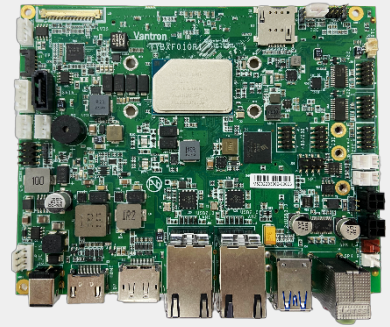


VT-SBC-EKT Single Board Computer



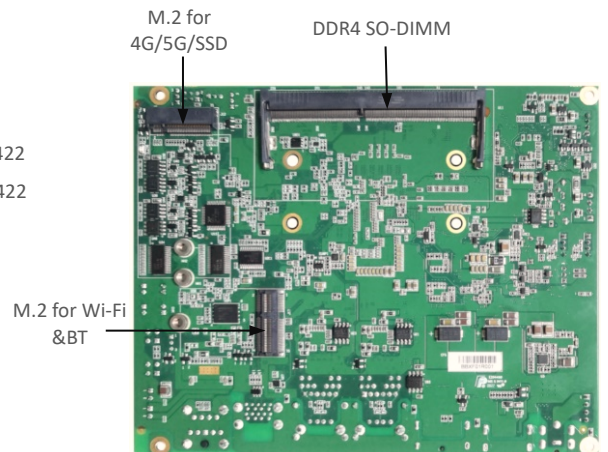
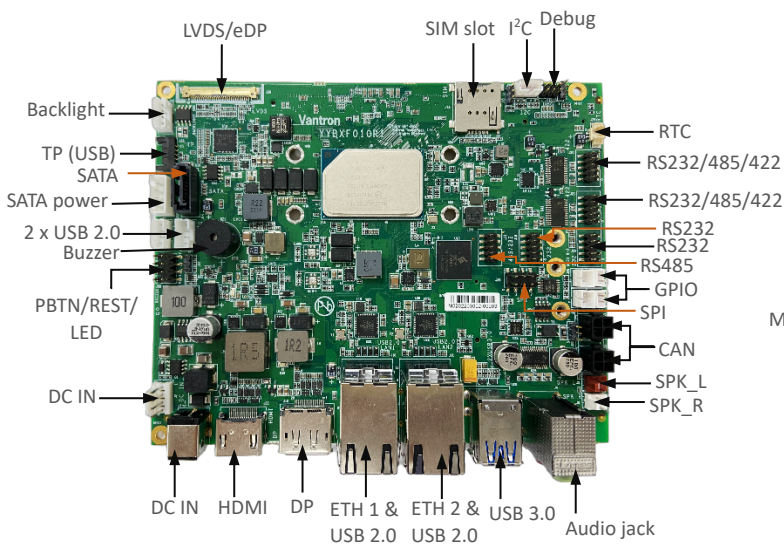
Product Brief Introduction

VT-SBC-EKT single board computer is powered by Intel® Elkhart Lake high-performance processor that has four cores capable of delivering high computing power for various embedded applications while keeping the CPU performance at a maximum of 15W power consumption. The board supports two Ethernet ports transmitting at 10/100/1000Mbps. As to internal expansion, the box offers two M.2 slots, one for Wi-Fi and BT expansion and the other for 4G/5G or SSD expansion to keep the communication uninterrupted.

The board comes with an HDMI interface, a DP interface, and an LVDS/eDP connector to optimize image display. Five serial connectors are available to communicate with external devices to ensure a reliable, error-free data path.

Above all, its strong performance, stable quality, and excellent cost performance are second to none for smart business applications, making it a reliable solution for industrial IoT applications.

Exterior and Features



Intel® Elkhart Lake high-performance processor



HDMI/DP/LVDS/eDP for display



Wi-Fi/BT/4G/5G/ETH connectivity



Rich I/O for flexible expansion



Multiple variants for diverse applications

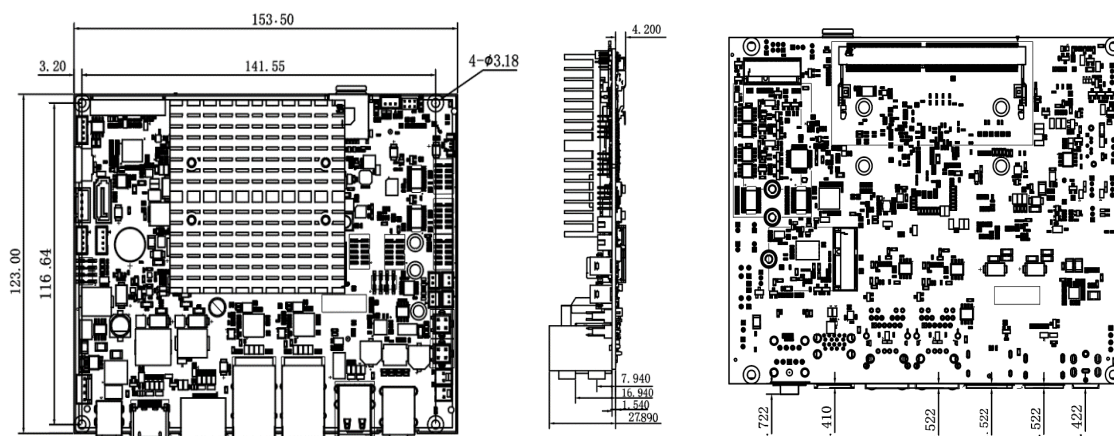


TPM 2.0 supported

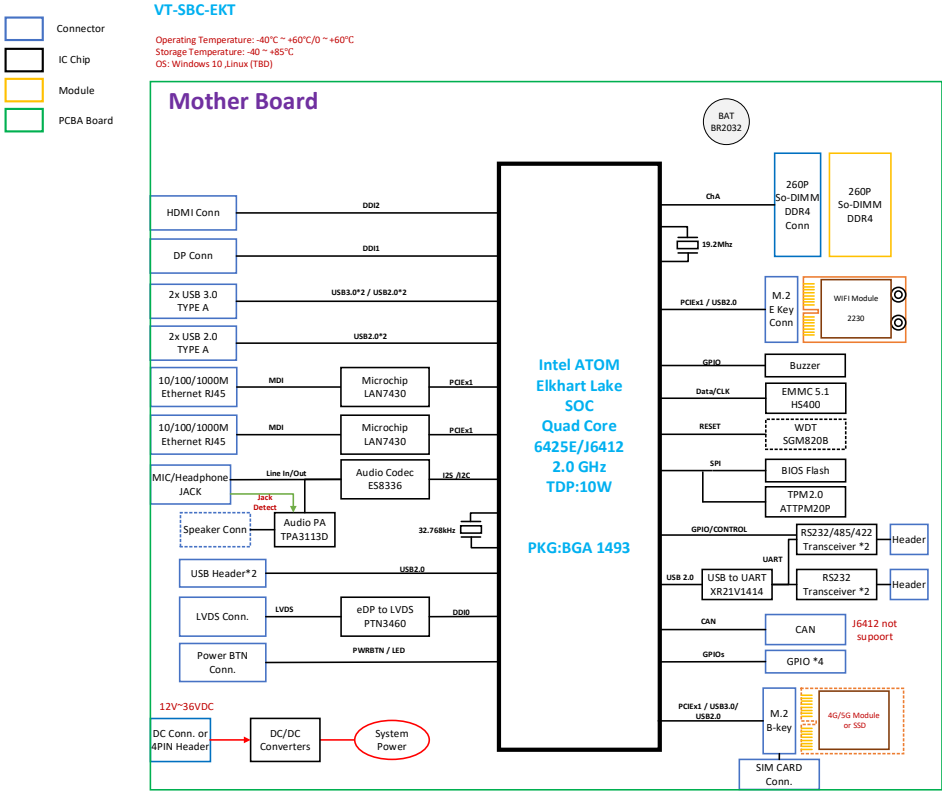
VT-SBC-EKT Single Board Computer Datasheet

VT-SBC-EKT			
System	CPU	Intel® Atom® x6425E Processor, 4C4T, 2.0GHz (base), 3.0GHz (turbo), 12W TDP Optional: Intel® Celeron® J6412 Processor, 4C4T, 2.0GHz (base), 2.6GHz (turbo), 10W TDP	
	Memory	DDR4 SO-DIMM socket, 3200MT/s, up to 16 GB	
	Storage	64GB eMMC 1 x SATA Gen 3 slot (6Gb/s, up to 2TB)	M.2 (2242) B-Key SSD supported (up to 256GB)
Communication	Ethernet	2 x RJ45, 10/100/1000Mbps Base-T, LAN7430	
	Wi-Fi & BT	Optional (expansion by an M.2 E-Key slot)	
	4G/5G	Optional (expansion by an M.2 B-Key slot)	
Media	Display	1 x HDMI 2.0b, 4096 x 2160 @60Hz 1 x Dual LVDS/eDP connector, up to 3840 x 2160 @30Hz	1 x DP 1.4, 7680 x 4320 @60Hz
	Audio	1 x Headphone jack 1 x 3.5mm Microphone jack (CTIA)	2 x 2W/8R Speaker connector
I/O	Serial	2 x RS232/RS422/RS485 connector 2 x RS232 connector	1 x RS485 connector
	USB	2 x USB 2.0 Type-A 2 x USB 3.0 Type-A	2 x USB 2.0 connector
	GPIO	4 x GPIO	
	CAN	2 x CAN (only for 6425E)	
	SPI	1 x SPI	
	TP	1 x TP (USB header)	
	SIM card slot	1 x Micro SIM slot	
Expansion	M.2	1 x M.2 B-Key, 2242 (PCIex1) for SSD or 3052 (USB 2.0/USB 3.0) for 4G/5G 1 x M.2 E-Key, 2230 (PCIex1/USB 2.0) for Wi-Fi & BT	
Miscellaneous	RTC	Supported	
	Watchdog	Supported	
System Control	Power	1 x Power button/Power LED header	
Security	TPM	TPM 2.0 supported	
Power	Input	12-36V DC	1 x Power connector, 1 x Power jack
	Consumption	15W+	
Software	Operating system	Windows 10 IoT, Ubuntu 20.04	
Mechanical	Dimensions	153.5mm x 123 mm	
	Cooling mode	Aluminum alloy heat sink (fanless)	
Environment Condition	Temperature	Operating: -40°C ~ +60°C (6425E); 0 ~ +60°C (J6412) Storage: -40°C ~ +85°C	
	Humidity	5%-95%RH (Non-condensing)	

Product Outlines

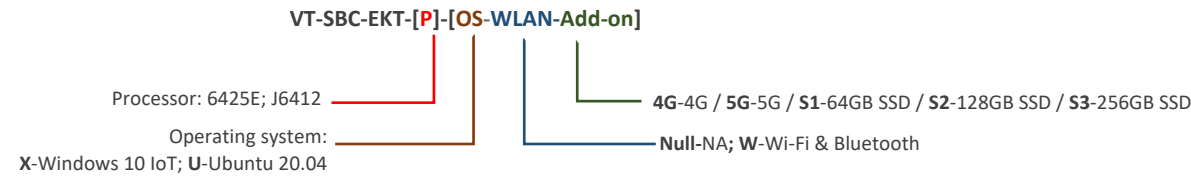


Block Diagram



Ordering Information

Nomenclature



Example Ordering No.	Processor	Operating System	WLAN	Add-on
VT-SBC-EKT-6425E-X4G	Intel® Atom® x6425E	Windows 10 IoT	-	4G
VT-SBC-EKT-6425E-UW5G	processor	Ubuntu 20.04	Wi-Fi & BT	5G
VT-SBC-EKT-J6412-XWS3	Intel® Celeron® J6412	Windows 10 IoT	Wi-Fi & BT	256GB SSD
VT-SBC-EKT- J6412-UW4	processor	Ubuntu 20.04	Wi-Fi & BT	4G

Packing list				
VT- SBC-EKT single board computer	1	Heat sink		1