

Digitally-Encoded Bi-directional Video, Audio & RS-232



FEATURES:

- 10 Bit Video Digital Encoding
- Real Time Video / Audio / Data
- RS-232 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-WAD series products incorporate digital encoding technology. This fiber optic module transmits one each of real-time, high performance full Duplex 10-bit digitally encoded Video signal, RS-232 data and 24 Bit Audio 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-VAD/VAD 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-WAD 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:

- ✓ 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-232
Rate RS-232	DC to 125 Kb/s
Bit Error Rate	10 ⁻⁹ *

Optical

Fiber Data Rate	500 Mb/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

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 - Green	Sync. Present
1 - Bi-color	Video Present / Overload
2 - Green	Data Present
2 - Green	Audio Present
2 - 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

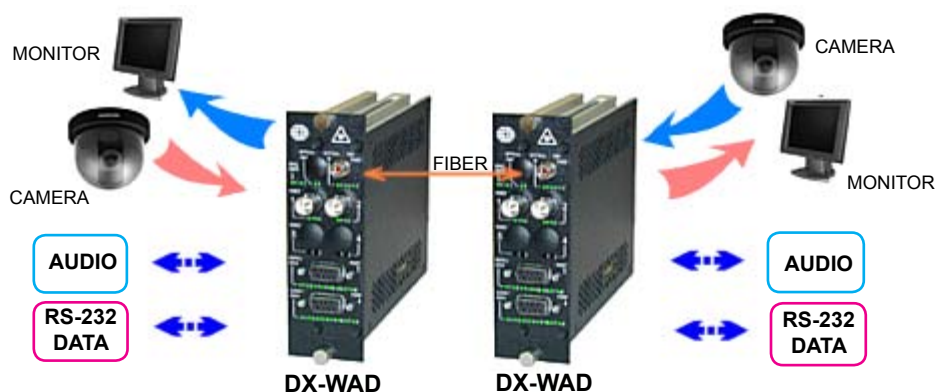
** Due to variations of drivers and diagnostic options, power shown @ max value

MODEL NO:

DXA-WAD-2 Transceiver side "A", MM, 850 / 1300 nm Laser
DXA-WAD-5 Transceiver side "A", SM, 1310 / 1550 nm Laser
DXA-WAD-8 Transceiver side "A", SM, 1310 / 1550 nm DFB Laser

DXB-WAD-2 Transceiver side "B", MM, 850 / 1300 nm, Laser
DXB-WAD-5 Transceiver side "B", SM, 1310 / 1550 nm, Laser
DXB-WAD-8 Transceiver side "B", SM, 1310 / 1550 nm, DFB Laser

ADD THE SUFFIX "C" FOR CONFORMAL COATING & "D" FOR DIAGNOSTICS AT THE END OF THE PART NUMBER FOR THESE OPTIONS



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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