

# OTP-1DVI2A1D1KM

Optiva® DVI / VGA KVM Extension, Stereo Audio, & Data



## Optiva® SERIES Professional Media Transport



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.



### Features

- Optiva® Daisy-Chain Technology
- Multimode or single mode options (up to 80 km over one fiber)
- Supports single and dual-link DVI resolutions up to 2048 x 1536
- 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 (vertical)
- Uses all-digital processing for crystal clear picture with zero signal degradation
- Real-time video transmission for exceptional quality and resolution
- Standard DVI-I video connector (HD-15 adapter is available for RGB/VGA interface)
- Duplex RS-232, Keyboard, Mouse (adapter available)

### Applications

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

Optiva® was designed to maintain a quality uncompressed 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-redundant, hot-swappable power supplies (Model: OT-CC-16-100-RPS) utilizing two PS-100 power supplies or two PS-200 power supplies (Model: OT-CC-16-200-RPS). 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).

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

■ Some Resolutions utilize Reduced Blanking Technology

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### Models

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

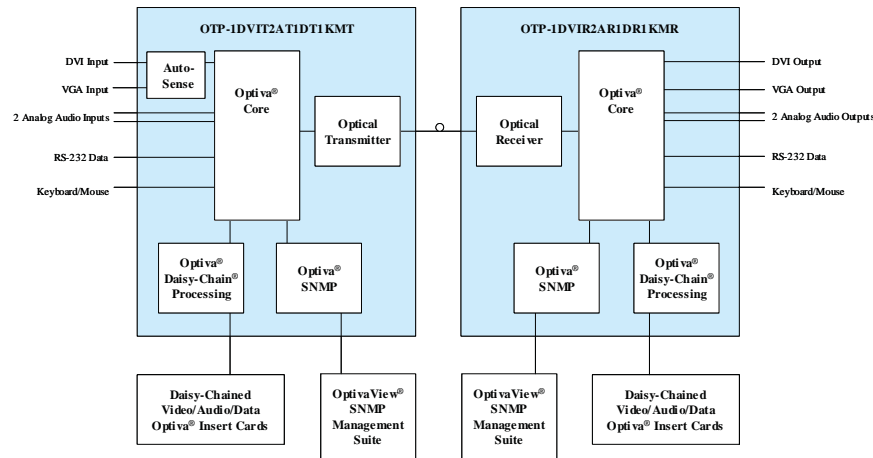
■ For ordering, please substitute "XX" in the model for one of the following optical connectors: ST, FC, SC, or LC.

### 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	20-70 Km

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

### Functional Diagram



### 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

### 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
MTBF	100 K Hours

### Monitoring & Control

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



Document Revision 08/13/2008