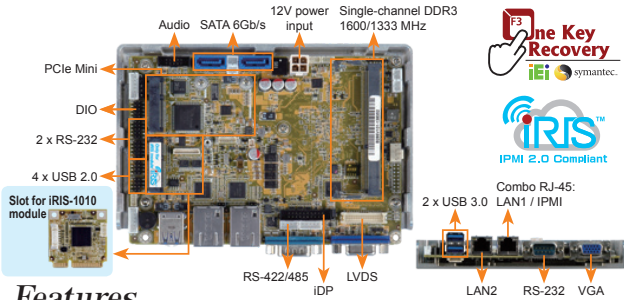


3.5" Board



Features

- 3.5" form factor 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

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 OpenCL 1.2
 - 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 3.0
- ◆ Internal I/O Interface
 - 1 x KB/MS (1x6 pin)
 - 1 x RS-422/485 (1x4 pin, P=2.0)
 - 2 x RS-232 (2x5 pin, P=2.0)
 - 2 x SATA 3Gb/s with 5V SATA power connector
 - 4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ iRIS Remote Management Module
 - 1 x iRIS-1010 slot
- ◆ SMBus: 1 x SMBus (1x4 pin)
- ◆ PC: 1 x PC (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

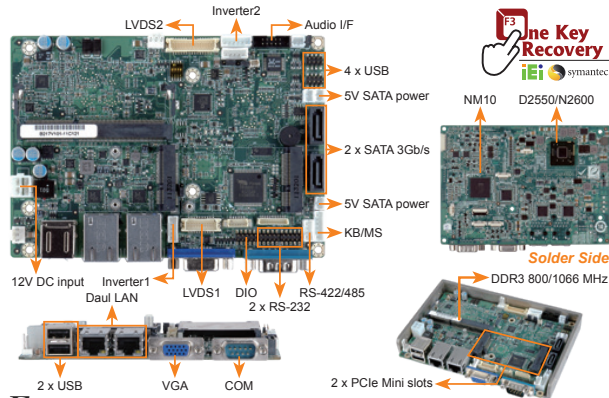
Packing List

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

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 3.0, 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 3.0, 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.



Features

- 3.5" form factor with Intel® Atom™ D2550/N2600 dual-core processor supporting DDR3 memory
- 12V only single voltage design for AT/ATX power
- Open frame heatsink thermal design for fanless solutions
- Flexible VGA, 18/24-bit LVDS with dual display support
- Complete I/O: six USB, two SATA 3Gb/s, one mSATA, four COM and audio
- IEI One Key Recovery solution allows you to create rapid OS backup and recovery

Specifications

- ◆ CPU
 - Intel® Atom™ D2550 (1.86GHz, dual-core, 1MB cache)
 - Intel® Atom™ N2600 (1.6GHz, dual-core, 1MB cache)
 - Intel® Atom™ N2800 (1.86GHz, dual-core, 1MB cache)
- ◆ Chipset: Intel® NM10
- ◆ BIOS: UEFI BIOS
- ◆ Memory: One 204-pin 1066 MHz DDR3 SDRAM SO-DIMM slot supports up to 4 GB (D2550/N2800) or 2 GB (N2600)
- ◆ Display Output
 - Dual display supported
 - VGA (up to 1920x1200@60Hz)
 - (Due to Intel GMA driver limitation, the monitor connected to the VGA connector may not have signal to it or become extended desktop after restarting from the graphics driver installation. To solve this problem, press the Ctrl+Alt+F1 hotkey to switch the primary screen to CRT mode.)
 - 14-bit single-channel LVDS1 (D2550) (up to 1440x900@60Hz)
 - 18-bit single-channel LVDS1 (N2600/N2800) (up to 1366x768@60Hz)
 - 24-bit dual-channel LVDS2 (up to 1920x1200 (D2550) or 1600x1200 (N2600/N2800)@60Hz)
- ◆ Graphics
 - GMA 3650 at 640 MHz graphics core speed (for N2550 and N2800)
 - GMA 3600 at 400 MHz graphics core speed (for N2600)
- ◆ Ethernet
 - Dual LAN: Realtek RTL8111E controllers
- ◆ External I/O Interface
 - 1 x RS-232
 - 2 x USB 2.0
- ◆ Internal I/O Interface
 - 1 x KB/MS (1x6 pin)
 - 1 x RS-422/485 (1x4 pin, P=2.0)
 - 2 x RS-232 (2x5 pin, P=2.0)
 - 2 x SATA 3Gb/s with 5V SATA power connector
 - 4 x USB 2.0 (2x4 pin, P=2.0)
- ◆ Digital I/O: 8-bit digital I/O (2x5 pin)
- ◆ Expansion
 - 1 x Full-size PCIe Mini card slot (supports mSATA, colay with SATA port 2)
 - 1 x Half-size PCIe Mini card slot
- ◆ Audio
 - Realtek ALC662 HD codec
 - 1 x Front audio (2x5 pin)
- ◆ Watchdog Timer: Software programmable supports 1~255 sec. system reset
- ◆ Power Supply
 - 12V only DC input
 - 1 x Internal power connector (2x2 pin)
 - Support AT/ATX mode
- ◆ Fan Connector (smart fan support)
 - 1 x CPU smart fan (1x3 pin)
 - 1 x System smart fan (1x3 pin)
- ◆ Power Consumption
 - 12V@1.53A (Intel® D2550 1.86GHz CPU with one 1 GB 1066 MHz DDR3 memory)
 - 12V@1.15A (Intel® N2600 1.6GHz CPU with one 1 GB 1066 MHz DDR3 memory)
- ◆ Operating Temperature
 - 20°C ~ 60°C with free air, -20°C ~ 70°C with force air for D2550 processor
 - 20°C ~ 70°C with free air, -20°C ~ 75°C with force air for N2600/N2800 processor
- ◆ Storage Temperature: -30°C ~ 80°C
- ◆ Operating Humidity: 5% ~ 95%, non-condensing
- ◆ Weight: GW: 600g / NW: 250g
- ◆ CE/FCC compliant

Packing List

1 x WAFER-CV-D25501/N26001 single board computer	2 x SATA with 5V output cable
1 x Audio cable	1 x One Key Recovery CD
1 x KB/MS cable	1 x Heat spreader
1 x Power cable	1 x Mini jumper pack
1 x RS-232 cable	1 x Utility CD
1 x Screw set for PCIe Mini card	1 x QIG

Ordering Information

Part No.	Description
WAFER-CV-D25501-R10	3.5" SBC with Intel® Atom™ D2550 1.86GHz, DDR3, VGA/ dual LVDS, dual GbE, USB 2.0, SATA 3Gb/s, Audio, RoHS
WAFER-CV-N26001-R10	3.5" SBC with Intel® Atom™ N2600 1.6 GHz, DDR3, VGA/ dual LVDS, dual GbE, USB 2.0, SATA 3Gb/s, Audio, RoHS
WAFER-CV-N28001-R10**	3.5" SBC with Intel® Atom™ N2800 1.86GHz, DDR3, VGA/ dual LVDS, dual GbE, USB 2.0, SATA 3Gb/s, Audio, RoHS (by project support, MOQ 100pcs / lot)
32001-008600-200-RS	Dual-port USB cable, 210mm, P=2.0
32205-003800-300-RS	RS-422/485 cable, 200mm, P=2.0

**By order production, MOQ: 100