AONT-1530

GPON SBU/SFU ONT (4GE)

Feature Summary

- ITU-T G.984 and G.988 compliant, BBF.247 ready
- Indoor wall or table mount
- Four 10/100/1000 Base-T Ethernet RJ-45 Ports
- 10/100/1000Mbps auto-negotiation
- Half-duplex & full-duplex operation
- MDI/MDIX auto detection
- 802.1d, 802.1q based bridging
- 802.1p tag based QOS both ingress/egress on each port
- 802.1ad Double tagging support
- IGMP snooping and filtering with 256 Multicast groups
- Supports OMCI, CLI configurations
- Supports firmware upgrade via remote server
- Supports dual software image. Holds a working image & alternative image for image rollback
- Energy Efficiency Level V and compliant with CoC v4
- Powered through Adapter with the following specification
  - Input: 100-240VAC/1.5A 50/60Hz
  - Output: 54.0V/1.5A
- ON/OFF and a recessed factory default reset switch
- PoE version* – Built-in support for IEEE 802.3at PSE on each Ethernet port.

Applications

The AONT-1530 has been optimized for small business or shared residential buildings to provide triple play services.

Advanced High Bandwidth GPON technology

The AONT-1530 is fully FSAN (ITU-T G.984) compliant 2.488 Gbps downstream and 1.244 Gbps upstream with GPON systems.

Quality of Service

The AONT-1530 supports extensive QoS features, including 802.3x - flow control, DSCP to 802.1p mapping, upstream congestion control, and downstream traffic scheduling for premium or time sensitive content. Intelligent and robust buffer and queue management for Ethernet traffic, with individually prioritizable queues, ensures that tiered service offerings based on different bit-rates and QoS can be supported.

Gateway

The AONT-1530 contains both wire-speed L2 switch and L3 routing gateway with port forwarding, NAT and NAPT address translation, built-in PPPoE support for HSI, and an integrated stateful packet inspection firewall with a configurable access control list (ACL) and application-level gateway (ALG). Support for VPN (L2TP, PPTP and IPSec) pass through is also provided. Included as part of the gateway function are DHCP client, DHCP server and DNS server for IPv4 and IPv6.

Security

The AONT-1530 supports AES-128 bit decryption with key generation and switching in the downstream.

Flexible Management

The AONT-1530 is managed from the AOLT-4000 and AOLT-4200 OLT via OMCI. The AOLT in turn is managed with either Alphion Element Management System (AEMS) that provides configuration, profile based provisioning, event and fault management and performance monitoring for the AONT, or with a 3rd party NMS via northbound interface.

* Contact sales for details

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Fiber to the Future®

SPECIFICATIONS

GPON Uplink interface

Standard	Fully ITU-T G.984 compliant
Line rate	Downstream: 2.488 Gbps; Upstream: 1.244 Gbps
Connector	SC/APC, single-mode-fiber
Link Budget	28 dB (Class B+) ITU G.984.2 Amd1
Wavelength	DFB Transmit: 1310+/-20nm; APD Receive: 1490+/-10nm;
WBF	Built-in, compliant to G.984.5
Isolation	Isolation to 1310nm > 47dB
	Isolation to 1440~1450nm &1530~1540nm > 25dB
	Isolation to 1400~1440nm &1540~1625nm > 40dB
Tx Output power	+0.5 to +5.0 dBm Mean launch power
Tx on/off	<12.8ns burst mode
Rx Sensitivity	-28dBm (at 10 dB extinction ratio w/FEC off)
Rx Overload	-8 dBm
Distance	up to 60 km (depending on split ratio and reach extension)
OLS/OTM	ITU-T G.984.2Amd2 including RX & TX power and dying gasp
TC layer	AES (128-bit key), US and DS FEC RS(255,239)
DBA	DBRu mode 0 and mode 1SR
GEM port-IDs	up to 256, Flexible mapping between T-Cont & GEM port, Multicast GEM
T-CONT	Type 1-5, up to 32, 8 queues per T-cont

Ethernet interface

GE port	Four RJ-45 connectors CAT5E, 100mm (328ft)
Standard	IEEE 802.3, 802.3u, 801.3ab, IEEE 802.3az, Green Ethernet
Link	10/100/1000Base-T with rate and full/half-duplex auto-negotiation and MDI/MDIX auto-sensing
MTU (Max)	2,000 Byte per IEEE803.3as
Flow control	per 802.3x

Power

AC Adapter	Input: 100-240VAC, 50/60Hz Output: 54VDC, 1.5A
Control	Power ON/OFF push button on rear
Connector	Barrel connector
Power (Max)	18 watts (without PoE/PSE)
PSE Standards	IEEE 802.3at PSE, Supports CISCO PD detection
PSE Power	80W total power; Max 30W output for each port
Efficiency	Energy Efficiency Level V
CoC	Compliant with CoC v4

Secure Management

Local	Web based GUI (HTTPS)
Remote	G.984.4/988 OMCI, G.984 PLOAM, Telnet, TR-069
Image Upgrade	Supports firmware upgrade via remote server
Image Restore	Holds a working image & alternative image permitting image rollback. Procedure: 1. Press hidden button for 10 seconds 2. Access ONT using GUI Web, CLI, Telnet method
Authorization	Secure ONT registration - ONT serial number, PLOAM password

L2 Bridging features

Bridging	802.1d STP transparent bridging, 256 MAC table, MAC aging timer, UNI port MAC limit, MAC SA/DA Filters
US Rate Limiting	Broadcast/multicast, unknown multicast and DLF
VLAN Model	TR-156 1:1 & N:1, Transparent LAN Service (TLS)
VLAN	Untagged, 802.1q Single tagged, 802.1ad (Q-in-Q) double tagged, VLAN ID translation
Multicast	IGMPv2/v3 & MLDv2 snooping
QoS	802.1p, 802.1d, 802.1q based QoS, Ingress/egress 802.1p based QoS on each port
Scheduling	SP, WRR
Congestion	PAUSE frame
OAM	Stats, PMs, GEM &UNI port loopback

Gateway features for IPv4 and IPv6

WAN	PPPoE client, IPoE with DHCP client or static IP, NAT/NAPT, port forwarding, port triggering
LAN	DHCP server and relay agent, DHCP option 60, DNS relay
Routing	RIP v1/v2 and static IP routing

IPv6 support

Mode	Dual stack lite, 6rd

Firewall

Type	Stateful packet inspection (SPI) pass/block
Filtering	DoS attack prevention, IP source/destination, TCP/UDP port source/destination, MAC source
ALGs	FTP, SIP, H.323, RSTP
VPN	PPTP, L2TP, IPSec pass-through
Access control	DMZ, Parental Controls

Physical

Temperature	0 °C to 50 °C
Storage	-40 °C to 65 °C
Humidity (RH)	5% to 95% non-condensing
Weight	0. 4kg
Dimensions	209 x 130 x 40mm (LxWxH)
IP Rating	IP20
Mounting	Wall, table/desktop or under table/desk
LED Indicators	Power, LOS, GPON, LOS, LAN1, LAN2, LAN3, LAN4
Switches	ON/OFF Pushbutton on rear, Recessed reset push button on rear

Regulatory Compliance

Certification	CE (Conformité Européenne) Compliant
EMC/EMI	EN300 386
EMC Emissions	EN55022, CISPR-22 Class B
EMC Immunity	Radiated RF: EN/IEC61000-4-3(2002) level 2 Conducted RF: EN/IEC61000-4-6(2001) level 2
Safety	EN/IEC60950-1/UL60950, UL94-V1
Laser safety	IEC60825-1 Class 1 laser safety per G.664
Transient	EN/IEC61000-4-4(2001) level 2
Surge	EN/IEC61000-4-5(2001) 0.5 KV (line), 1.5 KV (earth)
ESD	EN/IEC61000-4-2(2001) contact level 2, air discharge level 3
Energy	Broadband Equipment Code of Conduct CoCv4, Energy Efficiency Level V
Hazardous	RoHS6, WEEE