

# Product Specifications

## MTB-RJ SFP+ Copper 10GBASE-T mini-GBIC Module

Version 1.0

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### Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2018/3/12	Angeline Huang	Initial Release

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Reviewed By:		Approved By:	Kent Kang

## 1. PRODUCT DESCRIPTION



PLANET MTB-RJ small form-factor pluggable (SFP) transceiver module is specifically designed for the high-performance integrated duplex data link over single mode optical fiber. These transceiver modules are compliant with the SFP Multisource Agreement (MSA) and hot pluggable, and offer an easy way to be installed in SFP MSA compliant ports at any time without the interruption of the host equipment operation.

To fulfill the increasing demand of the Ethernet fiber solution, the MTB-RJ SFP+ Copper Mini-GBIC 10Gigabit Ethernet modules can provide easy and fast 10GBASE-T connection for Planet equipment. It can be installed in PLANET 10 Gigabit switch products with SFP+ mini-GBIC interface.

Also, they are compatible with the 5 / 2.5 / 1GBASE-T standards as specified in IEEE Std 802.3. The deployment distance of 10G can be extended to 30 meters and others like 5G, 2.5G and 1G can be extended to 100 meters.

The 10GBASE-T SFP+ Copper Transceiver is specifically designed for high-speed communication links that require 10Gigabit Ethernet over Cat 6a/7 cable. It is the first SFP+ transceiver that offers 10Gb/s communication over fiber optic media.

<b>MTB-RJ</b>	SFP+ Copper Port 10GBASE-T mini-GBIC module – 30m (0~70°C)
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## 2. PRODUCT FEATURES

- Complies with the IEEE 802.3an 10Gigabit Ethernet standard
- Supports 10 / 5 / 2.5 / 1GBASE-T
- Compact RJ45 connector assembly
- Standard small-form pluggable (SFP) package
- Single power supply 3.3V
- 10 Gigabit Ethernet over Cat 6a/7 cable
- RoHS compliant and lead-free
- Hot pluggable
- Plug and Play installation
- 0 to 70 degrees C operating temperature

### 3. PRODUCT SPECIFICATIONS

#### 3.1 FUNCTION SPECIFICATIONS

MTB-RJ	
PHY Type	IEEE 802.3an 10GBASE-T
Support DDM	--
Fiber Type	--
Connector	Copper
Wavelength	--
Maximum Distance	10G: 30m 5G / 2.5G / 1G: 100m
Operating Temperature	0 ~ 70 degrees C

#### Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Unit	Notes/Conditions
Storage Temperature	T <sub>s</sub>	0	+70	°C	
Supply Voltage	V <sub>ccT</sub> V <sub>ccR</sub>	0	4	V	
Data Rate GbE	BR	1	10	Gb/sec	IEEE 802.3 compatible.

#### Recommended Operating Conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit	Notes/Conditions
Case Operating Temperature	T <sub>c</sub>	0		70	°C	
Supply Voltage	V <sub>cc</sub>	3.13	3.3	3.47	V	
Supply Current	I <sub>TX</sub> + I <sub>RX</sub>		700	900	mA	

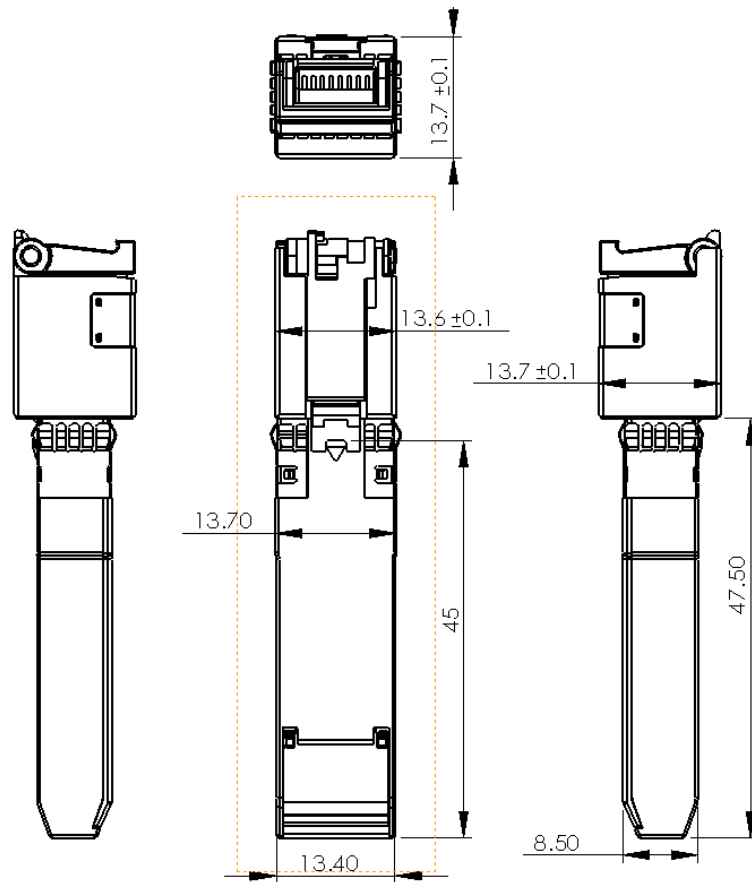
#### 3.2 Connecting the UTP Cable

Standard	Transfer Speed	Cable Requirement 100m
10GBASE-T	10000Mbit/s	Cat 6A/7
5GBASE-T	5000Mbit/s	Cat 6/6A/7
2.5GBASE-T	2500Mbit/s	Cat 5e/6/6A/7
1000BASE-T	1000Mbit/s	Cat 5e/6/6A/7

### 3.3 PHYSICAL SPECIFICATIONS:

**Dimensions:**

13.4 x 67 x 13.7mm (W x D x H)



**Weight:**

25g

### 3.4 ENVIRONMENTAL SPECIFICATIONS

**Operating:**

**Temperature:** 0°C ~ 70 degrees C

**Storage:**

**Temperature:** -40°C ~ 85 degrees C

### 3.5 ELECTRICAL SPECIFICATIONS

**Input Voltage:** 3.3V DC

### 3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

### 3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

### 3.8 BASIC PACKAGING

- The MTB-RJ SFP+ Copper Mini-GBIC 10Gigabit Ethernet Module x 1
- This User's Manual x 1

### 3.9 PACKING DIMENSIONS

**Dimensions:** 126x 68 x 26.5 mm (W x D x H)

**Weight:** 63.75g (gross weight)

**Unit per carton:** 120pcs in one carton