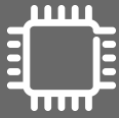
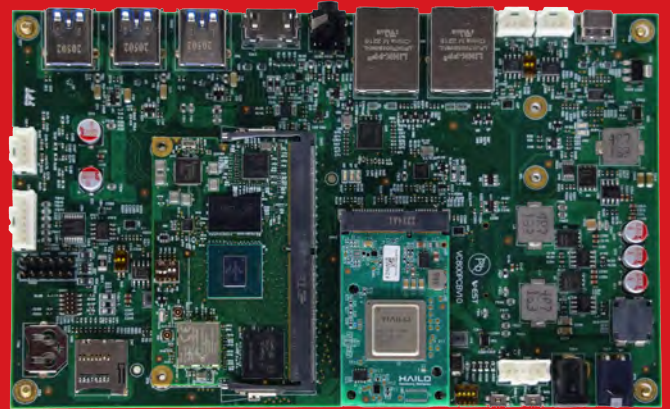


VEST i.MX8M Plus Dev Kit

VEST-8MP-00-DEV

VEST is a leading embedded solutions provider, committing to excellence and innovation. Our Development Kits 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. This comprehensive solution comprises a System on a Module (SOM) and a Carrier board.

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 (optional)
- 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



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Specifications

CPU Details	
CPU	i.MX8M Plus 4x Cortex®-A53 @ 1.8GHz, Cortex®-M7 @ 800MHz
GPU	16 GLOPS (high-precision) OpenGL® ES 3.1/3.0, Vulkan®, Open CL™ 1.2 FP, Open VG™ 1.1
NPU	Neural Processing Unit (NPU) Operating at up to 2.3 TOPS
AI Accelerator	Support Hailo AI Accelerator module up to 13 TOPs (Optional Upgrade)
Memory	
Memory	2GB 32-bit LPDDR4 up to 4.0GT/s
Storage	8GB eMMC5.1
External Storage	Micro SD 3.0 Socket Push-Push Type
Operating System / Driver	
BSP	Yocto Linux, Ubuntu and Android,
Driver	HailoRT, LI-IMX715-MIPI Camera (Leopard Imaging)
Multimedia	
Video Encoder	1080p60, H.265/4
Video Decoder	1080p60, H.265/4, 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	2x 10/100/1000 BaseT RJ45 Ethernet, 1x 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
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
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)

What Encompasses i.MX8M Plus Development Kit

Optional Upgrade



VEST i.MX8M Plus Dev Board

Heat Sink

Power Adapter

Plug and Socket

Antenna x2

Hailo-8R™ AI accelerator

LI-IMX715-MIPI Camera

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