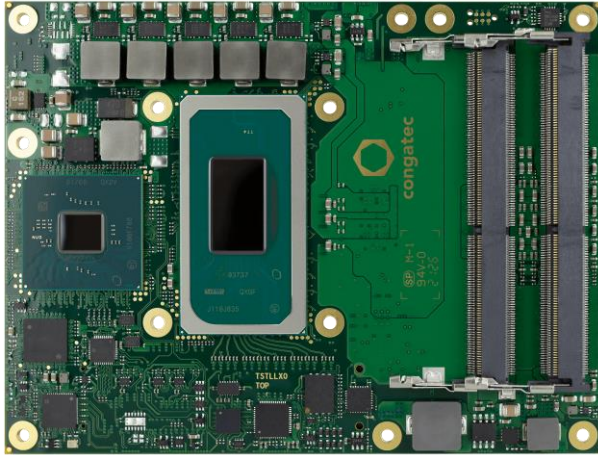


# 11<sup>TH</sup> GEN INTEL® CORE™ PROCESSORS

## conga-TS570

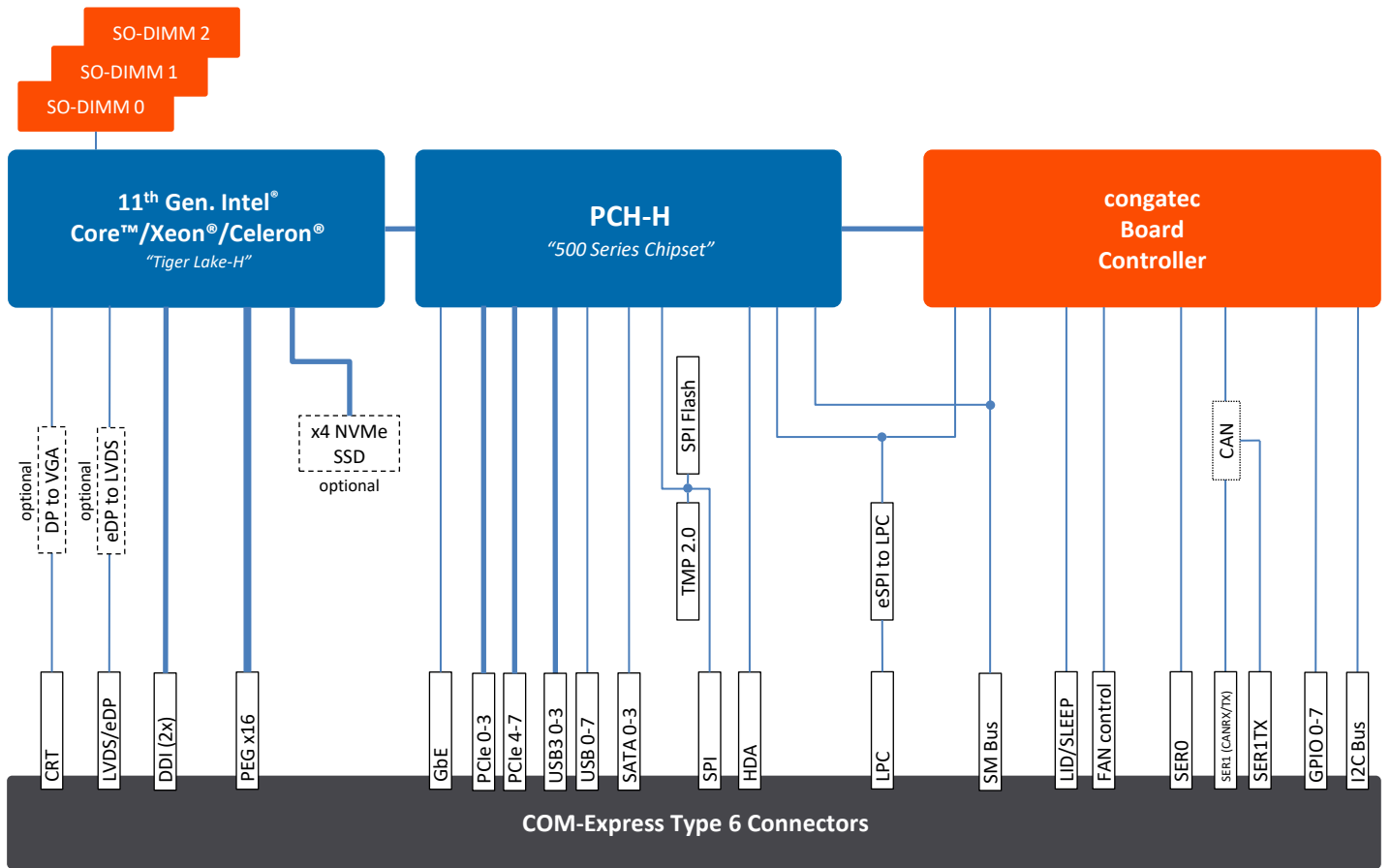


**COM Express®**

- Embedded/Industrial use condition
- Extended temperature options available
- PCI Express Gen 4
- AI/DL Instruction Sets including VNNI
- Optional onboard NVMe SSD
- Integrated Xe (Gen 12) graphics with 32 EU

<b>Form Factor</b>	COM Express® Basic, (125 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>	<b>Intel Use Condition</b>
	i7-11850HE	8C/16T	2.6GHz / 4.7GHz	45W/35W	Intel® UHD 32	General Embedded
	i5-11500HE	6C/12T	2.6GHz / 4.5GHz	45W/35W	Intel® UHD 32	General Embedded
	i3-11100HE	4C/8T	2.4GHz / 4.4GHz	45W/35W	Intel® UHD 16	General Embedded
	6600HE	2C/2T	2.6GHz	35W	Intel® UHD 16	General Embedded
	W-11865MRE	8C/16T	2.6GHz / 4.7GHz	45W/35W	Intel® UHD 32	Industrial
	W-11555MRE	6C/12T	2.6GHz / 4.5GHz	45W/35W	Intel® UHD 32	Industrial
	W-11155MRE	4C/8T	2.4GHz / 4.4GHz	45W/35W	Intel® UHD 16	Industrial
	W-11865MLE	8C/16T	1.5GHz / 4.5GHz	25W	Intel® UHD 32	Industrial
	W-11555MLE	6C/12T	1.9GHz / 4.4GHz	25W	Intel® UHD 32	Industrial
	W-11155MLE	4C/8T	1.8GHz / 3.1GHz	25W	Intel® UHD 16	Industrial
<b>Chipset</b>	RM590E   QM580E   HM570E					
<b>DRAM</b>	Up to 3 SO-DIMM sockets for DDR4 ECC memory modules up to 32 GByte each (96 GByte total) with 3200 MT/s					
<b>Graphics</b>	Integrated Xe (Gen 12) graphics engine with up to 32 EU (Execution Units)   Supporting 4 independent display units (4x 4k/2x 8K)   Enhanced media (AV1/12b) with up to 2 VDBox   Next Gen IPU6 (Image Processing Unit) with DPHY2.1   DP 1.4					
<b>Display</b>	3x DP/DP++   1x eDP/LVDS					
<b>Ethernet</b>	1x 2.5 GbE TSN Ethernet					
<b>I/O Interfaces</b>	8x PCIe Gen3   PEG support x16 (PCIe Gen4) 4x USB 3.1 Gen 2   8x USB 2.0 4x SATA III (6Gb/s)   SPI   2x UART   8x GPIO LPC   I2C					
<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 default settings   LCD Control   Display Auto Detection   Backlight Control   Flash Update					
<b>Security</b>	Trusted Platform Module (TPM 2.0)					
<b>Power Management</b>	ACPI 6.0 with battery support					
<b>Operating Systems</b>	Microsoft® Windows 10   Microsoft® Windows 10 IoT Enterprise   Linux   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>	125 x 95 mm <sup>2</sup>					

# conga-TS570 | Block Diagram



# conga-TS570 | Modules Order Information

Article	PN	Description
conga-TS570/i7-11850HE	050700	COM Express Type 6 Basic module based on Intel® Core™ i7-11850HE 8-core processor with 2.6GHz up to 4.7GHz turbo boost, 24MB Intel® Smart Cache, Intel® UHD Graphics with 32EU and dual channel DDR4 3200 MT/s memory interface.   Chipset QM580E   Intel® Tiger Lake-H   Commercial temperature range
conga-TS570/i5-11500HE	050701	COM Express Type 6 Basic module based on Intel® Core™ i5-11500HE 6-core processor with 2.6GHz up to 4.5GHz turbo boost, 12MB Intel® Smart Cache, Intel® UHD Graphics with 32EU and dual channel DDR4 3200 MT/s memory interface.   Chipset QM580E   Intel® Tiger Lake-H   Commercial temperature range
conga-TS570/i3-11100HE	050702	COM Express Type 6 Basic module based on Intel® Core™ i3-11100HE 4-core processor with 2.4GHz up to 4.4GHz turbo boost, 8MB Intel® Smart Cache, Intel® UHD Graphics with 16EU and dual channel DDR4 3200 MT/s memory interface.   Chipset HM570E   Intel® Tiger Lake-H   Commercial temperature range
conga-TS570/6600HE	050703	COM Express Type 6 Basic module based on Intel® Celeron 6600HE 2-core processor with 2.6GHz base frequency, 8MB Intel® Smart Cache, Intel® UHD Graphics with 16EU and dual channel DDR4 3200 MT/s memory interface.   Chipset HM570E   Intel® Tiger Lake-H   Commercial temperature range
conga-TS570/W-11865MRE	050710	COM Express Type 6 Basic module based on Intel® Xeon® W-11865MRE 8-core processor with 2.6GHz up to 4.7GHz turbo boost, 24MB Intel® Smart Cache, Intel® UHD Graphics with 32EU and dual channel DDR4 3200 MT/s memory interface.   Chipset RM590E   Intel® Tiger Lake-H   Industrial temperature range
conga-TS570/W-11555MRE	050711	COM Express Type 6 Basic module based on Intel® Xeon® W-11555MRE 6-core processor with 2.6GHz up to 4.5GHz turbo boost, 12MB Intel® Smart Cache, Intel® UHD Graphics with 32EU and dual channel DDR4 3200 MT/s memory interface.   Chipset RM590E   Intel® Tiger Lake-H   Industrial temperature range
conga-TS570/W-11155MRE	050712	COM Express Type 6 Basic module based on Intel® Xeon® W-11155MRE 4-core processor with 2.4GHz up to 4.4GHz turbo boost, 8MB Intel® Smart Cache, Intel® UHD Graphics with 16EU and dual channel DDR4 3200 MT/s memory interface.   Chipset RM590E   Intel® Tiger Lake-H   Industrial temperature range
conga-TS570/W-11865MLE	050713	COM Express Type 6 Basic module based on Intel® Xeon® W-11865MLE 8-core processor with 1.5GHz up to 4.5GHz turbo boost, 24MB Intel® Smart Cache, Intel® UHD Graphics with 32EU and dual channel DDR4 3200 MT/s memory interface.   Chipset RM590E   Intel® Tiger Lake-H   Commercial temperature range
conga-TS570/W-11555MLE	050714	COM Express Type 6 Basic module based on Intel® Xeon® W-11555MLE 6-core processor with 1.9GHz up to 4.4GHz turbo boost, 12MB Intel® Smart Cache, Intel® UHD Graphics with 32EU and dual channel DDR4 3200 MT/s memory interface.   Chipset RM590E   Intel® Tiger Lake-H   Commercial temperature range
conga-TS570/W-11155MLE	050715	COM Express Type 6 Basic module based on Intel® Xeon® W-11155MLE 4-core processor with 1.8GHz up to 3.1GHz turbo boost, 8MB Intel® Smart Cache, Intel® UHD Graphics with 16EU and dual channel DDR4 3200 MT/s memory interface.   Chipset RM590E   Intel® Tiger Lake-H   Commercial temperature range

# conga-TS570 | Accessories Order Information

Article	PN	Description
conga-TS570/CSA-HP-B	050750	Standard active cooling solution for high performance COM Express module conga-TS570 with integrated heat pipes, 29mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole.
conga-TS570/CSA-HP-T	050751	Standard active cooling solution for high performance COM Express module conga-TS570 with integrated heat pipes, 29mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread.
conga-TS570/CSP-HP-B	050752	Standard passive cooling solution for high performance COM Express module conga-TS570 with integrated heat pipes, 28mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-TS570/CSP-HP-T	050753	Standard passive cooling solution for high performance COM Express module conga-TS570 with integrated heat pipes, 28mm overall heat sink height. All standoffs are M2.5mm thread.
conga-TS570/HSP-HP-B	050754	Standard heatspreader for high performance COM Express module conga-TS570 with integrated heat pipes, 11mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-TS570/HSP-HP-T	050755	Standard heatspreader for high performance COM Express module conga-TS570 with integrated heat pipes, 11mm overall heat sink height. All standoffs are M2.5mm thread.
conga-TS570/HPA	050756	Standard heatpipe adapter for high performance COM Express module conga-TS570.
conga-TEVAL/COMe 3.0	065810	Evaluation Carrier Board for COM Express Type 6 modules.