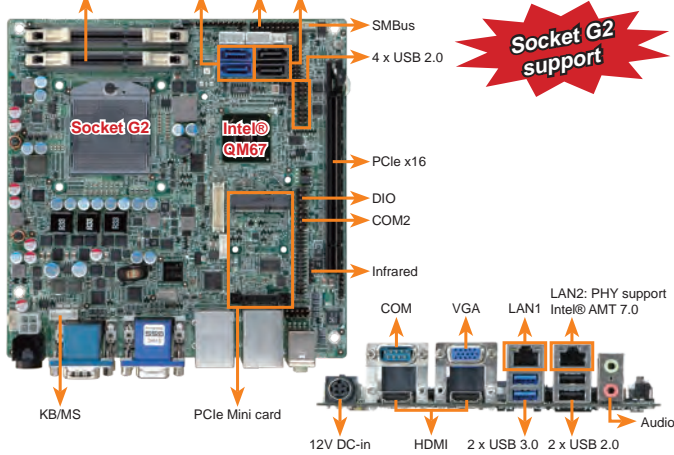


KINO-QM670-R20

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

2 x DDR3 SO-DIMM SATA 6Gb/s TPM SATA 3Gb/s

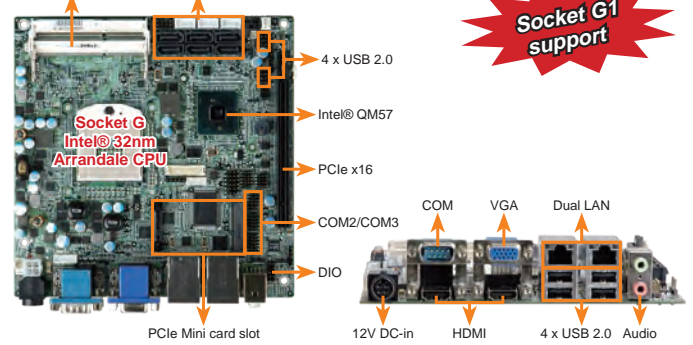


Socket G2 support

KINO-QM57A

Mini-ITX SBC with Socket G1 for Intel® mobile Core™ i7/i5/i3/Celeron® CPU, VGA/dual HDMI/LVDS, PCIe GbE, USB 2.0, PCIe Mini, SATA 3Gb/s, audio and RoHS

2 x DDR3 DIMM 6 x SATA 3Gb/s with three DC power



Socket G1 support



Features

- Mini-ITX SBC with Socket G2 for Intel® Core™ i7/i5/i3 processor
- Dual-channel 1333/1066MHz DDR3 SDRAM (system max. 8 GB)
- HDMI 1.3 compliant
- 3D micro-architecture enhancement supports DX*10.1 and OGL*3.0
- Rich media acceleration for hardware decoding and encoding acceleration
- Intel® GbE LAN with Intel® AMT 7.0 supported
- 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
- ◆ Chipset: Intel® QM67
- ◆ Memory: Two 204-pin 1333/1066 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM support up to 8 GB
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet: LAN1: Intel® 82583V PCIe controller LAN2: Intel® 82579 PHY with Intel® AMT 7.0 supported
- ◆ Graphics Engine: Support for DX10.1 and OpenGL3.0 Full MPEG2, VC1, AVC Decode
- ◆ Display Output: Dual display supported 1 x VGA (up to 2048x1536@75Hz) 2 x HDMI (up to 1920x1200@60Hz) 1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
- ◆ External I/O Interface: 1 x RS-232 2 x USB 2.0 2 x USB 3.0
- ◆ Internal I/O Interface: 1 x RS-422/485 (1x4 pin, P=2.0) 2 x SATA 3Gb/s 2 x SATA 6Gb/s (RAID 0/1/5/10 supported) 4 x USB 2.0 (2x4 pin, P=2.54)
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ TPM: 1 x TPM (2x10 pin)
- ◆ Audio: Realtek ALC892 HD codec 2 x Audio jacks (line-out, mic-in) on rear IO 1 x Front Audio (2x5 pin)
- ◆ Expansion: 1 x PCIe x16 slot 1 x PCIe Mini card slot
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Infrared Interface: 1 x 5-pin header
- ◆ Fan Connector: 1 x CPU smart fan (1x4 pin) 1 x System smart fan (1x3 pin)
- ◆ Power Supply: 12V DC input 1 x External DC jack (4-pin DIN) 1 x Internal power connector (2x2 pin) Support AT/ATX mode
- ◆ Power Consumption: 12V@6.5A (2.1GHz Intel® Core™ i7-2710QE CPU with two 1333 MHz 2 GB 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
- ◆ CE/FCC compliant

Packing List

1 x KINO-QM670 single board computer	1 x Mini jumper pack
1 x I/O shielding	1 x One Key Recovery CD
1 x RS-232 cable	1 x QIG
2 x SATA with power output cable	1 x Utility CD

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
19800-003100-100-RS	Dual port USB 2.0 cable with bracket, 300mm, P=2.54
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
CF-989A-RS-R12	CPU cooler
SACF-KIT01-R10	SATA to CF converter board
TPM-IN01-R20	20-pin Infineon TPM module, software management tool, firmware v3.17

Features

- Mini-ITX SBC with Socket G for Intel® 32nm/45nm mobile Core™ i7/i5/i3 and Celeron® processor
- 800/1066MHz dual-channel DDR3 SO-DIMM supported (system max. 8 GB)
- Analog CRT/18-bit or 24-bit dual-channel LVDS/Dual HDMI outputs supported
- Intel® GbE LAN with Intel® AMT 6.0 support, iEZman UI is bundled for remote control under Windows® environment
- UEFI software interface between OS and platform firmware
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU: Socket G1 for Intel® mobile Core™ i7/i5/i3 and Celeron® processor (Socket 988)
- ◆ Chipset: Intel® QM57
- ◆ Memory: Two 204-pin 1066/800 MHz dual-channel unbuffered DDR3L SDRAM SO-DIMM support up to 16 GB
- ◆ BIOS: UEFI BIOS
- ◆ Ethernet: LAN1: Intel® 82577 GbE LAN controller with Intel® AMT 6.0 supported by iEZman software UI LAN2: Intel® 82574L GbE LAN
- ◆ Graphics Engine: Gen 5.75 with 12 execution units support DirectX* 10, OpenGL* 2.1
- ◆ Display Output: Dual display supported 1 x VGA (up to 2048x1536@75Hz) 2 x HDMI (up to 1920x1200@60Hz) 1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
- Note: The Intel® quad-core processor is a discrete processor which does not integrate a graphics engine. If a quad-core processor is used on the motherboard, an additional graphics card must be installed in order to support display output. Otherwise, the display will show "No display output" when connected to the on-board display port.
- ◆ Audio: Realtek ALC888 HD codec 2 x Audio jacks (line-out, mic-in) on rear IO
- ◆ 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 (2x7 pin, P=2.0) 2 x RS-232 (2x5 pin, P=2.0) 4 x USB 2.0 (2x4 pin, P=2.54) 6 x SATA3Gb/s (RAID 0/1/5/10 supported)
- ◆ Expansion: 1 x PCIe x16 slot 1 x 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 smart fan (1x3 pin)
- ◆ Power Supply: 12V DC input 1 x External DC jack (4-pin DIN) 1 x Internal power connector (2x2 pin) Support AT/ATX mode
- ◆ Power Consumption: 12V@5.27A (2.66GHz Intel® Core™ i7 620M CPU with two 2 GB 1333 MHz DDR3 DIMMs)
- ◆ Operating Temperature: 0°C ~ 60°C (32°F ~ 140°F)
- ◆ Storage Temperature: -10°C ~ 70°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Dimensions: 170mm x 170mm
- ◆ Weight: GW: 1000g / NW: 350g
- ◆ CE/FCC compliant

Packing List

1 x KINO-QM57A single board computer	1 x Mini jumper pack
1 x Dual RS-232 cable w/ bracket	1 x One Key Recovery CD
1 x I/O shielding	1 x QIG
3 x SATA with power output cable	1 x Utility CD

Ordering Information

Part No.	Description
KINO-QM57A-R10	Mini-ITX SBC with Socket G1 for Intel® mobile Core™ i7/i5/i3/Celeron® CPU, VGA/dual HDMI/LVDS, PCIe GbE, USB 2.0, PCIe Mini, SATA 3Gb/s and audio, RoHS
19800-003100-100-RS	Dual port USB 2.0 cable with bracket, 300mm, P=2.54
19800-004300-100-RS	RS-232 & RS-422/485 cable with bracket, 14-pin to two DB-9, 250mm, P=2.0
63040-010096-100-RS	96W/12V power adaptor 90VAC~260VAC, 4-pin DIN
CF-989A-RS-R12	CPU cooler for mobile socket-g (PGA988) up to 55W processor, copper, 60mm x 60mm x 27.6mm, RoHS
CF-989B-RS-R11	CPU cooler for mobile socket-G (PGA988) 50W processor, aluminum, 60mm x 60mm x 27.6mm, RoHS
SAIDE-KIT01-R10	SATA to IDE/CF converter board