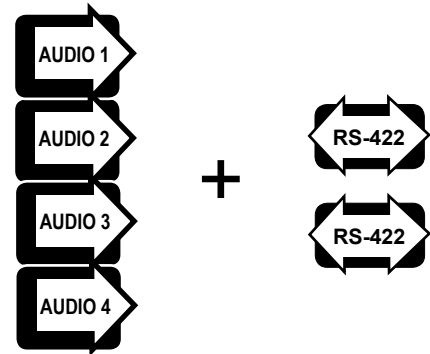


Digital 4 Channel 24 Bit Audio with  
Two Full Duplex Channels  
of RS-422



#### FEATURES:

- Standard 24 Bit Digital Audio Encoding
- 2 Channels of Full Duplex RS 422 Data
- 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.
- Meets NEMA TS1 / TS2 & CALTRANS Specs.
- DB 9 Type Connector for Data and Audio
- DC to 1 Mb/s Data Rate

#### DESCRIPTION:

The DT/DR-4A2F/2F series is a reliable, cost effective, one fiber, state-of-the-art, 4 Channels of Uni-directional 24 Bit Digital Audio and Two channels of Full Duplex RS-422 Data transmission system. This fiber optic system transmits in real-time on one Singlemode or Multimode fiber. The functionality of DT/DR-4A2F/2F series are further enhanced by their compatibility with Meridian's PC based SpectraSmart, Network Management and Remote Diagnostic Software System. SpectraSmart supervises the operating parameters of the transmission system such as status on Audio Parameters, carrier detect, voltage, temperature, optical levels, data activity etc. See the SpectraSmart brochure for more details.

#### CONFIGURATIONS:

The DT/DR-4A2F/2F product family is available as rack mount cards and modules that can be installed in all of Meridian's card chassis, desk chassis and 19" racking frames. These 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:

- ✓ Security and Surveillance
- ✓ Access Control Systems
- ✓ Intercomms

## SPECIFICATIONS:

### Data

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

### 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

### Optical

Fiber Data Rate	270 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	6 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
4 - Green	Data Present
4 - Green	Audio Present
4 - 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

### Environmental

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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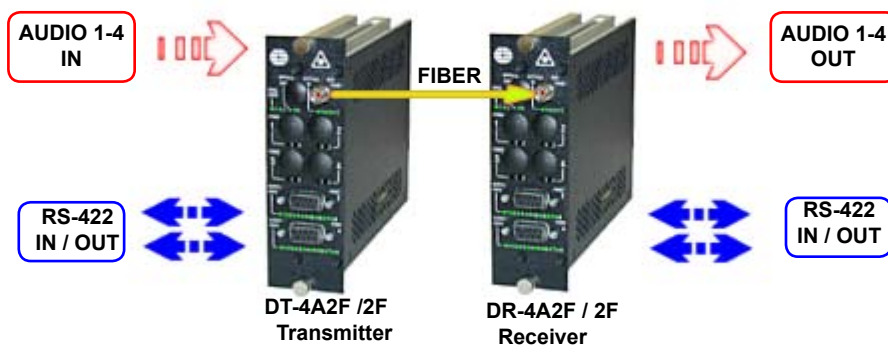
\* measured @ max. optical budget

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

### Part Numbers:

DT-4A2F / 2F-2 . . . Transmitter, 850nm/ 1300nm, MM, Laser	DR-4A2F / 2F-2 . . . Receiver, 1300nm/ 850nm, MM, Laser
DT-4A2F / 2F-5 . . . Transmitter, 1310nm/1550nm,SM, Laser	DR-4A2F / 2F-5 . . . Receiver, 1550nm/1310nm,SM, Laser
DT-4A2F / 2F-8 . . . Transmitter, 1310nm/1550nm,SM, DFB Laser	DR-4A2F / 2F-8 . . . Receiver, 1550nm/1310nm,SM, DFB Laser

NOTE: **ADD THE SUFFIX "D" AT THE END OF THE PART NUMBER FOR DIAGNOSTICS**



## 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 / -5	-23 / -22	20 / 17	1300 / 850	ST	23
Singlemode (FP Laser) 9 / 125	-3 / -3	-23 / -23	20 / 20	1310 / 1550	ST, FC	23
Singlemode (DFB Laser) 9 / 125	+3 / +3	-23 / -23	26 / 26	1310 / 1550	ST, FC	23

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