

# INDUSTRIAL PICO-ITX

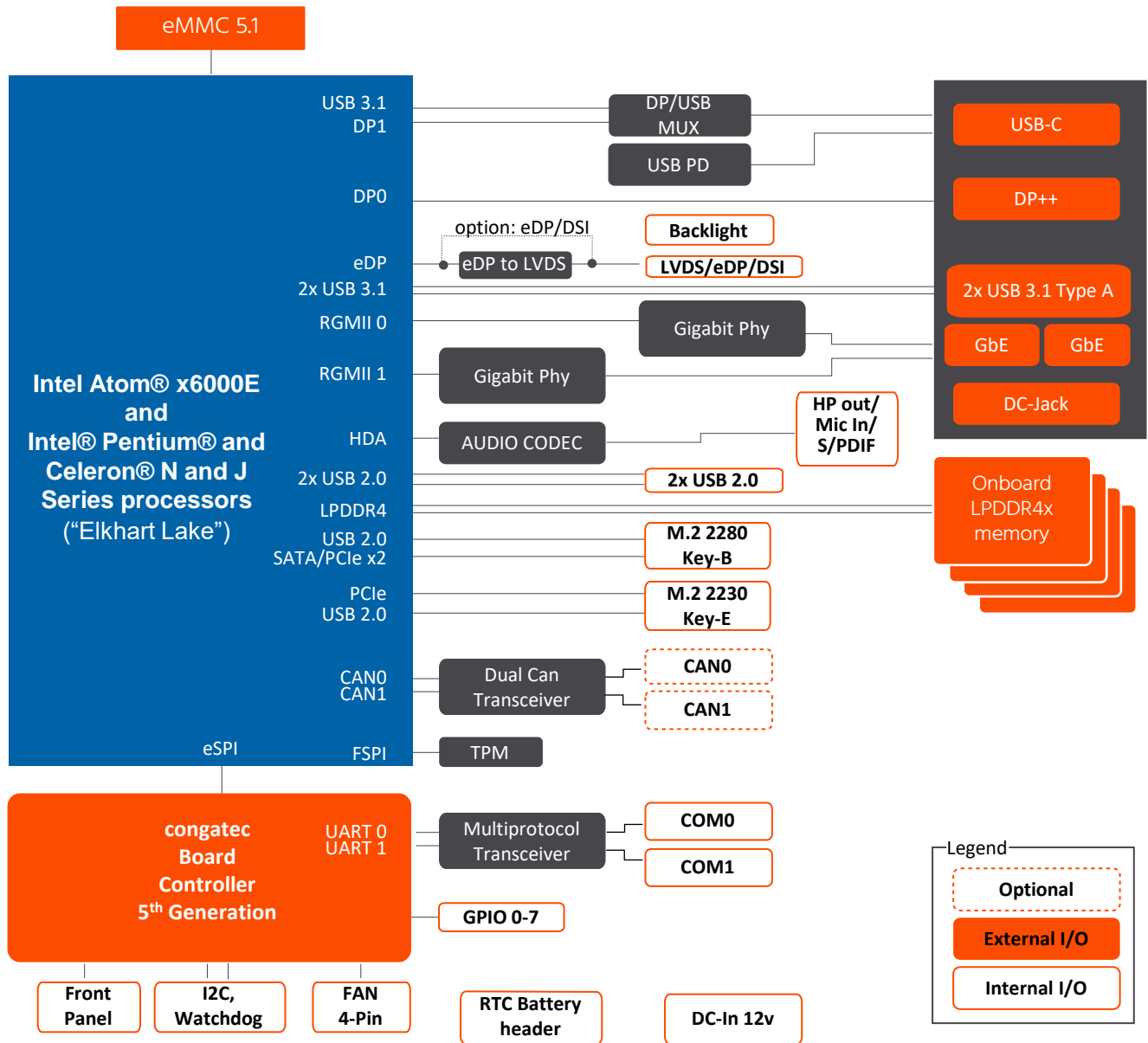
## conga-PA7



- Pico-ITX SBC 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

<b>Form Factor</b>	Pico-ITX Single Board Computer   100 x 72 mm					
<b>CPU</b>	Processor	TDP	Cores/Threads	Base Frequency/max. Turbo	Gfx Gen11	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
<b>DRAM</b>	up to 4 Channels onboard LPDDR4x with up to 4,267 MT/s   max. system capacity 16 GB					
<b>Chipset</b>	Integrated in SoC					
<b>Ethernet</b>	2x LAN Gbit / 100 Mbit / 10 Mbit with TSN support and Out-Of-Band Management   2x real-time trigger					
<b>Mass Storage</b>	eMMC 5.1 onboard flash up to 64 GB (optional up to 128 GB)					
<b>Audio</b>	Intel® HD Audio					
<b>Graphics</b>	Intel® UHD Graphics (Gen11)					
<b>Internal Connectors</b>	2x USB 2.0   1x LVDS 18/24bit or eDP (opt) or MIPI-DSI (opt)   1x Backlight power connector (5V, 12V)   1x Audio Connector (HP/Line Out, MIC In, S/PDIF, opt. DMIC)   1x Power In (+12V)   2x COM (RS232/422/485)   1x Fan Connector with PWM   3x Feature Connector   1x M.2 key ID B type 2280 (2 PCIe lanes/SATA, USB 2.0)   1x M.2 key ID E (1 PCIe lane, USB 2.0)   2x CAN (opt.)					
<b>External Connectors</b>	1x DisplayPort DP++   2x LAN RJ45   1x USB 3.1 Gen2 Type C (with Power Delivery and DP)   2x USB 3.1 Gen2 Type A   1x DC-In					
<b>congatec Board controller</b>	Multistage watchdog   non-volatile user data storage   manufacturing and board Information   board statistics   fast mode and multi-master I <sup>2</sup> C bus   power loss control					
<b>Embedded BIOS Feature</b>	AMI Aptio® UEFI firmware   32 Mbyte serial SPI with congatec Embedded BIOS features   OEM Logo   OEM CMOS Defaults LCD Control   Display Auto Detection   Backlight Control   Flash Update					
<b>Security</b>	TPM 2.0					
<b>Power Management</b>	ACPI 5.0 compliant   Smart Battery Management					
<b>Operating Systems</b>	Microsoft® Windows 10   Microsoft® Windows 10 IoT Enterprise   Linux   Android   Yocto   RTS Hypervisor					
<b>Power Consumption</b>	tbd.   see manual for full details					
<b>Temperature Range</b>	Commercial:	Operating Temperature: 0 to +60°C		Storage Temperature: -20 to +85°C		
	Industrial:	Operating Temperature: -40 to +85°C		Storage Temperature: -40 to +85°C		
<b>Humidity</b>	Operating:	10 to 90% r. H. non cond.				
	Storage:	5 to 95% r. H. non cond.				
<b>Size</b>	100 x 72 mm (approx. 3.9 x 2.8")					

# conga-PA7 | Block Diagram



Note: \* Assembly options on request only