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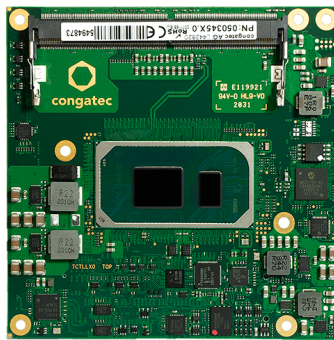


Datasheet

congatec

conga-TC570

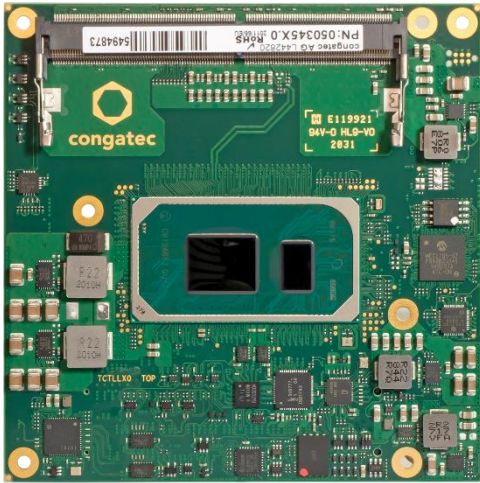
COM Express Type 6 Compact Module with 11th Gen. Tiger Lake Intel Core i Processor



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11TH GEN INTEL® CORE™ PROCESSORS

conga-TC570

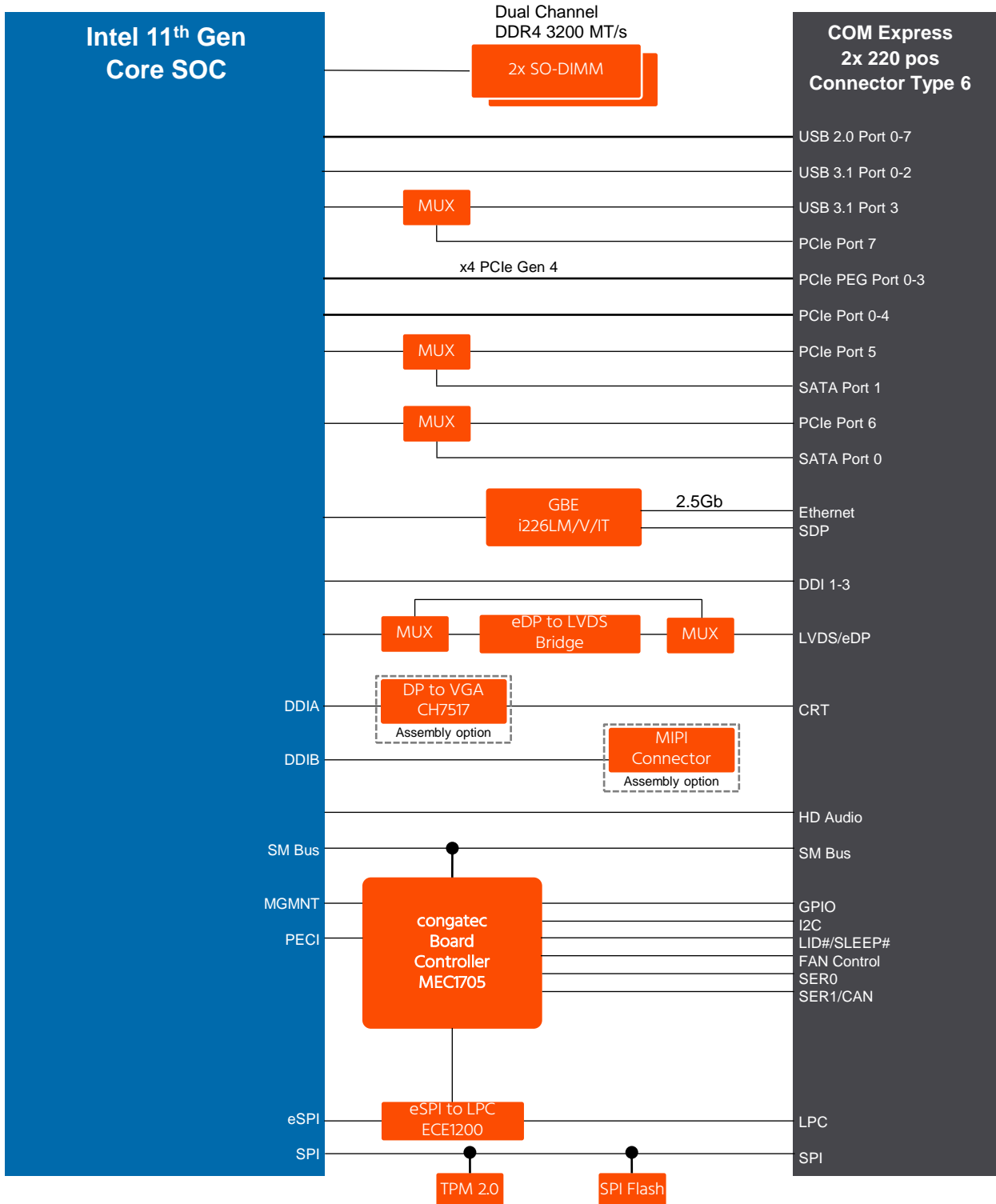


COM Express®

- 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

Form Factor	COM Express® Compact, (95 x 95 mm) Type 6 connector pinout				
CPU	Processor	Cores/Threads	Base Frequency/max Turbo	TDP	Graphics
	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
DRAM	Up to 2 SO-DIMM sockets for DDR4 memory modules up to 32 GByte each (64 GByte total) with 3200 MT/s IB ECC				
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 DP 1.4				
Display	3x DP/DP++ 1x eDP				
Ethernet	1x 2.5 GbE with TSN support via Intel® i226 Ethernet controller series				
I/O Interfaces	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				
Audio	HDA interface				
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 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				
Security	Trusted Platform Module (TPM 2.0)				
Power Management	ACPI 5.0 with battery support				
Operating Systems	Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Microsoft® Windows IoT 10 Core Linux Android Yocto RTS Hypervisor				
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	95 x 95 mm ²				

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

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