

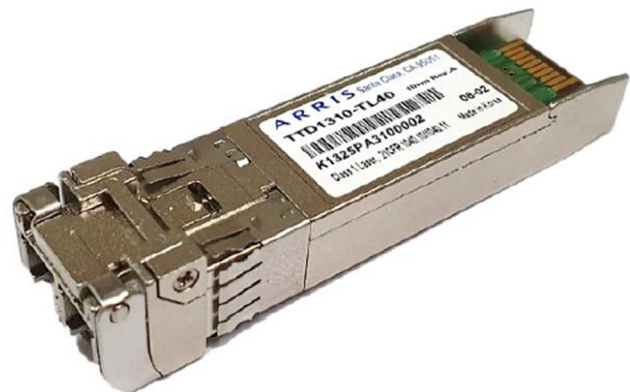
FEATURES

- Supports selected CommScope PON product uplinks: 10 km and 40 km versions
- IEEE 802.3ae compliant; 10.3125 Gbps data throughput
- Pluggable SFP+ MSA compliant footprint
- Duplex LC connector
- Very low jitter
- Low power dissipation
- Metal enclosure for lower EMI
- Extended industrial operating temperature range of -40° to 95°C

The TTA1310-TL10 and TTA1310-TL40 Optical Transceiver Modules enable transmission capabilities for high-speed optical communications modules offered by CommScope such as the E6000® Remote Phy Device (RPD), the XE4202M Remote Optical Line Termination (R-OLT), and the DT4600N RF Return Transmitter/Transceiver.

Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, these SFP+ transceivers are designed expressly for high-speed duplex PON communication applications that require 10 Gbps data rates, with the laser transmission portion of the device operating at 1310 nm, supporting fiber distances of 10 or 40 km.

TTA1310-TL10 and TTA1310-TL40 modules feature very low jitter contribution, resulting in an extremely clean, high-quality eye pattern required for high transmission performance. The 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. The modules operate over an extended industrial temperature range of -40° to +95°C, dissipate less than 1.2 Watts (TL10), and are supplied with duplex LC connectors.



SPECIFICATIONS

| Characteristics | Specification | |
|--|--|--|
| Physical | | |
| Dimensions | 2.2" L x 0.4" H x 0.5" W (5.6 cm x 1.1 cm x 1.4 cm) MSA-SFP+ Compliant | |
| Weight | 0.1 lbs (0.08 kg) | |
| Environmental | | |
| Operating Temperature Range | -40° to +95°C (-40° to 203°F) | |
| Storage Temperature Range | -40° to +95°C (-40° to 203°F) | |
| Humidity (Operating) | 5% to 95% non-condensing | |
| Power Requirements | | |
| Input Voltage | 3.3 V _{DC} ± 10% | |
| Input Current @ 3.465 V _{DC} | TTA1310-TL10: 350 mA | TTA1310-TL40: 430 mA |
| Power Consumption, max | TTA1310-TL10: 1.2 W | TTA1310-TL40: 1.5 W |
| General | | |
| Data Rate | 10.3125 Gbps | |
| | Hot plug-in/out | |
| Supported Link Length | 10 km (TTA1310-TL10), 40 km (TTA1310-TL40) on SMF-28 or equivalent | |
| Optical Connector | Duplex LC | |
| Optical Transmitter | | |
| | TTA1310-TL10 | TTA1310-TL40 |
| Transmitter Type | Uncooled 1310 nm DFB Laser | Uncooled 1310 nm DFB Laser |
| Center Wavelength, Range | 1310 nm (1290–1330 nm) | 1310 nm (1290–1330 nm) |
| Mask Compliance | 10 GbE, 10.3125 Gbps | 10 GbE, 10.3125 Gbps |
| Transmission Distance, min | 10 km | 40 km |
| Output Power, min | -8.2 dBm | 1 dBm |
| Extinction Ratio, min | 3.5 dB | 3.5 dB |
| Optical Receiver | | |
| | TTA1310-TL10 | TTA1310-TL40 |
| Receiver Type | PIN | PIN |
| Wavelength Range | 1260–1610 nm | 1260–1610 nm |
| Reflectance | -12 dB | -12 dB |
| Sensitivity, max | -13.4 dBm, 1310 nm, PRBS 2 ³¹ -1, 0 km SMF, BER < 10 ⁻¹² | -18 dBm, 1310 nm, PRBS 2 ³¹ -1, 0 km SMF, BER < 10 ⁻¹² |
| Overload, min | 0 dBm | -5 dBm |
| LOS Assert, min | -30 dBm | -30 dBm |
| LOS Deassert, max | -17 dBm | -23 dBm |
| Regulatory and Standards Compliance | | |
| | Class 1 devices per FDA/CDRH and IEC/EN-60825-1 certification laser safety regulations | |
| | EMC certifications are currently under study | |
| | RoHS compliant | |

ORDERING INFORMATION

| Model Name | Description |
|--------------|---|
| TTA1310-TL10 | 10 Gbps, 1310 nm, SFP+, Duplex LC/UPC, 10 km, -40° to +95°C |
| TTA1310-TL40 | 10 Gbps, 1310 nm, SFP+, Duplex LC/UPC, 40 km, -40° to +95°C |

RELATED PRODUCTS

| | |
|------------------------|-------------------------|
| NC2000 & NC4000™ Nodes | Remote PHY Device (RPD) |
| DT46000 Transceiver | Remote OLT (R-OLT) |
| Optical Patch Cords | Installation Services |

Contact Customer Care for product information and sales:

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

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Note: Specifications are subject to change without notice.

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87-10963-RevD_TTA1310-TL10-TL40