

## SM40G-SR

# 40Gb/s QSFP+ Transceiver for Chelsio Adapters

#### **Features**

- Four-channel full-duplex
- Hot-pluggable QSFP+ form factor
- Supports 1.06 Gb/s to 10.5 Gb/s per channel
- Maximum link length of 100m on OM3 Multimode Fiber (MMF) and 150m on OM4 MMF
- Unretimed XLPPI electrical interface
- Reliable VCSEL array technology
- Built-in digital diagnostic functions
- Single 1x12 MPO receptacle

#### **Applications**

- 40GBASE-SR4 40G Ethernet
- Breakout to 10GBASE-SR Ethernet
- Proprietary interconnections

#### **Specifications**

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

#### **Regulatory Compliance**

 Class 1 laser eye safety compliant per IEC 60825-1

#### **Physical and Environmental**

- RoHS-6 compliant (lead-free)
- Commercial temperature range 0°C to 70°C
- Power dissipation < 1.5W</li>
- Single 3.3V power supply

#### **Compatible Adapters**

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

#### **Overview**

Chelsio's SM40G-SR 40Gb/s 100m Multimode QSFP+ optical transceivers are designed and certified for use with Chelsio's 40-Gigabit Ethernet Unified Wire Adapters.

The Chelsio SM40G-SR 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.

#### **Transceiver Characteristics**

Chelsio's SM40G-SR QSFP+ transceivers are fully compliant with industry standards like QSFP+ MSA and IEEE 802.3ba 40GBASE-SR4. They are environmentally friendly and safe to operate, as they are lead-free and adhere to Class 1 laser eye safety standards as per IEC 60825-1. Mechanical specifications comply with the QSFP+ MSA transceiver module standards. A serial I2C management interface with built-in digital diagnostic functions enables users to monitor operating information.

The T5 Adapters with SM40G-SR QSFP+ transceivers enable a unified wire for LAN, SAN, and cluster traffic, built upon a combination of high bandwidth and low latency architecture along with 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: SM40G-SR

INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH CHELSIO PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS DOCUMENT. EXCEPT AS PROVIDED IN CHELSIO'S TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, CHELSIO ASSUMES NO LIABILITY WHATSOEVER, AND CHELSIO DISCLAIMS ANY EXPRESS OR IMPLIED WARRANTY, RELATING TO SALE AND OR USE OF CHELSIO PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. CHELSIO PRODUCTS ARE NOT INTENDED FOR USE IN MEDICAL, LIFE SAVING, OR LIFE SUSTAINING APPLICATIONS. CHELSIO MAY MAKE CHANGES TO SPECIFICATIONS AND PRODUCT DESCRIPTIONS AT ANY TIME WITHOUT NOTICE.

Copyright © 2016 - Chelsio Communications - All Rights Reserved.