

DATASHEET FIBER OPTICS



Serial Data Transmission

The Optiva OTP-8D provides for the transmission of 8 channels of duplex serial data, over long or short distances, using a single fiber.

In addition, the OTP-8D 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

- Duplex Serial Data over Fiber
- Singlemode Options (up to 70 km)
- Multimode Options (up to 3 km)
- TDM - Single Wavelength
- No EMI, RFI, or Ground Loops
- 3-Year Warranty

System Design

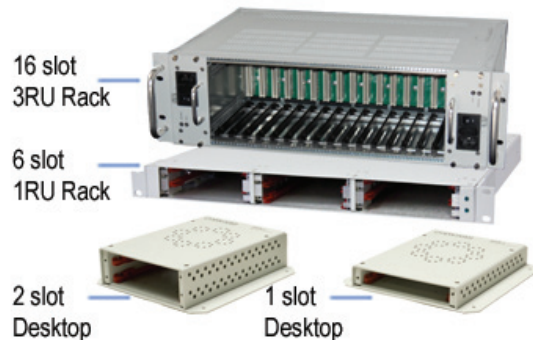
Optiva insert cards support both 19" rackmount and compact tabletop or wall-mountable enclosures. The 3RU 19" rackmount enclosures (Models: OT-CC-16 & OT-CC-16F) can support up to 16 insert cards as well as dual-redundant, hot-swappable power supplies utilizing two 100 watt or two 200 watt power supplies.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

| Transmitter | Receiver |
|------------------------|------------------------|
| OTP-8DZTR-XX/XX-YY | OTP-8DZRT-XX/XX-YY |
| OTP-8DZTR-L4x1/L4x1-LC | OTP-8DZRT-L4x1/L4x1-LC |
| OTP-8DZTR-NOC | OTP-8DZRT-NOC |

Serial Data Options

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

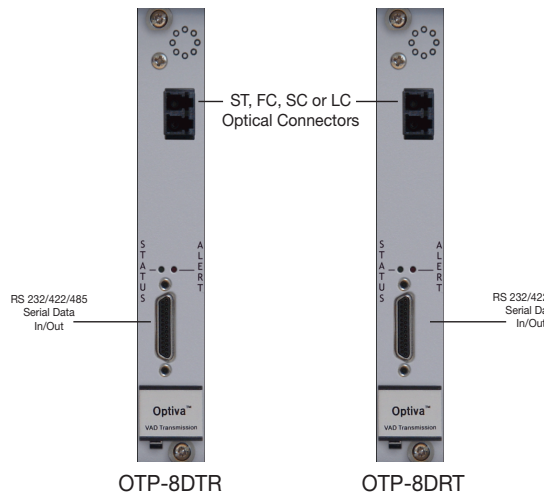
- When ordering replace "XX/XX" with one of the Optical Codes
- When ordering replace "YY" with one of the Connector Options
- When ordering replace "Z" with one of the Serial Data Codes
- When ordering CWDM, replace "x" in the Optical Code L4x1 with A (1270 nm), B (1290 nm), C (1310 nm), D (1330 nm), 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" |
|----------------------|---------------------|---------------------|-------------------------|----------------------|---------------------|---------------|------------------------|
| 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



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 |

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 |

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

