

## ALLNET Switch industrial full managed Layer2+ 6 Port GbE • PoE Budget 120W • 4x PoE+ • 2x SFP • Fanless • DIN • JSON • ALL-SGI8106PMJ

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### EAN CODE



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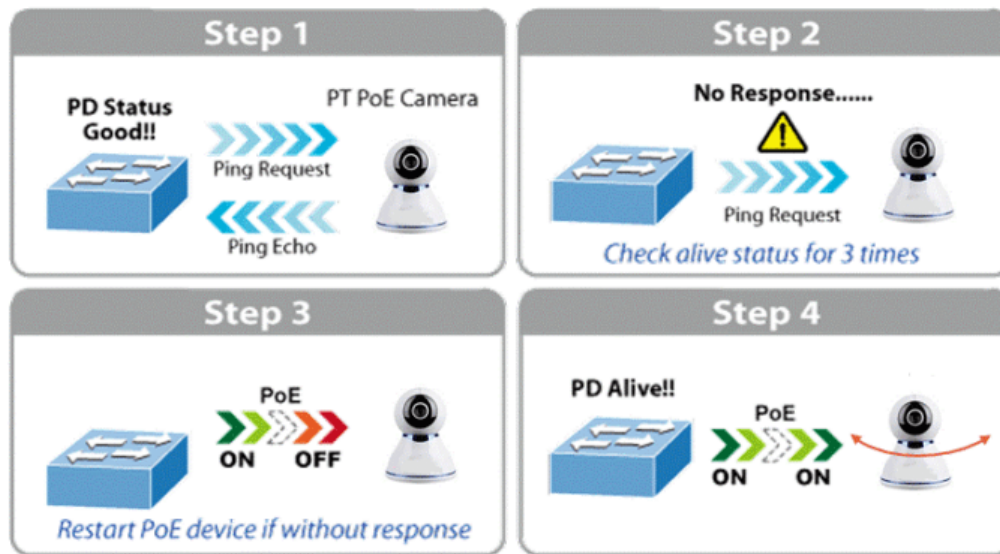
### Highlights:

- 4 Gigabit ports with PoE AF-AT support up to 30 watts per port
- 2x SFP ports for fibre optic GBIC e.g. ALL4750/4751-INDU etc.
- PoE ports 1-4 max. PoE IEEE802.3at 30W
- 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 = 120 watts
- Freeless metal housing with optimised heat dissipation
- Easy to use as a table-top device, wall-mounted or top-hat rail
- Extended temperature range from -40°C ~ +75°C

ALLNET ALL-SGI8106PMJ L2+ managed switch with 4 ports PoE is an industrial switch with 4-port Gigabit 802.3af/at PoE + 2-port Gigabit SFP optical port. It has a robust IP40 housing 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 and is the best investment for expanding industrial companies or upgrading their network infrastructure.

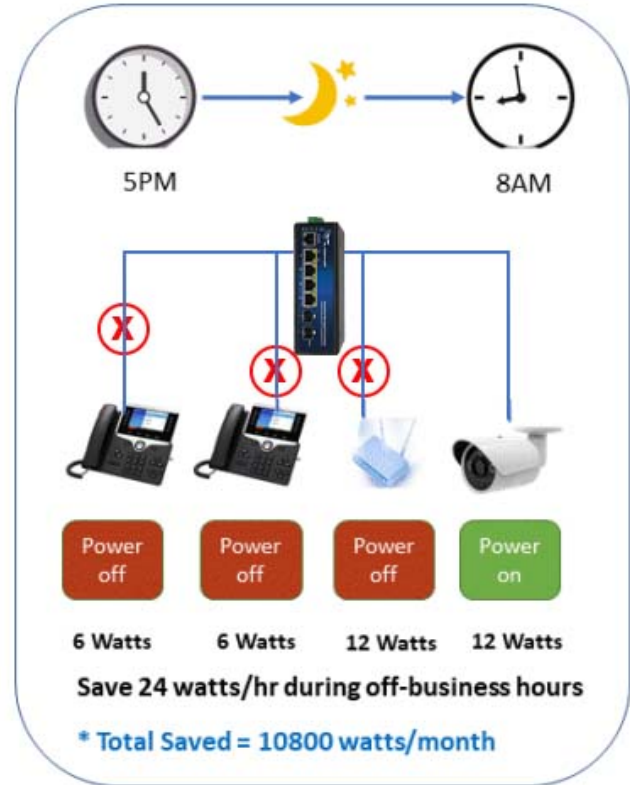
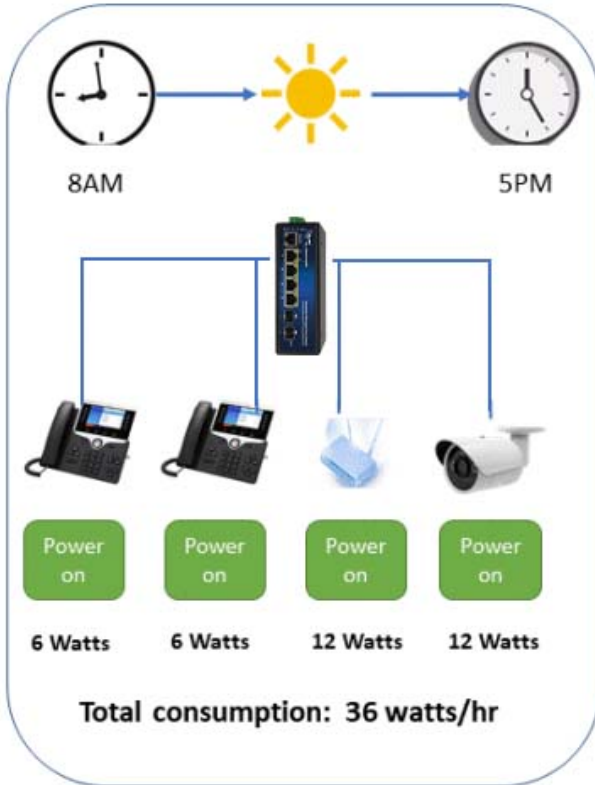
### Intelligent PD alive check for frozen PDs

The ALL-SGI8106PMJ industrial PoE switch with 8 ports can be configured to monitor the status of the connected PDs in real time. As soon as the PD stops working and responding, the ALL-SGI8106PMJ restarts the power supply to the PoE port and gets the PD up and running again. In addition, reliability is significantly improved by the fact that the PoE port resets the PD power supply, reducing the administrative burden on the administrator.



### PoE schedule function for energy saving

To protect the environment, the ALL-SGI8106PMJ 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.



1000 BASE-T UTP With PoE

### Planned PD restart

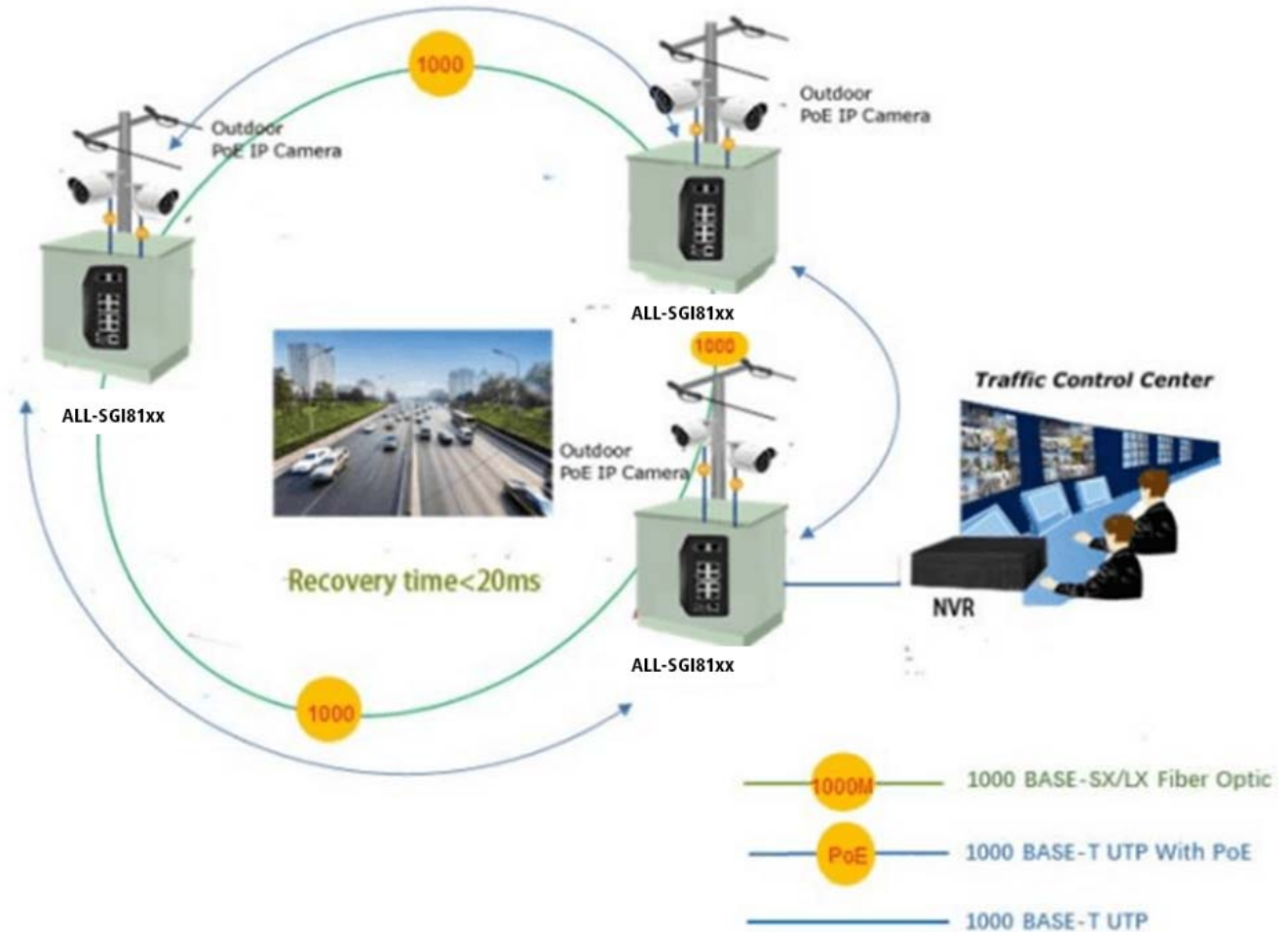
The intelligent PoE switch ALL-SGI8106PMJ allows each of the connected PoE IP cameras or PoE wireless access points to be restarted at a specific time every week. This reduces the risk of the IP camera or AP crashing due to a buffer overflow.



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

The ALL-SGI8106PMJ 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.

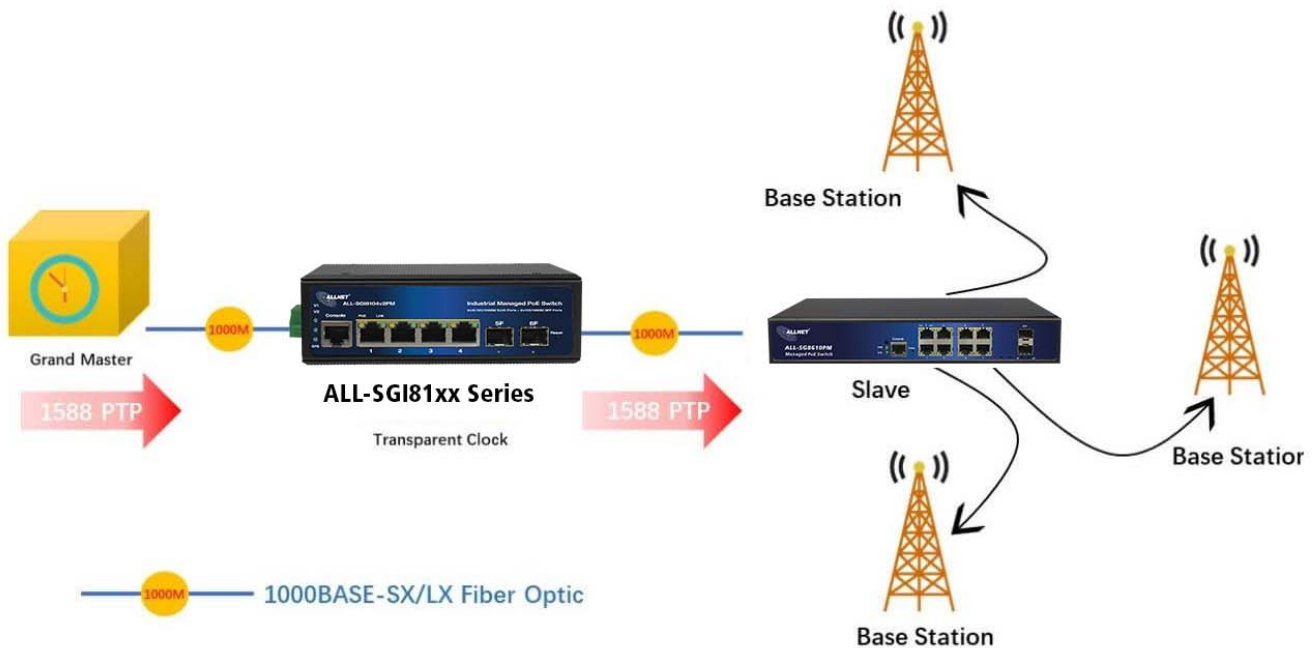
## ERPS Ring for Video Transmission Redundancy



### 1588 time protocol for industrial computer networks

The ALL-SGI8106PMJ 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-SGI8106PMJ 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-SGI8106PMJ 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-SGI8106PMJ is equipped with console, web and SNMP management interfaces.

With the integrated web-based management interface, it offers a user-friendly, platform-independent management and configuration option.

For text-based management, access is possible via Telnet and the console port.

For standards-based monitoring and management software, it provides an SNMPv3 connection that encrypts the packet contents for secure remote management during each session.

### Intelligent PoE switch with SFP DDM function

The ALL-SGI8106PMJ supports the SFP DDM (Digital Diagnostic Monitor) function, which allows the network administrator to easily monitor real-time parameters of the SFP transceivers, such as 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!

## Technical details:

|                       |  |
|-----------------------|--|
| Model                 | ALL-SGI8106PMJ   |
| Copper Ports          | 4-10/100/1000BASE-T RJ45 auto-sensing ports  |
| Fibre ports           | 2-100/1000BASE-T SFP interfaces, supports 100/1000Mbps dual mode   |
| PoE ports             | 4-802.3af/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         | 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<br>12VDC ~ 48VDC for non PoE support   |
| PoE standards         | IEEE 802.3af Power over Ethernet/PSE<br><br>IEEE 802.3at Power over Ethernet Plus/PSE  |
| PoE Power Supply Type | Per port 52V DC, 300mA. Max. 15.4 watts (IEEE 802.3af)<br><br>Per port 52V DC, 600mA. Max. 30 watts (IEEE 802.3at)   |
| LED indicators        | Power: Green<br><br>Solid on–power work normal, off–power disconnected<br><br>System: Green<br><br>Blink–work normally, solid on–soft work abnormal, fast blink–soft upgrade<br><br>PoE: Yellow<br><br>Solid on–PoE work normally, Off–PoE doesn't |



|                     |  |
|---------------------|--|
|                     | <p>work, Blink–PoE overload</p> <p>10/100/1000T RJ45 interfaces (Port 1 to Port 4): 1000 LNK/ACT (Green),</p> <p>Blink–port connected with data transmission;</p> <p>Solid on–port connected without data transmission</p> <p>100/1000Mbps SFP Interfaces (Port 5 to Port 6): Green</p> <p>Blink- port connected with data transmission;</p> <p>Solid on- port connected without data transmission</p> |
| EMC                 | <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           | 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

|                    |   |
|--------------------|---|
| Port configuration | <p>Auto-negotiation</p> <p>Flow control</p> <p>Port Mirror: TX/RX/BOTH; Many-to-1 monitor</p> <p>CPU Mirror</p> <p>Traffic statistics</p>                               |
| Link aggregation   | <p>Static link aggregation</p> <p>LACP(Dynamic Trunk/Static Trunk)</p> <p>Algorithm based on Source/Destination MAC</p> <p>Algorithm based on Source/Destination IP</p> |
| MAC Table          | Aging Time  |



|               |  |
|---------------|--|
|               | <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> <p>Port VLAN</p> <p>Protocol VLAN</p> <p>MAC VLAN</p> <p>Voice VLAN</p> <p>802.1ad Q-in-Q tunnelling</p> <p>Private VLAN (Protected port)</p> <p>GARP/GVRP</p> |
| ACL           | <p>256ACLs</p> <p>L2, L3 e L4</p> <p>Time-based ACL</p> <p>IP ACL</p> <p>MAC ACL</p> <p>MAC-IP ACL</p> <p>User-Defined ACL</p> <p>ICMPv6</p>   |
| Spanning tree | <p>802.1D Spanning Tree Protocol (STP)</p> <p>802.1w Rapid Spanning Tree Protocol (RSTP)</p> <p>802.1s Multiple Spanning Tree Protocol (MSTP)</p> <p>Loop Guard</p> <p>Root Guard</p> <p>TC-BPDU Guard</p>                     |



|                   |  |
|-------------------|--|
|                   | <p>BPDU Guard</p> <p>BPDU Filter</p>   |
| Ring Protection   | <p>&lt;20ms G.8032 ERPS Ring</p> <p>Fast Ring</p> <p>ALLNET ring, &lt; 20ms</p>  |
| Multicast         | <p>256 groups</p> <p>IGMP v1/v2/v3 Snooping, Fast Leave</p> <p>MLD Snooping</p> <p>Multicast VLAN</p> <p>IGMP filter</p> <p>MVR</p> <p>Multicast routing</p>   |
| QOS               | <p>8 mapping IDs to 8 level priority queues</p> <p>CoS port-based</p> <p>CoS 802.1p-based</p> <p>CoS DSCP-based</p> <p>Scheduling algorithms SP, WRR, SP+WRR</p> <p>Storm Control (Broadcast, Multicast, Unknown Unicast)</p> <p>Bandwidth control per port</p> <p>SWRR, DWRR for Scheduling</p> <p>Flow Redirect</p> <p>Precedence</p> <p>TOS</p> <p>Rate Limiting(Ingress/Egress)</p> <p>Stri Priority</p> |
| Security Features | <p>Port Security</p>   |



|                   |  |
|-------------------|--|
|                   | <p>MAC address filter</p> <p>ARP Association (Manual, ARP scanning, DHCP snooping)</p> <p>ARP Protection</p> <p>AAA</p> <p>DAI</p> <p>DoS (Denial of Service)</p> <p>Classification of packages based on: End.MAC, IP End, TCP / UDP Ports,</p> <p>Protocol Type;</p> <p>802.1x Authentication (port-based e MAC-based)</p> <p>TACACS/TACACS+ Authentication</p> <p>RADIUS Authentication</p> <p>DHCP Filter</p> <p>Guest VLAN</p> <p>SSLv2/SSLv3/TLSv1</p> <p>SSHv1/SSHv2</p> <p>Restriction of WEB access based on: IP Address, And. MAC and Port;</p> <p>Port Isolation</p> <p>Loopback detection</p> |
| <p>Management</p> | <p>SNMP v1/v2c/v3 with Full Private MIBs</p> <p>RMON 4 groups</p> <p>WEB (HTTP/HTTPS)</p> <p>CLI (Telnet, Console, SSHv1/v2)</p> <p>Firmware upgrade via console/web/TFTP</p> <p>Configuration backup/reload</p>   |



|                              |  |
|------------------------------|--|
|                              | <p>Dual firmware</p> <p>LLDP</p> <p>Configuration export/import</p> <p>CDP Aware</p> <p>OAM (IEEE802.3ah)</p> <p>CFM (IEEE802.1ag)</p> <p>sFlow</p> <p>Telnet client</p>   |
| Synchronisation,<br>IEEE1588 | Support IEEE1588v2 transparent clock   |
| Other Features               | <p>DNS Client</p> <p>DHCP Relay</p> <p>DHCP Client</p> <p>DHCP Snooping</p> <p>DHCP Option 66</p> <p>DHCP option 67</p> <p>DHCP option 82</p> <p>NTP/SNTP client</p> <p>UPNP</p> <p>UDLD</p>                                   |
| PoE management               | <p>Total PoE power budget control</p> <p>Per port PoE function enable/disable</p> <p>PoE admin-mode control</p> <p>PoE port power feeding priority</p> <p>Per PoE port power limitation</p> <p>PD classification detection</p> |



|             |   |
|-------------|---|
|             | PD alive check<br>PoE schedule<br>Soft-reboot PoE non-stop  |
| Maintenance | Cable Diagnostics<br>Ping<br>SFP DDM (Digital Diagnostics Monitoring)<br>Thermal protection<br>System log (Local and Remote)<br>Memory and CPU Monitoring<br>Tracert/ Tracert 6 |

### Layer 3 functions

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

## Attributes

| Attribute | Value |
|-----------|-------|
|-----------|-------|



Part No.: 223959  
Vendor Part No.: ALL-SGI8106PMJ

|                       |                |
|-----------------------|----------------|
| Anzahl Ports PoE/LAN: | 4/0            |
| Belüftung Switch:     | Lüfterlos      |
| Einsatzort Switch:    | Industrial DIN |
| Extra Features:       | JSON-PoE-API;  |
| LAN Geschwindigkeit:  | 1Gbit/s        |
| Management:           | full managed   |
| PoE Budget:           | <200 Watt      |
| PoE Port Leistung:    | 30W at         |
| SFP Geschwindigkeit:  | SFP 1GBit      |
| Weight:               | 0.8 Kg         |
| Warranty:             | 24.00 Months   |

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