NXP-Freescale i.MX6

MicroSoM i2

Dual Core SoM (System-On-Module)

Simple. Robust. Computing Solutions

Overview

Expands the capabilities of the single core SOM-i1 with a dual lite CPU and 1GByte of DRAM.

MicroSoM i2 Highlighted Features:

- Based on NXP's iMX6 Dual-lite 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

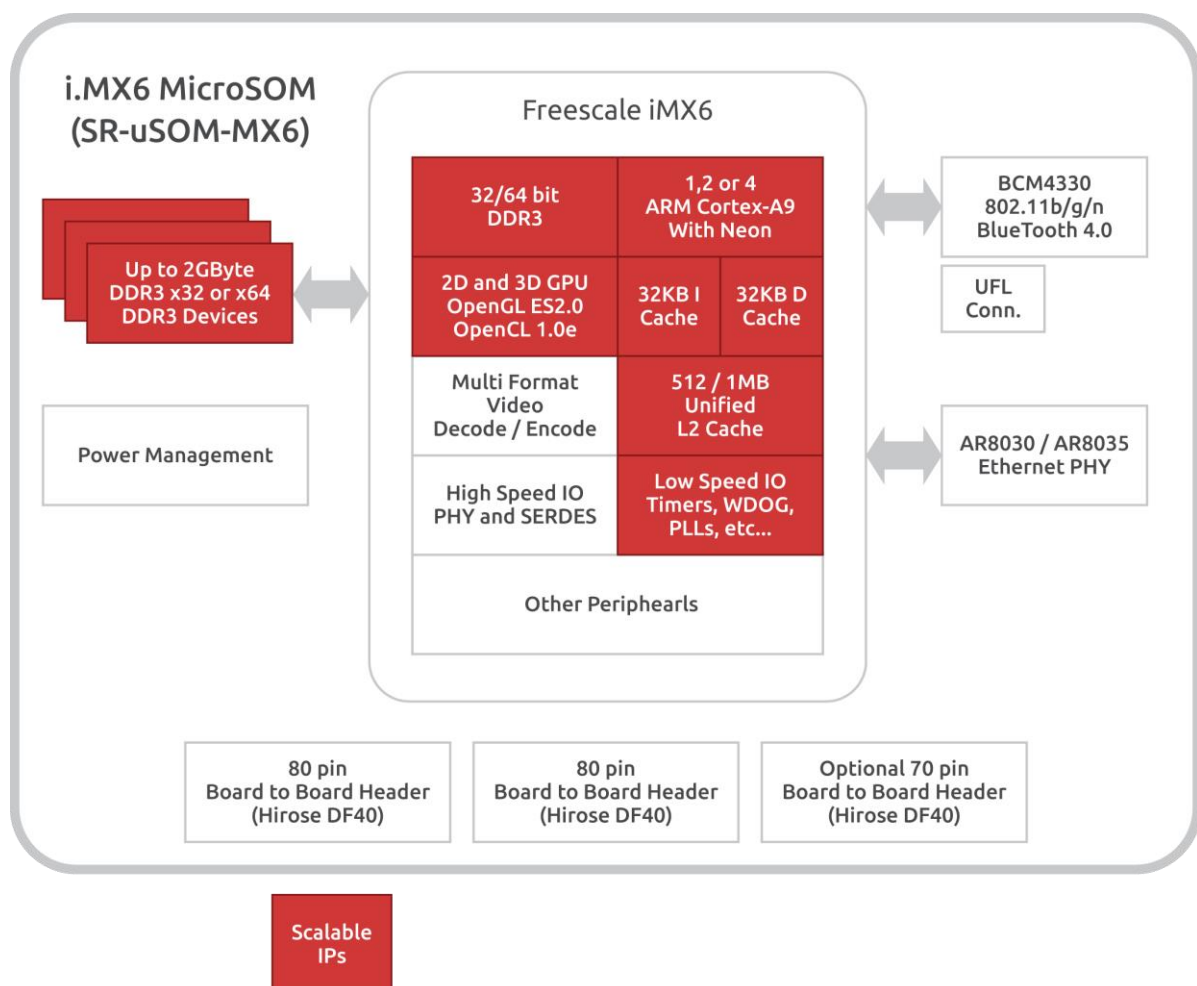- Long longevity of 10 years

- Low power consumption

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

System Specifications

i.MX6 Dual-lite	
Processor core	Dual core ARM A9
Processor speed	1GHz (up to 1.2GHz)
Floating Point	VFPv3
SIMD	NEON
Graphics Processing Unit	Vivante GC880
3D GPU Support	OpenGL ES 1.1/2.0
HW Video Dec/Enc	Multi Format
Memory	64 bit, 1GB DDR3 @ 800Mbps
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	2 Lane CSI
CAN bus	✓**
S-ATA	–
PCI-Express 2.0	×1
Second Ethernet	Via PCIe or USB NIC
I2C	3
SPI	3
PWM	4

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

i.MX6 Dual-lite	
GPIO	75
JTAG	Test Point Header
S/PDIF Input	✓
S/PDIF Output	✓
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

Ordering Information

SKU Format
usomxxyz-3c

Legend

	Meaning	Options	Description
usom	Product Family	none	Fixed parameter- MicroSoM Family
xx	MicroSoM Type	01	MicroSoM i1
		02	MicroSoM i2
		03	MicroSoM i2eX
		04	MicroSoM i4P
		05	MicroSoM i4×4
y	Temperature Range	none	Commercial Temperature Range
		e	Extended Temperature Range
		i	Industrial Temperature Range
		a	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 i2

SKU	Description
usom02-3c	MicroSoM i2
usom02w-3c	MicroSoM i2 + WiFi/BT
usom02e-3c	MicroSom i2- Extended Temperature
usom02ew-3c	MicroSom i2- Extended Temperature + WiFi/BT
usom02i-3c	MicroSom i2- Industrial Temperature
usom02iw-3c	MicroSom i2- Industrial Temperature + WiFi/BT
usom02a-3c	MicroSom i2- Automotive Temperature
usom02aw-3c	MicroSom i2- 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!

IMPORTANT NOTICE – Please Read Carefully

No warranty of accuracy is given concerning the contents of the information contained in this document. To the extent permitted by law no liability (including liability to any person by reason of negligence) will be accepted by SolidRun ltd. Or its employees for any direct or indirect loss or damage caused by omissions from or inaccuracies in this document.

SolidRun ltd. Reserves the right to change details in this publication without notice

Product and company names herein may be the trademarks of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

Support

For technical support please visit:

Our Wiki – http://wiki.solid-run.com/

Our Forums - http://forum.solid-run.com/

For direct support please contact us at: support@solid-run.com