

# COM Express Compact Module

## Low Power Consumption

### conga-CA

Best Performance / Watt COM Express™ Module

Compact size for easy integration

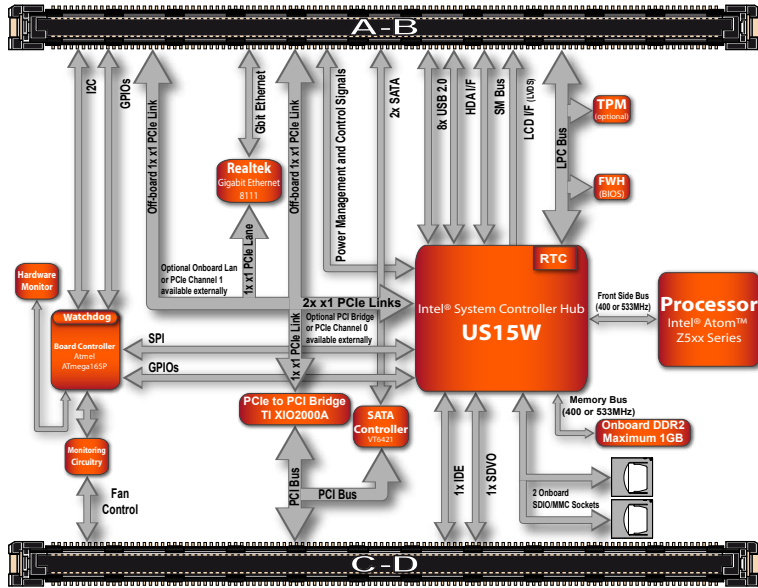
Extremely low power consumption,  
Flat Panel detection ...



<b>Formfactor</b>	<b>COM Express™ Compact, (95 x 95 mm), Type II Connector Layout</b>
<b>CPU</b>	Intel® Atom™ processor Z530 1.6 GHz, 533 MHz FSB and memory bus speed, 512k L2 cache, 45 nm, with Hyper-Threading Technology and Intel® Virtualization Technology Intel® Atom™ processor Z510 1.1 GHz, 400 MHz FSB and memory bus speed, 512k L2 cache, 45 nm
<b>DRAM</b>	Up to 1 GByte on-board DDR2 400/533 MHz
<b>Chipset</b>	Intel® System Controller Hub US15W
<b>Ethernet</b>	Gigabit Ethernet Realtek RTL8111
<b>I/O Interfaces</b>	2x SATA, 1x EIDE (UDMA-66/100), PCI bus Rev. 2.3, LPC bus, 8x USB 2.0, I²C bus, up to 2 PCI Express links optional
<b>Sound</b>	Intel® High Definition Audio (Intel® HD Audio)
<b>Graphics</b>	Intel® Graphics Media Accelerator 500 (Intel® GMA 500), up to 256 MByte frame buffer supporting Direct X 9.0E and Open GL 2.0
<b>Video Decode Acceleration</b>	Full hardware acceleration for MPEG2, MPEG4, H.264, WMV9 and VC1
<b>Motion Video Support</b>	Single channel 112 MHz LVDS transmitter, support for flat panels (1920x1080) with 1x18 and 1x24 bit data mapping up to resolutions of 1366x768 pixel Single channel SDVO interface, supports resolutions up to 1280x1024 pixel Dual independent display support
<b>congatec Board Controller</b>	Multi Stage Watchdog, non-volatile User Data Storage, Manufacturing and Board information, Board Statistics, BIOS Setup, Data Backup, I²C bus (fast mode, 400 kHz, multi-master), Power Loss Control
<b>Embedded BIOS Features</b>	OEM Logo, OEM CMOS Defaults, LCD Control, Display Auto Detection, Backlight Control, Flash Update, based on AMIBIOS®
<b>Power Management</b>	ACPI 3.0 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 5 Watt
<b>Temperature</b>	Operating: 0 to +60°C Storage: -20 to +80°C, extended temperature versions in preparation
<b>Humidity</b>	Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.
<b>Size</b>	95 x 95 mm (3¾" x 3¾")

# Block Diagram conga-CA

# Order Information conga-CA



Article	PN	CPU-Z510	CPU-Z530	512MB onboard	1.0 GB onboard	SATA	GB Ethernet	PCIe	PCI	Onboard SDIO MMC Sockets
conga-CA/Z510-512	087477	✓		✓		✓	✓		✓	✓
conga-CA/Z510-1G	044412	✓			✓	✓	✓		✓	✓
conga-CA/Z530-1G	061125		✓		✓	✓	✓		✓	✓
conga-CA/Z530-1G GBE/PCIe	061127		✓		✓		✓	1x 1		

Article	PN	Description
conga-CA/HSP-B	055441	Heatspreader, Standoff with 2.7mm bore hole
conga-CA/HSP-T	061788	Heatspreader, Standoff with M2.5mm thread

Engineering Tools / Accessories for COM Express®		
conga-CEVAL	065749	Evaluation carrier board for COM-Express-modules
conga-Cdebug	047854	COM-Express debugging platform. Including cable for COM, PS/2 and VGA.
conga-CKIT	064714	COM-Express-Starterkit, incl. conga-CEVAL, conga-CDEBUG, conga-FPA1 (PN: 024241), Dual DVI-D ADD2 card, Power supply, USB-Stick, ... Without COM Express-module
conga-MCB	020715	Mini Carrier Board for COM Express with smart battery manager interface for mobile applications.
conga-SBM²C-module	014141	SMART Battery Manager Module for COM Express
conga-SBM²C-kit	029874	Starterkit to evaluate SBM-Features for COM Express with SMART-Battery Manager Module and cable set
conga-SBM²C Licence and Design Kit	025478	SMART Battery Manager Module Design Kit for COM 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 converter board for digital flat panels with onboard EEPROM
conga-HDMI/Display Port adapter	500014	The conga-HDMI/DisplayPort adapter is used to convert the chipset graphic ports Port-B, Port-C and Port-D to the HDMI or DisplayPort Interface
DVI-D ADD2 Card	058500	ADD2 display adapter card with single DVI-D digital output. Suitable for all Intel based platforms that support Serial Digital Display Outputs (SDVO) on the standard, x16 PCI Express Graphics (PEG) port.
Dual DVI-D ADD2 Card	013226	ADD2 display adapter card with dual independent DVI-D output. Suitable for all Intel based platforms that support Serial Digital Display Outputs (SDVO) on the standard, x16 PCI Express Graphics (PEG) port.
conga-FPA2	047250	Flatpanel prototype adapter to develop your own flatpanel adapter Including cables set.
COM-Express-carrierboard-Socket-5	400007	Connector for COM-Express carrier boards, height 5mm, packing unit 4 pieces