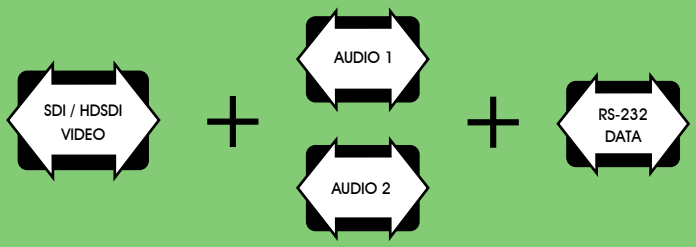
MERIDIAN TECHNOLOGIES

SXA/SXB-1HD2A1D/ 1HD2A1D-x | *DigiView™*

RoHS COMPLIANT

Digitally Encoded One Bi-directional Multi-Rate SDI & HD-SDI Video with Two Bi-directional 24-bit Audio and One Full Duplex RS-232 Data over One Fiber





FEATURES:

- One Bi-directional Channels of Multi-Rate SDI & HD-SDI Video
- Two bi-directional 24-bit Audio Channels
- One full duplex RS-232 Data Channel
- Real-Time, uncompressed Video/Audio/Data Transmission over One Single-mode Optical Fiber utilizing CWDM wavelength technology
- 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
  SMPTE 305M SDTI Rates

- Error Free Pathological Pattern Performance
- Rack Mounted Card Units
- Supports Embedded Audio and Metadata Distances in Excess of 30 km
- Wide Dynamic Range: Eliminates Need for Optical Attenuation
- DB-25 connector for Audio/Data
- Requires No User Adjustments

DESCRIPTION:

The SXA/SXB-1HD2A1D/1HD2A1D-x system is a part of Meridian's DigiView™ product family and will transmit one bi-directional channel of real-time SDI/HDSDI VIdeo, two bi-directional 24-bit Audio and one full duplex RS-232 Data 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.

Other signal options are available such as bi-directional transmission of SDI/HDSDI as well as 3G video 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 SMPTE 305M SDTI Rates
Nominal Level	0.8 Vp-p, 1.0 Vp-p max.
Data Rate	19Mb/s - 1.5Gb/s per channel
Impedance	75 Ohm
Gain	Unity
Input Coupling	AC
Return Loss	>15 dB
Jitter (Pattological Data Pattern)	< 0.2 UI
Cable Equailization	Automatic 0-200m @ 1.5 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

Data

Formats	RS-232
Rate RS-232	DC to 125 Kb/s
Bit Error Rate	10^{-9}*

Optical

Wavelengts 1310 Band	1290nm, 1310nm, 1330nm, 1350nm
Wavelengts 1550 Band	1510nm, 1530nm, 1550nm, 1570nm
Output power	+1 dBm per channel

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	Single-mode - FC (default), ST Multimode - ST (default)
Audio/Data	DB-25 Female

Power **

Card	7 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)
1 - Green	Tx Data Present
1 - Green	Rx Data Present
2 - Green	Audio Input Present
2 - Green	Audio Output Present

Physical

Dimensions (Card)	160 mm (6.3") L, 127 mm (5") W, 44 mm (1.7") H
Weight (Card)	450 gms (16 Oz)
No. of Slots	2
Module	See SR-1002 specs.

Enviromental

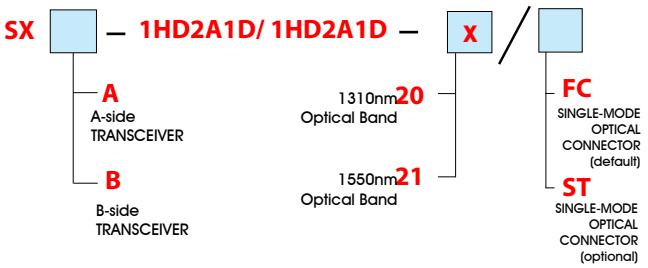
Operating Temperature	-10°C to +50°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

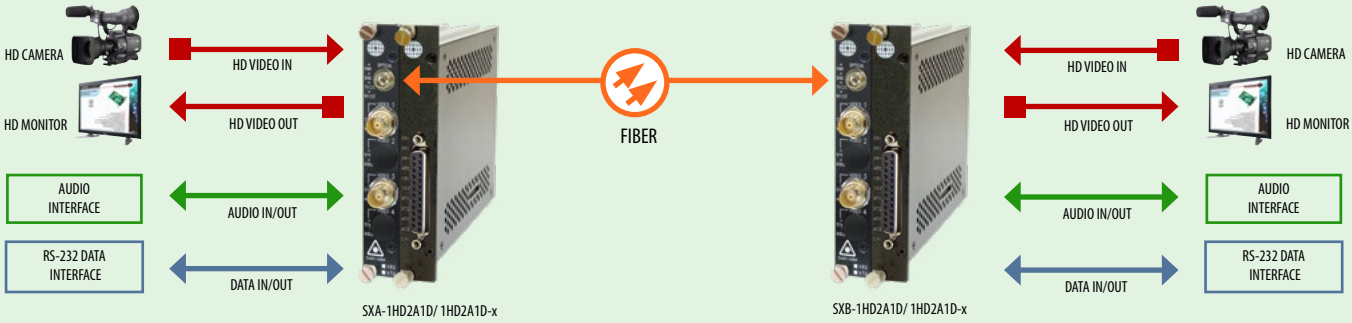
Quality

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

Part Numbers:

Card	Description	Wavelength
SXA-1HD2A1D/ 1HD2A1D-20	Side A, Transceiver 1310 Band, Single-mode	Tx @ 1290nm & 1310nm, Rx @ 1330nm & 1350nm
SXB-1HD2A1D/ 1HD2A1D-20	Side B, Transceiver 1310 Band, Single-mode	Tx @ 1330nm & 1350nm Rx @ 1290nm & 1310nm
SXA-1HD2A1D/ 1HD2A1D-21	Side A, Transceiver 1550 Band, Single-mode	Tx @ 1510nm & 1530nm Rx @ 1550nm & 1570nm
SXB-1HD2A1D/ 1HD2A1D-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	Single-mode (DFB Laser) 9 / 125	+1 (per channel)	-20	21	1290, 1310, 1330, 1350	FC, ST	21	50
21	Single-mode (DFB Laser) 9 / 125	+1 (per channel)	-20	21	1510, 1530, 1550, 1570	FC, ST	21	60

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