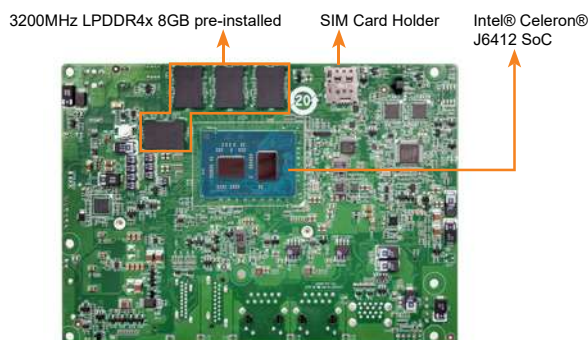
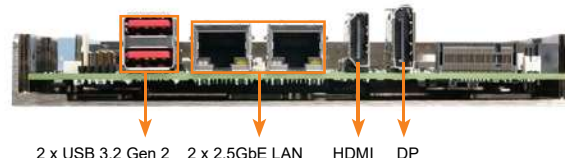
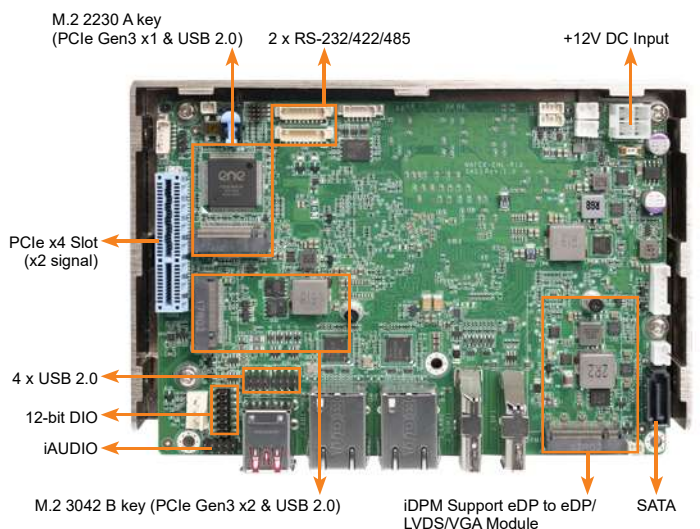


WAFER-EHL

3.5" SBC supports Intel® Celeron® J6412 on-board SoC, triple display with DP, HDMI and iDPM slot, dual 2.5 GbE, USB 3.2 Gen 2, M.2, SATA 6Gb/s, COM, iAUDIO, 0°C ~60°C and RoHS



Features



10W 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.



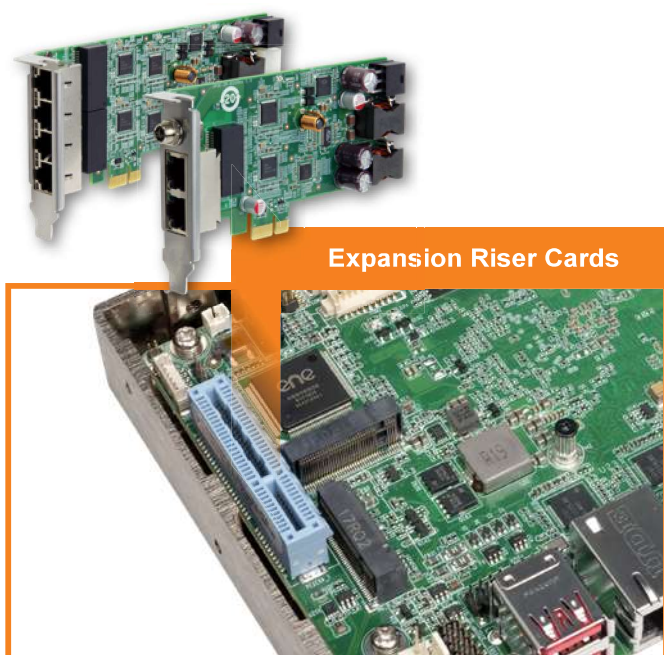
PCIe x4 Slot Available for Expansion

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

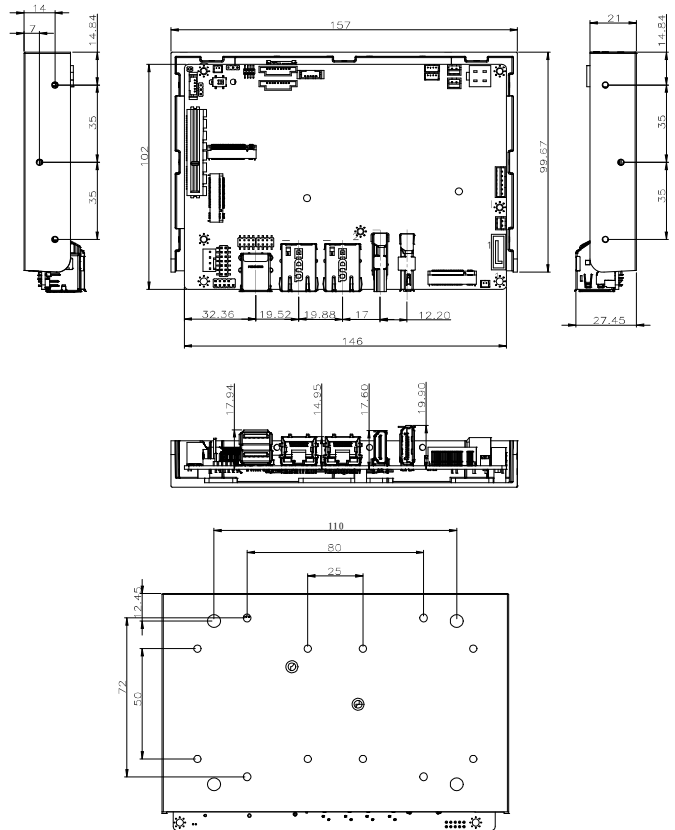
IEI uniquely designs a iDPM interface that can connect to display modules, enabling users to add LVDS/eDP/VGA display interface upon requirements.



Specifications

- ◆ 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)
- ◆ BIOS
 - AMI UEFI BIOS
- ◆ Memory
 - On-board LPDDR4x 3200 MHz 8GB
- ◆ Graphics Engine
 - Intel® Gen11 UHD Graphics
- ◆ Display Output
 - Triple independent display
 - 1 x HDMI 2.0 (up to 4096x2160 @ 60Hz)
 - 1 x DP 1.4 (up to 4096x2160 @ 60Hz)
 - 1 x IEI iDPM 3040 slot (only for IEI eDP/LVDS/VGA module)
- ◆ Ethernet
 - LAN1: Intel® I225V 2.5GbE
 - LAN2: Intel® I225V 2.5GbE
- ◆ External I/O Interface
 - 2 x USB 3.2 Gen 2
- ◆ Internal I/O Interface
 - 1 x SATA 6Gb/s with 5V SATA power connector
 - 4 x USB 2.0 pin header
 - 2 x RS-232/422/485 (1x9 pin, P=1.25)
- ◆ I²C
 - 1 x I²C (1x4 pin, P=2.0)
- ◆ Audio
 - 1 x iAUDIO (2x5 pin) support IEI AC-KIT-888S kit
- ◆ Front Panel
 - 1 x Power LED & HDD LED (1x6 pin)
 - 1 x Power button (1x2 pin)
 - 1 x Reset button (1x2 pin)
- ◆ LAN LED
 - 2 x LAN LED (1x2 pin)
- ◆ Expansion
 - 1 x M.2 2230 A key for Wi-Fi & BT (PCIe Gen3 x1 / USB 2.0 signal)
 - 1 x M.2 3052/2042 B key w/ SIM holder (PCIe Gen3 x2 / USB 2.0 signal)
 - 1 x PCIe Gen3 x4 (x2 signal) (x2 or x1+x1)
- ◆ Digital I/O
 - 1 x 12-bit digital I/O (2x7 pin)
- ◆ TPM
 - Intel® PTT (TPM 2.0)
- ◆ Fan Connector
 - 1 x System fan connector (1x4 pin)
- ◆ Power Supply
 - +12V DC input power (AT/ATX mode)
- ◆ Watchdog Timer
 - Software programmable, support 1~255 sec. system reset
- ◆ Power Consumption
 - TBD
- ◆ Operating Temperature
 - 0°C ~ 60°C
- ◆ Storage Temperature
 - 30°C ~ 70°C
- ◆ Operating Humidity
 - 5% ~95%, non-condensing
- ◆ Dimensions
 - 146mm x 102mm
- ◆ Weight
 - GW:850g / NW:350g
- ◆ Certification
 - CE/FCC Compliant

Dimensions (Unit: mm)



Packing List

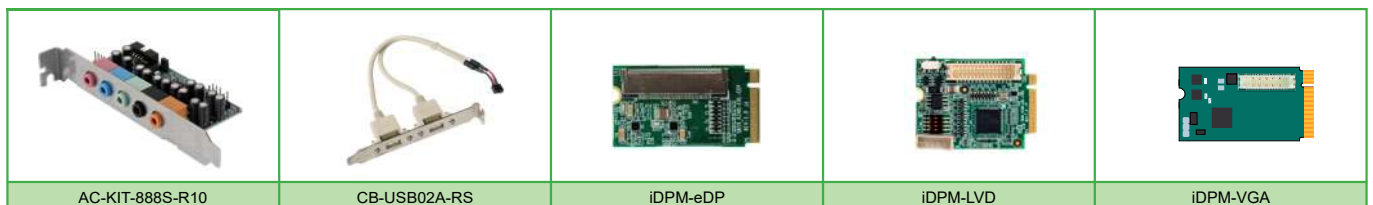
1 x WAFER-EHL single board computer	1 x SATA with power cable kit
1 x Power cable for P4	1 x QIG

Ordering Information

Part No.	Description
WAFER-EHL-J6412-R10	3.5" SBC supports Intel® Celeron® J6412 on-board SoC, triple display with DP, HDMI and iDPM slot, dual 2.5 GbE, USB 3.2 Gen 2, M.2, SATA 6Gb/s, COM, iAUDIO, 0°C ~60°C and RoHS

Optional Accessories

Part No.	Description
AC-KIT-888S-R10	Realtek ALC888S 7.1 Channel HD Audio peripheral board, RoHS
CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
iDPM-eDP	eDP to eDP DisplayPort converter board (for IEI iDPM connector)
iDPM-LVD	eDP to LVDS DisplayPort converter board (for IEI iDPM connector)
iDPM-VGA	eDP to eDP VGA DisplayPort converter board (for IEI iDPM connector)



AC-KIT-888S-R10

CB-USB02A-RS

iDPM-eDP

iDPM-LVD

iDPM-VGA