

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

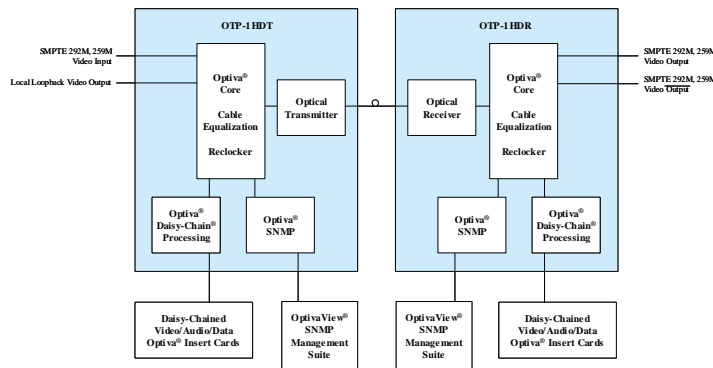
Video

| 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 |

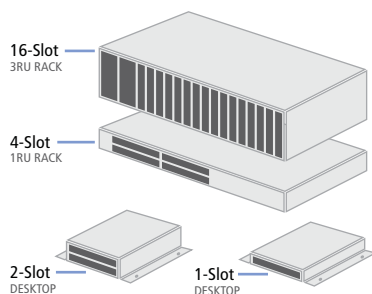
Functional Diagram



Monitoring & Control

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

Enclosure Options



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