

1000BASE-T SFP Module Cat.5 RJ-45 100m data range Cisco compatible



GBIC-, SFP-, XFP-, XENPAK-Transceiver

The tde Small Form Pluggable Optical Transceiver are easy installed for enterprise and telecom applications. The tde SFP modular line provides a fully compatible, highly reliable and volume accessible supply of quality transceiver products with excellent performance for design-in manufacturing and end-user enterprise applications.



tde[®] trans data elektronik GmbH

Headquarter address:

Lingener Str. 2
D-49626 Bippen/Ohrte
Tel.: +49 5435 9511 0
Fax.: +49 5435 9511 32

Sales office address:

Prinz-Friedrich-Karl-Str. 46
D-44135 Dortmund
Tel.: +49 231 8805 61 13
Fax.: +49 231 8805 61 15

info@tde.de | www.tde.de

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Technical Data

Features

- Support 10/100/1000BASE-T operation in host systems with SGMII interface
- Up to 1.25Gbps bi-direction data links
- Hot-pluggable SFP footprint
- Fully metallic enclosure for low EMI
- Low power dissipation (1.05W typical)
- Compact RJ-45 connector assembly
- 100m transmission over unshielded twisted pair(UTP) Category 5 Cable
- Access to physical layer IC via 2-wire serial bus

Applications

- LAN 1000Base-T
- 1.25 Gigabit Ethernet over Cat 5 cable
- Switch to Switch interface
- Router/Server interface

Absolute Maximum Ratings

Parameter	Symbol	Min.	Typ.	Max.	Unit
Maximum Supply Voltage	Vcc	-0.5		4.0	V
Storage Temperature	TS	-40		85	°C

Normal operating condition

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating Temperature	Top	0		70	°C
Supply Voltage	Vcc	3.14	3.3	3.46	V

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes/Conditions
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+3.3 Volt Electrical Power Interface

Supply Current	Icc		300	350	mA	
Input Voltage	Vcc	3.13	3.3	3.47	V	
Surge Current	Isurge			30	mA	

Low-Speed Signals, Electronic Characteristics

SFP Output LOW	VOL	0		0.5	V	4.7k to 10k pull-up to host_Vcc, measured at host side of connector
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SFP Output HIGH	VOH	host_Vcc - 0.5		host_Vcc + 0.3	V	4.7k to 10k pull-up to host_Vcc, measured at host side of connector
SFP Input LOW	VIL	0		0.8	V	4.7k to 10k pull-up to Vcc, measured at SFP side of connector
SFP Input HIGH	VIH	2		Vcc + 0.3	V	4.7k to 10k pull-up to Vcc, measured at SFP side of connector
High-Speed Electrical Interface, Transmission Line-SFP						
Line Frequency	fL		125		Mhz	5-level encoding, per IEEE 802.3
Tx Output impedance	Zout,TX		100		Ohm	Differential, for all frequencies between 1MHz and 125MHz
Rx Input Impedance	Zin,RX		100		Ohm	Differential, for all frequencies between 1MHz and 125MHz
High-Speed Electrical Interface, Host-SFP						
Single ended data input swing	Vin	250		1200	mV	Single ended
Single ended data output swing	Vout	350		800	mV	Single ended
Rise/Fall Time	Tr,Tf		175		psec	20%-80%
Tx Input Impedance	Zin		50		Ohm	Single ended
Rx Output Impedance	Zout		50		Ohm	Single ended

General specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes/Conditions
Datarate		10		1000	Mbps	
Distance				100	m	Category 5 UTP. BER <10-12

Product variants & accessories

Art.-No.	Description
TDE-GLC-T	1000BASE-T SFP Module Cat.5 RJ-45 100m data range Cisco compatible