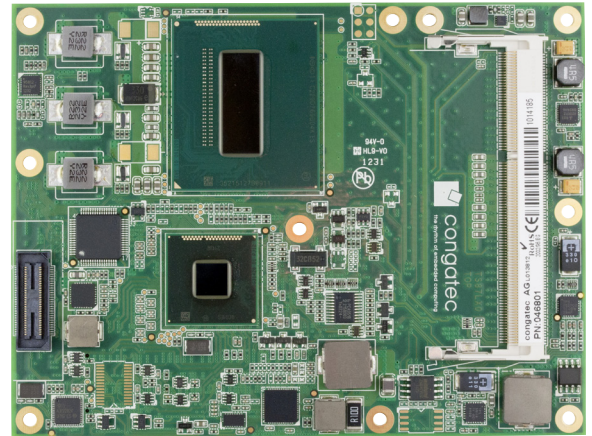


COM Express®

conga-TS87

- 4th Generation Intel® Core™ processor-based platform
- 3x DisplayPort 1.2, up to 4k resolution (QFHD=3840x2160@60Hz)
- Intel® Advanced Vector Extension (Intel® AVX) 2.0 for improved floating point computing
- Up to 13% higher computing performance*
- Up to 32% higher 3D graphics performance*

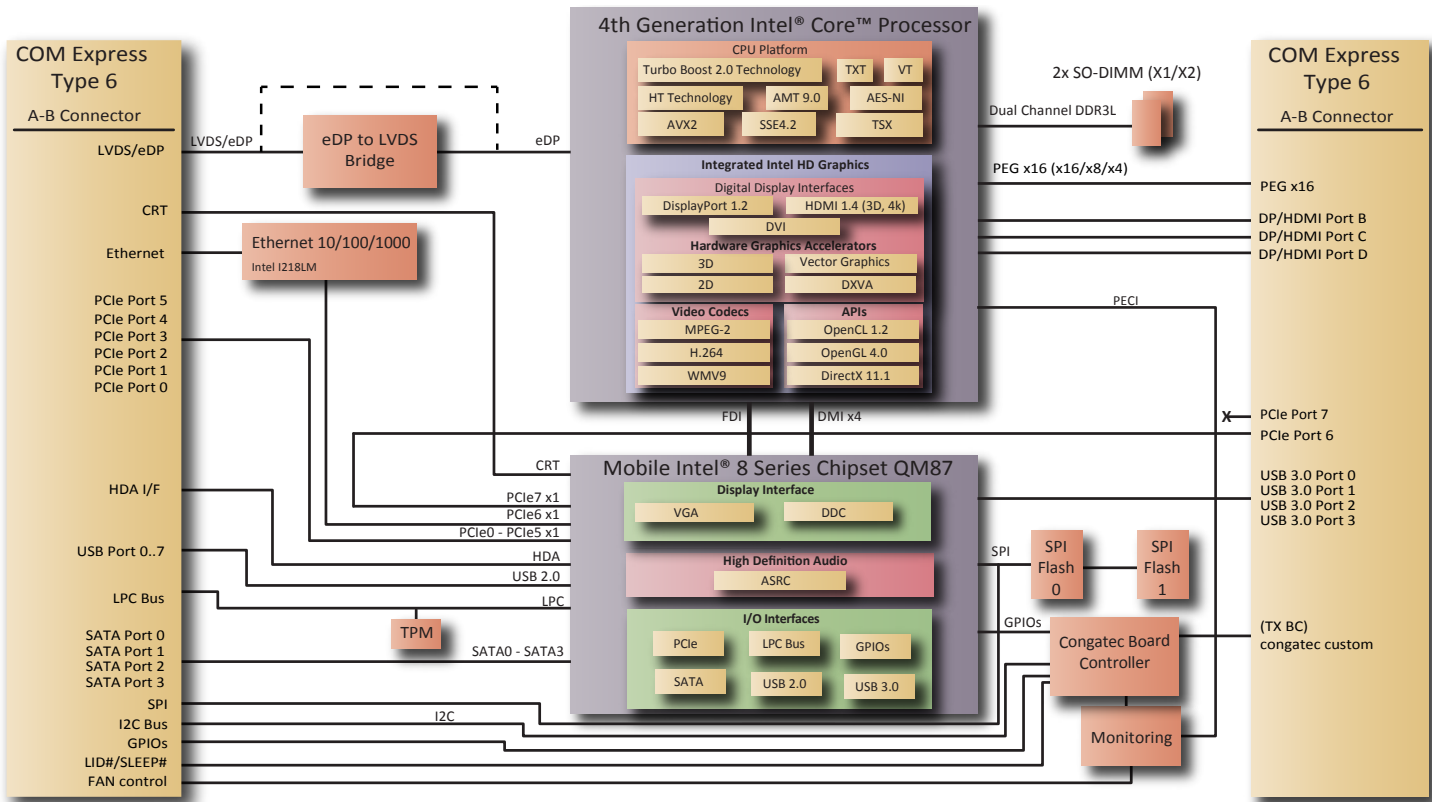
* SPECint_base2006, 3DMARK Vantage



Formfactor	Formfactor COM Express™ Basic, (95 x 125 mm), Type 6 Connector Layout
CPU	<p>Intel® Core™ i7-4700EQ processor (4x 2.4 GHz, TDP 47W) Intel® Core™ i5 processor planned Intel® Core™ i3 processor planned Intel® Celeron® processor planned</p> <p>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)</p>
DRAM	2 Sockets, SO-DIMM DDR3L@1.35V up to 1600MT/s and 16GByte
Chipset	Mobile Intel® 8 Series Chipset: Intel® QM87 / HM86 chipset @ planned Intel® Celeron® processor variants
Ethernet	Intel® Ethernet Connection I217-LM GbE LAN Controller with Intel® Active Management Technology (Intel® AMT) 9.0 support
I/O Interfaces	7x PCI Express™ GEN. 2.0 lanes, 1x PEG GEN 3.0 (8GT/s), 4x Serial ATA® with 6 Gb/s, 4x Serial ATA® with 3 Gb/s (AHCI) 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	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 (DDI)	3x DisplayPort 1.2a / TMDS (DVI, HDMI)
CRT Interface	350 MHz RAMDAC, resolutions up to QXGA (2048x1536 @75Hz)
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 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:	Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.
Size	95 x 125 mm (3.74" x 4.92")



congatec
the rhythm of embedded computing



Article	PN	Description
conga-TS87/i7-4700EQ	046804	COM Express Type 6 Basic module with quad-core Intel® Core™ i7-4700EQ processor with 2.4GHz, 6MB L2 cache and 1600MT/s dual channel DDR3 memory interface
DDR3-SODIMM-1600 (2GB)	068767	DDR3 SODIMM memory module with 1600 MT/s (PC3-12800) and 2GB RAM
DDR3-SODIMM-1600 (4GB)	068770	DDR3 SODIMM memory module with 1600 MT/s (PC3-12800) and 4GB RAM
DDR3-SODIMM-1600 (8GB)	068780	DDR3 SODIMM memory module with 1600 MT/s (PC3-12800) and 8GB RAM

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

Contact Information



congatec Inc.
6262 Ferris Square
San Diego,
CA 92121 USA
+1 858-457-2600 Phone
+1 858-457-2602 Fax
www.congatec.us