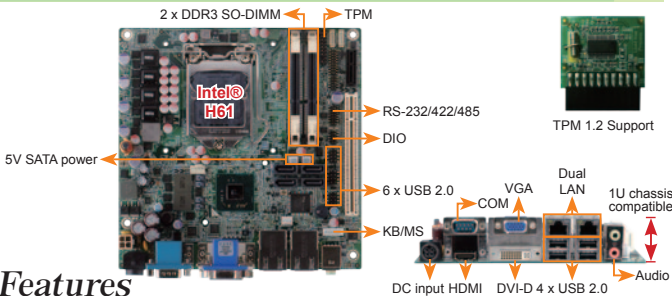


# KINO-DH610

Mini-ITX SBC supports LGA1155 Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU, DDR3, VGA/DVI-D/HDMI, dual PCIe GbE, USB 2.0, SATA 3Gb/s, HD Audio and RoHS



## Features

- LGA1155 socket for 2nd generation Intel® Core™ i3/Pentium®/Celeron® processor supported
- Up to 16 GB 1333/1066 MHz dual-channel DDR3 SDRAM
- Supports dual display by DVI/VGA/HDMI
- SATA 3Gb/s, PCI and PCIe x1 expansion slots supported
- Wide range 9 ~ 28V DC input support with either adaptor or 4-pin (2x2) ATX power connector
- 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® dual-core processor (TDP 65W max.)
- ◆ System Chipset: Intel® H61
- ◆ Memory: Two 204-pin 1066/1333 MHz dual-channel DDR3 SO-DIMMs supported (system max. 16 GB)
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet: LAN1: Realtek RTL8111E PCIe GbE controller with ASF 2.0 support; LAN2: Realtek RTL8111E PCIe GbE controller
- ◆ Graphics Engine: Supports DX10.1 and OpenGL 3.0; Full MPEG2, VC1, AVC Decode
- ◆ Display Output: Dual display supported; 1 x VGA (up to 2048x1536@75Hz); 1 x HDMI (up to 1920x1200@60Hz); 1 x DVI-D (up to 1920x1200@60Hz)
- ◆ External I/O Interface: 1 x RS-232, 4 x USB 2.0
- ◆ Internal I/O Interface: 1 x KB/MS (1x6 pin); 1 x RS-232/422/485 (2x5 pin, P=2.00); 2 x SATA power connector; 4 x SATA 3Gb/s; 6 x USB 2.0 (2x4 pin, P=2.54)
- ◆ TPM: 1 x TPM connector (2x10 pin)
- ◆ Audio: Realtek ALC662 HD Audio codec
- ◆ Expansions: 1 x PCI, 1 x PCIe x1
- ◆ 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: Maximum input voltage range: 9V ~ 28V; Recommended operating input voltage range: 12V ~ 24V; 1 x External DC jack (4-pin DIN); 1 x Internal 4-pin (2x2) power connector
- ◆ Power Consumption: 12V@5.07A (2.2GHz Intel® G6200 with two 1066 MHz 2 GB DDR3 memory running 3DMark06 burn in); 12V@8.85A (2.8GHz Intel® Core™ i7-2600S with two 1066 MHz 2 GB DDR3 memory running 3DMark06 burn in)
- ◆ 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

## Packing List

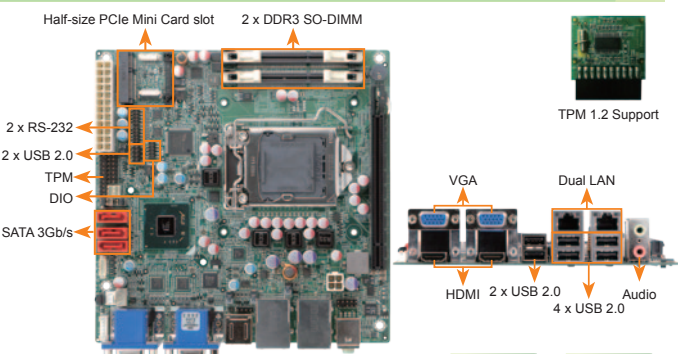
1 x KINO-DH610 single board computer	
1 x I/O shielding	1 x One Key Recovery CD
2 x SATA with 5V power cable	1 x QIG
1 x Mini jumper pack	1 x Utility CD

## Ordering Information

Part No.	Description
KINO-DH610-R10	Mini-ITX SBC supports LGA1155 Intel® Core™ i5/i3/Pentium®/Celeron® CPU, DDR3, VGA/DVI-D/HDMI, dual PCIe GbE, USB 2.0, 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-RS CPU cooler
CPU-DT-i5-2390T	Intel® Core™ i5-2390T processor, LGA1155, dual core 2.7GHz, 3M cache, 35W, AMT, compatible with CF-1156C-RS CPU cooler
CPU-DT-i3-2120T	Intel® Core™ i3-2120T processor, LGA1155, dual core 2.6GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-C-G440	Intel® Celeron® G440 processor, LGA1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-P-G630T	Intel® Pentium® G630T processor, LGA1155, dual core 2.3GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
19800-003100-300-RS	Dual-port USB cable w/ bracket
19800-004300-100-RS	RS-232/422/485 cable w/ bracket
32000-023800-RS	KB/MS Y cable
63040-010060-110-RS	12V 60W power adaptor with 4-pin DIN lock, 90 ~ 264VAC input, ErP
CF-1156A-RS-R11	High-performance LGA1155/LGA1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 65W
CF-1156E-R11	High-performance LGA1155/LGA1156 cooler kit, 95W
SACF-KIT01-R10	SATA to CF converter board
TPM-IN01-R11	20-pin Infineon TPM module, software management tool, firmware v3.17

# KINO-AH611

Mini-ITX SBC supports LGA1155 Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU, DDR3, dual HDMI/dual VGA, Dual PCIe GbE, SATA 3Gb/s, HD Audio and RoHS



## Features

- LGA1155 for Intel® Core™ i7/i5/i3/Pentium®/Celeron® processor
- Up to 16 GB 1333/1066 MHz dual-channel DDR3 SDRAM
- Supports dual independent display by dual VGA and dual HDMI
- Two COM ports and three SATA 3Gb/s connectors supported
- 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
- ◆ System Chipset: Intel® H61
- ◆ Memory: Two 204-pin 1066/1333 MHz dual-channel DDR3 SDRAM SO-DIMMs supported (system max. 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; 2 x VGA (up to 2048x1536@75Hz); 2 x HDMI (up to 1920x1200@60Hz)
- ◆ External I/O Interface: 6 x USB 2.0
- ◆ Internal I/O Interface: 1 x KB/MS (1x6 pin), 3 x SATA 3Gb/s, 2 x RS-232 (2x5 pin, P=2.00), 2 x USB 2.0 (2x4 pin, P=2.54)
- ◆ TPM: 1 x TPM connector (2x10 pin)
- ◆ Embedded Controller: iWDD
- ◆ Audio: Realtek ALC662 HD Audio codec (line-out, mic-in) (2x5 pin)
- ◆ Expansions: 1 x PCIe x16 slot; 1 x Half-size PCIe Mini card 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@3.47A, 12V@0.11A, Vcore\_12V@6.73A, 3.3V@1.01A, 5VSB@0.15A (3.4GHz Intel® Core™ i7-2600K with two 1333 MHz 2 GB DDR3 SO-DIMMs)
- ◆ 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

## Packing List

1 x KINO-AH611 single board computer	1 x Mini jumper pack
1 x Dual RS-232 cable	1 x One Key Recovery CD
1 x I/O shielding	1 x QIG
3 x SATA cable	1 x Utility CD

## Ordering Information

Part No.	Description
KINO-AH611-R10	Mini-ITX SBC supports LGA1155 Intel® Core™ i7/i5/i3/Pentium®/Celeron® CPU, DDR3, dual HDMI/dual VGA, 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-RS CPU cooler
CPU-DT-i5-2390T	Intel® Core™ i5-2390T processor, LGA1155, dual core 2.7GHz, 3M cache, 35W, AMT, compatible with CF-1156C-RS CPU cooler
CPU-DT-i3-2120T	Intel® Core™ i3-2120T processor, LGA1155, dual core 2.6GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-C-G440	Intel® Celeron® G440 processor, LGA1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-P-G630T	Intel® Pentium® G630T processor, LGA1155, dual core 2.3GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
19800-003100-300-RS	Dual-port USB cable with bracket
32000-023800-RS	KB/MS Y cable
32102-000100-200-RS	SATA power cable
CF-1156A-RS-R11	High-performance LGA1155/LGA1156 cooler kit, 1U chassis compatible, 73W
CF-1156C-RS	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 45W
CF-1156D-RS	LGA1155/LGA1156 cooler kit, 1U chassis compatible, 65W
CF-1156E-R11	High-performance LGA1155/LGA1156 cooler kit, 95W
SACF-KIT01-R10	SATA to CF converter board
TPM-IN01-R11	20-pin Infineon TPM module, software management tool, firmware v3.17