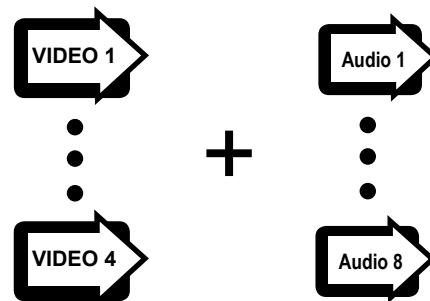


## Digitally-Encoded 10-Bit Four Channel Video with Eight Channels Audio



### FEATURES:

- 10-Bit Digital Video Encoding
- 4 Channels of Real-Time Video Signals with 8 Channels of Real-Time 24 Bit Audio
- 7 MHz Video Bandwidth
- Meets RS-250C Medium 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-4W8A series products incorporate digital encoding technology. This fiber optic module transmits 4 real-time, high performance 10-bit digitally-encoded Video signal and 8 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-4W8A 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-4W8A 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:

- ✓ 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%

### Audio

In/Out Impedance	600 Ohms (Bal. / Un Bal.)
Frequenct 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

### Optical

Fiber Data Rate	1 Gb/s
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### Connectors

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

### Power \*\*

Card	11 Watts
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### Model No.

DT-4W8A-1. Transmitter, 1300nm, MM, Laser  
 DT-4W8A-3. Transmitter, 1310nm, SM, Laser  
 DT-4W8A-4. Transmitter, 1550nm, SM, Laser  
 DT-4W8A-7. Transmitter, 1550nm, SM, DFB Laser

DR-4W8A-1. . . . Receiver, 1300nm, MM, Laser  
 DR-4W8A-3. . . . Receiver, 1310nm, SM, Laser  
 DR-4W8A-4. . . . Receiver, 1550nm, SM, Laser  
 DR-4W8A-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.

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

### 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

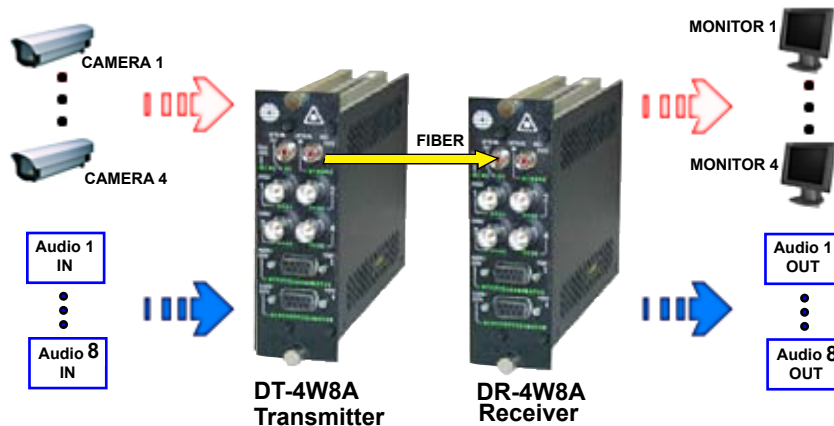
Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

### Quality

MTBF	>180,000 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



## 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

Meridian Technologies Inc.

700 Elmont Road. • Elmont, NY 11003 • 516. 285. 1000 • FAX 516. 285. 6300 • E-mail sales@meridian-tech.com  
 Visit our web side: www.meridian-tech.com or www.meridian-tech.tv

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