The 1001310 Optical Transceiver Module enables 10G Ethernet bidirectional communications, supporting various high-bandwidth EPON products offered by CommScope such as the XE4202M Remote OLT (R-OLT). Conforming to the 10 Gbps Small Form Factor Pluggable Multisource Agreement, this state-of-the-art 1001310 optical transceiver is designed expressly for high-speed bidirectional communication applications that require 10 Gbps data rates. The transceiver complies with the IEEE 802.3av Draft 3.4 specification, supporting symmetric line rates of 10.3125 Gbps (10GBASE-PR30) (downstream/upstream) on 1577/1270 nm wavelengths and asymmetrical line rates of 10.3125/1.25 Gbps (10/1GBASE-PRX30) on 1577/1310 nm wavelengths, as well as 2.50 (Turbo-EPON)/1.25 Gbps or 1.25/1.25 Gbps (1000BASE-PX20) on 1490/1310 nm, utilizing a single fiber with a standard SC/UPC connector. The module features a very low jitter contribution, resulting in an extremely clean, high-quality eye pattern required for high transmission performance. The module’s metal enclosure not only makes the unit sturdier, but also improves FCC EMI test margins. This emission and ESD control is particularly important in applications with sensitive multi-port switches.

Key features of the 1001310:
- Bidirectional XFP transceiver supports CommScope 10G Ethernet optical product transmissions on a single fiber
- Supports 10.3125/10.3125 Gbps on 1577/1270 nm, 10.3125/1.25Gbps on 1577/1310 nm, 2.50/1.25 Gbps (Turbo-mode) or 1.25/1.25 Gbps on 1490/1310 nm Transmit/Receive communications
- IEEE 802.3av D3.4 compliant
- Pluggable 10 Gbps XFP MSA compliant footprint
- SC/UPC fiber connector
- Low jitter provides high transmission performance
- Metal enclosure for durability and low EMI
- Extended operating temperature range of -40°C to 90°C

**Product Classification**

**Regional Availability**
- Asia
- Australia/New Zealand
- EMEA
- Latin America
- North America

**Product Type**
- Optical transceiver

**Product Brand**
- CommScope FLX™

**Product Series**
- XFP

**Dimensions**
- **Height**: 8.382 mm | 0.33 in
- **Width**: 18.288 mm | 0.72 in
- **Length**: 78.74 mm | 3.1 in

**Electrical Specifications**
### Input Voltage
3.3 VDC ±5% (supplied by node/VHub module) | 5.0 VDC ±5% (supplied by node/VHub module)

### Power Consumption, typical
4 W

### Optical Specifications

#### Supported Link Length
20 km (@ 1x32 split)

#### Optical Port Interface
SC/UPC

#### Receiver Center Wavelength
1270 nm nominal (1260–1280 nm) | 1310 nm nominal (1260–1360 nm)

#### Receiver Data Rate (Burst Mode)
1.25 Gb/s | 10.312 Gb/s

#### Receiver Input Power, damage level
-5 dBm

#### Receiver Input Power, maximum
-6.0 dBm min | -9.3 dBm min. (operation between -9.3 and -5.0 dBm is not recommended)

#### Receiver Loss of Signal Assert Level, minimum
-45 dBm

#### Receiver Loss of Signal de-Assert, maximum
-31 dBm

#### Receiver Sensitivity at Temperature

#### Transmitter Center Wavelength
1490 nm nominal (1480–1500 nm) | 1577 nm nominal (1575–1580 nm)

#### Transmitter Data Rate
10.312 Gb/s

#### Transmitter Data Rate (Turbo mode)
2.5 Gb/s

#### Transmitter Extinction Ratio, minimum
6 dB | 8 dB

#### Transmitter Output Power
+2.0 to +7.0 dBm | +2.0 ±5.0 dBm

#### Transmitter Type
CW DFB | CW EML

### Environmental Specifications

#### Operating Temperature
-40 °C to +90 °C (-40 °F to +194 °F)

#### Storage Temperature
-40 °C to +90 °C (-40 °F to +194 °F)

#### Operating Humidity
0%–85%, non-condensing

#### Safety Standard
Class 1 devices per FDA 21CFR1040.10 | IEC 60825-2 Class I laser safety compliant

### Packaging and Weights

#### Weight, net
0.045 kg | 0.1 lb
### Regulatory Compliance/Certifications

<table>
<thead>
<tr>
<th>Agency</th>
<th>Classification</th>
</tr>
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<tbody>
<tr>
<td>CHINA-ROHS</td>
<td>Above maximum concentration value</td>
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<tr>
<td>ISO 9001:2015</td>
<td>Designed, manufactured and/or distributed under this quality management system</td>
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<tr>
<td>ROHS</td>
<td>Compliant/Exempted</td>
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<tr>
<td>UK-ROHS</td>
<td>Compliant</td>
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</tbody>
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* Footnotes

**Receiver Input Power, damage level** at which damage occurs