

G8F Series

16 Port High-density Rack-mounted GPON OLT



Overview

G8F GPON series platforms are scalable multi-services 1RU high-performance OLT (optical line terminal) with high-density 10G switching functionality. These OLTs provide network operators and service providers with a flexible and central management point for GPON services in Fiber to The Home/Business (FTTH and FTTB) networks.

G8F models fit in a standard 1U rack mount, and features 8 or 16 PON ports with 4 GE combo ports and 2 x 10G SFP+ port for uplink data transmission. Each PON port supports uplink 1.25 Gbps/ downlink 2.5 Gbps PON transmission rate, efficient bandwidth usage, and Ethernet services to help carriers provide reliable services to their users.

G8 series GPON platforms seamless cooperate with C-COR routing and switching products. Combined with C-COR Video Overlay package, G8 series offers a perfect end-to-end FTTX solution for advanced video, voice, and data services for small and large networks.

Features

- 1RU GPON OLT for FTTx Applications
- ITU-T G.984/G.988 compliant
- 8/16 x GPON ports
- 4 x gigabit Combo ports
- 2 x 10G SFP+ ports
- 140G switching capacity
- Advanced QoS, Multicast, and Network Security
- Low power consumption
- Low operating cost
- SNMP/Telnet/SSH/WEB Remote Management

Mechanical

Dimensions (Height x Width x Depth)	44 x 440 x 380	mm
Weight (each)	3,000	gms



DATA SHEET

GPON NETWORKS

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 Issued. March 2017

Due to ongoing product
 development, technical
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Parameter	Description
System Capacity	
Switching Capacity	140 Gbps
Forwarding Capacity (IPv4/IPv6)	104 MPPS
PON Features	ITU-TG.984.x standard Maximum 20 Km PON transmission distance access 128 terminals for single fiber PON Uplink and downlink triple churning encrypted function with 128Bits ONU terminal legitimacy certification, report illegal ONU registration DBA algorithm, the particle is 1Kbit/s Standard OMCI management function ONU batch software upgrade, fixed time upgrade, real time upgrade PON port optical power detection
L2 Features	
MAC	MAC Black Hole Port MAC Limit 64K MAC (packet exchange chip cache 2MB, external cache 720 MB)
VLAN	4K VLAN entries Port-based/MAC-based/protocol/IP subnet-based QinQ and flexible QinQ (StackedVLAN) VLAN Swap and VLAN Remark PVLAN to realize port isolation and saving public-vlan resources GVRP
Spanning Tree	STP/RSTP/MSTP Remote loop detecting



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Parameter	Description
Port	Bi-directional bandwidth control Static link aggregation and LACP(Link Aggregation Control Protocol) Port mirroring
Security Features	
User Security	Anti-ARP-spoofing Anti-ARP-flooding IP Source Guard create IP+VLAN+MAC+Port binding Port Isolation MAC address binding to the port and MAC address filtering IEEE 802.1x and AAA/Radius authentication
Device Security	Anti-DOS attack(such as ARP, Synflood, Smurf, ICMP attack), ARP detection, worm and Msblaster worm attack SSHv2 Secure Shell SNMP v3 encrypted management Security IP login through Telnet Hierarchical management and password protection of users
Network Security	User-based MAC and ARP traffic examination Restrict ARP traffic of each user and force-out user with abnormal ARP traffic Dynamic ARP table-based binding IP+VLAN+MAC+Port binding L2 to L7 ACL flow filtration mechanism on the 80 bytes of the head of user-defined packet Port-based broadcast/multicast suppression and auto-shutdown risk port URPF to prevent IP address counterfeit and attack DHCP Option82 and PPPoE+ upload user's physical location plaintext authentication of OSPF, RIPv2 and BGPv4 packets, and MD5 cryptograph authentication



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Parameter	Description
Service Features	
ACL	Standard and extended ACL Time Range ACL Flow classification and flow definition based on source/destination MAC address, VLAN, 802.1p, ToS, DiffServ, source/destination IP (IPv4/IPv6) address, TCP/UDP port number, protocol type, etc. Packet filtration of L2 ~ L7 deep to 80 bytes of IP packet head
QoS	Rate-limit to packet sending/receiving speed of port or self-defined flow and provide general flow monitor and two-speed tri-color monitor of self-defined flow Priority remark to port or self-defined flow and provide 802.1P, DSCP priority and Remark CAR(Committed Access Rate), traffic shaping and flow statistics Packet mirror and redirection of interface and self-defined flow Super queue scheduler based on port or self-defined flow Each port/flow supports 8 priority queues and scheduler of SP, WRR and SP+WRR Congestion avoidance mechanisms, including Tail-Drop and WRED
IPv4	ARP Proxy DHCP Relay DHCP Server Static Routing RIPv1/v2 OSPFv2 BGPv4 Equivalent Routing Routing Strategy



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Parameter	Description
IPv6	ICMPv6 ICMPv6 Redirection DHCPv6 ACLv6 OSPFv3 RIPng BGP4+ Configured Tunnels ISATAP 6to4 Tunnels Dual stack of IPv6 and IPv4
Multicast	IGMPv1/v2/v3 IGMPv1/v2/v3 snooping IGMP Filter MVR and cross VLAN multicast copy IGMP Fast leave IGMP Proxy PIM-SM/PIM-DM/PIM-SSM PIM-SMv6, PIM-DMv6, PIM-SSMv6 MLDv2/MLDv2 Snooping
Reliability	
Loop Protection	EAPS and GERP (recover-time < 50ms) Loopback-detection
Link Protection	FlexLink (recover-time < 50 ms) RSTP/MSTP (recover-time < 1 s) LACP (recover-time < 10 ms) BFD
Device Protection	VRRP host backup 1+1 power hot backup



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Parameter	Description
Maintenance	
Network Maintenance	Port real-time, utilization and transmit/receive statistic based on Telnet RFC3176 sFlow analysis LLDP GPON OMCI RFC 3164 BSD syslog Protocol Ping and Traceroute
Device Management	CLI, Console port, Telnet and WEB SNMPv1/v2/v3 RMON (Remote Monitoring) 1, 2, 3, 9 groups MIB NTP PONView network management
Power Supply	
Redundancy Design	Dual power supply Supports AC input, double DC input, and AC + DC input
AC Input	90 V to 264 V 47/63 Hz
DC Input	-36 V to -72 V
Power Consumption	≤110W
Physical Characteristics	
Installation	Standard 19-inch rack-mount
Environment	



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Parameter	Description
Operating Temperature	-10 °C to 55 °C
Operating Humidity	10 % to 90 % (non-condensing)
Storage Temperature	-40 °C to 70 °C
Storage Humidity	10 % to 90 % (non-condensing)



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Ordering Information

P/N	Description
A390.86.0.7	G8F-1RU-Chassis G8M GPON 1RU Switch chassis, 16 fixed PON ports (excluding the OLT SFP module), 2 x 10G SFP+ ports, 4 x gigabit Combo ports, 1 x console port. 2 x Power Modules, One AC PS included.
A390.86.4.1	G8-NMS-1K G8 System Switch OLT Chassis Network Management System (1K subscribers license).
A390.86.1.2	G8F-1RU-Chassis 220 V AC power supply for G8F Series GPON System

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Contact your local sales representative for product availability in your area and for other interface and option requirements.