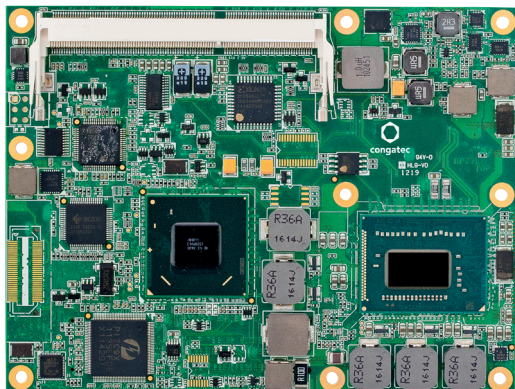


HIGHEST PERFORMANCE

conga-BP77

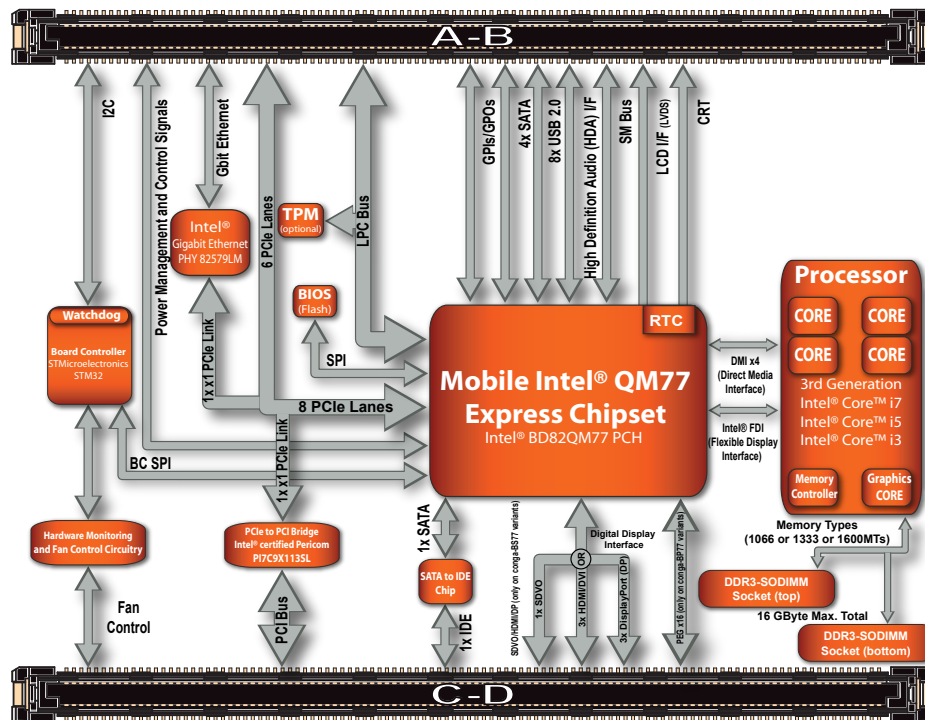


- Highest Performance COM Express Type 2
- 3rd Generation Intel® Core™ processor-based platform
- Better transcode HD-HD, HD Video Conferencing
- Improved Graphics Performance, DirectX®11

COM  **Express®**

Formfactor	Formfactor COM Express™ Basic (95 x 125 mm) Type II Connector Layout		
CPU	Intel® Core™ i7-3612QE	4x 2.1 GHz 6MB cache	TDP 35W
	Intel® Core™ i7-3555LE	2x 2.5 GHz 4MB 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 cache	TDP 35W
	Intel® Core™ i3-3120ME	2x 2.4 GHz 3MB L2 Cache	TDP 35W
	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 MT/s up to 16 GByte		
Chipset	Mobile Intel® 7 Series Chipset: Intel® QM77		
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 (eDP optional)	Dual channel LVDS transmitter Supports flat panels 2x24 Bit interface VESA mappings resolutions up to 1920x1200 Automatic Panel Detection via EDID/EPI		
PEG	PCI Express Graphic Generation 3.0 (8GT/s)		
CRT Interface	350 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-BP77 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-BP77 | Block diagram



conga-BP77 | Order Information

Article	PN	Description
conga-BP77/i7-3612QE	046700	Intel® Core™ i7-3612QE quad core processor with 2.1GHz 6MB L3 cache and 1600MT/s dual channel DDR3 memory interface. Features PCI Express Graphics port
conga-BP77/i5-3610ME	046701	Intel® Core™ i5-3610ME dual core processor with 2.7GHz 3MB L3 cache and 1600MT/s dual channel DDR3 memory interface. Features PCI Express Graphics port
conga-BP77/i7-3555LE	046702	Intel® Core™ i7-3555LE dual core processor with 2.5GHz 4MB L3 cache and 1600MT/s dual channel DDR3 memory interface. Features PCI Express Graphics port
conga-BP77/i3-3120ME	046703	Intel® Core™ i3-3120ME dual core processor with 2.4GHz 3MB L3 cache and 1600MT/s dual channel DDR3 memory interface. Features PCI Express Graphics port
conga-BP77/i7-3517UE	046704	Intel® Core™ i7-3517UE dual core processor with 1.7GHz 4MB L3 cache and 1600MT/s dual channel DDR3 memory interface. Features PCI Express Graphics port
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-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.
conga-FPA2	047250	Flatpanel prototype adapter to develop your own flatpanel adapter Including cables set.

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