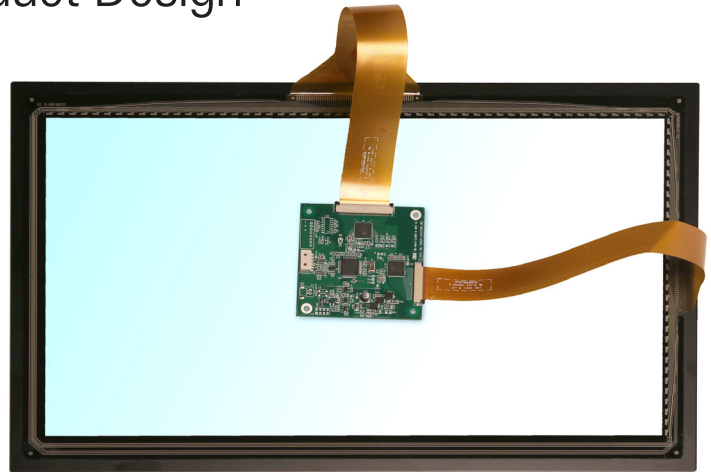


# 3M™ Multi-Touch System PCT2455PX

## Technology for Breakthrough Product Design

With more than 30 years of capacitive touch sensing and manufacturing expertise, 3M has developed a purpose-built multi-touch system for commercial applications that demand high-performance multi-touch functionality with bezel-free designs that deliver a sleek and sophisticated tablet-like industrial design for displays ranging from 15 to 24 inches. The **3M™ Multi-Touch System PCT2455PX**, supported by the proprietary 3M™ Multi-Touch Controller PX5000, is based on projected capacitive touch technology (PCAP) and supports up to 20 simultaneous touch events with an ultra-fast response time of less than 10 milliseconds. This industry-leading touch performance combined with modern design elements, makes the PCT2455PX system an ideal solution for OEM's, ODM's, and integrators looking to design and build breakthrough new products that exceed their customer's expectations.

Designed with commercial applications in mind, the PCT2455PX 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 is also given an anti-stiction and an anti-glare treatment that helps provide an enhanced user experience by limiting the effects of touch friction and ambient light pollution. In addition to these functional benefits, the PCT2455PX system's bezel-less design helps OEM's bring the sleek, tablet-like industrial design elements to their own devices by eliminating the need for bulky bezels required by other touch technologies. These modern design techniques are an ideal element for commercial display applications that require a fresh, next-generation look and feel.



### Recommended Applications

- Gaming and Amusement
- Retail POS
- Point of Information
- Self Service
- Telepresence
- Health Care
- Audio Visual
- Digital Signage
- Retail Brand Experience
- Industrial

Feature	Benefit
3M PCT Fully-integrated System Solution	<ul style="list-style-type: none"> <li>• Touchscreen and electronics tuned for precise, full multi-touch functionality, even at the edges and corners of the display</li> <li>• Integrated standard systems offered from a single source ensures full system support and warranty</li> <li>• Robust system solution tested to work with many display technologies provides integration and design flexibility</li> </ul>
Patented 3M Electronics	<ul style="list-style-type: none"> <li>• Reports simultaneous multi-touch events while supporting palm rejection at speeds faster than the refresh rate of many industrial displays</li> <li>• High signal-to-noise ratio provides input flexibility including thin gloves and fingertips.</li> <li>• Ultra-high definition touch for smooth draw capability and ability to distinguish multiple fingers in close proximity</li> <li>• Custom ASIC design offers a standard protocol for any size between 15 and 24 inches and facilitates seamless application development</li> </ul>
3M PCT with Engineered Cover Glass	<ul style="list-style-type: none"> <li>• Enables leading edge industrial design solutions with a uniform narrow black border graphics design</li> <li>• No surface components or bezel requirement limits debris build up which results in increased reliability</li> <li>• Easy-to-clean, virtually "no wear" surface provides operation unaffected by surface scratches</li> <li>• Smooth edge finish for improved durability and handling safety</li> <li>• Anti-stiction surface allows for "easy drag feel" for smooth touch performance</li> <li>• Anti-glare for table-top applications or strong ambient lighting environments</li> </ul>



# 3M™ Multi-Touch System PCT2455PX Specifications

## System Performance

Touch Inputs	20 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 PX5000)

Communication	USB HID Digitizer
Dimensions	15.1" and 15.6": 2.75" x 2.75" x 0.37" REF 17" to 24": 3.25" x 2.75" x 0.37" REF
Operating Current	15.1" and 15.6": 5 VDC (95mA max) 17" to 24": 5 VDC (150mA max)
Power Connection	USB Vbus
Connectors	ZIF (touchscreen) Molex (USB COM)
Touch Refresh Rate	Greater than 100 Hz (<10 ms)

## 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	2.4 mm
Graphics	Black border (standard design)
Display Size	Supported 15" to 24" (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

Native Driver Support:

Windows XP, Vista, 7, 8; Linux Kernels 3.5 or later for Windows 7 compatible FW; Linux Kernels 3.12 or later for Windows 8 compatible FW.

3M Driver Support:

MT 7 (Windows XP, Vista, 7, 8, XPe, WEPOS, CE, Linux kernels 2.6 and 3.0)

3rd-party Driver:

Mac OS (Intel)

## Ordering Information

Diagonal	Format	Part Number
15.08"	4:3	98-1100-0324-5
15.65"	16:9	98-1100-0282-5
17.15"	5:4	98-1100-0284-1
18.61"	16:9	98-1100-0322-9
19.09"	5:4	98-1100-0321-1
20.11"	16:9	98-1100-0320-3
21.62"	16:9	98-1100-0271-8
22.10"	16:9	98-1100-0325-2
23.13"	16:9	98-1100-0274-2
24.11"	16:9	98-1100-0323-7

### 3M Touch Systems

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1-888-659-1080

[www.3M.com/touch](http://www.3M.com/touch)

**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 indirect, special, incidental or consequential (including downtime, loss of profits or goodwill) regardless of the legal theory asserted. (3-14)

