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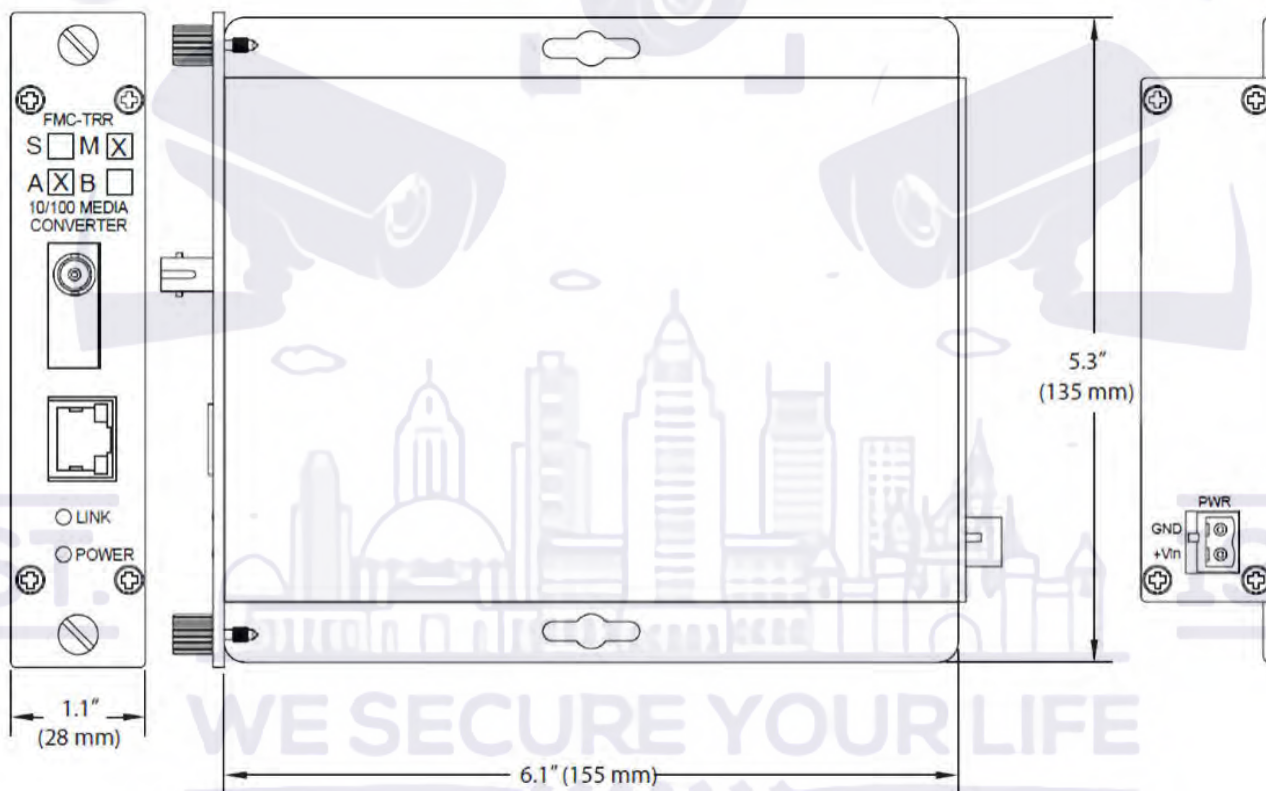
## General

The FMC-TRRM-A Media Converters convert 10/100 Mbps Fast Ethernet from an electrical signal to an optical signal and back to an electrical signal. The electrical connection uses an RJ45 data connector. The optical connector is an ST type.

The media converters are transceivers, designed to transmit and receive 10/100 Mbps data over Multimode optical fiber. The electrical interface will Auto-Negotiate to a 10 Mbps, or 100 Mbps Ethernet rate without any adjustments. The optical interface operates at a 100 Mbps Ethernet rate.

Ordered as a pair, with a set consisting of one A and one B model, these media converters are environmentally hardened to operate in extreme temperatures. LED indicators are provided for rapidly ascertaining equipment operating status.

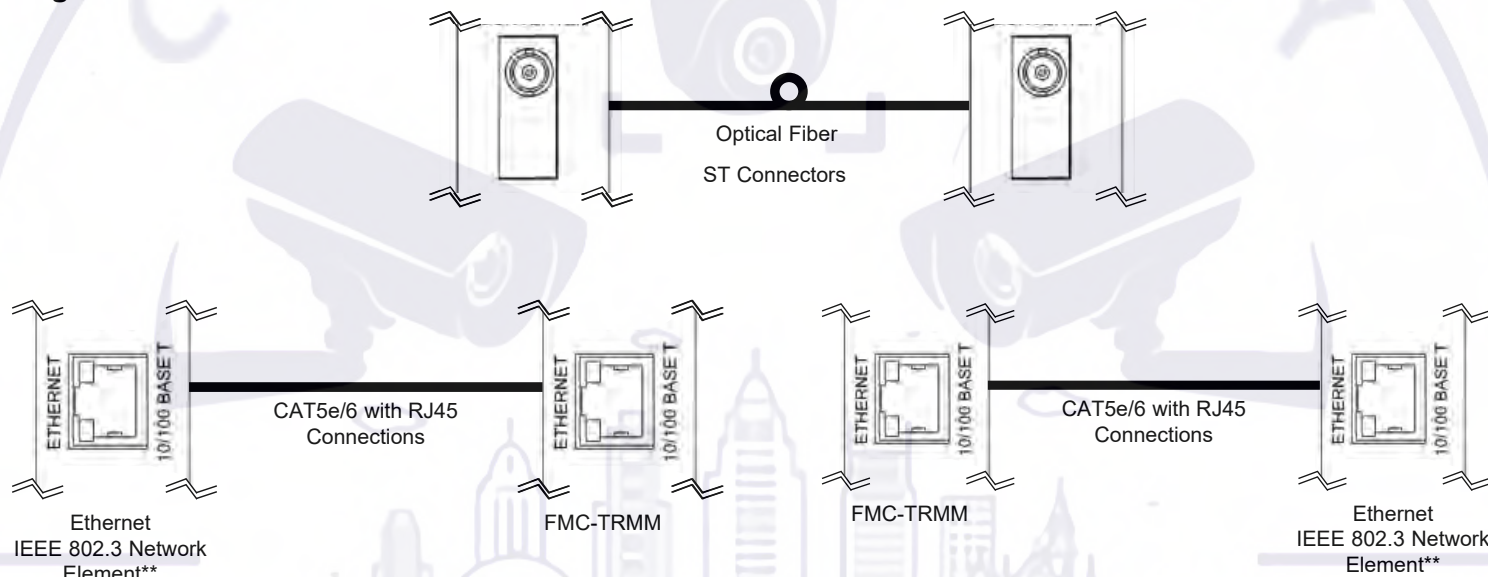
The TRRM series are standard size units that may be wall or rack mounted using the optional FMC-RK Rack-Mount Card Cage.



## FMC Units LED Indicators Description

	POWER	LINK	LINK (RJ-45)	Speed (RJ-45)
GREEN Off	Not connected to power	No optical link	No UTP link	N/A
GREEN Steady On	Properly powered	Optical link established; not passing optical data	UTP link established; not passing optical data	N/A
GREEN Flashing	N/A	Optical link established; passing optical data	UTP link established; passing optical data	N/A
YELLOW Off	N/A	N/A	N/A	10 Mbps Ethernet connection established
YELLOW Steady On	N/A	N/A	N/A	100 Mbps Ethernet connection established

### Single Fiber



\*These devices are used in A/B pairs; each system requires an A and a B unit.

\*\*Ethernet IEEE 802.3 Network Element determined by user.

## Installation

### INSTALLATION CONSIDERATIONS

Install the FMC-TRRM-A units as required using “best practice” procedures. The FMC-TRRM units may be wall mounted using “best practice” procedures. To install the FMC-TRRM in the FMC-RK Card Cage, proceed as follows.

**WARNING:** Although the units are hot-swappable and may be installed without turning power off to the rack, it is recommended that the power supply be turned off and that the rack power supply is disconnected from any power source.

**Note:** Remove electrical connector before installing in card cage rack.

1. Make sure that the card is oriented right side up and slide it into the card guides in the rack until the edge connector at the back of the card seats in the corresponding slot in the rack’s connector panel. Seating may require thumb pressure on the top and bottom of the card’s front panel.

**CAUTION:** Take care not to press on any of the LEDs.

2. Tighten the two thumb screws on the card until the front panel of the card is seated against the front of the rack.

**WARNING:** If a FMC-TRRM-A unit is installed in a FMC-RK, a 9 VDC power supply is in the rack. If the unit requires an external power supply, a Listed Class 2 or Linear Power Supply (LPS) rated at 8 - 24 VDC @ 1A should be used. The FMC-TRM unit requires either a 8 - 24 VDC @ 1A or 22 - 27 VAC @ 0.5 A power supply.

### IMPORTANT SAFEGUARDS:

- A. Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.
- B. Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.