

# D-TECH SFP 10G BIDI Tx1550/Rx 1490nm DDM

---

D-TECH SFP 10G BIDI Tx1550/Rx 1490nm DDM

## Variants

80km LC

## Details

The **10G SFP+ BIDI Optical Transceiver – 80KM** is a high-performance single-fiber optical module designed for long-distance **10G Ethernet, ISP backbone, telecom transmission, enterprise fiber, and data center interconnect** applications.

Using **Bi-Directional (BIDI) transmission technology**, this module transmits and receives data over one single mode fiber strand, helping reduce fiber usage and deployment cost. It supports transmission up to **80 km** with stable optical performance and low power consumption.

Data Rate

**10G**

Distance

**80KM**

Fiber Type

**Single Fiber**

Connector

**LC BIDI**

## Key Features

? Supports 10G High-Speed Optical Transmission

? Single-Fiber BIDI Communication Technology

? Up to 80 km Transmission Distance

? DFB Laser Transmitter with APD Receiver

? Digital Diagnostics Monitoring (DDM / DOM)

? Low Power Consumption Design

? Hot-Pluggable SFP+ Form Factor

? Metal Enclosure for Superior EMI Protection

## Technical Specifications

Category	Specification
----------	---------------

<b>Product Type</b>	SFP+ Optical Transceiver (BIDI)
<b>Data Rate</b>	Up to 11.1 Gbps (Typical 10.3125 Gbps)
<b>Transmission Distance</b>	Up to 80 km
<b>Fiber Type</b>	Single Mode Fiber (9/125 $\mu\text{m}$ )
<b>Wavelength</b>	Tx: 1550 nm / Rx: 1490 nm (Reverse option available)
<b>Transmitter Type</b>	DFB Laser
<b>Receiver Type</b>	APD Photodiode
<b>Connector Type</b>	LC BIDI Single Fiber
<b>Interface</b>	2-Wire Serial Interface (I2C, SFF-8472)
<b>Digital Diagnostics</b>	DDM / DOM Supported
<b>Monitoring Parameters</b>	Temperature, TX Power, RX Power, Voltage, Bias Current
<b>Power Supply</b>	+3.3V
<b>Power Consumption</b>	? 1.8W
<b>EMI Protection</b>	Metal Enclosure
<b>Compliance</b>	SFP+ MSA, SFF-8431, SFF-8472
<b>RoHS</b>	RoHS-6 Compliant

## Environmental Specifications

<b>Operating Temperature (Commercial)</b>	0°C to +70°C
<b>Extended Temperature</b>	-10°C to +80°C
<b>Industrial Temperature</b>	-40°C to +85°C
<b>Storage Temperature</b>	-40°C to +85°C
<b>Humidity</b>	5% – 95% Non-condensing

## Electrical Specifications

<b>Operating Voltage</b>	3.135 – 3.465V
<b>Typical Voltage</b>	3.3V
<b>Control Voltage (High)</b>	? 2V
<b>Control Voltage (Low)</b>	? 0.8V

## Applications

10G Ethernet Networks

ISP Backbone Infrastructure

Telecommunication Systems

Data Center Interconnect

Enterprise Fiber Networks

Long Distance Optical Transmission

DWDM / CWDM Fiber Networks

**Note:** BIDI optical transceivers must be used in matched wavelength pairs, such as Tx1550/Rx1490 on one side and Tx1490/Rx1550 on the opposite side.