

# TPMC-4SMD

## Isys™ 4.3" Designer Touchpanel

With its clean, contoured appearance, the Crestron Isys® TPMC-4SMD Designer Touchpanel makes an elegant statement in any environment. Perfectly at home in the most contemporary residence or modern office building, its high-tech good looks underline its power for simplifying everyday tasks and functions throughout any facility, all in a very affordable device that's versatile and easy to install.

An incredibly thin profile and small footprint allow the TPMC-4SMD to be installed in places other touchpanels just can't go, providing the choice of mounting to a standard electrical box or to virtually any flat surface — even glass, granite, or marble. A table top enclosure is also available, affording a very stylish, space-saving solution for placement on a desktop or bedside table. Complete connectivity is provided through a single high-speed Ethernet connection, containing all control, video, intercom, and power signals within a single wire.

The TPMC-4SMD packs our latest digital touchpanel technology powered by the groundbreaking Cores 3 OS, delivering amazing new control and graphics capabilities, plus streaming video and 2-way IP intercom, cohesively merged into one seamless user interface. Other features include white LED backlit buttons, built-in proximity sensor, PoE network power, and occupancy sensor inputs.

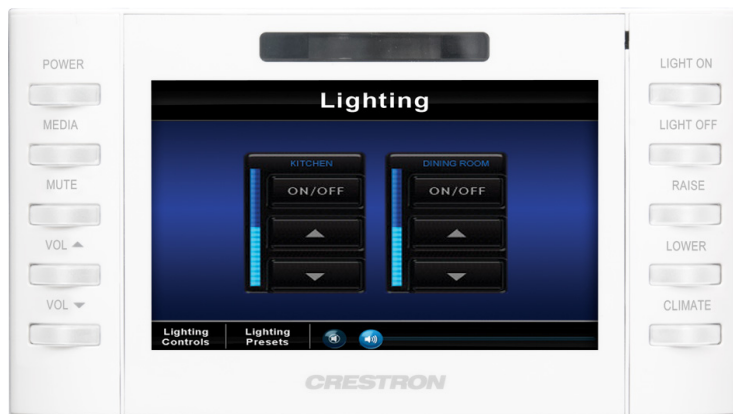
### Widescreen Touchpanel

Fully custom touchpanel versatility is afforded through a brilliant 4.3" widescreen format touchscreen, displaying stunning 16-bit color graphics and video. Dynamic graphics and text capabilities enable the display of all kinds of useful data and alluring eye candy—from AV controls and icons—to room temperature and lighting levels—to photos and video—to digital media playlists complete with metadata and cover art. Advanced gestures navigation, animated objects, multi-mode buttons, PNG translucency, and page transition effects enhance the palette for creating interactive GUIs that are both eye-catching and easy to use.

### Powered by Core 3 [Available Q2 2011]

The Crestron Core 3 framework enables the generation of dynamically rich user interfaces with greater power and ease than ever. Even on such a compact touchpanel as the TPMC-4SMD, Core 3 lets touchpanel designers merge multiple objects and apps on screen leveraging the power of Adobe® Flash®, streaming video, IP intercom, and other emerging technologies to deliver an engaging and ultra-intuitive touchpanel experience. Use gestures navigation to effortlessly browse through music and movie libraries, scroll through TV channels and radio stations, and select any desired control app from an intuitive menu of colorful 3D icons. Personalize the touchpanel desktop with animated clocks, calendars, weather widgets, news feeds, and other informative objects. Even apply themes and backgrounds that change on the fly with each user, event, or season.

But, the power of Core 3 extends beyond impressive graphics and animated objects, unleashing tremendous new capabilities for controlling devices and managing a complete integrated system. Using the Core 3 SDK, programmers can develop fully functioning "device apps" that can be dropped into each touchpanel project without additional programming or resizing. Or, choose from an expanding library of fully developed device apps to instantly add controls for security systems and HVAC, provide sophisticated navigation for media servers and tuners, and enable user-friendly editing of lighting scenes and channel presets. With Core 3, the possibilities are



virtually limitless.

### White Backlit Buttons

The TPMC-4SMD comes standard with 10 programmable "hard key" pushbuttons for quick access to commonly used functions. Individual white LEDs behind each translucent button afford discrete feedback capability for clear status indication of each button function. The LEDs may also be set to provide dimmable backlighting of the buttons, with independent control over the left and right columns, for a custom appearance and enhanced visibility.

Customized labeling of the covers surrounding the pushbuttons can be attained simply using Crestron Engraver software. Or, for a clean appearance, either column of buttons may be removed and covered using the no-button covers provided.

### Proximity Sensor

The TPMC-4SMD senses as you approach it, waking its display automatically without having to touch the screen so it's always ready for use.

### Streaming Video

An onboard streaming video player makes it possible to monitor a security camera, or preview a DVD or television channel, right on the touchscreen display. Native support for the motion-JPEG streaming format allows the TPMC-4SMD to display live video from a variety of Web cameras and servers including the Crestron CEN-NVS100 Network Video Streamer<sup>[1]</sup>.

### IP Intercom

Built-in IP intercom capability facilitates direct panel-to-panel intercom and monitoring right over the LAN without requiring any additional AV wiring. The TPMC-4SMD features an integrated microphone and speaker for clear speech communication.

### Audio Feedback

Customized WAV files can be loaded on the TPMC-4SMD to add dimension to its touchscreen graphics using personalized sounds, button feedback, and voice prompts.

### Single-Wire Connectivity

A simple Ethernet LAN connection is all that is required to wire the

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TPMC-4SMD, enabling seamless communication with Crestron control systems, computers, video servers, and other touchpanels.

## Power over Ethernet

The TPMC-4SMD gets its power right through the LAN wiring using 802.3af PoE technology. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. A PoE Injector (PWE-4803RU<sup>[1]</sup>) simply connects inline with the LAN cable, allowing for installation at any convenient location. For applications with multiple TPMC-4SMDs or other PoE-powered devices, a Crestron PoE switch (CEN-SW-POE-5 or CEN-SWPOE-24<sup>[1]</sup>) may be used, allowing numerous devices to be powered from a single location.

## Occupancy Sensing

Crestron GLS-series room occupancy sensors can be connected directly to the TPMC-4SMD to allow automation of the room's lighting, climate control, and other devices.

## Simple, Versatile Mounting

The TPMC-4SMD installs easily on virtually any mounting surface. As standard, it mounts directly to a single-gang electrical box (horizontally oriented) or European electrical box, requiring just 1/2-inch mounting depth while protruding less than 3/4-inch from the wall surface. It can also be adapted for mounting to a vertically-oriented 1-gang or 2-gang electrical box, or a 2-gang UK electrical box, using the optional WMKU-4SM Universal Wall Mount Kit<sup>[1]</sup>, which can also be used without an electrical box for a low-profile surface-mount solution<sup>[2]</sup>.

For impenetrable surfaces, such as decorative glass, granite, marble, plaster, smooth stone and masonry, Crestron offers the MSMK-4SM Multi-Surface Mount Kit<sup>[1]</sup>, which provides a very versatile mounting solution complete with a low-profile rear shell enclosure, adhesive mounting plate, optional angle bracket, and wire raceway. And finally, the TTK-4SM Table Top Kit<sup>[1]</sup> converts the TPMC-4SMD into a stylish, compact tabletop touchpanel, perfect for free-standing use or permanently-mounted on a tabletop or counter surface.

> *Modern, contoured appearance*

> *Thin profile and small footprint*

> *Affordable and easy to install*

> *4.3" widescreen color touchscreen*

> *16-bit color graphics powered by Core 3*

> *800 x 480 resolution*

> *Streaming video*

> *Crestron IP intercom*

> *WAV file audio feedback*

> *Built-in microphone and speaker*

> *Built-in proximity sensor*

> *10 optional "hard key" pushbuttons*

> *White LED button backlighting and feedback*

> *Engravable button text*

> *Room occupancy sensor option*

> *Single-wire Ethernet connectivity*

> *PoE network powered*

> *Versatile wall, surface, and tabletop mounting options*

> *Available in gloss black or white*

## SPECIFICATIONS

### Touchscreen Display

**Display Type :** TFT Active matrix color LCD

**Size:** 4.3 inch (109 mm) diagonal

**Aspect Ratio:** 16:9 WVGA

**Resolution:** 800 x 480 pixels

**Brightness:** 270 nits (cd/m<sup>2</sup>)

**Contrast:** 300:1

**Color Depth:** 16-bit, 64k colors

**Illumination:** Backlit LED

**Viewing Angle:** ±80° horizontal, ±80° vertical

**Touchscreen:** Resistive membrane

### Buttons

**Hard Keys:** (10) Optional programmable pushbuttons, translucent backlit

**Feedback/Backlight:** (1) white LED per hard key, programmable for feedback and backlighting

**Reset:** (1) Recessed pushbutton behind pinhole for hardware reset

### Proximity Sensor

**Type:** Active infrared beam and receiver

**Range:** 3-4 feet

### Memory

**SDRAM:** 256 MB

**Flash:** 2 GB

**Maximum Project Size:** 80 MB

### Graphic Engine

16-bit non-palette graphics, 65,536 colors, Crestron Core 3 framework, multi-mode objects, dynamic graphics and text, PNG translucency, full-motion (60 fps) animation, transition effects

### Embedded Applications

Crestron MJPEG Viewer, Crestron IP Intercom <sup>[3]</sup>

### Communications

**Ethernet:** 10BaseT/100BaseTX, auto-switching, auto-negotiating, auto-discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, IEEE 802.3af compliant

### Video

**Streaming Formats:** MJPEG via Crestron MJPEG Viewer<sup>[3]</sup>

### Audio

**Hardware Features:** Built-in microphone and speaker

**Amplification:** Mono, 0.5 Watts

**Audio Feedback:** WAV format, 8 & 16 bit PCM, mono & stereo, 8 - 44.1 kHz sampling rates

### Connectors

**LAN PoE:** (1) 8-wire RJ45 with 2 LED indicators;

10BaseT/100BaseTX Ethernet port;

802.3af Power over Ethernet compliant;

Green LED indicates link status;

Yellow LED indicates Ethernet activity

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**Occupancy Sensor Input:** (4) captive screw terminals comprising (2) voltage sensing inputs (referenced to GND) with 24 Volt DC power output; Input Voltage Range: 0-30 Volts DC; Sensing Threshold:  $\geq$ 4.5 Volts DC active,  $\leq$ 1 Volt DC inactive; Maximum DC Load: 4 Watts @ 24 Volts DC, provides operating power for up to (4) Crestron GLS Series occupancy sensors

## **Power Requirements**

**Power over Ethernet:** IEEE 802.3af Class 3 PoE Powered Device

## **Environmental**

**Temperature:** 32° to 104°F (0° to 40°C)

**Humidity:** 10% to 90% RH (non-condensing)

**Heat Dissipation:** 14 BTU/Hr

## **Enclosure**

**Construction:** Plastic

**Front Bezel:** Plastic, includes button and no-button covers, button covers include default engraving, custom engraving sold separately

**Mounting:** Requires a horizontally-oriented 1-Gang electrical box or plaster ring, or a 1-Gang European (DIN 49073) electrical box; choice of standard or security screws provided; optional universal wall, multi-surface, and table top mounting kits sold separately

## **Dimensions**

**Height:** 3.47 in (89 mm)

**Width:** 6.20 in (158 mm)

**Depth:** 1.21 in (31 mm)

## **Weight**

8.8 oz (249 g)

## **Available Models**

**TPMC-4SMD-B-S:** Isys™ 4.3" Designer Touchpanel, Gloss Black

**TPMC-4SMD-W-S:** Isys™ 4.3" Designer Touchpanel, Gloss White

## **Included Accessories**

**4SM-BTNO-B-S** Engravable Button Covers w/Default Engraving, Set of 2, Gloss Black [Included Quantity for TPMC-4SMD-B-S: 1]

**4SM-BTNO-W-S** Engravable Button Covers w/Default Engraving, Set of 2, Gloss White [Included Quantity for TPMC-4SMD-W-S: 1]

## **Available Accessories**

**4SM-BTNO-B-S:** Engravable Button Covers w/Custom Engraving, Set of 2, Gloss Black

**4SM-BTNO-W-S:** Engravable Button Covers w/Custom Engraving, Set of 2, Gloss White

**WMKU-4SM-B-S:** Universal Wall Mount Kit, Gloss Black

**WMKU-4SM-W-S:** Universal Wall Mount Kit, Gloss White

**MSMK-4SM-B-S:** Multi-Surface Mount Kit, Gloss Black

**MSMK-4SM-W-S:** Multi-Surface Mount Kit, Gloss White

**TTK-4SM-B-S:** TableTop Mount Kit, Gloss Black

**TTK-4SM-W-S:** TableTop Mount Kit, Gloss White

**SMK-4SM:** Swivel Mount Kit for TTK-4SM

**PWE-4803RU:** PoE Injector

**CEN-SW-POE-5:** 5-Port PoE Switch

**CEN-SWPOE-24:** 24-Port Managed PoE Switch

**GLS-ODT-C-1000:** Crestron Green Light™ Dual-Technology Ceiling Mount Occupancy Sensor, 1000 Sq. Ft.

**GLS-ODT-C-2000:** Crestron Green Light™ Dual-Technology Ceiling Mount Occupancy Sensor, 2000 Sq. Ft.

**GLS-ODT-C-500:** Crestron Green Light™ Dual-Technology Ceiling Mount Occupancy Sensor, 500 Sq. Ft

**GLS-OIR-C-450:** Crestron Green Light™ Passive Infrared Ceiling Mount Occupancy Sensor, 450 Sq. Ft.

**GLS-OIR-W-2500:** Crestron Green Light™ Passive Infrared Wall Mount Occupancy Sensor, 2500 Sq. Ft.

**CEN-NVS100:** Network Video Streamer

**CEN-NVS100-PWE:** Network Video Streamer w/PoE Injector

**SW-VMK-WIN:** TouchPoint™ Virtual Mouse & Keyboard Software for Windows® [Release Date: TBA]

## Notes:

1. Item(s) sold separately.

2. WMKU-4SM mounting option requires a minimum surface or wall box opening of 1.7" high x 2.0" wide.

3. Contact Crestron for a current list of embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.

This product may be purchased from an authorized Crestron dealer. To find a dealer, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/salesreps](http://www.crestron.com/salesreps) or by calling 800-237-2041.

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## Typical TPMC-4SMD Connections

