



# FRM220-2.7G-3S

## 2.7G 3R Transponder with Optical Line Protection

The FRM220-2.7G-3S is a 3R 2.7G optical repeater and transponder, which consists of Re-amplification, Re-shaping and Re-timing. The transponder card converts a data signal to the correct wavelength for transmission on a specific channel by supporting SFP optics on both line side and client side interfaces. 1+1 Automatic optical line Protection Switching are supported for the aggregate fiber ports. When the FRM220-2.7G-3S card is placed in the FRM220 rack with SNMP management, the management can view the converter card's status, type, version, fiber link status and alarms. The card can be configured to enable or disable the port, reset the port and set the desired data rate to match the transmitted protocol.

### Features

- Multi-rate supports 34.3Mbps to 2.7Gbps
- Network management via Web, Telnet, SNMP in central FRM220 chassis
- Link Fault Pass-Through (LFPT)
- Auto Laser Shutdown (ALS)
- Local configuration via DB9 craft port In Stand-alone
- Digital diagnostic monitoring of SFP module
- Perform optical repeater function (Re-amplification, Re-shaping, and Re-clocking)
- Facility loopback on both Client / Line sides
- 1+1 optic fiber protection, switching time < 50ms
- Dip switch setting data rate
- Detect transceiver transmitter error alarm

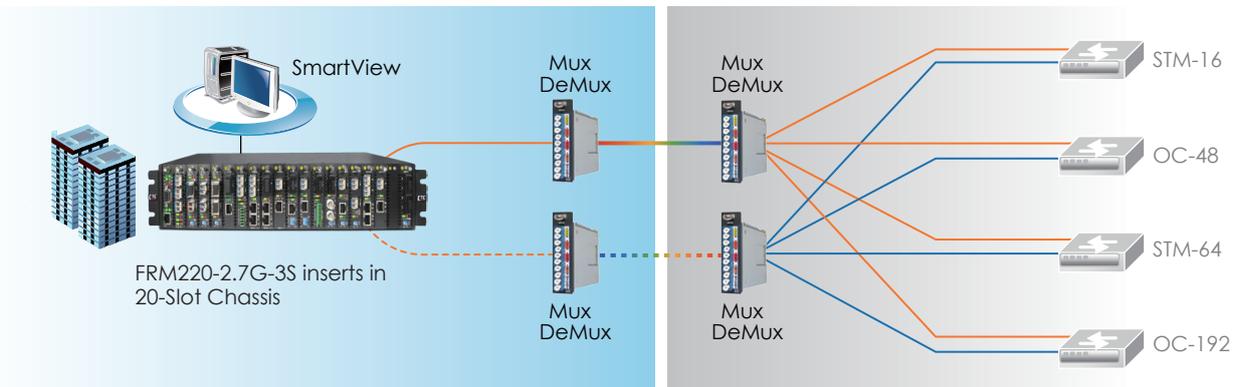
### Specifications

|                          |                              |  |
|--------------------------|------------------------------|--|
| <b>Optical Interface</b> | Connector                    | SFP LC   |
|                          | Protocol                     | OC -3, OC -6, OC -12, OC-24, OC-48, STM-1, STM-4, STM-16, FC -1, FC -2 |
| Regeneration             | Re-amplification             |  |
|                          | Re-shaping                   |  |
|                          | Re-clocking                  |  |
| Loop back                | Line/Client                  |  |
| Fiber                    | MM 62.2/125μm, 50/125μm      |  |
|                          | SM 9/125μm                   |  |
| Wavelength               | MM 850, 1310nm               |  |
|                          | SM 1310, 1550nm              |  |
|                          | WDM 1310T/1550R, 1550T/1310R |  |
|                          | CWDM 1470 ~ 1610nm           |  |

|                          |  |
|--------------------------|--|
| <b>Indications</b>       | LED (PWR, Line Link, Client Link, Test, Loop back, Port Active, Alarm) |
| <b>Power Input</b>       | 12VDC  |
| <b>Power Consumption</b> | < 12W  |
| <b>Dimensions</b>        | Card: 155 x 20.8 x 88mm (D x W x 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  |
| <b>MTBF</b>              | 65,000 hrs   |

### Application

#### Managed 2.7G transponder with fiber protection application



Protocols: Fast Ethernet, Gigabit Ethernet, OC-3, OC-24, OC-48, STM-1, STM-4, STM-16, FC-1, FC-2

-Related Products: FRM220-40G-1Q4S/16G-3R/10G-FEC/10G-SXX/10G-SS (40G, 16G, 10G FEC and 10G 3R Transponder)

### Ordering Information

| Model Name     | Description   |
|----------------|---|
| FRM220-2.7G-3S | 2.7G 3R Transponder with fiber protection (optional SFP module) |

**Note:** This card may be set by DIP switch or console, but MUST be placed in CH02M chassis with fan. For SNMP management, place this card in CH02/NMC or CH04A Chassis.