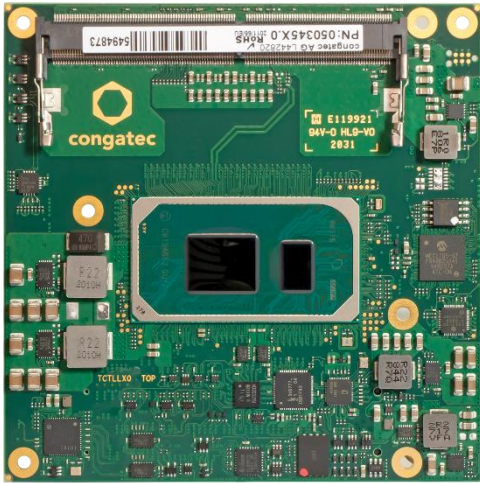


# 11<sup>TH</sup> GEN INTEL® CORE™ PROCESSORS

## conga-TC570

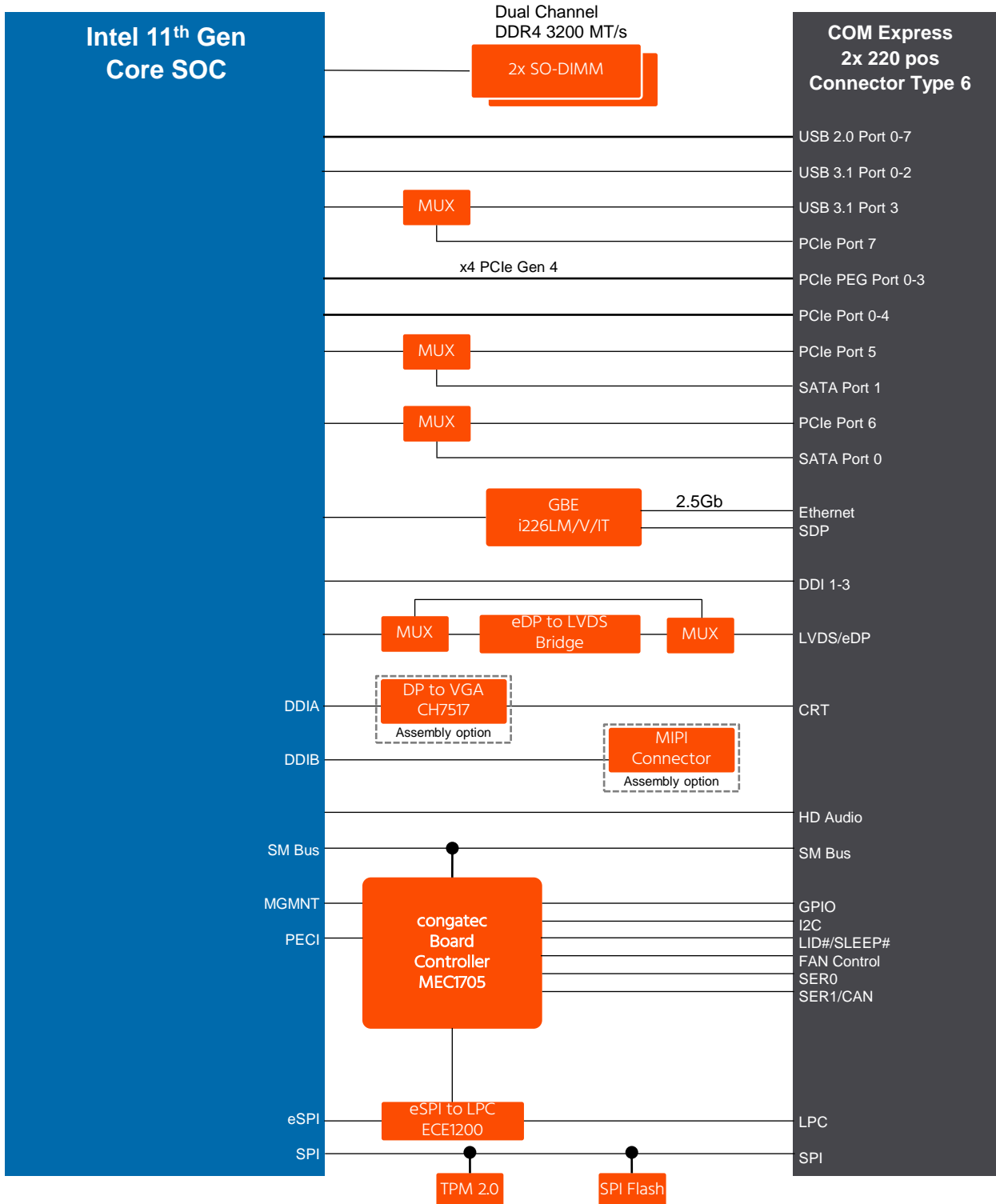


**COM Express®**

- 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

<b>Form Factor</b>	COM Express® Compact, (95 x 95 mm)   Type 6 connector pinout				
<b>CPU</b>	<b>Processor</b>	<b>Cores/Threads</b>	<b>Base Frequency/max Turbo</b>	<b>TDP</b>	<b>Graphics</b>
	Core™ i7-1185G7E	4C/8T	1.80 GHz / 4.40 GHz	12-28W	96EU
	Core™ i5-1145G7E	4C/8T	1.50 GHz / 4.40 GHz	12-28W	80EU
	Core™ i3-1115G4E	2C/4T	2.20 GHz / 3.90 GHz	12-28W	48EU
	Celeron 6305E	2C/2T	1.80 GHz / --	15W	48EU
	Core™ i7-1185GRE	4C/8T	1.80 GHz / 4.40 GHz	12-28W	96EU
	Core™ i5-1145GRE	4C/8T	1.50 GHz / 4.10 GHz	12-28W	80EU
	Core™ i3-1115GRE	2C/4T	2.20 GHz / 3.90 GHz	12-28W	48EU
<b>DRAM</b>	Up to 2 SO-DIMM sockets for DDR4 memory modules up to 32 GByte each (64 GByte total) with 3200 MT/s   IB ECC				
<b>Graphics</b>	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   DP 1.4				
<b>Display</b>	3x DP/DP++   1x eDP				
<b>Ethernet</b>	1x 2.5 GbE with TSN support via Intel® i226 Ethernet controller series				
<b>I/O Interfaces</b>	8x PCIe Gen3   PEG support x4 (PCIe Gen4) 4x USB 3.1 Gen 2   8x USB 2.0 2x SATA III (6Gb/s)   SPI   2x UART   8x GPIO				
<b>Audio</b>	HDA interface				
<b>congatec Board controller</b>	Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board Information   Board Statistics I <sup>2</sup> C bus (fast mode, 400 kHz, multi-master)   Power Loss Control   Hardware Health Monitoring   POST Code redirection				
<b>Embedded BIOS Feature</b>	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				
<b>Security</b>	Trusted Platform Module (TPM 2.0)				
<b>Power Management</b>	ACPI 5.0 with battery support				
<b>Operating Systems</b>	Microsoft® Windows 10   Microsoft® Windows 10 IoT Enterprise   Microsoft® Windows IoT 10 Core   Linux   Android   Yocto   RTS Hypervisor				
<b>Temperature Range</b>	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		
<b>Humidity</b>	Operating: 10 to 90% r. H. non cond.				
	Storage: 5 to 95% r. H. non cond.				
<b>Size</b>	95 x 95 mm <sup>2</sup>				

# conga-TC570 | Block Diagram



# conga-TC570 | Order Information

Article	PN	Description
conga-TC570/i7-1185G7E	050300	COM Express Type 6 Compact 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-TC570/i5-1145G7E	050301	COM Express Type 6 Compact 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-TC570/i3-1115G4E	050302	COM Express Type 6 Compact module based on Intel® Core™ i3-1115G4E 2-core processor with 2.2GHz up to 3.9GHz turbo boost, 6MB cache, Intel® UHD Graphics with 48EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Commercial temperature range.
conga-TC570/6305E	050303	COM Express Type 6 Compact module based on Intel® Celeron® 6305E 2-core processor with 1.8GHz, 4MB cache, Intel® UHD Graphics with 48EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Commercial temperature range.
conga-TC570/i7-1185GRE	050310	COM Express Type 6 Compact 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-TC570/i5-1145GRE	050311	COM Express Type 6 Compact 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-TC570/i3-1115GRE	050312	COM Express Type 6 Compact module based on Intel® Core™ i3-1115GRE 2-core processor with 2.2GHz up to 3.9GHz turbo boost, 6MB cache, Intel® UHD Graphics with 48EU and dual channel DDR4 3200 MT/s memory interface (Intel Tiger Lake). Industrial temperature range.
conga-TC570/CSA-HP-B	050350	Standard active cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 25.5mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole.
conga-TC570/CSA-HP-T	050351	Standard active cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 25.5mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread.
conga-TC570/CSP-HP-B	050352	Standard passive cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 24.3mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-TC570/CSP-HP-T	050353	Standard passive cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 24.3mm overall heat sink height. All standoffs are M2.5mm thread.
conga-TC570/HSP-HP-B	050354	Standard heatspreader for high performance COM Express module conga-TC570 with integrated heat pipes, 11mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-TC570/HSP-HP-T	050355	Standard heatspreader for high performance COM Express module conga-TC570 with integrated heat pipes, 11mm overall heat sink height. All standoffs are M2.5mm thread.
conga-TEVAL/COMe 3.0	65810	Evaluation Carrier Board for COM Express Type 6 modules.

# conga-TC570 | Order Information

Article	PN	Description
DDR4-SODIMM-3200 (4GB)	068793	DDR4 SODIMM memory module with 3200 MT/s and 4GB RAM
DDR4-SODIMM-3200 (8GB)	068794	DDR4 SODIMM memory module with 3200 MT/s and 8GB RAM
DDR4-SODIMM-3200 (16GB)	068798	DDR4 SODIMM memory module with 3200 MT/s and 16GB RAM
DDR4-SODIMM-3200 (32GB)	068835	DDR4 SODIMM memory module with 3200 MT/s and 32GB RAM
DDR4-SODIMM-3200 (4GB) / i-temp	068825	Industrial DDR4 SODIMM memory module with 3200 MT/s and 4GB RAM
DDR4-SODIMM-3200 (8GB) / i-temp	068826	Industrial DDR4 SODIMM memory module with 3200 MT/s and 8GB RAM
DDR4-SODIMM-3200 (16GB) / i-temp	068827	Industrial DDR4 SODIMM memory module with 3200 MT/s and 16GB RAM
DDR4-SODIMM-3200 (32GB) / i-temp	068837	Industrial DDR4 SODIMM memory module with 3200 MT/s and 32GB RAM