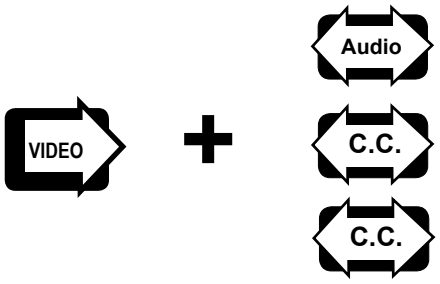
MERIDIAN TECHNOLOGIES

DT/DR-1W1A2C/1A2C **DigiFlex™**

One Channel Digital Video Transmitter, One Full Duplex Audio and Two B-directional Contact Closures



FEATURES:

- 10-Bit Video Digital Encoding
- Real Time Video / Audio / Contact Closures
- Contact Closures 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 Connector for Audio
- DB 9 (HD) connector for Contacts

DESCRIPTION:

The DT/DR-1W1A2C/1A2C series products incorporate digital encoding technology. This fiber optic module transmits one real-time, high performance, 10-bit digitally encoded Video signal, one bi-directional (full-duplex) 24-bit Audio and 2 bi-directional contact closures 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-1W1A2C/1A2C 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-1W1A2C/1A2C 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:

√ Access Control
√ Security and surveillance
√ Intelligent transportation systems (ITS)

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/Phase	<0.6% / <0.3^0
SNR	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Data

Format	Contact Closure
Rate	10 Hz.(Per Channel)
Contact Rating	0.3A, 30V AC / DC
Contact Bounce Time	5 ms

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 ($4V_{p-p}$ max.)
	(+18 dBm available on request)
Total Harmonic Distort	<0.01% @ 1KHz
Resolution	24 Bit

Optical

Fiber Data Rate	750 Mb/s

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Power	See SR-1000 Brochure for details
Audio	DB9 Female
Contacts	DB9 (HD) Female

Power **

Card	8 Watts

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 - Bi-color	Video Present / Overload
1 - Green	Sync. Present
2 - Green	Transmit Contact CLosure
2 - Green	Recieve Contact Closure
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

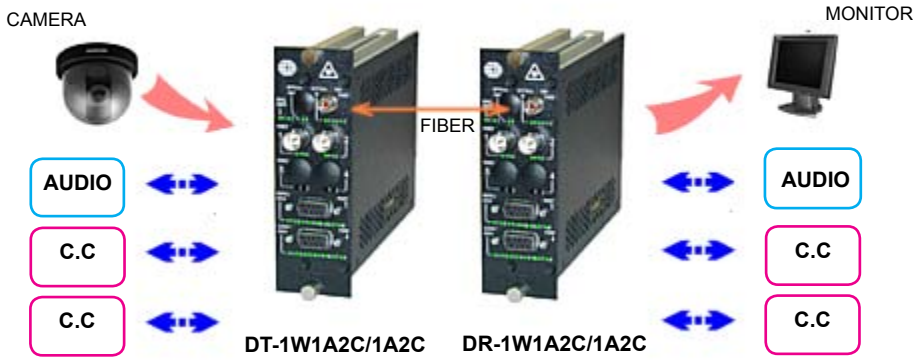
* *measured @ max. optical budget*
** *Due to variations of drivers and diagnostic options, power shown @ max value*

MODEL NO:

DT-1W1A2C/1A2C-2 ..Transmitter, MM, 850/1300 nm Laser
DT-1W1A2C/1A2C-5 ..Transmitter, SM, 1310/1550 nm Laser
DT-1W1A2C/1A2C-8 ..Transmitter, SM, 1310/1550 nm DFB Laser

DR-1W1A2C/1A2C-2 .Receiver, MM, 850/1300 nm, Laser
DR-1W1A2C/1A2C-5 Receiver, SM, 1310 /1550 nm, Laser
DR-1W1A2C/1A2C-8 .Receiver, 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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