

# COM Express® Compact Type 6 Module

## conga-TCA

COM Express Type 6 Entry-Level-Module

Intel® Atom™ Dual Core Generation on 32nm

Only 3.5 Watt TDP on Intel® Atom™ Processor N2600

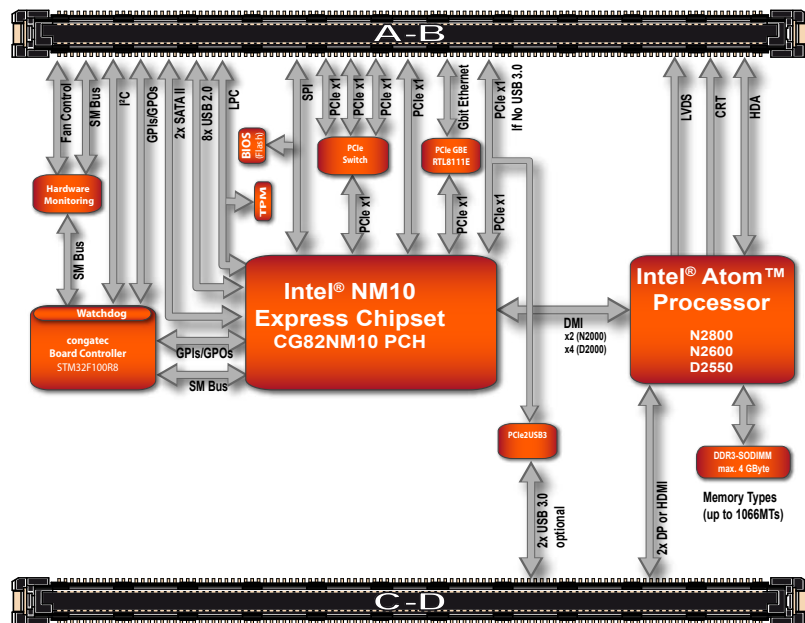
HD video performance 2D/3D

Up to 4 GB DDR3 memory



<b>Formfactor</b>	<b>Formfactor COM Express™ Compact, (95 x 95 mm), Type 6 Connector Layout</b>
<b>CPU</b>	Intel® Atom™ D2550, 2 cores, 4 threads, 1.86GHz, 1MB L2 Cache, TDP 10W Intel® Atom™ N2800, 2 cores, 4 threads, 1.86GHz, 1MB L2 Cache, TDP 6.5W Intel® Atom™ N2600, 2 cores, 4 threads, 1.6GHz, 1MB L2 Cache, TDP 3.5W
<b>DRAM</b>	1 Socket SO-DIMM DDR3 up to 1066MT/s and 4 GByte
<b>Chipset</b>	Intel® NM10 Express Chipset CG82NM10 PCH, TDP 2.1W
<b>Ethernet</b>	GBE Realtek 8111E
<b>I/O Interfaces</b>	up to 5x PCIe, 2x Serial ATA II with 3 Gb/s 8x USB 2.0, 2x USB 3.0 (optional, uses 1x PCIe lane), LPC bus, I²C bus (fast mode, 400 kHz, multi-master)
<b>Sound</b>	Digital High Definition Audio Interface with support for multiple audio codecs
<b>Graphics</b>	Integrated Graphics, supporting DirectX 9, Pixel Shader v3.0 and OGL 3.0 Two independent display pipes Support full MPEG2 (VLD/IDCT/MC), WMV, Fast video Composing, HW decode/acceleration for MPEG4 (AVC/H.264) & VC-1; 720p60, 1080i60, 1080p@24 up to 20 Mps Video Image enhancements
<b>LVDS</b>	1x24 Bit LVDS (D2550) max. Resolution 1440x900 1x18 Bit LVDS (N2000 Series) max. Resolution 1366x768 Automatic Panel Detection via EDID/EPI
<b>Digital Display Interface (DDI)</b>	2x DisplayPort 1.1 / TMDS (DVI, HDMI 1.3a)
<b>CRT Interface</b>	350 MHz RAMDAC, resolutions up to 1920x1200
<b>congatec Board Controller</b>	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
<b>Embedded BIOS Features</b>	AMI Aptio® UEFI 2.x firmware, 4 MByte serial SPI firmware flash
<b>Security</b>	Trusted Platform Module (TPM) optional. Hash and RSA algorithms, key lengths up to 2,048 bits, real random number generator
<b>Power Management</b>	ACPI 3.0 with battery support
<b>Operating Systems</b>	Microsoft® Windows7, Microsoft® Windows XP, Microsoft® Windows® embedded Standard, Embedded POS Ready (WEPOS), Linux 3.0
<b>Power Consumption</b>	Typ. application: tbd., see manual for full details, CMOS Battery Backup
<b>Temperature:</b>	Operating: 0 .. +60°C Storage: -20 .. +80°C
<b>Humidity Operating:</b>	Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.
<b>Size</b>	95 x 95 mm (3.74" x 3.74")

## Block Diagram



## Order Information

Article	PN	Description
conga-TCA/D2550	047003	COM Express Type 6 Compact modul with Intel® Atom™ D2550 Dual Core Processor with 1.86 GHz, 1MB L2 cache and 1066MT/s DDR3 memory interface.
conga-TCA/D2550 USB3	047004	COM Express Type 6 Compact modul with Intel® Atom™ D2550 Dual Core Processor with 1.8GHz, 1MB L2 cache and 1066MT/s DDR3 memory interface. PCIe to 2x USB 3.0 Controller onboard
conga-TCA/N2600	047001	COM Express Type 6 Compact modul with Intel® Atom™ N2600 Dual Core Processor with 1.6GHz, 1MB L2 cache and 800MT/s DDR3 memory interface.
conga-TCA/N2800	047002	COM Express Type 6 Compact modul with Intel® Atom™ N2800 Dual Core Processor with 1.86GHz, 1MB L2 cache and 1066MT/s DDR3 memory interface.
conga-TCA/HSP-T	047032	Standard heatspreader for COM Express modules conga-TCA and CCA. All standoffs are M2.5 thread.
conga-TCA/HSP-B	047033	Standard heatspreader for COM Express modules conga-TCA and CCA. All standoffs are 2.7mm bore hole.
conga-TCA/CSP-T	047030	Standard passive cooling solution for COM Express modules conga-TCA and CCA with 3mm fins. All standoffs are M2.5mm thread.
conga-TCA/CSP-B	047031	Standard passive cooling solution for COM Express modules conga-TCA and CCA with 3mm fins. All standoffs are with 2.7mm bore hole.
DDR3-SODIMM-1333 (1GB)	068751	DDR3-SODIMM memory module with 1 GB RAM
DDR3-SODIMM-1333 (2GB)	068761	DDR3-SODIMM memory module with 2 GB RAM
DDR3-SODIMM-1333 (4GB)	068764	DDR3-SODIMM memory module with 4 GB RAM

### Engineering Tools / Accessories for COM Express®

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-carrierboard-Socket-5	400007	Connector for COM-Express carrier boards, height 5mm, packing unit 4 pieces
COM-Express-carrierboard-Socket-8	400004	Connector for COM-Express carrier boards, height 8mm, packing unit 4 pieces