

OTP-1V2BATR1D1E

12-Bit Composite Video, Duplex Analog Audio, Duplex Serial Data and 10/100 Ethernet



Composite Video, Analog Audio, Serial Data & Ethernet Transmission

The Optiva OTP-1V2BATR1D1E provides for the transmission of 1 channel of 12-Bit composite video, 2 channels of duplex analog audio, 1 channel of duplex serial data, and 1 channel of duplex 10/100 Ethernet, over long or short distances, using a single fiber.

In addition, the OTP-1V2BATR1D1E is part of our innovative Optiva video, audio and data media transport system. Optiva was designed to maintain lossless fiber extension between input and output signals. New signals may be added without the need for additional fiber through our proprietary daisy-chain technology. 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.



Features

- SMPTE Compliant
- 12-Bit Composite Video over Fiber
- Duplex Analog Audio over Fiber using Terminal Block
- Duplex Serial Data over Fiber
- Duplex 10/100 Ethernet over Fiber
- Singlemode Options (up to 70 km)
- Multimode Options (up to 2 km)
- TDM - Single Wavelength
- No EMI, RFI, or Ground Loops
- 3-Year Warranty

System Design

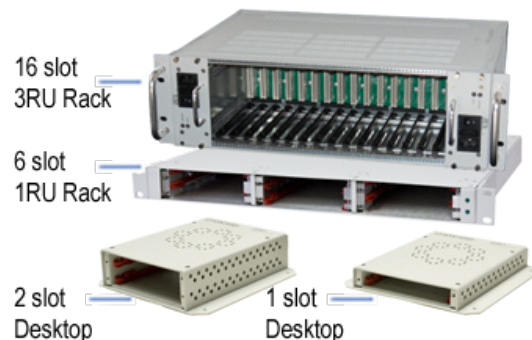
Optiva insert cards support both 19" rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosures (Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies. 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.



Applications

- High-Quality Video Security Systems
- Video Surveillance
- Train/Rail Station Camera Systems
- CCTV Applications
- Optical NTSC/PAL Video Switching

Enclosure Options



U.S. Patent #'s 7720385 & 8064773

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DATASHEET FIBER OPTICS

Models

Transmitter	Receiver
OTP-1V2BATR1DZTR1ETR-XX/XX-YY	OTP-1V2BART1DZRT1ERT-XX/XX-YY
OTP-1V2BATR1DZTR1ETR-L4x1/L4x1-LC	OTP-1V2BART1DZRT1ERT-L4x1/L4x1-LC
OTP-1V2BATR1DZTR1ETR-NOC	OTP-1V2BART1DZRT1ERT-NOC

Serial Data Options

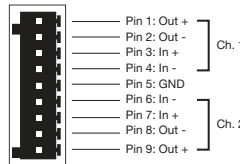
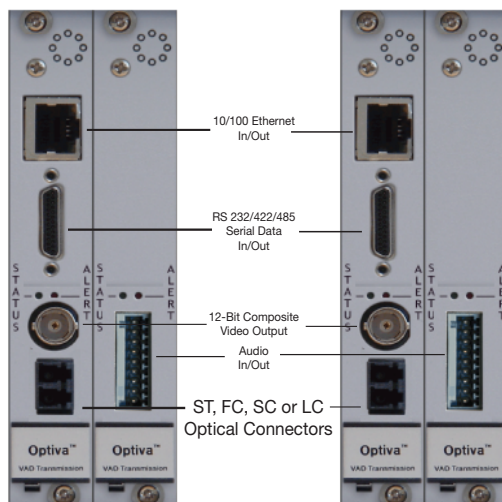
Serial Data Code "Z"	Type
None	RS-232 (3 wire)
W	RS-422 (4 wire)
J	RS-485 (4 wire)
K	RS-485 (2 wire)

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"
A0/A0	MM/2	850	-10	-17	7	0.5	LC (Dual)
A1/A1	MM/2	1310	-5.5	-10.5	5	2	LC (Dual)
A2/A2	SM/2	1310	-5.5	-12.5	7	10	LC (Dual)
A2D/A2D	SM/2	1310	-5.5	-17.5	12	20	LC (Dual)
A3/A3	SM/2	1550	-3.5	-20.5	17	40	LC (Dual)
A3D/A3D	SM/2	1550	0	-25	25	60	LC (Dual)
L4x1/L4x1*	SM/2	1270 to 1610 (CWDM)	-2.5	-28	25	50 to 70	LC (Dual)
A1/A3M*	MM/1	1310/1550	-5.5	-10.5	5	3	SC, FC or ST
A2/A3*	SM/1	1310/1550	-5.5	-17.5	12	20	SC, FC or ST
A2/A3D*	SM/1	1310/1550	-3.5	-20.5	17	40	SC, FC or ST
A2/A3H*	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



- When ordering replace "XXXX" with one of the Optical Codes
- When ordering replace "YY" with one of the Connector Options
- When ordering replace "Z" with one of the Serial Data Codes
- Contact us for this chart: When ordering CWDM, replace "x" in the Optical Code L4x1 with A (1270 nm) through 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

General

Specifications	Values
Dimensions (Insert Card)	6.69" L x 0.81" W x 5.06" H
Weight	11 oz.
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Humidity	0 to 95% (Non-Condensing)
Operating Voltage	12 VDC
Power Consumption	6 Watts
Bit Error Rate	10 ⁻¹⁴
System Latency	< 1 ms
Warranty	3 Year

Video

Specifications	Values
Standards	SMPTE 170, RS-250C (Short Haul)
Bit Resolution	12-Bit Digital Transmission
Level	1.0 Volt p-p
Bandwidth	5.5 MHz
Differential Gain	< 2%
Differential Phase	< 0.7°
Compatibility	NTSC, PAL, SECAM
Signal to Noise Ratio	> 67 dB
Connector	BNC (IEC 60169-8)

Audio

Specifications	Values
Level	18 dBm In/Out
Bandwidth	20 Hz to 20 KHz
Signal to Noise Ratio	> 80 dB
Total Harmonic Distortion	< 0.1%
Signal Coding	24-bit
Connector	Terminal Block (See Pinout)

Data

Type	Values
RS-232	DC, 200 Kbps, 3 wire
RS-422	DC, 1 Mbps, 4 wire
RS-485	DC, 1 Mbps, 2 or 4 wire
Connector	Micro DB25

Ethernet

Specifications	Values
Standard	Ethernet IEEE 802.3
Data Rate	10/100 Mbps (auto negotiation)
Connector	RJ-45

OTP-1V2BATR1DTR1ETR

OTP-1V2BART1DRT1ERT

