

# COM Express® Basic Type 6 Module

## conga-TS67

### COM Express Type 6

Based on 2nd Generation Intel® Core™ low-power processors

Soldered CPUs for higher shock resistance

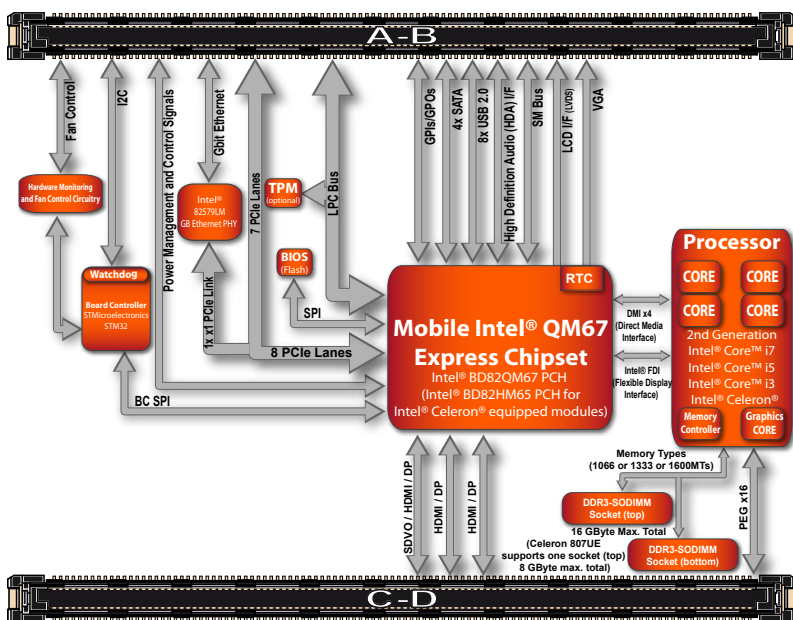
High end graphics performance

Intel® Turbo Boost Technology 2.0



Formfactor	Formfactor COM Express™ Basic, (95 x 125 mm), Type 6 Connector Layout
CPU	Intel® Celeron™ 807UE (1x 1.0GHz, 1MB L3 cache, 1333MT/s), TDP 10W Intel® Celeron™ 827E (1x 1.4GHz, 1.5MB L3 cache, 1333MT/s), TDP 17W Intel® Celeron™ 847E (2x 1.1GHz, 2MB L2 cache, 1333MT/s), TDP 17W Intel® Celeron™ B810E (2x 1.6GHz, 2MB L3 cache, 1333MT/s), TDP 35W Intel® Core™ i3-2340UE (2x 1.3GHz, 3MB L2 cache, 1333MT/s), TDP 17W Intel® Core™ i7-2610UE (2x 1.5GHz, 3MB L2 cache, 1333MT/s), TDP 17W Intel® Core™ i7-2655LE (2x 2.2GHz, 4MB L2 cache, 1333MT/s), TDP 25W  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 3000 with dynamic frequency up to 1.2GHz, Intel® Clear Video HD Technology
DRAM	2 Sockets, SO-DIMM DDR3 up to 1600MT/s and 16 GByte
Chipset	Mobile Intel® 6 Series Chipset: Intel® QM67 / Intel® HM65 (Intel® Celeron™ version)
Ethernet	Intel® 82579 GbE LAN Controller with AMT 7.0 support
I/O Interfaces	7x PCI Express™ GEN. 2.0 lanes, 1x PEG, 2x Serial ATA® with 6 Gb/s, 2x Serial ATA® with 3 Gb/s (AHCI) RAID 0/1/5/10 support (QM67 only), 2x ExpressCard®, 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), OpenGL 3.0 and DirectX10.1 support, Two independent pipelines for full dual view support optional 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 (DDI)	1x SDVO / DisplayPort 1.1 / TMDS (DVI, HDMI) 2x DisplayPort 1.1 / TMDS (DVI, HDMI)
CRT Interface	350 MHz RAMDAC, resolutions up to QXGA (2048x1536)
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, High Accessible Program (HAP)
Security	The conga-TS67 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® Windows7, Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Embedded POS Ready (WEPOS), Linux 3.0
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")

## Block Diagram conga-TS67



## Order Information conga-TS67

Article	PN	Description
conga-TS67/i7-2655LE	046401	COM Express Type 6 Basic modul with Intel® Core™ i7-2655LE dual core processor with 2.2GHz, 4MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-TS67/i7-2610UE	046402	COM Express Type 6 Basic modul with Intel® Core™ i7-2610UE dual core processor with 1.5GHz, 3MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-TS67/i3-2340UE	046403	COM Express Type 6 Basic modul with Intel® Core™ i3-2340UE dual core processor with 1.3GHz, 3MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-TS67/847E	046404	COM Express Type 6 Basic module with Intel® Celeron™ 847E dual core processor with 1.1GHz, 2MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-TS67/827E	046405	COM Express Type 6 Basic module with Intel® Celeron™ 827E single core processor with 1.4GHz, 1.5MB L3 cache and 1333MT/s dual channel DDR3 memory interface.
conga-TS67/B810E	046407	COM Express Type 6 Basic module with Intel® Celeron™ 810E dual core processor with 1.6GHz, 2MB L3 cache and 1333MT/s dual channel DDR3 memory interface.
conga-TS67/807UE	046406	COM Express Type 6 Basic module with Intel® Celeron™ 807UE single core processor with 1.0GHz, 1MB L3 cache, 1333MT/s single channel DDR3 memory interface and no PEG Port.
conga-TS67/CSA-HP-B	046454	Standard active cooling solution with integrated heat pipes, 15mm silver fins and 20mm overall heat sink height and integrated 12V fan. All stand-offs are with 2.7mm bore hole.
conga-TS67/CSA-HP-T	046455	Standard active cooling solution with integrated heat pipes, 15mm silver fins and 20mm overall heat sink height and integrated 12V fan. All stand-offs are with 2.7mm threaded.
conga-TS67/CSP-HP-B	046452	Standard passive cooling solution with integrated heat pipes, 15mm silver fins and 20mm overall heat sink height. All stand-offs are with 2.7mm bore hole.
conga-TS67/CSP-HP-T	046453	Standard passive cooling solution with integrated heat pipes, 15mm silver fins and 20mm overall heat sink height. All stand-offs are with 2.7mm threaded.
conga-TS67/HSP-HP-B	046450	Standard heatspreader with integrated heat pipes. All stand-offs are with 2.7mm bore hole.
conga-TS67/HSP-HP-T	046451	Standard heatspreader with integrated heat pipes. All stand-offs are with 2.7mm threaded.
DDR3-SODIMM-1333 (1GB)	068751	DDR3 SODIMM memory module with 1333 MT/s (PC3-10600) and 1GB RAM

### Engineering Tools / Accessories for COM Express\*

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