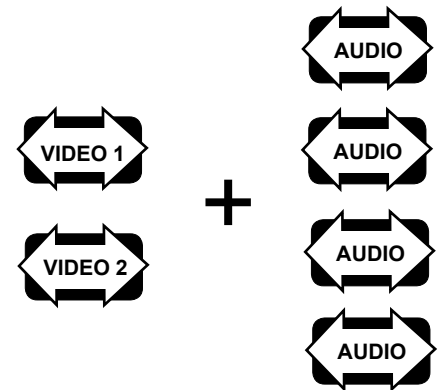


## Digitally-Encoded Two Bi-directional 10-Bit 10MHz Video and Four Bi-directional 24-Bit Audio



### FEATURES:

- 10-Bit Video Digital Encoding
- Real Time Video / Audio
- 10 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 Audio
- One or Two Fiber Versions Available

### DESCRIPTION:

The DX-2U4A series products incorporate digital encoding technology. This fiber optic module transmits the following bi-directional (full duplex) signals: two real-time, high performance 10-bit 10 MHz digitally encoded Video channels and four 24-Bit Audio channels over one or two fibers. 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 DX-2U4A 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-2U4A 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 10 MHz @ -3 dB
Differential Gain	<0.6%
Differential Phase	<0.3°
SNR	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

## 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
4 - Bi-color	Video Present / Overload
4 - Green	Sync. Present
8 - Green	Audio Present
8 - Red	Audio Overload

## Audio

I/O Impedance	600 Ohms (Bal. / Un Bal.)
Frequency Response	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

## 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

## Optical

Fiber Data Rate	800Mb/s
-----------------	---------

## Environmental

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

## Connectors

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

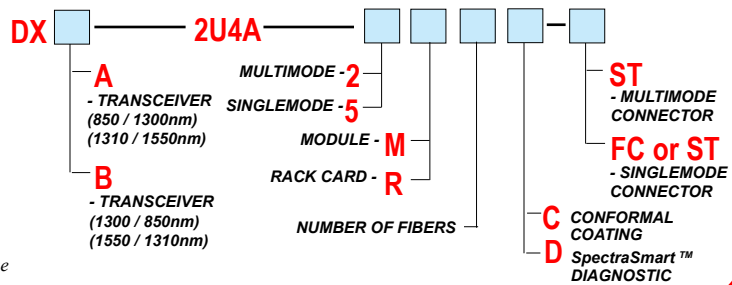
## Quality

MTBF	>240,000 hours @ Ground Fix 35°C per MIL217F
------	---

## Power \*\*

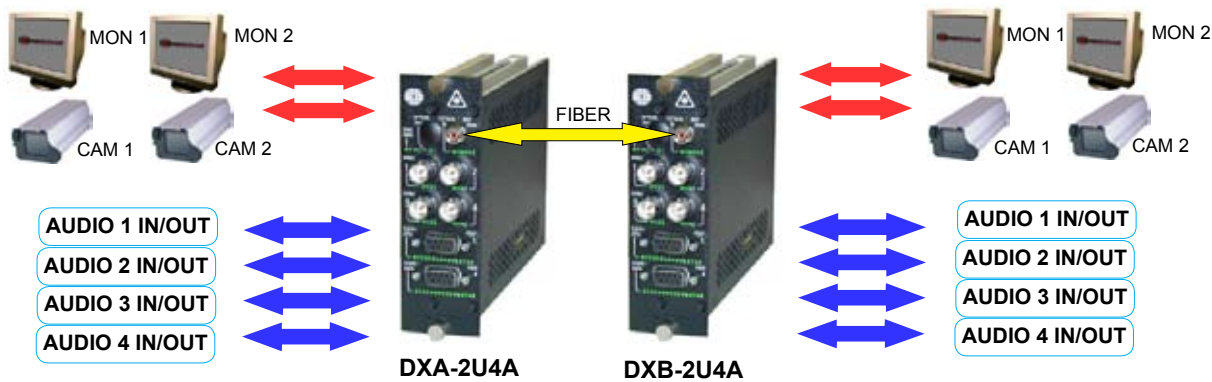
Card	8 Watts
------	---------

## Part Numbers:



\* measured @ max. optical budget

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



## 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 One Fiber	-3	-22	19	1300 / 850	ST	24
Multimode (FP Laser) 62.5 / 125 Two Fibers	-3	-22	19	1300	ST	24
Singlemode (FP Laser) 9 / 125 One Fiber	-3	-22	19	1310 / 1550	ST, FC	24
Singlemode (DFB Laser) 9 / 125 One Fiber	+3	-22	25	1310 / 1550	ST / FC	24
Singlemode (FP Laser) 9 / 125 Two Fibers	-3	-22	19	1310	ST / FC	24