

# Crestron Isys® TPS-17L

## 17" Widescreen Wall Mount Touchpanel

Crestron's new Isys touchpanels deliver a higher level of performance to meet the demands of today's sophisticated control and automation applications. Incorporating modern styling in a versatile flush mount design, the Isys TPS-17L features a spectacular 17" WXGA widescreen display offering extended real estate, wide viewing angle, and exceptional brightness and contrast for stunning control graphics, high-resolution images, and full-motion video.

Crestron touchpanels offer an ideal user-interface for multimedia presentation, videoconferencing, home automation, and much more, providing a wide-open canvas for the creation of custom control screens tailored to the needs of the end-user. Touchpanels do away with piles of remote controls, cryptic control panels and cluttered wall switches, simultaneously expanding and simplifying control over a broad range of complex devices and systems.

**Isys®**—Isys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the TPS-17L offers vibrant 24-bit color depth to produce incredible 3D graphics, high-res images, translucency, dynamic text and graphics, full-motion animations, multimode objects, and dramatic transition effects, all with astonishing speed.

**Synapse™**—Crestron's exclusive Synapse Image Rendering Algorithm enables system programmers to produce amazing graphics – faster and easier. Advanced antialiasing delivers crisper, sharper objects and text. Enhanced 3D effects add new depth and style. And because Synapse is native to the touchpanel, memory requirements and upload time are substantially reduced.

**High-Performance Video**—The TPS-17L can display full-motion video from an external AV source, either full screen or in a scalable window. Motion adaptive deinterlacing brings out the highest detail, minimizing visible scan lines and motion artifacts for a truly remarkable picture. Advanced gamma correction and built-in time base correction ensure accurate color reproduction and a jitter-free image.

**High-Quality Audio**—The high-powered biamplified speaker system provides amplification for external AV sources, and supports intercom functionality in combination with the integrated microphone. Customized WAV files may also be loaded on the touchpanel to provide audible feedback and custom voice prompts.

**Crestron Home® CAT5 AV**—Connecting audio and video sources to the TPS-17L is facilitated using inexpensive CAT5 wire, enabling direct connection to Crestron's popular CAT5 balanced audio and video distribution switchers. A single video input port accepts signals from composite, S-Video, and standard-definition component sources over wiring distances of up to 750 feet. A bidirectional audio port receives stereo program audio and intercom signals, and outputs audio from the internal microphone. To facilitate direct connection of conventional video and audio devices, an external interface module is included.

**QuickMedia™**—The TPS-17L is also equipped with a single QuickMedia input port. Through QuickMedia (QM), the TPS-17L interfaces directly with Crestron's QM-based MediaManager products using a single CAT5e or CAT6 cable. Over wiring distances of up to 300 feet, the QM Input port accepts video signals from composite, S-Video, and standard-definition component sources along with discrete audio signals from stereo program and microphones sources.

**High-Speed Connectivity**— Both Cresnet and high-speed Ethernet are standard on the TPS-17L, providing for easy network integration and seamless communications with Crestron control systems.



**isys**



**Versatile Flush Mount Design**—The TPS-17L is designed for easy flush-mount installation in a wall, lectern or similar flat surface. A variety of mounting accessories is offered including optional back box and 19" rack mount kit. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions such as volume, home, and reset.

- > 17" widescreen touchscreen display | 1280 x 768 resolution
- > 24-Bit Isys graphics | Synapse image rendering algorithm
- > High-performance full-motion video
- > Built-in biamplified speaker system and microphone
- > Backlit "Softkey" pushbuttons
- > QuickMedia and Crestron Home CAT5 AV connectivity
- > High-speed Ethernet and Cresnet communications
- > Wall, lectern, and rack mounting options
- > Available in black or white

### AVAILABLE MODELS

**TPS-17LB** Isys 17" Widescreen Wall Mount Touchpanel, Black

**TPS-17LW** Isys 17" Widescreen Wall Mount Touchpanel, White

### SPECIFICATIONS

#### Touchscreen Display

**Display Type:** TFT Active matrix color LCD  
**Size:** 17 inch (43.2 cm) diagonal  
**Aspect Ratio:** 15:9 WXGA  
**Resolution:** 1280 x 768 pixels  
**Brightness:** 450 nits  
**Contrast:** 400:1  
**Color Depth:** 24-bit, 16.7M colors  
**Illumination:** Backlit fluorescent  
**Viewing Angle:** ±88° horizontal, ±88° vertical  
**Touchscreen:** Resistive membrane

#### Processor

**CPU:** 32-Bit Freescale ColdFire® Microprocessor  
**Processing Speed:** 410 MIPS

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## Memory

**DDR RAM:** 128 MB

**Flash:** 32 MB, expandable to 160 MB via compact flash

## Graphic Engine

Isys engine, 24-bit non-palette graphics + 8 Bit alpha channel, 16.7 million colors, Synapse image rendering algorithm

## Ethernet

10BaseT/100BaseTX, auto-switching, auto-negotiating, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, IEEE 802.3U compliant

## Video

**Signal Types:** Auto-detecting composite, S-Video, or component

**Formats:** NTSC 480i or PAL 576i

**Color Depth:** 24-bit, 16.7M colors

**Features:** Single-window scalable to full-screen, input switching between QM and VIDEO inputs, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2:2 pull-down

## Audio

**Hardware Features:** Built-in microphone and amplified speakers, stereo headphone output, internal volume control and audio mixer

**Audio Feedback (WAV):** 8-bit PCM, mono, 8 kHz sampling rate

**D-A Conversion (QM only):** 24-bit, 48 kHz

**Amplification:** Bi-amplified, mono, 5 Watts for high-frequency, 5 Watts for low-frequency

## Buttons

▼ ▲ ■ ⏪ : (4) Backlit "softkey" buttons, programmable

⏻ : (1) Backlit hard reset button, reboots the touchpanel

## Connectors – Rear Panel

**QM IN:** (1) 8-wire RJ45 female, QuickMedia input port

Signal Types: Auto-detecting component (YPbPr), S-Video (Y/C), or composite video with stereo program audio and (2) mic channels;

Video Formats: NTSC 480i or PAL 576i

Connects to QM output port of a QM-TX or other QuickMedia device via CresCAT-QM or CAT5e/6 cable;

Maximum Cable Length: 300 ft (aggregate distance from QM origination)

**VIDEO IN:** (1) 8-wire RJ45 female, CAT5 balanced video input port

Signal Types: Auto-detecting component (YPbPr), S-Video (Y/C), or composite  
Formats: NTSC 480i or PAL 576i

Input Impedance: 100 ohms balanced

Connects to output of any Crestron CAT5 balanced video source, or TPMC-CH-IMC interface module (included) via CresCAT or CAT5e/6 cable;

Maximum Cable Length: 500 feet for component, 750 feet for composite/S-Video

**AUDIO I/O:** (1) 8-wire RJ45 female, bidirectional CAT5 balanced audio port

Signal Types: Receives (1) balanced stereo, and transmits (1) balanced stereo audio

Maximum Input Level:  $4 V_{RMS}$

Maximum Output Level:  $2 V_{RMS}$

Input/Output Impedance: 600 ohms

Connects to any other Crestron CAT5 balanced audio port, or TPMC-CH-IMC interface module (included) via CresCAT or CAT5e/6 cable;

Maximum Cable Length: 1000 feet

**HEADPHONES:** (1) 3.5 mm TRS mini phone jack

Output Power: 12 mW per channel

Minimum Impedance: 32 ohms

**USB:** (1) USB Type B female (functions not defined at this time)

**NET:** (1) 4-pin 3.5mm detachable terminal block

Cresnet Slave Port; connects to Cresnet control network, or TPMC-CH-IMC interface module (included) via CresCAT or Cresnet cable

**LAN:** (1) 8-wire RJ45 with 2 LED indicators, 10BaseT/100BaseTX Ethernet port

Green LED indicates link status, Yellow LED indicates Ethernet activity

**RS-232:** (1) 6-pin RJ11 female; computer console, touch output or mouse input port; Bidirectional RS-232 up to 115.2k baud, hardware and software handshaking support

**G:** (1) 6-32 screw, chassis ground lug

**MEMORY EXPANSION:** (1) Type II Compact Flash card slot for memory expansion and project upload

## Power Requirements

**Cresnet Power Usage:** 74 Watts (3.1 Amps @ 24 Volts DC)

## Enclosure

**Chassis:** Metal, flush mount, 9U 19" rack-mountable (all mounting kits sold separately)

**Front Bezel:** Injection-molded plastic; black w/silver accent or white w/gray accent

## Environmental

**Temperature:** 41° to 113°F (5° to 45°C)

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

## Dimensions

**Height:** 13.81 in (35.06 cm)

**Width:** 16.98 in (43.11 cm)

**Depth:** 3.80 in (9.66 cm)

## Weight

12.7 lbs (5.76 kg)

SPECIFICATIONS for TPMC-CH-IMC Interface Module (Included with TPS-17L):

## Connectors

**NET:** (1) 4-pin 3.5mm detachable terminal block, Cresnet slave port  
Connects to Cresnet control network

**VIDEO COMP/Y/Y, C/Pb, Pr:** (3) BNC female

Provides (1) Composite, S-Video, or component video input

Input Impedance: 75 ohms

Input Level: 1  $V_{P-P}$  nominal, 1.5  $V_{P-P}$  maximum

Maximum DC Offset: 1.5 Volts

**AUDIO IN:** (1) 5-pin 3.5mm detachable terminal block

Balanced/unbalanced stereo line-level input

Input Impedance: 20k ohms balanced, 10k ohms unbalanced

Maximum Input Level: 4  $V_{RMS}$  balanced, 2  $V_{RMS}$  unbalanced

**AUDIO OUT:** (1) 5-pin 3.5mm detachable terminal block

Balanced stereo line-level output (unbuffered pass-thru from AUDIO TO PANEL)

**AUDIO TO PANEL:** (1) 8-pin RJ45 female, bidirectional CAT5 balanced stereo audio port

Output Impedance: 100 ohms balanced

Maximum Output Level: 2  $V_{RMS}$

Input Impedance: Infinite (unbuffered pass-thru to AUDIO OUT)

**VIDEO TO PANEL:** (1) 8-pin RJ45 female, CAT5 balanced video output port

Output Impedance: 100 ohms balanced

**NET TO PANEL:** (1) 4-pin 3.5mm detachable terminal block, pass-thru from NET port

## LED Indicators

**PWR:** (green) Indicates 24 Volts DC power supplied from Cresnet control network

## Power Requirements

**Cresnet Power Usage:** 2 Watt (0.08 Amps @ 24 Volts DC)

## Environmental

**Temperature:** 41° to 122°F (5° to 50°C)

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

## Enclosure

Black metal, surface mount box with (2) integral mounting flanges

## Dimensions

**Height:** 1.29 in (3.28 cm)

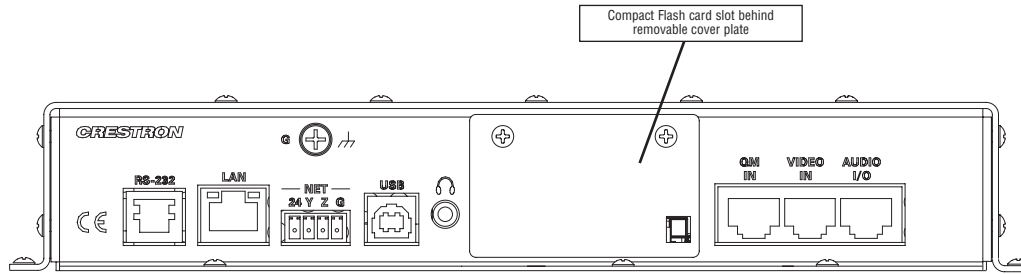
**Width:** 7.30 in (18.54 cm)

**Depth:** 3.95 in (10.03 cm)

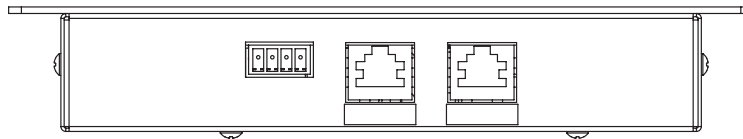
## Weight

9.7 oz (0.28 kg)

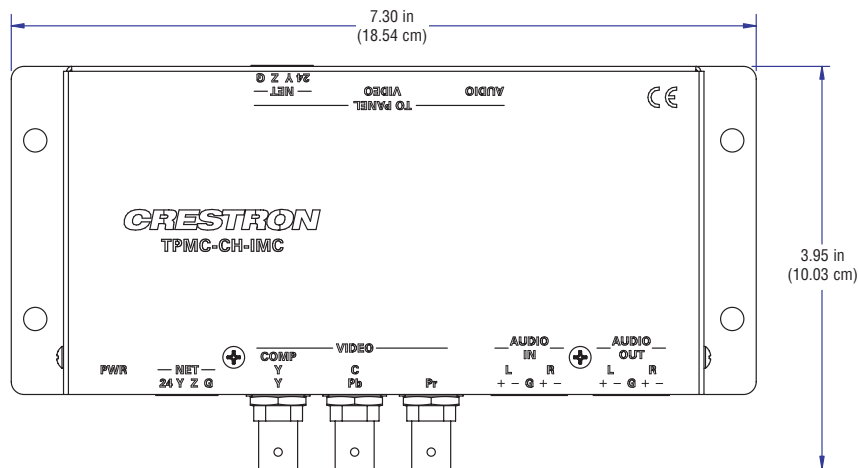
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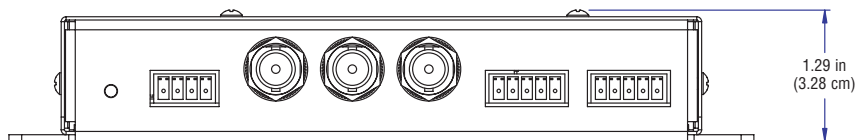
TPS-17L Touchpanel – I/O Panel



TPMC-CH-IMC Interface Module – Rear View

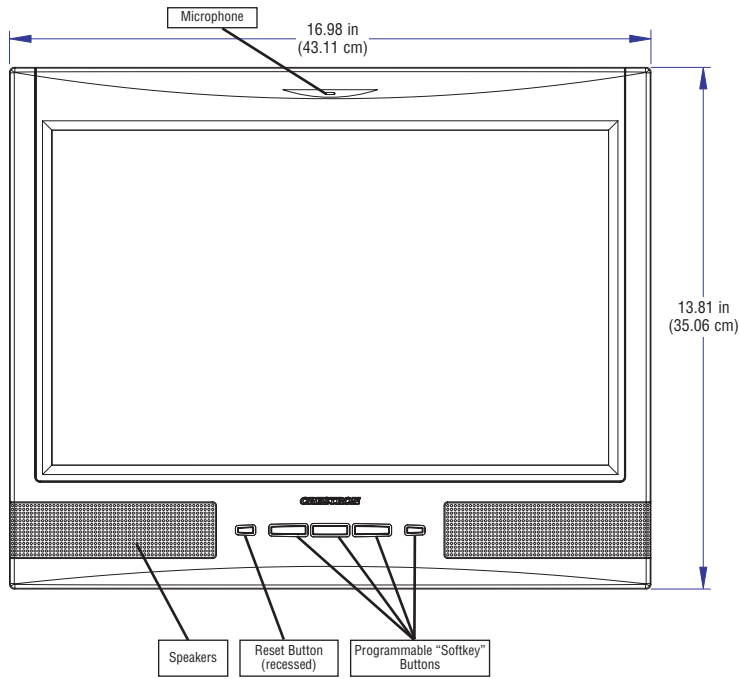


TPMC-CH-IMC Interface Module – Top View

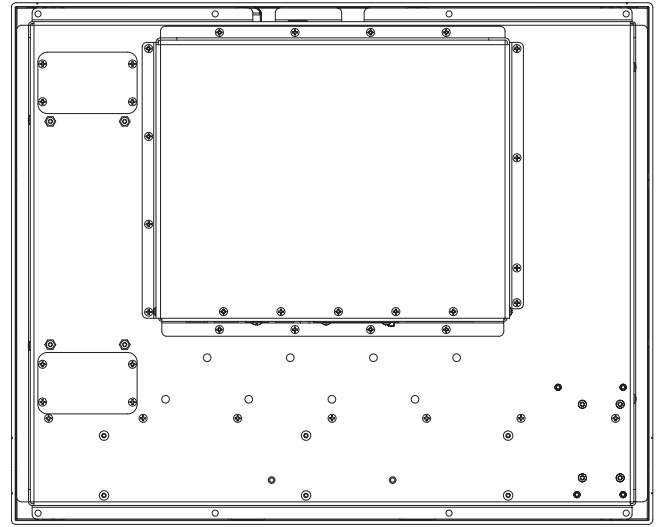


TPMC-CH-IMC Interface Module – Front View

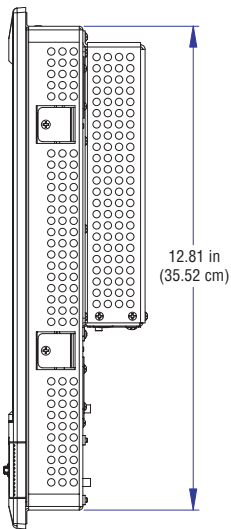
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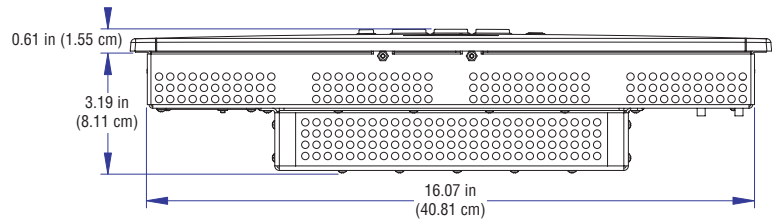
**Front View**



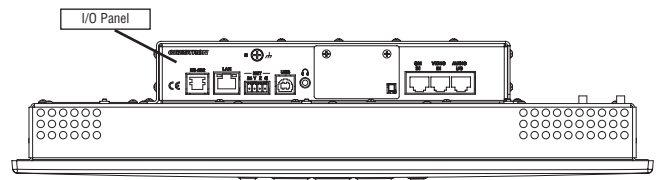
**Rear View**



**Right Side View**



**Top View**



**Bottom View**

## AVAILABLE ACCESSORIES

### TPMC-CH-IMC

CAT5 Balanced AV Interface Module  
(1 included with TPS-17L)

### QM-TX

QuickMedia Transmitter

### BB-17L

Pre-Construction Wall Mount Back Box

### PMK-17L

Pre-Construction Wall Mount Kit

### TMK-17L

Trim Ring

### MMK-17L

Mud Ring

### WMKT-17L

Lectern Mount Kit with Trim Ring

### RMK-17L

Rack Mount Kit

### ST-PK

Programming Cable Kit