

# COM Express® Compact Module Industrial Temperature

## conga-CA6

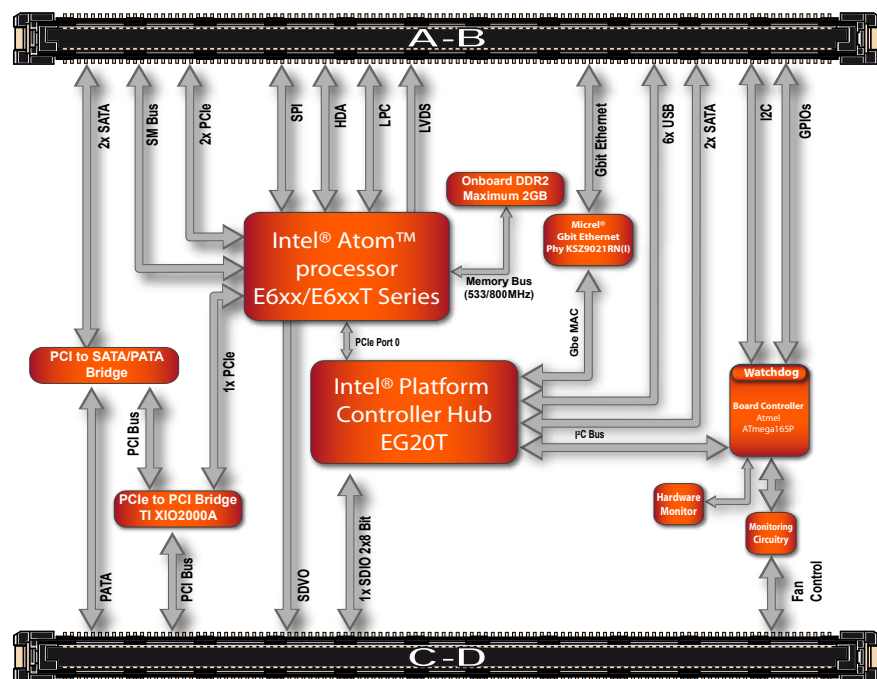
Extended Temperature Range  
-40° .. +85°C

Intel® 3D Graphics



<b>Formfactor</b>	<b>COM Express™ Compact, (95 x 95 mm), Type II Connector Layout</b>
<b>CPU</b>	Intel® Atom™ processor E600 series with 1.6 Ghz, 1.3 GHz, 1.0 GHz and 600 MHz Intel® Atom™ E680T / E680, 1.6 GHz (45 nm process, 512kb cache, TDP 3.9 W) Intel® Atom™ E660T / E660, 1.3 GHz (45 nm process, 512kb cache, TDP 3.6W) Intel® Atom™ E640T / E640, 1.0 GHz (45 nm process, 512kb cache, TDP 3.6W) Intel® Atom™ E620T / E620, 600 MHz (45 nm process, 512kb cache, TDP 2.7W)
<b>DRAM</b>	Up to 2 GByte onboard DDR2 memory with 667/800 MT/s
<b>Chipset</b>	Intel® Platform Controller Hub EG20T
<b>Ethernet</b>	Micrel® Gbit Ethernet Phy KSZ9021RN
<b>I/O Interfaces</b>	2x PCI Express™ x1 lanes, 4x Serial ATA* (AHCI only), 1x SDIO, 6x USB 2.0, PCI Bus (Rev. 2.3 compliant, 33 MHz), 1x EIDE (optional)
<b>Mass Storage</b>	Onboard SATA Solid State Drive up to 32 GByte (optional)
<b>Sound</b>	High Definition Audio Interface
<b>Graphics</b>	Intel® Graphics Core with 2D and 3D hardware Accelerator and dual independent display support.
<b>Video Decode Acceleration</b>	Full hardware acceleration for MPEG2, MPEG4, H.264, WMV9 and VC1
<b>Motion Video Support</b>	Single channel 80MHz LVDS transmitter, support for flat panels with 1x18 and 1x24 bit data mapping up to a resolution of 1280x768@60Hz. Single channel 160MHz SDVO interface, supports resolutions up to 1920x1080@60Hz and 1280x1024@85Hz. Dual independent display support
<b>congatec Board Controller</b>	Multi Stage Watchdog, non-volatile User Data Storage, Manufacturing and Board information, Board Statistics, I <sup>2</sup> C 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 AMI Aptio UEFI
<b>Power Management</b>	ACPI 3.0 with battery support
<b>Operating Systems</b>	Microsoft® Windows 7, Microsoft® Windows XP, Microsoft® Windows CE 6.0, Microsoft® Windows® Embedded Compact 7, Microsoft® Windows® embedded Standard, Linux
<b>Temperature</b>	Operating: 0 to +60°C (opt. -40 to +85°C) Storage: -20 to +80°C (opt. -40 to +85°C)
<b>Humidity</b>	Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.

## Block Diagram



## Order Information

Article	PN	Description
conga-CA6/E620-1G	061202	Intel® Atom™ E620 processor 600MHz. Based on Intel® Platform Controller Hub EG20.
conga-CA6/E640-1G	061201	Intel® Atom™ E640 processor 1.0GHz. Based on Intel® Platform Controller Hub EG20.
conga-CA6/E660-1G	061200	Intel® Atom™ E660 processor 1.3GHz. Based on Intel® Platform Controller Hub EG20.
conga-CA6/E680-1G	061203	Intel® Atom™ E680 processor 1.6GHz. Based on Intel® Platform Controller Hub EG20.
conga-CA6/E660-2G	061204	Intel® Atom™ E660 processor 1.3GHz. Based on Intel® Platform Controller Hub EG20.
conga-CA6/E680-2G	061205	Intel® Atom™ E680 processor 1.6GHz. Based on Intel® Platform Controller Hub EG20.
conga-CA6/E620T-1G	061210	Intel® Atom™ E620T processor 600MHz. Based on Intel® Platform Controller Hub EG20T. Industrial grade temperature range from -40°C to 85°C.
conga-CA6/E640T-1G	061211	Intel® Atom™ E640T processor 1.0GHz. Based on Intel® Platform Controller Hub EG20T. Industrial grade temperature range from -40°C to 85°C.
conga-CA6/E660T-1G	061212	Intel® Atom™ E660T processor 1.3GHz. Based on Intel® Platform Controller Hub EG20T. Industrial grade temperature range from -40°C to 85°C.
conga-CA6/E680T-1G	061213	Intel® Atom™ E680T processor 1.6GHz. Based on Intel® Platform Controller Hub EG20T. Industrial grade temperature range from -40°C to 85°C.
conga-CA6/E680T-2G	061214	Intel® Atom™ E680T processor 1.6GHz and 2GByte DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T. Industrial grade temperature range from -40°C to 85°C.
conga-CA6/HSP-B	061220	Standard heatspreader, the four corner stand-offs are with 2.7mm bore hole. The center standoff is with 2.5mm metric thread.
conga-CA6/HSP-T	061221	Standard heatspreader, all stand-offs are M2.5mm threaded.

### 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/COM Express	020715	Mini Carrier Board for COM Express with smart battery manager interface for mobile applications.
conga-MCB/COM Express Cable Kit	14000040	Complete cable kit for the COM Express mini carrier board
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.