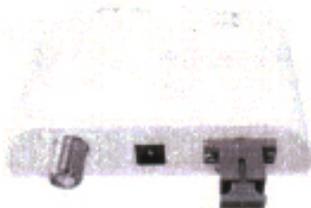


## LTRAN™TBN100B Series FTTH Receiver User Manual(V1.4)

### Introduction

LTRAN™TBN100B series, suitable for CATV FTTH access network, which is a compact, power saving, and with excellent cost performance home use Optical Receiver.

There are two type of the product available for option: the receiver with AGC and the receiver without AGC.



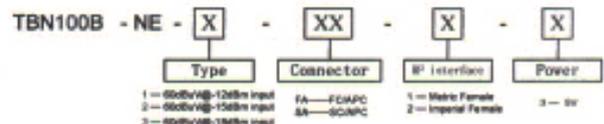
### Performance Parameter

Optical parameter	Index
Receiving Optical wavelength range	1290~1690 nm
Optical return loss	≥ 45 dB
Input optical power range	NE1 0~-12dBm
	NE2 -5~-15dBm
	NE3 -8~-18dBm
	AH 0~-15dBm
LED optical display	NE1 ≥-12dBm green lamp, < -12dBm red lamp
	NE2 ≥-15dBm green lamp, < -15dBm red lamp
	NE3 ≥-18dBm green lamp, < -18dBm red lamp
	AH1 ≥-14dBm green lamp, < -14dBm red lamp
LED electrical power display	AH2 ≥-16dBm green lamp, < -16dBm red lamp
	Power on, green lamp
Optical connector	SC/APC or FC/APC
<b>RF parameter</b>	
Frequency range	47~1000 MHz
Output RF impedance	75 Ohms
Flatness	+/-1.5 dB
Output reflection loss	NE1 ≤-8dB
	NE2/NE3 ≤-12 dB
	AH ≤-12 dB
	NE1: ≥60 Typical 610~12dBm
Nominal output level(NE1)	NE2: ≥60 Typical 610~15dBm
	NE3: ≥60 Typical 610~18dBm
	AH1: Typical 800~10dBm
	AH2: Typical 750~16dBm
AGC control accuracy	AH1: +/-20~10dBm ~ -3dBm
	AH2: +/-20~16dBm ~ -8dBm
<b>Distortion parameter (NE1)</b>	
CTB	>500 -10dBm
CSO	>500 -10dBm
CNR	>120 -10dBm
<b>Power supply</b>	
Power supply	Input: 100-240VAC 50-60Hz Output: 5 VDC 1A
Power consumption	≤2.0 W
<b>Else</b>	
Operating temperature	-20~+60°C
Operating humidity	20%-90%
Size	95X60X22mm(not consider RF port and optical port.)

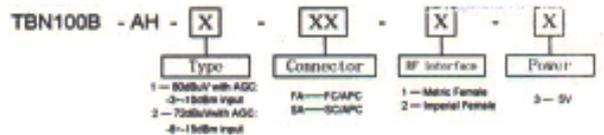
(NE1) Test condition: 1550nm transmitter, OMI=3.0%, 50 channel PAL-D 50 ~550MHz+300MHz, digital signal level lower 10dB than analog signal.

### Specification

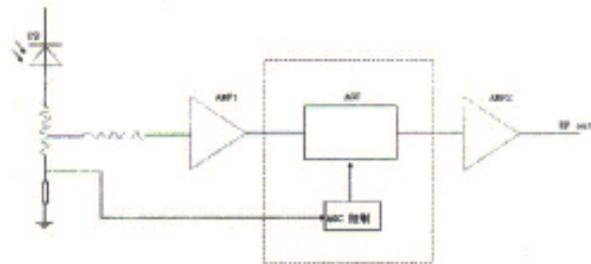
NE/no AGC



AH/AGC



### Function Diagram



### Notice

#### Unpack

- Please check the package carefully to see if there is a collision in the transport process before open. If such situation occurs, please inform Teraband immediately, do not force to connect power supply.
- Be careful not fall down.
- Do not put it in high humidity environment.
- Static electricity may cause the damage to the device, please wear wristbands for operation.

#### Attachments

- LTRAN™TBN100B Host
- +5VDC Output power adapter (Input:100-240VAC,50-60Hz)
- User Manual

#### Use Notes

- 1) Check the attachments if it is complete.
  - 2) Before use please check the optical connector. FC/APC or SC/APC.
  - 3) Check the input optical power, make sure the surface of the optical fiber is clean, then connect to the receiver.
  - 4) Connect the RF cable to the output port.
  - 5) Use electrostatic protection when plug the RF cable.
- Connecting the +5VDC power adapter, please note that the panel's LED indicator, power supply, green light lamp represents the current work in the normal state. If the light red lamp, means output light power is too low or connection abnormal, please confirm the input light, and re connect the optical interface.