



# FRM220-1000TS

1000Base-T to 1000Base-X SFP Media Converter

The FRM220-1000TS is a transparent Gigabit Ethernet 1000Base-T to 1000Base-SX/LX SFP converter with very low latency. They are managed (when installed in FRM220 with NMC) or non-managed stand-alone media converters, which give you the options to choose from a wide range of industry standard SFP modules with LC connectors. SFPs in multi-mode and single mode types are available as well as BiDi which allows bi-directional transmissions using only a single fiber cable. Because they are completely transparent to Ethernet packets, they are able to support any size frames, including undersized or jumbo packets (>9K bytes). LED indicators signal the power status of the converter, UTP port speed, Link, and duplex status, FX port Link and duplex status.

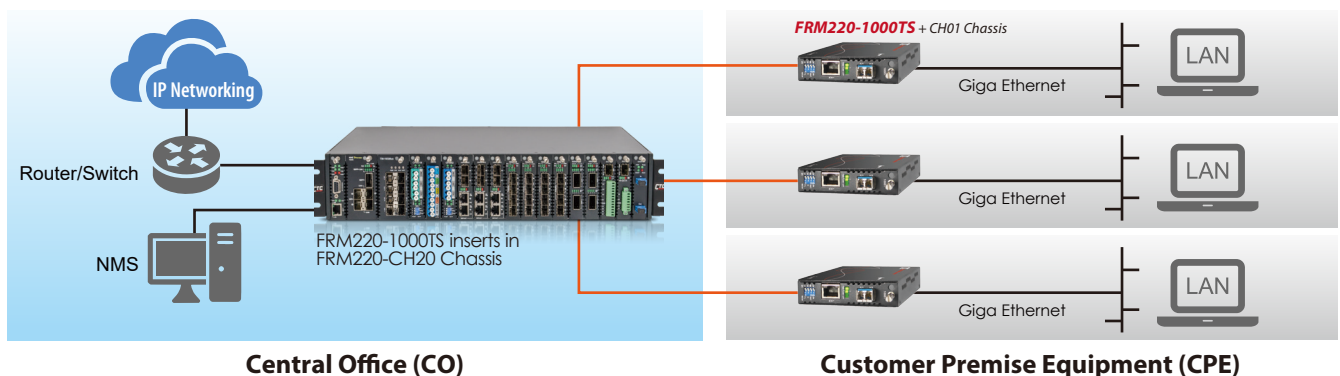
## Features

- 1000Base-T to 1000Base-SX/LX
- Device management via FRM220 Chassis with NMC
- Auto-negotiation or force mode
- Auto MDI/MDIX
- Forward > 9K bytes packets
- Supports Link Fault Pass Through (LFP) function
- Auto Laser Shutdown (ALS)
- Protocol Transparent (OAM, L2CP, etc)
- Latency 0.4μ-sec

## Specifications

|                             |                    |   |                          |                    |   |  |   |  |
|-----------------------------|--------------------|---|--------------------------|--------------------|---|--|---|--|
| <b>Optical Interface</b>    | Connector          | SFP LC  | <b>Standard</b>          | IEEE 802.3ab       |   |  |   |  |
|                             | Data rate          | 1000Mbps  |                          | <b>Indications</b> | LED (Power, FX-Link, FX Duplex, TX-SPD, TX-Duplex, TX-Link) |  |   |  |
|                             | Duplex mode        | Full duplex   |                          |                    | <b>Power Input</b>  | Card : 12VDC                               |   |  |
|                             | Fiber              | MM 50/125μm, 62.5/125μm<br>SM 9/125μm   |                          |                    |   | Standalone : AC, DC options                |   |  |
|                             | Distance           | MM 550m, 2km,<br>SM15/30/50/80/120km<br>WDM 20/40/60km                            |                          |                    |   | <b>Power Consumption</b>                   | < 12W   |  |
|                             | Wavelength         | MM 1310nm, SM 1310,1550nm<br>WDM 1310Tx/1550Rx (type A)<br>1550Tx/1310Rx (type B) |                          |                    |   |  | <b>Dimensions</b>   | 159.5 × 20.8 × 88mm (D×W×H)                |
| <b>Electrical Interface</b> | Connector          | RJ45  | <b>Weight</b>            |                    |   |  |   | 120g                                       |
|                             | Data rate          | 1000Mbps  |                          | <b>Temperature</b> |   |  |   | 0 ~ 50°C (Operating), -10 ~ 70°C (Storage) |
|                             | Duplex mode        | Full duplex   |                          |                    | <b>Humidity</b>   |  |   | 10 ~ 90% non-condensing                    |
|                             | Cable              | 1000Base-T Cat.6 or above UTP   |                          |                    |   |  |   | <b>Certification</b>                       |
|                             | <b>Standard</b>    | IEEE 802.3ab  |                          |                    |   | <b>MTBF</b>                                |   |  |
|                             |                    | <b>Indications</b>  |                          |                    |   |  | LED (Power, FX-Link, FX Duplex, TX-SPD, TX-Duplex, TX-Link) |  |
| <b>Power Input</b>          |                    |   | Card : 12VDC             |                    |   |  |   |  |
|                             |                    |   | <b>Power Consumption</b> | < 12W              |   |  |   |  |
|                             |                    |   |                          | <b>Dimensions</b>  | 159.5 × 20.8 × 88mm (D×W×H)                                 |  |   |  |
|                             |                    |   |                          |                    | <b>Weight</b>   |  | 120g  |  |
|                             | <b>Temperature</b> |   |                          |                    |   | 0 ~ 50°C (Operating), -10 ~ 70°C (Storage) |   |  |
|                             |                    | <b>Humidity</b>   |                          |                    |   | 10 ~ 90% non-condensing                    |   |  |
| <b>Certification</b>        |                    |   |                          |                    |   | CE, FCC, LVD                               |   |  |
|                             |                    |   | <b>MTBF</b>              |                    |   | 65,000 hrs (25°C)                          |   |  |

## Application



## Ordering Information

| Model Name    | Description  |
|---------------|--|
| FRM220-1000TS | 1000Base-T to 1000Base-X SFP media converter card (Optional SFP) |

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