GFA8000
Open training documentation

GFA8000 Opening training

- **Opening knowledge introduction**

- **GFA8000 opening precautions and troubleshooting methods**

PART 1

Opening knowledge introduction

GFA8000 product picture (front)

GFA8000 product picture (back)

GFA8000 Installation environment introduction

- Size （mm）

 482 (19 inches) × 575 (13U high) × 420

Weight

 23KG， Not counting packaging, bare metal frame

Power consumption The whole machine is fully equipped with less than or equal to 1600W

Support power type

 220V or -48V, 1:1 redundant power supply for dual power supplies

GFA8000板卡介绍

Nro	Board Type	Features	Description
1	GFA8000-SW-A0	Switch Board	12*8*10GE, can only be inserted in slot 7/8 Cold start 7 is ACT
2	GFA8000-8XET	Uplink Board	8*10GE port, can use Gigabit optical port
3	GFA8000-PWU-A0	Power Board	Power board inserted from the back, can be used independently when powered by -48V
4	GFA8000-PWU220-A0	Power conversion board	Required conversion module for 220V power supply
5	GFA8000-16GEPON-A0	Service card	GEPON service card, support 16*GEPON port, 1:128
6	GFA8000-8XEP-B1	Servide Card	10GEPON service board, 8*10GEPON board card, 8 XFP interface.1:256
7	GFA8000-16GPON-A0	Service Card	GPON service card, support 16*GPON port, 1:64

OLT Start initial configuration (1)

- Connect to the console port of the OLT.

- Connect the COM port of the computer to the "console" port on the OLT main control board with the console cable that comes with the OLT.

- Start · Program · Accessories · Communication · Super Terminal · Enter the name · COM1 (self-use serial port) · 9600, 8, no, 1, no · OK Through the above settings should be able to manage to the OLT

- Initialize the necessary configuration

- GFA8000> //view node

- GFA8000>en //Enter the configuration node

- GFA8000(config)#int vlan manage 2 //Create a vlan whose name is manage and whose id is 2

- GFA8000(vlan-manage)#add port 14/4 untagged //Add a port for this vlan

- GFA8000(vlan-manage)#ip address 192.168.2.130/24 //Set the vlan interface address

OLT deployment initialization configuration (2)

- Enable SNMP management
- GFA8000(config)#service snmp enable //Enable SNMP management service
- GFA8000(config)#service snmp trap enable //Enable the OLT to send out TRAP information
- GFA8000(config)#config snmp trapreceiver add 192.168.2.75 version v2c
- / / Set the trap server address and version to accept trap information
- GFA8000(config)#show run snmp //View the configuration of snmp
- GFA8000(config)#show services //View snmp service status
- Enable loop detection
- GFA8000(config)#loop-detection enable //Enable loop detection globally
- GFA8000(config)#loop-detection control enable //Enable global loop control
- GFA8000(config)#show loop-detection config //View loop configuration
- GFA8000(config)#show loop-detection status //View loop alarm information
- Save verification configuration
- GFA8000(config)#save //Save OLT configuration
- GFA8000(config)#show running-config //Verify the current running configuration
- GFA8000(config)#show config-file //Verify the saved configuration

OLT deployment initialization configuration (3)

- Preparation for the opening of the current network business
- After the OLT configures the necessary management information, the most important task is to open the service;
- Understand the model and configuration of upstream and downstream equipment of our EPON system;
- Communicate fully with customers to understand customer needs;
- First, we can judge whether we can achieve it or not. If we have problems that we are uncertain about, we should first communicate with the company;
- Develop a configuration plan;
- Configuration verification
- Configured in the live network configuration environment;
- Please record when there is an abnormality;
- Save after configuration is complete;
- Restart the verification and all configurations take effect when there are conditions;

OLT operation and maintenance main command

- OLT configuration to view related operations
- GFA8000(config)#show forward-entry //View the OLT mac address table
- GFA8000(config)#show fdb mac 12/1 //View the mac address table of a pon port
- GFA8000(if-pon12/1)#show statistics //View port statistics
- GFA8000(config)#show running-config //View the currently running configuration file
- GFA8000(config)#show system resource //View system resource usage
- GFA8000(config)#show slot //View the status of the board in place
- GFA8000(config)#show port-link {<1-14>}*1//View the up/down status of all ports or a port
- GFA8000(config)#erase config-file //Clear the configuration file
- GFA8000(config)#show alarm log today //View today's alarm log
- GFA8000(config)#show loop-detection status //Check if there is a loop currently
- GFA8000(config)#show current alarms //View important alarms
- GFA8000(config)#show version //View current version

ONU operation and maintenance main command

- ONU node related configuration
- GFA8000(config)#onu 12/1/1 //Enter the onu node
- GFA8000(epon-onu12/1/1)#vlan dot1q_add 100 //Add vlan 100 on onu
- GFA8000(epon-onu12/1/1)#vlan dot1q_port_add 100 1 2 //Add the first port to vlan 100 in untag mode
- GFA8000(epon-onu12/1/1)#vlan dot1q_show //View the current vlan configuration of onu
- GFA8000(epon-onu12/1/1)#vlan port_isolate 0 //Cancel the ETH port isolation function of onu
- GFA8000(epon-onu12/1/1)#port en 1 0 //Disable the corresponding eth interface
- GFA8000(epon-onu12/1/1)#port ingress_rate 1 0 10000 drop 12k //Set onu first port speed limit 10M
- GFA8000(epon-onu12/1/1)#atu show //View the mac address table of onu
- GFA8000(epon-onu12/1/1)#mgt config save //Save onu configuration

PART 2

- **GFA8000 opening precautions and troubleshooting methods**

GFA8000 opening precautions (take the V1R15B132 version status as an example)

- 1. Support 8XET, new and old 12EPON, 16EPON, new and old 4EPON. The ONU connected to the 16EPON needs to be upgraded to a supported version. 16epon needs to use the latest matching delivery module (matching the optical module before March 13 may have problems)

- 2- This version supports the second version of fault location (based on inner and outer VLAN positioning, including flexible QINQ and PON-QINQ rules). Conditional restrictions on flexible QINQ positioning: Must be an ingress rule, and match both inner-vid and ingress-port, and add outer VLAN, and apply.

- 3- The external network port is available. You need to ensure that sysmac is consistent with the mac under boot.

- 4-8XET supports 10G and Gigabit optical ports. The default is 10G auto disable. If you need to configure speed 1000 only for Gigabit, do not configure auto-negotiation.

- 5-Requires the 8000 version of the network management system

- 6-8000 new FPGA file, the application should ensure that the FPGA file is the release version.

- 7- No need to manually set the jumbo value of the upper port and pon port, the default is the maximum value 1596

GFA8000 opening precautions (taking the V1R15B132 version status as an example))

- 8- For the GFA8000, if the 8-slot is the master control and the 7-slot is the standby master, download the BOOT (add all parameters), app, DBA, FW, sysfile, and onu-profile files to the OLT. The system will automatically synchronize and does not require manual synchronization. For the OLT-config file, you need to manually execute the synchronization command after the download. Otherwise, the configuration information will be lost after the restart.

- 9-Change from 6900 to pon on 8000, you can directly synchronize successfully, but the time is long, it takes 10~15 minutes, and the worst case takes about 20 minutes.

- The 10-8000 master is more laborious to insert, so you need to ensure that the board is plugged in to prevent loading.

- The 11-8000 main control board has a large heat, and the fan mode is fast to prevent the main control from burning out (default is fast)

- 12-16epon does not support pon protection switching

- 13- This version adds a hot patch feature that expands the means of locating problems.

GFA8000 troubleshooting order (on-site opening)

- GFA8000(config)#show alarm log //View the alarm log information
- GFA8000(config)#show alarm log important //View important information in the alarm log
- GFA8000(config)#show running-config //View the current configuration file
- GFA8000(config)#show onu-list //View onu registration list
- GFA8000(config)#show onu-version //View the version of onu
- GFA8000(config)#show version //View current version and hardware information of olt
- GFA8000(config)#show start time //View the running time of each board
- GFA8000(config)#show system resource //View system utilization
- GFA8000(config)#show task //View the status of each task
- GFA8000(config)#show except-log //View the exception log
- GFA8000(config)#show environment-monitor //View current device temperature, fan and other information
- GFA8000(config)#show local board //View the status of the current board

GFA8000排故命令（现场开通）

- GFA8000(config)#show nvram syslog //View the records in nvram
- GFA8000(config)#show flash syslog list //View the list of log records in flash
- GFA8000(config)#show flash syslog xxx //View the log record numbered xxx
- GFA8000(config)#show local reset-info //View the startup information of this board.
- GFA8000(DEBUG_H)> switch 5 //Enter the serial port of 5 slots
- -> tt tHot //View tHot's task stack

Thank you! !

Please don't regret your opinion -_-!!!