

Extron® Electronics

INTERFACING, SWITCHING AND CONTROL

2011 NEW PRODUCTS

FIRST EDITION





Extron®

Satisfaction Guarantee

As a leading manufacturer in the AV industry, we are committed to engineering and manufacturing our products to the highest standards of quality, performance, and value. From our advanced product design, manufacturing and quality control procedures to our friendly and knowledgeable support teams, our commitment to satisfy you is paramount. In every interaction with Extron, you can be confident you will receive our S3 commitment to Service, Support, and Solutions. For more than 28 years, our objective has been to ensure that every customer is completely satisfied with every purchase.

To underscore this commitment, we offer our Satisfaction Guarantee. This means we will work diligently to resolve any issue you have with your purchase until you are completely satisfied. Extron employees are prepared to do whatever it takes to make certain that the entire process of doing business with us is a positive and professionally rewarding experience for you.

I'm so confident in our ability to deliver on this pledge that I back it personally. If you are not satisfied with any part of your transaction with Extron, I want to know. Please contact me at president@extron.com. I will personally address any unresolved customer issue. We greatly appreciate your business. It is our intent to keep you as a customer for life.

Andrew C. Edwards

President

STREAMING A/V PRODUCTS

VN-Matrix

Low Delay, High Quality A/V Streaming and Recording Solutions

The Extron VN-Matrix™ encodes video or graphical image content at resolutions up to 1080p/60 and 1920x1200, delivers it across the network, and decodes it back to the original source resolution, utilizing the revolutionary Extron PURE3™ Codec, a unique wavelet-based compression technology optimized for A/V presentation, monitoring, and collaboration. The VN-Matrix takes the one-to-one, one-to-many, many-to-many flexibility of the traditional matrix switcher and extends it to standard IP networks, making possible the real-time transmission of high resolution audio visual content without the restrictions of geography or I/O size.

PURE 3™ CODEC
OPTIMIZED FOR NETWORKS

VN-Matrix™ 200 Series

DVI & RGB Video Over IP Encoders & Decoders

The VN-Matrix™ 200 Series provides real-time transmission of high resolution audio visual content across standard IP networks for live viewing, collaboration, storage, and playback. The VN-Matrix 200 Series encodes video or graphics sources at resolutions up to HD or WUXGA, streams the video and audio over an IP network, then decodes the content back to the original source resolution. VN-Matrix applies Extron's PURE3™ Codec, a unique wavelet-based compression technology. The VN-Matrix 200 Series offers real-time performance and low latency, making it ideal for remote collaborative and interactive or control applications. It can be deployed in live event streaming and high level collaboration for specialized projects.

FEATURES

- Supports up to WUXGA resolution 1920x1200
- HD content over IP up to 1920x1080p
- Low delay streaming - 35 ms encode and 35 ms decode
- Supports refresh rates from 24 to 85 Hz
- Dual 1 Gigabit network interfaces
- Compatible with the VN-Matrix™ Recorder for real-time recording, storage, and playback
- S/PDIF digital audio interface
- Extensive bit rate management
- Analog RGB, Component HD, or DVI-D input
- Analog RGB or DVI-D output
- High immunity to network errors



Model	Version Description	Part Number
VNC 200 DVI	Codec for DVI-I, Keyboard & Mouse	60-1117-01
VNC 200 DVI-A	Codec for DVI-I, Audio/Keyboard/Mouse	60-1118-01
VNE 200 DVI	Encoder for DVI-I & Digital Audio	60-1119-01
VND 200 DVI	Decoder for DVI-I & Digital Audio	60-1120-01
VN-Matrix Recorder	Recorder	60-1121-01
VNM Software Decoder	VN-Matrix 200 Series Software Viewer	29-098-01

VN-Matrix™ 300 Series

SDI, HD-SDI & 3G-SDI Over IP Encoders & Decoders

The VN-Matrix™ 300 Series encoders and decoders enable streaming of SDI, HD-SDI, and 3G-SDI video over IP networks. They produce excellent image quality at highly efficient bit rates with low latency. The VN-Matrix 300 System utilizes Extron's PURE3 Codec that exceeds many of the performance characteristics of existing compression formats and provides exceptionally robust protection against network errors, making it ideal for quality-critical applications.

FEATURES

- Streams serial digital video with embedded audio
- Video Bit Rates from 6 Mbps to 150 Mbps
- 10 Bit YCrCb 4:2:2 encoding
- Supports resolutions up to 1080p/60 Hz
- Low latency streaming - 35ms encode and 35ms decode
- Codec switchable between encode and decode operation
- Decoders are genlockable and frame-lockable to external SDI reference



Model	Version Description	Part Number
VNC 300 SDI	Codec for SDI	60-1122-01
VNC 300 HD-SDI	Codec for HD-SDI	60-1123-01
VNC 300 3G-SDI	Codec for 3G-SDI	60-1124-01
VND 300 SDI	Decoder for SDI	60-1125-01
VND 300 HD-SDI	Decoder for HD-SDI	60-1126-01
VND 300 3G-SDI	Decoder for 3G-SDI	60-1127-01
VN-Matrix Recorder	Recorder	60-1121-01

STREAMING A/V PRODUCTS

VNM Recorder VN-Matrix Recorder

The VNM Recorder is a network appliance used to digitally record and play back high-definition computer graphics, video, audio, and data streams encoded to the IP network via VN-Matrix™ encoders. The Recorder is ideally suited for any VN Matrix application requiring the documentation, archive, review, and playback of highly-sophisticated or demanding imagery.

FEATURES

- Records multiple VN-Matrix PURE3 encoded audio and video IP streams
- Record or play back up to five PURE3 streams simultaneously
- Link multiple recorder units together for applications requiring recording for more than five streams
- Playback controls include: search, locate, variable speed playback - forward and reverse, single frame advance
- Export sequential JPEG or Targa frames for use in media players or video productions
- 3 Terabyte RAID5 unformatted storage
- 2 Terabyte content storage



Model	Version Description	Part Number
VN-Matrix Recorder	Recorder	60-1121-01

VNM Enterprise Controller VN-Matrix™ Enterprise Controller

The VNM Enterprise Controller is a dedicated control appliance for VN-Matrix™ systems. The Enterprise Controller simplifies managing a large VN-Matrix deployment by allowing users to view, manage, and dynamically control multiple VN-Matrix systems and networked VN-Matrix domains from a single user interface.

FEATURES

- Monitor, configure and manage all VN-Matrix and VN-Matrix Recorder units as a system
- High-level interface provides single point of control for external control systems
- Manage multiple VN-Matrix systems in combined or independent domains
- Provide redundant control unit in mission-critical applications



Model	Version Description	Part Number
VNM Enterprise Controller	VN-Matrix Enterprise Controller	60-1133-01

HD VIDEO PLAYERS

JMP 9600 Two-Channel JPEG 2000 HD Video Player

The JMP 9600 HD and JMP 9600 2K are high resolution video players that provide 2D and 3D playback of JPEG 2000 encoded video files at up to 250 Mbps. The players are ideal for entertainment and commercial applications where superior image quality is critical to the audience experience. The JMP 9600 offers two playback channels that can be independently controlled or synchronized for super widescreen or 3D displays.

FEATURES

- Digital video output: HD-SDI or DVI-I
- JPEG 2000 encoded content up to 250Mbps, 4:4:4 color and 12-bit sampling
- Dual outputs can operate as two independent sources or as two synchronized outputs
- Genlock input and linear time code input and output, JMP 9600 2K model only
- Multiple JMP 9600 2K units can lock together for multi-screen applications
- Built in video confidence monitor



Model	Version Description	Part Number
JMP 9600 HD	JPEG 2000 Media Player HD	60-1135-01
JMP 9600 2K	JPEG 2000 Media Player 2K	60-1136-01
J2KENC	JPEG2000 Encoding Software	79-550-01
J2KENC-PRO	JPEG2000 Professional Encoding Software ...	79-550-02

TOUCHLINK™ TOUCHPANELS

TLP 1000TV

10" Tabletop TouchLink™ Touchpanel

The Extron TLP 1000TV TouchLink Touchpanel is a fully configurable, tabletop 10" touchpanel featuring a contemporary, thin bezel design that complements the aesthetics of any environment. The Extron TLP 1000TV has a 1024x600 resolution and incorporates PoE - Power over Ethernet, allowing the touchpanel to receive its power via the Ethernet connector. An integrated MTP twisted pair receiver accepts S-video or composite video and audio input signals over standard CAT 5 cable. This enhanced connectivity provides integration flexibility and aids in cable management by minimizing the number of connections at the touchpanel. The TLP 1000TV is ideal for a wide variety of control applications where a larger control surface and a tabletop or VESA mounted form factor are needed. The TLP 1000TV is available in black.

FEATURES

- 10" color touchscreen with 1024x600 resolution and 18-bit color depth
- Full-Motion Video display supports preview and monitoring applications
- Integrated Ethernet port compatible with IP Link control processors
- Power over Ethernet - PoE, allows the touchpanel to receive power via the Ethernet connector, eliminating the need for a local power supply
- Sits on a tabletop or on a VESA standard mount with optional adapter
- Contemporary, thin bezel design that complements the aesthetics of any environment



Model	Version Description	Part Number
TLP 1000TV	Tabletop	60-1104-02

TLP 1000MV

10" Wall Mount TouchLink™ Touchpanel

The Extron TLP 1000MV TouchLink Touchpanel is a fully configurable, Wall Mount 10" touchpanel featuring a contemporary, thin bezel design that complements the aesthetics of any environment. The Extron TLP 1000MV has a 1024x600 resolution and incorporates Power over Ethernet - PoE, which allows the touchpanels to receive power via the Ethernet connector. An integrated MTP twisted pair receiver accepts S-video or composite video and audio input signals over standard CAT 5 cable. This enhanced connectivity provides integration flexibility and aids in cable management by minimizing the number of connections at the touchpanel. The TLP 1000MV is ideal for a wide variety of control applications where a larger control surface and a wall-mounted form factor are needed.

FEATURES

- 10" color touchscreen with 1024x600 resolution and 18-bit color depth
- Full-Motion Video display supports preview and monitoring applications
- Integrated Ethernet port compatible with IP Link control processors
- Power over Ethernet - PoE, allows the touchpanel to receive power via the Ethernet connector, eliminating the need for a local power supply
- Mounts on a wall, lectern, or any flat surface
- Contemporary, thin bezel design that complements the aesthetics of any environment



Model	Version Description	Part Number
TLP 1000MV	Black - Wall Mount	60-1105-02
TLP 1000MV	White - Wall Mount	60-1105-03

TLP 700MV

7" Wall Mount TouchLink™ Touchpanel

The Extron TLP 700MV 7" Wall Mount TouchLink™ Touchpanel is designed to mount securely into a wall, lectern, or other flat surface. In addition to the seven-inch, full-color high resolution touchscreen, the ten field-labelable backlit buttons provide expanded control capabilities to ensure that critical functions are easily accessible. The TLP 700MV touchpanel enables integrators to deploy a fully configurable surface-mounted touchscreen control interface.

FEATURES

- 7" widescreen high resolution color touchscreen
- Ten field-labelable backlit buttons for expanded control
- User-friendly volume knob for simple and intuitive volume control
- Full motion video for use as a preview, confidence monitor, or security camera monitor
- Integrated Ethernet port compatible with IP Link control processors
- Mounts on a wall, lectern, or any flat surface



Model	Version Description	Part Number
TLP 700MV	Black - Wall Mount	60-546-02
TLP 700MV	White - Wall Mount	60-546-03

TOUCHLINK™ TOUCHPANELS

TLP 350MV

3.5" Wall Mount TouchLink™ Touchpanel

The Extron TLP 350MV 3.5" Wall Mount TouchLink™ Touchpanel is ideal for applications that require a compact touchpanel with a small installation footprint. Designed to mount securely into a wall, lectern, or other flat surface, the TLP 350MV provides the power of touchpanel control in the same three-gang form factor common for keypad controllers. Eight customizable backlit buttons provide expanded control capabilities to ensure that critical functions are easily accessible. The TLP 350MV touchpanel enables integrators to deploy a fully configurable, small-format, surface-mounted touchscreen control interface.

FEATURES

- 3.5" high resolution color touchscreen
- Eight customizable backlit buttons and a user-friendly volume knob
- Three-gang mounting on a wall, lectern, or any flat surface
- Supports Power over Ethernet, PoE 802.3af - PoE injector included
- Save energy: Configurable sleep timer combined with motion detector automate touchpanel sleep and wake states
- Integrated Ethernet port compatible with Extron IP Link control processors



Model	Version Description	Part Number
TLP 350MV	Wall Mount - Black	60-1077-02

TOUCHLINK™ ACCESSORIES

TLP VIM

TouchLink™ Video Input Module

The Extron TLP VIM is a composite or S-video plus audio input device that provides single wire input connectivity for many TouchLink Touchpanels. The twisted pair transmitter is designed for short distance cable runs and provides simplified cable connectivity at the touchpanel. The TLP VIM is compatible with the TLP 700TV, TLP 1000TV and TLP 1000MV touchpanels and packaged in a compact plastic enclosure that allows for easy mounting and installation.

FEATURES

- Convenient, single-cable solution provides video and audio transmission over one CAT 5-type cable
- Integrates directly inside the TLP 1000MV
- Accepts composite or S-video signal inputs
- Provides balanced and unbalanced mono audio
- Front panel LED power input status



Model	Version Description	Part Number
TLP VIM	Video Input Module	60-1168-01

BB 700M and BB 1000M

Back Boxes for Wall Mount TouchLink™ Touchpanels

The BB 700M and BB 1000M are designed to provide a recess-mounted steel enclosure for 7" or 10" Wall Mount TouchLink Touchpanels. They allow the touchpanels to be mounted in retrofit or pre-construction applications where an in-wall installation is required. The BB-700M and BB-1000M provide standard knockouts for fixed or flexible conduit.

FEATURES

- Designed for use with 7" or 10" Wall Mount TouchLink™ Touchpanels
- Recess-mounted steel enclosure for retrofit and pre-construction applications
- Standard knockouts provided for fixed or flexible conduit



Model	Version Description	Part Number
BB 700M	Back Box for TLP 700MV	70-690-01
BB 1000M	Back Box for TLP 1000MV	70-887-01

TOUCHLINK™ ACCESSORIES

EWB 700 and EWB 1000

External Wall Boxes for Wall Mount TouchLink™ Touchpanels

The EWB 700 and EWB 1000 External Wall Boxes are architectural mounting solutions designed to easily mount 7" or 10" Wall Mount TouchLink™ touchpanels to a wall. They are the ideal mounting solution for concrete, brick, wood, or other solid surfaces where in-wall mounting is not possible. The Wall Boxes provide knockouts for popular raceway systems and conduit to accommodate concealed cable runs. Both models are available in black or white.

FEATURES

- Architectural solution for mounting 7" or 10" Wall Mount TouchLink Touchpanels to a wall
- Ideal for use on solid walls including concrete, brick, or wood where in-wall mounting of a touchpanel is not possible
- Knockouts for surface raceway cable channels
- Available in black or white



Model	Version Description	Part Number
EWB 700	TLP 700MV Mounting Box - Black	60-1100-02
EWB 700	TLP 700MV Mounting Box - White	60-1100-03
EWB 1000	TLP 1000MV Mounting Box - Black	70-950-02
EWB 1000	TLP 1000MV Mounting Box - White	70-950-03

RM 1000M

Rack Mount Kit for the TLP 1000MV TouchLink™ Touchpanel

The RM 1000M is a 5RU rack plate that allows the Extron TLP 1000MV TouchLink™ 10" Wall Mount Touchpanel to be mounted in a standard 19" equipment rack for a clean, professional appearance. The rack plate can accommodate a single TLP 1000MV and includes all the required mounting hardware for a secure installation. The RM 1000M is available in a black powder coat finish.

FEATURES

- For use with the TLP 1000MV TouchLink™ Touchpanel
- Allows secure mounting of the touchpanel in an equipment rack
- 5U, full rack width
- Available in black



Model	Version Description	Part Number
RM 1000M	Rack Mount Kit for the TLP 1000MV	70-886-01

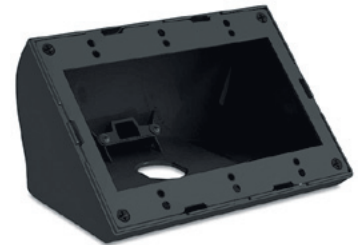
SMB 303

Low Profile Surface Mount Box for Three-Gang Products

The SMB 303 Surface Mount Box is an elegant mounting option for Extron three-gang products that are less than 1.5" deep, including the TLP 350MV TouchLink™ touchpanel. The SMB 303 is suitable for external mounting on lecterns, tabletops, and other flat surfaces. The sculpted design of the SMB 303 provides a contemporary look to complement any environment. Available in black or white.

FEATURES

- Compatible with Extron TLP 350MV and MLP Series products
- Suitable for external mounting on lecterns, tabletops, and other flat surfaces
- Sculpted design offers a contemporary appearance to complement any environment



Model	Version Description	Part Number
SMB 303	Three-gang, black	60-1098-02
SMB 303	Three-gang, white	60-1098-03

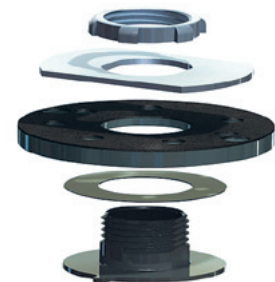
SMA-1

Swivel Mount Adapter

The SMA-1 Swivel Mount Adapter is designed for use with the SMB 303 Surface Mount Box. It provides a method for rotating the box to provide easy access for multiple users. The SMA-1 provides multiple stop points so the installer can precisely determine the degree of rotation for easy access and prevention of cable strain and tangling. The SMA-1 elevates the SMB 303 slightly to prevent table surface damage during rotation.

FEATURES

- Provides swivel capability for the SMB 303
- Multiple stopping points allow the installer to determine the amount of rotation
- Provides access to multiple users from a single location
- Elevates the SMB 303 to prevent surface wear and damage



Model	Version Description	Part Number
SMA-1	Swivel Mount Adapter	70-747-01

IP LINK® CONTROL PROCESSORS

IPCP 505

IP Link® Control Processor

The Extron IPCP 505 is an IP Link® Control Processor with eBUS™ technology, designed to support larger configurable control systems. The IPCP 505 integrates Ethernet connectivity into large A/V systems, giving users the ability to remotely control, monitor, and troubleshoot equipment, including display devices and switchers. With a high performance embedded Web server, eight bidirectional serial ports, eight IR/serial ports, eight relays, four flex I/O ports, and one eBUS™ port, the IPCP 505 is the ideal control processor for applications that require control for multiple devices within a large-scale A/V system.

FEATURES

- Eight IR/Serial ports for one-way control of external devices
- Eight relays for controlling room functions
- Four Flex I/O ports for interfacing with other systems in the room
- Four independently switched 12VDC outputs
- Supports up to six touchpanels
- Ethernet Monitoring and control
- Supports Ethernet device drivers
- Eight bidirectional RS-232 ports for universal control of display devices, switchers and other A/V equipment
- 1U, half rack width enclosure
- Internal universal power supply
- One eBUS™ Port



Model	Version Description	Part Number
IPCP 505	IP Link Control Processor	60-1071-02

IPCP 305

IP Link® Control Processor

The Extron IPCP 305 is a compact IP Link® Control Processor designed to support configurable control systems. The IPCP 305 integrates IP connectivity into A/V systems, giving users the ability to remotely control, monitor, and troubleshoot A/V systems and equipment, including display devices and switchers. With a high performance embedded Web server, three bidirectional serial ports, two IR/serial ports, four relays, four digital I/O ports, and one eBUS port, the IPCP 305 is ideal for a wide range of TouchLink applications.

FEATURES

- Three bidirectional RS-232 ports for universal control of display devices, switchers and other A/V equipment
- Two IR/Serial ports for one-way control of external devices
- Four relays for controlling room functions
- Four Digital I/O ports for interfacing with other systems in the room
- Ethernet monitoring and control
- Supports Ethernet device drivers
- One eBUS™ Port



Model	Version Description	Part Number
IPCP 305	IP Link Control Processor	60-1072-02

CONFIGURATION SOFTWARE

Global Configurator 4.0

Next Generation Configuration Software for Extron Control Systems

Global Configurator is a simple-to-use, yet comprehensive, software application that allows users to configure a wide range of Extron IP Link-enabled control products. The latest release of Global Configurator, version 4.0, contains many new workflow enhancements, such as box-to-box communication and conditional logic, for more flexibility in system control design and configuration. It provides an integrated environment for defining A/V control system functionality from an easy-to-use graphical user interface. It is simple enough to use to configure a single room controller, yet powerful enough to facilitate building a Web-based resource management and remote monitoring system for hundreds of A/V devices in multiple locations.

FEATURES

- No programming skills required
- Configures IP Link, MediaLink, and TouchLink Systems
- Box-to-box communication enables multiple controllers to function together as one for larger, more complex systems
- Conditional logic to allow button operations to be contingent on a variety of separate conditions
- Enhanced user interface that makes systems even easier to configure
- Virtual TouchLink enables Web browser access of the touchpanel GUI on a PC or Mac
- Extensive library of thousands of certified, ready-to-use serial and IR drivers
- GlobalViewer system designer



Model	Version Description	Part Number
Global Configurator 4.0	Configuration Software.....	79-544-01

GUI Configurator

Free User Interface Design Software for TouchLink™ Touchpanels

Extron GUI Configurator is an intuitive design tool that makes creating and maintaining Extron TouchLink™ Touchpanel user interfaces easy, even for those without graphic design skills. Begin with ready-to-use design templates, or start from scratch and build your own layout using our comprehensive software. The touchscreen design templates are fully customizable and matched carefully to popular A/V system applications. In many cases, all the input sources, display control, and environmental settings are already in place. Each template is fully developed and includes complete, detailed documentation of its application and capabilities. For information on future releases of GUI Configurator software, please visit the Extron Software Roadmap Web page.

FEATURES

- No graphic design skills required
- Includes ready-to-use templates for popular A/V system applications
- Complete resource library of customizable elements
- Easily modify templates, or start from scratch for a fully customized layout
- Properties window provides at-a-glance view of object properties
- Designer window displays layout for current page and pop-up page
- Object appearance properties of every GUI element are easily changeable
- Master pages create a consistent look to entire project
- Video window for preview and monitoring
- Button feedback is easy to define and customize
- Projects are saved as configuration files; no source code required
- Completed designs are easy to upload to a TouchLink Touchpanel or save to disk
- Completed projects can be exported for use with Global Configurator software



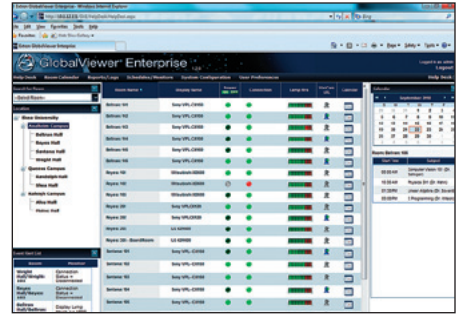
Model	Version Description	Part Number
GUI Configurator	User Interface Design Software	79-535-01

RESOURCE MANAGEMENT SOFTWARE

GlobalViewer® Enterprise
Server-Based A/V Resource Management Software

GlobalViewer® Enterprise server-based software is the next step up for managing larger A/V installations with no programming involved. This new version, v1.2, includes many new features, including iGVE app support, custom helpdesk layouts, and more. For more information on the new features in version 1.2, please visit the Extron Software Roadmap Web page. Compatible with most Web browsers, GlobalViewer Enterprise provides enhanced help desk functionality, enterprise-wide scheduling and monitoring, and time-stamped A/V system data collection for reporting. Built on Microsoft® .NET® technology, GlobalViewer Enterprise integrates with third-party facility scheduling software for viewing room availability and managing meeting schedules.

- FEATURES**
- No programming knowledge required
 - Support for third-party control system integration
 - Comprehensive set of customizable device usage, trend analysis, and inventory reports
 - iGVE app support
 - Seamless integration with third-party facility scheduling software
 - Enhanced monitors and schedules based on location and/or device type
 - Enhanced browser security with SSL
 - Supports user logon authentication using Microsoft Active Directory
 - Configurable user access based on role and location
 - Customizable e-mail templates
 - Dynamic event alert list of user-definable system events
 - Firmware Manager simplifies and automates firmware updates
 - Webcam support
 - Minimal impact on network load
 - Product Commissioning Service



Model	Version Description	Part Number
GlobalViewer Enterprise Commissioning	Commissioning Services for GVE	03-003-01
GlobalViewer Enterprise	Server-Based Resource Mngmnt Software	29-096-01

iGVE
Mobile A/V Resource Management App

iGVE is a powerful, convenient App used in conjunction with Extron GVE - GlobalViewer Enterprise, that allows users to effectively manage and control large-scale A/V installations from Apple® iPhone and iPod touch devices. iGVE is an easy-to-use, mobile device application that provides a powerful feature set comprised of all the most common GVE monitoring, control, and helpdesk functions. While using iGVE, users will feel immediately comfortable with the familiar GVE Tree navigation as well as the other common GVE features, including real time room, controller, and device status; and GVE Room controls and Event Alert notifications. Additionally, Extron iGVE provides a secure, encrypted connection to your GVE software, ensuring the safety and privacy of all communications.

- FEATURES**
- Powerful, intuitive interface provides quick navigation to all common GVE control and monitoring functions from your mobile Apple device
 - Familiar GVE Tree navigation
 - Real time room, controller, and device status
 - GVE Room controls
 - GVE Event Alert notifications
 - iPad users do not need the iGVE app and can access GVE directly through a web browser
 - Download the latest version of iGVE from the Apple iTunes App Store



Model	Version Description	Part Number
iGVE app	GVE Apple Mobile Management Software	79-545-01

FIBER OPTICS

FOXBOX HDMI

Fiber Optic Extender for HDMI, Audio, and RS-232

The Extron FOXBOX HDMI Fiber Optic Extender is a transmitter and receiver set for long haul transmission of HDCP compliant HDMI video, audio, and RS-232 control signals over fiber optic cables. Engineered for reliability and exceptional high resolution image performance, it uses Extron-exclusive all digital, zero compression technology, to deliver perfect pixel-for-pixel transmission of HDMI computer-video images up to WUXGA 1920x1200 resolution, including HDTV 1080p/60. The FOXBOX HDMI also includes EDID Minder®, Key Minder™, Auto Input Memory, RS-232 control from multiple locations, internal test patterns, and real-time system monitoring. Compact, low profile enclosures allow for discreet installation behind a flat-panel display, and multiple receivers can be daisy-chained.

FEATURES

- Extends HDMI video, stereo audio, and RS-232 control signals very long distances over fiber optic cables
- All digital, zero compression technology provides pixel-for-pixel performance with signals up to 1920x1200, including HDTV 1080p/60
- HDMI 1.3 compatible
- HDCP compliant
- Key Minder™
- EDID Minder®
- Audio embedding with gain, attenuation, and muting control
- HDMI audio de-embedding with analog stereo outputs
- Selectable HDMI audio pass-through



FOXBOX Tx HDMI



FOXBOX Rx HDMI

Model	Version Description	Part Number
FOXBOX Tx HDMI MM	Multimode - Transmitter	60-1174-11
FOXBOX Rx HDMI MM	Multimode - Receiver	60-1174-21
FOXBOX Tx HDMI SM	Singlemode - Transmitter	60-1174-12
FOXBOX Rx HDMI SM	Singlemode - Receiver	60-1174-22

FOX 3G DVC

Fiber Optic Multi-Rate SDI to DVI and RGB / Component Converter

The Extron FOX 3G DVC receives fiber optic SDI, HD-SDI, and 3G-SDI serial digital video signals over a single fiber and converts them to DVI-D and analog RGB or component video. It is ideal for applications including television production, medical imaging, military simulation, houses of worship, and live events that require long distance transmission of SDI signals from broadcast-type sources and interfacing them with professional / consumer-level displays and other products.

FEATURES

- Accepts fiber optic multi-rate SDI signals up to 2.97 Gbps
- Compatible with the FOX 3G HD-SDI Fiber Optic Extender and FOX Series distribution amplifiers, switchers, and matrix switchers
- Simultaneous DVI-D and analog RGB / component video outputs
- Daisy-chain capability
- AES3 audio de-embedding
- Output muting control



Model	Version Description	Part Number
FOX 3G DVC MM	Multimode	60-1034-01
FOX 3G DVC SM	Singlemode	60-1034-02

FIBER OPTICS

PowerCage™ 1600

Modular Power Enclosure for Fiber Optic and Twisted Pair Extenders

The Extron PowerCage™ 1600 is a rack-mountable, 16-slot enclosure that supports a wide range of Extron fiber optic and twisted pair A/V transmitter and receiver boards. Providing an efficient way to power and mount multiple transmitters and receivers, the PowerCage 1600 simplifies integration for large, rack-mounted systems. The PowerCage 1600 also features an optional redundant, hot-swappable power supply plus active power and thermal management to optimize reliability in mission-critical environments where continuous, 24/7 operation is essential. The hot-swappable, modular design allows for replacing or upgrading boards in the field at any time, without having to power down the system.

FEATURES

- Accommodates up to 16 single-slot or eight double-slot multi-function boards
- Space-saving design with a compact 3U, rack-mountable enclosure
- Modular, field-upgradeable, and hot-swappable design
- Intelligent power management
- Optional redundant power supply
- Hot-swappable power supplies
- Exceptional thermal management
- PowerCage™ FOX Fiber Optic Extenders support standard definition or high resolution video, stereo audio, and RS-232 over a single fiber
- PowerCage MTP Twisted Pair Extenders support standard definition or high resolution video, and audio or RS-232 over a single CAT 5-type cable



PowerCage™ Boards

Fiber Optic and Twisted Pair A/V Transmitter and Receiver Boards for the PowerCage 1600

PowerCage™ FOX Fiber Optic Extenders

PowerCage FOX Fiber Optic Extenders include transmitter and receiver boards for long-haul transmission of A/V signals over a single fiber. They are available in a broad range of formats and rates, including high resolution RGB, DVI, multi-rate SDI, SD component video, S-video, and composite video. Engineered for reliability and exceptional high resolution image performance, they use Extron's exclusive all digital, zero compression technology, to deliver perfect pixel-for-pixel transmission of video images.

PowerCage™ MTP Twisted Pair Extenders

The PowerCage MTP Twisted Pair Extenders include transmitter and receiver boards for the transmission of A/V signals over a single CAT 5-type cable. The PowerCage MTP T 15HD RSA can transmit high resolution video and audio signals up to 1,500 feet (450 meters) when used with an MTP 1500RL extended distance receiver, while the PowerCage MTP R 15HD RSA SEQ receiver can receive XGA video and mono audio signals at cable lengths of 600 feet (180 meters) or more. PowerCage MTP Twisted Pair Extenders are available for high resolution RGB, HD YUV, S-video, and composite video along with audio or RS-232 signals.



PowerCage FOX Tx VGA Transmitter



PowerCage FOX Rx VGA Receiver



PowerCage FOX Tx DVI Transmitter



PowerCage FOX 3G HD-SDI Transceiver



PowerCage FOX Tx AV Transmitter



PowerCage FOX Rx AV Receiver



PowerCage MTP T 15HD RSA Transmitter



PowerCage MTP R 15HD RSA SEQ Receiver



PowerCage MTP T AV Transmitter



PowerCage MTP R AV Receiver

Model	Version Description	Part Number
PowerCage 1600 Enclosure	3U, 16-Slot Frame	60-978-01
PowerCage 1600 Power Supply Kit	Redundant Power Supply Option	70-784-01
PowerCage Fiber Optic Boards		
PowerCage FOX Tx DVI MM	Multimode - Transmitter	70-700-11
PowerCage FOX Tx DVI SM	Singlemode - Transmitter	70-700-12
PowerCage FOX Tx VGA MM	Multimode - Transmitter	70-699-11
PowerCage FOX Rx VGA MM	Multimode - Receiver	70-699-21
PowerCage FOX Tx VGA SM	Singlemode - Transmitter	70-699-12
PowerCage FOX Rx VGA SM	Singlemode - Receiver	70-699-22
PowerCage FOX 3G HD-SDI MM	Multimode - Transceiver	70-701-01
PowerCage FOX 3G HD-SDI SM	Singlemode - Transceiver	70-701-02
PowerCage FOX Tx AV MM	Multimode - Transmitter	70-702-11
PowerCage FOX Rx AV MM	Multimode - Receiver	70-702-21
PowerCage FOX Tx AV SM	Singlemode - Transmitter	70-702-12
PowerCage FOX Rx AV SM	Singlemode - Receiver	70-702-22
PowerCage Twisted Pair Boards		
PowerCage MTP T 15HD RSA	Transmitter	70-817-01
PowerCage MTP R 15HD RSA SEQ	Receiver w/Skew Equalizer	70-818-01
PowerCage MTP T AV	Transmitter	70-815-01
PowerCage MTP R AV	Receiver	70-816-01

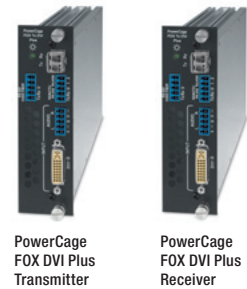
FIBER OPTICS

PowerCage™ FOX DVI Plus Fiber Optic Extender for DVI-D, Audio, and RS-232

The PowerCage™ FOX DVI Plus Fiber Optic Extender is a modular board-designed transmitter and receiver set for the PowerCage 1600 enclosure that provides long haul transmission of DVI, audio, and RS-232 control signals over a single fiber. Engineered for reliability and exceptional high resolution image performance, it uses the Extron exclusive all digital, zero compression technology, to deliver perfect pixel-for-pixel transmission of DVI computer-video images up to 1920x1200 resolution, including HDTV 1080p/60. The PowerCage FOX DVI Plus also includes an EDID emulation mode, Auto Input Memory, RS-232 control from multiple locations, internal test patterns, and real-time system monitoring. Multiple receiver boards can be daisy-chained.

FEATURES

- Extends single link DVI-D, stereo audio, and RS-232 control signals very long distances over a single fiber
- All digital, zero compression technology provides pixel-for-pixel performance with signals up to 1920x1200, including HDTV 1080p/60
- Modular, field-upgradeable, and hot-swappable boards designed for the PowerCage™ 1600 enclosure
- EDID emulation
- Daisy-chain capability
- Alarm notification for fiber link loss
- Auto Input Memory



PowerCage
FOX DVI Plus
Transmitter

PowerCage
FOX DVI Plus
Receiver

Model	Version Description	Part Number
PowerCage FOX Tx DVI Plus MM	Multimode - Transmitter	70-873-11
PowerCage FOX Rx DVI Plus MM	Multimode - Receiver	70-873-21
PowerCage FOX Tx DVI Plus SM	Singlemode - Transmitter	70-873-12
PowerCage FOX Rx DVI Plus SM	Singlemode - Receiver	70-873-22

FOX Matrix 320x Modular Fiber Optic Matrix Switcher from 16x16 to 320x320

The Extron FOX Matrix 320x is a high performance, modular fiber optic matrix switcher for complete, end-to-end digital A/V signal transmission and routing over fiber optic cable. The FOX Matrix 320x is expandable from 16x16 up to 320x320 and is fully compatible with the FOX Series of fiber optic transmitters and receivers. It features high-speed, all-digital switching of pixel-perfect standard definition video, high resolution computer-video, DVI-D, and multi-rate SDI. Equipped with the integration-friendly features common to Extron matrix switchers, together with hot-swappable I/O boards and fan, real-time system monitoring, and redundant, hot-swappable power supplies, the FOX Matrix 320x delivers highly reliable, enterprise-wide switching of fiber optic A/V and control for mission-critical environments.

FEATURES

- I/O sizes from 16x16 to 320x320
- Compatible with all FOX Series transmitters and receivers
- Multimode and singlemode I/O boards available
- Modular, field-upgradeable and hot-swappable design
- Four redundant and hot-swappable power supplies
- Low power consumption for efficient cooling, lower costs, and longer life
- Advanced computer-aided diagnostics
- Input fiber link detection
- Status LED indicators for fiber link status
- Alarm notification for fiber link loss
- Two AC power inputs
- Industry standard LC connectors provide reliable physical connectivity and precise fiber core alignment
- Global presets
- Extron control software
- Rooming
- Ethernet monitoring and control
- RS-232 and RS-422 control port
- Front panel configuration port
- Rack-mountable 17U, full rack width metal enclosure



For Larger Fiber Optic
Matrix Switchers see
Matrix 1K Program - Page 29

Model	Version Description	Part Number
FOX Matrix 320x	FOX Matrix 320x Frame	60-1082-01
FOX I/O 1616 MM	16x16 I/O Board - Multimode	70-771-01
FOX I/O 1616 SM	16x16 I/O Board - Singlemode	70-771-02
FOX Matrix Blank Plate	Blank Plate - Single I/O Slot	70-651-21

FIBER OPTICS

OM4 MM P

Bend-Insensitive Laser-Optimized Duplex Multimode Fiber - Plenum

Extron OM4 MM P multimode fiber is available as a plenum rated bulk duplex fiber optic cable on a 2 km roll. Ideal for moderate to long distances up to 2 km, Extron laser-optimized multimode fiber provides superior bandwidth and ensures pixel-perfect transmission of high resolution video, audio, and control signals. The OM4 MM P is also a bend-insensitive fiber optic cable featuring a tight bend radius to minimize bending loss and simplify installation. Laser-optimized, OM4 performance ensures an A/V fiber optic cable infrastructure that supports the highest resolutions.

FEATURES

- Laser-optimized OM4 multimode fiber
- Bend-insensitive
- OFNP plenum-rated jacket
- Durable duplex zip-cord cable construction
- Standard 2 mm duplex fiber optic cable for easy termination



Model	Version Description	Part Number
OM4 MM P/2K	Plenum 2 km (6,562') Spool	22-225-02

SM P

Bend-Insensitive Duplex Singlemode Fiber - Plenum

Extron Bend-Insensitive Duplex Singlemode Fiber is available as a plenum rated bulk duplex fiber cable on a 2 km roll. Bend-insensitive fiber features a tight bend radius to minimize bending loss and simplify installation. Singlemode fiber's low-loss provides extreme performance to transmit A/V signals over very long distances up to 30 km or 18.75 miles.

FEATURES

- Bend-insensitive singlemode fiber
- OFNP plenum-rated jacket
- Durable duplex zip-cord cable construction
- Standard 2 mm duplex fiber optic cable for easy termination



Model	Version Description	Part Number
SM P/2K	Plenum 2 km (6,562') Spool	22-223-02

Quick LC Fiber Optic Connectors

Connectors for Field Termination of Fiber Optic Cables

Extron Quick LC Fiber Optic Connectors are factory pre-polished, field-installable connectors for fast, reliable termination of Extron multimode and singlemode fiber optic cable. The precision design and pre-cleaved fiber stub with index-matching gel ensure optimum fiber alignment and a reliable low-loss connection. Each connector includes strain relief boots for terminating Extron Fiber Optic Cable as well as other standard fiber optic cable sizes that may exist in a fiber plant. A pre-installed wedge clip features a visual indicator of a successful termination when used with a VFL - Visual Fault Locator. Quick LC Connectors are available as multimode and singlemode versions.

FEATURES

- Pre-polished, field-installable connectors
- Compatible with Extron Fiber Optic Termination Kit
- Re-usable up to two times
- Wedge clip with visual indicator
- High-performance, low-loss fiber optic connectors



Model	Version Description	Part Number
QLC MM/10	Multimode, qty. 10	101-018-01
QLC SM/10	Singlemode, qty. 10	101-017-01

FIBER OPTICS

Fiber Optic Termination Kit Tool Kit for Field Termination of Fiber Optic Cables

The Extron Fiber Optic Termination Kit enables quick, reliable termination of Extron multimode and singlemode fiber optic cables with high-performance, pre-polished connectors. Each kit includes all the tools and equipment needed to strip, prepare, cleave, and terminate a fiber optic cable using Extron Quick LC Fiber Optic Connectors. A VFL - Visual Vault Locator is also included to provide a visual indicator of a properly terminated fiber optic connector. A durable Extron canvas bag offers a convenient way to organize, transport, and protect the tools and supplies provided in the termination kit.

FEATURES

- Complete kit for terminating fiber optic cables
- Compatible with all Extron Fiber Optic Quick LC Connectors
- Precision fiber cleaver
- Visual Fault Locator
- Durable canvas tool bag



Model	Version Description	Part Number
Fiber Optic Termination Kit	Termination Kit	100-656-01

Fiber Optic Test Set Complete Kit to Measure Optical Power and Loss in Fiber Optic Cable

The Extron Fiber Optic Test Set includes all the tools needed to measure optical power and loss in multimode and singlemode fiber optic AV equipment and fiber optic cabling. The light source includes both a multimode LED output that operates at 850 nm and 1300 nm, and a singlemode laser output that operates at 1310 nm and 1550 nm. The power meter is compatible with both multimode and singlemode fiber and features an easy-to-read LCD display for measuring optical power in dBm or watts and insertion loss in dB. The test set also includes all the cables and adapters needed for testing fiber optic AV systems and a durable padded carrying case to organize and protect the test equipment with room for the power meter, light source, cables, and adapters.

FEATURES

- Complete kit for testing power and loss in multimode and singlemode fiber optic AV systems
- Fiber optic light source includes both multimode and singlemode outputs
- Fiber optic power meter accepts multimode or singlemode fiber
- Power measurements in dBm or watts and loss measurements in dB
- Automatic wavelength identification with Wave ID enables the power meter to automatically detect and set wavelengths to simplify setup
- Handheld and battery-powered
- Durable padded carrying case



Model	Version Description	Part Number
Fiber Optic Test Set	Multimode and Singlemode Kit	70-962-01

FIBER OPTICS

2LC OM4 MM P

LC to LC Laser-Optimized Multimode Fiber Optic Cable Assemblies - Plenum

Extron 2LC OM4 MM P multimode fiber optic duplex cable assemblies are available in various lengths from 1 meter to 60 meters. Ideal for moderate to long distances up to 2 km, Extron laser-optimized multimode fiber provides superior bandwidth and ensures pixel-perfect transmission of high-resolution, video, audio, and control signals. The 2LC OM4 MM P is also a bend-insensitive fiber optic cable featuring a tight bend radius to minimize bending loss and simplify installation. Laser-optimized, OM4 performance ensures an A/V fiber optic cable infrastructure that supports the highest resolutions.

FEATURES

- Laser-optimized OM4 multimode fiber
- Bend-insensitive
- OFNP plenum-rated jacket
- Durable duplex zip-cord cable construction
- Terminated with industry standard LC connectors
- Available in lengths from 1 meter (3.3 feet) to 60 meters (197 feet)



Model	Version Description	Part Number
2LC OM4 MM P/1	1 m (3.3')	26-671-01
2LC OM4 MM P/2	2 m (6.6')	26-671-02
2LC OM4 MM P/3	3 m (9.8')	26-671-03
2LC OM4 MM P/5	5 m (16.4')	26-671-05
2LC OM4 MM P/10	10 m (32.8')	26-671-10
2LC OM4 MM P/15	15 m (49.2')	26-671-15
2LC OM4 MM P/20	20 m (65.6')	26-671-20
2LC OM4 MM P/30	30 m (98.4')	26-671-30
2LC OM4 MM P/40	40 m (131')	26-671-40
2LC OM4 MM P/50	50 m (164')	26-671-50
2LC OM4 MM P/60	60 m (197')	26-671-60

2LC SM P

LC to LC Bend-Insensitive Singlemode Fiber Optic Cable Assemblies - Plenum

Extron 2LC SM P bend-insensitive singlemode fiber optic cable assemblies are available in various lengths from 1 meter to 60 meters. Bend-insensitive fiber features a tight bend radius to minimize bending loss and simplify installation. Singlemode fiber's low-loss provides extreme performance to transmit A/V signals over very long distances up to 30 km or 18.75 miles.

FEATURES

- Bend-insensitive singlemode fiber
- OFNP plenum-rated jacket
- Durable duplex zip-cord cable construction
- Terminated with industry standard LC connectors
- Available in lengths from 1 meter (3.3 feet) to 60 meters (197 feet)



Model	Version Description	Part Number
2LC SM P/1	1 m (3.3')	26-670-01
2LC SM P/2	2 m (6.6')	26-670-02
2LC SM P/3	3 m (9.8')	26-670-03
2LC SM P/5	5 m (16.4')	26-670-05
2LC SM P/10	10 m (32.8')	26-670-10
2LC SM P/15	15 m (49.2')	26-670-15
2LC SM P/20	20 m (65.6')	26-670-20
2LC SM P/30	30 m (98.4')	26-670-30
2LC SM P/40	40 m (131')	26-670-40
2LC SM P/50	50 m (164')	26-670-50
2LC SM P/60	60 m (197')	26-670-60

DVI & HDMI

SMX System MultiMatrix
Digital and Analog Multi-Plane Modular Matrix Switcher

The SMX System MultiMatrix Series of digital and analog multi-plane matrix switchers combines multiple, independent matrix switchers in a truly modular, field-configurable frame. SMX frames are available in sizes from 2U up to 5U, capable of supporting up to 10 separate matrix boards which can be switched independently or simultaneously, all under a single point of control. The SMX System is an ideal choice for medical imaging systems, conference and training facilities, and other mid-sized applications that require the switching of different signal types and a cost-effective upgrade path for ongoing I/O or signal format changes.

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SMX 300 frame populated with:
- SMX 1616 A - SMX 88 V - SMX 44 HDMI - SMX 1616 FOX MM

SMX HDMI Series
HDMI Matrix Switcher Boards with EDID Minder®

The SMX HDMI Series Matrix Switcher Boards are designed for routing HDMI video signals with HDCP - High-bandwidth Digital Content Protection. They support computer video to 1920x1200 and HDTV to 1080p as well as embedded audio and control signals, and enable the routing of content from Blu-ray Disc players and other content-protected sources to one or more displays. SMX HDMI matrix boards provide +5 VDC, 250 mA of power on each output for external peripheral devices. They are available in four I/O sizes: 4x4, 4x8, 8x4, and 8x8.

FEATURES

- HDMI 1.3 compatible
- HDCP compliant
- Key Minder™
- EDID Minder®
- Automatic cable equalization for each input to 100 feet (30 meters) at 1920x1200/8-bit color when used with Extron HDMI Pro cables
- Automatic output reclocking
- Provides +5 VDC, 250 mA power on each output for external peripheral devices



SMX 88 HDMI

Model	Version Description	Part Number
SMX 44 HDMI	4x4 HDMI; 1 Slot	70-773-01
SMX 48 HDMI	4x8 HDMI; 2 Slots	70-773-05
SMX 84 HDMI	8x4 HDMI; 2 Slots	70-773-02
SMX 88 HDMI	8x8 HDMI; 2 Slots	70-773-03

SMX DVI Pro Series
HDCP-Compliant DVI Matrix Switcher Boards with EDID Minder®

The SMX DVI Pro Series Matrix Switcher Boards are designed for routing single link DVI-D video signals with HDCP High-bandwidth Digital Content Protection. These HDCP-compliant matrix boards support computer video to 1920x1200 and HDTV to 1080p, and enable the routing of content from Blu-ray Disc players and other content-protected sources to one or more displays. SMX DVI Pro matrix boards provide +5 VDC, 250 mA of power on each output for external peripheral devices. For installation convenience and flexibility in cable selection, the boards are equipped with DVI-I connectors for inputs and outputs. They are available in four I/O sizes: 4x4, 4x8, 8x4, and 8x8.

FEATURES

- HDMI 1.3 compatible
- HDCP compliant
- EDID Minder®
- Key Minder™
- Automatic cable equalization for each input to 100 feet (30 meters) at 1920x1200/8-bit color when used with Extron DVI Pro cables
- Automatic output reclocking
- Provides +5 VDC, 250 mA power on each output for external peripheral devices



SMX 88 DVI Pro

Model	Version Description	Part Number
SMX 44 DVI Pro	4x4 DVI w/HDCP; 1 Slot	70-598-11
SMX 48 DVI Pro	4x8 DVI w/HDCP; 2 Slots	70-598-15
SMX 84 DVI Pro	8x4 DVI w/HDCP; 2 Slots	70-598-12
SMX 88 DVI Pro	8x8 DVI w/HDCP; 2 Slots	70-598-13

DVI & HDMI

SW HDMI LC

Two and Four Input HDMI Switchers

The Extron SW HDMI LC switchers are two and four input, one output, HDMI - High-definition Multimedia Interface switchers. These switchers support HDMI 1.3 specification features, including data rates up to 6.75 Gbps, Deep Color, Lip Sync, and HD lossless audio formats. HDCP compliance ensures interoperability with other HDCP-compliant devices. The switchers support all HDTV rates including 1080p/60 with 12-bit Deep Color, and PC resolutions up to 1920x1200. Front panel LED indicators provide visual confirmation of signal presence. Input cable equalization for each input provides compensation for up to 50 feet for 1080p/60 with 8-bit color on Extron HDMI Pro Series cable. The SW HDMI LC switchers are ideal for sending HDMI video and embedded multi-channel digital audio to a single display.

FEATURES

- Supports HDTV 1080p/60 and PC resolutions up to 1920x1200
- HDMI 1.3 compatible
- HDCP compliant
- Input cable equalization for each input
- Auto-input switching
- RS-232 control
- IR remote control with optional Extron IR 102 handheld remote control
- Rack-mountable 1U, half rack width metal enclosure



Model	Version Description	Part Number
SW2 HDMI LC	Two Input HDMI Switcher	60-1159-01
SW4 HDMI LC	Four Input HDMI Switcher.....	60-1160-01

RGB-HDMI 300 A

RGB and Stereo Audio to HDMI Scaler

The Extron RGB-HDMI 300 A is a high performance RGB and stereo audio to HDMI scaler that converts incoming analog component video and RGBHV signals to HDMI signals. It accepts HDTV and high resolution computer-video signals up to 1920x1200, and offers multiple output rates up to 1920x1200, including HDTV 1080p/60. The RGB-HDMI 300 A also offers audio embedding so that analog audio input signals can be digitized into the scaled HDMI output. It is housed in a compact, low-profile enclosure for placement behind flat-panel displays, and offers several features for streamlining integration and enhancing system operation, including Auto Input Memory, Auto-Image™ setup, and RS-232 serial control.

FEATURES

- RGB and HDTV component video to HDMI scaling
- Audio embedding with gain, attenuation, and delay control
- Selectable output rates up to 1920x1200, including HDTV 1080p/60
- Auto-Image™ setup
- Auto Input Format Detection
- Auto Input Memory
- EDID emulation
- Picture controls for brightness, contrast, detail, horizontal and vertical positioning, sizing, and zoom
- On-screen display
- RS-232 control port
- Internal test patterns for calibration and setup



Model	Version Description	Part Number
RGB-HDMI 300 A	RGB and Stereo Audio to HDMI Scaler.....	60-1074-01

DVI & HDMI

HAE 100

HDMI Audio De-Embedder

The Extron HAE 100 is an audio de-embedder that extracts the audio from the HDMI signal and provides outputs for analog stereo and digital S/PDIF audio. The HAE 100 supports data rates up to 6.75 Gbps for compatibility with HDMI 1.3 Deep Color. It is HDCP compliant and compatible with HDTV 1080p/60 or computer-video resolutions up to 1920x1200. The HAE 100 is equipped with several integrator-friendly features, including a buffered HDMI video output with EDID Minder® for simplified EDID management between the input source and the display, plus input cable equalization and comprehensive LED status display.

FEATURES

- HDMI audio de-embedding with analog stereo and digital S/PDIF audio outputs
- HDMI 1.3 compatible
- HDCP compliant
- De-embeds audio with or without HDMI output connected
- EDID Minder®
- Automatic input cable equalization
- Comprehensive, real-time status LED indicators for troubleshooting and monitoring
- Front panel USB configuration port



Model	Version Description	Part Number
HAE 100	HDMI Audio De-Embedder	60-1075-01

DVI 110

DVI Signal Regenerator

The Extron DVI 110 is a signal regenerator for single link DVI-D signals. It retimes and reshapes marginal or noisy DVI signals, such as those occasionally encountered on the output of consumer-grade graphics cards or notebook PCs, or when passive DVI couplers and wallplates are utilized within the signal path. The DVI 110 helps to eliminate noise and reduce jitter at the output of the source, ensuring a strong, stable digital signal, and improving system performance.

FEATURES

- Retimes and reshapes marginal or noisy DVI signals at the source
- Supports data rates up to 4.95 Gbps - 1.65 Gbps per color
- Compatible with resolutions up to HDTV 1080p/60 and computer-video to 1920x1200
- Compatible with HDMI signals when used with optional Extron HDMI-DVI adapters
- HDCP compliant
- Supports DDC transmission



Model	Version Description	Part Number
DVI 110	DVI Signal Regenerator	60-1145-01

MPS 409

Media Presentation Switcher

The Extron MPS 409 is a multi-format presentation switcher for digital and analog signals. It combines five independent switchers in a single compact enclosure: 3x1 HDMI with embedded audio, 2x1 DVI, 2x1 VGA/HDTV component video, 2x1 composite video, and 9x1 analog stereo audio. The MPS 409 features three selectable switching modes, including the ability to route all DVI and HDMI sources to the display using a single HDMI cable. Continuous EDID communications between the DVI and VGA sources and the display device ensures the reliable display of video. HDMI and DVI inputs and outputs are HDCP compliant, ensuring the display of content protected media. The MPS 409 is ideal for use in single-display applications that require a hybrid switcher for integration of digital and analog video sources and associated audio signals.

FEATURES

- Five switchers in one enclosure:
 - 3x1 HDMI switcher
 - 2x1 DVI switcher
 - 2x1 VGA/HDTV component video switcher
 - 2x1 composite video switcher
 - 9x1 analog stereo audio switcher
- HDMI 1.3 compatible
- HDCP compliant
- EDID Minder®
- Combine Switcher mode routes all DVI and HDMI sources to the HDMI output
- Audio input gain and attenuation
- Front-panel MIC and program audio output volume controls



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Model	Version Description	Part Number
MPS 409	HDMI, DVI, VGA, Video & Audio Switcher	60-1012-01

DVI & HDMI

DCX 1600

Modular HDMI and DVI Digital Matrix Switcher with EDID Minder®

The Extron DCX 1600 represents a new level of digital matrix switching for HDMI and DVI. It combines the simplicity and reliability of a fixed I/O matrix switcher with the convenience and flexibility of a modular matrix switcher. The compact, 4U enclosure accepts any combination of HDMI or DVI boards. Input and output boards are available in 4-port input and 4-port output versions, providing 16 I/O size combinations with sizes from 4x4 to 16x16 for full system customization. All input and output cards are HDCP compliant and can be mixed and matched for fully-interchangeable switching between HDMI and DVI sources and displays. The DCX 1600 is ideal for a wide range of applications that require routing of high-resolution digital video signals, with or without copy protection.

FEATURES

- Available in I/O sizes from 4x4 to 16x16
- HDMI 1.3 compatible
- HDCP compliant HDMI and DVI input and output boards
- EDID Minder®
- Key Minder™
- Automatic cable equalization for each input to 100 feet (30 meters) at 1920x1200/8-bit color when used with Extron HDMI/DVI Pro cables



DCX 1600 Frame

Model	Version Description	Part Number
DCX 1600 Frame	4U, 8-Slot Frame	60-1057-01
DCX 4i DVI Pro	4-Input DVI	70-684-01
DCX 4i HDMI	4-Input HDMI	70-685-01
DCX 4o DVI Pro	4-Output DVI	70-686-01
DCX 4o HDMI	4-Output HDMI	70-687-01

DMS 1600

Modular DVI Matrix Switcher with EDID Minder®

The Extron DMS 1600 represents a new level of matrix switching for DVI. It combines the simplicity and reliability of a fixed I/O matrix switcher with the convenience and flexibility of a modular matrix switcher. The 4U enclosure accepts any combination of DVI boards. Input and output boards are available in 4-port input, 4-port output, and 4x4 I/O versions, providing various I/O size combinations with sizes from 4x4 to 16x16 for full system customization. The DMS 1600 is ideal for a wide range of applications that require routing of high-resolution DVI digital video signals without copy protection.

FEATURES

- Available in I/O sizes from 4x4 to 16x16
- Modular, field-upgradeable and hot-swappable design
- EDID Minder®
- Automatic cable equalization for each input to 100 feet (30 meters) at 1920x1200/8-bit color when used with Extron DVI Pro cables
- Automatic output reclocking



Model	Version Description	Part Number
DMS 1600 Frame	4U, 4-Slot Frame	60-1091-01
DMS 1600 Power Supply Kit	Redundant Power Supply Option	70-710-02
DMS I/O 44 DVI	4x4 I/O DVI	70-741-01
DMS 4i DVI	4-Input DVI	70-741-02
DMS 4o DVI	4-Output DVI	70-741-03
DMS Matrix Blank Plate	Blank Plate - Single I/O Slot	70-841-01

DVI & HDMI

DMS 3600

Modular DVI Matrix Switcher with EDID Minder®

The Extron DMS 3600 represents a new level of matrix switching for DVI. It combines the simplicity and reliability of a fixed I/O matrix switcher with the convenience and flexibility of a modular matrix switcher. The 8U enclosure accepts any combination of DVI boards. Input and output boards are available in 4-port input, 4-port output, and 4x4 I/O versions, providing various I/O size combinations with sizes from 4x4 to 36x36 for full system customization. The DMS 3600 is ideal for a wide range of applications that require routing of high-resolution DVI digital video signals without copy protection.

FEATURES

- Available in I/O sizes from 4x4 to 36x36
- Modular, field-upgradeable and hot-swappable design
- EDID Minder®
- Automatic cable equalization for each input to 100 feet (30 meters) at 1920x1200/8-bit color when used with Extron DVI Pro cables
- Automatic output reclocking



Model	Version Description	Part Number
DMS 3600 Frame	8U, 9-Slot Frame	60-1092-01
DMS I/O 44 DVI	4x4 I/O DVI	70-741-01
DMS 4i DVI	4-Input DVI	70-741-02
DMS 4o DVI	4-Output DVI	70-741-03
DMS Matrix Blank Plate	Blank Plate - Single I/O Slot	70-841-01

MLS 608 D

Eight Input MediaLink® Switcher with ProDSP™ Audio

The Extron MLS 608 D MediaLink® Switchers are simple-to-use, eight input, multi-format switchers designed to integrate digital and analog sources. All signals are transmitted over CAT 5-type cable to the included MTP/HDMI U R Twisted Pair Receiver. The MLS 608 D Series feature Extron ProDSP™ digital audio processing, which provides an extensive array of easy-to-use tools for audio system setup and fine-tuning. The MLS 608 D Series offers digital video switching with four HDCP-compliant, HDMI inputs, and analog video switching with four universal inputs, including an Extron Universal MTP Twisted Pair input. It outputs HDMI twisted pair signals and analog MTP Twisted Pair to the included MTP/HDMI U R receiver, providing a complete digital and analog video and audio switching system.

FEATURES

- Multi-input switcher for digital and analog video signals
- ProDSP audio signal processing for audio mixing, ducking, and feedback suppression
- Transmits HDMI and analog video, plus audio and RS-232 over CAT 5-type cables
- Includes MTP/HDMI U R Twisted Pair Receiver
- EDID Minder®
- HDMI audio de-embedding
- HDCP compliant
- HDMI 1.3 compatible
- Cable equalization for each HDMI input
- Sends 720p, 1080i, and XGA (1024x768) HDMI signals over 200 feet (60 meters), 1080p/60 and 1920x1200 HDMI signals over 100 feet (30 meters) with standard CAT 5e cable
- Four input analog universal video switching
- Controllable via TouchLink™ Control System, MediaLink® Controller, front panel buttons, or RS-232
- Mic/line audio matrix mixing
- Available with integrated stereo or mono 70 volt power amplifier



MLS 608 D SA



MTP/HDMI U R

Works with MediaLink® Controllers



MLC 226 IP



MLC 104 IP Plus

Model	Version Description	Part Number
MLS 608 D	Variable Preamp Output - No Amplifier	60-1052-01
MLS 608 D MA	40 Watt 70 Volt Mono Power Amplifier	60-1052-02
MLS 608 D SA	2x20 Watt Stereo Power Amplifier	60-1052-03

DVI & HDMI

MTP/HDMI U T A D

Universal Twisted Pair Transmitter for HDMI, VGA, Video, Audio, and RS-232

The Extron MTP/HDMI U T A D is a Decora®-style, universal twisted pair transmitter for digital and analog video sources. It meets the needs of A/V presentation environments that must support a variety of digital and analog signals. Dedicated inputs are provided to accommodate HDMI, VGA, HD component video, S-video, composite video, audio, and bidirectional RS-232 or IR signals. These signals can then be transmitted long distances over standard CAT 5-type cabling to remote receiver locations. The MTP/HDMI U T A D supports HDMI and all common analog video formats. It is ideally paired with the Extron MTP/HDMI U R receiver or an Extron MTP universal receiver or an HDMI 201 Series receiver.

FEATURES

- Transmits HDMI, VGA, HD component video, S-video, composite video, audio, and bidirectional RS-232 or IR signals over CAT 5-type cable
- Supports EDID and DDC transmission
- HDMI Digital Input:
 - Transmits HDMI and RS-232 signals over two CAT 5-type cables
 - HDCP compliant
 - Supports DDC transmission
 - Transmits additional stereo audio signals
 - Bidirectional RS-232/IR pass-through
- HDMI 1.3 compatible
- Analog Inputs:
 - Transmits RGBHV, HD component video, S-video or composite video, plus summed mono audio signals over a single CAT 5-type cable
 - Auto-input switching
 - EDID emulation mode allows proper source operation when no local monitor is present
 - Contact closure remote control



Model	Version Description	Part Number
MTP/HDMI U T A D	MTP/HDMI Universal Transmitter - Black	42-166-02
MTP/HDMI U T A D	MTP/HDMI Universal Transmitter - White	42-166-01

MDC HDMI

MicroDigital™ Ultra-Flexible HDMI Cables

Extron MDC HDMI cables are ultra-flexible 4 mm cables designed to transmit HDMI digital video and audio signals. MDC HDMI cables are engineered with Extron-exclusive MicroDigital™ Cable Technology and feature high flexibility, low bend radius, and compact connectors. These cables are ideal for applications with tight equipment racks or AV presentation furniture, or with wall-mount or pole-mount displays. They are available in lengths of 1.5 feet (45 cm), 3 feet (90 cm), and 6 feet (1.8 m). MDC HDMI cables up to 3 feet in length conform to HDMI High Speed cable specifications. The MDC 6 HDMI cable conforms to HDMI Standard Speed Specifications.

FEATURES

- Ultra-flexible, low bend radius HDMI cables
- 1080p/60 verified
- 36 AWG copper wire construction
- Gold plated contacts
- NEC CL2 rated, non-plenum cable
- Available in lengths of 1.5 feet (45 cm), 3 feet (90 cm), and 6 feet (1.8 m)
- MDC 1.5 HDMI and MDC 3 HDMI
 - Conforms to HDMI High Speed Cable Specifications
 - Supports signals up to 1920x1200 @ 60 Hz and 1080p/60
 - Data rates to 10.2 Gbps
 - Refresh rates to 120 Hz
 - Color depth to 48 bits - 16 bits per color
- MDC 6 HDMI
 - Conforms to HDMI Standard Speed Cable Specifications
 - Supports signals up to 1920x1200 @ 60 Hz and 1080p/60
 - Data rates to 2.25 Gbps
 - Refresh rates to 60 Hz
 - Color depth to 24 bits - 8 bits per color



Model	Version Description	Part Number
MDC 1.5 HDMI	1.5' (45 cm) High Speed	26-667-01
MDC 3 HDMI	3' (90 cm) High Speed	26-667-03
MDC 6 HDMI	6' (1.8 m) Standard Speed	26-667-06

DVI & HDMI

One DVI-I Female to One DVI-I Female on 10" Pigtail, One 3.5 mm Stereo Mini Jack to Solder Tabs Architectural Adapter Plate

Type: Quick Connect
Size: Single Space

Black Part #	White Part #
70-615-22	70-615-23



DISPLAYPORT

DPM-HDMIF

DisplayPort Male to HDMI Female Active Adapter - 6" Pigtail

The Extron DPM-HDMIF is an active, one-way adapter that enables transmission of digital signals from dual-mode DisplayPort equipped sources to HDMI displays. It supports the DisplayPort Version 1.1a specification and resolutions to 1920x1200 @ 60Hz and 1080p/60. For ease of installation, the DPM-HDMIF features an attached 6" (15 cm) pigtail and is ideal for use when integrating DisplayPort-equipped laptop computers and other devices with HDMI equipped projectors or flat-panel displays.

FEATURES

- Provides connectivity between dual-mode DisplayPort equipped sources and HDMI displays
- Passes EDID information from HDMI display to the source
- HDCP compliant
- 1080p/60 verified
- Conforms to HDMI High Speed Cable Specifications
- Supports signals up to 1920x1200 @ 60 Hz and 1080p/60
- Data rates to 10.2 Gbps
- Color depth to 48 bits - 16 bits per color
- Complies with VESA Interoperability Guideline
- Gold-plated contacts
- 6" (15 cm) pigtail for ease of installation



Model	Version Description	Part Number
DPM-HDMIF	DisplayPort M-HDMIF Active Adapter	26-665-01

DPM-VGAF

DisplayPort Male to VGA Female Active Adapter - 6" Pigtail

The Extron DPM-VGAF is an active, one-way adapter that enables transmission of digital signals from dual-mode DisplayPort sources to VGA displays. It supports the DisplayPort Version 1.1a specification and resolutions to 1920x1200 @ 60Hz and 1080p/60. For ease of installation, the DPM-VGAF features an attached, 6" (15 cm) pigtail and is ideal for use when integrating DisplayPort-equipped laptop computers and other devices with legacy, high resolution analog projectors or flat-panel displays.

FEATURES

- Provides connectivity between dual-mode DisplayPort equipped sources and VGA displays
- Passes EDID information from VGA display to the source
- 1080p/60 verified
- Supports signals up to 1920x1200 @ 60 Hz and 1080p/60
- Color depth to 24 bits - 8 bits per color
- Complies with VESA Interoperability Guideline
- Gold-plated contacts
- 6" (15 cm) pigtail for ease of installation



Model	Version Description	Part Number
DPM-VGAF	DisplayPort M-VGAF Active Adapter	26-664-01

USB PRODUCTS

USB Extender

Twisted Pair Extender for USB Peripherals

The USB Extender enables USB peripheral devices to be remotely located up to 450 feet (135 meters) from the host computer. The extender consists of a transmitter and receiver set that are linked using a single, standard CAT 5/5e/6 or CAT 7 cable. The receiver features a built-in, active four port hub that supplies 5 Volts, 500 mA to each port to power attached devices. This allows power-hungry peripherals such as smart phones, webcams, personal media players, and mass storage devices to be connected and powered or charged at the same time. The USB Extender is ideal for use in applications utilizing the Extron Annotator and remote touchscreen displays, as well as applications that require the remote location of USB peripherals such as interactive whiteboards, keyboards, mice, and other human interface devices.

FEATURES

- Extends USB peripherals up to 450 feet (135 meters) on one CAT 5/5e/6 or CAT 7 cable
- Supports USB 1.0, 1.1, and 2.0 standards with data transfer rates up to 480 Mbps
- Receiver features an integrated four port hub with 5 Volts, 500 mA available on each port
- Port Status LEDs
- Choice of tabletop and architectural form factors

Model	Version Description	Part Number
USB Extender Tx	Transmitter	60-871-12
USB Extender Rx	Receiver	60-871-22
USB Extender AAP Tx	Transmitter - AAP Version - Black	60-870-12
USB Extender AAP Tx	Transmitter - AAP Version - White	60-870-13
USB Extender AAP Rx	Receiver - AAP Version - Black	60-870-22
USB Extender AAP Rx	Receiver - AAP Version - White	60-870-23



USB Extender Transmitter



USB Extender Receiver



USB Extender AAP Transmitter



USB Extender AAP Receiver

SIGNAL PROCESSORS

DVS 510

10 Input Scaling Presentation Switcher

The Extron DVS 510 is a 10 input, multi-format Presentation Scaling Switcher that accepts and scales DVI, RGB, HDTV, and standard definition signals to a common, high resolution output rate. The DVS 510 is HDCP-compliant and features simultaneous DVI and two analog RGB/YUV outputs. It is a true presentation switcher for professional environments, with audio switching for all video input sources, an available 50 watt stereo integrated amplifier, picture-in-picture, and glitch-free switching. The DVS 510 also offers flexible control options including front panel control, Ethernet, RS-232, and IR.

FEATURES

- Integrates DVI/HDMI, RGB, HDTV, video, and audio sources into presentation systems
- HDCP compliant
- RGB, HDTV, and video scaling
- Simultaneous DVI and analog RGB or component video outputs
- EDID Minder®
- PIP - picture-in-picture
- Glitch-free switching
- Power Save Mode
- Audio switching and output volume control
- Available stereo power amplifier model with 25 watts rms per channel into 4 or 8 ohms



DVS 510 SA

Model	Version Description	Part Number
DVS 510	Variable Preamp Output - No Amplifier	60-835-01
DVS 510 SA	2x25 Watt Stereo Power Amplifier.....	60-835-02

AVT 200HD

Professional ATSC and Cable TV HD Tuner

The Extron AVT 200HD is a high performance tuner for receiving ATSC broadcast signals and delivers HDTV video simultaneously on HDMI, RGBHV, and YUV outputs. Designed for professional A/V applications, the AVT 200HD includes Ethernet, RS-232, USB, and IR remote control capability. It outputs PCM stereo audio or Dolby® Digital with simultaneous S/PDIF and analog balanced and unbalanced stereo outputs. The AVT 200HD also offers clear QAM cable TV decoding and standard definition video outputs. Additional integrator and user-friendly features include a multi-function on-screen display, and channel presets.

FEATURES

- High performance decoding of ATSC and CATV QAM signals
- Simultaneous HDMI, RGBHV, and HD component video outputs
- Dolby® Digital or PCM audio with simultaneous S/PDIF digital and analog balanced/unbalanced stereo audio outputs
- USB, Ethernet, RS-232, and IR remote control
- Multi-function on-screen display with program guide and tuner controls
- Composite video and S-video outputs
- Preset channel selection



Model	Version Description	Part Number
AVT 200HD	Professional ATSC and Cable TV HD Tuner.....	60-770-01

DVC 501 SD

Multi-Rate SDI to DVI and RGB/Component Converter

The Extron DVC 501 SD converts SDI, HD-SDI, and 3G-SDI serial digital video signals to DVI-D and analog RGB or component video formats. It features automatic equalization of input signals, extraction of embedded AES3 audio, and RS-232 serial control. The DVC 501 SD is ideal for applications including television production, medical imaging, military simulation, houses of worship, and live events that require interfacing SDI signals from broadcast-type sources to professional / consumer-level displays and signal distribution systems that only accept DVI or analog signals. It is compliant with SMPTE 259M, 292M, 424M, and ITU digital video standards.

FEATURES

- Accepts multi-rate SDI signals up to 2.97 Gbps
- Simultaneous DVI-D and analog RGB / component video outputs
- AES3 audio de-embedding
- Input equalization and reclocking on buffered output
- Internal test patterns for calibration and setup
- Output muting control
- RS-232 control



Model	Version Description	Part Number
DVC 501 SD	3G-SDI to DVI/RGB/Component Converter.....	60-1033-01

VIDEOWALL PROCESSORS

Quantum™ Elite
Scalable, Expandable Videowall Processing System

The Extron Quantum™ Elite is a scalable and field-expandable videowall processor configurable to support a variety of input, output, and windowing capabilities. It features high performance video scaling technology capable of producing very high quality images. The Quantum Elite offers two card-cage versions that support various combinations of input and output cards for video, RGB, DVI or HD component video sources. Hundreds of additional DVI or RGB sources can be streamed over an IP network to the Quantum Elite using the Extron QGE 100 graphics capture encoder. Each DVI-I dual output card supports up to 128 video/graphic source windows, and multiple Quantum Elite card cages can be cascaded to create very large display arrays. A dedicated, high-speed video/graphic bus maintains real-time performance even under heavy loading of inputs.

FEATURES

- Card frame videowall processing system available with eight or 15 slots
- Scalable, field-expandable systems: add cards or cascade card frames to add more inputs and outputs

- Flexibility to support a variety of input and output configurations
- High speed, dedicated video/graphic bus enables real-time performance
- Dual DVI/RGB output card supports resolutions up to HDTV 1080p/60
- Up to 128 video/graphic windows per dual output card
- Dual input card for DVI-D
- Dual input card for analog RGB or HD component video
- 12-channel video input card supports any mix of composite or S-video sources
- IP streaming of hundreds of RGB/DVI inputs with QGE 100 Quantum Graphics Encoders
- High quality image upscaling and downscaling
- Supports digital and analog input signals up to 1920x1200
- Solid state flash storage in 15-slot frame eliminates risk of virus and allows simple removal of system data
- Ruggedized real-time operating system and power redundancy features support 24/7 operation
- Performance, scalability, and reliability



Model	Version Description	Part Number
Quantum Elite 615	Quantum Elite System 6U/15 slot	60-1111-01
Quantum Elite 408	Quantum Elite System 4U/8 slot	60-1112-01
QEC 02	Quantum Elite Output Card	70-750-01
QEC 112VID	Quantum Elite 12 Video Input Card	70-751-01
QEC 12RGB	Quantum Elite 2 RGB Input Card	70-752-01
QEC 12DVI	Quantum Elite 2 DVI Input Card	70-753-01
QGE 100	Quantum Graphics Encoder	60-1113-01

VIDEOWALL PROCESSORS

Quantum™ Connect Videowall Processing System

The Extron Quantum™ Connect is a videowall processor that delivers the same high quality video scaling, windowing capability, and real-time performance as the Quantum Elite, and is ideal for small to medium-sized videowalls with two to 14 screens in installations with permanent A/V system configurations. It supports a wide variety of input, output, and windowing capabilities in a small form factor. It features high performance video scaling technology capable of producing very high quality images. The Quantum Connect is a card-cage design that is populated at the factory with various combinations of input and output cards for video, RGB, DVI or HD component video sources – the unit is not field-expandable. Each DVI-I dual output card supports up to 128 video/graphic source windows.

FEATURES

- Card frame videowall processing system available with eight slots
- Flexibility to support a variety of input and output configurations
- High speed, dedicated video/graphic bus enables real-time performance
- Dual DVI/RGB output card supports resolutions up to HDTV 1080p/60
- Up to 128 video/graphic windows per dual output card
- Dual input card for DVI-D
- Dual input card for analog RGB or HD component video
- 12-channel video input card supports any mix of composite or S-video sources
- High quality image upscaling and downscaling
- Supports digital and analog input signals up to 1920x1200
- Easy-to-use configuration and control software



Model	Version Description
Quantum Connect	Videowall Processing System

POWER AMPLIFIERS

MPA 401 Mono 70/100 V Power Amplifier - 40 Watts

The Extron MPA 401 is a quarter rack width, convection-cooled mono amplifier delivering 40 watts rms output power. This UL 2043, plenum rated design meets UL requirements for in-the-ceiling installations. The MPA 401 is an ENERGY STAR® qualified amplifier with an Extron exclusive, highly efficient, advanced Class D amplifier design. It also features patented CDRS™ - Class D Ripple Suppression technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifiers. To simplify integration, three buffered inputs are available so three separate sources can be connected without altering performance. An Extron exclusive, high efficiency design generates very little heat and allows the amplifier to be convection cooled and operate in environments with little or no ventilation.

FEATURES

- 40 watts rms output power @ 70 volts or 100 volts
- ENERGY STAR® qualified
- Extron Patented CDRS™ - Class D Ripple Suppression
- Front panel bass, treble, and input level controls
- UL 2043 plenum rated
- Balanced and unbalanced buffered audio inputs
- Fanless design
- Auto power-down with fast power-up
- Automatic clip limiter
- Remote volume and mute control port
- 5 mm screw-lock captive screw speaker connectors
- Rack-mountable 1U, quarter rack width metal enclosure



Model	Version Description	Part Number
MPA 401-70V	70 V Mono Power Amp - 40 Watts	60-845-01
MPA 401-100V	100 V Mono Power Amp - 40 Watts	60-845-11

POWER AMPLIFIERS

XPA 2002

Two Channel Power Amplifier - 200 Watts Per Channel

The Extron XTRA™ Series XPA 2002 is a 1U, convection-cooled power amplifier delivering two channels of 200 watts rms. This professional grade amplifier features a 100 dB signal-to-noise ratio with 0.1% THD+N. The XPA 2002 is an ENERGY STAR® qualified and UL verified amplifier with an Extron exclusive, highly efficient, advanced Class D amplifier design. It also features patented CDRS™ - Class D Ripple Suppression technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifiers. The XPA 2002 is half the size of comparable amplifiers, conserving rack space and weighing only 9 lbs (4 kg). The Extron exclusive, high efficiency design generates very little heat and allows the amplifier to be convection cooled.

FEATURES

- Three models with 400 watts rms output power per model:
2 x 200 watts @ 4 ohms; 2 x 100 watts @ 8 ohms
2 x 200 watts @ 70 volts
2 x 200 watts @ 100 volts
- ENERGY STAR® qualified and UL verified
- Professional grade signal-to-noise and THD+N performance
- Extron Patented CDRS™ - Class D Ripple Suppression
- Convection cooled, fanless operation
- Ultra low inrush current - no need for power sequencing
- Power factor correction
- Rack-mountable 1U, full rack width enclosure



XPA 2002



XPA 2002-100V



Model	Version Description	Part Number
XPA 2002 <small>NEW</small>	Two Channel Power Amplifier	60-563-01
XPA 2002-70V	70 V Two Channel Power Amplifier	60-883-02
XPA 2002-100V <small>NEW</small>	100 V Two Channel Power Amplifier.....	60-883-12

XPA 2003C

Three Channel Combo Power Amplifier - 200 Watts Per Channel

The Extron XTRA™ Series XPA 2003C is a 1U, convection-cooled, three channel power amplifier delivering two channels of 200 watts into 4 ohms, plus 200 watts at 70 volts. This professional grade amplifier features a 100 dB signal-to-noise ratio with 0.1% THD+N. The XPA 2003C is an ENERGY STAR® qualified and UL verified amplifier with an Extron exclusive, highly efficient, advanced Class D amplifier design. It also features patented CDRS™ - Class D Ripple Suppression technology that provides a smooth, clean audio waveform and an improvement in signal fidelity over conventional Class D amplifiers. This unique amplifier conserves rack space and weighs only 9 lbs (4 kg). The Extron exclusive, high efficiency design generates very little heat and allows the amplifier to be convection cooled.

FEATURES

- 600 watts rms output power:
2 x 200 watts @ 4 ohms; 2 x 100 watts @ 8 ohms
1 x 200 watts @ 70 volts or 100 volts
- ENERGY STAR® qualified and UL verified
- Professional grade signal-to-noise and THD+N performance
- Extron Patented CDRS™ - Class D Ripple Suppression
- Convection cooled, fanless operation
- Ultra low inrush current - no need for power sequencing
- Power factor correction
- Rack-mountable 1U, full rack width enclosure



Model	Version Description	Part Number
XPA 2003C-70V	70 V Three Channel Combo Power Amp.....	60-848-01
XPA 2003C-100V <small>NEW</small>	100 V Three Channel Combo Power Amp	60-848-11

AUDIO SIGNAL PROCESSORS

MLA VC10 Plus Volume Control Module

The Extron MLA VC10 Plus Volume Control Module converts RS-232 commands from a control system into voltage or impedance changes to control audio amplifiers with volume and mute control ports. The MLA VC10 Plus is used to mute or make level changes on an MPA Series or half rack XTRA™ Series amplifier from a TouchLink™ Touchpanel system, an RS-232-capable MediaLink® Controller, or other control system. The control module also supports third-party amplifiers that use either voltage or 10k ohm pot control. The MLA VC10 Plus is housed in a 1U, one-eighth rack width metal enclosure for numerous installation options.

FEATURES

- Volume and mute control for the MPA Series or half rack XTRA™ Series amplifiers as well as a wide range of commercial amplifiers
- For use with MediaLink® Controllers with RS-232, TouchLink™ Touchpanel systems, and other control systems
- Adjust amplifier volume level using voltage or resistance control
- Ground isolated, digital circuitry prevents noise in signal path
- Soft Start volume ramping gently restores volume levels during power cycles and unmuting
- Selectable volume taper provides a consistent linear or natural logarithmic feel to volume changes



Model	Version Description	Part Number
MLA VC10 Plus	Volume Control Module	60-1090-01

VCM 200 Volume and Mute Controllers

The Extron VCM 200 is a wall-mounted controller that provides remote volume and mute control of any Extron power amplifier or mic preamplifier with a remote volume control port. It features a rotary volume control that provides smooth, precise volume levels and a dual color, illuminated soft touch button for muting. Three captive screw connectors on the back panel provide quick and easy connectivity without soldering. The VCM 200 is available as available in Decora®, European, and MK versions for worldwide compatibility.

FEATURES

- Provides remote volume and mute control of any Extron power amplifier or preamplifier with a remote volume control port
- Continuous gain control for fine adjustment of volume
- Dual color, illuminated pushbutton for muting
- Available in Decora®, European, and MK wall mount versions

Model	Version Description	Part Number
VCM 200 D	Volume and Mute Controller - Decora	70-883-02
VCM 200 EU	Volume and Mute Controller - EU	70-884-05
VCM 200 MK	Volume and Mute Controller - MK	70-884-03



VCM 200 D



VCM 200 EU



VCM 200 MK

SPEAKERS

FF 220T

Extron Exclusive Patent Pending Flat Field® Speaker with 70/100 V Transformer

The Extron FF 220T is a full-range ceiling tile speaker for 70 volt/100 volt systems. The FF 220T features Extron patent pending Flat Field Technology which reduces beaming of mid and high frequencies directly under the speaker, delivering consistent sound levels across the listening area. In addition, the FF 220T offers an extraordinarily wide dispersion area of 170 degrees, providing a very wide room coverage pattern which is especially important for rooms with low ceilings. An Extron exclusive, UL 2043 plenum rated, 2' x 2' (61 cm x 61 cm) by 3.25" (8.3 cm) deep aluminized composite enclosure drops into standard suspended ceilings, providing quicker installations. With a low profile enclosure, this speaker is an excellent choice for ceiling installations with tight above-the-ceiling space issues.

FEATURES

- 2' x 2' (61 cm x 61 cm), 7.8 lb (3.5 kg) drop-in ceiling tile speaker for suspended ceilings
- UL 2043 plenum rated enclosure
- Extron patent pending Flat Field® Technology for consistent sound levels across the listening area, reducing the number of speakers required
- 3" (7.6 cm) horn-loaded, full-range driver provides extended low frequency response
- White perforated grille matches appearance of air conditioning vents
- 8 ohm direct or 70/100 volt operation with 16, 8, 4, 2, and 1 watt selectable power taps accessed via speaker wiring connections inside the rear panel
- Frequency response: 68 Hz to 18 kHz
- 16 watts continuous pink noise, 32 watts continuous program
- Wide 170° dispersion
- 3.25" (8.3 cm) deep low profile enclosure for plenum environments
- 5 year parts and labor warranty
- Patent Pending; designed and manufactured by Extron



Learn more about Extron Flat Field® Technology
Download the white paper at www.extron.com/flatfieldpaper

Model	Version Description	Part Number
FF 220T	Ceiling - 2x2 Drop-In, Transformer, Pair	42-141-03

SF 228T

Two-Way Ceiling Tile Speakers with 8" Woofer and 70/100 V Transformer

The Extron SF 228T is a full-range, two-way ceiling tile speaker for 70 volt/100 volt systems. This Extron exclusive design features a low profile, 2' x 2' (61 cm x 61 cm) by 5.3" (13.5 cm) deep enclosure that is UL 2043 plenum rated, weighs less than 20 pounds (9 kg), and drops directly into standard suspended ceilings, providing quicker installations. The two-way ported design includes an 8" (165 mm) woofer and a 1" (2.5 mm) silk dome tweeter that provides a frequency response of 50 Hz to 18 kHz for high fidelity music and speech reproduction. The SF 228T offers 60 watts continuous pink noise and 120 watts program output. This speaker is sold in pairs and is designed for fast and easy installation into sound systems requiring high quality, wide bandwidth audio playback.

FEATURES

- 2' x 2' (61 cm x 61 cm), 18.5 lb (8.4 kg) drop-in ceiling tile speaker for suspended ceilings
- UL 2043 plenum rated enclosure
- 1" (2.5 cm) silk dome tweeter
- 8" (20.3 cm) long-throw woofer with tuned bass reflex port
- White perforated grille matches appearance of air conditioning vents
- 8 ohm direct or 70/100 volt operation with 32, 16, 8, 4, and 2 watt selectable power taps accessed via speaker wiring connections inside the rear panel
- Frequency response: 50 Hz to 18 kHz
- 60 watts continuous pink noise, 120 watts continuous program
- 5.3" (13.5 cm) deep low profile enclosure for plenum environments
- 5 year parts and labor warranty
- Designed and manufactured by Extron



Model	Version Description	Part Number
SF 228T	Ceiling - 2x2 Drop-In, Transformer, Pair	42-168-03

LARGE-SCALE MATRIX SWITCHER PROGRAM

Extron Matrix 1K

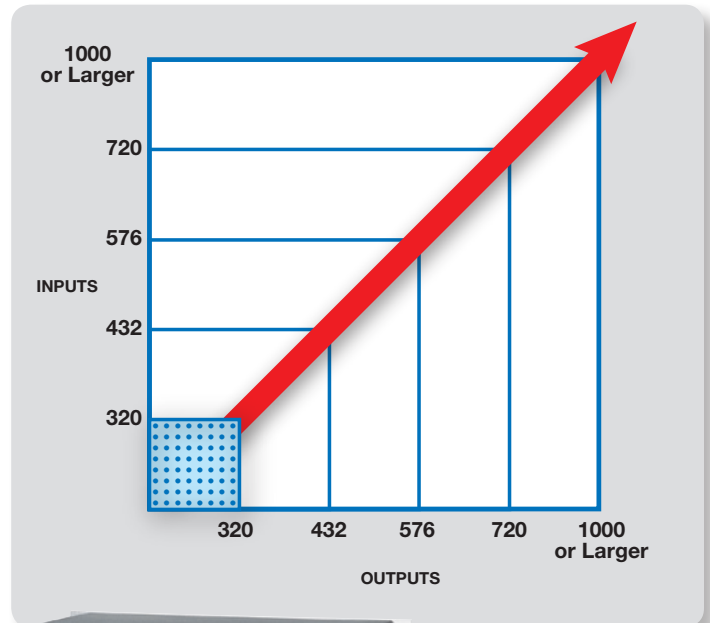
Large-Scale Matrix Switcher Program up to 1000x1000

When it comes to large-scale matrix switching solutions for fiber optic, digital, or analog signal routing applications, Extron has you covered. Through the Matrix 1K Program, you can create custom, scalable matrix switchers in all common signal types with I/O sizes up to 1000x1000 and beyond. Extron Matrix 1K switchers are designed and engineered to your specific project requirements. Matrix 1K digital and fiber optic matrix switchers start at 320x320, while Matrix 1K analog matrix switchers start at 128x128. Regardless of the size you need, Extron Matrix 1K switchers work with the same ease of control and day in, day out reliability you've come to expect from Extron.

To begin the process of configuring your Extron Matrix 1K switcher, contact your local Extron Customer Support Representative. An Extron Applications Engineer will be assigned to your project and will work with you to ensure your complete satisfaction.

Matrix 1K Product Commissioning

Extron provides proactive, on-site product commissioning with every Matrix 1K purchase. Matrix 1K commissioning provides you with an extra level of service, ensuring that the system you design and install meets your expectations and those of your client



Extron Matrix 1K switchers offer very large scale routing capability to handle the largest, most complex venues.



Extron Matrix 1K switchers can be custom designed in sizes from 128x128 up to 1000x1000 and beyond.

TWISTED PAIR

MTPX Plus 6400 Series

MTP Twisted Pair Matrix Switcher for RGBHV, Video, Audio, and RS-232

The Extron MTPX Plus 6400 Series represents the next level of large-scale twisted pair matrix switching, building on the success of the MTPX Plus Series product line. The MTPX Plus 6400 Series simplifies the design and integration of complex twisted pair matrix switching systems by offering advanced, integration-friendly features that dramatically reduce costs associated with rack space, cabling, and installation. The MTPX Plus 6400 Series is available in 5 different I/O sizes, from 48x48 to 64x64. In addition to offering all of the same features found in the MTPX Plus Series, the MTPX Plus 6400 Series provides EDID Minder® for local inputs and outputs, RS-232 insertion from the Ethernet port to individual or all MTP outputs, and switchable video pre-peaking on all outputs.

FEATURES

- Available in 5 different I/O sizes, from 48x48 to 64x64
- Dynamic skew equalization
- RS-232 insertion from the Ethernet port to individual or all MTP outputs
- Local RS-232 insertion ports
- EDID Minder®
- Video level and peaking compensation
- Local high resolution video inputs and outputs
- Switchable video pre-peaking on all outputs
- Compatible with Extron MTP Series twisted pair products



Model	Version Description	Part Number
MTPX Plus 4848	48x48	60-1038-01
MTPX Plus 4864	48x64	60-1039-01
MTPX Plus 6432	64x32	60-1040-01
MTPX Plus 6448	64x48	60-1041-01
MTPX Plus 6464	64x64	60-1042-01



The MTPX Plus 6400 matrix switchers leverage the many benefits of twisted pair signal distribution for large scale installations where multiple signals must be routed long distances to multiple displays located through the facility.

TWISTED PAIR

MTP/HDMI U T A D

Universal Twisted Pair Transmitter for HDMI, VGA, Video, Audio, and RS-232

The Extron MTP/HDMI U T A D is a Decora®-style, universal twisted pair transmitter for digital and analog video sources. It meets the needs of A/V presentation environments that must support a variety of digital and analog signals. Dedicated inputs are provided to accommodate HDMI, VGA, HD component video, S-video, composite video, audio, and bidirectional RS-232 or IR signals. These signals can then be transmitted long distances over standard CAT 5-type cabling to remote receiver locations. The MTP/HDMI U T A D supports HDMI and all common analog video formats. It is ideally paired with the Extron MTP/HDMI U R receiver or an Extron MTP universal receiver or an HDMI 201 Series receiver.

FEATURES

- Transmits HDMI, VGA, HD component video, S-video, composite video, audio, and bidirectional RS-232 or IR signals over CAT 5-type cable
- Supports EDID and DDC transmission
- HDMI Digital Input
 - Transmits HDMI and RS-232 signals over two CAT 5-type cables
 - HDCP compliant
 - Supports DDC transmission
 - Transmits additional stereo audio signals
 - Bidirectional RS-232/IR pass-through
- HDMI 1.3 compatible
- Analog Inputs
 - Transmits RGBHV, HD component video, S-video or composite video, plus summed mono audio signals over a single CAT 5-type cable
 - Auto-input switching
 - EDID emulation mode allows proper source operation when no local monitor is present
 - Contact closure remote control



Model	Version Description	Part Number
MTP/HDMI U T A D	MTP/HDMI Universal Transmitter - White	42-166-01
MTP/HDMI U T A D	MTP/HDMI Universal Transmitter - Black	42-166-02

ARCHITECTURAL CONNECTIVITY

WPD Series

Pass-Through Wallplates - Decora® for HDMI, DVI, DisplayPort, and Control

The Extron WPD Series wallplates are specifically designed for a standard one-gang sized junction box. They feature a pass-through DVI-D, DisplayPort or HDMI Female to Female connector on a 10" pigtail, depending upon the model. The WPD Series includes a 3.5 mm stereo mini jack to support stereo audio, providing a simple and elegant integration solution. A convenient pass-through port for IR or RS-232 signals provides for control of DVD players, displays, switchers or other RS-232 or IR controllable devices. The audio port can be covered with the included matching audio port cover when not in use. The WPD Series mounts in a Decora®-style wallplate and includes a white faceplate.

FEATURES

- Computer audio: 3.5 mm stereo mini jack to solder tabs
- Signals passed through unprocessed
- IR or RS-232 pass-through on captive screw for easy termination
- One-gang Decora®-style module
- Mud ring included
- Audio cover included
- Includes a white, one US-gang Decora faceplate



WPD 110 A



WPD 120 A



WPD 130 A

Model	Version Description	Part Number
WPD 110 A	HDMI w/Audio and Control	70-726-13
WPD 120 A	DisplayPort w/Audio and Control	70-766-03
WPD 130 A	DVI w/Audio and Control	70-766-13

ARCHITECTURAL CONNECTIVITY

Cable Cubby® Power Modules

Unswitched AC Power Modules for Use with Select Cable Cubby and TLP 350CV Enclosures

Extron Cable Cubby® Power Modules are double- or triple-space AAP-sized power modules. They feature one or two unswitched AC power outlets and are designed to work with Cable Cubby 300C, 300S, 600, and 800 Enclosures. They may also be used with the TLP 350CV TouchLink™ 3.5" Cable Cubby® Touchpanel. The US model is a double-space AAP-sized module and features two unswitched AC outlets. The International models are triple-space AAP-sized modules and feature one or two unswitched AC outlets. The US model includes an attached 9.5' power cord. Cable Cubby Power Modules are UL/c-UL listed and CE compliant when installed in a Cable Cubby enclosure.

FEATURES

- Designed to work with Cable Cubby 300C, 300S, 600, and 800 Enclosures
- Also compatible with TLP 350CV TouchLink™ 3.5" Cable Cubby® Touchpanel
- One or two unswitched AC power outlets
- AC power outlets available for US, Europe, and other major world markets
- Italy model also accepts 2-pin Europlug and Schuko-type AC plugs
- US model includes an attached 9.5' power cord



Model	Version Description	Part Number
Cable Cubby AC Power Module	US Outlets	70-261-01
Cable Cubby AC Power Module	Europe Outlet	70-264-01
Cable Cubby AC Power Module	France Outlet	70-389-01
Cable Cubby AC Power Module <small>(NEW)</small>	Italy Outlet	70-738-01
Cable Cubby AC Power Module	Universal Outlet	70-657-01
Cable Cubby AC Power Module	Australia Outlet	70-265-01
Cable Cubby AC Power Module	UK Outlet	70-266-01
Cable Cubby AC Power Module	Switzerland Outlet	70-262-01
Cable Cubby AC Power Module	Israel Outlet	70-388-01
Cable Cubby AC Power Module	India Outlet	70-390-01

Cable Cubby® AAP Brackets

One, Two, Three, and Four Space AAP Mounting Brackets for Cable Cubby Series

Cable Cubby AAP Brackets are used when altering the standard configuration of a Cable Cubby. The Cable Cubby Brackets are installed inside the Cable Cubby and provide flexible mounting points for AAPs Architectural Adapter Plates. Depending on the Cable Cubby model, each set of brackets supports one, two, three, or four single-space AAPs.

FEATURES

- Hold AAP - Architectural Adapter Plates in place in Cable Cubby
- One-space bracket holds one single-space AAP
- Two-, three-, and four-space versions sold in pairs
- Available in black



Model	Version Description	Part Number
Cable Cubby AAP Brackets	One space, sold in pairs	70-718-01
TLP 350CV AAP Brackets	One space, sold in pairs	70-693-01
Power Module AAP Bracket	One space, single bracket	70-713-02
Cable Cubby AAP Brackets <small>(NEW)</small>	One Space, sold in pairs	70-392-01
Cable Cubby AAP Brackets	Two Space, sold in pairs	70-271-01
Cable Cubby AAP Brackets	Three Space, sold in pairs	70-272-01
Cable Cubby AAP Brackets	Four Space, sold in pairs	70-273-01

ARCHITECTURAL CONNECTIVITY

UCM R308

Universal Controller Mounting Panel with 8 AAP Openings

The Extron UCM R308 is a 3U, full rack width, universal controller mounting panel designed for use with the TLP 350MV TouchLink™ Touchpanel, MLC 226 IP MediaLink® controller, or up to three Decora® style wallplates, such as the MLC 62 RS D or HDMI 201 A D. The UCM R308 includes additional openings to accommodate up to eight single-space AAP - Architectural Adapter Plates. Available in a black powder coat finish.

FEATURES

- Accepts 3-gang products such as the TLP 350MV, controllers, and lectern mounts
- Openings for up to eight single space AAP - Architectural Adapter Plates
- Also fits up to three Decora® style wallplates
- 3U, full rack width
- TLP 350MV, controllers, lectern mounts, and AAPs sold separately
- Available in a black powder coat finish



Model	Version Description	Part Number
UCM R308	Black	60-1166-02

AVTrac® Retrofit Transition Adapter

Raceway-to-Wall Transition for AVTrac

The AVTrac Retrofit Transition Adapter is designed to provide a smooth transition from the AVTrac floor-mounted raceway to a wall-mounted patch panel. It facilitates cable pass-through from wall-mounted AC outlets and A/V connection plates to the raceway system. In addition, it provides an alternative solution when base studs cannot be cut due to stringent building codes. The AVTrac Retrofit Transition Adapter includes a US style Edison 6-foot AC power cord and 3-foot conduit that enables AC to be passed through knockouts conveniently located on either side of the box.

FEATURES

- Facilitates cable pass-through from wall-mounted AC power outlets and A/V connection plates to AVTrac
- US style, Edison, 6-foot power cord and 3-foot conduit included
- Designed to comply with NEC – National Electric Code Standards
- Includes all necessary materials for installation
- Available in black



Model	Version Description	Part Number
AVTrac RETRO TRANS	Retrofit Transition Adapter for AVTrac	70-679-22

EWB Series

External Wall Boxes

The Extron EWB Series External Wall Boxes are architectural mounting solutions for externally mounted Extron products. Each external wall box is designed with enough depth - 2.5" (6.4 cm) - to house the wiring of a faceplate, as well as take in cable runs from a surface-mounted raceway or rear wall space. The sculpted design of the EWB Series provides a contemporary look to complement any environment. Available in a variety of sizes, external wall boxes come in black or white.

FEATURES

- Architectural mounting solutions for externally mounted Extron products
- Designed with 2.5" depth to house the wiring of a faceplate and take in cable runs from a surface-mounted raceway or rear wall space
- Sculpted design of the EWB Series provides a contemporary look to complement any environment
- Knockouts for external raceway cable channels
- Available in black or white



Model	Version Description	Part Number
EWB 101	One-gang, black	60-1161-02
EWB 101	One-gang, white	60-1161-03
EWB 102	Two-gang, black	60-1162-02
EWB 102	Two-gang, white	60-1162-03
EWB 103	Three-gang, black	60-1163-02
EWB 103	Three-gang, white	60-1163-03
EWB 104	Four-gang, black	60-1164-02
EWB 104	Four-gang, white	60-1164-03
EWB 105	Five-gang, black	60-1165-02
EWB 105	Five-gang, white	60-1165-03

BULK CABLES & CONNECTORS

DTP26

26 AWG Shielded Digital Twisted Pair Cable

Extron DTP26 cable provides enhanced signal transmission for Extron digital twisted pair extenders, including the DVI 201 Series, DVI DL 201, and HDMI 201 Series. With Extron DTP26 cable, high resolution digital video signals up to 1920x1200 and 1080p/60 can be extended to 150 feet, versus 100 feet with standard CAT 5e cable. Extron DTP26 cable consists of four individually shielded copper pairs and an overall braided shield. The cable is constructed using 26 AWG solid copper conductors, utilizing an S/FTP shielded foil twisted pair design for superior noise immunity and high performance. Extron DTP26 cable is available in plenum and non-plenum, 1,000 foot spools in self-dispensing packaging. DTP RJ-45 shielded plugs are also available, sold in packages of 10.

FEATURES

- Engineered for use with Extron digital twisted pair extension products including DVI 201 Series, DVI DL 201, and HDMI 201 Series transmitters and receivers
- S/FTP design with individually foil wrapped conductor pairs and overall braided shield for noise immunity and low crosstalk
- Facilitates extension of 1920x1200 and 1080p/60 digital video signals up to 50% farther than standard CAT 5e cable
- 26 AWG solid copper conductors
- Plenum and Non-Plenum rated versions available
- DTP26 RJ-45 shielded plugs also available



Model	Version Description	Part Number
DTP26/1000	Non-Plenum 1000' (300 m) spool	22-214-03
DTP26P/1000	Plenum 1000' (300 m) spool	22-215-03

DTP RJ-45 Plug

Shielded RJ-45 Plug Kit for Extron DTP26 Digital Twisted Pair Cable

Extron DTP RJ-45 shielded plugs are engineered for use with Extron DTP digital twisted pair cable. The combination of the DTP RJ-45 shielded plug and DTP26 digital twisted pair cable provides enhanced performance when used with Extron digital twisted pair extension products such as the DVI 201, DVI DL 201, and HDMI 201. DTP RJ-45 shielded plugs are ideal for high EMI/RFI environments where signal integrity is critical. The integrated conductor alignment guide separates the individual conductor pairs for quick and easy termination.

FEATURES

- Engineered for use with Extron DTP26 digital twisted pair cable
- Metal strain relief and ground bonding
- Ideal for high EMI/RFI environments
- Conductor alignment guide reduces crosstalk and signal interference
- Gold plated contacts



Model	Version Description	Part Number
DTP RJ-45 Plug	Cable Termination Kit for DTP26 Qty. 10	101-005-01

INTERFACES

RGB 203 Rxi**Three Input, Universal Computer-Video and Audio Interface with EDID Minder®**

The Extron RGB 203 Rxi is a universal, analog computer-video and audio interface with EDID Minder®. The interface includes three female 15-pin HD inputs and a buffered local monitor output that can be fixed to input one or shared between all three by switch selection. With a 15-150 kHz scanning range and 300 MHz (-3 dB) RGB video bandwidth, the RGB 203 Rxi is compatible with computer-video resolutions up to QXGA. Audio is available on two of the three inputs on 3.5 mm stereo mini jacks. Input selection can be switched automatically or controlled through the front panel, RS-232, or contact closure. The RGB 203 Rxi is able to convert computer-generated, unbalanced audio to stereo or mono balanced line level audio. The RGB 203 Rxi is ideal for classrooms, auditoriums, and conference rooms.

FEATURES

- 300 MHz (-3 dB) RGB video bandwidth
- Compatible with computer-video resolutions up to QXGA
- EDID Minder®
- RS-232 control
- Buffered local monitor output
- 30 memory presets for automatic signal setup



Model	Version Description	Part Number
RGB 203 Rxi	Three Input Interface with EDID Minder®	60-508-02

SPECIALIZED PRODUCTS

PS 1230**12V, 3A, Multi-port Replacement Power Supply**

The Extron PS 1230 12 Volt, 3 Amp Replacement Power Supply has three 2-pole captive screw power ports and offers a total of 3.0 amps across all outputs with no per-port current limitations. This energy-efficient power supply conserves energy and reduces costs. The PS 1230 snaps into the included ZipClip 200 mounting bracket for secure mounting to rack rails, tables, or lecterns. It also features a quarter-rack width, 1U enclosure with threaded inserts to mount the power supply directly on Extron rack shelves. It includes two 6-foot DC cables: one terminated with a DC plug and pre-sliced ends, and the other pre-sliced at both ends.

FEATURES

- Energy-efficient power supply for low power consumption and reduced operating costs
- Three 12 volt DC outputs on 2-pole captive screw connectors
- No per-port amperage limitation
- Extron designed and engineered for increased durability and reliability
- Rack mountable quarter rack width enclosure



Model	Version Description	Part Number
PS 1230	12V, 3A, 1/4 Rack, 3 Captive Screw Ports	70-769-01

CLASSROOM A/V SYSTEMS

WallVault® Systems

Complete A/V Switching and Control Systems for Wall Mounted Short-Throw Projectors and Flat Panel Displays

Extron WallVault® Systems are easy-to-use, network-enabled, all-inclusive A/V switching and control packages, making them ideal for single-display K-12 classrooms. These systems were specifically developed for classrooms with a wall mounted short-throw projector or flat panel display. WallVault Systems use economical twisted pair cable for transmitting signals and include network connectivity for Web-based asset management, monitoring, and control. Extron WallVault Systems take their name from the unique USFM 100 and WMK 150 enclosures that securely mount and conceal the system switching and audio amplification components on the wall.

FEATURES

- Complete, centralized A/V switching and control systems with stereo audio amplification
- Short-Throw projector mount and equipment enclosure provides a single solution for securely mounting the projector as well as switching and audio amplification equipment to a wall

- Wall mount kit securely mounts and conceals switching and audio amplification components to a wall in classrooms with a flat panel display
- Extron exclusive patent-pending Flat Field™ speakers deliver consistent sound levels across the listening area
- Powerful 50 watt rms audio amplifier
- Energy Efficient design offers Extron exclusive Auto Power Save and Standby modes designed to lower energy usage and reduce operating costs
- VoiceLift Microphone option allows the teacher's voice to be evenly distributed throughout the room
- Easy-to-use MediaLink controller included
- Systems use CAT 5-type cable for quick and easy connections and low-cost installation
- A/V Input wallplates use active, balanced twisted pair transmission which is resistant to signal loss and interference
- Network connectivity for web-based monitoring and rapid problem resolution
- Tamper-resistant, theft-deterrent design

Model	Version Description	Part Number	
WVS 200	Two Input WallVault, short throw mount	42-149-13	See www.extron.com/CC
WVS 300	Three Input WallVault, short throw mount	42-150-13	See www.extron.com/CC
WVS 400	Four Input WallVault, short throw mount	42-151-13	See www.extron.com/CC
WVS 210	Two Input WallVault, wall mount kit	42-163-03	See www.extron.com/CC
WVS 310	Three Input WallVault, wall mount kit	42-164-03	See www.extron.com/CC
WVS 410	Four Input WallVault, wall mount kit	42-165-03	See www.extron.com/CC

VoiceLift® Microphone Systems

Complete Microphone Systems for Classroom Voice Amplification

The Extron VoiceLift Microphone System is a voice amplification system specifically developed for K-12 classrooms. The VoiceLift Microphone System enables the creation of a "sound field" that allows a teacher's voice to be heard clearly throughout the classroom. Studies show that use of a sound field system results in increased student achievement and a reduction in teacher health issues related to voice fatigue. Each system contains all the components necessary to evenly distribute the teacher's voice throughout the classroom, including wireless microphone, IR receiver, switcher/amplifier, speakers and cables.

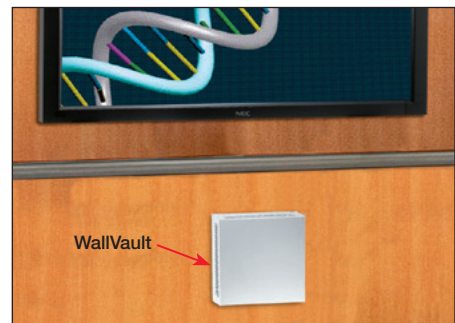
FEATURES

- Complete infrared wireless microphone systems
- Integrated 50 watt rms audio amplifier for stereo or dual mono audio
- Upgrades easily and affordably to a complete PoleVault® and WallVault® classroom A/V switching, mounting, and control system
- Supports up to two microphones per classroom for team teaching or student participation

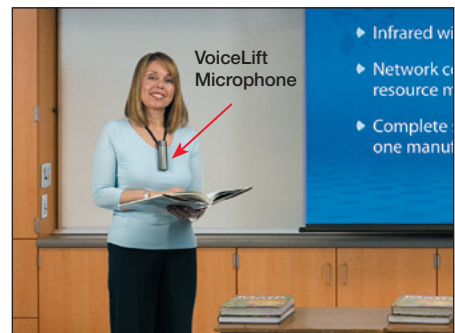
- Includes one pair of Extron patent pending Flat Field® speakers for consistent sound levels across the listening area
- Lightweight pendant and handheld microphones operate for an entire school day on a single, rechargeable AA battery or standard AA battery
- Energy efficient design offers Extron exclusive Auto Power Save and Standby modes designed to lower energy usage and reduce operating costs
- Instant Alert e-mail messaging capability on the pendant enables the teacher to request assistance with the push of a button when used as part of a PoleVault or WallVault System
- Volume control on the pendant provides easy operation
- Auxiliary audio input on the pendant and handheld microphones for MP3 player or other audio source
- Uses infrared signals that, unlike RF signals, do not pass through walls and are not subject to interference
- Audio DSP suppresses feedback while maximizing sound quality and intelligibility



WallVault® System for short throw projectors.



WallVault® System for flat panel displays.



VLS 2000 Complete VoiceLift® System with handheld and pendant microphones.

Model	Version Description	Part Number	
VLS 1000	Single Pendant Complete VoiceLift System	42-134-01	See www.extron.com/CC
VLS 2000H	Pendant and Handheld VoiceLift System	42-134-22	See www.extron.com/CC
VLS 2000	Dual Pendant Complete VoiceLift System	42-134-02	See www.extron.com/CC

CLASSROOM A/V SYSTEMS OPTIONS

VLH 102

VoiceLift® Handheld Microphone

The Extron VLH 102 Handheld Microphone is an infrared wireless microphone with a durable polycarbonate enclosure for use with Extron VoiceLift® classroom sound field systems. The easy-to-hold lightweight microphone features an anti-roll collar to keep it from rolling off flat surfaces and helps prevent the IR emitters from being blocked during use. The VLH 102 is ideal for use as a pass around microphone for student presentations or a secondary microphone for team teaching and guest speakers.

FEATURES

- Handheld infrared wireless microphone for VoiceLift® Systems
- Integrated anti-roll collar
- On/Off/Mute switch for easy operation
- Auxiliary input for MP3 player or other audio source
- Rechargeable 2500 mAh NiMH AA battery included; also supports a standard alkaline AA battery
- Two IR frequencies - 2.3MHz and 2.8MHz, selectable
- Durable polycarbonate design
- Uses power supply included with all VLS or VLM Systems



Model

Version Description

VLH 102

Handheld Mic for VoiceLift Systems

See www.extron.com/CC

WPD 110A

HDMI Video and Stereo Audio Pass-Through - Decora® Wallplate

The WPD 110A is designed to work as part of a PoleVault® or WallVault® System. It accepts HDMI Video on a female HDMI connector and transmits the signal to the projector on an HDMI cable. Stereo audio is supported on a 3.5 mm stereo mini jack. The WPD 110A supports the transmission of HDCP and DDC signals.

FEATURES

- Intended for use with projectors that support HDMI video
- Uses passive technology to transmit HDMI signals up to 50 feet (15 meters)
- Enables Direct Connection of high-definition video sources and provides support for future technologies
- IR/RS-232 pass-through provides control connections for DVD/VCR players, tuners, switchers, or other controllable devices
- HDCP compliant
- Supports DDC transmission



Model

Version Description

WPD 110A

HDMI Pass-Through Decora

See www.extron.com/CC

PVT RGB D and PVT RGB D Plus

PoleVault VGA Video and Stereo Audio Inputs - Decora® Wallplate

The PVT RGB D and PVT RGB D Plus are VGA Video and Stereo Audio Inputs that are designed to work exclusively with the PoleVault Switcher as part of the PoleVault® or WallVault® System. Both accept a VGA computer-video signal on a female 15-pin HD connector and stereo audio on a 3.5 mm stereo mini jack and transmit the signals to the switcher on two Cat 5 twisted pair cables. EDID emulation is included for managing Extended Display Identification to ensure that the source device outputs at the appropriate resolution.

FEATURES

- Available exclusively as part of a PoleVault® or WallVault® System
- Transmits VGA computer video and stereo audio signals to a PoleVault switcher over two CAT 5-type cables
- **EDID** EDID emulation ensures that the source device outputs at the appropriate resolution for the display
- IR pass-through provides control connections for DVD/VCR players, tuners, switchers, or other IR controllable devices
- PVT RGB D Plus adds a built-in local monitor output and audio pass-through



Model

Version Description

PVT RGB D

VGA and EDID Emulation - Decora

See www.extron.com/CC

PVT RGB D Plus

VGA, Local Out, and EDID Minder® - Decora

See www.extron.com/CC

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CLASSROOM A/V SYSTEMS OPTIONS

PVT RGB AAP

PoleVault VGA Video and Stereo Audio Input - AAP Version

The PVT RGB AAP VGA Video and Stereo Audio Input is designed to work exclusively with the PoleVault Switcher as part of a PoleVault® or WallVault™ System. The PVT RGB AAP accepts a VGA computer-video signal on a female 15-pin HD connector and stereo audio on a 3.5 mm stereo mini jack and transmits the signals to the switcher on two twisted pair cables. EDID emulation is included for managing Extended Display Identification to ensure that the source device outputs at the appropriate resolution.

FEATURES

- Available exclusively as part of a PoleVault® or WallVault™ System
- Transmits VGA computer video and stereo audio signals to a PoleVault Switcher over two CAT 5-type cables
- EDID emulation ensures that the source device outputs at the appropriate resolution for the display
- IR pass-through provides control connections for DVD/VCR players, tuners, switchers, or other IR controllable devices
- Mounts in products that accept a double-space AAP - Architectural Adapter Plate



Model	Version Description	
PVT RGB AAP	VGA and EDID Emulation AAP - Black	See www.extron.com/CC
PVT RGB AAP	VGA and EDID Emulation AAP - White	See www.extron.com/CC

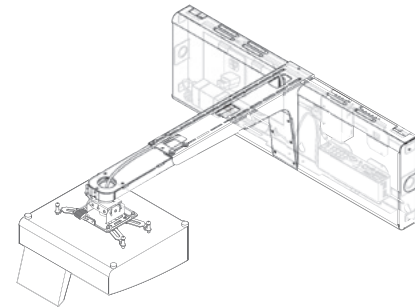
USFM 100

Short-Throw Projector Mount and Equipment Enclosure

The USFM 100 Short-Throw Projector Mount and Equipment Enclosure is designed to securely mount the electronic components of a classroom A/V system. It provides a single solution for mounting the projector along with a complete range of audio and video products required for interactive teaching environments. The USFM 100 is the standard projector mounting and equipment enclosure for the Extron WallVault® line of complete A/V switching and control systems for short-throw projectors. The USFM 100 works with the Extron UPB 25 universal projector mounting bracket for compatibility with nearly every ultra short-throw projector up to 20 pounds. The USFM 100 incorporates unique WallVault enclosures which securely mount and conceal A/V components, protecting them from tampering and theft.

FEATURES

- Integrated solution for wall-mounting an ultra short-throw projector and A/V system components
- Protects A/V system components from tampering and theft
- Adjustable arm accommodates projectors with a variety of throw distances up to 30 inches
- Base provides numerous holes to support mounting to wall studs with either 16-inch or 24-inch on center spacing
- Knockouts for conduit and raceway



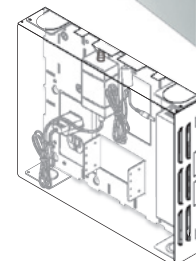
Model	Version Description	
USFM 100	Short-Throw Mount & Enclosure - White	See www.extron.com/CC

WMK 150 Wall Mount Kit

The WMK 150 Wall Mount Kit is a secure, fully enclosed, vented housing for wall-mounting the electronic components of a classroom A/V system. The WMK 150 allows WallVault® equipment to be mounted on a wall in close proximity to the display, which makes it ideal for installations that do not use a ceiling or pole mounted projector. The WMK 150 is available in a white painted finish.

FEATURES

- Securely mounts A/V system components to a wall
- Protects components from tampering and theft
- Designed for installations with a flat panel display or wall-mounted, short throw projector
- Large base plate offers a wide variety of mounting and cable management options
- Raceway knockouts are compatible with the most common surface mount systems



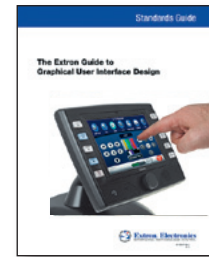
Model	Version Description	
WMK 150	Wall Mount Kit - White	See www.extron.com/CC

DESIGN AND EDUCATION RESOURCES

Extron Guide to Graphical User Interface Design Touchpanel Design Fundamentals for the A/V Professional

The Extron Guide to Graphical User Interface Design takes a detailed look at the fundamentals of touchpanel interface design and offers guidance on such subjects as navigation, color and font choice, button design and position, human factors and ergonomics, and many more. This comprehensive Guide is a valuable resource for A/V professionals faced with designing useable, intuitive touchpanels, including those in the Extron TouchLink family.

Download your copy at www.extron.com/guieresources



Digital Design Guide Digital Video for Professional A/V Systems

The Extron Digital Design Guide is an 80 page reference guide that provides comprehensive, in-depth coverage of the technical and design issues involved with the integration of digital video signals into A/V systems for various markets. The material is presented in a clear and concise manner that allows readers at all levels of sales and design to gain valuable understanding of associated formats, standards, and design approaches.

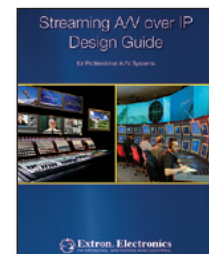
Call your Extron Representative for a copy.



A/V Streaming Design Guide A/V Streaming Over IP for the A/V Professional

A/V streaming technologies have been around for over a decade, yet only recently has video streaming found its way into the professional A/V market. We designed the Extron A/V Streaming Design Guide as an educational resource aimed at familiarizing A/V professionals with the technologies, challenges, and potential applications of A/V over IP streaming. Inside you'll find discussions on the differences between consumer and professional A/V streaming, as well as the quality expectations and technologies associated with both. You will also find detailed system designs constructed from real-world applications utilizing Extron A/V streaming solutions.

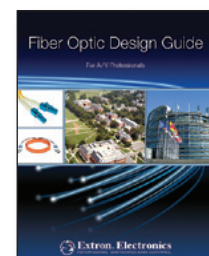
Call your Extron Representative for a copy.



Fiber Optic Design Guide Fiber Optics for Professional A/V Systems

The Fiber Optic Design Guide is a 75-page reference guide to help the A/V professional develop the required expertise to employ fiber optic technology in A/V systems. The Guide provides tutorials on fiber optic technology and fiber cabling used in commercial A/V systems, allowing A/V professionals to gain a basic understanding of the technology, along with a practical "how-to" approach for designing fiber optic A/V systems.

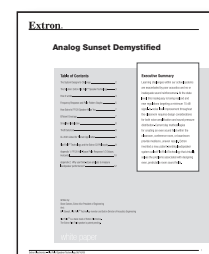
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Analog Sunset Demystified Understanding the Analog Sunset for Blu-ray Disc

This paper discusses and clarifies the issues surrounding the analog sunset and the implications for Blu-ray Disc players and commercially pre-recorded Blu-ray Discs. Additionally, this paper discusses cases where, especially for professional A/V applications, the provisions of the analog sunset do not apply. Awareness of how, when, and if the analog sunset will affect an A/V system will help designers and users choose the best mix of system components to suit their needs.

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