

### ALLNET Switch industrial full managed Layer2+ 6 Port GbE • PoE Budget 360W • 4x PoE bt • 2x SFP • Fanless • DIN • ALL-SGI8106PMJ-BT

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### Highlights:

- 4 Gigabit ports with PoE AF/AT/BT support up to 90Watt per port
- 2x SFP ports for fiber-GBIC e.g. ALL4750/4751-INDU etc.
- PoE Ports 1-4 max. PoE IEEE802.3bt 90W
- Layer2+ features like 802.1Q VLAN, Port Isolation IGMP, LLDP, PoE+ Management, IP source Guard, ACLs etc.
- Supports Spanning Tree STP (802.1D) and RSTP (802.1W) and MSTP (802.1s)
- Supports PoE management like PoE scheduling, PoE PD-alive, Port PoE Priority, Soft-Reboot PoE Non-Stop
- Supports G.8032 quick ring protocol. Self-healing <20ms
- Max. PoE budget = 360 watts
- Fanless metal enclosure with optimized heat dissipation
- Easy to use as a desktop, wall mount or DIN rail device
- Extended temperature range from -40°C ~ +75°C

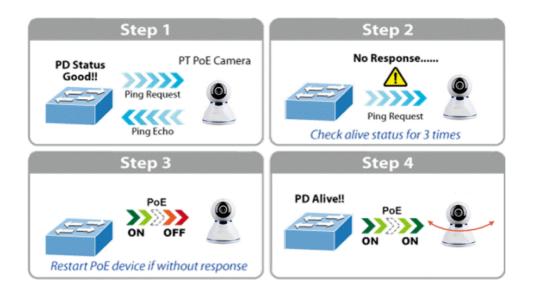
ALLNET ALL-SGI8106PMJ-BT Industrial Switch is a Layer 2+ managed Gigabit BT PoE Switch that features 4-Port Gigabit IEEE802.3af/at/bt PoE + 2-Port Gigabit SFP optical port, is specially designed to build a full Gigabit backbone to transmit reliable and high-speed data in heavy industrial demanding environments and forward data to remote network through fiber optic cabling. It comes with an IP40 rugged case and redundant power system. The industrial managed switch provides user-friendly but advanced IPv6/IPv4 management interfaces and Soft-Reboot PoE Non-stop function. It is the best investment for expanding industrial business or upgrading its network



Infrastructure, also could be used for lighting industry, security monitoring, enterprise park and other

### Intelligent PD-Alive Check for Frozen PDs

The ALL-SGI8106PMJ-BT industrial PoE switch 4 ports can be configured to monitor connected PD's status in real time. Once the PD stops working and responding, the ALL-SGI8106PMJ-BT will reboot the PoE port power and bring the PD back to work. It also greatly enhances the reliability in that the PoE port will reset the PD power, thus reducing administrator's management burden.



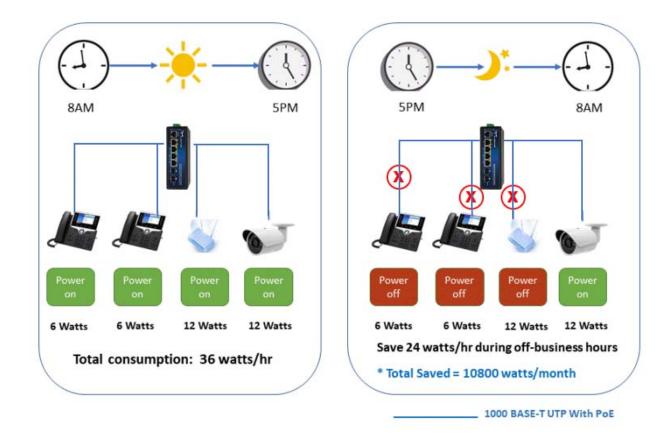
#### **PoE Schedule Function for Energy Saving**

For environmental protection purpose, the ALL-SGI8106PMJ-BT switch Ethernet PoE can effectively control the power supply besides its capability of giving high watts power. The PoE schedule function helps to enable or disable PoE power feeding for each PoE port during specified time intervals and it is a powerful function to help SMBs or enterprises save power and money.

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#### Scheduled PD Re-starting

The ALL-SGI8106PMJ-BT smart switch PoE allows each of the connected PoE IP cameras or PoE wireless access points to reboot at a specific time each week. Therefore, it will reduce the chance of IP camera or AP crash resulting from buffer overflow.





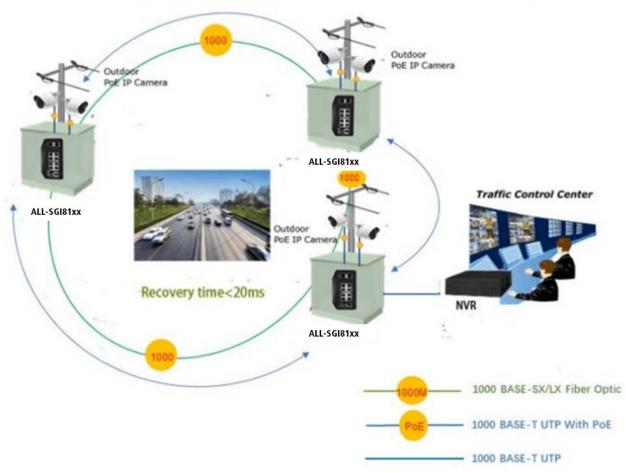


### Fast Recovery Redundant Ring for Critical Network Applications

The ALL-SGI8106PMJ-BT supports redundant ring technology and features strong, rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced ITU-T G.8032 ERPS technology, Spanning Tree Protocol (802.1s MSTP), and redundant power input system into customer's industrial automation network to enhance system reliability and uptime in harsh factory environments. In a certain simple Ring network, the recovery time of data link can be as fast as 20ms.





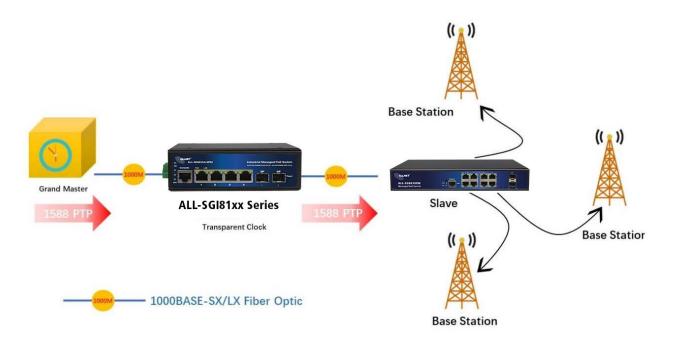


### ERPS Ring for Video Transmission Redundancy

### **1588 Time Protocol for Industrial Computing Networks**

The ALL-SGI8106PMJ-BT is ideal for telecom and Carrier Ethernet applications, supporting MEF service delivery and timing over packet solutions for IEEE 1588 and synchronous Ethernet.





#### Strong Layer 2 Features

The ALL-SGI8106PMJ-BT layer 2 Ethernet switch can be programmed for advanced Layer 2 switch management functions such as dynamic port link aggregation, 802.1Q tagged VLAN, Q-in-Q VLAN, private VLAN, Multiple Spanning Tree Protocol (MSTP), QoS, bandwidth control, IGMP snooping and MLD snooping. Via the aggregation of supporting ports, the ALL-SGI8106PMJ-BT allows the operation of a high-speed trunk group that comes with multiple ports and supports fail-over as well.

#### **Efficient and Various Management Methods**

For efficient management, the ALL-SGI8106PMJ-BT is equipped with console, Web and SNMP management interfaces.

With the built-in Web-based management interface, it offers an easy-to-use, platform-independent management and configuration facility.

For text-based management, it can be accessed via Telnet and the console port.

For standard-based monitor and management software, it offers SNMPv3 connection which encrypts the packet content at each session for secure remote management.

#### Intelligent PoE Switch SFP DDM Function

The ALL-SGI8106PMJ-BT supports SFP-DDM (digital diagnostic monitor) function that greatly helps network administrator to easily monitor real-time parameters of the SFP transceivers, such as optical output power, optical input power, temperature, laser bias current, and transceiver supply voltage.

The technical equipment and the stable housing make the switch the ideal solution in the industrial area. Delivery without power supply - please order separately!





### **JSON-Java Script Object Notation API**

With the JSON API, the ADMIN can create a special user and grant this user authorisation for JSON. We have focussed on 2 functions that we consider important.

- PoE ON/OFF & LAN Port Enabled/Disabled (for switches with PoE function)
- LAN Port Enabled/Disabled (for switches without PoE)







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### **Technical Details:**

Model	ALL-SGI8106PMJ-BT	
Copper Ports	4x 10/100/1000BASE-T RJ45 auto-sensing ports	
Fiber Ports	2x 100/1000BASE-T SFP interfaces, supports 100/1000Mbps dual mode	
PoE Ports	4x-802.3af/802.3at/bt PoE Injector Ports	
Console Ports	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)	
Switch Architecture	Store-and-Forward	
Switch Fabric	12Gbps/non-blocking	
Throughput	8.928Mpps @64 bytes	
Address Table	8K entries	
Share Data Buffer	4.1 Mb	
Jumbo Frame	9216 Bytes	
SDRAM	1Gb	
Flash Memory	128Mb	
Flow Control	IEEE 802.3x pause frame for full-duplex ; Back pressure for half-duplex	
Reset Button	>2 sec.: Factory default and reset	
Power Supply	48 ~ 57 VDC, 50/60Hz,Dual DC for PoE support 12VDC ~ 48VDC for non PoE support	
PoE Standards	IEEE 802.3af Power over Ethernet/PSE	
	IEEE 802.3at Power over Ethernet Plus/PSE	
	IEEE802.3bt PoE over Ethernet PlusPlus/PSE	
PoE Power Supply Type	Per Port 52V DC, Max. 90watts	
LED Indicators	Power: Green Solid onpower work normal,offpower disconnected System:Green Blinkwork normally, solid onsoft work abnormal, fast blinksoft upgrade PoE: Yellow Solid onPoE work normally, OffPoE doesn't work, BlinkPoE overload 10/100/1000T RJ45 Interfaces (Port 1 to Port 4): 1 000 LNK/ACT (Green), Blinkport connected with data transmission; Solid onport connected without data transmission 100/1000Mbps SFP Interfaces (Port 5 to Port 6): Green Blink- port connected with data transmission; Solid on- port connected with data transmission;	



EMC Surge Immunity:6KV Per: IEC61000-4-5	
	ESD Protection: ESD Level 4 Per: IEC61000-4-2;EFT Level 4 Per: IEC61000-4-4
Dimension	145x112x47.2mm
Weight	0.6kg
Working Temperature	-40°C to 75°C
Storage Temperature	-40°C to 80°C
Operation Humidity	5% to 95%, non-condensing
MTBF	50,000hrs

### Layer 2 functions

Auto-negotiation
Flow Control
Port Mirror: TX/RX/BOTH; Many-to-1 monitor
CPU Mirror
Traffic statistics
Static link aggregation
LACP(Dynamic Trunk/Static Trunk)
Algorithm based on Source/Destination MAC
Algorithm based on Source/Destination IP
Aging Time
Static MAC address
Dynamic MAC address management
4094 Active VLANs
4094 VID
802.1Q Tag VLAN
Port VLAN
Protocol VLAN
MAC VLAN



	Voice VLAN
	802.1ad Q-in-Q tunneling
	Private VLAN (Protected port)
	GARP/GVRP
ACL	256ACLs
	L2, L3 e L4
	Time-based ACL
	IP ACL
	MAC ACL
	MAC-IP ACL
	User-Defined ACL
	ICMPv6
Spanning tree	802.1D Spanning Tree Protocol (STP)
	802.1w Rapid Spanning Tree Protocol (RSTP)
	802.1s Multiple Spanning Tree Protocol (MSTP)
	Loop Guard
	Root Guard
	TC-BPDU Guard
	BPDU Guard
	BPDU Filter
Ring Protection	<20ms G.8032 ERPS Ring
	Fast Ring
	ALLNET Ring, < 20ms
Multicast	256 groups
	IGMP v1/v2/v3 Snooping, Fast Leave
	MLD Snooping



	Multicast VLAN
	IGMP filter
	MVR
	Multicast Routing
QOS	8 mapping IDs to 8 level priority queues
	CoS port-based
	CoS 802.1p-based
	CoS DSCP-based
	Scheduling algorithms SP, WRR, SP+WRR
	Storm Control (Broadcast, Multicast, Unknown Unicast)
	Bandwidth control per port
	SWRR, DWRR for Scheduling
	Flow Redirect
	Precedence
	TOS
	Rate Limiting(Ingress/Egress)
	Stri Priority
Security Features	Port Security
	MAC address filter
	ARP Association (Manual, ARP scanning, DHCP snooping)
	ARP Protection
	AAA
	DAI
	DoS (Denial of Service)
	Classification of packages based on: End.MAC, IP End,



	TCP / UDP Ports,
	Protocol Type;
	802.1x Authentication (port-based e MAC-based)
	TACACS/TACACS+ Authentication
	RADIUS Authentication
	DHCP Filter
	Guest VLAN
	SSLv2/SSLv3/TLSv1
	SSHv1/SSHv2
	Restriction of WEB access based on: IP Address, And. MAC and Port;
	Port Isolation
	Loopback detection
Management	SNMP v1/v2c/v3 with Full Private MIBs
	RMON 4 groups
	WEB (HTTP/HTTPS)
	CLI (Telnet, Console, SSHv1/v2)
	Firmware upgrade via console/web/TFTP
	Configuration Backup/Reload
	Dual Firmware
	LLDP
	Configuration Export/Import
	CDP Aware
	OAM (IEEE802.3ah)
	CFM (IEEE802.1ag)
	sFlow



	Telnet Client
Synchronization,	Support IEEE1588v2 transparent clock
IEEE1588	
Other Features	DNS Client
	DHCP Relay
	DHCP Client
	DHCP Snooping
	DHCP Option 66
	DHCP Option 67
	DHCP Option 82
	NTP/SNTP Client
	UPNP
	UDLD
PoE management	Total PoE power budget control
	Per port PoE function enable/disable
	PoE admin-mode control
	PoE port power feeding priority
	Per PoE port power limitation
	PD classification detection
	PD alive check
	PoE schedule
	Soft-reboot PoE Non-stop
Maintenance	Cable Diagnostics
	Ping
	SFP DDM (Digital Diagnostics Monitoring)
	Thermal protection



System log (Local and Remote)
Memory and CPU Monitoring
Tracert/ Tracert 6

### Layer 3 functions

Static Routing	IPv4 Unicast: Static Routing (Software Base)
	IPv6 Unicast: Static Routing (Software Base)
IPV6 IPv6 neighbor discovery (ND)	
	Path maximum transmission unit (MTU) discovery
	Internet Control Message Protocol (ICMP) version 6
	TCPv6/UDPv6
	Ping6
	Telnet(v6)
	Http/Https
	Interface IPV6
	ACL IPV6

### **Attributes**

Attribute	Value
Anzahl Ports PoE/LAN:	4/0
Belüftung Switch:	Lüfterlos
Einsatzort Switch:	Industrial DIN
LAN Geschwindigkeit:	1Gbit/s
Management:	full managed
PoE Budget:	<500 Watt
PoE Port Leistung:	90W BT
SFP Geschwindigkeit:	SFP 1GBit
Weight:	1 Kg



Attribute		
Warranty.		

### Value

24.00 Months

### Accessories

Part No.	Name	
222870	ALLNET Switch unmanaged 5 Port - 5x GbE - PoE Budget 85W - 1x bt out, 3x PoE af/at out, 1xPoE bt 90W in - Fanless, DIN, PD-Input - ALL-SG8005PD-BT90	
212816	ALLNET Switch smart managed 6 Port Gigabit 95W / 4x PoE / 1x Gigabit / 1x PoE 90W BT In / "ALL-SG8206PDM"	
128033	ALLNET Switch Modul ALL4750-INDU SFP(Mini-GBIC), 1000Mbit MM	
128034	ALLNET Switch Module ALL4751-INDU SFP(Mini-GBIC), 1000Mbit,	
146994	Mean Well Power Supply - 48V 480W DIN Rail	
140955	TP(RJ45) POE-Tester, at/af, Endspan/Midspan, standard, Synergy 21,	
200364	ALLNET 19"zbh. Gerätehalter für Hutschiene/DIN-Rail Geräte, T150mm/5HE, Lichtgrau, Frontmontage,	
219373	ALLNET DIN-RAIL Wandgehäuse, T223mm, Lichtgrau, IP55, SO-DIN-Serie,	
193039	ALLNET 19"Wandgehäuse, 6HE, T488mm, Lichtgrau, IP55, SO-Serie, incl. 2-Fach Lüftereinheit	
193040	ALLNET 19"Wandgehäuse, 9HE, T488mm, Lichtgrau, IP55, SO-Serie, incl. 2-Fach Lüftereinheit	

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