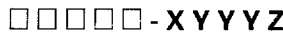


**Shrouded Headers**  
2.54 mm (0.100 in.)

**Ordering Data**

Base number specifies connector style \_\_\_\_\_ Number of positions (see table)



**Plating Options**

Replace X in dash number with:  
 1 - 1.27 μm (50 μin) Ni under 0.76 μm (30 μin) gold  
 3 - 1.27 μm (50 μin) Ni under 1.27 μm (50 μin) gold  
 5 - 1.27 μm (50 μin) Ni under 0.76 μm (30 μin) GXT™  
 A - 1.27 μm (50 μin) Ni under all; with .76 μm (30 μin) Au on contact area, and SnPb on PCB interface. Au flash all other areas.\*

B - 1.27 μm (50 μin) Ni under all; with .76 μm (30 μin) GXT™ on contact area, and SnPb on PCB interface. Au flash all other areas.\*  
 C - 1.27 μm (50 μin) Ni under all; with 0.76 μm (30 μin.) Au on contact area, and SnPb on PCB interface. 0.76 μm (30 μin) Au on tail side contact area. Au flash all other areas.

Note, Available on C & D Tail Lengths only

D - 1.27 μm (50 μin) Ni under all; with .76 μm (30 μin) GXT™ on contact area, and SnPb on PCB interface. .76 μm (30 μin) GXT™ on tail side contact area, Au flash all other areas.

Note, Available on C & D Tail Lengths only.

\*Available on A & G Tail Lengths only

**Tail Length**

Replace Z in dash number with:  
 S - 2.54 mm (0.100in)  
 J - 3.05 mm (0.120in)  
 A - 4.50 mm (0.177in)  
 H - 4.57 mm (0.180in)  
 G - 3.05 mm (0.250in)  
 C - 13.54 mm (0.533in)  
 D - 18.63 mm (0.733in)

**Base Number Option Menu**

Base Number	Style	Platings Available	Tail Length
50009 (1)	Press Fit Pins, Vertical	1, 3, 5	A, G, C, D
50760 (1)	Press Fit Pins, Vertical, Duplex Plating	A, B, C, D	A, G, C, D
50015 (2)	Solder Tail Pins, Vertical	1, 3, 5	J, A, G, C, D
50776 (2)	Solder Tail Pins, Vertical, Duplex Plating	A, B	J, A
50122	Solder Tail Pins, Right Angle	1, 3, 5	H, J
50782	Solder Tail Pins, Right Angle, Duplex Plating	A	S
50431	Shroud, Pinless Header, Self-Retaining	X	X
50437	Shroud, Pinless Header, Slip On	X	X

(1) Request Select Load Worksheet, 50807 for FMLB options.  
 (2) Request Select Load Worksheet, 50810 for FMLB options.

**Dash Number**

Number of Positions	Dash Number (YYYYZ)	Dimensions					
		A		B		C	
		mm	in.	mm	in.	mm	in.
40	X040Z	44.45	1.750	36.83	1.450	22.86	0.900
44	X044Z	46.99	1.850	39.37	1.550	25.40	1.000
48	X048Z	49.53	1.950	41.91	1.650	27.94	1.100
52	X052Z	52.07	2.050	44.45	1.750	30.48	1.200
56	X056Z	54.61	2.150	46.99	1.850	33.02	1.300
60	X060Z	57.15	2.250	49.53	1.950	35.56	1.400
64	X064Z	59.69	2.350	52.07	2.050	38.10	1.500
68	X068Z	62.23	2.450	54.61	2.150	40.64	1.600
72	X072Z	64.77	2.550	57.15	2.250	43.18	1.700
76	X076Z	67.31	2.650	59.69	2.350	45.72	1.800
80	X080Z	69.85	2.750	62.23	2.450	48.26	1.900
84	X084Z	72.39	2.850	64.77	2.550	50.80	2.000
88	X088Z	74.93	2.950	67.31	2.650	53.34	2.100
92	X092Z	77.47	3.050	69.85	2.750	55.88	2.200
96	X096Z	80.01	3.150	72.39	2.850	58.42	2.300
100	X100Z	82.55	3.250	74.93	2.950	60.96	2.400

Ordering data shown is for our standard product offering. For non-standard or custom products, contact your authorized Berg Electronics representative.

**Ordering Data (cont'd)**

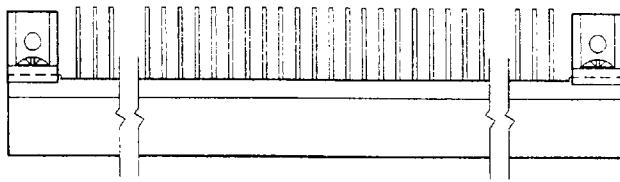
Number of Positions	Dash Number (XYYYYZ)	Dimensions					
		A		B		C	
		mm	in.	mm	in.	mm	in.
104	X104Z	85.09	3.350	77.47	3.050	63.50	2.500
108	X108Z	87.63	3.450	80.01	3.150	66.04	2.600
112	X112Z	90.17	3.550	82.55	3.250	68.58	2.700
116	X116Z	92.71	3.650	85.09	3.350	71.12	2.800
120	X120Z	95.25	3.750	87.63	3.450	73.66	2.900
124	X124Z	97.79	3.850	90.17	3.550	76.20	3.000
128	X128Z	100.33	3.950	92.71	3.650	78.74	3.100
132	X132Z	102.87	4.050	95.25	3.750	81.28	3.200
136	X136Z	105.41	4.150	97.79	3.850	83.82	3.300
140	X140Z	107.95	4.250	100.33	3.950	86.36	3.400
144	X144Z	110.49	4.350	102.87	4.050	88.90	3.500
148	X148Z	113.03	4.450	105.41	4.150	91.44	3.600
152	X152Z	115.57	4.550	107.95	4.250	93.98	3.700
156	X156Z	118.11	4.650	110.49	4.350	96.52	3.800
160	X160Z	120.65	4.750	113.03	4.450	99.06	3.900
164	X164Z	123.19	4.850	115.57	4.550	101.60	4.000
168	X168Z	125.73	4.950	118.11	4.650	104.14	4.100
172	X172Z	128.27	5.050	120.65	4.750	106.68	4.200
176	X176Z	130.81	5.150	123.19	4.850	109.22	4.300
180	X180Z	133.35	5.250	125.73	4.950	111.76	4.400
184	X184Z	135.89	5.350	128.27	5.050	114.30	4.500
188	X188Z	138.43	5.450	130.81	5.150	116.84	4.600
192	X192Z	140.97	5.550	133.35	5.250	119.38	4.700
196	X196Z	143.51	5.650	135.89	5.350	121.92	4.800
200	X200Z	146.05	5.750	138.43	5.450	124.46	4.900
204	X204Z	148.59	5.850	140.97	5.550	127.00	5.000
208	X208Z	151.13	5.950	143.51	5.650	129.54	5.100
212	X212Z	153.67	6.050	146.05	5.750	132.08	5.200
216	X216Z	156.21	6.150	148.59	5.850	134.62	5.300
220	X220Z	158.75	6.250	151.13	5.950	137.16	5.400
224	X224Z	161.29	6.350	153.67	6.050	139.70	5.500
228	X228Z	163.83	6.450	156.21	6.150	142.24	5.600
232	X232Z	166.37	6.550	158.75	6.250	144.78	5.700
236	X236Z	168.91	6.650	161.29	6.350	147.32	5.800
240	X240Z	171.45	6.750	163.83	6.450	149.86	5.900
244	X244Z	173.99	6.850	166.37	6.550	152.40	6.000
248	X248Z	176.53	6.950	168.91	6.650	154.94	6.100
252	X252Z	179.07	7.050	171.45	6.750	157.48	6.200
256	X256Z	181.61	7.150	173.99	6.850	160.02	6.300
260	X260Z	184.15	7.250	176.53	6.950	162.56	6.400
264	X264Z	186.69	7.350	179.07	7.050	165.10	6.500
268	X268Z	189.23	7.450	181.61	7.150	167.64	6.600
272	X272Z	191.77	7.550	184.15	7.250	170.18	6.700
276	X276Z	194.31	7.650	186.69	7.350	172.72	6.800
280	X280Z	196.85	7.750	189.23	7.450	175.26	6.900
284	X284Z	199.39	7.850	191.77	7.550	177.80	7.000
288	X288Z	201.93	7.950	194.31	7.650	180.34	7.100
292	X292Z	204.47	8.050	196.85	7.750	182.88	7.200
296	X296Z	207.01	8.150	199.39	7.850	185.42	7.300
300	X300Z	209.55	8.250	201.93	7.950	187.96	7.400
304	X304Z	212.09	8.350	204.47	8.050	190.50	7.500
308	X308Z	214.63	8.450	207.01	8.150	193.04	7.600
312	X312Z	217.17	8.550	209.55	8.250	195.58	7.700
316	X316Z	219.71	8.650	212.09	8.350	198.12	7.800
320	X320Z	222.25	8.750	214.63	8.450	200.66	7.900

Ordering data shown is for our standard product offering. For non-standard or custom products, contact your authorized Berg Electronics representative.

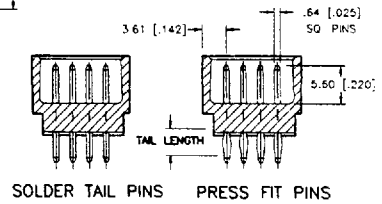
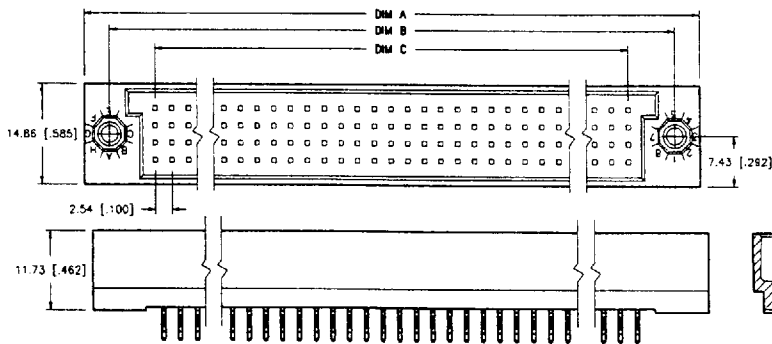
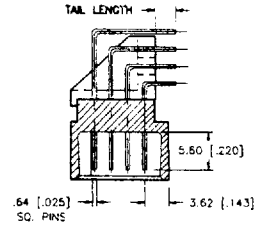


9005411 0002697 061

**Description**  
4-Row Vertical and Right-Angle Headers  
Compliant Press-Fit or Solder-Tail Pins  
No Guide Hole



R/A STYLE, SOLDER TAIL PINS ONLY

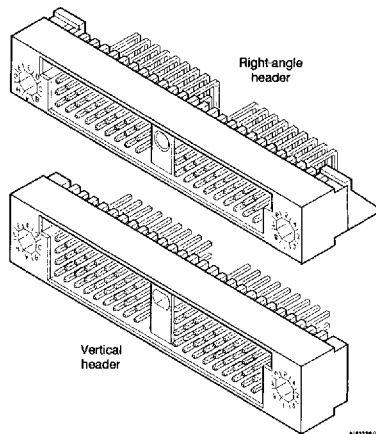


# PCB Mounted Headers and Shrouds

## High Pin Count (HPC™)

2.54 mm (0.100 in.) Centerlines

### 3- and 4-Row Vertical and Right-Angle Headers Self-Retaining and Slip-On Shrouds 0, 1, and 2 Guide Pins



#### Features

- 3-Row: 30 through 450 positions.
- 4-Row: 40 through 600 positions.
- Polyphenylene sulfide (PPS) housing for IR and vapor-phase soldering.
- Plated with gold or Berg's exclusive GXT™ (palladium-nickel alloy with gold flash).
- Made with 0.64 mm (0.025 in.) drawn-wire pins.
- 3- and 4-row shrouds for all header sizes.
- All mounting brackets are pre-assembled.
- Hardware for mounting, power and static discharge, guidance, and keying.
- Radiused pin tip for lower insertion force.


#### Options


- Solder-tail or press-fit pins.
- Three mating pin lengths for first-make--last-break applications.
- Selective loading of pins.
- Various tail lengths.

#### Mating Data

Berg Electronics Products	Page
▪ HPC™ Right-Angle Receptacles	17-18

#### Approvals and Certifications

 File no. E66906

 File no. LR46923

#### Application Equipment

Berg Electronics Products	Page
▪ HPC™ Header Installation Kit	17-51

#### Technical Data

##### Materials

- Housing ..... Glass-filled PPS (UL-94 V-0)
  - ▶ Color ..... Black
- Pin ..... Phosphor-bronze, 3/4 hard per ASTM B-159

##### Electrical Performance

- Insulation resistance .....  $\geq 1000 \text{ M}\Omega$  after environmental test conditions
- Withstanding voltage .....  $\geq 1000 \text{ V ac rms}$ , 60 Hz at sea level
- Current rating
  - ▶ All contacts powered ..... 1.0 amp continuous per contact
  - ▶ One contact powered ..... 3.0 amp continuous per contact

- Contact resistance .....  $< 20 \text{ m}\Omega$  (mated system) after environmental conditions

##### Mechanical Performance

- Normal force ..... 0.54 N (60 gf) typical; 0.49 N (50 gf) min, 200 kpsi Hertz stress

##### Environmental Properties

- Temperature range .....  $-65^\circ\text{C}$  to  $+125^\circ\text{C}$

##### Packaging

- Antistatic tubes

#### Customer Support Materials

Description	Order No.	Description	Order No.
Customer Product Drawings	By Part No.	Product Samples	Upon Request
Product Specifications	BUS-12-090		

9005411 0002686 286