Industrial Ethernet Switches

R3-8P-24S-4X-G

Rackmount Layer 3 Managed Industrial Switch
8xTx PoE ports, 24 SFP Ports, 4 x 10Gbps Ports

- **4 x 10G SFP Ports**
- **24 x 1.25 Gigabit SFP Ports**
- **8 x 10/100/1000 PoE / PoE+ TX RJ 45**
- **Frames to 9.6Kbytes**
- **SNMP, Telnet, Web Management**
- **G.8032 (ERPS) Ring Technology**

- **VLAN Trunking**
- **Port Mirroring**
- **Port control – speed – storm control, QoS**
- **Access Control Lists**
- **Cable diagnostics**

◆ **High-performance of both hardware and software**
The R3-8P-24S-4X-G L3 is an industrial 10Gbps layer 3 Managed Ethernet Switch with 8 x 10.100./1000 Mbps PoE / PoE+ ports, 24 x SFP Ports and 4 x 10Gbps SFP Ports

◆ **Layer 3 Functionality**
The R3-8P-24S-4X-G switch has a layer 3 network management capability and supports IPv4 / IPv6 Management and Static routing with full line rate forwarding, and high levels of security with an ACL / QoS policy and advanced VLAN Functionality

◆ **Network Redundancy**
The switch supports multiple network redundancy protocols such as STP, RSTP, MSTP and ITU-G.8032 (ERPS) with a sub 50ms self healing time.

◆ **Management**
Management can be via a web browser, CLI Console, or SNMP v1 / V2c / V3. Encryption can be via HTTPS, SSLv3 and SSHv1 / v2.
The switch supports RMON, a system log, port traffic stats and easy viewing of network optimisation. Management diagnostics include CPU Utilisation, memory monitoring, Ping and cable length detection

◆ **Strong Network Security**
The switch supports dynamic or static binding by users, via an IP Address, MAC, VLAN or Port etc. It also supports port isolation to prevent communications between two neighbouring network devices within the same broadcast domain, which improves network stability. The switch also supports storm control and can suppress broadcast, Multi-Cast and Uni-Cast storms: Support for specific ARP inspection can effectively prevent 'ARP Spoofing attacks' generally created by hackers or attacks by ARP Packets.

FACT SHEET

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Industrial Ethernet Switches

R3-8P-24S-4X-G

R3-8P-24S-4X-G Features	
Interfaces	8 x 10/100/1000Base-T Ports (IEEE802.3af/at) PoE Standards
	24 x 100/1000Basex-X SFP Ports
	4 x 10 /1Gbps SFP Ports (SFP's not included)
	1x Console port (115200, N,8,1)
Protocols & Standards	IEEE 802.3-10BASE-T, IEEE 802.3i 10Base-T Ethernet
	IEEE 802.3u 100Base-TX, IEEE802.3ab 1000Base-T, IEEE 802.3z 1000Base-X
	IEEE 802.3ae 10GBase-SR / LR, IEEE 802.3x
PoE Ports	Ports 1-8 can support 10/100/1000Base-T auto detect, full / half duplex, MDI / MDI-X adaptive
Forwarding mode	Store and forward (full wire speed)
Switching Capacity	598Gbps (non-blocking)
Forwarding Rate	107.14Mbps (at 64 bytes)
Memory	CPU: 416MB, Buffer 32MB, FLAH 128MB, RAM 1GB
MAC	32K - Support for automatic updates, two-way learning;
Power Supply Pins	Default: 1 / 2 (+), 3 / 6 (-)
Max Power Input	AC100 – 240vac 50-60Hz 4.1A
Power Consumption	Standby <25 watts, Full Load<250 watts (AC100-240vac)
Power Input interface	Dual Input power interface design, AC Power supply take priority, supports anti-reverse protection, power-off automatic switch DC connection. Dual DC12-48v input
LED Indicators	Power PWR (yellow): System indicator: SYS (Yellow) Network indicator; Link (Yellow)
	Network indicator; Link (Yellow), PoE Indicator: PoE (green), Fibre Port Indicator (Green)
Reset button	One key to restore to factory defaults
Heat dissipation	Low noise active fan cooling
Operating Temp	-40C ~ +80C, 5% ~ 90% RH Non-Condensing
Storage Temp	-40C ~ +85C, 5% ~ 95% RH Non-Condensing
Dimensions	440mm (w) x 45mm (h) x 300mm (deep)
Net / Gross Weight	<4.5Kg / 5.2Kg
Installation	Desktop or 19inch 1U rack / cabinet
Protection Levels and Standards	Housing protection IP40
	Lightning Protection: 6KV 8 / 20us
	IEC 61000-4-2 (ESD) +8kV contact discharge, +15kVAir discharge
	IEC 61000-4-3 (RS): 10V/m (80~1000Mhz)
	IEC 61000-4-4 (EFT) Power cable: +4kV data cable +2kV
	IEC 61000-4-5 (Surge): Power cable: CM+4 V/DM+2kV: Data cable: +4Kv
	IEC 61000-4-6 (Radio Frequency Transmission): 10V (150Khz – 80Mhz)
	IEC 61000-4-8(Power Frequency Magnetic Field): 100A / m: 1000A/m, 1s to 3s
	IEC 61000-4-9 (Pulsed Magnetic Field): 1000 A/m
	IEC 61000-4-10 (Damped Oscillation): 30A / m 1Mhz
	IEC 61000-4-12 (Shockwave): CM2.5kV, DM 1Kv
	IEC 61000-4-16 (Common Mode Transmission): 30V: 300V, 1
	IEC 61000-6-2 (Common Industrial Standard)
	FCC Part 15 / CISPR22 (EN55022): Class A
Mechanical Properties	IEC 60068-2-6 (Anti-Vibration)
	IEC 60068-2-27 (Anti-Shock)
	IEC 60068 (Free Fall)
Certification	CE Mark, CCC, CE / LVD EN60950: FCC Part 15, Class B: RoHS

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FACT SHEET

R3-8P-24S-4X-G Software Features	
Interfaces	Broadcast Storm suppression
	Data rate limiting for incoming and offline message traffic minimum size 64Kbps
	Energy saving configuration (EEE) for the Ethernet ports
PoE Management	PoE Output power allocation per port, close af / at
	PoE Output priority configuration for each port
	Total power limit protecting the PoE Power Supply
	Power Delay Start
	PoE delay start
	PoE work and time schedule
Layer 3 Functionality	Support for protocol based VLANS, Ability to route between VLANS
	Support for Layer 3 Management
	Wire Speed routing at layer 3
	128 Static Route Entries, 1024 ARP Entries
VLANS	Support for Access, Trunk, Hybrid three types of port configuration VLAN
	Port based VLAN (4K) IEEE802.1q
	Port based VLANS
	4,000 VLANS
	Q-in-Q Configuration
Port Aggregation	Support for LACP
	Support for static polymerization
	Support for 8 aggregation groups, each group supports 8 port
Spanning Tree	STP (IEEE802.1d)
	RSTP (IEEE802.1w)
	MSTP (IEEE802.1s)
Industrial Ring Support	Support for G.8032 (ERPS) supporting 255 loops and 1024 devices per ring
	Self-healing time of less than 50ms
Multicast	IGMP snooping V1 / V2 and support of 1024 multicast groups
	Support for users quick departure mechanism
	MLD snooping v1 / v2
	Multicast VLAN
Image	Bi-Directional traffic mirroring supporting the basic port
QoS	Diff-Serv QoS
	Each port supports 8 output queues
	Support for 802.1p / DSCP priority mapping
	Support queue scheduling mechanisms (SP, WRR, SP+WRR)
	Priority Tag Mark / Remark
	Stream based packet filtering
	Support for stream based re-direction
	Support flow based speed limit
ACL	Support for L2 to L4 packet filtering function. The switch matches the first 80 bytes of the message, based on the source MAC Address, destination Mac Address, source IP Address, Destination IP Address, IP Protocol type, TCP / UDP Port, TCP / UDP Port range, VLAN and other definitions

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R3-8P-24S-4X-G Software Features Continued	
Safety **Characteristics**	User selectable management and password protection.
	IEEE802.1x authentication / centralised MAC Address authentication
	AAA & RADIUS authentication
	MAC Address learning restrictions
	Support for MAC Address black holes
	SSHv2 for secure password login
	SSL to ensure transmission security
	Port isolation
	Speed limiting of ARP messages
	IP source address protection
	ARP intrusion detection
	Protection against DoS attacks
	Port broadcast message suppression
	host data backup mechanism
	Support for binding capabilities of IP+MAC+VLAN+Ports
DHCP	DHCP Clients
	DHCP Snooping
	DHCP Server
	DHCP Relay
Management **&** **Maintenance**	Console / AUX modem / Telnet / SSH2.0 CLI Command line for configuration
	Secure Web based management (HTTPS)
	Support for FTP, TFTP, X-Modem, SFTP File download management
	SNMP V1 / V2c / V3
	One bond reduction
	NTP Clock
	System work log
	Ping detection
	Cable state detection
	CPU instant utilisation status view
	Link layer discovery protocol

Ordering Information	Description
R3-8P-24S-4X-G	Layer 3 Industrial Ethernet Switch, 4 x 10Gbps SFP Ports, 24 x 1Gbps SFP Ports, 8 x 10/100/1000Tx ports