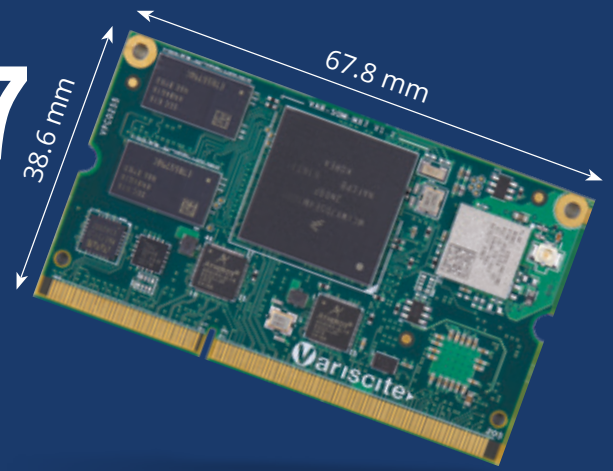


VAR-SOM-MX7



from \$35

The VAR-SOM-MX7 is a highly flexible System-on-Module (SoM) based on NXP's i.MX7 family and carries a dual 1GHz ARM Cortex-A7 processor alongside real-time 200MHz ARM Cortex-M4 co-processor.

A versatile platform, the VAR-SOM-MX7 provides a variety of interfaces and connectivity options – all packaged at an optimized power, size and cost. The VAR-SOM-MX7 is ideal for products and applications requiring real-time low-power processing combined with high performance application processor for optimizing performance and power consumption.

The VAR-SOM-MX7 highly integrated connectivity includes a certified Wi-Fi, Bluetooth/BLE, dual GbE, PCIe, dual USB, audio, camera, display with touch panel and additional serial and parallel interfaces. In addition, the system supports industrial operating grade, targeting embedded application requiring a wide temperature range.

The VAR-MX7CustomBoard carrier board complements an attractive full reference kit of the VAR-SOM-MX7 used by Variscite's customers for evaluation, development and mass production.

Main Features

NXP i.MX7

- Dual 1GHz ARM Cortex-A7
- Real-time 200MHz Cortex-M4 co-processor
- Neon Media Processor Engine (MPE)
- Up to 2GB DDR3L, 512MB NAND / 64GB eMMC

Display Support

- 24bits Parallel LCD up to WXGA (1366 x 768)
- MIPI DSI
- EPD (E-Ink)
- Resistive/capacitive touch screen

Networking

- 2 x 10/100/1000Mbps Ethernet
- Certified Wi-Fi 802.11ac/a/b/g/n
- Certified Bluetooth 5.2/BLE

USB

- USB 2.0 OTG
- USB 2.0 Host

Audio

- Digital audio (I2S compliant)
- Analog microphone (stereo)
- Headphone out, Line-in
- MQS audio interface

Camera

- Parallel input
- MIPI CSI serial input

Other Interfaces:

- Dual CAN, I2C, SPI, PWM, JTAG, UART, SD/MMC
- PCIe, Smartcard, ADC, timers, keypad
- 32-bit parallel external local bus

OS Support

- Linux

Power

- Single 3.3V

Dimensions (W x L x H):

- 38.6 mm x 67.8 mm x 4.0 mm

-20 to 85°C Industrial temperature range

Low Power consumption:

- Optimized power consumption in both operational and suspend modes



Complementing the VAR-SOM-MX7

VAR-SOM-MX7 Evaluation Kit

The VAR-DVK-MX7 allows full performance and capability evaluation, serving as an evaluation, development and production platform for hardware and software teams.

Evaluation Kit content

- VAR-MX7CustomBoard populated with VAR-SOM-MX7
- 7" LCD + capacitive touch panel
- Power supply and communication cables
- Documentation and design package



VAR-MX7CustomBoard

VAR-MX7CustomBoard - Supporting VAR-SOM-MX7

The VAR-MX7CustomBoard 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

- 24-bit RGB
- 18-bit LVDS
- DSI

Touch Panel

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

Audio

- Headphone
- Line-in
- Digital audio (via header)

USB

- USB 2.0 host
- USB OTG/HOST

Ethernet

- 2 x 10/100/1000Mbps Ethernet RJ45

Storage

- SD/MMC card socket

PCIe

Camera

- MIPI CSI serial
- Parallel (via header)

Additional expansion Connectors

- SPI, I2C
- CAN Bus
- UART
- MQS audio
- PWM, ADC

Debug

- Micro USB

RTC backup battery

- CR1225 coin battery socket

Power

- 5V DC input

Size

- 8.7cm x 14.8cm

About Variscite

Variscite is a leading System on Modules (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 ©2019 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.

