TFB1550-TF17

N E T W O R K S

Features

- 125 Mbps data throughput
- Pluggable SFP MSA 8472 Rev 9.3 compliant
- Simplex LC/UPC connector
- Tx/Rx distance up to 20 km over SMF
- 1550 nm laser diode transmitter
- Extended operating temperature range (-40°C to +85°C)

125 Mbps Bi-Directional Optical Transceiver Module (1550 nm Tx / 1310 nm Rx)



The TFB1550-TF17 Bi-Directional Optical Transceiver Module is ideally suited for Fast Ethernet and PON applications where a single fiber is required to simultaneously carry both Tx and Rx signals up to 20 km (over SMF). The built-in high isolation WDM enables full duplex operation.

Conforming to the Small Form Pluggable (SFP) Multisource Agreement for a 2x10 package with a Simplex LC/UPC optical connector, these state-of-the-art components are designed expressly for bi-directional communication applications that require rates of up to 125 Mbps. The transmitter and receiver subassemblies incorporate a high performance 1550 nm FP laser assembly and high sensitivity 1310 nm PIN/TIA photo receiver.

The TFB1550-TF17 features a very low jitter contribution, resulting in extremely clean, highquality eye patterns. The module operates over extended temperature (-40° to $+85^{\circ}$ C) ranges, and dissipates less than 700 mW. The Class I laser transmitter complies with applicable safety standards (IEC 60825-1, FDA 21, CFR 1040.10 and 1040.11).

TFB1550-TF17

Product Specifications

Physical:

- Dimensions:
- 2.2" L x 0.4" H x 0.5" W (5.6 cm x 1.0 cm x 1.3 cm)
- Weight: 0.1 lbs (0.05 kg)

Environmental:

- Operating temperature range: -40° to +85°C (-40° to 185°F)
- Storage temperature range: -40° to +85°C (-40° to 185°F)
- Humidity: 5% to 95% non-condensing

Optical Interface:

• Optical connector: Simplex LC/UPC

Power Requirements:

- Input voltage: 3.3 V_{DC} (300 mA)
- Power consumption: 1W max

General:

• Hot plug-in/out

Regulatory:

Laser Class 1 devices per FDA/CDRH and IEC 60825-1

Optical:

Transmitter:

- Wavelength: 1510–1580 nm (1550 nm typical)
- Signaling speed: 125 Mbps
- Optical output power with 9/125µ SMF: –14 dBm min
- Extinction ratio (ER): 8 dB min

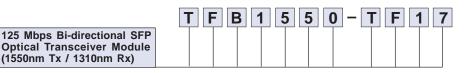
Receiver:

- Receiver type: PIN/TIA
- Wavelength: 1260-1310 nm
- Received optical power with 9/125µ SMF: -31 to -3 dBm

System:

- WDM crosstalk (optical), max: -40 dB
- Power budget, min with 9/125µ SMF: 17 dB
- Fiber span, max with 9/125µ SMF: 20 km

Ordering Information





Corporate Headquarters 5400 Betsy Ross Drive Santa Clara, CA 95054 Tel 408.235.7000 Fax 408.845.9045

© 2007, Aurora Networks. In an effort to continue improving product reliability and features, Aurora Networks reserves the right to change specifications without notice.