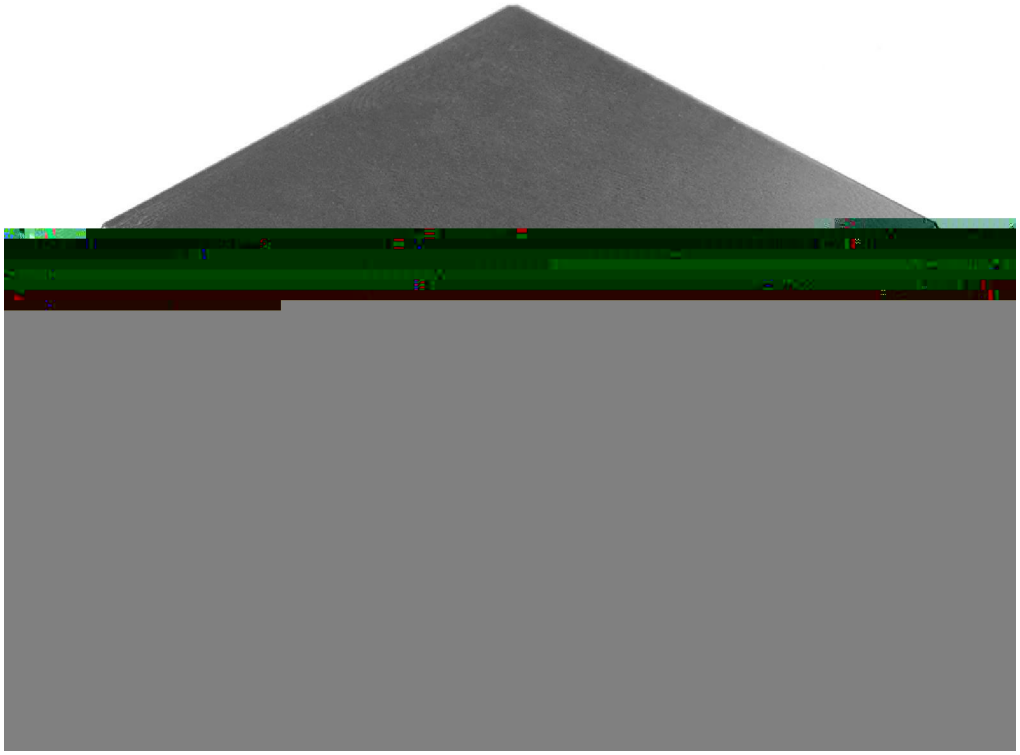

EPON ONU Triplexer Transceiver

RTXM170-501

Features

- *Single Fiber Triplexer*
- *1.25Gbps data upstream and downstream /45~1000MHz CATV analog signal downstream*
- *Burst mode transmission with 1310nm FP laser*
- *Continuous mode digital receiver with 1490nm PIN-TIA*
- *Analog CATV receiver with 1550nm 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/RX_SD/Video_SD*
- *Soft Enable/Disable TX and Video*
- *Fully RoHS Compliant*
- *All metal housing for superior EMI performance*
- *Excellent ESD/TVS protection*
- *0℃ to 70℃ operating ambient temperature*
- *1×20 Pin and 2"×2" Package*
- *3PIN 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

- *GEPON ONU Side*
- *Voice / Data / Video FTTx*

Standards

- *IEEE Std 802.3 ah™ -2004*
  1000 BASE-PX20-U
- *SFF-8472 Rev 9.5*
- *RoHS 6*

Descriptions

℃

Block diagram

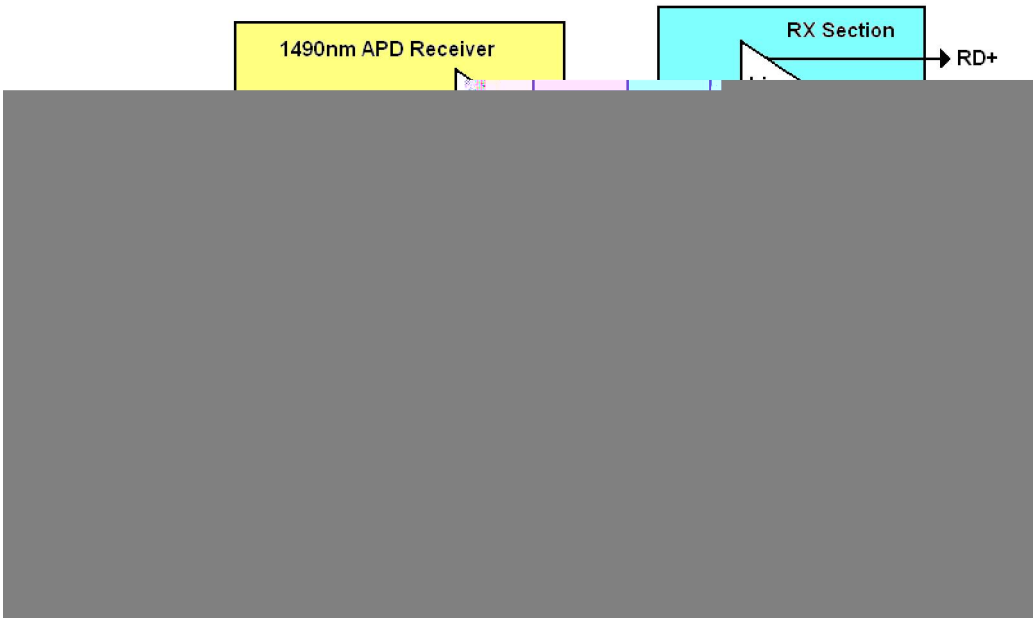

Figure 1

Optical and Electrical Characteristics *(T_O =0 ℃ to 70 ℃)*

Parameter	Symbol	Unit	Min	Typ	Max	Note
Digital Transmitter						
	$\Delta\lambda$					
				ah^{TM}		
Digital Receiver						
Analog Receiver						

Note 1: *Coupled into 9/125um.*

Note 2: *Measured with PRBS 2^7-1test pattern @ 1.25Gbps.*

Note 3: *Refer to Timing Parameter Definition in Burst Mode Sequence, See Figure 4.*

Note 4: *Measured with the Bessel-Thompson filter ON.*

Note 5: *DC coupled internally and terminated internally (see the recommended circuit below).*

Note 6: *See Figure 5.*

Note 7: *Measured with PRBS 2^7-1 test pattern @ 1.25Gbps with TX on, ER=10dB, BER=10E-12.*

Note 8: *An increase in optical power above the level will cause the Signal Detect output to switch from a low state to a high state, Refer to Timing Parameter Definition of RX ALM Assert/Dessert time, see Figure 6.*

Note 9: *A decrease in optical power below the level will cause the Signal Detect output to switch from a high state to a low state, Refer to Timing Parameter Definition of RX ALM Assert/Dessert time, see Figure 7.*

Note 10: *AC coupled internally (see the recommended circuit below).*

Note 11: *Test from 45MHz to 1000MHz.*

Note 12: *Test at , (%)*
(%)。

Note 13: *Test at -6dBm Optical Input Power, (%)*
(%)。

Note 14: *Test at +2dBm Optical Input Power, (%)*
(%)。

Note 15: *Test from 45MHz to 1000MHz.*

Figure 4

Regulatory Compliance

Feature	Test Method	Performance

Ordering Information

Part No.	Specifications	Application
×		

Note : *The length of pigtail is normal 255mm±20mm (the length of connector is included).*