

Specification

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Version: February 2015

conga-TS77



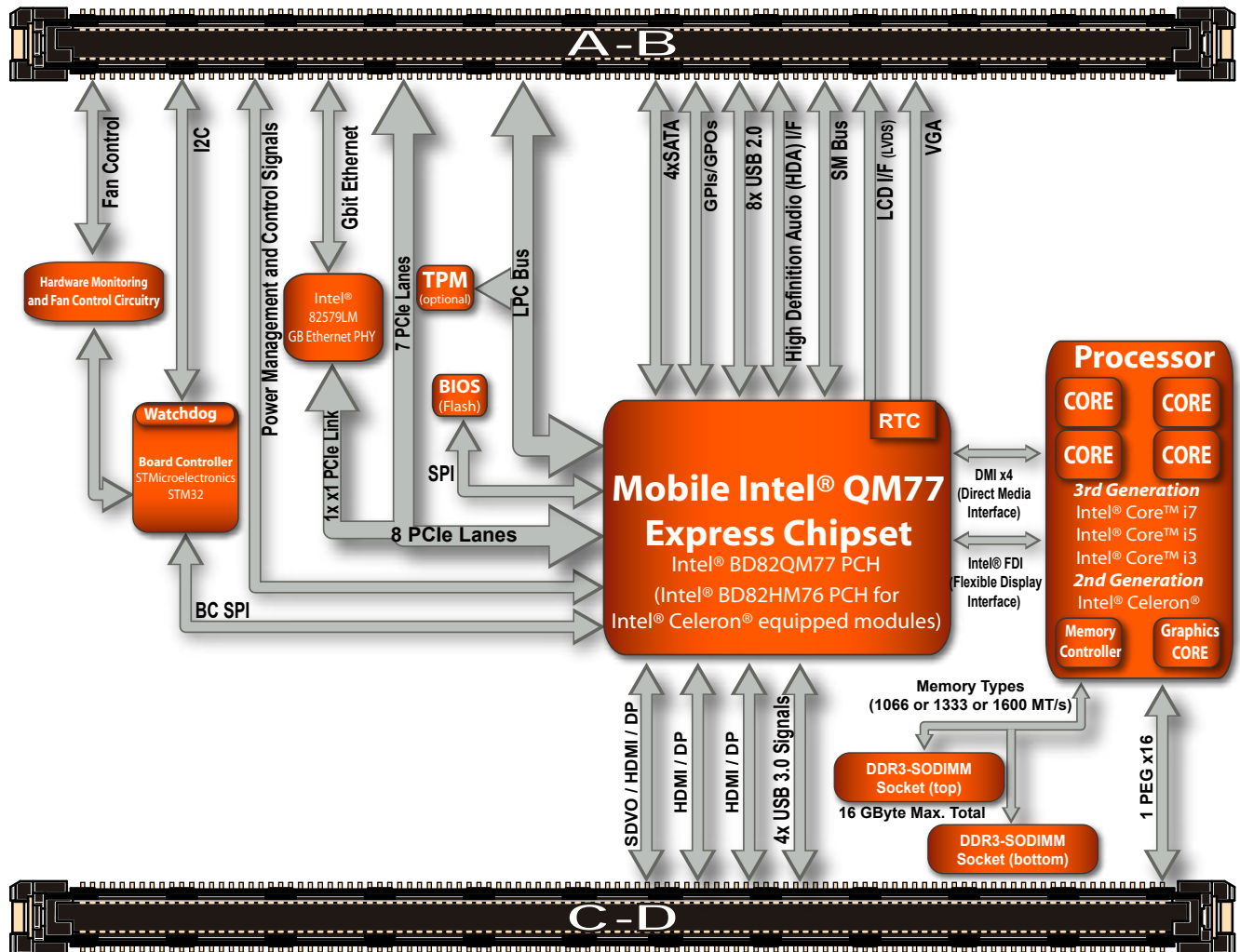
- Highest Performance COM Express Type 6
- 3rd Generation Intel® Core™ processor-based platform
- Better transcode HD-HD, HD Video Conferencing
- Improved Graphics Performance, DirectX®11

COM  **Express®**

Formfactor	COM Express™ Basic (95 x 125 mm) Type 6 Connector Layout			
CPU	Intel® Core™ i7-3615QE	4x 2.3 GHz	6 MB Cache	TDP 45 W
	Intel® Core™ i7-3612QE	4x 2.1 GHz	6 MB Cache	TDP 35 W
	Intel® Core™ i7-3555LE	2x 2.5 GHz	4 MB Cache	TDP 25 W
	Intel® Core™ i7-3517UE	2x 1.7 GHz	4 MB Cache	TDP 17 W
	Intel® Core™ i5-3610ME	2x 2.7 GHz	3 MB Cache	TDP 35 W
	Intel® Core™ i3-3120ME	2x 2.4 GHz	3 MB Cache	TDP 35 W
	Intel® Core™ i3-3217UE	2x 1.6 GHz	3 MB Cache	TDP 17 W
	Intel® Celeron® 847E	2x 1.1 GHz	2 MB Cache	TDP 17 W
	Intel® Celeron® 827E	1x 1.4 GHz	1.5 MB Cache	TDP 17 W
	Intel® Celeron® 1020E	2x 2.2 GHz	2 MB Cache	TDP 35 W
	Intel® Celeron® 1047UE	2x 1.4 GHz	2 MB Cache	TDP 17 W
	Intel® Celeron® 927UE	1x 1.5 GHz	1 MB Cache	TDP 17 W
	Intel® Turbo Boost Technology 2.0 Intel® Hyper-Threading Technology Integrated dual channel memory controller up to 25.6 GByte/sec. memory bandwidth Integrated Intel® HD Graphics 4000 with dynamic frequency up to 1.0GHz Intel® Clear Video HD Technology			
DRAM	2 Sockets SO-DIMM DDR3 up to 1600MT/s and 16 GByte			
Chipset	Mobile Intel® 7 Series Chipset: Intel® BD82QM77 PCH (Intel® BD82HM76 PCH for Intel® Celeron® equipped modules)			
Ethernet	Intel® 82579 GbE LAN Controller with AMT 8.0 support			
I/O Interfaces	7x PCI Express™ GEN. 2.0 lanes 1x PEG GEN 3.0 (8GT/s) 2x Serial ATA® with 6 Gb/s 2x Serial ATA® with 3 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	Intel® Flexible Display Interface (FDI) OpenCL 1.1 OpenGL 3.1 and DirectX11 support Three simultaneous independent displays High performance hardware MPEG-2 decoding WMV9 (VC-1) and H.264 (AVC) support Blu-ray support @ 40 MBit/s hardware motion compensation			
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	1x SDVO / DisplayPort 1.1 / TMDS (DVI / HDMI) 2x DisplayPort 1.1 / TMDS (DVI / HDMI)			
CRT Interface	340.4 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-TS77 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: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.			
Size	95 x 125 mm (3.74" x 4.92")			



conga-TS77 | Block diagram



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conga-TS77 | Order Information

Article	PN	Description
conga-TS77/i7-3615QE	046506	Intel® Core™ i7-3615QE quad core processor with 2.3GHz 6MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-TS77/i7-3612QE	046501	Intel® Core™ i7-3612QE quad core processor with 2.1GHz 6MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-TS77/i7-3555LE	046502	Intel® Core™ i7-3555LE dual core processor with 2.5GHz 4MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-TS77/i7-3517UE	046503	Intel® Core™ i7-3517UE dual core processor with 1.7GHz 4MB L3 cache and 1600MT/s dual channel DDR3 memory interface (17W)
conga-TS77/i5-3610ME	046504	Intel® Core™ i5-3610ME dual core processor with 2.7GHz 3MB L3 cache and 1600MT/s dual channel DDR3 memory interface (35W)
conga-TS77/i3-3120ME	046507	Intel® Core™ i3-3120ME dual core processor with 2.4GHz 3MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-TS77/i3-3217UE	046505	Intel® Core™ i3-3217UE dual core processor with 1.6GHz 3MB L3 cache and 1600MT/s dual channel DDR3 memory interface (17W)
conga-TS77/827E	046508	Intel® Celeron™ 827E single core processor with 1.4GHz 1.5MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-TS77/847E	046509	Intel® Celeron™ 847E dual core processor with 1.1GHz 2MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-TS77/1047UE	046510	Intel® Celeron™ 1047UE dual core processor with 1.4GHz 2MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-TS77/1020E	046511	Intel® Celeron™ 1020E dual core processor with 2.2GHz 2MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-TS77/927UE	046512	Intel® Celeron™ 927UE single core processor with 1.5GHz 1MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-TS67/HSP-HP-B	046450	Standard heatspreader for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes. All standoffs are with 2.7mm bore hole
conga-TS67/HSP-HP-T	046451	Standard heatspreader for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes. All standoffs are M2.5mm thread
conga-TS67/CSP-HP-B	046452	Standard passive cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes 15mm silver fins and 20mm overall heat sink height. All standoffs are with 2.7mm bore hole
conga-TS67/CSP-HP-T	046453	Standard passive cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes 15mm silver fins and 20mm overall heat sink height. All standoffs are M2.5mm thread
conga-TS67/CSA-HP-B	046454	Standard active cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes 15mm silver fins 20mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole
conga-TS67/CSA-HP-T	046455	Standard active cooling solution for high performance COM Express modules conga-TS67 and TS77 with integrated heat pipes 15mm silver fins 20mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread
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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