

Industrial Grade 1000 Series 6 Ports PoE+ Switch

Managed Layer2 10/100/1000 Ethernet PoE Switch, DIN Rail Mount

Infinique's IN1000M-06-120 is a ruggedized industrial Ethernet PoE+ switch of high performance. It's a Layer2 switch with 4x 1G PoE+ Ports and 2x SFP 1G Fiber ports for uplink. The max PoE power is 120W or 240W based on the power supply used, making it an ideal choice for use in industrial environments. This switch has security features that are comprehensive and the fan-less design makes it suitable for dusty and harsh environments while adhering to overall IT network design, compliance, and performance requirements.

This switch has wide-ranging software feature, and with extended temperature range locations, it is suitable for smart buildings, utility, process control, Intelligent Transportation Systems (ITS), city surveillance programs, rail transit, power industry, mining, petroleum, shipping, metallurgy, and green energy construction and offers a cost-effective, stable and reliable communication network.

The IN1000M-06-120 Switch has the L2+ full network management function, supports IPV4/IPV6 management, static route full line-rate forwarding, security protection mechanism, ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. It supports multiple network redundancy protocols STP/RSTP/MSTP and ERPS to improve link backup and network reliability. When the one-way network fails, communication can be quickly restored to ensure important uninterrupted communication for applications. According to the actual application requirements, multiple applications can be configured, such as PoE power management, port traffic control, VLAN division, and SNMP through the web network management mode.

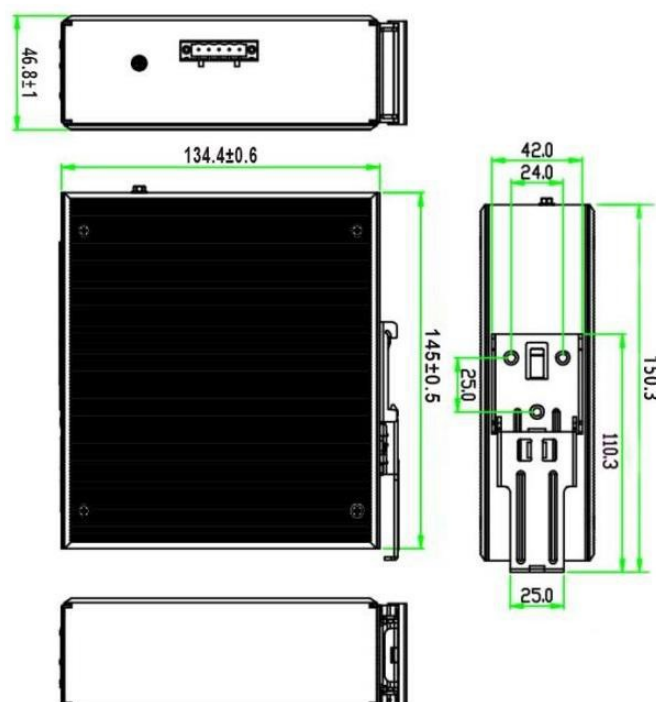
Features and Benefits

- **High Density PoE+ Connectivity**
Layer2 Managed Industrial Grade Switch with 4x 1G PoE+ Ports and 2x 1G SFP Fiber Ports
- **Excellent Performance**
Switching capacity of 20 Gbps and forwarding speed of 14.88Mpps with 64 byte packets
- **Robust Industrial Design**
Galvanized Steel Casing, Fan-less, Industrial Grade, Shock, Vibration, and Surge Proof with electrical noise immunity, DIN Rail Mountable, IP40
- **Intelligent PoE Power Management**
Low Power Consumption, Port Prioritization, PoE Port Power Allocation, Network Management, Priority Setting, Power Status Viewing, Time Scheduling
- **Standards**
Supports QOS, MSTP, IGMP, RADIUS and complies with 802.3af/at, 802.3, 802.3u, 802.3x, 802.3ab, 802.1X, 802.1Q, 802.1P Standards

CONSTRUCTION



Dimensions
Width: 47mm
Height: 145 mm
Depth: 134.5mm



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FEATURES AND BENEFITS

Robust Industrial Design

Galvanized Steel Casing, Industrial grade, fully managed PoE+ Ethernet Switch, DIN Rail Mountable, IP40 Fan-less Design with operational temperature range from -40 to 80°C
Shock, Vibration, and Surge Proof with electrical noise immunity
Low Power Consumption with improved uptime, performance, and safety
Complies with industry specifications for industrial automation, ITS, and challenging environments

High Density Gigabit Ethernet PoE+ Switch

4 x 1G PoE+ Ports, 30W per Port (IEEE802.3af/at), Total Power Budget of 120W or 240W
Auto-sensing, Full Duplex (IEEE802.3x) or Half Duplex, MDI/MDI-X, Non-blocking Wire-Speed Forwarding
Enables ready-to-use PoE devices, such as High Definition IP Cameras, Wireless Access Points, and IP Phones
Delivers multiple rings; redundant ring topology for network configurations
Extends geographical scalability where longer distance connectivity is required

Intelligent PoE Power Management

RJ45 Ports can support POE power supply to meet the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
IEEE 802.3af/at PoE Standard, without damaging non-PoE devices
Prioritization, supplies power first to port with high priority and manages allocation of power effectively
Network Management, PoE Port Power Allocation, Priority Setting, Power Status Viewing, Time Scheduling, etc.

Wide-Ranging Features

802.1Q VLAN, flexible VLAN division, Voice VLAN, and QinQ configuration, QoS, Priority mode based on 802.1P, Port and DSCP, Queue scheduling algorithm including EQU, SP, WRR & SP+WRR
ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control
IGMP V1/V2 and IGMP Snooping
ERPS/STP/RSTP/MSTP, Static and Dynamic Aggregation.

Easy and User-friendly Operation

Allows easily configuration and monitoring via a web browser.
Supports CLI Command Line (Console, Telnet), SNMP (V1/V2/V3)
HTTPS, SSLV3, and SSHV1/V2
RMON, System Log, LLDP and Port Traffic Statistics
CPU Monitoring, Memory Monitoring, Ping Test, and Cable Diagnose

Secure, Stable and Reliable

802.1X authentication, Port Isolation, Storm Control, IP-MAC-VLAN-Port Binding, Anti-DoS attack
SSH 2.0,SSL, Port isolation, ARP inspection, ARP message speed limit AAA & RADIUS,MAC learning limit, Mac black holes,IP source protection, User hierarchical management and password protection
Low Power Consumption, Fan-Less Design, Aluminum Casing
High Redundancy Power Supply, to provide long term and stable PoE power output
LED Indicators to show Power, Link and PoE Power Status
CCC,CE, FCC, RoHS Compliant

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| TECHNICAL SPECIFICATIONS | |
|----------------------------------|---|
| 10/100/1000 PoE+ Ports | 4x 1G PoE+ Ports |
| 10/1000 SFP Ports | 2x 1G SFP Fiber Ports (Optional: Single-mode / Multi-mode, Single fiber / Dual fiber optical module. LC type) |
| PoE Standard | IEEE802.3af/at |
| PoE Ports | Ports 1-4 |
| Network Protocols | IEEE 802.3, 10BASE-T Ethernet IEEE 802.3u, Fast Ethernet Standard IEEE 802.3ab, Gigabit Ethernet Standard IEEE 802.3z, Gigabit Ethernet Fiber Standard IEEE 802.3x, Full-Duplex Ethernet Data Link Layer Flow Control |
| Features | Half/Full-Duplex Operation at 10/100Mbps Full-duplex operation at 1000Mbps Auto-Negotiation for each port Auto MDI/MDIX |
| Host Support | IPv4 / IPv6 ready |
| LED Indicator Status | Power: PWR Yellow, System: SYS Yellow, Network: Link/Act Yellow, SFP: L/A Green, PoE: PoE Green |
| Factory Reset | Factory Reset Button; Continuous press (6 secs) for factory defaults, Short press twice at 1 sec interval to switch to unmanaged state |
| SWITCH PERFORMANCE | |
| Switching Bandwidth | 20 Gbps |
| Forwarding Rate | 14.88Mpps with 64 byte packets |
| Number of Queues | 6 Output Queues for each port |
| MAC Table Size | 8K |
| IGMP Groups | 1024 Multicast Groups |
| Number of VLANs | 1024 |
| MTBF | 100,000 hours |
| Buffer Memory | 2M |
| Jumbo Frame | 9.2K |
| NETWORK MANAGEMENT | |
| Interface | IEEE802.3X Full Duplex, Broadcast Storm Control on Port Speed, Message Flow Speed Limit for Access Port, Minimum Particle Size 64Kbps Port Temperature Protection Setting, Port Green Ethernet Energy Saving Setting |
| Layer 3 Features | L3, L2+ Network Management, IPV4/IPV6 Management, L3 Full Line Speed Soft Routing, Forwarding, Static Route, Default Route @ 128 pcs, APR @ 1024 pcs |
| VLAN | 4K VLAN based on Port, IEEE802.1q, VLAN based on protocol, VLAN based on MAC Voice VLAN, QinQ Tunneling, Port configuration of Access, Trunk, Hybrid |
| Port Aggregation | LACP, Static Aggregation, Max 8 Aggregation Groups, 8 Ports Per Group |
| Spanning Tree | STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s) |
| Industrial Ring Network Protocol | G.8032 (ERPS), Recovery time less than 20ms, 255 Ring, Max 250 Devices per Ring |
| Multicast | IGMP Snooping v1/v2, 1024 Multicast Groups, Fast log out, MLD Snooping v1/v2, Multicast VLAN |
| Port Mirroring | Bi-directional data mirroring based on port |
| Quality of Service (QoS) | Diff-Serv QoS, Priority Mark/Remark, 8 Output Queues per port, 802.1p/DSCP Priority Mapping, Queue Scheduling Algorithm (SP, WRR, SP+WRR), Flow-based Rate Limit, Packet Filter, Redirection |
| ACL | L2 to L4 Packet Filtering, matching first 80 bytes message, Provide ACL based on MAC, Destination MAC Address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port Range, VLAN, etc., VLAN and Port based ACL |

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| NETWORK MANAGEMENT | |
|-----------------------------|--|
| Security | User Hierarchical Management and Password Protection, SSH 2.0,SSL, Port Isolation, ARP Message Speed Limit, Storm Control, Host Datum Backup, 802.1X Multi-Domain Authentication, MAC Address Authentication, Mac Black Holes, IP Source Protection AAA and RADIUS, MAC Learning Limit, ARP Inspection, Anti-DoS Attack, IP-MAC-VLAN-Port Binding |
| DHCP | DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay |
| Management | Console/AUX Modem/Telnet/SSH2.0 CLI, Web Management (HTTPS), Cable Diagnose, LLDP, FTP Download and Management, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3, One-key Recovery, NTP, System Work Log, Ping Test, CPU Instant Utilization Status View, Smart Network Management System Platform |
| System | Web Browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Microsoft Internet Explorer10 or later Network Cable: Category 5 or Higher PC Operating System: Microsoft Windows, Linux, or Mac OS X |
| POE AND POWER MANAGEMENT | |
| PoE Management | Total Power limit of PoE power supply PoE Output power allocation, off& af &at PoE Output Priority Configuration PoE Working Status Delay start of power supply Scheduling of PoE operation and time |
| PoE Power Budget | 120W or 240W (depends on power supply), Max 30W Per Port, IEEE802.3af/at |
| Power Supply Pin | Default: 1/2 (+), 3/6 (-), Optional 4/5(+), 7/8(-) |
| Power Supply | No, Optional 48V/120W or 48V/240W Industrial Power Supply |
| Power Consumption | Standby <8W, Full Load <120W |
| Power Input Interface | 48-57VDC, 6 Pin industrial Phoenix Terminal, Supports anti-reverse protection. |
| Green Energy (EEE) | IEEE802.3az Energy Efficient Ethernet Task Force |
| ENVIRONMENT | |
| Operating Temperature | -40°C to 75°C |
| Operating Relative Humidity | 10% - 90%, non-condensing |
| Storage Temperature | -40°C to 85°C |
| Storage Relative Humidity | 5% - 90%, non-condensing |
| Working Altitude | up to 10,000 ft / 3000 m |
| Storage Altitude | up to 10,000 ft / 3000 m |
| PHYSICAL CHARACTERISTICS | |
| Dimensions | 47 (w) x 134.5 (d) x 145 (h) mm |
| Weight | 0.6kg Net / 0.8kg Gross |
| Enclosure | IP40 Aluminum Alloy, Desktop or 35mm DIN Rail mountable |

Industrial Grade 1000 Series 10 Ports PoE+ Switch

Managed Layer2 10/100/1000 Ethernet PoE Switch, DIN Rail Mount

STANDARDS COMPLIANCE

| | |
|----------------------|--|
| Safety | CE/LVD EN 62368-1, RoHS |
| Emissions | CE, FCC Part 15 Class B, VCCI Class B, EN 55022 (CISPR 22) Class B |
| Lightning Protection | Lightning protection: 6kV 8/20us; Protection level: IP40, IEC61000-4-2(ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-3(RS): 10V/m(80~1000MHz) IEC61000-4-4(EFT): power cable: ±4kV; data cable: ±2kV IEC61000-4-5(Surge): power cable: CM±4kV/DM±2kV; data cable: ±4kV IEC61000-4-6(radio frequency transmission): 10V(150kHz~80MHz) IEC61000-4-8(power frequency magnetic field): 100A/m; 1000A/m, 1s to 3s IEC61000-4-9(pulsed magnet field): 1000A/m IEC61000-4-10(damped oscillation): 30A/m 1MHz IEC61000-4-12/18(shockwave): CM 2.5kV, DM 1kV IEC61000-4-16(common-mode transmission): 30V; 300V, 1s FCC Part 15/CISPR22(EN55022): Class B IEC61000-6-2(Common Industrial Standard) |
| Mechanical | IEC60068-2-6 - Anti Vibration IEC60068-2-27 - Anti Shock IEC60068-2-32 - Free Fall |

ORDERING INFORMATION

| PART NUMBER | DESCRIPTION |
|------------------|---|
| IN1000M-06-120 | Infinique IN1000M Series Industrial Grade 6 Ports Full Gigabit PoE+ Managed ERPS Switch, 4x 1G PoE+ Ports, 2x 1G SFP Ports, IP40, Aluminum Alloy Enclosure, Desktop or DIN Rail Mount |
| IN-SFP-T1G-SMLCD | Infinique 1G SFP Module Transceiver, 1310nm, 20 KM, Dual Fiber, Singlemode LC Duplex |
| IN-SFP-T1G-MMLCD | Infinique 1G SFP Module Transceiver, 850nm, 500 M, Dual Fiber, Multimode LC Duplex |
| IMC-PWR-48-240 | Infinique Industrial Grade Power Supply for PoE Switch, 48VDC, 240W, DIN-Rail Mount |
| IMC-PWR-48-120 | Infinique Industrial Grade Power Supply for PoE Switch, 48VDC, 120W, DIN-Rail Mount |



Infinique, a Canadian company is a manufacturer of high performance end-to-end solutions in copper, fiber and video surveillance systems. For more information visit our website at www.infinique.com or email us at sales@infinique.com.

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Product specification, design and availability subject to change without prior notice.

Infinique Video Surveillance Solution

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