# RFoG & GPON ONU Quad-plexer

# *RTXM180-601*



## Features

- *Single Fiber Quad-plexer*
- *1.25Gbps data upstream / 2.5Gbps data downstream*
- *5~42MHz RF signal upstream / 54~1002MHz CATV analog signal downstream*
- *Burst mode transmission with 1310nm DFB laser*
- *Continuous mode digital receiver with 1490nm APD-TIA*
- *Burst mode CATV return path transmission with 1610nm DFB Laser*
- *Analog CATV receiver with 1555nm InGaAs PIN detector*
- *+3.3V / +12V power supply*
- *LVPECL compatible data input*
- *CML compatible data output*
- *LVPECL transmitter burst-mode control*
- *LVTTL I2C DDM interface*
- *LVTTL TX_SD and RX_SD*
- *Soft Enable/Disable TX*
- *Fully RoHS Compliant*
- *All metal housing for superior EMI performance*
- *Excellent ESD/TVS protection*
- *0℃ to 70℃ operating temperature*
- *1×20 Pin and 2"×2.25" Package*
- *SMB RF output connector*
- *Real time monitoring of:*
  - *Temperature*
  - *Supply voltage*
  - *Laser bias current*
  - *Transmitted optical power*
  - *Received optical power*
  - *Video Received optical power*
  - *RF Output level*

## Applications

- *RfoG+GPON ONU Side*
- *Voice/Data/Video FTTx*

## Standards

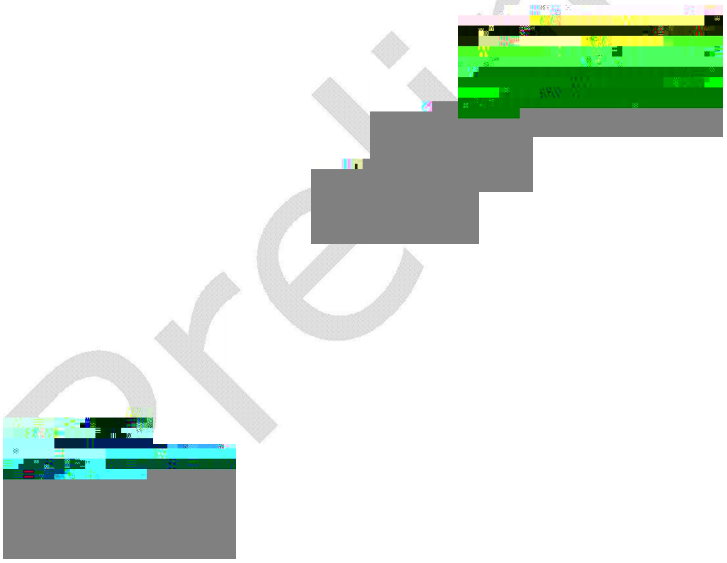
- *ITU-T G.984.2 Class B+*
- *ITU-T G.984.5*
- *C-Docsis 3.0*
- *SCTE 174 2010*
- *RoHS 6*
- *SFF-8472Rev9.5*

## Descriptions

RFoG+GPON ONU Quad-plexer Transceiver is designed for Gigabit-capable Passive Optical Network (GPON). The Quad-plexer comprise of a Burst Mode optical transmitter, a Continuous Mode optical receiver, a Burst Mode RF return transmitter and an Analog CATV forward receiver.

The Digital transmitter uses a 1310nm DFB laser diode and an integrated Burst Mode laser driver which designed to perform very small burst enable/disable delay time. The transmitter also incorporates an Automatic Power Control(APC) circuit and an Automatic Temperature Control(ATC) circuit to keep the launch optical power and extinction ratio over an operating case temperature of 0~+70℃.

The Digital receiver uses an integrated 1490nm APD photodiode and preamplifier mounted together. It has the function that indicates receiver signal-detected status (active high). The transmitter also incorporates an Automatic Power Control(APC) circuit to keep the launch optical power and extinction



# Regulatory Compliance

| Feature | Test Method | Performance |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

# Ordering Information

| Part No. | Specifications | | | | | | | | | | | | Application |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Package | Data rate<br>Bandwidth | GPON<br>Laser | Optical<br>Power | GPON<br>Detector | Sensitivity | RFoG<br>Laser | AGC<br>Range | Video<br>Detector | AGC<br>Range | Top | Other | |
| RTXM180-601 | 1×20<br>SFF | TX1:1.25Gb/S<br>RX1:2.5 Gb/s<br>TX2：5～42MHz<br>RX2:54~1002MHz | 1310nm<br>DFB | +0.5~<br>+5dBm | 1490nm<br>APD-TIA | < -28dBm | 1610nm<br>PIN | 0~<br>+3dBm | 1550nm<br>PIN | -6~<br>+2dBm | 0~<br>70 °C | DDM | RFoG+GPON<br>ONU<br>Quad-plexer |

***Note :*** *?4# "#&@'4 > !%@'O%" %1 & 2 - O" *KKK - - ±*KK - - I'4# "#&@'4 > C &&#C' 2 %1 %&C" $#$JD = ' CO& =# C 1' - #2 > 2 1!#C%>%C 2#B %2# - #&'.*



Edition 2015-04-16

Published by Wuhan Telecommunication Devices Co.,Ltd.