



GPON ONU Optical Transceiver SFF Module

RTXM167-410

Features



RTXM167-410

- Integrated Single fiber bi-directional optical subassembly
- 1310nm DFB laser Burst-mode Transmitter and 1490nm APD Continuous receiver(with WDM)
- SFF 2× 10 metallic package
- 1000mm pigtail with SC/UPC connector
- +3.3V single power supply
- Low power consumption
- 0 to 70°C operating case temperature
- LVPECL compatible data input
- CML compatible data output
- LVTTTL transmitter burst mode control
- Burst Enable:H-active
- LVTTTL receiver signal-detected indication
- Class 1 Laser eye safety
- Excellent EMI and EMC characteristics
- DDM Function implemented
- Compliant with RoHs&WEEE

Applications

- Optical transceiver for Gigabit-capable Passive Optical Networks (GPON) ONU side

Standard

- ITU-T G.984.2 Class B+ FSAN G.984.5
- Small Form Factor Transceiver Multisource Agreement July 5, 2000
- Compliant with SFF-8472 v9.5

Description

The GPON ONU Transceiver is designed for Gigabit-capable Passive Optical Network GPON transmission. The module incorporates 1310nm burst-mode transmitter and 1490nm continuous-mode receiver.

The transmitter section uses a 1310nm DFB laser and an integrated BM laser driver which designed to perform very small burst enable/disable delay time. The laser driver also includes digital APC and temperature compensation circuit, which are used for keeping the launch optical power and extinction ratio constant over temperature and aging.

The receiver section uses an integrated 1490nm APD photodiode and preamplifier mounted together. It has the function that indicates receiver signal-detected status (active high).

An integrated WDM coupler can separate 1490nm input light and 1310nm output light.

The metallic package guarantees excellent EMI and EMC characteristics, which totally comply with international relevant standards.



Absolute Maximum Ratings

Parameter	Symbol	Unit	Min	Max
Operating Case Temperature Range				

Recommended operating conditions

Specifications ($0^{\circ}\text{C} < T_c < 70^{\circ}\text{C}$ and $3.13\text{V} < V_{cc} < 3.47\text{V}$)

**Update Information****Ordering Information**

Part No	Specification									Application
	Package	Datarate	Laser	Optical Power	Detector	Sensitivity	Temp	Reach	BM control logic	Code
RTXM167-410	SFF	1.25Gb/s US	1310nm	0.5 ~ 5dBm	APD	-28dBm	0~70°C	20km	H Enable	CLASSB+
	2×10	2.5Gb/s DS	DFB							

Note1: SC/UPC type of connector.

Note2: The length of pigtail is normal 1000±30mm(the length of connector is included) ,but can be customized for specific requirement.

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