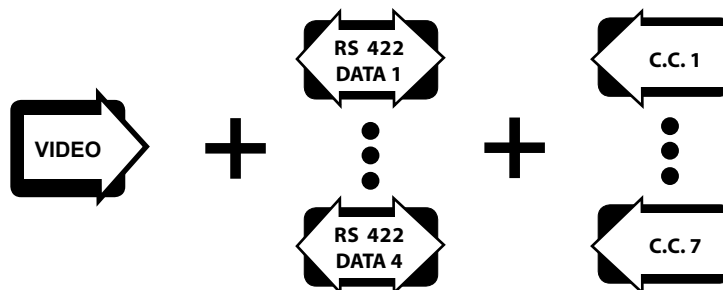


Digital One Channel 10-Bit 10MHz Video with Four Bi-directional RS 422 Data channels and Seven Returning Contact Closures using the Industry Standard Small Form Pluggable (SFP) Optical Device



### FEATURES:

- 10-Bit Video Digital Encoding
- Real Time Video & Data Transmission
- 4 Bi-Directional RS-422 Data channel
- 7 Returning Contact Closure Channels
- 10 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- Wide Optical Dynamic Range: Eliminates Need For Optical Attenuators
- Multimode, Singlemode and CWDM fiber options via SFP modules
- 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
- 75 Ohm BNC Video Connector (Gold Center Pin)
- Meets EIA RS-170, RS-343A Formats
- DB 9 Type Connectors for Data
- DB15 (HD) Type Connector for Contacts

### DESCRIPTION:

The DT/DR-1U4F/7C4F-SFP series are Meridian's newest products incorporating industry standard SFP optical modules for exceptional product versatility and performance. This fiber optic module transmits one real-time, simplex 10-bit 10MHz video, four Bi-directional RS-422 data and seven returning channels of contact closure using the industry standard Small Form Pluggable (SFP) optical device. This SFP gives you the option for either singlemode, multimode or CWDM wavelength selections by simply plugging in the appropriate SFP module. RS-422 data format are also compatible with Bi-phase & Manchester encoding schemes. 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-1U4F/7C4F-SFP product 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. This card is also available in CWDM wavelengths for high-density transport systems.

### CONFIGURATIONS:

The DT/DR-1U4F/7C4F-SFP product is available as rack mount cards and modules that can be installed in either Meridian's desk chassis or in 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. This product requires two standard single slots and can be made into a stand-alone system with the addition of the SR-1000/s, 2 slot desk/wall mount chassis (87 VAC- 264VAC).

### MARKETS:

- ✓ Intelligent Transportation Systems (ITS)
- ✓ Security and Surveillance
- ✓ Access Control

## SPECIFICATIONS:

### Video

Format .....	NTSC, PAL, SECAM
Voltage/Impedance .....	1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth .....	5 Hz to 10 MHz @ -3 dB
Differential Gain .....	<0.6%
Differential Phase .....	<0.3°
SNR .....	>67 dB (weighted)*
Return Loss .....	>30 dB
Field Tilt .....	< 0.5%

### Data

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

### Contact Closure

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

### Connectors

Video .....	75 Ohm BNC (Gold Center Pin)
Optical .....	LC, SC
Power (module) .....	See SR-1000 Brochure for details
Data .....	DB9 Female
Contacts .....	DB15 (HD) Female

### Optical

Fiber Data Rate .....	500 Mb/s
Fiber Type and Wavelength .....	SFP dependent

### Power \*\*

Card .....	7 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 - Green .....	RX Optical Signal -Present/Absent
1 - Bi-color .....	Video Present / Overload
1 - Green .....	Video Sync. Present
8 - Green .....	Data Present
7 - Green .....	Transmit Contact Closure
7 - Green .....	Receive Contact Closure

### Physical

Dimensions (Card) .....	44 (W) x 127 (D) x 160 (H) mm (1.7 x 5.0 x 6.3 inch)
Weight (Card) .....	450 gms (16 Oz)
No. of Slots .....	2

### Enviromental

Operating Temperature .....	-40°C to +74°C
Storage Temperature .....	-55°C to +85°C
Relative Humidity .....	0 to 95% Non-condensing

### Quality

MTBF .....	>170,000 hours @ Ground Fix 35°C per MIL217F
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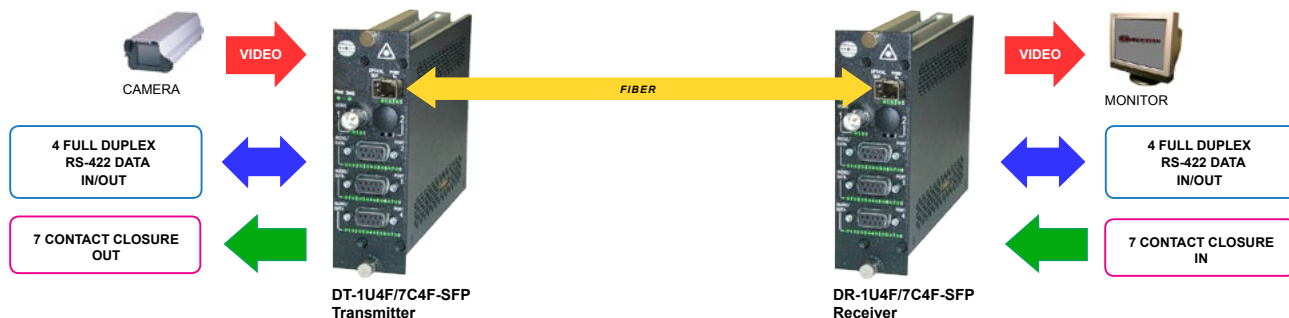
### Model No.

DT-1U4F/7C4F-SFP .....	Transmitter
DR-1U4F/7C4F-SFP .....	Receiver

\* measured @ max. optical budget

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

For SrectraSmart Diagnostics option add "D" suffix. For example : DR-1U4F/7C4F-SFP-D  
Must be used with SpectraSmart compatible subrack.



### SFP OPTIONS:

The SFP series products are available for both singlemode and multimode fiber applications and either one or two fiber versions.  
Recommended optical speed for this product is 1.25 Gb/s.

For more specifications on a SFP optical devices go to SFP data sheet clicking [here](#) or

go to: **WWW.MERIDIAN-TECH.COM -> PRODUCTS -> ACCESSORIES -> SFP OPTICAL DEVICES**

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