

MX/HD-SDI-3G

Transmit HD-SDI-3G and ASI signals over Fiber





Fully compliant support for Pathological HD/SDI Signals

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The MX/HD-SDI-3G Transmitters and Receivers are used to transport High-Definition Digital signals over fiber optic cable. These units support DVB-ASI, HD-SDI, SD-SDI and 3GHD-SDI signals with nominal data rates up to 3 Gbps.

All units have SFP based optics and come standard with SFP's supporting 40km fiber distances (80km available). Various wavelength CWDM SFP's are available as well.





Key Features

- Transmit ASI or SDI signal over one single-mode Fiber
- Supports data rate from 19.4Mb/s to 3Gb/s
- SMPTE 424M, SMPTE 292M, SMPTE 344M and SMPTE 259M compliant. SMPTE 424M is also commonly referred to as 3G-HD.
- Supports SMPTE 259M, SMPTE297M, SMPTE305M, SMPTE310M format and up to 1.485Gbps, and DVB-ASI (270Mb/s) formats for HD-SDI. MPEG2 & 4, H.264, H.265as well other encoding and multistream ASI formats
- Supports Pathological Signals
- Transmitter and Receiver link status LED indicators
- Plug and Play, Easy to use, no configuration needed
- Loop Through SDI connector included for monitoring
- Available in standard ITU CWDM wavelengths providing efficient use of fiber bandwidth for multiple units over a single fiber strand
- Transmission distance on the fiber is up to 40Km without relay (40Km standard, 80km available)
- Convenient 19" 1RU Rack Mount Chassis (9" deep) with Dual AC Power Supply. Holds up to 6 cards. A combination of up to 6 transmitter or receiver cards may be installed into chassis.



Operation & Spec Sheet





Transmitter will only have optical output when a compliant digital video signal is present (ASI, SDI, SMPT..) Transmitter will have green light "P" when powered on, and green light "V" when video signal is present ("F" light not used on transmitter)

Receiver should have between -3 to -20 dBm optical input level for proper operation *applies to 40km SFP's (80km versions should have between -8 to -28 dBm input)

Receiver will have green light on "P" when powered on, green light on "F" when proper optical level is present, green light on "V" when digital video signal is detected

Features:

- * Equalized serial digital video from 143 Mbps to 2.97 Gbps
- * Reclocked serial digital video from 270 Mbps to 2.97 Gbps
- * Support SD/HD/3G-SDI Pathological signals and ASI signals
- * Supports multistream ASI signals
- * Plug-and-play
- * Available in eight CWDM wavelengths 1470, 1490, 1510, 1530, 1550, 1570, 1590, and 1610nm
- * Long transmission capability, standard 40 km, up to 80 km available
- * Digital Video SFP modules offer easy product maintenance and configuration flexibility
- * Cards and SFP modules are fully hot swappable
- * CLASS1 laser safety product

Specification

Video I/O Interface

Signal: SD / HD / 3G-SDI, ASI

Cable length: 3G: 35m @2.97 Gbps/RG7

HD: 130 m @ 1.5 Gbps/RG7

SD: 380 m @ 270 Mbps/RG7 Return loss: >10 dB up to 2.97 GHz

Connector: 75Ω BNC

Optical Input

Signal: Optical Receiver Wavelength: 1200~1610nm

Sensitivity: -20.0 dBm (for 40km units)

Fiber type: Single mode
Connector: Optical LC/UPC

Optical Output

Signal: Uncooled DFB Laser Diode

Wavelength: 1470, 1490, 1510, 1530, 1550, 1570,

1590, and 1610nm

Output power: -3.0 to +2.0 dBm typical (for 40km units)

Fiber type: Single mode
Connector: LC/UPC

General

Input Voltage: 120VAC
Operating voltage: 5V DC
Operating Current: 300mA

Operating temperature: -20~65°C (-4~+149 *F)

Operating Humidity: 0~95%



Applications

Digital Video Source:

- ASI
- HD-SDI- 3G
- HD-SDI
- SD-SDI

Automatically accepts, detects and transmits any of these sources

Transmit ASI or HD/SDI or SD/SDI Signals

Supports HD and SD, Multi-Stream ASI



Receiving Equipment Headend



Fiber





40km Standard / 80km Available

- SFB Based Digital Video 3G Optics (included)
- Standard distance 40Km, 80Km Available
- 8 CWDM Wavelengths Available
- 1470nm to 1610nm





Comes with standard • 6 slot chassis

Output:

- ASIHD-SDI- 3G
 - HD-SDI
- SD-SDI

Supports multiple PEG and Broadcast links with out using additional fiber and keep your existing equipment in place. Our ASI, HD-SDI, Data, and Analog Video products come with CWDM Wavelengths allowing you to mix these services over the same fiber strand. Supports multiple ASI and/or SDI Streams. Fully compliant for Pathological SDI signals.

