

# CPU Anita i.MX8M Mini



## Cloud Service



### Processor

Freescale iMX8M Mini Quad Cortex A53 + M4

### Software

Linux, Android, Yocto



## Application areas



**MEDICAL**



**MULTIMEDIA**



**SECURITY**



**INDUSTRIAL**

## ANITA i.MX8M Mini Smarc 2.0 Module

The Anita CPU i.MX8M Mini general purpose system on module compliant with SMARC 2.0. Designed to work in Industrial, Automotive and consumer environment.

### Main Features are:

- ★ Scalable ARM Performance with up to 4x 1.8GHz Cortex-A53 and 1x Cortex-M4F,
- ★ 3D Graphics with Full HD resolution,
- ★ MIPI CSI-2 camera interface,
- ★ Extended longevity up to 15 years.



[www.maselettronica.com](http://www.maselettronica.com)

## Features of the CPU module.

Below are the principal Features of the Module.

<b>Formfactor</b>	SMARC Specification 2.0   82x50 mm <sup>2</sup>			
<b>CPU</b>	<b>NXP i.MX 8M Mini ARM Processor Cores</b>			
	<b>COMMERCIAL</b> i.MX 8M Mini Quad i.MX 8M Mini Dual i.MX 8M Mini Solo	<b>ARM Cortex-A53</b> 4 x 1.8GHz 2 x 1.8GHz 1 x 1.8GHz	<b>ARM Cortex-M4</b> 1x 400MHz 1x 400MHz 1x 400MHz	<b>GPU</b> 1x GC NanoUltra 3D Graphics 1x GC NanoUltra 3D Graphics 1x GC NanoUltra 3D Graphics
	<b>INDUSTRIAL</b> i.MX 8M Mini Quad i.MX 8M Mini Dual i.MX 8M Mini Solo	4 x 1.6GHz 2 x 1.6GHz 1 x 1.6GHz	1x 400MHz 1x 400MHz 1x 400MHz	1x GC NanoUltra 3D Graphics 1x GC NanoUltra 3D Graphics 1x GC NanoUltra 3D Graphics
<b>DRAM</b>	Up to 4 GByte onboard LPDDR4 memory   3200 MT/s			
<b>Ethernet</b>	1x Gigabit Ethernet			
<b>I/O Interfaces</b>	5x USB 2.0 (shared with 1x USB OTG client) 1x PCIe 2.0 3x SDIO 3.0 3x I <sup>2</sup> C Bus 2x SPI up to 3x UART (1x with handshake GPIOs)			
<b>Storage</b>	eMMC 5.1 up to 128 GByte			
<b>Sound</b>	2x I <sup>2</sup> S   Hi Res Audio   32-bit up to 384KHz with DSD512 and TDM support			
<b>Graphics</b>	Integrated in NXP i.MX 8M Mini Series GC NanoUltra 3D GPU   one display with up to 1080p video decoding (H.265, H.264, VP8/9)   up to 1080p video encoding (H.264, VP8) Graphics GPU with 1 shader core   Up to 6.4GFlops   GC328 2D Graphics GPU ES 2.0   OpenVG 1.1			
<b>Display</b>	Interfaces 1x dual channel 24bit LVDS through bridge (default) 1x eDP 1.4 1x MIPI-DSI 4-lanes (shared with LVDS)			
<b>Embedded Features</b>	Watchdog Timer I <sup>2</sup> C bus 400 kHz JTAG debug interface Real Time Clock			
<b>Security</b>	High Assurance Boot support SRTC SJTAG TrustZone AES-256, RSA-4096, SHA-256, 3DES, DES, ARC4, MD-5 Secure Real Time Clock (RTC) eFuse Key Storage True Random Number Generator (RNG) 32 KB Secure RAM			
<b>Boot Loader</b>	U-Boot boot loader			
<b>Operating Systems</b>	Linux   Yocto   Android			
<b>Power Consumption</b>	TBD			
<b>Temperature</b>	Industrial: Operating: -40 to +85°C Storage: -40 to +85°C Commercial: Operating: 0 to +60°C Storage: -40 to +85°C			
<b>Humidity</b>	Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.			

## Block Diagram

