Ernitec Electra

Managed PoE switch T24

A new generation of high-performance hardware and software platforms that provide flexible, cost-effective all Gigabit access and uplink ports. Supports Layer 3 routing protocols, complete security protection mechanisms, comprehensive ACL/QoS policies, and various VLAN functions. It is easy to manage and maintain, and meets the user's needs for easy management, high security and other network devices, applicable for network access, aggregation and core application scenarios in campus, hotel and enterprise areas.Support OC Linux Kernel version 3.18 in web site.

This 24 port Gigabit PoE+ switch with 4 Gigabit SFP uplink ports is designed using a Broadcom Chipset. It provides 24 x 10/100/1000M RJ45 Ports and all 24 are PoE+ Ports. The PoE ports can automatically detect and supply power for the IEEE802.3af and IEEE802.3at compliant Powered Devices (PDs), like Voip Phone, PoE APs, IP Phones, IP cameras, etc.

The switch also benefits from Lightning protection on both the power input and Lan ports.

AI Smart POE Switch,24*1000Mbps RJ45 port, 4*1000Mbps SFP port(POE is available).

5 working modes:

- **Standard mode:** All ports communicate freely;
- **AI VLAN:** Avoid the internet storm and enhance the network ability;
- **AI Extend:** Extend 250M transmission;
- **AI PoE:** Automatic self checking, reboot the device while find it fake dead;
- **AI QoS:** Video data first, more fluent transmission

Product introduction

- 4 Gigabit SFP ports
- 24 Gigabit RJ45 ports (support PoE power supply)
- BCM high-end chip, supporting layer 3 management
- Support RIP, OSPF
- Support port management, PoE management, link aggregation, STP, loop protection, IMGP, 802.1X
- Support IPv4/IPv6
- Support 4 simple and fast working modes: AI VLAN, AI Extend, AIPoE, AI QOS
- Power supply: 370W

Installation diagram (for reference only)

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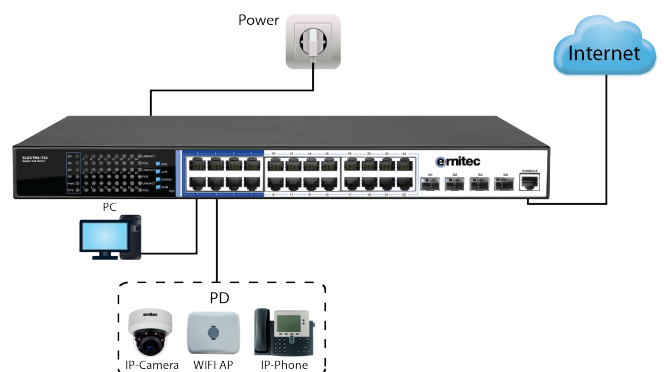
Powerful multi-service processing capabilities

- Supports OSPF dynamic routing protocol to solve routing problems after subnetting of large complex networks and simplify network configuration.

- Support RIP dynamic routing protocol to solve routing problems after subnetting of small and medium-sized networks and simplify network configuration.

- Supports static routing. The administrator manually configures routing entries to implement communication between different network segments. It is simple, efficient, and reliable.

- Support DHCP server to assign IP addresses to hosts on the network.

- Supports DHCP relay. Switches on different interfaces or subnets can also obtain IP addresses and reduce the number of DHCP servers.

- Support proxy ARP to allow hosts on different physical networks on the same network segment to communicate normally.

- Supports IEEE 802.1Q VLANs, MAC VLANs, IP VLANs, and voice VLANs. You can flexibly assign VLANs according to different requirements.

- Supports GVRP to implement dynamic VLAN distribution, registration, and attribute propagation. This reduces manual configuration and ensures correct configuration.

- Supports the VLAN VPN function. The public network access device encapsulates the outer VLAN tag for the private network packets of the user, so that the packets carry two VLAN tags across the public network.

- Support QoS, support port-based, 802.1P-based and DSCP-based three priority modes and WFQ, SP, WRR, SP+WRR four queue scheduling algorithms.

- Supports ACLs by configuring matching rules, processing operations, and time permissions to filter packets and provide flexible security access control policies.

- Supports IGMP V1/V2 multicast protocol and supports IGMP Snooping to meet the requirements of multi-terminal HD video surveillance and video conference access.

- Supports PoE management POE power limitation, POE chip status check, setting PoE port priority, and custom PoE power supply time period.

- Support hardware watchdog, the device has a suspended animation state and automatically restarts to resume normal working state.

- Support IPV6 Ping, IPv6 Tracert, IPv6 Telnet, IPV6 SSH, IPv6 SSL.

Complete security protection mechanism

- Supports IP address, MAC address, and port ternary binding to filter packets.

- Supports ARP protection, and protects against ARP spoofing and ARP flood attacks, such as gateway spoofing and man-in-the-middle attacks.

- Support IP source protection to prevent illegal address spoofing including MAC spoofing, IP spoofing, and MAC/IP spoofing.

- Supports DoS protection and supports attacks such as Land Attack, Scan SYNFIN, Xmascan, and Ping Flooding.

- Supports 802.1X authentication, provides authentication functions for LAN computers, and controls the authorization status of controlled ports based on the authentication results.

- Supports port security. When the port learns the maximum number of MAC addresses, it stops learning to prevent MAC address attacks and control port network traffic.

- Support DHCP Snooping to effectively prevent private DHCP servers and ensure the legality of the DHCP server.

Various reliability protection

- Support loop protection, automatically detect switch loop status, and block loop ports.

- Supports the STP/RSTP/MSTP spanning tree protocol to eliminate Layer 2 loops and implement link backup.

- Supports spanning tree security to prevent devices in the spanning tree network from being subjected to various forms of malicious attacks.

- Supports static aggregation and dynamic aggregation, which effectively increases link bandwidth, implements load balancing, link backup, and improves link reliability.

Easy operation and maintenance

- Supports various management and maintenance methods such as Web network management, CLI command line (Console, Telnet), and SNMP (V1/V2/V3).

- Supports encryption methods such as HTTPS, SSL V3, and SSHV1/V2 for more secure management.

- Support RMON, system log, and port traffic statistics for network optimization and transformation.

- Supports cable detection, ping detection, and Tracert detection operations to easily analyze failed network nodes.

- Support LLDP to facilitate the network management system to query and judge the communication status of the link.

- Supports CPU monitoring, memory monitoring, ping detection, Tracert detection, and cable detection.

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Specifications

Network port	24* 10/100/1000Mbps RJ45 port4 gigabit SFP fiber port1 Console port
PoE	24* 10/100/1000Mbps RJ45 port support PoEMax 400WSingle port max 30W
Network protocol and standard	IEEE 802.3: Ethernet Media Access Control (MAC) protocol, IEEE 802.3i: 10BASE-T Ethernet, IEEE 802.3u: 100BASE-TX fast Ethernet, IEEE 802.3ab: 1000BASE-T gigabit Ethernet, IEEE 802.3z: 1000BASE-X gigabit Ethernet (fiber), IEEE 802.3ae: 10GBASE-SR/LR 10G Ethernet (fiber), IEEE 802.3ad: comply link aggregation standard, IEEE 802.3x: flow control, IEEE 802.1p: About the traffic priority of the second layer of Qos / Cos protocol (multicast filtering), IEEE 802.1q: VLAN Bridge operation, IEEE 802.1d: STP spanning tree, IEEE 802.1d: STP spanning tree, IEEE 802.1w: RSTP spanning tree, IEEE 802.3af, IEEE 802.3at
Performance	Forwarding mode: store and forward, Switch Volume (Full-duplex): 56Gbps Packet, Forwarding rate: 41.664Mpps8K MAC address table
LED indicator	28 Link/Act LEDs24 POE LEDs1 Power LEDs
Power	100-240V/50-60Hz
Dimensions	Size: L x W x H: 440mm × 320mm × 44mm
	Weight: 10,6 kg
Environment	Operating temperature: 0°~40℃; storage temperature: -40~70℃
	Operating Humidity: 10%~90%, non-condensing; Storage Humidity:5%~95%, non-condensing

Software Specifications

Shortcut function	One key VLAN, One key CCTV(1-8 port 250meters PoE distance), One key Q0S (Video priority), One key AI power supply
Routing	Support RIP V1/V2 dynamic routing, Support static routing
DHCP	Support DHCP server, Support DHCP reply, Support DHCP Snooping
VLAN	Support 4K VLAN, Support 802.1Q VLAN, Port VLAN, Voice VLAN
MAC address table	Comply the IEEE 802.1d standard, Support MAC address learning and aging automatically, Support static, dynamic, filter address table
Safety	Based on user rating management and password protection, Support based on the port number, IP address, MAC address restrictions on user accessIcmp-echo, DoS protectionSupport DHCP Snooping, DHCP attack protection, Support port security, port isolation
POE management	Support setting the PoE port priority, Support setting PoE power supply period, Support setting port power
Access control (ACL)	Support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function, Support port mirroring, port redirection, flow rate limit, QoS re-marking
Quality of Service (QoS)	Support 8 port queueSupport port priority, 802.1p priority, DSCP prioritySupport SP, RR, WRR, WFQ, Priority scheduling algorithm
Spanning Tree	Support STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocol, Support loop protection, BPDU protection
Multicast	Support IGMP v1/v2 SnoopingSupport static multicastSupport multicast VLAN
Management and maintenance	Support WEB management (HTTP), Support CLI (Telnet,local serial port), Support SNMP V1/V2/V3, Compatible with public MIBS, Support LLDP, RMON, Support CPU monitor, memory monitoring, Support system log, Support cable testing

Indicator status

Indicator	Indicator description	Normal status	Abnormal status
PWRw	Power indicator	Yellow light on	If the light is not on, please check external socket power supply if it is a normal/adapter power connection, if it is correct or not, etc.
LINK/ACT	PD device connection indicator	Green light on	If the light is not on, please check the corresponding RJ45 port if connected network devices, PoE power normal, cable connected correctly, cable damaged, network devices destroyed or not, etc.

Caution

1. For your safety, please don't open the casing of the product.
2. Please be careful of the risk of strong current and security protection.
3. Please select the right power adaptor provided power for PoE switch, before using please confirm if is it according with the requirement of PoE switch.
4. Please don't use PoE switch under the humid environment, keep free from water.
5. Please start the power after the circuit is connected.
6. Please don't plug-in and plug-out the connection cable when product is powered on.
7. Please don't use PoE switch under somewhere with more dust and EME.
8. Please don't put heavy thing on PoE switch.
9. According to the IEEE802.3AF/AT standard, please use the Cat.5 or above, transmission distance 250m.
10. Please don't exceed the maximum output power of PoE switch when it connects more than one PD device.
11. PoE switch for indoor use. If you want to use outdoors, please install a waterproof box.

Item Number & Packing

Item Number	ELECTRA-T24
Power Cord	1 x CEE 7/7 TO IEC C13
Manual	Yes
Mounting Option	Desktop or Rackmount (Hardware included)