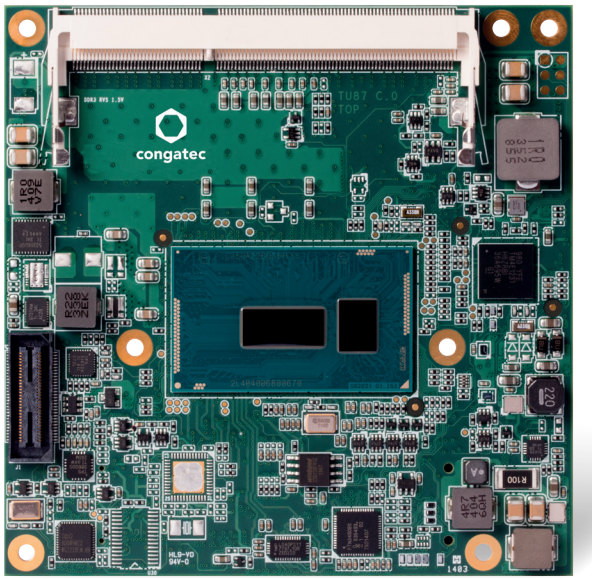
FAST AND COMPACT

conga-TC97

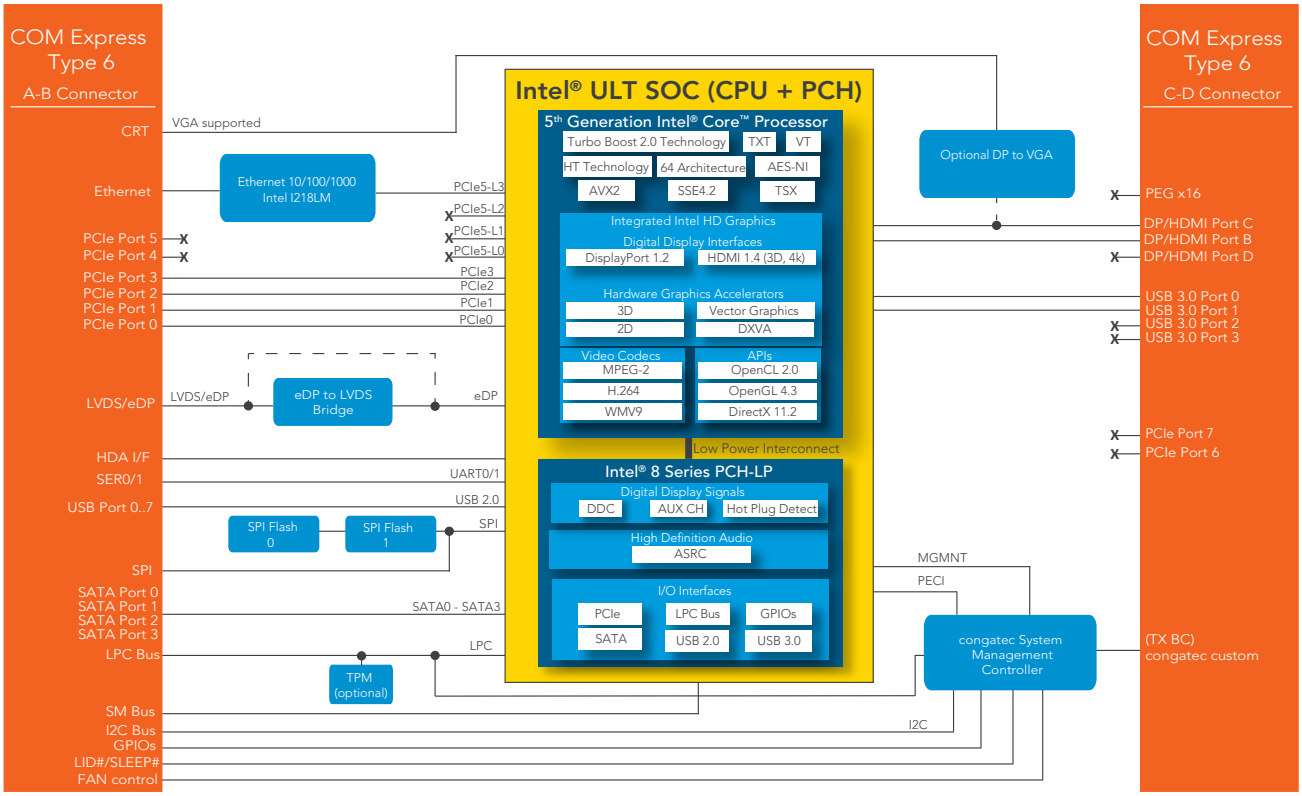


- 5th Gen. Intel® Core™ i7 dual core processor
- 15W nominal TDP
- 3x DisplayPort 1.2, up to 4k resolution
- Intel® AVX 2.0 Vector extension for improved floating point computing
- COM Express Compact Type 6 module

COM Express®

Formfactor	COM Express® Compact, (95 x 95 mm), Type 6 Connector Layout
CPU	Intel® Core™ i7-5650U — 2.2 GHz Dual Core — Turbo Boost 3.1 GHz — 4 MB Cache — 15W nominal TDP — GT3 HD 6000 Intel® Core™ i5-5350U — 1.8 GHz Dual Core — Turbo Boost 2.9 GHz — 3 MB Cache — 15W nominal TDP — GT3 HD 6000 Intel® Core™ i3-5010U — 2.1 GHz Dual Core — 3 MB Cache — 15W nominal TDP — GT2 HD 5500 Intel® Celeron® 3765U — 1.9 GHz Dual Core — 2 MB Cache — 15W nominal TDP — GT1 HD Intel® Turbo Boost 2.0 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 25.6 GByte/sec. memory bandwidth | Integrated Intel® HD Graphics 6000 series with dynamic frequency up to 1.0 GHz, Intel® Clear Video HD Technology Intel® Virtualization Technology (Intel® VT) | Intel® Trusted Execution Technology (Intel® TXT) | Intel® Streaming SIMD Extensions 4.2 (Intel® SSE4.2) | PCLMULQDQ Instruction | Intel® Secure Key, Intel® Transactional Synchronization Extensions (Intel® TSX)
DRAM	2 Sockets, SO-DIMM DDR3L@1.35V up to 1600MT/s and 32GByte
Chipset	Integrated PCH-LP
Ethernet	Intel® I218-LM GbE LAN Controller with AMT 10 support
I/O Interfaces	4x PCI Express™ Gen. 2.0 lanes | 4x Serial ATA® RAID 0/1/5/10 support 2x ExpressCard® | 2x USB 3.0 (XHCI) | 8x USB 2.0 (EHCI) | LPC bus | I²C bus (fast mode, 400 kHz, multi-master)
Sound	Digital High Definition Audio Interface with support for multiple audio codecs
Graphics	Next Generation Intel® HD Graphics with OpenCL 2.0, OpenGL 4.3 and DirectX11.2 support | up to three independent displays: HDMI 1.4, DVI, DisplayPort 1.2 | High performance hardware MPEG-2 decoding, WMV9 (VC-1) and H.264 (AVC) support Blu-ray support @ 40 MBit/s
LVDS (eDP optional)	Dual channel LVDS transmitter | Supports flat panels 2x24 Bit interface | VESA and OpenLDI color mapping | resolutions up to 1920x1200, Automatic Panel Detection via EDID/EPI
Digital Display Interface (DDI)	2x TMDS (HDMI) / DisplayPort 1.2a with support for Multi-Stream Transport (MST), resolutions up to 4k
congatec Board Controller	Multi Stage Watchdog | non-volatile User Data Storage | Manufacturing and Board Information | Board Statistics | LVDS backlight control 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-TC97 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 10 IoT Enterprise | Microsoft® Windows 8 | Microsoft® Windows 7 | Linux | Microsoft® Windows embedded Standard
Power Consumption	See User's Guide for full details | CMOS Battery Backup Ultra low standby power, support for CPU power states up to C10
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-TC97 | Block diagram



conga-TC97 | Order Information

Article	PN	Description
conga-TC97/i7-5650U	045103	COM Express Type 6 Compact module with Intel® Core™ i7-5650U dual core processor with 2.2GHz, 4MB L2 cache and 1600MT/s dual channel DDR3L memory interface.
conga-TC97/i5-5350U	045104	COM Express Type 6 Compact module with Intel® Core™ i5-5350U dual core processor with 1.8GHz, 3MB L2 cache and 1600MT/s dual channel DDR3L memory interface.
conga-TC97/i3-5010U	045105	COM Express Type 6 Compact module with Intel® Core™ i3-5010U dual core processor with 2.1GHz, 3MB L2 cache and 1600MT/s dual channel DDR3L memory interface.
conga-TC97/3765U	045106	COM Express Type 6 Compact module with Intel® Celeron® 3765U dual core processor with 1.9GHz, 2MB L2 cache and 1600MT/s dual channel DDR3L memory interface.
conga-TC87/HSP-B	046953	Standard heatspreader for COM Express module conga-TC97. All standoffs are with 2.7mm bore hole.
conga-TC87/HSP-T	046954	Standard heatspreader for COM Express module conga-TC97. All standoffs are M 2.5 threaded.
conga-TC87/CSP-B	046951	Standard passive cooling solution for COM Express module conga-TC97. All standoffs are with 2.7mm bore hole.
conga-TC87/CSP-T	046952	Standard passive cooling solution for COM Express module conga-TC97. All standoffs are M 2.5 threaded
DDR3L-SODIMM-1600 (2GB)	068755	DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 2GB RAM
DDR3L-SODIMM-1600 (4GB)	068756	DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 4GB RAM
DDR3L-SODIMM-1600 (8GB)	068757	DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 8GB RAM

Accessories		
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
COM-Express-carrier-board-Socket-5	400007	Connector for COM-Express carrier boards, height 5mm, packing unit 4 pieces
COM-Express-carrier-board-Socket-8	400004	Connector for COM-Express carrier boards, height 8mm, packing unit 4 pieces