VEST i.MX8M Mini SMARC Dev Kit

VEST-8MM-07-SMX-DEV

VEST is a leading embedded solutions provider, committing to excellence and innovation. VEST i.MX8M Mini SMARC 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.











ABOUT OUR **PRODUCT**

Introducing the VEST i.MX8M Mini SMARC 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 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 i.MX8M Mini SMARC 2.1 SOM 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
- 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







Specifications

CPU Up to Cortex®-A53 @ 1.8GHz, Cortex®-M4 @ 400MHz	
GPU GC NanoUltra (1shader) OpenGL* ES 2.0, GC520L (2D)	

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

Multimedia	
Video Encoder	1080p60 H.264, VP8
Video Decoder	1080p60 HEVC, H.264, VP9, VP8
Display and Touch	HDMI 2.0a Tx 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, 2x CAN FD
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
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
Debugging & Programming	2x Debug-UART Header, 2.54mm Pitch 5pin Header JTAG-1.27mm Pitch 2 x 5 Pin Header
Buttons and Indicators	3x On/Off Button, Reset and Force Recovery 5 Pin Header 2mm Pitch Header 1x On/Off, Reset, User LED Control 5 Pin Header Power LED Indicator-5x, PoE Sected, SYS_5V0, VDD_5V0, POE_OUT & VDD_3V3 Boot Mode Dip Switch
Power	PoE (25w/channel), USB-C (60w)

Physical	
Form Factor	180mm x 120mm (Carrier Board) , 82mm x 50mm SMARC SOM
Operating Temperature	Commercial Industrial (Optional)

What Encompasses i.MX8M Mini SMARC Development Kit













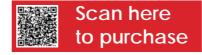
VEST i.MX8M Mini SMARC Dev Kit Board LCD 7" or 10"

Heat Sink

Power Adapter

Plug and Socket

Antenna



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