

# FRM220-40G-1Q4S

40G QSFP+ to 4x 10G SFP+ Transponder

The FRM220-40G-1Q4S is a 40G QSFP+ to 4x 10G SFP+ transponder that provides media conversion and distance extension for 40G over 10G links. The FRM220-40G-1Q4S meets the growing need for more bandwidth for data centers and enterprises. The emergence of high-end servers and Ethernet switches with 40G Ethernet interfaces increases the need for media conversion (multi-mode to single-mode) and link range extension. The FRM220-40G-1Q4S is a two slot wide hot-swappable card with one QSFP+ slot for QSFP+ 40G transceiver and four SFP+ slots for SFP+ 10G transceivers. The installation and setup is simple plug and play. The FRM220-40G-1Q4S can be inserted into any powered FRM220-CH20 chassis with QSFP+ and SFP+ transceivers required for the application.

#### **Features**

- Device Management via FRM220 Chassis with NMC
- Multiple functions in one module: 40G converter/repeater and Quad 10G optical multiplexer
- 40G link interface -- Ethernet/IEEE: 802.3ba 40GE-LR4
- 40G multi-link (fiber) interfaces --Ethernet/IEEE: 802.3ba XLAUI and OIF: CEI-11G
- QSFP+ ports for flexibility and scalability
- Hot-swap support (module and interfaces)
- Supports 1x 40G QSFP+ and 4x 10G SFP+
- Supports DMI function for QSFP+ & SFP+ module
- Supports Loopback test function
- 3R function.

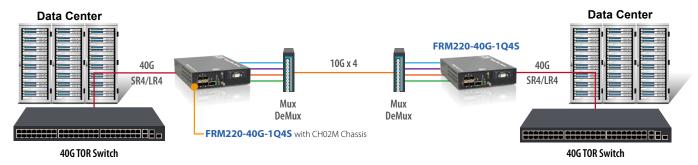
## **Specifications**

Equipment function	3R Transponder, Regenerator, Reshaper, Retimer	
Data Rate	Aggregate Data Rate	32 - 56.8 Gbps
	Data Rate per Lane	8 - 14.2 Gbps
Protocol	CPRI x 16	
	STM - 64	
	OC - 192	
	FC8, FC10	
	10G Ethernet	
Interface Type	40Gbps : QSFP+ (1 port), 10Gbps : SFP+ ( 4 ports)	

Transmission Distance	depends on QSFP+ & SFP+ module	
Power requirement	Power input 12VDC	
	Power consumption: ≤12W	
Work Environment	Operating Temperature	0 ~ 50°C
	Storage Temperature	-10 ~ 70°C
	Humidity	10 ~ 90% (non-condensing)
Weight	170g	
Dimension	Card: 155 x 46 x 88mm (D x W x H)	

## **Application**

#### 40G SR4/LR4 P to P application



## **Ordering Information**

Model NameDescriptionFRM220-40G-1Q4S40G converter/repeater, Quad 10G Optical Multiplexer module with QSFP Interfaces (optional SFP+, QSFP+)

Note: This card MUST be placed in CH02M chassis with fan. For SNMP management, place this card in CH04A chassis.

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