



FRM220-10G-SS

10G Transponder (3R)

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.

Features

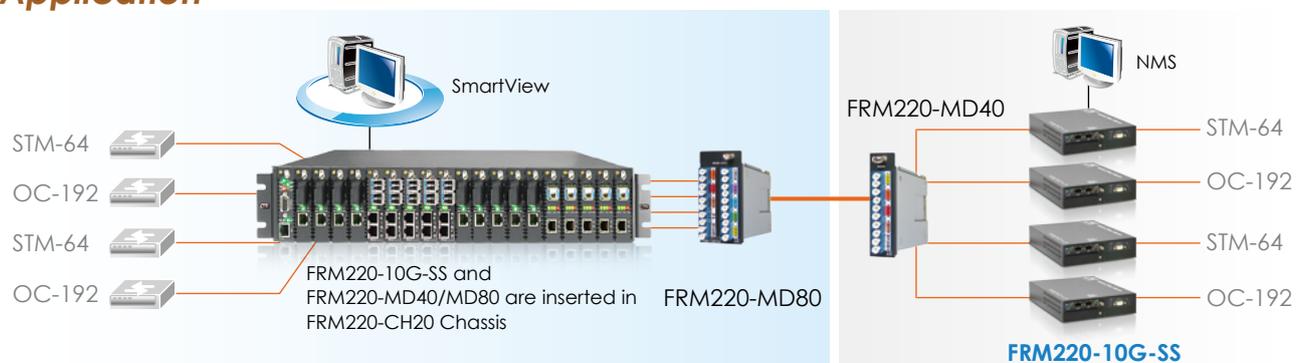
- Multiple protocol supported 10G Ethernet, STM-64, OC-192, G.709 OTU2, Fiber Channel (8 x FC)
- Network management via Web, Telnet, SNMP in central FRM220 chassis(10 cards in chassis max.)
- Protocol transparent 3R fiber media transponder / repeater (Re-amplification, Re-shaping and Re-clocking)
- Promotes 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+
	Traffic Format	OC-192/STM-64 (9.95328Gbps)
		10 Gigabit Ethernet LAN(10.3125Gbps)
		G.709 OTU2 (10.709225Gbps)
		Fiber Channel
		1xFC (1.062 Gbps); 2xFC (2.125 Gbps)
		4xFC (4.25 Gbps); 8xFC (8.5 Gbps)
		10xFC (10.51875 Gbps)
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)
Power Input		12VDC
Power Consumption		< 12W
Dimensions		155 x 88 x 23mm (D x W x H)
Weight		150g
Temperature		0 ~ 50°C (Operating), -10 ~ 70°C (Storage)
Humidity		10 ~ 90% non-condensing
Certification		CE, FCC, RoHS compliant
MTBF		65,000 hrs

Application



Ordering Information

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

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