

COM Express® Compact Module

Industrial Temperature

conga-CAX

Extended Temperature Range
-40° .. +85°C

Compact COM Express™ Module
with best Performance per Watt Ratio

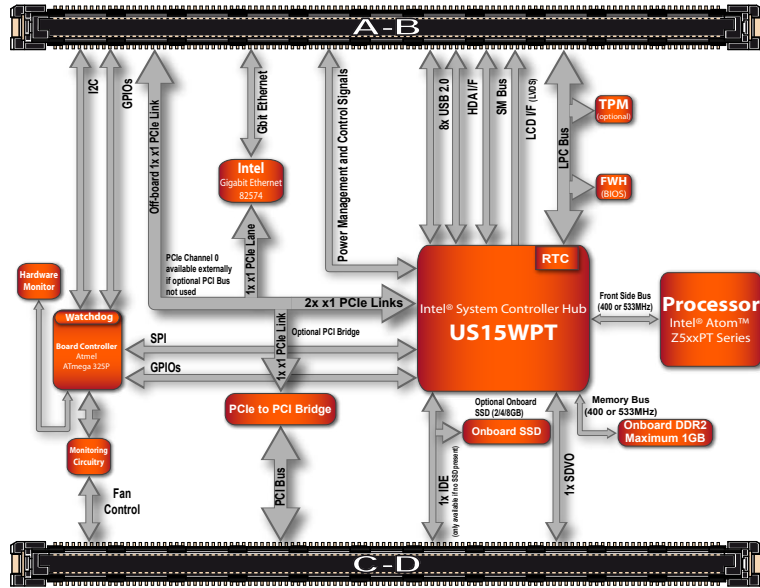
congatec Embedded BIOS,
Flat Panel Detection, ...



Formfactor	COM Express™ Compact, (95 x 95 mm), Type II Connector Layout
CPU	Intel® Atom™ processor Z520PT 1.33 GHz, 400 MHz FSB and memory bus speed, 512k L2 cache, 45 nm, with Hyper-Threading Technology and Intel® Virtualization Technology, industrial temperature Intel® Atom™ processor Z510PT 1.1 GHz, 400 MHz FSB and memory bus speed, 512k L2 cache, 45 nm with Hyper-Threading Technology, industrial temperature
DRAM	Up to 1 GByte on-board DDR2 400/533 MHz
Chipset	Intel® System Controller Hub US15WPT, industrial temperature
Ethernet	Intel® Gigabit Ethernet 82574L Controller
I/O Interfaces	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
Mass Storage	Onboard IDE Solid State Disk up to 8GB
Sound	Intel® High Definition Audio (Intel® HD Audio)
Graphics	Intel® Graphics Media Accelerator 500 (Intel® GMA 500), up to 256 MByte frame buffer supporting Direct X 9.0E and Open GL 2.0
Video Decode Acceleration	Full hardware acceleration for MPEG2, MPEG4, H.264, WMV9 and VC1
Motion Video Support	Single channel 112MHz LVDS transmitter, support for flat panels with 1x18 and x24 bit data mapping up to resolutions of 1366x768 pixel Single channel SDVO interface, supports resolutions up to 1280x1024 pixel Dual independent display support
congatec Board Controller	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
Embedded BIOS Features	OEM Logo, OEM CMOS Defaults, LCD Control, Display Auto Detection, Backlight Control, Flash Update, based on AMIBIOS®
Power Management	ACPI 3.0 with battery support
Operating Systems	Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Microsoft® Windows CE 6.0, Linux 2.6, QNX 6.x
Power Consumption	Typ. application 5 Watt
Temperature	Operating: -40 to +85°C Storage: -40 to +85°C, extended temperature
Humidity	Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.
Size	95 x 95 mm (3¾" x 3¾")

Block Diagram conga-CAX

Order Information conga-CAX



Article	PN	CPU-Z510PT	CPU-Z520PT	PCI Bus	PCIe ext.	IDE ext.	SSD onboard
conga-CAX/Z510PT-1GB	061115	✓		✓		✓	
conga-CAX/520PT-1GB	061120		✓	✓		✓	
conga-CAX/520PT-1G SSD2/PCIe	061140		✓		✓		✓

Article	PN	Description
conga-CAX/HSP-B	061790	Heatspreader, Standoff with 2.7mm bore hole
conga-CAX/HSP-T	061795	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