

**PRE-GSFP-B43-20(I)**  
GPON B+ OLT Transceiver



**Product Features:**

- GPON Class B+ OLT Transceiver (20km)
- UPC SC Connector
- 1.244Gbps/2.488Gbps Up/Down Data Rate
- 1310nm APD Receiver
- 1490nm Transmitter
- Compliant With ITU-T G.984.2
- Up to 20km distance at 9/125µm G.652 SMF
- Up to 128 Passive Splits
- Available in Industrial Temperature



**Absolute Maximum Ratings**

Parameter	Symbol	Min	Typ	Max	Unit
Storage Temperature	$T_s$	-40		+85	°C
Supply Voltage	$V_{cc}$	0		4.0	V
Operating Relative Humidity		5		95	%

**Operating Conditions**

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply Voltage	$V_{cc}$	3.13	3.33	3.47	V
Power Supply Current	$I_{cc}$	0		500	mA
Operating Case Temperature	$T_c$	Commercial		+70	°C
		Industrial	-40	+85	
Relative Humidity	RH	5		95	%
Data Rate	Upstream / Downstream		1.244/2.488		Gbps

### Optical Characteristics

Parameter	Symbol	Min	Typ	Max	Unit	Notes
Date Rate (Upstream/Downstream)			1.244/2.488		Gbps	
<b>Transmitter</b>						
Centre Wavelength	$\lambda_C$	1480	1490	1500	nm	
Spectral Width (-20dB)	$\Delta\lambda$			1	nm	
Side Mode Suppression Ratio	SMSR	30			dB	
Average Output Power*	$P_{out}$	1.5		5	dBm	1
Extinction Ratio*	ER	10			dB	2
Tolerance to Tx back reflection		-15			dB	
Output Optical Eye*	ITU-T G.984.2 Compliant					2
Optical Output Power with TX OFF	$P_{off}$			-40	dBm	
<b>Receiver</b>						
Centre Wavelength	$\lambda_C$	1260	1310	1360	nm	
Receiver Sensitivity*	$P_{min}$			-28	dBm	3
Receiver Overload*	$P_{max}$	-8			dBm	3
Receiver Burst-Mode Dynamic Range*		15	20		dB	4
Receiver Reflectance	CR			-20	dB	
Signal Detect Assert Level	SDA			-30	dBm	
Signal Detect De-Assert Level	SSD	-45			dBm	
Signal Detect Hysteresis*		0.5	2	6	dB	5
Receiver CID Tolerance	CID	72			bits	
Maximum Receiver Reflectance	$Rx_r$			-20	dB	

Note 1: Measured with 9/125um G.652 SMF.

Note 2: Filtered, Measured with PRBS223-1 test pattern @2.488Gbps.

Note 3: Measured with a PRBS 223-1 test pattern @1.244Gbps, BER 1X10<sup>-4</sup>.

Note 4: The input power difference between two subsequent high and low burst data.

Note 5: LOS Hysteresis (SD signal coincides with the LOS signal inversion)

### Product Ordering Information

Part Number	Description
PRE-GSFP-B43-20	GSFP, GPON OLT, 1490 Tx/1310 Rx, SMF, B+, C-Temp, SC, DDM
PRE-GSFP-B43-20I	GSFP, GPON OLT, 1490 Tx/1310 Rx, SMF, B+, I-Temp, SC, DDM