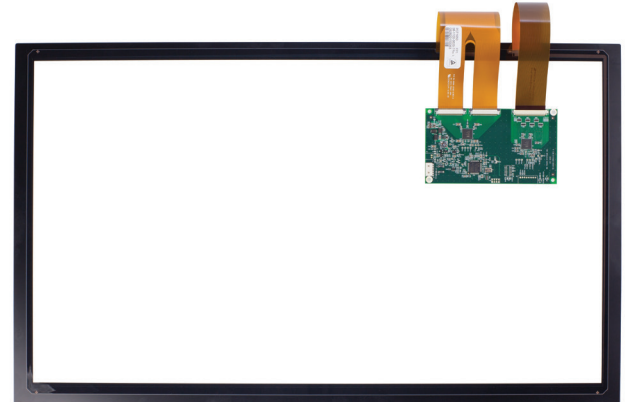**3M Touch Systems**

3M™ Multi-Touch PCAP Systems Pro-Series

The Ultimate in Multi-touch Interaction for Commercial Display Applications 32-inches and Larger*

The 3M Pro-Series of PCAP Systems delivers an excellent interactive experience for applications requiring the highest level of performance and interaction. The 3M Pro-Series System provides support for finger and thin gloved input as well as for leading active pens and passive styli, in addition to the ability to support the recognition of capacitive objects placed on the screen, the 3M Pro-Series System is a step above other PCAP solutions. Designed by 3M to be more durable, scalable and easy-to-integrate for wall mounted and table integrated solutions, this multi-touch system provides an excellent touch experience for demanding higher end applications across a wide range of sizes. The system's glass-to-edge design delivers the same modern design aesthetic users have come to expect from today's personal smart phones and tablets. Ideal for highly interactive applications requiring the highest level of precision and interaction without being affected by lighting conditions. Ideal for large format multi-touch display applications, this system offers display integrators and equipment manufacturers a high level of performance a reliable, easy-to-integrate multi-touch system along with the global technical support from 3M.

Proprietary Metal Mesh Design

At the core of this new multi-touch system offering is an ultrafine metal mesh conductor design. This new technology overcomes design and optical challenges found in other PCAP solutions by utilizing advanced optical modelling techniques developed by 30 years of 3M science and service to the display industry. The result is a sensor designed to work universally on 2K and 4K applications across a range of sizes, including non-planar (curved) screens, while maintaining high image quality and touch responsiveness.

Integrated 3M™ Multi-Touch Controller PX5000 for Ultimate Speed and Responsiveness

Whether you're designing for multi-touch, multi-users, gestures or all of the above, the 3M PX5000 controller has the speed and responsiveness to make your applications shine. The 3M PX5000 ASIC is built on a proven and stable platform that display integrators and OEMs can rely on today and in the future and with support for Windows, Linux, OSx and Android, it is an excellent solution for your large format touch needs. All this is backed by world-class 3M science, global supply chain capabilities and support.

✔ **Robust**
✔ **Scalable**
✔ **Durable and Dependable**
✔ **Customizable**
✔ **Modern Design**
✔ **Long Life-Cycle**

Recommended Applications
● Assisted Selling
● Exhibits and Museums
● Self Service
● Retail Brand Experience
● Gaming

* Refers to diagonal dimensions of the display

Feature	Benefit
Advanced PCAP Capability	● Resolves up to 80 Simultaneous Touch points while supporting palm rejection ● Capable of recognizing capacitive objects placed on screen ● Compatible with leading active pens and passive styli supporting multiple pens and fingers simultaneously
Proprietary Ultrafine Metal Mesh Design	● Mesh blackening process minimizes sparkle and glint ● Precision manufacturing process virtually eliminates moiré ● Scalable from 15–65 inches without reduced performance ● Ability to project through cover glass up to 5mm thick
Proprietary 3M Electronics	● High signal-to-noise ratio provides input flexibility including thin gloves and fingertips ● Custom ASIC chip design offers a standard protocol for sizes ranging between 15 and 65 inches and facilitates seamless application development
3M PCT with Heat Tempered Cover Glass*	● No surface components or bezel requirements limit debris build up resulting in increased reliability ● All glass front surface provides a sleek, modern aesthetic ● Anti-stiction surface allows for smooth finger glide across the surface ● Anti-glare for table-top applications or strong ambient light environments

* Except in 32-inch models

3M™ Multi-Touch Pro-Series PCAP Systems Specifications for Large Format

System Performance

Touch Inputs	80 touches with palm rejection
Input Method	Finger, thin gloves, active pens and passive styli
Accuracy	>99% of true position
Resolution	32K x 32K
Linearizion	Inherently Linear (only video alignment needed)
Tail Connection	Solderless design
Light Transmission	>89.5% | **65"**: >86.5%

Electronics (3M Multi-Touch Controller PX5000)

Communication	USB HID Digitizer
Operating Current	<206mA max
Power Connection	USB Vbus
Connectors	ZIF (touchscreen), Molex (USB COM)
Touch Refresh Rate[1]	Greater than 100 Hz (<10ms)

Reliability

Surface Obstruction	Withstands most surface contaminants
Chemical Resistance	ASTM-D-1308-2 and ASTM-F-1598-95
Operating Temperature	-10°C to +70°C (up to 90% RH from 0°C to +35°C (above +35°C, see specification))
Storage Temperature	-40°C to +70°C (up to 90% RH from 0°C to +35°C (above +35°C, see specification))

[1]Time between touch position updates

Mechanical

Total Thickness	4.4mm
Graphics	Black border (standard design)
Display Size	Supports 32" to 65" (standard sizes available)
Durability	Non-active cover glass, no wear mechanism
Sealing	NEMA 4X/IP66, complete water-resistant and seal compatible
Regulatory	FCC-B, CE, IEC 60950 (Agency Approvals)
RoHS Compliant	Yes

System Warranty

Three years

Operating Systems Supported

Native Driver Support	Windows XP, Vista, 7, 8, 10; 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, 10, XPe, WEPOS, CE, Linux kernels 2.6 and 3.0)
3rd-party Driver	Mac OS (Intel)

Ordering Information

Diagonal	Sensor Part No.	Controller Part No.
32"	98-1100-0671-9	98-1100-0579-4
39"	98-1100-0830-1	98-1100-0714-7
40"	98-1100-0799-8	98-1100-0714-7
42"	98-1100-0665-1	98-1100-0714-7
43"	98-1100-0753-5	98-1100-0714-7
46"	98-1100-0664-4	98-1100-0713-9
48"	98-1100-0800-4	98-1100-0659-4
49"	98-1100-0743-6	98-1100-0659-4
55"	98-1100-0747-7	98-1100-0659-4
65"	98-1100-0757-6	98-1100-0659-4

3M

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