

# TPMC-8X

## Isys i/O™ 8.4" WiFi Touchpanel

Crestron's Isys i/O TPMC-8X is a compact, stylish Wi-Fi touchpanel featuring the Windows® XP Embedded OS to deliver a 2-way wireless control solution with blazingly fast performance and native capabilities for browsing the Internet, streaming multimedia, and much more. A brilliant 8.4" active-matrix SVGA display and 16-bit color depth combine to produce stunning 3D graphics using DNav dynamic menu objects, dynamic graphics and text, animations, multimode objects, PNG translucency, and exclusive Synapse™ image rendering - all with astonishing speed.

### Advanced Ergonomics

Incredibly thin and compact, the TPMC-8X is brilliantly designed to provide a powerful mobile control solution that's easy to hold and intuitive to use. Its magnesium alloy enclosure presents a sleek, modern appearance that is both rugged and lightweight.

### Tactile Controls

An integrated 5-way thumbpad and up/down arrow buttons add quick-access and tactile response for controlling functions ranging from simple volume adjustment and channel selection to on-screen menu navigation or even pan/tilt camera control. Four additional "hard key" buttons are positioned below the touchscreen, programmable for context-sensitive menu functions. A stylus is even included for use with the on-screen keyboard, conveniently stowed in its own storage slot.

### Bluetooth® Technology

Built-in Bluetooth enables the use of a wireless mouse and keyboard\*. A USB 2.0 port is also provided for connecting wired devices.

### Biometric Scanner

The built-in fingerprint scanner unleashes a whole new level of convenience and security, allowing individual users to be identified instantly and logged on automatically. With just the touch of a fingertip, each user can be presented with a unique graphical interface with its own set of preferences, access privileges, and even its own look through the use of touchpanel "skins".

### Wi-Fi Wireless

Integrated 802.11a/b/g Wi-Fi technology with WEP encryption delivers secure, high-speed 2-way wireless performance across wireless LAN's, affording mobile freedom and seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices.

### Embedded PC

The power of Isys i/O is in its embedded PC engine, combining rock solid touchpanel performance with built-in Windows Media® Player and RealPlayer®, Internet Explorer, Adobe® Acrobat® Reader, and Microsoft Word, Excel, and PowerPoint® document viewers. While simultaneously controlling your home theater or boardroom, the TPMC-8X provides everything needed for enjoying online music and movies, and viewing Web pages and other documents without necessitating a separate computer.

Onboard NetMeeting® and Skype™ VoIP applications enable duplex telephone, intercom, and interactive video conferencing right on the touchpanel without any dedicated wiring. New VNC Viewer support delivers enhanced cross-platform interaction with remote computers over the network or Internet, allowing access and control of desktop



SHOWN WITH OPTIONAL DOCKING STATION

applications with live presentation capability. Plus, support for Windows® SideShow™ and Yahoo! Widgets affords two easy solutions for integrating everything from calendars and clocks to stock tickers, weather forecasts, news feeds, email messages, and appointment notifications.

Built on the Windows XP Embedded operating system, the TPMC-8X delivers a powerful and secure platform for touchpanel control with integrated PC capabilities. 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.

### Wireless Video

For presentation preview, surveillance, or pure entertainment, the TPMC-8X makes it easy to view security cameras, movies, and other video sources right on the touchscreen. In addition to the wide range of streaming video formats supported by its onboard media player applications, the TPMC-8X also features native support for video over IP from a variety of 3rd-party Web cameras and servers using the motion-JPEG format.

### Audio and Intercom

Built-in stereo speakers and headphone output provide clear audio for streaming media and internal PC applications, and enable 2-way intercom and VoIP communications in combination with the integrated microphone. New Crestron IP intercom capability facilitates direct panel-to-panel intercom and monitoring right over the wireless LAN. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

### Li-Ion Rechargeable Batteries

A field-replaceable Lithium Ion battery pack onboard the TPMC-8X provides fast-charging, long-lasting wireless operation without the "memory" issues typical of other rechargeable batteries. An external "booster" battery pack is also available, providing up to 20 hours of typical use between charges. The **optional external battery pack** clips neatly to the rear of the touchpanel without tools, adding 0.75 inch depth and non-slip rubber feet resulting in a fixed tilt angle of 7 degrees.

### Docking Station Options

Optional desktop or wall mount docking stations afford a choice of convenient charging solutions, adding 10/100 Ethernet for direct connection to a wired LAN, plus two USB ports for mouse and keyboard.

# TPMC-8X Isys i/O™ 8.4" WiFi Touchpanel

The desktop dock allows the touchpanel to be operated upright at a 37 degree angle, while the wall mount model provides a secure, flush look.

- > *Stylish and compact ergonomic design*
- > *8.4" active matrix touchscreen display*
- > *16-bit Isys i/O graphics | 800 x 600 resolution*
- > *Synapse image rendering algorithm*
- > *Windows SideShow-Enabled*
- > *DNav dynamic menu objects*
- > *802.11a/b/g Wi-Fi 2-way wireless communications*
- > *Windows XP Embedded operating system*
- > *Onboard PC applications for Web browsing, streaming media, conferencing, VoIP, and remote computer access*
- > *Wireless video from network cameras and servers*
- > *Direct panel-to-panel intercom over IP*
- > *Built-in microphone and stereo speakers*
- > *5-way thumbpad and 4 "hard key" buttons*
- > *Includes stylus with onboard storage slot*
- > *Built-in biometric fingerprint scanner*
- > *Built-in Bluetooth technology\**
- > *Internal Li-Ion battery pack included*
- > *External "booster" battery pack available*
- > *Optional desktop and wall mount docking stations*

## SPECIFICATIONS

### Touchscreen Display

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

**Size:** 8.4 inch (21.3 cm) diagonal

**Aspect Ratio:** 4:3 SVGA

**Resolution:** 800 x 600 pixels

**Brightness:** 200 nits (cd/m<sup>2</sup>)

**Contrast:** 500:1

**Color Depth:** 18-bit, 262k colors

**Response Time :** Edgelit fluorescent

**Viewing Angle:** ±65° horizontal, +65°/-45° vertical

**Touchscreen:** Resistive membrane

### Buttons & Switches

**Hard Keys :** (4) programmable pushbuttons below touchscreen

**Thumbpad:** (1) programmable 5-way thumbpad (4-way navigation plus center "ENTER" button)

**Arrows:** (2) programmable up/down pushbuttons

**Power:** (1) pushbutton, initiates "Power On" and "Power Down"

**Battery:** (1) Recessed slide switch inside battery compartment, shuts off battery for long-term storage

### Biometric Scanner

AuthenTec EntrePad® 1610 fingerprint scanner;  
Identifies up to 30 users by fingerprint

### LED Indicators

**Power:** (1) Green LED, indicates touchpanel power status

**Battery:** (1) Green/yellow dual-color LED, indicates battery condition and charging status

**WiFi:** (1) Green LED, indicates wireless network connection status

### Memory

**DDR SDRAM:** 512 MB

**Flash:** 1 GB

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

**Maximum Project Size:** 190 MB

### Operating System

Microsoft® Windows® XP Embedded

### Graphic Engine

Isys i/O engine, 16-bit non-palette graphics; 65,536 colors; Synapse image rendering algorithm; multi-mode objects; DNav dynamic menu objects; dynamic graphics; Windows® SideShow™ support; PNG translucency; 24 fps animation; transition effects

### Embedded PC Applications†

Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Axis® Media Control, Crestron MJPEG Viewer, Crestron IP Intercom, Skype™, NetMeeting®, VNC Viewer, Remote Desktop, Java™ Runtime, Yahoo! Widgets support, Crestron Keyboard, Adobe® Acrobat® Reader, WordPad, MS Word Viewer 2003, Excel® Viewer 2003, PowerPoint® Viewer 2003

### RF Wireless†

**RF Transceiver:** IEEE 802.11a/b/g Wi-Fi, 5.8 or 2.4 GHz 2-way RF, static IP or dynamic IP via DHCP, 64 and 128-bit WEP encryption

**Range:** 30 feet (10m) @54Mbps; range and speed vary based upon environmental conditions

**Bluetooth:** Bluetooth® V1.2 Class 1 built in for mouse/keyboard\*

**Gateway:** Requires a **CEN-WAP-ABG-1G** or similar 802.11a/b/g wireless access point and Ethernet-enabled Crestron 2-Series control system

### Ethernet†

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

### Video

**Streaming/File Formats:** MPEG4 & MJPEG via Axis Media Control or Crestron MJPEG Viewer, plus all formats supported by the embedded media player applications†

### Audio

**Hardware Features:** Dual onboard microphones, built-in stereo speakers, stereo headphone output

**Streaming/File Formats:** As supported by the embedded media player applications

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

**Amplification:** Stereo, 1.1 Watts per channel

# TPMC-8X Isys i/O™ 8.4" WiFi Touchpanel

## **Connectors**

---

**HEADPHONES:** (1) 3.5 mm TRS mini phone jack;  
Stereo headphone output;  
Output Power: 12mW per channel;  
Minimum Impedance: 32 ohms  
**USB:** (1) USB Type A female;  
USB 2.0 port for keyboard, mouse, and storage devices†  
**MEMORY CARD:** (1) Type II CF+ Card slot†  
**12V 3.5A:** (1) 2.5mm barrel DC power jack;  
12 Volt DC power input (power supply included)

## **Battery**

---

**Internal Battery:** Lithium Ion, 7.4 Volt, 2200 mAh, Crestron model TPMC-8X-BTP included

**Usage per Charge :** ~1.5 hours continuous, 9+ hours under normal use with standby/powerdown activated§

**Charging Time :** ~2 hours (~2.5 to 3 hours when in use)

## **Power Requirements**

---

**Touchpanel:** 3.5 Amps @ 12 Volts DC

**Universal Power Supply/Charger (included):** 100~240V AC 50/60Hz

## **Environmental**

---

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

**Storage Temperature:** 14° to 140°F (-10° to 60°C)

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

## **Enclosure**

---

Magnesium alloy case with plastic buttons, stylus storage slot (stylus included), integral docking station port

## **Dimensions**

---

**Height:** 8.21 in (20.85 cm)

**Width:** 9.69 in (24.61 cm)

**Depth:** 0.92 in (2.32 cm)

## **Weight**

---

1.98 lbs (0.90 kg)

## **INCLUDED ACCESSORIES**

---

**TPMC-8X-BTP:** Internal Battery Pack

## **AVAILABLE ACCESSORIES**

---

**TPMC-8X-DS:** Desktop Docking Station/Charger

**TPMC-8X-DSW:** Wall Mount Docking Station/Charger

**TPMC-8X-BTPE:** External Battery Pack

**CEN-WAP-ABG-1G:** 802.11a/b/g Wireless Access Point

\* *Future feature, not currently enabled.*

†*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.*

‡*Requires a wired connection via docking station.*

§ *External battery pack allows ~3.5 hours continuous, 20+ hours under normal use.*

# TPMC-8X Isys i/O™ 8.4" WiFi Touchpanel

