

EPIC-E643M1_J123L VER:1.0 Spec



EPIC-E642M1_J123L VER:1.0 Front view



EPIC-E642M1_J123L VER:1.0 IO view



EPIC-E642M1_J123L VER:1.0 Side view

Compatible expansion boards

NO.	Model	VGA	HDMI	LVDS	EDP	LAN	USB	COM	485	GPIO	POWER
1	E642-C4 VER:0.1	1	/	/	/	/	3	4	4	4 in 4 out	/
2	E642-L VER:0.1	/	/	1	1	/	3	2	4	4 in 4 out	/
3	E642-PW VER:1.0	1	1	/	/	/	3	4	4	4 in 4 out	DC12~24V



E642-C4 VER: 0.1



E642-L VER: 0.1



E642-PW VER: 1.0

Product Model	EPIC-E643M1_J123L VER:1.0(J6412)
Processor	Integrated Intel® Celeron J6412 2.0GHz quad-core, quad-thread processor, TDP 10W Compatible with the full range of Intel® Elkhart Lake CPU, offering customers flexible options
Chipset	SOC
Memory	1* DDR4 SODIMM slot, supporting single-channel 3200MHz memory, with a maximum capacity of 32GB
Display	Integrated Intel® UHD Graphics
	1 * VGA port, supporting a maximum resolution of 1920*1080@60Hz
	1 * HDMI 1.4 port, supporting a maximum resolution of 3840*2160@24Hz
	1 * LVDS port, supporting dual-channel 24-bit,
	1 * EDP port; either the LVDS or EDP port can be selected via a jumper
	Supports three independent displays via VGA, HDMI, LVDS or EDP
Network	2 * Intel I210AT 1GbE network cards, supporting Wake-on-LAN and PXE functionality
Storage	1 * 7-pin SATA 3.0 hard drive interface, with a transfer rate of up to 6 Gbps
	1 * M.2 slot, supporting M.2 Key M 2280 NVMe PCIe 3.0 x1 SSD
	Note: The M.2 SSD slot can support SATA SSDs; BIOS configuration is required
Audio	On-board ALC897 7.1+2-channel high-fidelity audio controller, supporting MIC/Line-out and power amplifier
	A 4Q 3W speaker is recommended for the power amplifier
Expansion Slots	1 * M.2 slot, supporting M.2 2230 Wi-Fi/Bluetooth modules
	1 * 120-pin high-speed header, including 4 TTL signals, 2 * PCIe, 1 * DisplayPort and 8 GPIO channels (for use with E642 series daughterboards)
Rear Panel I/O Ports	1 * DC 12V power input connector
	1 * DB9 RS232 serial port; either this or the built-in JCOM1 port can be used
	1 * HDMI 1-4 display port
	2 * Type-A USB 3.0 ports (5 Gbps), 1 * Type-A USB 2.0 port
	2 * RJ45 Gigabit Ethernet ports
	1 * Line-out (green)
On-board I/O Ports	1 * DC power connector (white), 1 * 4-pin (pitch 2.5 mm), supports 12 V-24 V DC power supply (requires a wide-voltage board)

	1 * DC power connector (red), 1 * 4-pin (PH=2.5mm), supports 12V DC power supply
	1 * JVGA connector (1 * 12-pin, PH=2.0mm), either this or the DP signal from the high-speed socket; configured via DIP switch
	1 * LVDS connector (2 * 15-pin, PH=2.0mm), supports dual-channel 24-bit,
	1 * EDP connector (white), 2 * 15-pin, pitch = 2.0 mm; either this or the LVDS connection is selected via a jumper
	1 * LVDS display backlight power connector (black), 1 * 6-pin, pitch = 2.0 mm
	1 * EDP display backlight power connector (white), 1 * 6-pin, pitch = 2.0 mm
	4 * USB 2.0 ports, 2 * 5-pin, pitch = 2.0 mm
	1 * RS232 serial port, 1 * 9-pin, pitch = 1.25 mm, supports RS485/422 functionality,
	1 * hard disk power supply port, 1 * 4-pin, pitch = 2.0 mm
	1 * microphone port, 1 * 2-pin, pitch = 2.0 mm
	1 * amplifier interface, 1 * 4-pin, PH = 2.0 mm
	1 * front panel function button and indicator light interface, 2 * 5-pin, PH = 2.0 mm
	1 * TPM interface (ESPI specification), 2 * 6-pin, PH = 2.0 mm
Fan Connectors	Fanless cooling; provisions for 1 * 4-pin CPU smart fan interface and 1 * 4-pin system fan interface
GPIO	N/A
BIOS	128 Mb Flash ROM
Watchdog	Supports hardware reset function (256 levels, 0–255 seconds)
Operating System	Windows 10/11/Linux
Power Supply Type	Powered by 12 V DC; supports 12–24 V DC wide voltage range via the E642-PW expansion board
Operating Temperature	–10 °C to 60 °C
Storage Temperature	–20 °C to 70 °C
Operating Humidity	5%–95% relative humidity, non-condensing
Dimensions	148mm x 102mm

Order information:

No	Model	Processor	Frequency	Memory	VGA	HDMI	LVDS	EDP	LAN	USB	COM	485/422	Power
1	EPIC-E643M1_J123L VER: 1.0 (J6412)	J6412	2.0G	1* SODDR4	1	1	2ch*24BIT	1	2*I210AT	7	2	COM2	DC12V