



SPT00M301000O12

Mellanox® MFM1T02A-T Compatible 100/1000/10000Base-TX SFP+ Transceiver (Copper, 30m, RJ-45)

Product Description

This Mellanox® MFM1T02A-T compatible SFP+ transceiver provides 100/1000/10000Base-TX throughput up to 30m over a copper connection via a RJ-45 connector. This TX module supports 100/1000/10000Base auto-negotiation and can be configured to fit your needs. It is guaranteed to be 100% compatible with the equivalent Mellanox® transceiver. This easy to install, hot swappable transceiver has been programmed, uniquely serialized and data-traffic and application tested to ensure that it will initialize and perform identically. It is built to meet or exceed the specifications of Mellanox®, as well as to comply with MSA (Multi-Source Agreement) standards to ensure seamless network integration. We stand behind the quality of our products and proudly offer a limited lifetime warranty.

Skylane's transceivers are RoHS compliant and lead-free.

Features:

- SFF-8432 Compliance
- RJ-45 Connector
- Commercial Temperature 0 to 70 Celsius
- Copper Media Type
- Hot Pluggable
- Excellent ESD Protection
- Metal with Lower EMI
- RoHS Compliant and Lead Free



Applications:

- 10GBase Ethernet
- Access and Enterprise

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.



LASER SAFETY

This is a Class1 Laser Product according to IEC 60825-1:2007. This product complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated (June 24, 2007).

The optical ports of the module need to be terminated with an optical connector or with a dust plug in order to avoid contamination.

Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit
Maximum Supply Voltage	V _{CC}	3.135	3.6	VDC
Storage Temperature	T _S	-40	85	°C
Operating Case Temperature	T _C	0	70	°C
Operating Humidity	RH	5	95	%
Maximum Bitrate	B _{max}		11.4	Gbps

Electrical Characteristics (TOP=25°C, V_{CC}=3.3Volts)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes
Power Supply Voltage	V _{CC}	3.135	3.30	3.465	V	
Low Speed Input Voltage		-0.5		V _{CC} +0.3	V	
Two-Wire Interface Input Voltage		-0.3		V _{CC} +0.5	V	
Power (30m @ 25C ambient)			2.3	2.5	W	

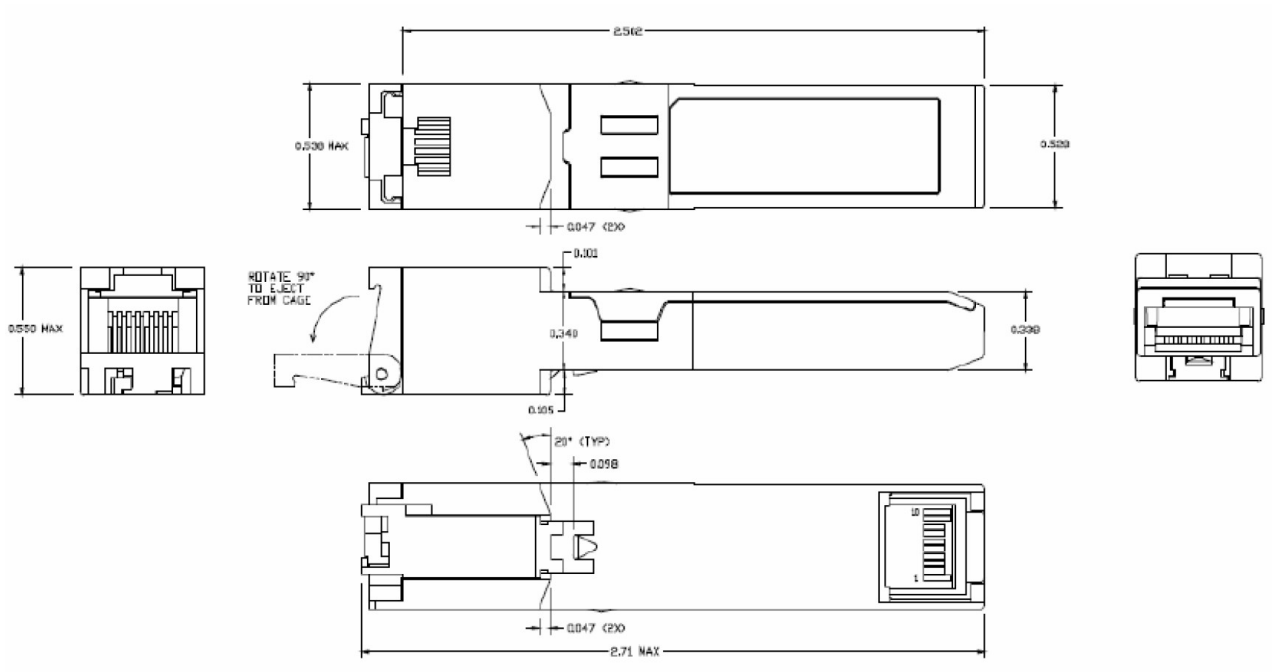
Pin Descriptions

Pin	Symbol	Name/Descriptions	Ref.
1	VeeT	Transmitter Ground	1
2	Tx_Fault	Transmitter Fault LVTTTL-O	
3	Tx_Disable	Transmitter Disable LVTTTL-I	
4	SDA	2-wire Serial Interface Data Line LVTTTL-I/O	
5	SCL	2-wire Serial Interface Clock LVTTTL-I/O	
6	Mod_ABS	Module Absent, connect to VeeT or VeeR in the module	
7	RS0	Rate Select 0 LVTTTL-I	
8	Rx_LOS	Receiver Loss of Signal Indication LVTTTL-O	
9	RS1	Rate Select 1 LVTTTL-I	
10	VeeR	Receiver Ground	1
11	VeeR	Receiver Ground	1
12	RD-	Receiver Inverted Data Output CML-O	
13	RD+	Receiver Non-Inverted Data Output CML-O	
14	VeeR	Receiver Ground	1
15	VccR	Receiver 3.3V Supply	
16	VccT	Transmitter 3.3V Supply	
17	VeeT	Transmitter Ground	1
18	TD+	Receiver Inverted Data Output CML-I	
19	TD-	Transmitter Inverted Data Input CML-I	
20	VeeT	Module Transmitter Ground	1

Notes:

1. The module signal grounds should be isolated from the module case.

Mechanical Specifications



About Skylane Optics

Skylane is a leading provider of transceivers for optical communication.

We offer an extensive portfolio for the enterprise, access, datacenter and metropolitan fiber optical market as well as for smart home applications and home networks.

We cover the European, South American and North American market with a strong partner network and have offices in Belgium, Brazil, Sweden and USA.

Our offerings are characterized by high quality and performance. In combination with our strong technical support, we enable our customers to build cost optimized network solutions.

We offer an extensive range of high-quality products including transceivers (Optical and copper), Active Optical Cable (AOC), Direct Attach Cable (DAC), Mux/Demux, Coding Box.

