolation	dB	25
Output power at 1 dB compression	dBm, min.	0
DC power supply at 15 VDC	mA, typ.	200
Outline drawing	N/A	130001

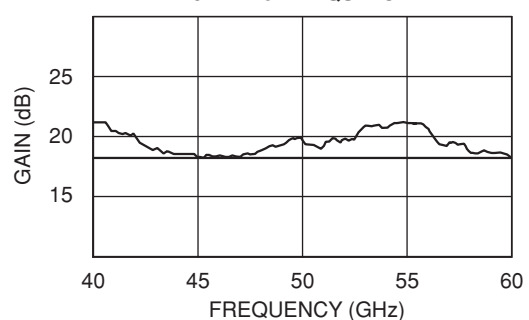
* Electrical parameters are specified at 23°C.

FREQ. (GHz)	GAIN	VSWR IN/OUT	REV GAIN	1 dB COMP.
40	21.2	1.51/2.09	-57.1	7.4
42	19.9	1.60/1.40	-51.4	5.8
44	18.3	1.90/1.49	-49.1	3.4
46	18.0	1.23/1.59	-44.0	3.4
48	18.8	1.48/1.22	-37.4	3.5
50	19.6	2.20/1.39	-37.8	3.5
52	19.8	2.26/1.74	-44.1	2.4
54	20.9	2.07/1.85	-41.3	0.5
56	19.8	1.44/1.89	-43.4	0.6
58	18.6	2.19/1.77	-38.2	0.8
60	18.0	1.35/1.72	-39.8	0.9

NOISE FIGURE vs. FREQUENCY



GAIN vs. FREQUENCY



NOTE: The third letter of the part number prefix indicates package style.

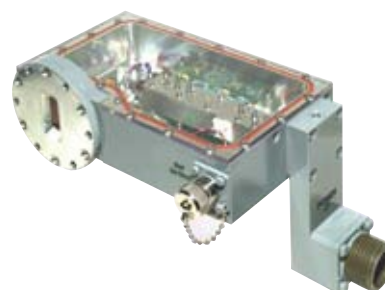
Typical temperature coefficients:

Gain vs. temperature dB per °C: 0.033
 Noise figure vs. temperature dB per °C: 0.062
 Phase vs. temperature Deg per °C: 0.4

ULTRA-LOW NOISE X-BAND SATCOM LNA

FEATURES

- Noise temperatures from 45 K
- 7.25 to 7.75 GHz operation
- Integrated 11-section transmit reject filter
- WR137 or WR112 waveguide input with moisture seal



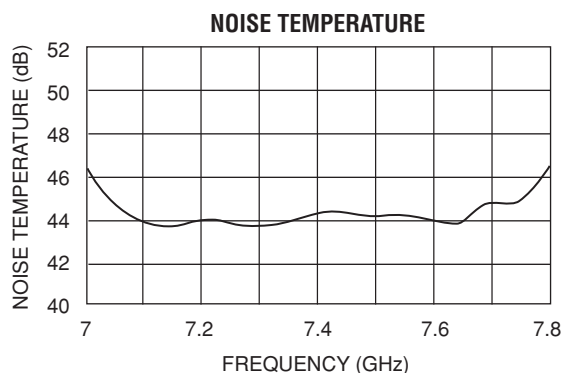
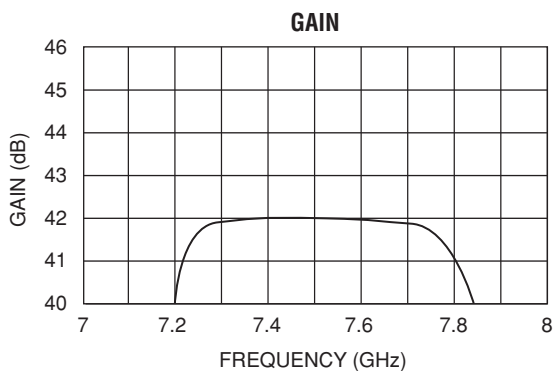
JPW4-07250775-45K-S

Fully militarized, this amplifier is supplied in a rugged chassis complete with an integrated fault alarm circuit and multipin connector capable of meeting all of the requirements of remote terminal applications. The weatherproof chassis is sealed to withstand 25 PSI, and is supplied with a waveguide moisture seal for operation in the most adverse environments.

SPECIFICATIONS

PARAMETERS*	JPW4-07250775-45K-S	JPW4-07250775-55K-S	JPW5-07250775-45K-S	JPW5-07250775-55K-S
Frequency	7.25–7.75 GHz	7.25–7.75 GHz	7.25–7.75 GHz	7.25–7.75 GHz
Gain (min.)	40 dB	40 dB	50 dB	50 dB
Gain window vs. temp. and freq. (max.)	3 dB	3 dB	3 dB	3 dB
Noise figure (max. at 23°C)	45 K	55 K	45 K	55 K
Input/output VSWR (max.)	1.25:1/1.35:1	1.25:1/1.35:1	1.25:1/1.35:1	1.25:1/1.35:1
Output power at 1 dB compression (min.)	7 dBm	7 dBm	7 dBm	7 dBm
Output third order intercept point (typ.)	17 dBm	17 dBm	17 dBm	17 dBm
Phase linearity per 40 MHz (max.)	±1°	±1°	±1°	±1°
Gain linearity per 40 MHz (max.)	±0.15 dB	±0.15 dB	±0.15 dB	±0.15 dB
1°/dB AM/PM conversion, input (min.)	-50 dBm	-50 dBm	-60 dBm	-60 dBm
Out-of-band gain at 7.9 GHz (max.)	15 dB	15 dB	15 dB	15 dB
DC power at 15 volts (typ.)	150 mA	150 mA	160 mA	160 mA
Operating temperature range	-57 to +60°C	-57 to +60°C	-57 to +60°C	-57 to +60°C
Outline drawing	137626			

* Electrical parameters are specified at 23°C.



MACH-ZEHNDER MODULATOR DRIVERS (CONT.)

EYE MEASUREMENT

PARAMETERS	CONDITIONS	UNITS	MIN.	MAX.
Voltage*				
Input		mV	500	900
Output		V	7	
Q or S/N at 7 V output		Ratio	30	
Jitter (corrected for instrument jitter)		ps		10
Rise time (corrected)	10 to 90%	ps		30
Fall time (corrected)	10 to 90%	ps		30
SNR of zero level	Z version	Ratio	30	

* Optional 250 mV (non-inverting).

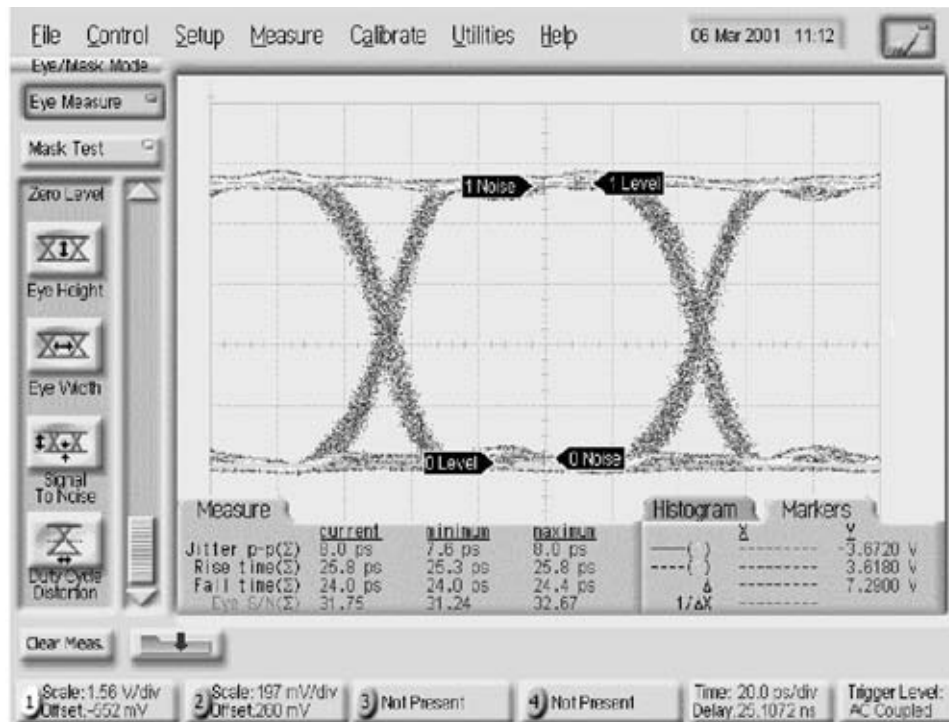
MITEQ's standard modulator driver amplifiers have been designed to meet the following environmental conditions:

GENERAL SPECIFICATIONS

Operating temperature -5 to +70°C
 Storage temperature -40 to +85°C
 Humidity 95% relative humidity, noncondensing
 Vibration 50 g's rms peak 20 Hz – 2 kHz in accordance with MIL-STD-883, Method 2007, Condition B

MEASURED PERFORMANCE

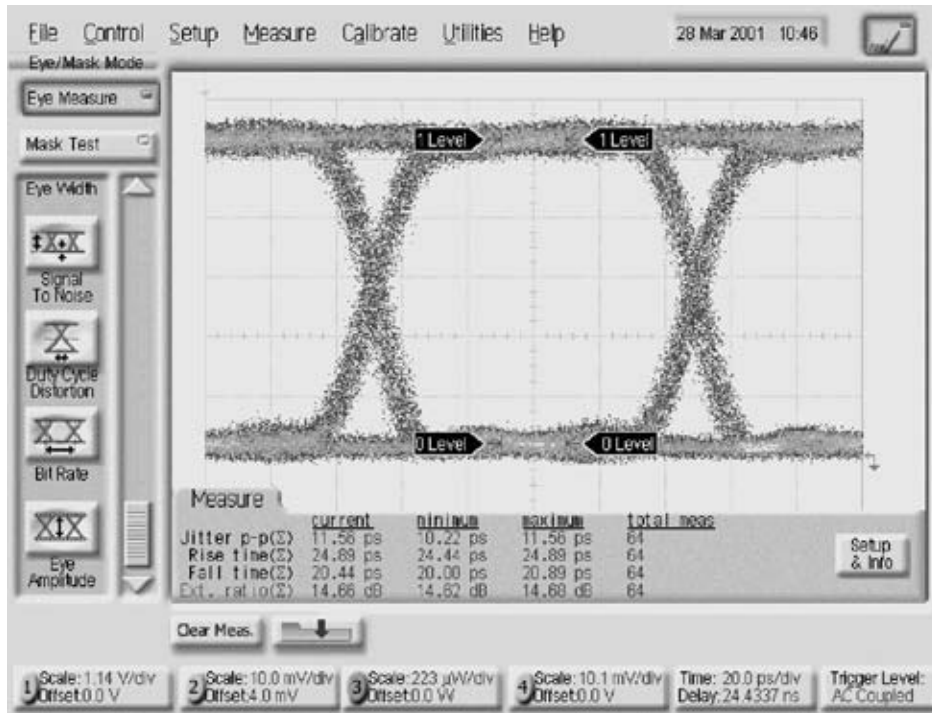
10 Gb/s MODULATOR DRIVER



ELECTRICAL EYE

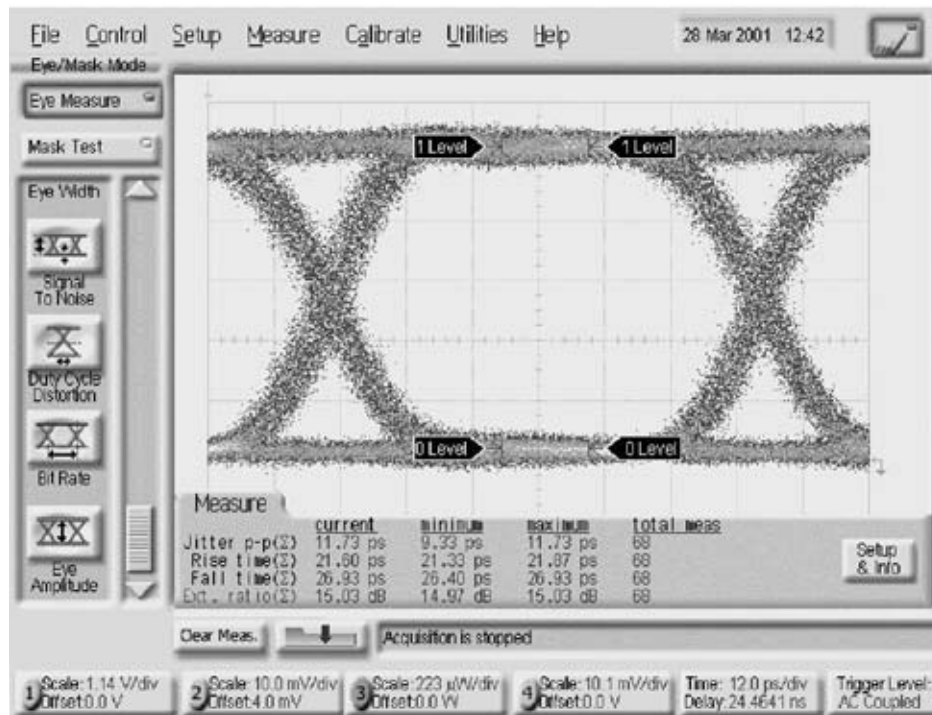
MACH-ZEHNDER MODULATOR DRIVERS (CONT.)

10.7 Gb/s MODULATOR DRIVER



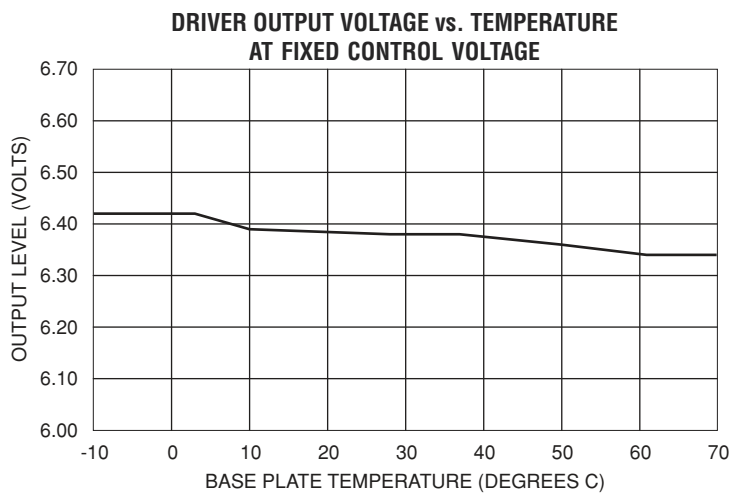
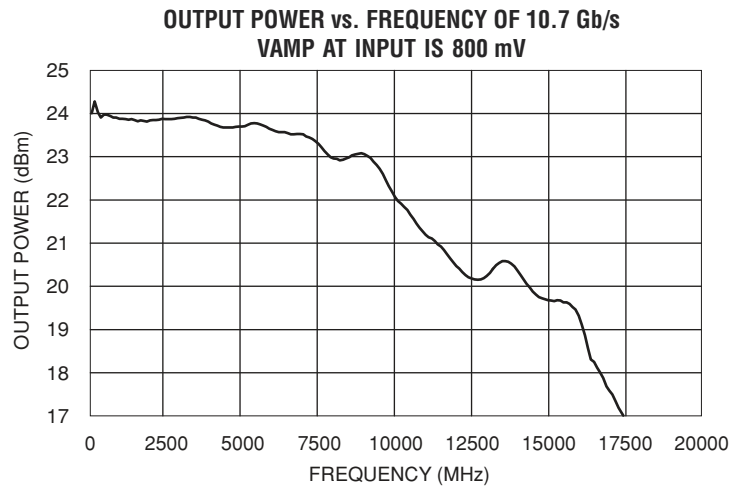
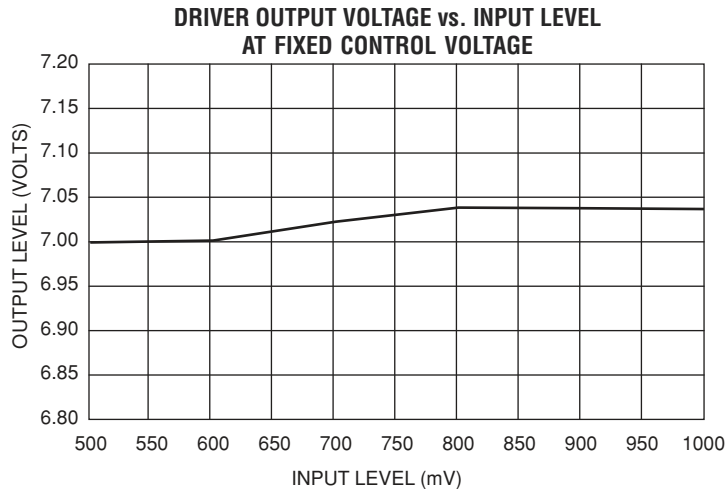
OPTICAL EYE

12.5 Gb/s MODULATOR DRIVER



OPTICAL EYE

MACH-ZEHNDER DRIVERS TYPICAL DATA (CONT.)



NOTE: Typical for all models.

MACH-ZEHNDER DRIVERS CUSTOMIZATION (CONT.)

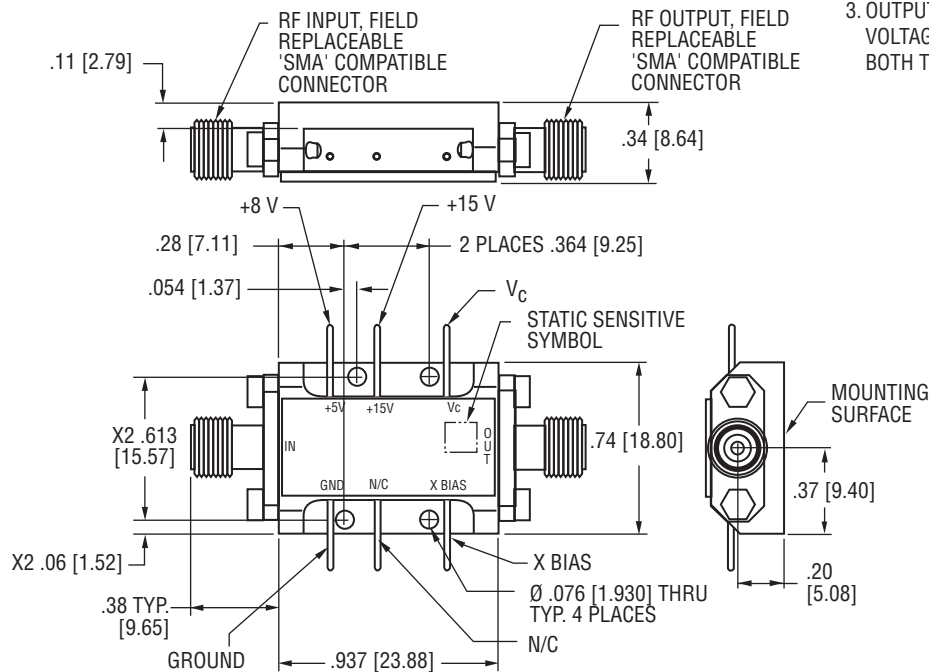
Customization of the electrical and mechanical configuration can be made available on request. Mounting provisions, PIN-out locations, supply voltages and connector type can be modified to facilitate system integration and maximize performance. Please contact MITEQ to discuss your specific needs.

MITEQ's telecommunication products have been designed to exceed industry standard lifetime expectations of twenty years when operated under the specified conditions. An advanced thermal design, supported by thermal analysis, endows this product with low internal temperature rise, ensuring long life. The thermally enhanced package design, utilizes hermetic glass to metal seals and is seam welded to protect the circuitry from the environment.

More than 10,000 MITEQ 10 Gb/s amplifiers have been fielded by major telecommunication system suppliers. This broad level of field service, combined with extensive qualification and life testing, clearly demonstrates the reliable performance of this product line. Qualification tests comply with standards endorsed by the telecommunications industry, as well as customer specified procedures. They include the full range of environments encountered by industry applications.

OUTLINE DRAWING

143493



NOTES:

1. SECONDARY DIMENSIONS ARE IN MILLIMETERS.
2. SMA CONNECTORS ARE STANDARD, OTHER TYPES ARE AVAILABLE.
3. OUTPUT LEVEL INCREASES WITH CONTROL VOLTAGE BECOMING MORE POSITIVE FOR BOTH THE VPC AND VNC MODELS.

HEATSINKING

The heat dissipation for these amplifiers can be as high as 4.5 W, therefore heatsinking is necessary. Ideally, the unit should be mounted to a metal base plate, which is connected to the overall housing of the system. For best long term reliability, this base plate should be kept below 80°C.

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TO 40 GHz LOW-NOISE AMPLIFIER

Gain figures from 3.0 dB
and group delay
for coax or microstrip interface
drop-in version available
temperature range applications

JS42-18004000-33-5P



JS4-18004000-33-8P

SPECIFICATIONS

	UNITS	JS4-18004000-33-8P	JS42-18004000-33-5P
Frequency	GHz	18-40	18-40
Gain	dB, min.	23	35
	dB, max.	±2.5	3.5
Gain flatness	dB, max.		3.3
Noise figure	Max.		2.5:1
Input/output VSWR	Deg., max.		±10
Phase linearity	Deg., max.		±45
Per GHz over complete band	Deg., typ.		±5
Over full band	pS, max.		±110
Unit-to-unit phase tracking	dBm, min.		5
Group delay	dBm, typ.		11
Output power at 1 dB compression	dBm, min.		17
Output ip3	dBm, typ.		13
Output ip2	dBm, min.		30
Input power (CW max., survival)	mA, typ.		1
DC power supply, 12 to 20 volts	N/A		
Outline drawing			128749

**TYPICAL JS SERIES
AMPLIFIER
PERFORMANCE**

PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.
Also available with WRD180 input and output interface, please contact MITEQ.

GAIN vs. FREQUENCY
OVER TEMPERATURE



NOISE FIGURE OVER TEMPERATURE



1 TO 2 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 0.4 dB
- Excellent phase and group delay
- Miniaturized for coax or microstrip interface
- Available hermetically sealed for military and space applications



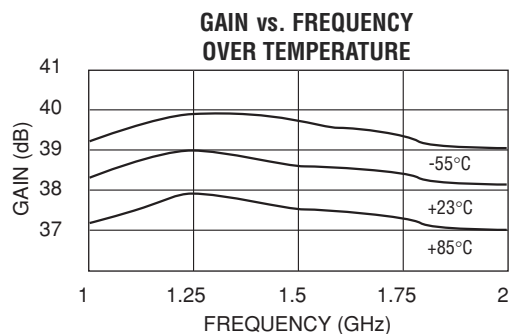
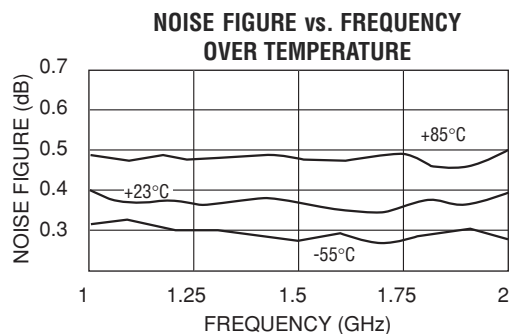
JS2-01000200-06-10P

SPECIFICATIONS

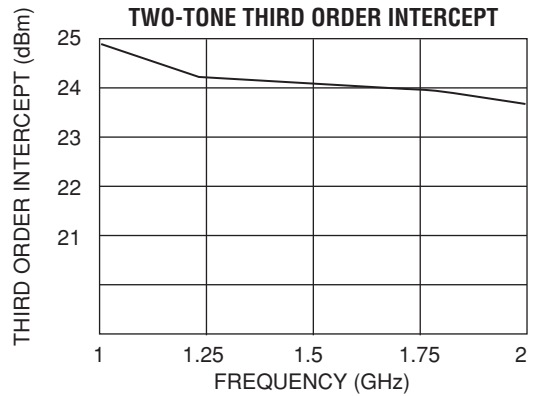
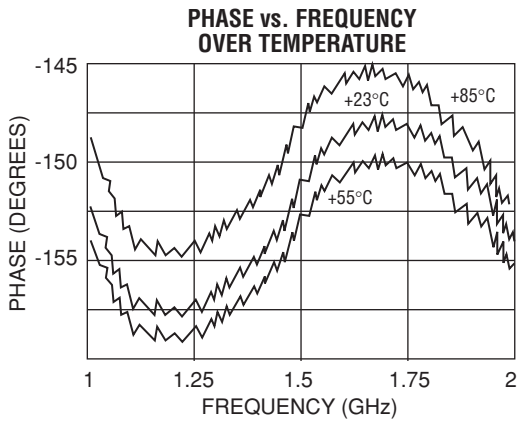
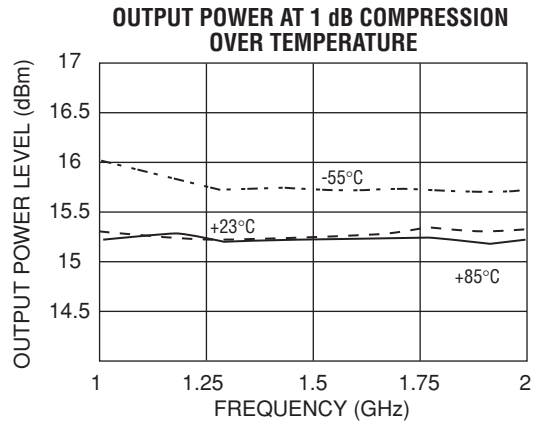
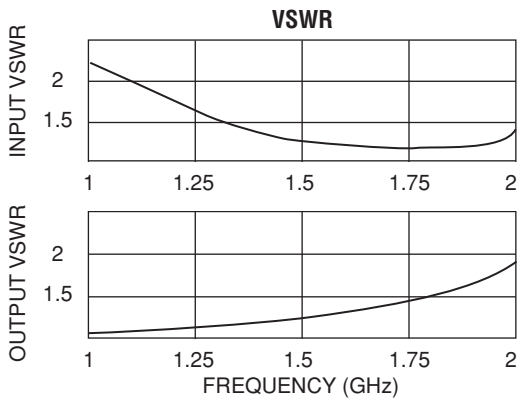
PARAMETERS *	UNITS	JS2-01000200-06-10P
Frequency	GHz	1–2
Gain	dB, min.	34
Gain flatness	dB, max.	±1.2
Noise figure	dB, max.	0.65
Input/output VSWR	Max.	2:1
Phase linearity, over full band	Deg., max.	±5
Unit-to-unit phase tracking	Deg., typ.	±10
Group delay	pS, max.	±25
Output power at 1 dB compression	dBm, min.	10
Output IP ³	dBm, min.	18
Output IP ²	dBm, min.	25
Input power (CW max., survival)	dBm, min.	13
DC power supply, 12 to 20 volts	mA, typ.	195
Outline drawing	N/A	127140

PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.

* Electrical parameters are specified at 23°C.

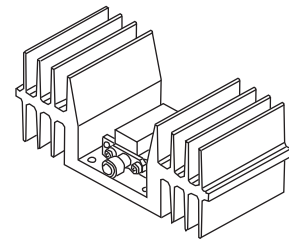
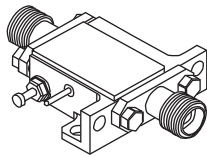


1 TO 2 GHz TYPICAL DATA

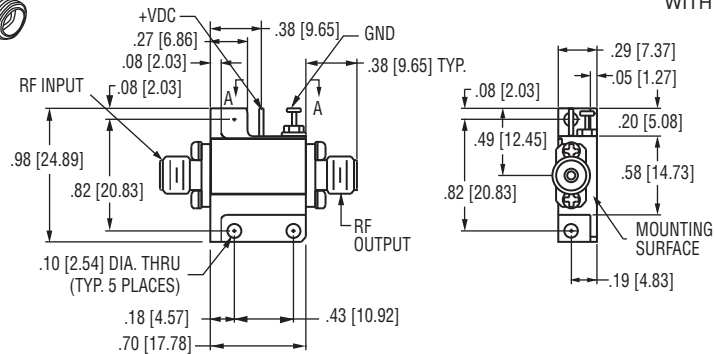


OUTLINE DRAWING

127140



WITH OPTIONAL HEATSINK P/N 132089



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

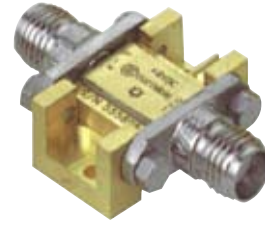


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2 TO 8 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 0.8 dB
- Excellent phase and group delay
- Miniaturized for coax or microstrip interface
- Available hermetically sealed
- Military temperature range applications



JS2-02000800-10-4P

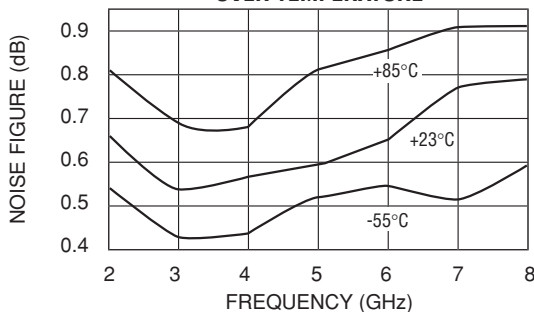
SPECIFICATIONS

PARAMETERS *	UNITS	JS2-02000800-10-4P
Frequency	GHz	2–8
Gain	dB, min.	21
Gain flatness	dB, max.	±1.2
Noise figure	dB, max.	1
Input/output VSWR	Max.	2:1
Phase linearity		
Per GHz over complete band	Deg., typ.	±8
Over full band	Deg., typ.	±12
Unit-to-unit phase tracking	Deg., typ.	±10
Group delay	pS, typ.	±35
Output power at 1 dB compression	dBm, min.	4
Output IP ³	dBm, typ.	12
Output IP ²	dBm, typ.	22
Input power (CW max., survival)	dBm, min.	13
DC power supply, 12 to 20 volts	mA, typ.	175
Outline drawing (Two available packages)	N/A	128749

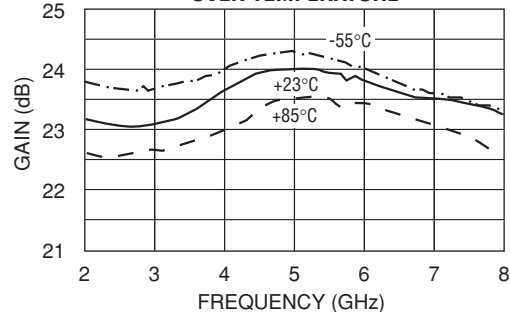
PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.

* Electrical parameters are specified at 23°C.

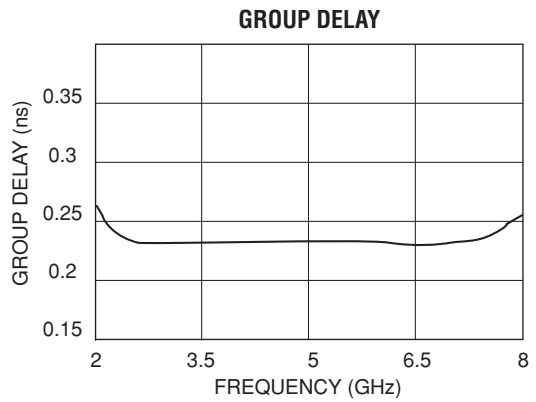
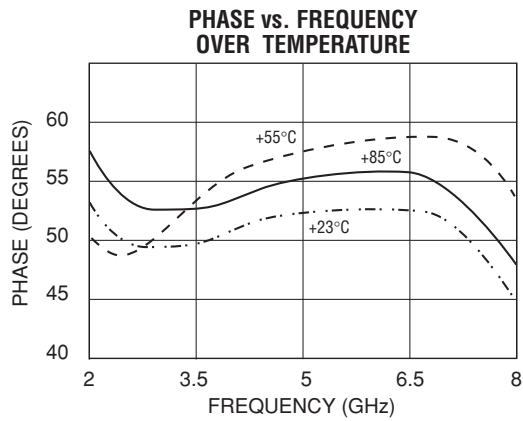
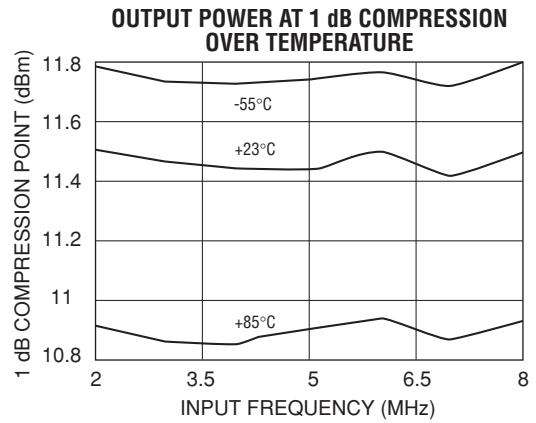
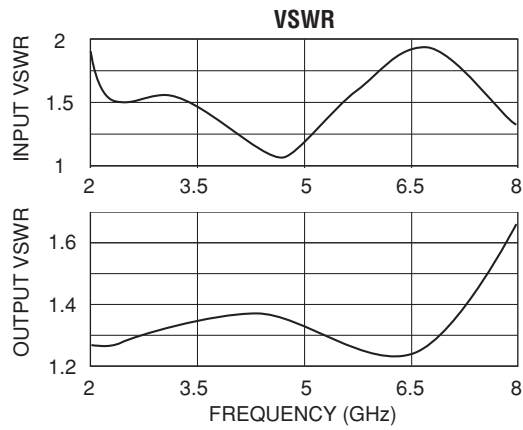
**NOISE FIGURE vs. FREQUENCY
OVER TEMPERATURE**



**GAIN vs. FREQUENCY
OVER TEMPERATURE**

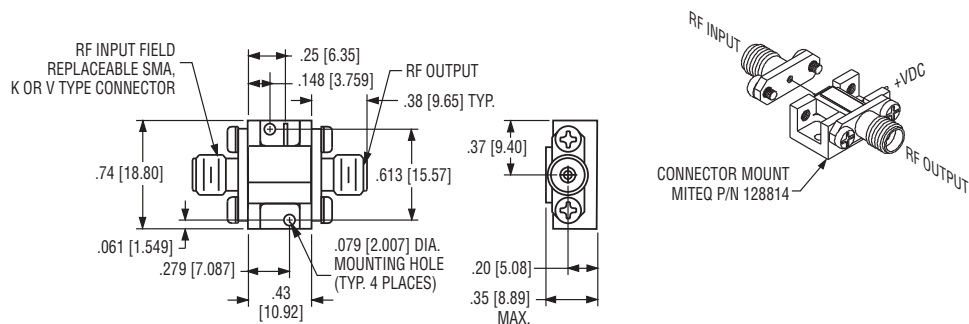


2 TO 8 GHz TYPICAL DATA



OUTLINE DRAWING

128749



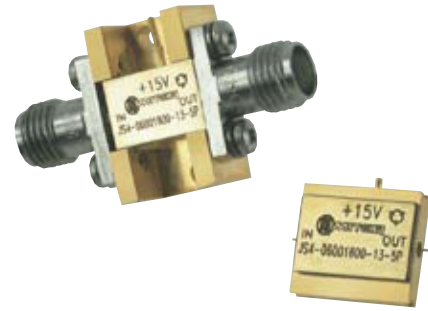
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.



6 TO 18 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 1.45 dB
- Phase and group delay linearized
- Miniaturized for coax or microstrip interface
- Hermetically sealed chassis
- Military temperature range applications



JS4-06001800-16-8P

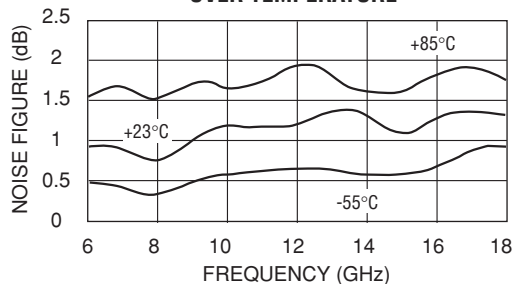
SPECIFICATIONS

PARAMETERS *	UNITS	JS4-06001800-16-8P	JS4-06001800-18-8P
Frequency	GHz	6–18	6–18
Gain	dB, min.	32	32
Gain flatness	dB, max.	±1.5	±1.5
Noise figure	dB, max.	1.6	1.8
Input/output VSWR	Max.	2:1	2:1
Phase linearity			
Per GHz over 8–16 GHz	Deg., typ.	±5	±5
Over full band, 6–18 GHz	Deg., typ.	±20	±20
Unit-to-unit phase tracking	Deg., typ.	±12	±12
Group delay			
Per GHz over 8–16 GHz	pS, typ.	±10	±10
Over full band, 6–18 GHz	pS, typ.	±50	±50
Output power at 1 dB compression	dBm, min.	8	8
Output IP ³	dBm, min.	16	16
Output IP ²	dBm, min.	24	24
Output second harmonic IP	dBm, min.	25	25
Input power (CW max., survival)	dBm, min.	13	13
DC power supply, 12 to 24 volts	mA, typ.	195	195
Outline drawing	N/A	128749	128749

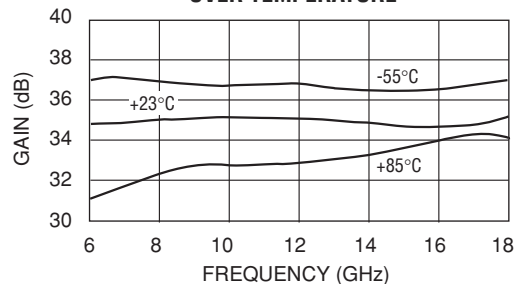
PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.

* Electrical parameters are specified at 23°C.

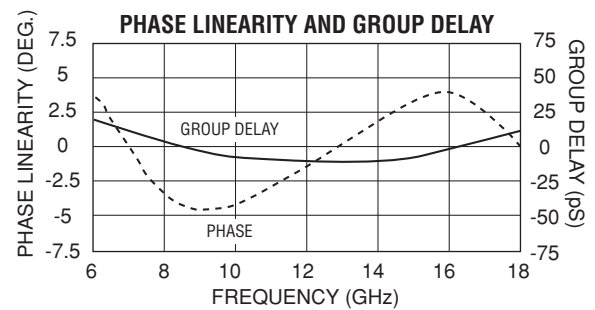
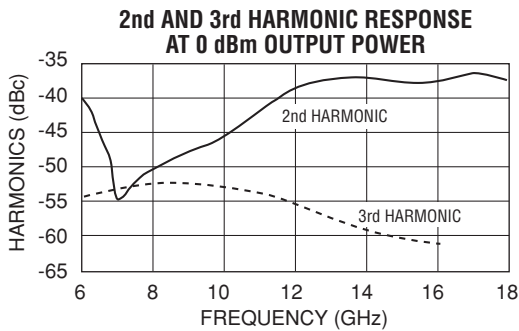
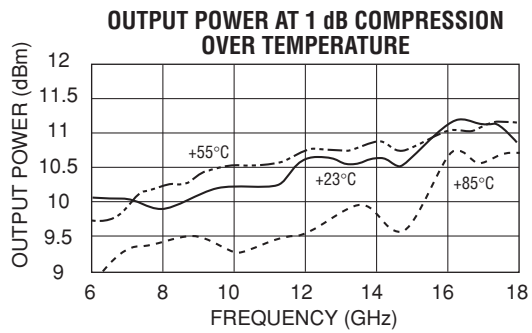
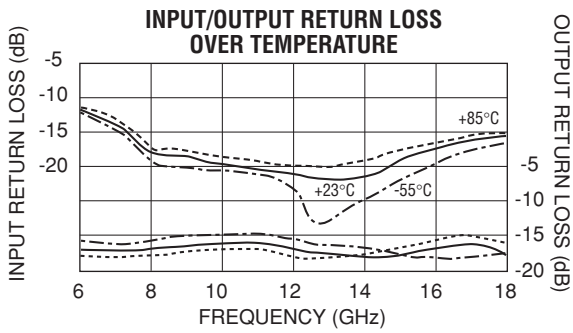
**NOISE FIGURE vs. FREQUENCY
OVER TEMPERATURE**



**GAIN vs. FREQUENCY
OVER TEMPERATURE**

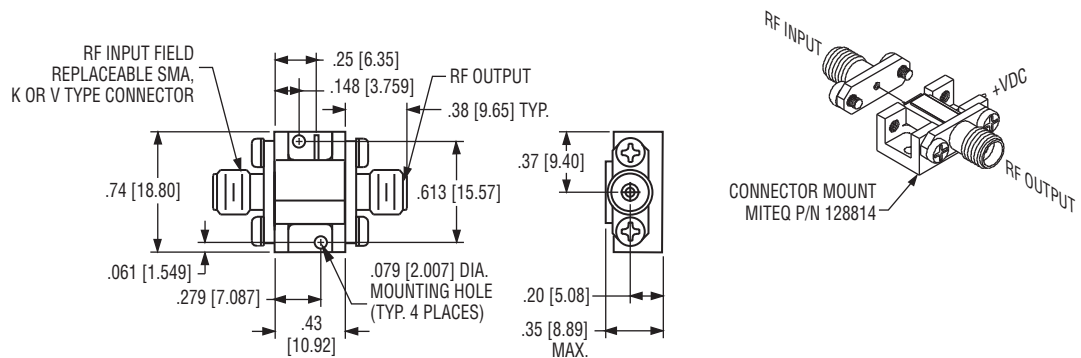


6 TO 18 GHz TYPICAL DATA



OUTLINE DRAWING

128749



NOTES: ALSO AVAILABLE WITH WR42 INPUT AND/OR OUTPUT.
DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

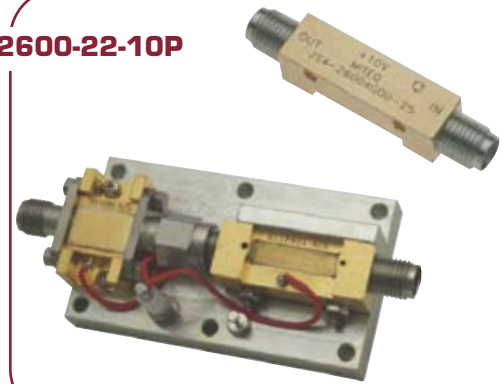


18 TO 26 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 1.9 dB
- Excellent phase and group delay
- Miniaturized for coax or microstrip interface
- Military temperature range applications

JS4-18002600-22-10P



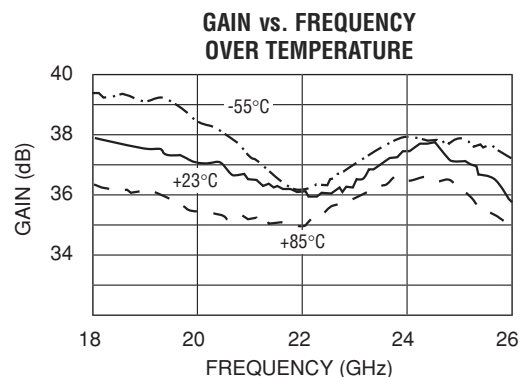
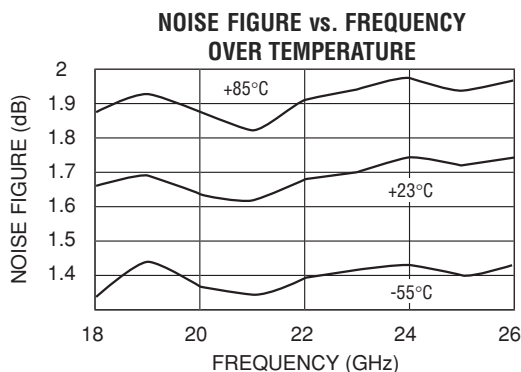
JS42-18002600-23-5P

SPECIFICATIONS

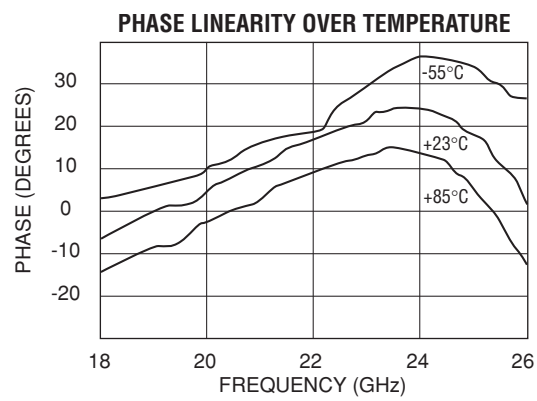
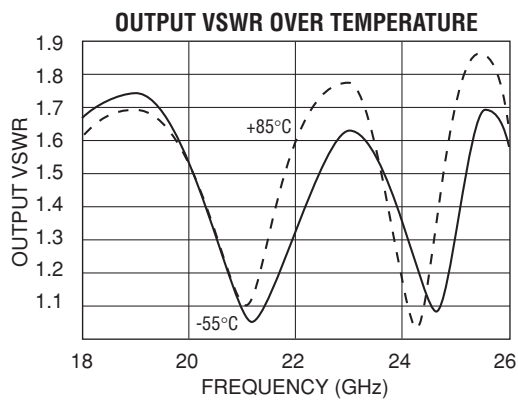
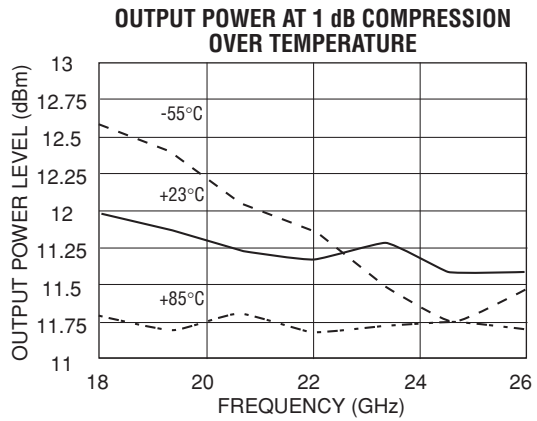
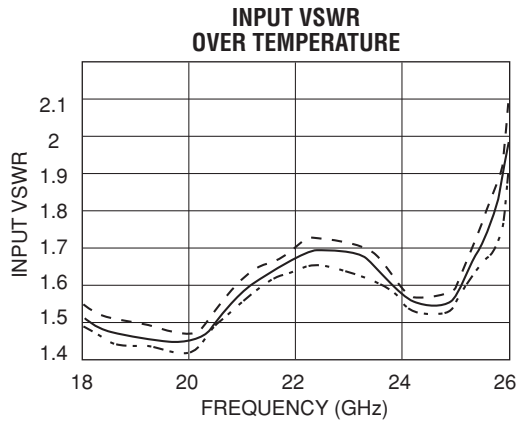
PARAMETERS *	UNITS	JS4-18002600-22-10P	JS42-18002600-23-5P
Frequency	GHz	18–26	18–26
Gain	dB, min.	35	48
Gain flatness	dB, max.	±1.5	±2.5
Noise figure	dB, max.	2.2	2.3
Input/output VSWR	Max.	2:1	2.3:1
Phase linearity			
Per GHz over complete band	Deg., max.	±5	±5
Over full band	Deg., max.	±15	±30
Unit-to-unit phase tracking	Deg., typ.	±15	±25
Group delay	pS, max.	±50	±80
Output power at 1 dB compression	dBm, min.	10	5
Output IP ³	dBm, min.	18	10
Output IP ²	dBm, min.	26	15
Input power (CW max., survival)	dBm, min.	13	13
DC power supply, 12 to 20 volts	mA, typ.	195	300
Outline drawing	N/A	125424	147321

PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.

* Electrical parameters are specified at 23°C.

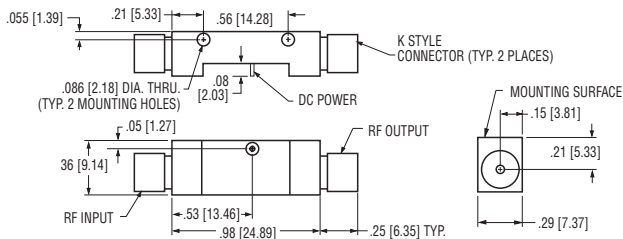


18 TO 26 GHz TYPICAL DATA

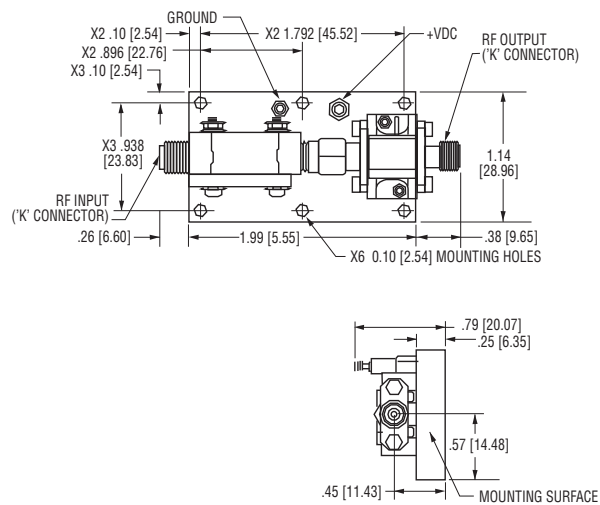


OUTLINE DRAWINGS

125424



147321



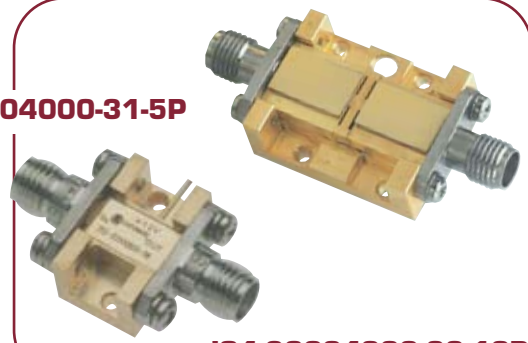
NOTES: ALSO AVAILABLE WITH WR42 INPUT AND/OR OUTPUT.
DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

26 TO 40 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 3.3 dB
- Excellent phase and group delay
- Miniaturized for coax or microstrip interface
- WR28 and drop-in version available
- Military temperature range applications

JS42-26004000-31-5P



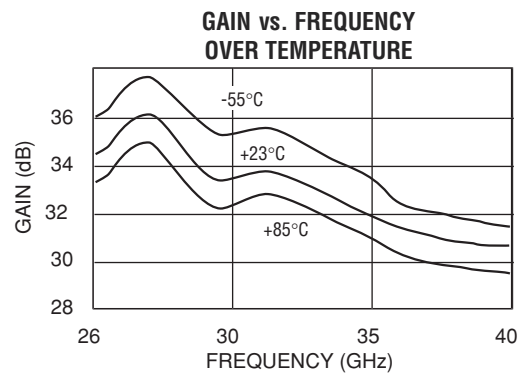
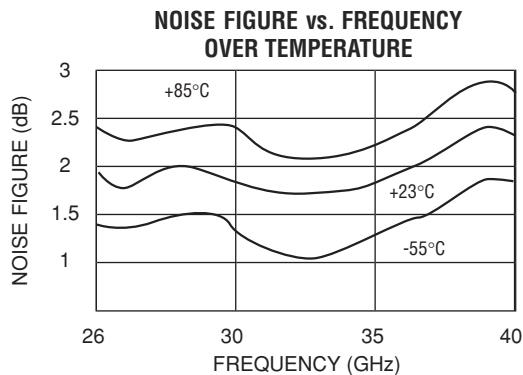
JS42-26004000-33-10P

SPECIFICATIONS

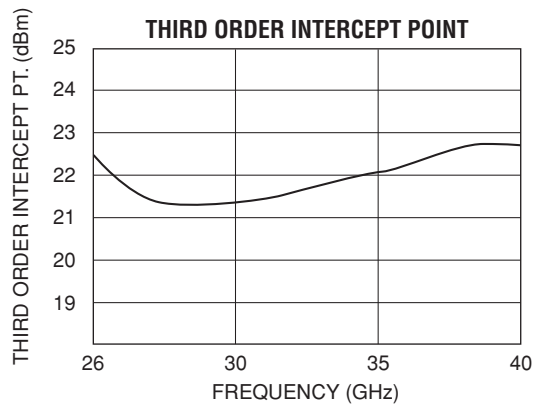
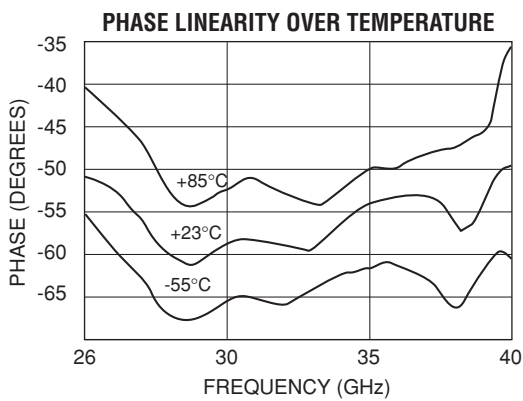
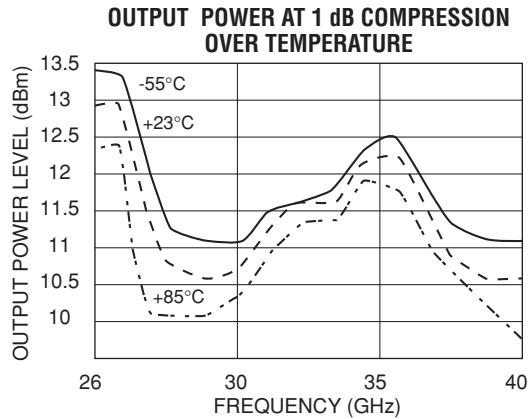
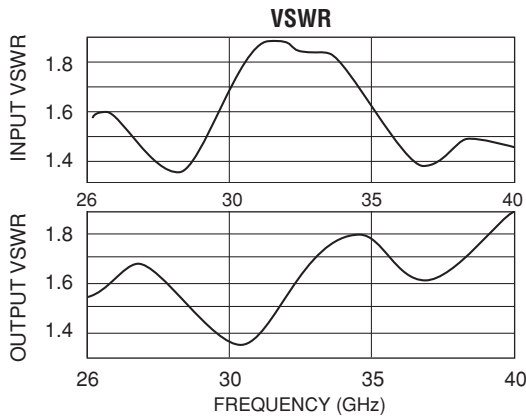
PARAMETERS *	UNITS	JS4-26004000-33-10P	JS42-26004000-31-5P
Frequency	GHz	26–40	26–40
Gain	dB, min.	23	37
Gain flatness	dB, max.	±2.5	±3.5
Noise figure	dB, max.	3.3	3.1
Input/output VSWR	Max.	2.5:1	2.5:1
Phase linearity			
Per GHz over complete band	Deg., max.	±5	±8
Over full band	Deg., max.	±15	±30
Unit-to-unit phase tracking	Deg., typ.	±25	±35
Group delay	pS, max.	±60	±90
Output power at 1 dB compression	dBm, min.	10	5
Output IP ³	dBm, typ.	15	12
Output IP ²	dBm, typ.	22	19
Input power (CW max., survival)	dBm, min.	13	13
DC power supply, 12 to 20 volts	mA, typ.	200	300
Outline drawing	N/A	125424	129007

PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.
Optionally available (see outline drawing 125424-1).

* Electrical parameters are specified at 23°C.

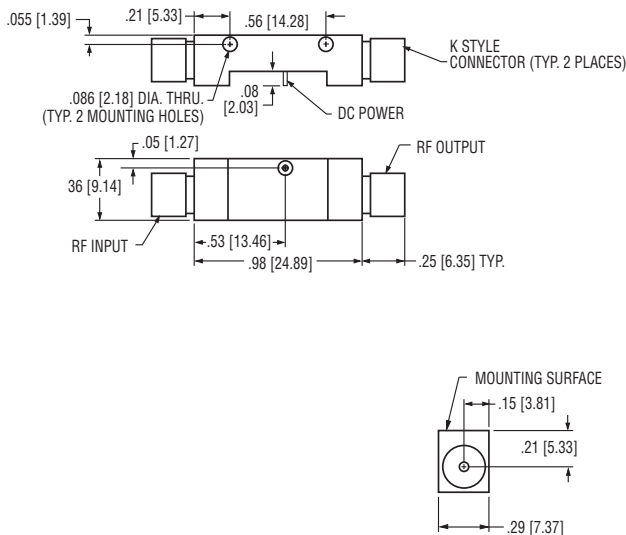


26 TO 40 GHz TYPICAL DATA

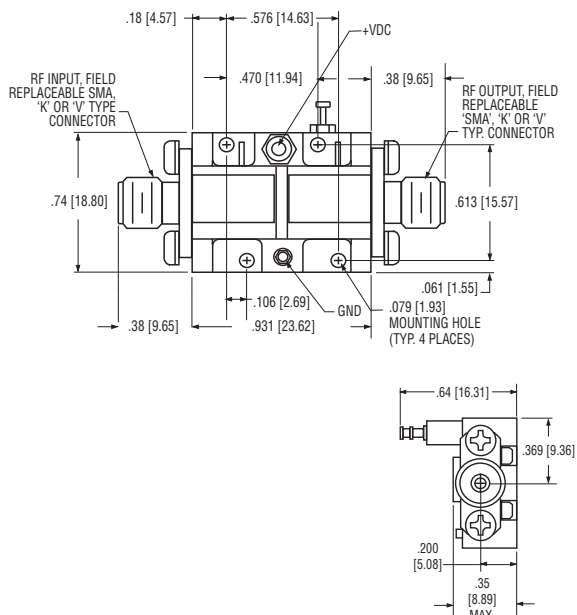


OUTLINE DRAWINGS

125424



129007



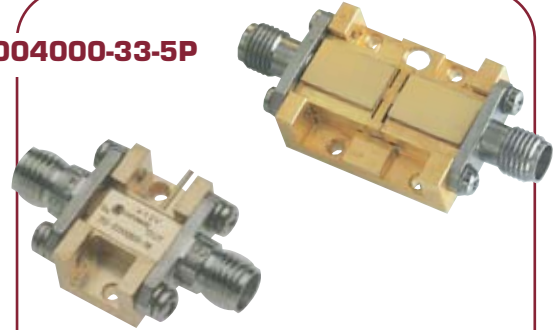
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

18 TO 40 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 3.0 dB
- Excellent phase and group delay
- Miniaturized for coax or microstrip interface
- WRD180 and drop-in version available
- Military temperature range applications

JS42-18004000-33-5P



JS4-18004000-33-8P

SPECIFICATIONS

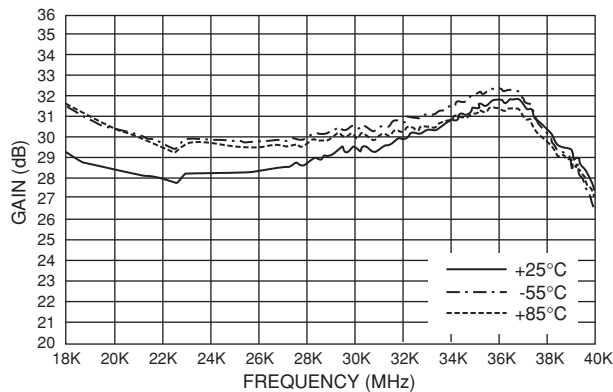
PARAMETERS *	UNITS	JS4-18004000-33-8P	JS42-18004000-33-5P
Frequency	GHz	18–40	18–40
Gain	dB, min.	23	35
Gain flatness	dB, max.	±2.5	3.5
Noise figure	dB, max.	3.3	3.3
Input/output VSWR	Max.	2.5:1	2.5:1
Phase linearity			
Per GHz over complete band	Deg., max.	±7	±10
Over full band	Deg., max.	±25	±45
Unit-to-unit phase tracking	Deg., typ.	±30	±45
Group delay	pS, max.	±70	±110
Output power at 1 dB compression	dBm, min.	8	5
Output IP ³	dBm, typ.	14	11
Output IP ²	dBm, typ.	20	17
Input power (CW max., survival)	dBm, min.	13	13
DC power supply, 12 to 20 volts	mA, typ.	200	300
Outline drawing	N/A	128749	129007

PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.

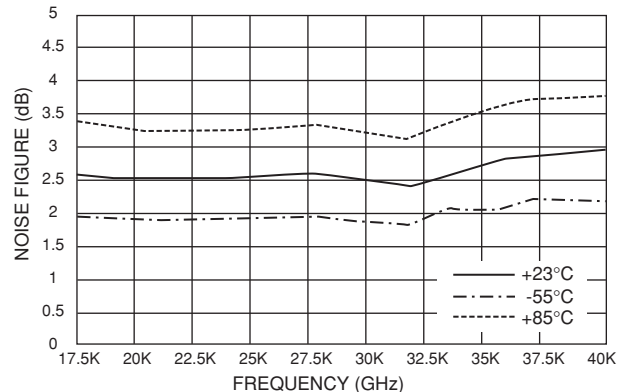
Also available with WRD180 input and output interface, please contact MITEQ.

* Electrical parameters are specified at 23°C.

**GAIN vs. FREQUENCY
OVER TEMPERATURE**



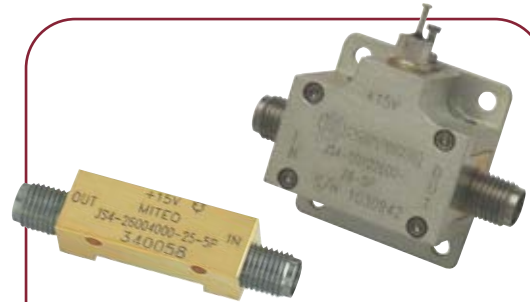
**NOISE FIGURE vs. FREQUENCY
OVER TEMPERATURE**



.1 TO 26 GHz LOW-NOISE AMPLIFIERS

FEATURES

- Ultralow noise figures from 3.0 dB
- Ultra wideband
- Military temperature range applications



JS4-00102600-30-10P

SPECIFICATIONS

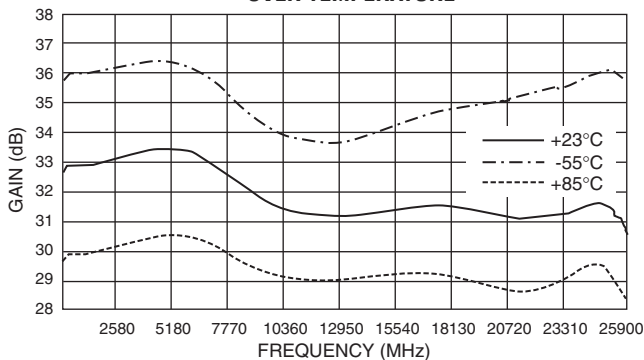
PARAMETERS *	UNITS	JS3-00102600-30-5P	JS4-00102600-30-10P
Frequency	GHz	.1–26	.1–26
Gain	dB, min.	21	28
Gain flatness	dB, max.	±2.3	±2.5
Noise figure**	dB, max.	3	3
Input/output VSWR	Max.	2.5:1	2.5:1
Phase linearity	Deg., max.	±50	±50
Unit-to-unit phase tracking	Deg., typ.	±40	±40
Group delay	pS, typ.	±70	±70
Output power at 1 dB compression	dBm, min.	5	10
Output IP ³	dBm, typ.	17	17
Output IP ²	dBm, typ.	24	24
Input power (CW max., survival)	dBm	13	13
DC power supply, 12 to 20 volts	mA, typ.	175	195
Outline drawing	N/A	125424	125424

PLEASE NOTE: Customized combinations of the above-noted electrical specifications are available.
Optionally available (see outline drawing 125424-1).

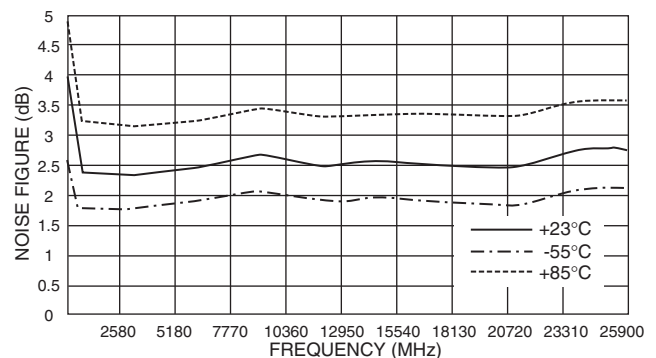
* Electrical parameters are specified at 23°C.

** Noise figure increases below 800 MHz.

**GAIN vs. FREQUENCY
OVER TEMPERATURE**



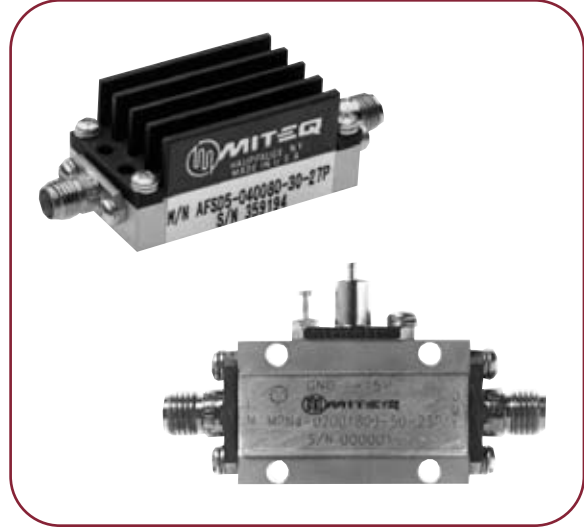
**NOISE FIGURE vs. FREQUENCY
OVER TEMPERATURE**



MEDIUM POWER AMPLIFIERS

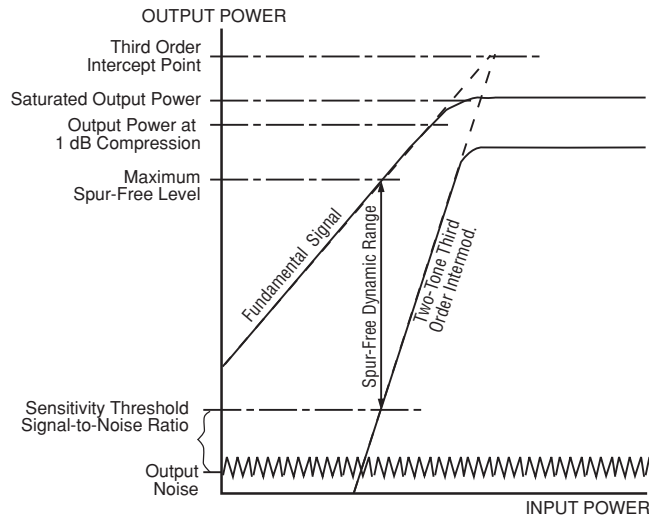
FEATURES

- High dynamic range
- Up to 1 watt output power
- Usable as a TWTA and SSPA driver amplifier
- High second and third intercept points
- Low power consumption
- EMI suppression filter
- One-year warranty
- Custom frequency, gain, and power options available



MODEL NUMBER	FREQUENCY RANGE (GHz)	GAIN (dB, Min.)	GAIN FLATNESS (±dB, Max.)	NOISE FIGURE (dB, Max.)	VSWR IN/OUT (Max.)	OUTPUT POWER @ 1 dB COMP. (dBm, Min.)	NOM. DC POWER (15 V, mA)
AFSD5-020080-22-26P	2-8	30	1.2	2.2	2:1	26	550
AFSD4-020060-20-27P	2-6	30	1	2	2:1	27	575
AFSD5-040080-20-27P	4-8	30	1	2	2:1	27	450
AFSD5-040120-35-25P	4-12	25	1.5	3.5	2:1	25	550
AFSD5-060120-30-26P	6-12	26	1	3	2:1	26	575
AFSD5-080120-25-26P	8-12	28	1	2.5	2:1	26	500
MPN1-00100100-23P*	0.1-1	15	1.5	1.5	2.5:1/2:1	23	200
MPN2-00200200-27P*	0.2-2	23	1.5	2.5	2:1/2.5:1	27	250
MPN2-00500100-30P*	0.5-1	25	1.5	1.5	2:1	30	500
MPN2-01000200-28P*	1-2	27	1.5	1.5	2:1	28	550
MPN3-02000400-25P	2-4	30	1.5	2	2:1	25	300
MPN3-02001800-20P	2-18	20	2.5	5	2.5:1/2.2:1	20	450
MPN4-02001800-23P	2-18	23	2.5	5	2.5:1/2.2:1	23	700

* These models can be optimized for cellular telephony applications.
Note: See outline drawings 121045 and 134923.



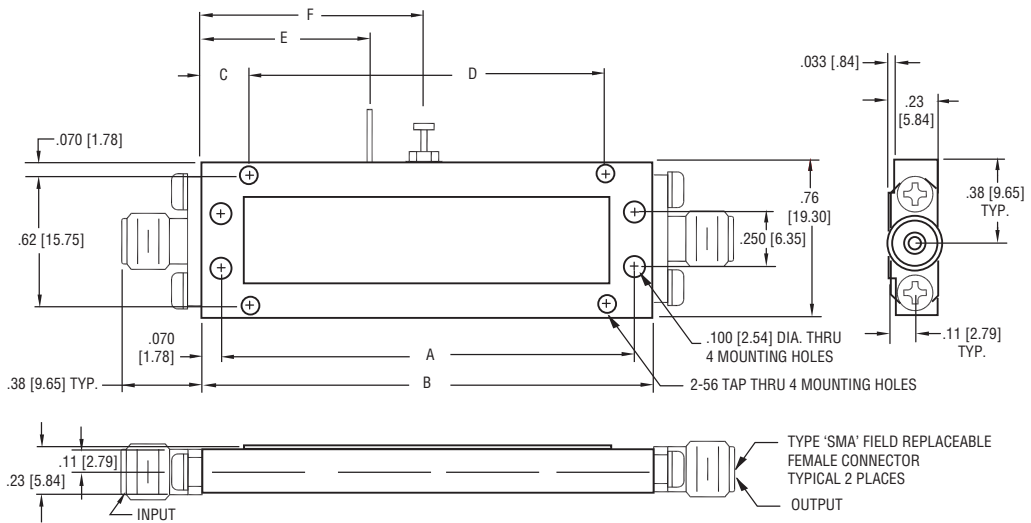


Outline

DRAWINGS

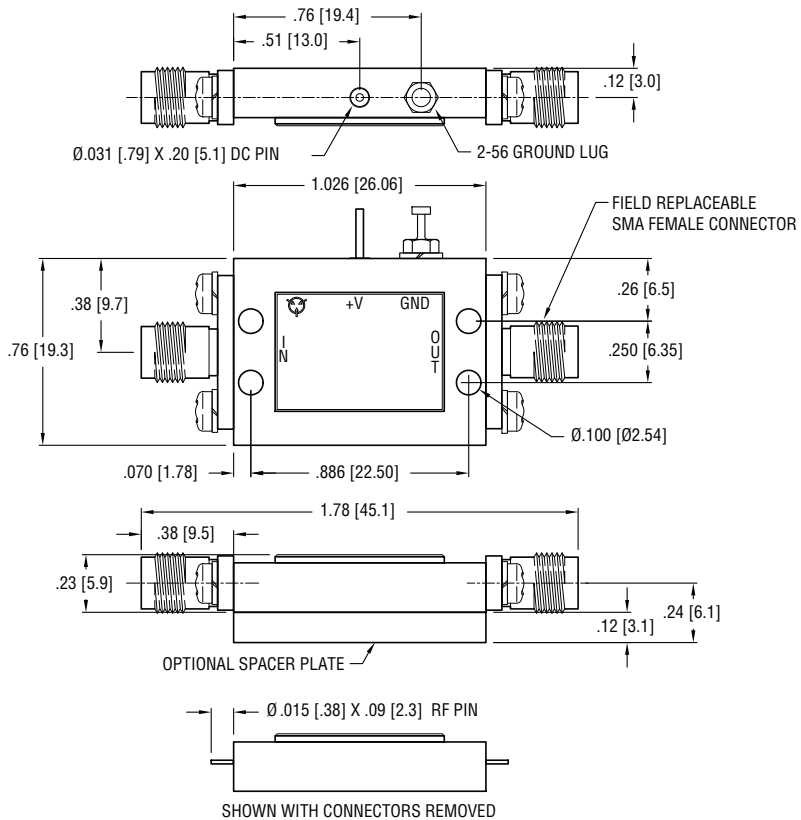
OUTLINE DRAWINGS

109174



TYPE	A DIM	B DIM	C DIM	D DIM	E DIM	F DIM
2 STAGE	.91 [23.1]	1.0 [25.4]	.22 [5.6]	.61 [15.5]	.40 [10.2]	.65 [16.5]
3 STAGE	1.2 [30.5]	1.3 [33.0]	.22 [5.6]	.86 [21.8]	.65 [16.5]	.95 [24.1]
4 STAGE	1.6 [40.6]	1.7 [43.2]	.22 [5.6]	1.3 [33.0]	.65 [16.5]	.95 [24.1]
5 STAGE	1.8 [45.7]	1.9 [48.3]	.22 [5.6]	1.5 [38.1]	.65 [16.5]	.95 [24.1]

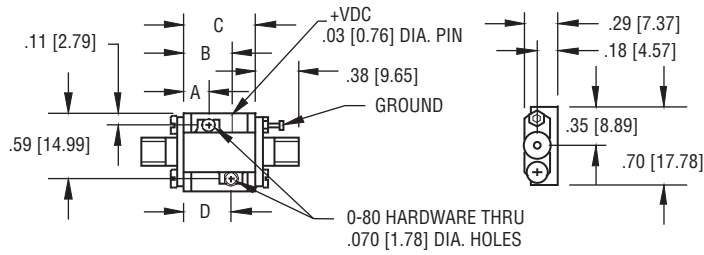
109888



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

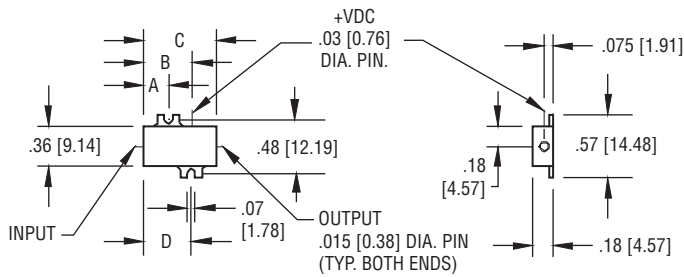
OUTLINE DRAWINGS (CONT.)

113384



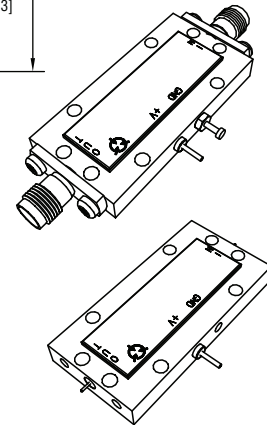
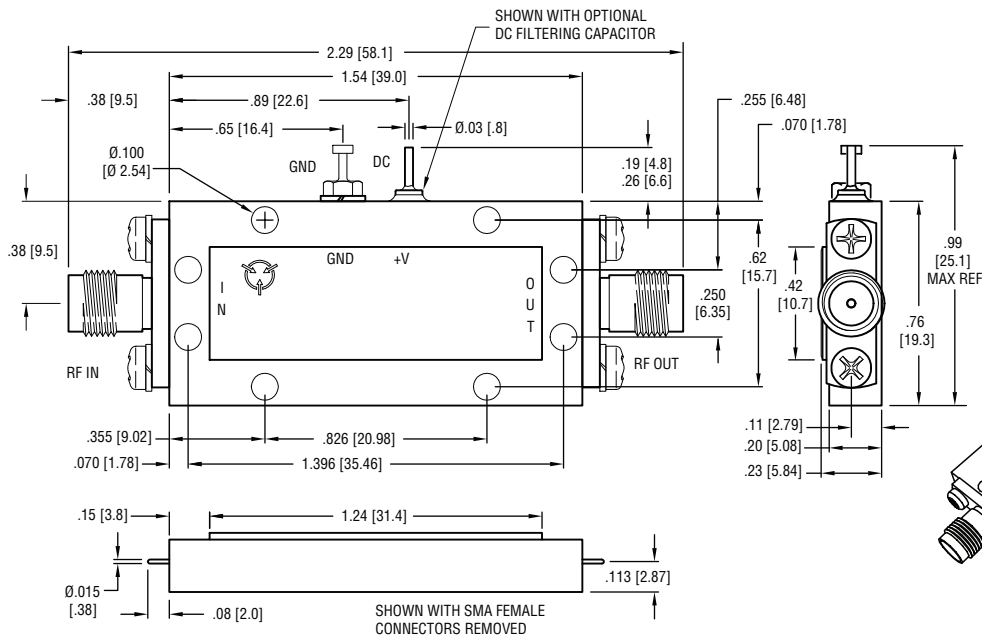
OPTION 1
AMPLIFIER MAY BE READILY USED AS IS, BY REMOVING EXISTING 0-80 HARDWARE AND SUBSTITUTING WITH LONGER 0-80 SCREWS FOR CUSTOMER MOUNTING

OPTION 2
OR AS A "DROP-IN" AMPLIFIER BY REMOVING "SMA" CONNECTORS MOUNTING HARDWARE



TYPE	A DIM	B DIM	C DIM	D DIM
2 STAGE	.16 [4.1]	.28 [7.1]	.43 [10.9]	.27 [6.9]
3 STAGE	.16 [4.1]	.32 [8.1]	.53 [13.5]	.38 [9.7]
4 STAGE	.22 [5.6]	.43 [10.9]	.64 [16.3]	.42 [10.7]
5 STAGE	.22 [5.6]	.53 [13.5]	.75 [19.1]	.53 [13.5]
6 STAGE	.22 [5.6]	.64 [16.3]	.86 [21.8]	.64 [16.3]
7 STAGE	.22 [5.6]	.75 [19.1]	.97 [24.6]	.75 [19.1]
8 STAGE	.22 [5.6]	.86 [21.8]	1.07 [27.2]	.86 [21.8]

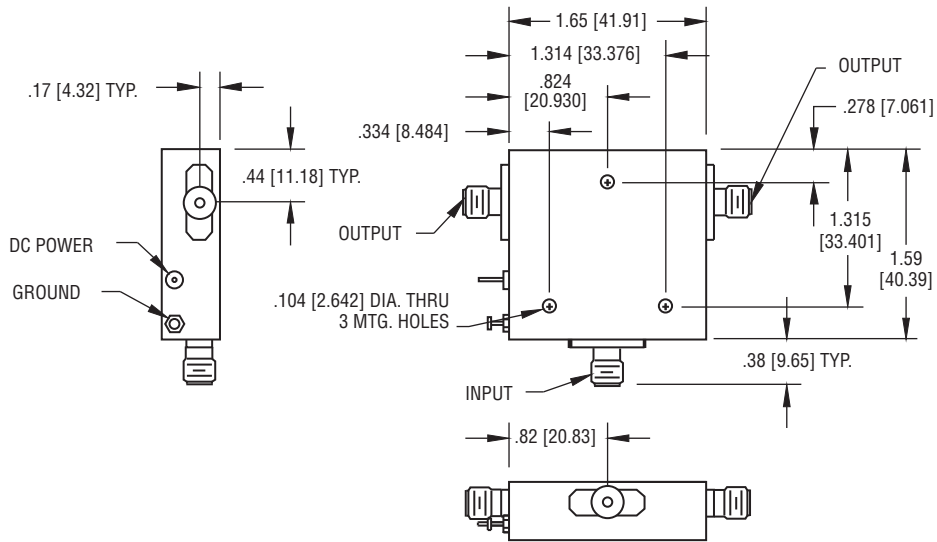
113427



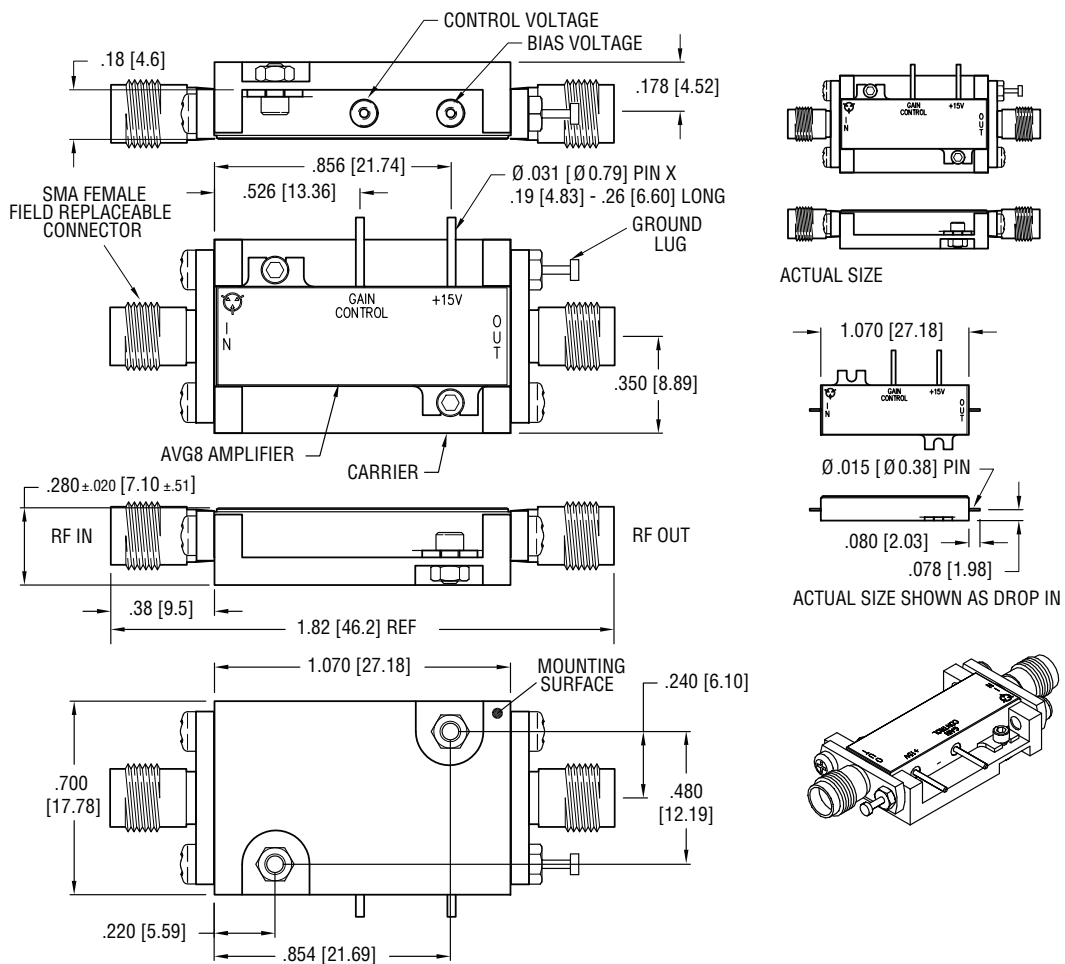
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

116630



119393

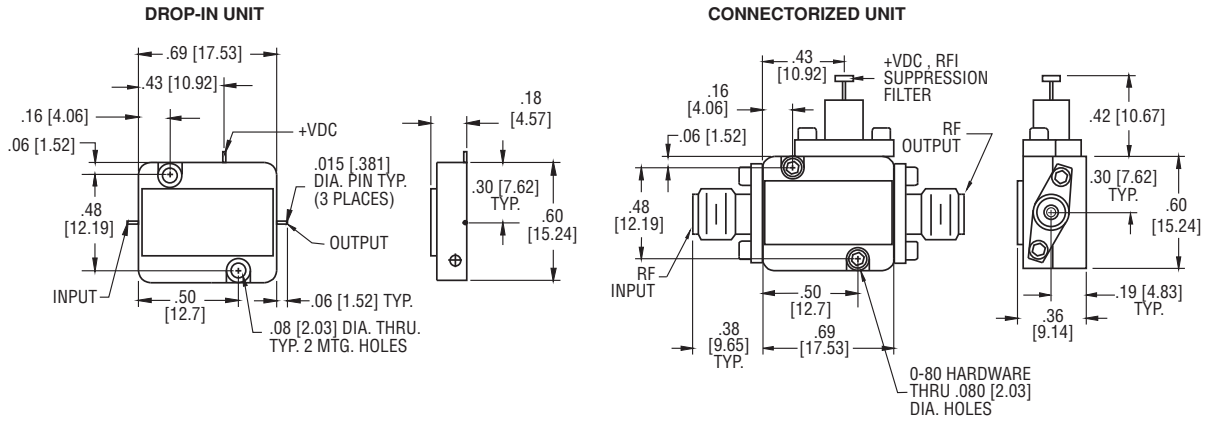


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

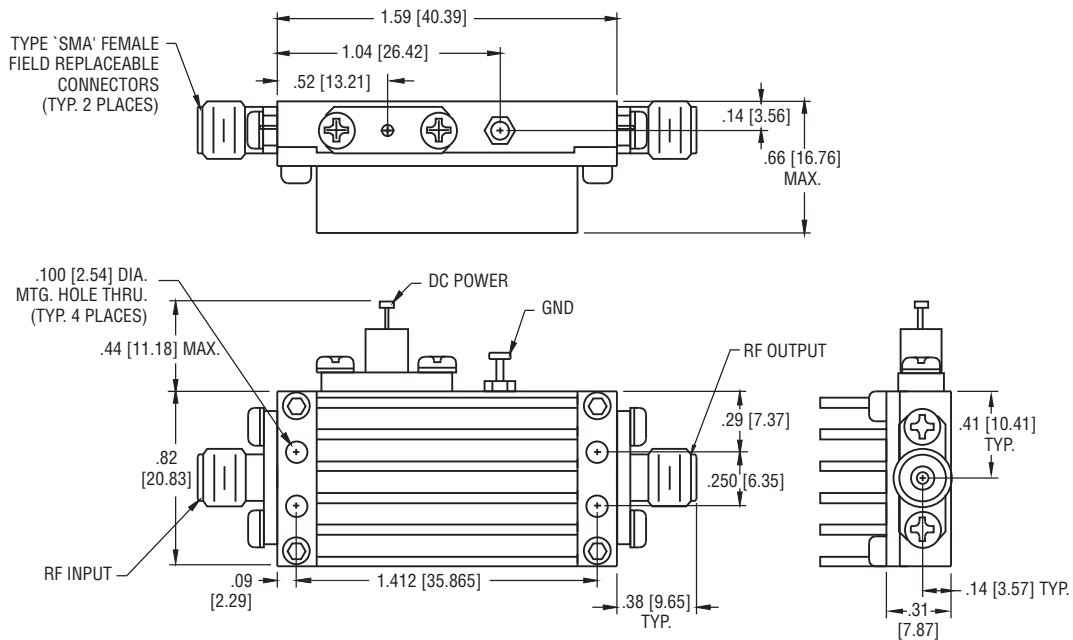


OUTLINE DRAWINGS (CONT.)

120175



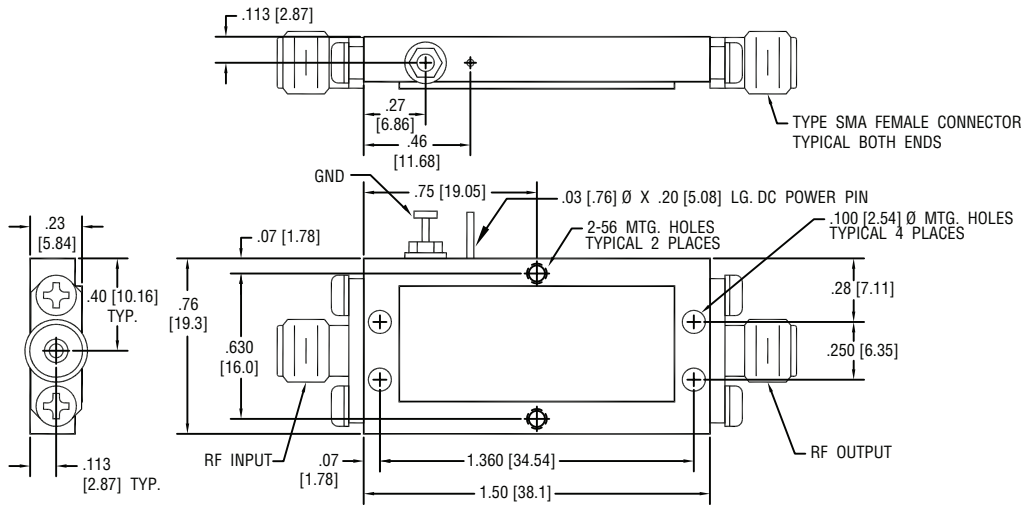
121045



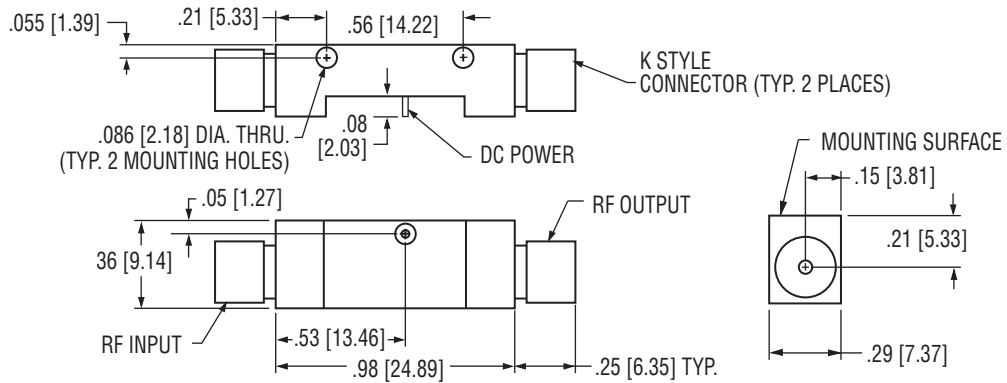
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

122987



125424

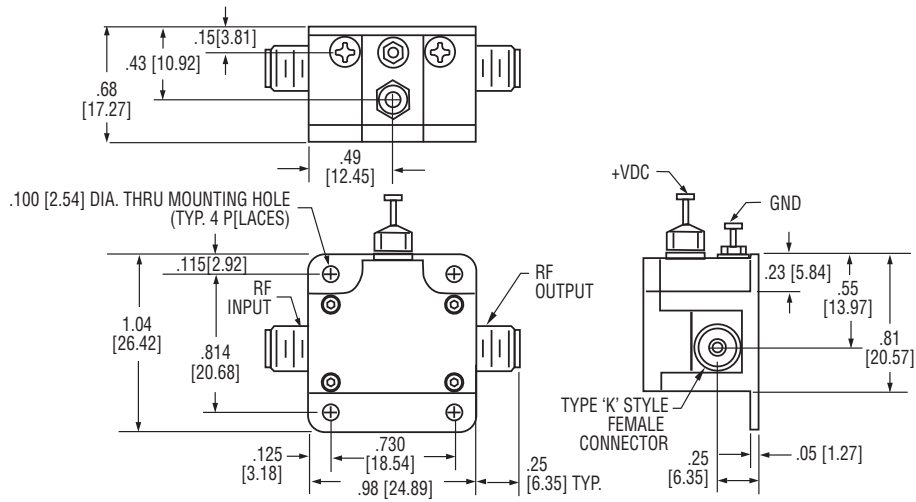


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

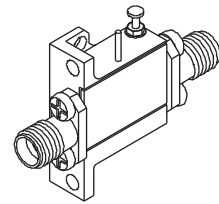
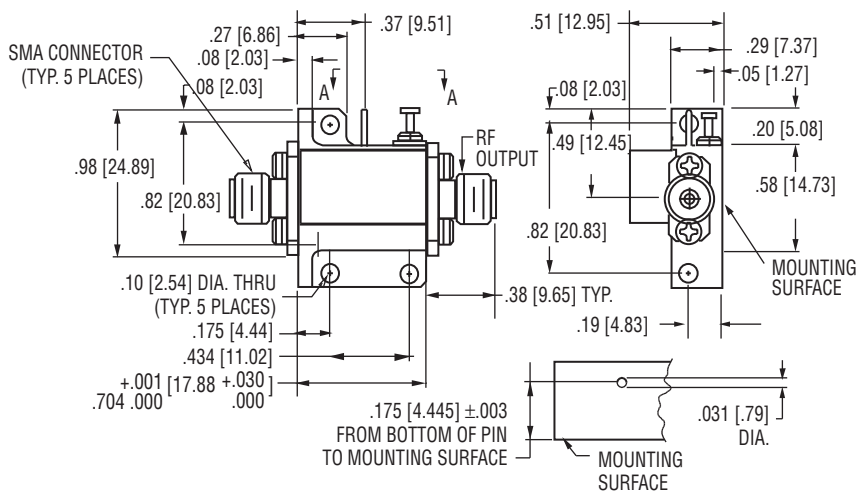


OUTLINE DRAWINGS (CONT.)

125424-1



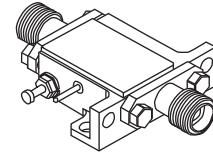
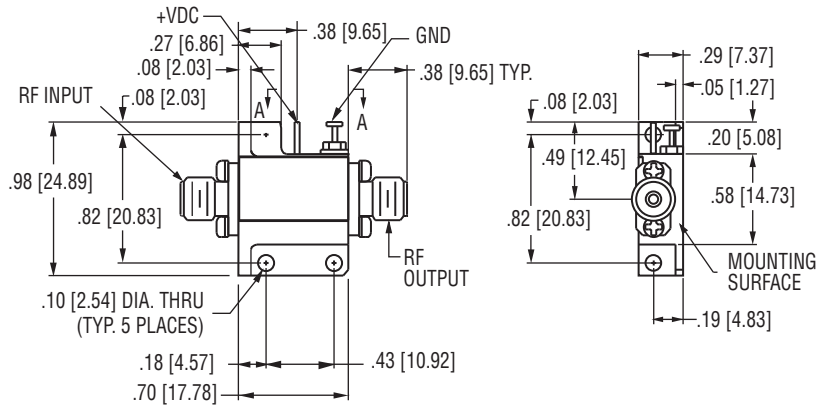
127122



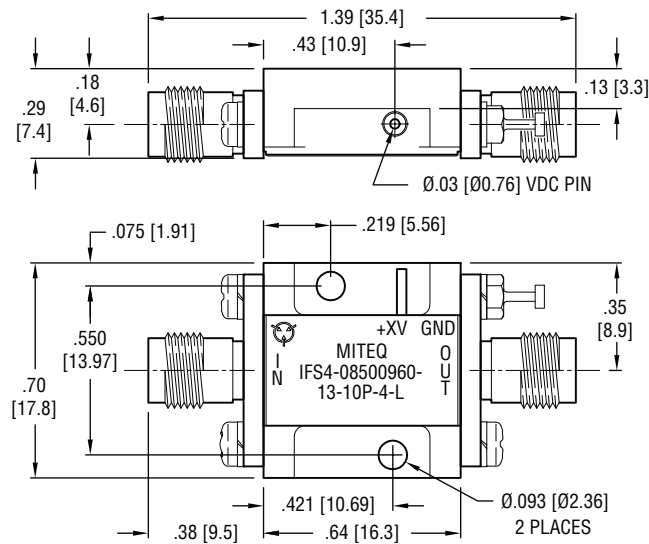
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

127140



127362

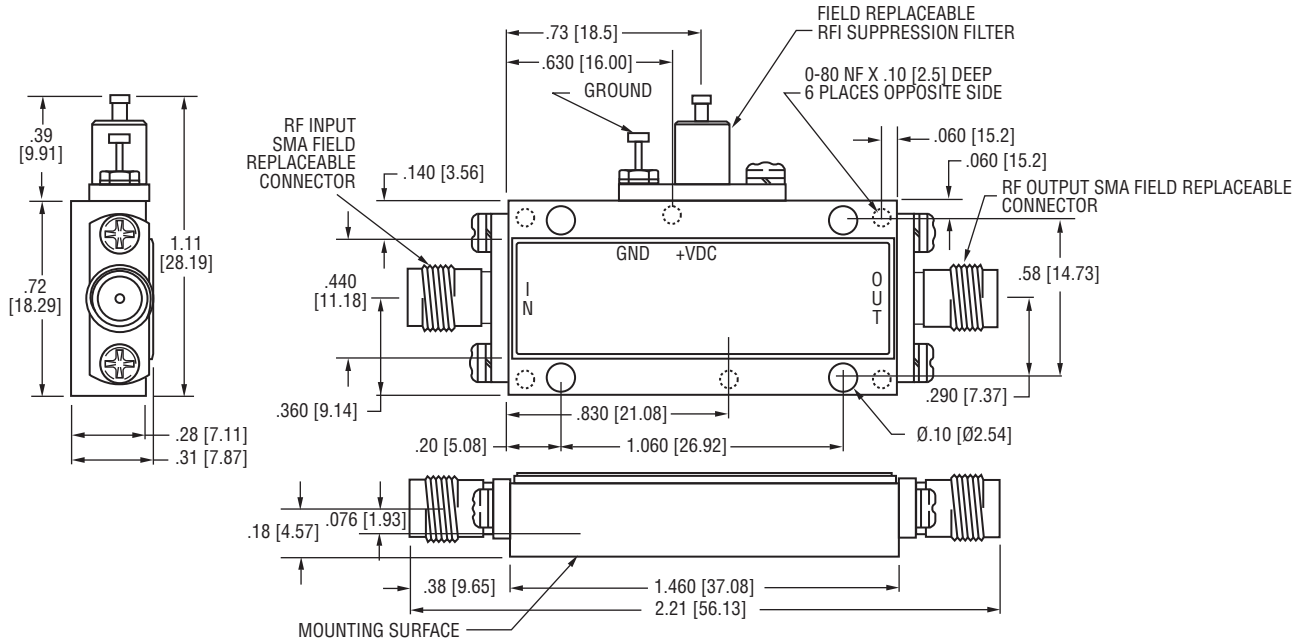


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

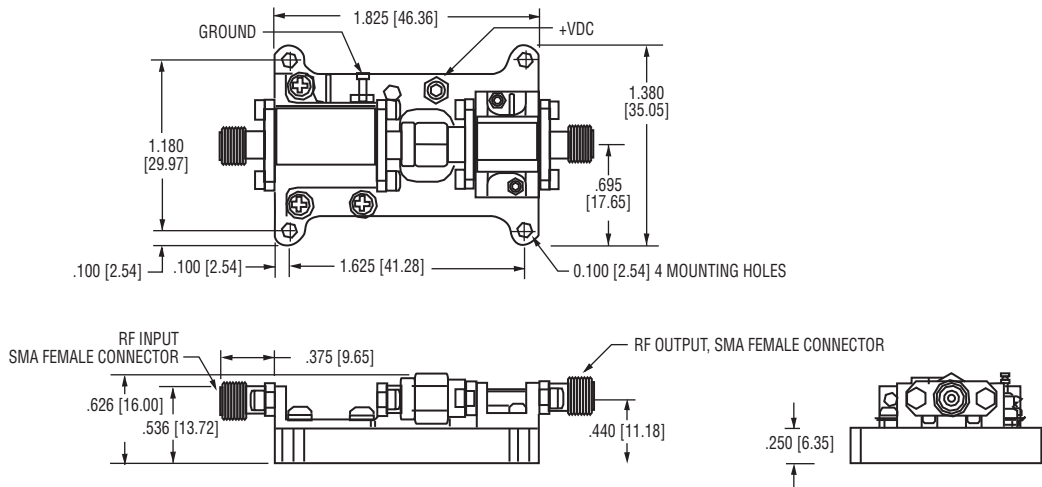


OUTLINE DRAWINGS (CONT.)

127651



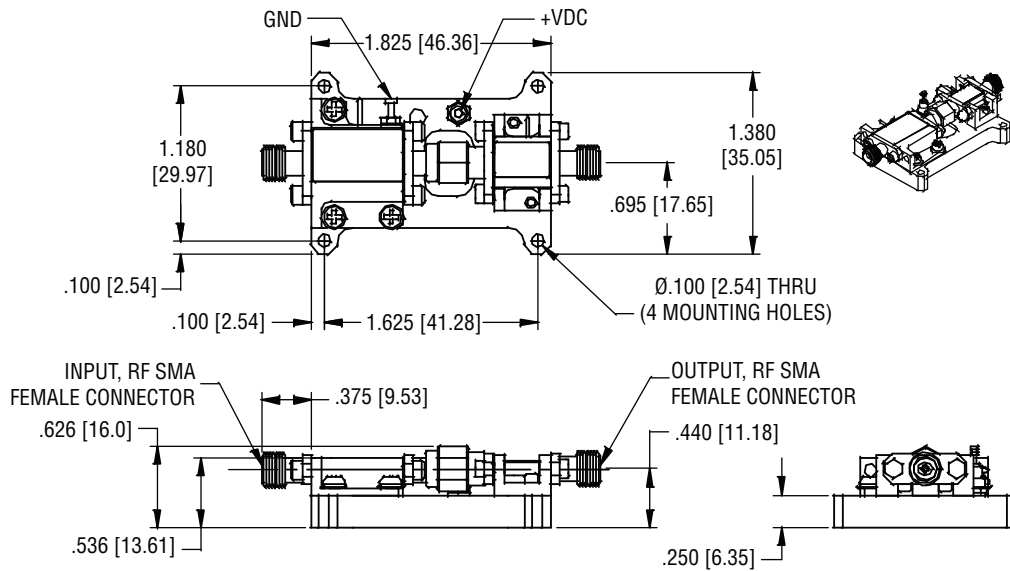
127846



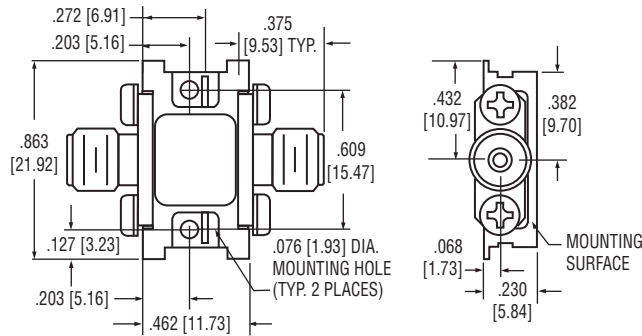
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

127864



128446

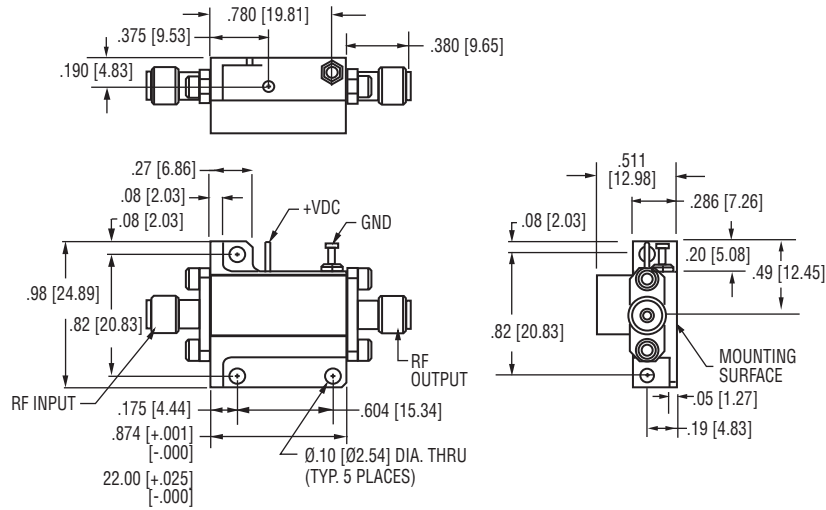


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

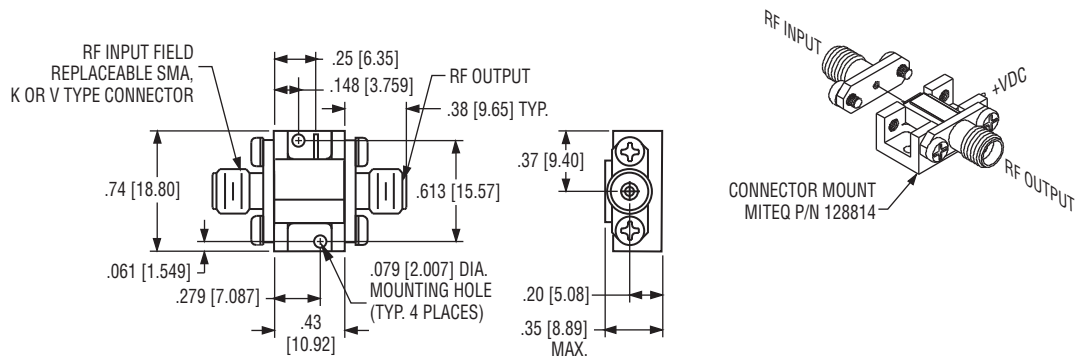


OUTLINE DRAWINGS (CONT.)

128553



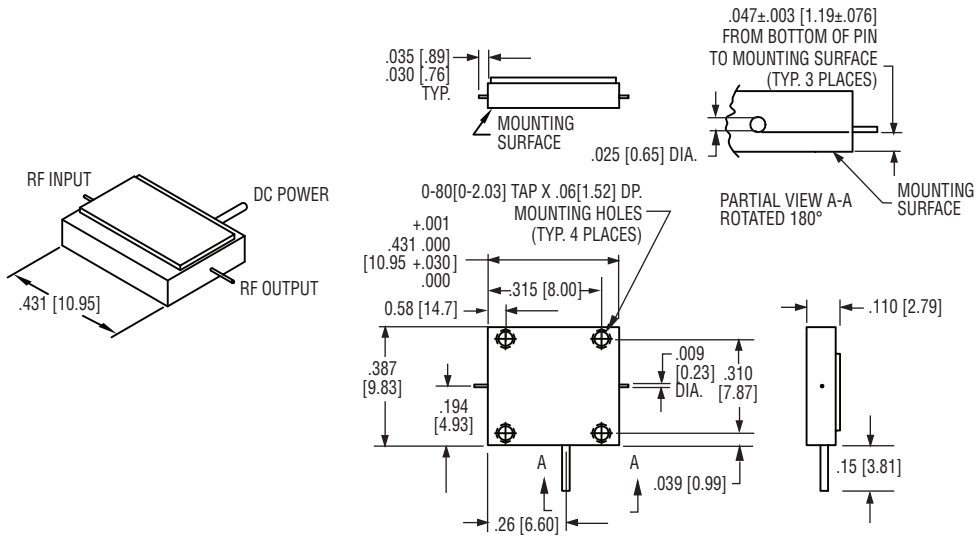
128749



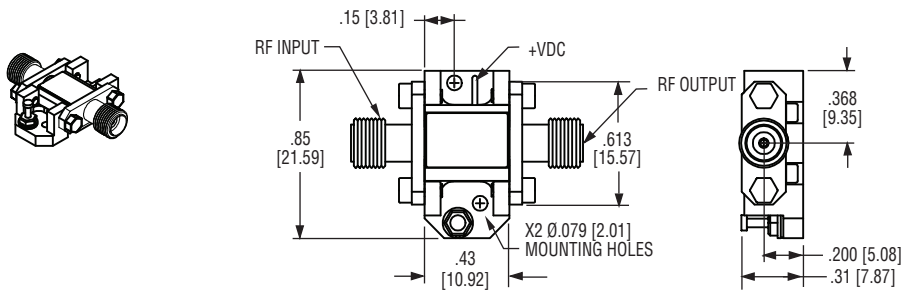
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

128749-1



128749-2

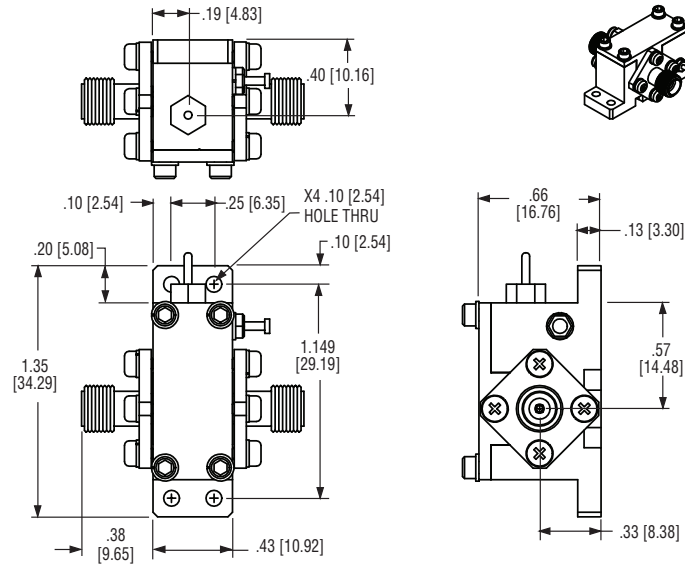


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

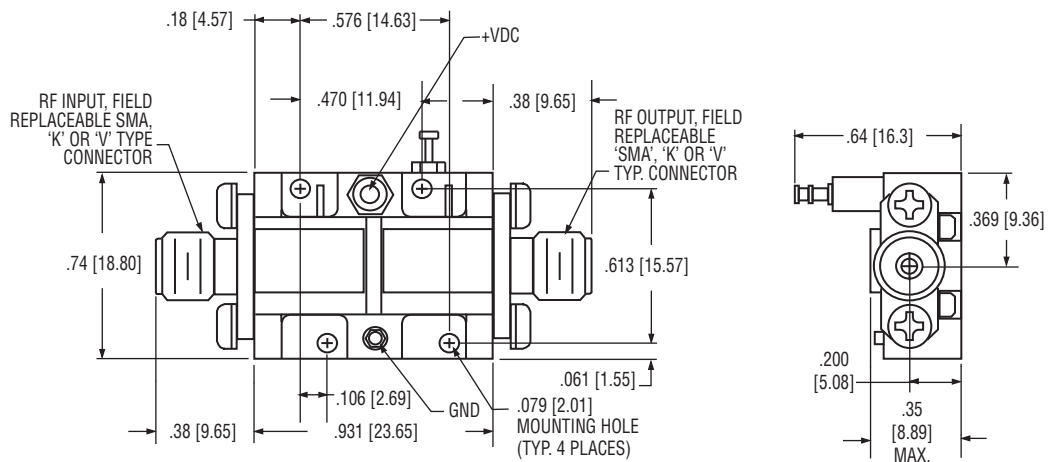


OUTLINE DRAWINGS (CONT.)

128749-3



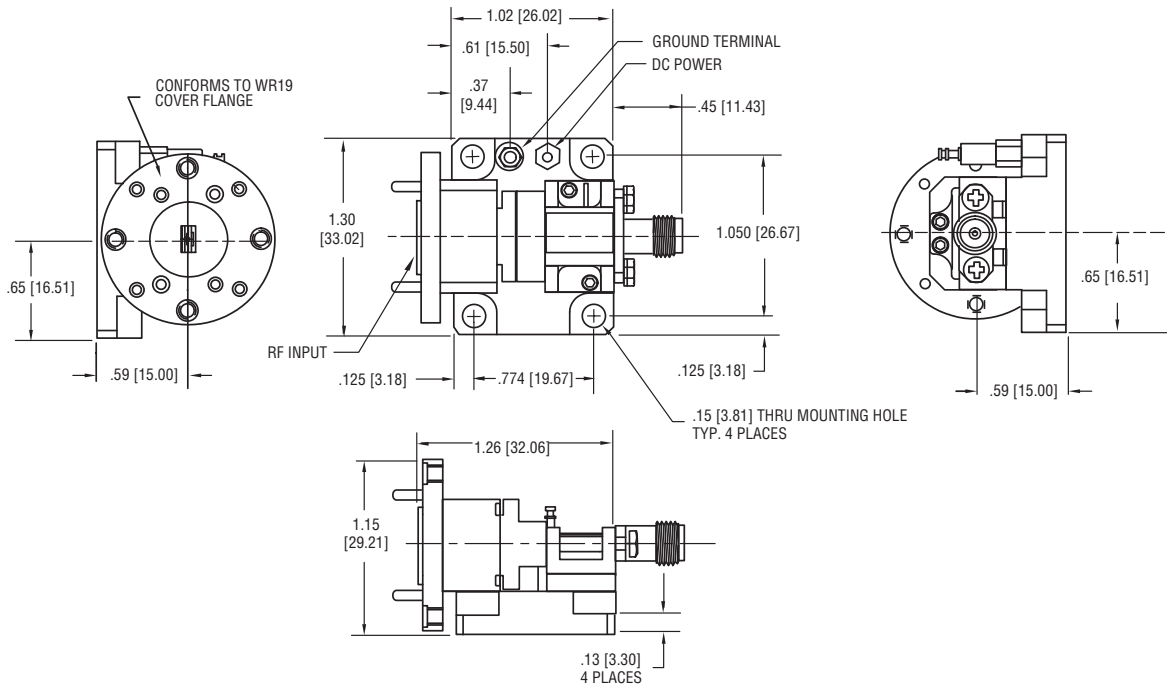
129007



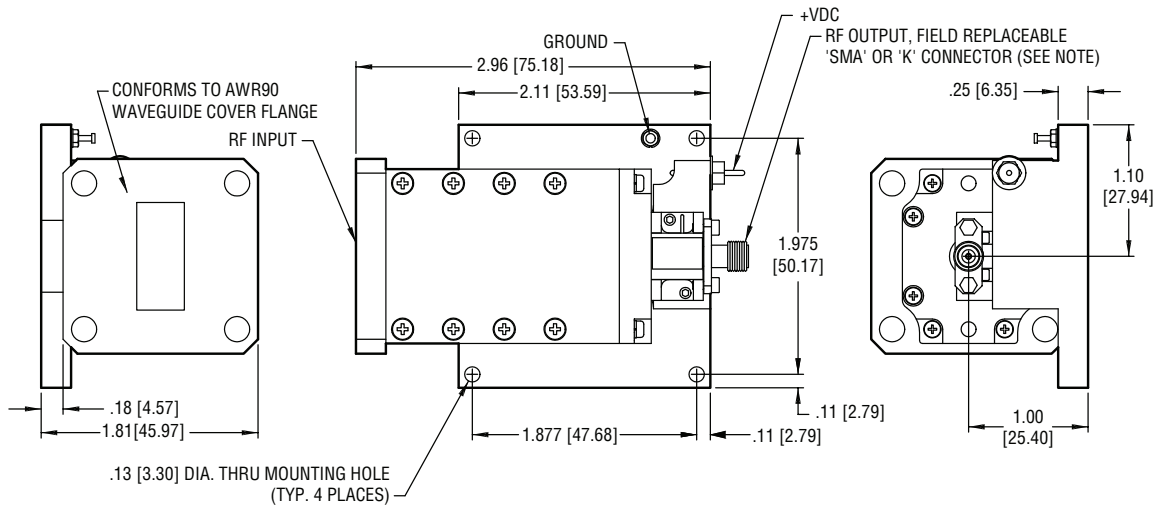
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

129013



129698



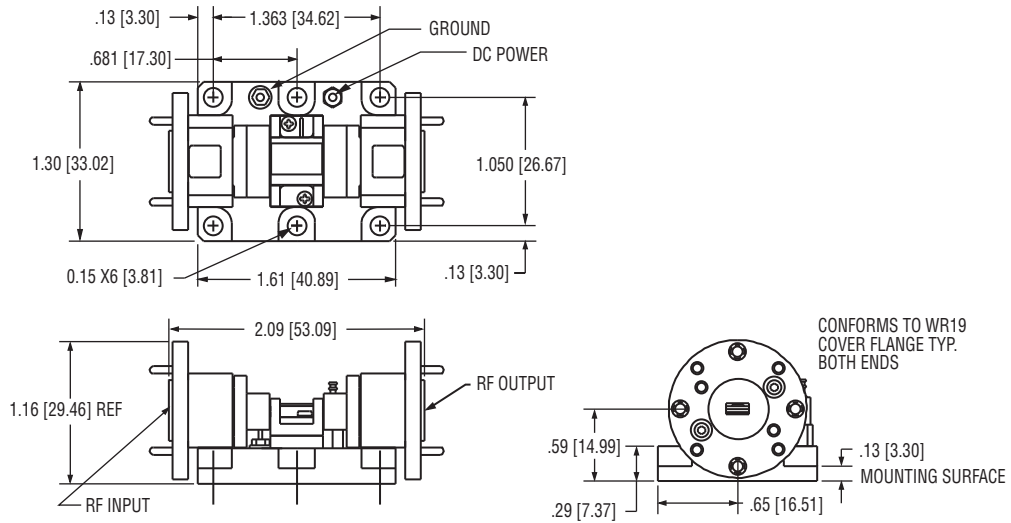
NOTE: OPTION: 'SMA' OR 'K' MALE TYPE CONNECTOR.

NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

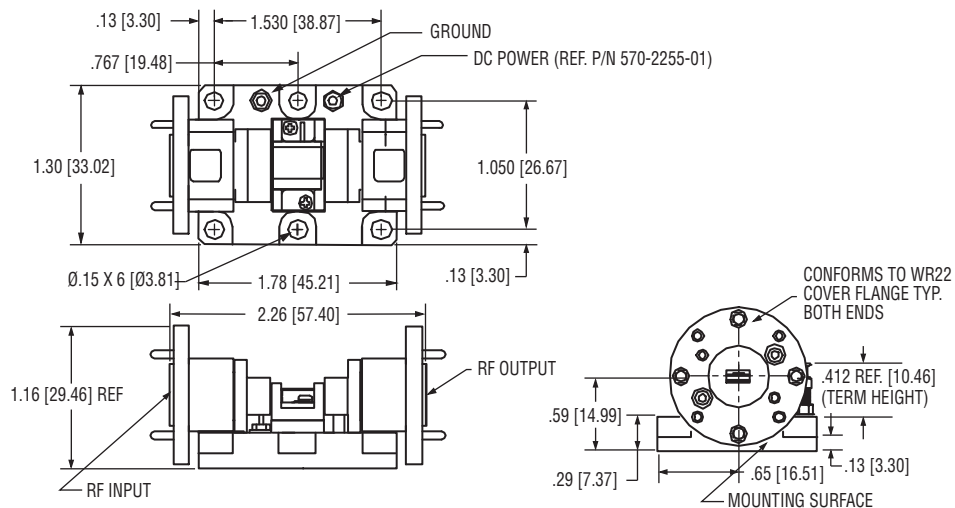


OUTLINE DRAWINGS (CONT.)

130001



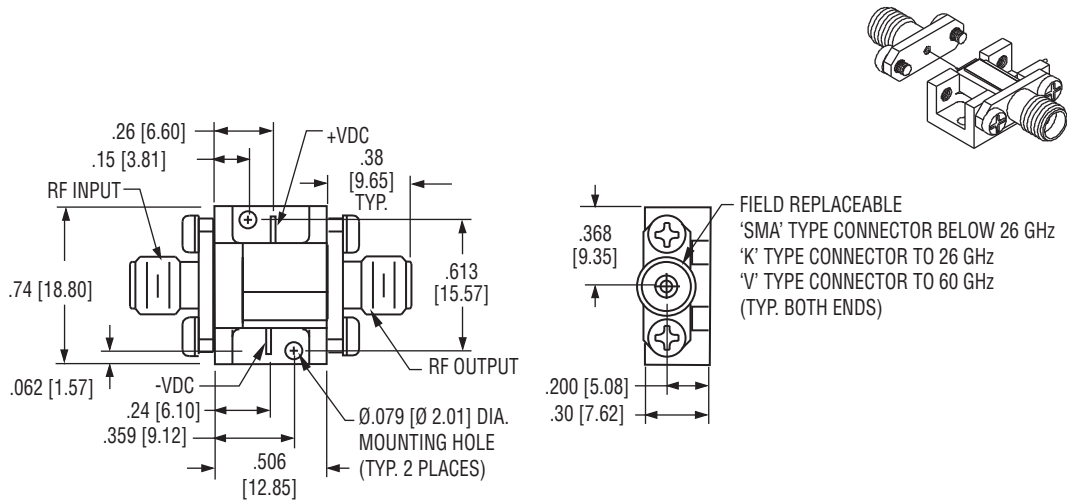
130002



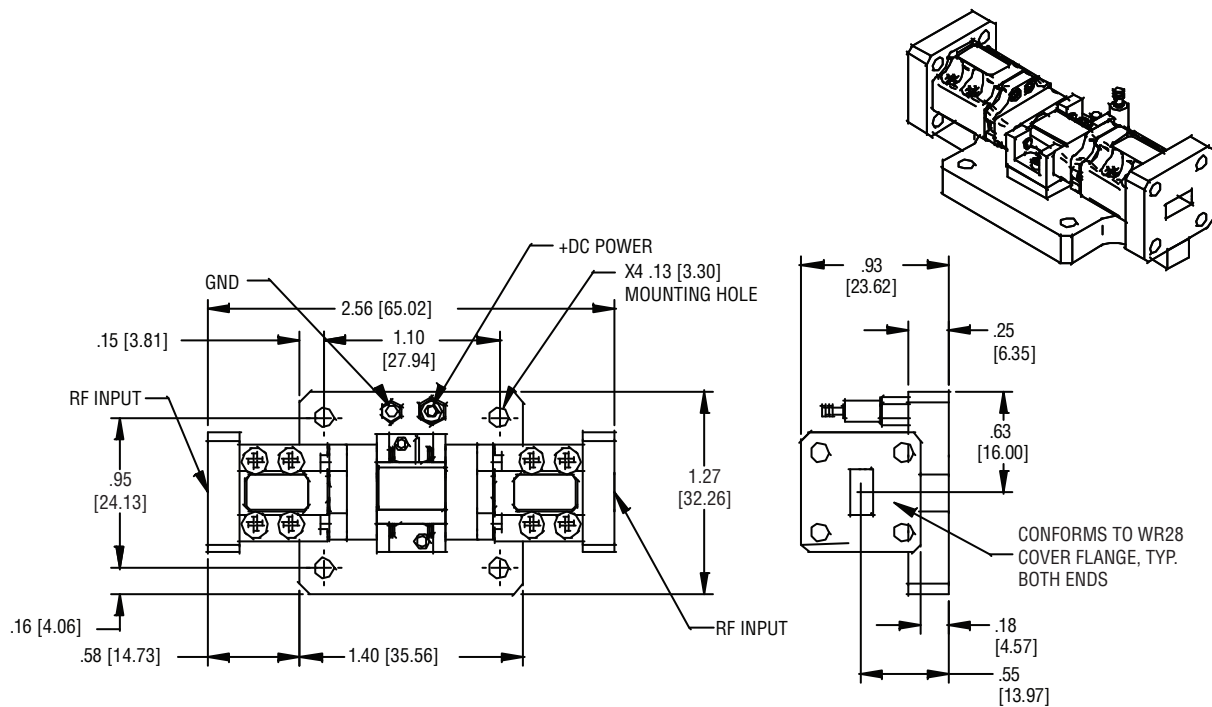
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

131484



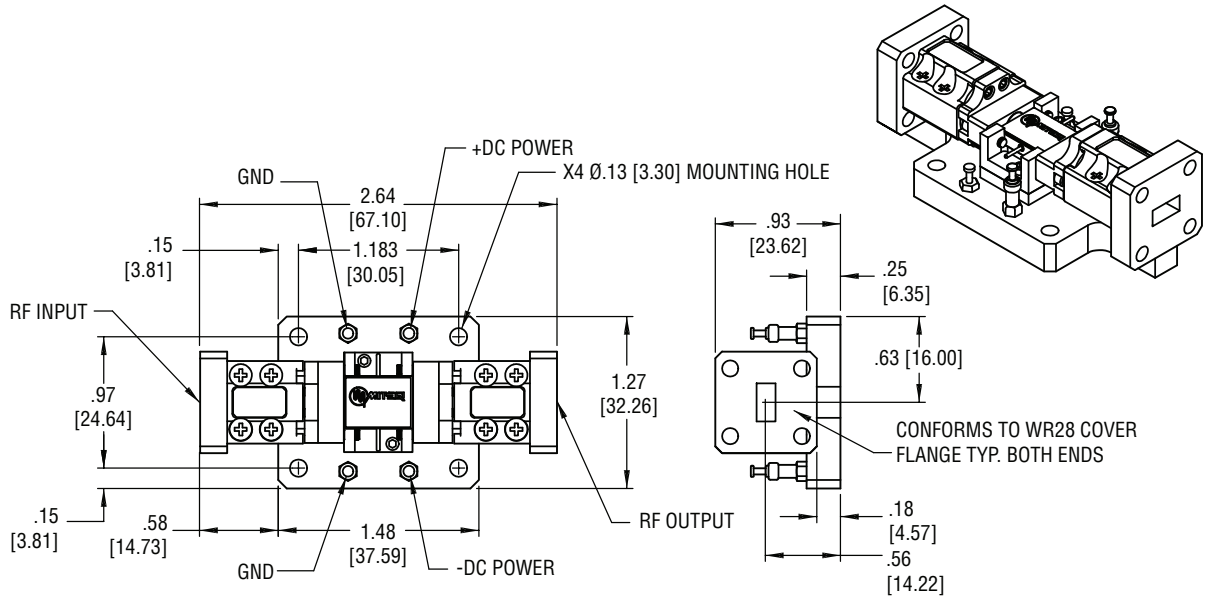
132076



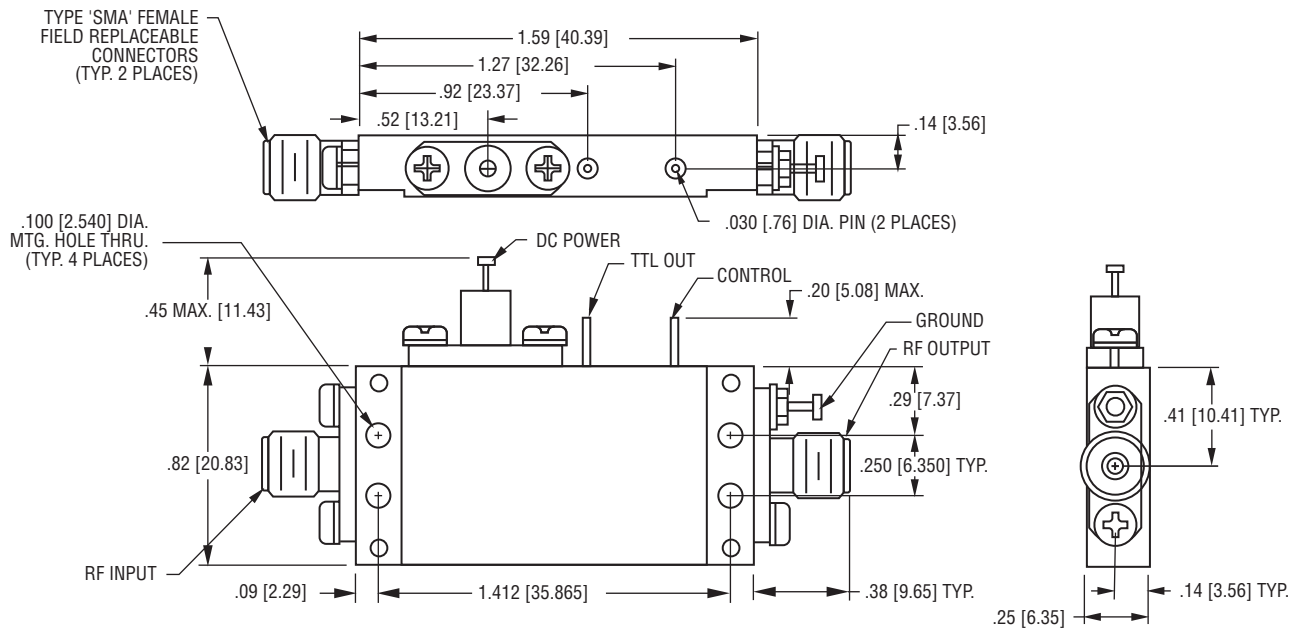
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

132079



132155

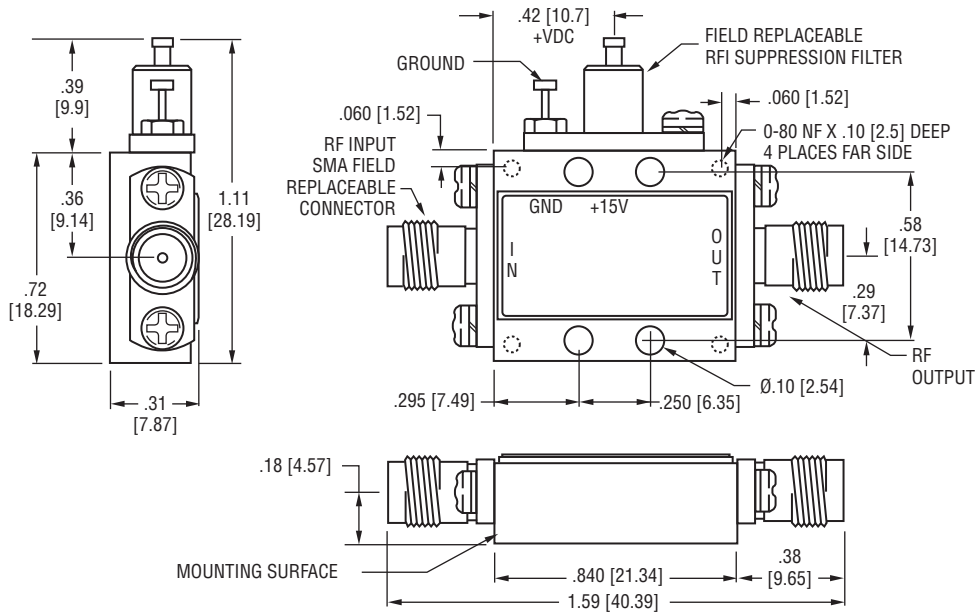


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

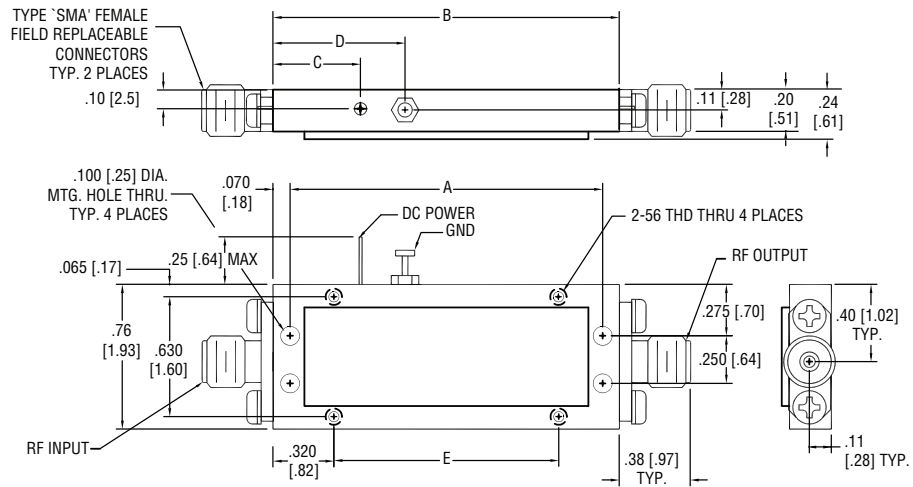


OUTLINE DRAWINGS (CONT.)

132485



133554

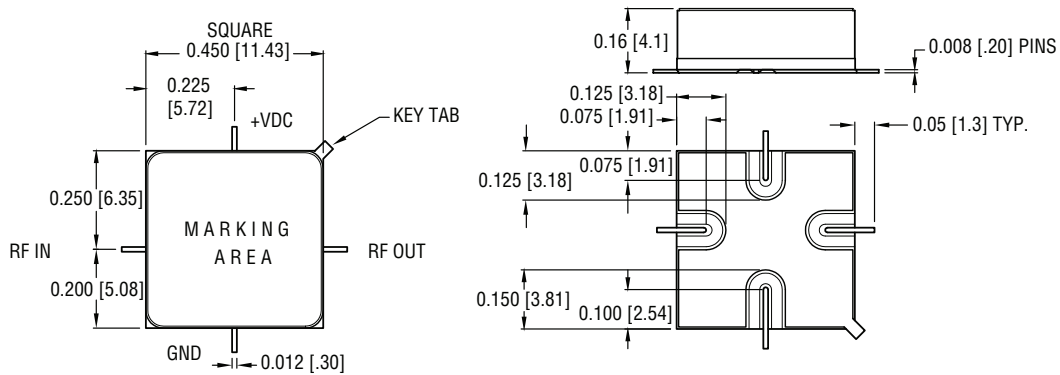


TYPE	A DIM	B DIM	C DIM	D DIM	E DIM
4 STAGE	1.688 [42.88]	1.83 [46.5]	.46 [11.7]	.69 [17.5]	1.188 [30.18]
5 STAGE	1.996 [50.70]	2.14 [54.9]	.46 [11.7]	.69 [17.5]	1.496 [38.00]

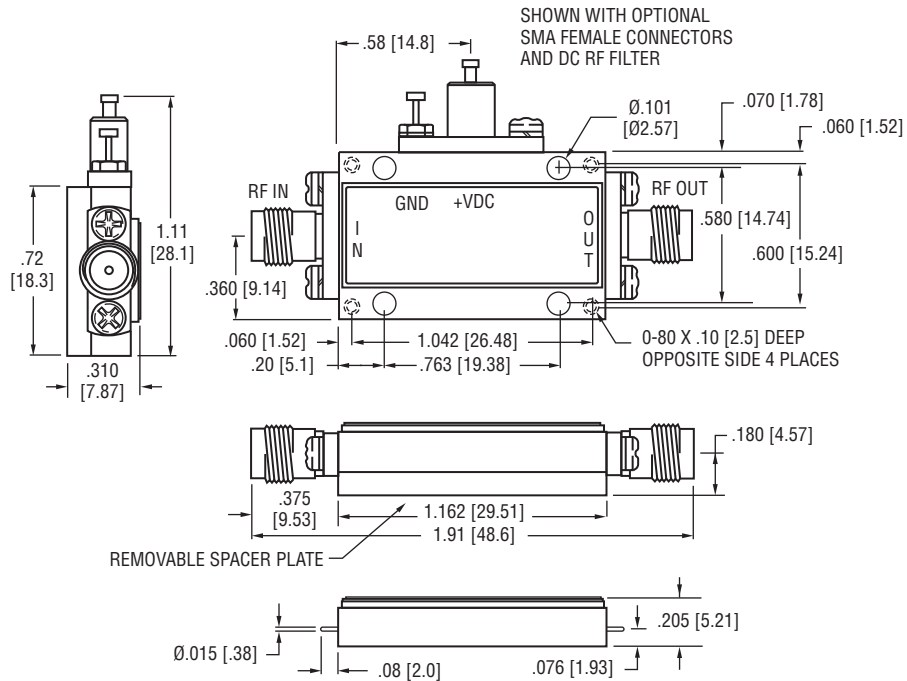
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

133720



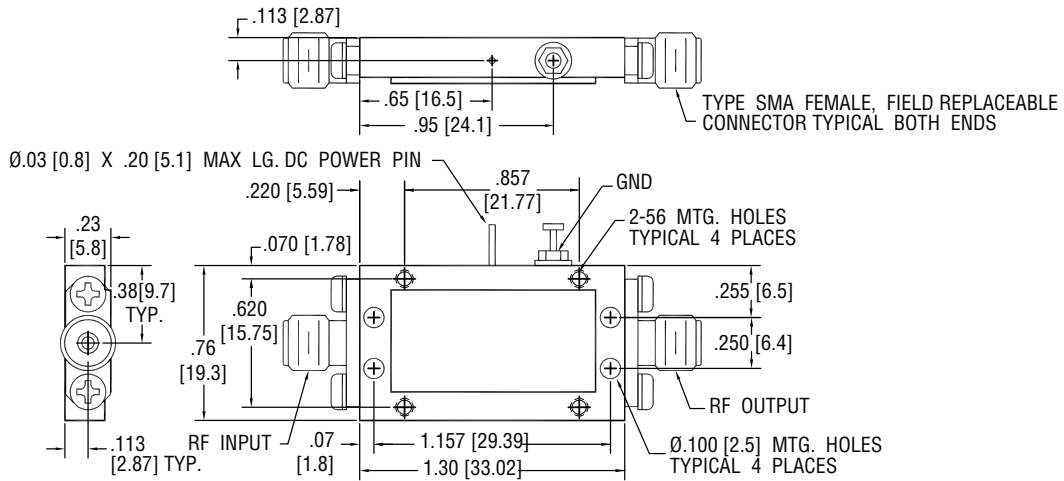
134923



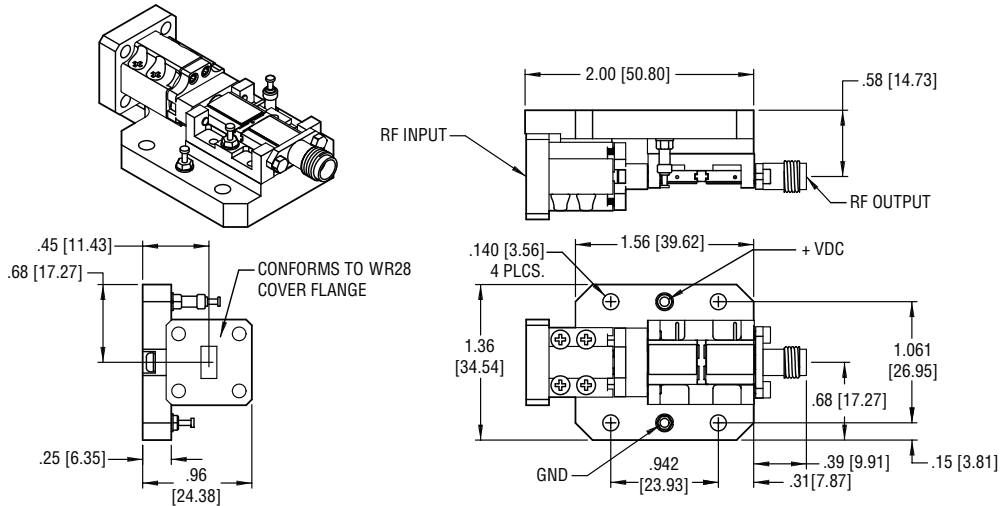
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

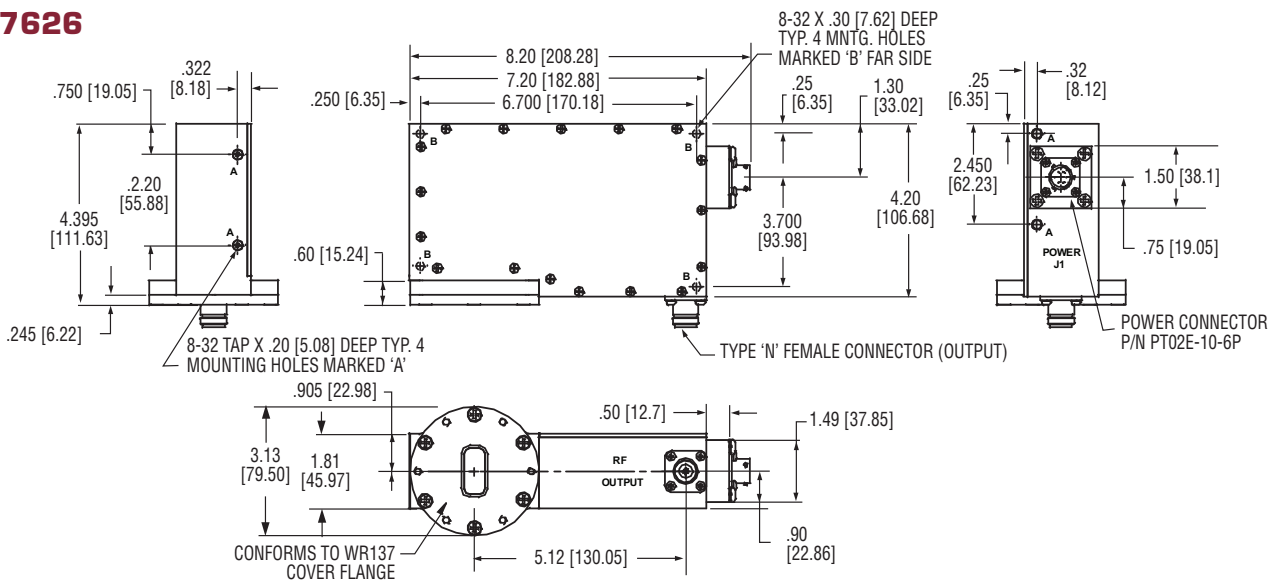
134972



137623



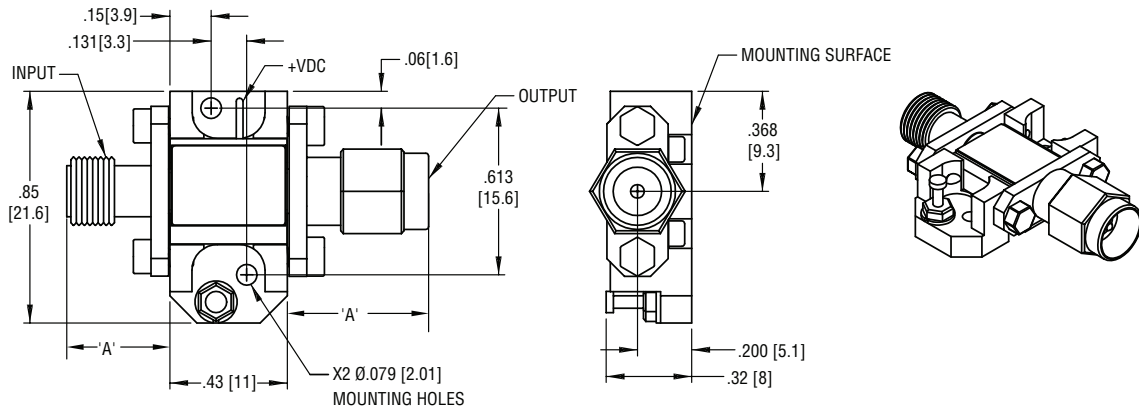
137626



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

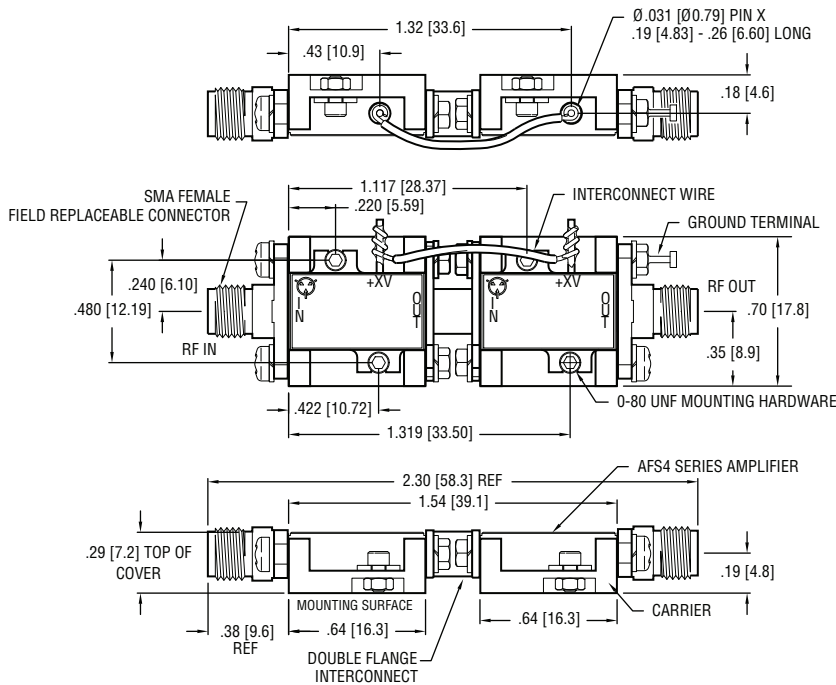
OUTLINE DRAWINGS (CONT.)

138658



TYPE	DIM A-FEMALE	DIM A-MALE
SMA	.38 [9.7]	.51 [12.9]
K	.38 [9.7]	.51 [12.9]
V	.45 [11.5]	.49 [12.4]

140941



- NOTES:
 1. MARKING MAY VARY AS PER CUSTOMER SPECIFICATIONS.
 2. EXISTING 0-80 MOUNTING HARDWARE CAN BE REPLACED WITH LONGER SCREWS FOR MOUNTING.

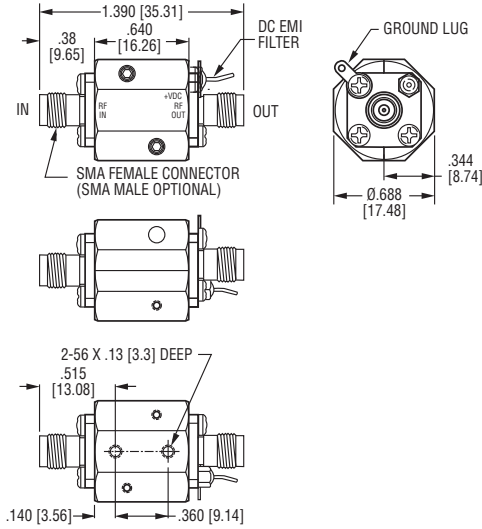
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.



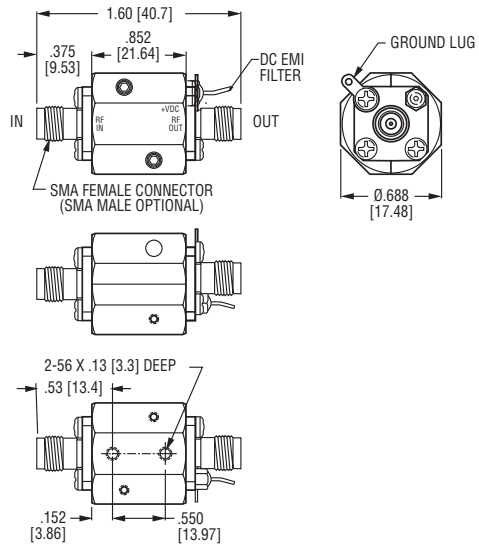
OUTLINE DRAWINGS (CONT.)

141108

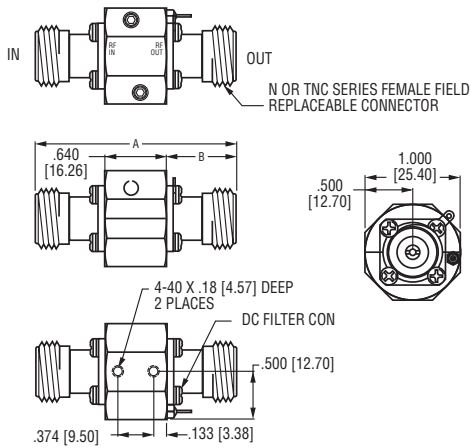
**SMA VERSION
AFSX-4**



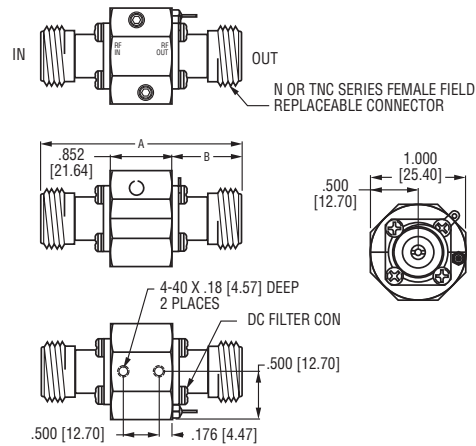
**SMA VERSION
AFSX-6**



**N/TNC VERSION
AFSX-4N OR T**



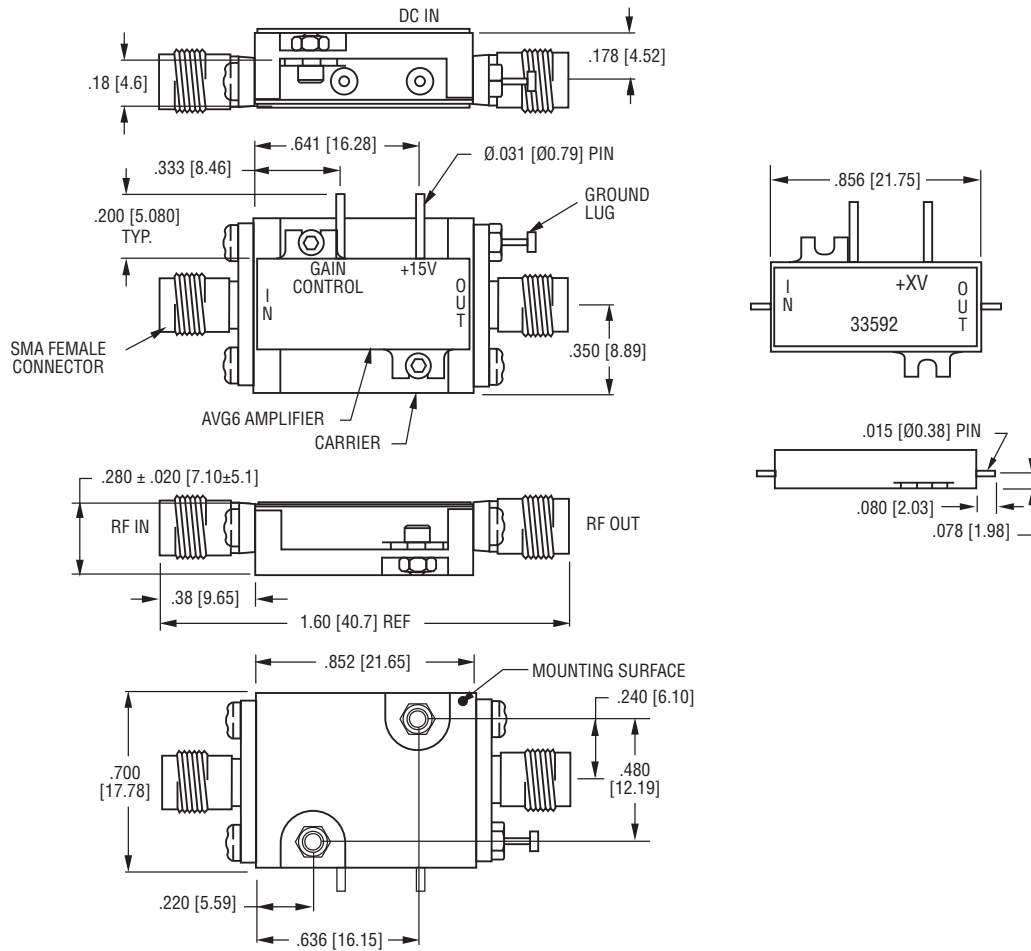
**N/TNC VERSION
AFSX-6N OR T**



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

142051

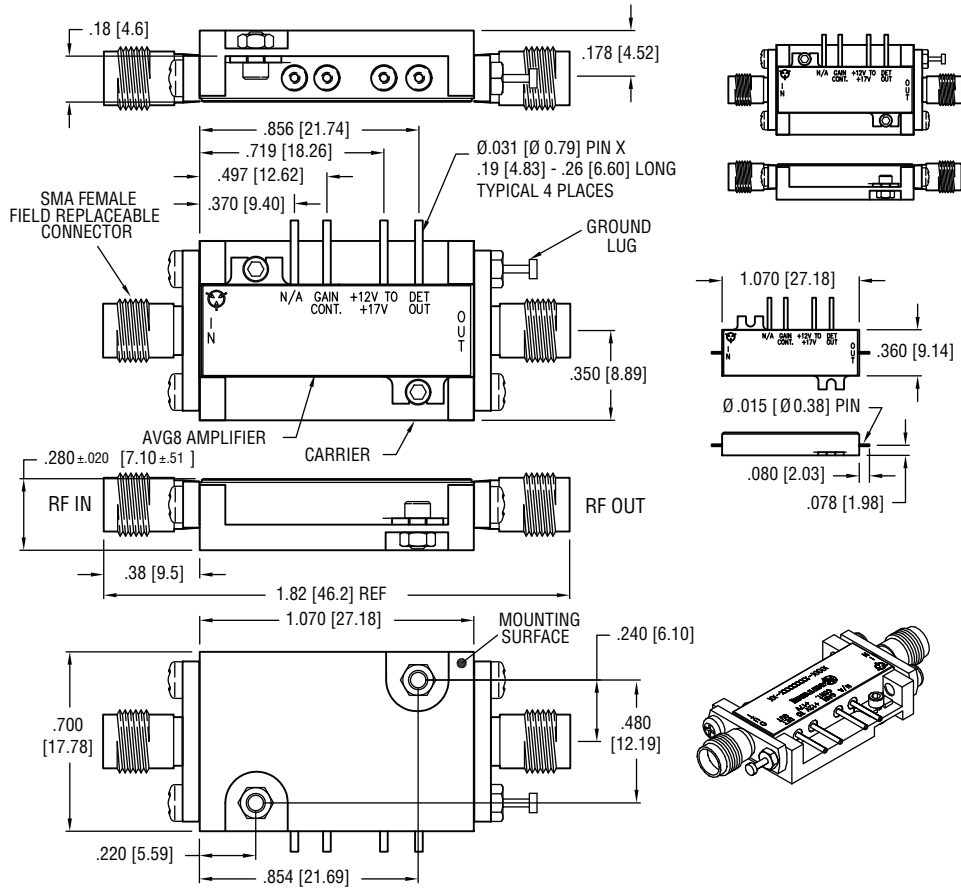


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

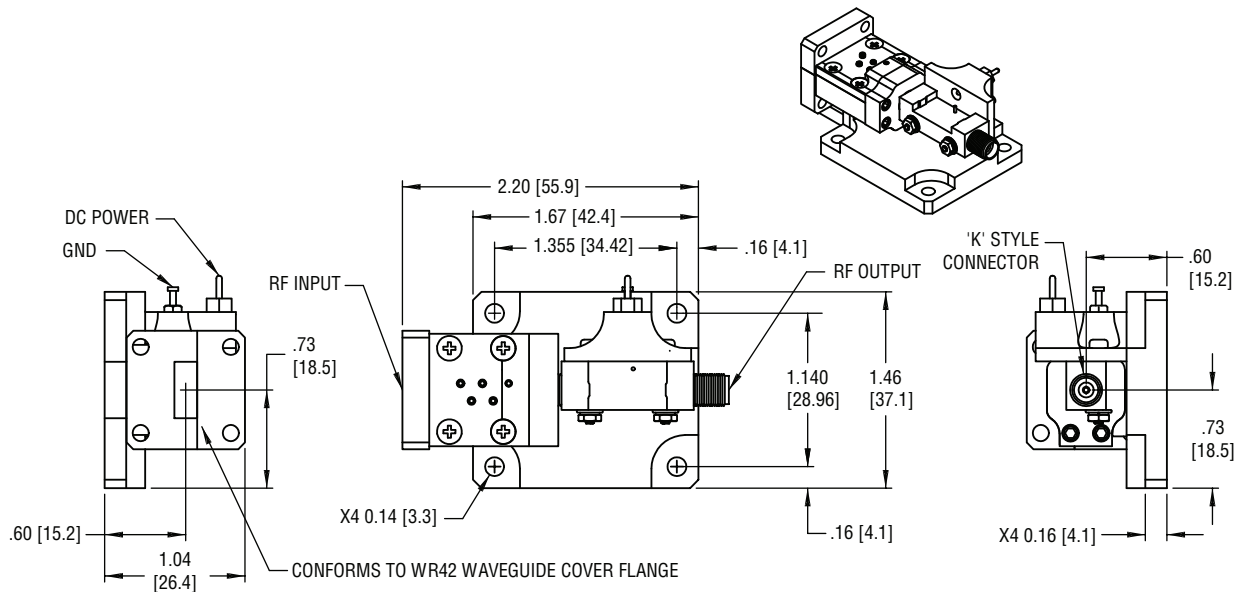


OUTLINE DRAWINGS (CONT.)

142299



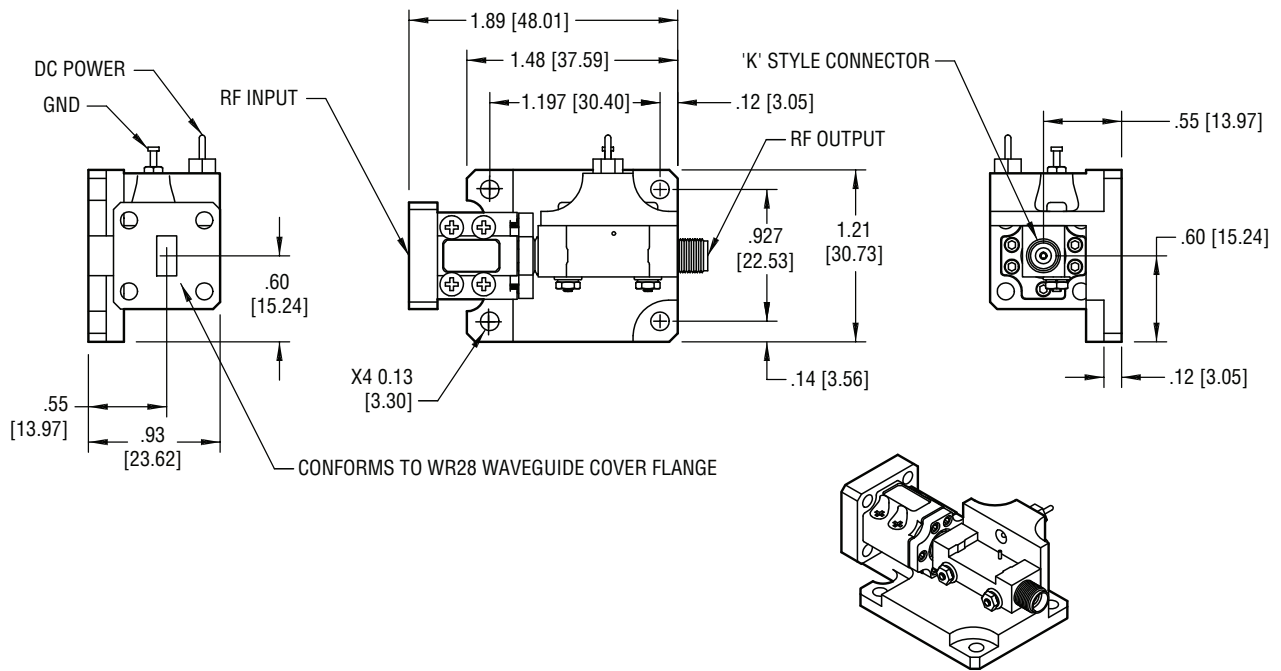
142455



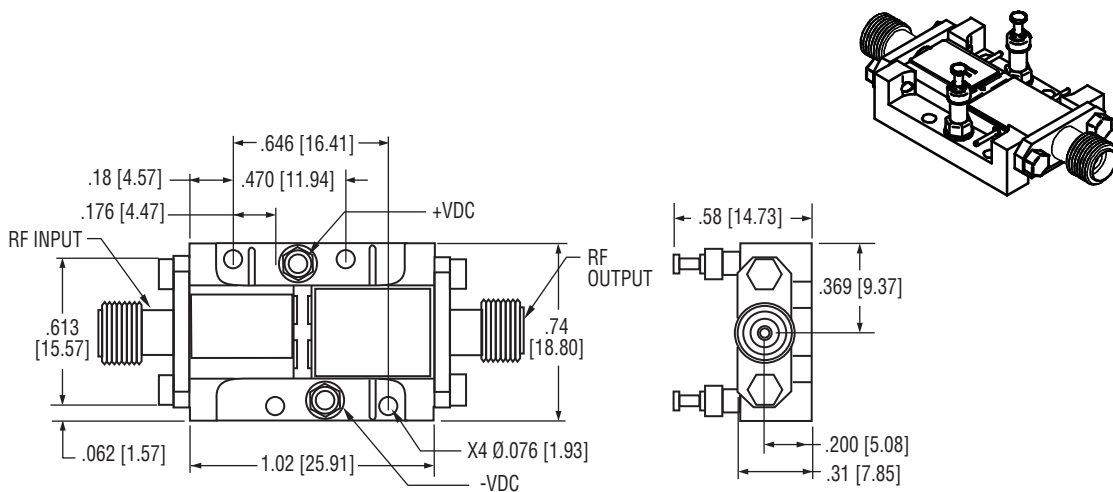
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

142463



144663

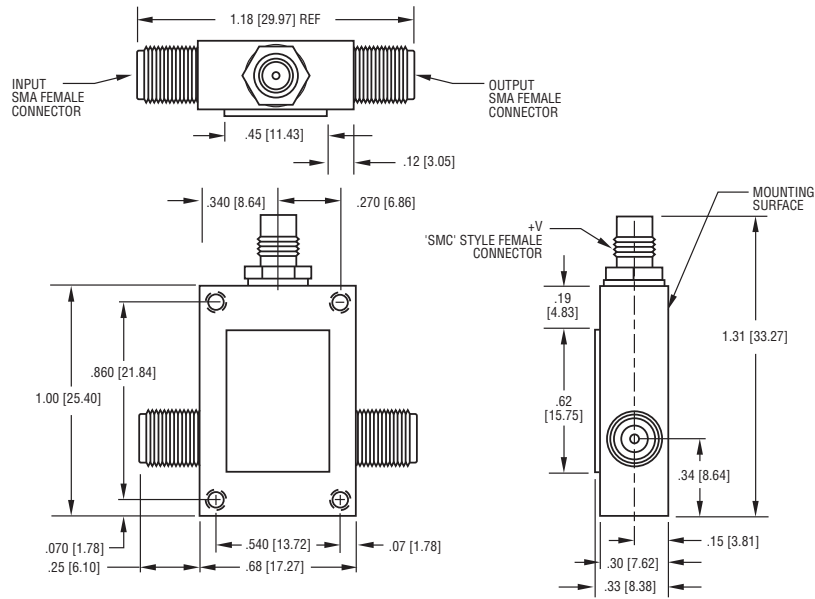


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

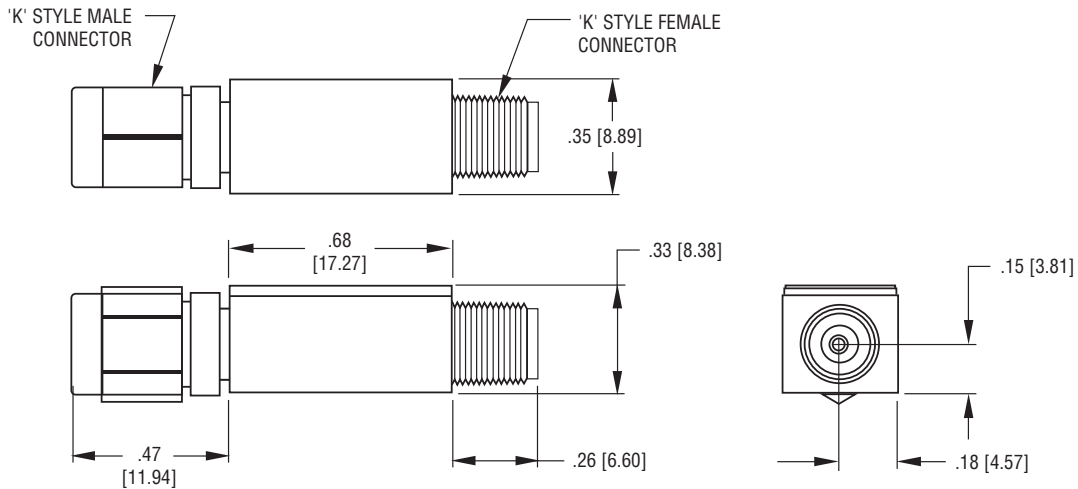


OUTLINE DRAWINGS (CONT.)

145306



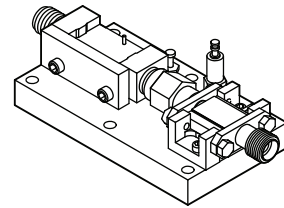
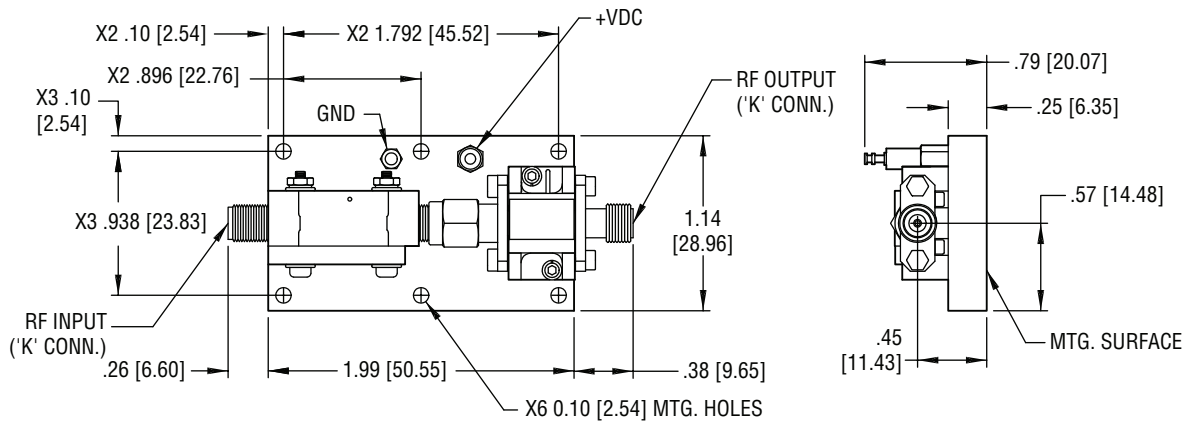
145573



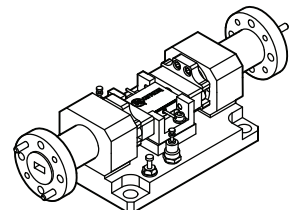
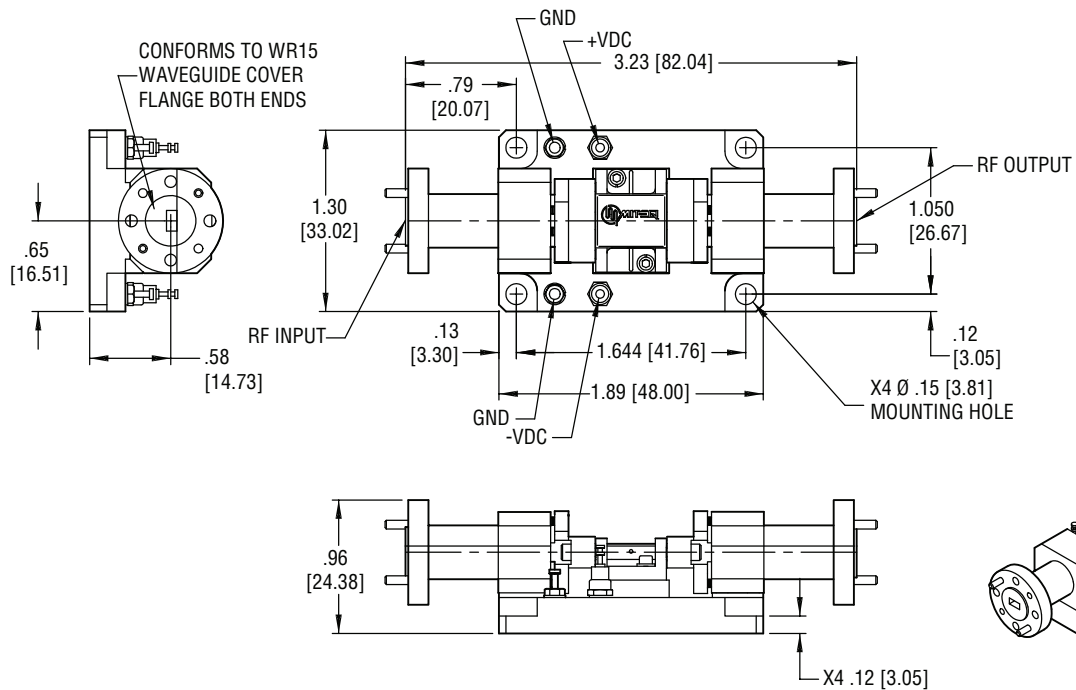
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

147321



148727

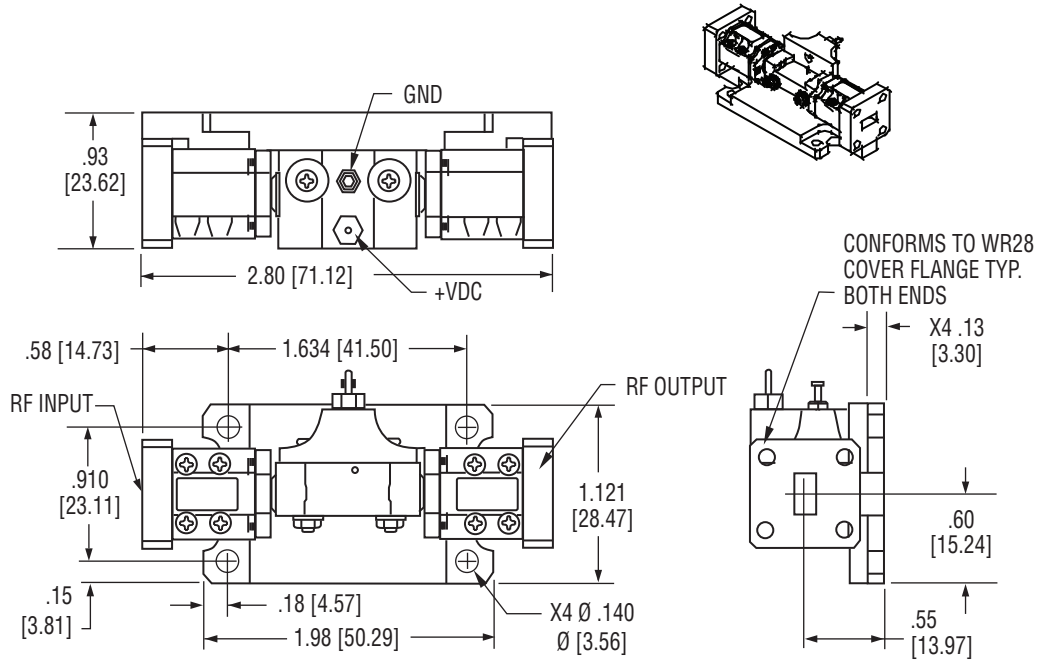


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

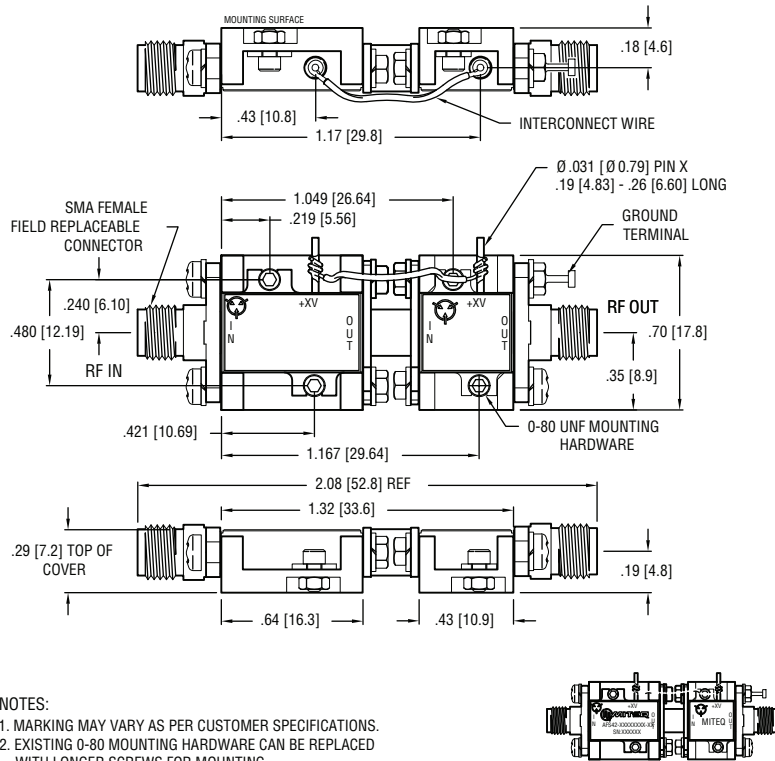


OUTLINE DRAWINGS (CONT.)

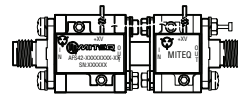
149788



151239



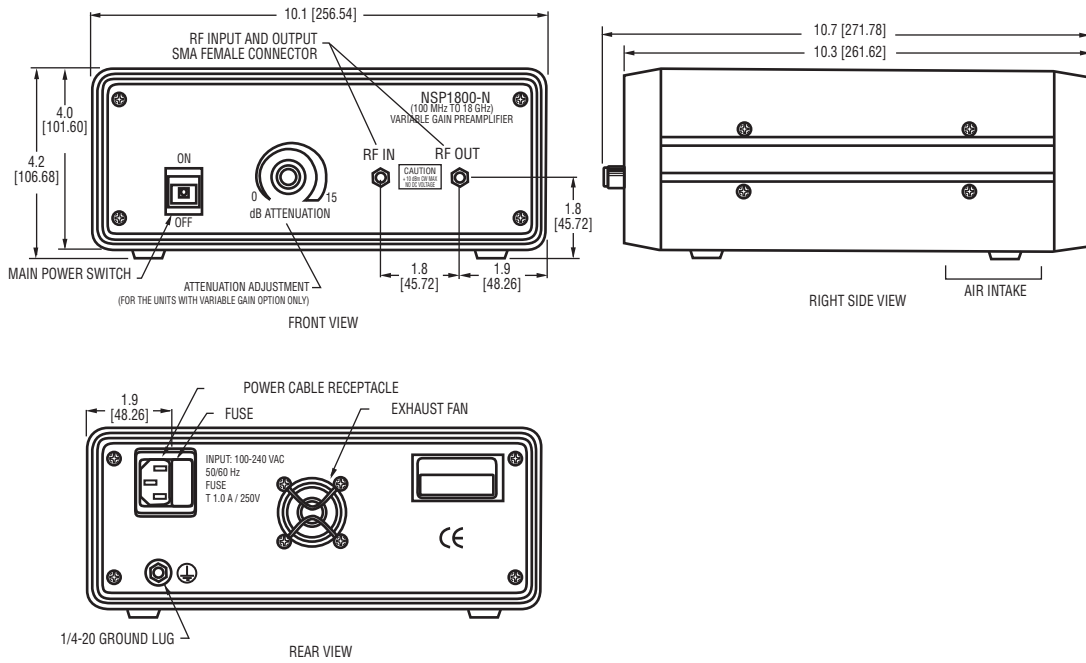
- NOTES:
1. MARKING MAY VARY AS PER CUSTOMER SPECIFICATIONS.
 2. EXISTING 0-80 MOUNTING HARDWARE CAN BE REPLACED WITH LONGER SCREWS FOR MOUNTING.



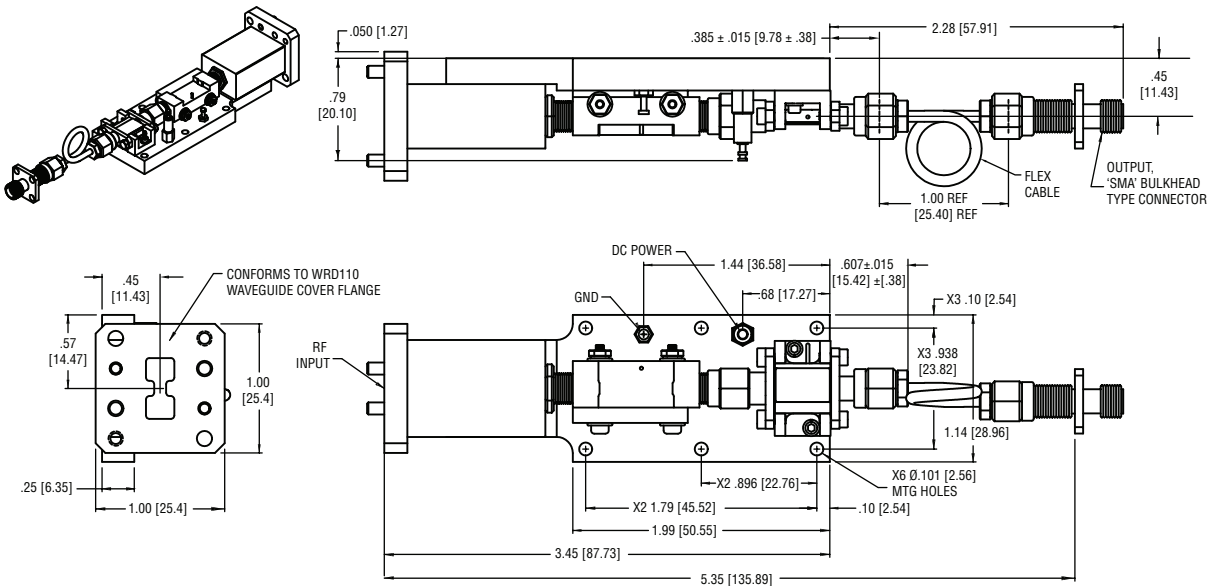
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

152602



153613

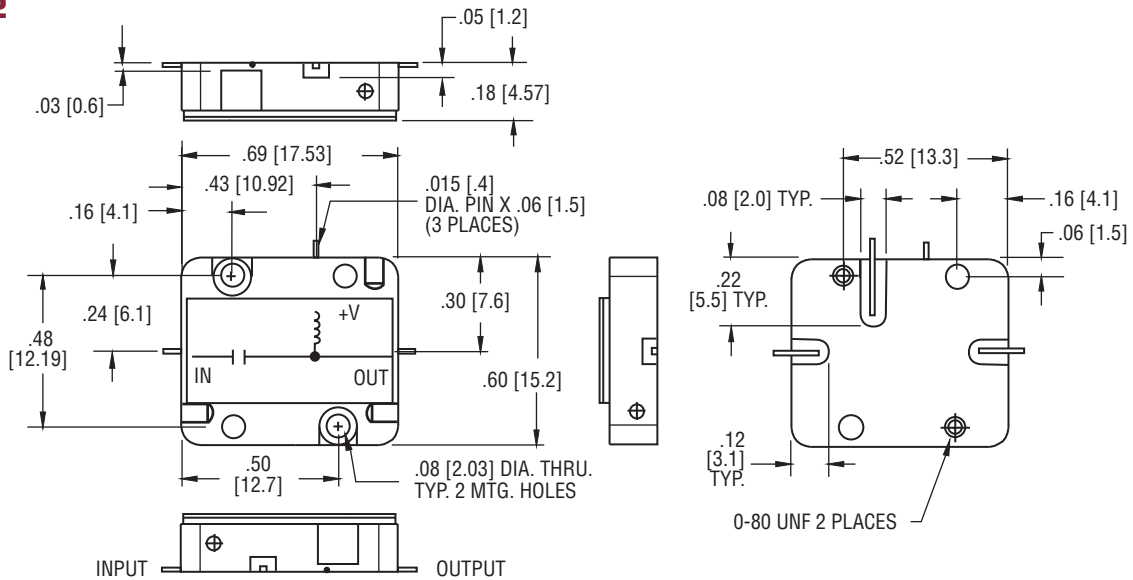


NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

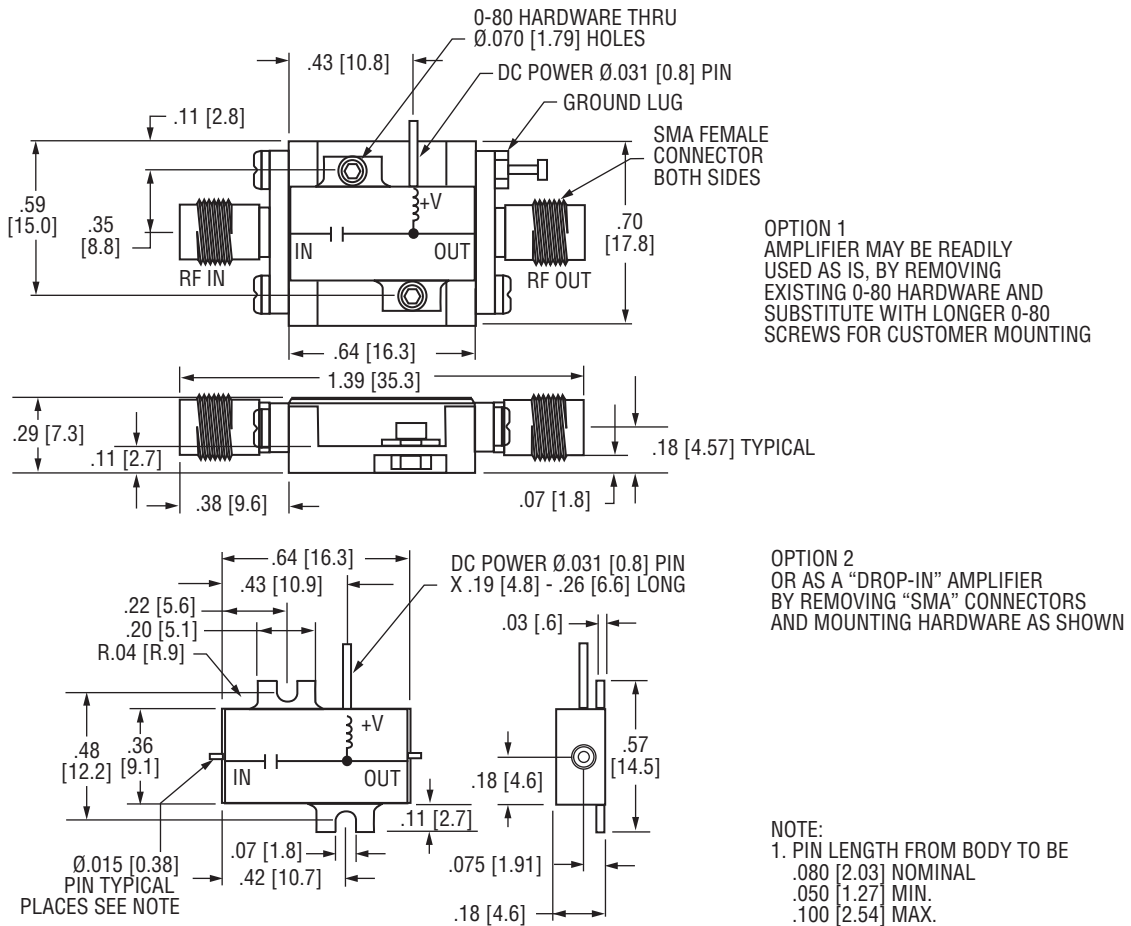


OUTLINE DRAWINGS (CONT.)

157372



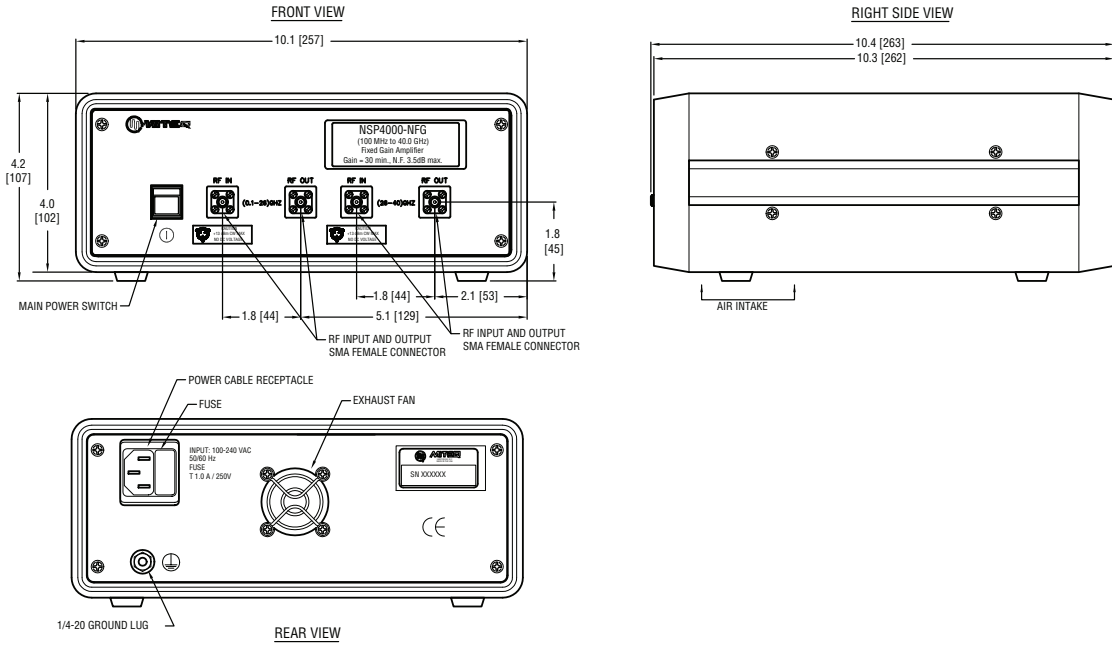
157373



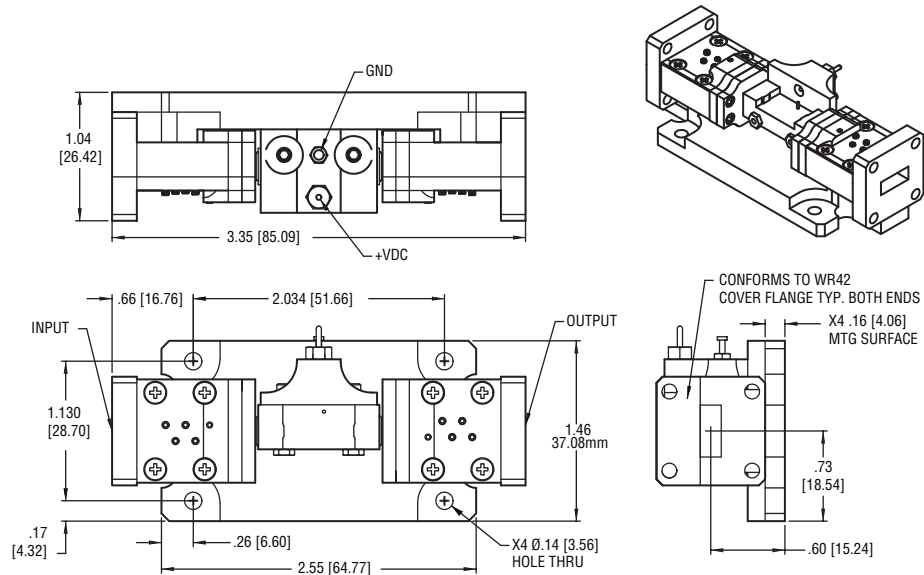
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

160008



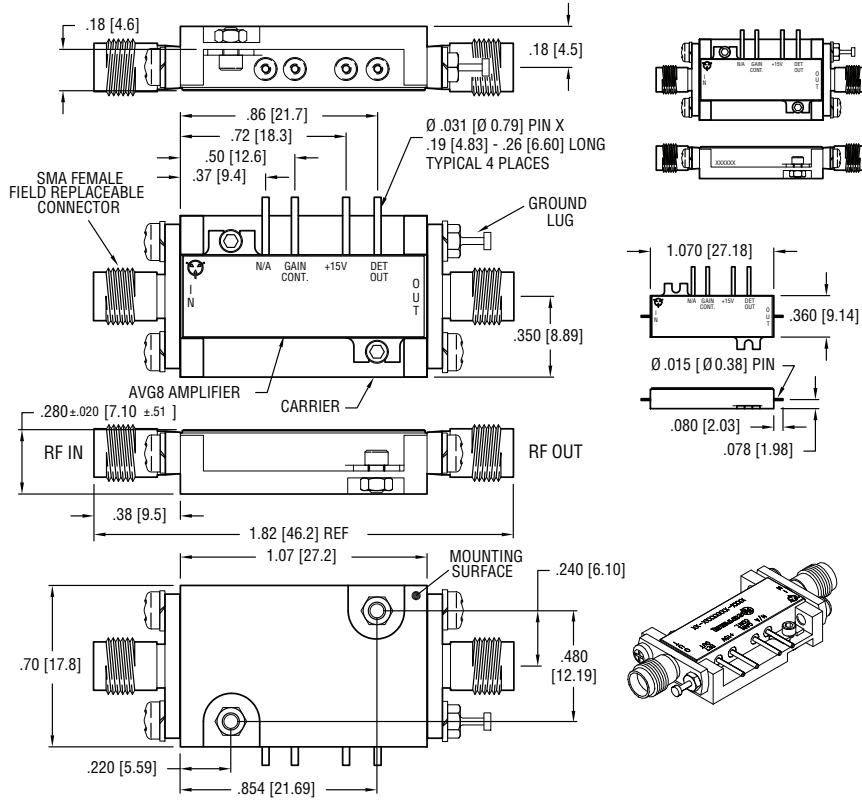
162868



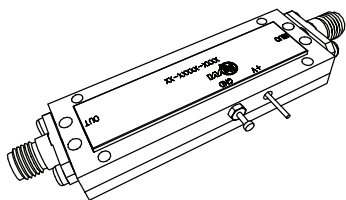
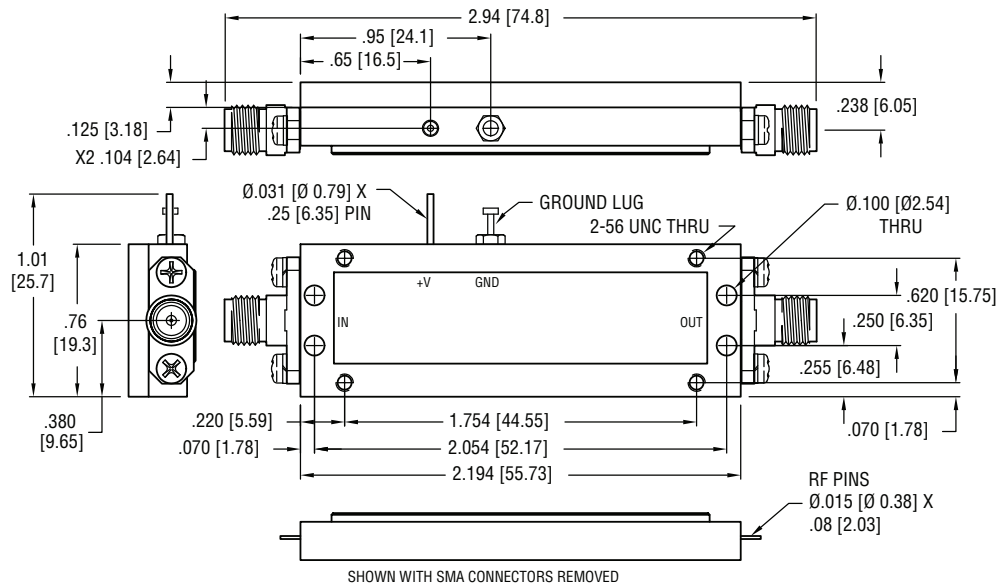
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

OUTLINE DRAWINGS (CONT.)

164073



169423



- NOTES:
1. ALL PINS $\emptyset .015$ [0.38] X .080 [2.03] LONG.
 2. SHOWN WITH OPTIONAL FIELD REPLACEABLE SMA FEMALE CONNECTORS AND STANDARD BASE PLATE.
 3. HOUSING IS HERMETIC AND MADE OF KOVAR GOLD PLATED. SPACER PLATE ALUMINUM.
 4. FOR NON HERMETIC, SEE OUTLINE 142958.

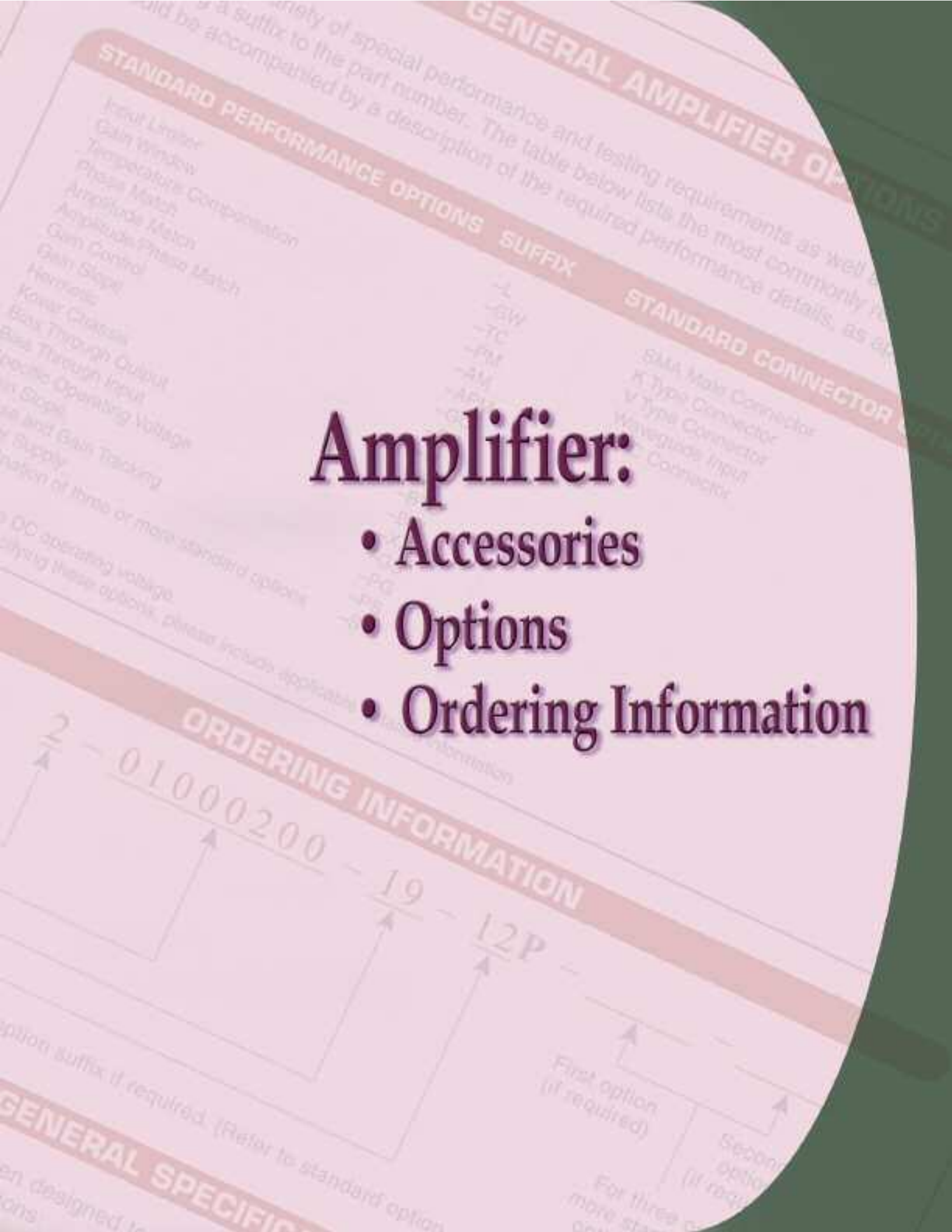
NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.



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Amplifier:

- Accessories
- Options
- Ordering Information



POWER SUPPLY

PS SERIES

FEATURES

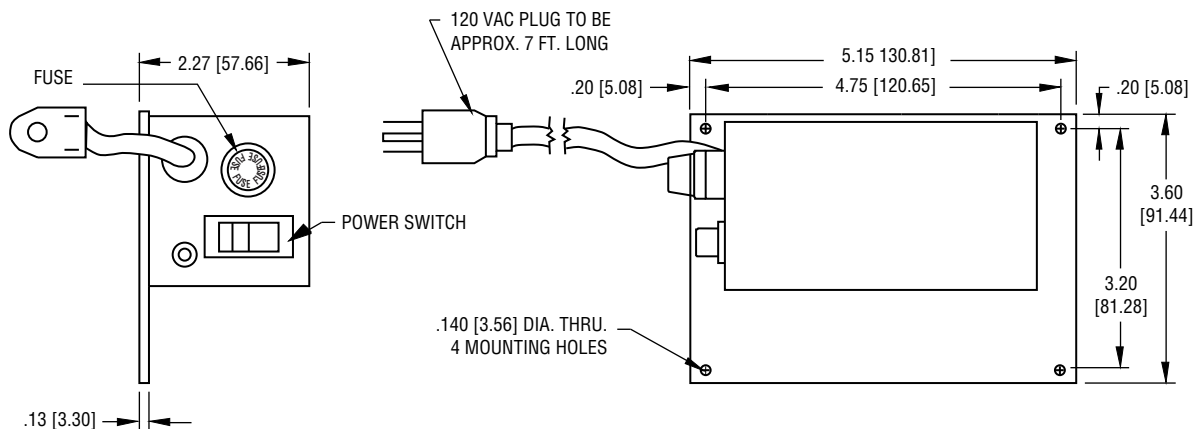
- Fully isolated outputs
- Overvoltage and overcurrent protection
- High efficiency
- Short circuit protected
- 100-240 VAC input



SPECIFICATIONS

Model Number	PS15V1	PS12V1
Input, VAC	100-240V \pm 10%, 50/60 Hz	100-240V \pm 10%, 50/60 Hz
Output	15 V @ 900 mA	12 V @ 850 mA
Ripple, MV p-p	50	50
Regulation, 5%	+15 V	+12 V
Efficiency	> 75%	> 75%
Operating temperature	0 to 50°C	0 to 50°C
Storage temperature	-55 to +85°C	-55 to +85°C

OUTLINE DRAWING



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.

WALL PLUG-IN POWER SUPPLY

FEATURES

- Power supply
 - Input: 120–240 VAC
 - 50–60 Hz
 - Output: 12V or 15V at 1-Amp



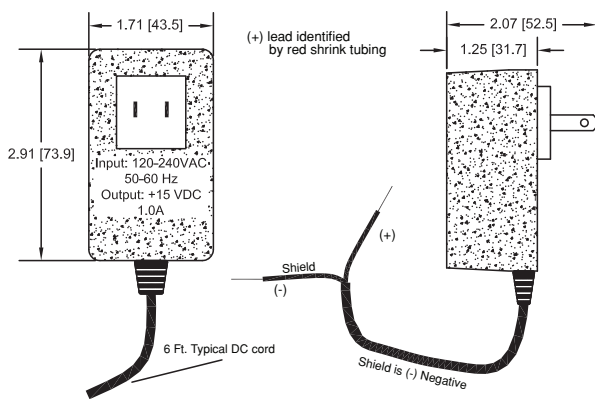
AS12NA

AC Supply With Solder Leads

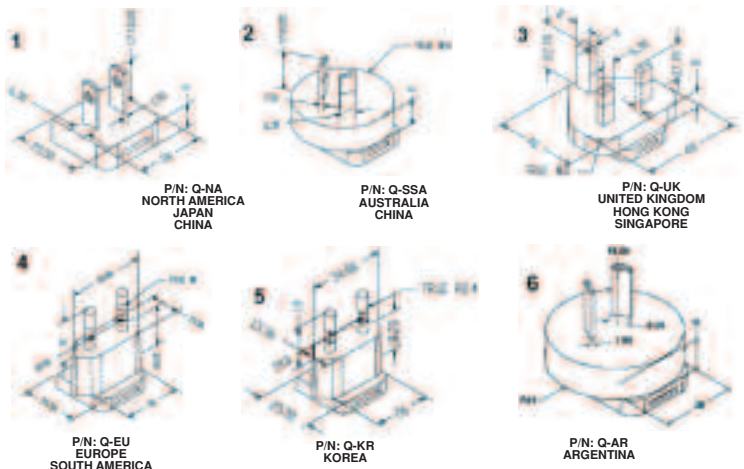
ORDERING INFORMATION

AVAILABLE PLUG TYPES	MODEL NUMBER (12V)	MODEL NUMBER (15V)
North America, Japan, China	AS12NA	AS15NA
Europe, South America	AS12EU	AS15EU
Korea	AS12KR	AS15KR
United Kingdom, Hong Kong, Singapore	AS12UK	AS15UK
Australia, China	AS12SAA	AS15SAA
Argentina	AS12AR	AS15AR

NOTE: Power supply leads will be pre-tinned at the factory.



These interchangeable plugs snap in and lock.



NOTE: DIMENSIONS SHOWN IN BRACKETS [] ARE IN MILLIMETERS.



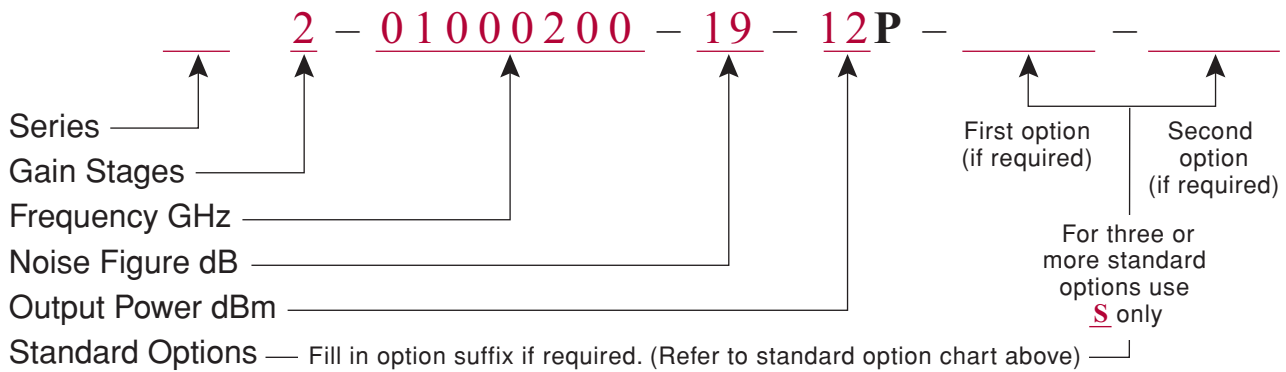
GENERAL AMPLIFIER OPTIONS

Options for a variety of special performance and testing requirements as well as connector types can be identified by adding a suffix to the part number. The table below lists the most commonly requested options. Option requests should be accompanied by a description of the required performance details, as applicable.

STANDARD PERFORMANCE OPTIONS	SUFFIX	STANDARD CONNECTOR OPTIONS	SUFFIX
Input Limiter	-L	SMA Male Connector	-M
Gain Window	-GW	K Type Connector	-K
Temperature Compensation	-TC	V Type Connector	-V
Phase Match	-PM	Waveguide Input	-WG
Amplitude Match	-AM	NPC Connector	-NP
Amplitude/Phase Match	-APM	N Type Connector	-N
Gain Control	-GC	TNC Type Connector	-T
Gain Slope	-GS		
Hermetic	-H		
Kovar Chassis	-KC		
Bias Through Output	-BTO		
Bias Through Input	-BTI		
Specific Operating Voltage	-XXDC*		
Gain Slope	-GS		
Phase and Gain Tracking	-PG		
Power Supply	-PS or -AS		
Combination of three or more standard options	-S		

NOTE:
 *XX is the DC operating voltage.
 When specifying these options, please include applicable detailed information.

ORDERING INFORMATION



GENERAL SPECIFICATIONS

MITEQ's standard amplifiers have been designed to meet the following environmental conditions:

- Guaranteed temperature +23°C
- Operating temperature -25 to +75°C
- Storage temperature -40 to +85°C
- Humidity 95% relative humidity, noncondensing

Vibration 1.0 – 3.0 g's rms, 5 Hz – 50 kHz random, basic transportation, secured cargo, MIL-STD-810E, Method 514, Procedure 5

Data curves are at 23°C There will be some variation in the typical data shown as a function of temperature

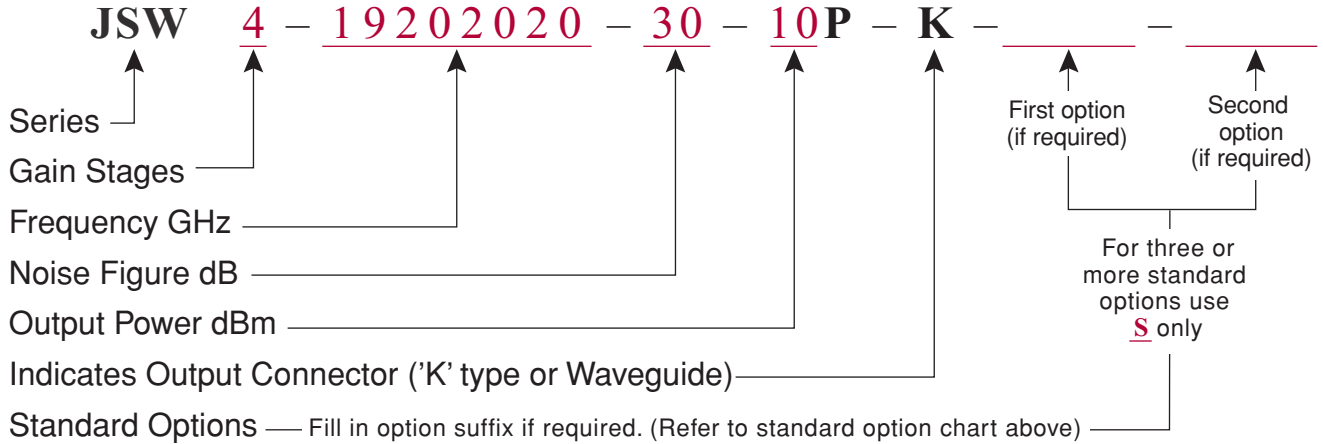
Out of band gain Unless otherwise specified <5 dB above in band gain

JS WAVEGUIDE SERIES AMPLIFIER OPTIONS

Options for a variety of special performance and testing requirements as well as connector types can be identified by adding a suffix to the part number. The table below lists the most commonly requested options. Option requests should be accompanied by a description of the required performance details, as applicable.

STANDARD PERFORMANCE OPTIONS	SUFFIX
Input Limiter	-L
Gain Window	-GW
Temperature Compensation	-TC
Phase Match	-PM
Amplitude Match	-AM
Amplitude/Phase Match	-APM
Gain Control	-GC
Gain Slope	-GS
Hermetic	-H
Kovar Chassis	-KC
Bias Through Output	-BTO
Bias Through Input	-BTI
Specific Operating Voltage	-XXDC*
Gain Slope	-GS
Phase and Gain Tracking	-PG
Power Supply	-PS or -AS
Combination of three or more standard options	-S
NOTE: *XX is the DC operating voltage. When specifying these options, please include applicable detailed information.	

JS WAVEGUIDE SERIES ORDERING INFORMATION



GENERAL SPECIFICATIONS

MITEQ's standard amplifiers have been designed to meet the following environmental conditions:

- Guaranteed temperature +23°C
- Operating temperature -25 to +75°C
- Storage temperature -40 to +85°C
- Humidity 95% relative humidity, noncondensing

- Vibration 1.0 – 3.0 g's rms, 5 Hz – 50 kHz random, basic transportation, secured cargo, MIL-STD-810E, Method 514, Procedure 5

Data curves are at 23°C There will be some variation in the typical data shown as a function of temperature

Out of band gain Unless otherwise specified <5 dB above in band gain

ISO 9001:2000 CERTIFIED

MITEQ attained its original ISO 9001 registration in June 1993, when fewer than 1500 companies were registered. ISO 9001 has since become a recognized standard for quality in over 90 countries. Nationally, it is accepted by an ever-increasing number of government agencies in place of longstanding military specifications covering quality and inspection criteria. Among those are MIL-Q-9858 and MIL-I-45208.



MITEQ's quality system is certified to ISO 9001 by **National Quality Assurance USA (NQA)**, an accredited registrar of the **American National Standards Institute - Registration Accreditation Board (ANSI-RAB)**. NQA performs a quality audit at MITEQ every six months to assure continued compliance to the standard. Additionally, MITEQ's internal auditing system, coupled with regular management reviews, assures that the quality system is effective, updated and constantly improved.

GENERAL INFORMATION

PRICING AND TERMS

A quotation on any item in the catalog is available by contacting the factory. All quotations, unless otherwise noted, are valid for 60 days from the date of issue, F.O.B. (FCA) Hauppauge, NY 11788. Pricing does not include customer or government source inspection unless otherwise noted. On international orders, an irrevocable letter of credit may be required. MITEQ accepts these credit cards:



QUANTITY DISCOUNTS

A quantity discount is generally available on most catalog items. Due to the wide variety of devices in the catalog, it is not possible to provide a standard discount schedule. When quantities are involved, please contact the miteq and the appropriate information will be provided.

SOURCE INSPECTION

Government / customer source inspection is available on any item upon receipt of the complete written confirmation of purchase order items, including the prime government contract number. Source inspection with respect to some products increases the unit price and extends delivery because of duplicate standard final inspection and testing. It is recommended wherever possible that a Certificate of Compliance be substituted for source inspection to minimize price and delivery delays.

SHIPPING INFORMATION

Unless instructed otherwise by the customer, we will ship UPS in the U.S. F.O.B. (FCA) Hauppauge. Air freight will be used as the primary international means of shipment. Please indicate at time of purchase what method of shipment you require.

RETURNED MATERIAL

When returning material for repair or replacement, please ensure that there is complete information included with the shipment, giving a detailed description of the reason for its return, the date and purchase order on which it was obtained, and the exact address to which the material is to be reshipped. All returns must arrive freight, postage, duties and handling prepaid.

REPAIR COSTS

Warranty repairs will be made at no cost to the customer. Units out of warranty, or those which have been mishandled, will require approval by the customer for the charges involved before the repairs can be accomplished. We will provide an estimate for the cost of the repair, which can be applied to the repair, if approval is granted. For those items that are deemed beyond repair, or where the customer may decide not to repair the unit, an evaluation fee and handling charge will be applicable.

APPLICATION ENGINEERING

We maintain a large support staff of engineers who are experts in specific areas of microwave technology. Each has an engineering background that combines both a formal engineering education with training and experience in product design. As further technical support, we make available the services of our engineering and scientific staff, who may be consulted on more advanced circuit designs or application problems.

DRAWINGS AND SPECIFICATIONS

The material presented in this catalog was current at the time of publication. MITEQ Inc.'s continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current.

WARRANTY

1. MITEQ, Inc. warrants to the purchaser that each of its products, when shipped will be free from defects in material and workmanship and will perform in full accordance with applicable specifications. The limit of liability under this warranty is at MITEQ, Inc.'s option to repair or replace any product or part thereof which shall within: (a) three years of delivery for indoor equipment, (b) two years of delivery for outdoor equipment and (c) one year of delivery for integrated assemblies or equipment having RF output powers equal to or greater than +24 dBm, be returned by the purchaser to MITEQ, Inc., at 100 Davids Drive, Hauppauge, New York, 11788, and shall, as determined by examination by MITEQ, Inc., prove defective in material and/or workmanship. Warranty returns must first be authorized in writing by MITEQ, Inc. Disassembly of any MITEQ, Inc. product by anyone other than an authorized representative of MITEQ, Inc. voids this warranty in its entirety. MITEQ, Inc. reserves the right to make changes in any of its products without incurring any obligation to make the same changes on previously delivered products.

2. Components and subsystems having been repaired by MITEQ, Inc. shall be warranted for that repair for ninety (90) days. For products that are still within the original warranty period as described above, the original warranty (if longer) will take precedence. For all SATCOM products, that portion of the system that is repaired, will be warranted for one year.

3. As a condition to the warranties provided for herein, the Buyer will prepay the shipping charges for all products returned to MITEQ, Inc. for repair and MITEQ, Inc. will pay the return shipping with the exception of rack mountable hardware returned from outside the United States in which case the buyer will pay the shipping charges.

4. The buyer will pay the cost of inspecting and testing any goods returned under the warranty or otherwise which are found to meet the applicable specifications or which are not defective or not covered by the warranty.

5. Products sold by MITEQ, Inc. shall not be considered defective or non-conforming to the Buyers' order if they (a) satisfactorily fulfill the performance requirements that were (i) provided by the Buyer to MITEQ, Inc. or (ii) as published in the Sellers' product specification literature, or (b) or in accordance with any written or verbal agreement between the Buyer and MITEQ, Inc., or (c) are in accordance with samples approved by the Buyer.

This warranty shall not apply to any products or parts thereof which have been subject to accident, negligence, alteration, abuse or misuse. MITEQ, Inc. makes no warranty whatsoever in respect to accessories or parts not supplied by it.

6. Limitations of Warranty, Damages and Liability

EXCEPT AS EXPRESSLY SET FORTH HEREIN, THERE ARE NO WARRANTIES, CONDITIONS, GUARANTEES OR REPRESENTATIONS AS TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHER WARRANTIES, CONDITIONS, GUARANTEES OR REPRESENTATIONS, WHETHER EXPRESSED OR IMPLIED, IN LAW OR IN FACT, ORAL OR IN WRITING.

MITEQ, INC.'S AGGREGATE LIABILITY IN DAMAGES OR OTHERWISE SHALL NOT EXCEED THE PAYMENT, IF ANY, RECEIVED BY MITEQ, INC. FOR THE UNIT OF PRODUCT OR SERVICE FURNISHED OR TO BE FURNISHED, AS THE CASE MAY BE, WHICH IS THE SUBJECT OF CLAIM OR DISPUTE. IN NO EVENT SHALL MITEQ, INC. BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, HOWSOEVER CAUSED.

7. All matters regarding this warranty shall be interpreted in accordance with the laws of the State of New York and any controversy that cannot be settled directly shall be settled by arbitration in New York, New York in accordance with the rules then prevailing of the American Arbitration Association, and judgement upon the award rendered may be entered in any court having jurisdiction thereof.

8. As required by Article 10(3) and Article 11(2) of Directive 2002/96/EC (WEEE Directive) of the European Parliament and the Council of the European Union, and in accordance with European Standard EN 50419, MITEQ Inc. labels its products with the following symbol:

This symbol indicates that the product cannot be thrown into the trash, and must be collected and treated in accordance with Directive 2002/96/EC and local regulations.





100 Davids Drive • Hauppauge, NY



320 Oser Avenue • Hauppauge, NY



380 Oser Avenue • Hauppauge, NY



330 Oser Avenue • Hauppauge, NY

