

# SFP Fiber Optic Transceivers

## TFA1310-TL29

### 125 Mbps 1310 nm Optical Transceiver Module

## FEATURES

- 125 Mbps data throughput
- 1310 nm laser diode transmitter
- Pluggable SFP MSA footprint
- Duplex LC connector
- Very low jitter
- Metal enclosure for lower EMI
- 3.3 V power supply with low power dissipation
- Extended operating temperature range (-40°C to +85°C)



## PRODUCT OVERVIEW

The TFA1310-TL29 Optical Transceiver Module is ideally suited for Fast Ethernet applications. Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, this state-of-the-art plug-in component is designed for applications that require rates of up to 125 Mbps, with the laser transmission portion of the device operating at a wavelength of 1310 nm. The modules are supplied with a duplex LC connector.

The TFA1310-TL29 module features a very low jitter contribution, resulting in extremely clean, high-quality eye patterns. And the modules' metal enclosure not only makes it sturdier, but also improves its FCC test margins. This emission and ESD control is particularly important in applications with sensitive multiport hubs and switches. The module operates at extended voltage and temperature ranges, and dissipates less than 1 W. The Class 1 laser transmitter complies with applicable safety standards (IEC 60825-1 and 21 CFR 1040.10 and 1040.11).

## SPECIFICATIONS

Characteristics	Specification
<b>Physical</b>	
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)
<b>Environmental</b>	
Application 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
<b>Optical Interface</b>	
Optical connectors	Duplex LC
<b>Power requirements</b>	
Input voltage	3.3 V <sub>DC</sub>
Power consumption	1 W max
<b>General</b>	
Link budget	29 dB
Data rates	125 Mbps
Hot plug-in/out	
<b>Optical</b>	
<b>Transmitter:</b>	
Transmitter type	Uncooled 1310 nm DFB
Center wavelength	1263–1360 nm (1310 nm typ)
Optical output power	-5 dBm min
Extinction ratio (ER)	10.0 dB min
Optical isolation	30 dB
<b>Receiver:</b>	
Wavelength	1261–1580 nm
Received optical power	-34 dBm min
Maximum input power	-3 dBm
Receive LOS assert level	-34.5 dBm
<b>Regulatory</b>	
Laser Class 1 devices per FDA/CDRH and IEC 60825-1 laser safety regulations	

## RELATED PRODUCTS

Fast Ethernet applications	DS4000U-00
GT3410A	EX3005A-00-00

ORDERING INFORMATION

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- 125 Mbps 1310 nm Optical Transceiver Module
- Transmit Wavelength (1310 nm)
- Extended Op Temp Range, with Duplex LC Connector and 29 dB Link Budget

## Customer Care

Contact Customer Care for product information and sales:

- United States: 866-36-ARRIS
- International: +1-678-473-5656

**Note:** Specifications are subject to change without notice.

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