

10Gb/s 10km SFP+ Transceiver for Chelsio Adapters

Features

- Hot-pluggable SFP+ footprint
- Improved pluggable form factor
- Supports 9.95 to 10.5 Gb/s bit rates
- Maximum link length of 10km
- Uncooled 1310nm DFB laser
- Receiver limiting electrical interface
- Duplex LC connector
- Built-in digital diagnostic functions

Applications

- 10GBASE-LR/LW 10G Ethernet
- 1200-SM-LL-L 10G Fibre Channel

Specifications

- IEEE 802.3ae (10 GbE)
- SFF-8431
- SFF-8432

Regulatory Compliance

- Class 1 laser products
- US FDA regulatory compliant
- TÜV and CSA certified
- Meets the Class 1 safety requirements of EN (IEC) 60825 and 60950.

Physical and Environmental

- RoHS-6 compliant (lead-free)
- Commercial temperature range -5°C to 70°C
- Power dissipation < 1W
- Single 3.3V power supply

Compatible Adapters

- T520-CR
- T520-LL-CR
- T520-SO-CR
- T540-CR
- T520-OCP-SO
- T580-CR (QSA Mode)
- T580-LP-CR (QSA Mode)
- T580-SO-CR (QSA Mode)

Overview

Chelsio's SM10G-LR 10Gb/s 1310nm Single Mode SFP+ optical transceivers are designed and certified for use with Chelsio 10-Gigabit Ethernet links up to 10km.

The Chelsio SM10G-LR Transceiver is compatible with Chelsio's T5-based Unified Wire Adapters. The T5 adapters support PCI Express 3.0 host bus interface, and are optimized for storage, cloud computing, HPC, virtualization and other data center applications. The fifth-generation T5 ASIC technology from Chelsio provides the highest performance while dramatically lowering host-system CPU and memory overhead with on-board hardware that offloads TCP/IP, iSCSI, FCoE and iWARP RDMA processing. As a result, the system benefits from higher bandwidth, lower latency and reduced power consumption.



The Unified Wire Solution

Chelsio's SM10G-LR SFP+ transceivers are fully compliant with leading industry standards. They support the 2-wire serial communication protocol defined in the SFF-8472 and also conform to the EEPROM specifications defined in the GBIC standards with the same electrical specifications. Device details like transceiver capabilities, standard interfaces, manufacturer, etc. are provided by the standard SFP+ serial ID. Operating parameters such as transceiver temperature, laser bias current, transmitted optical power, received optical power and transceiver supply voltage are provided real-time by an enhanced digital diagnostic monitoring interface. Finally, a sophisticated alarm system warns users in case of anomalies in operating parameters.

The T5 Adapters with SM10G-LR SFP+ Transceiver enable a unified wire for LAN, SAN and cluster traffic over long distance links. Built upon a combination of high bandwidth and low latency architecture, the T5 solution offers a complete set of storage and cluster protocols operating over Ethernet (iSCSI, FCoE, and iWARP). Full Software suite was run with these modules and Chelsio recommends using these modules only with Adapters to allow the Adapter warranty and support structure to remain intact.

Ordering Information

Model: SM10G-LR

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