



# ORing Industrial Networking Corp.

## Designed for Rugged Excellence.

### ORing Overview

ORing Industrial Networking Corp. the global leading brand company, established in 2005 and focuses on innovation of Industrial networking products. Within these years ORing, a group of well-experienced industrial-networking software and hardware engineers, has developed a lot of product lines, such as industrial grade media converter, Ethernet switch, wireless router and device server. Global specific compliance certification ensures our stable product quality, for example EN 50155 for railway application or E-mark for bus application. Our numerous products have been successfully applied and are generating a lot of real application through the world, such as Railway/Highway monitoring, Intelligent Transportation System, Building Automation and etc. ORing is committed to provide world-class product, strong technical support team for technical consulting and best after-sale service.



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Embedded Computing Solutions
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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

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Manufacturing Automation</li> <li>• Intelligent Transportation System</li> <li>• Building Automation</li> <li>• City Surveillance</li> </ul> | <ul style="list-style-type: none"> <li>• Resource &amp; Power</li> <li>• Renewable Energy</li> <li>• Railway</li> <li>• In-Vehicle Surveillance</li> </ul> |
|---|--|

### 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
IP Code	IP-30, IP-40, IP-65, IP-67
E-mark	E24

## Global Sales and Service



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# Product Selection Guide

## Industrial Rack-Mount Gigabit/Fast Ethernet Switch Managed Switch

### Industrial Ethernet Switch

*Thunder/Rack*



RGS-7244GP / 7244GP-E

*Thunder/Rack*



RGS-7168GCP / 7168GCP-E



RES-3242GC / 3242GC-E



RES-P3242GCL-HV

Port Number	RGS-7244GP / 7244GP-E		RGS-7168GCP / 7168GCP-E		RES-3242GC / 3242GC-E		RES-P3242GCL-HV
<b>Number of ports</b>	28		24		26		26
<b>10/100Base-T(X) RJ45 Ports</b>	-		-		24		24
<b>10/100/1000Base-T(X) Ports</b>	24		-		-		-
<b>100Base-FX Fiber Ports</b>	-		-		-		-
<b>1000Base-X Fiber Ports</b>	-		-		-		-
<b>100Base-FX SFP Ports</b>	-		-		-		-
<b>1000Base-X SFP Ports</b>	4		8		-		-
<b>Gigabit Combo Ports</b>	-		16		2		2
<b>Power Redundancy</b>							
<b>DC Terminal Block</b>	-	2	-	2	-	2	-
<b>DC Power Jack</b>	-		-		-		-
<b>AC Power Cord</b>	1	1	1	1	1	1	2
<b>Installation</b>							
<b>DIN-Rail Mounting</b>	-		-		-		-
<b>Wall Mounting</b>	-		-		-		-
<b>Rack Mounting</b>	•		•		•		•
<b>Physical Characteristics</b>							
<b>Casing Protection</b>	IP-20		IP-20		IP-20		IP-20
<b>Dimensions (mm)</b>	444(W) x 200(D) x 44(H)	431(W) x 342(D) x 44(H)	431(W) x 342(D) x 44(H)		444(W) x 200(D) x 44(H)		443.7(W) x 262.7(D) x 44(H)
<b>Operating Temperature</b>							
<b>-10 to 60°C</b>	-		-		•		-
<b>-40 to 70°C</b>	•		•		-		•
<b>-40 to 85°C</b>	-		-		-		•
<b>Network Redundancy</b>							
<b>O-Ring</b>	•		•		•		•
<b>Open-Ring</b>	-		-		•		•
<b>O-RSTP</b>	-		-		•		•
<b>STP/RSTP</b>	•		•		•		•
<b>MSTP</b>	•		•		•		•
<b>Management and Control</b>							
<b>802.1X</b>	•		•		•		•
<b>Rate Limit</b>	•		•		•		•
<b>Port Mirror</b>	•		•		•		•
<b>Port Security</b>	•		•		•		•
<b>IGMP v2/v3</b>	•		•		•		•
<b>QoS Port Base/COS/TOS</b>	•		•		•		•
<b>Port Trunk Static/LACP</b>	•		•		•		•
<b>LLDP</b>	•		•		•		•
<b>System Alarm</b>	SYSLOG / SNMP Trap	SYSLOG / SNMP Trap / Relay	SYSLOG / SNMP Trap	SYSLOG / SNMP Trap / Relay	SYSLOG / SNMP Trap	SYSLOG / SNMP Trap / Relay	SYSLOG / SNMP Trap
<b>DHCP</b>	Server / Client		Server / Client		Server / Client		Server / Client
<b>VLAN</b>	802.1Q		802.1Q		Port-Based / 802.1Q / Q-in-Q / GVRP		802.1Q
<b>Management / Configuration</b>	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI )		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI )		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI )		WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI )
<b>Warranty</b>	5 years						

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# Product Selection Guide

## Industrial DIN-Rail Gigabit Ethernet Switch

Managed Switch	Unmanaged Switch
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*Thunder/Rail*

### Industrial Ethernet Switch



IGS-7084GCP



IGS-3044GC



IGS-3032GC



IGS-1080A



IGS-1041GPA / 1050A

Port Number					
Number of ports	12	8	5	8	5
10/100Base-T(X) RJ45 Ports	-	-	-	-	-
10/100/1000Base-T(X) Ports	-	4	3	8	4 5
100Base-FX Fiber Ports	-	-	-	-	-
1000Base-X Fiber Ports	-	-	-	-	-
100Base-FX SFP Ports	-	-	-	-	-
1000Base-X SFP Ports	4	-	-	-	1 -
Gigabit Combo Ports	8	4	2	-	-
Power Redundancy					
DC Terminal Block	2	2	2	2	2
DC Power Jack	-	-	1	-	-
AC Power Cord	-	-	-	-	-
Installation					
DIN-Rail Mounting	•	•	•	•	•
Wall Mounting	•	•	•	•	•
Rack Mounting	-	-	-	-	-
Physical Characteristics					
Casing Protection	IP-30	IP-30	IP-30	IP-30	IP-30
Dimensions (mm)	96.4(W)x108.5(D)x154(H)	74.3(W)x109.2(D)x153.6(H)	54.2(W)x106.1(D)x145.4(H)	26.1(W)x94.9(D)x144.3(H)	26.1(W)x94.9(D)x144.3(H)
Operating Temperature					
-10 to 60°C	-	-	-	-	-
-40 to 70°C	•	•	•	•	•
Network Redundancy					
O-Ring	•	•	•	-	-
Open-Ring	-	•	•	-	-
O-RSTP	-	•	•	-	-
STP/RSTP	•	•	•	-	-
MSTP	•	•	•	-	-
Management and Control					
802.1X	•	•	•	-	-
Rate Limit	•	•	•	-	-
Port Mirror	•	•	•	-	-
Port Security	•	•	•	-	-
SNMP v1/v2/v3	•	•	•	-	-
IGMP v2/v3	•	•	•	-	-
QoS Port Base/COS/TOS	•	•	•	-	-
Port Trunk Static/LACP	•	•	•	-	-
LLDP	•	•	•	-	-
System Alarm	SYSLOG/ SNMP Trap / Relay	SYSLOG/ SMTP / SNMP Trap / Relay	SYSLOG/ SMTP / SNMP Trap / Relay	Relay	Relay
DHCP	Server / Client	Server / Client	Server / Client	-	-
VLAN	802.1Q	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	-	-
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	-	-
Warranty	5 years				

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# Product Selection Guide

## Industrial DIN-Rail Fast Ethernet Switch Managed Switch

### Industrial Ethernet Switch



IES-3240



IES-3162GC



IES-3160



IES-3073GC



IES-3082GP



IES-3062 Series / IES-3080

Port Number						
Number of ports	24	18	16	10	10	8
10/100Base-T(X) RJ45 Ports	24	16	16	7	8	6
10/100/1000Base-T(X) Ports	-	-	-	-	-	2
100Base-FX Fiber Ports	-	-	-	-	-	2 (Multi/Single-Mode)
1000Base-X Fiber Ports	-	-	-	-	-	2 (Multi/Single-Mode)
100Base-FX SFP Ports	-	-	-	-	-	-
1000Base-X SFP Ports	-	-	-	-	2	-
Gigabit Combo Ports	-	2	-	3	-	-
<b>Power Redundancy</b>						
DC Terminal Block	2	2	2	2	2	2
DC Power Jack	-	-	-	-	1	1
AC Power Cord	-	-	-	-	-	-
<b>Installation</b>						
DIN-Rail Mounting	•	•	•	•	•	•
Wall Mounting	•	•	•	•	•	•
Rack Mounting	-	-	-	-	-	-
<b>Physical Characteristics</b>						
Casing Protection	IP-30	IP-30	IP-30	IP-30	IP-30	IP-30
Dimensions (mm)	96.4(W)x108.5(D) x154(H)	96.4(W)x108.5(D) x154(H)	74.3(W)x109.2(D) x153.6(H)	74.3(W)x109.2(D) x153.6(H)	52(W)x106.1(D) x144.3(H)	52(W)x106.1(D)x144.3(H)
<b>Operating Temperature</b>						
-10 to 60°C	-	-	-	-	-	-
-40 to 70°C	•	•	•	•	•	•
<b>Network Redundancy</b>						
O-Ring	•	•	•	•	•	•
Open-Ring	•	•	•	•	•	•
O-RSTP	•	•	•	•	•	•
STP/RSTP	•	•	•	•	•	•
MSTP	•	•	•	•	•	•
<b>Management and Control</b>						
802.1X	•	•	•	•	•	•
Rate Limit	•	•	•	•	•	•
Port Mirror	•	•	•	•	•	•
Port Security	•	•	•	•	•	•
IGMP v2/v3	•	•	•	•	•	•
QoS Port Base/COS/TOS	•	•	•	•	•	•
Port Trunk Static/LACP	•	•	•	•	•	•
LLDP	•	•	•	•	•	•
System Alarm	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay
DHCP	Server / Client	Server / Client	Server / Client	Server / Client	Server / Client	Server / Client
VLAN	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP	Port-Based / 802.1Q / Q-in-Q / GVRP
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI)	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 /Telnet /Console(CLI )
Warranty	5 years					

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## Industrial DIN-Rail Fast Ethernet Switch

### Unmanaged Switch

### Industrial Ethernet Switch



IES-1082GP



IES-1062 Series / IES-1080



IES-1050A / 1080A



IES-1041FX / 1042FX



IES-150B

Port Number	IES-1082GP		IES-1062 Series / IES-1080		IES-1050A / 1080A		IES-1041FX / 1042FX		IES-150B
<b>Number of ports</b>	10		8		5	8	5	6	5
<b>10/100Base-T(X) RJ45 Ports</b>	8		6	8	5	8	4		5
<b>10/100/1000Base-T(X) Ports</b>	-		2	-	-	-	-	-	-
<b>100Base-FX Fiber Ports</b>	-		2 (Multi/Single-Mode)	-	-	-	1 (Multi/Single-Mode)	2 (Multi/Single-Mode)	-
<b>1000Base-X Fiber Ports</b>	-		2 (Multi/Single-Mode)	-	-	-	-	-	-
<b>100Base-FX SFP Ports</b>	-		-	-	-	-	-	-	-
<b>1000Base-X SFP Ports</b>	2		-	-	-	-	-	-	-
<b>Gigabit Combo Ports</b>	-		-	-	-	-	-	-	-
<b>Power Redundancy</b>									
<b>DC Terminal Block</b>	2		2		2		2		2
<b>DC Power Jack</b>	1		1		-		-		-
<b>AC Power Cord</b>	-		-		-		-		-
<b>Installation</b>									
<b>DIN-Rail Mounting</b>	•		•		•		•		•
<b>Wall Mounting</b>	•		•		•		•		•
<b>Rack Mounting</b>	-		-		-		-		-
<b>Physical Characteristics</b>									
<b>Casing Protection</b>	IP-30		IP-30		IP-30		IP-30		IP-30
<b>Dimensions (mm)</b>	52(W)x106.1(D) x144.3(H)		52(W)x106.1(D)x144.3(H)		26.1(W)x94.9(D) x144.3(H)		26.1(W)x94.9(D)x144.3(H)		26.1(W)x70(D) x95(H)
<b>Operating Temperature</b>									
<b>-10 to 60°C</b>	-		-		-		-		-
<b>-40 to 70°C</b>	•		•		•		•		•
<b>Network Redundancy</b>									
<b>O-Ring</b>	-		-		-		-		-
<b>Open-Ring</b>	-		-		-		-		-
<b>O-RSTP</b>	-		-		-		-		-
<b>STP/RSTP</b>	-		-		-		-		-
<b>MSTP</b>	-		-		-		-		-
<b>Management and Control</b>									
<b>802.1X</b>	-		-		-		-		-
<b>Rate Limit</b>	-		-		-		-		-
<b>Port Mirror</b>	-		-		-		-		-
<b>Port Security</b>	-		-		-		-		-
<b>IGMP v2/v3</b>	-		-		-		-		-
<b>QoS Port Base/COS/TOS</b>	-		-		-		-		-
<b>Port Trunk Static/LACP</b>	-		-		-		-		-
<b>LLDP</b>	-		-		-		-		-
<b>System Alarm</b>	Relay		Relay		Relay		Relay		-
<b>DHCP</b>	-		-		-		-		-
<b>VLAN</b>	-		-		-		-		-
<b>Management / Configuration</b>	-		-		-		-		-
<b>Warranty</b>	5 years								

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Industrial Fast PoE Ethernet Switch			Industrial Desktop Ethernet Switch		Industrial IP-67 Ethernet Switch
Managed DIN-Rail Switch	Lite-Managed DIN-Rail Switch		Managed Switch		Lite-Managed Switch

## Industrial Ethernet Switch



IPS-3082GC/-24V



IPS-2042P



IPS-2042TX / 2042FX



DGS-7084GCP-AIO-S



DES-3082GP-AIO-S



IES-2050-M12

Port Number							
Number of ports	10	6	6		12	10	5
10/100Base-T(X) RJ45 Ports	8 ( P.S.E.)	4 ( P.S.E.)	2+4 ( P.S.E.)	4 ( P.S.E.)	-	8 ( P.S.E.)	5 (M12 A-coding)
10/100/1000Base-T(X) Ports	-	-	-	-	8 ( P.S.E.)	-	-
100Base-FX Fiber Ports	-	-	-	2 (Multi/Single-Mode)	-	-	-
100Base-FX SFP Ports	-	2	-	-	-	-	-
1000Base-X SFP Ports	-	-	-	-	4	2	-
Gigabit Combo Ports	2	-	-	-	-	-	-
<b>Power Redundancy</b>							
DC Terminal Block	2	2	2	-	-	-	1 (M12)
DC Power Jack	-	1	1	-	-	-	-
AC Power Cord	-	-	-	2 AC(one socket)	2 AC(one socket)	-	-
<b>Installation</b>							
DIN-Rail Mounting	2	•	•	-	-	-	•
Wall Mounting	-	•	•	Desktop	Desktop	-	•
<b>Physical Characteristics</b>							
Casing Protection	IP-30	IP-30	IP-30	IP-30	IP-30	IP-30	IP-67
Dimensions (mm)	74.3(W)x109.2(D)x153.6(H)	54.2(W)x106.1(D)x145.4(H)	54.2(W)x106.1(D)x145.4(H)	300(W)x165(D)x88(H)	300(W)x165(D)x88(H)	125(W)x65(D)x96(H)	
<b>Operating Temperature</b>							
-10 to 60°C	-	-	-	-	-	-	-
-40 to 60°C	-	•	-	-	-	-	-
-40 to 70°C	•	•	•	•	•	•	•
<b>Network Redundancy</b>							
O-Ring	•	•	•	•	•	•	•
Open-Ring	•	•	•	•	•	•	•
O-RSTP	•	-	-	•	•	•	-
STP/RSTP	•	•	•	•	•	•	•
MSTP	•	-	-	•	•	•	-
<b>Management and Control</b>							
802.1X	•	-	-	•	•	•	-
Rate Limit	•	-	-	•	•	•	-
Port Mirror	•	-	-	•	•	•	-
Port Security	•	-	-	•	•	•	-
IGMP v2/v3	•	-	-	•	•	•	-
QoS Port Base/COS/TOS	•	-	-	•	•	•	-
Port Trunk Static/LACP	•	-	-	•	•	•	-
LLDP	•	•	•	•	•	•	•
System Alarm	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap	
DHCP	Server / Client	Client	Client	Server / Client	Server / Client	Client	
VLAN	Port-Based/802.1Q/Q-in-Q/GVRP	Port-Based	Port-Based	Port-Based/802.1Q/Q-in-Q/GVRP	Port-Based/802.1Q/Q-in-Q/GVRP	Port-Based	
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console(CLI )	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	
Warranty	5 years						

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Industrial Card-type Ethernet Switch	Card-Type Ethernet Switch		Optical / PoE Network Accessories			
Lite-Managed Switch	Industrial PCIe Ethernet Switch	Industrial PCIe PoE Ethernet Switch	Optical / PoE Network Accessories	PoE Injector	PoE Splitter	

## Industrial Ethernet Switch



ICS-4040



IGCS-E140



IGPCS-E140



IBS-102FX-MM/SS-LC



INJ-102GT/24V



SPL-101GT-AF/AT

Port Number							
Number of ports	4	4	4	4	4	4	2
10/100Base-T(X) RJ45 Ports	4	-	-	-	-	-	-
10/100/1000Base-T(X) Ports	-	4	4 (P.S.E.)	-	2 (P.S.E.) + 2 (all 4 are RJ45)	2 (P.S.E.) + 2 (all 4 are RJ45)	1+1 (P.D.)
100Base-FX Fiber Ports	-	-	-	-	-	-	-
100Base-FX SFP Ports	-	-	-	4 (LC connector)	-	-	-
1000Base-X SFP Ports	-	-	-	-	-	-	-
Gigabit Combo Ports	-	-	-	-	-	-	-
Power Redundancy							
DC Terminal Block	1	-	-	1	1(50-57VDC input)	1 (24-50VDC output)	1 (24VDC output)
DC Power Jack	-	-	-	1	-	-	-
PCI Bus Power	•	•	•	-	-	-	-
Installation							
DIN-Rail Mounting	-	-	-	•	•	•	•
Wall Mounting	-	-	-	•	•	•	•
PCI Bus Power	•	•	•	-	-	-	-
Physical Characteristics							
Casing Protection	-	-	-	IP-30	IP-30	IP-30	IP-30
Dimensions (mm)	121(W) x 100(D)	21.3(W)x136(D) x121(H)	21.3(W)x178(D) x121(H)	26.1(W)x94.9(D) x144.3(H)	26.1(W)x70(D) x95(H)	40(W)x70(D) x95(H)	26.1(W)x70(D) x95(H)
Operating Temperature							
-10 to 60°C	•	•	•	-	-	-	-
-20 to 70°C	-	-	-	-	•	•	•
-40 to 70°C	-	-	-	•	-	-	-
Network Redundancy							
O-Ring	•	•	•	-	-	-	-
Open-Ring	•	•	•	-	-	-	-
O-RSTP	-	-	-	-	-	-	-
STP/RSTP	•	•	•	-	-	-	-
MSTP	-	-	-	-	-	-	-
Management and Control							
802.1X	•	•	•	-	-	-	-
Rate Limit	•	•	•	-	-	-	-
Port Mirror	-	-	-	-	-	-	-
Port Security	•	•	•	-	-	-	-
SNMP v1/v2/v3	-	-	-	-	-	-	-
QoS Port Base/COS/TOS	-	-	-	-	-	-	-
Port Trunk Static/LACP	-	-	-	-	-	-	-
LLDP	•	•	•	-	-	-	-
System Alarm	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	SYSLOG / SMTP / SNMP Trap / Relay	-	-	-	-
DHCP	Client	Client	Client	Relay	-	-	-
VLAN	Port-Based	Port-Based	Port-Based	-	-	-	-
Management / Configuration	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	-	-	-	-
Warranty	5 years						

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# Product Selection Guide

## Industrial Ethernet Switch

### Industrial EN50155Ethnet Switch

Managed Switch	Lite-Managed Switch	Unmanaged Switch		Unmanaged PoE Switch	
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TES-3080-M12 / M12-BP2    TES-250-M12    TES-1080-M12 / M12-BP2    TES-150-M12    TPS-141TX-M12    TPS-3082GT-M12-BP1

Port Number	TES-3080-M12 / M12-BP2		TES-250-M12	TES-1080-M12 / M12-BP2		TES-150-M12	TPS-141TX-M12	TPS-3082GT-M12-BP1
<b>Number of ports</b>	8		5	8		5	5	10
<b>10/100Base-T(X) M12 D-Coding Ports</b>	8	8	5	8	8	5	4 (P.S.E.) + 1 (all 5 are M12 D-coding)	8 (P.S.E.)
<b>10/100/1000Base-T(X) M12 A-Coding Ports</b>	-		-	-		-	-	2
<b>100Base-FX Fiber Ports</b>	-		-	-		-	-	-
<b>1000Base-X Fiber Ports</b>	-		-	-		-	-	-
<b>100Base-FX SFP Ports</b>	-		-	-		-	-	-
<b>1000Base-X SFP Ports</b>	-		-	-		-	-	-
<b>Gigabit Combo Ports</b>	-		-	-		-	-	-
<b>Power Redundancy</b>								
<b>On M12 Connector</b>	-		1	-		1	1	-
<b>On M23 Connector</b>	2		-	2		-	-	1
<b>Installation</b>								
<b>DIN-Rail Mounting</b>	-		-	-		-	•	•
<b>Wall Mounting</b>	•		•	•		•	•	•
<b>Physical Characteristics</b>								
<b>Casing Protection</b>	IP-40		IP-40	IP-40		IP-40	IP-40	IP-40
<b>Dimensions (mm)</b>	125(W)x65(D)x196(H)		89(W)x40(D)x178(H)	125(W)x65(D)x196(H)		89(W)x40(D)x178(H)	89(W)x40(D)x178(H)	170(W)x75(D)x196(H)
<b>Operating Temperature</b>								
<b>-10 to 60°C</b>	-		-	-		-	-	-
<b>-40 to 70°C</b>	•		•	•		•	•	•
<b>Network Redundancy</b>								
<b>O-Ring</b>	•		•	-		-	-	•
<b>Open-Ring</b>	•		•	-		-	-	•
<b>O-RSTP</b>	•		•	-		-	-	•
<b>STP/RSTP</b>	•		•	-		-	-	•
<b>MSTP</b>	•		•	-		-	-	•
<b>Management and Control</b>								
<b>802.1X</b>	•		-	-		-	-	•
<b>Rate Limit</b>	•		-	-		-	-	•
<b>Port Mirror</b>	•		-	-		-	-	•
<b>Port Security</b>	•		-	-		-	-	•
<b>IGMP v2/v3</b>	•		-	-		-	-	•
<b>QoS Port Base/COS/TOS</b>	•		-	-		-	-	•
<b>Port Trunk Static/LACP</b>	•		-	-		-	-	•
<b>LLDP</b>	•		•	-		-	-	•
<b>System Alarm</b>	SYSLOG / SMTP / SNMP Trap / Relay		SYSLOG / SMTP / SNMP Trap	Relay		-	-	SYSLOG / SMTP / SNMP Trap / Relay
<b>DHCP</b>	Server/Client		Client	-		-	-	Server/Client
<b>VLAN</b>	Port-Based/802.1Q/ Q-in-Q/GVRP		Port-Based	-		-	-	Port-Based/802.1Q/ Q-in-Q/GVRP
<b>Management / Configuration</b>	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console (CLI)		WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet	-		-	-	WEB / Windows Utility / SNMP v1,v2c,v3 / Telnet / Console (CLI)
<b>Warranty</b>	5 years							

\* Provide 2pairs of HW Bypass ports.

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# Product Selection Guide

## Media Gateway Managed DIN-Rail Switch

### Industrial M2M Gateway



IMG-111



IMG-1312-D

	IMG-111	IMG-1312-D
<b>Ethernet Ports</b>		
10/100 Base-T(X) LAN Ports	1	2
<b>Serial Port</b>		
Serial port Numbers	1	1
Serial Mode	RS-232	RS-232
Serial Port Connector	DB9 (male)	DB9 (male)
Serial Port with 2KV Isolation	-	-
Serial Baud Rate	110 bps to 115.2 Kbps	110 bps to 115.2 Kbps
<b>WLAN Interface</b>		
WLAN Standard	-	IEEE802.11b/g
Transmit Power	-	20 dbm max.
Transmission Rate	-	IEEE802.11b : 11Mbps IEEE802.11g : 54Mbps
Antenna connector	-	Reverse SMA
Antenna	-	2 dbi
<b>Cellular Interface</b>		
Cellular Standard	GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA	GSM / GPRS/ EGPRS/ EDGE / WCDMA / HSDPA / HSUPA
Band Option	Dual-band: HSUPA 1900/2100 MHz Quad-band: GSM/GPRS/EDGE 850/900/1800/1900 MHz WCDMA/HSDPA 850/900/1900/2100 MHz	Dual-band: HSUPA 1900/2100 MHz Quad-band: GSM/GPRS/EDGE 850/900/1800/1900 MHz WCDMA/HSDPA 850/900/1900/2100 MHz
<b>Power Redundancy</b>		
DC Terminal Block	1	2
<b>Installation</b>		
DIN-Rail Mounting	•	•
Wall mounting	•	•
<b>Physical Characteristics</b>		
Casing Protection	IP-30	IP-30
Dimensions (mm)	26.1(W) x 70(D) x 95(H)	40(W) x 115(D) x 153(H)
<b>Operating Temperature</b>		
-10 to 60°C	•	•
-20 to 70°C	-	-
<b>Network Technology</b>		
Operating Modes	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP	Virtual Com, Serial Tunnel, TCP Server, TCP Client, UDP
Windows O.S.Supported	Windows NT/2000/XP/2003/ VISTA 64-Bit/ Windows 7 64-Bit	Windows NT/2000/XP/2003/ VISTA 64-Bit/ Windows 7 64-Bit
Multiple Link	5 host devices: Virtual COM, TCP Server, TCP Client mode; 4 IP ranges: UDP	5 host devices: Virtual COM, TCP Server, TCP Client mode; 4 IP ranges: UDP
Event Notification	Syslog /Beeper	Syslog / SMTP/ SNMP trap / Beeper
<b>Warranty</b>	5 years	

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