

# COM Express® Basic Module

## Maximum Computing Performance

### conga-BE57

ECC Support for maximum reliability

Power-Efficient Processors

Up to Intel® Core™ i7  
Processor 2.0 GHZ

Intel® Clear Video HD Technology



<b>Formfactor</b>	<b>COM Express™ Basic, (95 x 125 mm), Type II Connector Layout</b>
<b>Processor</b>	Intel® Core™ i7-610E, 2.53 GHz (32 nm process, 4MB cache, 1066 MHz, TDP 25 W, BGA package) Intel® Core™ i7-620LE, 2.0 GHz (32 nm process, 4MB cache, 1066 MHz, TDP 25 W, BGA package) Intel® Celeron® P4505 1.86 GHz (32 nm process, 2MB cache, 1066 MHz, TDP 35 W, BGA package) Intel® Celeron® Processor U3405 1.07 GHz (32 nm process, 2 MB 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
<b>DRAM</b>	2 Sockets, SO-DIMM DDR3 ECC 1333 MHz, up to 8 GByte
<b>Chipset</b>	Intel® 5 Series Chipset: Intel® HM55
<b>Ethernet</b>	Intel® 82577LM Ethernet PHY
<b>I/O Interfaces</b>	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)
<b>Sound</b>	Digital High Definition Audio Interface with support for multiple audio codecs
<b>Graphics</b>	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
<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>DisplayPort (DP)</b>	3x DisplayPorts 1.1 shared with HDMI
<b>HDMI</b>	3x ports shared with DisplayPorts
<b>CRT Interface</b>	350 MHz RAMDAC, resolutions up to QXGA (2048x1536)
<b>AUX Output</b>	Supports one SDVO port shared with HDMI and DisplayPort capable of driving a 200MP pixel rate
<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, 4 MByte serial SPI firmware flash
<b>Security</b>	The conga-BE57 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 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® Windows7, Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Linux 2.6, QNX 6.x
<b>Power Consumption</b>	Typ. application: tbd., see manual for full details, CMOS Battery Backup
<b>Temperature</b>	Operating: 0 .. +60°C Storage: -20 .. +80°C
<b>Humidity</b>	Operating: 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")

