VAR-SOM-6UL

Low power, optimized cost

The VAR-SOM-6UL is highly flexible System-on-Module (SoM) based on NXP i.MX 6UltraLite / i.MX 6ULL / i.MX 6ULZ ARM Cortex-A7 processor, up to 900MHz CPU Clock.

The VAR-SOM-6UL provides a variety of interfaces and connectivity options including certified single-band 802.11b/g/n or dual-band Wi-Fi 802.11ac/a/b/g/n, Bluetooth/BLE, dual Ethernet, dual USB, audio, camera in, parallel RGB and LVDS display with touch panel and serial interfaces. The system supports industrial temperature grades -40 to 85°C and long longevity commitment targeting embedded products in various industrial segments and applications.
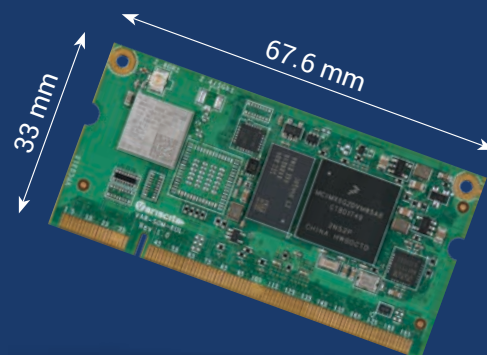
The SoM is a member of the VAR-SOM Pin2Pin product family. This impressive product family stretches across a wide range of performance levels including the i.MX6UL/6ULL/6ULZ, i.MX 6, i.MX 8X, i.MX 8M-Mini, i.MX 8M-Nano up to the i.MX 8QuadMax, providing Variscite's customers with flexibility, extended lifetime, as well as reduced development time, cost, and risk.

The Concerto carrier board complements an attractive full reference kit of the VAR-SOM-6UL, used by Variscite's customers for evaluation, development and mass production.

67.6 mm

33 mm

Main Features

NXP i.MX 6UltraLite / 6ULL / 6ULZ
- Power optimized up to 900MHz, ARM Cortex-A7
- Up to 1024MB DDR3L, 512MB NAND / 64GB eMMC
- Integrated security features
- 2D pixel acceleration engine (PxP)

Display Support
- 24bits parallel RGB / 18bits LVDS up to WXGA (1366 x 768)
- Touch screen controller

Networking
- 2x 10/100Mbps Ethernet
- Certified single-band 802.11b/g/n or dual-band 802.11ac/a/b/g/n
- Bluetooth 5.2 / BLE

USB
- USB 2.0 OTG
- USB 2.0 Host

Audio
- Digital audio SSI(AUDMUX), S/PDIF
- Analog microphone (stereo)
- Headphone out, line-in
- ESAI (6ULL only)

Camera
- Parallel input

Other interfaces
- Dual CAN, I2C, SPI, PWM, JTAG, UART, SD/MMC

OS support
- Linux: Yocto, Debian

Power
- Single 3.3V

Dimensions (W x L x H):
- 67.6 mm x 33.0 mm x 4.0mm

Industrial temperature support low power consumption
- Optimized power consumption in both operational and suspend modes

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Complementing the VAR-SOM-6UL

VAR-DVK-VS6UL Evaluation Kit

The VAR-DVK- VS6UL allows full performance and capability evaluation, serving as an evaluation, development and production platform for hardware and software teams.

Evaluation Kit content
* Concerto-Board populated with VAR-SOM-6UL
* 7" LCD + capacitive touch panel
* Power supply and communication cables
* Documentation and design package

Concerto-Board
Supporting VAR-SOM-6UL

The Concerto-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
* 24-bit RGB
* 18-bit LVDS

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

Audio
* Headphone
* Line-in

USB
* USB 2.0 host
* USB OTG/HOST

Ethernet
* 2 x 10/100Mbps Ethernet RJ45

Storage
* SD/MMC card socket

Additional expansion Connectors
* SPI, I2C
* CAN Bus
* UART, RS232
* Digital Audio
* PWM

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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