

Model: SML-8GP2S Series: SAPPHIRE



8GE + 2SFP 10/100/1000Mbps auto PoE Managed



Sapphire SML-8GP2S is a managed L2 industrial Ethernet switch providing 8 Gigabit RJ45 Ethernet and 2 Gigabit SFP ports. The 8 Ethernet ports support POE and provide maximum 30W/port output. It supports abundant L2 features such as VLAN STP/RSTP/MSTP ERPS QoS ACL and supports Web/CLI management and third-party SNMP management. It has IP40 protection class and meets EMC industrial level 4 requirements. The switch supports wide power input voltage range of 12-57VDC and wide operating temperature range of -40 to the $+85^{\circ}$ C. In addition to its compact size for space-saving installation each product has passed a 100% burn-in test at 85°C to ensure its quality high-reliability transmission.

All of these features make the product ideal for applications that require high-reliability transmission such as video surveillance tolling systems ITS and factory automation.

Applications

Industrial area department/workgroup PoE switch

Providing up to 8 PoE+, in-line power interfaces, the SML-8GP2S can easily build a power centrally controlled by IP phone system, IP camera system, or Wireless AP group for industrial network. For instance, 8 PoE IP cameras or wireless access points can be easily installed around the corner in the industrial environment for surveillance demands or for a wireless roaming network. Without the power-socket limitation, the SML-8GP2S makes the installation of ip cameras or wireless ap easier and more efficient.

With IEEE 802.3at power over ethernet plus standard, the SML-8GP2S can directly connect with any IEEE 802.3at end-nodes like PTZ (pan, tilt & zoom) network cameras, PTZ speed dome cameras, color touch-screen Voice over IP (VoIP) telephones, and multi-channel Wireless LAN access points. Wireless LAN would be more efficient for the transportation station to provide high speed and wide area internet services for travelers. With the PoE wireless LAN structure, the transportation authority gains benefits from less cost while providing better internet services in wider areas for travelers.

FEATURES

- -40 to 85°C operating temperature range
- IP40 protection class with metal housing
- Total PoE budget 240W
- Fanless design
- Level 4 EMC Protection
- PoE IEEE802.3af/at
- One key ring configuration
- ERPS with protection switching time < 20ms
- WEB Telnet CONSOLE EMS management

Model	SML-8GP2S
Ports	2*24V&48V AUTO POE max 25w +2*BT max 90w +4*AF/AT max 30w POE
	8*10/100/1000Mbps RJ-45 PoE ports
	2*1000M SFP
Console	1*console Port for management
Reset	1
Power input	2*independent power input , DC 12-57V
Environment detection	1 set of environmental temperature and humidity detection input
Network protocol	IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3x IEEE 802.3ad, IEEE 802.3q, IEEE 802.3q/p, IEEE 802.1w, IEEE 802.1d IEEE 802.1S, IEEE 802.3z 1000BASE-X STP(Spanning Tree Protocol) RSTP/MSTP(Rapid Spanning Tree Protocol) EPPS ring network protocol EAPS ring network protocol
Network port	1-8 port 10/100/1000BaseT (X) adaptive, Full/half duplex MDI/ MDI-X adaptive
Forward mode	Store-and-forward (full-line speed)
Backplane bandwidth	20Gbps (Non-blocking)
Packet forwarding rate	14.88Mpps
MAC table	8K
Packet forwarding cache	4.1M
Medium	10BASE-T : Cat3,4,5 UTP(≤250 meter) 100BASE-TX : Cat5 or later UTP(≤100 meter) 1000BASE-TX : Cat6 or later UTP(≤1000 meter) 1000BASE-SX:62.5μm/50μm MMF(2m~550m) 1000BASE-LX:62.5μm/50μm MM(2m~550m) or 10μm SMF(2m~5000m)
Power consumption	≤15W
LED indicator	9 -10: (SFP indicator) Port (green/100M+yellow/1000M) PWR: (power indicator) PMX: (Power overload indicator light)
Operating temperature/ humidity	-40 \sim +85°C ; 5% \sim 90% RH No condensation
Storage temperature/ humidity	-55 \sim +95°C ; 5% \sim 95% RH No condensation
Product size/package size (L*W*H)	179×134×46mm
Net/gross weight (kg)	1.0kg
Installation	Rail mounting
Lightning protection level	Port lightning protection : 6KV 8/20us ; Protection grade : IP40
Safety & certification	CE, EN, LVD, RoHS EN61000-4-5 (for RJ45 Port, Surge 6KV) EN 55032:2015 EN 55024:2010 + A1:2015 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 60950 – 1:2006 ISO Standard: ISO 9001:2015 ISO 14001:2015 ISO 27001:2013
Quality assurance period	Warranty 3 years
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Software Specifications		
	IEEE 802.3x	
Standards	IEEE 802.3 、IEEE 802.3u 、IEEE 802.3ab 、IEEE 802.3z IEEE 802.3ad	
	IEEE 802.3q \ IEEE 802.3q/p	
	IEEE 802.1w 、IEEE 802.1d 、IEEE 802.1S	
	IEEE 802.3z 1000BASE-X	
	STP(Spanning Tree Protocol)	
Network protocol	RSTP/MSTP(Rapid Spanning Tree Protocol)	
	EPPS ring network protocol	
MAC Address	8K MAC addresses; MAC address learning and aging	
VLAN	4k VLANS; Port-based VLANs; 802.1Q VLAN	
Spanning Tree	STP(Spanning Tree Protocol)	
	RSTP/MSTP(Rapid Spanning Tree Protocol)	
	PPS ring network protocol	
	EAPS ring network protocol 802.1x argumentation agreement	
Link	Max 8 aggregation groups, each supports 8 ports	
Aggregation	Static aggregation and dynamic aggregation	
Port Mirror	Many-to-one port mirroring	
Loop Guard	Loop protection function, real-time detection, rapid alarm, accurate positioning, intelligent blocking, automatic recovery	
Isolation	Support downlink ports isolated from each other and communicate with upstream ports	
Port flow	Half duplex based back pressure control	
control	Full duplex based on PAUSE frames	
Line rate	Support port based input / output bandwidth management IGMPv1/2/3 MLDv1/2 Snooping	
IGMP Snooping	GMRP protocol registration	
	Multicast address management, multicast VLAN, multicast routing ports, static	
	multicast addresses	
DHCP	DHCP Snoping	
Storm	Unknown unicast, multicast, unknown multicast, storm suppression of broadcast	
suppression	type Storm suppression based on bandwidth tuning and storm filtering	
Security	User port+IP address+MAC	
	ACL based on IP and MAC	
	Security properties of port based MAC address quantities	
	802.1p port queue priority algorithm	
QOS	Cos/Tos , QOS sign	
Q03	WRR (Weighted Round Robin), Weighted priority rotation algorithm WRR, SP, WFQ, 3 priority scheduling models	
Port	Auto-MDIX ; Auto negotiation	
System maintenance	Upgrade package upload , system log view WEB restore factory configuration	
Industrial switch monitoring platform	RING ON/OFF, RING status, Alarm input/Output, environment temperature and humidity detection, real-time monitoring of environmental conditions	
Managomont	WEB	
Management and	Remote configuration and maintenance using Telnet	
maintenance	SNMP V1/V2/V3 , SSHV1/V2	
	RMON	



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