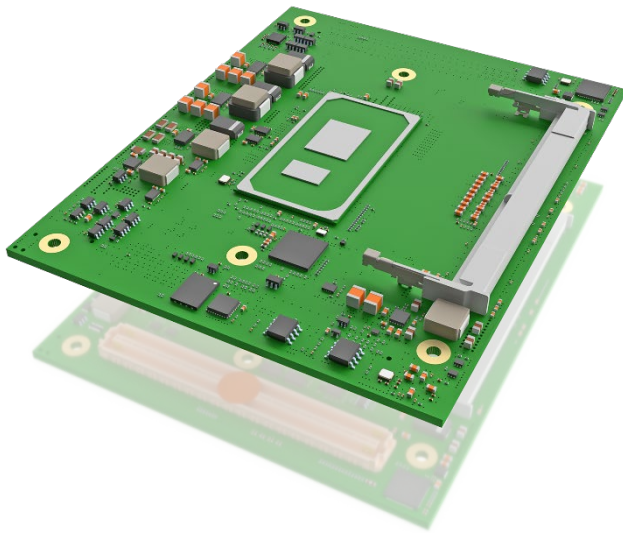


COM HPC CLIENT MODULE

conga-HPC/cTLU



- COM HPC Client Size A
- Intel® Tiger Lake-UP3 high performing and low power Intel® Core™ processor
- Embedded/Industrial use condition
- Extended temperature options available
- PCI Express Gen 4
- Integrated high performance Xe (Gen 12) graphics with 96 EU
- AI/DL Instruction Sets including VNNI

COM+HPC™

Formfactor	COM HPC, Size A (95 x 120 mm), Client Connector Pinout																																	
CPU	<p>General Embedded Versions</p> <table border="1"> <tr> <td>Intel® Core™ i7-1185G7E Processor</td> <td>4 Cores / 8 Threads</td> <td>12 MB cache</td> <td>Int. Graphics with 96 EU</td> <td>12-28W TDP</td> </tr> <tr> <td>Intel® Core™ i5-1145G7E Processor</td> <td>4 Cores / 8 Threads</td> <td>8 MB cache</td> <td>Int. Graphics with 80 EU</td> <td>12-28W TDP</td> </tr> <tr> <td>Intel® Core™ i3-1115G4E Processor</td> <td>2 Cores / 4 Threads</td> <td>6 MB cache</td> <td>Int. Graphics with 48 EU</td> <td>12-28W TDP</td> </tr> </table> <p>Industrial Versions</p> <table border="1"> <tr> <td>Intel® Core™ i7-1185GRE Processor</td> <td>4 Cores / 8 Threads</td> <td>12 MB cache</td> <td>Int. Graphics with 96 EU</td> <td>12-28W TDP</td> </tr> <tr> <td>Intel® Core™ i5-1145GRE Processor</td> <td>4 Cores / 8 Threads</td> <td>8 MB cache</td> <td>Int. Graphics with 80 EU</td> <td>12-28W TDP</td> </tr> <tr> <td>Intel® Core™ i3-1115GRE Processor</td> <td>2 Cores / 4 Threads</td> <td>6 MB cache</td> <td>Int. Graphics with 48 EU</td> <td>12-28W TDP</td> </tr> </table>				Intel® Core™ i7-1185G7E Processor	4 Cores / 8 Threads	12 MB cache	Int. Graphics with 96 EU	12-28W TDP	Intel® Core™ i5-1145G7E Processor	4 Cores / 8 Threads	8 MB cache	Int. Graphics with 80 EU	12-28W TDP	Intel® Core™ i3-1115G4E Processor	2 Cores / 4 Threads	6 MB cache	Int. Graphics with 48 EU	12-28W TDP	Intel® Core™ i7-1185GRE Processor	4 Cores / 8 Threads	12 MB cache	Int. Graphics with 96 EU	12-28W TDP	Intel® Core™ i5-1145GRE Processor	4 Cores / 8 Threads	8 MB cache	Int. Graphics with 80 EU	12-28W TDP	Intel® Core™ i3-1115GRE Processor	2 Cores / 4 Threads	6 MB cache	Int. Graphics with 48 EU	12-28W TDP
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DRAM	Up to 2 SO-DIMM sockets for DDR4 memory modules up to 32 GByte each (64 GByte total) with 3200 MT/s																																	
Graphics	Integrated Xe (Gen 12) graphics engine with up to 96 EU (Execution Units) Supporting 4 independent display units (4x 4k/2x 8K) Enhanced media (AV1/12b) with up to 2 Vdbox Next Gen IPU6 with DPHY2.1 HDMI 2.0/2.1 DP 1.4																																	
Display	3x DP/HDMI/DP++ 1x eDP																																	
Ethernet	2x 2,5 GbE TSN Ethernet via Intel® i225																																	
I/O Interfaces	4x PCIe Gen4 8x PCIe Gen3 2x USB 4.0 2x USB 3.2 8x USB 2.0 2x SATA III (6Gb/s) SPI 2x UART 12x GPIO 2x MIPI-CSI																																	
Audio	1x I2S 2x SoundWire																																	
congatec Board Controller	Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics I ² C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirection																																	
Embedded BIOS Features	OEM Customization Flash Update based on AMI Aptio UEFI																																	
Security	Trusted Platform Module (TPM 2.0)																																	
Power Management	ACPI 5.0 with battery support																																	
Operating Systems	tbd																																	
Power Consumption	See user's guide for full details																																	
Temperature	<table border="1"> <tr> <td>Industrial:</td> <td>Operating: -40 to +85°C</td> <td>Storage: -40 to +85°C</td> </tr> <tr> <td>Commercial:</td> <td>Operating: 0 to +60°C</td> <td>Storage: -40 to +85°C</td> </tr> </table>				Industrial:	Operating: -40 to +85°C	Storage: -40 to +85°C	Commercial:	Operating: 0 to +60°C	Storage: -40 to +85°C																								
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Size	95 x 120 mm																																	

conga-HPC/cTLU | Order Information

Article	PN	Description
conga-HPC/cTLU-i7-1185G7E	050600	COM HPC Size A module based on Intel® Core™ i7-1185G7E 4-core processor with 1.8GHz up to 4.4GHz turbo boost, 12MB cache, Intel® Iris® Xe Graphics with 96EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Commercial temperature range.
conga-HPC/cTLU-i5-1145G7E	050601	COM HPC Size A module based on Intel® Core™ i5-1145G7E 4-core processor with 1.5GHz up to 4.1GHz turbo boost, 8MB cache, Intel® Iris® Xe Graphics with 80EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Commercial temperature range.
conga-HPC/cTLU-i3-1115G4E	050602	COM HPC Size A module based on Intel® Core™ i3-1115G4E 2-core processor with 2.2GHz up to 3.9GHz turbo boost, 6MB cache, Intel® Iris® Xe Graphics with 48EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Commercial temperature range.
conga-HPC/cTLU-i7-1185GRE	050610	COM HPC Size A module based on Intel® Core™ i7-1185GRE 4-core processor with 1.8GHz up to 4.4GHz turbo boost, 12MB cache, Intel® Iris® Xe Graphics with 96EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Industrial temperature range.
conga-HPC/cTLU-i5-1145GRE	050611	COM HPC Size A module based on Intel® Core™ i5-1145GRE 4-core processor with 1.5GHz up to 4.1GHz turbo boost, 8MB cache, Intel® Iris® Xe Graphics with 80EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Industrial temperature range.
conga-HPC/cTLU-i3-1115GRE	050612	COM HPC Size A module based on Intel® Core™ i3-1115GRE 2-core processor with 2.2GHz up to 3.9GHz turbo boost, 6MB cache, Intel® Iris® Xe Graphics with 48EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Industrial temperature range.
conga-HPC/cTLU-CSA-VC-B	050650	Standard active cooling solution for high performance COM HPC module conga-HPC/cTLU with integrated vapor chamber, 45mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole.
conga-HPC/cTLU-CSA-VC-T	050651	Standard active cooling solution for high performance COM HPC module conga-HPC/cTLU with integrated vapor chamber, 45mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread.
conga-HPC/cTLU-CSP-VC-B	050652	Standard passive cooling solution for high performance COM HPC module conga-HPC/cTLU with integrated vapor chamber, 44mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-HPC/cTLU-CSP-VC-T	050653	Standard passive cooling solution for high performance COM HPC module conga-HPC/cTLU with integrated vapor chamber, 44mm overall heat sink height. All standoffs are with M2.5mm thread.
conga-HPC/cTLU-HSP-VC-B	050654	Standard heatspreader for high performance COM HPC module conga-HPC/cTLU with integrated vapor chamber, 13mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-HPC/cTLU-HSP-VC-T	050655	Standard heatspreader solution for high performance COM HPC module conga-HPC/cTLU with integrated vapor chamber, 13mm overall heat sink height. All standoffs are with M2.5mm thread.
conga-HPC/EVAL-Client	065600	Evaluation Carrier Board for COM-HPC Client type Modules.