



## 8.5Gb/s SFP+ 850nm Transceivers

### *RTXM228-851*

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### Features

- *Compliant to SFP+ MSA*
- *Fully RoHS Compliant*
- *Up to 150m with 50 $\mu$ m OM3 MMF*
- *850nm VCSEL Laser*
- *LC duplex connector*
- *Hot pluggable 20pin connector*
- *Low power consumption <1.0W*
- *0°C to 70°C operating temperature range*
- *Single +3.3V $\pm$ 5% power supply*
- *Digital Monitoring SFF-8472 Rev 10 compliant*
- *Real time monitoring of:*
  - *Transmitted optical power*
  - *Received optical power*
  - *Laser bias current*
  - *Temperature*
  - *Supply voltage*

## Application

- 2.125/4.25/8.5 Gb/s Fiber Channel

## Standards

- FC-P1-4 Rev 7
- SFF-8472 Rev 11
- SFF-8431 Rev 4

## Descriptions

The RTXM228-851 850nm optical Transceiver supports high speed serial links over multimode optical fiber at signaling rates for use in Fiber Channel link up to 8.5Gb/s data rate, as well as related applications. The Transceiver is compliant with FC-P1-4, SFF-8431 and SFF-8432 for electrical and mechanical specifications. The transmitter converts serial CML electrical data into serial optical data. An open collector compatible Transmit Disable (Tx\_Dis) is provided. When TX\_DIS is asserted High, Transmitter is turned off. The receiver converts serial optical data into serial CML electrical data. An open collector compatible Loss of Signal is provided. The RX\_LOS signal indicates insufficient optical power for reliable signal reception at the receiver. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472.

## Block diagram

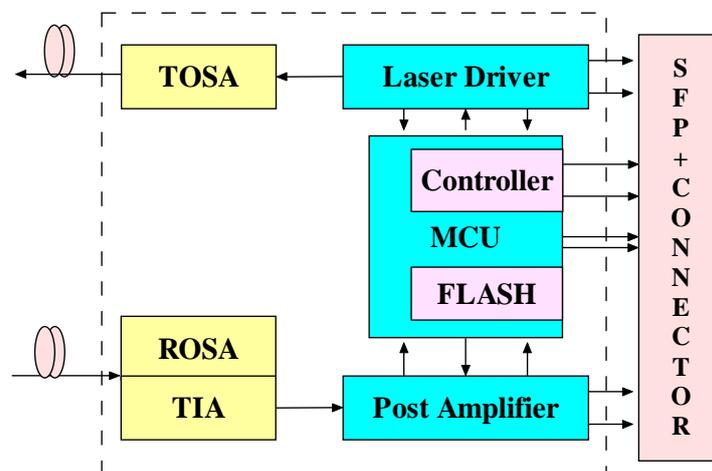


Figure 1 Transceiver functional diagram

## Absolute Maximum Ratings

| Parameter                 | Symbol          | Unit | Min  | Max |
|---------------------------|-----------------|------|------|-----|
| Storage Temperature Range | Ts              | °C   | -40  | 85  |
| Relative Humidity         | RH              | %    | 0    | 95  |
| Supply Voltage            | V <sub>CC</sub> | V    | -0.3 | 4.0 |

## Ordering Information

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| Part No.    | Specifications |           |                |               |          |                   |         |             |       | Application       |
|-------------|----------------|-----------|----------------|---------------|----------|-------------------|---------|-------------|-------|-------------------|
|             | Package        | Data rate | Laser          | Optical Power | Detector | Sensitivity (OMA) | Top     | Reach (OM3) | Other |                   |
| RTXM228-851 | SFP+           | 8.5 Gb/s  | 850nm<br>VCSEL | -8.2~ 0dBm    | PIN      | 76 $\mu$ W        | 0~70 °C | 150m        | DDM   | 2.125/4.25/8.5GFC |

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