

COM Express® Compact Module

Ultra Low Power

conga-CA945

Allows cost effective and power efficient
COM Express™ solutions

Combines Intel® Atom™ processor
technology with the feature rich
embedded chipset Intel® 945 GSE.



Formfactor	COM Express™ Compact, (95 x 95 mm), Type II Connector Layout
CPU	Intel® Atom™ N270, 1.6 GHz, 512 kB cache, 533 MHz FSB, 45nm, 2.5W TDP
DRAM	1 Socket, SO-DIMM DDR2 533, up to 2 GByte
Chipset	Graphics & Memory Controller Hub: Intel® 945GSE I/O Controller Hub: Intel® 82801GBM (ICH7M)
Ethernet	Gigabit Ethernet, Realtek RTL8111
I/O Interfaces	3x PCI Express™ Lanes, 2x Serial ATA* (AHCI), 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 (DVTM 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-bitrates 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, 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	1x SDVO
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-CA945 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 CE 6.0, Microsoft® Windows® Embedded Compact 7, Microsoft® Windows® embedded Standard, Linux
Power Consumption	Typ. application: <10 W @ 12V, 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 95 mm (3.74" x 3.74")

