

COM Express® Basic Module

Performance

conga-B945

Featuring the Intel® Core™2 Duo Processors up to 2.16 GHz

Provides up to 4 GByte Dual Channel DRAM

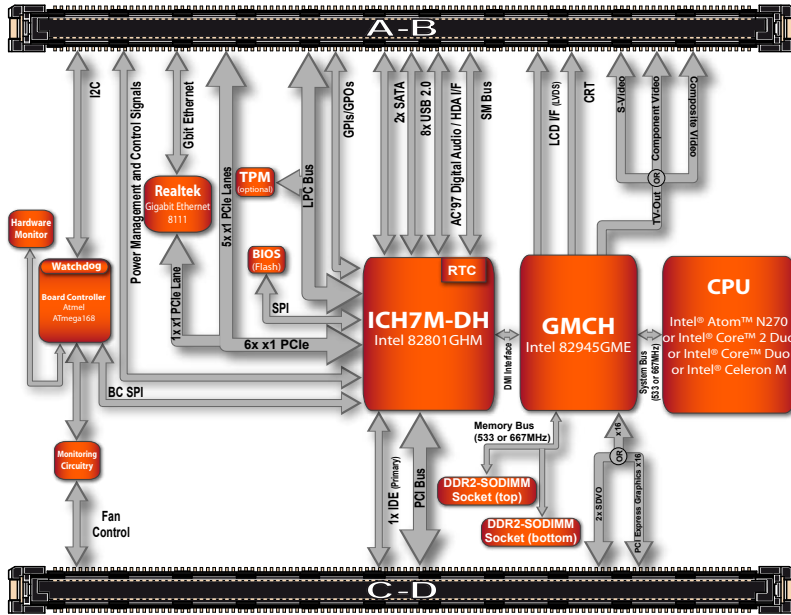
ACPI Battery Support, Flat Panel detection ...



| | |
|----------------------------------|---|
| Formfactor | COM Express™ Basic, (95 x 125 mm), Type II Connector Layout |
| CPU | Intel® Core™ 2 Duo T7400, 2.16 GHz, (4M cache, 667 MHz FSB, 65nm), Socket mPGA479M Intel® Core™ 2 Duo L7400 LV, 1.5 GHz, (4M cache, 667 MHz FSB, 65nm) Intel® Core™ 2 Duo U7500 ULV, 1.06 GHz, (2M cache, 533 MHz FSB, 65nm) Intel® Core™ 2 Duo L2400 LV, 1.66 GHz, (2M cache, 667 MHz FSB, 65nm) Intel® Celeron™ M440, 1.86 GHz, (1M cache, 533 MHz FSB, 65nm), Socket mPGA479M Intel® Celeron™ M423 ULV, 1.06 GHz, (1M cache, 533 MHz FSB, 65nm) |
| DRAM | 2 Sockets, SO-DIMM DDR2 667/PC5300 up to 4 GByte physical memory |
| Chipset | Graphics & Memory Controller Hub: Intel® 945GME I/O Controller Hub: Intel® 82801GHM (ICH7M-DH) |
| Ethernet | Gigabit Ethernet, Realtek RTL8111 |
| I/O Interfaces | 5x PCI Express™ Lanes, PCI Express Graphic (PEG x16), 2x Serial ATA* (AHCI) supporting RAID 0 and RAID 1, 1x EIDE (UDMA-66/100), 2x Express Card* (uses 2x USB & 2x PCI Express), 8x USB 2.0 (EHCI), PCI Bus 33 MHz Rev. 2.3, LPC Bus, I²C (Fast Mode, 400 kHz, Multi Master) |
| Sound | AC'97 Rev.2.2 Compatible, Digital High Definition Audio Interface with support for multiple audio codecs |
| Graphics | Enhanced 256 Bit 3D Video Controller, Intel® Graphics Media Accelerator 950, up to 10.6 GB/sec memory bandwidth, 256-bit graphics core, max. 224 MByte 64 Bit Video RAM (DVMT 3.0), Dynamic Display Modes for flat-panel, wide-screen and Digital TV support, Two independent pipelines for full dual view support |
| Motion Video Support | High Definition Hardware Motion Compensation to support high definition hi-bi-rate MPEG2 media playback, Up and Down Scaling of Video Content, High Definition Content Decode, HDTV (1080i/p) Support |
| Flat panel Interface | Dual 112 MHz LVDS Transmitter, Supports all 1x18, 2x18, 1x24, 2x24 Bit, VESA- and openLDI-Mappings, Resolutions 640x480 up to 1920x1200, Automatic Panel Detection via EPI, (Embedded Panel Interface, based on VESA EDID™ 1.3) |
| CRT Interface | 400 MHz RAMDAC, Resolutions up to 2048x1536 @ 75 Hz, including 1920x1080 @ >85 Hz (HDTV) |
| AUX Output | 2x SDVO (shared with PEG x16 pins) |
| TV Out | Onboard TV encoder, supports HDTV (420p, 720p and 1080i), supports component and s-video |
| congatec Board Controller | Multi Stage Watchdog, Non-volatile User Data Storage, Manufacturing and Board information, Board Statistics, BIOS Setup Data Backup, I²C (Fast Mode, 400 kHz, Multi Master), Power Loss Control |
| Embedded BIOS Features | OEM Logo, OEM CMOS Defaults, LCD Control, (Auto Detection, Backlight Control), Flash Update, Based on AMIBIOS® |
| Security | The conga-B945 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 2.0 with Battery support |
| Operating Systems | Microsoft® Windows 7, Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Microsoft® Windows CE 6.0, Microsoft® Windows Embedded Compact 7, Linux |
| Power Consumption | Typ. application: 10.5 W @ 12V, (1.66 GHz Core Duo), 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 mm² (3.74" x 4.92") |

Block Diagram conga-B945

Order Information conga-B945



| Article | PN | Description |
|--------------------------|--------|--|
| conga-B945/423 | 041480 | Intel 945GME and Intel® Celeron® M 423 processor 1.06 GHz, 1MB L2 cache and 533MHz FSB |
| conga-B945/U7500 | 047894 | Intel 945GME chipset and Intel Core2Duo U7500 processor with 1.06GHz, 2MB L2 cache and 533MHz FSB. |
| conga-B945/L2400 | 098642 | Intel 945GME chipset and Intel CoreDuo L2400 processor with 1.66GHz, 2 MB L2 cache and 667MHz FSB |
| conga-B945/L7400 | 013124 | Intel 945GME chipset and Intel Core2Duo L7400 processor with 1.5GHz, 2MB L2 cache and 667MHz FSB |
| conga-B945-socket/440 | 033884 | Intel 945GME and Intel® Celeron® M 440 Processor 1.86 GHz, 1 MB L2 cache and 533MHz FSB |
| conga-B945-socket/T7400 | 083447 | Intel 945GME and Intel Core2Duo T7400 Processor 2.16 GHz, 4 MB L2 cache and 533MHz FSB. |
| conga-B945/HSP-B | 024175 | Heatspreader, Standoff with 2.7mm bore hole |
| conga-B945/HSP-T | 058741 | Heatspreader, Standoff with M2.5mm thread |
| conga-B945/CSA-B | 054123 | Standard active cooling solution, surface black with 10mm fins, integrated 12V fan 5500rpm, cable length 200mm, w/3 pin, 2.54 pitch connector, bore hole standoffs |
| conga-B945/CSA-T | 069877 | Standard active cooling solution, surface black with 10mm fins, integrated 12V fan 5500rpm, cable length 200mm, w/3 pin, 2.54 pitch connector, thread standoffs |
| conga-B945/CSP-B | 087415 | Standard passive cooling solution, surface black with 10mm fins, bore hole standoffs |
| conga-B945/CSP-T | 068741 | Standard passive cooling solution, surface black with 10mm fins, thread standoffs |
| conga-B945-socket/HSP-B | 042758 | Heatspreader, Standoff with 2.7mm bore hole |
| conga-B945-socket/HSP-T | 085744 | Heatspreader, Standoff with M2.5mm thread |
| conga-B945-socket/CSA-B | 022417 | Standard active cooling solution, surface black with 10mm fins, integrated 12V fan 5500rpm, cable length 200mm, w/3 pin, 2.54 pitch connector, bore hole standoffs |
| conga-B945-socket/CSA-T | 085147 | Standard active cooling solution, surface black with 10mm fins, integrated 12V fan 5500rpm, cable length 200mm, w/3 pin, 2.54 pitch connector, thread standoffs |
| conga-B945-socket/CSP-B | 048731 | Standard passive cooling solution, surface black with 10mm fins, bore hole standoffs |
| conga-B945-socket/CSP-T | 025879 | Standard passive cooling solution, surface black with 10mm fins, thread standoffs |
| DDR2-SODIMM-667 (0512MB) | 057841 | 512 MByte DDR2 SODIMM memory module |
| DDR2-SODIMM-667 (1024MB) | 087412 | 1 GByte DDR2 SODIMM memory module |
| DDR2-SODIMM-667 (2048MB) | 068712 | 2 GByte DDR2 SODIMM memory module |

| Engineering Tools / Accessories for COM Express® | |
|--|-----------------------------------|
| 065749 | conga-CEVAL |
| 047854 | conga-Cdebug |
| 064714 | conga-CKIT |
| 011115 | conga-LDVI/EPI |
| 500014 | conga-HDMI/Display Port adapter |
| 058500 | Single DVI-D ADD2 Card |
| 013226 | Dual DVI-D ADD2 Card |
| 047250 | conga-FPA2 |
| 400007 | COM-Express-carrierboard-Socket-5 |
| 400004 | COM-Express-carrierboard-Socket-8 |