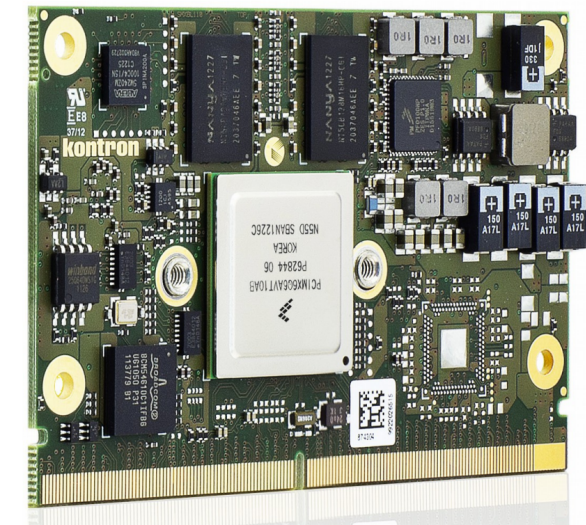


ROM-51003 SMARC-sAMX6i



Freescale™ i.MX6 family SoC

Scalable from Solo Core up to Quad Core

Industrial Temperature Operation

Robust SMARC input offerings

ARM specific featureset incl. PCIe and graphic

Up to 64GB NAND/eMMC on-module (Custom Option)

Gigabit Ethernet

4x Serial ports

Up to 3x PCIe x1, MLB150, 12xGPIOs, SDIO, SATA eMMC, 2x SPI, 5x I2C, 2x I2S, SPDIF, WDT, 2x CAN, Battery and System Management

The highly scalable SMARC-sAMX6i modules with single, dual or quad core Freescale i MX6 processors cover an extremely wide performance range. Based on the ARM Cortex A9 technology, they enable an efficient development of smart devices in an extremely compact, fanless design with balanced processor and graphics performance. The X86 alike interfacing of SMARC-sAMX6i allows an easy integration in any kind of application.

The SMARC™ standard was developed especially for new modules with ARM- and SOC-processors and is characterized by the extremely flat build of its form factor. It is based on the MXM 3.0 connector with 314 pins and a construction height of just 4.3 millimeters and it thus allows robust and flatly constructed designs with a cost-effective card edge connector. The connector is also available in a shock- and vibration-resistant version for rough environmental conditions. Furthermore, the standard integrates dedicated interfaces for the latest ARM and SOC processors which not only means LVDS, 24-bit RGB and HDMI support but also support of embedded DisplayPort for future designs. In addition, and for the first time, dedicated camera interfaces are being incorporated into a COM standard. OEMs profit from minimized design effort and bill of material costs. SMARC™ defines two different module sizes in order to offer a high level of flexibility regarding different mechanical requirements: a short modules measuring 82 mm x 50 mm and a full-size module measuring 82 mm x 80 mm.

SMARC™ is the low-power embedded architecture platform for computer-on-modules based on ARM technology.

» Creating mobile, embedded, connected solutions

» Scalable building blocks

» Optimized pin-out definition for ARM technology

» Ultra low-power, low-profile solutions

» Constructed to withstand harsh industrial environments

Specifications

SOM Type:

Microcontroller SODIMM Modules

Processor

Freescale i.MX6

Clock Speed:

800 MHz

Real Time Clock:

Processor Misc.:

Freescale i.MX 6 Solo, Dual and Quad Core ARM Cortex-A9 800 MHz

Memory

U-Boot Boot loader:

U-Boot Boot loader

Primary Flash:

up to 32GB onboard eMMC(SLC)

Secondary Flash:

SD Card / eMMC support

Memory Misc.:

Max Memory is 1GB for Solo CPU

Primary I/O

12x GPIO

SDIO:

1x SDIO

Disk Interface:

1x SATA II

Video Out:

LVDS

HDMI and TTL LCD

SPI:

2x SPI

Audio:

I2S interface

Ethernet:

Broadcom Phy Gigabit Ethenret

USB:

3x USB 2.0

Serial Ports:

4x COM ports

I2C:

5x I2C

Watchdog:

Primary I/O Misc.:

SATA is not available on modules with i.MX6 solo processor.

Secondary I/O
CAN.

2x CAN 2.0B

Video Capture:

2x CSI camera support

LPT Port:

Keypad:

PS/2:

Expansion
Bus misc.

3x PCIe x1

Analog
A/D.

D/A:

Dimensions
Dimensions.

3.23 × 1.97 in

Form Factor:

314-pin SODIMM

Power Requirements
Power misc.

3V to 5.25V - Operates directly from single level Lithium Ion cells, or fixed 3.3V or 5V power supplies

i.MX6 solo

- Typical- 2.46W
- Max- 4W

i.MX6 quad

- Typical- 2.87W
- Max- 5W

Environmental
Low Operating Temperature:

-40 C

High Operating Temperature:

85 C

Upper Operating Humidity:

90%

Pricing
R01V1-J1003-081-R

511003-0540-08-1, SMARC-sAMX6i, i.MX6 1x800MHz, 512MB DDR3, 4GB eMMC, 4xCOM, 3xUSB2, GbE, 2xCAN, HDMI (-40~85C)

\$176.00
Order:
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Parent Product:
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ROM-51003-082-R
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