

D-TECH XFP 10G BIDI Tx1270/Rx 1330nm DDM

Variants

10km 20km

Details

10G XFP BIDI Optical Transceiver Module

The **10G XFP BIDI Optical Transceiver** is a high-performance 10Gbps optical module designed for long-distance fiber communication over single-mode fiber (SMF). It supports bi-directional transmission using a single fiber with different Tx/Rx wavelengths, helping reduce fiber usage and deployment cost.

These XFP transceivers are suitable for **10G Ethernet, telecom networks, ISP backbone links, data centers, DWDM systems, and fiber channel applications**. The module supports hot-pluggable operation, built-in digital diagnostics, low power consumption, and excellent EMI performance.

Available Models

Model	TX Wavelength	RX Wavelength	Distance
10km	1270nm	1330nm	10KM
20	1330nm	1270nm	20KM

Key Features

Supports 9.95Gb/s to 10.5Gb/s data rates

Single fiber bi-directional transmission

20KM transmission over 9/125µm single-mode fiber

1270nm / 1330nm DFB laser options

PIN photo detector receiver
Hot-pluggable XFP form factor
Simplex LC optical interface
Built-in Digital Diagnostic Monitoring (DDM)
Low power consumption 2.5W
All-metal housing for better EMI protection
RoHS6 compliant (Lead-Free)
No external reference clock required

Applications

10GBASE-LR / LW Ethernet
10G Fiber Channel Networks
ISP Backbone Networks
Telecom Optical Transmission
Data Center Connectivity
DWDM Fiber Systems

Standards Compliance

Compliant with XFP MSA Rev.4.5
Compatible with IEEE 802.3ae 10G Ethernet
Supports 10G Fibre Channel Standards

General Specifications

Parameter	Specification
Form Factor	XFP

Data Rate	9.95Gbps ~ 10.5Gbps
Fiber Type	9/125µm Single Mode Fiber (SMF)
Connector Type	Simplex LC
Maximum Distance	20KM
Operating Temperature	-5°C to +70°C
Power Consumption	2.5W
Diagnostic Function	Digital Diagnostic Monitoring (DDM)

Optical Parameters

Parameter	Min	Typical	Max
Transmitter Wavelength	1260nm / 1320nm	1270nm / 1330nm	1280nm /
Spectral Width	-	-	1
Average Optical Power	-3	-	3
Extinction Ratio	3.5	-	-
Receiver Sensitivity	-14.4	-	-3
LOS Assert	-25	-	-
LOS Deassert	-	-	-16
Receiver Overload	-	-	-3

Note: Select the correct paired wavelength model (1270/1330nm) when deploying BIDI optical links over single fiber.

