imall

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





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*



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 Maxresolution	HDMI: 1080p, LCD: WUXGA (1920×1200)	
Display Interfaces	LVDS, HDMI 1.4, DSI, Parallel	
Dual display support	\checkmark	
Supported External Storage	NOR-Flash, eMMC, SD/microSD, PCIeSSD	
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	
12C	3	
SPI	3	
PWM	4	



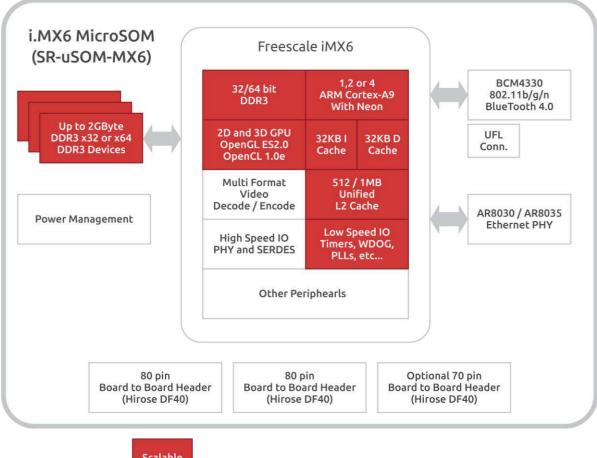
	i.MX6 Quad
GPIO	75
JTAG	Test Point Header
S/PDIF Input	\checkmark
S/PDIF Output	\checkmark
1-Wire	1-Wire Transceiver on carrier board
Main Voltage	5V
IO Voltage	3.3V
SoM interface	Hirose DF40 connectors 1.5mm up to 4.0mm mating height
Dimensions (W×L)	47mm×30mm

(*) 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



Scalable IPs



Ordering Information

SKU Format

usomxxyz-3c

Legend

	Meaning	Options	Description
usom	Product Family	none	Fixed parameter- MicroSoM Family
хх	MicroSoM Type	01	MicroSoM i1
		02	MicroSoM i2
		03	MicroSoM i2eX
		04	MicroSoM i4P
		05	MicroSoM i4×4
y Temperature Range	Temperature Range	none	Commercial Temperature Range
		е	Extended Temperature Range
		i	Industrial Temperature Range
		а	Automotive Temperature Range
Z	WiFi/BT	none	No WiFi/BT
		W	Include WiFi/BT
3c	3 Board to Board Connectors	None	Fixed parameter

Available SKUs for MicroSoM i4Pro

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