

# XTX™ Module

## Economy Model

### conga-X915

Based on Intel® 915 chipset

Featuring Intel® Pentium® M up to 1.8 GHz

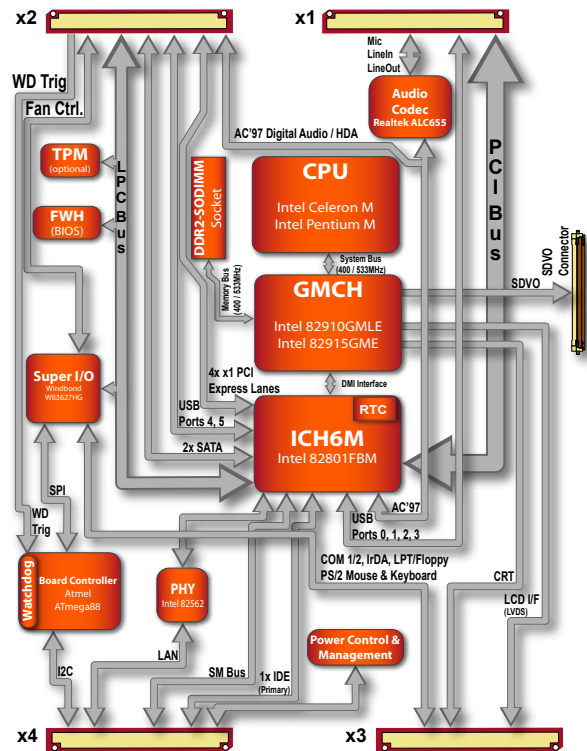
ACPI Battery Support,  
Flat Panel detection ....



<b>Formfactor</b>	<b>ETX® Spec 2.7. without ISA Support, XTX™ Extensions</b>
<b>CPU</b>	Intel® Pentium® M 745 1.8 GHz, 2 MByte cache, FSB 400 MHz Intel® Pentium® M 738 1.4 GHz, LV, 2 MByte cache, FSB 400 MHz Intel® Celeron® M 373 1.0 GHz, ULV, 512 k cache, FSB 400 MHz Intel® Celeron® M 600 MHz, ULV, 512 kByte cache, FSB 400 MHz (Intel® 910GML Chipset)
<b>DRAM</b>	SO-DIMM DDR2 DDR400/PC3200 up to 2 GByte
<b>Chipset</b>	Graphics & Memory Controller Hub: Intel® 915GME I/O Controller Hub: Intel® 82801FBM (ICH6-M) I/O Controller: Winbond 83627HG Ethernet PHY: Intel® 82562
<b>Ethernet</b>	IEEE 802.3u 100Base-Tx, Fast Ethernet compatible
<b>I/O Interfaces</b>	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 Bus, 400 kHz, Floppy (Shared with LPT), LPT (EPP/ECP, Shared with Floppy), 2x COM Ports TTL Level, 1x IrDA Port, PS/2 Keyboard, Mouse
<b>Sound</b>	AC'97 Rev.2.2 Compatible, Line In, Line Out, Mic In, Digital High Definition Audio Interface with support for multiple audio codecs
<b>Graphics</b>	Enhanced 256 Bit 3D Video Controller, Intel® Graphics Media Accelerator 900, 533 MHz Memory Clock, max. 128 MByte 64 Bit Video RAM (DVM 3.0), Two independent pipelines for full dual view support
<b>Motion Video Support</b>	Motion Compensation, Subpicture Support, Dynamic Bob & Weave, HDTV (1920x1080) Support
<b>Flat panel Interface</b>	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)
<b>CRT Interface</b>	400 MHz RAMDAC, Resolutions up to 2048x1536 @ 75 Hz, (QXGA), including 1920x1080 @ >85 Hz (HDTV)
<b>AUX Output</b>	2x SDVO
<b>congatec Board Controller</b>	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
<b>Embedded BIOS Features</b>	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®
<b>Security</b>	The conga-X915 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.
<b>Power Management</b>	ACPI 2.0 with Battery support
<b>Operating Systems</b>	Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Microsoft® Windows CE 6.0, Linux 2.6, QNX 6.x
<b>Power Consumption</b>	Typ. application 6.5W @ 5V, (1 GHz Celeron® M), 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 114 mm (3.7" x 4.5")

# Block Diagram conga-X915

# Order Information conga-X915



Article	PN	Description
conga-X915/CM600-512 eco	013410	Intel 910GMLE and Intel Celeron M with 600MHz
conga-X915/CM1000-0 eco	023557	Intel 910GMLE and Intel Celeron M ULV-CPU with 1.0 Ghz
conga-X915/373	098634	Intel 915GME and Intel Celeron M 373
conga-X915/738	075643	Intel 915GME and Intel Pentium M 738
conga-X915/745	012041	Intel 915GME and Intel Pentium M 745
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