

Features

- 3.2 Gbps data throughput
- 10 CWDM ITU grid wavelengths
- Pluggable SFP MSA footprint
- Duplex LC connector
- Very low jitter
- Metal enclosure for lower EMI
- 3.3 V power supply with low power dissipation
- Extended operating temperature range

3.2 Gbps CWDM Optical Transceiver Module



TSCxxx-TL40 series CWDM Optical Transceiver Modules are ideally suited for the high-speed communications required for many of Aurora Networks' digital networking products. Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, these state-of-the-art plug-in components are designed for applications that require rates of up to 3.1875 Gbps, with the laser transmission portion of the device operating at one of 10 available ITU-compliant (G.694.2) CWDM wavelengths. The modules are supplied with a duplex LC connector.

TSCxxx-TL40 series modules feature a very low jitter contribution, resulting in extremely clean, high-quality eye patterns. And the modules' metal enclosure not only makes them sturdier, but also improves their FCC test margins. This emission and ESD control is particularly important in applications with sensitive multiport hubs and switches. The module operates at extended voltage and temperature ranges, and dissipates less than 1.75 W. The Class 1 laser transmitter complies with applicable safety standards (IEC 60825-1 and 21 CFR 1040.10 and 1040.11).

Physical:

- Dimensions: 2.2" L x 0.4" H x 0.5" W (5.6 cm x 1.0 cm x 1.3 cm)
- Weight: 0.1 lbs (0.05 kg)

Environmental:

- Operating temperature: -40° to +80°C (-40° to 176°F)
- Storage temperature: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

Optical Interface:

- Optical connectors: Duplex LC

Power Requirements:

- Input voltage: 3.3 V_{DC}
- Power consumption: 1.75 W max

General:

- Link budget: 40 km on SMF-28 or equivalent
- Data rate: 3.1875 Gbps
- Hot plug-in/out

Optical Interface:

Transmitter:

- Type: CWDM DFB
- CWDM optical wavelengths: 10 (1430, 1450, . . . , 1610 nm)
- Output power: -1 dBm min
- Extinction ratio (ER): 8.2 dB min
- Dispersion penalty (at 40 km): 2 dB (measured with a PRBS of 2⁻¹ at 3.18 Gbps and 1x10⁻¹² BER)

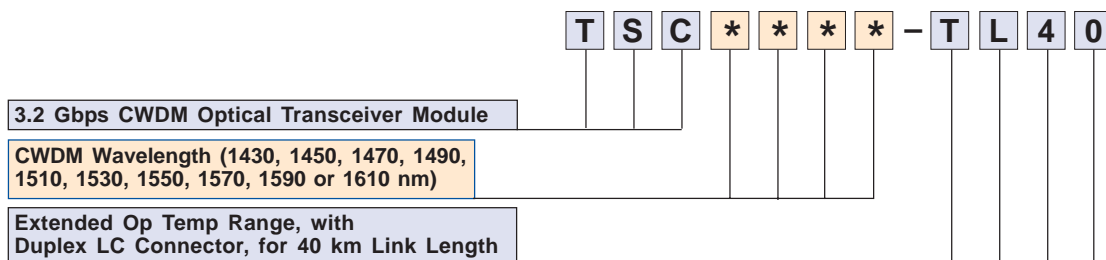
Receiver:

- Optical wavelength: 1420 nm to 1620 nm
- Sensitivity: -19 dBm min
- Input power: -3 dBm max
- Loss of Signal assert level: -34 dBm

Regulatory:

Class 1 devices per FDA 21 CFR 1040.10 and 1040.11, and IEC 60825-1 laser safety regulations.

Ordering Information



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