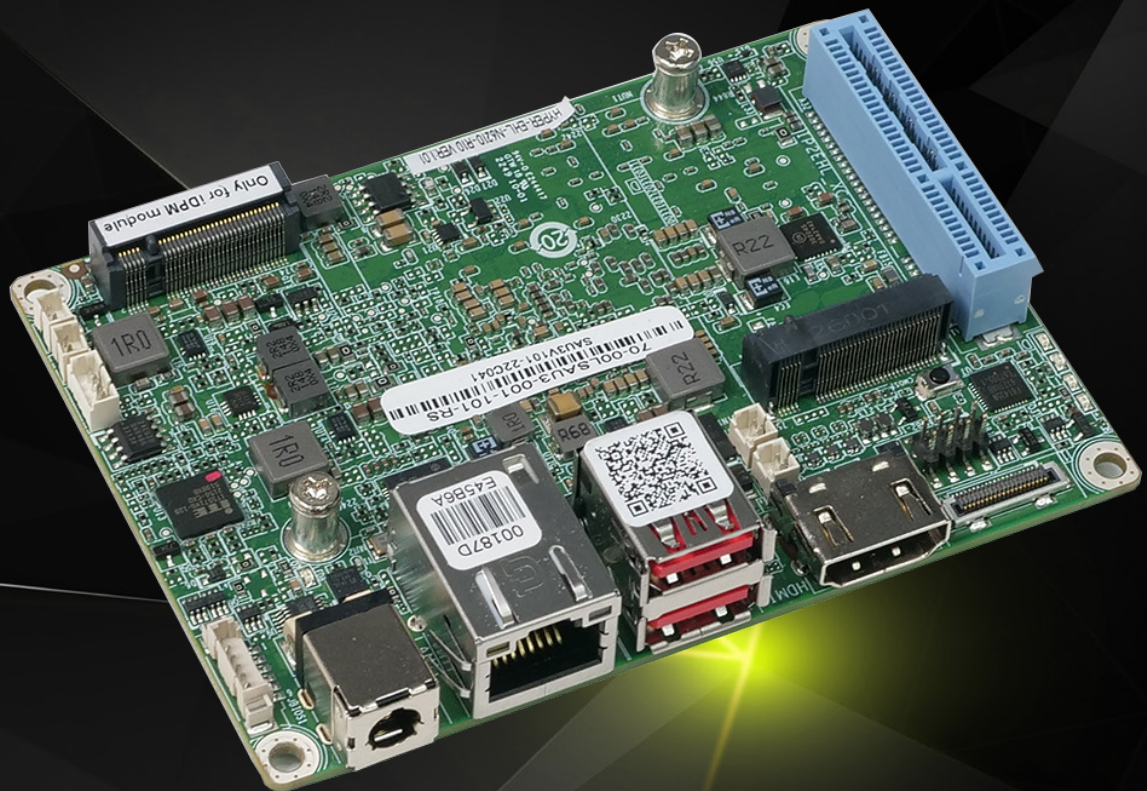


# HYPER-EHL

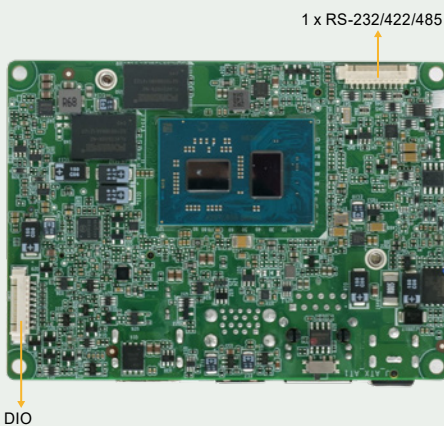
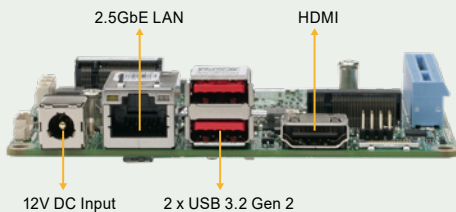
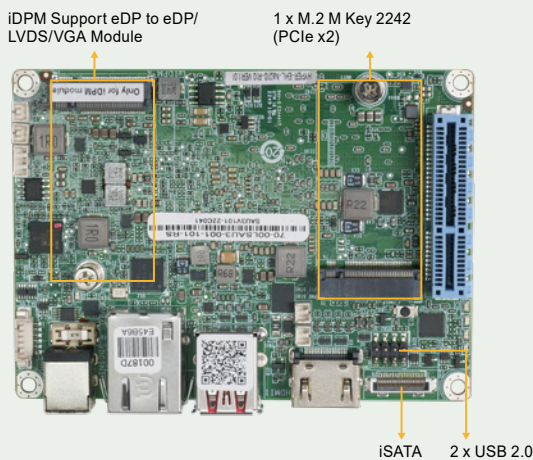
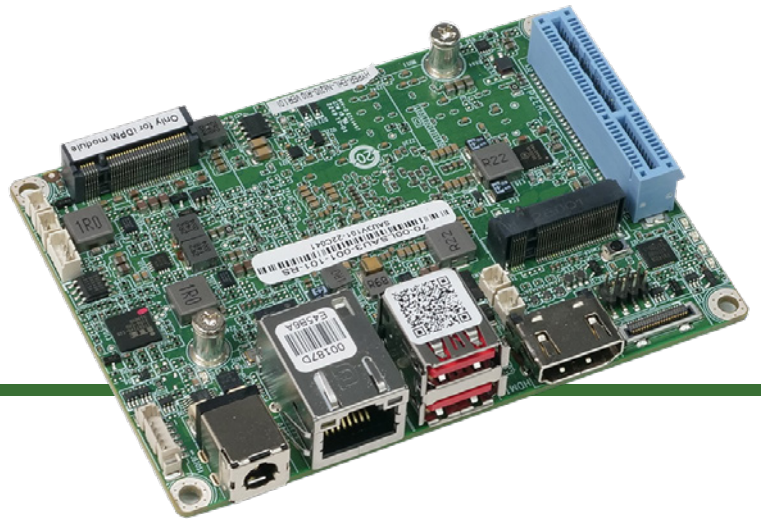
**Pico-ITX SBC supports Intel® Celeron J6412/N6210 on-board SoC, with 4GB LPDDR4x memory on board default**

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



# HYPER-EHL

Pico-ITX SBC supports Intel® Celeron® J6412/N6210 on-board SoC, with 4GB LPDDR4x memory on board



## 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.

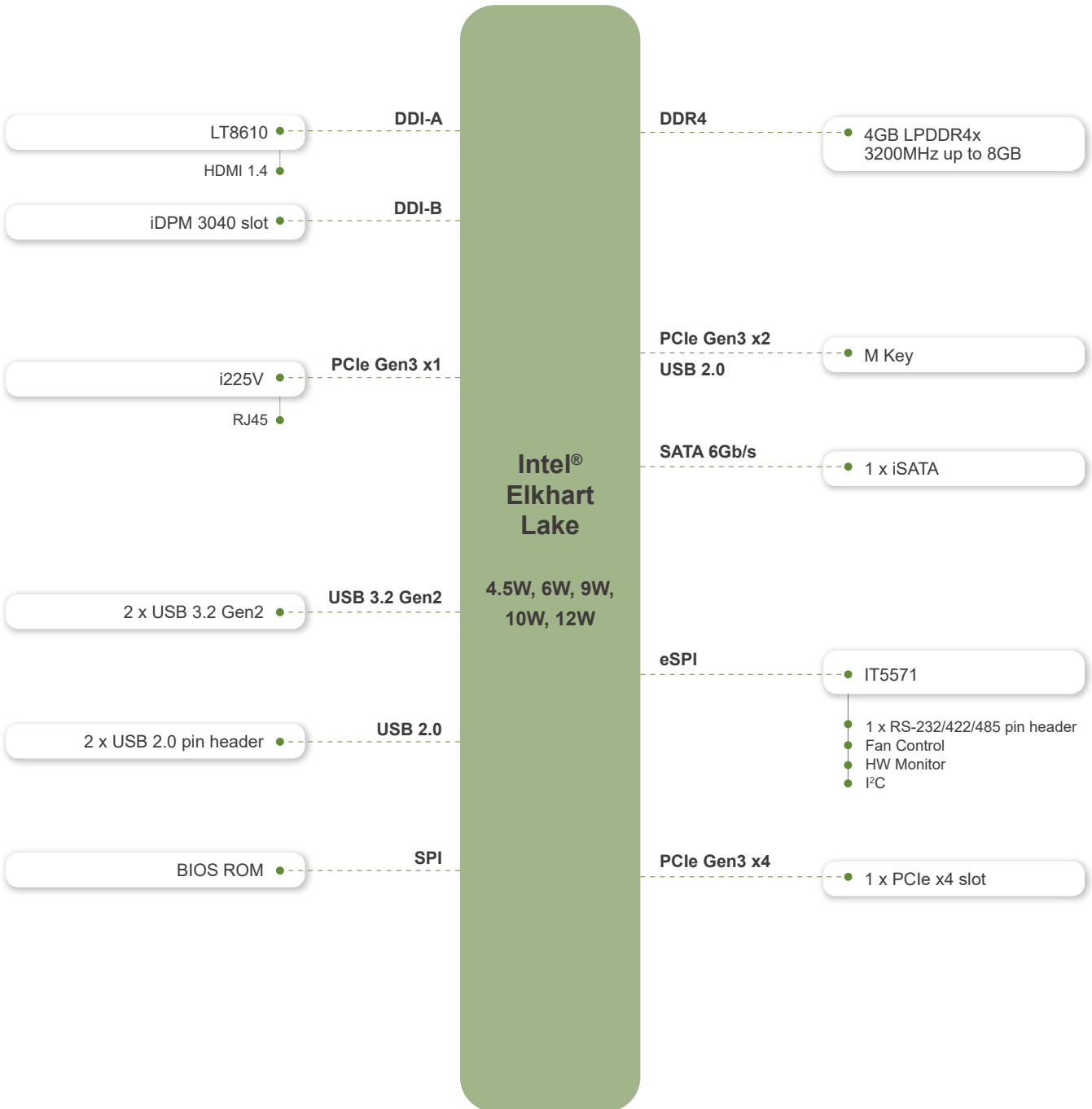


## IEI-specific iDPM Interface

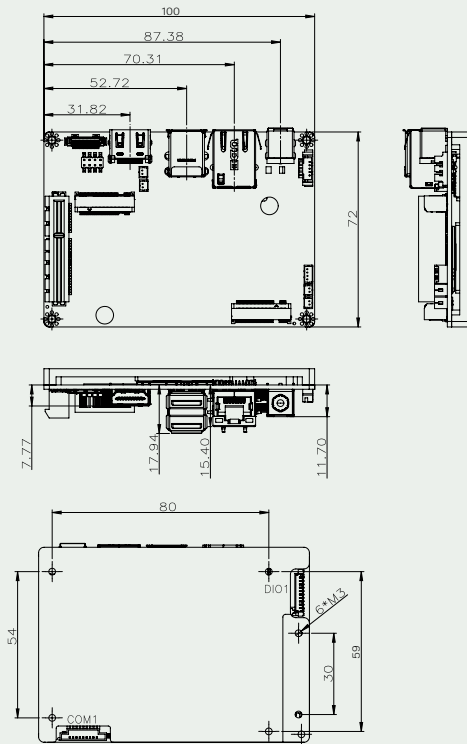
IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requirements.



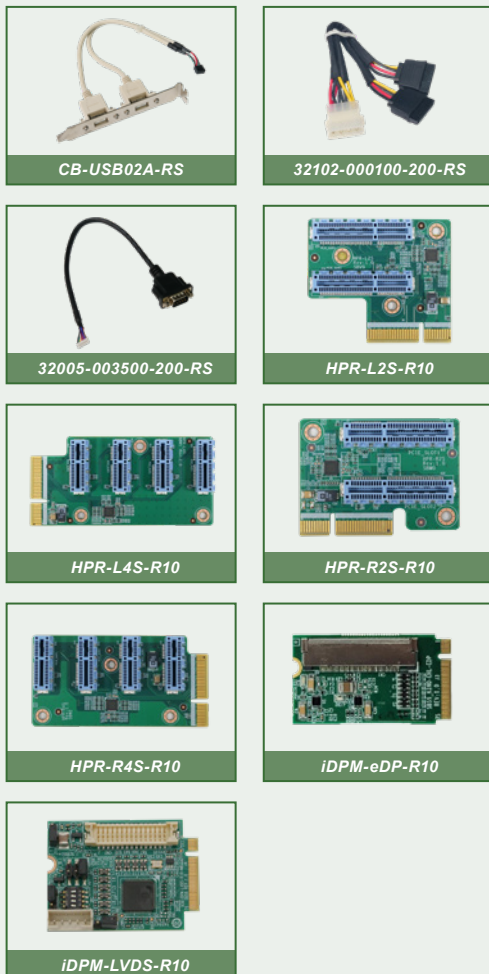
# HYPER-EHL Block Diagram



### Dimensions



### Optional accessories



### Specifications

| Model                  | HYPER-EHL  |
|------------------------|--|
| SoC                    | Onboard Intel® Atom™ x6000 series / Pentium® / Celeron® processor (Elkhart Lake platform)<br>Intel® Celeron® J6412 on-board SoC (up to 2.6GHz, quad-core, 1.5M Cache, TDP=10W)<br>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)<br>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)<br>2 x USB 2.0 (2x4 pin, P=2.0)  |
| Internal I/O Interface | 1 x iSATA 6Gb/s<br>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 x2)<br>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<br>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      | TBD  |
| Dimensions             | 100mm*72mm   |
| Weight                 | 600g / NW: 250g  |
| Certification          | CE/FCC Compliant   |

### Packing List

|  |                 |
|--|-----------------|
| 1 x HYPER-EHL single board computer with Cooler Module | 1 x iSATA cable |
| 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)    |