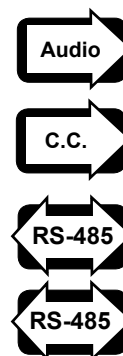


One Channel of Unidirectional 24-Bit Audio,
Unidirectional Contact Closure and Two
Bi-directional **RS-485 Data Channels**



FEATURES:

- Real Time Audio / Contact Closure
- Contact Closures with 24-Bit Audio
- Meets RS-250C Short Haul Transmission Specifications
- 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 EIA RS-170, RS-343A Formats
- DB 9 Type Connector for Audio
- HD 15-pin connector for Contact Closure

DESCRIPTION:

The DT/DR-1A1C2K/2K series products incorporate digital encoding technology. This fiber optic module transmits one unidirectional 24-bit Audio one unidirectional contact closure and two bi-directional RS-485 data channels over one multimode or singlemode fiber. 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-1A1C2K/2K series products is 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 DT/DR-1A1C2K/2K 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:

- ✓ Access Control
- ✓ Security and surveillance
- ✓ Intelligent transportation systems (ITS)

SPECIFICATIONS:

Data

Formats	RS-485
Rate	DC to 1Mb/s
Bit Error Rate	10 ^{-9*}

Contact Closure

Formats	Contact Closure
Contact Rating	0.3 A, 30 V AC/DC
Contact BounceTime	5 ms
Rate C.C.	10 Hz
Bit Error Rate	10 ^{-9*}

Audio

I/O Impedance	600 Ohms (Bal. / Un Bal.)
Frequency Responce	10 Hz to 20 KHz
SNR	>90dB (Weighted)@ 1 KHz
In/Out Level	-8 to +8 dBm (4V _{rms} max.) (+18 dBm available on request)
Total Harmonic Distort	<0.01% @ 1KHz
Resolution	24 Bit

Optical

Fiber Data Rate	250 Mb/s
-----------------	----------

Connectors

Optical	ST, FC
Power	See SR-1000 Brochure for details
Audio	DB9 Female
Contacts	HD 15-pin Female

Power **

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

MODEL NO:

DT-1A1C2K/2K-2 ..Transmitter, MM, 850/1300 nm Laser
 DT-1A1C2K/2K-5 ..Transmitter, SM, 1310/1550 nm Laser
 DT-1A1C2K/2K-8 ..Transmitter, SM, 1310/1550 nm DFB Laser

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	Transmit / Recieve Contact Closure
1 - Green	Audio Present
1 - 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

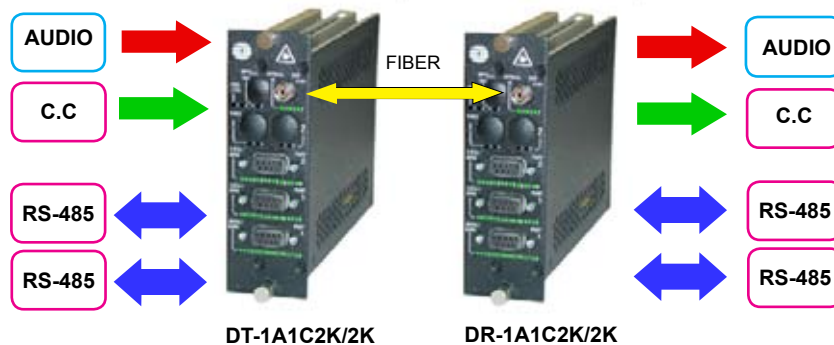
Quality

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

* measured @ max. optical budget

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

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

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

ver 01/05