

CoreIPC

NANO100

Fanless Industrial PC Datasheet

2 x LAN | 2 x COM | Multi-Platform

Document	Datasheet
Model	NANO100
Issue	1.0
Product Type	Fanless Industrial PC
Website	www.CoreIPC.com

This datasheet is prepared based on NANO100 User Manual Issue 1.0.

1. Product Overview

The NANO100 is a compact fully enclosed CoreIPC fanless industrial PC designed for stable, continuous operation in industrial and embedded applications. It combines passive chassis cooling, dual Realtek Gigabit Ethernet, dual DB9 COM ports with jumper-selectable RS485 support, six USB ports, HDMI and VGA display outputs, optional Wi-Fi / Bluetooth and 4G / GPS connectivity, and multiple Intel® processor platforms in a compact 127 x 136 x 40 mm chassis.

2. Key Features

- Fully enclosed fanless passive cooling chassis with no moving fan.
- Supports Intel® Celeron® N2840, J1900, and J4125 processor configurations.
- Memory options: 4 GB / 8 GB / 16 GB; storage options: 64 GB / 128 GB / 256 GB / 512 GB.
- 2 x Realtek Gigabit Ethernet ports; single-LAN configuration optional.
- 6 x USB ports: 4 x USB 3.0 + 2 x USB 2.0.
- 2 x DB9 COM ports; jumper-selectable RS485 support.
- Optional Wi-Fi / Bluetooth and 4G / GPS wireless expansion.
- Standard 12 V DC input; standard AC-DC adapter: 12 V / 3 A, 36 W.
- Power button startup by default; power-on after AC recovery can be configured.
- 127 x 136 x 40 mm chassis; operating environment -20°C to 50°C; 5%-95% RH, non-condensing.

3. Technical Specifications

Category	Specification
Processor Options	Intel® Celeron® N2840 (2 cores, 2.16 GHz) / J1900 (4 cores, 2.00 GHz) / J4125 (4 cores, 2.00 GHz).
Memory Options	4 GB / 8 GB / 16 GB.
Storage Options	64 GB / 128 GB / 256 GB / 512 GB.
Graphics / Display	1 x HDMI + 1 x VGA.
Ethernet	2 x Realtek Gigabit Ethernet; single-LAN option available.
USB	6 x USB total: 4 x USB 3.0 + 2 x USB 2.0.
Serial Ports	2 x DB9 COM ports; jumper-selectable RS485 support.
Audio	1 x audio interface.
Wireless Options	Optional Wi-Fi / Bluetooth; optional 4G; 4G / GPS also available.
Operating System	Windows / Linux.
Power Input	12 V DC, 5.5 mm outer diameter / 2.5 mm inner diameter.
Power Adapter	Standard AC-DC 12 V / 3 A, 36 W.
Power-on Mode	Power button by default; power-on after AC recovery configurable.
Cooling	Fully enclosed fanless passive chassis cooling.
Operating Environment	-20°C to 50°C; 5%-95% RH, non-condensing.
Storage Temperature	-30°C to 70°C in the system configuration table.
Dimensions	127 x 136 x 40 mm.

4. I/O Interface Summary

4.1 Front I/O

Interface	Description
LAN	2 x Realtek Gigabit Ethernet.
USB	2 x USB ports.
Display	1 x HDMI + 1 x VGA.
Power	1 x 12 V DC input.
Network Option	Single-LAN configuration available.

4.2 Rear I/O

Interface / Control	Description
USB	4 x USB ports.
Serial	2 x DB9 COM ports.
Audio	1 x audio interface.
Power Button	1 x power button.
Serial Option	COM ports support jumper-selectable RS485.

5. Processor and Platform Options

NANO100 supports three internal platform options listed in the source manual: NUC19D-N22-N2840, NUC19D-N22-J1900, and NUC42D-N22-J4125. Final platform-dependent functions should be confirmed before ordering.

Platform Model	Processor / Notes
NUC19D-N22-N2840	Intel® Celeron® N2840, 2 cores, 2.16 GHz.
NUC19D-N22-J1900	Intel® Celeron® J1900, 4 cores, 2.00 GHz.
NUC42D-N22-J4125	Intel® Celeron® J4125, 4 cores, 2.00 GHz.
Memory	4 GB / 8 GB / 16 GB.
Storage	64 GB / 128 GB / 256 GB / 512 GB.
Configuration Note	Platform-dependent functions may vary; confirm the final motherboard and I/O configuration before ordering.

6. COM Port Configuration

Port / Mode	Description
COM1	DB9 serial port; RS232 pin definition provided in source manual.
COM2	DB9 serial port; RS232 pin definition provided in source manual.
RS485	COM1/COM2 support RS485 through jumper switching.
RS232 Pins	1-DCD, 2-RXD, 3-TXD, 4-DTR, 5-GND, 6-DSR, 7-RTS, 8-CTS, 9-RI.
RS485 Pins	Pin 1: TXD-RS485_A; Pin 2: RXD_RS485-B; remaining listed pins follow the source table.

7. Power, Cooling and Reliability Functions

Item	Description
Main Power	12 V DC input.
DC Jack	5.5 mm outer diameter / 2.5 mm inner diameter.
Power Adapter	Standard 12 V / 3 A, 36 W AC-DC adapter.
Power-on Mode	Power button by default; power-on after AC recovery configurable.
Cooling	Fully enclosed fanless passive chassis cooling.
Chassis	Compact metal enclosure; no moving fan.

8. Mechanical and Environmental Information

Item	Description
Dimensions	127 x 136 x 40 mm.
Operating Temperature	-20°C to 50°C.
Storage Temperature	-30°C to 70°C in the system configuration table.
Operating Humidity	5%-95% RH, non-condensing.
Standard Items	Chassis, packaging materials, Wi-Fi antenna-hole plugs, screws, thermal pads.
Optional Items	Storage drive bracket, Wi-Fi / 4G module, SSD, memory.

9. Ordering Information

Item	Available Options
Processor	N2840 / J1900 / J4125.
Memory	4 GB / 8 GB / 16 GB.
Storage	64 GB / 128 GB / 256 GB / 512 GB.
Wireless	Wi-Fi / Bluetooth / 4G / GPS options.
Network	Dual Realtek Gigabit Ethernet; single-LAN option.
Package Contents	1 x chassis/system, 1 x power adapter, 1 x power cord, 1 x screw pack.

10. Compliance and Documentation Notes

- Certification and compliance information is not specified in the source manual. Contact CoreIPC for project-specific certification or compliance documentation.
- The system configuration table specifies a storage temperature of -30°C to 70°C, while the safety section states that the device should not be stored below -20°C or above 70°C. This datasheet uses the system configuration value in the main table and flags the difference for confirmation.
- The source manual states that COM1/COM2 support RS485 through jumper switching and provides both RS232 and RS485 pin definitions. The exact serial mode should be confirmed for the selected production configuration.

11. Contact Information

Company	CoreIPC
Sales Team	CoreIPC Sales Team
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Disclaimer: This datasheet was compiled from NANO100 User Manual Issue 1.0. Product configuration, internal motherboard platform, interface functions and optional modules may vary by selected processor and production configuration. Please confirm the final configuration before order placement. All product names, trademarks and registered trademarks are the property of their respective owners.