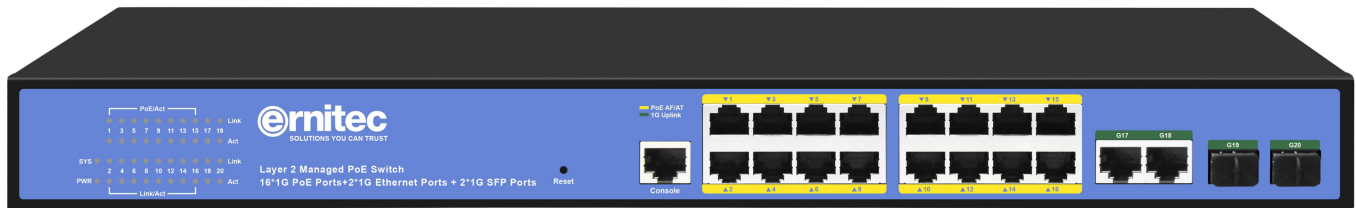


20-Port Gigabit Managed PoE Switch



Product Highlights

- 16*1Gbps PoE ports+2*1Gbps SFP ports+2*1Gbps RJ45 ports+1*Console port
- Support IEEE802.3, IEEE802.3x, IEEE802.3u, IEEE802.3ab, and IEEE802.3z network protocols
- Comply with IEEE802.3at (30W) and IEEE802.3af (15.4W) power supply standards
- Ethernet Ports support 10/100/1000Mbps self-adaptive
- Support PoE management and PoE watchdog
- The panel indicator LEDs will monitor the working status and assist in fault analysis
- Support 802.1x port authentication, AAA authentication, TACACS+authentication
- Support WEB, TELNET, CLI, SSH, SNMP, RMON management

Hardware Features

Description	Specification
Model	Electra-M16-1GB-285W
Interface	16*1Gbps PoE ports 2*1Gbps SFP ports 2*1Gbps RJ45 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) 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	40Gbps
Packet Forwarding Rate	29.76Mpps
Packet Buffer	4.1Mbit
MAC Address Table	8K
Jumbo Frame	Support
VLAN	VLAN range 1-4094, maximum active VLAN is 256
Transmission Method	Store and Forward
PoE Standard	IEEE802.3af (15.4W) IEEE802.3at (30W)
PoE Port Output Voltage	DC 44-57V
PoE Ports	Ports 1-16 PoE power output <30W
PoE Power Budget	285W
Power Supply	AC 100-240V 50/60Hz DC 52V 5.76A
Mainboard Power Consumption	13.8W

Hardware Features

Description	Specification
Structure Information	Product Dimensions: 440*204*44mm
	Packaging Dimensions: 500*290*85mm
	Product Net Weight: 2.78KG
	Product Gross Weight: 3.44KG
Packing Information	Carton Dimensions: 520*445*310mm
	Packing Quantity: 5PCS
	Packing Weight: 18.2KG
Package Contents	Switch 1pcs, Power Cord 1pcs, Manual 1pcs, Certificate of Inspection 1pcs
Fan Quantity	0
Installation	Desktop, Rack-mounting
Surge Protection	Port Surge: Common mode 6KV, Differential mode 2KV
	Electrostatic ESD: Air 4KV, Contact 2KV
Operating Temperature	0~40°C
Storage Temperature	-40~70°C
Operation Humidity	10%~90%, non condensing
Storage Humidity	5%~95%, non condensing
PWR Red LED	On: Powered on
	Off: Powered off
Ports 1-20 Green LED	On: 10/100/1000Mbps Link normal
	Off: Link blocked
	Flashing: Data transmitting
SYS Green LED	Flashing: System startup in progress
	On: The system is running normally
PoE Green LED	On: PoE powered on
	Off: PoE powered off
Reset	Long press for 6 seconds to restore factory settings

Software Features

Description	Specification
L2+ Function	
IPv4	IPv4 VLAN Interface IPv4 Static Routes ARP
IPv6	IPv6 VLAN Interface IPv6 Static Routes IPv6 ND
L2 Function	
Port	Port Switch configuration Port Description configuration Port Speed configuration Port Duplex configuration Port Flow Control configuration Jumbo Frame EEE Fiber Module(DDM)
Link Aggregation	Support load balance policy; Base on MAC and IP-MAC
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

Description	Specification
VLAN	Access/Trunk/Hybrid VLAN Tunnel (Q-in-Q Tunnel) VLAN range 1-4094, maximum active VLAN is 256 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 MVR
QoS	Traffic classification based, Strict priority and WRR Port Priority 802.1P Priority IP TOS Priority IP DSCP Priority

Software Features

Description	Specification
ERPS	Only SFP port
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
Services	
	DHCP Server
	IP Pool
DHCP	Static Binding
	Port Static Binding
	DHCP Relay
	HTTP
	HTTPS
	Telnet
	SSHv2
Access Protocol	Manager ACL
	Session Timeout
	Password Retry Count
	Silent Time
Security	
	RADIUS
	TACACS+
AAA	802.1X
	Base on port/MAC/local/WEB
	Global/VLAN
DHCP Snooping	Option 82
	Circuit ID

Software Features

Description	Specification
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
Port Statistics	Support
Equipment Management	
Manager Access	Console
	HTTP/HTTPS
	Telnet
	SSH
	SNMP
	Static Address
Manager IP	DHCP Client
	Support IPv4 and IPv6 address
	Manager VLAN
	DNS
Time Synchronization	SNTP
	Manual Time
SNMP	V1/V2C/V3
	Community
	V3 User
	Group
	Trap Host

Software Features

Description	Specification
SNMP MIB	RFC 1213 MIB-II
	RFC 1493 Bridge MIB
	RFC 1643 Ethernet MIB
	RFC 2819 RMON MIB (Groups 1, 2, 3 and 9)
	RFC 2863 Interface MIB
	LLDP Private MIB
RMON	Statistics
	History Configuration
	Event Configuration
	Alarm Configuration
User Management	Support
Firmware Management	Firmware upgrade
Configuration Management	Upload and download
Save	Support
Restart	Support
Factory Defaults	Support
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	
IEEE 802.3af Power over Ethernet	
IEEE 802.3at Power over Ethernet Plus	
RFC 768 UDP	
RFC 793 TFTP	
RFC 791 IP	

