

SFP Fiber Optic Transceivers

TKA1310-TLxx 4.250 Gbps 1310 nm Optical Transceiver Module

FEATURES

- Supports DT4250N Universal Digital Return Platform links up to 40 km
- 4.250 Gbps data throughput
- MSA compliant pluggable SFP Transceiver
- 2 km, 10 km, and 40 km link distance options
- 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)
- RoHS compliant and lead free



PRODUCT OVERVIEW

The TKA1310-TLxx series 1310 nm Optical Transceiver Modules feature high-speed communications functionality required for selected ARRIS' digital networking products such as the DT4250N-xx Universal Digital Transceiver.

Conforming to the Small Form Factor Pluggable (SFP) Multisource Agreement, these state-of-the-art components are designed expressly for high-speed communication applications that require rates of up to 4.250 Gbps, with the laser transmission portion of the device operating at a wavelength of 1310 nm.

The TKA1310-TLxx module features a very low jitter contribution, resulting in extremely clean, high-quality eye patterns. And the module's 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 temperature range (-40° to +85°C) and typically dissipates less than 1 Watt. Modules are supplied with a duplex LC connector.

The TKA 1310-TLxx series SFP transceiver modules support 3 optical transmission distances: TKA1310-TL2 for 2 km, TKA1310-TL10 for 10 km, and TKA1310-TL40 for 40km.

The TKA1310-TLxx SFPs can be ordered as an optional plug-in transceiver module to support the primary or secondary ring capabilities of transceiver units in NC2000 and NC4000 series nodes and VHubs.

SPECIFICATIONS

Characteristics	Specification
Physical	
Dimensions	2.2" L x 0.4" H x 0.5" W (5.7 cm x 1.1 cm x 1.4 cm)
Weight	0.1 lbs (0.05 kg)
Environmental	
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
Optical Interface	
Optical connectors	Duplex LC
Power requirements	
Input voltage	3.3 V _{DC}
Power consumption	1.04 W max (at 3.465V _{DC} 300mA)
General	
Supported link length on SMF-28 or equivalent	<ul style="list-style-type: none"> TKA1310-TL2: 2 km TKA1310-TL10: 10 km TKA1310-TL40: 40 km
Data rate	4.25 Gbps
Hot plug-in/out	
Optical Interface	
TKA1310-TL2:	
Transmitter type	FP uncooled
Transmit wavelength	1260 - 1350 nm
Optical output power, min	-8.4 dBm
Transmit distance	2 km
Bail latch color	Gray
TKA1310-TL10:	
Transmitter type	DFB uncooled
Transmit wavelength	1285 - 1345 nm
Optical output power, min	-8 dBm
Transmit distance	10 km
Bail latch color	Blue
TKA1310-TL40:	
Transmitter type	DFB uncooled
Transmit wavelength	1285 - 1345 nm
Optical output power, min	0 dBm
Transmit distance	40 km
Bail latch color	Yellow
Receiver:	
Receiver type	PIN
Receiver wavelength	1260 - 1620 nm
Optical output power, min	-18 dBm (PRBS 2 ²³ -1, 0km SMF-28 BER < 10 ⁻¹²)
Overload, min	-1 dBm
LOS assert level, min	-30 dBm
LOS de-assert level, max	-20 dBm

ORDERING INFORMATION

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CAUTION

The TKA1310-TLxx transceiver is only approved for use in the DT4250N-xx Universal Digital Transmitter for optical nodes.

4.25 Gbps 1310 nm Optical Transceiver Module

Transmission Distance

2 = 2 km
10 = 10 km
40 = 40 km

RELATED PRODUCTS

VHubs	NC2000
DT4250N Universal Digital Transceiver	NC4000

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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