

1000BASE-T GBIC Module RJ-45 100m data range



## 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.



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## 1000BASE-T GBIC Module RJ-45 100m data range

### Technical Data

#### Features

- Up to 1.25GBd b-directionale data links
- Compliant with IEEE 802.3z, IEEE 802.3ab compliant
- Compliant with GBIC Specification Revision 5.5
- SCA-2 Host connector
- Hot Pluggable
- Support 1000BASE-T full duplex default operating mode
- RJ-45 connector
- Auto-sense MDI/MDIX
- Power supply 3.3V/5V
- RoHS Compliance
- Operating temperature range: 0°C to 70°C

#### Applications

- 1.25GBd Gigabit Ethernet

#### General Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
Data Rate1	DR			1000	Mb/sec	IEEE 802,3
Cable Length	CL			100	m	Category 5 UTP
Bit Error Rate	BER			10-12		
Operating Temperature	Top	0		70	°C	Case temperature
Storage Temperature	Tsto	-40		85	°C	Ambient temperature
Supply Current	Is		310	375	mA	For electrical power interface
Input Voltage	Vcc	3.15	5	5.5	V	Referenced to GND. For electrical power interface
Maximum Voltage	Vmax			6	V	For electrical power interface
Surge Current	Isurge			30	mA	Hot Plug above steady state current. For electrical power interface

#### High Speed Electrical Interface Host-GBIC

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
Differential Input Voltage	VINDIFF	500		2000	mV	Differential peak-peak
Differential Output Voltage	VOUIDIFF	370		2000	mV	Differential peak-peak

## 1000BASE-T GBIC Module RJ-45 100m data range

Rise/Fall Time (20% – 80%)	ZIN	250	psec	
Tx Input impedance	ISurge	75	ohm	Single ended
Rx Output impedance	ZOUT	75	ohm	Single ended

### High Speed Electrical Interface Transmission Line-GBIC

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
Line Frequency	FL		125		MHz	5-level encoding
Tx Output Impedance – Differential	ZOUT_T		100		Ohm	Note 1
Rx Input Impedance – Differential	ZIN_RX		100		Ohm	Note 1

### Low Speed Electrical Signal

Parameter	Symbol	Min.	Typ.	Max.	Unit	Remarks
GBIC Output Low	VOL	0		0,5	V	External 4.7k-10k ohm pull-up to host_VCC.
GBIC Output High	VOH	Host_VCC – 0.5		Host_VCC + 0.3	V	External 4.7k-10k ohm pull-up to host_VCC.
GBIC Input Low	VIL	0		0.8	V	External 4.7k-10k ohm pull-up to host_VCC.
GBIC Input High	VIH	2		VCC + 0.3	V	External 4.7k-10k ohm pull-up to host_VCC.

## Product variants & accessories

Art.-No.	Description
TDE-ASG-TX	1000BASE-T GBIC Module RJ-45 100m data range