# 24+4Combo Fully Gigabit Network Managed POE Switch

24 10/100/1000M POE network

4 10/100/1000M Internet access

4 100/1000M uplink SFP optical port slots

**IPM-MANAGER-2400S**

## Specifications

**Exchange**

**Packet forwarding**

**MAC address:**8K

**Jumbo**

**Network management**

**Input voltage:**AC100-240V 50/60Hz,

**Dimensions:**440*290*45mm

**weight:**4.3kg

## 【Product Description】

IPM-MANAGER-2400SseriesFull Gigabit Layer 2 managed PoE switch, has twenty fourindivualthousandmeganetmouth+4 Gigabit optical and electrical multiplexing ports (4 optical and 4 electrical), among which 1-twenty-four. The port supports IEEE 802.3af/at standard PoE power supply, and the single-port PoE power reaches 30W. IPM-MANAGER-2400SAll service ports support 4KV electrostatic lightning protection. As a PoE power supply device, it can automatically detect and identify powered devices that meet standards and power them through network cables. It can supply power to POE terminal equipment such as wireless AP, network camera, Internet phone, building visual access control intercom, etc. through the network cable. It meets the network environment that requires a high-density PoE power supply and is suitable for hotels, campuses, parks, supermarkets, banks, scenic spots, factory dormitories, and SMB small and medium-sized enterprises to build cost-effective networks.

IPM-MANAGER-2400S has L2+ network management functions, supports IPV4

static route forwarding, supports complete security protection mechanisms, complete ACL/QoS policies and rich VLAN functions, making it easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and ERPS (<20ms) ring network protocols to improve link backup and network reliability. When a one-way network fails, communications can be quickly restored to ensure important Transmission of uninterrupted communications. According to actual application needs, PoE power supply management, port flow control, VLAN division, QoS, LACP, IGMP and DHCP and other application service configurations are performed through network management methods such as Web, CLI, SNMP, and Telnet.

## 【Product Features】

- Single-port PoE power up to 30W, af/at adaptive, widely compatible with various network terminals, supports PoE network management, remote POE port restart, and real-time power status viewing.
- Optical and electrical hybrid uplink port, flexibly adapts to network cable and optical fiber connections, adapts to various network cascades and expansions, and makes networking easier.
- Full Gigabit high-speed transmission, high-bandwidth transmission is stable and guaranteed, supports per-port rate and flow control, and achieves10M/250 meters long-distance transmission, easily solving long-distance communication and power supply problems, to meet different user needs.
- Enterprise-level high-bandwidth switching chip, high backplane, large cache, reduce network congestion.
- Supports automatic learning and updating of MAC addresses, and automatic port flip (Auto MDI/MDI-X) function.
- The service port supports 4KV anti-surge (lightning protection) protection, PoE short circuit and overload protection, making it safer and more secure to use.;
- Fine steel forged metal shell, shielding interference, strong heat dissipation, strong, rust-proof and more durable;

## 【Software Features】

**Strong business capabilities**

- Supports 128 entries of IPV4 static routing and ARP protocol, with a maximum of 1024 entries.
- Flexible port bandwidth and traffic configuration, optical port DDMI digital diagnostic function, easily achieve refined network management.
- Supports IEEE 802.1Q VLAN, protocol VLAN, and QinQ VLAN. Users can flexibly divide VLANs according to needs.
- Supports QoS, three priority modes based on port, 802.1P-based and DSCP-based, and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.
- Supports ACL to filter data packets by configuring matching rules, processing operations, and time permissions to provide flexible security access control strategies.
- Supports IGMP V1/V2 multicast protocol and IGMP SnoopingV1/V2/V3 to meet the needs of multi-terminal high-definition video surveillance and video conferencing access.
- Supports STP/RSTP/MSTP production tree protocol and ERPS fast ring network protocol to eliminate layer 2 loops and achieve link backup.
- Supports static aggregation and dynamic aggregation (LACP), effectively increasing link bandwidth, achieving load balancing, link backup, and improving link reliability.

**Complete Security Features**

- Support WEB interface user authentication
- Supports CPU protection to prevent attacks by large data flows on the switch itself
- Support 802.1x authentication, Remote RADIUS, TACACS+ authentication
- Hardware supports IP ACL, MAC ACL, ACLPort filtering Function,MAC address binding, Port-based IP+MAC+Vlan+Port multiple binding functions.
- Supports DHCP Snoopingv1/v2/v3 function, port isolation function, and port broadcast storm suppression function.

**Convenient operation and maintenance management**

- Supports diverse management and maintenance methods such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2c/V3), etc.
- Supports HTTP/HTTPS, SSH and other encryption methods, making management more secure.
- Supports HTTP/TFTP for firmware update/upgrade, supports configuration file upload/download, and restores system configuration with one click.

- Supports RMON, system logs, and port traffic statistics to facilitate network optimization and transformation.
- Supports LLDP, which facilitates the network management system to query and determine the communication status of the link.
- Supports CPU monitoring, memory monitoring, Ping detection, and cable detection.

## 【Technical Specifications】

| model | | IPM-MANAGER-2400S |
|---|---|---|
| **Port characteristics** | | |
| fixed port | Downstream port | 24 10/100/1000Base-T RJ45 network ports |
| | Upstream port | 4 10/100/1000Base-T RJ45 network ports + 4 100/1000M SFP optical port slots (multiplex port) |
| | Management port | 1 Console port (115200, 8, N, 1) |
| | PoE port | 1-24 supports af/at standard PoE power supply, transmission distance 100-250 meters |
| Network port characteristics | | 1-28 mouths10/100/1000M adaptive, full/half duplexMDI/MDI-XAdaptive |
| twisted pair transmission | | 10BASE-T: Cat3,4,5 UTP(≤250 meters)<br>100BASE-TX:Cat5 or later UTP(≤100 meters)<br>1000BASE-T:Cat5eor later UTP(≤100 meters) |
| Optical port characteristics | | Gigabit SFPOptical fiber interface is not equipped with optical modules by default and needs to be purchased separately (optional order mode/multi-mode, single fiber/double fiber optical modules, LC/SC) |
| Optical cable | | Multimode:850nm/0~550M,50μm/125μm&62.5μm/125μm<br>Single mode:1310nm/0~40KM, 1550nm/0~120KM.9.5μm/125μm |
| **Exchange chip parameters** | | |
| Network management type | | L2+ network management |
| Network protocol | | IEEE802.3 10BASE-T; IEEE802.3i 10Base-T<br>IEEE802.3u 100Base-TX<br>IEEE802.3xFlow Control<br>IEEE802.3ab1000Base-T<br>IEEE802.3z1000Base-X<br>IEEE 802.3ad port trunk with LACP<br>IEEE 802.1D Spanning Tree protocol<br>IEEE 802.1w Rapid Spanning Tree protocol<br>IEEE 802.1s Multiple Spanning Tree protocol |

| | |
|---|---|
| | IEEE 802.1p Class of service<br>IEEE 802.1Q VLAN tagging<br>IEEE 802.1x Port Authentication Network Control<br>IEEE 802.1ab LLDP<br>IEEE 802.3af DTE Power via MDI<br>IEEE 802.3at DTE Power via MDI |
| CPU | 500MHz |
| DRAM | 1Gbits |
| FLASH | 256Mbits |
| Forwarding mode | Store and forward (full line speed) |
| Backplane bandwidth | 56Gbps (non-blocking) |
| Packet forwarding rate@64byte | 41.66Mpps |
| MAC address table | 8K |
| Packet forwarding cache | 4.1Mbits |
| jumbo frame | 10Kbytes |
| indicator light | Power Indicator:PWR (Green); System running light: SYS (green); Network indicator: L/A (green), PoE indicator: PoE (yellow); Optical port indicator: SFP (green) |
| onekey reset switch | 1, long press and release for 6 seconds to restore factory settings |
| MTBF | 100,000 hours |
| **POE and power characteristics** | |
| POE port | Ports 1-24 support IEEE802.3af/at standard POE power supply |
| PoE management | Supports PoE on/off and restart for each port, PoE working status display for each port, real-time PoE power display |
| Power supply pin | Default 1/2(+), 3/6(-) 4-core power supply |
| Maximum PoE power of single port | 30W, standard IEEE802.3af/at |
| Total power/input voltage | 400W (AC100-240V) |
| Machine power consumption | Standby power consumption: <20W; full load power consumption: <400W |
| Supporting power supply | Built-in AC switching power supply AC: 100~240V 50-60Hz 5.0A |
| **Physical specifications** | |
| Operating temperature/humidity | -20° C～+55° C; 5%～90% RH non-condensing |

| | |
|---|---|
| Storage temperature/humidity | -40° C～+75° C; 5%～95% RH non-condensing |
| Appearance size (L*W*H) | 440*290*45mm |
| Net weight/gross weight | ＜4.3kg / ＜4.8kg |
| Installation method | Desktop, rack mount |
| **Certification and Warranty** | |
| Lightning protection/protection level | Port lightning protection: 4KV 8/20us; protection level: IP30 |
| Safety certification | CE,FCC,RoHS,CCC |
| Warranty | 2Year |
| **Software management features** | |
| port | Support IEEE802.3x flow control (full duplex), half-duplex back pressure flow control<br>Supports forced port mode and rate<br>Support broadcast stormand port storminhibition<br>Supports port traffic rate limiting with a minimum granularity of16Kbps, up to 1Gbps<br>Support port real-time traffic management (Flow Interval)<br>Supports jumbo frame size control, supporting up to 16K data packets<br>Support optical port DDMI digital diagnostic function |
| IP routing | Support L2+ network management function,<br>Supports IPV4 static routing/default routing, maximum entries 128<br>Supports ARP protocol, maximum entries 1024 |
| VLAN | Support port-based VLAN (4K), IEEE802.1qVLAN<br>Supports protocol-based VLANs<br>Supports three types of port configuration: Access, Trunk, and Hybrid |
| Port aggregation | Support static aggregationHarmonystate aggregation(LACP)<br>Support maximuml4Aggregation group, each aggregation group supports up to 8 ports |
| Ring network function | Support loop protection function<br>Support STP/RSTP/MSTPspanning tree protocol<br>Supports ERPS ring network (single ring, multi-ring, intersecting ring and tangent ring configuration), the ring network self-healing time is less than 20ms |
| multicast | Support IGMP Snooping v1/v2/v3, supports up to1024multicast group |
| mirror | Supports bidirectional traffic mirroring of basic ports |
| QoS | Supports priority based on port, 802.1P and DSCP/ToS,Supports 8 output queues per port |

| | |
|---|---|
| | Supports four priority scheduling modes: Equ, SP, WRR, and SP+WRR<br>Support priority mark Mark/Remark<br>Supports flow-based rate limiting, packet filtering, and redirection |
| ACL | Supports L2~L4 packet filtering function, which can match the first 80 bytes of the message and provide based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, and TCP/UDP port range , VLAN, etc. define ACL.<br>Supports issuing ACL based on port and VLAN |
| security features | Support user hierarchical management and password protection<br>Support port-based IEEE802.1X authentication<br>Support AAA&RADIUS andTACACS+Certification<br>Supports MAC address learning number limit<br>Supports MAC address blackhole and address binding<br>Support SSH 2.0, providing secure encrypted channel for user login<br>Support port isolation<br>Support ARP message rate limiting function<br>Support IP source address protection<br>Support ARP intrusion detection function<br>Support anti-DoS attack<br>Support port broadcast message suppression<br>Support host data backup/restore mechanism<br>IP+MAC+VLAN+portfour yuanBinding function |
| DHCP | Support DHCPServe<br>Support DHCP Client<br>Support DHCP Snoopingv1/v2/v3 |
| Management and maintenance | Supports diverse management and maintenance such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2c/V3), etc.Support WEB network management (supportHTTP/HTTPS)<br>Support HTTP and TFTP file upload/download management<br>Support RMON 1, 2, 3 and 9 groups<br>Support one clickreset<br>Support NTP clockand local clock<br>supportlocal log andSystem log(SYSLOG)<br>Support Ping detection<br>Support cable status check<br>Supports real-time CPU utilization status viewing<br>Supports link layer discovery protocol LLDP<br>Supports unified management of NMS platform clusters (LLDP+SNMP) |
| System Requirements | Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher<br>Category 5 and above Ethernet cables;<br>TCP/IP network adapter and operating system (such as Microsoft Windows, Linux or Mac OS) |