

# **SON8010U GEPON SYSTEM ONU**

## **User Manual**

## Contents

### Chapter 1: Product introduction

1. Goods listing
2. Front panel instruction
3. Back panel instruction
4. Indication light instruction
5. Main feature
6. Technology

### Chapter 2: Installation and link

1. Attention items for setting

### Chapter 3: software upgrade

1. Preparation
2. Means and process

### Chapter 4: Remark

## Chapter 1: Product introduction

### 1. Goods listing

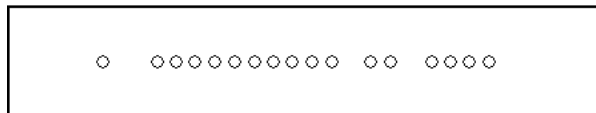
Open the package of fast Ethernet switch, and it contains the following:

A set of ONU, A power supply, a user's manual and a stream line

Please contact with supplier if above product and accessory is missing or damaged.

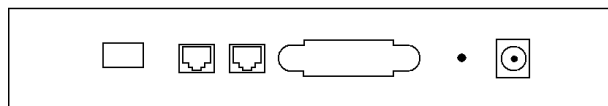
### 2. Front panel instruction

Front panel of ONU have 17 kinds of status indicators, as the following picture



### 3. Back panel instruction:

Back panel of ONU from left to right in turn is PON Port, two RJ45 Ports, a bunch port, a replacement switch and a power supply jack, as following illustrate.



### 4. Indication light instruction

The signification of indicator from left to right is as following:

| LED | Color | Status    | Description                                                                         |
|-----|-------|-----------|-------------------------------------------------------------------------------------|
| POW | Green | light     | the indicator will light when ONU is opened.                                        |
|     | --    | Non-light | Checking the TX or power supply adaptor, make sure power supply has connected well. |
| OPT | Green | light     | Checking the TX or power supply adaptor, make sure power supply has connected well. |
|     | --    | Non-light | Optic link is ok.                                                                   |
| HW  | Green | light     | Hardware is error                                                                   |
|     | --    | Non-light | Normal work status                                                                  |

|              |       |           |                                                                                       |
|--------------|-------|-----------|---------------------------------------------------------------------------------------|
| LLID1<br>-8  | Green | light     | Optic link is ok                                                                      |
|              | --    | Non-light | Checking optic link is ok or not                                                      |
| 100M         | Green | light     | Corresponding indicator will light when 100Mbps equipment connect with relevant port. |
|              | --    | Non-light | Non-light 100Mbps port does not joint equipment.                                      |
| LINK<br>/ACT | Green | light     | Light when equipment normally connect with 100Mbps ONU port                           |
|              | --    | glitter   | Glitter when the port receive or transfer data                                        |
| LINK100      | Green | light     | Light when 100Mbps equipment link to relevant port                                    |
|              | --    | Non-light | Non-light when 100Mbps port does not joint equipment.                                 |
| LINK1000     | Green | light     | Light when 1000Mbps equipment link to relevant port                                   |
|              | --    | Non-light | Non-light when 1000Mbps port does not joint equipment.                                |
| DUP/<br>COL  | Green | light     | Light when port is working base on full duplex mode                                   |
|              | --    | Non-light | Non-Light when port is working base on half duplex mode                               |
| ACT          | Green | Light     | Light when equipment normally connect with 100Mbps ONU port                           |
|              | Green | glitter   | Glitter when the port receive or transfer data                                        |

## 5. Main feature:

- Support single fiber WDM technology (downstream 1490nm, upstream 1310nm), only need to link with OLT together by one fiber, the transfer length's at least 20Km.
  - Bandwidth distribution has flexible, downstream share bandwidth by adapting encrypt broadcast transfer way for different user. Upstream share bandwidth by TDMA. Adjust automatically speed rate according to the line status. Support minimum speed rate adjustment base on 1kbps, and establish firm basic to fractionize business for telecommunication dealer.
  - Support generally team broadcast function. User can choose to achieve mutual video multimedia business by themselves name (such as VOD, Video conference)
  - Bind user, MAC address and IP address together in order to prevent account was embezzled hostility, ramble, virus spread abroad and attack of hostility data stream., so that can provide perfect safety guarantee measure for user.
  - Support multi LLID and single LLID configuration mean. Different user and business can adapt different LLID access. Guarantee user's different OOS grade.
- Installation and maintenance are very easy. Support differed local/long-distance and many means to manage configuration and upgrade of software. Work in partial port OLT. It can make long-distance malfunction diagnosis and orientation function come true, and greatly reduces maintenance workload.
- Network connects: Provide high speed data business for user.
  - FTTH connects: Provide high speed data business and CATV business for family user which already has speech copper line resource.
  - FTTB connects: adapt the mean of fiber to corridor or big corridor to provide high speed data business.

## Physics feature

- Physics dimension (length162 x width117 x high30, unit: mm)
- Power supply: DC 5V
- Function loss: 5W
- Temperature:
  - Operating temperature: 0~50°C
  - Storage temperature: -30~60°C
  - Relative humidity: 10~90% (non-condensation)
- Weight: <500g

**Technology guide line:**

Standard :IEEE 802.3ah、IEEE 802.3、IEEE 802.3u、IEEE 802.3x、IEEE 802.3z 、IEEE802.1d、IEEE 802.1p、IEEE 802.1q、IEEE 802.1x、RFC1155、RFC1157、RFC1112、RFC1113 and so on.

- A fixed 10/100M BASE-TX Port
- A fixed 10/100/1000M BASE-TX Port
- 128 digit AES Encrypt
- Support 8 logic link.
- Each Ethernet port support 64 Mac Addresses based on 802.1D Bridging
- Support 802.1Q VLAN
- Support 802.1P
- Support 40 stream (20 upstream/20 downstream)
- Inbuilt 1.25 MB buffering
- Support 802.3ah OAM
- Support 802.3ah transfer error and revise
- Inbuilt MIB

**Chapter 2: Installation and link****1. Attention item for setting**

Please insure that there is suitable work environment and enough free space before installing machine. Please note the installing requirement as following:

Power supply requirement: 100v-240v alternating current, power supply jack and equipment should be within 1.8m.

Machine should be putted in the ventilated and dry environment, there must leave 10cm free space from front to back of machine to airiness

Insure that around for machine has enough airiness port in order to diffuse quantity of heat, at the same time; don't put anything heavy on the converter.

**Chapter 3: Software upgrade**

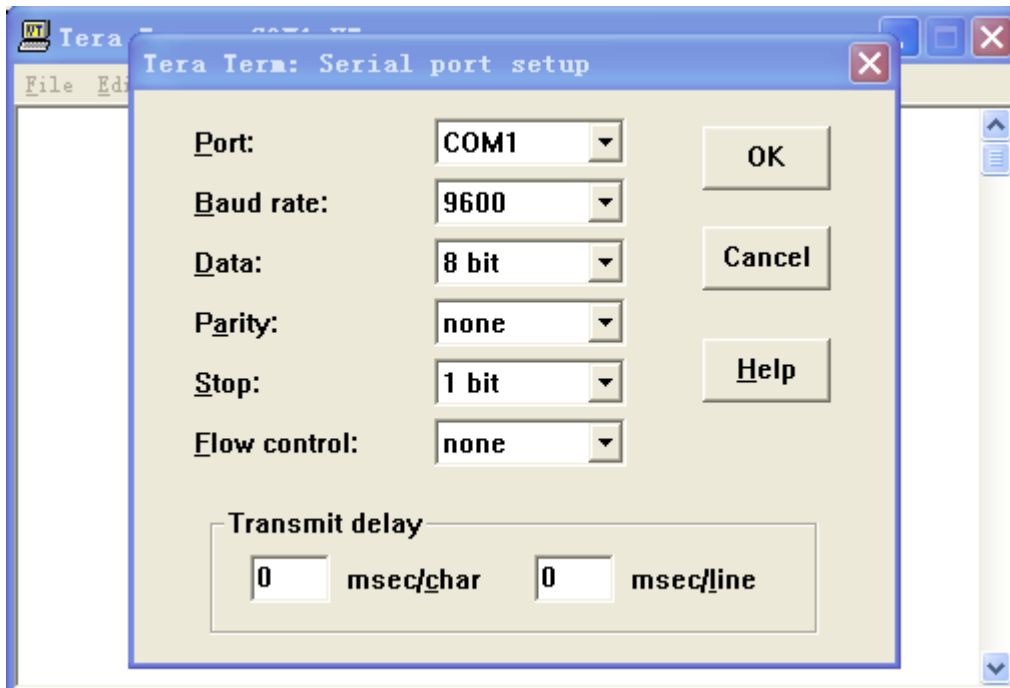
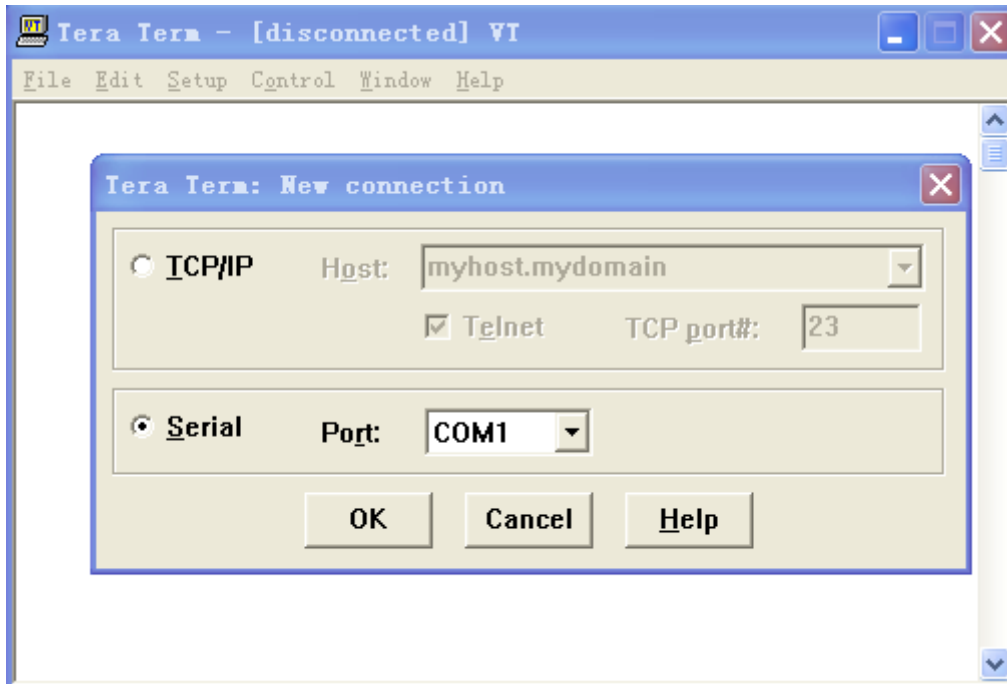
As below introduction of software upgrade is available for single ONU. If it is mixed with our OLT, It's better to operate it in the OLT's management section depend on professional people.

**3.1 Preparationz**

1. A PC with RS-232-C port, a RS-232 stream line.
2. prepare Tera Term software in PC.
3. Prepare upgrade document: Boot3713\_0093\_SPI\_8Mb.tkf, App3713\_R132\_SPI\_8Mb.tkf, Pers3713\_R132.tkf

**3.2 Means and process:**

1. Start PC, and click "Tera Termpro", then start the upgrade software.
2. Set software, as following chart:



3. Connect ONU with relevant bunch port on the PC RS-232, then turn on the power, as following chart:

```

Tera Term - COM1 VT
File Edit Setup Control Window Help
TK3713 BOOT 0.93 Dec 06 2005 14:56:11 Chip: 3713 A0050225
Mode: Boot
.....
TK3713 APP 1.32 Jan 08 2007 15:47:51 Chip: 3713 A0050225
Mode: App Normal
3713/>
TK3713 BOOT 0.93 Dec 06 2005 14:56:11 Chip: 3713 A0050225
Mode: Boot
.....
TK3713 APP 1.32 Jan 08 2007 15:47:51 Chip: 3713 A0050225
Mode: App Normal
3713/>

```

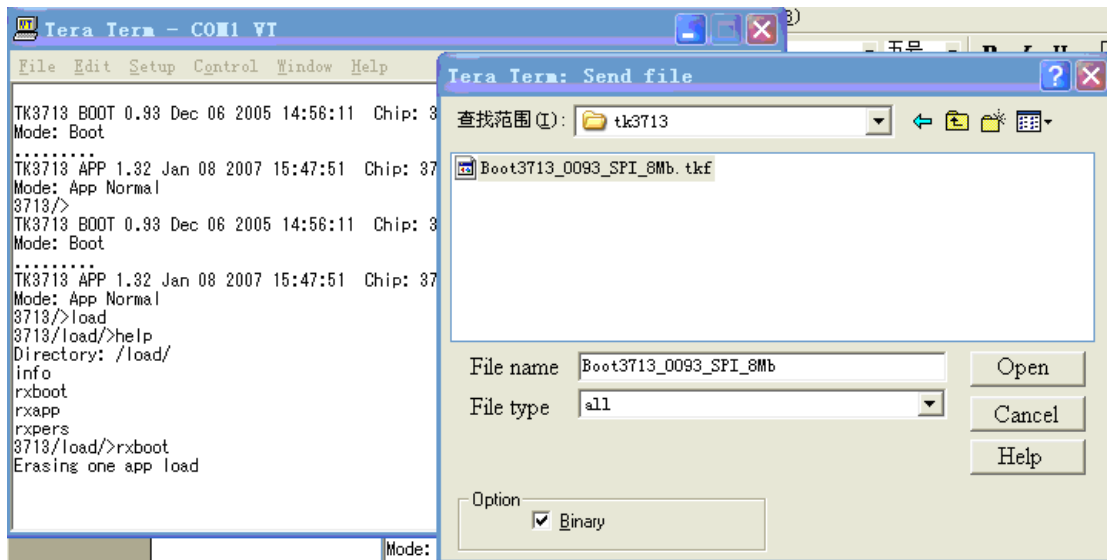
4. As the dos prompt shown above, input load order as following chart:

```

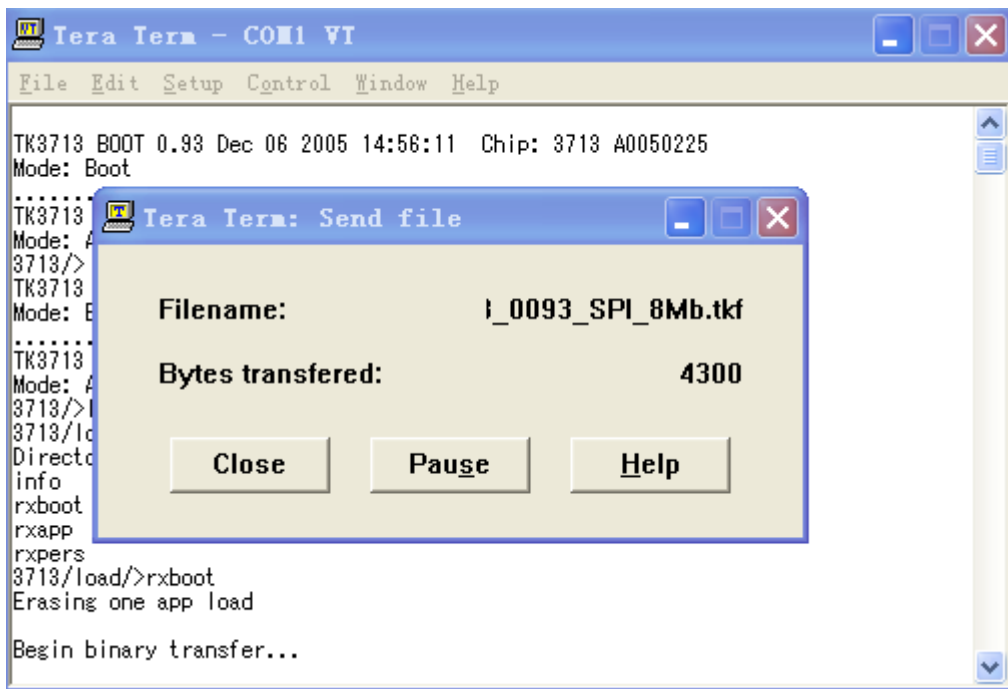
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TK3713 BOOT 0.93 Dec 06 2005 14:56:11 Chip: 3713 A0050225
Mode: Boot
.....
TK3713 APP 1.32 Jan 08 2007 15:47:51 Chip: 3713 A0050225
Mode: App Normal
3713/>load
3713/load/>help
Directory: /load/
info
rxboot
rxapp
rxpers
3713/load/>

```

5. Firstly, upgrade Boot code, as following dos prompt input "rxboot" click the "file" and choose "send file" , then "Boot3713\_00XX\_SPI\_8Mb.tkf" you want to upgrade, as following char:



Click “open”, start to upgrade”bootcode”, as following chart:



6. As above method, upgrade “app”, “pers” in turn. Input “rxapp” order while upgrade “app” choose “App3713\_Rxxx\_SPI\_8Mb.tkf” file, input “rxpers” order when up grade “pers”, choose “Pers3713\_RXXX.tkf” file.
7. After finishing the upgrade. Pls restart ONU to check if the status is ok or not..

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