DRAMATICALLY INCREASED GRAPHICS PERFORMANCE
conga-BM67

- Up to Intel® Core™ i7-2710QE quad core processor
- Extreme graphics performance
- COM Express™ Type 2 module featuring DisplayPort and HDMI

Formfactor: COM Express™ Basic | (95 x 125 mm) | Type II Connector Layout

CPU
- Intel® Core™ i7-2710QE (SV) 2.1 GHz 32 nm process 6MB cache 1333 MHz TDP 45 W rPGA package
- Intel® Core™ i5-2510E (SV) 2.5 GHz 32 nm process 3MB cache 1333 MHz TDP 35 W rPGA package
- Intel® Core™ i3-2330E 2.2 GHz 32 nm process 3MB cache 1333 MHz TDP 35 W rPGA package
- Intel® Celeron® B810 1.6 GHz 32 nm process 2MB cache TDP 35 W rPGA package

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 1333 MHz | up to 16 GByte

Chipset
Mobile Intel® 6 Series Chipset | Intel® QM67 Platform Controller Hub

Ethernet
Gigabit Ethernet | Intel® Ethernet PHY with AMT support

I/O Interfaces
- 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 | PC bus (fast mode | 400 kHz | multi-master)

Sound
Digital High Definition Audio Interface with support for multiple audio codecs

Graphics
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

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 | max. resolution 2560x1600

HDMI
3x ports shared

CRT Interface
350 MHz RAMDAC | resolutions up to QXGA (2048x1536)

SDVO
1 x Intel compliant SDVO ports with 200MPixel/sec. Supports external DVI | TV and LVDS transmitter

congatec Board Controller
Multi Stage Watchdog | non-volatile User Data Storage | Manufacturing and Board Information | Board Statistics | BIOS Setup Data Backup | PC 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-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.

Power Management
ACPI 3.0 with battery support

Operating Systems
Microsoft® Windows 8 | Microsoft® Windows7 | Microsoft® Windows® embedded Standard | Microsoft® Windows XP | Linux

Power Consumption
Typ. application: Processor TDP: 35 .. 45 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”)

www.congatec.com
conga-BM67 | Order Information

<table>
<thead>
<tr>
<th>Article PN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>conga-BM67/i7-2710QE 046101</td>
<td>Intel® Core™ i7-2710QE quad core processor with 2.1GHz</td>
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<tr>
<td>conga-BM67/i5-2510E 046102</td>
<td>Intel® Core™ i5-2510E dual core processor with 2.5GHz</td>
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<tr>
<td>conga-BM67/i3-2330E 046104</td>
<td>Intel® Core™ i3-2330E dual core processor with 2.2GHz</td>
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<td>conga-BM67/i5-2510E 046102</td>
<td>Intel® Core™ i5-2510E dual core processor with 2.3GHz</td>
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<tr>
<td>conga-BM67/i3-2330E 046104</td>
<td>Intel® Core™ i3-2330E dual core processor with 2.0GHz</td>
</tr>
<tr>
<td>conga-BM67/B810 046105</td>
<td>Intel® Celeron® B810 dual core processor with 1.6GHz</td>
</tr>
<tr>
<td>conga-BM67/HSP-HP-B 046120</td>
<td>Standard heatspreader for high performance COM Express module conga-BM67 with integrated heat pipes. All standoffs are with 2.7mm bore hole</td>
</tr>
<tr>
<td>conga-BM67/HSP-HP-T 046121</td>
<td>Standard heatspreader for high performance COM Express module conga-BM67 with integrated heat pipes. All standoffs are M2.5mm thread</td>
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<tr>
<td>conga-BM67/CSP-HP-B 046122</td>
<td>Standard passive cooling solution for high performance COM Express module conga-BM67 with integrated heat pipes 15mm silver fins and 20mm overall heat sink height. All standoffs are with 2.7mm bore hole</td>
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<td>conga-BM67/CSA-HP-B 046124</td>
<td>Standard active cooling solution for high performance COM Express module conga-BM67 with integrated heat pipes 15mm silver fins</td>
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<td>conga-BM67/CSA-HP-T 046125</td>
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<tr>
<td>DDR3L-SODIMM-1600 (2GB) 068755</td>
<td>DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 2GB RAM</td>
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<tr>
<td>DDR3L-SODIMM-1600 (4GB) 068756</td>
<td>DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 4GB RAM</td>
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<tr>
<td>DDR3L-SODIMM-1600 (8GB) 068757</td>
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Accessories

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<tr>
<td>conga-CEVAL 065749</td>
<td>Evaluation Carrier Board for COM Express Type 2 modules</td>
</tr>
<tr>
<td>conga-Cdebug 047854</td>
<td>COM-Express debugging platform. Including cable for COM</td>
</tr>
<tr>
<td>conga-LDV/EPR 011115</td>
<td>LVDS to DVI converter board for digital flat panels with onboard EEPROM</td>
</tr>
<tr>
<td>conga-HDMI/Display Port adapter 4k 500030</td>
<td>The conga-DP/HDMI adapter 4k is used for evaluation of the DP/HDMI graphics interface of i86 Gseven and COM Express modules in combination with the congatec evaluation carrier boards conga-QEVAL and conga-TEVAL. It supports full 4k display resolution.</td>
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<tr>
<td>conga-FPA2 047250</td>
<td>Flatpanel prototype adapter to develop your own flatpanel adapter including cables set.</td>
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