SFT00P10FE00 – SFP Copper

Copper / 100m / 10/100Base-Tx

For your product safety, please read the following information carefully before any manipulation of the transceiver:

ESD
This transceiver is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 /JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.

1. Overview

SFT00P10FE00 is a high performance transceiver module for Fast Ethernet data links over a category 5 UTP cable. The maximum reach is 100m. The transceiver supports 10/100BASE-TX operation in host systems.

This transceiver module is compliant with the Small Form-factor Pluggable (SFP) Multisource Agreement (MSA) and hot pluggable. Always contact Skylane Optics commercial agents for compatibility with different equipment platforms.

2. Features

- SFP Multi-Source Agreement compliant [SFF-8074]
- Hot pluggable SFP footprint
- Serial ID functionality supported according to [SFF-8074]
- RJ45 connector
- 100m, point-to-point transmission on Category 5 UTP Cabling
- 100Base-TX operation in host systems
- Operating temperature range 0°C to 70°C
- Low power dissipation (<1 W)
- Auto detect MDI/MDI-X

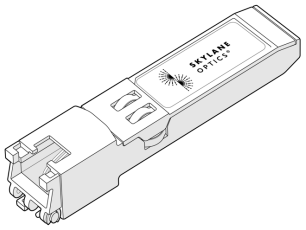

Figure 1. SFP Copper
(non-binding illustration)

3. Applications

- Fast Ethernet
- Intra building
- Data hall

4. Technical Parameters

4.1. Recommended Operating Conditions					
Parameter	**Min**	**Typ**	**Max**	**Units**	**Notes**
Storage temperature	-40		85	°C	
Operating Case Temperature	0		70	°C	
Relative Humidity	5		95	%	Non condensing
Power Supply Voltage	3.1	3.3	3.5	V	
Power Supply Current			300	mA	

4.2. General Specifications					
Parameter	**Min**	**Typ**	**Max**	**Units**	**Notes**
Data Rate		125		Mbps	
Transmission Distance			100	m	1

1. On Category 5 UTP cable, BER≤10^{-12}

4.3. High-speed Electrical Interface, Host SFP					
Parameter	**Min**	**Typ**	**Max**	**Units**	**Notes**
TD+, TD- Input voltage Swing	250		1200	mV	2
RD+, RD- Output voltage Swing	300		1000	mV	2
Rise/Fall Time		3		ns	3
Tx Input Impedance		50		Ω	2
Rx Output Impedance		50		Ω	2

2. Single ended
3. 20% to 80% value

4.4. High-speed Electrical Interface, cable to SFP					
Parameter	**Min**	**Typ**	**Max**	**Units**	**Notes**
Transmission Frequency		125		MHz	
Tx Output Impedance		100		Ω	
Rx Output Impedance		100		Ω	

5. Transceiver Electrical Pad Layout

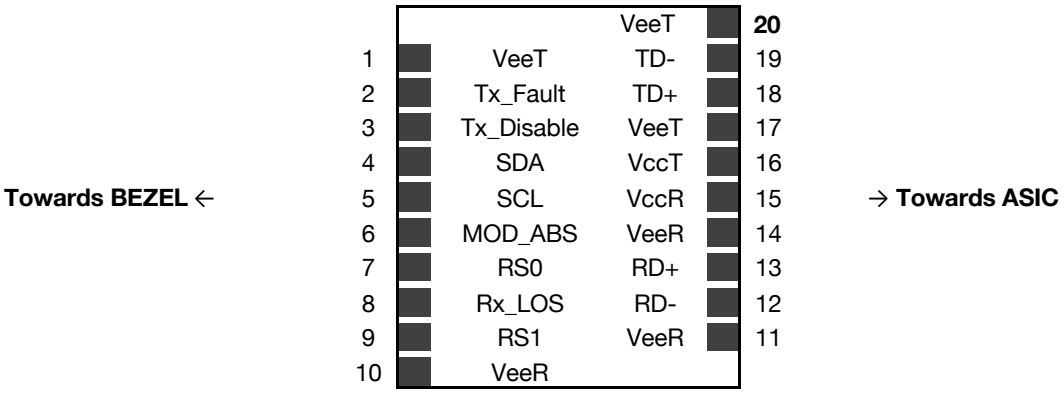

Figure 2. Transceiver Electrical Pad Layout

6. Module Electrical Pin Definition

Pin Number	Name	Function
1	VeeT	Transmitter Ground
2	TX_Fault	Transmitter Fault Indication
3	TX_ Disable	Transmitter Disable
4	SDA	2-Wire Serial Interface Data (SDA)
5	SCL	2-Wire Serial Interface Clock (SCL)
6	MOD_ABS	Function Not available
7	RS0	Rate Select 0 grounded
8	Rx_LOS	Loss of signal
9	RS1	Rate select 1 grounded
10	VeeR	Receiver Ground
11	VeeR	Receiver Ground
12	RD-	Inverted received data output
13	RD+	Received data output
14	VeeR	Receiver Ground
15	VccR	Receiver Power
16	VccT	Transmitter Power
17	VeeT	Transmitter Ground
18	TD+	Transmit data input
19	TD-	Inverted transmit data input
20	VeeT	Transmitter Ground

7. EEPROM

MSA compliant SFF-8074

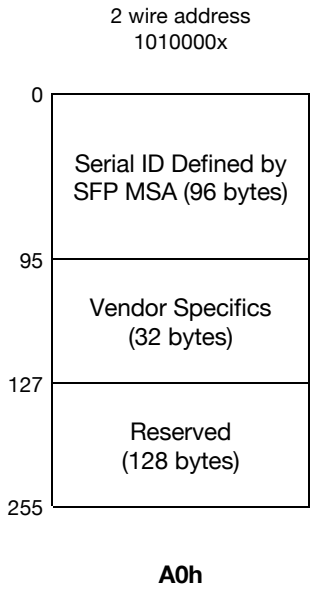

Figure 3. EEPROM of a SFP Copper

8. Ordering Information

Part Number	Description
SFT00P10FE00	SFP copper, RJ45 connector, protocols: 100Base-TX, nominal reach 100m on Cat 5 UTP cabling, 0°C to 70°C

Skylane Optics supplies a broad range of optical transceivers. Our engineers work closely with our customers to find the best solutions for every application. We are committed to provide high quality products and services to our customers.

For questions on this product please contact:
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