GPON Solution >> OLT >> U9264H

Overview

The U9264H is a high density, high capacity, and multi-functional GPON Optical Line Terminal. The U9264H, built on a high capacity Layer 3 switch platform, is an efficient and cost effective solution optimized for service providers to offer reliable Triple Play Service (TPS) over GPON.

The U9264H has total 14 slots that can accommodate 2 SCUs (Switch & Control units), 2 PSUs (Power Supply Units), 2 LIUs (Line Interface Units), and 8 PIUs (PON Interface Units). The LIU slots of The U9264H can accept 8-port 1G card, 2-port 10G card, or 4-port 10G card up to 2. The PIU slots can accept 8-port 2.5G GPON up to 8.

The U9264H adapts full redundancy design of SCU and PSU to improve availability and reliability of system. On top of that, The U9264H offers Layer 2 switching, Layer 3 routing, QoS, OAM, and Security features as well.

The U9264H can accommodate maximum 4096 subscribers in a typical GPON deployment with 1:64 splits, since it can support total 64 PON ports.

- Future broadband capable platform of multi slot chassis
- Easy and flexible deployment
- Non-blocking architecture
- All Front Access
- Packet processing functionalities for IP-based “Triple Play Service” delivery
- 19 inch Chassis with 8 RU Height, 14 slots
- 960Gbps switching capacity,
- 64 GPON ports
- 2 x SCU (Switch & Control Unit), 8 x PIU (PON Interface Unit), 2 x LIU (Line Interface Unit), 2 x PSU (Power Supply Unit)
- GPON Optic : Support of Laser Class B+/C+
- PON Ranging : typical 20Km / Max 60Km

Features

- System Architecture
  - Medium sized Chassis : 14 slots, 8RU, 19 inch mounting
  - 3 FAN Module
  - AC / DC Power Module(Redundancy)
- Slot configuration
  - Total 14 slots: 2 PSU slots / 10 data slots / 2 Switch & CONTROL slot
- PON interface
  - Max. 8 slots: up to 64 PONs
  - All Cards and Modules Hot-swapping
- Network interface
  - Max. 2 slots: 8-port 1GE / card or 2/4-port 10GE / card
- Subscriber Capacity
  - GPON: 64 GPON Max. 4096 subscribers(1:64 split)
- Switching capacity: 960Gbps/310Mpps
- Switching Fabric: 800Gbps(80G per slot)
- Fully Redundant System
  - Fabric and Control card
  - Power Module (AC/DC)
- Support Various SFP/XFP transceiver
- Management :1 port 100Base-Tx & RS-232
- Module based High Capacity L3 switching GPON Common Platform
  - 2 slots Power Supply Unit (PSU)
  - 8 slots PON Interface Unit (PIU)
  - 2 slots Line Interface Unit (LIU)
  - 2 slots Switch & Control Unit (SCU)
- Various Line Interface Unit (LIU)
  - 2/4 port 10GE module (Up to 8 X 10GE ports, 2 slots)
  - 8-port 1G module (Up to 16 X 1GE ports, 2 slots)
- PON Interface Unit(PIU)
  - 8-port GPON module (Up to 64 GPON ports, 8 slots): Max. 4096 TPS Subscriber per chassis (1:64 split)

Specifications

Hardware

Product Specification	
Slot capacity	14 slots
Full-duplex Switching Capacity	960G
System Throughput	310Mpps (With LIU 2X)
Full-duplex Capacity per slot	80G per slot
Physical	437mm(W) x 354.4mm(H) x 295mm(D) : 19inch Rack Mount, 8RU height
Chassis per rack	4 chassis(2200mm : 45RU)
Electrical specifications for the AC/DC power	
Total power Consumption	520 W
Rated input voltage	210~240VAC(47~63Hz), -48VDC
Environmental conditions	
Temperature	0℃~ 50℃ (Operation), -20~60℃ (Storage)
Humidity	-30℃~ 70℃
Management Interfaces	RS-232C, 10/100 Base-T

Software

Features	Description
PON Features	Full ITU-T G.984.x GPON OLT functionality. 4K port-ID and 1K alloc-ID Support ITU-T G.984.4 ONT OMCI Multiple T-CONTs per ONU (ONT) Wire speed processing On-chip embedded reassembly buffer per GPON channel 2.5 Gbps downstream rate on each PON channel 1.25 Gbps upstream rate on each PON channel Supports up to 512 Alloc-IDs per GPON channel Internal GPON SERDES and Burst CDR 128-bit Advanced Encryption Standard (AES) encryption engine for PON security and privacy with up to 128 unique keys. Flexible optical transceiver interface for multiple vendor support. ITU-T G.984 compliant Forward Error Correction (FEC) encoding and decoding for an improved link budget. Hardware-based configurable Dynamic Bandwidth Allocation (DBA) IEEE 802.1D bridging: 8K MAC Address learning and aging on local interface IEEE 802.1p with four priority queues IEEE 802.1Q VLAN mapping
L2 Features	TR-156 Compliant Max 32K Mac Address Table Max 4K VLANs, 802.1Q Support Private VLAN 802.3ad Link Aggregation Load-balancing based on source and destination MAC/IP 802.1d Spanning Tree Protocol(STP) 802.1w Rapid STP(RSTP) 802.1s Multiple STP(MSTP) Rapid Per VLAN Spanning Tree Plus(RPVST+) IGMP v1/v2/v3, snooping Max 4K Group Support Static Mac Address Port Mirroring
L3 Features	Static Routing RIPv2(IPv4) OSPFv2(IPv4) BGP4(IPv4) VRRPv2(IPv4) PBR(Policy Based Routing) ECMP Max 8 Routes Max 12K Routing Entries PIM-SM PIM-SSM IGMP v2/v3 IGMP Proxy Max 1K Group Support PIM-ECMP Support IGMP Join Filter/Count Limit

	DHCP Server/Relay Blocks illegal IP users DHCP Snooping DAI(Dynamic ARP Inspection)
QoS Features	Layer 2: Source/Destination MAC Address, VLAN ID, 802.1p Field Layer 3: Source/Destination IP Address, DSCP Layer 4: Source/Destination TCP/UDP Port Marking/Remarking: DSCP, 802.1p Packet Drop Mirroring/Redirect to Port Metering, Rate Limiting with 64Kbps unit 8 queues per port SPQ, DWRR, Hybrid (SPQ+DWRR) Egress rate shaping per port/queue with 64Kbps unit
Security Features	Netbios, NBT filtering DHCP filtering Packet filtering with ACLs Illegal Source MAC address block ALL 0's, 1's, System Mac, Default G/W Mac Illegal Source IP address block Broadcast, DLF, Multicast packet rate control Source MAC based excessive traffic Block Static Mac address Mac filtering Max Mac Number limit Port based Self Loop Detect
System Security Features	RADIUS, TACACS+ Telnet, SNMP with ACL CPU Packet Filtering with ACL CPU overload Packet traffic sender block TCP sync attack protection with sync cookies CPU packet rate-limit Management packet priority control Gratuitous ARP
Management Features	Telnet, SSH, SNMP v1/v2/v3 GUI Based Management through EMS Remote OS Upgrade using TFTP, FTP Dual Flash Image Remote Configuration Data Download NTP Packet monitoring with TCPDUMP RMON, Syslog Type based Port, CPU Packet statistics