

# What model of optical module is used for a 40km h connection



## Overview

SFP+ 40km (10GBASE-ER) refers to a 10 Gigabit optical transceiver designed for extended-reach transmission up to 40 kilometers over single-mode fiber (SMF). These modules typically operate at a 1550 nm wavelength, use LC duplex connectors, and support Digital Optical Monitoring (DOM/DDM) for. SFP (Small Form-factor Pluggable) is a compact, hot-pluggable network interface module used to connect network devices (switches, routers, firewalls) to fiber optic or copper cables. Think of it as the “translator” for your network equipment, converting electrical signals into optical signals. An Optical transceiver module is the core part of optical communication devices. It uses fiber optical technology to send and receive data through completing the process of optical signal - electrical signal / electrical signal - optical signal conversion.



## Article Content

Jul 11, 2025

QSFP+ 40G ZR4 Optical Transceiver Module 80km

Asterfusion 40G QSFP+ ZR4 optical transceiver modules support 40GBASE-ZR4 Ethernet. QSFP+ 40G 80km optical modules are designed for Ethernet,

Jan 07, 2026

50Gbps QSFP28 Optical Module

Table 1-3246 50Gbps-QSFP28-SMF-1295.56~1300.05nm-80km-commercial specifications

Jul 14, 2025

2960 switch fiber connection over 40km single strand SM fiber

Does your model 2960 switch support CWDM SFPs? If so, you could install a single fiber CWDM mux/demux at each end of your fiber link and order the appropriate wavelength CWDM SFPs

Sep 28, 2025

40G QSFP+ Optical Transceivers Complete Guide

How 40G QSFP+ optical transceivers boost performance in data centers and telecom networks. Learn about types, use cases, and cost-saving benefits.

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1000BASE-EX SFP 1310nm 40km Transceiver Datasheet | FS

Description The SFP1G-LH-31 series single-mode transceivers are small form factor pluggable module for bi-directional serial optical data communications such as Gigabit Ethernet 1000BASE-LX and

Jan 18, 2026

### SFP+ 40km (10GBASE-ER): Extended-Reach Optical Module Guide

Understand SFP+ 40km (10GBASE-ER) modules, including specs, SMF compatibility, and how to choose the right extended-reach optical transceiver for your network.

Apr 11, 2026

### SFP-10G-ER Explained: Powering 40km 10Gbps Optical

This comprehensive guide dives deep into the SFP-10G-ER optical transceiver module. Learn its technical specifications, key applications,

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### What is an SFP Optical Module? The Complete Guide to

The SFP optical module is a standardized, modular assembly designed to be quickly installed or removed from a device's port without requiring

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### Atlantic International University

Hier sollte eine Beschreibung angezeigt werden, diese Seite lässt dies jedoch nicht zu.

Oct 13, 2025

### 1.25G SFP 550m vs 20km vs 80km: Which One Actually

1.25G SFP 550m: Multimode Module This model uses an 850nm wavelength on OM1 or OM2 fiber. Maximum distance: 550 meters Low-cost, short

Jun 28, 2025

[coinkit/coinkit/words.py at master · mflaxman/coinkit · GitHub](#)

Cryptocurrency wallet interfaces for Bitcoin, Litecoin, Namecoin, Peercoin, and Primecoin. - [mflaxman/coinkit](#)

Aug 16, 2025

### SFP-10G-ER Explained: Powering 40km 10Gbps Optical

SFP-10G-ER is a 10G SFP+ transceiver for up to 40km over single-mode fiber, featuring 1550nm wavelength, LC connector, and real-time monitoring.

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### Optical Transceivers: How to Choose the Right Module

40G QSFP+ modules are designed to aggregate traffic from multiple links of lesser speed into an uplink of higher capacity. They are particularly important in large

Dec 31, 2025

SFP 40km vs. DWDM SFP: Which to Choose

The FS SFP 40km transceiver is specifically designed to provide long-distance, highly reliable fiber optic connections, supporting transmission distances up to 40 kilometers, making it

Nov 07, 2025

SFP-10G-ER 1550nm 40km DDM Optical Transceiver

Discover everything you need to know about SFP optical transceiver modules for long-distance fiber transmission. Compare LX, EX, ZX models and

Jul 25, 2025

QSFP-40G-ER4 Demystified: Your Guide to 40Gbps

The QSFP-40G-ER4 (Quad Small Form-factor Pluggable 40G Extended Reach) is a hot-swappable, optical fiber transceiver module. It's

Dec 02, 2025

Comprehensive Guide to SFP BiDi 10G 40km Modules: Selection ...

Frequently Asked Questions Q: Can I use an SFP BiDi 10G 40km module with a standard dual-fiber transceiver? A: No. BiDi transceivers require paired single-fiber BiDi modules with

May 27, 2026

Ultimate Guide to SFP Transceiver Modules

SFP 40GBASE modules are advanced optical transceivers designed to support high-speed 40 Gigabit Ethernet (40GbE) connections in modern data centers and high-performance computing networks.

Sep 15, 2025

QSFP-40G-ER4 40Gbps QSFP+ Transceiver, SM,

The QSFP+ ER4 transceivers are high performance, cost effective modules supporting data rate of 40Gbps and 40km transmission distance with SMF.

Dec 10, 2025

What Are The 10 GBIT/s SFP+ Optical Modules With A

A 10G ER optical module is used to connect long-distance network devices. In general, a 40G ER optical module is inserted into a 10G switch and

Sep 06, 2025

SFP+ 40km (10GBASE-ER): Extended-Reach Optical Module Guide

SFP+ 40km is a type of 10 Gigabit optical transceiver designed for long-distance data transmission up to 40 kilometers over single-mode fiber (SMF). In most cases, this term specifically

Feb 27, 2026

SFP Optical Transceiver Modules for Long Distance: A

Discover everything you need to know about SFP optical transceiver modules for long-distance fiber transmission. Compare LX, EX, ZX models and

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The Ultimate Guide to SFP Modules (2026): Types, Speeds

SFP (Small Form-factor Pluggable) is a compact, hot-pluggable network interface module used to connect network devices (switches, routers, firewalls) to fiber optic or copper cables.

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40G Optical Transceivers and Cables Portfolio | FS

40G QSFP+ Transceiver Module Series include SR4, BIDI, CSR4, PIR4, LX4, IR4, LR4, PLR4 and ER4. The series of product adopts LC or MTP/MPO connector and operates over Single Mode or

Sep 17, 2025

10/100/1000Base-T to 1000Base-EX 40km Fiber Media

The MC-GSA11-40x Series is a Gigabit Ethernet Media Converter designed to convert 10/100/1000BASE-T copper to 1000BASE-EX fiber optic. The Gigabit

## Contact Us

For more information, pricing, or custom solutions, please contact us:

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