

CoreIPC

NANO300

Fanless Industrial PC Datasheet

2 x LAN | 4 x COM | GPIO Expansion

Document	Datasheet
Model	NANO300
Issue	1.0
Product Type	Fanless Industrial PC
Website	www.CoreIPC.com

This datasheet is prepared based on NANO300 User Manual Issue 1.0 (2-LAN / 4-COM configuration).

1. Product Overview

The NANO300 is a CoreIPC fanless industrial PC designed for stable continuous operation in industrial and embedded applications. This configuration combines dual Gigabit Ethernet, four DB9 COM ports, six USB ports, HDMI and VGA display outputs, optional DB15 SIO/GPIO expansion, optional Wi-Fi / Bluetooth and 4G / GPS connectivity, optional 9-36 V wide-voltage input, and a broad range of Intel® processor platforms.

2. Key Features

- Fanless passive cooling chassis with wall-mount support.
- Broad Intel® platform coverage from Celeron® / N-series processors to selected 4th-13th Gen Core™ U/P-series processors and Core™ i5-12450H.
- Memory options up to 64 GB depending on platform; storage options: 64 GB / 128 GB / 256 GB / 512 GB.
- 2 x Gigabit Ethernet ports.
- 6 x USB ports: 4 x USB 3.0 + 2 x USB 2.0.
- 4 x DB9 COM ports in this configuration; COM1/COM2 also support the RS485 definition provided in the source manual.
- Optional DB15 SIO expansion with 8 GPIO channels plus front-panel switch / power-LED signals.
- Standard 12 V DC input; source lists 12 V / 5 A, 60 W and 19 V / 6.3 A, 120 W adapter options; optional 9-36 V wide-voltage input module.
- Optional Wi-Fi / Bluetooth and 4G / GPS expansion; AC-recovery power-on and external front-panel switch supported.
- 225.8 x 128.0 x 69.45 mm chassis; operating environment -20°C to 50°C; 5%-95% RH, non-condensing.

3. Technical Specifications

Category	Specification
Processor Options	Intel® Celeron® N2840 / J1900 / J4125 / J6412 / N5095 / N5105; Intel® Processor N100 / N97 / N150; Intel® Core™ i3-N300 / i3-N305; selected Core™ U/P/H-series platforms up to 13th Gen.
Memory Options	4 GB / 8 GB / 16 GB / 32 GB / 64 GB, depending on platform.
Storage Options	64 GB / 128 GB / 256 GB / 512 GB.
Graphics / Display	1 x HDMI + 1 x VGA.
Ethernet	2 x Gigabit Ethernet.
USB	6 x USB total: 4 x USB 3.0 + 2 x USB 2.0.
Serial Ports	4 x DB9 COM in this configuration. COM1/COM2/COM3/COM4 use RS232 definition; COM1/COM2 additionally have RS485 definition.
GPIO / SIO	Optional DB15: 8 GPIO channels (4 input + 4 output) plus front-panel switch and power-LED signals.
Audio	1 x audio interface.
Wireless Options	Optional Wi-Fi / Bluetooth; optional 4G; 4G / GPS also available.
Operating System	Windows / Linux.
Power Input	Standard 12 V DC jack, 5.5 mm outer diameter / 2.5 mm inner diameter.
Power Adapter	Source lists AC-DC 12 V / 5 A, 60 W and 19 V / 6.3 A, 120 W adapter options.
Wide Voltage	Optional 9-36 V input module; output 12 V / 5 A.
Cooling	Fanless passive chassis cooling.
Environment	Operating: -20°C to 50°C; Storage: -30°C to 70°C; 5%-95% RH, non-condensing.
Dimensions	225.8 x 128.0 x 69.45 mm.

4. I/O Interface Summary

4.1 Front I/O

Interface	Description
LAN	2 x Gigabit Ethernet.
USB	2 x USB ports.
Display	1 x HDMI + 1 x VGA.
Power	1 x DC power input.
Chassis	Fanless finned aluminum enclosure with wall-mount brackets.

4.2 Rear I/O

Interface / Control	Description
USB	4 x USB ports.
Serial	4 x DB9 COM ports: COM1 / COM2 / COM3 / COM4.
Audio	1 x audio interface.
Power Button	1 x power button.
Serial Mode	COM1/COM2 include RS485 definition; COM1-COM4 include RS232 definition.

5. Processor and Platform Options

NANO300 supports multiple source-listed motherboard platforms: NUC19D, NUC42D, NUC62D, NUC50D, NUC32D, NUC54D, NUC67D and NUC12D. Available processor generation, memory capacity, GPIO support and power requirements depend on the selected platform.

Platform Family	Source-listed Processor Options
NUC19D / NUC42D	N2840 / J1900 / J4125
NUC62D / NUC50D	J6412 / N5095 / N5105
NUC32D	N100 / N97 / N150 / i3-N300 / i3-N305
NUC54D	i5-4200U / i5-4300U / i7-4600U / i3-5005U / i5-5200U / i5-5300U / i7-5600U; GPIO not supported
NUC67D	i5-6200U / i5-6300U / i7-6500U / i3-7100U / i5-7200U / i3-8130U / i5-8250U
NUC12D	i3-1215U / i5-1235U / i5-1335U / i7-1255U / i7-1355U / i5-1240P / i5-1340P / i5-12450H

6. Serial and GPIO Expansion

Function	Description
COM1 / COM2	DB9 RS232; source manual also provides RS485 definition for COM1/COM2.
COM3 / COM4	DB9 RS232 in the four-COM configuration.
DB15 GPIO Inputs	Pins 1-4: four input channels, default Input High; register 0xA06 Bits 0-3; GP70-GP73.
DB15 GPIO Outputs	Pins 9-12: four output channels, BIOS default Output Low; register 0xA06 Bits 7-4; GP77-GP74.
Front Panel Signals	DB15 also carries GND, SW+, SW-, PWR LED+ and PWR LED- signals.

7. Power, Cooling and Reliability Functions

Item	Description
Main Power	Standard 12 V DC input.
DC Jack	5.5 mm outer diameter / 2.5 mm inner diameter.
Power Adapter	12 V / 5 A, 60 W or 19 V / 6.3 A, 120 W options listed in source.
Wide Voltage	Optional 9-36 V input module; 12 V / 5 A output.
Power-on Mode	Power button by default; AC-recovery power-on configurable; external front-panel switch supported.
Cooling	Passive fanless chassis cooling.

8. Mechanical and Environmental Information

Item	Description
Dimensions	225.8 x 128.0 x 69.45 mm.
Installation	Wall-mount supported.
Operating Temperature	-20°C to 50°C.
Storage Temperature	-30°C to 70°C.
Operating Humidity	5%-95% RH, non-condensing.
Optional Chassis Items	Storage drive bracket, wide-voltage module, memory, storage drive, 4G / Wi-Fi, COM3/COM4 cable and SIO cable.

9. Ordering Information

Item	Available Options
Processor	See Platform Options table; source lists N2840 through selected 13th Gen Core™ platforms and i5-12450H.
Memory	4 GB / 8 GB / 16 GB / 32 GB / 64 GB, platform-dependent.
Storage	64 GB / 128 GB / 256 GB / 512 GB.
Wireless	Wi-Fi / Bluetooth / 4G / GPS options.
I/O	2 x Gigabit LAN; 6 x USB; 4 x COM in this configuration; optional DB15 SIO/GPIO.
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 NUC54D 4200U/4300U/4600U/5005U/5200U/5300U/5600U configurations are explicitly marked in the source manual as not supporting GPIO. GPIO availability must therefore be confirmed together with the selected internal platform.
- This datasheet covers the four-COM chassis configuration. COM1/COM2/COM3/COM4 use the RS232 definition provided in the source manual, while the RS485 definition is specified only for COM1/COM2. The optional DB15 SIO interface provides four GPIO inputs and four GPIO outputs plus front-panel switch and power-LED signals.

11. Contact Information

Company	CoreIPC
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Disclaimer: This datasheet was compiled from NANO300 User Manual Issue 1.0, 2-LAN / 4-COM configuration. Internal motherboard, processor, memory capacity, GPIO, power requirements and optional modules vary by selected configuration. Please confirm the final configuration before order placement. All product names, trademarks and registered trademarks are the property of their respective owners.