

# AONT-1350

## GPON Optical Network Terminal (1GE+2POTS+RF overlay) Alphion Part Number 240-0000120

### 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

### 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
- ◆ CATV RF-Video service via an F-Type coaxial connector

### 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-1350 Single Family Unit (SFU) residential ONT delivers high quality VoIP voice service, Ethernet data service for high-speed internet access and IPTV broadcast video plus RF video service.



# 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

## IPTV

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

## Voice

- SIP (RFC 3261)
- SDP (RFC 2327)
- RFC 2833
- G.726 voice codec
- 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

- H.248
- RTP/RTCP (RFC 3550/3605)
- G.711 ( $\mu$  & a law)
- Echo Cancellation

## LEDs

- Power
- Management
- Battery
- Data
- Fail
- Network
- Video
- 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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