

RNAS-1200 Series

Network-attached storage with 2 M12 Gigabit PoE+ LAN ports and -40 to 70°C temperature tolerance



- > Onboard Marvell 1.0 GHz processor
- > Built-in 512 MB DDRII memory
- > 2 Gigabit Ethernet ports for network redundancy
- > 2 100 GB disks pre-installed (RNAS-1211-T model only)
- > Compliant with EN 50121-4 and essential sections of EN 50155
- > IEC 61373 certified for shock and vibration resistance
- > JBOD, BIG, RAID 0, and RAID 1 functions available
- > IHS (Intelligent Heating Solution) technology for reliable operation
- > Data XPro for data protection in harsh environments
- > Fast synchronization in RAID 1



Overview

Moxa's RNAS-1200 Series are network-attached storage (NAS) units designed to provide high performance, high reliability and high capacity data storage in harsh industrial environments.

The RNAS-1200 Series is built with a fanless, thermally efficient, dust- and water-protected IP 54-rated chassis. This sealed enclosure eliminates internal fans as a point of critical system failure, protecting the internals from dust and splashed water. These devices are further compliant with the essential sections of EN 50155 covering operating temperature, power input voltage, power surges, ESD, and vibration, ensuring the RNAS-1200 devices will operate reliably under the temperature and vibration extremes common to rolling stock.

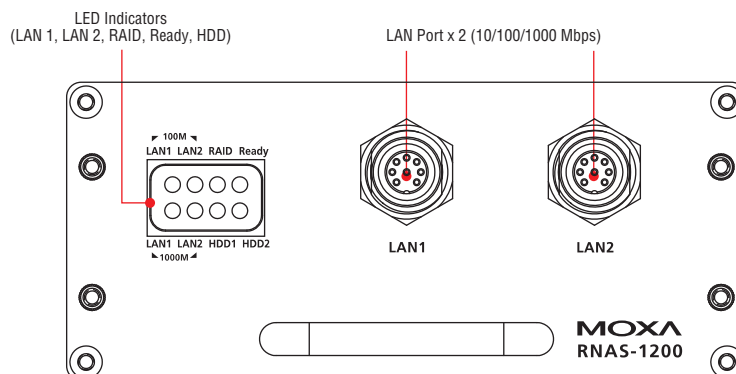
RNAS-1200 devices also come with Moxa's Intelligent Heating Solution™ (IHS) and Data XPro™ technologies. IHS automatically

heats the system to ensure reliable operation even in extremely low temperatures, while the Data XPro™ utility provides intelligent data and drive protections against extremes of heat and vibration. In addition, the series' remarkably fast array synchronizations at last make the full data and hardware redundancies of RAID 1 a feasible alternative for industrial applications, while the two Gigabit PoE+ network interfaces provide not only network redundancy, but also a highly efficient, fully redundant power supply over the same set of wires, as well.

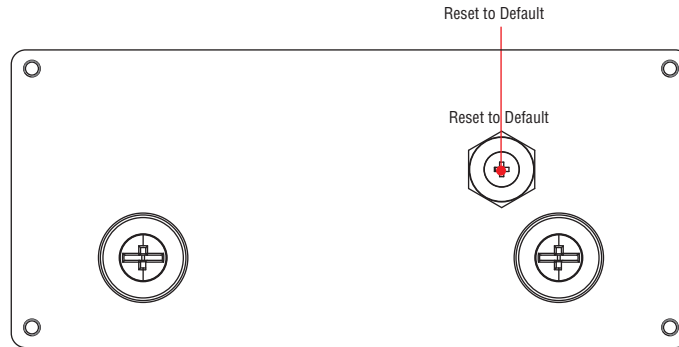
The RNAS-1200 Series combines simple configuration and multiple data and hardware redundancies in a compact, durable, fanless chassis ideal for industrial environments where temperature and vibration are a concern. Whether for video surveillance of rolling stock or remote site storage of data and monitoring, the RNAS-1200 Series of rugged NAS is your best choice for industrial-strength data storage.

Appearance

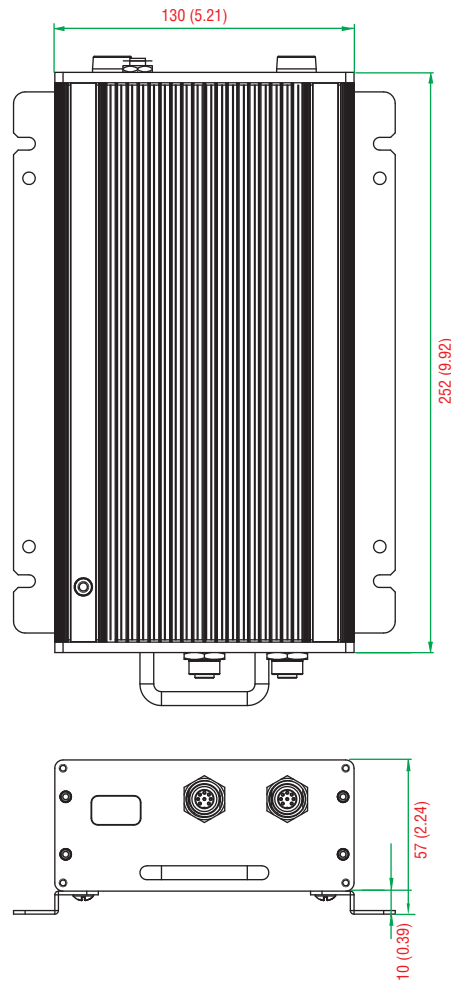
Front View



Rear View



Dimensions



Unit: mm (inch)

Hardware Specifications

Computer

CPU: Onboard Marvell 1.0 Ghz 88F6281

DRAM: 512 MB DDRII

Flash Memory: Onboard 2 GB USB DOM to store OS

Storage

RNAS-1201-T: 2.5-inch HDD bay x 2, reserved for storage expansion

RNAS-1211-T: 100 GB HDD x 2 pre-installed

Ethernet Interface

LAN: 2 auto-sensing 10/100/1000 Mbps ports (M12)

IHS Control

IHS Function Control: Temperature reading, power output control

LEDs

System: RAID, Ready, HDD1, HDD2

LAN: 100M/Link x 2, 1000M/Link x 2

Physical Characteristics

Housing: Aluminum

Weight: 1.98 kg (RNAS-1201-T)/2 kg (RNAS-1211-T)

Dimensions: 252 x 130 x 57 mm (9.92 x 5.12 x 2.24 in)

Mounting: wall

IP Rating: IP 54

Environmental Limits

Operating Temperature: -40 to 70°C (-40 to 158°F)
Storage Temperature: -40 to 85°C (-40 to 176°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)
Anti-vibration: EN 50155 standard
Anti-shock: EN 50155 standard
Conformal Coating: Available on request

Power Requirements

Input: PoE+ (IEEE 802.3at)
Power Consumption: 25.5 W

Standards and Certifications

Safety: UL 60950-1
EMC: EN 55022 Class A, EN 61000-3-2, EN 61000-3-3, EN 55024
Rail Traffic: EN 50155, EN 50121-3-2, EN 50121-4, IEC 61373
Green Product: RoHS, CRoHS, WEEE
EMI: FCC Part 15 Subpart B Class A, CISPR 22:2008

Warranty

Warranty Period: 5 years (storage drive not included)
Details: See www.moxa.com/warranty

Note: These hardware specifications describe the embedded computer unit itself, but not its official accessories. In particular, the wide temperature specification does not apply to accessories such as power adaptors and cables.

Software Specifications

Operating System

System Platform: Linux 2.6 pre-installed

Network

IP Settings: Fixed IP, DHCP
Redundancy: Port trunking/NIC teaming

System Management

Firmware Upgrade: Can be run via web interface
System Bootup: Can be observed by LED indicators for system status
HDD Failure Status: Can be observed by LED indicators

Disk Management

JBOD: Two hard disks can work independently
Spanning Big: Two hard disks can be merged as spanning big mode
RAID 0: Two hard disks can be merged and work in RAID 0 mode
RAID 1: Two hard disks can be merged and work in RAID 1 mode
HDD Recovery: Support automatic or manual data recovery when new hard disk has been inserted

Data Protection

Vibration Protection: Storage buffer available for strong vibration status

Temperature Protection: Storage buffer available for low/high temperature environment

Fast Sync.: Fast synchronization in RAID 1 mode

SNMP Management

System: Standard MIB-II (RFC 1213), plus additional Moxa features that include: NTP, time zone, and time display management; channel bonding and IP configuration; management of SSH, FTP, and DNS; and configuration of SNMP agents and traps.

Ordering Information

Available Models

RNAS-1201-T: Network-attached storage with 2 M12 PoE+ Gigabit LAN ports and -40 to 70°C temperature tolerance (operating)

RNAS-1211-T: Network-attached storage with 2 M12 PoE+ Gigabit LAN ports, 2 pre-installed 100 GB hard disks, and -40 to 70°C temperature tolerance (operating)

Note: Conformal Coating is available on request.

Optional Accessories (can be purchased separately)

RNAS Rack-Mount Kit: Rack tray, screws, 2 rails, and 2 tracks

RNAS Rail Package: 2 extra rails for the RNAS-1200

M12 Connectors (can be purchased separately)

M12A-8PMM-IP68: Field-installation A-coded screw-in 8-pin male M12 Gigabit Ethernet IP68 connector

M12 Cables (can be purchased separately)

CBL-M12MM8PRJ45-BK-100-IP67: 1-meter, A-coded, IP67-rated M12-to-RJ45 Cat-5E UTP Gigabit Ethernet cable; 8-pin male M12 connector

Package Checklist

- 1 RNAS-1200 storage appliance
- Wall mounting kit
- Documentation and software CD or DVD
- Quick installation guide (printed)
- Warranty card