

# TPMC-4SMD-FD

## 4.3" Designer Touch Screen w/Full Duplex Audio

- > Modern, contoured appearance
- > Thin profile and small footprint
- > Affordable and easy to install
- > 4.3" widescreen active-matrix color touch screen
- > 800 x 480 WVGA display resolution
- > Smart Graphics™ support
- > High-performance H.264 streaming video
- > Rava™ SIP Intercom and phone technology
- > Full-duplex voice communication
- > Customizable audio feedback
- > Built-in microphone and speaker
- > Built-in proximity sensor
- > 10 optional "hard key" pushbuttons
- > White LED button backlighting and feedback
- > Custom engravable button text
- > Room occupancy sensor option<sup>[2]</sup>
- > Single-wire Ethernet connectivity
- > PoE network powered
- > Surface mountable over a 2" square hole or wall box<sup>[1]</sup>
- > Available with black or white smooth finish

With its clean, contoured appearance, the TPMC-4SMD-FD Designer Touch Screen from Crestron® 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. It mounts over a standard electrical box or small hole on a wall or similar surface<sup>[1]</sup>, achieving a thin profile and small footprint.

The TPMC-4SMD-FD provides a customizable touch screen controller featuring Smart Graphics™, H.264 streaming video, audio feedback, and Rava™ SIP Intercom, cohesively merged into one seamless user interface. Additional features include white LED backlit buttons, a built-in proximity sensor, PoE network power, and occupancy sensor inputs.

### Advanced Touch Screen Control

A Crestron touch screen offers an ideal user-interface for controlling all the technology in your home, boardroom, classroom, courtroom, or command center. Touch screens do away with piles of remote controls, cluttered wall switches, and cryptic computer screens, simplifying and enhancing the way you use technology. Crestron touch screens are fully-customizable for controlling audio, video, lighting, shades, HVAC, security, and other systems — with easy-to-use controls and icons, true feedback and real-time status display, live streaming video, and advanced navigation of digital media servers, tuners, and other devices.



### Smart Graphics™

Crestron touch screens use Smart Graphics to deliver the ultimate user experience *and* the ultimate value by enabling the creation of dynamically rich user interfaces with incredible efficiency and unparalleled functionality. Using Smart Graphics, programmers can swiftly integrate fluid gesture-driven controls, animated feedback, metadata, and video for a deeply engaging and ultra-intuitive touch screen experience.

Crestron Smart Graphics include the following enhancements:

- Cool-looking graphical buttons, sliders, knobs, and gauges are intuitive and fun to use.
- Kinetic effects enhance the feeling of realism with lists and toolbars that scroll with momentum at the flick of a fingertip.
- Drag-and-drop objects snap into place offering an easy way to switch sources.
- Dashboard widgets personalize the touch screen with clocks, weather, news, and other information.
- Customizable themes allow a completely different look and feel for every user, event, or season.
- Fully-developed SmartObjects™ enable sophisticated control over complex devices with minimal programming.

### White Backlit Buttons

The TPMC-4SMD-FD comes standard with 10 programmable "hard key" pushbuttons for quick access to commonly used functions. Each button features a translucent button cap with white LED backlighting. The backlighting is fully dimmable, either globally or separately for the left side and right side. Alternately, each button LED can be programmed to provide discrete feedback, affording clear indication of the status of each individual button.

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The TPMC-4SMD-FD comes standard with its buttons pre-labeled for typical room control functions. Customized labeling can be attained 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-FD senses as you approach it, waking its display automatically without having to touch the screen so it's always ready for use.

## Streaming Video

High-performance streaming video capability makes it possible to view security cameras and other video sources over the network right on the touch screen. Native support for H.264 and MJPEG formats allows the TPMC-4SMD-FD to display live video images from IP cameras and servers such as the Crestron [CEN-NVS200](#) Network Video Streamer<sup>[2]</sup>.

## Rava™ SIP Intercom

[Rava SIP Intercom Technology](#) enables hands-free VoIP communication between any two Rava-enabled Crestron touch screens. Rava works over Ethernet, supporting 2-way intercom, video intercom<sup>[3]</sup>, paging, and room monitoring without any special wiring. VoIP phone capability is also possible through integration with an SIP-compatible IP phone system or SIP server, allowing hands-free telephone functionality complete with speed-dialing, caller ID, custom ringers, and other enhancements. Built-in echo cancellation affords true-duplex performance for clear, seamless voice communication using the TPMC-4SMD-FD's integrated microphone and speakers.

## Audio Feedback

Customized audio files can be loaded on the TPMC-4SMD-FD to add another dimension to its touch screen 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 TPMC-4SMD-FD, containing all control, video, intercom, and power signals within a single wire.

## Power over Ethernet

Using PoE technology, the TPMC-4SMD-FD gets its operating power right through the LAN wiring. PoE (Power over Ethernet) eliminates the need for a local power supply or any dedicated power wiring. A PoE Injector ([PWE-4803RU](#)<sup>[2]</sup>) simply connects inline with the LAN cable at any convenient location. Crestron PoE switches ([CEN-SW-POE-5](#), [CEN-SWPOE-16](#), or [CEN-SWPOE-24](#)<sup>[2]</sup>) may also be used to provide a total networking solution with built-in PoE.

## Occupancy Sensing

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

## Simple, Versatile Mounting

The TPMC-4SMD-FD installs easily using a 1-gang or 2-gang electrical box or a 2-gang UK electrical box. It can also be attached directly to drywall and other surfaces over the front of a roughly 2 inch square hole. It requires just 1/2-inch mounting depth while protruding less than an inch from the wall surface.<sup>[1]</sup>

## SPECIFICATIONS

### Touch Screen Display

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**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

**Touch Screen:** Resistive membrane

### Buttons

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**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

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**Type:** Active infrared beam and receiver

**Range:** 3-4 feet

Wakes the touch screen and backlight

### Memory

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**SDRAM:** 256 MB

**Flash:** 2 GB

**Maximum Project Size:** 60 MB

### Graphics Engine

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Supports Smart Graphics™ or "traditional" GUI projects

### Communications

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**Ethernet:** 10/100 Mbps, auto-switching, auto-negotiating, auto-discovery, full/half duplex, DHCP, IEEE 802.3af and 802.3at compliant

### Video

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**Streaming Formats:** H.264 (MPEG-4 part 10 AVC), MJPEG

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## Audio

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**Features:** Built-in microphone and speaker, Rava™ SIP Intercom, Crestron IP Intercom, 60 dB echo cancellation

**Amplification:** Mono, 0.5 Watts

**Audio Feedback Formats:** MP3 using Smart Graphics, WAV using "traditional" graphics

## Connectors

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**LAN PoE:** (1) 8-wire RJ45 with 2 LED indicators; 10Base-T/100Base-TX Ethernet port; Power over Ethernet compliant; Green and yellow LEDs indicate Ethernet port status

**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

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**Power over Ethernet:** IEEE 802.3af (802.3at Type 1) Class 3 PoE Powered Device

## Environmental

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

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

**Heat Dissipation:** 14 BTU/Hr

## Enclosure

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**Construction:** Plastic, black or white, smooth finish

**Front Bezel:** Plastic, hard buttons installed with pre-labeled button covers, custom engraving sold separately, "no-button" covers also included

**Mounting:** Surface mount<sup>[1]</sup>, or mounts to a vertically-oriented 1-gang or 2-gang electrical box<sup>[1]</sup>, a horizontally-oriented 1-gang electrical box<sup>[1]</sup>, or a 2-gang UK (BS 4662) electrical box; choice of standard or security screws provided

## Dimensions

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**Height:** 4.00 in (102 mm)

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

**Depth:** 1.28 in (33 mm)

## Weight

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9.5 oz (268 g)

## MODELS & ACCESSORIES

### Available Models

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**TPMC-4SMD-FD-B-S:** 4.3" Designer Touch Screen w/Full Duplex Audio, Black Smooth

**TPMC-4SMD-FD-W-S:** 4.3" Designer Touch Screen w/Full Duplex Audio, White Smooth

### Available Accessories

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**4SM-BTNO:** Engravable Button Covers, Set of 2

**PWE-4803RU:** PoE Injector

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

**CEN-SWPOE-16:** 16-Port Managed PoE Switch

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

**GLS-ODT-C Series:** Crestron Green Light® Dual-Technology Ceiling Mount Occupancy Sensors

**GLS-ODT-W Series:** Crestron Green Light® Dual-Technology Wall Mount Occupancy Sensors

**GLS-OIR-C Series:** Crestron Green Light® Passive Infrared Ceiling Mount Occupancy Sensors

**GLS-OIR-W Series:** Crestron Green Light® Passive Infrared Wall Mount Occupancy Sensors

**CEN-NVS200:** Network Video Streamer

**SW-VMK-WIN:** TouchPoint® Virtual Mouse & Keyboard Software for Windows®

Notes:

1. Requires a minimum cut-out or electrical box opening of 1.7" high x 2.0" wide. See specifications for electrical box compatibility.
2. Item(s) sold separately.
3. H.264 compatible IP camera required.

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.

The specific patents that cover Crestron products are listed online at: [patents.crestron.com](http://patents.crestron.com).

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