

VX-1DVI-SD

DVI Video, RS-232, Stereo Audio Fiber Optic Extender



DATASHEET

FIBER OPTICS



Features

- Extends DVI-D video resolutions up to 1920x1200 and 1080p 60Hz
- RS-232 control of surgical displays via duplex data channel
- True Plug & Play - Passes CEC, EDID & HDCP, No EDID Learning Necessary
- Diagnostic LED for power and fiber communication status
- HDCP V1.2 compliant. HDCP over DVI
- Multimode operation up 1,000 ft (305m using OM3 fiber)
- Singlemode operation up to 6.2 mi (10 km)
- Uses low profile LC optical connector
- Transmitter powered via pin 14 of graphics card
- UL/EN 60601-1-2 and FCC certifications pending

Applications

- Medical OR Integration / Endoscopy
- Airport / Train / Information Displays
- Digital Signage / Video Walls
- Classrooms
- Home theater

Uncompressed DVI Video & Serial Data over One Optical Fiber

The VX-1DVI-SD optical extender is a single fiber DVI extender that can send 1 channel of DVI video, 1 channel of serial data and 2 channels of analog audio (with adapter) up to 6.2 miles (10 km). The extender is a low profile unit that transports over standard multimode or singlemode fiber using LC type optical connectors for a secure cable connection. LC connectors are the smallest and most widely used type. This allows the easiest installation possible through conduit or wall/ceiling mounted boom arms.

Graphic resolutions up to 1920x1200 and video resolutions up to 1080p 60Hz are possible over a single fiber. Both video and data can be extended out to 6 miles without the need for distribution amplifiers, cable equalization or in-line repeaters that are normally associated with copper cable extension. The VX-1DVI-SD is the most economical solution for sending a single channel of digital video with data and audio over long distances.

True Plug & Play with HDCP

No more EDID learning or blanked out screens! Critical EDID information is read directly from the monitor and passed to the graphics card via the duplex data channel. The VX-1DVI-SD can work on any digital display and provide resolutions up to 1920x1200. The VX-1DVI-SD is also HDCP compliant allowing the exchange of keys between the source and display. Copyrighted material can be sent over the fiber link.

Supported Resolutions		Supported Resolutions	
640 x 480	VGA	1280 x 960	SXGA- (UWGA)
480i / 480p		1280 x 1024	SXGA
720 x 576		1360 x 768	WXGA (HD)
576i / 576p		1366 x 768	WXGA (HD)
768 x 480	WVGA	1400 x 1050	SXGA+
800 x 600		1440 x 900	WXGA+
854 x 480		1600 x 900	WSXGA (HD+)
960 x 600		1600 x 1000	
960 x 1200		1600 x 1024	WSXGA
1024 x 600	WSVGA	1600 x 1200	UXGA
1024 x 640		1600 x 1280	
1024 x 768	XGA	1680 x 1050	WSXGA+
1152 x 864	XGA+	1792 x 1344	
1280 x 720	WXGA	1856 x 1392	
720p		1920 x 1080	UXGA
1280 x 768	WXGA	1080i / 1080p	FHD
1280 x 800	WXGA	1920 x 1200	WUXGA

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Models

Models	Description
VX-1DVI-SD/XMT-MM-LC	Multimode DVI transmitter with power supply
VX-1DVI-SD/RCV-MM-LC	Multimode DVI receiver with power supply
VX-1DVI-SD/LINK-MM-LC	Multimode DVI extender set with power supplies
VX-1DVI-SD/XMT-SM-LC	Singlemode DVI transmitter with power supply
VX-1DVI-SD/RCV-SM-LC	Singlemode DVI receiver with power supply
VX-1DVI-SD/LINK-SM-LC	Singlemode DVI extender set with power supply

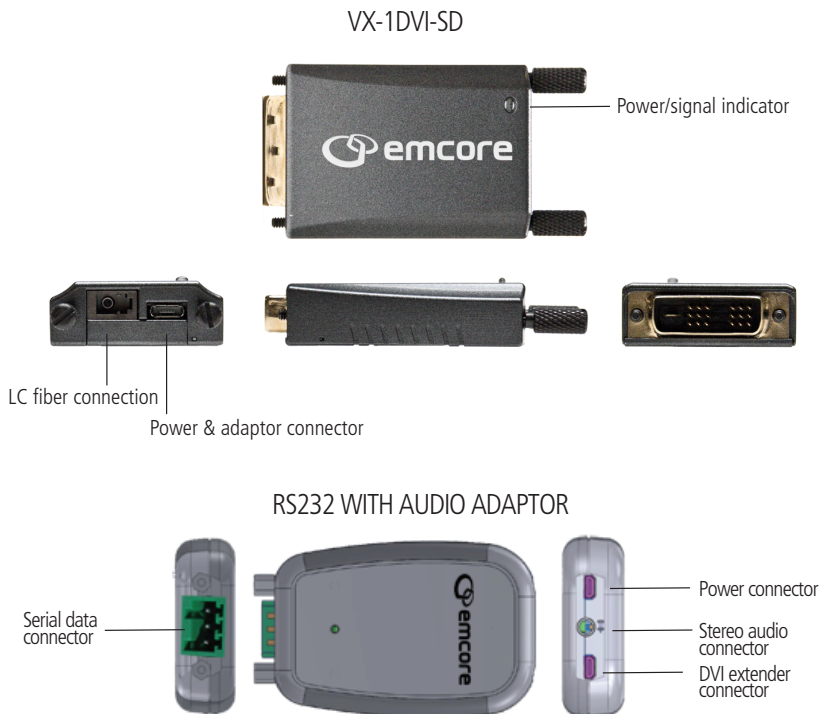
■ Multimode Tx must be used with multimode Rx and singlemode Tx must be used with singlemode Rx

Data / Audio Adapter

Models	Description
VX-1DVI-SD-RSA	RS-232 serial data & stereo analog audio

- Transmitter and receiver have the same mechanical dimensions
- RS-232 serial data & stereo analog audio via breakout adapter

Connection Diagram



Video

Specifications	Values
Standard	DVI standard resolutions up to WUXGA
HDCP Compliance	v1.2
EDID	Plug & Play
Max Resolution	PC - 1920 x 1200 HDTV - 1080p @ 60Hz
Color Depth	24-bit
Connector Type	Single Link DVI-D (18 pin male)

Optical

Specifications	Values
Fiber Type	Multimode or Singlemode
Connector Type	LC
Data Channels	(1) Duplex & (2) Simplex, all high speed
Data Rate	6.25 Gbps
Loss Budget	<12 dB
Distance	Multimode up to 1,000ft (305m using OM3 fiber) Singlemode up to 6.2mi (10km)

Data & Audio

Specifications	Values
Data	1 Channel RS-232
Data Connector	Terminal block (3 pin)
Audio	2 Channel analog (20Hz - 20KHz)
Audio Connector	3.5 mm barrel connector

General

Specifications	Values
Dimensions (L x W x H)	1.54" x 2.17" x 0.57" 39mm x 55mm x 14.5mm
Operating Temperature	0° to +50°C
Storage Temperature	20°C to +85°C
Humidity	10 to 90% (non-condensing)
Input Voltage	5 VDC
Power Consumption	<2W Max.
Housing Construction	2-Part Metal Enclosure
Monitoring	LED on TX & RX Rapid flash - Boot up Slow flash - Fiber disconnected Steady on - Link established
Warranty	1 Year

Compliance (pending)

