COLORZ® 400
400ZR QSFP-DD

Part No.

IN-Q3JZ1-TC

Product Type

COLORZ 400 (ZR)

Market Segments

Between Data Centers

Applications

Data Center Interconnects (DCI)
Campus Dense Wavelength Division Multiplexing (DWDM)
Metro DWDM up to 120 km – IPoDWDM Point-to-Point links

Features

- Compatible with the QSFP-DD MSA
- Compliant with the OIF 400ZR Implementation Agreement
- Compatible with Common Management Interface Specification (CMIS) Rev. 5.0 and OIF Coherent Module Management Interface Specification
- 400 Gbps with single optical carrier (60 Gbaud, 16QAM)
- Transmission of 400GbE signals per wavelength
- Fully C-Band tunable
- DWDM wavelength spacing options
- Advanced 7 nm Coherent DSP technology
- Integrated, Concatenated Forward Error Correction (C-FEC) encode/decode
- Host and network loopback functionality
- Supports IEEE 802.3bs 400GAUI-8 electrical interface
- Two-wire management interface (TWI) with extended digital diagnostic monitoring

Description

The IN-Q3JZ1-TC is a pluggable Digital Coherent Optics (DCO) transceiver. This DCO can be plugged into compatible switches and routers for coherent transmission of 400GbE signals over DWDM links up to 120 km.

The transmitter is tunable over the ITU C-Band (75 GHz grid). The IN-Q3JZ1-TC includes a narrow linewidth tunable laser, Silicon Photonics Modulator ICR, and a DSP.

Optical signals are transmitted and received from the module by standard duplex SMF and LC receptacles.

The client/electrical interface is compatible with IEEE P802.3bs 8-lane 56G PAM-4, as used for "gray" datacenter optical transceivers, for example 400GBASE-DR4. COLORZ 400 (ZR) modules are mechanically and electrically compatible with the QSFP-DD MSA and utilize a 76-Pad electrical connector.

The IN-Q3JZ1-TC utilizes 7 nm coherent DSP technology, including its low power C-FEC as well as innovative silicon photonics, driver, and TIA technology to provide coherent transmission performance previously only available on lower density, higher power, and higher cost systems.