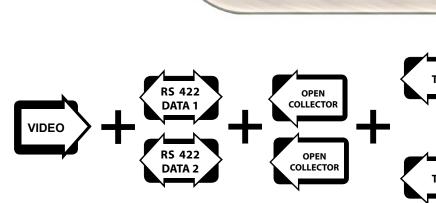


Digital One Channel 10-Bit 10MHz Video with Two Bi-directional RS 422 Data channels, Two Returning Open Collector Data Channels and Six Returning TTL Data Channels



#### **DESCRIPTION:**

The DT/DR-1U2F/2F2H6L-x products is the part of Meridian's DigiFlex product family and offers exceptional product versatility and performance. This fiber optic module transmits one real-time, simplex 10-bit 10MHz video, two Bi-directional RS-422 data, two returning channels of Open Collector data and six returning channels of TTL data over one singlemode or multimode fiber.

RS-422 data format are also compatible with Bi-phase & Manchester encoding schemes.

The functionality of the DT/DR-1U2F/2F2H6L-x product is enhanced by their compatibility with Meridian's PC based SpectraSmart<sup>™</sup> Network Management & Diagnostic Software system. SpectraSmart<sup>™</sup> 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 DigiFlex<sup>™</sup> products are 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:**

- $\sqrt{}$  Intelligent Transportation Systems (ITS)
- $\sqrt{}$  Security and Surveillance
- √ Access Control

#### FEATURES:

- 10-Bit Video Digital Encoding
- Real Time Video & Data Transmission
- 2 Bi-Directional RS-422 Data channel
- 2 Returning Open Collector Data Channels
- 6 Returning TTL Data 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
- Surface Mount Technology (SMT) for High Reliability and Repeatability
- SpectraSmart<sup>™</sup> 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 RS-422 Data
- DB-15HD Type Connectors for Open Collector and TTL Data

# **SPECIFICATIONS:**

## Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	<sup>1</sup> 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, Open Collector, TTL
Data Rate RS-422	DC to 1Mb/s
Data Rate Open Collector	DC to 125 Kb/s
Data Rate TTL	DC to 125 Kb/s
Bit Error Rate	10-9*
Contact Rating (Open Collector)	0.2A

## **Connectors**

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST - MM(default), FC- SM(default)
Power (module)	See SR-1000 Brochure for details
Data RS-422	DB-9 Female
Data TTL and Open Collector	DB-15HD Female

## **Optical**

Fiber Data Rate 500 Mb/s

### Power \*\*

Card

7 Watts

**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
12 - Green	_ Data 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	

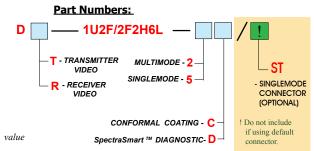
# **Enviromental**

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

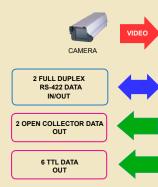
# Quality

MTBF

>170,000 hours @ Ground Fix 35°C per MIL217F



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





DT-1U2F/2F2H6L-x Transmitter



DR-1U2F/2F2H6L-x Receiver

# **OPTICAL:**

* Meridian Optical Code	Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
2	Multimode (FP Laser) 62.5 / 125	-3	-24	21	1300 / 850	ST	22	1.5
5	Singlemode (FP Laser) 9 / 125	-3	-24	21	1310 / 1550	ST, FC	22	50

FIBER