

# HG MTRS-02X13-G Datasheet



HGTECH 10G 1310nm 10km SM SFP+ Optical Transceiver Module

MTRS-02X13-G

MTRS-02X13-G is a high performance, cost effective module, which is supporting data rate up to 10.3125Gbps, and transmission distance up to 10km over single mode fiber. The transceiver consists of two sections: The transmitter section incorporates a 1310nm DFB TOSA and laser driver. The receiver section consists of a PIN photodiode integrated with a transimpedance amplifier (TIA) and limiting amplifier (LA). The module is hot pluggable into the 20-pin connector. The high-speed electrical interface is base on low voltage logic, with nominal 100 Ohms differential impedance and AC coupled in the module.

The optical output can be disabled by LVTTTL logic high-level input of TX\_DIS. Transmit Fault (Tx\_Fault) is provided to indicate that the module transmitter has detected a fault condition related to laser operation or safety. Loss of signal (RX\_LOS) output is provided to indicate the loss of an input optical signal of receiver. A serial EEPROM in the transceiver allows the user to access transceiver monitoring and configuration data via the 2-wire SFP Management Interface, as specified in SFF-8472.

## Features

- Up to 10km transmission distance over SMF
- Support data rate up to 10.3125Gbps

- 1310nm DFB and PIN receiver
- SFI electrical interface
- 2-wire interface for integrated Digital Diagnostic monitoring
- SFP MSA package with duplex LC connector
- Hot pluggable
- Very low EMI and excellent ESD protection
- +3.3V power supply
- Power consumption less than 1W
- Operating case temperature: 0~+70°C

## Applications

- High-speed storage area networks
- Computer cluster cross-connect
- Custom high-speed data pipes
- LTE optical repeater application

## Compliance

- Compliant with IEEE 802.3ae-2002
- Compliant with MSA SFF-8472
- Compliant with MSA SFF-8431
- Compliant with MSA SFF-843

## Specifications

- P/N: MTRS-02X13-G
- Product Description: 10G SFP+
- Data Rate (Gbit/s): 10G
- Reach: 10km
- TX: 1310nm DFB

- RX: PIN
- TX\_Min (dBm): /
- TX\_Max (dBm): /
- Rx Sensitivity (dBm): <-14.4
- Power Consumption: <1w
- Operating Temperature (deg C): 0 ~ 70°C

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