# CATXPro

### **MATRIX SOLUTION CAT5 ROUTER**



# 64-port HDTV CAT5 Matrix Switch with RS-232, IR, USB, TCP/IP and Touch Control

For WUXGA, Component Video, Composite Video and S-Video with full stereo audio support and full IR/RS232 non-blocking matrix switching Switch up to 64 remote devices to 64 remote displays located up to 1,000 feet away.



### **CAT5 Matrix Switching made Easy**

CATXPro routes audio, video, IR and RS/232 signals from several different video sources out to multiple displays (projectors, monitors, etc.) and speakers via inexpensive Cat5/6 UTP cable.

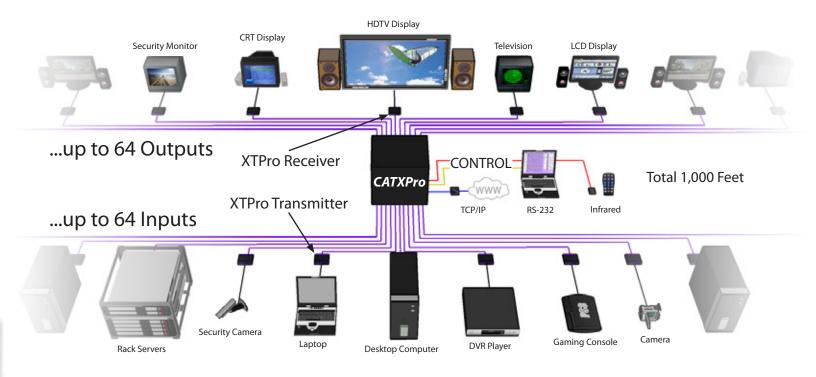
CATXPro is capable of connecting to as many as 64 video sources via transmitters and 64 video displays via receivers with a maximum extension of 1,000 feet between the transmitter and receiver units.

A single audio/video output can be routed to one or multiple destinations. Video is transmitted at a resolution of 1920 x 1200 to insure high resolution images. Buffered video outputs and analog delivery of stereo audio maintains optimum integrity throughout the system. Special remote boxes offer compatibility with Video Composite , UXGA, Component Video and S-Video.

### **FEATURES**

- Supports high resolution video up to 1920x1200
- High quality audio switching
- Infrared, RS232 and TCP/IP control
- PC Windows software control
- Integral UTP distribution
- 9U rackmounted chassis
- Uses easy to install, inexpensive CAT-5/5e/6/7/8
- Maximum extension of 1,000 feet (300m) between the local and remote units
- HDTV compatible. (720p, 1080i,1080p)
- 300 MHz bandwidth
- Compatible with VGA, XGA, Sun, MAC and SGI
- Compatible with Line Level Stereo Audio Signals
- High ground loop immunity
- Built-in power surge and transient protection
- Designated trimmer in the remote unit to compensate for length

### **APPLICATION DIAGRAM**



### **APPLICATIONS**

- Wall Displays
- Digital Signage
- Airports
- Dealer Rooms
- Control Rooms
- Audio/Visual Presentations
- Shopping Centers
- Security
- Point-of-Sale
- Hotels/Resorts
- KVM Switch

**Access** - Enables easy access to multiple servers in various locations. Facilitates data sharing among departments.

**Security** - Safeguards the servers by storing them in a secure and climate controlled environment while still providing access from the production floor.

**Savings** - Saves in equipment costs, physical space and utilities expense.

**Productivity** - Increases productivity by facilitating testing and performance evaluation of software and equipment, on multiple servers, from a single keyboard mouse and monitor station.

# FLEXIBLE CONTROL



**RS-232**: Controlling the CATXPro has never been simpler with SmartControl software. With SmartControl, you can assign a unique name to each port on the AVRouter, as well as each display, customizing projects to meet your needs. Although all the functions of the matrix are available locally on the front panel of the CATXPro, using SmartControl allows for customization of all the matrix functions.



**USB**: Computers that do not have an RS-232 port can connect to the CATXPro via SmartAVI's USB to RS-232 converter. Utilize all the control of an RS-232 control interface with the simple and common USB interface. This solution is perfect for laptops and newer computers that only have a USB port.



**IR**: Many system proffesionals prefer the IR control interface because it offers greater flexibility to manage the CATXPro at a distance. In some cases, the displays will not be visible from the matrix. In these situations it is necessary to control the matrix with Infrared control.

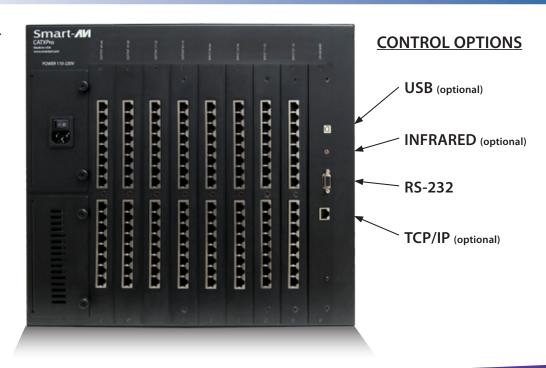


**TCPIP\***: Remote control is essential to real-time management of the CATXPro. SmartAVI's SMTCP module is the perfect solution to effective remote management. Simply connect the SMTCP module to the CATXPro and connect from anywhere on the internet. When you need to make a change, but can't be there in person, the SMTCP makes remote control a snap.

ORDERING INFORMATION			
Part No.	Description		
	TCP/IP Control for SmartAVI Matrixes. Includes: [SMTCP-2, (CCRS232MM-X) & (PS5VD2A)]		

\* Also available as and optional internal installation

#### CATXPro Rear



# **SPECIFICATIONS**

VIDEO		
Bandwidth	250MHz	
Input Signal Level	1 Volt pk pk into 75R	
Output Impedance	100 Ohms	
Input Impedance	75 Ohms	
Connector	RJ45	
Format	VGA/SVGA/XGA/WUXGA/RGB/Hv/RGsB	
AUDIO		
Bandwidth	20KHz	
Signal Level	0dB	
Output Impedance	100 Ohms	
Input Impedance	10K Ohms	
Connector	RJ45	

OTHER	
Power	Internal 100-240 VAC
Dimensions	17"W x 15.75"H (9U) x 14"D
Weight	20 lbs.
Approvals	UL, CE, ROHS Compliant
Operating Temp.	32-131°F (0-55 °C)
Storage Temp.	-4-185 °F (-20-85 °C)
Humidity	Up to 95%
CONTROL	
Front Panel	Via Touch Screen (optional)
RS232	Via Software @ 9600 bps
IR	Via Remote Control with IR-EYE Type 3
USB	Via TCP/IP (optional)

ORDERING	ORDERING INFORMATION		
Part No.	Description		
CSWX16X16S	CAT5 Audio/Video and IR/RS232 16 IN X 16 OUT Matrix with RS-232 Control. Includes: [CSWX16X16, (SM-CSW) & (CCPWR06US)]		
CSWX16X32S	CAT5 Audio/Video and IR/RS232 16 IN X 32 OUT Matrix with RS-232 Control. Includes: [CSWX16X32, (SM-CSW) & (CCPWR06US)]		
CSWX16X48S	CAT5 Audio/Video and IR/RS232 16 IN X 48 OUT Matrix with RS-232 Control. Includes: [CSWX16X48, (SM-CSW) & (CCPWR06US)]		
CSWX16X64S	CAT5 Audio/Video and IR/RS232 16 IN X 64 OUT Matrix with RS-232 Control. Includes: [CSWX16X64, (SM-CSW) & (CCPWR06US)]		
CSWX32X16S	CAT5 Audio/Video and IR/RS232 32 IN X 16 OUT Matrix with RS-232 Control. Includes: [CSWX32X16, (SM-CSW) & (CCPWR06US)]		
CSWX32X32S	CAT5 Audio/Video and IR/RS232 32 IN X 32 OUT Matrix with RS-232 Control. Includes: [CSWX32X32, (SM-CSW) & (CCPWR06US)]		
CSWX32X48S	CAT5 Audio/Video and IR/RS232 32 IN X 48 OUT Matrix with RS-232 Control. Includes: [CSWX32X48, (SM-CSW) & (CCPWR06US)]		
CSWX32X64S	CAT5 Audio/Video and IR/RS232 32 IN X 64 OUT Matrix with RS-232 Control. Includes: [CSWX32X64, (SM-CSW) & (CCPWR06US)]		
CSWX48X16S	CAT5 Audio/Video and IR/RS232 48 IN X 16 OUT Matrix with RS-232 Control. Includes: [CSWX48X16, (SM-CSW) & (CCPWR06US)]		
CSWX48X32S	CAT5 Audio/Video and IR/RS232 48 IN X 32 OUT Matrix with RS-232 Control. Includes: [CSWX48X32, (SM-CSW) & (CCPWR06US)]		
CSWX48X48S	CAT5 Audio/Video and IR/RS232 48 IN X 48 OUT Matrix with RS-232 Control. Includes: [CSWX48X48, (SM-CSW) & (CCPWR06US)]		
CSWX48X64S	CAT5 Audio/Video and IR/RS232 48 IN X 64 OUT Matrix with RS-232 Control. Includes: [CSWX48X64, (SM-CSW) & (CCPWR06US)]		
CSWX64X16S	CAT5 Audio/Video and IR/RS232 64 IN X 16 OUT Matrix with RS-232 Control. Includes: [CSWX64X16, (SM-CSW) & (CCPWR06US)]		
CSWX64X32S	CAT5 Audio/Video and IR/RS232 64 IN X 32 OUT Matrix with RS-232 Control. Includes: [CSWX64X32, (SM-CSW) & (CCPWR06US)]		
CSWX64X48S	CAT5 Audio/Video and IR/RS232 64 IN X 48 OUT Matrix with RS-232 Control. Includes: [CSWX64X48, (SM-CSW) & (CCPWR06US)]		
CSWX64X64S	CAT5 Audio/Video and IR/RS232 64 IN X 64 OUT Matrix with RS-232 Control. Includes: [CSWX64X64, (SM-CSW) & (CCPWR06US)]		

# **ACCESSORIES**

## XT-Pro - VGA video extender over CAT5 cable with stereo audio, RS-232 and IR



XTPRO is a high resolution UXGA and stereo audio extender system (transmitter and receiver) designed to broadcast desktop video, stereo audio signals, IR and RS232 over unshielded twisted pair (UTP) cabling.

With RS232 communication support the XTPRO allows users to send commands to single or multiple devices. This allows the user to change the volume, channel or turn on/off the display panel remotely.

#### **FEATURES**

- Supports Dual Screens.
- Uses easy to install, inexpensive CAT-5/5e/6/7/8.
- Each Output reaches up to 1,000 feet (300 m).
- Supports high resolutions up to 1920x1200.
- HDTV compatible (720p, 1080i, 1080p)
- 300 MHz Bandwidth.
- Sends high-resolution VGA, stereo audio signals, RS232 or IR from one source to 2 locations
- Compatible with VGA, XGA, Sun, MAC and SGI
- Sync Format / Polarity Preservation.
- Compatible with Line Level Stereo Audio Signals.
- High ground loop immunity.
- Built-in power surge and transient protection.
- Designated trimmer in the remote unit to compensate for cable length.
- · Compact Metal Case Enclosure.
- External power supply
- RS-232 communication support to single or multiple displays.
- IR command to single or multiple displays

#### **SPECIFICATIONS**

VIDEO		
Format	RGBHV, RGsB, YUV, Y/C, CVBS	
Resolution	Up to 1920 x 1200 VGA, SVGA, XGA, SXGA, UXGA, WUXGA	
Input Interface (TX)	(1) HD-15 Male / USB	
Output Interface (TX)	(1) HD-15 Female (for local display)	
Output Interface (RX)	(1) HD-15 Female	
AUDIO		
Frequency Response	20 Hz to 20 KHz	
Impedance	600 ohm	
Nominal Level	0-1.0 V	
Common Mode	Rejection at 60dB	
Input Interface	(1) 3.5 mm Stereo Audio	
Output Interface	(1) 3.5 mm Stereo Audio	
RS232		
Input Interface	DB9 Male	
Control	Via Software @ 9600 bps	
IR		
Frequency Response	30KHz to 80KHz	
Input Interface	(1) 3.5 mm Female	
Output Interface	(1) 3.5 mm Female	
OTHER		
Power	External 100-240 VAC/5VDC4A @20W	
Dimensions	3.75"W x 1"H x 3"D	
Weight	0.25 lbs.	
Approvals	UL, CE, ROHS Compliant	
Operating Temp.	32-131°F (0-55 °C)	
Storage Temp.	-4-185 °F (-20-85 °C)	
Humidity	Up to 95%	

ORDERI	ORDERING INFORMATION		
Part No.	Description		
XTPROS	UXGA/Audio/RS-232/IR Point-to-Point CAT5 Extender. Includes: [XTP-TX, XTP-RX, (CCVGAMM06), & 2 x (PS5VD1A)]		
XTP-TXS	UXGA/Audio/RS-232/IR CAT5 Transmitter. Includes:[ XTP-TX, (CCVGAMM06) & (PS5VD1A)]		
XTP-RXS	UXGA/Audio/RS-232/IR CAT5 Receiver. Includes:[ XTP-RX & (PS5VD1A)]		
XTP-RXLS	UXGA/Audio/RS-232/IR CAT5 Long Range Receiver. Includes: [XTP-RXL & (PS5VD1A)]		

## **ACCESSORIES**

# HDX-Pro - HDTV video extender over CAT5 cable with stereo audio, RS-232 and IR



HDX-PRO is a high-resolution HDTV and stereo audio extender component within SmartAVI's HDControl product family geared specifically toward home theater owners and designers. Using small transmitter and receiver units, you can broadcast HD desktop video, stereo audio signals, infrared and RS-232 over unshielded twisted pair (UTP) cabling.

Using RS-232 and IR support, the HDX-PRO allows users to send commands such as volume control, channel viewing or power on/off, to single or multiple devices from remote locations.

#### **FEATURES**

- Uses easy-to-install, inexpensive CAT5/5e/7/6/8
- Extends output up to 1,000 feet
- Supports HDTV video up to 1920 x 1200
- HDTV compatible (720p, 1080i, 1080p)
- Supports Component Video (YPbPr)
- 300 MHz bandwidth
- Sends high-resolution HDTV, stereo audio, RS-232 and IR signals from one source to remote location using single CAT5
- Compatible with line level stereo audio signals
- · High ground loop immunity
- Built-in power surge and transient protection
- Designated trimmer in the remote unit to compensate for cable length
- · Compact metal case enclosure
- External power supply
- Transparent RS-232 and IR communication

#### **SPECIFICATIONS**

VIDEO			
Format	(RCA) Y	(75Ω, 1.0Vp-p), PbPr (75Ω, 0.7Vp-p)	
Resolution	480i, 48 (24/25/3	0p, 576i, 576p, 720p, 1080i, 1080p 30Hz)	
AUDIO			
Frequency Re	sponse	20 Hz to 20 KHz	
Impedance		600 ohm	
Nominal Leve	I	0-1.0 V	
Common Mod	de	Rejection at 60dB	
Input Interfac	e	(1) Right/Left RCA Stereo Audio	
Output Interface		(1) Right/Left RCA Stereo Audio	
RS232			
Input Interface		DB9 Male	
Control		Via Software @ 9600 bps	
IR			
Frequency Re	sponse	30KHz to 80KHz	
Input Interfac	e	(1) 3.5 mm Female	
Output Interface		(1) 3.5 mm Female	
OTHER			
Power		External 100-240 VAC/5VDC4A @20W	
Dimensions		3.75"W x 1"H x 3"D	
Weight		0.25 lbs.	
Approvals		UL, CE, ROHS Compliant	
Operating Temp.		32-131°F (0-55 °C)	
Storage Temp.		-4-185 °F (-20-85 °C)	
Humidity		Up to 95%	

ORDERI	ORDERING INFORMATION		
Part No.	Description		
HDX-PROS	Component Video/Audio/RS-232/IR Point-to-Point CAT5 Extender. Includes: [HDP-TX, HDP-RX, 2 x (PS5VD1A)]		
HDP-TXS	Component Video/Audio/RS-232/IR CAT5 Transmitter. Includes: [HDP-TX, (CCVGAMM06) & (PS5VD1A)]		
HDP-RXS	Component Video/Audio/RS-232/IR CAT5 Receiver. Includes: [HDP-RX & (PS5VD1A)]		
HDP-RXLS	Component Video/Audio/RS-232/IR CAT5 1699ft Receiver. Includes: [HDP-RXL & (PS5VD1A)]		

## **ACCESSORIES**

### IR-EYE - Infrared Remote Control Receiver



In many audio visual applications, it may be necessary to place a media center device such as a satellite receiver, video player or settop box in a centralized location that is not in the line-of-sight of the display. Because of this, remote controls for those devices will not work. To correct this, the IR-EYE receives the signals from the remote control and sends them to the media center device by way of an infrared extender.

- · Recieve infrared signals from virtually ANY remote control device
- Designed to mount on a cabinet, TV or wall
- 3.5mm quad mini phone connector
- · Ambient light noise suppressor reduces interference
- Receive infrared signals from up to 50 feet away
- Frequency Range from 20 to 60 KHz

ORDERING INFORMATION		
Part No.	Description	
IR-EYE	External Infrared Receiver; IR range of 10' to 50'	

### IR-LED - Infrared Remote Control Transmitter



In many audio visual applications, it may be necessary to place a media center device such as a satellite receiver, video player or settop box in a centralized location that is not in the line-of-sight of the display. Because of this, remote controls for those devices will not work. To correct this, the IR-LED transmits the signals from the remote control to the media center device by way of an infrared extender.

- Transmit infrared signals to virtually ANY infrared controlled device
- · Designed to mount on a cabinet, TV or wall
- 3.5mm quad mini phone connector
- Transmit infrared signals from up to 6 feet away
- Frequency Range from 20 to 60 KHz

ORDERING INFORMATION		
Part No.	Description	
IR-LED	IR Emitter 6' Single LED	

### RMT-2 - Infrared Remote Controller



The RMT-2 infrared remote control makes it possible to control virtually any SmartAVI, Inc. matrix switch from as far as 30 feet away! The RMT-2 has 18 buttons for complete control of your matrix, including buttons for RGB skew correction

Many leading companies have recognized and embraced the innovation of SmartAVI's technologies and have successfully incorporated them into their organizations.
Clients of SmartAVI include:



ORDERING INFORMATION		
Part No.	Description	
RMT-2 Remote Control Device type 2		