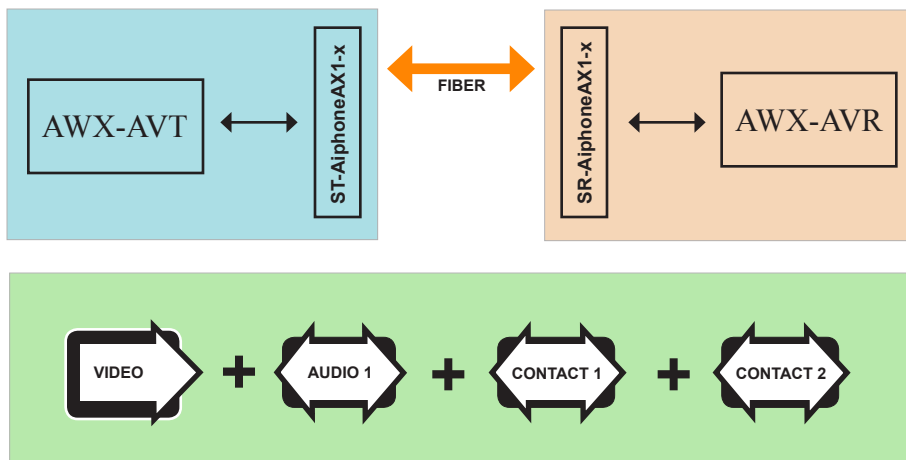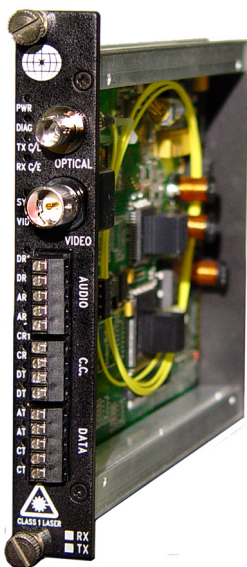**Aiphone AX Compatible Digitally Encoded Fiber Transmission System with One Channel Video and Bi-directional Audio and Contact Closures**

FEATURES:

- Aiphone AX system compatible
- 10 Bit Video Digital Encoding
- Real Time Video, Audio & Data Transmission
- 7 MHz Video Bandwidth
- Meets RS-250C Short Haul Transmission Specifications
- NTSC, PAL, SECAM Compatible
- Bi-Directional Audio, Contact Closures
- 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™ PC Based Network Management
- SpectraView™ Fault / Setup Firmware
- 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
- Screw Terminals for Audio & Contacts

DESCRIPTION:

This card is designed specifically to work seamlessly with the Aiphone AX intercom system on one multimode or singlemode optical fiber. The card features 1 channel of 10-bit, high resolution video, 1 channel of 24-bit, digitally encoded audio and 2 channels of bi-directional contact closures. The versatility of this card is enhanced by SpectraView, an on-screen video diagnostic/setup firmware system and SpectraSmart, an optional PC based network diagnostic system. SpectraView monitors the integrity of the video signal and the fiber link. A break in the fiber path will cause a loss of fiber alarm to be displayed on an associated monitor while loss of video sync will generate a loss of sync alarm on the monitor. SpectraView is easy to use and eliminates the need for additional test equipment. SpectraView also includes a selectable on-board audio test signal generator with built-in local and remote loop-back functions. In addition a video grey scale function is included to assist in monitor and system setup. If greater diagnostic capability is required, this product is also available with Meridian's SpectraSmart Network management and diagnostic PC based system. See the SpectraSmart or SpectraView brochures for additional details.

NOTE: This unit replaces the ST & SR-1W1A2C/1A2C-x series product for this AiphoneAX application.

CONFIGURATIONS:

This product is available as a rack mount card that can be installed in any of Meridian's desk chassis or in 19" racking frames. This system can be transformed in to a standalone module by utilizing an SR-500 (standard configuration) or an SR-1000 subrack frames.

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 6.8 MHz @ -3 dB
Differential Gain	<0.6%
Differential Phase	<0.3°
SNR	>60 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	250 Mb/s

Connectors

Video	75 Ohm BNC (Gold Center Pin)
Optical	ST, FC
Power (module)	See SR-500 Brochure for Details
Audio/Contact Closures	14pin Screw Terminals

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

Power **

Card	6 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	Video Present / Overload
1 - Green	Sync. Present
1 - Bi-Color	Audio Present / Overmodulation
2 - Green	Contact Closure Present

Physical

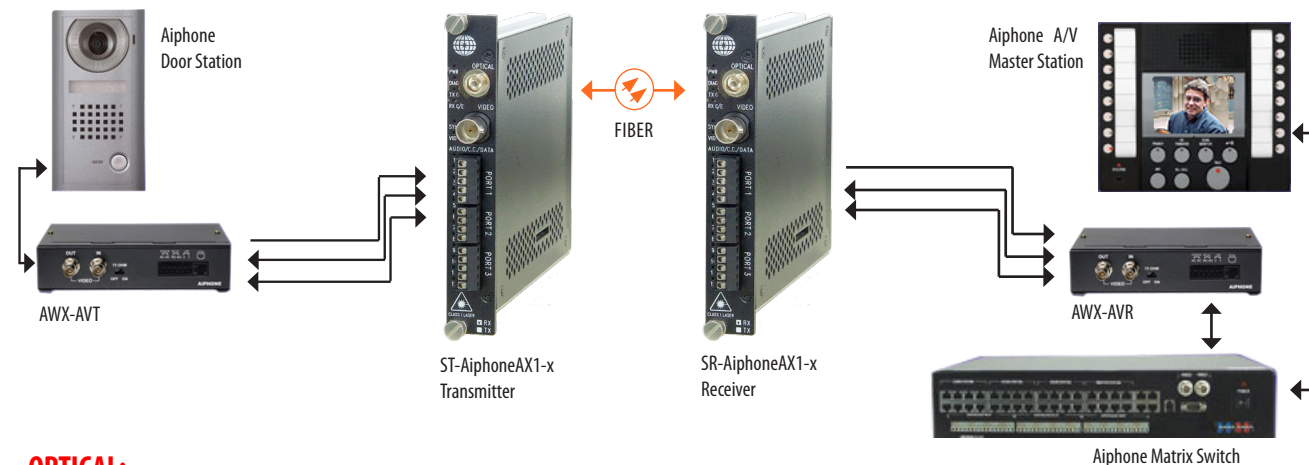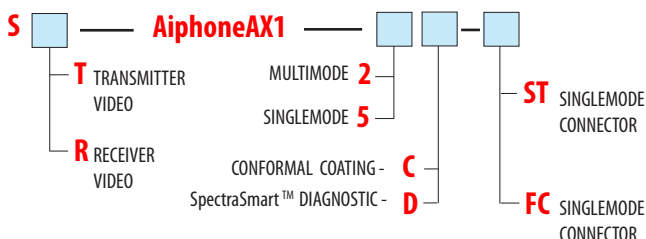|	
Dimensions (Card)	160 mm (6.3") L, 127 mm (5") W 20mm (0.80") W
Weight (Card)	450 gms (16 Oz)
No. of Slots	1
Module	See SR-500 Brochure

Enviromental

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

Quality

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

Part Numbers:

S ▢ — AiphoneAX1 — ▢▢▢

- **T** TRANSMITTER VIDEO
- **R** RECEIVER VIDEO
- MULTIMODE **2**
- SINGLEMODE **5**
- CONFORMAL COATING - **C**
- SpectraSmart ™ DIAGNOSTIC - **D**
- **ST** SINGLEMODE CONNECTOR
- **FC** SINGLEMODE CONNECTOR

Aiphone Door Station

AWX-AVT

ST-AiphoneAX1-x Transmitter

FIBER

SR-AiphoneAX1-x Receiver

Aiphone A/V Master Station

AWX-AVR

Aiphone Matrix Switch

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	-5	-26	21	850/ 1300	ST	26	4
5	Single-mode (FP Laser) 9 / 125	-5	-26	21	1310 / 1550	ST, FC	26	60

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