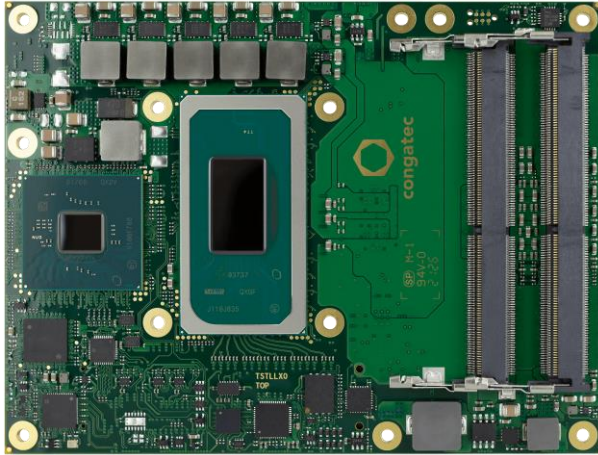


# 11<sup>TH</sup> GEN INTEL® CORE™ PROCESSORS

## conga-TS570

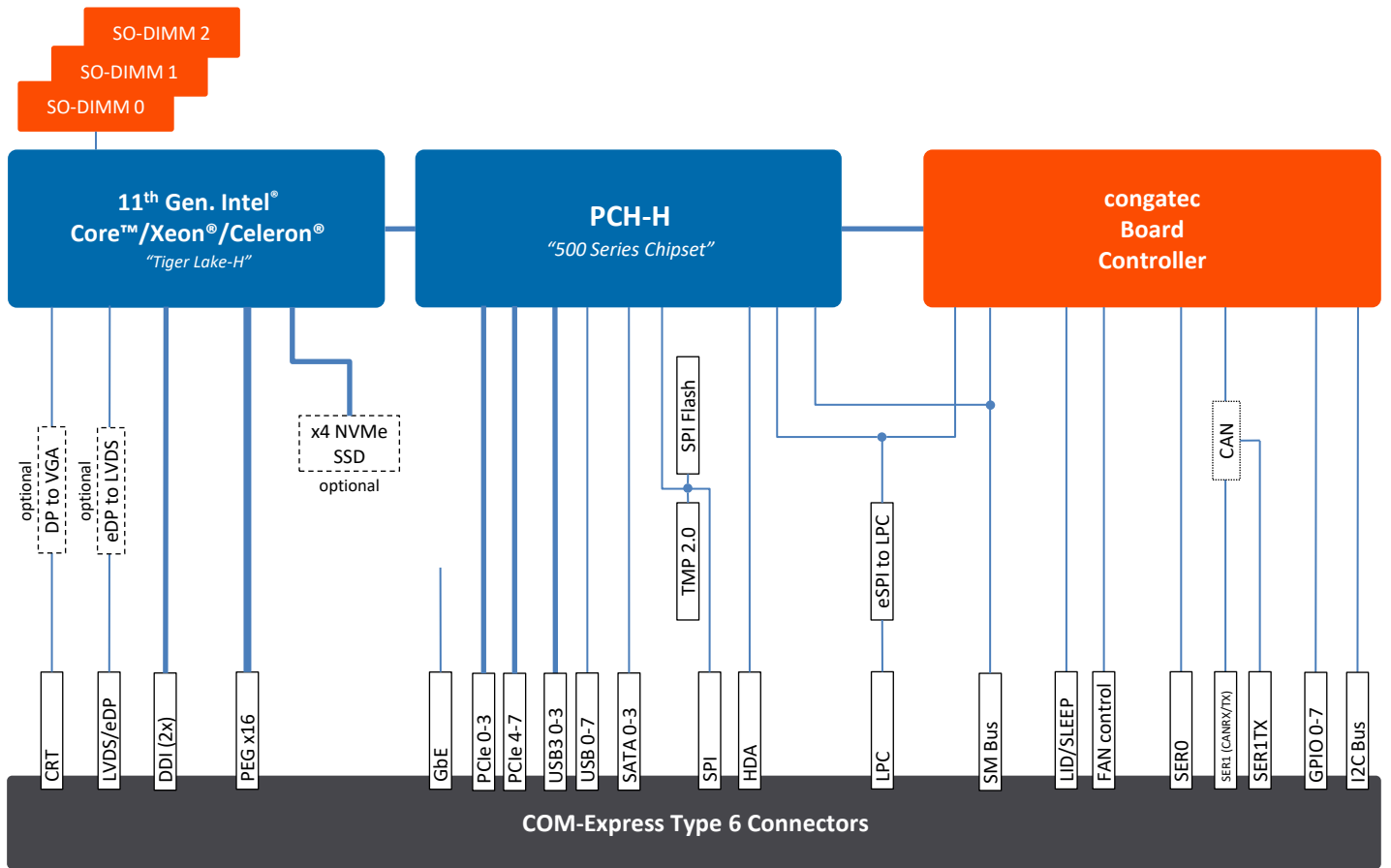


**COM Express®**

- 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)<br>4x USB 3.1 Gen 2   8x USB 2.0<br>4x SATA III (6Gb/s)   SPI   2x UART   8x GPIO<br>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<br>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  |