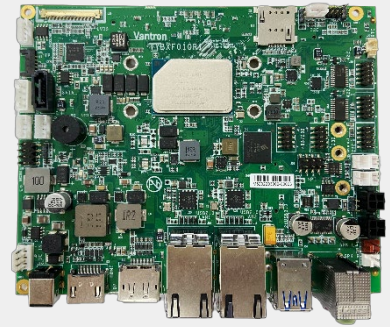


VT-SBC-EKT Single Board Computer



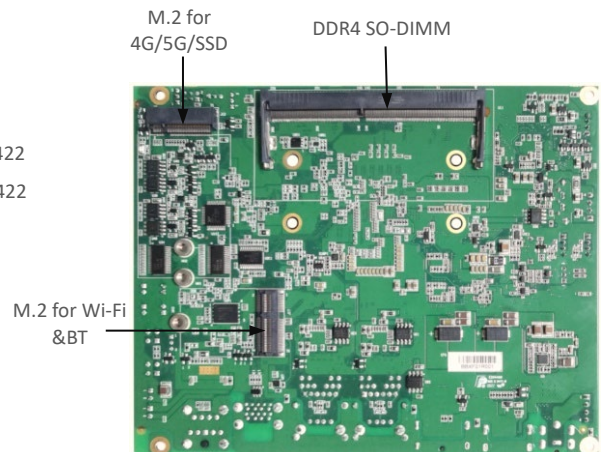
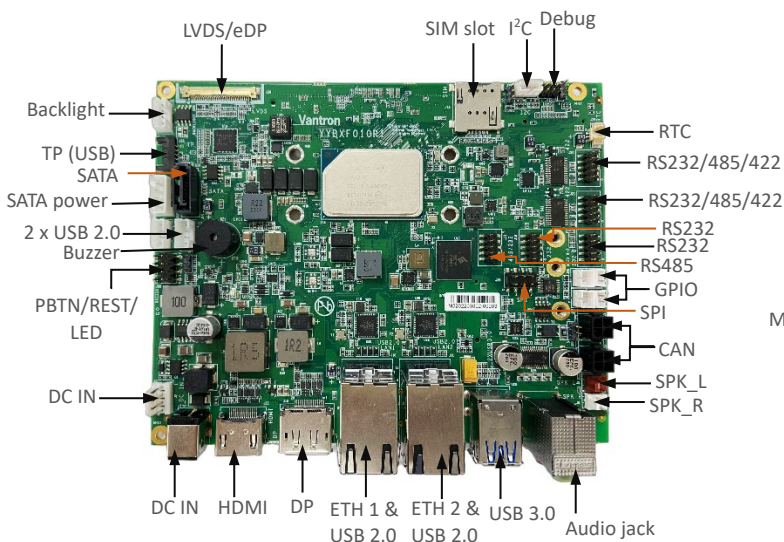
Product Brief

VT-SBC-EKT single board computer is powered by Intel® Elkhart Lake high-performance processor, featuring 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 dual GbE, the two M.2 slots add Wi-Fi/BT or 4G/5G connectivity without breaking communications.

The board is equipped with HDMI, DisplayPort, and LVDS/eDP interfaces, supporting up to 4K resolution output. It also offers rich I/O ports to connect various peripherals, meeting diverse application requirements. Both extended and standard temperature variants are available to accommodate different operating environments.

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

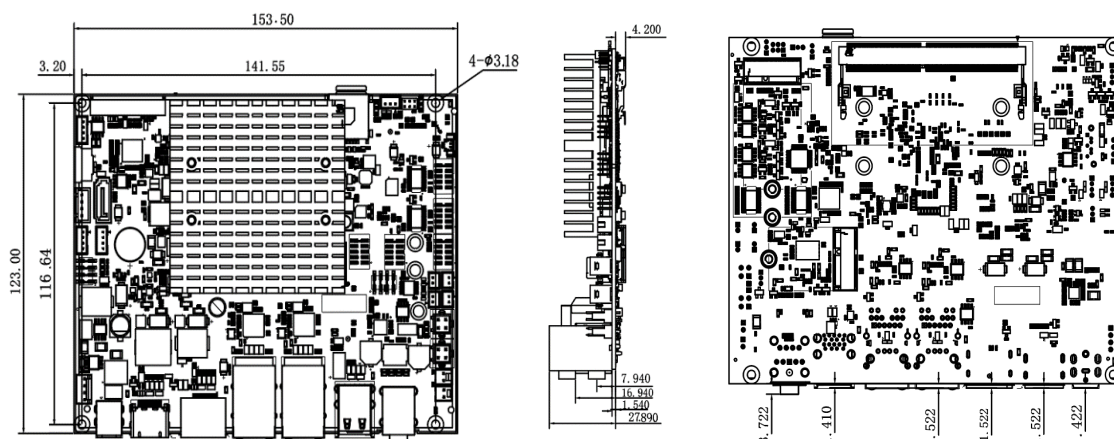


TPM 2.0 supported

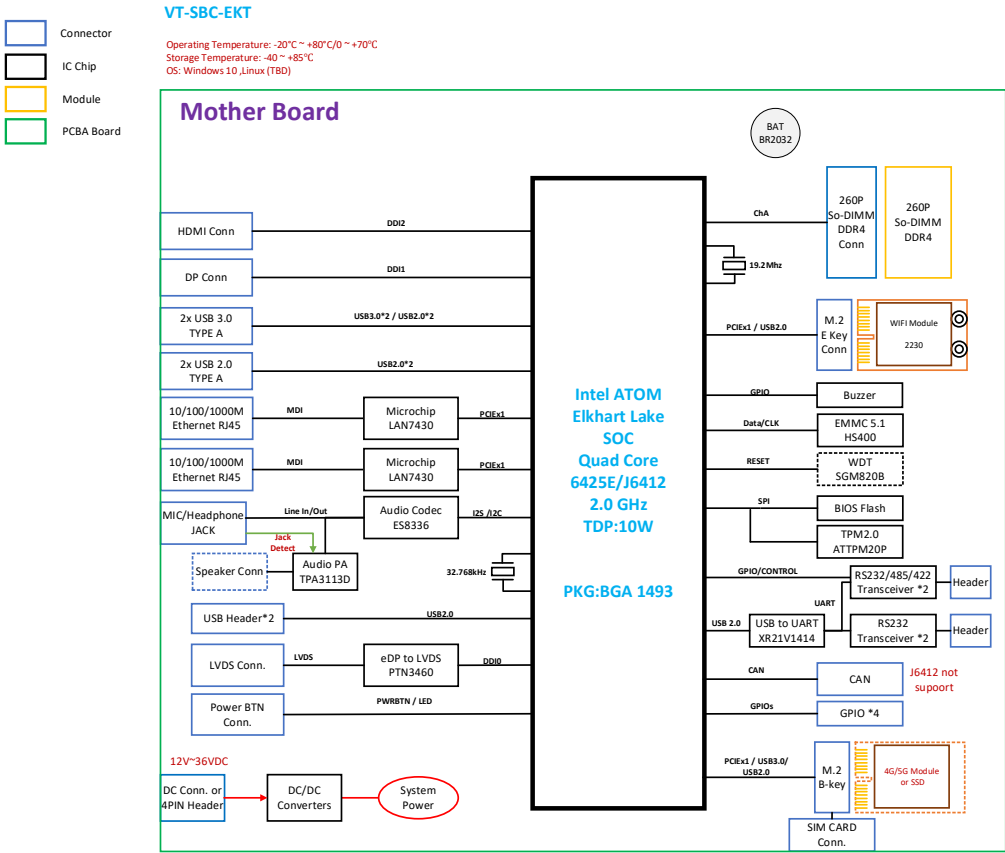
VT-SBC-EKT Single Board Computer Datasheet

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 3.5mm Headphone jack 1 x 3.5mm Microphone jack	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 (For 6425E only)	
	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	Control header	1 x Control header (Power button, Power LED, Reset button)	
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: -20°C ~ +80°C (6425E); 0 ~ +70°C (J6412) Storage: -40°C ~ +85°C	
	Humidity	5%-95%RH (Non-condensing)	

Product Outlines

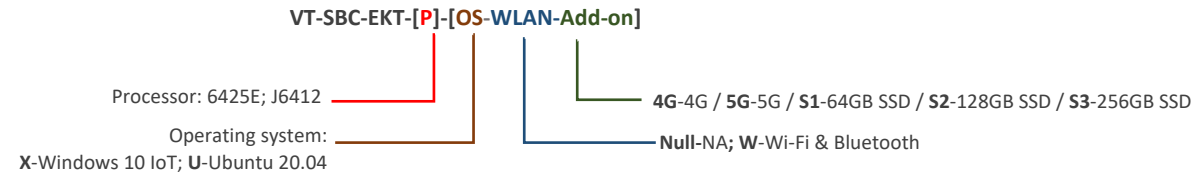


Block Diagram



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