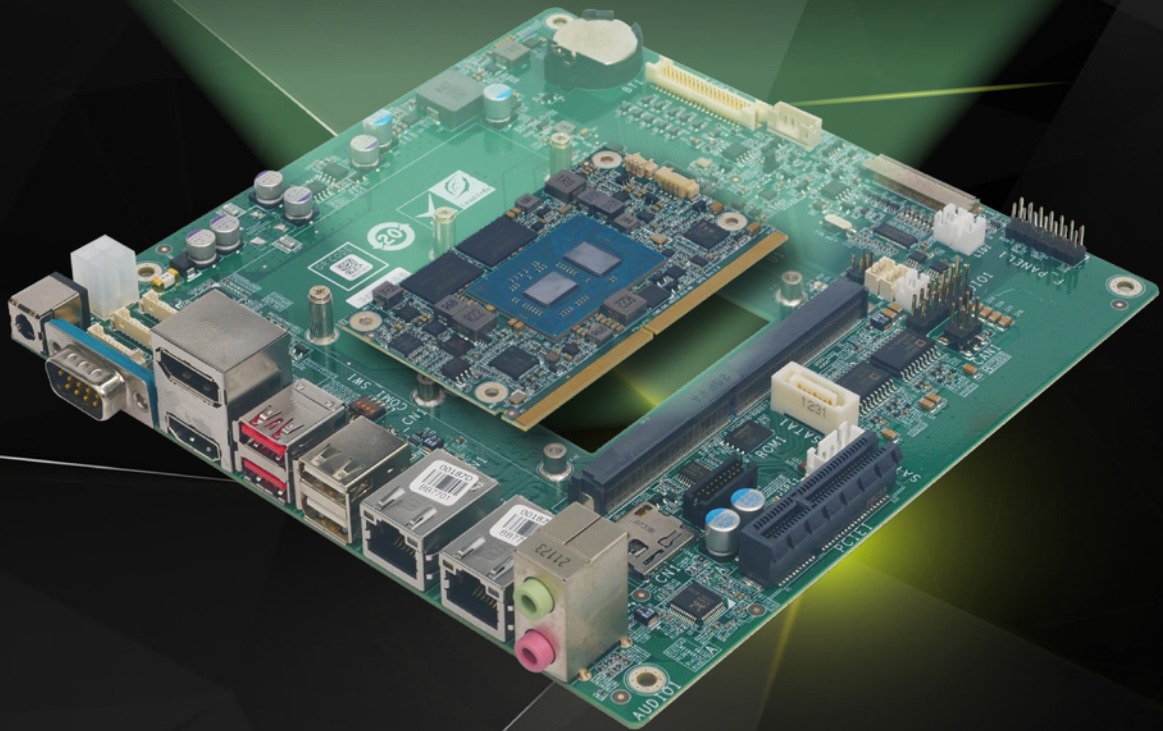


iSMC-EHL

SMARC® Rev. 2.1 module supports Intel® Celeron® Processor J6412 (10W)

- SMARC 2.1 SBC supports Intel® Celeron J6412/x6413E on-board SoC
- Support Intel® i225V 2.5GbE lan port
- With 8GB 3200 LPDDR4x memory on board default (up to 16 GB)
- With optional on board eMMC as storage (up to 256 GB)

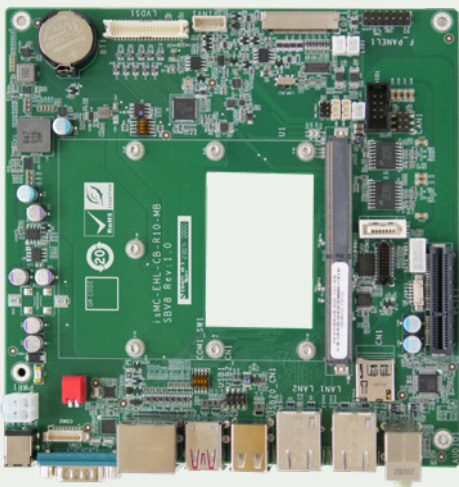
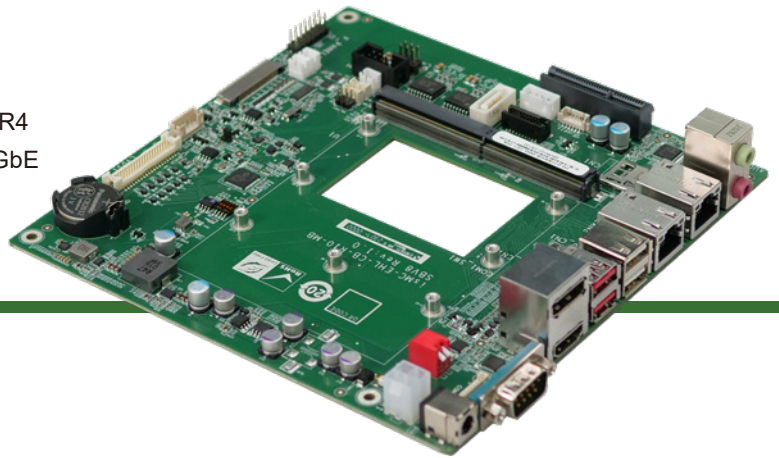
**High Performance Capability
with multi-tasking function**



www.ieiworld.com

iSMC-EHL

Mini-ITX SBC with Intel® Alder Lake-P SoC Processor, DDR4 SO-DIMM, 12~28V DC input, Triple Display, Triple Intel 2.5GbE



Compliant with SMARC 2.1 specification

Satisfying low power consumption, low cost and high performance applications, it stands out for its rich selection of graphics, camera, sound, network and optional wireless interfaces. Ideal for IoT.

Low-power Intel® Elkhart Lake Celeron® J6412/x6413E CPU

10nm Intel® Celeron® J6412/x6413E on-board SoC, 4 cores and 4 threads. low power design: thermal design power of J6412 is 10W, the x6413E is 9W.

Support Intel® I225V 2.5GbE Controller

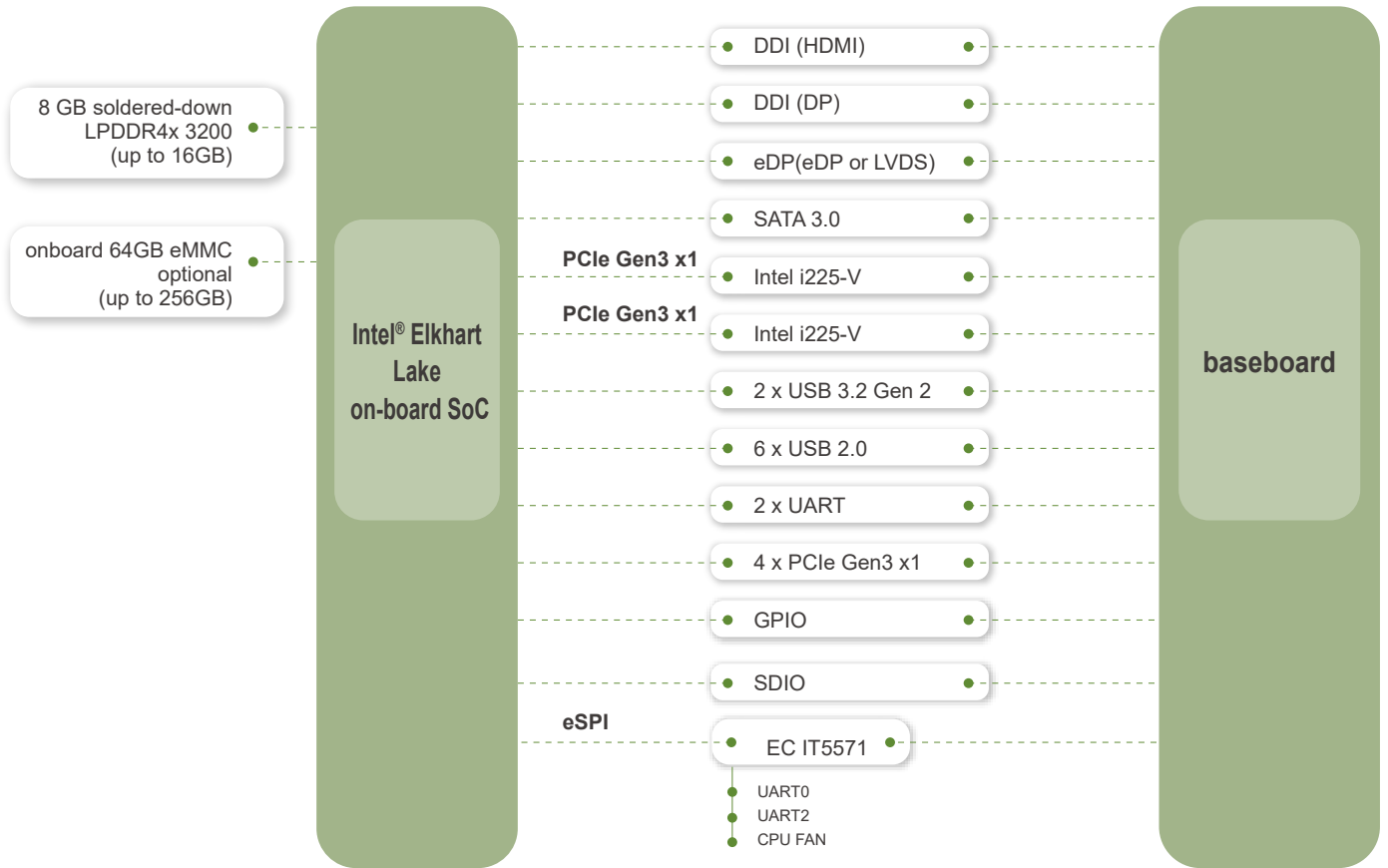
With PCIe 2.5 GbE Intel i225-V signal to baseboard, achieving up to 2.5GbE network transmission rate.

On Board Memory And Storage

With 8GB LPDDR4x memory on board default, and optional on board eMMC as storage



iSMC-EHL Block Diagram



iSMC-EHL Backplane



Model	iSMC-EHL-CB
Display Interfaces	1 X DP 1.4a: up to 4096 x 2160 @ 60 Hz 1 X HDMI 1.4b: Up to 3840 x 2160 @ 30 Hz 1 x LVDS: 1920 x 1200 @ 60Hz or 1 x eDP: 4096 x 2160 @ 60Hz
Ethernet	LAN1: Intel® I225V 2.5GbE LAN2: Intel® I225V 2.5GbE
Audio	Realtek ALC888S HD Audio codec (Line-out, Mic in)
Expansion	1 x PCIe Gen3 x4
Rear I/O Interface	2 x USB 3.2 Gen 2 2 x USB 2.0
Internal I/O	1 x RS-232/422/485 1 x SATA 6Gb/s 1 x SD slot 1 x RS-232/422/485 pin header (1*9 pin, P=1.25)
DIO	1 x 6-bit GPIO (2 x 4 pin)
CAN	2 x CAN Bus pin header (2*3 pin, P=2.54)
I2C/SMBus	2 x SMBus (1 x 4 pin)
Front Panel	1 x Front Panel (2 x 7 pin) (Power LED, HDD LED, Speaker(Buzzer), Power Button, Reset Button)
Power Supply	1 x 12V DC JACK Φ5.4 1 x Internal power connector (2x2 pin)
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Humidity	5% ~95 non-condensing
Dimensions	170*170 mm
Certification	CE/FCC Compliant

Dimensions

Specifications

Model	iSMC-EHL
CPU	Intel® Celeron® J6412 on-board SoC Intel® Celeron® x6413E on-board SoC
Memory	8 GB on board LPDDR4x 3200(support 4GB/16GB)
BIOS	UEFI BIOS
Graphics Engine	Intel® UHD Graphics
Display Interfaces	Triple independent display signals to baseboard 1 X DP 1.4a: up to 4096 x 2160 @ 60 Hz 1 X HDMI 1.4b: Up to 3840 x 2160 @ 30 Hz 1 x LVDS: 1920 x 1200 @ 60Hz or 1 x eDP: 4096 x 2160 @ 60Hz
Ethernet	2 x PCIe 2.5 GbE with Intel i225-V signal to baseboard
Audio	1 x HAD signal to baseboard Support 7.1-channel HD Audio by Realtek ALC888S"
Storage	1 x SATA 3.0 signal to baseboard onboard eMMC optional (up to 256G)
USB	2 x USB 3.2 Gen 2 signal to baseboard 6x USB 2.0 signal to baseboard
UART	4 x UART signal to baseboard
Expansion	4 x PCIe Gen3 x1 signal to baseboard eSPI signal to baseboard
Front Panel	1 x Front Panel signal to baseboard (Power LED, HDD LED, Speaker(Buzzer), Power Button, Reset Button)
CAN	2 x CAN Bus signal to baseboard
GPIO	1 x 6-bit GPIO signal to baseboard
SDIO	1 x 4-bit SDIO signal to baseboard
I2C	4 x 4-pin wafer signal to baseboard
I2S	1 x 4-pin wafer signal to baseboard
SMBus	1 x 4 pin wafer signal to baseboard
TPM	Intel PTT(support TPM 2.0)
Watchdog Timer	Software Programmable support 1~255 sec system reset
Power Supply	5V DC
Operating Temperature	0°C ~ 60°C
Storage Temperature	-30°C ~ 70°C
Humidity	5% ~95 non-condensing
Dimensions	82 x 50mm
Certification	CE/FCC Compliant

Optional accessories

	
iSMC-EHL-CB-R10	32102-000100-200-RS
	
CB-USB02A-RS	32005-000900-100-RS
	
iDPM-LVDS-R10	

Packing List

1 x iSMC-EHL single board computer with Cooler Module
1 x QIG

Ordering Information

iSMC-EHL-J6412C-R10	SMARC® Rev. 2.1 module supports Intel® Celeron® Processor J6412 (10W) with 8GB LPDDR4x memory on board default, Support DP, HDMI, 2.5GbE, SATA 6Gb/s, USB 3.2, GPIO, CAN, Audio and RoHS
iSMC-EHL-x6413EC-R10	SMARC® Rev. 2.1 module supports Intel Atom® Processor x6413E(9W), with 8GB LPDDR4x memory on board default, Support DP, HDMI, 2.5GbE, SATA 6Gb/s, USB 3.2, GPIO, CAN, Audio and RoHS

Optional Accessories

iSMC-EHL-CB-R10	Base Board for SMARC® Rev. 2.1 module
32102-000100-200-RS	SATA power cable, MOLEX 5264-4P to SATA15P
CB-USB02A-RS	Dual port USB cable with bracket, 300mm, P=2.00
32005-000900-100-RS	RS-232/422/485 cable, 1*9pin, P=1.25
iDPM-LVDS-R10	eDP to LVDS DisplayPort converter board (for IEI iDPM connector)