2Port FTTX GPON Repeater

Module: BD-2GPON-RE



Introduction

BAUDCOM GPON Repeater is a convenient, flexible, standard and highly integrated comprehensive access device. The use of fanless integrated design brings convenience to use and maintenance. It can support the working mode of dual OEO working at the same time. The GPON repeater amplifier can provide 3R (i.e. re-amplification, reshaping and retiming) regeneration to signals during optical transmission, amplify weak input of optical signals, complete regeneration of electrical signals, and make transmission distance of PON become longer and support more extended users. The 2 PON OLT extender device can effectively save OLT quantity and extend network transmission distance. The Gpon repeater range extender equipement have been widely applied for long-distance transmission in various optical communication applications.

Features

Interface Features

- GPON interface: SC/PC optical interface, comply GPON/EPON standards
- RS232 interface(reserved port): RJ-45 format, 11520bps, 8-bit data, 1-bit stop
- Power interface: compatible with -48V and 220VAC two power supply modes

Technical Features

- Optical fiber access: connect to the Internet through GPON/EPON access
- In accord with IEEE802.3ah and Chinese communication industrial standard (YD/T 1475-2006);
- Extend PON system transmission range distance from 20km to 60km;
- Uplink: supports combination of different types of PON OLT interfaces and different physical connectors;
- Downlink: supports different types of PON ONU interfaces(shunt or ONU interface).
- Be compatible with different brand GPON system, for example, Huawei OLT, ZTE OLT, fiberhome, Nokia etc;
- 1U desktop equipment, small space occupation and low power consumption;
- 3R signal regeneration
- Supporting 1550nm and 1620nm dual wavelength storage with externally connected passive equipment.

Technical Specifications

GPON OEO transmission performance

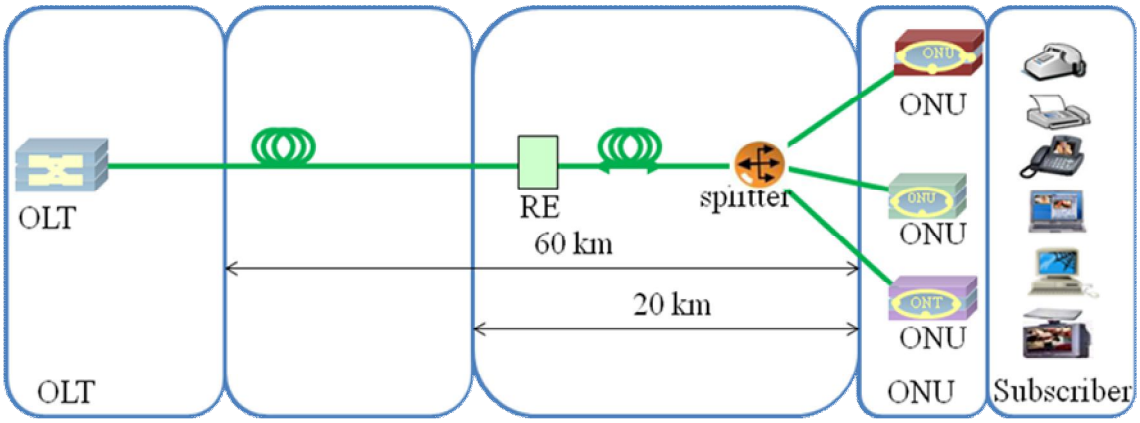
Downlink: supporting receipt and transmission of 2.488G/s continuous signals.

Uplink: supporting receipt and transmission of 1.25G/sburst-mode signals.

Supporting 60km/1:64 ODN network expansion

Where, OLT--->OEO BOX trunk supports 40km transmission;

OEO BOX--->ONU supports 20km/1:64 ODN power budget. Refer to the below figure for details:



Applying SFP optical interface module, connected as shown in the above figure.

In GPON system, it will not generate any error code to the system and have no adverse effects on transmission or performance.

Technical index parameters:

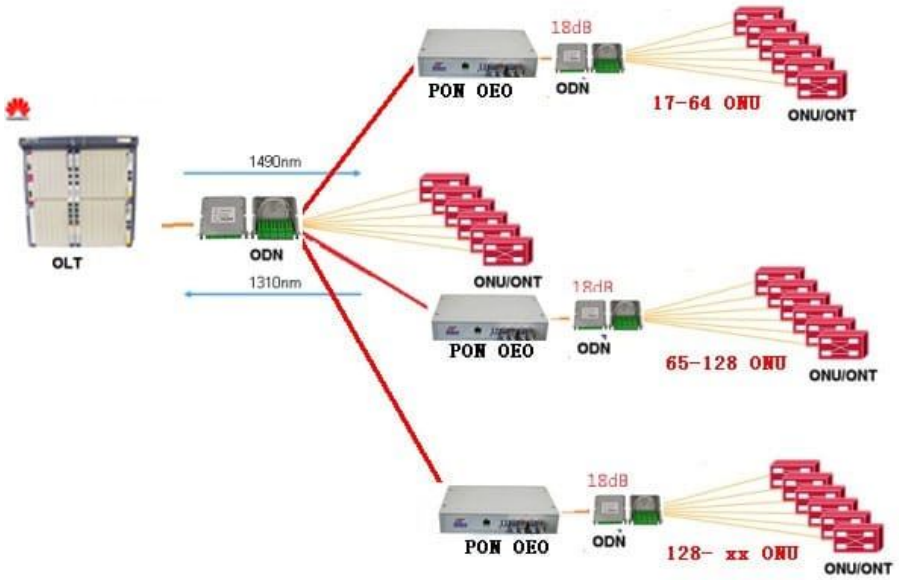
No.	Item	Value
1	Dimension	155mm x 133mm x 26mm (length x width x height)
2	Rated current	0.35A
3	Rated voltage	-48 VDC
4	Working temperature	-5℃~45℃
5	Working humidity	5%~95%
6	Output optical power of OLT	≥6dBm
7	Optical power of ONU	≧+1dBm
8	Receiving sensitivity of OLT	≤-28dBm
9	Receiving sensitivity of ONU	≤-28dBm
10	Burst-mode signal time	≦50ns
11	－Fast AGC attenuation	≧10dB

Front Panel Interface

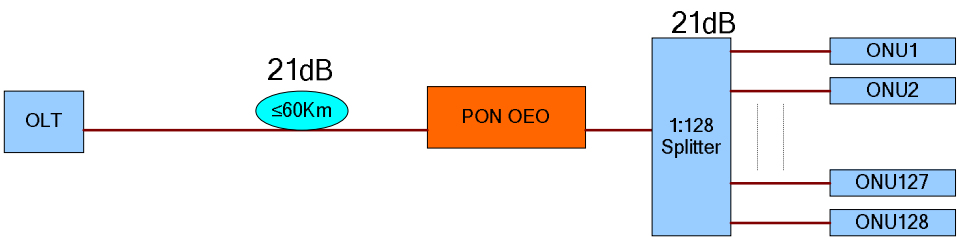


No.	Interface, Button	Description
1	EPON/GPON	Select the working environment of the device
2	-48V	-48V power interface，connected to the power cord of the device
3	To-OLT1/To-OLT2	GPON-ONU optical module interface, connected to the OLT direction
4	To-ONU1/To-ONU2	GPON-OLT optical module interface, connect to the direction of the optical fiber transfer box

Typical Application



1. Extend Transmission Distance



Note: GPON system shall support measurement of corresponding physical distance, and PON

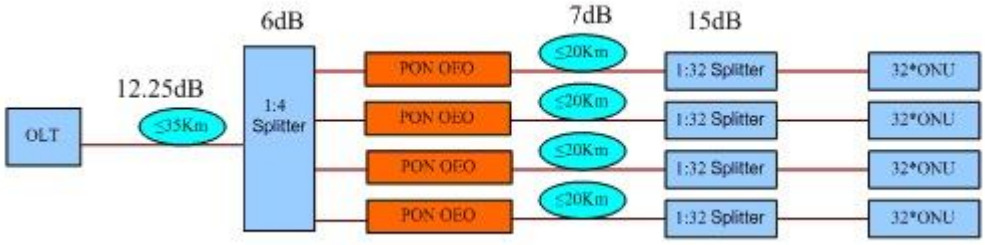
OEO device can only lengthen the distance on the basis of optical properties.

2. Extension of splitting ratio



Note: GPON system shall support online of corresponding 256 ONU, and PON OEO can only extend the splitting ratio on the basis of optical properties

3. Parallel application



Note: GPON system shall support measurement of corresponding physical distance and differential range, and PON OEO device can only lengthen the distance on the basis of optical properties.