MERIDIAN TECHNOLOGIES

SERIES 145

Single Channel FM Wideband Video System

VIDEO

FEATURES:

- Surface Mount Technology (SMT) for High Reliability and Repeatability
- Compact Modules and Card Units
- Laser Based Back-Biased Photo Detection Circuitry for Stable Optical Output Over Full Temperature Range (Singlemode)
- 30MHz Video Bandwidth
- Meets EIA RS-170, RS-343A
- Frequency Modulated (FM) Transmission
- Input Voltage Range: 12VDC-35VDC, 9VAC-24VAC (Modules)
- SpectraSmart™ Compatible
- Meets NEMA TS1/TS2 and Caltrans Specifications
- Utilizes Internal Switching Power Supplies
- Meets RS-250C Transmission Requirements
- Compatible with AII NTSC, PAL, or SECAM Systems
- LED Status Indicators Provide Rapid Indication of Critical Operating Parameters
- Automatically Resettable Solid-State Current Limiters on All Power Lines: Provides Equipment Protection
- Wide Optical Dynamic Range: Optical Attenuators are Never Required

DESCRIPTION:

The Series 145 is a Frequency Modulated (FM) state-of-the-art wideband fiber optic video system that transmits and receives a real time video signal over one multimode or singlemode fiber. PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted distances of up to 3Km (multimode) and 100 Km (singlemode). All Meridian products requires no user adjustments & features superior quality and performance. The capabilities of the Model 145 are enhanced by it's compatibility with Meridian's PC based SpectraSmart™ Network Management and Diagnostic software system. See the SpectraSmart™ brochure for more details.

CONFIGURATIONS:

The 145 product family is available in both stand-alone modules and rack mount cards. The cards can be installed in all of Meridian's card chassis, desk chassis and 19" racking frames. This system can be configured in either star (module to rack) or trunking (rack to rack) configurations. The Series 145 is compatible with the Series 195 triple transmitter and receiver cards for high-density applications.

APPLICATIONS:

Security and Surveillance
Military Communications
Intelligent Transportation System (ITS)
Radar

SPECIFICATIONS:

Video

Format . . . . . NTSC, PAL, SECAM
Voltage/Impedance . . . . . 1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth . . . . . 5Hz to 30 MHz @ -3 dB
Differential Gain . . . . . <2% typical
Differential Phase . . . . . <1.5° typical
SNR . . . . . 64 dB weighted*
Return Loss . . . . . >30 dB
Field Tilt . . . . . <0.5% max.
Carrier Frequency . . . . . 150 MHz

Connectors

Video . . . . . 75 Ohm BNC (Gold Center Pin)
Optical . . . . . ST™, FC
Power . . . . . 2 Pin Terminal Block

Power**

Transmitter Card . . . . . 2 W
Transmitter Module . . . . . 85 mA @ 24 VAC
Reciever Card. . . . . 2 W
Reciever Module . . . . . 95 mA @ 24 VAC

Indicator

Module (Bi-Color LED):
Green . . . . . Video Sync Present
Red . . . . . Video Sync Absent
Off . . . . . Absence of Power
Card (LED):
Red . . . . . Power On

Physical

Dimensions:
Module*** . . . . . 90 mm (3.5”) L, 60 mm (2.3”) W
. . . . . 25 mm (1”) H
Card . . . . . 160 mm (6.3”) L, 20 mm (0.8”) W
. . . . . 100 mm (4”) H
Weight:
Module . . . . . 858 g (3 oz.)
Card . . . . . 450 g (16 oz.)
Number of Rack Slots . . . . . One

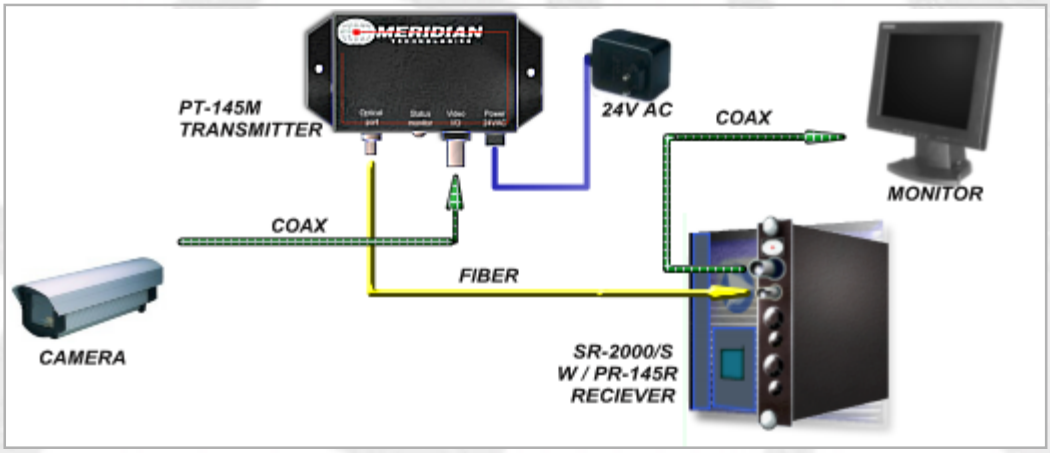
Enviromental

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

Quality

MTBF. . . . . >340,000 hours @ Ground Fix
. . . . . 35°C per MIL217F

** As per RS-250C, measured @ 1Km (multimode), @ 10Km (singlemode)*
*** Due to variations of drivers and diagnostic options power shown at maximum measurements*
**** Add 30mm to include mounting flanges*



OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Reciever Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)
Multimode* (SLED)						
62.5/125	-13	-33	20**	850	ST	39
62.5/125	-16	-33	17**	1300	ST	39
Singlemode (Laser)						
9/125	-7***	-35	28	1310	ST, FC	41
9/125	-10***	-35	25	1550	ST, FC	41

** Distance is limited to fiber loss, splices and fiber bandwidth*
*** For 50/125µm fiber, subtract 3dB*
**** Higher output lasers available*

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