2100 Series 48 Ports PoE+ Gigabit Switch

Managed Layer2 Ethernet PoE+ Fiber Switch

Infinique's IN2100M-52-600 is an Ethernet PoE+ Switch of high performance. It's a Layer2 switch with 48 Ethernet interfaces and high density Power-over-Ethernet (PoE) capabilities, making it an ideal choice for use as an access switch in network environments where high density PoE power is required. This switch delivers security features that are comprehensive and is ideal for indoor enclosures while adhering to overall IT network design, compliance, and performance requirements.

The switch has wide-ranging software features and offers a cost-effective and reliable communication network 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.

Features and Benefits

- **High Density PoE+ Connectivity**
  Layer2 Managed Industrial Grade PoE+ Switch with 48 RJ45 10/100/1000Base-T PoE Ports with 30W power per port and 4 SFP 1G Fiber Ports

- **Excellent Performance**
  Switching capacity of 598 Gbps and forwarding speed of 77 mpps with 64 byte packets

- **Robust Design**
  Aluminum Alloy Metal Enclosure, Fan-less Mute Design, Excellent Heat Dissipation, Stable Operation, 1U Rack Mountable,
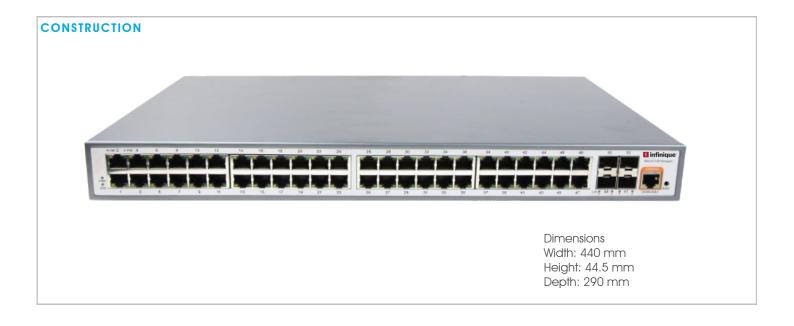
- **Intelligent PoE Power Management**
  Low Power Consumption, Port Prioritization, PoE Port Power Allocation, Network Management, Priority Setting, Power Status Viewing, Time Scheduling

- **Standards**
  Supports QOS, MSTP, IGMP, RADIUS and complies with 802.3at, 802.3, 802.3u, 802.3x, 802.3ab, 802.1X, 802.1Q, 802.1P Standards

The IN2100M-52-600 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.

CONSTRUCTION

Dimensions
Width: 440 mm
Height: 44.5 mm
Depth: 290 mm

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Infinique Video Surveillance Solution

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Managed Layer2 Ethernet PoE+ Fiber Switch

FEATURES AND BENEFITS

Robust Design

Aluminum Alloy Casing, Layer 2 fully managed PoE+ Ethernet Switch, 1U Rack Mountable, IP40
Excellent Heat Dissipation with Fan-less design with operational temperature range from -40 to 75°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

48 x 10/100/1000Base-T RJ45 Ethernet PoE+ Ports, 30W per Port (IEEE802.3af/at), Total Power Budget of 600W
4 x 1G Uplink SFP+ Ports (Data), Supports Single or Dual Fiber of Single or Multimode, LC Module
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
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	48 x RJ-45 Ports
1G SFP Uplink Ports	4 x 1G SFP Fiber Ports
Serial Console Ports	1 x RJ-45 Port
PoE Standard	IEEE802.3af/at
PoE Ports	Ports 1-48
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 802.3ae,10G Ethernet 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: Yellow, System: Yellow, Network: Link/Act Yellow, SFP: L/A Green, PoE: Green
Factory Reset	Factory Reset Button
SWITCH PERFORMANCE	
Switching Bandwidth	598 Gbps
Forwarding Rate	77.38 mpps with 64 byte packets
Number of Queues	8 Output Queues for each port
MAC Addresses Table Size	32K
IGMP Groups	1024 Multicast Groups
Number of VLANs	1024
MTBF	100,000 hours
Buffer Memory	32M
Jumbo Frame	9.6K
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 26 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 1024 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
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, Internet Explorer10 or later Network Cable: Category 5 or Higher PC Operating System: Microsoft Windows, Linux, or Mac OS X

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POE AND POWER MANAGEMENT	
PoE Management	PoE Output Power Allocation PoE Output Priority Configuration PoE Working Status Delay start of power supply Scheduling of PoE operation and time
PoE Power Budget	600W, Max 30W Per Port
Power Supply Pin	Default: 1/2 (+), 3/6 (-)
Power Supply	Built-in, AC100~240V 50-60Hz 6.6A
Power Consumption	Standby <35W, Full Load <600W
Power Input Interface	Dual input Power Interface, AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection, 2 set DC12-48V input interfaces, Way Alarm Switch Interface, 1 set of AC Power Input Interface
Green Energy (EEE)	IEEE802.3az Energy Efficient Ethernet Task Force

ENVIRONMENT	
Operating Temperature	-20°C to 55°C
Operating Relative Humidity	10% - 90%, non-condensing
Storage Temperature	-40°C to 80°C
Storage Relative Humidity	5% - 90%, non-condensing
Working, Storage Altitude	up to 10,000 ft / 3000 m

PHYSICAL CHARACTERISTICS	
Dimensions	440 (w) x 290 (d) x 44.5 (h) mm
Weight	4.8 kg
Mounting Enclosure	1U, 19 inch rack mountable

STANDARDS COMPLIANCE	
Safety	CE/LVD EN 60950, 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 A 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
IN2100M-52-600	Infinique IN2100M Series Layer2 Managed PoE+ Switch, 48 PoE+ Ports, 4 SFP 1G Ports, Switching Capacity 598 Gbps, PoE Power Budget 600W, Power Cord Included, Desktop or Rack Mountable
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

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