

# Ethernet over Coax Customer Premise Equipment

## Product Brief



### Features And Benefits

- Leverages existing coaxial cable infrastructure to implement a network backbone to reduce costs and time to install
- Each CPE automatically connects to an EoC channel with out operator intervention or configuration
- Each EoC CPE provides a channel of up to 175 Mbps MAC throughput to the EoC backbone channel, software upgradeable to 400 Mbps
- 2-port and 4-port Ethernet EoC CPEs are available
- Optional 1 PoE port per CPE is available
- The EoC network is low latency high throughput, inherited in its MoCA DNA.
- 802.1q VLANs are supported
- Features include the implementation of unicast multicast IPTV, VoD, VoIP, among other services

### Overview

Ethernet over Coax Customer Premise Equipment provides end user access to the EoC network provided by Ethernet over Coax headends (EoC HEs) by bridging between end user side Ethernet networks and EoC networks on the coax.

EoC HEs provide up to four EoC channels on the coax. Currently, each EoC channel provides aggregate MAC throughput of up to 175 Mbps (MoCA 1.1 PHY mode), and is software upgradeable to provide up to 400 Mbps MAC throughput (MoCA 2.0 PHY mode). An EoC CPE automatically joins an EoC channel without manual intervention or configuration by the operator, reducing the cost and time of installation.

EoC CPEs come in two flavors: 4-port Ethernet CPE and 2-port 10/100/1000 Ethernet CPE. The Ethernet ports of each CPE can belong to an aggregate of up to 1024 VLANs. Optionally, one Ethernet port of an EoC CPE supports Power over Ethernet (PoE). The Ethernet switch of each CPE provides loop detection and mitigation.

EoC CPE supports IGMP Snooping to provide IP multicast filtering so IP multicast packets are transmitted only on the Ethernet ports that have joined those IP multicast groups. This saves network and CPU bandwidth of devices on network segments that have not joined those IP multicast groups. This feature allows efficient implementation of multicast IPTV.

The low latency and high throughput of the EoC system inherited in its MoCA DNA supports the implementation of multicast IPTV, VoD, VoIP, among other services.

Advanced

Scalable

Intelligent

Reliable

### Protocol/Standards/Support

- Ethernet IEEE802.3i(10BaseT @ 10 Mbps)
- Ethernet IEEE802.3u(100BaseT @ 100 Mbps)
- Ethernet IEEE 802.3z(1000BaseT @ 1000Mbps)
- IEEE 802.1q (VLAN)
- IGMP Snooping

### Ethernet Over Coax

- Up to 64 CPE per channel
- Up to 4 channels per coax
- CPE automatically selects channel- no manual configuration is required
- 175 Mbps MAC throughput pipe to EoC network software upgradeable to 400 Mbps

### LAN Interface

- 4 X 10/100/1000 Ethernet Ports (4-Port CPE)
- 2 X 10./100/1000 Ethernet Ports (2-Ports CPE)

### PoE Interface

- Optional single port PoE on 4-port and 2-port Ethernet CPE
- Complies with IEEE 802.3af
- Inserts 48VDC (15.4w) Power on Category Network Cable

### Coax RF Characteristics

- MoCA 1.1 PHY mode: 50 MHz wide bands centered at 1000, 1150, 1325, and 1500 MHz
- MoCA 2.0 PHY mode: 100 MHz wide bands centered at 1025, 1225, 1425, and 1625 MHz
- Up to 1024 QAM per subcarrier, modulation is automatically and dynamically selected
- MoCA 1.1 PHY mode: 4 dBm
- MoCA 2.0 PHY mode: 6 dBm

### Network Features

- 802.1X Authentication
- 802.1q VLAN
- IGMP Snooping
- MAC address learning
- Unknown unicast packet drop

### Regulatory Approvals

- FCC Class B, part 15
- UL,CSA,CE

### LED Indicators

- 1 x power
- 2 x coax link
- 2 x Ethernet link (2-port CPE)
- 4 x Ethernet link (4-port CPE)

### External Connectors

- 2 x RJ45
- 2 x Coax F-connector
- 1 x DC power input
- 1 x Factory default reset button

### Adaptor Power Requirements

- Input: 100 ~ 250V AC, 50 ~ 60Hz
- Output: DC 5V / 2A Non POE Variant
- Output: DC 48V/0.83A POE Variant
- Protection: OCP, OVP, and SCP

### Mechanical Dimensions

- Dimensions (W,D, H): 204mm x 155mm x 44mm
- Unit net weight: 1.5 kg



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