

DATASHEET

FIBER OPTICS



Features

- Convert Analog -> Digital or Digital -> Analog across the fiber optic link
- Keyboard/Mouse/Serial Data Extension (KVM)
- Multimode or Singlemode fiber options (up to 60 km over one fiber)
- Supports single / dual-link DVI resolutions up to 2560 x 1600
- Supports VGA resolutions up to 1920 x 1200
- Supports Component Video (RGB) up to 1080p
- H & V Sync Frequency range of 60 to 85 Hz
- Uses all-digital processing for crystal clear picture with zero signal degradation
- 1/8" Stereo Audio Connector
- Standard DVI-I video connector (HD-15 adapter is available for RGB/VGA interface)
- 3-Year Warranty

Applications

- Digital Signage / Remote Kiosks
- Control Room / Remote Workstations
- Video Conferencing / Digital Cinema
- High-Resolution Presentations
- DVI / VGA Switching & Routing
- Professional Home Theater

The Optiva® OTP-1DVI2A1D1KM is the perfect solution for transmitting the full range of VESA dual-link DVI and SMPTE compliant video over long or short distances with a single wavelength. Other transport systems do not offer a comparable range of signals and resolutions over a single wavelength. The single fiber, single wavelength solution is perfect for any professional audio / visual application such as remote digital theaters, concerts, video conferencing, digital signage, and similar applications like electronic billboards and sports arena screens.

Optiva® was designed to maintain a high-quality signal. The video resolution input is the same video resolution that is output. The OTP-1DVI2A1D1KM enables one to input DVI and output VGA or vice-versa. Switching and multicasting the OTP-1DVI2A1D1KM over the OptiLinx® Switching Platform is quick and simple, making the OTP-1DVI2A1D1KM the perfect solution for large-screen, high-resolution digital presentations allocating only one fiber to each display.

System Design

Optiva® insert cards support both 19" rack mount and compact table top or wall mountable enclosures. The 19" rack mount enclosure (Model: OT-CC-16-100) can support up to 16 insert cards. It also supports dual hot-swappable power supplies (Model: OT-CC-16-100-RPS) utilizing two PS-100 power supplies. Also available in the 19" rack mount form factor is a 4-slot enclosure; which houses 4 insert cards in 1RU of rack space (Model: OT-CC-4-1U). The compact one slot (Model: OT-DTCR-1) and two slot (Model: OT-DTCR-2) enclosures both use an external power supply (Model: PS-9012).

optiva | PLATFORM

VGA	DVI	RGB	Resolutions	Max Refresh Rate (Hz)
•	•		640 x 480	VGA 85
		•		480i / 480p 30 / 60
•	•		800 x 600	SVGA 85
•	•		1024 x 768	XGA 85
•	•		1280 x 720	WXGA 85
		•		720p 60
•	•		1280 x 1024	SXGA 85
•	•		1400 x 1050	SXGA+ 75
•	•		1600 x 1200	UXGA 60 (VGA), 75 (DVI)
•	•		1680 x 1050	WSXGA+ 60
•	•		1920 x 1080	UXGA (1080p) 60 (VGA), 75 (DVI)
		•		1080i / 1080p 30 / 60
•	•		1920 x 1200	WUXGA 60 (VGA), 75 (DVI)
	•		2048 x 1536	QXGA 60
	•		2560 x 1600	WQXGA 60

Some Resolutions utilize Reduced Blanking Technology



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Models

Transmitter	Receiver
OTP-1DVIT2AT1DTR1KMTR-C1/C3M-XX	OTP-1DVIR2AR1DRT1KMRT-C3M/C1-XX
OTP-1DVIT2AT1DTR1KMTR-C2/C3-XX	OTP-1DVIR2AR1DRT1KMRT-C3/C2-XX
OTP-1DVIT2AT1DTR1KMTR-C2/C3D-XX	OTP-1DVIR2AR1DRT1KMRT-C3D/C2-XX
OTP-1DVIT2AT1DTR1KMTR-L4X3-XX	OTP-1DVIR2AR1DRT1KMRT-L4X3-XX

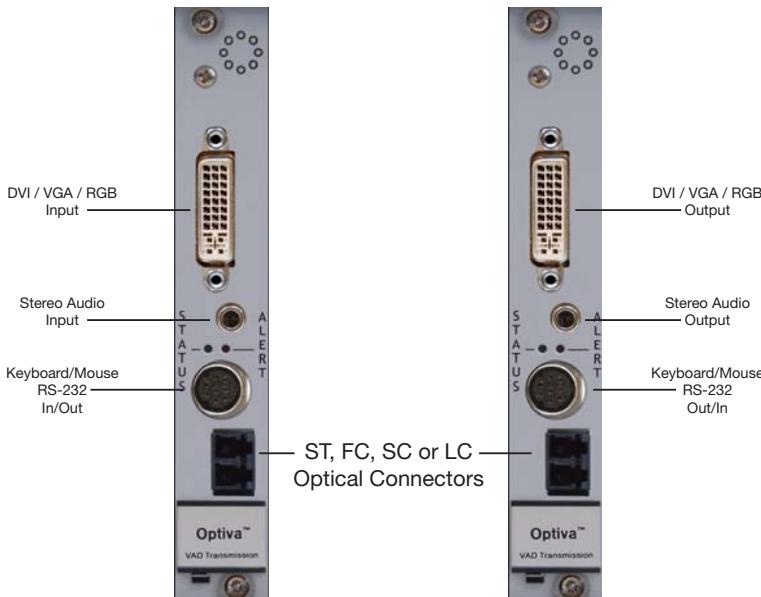
For ordering, please substitute "XX" in the model for one of the following optical connectors: ST, FC, SC, or LC.

Optical Specifications

Code	Fiber Type	Wavelength	Optical Budget	Distance
C1/C3M	Multimode	1310/1550 nm	10 dB	1 Km
C2/C3	Singlemode	1310/1550 nm	12 dB	10 Km
C2/C3D	Singlemode	1310/1550 nm (D)	15 dB	20 Km
L4X3/L4X3	Singlemode	1270-1610 nm (CWDM)	Varies	40-80 Km

Chromatic dispersion as well as other losses should also be taken into account

Connection Diagram



OTP-1DVIT2AT1DTR1KMTR

OTP-1DVIR2AR1DRT1KMRT

Breakout cable for PS/2 to Keyboard/Mouse/DB9 serial connector included



Video

Specifications	Values
Standards	DVI 1.0/VESA
Resolutions	(see chart on front side)
Connector	DVI-I (VGA adapter available)
Color Depth	24 Bit
VGA Video Bandwidth	780 MHz
Analog Video Output Level	1V p-p
Video Signal-to-Noise Ratio	>55 dB

Audio

Specifications	Values
Channels	24-Bit Stereo Audio
Impedance	47k Ohm Unbalanced
Audio Levels	2V p-p Max
Frequency Response	20 Hz to 20 KHz (± 0.1 dB)
Signal-to-Noise Ratio	> 85 dB @ 1KHz (weighted)
Total Harmonic Distortion	< 0.1% @ 1KHz
Connector Type	1/8" Stereo Headphone Jack

Data

Specifications	Values
Connector Type	Tx: 9-Pin DIN (P/N: 5526-532) Rx: 8-Pin DIN (P/N: 5526-531)
Serial Data (DB-9, RS-232)	Up to 250 Kbp/s
Keyboard/Mouse	PS/2

General

Specifications	Values
Dimensions (Insert Card)	6.3" D x 0.8" W x 4.0" H
Weight	11 oz.
Operating Temperature	0° to +50°C
Storage Temperature	-30°C to +85°C
Humidity	0 to 95% (non-condensing)
Power Consumption	~8 Watts
Warranty	3 Years

Monitoring & Control

Specifications	Values
Local	Front panel LED status and alert indicators
Remote	OptivaView® SNMP Management Suite*

* Requires OptivaView SNMP Controller Card (Model: OPV-CTRL)

Compliance

