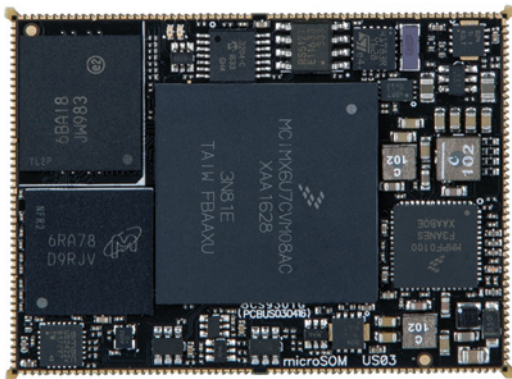


microSOM uS03 Tech–Note

Exor Embedded uS03 is high innovative high performance i.MX 6 Quad/Dual/DualLite/Solo core ARM Cortex-A9 of microSOM family. The uS03 microSOM solution ideal for applications requiring multimedia capabilities and/or high levels of parallel computing. The uS03 is designed for high reliability systems and for ensuring in rugged environments in addition to high performance, low power consumption, optimal MTBF for 24/7 systems working in extreme hostile conditions.



The uS03 microSOM is very compact smart SOM and makes easier with great flexibility to design a new generation of Smart products, such as modern Human Interfaces, Smart IoT Controllers, Cloud edge interface with a very simple carrier board design.

The microSOM includes Production ready Linux RT BSP / Android BSP and optionally Exor JMobile runtime designed for modern IoT Server Controller / HMI /HTML5 Browser.

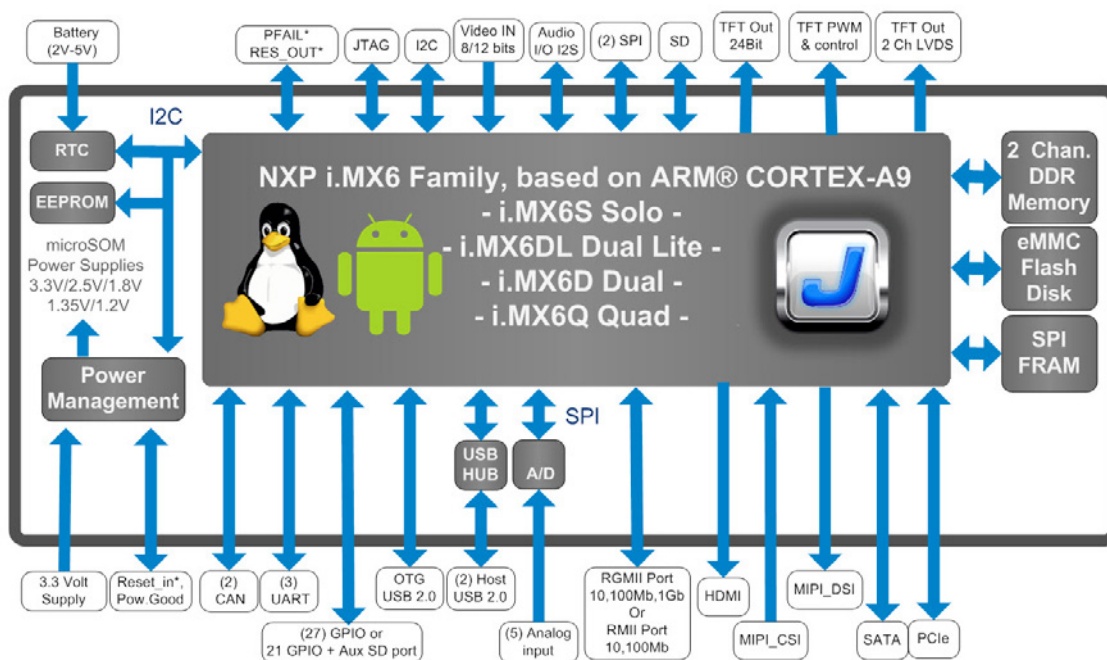
Highlights

- The microSOM is smart and rugged solution, soldered directly into the main carrier board, without the use of expensive connectors that will reduce reliability of the system.
- With only 46x35mm and 4 mm height, microSOM allows you to design products extremely compact and ultra-slim. The microSOM requires a single supply of 3.3 V with very low power consumption
- Powerfull Graphic Dedicated 2D Hardware accelerator, for applications requiring multimedia capabilities and high levels of parallel computing.
- Dedicated 3D Hardware accelerator, supports OpenGL® ES 2.0 3D
Dedicated Vector Graphics accelerator supports OpenVG™ (only i.MX6D and i.MX6Q)
- 1 x LVDS Dual Channel or 2 x LVDS Single Channel 18 / 24 bit TFT interface
- HDMI Interface 1.4 / Video Input Port / Camera Interface, LVDS interface, parallel LCD RGB interface, MIPI CSI and MIPI DSI Interface /Various video formats.
- JMobile / JMCloud software platform, enable to design a User-friendly and high quality vectorial graphic (SVG) and HTML5 rich-graphical GUI, it assures a device connectivity with suite of +200 communication protocols and Cloud connectivity.
- Optional IEC 61131-3 CODESYS 3.x
- Linux RTOS BSP (OSADL) or Android OS BSP
- Exor Product Longevity program ensures a stable supply of products. uS03 products are available for a minimum of 10 years from product launch.

Technical Data

Dimensions	46x35 mm
Temperature Range	-40°C to +85°C
CPU	i.MX6S Solo up to 800 MHz, i.MX6DL DualLite up to 800 MHz, iMXD Dual up to 800 MHz, i.MX6Q Quad up to 800 MHz
DDR	Up to 2 GBytes high performance LVDDRAM2 Dual Channel mode (2x32 bit)
Flash Disk	Up to 8 Gbytes eMMC
EEPROM	4 Kbits
FRAM	64-Kbytes (optional)
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	2 (Host V2.0), 1 (OTG)
Ethernet	1 (10/100 or 10/100/1000) port
SD	2
Serial Port	3
SPI	2
I2C	1
CAN	2
Audio	1 (I2S Channel) 1 (Video Out Controller 24 Bit)
Video	Video Out LVDS Dual Ch. or 2 Single Channel HDMI Interface 1.4 / Video Input Port / Camera int. MIPI CSI and MIPI DSI
Analog Input	5
GPIO	27
PCle	GEN1 (2,5 Gbps)

Software configurable. Not all selections can be combined



Main Applications:

- Factory Automation
- Building & Home Automation
- Marine Automation
- Mobile Industry
- Transportation e-Vehicle
- Medical
- Vending Systems & Kiosk
- Energy Smart Systems
- Embedded Industry

Deliverables:

uS03 microSOM with preloaded Linux RT Yocto BSP RTOS OSADL Realtime Preempt patches
Android Lollipop 5.1.1.
 uS03 microSOM Evaluation kit is including reference carrier board design application notes and BSP

Optional:
JMobile 2.x Runtim
CODESYS 3.x IEC1131 SoftPLC runtime
JMCloud Runtime for Cloud connection

Ordering Information

Model	Description
+uS03-0001	i.MX6S DualLite – Industrial 40°C :+85°C 800Mhz – 1GByte DDR – 4GByte Flash disk – 64Kbytes FRAM – 4 Kbits EEPROM
+uS03-0002	i.MX6S Quad – Industrial 40°C :+85°C 800Mhz – 2GByte DDR – 8GByte Flash disk – 64Kbytes FRAM – 4 Kbits EEPROM

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