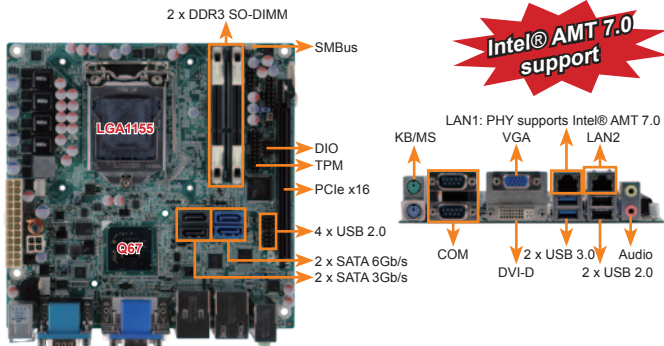


# KINO-AQ670

Mini-ITX SBC Supports LGA1155 Intel® Core™ i7/i5/i3/Pentium® and Celeron® CPU, DDR3, VGA/DVI-D, two COMs, Intel® GbE, SATA 6Gb/s, USB 3.0, HD Audio and RoHS



## Features

1. LGA1155 with Intel® 2nd generation Core™ i7/i5/i3/Pentium® and Celeron® processors supported
2. Dual-channel DDR3 1333/1066MHz supports up to 16GB
3. Supports dual independent display by VGA and DVI-D
4. High speed USB 3.0 and SATA 6Gb/s supported
5. Intel® GbE LAN with Intel® AMT 7.0 support
6. 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® and Celeron® processors
- ◆ System Chipset: Intel® Q67
- ◆ Memory: Two 204-pin 1066/1333MHz dual-channel DDR3 SDRAM SO-DIMMs supported (system max. 16GB)
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet: LAN1: Intel® 82583V PCIe controller; LAN2: Intel® 82579 PHY with Intel® AMT 7.0 support
- ◆ Graphics Engine: Supports DX10.1 and OpenGL3.0; Full MPEG-2, VC1, AVC Decode
- ◆ Display Output: Dual display supported; 1 x VGA (up to 2048 x 1536 @75Hz); 1 x DVI-D (up to 1920 x 1200 @60Hz)
- ◆ I/O Interface: 2 x RS-232; 1 x TPM connector (2x10 pin); 6 x USB 2.0; 2 x USB 3.0; 2 x SATA 3Gb/s; 1 x PS/2 KB/MS; 2 x SATA 6Gb/s with RAID 0/1/5/10 support
- ◆ Super I/O: Fintek F81866
- ◆ Audio: Realtek ALC662 HD audio codec
- ◆ Expansions: 1 x PCIe x16 slot
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ GPIO: Programmable 8-bit GPIO
- ◆ Fan Connector: 1 x 4-pin CPU fan connector; 1 x 3-pin system fan connector (Co-layout with 4-pin)
- ◆ Power Supply: AT/ATX power supply
- ◆ Power Consumption: 5V@3.84A, 12V@0.16A, Vcore\_12V@5.31A, 3.3V@1.81A, 5VSB@0.5A (2.5GHz Intel® Core™ i5-2400S with two 1333MHz 2GB 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

## Packing List

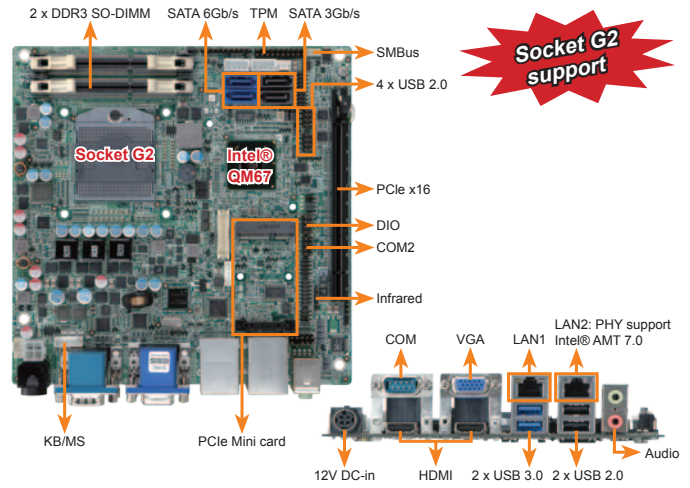
1 x KINO-AQ670 single board computer	
1 x I/O shielding (P/N: 45014-0008C0-00-RS)	1 x Mini jumper pack
4 x SATA cable (P/N: 32000-062800-RS)	1 x Utility CD
1 x One Key Recovery CD	1 x QIG

## Ordering Information

Part No.	Description
KINO-AQ670-R10	Mini-ITX SBC supports LGA1155 Intel® Core™ i7/i5/i3 CPU, DDR3, VGA/DVI-D, 2 COM, Intel® GbE, SATA 6Gb/s, USB 3.0, HD Audio and RoHS
19800-003100-300-RS	Dual-port USB cable with bracket
32102-000100-200-RS	SATA power cable
SACF-KIT01-R10	SATA to CF converter board
TPM-IN01-R11	20-pin Infineon TPM module, software management tool, firmware V3.17
CPU-DT-i5-2500T	Intel® Core™ i5-2500T processor, LGA-1155, quad core 2.3GHz, 6M cache, 45W, compatible with CF-1156C-RS CPU cooler
CPU-DT-i5-2390T	Intel® Core™ i5-2390T processor, LGA-1155, dual core 2.7GHz, 3M cache, 35W, compatible with CF-1156C-RS CPU cooler
CPU-DT-i3-2120T	Intel® Core™ i3-2120T processor, LGA-1155, dual core 2.5GHz, 3M 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
CPU-DT-C-G440	Intel® Celeron® G440 processor, LGA-1155, single core 1.6GHz, 1M cache, 35W, compatible with CF-1156C-RS CPU cooler
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

# KINO-QM670-R20

Mini-ITX SBC with Socket G2 for Intel® mobile Core™ i7/i5/i3 CPU, VGA/Dual HDMI/LVDS, Dual PCIe GbE, USB 3.0, PCIe Mini, SATA 6Gb/s and Audio



## Features

1. Mini-ITX SBC with Socket G2 for Intel® Core™ i7/i5/i3 processor
2. Dual-channel 1333/1066MHz DDR3 SDRAM (system max. 8GB)
3. HDMI 1.3 compliant
4. 3D micro-architecture enhancements supports DX™10.1 and OGL™3.0
5. Rich media acceleration for hardware decoding and encoding acceleration
6. Intel® GbE LAN with Intel® AMT 7.0 supported
7. High speed I/O interface for PCIe Gen2 add-on card, USB 3.0 and SATA 6Gb/s

## Specifications

- ◆ CPU: Socket G2 for Intel® Core™ i7/i5/i3 processor
- ◆ PCH: Intel® QM67
- ◆ Memory: Two 204-pin 1333/1066 DDR3 dual-channel SO-DIMMs supported (system max. 8GB)
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet: LAN1: Intel® 82583V PCIe controller; LAN2: Intel® 82579 PHY with Intel® AMT 7.0 supported
- ◆ Graphics Engine: Supports DX10.1 and OpenGL3.0; Full MPEG2, VC1, AVC Decode
- ◆ Display Output: Dual display supported; 1 x VGA; 2 x HDMI; 1 x 18/24-bit dual-channel LVDS support
- ◆ Super I/O: Fintek F81865
- ◆ Embedded Controller: ITE IT8518
- ◆ I/O Interface: 2 x RS-232; 1 x RS-422/485; 6 x USB 2.0; 2 x USB 3.0; 2 x SATA 3Gb/s; 2 x SATA 6Gb/s with RAID 0/1/5/10 support; 2 x SATA power connector; 1 x 6-pin KB/MS
- ◆ Audio: Realtek ALC892 HD Audio codec
- ◆ SM bus: 1 x 4-pin wafer
- ◆ TPM: 1 x TPM connector (2x10 pin)
- ◆ Expansion: 1 x PCIe Mini card slot; 1 x PCIe x16
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (4-bit input, 4-bit output)
- ◆ Infrared Interface: 1 x 5-pin header
- ◆ Fan Connector: 1 x 4-pin CPU fan connector; 1 x 3-pin system fan connector
- ◆ Power Supply: Single voltage 12V DC input; 1 x External DIN 4-pin DC jack; 1 x Internal 4-pin (2x2) power connector Support AT/ATX mode
- ◆ Power Consumption: 12V@6.5A (2.1GHz Intel® Core™ i7-2710QE CPU with two 1333MHz 2GB DDR3 DIMM)
- ◆ Operating Temperature: -10°C ~ 60°C
- ◆ Storage Temperature: -20°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170mm x 170mm
- ◆ Weight: GW: 900g/NW: 450g

## Packing List

1 x KINO-QM670 single board computer	
2 x SATA with power output cable (P/N: 32801-000100-300-RS)	
1 x RS-232 cable (P/N: 19800-000300-100-RS)	1 x Mini jumper pack
1 x I/O shielding (P/N: 45014-0029C0-00-RS)	1 x Utility CD
1 x One Key Recovery CD	1 x QIG

## Ordering Information

Part No.	Description
KINO-QM670-R20	Mini-ITX SBC with Socket G2 for Intel® mobile Core i7/i5/i3 CPU, VGA/Dual HDMI/LVDS, Dual PCIe GbE, USB 3.0, PCIe Mini, SATA 6Gb/s and audio
19800-003100-300-RS	Dual USB cable
32000-023800-RS	KB/MS Y cable
32205-003800-300-RS	RS-422/485 cable
SACF-KIT01-R10	SATA to CF converter board
CF-989A-RS-R12	CPU cooler
TPM-IN01-R11	20-pin Infineon TPM module, software management tool, firmware V3.17