InterOptic
By Advantage Optics

◆ **CISCO-COMPATIBLE DATA SHEET:**

100G QSFP PRODUCT FAMILY

DESCRIPTION

The 100GBASE QSFP modules allow a wide variety of 100 Gigabit Ethernet connectivity options for data center, enterprise, and service provider applications. InterOptic 100G QSFP modules are supported on a comprehensive suite of switches and routers.

FEATURES & BENEFITS

◆ Hot-swappable 100G QSFP modules allow for quick additions/changes into an available 100G QSFP port

◆ "Pay as you Populate" model lowers initial costs

◆ Digital optical monitoring capability for strong diagnostic capabilities as supported by the OEM

◆ Optical interoperability allows for IEEE compliant 100GBASE optical interfaces on the same link

QSFP-100G-SR4-S

The 100GBASE-SR4 QSFP module supports a link length of up to 70m on 2000MHz*km (OM3) parallel multimode fiber (MMF). A link length of up to 100m is possible using 4700MHz*km parallel MMF (OM4).

QSFP-100G-PSM4-S

The 100GBASE-PSM4 QSFP module supports a link length of up to 500m on parallel single-mode fiber (SMF, G.652) with an MPO/MTP connector.

QSFP-CWDM4-S

The 100GBASE-CWDM4 QSFP module supports a link length of up to 2 km on standard single-mode fiber (SMF, G.652). The module internally multiplexes four 25G wavelengths to create a single 100G signal carried over the SMF. The 100G signal is then internally demultiplexed by the far end module back to the original four 25G wavelengths.

QSFP-100G-LR-4

The 100GBASE-LR QSFP module supports a link length of up to 10 km on standard single-mode fiber (SMF, G.652). The module internally multiplexes four 25G wavelengths to create a single 100G signal carried over the SMF. The 100G signal is then internally demultiplexed by the far end module back to the original four 25G wavelengths.

100G Copper Breakout DAC - QSFP-4SFP25G-CUXXM

The QSFP to SFP+ copper Direct-Attach Cables (DAC) provide a breakout of a single 100G QSFP port to four 25G SFP+ ports on the other end. Passive cables in lengths of 1, 2 and 3 meters are available.

100G DAC - QSFP-100G-CUXXM

The 100GBASE-CR4 QSFP to QSFP copper Direct-Attach Cables (DAC) are available in passive lengths of 1, 2 and 3 meters.

100G AOC - QSFP-100G-AOCXXM

The 100GBASE-AOC QSFP to QSFP Active Optical Cables (AOC) are available in lengths of 1, 2, 3, 5, 7, 10, 15, 20, 25 and 30 meters.

ORDERING INFORMATION

QSFP-100G-SR4-S	100GBASE-SR4 QSFP Transceiver for Parallel MMF, S-Class
QSFP-100G-PSM4-S	100GBASE-PSM4 QSFP Transceiver for Parallel SMF, S-Class
QSFP-100G-CWDM4-S	100GBASE-CWDM4 QSFP Transceiver for SMF, S-Class
QSFP-100G-LR4-S	100GBASE-LR4 QSFP Transceiver for SMF, S-Class
QSFP-4SFP25G-CUXXM	100GBASE-CR4 QSFP to four 25GBASE-CU SFP+ passive copper (DAC) breakout, Variable Length
QSFP-100G-CUXXM	100GBASE-CR4 QSFP passive copper (DAC), Variable Length
QSFP-100G-AOCXXM	100GBASE-AOC QSFP (AOC), Variable Length

PART NUMBER	CONNECTOR TYPE	WAVELENGTH (nm)	CABLE TYPE	CORE SIZE (um)	MODAL BANDWIDTH (MHz*km)	MAXIMUM OPERATING DISTANCE
QSFP-100G-SR4-S	MPO/MTP	850	Parallel MMF	50	2000 (OM3)	70m
					4700 (OM4)	100m
QSFP-100G-PSM4-S	MPO/MTP	1310	Parallel SMF	G.652	N/A	500m
QSFP-100G-CWDM4-S	LC - Duplex	1271, 1291, 1311, 1331	SMF	G.652	N/A	2km
QSFP-100G-LR4-S	LC - Duplex	1295, 1300, 1304, 1309	SMF	G.652	N/A	10km

PART NUMBER	PHY TYPE	TX POWER (dBm) Max-Min	RX POWER (dBm) Max - Min	TEMPERATURE RANGE	OPERATING TEMPERATURE
QSFP-100G-SR4-S	100GBASE-SR4	2.4 to -8.4 per lane	2.4 to -10.3 per lane	COM	0 to 70 °C
QSFP-100G-PSM4-S	100GBASE-PSM4	2.0 to -9.4 per lane	2.0 to -12.7 per lane	COM	0 to 70 °C
QSFP-100G-CWDM4-S	100GBASE-CWDM4	2.5 to -6.5 per lane	2.5 to -11.5 per lane	COM	0 to 70 °C
QSFP-100G-LR4-S	100GBASE-LR4	4.5 to -4.3 per lane	4.5 to -10.6 per lane	COM	0 to 70 °C
QSFP-4SFP25G-CUXXM	100GBASE-CR4 to 4x25GBASE-CU	N/A	N/A	COM	0 to 70 °C
QSFP-100G-CUXXM	100GBASE-CR4	N/A	N/A	COM	0 to 70 °C
QSFP-100G-AOCXXM	100GBASE-AOC	N/A	N/A	COM	0 to 70 °C

PHYSICAL DIMENSIONS (HxWxD)
QSFP Module: 13.5 x 18.4 x 72.4 mm (excluding pull tab)

POWER REQUIREMENTS (TYPICAL)
1.5W (100GBASE-CR4 DAC & 100GBASE-CR4 to 4x25GBASE-CU DAC)
3.5W (100GBASE-AOC, SR4, PSM4, CWDM4, LR4)

WARRANTY
Standard: 3 Year
Extended: Optional, up to 5 Years

SAFETY AND POWER
Laser Class 1: 21CFR-1040 LN#50
Laser Class 1: IEC60825-1

STANDARDS COMPLIANCE
IEEE 802.3: IEEE Standard for Ethernet
IEEE 802.3bm: 40 and 100 Gigabit Ethernet
GR-20-CORE: Generic Requirements for Optical Fiber and Optical Fiber Cable
GR-326-CORE: Generic Requirements for Single-mode Optical Connectors and Jumper Assemblies
GR-468-CORE: Generic Requirements Optoelectronic Devices Used in Telecommunications Equipment
GR-1435-CORE: Generic Requirements for Multi-Fiber Optical Connectors
SFF-8665: QSFP 28 Gb/s 4X Pluggable Transceiver Solution