

User Manual

PON OLTSeriesPON8510

Headquarters: No. 25, Alley 15, Lane 120, Sec. 1. Nei-Hu Rd, Taipei 114, Taiwan TEL: 886-2-26583000 FAX: 886-2-26583232

Beijing Branch: 3F, A Building, 113 Zhi Chun Lu, HaiDian District, Beijing, China Zip Code: 100086 TEL: 86-10-62522081~87 FAX: 86-10-62522077 Version: 1.0 Date: 2007/11/16 P/N: 07008-00105

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About This Manual

This section guides users on how to use the manual effectively. The manual contains information needed to install, configure, and operate TAINET'S PON OLT Series. The summary of this manual is as follows:

Chapter 1:	Overview
Chapter 2:	Specification
Chapter 3:	Basic Operation
Chapter 4:	More Advanced Configuration
Chapter 5:	Maintenance
Chapter 6:	Monitor
Appendix A:	Console PIN Assignment
Appendix B:	Command Line Mode

Symbols Used in This Manual

3 types of symbols may be used throughout this manual. These symbols are used to advise the users when a special condition arises, such as a safety or operational hazard, or to present extra information to the users. These symbols are explained below:

Warning:

This symbol and associated text are used when death or injury to the user may result if operating instructions are not followed properly.



Caution:

This symbol and associated text are used when damages to the equipment or impact to the operation may result if operating instructions are not followed properly.



Note:

This symbol and associated text are used to provide the users with extra information that may be helpful when following the main instructions in this manual.

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Chapter 1. Overview

1.1 Overview

"Ethernet Passive Optical Network" (hereafter called "EPON Network") comprises an Optical Line Terminal (OLT) system using its individual OLT to interconnect with one or more specific groups of Optical Network Units (ONUs) via a corresponding number of Passive Optical Distribution Networks (ODNs) to construct a broadband point-to-multipoint access network between central office and customer premises. A Server Provider can provide the broadband triple play services by way of the EPON Network, such as high-speed Internet access, VoIP and IPTV services. The PON network diagram is as shown as Figure 1-1.



Figure 1-1 PON network structure

There are two modules can be inserted into the OLT device, each module has four PON interfaces and four NNI (Gigabit Ethernet) interfaces. The maximum capacity of OLT device is up to eight NNI interfaces and eight PON interfaces.

Chapter 1 Overview

The NNI interface of OLT is used to uplink to core network through physical GE (Gigabit Ethernet) link. One PON interface connects OLT to splitter through an optical fiber and each splitter can be divided into 16 or 32 optical links each connected with one ONU. Subscriber's network can be connected to the UNI interface of ONU device by physical FE (Fast Ethernet) medium.

On the right side of front panel, there is a MPU module with two management ports and craft port for OLT as well as ONU devices configuring. Through the management ports (MGMT 1 or MGMT 2) on the MPU, administrator is able to configure the device by web interface mode. The pin assignment of craft port is as Appendix A.

The LEDs of front panel indicate the status as following:

LED	Function	
PWR (green LED)	When OLT power is on ,light PWR LED	
ALM (red LED)	When power or fan fail, light ALM LED	
NNI (GE) interface *4	GE port for NNI link (1~4 ports)(w/LNK & ACT LED)	
Management interface*2	LAN port for management (w/LNK & ACT LED)	
PON Link (green LED)*4	Indicating OLT PON port link (1~4 ports)	

Table 1-1 LEDs status indication

There is an RST button on each module to reset its configurations to default values.



Figure 1-2 Front panel of OLT device



Figure 1-3 Rear panel of OLT device

The power requirement of OLT device is ether AC or DC.

Chapter 2. Specification

2.1 PON Interface

Table 2-1 PON interface

Item	Parameter
Transmitter Center wavelength	1490nm(1480 to 1500 nm)
Transmitter Spectrum width	Compliant with IEEE 802.3ah
Transmitter Average Launched Power	+2~+7 dBm
Receiver Center wavelength	1310nm(1260 to 1360 nm)
Receiver Minimum Sensitivity	-28dBm
Receiver Input Saturation Power	-6.5dBm
(Overload)	
Connector type	SC
Data rate	1.25Gbps
Transmission distance	20Km
Transmission method	Single fiber, bi-direction transmission
	(2-wavelength WDM)

2.2 NNI Interface

Table 2-2 NNI interface

ltem	Parameter
Supported standards	Support auto-negotiation, 1000Base-T Full duplex only
Number of ports	4
Connector	RJ45
Type of cable	Cat.5e , auto MDI/MDI-X

2.3 Management Interface

Table 2-3 Management interface

Item	Parameter
Supported standards	Support auto-negotiation, 10/100 Base-T
Number of ports	2
Connector	RJ45
Type of cable	Cat.5 , auto MDI/MDI-X

2.4 Craft Interface

Table 2-4 Craft port

Item	Parameter
Supported standards	RS232C
Number of ports	1
Baud rate	38400
Connector	RJ45
Type of cable	Need RJ45 to DUB9 adapter

2.5 Feature and Specification

- Full compliance to IEEE 802.3ah (Clause 64 and Clause65)
- Complete processing and generation of MPCP control messages
- Point-to-point emulation between each ONU and OLT using LLID (logical link identifier)
- IEEE 802.1D compliance bridging
- Support of up to 8K MAC address learning table
- Configurable two QoS mode of operation : 802.1p and DSCP
- Traffic profile derived from the service level agreement (SLA) with two configurable parameters per ONU
 - Committed Information Rate (CIR)
 - Peak Information Rate (PIR)
- Support of eight priority classes
 - Strict priority (SP) or weighted round-robin (WRR) or SP+ WRR scheduling
- Intelligent Dynamic Bandwidth Allocation (DBA) algorithms
- Per-ONU based upstream traffic policing and downstream traffic shaping and policing
- Support multicast shaping feature to shape specified multicast group stream
- Support ONU remote upgrade
- Support IGMP v1/v2 protocol
- Support of up to 512 multicast group addresses
- In-band management based on Ethernet OAM frames and Ethernet frames
- Full compliance with IEEE 802.3ah OAM function
- Support per-ONU based OAM loopback
- Security management including 802.1x authentication (future)
- Support downstream traffic AES or Churning encryption (future)

Chapter 2 Specification

2.6 **Operation Environment**

2.6.1 **Power requirement**

AC: 90~264VAC, 50/60Hz, Input (90W)

DC: -36~-72VDC, Input (92W)

2.6.2 Temperature

Operating $+0^{\circ}C \sim +50^{\circ}C$

Storage -25° C ~ 75° C

2.6.3 Humidity

Operating	5% ~	95%	non-condensing
-----------	------	-----	----------------

Storage 0% ~ 75% non-condensing

Chapter 3. Basic Operation

Administrator can configure the device through web browser by connecting PC to the Management ports (MGMT1 or MGMT2) of device. The default IP address of device is 192.168.0.1. Administrator can modify the IP address through command line mode or web configuring mode. Please refer to Appendix B for configuring IP address through command line mode.

On web configuring mode, the default login user name and password for administrator are: **admin** and **admin**, respectively.

The connection between OLT and ONU device is shown as Figure 1-1.

NOTE: All the OLT and ONU devices must only be configured through the management port.



Figure 3-1 Login interface

There are three main menu pages on the web interface: **Configuration**, **Maintenance** and **Monitor**.

3.1 Configuration

- 3.1.1 System
- 3.1.1.1 General

For viewing the general information such as: software, hardware and firmware information, administrator can go to the **General** submenu.

System	Configuration	Maintenance Monitor		AutoLagout: 5 Minores	Logeut
OLT	Configuration > System >	> General			
	System Name	rest			
	Location	Taipei			
	Contact	nckchaes@yahoo.com	Apply		
	System Up Time	2007-11-06 09:57:52	24		
	Hardware Version	1.0			
	Firmware Version	1.026			
	Kernel Version	1.00			
	Number of OLTs Online	2			
	Number of ONUs	2 / 0 (Online/Offline)			
	Dual Power	Disable			

Figure 3-2 General information of system

3.1.1.2 Clock

To configure or modify the correct time and date of device, administrator can go to the **Clock** submenu. Administrator can Key in the correct information and press **Apply** button to activate it.

		Chapter 3 Basic Operation
System OLT ONU General Conce Host IP Users	Configuration Maintenance Meniture Configuration > System > Clock System Date 2007 99 28 System Time 14 10 12 Apply	AutoLogout: SMmets 💽 Logout

Figure 3-3 Clock of system

3.1.1.3 Host IP

To configure or modify the network IP of device, administrator can go to the **Host IP** submenu.

System		
	Configuration > System > Host IP	
ONU	10 Address 102 1168 10 118 Apply	
General		
Clock	Subnet Mask 235 kg 235 , 235 , 0 /000	
Host IP	Default Gateway 192 . 168 . 0 . 1 Apply	
Users	ApplyAll	
	IP Address192.168.0.118	
	Subnet Mask255 255 255 0	
	Default Gateway192.168.0.1	

Figure 3-4 IP address of system

3.1.1.4 Users

To change the default user name and password, administrator can go to the **Users** submenu. Three roles for different logging levels can be selected. Admin has not only the highest authority to configure the device but also change other users' name as well as password. **Operator** has the permission as Admin but not include changing other users' name and password. **User** only has the permission of reading.

System DLT Configuration > System Characteristics Clock Host IP Password Confirm	tem > Users			
NU New User General User Name Clock Password Host IP Password Confirm				
General User Name Clock Password Host IP Password Confirm	 			
Clock Password Host IP Password Confirm				
Host IP Password Confirm				
Users Role Adm	nin - Apply			
Users	ys			
No. User Name	Roles			
1 admin	Admin	Change Password Del	ee	

Figure 3-5 Users information of system

Chapter 4. More Advanced Configurations

4.1 Configuration

4.1.1 OLT

4.1.1.1 General

This submenu shows the general information of OLT module as Figure 4-1 shown:

	Configuration	n Maintenance M	onitor	AutoLogout: Disable	Logout
System	Confirmation > OLTS	Comonal			
OLT	Configuration > ULT > 0	seneral			
ONU					
6	Status	OLT - 1	OLT - 2		
General	Startup Time	2007-11-06 14:23:22	2007-11-06 14:23:21		
Dilage	Status	On Line	On Line		
Mutucasung	Version	Ν			
POR	Chip version	2.0	2.0		
PVID	Image version	02.00.03-1192179790) 02.00.03-1192179790		
QoS					
Traffic					
VLAN					

Figure 4-1 General information of OLT

4.1.1.2 Bridge

Administrator can select either OLT1 or OLT2 to configure static or dynamic FDB table. The dynamic FDB learning mode is active after enabling **Learning Enable** field and pressing **Apply** button. Administrator can manual adding one static **destination MAC** address, **VLAN ID** and **Egress Port** to the FDB table, It is active after press **Add** button.

NOTE: the range of **Aging Time** is 0~1048 seconds. The maximum entry of Static FDB is 32.

Chapter 4 More Advanced Configuration

ystem				
DLT	Configuration > OLT > I	Bridge		
INU				
	FDB Status	OLT - 1	OLT - 2	
General Bridge	Aging Time	300 Sec		
Multicasting	VLAN Learning	IVL -		
Port	Unknown Multicast Filter	Flooding 👻		
PVID	Learning Enable	Enable 👻	Ар	ply
QoS	New Static FDB Entry			
Traffic	VLAN ID (1~4094)	1096		
VLAN	Destination MAC	00 :0C :2A : 5E :10	:2E	
	Egress Port		Add	1
		÷		
	Static FDB Table			
	No. VLAN ID	Destination MAC	Egress Port	

Figure 4-2 Bridge table

4.1.1.3 Multicasting

Administrator can select either OLT1 or OLT2 to configure static or dynamic Multicast mode (default is dynamic mode). Administrator also can specify one or more NNI port(s) to enable Multicast traffic on the port(s). The system supports either IGMPv1 or IGMPv2 (default is IGMPv2).

Administrator can enable the function of multicast traffic shaping by enabling **Action** and specifying any desire limit rate. It is active after pressing **Apply** button.

System			
OLT 🧧	Configuration > OLT > I	Multicasting	
ONU			
	IGMP	OLT - 1 OLT - 2	
General	Action	Enable 👻	
Bridge	Version	IGMPv2 -	
Multicasting ····			
Port		O Static NNI - 1 □ 2 □ 3 □ 4 □	
PVID	Multicast Querier Mode	Dynamic	Apply
QoS	Shaping Group		
Traffic	Limit Rate(0~1000000)	800000 Kbps	
VLAN	Action	Enable 🔄	Apply
		Disable	
		Enable	

Figure 4-3 Multicasting management

4.1.1.4 Port

System				
DLT	Configuration > OLT > P	ort		
ии				
	NNI Port	OLT - 1	OLT - 2	
General	NNI - 1 Admin Status	Up 👻	Oper Status: Up	
Bridge	NNI - 2 Admin Status	Up 👻	Oper Status: Up	
Multicasting	NNI - 3 Admin Status	Up 🗸	Oper Status: Up	
PVID	NNI - 4 Admin Status	Up 💌	Oper Status: Up	Apply
QoS	PON Port			
Traffic	PON - 1 Admin Status	Up F	Oper Status: Up	
VLAN	PON - 2 Admin Status	Up 📕	Oper Status: Down	
	PON - 3 Admin Status	Up 💌	Oper Status: Down	
	PON - 4 Admin Status	Up 👻	Oper Status: Down	Apply

Administrator can force either NNI or PON port of OLT to be activated or not.

Figure 4-4 Port status of OLT module

4.1.1.5 PVID

To prevent any untagged packet from dropping by OLT, administrator can manually add VLAN ID to one or more specified NNI port(s). Any VLAN ID can not be added if it was not specified in the VLAN submenu, in advance. Please refer to the section 4.1.1.8.

NOTE: The VLAN ID administrator aim to insert must be added to VLAN submenu in advance and the range of VLAN ID is 1~4094.

System				
OLT	Configuration > OLT > P	/ID		
ONU				
	Port VLAN ID	OLT - 1	OLT - 2	
General				
Bridge	Each NNI PVID 1	1 2 1 3	1 4 1	
Multicasting				Annly
Port				
PVID		₹J		
QoS				
Traffic				
VLAN				

Figure 4-5 PVID information

4.1.1.6 QoS

On this submenu, administrator can select the QoS criteria mode, queue mapping, default CoS queue, default 802.1p value and the scheduling mode of frame in egress.

Administrator can select one active module to configure it by alternating OLT-1 or OLT-2. Administrator determines the QoS mode by selecting either **DSCP** or **802.1p** mode, and then press the **Apply** button.

For the QoS Mapping item, administrator can set the **DSCP** or **802.1p** to output queue mapping table. The three most significant bits of the packet's DSCP [0:2] value is used for the mapping (IP precedence) and the allowed range is 0~7. The greater number it is, the higher priority it has. Administrator can assign each priority ($0 \sim 7$) to the same or different queue.

Administrator can set the default **802.1p** value to a VLAN tagging packet. The default value is 0. The default **CoS** value is used for mapping a packet to an output queue when QoS mode is **802.1p** and the packet is untagged. The value of **CoS** can not be set when QoS mode was set to **DSCP** and the packet was not recognized as the IP packet. In this scenario, therefore, the value is referred to the default 802.1p value and its queue mapping.

For selecting the frame egress scheduling mode, there are three modes can be selected:

- Strict Priority: All top priority frames are egress a port until that priority queue is empty, and then the next lower priority queue frames are sent out.
- WRR (Weighted Round Robin): Weights from 1 to 255 can be selected for each of the 8 queues. The utilization of each queue is scaled to its own weight value.
- Hierarchical mode: queue 7 and 6 are in strict priority and remaining queues are in WRR mode.

System OLT	QoS	• OLT - 1	OLT - 2	6 Ju
ONU	QoS Mode			Apply
	QoS Mapping			
General	DSCP/802.1p QoS Priority:	0 1 2 3	4 5 6 7	
Bridge	Output Queue:	0 - 1 - 2 - 3 -	4 • 5 • 6 • 7 •	1
Multicasting	2			Apply
Port	Default CoS/802.1p		1	
PVID	Default DSCP/802.1p value	0 -	23	
QoS	Default CoS Queue	0 -	4	Apply
Traffic	Queue Scheduling		6	
VLAN		Strict Priority	7	
		© WRR (1 ~ 255)		
		0. 1.	2. 3.	
		4 5	6 7	
	Mode	4.[3.[
		C Hierarchical (1 ~ 255)		
		0 1	2 3	-
			6 Strict 7 Strict	
		.4.[0.[Amly
				1.1994)

Figure 4-6 QoS configuration of OLT

4.1.1.7 Traffic

Select one OLT entity, **enable** or **disable** the Flow Control then press **Apply** button to activate or inactivate the Flow Control function. It will generate 802.3x PAUSE frame on the NNI port after enabling **Flow Control**.

In DBA mode, there are three items can be selected:

- WorkConserv: As long as sufficient bandwidth is available in a cycle and there are no other contending ONUs, an ONU may get as much bandwidth as its demand. In other word, the bandwidth allocated to an ONU is not upper-bounded by its PIR value.
- NonWorkConserv: an ONU never get more bandwidth than PIR value even if there is spare bandwidth available.
- CBR: the CIR value is allocated on the each registered ONU even if its demand for this cycle is less than this value.

Chapter 4 More Advanced Configuration

System						
OLT	Configuration > OLT > Traffic					
ONU						
	Flow Control	○ OLT - 1 ○ OLT - 2				
General	Flow Control	Enable 👻	Apply			
Diluge	DBA					
Port	Mode	Hardware Dyna. Cycle Time 💌				
PVID	Algorithm	WorkConserv 💌	Apply			
QoS		WorkConserv NonWorkConserv				
Traffic		CBR				
VLAN						

Figure 4-7 Traffic configuration of OLT

4.1.1.8 VLAN

Administrator can add one VLAN ID to the specified NNI and/or PON port(s). The packet with a VLAN ID will be forwarded to the designated port assigned with the same VLAN ID or it will be drop if OLT didn't find any matching entries in the VLAN Table. For example: administrator aim to tag one **VLAN ID**: 3000 to any packets through **NNI**-3 and **PON**-3 ports. Therefore administrator keys in *3000* on the **VLAN ID** field and check **NNI**-*3* and **PON**-*3*. Finally, press the **Add** button to make it available.

NOTE: The maximum entry of VLAN table is 512.

Config	uration > OL	T > VLAN			
VLAN		0 (OLT - 1	OLT - 2	
	VL	AN ID 3000			
				=	
	Me	mber Don 1	21.31.41		
		PUN - 1 L	2∐ 3⊠41		
	Ta	agged Tagged 💌		Add	Modify
				£	
VLAN	Table				
No.	VLAN ID	PON Port	NNI Po	rt Tagged	
1	1	1234	1234	Untagged	Delete
2	1498	1	1	Tagged	Delete
-	4000		 ດ	Tonnod	Delete
	VLAN VLAN VLAN No. 1 2	VLAN VL VLAN VL Me Ta VLAN Table No. No. VLAN ID 1 1 2 1498	VLAN OLT > VLAN VLAN ID 3000 Member NNI - 1 Member PON - 1 Tagged Tagged VLAN Table No. No. VLAN ID 1 1 1 1 2 1498	VLAN OLT > VLAN VLAN ○ OLT - 1 VLAN ID 3000 Member NNI - 1 2 3 17 4 PON - 1 2 3 17 4 1 Tagged Tagged ▼ VLAN Table NNI - 1 2 3 17 4 No. VLAN ID PON Port NNI Po 1 1 12 3 4 12 3 4 2 1498 1 1	Configuration > OLT > VLAN VLAN ○ OLT - 1 ○ OLT - 2 VLAN ID 3000



Chapter 5. Maintenance

The main purpose of this menu is to do system maintenance such as firmware upgrading, configuration saving, system reboot...etc.

5.1 System

5.1.1 Firmware Upgrade

Please connect the TFTP server to the management port through Ethernet link, first. To upgrade the firmware of system, administrator has to specify the correct IP address of TFTP server and the file name of firmware, then, press **Apply** button.

	Configuration Maintenance Monitor
System	
OLT	Maintenance > System > Firmware Upgrade
ONU	
Firmware Upgrade	TFTP Server IP Address 192 . 168 . 0 . 200
Device Maintenances	Ramdisk File Name
Save Configuration	high states and states
Log	

Figure 5-1 Firmware upgrade

5.1.2 Device Maintenance

Press the **Apply** button to reboot the system or restore the system to default value.

	(Configuration	Maintenance	Monitor
System OLT	Maintenance	> System :	> Device Mainter	nances
ONU	Device Reset	Apply		
Firmware Upgrade	Restore Default	Apply		
Save Configuration		4		



5.1.3 Log

This submenu provides system log and download the log to one's PC. The system log is recorded when the **Log Enable** is set to **Enable** after pressing **Apply** button. Press the **Download** button to download the log information to administrator's PC.

System OLT	Maintenance > System > Log			
ONU	Log Configuration			
Firmware Upgrade	Log Enable	Apply		
Device Maintenances	Download Log Download			
Save Configuration	2			
Log				



5.1.4 Save Configuration

Go to this submenu to save configuration of OLT or ONU if any value was modified.

Chapter 5 Maintenance

	Configuration	Maintenance	Monitor
System			
OLT	Maintenance > System >	Save Configur	ation
ONU			
	Save Configuration Apply		
Firmware Upgrade			
Device Maintenances			
Save Configuration			
Loa			

Figure 5-4 Save configuration

5.2 OLT

5.2.1 Testing

Go to the OLT >>Testing submenu to test any ONU unit connected to the OLT entity.

-	Con	figuration	Maintenance	Monitor
System OLT ONU	Maintenance > 0 ONU: 00:90:bb:14:52:	OLT > Tes :f4 /	ting	
Testing	Select ONU Loopback			
	Size(60~1500)	60	Byte	es
	Count(1~99)	1		Apply
Testing	Loopback Size(60~1500) Count(1~99)	60 1	Byte	es Apply

Figure 5-5 Testing

Press << **Select ONU** >> button to select one ONU entity, which will be tested. On the list of ONU units, click one ONU you aim to test (it's MAC or Name will be displayed on bold) and return to the **OLT Testing** submenu. Press **Apply** button to see the testing result. Administrator can specify the size and count number for the testing.

		Configuration	Maintenance	Monitor	AutoLogout:
System					
OLT	Maintenance > ONU > List				
ONU	017.1	OLT.2	Offline		
	OLT-1 Online	OLI-2	Omme		
Testing					
Testing	Display by 💿	MAC C Name			
Testing	Display by 💿	MAC O Name			
Testing	Display by 💿	MAC O Name PON-1		PON-2	PON-3
Testing	Display by 💿	MAC C Name PON-1 00:90:bb:14:52:	f4	PON-2	PON-3

Figure 5-6 ONU selecting

The testing result will be shown as following if OLT got response from ONU unit:



Figure 5-7 Message of testing result

Chapter 6. Monitor

Administrator can view major event logs through the **Event Log** submenu.

Mointor	Mointor > Event Log					
Page 1 💌						
No.	Entity	Туре	Time			
1	ONU-00:90:bb:14:52:f4	On Line	2007-09-29:13:37:01			
2	ONU-00:90:bb:14:53:14	On Line	2007-09-29:13:37:01			
3	OLT-1-PON-1	PON port up	2007-09-29:13:36:59			
4	OLT-2-PON-1	PON port down	2007-09 9:13:36:56			
5	ONU-00:90:bb:14:53:14	Off Line	2007-09-29:13:36:56			
6	ONU-00:90:bb:14:52:f4	Off Line	2007-09-29:13:36:56			
7	ONU-00:90:bb:14:52:f4	On Line	2007-09-29:13:36:48			
8	ONU-00:90:bb:14:53:14	On Line	2007-09-29:13:36:48			
9	OLT-2-PON-1	PON port up	2007-09-29:13:36:46			
10	OLT-2-PON-1	PON port down	2007-09-29:13:36:41			
11	ONU-00:90:bb:14:53:14	Off Line	2007-09-29:13:36:41			
12	ONU-00:90:bb:14:52:f4	Off Line	2007-09-29:13:36:40			
13	ONU-00:90:bb:14:53:14	On Line	2007-09-29:13:36:25			
14	ONU-00:90:bb:14:52:f4	On Line	2007-09-29:13:36:25			
15	OLT-1	On Line	2007-09-29:13:36:23			
16	OLT-2	On Line	2007-09-29:13:36:22			
17	SYS-PWR-2	Power failure	2007-09-29:13:36:13			

Appendix A Console Pin Assignment

RJ-45 to DB-9 pin assignment is as following:

Pin Number	Description	Note
1	NC	
2	NC	
3	RXD	DUB9 pin2 (Output)
4	GND	DUB9 pin5
5	TXD	DUB9 pin3 (Input)
6	NC	
7	NC	
8	NC	

Table A- 1 RJ-45 to DB-9 pin assignment

Appendix B Command Line Mode

Administrator can login to PON 8510 through craft port(Speed:38400, Data bit: 8, Parity: No, Stop bit: 1, Flow control: No) on the front panel to configure the device. The default user name is: **root** and password is: **admin**.

There are two items can be specified on the command line mode. The first one is to specify the network configuration. Administrator can specify the network configuration of the device before entering the mode of web setting interface.

For example:

EPON login: root

Password: *****

GEPON

login[54]: root login on `tty'

1) Modify Network Configuration

2) Show Event Log

3) Restore to default

>1

IP Address (172.16.5.191):192.168.0.118

Netmask (255.255.255.0): 255.255.25.0

Appendix B Command Line Default Gateway (172.16.5.254): **192.168.0.1**

New system configuration

IP Address: 192.168.0.118

Netmask: 255.255.255.0

Default Gateway: 192.168.0.1

Apply these settings? (Y/N): y

Apply system configuration succeed

Save settings? (Y/N): y

Saving system settings ok.

Bye!

> The second item is to show event logs of the device.

1) Modify Network Configuration

2) Show Event Log

>2

n: last n records from now

n=**10**

Event log total 10 entries: timestamp entity type 2007-09-28:13:40:04 OLT-2-NNI-3 NNI port up 2007-09-28:13:40:04 OLT-2-NNI-4 NNI port up 2007-09-28:13:40:04 OLT-2-PON-1 PON port up

- 2007-09-28:13:40:04 OLT-1-NNI-1 NNI port up
- 2007-09-28:13:40:04 OLT-1-NNI-2 NNI port up
- 2007-09-28:13:40:04 OLT-1-NNI-3 NNI port up
- 2007-09-28:13:40:05 OLT-1-NNI-4 NNI port up
- 2007-09-28:13:40:06 ONU-00:90:bb:14:53:14 On Line
- 2007-09-28:14:26:15 SYS-FAN-1 Fan fail
- 2007-09-28:14:26:39 SYS-FAN-1 Fan normal

Bye!

- > The third item is to restore configuration to default.
- 1) Modify Network Configuration
- 2) Show Event Log
- 3) Restore to default

>3