

OTP-1DVI2A1D1KM

DVI / VGA / RGBHV / RGB, Analog Audio, RS-232 & KM



DATASHEET

FIBER OPTICS



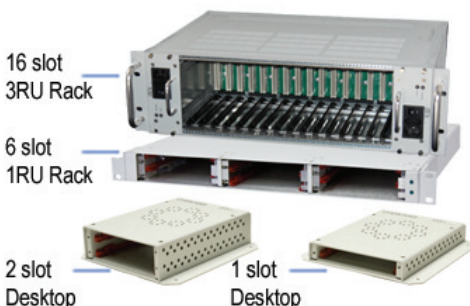
Features

- Format conversion: D-to-A or A-to-D
- RS-232 Serial Data & Keyboard/Mouse
- Multimode or singlemode fiber options (up to 70 km over one fiber)
- Supports single / dual link DVI resolutions up to 2560 x 1600
- Supports VGA resolutions up to 1920x1200
- Supports component video (RGBHV / RGB)
- H & V sync frequency range of 60 to 85 Hz
- 3.5 mm audio connector
- 3-Year warranty

Applications

- Digital signage / remote kiosks
- Control room
- Digital cinema

Enclosure Options



DVI with Audio & Serial Data Transmission over Fiber

The Optiva OTP-1DVI2A1D1KM provides for the transmission of 1 channel of single- or dual-link DVI or VGA video with stereo analog audio, 1 channel of RS-232 serial data and keyboard/mouse, over long or short distances, using a single fiber.

In addition, our innovative Optiva video, audio and data media transport system was designed to maintain lossless fiber extension between input and output signals. New signals may be added to most products without the need for additional fiber through our proprietary daisy-chain technology, with the exception of DVI, 3G HD-SDI, GigE and USB. The Optiva line of products also includes insert cards for up to 16 channels of multiplexing / demultiplexing, 16x16 matrix switching, optical add/drop, as well as remote system monitoring.

System Design

Optiva insert cards support both 19" rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosures



(Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies. Also available in the rackmount form factor is our 1RU enclosure (Model: OT-CC-6-1U) which can accommodate six insert cards and utilizes two 60 watt power supplies. For desktop or wall mounting applications there are one-slot (Model: OT-DTCR-1) and two-slot (Model: OT-DTCR-2) enclosures. Both use an external wall mount power supply.

Resolution	Code	DVI	HDMI	RGB Analog	YPbPr	Refresh Rate (Hz)
640 x 480	VGA	✓	✓	✓		60, 72, 75, 85
800 x 600	SVGA	✓	✓	✓		56, 60, 72, 75, 85
854 x 480	PWVGA	✓	✓	✓		60, 70, 75, 85
1024 x 768	XGA	✓	✓	✓		60, 70, 75, 85
1024 x 852	XGA+	✓	✓	✓		60, 70, 75, 85
1152 x 768	XGA+	✓	✓	✓		75
1152 x 864	XGA+	✓	✓	✓		75
1280 x 768	WXGA	✓	✓	✓		60, 75, 85
1280 x 854	WXGA+	✓	✓	✓		60, 75, 85
1280 x 900	WXGA	✓	✓	✓		60, 75, 85
1280 x 1024	SXGA	✓	✓	✓		60, 75, 85
1360 x 768	WXGA	✓	✓	✓		50, 60, 72
1366 x 768	WXGA	✓	✓	✓		60
1366 x 1024	WXGA	✓	✓	✓		50, 60
1400 x 1050	SXGA+	✓	✓	✓		60, 75, 85
1440 x 900	WXGA+	✓	✓	✓		60, 75, 85
1440 x 960	WXGA+	✓	✓	✓		60, 75, 85
1600 x 900	WSXGA	✓	✓	✓		60, 75, 85
1600 x 1024	WSXGA	✓	✓	✓		60, 75, 85
1600 x 1060	WSXGA+	✓	✓	✓		60, 75, 85
1600 x 1200	UXGA	✓	✓	✓		50, 60
480i (720 x 483)	SD Video	✓	✓	✓	✓	50, 60
480p (720 x 483)	SD Video	✓	✓	✓	✓	50, 60
576p (720 x 576)	SD Video	✓	✓	✓	✓	50
720p (1280 x 720)	HD Video	✓	✓	✓	✓	60
1080i (1920 x 1080)	HD Video	✓	✓	✓	✓	60
1080p (1920 x 1080)	HD Video	✓	✓	✓	✓	60
1564 x 1050	WXGA	✓	✓	✓		50, 60
1920 x 1200 (CVT)	WUXGA	✓	✓	✓		60, 75, 85
2048 x 1536	QXGA	✓	✓	✓		50, 60
2560 x 1600 (CV/R2 560D)	WQXGA	✓	✓	✓		60, 75, 85

■ All VESA resolutions supported, plus any other resolution up to dual-link for DVI-D (2560x1600/60Hz) and single-link for RGB (1600x1200/60Hz). Some resolutions utilize Reduced Blanking Technology.

U.S. Patent #'s 7720385 & 8064773

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Models

Transmitter	Receiver
OTP-1DVI2AT1DTR1KMTR-XX/XX-YY	OTP-1DVI2AR1DRT1KMRT-XX/XX-YY
OTP-1DVI2AT1DTR1KMTR-L4x3/L4x3-LC	OTP-1DVI2AR1DRT1KMRT-L4x3/L4x3-LC

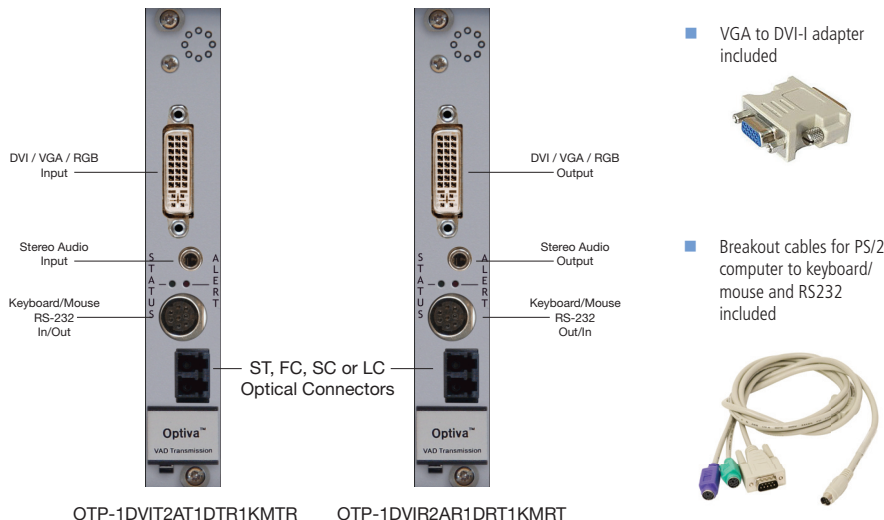
- When ordering replace "XX/XX" with one of the Optical Codes
- When ordering replace "YY" with one of the Connector Options
- When ordering CWDM, replace "x" in the Optical Code L4x3 with A (1270 nm), B (1290 nm), C (1310 nm), D (1330 nm), E (1350 nm), F (1370 nm), G (1390 nm), H (1410 nm), I (1430 nm), J (1450 nm), K (1470 nm), L (1490 nm), M (1510 nm), N (1530 nm), O (1550 nm), P (1570 nm), Q (1590 nm) or R (1610 nm)
- NOC: non-optical card
- Chromatic dispersion as well as other losses should also be taken into account
- Stated distances are the maximum range, shorter distance may require attenuation
- Standard connection type is UPC

Duplex Optical Specifications

Optical Code "XX/XX"	Fiber Type / Number	Wavelength (nm)	Min. Output Power (dBm)	Rx Sensitivity (dBm)	Optical Budget (db)	Distance (km)	Connector Options "YY"
C0/C0	MM/2	850	-10	-17	7	0.5	LC (Dual)
C1/C1	MM/2	1310	-5.5	-10.5	5	2	LC (Dual)
C2/C2	SM/2	1310	-5.5	-12.5	7	10	LC (Dual)
C2D/C2D	SM/2	1310	-5.5	-17.5	12	20	LC (Dual)
C3/C3	SM/2	1550	-3.5	-20.5	17	40	LC (Dual)
C3D/C3D	SM/2	1550	0	-25	25	60	LC (Dual)
L4x3/L4x3	SM/2	1270 to 1610 (CWDM)	-2.5	-27.5	25	50 to 70	LC (Dual)
C1/C3M*	MM/1	1310/1550	-5.5	-10.5	5	3	SC, FC or ST
C2/C3*	SM/1	1310/1550	-5.5	-17.5	12	20	SC, FC or ST
C2/C3D*	SM/1	1310/1550	-3.5	-20.5	17	40	SC, FC or ST
C2/C3H*	SM/1	1310/1550	-2.5	-27.5	25	60	SC, FC or ST

- *Use "XX/XX" as is for ordering transmitter models but reverse for ordering receiver models

Connection Diagram



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

Video

Specifications	Values
Standards	DVI 1.0/VESA
Resolutions	(see chart on front side)
Connector	DVI-I (VGA adapter included)
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
Inputs/Outputs	Unbalanced audio 2 channel (L/R)
Channels	24-Bit Dual Channel
Impedance	47k Ohm Unbalanced
Audio Levels	700 mVrms (maximum)
Frequency Response	20 Hz to 20 KHz (±0.1 dB)
Signal-to-Noise Ratio	> 80 dB @ 1KHz
Total Harmonic Distortion	< 0.1% @ 1KHz
Crosstalk	>70dB @ 10KHz
Connector Type	3.5mm Stereo Headphone Jack

Data

Specifications	Values
Serial Data	RS-232 up to 115.2 Kbps (DB-9 connector via DIN breakout cable)
Keyboard/Mouse	PS/2 compatible only (PS/2 connectors via DIN breakout cable)

Monitoring & Control

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

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

Compliance

