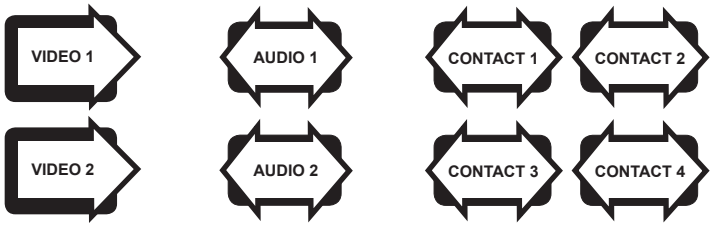
MERIDIAN TECHNOLOGIES

DT/DR-2V(W)2A4C/2A4C-x DigiFlex™

Two Channel Aiphone AX Compatible Fiber-Optic Transmission System with Two Video Channels and Bi-directional Audio and Contact Closures



FEATURES:

- Aiphone AX system compatible
- 8 Bit or 10 Bit Video Digital Encoding
- 2 Real-Time Video Signals with Two full duplex Audio Channels and 4 Bi-directional Contact Closure
- 7 MHz video bandwidth
- Meets RS-250C 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
- 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
- DB9 Connector for Audio (DB9 to ScrewTerminal adapter optional)
- DB15 Connector for Contacts

DESCRIPTION:

This card is designed specifically to work seamlessly with the Aiphone AX intercom system on one multimode or singlemode optical fiber. This module supports two Aiphone AX intercom systems on one multimode or singlemode fiber. The module features 2 channels of 8 or 10-bit, high resolution video, 2 channels of 24-bit audio and 4 channels of bi-directional contact closures. These Contact Closure channels can be individually configured as either Normally Open (N.O.) or Normally closed (N.C.). The DT/DR-2V(W)2A4C/2A4C-x accepts PAL, SECAM, or NTSC formats. The functionality of DT/DR-2V(W)2A4C/2A4C-x product are further enhanced by their compatibility with Meridian's PC based SpectraSmart, Network Management and Remote Diagnostic Software System. SpectraSmart supervises the operating parameters of the transmission system such as status on video levels, sync, carrier detect, voltage, temperature, optical levels, data activity etc. See the SpectraSmart brochure for more details.

CONFIGURATIONS:

The DT/DR-2V(W)2A4C/2A4C-x product is available as rack mount cards and modules that can be installed in any of 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. These systems can be made a standalone system by using the SR-1000, 2 slot desk / wall mount chassis (87VAC-264VAC)

MARKETS:

- ✓ 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 for 8-Bit Video	>60 dB (weighted)*
SNR for 10-Bit Video	>67 dB (weighted)*
Return Loss	>30 dB
Field Tilt	< 0.5%

Contact Closure

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

Audio

I/O Impedance	600 Ohm (Bal.), 47 KOhm (Un Bal.)
Frequency Response	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 Distortion	<0.01% @ 1KHz
Resolution	24 Bit

Optical

Fiber Data Rate for 8-Bit Video	500Mb/s
Fiber Data Rate for 10-Bit Video	800Mb/s

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Power (module)	See SR-500 Brochure for Details
Audio	DB9 Connector (DB9 to
	ScrewTerminal adapter optional)
Contact Closures	DB15 Connector

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

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
2 - Bi-color	Video Present / Overload
2 - Green	Sync. Present
4 - Green	Audio Present
4 - Red	Audio Overload
4 - 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
Module	See SR-1000 Brochure

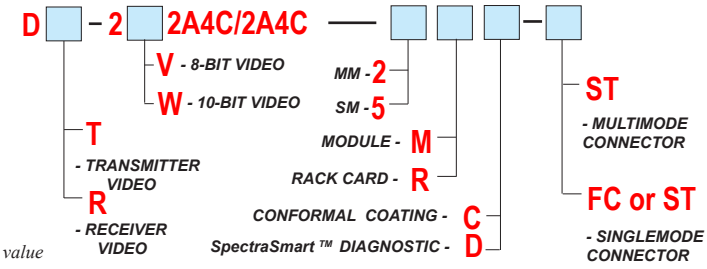
Enviromental

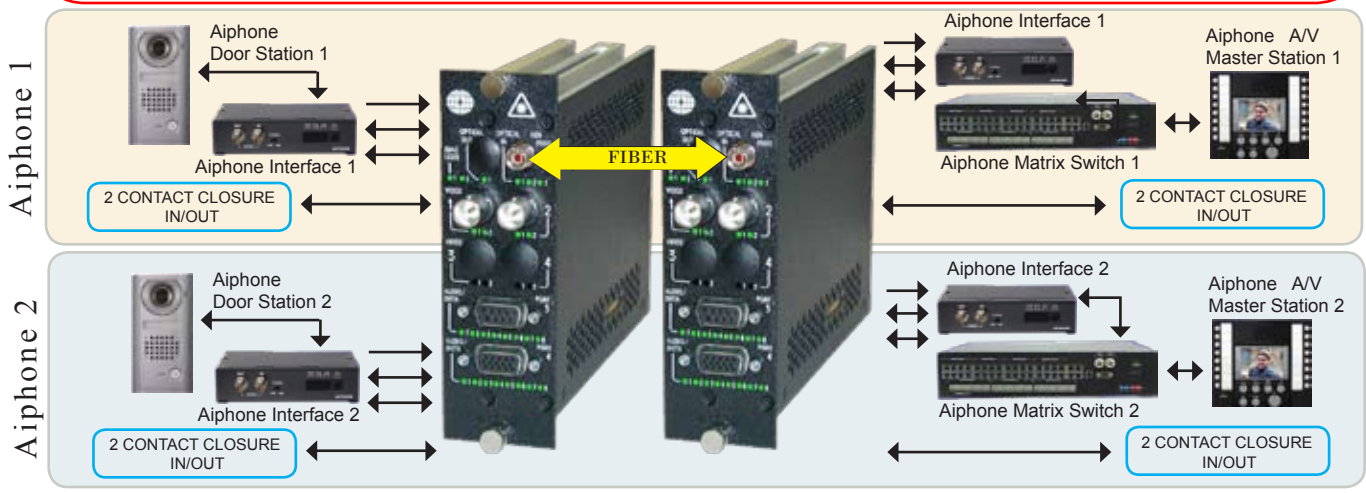
Operating Temperature	-34°C to +74°C
Storage Temperature	-55°C to +85°C
Relative Humidity	0 to 95% Non-condensing

Quality

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

Part Numbers:





DT-2V(W)2A4C/2A4C Transmitter **DR-2V(W)2A4C/2A4C Receiver**

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	-5	-26	21	1300 / 850	ST	24
Singlemode (FP Laser) 9 / 125	-5	-26	21	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
www.meridian-tech.com

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