



SP3106-4PGE2GF-I-DC 4+2 switch with POE

Product Overview

The SP3106-4PGE2GF-I-DC series are the highly reliable managed industrial PoE switches with 4-port 10/100/1000-T PoE and 2-port 1000/2500Base-X fiber optical interfaces. They comply with IEEE802.3af PoE, IEEE802.3at PoE+, IEEE802.3bt PoE++ standard protocol, the Max power output consumption per port can reach 90W (1-2 ports), which are the idea solution for those high-power consumption industrial networking PDs. They support ERPS redundant network and the self-recovery mechanism is less than 20ms on full load which allows you to scheme a reliable Ethernet network by building a redundant ring topology as your back-up solution. SP3106-4PGE2GF-I-DC series also support DI/DO/RS485 and robust layer 2 management function, which can fulfill the special needs of industrial automation applications.

SP3106-4PGE2GF-I-DC series are the high cost-effective easy-to-use devices, which provide essential industrial Ethernet networking function, including wide range power input 44-57VDC, redundant power design with polarity reverse protection, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 75°C as well as high-level EMI/EMC capability. They are the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

Features

- ✓ 4*10/100/1000Base-T RJ45 PoE, 2*1G/2.5GBase-X SFP
- ✓ Redundant power 44-57V input with polarity reverse/over-voltage/over-current protection
- ✓ Complies with IEEE802.3af PoE, IEEE802.3at PoE+ and IEEE802.3bt PoE++ standard
- ✓ DI/DO/RS485 and USB one key configuration & upgrading are optional
- ✓ Layer 3 features: Support IPv4/IPv6 static routing, DHCP server
- ✓ Support Layer 2 management function:
 - VLAN/VLAN Classification/QinQ/STP, RSTP
 - MSTP/Port Mirroring/DHCP/Multicast/ACL/IGMP/QoS/LLDP/802.1X/Dying Gasp/SFP
 - DDM/IPV6 management/PoE management/Web/SNMP/Telnet/TFTP/Web upgrading
- ✓ Support G.8032 ERPS protocol, recovery time ≤20ms
- ✓ Support 4KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- ✓ IP40 fan-less and Din-rail hardware design
- ✓ Operation temperature: -40°C ~ +75°C

Specifications

Item	Description
Interface	2*Fiber ports 4*Copper RJ45 ports
Ethernet	4*10/100/1000Base-T RJ45 PoE/PoE+, 1-2 ports support PoE++ 2*1000/2500Base-X SFP
Management Port	1*RJ45 Console port (115200,8,N,1), 1*USB 2.0 (optional)
Data & Alarm channel(Optional)	1 channel RS485 1 channel DI(digital input) 1 channel DO(digital output)
Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP IEEE802.3af PoE IEEE802.3at PoE+ IEEE802.3bt PoE++
LED Indicators	P(Power indicator) S(System status indicator) USB(USB status indicator) ALM(Fault status indicator) 1-4(copper ports) 1-4(PoE status indicators) 5-6(fiber ports)

<p>Power Parameter</p>	<p>44-57VDC(802.3af)/52-57VDC(802.3at/802.3bt), redundant power input Input Current: 3A Max Total Consumption: Full loading without PoE≤8W PoE power budget ≤ 240W Connector: Removable 4-pin terminal block Support Reverse Polarity Protection Support Over-voltage Protection Support Over-current Protection</p>
<p>Layer 2 Function</p>	<p>Support static/dynamic aggregation Support GE/2.5GE aggregation Aggregation up to 64 aggregation groups and up to 8 ports per group Support IEEE802.3x flow control Support port traffic statistics Support port isolation Support loop detection(port-based, VLAN-based) Support network storm suppression(broadcast, unknown multicast, unknown unicast) Support access/trunk/hybrid VLAN mode Support MAC/IP/Protocol Based VLAN Classification Support port/VLAN/flow based QinQ Support LLDP Support port mirroring Support STP/RSTP/MSTP Support G.8032 ERPS protocol/single ring/sub ring/associated sub ring Recovery time≤20ms Support IGMP snooping Support Ingress/Egress Port-based Rate-limit Support 802.1x/port authentication/MAC authentication/RADIUS service</p>

Security Function	<p>Support IP/MAC/IPv6 ACL Support QoS Class, remarking Support SP, WRR queue scheduling Ingress port-based rate-limit Egress port-based rate-limit Support policy-based QoS Support 802.1x(Port access control, Mac-address access control RADIUS server) Support IP port/MAC binding Support ARP-check and ARP packet filtering for illegal users Support Telnet/SSH/HTTP/HTTPS user access control</p>
Management and Maintenance	<p>Support password protection and user authentication Support SNMP V1/V2C/V3 Support web management, HTTP1.1, HTTPS Support CLI management Support RMON(Remote Monitoring) alarm Support NTP Support Ping, Tracerout, dying gasp Support optical transceiver DDM function Support Syslog/Debug, and send to the third servers Support FTP/TFTP/USB import/export configuration Support copper port cable detection Support PoE management Support TFTP, web upgrading</p>
Switching Features	<p>Switching Capacity: 18Gbps Packet Forwarding Rate: 26.7Mpps MAC address table: 16K VLAN: 4K Buffer: 12M bit Forwarding Delay: <5us Jumbo Frame: 10Kbytes Support MDX/MIDX Support Watchdog</p>
Case Protection	<p>IP40</p>
Installation Method	<p>Din-rail</p>
Dimensions	<p>54*115*158mm</p>
Weight	<p>SP3106-4PGE2GF-BT-I-DC 1.15kg SP3106-4PGE2GF-BT-I-D-DC 1.25kg</p>

Environment Specifications

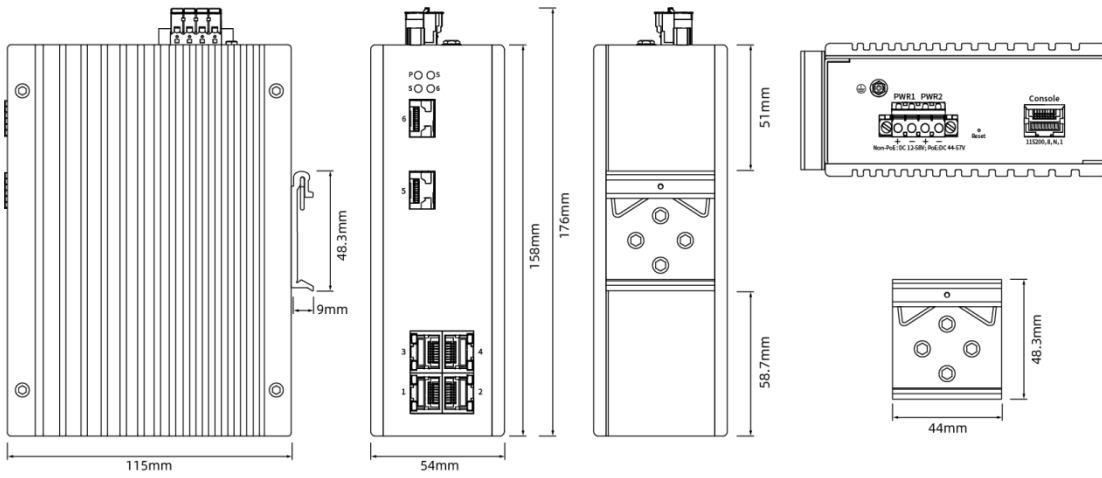
Environment Feature	Capability
Operating Temperature	-40°C~+75°C
Storage Temperature	-40°C~+85°C
Operating humidity	10% - 90% RH
Storage humidity	5% - 95% RH

Industrial Standard

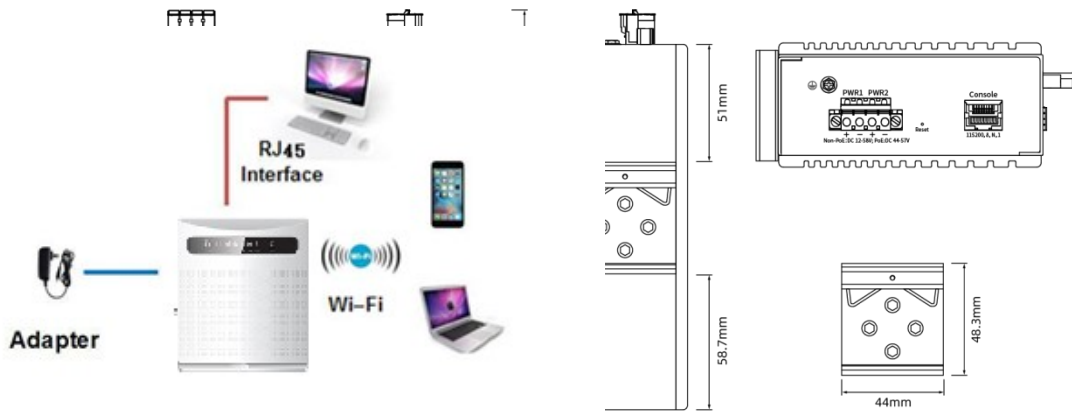
Item	Capability
EMS	Surge protection of power: IEC 61000-4-5 6KV/4KV (8/20us) Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us) RS: IEC 61000-4-3 80 MHz-1 GHz: 10 V/m EFT: IEC 61000-4-4 4K/2K CS: IEC 61000-4-6 10V ESD: IEC 61000-4-2 Contact: 8K; Air: 15K
EMI	FCC Part 15B Class A
Shock	IEC 60068-2-27
Free fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Certification	CCC/CE/UKCA/RoHS/REACH/FCC
MTBF	>200,000 Hours
Warranty	5 years

Structure Diagram

SP3106-4PGE2FG-I-DC



SP3106-4PGE2FG-I-D-DC



Ordering Information

Model	SP3106-4PGE2GF-BT-I-DC SP3106-4PGE2GF-BT-I-D-DC (with Data & Alarm)
Product Information	Managed industrial PoE switch with 4*10/100/1000Base-T PoE ports and 2*1000Base-X SFP slots, complies with IEEE802.3af, IEEE802.3at standard, DC44-57V, redundant dual power supply, Din-rail installation. Fiber ports transmission distance depending on the SFP module; Operation temperature: -40°C ~ +75°C

About Electroline Equipment Inc

Established in 1953, Electroline Equipment Inc., headquartered in Quebec, Canada, boasts over seven decades of experience in designing and manufacturing cutting-edge products for Hybrid Fiber-Coaxial (HFC) and Fiber to the Home (FTTH) networks. As a leading international provider of broadband solutions, the company specializes in DOCSIS®, optical transmission products, return path ingress management technology, Ethernet products, and fiber products.

Over the past five years, Electroline has consistently excelled in Ethernet product Research & Development and sales, demonstrating its prowess in delivering specialized, customized solutions and services tailored to the evolving demands of Operators, Internet Service Providers (ISPs), Multiple System Operators (MSOs), and Enterprises in the digital age.

With a strategic focus on market expansion, Electroline continues to actively engage in marketing efforts across North America, Central America, South America, Europe, and Asia, where the telecommunications industry plays a pivotal role in driving economic growth and innovation.

