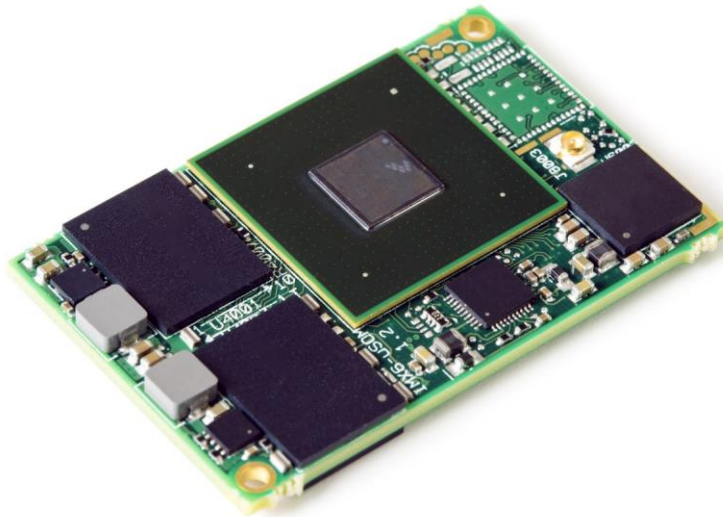


NXP-Freescale i.MX6

# MicroSoM i4Pro

Quad Core SoM (System-On-Module)



Simple. Robust. Computing Solutions

**SolidRun Ltd.**

3 Dolev st., 3rd floor, P.O. Box 75  
Migdal Tefen 2495900, Israel.

[www.solid-run.com](http://www.solid-run.com)

## Overview

Adds capabilities such as quad core CPU, 2GByte DRAM, and GigaBit Ethernet.

### **The MicroSoM i4Pro Highlighted Features:**

- Based on NXP's iMX6 Quad Core SoC
- 2GB 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

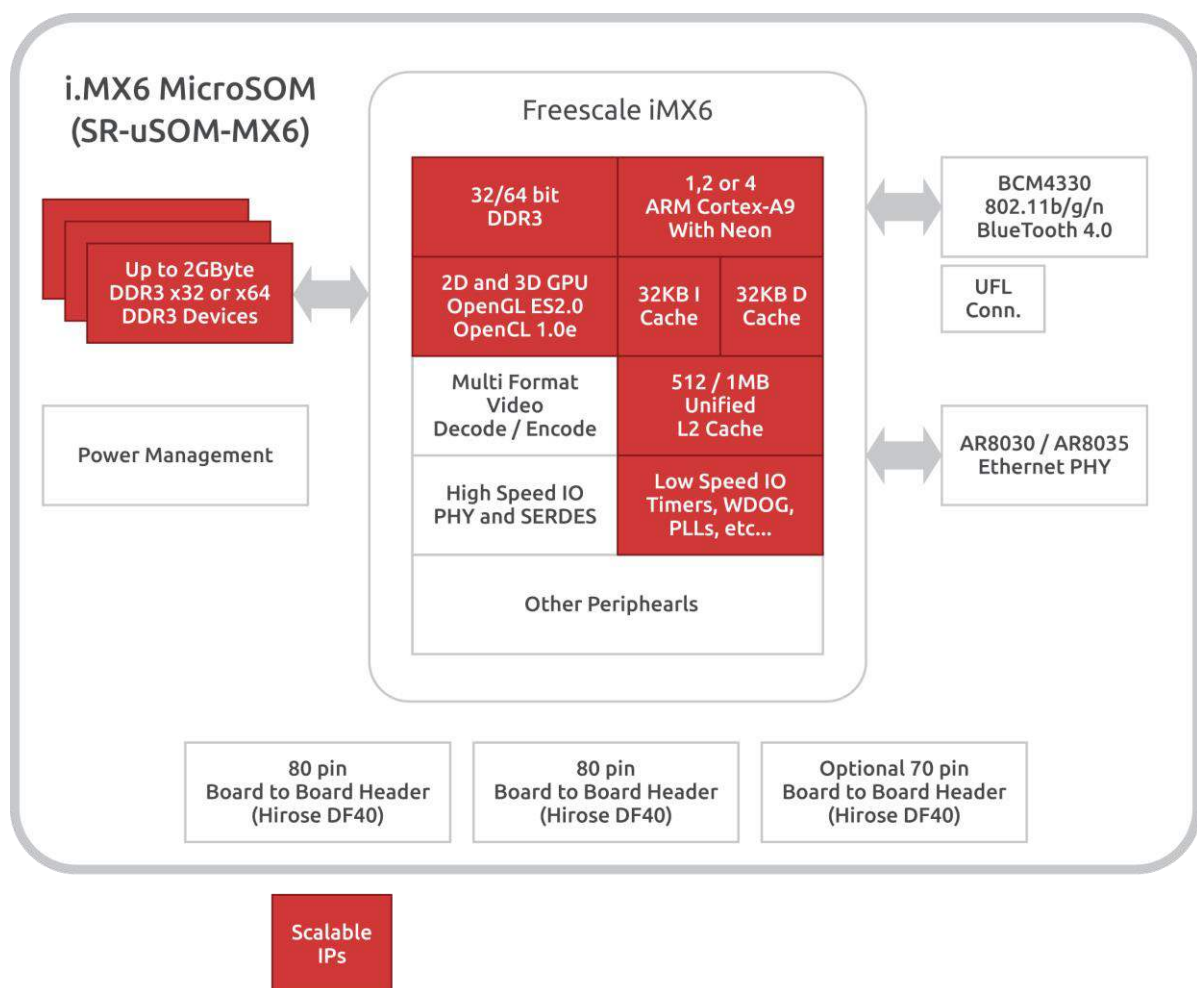
i.MX6 Quad	
Processor core	Quad core ARM A9
Processor speed	1GHz (up to 1.2GHz)
Floating Point	VFPv3
SIMD	NEON
Graphics Processing Unit	Vivante GC2000
3D GPU Support	OpenGL ES 1.1/2.0 OpenCL 1.1E
HW Video Dec/Enc	Multi Format
Memory	64 bit, 2GB DDR3 @ 1066Mbps
Wired Network	10/100/1000 Mbps*
Wireless Network	Optional
Bluetooth	Optional
Display Max resolution	HDMI: 1080p, LCD: WUXGA (1920×1200)
Display Interfaces	LVDS, HDMI 1.4, DSI, Parallel
Dual display support	✓
Supported External Storage	NOR-Flash, eMMC, SD/microSD, PCIe SSD
SD/MMC	3
USB 2.0 host	1
USB OTG	1
Serial ports	3
Digital audio serial interface	1
Camera interface port	4 Lane CSI
CAN bus	✓**
S-ATA	Gen II, 3Gbps
PCI-Express 2.0	×1
Second Ethernet	Via PCIe or USB NIC
I2C	3
SPI	3
PWM	4

i.MX6 Quad	
<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 i4Pro

SKU	Description
<b>usom04-3c</b>	MicroSoM i4Pro
<b>usom04w-3c</b>	MicroSoM i4Pro + WiFi/BT
<b>usom04e-3c</b>	MicroSom i4Pro- Extended Temperature
<b>usom04ew-3c</b>	MicroSom i4Pro- Extended Temperature + WiFi/BT
<b>usom04i-3c</b>	MicroSom i4Pro- Industrial Temperature
<b>usom04iw-3c</b>	MicroSom i4Pro- Industrial Temperature + WiFi/BT
<b>usom04a-3c</b>	MicroSom i4Pro- Automotive Temperature
<b>usom04aw-3c</b>	MicroSom i4Pro- 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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