

## Fiber Optics Receiver & Transmitter



Carrying Case

### DESCRIPTION

This miniature and high quality XS-3G HD/SDI fiber optical transmission system is pathological test compliance, with built in EQ and reclocking features. It works with either singlemode or multimode fiber cable. It supports SMPTE 424M/297M (1080p -- 2.97Gbps); SMPTE 292M/297M (HDTV -- 1.485Gbps); SMPTE 259M/297M (SDTV -- 270/360Mbps).

These tiny transmitter and receiver modules can be deployed almost anywhere. The modules include LED indicators to display Power On, HD/SDI signal presence and Received Optical Power levels. It provides critical system diagnostic information at a glance without a need for additional test equipment.

XS-3G HD/SDI fiber optical transmission system uses its own power supply or any DC voltage from 5 to 16 volt. By using XLR 4 PIN with latch locking mechanism, it can avoid unwanted power interruption. This connection also includes provisions for SNMP monitoring.

### APPLICATIONS

- ◆ Sports tele-prod, Golf, skiing, racing, etc.
- ◆ Remote camera links
- ◆ Cross-town fiber links
- ◆ Cross-campus production
- ◆ Pre-installed fiber venues
- ◆ OB Van

### FEATURES

- ◆ Portable, lightweight units
- ◆ Reliable, efficient
- ◆ Quick, easy installation

- ◆ LED indicators show you:
  1. Power on
  2. HD/SDI data presence
  3. RX Optical power levels
- ◆ 19.4 Mbps to 3 Gbps
- ◆ SMPTE 424M/297M compliant
- ◆ SMPTE 292M/259M/297M compatible
- ◆ Supports embedded audio
- ◆ Up to 30 km (64 km **upon request**)
- ◆ Low system jitter
- ◆ Power from 5-16 VDC
- ◆ Digital diagnostic function
- ◆ High durability design
- ◆ Class 1 FDA and IEC60825-1 Laser
- ◆ Safety Compliant
- ◆ Pathological test compliance

## SPECIFICATIONS

### Mechanical

Length ..... 3.2 in. (8.13 mm)  
Width ..... 0.65 in. (1.65 mm)  
Height ..... 0.75 in. (1.91 mm)  
Weight, Each End: ..... 4 oz. (150 g)  
Indicators; ..... Power, signal, link, optical power

### Electrical

Input Voltage: ..... 5~16 VDC  
Power Connector: ..... XLR 4Pin  
(With latch locking mechanism)  
Power Consumption, Each End; ..... 600mW

### Environmental

Operating Temperature ..... 25° C to +55°C  
Relative Humidity; ..... 0 to 95%, non-condensing

### Video

Transmission Method ..... Digital  
Input Level: ..... 800 mV (peak to peak)

## ORDERING INFORMATION

FO3GHDT fiber optical transmitter, Standard Wavelength.1310nm  
FO3GHDR fiber optical receiver

Input Impedance ..... 75 ohms  
Coax Equalization ..... 350m@270 Mbps, 140m@1.485 Gbps, 50m@ 2.97 Gbps  
Output Impedance ..... 75 ohms  
Bit-Error Rate: (@ -20 dBm) .....  $10^{-11}$   
Jitter (pathological data pattern): ..... < 120 ps  
Rise/Fall Times: ..... < 120 ps

\* Equalization of Belden 1694A cable: 120m@2.97Gb/s, 200m@1.485Gb/s, and 350m@270Mb/s.

### Transmission

Operating Wavelength: .. 1310nm normal, (1550nm DFB or 18 Ch. 1270~1610nm CWDM **upon request**)  
Video Connector In/Out: ..... BNC  
Optical Connector ..... ST (standard)  
Transmitter Output: ..... -6~0 dBm (0~+3 dBm optional)  
Receiver Sensitivity: ..... -20 dBm  
Link Margin/Distance ..... 13 dB/5km@3G for singlemode; 0.3km for multimode  
Fiber Type: ..... Single mode or multimode



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