

OTP-1HD

HD-SDI & SD-SDI Video



Optiva® SERIES Professional Media Transport



Features

- SMPTE 292M, 259M Compliant
- Singlemode options (up to 60 km)
- Uses all-digital processing for crystal clear picture with no compression
- Real-time video transmission for exceptional quality and resolution
- Receiver contains cable driver and reclocker per SMPTE 292M
- Transmitter contains cable driver, adaptive cable equalizer, and reclocker per SMPTE 292M
- TDM - Single wavelength
- No EMI, RFI, or ground loops
- Compatible with MDM-7000 Series for CWDM Multiplexing

Applications

- Remote OB Van/Truck Video Feeds
- Broadcast Studio Camera Feeds
- HD Routing (requires Optilinx Optical Switch)
- Long-haul Signal Transport
- Lecture Hall Projector Connectivity
- Medical / Surgical Room Broadcast

The OTP-1HD is an excellent choice for transporting SMPTE 292M or 259M compliant video signals over long or short distances with a single optical wavelength. The system offers the complete flexibility needed for transporting full uncompressed 1.485 Gb/s HD-SDI over optical fiber.

Additionally, the OTP-1HD is part of the innovative Optiva® Series Video, Audio and Data Media Transport System. New signals may be added or fully redundant optical transport solutions may be developed.

Switching and multicasting HD-SDI signals over optical fiber is quick and simple, by routing OTP-1HD links through the Optilinx® Switching Platform, making this the perfect solution for Broadcast Studio HD Routing and Switching. The combination of Optiva® and Optilinx® facilitates flexibility for choice of video, audio, and data transport. With Optilinx®, cabling is done once to create a completely optical transport network. Combined with Optiva®, the system is flexible to transmit, switch or convert signals on custom optical mesh networks.

System Design

Optiva® insert cards support both 19" rack mount and compact table top or wall mountable enclosures. The 3RU 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 rackmount form factor is the 4-slot (Model: OT-CC-4-1U) which houses 4 insert cards in 1RU of rack space. 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).



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Models

Transmitter	Receiver
OTP-1HDT-B0-XX-IC	OTP-1HDR-B0-XX-IC
OTP-1HDT-B1-XX-IC	OTP-1HDR-B1-XX-IC
OTP-1HDT-B2-XX-IC	OTP-1HDR-B2-XX-IC
OTP-1HDT-B2D-XX-IC	OTP-1HDR-B2D-XX-IC
OTP-1HDT-B3-XX-IC	OTP-1HDR-B3-XX-IC
OTP-1HDT-B3D-XX-IC	OTP-1HDR-B3D-XX-IC
OTP-1HDT-L5-XX-IC	OTP-1HDR-L5-XX-IC
OTP-1HDT-NOC-IC	OTP-1HDR-NOC-IC

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

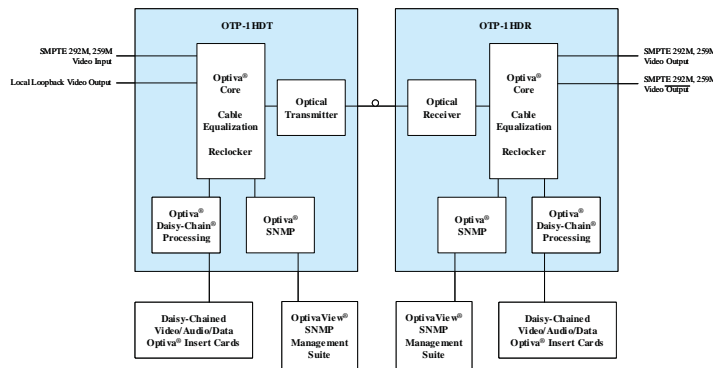
Optical Specifications

Code	Fiber Type	Wavelength	Optical Budget	Distance
B0	Multimode	850 nm	7 dB	0.2 Km
B1	Multimode	1310 nm	10 dB	1.5 Km
B2	Singlemode	1310 nm	7 dB	10 Km
B2D	Singlemode	1310 nm	12 dB	20 Km
B3	Singlemode	1550 nm	17 dB	40 Km
B3D	Singlemode	1550 nm	25 dB	60 Km
L5	Singlemode	CWDM	Varies	20-70 Km

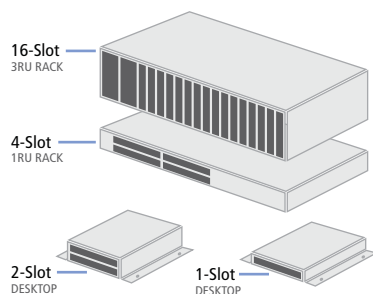
Chromatic dispersion as well as other losses should also be taken into account

Stated distances are the maximum range, shorter distance may require attenuation

Functional Diagram



Enclosure Options



Video

Specifications	Values
Standards	SMPTE 292M, 259M
Data Rates	1.485 Gbps; 270 Mbps
Connector	BNC (IEC 60169-8-Gold Plated)
Video Modes	480i/480p, 720p, 1080i
Max Resolution	1920 x 1080 @ 50/60 Hz
Pathological Test Code	RP-178

General

Specifications	Values
Dimensions (Insert Card)	6.3"D x 0.8"W x 4.0"H
Weight	11 oz.
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Humidity	0 to 95% non-condensing
Power Consumption	6 Watts
BER	10 ⁻¹⁴
System Latency	< 1 ms

Monitoring & Control

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



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