

Advanced Multi-Access Platform

AMAP3000 Series

- **Node+0 and FTTB Architecture**
- **HPAV2/C-AV2/IEEE1901**
- **Data 7.5 to 86MHz**
- **1.1G PHY & 570M MAC**
- **GPON or P2P Uplink**
- **CATV AGC -8 to +2dBm**
- **10/100/1000Mbps LAN**
- **IEEE 802.3, IEEE 802.3x, IEEE 802.3u Auto MDI**
- **Support Remote Monitoring and SNMP**



ACT AMAP3000 (Advanced Multi-Access Platform) is a series of networking node device designed for next generation Node+0 and FTTX systems on top of the cost effective CATV coaxial network, delivering multi-media services into the multi-dwelling units(MDUs). AMAP3000 features three main components in one compact IP67 aluminium housing, HFC optical receiver node, Gigabit PON or Active Ethernet (P2P) ONU and Ethernet over Cable (EoC) Master unit.

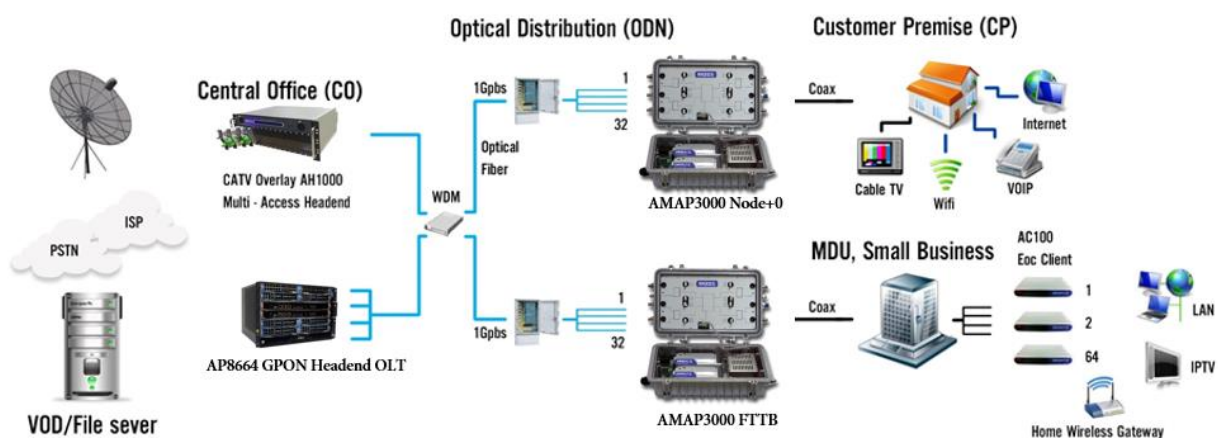
AMAP3000 provides the ultimate migration path from traditional HFC to PON/P2P type of Fiber to the Building (FTTB) application. It offers high quality CATV signal together with high speed broadband data access, which can be managed through the SNMP management system.

The AMAP3000 EoC module is fully compliant with IEEE802.3, 802.3x, 802.3au, 802.1P and 802.1Q standards. It provides great flexibility to network service operator to connect MDUs with multiple low cost AMAP-EoC CPE AC200 unit. With outstanding performance, quality, and features packed in a compact sized device, the AMAP3000 series is a great selection for Network Operators and Services Providers in Fibre to the Building and business networks.

Key Features

- Advanced Multi-Access Platform designed for Node + O and Fiber to the Last Amplifier application
- IEEE802.3, IEEE802.3x, HomePlug AV2, P1901, IEEE 802.1Q, IEEE 802.1p, IEEE 802.3, IEEE 802.3u, IEEE 802.3x Deliver high speed internet, VoIP and CATV services
- Overall CATV RF spectrum from 2 to 1002MHz with EoC bandwidth from 7.5 to 85MHz with expansion to 150MHz and beyond
- Support NTSC, PAL, DVB-C, DVB-T video standards
- GPON: IEEE802.3, 1GE uplink, 1GE local LAN port, 1 FE management port and 1 console port
- Active Ethernet P2P: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX/FX Standard, 1 GE uplink, 4 FE/GE local LAN port
- Support IEEE 802.1Q with 16 VLAN groups, VLAN priority and ToS (Type of Service)
- Optimize the service performance as well as utilization of limited IP resource for service providers
- Integrated Ethernet over Coax (EoC) Master unit can support up to 253 EoC Clients CPE units
- Network monitoring and management through SNMP

Application Diagram



GPON Uplink Specifications

AMAP3000 Advanced Multi-Access Platform (HFC+GPON+EoC)

Gigabit Ethernet Ports	1x 10/100/1000Mbps LAN port
Uplink PON Port	IEEE802.3h 1.25Gbps Uplink
CATV RF Output	2 x RF Outputs, CATV Coaxial F Connector
CATV RF Local Input	CATV Coaxial F Connector
Management	Telnet, Console, SNMP

Optical Interface Specification

Data TX Wavelength	1290 to 1330 nm, typically 1310 nm
Data RX Wavelength	1480 to 1500 nm, typically 1490 nm
CATV Wavelength	1200 to 1620 nm
CATV Optical Input	-8dBm to +2dBm @ 1550nm (AGC -6 to +2dBm)
Data RX Sensitivity	-26.5dBm @ 1490 nm
Data TX Output	-1 to +4dBm @ 1310 nm
Data Line Speed Uplink	1000Mbps net payload
Typical PON Link Range	1 km to 20 km

CATV Link Performance

CATV RF output	2 x 102dBuV (AGC -6 to +2dBm)
RF Bandwidth	2 to 862MHz/1002MHz
RF Return Loss	16 dB
CNR/CTB/CSO	49/65/60 dBc
MER	Min 33dB (64QAM)

EoC Specification

RF Bandwidth	7.5 to 86MHz
Modulation Scheme	16/64/128/256/512/1024-QAM, QPSK, BPSK
Typical EoC Link Range	1km
Receive sensitivity	-65dBm
MAC Speed (Max)	570Mbps Symmetrical @ 7.5MHz to 86MHz

General Specifications

Management	SNMP V1/V2/V3
Operating Temp, °C	-25 to 65
Storage Temp, °C	-40 to 70
Power Supply	100 to 240 VAC
Power Consumption W	26
Dimensions (W x D x H) mm	289x222x130 (2 Port)
Weight, kg	4 (2 Port)

Active Ethernet P2P Uplink Specifications

AMAP3200 Advanced Multi-Access Platform (HFC+P2P+EoC)

Gigabit Ethernet Ports	10/100/1000Mbps LAN port
Uplink P2P Port	1000Mbps net payload
CATV RF Output	2 x RF Outputs, CATV Coaxial F Connector
CATV RF Local Input	CATV Coaxial F Connector
Management	Telnet, Console, SNMP

Optical Interface Specification

Data TX Wavelength	1261 to 1360 nm, typically 1310 nm
Data RX Wavelength	1480 to 1500 nm, typically 1490 nm
CATV Wavelength	1200 to 1620 nm
CATV Optical Input	-8dBm to +2dBm @ 1550nm (AGC -6 to +2dBm)
Data RX Sensitivity	> -30 dBm @ 1490 nm
Data TX Output	-6 to 0dBm @ 1310 nm
Optical Connector	SC/APC

CATV Link Performance

CATV RF output	2 x 102dBuV (AGC -6 to +2dBm)
RF Bandwidth	2 to 862MHz/1002MHz
RF Return Loss	16 dB
CNR/CTB/CSO	49/65/60 dBc
MER	Min 33dB (64QAM)

EoC Specification

RF Bandwidth	7.5 to 86MHz
Modulation Scheme	16/64/128/256/512/1024-QAM, QPSK, BPSK
Typical EoC Link Range	1km
Receive sensitivity	-65dBm
MAC Speed (Max)	570Mbps Symmetrical @ 7.5MHz to 86MHz

General Specifications

Management	SNMP V1/V2/V3
Operating Temp, °C	-25 to 65
Storage Temp, °C	-40 to 70
Power Supply	100 to 240 VAC
Power Consumption W	26
Dimensions (W x D x H) mm	289x222x130 (2 Port)
Weight, kg	4 (2 Port)

Specifications

Indoor AC200 Eoc Client CPE Unit



AC224-HP-65-1 AMAP EoC Client CPE Device

Gigabit Ethernet Port

10/100/1000Mbps LAN port

CATV RF Output

1 x CATV Coaxial F Connector

CATV RF Input

1 x CATV Coaxial F Connector

EoC Specification

HPAV2, P1901

Modulation

OFDM 4096/1024/256/64/16/8-QAM, QPSK, BPSK

RF Bandwidth

7.5 to 86MHz

Typical EoC Link Range

1km

Receive sensitivity

-65dBm

RF Output Level

90 to 105dBuV

Data Performance

MAC Speed (Max)

570Mbps

Physical Layer Speed

1100Mbps

IEEE

IEEE 802.3, IEEE 802.3x

IEEE 802.u Auto MDI(X), 802.1x

Protocol

TDMA, CSMA/CA

VLAN/QoS

IEEE 802.1P, IEEE 802.1Q

Encryption

128-bit AES

General Specifications

Operating Temp

-5 to 55°C

Storage Temp

-40 to 70°C

Power Supply

12V, 100 to 240 VAC Adaptor

Operating relative humidity,

10 to 90%

Power Consumption

<7 W

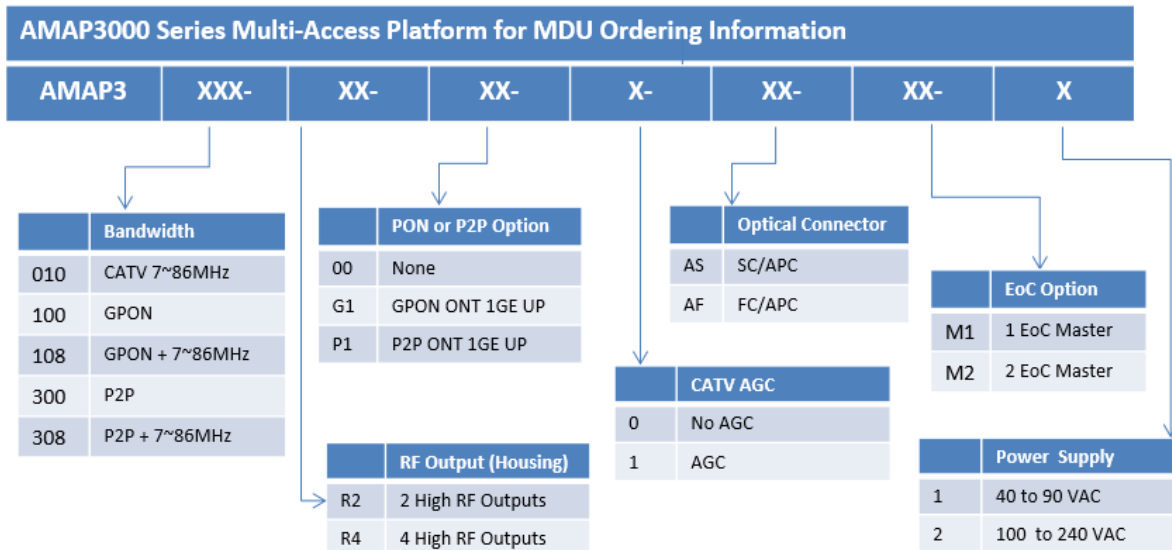
Dimensions (W x D x H)

155x 108 x 27 mm

Weight, kg

0.32 kg

Ordering Information



* EoC Client CPE order separately

AC224-HP-65-1

AMAP EoC Client CPE Unit 200 Series, 1 RF Input Port, 1 RF Output Port, 4 FE Data Ports, Home Plug, 7.5 to 86MHz, 100 to 240VAC Adapter included

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