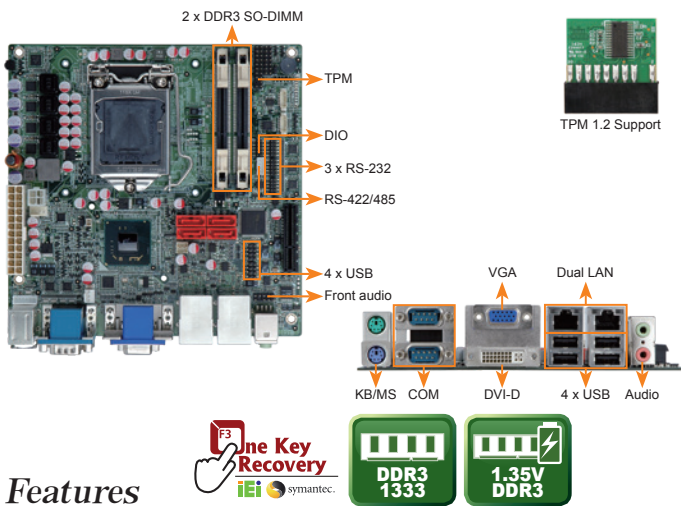


# KINO-AH612

Mini-ITX SBC supports LGA1155 Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU with H61, DDR3, VGA/DVI-D, six COMs, dual PCIe GbE, SATA 3Gb/s, HD Audio and RoHS



## Features

- LGA1155 Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor supported
- Dual-channel 1333/1066 MHz DDR3 supports up to 16 GB
- Supports dual independent display by VGA and DVI-D
- Supports six COM ports, four SATA 3Gb/s ports and one PCIe x4 slot for IO expansion card
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Specifications

- ◆ CPU  
LGA1155 socket supports Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor
- ◆ Chipset: Intel® H61
- ◆ Memory  
Two 204-pin 1066/1333 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM support up to 16 GB
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet  
Dual LAN: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support
- ◆ Graphics Engine  
Supports DX10.1 and OpenGL 3.0  
Full MPEG-2, VC1, AVC Decode
- ◆ Display Output  
Dual display supported  
1 x VGA (up to 2048x1536@75Hz)  
1 x DVI-D (up to 1920x1200@60Hz)
- ◆ Audio: Realtek ALC662 HD codec  
2 x Audio jacks (line-out, mic-in) on rear IO  
1 x Front Audio (2x5 pin)
- ◆ External I/O Interface  
1 x KB/MS 2 x RS-232 4 x USB 2.0
- ◆ Internal I/O Interface  
1 x KB/MS (1x6 pin) 4 x SATA 3Gb/s  
1 x RS-422/485 (1x4 pin, P=2.0)  
3 x RS-232 (2x5 pin, P=2.0)  
4 x USB 2.0 (2x4 pin, P=2.54)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ Expansion: 1 x PCIe x4 slot
- ◆ Watchdog Timer  
Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Fan Connector  
1 x CPU smart fan (1x4 pin)  
1 x System fan (1x3 pin)
- ◆ Power Supply: ATX power supply
- ◆ Power Consumption  
5V@3.9A, 12V@0.36A, Vcore\_12V@8.28A, 3.3V@1.24A, 5VSB@0.18A (3.4GHz Intel® Core™ i7-2600 with two 1333 MHz 2 GB DDR3 memory)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170 mm x 170 mm
- ◆ Weight: GW: 1100g / NW: 700g
- ◆ CE/FCC compliant

## Packing List

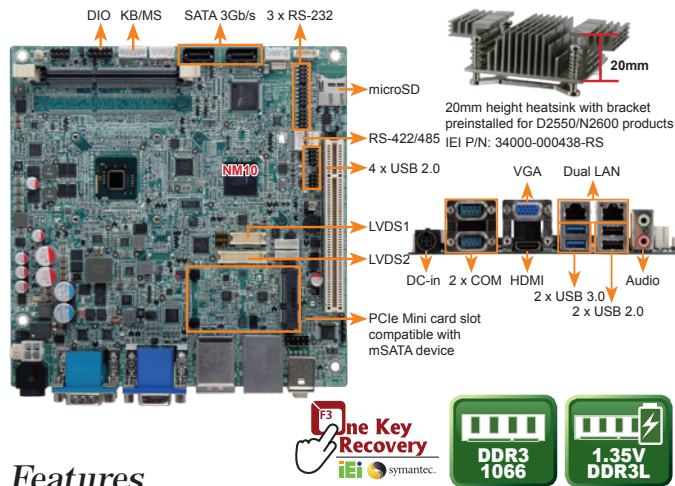
1 x KINO-AH612 single board computer	2 x SATA cable
1 x Dual RS-232 cable	1 x Mini jumper pack
1 x I/O shielding	1 x QIG

## Ordering Information

Part No.	Description
KINO-AH612-R10	Mini-ITX SBC supports LGA1155 Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU with H61, DDR3, VGA/DVI-D, 6 COM, dual PCIe GbE, SATA 3Gb/s, HD Audio and RoHS
CPU-DT-i5-2500T	Intel® Core™ i5-2500T processor, LGA1155, quad core 2.3GHz, 6M cache, 45W, compatible with CF-1156C-R20 CPU cooler
CPU-DT-i5-2390T	Intel® Core™ i5-2390T processor, LGA1155, dual core 2.7GHz, 3M cache, 35W, AMT, compatible with CF-1156C-R20 CPU cooler
CPU-DT-i3-2120T	Intel® Core™ i3-2120T processor, LGA1155, dual core 2.6GHz, 3M cache, 35W, compatible with CF-1156C-R20 CPU cooler
CPU-DT-C-G440	Intel® Celeron® G440 processor, LGA1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156C-R20 CPU cooler
CPU-DT-P-G630T	Intel® Pentium® G630T processor, LGA1155, dual core 2.3GHz, 3M cache, 35W, compatible with CF-1156C-R20 CPU cooler
19800-003100-100-RS	Dual port USB 2.0 cable with bracket, 300mm, P=2.54
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
CF-115XA-R10	High-performance LGA1155/LGA1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-R20	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-R20	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 65W
CF-115XE-R10	High-performance LGA1155/LGA1156 cooler kit, 95W
SACF-KIT01-R10	SATA to CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

# KINO-CV-D25501/N26001

Mini-ITX SBC with Intel® D2550/N2600 processor, DDR3, VGA/HDMI/dual LVDS, dual GbE, USB 3.0, mSATA, SATA 3Gb/s, audio, RoHS



## Features

- Mini-ITX form factor with Intel® D2550/N2600 dual-core processor supports DDR3/DDR3L (1.35V) memory
- Wide range 9V ~ 28V DC input
- Flexible VGA, dual LVDS and HDMI with dual-display support
- Complete I/O: six USB 2.0, two USB 3.0, two SATA 3Gb/s, six COM, audio and mSATA SSD capable
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

## Specifications

- ◆ CPU  
Intel® Atom™ D2550 (1.86GHz, dual-core, 1MB cache)  
Intel® Atom™ N2600 (1.6GHz, dual-core, 1MB cache)  
Intel® Atom™ N2800 (1.86GHz, dual-core, 1MB cache)
- ◆ Chipset: Intel® NM10
- ◆ BIOS: UEFI BIOS
- ◆ Memory  
One 204-pin 1066/800 MHz DDR3/DDR3L SDRAM SO-DIMM slot supports up to 4 GB (D2550/N2800) or 2 GB (N2600)
- ◆ Graphics Engine  
Intel® GMA 3650 with 640 MHz graphics core speed for D2550 and N2800  
Intel® GMA 3600 with 400 MHz graphics core speed for N2600
- ◆ Display Output  
Supports dual LVDS, VGA and HDMI for dual independent display  
1 x VGA (up to 2048x1536@75Hz)  
1 x HDMI (up to 1920x1200@60Hz)  
24-bit single-channel LVDS1 (D2550) (up to 1440x900@60Hz)  
18-bit single-channel LVDS1 (N2600/N2800) (up to 1366x768@60Hz)  
24-bit dual-channel LVDS2 (up to 1920x1200(D2550) or 1600x1200(N2600/N2800)@60Hz)
- ◆ Ethernet  
Dual LAN: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Audio: Realtek ALC662 HD Audio codec  
2 x Audio jacks (line-out, mic-in) on rear IO  
1 x Front Audio (2x5 pin)
- ◆ External I/O Interface  
2 x RS-232 2 x USB 2.0 2 x USB 3.0
- ◆ Internal I/O Interface  
1 x KB/MS (1x6 pin) 2 x SATA 3Gb/s  
1 x MicroSD card slot  
1 x RS-422/485 (1x4 pin, P=2.0)  
3 x RS-232 (2x5 pin, P=2.0)  
4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Expansion  
1 x PCIe Mini card slot (support mSATA)  
1 x PCI slot
- ◆ Watchdog Timer  
Software programmable supports 1~255 sec. system reset by Super I/O
- ◆ Power Supply  
1 x External DC power jack (4-pin DIN)  
1 x Internal power connector (2x2 pin)  
Input voltage range: 9V ~ 28V  
Recommended operating input voltage range: 12V~24V
- ◆ Fan Connector  
1 x CPU fan (1x3 pin)  
1 x System fan (1x3 pin)
- ◆ Power Consumption  
12V@2.8A (1.86GHz Intel® D2550 CPU with DDR3 1333 MHz 4 GB DIMM)  
12V@2.4A (1.6GHz Intel® N2600 CPU with DDR3 1333 MHz 2 GB DIMM)
- ◆ Operating Temperature  
-20°C ~ 60°C with free air, -20°C ~ 70°C with force air for D2550 processor  
-20°C ~ 70°C with free air, -20°C ~ 75°C with force air for N2600 and N2800 processor
- ◆ Storage Temperature: -30°C ~ 80°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Weight: GW: 600g / NW: 250g
- ◆ CE/FCC compliant

## Packing List

1 x KINO-CV-D25501/N26001 single board computer	1 x I/O shielding
1 x Dual-port USB cable	1 x Mini jumper pack
2 x SATA with 5V output cable Kit	1 x QIG

## Ordering Information

Part No.	Description
KINO-CV-D25501-R10	Mini-ITX SBC with Intel® Atom™ D2550 1.86GHz, DDR3, VGA/HDMI/dual LVDS, dual GbE, USB 3.0, 9V ~ 28V, SATA 3Gb/s, audio, RoHS
KINO-CV-N26001-R10	Mini-ITX SBC with Intel® Atom™ N2600 1.6GHz, DDR3, VGA/HDMI/dual LVDS, dual GbE, USB 3.0, 9V ~ 28V, SATA 3Gb/s, audio, RoHS
KINO-CV-N28001-R10**	Mini-ITX SBC with Intel® Atom™ N2800 1.86GHz, DDR3, VGA/HDMI/dual LVDS, dual GbE, USB 3.0, 9 ~ 28V, SATA 3Gb/s, audio, RoHS
19FFD124010HB2A7-000001-RS	CPU fan (40mm x 40mm x 10mm)
32000-023800-RS	PS/2 KB/MS cable, 135mm/110mm, P=2.0
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0
34000-000510-RS	30mm higher heatsink

\*\*By order production, MOQ: 100