



NXP-Freescale i.MX6

MicroSoM i4x4

Quad Core SoM (System-On-Module)
Rev 1.3



Simple. Robust. Computing Solutions

SolidRun Ltd.

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Overview

Expands the memory size to 4GB DRAM along with a Quad Core CPU.

MicroSoM i4x4 Highlighted Features

- ✿ Based on NXP's iMX6 Quad Core SoC
- ✿ 4GB DDR3
- ✿ Small size 47mm×30mm
- ✿ Variety of temperature grades:
 - Commercial 0°C...60°C
 - Industrial -40°C...85°C
 - Automotive -40°C...105°C
- ✿ Long longevity of 10 years
- ✿ Low power consumption
- ✿ Broad SW support (Linux, Android)

System Specifications

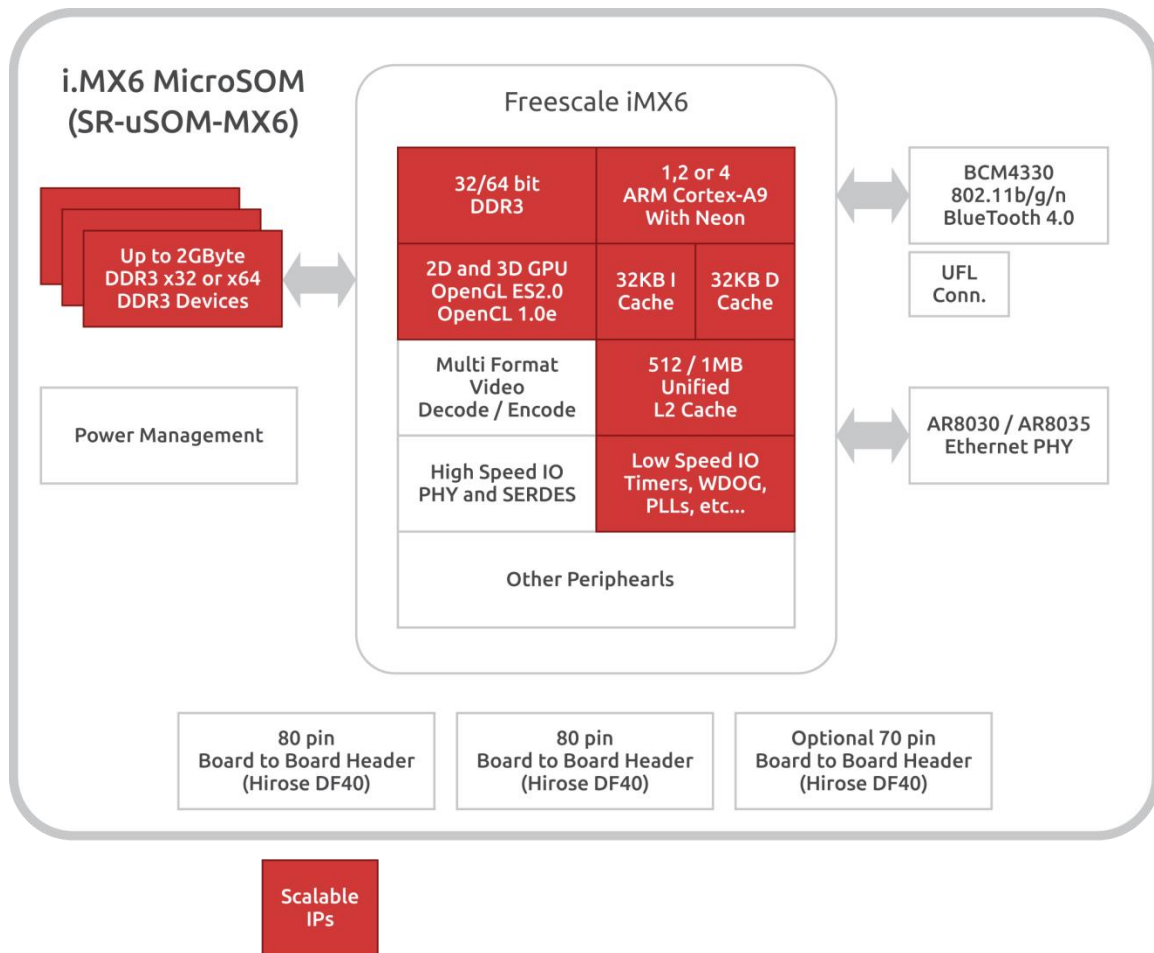
i.MX6 Quad	
System On Chip	i.MX6 Quad
Processor core	Quad core ARM A9
Processor speed	1GHz (up to 1.2GHz)
Floating Point	VFPv3
SIMD	NEON
Graphics Processing Unit	Vivante GC2000
3D GPU Support	OpenGL ES 1.1/2.0,OpenCL 1.1E
HW Video Dec/Enc	Multi Format
Memory	64 bit, 4GB DDR3 @ 1066Mbps
Wired Network	10/100/1000 Mbps* Mbps
Wireless Network	Optional (BCM4330)
Bluetooth	Optional (BCM4330)
Display Max resolution	HDMI: 1080p, LCD: WUXGA(1920 x 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	x1
Second Ethernet	Via PCIe or USB NIC
I2C	3
SPI	3
PWM	4
GPIO	75
JTAG	Test Point Header
S/PDIF Input	✓
S/PDIF Output	✓
1-Wire	1-Wire Transceiver on carrier board
RTC	On Carrier
Linux Support	✓
Android Support	✓

Temperature range	Commercial, Industrial, Automotive
Main Voltage	5V
IO Voltage	3.3V
SoM interface	Hirose DF40 connectors 1.5mm up to 4.0mm mating height
Dimensions (W x L)	47mm x 30mm

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

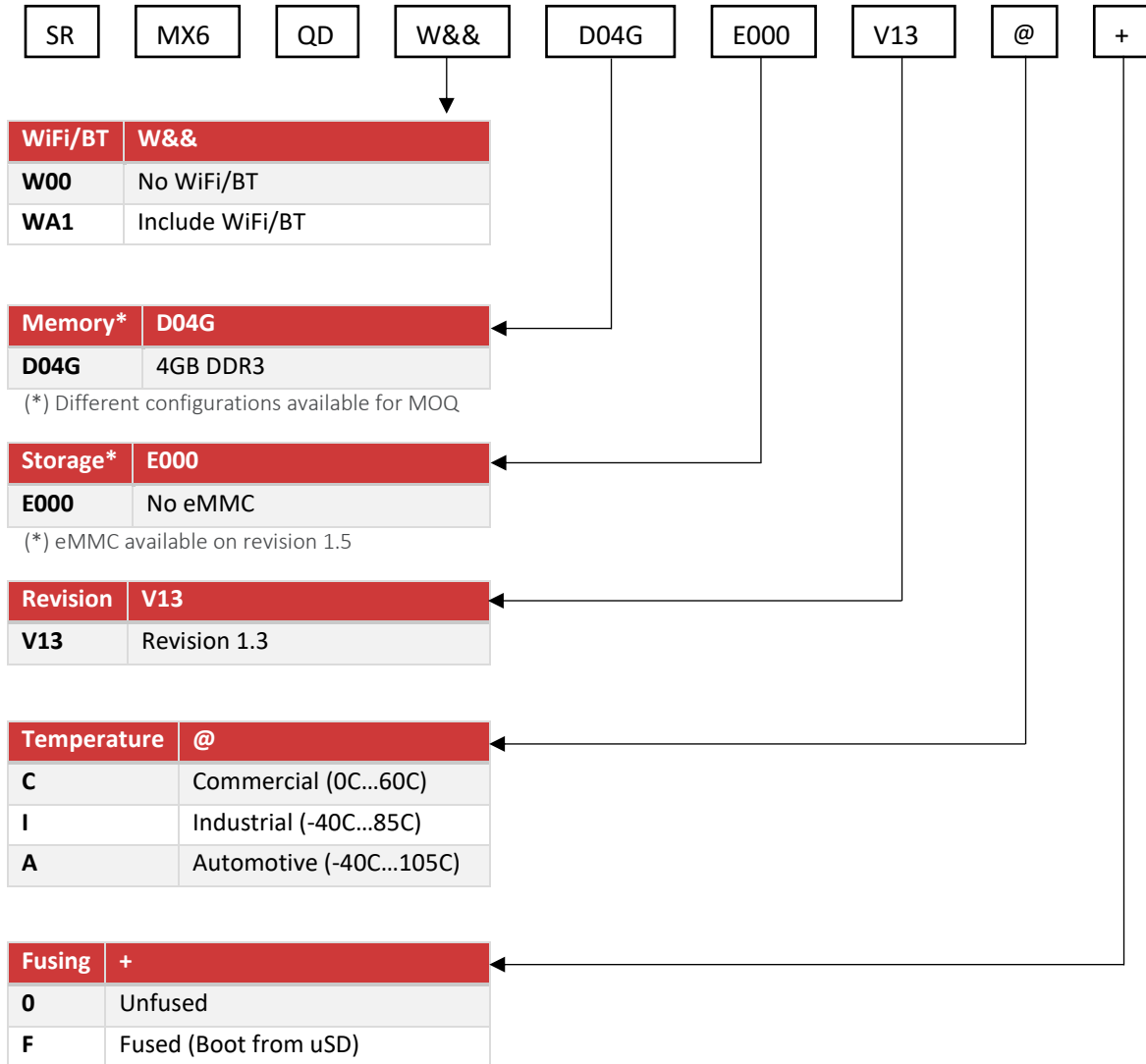
(**) Will be supported on MicroSoM revisionv1.5

Block Diagram



Ordering Information

SKU Format



Available SKUs for MicroSoM i4x4

SKU	Description
SRMX6QDW00D04GE000V13C0	iMX6 Quad No WiFi/BT 4GB DDR No eMMC Com. Temp R1.3 Unfused
SRMX6QDWA1D04GE000V13C0	iMX6 Quad AZ WiFi/BT 4GB DDR No eMMC Com. Temp R1.3 Unfused
SRMX6QDW00D04GE000V13I0	iMX6 Quad No WiFi/BT 4GB DDR No eMMC Ind. Temp R1.3 Unfused
SRMX6QDWA1D04GE000V13I0	iMX6 Quad AZ WiFi/BT 4GB DDR No eMMC Ind. Temp R1.3 Unfused
SRMX6QDW00D04GE000V13A0	iMX6 Quad No WiFi/BT 4GB DDR No eMMC Auto. Temp R1.3 Unfused
SRMX6QDWA1D04GE000V13A0	iMX6 Quad AZ WiFi/BT 4GB DDR No eMMC Auto. Temp R1.3 Unfused

Available Accessories and Development Boards

SKU	Description
HS00003	MicroSoM Heatsink
AN00001	2.4Ghz WiFi UFL Antenna
SRHBCEE004CV12	HummingBoard Edge 4GB eMMC Com. Temp R1.2
SRHBCGE000CV12	HummingBoard Gate No eMMC Com. Temp R1.2
SRHBCPE000CV35	HummingBoard Pro Com. Temp R3.5
SRCBCBE000CV11	CuBox Base Com. Temp R1.1
SRCBCPE000CV11	CuBox Pro Com. Temp R1.1
SRHBCEE004IV12	HummingBoard Edge 4GB eMMC Ind. Temp R1.2
SRHBCGE000IV12	HummingBoard Gate No eMMC Ind. Temp R1.2

Safety Notice

- This device is to be used with Certified Power adaptor with output rated 5VDC, 3A. Power adapter must meet Limited power source (LPS) requirements.
- Power adapter must meet local safety standards and requirements based on product intended use.
- 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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Documentation

Additional documentation available at:

<http://wiki.solid-run.com/doku.php?id=products:imx6:documents>