



TGM-C110: 10GBase-SR/LR/ER/ZR SFP+ to SFP+ Media Converter Module

Key Features

- Provides SFP+ to SFP+ interface connectivity
- Support remote loopback control
- Good for application to extend the network distance up to 80Km
- Full duplex and wire speed operation
- Standalone or composite applications
- RoHS compliance

Overview

TGM-C110 is Fiber Driver SFP+ to SFP+ media converter module from Ruby Tech Corp. with the flexibility of SFP+ transceivers. It supports 10 Gigabit Ethernet, 1 Gigabit Ethernet. The TGM-C110 enables the implementation of an extremely wide range of optical infrastructure solutions from media conversion and signal repeating. The TGM-C110 converter module can be inserted into Ruby's CR-2600 managed chassis for CO site rack mount application, it can also be inserted into Ruby's CP-E100 (one slot) and CP-E200 (two slots) small chassis for CPE site standalone application.

TGM-C110 + CP-E100:

It can support up to 10Km SFP+ transceiver application, because the CP-E100 is FAN-less.

TGM-C110 + CP-E200:

It can support up to 80Km SFP+ transceiver application, because the CP-E200 has cooling fan.

TGM-C110 + CR-2600:

It can support up to 80Km SFP+ transceiver application, because the CR-2600 has cooling fan.

The product is ideal for enterprise use because it provides a low cost alternative to more expensive SFP+ transport solutions. It is also applicable for large telco/carries since the module can transport very large amounts of data to distances of up to 80km. Fiber SFP+ is a means of transporting data

Technical Specifications

- **Data Transfer Rate:** 20Gbps at full-duplex mode
- **Network Interface:**

Category	Connector	Transmission	Max. Cable Length	Wavelength	Fiber Cable
10GBase-SR(M-M)	LC	Full Duplex	300M	850nm	50/125, 62.5/125, or 100/140µm multi-mode
10GBase-LR(S-M)	LC	Full Duplex	10Km	1310nm	8.3/125, 8.7/125, 9/125 or 10/125µm single-mode
10GBase-ER(S-M)	LC	Full Duplex	40Km	1550nm	8.3/125, 8.7/125, 9/125 or 10/125µm single-mode
10GBase-ZR(S-M)	LC	Full Duplex	80Km	1550nm	8.3/125, 8.7/125, 9/125 or 10/125µm single-mode

LED Indicator:

Power	Power status
P1 Link/Act/Speed	--Lit Blue when port 1 10G SFP+ fiber connection is good ---Lit Green when port 1 1G SFP fiber connection is good ---Blinks when any traffic is present ---Off when cable connection is not good
P2 Link/Act/Speed	--Lit Blue when port 2 10G SFP+ fiber connection is good ---Lit Green when port 2 1G SFP fiber connection is good ---Blinks when any traffic is present ---Off when cable connection is not good

over long distances at speeds up to 10Gbps. The TGM-C110 is fully IEEE 802.3ae and IEEE 802.3z compliant and supports data transfer at full duplex for congestion-free data transport. The TGM-C110 10GBase-SR SFP+ can be added for fiber runs over multi-mode cabling up to 300 meters. If longer hauls are required, Ruby offers the single-mode 10GBase-LR/ER/ZR SFP+ capable of distance runs up to 80Km. The converter 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 full duplex wire speed forwarding capability between the 2 fiber media, the 10G transponder brings you the best and simplest solution for your 10G conversion between fiber and fiber. The TGM-C110 is a compact media converter having two (2) available SFP+ interface ports. Installation and setup is plug-n-play easy. It is used to convert multi-mode fiber signal to single mode equivalent that extends the long span fiber connections easily and inexpensively.

- **Power Requirement:** 2A@5VDC above
- **Ambient Temperature:** 0~50°C
- **Humidity:** 5%~90%
- **Dimensions:** 90(W) x 141(D) x 28.5(H) mm
- **Certification:** FCC Part 15 Class A & CE Mark

Ordering Information

TGM-C110	10GBase-SR/LR/ER/ZR SFP+ to SFP+ Media Converter Module
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