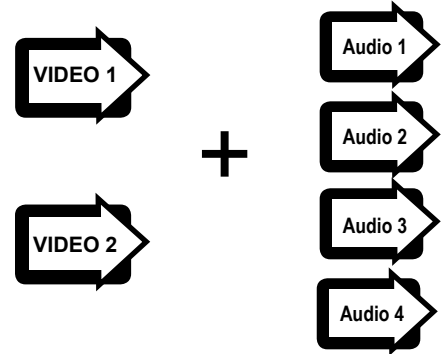


## Digitally-Encoded 10-Bit Two Channel Video with Four Channels Audio



### FEATURES:

- 10 Bit Video Digital Encoding
- 2 Channels of Real-Time 10 Bit Video Signals with 4 Channels of Real -Time 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 Audio

### DESCRIPTION:

The DT/DR-2W4A series products incorporate digital encoding technology. This fiber optic module transmits Two real-time, high performance 10-bit digitally-encoded Video signal and 4 channels of 24 Bit quality 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 DT/DR-2W4A series products are enhanced by their compatibility with Meridian's PC based SpectraSmart Network Management & Diagnostic Software system. Spectra Smart 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 Spectra Smart brochure for further details.

### CONFIGURATIONS:

The DT/DR-2W4A product family is available as rack mount cards and modules that can be installed in Meridian's card chassis, desk chaises 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:

- ✓ Pro Video
- ✓ Distance Learning
- ✓ Editing Studios
- ✓ Tele-Conferencing

## 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%

### Indicators (LEDs)

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

### Audio

In/Out Impedance	600 Ohms (Bal. / Un Bal.)
Frequenc Response	10Hz to 20KHz
SNR	>90dB (Weighted) @ 1KHz.
In / Out Level	-6 to +6 dBm (4VP-Pmax.) (+18dBm available on Request)
Total Harmonic Distortion	< 0.01% @ 1 KHz
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	500 Mb/s
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### Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Audio	DB9 Female

### Power \*\*

Card	8 Watts
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### Enviromental

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

### Quality

MTBF	>200,000 hours @ Ground Fix 35°C per MIL217F
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\* measured @ max. optical budget

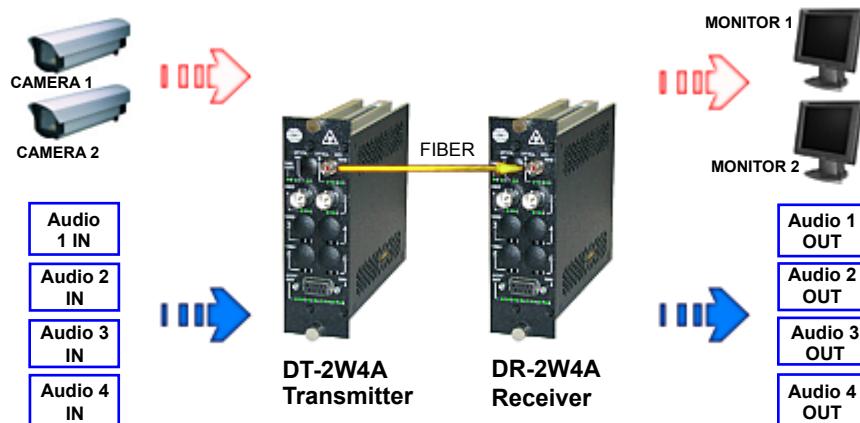
\*\* Due to variations of drivers and diagnostic options, power shown @ max value

### Model No.

DT-2W4A-1. Transmitter, 1300nm, MM, Laser  
DT-2W4A-3. Transmitter, 1310nm, SM, Laser  
DT-2W4A-4. Transmitter, 1550nm, SM, Laser  
DT-2W4A-7. Transmitter, 1550nm, SM, DFB Laser

DR-2W4A-1. . . . Receiver, 1300nm, MM, Laser  
DR-2W4A-3. . . . Receiver, 1310nm, SM, Laser  
DR-2W4A-4. . . . Receiver, 1550nm, SM, Laser  
DR-2W4A-7. . . . Receiver, 1550nm, SM, DFB Laser

NOTE: ADD THE SUFFIX "D" AT THE END OF THE PART NUMBER FOR DIAGNOSTICS AND SUFFIX "F" FOR CONFORMAL COATING.



## 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	-23	20	1300	ST	24
Singlemode (FP Laser) 9 / 125	-3	-23	20	1310	ST, FC	24
Singlemode (DFB Laser) 9 / 125	+3	-23	26	1550	ST, FC	24

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