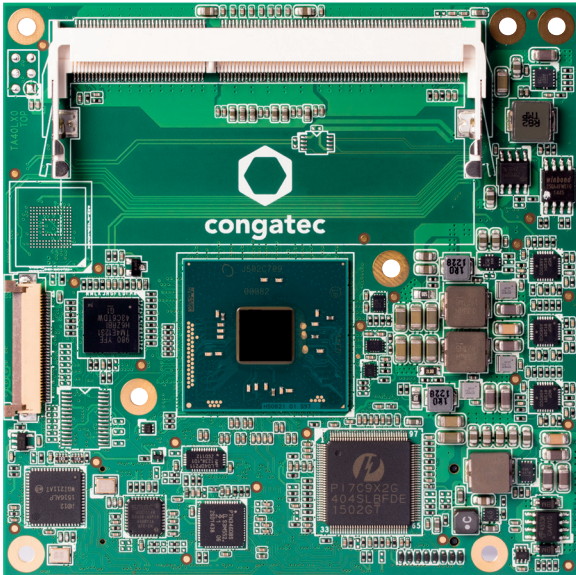


LOW POWER CONSUMPTION

conga-TCA4

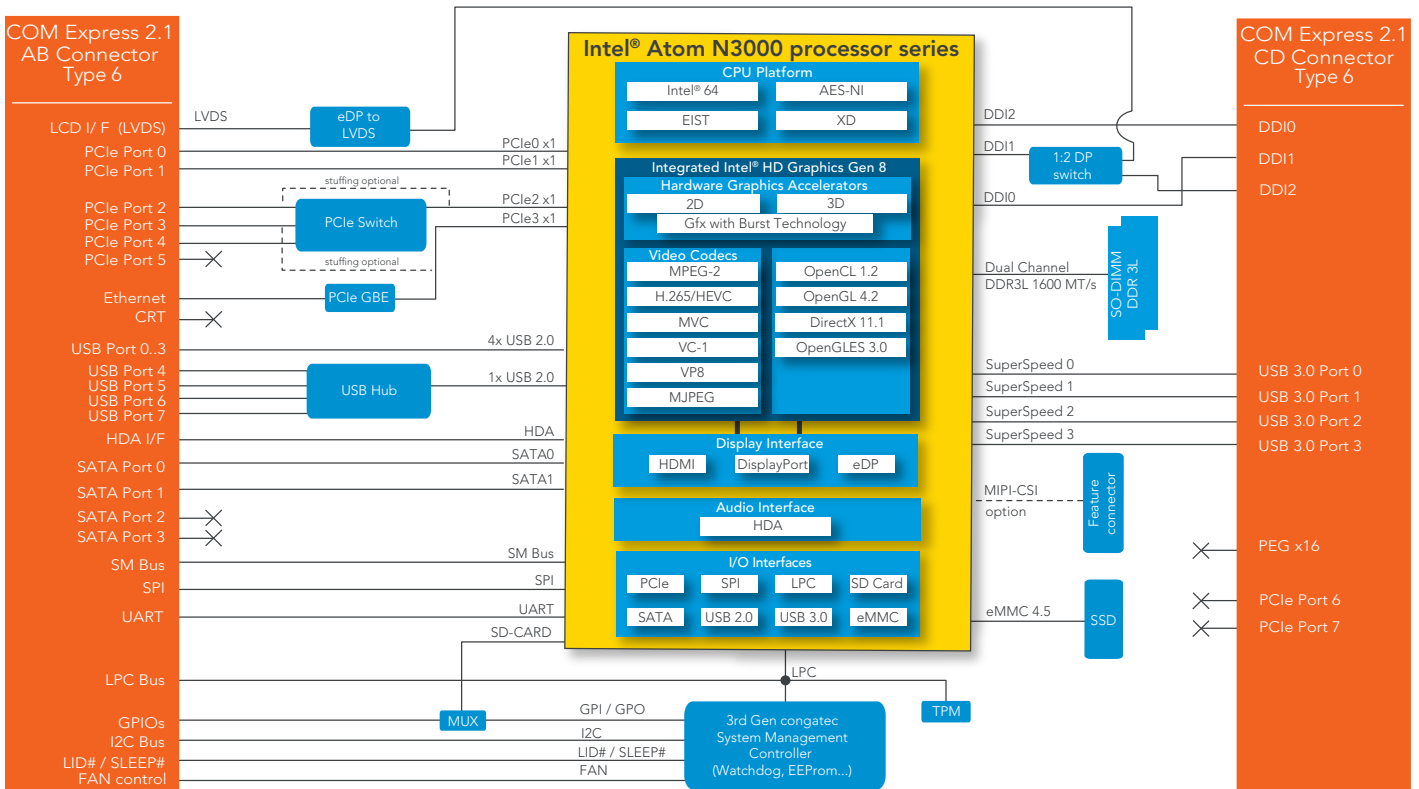


- First Intel® Pentium® Quad Core on COM Express
- High performance Intel® Gen. 8 graphics
- Up to 4k resolution (3840x2160px)
- 3x independent display support
- HW accelerating Video decoding with H.265/HEVC
- Fast I/Os SATA3, USB 3.0 and PCIe 2.0



| | | | | | | |
|---------------------------------|---|------------------|----------------------------------|-----------|-----------------------|-----------------|
| Formfactor | Formfactor COM Express® Compact (95 x 95 mm) Type 6 Connector Layout | | | | | |
| CPU | Intel® Pentium® N3700 | 2.4 GHz (Burst) | 1.6 GHz Clock | Quad Core | L2 cache 2MB | 4W SDP 6W TDP |
| | Intel® Celeron® N3150 | 2.08 GHz (Burst) | 1.6 GHz Clock | Quad Core | L2 cache 2MB | 4W SDP 6W TDP |
| | Intel® Celeron® N3050 | 2.16 GHz (Burst) | 1.6 GHz Clock | Dual Core | L2 cache 1MB | 4W SDP 6W TDP |
| | Intel® Celeron® N3000 | 2.08 GHz (Burst) | 1.04 GHz Clock | Dual Core | L2 cache 1MB | 3W SDP 4W TDP |
| DRAM | 2 SO-DIMM sockets for DDR3L memory modules up to 8 GByte with 1600 MT/s Dual channel memory interface for increased graphics performance | | | | | |
| Chipset | Integrated in SoC | | | | | |
| Ethernet | Intel I211 Gigabit Ethernet | | | | | |
| I/O Interfaces | 5x PCIe x1 4x USB 3.0 (XHCI) 8x USB 2.0 (EHCI) 2x SATA III LPC SPI I ² C bus (fast mode 400 kHz multi-master) SDIO 2x UART (RX/TX)s MIPI-CSI (optional) | | | | | |
| Sound | Digital High Definition Audio Interface | | | | | |
| Graphics | Intel® HD Graphics Gen 8 Full hardware acceleration for MPEG2 H.265/HEVC DirectX11.1 OpenCL 1.2 OpenGL 4.2 OpenGL ES 3.0 | | | | | |
| LVDS | Dual channel LVDS transmitter support for flat panels with 2x24 bit data mapping up to a resolution of 1920x1200@60Hz. | | | | | |
| Digital Display Interface (DDI) | Up to 3x DisplayPort 1.1a or 2x HDMI 1.4b (max. 3840x2160 @ 30Hz) 1x eDP 1.4 | | | | | |
| congatec Board Controller | Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics BIOS Setup Data Backup I ² C 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 | | | | | |
| Security | Trusted Platform Module (TPM) optional. Hash and RSA algorithms key lengths up to 2048 bits real random number generator | | | | | |
| Power Management | ACPI 5.0 with battery support | | | | | |
| Operating Systems | Microsoft® Windows 10 Microsoft® Windows 8 Microsoft® Windows 7 Linux Microsoft® Windows Embedded Standard Microsoft® Windows 7 Embedded Compact | | | | | |
| Power Consumption | see user's guide for full details CMOS Battery Backup | | | | | |
| Temperature | Commercial : | | Operating: 0 to +60°C | | Storage: -20 to +80°C | |
| 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-TCA4 | Block diagram



conga-TCA4 | Order Information

| Article | PN | Description |
|-------------------------|--------|--|
| conga-TCA4/N3700 | 048300 | Intel® Pentium® N3700 quad core with 1.60GHz (up to 2.40GHz) 2MB L2 cache 1600MT/s dual channel DDR3L memory interface |
| conga-TCA4/N3150 | 048301 | Intel® Celeron™ N3150 quad core with 1.60GHz (up to 2.08GHz) 2MB L2 cache 1600MT/s dual channel DDR3L memory interface |
| conga-TCA4/N3050 | 048302 | Intel® Celeron™ N3050 dual core with 1.60GHz (up to 2.16GHz) 1MB L2 cache 1600MT/s dual channel DDR3L memory interface |
| conga-TCA4/N3000 | 048303 | Intel® Celeron™ N3050 dual core with 1.04GHz (up to 2.08GHz) 1MB L2 cache 1600MT/s dual channel DDR3L memory interface |
| TCA3/HSP-T* | 047350 | Standard heatspreader for COM Express module conga-TCA3. All standoffs are M2.5 thread. |
| TCA3/HSP-B* | 047351 | Standard heatspreader for COM Express module conga-TCA3. All standoffs are 2.7mm bore hole. |
| TCA3/CSP-T* | 047352 | Standard passive cooling solution for COM Express module conga-TCA3 with 20mm overall heat sink height. All standoffs are M2.5mm thread. |
| TCA3/CSP-B* | 047353 | Standard passive cooling solution for COM Express module conga-TCA3 with 20mm overall heat sink height. All standoffs are 2.7mm bore hole. |
| DDR3L-SODIMM-1600 (2GB) | 068755 | DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 2GB RAM |
| DDR3L-SODIMM-1600 (4GB) | 068756 | DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 4GB RAM |
| DDR3L-SODIMM-1600 (8GB) | 068757 | DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 8GB RAM |

* cooling solutions also for conga-TCA4

Accessories

| | | |
|------------------------------------|--------|---|
| conga-TEVAL | 065800 | Evaluation carrier board for Type 6 COM-Express-modules |
| conga-LDVI/EPI | 011115 | LVDS to DVI converter board for digital flat panels with onboard EEPROM |
| COM-Express-carrier-board-Socket-5 | 400007 | Connector for COM-Express carrier boards height 5mm packing unit 4 pieces |
| COM-Express-carrier-board-Socket-8 | 400004 | Connector for COM-Express carrier boards height 8mm packing unit 4 pieces |