

SFT00P10FE0E – SFP Copper

Copper / 100m / 10/100BASE-T / LOS

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

SFT00P10FE0E is a high-performance transceiver module for Fast Ethernet data links over a category 5 UTP cable. The maximum reach is 100m.

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
- Operating temperature range 0°C to 70°C
- Low power dissipation (<1 W)
- Supports host 100BASE-T auto-negotiation

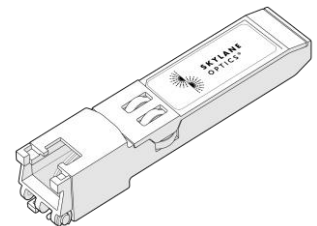


Figure 1. SFP Copper
(non-binding illustration)

3. Applications

10/100BASE-T

4. Technical Parameters

4.1. Recommended Operating Conditions					
Parameter	Min	Typ	Max	Unit	Notes
Storage temperature	-40		85	°C	
Operating Case Temperature	0		70	°C	
Power Supply Voltage	3.13	3.3	3.47	V	
Power Supply Current			300	mA	

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

1. On Category 5 UTP cable

4.3. High-speed Electrical Interface, Host to SFP					
Parameter	Min	Typ	Max	Unit	Notes
Data Input Voltage Swing	250		1200	mV	2
Data 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
Tx Output Impedance		100		Ω	4
Rx Output Impedance		100		Ω	4

4. Differential, internally AC-coupled

5. Transceiver Electrical Pad Layout

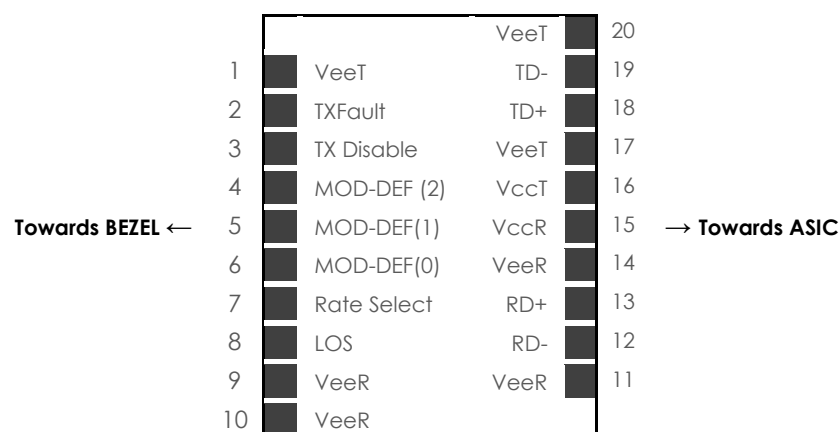


Figure 2. Transceiver Electrical Pad Layout



6. Module Electrical Pin Definition

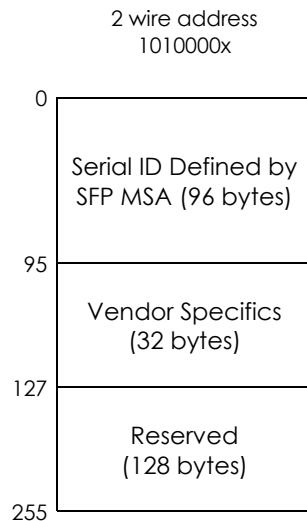
SFP MSA (INF-8074i)

Pin Number	Name	Function
1	VeeT	Transmitter Ground
2	TX Fault	Not Used
3	TX_Disable	Not Used
4	MOD-DEF2	2-Wire Serial Interface Data
5	MOD-DEF1	2-Wire Serial Interface Clock
6	MOD-DEF0	Grounded in Module
7	Rate Select	Not Used
8	LOS	Loss of Signal
9	VeeR	Receiver Ground
10	VeeR	Receiver Ground
11	VeeR	Receiver Ground
12	RD-	Inverted Received Data Out
13	RD+	Received Data Out
14	VeeR	Receiver Ground
15	VccR5	Receiver Power
16	VccT5	Transmitter Power
17	VeeT	Transmitter Ground
18	TD+	Transmit Data In
19	TD-	Inverted Transmit Data In
20	VeeT	Transmitter Ground

5. VccT and VccR are internally tied together

7. EEPROM

MSA compliant SFF-8074



A0h

Figure 3. Copper SFP EEPROM map

Datasheet

SFT00P10FE0E_RevA.docx

8. Ordering Information

Part Number	Description
SFT00P10FE0E	SFP copper, RJ45 connector, 10/100Base-T, LOS 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:
support@skylaneoptics.com

Beyond
Quality

Reliable
Alliance

Performing
Smartly