Outdoor EoC Master Platform for FTTB

AM342C Series

- **EoC in FTTB applications**
- **2 RF input ports**
- **2 RF output ports**
- **2 10/100/100M auto-negotiation uplink ports**
- **Qualcomm AR7410 chipset**
- **7.5 MHz to 65 MHz low frequency band**
- **High isolation filters**
- **87 MHz to 862 MHz EoC signals**
- **600 Mbps PHY layer speed**
- **320 Mbps MAC layer throughput**

AM342C is a series of outdoor networking EoC master device designed to deliver multimedia services to subscriber's home through cost effective last mile CATV coaxial network. AM300 features two main plug and play components in one compact IP67 aluminum housing, 2 Ethernet over Cable (EoC) Master unit and 2/4 ports CATV module.
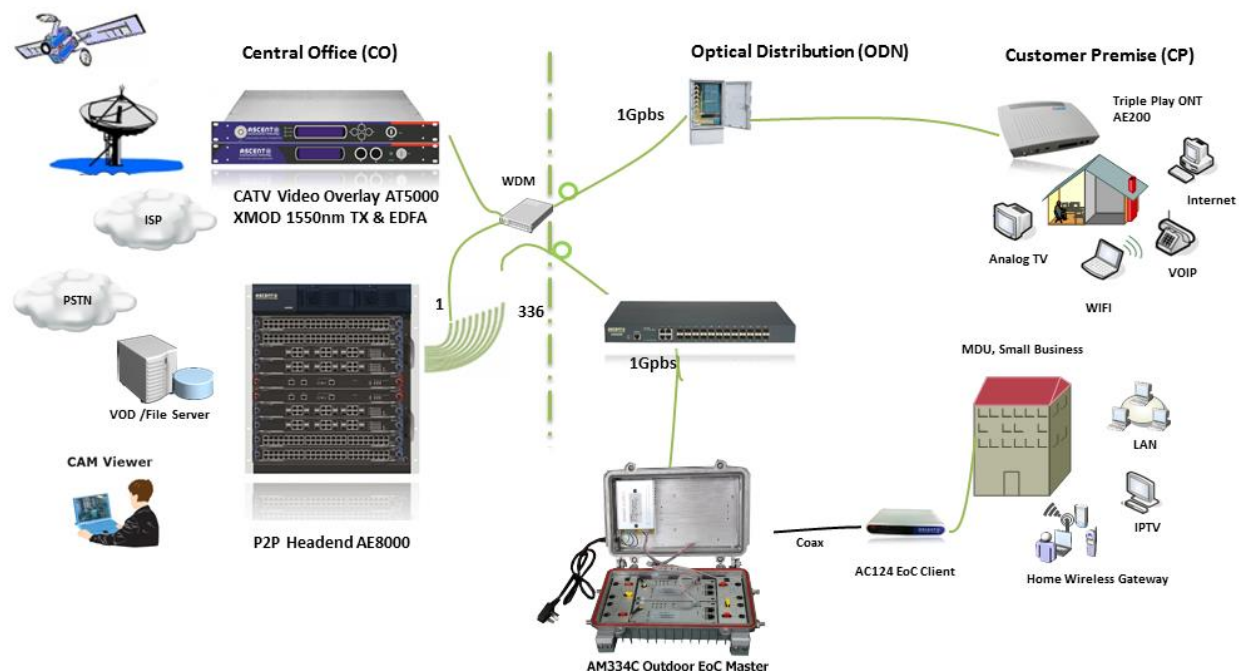
The EOC module in the AM344C is based the Qualcomm AR7410 chipset solution, with high anti jamming capability OFDM technology. The 7.5 MHz to 65 MHz low frequency band is used for EOC signals. Built in high isolation filter as CATV RF and EOC signal mixer, the EOC signal and CATV signal in 87 MHz to 862 MHz can running on one cable without interference. The EOC Master can provide high speed data service. The PHY Layer speed is 600 Mbps, the MAC Layer throughput is up to 320 Mbps.

With outstanding performance, quality, and features packed in a compact sized device, the AM300 series is a great selection for Network Operators and Services Providers in Fibre to the Building and business networks.

Key Features

- HomePlug AV solution, based the Qualcomm AR7410 chipset

- Modularized design, easy for maintain

  o Aluminum alloy die casting shaping, good heat dissipation

  o Outdoor waterproof designed, 60V/220V power supply optional

- 7.5 MHz to 65 MHz frequency for EOC signals, no influence on CATV Service

- PHY Layer speed 600 Mbps, MAC Layer throughput up to 320 Mbps

- Support bi-direction data encryption

- Support broadcast storm limitation

- Support data packet statistics

- Support auto-update and auto-configuration

- Support WEB, CLI, SNMP based network management

- Supports online upgrading

Application Diagram

Specifications

AM342C Outdoor EoC Master

Item	Description
Interface and LED Indicator	
RF Port	1 × EOC low-frequency signal output port, supports F- Female or SMB connector
Ethernet Port	2 × 10/100/1000M auto-negotiation RJ45 ports
LED Indicator	1 × 2 power supply status indicator
	1 × 2 CABLE link status indicator
	2 × 2 Ethernet ports status indicators
	The indicator is the same for two modules
Performance Parameters	
RF Parameters	Frequency Band: 7.5 MHz to 65 MHz
	RF output level: 110 dBµv ± 5 dBµv @ output of module
	Receive sensitivity: 45 dBµv
	Return loss: >16 dB
	Output resistance: 75 Ω
Transmission	PHY Layer: 600 Mbps
	Throughput on MAC Layer: 320 Mbps
Modulation Mode	OFDM – 2690-carriers 4096, 1024, 256, 64, 16, 8-QAM, QPSK, BPSK, ROBO
Working Mode	TDMA/CSMA
Encryption Mode	AES-128
Standard	
EOC Standard	IEEE P1901(Draft)
	HomePlug AV
Ethernet Standard	IEEE 802.3, IEEE 802.3x, IEEE 802.3u
	IEEE802.1P, IEEE802.1Q
Software	
Network Management	WEB, CLI, SNMP
Software Features	VLAN, QOS, Bandwidth control, broadcast storm limitation
Physical Characteristics	
Power Supply	12 V_{DC} / 1 A
Power Consumption	<7 W
Dimensions	150 mm × 65 mm × 25 mm
Net Weight	0.07 kg
Operating Temperature	-10 °C to 65 °C
Storage Temperature	-40 °C to 85 °C
Operating Humidity	10 % to 90 % non-condensing
Storage Humidity	10 % to 90 % non-condensing

AC134CW EoC Client CPE Unit

Item	Description
Interface and LED Indicator	
RF interface	1*TV (RF signal) OUTPUT, metric/inch F connector
	1*CABLE(MIX)INPUT, metric/inch F connector
Ethernet interface	4*10/100M auto-negotiation, RJ45
Power interface	1*DC12V power supply interface
LED indicators	1 x power indicator, 1 x system indicator
	1 x CABLE indicator, 1 x WIFI indicator
	LAN indicator (each Ethernet port has 1 indicator)
Performance Parameters	
RF Parameters	Frequency: 7.5 MHz to 65 MHz
	Output level: 110 dBµV ± 5 dBuv
	Receive sensitivity: -65 dB
	Return loss: >16 dB
	Output impedance: 75 Ω
Transmission	PHY Layer: 600 Mbps
	Throughput on MAC Layer: 320 Mbps
Modulation Mode	OFDM – 2690-carriers 4096, 1024, 256, 64, 16, 8-QAM, QPSK, BPSK, ROBO
Working Mode	TDMA/CSMA
Encryption Mode	AES-128
Standard	
EOC Standard	IEEE P1901(Draft)
	HomePlug AV
Ethernet Standard	IEEE 802.3, IEEE 802.3x, IEEE 802.3u
	IEEE802.1P, IEEE802.1Q
Software	
Network Management	WEB, CLI, SNMP
Software Features	VLAN, QOS, Bandwidth control, broadcast storm limitation
Physical Characteristics	
Power Supply	12 V_{DC} / 1 A
Power Consumption	<8 W
Dimensions	160 mm × 120 mm × 32 mm

Net Weight	0.5 kg
Operating Temperature	0 °C to +50 °C
Storage Temperature	-40 °C to +85 °C
Operating Humidity	10 % to 90 % non-condensing
Storage Humidity	10 % to 90 % non-condensing

WiFi Parameters

Item	Description
Operating Mode	Router or bridge
WIFI Antenna	1 external antennas, 1 built in antennas
Throughput	IEEE 802.11b: 11Mbps
	IEEE 802.11g: 54 Mbps
	IEEE 802.11n: 300 Mbps
Frequency	2.412 to 2.472 GHz
Channel	13*Channel, configurable to meet the standard of USA, Canada, Japan and China
Modulation	DSSS, CCK and OFDM
Coding	BPSK, QPSK, 16QAM and 64QAM
RF Receiver Sensitivity	802.11b:
	-83 dBm @ 1 Mbps; -80 dBm @ 2 Mbps;
	-79 dBm @ 5.5 Mbps; -76 dBm @ 11 Mbps
	802.11g:
	-85 dBm @ 6 Mbps; -84 dBm @ 9 Mbps;
	-82 dBm @ 12 Mbps; -80 dBm @ 18 Mbps;
	-77 dBm @ 24 Mbps; -73 dBm @ 36 Mbps;
	-69 dBm @ 48 Mbps; -68 dBm @ 54 Mbps
	802.11n 20 MHz:
	-74 dBm @ 65 Mbps;
	-70 dBm @ 130 Mbps;
	802.11n 40 MHz:
	-70 dBm @ 135 Mbps;
	-67 dBm @ 300 Mbps;
RF Output Lever	802.11b:
	17 ±0.5 dBm @11Mbps
	802.11g:
	15 ±0.5 dBm @ 54 Mbps; 16 ±0.5 dBm @ 48 Mbps;
	17 ± 1 dBm @ 6 to 36 Mbps
	802.11n 20 MHz:
	14 ± 0.5 dBm @ 130 Mbps; 15 ± 0.5 dBm @ 78 Mbps;
	18 ± 0.5 dBm @ 6.5 Mbps
	802.11n 40 MHz:
	14 ± 0.5 dBm @ 300 Mbps; 15 ± 0.5 dBm @ 162 Mbps;
	18 ± 0.5 dBm @ 13.5 Mbps
Encryption Mode	802.11i security: WEP-64/128, TKIP (WPA-PSK) and AES (WPA2-PSK)

AC134C EoC Client CPE Unit

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Interface and LED Indicator	
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	1*CABLE(MIX)INPUT, metric/inch F connector
Ethernet interface	4*10/100M auto-negotiation, RJ45
Power interface	1*DC12V power supply interface
LED indicators	1 x power indicator
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RF Parameters	Frequency: 7.5 MHz to 65 MHz
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Power Supply	12 V_{DC} / 1 A
Power Consumption	<5 W
Dimensions	150 mm × 116 mm × 28 mm
Net Weight	0.5 kg

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Ordering Information

Product Name	Product Description
AM342C-HQ-M2-65-1	AM300 Series Outdoor EoC Master Node, 2 RF Input Ports, 2 RF Output Ports, 2 EoC Master, Home Plug, 7.5 to 65MHz, 60VAC
AC134CW-HQ-65-1	AMAP EoC Client CPE Unit 100 Series, 1 RF Input Port, 1 RF Output Port, 4 FE Data Ports, WIFI, Home Plug, 7.5 to 65MHz, 100 to 240VAC Power Adapter included
AC134C-HQ-65-1	AMAP EoC Client CPE Unit AC100 Series, 1 RF Input Port, 1 RF Output Port, 4 FE Data Ports, Home Plug, 7.5 to 65MHz, 100 to 240VAC Adapter included

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