

Features

- Micro 3G HD Optical Technology
- Energy efficient
- No setup required - plug-and-play
- LED indicators for power, input/output signal & optical receiver power levels
- SMPTE Standard Compliance 424M/297M/292M/259M
- Data rates from 19.4 Mbps to 2.97 Gbps
- Supports embedded digital audio stream
- Up to 30km transmission distance
- Low signal jitter
- Accepts DC power from 5-16 VDC
- Auto-diagnostics mode
- Ruggedized cast aluminum housings

Applications

- Remote OB Van/Truck Video Feeds
- Sporting events or other HD video venues
- Small corporate campus video links
- Building to Building video conference calling
- Space constrained installations

3G HD-SDI Video Transport up to 30 Km

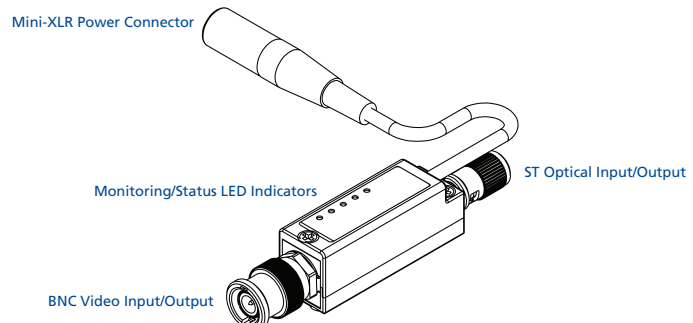
OPTICAM^{3GHD} is the first choice for high reliability micro 3G HD-SDI transport technology. Perfect for users with unique space constraints, power requirements or everyday versatile video transport needs, **OPTICAM^{3GHD}** provides everything the user could need. The transmitter (Model #: OC-1HDPT-XX-ST) accepts a standard 75Ω coaxial input signal and converts it into an uncompressed, low-latency optical signal utilizing standard ST connectors. The receiver (Model #: OC-1HDPR-XX-ST) decodes the uncompressed optical signal back to an electrical signal which can then be connected to recording or video acquisition equipment via the standard BNC output.

One of the smallest footprints in the industry, micro 3G technology is cutting edge and enables the use of high-resolution 1080p capable cameras across distances up to 30 Km! Approximately 3.2 inches long (76mm), these micro adapters have the capability to be deployed in a wide variety of applications from tight crawlspaces to elevator shafts and large office building ducting.

For pre-wired coax, the transmitter units are able to equalize the signal prior to transmission. The LED indicators on each unit provide power and signal detection feedback. Optical power is measured and displayed on the receiver unit, easily showing the user if the optical link is adequate for a transmission link. Additionally, these units have optional SNMP, allowing monitoring and management from a central software application, perfect for large installations with many units deployed.

Power can be supplied from the included AC-DC power supplies or from any 5-16 VDC feed. The provided Mini-XLR connector is also the source for the SNMP monitoring feed. Additional connection information is provided with the manual.

Mechanical Diagram



DATASHEET

FIBER OPTICS

Models

Transmitter	Receiver
OC-1HDPT-XX-ST	OC-1HDPR-XX-ST
OC-1HDPT-L4XX-ST	OC-1HDPR-L4XX-ST

Optical Specifications

Code	Fiber Type	Wavelength	Optical Budget	Distance
C1	Multimode	1310 nm	13 dB	500 m
C2	Singlemode	1310 nm	13 dB	5 km
C3	Singlemode	1550 nm	20 dB	30 km
L4K3	CWDM	1470 nm	20 dB	30 km
L4L3	CWDM	1490 nm	20 dB	30 km
L4M3	CWDM	1510 nm	20 dB	30 km
L4N3	CWDM	1530 nm	20 dB	30 km
L4O3	CWDM	1550 nm	20 dB	30 km
L4P3	CWDM	1570 nm	20 dB	30 km
L4Q3	CWDM	1590 nm	20 dB	30 km
L4R3	CWDM	1610 nm	20 dB	30 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

Ruggedized Flight / Storage Case (Included)



Video

Specifications	Values
Standards	SMPTE 424M, 292M, 259M, 297M, 310M
Data Rates	19.4 Mbps - 2.97 Gbps
Connector	BNC (IEC 60169-8)
Max Resolution	1920 x 1080 @ 50/60 Hz
Pathological Test Code	RP-178
Input	100m Cable Equalizer
Input Level	800 mV (p-p)
Input Impedance	75 Ω
Bit-Error Rate @ -20 dBm	10 ⁻¹¹
Rise/Fall Time	< 120 ps

General

Specifications	Values
Dimensions (L x W x H)	3.2" x 0.65" x 0.75" 8.13 x 1.65 x 1.91 mm
Weight	2.5 oz (70 g)
Operating Temperature	-25° to +55°C
Storage Temperature	-30°C to +85°C
Humidity	0 to 95% non-condensing
Input Voltage	5 - 16 VDC
Power Consumption	600 mW
Power Connector	Mini XLR (4 pin)
Warranty	1 Year

Compatibility with Matrix Switches



Specifications	Values
Matrix Switch Model	OMX-16 to -288 or EMX -4 to -16
SFP Port Card for OMX	OMX-SFP-B-V
Data Rate	270 Mbps, 1.485 Gbps, 2.97 Gbps
Standard	SMPTE 297 Compliance
Interfaces per Port Card	SFP x 16

Monitoring & Control

Specifications	Values
Local	Electrical Power, Electrical Signal, Optical Link Status, Optical Power

Compliance

