

# Cisco SFP-10G-BXD-I Datasheet



Cisco SFP-10G-BXD-I 10GBASE-BX10-D Bidirectional for 10km

SFP-10G-BXD-I

A broad range of industry-compliant SFP+ modules for 10 Gigabit Ethernet deployments in diverse networking environments.

The Cisco 10GBASE SFP+ modules give you a wide variety of 10 Gigabit Ethernet connectivity options for data center, enterprise wiring closet, and service provider transport applications.

## Features and benefits

Cisco SFP+ modules offer the following features and benefits.

- Industry's smallest 10G form factor for greatest density per chassis
- Hot-swappable input/output device that plugs into an Ethernet SFP+ port of a Cisco switch (no need to power down if installing or replacing)
- Supports "pay-as-you-populate" model for investment protection and ease of technology migration
- Digital optical monitoring capability for strong diagnostic capabilities
- Optical interoperability with 10GBASE XENPAK, 10GBASE X2, and 10GBASE XFP interfaces on the same link
- Cisco quality Identification (ID) feature enables a Cisco platform to identify whether the module is certified and

tested by Cisco

Cisco SFP-10G-BXD-I and SFP-10G-BXU-I for 10Km (single-fiber bidirectional applications)

The Cisco SFP-10G-BXD-I and SFP-10G-BXU-I SFPs operate on a single strand of standard SMF.

A SFP-10G-BXD-I device is always connected to a SFP-10G-BXU-I device with a single strand of standard SMF with an operating transmission range up to 10 km.

The communication over a single strand of fiber is achieved by separating the transmission wavelength of the two devices. SFP-10G-BXD-I transmits a 1330-nm channel and receives a 1270-nm signal, whereas SFP-10G-BXU-I transmits at a 1270-nm wavelength and receives a 1330-nm signal. The presence of a Wavelength-Division Multiplexing (WDM) splitter integrated into the SFP to split the 1270-nm and 1330-nm light paths.

The SFP-10G-BXD-I and SFP-10G-BXU-I SFPs also support Digital Optical Monitoring (DOM) functions according to the industry-standard SFF-8472 Multisource Agreement (MSA). This feature gives the end user the ability to monitor real-time parameters of the SFP, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.

## Product specifications

- Product Number: SFP-10G-BXD-I
- Description: Cisco 10GBASE-BX10-D Bidirectional for 10km
- Connectors: Single LC/PC connector
- Wavelength: TX-1330nm, RX-1270nm
- Cable Type: SMF
- Cable Distance: 10km
- Transmit Power (dBm):
  - Maximum: 0.5
  - Minimum: -8.2
- Receive Power (dBm):
  - Maximum: 0.5
  - Minimum: -14.4
- Transmit and Receive Wavelength: 1320 to 1340nm (Tx), 1260 to 1280nm (Rx)
- Bail Latch Color: Blue
- Power Consumption: 1W
- Operating Temperature Range: Industrial temperature range (IND): -40 to 85°C (-40 to 185°F)
- Storage temperature range: -40 to 85°C (-40 to 185°F)

## Platform support

- 7600 Series Router
- ASR 901

- ASR 903
- ASR 1000 Series Router
- ASR 9000 Series Router
- ASR 9000v Series Router
- Catalyst 2350 and 2360 Series Switches
- Catalyst 2960-S, 2960-X, and 2960-XR Series Switches
- Catalyst 3100 Blade Switches
- Catalyst 3560, 3560-E, and 3560-X Series Switches
- Catalyst 3750, 3750-E, and 3750-X Series Switches
- Catalyst 3850 Series Switches
- Catalyst 4500 and 4500-X Series Switches
- CRS Router
- MDS 9000
- ME 4500
- ME 4900NCS 6000 Series Router
- Nexus 2000, 3000, and 4000 Series Switches
- Nexus 9000 and 9500 (modular) Series Switches
- RF Gateway Series
- SCE 8000
- Shared Port Adapter (SPA)
- Unified Computing System (UCS) Switches

Not all devices listed support every module. For details about which modules run in which devices and other compatibility information, refer to the document “Cisco 10 Gigabit Ethernet Transceiver Modules Compatibility Matrix”:

[https://www.cisco.com/en/US/docs/interfaces\\_modules/transceiver\\_modules/compatibility/matrix/OL\\_6974.html](https://www.cisco.com/en/US/docs/interfaces_modules/transceiver_modules/compatibility/matrix/OL_6974.html)

Additional platforms may continually be added; please check the compatibility matrix for the latest information and for the Cisco compatible operating system for each platform.

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