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SFP-10G-ER-I DataSheet

Cisco SFP-10G-ER-I SFP+ transceiver, 10GBASE-ER/EW, 1550nm, 40km single-mode, LC duplex, DOM, industrial temperature, FCoE. Built for extreme and mission-critical 10G networks.

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SFP-10G-ER-I Description

SFP-10G-ER-I (also referred to as Cisco 10GBASE-ER-I SFP+ or SFP+ ER Industrial) is a rugged, industrial-grade 10 Gigabit SFP+ optical transceiver module designed for deployment in harsh or extreme environments. Supporting 10GBASE-ER, 10GBASE-EW, and OTU2/2e protocols, it delivers reliable 10Gbps connectivity over single-mode fiber up to 40 kilometers at a 1550nm wavelength. With a wide operating temperature range (-40°C to 85°C), Digital Optical Monitoring (DOM), FCoE support, and hot-swappable design, the SFP-10G-ER-I is ideal for carrier, metro, utility, or outdoor applications requiring maximum durability and uptime.

Product Highlights

Data Rate

Wavelength

Max Cable Distance

Key Features

Typical Application Scenarios:

- Industrial, utility, or outdoor networks exposed to extreme or wide temperature ranges (e.g. -40°C to 85°C)

- Mission-critical infrastructure, such as transportation, power grids, or base stations in harsh environments
- Metro and carrier networks deployed in outdoor or uncontrolled locations

Functional Features & Differences:

- Industrial/extended temperature range (-40°C to 85°C)
- Supports FCoE, 10GBASE-ER, 10GBASE-EW, and OTU2/2e protocols
- Supports Digital Optical Monitoring (DOM)
- Ruggedized design for maximum durability and reliability in harsh conditions

Model comparison

Parameter	SFP-10G-ER-I	SFP-10G-ER	SFP-10G-ER-S
Form Factor	SFP+	SFP+	SFP+
Data Rate	10 Gbps	10 Gbps	10 Gbps
Wavelength	1550 nm	1550 nm	1550 nm
Max Distance	40 km	40 km	40 km
Fiber Type	SMF (G.652)	SMF (G.652)	SMF (G.652)
Operating Temp	-5~85°C (EXT/IND)	0~70°C (COM)	0~70°C (COM)
Transmit Power	4.0 to -4.7 dBm	4.0 to -4.7 dBm	4.0 to -4.7 dBm
Receive Power	-1 to -15.8 dBm	-1 to -15.8 dBm	-1 to -15.8 dBm
Power Consumption	1.5W	1.5W	1.5W
DOM Support	Yes	Yes	Yes
FCoE Support	Yes	Yes	No
Bail Latch Color	Red	Red	Red

- ● **SFP-10G-ER-S**: Standard, cost-effective, no FCoE, commercial temp—recommended for most enterprise and data center 10G long-reach links

where only Ethernet is required.

- ● **SFP-10G-ER**: Full-featured, FCoE-capable, commercial temp—suitable for advanced data center, storage, and carrier networks needing Fibre Channel over Ethernet.

- ● **SFP-10G-ER-I**: Extended/industrial temperature, otherwise similar to SFP-10G-ER—best for deployment in harsh, outdoor, or unconditioned environments.

Specification

Parameter	Description
Product Model	SFP-10G-ER-I
Form Factor	SFP+
Data Rate	10 Gbps
Wavelength	1550 nm
Max Distance	40 km (Single-Mode Fiber, G.652)
Connector Type	LC Duplex
Fiber Type	Single-Mode Fiber (SMF)
Transmit Power	4.0 to -4.7 dBm
Receive Power	-1 to -15.8 dBm
Power Consumption	1.5W
DOM Support	Yes
FCoE Support	Yes
Operating Temperature	-5°C to 85°C (Extended/Industrial)
Bail Latch Color	Red
Hot Swappable	Yes
Dimensions	8.5 x 13.4 x 56.5 mm
Weight	≤75g

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