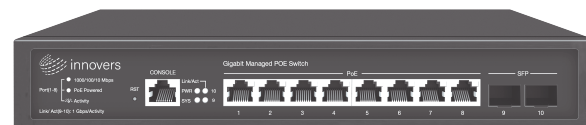


سوئیچ ۸ پورت مدیریتی گیگابیتی PoE دو لایه
مدل : IN-2008MGP-2S

www.innovers.ir
ساخت ایران

راهنمای کاربر

User Guide for the Innovers Management Switch



8 Ports L2 Managed Gigabit PoE Switch
Model :IN-2008MGP-2S

www.innovers.ir
Made in Iran

Short Description

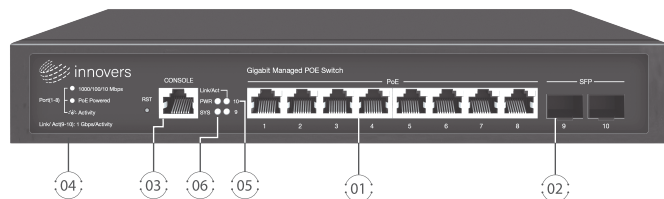
IN-2008MGP-2S is a high-performance, high-speed gigabit managed switch, offering 8 downlink gigabit Ethernet ports and 2 uplink SFP gigabit fiber ports.

Key Features

- The product is equipped with 2 uplink gigabit fiber ports and 8 POE gigabit Ethernet ports.
- Low power consumption, with a maximum power consumption of no more than 15W (excluding PoE output).

PoE power supply setting with port priority. Ports are prioritized in order, with port 1 being the highest priority and port 8 the lowest. When the switch is powered on, ports 1 to 8 are powered sequentially. If the power exceeds the total power limit, subsequent ports will stop supplying power. During operation, if the output power exceeds the total power limit, the later ports will be powered off first.

Description



- ① 8x10/100/1000 Auto Negotiation / Auto MDI/MDIX POE Ports
- ② 2x1000M SFP Fiber Port
- ③ Console Port
- ④ Metal Case
- ⑤ PWR LED
- ⑥ SYS LED

Interface

Switch	1	Power cord	1
Rack kit	2	Gift Box	1

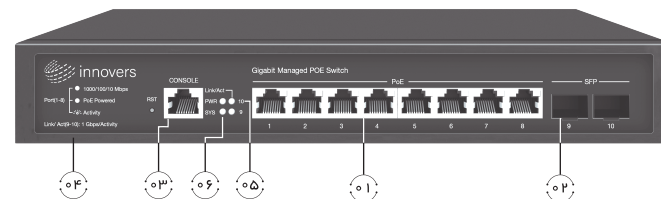
توضیحات

مدل IN-2008MGP-2S یک سوئیچ مدیریتی پرسرعت و با کارایی بالا است که دارای هشت پورت اترنت گیگابیتی و دو پورت فیبر نوری SFP گیگابیتی می‌باشد.

ویژگی‌های کلیدی

- این محصول دارای ۲ پورت فیبر نوری گیگابیتی Uplink و ۸ پورت اترنت گیگابیتی POE است.
- مصرف انرژی پایین دارد و حداکثر توان مصرفی آن بیش از ۱۵ وات نیست (بدون در نظر گرفتن توان POE).
- دارای تنظیمات منبع تغذیه POE با اولویت بندی پورت‌ها است. ترتیب اولویت پورت‌ها از پورت ۱ (بیشترین اولویت) تا پورت ۸ (کمترین اولویت) می‌باشد. هنگام روشن شدن دستگاه، پورت‌ها به ترتیب از ۱ تا ۸ فعال می‌شوند. اگر توان مصرفی از حد مجاز کل بیشتر شود، پورت‌های بعدی متوقف می‌شوند. همچنین در هنگام کار، اگر توان خروجی از حد مجاز کل فراتر رود، پورت‌های دارای اولویت پایین‌تر ابتدا خاموش می‌شوند.

معرفی دستگاه



- ① ۸ پورت POE اترنت با سرعت خودکار ۱۰/۱۰۰/۱۰۰۰ مگابیت بر ثانیه
- ② ۲ پورت فیبر نوری SFP با سرعت ۱۰۰۰ مگابیت بر ثانیه (۱ گیگابیت)
- ③ پورت مدیریتی
- ④ قاب فلزی
- ⑤ چراغ نشانگر برق
- ⑥ چراغ نشانگر سیستم

رابط‌ها

Switch	1	Power cord	1
Rack kit	2	Gift Box	1

مشخصات سخت افزاری

IN-2008MGP-2S	
RTL8380M+RTL8231+RTL8238B	CPU
RTL8238B	PoE IC
IEEE802.3 10BASE-T Ethernet IEEE802.3u 100BASE-TX Fast Ethernet IEEE802.3ab 1000BASE-T Gigabit Ethernet ANSI/IEEE 802.3 NWay Auto-negotiation IEEE 802.3z (Gigabit Ethernet fiber standard)	Standard
8 x 10/100/1000Mbps RJ45 2 x 1G SFP+ fiber ports 1 x console port RJ45 1 x reset button	Ports
Connector Type: RJ-45, SFP Supoport 10M/100M/1000 Mbit/s Support half-duplex, full-duplex, and auto-negotiation working modes Supoport MDI/MDI-X Auto-adaptive	Port attributes
IEEE 802.3af(15.4W),IEEE 802.3at(30W)	PoE
Store-and-forward mode	Exchange Mode
Linear forwarding	Packet forwarding rate
20Gbps	Backplane bandwidth
Maximum supported MAC addresses: 8K Support automatic address learning and automatic aging	MAC address table
SYS (green light): The light is solid green when the system is started, flashes when a fault is detected, and goes out when the system isnot started. Each port (2 green lights): The first one is always on when Link is on and flashes when Act; the second one is always on when PoE is powered and turns off when PoE is not powered.	Status Indicator
Power consumption of the whole machine (without POE load) <15W	Power consumption
AC 100 V~240 V 50/60 Hz DC 54V 7A (12V 2A)	Input Power
10Base-T: Cat3, 4, 5 or above UTP/STP(≤100m) 100Base-TX : Cat5 or aboveUTP/STP(≤100m) 1000Base-TX : Cat5 or above UTP/STP(≤100m)	Network cable type

Hardware Spec

IN-2008MGP-2S	
CPU	RTL8380M+RTL8231+RTL8238B
PoE IC	RTL8238B
Standard	IEEE802.3 10BASE-T Ethernet IEEE802.3u 100BASE-TX Fast Ethernet IEEE802.3ab 1000BASE-T Gigabit Ethernet ANSI/IEEE 802.3 NWay Auto-negotiation IEEE 802.3z (Gigabit Ethernet fiber standard)
Ports	8 x 10/100/1000Mbps RJ45 2 x 1G SFP+ fiber ports 1 x console port RJ45 1 x reset button
Port attributes	Connector Type: RJ-45, SFP Supoport 10M/100M/1000 Mbit/s Support half-duplex, full-duplex, and auto-negotiation working modes Supoport MDI/MDI-X Auto-adaptive
PoE	IEEE 802.3af(15.4W),IEEE 802.3at(30W)
Exchange Mode	Store-and-forward mode
Packet forwarding rate	Linear forwarding
Backplane bandwidth	20Gbps
MAC address table	Maximum supported MAC addresses: 8K Support automatic address learning and automatic aging
Status Indicator	SYS (green light): The light is solid green when the system is started, flashes when a fault is detected, and goes out when the system isnot started. Each port (2 green lights): The first one is always on when Link is on and flashes when Act; the second one is always on when PoE is powered and turns off when PoE is not powered.
Power consumption	Power consumption of the whole machine (without POE load) <15W
Input Power	AC 100 V~240 V 50/60 Hz DC 54V 7A (12V 2A)
Network cable type	10Base-T: Cat3, 4, 5 or above UTP/STP(≤100m) 100Base-TX : Cat5 or aboveUTP/STP(≤100m) 1000Base-TX : Cat5 or above UTP/STP(≤100m)

Szie	290*181*45mm
ESD	Air±8KV, touch±6KV
Surge	Common mode: ±2KV, differential mode: ±1KV
EMC	Class A
Working environment	Working temperature: -10°C ~ +40°C; Storage temperature: -40°C ~ +70°C; Humidity: 5%~95% (no condensation)

Firmware Specs

Gigabit Port Quantity	8*POE RJ45, 2*uplink RJ45
SFP Port Quantity	2*SFP
Enable/Disable Port	Support
Port auto-negotiation	Support port auto-negotiation Supports forced port mode and speed
Port flow control	Support full-duplex IEEE 802.3x flow control Support half-duplex back pressure flow control
Broadcast Storm Control	Support rate limiting for broadcast, multicast and DLF packets
Port Storm Suppression	Supports detection of broadcast packets, multicast packets and unicast packets of ports respectively, and closes ports when the threshold is exceeded.
Port Mirroring	Support
Port rate limit	Support port input and output port speed limit
Link Aggregation	Support manual link aggregation Support LACP dynamic link aggregation Supports up to 8 aggregation groups, each supporting up to 8 ports Support source MAC, destination MAC, source and destination MAC, source IP, destination IP, source and destination IP routing strategies
Protected Ports	Each port can be configured as a protection port isolated from each other
Redundant ports	Support
Jumbo Frame	Support, the maximum supported data packet is 16K
Detect network cable distance	Support

290*181*45mm	Szie
Air±8KV, touch±6KV	ESD
Common mode: ±2KV, differential mode: ±1KV	Surge
Class A	EMC
Working temperature: -10°C ~ +40°C; Storage temperature: -40°C ~ +70°C; Humidity: 5%~95% (no condensation)	Working environment

مشخصات میان افزار

8*POE RJ45, 2*uplink RJ45	Gigabit Port Quantity
2*SFP	SFP Port Quantity
Support	Enable/Disable Port
Support port auto-negotiation Supports forced port mode and speed	Port auto-negotiation
Support full-duplex IEEE 802.3x flow control Support half-duplex back pressure flow control	Port flow control
Support rate limiting for broadcast, multicast and DLF packets	Broadcast Storm Control
Supports detection of broadcast packets, multicast packets and unicast packets of ports respectively, and closes ports when the threshold is exceeded.	Port Storm Suppression
Support	Port Mirroring
Support port input and output port speed limit	Port rate limit
Support manual link aggregation Support LACP dynamic link aggregation Supports up to 8 aggregation groups, each supporting up to 8 ports Support source MAC, destination MAC, source and destination MAC, source IP, destination IP, source and destination IP routing strategies	Link Aggregation
Each port can be configured as a protection port isolated from each other	Protected Ports
Support	Redundant ports
Support, the maximum supported data packet is 16K	Jumbo Frame
Support	Detect network cable distance

توان POE

Support turning on and off the POE power supply of the port	Switch Control
Support setting total power	Power Control
Support setting the POE scheduling strategy of the port and support PD online query	Other advanced features

تنظیمات آدرس

8K	MAC table capacity
Support	MAC table management
Support IVL forwarding mode	Forwarding Mode
Support	Static MAC address
Support	MAC address binding
Support	MAC address filtering
Control the number of MAC addresses learned based on the port	MAC learning control

تنظیمات VLAN

4K	VLAN quantity
Support	802.1q-based VLAN
Support	MAC-based VLAN
Support	IP-based VLAN
Support	Protocol-based VLAN
Support	Voice VLAN
Support 1:1 mapping	VLAN Mapping
Support basic QinQ	Double VLAN tagging
Support flexible QinQ	

پروتکل اطمینان پذیری

Support STP/RSTP/MSTP	Spanning Tree Protocol
Support	Port loop detection
Support RFC3619	EAPS protocol
Support G.8032/Y.1344	ERPS protocol
Support LLDP and LLDP-MED	LLDP protocol
Fully compatible with CISCO's UDLD protocol	UDLD protocol

POE Power

Switch Control	Support turning on and off the POE power supply of the port
Power Control	Support setting total power
Other advanced features	Support setting the POE scheduling strategy of the port and support PD online query

MAC Configuration

MAC table capacity	8K
MAC table management	Support
Forwarding Mode	Support IVL forwarding mode
Static MAC address	Support
MAC address binding	Support
MAC address filtering	Support
MAC learning control	Control the number of MAC addresses learned based on the port

VLAN Configuration

VLAN quantity	4K
802.1q-based VLAN	Support
MAC-based VLAN	Support
IP-based VLAN	Support
Protocol-based VLAN	Support
Voice VLAN	Support
VLAN Mapping	Support 1:1 mapping
Double VLAN tagging	Support basic QinQ
	Support flexible QinQ

Reliability Protocol

Spanning Tree Protocol	Support STP/RSTP/MSTP
Port loop detection	Support
EAPS protocol	Support RFC3619
ERPS protocol	Support G.8032/Y.1344
LLDP protocol	Support LLDP and LLDP-MED
UDLD protocol	Fully compatible with CISCO's UDLD protocol

Host Routing

ARP	Support static and dynamic ARP
Static Routing	Supported, but not supported for Layer 3 forwarding
VLAN interface	Support 32 VLAN interfaces

Multicast functions and protocols

Static multicast MAC address	Support
IGMP SNOOPING	Support
MLD SNOOPING	Support
MVR	Support
GMRP protocol	Support

ACL Access Control List

Standard IP-based ACL	Support
ACL based on extended IP	Support
ACL based on MAC and IP	Support
MAC ARP-based ACL	Support
ACL port filtering	Support
Time-based ACL	Support

QoS

Number of port queues	8
Port queue scheduling mode	Supports WRR, SP, and WFQ scheduling modes.
Based on port classification	Support
Based on 802.1p classification	Support
Based on DSCP (DiffServ) classification	Support
ACL-based data flow classification	Support
QoS Policy	Supports mapping of data packets to corresponding output queues
	Supports modifying COS and DSCP marks of data packets
	Support data flow rate limit
	Support data flow statistics
	Supports mirroring of data streams

مسیریابی به یک میزبان خاص

Support static and dynamic ARP	ARP
Supported, but not supported for Layer 3 forwarding	Static Routing
Support 32 VLAN interfaces	VLAN interface

توابع و پروتکل‌های چندبخشی

Support	Static multicast MAC address
Support	IGMP SNOOPING
Support	MLD SNOOPING
Support	MVR
Support	GMRP protocol

لیست کنترل دسترسی (ACL)

Support	Standard IP-based ACL
Support	ACL based on extended IP
Support	ACL based on MAC and IP
Support	MAC ARP-based ACL
Support	ACL port filtering
Support	Time-based ACL

کیفیت خدمات

8	Number of port queues
Supports WRR, SP, and WFQ scheduling modes.	Port queue scheduling mode
Support	Based on port classification
Support	Based on 802.1p classification
Support	Based on DSCP (DiffServ) classification
Support	ACL-based data flow classification
Supports mapping of data packets to corresponding output queues	QoS Policy
Supports modifying COS and DSCP marks of data packets	
Support data flow rate limit	
Support data flow statistics	
Supports mirroring of data streams	

پروتکل پیکربندی پویای میزبان‌ها

Support	DHCP Client
Support	DHCP Snooping
Support	DHCP Relay
Support	DHCP Server
Support	DHCP option 82

ویژگی‌های مدیریت

Support serial port management switch	CLI management
Support TELNET management switch	
Support SSH management switch	
Support	WEB management
Support SNMP v1, v2c, v3	SNMP management
Support SNMP TRAP	
Supports a wide range of standards and private MIBs	
Support multi-user management	User Management
Supports remote username and password authentication via TACACS+ server	TACACS+
Supports PAP and CHAP password encryption	
Support TACACS+ server to authorize switch commands	
Support local log management	Log Management
Support SYSLOG IPv4 and IPv6	
Support RMON 1, 2, 3, 9 groups	RMON
Support neighbor discovery protocol	Cluster Management
Support topology discovery protocol	
Supports manual and automatic joining of cluster groups	
Support unified cluster management	
Support 802.3ah	OAM
Support 802.1ag	
Support	Configuration file upload and download
Support	Upgrading software
Support local clock management	Clock Management
Support SNTP protocol to obtain clock	

DHCP

DHCP Client	Support
DHCP Snooping	Support
DHCP Relay	Support
DHCP Server	Support
DHCP option 82	Support

Management Features

CLI management	Support serial port management switch
	Support TELNET management switch
	Support SSH management switch
WEB management	Support
SNMP management	Support SNMP v1, v2c, v3
	Support SNMP TRAP
	Supports a wide range of standards and private MIBs
User Management	Support multi-user management
TACACS+	Supports remote username and password authentication via TACACS+ server
	Supports PAP and CHAP password encryption
	Support TACACS+ server to authorize switch commands
Log Management	Support local log management
	Support SYSLOG IPv4 and IPv6
RMON	Support RMON 1, 2, 3, 9 groups
Cluster Management	Support neighbor discovery protocol
	Support topology discovery protocol
	Supports manual and automatic joining of cluster groups
	Support unified cluster management
OAM	Support 802.3ah
	Support 802.1ag
Configuration file upload and download	Support
Upgrading software	Support
Clock Management	Support local clock management
	Support SNTP protocol to obtain clock

Safety Features

Switch Management Security	Support opening and closing TELNET, WEB and SNMP services
Supports binding of TELNET, WEB and SNMP services with standard IP ACL	Supports binding of TELNET, WEB and SNMP services with standard IP ACL
CPU Protection	Support limiting the number of TELNET connections
	The switch itself is protected against attacks by large data flows
AAA	Support 802.1x protocol
	Support RADIUS protocol
	Supports authentication, authorization and accounting through RADIUS server
	Supports port-based and MAC-based 802.1x
	Support 802.1x guest VLAN
IP MAC address binding	Support static configuration of IP, MAC and port binding
DHCP SNOOPING	Support dynamic ARP binding to prevent ARP spoofing
	Support dynamic IP, MAC and port binding
	Support fixed port to connect to DHCP server to prevent private connection to DHCP server
Preventing ARP Spoofing	Supports manual configuration of MAC ARP-based ACL rules to prevent ARP spoofing
	Support DHCP SNOOPING function. When obtaining IP address through DHCP, the switch dynamically binds ARP to the port to prevent ARP spoofing.

IPv6 Protocol

IPv6 Address	Supports manual configuration and stateless address automatic configuration
IPv6 Neighbor Discovery Protocol	Support
ICMPv6 Protocol	Support
IPv6 Path Discovery Protocol	Support

ویژگی‌های ایمنی

Switch Management Security	Support opening and closing TELNET, WEB and SNMP services
Supports binding of TELNET, WEB and SNMP services with standard IP ACL	Supports binding of TELNET, WEB and SNMP services with standard IP ACL
CPU Protection	Support limiting the number of TELNET connections
	The switch itself is protected against attacks by large data flows
AAA	Support 802.1x protocol
	Support RADIUS protocol
	Supports authentication, authorization and accounting through RADIUS server
	Supports port-based and MAC-based 802.1x
	Support 802.1x guest VLAN
IP MAC address binding	Support static configuration of IP, MAC and port binding
DHCP SNOOPING	Support dynamic ARP binding to prevent ARP spoofing
	Support dynamic IP, MAC and port binding
	Support fixed port to connect to DHCP server to prevent private connection to DHCP server
Preventing ARP Spoofing	Supports manual configuration of MAC ARP-based ACL rules to prevent ARP spoofing
	Support DHCP SNOOPING function. When obtaining IP address through DHCP, the switch dynamically binds ARP to the port to prevent ARP spoofing

پروتکل IPv6

IPv6 Address	Supports manual configuration and stateless address automatic configuration
IPv6 Neighbor Discovery Protocol	Support
ICMPv6 Protocol	Support
IPv6 Path Discovery Protocol	Support