



SFP-6431 Version: 1

## 10Gbps Single-mode BIDI SFP+ Transceiver, 20km, TX 1270nm / RX 1330nm

The LevelOne SFP-6431 is a high performance, cost-effective SFP transceiver. It provides up to 10 Gbps bi-directional data transfer rate at distances up to 20km on a single fiber core. These bi-directional SFP Transceivers allow data transfer in either direction through a single optical fiber by employing separate wavelengths travelling in either direction.

The SFP-6431 transmits using a wavelength of 1270nm and receives using a wavelength of 1330nm. When coupled with the LevelOne SFP-6531 transceiver which transmits at and receives at the opposite rates (1330nm TX and 1270nm RX) you get bi-directional data communication on a single fiber core. The LevelOne SFP-6431 is therefore an optimal solution for a high number of fiber lengths on just a few fibers.

### Key Features

- 10Gbps Bi-directional single fiber link
- Supports Digital Diagnostics Monitoring Interface (DDMI) for easy status monitoring
- Compliant with IEEE 802.3ae 10GBase-LR, 10GBase-LW standards
- Compatible with SFP Multi-Sourcing Agreement (MSA) standards
- Hot-swappable providing non-stop service
- RoHS compliant and Lead Free

### Specifications

#### System Specifications

##### Standards:

- IEEE 802.3ae 10GBase-LR
- IEEE 802.3ae 10GBase-LW

##### Protocols:

SFP Multi-Sourcing Agreement (MSA) SFF-8472 SFF-8431 SFF-8432

##### Port:

- Bi-directional
- 9/125  $\mu$ m Single-mode Fiber
- Duplex LC Receptacle

##### Wavelength (nm):

TX 1270nm/ RX 1330nm



**Optical Receive Sensitivity:**

-13dBm

**Optical Link Power Budget:**

- TX Power: -2 to 3dBm
- RX Power: -13 to 0.5dBm

**Power Input:**

3.47V / 300mA

**Power Consumption:**

<1.0W (0 to 70°C)  
<1.2W (-40 to 85°C)

**Data Rate:**

Up to 10.3Gb/s data links

**Optical Transmission Power:**

3dBm

**Operating Temperature (°C):**

0 to 70°C

**Operating Humidity (Non-condensing):**

0 to 85%

**Storage Temperature (°C):**

-40 to 85°C

## Features

**General:**

Hot-swappable

**Management:**

DDMI (Digital Diagnostics Monitoring Interface)

## Performance

**Operating Distance:**

20km

## Physical Specifications

**Dimensions (W x D x H mm):**

13.7 x 56.5 x 11.8 mm

**Weight (g):**

20g

## Approval and Compliance

**EMI/EMS:**

CE

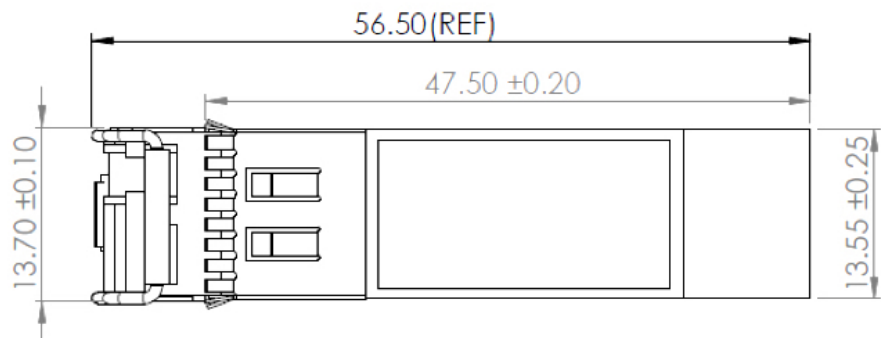
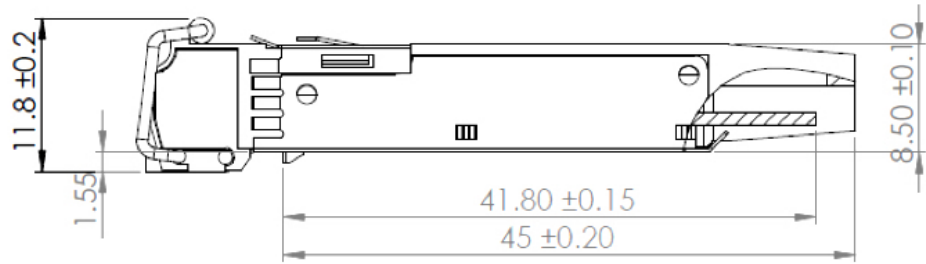
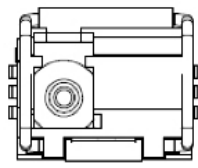
**Safety:**

- EMI compatible with FCC Part 15 Class B EN55022 Class B (CISPR 22B) VCCI Class B
- Laser Eye Safety compatible with FDA 21CFR 1040.10 and 1040.11 EN60950, EN (IEC) 60825-1,2
- Immunity compatible with IEC 61000-4-3
- ESD to the Electrical PINs: compatible with MIL-STD-883 Method 3015
- ESD to the Duplex LC Receptacle: compatible with IEC 61000-4-2

**Environmental Test:**

RoHS

## Diagram



Unit : mm

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## Order Information

SFP-6431

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## Package Contents

SFP-6431

Quick Installation Guide

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