

# **Industrial Temperature**

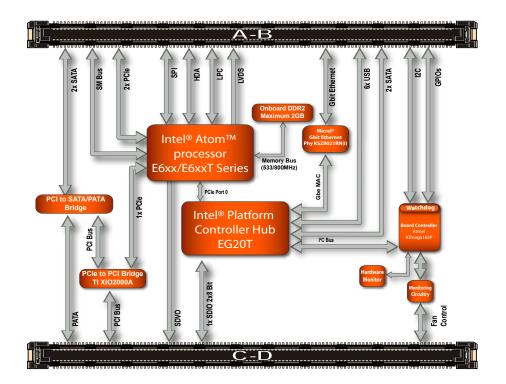


- Extended Temperature Range -40° .. +85°C
- Intel<sup>®</sup> 3D Graphics



| Formfactor                | COM Express <sup>™</sup> Compact   (95 x 95 mm)   Type II Connector Layout   |  |  |  |  |
|---------------------------|--|--|--|--|--|
| CPU                       | Intel® Atom <sup>™</sup> processor E600 series with 1.6 Ghz   1.3 GHz   1.0 GHz and 600 MHz<br>Intel® Atom <sup>™</sup> E680T / E680 1.6 GHz 45 nm process 512kb cache TDP 3.9 W<br>Intel® Atom <sup>™</sup> E640T / E640 1.0 GHz 45 nm process 512kb cache TDP 3.6 W<br>Intel® Atom <sup>™</sup> E620T / E620 600 MHz 45 nm process 512kb cache TDP 2.7 W |  |  |  |  |
| 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            | -<br>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              | -<br>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 independet 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<br>up to a resolution of 1280x768@60Hz.<br>Single channel 160MHz SDVO interface   supports resolutions up to 1920x1080@60Hz and 1280x1024@85Hz.<br>Dual independent display support  |  |  |  |  |
| congatec Board Controller | Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board information   Board Statistics<br>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  <br>Microsoft® Windows® embedded Standard   Linux   |  |  |  |  |
| Temperature               |  |  |  |  |  |
| Humidity                  | Operating: 10 - 90% r. H. non cond.   Storage: 5 - 95% r. H. non cond.   |  |  |  |  |
| Size                      | 95 x 95 mm (3.74" x 3.74")   |  |  |  |  |

## conga-CA6 | Block diagram



### **conga-CA6** | Order Information

| Article            | PN     | Description  |
|--------------------|--------|--|
| conga-CA6/E640-1G  | 061201 | Intel® Atom <sup>™</sup> E640 processor with 1.0GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20   |
| conga-CA6/E680-1G  | 061203 | Intel® Atom™ E680 processor with 1.6GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20   |
| conga-CA6/E640T-1G | 061211 | Intel® Atom <sup>™</sup> E640T processor with 1.0GHz   512kB L2 cache and 1GB DDR2 onboard memory. Based on Intel® Platform Controller Hub EG20T   Industrial grade temperature range from -40°C to 85°C |
| conga-CA6/E680T-1G | 061213 | Intel® Atom <sup>™</sup> E680T processor with 1.6GHz   512kB L2 cache and 1GB 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 for COM Express Compact module conga-CA6. The four corner standoffs are with 2.7mm bore hole The center standoff is with 2.5mm metric thread                                       |
| conga-CA6/HSP-T    | 061221 | Standard heatspreader for COM Express Compact module conga-CA6   All standoffs are M2.5mm thread   |

#### Accessories

| Accessories                        |          |  |
|------------------------------------|----------|--|
| 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-MCB/COM Express              | 020715   | Mini Carrier Board for COM Express with smart battery manager interface for mobile applications.   |
| conga-MCB/COM Express<br>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<br>adapter | 500014   | The conga-HDMI/DisplayPort adapter is used fo convert the chipset graphic ports Port-B, Port-C and Port-D to the HDMI or DisplayPort Interface |
| conga-FPA2                         | 047250   | Flatpanel prototype adapter to develop your own flatpanel adapter Including cables set.  |

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