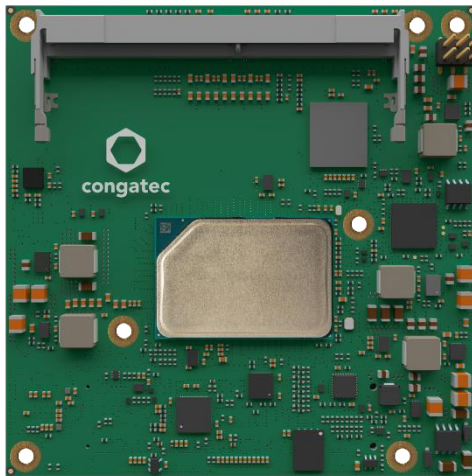


EMBEDDED COM EXPRESS® TYPE 6

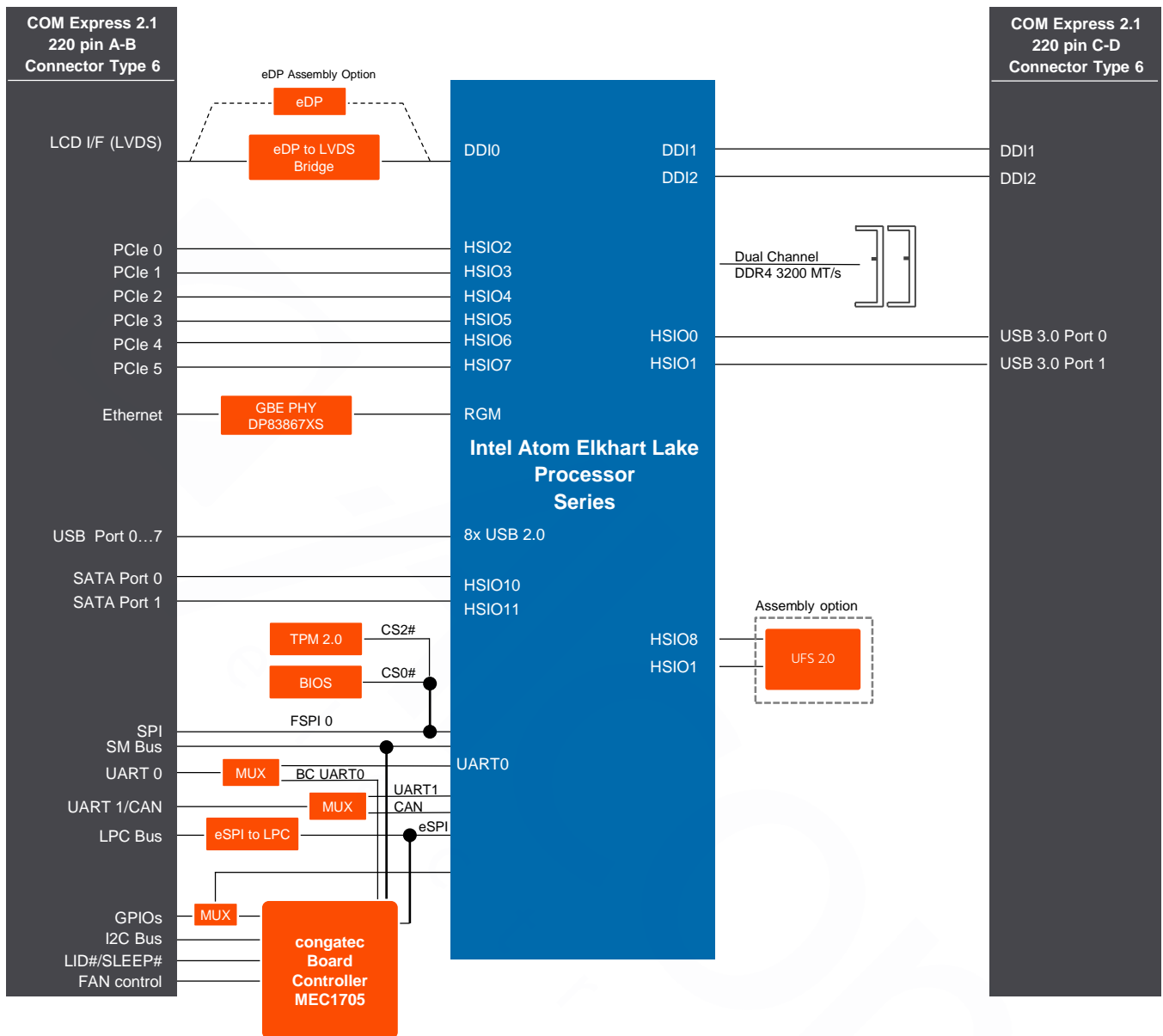
conga-TCA7



- COM Express Type 6 Compact based on Intel® Atom® x6000E Series and Intel® Pentium® and Celeron® J Series processors (code-named Elkhart Lake)
- High performance Intel® UHD Graphics (Gen11)
- Options for Industrial Temperature Range -40°C to 85°C
- Time Sensitive Networking and Time Coordinated Computing for improved Realtime Capability
- Up to 4.267 MT/s onboard Memory Support with Inband ECC
- UFS 2.0 for higher bandwidth and data processing (optional)

Form Factor	COM Express® Compact Type 6 (95 x 95 mm)					
CPU	Processor	TDP	Cores/Threads	Base Frequ./Turbo	Gen 11 Gfx	Intel Use Condition
	J6413	10W	4 / 4	1.8 GHz / 3.0 GHz	16 EU	PC Client
	J6425	10W	4 / 4	1.8 GHz / 3.0 GHz	32 EU	PC Client
	x6211E	6W	2 / 2	1.2 GHz / 3.0 GHz	16 EU	Embedded
	x6413E	9W	4 / 4	1.5 GHz / 3.0 GHz	16 EU	Embedded
	x6425E	12W	4 / 4	1.8 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	Support for 2x SO DIMM on socket (dual channel LPDDR4 up to 3.200 MT/s) max. 16 GB total capacity					
Ethernet	Intel® GbE with TSN support and Out-Of-Band Management real-time trigger					
I/O Interfaces	Up to 6x PCIe Gen3 2x USB 3.1 Gen2 up to 8x USB 2.0 2x SATA III 2x UART (UART1 muxed with CAN) GPIO I ² C Bus SMBus SPI LPC					
Mass Storage	Option for UFS 2.0 onboard flash up to 512 Gbyte					
Sound	HD Audio Intel® LPE Audio via I2S					
Graphics	Intel® UHD Graphics (Gen11)					
LVDS	Dual channel 18/24 bit LVDS interface up to 1920x1200@60Hz shared with eDP up to 3840x2160@60Hz (option)					
Digital Display Interface	2x DisplayPort 1.4 4096x2160@60Hz or HDMI 2.0 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 features 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 Microsoft® Windows IoT 10 Core Linux (Yocto Project) Android RTS Hypervisor					
Power Consumption	Typ. Application: 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 Humidity: 10 to 90% r. H. non cond. Storage Humidity: 5 to 95% r. H. non cond.					

conga-TCA7 | Block Diagram



Note: Assembly options on request only

conga-TCA7 | Order Information

Article	PN	Description
conga-TCA7/x6425E	049300	COM Express Compact module with Intel® Atom® x6425E quad core processor with 1.8GHz core frequency up to 3.0GHz, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support
conga-TCA7/x6413E	049301	COM Express Compact module with Intel® Atom® x6413E quad core processor with 1.5GHz core frequency up to 3.0GHz, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support
conga-TCA7/x6211E	049302	COM Express Compact module with Intel® Atom® x6211E dual core processor with 1.2GHz core frequency up to 3.0GHz, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support
conga-TCA7/i-x6425RE	049310	COM Express Compact module with Intel® Atom® x6425RE quad core processor with 1.9GHz core frequency, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support. Industrial grade temperature range from -40°C to 85°C.
conga-TCA7/i-x6414RE	049311	COM Express Compact module with Intel® Atom® x6414RE quad core processor with 1.5GHz core frequency, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support. Industrial grade temperature range from -40°C to 85°C.
conga-TCA7/i-x6212RE	049312	COM Express Compact module with Intel® Atom® x6212RE dual core processor with 1.2GHz core frequency, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support. Industrial grade temperature range from -40°C to 85°C.
conga-TCA7/J6425	049320	COM Express Compact module with Intel® Pentium® J6425 quad core processor with 1.8GHz core frequency up to 3.0GHz, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support.
conga-TCA7/J6413	049321	COM Express Compact module with Intel® Celeron® J6413 quad core processor with 1.8GHz core frequency up to 3.0GHz, 1.5MB cache and up to 16GB 3200MT/s DDR4 SODIMM memory support