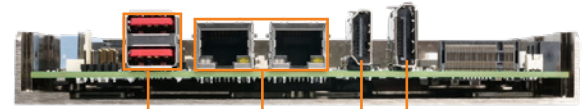
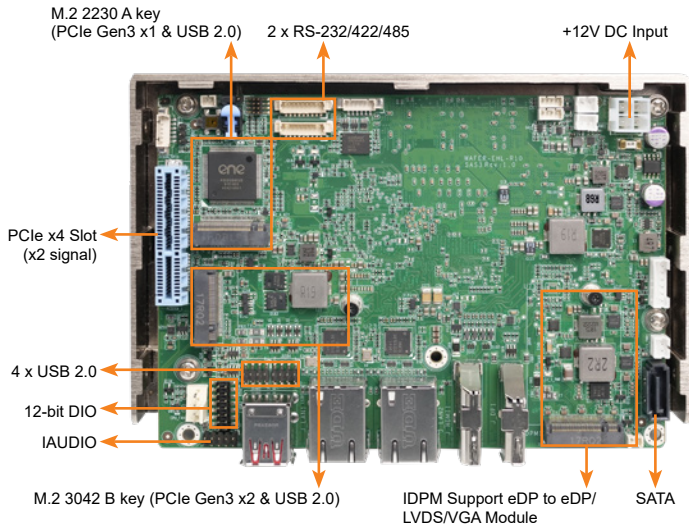
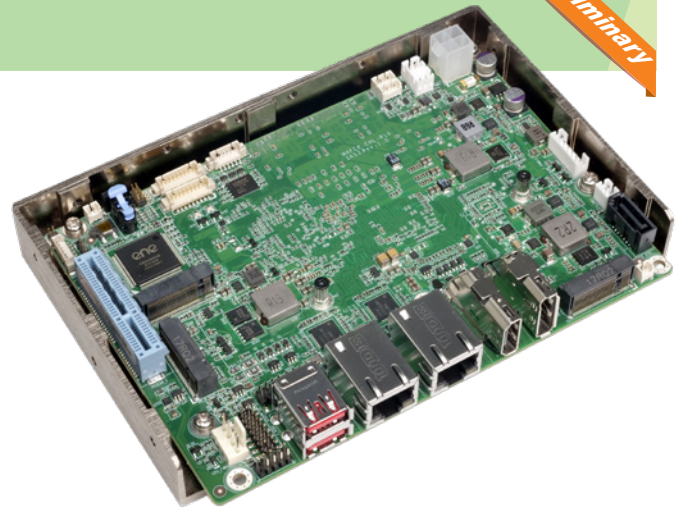


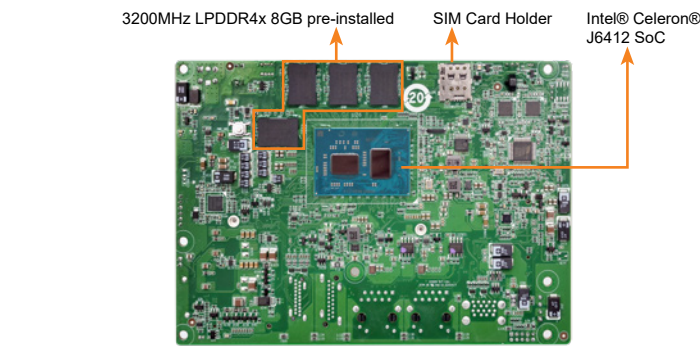
WAFER-EHL

Preliminary

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



2 x USB 3.2 Gen 2 2 x 2.5GbE LAN HDMI DP



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

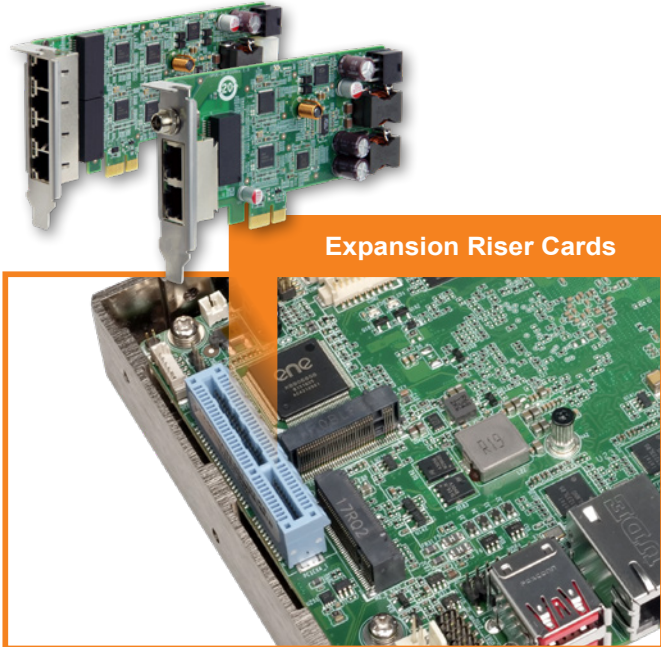
Two RJ45 network interfaces are supported via Intel® I225V 2.5GbE controllers, achieving up to 2.5GbE network transmission rate.

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

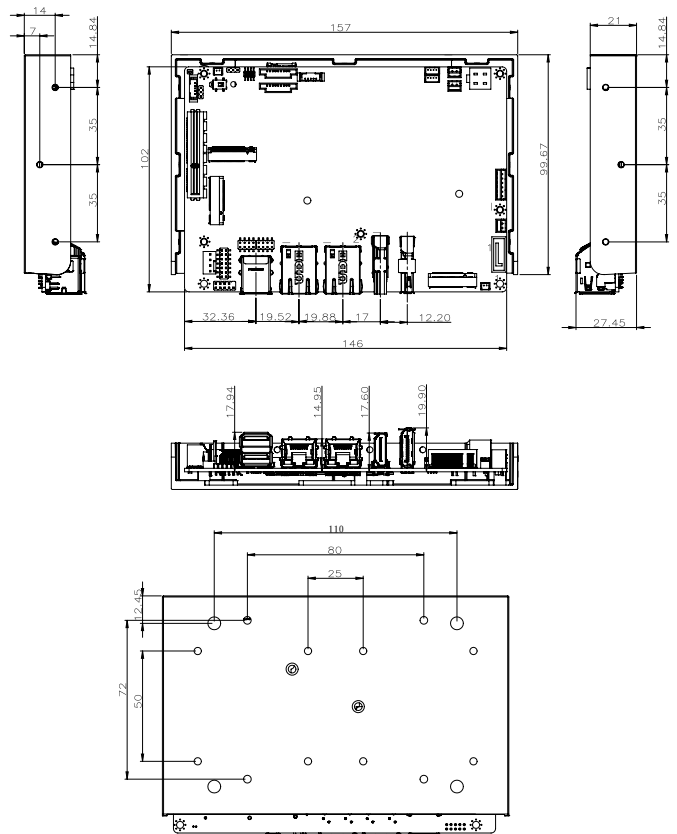
IEI uniquely designs an IDPM interface that can connect to display modules, enabling users to add LVDS/eDP/ VGA display interface upon requirements.



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 Art n° 167814

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

