### Isys® Tilt Touchpanels overview

When Crestron introduced the world's first touchpanel-based control system 15 years ago, the AV industry was changed forever. That spirit of innovation has never ceased and today Crestron offers the most advanced and comprehensive line of touchpanels available. Crestron's tilt touchpanel models combine modern styling and cutting-edge technology with the ingenuity and sensibility that only comes with 35+ years of experience.

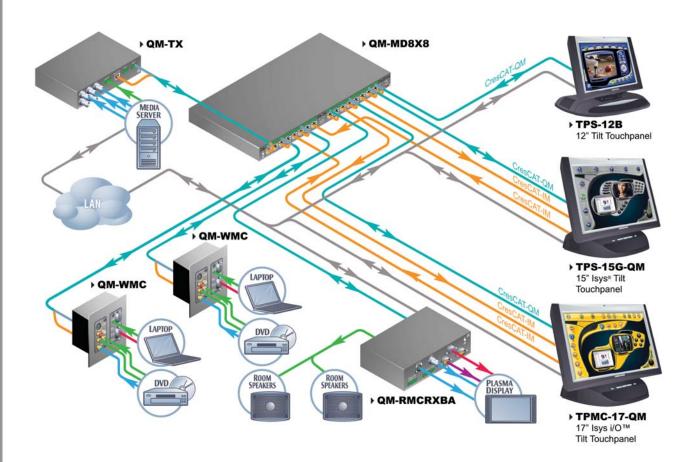
The **TPS Series** of Isys touchpanels ranges from the compact 6.4" TPS-3000 to the spectacular 17" widescreen TPS-17B. Bright, high-contrast displays and a choice of 16-Bit or 24-Bit graphics and video deliver industry-leading touchpanel performance, while every TPS model represents an incredible value compared to previous and current competitive models. The **TPS-G Series** adds dual-window display of both high-definition video and high-res RGB signals. High-speed Ethernet

is also standard on most models, supporting dynamic graphics, Internet connectivity, and enhanced performance and flexibility as part of any sized control network.

Crestron's ground-breaking Isys i/O TPMC Touchpanel Media Centers come in either 15" standard or 17" widescreen sizes, and feature the Windows XP Embedded operating system. This powerful platform enables onboard PC capabilities including Web browsing, streaming media, multimedia presentation, and Voice over IP, while also unleashing a host of immensely useful design features like new Dynamic Menu Objects and support for Yahoo! Widgets.

Whether controlling a single boardroom or home theater, or commanding a large facility full of equipment, Crestron tilt touchpanels can deliver a perfect solution for every control application and budget.

#### Typical Isys Tilt Touchpanel Application using QuickMedia



See end of section for additional diagrams



# Isys® Tilt Touchpanels cross reference

24-28   E7M   24-28   E7M   24-28   E7M   24-28   E7M   16-28   E4K   54K   16-28   54K   54K   16-28   54K   54K   16-28   54K		Isys Tilt Touchpanels				
Display Size		TPS-17B (or W)	TPS-15B (or W)	TPS-12B (or W)	TPS-4000	TPS-3000
Append	Touchscreen Display					
Append April   15-9 MWGA		17"	15"	12"	10.4"	6.4"
Receition   1280 x 788						
24-bit 16.7M   24-bit 16.7M   24-bit 16.7M   18-bit 256k						
Touchpanel Graphics    24-bit 167M						
24-28   E7M   24-28   E7M   24-28   E7M   24-28   E7M   16-28   E4K   54K   16-28   54K   54K   16-28   54K   54K   16-28   54K	Color Deptil	24-DIL 10.7W	24-DIC 10.7W	TO-DIL TO.7 W	TO-DIL ZOOK	10-bit 230K
Bett Algebra Damen Transporancy	Touchpanel Graphics					
Propose Treatment and Machines Objected   Propose	Color Depth	24-bit 16.7M	24-bit 16.7M	24-bit 16.7M	16-bit 64k	16-bit 64k
Dynamic Regines and Microstron   Proposed Septimes of Microstrony	8-bit Alpha Channel Transparency	•	•	•		
Dynamic Manu Graphics	Synapse Image Rendering and Multimode Objects	•	•	•	•	•
	Dynamic Text and Animation	•	•	•	•	•
	Dynamic Graphics and PNG Translucency			•		
MAM						
MAM						
Flash   6.4MB   6.4MB   6.4MB   6.4MB   8MB						
Meserinum Project Size						
		64MB	64MB	64MB	8MB	8MB
Annotation & PC Windows XP Embedded OS Windows AND Windows AND Office and Adobbe Document Vewers' Annotation Keyboard Middows Input Touch-the-PC  Vicideo/RGB Statished Windows 1 1 1 1 1 1 1 1 1 1 Arathware Comestions	Memory Card Slot	up to 4GB	up to 4GB	up to 4GB		
Windows PErnbedded OS	Maximum Project Size	160MB	160MB	160MB	7MB	7MB
Windows PErnbedded OS	Annotation & PC					
Web Bowers and Media Player, Remote Desktop, Work Notifier and Adobe Document Viewers!						
Annotation Keybourd/Mouse Input  Video/RGB Scalable Windows  1 1 1 1 1 1 1 1  Interview Connections  OM, CH, BNC <sup>1</sup> OM, CH, BNC <sup>1</sup> OM, CH, BNC <sup>1</sup> CH <sup>1</sup> , BNC <sup>1</sup> CH <sup>1</sup> , BNC <sup>1</sup> Composite  • • • • • • • • • • • • • • • • • • •	Web Browser and Media Player, Remote Desktop, VoIP, NetMeeting, Yahoo! Widgets, MS Office and					
KeyboardMouse Input Touch-the-PC  Video/RGB Scalable Windows  1 1 1 1 1 1 1 1 1 Anatoware Connections						
	Annotation					
Victor   CRC   Care	Keyboard/Mouse Input					
1	Touch-the-PC					
1	Video/RGB					
Hardware Connections	Scalable Windows	1	1	1	1	1
Composite						
S-Video					· · · · · · · · · · · · · · · · · · ·	
Component				-		
HDTV up to 1080i RGB up to 1600 x 1200 Streaming Motion-JPEG Media Player (Multiple Formats) Display Output  Audio Amplified Speakers and Microphone  WAV Sound File Audio Feedback  Network Cresnet  Internet  Internet					•	•
RGB up to 1600 x 1200  Streaming Motion-JPEG  Media Player (Multiple Formats)  Display Output  Audio  Amplified Speakers and Microphone  MAY Sound File Audio Feedback  Tersnet  Tersne	Component	•	•	•		
Streaming Motion-JPEG  Media Player (Multiple Formats)  Display Output  Audio  Amplified Speakers and Microphone  WAV Sound File Audio Feedback  Network  Cresnet  Internet  Int	HDTV up to 1080i					
Media Player (Multiple Formats)  Display Output  Auclio Amplified Speakers and Microphone  WAY Sound File Audio Feedback  Network  Cresnet  Ethernet  Wi-Fi²  Buttons Backlit Softkeys  4 4 4 4  Enclosure  Tiltcase  Integral Rear Cover with Strain Relief  • • • • • • • • • • • • • • • • • • •	RGB up to 1600 x 1200					
Media Player (Multiple Formats)  Display Output  Auclio Amplified Speakers and Microphone  WAY Sound File Audio Feedback  Network  Cresnet  Ethernet  Wi-Fi²  Buttons Backlit Softkeys  4 4 4 4  Enclosure  Tiltcase  Integral Rear Cover with Strain Relief  • • • • • • • • • • • • • • • • • • •	Streaming Motion-JPEG					
Audio Amplified Speakers and Microphone  • • • • • • • • • • • • • • • • • • •	-					
Amplified Speakers and Microphone  WAV Sound File Audio Feedback  Network Cresnet  • • • • • • • • • • • • • • • • • • •	Display Output					
WAV Sound File Audio Feedback         •	Audio					
WAV Sound File Audio Feedback  Network Cresnet  Image: Standard St	Amplified Speakers and Microphone	•	•	•	•	•
Cresnet         ●<		•		•	•	•
Cresnet         ●<	Network					
Ethernet						
Ni-Fi <sup>2</sup>					•	•
Buttons Backlit Softkeys  4 4 4 4 4  Enclosure Tiltcase  • • • • • • • • • • • • • • • • • •		•	•	•		
Backlit Softkeys         4         4         4           Enclosure         Tiltcase         • <td>Wi-Fi<sup>2</sup></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Wi-Fi <sup>2</sup>					
Enclosure         •	Buttons					
Tiltcase	Backlit Softkeys	4	4	4		
Slimline Base  Integral Rear Cover with Strain Relief  Integral Rear Cover with Strain Relief	Enclosure					
Slimline Base  Integral Rear Cover with Strain Relief  Integral Rear Cover with Strain Relief	Tiltcase	•	•	•	•	•
Integral Rear Cover with Strain Relief						
	Available White Finish				•	•

<sup>&</sup>lt;sup>1</sup> Connections via outboard IMC interface module (included)

<sup>&</sup>lt;sup>2</sup> Wireless NIC required

<sup>&</sup>lt;sup>3</sup> Accessory sold separately

<sup>&</sup>lt;sup>4</sup> See product spec for a complete list of embedded applications

	ilt Touchpanels		lsys i/O Tilt Touchpa		
TPS-15G-QM	TPS-12G-QM	TPMC-17-QM	TPMC-15-QM	TPMC-17-CH	TPMC-15-CH
15"	12"	17"	15"	17"	15"
4:3 XGA	4:3 SVGA	15:9 WXGA	4:3 XGA	15:9 WXGA	4:3 XGA
1024 x 768	800 x 600	1280 x 768	1024 x 768	1280 x 768	1024 x 768
24-bit 16.7M	18-bit 256k	24-bit 16.7M	24-bit 16.7M	24-bit 16.7M	24-bit 16.7M
24 DIC 10.7 III	10 St. 250K	24 Sit 10.7 iii	24 bit 10.7111	24 bit 10.711	24 bit 10.711
24-bit 16.7M	24-bit 16.7M	24-bit 16.7M	24-bit 16.7M	24-bit 16.7M	24-bit 16.7M
•	•	•	•	•	•
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		•	•	•	•
128MB	128MB	512MB	512MB	512MB	512MB
64MB	64MB	512MB	512MB	512MB	512MB
up to 4GB	up to 4GB	up to 4GB	up to 4GB	up to 4GB	up to 4GB
160MB	160MB	190MB	190MB	190MB	190MB
		•	•	•	•
		•	•	•	•
Live Only	Live Only	MediaMarker	MediaMarker	MediaMarker	MediaMarker
USB Mouse	USB Mouse	USB	USB	USB	USB
•	• OOD Wodat	•	•	000	000
	•				
2	2	2	2	2	2
QM	QM	QM	QM	CH, BNC <sup>1</sup>	CH, BNC <sup>1</sup>
•	•	•	•	•	•
•	•	•	•	•	•
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4	4	4	4	4	4
•	•	•	•	•	•



➤ Isys® Tilt Touchpanels

### TPS-17B/TPS-17W Isys® 17" Widescreen Tilt 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 tiltcase design, the Isys TPS-17B (and TPS-17W) features a spectacular 17" WXGA widescreen display offering an extra wide viewing angle with 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®—lsys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the TPS-17B offers vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics and high-res images. The Isys engine supports dynamic graphics and text, full-motion animations, multimode objects, and PNG translucency – all with astonishing speed.

Synapse<sup>TM</sup>—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-17B 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 built-in amplified speaker system provides amplification for external AV sources, and supports intercom functionality in combination with the integrated microphone. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Crestron Home® CAT5 AV—Connecting audio and video sources to the TPS-17B 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 the connection of conventional video and audio devices, an external interface module is included.

QuickMedia<sup>™</sup>—The TPS-17B is also equipped with a single QuickMedia input port. Through QuickMedia (QM), the TPS-17B interfaces directly with Crestron's QM-based MediaManager products using a single CAT5e type 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 one (1) stereo program source and up to two (2) microphones.

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

Slimline Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Four backlit pushbuttons are also provided, allowing for quick access to commonly used functions.



### Isys® Tilt Touchpanels

### Isys® 17" Widescreen Tilt Touchpanel TPS-17B/TPS-17W

- ▶ 17" widescreen active matrix touchscreen display | 1280 x 768 resolution
- ≥ 24-Bit Isys graphics | Synapse™ image rendering algorithm
- Full-motion video with gamma correction and motion adaptive deinterlacing
- Built-in amplified speaker system and microphone
- QuickMedia and Crestron Home CAT5 AV connectivity
- ▶ High-speed Ethernet and Cresnet communications
- ▶ Tiltcase housing with integral rear cover and cable strain relief
- Available in black or white
- Backlit "Softkey" pushbuttons

#### **AVAILABLE MODELS**

#### TP9-17B

Isys® 17" Widescreen Tilt Touchpanel, Black

#### **TPS-17W**

lsys® 17" Widescreen Tilt Touchpanel, White

#### TPS-17B using CAT5 AV Interface Module



 Color Key
 Control
 Video
 Audio

 CAT5E
 Cresnet
 LAN

 RGB
 CresCAT

#### **SPECIFICATIONS**

#### **Touchscreen Display**

**Display Type:** TFT Active matrix color LCD **Size:** 17 inch (43.2 cm) diagonal widescreen

Aspect Ratio: 15:9 WXGA Resolution: 1280 x 768 pixels Brightness: 450 nits (cd/m²)

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

#### Memory

DDR RAM: 128 MB Flash: 64 MB

Compact Flash: Accepts up to 4GB Type II CF (not included)

Maximum Project Size: 160 MB

#### **Graphic Engine**

lsys engine, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

#### **Ethernet**

10BaseT/100BaseTX, auto-switching, auto-negotiating, full/half duplex, TCP/IP, UDP/IP, CIP, 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 3:2/2:2 pulldown

#### 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: Mono, 5 Watts x 2

#### **Buttons**

- (4) Backlit "softkey" buttons, programmable
- (1) Miniature recessed hard reset button, reboots the touchpanel

Isys® Tilt Touchpanels

## TPS-17B/TPS-17W Isys® 17" Widescreen Tilt Touchpanel (continued)

#### TPS-17B using QuickMedia



Color Key Control Video Audio CAT5E Cresnet LAN RGB CresCAT

#### **Connectors**

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 CresCAT-IM 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 any Crestron CAT5 balanced video source via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided;

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 audio signal, and transmits (1) balanced stereo audio signal from internal microphone;

Maximum Input Level: 4 V<sub>RMS</sub> Maximum Output Level: 2 V<sub>RMS</sub> Input/Output Impedance: 600 ohms

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

15 foot "triamese" cable provided; Maximum Cable Length: 1000 feet

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 12mW per channel Minimum Impedance: 32 ohms

USB: (1) USB Type B female (reserved for future applications)

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 15 foot "triamese" cable provided

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

**Power Requirements** 

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

### **Environmental**

Temperature: 41° to 113°F (5° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

### **Enclosure**

Construction: High impact injection-molded case, tilt screen with adjustable tension, integral rear cover and cable strain relief in base Screen Tilt: Adjustable 45 to 90 degrees

#### **Dimensions**

Height: 13.78 in (35.01 cm) Width: 17.63 in (44.79 cm) Depth: 12.40 in (31.50 cm)

#### Weight

18.10 lbs (8.21 kg)



Isys® Tilt Touchpanels

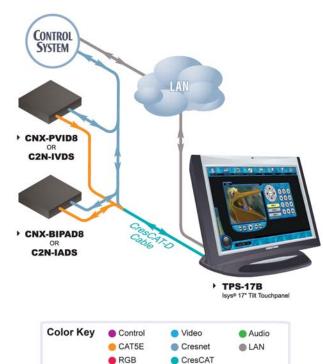
Isys® 17" Widescreen Tilt Touchpanel TPS-17B/TPS-17W

#### **INCLUDED ACCESSORIES**

#### TPMC-CH-IMC

CAT5 Balanced AV Interface Module + 15 ft triamese cable (See TPMC-CH-IMC specifications for complete information)

#### TPS-17B in a CH CAT5 AV Distribution System



#### **AVAILABLE ACCESSORIES** TPMC-CH-IMW ▶ QM-TX ST-PK CresCAT®QM QuickMedia Transmitter CAT5 Balanced AV Programming Cable Kit QuickMedia™ Cable Interface Wall Plate SMK-12/15/17 CresCAT®D CresCAT<sup>®</sup>IM Swivel Mount Kit TPS/TPMC-CBL-T Crestron Home® CAT5 iMedia Cable Triamese Interface Cables Balanced AV Cable

→ Isys® Tilt Touchpanels

### TPS-15B/TPS-15W Isys® 15" Tilt 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 tiltcase design, the Isys TPS-15B (and TPS-15W) features a spectacular 15" XGA true-color display offering an extra wide viewing angle with 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®—lsys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the TPS-15B offers vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics and high-res images. The Isys engine supports dynamic graphics and text, full-motion animations, multimode objects, and PNG translucency – 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-15B 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 built-in amplified speaker system provides amplification for external AV sources, and supports intercom functionality in combination with the integrated microphone. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Crestron Home® CAT5 AV—Connecting audio and video sources to the TPS-15B 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 the connection of conventional video and audio devices, an external interface module is included.

QuickMedia<sup>™</sup>—The TPS-15B is also equipped with a single QuickMedia input port. Through QuickMedia (QM), the TPS-15B interfaces directly with Crestron's QM-based MediaManager products using a single CAT5e type 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 one (1) stereo program source and up to two (2) microphones.

**High-Speed Connectivity—**Both Cresnet and high-speed Ethernet are standard on the TPS-15B, providing for easy network integration and seamless communications with Crestron control systems.

Slimline Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Four backlit pushbuttons are also provided, allowing for quick access to commonly used functions.



### Isys® Tilt Touchpanels

### Isys® 15" Tilt Touchpanel TPS-15B/TPS-15W

- ▶ 15" active matrix touchscreen display | 1024 x 768 resolution
- 24-Bit Isys graphics | Synapse image rendering algorithm
- Full-motion video with gamma correction and motion adaptive deinterlacing
- Built-in amplified speaker system and microphone
- QuickMedia and Crestron Home CAT5 AV connectivity
- **High-speed Ethernet and Cresnet communications**
- Tiltcase housing with integral rear cover and cable strain relief
- Available in black or white
- Backlit "Softkey" pushbuttons

#### AVAILABLE MODELS

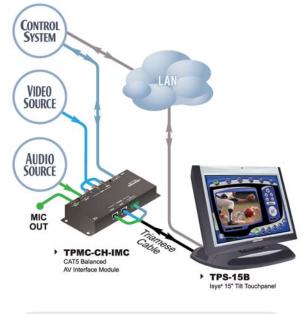
#### TPS-15B

Isys® 15" Tilt Touchpanel, Black

#### TPS-15W

Isys® 15" Tilt Touchpanel, White

#### TPS-15B using CAT5 AV Interface Module



Color Key Control Video Audio CAT5E Cresnet LAN RGB CresCAT

#### **SPECIFICATIONS**

#### **Touchscreen Display**

Display Type: TFT Active matrix color LCD

Size: 15 inch (38.1 cm) diagonal Aspect Ratio: 4:3 XGA Resolution: 1024 x 768 pixels Brightness: 350 nits (cd/m²)

Contrast: 700:1

Color Depth: 24-bit, 16.7M colors Illumination: Backlit fluorescent

Viewing Angle: ±85° horizontal, ±85° vertical Touchscreen: Resistive membrane

#### Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

#### Memory

DDR RAM: 128 MB Flash: 64 MB

Compact Flash: Accepts up to 4GB Type II CF (not included)

Maximum Project Size: 160MB

#### **Graphic Engine**

lsys engine, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

#### **Ethernet**

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

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 3:2/2:2 pulldown

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: Mono, 5 Watts x 2

#### **Buttons**

- (4) Backlit "softkey" buttons, programmable
- (1) Miniature recessed hard reset button, reboots the touchpanel

Isys® Tilt Touchpanels

### TPS-15B/TPS-15W Isys® 15" Tilt Touchpanel (continued)

#### **Connectors**

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

Signal Types: Auto-detecting component ( $YP_{\theta}P_{\theta}$ ), 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 CresCAT-IM 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 ( $YP_BP_B$ ), S-Video (Y/C), or composite:

Formats: NTSC 480i or PAL 576i Input Impedance: 100 ohms balanced

Connects to any Crestron CAT5 balanced video source via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot

"triamese" cable provided;

Maximum Cable Length: 500 feet for component, 750 feet for

composite/S-Video

Color Key

Control

CAT5E

RGB

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

Signal Types: Receives (1) balanced stereo audio signal, and transmits (1) balanced stereo audio signal from internal microphone;

Maximum Input Level: 4 V<sub>RMS</sub> Maximum Output Level: 2 V<sub>RMS</sub> Input/Output Impedance: 600 ohms

#### TPS-15B using QuickMedia



Video

Cresnet

CresCAT

Audio

LAN

Connects to any other Crestron CAT5 balanced audio port via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided;

Maximum Cable Length: 1000 feet

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

Output Power: 12mW per channel Minimum Impedance: 32 ohms

USB: (1) USB Type B female (reserved for future applications)

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 15 foot "triamese" cable provided

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

#### Power Requirements

Cresnet Power Usage: 65 Watts (2.7 Amps @ 24 Volts DC)

#### **Environmental**

Temperature: 41° to 113°F (5° to 45°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

**Construction:** High impact injection-molded case, tilt screen with adjustable tension, integral rear cover and cable strain relief in base **Screen Tilt:** Adjustable 45 to 90 degrees

### Dimensions

**Height:** 13.68 in (34.75 cm) **Width:** 14.94 in (37.95 cm) **Depth:** 12.40 in (31.50 cm)

#### Weight

14.55 lbs (6.60 kg)

#### **INCLUDED ACCESSORIES**

#### TPMC-CH-IMC

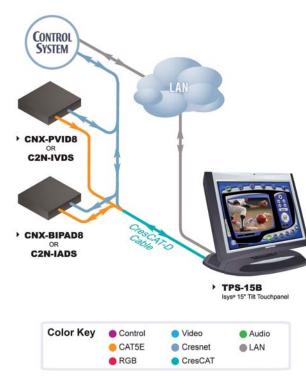
CAT5 Balanced AV Interface Module + 15 ft triamese cable (See TPMC-CH-IMC specifications for complete information)



Isys® Tilt Touchpanels

### Isys® 15" Tilt Touchpanel TPS-15B/TPS-15W

### TPS-15B in a CH CAT5 AV Distribution System



#### **AVAILABLE ACCESSORIES**

- TPMC-CH-IMW CAT5 Balanced AV Interface Wall Plate
- TPS/TPMC-CBL-T Triamese Interface Cables
- QM-TX QuickMedia Transmitter
  - ST-PK Programming Cable Kit
  - SMK-12/15/17 CresCAT®D Swivel Mount Kit Crestron Home® CAT5 Balanced AV Cable
- CresCAT®QM QuickMedia™ Cable
- CresCAT<sup>®</sup>IM iMedia Cable



Isys® Tilt Touchpanels

### TPS-12B/TPS-12W Isys® 12" Tilt 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 tiltcase design, the Isys TPS-12B (and TPS-12W) features a spectacular 12" SVGA display offering a wide viewing angle with 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®—lsys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the TPS-12B offers vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics and high-res images. The Isys engine supports dynamic graphics and text, full-motion animations, multimode objects, and PNG translucency – all with astonishing speed.

Synapse<sup>TM</sup>—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-12B 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 litter-free image.

High-Quality Audio—The built-in amplified speaker system provides amplification for external AV sources, and supports intercom functionality in combination with the integrated microphone. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Crestron Home® CAT5 AV—Connecting audio and video sources to the TPS-12B 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 the connection of conventional video and audio devices, an external interface module is included.

QuickMedia<sup>™</sup>—The TPS-12B is also equipped with a single QuickMedia input port. Through QuickMedia (QM), the TPS-12B interfaces directly with Crestron's QM-based MediaManager products using a single CAT5e type 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 one (1) stereo program source and up to two (2) microphones.

**High-Speed Connectivity—**Both Cresnet and high-speed Ethernet are standard on the TPS-12B, providing for easy network integration and seamless communications with Crestron control systems.

Slimline Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Four backlit pushbuttons are also provided, allowing for quick access to commonly used functions.



### Isys® Tilt Touchpanels

## Isys® 12" Tilt Touchpanel TPS-12B/TPS-12W

- ▶ 12" active matrix touchscreen display 800 x 600 resolution
- 24-Bit Isys graphics | Synapse image rendering algorithm
- Full-motion video with gamma correction and motion adaptive deinterlacing
- Built-in amplified speaker system and microphone
- QuickMedia and Crestron Home CAT5 AV connectivity
- **High-speed Ethernet and Cresnet communications**
- Tiltcase housing with integral rear cover and cable strain relief
- Available in black or white
- Backlit "Softkey" pushbuttons

#### **AVAILABLE MODELS**

#### TPS-12R

Isys® 12" Tilt Touchpanel, Black

#### **TPS-12W**

Isys® 12" Tilt Touchpanel, White

#### TPS-12B using CAT5 AV Interface Module



Color Key Control Video Audio CAT5E Cresnet LAN RGB CresCAT

#### **SPECIFICATIONS**

#### **Touchscreen Display**

Display Type: TFT Active matrix color LCD

Size: 12 inch (30.5 cm) diagonal Aspect Ratio: 4:3 SVGA Resolution: 800 x 600 pixels Brightness: 400 nits (cd/m²)

**Contrast:** 300:1

Color Depth: 18-bit, 256k colors Illumination: Backlit fluorescent

Viewing Angle: ±70° horizontal, +45/-55° vertical

Touchscreen: Resistive membrane

#### **Processor**

CPU: 32-bit Freescale ColdFire® Microprocessor

#### **Memory**

DDR RAM: 128 MB Flash: 64 MB

Compact Flash: Accepts up to 4GB Type II CF (not included)

Maximum Project Size: 160 MB

#### **Graphic Engine**

lsys engine, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

10BaseT/100BaseTX, auto-switching, auto-negotiating, full/half duplex, TCP/IP, UDP/IP, CIP, 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

3:2/2:2 pulldown

#### **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: Mono, 5 Watts x 2

#### **Buttons**

- (4) Backlit "softkey" buttons, programmable
- (1) Miniature recessed hard reset button, reboots the touchpanel

Isys® Tilt Touchpanels

### TPS-12B/TPS-12W Isys® 12" Tilt Touchpanel (continued)

#### **Connectors**

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

Signal Types: Auto-detecting component ( $YP_BP_B$ ), 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 CresCAT-IM 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 (YP $_{\text{B}}$ P $_{\text{R}}$ ), S-Video (Y/C),

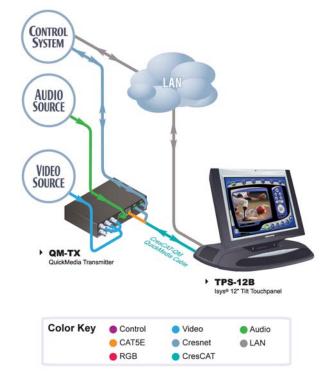
or composite;

Formats: NTSC 480i or PAL 576i Input Impedance: 100 ohms balanced

Connects to any Crestron CAT5 balanced video source via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided:

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

#### TPS-12B using QuickMedia



AUDIO I/O: (1) 8-wire RJ45 female

Bidirectional CAT5 balanced audio port

Signal Types: Receives (1) balanced stereo audio signal, and transmits (1) balanced stereo audio signal from internal microphone;

Maximum Input Level: 4 V<sub>FMS</sub>
Maximum Output Level: 2 V<sub>FMS</sub>
Input/Output Impedance: 600 ohms

Connects to any other Crestron CAT5 balanced audio port via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15

foot "triamese" cable provided; Maximum Cable Length: 1000 feet

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

Output Power: 12mW per channel Minimum Impedance: 32 ohms

USB: (1) USB Type B female (reserved for future applications)

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 15 foot

"triamese" cable provided

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

#### **Power Requirements**

Cresnet Power Usage: 43 Watts (1.8 Amps @ 24 Volts DC)

#### **Environmental**

**Temperature:** 41° to 113°F (5° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

#### **Enclosure**

**Construction:** High impact injection-molded case, tilt screen with adjustable tension, integral rear cover and cable strain relief in base

Screen Tilt: Adjustable 45 to 90 degrees

### **Dimensions**

**Height:** 12.15 in (30.86 cm) **Width:** 12.85 in (32.64 cm) **Depth:** 12.40 in (31.50 cm)

#### Weight

12.95 lbs (5.88 kg)

#### **INCLUDED ACCESSORIES**

#### TPMC-CH-IMC

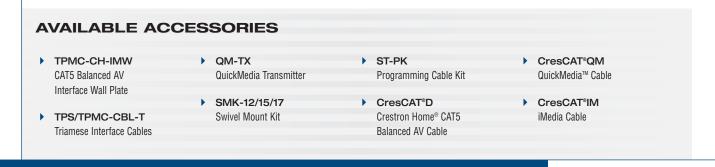
CAT5 Balanced AV Interface Module + 15 ft triamese cable (See TPMC-CH-IMC specifications for complete information)



Isys® Tilt Touchpanels

Isys® 12" Tilt Touchpanel TPS-12B/TPS-12W

# TPS-12B in a CH CAT5 AV Distribution System CONTROL SYSTEM CNX-PVID8 C2N-IVDS CNX-BIPAD8 C2N-IADS TPS-12B Isvs® 12" Tilt Touchpanel



Color Key

Control

CAT5E

RGB

Video

Cresnet

CresCAT

Audio

LAN

### → Isys® Tilt Touchpanels

### TPS-4000 Isys® 10.4" Tilt Touchpanel



The Isys TPS-4000 presents a stylish state-of-the-art touchpanel solution complete with integrated video and audio. A vibrant 640 x 480 10.4" touchscreen display delivers exceptional graphical performance to support a host of control applications.

Crestron touchpanels offer an ideal user-interface for multimedia presentation, videoconferencing, lighting, climate control, and much more, providing a wide-open canvas for the creation of custom control screens perfectly tailored to the needs of the end-user. Touchpanels do away with piles of remote controls, cryptic front panels, and cluttered wall switches, affording true "one-touch" control over a broad range of complex devices and systems.

Isys®—lsys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the Isys engine produces astonishing full-color graphics with lightning-fast performance and incredible versatility. A 32-bit Freescale ColdFire® Microprocessor combines with an ingenious and ultra efficient operating system to support high-resolution graphics and images, dynamic text, full-motion video, animations, multimode objects (buttons, frames, gauges, and sliders), popup/dropdown subpages, and more.

Synapse<sup>TM</sup>—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.

#### Video with Advanced Gamma Correction—

Video capability is standard in the TPS-4000, accepting any NTSC/PAL composite or S-Video source, scalable for display in any sized window or full screen. Advanced gamma correction and built-in time base correction ensure accurate color reproduction and a jitter-free image.

Built-in Audio—Audio features include built-in amplified stereo speakers, volume control, line-level stereo input, and a microphone with automatic gain control and line-level output. The speakers may be used to amplify signals from TV and video sources, or to support programmable intercom functionality in combination with the microphone.

Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

**Cresnet**®—Cresnet communication ensures compatibility with Crestron's complete product line.

**Tiltcase Design—**The TPS-4000 features an ergonomic tiltcase design that is easily adjustable for any angle of inclination between 30 and 80 degrees. Numerous versatile wiring and mounting options are also available.

- ▶ 10.4" Active Matrix Touchscreen Display
- 640 x 480 Resolution
- **▶** Isys Graphics Engine
- Synapse Image Rendering Algorithm
- High-Performance Video with Gamma Correction
- Built-in Amplified Speakers and Microphone
- Cresnet Communications
- Versatile Tiltcase Design

#### **SPECIFICATIONS**

### Touchscreen Display

Display Type: TFT Active matrix color LCD

Size: 10.4 inch (26.4 cm) diagonal Aspect Ratio: 4:3 VGA Resolution: 640 x 480 pixels Brightness: 450 nits (cd/m²)

Contrast: 600:1

**Color Depth:** 18-bit, 256k colors **Illumination:** Edgelit fluorescent

Viewing Angle: ±70° horizontal, +45°/-55° vertical

Touchscreen: Resistive membrane

### Processor

CPU: 32-bit Freescale ColdFire® Microprocessor



### Isys® Tilt Touchpanels

### Isys® 10.4" Tilt Touchpanel **TPS-4000**

#### Memory

DRAM: 8 MB Flash: 8 MB

Maximum Project Size: 7 MB

#### **Graphic Engine**

lsys engine, 16-bit non-palette graphics; 65,536 colors; Synapse image rendering algorithm; multi-mode objects, color key video windowing

#### Video

Signal Types: Auto-detecting composite/S-Video

Formats: NTSC 480i or PAL 576i Color Depth: 18-bit; 262,144 colors

Features: Single-window scalable to full-screen, time base

correction, gamma correction

#### **Audio**

Hardware Features: Built-in microphone with defeatable AGC, built-in amplified stereo speakers, headphone output, internal volume control and audio mixer

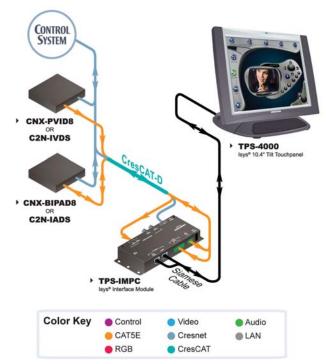
Audio Feedback (WAV): 8-bit PCM, mono, 8 kHz sampling rate Amplification: 2 Watts per channel for built-in stereo speakers

#### **Connectors**

NET/VIDEO: (1) 10-pin RJ45 female, shielded

Connects to interface module via 15 foot "siamese" cable provided Contains Cresnet data, 24 Volts DC power, ground, and video

#### TPS-4000 in a CH CAT5 AV Distribution System



AUDIO: (1) 8-pin RJ45 female, shielded

Connects to interface module via 15 foot "siamese" cable provided

Contains stereo audio input and mic out signals

RS-232: (1) 6-pin RJ11 female

Serial connection to PC for loading screen files Touchscreen output to PC or Telestrator Bidirectional RS-232 up to 115.2k baud Hardware and software handshaking support

HEADPHONES: (1) 3.5 mm TRS mini phone jack Connects to stereo headphones (not included)

Output Power: 12mW

Minimum Impedance: 32 ohms

#### **Power Requirements**

22 Watts (0.92 Amp @ 24 Volts DC) PW-2420RU power supply sold separately

Cresnet Power Usage: 22 Watts (0.92 Amp @ 24 Volts DC) If power is applied to the 24VDC jack and the NET port (on TPS-IMPC) simultaneously, power will be drawn from whichever is highest.

#### **Environmental**

**Temperature:** 50° to 113°F (10° to 45°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

Construction: High impact black/silver injection-molded case

Screen Tilt: Adjustable 30 to 80 degrees

#### **Dimensions**

Height: 10.03 in (25.48 cm) Width: 10.96 in (27.83 cm) **Depth:** 9.32 in (23.67 cm)

#### Weight

4.66 lbs (2.11 kg)

### **INCLUDED ACCESSORIES**

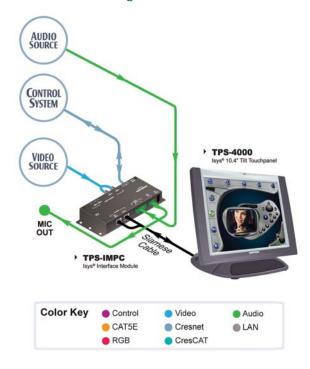
Interface Module + 15 ft siamese cable (See TPS-IMPC specifications for complete information)



→ Isys® Tilt Touchpanels

TPS-4000 Isys® 10.4" Tilt Touchpanel (continued)

#### TPS-4000 using conventional AV sources



#### **AVAILABLE ACCESSORIES** PW-2420RU ▶ TPS-IMW ▶ TPS-CBL ▶ ST-PK 50 Watt Regulated Wall Mount Interface Module Interface Cable Programming Cable Kit Universal Power Supply TPS-4500IMPC ▶ TPS-CBL-S CresCAT®D HBK-3000 Interface Module without Audio Siamese Interface Cable Crestron Home® CAT5 Hatchback Rear Cover Balanced AV Cable TPS-4500IMW ▶ TPSBLOCK-10 SMK-3000 Wall Mount Interface Panel Mount 10-pin Swivel Mount Kit Module without Audio Connector Solution (includes HBK-3000)

Isys® Tilt Touchpanels

Isys® 6.4" Tilt Touchpanel **TPS-3000** 

The Isys TPS-3000 presents a stylish state-of-the-art touchpanel solution complete with integrated video and audio. A vibrant 640 x 480 6.4" touchscreen display delivers exceptional graphical performance to support a host of control applications.

Crestron touchpanels offer an ideal user-interface for multimedia presentation, videoconferencing, lighting, climate control, and much more, providing a wide-open canvas for the creation of custom control screens perfectly tailored to the needs of the end-user. Touchpanels do away with piles of remote controls, cryptic front panels, and cluttered wall switches, affording true "one-touch" 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 Isys engine produces astonishing full-color graphics with lightning-fast performance and incredible versatility. A 32-bit Freescale ColdFire® Microprocessor combines with an ingenious and ultra efficient operating system to support high-resolution graphics and images, dynamic text, full-motion video, animations, multimode objects (buttons, frames, gauges, and sliders), popup/dropdown subpages, and more.

Synapse<sup>™</sup>—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.

#### Video with Advanced Gamma Correction—

Video capability is standard in the TPS-3000, accepting any NTSC/PAL composite or S-Video source, scalable for display in any sized window or full screen. Advanced gamma correction and built-in time base correction ensure accurate color reproduction and a jitter-free image.

Built-in Audio-Audio features include built-in amplified stereo speakers, volume control, line-level stereo input, and a microphone with automatic gain control and linelevel output. The speakers may be used to amplify signals from TV and video sources, or to support programmable intercom functionality in combination with the microphone. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics and pushbuttons with personalized sounds, button feedback, and voice prompts.



Cresnet®—Cresnet communication ensures compatibility with Crestron's complete product line.

Tiltcase Design-The TPS-3000 features an ergonomic tiltcase design that is easily adjustable for any angle of inclination between 30 and 80 degrees. Numerous versatile wiring and mounting options are also available.

- ▶ 6.4" Active Matrix Touchscreen Display
- 640 x 480 Resolution
- Isvs Graphics Engine
- **Synapse Image Rendering Algorithm**
- High-Performance Video with Gamma Correction
- **Built-in Amplified Speakers and Microphone**
- **Cresnet Communications**
- Versatile Tiltcase Design

#### **SPECIFICATIONS**

#### **Touchscreen Display**

Display Type: TFT Active matrix color LCD

Size: 6.4 inch (16.3 cm) diagonal Aspect Ratio: 4:3 VGA Resolution: 640 x 480 pixels Brightness: 400 nits (cd/m²)

Contrast: 250:1

Color Depth: 18-bit, 256k colors Illumination: Edgelit fluorescent

Viewing Angle: ±60° horizontal, +40°/-55° vertical

Touchscreen: Resistive membrane

#### **Processor**

CPU: 32-bit Freescale ColdFire® Microprocessor



### ➤ Isys® Tilt Touchpanels

### TPS-3000 Isys® 6.4" Tilt Touchpanel (continued)

#### Memory

DRAM: 8MB Flash: 8MB

Maximum Project Size: 7MB

#### **Graphic Engine**

lsys engine, 16-bit non-palette graphics; 65,536 colors; Synapse image rendering algorithm; multi-mode objects, color key video windowing

#### Video

Signal Types: Auto-detecting composite/S-Video

Formats: NTSC 480i or PAL 576i Color Depth: 18-bit; 262,144 colors

Features: Single-window scalable to full-screen, time base

correction, gamma correction

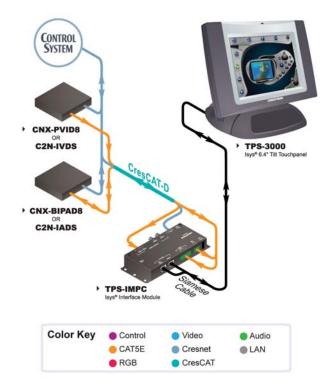
#### **Audio**

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

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

Amplification: 2 Watts per channel for built-in stereo speakers

#### TPS-3000 in a CH CAT5 AV Distribution System



#### **Connectors**

NET/VIDEO: (1) 10-pin RJ45 female, shielded

Connects to interface module via 15 foot "siamese" cable provided Contains Cresnet data, 24 Volts DC power, ground, and video signals

AUDIO: (1) 8-pin RJ45 female, shielded

Connects to interface module via 15 foot "siamese" cable provided Contains stereo audio input and mic out signals

RS-232: (1) 6-pin RJ11 female

Serial connection to PC for loading screen files Touchscreen output to PC or Telestrator Bidirectional RS-232 up to 115.2k baud Hardware and software handshaking support **HEADPHONES:** (1) 3.5 mm TRS mini phone jack

Connects to stereo headphones (not included)

Output Power: 12mW Minimum Impedance: 32 ohms

#### **Power Requirements**

22 Watts (0.92 Amp @ 24 Volts DC) PW-2420RU power supply sold separately

**Cresnet Power Usage:** 22 Watts (0.92 Amp @ 24 Volts DC) If power is applied to the 24VDC jack and the NET port (on TPS-IMPC) simultaneously, power will be drawn from whichever is highest.

#### **Environmental**

**Temperature:** 50° to 113°F (10° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

#### **Enclosure**

 $\textbf{Construction:} \ \textbf{High impact black/silver injection-molded case}$ 

Screen Tilt: Adjustable 30 to 80 degrees

#### **Dimensions**

**Height:** 7.56 in (19.20 cm) **Width:** 8.40 in (21.34 cm) **Depth:** 7.27 in (18.47 cm)

#### Weight

3.44 lbs (1.56 kg)

#### **INCLUDED ACCESSORIES**

#### **TPS-IMPC**

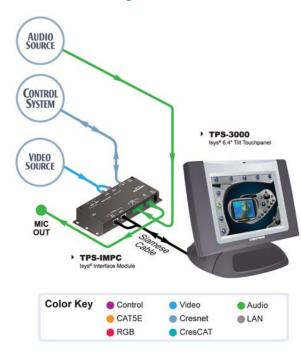
Interface Module + 15 ft siamese cable (See TPS-IMPC specifications for complete information)



Isys® Tilt Touchpanels

Isys® 6.4" Tilt Touchpanel **TPS-3000** 

#### TPS-3000 using conventional AV sources



# **AVAILABLE ACCESSORIES**

- PW-2420RU 50 Watt Regulated Universal Power Supply
- HBK-3000 Hatchback Rear Cover
- SMK-3000 Swivel Mount Kit (includes HBK-3000)
- TPS-IMW Wall Mount Interface Module
- TPS-4500IMPC Interface Module without Audio
- **TPS-4500IMW** Wall Mount Interface Module without Audio
- ▶ TPS-CBL Interface Cable
- ▶ TPS-CBL-S Siamese Interface Cable
- TPSBLOCK-10 Panel Mount 10-pin Connector Solution
- ST-PK Programming Cable Kit
- CresCAT®D Crestron Home® CAT5 Balanced AV Cable

### Isys® G-Series Tilt Touchpanels

### TPS-15G-QM Isys® G-Series 15" Tilt Touchpanel w/QuickMedia™



Crestron's Isys G-Series touchpanels deliver a higher level of performance with dual-window video, RGB, and HDTV display to meet the demands of today's sophisticated control and automation applications. Incorporating modern styling in a versatile tiltcase design, the Isys TPS-15G-QM features a spectacular 15" XGA display offering a wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-resolution images, and full-motion HD 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®—lsys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the TPS-15G-QM offers vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics and high-res images. The Isys engine supports dynamic graphics and text, full-motion animations, multimode objects, and PNG translucency – 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.

**Dual-Window HD Video and RGB**<sup>2</sup>—The TPS-15G-QM can simultaneously display two fully-scalable, full-motion video windows, each supporting standard video, HDTV, and high-resolution RGB signals from external AV and computer sources. Discrete video scalers with motion adaptive deinterlacing bring 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.

**Touch-the-PC**—Crestron's exclusive "Touch-the-PC" technology allows real-time touchpanel navigation of any Windows PC through a direct high-speed serial connection.

**Built-in Annotation**—Built-in annotation capability allows presenters to write or draw over computer and video images on the touchscreen using a finger or stylus, and output the image live for audience display.

**High-Quality Audio**<sup>2</sup>—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 can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

QuickMedia<sup>™</sup>—All audio and video connections are facilitated using Crestron's revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPS-15G-QM interfaces directly with other QM-based products using inexpensive CAT5e type cable.

The two QM Input ports each support non-interlaced RGB up to 1600 X 1200 pixels, as well as composite, S-Video, and component video signals. QM Input #1 includes software-adjustable compensation for cable runs up to 450 feet; Input #2 allows up to 300 feet for video and HDTV, and shorter distances for RGB computer signals. Both QM Inputs receive audio signals from external microphone and stereo line level sources.

The QM Output port allows RGB output of the touchpanel screen image to feed a display device for audience presentation. A 24-bit digital audio signal is also present for distribution of the internal microphone signal.

**High-Speed Connectivity**—Both Cresnet and high-speed Ethernet are standard on the TPS-15G-QM, providing for easy network integration and seamless communications with Crestron control systems. USB connectivity is also



### Isys® G-Series Tilt Touchpanels

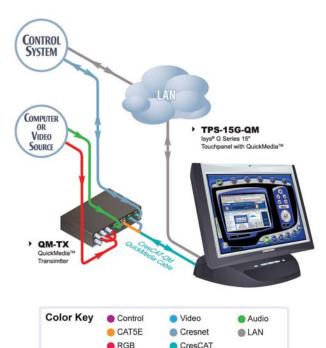
Isys® G-Series 15" Tilt Touchpanel w/QuickMedia™ TPS-15G-QM

included for connection of an external mouse, touchscreen, or similar pointing device1.

Functional Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions.

- 15" active matrix touchscreen display | 1024 x 768 resolution
- 24-Bit Isys graphics | Synapse image rendering algorithm
- Dual-window full-motion video, HDTV and RGB display<sup>2</sup>
- Built-in biamplified speaker system and microphone<sup>2</sup>
- QuickMedia AV connectivity | audience presentation output<sup>2</sup>
- High-speed Ethernet and Cresnet communications
- Tiltcase housing with integral rear cover and cable strain relief
- Built-in real-time annotation
- Backlit "Softkey" pushbuttons

#### TPS-15G-QM using a single QuickMedia Transmitter



#### **SPECIFICATIONS**

#### **Touchscreen Display**

Display Type: TFT Active matrix color LCD

Size: 15 inch (38.1 cm) diagonal Aspect Ratio: 4:3 XGA Resolution: 1024 x 768 pixels Brightness: 350 nits (cd/m²)

Contrast: 700:1

Color Depth: 24-bit, 16.7M colors Illumination: Backlit fluorescent

Viewing Angle: ±85° horizontal, ±85° vertical Touchscreen: Resistive membrane

#### Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

#### Memory

DDR RAM: 128 MB Flash: 64 MB

Compact Flash: Accepts up to 4GB Type II CF (not included)

Maximum Project Size: 160 MB

#### **Graphic Engine**

lsys engine, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

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

#### Video/RGB<sup>2</sup>

Signal Types: RGB and auto-detecting composite, S-Video, or

Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i; RGB(VGA) up to UXGA 1600 x 1200

Color Depth: 24-bit, 16.7M colors

Features: Dual-window each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown

#### Audio<sup>2</sup>

Hardware Features: Built-in microphone and biamplified 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): 24-bit, 48 kHz

Amplification: Biamplified, 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

### ➤ Isys® G-Series Tilt Touchpanels

## TPS-15G-QM Isys® G-Series 15" Tilt Touchpanel w/QuickMedia™ (continued)

#### **Connectors**

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

Signal Types: Dynamically configurable under system control as:

- (1) RGB input with stereo program audio and (2) mic channels, or
- (1) Auto-detecting component (YPBPR), S-Video (Y/C),
- or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (60 Hz limit at 1600 x 1200);

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: 0 - 22 nS

Connects to QM output port of a QM-TX or other QuickMedia device via CresCAT-QM or CresCAT-IM cable:

Maximum Cable Length: 450 ft (aggregate distance from QM origination)

QM IN 2: (1) 8-wire RJ45 female, QuickMedia input port Signal Types: Dynamically configurable under system control as:

- (1) RGB input with stereo program audio and (2) mic channels, or
- (1) Auto-detecting component (YPBPR), S-Video (Y/C), or composite video input with stereo program audio

RGB Format: RGBHV

and (2) mic channels;

RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (60 Hz limit at 1600 x 1200);

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i:

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: none

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

Maximum Cable Length (Video/HDTV): 300 ft (aggregate distance from QM origination);

Maximum Cable Length (RGB @ 60Hz): 216 ft for 640x480, 140 ft for 800x600, 84 ft for 1024x768, 70 ft for 1280x768, 30 ft for 1600x1200 (using CresCAT-QM or CresCAT-IM cable)

QM OUT 1: (1) 8-wire RJ45 female, QuickMedia output port containing RGB (same as touchscreen), WAV file audio, and internal microphone signals;

RGB Format: RGBHV

RGB Output Resolution, Non-interlaced: 1024 x 768 pixels @ 60Hz Connects to QM input port of any QuickMedia device via CresCAT-QM or CresCAT-IM cable

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 12mW per channel Minimum Impedance: 32 ohms RS-232: (1) 6-pin RJ11 female

Computer console, touch output, or mouse/touch input port<sup>1</sup>

Bidirectional RS-232 up to 115.2k baud Hardware and software handshaking support LAN: (1) 8-wire RJ45 with 2 LED indicators 10BaseT/100BaseTX Ethernet port Green LED indicates link status

Yellow LED indicates Ethernet activity

24VDC: (1) 2.1mm barrel DC power jack

Do not use

**NET:** (1) 4-pin 3.5mm detachable terminal block Cresnet Slave Port, connects to Cresnet control network

**USB:** (2) USB Type A female

USB 1.1 ports for mouse or touchscreen input 1

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

MEMORY EXP.: (1) Type II Compact Flash card slot for

memory expansion

PC CARD A - B: (2) Type II PC Card slots (reserved for future applications)<sup>1</sup>

#### **Power Requirements**

Cresnet Power Usage: 75 Watts (3.13 Amps @ 24 Volts DC)

Note: The 24VDC power jack should not be used.

#### **Environmental**

Temperature: 41° to 113°F (5° to 45°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

Construction: High impact black/silver injection-molded case, tilt screen with adjustable tension, integral rear cover and cable strain

relief in base

Screen Tilt: Adjustable 45 to 90 degrees

#### **Dimensions**

Height: 14.17 in (36.00 cm) Width: 14.94 in (37.95 cm) **Depth:** 13.75 in (34.93 cm)

### Weight

15.2 lbs (6.9 kg)

<sup>1</sup> See Web site or contact Crestron for a current list of compatible devices.

<sup>2</sup> One or more QuickMedia devices are required to facilitate the input and output of audio, video, and RGB signals. See the "MediaManager" section of this catalog or visit the Crestron Website for more information about QuickMedia.



### Isys® G-Series Tilt Touchpanels

Isys® G-Series 15" Tilt Touchpanel w/QuickMedia™ TPS-15G-QM

## TPS-15G-QM in a QuickMedia system COMPUTER COMPUTER QM-WMC **VIDEO VIDEO** SOURCE SOURCE PLASMA DISPLAY QM-RMCRX-BA **SPEAKERS** QM-MD8x8 TPS-15G-QM Color Key Control Video Audio OCAT5E Cresnet LAN

RGB

CresCAT



### ➤ Isys® G-Series Tilt Touchpanels

TPS-12G-QM Isys® G-Series 12" Tilt Touchpanel w/QuickMedia™



Crestron's Isys G-Series touchpanels deliver a higher level of performance with dual-window video, RGB, and HDTV display to meet the demands of today's sophisticated control and automation applications. Incorporating modern styling in a versatile tiltcase design, the Isys TPS-12G-QM features a spectacular 12" SVGA display offering a wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-resolution images, and full-motion HD 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®—lsys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the TPS-12G-QM offers vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics and high-res images. The Isys engine supports dynamic graphics and text, full-motion animations, multimode objects, and PNG translucency – 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.

Dual-Window HD Video and RGB<sup>2</sup>—The TPS-12G-QM can simultaneously display two fully-scalable, full-motion video windows, each supporting standard video, HDTV, and high-resolution RGB signals from external AV and computer sources. Discrete video scalers with motion adaptive deinterlacing bring 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.

**Touch-the-PC**—Crestron's exclusive "Touch-the-PC" technology allows real-time touchpanel navigation of any Windows PC through a direct high-speed serial connection.

**Built-in Annotation**—Built-in annotation capability allows presenters to write or draw over computer and video images on the touchscreen using a finger or stylus, and output the image live for audience display.

High-Quality Audio<sup>2</sup>—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 can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

QuickMedia<sup>™</sup>—All audio and video connections are facilitated using Crestron's revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPS-12G-QM interfaces directly with other QM-based products using inexpensive CAT5e type cable.

The two QM Input ports each support non-interlaced RGB up to 1600 X 1200 pixels, as well as composite, S-Video, and component video signals. QM Input #1 includes software-adjustable compensation for cable runs up to 450 feet; Input #2 allows up to 300 feet for video and HDTV, and shorter distances for RGB computer signals. Both QM Inputs receive audio signals from external microphone and stereo line level sources.

The QM Output port allows RGB output of the touchpanel screen image to feed a display device for audience presentation. A 24-bit digital audio signal is also present f or distribution of the internal microphone signal.

**High-Speed Connectivity**—Both Cresnet and high-speed Ethernet are standard on the TPS-12G-QM, providing for easy network integration and seamless communications



### Isys® G-Series Tilt Touchpanels

### Isys® G-Series 12" Tilt Touchpanel w/QuickMedia™ TPS-12G-QM

with Crestron control systems. USB connectivity is also included for connection of an external mouse, touchscreen, or similar pointing device1.

Functional Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions.

- 12" active matrix touchscreen display 800 x 600 resolution
- 24-Bit Isys graphics | Synapse image rendering algorithm
- Dual-window full-motion video, HDTV and RGB display<sup>2</sup>
- Built-in biamplified speaker system and microphone<sup>2</sup>
- QuickMedia AV connectivity | audience presentation output<sup>2</sup>
- **High-speed Ethernet and Cresnet communications**
- Tiltcase housing with integral rear cover and cable strain relief
- Built-in real-time annotation
- Backlit "Softkey" pushbuttons

### TPS-12G-QM using a single QuickMedia Transmitter



Color Key	Control	Video	Audio
	CAT5E	Cresnet	LAN
	RGB	CresCAT	

#### **SPECIFICATIONS**

#### Touchscreen Display

Display Type: TFT Active matrix color LCD

Size: 12 inch (30.5 cm) diagonal Aspect Ratio: 4:3 SVGA Resolution: 800 x 600 pixels Brightness: 400 nits (cd/m²)

Contrast: 300:1

Color Depth: 18-bit, 256k colors Illumination: Backlit fluorescent

Viewing Angle: ±70° horizontal, +45/-55° vertical

Touchscreen: Resistive membrane

#### Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

#### Memory

DDR RAM: 128 MB Flash: 64 MB

Compact Flash: Accepts up to 4GB Type II CF (not included)

Maximum Project Size: 160 MB

#### **Graphic Engine**

lsys engine, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

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

#### Video/RGB<sup>2</sup>

Signal Types: RGB and auto-detecting composite, S-Video, or component video

Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i; RGB(VGA) up to UXGA 1600 x 1200

Color Depth: 24-bit, 16.7M colors

Features: Dual-window each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown

#### Audio<sup>2</sup>

Hardware Features: Built-in microphone and biamplified 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): 24-bit, 48 kHz

Amplification: Biamplified, 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



### Isys® G-Series Tilt Touchpanels

## TPS-12G-QM Isys® G-Series 12" Tilt Touchpanel w/QuickMedia™ (continued)

#### **Connectors**

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

Signal Types: Dynamically configurable under system control as:

- (1) RGB input with stereo program audio and (2) mic channels, or
- (1) Auto-detecting component (YPBPR), S-Video (Y/C),
- or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced:  $640 \times 480$  minimum to  $1600 \times 1200$  maximum (60 Hz limit at  $1600 \times 1200$ );

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: 0 - 22 nS

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

Maximum Cable Length: 450 ft (aggregate distance from QM origination)

**QM IN 2:** (1) 8-wire RJ45 female, QuickMedia input port Signal Types: Dynamically configurable under system control as:

- (1) RGB input with stereo program audio and (2) mic channels, or
- (1) Auto-detecting component (YP<sub>8</sub>P<sub>8</sub>), S-Video (Y/C), or composite video input with stereo program audio

and (2) mic channels RGB Format: RGBHV

RGB Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum (60 Hz limit at 1600 x 1200);

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: none

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

Maximum Cable Length (Video/HDTV): 300 ft (aggregate distance from QM origination);

Maximum Cable Length (RGB @ 60Hz): 216 ft for 640x480, 140 ft for 800x600, 84 ft for 1024x768, 70 ft for 1280x768, 30 ft for 1600x1200 (using CresCAT-QM or CresCAT-IM cable)

**QM OUT 1:** (1) 8-wire RJ45 female, QuickMedia output port containing RGB (same as touchscreen), WAV file audio, and internal microphone signals;

RGB Format: RGBHV

RGB Output Resolution, Non-interlaced:  $800 \times 600$  pixels @ 60Hz Connects to QM input port of any QuickMedia device via CresCAT-QM or CresCAT-IM cable

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 12mW per channel Minimum Impedance: 32 ohms

RS-232: (1) 6-pin RJ11 female

Computer console, touch output, or mouse/touch input port

Bidirectional RS-232 up to 115.2k baud Hardware and software handshaking support LAN: (1) 8-wire RJ45 with 2 LED indicators 10BaseT/100BaseTX Ethernet port Green LED indicates link status

Yellow LED indicates Ethernet activity

24VDC: (1) 2.1mm barrel DC power jack

24V DC power input (power supply sold separately)

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

Cresnet Slave Port, connects to Cresnet control network

USB: (2) USB Type A female

USB 1.1 ports for mouse or touchscreen input  $\!\!^{\scriptscriptstyle 1}$ 

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

MEMORY EXP.: (1) Type II Compact Flash card slot for

memory expansion

**PC CARD A - B:** (2) Type II PC Card slots (reserved for future applications)<sup>1</sup>

#### **Power Requirements**

**24VDC:** 50 Watts (2.08 Amps) @ 24 Volts DC (PW-2420RU power supply sold separately)

**Cresnet Power Usage:** 50 Watts (2.08 Amps @ 24 Volts DC) Note: Power should only be applied to the 24VDC power jack OR the NET port, not both.

#### **Environmental**

**Temperature:** 41° to 113°F (5° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

#### **Enclosure**

Construction: High impact black/silver injection-molded case, tilt screen with adjustable tension, integral rear cover and cable strain relief in base

Screen Tilt: Adjustable 45 to 90 degrees

#### **Dimensions**

**Height:** 12.45 in (31.63 cm) **Width:** 12.85 in (32.64 cm) **Depth:** 13.75 in (34.93 cm)

#### Weight

13.8 lbs (6.2 kg)

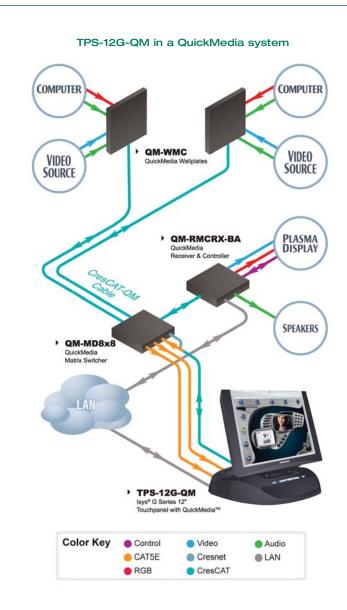
<sup>1</sup> See Web site or contact Crestron for a current list of compatible devices.

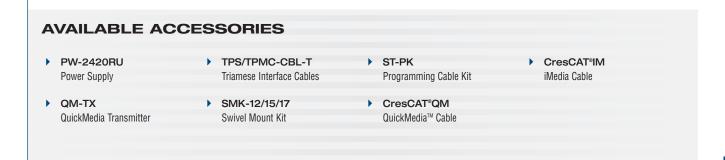
<sup>2</sup> One or more QuickMedia devices are required to facilitate the input and output of audio, video, and RGB signals. See the "MediaManager" section of this catalog or visit the Crestron Website for more information about QuickMedia.



Isys® G-Series Tilt Touchpanels

Isys® G-Series 12" Tilt Touchpanel w/QuickMedia™ TPS-12G-QM





### - Isys i/O™ Tilt Touchpanel Media Centers

TPMC-17-QM Isys i/O™ 17" Tilt Touchpanel Media Center w/QuickMedia™



Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified multimedia presentation solution. Incorporating modern styling in a versatile tiltcase design, the TPMC-17-QM Touchpanel Media Center features a spectacular 17" WXGA widescreen display offering an extra wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-res images, embedded PC applications, and full-motion HD video.

Touchpanel Control and Presentation—In every sense, the TPMC-17-QM is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics using new dynamic menu objects, dynamic graphics, full-motion animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering – all with astonishing speed. But more than a touchpanel, the TPMC-17-QM is also a dynamic presentation source, outputting high-resolution graphics and audio to any sized audience via integrated QuickMedia transport technology.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming digital media, and viewing online documents. Running the Microsoft® Windows® XP Embedded operating system, Isys i/O delivers a powerful and secure platform for touchpanel control with integrated PC functionality. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior within the touchpanel environment to create a truly powerful and user-friendly interface.

With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for Word, Excel, PowerPoint®, and Adobe® Acrobat®, the TPMC-17-QM serves as a complete multimedia presentation source without necessitating a separate computer. You can also access data and run applications on other computers via Remote Desktop, and use NetMeeting® and Skype™ for interactive conferencing and voice-over-IP (VoIP) communications − right on the touchpanel. Plus, support for Yahoo! Widgets affords an easy solution for integrating everything from calendars and clocks to stock tickers, weather forecasts, news feeds, and thousands of other fun and useful utilities.

MediaMarker™ Annotation—Built-in annotation allows presenters to write or draw electronically on the touchscreen using a finger or stylus. Whether drawing freehand on a whiteboard screen, highlighting points on a spreadsheet, or making notes over motion video or still images, MediaMarker facilitates crystal clear visual communications.

**Dual-Window HD Video and RGB**<sup>2</sup>—In addition to its internal PC and streaming video applications, the TPMC-17-QM can also simultaneously display two fully-scalable, full-motion video windows. Each window supports standard video, HDTV, and high-resolution RGB signals from external AV and computer sources. Discrete video scalers with motion adaptive deinterlacing bring 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<sup>2</sup>—An integrated microphone, biamplified speakers, stereo headphone output, and PC audio output are all built into the touchpanel to support full AV, intercom, desktop conferencing, and multimedia computer capabilities. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

QuickMedia<sup>™</sup>—All audio and video connections are facilitated using Crestron's revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPMC-17-QM interfaces directly with other QM-based products using inexpensive CAT5e type cable.

The two QM Input ports each support non-interlaced RGB up to 1600 X 1200 pixels, as well as composite, S-Video, and component video signals. QM Input #1 includes software-



### Isys i/O™ Tilt Touchpanel Media Centers

### Isys i/O™ 17" Tilt Touchpanel Media Center w/QuickMedia™ TPMC-17-QM

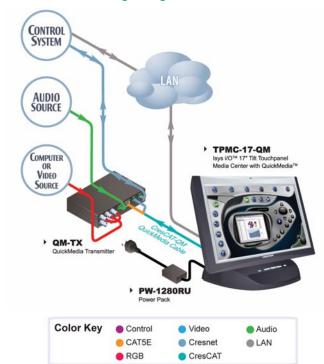
adjustable compensation for cable runs up to 450 feet; Input #2 allows up to 300 feet for video and HDTV, and shorter distances for RGB computer signals. Both QM Inputs receive audio signals from external microphone and stereo line level sources.

High-resolution RGB graphics and 24-bit digital audio are output from the internal PC and microphone via the QM Output port for audience presentation and intercom purposes.

Connectivity and Expansion—Both Cresnet and high-speed Ethernet are standard on the TPMC-17-QM. providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (not included), as well as USB cameras, CD ROM drives, and memory devices.1

Functional Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions.

TPMC-17-QM using a single QuickMedia Transmitter



- ▶ 17" active matrix touchscreen display | 1280 x 768 resolution
- 24-Bit lsys i/O graphics | Synapse image rendering algorithm
- Windows XP Embedded operating system
- Onboard PC applications for Web browsing, streaming media, conferencing, VoIP, remote desktop, and digital media presentation - no computer required!
- Built-in real-time annotation using Crestron MediaMarker
- Dual-window HD video and RGB display<sup>2</sup>
- Built-in 10 watt biamplified speaker system and microphone<sup>2</sup>
- QuickMedia AV connectivity | audience presentation output<sup>2</sup>
- Secure high-speed Ethernet and Cresnet communications
- Tiltcase housing with integral rear cover and cable strain relief

#### **SPECIFICATIONS**

#### Touchscreen Display

Display Type: TFT Active matrix color LCD Size: 17 inch (43.2 cm) diagonal widescreen

Aspect Ratio: 15:9 WXGA Resolution: 1280 x 768 pixels Brightness: 450 nits (cd/m²)

Contrast: 400:1 Color Depth: 24-bit, 16.7M colors Illumination: Backlit fluorescent

Viewing Angle: ±88° horizontal, ±88° vertical Touchscreen: Resistive membrane

#### **Processor**

VIA Eden™ 667 MHz CPU

#### Memory

SDRAM: 512 MB Flash: 512 MB

PC Card: Accepts up to (2) 4GB Type II PC Cards (not included)

Maximum Project Size: 190 MB

### **Operating System**

Microsoft® Windows® XP Embedded

#### **Graphic Engine**

lsys i/O engine, VIA Unichrome™ CLE266 chipset, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic menu objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

#### **Embedded Software Applications**<sup>1</sup>

Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Axis® Media Control, Crestron MediaMarker™, Remote Desktop, NetMeeting®, Skype™, Java™ Runtime, DirectX®, Yahoo! Widgets®, Adobe®Acrobat® Reader, and viewers for MS Word, Excel, and PowerPoint®



### Isys i/O™ Tilt Touchpanel Media Centers

## TPMC-17-QM Isys i/O™ 17" Tilt Touchpanel Media Center w/QuickMedia™ (continued)

#### **Ethernet**

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

#### Wireless

Wireless Ethernet capable using third-party 802.11 PC card' (Wired connections required for power, audio, video and RGB)

#### Video/RGB<sup>2</sup>

Signal Types: RGB and auto-detecting composite, S-Video, or component video

**Formats:** SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i; RGB(VGA) up to UXGA 1600 x 1200

Color Depth: 24-bit, 16.7M colors

**Features:** Dual-window each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown

**Streaming/File Formats:** MPEG4 and MJPEG via Axis Media Control plus all formats supported by the embedded media

player applications<sup>1</sup>

#### Audio<sup>2</sup>

Hardware Features: Built-in microphone and biamplified speakers, stereo headphone output, internal volume control and audio mixer Streaming/File Formats: All formats supported by the embedded media player applications<sup>1</sup>

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo,

8 - 44 kHz sampling rates

D-A / A-D Conversion (QM): Burr Brown 24-bit, 48 kHz Amplification: Biamplified, 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 system

#### **Connectors**

**QM IN 1:** (1) 8-wire RJ45 female, QuickMedia input port Signal Types: Dynamically configurable under system control as:

- (1) RGB input with stereo program audio and (2) mic channels, or
- (1) Auto-detecting component (YPBPR), S-Video (Y/C),
- or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced:  $640 \times 480$  minimum to  $1600 \times 1200$  maximum (60 Hz limit at  $1600 \times 1200$ );

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz

Delay Skew Compensation: 0 - 22 nS

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

Maximum Cable Length: 450 ft (aggregate distance from QM origination)

QM IN 2: (1) 8-wire RJ45 female, QuickMedia input port

Signal Types: Dynamically configurable under system control as:

- (1) RGB input with stereo program audio and (2) mic channels, or
- (1) Auto-detecting component (YPBPR), S-Video (Y/C),
- or composite video input with stereo program audio

and (2) mic channels; RGB Format: RGBHV

RGB Input Resolution, Non-interlaced:  $640 \times 480$  minimum to  $1600 \times 1200$  maximum (60 Hz limit at  $1600 \times 1200$ );

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: none

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

Maximum Cable Length (Video/HDTV): 300 ft (aggregate distance from QM origination);

Maximum Cable Length (RGB @ 60Hz): 216 ft for 640x480, 140 ft for 800x600, 84 ft for 1024x768, 70 ft for 1280x768, 30 ft for 1600x1200 (using CresCAT-QM or CresCAT-IM cable)

**QM OUT 1:** (1) 8-wire RJ45 female, QuickMedia output port containing RGB output with stereo audio from internal PC and (2) discrete channels from internal mic;

RGB Format: RGBHV

RGB Output Resolution, Non-interlaced: 1280 x 768 pixels @ 60 Hz Connects to QM input port of any QuickMedia device via CresCAT-QM or CresCAT-IM cable

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 105 mW per channel Minimum Impedance: 8 ohms

**USB:** (2) USB Type A female, USB 1.1 ports for mouse, keyboard, and storage devices<sup>1</sup>

RS-232: (1) 6-pin RJ11 female, computer console port Bidirectional RS-232 up to 115.2k baud

Hardware and software handshaking support

PC CARD A - B: (2) Type II PC Card slots for memory expansion, project upload, and wireless NIC¹

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators

10BaseT/100BaseTX Ethernet port Green LED indicates network speed Yellow LED indicates Ethernet activity

**NET:** (1) 4-pin 3.5mm detachable terminal block Cresnet Slave Port (data only; 24V terminal not used) Connects to Cresnet control network

**PWR:** (1) 4-pin DC power jack, 12.5V DC power input (external power supply included)

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

#### **Power Requirements**

**TPMC-17-QM:** 8.4 Amps @ 12.5 Volts DC

External Power Supply (included): 2.2 Amps @ 100-250 Volts

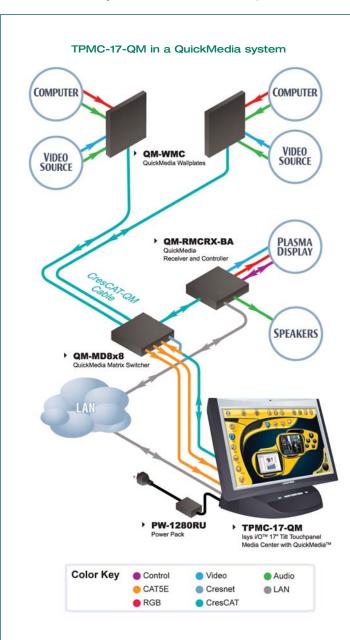
AC, 50/60 Hz

Cresnet Power Usage: 0 Watt @ 24 Volts DC



### Isys i/O™ Tilt Touchpanel Media Centers

Isys i/O™ 17" Tilt Touchpanel Media Center w/QuickMedia™ **TPMC-17-QM** 



#### **Environmental**

**Temperature:** 50° to 113°F (10° to 45°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

Construction: High impact black/silver injection-molded case with

integral rear cover and cable strain relief Screen Tilt: Adjustable 45 to 90 degrees

#### **Dimensions**

Height: 14.17 in (35.99 cm) Width: 17.63 in (44.77 cm) Depth: 13.74 in (34.90 cm)

#### Weight

19.4 lbs (8.8 kg)

#### **INCLUDED ACCESSORIES**

#### PW-1280RU

**Power Supply** 

- <sup>1</sup> See Web site or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.
- <sup>2</sup> One or more QuickMedia devices are required to facilitate the input and output of audio, video, and RGB signals. See the "MediaManager" section of this catalog or visit the Crestron Website for more information about QuickMedia.

#### **AVAILABLE ACCESSORIES**

- QM-TX QuickMedia Transmitter
- SMK-12/15/17 Swivel Mount Kit
- CresCAT®QM QuickMedia™ Cable
- CresCAT®IM iMedia Cable

TPS/TPMC-CBL-T Triamese Interface Cables



### Isys i/O™ Tilt Touchpanel Media Centers

### TPMC-15-QM Isys i/O™ 15" Tilt Touchpanel Media Center w/QuickMedia™



Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified multimedia presentation solution. Incorporating modern styling in a versatile tiltcase design, the TPMC-15-QM Touchpanel Media Center features a spectacular 15" XGA display offering an extra wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-res images, embedded PC applications, and full-motion HD video.

Touchpanel Control and Presentation—In every sense, the TPMC-15-QM is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics using new dynamic menu objects, dynamic graphics, full-motion animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering – all with astonishing speed. But more than a touchpanel, the TPMC-15-QM is also a dynamic presentation source, outputting high-resolution graphics and audio to any sized audience via integrated QuickMedia transport technology.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming digital media, and viewing online documents. Running the Microsoft® Windows® XP Embedded operating system, Isys i/O delivers a powerful and secure platform for touchpanel control with integrated PC functionality. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior within the touchpanel environment to create a truly powerful and user-friendly interface.

With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for Word, Excel, PowerPoint®,

and Adobe® Acrobat®, the TPMC-15-QM serves as a complete multimedia presentation source without necessitating a separate computer. You can also access data and run applications on other computers via Remote Desktop, and use NetMeeting® and Skype™ for interactive conferencing and voice-over-IP (VoIP) communications − right on the touchpanel. Plus, support for Yahoo! Widgets® affords an easy solution for integrating everything from calendars and clocks to stock tickers, weather forecasts, news feeds, and thousands of other fun and useful utilities.

MediaMarker™ Annotation—Built-in annotation allows presenters to write or draw electronically on the touchscreen using a finger or stylus. Whether drawing freehand on a whiteboard screen, highlighting points on a spreadsheet, or making notes over motion video or still images, MediaMarker facilitates crystal clear visual communications.

**Dual-Window HD Video and RGB**<sup>2</sup>—In addition to its internal PC and streaming video applications, the TPMC-15-QM can also simultaneously display two fully-scalable, full-motion video windows. Each window supports standard video, HDTV, and high-resolution RGB signals from external AV and computer sources. Discrete video scalers with motion adaptive deinterlacing bring 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<sup>2</sup>—An integrated microphone, biamplified speakers, stereo headphone output, and PC audio output are all built into the touchpanel to support full AV, intercom, desktop conferencing, and multimedia computer capabilities. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

QuickMedia<sup>™</sup>—All audio and video connections are facilitated using Crestron's revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPMC-15-QM interfaces directly with other QM-based products using inexpensive CAT5e type cable.

The two QM Input ports each support non-interlaced RGB up to 1600 X 1200 pixels, as well as composite, S-Video, and component video signals. QM Input #1 includes software-adjustable compensation for cable runs up to 450 feet; Input #2 allows up to 300 feet for video and HDTV, and shorter distances for RGB computer signals. Both QM Inputs receive audio signals from external microphone and stereo line level sources.



### Isys i/O™ Tilt Touchpanel Media Centers

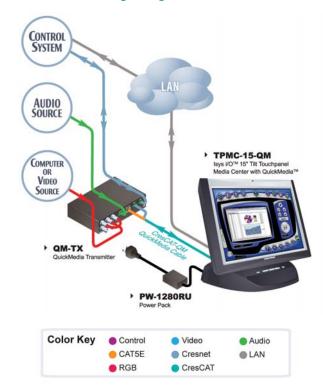
Isys i/O™ 15" Tilt Touchpanel Media Center w/QuickMedia™ TPMC-15-QM

High-resolution RGB graphics and 24-bit digital audio are output from the internal PC and microphone via the QM Output port for audience presentation and intercom purposes.

Connectivity and Expansion—Both Cresnet and high-speed Ethernet are standard on the TPMC-15-QM, providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (not included), as well as USB cameras, CD ROM drives, and memory devices.1

Functional Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions.

#### TPMC-15-QM using a single QuickMedia Transmitter



- ▶ 15" active matrix touchscreen display | 1024 x 768 resolution
- 24-Bit lsys i/O graphics | Synapse image rendering algorithm
- Windows XP Embedded operating system
- Onboard PC applications for Web browsing, streaming media, conferencing, VoIP, remote desktop, and digital media presentation - no computer required!
- Built-in real-time annotation using Crestron MediaMarker
- Dual-window HD video and RGB display<sup>2</sup>
- Built-in 10 watt biamplified speaker system and microphone<sup>2</sup>
- QuickMedia AV connectivity | audience presentation output<sup>2</sup>
- Secure high-speed Ethernet and Cresnet communications
- Tiltcase housing with integral rear cover and cable strain relief

#### **SPECIFICATIONS**

#### **Touchscreen Display**

Display Type: TFT Active matrix color LCD

Size: 15 inch (38.12 cm) diagonal Aspect Ratio: 4:3 XGA Resolution: 1024 x 768 pixels Brightness: 350 nits (cd/m²) Contrast: 700:1

Color Depth: 24-bit, 16.7M colors Illumination: Backlit fluorescent

Viewing Angle: ±85° horizontal, ±85° vertical Touchscreen: Resistive membrane

#### Processor

VIA Eden™ 667 MHz CPU

#### Memory

SDRAM: 512 MB Flash: 512 MB

PC Card: Accepts up to (2) 4GB Type II PC Cards (not included)

Maximum Project Size: 190 MB

### **Operating System**

Microsoft® Windows® XP Embedded

#### **Graphic Engine**

lsys i/O engine, VIA Unichrome™ CLE266 chipset, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic menu objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

#### Embedded Software Applications<sup>1</sup>

Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Axis® Media Control, Crestron MediaMarker™, Remote Desktop, NetMeeting®, Skype™, Java™ Runtime, DirectX®, Yahoo! Widgets®, Adobe®Acrobat® Reader, and viewers for MS Word, Excel, and PowerPoint®



### Isys i/O™ Tilt Touchpanel Media Centers

## TPMC-15-QM Isys i/O™ 15" Tilt Touchpanel Media Center w/QuickMedia™ (continued)

#### **Ethernet**

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

#### Wireless

Wireless Ethernet capable using third-party 802.11 PC card' (Wired connections required for power, audio, video and RGB)

#### Video/RGB<sup>2</sup>

Signal Types: RGB and auto-detecting composite, S-Video, or component video

**Formats:** SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p,

HDTV 720p & 1080i; RGB(VGA) up to UXGA 1600 x 1200

Color Depth: 24-bit, 16.7M colors

**Features:** Dual-window each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown

Streaming/File Formats: MPEG4 and MJPEG via Axis Media Control plus all formats supported by the embedded media player

applications1

#### Audio<sup>2</sup>

Hardware Features: Built-in microphone and biamplified speakers, stereo headphone output, internal volume control and audio mixer Streaming/File Formats: All formats supported by the embedded media player applications<sup>1</sup>

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo,

8 - 44 kHz sampling rates

D-A / A-D Conversion (QM): Burr Brown 24-bit, 48 kHz Amplification: Biamplified, 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 system

#### **Connectors**

**QM IN 1:** (1) 8-wire RJ45 female, QuickMedia input port Signal Types: Dynamically configurable under system control as:

(1) RGB (VGA) input with stereo program audio and (2) mic channels, or

(1) Auto-detecting component (YP $_{\rm B}$ P $_{\rm B}$ ), S-Video (Y/C), or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced:  $640 \times 480$  minimum to  $1600 \times 1200$  maximum (60 Hz limit at  $1600 \times 1200$ );

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;

Horizontal Frequency: 15 to 100 kHz

Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: 0 - 22 nS

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

Maximum Cable Length: 450 ft (aggregate distance from QM origination)

**QM IN 2:** (1) 8-wire RJ45 female, QuickMedia input port Signal Types: Dynamically configurable under system control as:

(1) RGB (VGA) input with stereo program audio and (2) mic channels, or  $\,$ 

(1) Auto-detecting component (YP<sub>B</sub>P<sub>F</sub>), S-Video (Y/C), or composite video input with stereo program audio and (2) mic channels;

RGB Format: RGBHV

RGB Input Resolution, Non-interlaced:  $640 \times 480$  minimum to  $1600 \times 1200$  maximum (60 Hz limit at  $1600 \times 1200$ );

Video/HDTV Formats: 480i (NTSC), 576i (PAL), 480p, 576p, 720p and 1080i;

Horizontal Frequency: 15 to 100 kHz Vertical Frequency: 50 to 85 Hz Delay Skew Compensation: none

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

Maximum Cable Length (Video/HDTV): 300 ft (aggregate distance

from QM origination);
Maximum Cable Length (RGB @ 60Hz): 216 ft for 640x480, 140 ft for

Maximum Cable Length (RGB @ 60Hz): 216 π for 640x480, 140 π for 800x600, 84 ft for 1024x768, 70 ft for 1280x768, 30 ft for 1600x1200 (using CresCAT-QM or CresCAT-IM cable)

**QM OUT 1:** (1) 8-wire RJ45 female, QuickMedia output port containing RGB output with stereo audio from internal PC and (2) discrete channels from internal mic;

RGB Format: RGBHV

RGB Output Resolution, Non-interlaced: 1024 x 768 pixels @ 60 Hz Connects to QM input port of any QuickMedia device via CresCAT-QM or CresCAT-IM cable

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 105 mW per channel Minimum Impedance: 8 ohms

 $\textbf{USB:}\ (2)\ \text{USB}\ \text{Type}\ \text{A}\ \text{female,}\ \text{USB}\ 1.1\ \text{ports}\ \text{for}\ \text{mouse,}\ \text{keyboard,}$  and storage devices  $^{\text{t}}$ 

RS-232: (1) 6-pin RJ11 female, computer console port Bidirectional RS-232 up to 115.2k baud

 $\overset{\cdot}{\text{Hardware}}$  and software handshaking support

PC CARD A - B: (2) Type II PC Card slots for memory expansion, project upload, and wireless NIC<sup>1</sup>

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators 10BaseT/100BaseTX Ethernet port Green LED indicates network speed

Yellow LED indicates Ethernet activity

**NET:** (1) 4-pin 3.5mm detachable terminal block Cresnet Slave Port (data only; 24V terminal not used) Connects to Cresnet control network

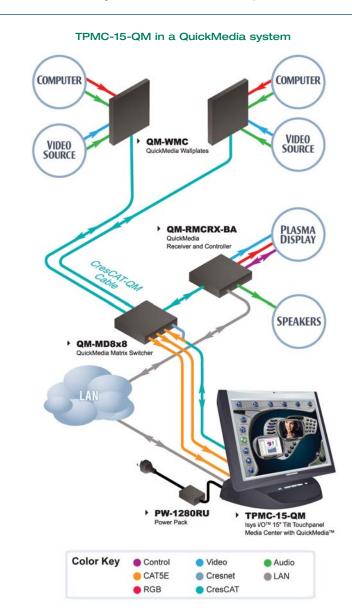
**PWR:** (1) 4-pin DC power jack, 12.5V DC power input (external power supply included)

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



# Isys i/O™ Tilt Touchpanel Media Centers

Isys i/O™ 15" Tilt Touchpanel Media Center w/QuickMedia™ TPMC-15-QM



#### **Power Requirements**

TPMC-15-QM: 8.4 Amps @ 12.5 Volts DC

External Power Supply (included): 2.2 Amps @ 100-250 Volts

Cresnet Power Usage: 0 Watt @ 24 Volts DC

#### **Environmental**

**Temperature:** 50° to 113°F (10° to 45°C) Humidity: 10% to 90% RH (non-condensing)

Construction: High impact black/silver injection-molded case with

integral rear cover and cable strain relief Screen Tilt: Adjustable 45 to 90 degrees

### **Dimensions**

Height: 14.17 in (35.99 cm) Width: 14.94 in (37.95 cm) Depth: 13.74 in (34.90 cm)

### Weight

15.8 lbs (7.1 kg)

# **INCLUDED ACCESSORIES**

## PW-1280RU

Power Supply

<sup>1</sup> See Web site or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware updates.

<sup>2</sup> One or more QuickMedia devices are required to facilitate the input and output of audio, video, and RGB signals. See the "MediaManager" section of this catalog or visit the Crestron Website for more information about QuickMedia.

#### **AVAILABLE ACCESSORIES**

- OM-TX QuickMedia Transmitter
- SMK-12/15/17 Swivel Mount Kit
- CresCAT®QM QuickMedia™ Cable
- CresCAT<sup>®</sup>IM iMedia Cable

TPS/TPMC-CBL-T Triamese Interface Cables



# - Isys i/O™ Tilt Touchpanel Media Centers

# TPMC-17-CH Isys i/O™ 17" Tilt Touchpanel Media Center w/CH CAT5 AV



Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified solution for controlling AV and home automation, browsing the Internet, and streaming digital media. Incorporating modern styling in a versatile tiltcase design, the TPMC-17-CH Touchpanel Media Center features a spectacular 17" WXGA widescreen display offering an extra wide viewing angle with exceptional brightness and contrast for stunning control graphics, highres images, embedded PC applications, and full-motion HD video.

Enhanced Touchpanel Control—In every sense, the TPMC-17-CH is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics using new dynamic menu objects, dynamic graphics, full-motion animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering – all with astonishing speed. But more than a touchpanel, the TPMC-17-CH is also a dynamic resource for managing routine online tasks and enjoying streaming music and video, and a high-resolution video monitor with performance rivaling the best LCD flat-panel displays available.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming digital media, and viewing online documents. Running the Microsoft® Windows® XP Embedded operating system, Isys i/O delivers a powerful and secure platform for touchpanel control with integrated PC functionality. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior within the touchpanel environment to create a truly powerful and user-friendly interface.

With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for Word, Excel, PowerPoint®, and Adobe® Acrobat®, the TPMC-17-CH provides everything needed for viewing Web pages, enjoying online music and movies, and downloading documents without necessitating a separate computer. You can also access data and run applications on other computers via Remote Desktop, and use NetMeeting® and Skype™ for interactive conferencing and voice-over-IP (VoIP) communications – right on the touchpanel. Plus, support for Yahoo! Widgets affords an easy solution for integrating everything from calendars and clocks to stock tickers, weather forecasts, news feeds, and thousands of other fun and useful utilities.

**Dual-Window HD Video**<sup>2</sup>—In addition to its internal PC and streaming video applications, the TPMC-17-CH can also simultaneously display two fully-scalable, full-motion video windows. Each window supports standard video and HDTV formats from external sources. Discrete video scalers with motion adaptive deinterlacing bring out the highest detail, minimizing visible scan lines and motion artifacts for an incredible picture. Advanced gamma correction and built-in time base correction ensure accurate color reproduction and a jitter-free image.

High-Quality Audio—An integrated microphone, biamplified speakers, stereo headphone output, and PC audio output are all built into the touchpanel to support full AV, intercom, desktop conferencing, and multimedia computer capabilities. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Crestron Home® CAT5 AV—All audio and video connections are facilitated using inexpensive CAT5 wire, enabling direct connection to Crestron's popular CAT5 balanced audio and video distribution switchers. Two video input ports are provided, each supporting composite, S-Video, and HDTV/component formats over wiring distances of up to 500 feet. A bidirectional audio port receives stereo program audio and intercom signals, and outputs audio from the internal microphone and PC for intercom and whole-house audio distribution. To facilitate the connection of conventional video and audio devices, an external interface module is included.

**Connectivity and Expansion**—Both Cresnet and high-speed Ethernet are standard on the TPMC-17-CH, providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion



# Isys i/O™ Tilt Touchpanel Media Centers

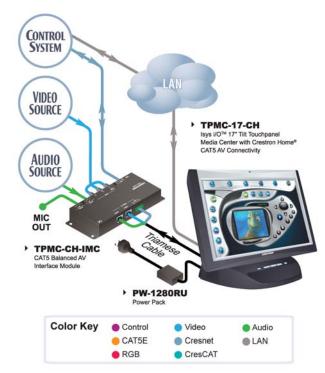
# Isys i/O™ 17" Tilt Touchpanel Media Center w/CH CAT5 AV **TPMC-17-CH**

are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (not included), as well as USB cameras, CD ROM drives, and memory devices.1

Functional Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions.

- 17" active matrix touchscreen display | 1280 x 768 resolution
- 24-Bit Isys i/O graphics | Synapse image rendering algorithm
- Windows XP Embedded operating system
- Onboard PC applications for Web browsing, streaming media, conferencing, VoIP, and remote desktop - no computer required!
- High-performance dual-window HD video display<sup>2</sup>
- Built-in 10 watt biamplified speaker system and microphone
- Crestron Home CAT5 AV connectivity
- Secure high-speed Ethernet and Cresnet communications
- Tiltcase housing with integral rear cover and cable strain relief

# TPMC-17-CH using CAT5 AV Interface Module



#### **SPECIFICATIONS**

### **Touchscreen Display**

Display Type: TFT Active matrix color LCD Size: 17 inch (43.2 cm) diagonal widescreen

Aspect Ratio: 15:9 WXGA Resolution: 1280 x 768 pixels Brightness: 450 nits (cd/m²)

Contrast: 400:1

Color Depth: 24-bit, 16.7M colors Illumination: Backlit fluorescent

Viewing Angle: ±88° horizontal, ±88° vertical Touchscreen: Resistive membrane

#### Processor

VIA Eden™ 667 MHz CPU

#### Memory

SDRAM: 512 MB Flash: 512 MB

PC Card: Accepts up to (2) 4GB Type II PC Cards (not included)

Maximum Project Size: 190 MB

### **Operating System**

Microsoft® Windows® XP Embedded

#### **Graphic Engine**

lsys i/O engine, VIA Unichrome™ CLE266 chipset, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic menu objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

# **Embedded Software Applications**<sup>1</sup>

Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Axis® Media Control, Crestron MediaMarker™, Remote Desktop, NetMeeting®, Skype™, Java™ Runtime, DirectX®, Yahoo! Widgets, Adobe® Acrobat® Reader, and viewers for MS Word, Excel, and PowerPoint®

#### **Ethernet**

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

#### Wireless

Wireless Ethernet capable using third-party 802.11 PC card<sup>1</sup> (Wired connections required for power, audio, and video)

Signal Types: Auto-detecting composite, S-Video, or component Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i

Color Depth: 24-bit, 16.7M colors

Features: Dual-window<sup>2</sup> each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive deinterlacing, reverse 3:2/2:2 pulldown

> continued



# > Isys i/O™ Tilt Touchpanel Media Centers

# TPMC-17-CH Isys i/O™ 17" Tilt Touchpanel Media Center w/CH CAT5 AV (continued)

**Streaming/File Formats:** MPEG4 and MJPEG via Axis Media Control plus all formats supported by the embedded media player applications'

#### **Audio**

Hardware Features: Built-in microphone and biamplified speakers, stereo headphone output, internal volume control and audio mixer Streaming/File Formats: All formats supported by the embedded media player applications<sup>1</sup>

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo,

8 – 44 kHz sampling rates

Amplification: Biamplified, 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 system

### **Connectors**

CH VIDEO IN 1 - 2: (2) 8-wire RJ45 female

CAT5 balanced video input ports

Signal Types: Auto-detecting component (YP $_{\text{B}}$ P $_{\text{R}}$ ), S-Video (Y/C), or composite video;

Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i;

Input Impedance: 100 ohms balanced

Connect to any Crestron CAT5 balanced video source(s) via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided:

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

CH AUDIO I/O: (1) 8-wire RJ45 female Bidirectional CAT5 balanced audio port

Signal Types: Receives (1) balanced stereo audio signal, and transmits (1) balanced stereo audio signal from internal PC or microphone (dynamically selectable);

Maximum Input Level: 4 V<sub>FMS</sub> Maximum Output Level: 2 V<sub>FMS</sub> Input/Output Impedance: 600 ohms

Connects to any other Crestron CAT5 balanced audio port via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided;

Maximum Cable Length: 1000 feet

HEADPHONES: (1) 3.5 mm TRS mini phone jack

Output Power: 105 mW per channel Minimum Impedance: 8 ohms

**USB:** (2) USB Type A female, USB 1.1 ports for mouse, keyboard, and storage devices<sup>1</sup>

**RS-232:** (1) 6-pin RJ11 female, computer console port Bidirectional RS-232 up to 115.2k baud Hardware and software handshaking support

PC CARD A - B: (2) Type II PC Card slots for memory expansion, project upload, and wireless NIC¹

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators

10BaseT/100BaseTX Ethemet port Green LED indicates network speed Yellow LED indicates Ethemet activity NET: (1) 4-pin 3.5mm detachable terminal block Cresnet Slave Port (data only; 24V terminal not used) Connects to Cresnet control network, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided

PWR: (1) 4-pin DC power jack, 12.5V DC power input

(external power supply included)

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

### **Power Requirements**

**TPMC-17-CH:** 8.4 Amps @ 12.5 Volts DC

External Power Supply (included): 2.2 Amps @ 100-250

Volts AC, 50/60 Hz

Cresnet Power Usage: 0 Watt @ 24 Volts DC

#### **Environmental**

**Temperature:** 50° to 113°F (10° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

#### **Enclosure**

Construction: High impact black/silver injection-molded case with

integral rear cover and cable strain relief **Screen Tilt:** Adjustable 45 to 90 degrees

#### **Dimensions**

**Height:** 14.17 in (35.99 cm) **Width:** 17.63 in (44.77 cm) **Depth:** 13.74 in (34.90 cm)

#### Weight

19.4 lbs (8.8 kg)

# **INCLUDED ACCESSORIES**

(See individual product specifications for complete information.)

## TPMC-CH-IMC

CAT5 Balanced AV Interface Module + 15 ft triamese cable

# PW-1280RU

Power Supply

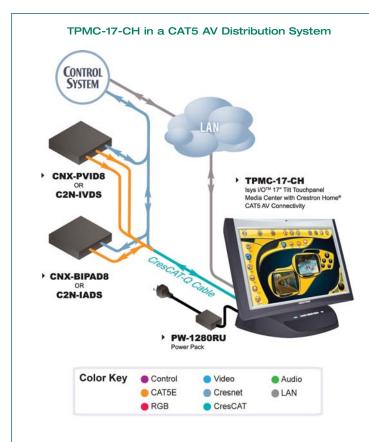
<sup>1</sup> See Web site or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware undates.

<sup>2</sup> Additional CAT5 Balanced AV equipment is required to facilitate the input of more than one external video signal. See the "Audio Video Distribution and Surround Sound" section of this catalog or visit the Crestron Website for more information about Crestron Home CAT5 Balanced AV



Isys i/O™ Tilt Touchpanel Media Centers

Isys i/O™ 17" Tilt Touchpanel Media Center w/CH CAT5 AV **TPMC-17-CH** 



# **AVAILABLE ACCESSORIES**

- TPMC-CH-IMW CAT5 Balanced AV Interface Wall Plate
- ▶ TPS/TPMC-CBL-T Triamese Interface Cables
- MK-12/15/17 Swivel Mount Kit
- CresCAT®Q Crestron Home® CAT5 AV Cable

# Isys i/O™ Tilt Touchpanel Media Centers

# TPMC-15-CH Isys i/O™ 15" Tilt Touchpanel Media Center w/CH CAT5 AV



Isys i/O ingeniously integrates touchpanel control with embedded PC functionality, delivering a unified solution for controlling AV and home automation, browsing the Internet, and streaming digital media. Incorporating modern styling in a versatile tiltcase design, the TPMC-15-CH Touchpanel Media Center features a spectacular 15" XGA display offering an extra wide viewing angle with exceptional brightness and contrast for stunning control graphics, high-res images, embedded PC applications, and full-motion HD video.

Enhanced Touchpanel Control—In every sense, the TPMC-15-CH is a true Crestron touchpanel, offering vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics using new dynamic menu objects, dynamic graphics, full-motion animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering – all with astonishing speed. But more than a touchpanel, the TPMC-15-CH is also a dynamic resource for managing routine online tasks and enjoying streaming music and video, and a high-resolution video monitor with performance rivaling the best LCD flat-panel displays available.

Embedded PC—The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with enhanced capabilities for surfing the Internet, streaming digital media, and viewing online documents. Running the Microsoft® Windows® XP Embedded operating system, Isys i/O delivers a powerful and secure platform for touchpanel control with integrated PC functionality. Programmatic control erases the lines between control system and PC, allowing programmers to customize each application's behavior within the touchpanel environment to create a truly powerful and user-friendly interface.

With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for Word, Excel, PowerPoint®, and Adobe® Acrobat®, the TPMC-15-CH provides everything needed for viewing Web pages, enjoying online music and movies, and downloading documents without necessitating a separate computer. You can also access data and run applications on other computers via Remote Desktop, and use NetMeeting® and Skype™ for interactive conferencing and voice-over-IP (VoIP) communications – right on the touchpanel. Plus, support for Yahoo! Widgets affords an easy solution for integrating everything from calendars and clocks to stock tickers, weather forecasts, news feeds, and thousands of other fun and useful utilities.

**Dual-Window HD Video**<sup>2</sup>—In addition to its internal PC and streaming video applications, the TPMC-15-CH can also simultaneously display two fully-scalable, full-motion video windows. Each window supports standard video and HDTV formats from external sources. Discrete video scalers with motion adaptive deinterlacing bring out the highest detail, minimizing visible scan lines and motion artifacts for an incredible picture. Advanced gamma correction and builtin time base correction ensure accurate color reproduction and a jitter-free image.

High-Quality Audio—An integrated microphone, biamplified speakers, stereo headphone output, and PC audio output are all built into the touchpanel to support full AV, intercom, desktop conferencing, and multimedia computer capabilities. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Crestron Home® CAT5 AV Distribution—All audio and video connections are facilitated using inexpensive CAT5 wire, enabling direct connection to Crestron's popular CAT5 balanced audio and video distribution switchers. Two video input ports are provided, each supporting composite, S-Video, and HDTV/component formats over wiring distances of up to 500 feet. A bidirectional audio port receives stereo program audio and intercom signals, and outputs audio from the internal microphone and PC for intercom and whole-house audio distribution. To facilitate the connection of conventional video and audio devices, an external interface module is included.

**Connectivity and Expansion**—Both Cresnet and highspeed Ethernet are standard on the TPMC-15-CH, providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Wi-Fi wireless networking and memory expansion



# Isys i/O™ Tilt Touchpanel Media Centers

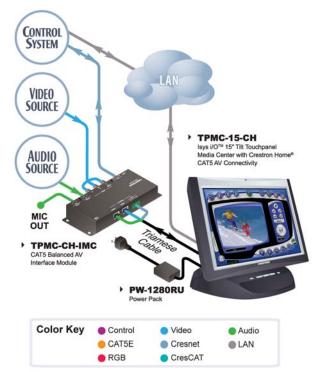
# Isys i/O™ 15" Tilt Touchpanel Media Center w/CH CAT5 AV TPMC-15-CH

are easily added through two PC card slots, and two USB ports enable the connection of an external mouse and keyboard (not included), as well as USB cameras, CD ROM drives, and memory devices.1

Functional Tiltcase Design—The stylish tiltcase housing allows smooth tilt adjustment from 45 to 90 degrees, and features an integral cable strain relief system and rear cover to secure and hide the connections at the back of the touchpanel. Five backlit pushbuttons are also provided, allowing for quick access to commonly used functions.

- ▶ 15" active matrix touchscreen display | 1024 x 768 resolution
- 24-Bit Isys i/O graphics | Synapse image rendering algorithm
- Windows XP Embedded operating system
- Onboard PC applications for Web browsing, streaming media, conferencing, VoIP, and remote desktop - no computer required!
- High-performance dual-window HD video display2
- Built-in 10 watt biamplified speaker system and microphone
- Crestron Home CAT5 AV connectivity
- Secure high-speed Ethernet and Cresnet communications
- Tiltcase housing with integral rear cover and cable strain relief

# TPMC-15-CH using CAT5 AV Interface Module



#### **SPECIFICATIONS**

#### **Touchscreen Display**

Display Type: TFT Active matrix color LCD

Size: 15 inch (38.1 cm) diagonal Aspect Ratio: 4:3 XGA Resolution: 1024 x 768 pixels Brightness: 350 nits (cd/m²)

Contrast: 700:1

Color Depth: 24-bit, 16.7M colors Illumination: Backlit fluorescent

Viewing Angle: ±85° horizontal, ±85° vertical Touchscreen: Resistive membrane

#### Processor

VIA Eden™ 667 MHz CPU

#### Memory

SDRAM: 512 MB Flash: 512 MB

PC Card: Accepts up to (2) 4GB Type II PC Cards (not included)

Maximum Project Size: 190 MB

#### **Operating System**

Microsoft® Windows® XP Embedded

#### **Graphic Engine**

lsys i/O engine, VIA Unichrome™ CLE266 chipset, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, dynamic menu objects, dynamic graphics, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing

# **Embedded Software Applications**<sup>1</sup>

Microsoft Internet Explorer w/Macromedia\_Flash\_plug-in, Windows Media® Player, RealPlayer®, Axis® Media Control, Crestron MediaMarker™, Remote Desktop, NetMeeting®, Skype™, Java, Runtime, DirectX®, Yahoo! Widgets, Adobe® Acrobat® Reader, and viewers for MS Word, Excel, and PowerPoint®

#### **Ethernet**

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

#### Wireless

Wireless Ethernet capable using third-party 802.11 PC card<sup>1</sup> (Wired connections required for power, audio, and video)

Signal Types: Auto-detecting composite, S-Video, or component Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i

Color Depth: 24-bit, 16.7M colors

Features: Dual-window<sup>2</sup> each scalable to full-screen, time base correction, gamma correction, line doubling, motion adaptive

deinterlacing, reverse 3:2/2:2 pulldown

> continued



# Isys i/O™ Tilt Touchpanel Media Centers

# TPMC-15-CH Isys i/O™ 15" Tilt Touchpanel Media Center w/CH CAT5 AV (continued)

**Streaming/File Formats:** MPEG4 and MJPEG via Axis Media Control plus all formats supported by the embedded media player applications'

#### **Audio**

Hardware Features: Built-in microphone and biamplified speakers, stereo headphone output, internal volume control and audio mixer Streaming/File Formats: All formats supported by the embedded media player applications<sup>1</sup>

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo,

8 – 44 kHz sampling rates

Amplification: Biamplified, 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 system

### **Connectors**

CH VIDEO IN 1 - 2: (2) 8-wire RJ45 female

CAT5 balanced video input ports

Signal Types: Auto-detecting component (YP $_{\text{B}}$ P $_{\text{R}}$ ), S-Video (Y/C), or composite video;

Formats: SDTV 480i (NTSC) & 576i (PAL), EDTV 480p & 576p, HDTV 720p & 1080i;

Input Impedance: 100 ohms balanced

Connect to any Crestron CAT5 balanced video source(s) via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided:

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

CH AUDIO I/O: (1) 8-wire RJ45 female Bidirectional CAT5 balanced audio port

Signal Types: Receives (1) balanced stereo audio signal, and transmits (1) balanced stereo audio signal from internal PC or microphone (dynamically selectable);

Maximum Input Level: 4 V<sub>RMS</sub> Maximum Output Level: 2 V<sub>RMS</sub> Input/Output Impedance: 600 ohms

Connects to any other Crestron CAT5 balanced audio port via CresCAT cable, or TPMC-CH-IMC interface module (included) via 15 foot "triamese" cable provided;

Maximum Cable Length: 1000 feet

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

Output Power: 105 mW per channel Minimum Impedance: 8 ohms

**USB:** (2) USB Type A female, USB 1.1 ports for mouse, keyboard, and storage devices<sup>1</sup>

RS-232: (1) 6-pin RJ11 female, computer console port Bidirectional RS-232 up to 115.2k baud

Hardware and software handshaking support

PC CARD A - B: (2) Type II PC Card slots for memory expansion, project upload, and wireless NIC¹

ETHERNET: (1) 8-wire RJ45 with 2 LED indicators

10BaseT/100BaseTX Ethemet port Green LED indicates network speed Yellow LED indicates Ethemet activity NET: (1) 4-pin 3.5mm detachable terminal block Cresnet Slave Port (data only; 24V terminal not used) Connects to Cresnet control network, or TPMC-CH-IMC interface

module (included) via 15 foot "triamese" cable provided

**PWR:** (1) 4-pin DC power jack, 12.5V DC power input (external power supply included)

(external power supply included)

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

### **Power Requirements**

**TPMC-15-CH:** 8.4 Amps @ 12.5 Volts DC

External Power Supply (included): 2.2 Amps @ 100-250

Volts AC, 50/60 Hz

Cresnet Power Usage: 0 Watt @ 24 Volts DC

#### **Environmental**

**Temperature:** 50° to 113°F (10° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

#### **Enclosure**

Construction: High impact black/silver injection-molded case with

integral rear cover and cable strain relief **Screen Tilt:** Adjustable 45 to 90 degrees

#### **Dimensions**

**Height:** 14.17 in (35.99 cm) **Width:** 14.94 in (37.95 cm) **Depth:** 13.74 in (34.90 cm)

#### Weight

15.8 lbs (7.1 kg)

# **INCLUDED ACCESSORIES**

(See individual product specifications for complete information.)

## TPMC-CH-IMC

CAT5 Balanced AV Interface Module + 15 ft triamese cable

# PW-1280RU

Power Supply

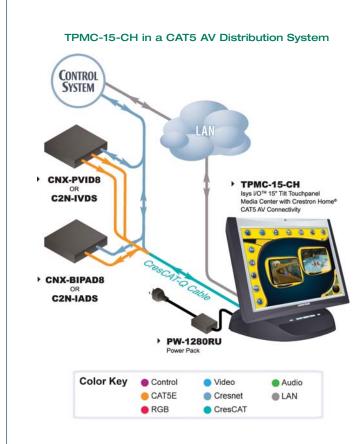
<sup>1</sup> See Web site or contact Crestron for a current list of compatible devices and embedded applications. To ensure reliable performance, new device drivers and applications are available only from Crestron through firmware undates.

<sup>2</sup> Additional CAT5 Balanced AV equipment is required to facilitate the input of more than one external video signal. See the "Audio Video Distribution and Surround Sound" section of this catalog or visit the Crestron Website for more information about Crestron Home CAT5 Balanced AV



Isys i/O™ Tilt Touchpanel Media Centers

Isys i/O $^{\text{\tiny{TM}}}$  15" Tilt Touchpanel Media Center w/CH CAT5 AV **TPMC-15-CH** 





# Isys® Tilt Touchpanel Accessories

# **POWER SUPPLIES**

# PW-1280RU Regulated Universal Power Pack 12.5V DC, 8A

The PW-1280RU is the universal regulated power pack that is included as standard with every lsys i/O 15" and 17" Touchpanel Media Center. Designed for US/International use.

### **SPECIFICATIONS**

#### **Connections**

AC Input: (1) IEC320 male socket

Mates with removable 120V AC power cord, included

DC Output: (1) Attached 8 ft. (2.44 m) cable with 4-pin

DC power plug, male

**Output:** 7.92 Amps minimum @ 12.5 Volts DC, regulated Connects to PWR jack of touchpanel, or PWR IN jack of

TPMC-L-IMC if used

### **Power Requirements**

2.2 Amps @ 100-250 Volts AC, 50/60 Hz

#### **Enclosure**

Black plastic, desktop



# PW-2420RU Regulated Universal Power Pack 24VDC, 2A (50 Watts)

The PW-2420RU is a 2 Amp regulated power supply designed to provide 24 Volts DC to power some models of Crestron control systems and touchpanels. Generally, the PW-2420RU may be used to power nearly any Cresnet device(s) provided the total combined power factor does not exceed 50 Watts. For US/International use.

## **SPECIFICATIONS**

## **Connectors**

AC Input: (1) IEC320 male socket

Mates with removable 120V AC power cord, included

DC Output: (1) Attached cable with 2.1mm barrel-type DC

connector, male; center pin +

Output: 50 Watts (2 Amp @ 24 Volts DC) regulated

#### **Power Requirements**

100-250 Volts AC, 50/60 Hz

# **Enclosure**

Black plastic, desktop



**Isys® Tilt Touchpanel Accessories** 

# INTERFACE MODULES AND CABLES

#### QM-TX QuickMedia™ Transmitter

The QM-TX provides a low-cost multimedia interface solution for QuickMedia-based Touchpanels and MediaManager systems. Portable or rack-mounted, the QM-TX can be used to send audio, video, and computer signals to any QM-equipped touchpanel via Crestron's exclusive single-wire QuickMedia transport.

Five BNC's are provided on the QM-TX to accept composite, S-Video, component, HDTV, or RGB signals (up to 1600 x 1200 at 60 Hz). Balanced stereo line-level audio signals are transmitted simultaneously with 24-bit digital resolution. Video formats can be switched dynamically and automatically under system control. The QM-TX is 1/2-space rack-mountable using the optional ST-RMK kit.

## **SPECIFICATIONS**

### Video

Gain: 0dB (75 ohm termination) Bandwidth: 100MHz (-3dB) at unity gain

Formats: Supports standard definition and HDTV up to 720p and 1080i

#### **RGB**

Gain: 0dB (75 ohm termination)

Maximum Resolution: 1600x1200 @ 60Hz (at unity gain) with cable length of 100 meters and maximum compensation at receiver (touchpanel)

### **Audio**

A-D Conversion: Burr Brown 24-bit, 48 kHz Frequency Response: 20Hz to 20kHz

# **Connectors**

R/C/PR, G/Y/Y, B/COMP/PB, H, V: (5) BNC female

RGB/Video input

Formats: RGBHV, RGBS, RGsB, YPBPR, S-Video (Y/C), composite:

Input Impedance: 75 ohms (R/C/P<sub>R</sub>, G/Y/Y, & B/COMP/P<sub>B</sub>)

Sync Impedance: 620 ohms (H and V)

Maximum Input Voltage: 0.7 VP-P for RGB and C of S-Video; 1 VP-P for composite and Y of S-Video; 5 VP-P for H and V Sync; Video signal sensing on Y, COMP, and H

AUDIO: (1) 5-pin 3.5mm detachable terminal block Balanced/unbalanced stereo line-level audio input Maximum Input Level: 4 V<sub>RMS</sub> balanced, 2 V<sub>RMS</sub> unbalanced Input Impedance: 10k ohms balanced, 5k ohms unbalanced

QM OUT: (1) 8-wire RJ45 female, QuickMedia output port Connects to QM input port of touchpanel of other QuickMedia device via CresCAT-QM or CresCAT-IM cable\*



NET: (2) 4-pin 3.5mm detachable terminal blocks Cresnet slave ports, paralleled Connect to Cresnet control network

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

#### **LED Indicators**

PWR: (green) Indicates DC power supplied from Cresnet network

**NET:** (vellow) Indicates communication with Cresnet system VIDEO ACT: (red) Indicates presence of a valid video

**SETUP (rear):** (red) Used for touch-settable ID (TSID)

#### **Controls**

SETUP: (1) Button for touch-settable ID (TSID)

# **Power Requirements**

Cresnet Power Usage: 5 Watts (0.21 Amp @ 24 Volts DC)

#### **Environmental**

Temperature: 41° to 104°F (5° to 40°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

Black metal, 0.5U 19" rack mountable using optional ST-RMK (sold separately)

# **Dimensions**

**Height:** 1.80 in (4.57 cm) Width: 7.07 in (17.96 cm) **Depth:** 7.02 in (17.83 cm)

#### Weight

2.05 lbs (0.93 kg)

# **AVAILABLE ACCESSORIES**

#### ST-RMK

Rack Mount Kit

\* For QuickMedia wiring use CresCAT-QM or CresCAT-IM cable; the maximum aggregate cable length and delay skew between any QM transmitter (origination point) and QM receiver (endpoint) is 450 ft (137 m) and 22 nS.



► Isys® Tilt Touchpanel Accessories

# INTERFACE MODULES AND CABLES

#### TPMC-CH-IMC CAT5 Balanced AV Interface Module

The TPMC-CH-IMC is an audio/video interface module that is included as standard with many lsys touchpanels that utilize Crestron Home (CH) CAT5 AV connectivity\*. The interface module can connect to the touchpanel using a "triamese" interface cable (included with tilt model touchpanels) or using CresCAT-D cable (sold separately). Installed neatly out of view near the touchpanel, or mounted remotely in the central equipment cabinet, the TPMC-CH-IMC provides connections for Cresnet, bidirectional audio, and (1) video input signal. The balanced CAT5 AV outputs support cable runs up to 300 feet (observe distance limitations based upon power consumption for the touchpanel in use).

Additional interface modules may be purchased and installed to facilitate connectivity for a single movable touchpanel at multiple locations. The TPMC-CH-IMC can also be used as a CAT5 balanced AV interface for use with other Crestron CAT5 AV products.



## **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  $V_{\text{\tiny P-P}}$  nominal, 1.5  $V_{\text{\tiny P-P}}$  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 ohm balanced, 10k ohm unbalanced Maximum Input Level: 4 V<sub>FMS</sub> balanced, 2 V<sub>FMS</sub> 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  $V_{\text{RMS}}$ 

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 DC power supplied from Cresnet network

#### **Power Requirements**

Cresnet Power Usage: 2 Watts (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)

\*The TPMC-CH-IMC is not compatible with QuickMedia or 10-pin RJ45 based systems.



**Isys® Tilt Touchpanel Accessories** 

# INTERFACE MODULES AND CABLES

#### TPMC-CH-IMW CAT5 Balanced AV Interface Wall Plate

The TPMC-CH-IMW is a wall plate version of the TPMC-CH-IMC interface module, providing a wall plate connection for new Isys® TPS and TPMC-CH series touchpanels that utilize Crestron Home® (CH) CAT5 Balanced AV connectivity\*. It mounts into a 2-gang electrical box and includes front panel connections for a single "triamese" cable (provided with the touchpanel or sold separately). Several TPMC-CH-IMW wall plates may be installed to facilitate connectivity for a single movable touchpanel at multiple locations.

Wired as part of a complete Crestron Home CAT5 AV distribution system, the TPMC-CH-IMW requires just a single CresCAT-D cable, carrying Cresnet, bidirectional audio, and (1) video signal up to 500 feet within a single bundled cable (observe distance limitations based upon power consumption for the touchpanel in use). The TPMC-CH-IMW can also be connected to conventional audio and coaxial video sources.

# **SPECIFICATIONS**

# **Connectors - Front Panel**

NET: (1) 4-pin 3.5mm detachable terminal block Pass-thru from rear NET port

AUDIO: (1) 8-pin RJ45 female

Bidirectional CAT5 balanced stereo audio port Output Impedance: 100 ohms balanced

Maximum Output Level: 2 V<sub>RMS</sub>

Input Impedance: Infinite (unbuffered pass-thru to rear AUDIO

OUT port)

VIDEO: (1) 8-pin RJ45 female CAT5 balanced video output port Output Impedance: 100 ohms balanced

#### **Connectors - Rear Panel**

NET: (1) 4-pin 5mm detachable terminal block Cresnet slave port, Connects to Cresnet control network

VIDEO COMP/Y/Y, C/Pb, Pr: (1) 9-pin 3.5mm detachable terminal block providing (1) composite, S-Video, or component video input

Input Impedance: 100 ohms balanced (also accepts 75 ohm unbalanced);

Input Level: 1 VP-P nominal, 1.5 VP-P maximum

Maximum DC Offset: 1.5 Volts

Connects to any Crestron CAT5 Video Out port via CresCAT cable, or a conventional coax video source

AUDIO IN: (1) 5-pin 3.5mm detachable terminal block Balanced/unbalanced stereo line-level input Input Impedance: 20k ohm balanced, 10k ohm unbalanced



Maximum Input Level: 4 VRMS balanced, 2 VRMS unbalanced Connects to any Crestron CAT5 Audio port via CresCAT cable, or a conventional audio source

AUDIO OUT: (1) 5-pin 3.5mm detachable terminal block Balanced stereo line-level output (unbuffered pass-thru from front AUDIO port);

Connects to any Crestron CAT5 Audio port via CresCAT cable, or a conventional balanced audio input

# **LED Indicators**

PWR: (green) Indicates DC power supplied from Cresnet network

## **Power Requirements**

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

#### **Environmental**

**Temperature:** 41° to 122°F (5° to 50°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

2-gang mountable in a standard electrical box (2.5 inch deep minimum); includes black metal front panel Decora® inserts; requires Decora faceplate (provided by others)

### **Dimensions**

Height: 4.11 in (10.44 cm) Width: 3.50 in (8.89 cm) **Depth:** 1.66 in (4.22 cm)

# Weight

7.5 oz (0.21 kg)

\*The TPMC-CH-IMW is not compatible with QuickMedia or 10-pin RJ45 based systems.



➤ Isys® Tilt Touchpanel Accessories

# INTERFACE MODULES AND CABLES

## TPS/TPMC-CBL-T Triamese Cables for New Isys Touchpanels

The TPS/TPMC-CBL-T series of "triamese" cables provides a clean, flexible cable solution for Crestron's new series of lsys 12", 15" and 17" touchpanels. Available in 3, 6 and 9 foot lengths, these cables are designed primarily for use in combination with the TPMC-CH-IMC interface module. A single TPS/TPMC-CBT-T cable may be used in place of the 15 ft cable furnished with certain tilt model touchpanels, and is also compatible with comparable wall mount models wherever a short pre-made cable solution is called for.

Each triamese cable is composed of a single Cresnet cable terminated on each end with a 3.5mm terminal block connector, and two (2) CAT5e cables each terminated with 8-pin RJ45 connectors, providing connections for Cresnet data and power, plus bidirectional audio and (1) video signal between the module and the touchpanel.

TPS/TPMC-CBL-T cables may also be used with QuickMedia-based touchpanels to provide a clean cable solution between the touchpanel and any compatible QuickMedia interface device. These cables are not compatible with older 10-pin RJ45 based touchpanels or interface modules.



# TPS/TPMC-CBL-T3-B

3 foot (0.9 meters) Triamese Cable, Black

#### TPS/TPMC-CBL-T3-W

3 foot (0.9 meters) Triamese Cable, White

# TPS/TPMC-CBL-T6-B

6 foot (1.8 meters) Triamese Cable, Black

# TPS/TPMC-CBL-T6-W

6 foot (1.8 meters) Triamese Cable, White

#### TPS/TPMC-CBL-T9-B

9 foot (2.7 meters) Triamese Cable, Black

### TPS/TPMC-CBL-T9-W

9 foot (2.7 meters) Triamese Cable, White



**Isys® Tilt Touchpanel Accessories** 

# INTERFACE MODULES AND CABLES

## TPS-IMPC Isys® Interface Module

The TPS-IMPC is an interface module that is included as standard with every Isys TPS-3000 and TPS-4000 tilt touchpanel. Additional interface modules may be purchased and installed to facilitate connectivity for a single non-stationary touchpanel at multiple locations.

The interface module connects to the touchpanel using a "siamese" interface cable (included with the touchpanel or sold separately). Installed neatly out of view near the touchpanel, the interface module provides all of the conventional connections for power, Cresnet, audio, and video signals.



#### **Connectors**

NET: (1) 4-pin 5mm detachable terminal block Connects to Cresnet control network

24VDC: (1) 24 Volt DC power jack (PW-2420RU power supply optional, sold separately);

Powers touchpanel and module in lieu of Cresnet power

NET/VIDEO TO PANEL: (1) 10-pin RJ45 female, shielded Connects to touchpanel via "siamese" cable (included with touchpanel):

Contains Cresnet data, 24 Volts DC power, ground, and

AUDIO TO PANEL: (1) 8-pin RJ45 female, shielded Connects to touchpanel via "siamese" cable (included with touchpanel);

Contains stereo audio input and mic out signals

AUDIO INPUT: (1) 6-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<sub>RMS</sub> balanced, 2 V<sub>RMS</sub> unbalanced

MIC OUT: (1) 3-pin 3.5mm detachable terminal block Balanced/unbalanced mono line-level output Output Impedance: 600 ohms balanced, 300 ohms

Maximum Output Level: 2 V<sub>RMS</sub> balanced, 1 V<sub>RMS</sub> unbalanced

NTSC/PAL VIDEO (Coaxial): (2) BNC female Comprises (1) composite or S-Video input Input Impedance: 75 ohms

NTSC/PAL VIDEO (Balanced): (1) 6-pin 3.5mm detachable terminal block;

Comprises (1) composite or S-Video input, balanced Connects to any Crestron CAT5 balanced video source Input Impedance: 100 ohms



#### **DIP Switches**

BAL/COAX: Selects between balanced or coaxial video inputs

#### **Power Requirements**

24VDC: <1 Watt @ 24 Volts DC - not including touchpanel

(PW-2420RU power supply sold separately)

Cresnet Power Usage: <1 Watt @ 24 Volts DC - not

including touchpanel

Note: If power is applied to the 24VDC jack and the NET port simultaneously, power will be drawn from whichever is highest.

# **Environmental**

Temperature: 41° to 113°F (5° to 45°C) Humidity: 10% to 90% RH (non-condensing)

#### **Enclosure**

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

## **Dimensions**

**Height:** 1.25 in (3.18 cm) Width: 5.82 in (14.79 cm) **Depth:** 3.50 in (8.89 cm)

### Weight

12.5 oz (0.36 kg)



➤ Isys® Tilt Touchpanel Accessories

# INTERFACE MODULES AND CABLES

## TPS-4500IMPC Isys® Interface Module without Audio

The TPS-4500IMPC is an interface module that may be used with an Isys TPS-3000 or TPS-4000 tilt touchpanel whenever the touchpanel's built-in microphone and speakers are not being used. Multiple interface modules may be purchased and installed to facilitate connectivity for a single non-stationary touchpanel at multiple locations.

The interface module connects to the touchpanel using a 10-pin interface cable (included with the touchpanel or sold separately). Installed neatly out of view near the touchpanel, the interface module provides all of the conventional connections for power, Cresnet, and video signals.



#### **Connectors**

**NET:** (1) 4-pin 5mm detachable terminal block Connects to Cresnet control network

24VDC: (1) 24 Volt DC power jack

(PW-2420RU power supply optional, sold separately)
Powers touchpanel and module in lieu of Cresnet power

**NET/VIDEO TO PANEL:** (1) 10-pin RJ45 female, shielded Connects to touchpanel via "siamese" cable (included with touchpanel);

Contains Cresnet data, 24 Volts DC power, ground, and video signals

NTSC/PAL VIDEO (Coaxial): (2) BNC female Comprises (1) composite or S-Video input

Input Impedance: 75 ohms

NTSC/PAL VIDEO (Balanced): (1) 6-pin 3.5mm detachable terminal block:

Comprises (1) composite or S-Video input, balanced

Input Impedance: 100 ohms

Connects to any Crestron CAT5 balanced video source

#### **DIP Switches**

**BAL/COAX:** Selects between balanced or coaxial video inputs

### **Power Requirements**

24VDC: <1 Watt @ 24 Volts DC - not including touchpanel (PW-2420RU power supply sold separately)

Cresnet Power Usage: <1 Watt @ 24 Volts DC - not including touchpanel

If power is applied to the 24VDC jack and the NET port simultaneously, power will be drawn from whichever is highest.



#### **Environmental**

**Temperature:** 41° to 113°F (5° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

#### **Enclosure**

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

#### **Dimensions**

**Height:** 1.25 in (3.18 cm) **Width:** 5.82 in (14.79 cm) **Depth:** 3.50 in (8.89 cm)

# Weight

12.4 oz (0.36 kg)



**Isys® Tilt Touchpanel Accessories** 

# INTERFACE MODULES AND CABLES

## TPS-IMW Isys® Interface Module Wall Plate

The TPS-IMW is a wall plate version of the TPS-IMPC interface module, providing a flush wall plate connection for any Isys TPS-3000 or TPS-4000 tilt touchpanel. The TPS-IMW mounts into a 2-gang electrical box (2.5" minimum depth) and includes front panel RJ45 connections for the siamese type cable (provided with the touchpanel or sold separately). Several interface module wall plates may be installed to facilitate touchpanel connectivity at multiple locations.

## **SPECIFICATIONS**

#### **Connectors - Front Panel**

NET/VIDEO: (1) 10-pin RJ45 female, shielded Connects to touchpanel via "siamese" cable (included with touchpanel);

Contains Cresnet data, 24 Volts DC power, ground, and video signals

AUDIO: (1) 8-pin RJ45 female, shielded

Connects to touchpanel via "siamese" cable (included with touchpanel):

Contains stereo audio input and mic out signals

## **Connectors - Rear Panel**

NET: (1) 4-pin 5mm detachable terminal block Connects to Cresnet control network

NTSC/PAL VIDEO: (1) 6-pin 3.5mm detachable terminal block comprising (1) composite or S-Video input, balanced or unbalanced:

Input Impedance: 100 ohms (will accept 75 ohm coaxial video)

AUDIO INPUT: (1) 6-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<sub>RMS</sub> balanced, 2 V<sub>RMS</sub> unbalanced

MIC OUT: (1) 3-pin 3.5mm detachable terminal block Balanced/unbalanced mono line-level output Output Impedance: 600 ohms balanced, 300 ohms unbalanced:

Maximum Output Level: 2 V<sub>RMS</sub> balanced, 1 V<sub>RMS</sub> unbalanced

# **Power Requirements**

Cresnet Power Usage: <1 Watt @ 24 Volts DC - not including touchpanel

## **Environmental**

Temperature: 41° to 113°F (5° to 45°C) Humidity: 10% to 90% RH (non-condensing)



#### **Enclosure**

2-gang mountable in a standard electrical box; includes black metal front panel Decora® inserts; requires Decora faceplate (provided by others)

### **Dimensions**

Height: 4.11 in (10.44 cm) Width: 3.50 in (8.89 cm) Depth: 1.51 in (3.82 cm)

# Weight

0.48 lb (0.22 kg)



Isys® Tilt Touchpanel Accessories

# INTERFACE MODULES AND CABLES

## TPS-4500IMW Isys® Interface Module Wall Plate without Audio

The TPS-4500IMW is a wall plate version of the TPS-4500IMPC interface module, providing a flush wall plate connection for any Isys TPS-3000 or TPS-4000 tilt touchpanel whenever the touchpanel's built-in microphone and speakers are not being used. The TPS-4500IMW mounts into a single-gang electrical box (2.5" minimum depth) and includes one front panel RJ45 connection for the 10-pin cable that connects to the touchpanel (provided with the touchpanel or sold separately). Several interface module wall plates may be installed to facilitate touchpanel connectivity at multiple locations.



## **SPECIFICATIONS**

### **Connectors - Front Panel**

**NET/VIDEO:** (1) 10-pin RJ45 female, shielded Connects to touchpanel via "siamese" cable (included with touchpanel);

Contains Cresnet data, 24 Volts DC power, ground, and video signals

#### **Connectors - Rear Panel**

**NET:** (1) 4-pin 5mm detachable terminal block Connects to Cresnet control network

**COMP/Y:** (1) 4-pin 3.5mm detachable terminal block comprising (1) composite or 'Y' of (1) S-Video input, balanced or unbalanced;

Input Impedance: 100 ohms balanced, 75 ohms unbalanced

C: (1) 4-pin 3.5mm detachable terminal block 'C' of (1) S-Video input, balanced or unbalanced Input Impedance: 100 ohms balanced, 75 ohms unbalanced

### **Power Requirements**

Cresnet Power Usage: <1 Watt @ 24 Volts DC - not including touchpanel

### **Environmental**

**Temperature:** 41° to 113°F (5° to 45°C) **Humidity:** 10% to 90% RH (non-condensing)

## Enclosure

1-gang mountable in a standard electrical box; includes black metal front panel Decora® insert; requires Decora faceplate (provided by others)

#### **Dimensions**

**Height:** 4.27 in (10.85 cm) **Width:** 2.51 in (6.36 cm) **Depth:** 1.49 in (3.77 cm)

#### Weight

0.32 lb (0.14 kg)

Isys® Tilt Touchpanel Accessories

# **INTERFACE MODULES AND CABLES**

## TPS-CBL-S Siamese Cable for Isys® Tilt Touchpanels

Isys TPS-CBL-S "siamese" cables are designed for use with Isys TPS-3000 and TPS-4000 tilt touchpanels. Available in a variety of lengths, a TPS-CBL-S cable may be used in place of the longer 15' cable provided with the touchpanel, carrying Cresnet, video, and audio signals between the touchpanel base and interface module in a singular lightweight, flexible cable assembly.

## **AVAILABLE MODELS**

TPS-CBL-S3

Length: 3 foot (0.9 meters)

TPS-CBL-S6

Length: 6 foot (1.8 meters)

**TPS-CBL-S9** 

Length: 9 foot (2.7 meters)

#### **SPECIFICATIONS**

### **Connectors**

(2) 10-pin RJ45 male, shielded (2) 8-pin RJ45 male, shielded Carries Cresnet data, 24 Volts DC power, ground, video, and audio signals

# TPS-CBL Cable for Isys® Tilt Touchpanels

Isys TPS-CBL cables are designed for use with Isys TPS-3000 and TPS-4000 tilt touchpanels whenever the touchpanel's built-in microphone and speakers are not being used. Available in a variety of lengths, a TPS-CBL cable may be used in place of the longer 15' cable provided with the touchpanel, carrying Cresnet and video signals between the touchpanel base and interface module in a single lightweight, flexible cable.

## **AVAILABLE MODELS**

TPS-CBL-3

Length: 3 foot (0.9 meters)

**TPS-CBL-6** 

Length: 6 foot (1.8 meters)

TPS-CBL-9

Length: 9 foot (2.7 meters)

## **SPECIFICATIONS**

#### **Connectors**

(2) 10-pin RJ45 male, shielded Carries Cresnet data, 24 Volts DC power, ground, and video signals





Isys® Tilt Touchpanel Accessories

# INTERFACE MODULES AND CABLES

# TPSBLOCK-10 10-Pin Connector Block for Isys® Tilt Touchpanels

The TPSBLOCK-10 provides a simplified connectivity solution for lsys TPS-3000 and TPS-4000 tilt touch-panels. This chassis-mount 10-pin RJ45 jack is suitable for installation on any custom panel, or in standard adapter plates offered from other manufacturers. An integral 10' cable is included, terminated at the other end with a 10-pin RJ45 male connector.

The TPSBLOCK-10 is compatible with Crestron TPS-IMPC and TPS-4500IMPC interface modules, allowing the installer to hide the interface module beneath a tabletop or inside a lectern while providing a convenient, clean-looking connection above surface for the touchpanel.



# **SPECIFICATIONS**

#### **Connectors**

(1) 10-pin RJ45 female, chassis-mount, shielded (1) 10-pin RJ45 male, shielded

#### Length

10 ft (3.05 m)

# ST-PK Programming Cable Kit

It is used only for loading touchpanel files, updating firmware, and configuring the touchpanel prior to operation. The ST-PK may also be used to update firmware and adjust the digital audio signal processing in Crestron's 7.1 surround sound processors and room solution boxes.



### **SPECIFICATIONS**

# Cables

## 3.5mm to RJ11 Cable Assembly (CNSP-585):

Provides connection between a SmarTouch wireless touchpanel and the control processor via a RJ11 Cresnet port; may require an additional CNRJ11, ST-CNB, or C2N-HBLOCK accessory.

# RJ11-to-RJ11 Cable plus RJ11-to-DB9F Adapter (STCP-502):

Provides connection between an lsys touchpanel, surround processor, or room solution box RS-232 port and PC COM port.



Isys® Tilt Touchpanel Accessories

# SWIVEL BASES AND HATCHBACK

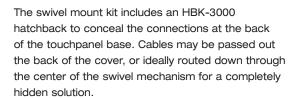
# HBK-3000 Hatchback for Isys® 6.4" and 10.4" Tilt Touchpanels

The HBK-3000 hatchback is an optional rear cover accessory for Isys TPS-3000 and TPS-6000 tilt touchpanels. The hatchback is designed to conceal the connections at the back of the touchpanel base, preventing disconnection and providing cable strain relief.



# SMK-3000 Swivel Mount for Isys® 6.4" and 10.4" Tilt Touchpanels

The SMK-3000 swivel mount is an optional mounting accessory for Isys TPS-3000 and TPS-4000 tilt touchpanels. The swivel mount provides a means of permanently mounting the touchpanel base to a flat countertop or tabletop surface\* while still allowing for optimal positioning with 330-degree rotation. Once installed, the swivel mount may be locked in position if desired.

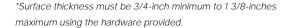


\*Surface thickness must be 3/4-inch minimum to 1 3/8-inches maximum using the hardware provided.



# SMK-12/15/17 Swivel Mount for Isys® 12", 15", and 17" Tilt Touchpanels

The SMK-12/15/17 swivel mount is an optional mounting accessory for new Isys 12, 15, and 17 inch tilt touchpanels including TPS, TPS-G, and TPMC series. The swivel mount provides a means of permanently mounting the touchpanel base to a flat countertop or tabletop surface\* while still allowing for optimal positioning with 330-degree rotation. Cables may be passed out the back of the touchpanel, or routed down through the center of the swivel mechanism\*\* for a completely hidden solution.

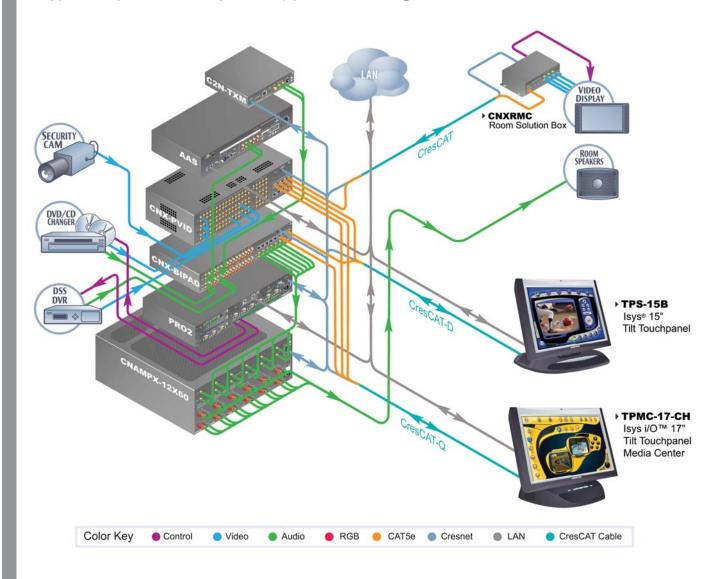


\*\*The touchpanel must include a notch at the rear of the bottom plate to allow for cable pass-thru.



# Isys Tilt Touchpanels diagrams

Typical Isys Tilt Touchpanel Application using Crestron Home CAT5 AV



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