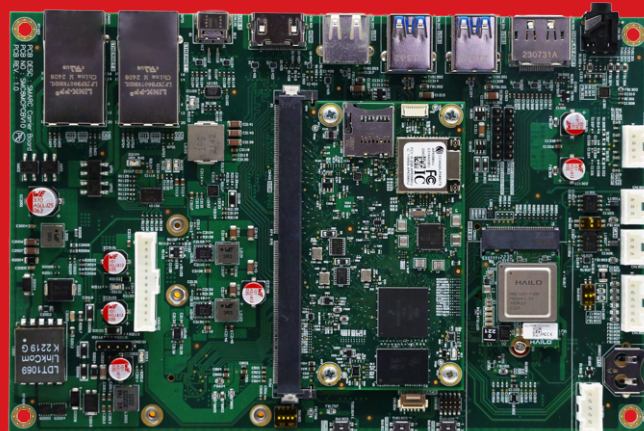


VEST i.MX8M Mini Dev Kit S H

VEST is a leading embedded solutions provider, committing to excellence and innovation. VEST i.MX8M Mini Dev Kit in SMARC 2.1 standard form factor expedite product development and manufacturing for supply resilience, enabling swift market entry for your products and ensuring a competitive advantage.



Industrial /
Commercial
IoT



Efficient
CPU



Robust Security
Features



Edge
Computing

ABOUT OUR PRODUCT

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

Unleash the full potential of the NXP i.MX8M Mini, featuring ARM® Cortex®-A53 processor. 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 software drivers for Hailo-8™ AI accelerator (up to 26 TOPS capacity), allowing optional upgrade possibilities on your product.

This Development Kit is 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

- Accelerate real-time data processing, with dual display
- Integrated Hailo-8™ AI accelerator with 26 TOPs capacity AI computing budget. Hailo-8L™ up to 13 TOPS (optional)
- Rich multimedia capabilities
- 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

HAILO
Empowering Intelligence

SMARC
module

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

CPU Details	
CPU	Up to 4x Cortex®-A53 @ 1.8GHz, Cortex®-M4 @ 400MHz
GPU	GCNanoUltra for 3D Graphics GC320 for 2D
AI Accelerator	Hailo AI Accelerator module, Hailo-8 up to 26 TOPS. Hailo-8L up to 13 TOPS (Optional)
Memory	
Memory	2GB (up to 8GB) 32-bit LPDDR4-3000
Storage	8GB (up to 128GB) eMMC5.1
External Storage	Micro SD 3.0 Socket Push-Push Type
Operating System / Driver	
BSP	Yocto Linux, Ubuntu and Android
Driver	HailoRT
Multimedia	
Video Encoder	1080p60 H.264, VP8
Video Decoder	1080p60 HEVC, H.265, H.264, VP9, VP8
Camera	1x MIPI CSI (4-lane)
Display and Touch	LVDS Connector with backlight for 7" & 10" LCD Panel I2C Touch Connector for 7" & 10" LCD Panel
Audio	Headphone Jack with Microphone Input 4 Pin Header for Speaker L&R, Up to 10W/ch into 8ohm Load
Connectivity	
Wireless	On SOM Board Dual Band Wi-Fi/Bluetooth Module (802.11a/b/g/n/ac and BT 5.0)
Networking	10/100/1000 BaseT RJ45 Ethernet with PoE
USB	1x USB 2.0/3.0 Type C with PD 2x USB 2.0/3.0 Type A 1x USB 2.0 Type A
Serial Communication	RS485 with 120ohm Termination Resistor (Default) or RS232 2x CAN FD UART x3
I/O Expansion	M.2 Key B Form Factor Expansion Daughter Board Socket 4-Lane MIPI CSI x 2 I2C x 2 UART x 2 SPI x 2 GPIO M.2 Key B Expansion Daughter Board Socket LVDS (4/8-lane, default) or MIPI DSI (4-lane) I2C GPIO PCIe M.2 Key E 2230 Form Factor 1 Lane PCIe Gen 2.0 USB SDIO I2S UART GPIO used by Hailo-8/8L
Debugging & Programming	2x Debug-UART Header, 2.54mm Pitch 5pin Header JTAG-1.27mm Pitch 2 x 5 Pin Header
Buttons and Indicators	1x Power Button 1x Force Recovery 1x System Reset LEDs for PoE operation LEDs for USB operation
Power	PoE (25w/channel), USB-C (60w)
Panel	
LCD Panel Size	7" LCD Panel, 10" LCD Panel (Optional)
Physical	
Form Factor	180mm x 120mm (Carrier Board) , 82mm x 50mm SMARC (SOM)
Operating Temperature	Commercial Industrial (Optional)
Ordering Information	
Part No.	VES-8MM-07-H8-SMX-DEV

