

Digitally Encoded One Channel  
10-Bit 10MHz Video

**FEATURES:**

- One Slot Digital Module Design
- 10-Bit Video Digital Encoding
- Real-Time Video Transmission
- 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 System for Either Multimode or Single-mode Operation
- SpectraSmart™ Network Management Compatible
- Local LED Status Indicators to Monitor Critical System Parameters
- ST or FC Optical Connectors
- Hot Swappable Cards
- Laser Back-Biased Photo Detector Circuitry for Stable Optical Output over Full Temperature Range
- Meets Eia Rs-170 Formats
- Meets Nema TS1/TS2 And Caltrans Specifications
- 75 Ohm BNC Video Connector (Gold Center Pin)

**DESCRIPTION:**

This card is part of our expanding DigiSlim™ product family and incorporates an all-digital encoding technology.

The ST/SR-1U-x series product transmits/receives one channel of high performance 10-bit digitally-encoded video over one multimode or single-mode fiber.

This product also features a high, 10MHz video channel bandwidth for superb video quality.

NTSC, PAL and SECAM video formats are seamlessly supported. This product series has on-board SpectraView™ diagnostics built in and is also compatible with Meridian's SpectraSmart™ network management and diagnostic PC based system. See the SpectraSmart brochure for additional details.

For small standalone module version of this product see MT/MR-1U-x datasheet.

**CONFIGURATIONS:**

The STSR-1U-x system 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 transformed in to a standalone module by utilizing an SR-500/S (standard configuration) or an SR-1000/S.

**MARKETS:**

- ✓ Intelligent transportation systems (ITS)
- ✓ Security and surveillance

## 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 .....	>60 dB (weighted)*
Return Loss .....	>30 dB
Field Tilt .....	< 0.5%

### Optical

Fiber Data Rate .....	270 Mb/s
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### Connectors

Video .....	75 Ohm BNC (Gold Center Pin)
Optical .....	ST, FC
Power (module) .....	See SR-500 Brochure for details

### Power \*\*

Card .....	4 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 - Bi-color .....	Video Present / Overload
1 - Green .....	Video Sync. 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

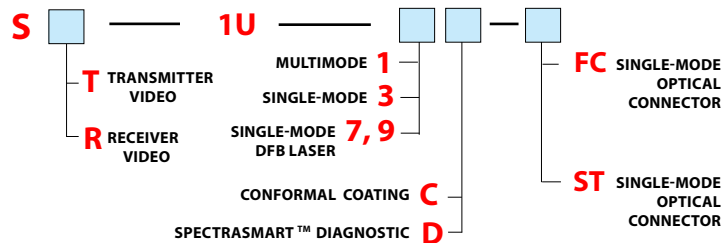
### Environmental

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

### Quality

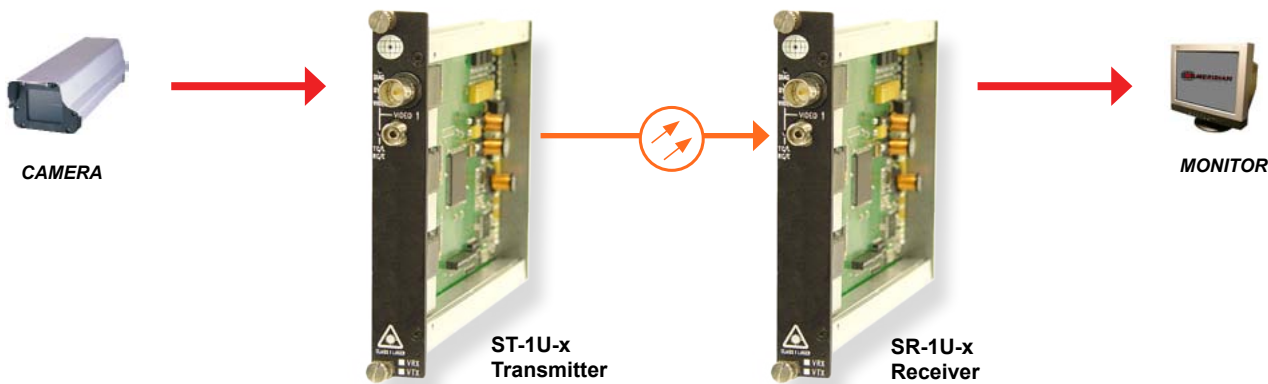
MTBF .....	>170,000 hours @ Ground Fix 35°C per MIL217F
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### Part Numbers:



\* measured @ max. optical budget

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



## 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	-22	19	1300	ST	22	3.5
3	Singlemode (FP Laser) 9 / 125	-3	-22	19	1310	ST, FC	22	50
7, 9	Singlemode (DFB Laser) 9 / 125	+3	-22	25	1550, 1310	ST, FC	22	70

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