



**One Channel of Bi-directional
3G-SDI / Multi-rate Video
over One Fiber**



FEATURES:

- 1 Bi-directional Channels of Multi-Rate SDI / HD-SDI / 3G-SDI (19 Mbps to 2.97Gbps (3G)) Video over One Multimode or 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
- Wide Dynamic Range: Eliminates Need for Optical Attenuators
- Optional Small, single channel Tx Easily Mounts on the Back of Broadcast Camera
- Requires No User Adjustments

DESCRIPTION:

The SXA/SXB-1HG/1HG-x system is a part of Meridian's DigiView product family and will transmit one bi-directional channel of real-time SDI / HD-SDI / 3G-SDI video over one multimode or singlemode fiber.

A side:
SXA-1HG/1HG-x

One channel SDI / HD-SDI / 3G-SDI Video = Tx @ 1310nm & Rx @ 1550nm

B side:
SXB-1HG/1HG-x

One channel SDI / HD-SDI / 3G-SDI Video = Tx @ 1550nm & Rx @ 1310nm

These serial digital video transmitters & receivers provide broadcast quality transmission of the industry standard range of digital video data rates. The entire electrical and optical subsystems are housed in a standard Meridian 1-slot card design for mounting in any venue, particularly those with space constraints. No user adjustments are needed thus ensuring fast deployment and setup with broadcast quality results.

CONFIGURATIONS:

This system is available in standard 1-slot 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
- √ 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 Equalization | Automatic 0-70m @ 3 Gb/s |
| Bit-Error Rate (0 to -20dBm)..... | 10 ⁻¹² |

Connectors

| | |
|---------------|--|
| Video | 75 Ohm BNC (Gold Center Pin) |
| Optical | Singlemode - FC (default), Multimode - ST (default) |

Optical

| | |
|--------------------|-------------------|
| Wavelengths | 1310nm, 1550nm |
| Output power | -3dBm per channel |

Part Numbers:

| | |
|----------------|--|
| SXA-1HG/1HG-11 | Transceiver, card, multimode Tx @ 1310nm, Rx @ 1550nm |
| SXB-1HG/1HG-11 | Transceiver, card, multimode Tx @ 1550nm, Rx @ 1310nm |
| SXA-1HG/1HG-5 | Transceiver, card, single-mode Tx @ 1310nm, Rx @ 1550nm |
| SXB-1HG/1HG-5 | Transceiver, card, single-mode Tx @ 1550nm, Rx @ 1310nm |
| SXA-1HG/1HG-18 | Transceiver, card, single-mode Tx @ 1310nm, Rx @ 1550nm, DFB Laser |
| SXB-1HG/1HG-18 | Transceiver, card, single-mode Tx @ 1550nm, Rx @ 1310nm, DFB Laser |

Power **

Card 5 W

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) |

Physical

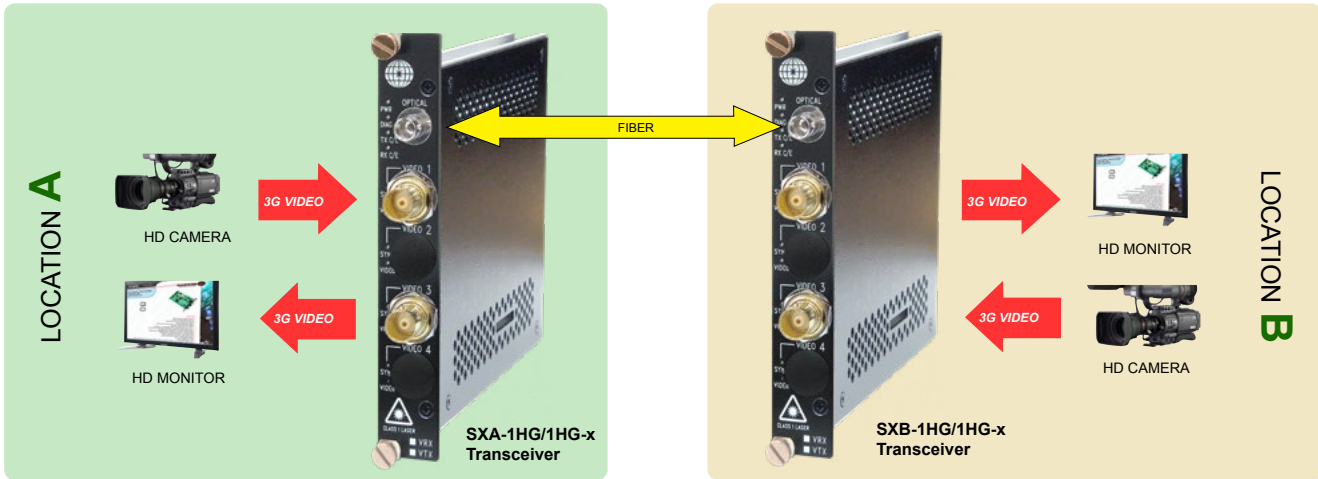
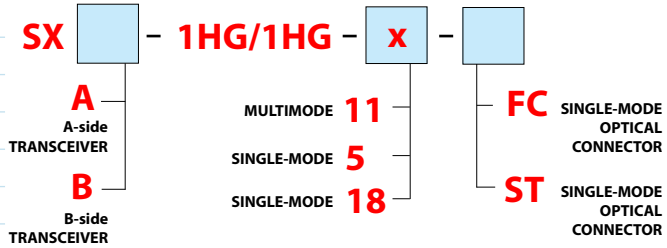
| | |
|-------------------------|---|
| Dimensions (Card) | 20 (W) x 127 (H) x 160 (D) mm (0.8 x 5.0 x 6.3 inch) |
| Weight (Card) | 450 gms (16 Oz) |
| No. of Slots | 1 |
| Module | See SR-500 Brochure |

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



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) |
|-------------------------|---------------------------------|----------------------|----------------------------|---------------------|-----------------|-------------------|----------------------------|-------------------|
| 11 | Multimode (FP Laser) 62.5 / 125 | -8 | -19 | 11 | 1310 / 1550 | ST | 20 | 0.65 |
| 5 | Single-mode (FP Laser) 9 / 125 | -3 | -18 | 15 | 1310 / 1550 | ST, FC | 18 | 30 |
| 18 | Single-mode (DFB Laser) 9 / 125 | +1 | -18 | 19 | 1310 / 1550 | ST, FC | 18 | 50/60 |