

# CATSwitchPro

MATRIX SOLUTION  
CAT5 ROUTER



## 16-port HDTV CAT5 Matrix Switch with RS-232, IR, USB, and TCP/IP Control Supports Pass-Through IR and RS-232

For WUXGA, Component Video, Composite Video and S-Video with full stereo audio support and full IR/RS232 non-blocking matrix switching. Also supports pass-through IR and RS-232 for remote control of compliant devices. Switch up to 16 remote devices to 16 remote displays located up to 1,000 feet away.



Made in the USA

**Smart-AVI**  
SMART AUDIO VIDEO INNOVATION

[www.smartavi.com](http://www.smartavi.com)

# FULL FEATURES

## CAT5 Matrix Switching made Easy

CATSwitchPro 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. It supports pass-through IR and RS-232 signals for remote control of devices such as displays and switches.

CATSwitchPro is capable of connecting to as many as 16 video sources via transmitters and 16 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.

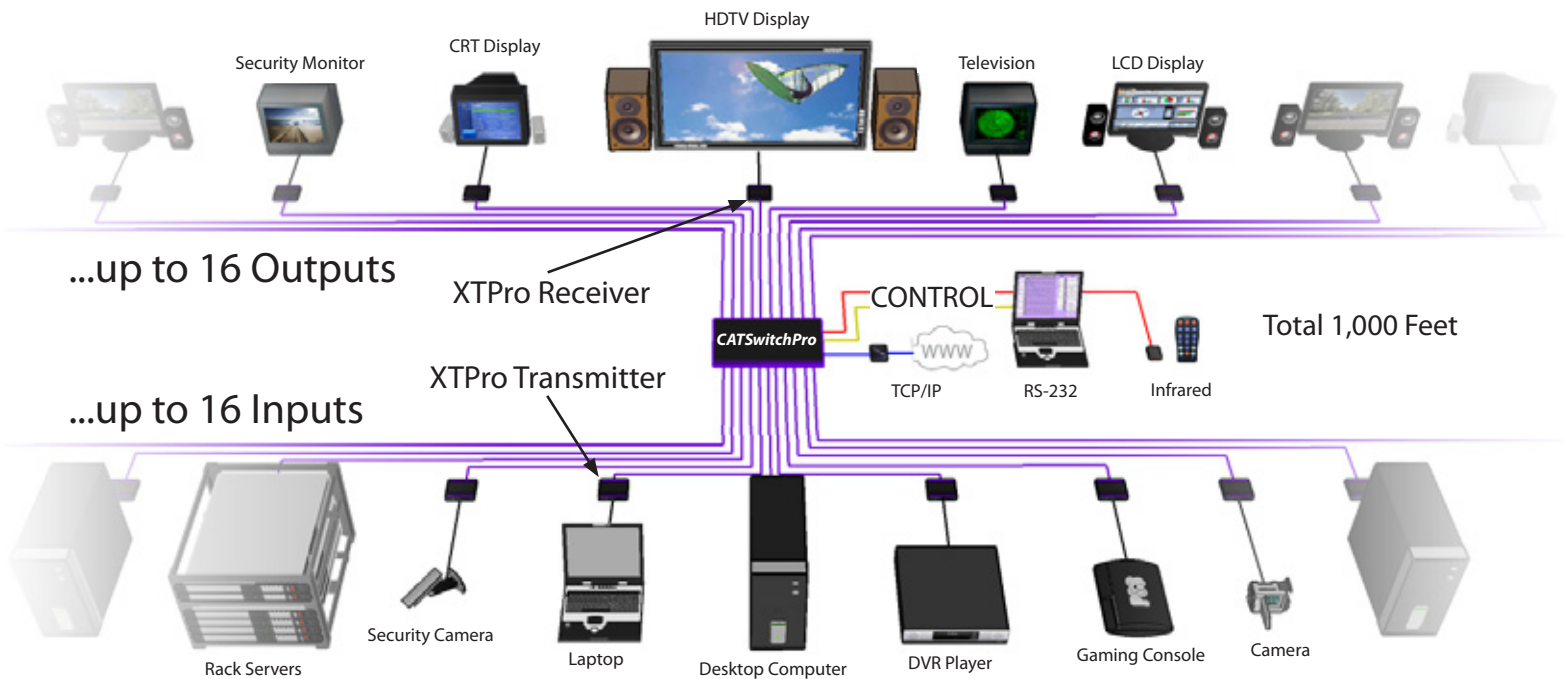
## FEATURES

- Supports high resolution video up to 1920x1200
- High quality audio switching
- Infrared, RS232 and TCP/IP control
- Pass-through IR and RS-232 for remote device control
- PC Windows software control
- Integral UTP distribution
- 1U rackmounted chassis
- Uses easy to install, inexpensive CAT-5/5e/6/7/8
- Maximum extension of 1,000 feet (500m) between the local and remote units
- HDTV compatible. (720p, 1080i,1080p)
- 300 MHz bandwidth
- 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 length



# SIMPLE APPLICATION

## 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 CATSwitchPro 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 CATSwitchPro, using SmartControl allows for customization of all the matrix functions.



**USB:** Computers that do not have an RS-232 port can connect to the CATSwitchPro 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 professionals prefer the IR control interface because it offers greater flexibility to manage the CATSwitchPro 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 CATSwitchPro. SmartAVI's SMTCP module is the perfect solution to effective remote management. Simply connect the SMTCP module to the CATSwitchPro 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
SMTCP-2	TCP/IP Control for SmartAVI Matrixes. Includes: [SMTCP-2, (CCRS232MM-X) & (PS5VD2A)]

\* Also available as and optional internal installation

# SPECIFICATIONS

## CATSwitchPro Rear



### 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 1.75"H (1U) x 8"D
Weight	4 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

RS232	Via Software @ 9600 bps
IR	Via Remote Control with IR-EYE Type 3
USB	Via TCP/IP (optional)

### ORDERING INFORMATION

Part No.	Description
CSWP08X08S	CAT5 Audio/Video and IR/RS232 8IN X 8OUT Matrix with RS-232 Control. Includes: [CSWP08X08, (SM-CSW) & (CCPWR06US)]
CSWP16X08S	CAT5 Audio/Video and IR/RS232 16IN X 8OUT Matrix with RS-232 Control. Includes: [CSWP16X08, (SM-CSW) & (CCPWR06US)]
CSWP16X16S	CAT5 Audio/Video and IR/RS232 16IN X 16OUT Matrix with RS-232 Control. Includes: [CSWP16X16, (SM-CSW) & (CCPWR06US)]



## 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%

### 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)]



## 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, 480p, 576i, 576p, 720p, 1080i, 1080p (24/25/30Hz)
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) 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 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%

### 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 set-top 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

## 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 set-top 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-EYE	External Infrared Receiver; IR range of 10' to 50'

### 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

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