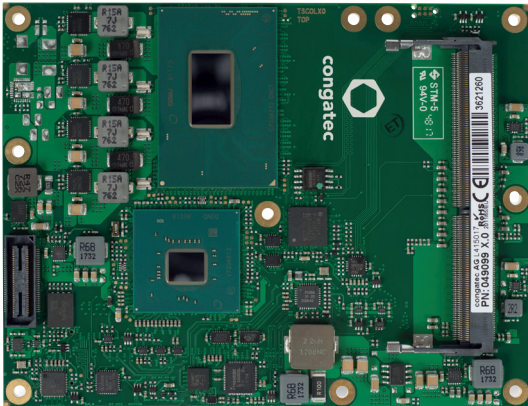


SERVER-CLASS EMBEDDED PERFORMANCE

conga-TS370

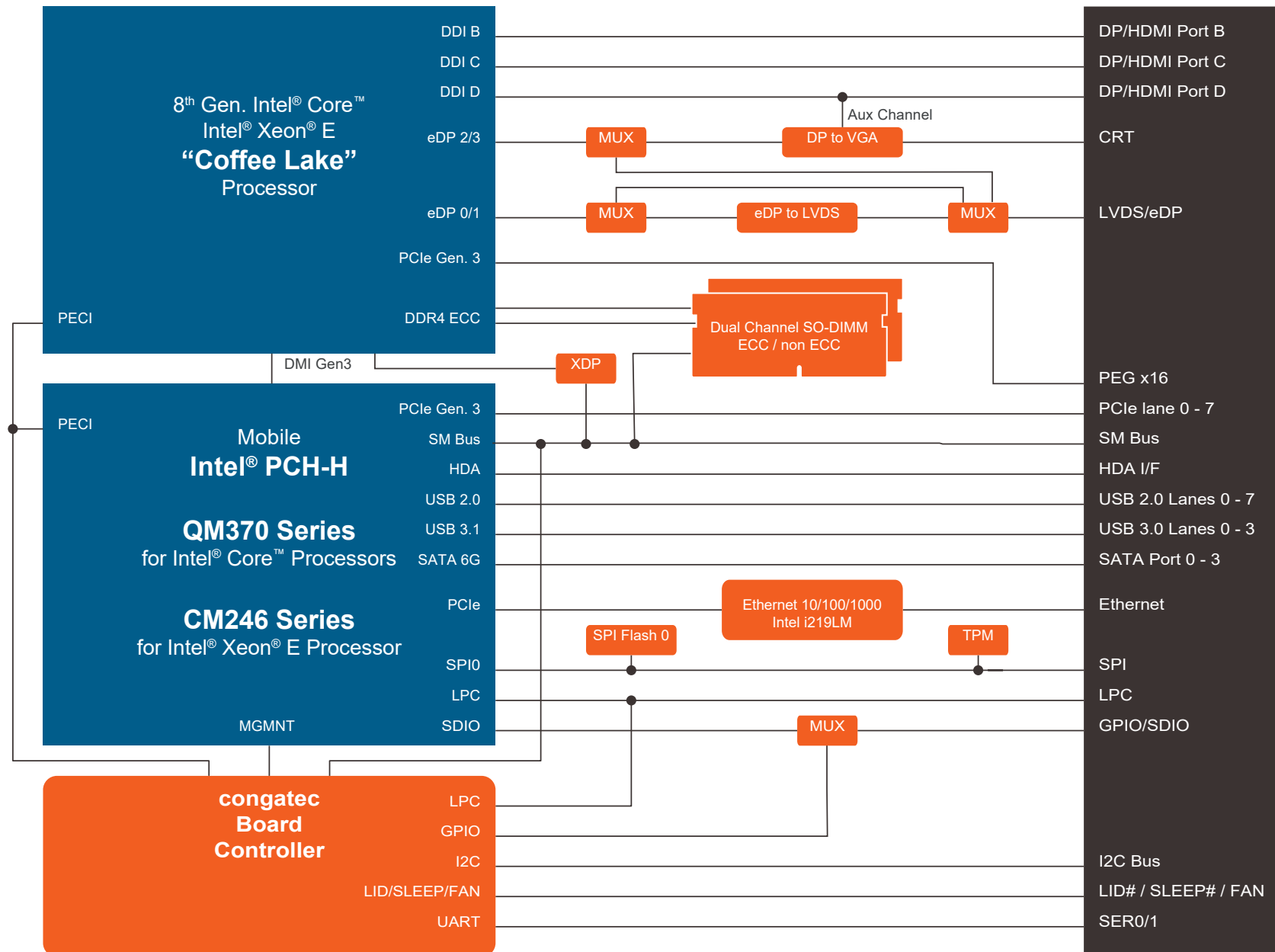


- 8th Generation Intel® Core™ processor with up to 6 Cores
- Intel® Xeon® processors for data center applications
- Support for USB 3.1 Gen2 with 10Gb/s
- Intel® Optane™ memory support
- ECC memory support
- Up to 32 GByte dual channel DDR4 memory

COM  **Express®**

| | | | | | |
|---------------------------------|--|---------------------------------|-----------|-------------|------------------|
| Formfactor | COM Express® Basic, (95 x 125 mm), Type 6 Connector Pinout | | | | |
| CPU | Intel® Xeon® E-2176M Processor | 4.4 GHz (Boost) 2.7 GHz Clock | Hexa Core | 12 MB cache | 45 W (35 W cTDP) |
| | Intel® Core™ i7-8850H Processor | 4.3 GHz (Boost) 2.6 GHz Clock | Hexa Core | 9 MB cache | 45 W (35 W cTDP) |
| | Intel® Core™ i5-8400H Processor | 4.2 GHz (Boost) 2.5 GHz Clock | Quad Core | 8 MB cache | 45 W (35 W cTDP) |
| | Intel® Turbo Boost Technology Intel® Hyper-Threading Technology (Intel® HT Technology) Intel® Advanced Vector Extensions 2.0 (Intel® AVX2) Intel® Advanced Encryption Standard New Instructions (Intel® AES-NI) Integrated dual channel memory controller up to 42,6 GByte/sec. memory bandwidth Integrated Intel® Gen9 HD Graphics with frequency up to 1GHz Intel® Clear Video HD Technology Intel® Virtualization Technology (Intel® VT) Intel® Trusted Execution Technology (Intel® TXT) Intel® Secure Key | | | | |
| DRAM | 2 Sockets, SO-DIMM DDR4 up to 2666 MT/s and 32GByte dual channel, optionally with ECC support (Intel® Xeon®) | | | | |
| Chipset | Mobile Intel® PCH-H QM370 Series or CM246 Series for Intel Xeon Processor | | | | |
| Ethernet | Intel® i219-LM GbE LAN Controller with AMT 12.0 support | | | | |
| I/O Interfaces | 8x PCI Express™ Gen 3.0 lanes 1x PEG x16 Gen 3 4x SATA Gen 3 4x USB 3.1 Gen 2 @ 10 GB/s 8x USB 2.0 LPC bus I²C bus (fast mode, 400 kHz, multi-master) 2x UART | | | | |
| Sound | Digital High Definition Audio Interface with support for multiple audio codecs | | | | |
| Graphics | Intel® Gen9 UHD Graphics Engine with OpenCL 2.0, OpenGL 4.3 / 4.4 and DirectX 11/12 (for Windows 10) support up to three independent displays: HDMI 1.4a / DisplayPort 1.2 / eDP 1.4 High performance hardware MPEG-2 decoding WMV9 (VC-1) and H.265 (HEVC) support Blu-ray support @ 40 MBit/s HEVC, VP9 and VDENC encoding | | | | |
| LVDS / eDP | Dual channel LVDS transmitter, Supports flat panels 2x24 Bit interface VESA and openLDI colour mappings resolutions up to 1920x1200 Automatic Panel Detection via EDID/EPI LVDS or eDP switchable in BIOS setup | | | | |
| Digital Display Interface (DDI) | 3x TMDS (HDMI) / DisplayPort 1.2 with support for Multi-Stream Transport (MST) resolutions up to 4k VGA support | | | | |
| congatec Board Controller | Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics BIOS Setup Data Backup I²C bus (fast mode, 400 kHz, multi-master) Power Loss Control | | | | |
| Embedded BIOS Features | AMI Aptio® UEFI 2.x firmware 32 MByte serial SPI firmware flash | | | | |
| Security | The conga-TS370 is equipped with a discrete "Trusted Platform Module" (TPM 2.0). It is capable of calculating efficient hash and RSA algorithms with key lengths up to 2,048 bits and includes a real random number generator. Security sensitive applications such as gaming and e commerce will benefit also with improved authentication, integrity and confidence levels. | | | | |
| Power Management | ACPI 4.0 with battery support | | | | |
| Operating Systems | Microsoft® Windows 10 (64bit only) Microsoft® Windows 10 IoT Enterprise (64bit only) Linux | | | | |
| Power Consumption | See User's Guide for full details | | | | |
| Temperature | Operating: 0 .. +60°C Storage: -40 .. +85°C | | | | |
| Humidity | Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond. | | | | |
| Size | 95 x 125 mm (3.74" x 4.92") | | | | |

conga-TS370 | Block diagram



conga-TS370 | Order Information

| Article | PN | Description |
|----------------------|--------|--|
| conga-TS370/i7-8850H | 049000 | COM Express Type 6 Basic module with Coffeelake-H Intel® Core™ i7-8850H hexa core processor with 2.6GHz, 9MB L2 cache, GT2 graphics and 2666MT/s dual channel DDR4 memory interface. Chipset QM370. TPM 2.0. |
| conga-TS370/i5-8400H | 049001 | COM Express Type 6 Basic module with Coffeelake-H Intel® Core™ i5-8400H quad core processor with 2.5GHz, 8MB L2 cache, GT2 graphics and 2666MT/s dual channel DDR4 memory interface. Chipset QM370. TPM 2.0. |
| conga-TS370/E-2176M | 049002 | COM Express Type 6 Basic module with Coffeelake-H Intel® Xeon® Processor E-2176M, hexa core processor with 2.7GHz, 12MB L2 cache, GT2 graphics and 2666MT/s dual channel DDR4 memory interface with ECC support. Chipset CM246. TPM 2.0. |

| Article | PN | Description |
|----------------------|--------|---|
| conga-TS170/HSP-HP-B | 045934 | Standard heatspreader for high performance COM Express modules conga-TS170/TS175/TS370 with integrated heat pipes. All standoffs are with 2.7mm bore hole. |
| conga-TS170/HSP-HP-T | 045935 | Standard heatspreader for high performance COM Express modules conga-TS170/TS175/TS370 with integrated heat pipes. All standoffs are M2.5mm thread. |
| conga-TS170/CSP-HP-B | 045932 | Standard passive cooling solution for high performance COM Express modules conga-TS170/TS175/TS370 with integrated heat pipes, 15mm silver fins and 21mm overall heat sink height. All standoffs are with 2.7mm bore hole. |
| conga-TS170/CSP-HP-T | 045933 | Standard passive cooling solution for high performance COM Express modules conga-TS170/TS175/TS370 with integrated heat pipes, 15mm silver fins and 21mm overall heat sink height. All standoffs are M2.5mm thread. |
| conga-TS170/CSA-HP-B | 045930 | Standard active cooling solution for high performance COM Express modules conga-TS170/TS175/TS370 with integrated heat pipes, 15mm silver fins, 21mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole. |
| conga-TS170/CSA-HP-T | 045931 | Standard active cooling solution for high performance COM Express modules conga-TS170/TS175/TS370 with integrated heat pipes, 15mm silver fins, 21mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread. |

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| DDR4-SODIMM-2666 (4GB) | 067780 | 4 GByte DDR4 SODIMM memory module with 2666 MT/s |
| DDR4-SODIMM-2666 (8GB) | 067781 | 8 GByte DDR4 SODIMM memory module with 2666 MT/s |
| DDR4-SODIMM-2666 (16GB) | 067782 | 16 GByte DDR4 SODIMM memory module with 2666 MT/s |
| DDR4-SODIMM-2666 ECC (4GB) | 067783 | 4 GByte DDR4 ECC SODIMM memory module with 2666 MT/s |
| DDR4-SODIMM-2666 ECC (8GB) | 067784 | 8 GByte DDR4 ECC SODIMM memory module with 2666 MT/s |
| DDR4-SODIMM-2666 ECC (16GB) | 067785 | 16 GByte DDR4 ECC SODIMM memory module with 2666 MT/s |
| DDR4-SODIMM-2400 (4GB) | 068790 | 4 GByte DDR4 SODIMM memory module with 2400 MT/s |
| DDR4-SODIMM-2400 (8GB) | 068791 | 8 GByte DDR4 SODIMM memory module with 2400 MT/s |
| DDR4-SODIMM-2400 (16GB) | 068792 | 16 GByte DDR4 SODIMM memory module with 2400 MT/s |
| DDR4-SODIMM-2400 ECC (4GB) | 068795 | 4 GByte DDR4 ECC SODIMM memory module with 2400 MT/s |
| DDR4-SODIMM-2400 ECC (8GB) | 068796 | 8 GByte DDR4 ECC SODIMM memory module with 2400 MT/s |
| DDR4-SODIMM-2400 ECC (16GB) | 068797 | 16 GByte DDR4 ECC SODIMM memory module with 2400 MT/s |

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|-----------------------------|--------|---|
| conga-TEVA2 | 065810 | Evaluation carrier board for Type 6 COM Express Modules |
| conga-LDVI/EPI | 011115 | LVDS to DVI converter board for digital flat panels with onboard EEPROM |
| COMe-carrier-board-Socket-5 | 400007 | Connector for COM-Express carrier boards, height 5mm, packing unit 4 pieces |
| COMe-carrier-board-Socket-8 | 400004 | Connector for COM-Express carrier boards, height 8mm, packing unit 4 pieces |