Ruijie | Reyee

RG-NIS3100 Series

True Industrial-Grade Specilized for Harsh Environments

DATASHEET Explore More

Highlights

- Three Different Models Meet Various Business Scenario Needs
- Unique Industrial Design Ensures Stable Operation in -40℃ to 80℃
- 8 kV Protection: The Shield Against Voltage Spike
- IP40 Against 1mm Intruders in Dusty Conditions
- ERPS Plug-and-Play, without Complicated Configuration
- Local Network SON, Easy Configuration even without Cloud
- Ruijie Cloud : Easy Management even in Harsh Environments

Highlight Features

RG-NIS3100 Series Industrial Switch

True Industrial-Grade Specilized for Harsh Environments

Three Different Models Meet Various Business Scenario Needs

12-56V DC Power Supply

STP/ RSTP/ SNMP/ ERPS[1]

8kV ESD Protection

-40°C to +80°C Operating Temperature[2]

1 Release in November 2023
2 Installed in a fume hood with a blower, velocity no less than 400 LFM

RG-NIS3100-4GT2SFP-HP	RG-NIS3100-8GT2SFP-HP	RG-NIS3100-8GT4SFP-HP
4 PoE+ 2SFP	8 PoE+ 2SFP	8 PoE+ 4SFP

Highlight Features

Highlight Features

Enhanced Gold Plating Ports

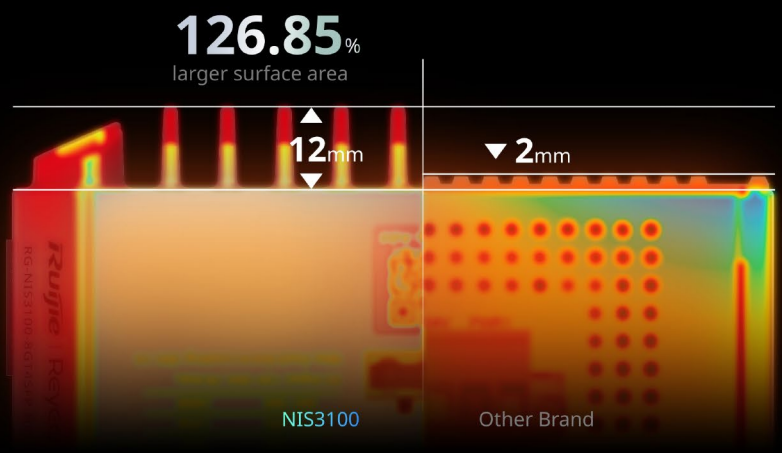
Gold plating thickness on ports from 3 -um to 15 -um against salt spray corrosion.

Specialized Outdoor Powder Coating

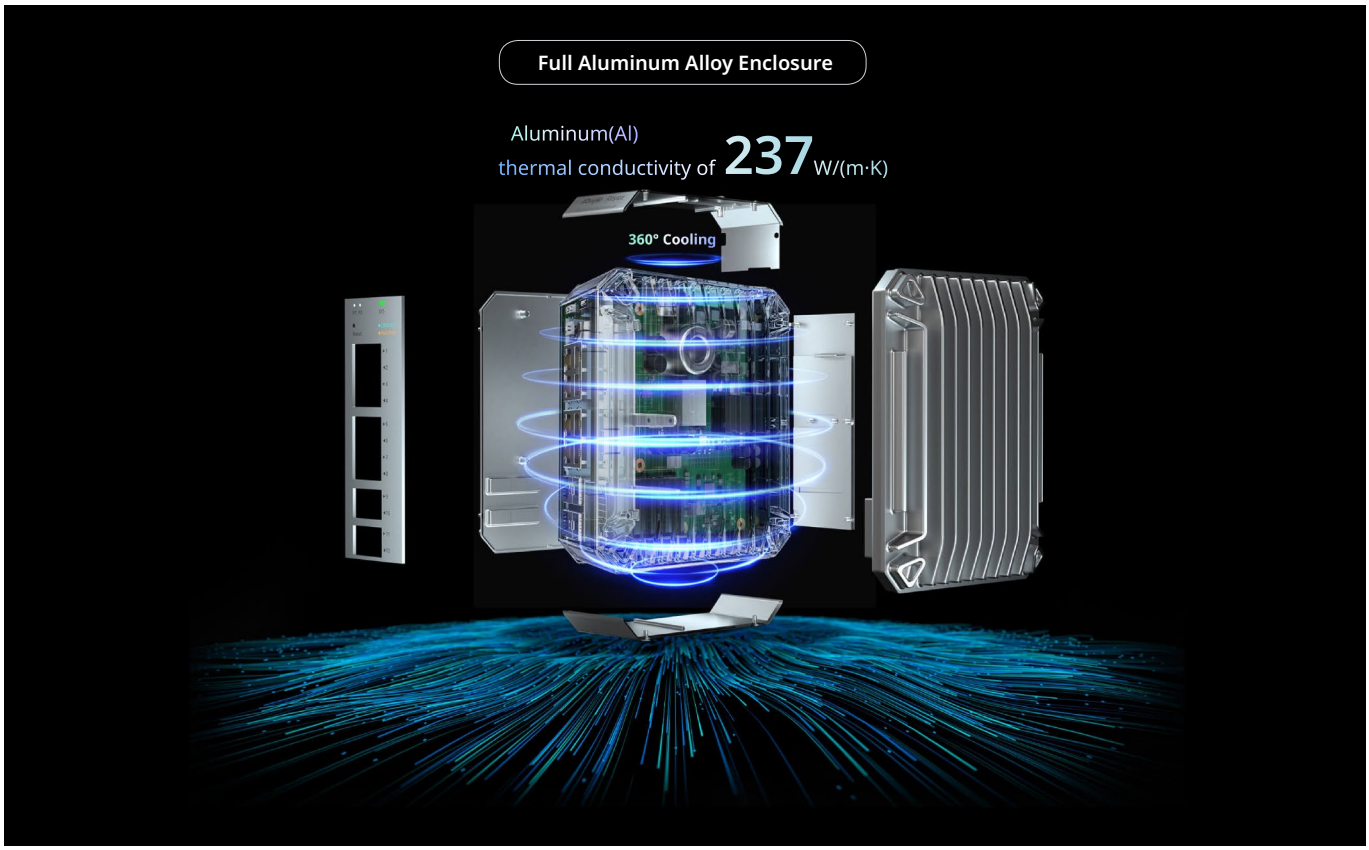
Preventing equipment surface damage from salt spray erosion.

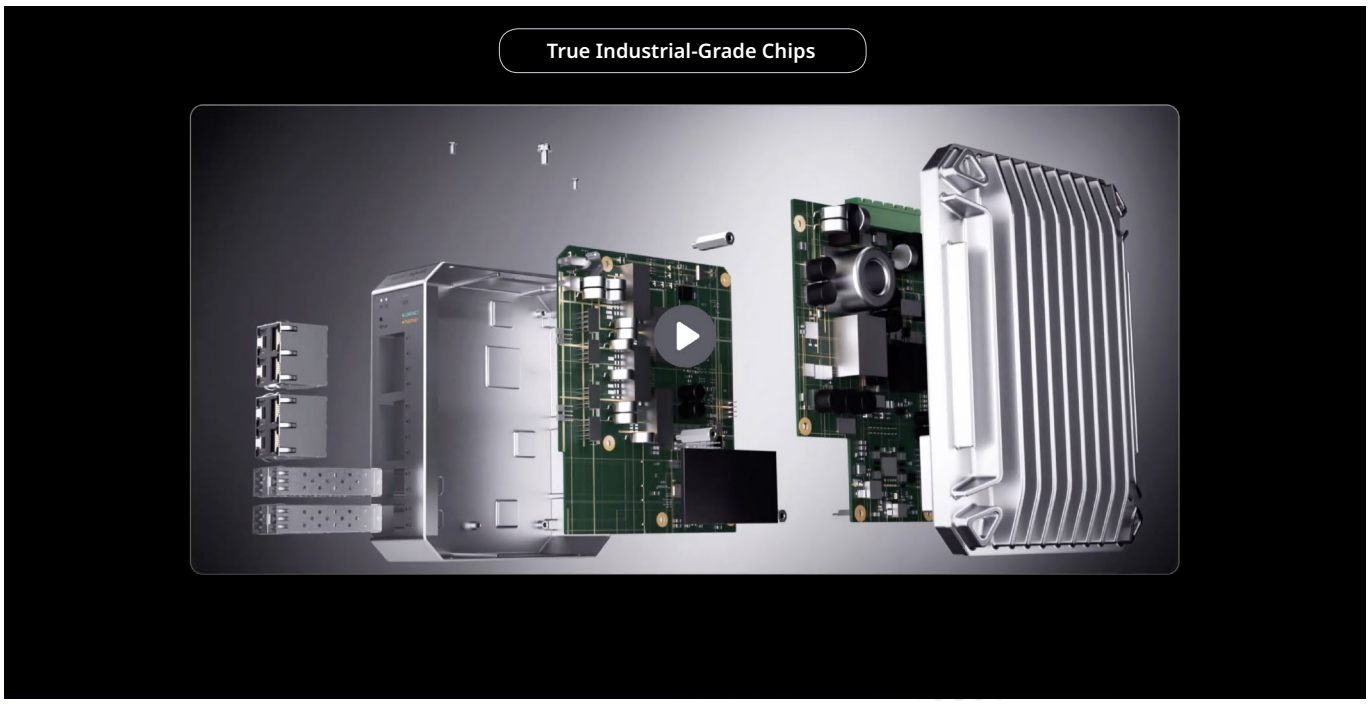
Unique Industrial Design Ensures Stable Operation in -40°C to 80°C

Double Heat Dissipation Surface



Highlight Features





Highlight Features

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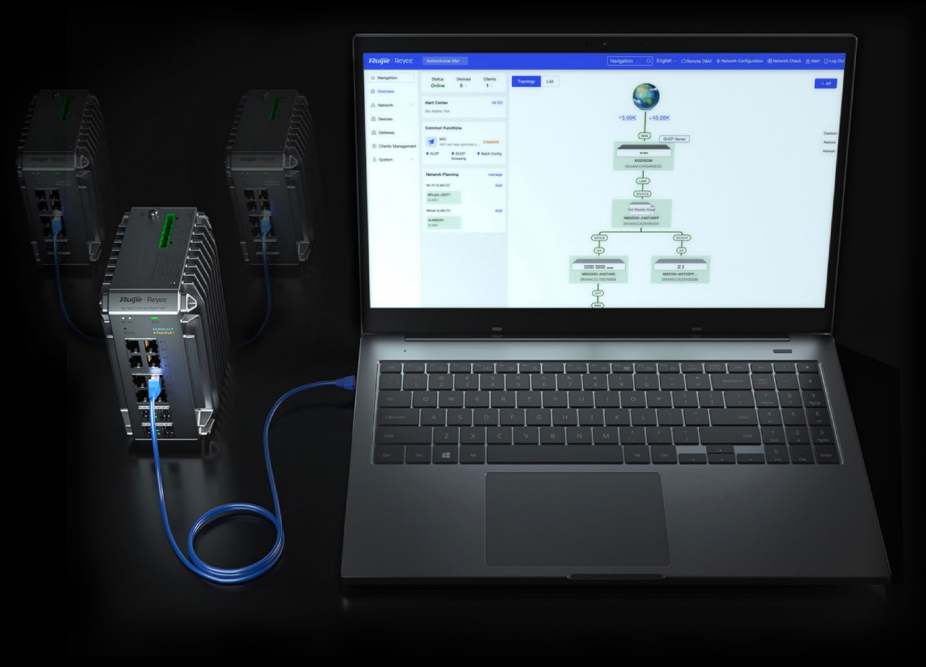
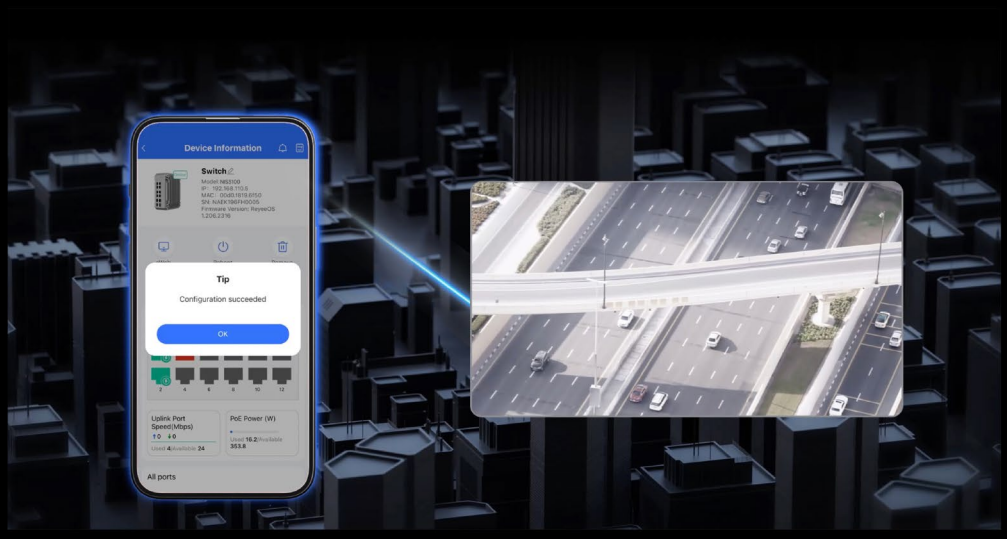
LAN Self-Organizing Network

Skip individual configurations, simplify setup



Ruijie Cloud: Distance No Barrier

Easily manage devices remotely anytime, anywhere



Specifications

Specification	RG-NIS3100-8GT4SFP-HP	RG-NIS3100-8GT2SFP-HP	RG-NIS3100-4GT2SFP-HP
Basic			
Total Number of RJ45 Ports	8	8	4
Total Number of Optical Ports	4	2	2
Number of 1 Gbps Optical Ports (SFP)	4	2	2
Number of 10/100/1000BASE-T Ports	8	8	4
Number of PoE/PoE+ Ports	8	8	4
Max. PoE Power Budget	240W	240W	120W
PoE Power Pins	1/2(+),3/6(-)	1/2(+),3/6(-)	1/2(+),3/6(-)
Layer	L2	L2	L2
Switching Capacity	24Gbps	20Gbps	12Gbps
Forwarding Rate	17.857Mpps	14.88Mpps	8.928Mpps
Buffer Size	4.1 Mbit	4.1 Mbits	4.1 Mbits
ARP Table Size	1000	1000	1000
Flash Memory	16MB	16MB	16MB
SDRAM	256MB	256MB	256MB
MAC Address Table Size	8000	8000	8000
Max. Number of VLANs	4094	4094	4094
Dimensions (W x D x H)	85mm*132mm*165mm	85mm*132mm*165mm	85mm*132mm*165mm
Net Weight	1.47kg	1.42kg	1.39kg
Mean Time Between Failure (MTBF)	200000H	200000H	200000H
Safety Compliance	IEC 62368-1	IEC 62368-1	IEC 62368-1
Warranty	5	5	5
Layer2 features			
Jumbo Frame Length (MTU)	9216 Bytes(Global MTU)	9216 Bytes(Global MTU)	9216 Bytes(Global MTU)
Flow Control	Yes	Yes	Yes
Port Isolation / Protected Port	Yes	Yes	Yes
STP (IEEE 802.1D)	Yes	Yes	Yes
RSTP (IEEE 802.1w)	Yes	Yes	Yes

Specification	RG-NIS3100-8GT4SFP-HP	RG-NIS3100-8GT2SFP-HP	RG-NIS3100-4GT2SFP-HP
MSTP (IEEE 802.1s)	No	No	No
PortFast	Yes	Yes	Yes
BPDU Guard	Yes	Yes	Yes
Auto Errdisable Recovery	Yes	Yes	Yes
Link Aggregation	Yes	Yes	Yes
Max. Number of LAGs	8	8	8
Max. Members per LAG	8	8	8
Unknown Unicast Storm Control	Yes	Yes	Yes
Broadcast Storm Control	Yes	Yes	Yes
Multicast Storm Control	Yes	Yes	Yes
SPAN	Yes	Yes	Yes
RSPAN	No	No	No
ERSPAN	No	No	No
VLAN Range	1-4094	1-4094	1-4094
Port-based VLAN	Yes	Yes	Yes
MAC-based VLAN	No	No	No
IP-based VLAN	No	No	No
Voice VLAN	Yes	Yes	Yes
RLDP	Yes	Yes	Yes
LLDP	Yes	Yes	Yes
LLDP-MED	Yes	Yes	Yes
LLDP-PoE	No	No	No
Cable Test	Yes	Yes	Yes
IGMP Snooping v1	Yes	Yes	Yes
IGMP Snooping v2	Yes	Yes	Yes
IGMP Snooping v3(Basic)	Yes	Yes	Yes
IPv4 Ping	Yes	Yes	Yes
IPv6 Ping	Yes	Yes	Yes
Traceroute	Yes	Yes	Yes
IP Standard ACL	Yes	Yes	Yes
MAC Extended ACL	Yes	Yes	Yes

Specification	RG-NIS3100-8GT4SFP-HP	RG-NIS3100-8GT2SFP-HP	RG-NIS3100-4GT2SFP-HP
IP Extended ACL	Yes	Yes	Yes
Port-Level Rate Limiting (Ingress/Egress)	Yes	Yes	Yes
DNS Client	Yes	Yes	Yes
SNMP v1	Yes	Yes	Yes
SNMP v2c	Yes	Yes	Yes
SNMP v3	Yes	Yes	Yes
Web Management	Yes	Yes	Yes
HTTP	Yes	Yes	Yes
HTTPS	Yes	Yes	Yes
Ruijie Cloud Management	Yes	Yes	Yes
Ruijie Reyee App Management	Yes	Yes	Yes
IP-based Self-Organizing Network (SON)	Yes	Yes	Yes
Camera Detection	Yes	Yes	Yes
Loop Prevention	Yes	Yes	Yes
Loop Notification	Yes	Yes	Yes
PoE Power Usage Alarm	Yes	Yes	Yes
IP Source Guard	Yes	Yes	Yes
Anti-ARP Spoofing	Yes	Yes	Yes
DHCP Snooping	Yes	Yes	Yes
DHCP Client	Yes	Yes	Yes
AAA(Authentication,Authorization,Accounting)	No	No	No
IEEE 802.1X Authentication	Yes	Yes	Yes
PoE Watchdog	Yes	Yes	Yes
Digital Diagnostic Monitoring (DDM)	Yes	Yes	Yes
Number of ACEs	In-1200 Out-0	In-1200 Out-0	In-1200 Out-0
G.8032 (ERPS)	Yes	Yes	Yes
RADIUS	Yes	Yes	Yes
TACACS+	No	No	No

Specification	RG-NIS3100-8GT4SFP-HP	RG-NIS3100-8GT2SFP-HP	RG-NIS3100-4GT2SFP-HP
CPU Protection Policy (CPP)	Yes	Yes	Yes
MQTT	Yes	Yes	Yes
QoS	Yes	Yes	Yes
SON Priority	2560	2560	2560
Web Authentication	Yes	Yes	Yes
Layer 3 features			
Static Routing	No	No	No
DHCP Server	No	No	No
Hardware Specifications			
Reset Button	Yes	Yes	Yes
Cable Hot-Swappable	Yes	Yes	Yes
Power Supply	Rated voltage range: 12-56V⎓ Rated current:7A	Rated voltage range: 12-56V⎓ Rated current:7A	Rated voltage range: 12-56V⎓ Rated current:7A
Power Consumption	No PoE load:20W Full PoE load： 80W（Input：12V-20V） 140W（Input：21V-45V） 260W（Input：46V-56V）	No PoE load:20W Full PoE load： 80W（Input：12V-20V） 140W（Input：21V-45V） 260W（Input：46V-56V）	No PoE load:12W Full PoE load： 72W（Input：12V-20V） 132W（Input：21V-56V）
EEE	Yes	Yes	Yes
Port Surge Protection	Common Mode 6KV	Common Mode 6KV	Common Mode 6KV
Power Supply Surge Protection	Common Mode 4KV Differential mode 2KV	Common Mode 4KV Differential mode 2KV	Common Mode 4KV Differential mode 2KV
Acoustic Noise Level	<30dB (when the device works normally)	<30dB (when the device works normally)	<30dB (when the device works normally)
Operating Temperature	-40°C to +65°C (installed in a sealed cabinet) -40°C to +70°C (installed in a fume hood with a ventilation speed of at least 80LFM (Line Feet Minute)) -40°C to +75°C (installed in a fume hood with a ventilation speed of at least 200LFM (Line Feet Minute)) -40°C to +80°C (installed in a	-40°C to +65°C (installed in a sealed cabinet) -40°C to +70°C (installed in a fume hood with a ventilation speed of at least 80LFM (Line Feet Minute)) -40°C to +75°C (installed in a fume hood with a ventilation speed of at least 200LFM (Line Feet Minute)) -40°C to +80°C (installed in a	-40°C to +65°C (installed in a sealed cabinet) -40°C to +70°C (installed in a fume hood with a ventilation speed of at least 80LFM (Line Feet Minute)) -40°C to +75°C (installed in a fume hood with a ventilation speed of at least 200LFM (Line Feet Minute)) -40°C to +80°C (installed in a

Specification	RG-NIS3100-8GT4SFP-HP	RG-NIS3100-8GT2SFP-HP	RG-NIS3100-4GT2SFP-HP
	fume hood with a ventilation speed of at least 400LFM (Line Feet Minute))	fume hood with a ventilation speed of at least 400LFM (Line Feet Minute))	fume hood with a ventilation speed of at least 400LFM (Line Feet Minute))
Storage Temperature	-40~75℃	-40~75℃	-40~75℃
Operating Humidity	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)
Storage Humidity	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)	5% to 95% RH(non-condensing)
Electrostatic Discharge (ESD) Protection	Air Discharge: 8KV Contact Discharge: 6KV	Air Discharge: 8KV Contact Discharge: 6KV	Air Discharge: 8KV Contact Discharge: 6KV
Casing	Metal	Metal	Metal
Corrosion Protection	Salt Tolerance	Salt Tolerance	Salt Tolerance
Mounting	DIN-rail Mounting and Wall-mount	DIN-rail Mounting and Wall-mount	DIN-rail Mounting and Wall-mount
Terminal Block	pin 12&56:Power1 and Power2 input pin 34:Alarm	pin 12&56:Power1 and Power2 input pin 34:Alarm	pin 12&56:Power1 and Power2 input pin 34:Alarm
LEDs	System: Power 1(Green) Power 2(Green) SYS(Green) Per RJ45 PoE+ Ports: PoE-in-Use(Orange) LINK/ACT(Green) Per SFP Interface: LINK/ACT(Green)	System: Power 1(Green) Power 2(Green) SYS(Green) Per RJ45 PoE+ Ports: PoE-in-Use(Orange) LINK/ACT(Green) Per SFP Interface: LINK/ACT(Green)	System: Power 1(Green) Power 2(Green) SYS(Green) Per RJ45 PoE+ Ports: PoE-in-Use(Orange) LINK/ACT(Green) Per SFP Interface: LINK/ACT(Green)
Operating Altitude (m)	-500~5000M	-500~5000M	-500~5000M
Certification	CE;FCC	CE;FCC	CE;FCC
EMC	EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)	EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)	EN 55032:2015+AC:2016 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 55035:2017 ETSI EN 300 386 V2.1.1 (2016-07)

Redefine your easy network

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