



FRM220-16G-3R

16G 3R Multi-rate Transponder

The FRM220-16G-3R has 4 SFP+ slots that can be configured as a dual channel 16G 3R multi-rate transponder or in a 1-to-2 port protection mode. The device provides a flexible transmission of various protocols, such as 1G/10G Ethernet, SDH STM16/STM64, OTU1/OTU1e/OTU2/OTU2e, Fiber Channel 1/2/4/8/10/16, ODU, OBSAI, CPRI, etc. Using SFP+ ports with dedicated CWDM or DWDM wavelengths, the 16G transponder supports multi-rate functionality with optical data rates from 1Gbps up to 14Gbps. With its functionality the FRM220-16G-3R transponder is also suitable as a repeater for transmission over extended distances. In addition, the use of state of the art components greatly reduces the power requirements and heat dissipation factors over our previous transponders.

Features

- Multi-rate supports 1 Gbps ~ 14Gbps
- Protocol Transparent 3R fiber Media Transponder / Repeater
- Supports 1+1 Optical Line Protection, switching time <50ms
- Supports 2 channels with different bit rate
- Supports Loopback Test.
- SFP DDM Information
- Firmware Upgrade
- Setting from DIP Switch, Console, NMC
- Supports FRM220-CH01M, CH02M, CH04A, CH08, CH20
- FRM220-CH20, Full Load (19 Slots)

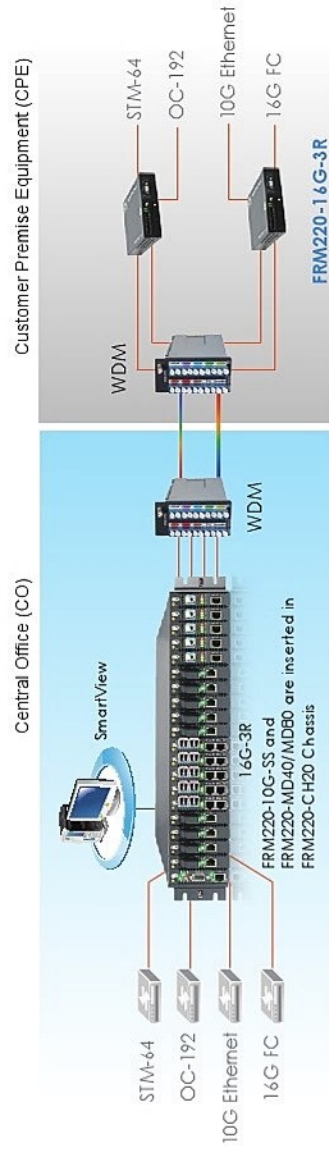
Specifications

Optical Interface	Connector Wavelength	LC (SFP+, SFP) CWDM 1271 ~ 1611nm DWDM 1529.5~1565.50nm
Operation mode	Dual channel mode : Protection mode :	Ch 1 SFP1 line / SFP2 client. Ch2 SFP3 line/ SFP4 client. SFP1 line / SFP2, SFP3 client
Protocol	SONET SDH Ethernet OTU ODU OBSAI CPRI Fiber Channel Regeneration	OC-24, OC-48, OC-192 STM-16, STM-64 1G, 2.5G, 10G OTU1, OTU1e, OTU2, OTU2e ODU1, ODU1e, ODU2, ODU2e OBSAI x1, x2, x4, x8 CPRI x1, x2, x4, x5, x8, x10, x16 1/ 2/4/8/10/16 GFC
	Re-Amplification, Re-Timing	

Indication	LED	Power, System, Mode, Test, FX1 Link, FX2 Link, FX3 Link, FX4 Link
Power	Input Power Consumption	12V / 1A < 8W
Size	Dimensions Weight	Card: 155 x 20.8 x 88mm (D x W x H) 150g
Environment	Operating Temperature Storage Temperature Humidity Certification MTBF	-10 ~ 60°C -10 ~ 70°C 10 ~ 90% CE, FCC 65000 hrs

Application

16G-3R CWDM P to P application



-Related Products: FRM220-40G-1Q4S/10G-FEC/10G-SXX/10G-SS/2.7G-3S (40G, 10G FEC, 10G and 2.7G 3R Transponder)

Ordering Information

Model Name	Description
FRM220-16G-3R	2 Channels 16Gbps 3R Multi-rate transponder (optional SFP+)

Note: This card may be placed in CH02M, CH01M or CH04A chassis with fan. For SNMP management, place this card in CH02/NMC or CH04A Chassis.