

VEST SMX i.MX8M Mini

VPN8M0/1/2/3/4/5-SMX

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

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.

Introducing the 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
- 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 Details	
CPU	Up to 4x Cortex®-A53 @ 1.8GHz, Cortex®-M4 @ 400MHz
CPU Core	SoloLite Solo Dual QuadLite Quad
GPU	GC NanoUltra, (1 shader), OpenGL® ES 2.0, GC320L (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
Driver	LI-IMX715-MIPI Camera (Leopard Imaging)

Multimedia	
Video Encoder	1080p60, H.264, VP8
Video Decoder	1080p60 HEVC, H.265, H.264, VP9, VP8
Camera	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 10 W/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 Type C with PD 3x 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 1 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 x 1 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 6 Pin Header JTAG-1.27mm Pitch 2x 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 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)

