

# VEST SMX i.MX8M Nano

VPN8N0/1/2/3/4/5-SMX

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

## ABOUT OUR PRODUCT

Unleash the full potential of the NXP i.MX8M Nano, featuring Arm® Cortex®-A53 cores and Cortex®-M7 core. This provides cost-effective integration and affordable performance for smart, connected, power-efficient devices requiring graphics, vision, voice control, intelligent sensing and general-purpose processing.

Introducing the VEST SMX i.MX8M Nano SMARC 2.1 SOM suitable for diverse range of applications, such as

- 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
- Consumer audio devices

## 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 @ 1.5GHz, Cortex®-M7 @ 750MHz
CPU Core	SoloLite   Solo   Dual   QuadLite   Quad
GPU	GC7000UL (2 shaders), OpenGL® ES 2.0/3.0/3.1, Vulkan®, Open CL™ 1.2

  

Memory	
Memory	1GB (up to 3GB) 16-bit LPDDR4-3200
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	
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
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   I2C 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   GPIO  PCIe M.2 Key E 2230 Form Factor   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)

