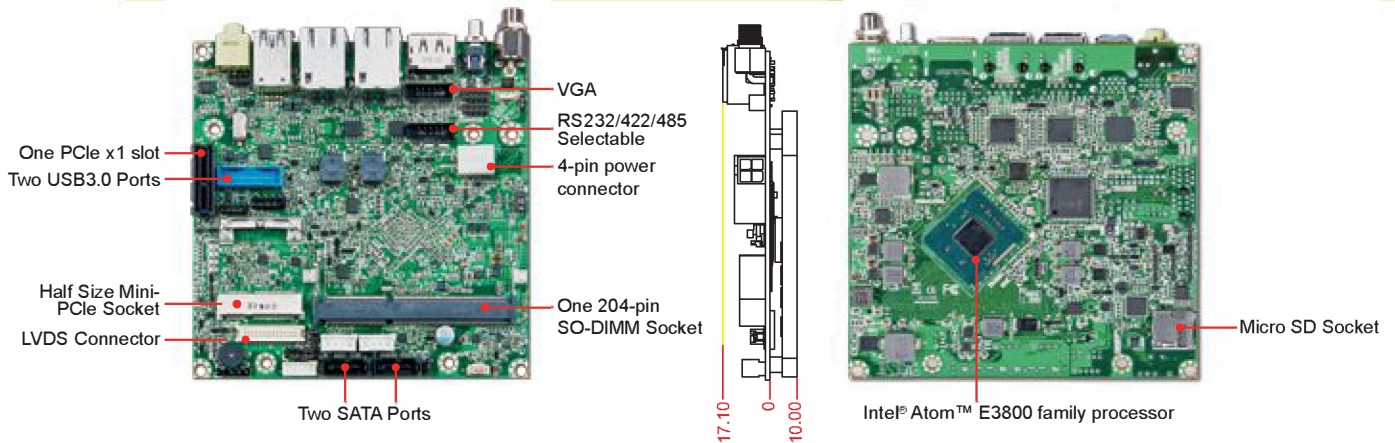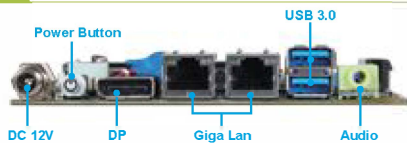# NANO-6060

Intel® Atom™ E3800 family SoC based NANO-ITX. Board with dual display, Gigabit Ethernet, Audio, USB 3.0, micro SD and SATA

- One PCIe x1 slot
- Two USB3.0 Ports
- Half Size Mini-PCIe Socket
- LVDS Connector
- Two SATA Ports
- VGA
- RS232/422/485 Selectable
- 4-pin power connector
- One 204-pin SO-DIMM Socket

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- Micro SD Socket

Intel® Atom™ E3800 family processor

NANO-6060 build with Intel® Atom™ processor E3800 family that not only outputs under 10W for fan-less applications, but also supports a wide industrial temperature from -40ºC to 85ºC. With its superior up to Quad Core processing power and high capability. Portwell have taken advantage of such technology to furnish a series of products that can meet multiple industrial requirements such as fanless, cost-effective of CPU performance or compact systems..

REAR I/O

- Power Button
- USB 3.0
- DC 12V
- DP
- Giga Lan
- Audio

FEATURES

- Intel® Valleyview-I SoC based platform
- One 204-pin SODIMM supports DDR3L up to 4GB
- Multiple display by VGA, DP, dual channel 24 bit LVDS
- Supports two SATA 2.0 ports, one micro SD socket, and four USB 3.0 ports
- One half size Mini-PCIe socket and PCIe x1 slot for expansion
- Supports DC 12V input

ORDERING GUIDE

AB1-3A45	**(R).NANO-6060- E3815** Nano-ITX ESB. Intel® ATOM E3815 1.46GHz Single Core.w/DDR3L SDRAM/VGA/24bit LVDS/DP/single GbE LAN/micro SD
AB1-3A46	**(R).NANO-6060- E3827** Nano-ITX ESB. Intel® ATOM E3827 1.75GHz Dual Core.w/DDR3L SDRAM/VGA/24bit LVDS/DP/dual GbE LAN/micro SD
AB1-3A47	**(R).NANO-6060- E3845** Nano-ITX ESB. Intel® ATOM E3845 1.91GHz Quad Core.w/DDR3L SDRAM/VGA/24bit LVDS/DP/dual GbE LAN/micro SD

PACKING LIST

One NANO-6060 NANO-ITX Main Board
One passive Heatsink
One Installation CD

GENERAL

Processor	- Intel® Atom™ E3800 family processor - Cache up to 2MB (for Quad Core) - DPM (Defect Per Million devices) <50 - Support Intel® VT-x techology
BIOS	- Phoenix EFI BIOS
Memory	- Support up to 4GB DDR3L 1066/1333 SDRAM on one 204pin SO-DIMM
Storage Devices	- Two SATA 2.0 - One Micro-SD socket
Watchdog Timer	- Programmable by embedded controller
Hardware Monitoring	- Temperature (CPU & System) - Voltage (CPU Vcore, 12V, 5V, 3.3V, 1.35V)
Expansion Interface	- 1x PCI Expressx1 slot - 1x half size Mini-PCIe slot

I/O INTERFACE

Audio	- HDA controller integrated in Intel® SoC - Realtek ALC892 HDA codec, 5.1 channels Audio Jack on rear I/O with Line-out and on board pin header with Line-in, Line-out and Mic-in
Ethernet	- Dual Intel® I210IT Gigabit Ethernet controller (for E3827/ E3845 only) - 2x RJ45 connectors on rear I/O (for E3827/ E3845 only) - Single Intel® I210IT Gigabit Ethernet controller and 1xRJ45 connector on rear I/O for E3815
Serial Port	- 1x RS232/422/485 on board connector (selected by bios)
USB	- 2x USB 3.0 ports on rear I/O - 2x USB 2.0 and 2x USB 3.0 ports on board with pitch 2.0 header
GPIO	- 8bit congfigurable controlled by embedded controller

DISPLAY

Graphic Controller	- Intel® Gen7 graphic engine supports DirectX 11, OpenGL 4.0 - Video decode hardware acceleration supports for H.264, MPEG2, MVC, VC-1, WMV9 and VP8 formats
Display Interface	- LVDS: Dual channel 24bit LVDS on board connector, resolution up to 1920x1200 @60Hz - VGA: One on-board DB-15 connector, resolution up to 1920x1200 (WUXGA) - DP: One DP port on rear I/O, resolution up to 2560x1600

Mechanical & Environment

Dimension	- 120(L) x 120(W)mm; 4.72"(L) x 4.72"(W)
Power Supply	- DC 12V input
Environment	- Operation temperature: -40~80°C - Storage temperature: -40~80°C - Relative humidity : 5~95%, non-condensing
MTBF	- Over 100,000hrs at 55°C

DDR 3 | USB 3.0 | SATA 3Gb | GPIO | EC | Fanless | Giga LAN | Watch DOG | GPIO