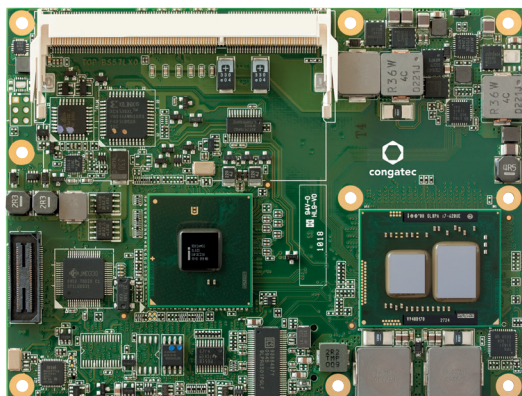


# MAXIMUM COMPUTING PERFORMANCE

## conga-BS57

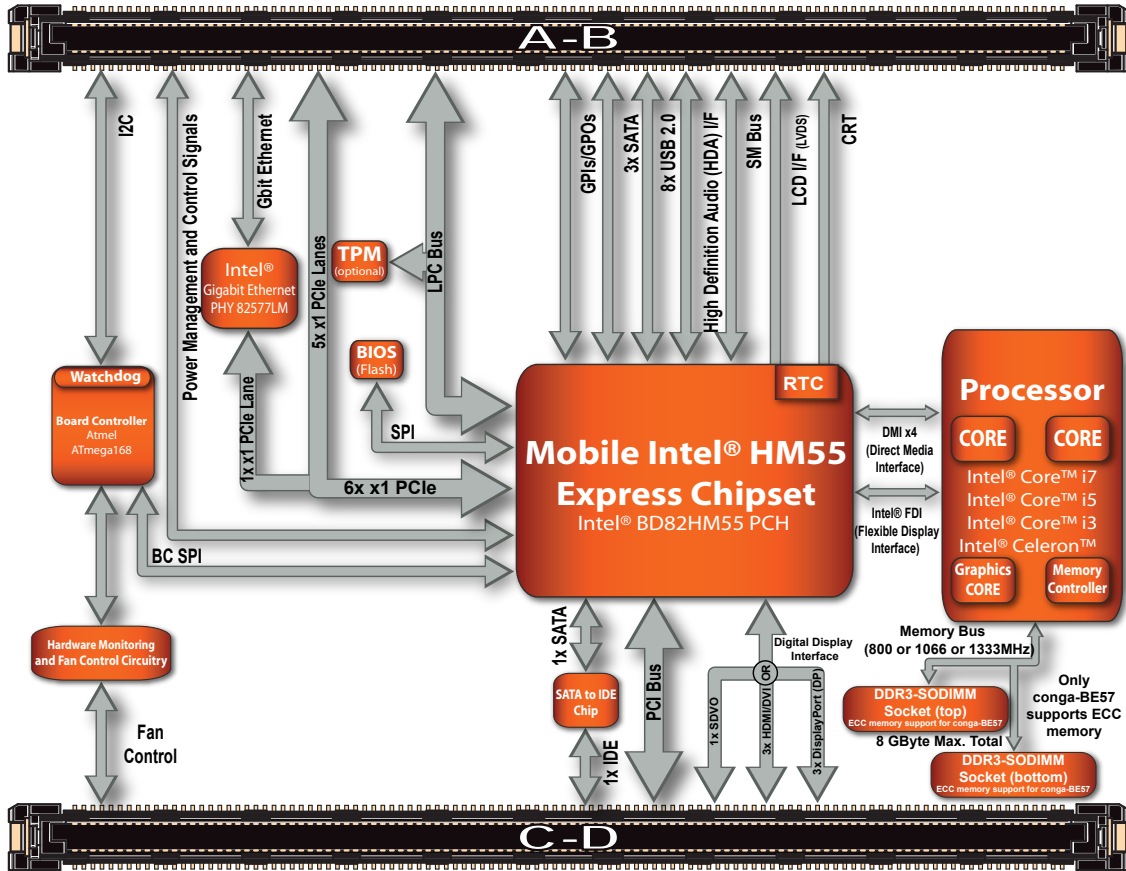


- Power-Efficient Processors
- up to Intel® Core™ i7 Processor 2.0 GHZ
- Intel® Clear Video HD Technology

**COM**  **Express®**

Formfactor	COM Express™ Basic   (95 x 125 mm)   Type II Connector Layout						
CPU	Intel® Core™ i7-620LE	2.0 GHz	32 nm process	4MB cache	1066 MHz	TDP 25 W	BGA package
	Intel® Core™ i7-620UE	1.06 GHz	32 nm process	4MB cache	800 MHz	TDP 18 W	BGA package
	Intel Core™ i3-330E	2.13 GHz	32 nm process	3MB cache	1066 MHz	TDP 35 W	BGA package
	Intel® Celeron® U3405	1.07 GHz	32 nm process	2MB cache	1066 MHz	TDP 18 W	BGA package
	Integrated dual channel memory controller   up to 17.1 GByte/sec. memory bandwidth Integrated Intel® HD Graphics with dynamic frequency up to 667 MHz   Intel® Clear Video HD Technology						
DRAM	2 Sockets   SO-DIMM DDR3 1333 MHz   up to 8 GByte						
Chipset	Intel® 5 Series Chipset: Intel® HM55						
Ethernet	Intel® 82577LM Ethernet PHY						
I/O Interfaces	5x PCI Express™ lanes   3x Serial ATA® (AHCI) no RAID support   1x EIDE (UDMA-66/100) optional   2x ExpressCard®   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	Processor integrated Mobile Intel® 5 Series HD graphics   OpenGL 2.1 and DirectX10 support   Two independent pipelines for full dual view support   High performance hardware MPEG-2 decoding   WMV9 (VC-1) and H.264 (AVC) support Blu-ray support @ 40 MBit/s   hardware motion compensation   no PEG support						
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						
DisplayPort	3x DisplayPorts 1.1 shared with HDMI						
HDMI	3x ports shared with DisplayPorts						
CRT Interface	350 MHz RAMDAC   resolutions up to QXGA (2048x1536)						
AUX Output	Supports one SDVO port shared with HDMI and DisplayPort capable of driving a 200MP pixel rate						
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   4 MByte serial SPI firmware flash						
Security	The conga-BS57 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 XP   Microsoft® Windows® embedded Standard   Linux						
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-BS57 | Block diagram



# conga-BS57 | Order Information

Article	PN	Description
conga-BS57/i7-620LE	040100	Intel® Core™ i7-620LE processor 2.0GHz   4MB L2 cache   1066MT/s dual channel DDR3 SODIMM memory interface for up to 8GB.
conga-BS57/i7-620UE	040105	Intel® Core™ i7-620UE processor 1.06GHz   4MB L2 cache   800MT/s dual channel DDR3 SODIMM memory interface for up to 8GB.
conga-BS57/i3-330E	040106	Intel® Core™ i3-330E processor 2.13GHz   3MB L2 cache   1066MT/s dual channel DDR3 SODIMM memory interface for up to 8GB.
conga-BS57/U3405	040107	Intel® Celeron® U3405 processor 1.06 GHz (BGA)   2MB L2 cache   dual channel DDR3 SODIMM memory interface for up to 8GB.
conga-BS57/HSP-HP-B	040120	Standard heatspreader for the high performance COM Express module conga-BS57 with integrated heat pipes. All standoffs are with 2.7mm bore hole
conga-BS57/HSP-HP-T	040121	Standard heatspreader for the high performance COM Express module conga-BS57 with integrated heat pipes. All standoffs are M2.5mm thread
conga-BS57/CSP-HP-B	046026	Standard passive cooling solution for the high performance COM Express module conga-BS57 with integrated heat pipes   15mm silver fins and 20mm overall heat sink height. All standoffs are with 2.7mm bore hole
conga-BS57/CSP-HP-T	046027	Standard passive cooling solution for the high performance COM Express module conga-BS57 with integrated heat pipes   15mm silver fins and 20mm overall heat sink height. All standoffs are M2.5mm thread
conga-BS57/CSA-HP-B	046028	Standard active cooling solution for the high performance COM Express module conga-BS57 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-BS57/CSA-HP-T	046029	Standard active cooling solution for the high performance COM Express module conga-BS57 with integrated heat pipes   15mm silver fins   20mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread
DDR3-SODIMM-1066 (1GB)	068750	DDR3 SODIMM memory module with 1066MT/s and 1GB RAM
DDR3-SODIMM-1066 (2GB)	068760	DDR3 SODIMM memory module with 1066MT/s and 2GB RAM
DDR3-SODIMM-1066 (4GB)	068765	DDR3 SODIMM memory module with 1066MT/s and 4GB 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
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