

# High Performance COM Express®

## conga-BS67

Intel® Core™ 2nd Generation CPUs

Extreme graphics performance

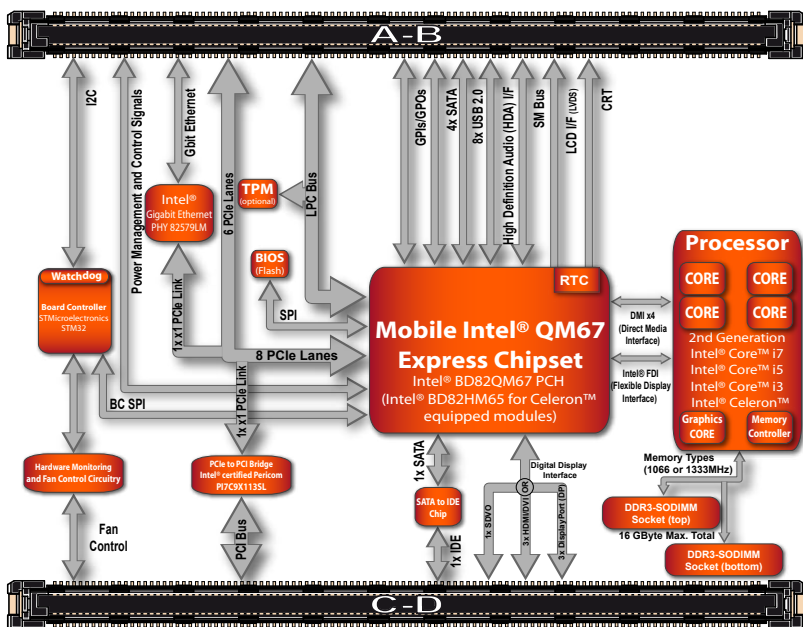
COM Express™ Type 2 module featuring DisplayPort and HDMI



<b>Formfactor</b>	<b>Formfactor COM Express™ Basic, (95 x 125 mm), Type II Connector Layout</b>
<b>CPU</b>	Intel® Core™ i7-2655LE, 2.20 GHz, (32 nm process, 4MB cache, 1333 MHz, TDP 25 W) Intel® Core™ i7-2610UE, 1.50 GHz, (32 nm process, 4MB cache, TDP 17 W) Intel® Core™ i3-2340UE, 1.30 GHz (32nm process, 3MB cache, TDP 17W) Intel® Celeron® Processor 847E, 1.1GHz (32nm process, 2 MB cache, TDP 17W) Intel® Celeron® Processor 827E, 1.4 GHz (32nm process, 1.5 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
<b>DRAM</b>	2 Sockets, SO-DIMM DDR3 1333 MHz, up to 16 GByte
<b>Chipset</b>	Mobile Intel® 6 Series Chipset, Intel® QM67/HM65 Platform Controller Hub
<b>Ethernet</b>	Gigabit Ethernet, Intel® Ethernet PHY optional
<b>I/O Interfaces</b>	6x PCI Express™ 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)
<b>Sound</b>	Digital High Definition Audio Interface with support for multiple audio codecs
<b>Graphics</b>	Processor integrated Mobile Intel® 6 Series HD graphics, OpenGL 3.0 and DirectX 10.1 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 (using HDMI 1.4 with 3D), no PEG support
<b>LVDS</b>	Dual channel LVDS transmitter, supports flat panels 2x24 Bit interface, VESA mappings, resolutions up to 1920x1200, Automatic Panel, Detection via EDID/EPI
<b>Display Port (DP)</b>	3x DisplayPorts 1.1, max. resolution 2560x1600
<b>HDMI or DVI</b>	3x ports shared with Display Port
<b>CRT Interface</b>	350 MHz RAMDAC, resolutions up to QXGA (2048x1536)
<b>SDVO</b>	1 x Intel compliant SDVO ports with 200MPixel/sec. Supports external DVI, TV and LVDS transmitter
<b>congatec Board Controller</b>	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
<b>Embedded BIOS Features</b>	AMI Aptio® UEFI 2.x firmware, 8 MByte serial SPI firmware flash
<b>Security</b>	The conga-BM67 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.
<b>Power Management</b>	ACPI 3.0 with battery support
<b>Operating Systems</b>	Microsoft® Windows 8, Microsoft® Windows 7, Microsoft® Windows® embedded Standard, Microsoft® Windows XP, Linux
<b>Power Consumption</b>	Typ. application: Processor TDP: 17 .. 25 W, see manual for full details
<b>Temperature:</b>	Operating: 0 .. +60°C Storage: -20 .. +80°C
<b>Humidity Operating:</b>	10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.
<b>Size</b>	95 x 125 mm (3.74" x 4.92")

# Block Diagram conga-BS67

# Order Information conga-BS67



Article	PN	Description
conga-BS67/i7-2655LE	046151	Intel® Core™ i7-2655LE dual core processor with 2.2GHz, 4MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-BS67/i7-2610UE	046152	Intel® Core™ i7-2610UE dual core processor with 1.5GHz, 3MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-BS67/i3-2340UE	046153	Intel® Core™ i3-2340UE dual core processor with 1.3GHz, 3MB L2 cache and 1333MT/s dual channel DDR3 memory interface.
conga-BS67/847E	046154	Intel® Celeron® 847E dual core processor with 1.1GHz, 2MB L2 cache and 1066MT/s dual channel DDR3 memory interface for up to 4GB.
conga-BS67/827E	046155	Intel® Celeron® 827E single core processor with 1.4GHz, 1.5MB L3 cache and 1066MT/s dual channel DDR3 memory interface for up to 4GB.
conga-BS67/HSP-HP-B	046170	Standard heatspreader with integrated heat pipes. All stand-offs are with 2.7mm bore hole
conga-BS67/HSP-HP-T	046171	Standard heatspreader with integrated heat pipes. All stand-offs are M2.5mm threaded
conga-BS67/CSP-HP-B	046172	Standard passive cooling solution with integrated heat pipes, 15mm fins and 20mm overall heat sink height. All stand-offs are with 2.7mm bore hole
conga-BS67/CSP-HP-T	046173	Standard passive cooling solution with integrated heat pipes, 15mm fins and 20mm overall heat sink height. All stand-offs are M2.5mm threaded
conga-BS67/CSA-HP-B	046174	Standard active cooling solution with integrated heat pipes, 15mm fins and 20mm overall heat sink height and integrated 12V fan. All stand-offs are with 2.7mm bore hole
conga-BS67/CSA-HP-T	046175	Standard active cooling solution with integrated heat pipes, 15mm fins and 20mm overall heat sink height and integrated 12V fan. All stand-offs are M2.5mm threaded
DDR3-SODIMM-1333 (1GB)	068751	DDR3 SODIMM memory module with 1333 MT/s (PC3-10600) and 1GB RAM
DDR3-SODIMM-1333 (2GB)	068761	DDR3 SODIMM memory module with 1333 MT/s (PC3-10600) and 2GB RAM
DDR3-SODIMM-1333 (4GB)	068764	DDR3 SODIMM memory module with 1333 MT/s (PC3-10600) and 4GB RAM

Engineering Tools / Accessories for COM Express®		
conga-CEVAL	065749	Evaluation carrier board for COM-Express-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	500014	The conga-HDMI/DisplayPort adapter is used to convert the chipset graphic ports Port-B, Port-C and Port-D to the HDMI or DisplayPort Interface
Single DVI-D ADD2 Card	058500	ADD2 display adapter card with single DVI-D digital output. Suitable for all Intel based platforms that support Serial Digital Display Outputs (SDVO) on the standard, x16 PCI Express Graphics (PEG) port.
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.