

**One Channel Bi-directional
Multi-rate 3G-SDI Video
with Re-clocker****FEATURES:**

- Bi-directional transmission of Multi-Rate SDI / HD-SDI / 3G-SDI (19 Mbps to 2.97Gbps (3G)) over two fibers
- Built in Re-clocker on TX/RX
- 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 30 km
- Led Indicators for :
 - Power
 - Rx Optical Power
 - Tx Video Signal Present
 - Laser Over Current
- Wide Dynamic Range: Eliminates Need for Optical Attenuators
- Available with ST or FC Optical Connectors
- Requires No User Adjustments

DESCRIPTION:

Meridian's SX-1HG-x 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-x 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.

Note: SX-1HG-x units are compatible with MTMR-1HG-x miniature 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 in 19", 3RU 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 Equailization	Automatic 0-70m @ 3 Gb/s
Bit-Error Rate (0 to -20dBm).....	10 ⁻¹²

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST - MM(default), FC- SM(default)

Power **

Card	4W
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Indicators (LEDs)

1 - Green	Power On (TX & RX)
1 - Red	Laser Over Current (TX)
4 - Green	Signal Power Level (RX)
1 - Green	Signal Present (TX)
1 - Green	Signal Lock (TX)
1 - Green	SDI Present (TX)
1 - Green	HD-SDI Present (TX)

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

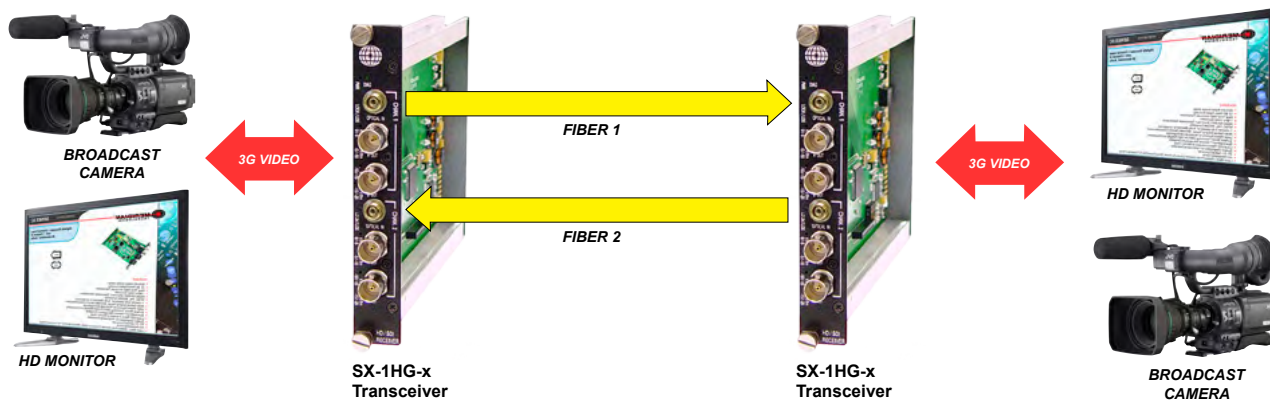
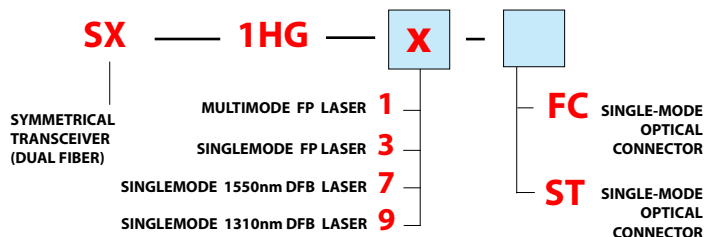
Operating Temperature	-25°C to +60°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

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

SX-1HG-1	... Transceiver , card, MM 1300nm
SX-1HG-3	... Transceiver , card, SM 1310nm
SX-1HG-7	... Transceiver , card, SM 1550nm



OPTICAL:

Meridian Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
1	Multimode (FP Laser) 62.5 / 125	-3	-19	16	1300	ST	19	0.6
3	Singlemode (FP Laser) 9 / 125	-3	-19	16	1310	ST, FC	19	40
9	Singlemode (DFB Laser) 9 / 125	+1	-20	21	1310	ST, FC	19	55
7	Singlemode (DFB Laser) 9 / 125	+1	-20	21	1550	ST, FC	19	70

Meridian Technologies Inc.

700 Elmont Road. • Elmont, NY 11003 • 516. 285. 1000 • FAX 516. 285. 6300 • E-mail sales@meridian-tech.com
www.meridian-tech.com

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