



Features

- USB 1.1 & USB 2.0 Protocol Compliance
- Plug & Play Design, no software required
- USB type B connector on transmitter, 4 USB type A connectors on the receiver
- LC optical connectors (SC on A1/A3M)
- Multimode or singlemode fiber options
- Range up to 70 Km (43 miles)
- Front panel LED status and alert indicators
- Hot swappable
- No EMI, RFI, or ground loops
- 3-Year Warranty

Applications

- Remote USB Devices (cameras, printers, etc...)
- KVM - USB Based Video Solutions and Human Interface Devices
- Professional Audio Visual Installations
- Facility Interconnections
- Hospitals / Medical facilities
- Military & Defense

USB Transmission over Fiber up to 60km

The OTP-USB provides the flexibility to connect and extend high-speed USB 2.0 communication over lightweight optical cable. It provides up to 480 Mbps of bi-directional throughput shared across each of the 4 USB-A ports.

The OTP-USB transmitter and receiver cards come as a compact stand alone system but can also be used as part of a larger more comprehensive application when used with the Optiva platform.

Because of the small size and easy installation, the OTP-USB is a perfect solution for space constrained installations or quick extension and bypass for temporary use. This device is also perfect for consumer electronics applications, small offices / home offices, medical facilities, security systems, professions audio/visual, high-end home theaters, KVM desktop extension, industrial control and many more applications.

Fiber optic cable allows the user many benefits over copper. The USB 2.0 specification indicates that a USB signal can only travel up to approximately 5m (16.4 ft) without signal degradation and reliability issues. This makes fiber a perfect solution for connecting remote devices beyond the 5m limit. The OTP-USB has a range of up to 70 Km (43 mi).

The optical signal is not compressed and installation is easy because optical cable is approximately 80% lighter in weight and gauge. Additionally, the fiber optic signal is not effected by environmental conditions, electro-magnetic interference or radio frequency interference. The OTP-USB is a plug & play device requiring no software or external control.

System Design

Optiva® insert cards support both 19" rack mount and compact tabletop 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 four-slot (Model: OT-CC-4-1U) which houses four 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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DATASHEET **FIBER OPTICS**

Models

Transmitter	Receiver
OTP-USBTR-XX/XX-LC*	OTP-USBRT-XX/XX-LC*
OTP-USBTR-A2/A3-SC	OTP-USBRT-A3/A2-SC
OTP-USBTR-CU-RJ45**	OTP-USBRT-CU-RJ45**

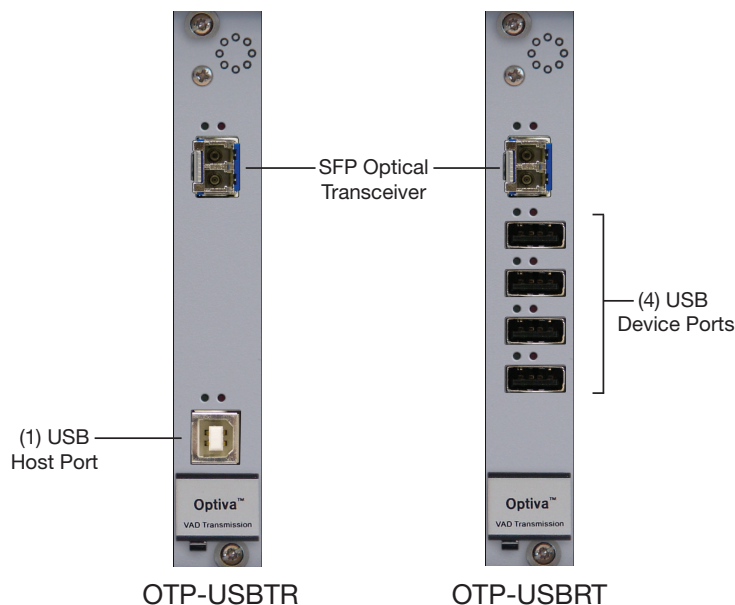
* When ordering, replace "XX/XX" with one of the optical codes specified below
 **The Cat 5/6 model is preliminary, please contact factory for details

Optical Specifications

Optical Code	Fiber Type	Wavelength (nm)	Optical Budget (dB)	Range (Km)
A0/A0	Multimode	850	7	0.5
A1/A1	Multimode	1310	5	2
A2/A2	Singlemode	1310	7	10
A2D/A2D	Singlemode (High Powered)	1310	12	20
A3/A3	Singlemode	1550	17	40
A3D/A3D	Singlemode (High Powered)	1550	25	60
A1/A3M	Multimode	1310/1550	5	3
A2/A3	Singlemode	1310/1550	12	20
L4x1/L4x1	Singlemode	CWDM 1270-1610	25	20-70

- Chromatic dispersion as well as other losses should also be taken into account
- Stated distances are the maximum range, shorter distance may require attenuation

Connection Diagram



USB

Specifications	Values
Data Rate	480 Mbps
Transmitter Ports	1 USB-B Female
Receiver Ports	4 USB-A Female
Compatibility	USB 1.1, 2.0

General

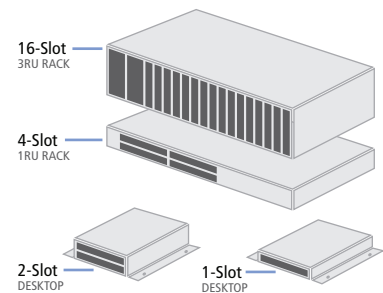
Specifications	Values
Dimensions (Insert Card)	6.69" L x 0.81" W x 5.06" H
Weight	11 oz.
Operating Temperature	-20°C to +55°C
Storage Temperature	-40°C to +85°C
Humidity	0 to 95% (Non-Condensing)
Operating Voltage	12 VDC
Power Consumption	6 Watts
Bit Error Rate	10 ⁻¹⁴
System Latency	< 1 ms
Warranty	3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

Monitoring & Control

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

- Requires OptivaView SNMP Controller Card (Model: OPV-CTRL)

Enclosure Options



Compliance

