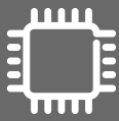
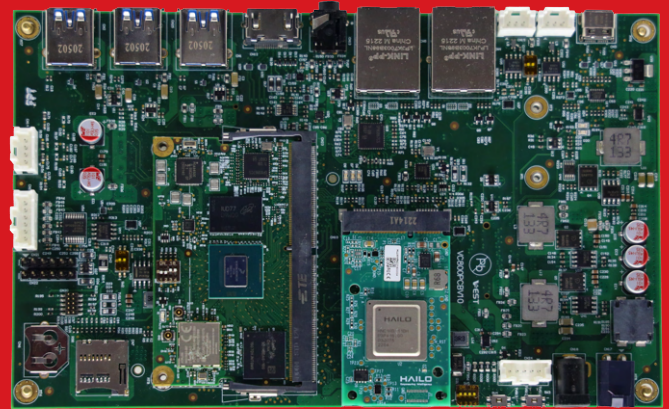


VEST iMX8M Plus Dev Kit H

VEST is a leading embedded solutions provider, committing to excellence and innovation. Our Development Kit expedite product development, enabling swift market entry for your products and ensuring a competitive advantage.



Edge Computing



Rich Multimedia



High Performance CPU



Robust Security Features

ABOUT OUR PRODUCT

Introducing the VEST i.MX8M Plus Development (Dev) Kit with Hailo-8R™. This comprehensive solution comprises a System on a Module (SOM) and a Carrier Board with Hailo-8R™ module.

Unleash the full potential of the NXP i.MX8M Plus, featuring ARM® Cortex®-A53 processor and Neural Processing Unit (NPU). This empowers Artificial Intelligence (AI) and Machine Learning (ML) capabilities, enhances multimedia performance, supports cutting-edge Edge Computing, provides robust video graphics, and enables rapid processing – all within a compact, cost-efficient, and power-efficient package. VEST software board support package contains drivers for Hailo-8R™ AI accelerator (13 TOPS) and Leopard Imaging 8.4 Megapixels LI-IMX715-MIPI Camera, allowing optional upgrade possibilities.

This Dev Kit is versatile and suitable for diverse range of applications, such as

- Edge Computing
- Video / Audio Conferencing
- Advanced Human Machine Interface Application
- Point of Sales, Digital Signage, Smart Retail, Smart Cities
- Point of Care
- Portable Test and Measurement Instruments
- Automation for Industry 4.0

Key Features

- Dedicated NPU to accelerate AI and machine learning
- Integrated Hailo-8R™ AI accelerator with 13 TOPS AI computing budget
- Accelerate real-time data processing, with dual display
- Rich multimedia capabilities
- Up to 4K camera support
- Built-in 10W audio amplifier (plug and play speaker driver)
- Secured data integrity, safeguard against unauthorized access
- Multiple high-speed interfaces that comply with industrial standards facilitate seamless integration with various peripherals

Support



VESTConnect360
Cloud Management System

LEOPARD
IMAGING

HAILO
Empowering Intelligence

ADVANCED PRODUCTS CORPORATION PTE LTD (APC)

All product specifications are subject to change without notice. Last updated: March-2024.
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Specifications (VEST i.MX8M Plus Dev Kit H)

CPU Details	
CPU	i.MX8M Plus 4x Cortex®-A53 @ 1.8GHz, Cortex®-M7 @ 800MHz
GPU	GC7000UL with 2 shaders for 3D Graphics GC520L for 2D
NPU	Neural Processing Unit (NPU) Operating at up to 2.3 TOPS
AI Accelerator	Hailo AI Accelerator module, Hailo-8R up to 13 TOPS
Memory	
Memory	2GB 32-bit LPDDR4 up to 4.0GT/s
Storage	16GB eMMC5.1
External Storage	Micro SD 3.0 Socket Push-Push Type
Operating System / Driver	
BSP	Yocto Linux, Ubuntu, Android and NXP Real Time Edge Software
Driver	HailoRT, LI-IMX715-MIPI Camera (Leopard Imaging)
Multimedia	
Video Encoder	1080p60, H.265, H.264
Video Decoder	1080p60, H.265, H.264, VP9, VP8
Hi-Fi Audio	Cadence® Tensilica® Hifi 4 DSP @ 800MHz
Camera	2x MIPI CSI with Dual Image Signal Processors
Display	MIPI-DSI, up to UWHD and WUXGA HDMI 2.0a Tx, up to 4kp30 LVDS (4/8-lane) Tx, up to 1920x1080p60
Display and Touch	On board LVDS and I2C Touch Connector for 7" & 10" LCD Panel M.2 Key B Form Factor Display Daughter Board Socket Dual Channel 4-lane LVDS 4-lane MIPI-DSI I2C Touch PWM Backlight Output
Audio and Video	HDMI 2.0a Type A 3.5mm Headphone Jack with Microphone Input 2mm Pitch, 4 Pin Header for Speaker L&R, Up to 10W/ch into 8ohm Load
Connectivity	
Wireless	On Board Dual Band Wi-Fi/Bluetooth Module (Optional)
Networking	1x 10/100/1000 BaseT RJ45 Ethernet, 1x 10/100/1000 BaseT RJ45 Ethernet with TSN Support
USB	USB 3.0 OTG, Type C 3x USB 3.0 Host, Type A
Serial Communication	RS485 (Default) or RS232 2x CAN/CAN-FD 2mm Pitch 3 Pin Header UART
I/O Expansion	M.2 Key B Form Factor Expansion Daughter Board Socket 4-Lane MIPI CSI x 2 Full Size Mini PCIe with Gen3 x 1 Lane Nano SIM Card Socket used by Hailo-8R
Debugging & Programming	2x Debug-UART Header, 2.54mm pitch 5pin header JTAG-1.27 mm Pitch 2 x 5 Pin Header
Buttons and Indicators	1x On/Off Button 1x Reset Button 1x On/Off, Reset, Power LED Control Signal Connector-2mm Pitch 5 Pin Header Power LED Indicator-x2, 3.3V & 5V
Power	12-24VDC, 2.0mm DC Jack or 2 Pin 4.2mm Pitch Mini Fit JR Header
Physical	
Form Factor	180 mm x 112 mm (Carrier Board) , 69.6mm x 40mm (SOM)
Operating Temperature	Commercial Industrial (Optional)
Ordering Information	
Part No.	VES-8MP-00-H8R-SMD-DEV

