

# PoEstack Series - Cost-Effective Family of PoE devices

## **GIGABIT POE+ L3 MANAGED SWITCH**

Our PoEstack Series Switches is a portfolio of affordable managed and unmanaged PoE switches that provide a critical building block for any small office or enterprise network. The product of this series EN-ML3CSW10G is 24/48-Port Gigabit with or without PoE+ with 4-Port 10G SFP+ L3 Managed Ethernet Switch. The PoE switches meet IEEE 802.3af/at standard. All RJ-45 ports support PoE and deliver up to 30W power per port.



The switch has advanced L2 management features, such as 802.1Q VLAN, ACL, LAG, loop detection and SNMP and Layer 3, including OSPFv2/v3, ISIS, BGP/BGP4+, VRRP. It can be easily managed via a WEB GUI or CLI (telnet/console). It is easy to use, and Plug-and-Play can be widely used in video security monitoring systems, network projects, etc.

This series contains the following types:

- EN-ML3CSW10G-48P+4S+: 48-Port 10/100/1000Base-T RJ45 with PoE support + 4-Port uplinks 10G SFP+ L3 Managed Ethernet Switch
- EN-ML3CSW10G-24P+4S+: 24-Port 10/100/1000Base-T RJ45 with PoE support + 4-Port uplinks 10G SFP+ L3 Managed Ethernet Switch
- EN-ML3CSW10G-48T4S+: (Non PoE) 48-Port 10/100/1000Base-T RJ45 + 4-Port uplinks 10G SFP+ L3 Managed Ethernet Switch



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#### **Key Features**

- Layer 3 Features
  - RIPv1/v2
  - OSPFv2/v3
  - BGP4/BGP4+
  - VRRP
  - IGMP
  - IPv6 Support
- Layer 2 Features
  - 802.1Q VLAN
  - QoS
  - STP/RSTP/MSTP
  - ERPS
  - IGMP snooping
  - LACP
  - LLDP

#### **Product Specifications**

Items	EN-ML3CSW10G-48T4S+	EN-ML3CSW10G-48P+4S+ EN-ML3CSW10G-24P+4S+	
Hardware Specifications			
Downlink Port	48*10/100/1000Base-T RJ-45 ports	24*10/100/1000Base-T PoE+ RJ-45 ports (EN-ML3CSW10G-24P+4S+) 48*10/100/1000Base-T PoE+ RJ-45 ports (EN-ML3CSW10G-48P+4S+)	
Uplink Port	4*10GBase-X SFP+		
Management Port	<ul> <li>1* RJ-45 Ethernet management po</li> <li>1* Console port</li> <li>1* Reset port</li> <li>1* USB2.0 interface</li> </ul>	prt	
Cable	Cat5 or better		
Dimensions (W*D*H)	440mm*240mm*44mm	440mm*320mm*44mm	
Power Supply	AC: 100~240VAC, 50~60Hz	AC: 100~240VAC, 50~60Hz DC: -52V~-57V	
Power Consumption	<50W(Full load)	<600W(Full load, include PoE)	
Material	Metal shell		
Switch Property			
Forwarding Modes	Store and Forward(Full Wire Spee	Store and Forward(Full Wire Speed)	
Switching Capacity	368Gbps (non-blocking)		
Packet Forwarding Rate	131Mpps		

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Jumbo frame	12KB	
MAC Table	32K, supported auto-learning	
ARP Table	4К	512
Routing Table	1K	512
ACL Table	1К	512
PoE		
PoE Standard	N/A	IEEE 802.3af/at
PoE Budget	N/A	30W max for each port, 600W max
		for whole switch
Environments		
Operating	Temperature: 0°C~50°C	
	Relative Humidity: 10%~90% (non-condensation)	
Storage	Temperature: -40°C~70°C	
	Relative Humidity: 10%~95% (Non-condensation)	
ESD	Contact Discharge: ±6kV, Air Discharge: ±15kV	
Surge	±6kV	

### **Software Features**

Software Main Features		
L1, L2 Features		
L1 Standard	IEEE 802.3(10Base-T), IEEE 802.3u(100Base-TX), IEEE 802.3z(1000BASE-X), IEEE 802.3ab(1000Base-T), IEEE 802.3ae(10GBase), IEEE 802.3x, IEEE 802.3ak(10GBASE-CX4)	
LLDP & LACP	Port loopback detection LLDP and LLDP-MED ULDP 802.3ad LACP, max 128 group trunks with max 8 ports for each trunk (supports max 64 group trunks with max 8 ports for each trunk) LACP load balance ERPS (G.8032) Support ERPS ring network, ring network self-healing time is less than 20ms	
Mirroring	Bidirectional traffic mirroring for basic ports Supports 1-to-multiple mirroring, supports up to 4 port sessions	
Spanning Tree	STP BPDU Guard, BPDU filtering and BPDU forwarding STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)	
VLAN	VLAN based on MAC, VLAN based on the protocol Port configuration of Access, Trunk, Hybrid, GVRP VLAN protocol (4K) VLAN based on port, IEEE802.1q, Voice VLAN, QinQ configuration	
IGMP	IGMP v1/v2/v3 Snooping and L2 Query ND Snooping MLDv1/v2 Snooping	



Security	Port Security
Port Configure	Flow Control: HOL, IEEE 802.3x
	Bandwidth Control
	L3 Features
IP Routing	IPV4 Equal Cost Routing NG protocol, maximum 1000 entries ARP protocol, maximum 1000 entries Pingv6, Telnetv6, TFTPv6, DNSv6, ICMPv6
	IPV4/IPV6 VRRP, the maximum group is 255 IPV4/IPV6 VLANIF interface supports up to 128 IPV4/IPV6 static route/default route supports up to 128 entries IPV4 dynamic routing, RIPv1/v2, OSPFv2, BGP4+, 4000 routing entries IPV6 dynamic routing OSPFv3, BGP+, RIPng, IPV6 management, 1000 routing entries L3 network management function, IPV4/IPV6 dual-stack management
	Layer 3 routing and forwarding, support communication between different network segments and different VLANs
IGMP	MLD Snooping, IGMP Snooping, Multicast VLAN User quick log out, MVR (Multicast LAN registration) IGMP Snooping v1/v2/v3 and 1024 multicast groups at most
ARP	ARP Guard, Local ARP proxy, Proxy ARP, ARP Binding, Gratuitous ARP, ARP Limit Anti ARP Cheat, Anti ARP Scan
DNS	DNS Client, DNS Relay
ΙΡν6	6to4 Tunnel, Configured Tunnel, ISATAP Tunnel, ICMPv6, ND, DNSv6 IPv6 LPM Routing, IPv6 Policy-based Routing (PBR) IPv6 VRRPv3, IPv6 URPF, IPv6 RA RIPng, OSPFv3, BGP4+ MLD Snooping, IPv6 Multicast VLAN MLDv1/v2, IPv6 ACL, IPv6 QoS
QoS	8 Queues SP, WDRR, SWDRR Traffic Classification Based on 802.1p CoS, ToS, DiffServ DSCP, ACL, port number Traffic Policing PRI Mark/Remark
ACL	IP ACL, MAC ACL, IP-MAC ACL, User-Defined ACL Standard and Expanded ACL Based on source/destination IP or MAC, IP Protocol, TCP/UDP port, DSCP, ToS, IP Precedence), VLAN, Tag/Untag, CoS Redirect and statistics Rules can be configured to port, VLAN Time Ranged ACL ACL rules can be configured to port, VLAN



Security	802.1x AAA Port, MAC-based authentication Accounting based on time length and traffic Guest VLAN and auto VLAN RADIUS for IPv4 and IPv6 TACACS+ for IPv4 and IPv6 MAB
DHCPv4/v6 Traffic Monitor	DHCP Server/Client for IPv4/IPv6 DHCP Relay/Option 82 DHCP Snooping/Option 82
Traffic Monitor	sFlow Traffic Analysis
Security Network Management	CLI, WEB, Telnet, SNMPv1/v2c/v3 through IPv4 and IPv6 Syslog and external Syslog Server HTTP SSL SNMP MIB, SNMP TRAP FTP/TFTP SNTP/NTP RMOM 1,2,3,9 Authentication by Radius/TACACS SSH v1/v2 Dual firmware images/ Configuration files 802.3ah OAM, 802.1ag OAM



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