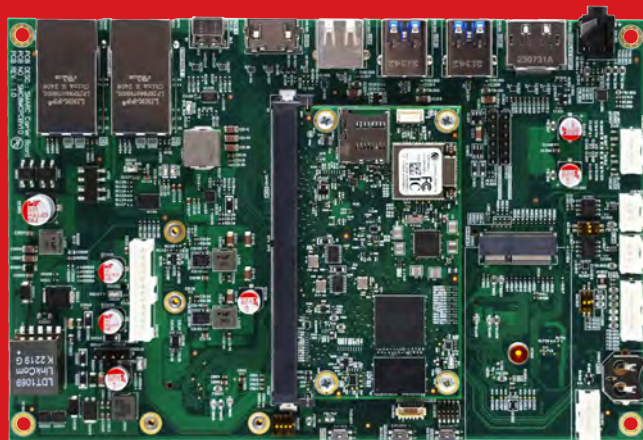


# VEST i.MX8M Nano SMARC Dev Kit

VEST-8MN-07-SMX-DEV

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



Industrial /  
Commercial  
IoT



Efficient  
CPU



Robust Security  
Features

## ABOUT OUR PRODUCT

Introducing the VEST i.MX8M Nano 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 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.

VEST 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

- Provides a balance between performance and efficiency
- Low power consumption, making it suitable for battery-powered devices
- A wide range of connectivity options and interfaces for cameras and displays
- Built-in security features like secure boot, cipher acceleration, and DRM support
- Compact size, ideal for space-constrained applications
- A wide range of audio interfaces

## Support



**VESTConnect360**  
Cloud Management System



# Specifications

CPU Details	
CPU	Up to 4x Arm® Cortex®-A53 @ 1.5GHz   Cortex®-M7 @ 750 MHz
GPU	GC7000UL (2 shaders) OpenGL® ES 2.0/3.0/3.1, Vulkan®, Open CL™ 1.2 FP
Memory	
Memory	1GB 16-bit LPDDR4-3200
Storage	8GB eMMC5.1
External Storage	Micro SD 3.0 Socket Push-Push Type
Operating System / Driver	
BSP	Yocto Linux, Ubuntu and Android
Multimedia	
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, 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 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   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 Nano SMARC Development Kit



VEST i.MX8M Nano  
SMARC Dev Kit Board

LCD 7" or 10"  
(Option)

Heat Sink

Antenna

## ADVANCED PRODUCTS CORPORATION PTE LTD (APC)

All product specifications are subject to change without notice. Last updated: March-2024.  
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