

Ethernet over Cable Master

Model: EME/EMO-01,02,03,04



Main Feature:

- Compliant with IEEE 1901, HomePlug AV, IEEE 802.1p/q , IEEE 802.3, IEEE 802.3x/u
- Advanced Ethernet over cable(EoC) technology to add IP service on the coaxial cable without changing the network physical infrastructure
- Built-in optical interface EPON in option
- Modular design, up to 4 EoC Master modules in each shell
- Useful Bandwidth up to 85Mb/s per EoC master module
- Each EoC master supports maximum 253 terminals, Maximum 1012 terminals per chassis
- High RF output level and low reception threshold, maximum transmission distance 1000m, 20km with optical EPON interface
- Cable TV input RF Band 47MHz-860MHz, IP Input RF Band 7.5MHz-30MHz
- Robust windowed OFDM multi-carrier technology anti noise and interference
- Flexible BPSK ,QPSK,8/16/64/256/1024-QAM and ROBO Modulation
- TDMA channel access to ensure video Streaming QoS
- CSMA/CA to avoid network collision and contention
- Support IGMPv2 multicast Proxy and Snooping
- 128-bit AES Encryption with key management for security
- Support ToS/CoS data packet classifier QoS Management
- Individual equipment management by SNMPv3/CLI/WEB/TELNET/SSH2
- Global System Network Management Software based on web, configuration and supervision of all the EoC masters and terminals in the network
- Support remote equipment firmware update
- Powered either by 220V-AC or 60V-DC
- Water proof, anti lightning aluminium outdoor shell or 1RU 19 ' indoor rack





Technical Specification:

EoC Feature:

- Compliant with IEEE 1901 Home Plug AV, IEEE 802.1p/q, IEEE 802.3, IEEE 802.3x/u
- MII (Host & PHY) interface IEEE 802.3u
- Robust windowed OFDM multi-carrier technology
- TDMA channel access to ensure video Streaming QoS
- CSMA/CA to avoid network collision and contention
- Flexible and adaptive modulation mode: ROBO,BPSK, QPSK, and 8/16/64/256/1024-QAM
- Encryption mode: 128-bits AES
- Support IEEE 802.1q tag-based and port-based VLAN, up to 4094 VLAN groups
- Support VLAN/DSCP priorities
- Support ToS/CoS data packet classifier
- IGMP multicast snooping
- Terminal bi-direction rate limitation; Terminal separation under same Master
- Broadcast suppression and unknown packet suppression

Cable RF Input:

- Number of input: 1,2,3,4
- RF input frequency range: 47MHz to 860MHz
- Reception Sensitivity:>-65dBm
- Return Loss: $\geq 16\text{dB}(87\text{MHz}-550\text{MHz})$
 $\geq 14\text{dB}(550\text{MHz}-860\text{MHz})$
- Connector type: F female, Impedance 75Ohm

Optical Input in option:

- Compliant with OLT output Interface and support 1310nm,1490nm and 1550nm wavelength
- ◆ Connector type: SC/PC

Ethernet Input:

- Input port: 1x10/100/1000M Auto/MDI/MDIX
- Max Useful data rate: 85Mbps
- Connector type: RJ-45

Cable RF Output:

- CATV output port: 1,2,3,4
- RF output frequency range: 7.5MHz to 860MHz
- RF output power: 15dBm (122dBu)
- Single-way output port CATV subscriber: up to 253
- Return Loss: $\geq 16\text{dB}(87\text{MHz}-550\text{MHz})$
 $\geq 14\text{dB}(550\text{MHz}-860\text{MHz})$
- Connector type: F female, Impedance 75Ohm

Control and Management:

- Individual EoC master and terminal management by Http/Web/Telnet, SSH2, SNMPv2,v3
- Centralized global system management of EOC masters and terminals based on the web

Access Mode:

- Master: PPPoE+Radius
- Terminal: PPPoE+Radius, DHCP or Fixed IP

Physical Parameter:

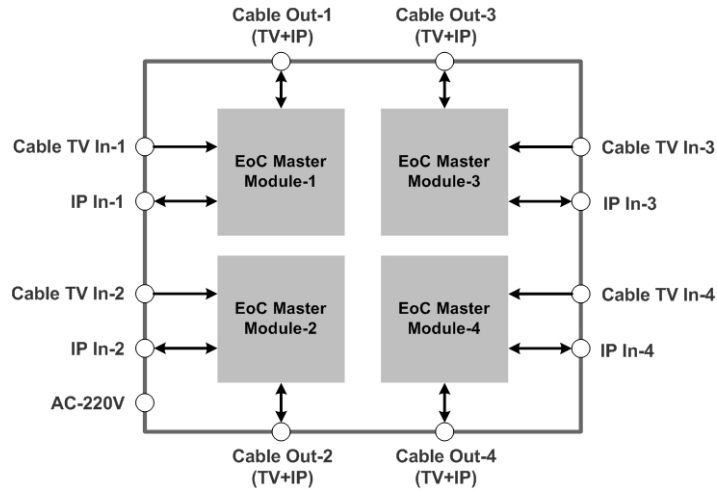
- + ● Power supply: AC-220V+/-10%, DC-60V in option
- Power consumption: ≤ 15 W(EME-xx); <20 W(EMO-xx)
- Working temperature: -25°C to +55°C
- Dimension:270(L) \times 220(W) \times 150mm(H) (EMO-xx)
- 225(L) \times 225(W) \times 150mm(H) (EME-xx)
- Weight: 2.8kg(EME-xx); 4kg(EMO-xx) in shell
- 1RU 19' rack in option

Order Information

Model	Description
EME/EMO-01	1 EoC master module with Electrical Interface/Optical Interface
EME/EMO-02	2 EoC master modules with Electrical Interface/Optical Interface
EME/EMO-03	3 EoC master modules with Electrical Interface/Optical Interface
EME/EMO-04	4 EoC master modules with Electrical Interface/Optical Interface



EME-04 Block Diagram



Typical Application

