

■ Secure IP Surveillance Networks

Market Challenges

The rapid adoption of IP-based surveillance is transforming how industrial sites and critical infrastructure are monitored. As systems scale and become more distributed, both network reliability and security are now fundamental requirements rather than optional features. Power over Ethernet (PoE) enables flexible and efficient deployment by combining power delivery and data connectivity, supporting fast installation and consistent performance across cameras and edge devices.

Meanwhile, increasing connectivity introduces new security challenges. Industrial-grade cybersecurity ensures that surveillance networks remain protected, keeping video streams secure and operations running without disruption.

★ ORing Solution ★



Feature-rich networking solution

The PoE functions like port priority, auto alive check and smart schedule can simplify the management.



High-reliability network

We protect your business from data loss with network redundancy technologies on managed switches.



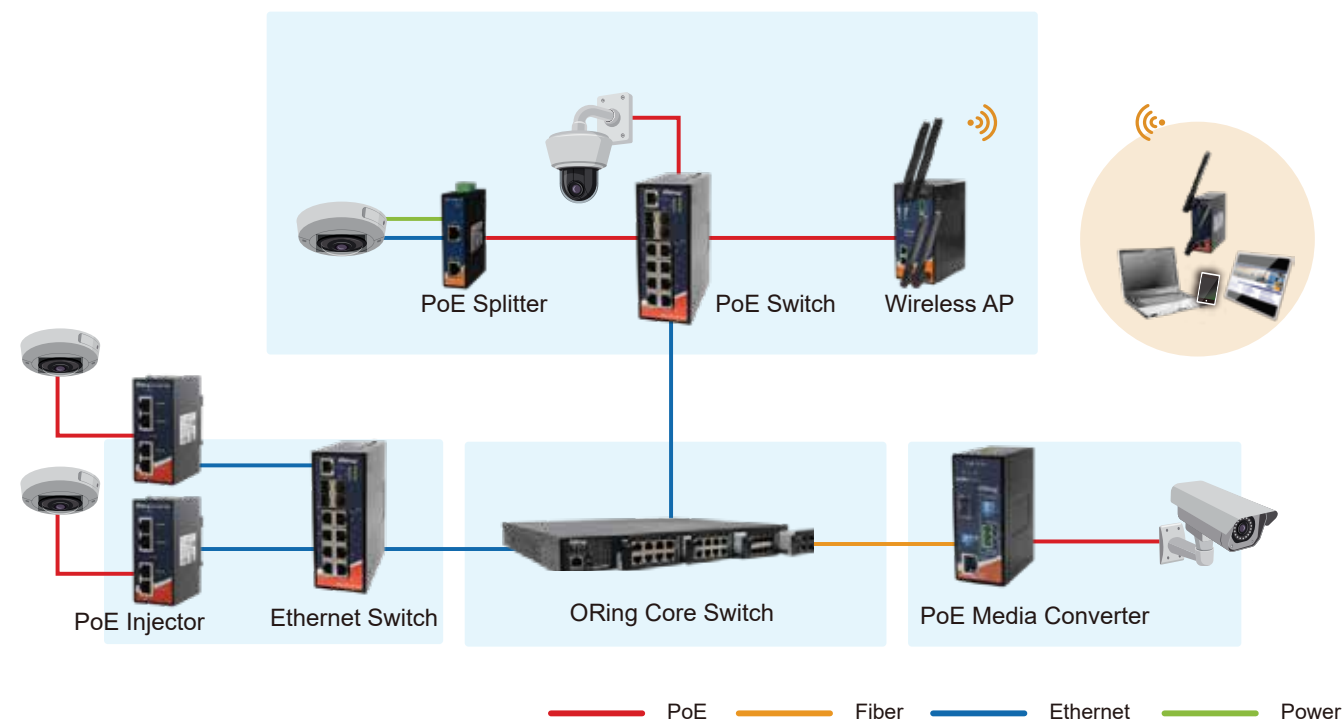
A wide selection of PoE devices

We offer IEEE 802.3af/at/bt compliant products for seamless power and data transmission.



Wireless Support

Models with LTE, Wi-Fi, and 5G NR support offer greater deployment flexibility.



IP Surveillance Starts with Secure PoE Networking

**Reliable, Cybersecure,
and Industrial-Grade Video Monitoring**

ORing
www.ORingnet.com

Certified IEC 62443-4 Protection

In an era of IT/OT convergence, network security is no longer optional. ORing's certified industrial switches follow the "Secure-by-Design" principle to protect critical assets from evolving threats like ransomware.



Device Hardening

Our IEC 62443-4-2 compliant devices feature built-in protection to prevent unauthorized modification of settings, ensuring that critical functions like redundancy stay active.



Access Control

Utilize Access Control Lists (ACL) to ensure only authorized IP cameras and surveillance devices can access the network, preventing unauthorized connections at the edge.



Network Segmentation

Use VLANs to separate surveillance traffic from other networks, ensuring stable video transmission and preventing security breaches from spreading.



Data Integrity

Support for SSL and SSH protocols ensures that management data is encrypted before transmission, maintaining strict confidentiality.

Intelligent PoE Management

ORing's PoE solutions are designed to simplify management and lower operational expenses.



PoE PD Auto Alive Check

The switch monitors the status of connected IP cameras in real-time. If a camera stops responding, the switch automatically initiates a power reset to reboot the device, eliminating the need for costly on-site maintenance.



Power Scheduling

Configure PoE power schedules to optimize energy consumption and support ESG sustainability goals.



DC Boost Technology:

Our switches can take a wide range of input power (12/24/48VDC) and provide a stable output, ensuring high-power PDs receive consistent energy despite voltage fluctuations.

Powering IP Surveillance & Smart Infrastructure

L2 Managed | IEC 62443-4-2 Certified



IGPS-9084GP-LA

12-Port Gigabit PoE Switch

- 8x GE PoE P.S.E. + 4x 1G SFP Uplink
- IEC 62443-4-2 Industrial Cybersecurity Certified
- Advanced VLAN, QoS & Access Control

Ideal for secure IP camera networks requiring industrial cybersecurity compliance.

L2 Managed | High Density | Rack-mount | IEC 62443-4-2 Certified



RGPS-92222GCP-NP

26-Port Gigabit PoE Switch

- 22x GE PoE + 2x Combo P.S.E. + 2x 1G SFP
- High PoE budget for large-scale camera deployments
- Rack-mount form factor for NVR / control room

Best for consolidate dozens of IP cameras into one switch.

Unmanaged | IEEE 802.3bt | 90W PoE



IGPS-1082GP-BT

10-Port Gigabit PoE Switch

- 8x GE PoE P.S.E. + 2x 100/1000Base-X SFP
- IEEE 802.3bt - up to 90W per port
- Plug-and-play, no configuration required

Powers PTZ cameras, multi-sensor units and high-draw PoE devices.

Unmanaged | 24VDC Input



IPS-1080-24V

8-Port Fast Ethernet PoE Switch

- 8x FE PoE ports - compact edge node
- 24VDC input - compatible with DC and solar power systems
- Fanless design, wide operating temperature

Perfect for outdoor enclosures and remote field sites running on DC or off-grid power.

Other Popular Products

L3 MANAGED

IGPS-RX884GTP+	20-Port GE 8x PoE GE + 8x GE + 4x 10G SFP+
IGPS-R9084GP	12-Port GE 8x PoE GE + 4x 1G SFP

L2 MANAGED

IGPS-P9084GP-LA	12-Port GE 8x PoE GE + 4x 1G SFP IEC 61850-3 Certified
RGPS-3244GP-P	28-Port Rackmount 24x PoE GE + 4x 1G SFP
IGPS-3164GP-LA	20-Port GE 16x PoE GE + 4x 1G SFP
IGPS-9842GTP-24V	14-Port GE 8x PoE GE + 4x GE + 2x 1G SFP 24VDC Input
IPS-3082GC-AT	10-Port 8x FE PoE + 2x Gigabit Combo

UNMANAGED

IGPS-1042GPA	6-Port GE 4x PoE GE + 2x 1G SFP
IGPS-C1082GP	10-Port GE 8x PoE GE + 2x 1G SFP

POE ACCESSORIES

INJ-101GT-BT-24V	IEEE 802.3bt PoE Injector Up to 90W 12-57VDC Input
IGPMC-111GP-BT-24V	IEEE 802.3bt Media Converter Up to 90W Gigabit PoE-to-Fiber

■ Success Story

Tunnel Automation & Networking

ORing delivered a reliable industrial networking solution for a tunnel monitoring project in Asia, integrating lighting, ventilation, video surveillance, PLCs, and environmental sensors into a centralized monitoring system.

Serial-based devices used in the lighting and ventilation systems are connected to ORing serial device servers, allowing legacy serial equipment to communicate over Ethernet networks. IP cameras, PLCs, and sensors are connected through ORing industrial Ethernet switches, ensuring stable data transmission across the tunnel infrastructure.

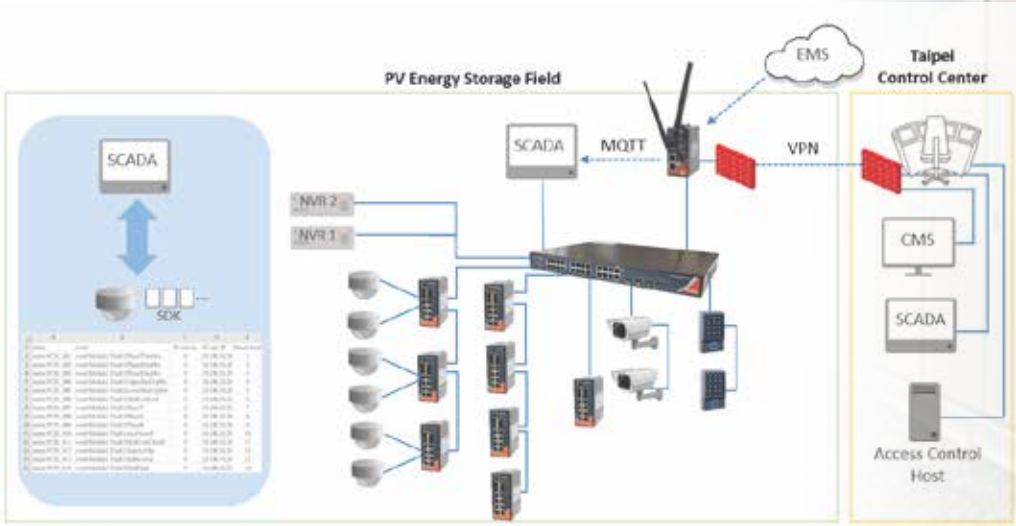
All operational data, video streams, and device status information are transmitted to the monitoring center, enabling real-time supervision, remote management, and faster response to tunnel operation events.

220 MW PV Storage Case Study

For a photovoltaic energy storage project in Taiwan, ORing delivered a complete communication solution integrating monitoring, SCADA, and access control systems across four sites. Centralized remote management is enabled from a control room in Taipei.

IP cameras and access control readers are powered by PoE to simplify cabling and support 24/7 monitoring of EMS control containers. Each site adopts a redundant surveillance architecture with dual NVRs to prevent data loss and ensure reliable alarm transmission.

When abnormal events occur, EMS signals are sent to SCADA via ORing's cellular gateway using MQTT. SCADA then triggers alarms and directs dome cameras to the event location, allowing operators to remotely view and inspect equipment in real time. Bullet cameras with electronic fence functions also help detect unauthorized intrusion and enhance site security.



Product Applied

IEC 62443-4-2



Managed Switch
RGPS-9222GCP-NP
22GE PoE + 2G Combo PoE + 2G SFP



Managed Switch
IGPS-9084GP-LA
8GE PoE + 4G SFP



Managed Switch
IES-3062FX
6FE + 2FX



Device Server
IDS-312L
1 Serial+ 2FE



M2M Gateway
IMG-4312D+-D4G
FirstNet approved LTE Gateway

■ Industrial-Grade Reliability



Extreme Environment Ready
Designed with a fanless IP30 housing, our devices ensure reliable operation in harsh industrial environments.



Network Redundancy
Featuring O-Ring, O-Chain, MRP, ERPS, and RSTP/MSTP, our managed switches enable rapid network recovery to ensure uninterrupted video transmission during link failures.



High Power Delivery:
Support for the latest IEEE 802.3bt (PoE++) standard, delivering up to 90W per port for power-hungry devices like PTZ cameras or outdoor wireless APs.

About ORing

Founded in 2005, ORing specializes in innovative industrial-grade products. With extensive experience in wired and wireless network communications, ORing provides high-quality products and excellent customer services for diverse sectors including factory automation, ITS, IP surveillance, railway, power utility, IIoT, and new energy, with global offices for real-time customer support.



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