

### Layer 2 Gigabit Industrial Managed PoE Switch Up To 250m

#### Product Highlights

##### Robust Design

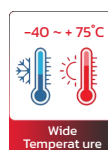
High EMC endurance, fanless design, and wider operating temperature range combined with an IP40 housing to withstand harsh operating environments

##### Flexible Deployment

Small form factor design that support standard PoE and extended PoE (up to 250m range) of PoE-powered devices

##### Powerful Management

Features a variety of flexible management options including a web-based UI, industry-standard CLI, SNMP, and a dedicated RJ-45 console port



#### Features

##### Flexible Availability

- Support up to 250m PoE and Data transmission
- Industrial model variations with wider operating temperature ranges

##### Robust and High-Redundancy Design

- Fanless, passive cooling design
- High EMC endurance
- Built-in 6 KV surge protection on copper ports
- Run-Ring (Self-healing < 10ms)
- Dual power input for redundant power supplies

##### Layer 2 Features

- IEEE 802.1Q and port-based VLAN
- IEEE 802.1p Quality of Service (QoS)
- STP/RSTP/MSTP
- Port mirroring
- Link aggregation
- Bandwidth control
- Broadcast storm control
- IGMP/MLD Snooping

The AIS8G2F-10P Layer 2 Gigabit Industrial Smart Managed Switches are equipped with 8 PoE-capable 10/100/1000BASE-T ports and 2 SFP ports. AIS8G2F-10P feature a robust design making them ideal for deployment in industrial and outdoor cabinet surveillance settings, capable of withstanding the harshest environments. The AIS8G2F-10P furthermore support extended PoE up to 250m and security functions to provide a complete industrial networking solution.

##### Durable and Reliable Design

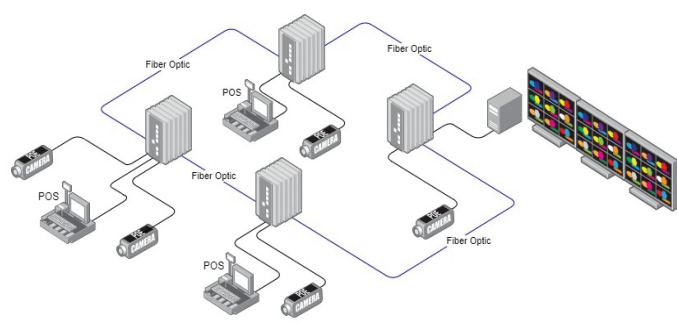
The AIS8G2F-10P switches are housed in a highly resistant IP40 - rated metal casing to protect them from harsh environmental conditions. The high electromagnetic compatibility (EMC) protects the AIS8G2F-10P from unwanted effects when operating in environments with strong electromagnetic interference. Meanwhile, the fanless design extends the life of the AIS8G2F-10P while also being able to operate in a wider temperature

Additionally, the AIS8G2F-10P features high - capacity 6KV surge protection on all copper ports to help prevent damage to the switch and connected devices caused by sudden power surges and lightning strikes. The built-in surge protection of up to 6 KV can mitigate the damage to the switch from both indoor and outdoor devices and network connections by absorbing the excess energy while still letting through the amount of power required for the switch to operate normally. This increases network

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#### High Redundancy and Reliability

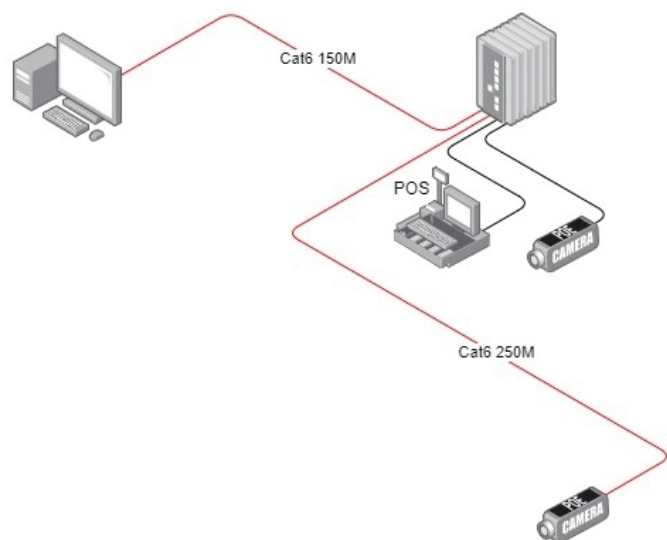
The AIS8G2F-10P supports Run Ring quick failover recovery for ring topologies that ensures minimal downtime and avoids any loss of data in mission-critical deployment settings. Meanwhile, the dual power input allows for a redundant power supply to make sure the device continues to operate in the event of a primary power supply failure.



#### Long distance 250m PoE

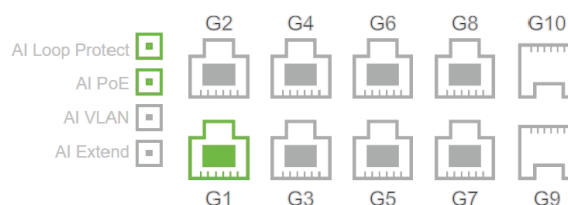
The AIS8G2F-10P supports the extended PoE features. This feature allow AIS8G2F-10P to provide PoE power to PoE devices over the distance of up to 250m on Cat 5E cable and above. This help to save cost by reducing the number of switch or PoE extender needed to support devices that is more than 100m distance away. With single unit reduce the overall prices in project implementation.

AIS8G2F-10P , it can help to reduce number of switches needed, thus AIS8G2F-10P can support a total power budget of up to 250W (depending on the power source), capable of supplying up to 46 W of power per port to connected PoE-enabled devices leveraging existing conventional Ethernet cabling. This effectively cuts down deployment times, reduces cable clutter and eliminates the need for dedicated power supplies to allow PoE-devices to be installed in remote locations.



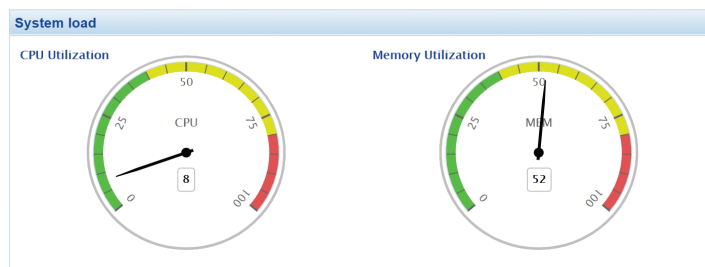
#### Easy Troubleshooting

The AIS8G2F-10P features loopback detection and cable diagnostics to help network administrators find and solve network problems quickly and easily. Loopback detection is used to detect loops created by a specific port and automatically shuts down the affected port. Cable diagnostics helps network administrators quickly examine the quality of the copper cables, recognize the cable type and detect cable errors.

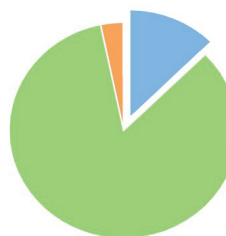


#### Green Ethernet Technology

The AIS8G2F-10P features green technology, including IEEE 802.3az Energy-Efficient Ethernet (EEE), link status detection, and cable length detection. Energy Efficient Ethernet reduces the power consumption of the switches when network utilization is low, effectively lowering the cost of ownership during periods of inactivity. Link status detection automatically powers down ports when there is no link detected, saving power when the connected device has been shut down or disconnected. Cable length detection automatically adjusts the power output of the port based on the length of the cable, reducing the power requirements of the switch to only what is necessary for the installation.

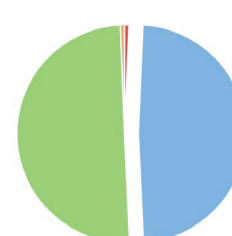


#### CPU Usage



- Nice
- User
- System
- Sirq
- Irq
- IO

#### Memory Usage



- Used
- Buffers
- Free
- Cached

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Technical Specifications	
General	AIS8G2F-10P
Hardware Version	<ul style="list-style-type: none"> <li>• AIM01</li> </ul>
Number of Ports	<ul style="list-style-type: none"> <li>• 8 X 10/100/1000 Base-T ports</li> <li>• 2 X SFP ports</li> <li>• 1 X RJ-45 Console Port</li> </ul>
Port Functions	<ul style="list-style-type: none"> <li>• IEEE 802.3: Ethernet Media Access Control (MAC) Protocol</li> <li>• IEEE 802.3i:10BASE-T Ethernet</li> <li>• IEEE 802.3u:100BASE-TX Fast Ethernet</li> <li>• IEEE 802.3ab:1000BASE-T Gigabit Ethernet</li> <li>• IEEE 802.3z:1000BASE-X Gigabit Ethernet(optical fiber)</li> <li>• IEEE 802.3ad: Standard method for performing link aggregation</li> <li>• IEEE 802.3x:Flow control</li> <li>• IEEE 802.1p:LAN Layer 2 Qos/Cos protocol for traffic prioritization (multicast filtering)</li> <li>• IEEE 802.1q:VLAN Bridge Operation</li> <li>• IEEE 802.1d:STP Spanning Tree</li> <li>• IEEE 802.1s:MSTP Spanning Tree</li> <li>• IEEE 802.1w:RSTP Spanning Tree</li> <li>• IEEE 802.3af</li> <li>• IEEE 802.3at</li> </ul>
Performance	
Switching Capacity	<ul style="list-style-type: none"> <li>• 20 Gbps</li> </ul>
Maximum Forwarding Rate	<ul style="list-style-type: none"> <li>• 100Mbps forwarding speed: 148810pps Gigabit forwarding speed: 1488100pps</li> <li>• 100M maximum filter speed: 148810pps Gigabit maximum filtration speed: 1488100pps</li> </ul>
MAC Address Table Size T	<ul style="list-style-type: none"> <li>• Up to 8K entries</li> </ul>
PoE	
PoE Standards	<ul style="list-style-type: none"> <li>• IEEE 802.3af/at</li> </ul>
PoE Capable	<ul style="list-style-type: none"> <li>• Ports 1 to 8 (Up to 250m)</li> </ul>
Power consumption	<ul style="list-style-type: none"> <li>• No-load power: 6W@52VDC</li> <li>• Full load power: 96W@52VDC (including POE output)</li> </ul>
Physical	
Diagnostic LEDs	<ul style="list-style-type: none"> <li>• SYS</li> <li>• ALM</li> <li>• PWR 1/2</li> <li>• Link/Activity</li> <li>• PoE status</li> </ul>
Power Input	<ul style="list-style-type: none"> <li>• 48 to 56 V DC terminal block dual input</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 1 Kg</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>• 163 x 46.5 x 110 mm</li> </ul>
Operating Temperature	<ul style="list-style-type: none"> <li>• -40 to 75 °C</li> </ul>
Storage Temperature	<ul style="list-style-type: none"> <li>• -40 to 75 °C</li> </ul>
Operating Humidity	<ul style="list-style-type: none"> <li>• 5% to 95% RH, non-condensing</li> </ul>
Storage Humidity	<ul style="list-style-type: none"> <li>• 5% to 95% RH, non-condensing</li> </ul>
Material	<ul style="list-style-type: none"> <li>• IP40-rated metal casing</li> </ul>
Installation	<ul style="list-style-type: none"> <li>• DIN rail/wall</li> </ul>
MTBF	<ul style="list-style-type: none"> <li>• 360,000 hours</li> </ul>
Certifi	<ul style="list-style-type: none"> <li>• CE</li> <li>• FCC</li> <li>• RoSH</li> </ul>

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Software features	
VLAN	<ul style="list-style-type: none"> <li>• 4K VLAN</li> <li>• 802.1Q VLAN,MAC VLAN,IP VLAN</li> <li>• Voice VLAN</li> </ul>
Quality of Service (QoS)	<ul style="list-style-type: none"> <li>• Support 8 port queues</li> <li>• Support port priority, 802.1P priority, DSCP priority</li> <li>• Support SP, WRR, RR,priority scheduling algorithm</li> </ul>
Safety features	<ul style="list-style-type: none"> <li>• Password protection</li> <li>• Support user access based on port number, IP address, and MAC address</li> <li>• HTTPS,SSL V3,TLS V1,SSH V1/V2</li> <li>• Support IP-MAC-PORT ternary binding</li> <li>• Support ARP protection, IP source protection, DoS protection</li> <li>• Support DHCP Snooping and DHCP attack protection</li> <li>• Support 802.1X authentication, AAA</li> <li>• Support port security, port isolation</li> <li>• Support CPU protection</li> </ul>
Management and maintenance	<ul style="list-style-type: none"> <li>• Support web management (HTTP,HTTPS,SSL V3)</li> <li>• Support CLI (Telnet, SSH V1/V2, local serial port)</li> <li>• Support SNMP V1/V2/V3,</li> <li>• Support LLDP,RMON</li> <li>• Support ARP protection, IP source protection, DoS protection</li> <li>• Support CPU monitoring, memory monitoring</li> <li>• Support system log, grading warning</li> <li>• Support Ping, Tracert detection, cable detection</li> </ul>
IPv6	<ul style="list-style-type: none"> <li>• Support IPv6 Ping,IPv6 Tracert,IPv6 Telnet</li> <li>• IPv6 SSH ,IPv6 SSL</li> </ul>
POE management	<ul style="list-style-type: none"> <li>• Support PoE power limit</li> <li>• Support POE chip status view</li> <li>• Support setting PoE port priority</li> <li>• Support setting PoE power supply time period</li> </ul>
Traffic Statistics	<ul style="list-style-type: none"> <li>• Support</li> </ul>

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**AIS8G2F-10P**  
Dimensions (Units: mm)

