

## GPON HGU ONT 4GE, 2POTs, WiFi & CATV

### AP224B Series



- **2.5 Gbps downlink**
- **1.25 Gbps uplink**
- **1:128 splitting ratio**
- **Up to 20 km**
- **Secure service carrying ability**
- **High service control capability**
- **Rich OMCI functions**
- **Complete interaction capacity**
- **Advanced energy saving techniques**
- **Compliant with ITU-T G.984/988**

Ascent's AP224B Series is a series of optical network units designed to meet the requirements of broadband access networks. They are ideal for FTTH/FTTO applications to provide data, voice, and video services based on a GPON network.

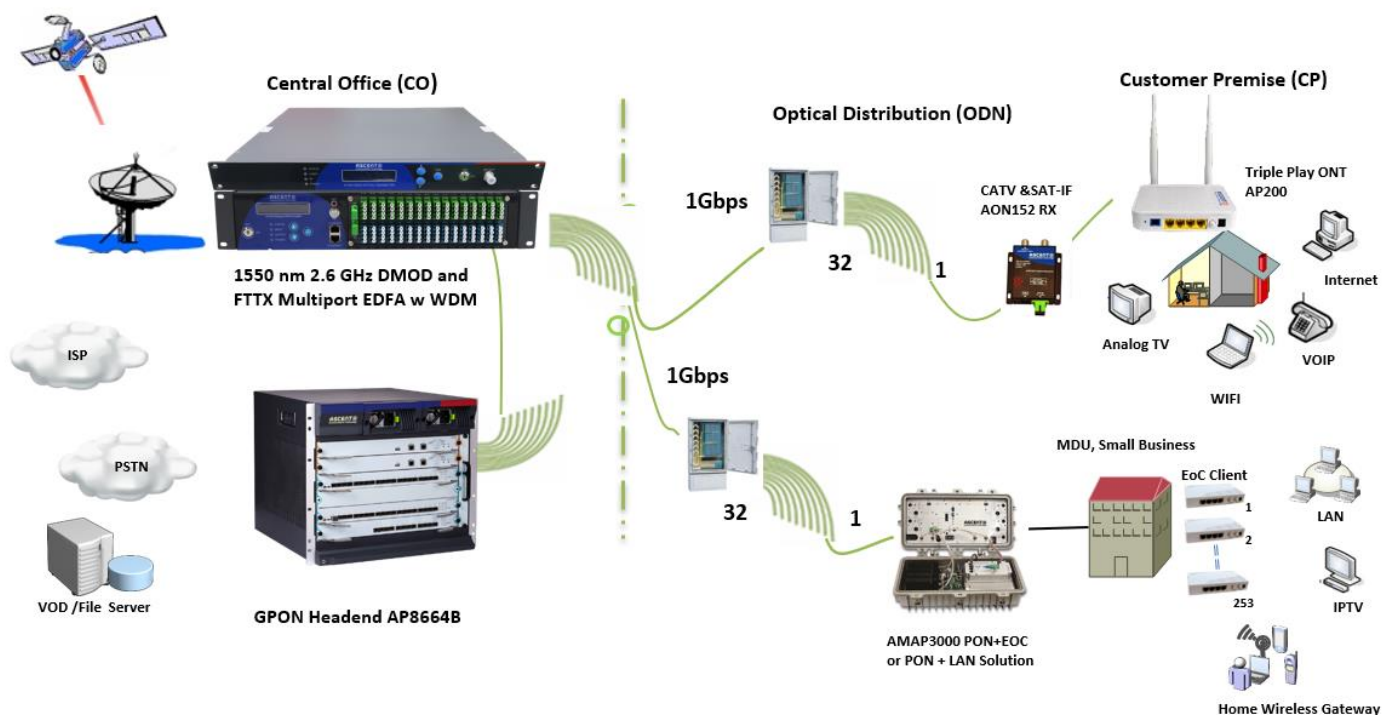
AP224B Series meets the ITU-T G.984 GPON standard and delivers higher bandwidth and higher efficiency using larger variable-length packets. It provides four GE auto-adapting Ethernet ports, 802.11 n/b/g/ac WiFi, and optional CATV output (AP224BWT). It features high-performance forwarding capabilities to ensure excellent experience with high speed internet and HD video services. AP224B provides a perfect terminal solution and future-oriented service supporting capabilities for FTTH deployment.

AP224B offers efficient packaging of user traffic, with frame segmentation allowing higher quality of service (QoS) for delay-sensitive video communications traffic. AP224B Series GPON ONT provides the reliability and performance expected for business services and are an attractive way to deliver residential services. GPON enables Fiber to the Home (FTTH) deployments economically resulting to accelerated growth worldwide.

## Key Features

- PON transmission rate of 2.5 Gbps downlink / 1.25 Gbps uplink
- 1:128 splitting ratio
- Up to 20 km range
- Supports VLAN, STP, port isolation, ACL, QoS, and Broadcast Storm Control
- Supports DBA and Rate-Limit
- Supports advanced dynamic bandwidth distribution and accurate bandwidth limits
- Compliant with OMCI standards
- Compliant with ITU-T G.984/988

## Application Diagram



## Specifications

| Item                         | Description                                                                                                                                                                                                        |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>User Interface</b>        | 4 × GE Ethernet ports (RJ45)<br>2 × FXS interfaces (RJ11)<br>1 × USB interface (USB2.0)                                                                                                                            |
| WiFi Interface               | AP224BW: 802.11b/g/n, external dual-antenna<br>AP224BAC: 802.11b/g/n/ac, external four-antenna<br>AP224BWT: 802.11b/g/n, external dual-antenna (CATV RF)                                                           |
| RF Interface (AP224BWT only) | AGC range: -15 dBm to -5 dbm<br>Output level > 70 dbμv                                                                                                                                                             |
| <b>PON Interface</b>         |                                                                                                                                                                                                                    |
| Downlink Data Rate           | 2.5 Gbps                                                                                                                                                                                                           |
| Uplink Data Rate             | 1.25 Gbps                                                                                                                                                                                                          |
| Network Radius               | 20 km                                                                                                                                                                                                              |
| Optical Rx Sensitivity       | -28 dBm                                                                                                                                                                                                            |
| Optical TX Power             | 0.5 dBm to 5 dBm                                                                                                                                                                                                   |
| Connector Type               | AP224BW: SC/UPC<br>AP224BAC: SC/UPC<br>AP224BWT: SC/APC                                                                                                                                                            |
| <b>Standards</b>             | ITU-T G.984/G.988<br>PRC Community Industry Standard GPON ONU in Access Technology Requirements;<br>IEEE 802.1D, Spanning Tree<br>IEEE 802.1Q, VLAN<br>IEEE 802.1w, RSTP<br>ITU-T Y.1291<br>Q/CT 1923<br>Q/CT 1927 |
| <b>Data Forwarding</b>       | Routing mode, bridging mode, routing mode + bridging mode                                                                                                                                                          |
| <b>DHCP</b>                  | DHCP server                                                                                                                                                                                                        |
| <b>Multicast</b>             | IGMP-Snooping<br>CTC defined dynamic multicast<br>MLD-Snooping                                                                                                                                                     |
| <b>Voice Function</b>        | SIP, H.248                                                                                                                                                                                                         |
| <b>WiFi</b>                  | AP224BW/AP224BWT: 802.11b/g/n, 300 Mbps<br>AP224BAC: 802.11b/g/n/ac, 1200 Mbps<br>Multi-SSID<br>SSID encryption                                                                                                    |
| <b>QoS</b>                   | Backpressure flow control (half duplex)<br>IEEE 802.3x flow control (full duplex)<br>Head Of Line (HOL) mechanism<br>IEEE 802.1p, CoS                                                                              |

|                                 |                                                                                                                                    |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|                                 | four priority queues on each port                                                                                                  |
|                                 | WR, SP and FIFO                                                                                                                    |
|                                 | Rate limit                                                                                                                         |
| <b>Reliability</b>              | Loop detect                                                                                                                        |
|                                 | Dying-Gasp                                                                                                                         |
| <b>Security</b>                 | Limitation to the number of MAC addresses on the port                                                                              |
|                                 | Port protection                                                                                                                    |
|                                 | Port storm control                                                                                                                 |
|                                 | DOS prevention attack                                                                                                              |
|                                 | Port scan prevention                                                                                                               |
| <b>Management</b>               | CLI, Web, SNMP, TELNET and TR069                                                                                                   |
|                                 | Software upgrade through TFT, WEB, TR069 or OLT                                                                                    |
|                                 | Local syslog or server syslog                                                                                                      |
| <b>Dimensions (W×D×H)</b>       | 230 mm × 140 mm × 34.9 mm                                                                                                          |
| <b>Heat Dissipation</b>         | Supports long-time use (For instance, 24 hours);<br>The device running hot will not affect its performance or cause it break down. |
| <b>Environment Requirements</b> |                                                                                                                                    |
| Operating Temperature           | 0 °C to +45 °C                                                                                                                     |
| Operating Humidity              | 10% to 90% RH (non-condensing)                                                                                                     |
| Input Rated Voltage             | 12 V <sub>DC</sub> / 1.5 A (external adaptor power supply)                                                                         |
| Power Consumption               | <15 W                                                                                                                              |

## Ordering Information

| Model              | Description                                                                                                                                               |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| AP224BW            | FTTH/O ONU, 1 GPON interface (SC/UPC), 4 GE, 2 POTS ports, external dual-antenna (300M WiFi), plastic hull, 12 V <sub>DC</sub> / 1.5 A, external adaptor  |
| AP224BAC           | FTTH/O ONU, 1 GPON interface (SC/UPC), 4 GE, 2 POTS ports, external four-antenna (1200M WiFi), plastic hull, 12 V <sub>DC</sub> / 1.5 A, external adaptor |
| AP224B-GE-TV-N-S-1 | AP200B GPON CPE 1 x GE (1.25G US, 2.5G DS), 4 x GE, 2POTS, WIFI b/g/n/ac, USB, CATV, Single Fiber, SC/APC, 12 VDC / 1.5 A, external adaptor               |
| AP201B             | FTTH/O ONU, 1 GPON interface (SC/UPC), 1 GE ports, 12 VDC / 1.5 A, external adaptor                                                                       |

## Contact Information

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### Ascent Communication Technology Ltd

#### AUSTRALIA

140 William Street, Melbourne  
Victoria 3000, AUSTRALIA  
Phone: +61-3-8691 2902

#### Hong Kong SAR

Room 1210, 12th Floor, Wing Tuck Commercial Centre  
181 Wing Lok Street, Sheung Wan , Hong Kong SAR  
Phone: +852-2851 4722

#### CHINA

Unit 1933, 600 Luban Road  
200023, Shanghai, CHINA  
Phone: +86-21-60232616

#### USA

2710 Thomes Ave  
Cheyenne, WY 82001, USA  
Phone: +1 203 350 9822

#### EUROPE

Pfarrer-Bensheimer-Strasse 7a  
55129 Mainz, GERMANY  
Phone: +49 (0) 6136 926 3246

#### VIETNAM

11th Floor, Hoa Binh Office Tower  
106 Hoang Quoc Viet Street, Nghia Do Ward  
Cau Giay District, Hanoi 10649, VIETNAM  
Phone: +84-24-37955917

**WEB:** [www.ascentcomtec.com](http://www.ascentcomtec.com)

**EMAIL:** [sales@ascentcomtec.com](mailto:sales@ascentcomtec.com)

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Ver. ACT\_AP224B\_GPON\_ONT\_Datasheet\_V1e\_Aug\_2017