

# 7708GT-4

## Quad Gigabit Ethernet Fiber Transceiver



The 7708GT-4 is a VistaLINK® -capable Quad Gigabit Ethernet Fiber Transceiver for up to four independent 10/100/1000BaseT Ethernet channels over optical fiber. Monitoring of card status and parameters are provided locally at the card edge and remotely via VistaLINK®. A pair of 7708GT-4 transceivers permit full duplex communication of all four channels up to 1Gb/s each over a pair of optical fibers.

The 7708GT-4 occupies one card slot and can be housed in a 1RU frame that will hold up to four modules, a 3RU frame that will hold up to 15 modules, a 350FR portable frame that will hold up to seven modules or a standalone enclosure, which holds one module.

### ► Features & Benefits

- Four completely independent and isolated Ethernet streams
- Low latency
- Auto negotiation for 10/100/1000 speeds on all ports
- Comprehensive signal and card status monitoring via four digit card edge display or remotely through SNMP and VistaLINK®
- VistaLINK® capability is available when modules are used with the 3RU 7800FR or 350FR frame and a 7700FC VistaLINK® Frame Controller module in slot 1 of the frame
- Optical output wavelengths at 1310nm, 1550nm and up to sixteen CWDM wavelengths (ITU-T G.694.2 compliant)

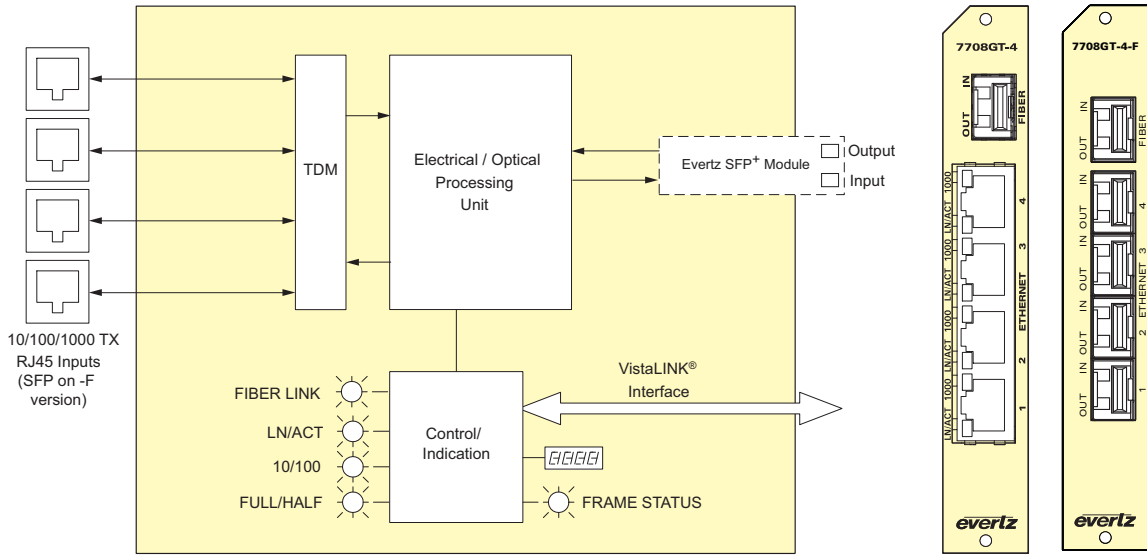
- DWDM wavelengths (ITU-T G.694.1 compliant) also available
- Fully hot-swappable from front of frame
- Optical SFP supportable from the rear

### Status Indication

- Frame status
- 10/100/1000 Speed indication on copper ports
- Full Duplex/Collision indication on copper ports
- Link activity on copper ports
- Received optical power level

Model	Wavelength	Optical Output Power		Receiver Sensitivity	Receiver Max Input	Nominal Received Wavelength	Max Distance	Fiber Type & Connector
		Max	Min					
7708GT-4+SFP10G-TR13-A	1310nm	+0.5dBm	-8.5dBm	-12.5dBm	+0.5dBm	1310nm	10km	SMF, duplex LC/PC
7708GT-4+SFP10G-TR15S	1550nm	+4dBm	-5dBm	-14dBm	-1dBm	1550nm	40km	SMF, duplex LC/PC
7708GT-4+SFP10G-TR15H	1550nm	+3dBm	0dBm	-24dBm	-7dBm	1550nm	80km	SMF, duplex LC/PC
7708GT-4+SFP10G-TRxx	CWDM 1470nm - 1610nm	+2dBm	-1dBm	-14dBm	-1dBm	1270-1610nm	40km	SMF, duplex LC/PC
7708GT-4+SFP10G-CxxH	CWDM 1470nm-1610nm	+3dBm	0dBm	-24dBm	-7dBm	1270-1610nm	70/80km**	SMF, duplex LC/PC
7708GT-4+SFP10G-TRDxxxH	DWDM ch. 20 - ch. 59	+3dBm	-1dBm	-24dBm	-7dBm	1270-1610nm	80km	SMF, duplex LC/PC

\*\*70km on 1590nm and 1610nm



### ► Specifications

#### Ethernet Input/Output (7708GT-4):

Standard: IEEE 802.3 10base-T  
802.3u 100base-TX  
802.3ab 1000base TX  
4 RJ45 ports

Connectors: 4 RJ45 ports

Cable Requirements:

- 10Base-T: UTP category 3, 4, or 5 cable up to 328ft/100m
- 100Base-T: UTP category 5 cable up to 328ft/100m
- 1000Base-T: UTP category 5 cable up to 164/50m

Latency (per link with 1m patch cable):  
2ns @ 1Gb/s

#### Ethernet Input/Output (7708GT-4-F):

Connector: Optical SFP Cage, LC-UPC connectors

Standard: Optical SFP: 1000 Base X  
RJ45 SFP: 1000 Base TX

Electrical:  
Voltage: +12V DC  
Power: 12W

#### Physical (number of slots):

350FR: 1  
7700FR-C: 1  
7800FR: 1

#### Compliance:

Laser Safety: Class 1 laser product  
Complies with 24 CFR 1040.10 and 1040.11  
IEC 60825-1

EMI/RFI: Complies with FCC Part 15, Class A  
EU EMC Directive

The Complete Solution Provider





### Ordering Information

<b>7708GT-4</b>	Quad Gigabit Ethernet fiber transceiver, RJ45 ports for Ethernet connection
<b>7708GT-4-F</b>	Quad Gigabit Ethernet fiber transceiver, SFP interface for Ethernet connection (SFP's not included)
<i>Note: Select from optical and SFP options below</i>	

**Ordering Options** Rear Plate and Fiber Connector must be specified at time of order (Eg. Model +3RU)

**Rear Plate Suffix**  
**+3RU** 3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe

**Trunk Optical options**

<b>SFP10G-TR13</b>	1310nm laser, 10km max, SMF
<b>SFP10G-TR15S</b>	1550nm laser, 40km max, SMF
<b>SFP10G-TR15H</b>	1550nm laser, 80km max, SMF
<b>SFP10G-TRCxx</b>	CWDM laser (1470-1610nm), 40km max, SMF
<b>SFP10G-TRCxxH</b>	CWDM laser (1470-1610nm), 70km/80km max, SMF
<b>SFP10G-TRDxxxH</b>	DWDM laser (ch.20-ch.59), 80km max, SMF

**7708GT-4-F Ethernet SFP Options**

<b>SFPTR-13</b>	SFP GigE optical transceiver, 1310nm, SMF, standard sensitivity
<b>SFPTR-Cxx</b>	SFP GigE optical transceiver, CWDM (1270-1610nm), SMF, standard sensitivity

**Enclosures**

<b>350FR</b>	3RU Portable Multiframe which holds up to 7 single slot modules
<b>7700FR-C</b>	3RU Multiframe which holds up to 15 single slot modules
<b>7800FR</b>	3RU Multiframe which holds up to 15 single slot modules
<b>7801FR</b>	1RU Multiframe which holds up to 4 single or 2 dual slot modules
<b>7701FR</b>	1RU Multiframe which holds up to 3 single or dual slot modules
<b>S7701FR</b>	Standalone Enclosure