

## ALLNET Switch industrial fully managed Layer2+ 12 Port GbE • PoE budget 240W • 8x PoE BT • 4x SFP • Fanless • DIN • JSON API • ALL-SGI8112PMJ-BT

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### EAN CODE



## ALLNET Switch industrial full managed Layer2+ 12 Port GbE • PoE Budget 240W • 8x PoE at • 4x SFP • Lüfterless • DIN • JSON API • ALL-SGI8112PMJ-BT-BT

### Highlights:

- 8 Gigabit ports with PoE AF-AT support up to 30 watts per port
- 4x SFP ports for fibre optic gbics e.g. ALL4750-INDU / ALL4751-INDU etc.
- PoE ports 1-8 max. PoE IEEE802.3at/at/bt max. 90W = total budget 240W
- Layer2+ features such as 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 such as 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 = 240 watts
- Freeless metal housing with optimised heat dissipation
- Easy to use as a table-top unit, wall-mounted or top-hat rail
- Extended temperature range from -40°C ~ +75°C
- Hat rail bracket included in the scope of delivery
- **NEW: PoE & LAN JSON-Java-Script-Notation API for ON/OFF üvia Remote**

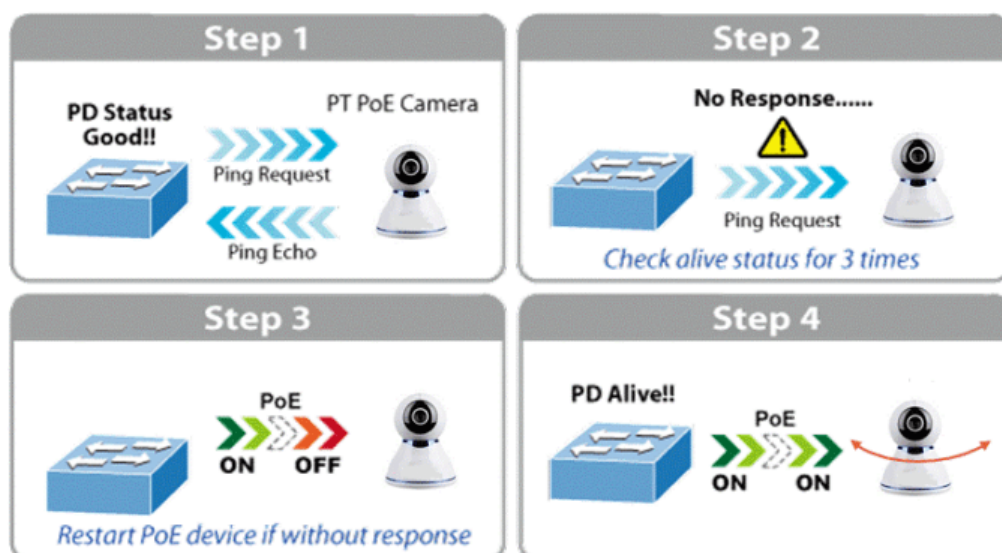
ALL-SGI8112PMJ-BT Industrial Switch is a managed Layer 2+ Gigabit PoE switch with 8-port Gigabit 802.3af/at PoE and 4-port Gigabit SFP slot port. It is specifically designed to build a full Gigabit backbone to deliver reliable and fast data in demanding industrial environments and to forward data to remote networks over fibre optic

cables. It features a robust IP40 enclosure and a redundant power supply system. The industrial managed switch offers user-friendly but advanced IPv6/IPv4 management interfaces and a soft reboot PoE non-stop function. It is the best investment for industrial companies looking to expand or upgrade their network infrastructure.

#### Features:

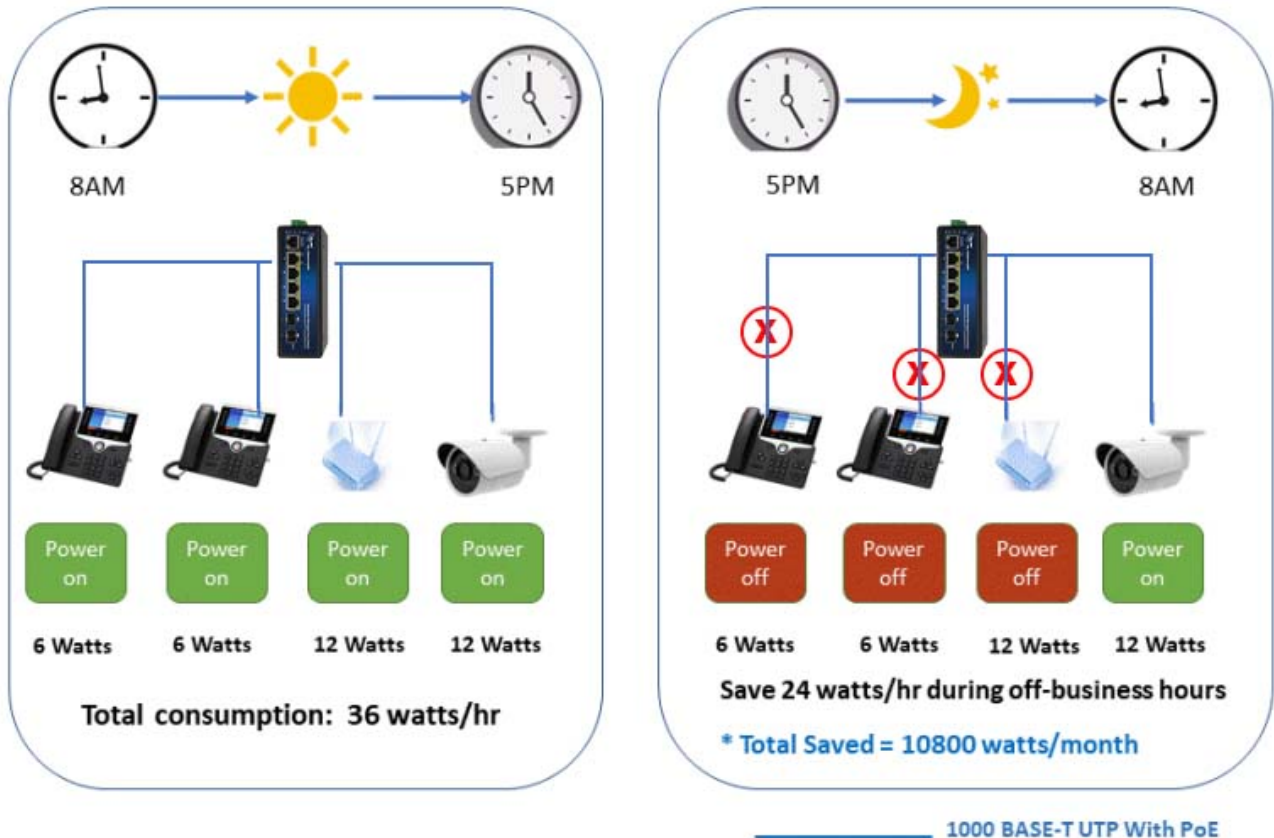
- Support of L2+ switching functions including 802.1Q VLAN, mirroring, port isolation, IGMP snooping, DHCP snooping, LLDP, PoE+ management, IP source guard, ARP inspection, ACLs etc.
- Support for Spanning Tree STP(802.1D) and RSTP(802.1W) and MSTP(802.1s)
- Support of extended management via WEB, CLI, TELNET, SSH, SNMP.
- Support for cable diagnostics
- Two firmware backups
- Supports PoE management, such as PoE schedule, PoE PD alive, port PoE priority, soft reboot PoE N on-stop
- Supports G.8032 quick ring protocol. Self-recovery time <20ms
- Supports IEEE1588 v2, transparent clock (TC)
- Supports DDM, SFP digital diagnostics & monitoring
- Supports IPV4 and IPV6 functions for static routing
- Supports memory and CPU monitoring
- 6KV & overvoltage protection (6KV common mode, 2KV differential mode), 6KV contact/8KV air ESD protection

The technical features and stable housing make the switch the ideal solution for industrial applications. Supplied without power supply - please order separately!



PoE schedule function for energy saving

To protect the environment, the ALL-SGI8112PMJ-BT Ethernet PoE switch can effectively control the power supply in addition to its ability to deliver high wattage. The PoE schedule function helps to enable or disable the PoE power supply for each PoE port during specific time intervals and is a powerful feature that helps SMEs or enterprises to save power and money.



### Planned PD restart

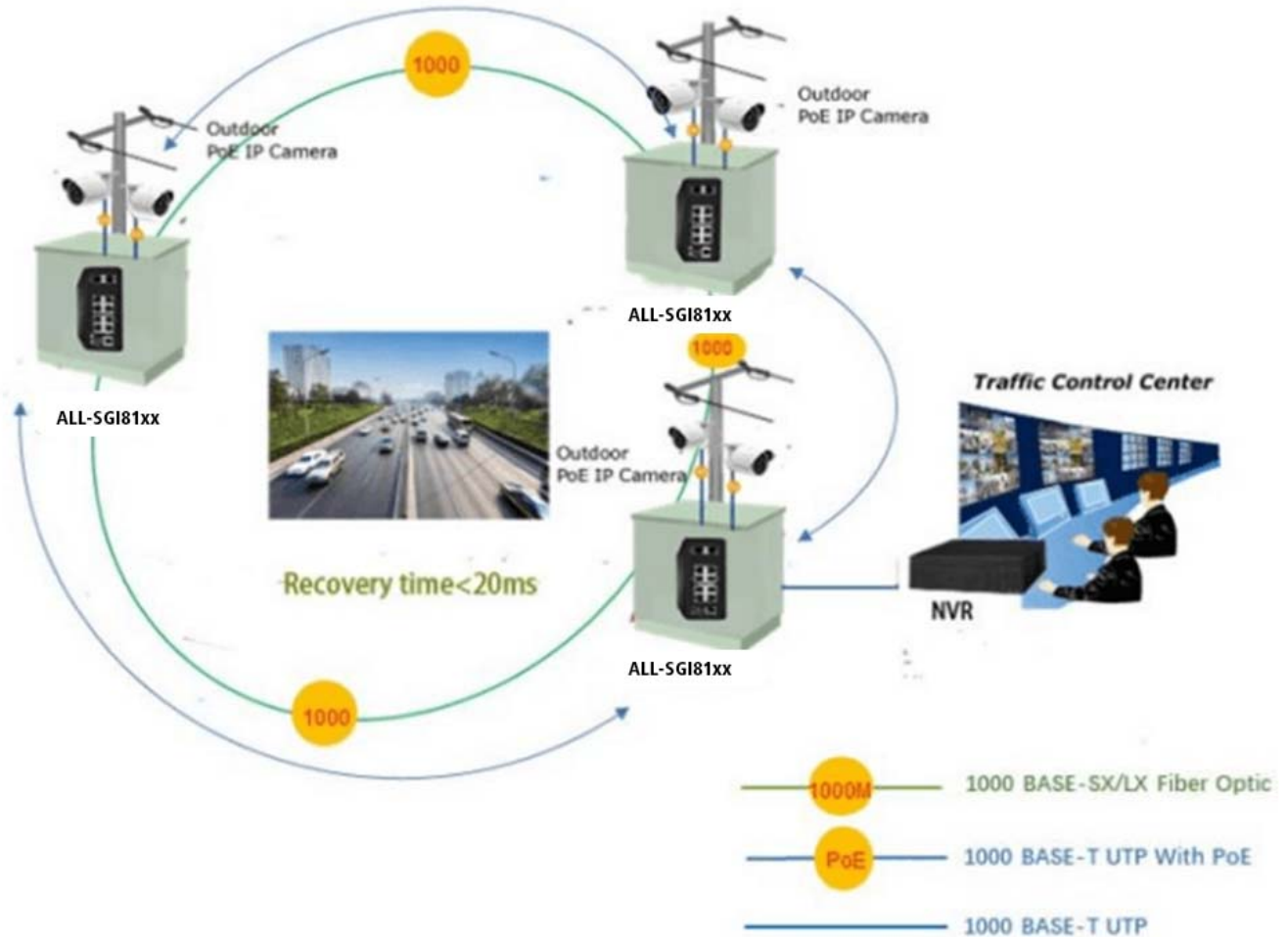
The intelligent PoE switch ALL-SGI8112PMJ-BT allows each of the connected PoE IP cameras or PoE wireless access points to be restarted at a specific time every week. This reduces the risk of the IP camera or AP crashing due to a buffer overflow.



### Redundant ring with fast recovery for critical network applications

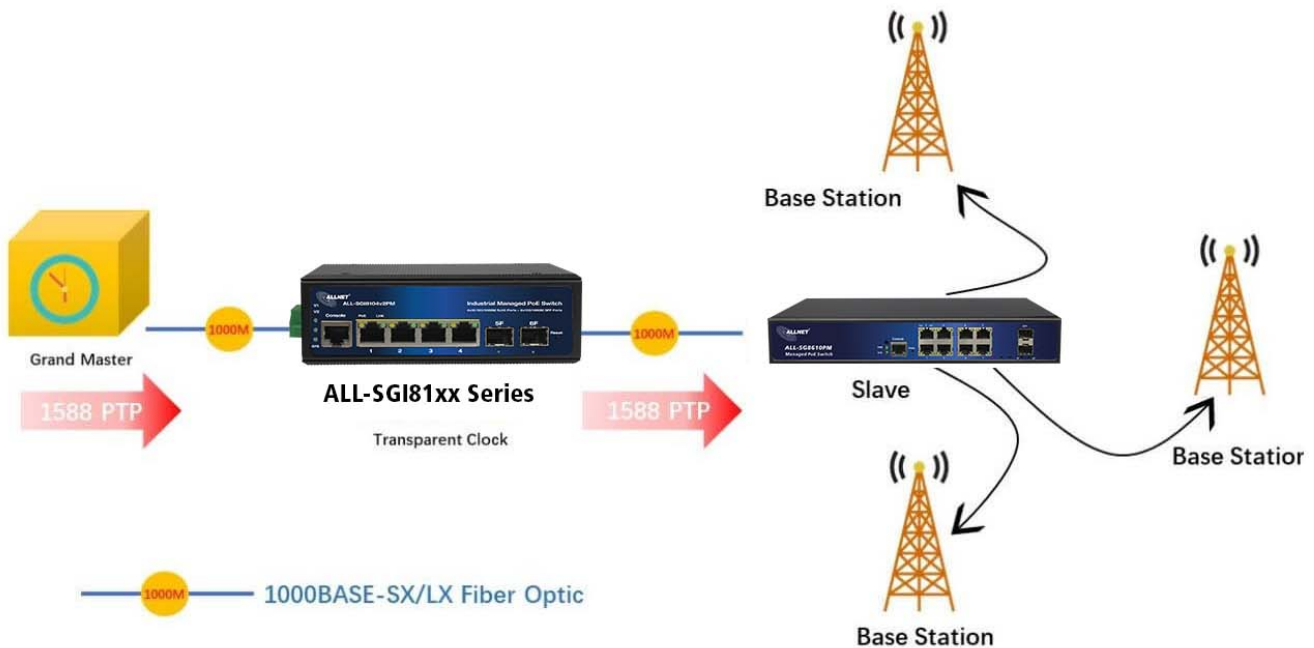
The ALL-SGI8112PMJ-BT supports redundant ring technology and has a strong, fast self-recovery capability to prevent interruptions and external intrusions. It integrates advanced ITU-T G.8032 ERPS technology, Spanning Tree Protocol (802.1s MSTP) and a redundant power supply system into the customer's industrial automation network to improve system reliability and uptime in harsh factory environments. In a given simple ring network, the data link recovery time can be as low as 20 ms.

## ERPS Ring for Video Transmission Redundancy



### 1588 time protocol for industrial computer networks

The ALL-SGI8112PMJ-BT is ideal for telecommunications and carrier Ethernet applications and supports MEF service provisioning and timing-over-packet solutions for IEEE 1588 and synchronous Ethernet.



### Strong Layer 2 functions

The ALL-SGI8112PMJ-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. By aggregating the supporting ports, the ALL-SGI8112PMJ-BT enables the operation of a high-speed trunk group that has multiple ports and also supports fail-over.

### Efficient and versatile management methods

For efficient management, the ALL-SGI8112PMJ-BT is equipped with console, web and SNMP management interfaces. With the integrated web-based management interface, it offers user-friendly, platform-independent management and configuration options. For text-based management, access is possible via Telnet and the console port.

### Intelligent PoE switch with SFP DDM function

The ALL-SGI8112PMJ-BT supports the SFP DDM (Digital Diagnostic Monitor) function, which enables the network administrator to easily monitor real-time parameters of the SFP transceivers, e.g. optical output power, optical input power, temperature, laser bias voltage and transceiver supply voltage.

**The technical features and stable housing make the switch the ideal solution for industrial applications. Supplied without power supply unit - please order separately!**

JSON-Java Script Object Notation API



Part No.: 234849  
Vendor Part No.: ALL-SGI8112PM-BT

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 to be important.

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



Part No.: 234849  
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## Technical details:

Model	ALL-SGI8112PMJ-BT
Copper Ports	8-10/100/1000BASE-T RJ45 auto-sensing ports
Fibre ports	4-100/1000BASE-T SFP interfaces, supports 100/1000Mbps dual mode
PoE ports	8-802.3af/802.3at PoE Injector Ports
Console ports	1 x RS-232-to-RJ45 serial port (115200, 8, N, 1)
Switch architecture	Store-and-Forward
Switch Fabric	24Gbps/non-blocking
Throughput	17.856Mpps @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
Power consumption	without PoE =12W
PoE budget	max. 240W total
PoE standards	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE power supply type	Per port 52V DC, 300mA. Max. 15.4 watts (IEEE 802.3af) Per port 52V DC, 600mA. Max. 30 watts (IEEE 802.3at)
LED indicators	Power: Green  Solid on--power work normal,off--power disconnected System:Green  Blink--work normally, solid on--soft work abnormal, fast blink--soft upgrade  PoE: Yellow  Solid on-PoE work normally, Off--PoE doesn't work, Blink--PoE overload



	<p>10/100/1000T RJ45 interfaces (Port 1 to Port 8): 1000 LNK/ACT (Green), Blink--port connected with data transmission; Solid on--port connected without data transmission</p> <p>100/1000Mbps SFP Interfaces (Port 9 to Port 12): Green</p> <p>Blink- port connected with data transmission; Solid on- port connected without data transmission</p>
EMC	<p>6KV surge protection (6KV common mode, 2KV differential mode), 6KV contact/8KV air ESD</p> <p>Surge Immunity:6KV Per: IEC61000-4-5</p> <p>ESD Protection: ESD Level 4 Per: IEC61000-4-2;EFT Level 4 Per: IEC61000-4-4</p>
Dimension	165x123x53.5mm
Weight	1.0kg
Working temperature	-40°C to 75°C
Storage Temperature	-40°C to +80°C
MTBF	50,000hrs
Port configuration	<p>Auto-negotiation flow control</p> <p>Port Mirror: TX/RX/BOTH; Many-to-1 monitor CPU Mirror</p> <p>Traffic statistics</p>
Link aggregation	<p>Static link aggregation LACP(Dynamic Trunk/Static Trunk)</p> <p>Algorithm based on Source/Destination MAC Algorithm based on Source/Destination IP</p>
MAC Table	<p>Aging Time</p> <p>Static MAC address</p> <p>Dynamic MAC address management</p>
VLAN	<p>4094 Active VLANs</p> <p>4094 VID</p> <p>802.1Q Tag VLAN</p>

	Port VLAN Protocol VLAN MAC VLAN Voice VLAN 802.1ad Q-in-Q tunnelling 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
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	
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	
SNMP v1/v2c 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	
Support IEEE1588v2 transparent clock	
Other features	DNS Client DHCP Relay DHCP Client DHCP Snooping DHCP Option 66
	DHCP Option 67
	DHCP Option 82 NTP/SNTP Client UPNP
	UDLD



## Attributes

Attribute	Value
Anzahl Ports PoE/LAN:	8/4
Belüftung Switch:	Lüfterlos
Einsatzort Switch:	Industrial DIN
Extra Features:	JSON-PoE-API;
LAN Geschwindigkeit:	1Gbit/s
Management:	full managed
PoE Budget:	<300 Watt
PoE Port Leistung:	90W BT
SFP Geschwindigkeit:	SFP 1GBit
Weight:	1.06 Kg
Warranty:	24.00 Months