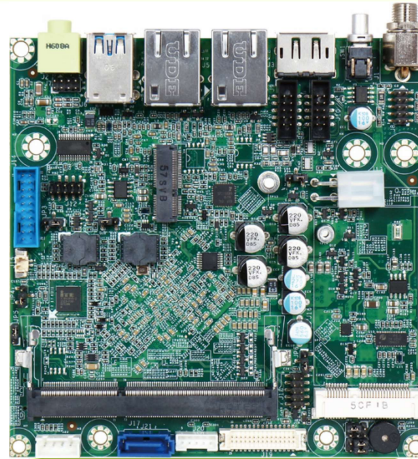# NANO-6062

Intel® Apollo Lake Atom™ Dual/Quad Core E3900 series SoC based on NANO-ITX. Board with Triple Displays, GbE LAN, USB 3.0, M.2, SATA III, Mini-PCIe, and mSATA

NANO-6062 build with Intel® Atom™ processor E3900 series. Not only does it operates with TDP under 12W for fan-less applications, but it also supports industrial temperature range from -40°C to 85°C and wide voltage of power input from 12V to 24V.

Support for four USB 3.0 ports ensures fast data transmission with low-power consumption. Two SATA 3.0 interfaces with up to 6 Gb/s (one of them available as mSATA and the other for SATA) allow quick and flexible system expansions. Intel I210-IT Gigabit Ethernet controllers provide dual Gigabit Ethernet LAN access via the two RJ45 ports. NANO-6062 can design their own unique systems for Medical, Networking, Panel PC, Kiosk and Digital Signage applications.

FEATURES

- Intel® Atom™ Dual/Quad Core E3900 series SoC
- Supports DDR3L 1866/1600 SODIMM up to 8GB
- Supports Triple display by VGA, DP, and LVDS
- Supports M.2 socket, SATA III port, Mini-PCIe, and mSATA socket
- Supports DC 12-24V input

REAR I/O

ORDERING GUIDE

TBD	(R).NANO-6062-E3930.
	Nano-ITX ESB. Intel® Atom™ Dual Core 1.6GHz (6W). w/DDR3L SO-DIMM/ VGA/ LVDS/ DP/ Singal GbE LAN/ M.2/ SATA III
TBD	(R).NANO-6062-E3940.
	Nano-ITX ESB. Intel® Atom™ Quad Core 1.6GHz (9W). w/DDR3L SO-DIMM/ VGA/ LVDS/ DP/ Dual GbE LAN/ M.2/ SATA III
TBD	(R).NANO-6062-E3950.
	Nano-ITX ESB. Intel® Atom™ Quad Core 1.6GHz (12W). w/DDR3L SO-DIMM/ VGA/ LVDS/ DP/ Dual GbE LAN/ M.2/ SATA III

PACKING LIST

Optional	One Installation CD
	One Passive Heat Spreader
	One NANO-6062 NANO-ITX Main Board

GENERAL

Processor	- Intel® Atom™ Dual/Quad Core E3900 series Processor (up to 12W) - With 2MB Cache
BIOS	AMI uEFI BIOS
Memory	One DDR3L 1866/1600 SO-DIMM up to 8GB
Storage Devices	- One SATA III port - One mSATA socket - 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	- One M.2 socket (Type E) - One full size Mini-PCIe socket

I/O INTERFACE

Audio	- High Definition Audio integrated in Intel SoC -Realtek ALC892 HDA codec -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 GbE controller (E3950/ E3940 only) - 2x RJ45 connectors on rear I/O (E3950/ E3940 only) - Singal Intel® I210IT GbE controller and singal RJ45 connectors on rear I/O for E3930
Serial Port	1x RS-232/422/485 on board connector (selected by bios)
USB	- 2x USB 3.0 ports on rear I/O - 2x USB 3.0 ports on board with pitch 3.0 header
GPIO	8-bit configurable controlled by embedded controller
Others	TPM 2.0 on board

DISPLAY

Graphic Controller	- Intel® Gen 9 Graphics supports DirectX 12, OpenGL 4.2 / OpenCL 2.0 - Video decode HW acceleration support for H.264, H.265, MPEG2, VC-1/WMV9, JPEG, VP8, and VP9
Display Interface	- LVDS: dual channel 24bit LVDS on board connector, up to 1920x1200 - CRT: one DB-15 on board connector, up to 2560x1600 - DP: one DP port on rear I/O, up to 4096x2160

Mechanical & Environment

Dimension	120(L) x 120(W) mm; 4.72"(L) x 4.72"(W)
Power Supply	DC 12-24V input
Environment	- Operation Temperature: -40°C to 85°C - Storage Temperature: -40°C to 85°C - Relative Humidity: 5% to 95%, non-condensing
MTBF	Over 100,000 hours at 55°C