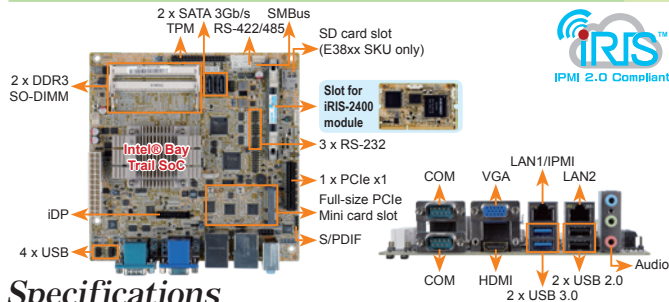


## KINO-ABT-i2

Mini-ITX SBC supports 22nm Intel® Atom™ or Celeron® on-board SoC, VGA/HDMI/iDP, dual Intel® PCIe GbE, USB 3.0, SATA, HD Audio, iRIS-2400 and RoHS



## Specifications

- ◆ SoC
  - Intel® Atom™ E3845 on-board SoC (1.91GHz, quad-core, 2MB cache, TDP=10W)
  - Intel® Atom™ E3827 on-board SoC (1.75GHz, dual-core, 1MB cache, TDP=8W)
  - Intel® Atom™ E3826 on-board SoC (1.46GHz, dual-core, 1MB cache, TDP=7W)
  - Intel® Atom™ E3825 on-board SoC (1.33GHz, dual-core, 1MB cache, TDP=6W)
  - Intel® Atom™ E3815 on-board SoC (1.46GHz, single-core, 512KB cache, TDP=5W)
  - Intel® Celeron® J1900 on-board SoC (2GHz, quad-core, 2MB cache, TDP=10W)
  - Intel® Celeron® N2930 on-board SoC (1.83GHz, quad-core, 2MB cache, TDP=7.5W)
  - Intel® Celeron® N2807 on-board SoC (1.58GHz, dual-core, 2MB cache, TDP=4.3W)
- ◆ BIOS: UEFI BIOS
- ◆ Memory
  - Two 204-pin 1066/1333 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM support up to 8 GB (J1900, N2930, E3845, E3827, E3826)
  - One 204-pin 1066/1333 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM supports up to 8 GB (E3825, E3815) or 4 GB (N2807)
- ◆ Graphics Engine: Intel® HD Graphics Gen 7 Engines with 4 execution units, supporting DX11.1, OpenGL 4.2 and OpenCL1.2
- ◆ Display Output
  - Dual Independent Display
  - 1 x VGA (up to 2560x1600@60Hz)
  - 1 x HDMI (up to 2560x1600@60Hz)
  - 1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 2560x1600@60Hz)
- ◆ Ethernet
  - LAN1: Intel® I210-AT PCIe controller with NCSI support (for iRIS solution)
  - LAN2: Intel® I211-AT PCIe controller
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ LAN LED: 2 x LAN LED (1x2 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)
  - 1 x Micro SD card slot (E38xx sku only)
  - 1 x RS-422/485 (1x4 pin, P=2.0)
  - 2 x SATA 3Gb/s with 5V SATA power connector
  - 3 x RS-232 (2x5 pin, P=2.0)
  - 4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Audio
  - Realtek ALC662 HD Audio codec
  - 3 x Audio jacks (line-out, line-in, mic-in) on rear IO
  - 1 x Front audio (2x5 pin)
  - 1 x S/PDIF (1x5 pin)
- ◆ Front Panel: 1 x Front panel (2x7 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ Expansion
  - 1 x PCIe x4 slot (PCIe x1 signal)
  - 1 x Full-size PCIe Mini card slot (support mSATA, colay SATA2)
- ◆ iRIS Remote Management Module
  - 1 x iRIS-2400 slot
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Chassis Intrusion Detection: 1 x Chassis intrusion connector (1x2 pin)
- ◆ Fan Connector
  - 1 x CPU smart fan (1x4 pin)
  - 1 x System smart fan (1x4 pin)
- ◆ Power Supply: ATX power supply
- ◆ Watchdog Timer: Software programmable, supports 1~255 sec. system reset
- ◆ Power Consumption: 5V@1.71A, 12V@0.08A, Vcore\_12V@0.27A, 3.3V@0.34 (Intel® Celeron® J1900 CPU with two 4 GB 1333 MHz DDR3 memory)
- ◆ Operating Temperature: -20°C ~ 60°C
- ◆ Storage Temperature: -30°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170mm x 170mm
- ◆ Weight: GW: 900g / NW: 450g
- ◆ CE/FCC compliant

## Packing List

|                                       |                  |
|---------------------------------------|------------------|
| 1 x KINO-ABT-i2 single board computer | 1 x IO shielding |
| 1 x Dual-port USB cable               | 1 x QIG          |
| 1 x SATA cable                        | 1 x Utility CD   |

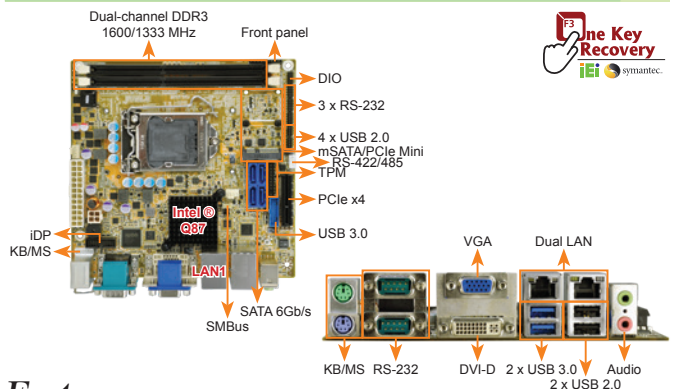
## Ordering Information

| Part No.                 | Description                                                                                                                                                                   |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KINO-ABT-i2-J19001-R10   | Mini-ITX SBC supports Intel® Celeron® quad-core processor J1900 (10W), VGA/HDMI/iDP, dual Intel® PCIe GbE, SATA, USB 3.0, HD Audio, iRIS-2400 and RoHS                        |
| KINO-ABT-i2-N29301-R10   | Mini-ITX SBC supports Intel® Celeron® quad-core processor N2930 (7.5W), VGA/HDMI/iDP, dual Intel® PCIe GbE, SATA, USB 3.0, HD Audio, iRIS-2400 and RoHS                       |
| KINO-ABT-i2-N28071-R10   | Mini-ITX SBC supports Intel® Celeron® dual-core processor N2807 (4.3W), VGA/HDMI/iDP, dual Intel® PCIe GbE, SATA, USB 3.0, HD Audio, iRIS-2400 and RoHS                       |
| KINO-ABT-i2-E38XX1-R10** | Mini-ITX SBC supports Intel® Atom™ processor E38XX, VGA/HDMI/iDP, dual Intel® PCIe GbE, SATA, USB 3.0, HD Audio, iRIS-2400 and RoHS                                           |
| KINO-ABT-J19001-ECO-R10  | Mini-ITX SBC supports Intel® 22nm Celeron® J1900 2.0GHz (10W) on-board (10W), VGA/HDMI/iDP, dual Intel® PCIe GbE, USB 3.0, SATA, HD Audio, ECO packing and RoHS (10 pce/pack) |
| 32006-000300-100-RS      | PS/2 KB/MS Y-cable without bracket, 140mm/120mm                                                                                                                               |
| 32200-000049-RS          | RS-232 cable, 200mm, P=2.0                                                                                                                                                    |
| 32205-003800-300-RS      | RS-422/485 cable, 200mm, P=2.0                                                                                                                                                |
| DP-DP-R10                | DisplayPort to DisplayPort converter board (for IEI iDP connector)                                                                                                            |
| DP-DVI-R10               | DisplayPort to DVI-D converter board (for IEI iDP connector)                                                                                                                  |
| DP-HDMI-R10              | DisplayPort to HDMI converter board (for IEI iDP connector)                                                                                                                   |
| DP-LVDS-R10              | DisplayPort to 24-bit dual-channel LVDS converter board (for IEI iDP connector)                                                                                               |
| DP-VGA-R10               | DisplayPort to VGA converter board (for IEI iDP connector)                                                                                                                    |
| TPM-IN01-R20             | 20-pin Infineon TPM module, software management tool, firmware v3.17                                                                                                          |

\*\*By order production, MOQ: 100

## KINO-AQ870

Mini-ITX SBC with LGA1150 socket supports 4th Gen Intel® Core™ i7/i5/i3 processor, DVI-D/VGA/DP, dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, HD Audio and RoHS



## Features

- LGA1150 socket supports 4th Gen Intel® Core™ i7/i5/i3 processor
- DDR3 1066/1333/1600 MHz dual-channel SDRAM
- 3D micro-architecture enhancements for DX11.1, OCL 1.2 and OGL3.2
- Rich media acceleration for hardware decode and encode acceleration
- Intel® GbE LAN with Intel® AMT 9.0 support
- High speed I/O interface for USB 3.0, SATA 6Gb/s and mSATA
- IEI jumper-less function

## Specifications

- ◆ CPU: LGA1150 socket supports 4th Gen Intel® Core™ i7/i5/i3 processor
- ◆ PCH: Intel® Q87
- ◆ Memory: Two 240-pin 1600/1333 MHz dual-channel DDR3 SDRAM unbuffered DIMMs support up to 16 GB
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet
  - LAN1: Intel® I211 PCIe controller
  - LAN2: Intel® I217LM with Intel® AMT 9.0 support
- ◆ Graphics Engine
  - Support for DX11.1 and OpenGL3.2
  - Full MPEG2, VC1, AVC Decode
- ◆ Display Output
  - 1 x VGA (up to 1920x1200@60Hz)
  - 1 x DVI-D (up to 2560x1600@60Hz)
  - 1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 3840x2160@60Hz)
- ◆ Audio
  - Realtek ALC662 HD codec supports 5.1-channel
  - 2 x Audio jacks (line-out, mic-in) on rear IO
- ◆ LAN LED: 2 x LAN LED (1x2 pin)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ External I/O Interface
  - 1 x KB/MS
  - 2 x RS-232
  - 2 x USB 2.0
  - 2 x USB 3.0
- ◆ Internal I/O Interface
  - 1 x KB/MS (1x6 pin)
  - 1 x RS-422/485 (1x4 pin, P=2.0)
  - 2 x USB 3.0 (2x10 pin, P=2.0)
  - 3 x RS-232 (2x5 pin, P=2.0)
  - 4 x SATA 6Gb/s (RAID 0/1/5/10 supported)
  - 4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Front Panel
  - 1 x Front panel (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- ◆ Expansion
  - 1 x PCIe x4 card slot
  - 1 x PCIe Mini card slot (supports mSATA, with SATA & USB 2.0 signal only)
- ◆ 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 smart fan (1x4 pin)
- ◆ Power Supply: ATX Power Supply
- ◆ Power Consumption
  - 3.3V@1.11A, 5V@3.01A, 12V@0.12A, Vcore@6.32A, 5VSB@0.15A (Intel® 2.60GHz CPU with two 1600 MHz 2 GB DDR3 memory)
- ◆ Operating Temperature: -20°C ~ 60°C
- ◆ Storage Temperature: -30°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170mm x 170mm
- ◆ Weight: GW: 900g / NW: 450g
- ◆ CE/FCC compliant

## Packing List

|                            |                      |
|----------------------------|----------------------|
| 1 x KINO-AQ870 motherboard | 1 x Mini jumper pack |
| 1 x I/O shielding          | 1 x QIG              |
| 4 x SATA cable             | 1 x Utility CD       |

## Ordering Information

| Part No.            | Description                                                                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| KINO-AQ870-R10      | Mini-ITX SBC with LGA1150 socket supports 4th Gen Intel® Core™ i7/i5/i3 processor, DVI-D/VGA/DP, dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, HD Audio and RoHS |
| 32001-008600-200-RS | Dual-port USB cable, 210mm, P=2.0                                                                                                                             |
| 32205-002700-200-RS | RS-232/422/485 cable, 200mm, P=2.0                                                                                                                            |
| 32205-003800-300-RS | RS-422/485 cable, 200mm, P=2.0                                                                                                                                |
| CF-1150SA-R10       | Special cooler kit for LGA1150, high-performance compatible, 95W                                                                                              |
| CF-1150SB-R11       | Special cooler kit for LGA1150, high-performance compatible, 65W                                                                                              |
| CF-1150SC-R20       | Special cooler kit for LGA1150, 1U chassis compatible, 65W                                                                                                    |
| CF-1150SE-R11       | Special cooler kit for LGA1150, 1U chassis compatible, 95W                                                                                                    |
| DP-DVI-R10          | DisplayPort to DVI-D converter board (for IEI iDP connector)                                                                                                  |
| DP-HDMI-R10         | DisplayPort to HDMI converter board (for IEI iDP connector)                                                                                                   |
| DP-LVDS-R10         | DisplayPort to 24-bit dual-channel LVDS converter board (for IEI iDP connector)                                                                               |
| DP-VGA-R10          | DisplayPort to VGA converter board (for IEI iDP connector)                                                                                                    |
| TPM-IN01-R20        | 20-pin Infineon TPM module, software management tool, firmware v3.17                                                                                          |