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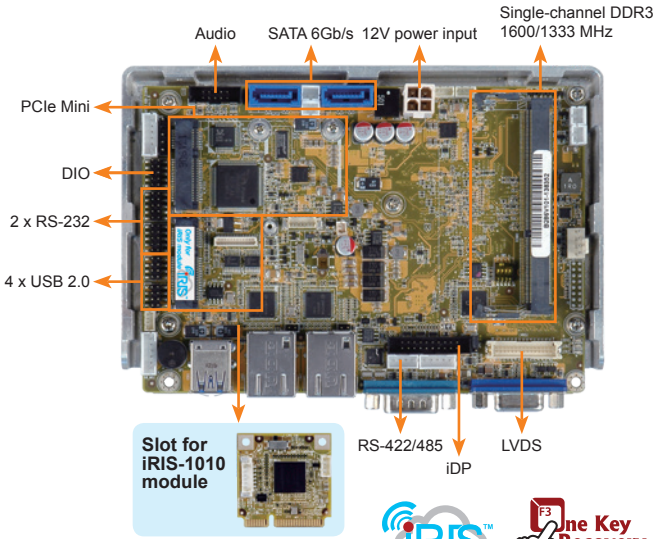
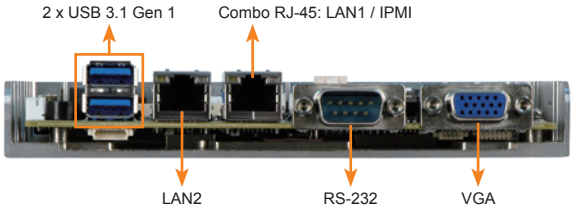
WAFER-KBN-i1

3.5" SBC supports AMD® Embedded G-Series SoC with VGA/LVDS/ iDP, Dual GbE, PCIe Mini, USB 3.1 Gen 1 (5Gb/s), SATA 6Gb/s, iRIS-1010, HD Audio and RoHS





Features

- 3.5" form fator with AMD® Embedded G-Series SoC
- 12V only single voltage design with AT/ATX mode
- 18/24-bit dual-channel LVDS for high resolution panel
- Support IPMI 2.0 with iRIS-1010 module
- Support full-size PCIe Mini card slot for mSATA, wireless card and DOM

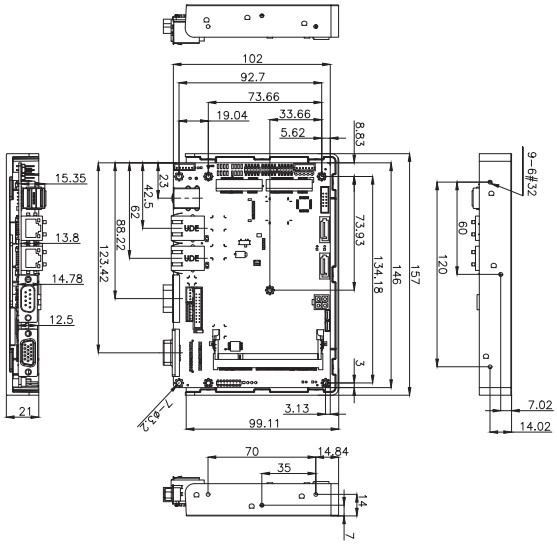
Packing List

1 x WAFER-KBN single board computer with Enclosure Heatsink	
1 x Audio cable	
1 x Power cable	2 x SATA with 5V output cable kit
1 x RS-232 cable	1 x QIG

Specifications

- SoC
  AMD® Embedded G-Series SoC
  GX-415GA on-board SoC (1.5GHz, quad-core, 2MB cache, TDP=15W)
  GX-210HA on-board SoC (1.0GHz, dual-core, 1MB cache, TDP=9W)
  GX-420CA on-board SoC (2.0GHz, quad-core, 2MB cache, TDP=25W)
  GX-217GA on-board SoC (1.65GHz, dual-core, 1MB cache, TDP=15W)
- BIOS
  AMI UEFI BIOS
- Memory
  One 204-pin 1600/1333 MHz dual-channel DDR3 & DDR3L SDRAM SO-DIMM slot supports up to 8 GB
- Graphics Engine
  GPU frequency 500 MHz (Radeon™ HD 8330E) for GX-415GA
  GPU frequency 300 MHz (Radeon™ HD 8210E) for GX-210HA
  GPU frequency 600 MHz (Radeon™ HD 8400E) for GX-420CA
  GPU frequency 450 MHz (Radeon™ HD 8280E) for GX-217GA
  Support DX11.1, OpenGL 4.1 and OpenCL1.2
  UVD4.2 decode for H.264, MPEG2/4, VC1, MVC
  VCE 2.0 encode for H.264, VCE
- Display Output
  1 x VGA (up to 2048x1536@60Hz)
  1 x 18/24-bit dual-channel LVDS (up to 1920x1200@60Hz)
  1 x iDP interface for HDMI, LVDS, VGA, DVI, DP (up to 2560x1600@60 Hz)
- Ethernet
  LAN1: Intel® I210-AT PCIe controller with NCSI support
  LAN2: Intel® I211-AT PCIe controller
- External I/O Interface
  1 x RS-232 — 2 x USB 3.1 Gen 1 (5Gb/s)
- Internal I/O Interface
  1 x KB/MS (1x6 pin) — 2 x SATA 3Gb/s with 5V SATA power connector
  1 x RS-422/485 (1x4 pin, P=2.0) — 4 x USB 2.0 (2x4 pin, P=2.0)
  2 x RS-232 (2x5 pin, P=2.0)
- iRIS Remote Management Module: 1 x iRIS-1010 slot
- SMBus: 1 x SMBus (1x4 pin)
- I²C: 1 x I²C (1x4 pin)
- Audio
  Realtek ALC892 HD codec
  1 x Front audio (2x5 pin)
  1 x S/PDIF (1x4 pin)
- Front Panel
  1 x Power LED & HDD LED (1x6 pin)
  1 x Power button (1x2 pin)
  1 x Reset button (1x2 pin)
- LAN LED: 2 x LAN LED (1x2 pin)
- Expansion: 1 x Full-size PCIe Mini card slot (supports mSATA co-lay SATA port 2)
- Digital I/O: 8-bit digital I/O (2x5 pin)
- Fan Connector: 1 x 4-pin system fan connector
- Watchdog Timer: Software programmable, support 1~255 sec. system reset
- Power Supply
  12V only DC input
  1 x Internal power connector (2x2 pin)
  Support AT/ATX mode
- Power Consumption
  12V@2.12A (AMD GX-415GA 1.5GHz CPU with one 4 GB 1333 MHz DDR3 memory)
- Operating Temperature: 0°C ~ 60°C
- Storage Temperature: -10°C ~ 70°C
- Operating Humidity: 5% ~ 95%, non-condensing
- Dimensions: 146mm x 102mm
- Weight: GW: 600g/ NW: 250g
- CE/FCC compliant

Dimensions (Unit: mm)



Ordering Information

Part No.	Description
WAFER-KBN-i1-4151-R10	3.5" SBC supports AMD 28nm quad-core GX-415GA 1.5GHz (15W) on-board SoC with VGA/LVDS, Dual GbE, PCIe Mini, USB 3.1 Gen 1 (5Gb/s), SATA 6Gb/s, iRIS-1010, HD Audio and RoHS
WAFER-KBN-i1-2101-R10	3.5" SBC supports AMD 28nm dual-core GX-210HA 1.0GHz (9W) on-board SoC with VGA/LVDS, Dual GbE, PCIe Mini, USB 3.1 Gen 1 (5Gb/s), SATA 6Gb/s, iRIS-1010, HD Audio and RoHS
iRIS-1010-R10	IPMI 2.0 adapter card with AST1010 BMC chip (W/O KVM over IP function) for PCIe Mini socket interface
32000-023800-RS	PS/2 KB/MS cable, 135mm/110mm, P=2.0
32001-008600-200-RS	Dual-port USB cable, 210mm, 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 LVDS converter board (for IEI iDP connector)
DP-VGA-R10	DisplayPort to VGA converter board (for IEI iDP connector)

Note: Models with other CPU not listed in the table are requested by MOQ: 100 pcs/lot.