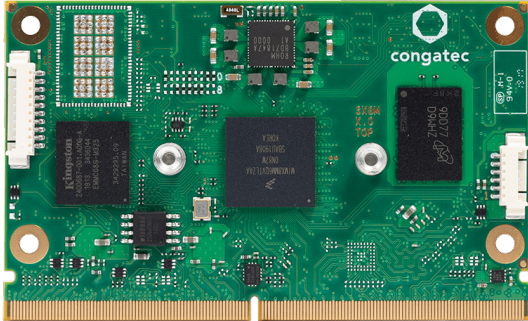


SMARC 2.0 based on NXP i.MX 8M NANO

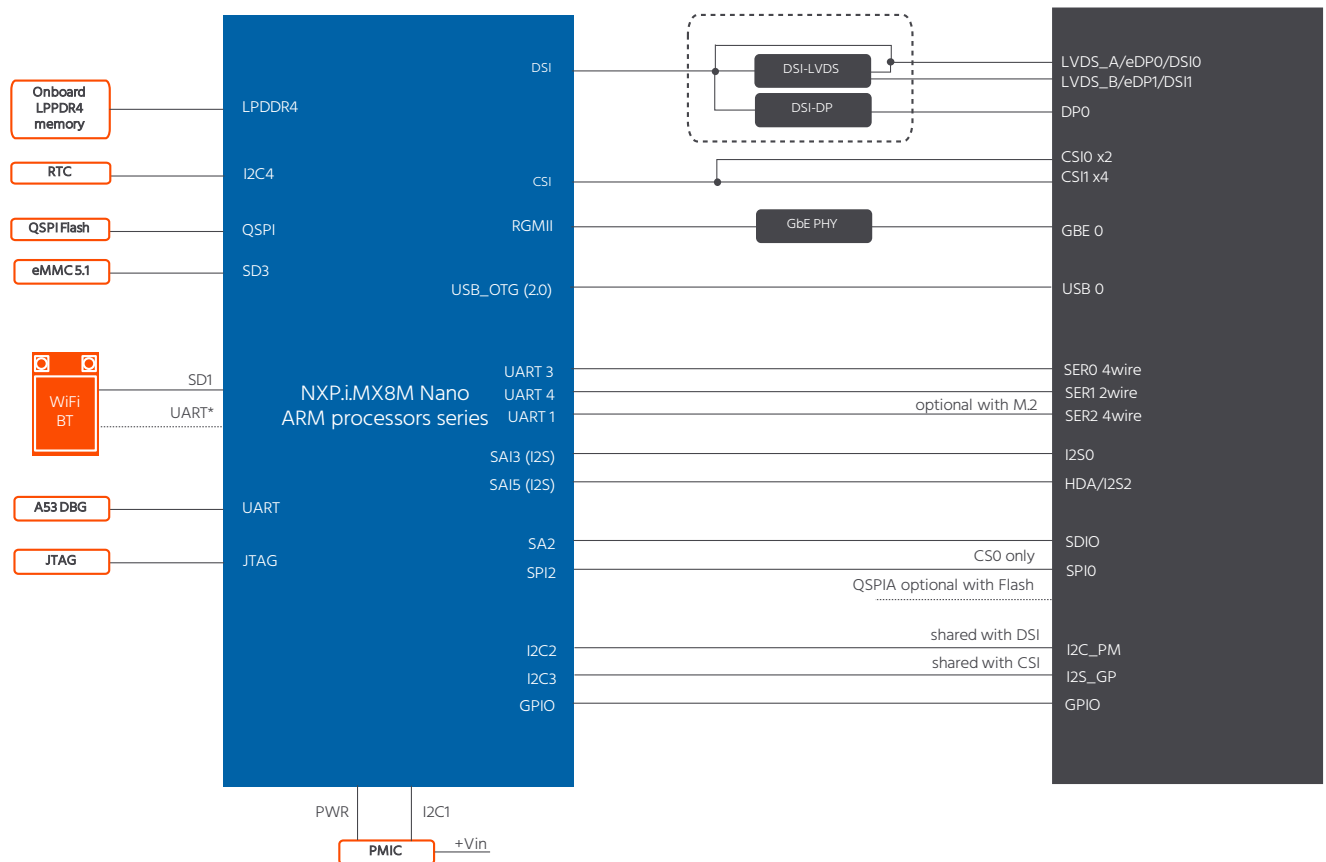
conga-SMX8-Nano



- 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 i.MX 8M Nano Quad i.MX 8M Nano Dual i.MX 8M Nano Solo	ARM Cortex-A53 4 x 1.5GHz 2 x 1.5GHz 1 x 1.5GHz	ARM Cortex-M7 1x 750MHz 1x 750MHz 1x 750MHz	GPU GC 7000UL 3D Graphics GC 7000UL 3D Graphics GC 7000UL 3D Graphics
	Industrial i.MX 8M Nano Quad i.MX 8M Nano Dual i.MX 8M Nano Solo	4 x 1.4GHz 2 x 1.4GHz 1 x 1.4GHz	1x 600MHz 1x 600MHz 1x 600MHz	GC 7000UL 3D Graphics GC 7000UL 3D Graphics 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: Commercial:	Operating Temperature Range: -40 to +85°C Operating Temperature Range: 0 to +60°C	Storage: -40 to +85°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.



Distributore Italia: Contradata Milano S.r.l.

Via Solferino 12 - 20900 Monza (MB) - Italy
Tel: (+39) 039-230.14.92 Email: info@contradata.it

© 2019 congatec AG. All rights reserved.

All data is for information purposes only. Although all the information contained within this document is carefully checked, no guarantee of correctness is implied or expressed. Product names, logos, brands, and other trademarks featured or referred are the property of their respective trademark holders. These trademark holders are not affiliated with congatec AG.
Rev. November 29, 2019 MR