

40G Optical Module

NT-QSFP-40G-150m



NT-QSFP-40G-150m is a QSFP+ Optical transceiver for 4 x 10 Gb/s optical links. It operates at 10.3125Gb/s up to 100m over OM3 multimode optical fiber and 150m over OM4 fiber. The optical transmitter portion of the transceiver incorporates a 4 channels VCSEL array, a 4 channels input buffer and laser driver, diagnostic monitors, control and bias blocks. For module control, the control interface incorporates a Two Wire Serial interface of clock and data signals. Diagnostic monitors for VCSEL bias, module temperature, TX power, RX power and supply voltage are implemented and results are available through the Two Wire Serial interface. Alarm and warning thresholds are established for the monitored attributes. Flags are set and interrupts generated when the attributes are outside the thresholds. All flags are latched and will remain set even if the condition initiating the latch clears and operation resumes. The optical output will squelch for loss of input signal unless squelch is disabled.

Product Features

- ✓ Supports 41.25Gb/s aggregate bit rate
- ✓ Multirate capability: 1.06Gb/s to 10.5Gb/s per channel
- ✓ Maximum link length of 100m links on OM3 multimode fiber or 150m links on OM4 multimode fiber
- ✓ High Reliability 850nm VCSEL technology
- ✓ Unretimed XLPPI electrical interface
- ✓ Single MPO-12 receptacle
- ✓ Digital diagnostic SFF-8436 compliant
- ✓ Case operating temperature range: 0° C to +70° C
- ✓ Maximum Power dissipation < 1.5 W
- ✓ RoHS Compliant

Applications

- ✓ 40GBASE-SR4 Ethernet
- ✓ Infiniband QDR interconnects
- ✓ Breakout to 10GBASE-SR Ethernet

Standards

- ✓ Compliant to IEEE 802.3ba
- ✓ Compliant to SFF-8436
- ✓ RoHS Compliant

NT-QSFP-40G-300m



NT-QSFP-40G-300m is a QSFP+ Optical transceiver for 4 x 10 Gb/s optical links. It operates at 10.3125Gb/s up to 100m over OM3 multimode optical fiber and 300m over OM4 fiber. The optical transmitter portion of the transceiver incorporates a 4 channels VCSEL array, a 4 channels input buffer and laser driver,

diagnostic monitors, control and bias blocks. For module control, the control interface incorporates a Two Wire Serial interface of clock and data signals. Diagnostic monitors for VCSEL bias, module temperature, TX power, RX power and supply voltage are implemented and results are available through the Two Wire Serial interface. Alarm and warning thresholds are established for the monitored attributes. Flags are set and interrupts generated when the attributes are outside the thresholds. All flags are latched and will remain set even if the condition initiating the latch clears and operation resumes. The optical output will squelch for loss of input signal unless squelch is disabled.

Product Features

- ✓ Supports 41.25Gb/s **aggregate** bit rate
- ✓ Multirate capability: 1.06Gb/s to **10.5Gb/s** per channel
- ✓ Maximum link length of 100m links **on** OM3 multimode fiber **or** 300m links **on** OM4 **multimode** fiber
- ✓ High Reliability 850nm **VCSEL technology**
- ✓ **Unretimed XLPPI electrical interface**
- ✓ Single **MPO-12** receptacle
- ✓ Digital diagnostic **SFF-8436** compliant
- ✓ Case operating **temperature** range: 0° C to +70° C
- ✓ Maximum Power dissipation < **1.5W**
- ✓ RoHS Compliant



NT-QSFP-40G-10km

NT-QSFP-40G-10km integrates four transmitters and receivers into one module. The central wavelengths of the channels are 1271, 1291, 1311 and 1331 nm as members of the CWDM wavelength grid defined in ITU-T G.694.2. In the transmitter side, the four lanes of optical data channels are optically multiplexed by the integrated optical multiplexer. In the receive side, the four lanes of optical data channels are optically de-multiplexed by the integrated optical de-multiplexer. Each data channels is recovered by a PIN photo-detector and trans-impedance amplifier, retimed. The product is designed with form factor, optical/electrical connection and digital diagnostic interface according to the QSFP+ IEEE802.3ba 40GBASE-LR4 and compliant to SFF-8436.

Applications

- ✓ 40GBASE- eSR4 Ethernet
- ✓ Infiniband QDR interconnects
- ✓ Breakout to 10GBASE-SR Ethernet

Standards

- ✓ Compliant to IEEE 802.3ba
- ✓ Compliant to SFF-8436
- ✓ RoHS Compliant

Product Features

- ✓ Supports 41.25Gb/s aggregate bit rate
- ✓ Integrated 4 CWDM lanes MUX/DEMUX
- ✓ Up to 10km transmission on single mode fiber (SMF)
- ✓ XLPPI electrical interface
- ✓ Duplex LC receptacles
- ✓ Hot pluggable QSFP+ form factor
- ✓ Maximum power consumption 3.5W
- ✓ Case operating temperature range: 0°C ~ +70°C
- ✓ RoHS Compliant

Applications

- ✓ Data Center
- ✓ Ethernet Switches

Standards

- ✓ Compliant with IEEE802.3ba
- 3 ✓ Compliant with SFF-8436
- ✓ RoHS Compliant