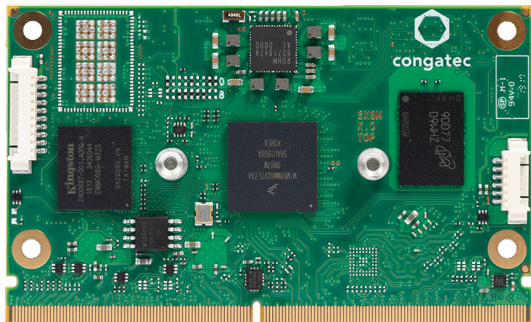


SMARC 2.0 based on NXP i.MX 8M NANO

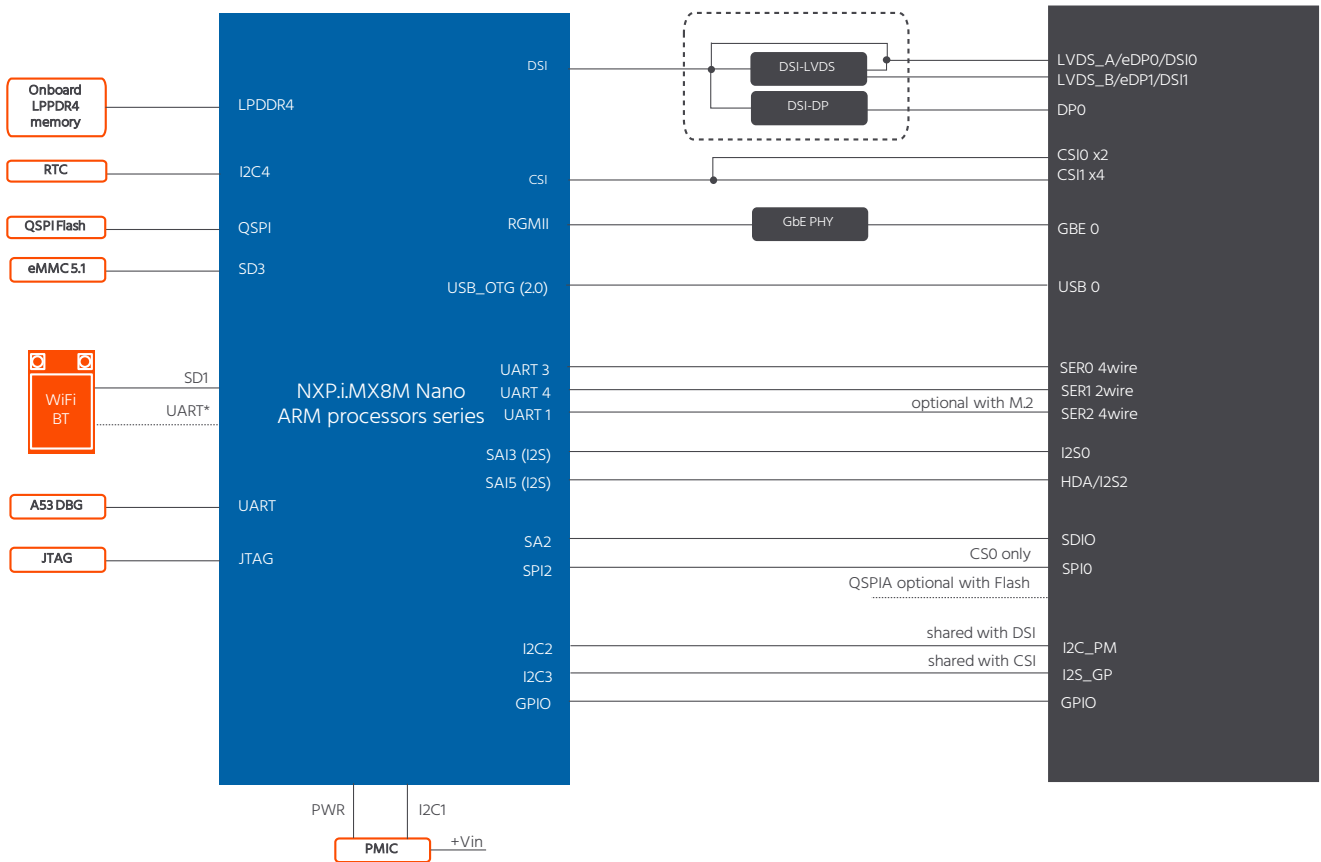
conga-SMX8-Nano



- SMARC 2.0 Module based on NXP i.MX 8M Nano
- Provides cost-effective integration for high volume
- Up to 4x ARM® Cortex-A53 + 1x ARM® Cortex-M7
- 3D GPU with OpenGL ES 3.1
- Pin-compatible and scalable to the i.MX 8M Mini
- Extended longevity up to 15 years

Form Factor	SMARC Specification 2.0 82x50 mm ²			
CPU	Supported i.MX8 processors			
	Commercial	ARM Cortex-A53	ARM Cortex-M7	GPU
	i.MX 8M Nano Quad	4 x 1.5GHz	1x 750MHz	GC 7000UL 3D Graphics
	i.MX 8M Nano Dual	2 x 1.5GHz	1x 750MHz	GC 7000UL 3D Graphics
	i.MX 8M Nano Solo	1 x 1.5GHz	1x 750MHz	GC 7000UL 3D Graphics
	Industrial			
	i.MX 8M Nano Quad	4 x 1.4GHz	1x 600MHz	GC 7000UL 3D Graphics
	i.MX 8M Nano Dual	2 x 1.4GHz	1x 600MHz	GC 7000UL 3D Graphics
	i.MX 8M Nano Solo	1 x 1.4GHz	1x 600MHz	GC 7000UL 3D Graphics
DRAM	Up to 2 GByte onboard LPDDR4 memory 3200 MT/s			
Ethernet	1x Gigabit Ethernet with IEEE 1588 support			
I/O Interfaces	1x USB 2.0 or 1x USB OTG client 1x SDIO 3.0 I ² C Bus SPI up to 3x UART (1x with handshake) GPIOs optional M.2 1216 WiFi/BT module			
Storage	eMMC 5.1 up to 128 GByte			
Sound	2x I ² S Hi Res Audio 32-bit up to 384kHz DSD512 and ASRC			
Graphics	Integrated in NXP i.MX 8M Nano Series GC 7000UL 3D GPU Single Display 3D Graphics GPU with 2 shader cores up to 9.6 GFlops OpenGL ES 3.1 OpenCL 1.2 Vulkan			
Display Interfaces	1x dual channel 24bit LVDS through bridge (default) optional eDP 1.4 or MIPI-DSI 4-lanes (shared with LVDS)			
Embedded Features	Watchdog Timer JTAG debug interface High Precision Real Time Clock (optional)			
Security	High Assurance Boot support SJTAG ARM® TrustZone® DRM support for RSA, AES, 3DES Secure Real Time Clock (RTC) eFuse Key Storage True Random Number Generator (RNG) 32kB Secure RAM			
Boot Loader	U-Boot boot loader			
Operating Systems	Linux Yocto Android			
Power Consumption	See user's guide for full details			
Temperature	Industrial:	Operating Temperature Range: -40 to +85°C	Storage: -40 to +85°C	
	Commercial:	Operating Temperature Range: 0 to +60°C	Storage: -40 to +85°C	
Humidity	Operating: 10 - 90% r. H. non cond.		Storage: 5 - 95% r. H. non cond.	
Size	82 x 50 mm (3,23" x 1,97")			

conga-SMX8-Nano | Block diagram



conga-SMX8-Nano | Order Information

Article	PN	Description
conga-SMX8-Nano/QC-2G eMMC16	051280	SMARC 2.0 module with NXP i.MX 8M Nano quad core 14LPC FinFET processor with 4x 1.5GHz ARM Cortex-A53 and 1x 750MHz ARM Cortex-M7, 2GB onboard LPDDR4 memory and 16GB onboard eMMC. Commercial temperature range.
conga-SEVAL	007010	Evaluation carrier board for SMARC 2.0 modules.