

VEST SBC 8th Gen Intel® Core™

VPIACN-SBC / VPIA3N-SBC / VPIA5N-SBC /
VPIA7N-SBC

VEST is a leading embedded solutions provider, committing to excellence and innovation. Our Single Board Computer (SBC) is designed for fast integration into your product, enabling swift market entry and ensuring a competitive advantage.



Industrial /
Commercial
IoT



High Performance
CPU



Robust Security
Features



Rich
Multimedia

ABOUT OUR PRODUCT

VEST I-Series SBC is the latest Mini-ITX motherboard supporting 8th Gen Intel® Core™ i7/i5/i3 and Celeron® processor.

VEST I-Series SBC is specifically designed for industrial application with the need for high-level edge processing, graphics performance and industrial product life in mind.

This model supports ubiquitous high-speed data transfer interfaces PCIe 3.0, USB 3.1 Gen2 and SATA 6 Gb/s (SATA III), with dual-channel DDR4 2400/2666 MHz non-ECC memory up to 32 GB in two SODIMM slots.

Featuring DVI, DP and eDP ports, LVDS header, dual Gigabit Ethernet ports, USB 3.0 ports, USB 2.0 ports, SATA 6 Gb/s ports and audio with Line-out, Stereo speaker and Mic-in connectors.

Expansion is provided by two M.2 KeyM, one M.2 KeyE and one mini-PCIe slot.

Key Features

- Integrated with Hailo AI Accelerator to power edge computing applications
- Features a host of I/O ports perfect for embedded operations or powering Edge applications
- Rich multimedia capabilities for advance HMI, multiple displays application
- Mini-ITX form factor supporting industrial product requirement
- M.2 and mPCIe ports for expansion, wireless and storage support

Support



VESTConnect360
Cloud Management System

HAILO
Empowering Intelligence



Specifications

CPU Details	
CPU	INTEL 8th Generation Core Embedded CPU (Whiskey Lake - U) 4305UE (2C/2T) 2.0G Intel Celeron Processor I3-8145UE (2C/4T) I5-8365UE (4C/4T) Boost to 4.1G I7-8665UE (4C/4T) Boost to 4.4G
Bios	Phoenix BIOS via SPI Interface

Memory	
Memory	Two 260 Pin SO-DIMM Sockets Maximum up to 32GB DDR4 Memory, Support 2400MHz
On board Storage	eMMC5.1 (Optional)
Storage & Expansion	1x SATA 3.0 Ports (6GB/s) 1x PCI-Express (mPCIe) 2x M.2 Key M 1x M.2 Key E 1x SIM Card Slot

Operating System	
OS	Windows 10, Windows 11, Linux and Ubuntu

Multimedia	
Display	1x DisplayPort++ with Resolution Max. up to 3840 x 2160 @60Hz 1x 18/24-bit Dual Channel LVDS and one 8 Pin Inverter Connector LVDS Resolution is Max. up to 1920x1200 (Internal) 1x Embedded DisplayPort (eDP) with Resolution Max. up to 3840 x 2160 @60Hz (Internal)
Audio	Tempo 92hd95 4-channel HDA Codec Support Hp Jack (Hp-Lr Out/Mic-In At Rear I/O) 3w(4ohm)/1.5w(8ohm) Class-D Stereo BTL (Internal Pin Header For External Speaker)

Connectivity	
Wireless	On Board Dual Band Wi-Fi/Bluetooth Module (Optional)
Networking	2x RJ45 (1000/100/10Mbps Gigabit/Fast Ethernet Supports Wake-On-LAN, PXE with Intel® i211AT and PXE with Intel® i219LM)
Serial Communication	4x USB 3.0 Ports (On the Rear I/O) 2x USB 2.0 Ports (On the Rear I/O) 2x USB 2.0 Ports in 5 Pin Wafer Connector (Internal)
I/O Expansion	1x RS485 (USB-UART Internal Pin Header) 1x R232 (USB-UART RJ45 at Rear I/O) 1x TTL UART (USB-UART Internal Pin Header) 2x CAN Bus (Embedded Controller - Internal Pin Header) 4DI and 4DO (Internal Pin Header) 2x I2C (Internal Pin Header) 1x SPI (For Digital LED Internal Pin Header) 2x 4 Wire Fan
Debugging & Programming	Debug-2x UART Header, 2.54mm Pitch 5 Pin Header JTAG-1.27mm Pitch 2x 5 Pin Header
Buttons and Indicators	1x Header and Reset Button 1x Header and On Board Power Button, Power LED 1x Standby LED (On Board) 1x Header HDD LED
Power	1x 12V,19-32V ATX 4 Pin Power Input Connector 1x 12V,19-32V DC Jack Power Input Connector

Physical	
Form Factor	Mini ITX (170mm x 170mm)
Operating Temperature	Commercial

Optional Upgrade



Hailo-8R™
AI accelerator

