

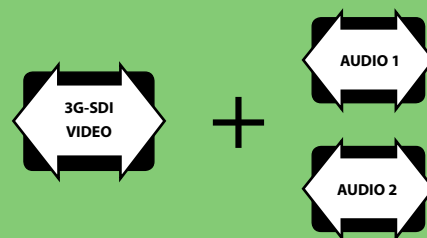
**Digitally Encoded One Bi-directional
Multi-Rate 3G-SDI Video with
Two Bi-directional 24-bit Audio
over One Single-mode Fiber**



FXA/FXB-1HG2A/1HG2A-x
3G-SDI Video and **BALANCED AUDIO**
w/ Screw Terminal connector



FXA/FXB-1HG2AB/1HG2AB-x
3G-SDI Video and **UNBALANCED AUDIO**
w/ 3.5mm Stereo connector



FEATURES:

- Bi-directional transmission of Multi-Rate SDI / HD-SDI / 3G-SDI (19 Mbps to 2.97Gbps (3G)) over one singlemode fiber
- Real-Time, Uncompressed Video Transmission
- 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 50 km
- Wide Dynamic Range: Eliminates Need for Optical Attenuators
- Available with ST or FC Optical Connectors
- Screw Terminal Connectors or 3.5mm Stereo Jack for Audio
- Requires No User Adjustments

DESCRIPTION:

These fiber optic systems are a part of Meridian's DigiView™ product family and will transmit one bi-directional channel of real-time 3G-SDI Video and two bi-directional 24-bit Balanced (FXA/FXB-1HG2A/1HG2A-x) or Un-balanced (FXA/FXB-1HG2AB/1HG2AB-x) Audio over one single-mode fiber. Using Coarse Wavelength Division Multiplexing (CWDM) technology, the content details of each video channel are preserved by real-time transmission of each video channel in a compact card format.

These serial digital video transmitters & receivers provide broadcast quality transmission of the industry standard range of digital video data rates. No user adjustments are needed thus ensuring fast deployment and setup with broadcast quality results.

Transmission of other signals are available in wide variety of options, including bi-directional Data and Contact Closure over one single-mode fiber.

CONFIGURATIONS:

This system is available as rack mount cards that can be installed in either Meridian's desk chassis or in 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. These systems can be made a standalone system by using the SR-1002, 2 slot desk / wall mount chassis (87 VAC - 264VAC)

MARKETS:

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

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

Audio

I/O Impedance	600 Ohm (Bal.), 47 KOhm (Un Bal.)
Frequency Response	10 Hz to 20 KHz
SNR	>90dB (Weighted)@ 1 KHz
In/Out Level	-8 to +8 dBm (4V _{p-p} max.) (+18 dBm available on request)
Total Harmonic Distortion	<0.01% @ 1KHz
Resolution	24 Bit

Optical

Wavelengths 1310 Band	1270nm, 1290nm, 1310nm, 1330nm
Wavelengths 1550 Band	1510nm, 1530nm, 1550nm, 1570nm
Output power	+1 dBm per channel

Connectors

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

Audio	Terminals or 3.5mm Stereo Jack
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Power **

Card	7 W
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Indicators (LEDs)

1 - Green	Power On (TX & RX)
4 - Green	Signal Present (TX)
4 - Green	Laser (TX)
2 - Green	Level 0/-10 dBm (RX)
2 - Green	Level -10/-20 dBm (RX)
2 - Green	Audio Input Present
2 - Green	Audio Output Present

Physical

Dimensions (Card)	44(W) x 160 (D) x 127 (H) mm (1.7x 6.3 x5 inch)
Weight (Card)	635 gms (1.4 lb)
No. of Slots	2
Module	See SR-1002 specs.

Enviromental

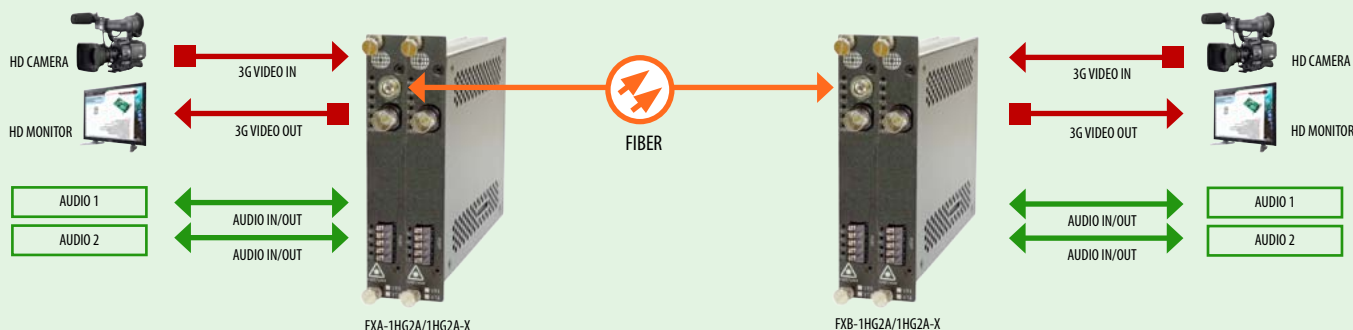
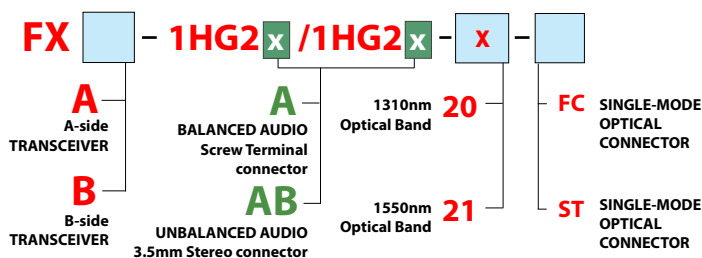
Operating Temperature	-10°C to +50°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

MTBF	>170,000 hours @ Ground Fix 35°C per MIL217F
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Part Numbers:

Card	Description	Wavelength
FXA-1HG2A/ 1HG2A-20	Side A, Transceiver 1310 Band, Single-mode	Tx @ 1270nm & 1290nm, Rx @ 1310nm & 1330nm
FXB-1HG2A/ 1HG2A-20	Side B, Transceiver 1310 Band, Single-mode	Tx @ 1310nm & 1330nm Rx @ 1270nm & 1290nm
FXA-1HG2A/ 1HG2A-21	Side A, Transceiver 1550 Band, Single-mode	Tx @ 1510nm & 1530nm Rx @ 1550nm & 1570nm
FXB-1HG2A/ 1HG2A-21	Side B, Transceiver 1550 Band, Single-mode	Tx @ 1550nm & 1570nm Rx @ 1510nm & 1530nm



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)
20	Singlemode (DFB Laser) 9 / 125	+1 (per channel)	-20	21	1270, 1290, 1310, 1330	FC, ST	21	50
21	Singlemode (DFB Laser) 9 / 125	+1 (per channel)	-20	21	1510, 1530, 1550, 1570	FC, ST	21	60