

CoreIPC

NANO300

Fanless Industrial PC Datasheet

2 x LAN | 4 x COM | GPIO | 9-36 V

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 (Wide-Voltage / 4-COM / GPIO configuration).

1. Product Overview

The NANO300 is a compact CoreIPC fanless industrial PC designed for stable continuous operation in industrial and embedded applications. This configuration integrates dual Gigabit Ethernet, four DB9 COM ports, six USB ports, HDMI and VGA display outputs, a DB15 SIO/GPIO interface, standard 12 V DC input plus configurable 9-36 V wide-voltage input, and optional Wi-Fi / Bluetooth and 4G / GPS connectivity.

2. Key Features

- Fanless passive cooling chassis with wall-mount support.
- Supports a broad range of Intel® processor platforms from Celeron® / N-series to selected 4th-13th Gen Core™ U/P/H-series processors, including Core™ i5-12450H.
- Memory options: 4 GB / 8 GB / 16 GB / 32 GB / 64 GB, depending on platform; storage: 64 GB / 128 GB / 256 GB / 512 GB.
- 2 x Gigabit Ethernet ports; the source configuration table also lists a single-LAN option.
- 6 x USB ports: 4 x USB 3.0 + 2 x USB 2.0.
- 4 x DB9 COM ports. COM1/COM2/COM3/COM4 use the RS232 definition; COM1/COM2 also have the listed RS485 definition.
- DB15 SIO interface provides 8 GPIO channels plus front-panel switch and power-LED signals on supported motherboard platforms.
- Standard 12 V DC input plus configurable 9-36 V wide-voltage input. The wide-voltage module is specified with 12 V / 5 A output.
- Optional Wi-Fi / Bluetooth and 4G / GPS expansion; AC-recovery power-on and external front-panel switch are 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, including i5-12450H.
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; source configuration table also lists a single-LAN option.
USB	6 x USB total: 4 x USB 3.0 + 2 x USB 2.0.
Serial Ports	4 x DB9 COM. COM1/COM2/COM3/COM4 use RS232 definition; COM1/COM2 also have RS485 definition.
GPIO / SIO	DB15 SIO with 8 GPIO channels (4 input + 4 output) plus front-panel switch and power-LED signals, on supported platforms.
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 plus configurable 9-36 V wide-voltage terminal.
Power Adapter	Source lists AC-DC 12 V / 5 A, 60 W and 19 V / 6.3 A, 120 W adapter options.
Wide Voltage	Configurable 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 standard 12 V DC jack + 1 x 9-36 V wide-voltage terminal.
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.
GPIO / SIO	1 x DB15 SIO connector for GPIO and front-panel signals.
Audio	1 x audio interface.
Power / Controls	1 x power button; external front-panel switch signals available through SIO.

5. Processor and Platform Options

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

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, GPIO and Wide-Voltage Features

Function	Description
COM1 / COM2	DB9 RS232; source manual also provides RS485 definition for COM1/COM2.
COM3 / COM4	DB9 RS232.
DB15 GPIO Inputs	Pins 1-4: 4 input channels, default Input High; register 0xA06 Bits 0-3; GP70-GP73.
DB15 GPIO Outputs	Pins 9-12: 4 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-.
Wide Voltage	9-36 V input module; output 12 V / 5 A. Standard 12 V DC jack remains listed in the source manual.

7. Power, Cooling and Reliability Functions

Item	Description
Standard Input	12 V DC jack.
Wide-Voltage Input	Configurable 9-36 V input terminal; module output 12 V / 5 A.
Power Adapter	12 V / 5 A, 60 W and 19 V / 6.3 A, 120 W adapter options listed in source.
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 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 Core™ 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; DB15 SIO/GPIO.
Power	12 V DC plus configurable 9-36 V wide-voltage input.

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.
- GPIO is platform-dependent. The NUC54D 4200U / 4300U / 4600U / 5005U / 5200U / 5300U / 5600U configurations are explicitly listed as not supporting GPIO.
- This datasheet covers the wide-voltage / four-COM / GPIO configuration. COM1-COM4 use the RS232 definition, while the RS485 definition is provided only for COM1/COM2. The DB15 SIO interface provides four GPIO inputs, four GPIO outputs, front-panel switch signals 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, Wide-Voltage / 4-COM / GPIO configuration. Internal motherboard, processor, memory capacity, GPIO availability, 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.