

**One Channel Bi-directional Multi-rate  
3G-SDI Video with Re-clocker using the  
Industry Standard Small Form Pluggable (SFP)  
Optical Device**



### **FEATURES:**

- Bi-directional transmission of Multi-Rate SDI / HD-SDI / 3G-SDI (19 Mbps to 2.97Gbps (3G)) video
- Built in Re-clocker on TX/RX
- Multimode, Singlemode and CWDM fiber options via SFP modules
- Real-Time, Uncompressed Video Transmission
- Supports Both Singlemode And Multimode Fiber
- Supports The Following Formats :
  - 19.4 Mbps (SMPTE 310M)
  - 143 To 540 Mbps SMPTE 259M/344M
  - 1.485 Gbps SMPTE 292M HDTV
  - DVB-ASI at 270 Mbps
  - 2.97Gbps (3G) SMPTE 424M
  - SMPTE 305M SDTI Rates
- Error Free Pathological Pattern Performance
- Rack Mounted Card Units
- Supports Embedded Audio and Metadata
- Distances in Excess of 25 km
- Led Indicators for :
  - Power
  - SFP Optical Signals
  - Tx/Rx Video Signals
- Wide Dynamic Range: Eliminates Need for Optical Attenuators
- LC, SC Optical Connector (SFP dependent)
- Requires No User Adjustments

### **DESCRIPTION:**

Meridian's SX-1HG-SFP fiber products is part of our expanding DigiView product family. These serial digital video transmitters & receivers provide broadcast quality transmission of the industry standard range of digital video data rates. This product supports one, bi-directional channel of 3G-SDI video over one fiber in each direction. All units transmit and receive real-time video and is one channel rack mount cards with Re-clockers that support 3R (Retiming, Reshaping, Regenerate) functions and dual buffered outputs. One buffered output can be set as a time base (clock). Transmitter supports buffered loop-through. This feature ensures maximum performance over long distances. No video compression is utilized. The standard SX-1HG-SFP product supports one channel of SMPTE bi-directional 292M, 310M, 259M, 344M and 424M compliant digital video data rates over one multimode or singlemode fiber for each channel. Using high-performance digital transmission technologies, no user adjustments are needed thus ensuring fast deployment and setup with broadcast quality results. Options include the ability to transmit and receive on different fiber types (multimode & singlemode). This provides the ability to convert the type of fiber in mid span. Unit can also be used as a broadband digital repeater to extend the range of other Meridian fiber transmission products.

This product is employing the industry standard Small Form Pluggable (SFP) optical device. This SFP gives you the option for either singlemode, multimode or CWDM wavelength selections by simply plugging in the appropriate SFP module.

### **CONFIGURATIONS:**

The SX-1HG system is available either as modules or rack mount cards that can be installed in either Meridian desk/shelf mount chassis or 1RU and 3RU 19" racking frames.

### **MARKETS:**

- ✓ Remote broadcast camera links
- ✓ Sporting events, concerts, etc.
- ✓ Media feeds
- ✓ Video production
- ✓ Studio to studio & head end feeds
- ✓ Military information displays

## SPECIFICATIONS:

### Video

Formats .....	19.4 Mbps (SMPTE 310M) 143 To 540 Mbps SMPTE 259M/344M 1.485 Gbps SMPTE 292M HDTV DVB-ASI at 270 Mbps 2.97Gbps (3G) SMPTE 424M SMPTE 305M SDTI Rates
Nominal Level .....	0.8 Vp-p, 1.0 Vp-p max.
Data Rate .....	19Mb/s - 3Gb/s
Impedance .....	75 Ohm
Gain .....	Unity
Input Coupling .....	AC
Return Loss .....	>15 dB
Jitter (Pattological Data Pattern) ..	< 0.2 UI
Cable Equalization .....	Automatic 0-70m @ 3 Gb/s
Bit-Error Rate (0 to -20dBm).....	10 <sup>-12</sup>

### Connectors

Video .....	75 Ohm BNC (Gold Center Pin)
Optical .....	LC, SC - SFP dependent

### Power \*\*

Card .....	4W
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### Indicators (LEDs)

1 - Green .....	Power On
1 - Bi-color.....	Tx SFP Present ( Green ) / Fail (Red)
1 - Bi-color.....	Rx Optical Signal (Green) / Loss (Red)
2 - Green .....	Signal Present
2 - Green .....	SDI Lock
2 - Green .....	HD-SDI Lock
2 - Green .....	3G-SDI Lock

### Physical

Dimensions (Card) .....	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Weight (Card) .....	450 gms (16 Oz)
No. of Slots .....	1
Module .....	See SR-500 Brochure

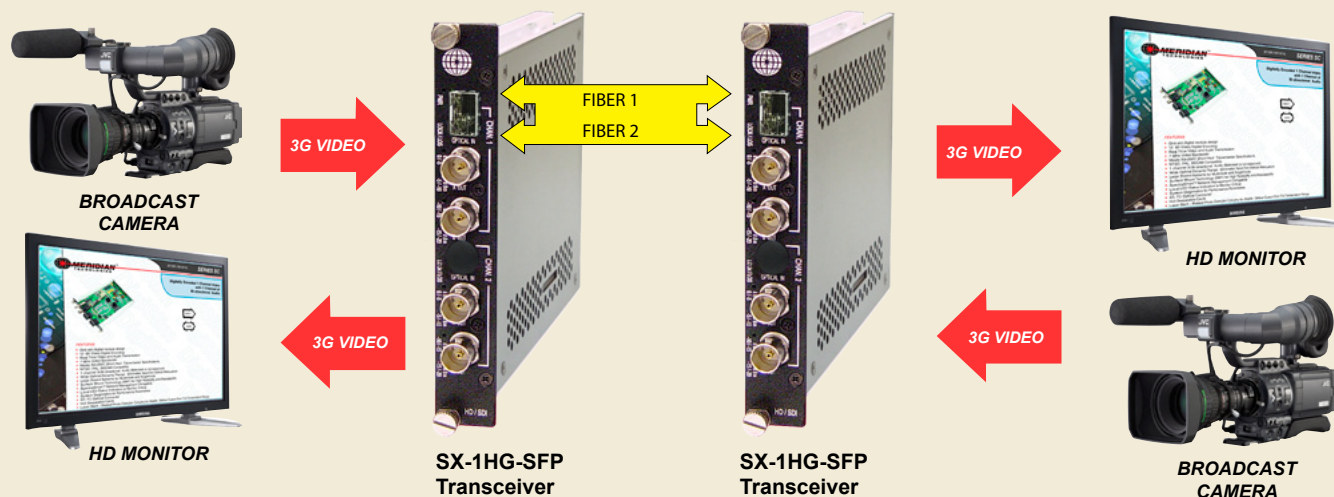
### Enviromental

Operating Temperature .....	-25°C to +60°C
Storage Temperature .....	-55°C to +85°C
Relative Humidity .....	0 to 95% Non-condensing

### Quality

MTBF .....	>200,000 hours @ Ground Fix on Single channel 35°C per MIL217F
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### Part Numbers:



### SFP OPTIONS:

The SFP series products are available for both singlemode and multimode fiber applications and either one or two fiber versions.

Recommended SFP device is Video SFP transceiver. Both MSA and non MSA devices are supported.

For more specifications on a SFP optical devices go to **SFP data sheet** or visit:

**WWW.MERIDIAN-TECH.COM -> PRODUCTS -> ACCESSORIES -> SFP OPTICAL DEVICES**