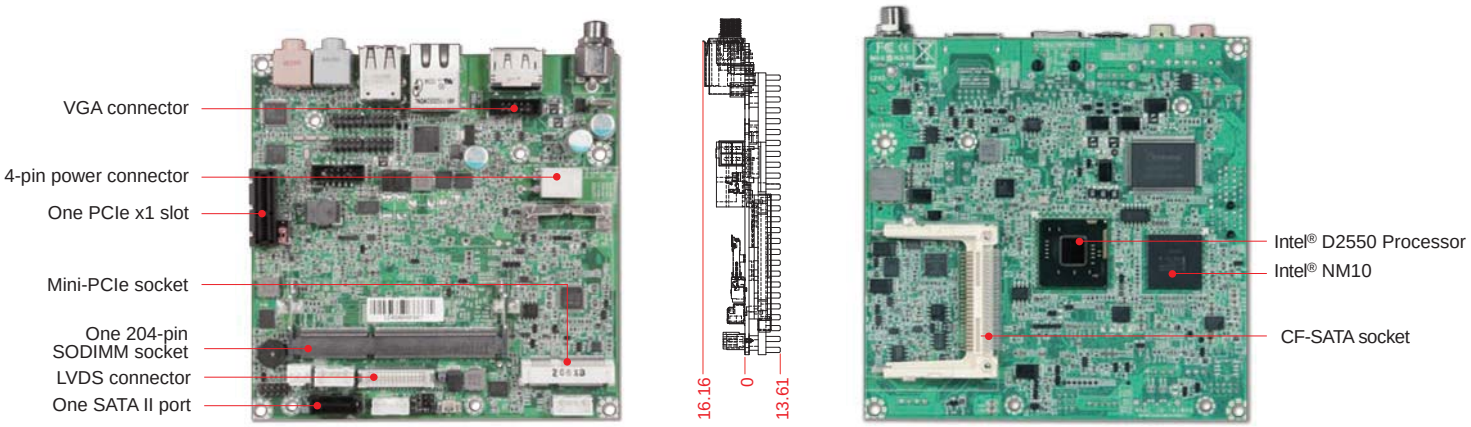
# NANO-5050

Intel® Atom™ D2550/ N2800/ N2600 processor based NANO-ITX Board with dual display, Gigabit Ethernet, Audio, USB, CF-SATA and SATA

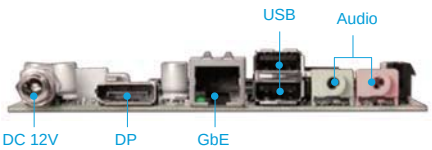



NANO-5050 adopts latest Intel® Atom™ D2550/ N2800/ N2600 CPU and NM10 chipset which is for the low power compact size system. The new archi-tecture integrates the 3D graphics engine and memory controller. It's suitable for Medical and Networking applications.

## FEATURES

- Intel® Atom™ D2550 1.86GHz / N2800 1.86GHz/ N2600 1.6GHz CPU based on Intel® NM10 platform
- One 204-pin SODIMM supports DDR3 up to 4GB
- Multiple display by VGA, DP, single channel 24 bit LVDS
- Supports one CF-SATA socket and one SATA port
- One Mini-PCIe socket and PCIe x1 slot for expansion
- Supports DC 12V input

## REAR/IO




## ORDERING GUIDE

| | |
|---|---|
| AB1-3863 | (R).NANO-5050. Nano-ITX ESB. Intel ATOM D2550 1.86GHz./ N2800 1.86GHz/ N2600 1.6GHz w/DDR3 SDRAM/VGA/LVDS/DP/GbE LAN/CF-SATA |

## PACKING LIST

| |
|---|
| One NANO-5050 NANO-ITX Main Board |
| One passive Heatsink |
| One Installation CD |

## GENERAL

| | |
|---|---|
| Processor | - Intel® Atom™ Processor D2550 (1.86GHz, 10W)/ N2800 (1.86GHz, 6.5W)/ N2600 (1.6GHz, 3.5W) with 1MB L2 Cache in FCBGA559 package<br>- FSB: 400/533MHz<br>- Supports Intel® Hyper-Threading Technology |
| Chipset | Intel® NM10 Express chipset |
| BIOS | Phoenix uFEI BIOS (SPI ROM) |
| Memory | Supports up to 4GB DDR3 800/1066 MHz SDRAM on one 204-pin SODIMM socket |
| Storage Devices | - 1x CF-SATA (supports CF and CF-SATA card)<br>- 1x SATA supports 3Gb/s data transfer rate |
| Watchdog Timer | - Programmable via S/W from 1 sec. to 255 sec. |
| Hardware Monitoring | - Temperature (CPU & System)<br>- Voltage (CPU Vcore, VBAT, 5VSB, 12V, 5V, 3.3V) |
| Expansion Interface | - 1x PCI Expressx1 slot (Gen 1, 2.5 GT/s)<br>- 1x Mini-PCIe slot (Gen 1, 2.5 GT/s) |

## I/O INTERFACE

| | |
|---|---|
| Super I/O | Winbond W83627DHG-PT |
| Audio | - Intel® NM 10 built-in High Definition Audio up to 96-kHz 24-bit<br>- Realtek ALC886-GR HDA codec, 7.1+2 channels Audio Jack on rear I/O with Line-out and Mic-in |
| Ethernet | - Intel® 82583V Gigabit Ethernet controller<br>- 1x RJ45 connector on rear I/O |
| Serial Port | 1x RS232/422/485 on board connector |
| USB | - 2x USB 2.0 ports on rear I/O<br>- 4x USB 2.0 ports on board with pitch 2.0 header<br>- 480 Mb/s bus comprehends the high-speed/full-speed/low-speed data ranges |
| GPIO | On board programmable 8-bit Digital I/Os |

## DISPLAY

| | |
|---|---|
| Graphic Controller | - Intel® Atom™ D2550 integrated Intel® GMA 3650 supports full hardware acceleration of video decode standards, such as DirectX 9 |
| Display Interface | - LVDS: Single channel 24bit LVDS on board connector, resolution up to 1440x900<br>- CRT: One on-board DB-15 connector, resolution up to 1920x1200 (WUXGA)<br>- DP: One DP port on rear I/O, resolution up to 2560x1600 |

## Mechanical & Environment

| | |
|---|---|
| Dimension | 120(L) x 120(W)mm; 4.72"(L) x 4.72"(W) |
| Power Supply | DC-12V input |
| Environment | - Operation Temperature: 0°C to 55°C<br>- Storage Temperature: -20°C to 85°C<br>- Relative Humidity: 5% to 95%, non-condensing |
| MTBF | Over 120,000 hours at 40°C |

SATA 3Gb | USB 2.0 | Giga LAN | Watch DOG | H/W Monitor | GPIO | Fanless | CF-SATA | DDR 3

www.ipc2u.ru www.ipc2u.de www.sovio.com Date: 01/07/2016