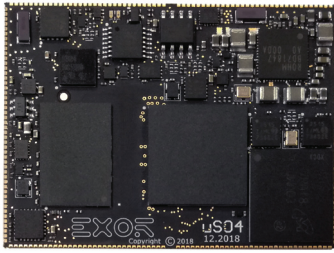


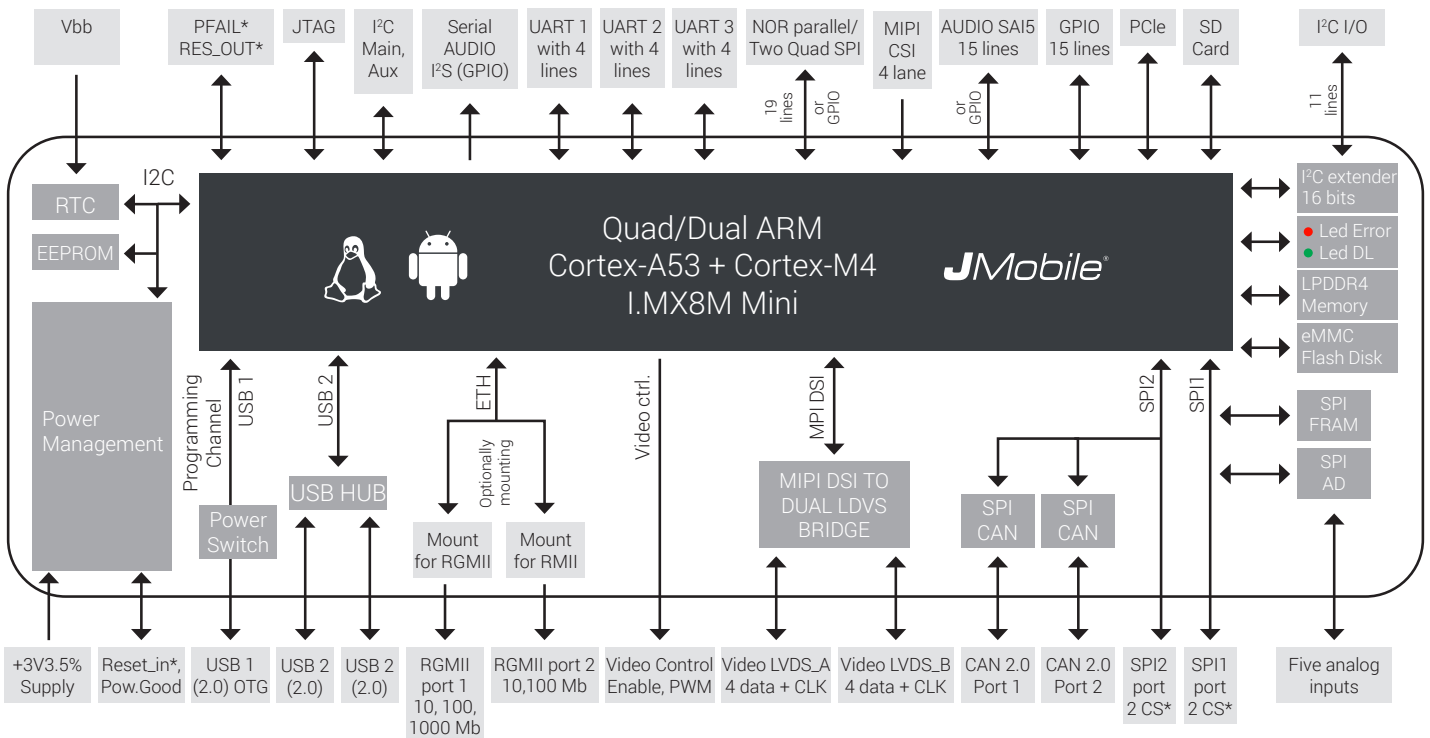
# microSOM uS04 - Technical Data



microSOM uS04 is highly innovative, high performance module, based at i.MX8M mini family, that is one ideal successor of well known i.MX6. This family incorporates quad/dual Arm® Cortex®-A53, with addition one Cortex-M4 core.

Dimensions	46x35 mm
Temperature Range	-40°C to 85°C
CPU	i.MX8M Mini Quad/Dual ARM Cortex-A53 at 1.6 Ghz
DDR	LPDDR4 x32 @ 3000 MT / 2 GB
Flash Disk	eMMC 5.0, up to 32 GB on board
EEPROM	I²C, 4 Kbits
FRAM	64 Kbytes
External memory (*)	Direct support for NOR parallel flash or 2 QSPI or additional eMMC SD interface (in case of using must be mounted at external carrier board)
Watchdog/RTC/Voltage monitor/JTAG	Yes
USB	1 (OTG 2.0), 2 (Host 2.0)
Ethernet	US04-0001 and US04-0003: 1 (RMII port 10/100 Mb) US04-0002 and US04-0004: 1 (RGMII port 10/100/1000 Mb)
SD	Yes, via external connector
Serial Port	3 UARTS (4 lines)
SPI	2 channels with two CS*
I²C	2
CAN	2 using onboard SPI/CAN bridges
Audio	1 (I2S), 1 (Generic audio channel with 15 signals)
Video out	1 Video Out LVDS Single or dual Channel
Video in	1 (MIPI CSI 4 lanes)
GPIO	15 signals from CPU and 13 signals from on board I2C extenders
Analog input	5 single ended channels, 12bits, 1V8 Max
PCIe	Single lane, GEN1, GEN2
Current Consumption	1A @ 3V3 (cpu Quad Core)

\* Software configurable. In case of not using some special interface all pins can be used as GPIO



## Ordering Information

Model	Part Number	Description
uS04-0001	+US04-0001	i.MX8M Mini Quad ARM Cortex-A53 1.6 GHz - 2 GB LPDDR4 - 8GB - RMII - Operating Temp. -40 to +85°C
uS04-0002	+US04-0002	i.MX8M Mini Quad ARM Cortex-A53 1.6 GHz - 2 GB LPDDR4 - 8GB - RGMII - Operating Temp. -40 to +85°C