MicroTouch™

EX II Series

Capacitive Touch System Electronics

Product Highlights

- State-of-the-art accuracy and touch response
- Standard-setting ESD and EMI protection
- Firmware download capability provides flexibility
- Wide operating temperature
- High touch coordinate resolution of 16k x 16k*
- USB, HID, RS232-compliant interfaces

* The maximum number of addressable coordinates generated by the controller

A World-Class Electronics Solution

The MicroTouch™ EX II Series Controllers bring flexibility and feature-rich functionality to capacitive touch screen applications. This high performance electronics platform is based on the innovative MicroTouch™ EX II ASIC, designed to provide high resolution, on-chip RAM, and a wide operating temperature range. With expanded regulatory approvals, improved power modes, and enhanced ESD and EMI protection, this controller series is a robust solution for popular touch applications.

Advanced Firmware Download Capability

Culminating decades of touch technology experience, the EX II Series electronics enables advanced firmware download capabilities, optimized for MicroTouch™ ClearTek™ II and legacy ClearTek™ touch screens. Standard factory-loaded firmware can be easily updated or replaced at some future date with downloadable, newer firmware revisions to match updated software application functionality. This field upgrade capability can mean minimal downtime for software upgrades.

3M

EX II Series Capacitive Touch System Electronics

	USB EX II 7700UC	USB EX II 7700HC	Serial EX II 7700SC
Part Numbers	EXII-7760UC	EXII-7730HC	EXII-7720SC
Communications Protocol	USB Rev 1.1	HID (Mouse)	Serial RS-232
Optional Components	7312256 96" (2.4 m) Cable, Pearl 7315050 23" (0.58m) Cable, Pearl	7312256 96" (2.4 m) Cable, Pearl 7315050 23" (0.58m) Cable, Pearl	7310101 96" (2.4 m) Cable, Pearl 7310107 26" (0.7 m) Cable, Pearl
Dimensions	1.30" x 2.55" x 0.45" 33.0 x 65.0 x 11.4 mm	1.30" x 2.55" x 0.45" 33.0 x 65.0 x 11.4 mm	1.30" x 2.55" x 0.45" 33.0 x 65.0 x 11.4 mm
Power Connection	USB bus	USB bus	5V through 2-pin connector on board
Touch Screen Connection	5-pin locking AMP	5-pin locking AMP	5-pin locking AMP
Mean Time Between Failure (MTBF)	> 700,000 hours	> 700,000 hours	> 700,000 hours
Electrostatic Discharge (ESD)	± 8KV Contact, ± 27KV Air	± 8KV Contact, ± 27KV Air	± 8KV Contact, ± 27KV Air
Relative Humidity	0 to 95% non-condensing at +36ºC	0 to 95% non-condensing at +36ºC	0 to 95% non-condensing at +36ºC
Storage Temperature	-50º to +85º C	-50º to +85º C	-50º to +85º C
Operating Temperature	-40º to +70º C	-40º to +70º C	-40º to +70º C
Power Requirements (Typical)	5Vdc ± 5% 75 mA	5Vdc ± 5% 75 mA	5-12Vdc ± 5% 85 mA
Regulatory	UL/cUL, FCC-B, CE, VCCI, AS/NZS 3548, RoHS	UL/cUL, FCC-B, CE, VCCI, AS/NZS 3548, RoHS	UL/cUL, FCC-B, CE, VCCI, AS/NZS 3548, RoHS
Driver Support	MT 7 (Win Vista, 2000, XP, XPe, WEPOS, CE.net 4.0/5.0, Linux) TouchWare (Win 95, 98, NT)	MSFT HID (Mouse) Optional: MT 7 (Win Vista, 2000, XP, XPe, WEPOS,CE.net 4.0/5.0)	MT 7 (Win Vista, 2000, XP, XPe, WEPOS, CE.net 4.0/5.0, Linux) TouchWare (Win 95, 98, NT)
Warranty	5 Years	5 Years	5 Years

MicroTouch™

EX II Series Capacitive Touch System Electronics

	TouchPen System	EX II ASIC Chipset
Part Numbers	EXII-3710SP	EXII-ASIC-C
Communications Protocol	Serial RS-232	Serial RS-232 / USB Rev 1.1
Optional Components	69-901 TouchPen Kit (includes stylus, stylus cable, RS232 cable) 69-502 (stylus) 7311240 (stylus cable) 7311273 (RS232 cable)	N/A
Dimensions	4.80" X 1.35" x .32" 121.9 x 34.3 x 8.2 mm	N/A
Power Connection	12V through RS232 cable	Based on design
Touch Screen Connection	6-pin Molex	5-pin locking AMP
Mean Time Between Failure (MTBF)	> 600,000 hours	> 700,000 hours
Electrostatic Discharge (ESD)	± 8KV Contact, ± 27KV Air	Based on design
Relative Humidity	0 to 95% non-condensing at +36ºC	0 to 95% non-condensing at +36ºC
Storage Temperature	-50º to +85º C	-50º to +85º C
Operating Temperature	-40º to +70º C	-40º to +70º C
Power Requirements (Typical)	12Vdc ± 5% 100 mA	Based on design
Regulatory	UL/cUL, FCC-B, CE, VCCI, AS/NZS 3548, RoHS	UL/cUL, FCC-B, CE, VCCI, AS/NZS 3548, RoHS
Driver Support	MT 7 (Win Vista, 2000, XP, XPe, WEPOS, CE.net 4.0/5.0, Linux) TouchWare (Win 95, 98, NT)	MT 7 (Win Vista,2000, XP, XPe, WEPOS, CE.net 4.0/5.0, Linux) TouchWare (Win 95, 98, NT)
Warranty	5 Years	1 Year

3M Touch Systems
300 Griffin Brook Park Drive
Methuen, MA 01844
U.S.A.

1-888-659-1080

www.3M.com/touch

For more information
on 3M touch products,
call toll-free 1-888-659-1080

RoHS Directive compliant: In accordance with European Directive 2002/95/EC, "RoHS Directive compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M. (9/06)

NOTICE: Given the variety of factors that can affect the use and performance of a 3M Touch Systems Product (the "Product"), including that solid state equipment has operation characteristics different from electro mechanical equipment, some of which factors are uniquely within User's knowledge and control, it is essential that User evaluate the 3M Touch Systems Product and software to determine whether it is suitable for User's particular purpose and suitable for User's method of application. 3M Touch Systems' statements, engineering/technical information, and recommendations are provided for User's convenience, but their accuracy or completeness is not warranted. 3M Touch Systems products and software are not specifically designed for use in medical devices as defined by United States federal law. 3M Touch Systems products and software should not be used in such applications without 3M Touch Systems' express written consent. User should contact its sales representative if User's opportunity involves a medical device application.

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)

MicroTouch and ClearTek are trademarks of 3M.

Printed in USA © 3M 2008 EXII-08-08

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

3M:
7319630 7319420 EXII-7719UC EXII-7710UC 7315050 7312256 7310101 EXII-7720SC EXII-7760UC 98-0003-2214-3 EXII-7730HC