

EMBEDDED SMARC 2.1

conga-SA7



- SMARC 2.1 module based on Intel Atom® x6000E Series and Intel® Pentium® and Celeron® J and N Series processors
- High performance Intel® UHD Graphics for 10th Gen Intel® Processors
- LPDDR4x with up to 4.267 MT/s Memory Support
- Options for Intel® AX210 Wi-Fi 6E/BT
- Options for Industrial Temperature Range -40°C to 85°C

Form Factor	SMARC Specification 2.1					
CPU	Processor	TDP	Cores / Threads	Base Frequency / max. Turbo	Gfx EUs	Intel Use Condition
	J6413	10W	4 / 4	1.8 GHz / 3.0 GHz	16 EU	PC/Client
	J6426	10W	4 / 4	2.0 GHz / 3.0 GHz	32 EU	PC/Client
	x6211E	6W	2 / 2	1.3 GHz / 3.0 GHz	16 EU	Embedded
	x6413E	9W	4 / 4	1.5 GHz / 3.0 GHz	16 EU	Embedded
	x6425E	12W	4 / 4	2.0 GHz / 3.0 GHz	32 EU	Embedded
	x6212RE	6W	2 / 2	1.2 GHz / ---	16 EU	Industrial
	x6414RE	9W	4 / 4	1.5 GHz / ---	16 EU	Industrial
	x6425RE	12W	4 / 4	1.9 GHz / ---	32 EU	Industrial
	DRAM	max. 16GB (optional up to 32 GB) onboard LPDDR4x up to 4.267 MT/s				
Ethernet	2x GbE with TSN support 2x real-time trigger					
I/O Interfaces	2x USB 3.1 Gen2 6x USB 2.0 SATA III 1x SDIO up to 4x PCIe Gen3 2x I ² C Bus SPI eSPI 4x UART GPIO 2x CAN onboard Intel® AX210 Wi-Fi 6E/BT (optional)					
Mass Storage	eMMC 5.1 onboard flash up to 64GB (optional up to 128GB)					
Audio	Intel® High Definition Audio					
Graphics	High performance Intel® UHD Graphics for 10th Gen Intel® Processors					
LVDS	Dual channel LVDS transmitter (support for flat panels with 2x24 bit data mapping up to a resolution of 1920x1200 @60Hz) shared with eDP (option) or MIPI-DSI x4 (option)					
Digital Display Interface	2x DDI up to 4096x2160 @60Hz					
congatec Board controller	Multistage watchdog non-volatile user data storage manufacturing and board Information board statistics fast mode and multi-master I ² C bus power loss control					
Embedded BIOS Feature	AMI Aptio® UEFI firmware 32 Mbyte serial SPI with congatec Embedded BIOS feature OEM Logo OEM CMOS Defaults LCD Control Display Auto Detection Backlight Control Flash Update					
Power Management	ACPI 5.0 compliant Smart Battery Management					
Operating Systems	Microsoft® Windows 11 IoT Enterprise Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Linux Yocto					
Hypervisor	RTS Real-Time Hypervisor					
Power Consumption	See manual for full details					
Temperature	Commercial variants:	Operation 0° to +60°C		Storage -20 to +80°C		
	Industrial variants:	Operation -40° to +85°C		Storage -40 to +85°C		
Humidity	Operation:	10% to 90% r. H. non cond.				
	Storage:	5% to 95% r. H. non cond.				
Size	82 x 50 mm					

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