

LTRAN™ TBN100 Series Home Optical Receiver with SNMP

Product Overview

TBN100 Series Home Optical Receiver is designed by Luster TeraBand for FTTH application of CATV network. It is small and can provide stable output electrical level and excellent performance at as high as 1000 MHz bandwidth. It has very high optical power operation range. This series conclude economy type (without AGC) and high-end type (with AGC). It also has internal power, NMS and WDM optional. High-end type with AGC function can keep stable output under -10 dBm to -3 dBm or -16 dBm to -8 dBm output. Cooperated with our SNMP NMS, SNMP type TBN100B-NM can do real-time network management for the equipment. SNMP NMS software can monitor and control parameters of online status, input power, output RF monitoring and temperature.



Features

- Output ability of 1000 MHz can be 80 dBuV or 75 dBuV under -10 dBm or -16 dBm.
- Complete surge suppression circuit, anti-lightning strike and surge shock prevention ability.
- Stable and reliable AGC control function.
- Power and optical power LED display monitoring.
- Low consumption design, total consumption smaller than 2.0W.
- SNMP NMS optional, can realize remote network management and local monitoring.

Performance Parameters

Optical Parameters	Unit	TBN100B	TBN100D	TBN100B-NM
Receiving Optical Wavelength	nm	1290 ~ 1600		
Receiving Optical Power	dBm	NE1: 0 ~ -12 NE2: -8 ~ -15 NE3: -8 ~ -18 AH: 0 ~ -16	0 ~ -12	NM1: -11 ~ +1 NM2: -17 ~ -5
Optical Reflection Loss	dB	≥45		
LED Optical Monitoring Display	dBm	NE1 ≥ -12, green light displays, < -12 red light alarms NE2 ≥ -15, green light displays, < -15 red light alarms NE3 ≥ -18, green light displays, < -18 red light alarms AH1 ≥ -14, lights off, < -14 red light alarms AH2 ≥ -16, lights off, < -16 red light alarms	< -12 red light alarms	NE1 ≥ -10, green light displays, < -10 lights off, extremely low alarm NE1 ≥ -16, green light displays; < -16 lights off, extremely low alarm
LED Power Monitoring Display	-	Power on, green light instructs		
Link Indicator Light	-	None		Data transmission, green light flash
WDM Module Isolation	dB	None		1550nm to 1310/1490nm 22 (Reflection Isolation, analog optical wave appears at data light wave interface) 1310/1490nm to 1550nm 40 (transmission isolation, data light wave appears at analog light wave interface) Normal PD

Connector	-	SC/APC or FC/APC		
RF Parameters	Unit	TBN100B	TBN100D	TBN100B-NM
Frequency Range	MHz	47 ~ 1000		
Output RF Impedence	Ohms	75		
Flatness	dB	+/-1.25		
Output Reflection Loss	dB	NE1 ≤ -8 (47 - 1000 MHz), Typical Value: -9 NE2/NE3 ≤ -12(47 - 1000 MHz) AH ≤ -12 (47 - 1000 MHz)	Max ≤ -7.5 Typical Value: -8	≤ 12 (47 - 1000 MHz)
Nominal Output Electrical Level	dBuV	NE1: ≥ 60, Typical Value 61 @ -12 dBm NE2: ≥ 60, Typical Value 64 @ -15 dBm NE3: ≥ 60, Typical Value 64 @ -18 dBm AH1: Typical Value 80 @ -10 dBm AH2: Typical Value 75 @ -16 dBm	≥63 Typical Value 64 @ -10 dBm	NM1: 80+/-2 NM2: 75+/-2
AGC Control Accuracy	dB	AH2: +/-2 @ -16 dBm ~ -8 dBm AH1: +/-2 @ -10 dBm ~ -8 dBm		NM1: +/-1.5 @ -10 ~ -2 dBm NM2: +/-1.5 @ -16 ~ -8 dBm
Distortion Index				
CTB	dBc	> 58 @ -10 dBm	> 58 @ -10 dBm	> 58 dBc @ -2 dBm NM1, -8 dBm NM2
CSO	dBc	> 58 @ -10 dBm	> 58 @ -10 dBm	> 58 dBc @ -2 dBm NM1, -8 dBm NM2
CNR	dB	> 41 @ -10 dBm	> 41 @ -10 dBm	> 43 @ -8 dBm
Power Supply				
External Switch Power	-	Input: 100 ~ 240 VAC 50 - 60 Hz Output: 5 VDC 1A	Input: 100 - 240 VAC 50 - 60 Hz	Input: 100 - 240 VAC 50 - 60 Hz Output: 5 VDC 1A
Consumption	W	≤ 2.0W	≤ 1.0W	≤ 2.0W
Others				
Operation Temperature	°C	-20 ~ -60		
Operation Humidity	-	20% ~ 90%, No Condensation		
Mechanical Dimension	mm	95*60*23 (RF and optical interface not included) 118.6*78.6*29		

Note: Testing condition of link index: 1550 transmitter, OMI = 3.0%, 59 channels PAL-D 50 ~ 550 MHz + 300 MHz digital channels, digital is 10dB lower than analog.

Order Information

