OVERVIEW

SI804GP is a Gigabit managed industrial PoE switch that provides 8 Gigabit RJ45 ports and 4 Gigabit SFP slots. The switch adopts fanless heat dissipation circuit design and redundant circuit design, and the equipment supports EMC industry level 6 protection performance; corrugated high-strength aluminum profile shell, IP40 grade, low power consumption design, earthquake-resistant rail installation, -40℃-75℃ It can work in harsh environments; **SI804GP** can also support rich network management functions: ERPS, RSTP, VLAN, QoS, SNMPv1/v2c/v3, IEEE 802.1X, SSH/SSL, port mirroring, port aggregation, etc. Rich redundancy, switching and safety management features make it a reliable solution for intelligent transportation, video surveillance and other harsh industrial environments.

FEATURES

❖ **Gigabit wire speed forwarding**
   o Support Gigabit Ethernet port and Gigabit SFP port combination, which enables users to flexibly build networking to meet the needs of various scenarios.
   o Support non-blocking wire-speed forwarding.
   o Support full-duplex based on IEEE 802.3x and half-duplex based on backpressure.

❖ **Powerful port lightning protection, ultra-wide voltage input**
   o Contact discharge 6KV, air discharge 15KV, port lightning protection common-mode 6KV
   o Industrial dual power input
   o DC INPUT: 48V-56V

❖ **Intelligent PoE power supply**
   o 8*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
   o IEEE 802.3af/at PoE standard, without damaging non-PoE devices.
   o Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.
   o PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

❖ **PoE network management and Fast Ring function**
   o IEEE 802.1Q VLAN, flexible VLAN division and QinQ configuration.
   o QoS, Priority mode based on IEEE 802.1P, Port & DSCP, queue scheduling algorithm including EQU, SP, WRR & SP+WRR.
   o ALC, filter data packet through configuring matching rules, processing operation & time permission and provide flexible and safe access control.
   o IGMP V1/V2 and IGMP Snooping. STP/RSTP/MSTP. Static and dynamic aggregation.

❖ **Security**
   o 802.1X authentication.

- o Port isolation, Storm control.
- o IP-MAC-VLAN-Port binding.

❖ **Stable and reliable**
- o Low power consumption, aluminum shell. No fan.
- o CCC, CE, FCC, RoHS.
- o The user-friendly panel, it can show the device status through the LED indicator of PWR, SYS, Link, L/A, PoE.

❖ **One-stop remote control and management**
- o Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- o HTTPS, SSLV3, and SSHV1/V2.
- o RMON, system log, LLDP, and port traffic statistics.
- o CPU monitoring, memory monitoring, Ping test, and cable diagnose.

TECHNICAL SPECIFICATION

Hardware Parameters

Model	SI804GP
Port Description	8 x electrical port (RJ45) 1000BASE-T (PoE/PoE+) 4 x optical port (SFP) 1000BASE-X 1 x RJ45 console port 1 x Universal DC Power Interface (DC 48-56V) 1 x 6PIN Phoenix Terminal Socket (P1(2PIN) power-1, P2(2PIN)power-2, A(2PIN) alarm output(relay)) 1 x Reset Button
Optical Port Characteristics	Interface type: SFP Speed: 1000Mbps Wavelength: 　　Single-mode fiber: 1310nm/1550nm 　　Multimode fiber: 850nm Core standard: 　　Single mode 8.3μm, 8.7μm, 9μm, 10μm 　　Multimode 50μm, 62.5μm, 100μm
Electrical port characteristics	Interface type: RJ45 Rate: 10/100/1000Mbps adaptive Duplex mode: full/half duplex Connection mode: MDI/MDIX automatic flip
Protocol Standard	IEEE802.3i 10 BASE-T, IEEE802.3u 100 BASE-TX IEEE802.3ab 1000 BASE-T IEEE802.3z 1000 BASE-X (LX/SX/ZX) IEEE802.3af Power over Ethernet (PoE) IEEE802.3at Power over Ethernet (PoE+) IEEE802.3x Flow Control IEEE802.3az EEE

Exchange Performance	Backplane bandwidth: 24Gbps Packet forwarding rate: 17.86Mpps MAC address: 8K Packet buffer: 2Mbit Forwarding mode: store and forward
Power Supply	Input power: DC 48~56V (6PIN Phoenix terminal), 1*DC interface Power consumption: full load <6W (not including PoE) Dual power supply: support Redundant protection: support Reverse connection protection: support
Mechanical Structure	Shell material: metal, fanless design Protection level: IP40 Size: 153*130*44mm (Excluding connector protruding part and DIN rail assembly size) Weight: 0.85Kg Installation method: DIN rail installation
Environments	Working temperature: -40℃~75℃ Storage temperature: -40℃~85℃ Relative humidity: 5%~95% RH (non-condensing)
Industry Standard	IEC61000-4-2 Level 4 (8K/15K) (ESD - Electrostatic discharge) IEC61000-4-3 Level 3 (10V/m) (RS-Radiated Surge Immunity) IEC61000-4-4 Level 3 (1V/2V) (EFI-Express Firing Interference) IEC61000-4-5 Level X (6KV/6KV) (8/20us) (Surge-surge power) IEC61000-4-5 Level X (6KV/6KV) (10/700us) (Surge-Ethernet port) IEC61000-4-6 Level 3 (10V/m) (CS-conducted immunity) IEC61000-4-8 Level 4 (30A/m) (PFMF) Mechanical: IEC60068-2-6 (Vibration) IEC60068-2-32 (Free fall) 0.5m
Warranty	Warranty period: 2 years (can be extended)

Software Parameters

Hardware watchdog	Stand by
PoE Management	Support PoE total power settings Support single port PoE power settings Support port PoE power supply priority design Support custom PoE power supply time

Loop Protection	Support ERPS ring protection Support 50ms loop since healing Support BPDU protection, root protection and loopback protection
Link Aggregation	Support link aggregation protocol (LACP) (IEEE 802.3ad) Support static polymerization, dynamic aggregation Support for maximum support for 8 aggregation groups Support for source port, source MAC, destination MAC, source IP, destination IP, source IP port, destination IP port
Spanning Tree (STP)	Support STP (IEEE 802.1D), Support MSTP (IEEE 802.1S) Support RSTP (IEEE 802.1W) Support edge port Support spanning tree BPDU packet statistics Support root bridge protection, TC protection, BPDU protection, BPDU filtering
DHCP	Support DHCP server Support DHCP Snooping Support Option82
VLAN	Support IEEE 802.1q VLAN Maximum support 4094 Support QinQ Support MAC VLAN Support GVRP protocol Support GMRP protocol Support 1: 1 and N: 1 VLAN mapping function Support three port modes: Access, Trunk, and Hybrid, Translation, QinQ Including the foundation in Qinq and flexible in QinQ
Security	Based on user grading management and password protection Support for port numbers, IP addresses, MAC addresses limit users access Support HTTPS, SSH V1 / V2, SSL V1 / V2 Support IP-Mac-Port-VLAN binding Support ARP protection, IP source protection, DOS protection Support DHCP Snooping, DHCP Attack Protection Support IEEE 802.1x certification, Support port security, port isolation Support port alarm
Access Control (ACL)	Supports L2 (Layer 2) ~ L4 (Layer 4) package filter function Support port mirror, port redirection, flow rate, QoS heavy mark Support MAC ACL Support IP ACL
Service Quality (QoS)	Support 8 port queues, Support ToS, Support CoS Support port priority, IEEE 802.1p priority, DSCP priority Support SP, WRR, WFQ priority scheduling algorithm

Multicast	Support fast leaving mechanism Support static multicast group, dynamic multicast group Support IGMP Soonping Support multicast filtering, packet statistics, unknown multicast discard
Management and Maintenance	Support Web network management (HTTP, HTTPS, SSL V3, TLS V1) Support CLI (Telnet, SSH V1 / V2, local serial port) Support SNMP V1 / V2 / V3, compatible public MIBS Support LLDP (IEEE 802.1ab), RMON, Support SNTP Support CPU monitoring, memory monitoring Support system log, hierarchical warning, support remote log server Support port alarm Support HTTP software upgrade, configuring backup import Support TFTP upgrade

ORDERING INFORMATION

Model	Description
SI804GP	12 Port L2+ Managed Industrial PoE Fiber Switch
Note: The industrial PoE switch not including SFP optical module and power supply.	

PACKAGE CONTENT

QTY	UNIT	CONTENT
1	SET	12 Port L2+ Managed Industrial PoE Fiber Switch
1	pcs	Warranty Card
1	pcs	DIN Rail Clip
1	pcs	6PIN Phoenix Terminal Block

OPTICAL FIBER MODULES

MODEL	Connector Type	Bandwith	CONTENT
SFP-10SF-40	LC	10/100/1000M	Dual fiber, single mode，40Km,1310nm
SFP-10SF-20	LC	10/100/1000M	Single fiber, single mode，20Km,1310nm
SFP-11SF-20	LC	10/100/1000M	Single fiber, single mode，20Km,1550nm