

# 40Gb/s QSFP+ Long Reach **Transceiver for Chelsio Adapters**

#### Features

- Hot-pluggable QSFP+ footprint
- Positive retention pull-release latch system
- 40GBASE-LR4 Ethernet maximum bit rate
- Built-in digital diagnostic functions Cost-effective and optimized for highspeed datacenter interconnects

## **Applications**

- 40GBASE-LR4 40G Ethernet
- Rack-to-Rack, Shelf-to-Shelf Interconnect
- High Performance Networking, Storage, and clusters
- Hubs, switches, routers, servers

#### **Specifications**

- IEEE 802.3ba (40 GbE)
- SFF-8436

## **Regulatory Compliance**

- Class 1 laser product
- TUV and CSA certified
- Class 1 safety compliant

### Physical and Environmental

- RoHS-6 compliant (lead-free)
- Operating temperature: 0°C to 70°C Power dissipation <3.5W
- Single 3.3V power supply

## **Compatible Adapters**

- T580-CR
- T580-LP-CR
- T580-SO-CR
- T580-OCP-SO

#### **Overview**

Chelsio's SM40G-LR 40Gb/s QSFP+ long reach transceiver modules are designed for 40 Gigabit Ethernet links over single mode fiber up to 10 km and certified for use with Chelsio's 40-Gigabit Ethernet Unified Wire adapters. The optical module offers a cost-effective and power-efficient network connectivity solution for high-speed data applications.

SM40G-LR



The Chelsio SM40G-LR optical module 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 datacenter 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.

## **Characteristics**

Chelsio's SM40G-LR QSFP+ transceiver modules are fully compliant with IEEE 802.3ba specification; and adhere to RoHS-6 standards.

The T5 adapters with SM40G-LR transceiver modules enable a unified wire for LAN, SAN, and cluster traffic. 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).

T5 solution's port-to-port and adapter-to-adapter failover features are ideal for critical applications that require redundancy and high-availability capabilities. Full Software suite was run with these optical modules and Chelsio recommends using these transceiver modules only with Chelsio adapters to allow the adapter warranty and support structure to remain intact.

# **Ordering Information**

Model: SM40G-LR (40G long reach QSFP+ LR4 optical module (10 km))

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