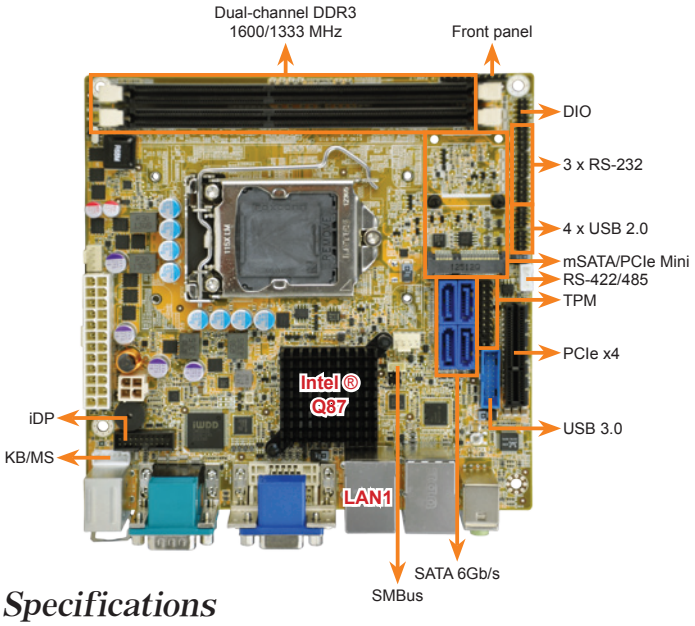
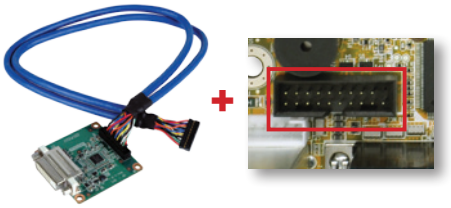
KINO-AQ870

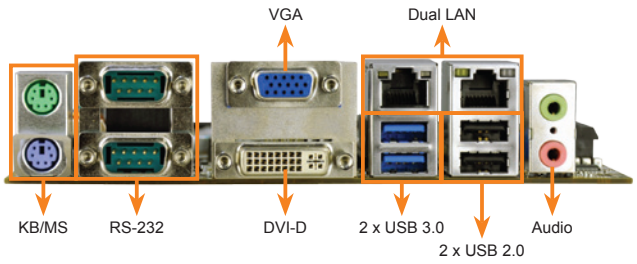
Mini-ITX SBC with LGA1150 socket supports 4th Gen Intel® Core™ i7/i5/i3 processor, DVI-D/VGA/DP, dual Intel® PCIe GbE, USB 3.0, SATA 6Gb/s, HD Audio and RoHS



Flexible Display Function through IEI Display Port Connector



iDP Module Selection
DP-HDMI-R10
DP-VGSA-R10
DP-DVI-R10
DP-LVDS-R10



Specifications

- CPU
  LGA1150 socket supports 4th Gen Intel® Core™ i7/i5/i3 processor
- PCH
  Intel® Q87
- Memory
  Two 240-pin 1066/1333/1600 MHz dual-channel DDR3 SDRAM unbuffered DIMM supported (system max. 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
  DVI-D integrated in the CPU
  VGA integrated in Intel® Q87
  DisplayPort integrated in the CPU (pin header for changing to HDMI, LVDS, VGA)
- Audio
  Realtek ALC662 HD Audio codec (line-out, mic-in)
- External I/O Interface
  1 x KB/MS — 2 x USB 2.0
  2 x RS-232 — 2 x USB 3.0
- Internal I/O Interface
  1 x KB/MS (1x6 pin) — 3 x RS-232 (2x5 pin, P=2.00)
  1 x RS-422/485 (1x4 pin, P=2.00) — 4 x SATA 6Gb/s (RAID 0/1/5/10)
  2 x USB 3.0 (2x10 pin, P=2.00) — 4 x USB 2.0 (2x4 pin, P=2.00)
- Front Panel
  1 x Front panel (1x10 pin, power LED, HDD LED, speaker, power button, reset button)
- LAN LED
  2 x LAN LED (1x2 pin)
- SMBus
  1 x SMBus (1x4 pin)
- TPM
  1 x TPM connector (2x10 pin)
- Expansion
  1 x PCIe x4 — 1 x PCIe Mini card slot (supports mSATA, SATA 3Gb/s 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

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

Packing List

1 x KINO-AQ870 motherboard	1 x Mini jumper pack (P=2.0)
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 USB cable
32200-000049-RS	RS-232 cable, 200mm
32205-003800-300-RS	RS-422/485 cable, 200mm
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, 35W
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-R11	20-pin Infineon TPM module, software management tool, firmware v3.17