

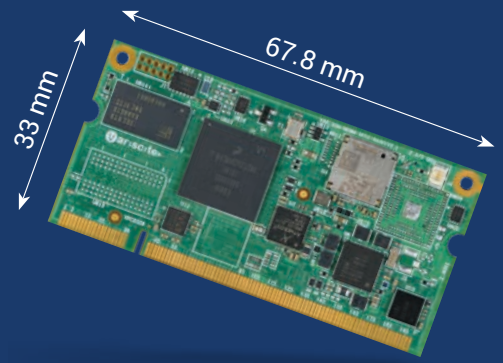
VAR-SOM-MX8M-NANO

Cost-optimized System on Module

from \$47

Based on NXP's i.MX 8M Nano with up to 1.5GHz Quad-core ARM Cortex-A53 plus 650MHz Cortex-M7 real-time processor. The SoM offers an ideal solution for cost-sensitive designs that require power-efficiency and high-performance graphics as well as for general-purpose applications.

The VAR-SOM-MX8M-NANO is a member of the VAR-SOM Pin2Pin product family. This impressive product family stretches across a wide range of performance levels including the i.MX6UL/6ULL/6ULZ, i.MX 6, i.MX 8X, i.MX 8M-Mini, i.MX 8M-Nano up to the i.MX 8QuadMax, providing Variscite's customers with flexibility, extended lifetime, as well as reduced development time, cost, and risk.



This popular platform supports a variety of interfaces including certified single-band 802.11b/g/n as well as dual-band 802.11ac/a/b/g/n option, 4.2 BT/BLE, Gigabit Ethernet, CAN/CAN-FD, USB2.0 and LVDS.

The Symphony carrier board complements an attractive full reference kit of the VAR-SOM-MX8M-NANO, used by Variscite's customers for evaluation, development and mass production

Main Features

NXP i.MX 8M Nano

- Quad 1.5GHz ARM Cortex-A53
- Real-time 650MHz Cortex-M7 co-processor
- Neon Media Processor Engine (MPE)
- Up to 2GB DDR4 memory, up to 64GB eMMC, 512MB NAND storage

Display support

- MIPI DSI 1080p60
- Resistive/capacitive touch screen
- Dual Flatlink LVDS display

Networking

- 10/100/1000Mbps Ethernet
- Certified single-band 802.11b/g/n or dual-band 802.11ac/a/b/g/n
- Bluetooth 5.2/BLE

High-speed interfaces

- USB 2.0 OTG

Audio

- Digital audio (SAI, SPDIF, PDM)
- Analog, digital microphone (stereo)
- Headphone out, line-in

Camera

- MIPI CSI2 serial input

Other interfaces

- CAN/CAN-FD, I2C, SPI, PWM, JTAG, UART, SD/MMC, GPIO, timers

OS support

- Linux
- Android

Power

- Single 3.3V

Dimensions (W x L x H)

- 67.8 mm x 33.0 mm x 4.7 mm

-40 to 85°C industrial temperature support

Low-power consumption

- Optimized power consumption in both operational and suspend modes.



Complementing the VAR-SOM-MX8M-NANO

VAR-SOM-MX8M-NANO Evaluation Kit

The VAR-DVK-VS8M-NANO allows full performance and capability evaluation, serving as an evaluation, development and production platform for hardware and software teams.

Evaluation Kit content

- Symphony-Board populated with VAR-SOM-MX8M-NANO
- 7" LCD + capacitive touch panel
- Power supply and communication cables
- Documentation and design package



Symphony-Board

Supporting the VAR-SOM-MX8M-NANO

The Symphony-Board ensures a scalable and simplified development and reference board to achieve a short time to-market for customer's designs and end-products.



Display support

- DSI, dual Flatlink LVDS display

Touch panel

- Capacitive touch (6-pin FFC/FPC)
- Resistive touch (4-pin FFC/FPC)

Audio

- Headphone
- Line-in
- Digital mic

Storage

- SD/SDIO/MMC card socket

High speed interfaces

- USB 2.0 port
- 10/100/1000Mbps Ethernet RJ45

Camera

- MIPI CSI serial (extension connector)

Additional expansion connectors

- SPI, SPDIF, GPIO
- UART, I2C, CAN/CAN-FD
- PWM
- SAI

Debug

- Micro USB

RTC backup battery

- CR1225 coin battery socket

Power

- 12V DC input

Size

- 16.9cm x 8.9cm

About Variscite

Variscite is a leading System on Module (SoM) and Single-Board-Computer (SBC) design and manufacture company. A trusted provider of development and consulting services for a variety of embedded platforms, Variscite transforms clients' visions into successful products.

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