

SFP-10GE CWDM

10G Ethernet CWDM SFP+ Family

DESCRIPTION

The SFP-10GE transceiver family are small form factor pluggable modules for bi-directional serial optical data communications such as 10GBASE Ethernet. The modules are compliant to the SFP+ MSA and are hot pluggable. Digital diagnostic functions are available via an I2C serial bus specified in the SFP MSA SFF-8472. The modules meet the requirements of the IEEE 802.3 10GBASE-ER/ZR Ethernet standard and are suitable for interconnections in 10G Ethernet environments.

The transceivers can also be used for a wide range of other protocols and bitrates between 600 Mbps and 11.1 Gbps.

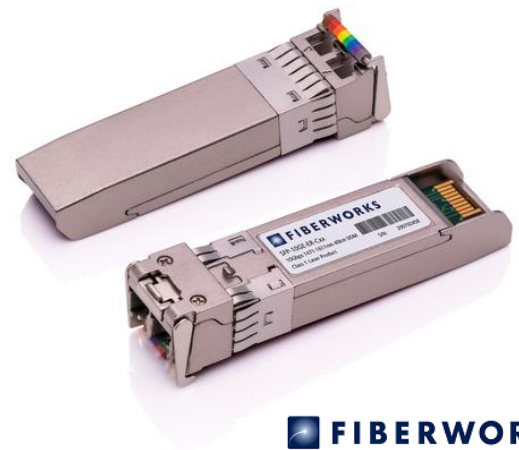
CWDM modules operate at nominal Coarse Wavelength Division Multiplexing (CWDM) wavelengths. Eighteen center wavelengths are available from 1271 nm to 1611 nm with each step being 20 nm. The CWDM characteristics are fully compliant to the wavelength parameters specified in ITU standards G.694.2 and G.695.

APPLICATIONS

- CWDM Systems
- 10G Ethernet
- 10G Fibre Channel
- OTN OTU2/OTU2e
- SDH STM-64
- Other protocols such as CPRI, OBSAI, SMPTE SDI

FEATURES

- Up to 100 km transmission on singlemode fiber ¹
- 18 CWDM wavelengths (λ): 1271 nm to 1611 nm
- Data Rate 0.6 - 11.1 Gbps
- Hot-Pluggable SFP footprint
- Duplex LC interface for fiber pair operation
- Small Form-Factor Pluggable (SFP) MSA compatible
- SFF-8472 Digital Diagnostics Monitoring
- Operating case temperature: Standard: 0°C to 70°C



LASER SAFETY

This transceiver is a Class 1 laser product. It complies with IEC-60825 and FDA 21 CFR 1040.10 and 1040.11. The transceiver must be operated within the specified temperature and voltage limits. The optical ports of the module need to be terminated with an optical connector or a dust plug.

¹ Valid for 10.3125Gbps

OPTICAL PARAMETERS

Part no.	Fiber type	Wavelength [nm]	Opt. Output Power [dBm]	Opt. Receiver Sensitivity [dBm] ¹	Power Budget [dB]
SFP-10GE-ER-CxxL	SM	1271-1451	-1 to 5	-16 to 0	15
SFP-10GE-ER-Cxx	SM	1471-1611	-1 to 5	-16 to 0	15
SFP-10GE-ZR-CxxL	SM	1271-1451	0 to 5	-24 (-18) to -8	24 (18)
SFP-10GE-ZR-Cxx	SM	1471-1611	0 to 5	-24 to -8	24
SFP-10GE-eZR-Cxx	SM	1471-1611	1 to 5	-25 to -8	26

ORDERING INFORMATION

Part no.	Description
SFP-10GE-ER-CxxL	SFP+, 10G Ethernet, CWDM low-band, SM, 15dB, 30km

C27 = CWDM 1271 nm

C29 = CWDM 1291 nm

C31 = CWDM 1311 nm

C33 = CWDM 1331 nm

C35 = CWDM 1351 nm

C37 = CWDM 1371 nm

C39 = CWDM 1391 nm

C41 = CWDM 1411 nm

C43 = CWDM 1431 nm

C45 = CWDM 1451 nm

Part no.	Description
SFP-10GE-ZR-CxxL	SFP+, 10G Ethernet, CWDM low-band, SM, 24dB, 30-60km

C27 = CWDM 1271 nm (24dB 60km)

C29 = CWDM 1291 nm (24dB 60km)

C31 = CWDM 1311 nm (24dB 60km)

C33 = CWDM 1331 nm (24dB 60km)

C35 = CWDM 1351 nm (18dB 40km)

C37 = CWDM 1371 nm (18dB 40km)

C39 = CWDM 1391 nm (18dB 40km)

C41 = CWDM 1411 nm (18dB 40km)

C43 = CWDM 1431 nm (18dB 30km)

C45 = CWDM 1451 nm (18dB 30km)

Part no.	Description
SFP-10GE-ER-Cxx	SFP+, 10G Ethernet, CWDM, SM, 15dB, 40km
SFP-10GE-ZR-Cxx	SFP+, 10G Ethernet, CWDM, SM, 24dB, 80km
SFP-10GE-eZR-Cxx	SFP+, 10G Ethernet, CWDM, SM, 26dB, 100km

C47 = CWDM 1471 nm

C49 = CWDM 1491 nm

C51 = CWDM 1511 nm

C53 = CWDM 1531 nm

C55 = CWDM 1551 nm

C57 = CWDM 1571 nm

C59 = CWDM 1591 nm

C61 = CWDM 1611 nm

¹ Valid for 10.3125Gbps