


# 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.

# EX II Series Capacitive Touch System Electronics

	USB EX II 7700UC	USB EX II 7700HC	Serial EX II 7700SC
<b>Part Numbers</b>	EXII-7760UC	EXII-7730HC	EXII-7720SC
<b>Communications Protocol</b>	USB Rev 1.1	HID (Mouse)	Serial RS-232
<b>Optional Components</b>	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
<b>Dimensions</b>	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
<b>Power Connection</b>	USB bus	USB bus	5V through 2-pin connector on board
<b>Touch Screen Connection</b>	5-pin locking AMP	5-pin locking AMP	5-pin locking AMP
<b>Mean Time Between Failure (MTBF)</b>	> 700,000 hours	> 700,000 hours	> 700,000 hours
<b>Electrostatic Discharge (ESD)</b>	± 8KV Contact, ± 27KV Air	± 8KV Contact, ± 27KV Air	± 8KV Contact, ± 27KV Air
<b>Relative Humidity</b>	0 to 95% non-condensing at +36°C	0 to 95% non-condensing at +36°C	0 to 95% non-condensing at +36°C
<b>Storage Temperature</b>	-50° to +85° C	-50° to +85° C	-50° to +85° C
<b>Operating Temperature</b>	-40° to +70° C	-40° to +70° C	-40° to +70° C
<b>Power Requirements (Typical)</b>	5Vdc ± 5% 75 mA	5Vdc ± 5% 75 mA	5-12Vdc ± 5% 85 mA
<b>Regulatory</b>	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
<b>Driver Support</b>	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)
<b>Warranty</b>	5 Years	5 Years	5 Years

# EX II Series Capacitive Touch System Electronics

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



## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9