

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 25 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/y 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/y product supports one channel of SMPTE 292M, 310M, 259M, 344M and 424M compliant digital video data rates over one multimode or single-mode 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.

CONFIGURATIONS:

The SX-1HG-x/y 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 Equalization	Automatic 0-70m @ 3 Gb/s
Bit-Error Rate (0 to -20dBm).....	10 ⁻¹²

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC

Power **

Card	2 W
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Indicators (LEDs)

1 - Green	Power On (TX & RX)
2 - Red	Laser Over Current (TX)
8 - Green	Signal Power Level (RX)
2 - Green	Signal Present (TX)
2 - Green	Signal Lock (TX)
2 - Green	SDI Present (TX)
2 - 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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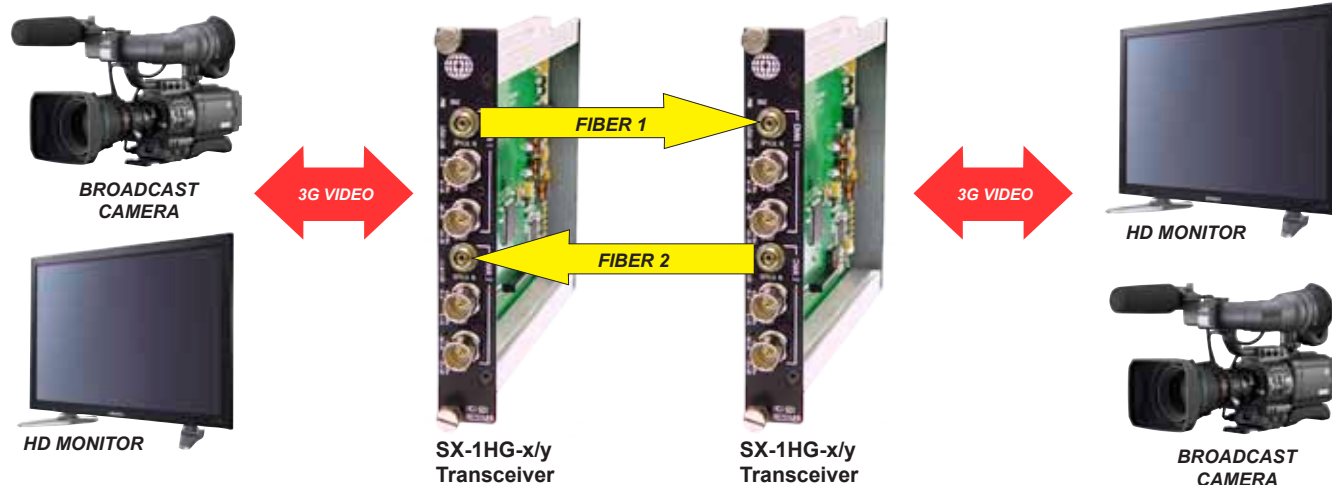
Part Numbers: *

SX-1HG-1/1 ...	Transceiver , card, MM 1300nm
SR-1HG-1 ...	Receiver, card, MM 1300nm
SX-1HG-3/3 ...	Transceiver , card, SM 1310nm
SR-1HG-3 ...	Receiver, card, SM 1310nm
SX-1HG-7/3 ...	Transceiver , card, SM 1550nm
SX-1HG-1/3 ...	Transceiver , card, MM Tx @ 1300nm, SM Tx @ 1310nm
SX-1HG-3/1 ...	Transceiver , card, Tx@1310nm, MM Rx @1300nm

SX — 1HG — x / y

MULTIMODE FP LASER - 1	1 - MULTIMODE FP LASER
SINGLEMODE FP LASER - 3	3 - SINGLEMODE FP LASER
SINGLEMODE DFB LASER - 7	

*CWDM lasers available - contact factory



OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5 / 125	-3	-19	16	1300	ST	20
Singlemode (FP Laser) 9 / 125	-3	-19	16	1310	ST, FC	20
Singlemode (DFB Laser) 9 / 125	+3	-19	22	1550	ST, FC	20

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