

Crestron UPX-2



Universal Presentation Processor

Crestron's revolutionary UPX-2 Universal Presentation Processor provides a complete, streamlined AV and digital media presentation solution. In one compact rack mount processor, the UPX-2 fuses touchpanel control with professional annotation, multi-window video processing, and an embedded multimedia PC. The result is a total presentation solution supporting multiple video and digital media formats, complete with real-time annotation that requires no additional computers, software, or hardware dongles.

The UPX-2 puts complete display control in the hands of the presenter, providing independently controllable outputs to the presenter's touchpanel and audience display. Multiple scalable video windows and PC applications can be displayed simultaneously for preview at the podium while the audience sees only what the presenter chooses. In addition to great video and computer, the UPX-2 features incredible touchpanel graphics with 24-bit color depth and 8-bit alpha channel translucency, supporting 16.7 million colors, full-motion animations, dynamic text and graphics, animated pop-ups, and transition effects, all with astonishing speed.

DualTouch™ Technology—In combination with a Crestron DualTouch Technology touchpanel (sold separately), the UPX-2 provides full touchpanel control of the AV system and environment, plus native Wacom® Penabled® annotation capability using a wireless pen. DualTouch Technology means the switching between touchpanel and annotation occurs transparently allowing presenters to focus on the presentation instead of the technology.

Embedded PC—With built-in Windows Media® Player, RealPlayer®, and Internet Explorer, plus viewers for MS Word, Excel, PowerPoint®, and Adobe® Acrobat®, the base model UPX-2-1GB serves as a powerful multimedia presentation source without necessitating a separate computer. The enhanced UPX-2-MSO model adds full-blown Word, Excel and PowerPoint applications, letting presenters freely create and edit presentations and documents right onboard. Both models also include NetMeeting® and Remote Desktop to enable videoconferencing and provide remote access to other computers.

Programmatic control of the embedded applications erases the lines between control system and PC, allowing programmers to customize each application's behavior to create a truly powerful and user-friendly interface. Running the Windows® XP Embedded operating system, the UPX-2 delivers a reliable and secure platform for touchpanel control with integrated PC functionality that's invulnerable to viruses or other rogue software. New security features have been added to enable enhanced Web browsing with Java™, ActiveX® and Flash® support.

Both Cresnet and high-speed Ethernet are standard on the UPX-2 providing for seamless communications with Crestron control systems, computers, digital media servers, and other IP-based devices. Adding an external mouse and keyboard as well as cameras, CD ROM drives, and memory devices is possible through a host of PS/2, USB 2.0, RS-232, and IEEE 1394 ports and front mounted PC Card slots.*

Multi-Window Digital Video Processor—In addition to its built-in PC applications, the UPX-2 supports the display of external video and computer sources in up to three simultaneous scalable windows. The built-in seamless video switcher accepts multiple inputs from NTSC/PAL composite, S-Video, component and HDTV sources. Two RGB inputs are also provided to accommodate non-interlaced sources with up to 1600 x 1200 resolution.

Four discrete video scalars are employed to process the individual video windows and full-screen outputs. Motion-adaptive deinterlacing brings out the highest detail by minimizing visible scan lines and motion artifacts. Advanced gamma correction and time base correction ensure accurate color reproduction and a jitter-free image.



DualTouch™ Technology

Individual RGB outputs are provided for the presenter's touchpanel and audience display, allowing the presenter full control over what the audience sees. The presenter's touchpanel displays the control GUI, including pop-up PC applications and up to 3 video windows. The audience can view that same image or a full-screen image of any external video or RGB source.

MediaMarker™ Annotation—Only the UPX-2 lets presenters draw, write or type in real-time over any computer or video source, display the complete presentation to the audience, and then save, edit, and share screenshots in a variety of formats. Crestron's exclusive MediaMarker application puts truly professional video annotation and electronic whiteboard capability directly onboard.

Without requiring a separate computer or special software, MediaMarker empowers presenters to easily annotate over any of the UPX-2's embedded PC applications, including streaming video, or draw freely on the whiteboard with a choice of background templates or imported graphics. MediaMarker also enables telestration over external video, HDTV, and high-res RGB sources displayed frozen or full-motion. No other annotation solution so easily and elegantly supports such a complete range of media formats.

For ultimate clarity and impact, the MediaMarker Toolbar provides an extensive assortment of drawing tools to enable on-the-fly selection of line weights, colors, shapes, and fonts. To enable instant sharing of completed annotations, screenshots may be captured and saved to a network drive or portable flash card in JPEG, BMP, PNG, TIFF, and HTML formats. The MediaMarker Notebook even allows complete annotation sessions to be saved and reopened in a fully editable format, allowing the session to be continued at a later time, and allowing screen captures to be further manipulated following a presentation for high-quality distribution, posting and publishing purposes.

- > A complete AV and digital media presentation solution
- > 24-Bit Isys i/O graphics | Synapse Image Rendering Algorithm
- > Exclusive MediaMarker annotation with DualTouch Technology
- > Windows XP Embedded operating system
- > Onboard PC applications for Web browsing, streaming media, videoconferencing, and multimedia presentation
- > High-performance multi-window HD video and RGB display
- > Separately-controlled display outputs for presenter and audience
- > Input and output resolutions up to 1600 x 1200 pixels

AVAILABLE MODELS

UPX-2-1GB Universal Presentation Processor

UPX-2-MSO Universal Presentation Processor with Microsoft Office

Crestron UPX-2 Universal Presentation Processor

SPECIFICATIONS

Processor

Intel Celeron A, 1.8 GHz

Memory

SDRAM: 512 MB DDR PC2100 DIMM

Flash: 1 GB Type II compact flash card in rear panel slot**

Operating System

Microsoft® Windows® XP Embedded

Graphics Engine

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

Embedded Software Applications*

Crestron MediaMarker™, Microsoft Internet Explorer w/Macromedia® Flash® plug-in, Windows Media® Player, RealPlayer®, Wordpad, Remote Desktop, NetMeeting®, Java™ Runtime, DirectX®, Axis ActiveX® control, plus viewers for Excel, Word, PowerPoint®, and Adobe® Acrobat®; UPX-2-MSO includes full featured MS Office applications including PowerPoint, Excel, and Word

Touch/Mouse Device Support

Mouse/Keyboard: Microsoft Serial Mouse, Kensington Serial Mouse, generic USB mouse/keyboard, PS/2 compatible mouse/keyboard

Touchscreen/Pen Display: Crestron DTT, 3M Microtouch (serial), CyberTouch
Specific models and protocols subject to verification; refer to Website or contact factory for latest device support

Ethernet

10BaseT/100BaseTX, auto-switching Fast Ethernet, full duplex, TCP/IP, CIP, DHCP, IEEE 802.3U compliant

Video/RGB

Inputs: (2) RGB and up to (6) video inputs configurable for various combinations of composite, S-Video, component, and HDTV

Output A: (Presenter) Displays Control/PC GUI with up to (3) video windows showing any combination of up to (2) RGB sources, up to (2) video sources, and/or (1) HDTV source

Output B: (Audience) Selectively displays same image as Output A (control toolbars selectively hidden) or any external input source displayed full screen

Color Depth: 24-bit, 16.7M colors

Scalers: (3) Scalable video windows with time base correction, gamma correction, line doubling, motion adaptive deinterlacing, and reverse 3:2/2:2 pulldown; (1) additional scaler enables display of Output B within a window on Output A

Streaming/File Formats: ASF, ASX, AVI, MPEG, WMV, WMX, WVX (via Windows Media Player); MPEG2, MPEG4, MJPEG (via Axis ActiveX control)*

Audio

Streaming/File Formats: MP3, WAV, WAX, WMA (via Windows Media Player)

Audio Feedback (WAV): 8 & 16 bit PCM, mono & stereo, 8 – 44 kHz sampling rates

Connectors

VIDEO INPUT 1/HDTV: (3) BNC female

Signal Types: Dynamically configurable under system control as:

- (1) Component (YP_BP_R) video input, or
- (3) Composite (NTSC/PAL) video inputs, or
- (1) S-Video (Y/C) input and (1) Composite input

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

Minimum/Maximum Levels: 0.5 to 1.5 V_{P-P} with built-in DC restoration

Input Impedance: 75 ohms

Horizontal Frequency: 15 to 45 kHz

Vertical Frequency: 50 to 60 Hz

VIDEO INPUT 2: (3) BNC female

Signal Types: Dynamically configurable under system control as:

- (1) Component (YP_BP_R) video input, or
- (3) Composite (NTSC/PAL) video inputs, or
- (1) S-Video (Y/C) input and (1) Composite input

Formats: SDTV 480i (NTSC) & 576i (PAL)

Minimum/Maximum Levels: 0.5 to 1.5 V_{P-P} with built-in DC restoration

Input Impedance: 75 ohms

Horizontal Frequency: 15.75 kHz (NTSC); 15.625 kHz (PAL)

Vertical Frequency: 50 to 60 Hz

RGB INPUT A – B: (2) DB15HD female, RGB (VGA) inputs

Analog Formats: RGBHV, RGBS and RG_SB

Input Resolution, Non-interlaced: 640 x 480 minimum to 1600 x 1200 maximum

Minimum/Maximum Levels: 0.5 to 1.5 V_{P-P} with built-in DC restoration

Input Impedance: 75 ohms

Sync Input Type: Autodetect RGBHV, RGBS, RG_SB

Sync Input Level: 3.0 to 5.0 V_{P-P}

Sync Input Impedance: 1k ohms

Horizontal Frequency: 31.5 to 100 kHz

Vertical Frequency: 60 to 85 Hz (75 Hz limit at 1600 x 1200)

RGB OUTPUT A – B: (2) DB15HD female, RGB (VGA) outputs

(Both outputs use same display setting)

Analog Format: RGBHV

Aspect Ratio: Software configurable 4:3, 15:9, or 16:9

Output Resolution: Software selectable 800x600, 1024x768, 1280x720, 1280x768, 1280x960, 1280x1024, 1600x1200

Sync Output Type: RGBHV

Sync Output Level: TTL, 5.0 V_{P-P}

Polarity: H/V user-selectable

Vertical Frequency: 60 to 85 Hz (60 Hz limit at 1600 x 1200)

MIC: (1) 3.5 mm TRS mini phone jack (red); simplex-powered PC microphone input

Input Level: 0.1 V_{RMS} (Boost on); 1.0 V_{RMS} (Boost off)

Impedance: 10k ohms

LINE IN: (1) 3.5 mm TRS mini phone jack (blue); unbalanced stereo audio input

Input Level: 1.0 V_{RMS}

Impedance: 10k ohms

LINE OUT: (1) 3.5 mm TRS mini phone jack (green); unbalanced stereo audio output

Output Level: 1.0 V_{RMS}

Impedance: 10k ohms

SPDIF: (1) RCA female; coaxial digital audio output

Impedance: 75 ohms

1394: (1) IEEE 1394b port*

NETWORK: (1) 8-wire RJ45 with 2 LED indicators; 10/100BaseT Ethernet port

Green LED indicates link status, Yellow LED indicates Ethernet activity

USB: (4) Type A female (1 front, 3 rear)

USB 2.0 ports for DTT, touch/mouse, keyboard, and storage devices*

MOUSE/KEYBOARD: (2) 6-pin mini DIN female; PS/2® mouse and keyboard input ports

NET: (1) 4-pin 5mm detachable terminal block; Cresnet slave port

Data only, 24V pin unterminated

COM: (1) DB9 male; bidirectional RS-232/422/485 port

For 3rd-party device control or Touch-The-PC mouse control output

Up to 115.2K baud; hardware and software handshaking support

AUX COM: (1) DB9 male; bidirectional RS-232 port

For computer console and touch/mouse input*

Up to 115.2k baud; hardware and software handshaking support

PC CARD A – B: (2) Type II PCMCIA Card slots (front)

For memory expansion, project upload, and wireless NIC*

COMPACT FLASH: (1) Type II Compact Flash card slot

For 1GB compact flash card containing firmware and OS (included)

100-240V ~ 6.3A: (1) IEC socket and main power switch

Mates with removable power cord, included

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

Controls

PWR: (1) Recessed pushbutton, processor shutdown/reactivate

RESET: (1) Recessed pushbutton, hardware/software reset

SETUP: (1) Pushbutton on rear panel, touch-settable ID (TSID)

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LED Indicators

PWR: (green) Indicates processor is powered on and active
NET: (yellow) Indicates communication with Cresnet system
SETUP: (red) On rear panel, touch-settable ID (TSID)

Power Requirements

Internal Universal Power Supply: 6.3 Amps, 100-240 Volts AC, 50/60 Hz
Cresnet Power Usage: 0 Watt @ 24 Volts DC

Environmental

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

Enclosure

Black metal, 2U 19" rack mountable (rack ears included)

Dimensions

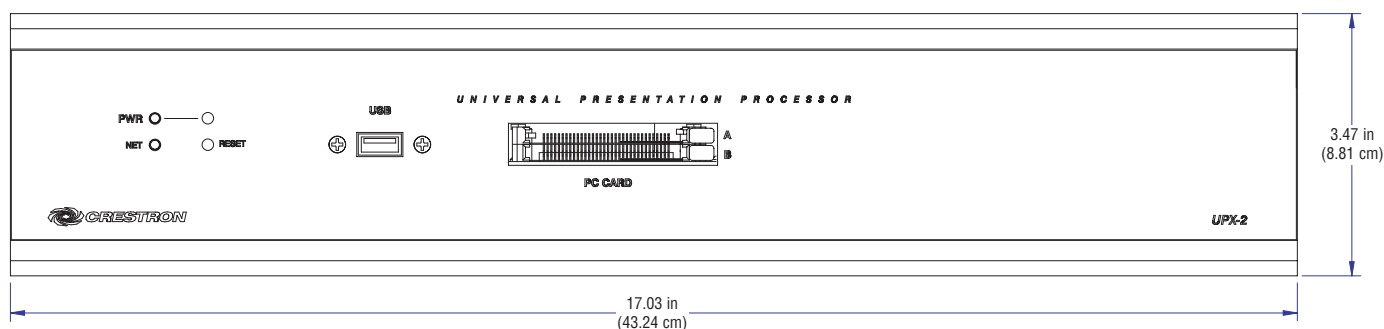
Height: 3.47 in (8.81 cm)
Width: 19.0 in (48.26 cm) with ears; 17.03 in (43.24 cm) without ears
Depth: 12.12 in (30.78 cm)

Weight

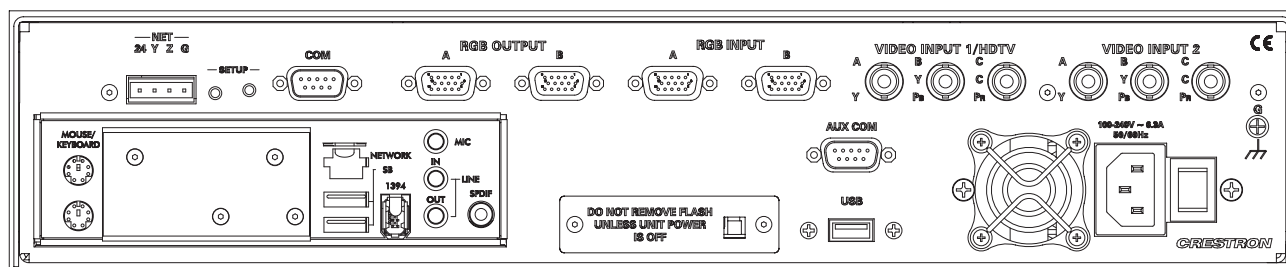
11.65 lbs (5.28 kg)

* Refer to Website 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.

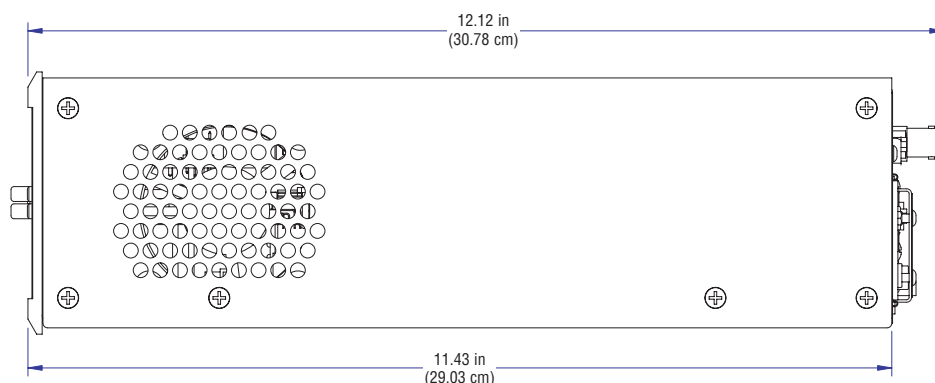
** Older UPX-2 models having 512MB compact flash and pre-2.0 firmware may be upgraded to a UPX-2-1GB through the purchase of a UPX-OS1GB upgrade, or to a UPX-2-MSO through the purchase of a UPX-OS1GB-MSO upgrade.



Front View – Shown without rack ears

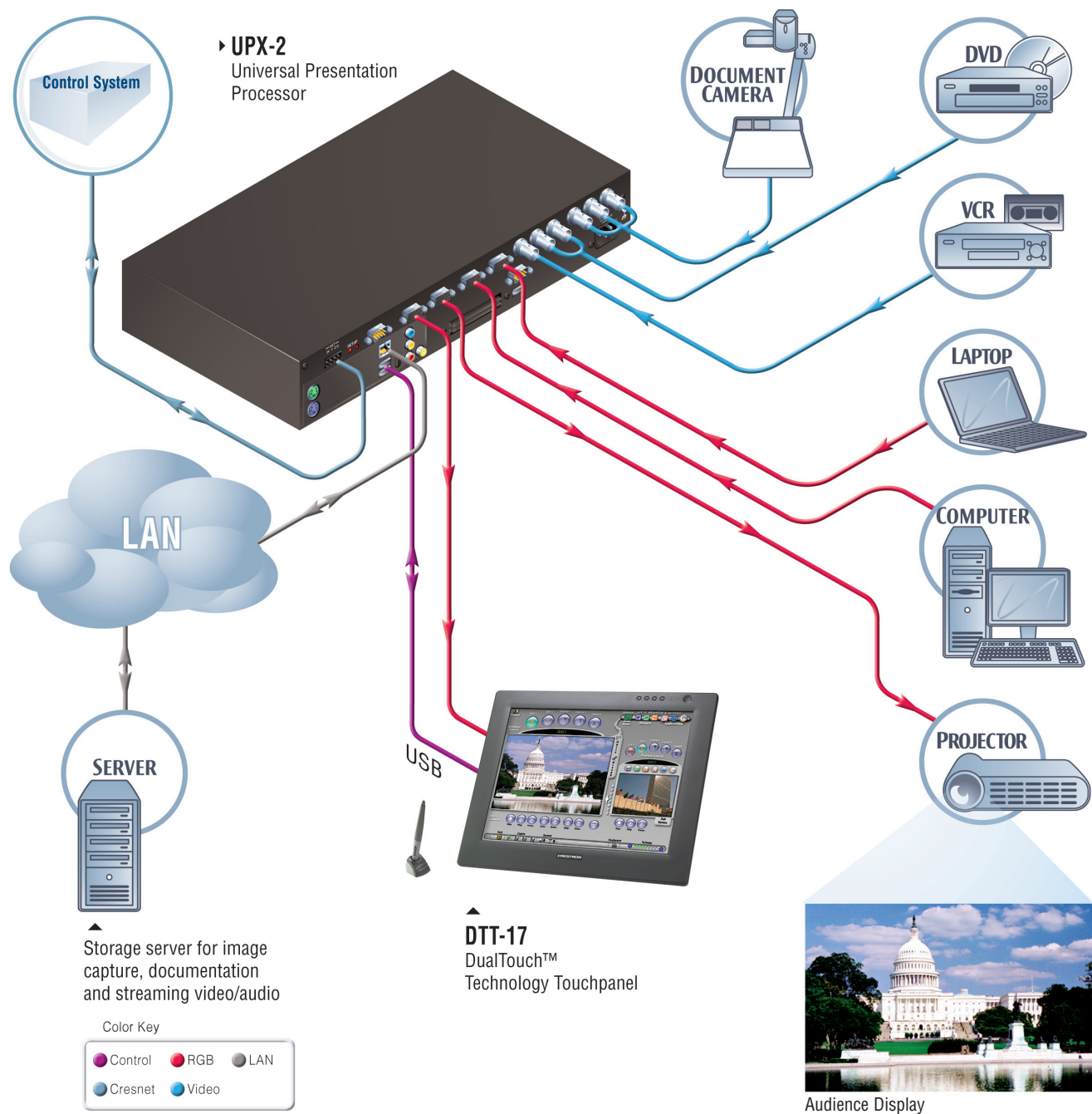


Rear View



Right Side View

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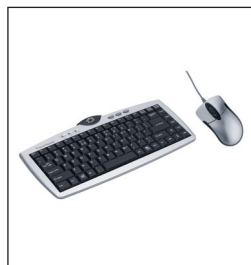
AVAILABLE ACCESSORIES



DTT-17
17" DualTouch Technology Touchpanel



DTT-15V2
15" DualTouch Technology Touchpanel



TPMC-10-MSKB
USB Optical Mouse & Keyboard