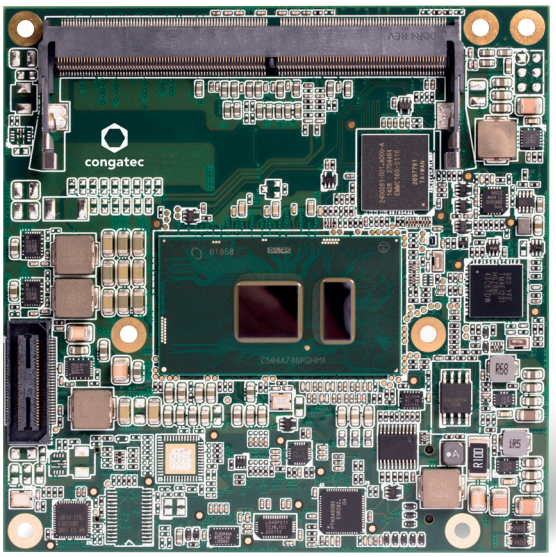
FAST AND COMPACT

conga-TC170

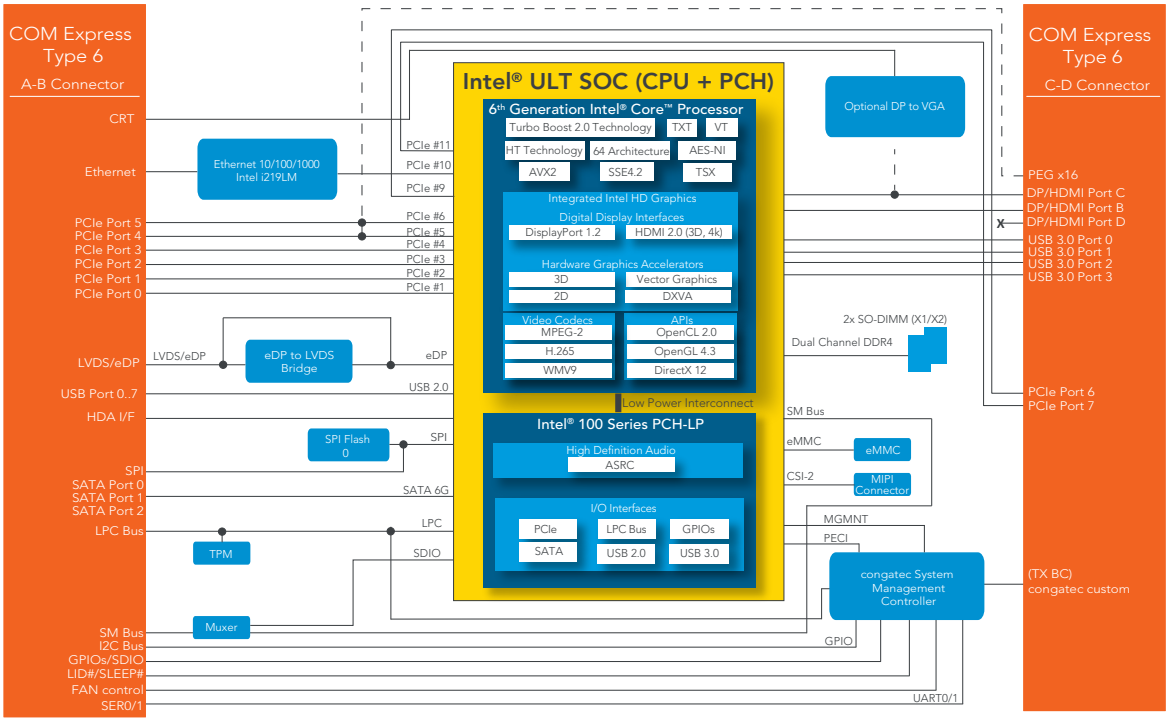


- 6th Generation Intel® Core™ SOC processor
- Intel® Gen9 HD Graphics with HEVC (H.265) support
- Low power consumption (TDP 15W, cTDP 8.5W)
- Up to 32 GByte dual channel DDR4 memory
- COM Express Compact Type 6 module 95x95 mm²

COM Express®

Formfactor	COM Express® Compact, (95 x 95 mm), Type 6 Connector Pinout
CPU	Intel® Core™ i7-6600U 2.6 GHz Dual Core Turbo Boost 3.4 GHz 4 MB Cache TDP 15W GT2 Intel® Core™ i5-6300U 2.4 GHz Dual Core Turbo Boost 3.0 GHz 3 MB Cache TDP 15W GT2 Intel® Core™ i3-6100U 2.3 GHz Dual Core 3 MB Cache TDP 15W GT2 Intel® Celeron® 3955U 2.0 GHz Dual Core 2 MB Cache TDP 15W GT1 Intel® Turbo Boost Technology | Intel® Hyper-Threading Technology (HT) | Intel® Advanced Vector Extensions 2.0 (AVX2) Intel® Advanced Encryption Standard New Instructions (AES-NI) | Integrated dual channel memory controller up to 34,1 GByte/sec. memory bandwidth | Integrated Intel® Gen9 HD Graphics with frequency up to 1.05 GHz | Intel® Clear Video HD Technology | Intel® Virtualization Technology (VT) | Intel® Trusted Execution Technology (TXT) | Intel® Secure Key
DRAM	2 Sockets, SO-DIMM DDR4 up to 2133 MT/s and 32 GByte dual channel
Chipset	Integrated PCH-LP
Ethernet	Intel® i219-LM GbE LAN Controller with AMT 11 support
I/O Interfaces	8x PCI Express GEN. 3.0 lanes | 3x Serial ATA® Gen 3 | 4x USB 3.0 (XHCI) | 8x USB 2.0 (XHCI) | LPC bus (no DMA) 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 HD Graphics Engine with OpenCL 2.0, OpenGL 4.3 and DirectX12 (for Windows 10) support | up to three independent displays: HDMI 1.4a / DisplayPort 1.2 / eDP 1.3 | High performance hardware MPEG-2 decoding | WMV9 (VC-1) and H.265 (HEVC) support Blu-ray support @ 40 MBit/s | HEVC, VP8, VP9 and VDENC encoding
LVDS (eDP optional)	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
Digital Display Interface (DDI)	2x TMDS (HDMI) / DisplayPort 1.2 with support for Multi-Stream Transport (MST) | resolutions up to 4k | VGA (optional)
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 | 8/16 MByte serial SPI firmware flash
Security	The conga-TC170 can be optionally equipped with a discrete "Trusted Platform Module" (TPM 1.2 / 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 | Microsoft® Windows 8.1 | Microsoft® Windows 7 | Linux | Microsoft® Windows embedded Standard
Power Consumption	See User's Guide for full details
Temperature	Operating: 0 .. +60°C Storage: -20 .. +80°C
Humidity	Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.
Size	95 x 95 mm (3.74" x 3.74")

conga-TC170 | Block diagram



conga-TC170 | Order Information

Article	PN	Description
conga-TC170/i7-6600U	045200	COM Express Type 6 Compact module with Intel® Core™ i7-6600U dual core processor with 2.6GHz, 4MB L2 cache, 2133MT/s dual channel DDR4 memory interface
conga-TC170/i5-6300U	045201	COM Express Type 6 Compact module with Intel® Core™ i5-6300U dual core processor with 2.4GHz, 3MB L2 cache, 2133MT/s dual channel DDR4 memory interface
conga-TC170/i3-6100U	045202	COM Express Type 6 Compact module with Intel® Core™ i3-6100U dual core processor with 2.3GHz, 3MB L2 cache , 2133MT/s dual channel DDR4 memory interface
conga-TC170/3955U	045203	COM Express Type 6 Compact module with Intel® Celeron® 3955U dual core processor with 2.0GHz, 2MB L2 cache, 2133MT/s dual channel DDR4 memory interface
conga-TC87/HSP-B*	046953	Standard heatspreader for COM Express module conga-TC170, all standoffs are with 2.7mm bore hole
conga-TC87/HSP-T*	046954	Standard heatspreader for COM Express module conga-TC170, all standoffs are M 2.5 threaded
conga-TC87/CSP-B*	046951	Standard passive cooling solution for COM Express module conga-TC170, all standoffs are with 2.7mm bore hole
conga-TC87/CSP-T*	046952	Standard passive cooling solution for COM Express module conga-TC170, all standoffs are M 2.5 threaded
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

* cooling solutions also for conga-TC170

Article	PN	Description
conga-TEVAL	065800	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-socket-5	400007	Connector for COM-Express carrier boards, height 5mm, packing unit 4 pieces
COMe-carrier-socket-8	400004	Connector for COM-Express carrier boards, height 8mm, packing unit 4 pieces

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Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
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Данный компонент на территории Российской Федерации

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