

Features

- Enables optical communications between various headend products
- Up to 2.125 Gbps bi-directional data links
- Pluggable RJ-45 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

2.125 Gbps 1310nm Optical Transceiver Modules



Aurora Networks' TR33xx-PI series Optical Transceiver Modules enable additional capabilities for high-speed bi-directional communications required for Aurora Networks' digital networking products. These transceiver modules have been optimized for optical communications between various headend or hub equipment, supporting link lengths up to 10 km with the TR3310-PI and up to 40 km with the TR3340-PI.

Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, these state-of-the-art components are designed expressly for high-speed bi-directional communication applications that require rates of up to 2.125 Gbps, with the laser transmission portion of the device operating at a wavelength of 1310 nm.

TR33xx-PI SFPs feature a very low jitter contribution, resulting in extremely clean, high-quality eye patterns. And the modules' metal enclosure not only makes them sturdier, but also improves their FCC test margins. This emission and ESD control is particularly important in applications with sensitive multiport hubs and switches. The module operates at extended temperature range (-40° to $+85^{\circ}\text{C}$), and dissipate less than 875 mW. Modules are supplied with a duplex LC connector.

TR3310-PI / TR3340-PI

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 $+85^{\circ}\text{C}$ (-40° to 185°F)
- Storage temperature range: -40° to $+85^{\circ}\text{C}$ (-40° to 185°F)
- Humidity: 5% to 85% non-condensing

Optical Interface:

- Optical connectors: Duplex LC

Power Requirements:

- Input voltage: $3.3 V_{\text{DC}}$ (250 mA max)
- Power consumption:
TR3310-PI: 700 mW max
TR3340-PI: 875 mW max

General:

- Supported link length:
TR3310-PI: 10 km (on SMF-28 or equivalent)
TR3340-PI: 40 km (on SMF-28 or equivalent)
- Data rate: 2.125 Gb/s
- BER: 10^{-12} max
- Hot plug-in/out

Optical:

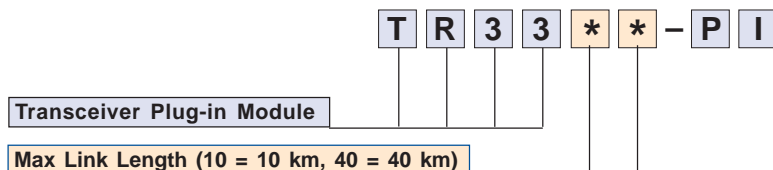
Typical specifications for two models with differing link loss budgets:

	Model:	TR3310-PI	TR3340-PI
Transmitter:			
• Transmitter type:		Fabry-Perot	DFB
• Center wavelength (nm):		1310	1310
• Optical output power (dBm):			
Min		-10	-1
Max		-3	+2.5
Receiver:			
• Receiver type:		PIN	PIN
• Center wavelength (nm):		1310	1310
• Receiver sensitivity, max (dBm):		-18	-21
• Return loss, min (dB):		12	27
• Receive LOS assert level (dBm):		-20.5	-21.5

Regulatory:

Class 1 devices per FDA 21 CFR 1040.10 and IEC-60825-1 laser safety regulations

Ordering Information



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