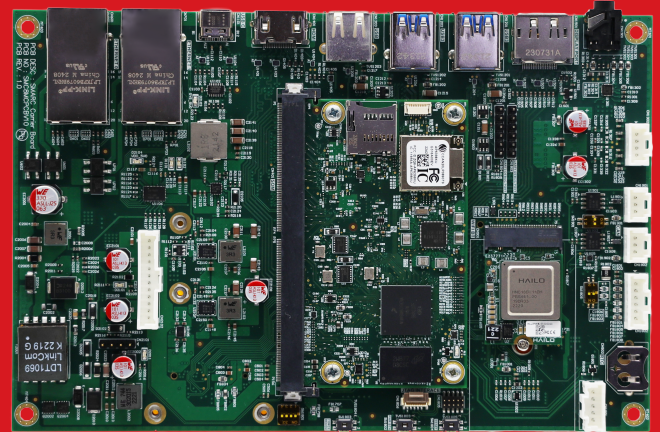


VEST i.MX8M Mini Dev Kit S H

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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GROUP FOR
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TECHNOLOGIES

ADVANCED PRODUCTS CORPORATION PTE LTD (APC)

All product specifications are subject to change without notice. Last updated: May-2025.
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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 | 16GB (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 |
| Cellular | LTE (Cat 12/13/6), GNSS (GPS, GLONASS, Galileo, Beidou), with Telit LN920 (Optional) |
| 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. | VED8MM7H8SMX VED8MM7H8LSMX |

