



Installation/Operation Instructions

Fiber Optic Video Transmission System

Part Number:

PT-4000iR
(4-channel Video Transmitter)

PR-4000iR
(4-channel Video Receiver)

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1.0 Product Description

The PT-4000iR & PR-4000iR series is a multi-channel video fiber optic FM video transmission system capable of transmitting up to four (4) composite video signals over one multimode or singlemode optical fiber using FM transmission technologies. The PT-4000iR & PR-4000iR series is compatible with NTSC, PAL and SECAM video signals.

This product series uses Meridian's standard 1-slot wide chassis mount card assembly and plugs into the following Meridian chassis: SR-500/S, SR-1000/S, SR-1200/S, SR-1500/S, and SR-2001 & SR-2000 series 19" equipment chassis.

2.0 Product Specifications

The tables below identify the key specifications for the video signals that these modems transmit/receive.

Video	
Format	NTSC, PAL, SECAM
Voltage/Impedance	1Vp-p, 75 Ω , 1.5Vp-p (max)
Differential Gain	<1%
Differential Phase	<0.7°
SNR	>60dB (weighted)
Return Loss	>30dB
Field Tilt	<0.5%

Connectors	
Video	75 Ω BNC w/gold center pin
Optical	Singlemode – ST or FC Multimode - ST

Fiber Type/Size (um)	Optical Output (dBm)	Rx Sensitivity (dBm)	Optical Budget (dB)	Wavelength (nm)	Optical connector	Optical Dynamic Range (dB)
Multimode (FP Laser) 62.5/125	-3	-22	19	850	ST	22
Multimode (FP Laser) 62.5/125	-3	22	19	1300	ST	22
Singlemode 9/125	-3	22	19	1310	ST, FC	22
Singlemode 9/125	+2	-22	24	1310DFB	ST, FC	22
Singlemode 9/125	+3	-22	25	1550DFB	ST, FC	22

3.0 Installation

Series PT-4000iR & PR-4000iR series products are one-slot wide cards and, as such, occupy only one slot in Meridian's standard chassis (SR-500/S, SR-1000/S, SR-1200/S, SR-1500/S, and SR-2001 & SR-2000 series 19" equipment chassis). To install in the chassis, orient the card with the Meridian logo at the top of the module and slide onto the top and bottom card guides in the chassis. Press securely on the top and bottom of the module to ensure that it is fully seated in the chassis so that the electrical connector mates with the chassis-mounted motherboard. Once installed, manually tighten the two thumbscrews located at the top and bottom of the card. Do not use tools to secure these and do not over tighten.

Note: A fully loaded subrack should have forced-air cooling to avoid excessive heat generation inside the chassis. A fan assembly tray (P/N FA-2000) with three (3) fans is available and should be installed under the 19" SR-2000/2001 chassis whenever possible.

4.0 Front Panel Layout

The figures below show the video input/output connector and Power LED indicator locations for the 4-channel transmitter and receiver modules, respectively.

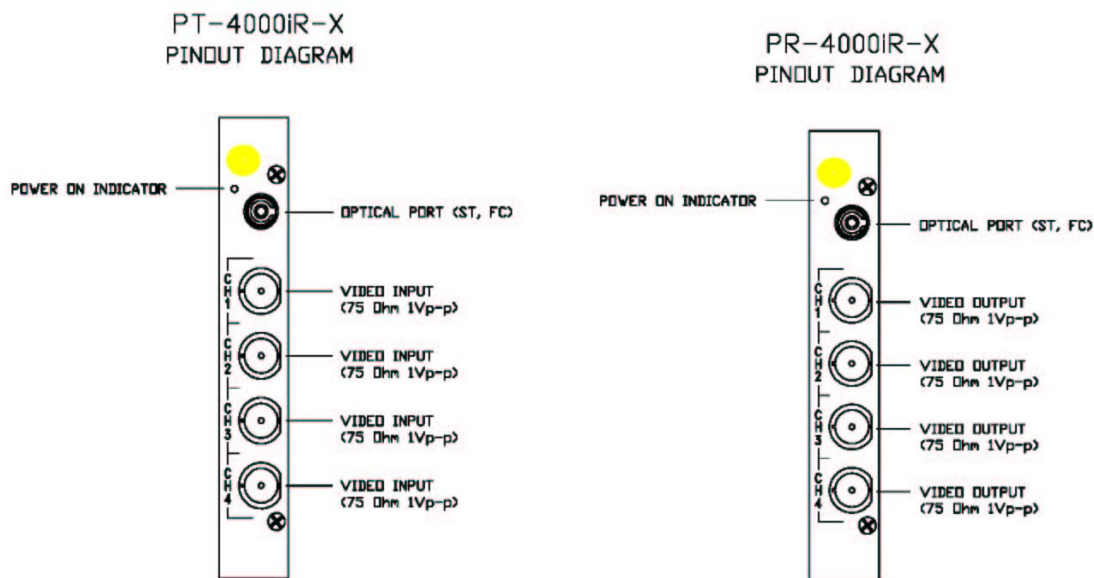


Figure 4.1
Front Panel Layout Diagrams

5.0 Troubleshooting

Below is a listing of several problems that may arise during the installation & operation of the modules. If you are having difficulty installing or operating the modules please refer to this list below.

- Problem:** *Module does not fit in chassis slots*
Action: Check module orientation. Meridian “Globe” must be oriented on the top left hand side of the module
Make sure the card guides in the chassis are aligned with the extrusion on the module
- Problem:** *Card power LED does not light when power to the module/subrack is applied or power indicator turns on and off*
Action: Check power supply to ensure that it is plugged in and turned on. If flashing continues, move module to another chassis or location in the same chassis, if available.
- Problem:** *No video at output of module*
Action: Check to ensure that the video coax cables are attached to the appropriate channels on both the transmitter and receiver modules. If no video is still present, check to ensure that the monitor is ON and the video cable is connected to the correct video port on the Rx module.

If the problem still exists after reviewing the above items, please contact Meridian technical support (516-285-1000).