



## FRM220A-1002ES

2x 10/100/1000Base-T +  
2x 100/1000Base-X SFP GbE Switch

The FRM220A-1002ES is a dual copper and dual fiber Gigabit Ethernet switch designed to make conversion between 10/100/1000Base-T and 100/1000Base-SX/LX with SFP connector. With SNMP and Web-based management in the FRM220 or FRM220A chassis the network administrator can monitor, configure and control the activity of each FRM220A-1002ES switch card locally via the chassis management. Based on a powerful L2 switch architecture, this converter supports bandwidth control, duplex and speed configuration, VLAN tagging, Q-in-Q, QoS, jumbo frames as well as auto laser shutdown, and link fault pass through.

### Features

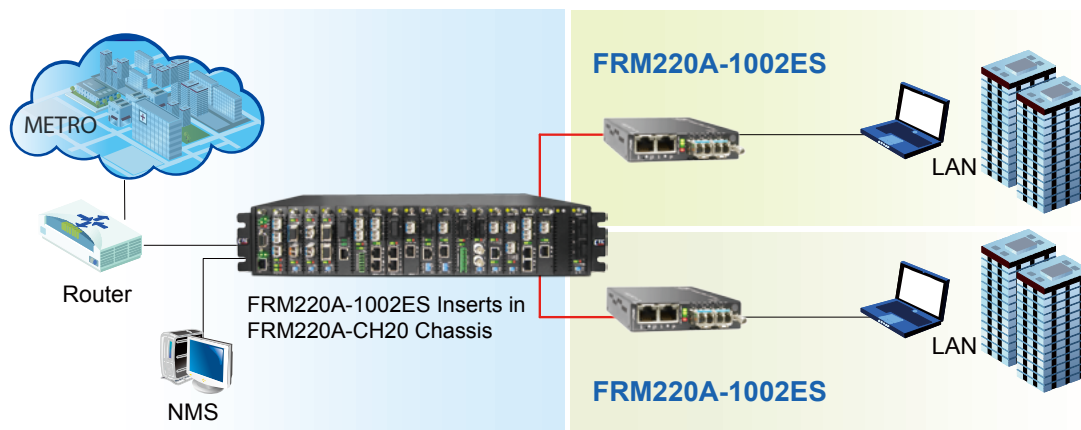
- 2-Port 10/100/1000Base-T and 2-Port 100/1000Base-X Switch
- Auto-Cross over for MDI/MDIX in TP port
- Auto-Negotiation or manual mode in TP port
- Supports flow control Enable or Disable
- Supports Jumbo Frame 10K Bytes
- Supports 16 Tag VLAN Group
- Supports Double VLAN tag (Q-in-Q)
- Supports Bandwidth control
- Supports Loop Back Test
- Supports Link Fault Pass-Through (LFPT) Function
- Supports Auto Laser Shutdown (ALS) Function
- Supports local management on FRM220A rack management.
- Console management on stand-alone.
- Supports D/D function for SFP fiber transceiver
- Provide Product information for management
- Supports the local management (Monitor or Configure status) by the SNMP manager.
- Supports FRM220A for Ethernet Aggregation

### Specifications

|                          |   |   |
|--------------------------|---|---|
| <b>Optical Interface</b> | Connector   | SFP LC  |
|                          | Data rate   | 125Mbps, 1250Mbps   |
|                          | Duplex mode   | Full duplex   |
|                          | Fiber   | MM 50/125µm, 62.5/125µm<br>SM 9/125µm   |
|                          | Distance  | MM 2km, SM 15/30/50/80/120km<br>WDM 20/40/60/80km                                 |
|                          | Wavelength  | MM 1310nm, SM 1310,1550nm<br>WDM 1310Tx/1550Rx (type A)<br>1550Tx/1310Rx (type B) |
| <b>Standards</b>         | IEEE 802.3, IEEE 802.3u, 802.3z, 802.3ab, 802.1Q, 802.3X, 802.1ad |   |
| <b>Indications</b>       | PWR, LNK1, LNK2, TEST, LAN Link, LAN SPEED                        |   |

|                             |  |  |
|-----------------------------|--|--|
| <b>Certification</b>        | FCC Part 15 Class A, CE Mark           |  |
| <b>Electrical Interface</b> | Connector                              | RJ45   |
|                             | Data rate                              | 10Mbps, 100Mbps, 1000Mbps  |
|                             | Cable                                  | 10Base-T Cat.3, 4, 5, UTP<br>100Base-TX Cat.5, 5e or higher<br>1000Base-X Cat.5e or higher |
|                             | <b>Power</b>                           | 12VDC  |
| <b>Power Consumption</b>    | < 12W                                  |  |
| <b>Dimensions</b>           | 155 x 88 x 23mm (DxWxH)                |  |
| <b>Weight</b>               | 130g                                   |  |
| <b>Temperature</b>          | 0~50°C (Operating), -10~70°C (Storage) |  |
| <b>Humidity</b>             | 0 ~ 95% non-condensing                 |  |

### Application



### Ordering Information

| Model Name     | Description  |
|----------------|--|
| FRM220A-1002ES | 2-Port 10/100/1000Base-T and 2-Port 100/1000Base-SX/LX SFP GE Manage Switch (Optional SFP) |

**Note:** Note: This card must use CH01M with serial console, to configure standalone settings.