HD ready

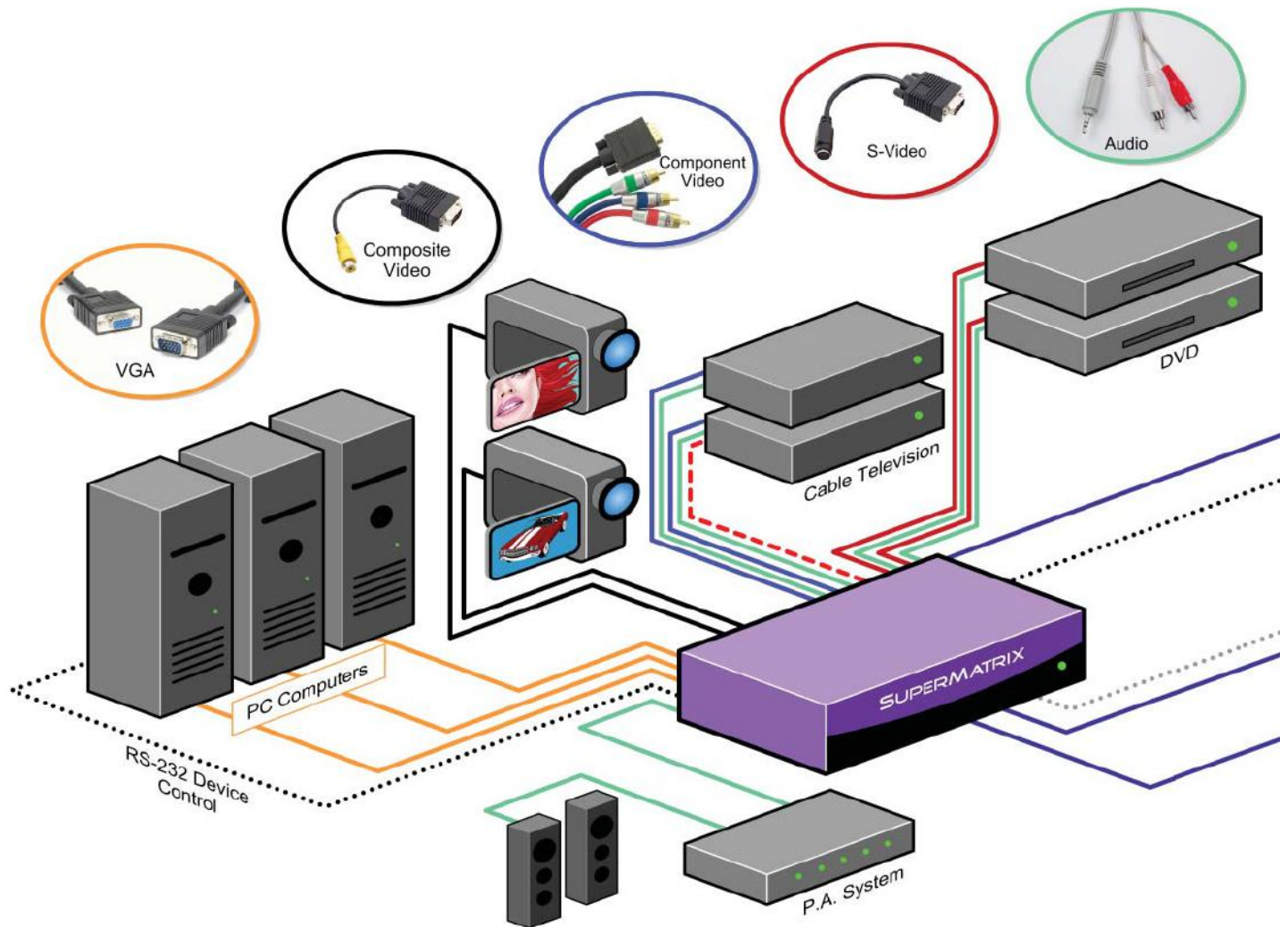# Multi-format audio-visual switch/router for professionals and home users

SuperMatrix combines all the functions of and audio matrix, video matrix, IR matrix and a full rs-232 matrix into one cost effective compact design. This gives you absolute control over all of your audio/video and display devices over distances up to 1,699 feet.

SuperMatrix is Dolby 5.1 compatible and supports analogue High-Definition Television (HDTV).

Made in the USA

Smart-AVI
SMART AUDIO VIDEO INNOVATION
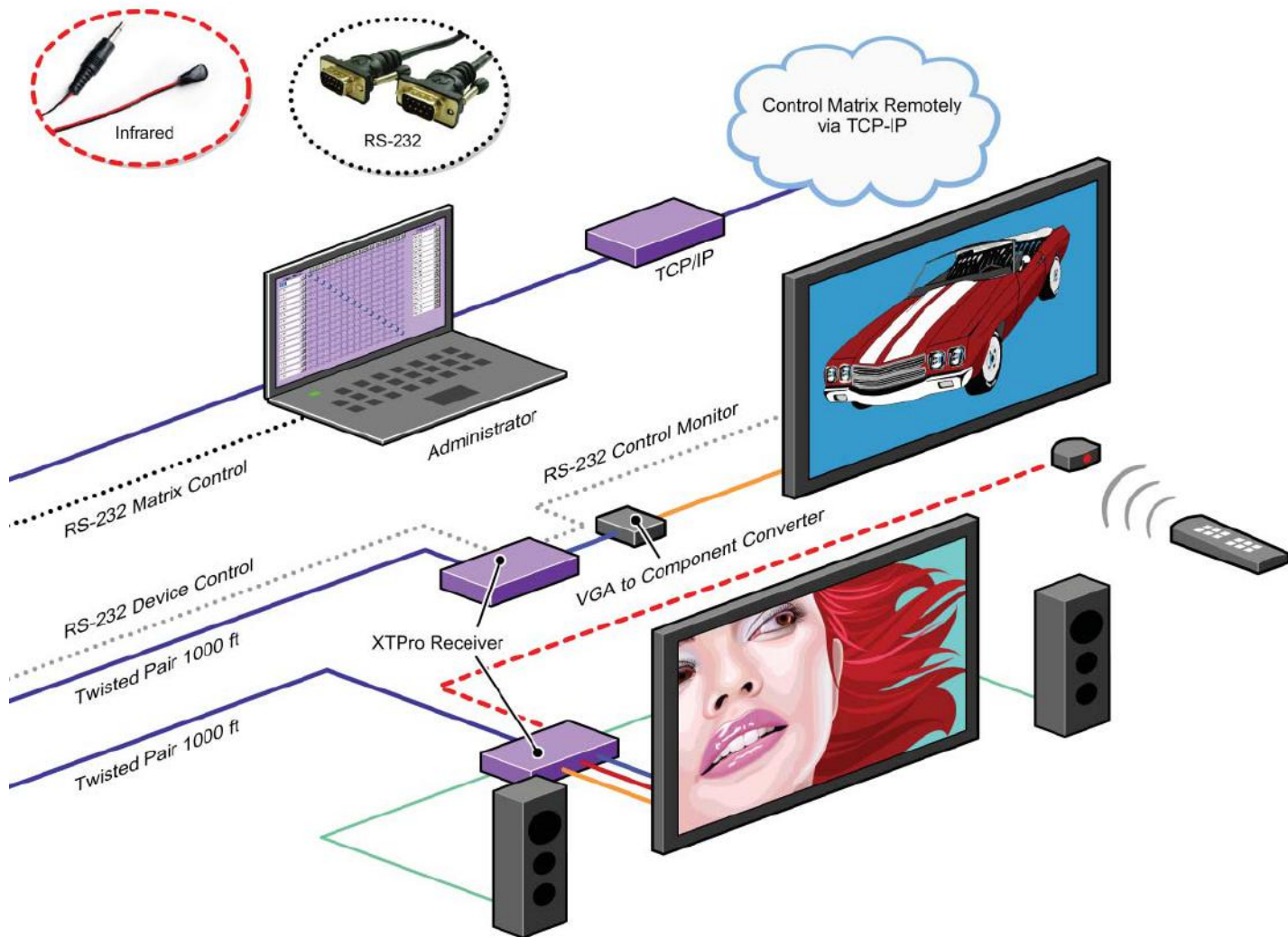
Super Matrix At a Glance

Input/Output Types

SuperMatrix is compatible with the following interfaces;

- **VGA/XVGA**
- **Composite**
- **Component**
- **S-Video**
- **Stereo Analog Audio**
- **Infrared**
- **RS-232**

RS-232

With the integrated RS-232 matrix you can;

- **Remotely power on and off all of the connected display devices.**
- **Send commands such as video schedules or input source.**
- **Reporting.**
- **Enable touch-screen displays to send and receive data.**
- **Interrupt displays with Alerts and urgent messages.**

Control Matrix Remotely via TCP-IP

TCP/IP

RS-232 Matrix Control

Administrator

RS-232 Control Monitor

RS-232 Device Control

VGA to Component Converter

Twisted Pair 1000 ft

XTPro Receiver

Twisted Pair 1000 ft

Infrared

RS-232

Infrared

The built in Infrared extender gives you the ability to remotely change channels, control DVD's and turn off/on devices located up to 1,699 feet away.

Controling SuperMatrix

You can control SuperMatrix via;

- **Infrared (remote control)**
- **RS-232 using our SmartControl interface**
- **Over the Internet via TCP/IP**

SuperMatrix MX provides a high quality and cost effective solution for the distribution of composite video, RGBS, UXGA, YUV, Y/C, CVBS and stereo audio signals up to 1,699 feet over Cat5e/6/7 structured cabling.

Route up to 16 UXGA video and stereo audio sources to 64 Remote monitors and speakers located up to 1,699 ft away using our XT receivers and cat5 cable. You can also route additional sound sources to external ampliers independently. This is useful if you want to add additional sound sources such as background music or security features.

The full duplex Infrared and RS-232 feature gives you full control of both the matrix and all connected displays and devices.

With SuperMatrix you can:

- Distribute live data such as flight information or financial data.
- Make your Digital Signage even more effective.
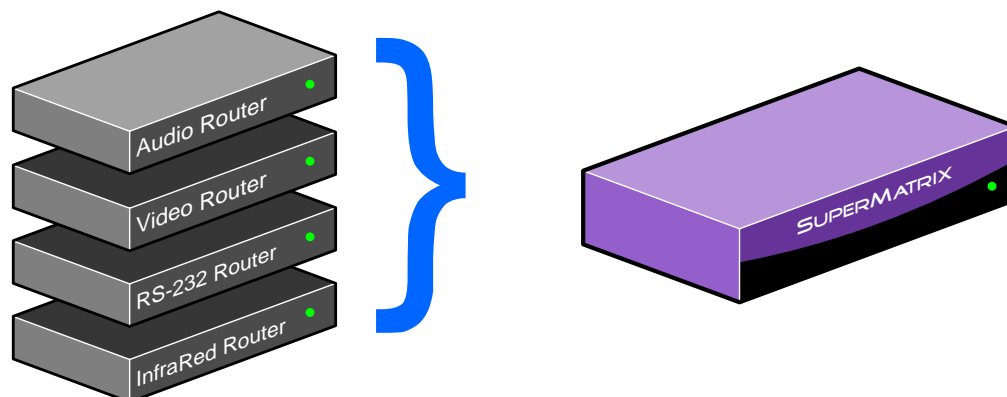- Make your corporate and educational programming easy to program and access.

IR Features

- Control large groups of TV monitors and AV components from a single location.
- Offers remote users full control over the DVD,VCR or cable box by selecting a channel from the matrix.
- The IR function is completely transparent and supports any infrared frequency between 20 and 100Khz.

Features

- Routes additional audio signals independently
- Integrated IR and RS232 router for each station
- Very High Quality Audio Switching
- Very High Quality Video Switching
- High resolution up to 1900 x 1200
- Full duplex InfraRed and RS-232 control for matrix and connected devices
- Completely transparent IR function supports all frequencies between 20 and 100Khz

- PC Windows control software
- Integral UTP distribution
- Cable compensation up to 1,699 ft.
- Compact metal housing for receivers
- Can be mixed with other video signal (RGB, YUV, RGBS)
- Supports Dolby 5.1 surround sound
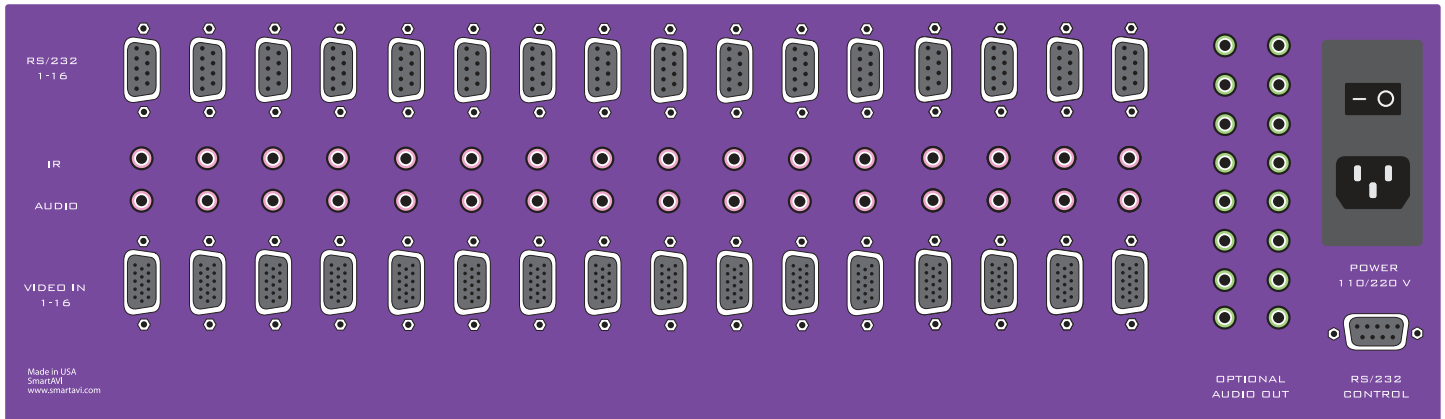- HD Compatible (480p, 720p, 1080, 1080p)

Four Devices in One

SuperMatrix Specifications

Video	
Bandwidth	400 MHz
Input Signal Level	1 Volt pk-pk into 75R
Output Impedance	100 Ohms
Input Impedance	75 Ohms
Connector	16 x HD15 socket female
Format	VGA/SVGA/XGA/RGBHV/RGsB/CVBS/YC/YUV/RGBS
Syncs	TTL5VDC
Bandwidth	Horizontal Sync up to 85KHz
RS-232	16 x RS232 DB9 Female, TX, RX, GND
Infrared	16 x IR 3.5mm Jack to IR emitter
Front Panel	16 x RJ45 with video, audio and data modulated within single UTP

Audio	
Signal	15KHz 0dB unbalanced 100 Ohms impedance
Connector	RCA or 3.5 Stereo Jack
Power	
Voltage	90-230V IEC 1A A/S 56/60 Hz
Control	
IR	3.5mm connector with 38khz
DB9	female RS232 or RS422 @ 9600bps
Dimensions	
Height X width X Depth	3U (88mm) x 19" x 450mm
Weight	9 lbs.

Accessories

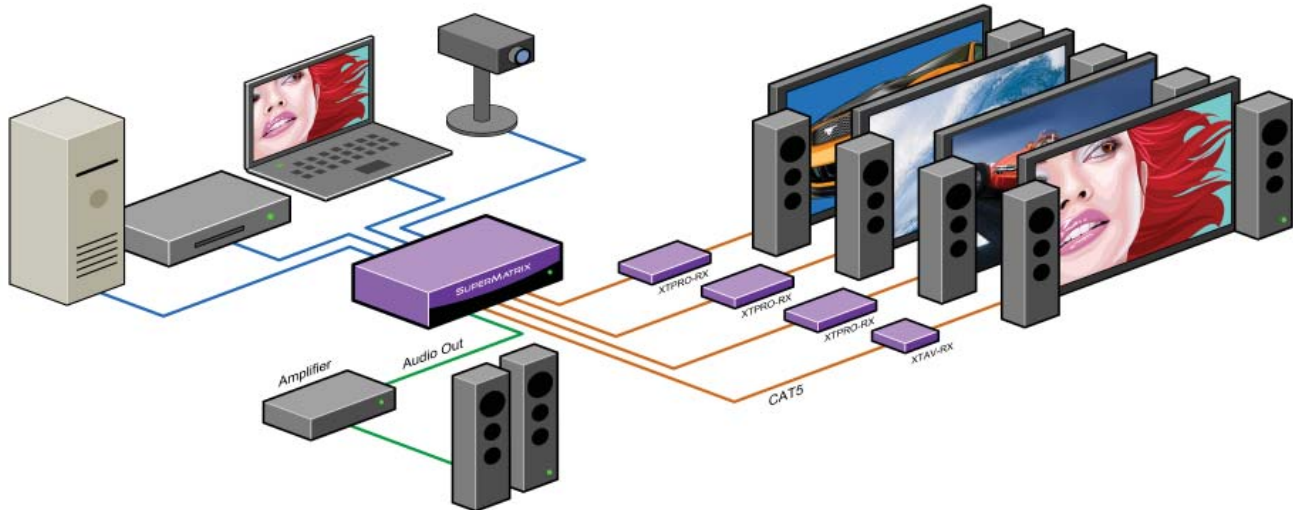**These SmartAVI accessories work with SuperMatrix, giving it even more flexibility.**

IR EYE   **Smart Remote**   **IR Emitter**

Application Diagram

XTPro

Receiver with dual monitors, Audio and IR/RS-232 support

VGA Data	
Format	RGBHV, RGsB, YUV, Y/C, CVBS
Resolution	Up to 1900 x 1200 VGA, SVGA, XGA, SXGA
Connector Type	HD 15 socket
Audio	
Signal Type	Stereo unbalanced
Connector Type	3.5mm jack socket
Infrared	
Signal Type	30 to 110Khz
Connector Type	3.5mm socket
RS-232	
Speed	2400 to 115Kbps
Connector Type	DB9 Male
Power	
Requirements	5VDC @.5A
Connector	2.1mm DC jack (center +ve)
Physical	
Dimensions	135 x 90 x 23mm (26 with pegs)
Weight	.8 lbs or .36 kg

XT AV

Receiver with Video and Audio support

VGA Data	
Format	RGBHV, RGsB, YUV, Y/C, CVBS
Resolution	Up to 1900 x 1200 VGA, SVGA, XGA, SXGA
Connector type	HD 15 socket
Audio	
Signal Type	Stereo unbalanced
Connector	3.5mm jack socket
Power	
Requirements	5VDC @.5A
Connector	2.1mm DC jack (center +ve)
Physical	
Dimensions	90 x 90 x 23mm (26 with pegs)
Weight	.6 lbs or .36 kg

Retail

Control Center

Education

Digital Signage

Home Theater

Live Data

SuperMatrix can be used anywhere digital media is displayed including;

Video Walls, Audio Visual Presentation, Digital Signage, Shopping centers, Airports, Security, Dealer Rooms, Point of Sale, Control Rooms and Hotels to name a few.

Many leading businesses have already recognized the innovation of SmartAVI's technologies and have eagerly implemented them. Users of SmartAVI technology include among others;