



# FRM220-40G-1Q4S

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

The FRM220-40G-1Q4S is a 40G QSFP+ to 4 x 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

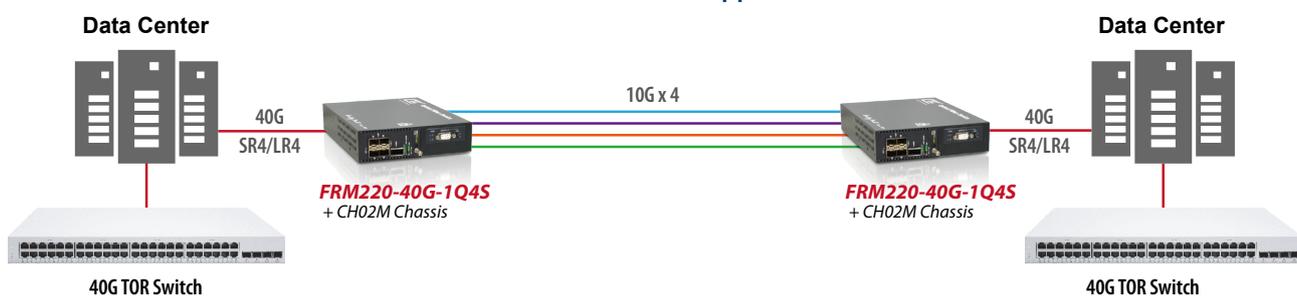
- Device Management via FRM220 Chassis with NMC
- Multiple functions in one module: 40G converter/repeater and Quad 10G optical multiplexer
- 40G link interface -- Ethernet/IEEE: 802.3ba 40GE-LR4
- 40G multi-link (fiber) interfaces -- Ethernet/IEEE: 802.3ba XLAUI and OIF: CEI-11G
- QSFP+ ports for flexibility and scalability
- Hot-swap support (module and interfaces)
- Supports 1 x 40G QSFP+ and 4 x 10G SFP+
- Supports DMI function for QSFP+ & SFP+ module
- Supports Loopback test function
- 3R function
- Supports LFPT 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	159.5 x 42.1 x 88mm (DxWxH)	
Certification	CE, FCC	

## // Application

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



**// Ordering Information**

Model Name	Description
FRM220-40G-1Q4S	40G converter/repeater, Quad 10G Optical Multiplexer module with QSFP Interfaces (optional SFP+, QSFP+)

## ■ Chassis Option

Model Name	Description
FRM220-CH20(HS)	2U 19", 20 slots rack mount chassis with high speed cooling fan and rack mounting kit
FRM220-AC	Chassis Power module 100~240 VAC, IEC connector, 200W
FRM220-DC48	Chassis Power module 36~60 VDC, 3 pin terminal block, 200W
FRM220-CH02M-AC/DC/AD	2-slot chassis with console port and AC, DC or AD power, with fan
FRM220-CH04A-AC/DC/AD	4-slot chassis with built-in AC, DC or AD power