



# ORing Industrial Networking Corp.

Designed for Rugged Excellence.

## ORing Overview

ORing Industrial Networking Corp. the global leading brand company, established by a group of well-experienced industrial software and hardware engineers in 2005. Since its establishment, ORing has devoted and focuses on innovation of Industrial networking products. Within these years, ORing has developed a lot of product lines, such as industrial grade media converter, Ethernet switch, wireless router and device server. As a professional and brand company, ORing is certified to the ISO9001:2008 Quality and Management System and accredited with numerous international certifications, which ensure the stable and reliable quality of ORing products. Our numerous products have been successfully applied and generating a lot of real application through the world in different fields, such as Rail/Highway monitoring, Intelligent Transportation System, Building Automation, etc. ORing is committed to provide the world-class products, strong technical support team for technical consulting and best after-sale service.



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## Product Coverage

ORing Industrial Networking Corp. offers a wide variety of products for all of your industrial networking needs. Choose from ORing's complete product line which consists of Industrial Ethernet Switches, Industrial Media Converters, Industrial Device Servers, Industrial Wireless Access Points, Industrial Cellular VPN Routers, Accessories, and Network Management Software.

You can also find the right ORing product for you in many other ways. For example, you can choose by network speed (Gigabit, fast, etc.), mounting options (rack-mount, DIN-rail, wall-mount, as well as other special-installation types), types of data paths (regular Ethernet, weatherproof Ethernet, PoE, wireless LAN, etc.), industry-specific applications (as shown below), and many more.



## Product Applications

### ■ Industrial Focus

- IP Surveillance
- Railway Automation
- Intelligent Transportation System

### ■ Vertical Markets

- Manufacturing Automation
- Resource & Power
- Intelligent Transportation System
- Renewable Energy
- Building Automation
- Railway
- City Surveillance
- In-Vehicle Surveillance

## Customer-Oriented R&D

ORing's innovations come from customers' needs.

ORing's R&D team specializes in developing stable, fast, well-protected, and cost-effective industrial networking products – features that are needed the most for industrial networks.

In developing products, ORing's R&D team first get exact customer requirements and then come up with matching products, which would undergo rigorous quality assurance process before being officially available. Once the products are officially released into the market, ORing's R&D team continuously listens to customer feedbacks to constantly make product improvements or new product innovations.

# Quick Time-to-Market Product Solution

ORing has been known for swift time-to-market. For example, in 2010, ORing has provided an ideal and reliable mobile networking solution for the Beijing-Shanghai High-Speed Rail, also known as the Jinghu High-Speed Rail. The whole process from getting customer requirements to actual product delivery has taken only 3 months.

ORing R&D team also has full OEM/ODM capability and expertise in terms of project planning, custom application solution, and technical assistance.

# Quality Assurance

All of ORing's industrial networking products are produced and tested in certificated labs and manufacturing plants. Accredited with ISO 9001:2000 and numerous international certifications, ORing has set high standard in ruggedness and reliability for mission-critical network applications.

Comprehensive quality assurance tests are performed on all ORing products throughout both development and manufacturing stages, ensuring that all ORing products perform and last in harsh environments while complying with all applicable regulations.



For maximum customer satisfaction, ORing products come with up to 5 years of after-sales warranty.

# Green Commitment

ORing has commitment to help creating and maintaining a safe and clean environment. All of ORing's products are qualified with European Union's WEEE and RoHS directives. ORing works together with industry suppliers to offer eco-friendly products that are free from lead and five other hazardous materials (as prohibited by RoHS Directive).



# Compliant Standards and Regulations



ISO	ISO 9001:2008
Internet	IPv6
TUV	EN60950
FCC	Part 15B, Part 15C, Part 15E
CE	EN55011, EN55022, EN61373, EN62311, EN300328, EN301893, EN301489-1-17, EN55024
UL	UL60950, UL60601, UL508
CB	IEC60950
VCCI	Class A and Class B
C-Tick	AS/NZS CISPR22
Power Substatin	IEC-61850-3, IEEE1613
Railway	EN50155, EN50121
Marine	EN60945, IEC60945
E-mark	E24

# Global Sales and Service



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# Star Product Highlights

## EN50155 Railway Ethernet Switch

### TES-1080-M12/TES-1080-M12-BP2

Industrial EN50155 8-port unmanaged Ethernet switch with 8x10/100Base-T(X), M12 connector



- Supports auto-negotiation and auto-MDI/MDI-X
- M12/23 connectors to guarantee reliable operation against environmental disturbances
- Dual wide-range power inputs on the M23 connector: 12~48VDC
- 40°C to 70°C operating temperature range

## EN50155 Railway PoE Ethernet Switch

### TGPS-1080-M12 Series **New**

Industrial EN50155 8-port unmanaged Gigabit PoE Ethernet switch with 8x10/100/1000Base-T(X) P.S.E., M12 connector



- Supports IEEE 802.3at compliant PoE and total power budget is 120Watts with maximum 30Watts per port
- Supports auto-negotiation and auto-MDI/MDI-X technology
- Supports store and forward transmission
- Supports flow control function

## EN50155 Device Server

### TDS-5041-I-M12 **New**

EN50155 Industrial 4-port secure Isolate RS-422/485 to 1x10/100Base-T(X) Device Server



- Redundant multiple host devices: 5 host devices: Virtual COM, TCP Server, TCP Client mode; 4 IP ranges: UDP
- NAT-pass through: user can manage TDS-5041-I-M12 through NAT router
- -40°C to 70°C operating temperature range

### TES-3080-M12/TES-3080-M12-BP2

Industrial EN50155 8-port managed Ethernet switch with 8x10/100Base-T(X), M12 connector



- Supports more Ethernet redundancy with O-Ring / Open-Ring / O-Chian / MRP / MSTP / RSTP / STP
- M12/23 connectors to guarantee reliable operation against environmental disturbances
- 2 pairs of built-in hardware-bypass ports (-BP2 model)
- Supports PTP Client (Precision Time Protocol) clock synchronization
- -40°C to 70°C operating temperature range
- Supports flow control

## EN50155 Railway PoE Ethernet Switch

### TPS-141TX-M12

Industrial EN50155 5-port unmanaged PoE Ethernet switch with 4x10/100Base-T(X) P.S.E. and 1x10/100Base-T(X), M12 connector



- Supports auto-negotiation and auto-MDI/MDI-X
- Full compliant with IEEE802.3at standard, up to 30watts per port
- M12 connectors to guarantee reliable operation against environmental disturbances
- Supports store and forward transmission

### TGAP-6620-M12

Industrial EN50155 Dual RF in IEEE 802.11 a/b/g/n Wireless AP with 2x10/100/1000Base-T(X), M12 connector



- Leading EN50155-compliant wireless access point for rolling stock application
- High Speed Air Connectivity: WLAN interface support up to 300 Mbps link speed
- Highly Security Capability: WEP / WPA / WPA-PSK(TKIP, AES) / WPA2 / WPA2-PSK(TKIP,AES) / 802.1X Authentication supported
- Supports X-Roaming < 60ms

### TPS-3082GT-M12-BP1 **New**

Industrial EN50155 10-port managed PoE Ethernet switch with 8x10/100Base-T(X) P.S.E. and 2x10/100/1000Base-T(X), M12 connector and 1xbypass included



- Supports more Ethernet redundancy with O-Ring / Open-Ring / O-Chian / MRP / MSTP / RSTP / STP
- IEEE802.3af standard, up to 15.4 Watts per port
- Supports more configuration tools and hardware relay bypass function with two gigabit ports
- -40°C to 70°C operating temperature range

### TGAR-1662-4G-M12

Industrial EN50155 Dual IEEE 802.11 a/b/g/n 4G LTE Cellular Router With 2x10/100/1000Base-T(X), M12 connector



- Leading EN50155-compliant wireless access point for rolling stock application
- High Speed Air Connectivity: Dual RF in IEEE 802.11 a/b/g/n WLAN interface support up to 300Mbps link speed
- Secured Management by HTTPs
- Supports 4G LTE dial up

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# Star Product Highlights

## Industrial Gigabit PoE Ethernet Switch

### IGPS-9084GP **New**

Industrial 12-port managed Gigabit PoE Ethernet switch with 8x10/100/1000Base-T(X) P.S.E. ports and 4x100/1000Base-X, SFP socket



- Supports more Ethernet redundancy with O-Ring / Open-Ring / O-Chian / MRP / MSTP / RSTP / STP
- P.S.E. based on IEEE 802.3at standard
- Supports IEEE 1588v2 clock synchronization
- Supports IPv6 new internet protocol version
- Supports Modbus TCP protocol

## Industrial PoE Media Converter

### IPMC-111PB

Industrial mini type Ethernet to fiber PoE media converter with 1x10/100Base-T(X) P.S.E. and 1x100Base-FX, SFP socket



- Supports 1 port 10/100Base-T(X) P.S.E. auto-negotiation and auto-MDI/MDI-X
- Supports Ethernet to fiber or Ethernet to SFP port
- Supports LFP (Link Fault Pass-through) function
- Supports DIP-Switch to setting function

## Industrial CID2 ATEX Ethernet Switch

### IES-A3080/A3062 **New**

Industrial C1D1/ATEX 8-port managed Ethernet switch



- World's fastest Redundant Ethernet Ring: O-Ring (recovery time < 10ms over 250 units of connection)
- Open-Ring support the other vendor's ring technology in open architecture
- O-Chain allow multiple redundant network rings
- Supports standard IEC 62439-2 MRP (Media Redundancy Protocol) function
- Supports Auto Negotiation Speed

## Industrial Rack-Mount Media Converter

### RMC-1000

Industrial Rack mount Ethernet to fiber media converter Chassis with 18 slots



- Supports 18 slots for media converter
- Each slot supports RMC-111PB/111FB/121FB/ RGMC-111GPB series with 10/100Base-T(X) auto-negotiation and auto-MDI/MDI-X
- 19-inch rack-mount enabled

**\*Notice:**  
Power need to be purchased separately

## Industrial IEC61850-3 Ethernet Switch

### RGS-PR9000 SERIES

Industrial Layer-3 IEC 61850-3 modular rack mount managed Gigabit Ethernet switch with 4 slots



- Designed for power substation / Railway application and fully compliant with the requirement of IEC 61850-3 and IEEE 1613
- Modular designed makes network planning easy
- Supports Layer 3 routing, RIP and static routing function

### RMC-111PB / RMC-111FB-MM/SS

Industrial Rack mount card type Ethernet to fiber media converter with 1x10/100Base-T(X) to 1x100Base-FX, SC connector/SFP socket



- Supports LFP (Link Fault Pass-through) function
- Supports full/half duplex operation and store and forward transmission
- Up to 18-slot slot high density installation in RMC-1000 chassis on the 19-inch rack

### IES-P3073GC Series

Industrial IEC 61850-3 10-port managed Ethernet switch



- Supports 7x10/100Base-T(X) and 3xGigabit combo ports, SFP socket
- Designed for power substation / Railway application and fully compliant with the requirement of IEC 61850-3 and IEEE 1613
- Supports PTP Client (Precision Time Protocol) clock synchronization

## Industrial Cellular VPN Router

### IGAR-1062+4G **New**

Industrial IEEE 802.11 a/b/g/n 4G LTE Cellular Router with 2x10/100/1000Base-T(X)



- High Speed Air Connectivity: WLAN interface supports up to 300Mbps link speed
- Supports 2 -port 10/100/1000Base-T(X) port and 1 sim card slot
- 4G LTE Modem dial up included
- Supports HNAT enhance LAN to WAN routing performance

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