ALPHA BRIDGE 10G XG(S)PON - AGL32

Verified Service characteristics, Multi technology Support, Complete Security Mechanism.

Advanced Hardware Architecture and Industry-leading Port Density.

Highlight

- ITU-T G.984/G.987/G.988/G.9807 COMPLIANT 10Gbps/2.5Gbps DOWNSTREAM AND 10Gbps/2.5bps/1.25Gbps UPSTREAM PON INTERFACE
- HYBRID PLATFORM FOR GPON/XG(S)PON TECHNOLOGY
- REDUNDANT POWER/CSM, PON PROTECTION
- 32*GPON/32*10G GPON PORTS IN 2U CHASSIS
- HOT SWAPPABLE MODULAR DESIGN
- L2 and L3 FEATURES
- ABUNDANT QOS FUNCTIONS
- UNIFIED NMS PLATFORM
- REMOTE PROVISON AND MANAGEMENT

Product Overview

AGL32 is the GPON platform which support GPON/XG(S)PON and fully compliance with ITU-T G.984/G.987/G.988/G.9807 standards. Coordinate with AB's ONT, it completes the end-to-end optical last mile with up to 10Gbps bandwidth for triple play services to residential and business customers.

Cost-effective Triple Play Transport

AGL32 supports up to 32*GPON/32*10G GPON ports in 2 service slots in a compact 2U chassis. It supports up to4*10GE/GE+4*10GE/GE uplink interface on CSM(Control & Switch Module). High subscriber density and low cost of entry, combined with the operationalcost savings of GPON technology make AB GPON a compelling alternative to legacy, last-mile access solutions.

Enriched Bandwidth Allocate Policy

It supports 5 T-CONT types compliance with ITU-T G.984.3 as well. The enriched QoS features such as traffic policy/traffic shaping/rate limit/Schedule allow operators to provision flexible bandwidth allocate policy for multiple customized service.

Flexible Provisioning, Quick to Revenue

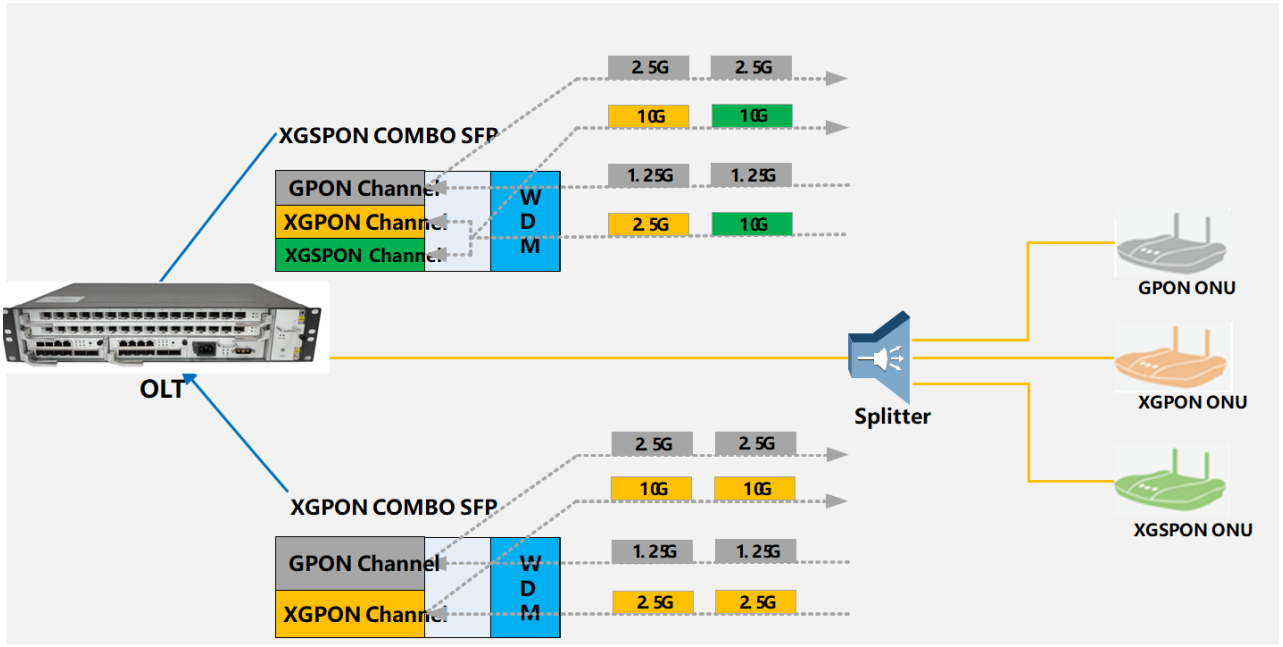
AGL32 supports SNMP/CLI for remote management. Powerful OMCI functions enable remote diagnostics, flexible provisioning, and reconfiguration of the Alpha NMS- TeleQuill platform.

Product Specifications

Item	AGL32-AF & AGL32-DF
Size	482.6mm (W) x 286mm (D) x 88.9 mm (H)
Weight	10kg (typical – 1 chassis + 1 power+ 1 controller+ 1 service card) Additionally: 16 port PON Board: 1 KG Power board: 1 KG Controller board: 0.55 KG
Power	For AC Model: 100~240V(Pluggable) Dual AC power redundancy For DC Model: –48V (Pluggable) Dual DC power redundancy Option of AC+DC or DC +DC or AC+ AC
Power consumption	320W (Typical)
Architecture	2U, Hot Swappable, Modular
Uplink	4*10GE +4*10GE interface on CSM module
PON	32*GPON/32*10G GPON
PON fiber	SM, BIDI
PON Interface type	SC/UPC
Switch Capacity	960Gbps
Throughput	714Mpps
Flash Size	64M+8G Bytes (Main Controller), 64M Bytes (PON)
Memory Size	4G Bytes (Mail controller), 4G Bytes (PON)
Split Ratio	1:128 (GPON), 1:128 (XG(S)PON)
Bandwidth	GPON: 1.25Gbps (Up), 2.5Gbps (Down) XGPON: 2.5Gbps (Up), 10Gbps (Down) XGSPON: 10Gbps (Up), 10Gbps (Down) Distance ：XGPON supports a maximum distance of 100KM logical distance, 40KM physical distance, and 40KM differential distance. GPON supports a maximum distance of 60KM logical distance, 20KM physical distance, and 20KM differential distance. Splitting ratio The Combo PON port supports a maximum spectral ratio of 1:256, its GPON 1:128 and XGPON/XGSPON 1:128
PON Tx Power	3~7dBm (C+), 4~8dBm (N2a)
PON Rx Sensitivity	-30 dBm (C+), -29.5dBm (N2a)
PON Rx Overload	-12 dBm (C+), -9dBm (N2a)
Wavelength	GPON: 1310 nm (Up), 1490 nm (Down) XG(S)PON: 1270nm (Up), 1577nm (Down)

Part	Description
AGL-32-CH-01	Chassis (2U Front-access) with Backplane and Fan tray
AGL-32-CC-A	Control & Switching Module, 4*10GE/GE uplink
AGL-32-16-GP-A	GPON card, 16 ports
AGL-32-16-XG-A	XGPON or XGSPON card, 16 ports
AGL-32-08-XG-1C	XG(S)PON&GPON Combo card, 8 ports
AGL-32-16-XG-1C	XG(S)PON&GPON Combo card, 16 ports
AGL-32-PW-DC-A	DC power input card
AGL-32-PW-AC-A	AC power input card

AGL32



Product Features

PON	PTP	SyncE
Splitter Ratio: 1:128(GPON), 1:128(XG(S)PON)	Support IEEE 1588 V2, G.8265.1,G.8275.1,G.8275.2	Support G.8261, G.8262, G.8264
Support B+/C+/C++ (GPON), N1/N2/E2/D combo(XG(S)PON) Transceiver		
SN / SN+Password ONU authentication		
FEC		
Rogue ONU Detection		
ONU optical power monitoring		

L2	Multicast	QoS
Line-speed switch/forwarding	IGMPv1/v2 snooping Support ERPS Ethernet ring network protection protocol Support Loopback-detection port loopback detectionport	IEEE 802.1p, 8 CoS queue
128K MAC address table, Support static MAC address setting Support black hole MAC address filtering function Support port MAC address limit	MLDv1 snooping	Support flow speed limit function based on custom business flow Supports packet mirroring and packet redirection based on custom service flows Support priority marking based on custom service flow, support 802.1P, DSCP priority Remark capability Support port-based priority scheduling function, support queue scheduling algorithms such as SP/WRR/SP+WRR
Port-based ,Mac and Protocol-based VLAN, 802.1q VLAN, Support dual-Tag VLAN function, port-based static QinQ and flexible QinQ functions	IGMP snooping with Proxy	IPv4 TOS/IP Precedence
ONU-based QinQ, 1:1/N:1 VLAN translate	Fast Leave	Classification/Shaping/Policy/Rate limit/Schedule
LACP/LAG	**Compliant**	DBA
STP/RSTP/MSTP Support ERPS Ethernet ring network protection protocol Support Loopback-detection port loopback detection	ITU-T G.984/G.987/G.988/G.9807	ONU-based bandwidth control in downstream
Port Mirror Support bi-directional bandwidth control Support port storm suppression Support 9K Jumbo super long frame forwarding	IEEE 802.1D, Spanning Tree	**L3 Features:** Support ARP learning and aging Support for creating VLAN Layer 3 interfaces and configuring static IPv4/IPv6 addresses Support static route configuration Support RIP/OSPF protocol function Support VRRP protocol function
Flow control / Back pressure	IEEE 802.1Q, VLAN	
Broadcast/DLF/Unknown Multicast storm control	IEEE 802.1w, RSTP	
DHCP Server / DHCP Relay: IPv4/IPv6	IEEE 802.3ad, Static link Aggregation, Dynamic LACP, Ethernet – II Each aggregation group supports a maximum of 8 ports	
Security	**OAM**	**Temperature & Humidity**
SSH 2.0 , Radius and TACACS+ Authentication, support IEEE 802.1X Authentication/ Centralized MAC Address Authentication Port Isolation, hardware isolation between	FTP/TFTP, Ethernet OAM	Working Temperature： -10℃~65℃

Packets Broadcast suppression packet rate suppression		
ACL, Support standard and extended ACL Support time range (Time Range) ACL policy Provide flow classification and flow definition based on IP packet header information such as source/destination MAC address, VLAN, 802.1p, ToS, DSCP, source/destination IP address, L4 port number, protocol type, etc	SNMP v1 , v2c, V3 , Telnet (IPv4/IPv6), Console （CLI） Support SNTP clock LLDP Neighbor discovery RFC 3164 syslog Ping and Traceroute support	Storge temperature： -40℃ ~ 70℃
Encryption in PON downstream Support ARP flood attack automatic suppression and ARP spoofing protection	In-band/Out-band Management	Relative humidity: 10%~90%, no condensing
DHCP Option82 / PPPoE+ Support IP Source Guard to automatically create IP+MAC+port+VLAN binding table, and support manual binding table items	Auto provision for ONU configuration, PM	

Ordering Information

Item	Description
AGL32-AF	32*GPON/32*10G GPON, 4*10GE +4*10GE interface on controller module, AC+AC, with FAN
AGL32-DF	32*GPON/32*10G GPON, 4*10GE +4*10GE interface on Controller module, DC+DC, with FAN