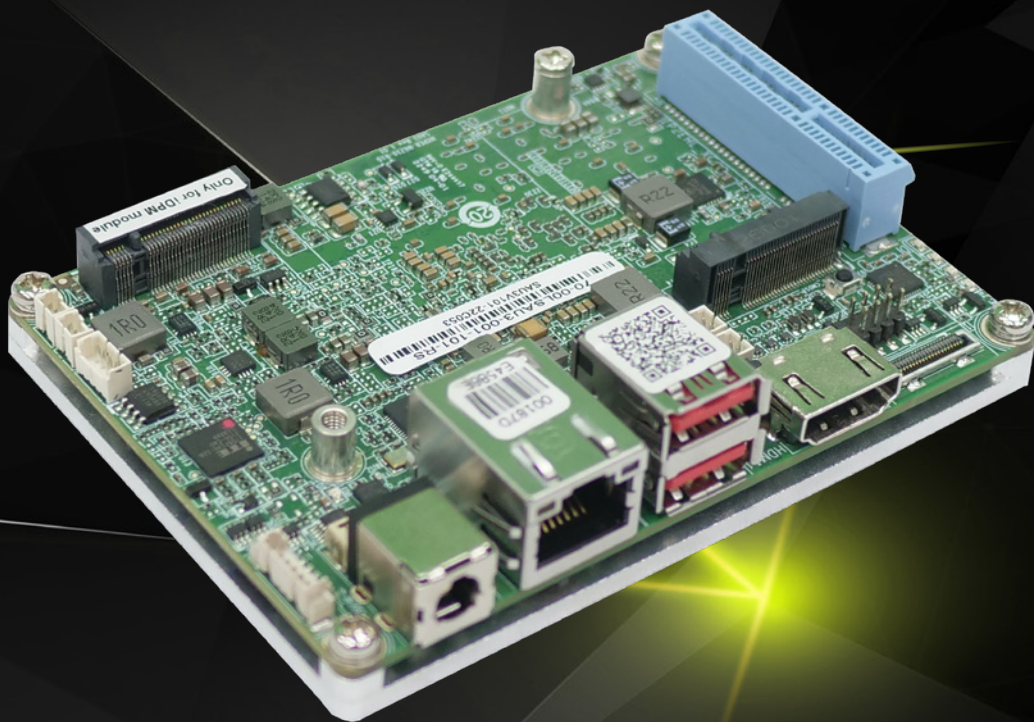


# HYPER-EHL

Pico-ITX SBC supports Intel® Celeron J6412/N6210 on-board SoC

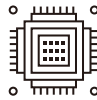
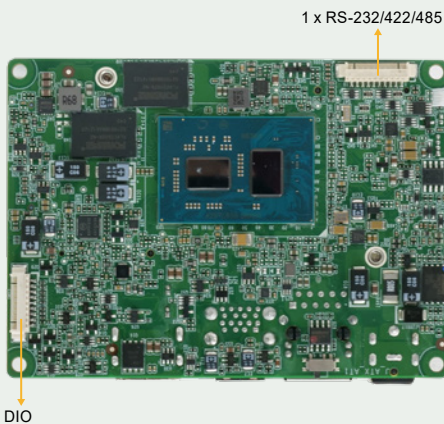
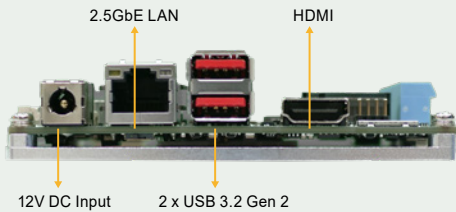
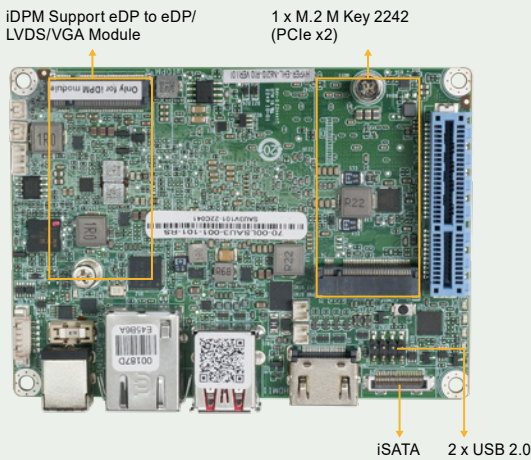
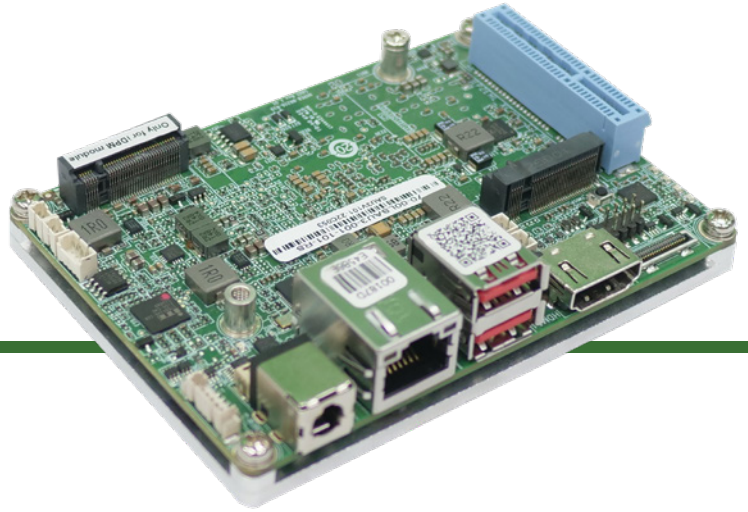
- On-board LPDDR4x 4GB (up to 8 GB option)
- HDMI and iDPM support dual independent displays
- Support Intel® i225V 2.5GbE port
- One PCIe Gen3 x4 slot and one M.2 M key expansions
- Two USB 3.2 Gen2, two USB 2.0, one RS-232/422/485



[www.ieiworld.com](http://www.ieiworld.com)

# HYPER-EHL

Pico-ITX SBC supports Intel® Celeron® J6412/N6210 on-board SoC, with 4GB LPDDR4x memory on board, HDMI, iDPM, M.2 M key, USB 3.2, iSATA 6Gb/s, COM, PCIe x4 for riser card and RoHS



## 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 Controller

One RJ45 network interface is supported via Intel® I225V 2.5GbE controller, achieving up to 2.5GbE network transmission rate



## PCIe x4 Slot Available for Riser Card

One PCIe x4 slot (PCIe Gen3 x4 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.

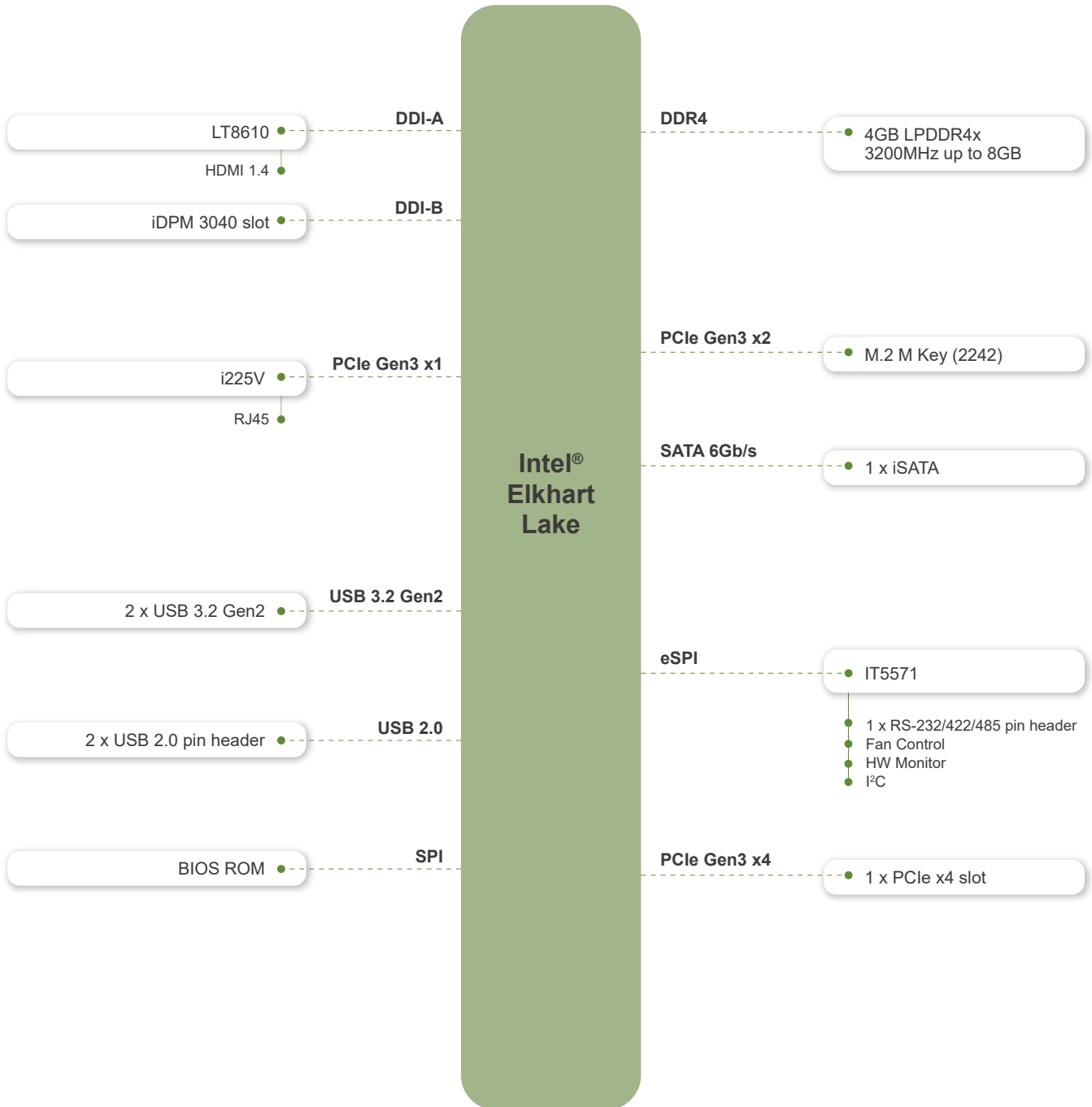


## IEI-specific iDPM Interface

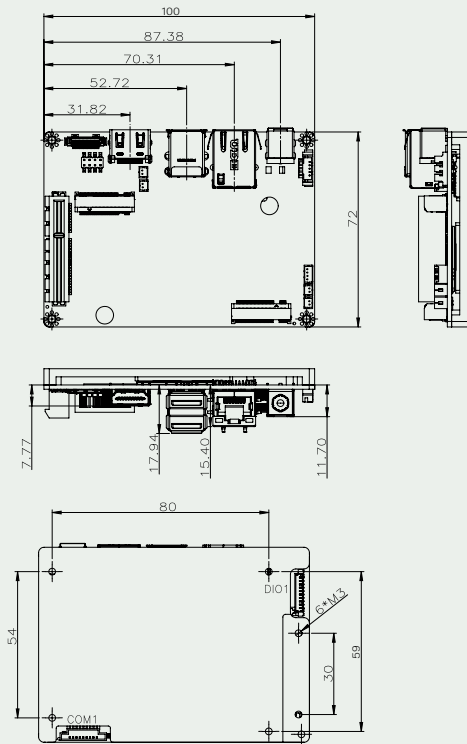
IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requirements.



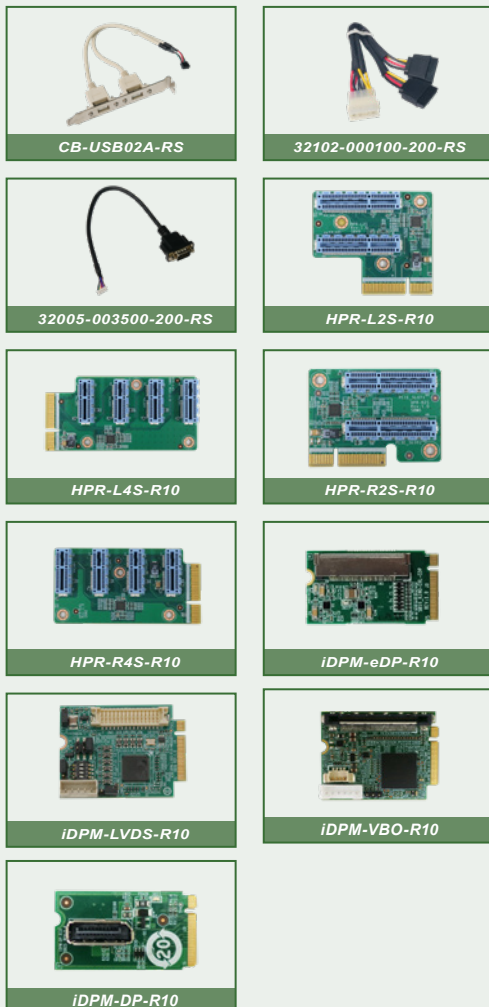
# Block Diagram



### Dimensions



### Optional accessories



### Specifications

Model	HYPER-EHL
SoC	Onboard Intel® Atom™ x6000 series / Pentium® / Celeron® processor (Elkhart Lake platform) Intel® Celeron® J6412 on-board SoC (up to 2.6GHz, quad-core, 1.5M Cache, TDP=10W) Intel® Celeron® N6210 on-board SoC (up to 2.6GHz, dual-core, 1.5M Cache, TDP=6.5W)
BIOS	AMI UEFI BIOS
Memory	LPDDR4x-3200 MHz 4GB, up to 8GB
Graphics Engine	Intel® UHD Graphics (Gen11)
Display Output	1 x HDMI 1.4 (up to 4096x2160 @ 30Hz) 1 x iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
Ethernet	LAN1: Intel® I225V 2.5GbE controller
External I/O Interface	2 x USB 3.2 Gen2 (10Gb/s)
Internal I/O Interface	2 x USB 2.0 (2x4 pin, P=2.0) 1 x iSATA 6Gb/s 1 x RS-232/422/485 (1x9 pin, P=1.25)
Front Panel	1 x front panel (power button 1x2 pin P=1.25mm, reset button 1x2 pin P=1.25mm)
Expansion	1 x M.2 M Key 2242 (PCIe Gen3 x2) 1 x PCIe x4 slot (PCIe Gen3 x4) (x4 or x2+x2 or x1+x1+x1+x1)
SMBus	1 x SMBus (1x4 pin)
Digital I/O	1 x 8-bit DIO (1x10 pin, P=1.25)
Power Supply	12V DC input Support AT/ATX mode
Watchdog Timer	Software Programmable support 1~255 sec. System reset
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Operating Humidity	5% ~95%, non-condensing
Power Consumption	12V@ 2.07A (Intel® Celeron® J6412 CPU with 4 GB 3200 MHz LPDDR4x memory, max. loading, EuP mode enabled)
Dimensions	100mm x 72mm
Weight	600g / NW: 250g
Certification	CE/FCC Compliant

### Packing List

1 x HYPER-EHL SBC with heat spreader	1 x iSATA cable (PN: 32801-010500-100-HF)
1 x QIG	

### Ordering Information

HYPER-EHL-J6412B-R10	Pico-ITX SBC with Intel® Celeron® J6412 2.0GHz quad-core on-board SoC, 4GB LPDDR4x memory on board default, HDMI, iDPM, M.2 M key, USB 3.2, iSATA 6Gb/s, COM, PCIe x4 for riser card and RoHS
HYPER-EHL-N6210B-R10	Pico-ITX SBC with Intel® Celeron® N6210 2.0GHz dual-core on-board SoC, 4GB LPDDR4x memory on board default, HDMI, iDPM, M.2 M key, USB 3.2, iSATA 6Gb/s, COM, PCIe x4 for riser card and RoHS

### Optional Accessories

CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
32005-003500-200-RS	RS-232/422/485, 300mm, P=1.25
HPR-L2S-R10	PCIe x4 to two PCIe x2 riser card for HYPER on the left side
HPR-L4S-R10	PCIe x4 to four PCIe x1 left riser card for HYPER on the left side
HPR-R2S-R10	PCIe x4 to two PCIe x2 riser card for HYPER on the right side
HPR-R4S-R10	PCIe x4 to four PCIe x1 left riser card for HYPER 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-VBO-R10	eDP to VBO DisplayPort converter board (for IEI iDPM connector)
iDPM-DP-R10	eDP to DP DisplayPort converter board (for IEI iDPM connector)