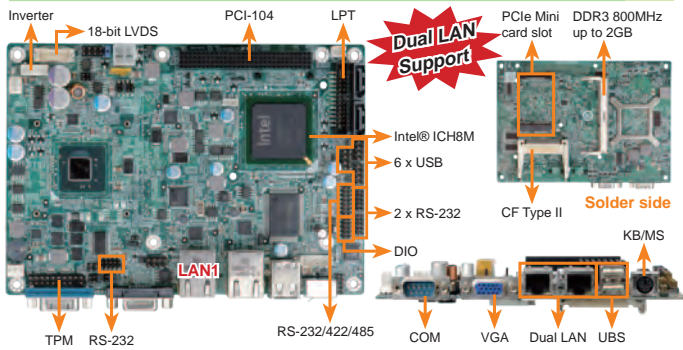


# NANO-PV-D4251/N4551/D5251

EPIC SBC with Intel® Atom™ D425/N455/D525, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF Type II, Audio and SATA 3Gb/s, RoHS



## Features

1. EPIC SBC with Intel® Atom™ D525/D425/N455 processor
2. 800MHz DDR3 SDRAM supported (system max. 2 GB)
3. Support VGA and 18-bit single-channel LVDS with dual display
4. Support PCI-104 and PCIe Mini card slot
5. Support five COM, eight USB, two SATA 3Gb/s and one CF Type II socket
6. TPM V1.2 hardware security function support by TPM module
7. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Specifications

- ◆ CPU
  - Intel® Atom™ D525 dual-core processor 1.8GHz/1MB L2 cache
  - Intel® Atom™ D425 single-core processor 1.8GHz/512KB L2 cache
  - Intel® Atom™ N455 single-core processor 1.66GHz/512KB L2 cache
- ◆ Chipset: Intel® ICH8M
- ◆ BIOS: UEFI BIOS
- ◆ Memory
  - One 204-pin 800MHz DDR3 SDRAM SO-DIMM supported (system max. 4GB for D525/D425)
  - One 204-pin 800MHz DDR3 SDRAM SO-DIMM supported (system max. 2GB for N455)
- ◆ Graphic
  - GMA 3150
  - Graphic core speed 400MHz for D525/D425
  - Graphic core speed 200MHz for N455
- ◆ Display
  - Analog CRT with up to 2048x1536 resolution for D525/D425, 1400x1050 for N455
  - Support CRT hotplug
  - 18-bit single-channel LVDS, resolution support up to WXGA 1366x768 or XGA 1024x768
- ◆ Super IO: Fintek F81865
- ◆ Audio: Realtek ALC888 HD Audio codec
- ◆ SMBus: 1 x 4-pin wafer connector
- ◆ TPM: 1 x 20-pin LPC pin header
- ◆ Ethernet
  - LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support
  - LAN2: Realtek RTL8111E PCIe GbE controller
- ◆ I/O Interface
  - 4 x RS-232 2 x SATA 3Gb/s
  - 1 x LPT 8 x USB 2.0
  - 2 x KB/MS 1 x CF Type II socket
  - 1 x RS-232/422/485 (COM3) with auto flow control
- ◆ Expansion
  - 1 x PCI-104 slot 1 x PCIe Mini card slot
  - 1 x Watchdog Timer
  - Software programmable supports 1~255 sec. system reset by Super I/O
- ◆ Digital I/O: 8-bit digital I/O, 4-bit input/4-bit output
- ◆ Fan Connector
  - 1 x 3-pin CPU fan, 1 x 3-pin system fan
- ◆ Power Supply: 12V only, AT/ATX support
- ◆ Power Consumption
  - 2.21A @ 12V (Intel® Atom™ D525 with 2GB 1066MHz DDR3)
  - 2.11A @ 12V (Intel® Atom™ D425 with 2GB 1066MHz DDR3)
  - 2.00A @ 12V (Intel® Atom™ N455 with 2GB 1066MHz DDR3)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Weight: GW: 670g/NW: 350g

## Packing List

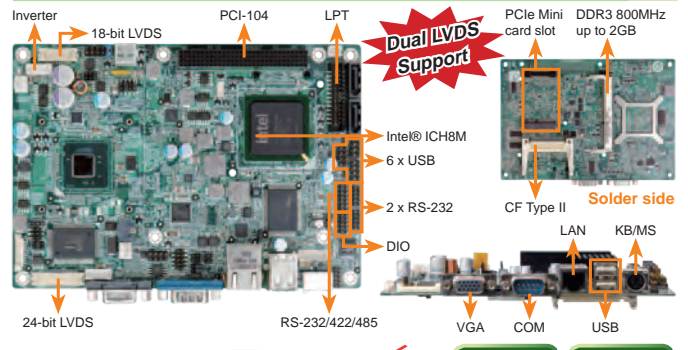
1 x NANO-PV-D4251/N4551/D5251 single board computer	
2 x RS-232 cable (P/N: 32200-000049-RS)	
1 x SATA with 5V output cable (P/N: 32801000201-100-RS)	
1 x KB/MS Y cable (P/N: 32006-000300-100-RS)	1 x One Key Recovery CD
1 x USB cable (P/N: 32000-044300-RS)	1 x Mini jumper pack
1 x Audio cable (P/N: 32000-072100-RS)	1 x Utility CD
1 x Power cable (P/N: 32100-087100-RS)	1 x QIG

## Ordering Information

Part No.	Description
NANO-PV-D5251-R10	EPIC with Intel® Atom™ D525 1.8GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF Type II, audio and SATA 3Gb/s, RoHS
NANO-PV-D4251-R10	EPIC with Intel® Atom™ D425 1.8GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF Type II, audio and SATA 3Gb/s, RoHS
NANO-PV-N4551-R10	EPIC with Intel® Atom™ N455 1.66GHz, DDR3, VGA/LVDS, Dual GbE, USB 2.0, CF Type II, audio and SATA 3Gb/s, RoHS
32200-015100-RS	LPT cable
32000-062800-RS	SATA cable
32200-026500-RS	RS-232/422/485 cable
19FFD124010HB2A7-000001-RS	CPU fan
34000-000510-RS	30mm higher heatsink
TPM-IN01-R11	20-pin Infineon TPM module, software management tool, firmware V3.17

# NANO-PV-D4252/N4552/D5252

EPIC SBC with Intel® Atom™ D425/N455/D525, DDR3, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s



## Features

1. EPIC SBC with Intel® Atom™ D525/D425/N455 processor and DDR3 solution
2. 12V only single voltage design for AT/ATX mode
3. Support dual LVDS
4. Support PCI-104 and PCIe Mini card slot
5. Support five COM, eight USB, two SATA 3Gb/s and one CF Type II socket
6. IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Specifications

- ◆ CPU
  - Intel® Atom™ D525 dual-core processor 1.8GHz/1MB L2 cache
  - Intel® Atom™ D425 single-core processor 1.8GHz/512KB L2 cache
  - Intel® Atom™ N455 single-core processor 1.66GHz/512KB L2 cache
- ◆ Chipset: Intel® ICH8M
- ◆ BIOS: UEFI BIOS
- ◆ Memory
  - One 204-pin 800MHz DDR3 SDRAM SO-DIMM supported (system max. 4GB for D525/D425)
  - One 204-pin 800MHz DDR3 SDRAM SO-DIMM supported (system max. 2GB for N455)
- ◆ Graphic
  - GMA 3150
  - Graphic core speed 400MHz for D525/D425
  - Graphic core speed 200MHz for N455
- ◆ Display Out
  - 18/24-bit single/dual-channel LVDS by Novatek NT68667UFG resolution support up to 800x600, 1024x768, 1280x1024, 1366 x768, 1920x1080
- ◆ Super IO: Fintek F81865
- ◆ Audio: Realtek ALC888 HD codec
- ◆ TPM (Optional)
  - On-board Infineon SLB9635TT1.2
- ◆ I/O Interface
  - 4 x RS-232 8 x USB 2.0
  - 1 x LPT 2 x KB/MS
  - 1 x CF Type II 2 x SATA 3Gb/s
  - 1 x RS-232/422/485 (COM3) with auto flow control
- ◆ Ethernet
  - Realtek RTL8111E PCIe GbE controller with ASF 2.0 support
- ◆ Expansion
  - 1 x PCI-104 slot
  - 1 x PCIe Mini card slot
- ◆ Watchdog Timer
  - Software programmable supports 1~255 sec. system reset by Super I/O
- ◆ Digital I/O: 8-bit digital I/O, 4-bit input/4-bit output
- ◆ Fan Connector
  - 1 x 3-pin CPU fan, 1 x 3-pin system fan
- ◆ Power Supply: 12V only, AT/ATX support
- ◆ Power Consumption
  - 2.16A @ 12V (Intel® Atom™ D525 with 2 GB 1066 MHz DDR3)
  - 1.99A @ 12V (Intel® Atom™ N455 with 2 GB 1066 MHz DDR3)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity
  - 5% ~ 95%, non-condensing
- ◆ Weight: GW: 650g/NW: 340g

## Packing List

1 x NANO-PV-D4252/N4552/D5252 single board computer	
1 x SATA with 5V output cable (P/N: 32801000201-100-RS)	
1 x KB/MS Y cable (P/N: 32006-000300-100-RS)	1 x USB cable (P/N: 32000-044300-RS)
1 x Audio cable (P/N: 32000-072100-RS)	1 x One Key Recovery CD
1 x Power cable (P/N: 32100-087100-RS)	1 x Mini jumper pack
2 x RS-232 cable (P/N: 32200-000049-RS)	1 x Utility CD 1 x QIG

## Ordering Information

Part No.	Description
NANO-PV-D5252-R10	EPIC SBC with Intel® Atom™ D525 1.8GHz/1MB L2, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s
NANO-PV-D5252T-R10	EPIC SBC with Intel® Atom™ D525 1.8GHz/1MB L2, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s, TPM
NANO-PV-D4252-R10	EPIC SBC with Intel® Atom™ D425 1.8GHz/512KB L2, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s
NANO-PV-D4252T-R10	EPIC SBC with Intel® Atom™ D425 1.8GHz/512KB L2, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s, TPM
NANO-PV-N4552-R10	EPIC SBC with Intel® Atom™ N455 1.66GHz/512KB L2, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s
NANO-PV-N4552T-R10	EPIC SBC with Intel® Atom™ N455 1.66GHz/512KB L2, VGA/Dual LVDS, PCIe GbE, CF Type II, SATA 3Gb/s, TPM
32200-015100-RS	LPT cable
32000-062800-RS	SATA cable
32200-026500-RS	RS-232/422/485 cable
19FFD124010HB2A7-000001-RS	CPU fan
34000-000510-RS	30mm higher heatsink

1 Industrial Computing Solutions

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3 Embedded Computing Solutions

4 Automation Control

5 ORing Network Communication

6 Power Supply/Peripherals

7 Panel Solutions Introduction