

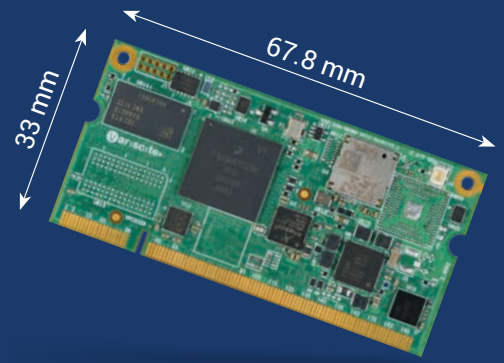
VAR-SOM-MX8M-NANO

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 4.2/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.

For more information contact:

sales@variscite.com

Copyright ©2020 Variscite. All rights reserved. Variscite Ltd. logos and product names are registered trademarks of Variscite Ltd. No part of this document may be reproduced by any means, nor translated to any electronic medium without the written consent of Variscite. Information contained in this document is believed to be accurate and reliable; however, Variscite assumes no responsibility for its use. Specifications are subject to change without notice.

