



## SPT00M30MR00240

HP® 813874-B21 Compatible 100/1000/10000Base-TX SFP+ Transceiver (Copper, 30m, RJ-45)

### Product Description

This HP® 813874-B21 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. Our transceiver is built to meet or exceed OEM specifications and is guaranteed to be 100% compatible with HP®. It has been programmed, uniquely serialized, and tested for data-traffic and application to ensure that it will initialize and perform identically. All of our transceivers comply with Multi-Source Agreement (MSA) standards to provide 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

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*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.*

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### Absolute Maximum Ratings

| Parameter                  | Symbol           | Min.  | Max. | Unit |
|----------------------------|------------------|-------|------|------|
| Maximum Supply Voltage     | V <sub>CC</sub>  | 3.135 | 3.6  | VDC  |
| Storage Temperature        | T <sub>S</sub>   | -40   | 85   | °C   |
| Operating Case Temperature | T <sub>C</sub>   | 0     | 70   | °C   |
| Operating Humidity         | RH               | 5     | 95   | %    |
| Maximum Bitrate            | B <sub>max</sub> |       | 11.4 | Gbps |

### Electrical Characteristics (TOP=25°C, V<sub>CC</sub>=3.3Volts)

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

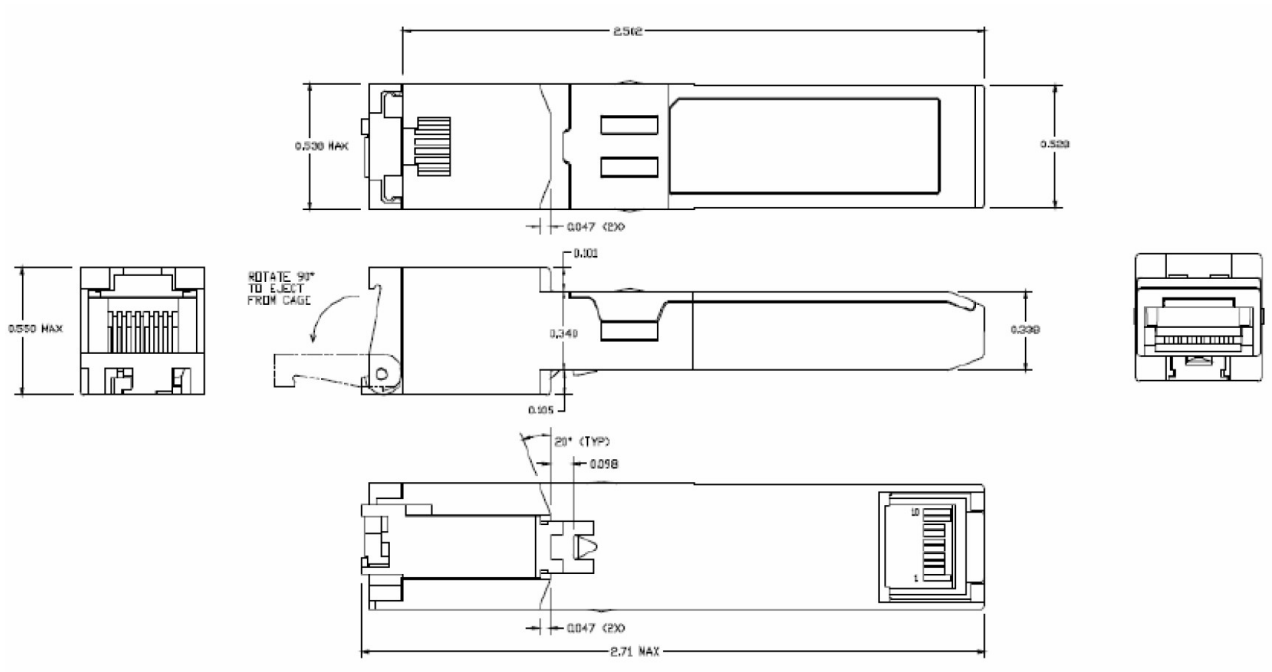
## Pin Descriptions

| 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.

