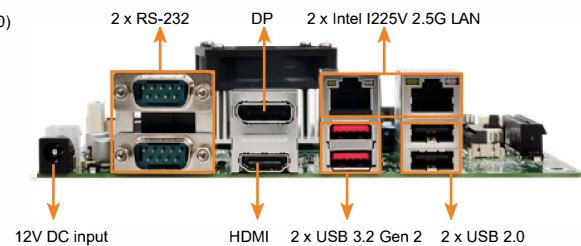
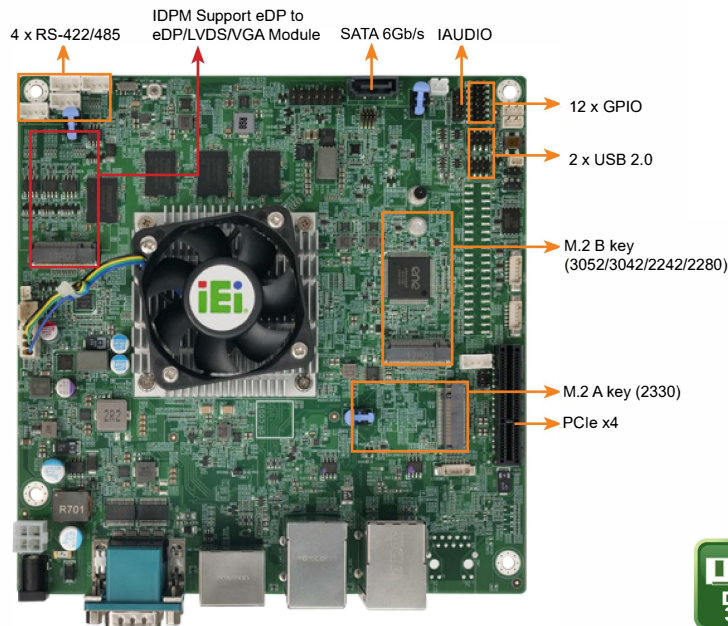


KINO-EHL-J6412

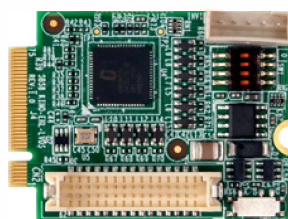
NEW

Mini-ITX SBC supports Intel® Elkhart Lake Celeron® on-board SoC with Triple Independent Display, HDMI, DP, IDPM, SATA 6Gb/s, Dual 2.5GbE, USB 3.2, M.2, 12V DC input and RoHS



IDPM-LVDS

eDP to 24-bit dual-channel LVDS converter board



Features



10W Low-power Intel® Elkhart Lake Celeron® J6412 CPU

Intel® 10nm 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.



Rich Expansion I/O

Support one M.2 A key for Wi-Fi & Bluetooth modules, one M.2 B key 3042 for 5G modules and one open-ended PCIe Gen3 x4 slot.



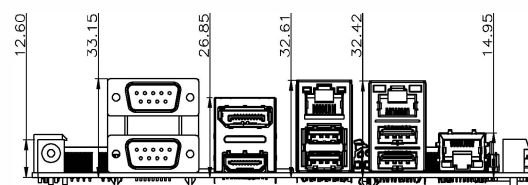
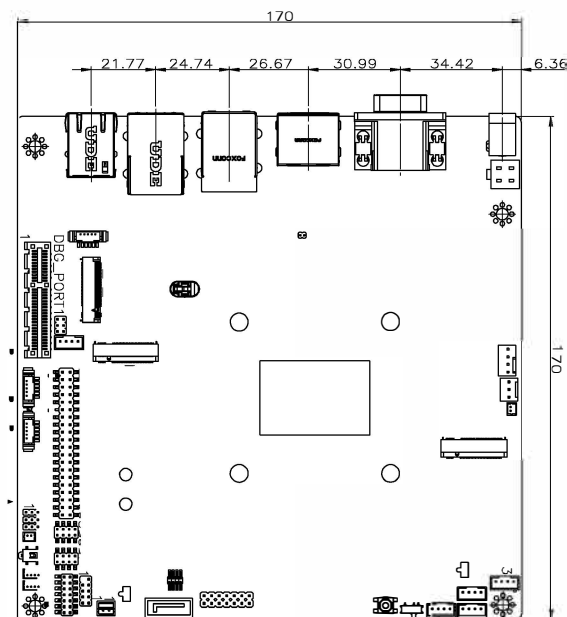
IEI-specific IDPM Interface

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

Specifications

- ◆ CPU
 - 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
 - Dual BIOS for boot & recovery
- ◆ Memory
 - Onboard LPDDR4x-3200MHz 4GB, system up to 8GB
- ◆ Graphics Engine
 - Gen11LP Gfx firmware and driver, Media SDK, OpenCL* 1.2, OpenGL 4.5, OpenGL-ES 3.2, Vulkan v1.1, DirectX
- ◆ 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 Gen 2 (10Gb/s) (USB Type A)
 - 2 x USB 2.0 (USB Type A)
 - 2 x RS-232
- ◆ Internal I/O Interface
 - 1 x SATA 6Gb/s
 - 4 x USB 2.0 (2x4 pin, P=2.0)
 - 4 X RS-422/485 (pin header)
- ◆ SMBus
 - 1 x SMBus (1x4 pin)
- ◆ I²C
 - 1 x I²C (1x4 pin)
- ◆ Audio
 - 1 x IAUDIO, support IEI AC-KIT-888S Audio Module (2x5 pin, P=2.0)
- ◆ Front Panel
 - 1 x Front Panel (2x7 pin, power LED, HDD LED, power button, reset button)
- ◆ LAN LED
 - 2 x LAN LED (1x2 pin)
- ◆ Expansion
 - 1 x PCIe x4 slot, open-ended (PCIe Gen3 x1 signal)
 - 1 x M.2 A key (2230) (PCIe x1 & USB 2.0)
 - 1 x M.2 B key (3052/3042/2242/2280) w/ SIM holder (PCIe x2 USB 2.0)
- ◆ Digital I/O
 - 1 x 12-bit DIO (2x7 pin)
- ◆ TPM
 - Intel® PTT(TPM 2.0)
- ◆ Fan Connector
 - 1 x CPU fan connector (1x4 pin)
 - 1 x System fan connector (1x3 pin)
- ◆ Power Supply
 - 12V DC input
 - 1 x Internal power connector (2x2 pin)
 - 1 x External DC power jack (Ø5.5mm)
 - ErP/EuP Compliant
- ◆ 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
- ◆ Dimension
 - 170 mm x 170 mm
- ◆ Weight
 - GW:900g / NW:400g
- ◆ Certification
 - CE/FCC Compliant

Dimensions (Unit: mm)



Packing List

1 x KINO-EHL single board computer with cooler module	2 x SATA cable
1 x I/O shielding	1 x QIG

Ordering Information

Part No.	Description
KINO-EHL-J6412-R10	Mini-ITX SBC supports Intel® Elkhart Lake Celeron® J6412 onboard SoC with triple independent display, HDMI, DP, IDPM, SATA 6Gb/s, dual 2.5GbE, USB 3.2, M.2, 12V DC input and RoHS

Optional Accessories

Part No.	Description
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
32205-000702-200-RS	RS-232 cable, 230mm, P=2.54

