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NXP-Freescale i.MX6

# MicroSoM i2eX

Dual Core SoM (System-On-Module)



Simple. Robust. Computing Solutions

**SolidRun Ltd.**

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## Overview

Introduces better capabilities such as a higher end processing power and a dual CPU.

### **MicroSoM i2eX Highlighted Features:**

- Based on NXP's iMX6 Dual Core SoC
- 1GB DDR3
- Small size 47mm×30mm
- Variety of temperature grades:
  - Commercial 0°C...60°C
  - Extended -20°C...70°C
  - Industrial -40°C...85°C
  - Automotive -40°C...105°C
- Long longevity of 10 years
- Low power consumption

## System Specifications

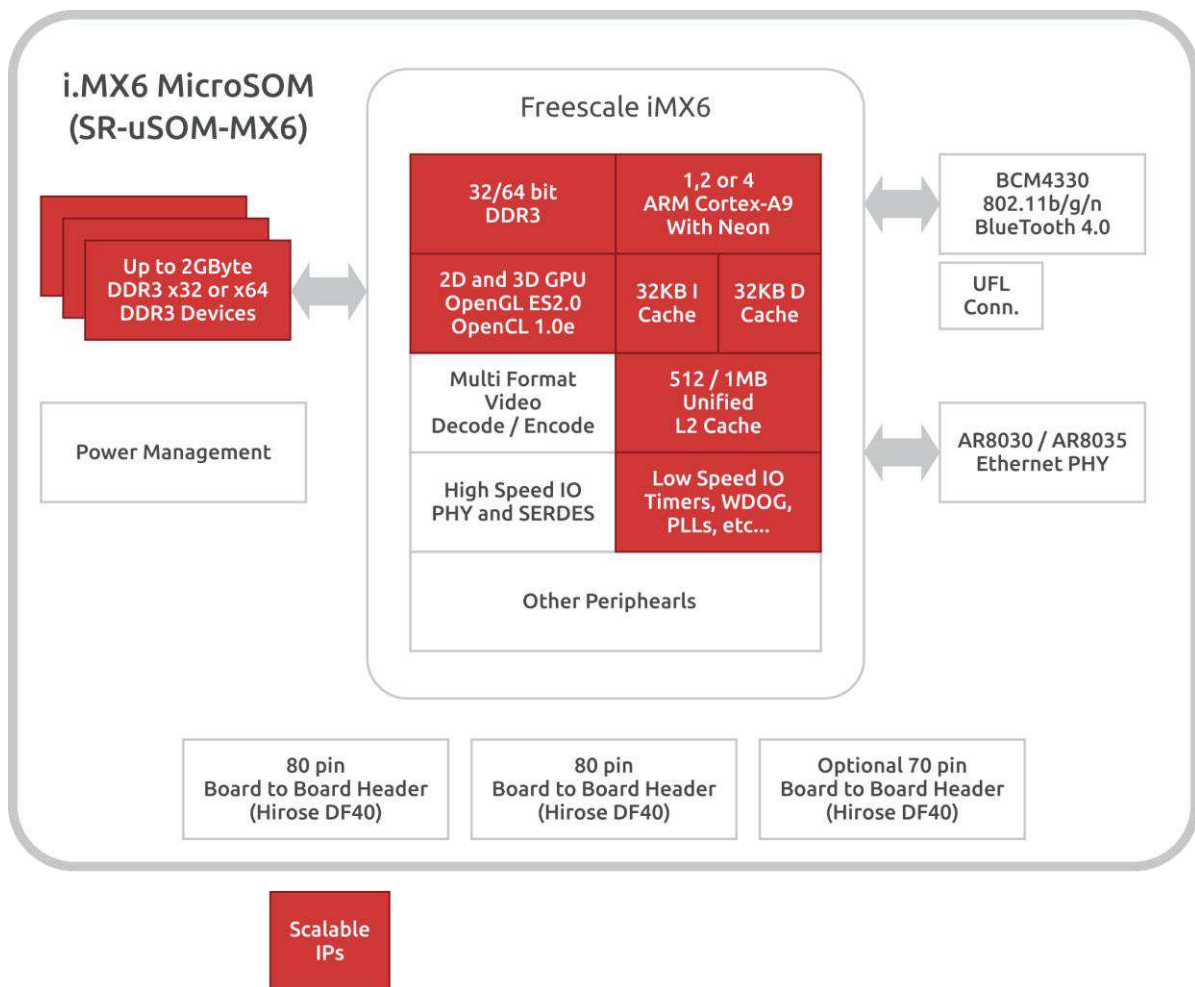
i.MX6 Dual	
<b>Processor core</b>	Dual core ARM A9
<b>Processor speed</b>	1GHz (up to 1.2GHz)
<b>Floating Point</b>	VFPv3
<b>SIMD</b>	NEON
<b>Graphics Processing Unit</b>	Vivante GC2000
<b>3D GPU Support</b>	OpenGL ES 1.1/2.0 OpenCL 1.1E
<b>HW Video Dec/Enc</b>	Multi Format
<b>Memory</b>	64 bit, 1GB DDR3 @ 800Mbps
<b>Wired Network</b>	10/100/1000 Mbps*
<b>Wireless Network</b>	Optional
<b>Bluetooth</b>	Optional
<b>Display Max resolution</b>	HDMI: 1080p, LCD: WUXGA (1920×1200)
<b>Display Interfaces</b>	LVDS, HDMI 1.4, DSI, Parallel
<b>Dual display support</b>	✓
<b>Supported External Storage</b>	NOR-Flash, eMMC, SD/microSD, PCIe SSD
<b>SD/MMC</b>	3
<b>USB 2.0 host</b>	1
<b>USB OTG</b>	1
<b>Serial ports</b>	3
<b>Digital audio serial interface</b>	1
<b>Camera interface port</b>	4 Lane CSI
<b>CAN bus</b>	✓**
<b>S-ATA</b>	Gen II, 3Gbps
<b>PCI-Express 2.0</b>	×1
<b>Second Ethernet</b>	Via PCIe or USB NIC
<b>I2C</b>	3
<b>SPI</b>	3
<b>PWM</b>	4

<b>i.MX6 Dual</b>	
<b>GPIO</b>	75
<b>JTAG</b>	Test Point Header
<b>S/PDIF Input</b>	✓
<b>S/PDIF Output</b>	✓
<b>1-Wire</b>	1-Wire Transceiver on carrier board
<b>Main Voltage</b>	5V
<b>IO Voltage</b>	3.3V
<b>SoM interface</b>	Hirose DF40 connectors 1.5mm up to 4.0mm mating height
<b>Dimensions (W×L)</b>	47mm×30mm

(\*) Note that due to internal i.MX6 buses the 1000Mbps interface speed is limited to 470Mbps.

(\*\*) Will be supported on MicroSoM v1.4.

## Block Diagram



## Ordering Information

SKU Format
usomxyz-3c

## Legend

	Meaning	Options	Description
<b>usom</b>	Product Family	none	Fixed parameter- MicroSoM Family
<b>xx</b>	MicroSoM Type	01	MicroSoM i1
		02	MicroSoM i2
		03	MicroSoM i2eX
		04	MicroSoM i4P
		05	MicroSoM i4x4
<b>y</b>	Temperature Range	none	Commercial Temperature Range
		e	Extended Temperature Range
		i	Industrial Temperature Range
		a	Automotive Temperature Range
<b>z</b>	WiFi/BT	none	No WiFi/BT
		w	Include WiFi/BT
<b>3c</b>	3 Board to Board Connectors	None	Fixed parameter

## Available SKUs for MicroSoM i2eX

SKU	Description
<b>usom03-3c</b>	MicroSoM i2eX
<b>usom03w-3c</b>	MicroSoM i2eX + WiFi/BT
<b>usom03e-3c</b>	MicroSom i2eX- Extended Temperature
<b>usom03ew-3c</b>	MicroSom i2eX- Extended Temperature + WiFi/BT
<b>usom03i-3c</b>	MicroSom i2eX- Industrial Temperature
<b>usom03iw-3c</b>	MicroSom i2eX - Industrial Temperature + WiFi/BT
<b>usom03a-3c</b>	MicroSom i2eX- Automotive Temperature
<b>usom03aw-3c</b>	MicroSom i2eX - Automotive Temperature + WiFi/BT

## Safety notice

- a. This device is to be used with Certified Power adaptor with output rated 5VDC, 3A. Power adapter must meet Limited power source (LPS) requirements.
- b. Power adapter must meet local safety standards and requirements based on product intended use.
- c. Power adapter must meet Operating environment conditions as specified above.

## Disposal

Follow local regulations regarding disposal of the product. Dispose of your product in accordance with local regulations. In some areas, the disposal of these items in household or business trash may be prohibited.

Help us protect the environment- recycle!

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