

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 (Gen11)
- Options for Industrial Temperature Range -40°C to 85°C
- Options for Time Sensitive Networking and Time Coordinated Computing for improved Realtime Capability
- Up to 4.267 MT/s Memory Support

Form Factor	SMARC Specification 2.1 82x50 mm					
CPU	Processor	TDP	Cores/Threads	Base Frequency/max. Turbo	Gfx Gen.11	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 onboard LPDDR4x up to 4.267 MT/s					
Ethernet	2x Intel® GbE with TSN support and Out-Of-Band Management 2x real-time trigger					
I/O Interfaces	2x USB 3.1 Gen2 (1x OTG) 6x USB 2.0 (1x OTG) 1x SATA III 1x SDIO up to 4x PCIe Gen3 2x I ² C Bus 1x SPI 1x eSPI 4x UART GPIO 2x CAN onboard M.2 1216 WiFi/BT module (optional)					
Mass Storage	eMMC 5.1 onboard flash up to 64GB (optional up to 128GB)					
Audio	Intel® HD Audio					
Graphics	Intel® UHD Graphics (Gen11)					
LVDS	Dual channel LVDS transmitter support for flat panels with 2x24 bit data mapping up to a resolution of 1920x1200 @60Hz shared with eDP or 1x MIPI-DSI x4 (option)					
Digital Display Interface	2x DDI up to 4096x2160p					
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 10 Microsoft® Windows 10 IoT Enterprise Linux Android Yocto RTS Hypervisor					
Power Consumption	tbd. see manual for full details					
Temperature Range	Commercial:	Operating Temperature: 0 to +60°C		Storage Temperature: -20 to +80°C		
	Industrial:	Operating Temperature: -40 to +85°C		Storage Temperature: -40 to +85°C		
Humidity	Operating:	10 to 90% r. H. non cond.				
	Storage:	5 to 95% r. H. non cond.				
Size	82 x 50 mm (approx. 3,23" x 1,97")					

conga-SA7 | Block Diagram

