



# 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

- Network Management via FRM220 Chassis
- 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.

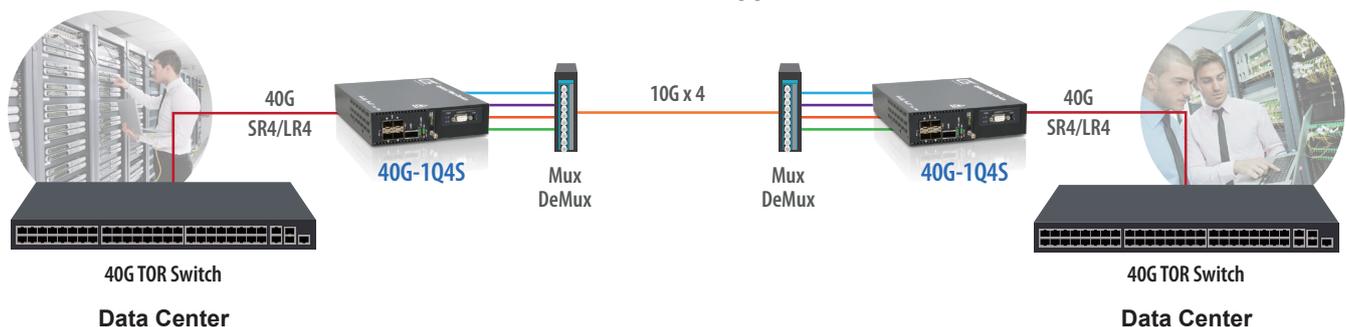
## Specifications

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

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

## Application

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



-Related Products : FRM220-16G-3R/10G-FEC/10G-SXX/10G-SS/2.7G-3S (16G, 10G FEC, 10G and 2.7G 3R Transponder)

## Ordering Information

Model Name	Description
FRM220-40G-1Q4S	40G 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.