



FRM220-10G-SS

10G 3R Multi-rate Transponder

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10G Transponder

The FRM220-10G-SS is a 10G fiber to fiber 3R repeater and transponder. Based on a number of 10 Gigabit Fiber standards, these transponders support SFP+ to SFP+ (SS) fiber connections. The transponders are protocol transparent, providing 3R (Re-amplification, Re-shaping and Re-clocking) regeneration between these different optical module types. One of the major applications for this converter is in connecting proprietary transceiver equipment to CWDM or DWDM when these 'colored' optical modules are not available for the proprietary equipment. With transparent bi-directional forwarding capability between the 2 fiber media, the FRM220-10G-SS brings you the best and simplest solution for your 10G conversion between fiber and fiber.

Feature

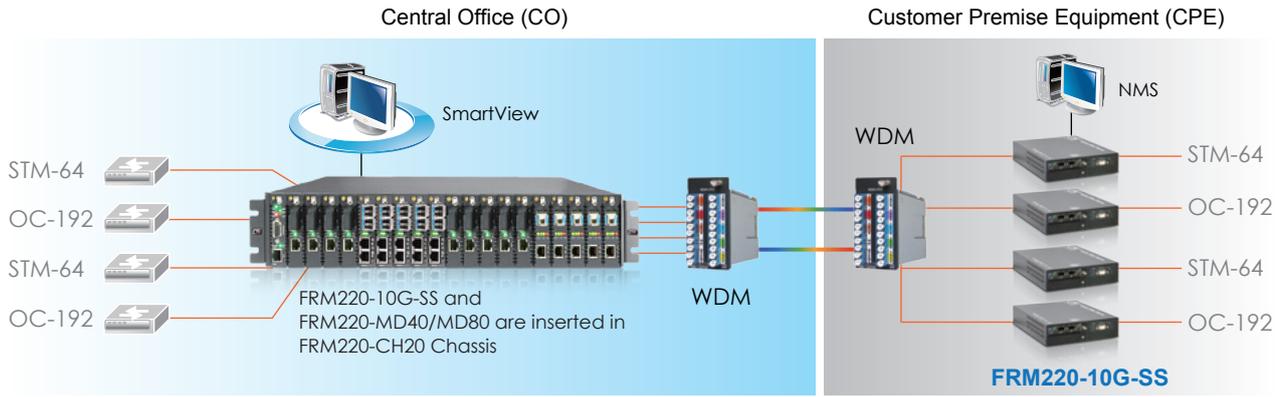
- Protocols Transparent at discrete bit rates of 1Gbps to 10Gbps
- Network management via Web, Telnet, SNMP in central FRM220 chassis(10 cards in chassis max.)
- Protocol transparent 3R fiber media transponder / repeater (Re-amplification, Re-shaping and Re-clocking)
- Promotes flexibility and eases management with pluggable SFP+ transceiver
- Features two 10G ports offering multiservice 10G transponder and regenerator function
- Provides superior optics capabilities resulting in extended transport distances for regional application.
- Extend 10G Ethernet transmission over fiber
- Useful as a 'Transponder' in CWDM or DWDM systems for 10G Ethernet/Fiber Channel/STM-64
- Supports Client / Line loop back tests
- Serial console for stand-alone management when inserted in CH02M Single Slot Chassis
- SFP+ power supplies: +3.3V

Specifications

Optical Interface	Connector	LC, 1x Line SFP+ to 1x Client SFP+	Power Input	12VDC	
	Protocol	OC-192/STM-64 (9.95328Gbps)		Power	< 12W
		10 Gigabit Ethernet			Consumption
		LAN(10.3125Gbps)		Dimensions	
		G.709 OTU2 (10.709225Gbps)			Weight
		Fiber Channel		Temperature	
		1xFC (1.062 Gbps); 2xFC (2.125 Gbps)			Humidity
		4xFC (4.25 Gbps); 8xFC (8.5 Gbps)		Certification	
		10xFC (10.51875 Gbps)			MTBF
		Regeneration		Re-amplification	
		Re-shaping, Re-timing			
	Loopback	Line / Client			
	Fiber	SM 9/125µm			
		MM 50/125µm or 62.5/125µm			
Optical Interface	Wavelength	CWDM 1470 ~ 1610nm			
		DWDM 1529.55 ~ 1565.50nm			
Indications	LED (Power, Line Link, Client Link, Test, Loop back, Port Active, Alarm)				

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Application



Ordering Information

Model Name	Description
FRM220-10G-SS	10G 3R transponder, SFP+ to SFP+ (optional SFP+ module)

Accessories

10G SFP+ Transceiver Module

SFM-1000-SR85	10G SFP+ SR/SW MMF 300m, 850nm VCSEL, 10G Ethernet/FC/SDH/SONET
SFS-1010-LR31	10G SFP+ LR/LW SMF 10km, 1310nm DFB DML, 10G Ethernet/FC/SDH/SONET
SFS-1040-ER55	10G SFP+ ER/EW SMF 40km, 1550nm DFB EML, 10G Ethernet/FC/SDH/SONET
SFS-1080-ZR55	10G SFP+ ZR/EW SMF 80km, 1550nm DFB EML, 10G Ethernet/FC/SDH/SONET

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.