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TECHNOLOGY GROUP

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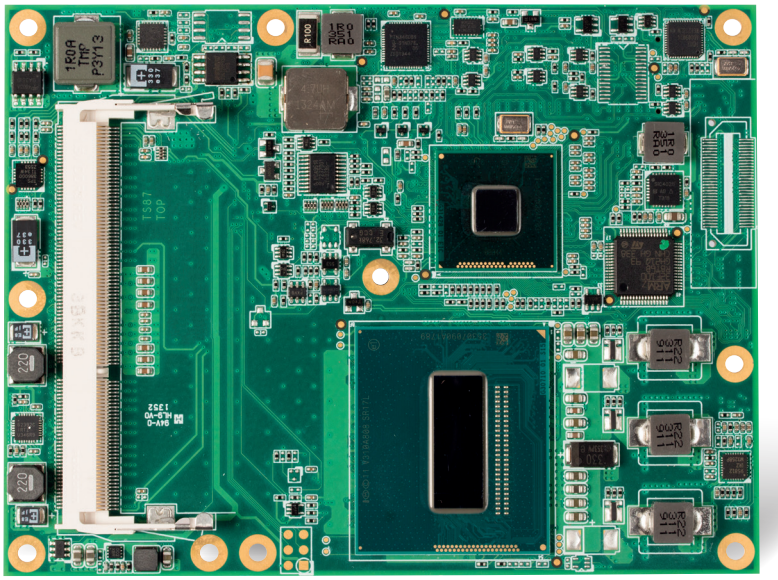
Expert team | Trust guarantee | 100% satisfaction

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Find the *Congatec Conga-TS87/i7-4700EQ* at our website: *Click HERE*

HIGH END PERFORMANCE

conga-TS87

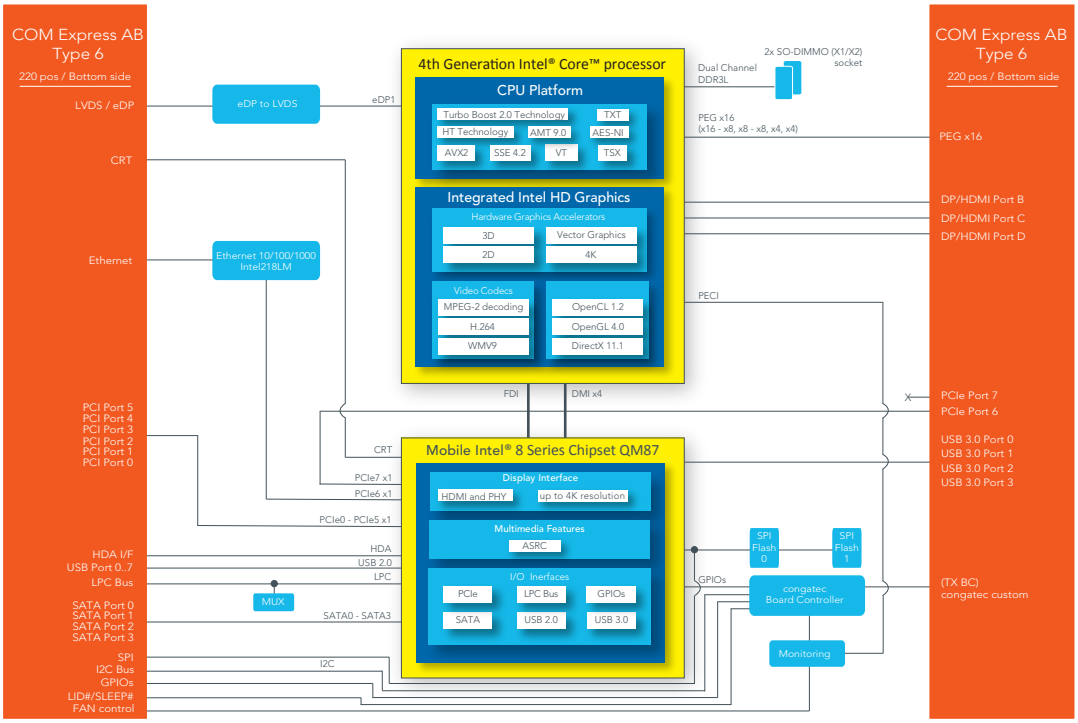


- 4th Gen. Intel® Core™ i7 quad core processor
- 3x DisplayPort 1.2, up to 4k resolution
- COM Express Basic Type 6 module
- Intel® AES-NI for hardware accelerated encryption and decryption

COM Express®

Formfactor	Formfactor COM Express™ Basic | (95 x 125 mm) | Type 6 Connector Layout
CPU	Intel® Core™ i7-4700EQ Quad Core 2.4 GHz Turbo Boost 3.4 GHz 6M Cache TDP 47W AVX2 | AES-NI | AMT 9.0 | TXT Intel® Core™ i5-4400E Dual Core 2.7 GHz Turbo Boost 3.3 GHz 3M Cache TDP 37W AVX2 | AES-NI | AMT 9.0 | TXT Intel® Core™ i5-4402E Dual Core 1.6 GHz Turbo Boost 2.7 GHz 3M Cache TDP 25W AVX2 | AES-NI | AMT 9.0 | TXT Intel® Core™ i3-4100E Dual Core 2.4 GHz 3M Cache TDP 37W AES-NI Intel® Core™ i3-4102E Dual Core 1.6 GHz 3M Cache TDP 25W AES-NI Intel® Celeron™ 2000E Dual Core 2.2 GHz 2MB L3 cache TDP 37W Intel® Celeron™ 2002E Dual Core 1.56 GHz 2MB L3 cache TDP 25W 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 25.6 GByte/sec. memory bandwidth | Intel® HD graphics with dynamic frequency up to 1GHz | 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 16GByte
Chipset	Mobile Intel® 8 Series Chipset: Intel® QM87 for Intel® Core™ processors / HM86 @ planned Celeron variants
Ethernet	Intel® I218-LM GbE LAN Controller with AMT 9.0 support
I/O Interfaces	7x PCI Express™ GEN. 2.0 lanes | 1x PEG GEN 3.0 (8GT/s) | 4x Serial ATA® 6 Gb/s | RAID 0/1/5/10 support | 2x ExpressCard® | 4x 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 1.2 | OpenGL 4.0 and DirectX11.1 support; up to three independent displays: HDMI 1.4, DVI, DP, VGA; 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 mappings | resolutions up to 1920x1200 | Automatic Panel Detection via EDID/EPI
Digital Display Interface	3x DS (DVI | HDMI) / DisplayPort 1.2a with daisy chaining | resolutions up to 4k
CRT Interface	180 MHz RAMDAC | resolutions up to WUXGA (1920x1200 @60Hz)
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 MByte serial SPI firmware flash
Security	The conga-TS87 can be optionally equipped with a discrete "Trusted Platform Module" (TPM). 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	Typ. application: tbd. | see manual for full details | CMOS Battery Backup
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 125 mm (3.74" x 4.92")

conga-TS87 | Block diagram



conga-TS87 | Order Information

Article	PN	Description
conga-TS87/i7-4700EQ	046804	Intel® Core™ i7-4700EQ quad core processor with 2.4GHz | 6MB L2 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/i5-4402E	046805	Intel® Core™ i5-4402E dual core processor with 1.6GHz | 3MB L2 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/i5-4400E	046806	Intel® Core™ i5-4400E dual core processor with 2.7GHz | 3MB L2 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/i3-4102E	046807	Intel® Core™ i3-4102E dual core processor with 1.6GHz | 3MB L2 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/i3-4100E	046808	Intel® Core™ i3-4100E dual core processor with 2.4GHz | 3MB L2 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/2000E	046810	Intel® Celeron™ 2000E dual core processor with 2.2GHz | 2MB L3 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/2002E	046811	Intel® Celeron™ 2002E dual core processor with 1.56GHz | 2MB L3 cache and 1600MT/s dual channel DDR3L memory interface
conga-TS87/HSP-FP-B	046851	Standard heatspreader for high performance COM Express module conga-TS87 with flat heat pipes. All standoffs are with 2.7mm bore hole
conga- TS87/HSP-FP-T	046852	Standard heatspreader for high performance COM Express module conga-TS87 with flat heat pipes. All standoffs are M2.5mm threaded
conga-TS87/CSA-FP-B	046853	Standard active cooling solution for high performance COM Express module conga-TS87 with flat heat pipes | 15mm fins | 20mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole
conga-TS87/CSA-FP-T	046854	Standard active cooling solution for high performance COM Express module conga-TS87 with flat heat pipes | 15mm fins | 20mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm threaded
conga-TS87/CSP-FP-B	046855	Standard passive cooling solution for high performance COM Express module conga-TS87 with flat heat pipes | 15mm fins and 20mm overall heat sink height. All standoffs are with 2.7 mm bore hole
conga-TS87/CSP-FP-T	046856	Standard passive cooling solution for high performance COM Express module conga-TS87 with flat heat pipes | 15mm fins and 20mm overall heat sink height. All standoffs are M2.5mm 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

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