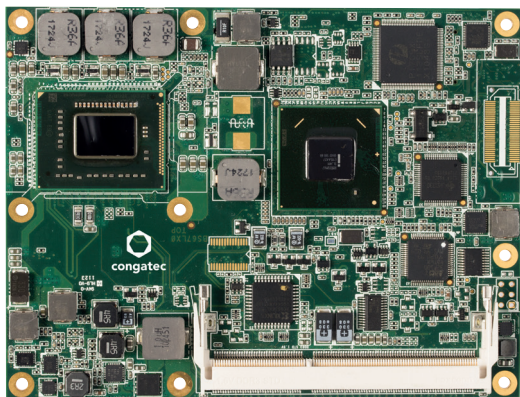


# HIGHEST PERFORMANCE

## conga-BS77

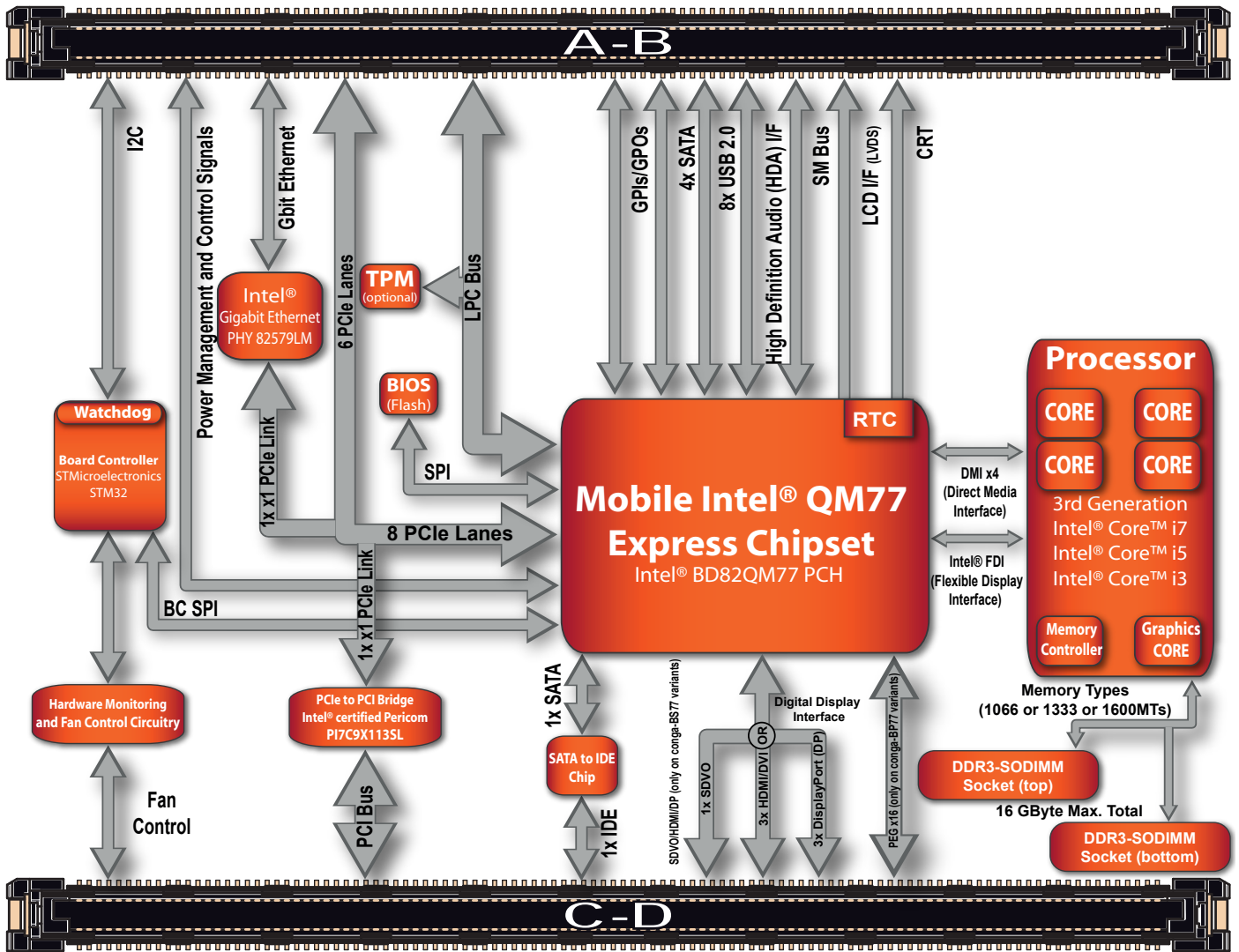


- Highest Performance COM Express Type 2
- 3rd Generation Intel® Core™ processor-based platform
- Better transcode HD-HD, HD Video Conferencing
- Improved Graphics Performance, DirectX®11

**COM**  **Express**®

Formfactor	COM Express™ Basic   (95 x 125 mm)   Type II Connector Layout			
CPU	Intel® Core™ i7-3615QE	4x 2.3 GHz	6MB L2 cache	TDP 45W
	Intel® Core™ i7-3612QE	4x 2.1 GHz	6MB L2 cache	TDP 35W
	Intel® Core™ i7-3555LE	2x 2.5 GHz	4MB L2 cache	TDP 25W
	Intel® Core™ i7-3517UE	2x 1.7 GHz	4MB L2 cache	TDP 17W
	Intel® Core™ i5-3610ME	2x 2.7 GHz	3MB L2 cache	TDP 35W
	Intel® Core™ i3-3120ME	2x 2.4 GHz	3MB L2 Cache	TDP 35W
	Intel® Core™ i3-3217UE	2x 1.6 GHz	3MB L2 Cache	TDP 17W
	Intel® Celeron® 1020E	2x 2.2 GHz	2 MB Cache	TDP 35W
	Intel® Celeron® 1047UE	2x 1.4 GHz	2 MB Cache	TDP 17W
	Intel® Celeron® 927UE	1x 1.5 GHz	1 MB Cache	TDP 17W
	Integrated dual channel memory controller   up to 25,6 GByte/sec. memory bandwidth   Integrated Intel® HD Graphics with dynamic frequency up to 1100 MHz   Intel® Clear Video HD Technology			
DRAM	2 Sockets   SO-DIMM DDR3 1600 MHz   up to 16 GByte			
Chipset	Mobile Intel® 7 Series Chipset: Intel® QM77/ HM76			
Ethernet	Intel® 82579 GbE LAN Controller with AMT 8.0 support (optional)			
I/O Interfaces	6x PCI Express™ GEN 2.0 lanes   4x Serial ATA® (AHCI) with RAID support   1x EIDE (UDMA-66/100) optional   8x USB 2.0 (EHCI)   PCI Bus 33 MHz Rev. 2.3   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 3.1 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			
DisplayPort	3x DisplayPorts 1.1   max. resolution 2560x1600			
HDMI or DVI	3x ports shared with Display Port			
CRT Interface	340.4 MHz RAMDAC   resolutions up to QXGA (2048x1536)			
SDVO	1 x Intel compliant SDVO ports with 200MPixel/sec. Supports external DVI			
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-BS77 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 3.0 with battery support			
Operating Systems	Microsoft® Windows 8   Microsoft® Windows 7   Microsoft® Windows® embedded Standard   Microsoft® Windows XP   Linux			
Power Consumption	Typ. application: Processor TDP: 17 .. 25 W   see manual for full details			
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-BS77 | Block diagram



# conga-BS77 | Order Information

Article	PN	Description
conga-BS77/i7-3612QE	046601	Intel® Core™ i7-3612QE quad core processor with 2.1GHz   6MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/i7-3555LE	046602	Intel® Core™ i7-3555LE dual core processor with 2.5GHz   4MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/i7-3517UE	046603	Intel® Core™ i7-3517UE dual core processor with 1.7GHz   4MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/i5-3610ME	046604	Intel® Core™ i5-3610ME dual core processor with 2.7GHz   3MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/i3-3217UE	046605	Intel® Core™ i3-3217UE dual core processor with 1.6GHz   3MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/i7-3615QE	046606	Intel® Core™ i7-3615QE quad core processor with 2.3GHz   6MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/i3-3120ME	046607	Intel® Core™ i3-3120ME dual core processor with 2.4GHz   3MB L3 cache and 1600MT/s dual channel DDR3 memory interface
conga-BS77/1047UE	046608	Intel® Celeron™ 1047UE dual core processor with 1.4GHz   2MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-BS77/927UE	046609	Intel® Celeron™ 927UE single core processor with 1.5GHz   1MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-BS77/1020E	046610	Intel® Celeron™ 1020E dual core processor with 2.2GHz   2MB L3 cache and 1333MT/s dual channel DDR3 memory interface
conga-BS67/HSP-HP-B	046170	Standard heatspreader for high performance COM Express modules conga-BS67   BS77 and BP77 with integrated heat pipes. All standoffs are with 2.7mm bore hole
conga-BS67/HSP-HP-T	046171	Standard heatspreader for high performance COM Express modules conga-BS67   BS77 and BP77 with integrated heat pipes. All standoffs are M2.5mm thread
conga-BS67/CSP-HP-B	046172	Standard passive cooling solution for high performance COM Express modules conga-BS67   BS77 and BP77 with integrated heat pipes   15mm silver fins and 20mm overall heat sink height. All standoffs are with 2.7mm bore hole
conga-BS67/CSP-HP-T	046173	Standard passive cooling solution for high performance COM Express modules conga-BS67   BS77 and BP77 with integrated heat pipes   15mm silver fins and 20mm overall heat sink height. All standoffs are M2.5mm thread
conga-BS67/CSA-HP-B	046174	Standard active cooling solution for high performance COM Express modules conga-BS67   BS77 and BP77 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-BS67/CSA-HP-T	046175	Standard active cooling solution for high performance COM Express module conga-BS67   BS77 and BP77 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-CEVAL	065749	Evaluation Carrier Board for COM Express Type 2 modules
conga-Cdebug	047854	COM-Express debugging platform. Including cable for COM   PS/2 and VGA
conga-CKIT	064714	COM-Express-Starterkit   incl. conga-CEVAL   conga-CDEBUG   conga-FPA1 (PN: 024241)   Dual DVI-D ADD2 card   Power supply USB-Stick   Without COM Express-module
conga-LDVI/EPI	011115	LVDS to DVI converter board for digital flat panels with onboard EEPROM
conga-HDMI/Display Port adapter 4k	500030	The conga-DP/HDMI adapter 4k is used for evaluation of the DP/HDMI graphics interface of x86 Qseven and COM Express modules in combination with the congatec evaluation carrier boards conga-QEVAL and conga-TEVAL. It supports full 4k display resolution.
Dual DVI-D ADD2 Card	013226	ADD2 display adapter card with dual independent DVI-D output. Suitable for all Intel based platforms that support Serial Digital Display Outputs (SDVO) on the standard   x16 PCI Express Graphics (PEG) port
conga-FPA2	047250	Flatpanel prototype adapter to develop your own flatpanel adapter including cables set