### Main Features

**NXP i.MX 8M Mini**
- Up to 2GHz Quad-core ARM Cortex-A53
- Real-time 400MHz Cortex-M4 co-processor
- Neon Media Processor Engine (MPE)
- Up to 4GB LPDDR4-3000 memory, up to 128GB eMMC storage

**Display and video Support**
- 1080p60 H.265/H.264/VP9 Decode, 1080p60
- MIPI DSI 1080p60
- Capacitive touch screen
- Dual channel LVDS display

**Networking**
- 10/100/1000Mbps Ethernet
- Certified WiFi 802.11ac/a/b/g/n and Bluetooth 5.2/BLE

**High Speed interfaces**
- PCIe
- 2 x 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:**
- I2C, QSPI, SPI, PWM, JTAG, UART, SD/MMC, GPIO, timers

**OS Support**
- Linux
- Android

**Power**
- Single 3.5-5V

**Dimensions (W x L x H):**
- 30.0 mm x 55.0 mm x 4.7 mm

**Low Power consumption:**
- Optimized power consumption in both operational and suspend modes

---

Packed in a tiny 55x30 mm package, the DART-MX8M-MINI System on Module powered by NXP’s i.MX8M Mini with up to 2GHz Quad-core ARM Cortex-A53 plus 400MHz Cortex-M4 real-time processor. Leveraging advanced low power silicon process technology to provide optimized power consumption while maintaining a high-performance bar.

The DART-MX8M-MINI and the DART-MX8M are pin-compatible solutions, providing our customers with ultimate flexibility. The SoM offers integrated 1080p video encode and decode acceleration support, 2D and 3D graphics, HQ audio and a wide range of connectivity options such as certified Wi-Fi/BT, Ethernet and USB.

The VAR-DT8MCustomBoard carrier board complements an attractive full reference kit of the DART-MX8M-MINI used by Variscite’s customers for evaluation, development and mass production.
Complementing the DART-MX8M-MINI

DART-MX8M-MINI Evaluation Kit

The VAR-DVK-DT8M-MINI allows full performance and capability evaluation, serving as an evaluation, development and production platform for hardware and software teams.

Evaluation Kit content
- VAR-DT8MCustomBoard populated with DART-MX8M-MINI
- 7” LCD + capacitive touch panel
- Power supply and communication cables
- Documentation and design package
- WiFi/BT antenna

VAR-DT8MCustomBoard

VAR-DT8MCustomBoard - Supporting DART-MX8M-MINI

The VAR-DT8MCustomBoard 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, LVDS display

**Touch Panel**
- Capacitive touch (6-pin FFC/ FPC)

**Audio**
- Headphone
- Line-in
- Digital mic

**Storage**
- SD/SDIO/MMC card socket

**High speed interfaces**
- 2x USB 2.0 ports
- 10/100/1000Mbps Ethernet RJ45
- mPCIe

**Camera**
- MIPI CSI serial

**Additional expansion Connectors**
- SPI, SPDIF, GPIO
- UART, I2C
- PWM
- SAI

**Debug**
- Micro USB

**RTC backup battery**
- CR1225 coin battery socket

**Power**
- 5V DC input

**Size**
- 15.0cm x 9.0cm

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 ©2023 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.