

120km Optical Module Standard



Overview

Operating at 1550nm wavelength over 120km single-mode fiber, this 10G Base ZR+ module provides industry-leading distance performance. Supporting multi-rate transmission from 1.32 Gbps, ideal for carrier backbone and ultra-long-haul applications requiring extreme reach. The 120km SFP optical module has emerged as a cornerstone technology for these requirements, enabling high-performance connectivity across significant geographic spans without the need for costly intermediate amplification or repeaters. Whether supporting metropolitan area networks (MANs) or remote. With the rapid growth of 5G, edge computing, and cross-region data center interconnection (DCI), network designers are looking for ways to achieve stable 120km links without adding expensive optical amplifiers or relay stations. This article takes a deep look at the technical foundation of the SFP+. Our 10G Base ZR+ 120km Compatible SFP+ transceiver delivers maximum reach with exceptional 28 dB link budget and 2400 ps/nm dispersion tolerance. The transceiver consists of three sections: a DFB laser transmitter, a PIN photodiode integrated with a trans-impedance preamplifier (TIA) and MCU control. You're here to find out which 100G DWDM2 QSFP28 80 or 100G DWDM QSFP28 120 module fits best for your exact needs. Both of the modules are PAM4, which is an evolution from the two-state (NRZ). The QSFP-DD ZR module supports amplified DWDM DCI transmission reach of 80km to 120km over SSMF, compliant with OIF-400ZR standard. The module also supports other fiber types, such as hollow-core fibers. Digital diagnostics functions are available via a TWI interface as CMIS specified.

Article Content

10G Base ZR+ SFP+ 120km | 1550nm | 28dB Link Budget

Compatible 10G Base ZR+ SFP+ for 120km SMF. 28dB budget, 2400ps/nm tolerance, 1550nm. Works with 80+ brands.

SFP Optical Module, 1Gb, LC SM, 120km, TX:1550nm

Insert type SFP (miniGBIC) designed for transmission of double (duplex) single-mode fiber (SM) over a distance of 120km. TX wavelength 1550nm. All products"

Honduras LS-BL55491G-A2I SFP 1G BiDi 1550nm-TX/1490nm-RX 120km

Product Description LINK-PP LS-BL55491G-A2I SFP 1G BiDi Simplex LC/UPC Optical Transceiver Module (SMF, 1550nm-TX/1490nm-RX, 120km, DOM, Industrial) The LS-BL55491G-A2I SFP

100G DWDM QSFP28 80 vs 120: Complete

Compare 100G DWDM QSFP28 80km vs 120km modules. Learn differences in optical budget, power, DCM requirements, and best applications.

10G 1550nm 120km SFP Factory

10G 1550nm 120km SFP+: This SFP+ transceiver operates over single-mode fiber optic cables with a 120km maximum range, using a 1550nm wavelength to

400G QSFP-DD ZR4 120km Optical Transceiver

A high-speed optical module that transmits 400Gbps data over 120km using 4 DWDM wavelengths on a QSFP-DD form factor.

How to Achieve Long Distance Transmission Beyond 120km: SFP

In fiber optic systems, every additional kilometer introduces signal attenuation and chromatic dispersion. For standard 10G optical modules, limited link budget and dispersion tolerance

Laos LS-SM5506-A2I SFP 622Mbps 1550nm 120km DOM Duplex LC SMF Optical ...

Product Description LINK-PP LS-SM5506-A2I SFP 622Mbps Duplex LC Optical Transceiver Module (SMF, 1550nm, 120km, LC, DOM, Industrial) Product Features Supports up to 622Mbps bit rates Hot

400G QSFP-DD ZR4 120km Optical Transceiver

Asterfusion 400G QSFP-DD ZR4 optical transceiver modules compliant with OIF-400ZR standard and designed for application to DCI networking links over

Cisco DP04QSDD-HE0 Compatible 100-400GbE DCO

Cisco DP04QSDD-HE0 Compatible 100G-400G QSFP-DD High-Power (Bright) DCO ≤80km Unamplified SMF DOM LC Duplex DWDM Tunable Coherent

120km SFP Sourcing: Critical Factors for Long-Haul Fiber

Need 120km SFP for long-haul fiber? Learn about technical specs, performance evaluation, and sourcing tips to ensure reliable connectivity.

chad LS-SM5510-A2C SFP+ 10GBASE-ZR 1550nm 120km DOM

LINK-PP LS-SM5510-A2C SFP+ 10GBASE-ZR SMF Optical Transceiver Module (SMF, 1550nm, 120km, LC, DOM) The LS-SM5510-A2C SFP+ transceivers are high performance, cost effective

SFP transceiver CBO SFP-1G-ZX-120KM | AiO.lv

CBO SFP-1G-ZX-120KM is a single-mode SFP fiber optic transceiver that supports a 1.25 Gbps data rate and a maximum link reach of up to 120 km. Designed for long-reach Ethernet and telecom

Cisco 400G Digital Coherent Optics QSFP-DD Optical Modules

Cisco offers a comprehensive range of pluggable optical modules in the Cisco® pluggables portfolio. The wide variety of modules gives you flexible and cost-effective options for all types of interfaces.

Cisco 400G Digital Coherent Optics QSFP-DD Optical

Cisco now offers a range of all new 400G Digital Coherent QSFP-DD transceivers. Cisco already offers a range of Digital Coherent CFP2 transceivers

1G SFP BiDi CWDM 120km Optical Transceivers

The transceiver consists of three sections: a CWDM laser transmitter, a APD photodiode integrated with a trans-impedance preamplifier (TIA) and MCU control unit. All modules satisfy class I laser safety

BiDi SFP: The Complete Guide to Bidirectional SFP Transceivers and ...

A BiDi SFP is a specialized optical transceiver that enables bidirectional communication over a single strand of optical fiber. Unlike standard duplex SFPs that require two fibers—one for

1.25G SFP 120km Single Mode Transceiver specification

The SFP transceivers are high performance, cost effective modules supporting data rate of 1.25Gbps and 120km transmission distance with SMF. The transceiver consists of three sections: a DFB laser

1000BASE-SX vs 1000BASE-LX, EX, ZX & BX SFP Guide

1000BASE-SX, 1000BASE-LX, 1000BASE-EX, 1000BASE-ZX and 1000BASE-BX are all Gigabit Ethernet fiber optic module terms, but they are not the same type of link. They differ in fiber

1.25G SFP 120km Transceiver | Ultra Long-Haul | EDGEOPTIC

EDGEOPTIC 1.25G SFP 120km transceiver: 120km single-mode fiber, 1550nm wavelength, 32dB link budget, 100Mbps-1.25Gbps. Ultra-long-haul solution.

How to Achieve Long Distance Transmission Beyond 120km: SFP

Learn how SFP+ 10G ZR modules enable stable 120km+ long distance transmission with high link budget, low power design, wide compatibility, and DOM monitoring.

The Strength Of Long Distance Transmission: 10G SFP+ ZR 120KM Optical ...

10G SFP+ dual-fiber optical module is an optical communication device widely used in 10G Ethernet, Fiber Channel and SDH/SONET network environments. It adopts SFP+ (Small Form

SFP Transceivers | 1G, CWDM, DWDM, BiDi | EDGE

BiDi 1.25G SFP Modules (LC Connector) Single-fiber bidirectional Gigabit SFP transceivers utilizing wavelength division to transmit and receive on separate

Current OIF Work - OIF

It plans to address high-level mechanical module specifications, electrical interconnect and pin map requirements, liquid-cooling thermal interface requirements, provisions for laser sources, power

SFP-GE-LH120-SM 1550 1.25G 120km Optical Transceiver

What is SFP-GE-LH120-SM 1550 1.25G 1550nm 120km Optical Transceiver Module? SFP-GE-LH120-SM 1550 1.25G 1550nm 120km Transceiver CISCO, HUAWEI, H3C, Juniper, D-link, HP, IBM, dell,

155Mbps SFP 120km Optical Transceiver | Cutting

SFP 155M 120km is a series of SFP with speed rate up to 155Mbps and transmission distance up to 120km. The Small Form Factor Pluggable (SFP)

10G Base ZR+ SFP+ 120km | 1550nm | 28dB Link Budget

Operating at 1550nm wavelength over 120km single-mode fiber, this 10G Base

400ZR DCI Solution

Connecting datacenters over DCI distances (40km - 120km) has traditionally required dedicated, expensive, and proprietary optical transport systems to convert client signals to DWDM optical

Contact Us

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

Website: <https://www.sphplantsales.co.za>

Email: info@sphplantsales.co.za

Phone: +27 64 827 3915

Address: Unit 9, Highveld Technopark, 43 Atlas Road, Johannesburg, 2196,
South Africa

This document is for informational purposes only. Specifications subject to
change without notice.

