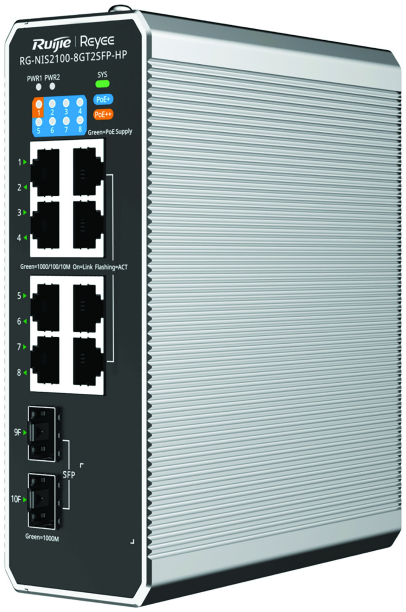
10 Port Gigabit Layer 2 Industrial Cloud-Managed PoE Network Switch (1x PoE++, 7x PoE+, 2x SFP), 228-300 W

RG-NIS21-8G2S-HP

Matchmaster
For the Best

The RG-NIS21-8G2S-HP is a 10-port Layer 2 cloud-managed industrial PoE switch engineered for demanding environments. It features eight Gigabit PoE ports—including one PoE++ port delivering up to 90 W—and two Gigabit SFP uplinks for flexible fibre connectivity. Built to operate from -40°C to +75°C, it features a rugged IP40 metal housing, 6 kV surge protection, and a fanless design to ensure dependable performance. ERPS rapid failover, 200-metre Extend Mode and Ruijie Cloud management help maintain stable, easily managed industrial and surveillance networks.



5-Year Manufacturer's Warranty
For full terms & conditions, please see – Ruijie Warranty T&Cs.

Features and Benefits

- Eight Gigabit PoE ports, including one PoE++ port delivering up to 90 W, power cameras, access points and other high-powered devices.
- Supports up to a maximum 300 W PoE budget, providing ample capacity for demanding industrial and surveillance installations. (228 W standard budget)
- Compatible with RG-NIS-PA120-48 and RG-NIS-PA240-48 power supply units, or 46-57 V direct DC input, providing flexible AC & DC power options to suit different PoE requirements
- Two Gigabit SFP uplinks enable flexible, long-distance fibre connections between network locations.
- Wide -40°C to +75°C operating range, IP40 metal housing and 6 kV surge protection ensure reliable operation in harsh environments.
- ERPS rapid failover, 200-metre Extend Mode and Ruijie Cloud management improve network continuity, connection flexibility and remote maintenance.

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Specifications

Hardware Specifications

Certification and Regulatory Compliance

EMC	IEC/EN 61000-4-2 IEC/EN 61000-4-3 IEC/EN 61000-4-4 IEC/EN 61000-4-5 IEC/EN 61000-4-6 IEC/EN 61000-4-8
Safety compliance	EN 62638-1
Certification	CE, FCC

Port Specifications

Total number of RJ45 ports	8
Total number of optical ports	2
Number of 1GE SFP ports	2
Number of 10/100/1000BASE-T ports	8
Ultra-long-haul transmission	Yes (ports 5–8)
Reset button	1
DIP switch	ERPS mode: Enable ERPS ring network Isolation mode: Upper port and lower port isolation Extend mode: The rate of Ports 5 to 8 is reduced to 10 Mbps, but the maximum transmission distance can be up to 200 meters (Cat5e cables required) Alarm mode: Turn on power in-position detection alarm

Environment and Reliability

Fan	Fanless design
Cooling	Natural cooling
Mounting options	DIN rail mount/Wall
Hot swapping of cables	Hot swapping supported by the service port and power connector
MTBF	200,000 hours
Operating temperature	-40°C to +75°C (-40°F to +167°F)

Environment and Reliability (continued)

Storage temperature	-40°C to +85°C (-40°F to +185°F)
Operating humidity	10% RH to 90% RH (non-condensing)
Storage humidity	5% RH to 95% RH (non-condensing)
Altitude	-500 m to +5,000 m (-1,640.42 ft. to +16,404.20 ft.)
Corrosion class	Salt Tolerance
ESD protection	Air discharge: 15 kV Contact discharge: 8 kV
Surge protection	Service port: ±6 kV for common mode Power connector: ±4 kV for common mode and ±2 kV for differential mode

Power Supply and Consumption

PoE Out standard	PoE/PoE+/PoE++ (IEEE 802.3af/at/bt)
Number of PoE Out ports	8
Number of PoE/PoE+ Out ports	8
Number of PoE/PoE+/PoE++ Out ports	1
PoE budget	Default: 228 W MAX: 300 W (web reserved adjustable interface)
PoE power pins	Port 1: 1–2 (-), 3–6 (+), 4–5 (+), 7–8 (-) Ports 2–8: 1–2 (+), 3–6 (-)

Power Supply and Consumption (continued)

Power input	DC input: • Rated voltage range: 46 V DC to 57 V DC • Rated current range: 7 A RG-NIS-PA240-48 (AC input): • Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz • Maximum input voltage: 90 V AC to 264 V AC, 47 Hz to 63 Hz • Rated input current: 3.5 A Output： • Rated output voltage: 54 V DC • Maximum output current: 4.4 A RG-NIS-PA120-48 (AC input): • Rated input voltage: 100 V AC to 240 V AC, 50/60 Hz • Maximum input voltage: 85 V AC to 264 V AC, 47 Hz to 63 Hz • Rated input current: 1.5 A Output： • Rated output voltage: 48 V DC • Maximum output current: 2.5 A
Maximum power consumption	12 W (with no PoE load) 312 W (with PoE full load)
Power supply	• DC power adapter • Power module

Product Information

Warranty	5 years

Dimensions and Weight

Casing	Metal
Product dimensions (W x D x H)	50 mm x 155 mm x 130 mm (1.97 in. x 6.10 in. x 5.12 in.)
Weight	0.79 kg (1.74 lbs) (without packaging materials) 1.10 kg (2.43 lbs) (with packaging materials)
Shipping weight	1.10 kg (2.43 lbs)

System Specifications

Flash memory	8 MB
Forwarding rate	14.8 Mpps
Switching capacity	20 Gbps(bit/s)

Software Specifications

Network Management and Monitoring

Mirroring	Yes
HTTP login	Yes
HTTPS login	No
SON	Yes
Syslog	No
Camera detection	Yes
eWeb management	Yes
Ruijie Cloud management	Yes
Ruijie Reyee App management	Yes
SNMPv1, v2c, and v3	No

Ethernet Switching

Maximum number of VLANs	16
Maximum number of MAC address entries	8000
Interface flow control	Yes
IEEE 802.1Q VLAN	Yes
VLAN configuration supported on LAN ports	Yes
LLDP	No
LLDP-MED	No
Static MAC address	Yes
Static aggregation	No
LACP	No
Inbound or outbound rate limiting based on interface traffic	Yes

Security

Port isolation	Yes
Broadcast storm control	Yes
Multicast storm control	Yes
Unknown unicast storm control	Yes
DHCP snooping	Yes
Standard ACL	No

Security (continued)

Extended MAC ACL	No
Extended IP ACL	No
IPv6 ACL	No
ARP anti-spoofing	No
CPU Protection Policy	Yes

Reliability

Load balancing	No
ERPS	Yes

Gateway Features

802.1p priority-based traffic classification	No
DSCP priority-based traffic classification	No

Multicast

IGMPv1 snooping	No
IGMPv2 snooping	No
Basic IGMPv3 snooping	No
Full IGMPv3 snooping	No
IGMP filtering	No
IGMPv1, v2, and v3	No

Basic Configurations

PoE watchdog	Yes
Uninterruptible power supply upon warm start	No
Online upgrade	Yes

Authentication

RADIUS	No
802.1X authentication	No

Interface

Jumbo frame length (MTU)	10000 bytes
EEE	Yes
Cable test	Yes

System Performance Capacity

Recommended camera limit	200W H265: 90 400W H265: 45

IP Service

ARP	No
IPv4 ping	No
IPv4 traceroute	No
ICMPv6	No
IPv6 ping	No
IPv6 traceroute	No
DNS client	Yes
DHCP client	Yes

Package Contents

Device

Device	1

Accessories

Screw	4 X M3 x 5 mm cross recessed countersunk head screws
Rack-mount bracket	2

Manual

User Manual	1
Warranty Card	1