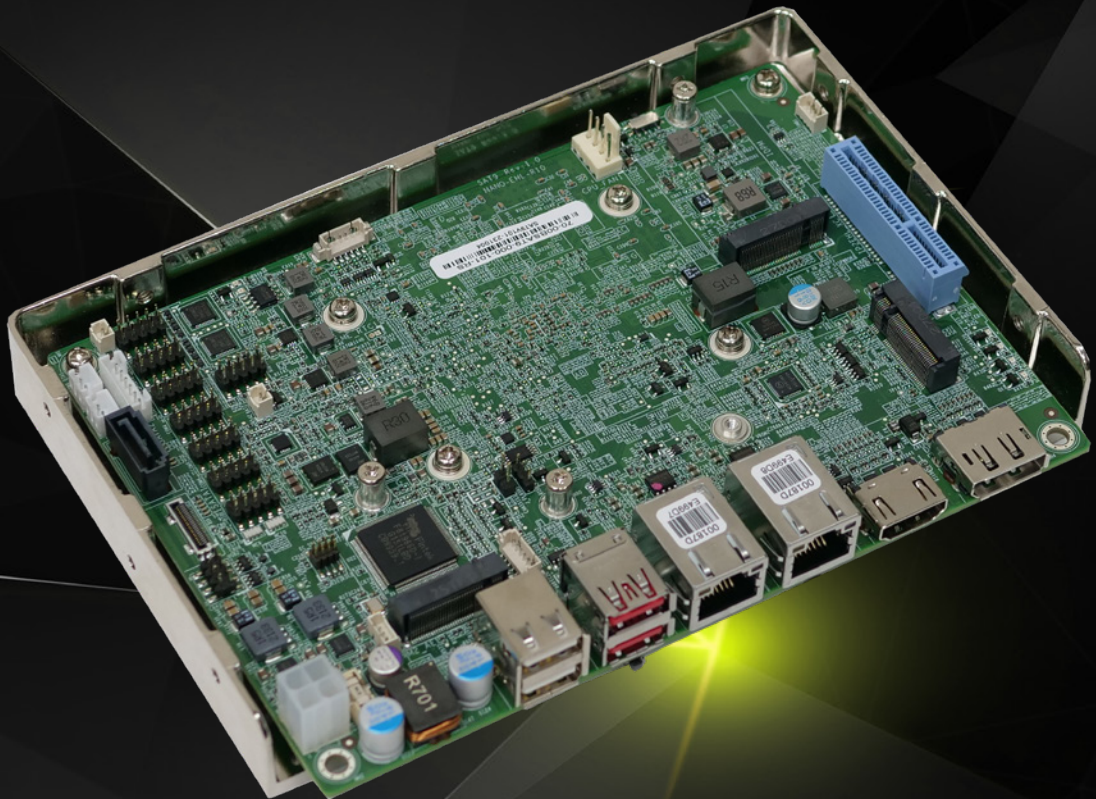


NANO-EHL

EPIC SBC supports Intel® Celeron® J6412 on-board SoC, with 8GB LPD-DR4x memory on board default

- EPIC SBC supports Intel® quad-core Celeron® J6412, on-board SoC
- Support Triple independent displays via HDMI,DP,iDPM
- Dual Intel® i225V 2.5GbE ports
- One PCIe x4 (Gen3 x2 signal) slot,M.2 A key and M.2 B key expansions
- Two USB 3.2 Gen2,four USB 2.0,four RS-232,two RS-232/422/485



Backplane
Systems
Technology

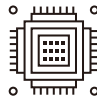
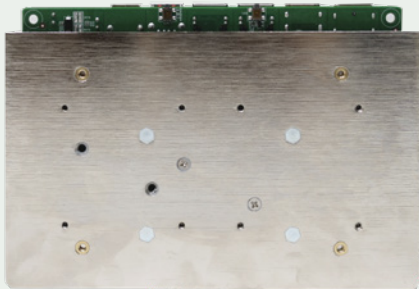
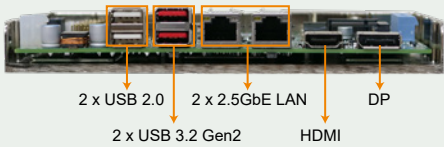
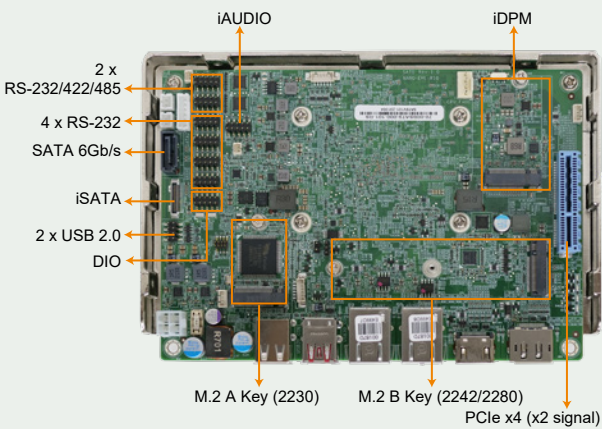
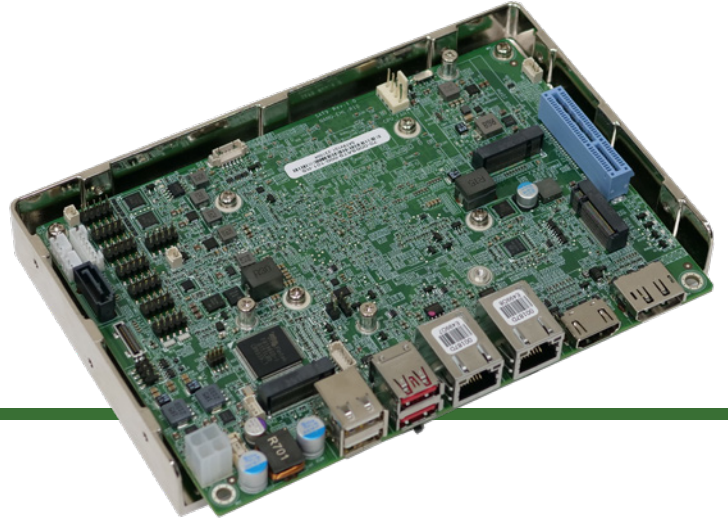
Backplane Systems
Technology Pty Ltd

TEL 02 9457 6400
sales@backplane.com.au
www.backplane.com.au

Proudly Australian-Owned Since 1989

NANO-EHL

EPIC SBC supports Intel® Celeron® J6412 on-board SoC, with 8GB LPDDR4x memory on board default



Low-power Intel® Elkhart Lake Celeron® J6412 CPU

10nm Intel® Celeron® J6412 on-board SoC, 4 cores and 4 threads, base frequency 2.00GHz, turbo frequency up to 2.60GHz, 1.5MB cache



Supporting Intel® I225V 2.5GbE Controllers

Two RJ45 network interfaces are supported via Intel® I225V 2.5GbE controllers, achieving up to 2.5GbE network transmission rate



PCIe x4 Slot Available for Riser Card

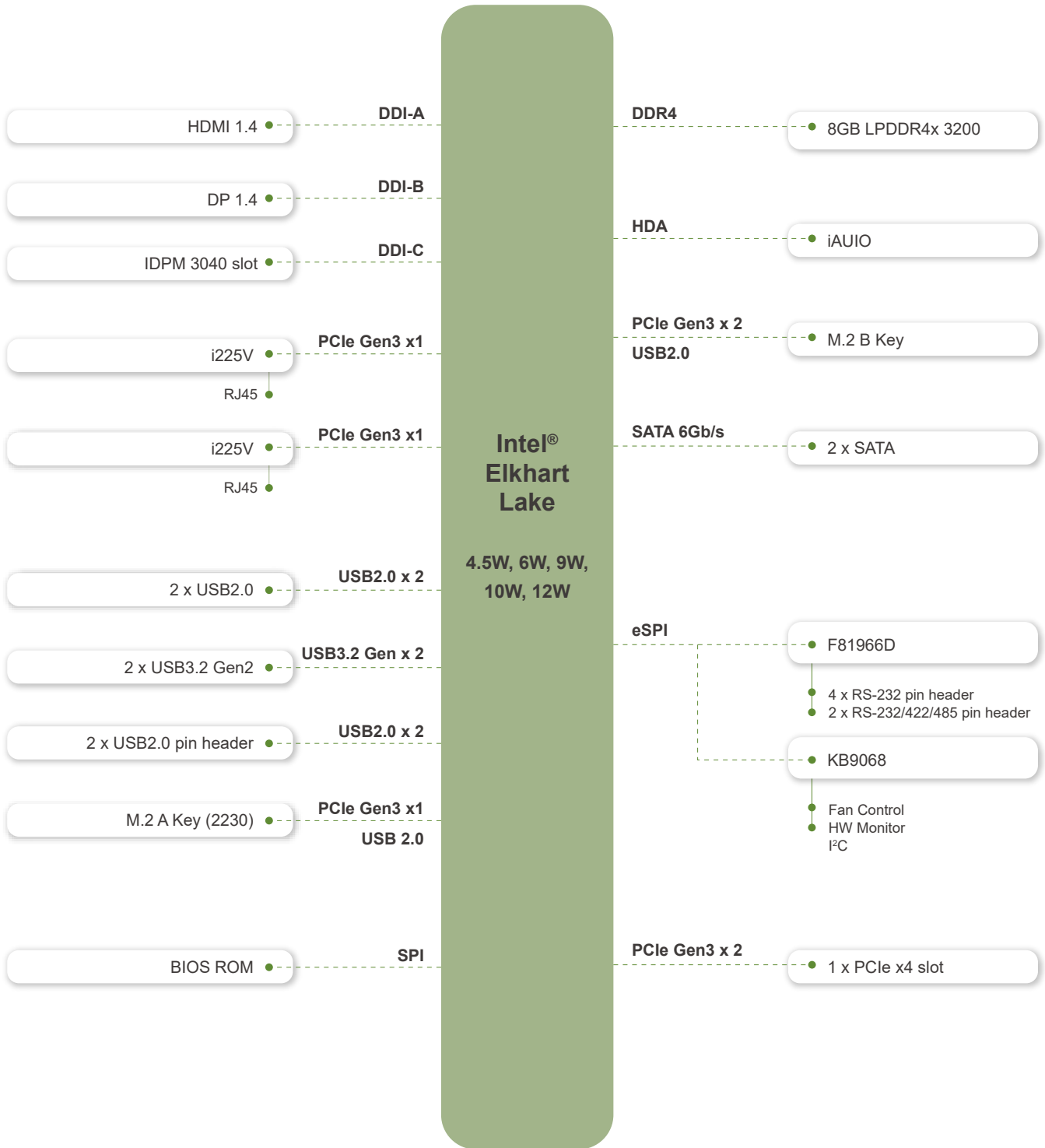
One PCIe x4 slot (PCIe Gen3 x2 signal) is reserved on the edge of the motherboard, which can be used to connect a PCIe expansion card or a riser card designed by IEI. The riser card provides two PCIe x1 slots for multiple PCIe expansion cards.



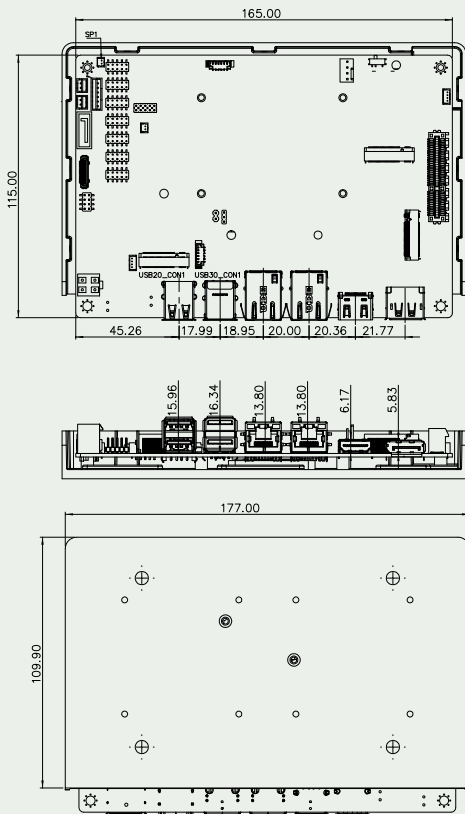
IEI-specific iDPM Interface

IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requirements.

NANO-EHL Block Diagram



Dimensions



Optional accessories



Specifications

Model	NANO-EHL
SoC	Intel® Elkhart Lake Processor Intel® Celeron® J6412 on-board SoC (up to 2.6GHz, quad-core, 1.5M Cache, TDP=10W)
BIOS	AMI UEFI BIOS
Memory	Onboard Dual channel LPDDR4x 8GB (up to 16GB)
Graphics Engine	Intel® UHD Graphics (Gen11)
Display Output	Triple Independent Display 1 x HDMI 1.4 (up to 4096 x 2160@30Hz) 1 x DP 1.4 (up to 4096 x 2160 @60Hz) 1 x IEI iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
Ethernet	LAN1: Intel® I225V 2.5GbE controller LAN2: Intel® I225V 2.5GbE controller
External I/O Interface	2 x USB 3.2 Gen2 2 x USB 2.0
Internal I/O Interface	1 x SATA 6Gb/s with 5V SATA power connector 1 x iSATA 2 x USB 2.0 (2x4 pin, P=2.0) 4 x RS-232 (2x5 pin, P=2.0) 2 x RS-232/422/485 (2x5 pin, P=2.0)
SMBus	1 x SMBus (1x4 pin)
I2C	1 x I2C (1x4 pin)
Audio	1 x iAUDIO(2 x 5 pin, support IEI AC-KIT-888HD Module)
Front Panel	1 x Power LED & HDD LED (1x6 pin) 1 x Power Connector (1x2 pin) 1 x Reset button
LAN LED	2 x LAN LED (1x2 pin)
Expansion	1 x M.2 B Key (2280/2242) PCIe x2&USB2.0 1 x M.2 A Key (2230) PCIe x1/USB2.0 1 x PCIe x4 slot (PCIe Gen3 x2) (x2 or x1+x1)
Digital I/O	1 x 12-bit digital I/O (2x7 pin)
FAN connector	1 x Smart fan connector (1x4 pin)
Power supply	1 x Internal power connector (2x2 pin) Support AT/ATX mode
Watchdog Timer	Software Programmable support 1~255 sec. System reset
Power Consumption	12V@2.75A (Intel® Celeron® J6412 CPU with 8 GB 3200 MHz LPDDR4x memory, max. loading, EuP mode disabled)
Operating Temperature	0°C ~ 60°C
Storage Temperature	-20°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Dimension	115mm x 165mm
Weight	GW:850g / NW:350g
Certification	CE/FCC Compliant

Packing List

1 x NANO-EHL single board computer with Cooler Module	1 x SATA cable
1 x QIG	1 x iSATA cable
1 x Power cable	

Ordering Information

NANO-EHL-J6412C-R10	EPIC SBC supports Intel® quad-core Celeron® J6412 2.0GHz on-board SoC, with 8GB LPDDR4x memory on board default, with DP,HDMI,iDPM,M.2 A key, M.2 B key, USB 3.1, SATA 6Gb/s, COM, iAUDIO, PCIe x4(x2 signal) for riser card and RoHS
---------------------	---

Optional Accessories

CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32205-002700-200-RS	RS-232 cable, 200 mm, p=2.0 mm
NWR-L2S-N-R10	PCIe x2 to two PCIe x1 riser card for NANO on the left side
NWR-R2S-N-R10	PCIe x2 to two PCIe x1 riser card for NANO on the right side
iDPM-eDP-R10	eDP to eDP DisplayPort converter board (for IEI iDPM connector)
iDPM-LVDS-R10	eDP to LVDS DisplayPort converter board (for IEI iDPM connector)
iDPM-VGA-R10	eDP to VGA Connector converter board (For IEI Display Module)