

AONT-1356

GPON Optical Network Terminal (1GE+2POTS+RF overlay & return path) Alphion Part Number - 240-0000121

Features and Benefits:

- ◆ Support for a wide range of revenue generating voice features
- ◆ Wire speed 1000Mbps data transfer
- ◆ QoS handling including four traffic classes for triple-play service support
- ◆ Extensive Ethernet bridging plus VLAN tagging, switching and filtering capabilities for secure traffic management across services and end users
- ◆ Power management for preservation of essential services during AC power outage
- ◆ Indoor or Outdoor wall mountable for easy installation
- ◆ Cost effective deployment of revenue generating services
- ◆ An Alphion head-end RF modulator is available for upstream data return channels.
- ◆ Compatible with installations that use either SA or Motorola head-end

Highlights Include:

- ◆ Voice, data, IPTV, and video services supported over a single GPON passive optical link
- ◆ VoIP Softswitch or CLASS 5 based high quality voice service through two POTS lines
- ◆ High speed internet or VoIP access through a single 10/100/1000 Base-T Ethernet interface
- ◆ Packet based interactive IPTV services including multicast video and video-on-demand
- ◆ RF Video with integrated RF Return supporting the 8 to 28 MHz return path frequency band

Applications

Alphion's standards-based ONT family delivers cost effective revenue generating features for today's competitive access market. Alphion's ONT family provides flexibility for a variety of network applications. The AONT-1356 residential ONT delivers high quality VoIP voice service, Ethernet data service for high-speed internet access and IPTV broadcast video plus RF video service. Optional outdoor enclosure (240-0100121) and indoor mounting bracket (240-0100122) may be ordered separately.



SPECIFICATIONS



Network Interfaces:

Optical

2.5 Gbps downstream, 1.244 Gbps upstream
Optical wavelengths: 1490 +/-10nm receive, 1310 +/-20nm transmit
Launch power: 0.5 to +5 dBm
Receiver Sensitivity: -27 dBm
Input power overload: -8 dBm
Received optical power monitoring
SC/PC or SC/APC connector

Subscriber Interfaces:

POTS

Two interfaces equipped with RJ-11 or screw down connectors
5 REN per line
Loop start/Ground start
Balanced and unbalanced ringing
Country specific coefficients
DTMF dialing
Metallic loop testing

CATV RF-Video Interface

Single F-Type CATV connector
Operating wavelength: 1550 to 1560nm
Average optical power: -8 to +2 dBm
RF Output level: 18dB
RF Output Impedance: 75 Ohms
Power supply current: 200mA
Total RF Output Power: 36 dBmV

Ethernet

A single 10/100/1000 Base-T interfaces with RJ-45 connector
Meets IEEE 802.1 specifications
MDI/MDIX auto-sensing and auto-negotiation

Services and Features:

GPON

Serial number discovery and registration ID provisioning
Full ITU-T G.984 compliance
Advanced Encryption Standard (AES)
Dynamic Bandwidth Allocation (DBA)
Forward Error Correction (FEC)
Support for up to 8 T-CONTS

OAM

ITU-T G.984.4 based management of all services
Remote firmware upgrade including automatic rollback
TR-069 provisioning for VoIP
SIP configuration from EMS server

Ethernet L2

Ethernet bridging and switching per 802.1D
QoS with support with 802.1p and TOS/DSCP mapping
802.1Q including VLAN translation, filtering, tagging, stacking (QinQ)
Up to 64 VLANs
Session hijacking prevention
Automatic MAC address learning and aging
Up to 512 MAC address entries
MAC address limiting
Broadcast storm control

RF Return

Fully integrated into the ONT
Three wavelength solution
SCTE 55-1 and 55-2 standards
F-Type coaxial connector
8 to 28 MHz frequency range
24 to 60 dbmv received power input level

IPTV

Up to 128 multicast groups
IGMP v2/v3 Snooping
IGMP snooping with immediate leave

Voice

SIP (RFC 3261) • H.248
SDP (RFC 2327) • RTP/RTCP (RFC 3550/3605)
RFC 2833 • G.711 (μ & a law)
G.726 voice codec • Echo Cancellation
MGCP (RFC 3435)
DTMF encoding by RELAY or IN-BAND method
CLASS service support (Caller ID, Call Waiting, Call Forwarding, Call Transfer etc.)

T.30 FAX, modem and TTY devices
DHCP Client or static IP configuration
Voice Activity Detection and Comfort Noise Generation
Proven interoperability with major soft switch and voice gateway vendors

LEDs

• Power • Battery • Fail • Video
• Management • Data • Network • POTS

Dimensions and Weight

Size: 13 x 11.25 x 4.3 inches / 233 x 286 x 110 mm
Weight: 5.5 lbs (2.2 kg)

Environmental

ONT -40°C to +46°C ambient + solar load
-40°F to +114.8°F
Outdoor Enclosure: -40°C to +65°C
-40°F to +149°F
Humidity: 5% to 90%
Outdoor enclosure sold separately

Power

Power Consumption 9.5 - 13.5 Watts
Power Input 12 to 14 Vdc
Input Connection: Phoenix plug
Optional 802.3af PoE power input
Dying Gasp Support
Local power via UPS with battery backup
(Note: local power disconnects PoE power input)

Regulatory Compliance

(Designed to meet the following compliance requirements)
Safety: UL/CSA 60950, IEC 60950, ETSI
FDA – FCC 47 CFR Part 15, Class B and FDR 21 CFR 1040.10 and 1040.11 Class 1
EMC: FCC PART 15, SUBPART B, CLASS B
EN 55022, EN 55024, EN 300 386, CLASS B
CE: Compliant
RoHS6: Compliant
WEEE: Compliant

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