

# COM Express® Compact Module Industrial Temperature

## conga-CA6

Extended Temperature Range

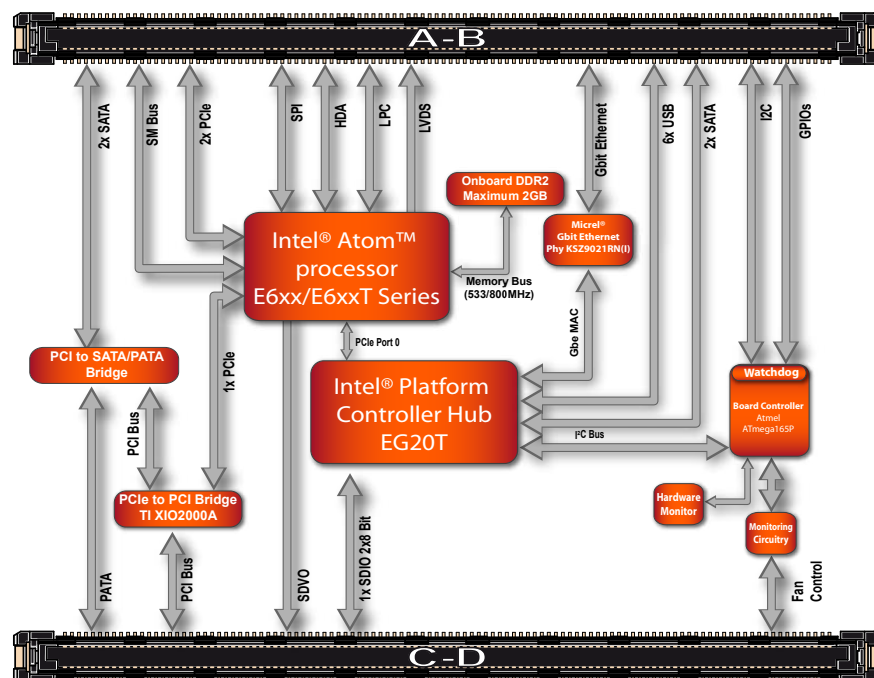
-40° .. +85°C

Intel® 3D Graphics



Formfactor	COM Express™ Compact, (95 x 95 mm), Type II Connector Layout
CPU	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)
DRAM	Up to 2 GByte onboard DDR2 memory with 667/800 MT/s
Chipset	Intel® Platform Controller Hub EG20T
Ethernet	Micrel® Gbit Ethernet Phy KSZ9021RN
I/O Interfaces	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)
Mass Storage	Onboard SATA Solid State Drive up to 32 GByte (optional)
Sound	High Definition Audio Interface
Graphics	Intel® Graphics Core with 2D and 3D hardware Accelerator and dual independent display support.
Video Decode Acceleration	Full hardware acceleration for MPEG2, MPEG4, H.264, WMV9 and VC1
Motion Video Support	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
congatec Board Controller	Multi Stage Watchdog, non-volatile User Data Storage, Manufacturing and Board information, Board Statistics, 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 AMI Aptio UEFI
Power Management	ACPI 3.0 with battery support
Operating Systems	Microsoft® Windows 7, Microsoft® Windows XP, Microsoft® Windows CE 6.0, Microsoft® Windows® Embedded Compact 7, Microsoft® Windows® embedded Standard, Linux
Temperature	Operating: 0 to +60°C (opt. -40 to +85°C) Storage: -20 to +80°C (opt. -40 to +85°C)
Humidity	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.