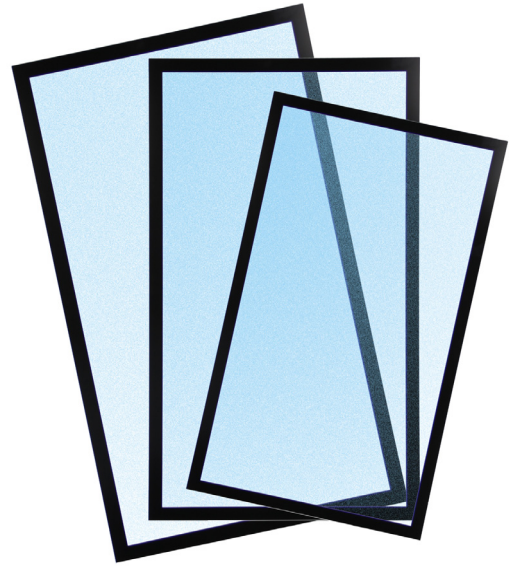


Uncompromised Performance for Interactive Digital Signage

With more than 30 years of capacitive touch sensing expertise, 3M has developed a scalable multi-touch system for digital signage applications that demand high-performance multi-touch functionality with sophisticated bezel-free designs delivering a truly unique touch experience. The **3M™ Multi-Touch System PCT2420PX** portfolio provides customers with a leading-edge solution that resolves up to 60 simultaneous touches (with palm rejection) at an ultra-fast 12ms response time for digital signage from 37 to 47 inches. This multi-touch solution enables display designers to develop cutting-edge interactive signage solutions that create collaborative spaces for multiple users or an engaging experiences for single users.

The PCT2420PX multi-touch system exemplifies 3M's strong system solution focus by combining 3M proprietary touchscreen manufacturing technology with the patented 3M™ Multi-Touch Controller PX400 to overcome existing design challenges in scaling projected capacitive technology (PCAP) solutions beyond common portable device sizes (3.5 to 11.6 inches). This system has been designed and engineered specifically for 37- to 47-inch displays so OEM's and integrators can use its unique feature set without settling for scaled-up versions of mobile handheld electronics and manufacturing processes. With the PCT2420PX multi-touch system, 3M now offers a wide range of multi-touch system products that use advanced sensing techniques to address the unique needs of digital signage applications.

The PCT2420PX system's non-active, chemically-strengthened cover glass offers a durable surface that protects the underlying conductive elements while allowing the touchscreen to remain functional with even the most severe surface scratches. This same cover glass goes through an anti-glare treatment process that helps provide an enhanced user experience by limiting the effects of both touch friction and ambient light pollution on the sensor. The PCT construction also enables modern industrial design techniques, such as flat front surfaces, that



eliminate the need for bulky bezels required by other touch technologies to protect any active surface touch components. In addition to adding sophisticated industrial design, the flat front surface solution eliminates dust and debris build-up at the edges of the display and also helps increase overall system reliability by not having critical components on the touchscreen surface that can be damaged or obstructed.

Recommended Applications

- Gaming and Amusement
- Exhibits
- Point of Information
- Self Service
- Interactive Tabletops
- Health Care
- Retail Product Selectors
- Digital Signage
- Retail Brand Experience
- Industrial

Feature	Benefit
Patented 3M Electronics	<ul style="list-style-type: none"> • Reports up to 60 simultaneous multi-touch events while supporting palm rejection at speeds of <12ms • High signal-to-noise ratio provides input flexibility including thin gloves and fingertips. • Ultra-high definition touch for smooth draw capability and ability to distinguish multiple fingers in close proximity • Custom ASIC design offers a standard protocol for any size between 15 and 47 inches and facilitates seamless application development
3M PCT with Engineered Cover Glass	<ul style="list-style-type: none"> • Enables leading edge industrial design solutions with a uniform narrow black border graphics design • No surface components or bezel requirement limits debris build up which results in increased reliability • Easy-to-clean, no wear surface provides operation unaffected by surface scratches • Smooth edge finish for improved durability and handling safety • Anti-stiction surface allows for "easy drag feel" for smooth touch performance. • Anti-glare for table-top applications or strong ambient lighting environments.
High Performance up to 47" Diagonal	<ul style="list-style-type: none"> • Maintains high performance multi-touch scalable up to 47" displays • Large format multi-touch enables innovative collaborative multi-user interactions



3M™ Multi-Touch System PCT2420PX Specifications

System Performance

Touch Inputs	60 touches with palm rejection
Input Method	Finger, thin gloves
Accuracy	>99% of true position
Resolution	4K x 4K
Linearization	Inherently Linear (only video alignment needed)
Tail Connection	Solder-less design
Light Transmission	> 87%

Electronics (3M Multi-Touch Controller PX)

Communication	USB HID Digitizer
Dimensions:	PX4611 Controller: 9.90" x 2.50" PRX4401 Satellite Controller: 4.33" x 2.17"
Power Connection	Self-powered 5V @ 2 A max
Connectors	ZIF (touchscreen side) Molex (USB/Serial COM side)
Touch Refresh Rate	<12ms for up to 20 simultaneous finger inputs

Ordering Information

Diagonal	Format	Part Number
37"	16:9	98-0003-4205-9
39"	16:9	98-1100-0258-5
40"	16:9	98-0003-4164-8
42"	16:9	98-0003-4161-4
46"	16:9	98-0003-4159-8
47"	16:9	98-0003-4203-4

3M Touch Systems

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RoHS Directive compliant: RoHS 2011/65/EU means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU, unless the substance is in an application that is exempt under EU RoHS. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M. (3/13)

IMPORTANT NOTICE TO PURCHASER: Specifications are subject to change without notice. These 3M Touch Systems' Products and software are warranted to meet their published specifications from the date of shipment and for the period stated in the specification. 3M Touch Systems makes no additional warranties, express or implied, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. User is responsible for determining whether the 3M Touch Systems Products and software are fit for User's particular purpose and suitable for its method of production, including intellectual property liability for User's application. If the Product, software or software media is proven not to have met 3M Touch Systems' warranty, then 3M Touch Systems' sole obligation and User's and Purchaser's exclusive remedy, will be, at 3M Touch Systems' option, to repair or replace that Product quantity or software mediator to refund its purchase price. 3M Touch Systems has no obligation under 3M Touch Systems' warranty for any Product, software or software media that has been modified or damaged through misuse, accident, neglect, or subsequent manufacturing operations or assemblies by anyone other than 3M Touch Systems. 3M Touch Systems shall not be liable in any action against it in any way related to the Products or software for any loss or damages, whether non-specified direct, indirect, special, incidental or consequential (including downtime, loss of profits or goodwill) regardless of the legal theory asserted. (7/02)

Reliability

Surface Obstruction	Withstands most surface contaminants
Chemical Resistance	ASTM-D-1308 and ASTM-F-1598-95
Operating Temperature	0°C to +50°C (up to 90% RH from 0°C to +35°C (above +35°C, see specification))
Storage Temperature	-10°C to +70°C (up to 90% RH from 0°C to +35°C (above +35°C, see specification))
Humidity	Up to 90% RH from 0°C to +35°C, non-condensing (above +35°C, see specification)

Mechanical

Total Thickness	2.4mm
Cover Glass Thickness	1.9mm
Graphics	Black border (standard design)
Display Size	Supported 37" to 47" (standard sizes available)
Durability	Non-active cover glass, no wear mechanism
Sealing	NEMA 4X/IP66, complete water-resistant seal compatible
Cleaning	Water, isopropyl alcohol, or similar non-abrasive cleaners
Regulatory (Agency Approvals)	FCC-B, CE, IEC 60950
RoHS Compliant	Yes

System Warranty

One year on touch system

Operating Systems Supported

Windows 8, 7, Vista, XP (32- and 64-bit)
Windows CE 3.0, 3.2, 4.0, 5.0, 6.0
Linux Kernel 2.6, Kernel 2.4 (serial only)
Mac OS (Intel)**

**Third party driver

