



ClearTek™ II Capacitive Touch Screen



ROBUST

DURABLE

RESPONSIVE

ACCURATE

RELIABLE

Product Highlights

- Excellent light transmission of 91.5% (+/-1.5%) provides vibrant optical characteristics with optimal anti-glare properties
- Designed for flat panel displays, ClearTek™ II offers easy integration with a narrow border and robust tail bond
- Resilient top coat provides smooth, easy glide surface while offering durable scratch resistance
- The accuracy, durability, and fast touch response expected from a MicroTouch™ ClearTek™ product.
- Performance unaffected by everyday contaminants in the environment

Better by Design

Known for innovative technology and products, 3M Touch Systems has leveraged decades of capacitive technology experience to create the MicroTouch™ ClearTek™ II Touch Screen. Based on a complete re-engineering of the 3M-patented Profile design, the ClearTek™ II Touch Screen offers optimized optics, facilitates display integration and creates a more environment-friendly touch screen.

ClearTek™ II touch screens, combined with the solid foundation of MicroTouch™ EX II electronics and robust MicroTouch™ software offer high endurance solutions for a multitude of touch applications where exceptional performance, vibrant optics and environmental robustness is mission critical, 24/7.

The Clear Difference

3M Touch Systems offers a wide portfolio of touch technologies and touch products with a commitment to ease of integration, responsiveness, reliability and simplicity of use. With its world-class support and service organization, 3M provides expert technical consulting service and support wherever any of our products are designed, integrated or delivered. It is this complete solution approach that ensures remarkable compatibility and exceptional service, backed by 3M.

MicroTouch™ ClearTek™ II Capacitive Touch Screen

Performance

Input Method	Finger input.
Accuracy*	Reported touch coordinates are within 1.0% of true position (based on the diagonal dimension of the screen) within the precision area when linearized and used with MicroTouch™ EX II Series Touch Controllers.
Touch System Resolution	Touch screen resolution defaults to settings in the electronics and software, generally 1024 x 1024, but capable of 16K x 16K when used with EX II.
Linearization	Factory linearization values are stored in the attached controller, represented in a 2D bar code, or in the touch screen NOVRAM when present.

Optics

Light Transmission**	91.5% light transmission (±1.5%).
Surface Finish	ClearTek II hard coat with optimal anti-glare properties. Scratch resistant top coat provides smooth, easy glide touch surface.

Mechanical

Minimum Contact Requirement	3 ms for finger input with an EX II series controller.
Glass Thickness	3.18mm (±0.25mm) typical. (Glass only, not including flexible tail connection; reference touch screen drawing for details.)
Display Size Supported	6.4" to 24" diagonal.
Surface Scratch Hardness	A Mohs pick with a hardness rating of 7 or higher is required to induce a scratch which will cause a functional failure. Exceeds severe abrasion test per MIL-C-675-C. Withstands 10,500 grams of force per Balance Beam Scrape Adhesion Mar Tester, MicroScratch test with 10 micron radius tungsten carbide indenter takes a force of 1.8 Newtons.
NEMA rating	NEMA sealable.
Gasketing	Complete water-resistant seal obtainable with polyethylene gasket. Please consult ClearTek™ II touch screen integration guide for further details.
Mounting	Please consult ClearTek™ II touch screen integration guide for specific mounting instructions.
Cleaning	Water, isopropyl alcohol, or similar non-abrasive cleaners.

Reliability

Surface Obstructions	Touch screens operation withstands surface contaminants such as, dirt, dust and grease.
Chemical Resistance	ClearTek™ II is highly resistant to corrosives, in accordance with ASTM-D-1308-07 (1993) and ASTM - F- 1598-95.
Liquid Resistance	Liquids on screen do not impede touch screen performance.
Operating Temperature*	-15° C to 70° C for the touch screen.
Storage Temperature	Always store the touch screen in its original shipping container between -50°C and 85°C (up to 90% RH from 0° C to + 35° C). Never store touch screens in an environment where condensation may form.
Humidity	Up to 90% RH from 0° C to +35° C, non-condensing.

* Achievement of the listed specifications has been demonstrated in monitor integrations where the touch screen is mounted to monitor frame such that the spacing between the touch screen and monitor screen does not vary due to compression / expansion from touch forces or temperature changes.

** Test uses BYK Gardner Haze Gard Plus.



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