

# VX Series DVI, USB, RS-232 & Audio

DVI Optical Extender with Serial Data, Digital/Analog Audio & USB 1.1



DATASHEET

FIBER OPTICS



## Features

- Extends DVI, Audio and RS232 up to 1.5 km (optionally 2 km) using Auto-DDC
- Video Signal: WUXGA (1920X1200), 24-bit color and 60Hz refresh rate for DVI
- Audio Interface: 3.5mm stereo headphone jack
- Serial Interface: RS232 with 9-pin D-sub
- Single mode or multi-mode fiber optic cable
- Offers DVI and USB ports for Local Display and Keyboard/Mouse
- Lossless image quality with no frame dropping or compression
- Auto-EDID self programming feature
- Optional remote console switch and indicators
- Data security with negligible RFI/EMI emissions

## Applications

- Professional audio visual installations
- Home theater connectivity
- Public digital signage displays
- Airport/Train/Other mass-transit facilities
- Medical / distance learning theaters

## Optical Extension of DVI, USB, Audio and Serial Data

The VX-DVI-UAD Multimedia optical extender offers long-distance transport of DVI, USB 1.1, Audio and Serial Data up to 2 km. The VX-DVI-UAD fiber extenders are perfect for applications where the extension of KVM's are needed either because the distance is too long for the high resolution graphics or for security purposes. The extension of the KVM over fiber guarantees lossless image quality of High Resolution graphics up to 1920x1200 (WUXGA) and also guarantees that the connection will be secure due to the EMI/RFI immunity of fiber.

The VX-DVI-UAD multimedia transport link utilizes only 4 fibers for the transmission of all 4 media types, plus the VX-DVI-UAD also transports the DDC channel over the fiber. The VX-DVI-UAD is also equipped with an EDID self-programming feature in the transmitter, which stores the EDID information in its memory. The transmitter is simply plugged into the digital display and in turn it retrieves the EDID information and stores it in its memory.

## System Design

The VX-DVI-UAD transmitting device is installed near the remote computer and is connected to the DVI, USB, Audio and Serial ports of the computer and the VX-DVI-UAD Receiver is located near the High Definition Display or projector and is connected to the display, keyboard, mouse and speakers. Additionally, the USB or serial connection can also be used to control one of the Emcore VX DVI matrix routers for access to multiple High Resolution graphic sources. The system is controlled through the connection of a 4 pair fiber cable with LC connections. Once the system is connected through the fiber it is ready to display up to WUXGA graphics with keyboard and mouse control and to output high quality audio to the remote KVM workstation.



## Ordering Information

Transmitter	Receiver
VX-1DVI-UAD/XMT-LC	VX-1DVI-UAD/RCV-LC

## Optical Specifications

Transmitter (XMT) Specification	Minimum	Typical	Maximum	Units
Optical Wavelength		1310/1550		nm
Optical Output Power	-11	-9	-7	dBm
Receiver (RCV) Specification	Minimum	Typical	Maximum	Units
Receiver Sensitivity	-23		-19	dBm
Optical Budget		16		dB
Shared Specifications	Minimum	Typical	Maximum	Units
Fiber Type		Multimode / Singlemode		
Optical Connector		(2) Dual-LC (4 Fibers)		

## Connection Diagram



## Video

Specifications	Values
Standards	VESA Video Resolutions Auto-EDID Display Information
Graphic Resolution	1920 x 1200 @ 60 Hz (max)
Color Depth	24-bit
Connector	DVI-D (Tx/Rx), DVI-D (local output)
Signal	Digital TMDS (DVI 1.0 Compliant) Digital RGB
Compliance	Auto-EDID

## Audio

Specifications	Values
Audio Format	Analog
Frequency Response	20 Hz to 20 KHz +/- 0.05 dB
Sample Rate	48 kHz
Input Impedance	24K $\Omega$
Output Impedance	< 1 $\Omega$
Connector	3.5mm Stereo Audio Jack

## Data

RS-232 Specifications	Values
Protocol	RS-232C
Data Rate	250 Kbps
Connector	9-pin Male D-SUB
USB Specifications	Values
Protocol	USB 1.1
Data Rate	12 Mbps
Connector	Tx: (1) USB-B, (2) USB-A Rx: (4) USB-A

## General

Specifications	Values
Dimensions (L x W x H)	12.59" x 5.11" x 1.73"
Operating Temperature	0° to +50°C
Storage Temperature	-10°C to +85°C
Humidity	5% to 85% (non-condensing)
Input Voltage	12 VDC
Power Consumption	Tx (10 Watts), Rx (9.1 Watts)
Warranty	1 year

## Compliance

