Cisco SFP-10G-LR

Datasheet

Product Overview

- Cisco SFP-10G-LR is a 10GBASE-LR SFP+ optical transceiver for 10 Gigabit Ethernet over single-mode fiber.
- It uses 1310 nm optical signaling and supports links up to 10 km over G.652 SMF through a duplex LC interface.
- The compact hot-swappable module is designed for installation in compatible Cisco Ethernet SFP+ ports.
- The module operates in the commercial temperature range from 0°C to 70°C and consumes 1W maximum.
- Its optical budget is defined by a 0.5 dBm maximum transmit power, -8.2 dBm minimum transmit power, and -14.4 dBm minimum receive power.
- Cisco SFP+ modules provide digital optical monitoring capability for diagnostic visibility during operation.

Product Highlights

- **10GBASE-LR over SMF:** Supports 10 Gigabit Ethernet over standard G.652 single-mode fiber for links up to 10 km.
- **1310 nm Optical Interface:** Uses a 12601355 nm operating wavelength range for long-reach single-mode fiber transmission.
- **Hot-Swappable SFP+ Form Factor:** Installs or replaces without powering down compatible Cisco Ethernet SFP+ equipment.
- **Optical Diagnostics:** Cisco SFP+ modules provide digital optical monitoring capability for operational diagnostics.

Detailed Features



SFP-10G-LR

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Component	Specification
Product Type	10GBASE-LR SFP+ optical transceiver
Data Rate	10Gbps
Fiber Type	Single-mode fiber (SMF), G.652
Reach	Up to 10 km
Connector	Duplex LC

10 km Single-Mode Reach

The SFP-10G-LR is designed for 10GBASE-LR links over standard G.652 single-mode fiber up to 10 km, supporting data center, campus, and metro interconnects.

Compact SFP+ Deployment

The small hot-swappable form factor allows installation and replacement in compatible Cisco Ethernet SFP+ ports without powering down the host equipment.

1310 nm Optical Operation

The module uses a 12601355 nm wavelength range and defined transmit and receive power limits for standardized long-reach optical transmission.

Operational Diagnostics

Cisco SFP+ modules provide digital optical monitoring capability, helping operators observe optical conditions and support troubleshooting during service operation.

Commercial Temperature Operation

The module is rated for 0°C to 70°C operation, fitting standard data center and enterprise network environments.

Low Power Consumption

Maximum power consumption is 1W, helping limit the thermal and power budget of dense SFP+ deployments.

Blue Bail Latch Identification

Cisco identifies SFP-10G-LR and related LR modules with a blue bail latch for quick visual type recognition.

Mechanical Compatibility

The module measures 8.5 × 13.4 × 56.5 mm and uses a duplex LC optical connector in the Cisco SFP+ form factor.

Technical Specifications

Product Specifications

Feature	Value
Product Model	SFP-10G-LR
Product Type	10GBASE-LR SFP+ Module for SMF
Data Rate	10Gbps
Fiber Type	Single-mode fiber (SMF), G.652
Ethernet Standard	10GBASE-LR
Connector	Duplex LC
Maximum Link Distance	10 km
Operating Wavelength Range	1260–1355 nm
Nominal Wavelength	1310 nm
Transmit Power	0.5 dBm maximum; -8.2 dBm minimum
Receive Power	0.5 dBm maximum; -14.4 dBm minimum
Power Consumption	1W maximum
Operating Temperature	0°C to 70°C (COM)
Storage Temperature	-40°C to 85°C
Bail Latch Color	Blue
Digital Optical Monitoring	Supported as a Cisco SFP+ module capability

Feature	Value
Dimensions (H × W × D)	8.5 × 13.4 × 56.5 mm
Typical Connector Weight	75 g or less
Minimum Cabling Distance	2 m, per IEEE 802.3ae note
Warranty	5 years

Product Comparison

Feature	SFP-10G-LR	SFP-10G-SR	SFP-10G-ER
Optical standard	10GBASE-LR	10GBASE-SR	10GBASE-ER
Fiber type	G.652 SMF	MMF	G.652 SMF
Wavelength	1310 nm	850 nm	1550 nm
Maximum distance	10 km	26 m standard FDDI MMF; up to 300 m OM3/400 m OM4	40 km
Connector	Duplex LC	Duplex LC	Duplex LC
Transmit power	0.5 dBm max / -8.2 dBm min	-1.2 dBm max / -7.3 dBm min	4.0 dBm max / -4.7 dBm min
Receive power	0.5 dBm max / -14.4 dBm min	-1.0 dBm max / -9.9 dBm min	-1.0 dBm max / -15.8 dBm min
Wavelength range	1260–1355 nm	840–860 nm	1530–1565 nm
Power consumption	1W	1W	1.5W
Operating temperature	0–70°C (COM)	0–70°C (COM)	0–70°C (COM)
Best fit	10 km SMF campus or data center interconnect	Short-reach MMF server or access links	Longer-reach SMF backbone links

Accessories

Category	Accessories
Included Accessories	Not specified in consulted official documentation
Optional Accessories	Not specified in consulted official documentation

Support & Warranty

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References

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[2] Cisco. (2026). Cisco 10GBASE SFP+ Modules Data Sheet (PDF). Retrieved November 18, 2026, from https://www.cisco.com/c/en/us/products/collateral/interfaces-modules/transceiver-modules/data_sheet_c78-455693.pdf