



# CATALOG

Industrial Networking & Industrial IoT & Industrial CyberSecurity

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## Avcomm Technologies, Inc

333 West Loop North, Suite 460 Houston, TX 77024, USA

+1(713)933-4534

[www.avcomm.us](http://www.avcomm.us)

[info@avcomm.us](mailto:info@avcomm.us)



[www.avcomm.us](http://www.avcomm.us)



# DIRECTORY

## **Avcomm Technologies, Inc**

*Founded in 2018 in Houston, Texas, the company is backed by a core team with over 20 years of global expertise in industrial automation, computer technology, and telecommunications, covering product design, development, manufacturing, and management.*

*Our mission is to integrate advanced digital technologies into industrial automation and manufacturing, delivering superior technology, reliable products, and robust support to our users.*

*Humanity's technological advancement is approaching a singularity. Rapid innovations in communication, computing, data, and artificial intelligence are unlocking unprecedented opportunities in industrial automation and manufacturing. Leveraging reliable communication, advanced IoT, and robust AI decision-making, we are empowering manufacturers to embrace the inevitable next industrial revolution.*

*Our solution advantages stem from three key areas:*

- Extensive experience in industrial communication.*
- An open, user-friendly industrial IoT platform and ecosystem.*
- A revolutionary industrial voice assistant for human-machine interaction.*

*We not only offer advanced technology and high-quality products, but we are also committed to providing customized solutions for our users. Our top-notch manufacturing processes and quality control procedures ensure that each product can withstand the harsh conditions of industrial environments. Our software development applies agile methodologies, providing customized deliverables for users and projects. Additionally, our industrial digital ecosystem offers a broader and more efficient response to customer needs.*



CASE STUDY

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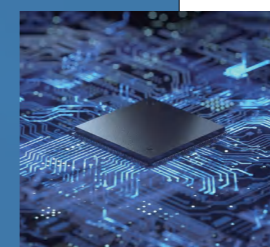
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# Industrial AI Voice Assistant

CASE STUDY



## Human-machine interaction, the way of the future

Rooted in Houston's rich soil of innovation, our company channels the spirit of aviation pioneer Howard Hughes. Like Hughes, who built the world's largest aircraft and pioneered new cinema realms, we are constructing our own "giant airplane"—a revolutionary industrial AI voice assistant. Inspired by Hughes, we are dedicated to paving the future for the manufacturing industry with cutting-edge technology. On this journey, we are not just dreamers but doers, pushing Houston's legacy of innovation to the global stage.

**Harness the power of AI technology to seamlessly integrate voice commands into your production system, enhancing human-machine interaction.**

**Specialized for industrial human-machine interaction, supporting Desktop, DIN rail, and Panel mounting.**



Hi, Avcomm!

"What is the current operating efficiency of the machine?"

"Are there any errors or malfunctions reported?"

"Can you tell me the highest and average temperature of the reactor over the past 24 hours?"

"What is the maintenance history or last service date of this equipment?"

"What are the current operational parameters or settings of this machine?"

"What do these error codes mean and how can they be resolved?"

"Start the conveyor belt."

"Stop the milling machine."



Join us in transforming your operations! Share your application needs today, and benefit from our complimentary consultation services. We also offer pilot projects with shared results to kickstart your success.

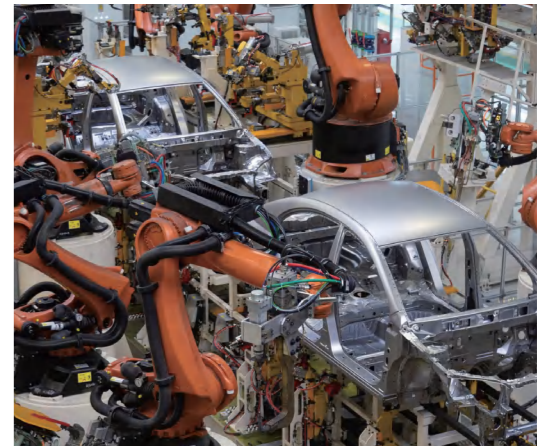
# Factory Automation

CASE STUDY

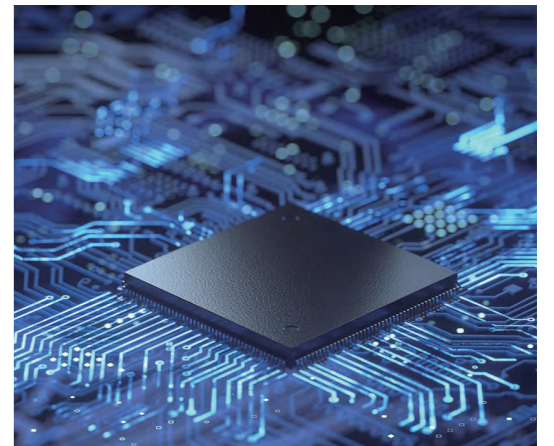
In the factory automation sector, our solutions are widely used in automotive, semiconductor, and food and beverage industries, featuring advanced industrial Ethernet, IoT, information security, and AI capabilities. These solutions enhance production efficiency and cost control, driving technological innovation and business growth.

For example, a top automotive parts manufacturer increased production efficiency by 25% and cut operating costs by 25% after adopting our system. The operations manager noted, "The system boosted our capacity and significantly improved product quality by reducing failure rates and enhancing predictability."

We offer customized solutions and comprehensive support, adhering to strict industry standards and holding multiple certifications to ensure quality and safety. Our team ensures the success and long-term operation of each project with prompt and continuous support.



Automotive

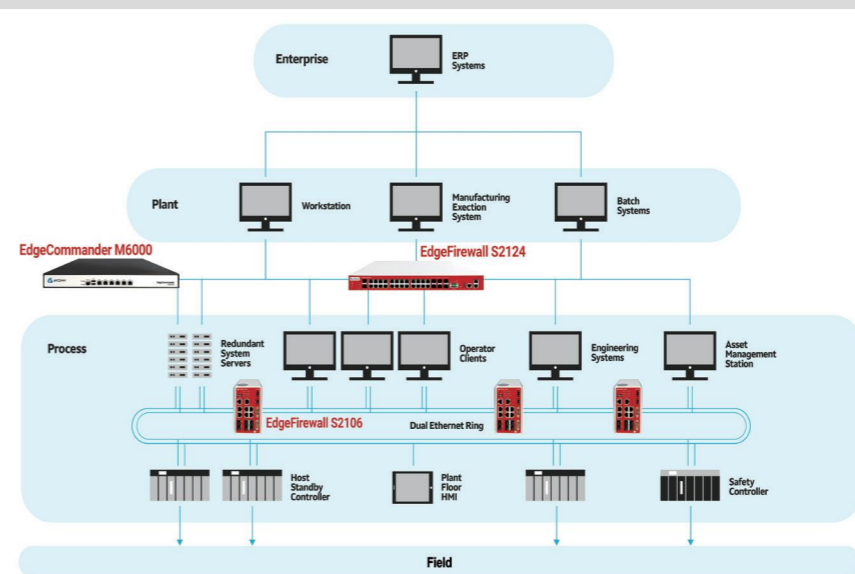


Semiconductor



Food & Beverage

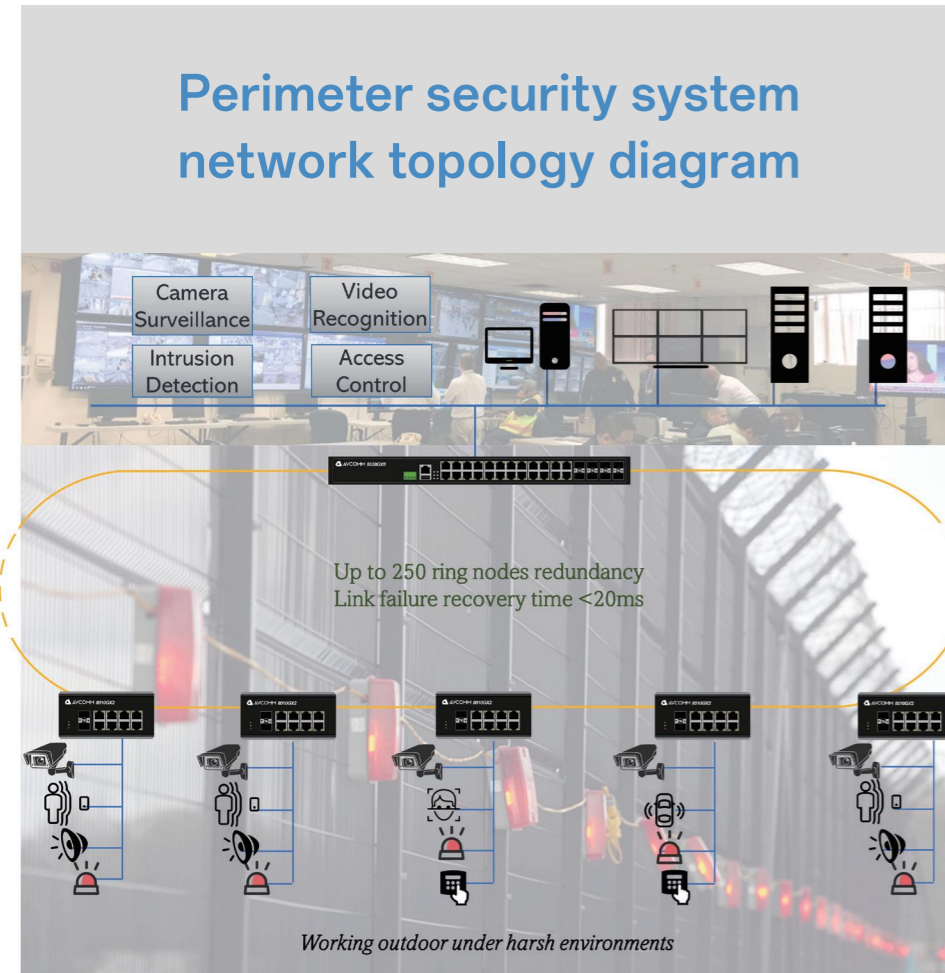
## Network topology diagram of industrial control system





# Process Controls

## CASE STUDY



In the process control sector, our solutions are extensively deployed in oil and gas, refining, and steel industries, equipped with cutting-edge sensors, real-time data analytics, and advanced automation technologies. These tools optimize operations and boost safety and efficiency, leading to significant improvements in production and operational management.

For example, a prominent steel manufacturing company enhanced its production efficiency by 30% and reduced energy consumption by 20% after adopting our process control system. The facility manager commented, "The system not only scaled up our output but also minimized our environmental footprint by optimizing resource utilization and improving safety protocols."

We offer customized solutions with full support, adhering to strict industry standards and securing multiple certifications to ensure superior quality and reliability. Our team is committed to rapid and ongoing support, ensuring the successful and continuous operation of each project across these demanding industries.

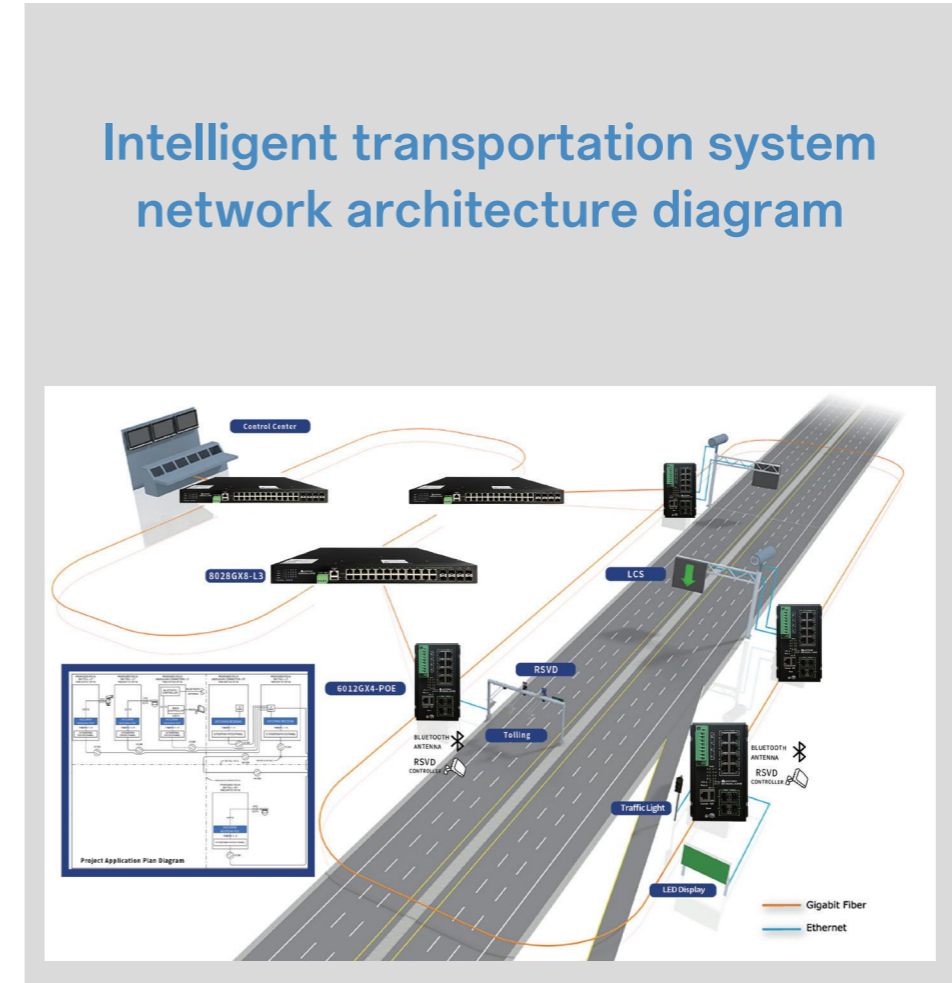
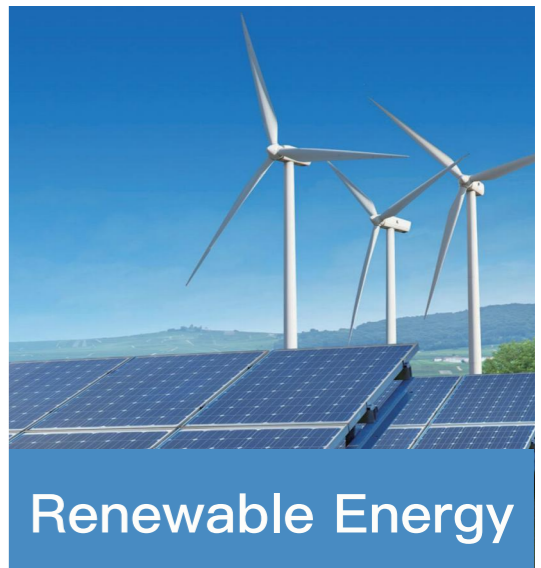
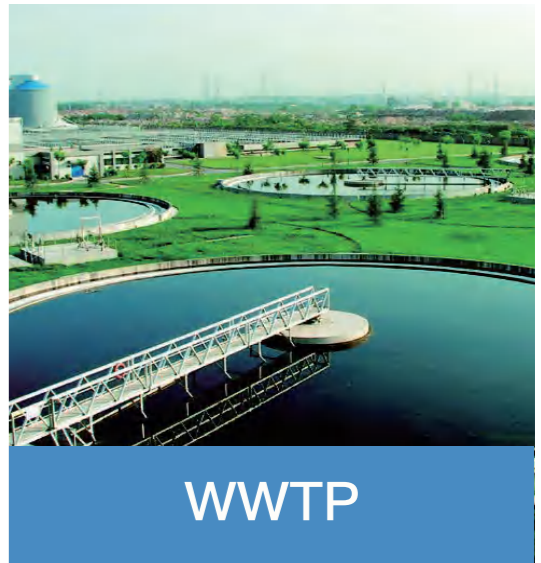
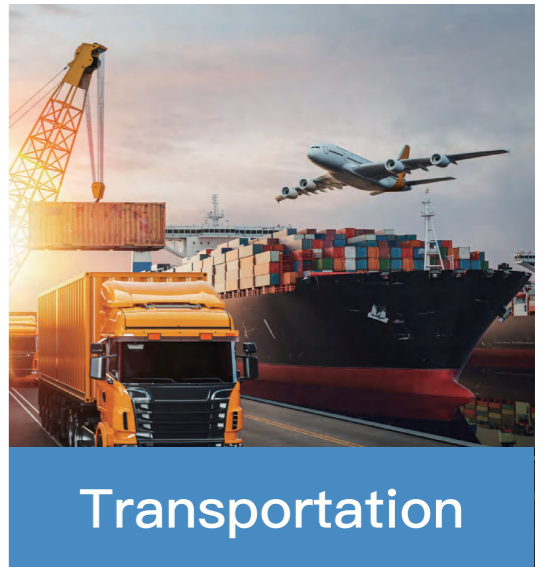
# SCADA System

## CASE STUDY

In the realm of industrial automation, our solutions are pivotal in SCADA systems of industries such as transportation, WWTP, and renewable energy. They empower sophisticated monitoring, control, and data acquisition capabilities that enhance operational transparency and efficiency. These systems facilitate real-time decision-making and streamline operations, significantly improving safety and productivity.

For instance, a major transportation owner reported a 10 times speed of their industrial networks and a 30% reduction in costs after implementing our latest products. The operations director stated, "Our SCADA system has transformed how we monitor and manage our operations, enabling faster responses to changes and reducing incident rates significantly."

We provide tailored solutions for SCADA solutions accompanied by comprehensive support, ensuring adherence to the highest industry standards and maintaining several certifications for quality and safety. Our dedicated team offers quick and continuous support, guaranteeing the success and longevity of every project, optimizing performance across these challenging sectors.



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# 8000 Layer2

## INDUSTRIAL NETWORKING



**8008TX**

8\*10/100/1000 Base-T

**8008GX2**

6\*10/100/1000 Base-T  
2\*100/1000 Base-X

**8010GX2**

8\*10/100/1000 Base-T  
2\*100/1000 Base-X

**8010GX4**

6\*10/100/1000 Base-T  
4\*100/10000 Base-X

**8012GX4**

8\*10/100/1000 Base-T  
4\*100/1000 Base-X



**8014GX4**

10\*10/100/1000 Base-T  
4\*100/1000 Base-X

**8022GX6**

16\*10/100/1000 Base-T  
6\*100/1000 Base-X

**8028GX8**

20\*10/100/1000 Base-T  
4\*100/1000 Base-X  
4\* 100/1000 Combo(RJ45 or SFP)

**8028GX28**

24\*100/1000 Base-X SFP  
4\*1G/10G Base-X SFP

Model Name	Description
8008TX	8-Port Fully Managed Industrial Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8008GX2	8-Port Fully Managed Industrial Ethernet Switch, 6 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8010GX2	10-Port Fully Managed Industrial Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8010GX4	10-Port Fully Managed Industrial Ethernet Switch, 6 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8012GX4	12-Port Fully Managed Industrial Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8014GX4	14-Port Fully Managed Industrial Ethernet Switch, 10 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8022GX6	22-Port Fully Managed Industrial Ethernet Switch, 16 RJ45 Ports 10/100/1000Base-T(X), 6 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 10-60VDC, -40°C-75°C
8028GX8-AC2	28-Port Fully Managed Industrial Ethernet Switch, 24 RJ45 Ports 10/100/1000Base-T(X), 4 Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+), 4 Slots 1000BaseSFP+, Rack Mounting, Dual Power Input 90-264VAC, -40°C-75°C
8028GX28-AC2	28-Port Fully Managed Industrial Ethernet Switch, 4 Slots 10GBaseSFP+, 24 Slots 1000BaseSFP+, Rack Mounting, Dual Power Input 90-264VAC, -40°C-75°C

# 8000 Layer3

## INDUSTRIAL NETWORKING



**8008GX2-L3**

6\*10/100/1000 Base-T  
2\*100/1000 Base-X

**8008TX-L3**

8\*10/100/1000 Base-T

**8010GX2-L3**

8\*10/100/1000 Base-T  
2\*100/1000 Base-X

**8012GX2-L3**

10\*10/100/1000 Base-T  
2\*100/1000 Base-X



**8012GX4-L3**

8\*10/100/1000 Base-T  
4\*100/1000 Base-X

**8014GX4-L3**

10\*10/100/1000 Base-T  
4\*100/1000 Base-X

**8022GX6-L3**

16\*10/100/1000 Base-T  
6\*100/1000 Base-X

**8028GX8-L3**

20\*10/100/1000 Base-T  
4\*100/1000 Base-X  
4\* 100/1000 Combo(RJ45 or SFP)

Model Name	Description
8008GX2-L3	8-Port Layer3 Fully Managed Industrial Ethernet Switch, 6 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8008TX-L3	8-Port Layer3 Fully Managed Industrial Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8010GX2-L3	10-Port Layer3 Fully Managed Industrial Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8012GX2-L3	12-Port Layer3 Fully Managed Industrial Ethernet Switch, 10 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8012GX4-L3	12-Port Layer3 Fully Managed Industrial Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8014GX4-L3	14-Port Layer3 Fully Managed Industrial Ethernet Switch, 10 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 12-48VDC, -40°C-75°C
8022GX6-L3	22-Port Layer3 Fully Managed Industrial Ethernet Switch, 16 RJ45 Ports 10/100/1000Base-T(X), 6 SFP Slots 1000BaseSFP+, DIN-Rail, Dual Power Input 10-60VDC, -40°C-75°C
8028GX8-L3-AC2	28-Port Fully Managed Layer3 Industrial Ethernet Switch, 24 RJ45 Ports 10/100/1000Base-T(X), 4 Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+), 4 Slots 1000BaseSFP+, Rack Mounting, Dual Power Input 90-264VAC, -40°C-75°C



# 200/2000/400/4000

## INDUSTRIAL NETWORKING



**208TX** 8\*10/100 Base-T  
**2003GX** 1\*100/1000 SFP, 2\*10/100/1000 Base-T  
**402MC** 1\*10/100 Base-T, 1\*100 Base-X  
**406FX2** 4\*10/100 Base-T, 2\*100 Base-X  
**408FX2** 6\*10/100 Base-T, 2\*100 Base-X  
**410FX2** 8\*10/100 Base-T, 2\*100 Base-X  
**428GX4** 24\*10/100 Base-T, 4\*1000 Base-X SFP



**4002MC** 1\*10/100/1000Base-T, 1\*1000 Base-X  
**4006GX2** 4\*10/100/1000 Base-T, 2\*1000 Base-X  
**4008TX** 8\*10/100/1000Base-T  
**4010GX2** 8\*10/100/1000 Base-T, 2\*1000 Base-X  
**4012GX4** 8\*10/100/1000 Base-T, 4\*1000 Base-X  
**4028GX4** 24\*10/100/1000 Base-T, 4\*1000 Base-X SFP

Model Name	Description
208TX	8-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), DIN-Rail, 12/24/48VDC(10 to 60VDC)&24VAC(18 to 30VAC) Single power input, -40°C to +75°C
2003GX	Industrial Unmanaged Ethernet Switch, 1x100/1000BaseX SFP port and 2x10/100/1000 BaseT(X) ports, DIN Rail, 12/24/48VDC(10 to 60VDC) &24VAC (18 to 30VAC) single power input, -40°C to +75°C
402MC	2-Port Industrial Media Converter, 1 RJ45 10/100BaseT(X), 1 100BaseFX, DIN-Rail, Single Power Input 10-50VDC, -40°C-85°C
406FX2	6-Port Industrial Unmanaged Ethernet Switch, 4 RJ45 10/100BaseT(X), 2 100BaseFX, DIN-Rail, Single Power Input 10-50VDC, -40°C-85°C
408FX2	8-Port Industrial Unmanaged Ethernet Switch, 6 RJ45 10/100BaseT(X), 2 100BaseFX, DIN-Rail, Dual Power Input 10-50VDC, -40°C-85°C
410FX2	10-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 2 100BaseFX, DIN-Rail, Dual Power Input 10-50VDC, -40°C-85°C
428GX4	28-Port Industrial Unmanaged Ethernet Switch, 24 RJ45 10/100BaseT(X), 4 1000BaseFX (SFP), DIN-Rail, Dual Power Input 90-264VDC, -40°C-85°C
4002MC	2-Port Industrial Media Converter, 1 RJ45 10/100/1000BaseT(X), 1 1000BaseFX, DIN-Rail, Single Power Input 10-50VDC, -40°C-85°C
4006GX2	6-Port Industrial Unmanaged Ethernet Switch, 4 RJ45 10/100/1000BaseT(X), 2 SFP Slots 1000BaseSFP+, DIN-Rail, Single Power Input 10-50VDC, -40°C-85°C
4008TX	8-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 10/100/1000BaseT(X), DIN-Rail, Dual Power Input 10-50VDC, -40°C-85°C
4010GX2	10-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 100/1000BaseSFP+, DIN-Rail, Dual Power Input 10-50VDC, -40°C-85°C
4012GX4	12-Port Industrial Unmanaged Ethernet Switch, 8 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 100/1000BaseSFP+, DIN-Rail, Dual Power Input 10-50VDC, -40°C-85°C
4028GX4	28-Port Unmanaged Industrial Ethernet Switch, 24 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1000BaseSFP+, Rack Mounting, Dual Power Input 90-264VDC, -40°C-85°C

# POE

## INDUSTRIAL NETWORKING



**410GX2-PoE** 8\*10/100 Base-T, 2\*1000 Base-X PoE/PoE+  
**4008TX-PoE** 8\*10/100/1000 Base-T PoE/PoE+  
**610GX2-PoE** 8\*10/100 Base-T, 2\*1000 Base-X PoE/PoE+  
**6012GX4-PoE** 8\*10/100/1000 Base-T, 4\*1000 Base-X PoE/PoE+  
**6028GX8-L3-PoE** 24\*10/100/1000 Base-T, 4\*1000 Base-X, 4\*Combo PoE/PoE+  
**8012GX4-PoE** 8\*10/100/1000 Base-T, 4\*100/1000 Base-X PoE/PoE+

Model Name	Description
410GX2-POE-SC	10-Port Industrial POE Unmanaged Ethernet Switch, 8 RJ45 10/100BaseT(X), 2 1000BaseFX (Multimode, SC style connector), Support POE/POE+, DIN-Rail, Dual Power Input 10-50VDC, -40°C-75°C
4008TX-POE	8-Port Industrial POE Unmanaged Ethernet Switch, 8 RJ45 10/100/1000BaseT(X), Support POE/POE+, DIN-Rail, Dual Power Input 10-50VDC, -40°C-75°C
610GX2-POE	10-Port Industrial Fully Managed POE Switch, 8 RJ45 10/100BaseT(X), 2 SFP Slots 1000BaseSFP+, Support POE/POE+, Support ITU-TG.8032, DIN-Rail, Dual Power Input 46-57VDC, -40°C-75°C
6012GX4-POE	12-Port Industrial Fully Managed POE Switch, 8 RJ45 10/100/1000BaseT(X), 4 SFP Slots 1000BaseSFP+, Support POE/POE+, Support ITU-TG.8032, DIN-Rail, Dual Power Input 46-57VDC, -40°C-75°C
6028GX8-L3-POE-AC2	28-Port Industrial Fully Managed Layer3 POE Switch, 20 RJ45 10/100/1000BaseT(X), 24 x 802.3af/at PoE, Auto Negotiation, 4 x 100/1000M 802.3af/at PoE RJ45/SFP Combo (4 Copper/4 fiber or 2 copper+2 fiber), 4 SFP Slots 1000BaseSFP+, Support POE/POE+, Support ITU-TG.8032, Rack Mounting, Dual Power Input 90-264VAC, -40°C-75°C
8012GX4-POE	Industrial 12-port Managed PoE Ethernet Switch, 8 x 10/100/1000BaseT(x) (IEEE 802.3at PoE PSE) and 4 x 100/1000BaseSFP, DIN-Rail, Dual Power Input 46-58 VDC, -40 to +75°C, IP30

# Data



**5110GX2** 8\*10/100/1000 Base-T, 2\*100/1000 Base-X  
**5228TG4** 24\*10/100/1000 Base-T, 4\*1G/10G Base-X  
**5330TG6** 24\*10/100/1000 Base-T, 6\*1G/10G Base-X

Model Name	Description
5110GX2	10-port industrial data switch, light 3 layer, 8 RJ45 Ports 10/100/1000Base-T(X), 2 SFP Slots 1000BaseSFP+, fan-less, Rack Mounting, standard built-in power supply 100-240VAC, -10°C-50°C
5228TG4	28-port industrial data switch, light 3 layer, 24 RJ45 Ports 10/100/1000Base-T(X), 4 SFP Slots 1G/10GBaseSFP+, fan-less, Rack Mounting, standard built-in power supply 100-240VAC, -10°C-50°C
5330TG6	30-port industrial data switch, 3 layer, 24 RJ45 Ports 10/100/1000Base-T(X), 6 SFP Slots 1G/10GBaseSFP+, fan-less, Rack Mounting, standard built-in power supply 100-240VAC, 0°C-50°C



# 7024GX12

## INDUSTRIAL NETWORKING



**7024GX12**

12\*10/100/1000 Base-T  
12\*100/1000 Base-X

Industrial 24-port Fully Gigabit Managed DIN-Rail High Density Interface with 12 Ethernet and 12 SFP ports. 7024GX12 is built for high speed and traffic application for Industrial network, which backplane bandwidth is up to 52Gbps.

- High performance CPU & Full Gigabit Switching
- L2+ Management Switch Features
- ITU ERPSv2 PLUS Ring Technology
- Rugged Design for Wayside Network Switching with Wide Power Input Range

# WLAN 502MW



**502MW**

2\*10/100/1000 Base-T  
Mesh WiFi IP30

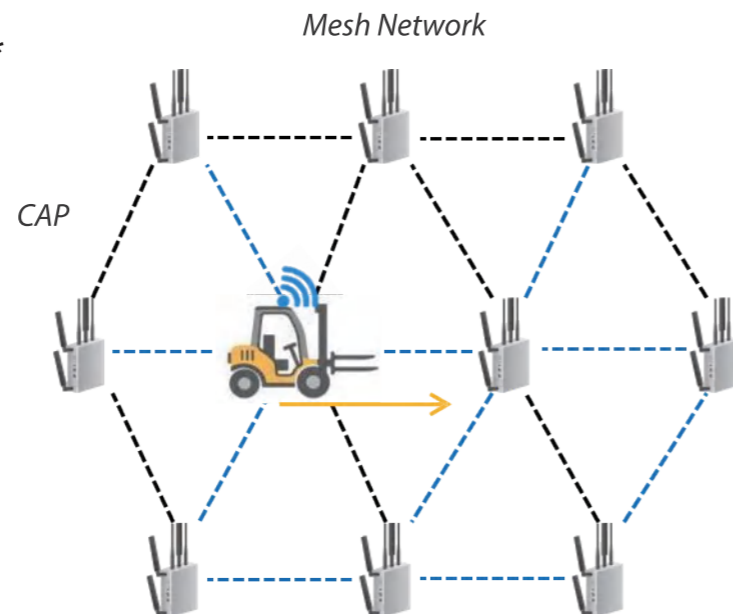
- High Performance Wireless LAN
- Wireless MESH System
- Enhanced Cyber Security & Redundancy
- Management Features
- Cloud Management Service\*
- Slim & Rugged Design for Industrial IoT Application

## Self-Healing Mesh Technology

- Eliminate network bottleneck
- Auto rerouting through multi-hop
- Interference management (band steering)\*
- Airtime fairness\*
- Seamless roaming\*



\*By Request



# Industrial Ethernet Firewall

## INDUSTRIAL CYBERSECURITY



**S2106**

6\*10/100/1000Mbps Combo

**S2112**

8 \*10/100/1000Mbps RJ45  
4 \*10/100/1000Mbps Combo

**S5510**

6\*10/100/1000Mbps RJ45

Model Name	Description
S2106	DIN-Rail, fully closed without fan. CE, FCC, ARM architecture multi-core processor, EMMC flash memory, 9-36V/DC redundant power supply, 6Combo, BYPASS: 3 sets of RJ45 ports, 1*MGMT, 1*Console, 1*USB, 1*232/422/485 three-in-one service serial port.
S2112	Rack Mounting, fully closed without fan. CE, FCC, ARM architecture multi-core processor, EMMC flash memory, 100-240V AC, redundant power supply, 8 Gigabit ports +4 Gigabit optoelectronic mutex, Bypass: 6 sets of RJ45 ports, 1*MGMT, 1*Console, 1*USB. 2 RS485/422/232 triple in one serial ports.
S5510	6 Gigabit ports,1U height, SOHO chassis, equipped with extended hanging ears for rack mounting, Authorization with enhanced features such as antivirus, anti attack, internet behavior management, and web security protection;

# Industrial Data Diode



**G3006**

**G3016**

**G3100**

Model Name	Description
G3006	Internal interface: 3*10/100/1000BASE-T ports (including 1* HA), 1* console, and 2*USB; Extranet interface : 3*10/100/1000BASE-T ports (including 1* HA), 1* console, and 2*USB
G3016	Internal interface : 2*SFP ports, 6*10/100/1000BASE-T ports (including 1*HA), 1*console, 2*USB; expandable 4*RJ45 ports, 4*SFP ports, 2*RJ45 ports, 2*SFP ports Extranet interface : 2 * SFP ports, 6 * 10/100/1000BASE-T ports (including 1*HA), 1*console , 2*USB; expandable 4*RJ45 ports, 4*SFP ports, 2*RJ45 ports, 2*SFP ports
G3100	Internal interface : 5*10/100/1000M RJ45, Extranet interface : 5*10/100/1000M RJ45 , 2* console, 4*USB, single power supply, throughput 500Mbps



# IP67

## INDUSTRIAL INTERNET OF THINGS



**510M12-POE**

3\*10/100 Base-T  
7\*10/100 Base-T  
8\* Base-T PoE/PoE+

**5014M12-POE**

14\*10/100/1000 Base-T  
8\*Base-T PoE/PoE+

**5014M12-L3-POE**

14\*10/100/1000 Base-T  
8\* Base-T PoE/PoE+

Model Name	Description
510M12-POE	10-Port Fully Managed Industrial IP67 Ethernet Switch, 3 RJ45 Ports 10/100Base-T(X), 7 RJ45 Ports 10/100Base-T(X), 8 RJ45 Ports Support POE/POE+, Support ITU-TG.8032, DIN-Rail, Dual Power Input 46-57VDC, -40°C-75°C
5014M12-POE	14-Port Fully Managed Industrial IP67 Ethernet Switch, 14 RJ45 Ports 10/100/1000Base-T(X), 8 RJ45 Ports Support POE/POE+, Support ITU-TG.8032, DIN-Rail, Dual Power Input 46-57VDC, -40°C-75°C
5014M12-L3-POE	14-Port Fully Managed Industrial Layer3 IP67 Ethernet Switch, 14 RJ45 Ports 10/100/1000Base-T(X), 8 RJ45 Ports Support POE/POE+, Support ITU-TG.8032, DIN-Rail, Dual Power Input 46-57VDC, -40°C-75°C

# 5G Gateways



**302W**

2\*10/100 Base-T  
IP55

**502W**

2\*10/100/1000 Base-T  
IP30

**502W-5G NR**

2\*10/100/1000 Base-T  
2.4G+5GHz

Model Name	Description
302W	Industrial waterproof outdoor wireless AP/ Router, IEEE 802.11a/n with 2T2R MIMO, wireless coverage 2KM, 2 RJ45 Ports 10/100 Base-T(X), passive POE 24V input/output, Mini USB (reserved), -30 ~ 60 °C, IP55, plastic case, Pole Mount mounting
502W	Industrial wireless AP/ router, compatible with 802.11a/b/g/n, dual-band 2.4g +5GHz concurrent, 2 RJ45 Ports 10/100 Base-T(X), Auto-MDI/MDIX, Wireless Mesh System, -40°C~85°C, IP30, DIN-Rail, metal case
502W-5G NR	Industrial Cellular + 802.11ac Din-Rail Dual 2.4+5GHz Concurrent Wireless Mesh AP/Router, 802.11ac Wave 2 +802.11b/g/n WLAN, 2GE, Din-Rail, 24VDC TB, 5G NR

# NB-IoT/LoRa Gateways

## INDUSTRIAL INTERNET OF THINGS



**AP222**

2\*10/100M RJ45

**AP224**

4\*10/100M RJ45

**AP316**

4\*port 100/1000M PoE+  
2\*port 100/1000M SFP

**AP322**

2\*10/100M RJ45

**AP329**

8\*10/100M PoE  
1\*100/1000M RJ45



**AP402-SCB**

2\*10/100M PoE+  
1\*10/100/1000M RJ45

**AP422-SCB**

4\*10/100/1000M POE+  
2\*100/1000M SFP

**AP322GR-EC-LTE-LORAWAN**

2\*10/100/1000M RJ45

**AP100-LM**

LoRa /Modbus RTU Client Agent  
1\*RS-485 Slave

**AP144-LC**

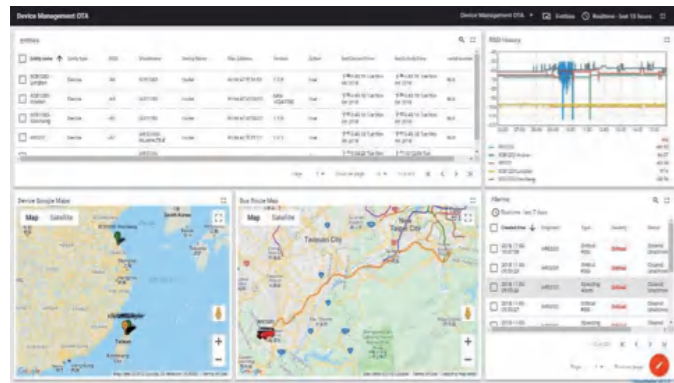
LoRa End-Node  
1\*Modbus RTU 485 Host

Model	Description
AP222-LTE	Industrial Wireless IIoT Field Routing Gateway,2FE+1COM, SD, LTE-E, 1SIM, FDD B1/3/5/7/8/20, TDD B38/40/41,2*10/100Base-TX RJ45, 1 WLAN+1 LAN, 1 DB9 RS232/422/485, 1xSIM&1xMicroSD, 9~30VDC, -40°C~70°C, IP30
AP224-LTE	Industrial Wireless IIoT Field Routing Gateway,4FE, LTE-E, 2SIM(without antenna), 4-port 10/100M RJ45, 1 WLAN+3 LAN/4 LAN, Redundant 2xSIM, 9~30VDC, -40°C~70°C, IP30
AP316-LTE-SFP	Industrial Wireless Ring Network IIoT Routing POE Gateway,LTE CAT.4, 2x2 MIMO,4G/3G/2G, 4-Port Gigabit POE Plus 2-Port Gigabit SFP,ITU Standard Ring Redundancy Protocol, Protection and Recovery Switching below 50ms, Dual Power 46 to 57VDC, To 40 ° C to 75 ° C, IP30
AP322-LTE	Industrial Wireless IIoT Secure Routing Gateway,1GE WAN+1GE LAN,2xCOM, 1xUSB, 1xSD,1xSIM, LTE Cat.4,12~48VDC,-40°C~75°C,IP30
AP329-PoE-LTE	Industrial wireless IIoT secure routing POE gateway,1xGbE WAN+8xFE LAN, 1xUSB, 2xSIM, WLAN, LTE-E, GPS, FDD B1/3/5/7/8/20, TDD B38/40/41, 8-32VDC, -40°C~75°C, IP30
AP402-SCB	Industrial Wireless IIoT Smart City Box, IP67, 2GT PoE, 1GT WAN, 1xCOM,2xDI,1xDO,Voice, 1xUSB, 8-32V DC or AC Input
AP422-SCB	Industrial Wireless IIoT Smart City Box, IP67, 4GT PoE + 2GF, 1GT WAN, IIoT interfaces,DC or AC Input (IIoT Interfaces: External 1xCOM,2xDI,2xDO,Voice; Internal 1GT WAN, 1xUSB, 1xSD)
AP100-LM-400	LoRa /Modbus RTU Client Agent , 410~493 Mhz by software configuration (Must work with AP144-LC) (with LoRa antennas), Typical DC 24V, Rating: 10~30V, -40 ~ 75°C ,IP40
AP144-LC-400	LoRa End-Node, 8CH AIO, 1 Modbus RTU 485 2-wire, 2 x 0~10V input, 2 x 4~20mA input, 1 x 0~10V Output, Open Collect (O.C.), 1 x 4~20mA Output, 1 x PWM Output (0~5V), 1 x PWM (0~10V), Open Collect (O.C.) Type, 1 x SMA /LoRa Antenna, 410~493 Mhz by software configuration,Typical DC 24V, Rating: 10~30V, -40 ~ 75°C ,IP40 (Must work with AP100-LM or AP200-LM)
AP322GR-EC-LTE-LORAWAN-EU868	Industrial LoRaWAN Gateway, 2GbE+2COM, LTE 2SIM, FDD B1/3/7/8/20/28A, LoRaWAN EU868: 863-870MHz, 24V (12~48VDC), -40 ~ 75°C ,IP30(with LTE and LoRa antennas) (Must work with AP140-LR)

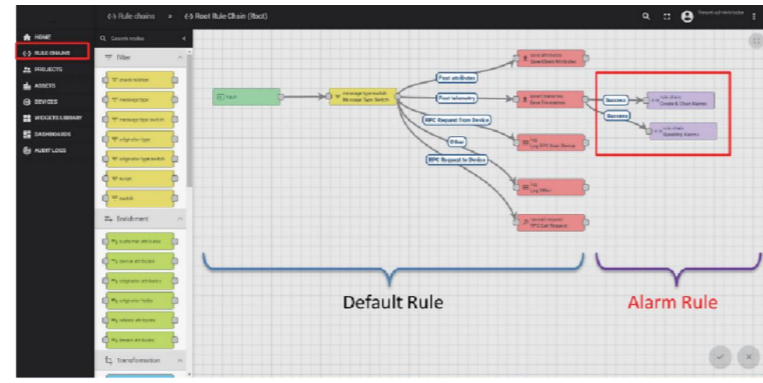




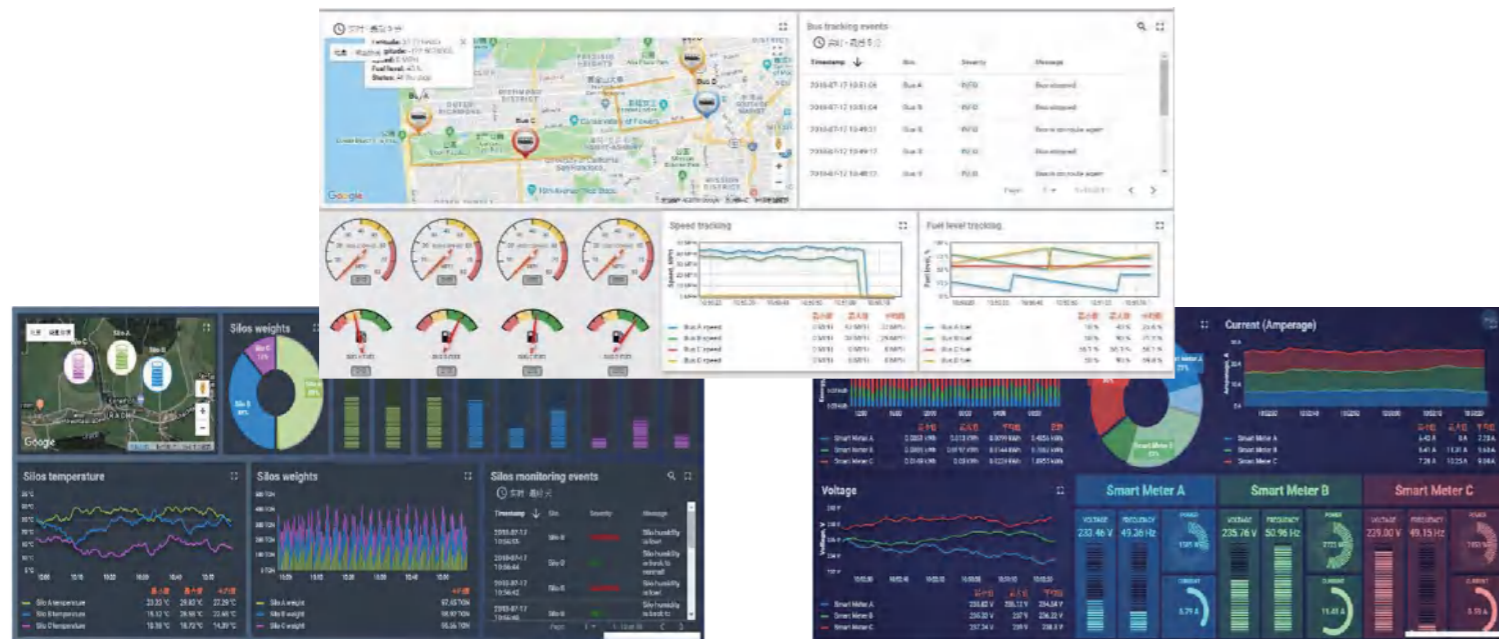
- MQTT and RESTful API for easy access to data from an Industrial IoT gateway
- Real-time online monitoring, analysis, reporting
- Remote cloud security and visual management
- Flexible and secured access from any web browser either in PC or smart phone



Interactive monitoring with Maps

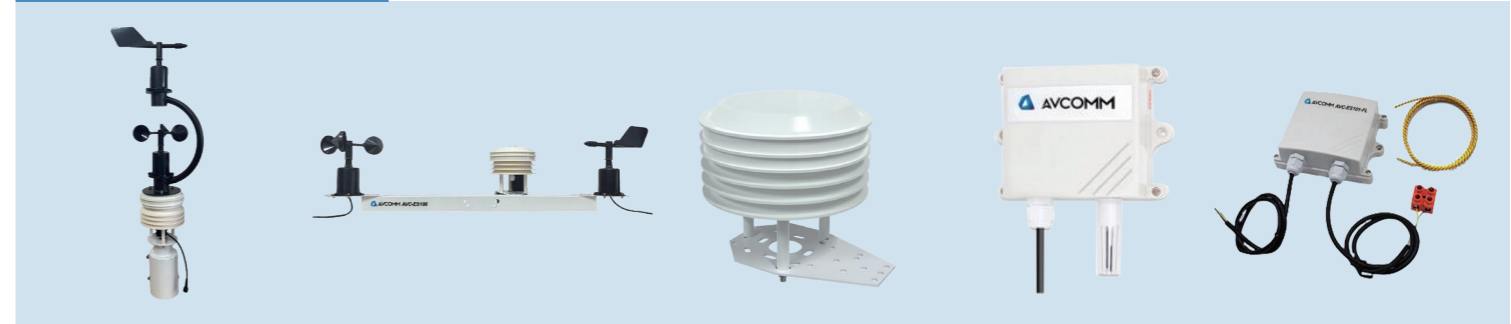


Rule chain flow-based programming



Industrial IoT Projects for Smart Applications

### Outdoor Environmental Sensors



**AVC-ES107**

Integrated temperature, humidity, noise, atmospheric pressure, wind direction, wind speed, and CO2 or PM2.5&10

**AVC-ES106**

Integrated temperature, humidity, PM2.5, PM10, wind speed, wind direction

**AVC-ES104**

Integrated PM2.5, PM10, temperature, humidity

**AVC-ES101AT**

Outdoor air atmospheric pressure sensor

**AVC-ES101WL**

Flood / Water leak detection sensor



**AVC-ES102WSWD**

Outdoor wind speed and wind direction sensor

**AVC-ES102TH**

Outdoor temperature and humidity sensor

**AVC-ES101RG**

Outdoor rain measurement sensor

**AVC-ES101UV**

Outdoor UV measurement sensor

**AVC-ES101SR**

Solar radiation sensor

Model	Description
AVC-ES107	Outdoor Environment Basic Unit, Temperature, Humidity, Noise, Pressure, Wind Speed, Wind Direction, CO2 or PM, RS485 Modbus, 10-30V Power, Mounting Kit
AVC-ES106	Outdoor Integrated Sensors- PM2.5, PM10, Temperature, Humidity, Wind Speed, Wind Direction, RS485 Modbus
AVC-ES104	Outdoor Integrated Sensors- PM2.5, PM10, Temperature, Humidity, Output: RS485
AVC-ES101AT	Outdoor Air Atmospheric Pressure Sensor, 0-120kpa, RS485 Modbus, 10-30V Power
AVC-ES101WL	Outdoor flood water leak detection Sensor, RS485 Modbus, 10-30V Power, 10M/20M/30M can be customized
AVC-ES102WSWD	Outdoor Integrated Sensors- Wind Speed, Wind Direction, Output: RS485
AVC-ES102TH	Outdoor Temperature and Humidity Sensor, -40~+60°C, 0~95%RH, RS485 Modbus, 10-30V Power
AVC-ES101RG	Outdoor Rain Measurement Sensor, 0~4mm/Min (Max.8mm/Min), RS485 Modbus, 7-30V Power
AVC-ES101SR	Outdoor Solar Radiation Sensor, 0.3 to 3 μm, RS485 Modbus, 10-30V Power
AVC-ES101UV	Outdoor UV Sensor, 0-15 mW/ cm2, RS485 Modbus, 10-30V Power



# Sensors

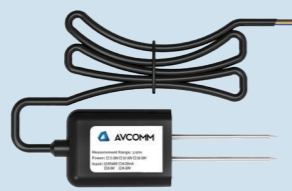
## INDUSTRIAL INTERNET OF THINGS

### Soil Quality Sensor



**AVC-ES101SM**

Outdoor soil moisture temperature sensor



**AVC-ES101SPH**

Outdoor soil PH sensor



**AVC-ES101SEC**

Outdoor soil EC and moisture sensor

Model	Description
AVC-ES101SM	Outdoor soil moisture and soil temperature, -40~60°C, 0~100%RH, 70mm probe, RS485 Modbus, 4.5-30V power supply
AVC-ES101SPH	Outdoor Soil pH Sensor, 3~9pH, RS485 Modbus, 5~30V Power
AVC-ES101SEC	Outdoor Soil EC and Moisture Sensor, EC:0-20000us/cm, Moisture: 0~100%RH, RS485 Modbus, 4.5-30V Power

### Water Quality Sensor



**AVC-WS101LL**

Liquid level sensor



**AVC-WS102PH**

Water quality analysis PH sensor



**AVC-WS102DOS**

Water quality analysis dissolved oxygen sensor



**AVC-WS102CL**

Water quality analysis residual chlorine sensor



**AVC-WS102EC**

Electrical conductivity/EC sensor

Model	Description
AVC-WS101LL-10M	Outdoor Liquid Level Sensor, 0-10M, RS485 Modbus/ 4~20mA, 12-36V Power
AVC-WS102PH	Ph Sensor, 0~14pH, Temp. Measuring Range: 0~60°C, 5 Meter Cable, RS485 Modbus, 10~30V Power
AVC-WS102DOS	Dissolved Oxygen Sensor, 0~20mg/L, Temp. Measuring Range: 0~40°C, 5 Meter Cable, RS485 Modbus, 10~30V Power
AVC-WS102CL	Residual Chloride Ion (Cl-) Sensor, 0~20mg/L, Temp. Measuring Range: 0~60°C, 5 Meter Cable, RS485 Modbus, 10~30V Power
AVC-WS102EC	Electrical Conductivity/EC Sensor, 0~20000µs/cm, Temp. Measuring Range: -20~60°C, 5 Meter Cable, RS485 Modbus, 7~30V Power

### Outdoor Manhole Cover Sensor



**AVC-ES102WSWD**

Outdoor wind speed and wind direction sensor

- NB IoT, IP67
- Compact size easy installation
- Remote monitoring through ATMS platform
- Low power position detection and ultrasonic liquid sensors
- 0~8 meters water detection range
- Battery run for 3 years
- Manhole opened/closed and flood detection

# Sensors

## INDUSTRIAL INTERNET OF THINGS

### Air Quality Sensor



**AVC-ES101O2**

Outdoor Oxygen O2 Sensor



**AVC-ES101CH4**

Outdoor CH4 Sensor



**AVC-ES101CO**

Outdoor CO Carbon Monoxide Sensor



**AVC-ES101O3**

Outdoor Ozone O3 Sensor



**AVC-ES101H2S**

Outdoor H2S Sensor



**AVC-ES101H2**

Outdoor H2 Sensor

**AVC-ES101NH3**

Outdoor NH3 Sensor

**AVC-ES101SO2**

Outdoor Sulfur Dioxide SO2 Sensor

**AVC-ES101PM**

Outdoor Air Monitor Quality Sensor (PM2.5, PM10)

**AVC-ES101CO2**

Outdoor CO2 Carbon Dioxide Sensor

Model	Description
AVC-ES101O2	Outdoor Oxygen O2 Sensor, 0~30%Vol, RS485 Modbus, 10-30V Power
AVC-ES101CH4	Outdoor CH4 Sensor, 0-100%LEL, RS485 Modbus, 10-30V Power
AVC-ES101CO	Outdoor CO Carbon Monoxide Sensor, 0~2000ppm, RS485 Modbus, 10-30V Power
AVC-ES101O3	Outdoor Ozon O3 Sensor, 0~10ppm, RS485 Modbus, 10-30V Power
AVC-ES101H2S	Outdoor H2S Sensor, 0~100ppm, RS485 Modbus, 10-30V Power
AVC-ES101H2	Outdoor H2 Sensor, 0-1000PPM, RS485 Modbus, 10-30V Power
AVC-ES101NH3	Outdoor NH3 Sensor, 50ppm (0.1ppm) or 100ppm (1ppm), RS485 Modbus, 10-30V Power
AVC-ES101SO2	Outdoor SO2 Sensor, 0~2000ppm, RS485 Modbus, 10-30V Power
AVC-ES101PM	Outdoor Air Monitor Quality Sensor (PM2.5, PM10), 0~1000ug/m3, RS485 Modbus, 10-30V Power
AVC-ES101CO2	Outdoor CO2 Carbon Dioxide Sensor, 0~5000ppm, RS485 Modbus, 10-30V Power
AVC-ES101NO2	Outdoor Nitric Dioxide NO2 Sensor, 0~2000ppm, RS485 Modbus, 10-30V Power



# Telemetric Modules

## TELEMETRIC SURGE PROTECTION DEVICES

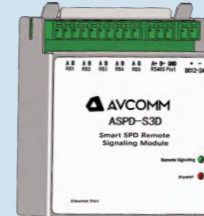
# SPD, 2in1

## TELEMETRIC SURGE PROTECTION DEVICES



**ASP-D-S2**

RS485, 1 \*SPD alarm monitoring channel



**ASP-D-S3D**

10/100Mbps, 5 \*SPD alarm monitoring channels



**ASP-D-220\_r**

Power Supply Surge Protector  
Maximum Continuous Operating Voltage 385V  
Telemetric function



**ASP-D-275\_r**

Power Supply Surge Protector  
Maximum Continuous Operating Voltage 275V  
Telemetric function



**ASP-D-ZH-220**

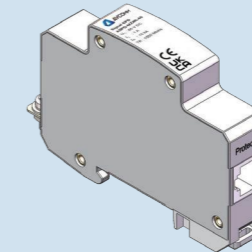
2 in 1 Surge Protector  
Operating Voltage 220V

Parameter	Model	ASP-D-S2	ASP-D-S3D
SPD Alarm		✓	✓
Alarm Time		✓	✓
Number of Lightning Strike		✓	✗
Lightning Strike Amplitude		✓	✗
Lightning Strike Polarity		✓	✗
SPD Lifetime Warning		✓	✗
Whether a lightning current sensor is required		Yes	No
Communication		RS485	10/100Mbps Ethernet
Monitoring Channel		1	5



**ASP-D-ZH-24\_r**

2 in 1 Surge Protector  
Operating Voltage 24V  
Telemetric function



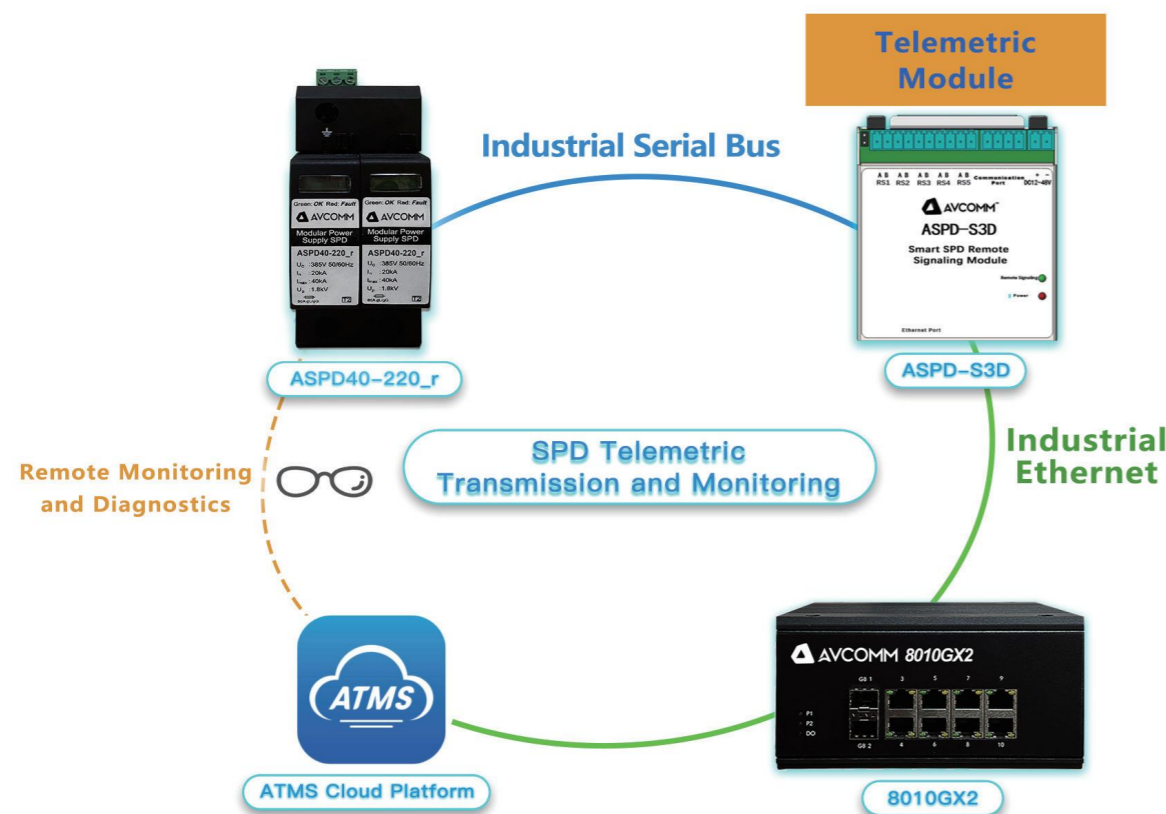
**ASP-D-MZ4R-48**

Signal Surge Protector  
1\*1000M POE RJ45



**ASP-D-XT-4R-5P**

signal surge protector  
1\*1000M POE RJ45

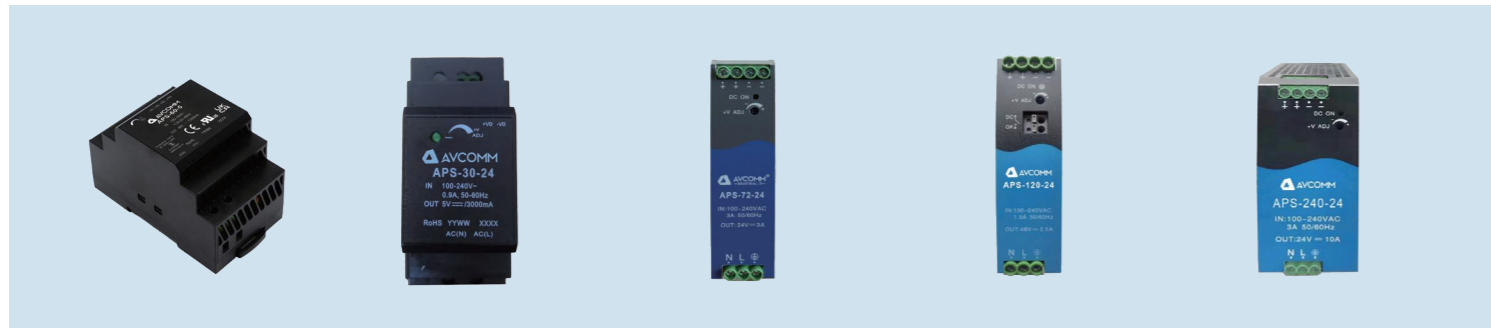


Model	Description
ASP-D-220_r	Maximum Continuous Operating Voltage UC: 385V 50/60Hz; Nominal Discharge Current In (8/20μs): 20KA; Maximum Discharge Current Imax (8/20μs): 40KA; Voltage Protection Level Up: 1.8KV; System: ATMS
ASP-D-275_r	Maximum Continuous Operating Voltage UC: 275VAC; Nominal Discharge Current In (8/20μs): 10KA; Maximum Discharge Current Imax (8/20μs): 20KA; Voltage Protection Level Up (In): L-N: 1.4 kV, L/N-PE: 1.5kV, Voltage Protection Level Up (Uoc): L-N: 1.2kV, L/N-PE: 1.5 kV; System: ATMS
ASP-D-ZH-220	Power : Operating Voltage (Un): 220V; Maximum Continuous Operating Voltage (Uc): 385V; Nominal Discharge Current (8/20us) (In): 10KA; Maximum Discharge Current (8/20us) (Imax): 20KA; Network Signal :Maximum Continuous Operating Voltage for DC (Uc): 5V; Transmission Rate: 100M; Insertion Loss: ≤1dB
ASP-D-ZH-24_r	Power :Rated Operating Voltage (Un): 24VAC; Maximum Continuous Operating Voltage (Uc): 35VAC; Nominal Discharge Current (8/20us) (In): 5KA; Maximum Discharge Current (8/20us) (Imax): 10KA; Network Signal :Operating Voltage (Uc): 5V; Connection Type: RJ45; Transmission Rate: 100M; System: ATMS
ASP-D-MZ4R-48	POE Protection; Nominal Operating Voltage(UN): 48VDC; Maximum Continuous Operating Voltage (UC): 60VDC; Transmission Rate: 1000Mbps; Nominal Discharge Current: Line-Line: 150A, Line-PE: 1.5kA; Voltage Protection Level: Line-Line: 150V, Line-PE: 550V; Interface Type: RJ45
ASP-D-XT-4R-5P	POE: 48V; Shock tolerance: 6kv; Interface: RJ45; Transmission Rate: 1000Mbps; Insertion Loss≤0.5dB



# Power Supplier

## BEST-IN-CLASS ACCESSORIES



**APS-60-5**

5V/6.5A, 32.5W

**APS-30-24**

24V/1.5A, 36W

**APS-72-24**

24V/3A, 72W

**APS-120-24**

24V/5A, 120W

**APS-240-24**

24V/10A, 240W



**APS-480-24**

24V/20A, 480W

**APS-240-48**

48V/5A, 240W

**APS-480-48**

48V/10A, 480W

**APS-3-240-48**

Three-phase power supply  
48V/5A, 120W

**AVC-UPS-DC-40**

DC UPS power supply  
Input: 24~29 V/DC 40A Max  
Output: 21~29 VDC/ 40A Max

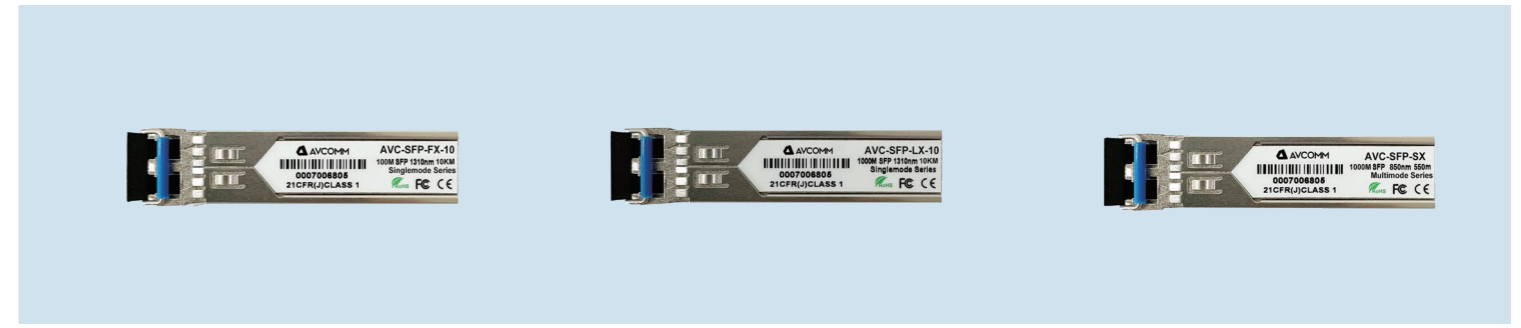
Model	Output power	Nominal Output Voltage & Current (Vo/Io)	Output Voltage Adjustable Range ADJ*	Efficiency @230VAC (Typ.)	Max. Capacitive Load	Certification
APS-60-5	32.5 W	5V/6.5A	4.9V-5.5V	84%	20000 µF	UL/EN/IEC/BIS / UKCA
APS-30-24	36 W	24 V/1.5 A	21.6 V-29.0 V	88%	1400 µF	UL/EN/IEC
APS-72-24	72 W	24 V/3 A	24 V-28 V	89%	1500 µF	UL/EN/IEC
APS-120-24	120 W	24 V/5 A	23.5 V-28 V	94%	50000 µF	UL/EN
APS-240-24	240 W	24 V/10 A	24.0 V-28.0 V	94%	40000 µF	EN/BIS
APS-480-24	480 W	24 V/20 A	24 V-28 V	94%	20000 µF	EN/BIS
APS-240-48	240 W	48 V/5 A	48.0 V-53.0 V	94%	10000 µF	EN/BIS
APS-480-48	480 W	48 V/10 A	48 V-55 V	94%	10000 µF	EN/BIS
APS-3-480-24	480 W	24 V/20 A	24 V-28 V	95%	20000 µF	UL/EN/IEC

Model	DC UPS Input			DC UPS Output			Battery	
	Normal Input Voltage	Input Voltage Range	Rated Current	Voltage Range	Discharge Current Range	Discharging Current	Normal Battery Voltage	External Battery Capacities
AVC-UPS-DC-40	24Vdc	24 ~ 29Vdc	40A	21 ~ 29Vdc	0 ~ 40A	2A	24Vdc ( 2 x 12Vdc in series or 1 x 24Vdc)	4AH ~ 135AH

# SFPs

## BEST-IN-CLASS ACCESSORIES



**AVC-SFP-FX-10**

100M Fiber SFP

**AVC-SFP-LX-10**

1G Fiber SFP

**AVC-SFP-SX**

1G Multimode Fiber SFP



**AVC-SFP-DSLX-20-RX**

Pair of 1G Single Fiber SFP

**AVC-SFP-LZ-10**

10G Fiber SFP

**AVC-SFP-TZ**

10G RJ45 SFP

Model	Description
AVC-SFP-FX-10	100M Fiber SFP, single mode 10km, wide temperature, DDM
AVC-SFP-FX-SX	100M Fiber SFP, 850NM,multi-mode 550m, wide temperature, DDM
AVC-SFP-FX-SX-D	100M Fiber SFP, 1310NM,multi-mode 2km, wide temperature, DDM
AVC-SFP-LX-10	1G SFP Fiber SFP, single-mode 10km, wide temperature,DDM
AVC-SFP-SX	1G SFP Fiber SFP, 850NM,multi-mode 550m, wide temperature, DDM
AVC-SFP-SX-D	1G SFP Fiber SFP, 1310NM,multi-mode 2km, wide temperature, DDM
AVC-SFP-DSLX-20-RX	1G SFP Fiber SFP, single fiber single mode 20km, wide temperature, receiver
AVC-SFP-DSLX-20-TX	1G SFP Fiber SFP, single fiber single mode 20km, wide temperature, sender
AVC-SFP-LZ-10	10G SFP Fiber SFP, single mode 10km, wide temperature, DDM
AVC-SFP-TZ	10G RJ45 SFP, wide temperature, single-mode 30, mcommercial grade