

Cisco CWDM-SFP-1470 Datasheet



Cisco CWDM-SFP-1470 CWDM 1470-nm SFP; Gigabit Ethernet and 1 and 2 Gb Fibre Channel

CWDM-SFP-1470

The Cisco Coarse Wavelength-Division Multiplexing (CWDM) Small Form-Factor Pluggable (SFP) solution allows enterprise companies and service providers to provide scalable and easy-to-deploy Gigabit Ethernet and Fibre Channel services in their networks. The product set helps enable the flexible design of highly available, multiservice networks.

The Cisco CWDM SFP solution is a convenient and cost-effective solution for the adoption of Gigabit Ethernet and Fibre Channel in campus, data-center, and metropolitan-area access networks.

The Cisco CWDM SFP solution has two main components: a set of eight different pluggable transceivers (Cisco CWDM SFPs), and a set of different Cisco CWDM passive multiplexer/demultiplexer or optical add/drop multiplexers (OADMs). A Cisco CWDM chassis enables rack-mounting up to two of the Cisco CWDM passives. Both the transceivers and the passive multiplexers are compliant with the ITU-T G.694.2 standard defined CWDM grid.

Key features and benefits

Scalability

The Cisco CWDM SFP solution helps enable the transport of up to eight channels (Gigabit Ethernet or Fibre Channel) over single-mode fiber strands.

Easy Deployment and flexible implementation

The Cisco CWDM SFP fits into a standard SFP port supporting the IEEE 802.3z standard on the supported Cisco Systems® platforms. The Cisco CWDM OADM is passive and requires no power. Neither the Cisco CWDM SFP nor the Cisco CWDM passives requires configuration.

The Cisco CWDM SFP solution allows for a variety of network configurations—from multichannel point-to-point to hub and meshed-ring configurations.

High availability

The Cisco CWDM SFP solution takes advantage of a multichannel architecture and the inherent protection of ring architectures. The solution helps enable:

- Use of Layer 2 and Layer 3 redundancy and failover mechanisms at the channel endpoints (Cisco CWDM SFP) to build highly available links
- Use of two-path link configurations in a ring architecture to provide protection from fiber cuts

Investment protection

The Cisco CWDM SFP solution helps enable enterprises and service providers to increase the bandwidth of an existing Gigabit Ethernet optical infrastructure without adding new fiber strands. The solution can be used in parallel with other Cisco SFP devices on the same platform.

Mesh (ring) configuration

Mesh deployments are a combination of hub-and-spoke and point-to-point or even multiple point-to-point connections in parallel on the same optical link. Deployment of the maximum eight wavelengths allows for different combinations of these scenarios.

Cisco CWDM SFPs

A Cisco CWDM SFP is a hot-swappable input/output device that plugs into an SFP port or slot of a Cisco switch or router, linking the port with the fiber-optic network.

The Cisco CWDM SFPs are multirate parts that support both Gigabit Ethernet and Fibre Channel (1 gigabit and 2 gigabit).

Performance

- Gigabit Ethernet 1.25 Gbps full-duplex links with an optical link budget of 29 dB
- Fibre Channel 1.06 and 2.12 Gbps full-duplex links with an optical link budget of 28 dB

Connectors and cabling

- Equipment: Standard SFP interface
- Network: Dual LC/PC connector

Note: Only connections with patch cords with PC or UPC connectors are supported. Patch cords with APC connectors are not supported.

Environmental conditions and power requirements

- Operating temperature range: 32 to 122°F (0 to 50°C)
- Storage temperature range: -40 to 185°F (-40 to 85°C)

Electrical power interface data

Parameter	Symbol	Minimum	Typical	Maximum	Units
Supply Current	I _s		220	300	mA

Surge Current	I _{surge}			+30	mA
Input Voltage	V _{max}	3.1	3.3	3.5	V

Optical parameters

Parameter	Symbol	Minimum	Typical	Maximum	Units	Notes and Conditions
Transmitter Center Wavelength	wavelength _c	(x-4)		(x + 7)	nm	Available center wavelengths are 1470, 1490, 1510, 1530, 1550, 1570, 1590, and 1610 nm
Side-Mode Suppression Ratio	SMSR	30			dB	
Transmitter Optical Output Power	P _{out}	0		5.0	dBm	Average power coupled into single-mode fiber