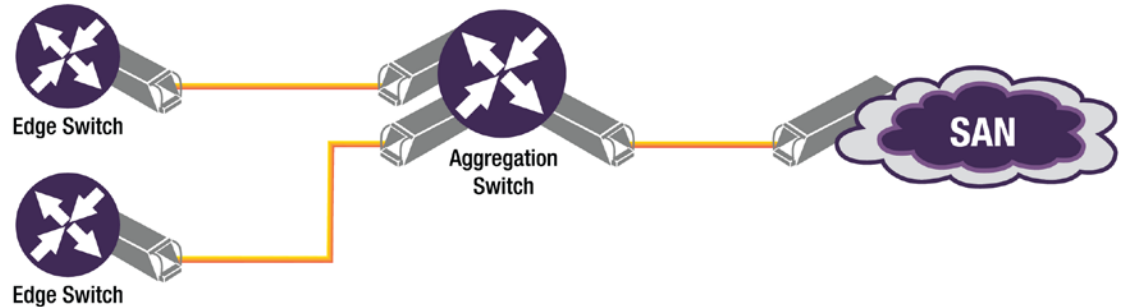# TN-QSFP-40G-xx: 40G QSFP+

April 2016

Network Diagram

Value Proposition

Transition Networks provides the 40G QSFP+ which is a future proof, high density solution for deployments of 40G network connections. The current 1G/10G infrastructures are not able to meet the rising demand of higher data rates, which are driven by Virtualization, Big Data, Cloud Services, and Convergence. Moving to a 40G QSFP+ will result in significant cost benefits over 10G optics in data centers. The TN-QSFP-40G-xx continues to demonstrate Transition Networks' commitment to providing reliable and high performance networking products to our customers worldwide.

Key Differentiators

- Up you 11.1 Gb/s per channel
- Maximum link length of 400m on OM4 Multimode fiber
- Hot-swappable 40Gb transceiver that plugs into a QSFP+ port
- Support SFF-8436 Digital Diagnostic Monitoring Interface (DMI)
- Compatible with Cisco Switches and Routers as well as their IOS

Product Description

The Transition Networks TN-QSFP-40G-xx Series of 40G QSFP+ optical transceivers are designed to install in any QSFP+ port allowing for 40GBase-X interfaces to the network through the QSFP+ connector. The TN-QSFP-40G-xx transceivers are Cisco compatible* and are built for bi-directional serial-optical data communication such as 40G Ethernet.

Transition Networks' QSFP+ modules fully comply with the Multi-Sourcing Agreement (MSA). This compliance allows our QSFP+ modules to be used in all other MSA compliant QSFP+ platforms. In addition, TN QSFP+ modules are also compatible with all Cisco QSFP+ based routers and switches, as well as Cisco's IOS software. TN QSFP+ modules ARE NOT Cisco OEM brand modules.

Applications

- 40GBase-X Ethernet
- Breakout to 10GBase-X Ethernet
- Data Center Aggregation and Backplane Applications
- Datacom/Telecom switch & router connections

Features	Benefits
Hot pluggable transceiver	Ease of installation and replacement
Compliant with IEEE 802.3ba	Guaranteed interoperability with any other IEEE 40GBase-SR4 compliant module
Compliant with IEEE 802.3ae	Interoperable with 10GBase-SR compliant modules of various form factors such as SFP+, XFP and X2
Small foot print	Ideal for high density applications
Standard MPO connector (SR4)	Utilizes a standard 12/8 Lane optical fiber with MTP (MPO) connector for high density cabling
Duplex LC receptacles (LR4)	Enables reuse of existing 1G/10G duplex single mode fiber infrastructure for migration to 40GE connectivity
SFF-8436 Digital Diagnostic Monitoring Interface (DMI)	Provides component level monitoring, fault isolation and failure prediction functions on their transceiver based applications
Low power dissipation: < 1.5 Watts (SR4)	Less heat dissipation needed on host device, cost savings and environment friendly

Ordering Information

TN-QSFP-40G-SR4

- Cisco Compatible QSFP+, 40GBase-SR4, 850nm, Multimode (MPO) [400m/1313ft. on OM4, 300m/985ft. on OM3] with DMI, Link Budget: 2.3 dB

TN-QSFP-40G-LR4

- Cisco Compatible QSFP+, 40GBase-LR4, 1271,1291,1311,1331nm, Single mode (LC) [10Km/6.2mi.] with DMI, Link Budget: 7.0 dB

TN-QSFP-40G-LR4-3

- Cisco Compatible QSFP+, 40GBase-LR4, 1271,1291,1311,1331nm, Single mode (LC) [30Km/18.7mi.] with DMI, Link Budget: 9.0 dB