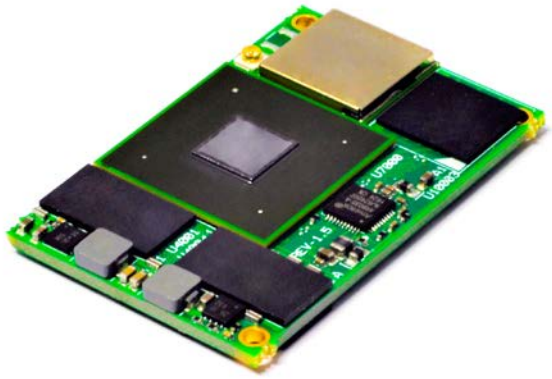
NXP-Freescale i.MX6

SOM i4Pro

Quad Core SOM (System-On-Module)

Rev 1.5



Simple. Robust. Computing Solutions

SolidRun Ltd.
7 Hamada st.,
Yokne'am Illit, 2495900, Israel
www.solid-run.com

Overview

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

SOM i4Pro Highlighted Features

- Based on NXP's iMX6 Quad Core SoC
- 2GB DDR3
- Onboard 8GB eMMC
- 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)

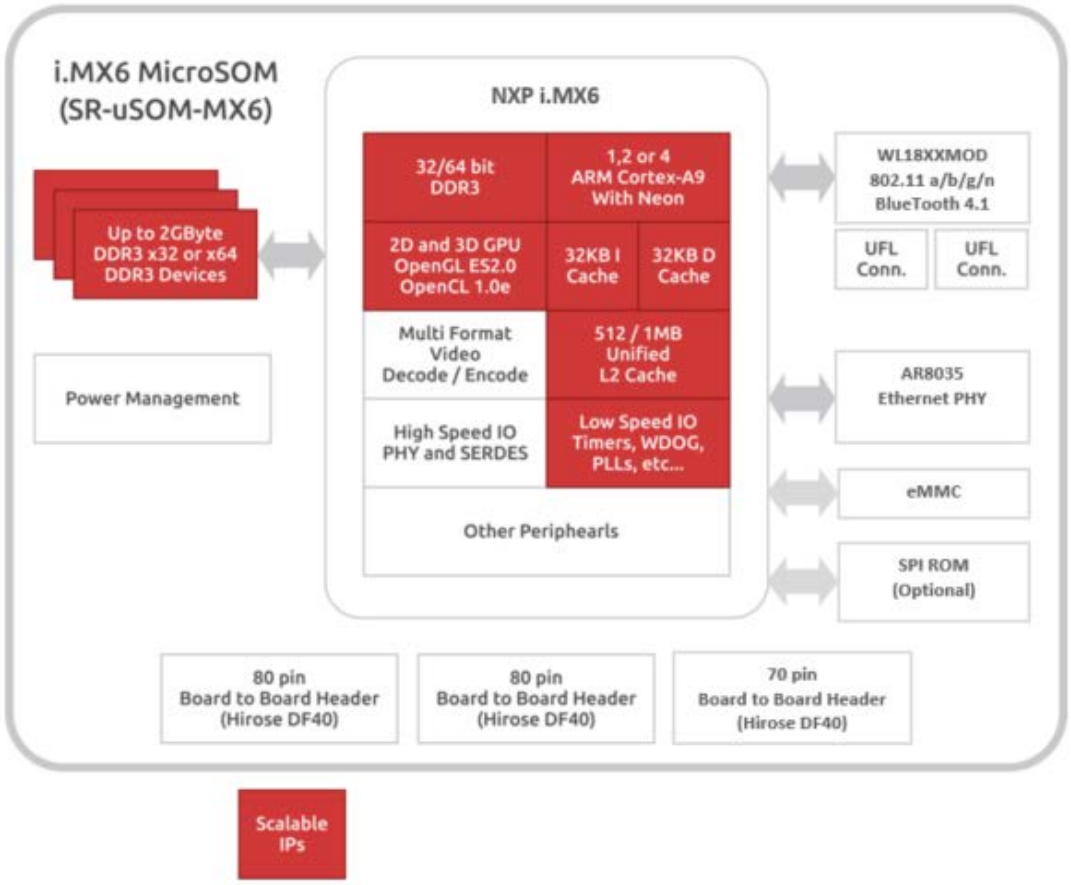
System Specifications

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, 2GB DDR3 @ 1066Mbps
Wired Network	10/100/1000 Mbps* Mbps
Wireless Network	Optional (WL1831)
Bluetooth	Optional (WL1831)
Display Max resolution	HDMI: 1080p, LCD: WUXGA(1920 x 1200)
Display Interfaces	LVDS, HDMI 1.4, DSI, Parallel
Dual display support	✓
Supported Internal Storage	eMMC, SPI ROM (Optional)
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	✓

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

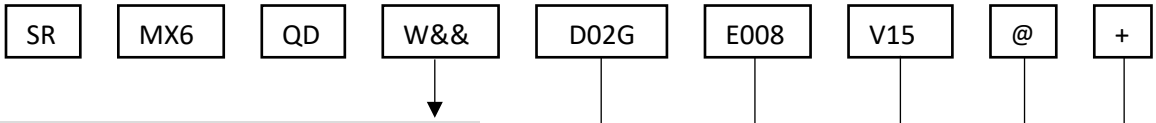
(*) Note that due to internal i.MX6 buses the 1000Mbps interface speed is limited to 470Mbps.

Block Diagram



Ordering Information

SKU Format



WiFi/BT	W&&
W00	No WiFi/BT
WA1	Include WiFi/BT

Memory*	D02G
D02G	2GB DDR3

(*) Different configurations available for MOQ

Storage*	E008
E008	8GB eMMC

(*) Different configurations available for MOQ

Revision	V15
V15	Revision 1.5

Temperature	@
C	Commercial (0C…60C)
I	Industrial (-40C…85C)
A	Automotive (-40C…105C)

Fusing	+
0	Unfused
F	Fused (Boot from uSD)

Available* SKUs for SOM i4P

SKU	Description
SRMX6QDW00D02GE008V15C0	iMX6 Quad|No WiFi/BT|2GB DDR|8GB eMMC|Com. Temp|R1.5|Unfused
SRMX6QDWT1D02GE008V15C0	iMX6 Quad|TI WiFi/BT|2GB DDR|8GB eMMC|Com. Temp|R1.5|Unfused
SRMX6QDW00D02GE008V15I0	iMX6 Quad|No WiFi/BT|2GB DDR|8GB eMMC|Ind. Temp|R1.5|Unfused
SRMX6QDWT1D02GE008V15I0	iMX6 Quad|TI WiFi/BT|2GB DDR|8GB eMMC|Ind. Temp|R1.5|Unfused
SRMX6QDW00D02GE008V15A0	iMX6 Quad|No WiFi/BT|2GB DDR|8GB eMMC|Auto. Temp|R1.5|Unfused
SRMX6QDWT1D02GE008V15A0	iMX6 Quad|TI WiFi/BT|2GB DDR|8GB eMMC|Auto. Temp|R1.5|Unfused

(*) Different configurations available for MOQ

Available Accessories and Development Boards

SKU	Description
HS00010	SOM Heatsink
AN00001	2.4Ghz WiFi UFL Antenna
SRHBCEE000CV14	HummingBoard Edge|No eMMC|Com. Temp|R1.4
SRHBCGE000CV14	HummingBoard Gate|No eMMC|Com. Temp|R1.4
SRHBCPE000CV35	HummingBoard Pro|Com. Temp|R3.5
SRHBCBE000CV35	HummingBoard Base|Com. Temp|R3.5
SRCBCBE000CV11	CuBox Base|Com. Temp|R1.1
SRCBCPE000CV11	CuBox Pro|Com. Temp|R1.1

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

Documentation

Additional documentation available at:

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