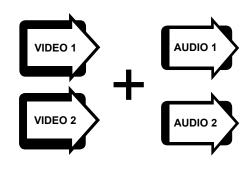


## DT/DR-2U2A-x

Digitally-Encoded Two Channels 10-Bit 10MHz Video with Two Audio Channels





### **DESCRIPTION:**

The DT/DR-2U2A-x series of products incorporates digital encoding technology. This fiber optic module transmits two real-time, simplex 10MHz 10-bit video and two unidirectional channels of 24-Bit quality Audio over one optical fiber.

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-2U2A-x series products is enhanced by their compatibility with Meridian's PC based SpectraSmart 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> product family is available as rack mount cards and modules that can be installed in either Meridian's desk chaises or in 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-1002, 2 slot desk / wall mount chassis (87 VAC- 264VAC)

#### **MARKETS:**

- √ Intelligent Transportation Systems (ITS)
- $\sqrt{}$  Security and Surveillance
- $\sqrt{}$  Access Control
- $\sqrt{1}$  Pro Video
- √ Distance Learning
- ✓ Editing Studios
- Teleconferencing

### FEATURES:

- Two Channels of Real-Time 10 Bit Video Signals with Two Channels of Real-Time 24 Bit Audio
- 10 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<sup>™</sup> 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 Connectors for Audio

# **SPECIFICATIONS:**

## Video

Format	NTSC, PAL, SECAM
Voltage/Impedance	<sup>-</sup> 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%

## Audio

In/Out Impedance	600 Ohms (Bal. / Un Bal.)
Frequenct Response	10Hz to 20KHz
SNR	>90dB (Weighted) @ 1KHz.
In / Out Level	-6 to +6 dBm (4VP-Pmax.)
	(+18dBm availabale on Request)
Total Harmonic Distortion	< 0.01% @ 1 KHz
Resolution	24 Bit

## **Optical**

Fiber Data Rate 1 Gb/s

### **Connectors**

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST - MM(default), FC - SM(default)
Power (module)	See SR-1002 Spec. for details
Audio	DB9 Female

### Power \*\*

Card

\* measured @ max. optical budget

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

9 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
2 - Bi-color	Video Present / Overload
2 - Green	Video Sync. Present
2 - Red	Audio Overload
2 - Green	Audio Present

## **Physical**

Dimensions (Card)	160 mm (6.3") L, 127 mm (5") H
ii	44mm (0.80")W
Weight (Card)	450 gms (16 Oz)
No. of Slots	2

## **Environmental**

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

# Quality

MTBF

D

>110,000 hours @ Ground Fix 35oC per MIL217F

## Part Numbers:



CAM 1 CAM 2 FIBER MON 1 **2 UNIDIRECTIONAL** CHANNELS 24-BIT AUDIO IN

> DT-2U2A-x Transmitter



CHANNELS 24-BIT AUDIO

DR-2U2A-x Receiver



MON 2

# **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)
1	Multimode (Laser) 62.5 / 125	-3	-24	21	1300	ST	24	2
3	Singlemode (FP Laser) 9 / 125	-3	-24	21	1310	ST, FC	24	50
7, 9	Singlemode (DFB Laser) 9 / 125	+3	-24	27	1310, 1550	ST, FC	24	60

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