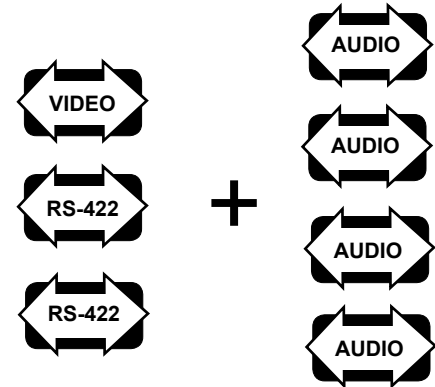


Digitally-Encoded Bi-directional Video, Audio (4 channels) and RS-422 (2 channels)



FEATURES:

- 10-Bit Video Digital Encoding
- Real Time Video / Audio / Data
- RS-422 Data with 24-Bit Audio
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- Laser Based Systems for Multimode and Singlemode
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- SpectraSmart™ Network Management Compatible
- Local LED Status Indicators to Monitor Critical System Diagnostics for Performance Parameters
- ST, FC Optical Connector
- Hot Swappable Cards
- Laser Back - Biased Photo Detector Circuitry for Stable Optical Output Over Full Temperature Range
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- DB 9 Type Connectors for Data & Audio
- DC to 125 Kb/s Data Rate

DESCRIPTION:

The DX-1W4A2F series products incorporate digital encoding technology. This fiber optic module transmits the following bi-directional (full duplex) signals: one real-time, high performance 10-bit digitally encoded Video channel, two RS-422 data and four 24-Bit Audio channels over one fiber. Both multimode and singlemode fiber versions are available. Meridian's digital product line incorporates plug-in personality signal cards to easily configure a wide variety of module types. The functionality of the DV-1W4A2F series products are enhanced by their compatibility with Meridian's PC based SpectraSmart Network Management & Diagnostic Software system. SpectraSmart supervises the operating parameters of the transmission system such as the status on video levels, sync, digital carrier detect, voltages, temperatures, optical levels etc. See SpectraSmart brochure for further details.

CONFIGURATIONS:

The DX-1W4A2F product family is available as rack mount cards and modules that can be installed in Meridian's card chassis, desk chassis and 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-1000/s, 2 slot desk / wall mount chassis (87VAC-264VAC)

MARKETS:

- √ Video conferencing
- √ Intelligent transportation systems (ITS)
- √ Security and surveillance
- √ Access Control

SPECIFICATIONS:

Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth	5 Hz to 6.8 MHz @ -3 dB
Differential Gain	<0.6%
Differential Phase	<0.3°
SNR	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Data

Formats	RS-422
Data Rate	DC to 1Mb/s
Bit Error Rate	10 ⁻⁹ *

Audio

I/O Impedance	600 Ohms (Bal. / Un Bal.)
Frequency Responce	10 Hz to 20 KHz
SNR	>90dB (Weighted)@ 1 KHz
In/Out Level	-8 to +8 dBm (4Vp-p max.) (+18 dBm available on request)
Total Harmonic Distort	<0.01% @ 1KHz
Resolution	24 Bit

Optical

Fiber Data Rate	800Mb/s
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Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Power	See SR-1000 Brochure for details
Data & Audio	DB9 Female

MODEL NO:

- DXA-1W4A2F-2 . . . Transceiver side "A", MM, 850 / 1300 nm Laser
- DXB-1W4A2F-2 . . . Transceiver side "B", MM, 850/1300 nm, Laser
- DXA-1W4A2F-5 . . . Transceiver side "A", SM, 1310 / 1550 nm Laser
- DXB-1W4A2F-5 . . . Transceiver side "B", SM, 1310/1550 nm, Laser
- DXA-1W4A2F-8 . . . Transceiver side "A", SM, 1310 / 1550 nm DFB Laser
- DXB-1W4A2F-8 . . . Transceiver side "B", SM, 1310/1550 nm, DFB Laser

Power **

Card	8 Watts
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Indicators (LEDs)

1 - Green	Power On
1 - Bi-color	TX Carrier/ Laser Over Current
1 - Bi-color	RX Carrier - Present / Error
1 - Bi-color	RX optical signal - Present / Absent
1 - Bi-color	Video Present / Overload
1 - Green	Sync. Present
4 - Green	Data Present
8 - Green	Audio Present
8 - Red	Audio Overload

Physical

Dimensions:	
Card	160 mm (6.3") L, 100 mm (4") W 44 mm (1.7") H

Weight:

Card	450 gms (16 Oz)
No. of Slots	2

Enviromental

Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

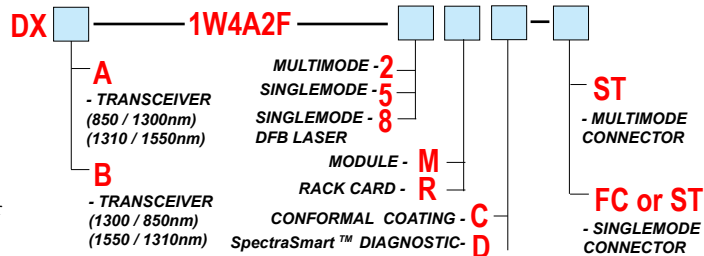
Quality

MTBF	>240,000 hours @ Ground Fix 35°C per MIL217F
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* measured @ max. optical budget

** Due to variations of drivers and diagnostic options, power shown @ max value

Part Numbers:



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	-24	21	1300 / 850	ST	24
Singlemode (FP Laser) 9 / 125	-3	-24	21	1310 / 1550	ST, FC	24
Singlemode (DFB Laser) 9 / 125	+3	-24	27	1310 / 1550	ST, FC	24

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