

# TPS-17G-QM

## Isys® G-Series 17" Tilt Touchpanel w/QuickMedia® Transport Technology

Crestron 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-17G-QM 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 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®

Isys power and beauty are infused throughout the entire Crestron touchpanel lineup. Under the hood, the TPS-17G-QM offers vibrant 24-bit color depth with 8-bit alpha channel transparency to produce incredible 3D graphics using DNav dynamic menu objects, dynamic graphics and text, animations, multimode objects, and PNG translucency - all with astonishing speed.

### Synapse™

The Crestron 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.

### Windows® SideShow™ Enabled

New support for Windows® SideShow™ gives the TPS-17G-QM access to all kinds of PC and Web-based content such as news feeds, sports scores, stock tickers, weather alerts, media guides, email messages, and appointment notifications all through a simple network connection to a Windows Vista™ computer.

### Dual-Window HD Video and RGB\*

The TPS-17G-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 exclusive "Touch-the-PC" technology allows real-time touchpanel navigation of any Windows PC through a direct high-speed serial connection.

### Interactive Annotation

Built-in annotation capability allows presenters to write or draw over live computer and video images right on the touchscreen using a finger, stylus, or mouse. Moving images can also be frozen onscreen to allow annotation over a still picture. Brush sizes and colors are selectable on the fly. Remote annotation capability allows multiple touchpanel users to draw over the same image, supporting interactive annotation between several participants in a courtroom, classroom, or similar environment. The image can also be output to a video display for live audience



presentation.

### High-Quality Audio\*

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

### QuickMedia®

All audio and video connections are facilitated using our revolutionary QuickMedia transport, providing a flexible yet remarkably simple wiring solution. Through QuickMedia (QM), the TPS-17G-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 450 feet for video, 300 feet for 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-17G-QM, providing for easy network integration and seamless communications with Crestron control systems. USB connectivity is also included for connection of an external mouse, touchscreen, or similar pointing device†.

### 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" widescreen active matrix touchscreen display

# TPS-17G-QM

- > 24-Bit Isys graphics
- > 1280 x 768 resolution
- > Synapse image rendering algorithm
- > Windows SideShow-enabled
- > DNav dynamic menu objects
- > Dual-window full-motion video, HDTV and RGB display\*
- > Interactive annotation capability
- > Built-in biamplified speaker system and microphone\*
- > QuickMedia AV connectivity
- > Audience presentation output\*
- > High-speed Ethernet and Cresnet communications
- > Backlit "hard key" pushbuttons
- > Tiltcase housing with integral rear cover and cable strain relief
- > Power supply included

## 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/m<sup>2</sup>)  
**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

Isys engine, 24-bit non-palette graphics + 8-bit alpha channel transparency, 16.7 million colors, Synapse image rendering algorithm, multi-mode objects, DNav dynamic menu objects, dynamic graphics, Windows® SideShow™ enabled, PNG translucency, full-motion (60 fps) animation, transition effects, color key video windowing, remote annotation

### Ethernet

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

### Video\*

**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\*

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

### Buttons

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

### 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 (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 (VGA) 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: none;

# TPS-17G-QM

Connects to QM output port of a **QM-TX** or other QuickMedia device via **CRESCAT-QM** or **CRESCAT-IM** cable;  
Maximum Cable Length (SDTV): 450 ft for 480i and 576i (aggregate distance from QM origination);  
Maximum Cable Length (EDTV/HDTV): 300 ft for 480p, 576p, 720p, 1080i, and 1080p (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 (aggregate distance from QM origination 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: 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: 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;

**PW-2435RU** power supply included

**NET**: (1) 4-pin 3.5mm detachable terminal block, Cresnet Slave Port;

Connects to Cresnet control network and remote power supply via the

**TPS-17G-QM/-L-IMC** power interface module (included);

Caution: Do not connect directly to the Cresnet network bus

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

USB 1.1 ports for mouse or touchscreen input†

**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)†

## Power Requirements

**Touchpanel**: 3.5 Amps @ 24 Volts DC;

May be powered via 24VDC power jack or **TPS-17G-QM/-L-IMC** power interface module (included) using **PW-2435RU** power supply provided

**External Power Supply (PW-2435RU included)**: 1.5 Amps @ 100-240 Volts AC, 50/60 Hz

## Environmental

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

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

**Heat Dissipation**: 287 BTU/Hr

## 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 (35.99 cm)

**Width**: 17.63 in (44.77 cm)

**Depth**: 13.74 in (34.90 cm)

## Weight

19.4 lb (8.8 kg)

\* One or more **QuickMedia** devices are required to facilitate the input and output of audio, video, and RGB signals.

†Contact Crestron for a current list of compatible devices and capabilities.

## Available Models

**TPS-17G-QM**: Isys G-Series 17" Touchpanel with QuickMedia

## Included Accessories

**PW-2435RU** Regulated Universal Power Pack for TPS-17G-QM[-L]

[Included Quantity: 1] **TPS-17G-QM/-L-IMC** Power Interface Module and Power Supply for TPS-17G-QM[-L] and TPS-15G-QM[-L]

[Included Quantity: 1]

## Available Accessories

**CRESCAT-IM-P-DRN-SP1000**: iMedia Cable, Low-skew CAT5e w/drain wire for iMedia and QuickMedia, plenum, 1000 ft spool

**CRESCAT-IM-P-DRN-SP500**: iMedia Cable, Low-skew CAT5e w/drain wire for iMedia and QuickMedia, plenum, 500 ft spool

**CRESCAT-QM-NP-SP500**: QuickMedia® Cable, Low-skew CAT5e & Cresnet, non-plenum, 500 ft spool

**CRESCAT-QM-P-SP500**: QuickMedia® Cable, Low-skew CAT5e & Cresnet, plenum, 500 ft spool

**CRESNET-HP-NP-TL-SP1000**: Cresnet® "High-Power" Control Cable, non-plenum, teal, 1000 ft spool

**CRESNET-HP-NP-TL-SP500**: Cresnet® "High-Power" Control Cable, non-plenum, teal, 500 ft spool

**CRESNET-NP-BK-B500**: Cresnet® Control Cable, non-plenum, black, 500 ft box

**CRESNET-NP-OR-B500**: Cresnet® Control Cable, non-plenum, orange, 500 ft box

**CRESNET-NP-TL-B250**: Cresnet® Control Cable, non-plenum, teal, 250 ft box

**CRESNET-NP-TL-B500**: Cresnet® Control Cable, non-plenum, teal, 500 ft box

**CRESNET-NP-TL-SP1000**: Cresnet® Control Cable, non-plenum, teal, 1000 ft spool

**CRESNET-NP-TL-SP500**: Cresnet® Control Cable, non-plenum, teal, 500 ft spool

**CRESNET-NP-YL-B500**: Cresnet® Control Cable, non-plenum, yellow, 500 ft box

**CRESNET-P-BK-SP500**: Cresnet® Control Cable, plenum, black, 500 ft spool

**CRESNET-P-OR-SP500**: Cresnet® Control Cable, plenum, orange, 500 ft spool

**CRESNET-P-TL-SP1000**: Cresnet® Control Cable, plenum, teal, 1000 ft spool

**CRESNET-P-TL-SP500**: Cresnet® Control Cable, plenum, teal, 500 ft spool

**CRESNET-P-YL-SP500**: Cresnet® Control Cable, plenum, yellow, 500 ft spool

**QM-TX**: QuickMedia Transmitter

**SMK-12/15/17**: Swivel Mount Kit

**ST-PK**: Programming Cable Kit

**TPS/TPMC-CBL-T3-B**: Triamese Cable, 3 ft, Black

**TPS/TPMC-CBL-T3-W**: Triamese Cable, 3 ft, White

**TPS/TPMC-CBL-T6-B**: Triamese Cable, 6 ft, Black

**TPS/TPMC-CBL-T6-W**: Triamese Cable, 6 ft, White

**TPS/TPMC-CBL-T9-B**: Triamese Cable, 9 ft, Black

**TPS/TPMC-CBL-T9-W**: Triamese Cable, 9 ft, White



# TPS-17G-QM

