

10G Tunable DWDM Limiting Interface

Q What types of ports can support the 10G Tunable Limiting Interface transceiver?

A The 10G Tunable Dense **Wavelength** Division Multiplexing (DWDM) Limiting Interface transceiver can be used on any SFP+ port (see Table 1).

Table 1. Host boards and interfaces

Host board	Required transceiver electrical interface
Port has Electronic Dispersion Compensation (EDC)	Limiting or Linear
Port does not have EDC	Limiting

Q What Cisco platforms support the 10G Tunable DWDM Limiting Interface?

A Check the [Transceiver Module Group \(TMG\) compatibility matrix](#) by searching “DWDM-SFP10G-C-S” for qualified platforms.

Q What is the reach of the 10G Tunable Limiting Interface transceiver?

A The 10G Tunable DWDM Limiting Interface transceiver can tolerate up to 1400 ps/nm of chromatic dispersion. Chromatic dispersion is a characteristic of the optical fiber. The amount of chromatic dispersion varies from fiber to fiber, but in general, SMF G.652 has a maximum chromatic dispersion of 20 ps/nm*km and a typical chromatic dispersion of 17 ps/nm*km. This translates to the reaches listed in Table 2.

Table 2. Transceiver reach

Transceiver	Fiber chromatic dispersion	Maximum reach
DWDM-SFP10G-C-S Tunable Limiting Interface	17 ps/nm*km	82 km
DWDM-SFP10G-C-S Tunable Limiting Interface	20 ps/nm*km	70 km

Q What transceivers are interoperable with the 10G Tunable DWDM Limiting Interface transceiver?

A The DWDM-SFP10G-C-S is interoperable with transceivers listed in Table 3.

Table 3. Transceiver interoperability

Port 1	Optic in port 1	Up to 96 channels	Optic in port 2	Port 2
10G port with and without EDC	DWDM-SFP10G-C-S	<--Link-->	DWDM-SFP10G-C-S (limiting)	10G port with EDC and without EDC
10G port with and without EDC	DWDM-SFP10G-C-S	<--Link-->	DWDM-SFP10G-C (linear)	10G port with EDC
10G port with and without EDC	DWDM-SFP10G-C-S	<--Link-->	DWDM-SFP10G-xx.xx (linear)	10G port with EDC
10G port with and without EDC	DWDM-SFP10G-C-S	<--Link-->	RPHY-S10G-80K-xxx (limiting)	10G port with and without EDC

Q Which protocols can the 10G Tunable Limiting Interface support?

A The DWDM-SFP10G-C-S is Ethernet only; it does not support Optical Transport Network (OTN) data rates.

For more information, refer to the 10G DWDM data sheet:

https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/dwdm-transceiver-modules/data_sheet_c78-711186.html