

XTX™ Module

High Performance

conga-X945

Featuring the latest Intel® Core™ 2 Duo LV Processors up to 1.5 GHz

Provides up to 2 GByte top of the line DRAM performance

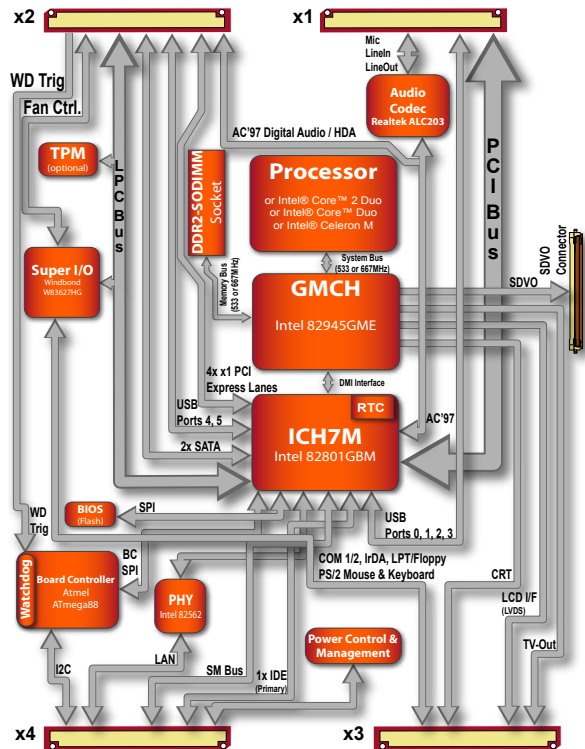
ACPI Battery Support,
Flat Panel detection



Formfactor	ETX® Spec 2.7, without ISA Support, XTX™ Extensions
CPU	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™ Duo L2400 LV, 1.66 GHz, (2M cache, 667 MHz FSB, 65nm) Intel® Celeron® M440, 1.86 GHz, (1M cache, 533 MHz FSB, 65nm) Intel® Celeron® M423 ULV, 1.06 GHz, (1M cache, 533 MHz FSB, 65nm)
DRAM	SO-DIMM DDR2 667/PC 5300 up to 2 GByte
Chipset	Graphics & Memory Controller Hub: Intel® 945GME I/O Controller Hub: Intel® 82801GBM (ICH7-M) I/O Controller: Winbond 83627HG Ethernet PHY: Intel® 82562
Ethernet	IEEE 802.3u 100Base-Tx, Fast Ethernet compatible
I/O Interfaces	4x PCI Express™ Lanes, 2x Serial ATA® (AHCI), 1x EIDE (UDMA-66/100), 2x Express Card® (uses 2x USB & 2x PCI Express), 6x USB 2.0 (EHCI), PCI Bus Rev. 2.3, no ISA Bus, LPC Bus, I²C (Fast Mode, 400 kHz, Multi Master), Floppy (Shared with LPT), LPT (EPP/ECP, Shared with Floppy), 2x COM Ports TTL Level, 1x IrDA Port, PS/2 Keyboard, Mouse
Sound	AC'97 Rev.2.2 Compatible, Line In, Line Out, Mic In, 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-bitrate 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 1600x1200, 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
TV Out	On ETX® X3 connector
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), Serial Port Console Redirection, for Remote Setup and Installation, Flash Update, Based on AMIBIOS®
Security	The conga-X945 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® Windows7, Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Microsoft® Windows CE 6.0, Linux 2.6, QNX 6.x
Power Consumption	Typ. application: 10.5 W @ 5V, (1.66 GHz Core Duo), 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 114 mm (3.7" x 4.5")

Block Diagram conga-X945

Order Information conga-X945



Article	PN	Description
conga-X945/423	034571	Intel Celeron M 423
conga-X945/440	078965	Intel Celeron M 440
conga-X945/L2400	085691	Intel CoreDuo L2400
conga-X945/U7500	014781	Intel Core2Duo U7500
conga-X945/L7400	055874	Intel Core2Duo L7400
conga-X915+X945/HSP-B	062579	Heatspreader , Standoff with 2.7mm bore hole
conga-X915+X945/HSP-T	011278	Heatspreader, Standoff with M2.5mm thread
conga-X915+X945/CSP-B	024873	Standard passive cooling solution, black surface with 10mm fins, bore hole standoffs
conga-X915+X945/CSP-T	073258	Standard passive cooling solution, black surface with 10mm fins, thread standoffs
conga-X915+X945/CSP-B-V	088114	Standard passive cooling solution, black surface with 10mm vertical fins, bore hole standoffs
conga-X915+X945/CSP-TV	012345	Standard passive cooling solution, black surface with 10mm vertical fins, thread standoffs
conga-X915+X945/CSA-B	088741	Standard active cooling solution, black surface with 10mm fins, integrated 12V fan 5500rpm, cable length 200mm, w/3 pin, 2.54 pitch connector, bore hole standoffs
conga-X915+X945/CSA-T	036198	Standard active cooling solution, black surface with 10mm fins, integrated 12V fan 5500rpm, cable length 200mm, w/3 pin, 2.54 pitch connector, thread standoffs
XTX/ETX Thermal Stack 1	045741	Thermal-stack-set
DDR2-SODIMM-667 (0512MB)	057841	DDR2-SODIMM memory module with 512MB RAM (667 MT/s)
DDR2-SODIMM-667 (1024MB)	087412	DDR2-SODIMM memory module with 1GB RAM (667 MT/s)
DDR2-SODIMM-667 (2048MB)	068712	DDR2-SODIMM memory module with 2GB RAM (667 MT/s)

Engineering Tools / Accessories for XTX®

conga-Xeval	019482	Evaluation carrier board for XTX-modules
conga-XKIT	077441	XTX-Starterkit with conga-XEVAL, conga-Xdebug, conga-FPA1 (024241), conga-XDVI, Power supply, USB-Stick, ...Without XTX-module
conga-ITX/X	057891	Baseboard for XTX-modules. Formfactor mini-ITX, ...
conga-XDVI	098637	Evaluation platform to convert SDVO to DVI-D
conga-Xdebug	041784	XTX debugging platform. Including cable for COM, PS/2 and VGA
conga-FPA2	047250	Flatpanel prototype adapter to develop your own flatpanel adapter including cables set
XTX/ETX-baseboard-socket-3	400006	Connector for ETX and XTX carrier boards, height 3.0 mm, packing unit 8 pieces
XTX/ETX-baseboard-socket-9.5	400009	Connector for ETX and XTX carrier boards, height 9.5 mm, packing unit 8 pieces
conga-SBM²-module	088774	SMART Battery Manager Module
conga-SBM²-2nd accu	096582	Second Smart Battery, only for the conga-SBM²-Kit.
conga-SBM²-KIT	026571	Starterkit to evaluate SBM-Features. With SMART-Battery Manager Module and cable set
conga-SBM² Licence and Design Kit	052741	SMART Battery Manager Module Design Kit including licence agreement for customer integration, Hardware design files (Schematics, Bill of Material), Battery Manager Firmware (incl. commented source code), AVR-Programming Tool AT90 JTAG ICE MKII
conga-LDVI/EPI	011115	LVDS to DVI adapter board for digital fl of panels with a graphics resolution up to 1280x1024 pixel