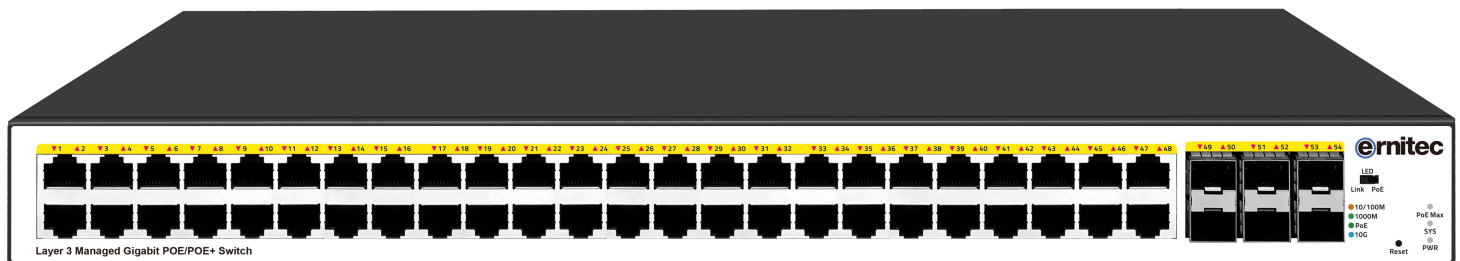


48-Port Gigabit and 6-Port 10G SFP+ Managed PoE Switch



Product Highlights

- Comply with IEEE 802.1d, IEEE 802.1w, IEEE 802.1s, IEEE 802.1p, IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3z, IEEE 802.3ab, IEEE 802.3ae standards
- Support DHCP Server, QoS, ACL control, SNMP V1/V2/V3, IGMP Snooping v1/v2/v3
- Support Spanning Tree Protocol STP/RSTP/MSTP, ERPS, Loop Detection and Self Healing, and Remote Loop Monitoring and Control
- Support multiple VLAN partitions, including MAC VLAN and protocol VLAN
- Support IP address+MAC address+VLAN+port binding, DHCP Snooping, IP source and DAI protection
- Support IPV4/IPV6, RIP v1/v2, OSPFv2
- Support WEB, TELNET, CLI, SSH, SNMP, RMON management
- Support IEEE802.3af (15.4W), IEEE802.3at (30W)
- Support PoE watchdog, PoE port power supply and power configuration, PoE time management

Hardware Features

Description	Specification
Model	ELECTRA-M248-1GB-900W
Interface	48*1Gbps PoE ports 6*10Gbps SFP+ ports 1*Console port
Port Standard	IEEE802.3 (Ethernet) IEEE802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3z (Gigabit Ethernet Fiber Standard) IEEE 802.3ae (10G Ethernet) IEEE802.3x (Flow Control) IEEE 802.3az (Efficient and Energy saving Ethernet) IEEE 802.3ad (Link Aggregation) IEEE 802.1AB LLDP/LLDP MED (Link Layer Discovery Protocol) IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1s Multiple Spanning Tree Protocol (Fast Spanning Tree) IEEE 802.1Q (Virtual Local Area Network) IEEE 802.1p (VLAN Tag) IEEE 802.1X (User Authentication)
Switching Bandwidth	216Gbps
Packet Forwarding Rate	160.76Mpps
Packet Buffer	16Mbit
MAC Address Table	32K
Jumbo Frame	Up to 10K
VLAN	VLAN range 1-4094, maximum active VLAN is 4K
Transmission Method	Store and Forward
PoE Standard	IEEE802.3af (15.4W) IEEE802.3at (30W)
PoE Port Output Voltage	DC 44-57V
PoE Ports	Ports 1-48 PoE power output <30W
PoE Power Budget	780W
Power Supply	AC 100-240V 50/60Hz DC 56V14.3A&13V7.16A
Certification	CE, FCC, RoHS

Hardware Features

Description	Specification
Mainboard Power Consumption	43.84W
Structure Information	Product Dimensions: 440*346*44mm Packaging Dimensions: 580*440*120mm Product Net Weight: 5.87KG Product Gross Weight: 7.17KG
Packing Information	Carton Dimensions: 600*460*278mm Packing Quantity: 2PCS Packing Weight: 15.34KG
Package Contents	Switch 1pcs, Power Cord 1pcs, Manual 1pcs, Certificate of Inspection 1pcs, Rack-mounted kit 1 pair
Fan Quantity	4
Installation	Desktop, Rack-mounting
Surge Protection	Port Surge: Common mode 6KV, Differential mode 2KV Electrostatic ESD: Air 15KV, Contact 8KV (Class C)
Operating Temperature	0~40°C
Storage Temperature	-40~70°C
Operation Humidity	10%~90%, non condensing
Storage Humidity	5%~95%, non condensing
PWR Green LED	On: Powered on Off: Powered off
SYS Green LED	Flashing: System startup in progress On: The system is running normally
PoE Max Green LED	Off: Indicate that the PoE power usage is less than 90% Flashing(Once per second): Indicate that the PoE power usage of $90\% \leq P \leq 95\%$ On: Indicate that the PoE power is used at $95\% < P < 100\%$
Ports 1-48	Green LED on: 1Gbps Link normal Yellow LED on: 10/100Mbps Link normal Off: Link blocked Flashing: Data transmitting
PoE Green LED	On: PoE powered on Off: PoE powered off
Ports 49-54	Blue LED on: 10Gbps Link normal Green LED on: 1G/2.5Gbps Link normal Off: Link blocked Flashing: Data transmitting
Reset	Long press for 6 seconds to restore factory settings
Link&PoE Button	Link: Link mode PoE: PoE mode

Software Features

L3 Function	
IPv4	IPv4 VLAN Interface
	IPv4 Static Routes
	ARP
IPv6	IPv6 VLAN Interface
	IPv6 Static Routes
	IPv6 ND
RIP	V1/V2
OSPF	Router-ID
	Authentication
	V2
L2 Function	
Port	Port Switch configuration
	Port Description configuration
	Port Speed configuration
	Port Duplex configuration
	Port Flow Control configuration
	Support 10G/2.5G
	Jumbo Frame, Up to 10K
	EEE
	Fiber Module(DDM)
Link Aggregation	Support load balance policy; Base on MAC and IP-MAC
	Static and Dynamic Group
	Support LACP
	Up to 8 groups
Storm Control	Boardcast suppression
	Unknown Multicast
	Unknown Unicast
Port Mirroring	One to one monitor
	Many to one monitor
	Ingress/Egress/Both
	Up to 4 session groups
Port Security	MAC Address Constraints
	Port Security MAC Address
	Protect/Restrict/Shutdown
Port Isolation	Support
Port Rate-limit	Support
Loopback Detection	Support

Software Features

VLAN	Access/Trunk/Hybrid
	VLAN Tunnel (Q-in-Q Tunnel)
	VLAN range 1-4094, maximum active VLAN is 4K
	Voice VLAN
	MAC VLAN
	Surveillance VLAN
	Protocol VLAN
	GVRP
MAC Address	Dynamic MAC address
	Static MAC address
	Filtering MAC Address
Spanning Tree Protocol	STP/RSTP/MSTP
	BPDU Filter
	BPDU Guard
	Edge Port
LLDP	LLDP
	LLDP MED
Multicast	IGMP Snooping
	IGMP V1/V2/V3
	Router Port
	Static IGMP group address
	IGMP groups filtering
	Querier
	MLD Snooping
QoS	MVR
	Traffic classification based, Strict priority and WRR
	Port Priority
	802.1P Priority
	IP TOS Priority
	IP DSCP Priority
	Support up to 8 queues per port
ERPS	Priority Remarking
	Only SFP port
Services	
DHCP	DHCP Server
	IP Pool
	Static Binding
	Option 43
	DHCP Relay
Access Protocol	HTTP
	HTTPS
	Telnet
	SSHv2
	Manager ACL
	Session Timeout
	Password Retry Count
	Silent Time

Software Features

Security	
AAA	RADIUS
	TACACS+
	802.1X
	Base on port/MAC/local/WEB
DHCP Snooping	Global/VLAN
	Option 82
	Circuit ID
IP Source Guard	Support
Dynamic ARP Inspection	Support
DoS	Support
ACL	MAC ACL
	IPv4 ACL
	IPv6 ACL
Diagnostics	
Syslog	Logging Message
	Remote Server
Ping	Support
Traceroute	Support
Copper Test	Support
UDLD	Support
Equipment Management	
Manager Acces	Console
	HTTP/HTTPS
	Telnet
	SSH
	SNMP
Manager IP	Static Address
	DHCP Client
	Support IPv4 and IPv6 address
	Manager VLAN
	DNS
Time Synchronization	SNTP
	Manual Time

Software Features

PoE	
	PoE Temperature
	PoE Type/Level/Power/Voltage/Current query
PoE Configuration	PoE Switch Configuration
	PoE Watchdog Configuration
	PoE power AF/AT adaptation
PoE Schedule	Support
PoE Port Timer Reboot	Support
PoE MAX	Support
	V1/V2C/V3
	Community
SNMP	V3 User
	Group
	Trap Host
	RFC 1213 MIB-II
	RFC 1493 Bridge MIB
	RFC 1643 Ethernet MIB
SNMP MIB	RFC 2819 RMON MIB (Groups 1, 2, 3 and 9)
	RFC 2863 Interface MIB
	LLDP
	Private MIB
	Statistics
	History Configuration
RMON	Event Configuration
	Alarm Configuration
User Management	Support
	Firmware upgrade
Firmware Management	Double Image; Swap between Active and Alternate firmware image
Configuration Management	Upload and download
Save	Support
Restart	Support
Factory Defaults	Support

Software Features

Standard Compliance

IEEE 802.3x flow control and back pressure

IEEE 802.3ad port trunk with LACP

IEEE 802.1D Spanning Tree Protocol

IEEE 802.1w Rapid Spanning Tree Protocol

IEEE 802.1s Multiple Spanning Tree Protocol

IEEE 802.1p Class of Service

IEEE 802.1Q VLAN tagging

IEEE 802.1x Port Authentication Network Control

IEEE 802.1ab LLDP

RFC 768 UDP

RFC 793 TFTP

RFC 791 IP

RFC 792 ICMP

RFC 2068 HTTP

RFC 1112 IGMP v1

RFC 2236 IGMP v2

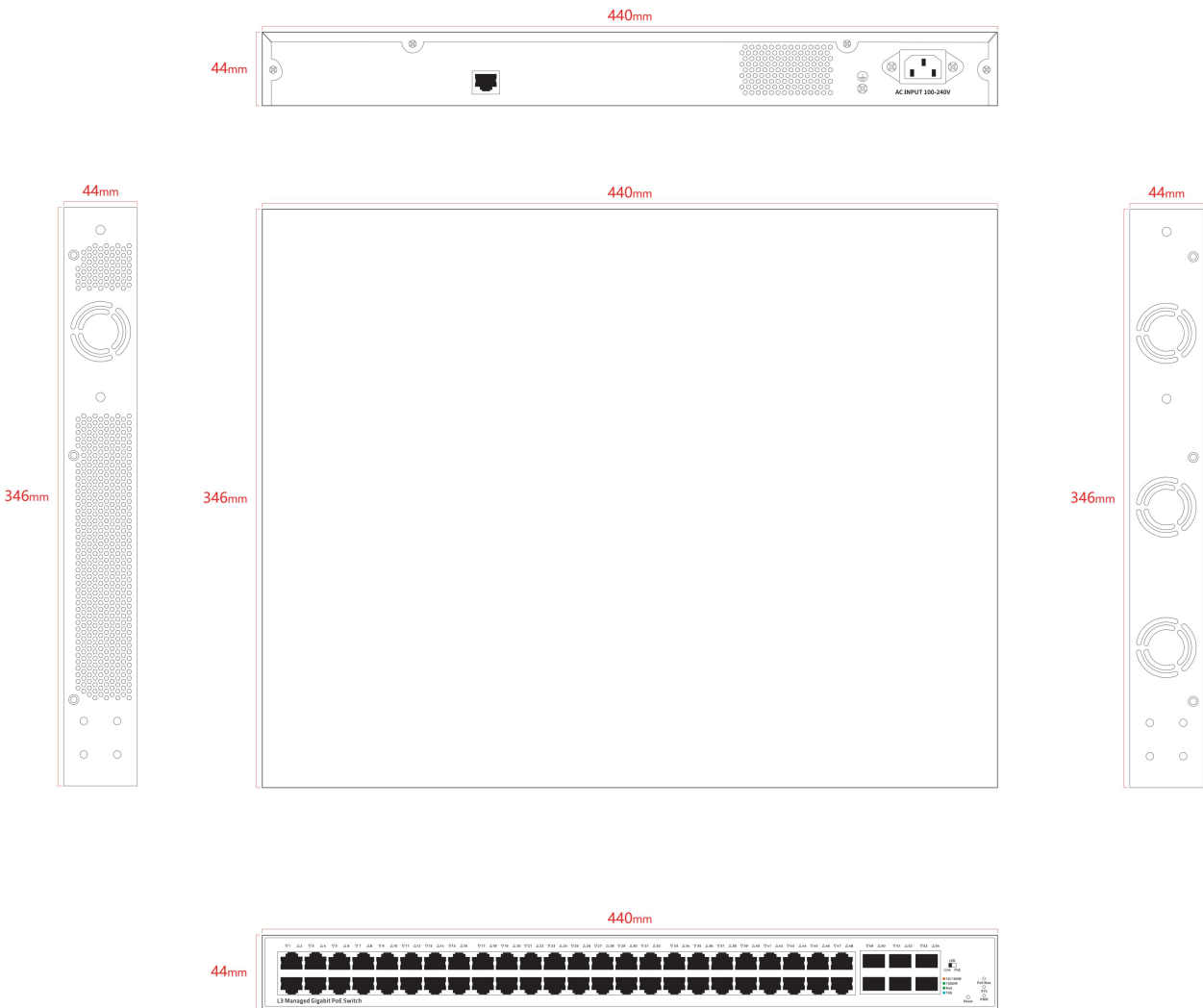
RFC 3376 IGMP v3

RFC 2710 MLD v1

FRC 3810 MLD v2

RFC 2328 OSPF v2

Product Structure Diagram



Mounting ear diagram (Standard, support to install on the cabinet)
Unit of size: mm

