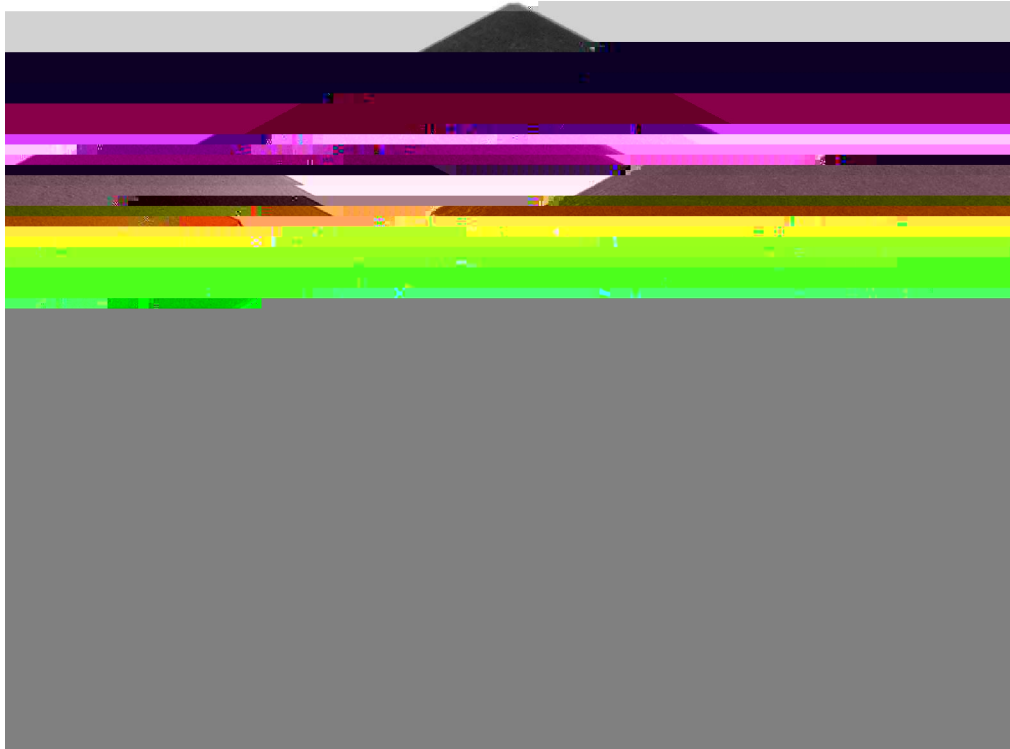




EPON ONU Triplexer Transceiver

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
LVTTTL I2C DDM interface
LVTTTL 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 °C to 70 °C 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

Optical and Electrical Characteristics ($T_o = 0^{\circ}\text{C}$ to 70°C)

Parameter	Symbol	Unit	Min	Typ	Max	Note
Digital Transmitter						
Z 33% S P' % ! H\$	P . . _#	P	Q/7Q	Q/Q	Q/V<	>
Z 33% S . FF\$ ""*	X . . _#	(O	>	>	8==	>
N)* 9!*\$	>	@J3-	>	7/8?	>	>
C3\$F!*)' " !,\$%\$ "H*	a ₃	" (	78<=	7Q7=	7Q? =	>
Z3\$&*F!%)2*		" (	>	>	Q	>
1! "& C3*)&!% B' 6\$F	B _C	2N (	>7	>	V	
CII 1\$, \$% 1)H *	B _{CRR}	2N (	>	>	>V?	>
AG*)"&*)' " F!*)'	A9					

RTXM170-501

C3*)&!% 9\$* F" %' --	C91	2N	V?	>	>	>
P)2\$' Z)H"!% +\$*\$&* O--\$F* 1\$, \$%	Bp!-	2N (	>7Q	>78	>77	>
9R ' *3 * *)%*	1#	2N	8	?	<	77
9R ' *3 * %\$, \$%	1c	2N (P	7]	88	8?	78
. D9	. D9	2N	VY	>	>	7Q
. 5. ZC	. ZC	2N&	?]	Y=	>	7V
. 5. #N	. #N	2N&	?]	Y=	>	7V
C *3 * 9\$* F" 1' --	1c	2N	7V	>	>	7?
C *3 * X (3\$2!"&\$	b _c	c	>	<?	>	>

Note 1:

Note 2:

Note 3:

Note 4:

Note 5:

Note 6:

Note 7:

Note 8:

Note 9:

Note 10:

Note 11:

Note 12: -6~+2dBm Optical Input Power. The 79 analog(NTSC) channels (OMI4.3%) and 79 digital(64 or 256 QAM) channels (OMI2.15%). The equivalent value of the digital channels' RF level is 6dB lower than the analog channels'.

Note 13: The 79 analog(NTSC) channels (OMI4.3%) and 79 digital(64 or 256 QAM) channels (OMI2.15%). The equivalent value of the digital channels' RF level is 6dB lower than the analog channels'.

Note 14: The 79 analog(NTSC) channels (OMI4.3%) and 79 digital(64 or 256 QAM) channels (OMI2.15%). The equivalent value of the digital channels' RF level is 6dB lower than the analog channels'.

Note 15:

Within 15% of optical steady state



Figure 4 #) ()" H B!F! (\$*\$F +\$!)")*)' " -)" N F-* ; '2\$ Z\$` \$"&\$

Regulatory Compliance

Feature	Test Method	Performance
A\$&*F' -*!*)& +)-& !FH\$ LAZ+M X ((")*)S	XA.Y7===>V>8 .XZB988 X#A .%!-- N AD??=88 .%!-- N R.. B!F*7? .%!-- N	1PVLO)F 2)-& !FH\$ 7?KP0.' ""!&* 2)-& !FH\$]KPM B\$F! 'F (!"&\$ &F)*\$F)' " N #S3)&!%S - '6 " ' (\$!- F!J%\$ \$!I\$&* IF' (! QP5 (I)\$%2 -6\$3* IF' (]= *' 7=== ; [\ !33%)\$2 *' * \$*F! "-&\$), \$F 6)* ' * ! & !--)- \$"&%'- F\$/
1!-\$F AS\$ Z!I\$*S	R+O 87 .R9 7=V=/7= O"2 7=V=/77 ADY=W?= #EP ADY=]8?>708	. ' (3%)! " * 6)* .%!-- 7 %!-\$F 3F' 2 &*
9' [Z	8==85W?5A. V/7mV/8	. ' (3%)! " * 6)* -*"! "2!F2-

Ordering Information

Part No.	Specifications										Application	
	B!&K!H\$	+ !*! F!*\$	1!-\$F	C3*)&!%	+*\$&* 'F Z\$"-)*.)\$S	P)2\$'	O@.	9R&' "	#' 3	9\$!&		C* \$F
		N! "26)2*		B ' 6\$F		+*\$&* 'F	9! "H\$					
9#: ; 7<=>?=7	7×8=	#: 47/8?@J5Z	7Q7=" (	=T	7VW=" (	7??=" (	>YT	=T	7=d (	++;	@ABCD CDE	
	ZRR	9: 747/8? @J5-	RB	UV2N (	BXD>#XO	BXD	U82N (	QBxD	<= ' .		#F)3!G\$F	
		9: 84V?T7===; \										

Note : ±

#+ F\$-\$F,\$-\$ * \$F)H * *' (!K\$ & ! "H\$-\$ *' * \$ 3F' 2 &*L-M 'F)"I'F (!*)' " &' ""!) "\$2 \$F\$)" 6)* ' ' * ' '*)&\$ / D' %!)J)%S)- !-- (\$2 !- ! F\$- %* 'I * \$)F -\$ 'F !33%)&!)' "/ D' F)H *- "2\$F ! "S 3!*\$"" !&&' (3! "S * \$ -!%\$ 'I ! "S - & 3F' 2 &*L-M 'F)"I'F (!*)' "/ A2)*)' " 8=7Q>=Y>=V B J%)- \$2 JS ! " #\$\$\$&' ((")&!)' " +\$,)&\$- . '/01*2/ . '3SF)H * n #+ O% 9)H *- 9\$-\$F,\$2/