

# XTX™ Module

## Economy Model

### conga-X915

Based on Intel® 915 chipset

Featuring Intel® Pentium® M  
up to 1.8 GHz

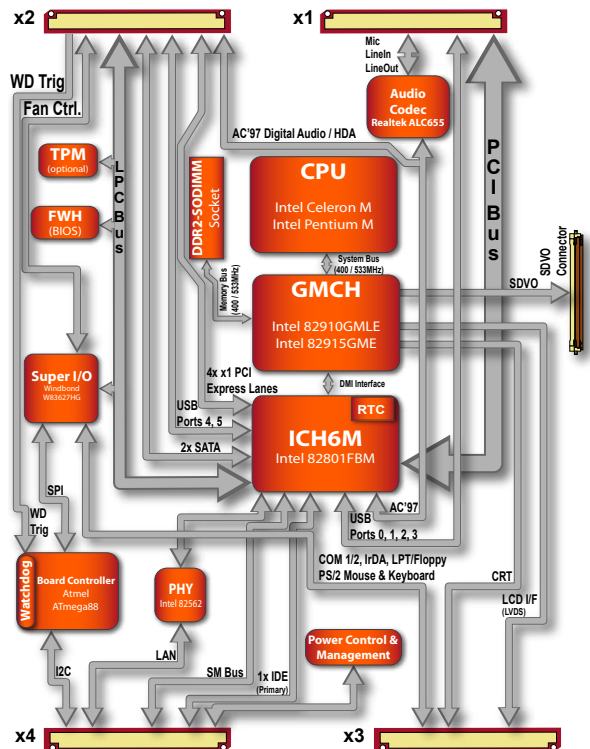
ACPI Battery Support,  
Flat Panel detection ....



| Formfactor                       | ETX® Spec 2.7. without ISA Support, XTX™ Extensions   |
|----------------------------------|---|
| <b>CPU</b>                       | Intel® Pentium® M 745 1.8 GHz, 2 MByte cache, FSB 400 MHz<br>Intel® Pentium® M 738 1.4 GHz, LV, 2 MByte cache, FSB 400 MHz<br>Intel® Celeron® M 373 1.0 GHz, ULV, 512 k cache, FSB 400 MHz<br>Intel® Celeron® M 600 MHz, ULV, 512 kByte cache, FSB 400 MHz (Intel® 910GMLC 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)<br>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),<br>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<br>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,<br>max. 128 MByte 64 Bit Video RAM (DVM 3.0),<br>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<br>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,<br>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,<br>for Remote Setup and Installation, Flash Update, Based on AMIBIOS®   |
| <b>Security</b>                  | TPM 1.2/TCPA Security Functions, for Hash, RSA, Keys and Random Numbers (optional)  |
| <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 910GML E and Intel Celeron M with 600MHz   |
| conga-X915/CM1000-0 eco  | 023557 | Intel 910GML E 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-T-V  | 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-SBM <sup>2</sup> -module                | 088774 | SMART Battery Manager Module  |
| conga-SBM <sup>2</sup> -2nd accu              | 096582 | Second Smart Battery, only for the conga-SBM <sup>2</sup> -Kit.   |
| conga-SBM <sup>2</sup> -KIT                   | 026571 | Starterkit to evaluate SBM-Features. With SMART-Battery Manager Module and cable set  |
| conga-SBM <sup>2</sup> 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 at panels with a graphics resolution up to 1280x1024 pixel   |