

NAT-G102 Series

2 1GbE-port industrial Network Address Translation (NAT) devices



Features and Benefits

- User-friendly NAT functionality simplifies network integration
- Hands-free network access control through automatic whitelisting of locally connected devices
- Ultra-compact size and robust industrial design suitable for cabinet installation
- Integrated security features to ensure device and network safety
- Supports Secure Boot for checking system integrity
- -40 to 75°C operating temperature range (-T model)

Certifications



Introduction

The NAT-G102 Series is an industrial Gigabit NAT device designed to simplify the IP configuration of machines in existing network infrastructure in factory automation environments. The NAT-G102 Series provides complete NAT functionality to help machines adapt to specific network scenarios without complicated, costly, and time-consuming configurations. Featuring Gigabit Ethernet connectivity, the NAT-G102 Series enables higher data throughput for modern industrial applications while also protecting the internal network from unauthorized access by outside hosts.

Quick and User-friendly Access Control

The NAT-G102 Series' Auto Learning Lock feature automatically learns the IP and MAC address of locally connected devices and binds them to the access list. This feature not only helps you manage access control but also makes device replacements much more efficient.

Industrial-grade and Ultra-compact Design

The NAT-G102 Series' rugged hardware makes these NAT devices ideal for deployment in harsh industrial environments, featuring wide-temperature models that are built to operate reliably in hazardous conditions and extreme temperatures of -40 up to 75°C. Moreover, the ultra-compact size allows the NAT-G102 Series to be easily installed into cabinets.

Specifications

Input/Output Interface

Buttons	Reset button
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Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	2
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X)

Ethernet Software Features

Management	Web Console (HTTP/HTTPS) LLDP Telnet TFTP HTTPS SSH
Security	Secure Boot Trust access control

Time Management	NTP Server/Client SNTP
Unicast Routing	Static Route
Routing	Throughput: Max. 80K packets per second / 1000 Mbps (based on RFC 2544)
Routing Table	Max. 32 routing rules
Concurrent Connections	Max. 120K (based on RFC 3511)
Connections Per Second	Max. 6K (based on RFC 3511)

LED Interface

LED Indicators	POWER, STATE, LEARNING, LOCKDOWN
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Firewall

Filter	IP address MAC address Ports
Port-based Auto Learning Lock	MAC address IP address
Throughput	Max. 80K packets per second / 1000 Mbps (based on RFC 2544)

NAT

Features	1-to-1 N-to-1 Port forwarding NAT loopback
Throughput	Max. 80K packets per second / 1000 Mbps (based on RFC 2544)

Real-Time Firewall / VPN Event Log

Event Type	Policy enforcement
Media	Local storage Syslog server

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 3-pin (115200, n, 8, 1)
Connector	USB Type-C

Power Parameters

Connection	Removable terminal block
Operating Voltage	9.6 to 60 VDC
Input Voltage	12/24/48 VDC
Input Current	0.34 A @ 12 VDC 0.17 A @ 24 VDC 0.09 A @ 48 VDC
Reverse Polarity Protection	Supported

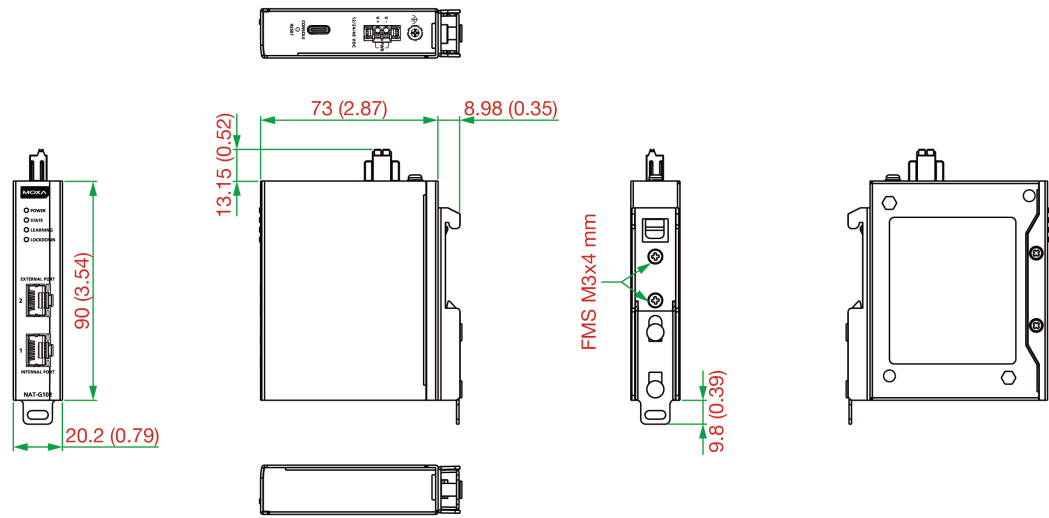
Physical Characteristics

Housing	Metal
Dimensions	20 x 90 x 73 mm (0.79 x 3.54 x 2.87 in)

Weight	240 g (0.53 lb)
Installation	DIN-rail mounting Wall mounting (with optional kit)
Environmental Limits	
Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
Safety	UL 62368-1 BSMI
EMC	EN 55032/35 EN 61000-6-2/-6-4 BSMI KC
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Package Vibration Test	ISTA 1A
Package Drop Test	ISTA 1A
MTBF	
Time	5,784,299 hrs
Standards	Telcordia (Bellcore), GB
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/warranty
Package Contents	
Device	1 x NAT-G102 Series NAT device
Cable	1 x DB9 female to USB Type-C
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	10/100/1000BaseT(X) Ports (RJ45 Connector)	NAT	Operating Temp.
NAT-G102	2	✓	-10 to 60°C
NAT-G102-T	2	✓	-40 to 75°C

Accessories (sold separately)

Wall-Mounting Kits

WK-20-02	Wall-mounting kit, 3 screws, 20 x 140 x 2 mm
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