MERIDIAN
TECHNOLOGIES

One Channel
IM Video System

VIDEO

FEATURES:

- Surface Mount Technology (SMT) for High Reliability and Repeatability

- Compact Modules and Card Units

- ST™ Optical Connector

- 15MHz Video Bandwidth

- Meets EIA RS-170, RS-343A

- 9VAC-24VAC (Modules)

- Utilizes Internal Switching Power Supplies

- Meets RS-250C Transmission Requirements

- Compatible with All 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

- BNC Video Connector

DESCRIPTION:

The Series 100 is a Intensity Modulated (IM) state-of-the-art fiber optic video system that transmits and receives real time video signals over one multimode fiber. PAL, SECAM or NTSC formats, in B&W or color, are seamlessly transmitted distances of up to 6Km. The Series 100 is compatible with the Series 130 triple transmitter and receiver cards for high-density applications. This product requires no user adjustments & features superior quality and performance. The 100's capabilities are enhanced by it's compatibility with Meridian's PC based SpectraSmart™ Network Management and Diagnostic software system. SpectraSmart™ supervises the operating parameters of the transmission system such as status on video levels, sync, voltage, temperature, optical levels, etc., as well as external equipment which are attached to the Meridian equipment. See the SpectraSmart™ brochure for more details.

CONFIGURATIONS:

The 100 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 100 is compatible with the Series 130 triple transmitter and receiver cards for high-density applications that can accommodate up to 54 transmitters or receivers per 19" chassis.

APPLICATIONS:

√ Security and Surveillance
√ Distance Learning

SPECIFICATIONS:

Video

Format . . . . NTSC, PAL, SECAM
Voltage/Impedance . . . . 1 Vp-p, 75 Ohm, 1.5 Vp-p max.
Bandwidth . . . . 5 Hz to 15 MHz @ -3 dB
Differential Gain . . . . <2% typical
Differential Phase . . . . <2º typical
SNR . . . . 67 dB weighted*
Return Loss . . . . >30 dB
Field Tilt . . . . <0.5% max.

Power**

Tx Module (PT-100M) . . . . 80 mA @ 24 VAC
Tx Module (PT-100M/50) . . 80 mA @ 24 VAC, 50Hz
Rx Module (PT-100M) . . . . 90 mA @ 24 VAC
Rx Module (PT-100M/50) . . 90 mA @ 24 VAC, 50Hz
Tx Card . . . . 1.8 W
Rx Card . . . . 2 W
Adapter for SR-500/S . . . . . Model WP-24

Part Numbers:

PT-100M	Video Transmitter, module
PR-100M	Video Receiver, module
PT-100M/50	Video Transmitter, module, 50Hz power freq.
PR-100M/50	Video Receiver module, 50Hz power freq.
PT-100R	Video Transmitter, rack card
PR-100R	Video Receiver, rack card

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

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 . . . . 170 g (6 oz.)
Card . . . . 310 g (11 oz.)
Number of Rack Slots . . . . . One

Environmental

Operating Temperature. . . . . -30ºC to +60ºC
Storage Temperature. . . . . . . -50ºC to +85ºC
Relative Humidity. . . . . 0 to 95% Non-condensing

Quality

MTBF. . . . . >230,000 hours @ Ground Fix
. . . . 35ºC per MIL217F

Connectors

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

CAMERA → VIDEO IN → PT-100M → PR-100M → VIDEO OUT → MONITOR
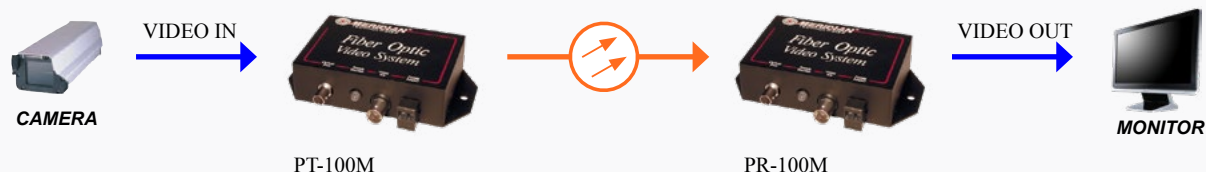
OPTICAL:

Fiber Type/Size (um)	Optical Output (dBm)	Receiver Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical Connector	Optical Dynamic Range (dB)	Max Distance (Km)
Multimode* (SLED) 50 / 125	-18	-44	26	850	ST	29	5.4
Multimode* (SLED) 50 / 125	-20	-44	24	1300	ST	29	5.0
Multimode* (SLED) 62.5 / 125	-15	--44	29	850	ST	29	6.0
Multimode* (SLED) 62.5 / 125	-17	-44	27	1300	ST	29	5.6

* *Distance is limited due to fiber loss and splices*