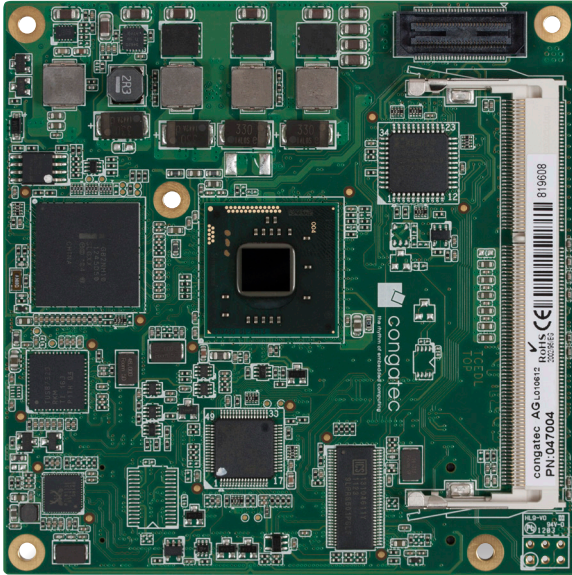


# COM EXPRESS® COMPACT TYPE 6 MODULE

## conga-TCA

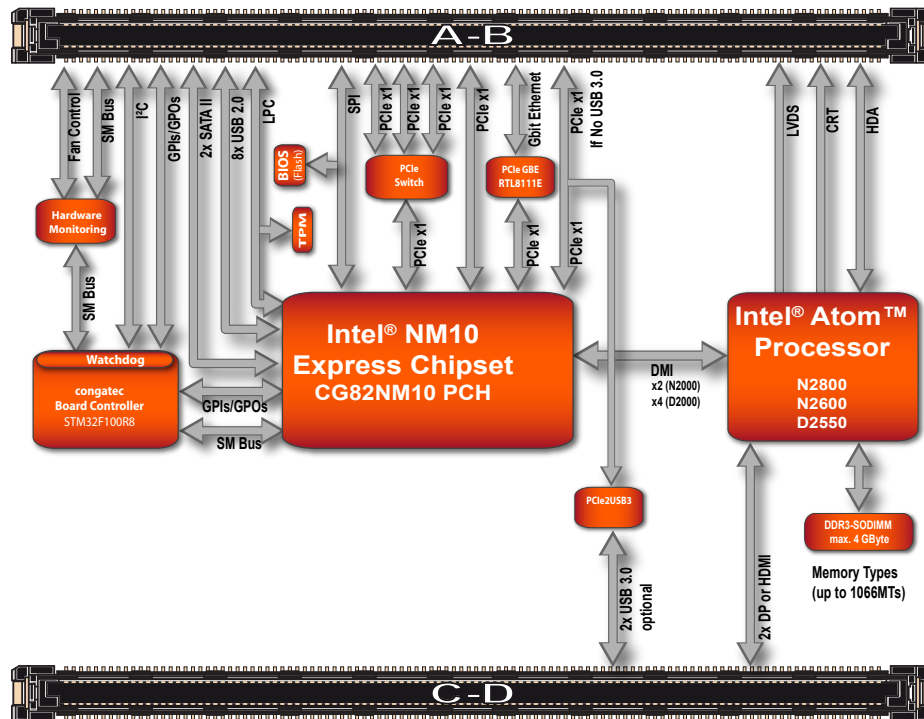


- COM Express Type 6 Entry-Level-Module
- Intel® Atom™ Dual Core Generation on 32nm
- Only 3.5 Watt TDP on Intel® Atom™ Processor N2600
- HD video performance 2D/3D
- Up to 4 GB DDR3 memory

**COM**  **Express®**

Formfactor	Formfactor COM Express™ Compact   (95 x 95 mm)   Type 6 Connector Layout															
CPU	Intel® Atom™ Processors <table border="1"> <tr> <td>Intel® Atom™ D2550</td> <td>1.86 GHz Dual Core</td> <td>4 threads</td> <td>L2 Cache 1MB</td> <td>10W TDP</td> </tr> <tr> <td>Intel® Atom™ N2800</td> <td>1.86 GHz Dual Core</td> <td>4 threads</td> <td>L2 Cache 1MB</td> <td>6.5W TDP</td> </tr> <tr> <td>Intel® Atom™ N2600</td> <td>1.6 GHz Single Core</td> <td>4 threads</td> <td>L2 Cache 1MB</td> <td>3.5W TDP</td> </tr> </table>	Intel® Atom™ D2550	1.86 GHz Dual Core	4 threads	L2 Cache 1MB	10W TDP	Intel® Atom™ N2800	1.86 GHz Dual Core	4 threads	L2 Cache 1MB	6.5W TDP	Intel® Atom™ N2600	1.6 GHz Single Core	4 threads	L2 Cache 1MB	3.5W TDP
Intel® Atom™ D2550	1.86 GHz Dual Core	4 threads	L2 Cache 1MB	10W TDP												
Intel® Atom™ N2800	1.86 GHz Dual Core	4 threads	L2 Cache 1MB	6.5W TDP												
Intel® Atom™ N2600	1.6 GHz Single Core	4 threads	L2 Cache 1MB	3.5W TDP												
DRAM	1 Socket SO-DIMM DDR3 up to 1066MT/s and 4 GByte															
Chipset	Intel® NM10 Express Chipset CG82NM10 PCH   TDP 2.1W															
Ethernet	GBE Realtek 8111E															
I/O Interfaces	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)															
Sound	Digital High Definition Audio Interface with support for multiple audio codecs															
Graphics	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															
LVDS	1x24 Bit LVDS (D2550) max. Resolution 1440x900 1x18 Bit LVDS (N2000 Series) max. Resolution 1366x768 Automatic Panel Detection via EDID/EPI															
Digital Display Interface (DDI)	2x DisplayPort 1.1 / TMDS (DVI   HDMI 1.3a)															
CRT Interface	350 MHz RAMDAC   resolutions up to 1920x1200															
congatec Board Controller	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															
Embedded BIOS Features	AMI Aptio® UEFI 2.x firmware   4 MByte serial SPI firmware flash															
Security	Trusted Platform Module (TPM) optional. Hash and RSA algorithms   key lengths up to 2,048 bits   real random number generator															
Power Management	ACPI 3.0 with battery support															
Operating Systems	Microsoft® Windows 8   Microsoft® Windows 7   Linux   Microsoft® Windows® embedded Standard															
Power Consumption	Typ. application: tbd.   see manual for full details   CMOS Battery Backup															
Temperature	Operating: 0 .. +60°C Storage: -20 .. +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-TCA | Block diagram



# conga-TCA | Order Information

Article	PN	Description
TCA/N2600	47001	COM Express Type 6 Compact module with Intel® Atom™ N2600 dual core processor with 1.6GHz, 1MB L2 cache and 800 MT/s DDR3 memory interface.
TCA/N2800	47002	COM Express Type 6 Compact module with Intel® Atom™ N2800 dual core processor with 1.86GHz, 1MB L2 cache and 1066MT/s DDR3 memory interface.
TCA/D2550	47003	COM Express Type 6 Compact module with Intel® Atom™ D2550 dual core processor with 1.86GHz, 1MB L2 cache and 1066MT/s DDR3 memory interface.
TCA/D2550 xHCI	47004	COM Express Type 6 Compact module with Intel® Atom™ D2550 dual core processor with 1.86GHz, 1MB L2 cache and 1066MT/s DDR3 memory interface. PCI Express to dual port USB 3.0 onboard controller.
TCA/HSP-T	47032	Standard heatspreader for COM Express modules conga-TCA and CCA. All standoffs are M2.5 thread.
TCA/HSP-B	47033	Standard heatspreader for COM Express modules conga-TCA and CCA. All standoffs are 2.7mm bore hole.
TCA/CSP-T-LF	47030	Standard passive cooling solution for COM Express modules conga-TCA and CCA with 3mm fins. All standoffs are M2.5mm thread.
TCA/CSP-B-LF	47031	Standard passive cooling solution for COM Express modules conga-TCA and CCA with 3mm fins. All standoffs are with 2.7mm bore hole.
TCA/CSP-T-HF	47034	Standard passive cooling solution for COM Express module conga-TCA and CCA with 10mm fins. All standoffs are M2.5mm thread.
TCA/CSP-B-HF	47035	Standard passive cooling solution for COM Express module conga-TCA and CCA with 10mm fins. All standoffs are 2.7mm bore hole.
DDR3-SODIMM-1066 (1GB)	68750	DDR3 SODIMM memory module with 1066MT/s and 1GB RAM.
DDR3-SODIMM-1066 (2GB)	68760	DDR3 SODIMM memory module with 1066MT/s and 2GB RAM.
DDR3-SODIMM-1066 (4GB)	68765	DDR3 SODIMM memory module with 1066MT/s and 4GB RAM.

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

© 2014 congatec AG. All rights reserved.

All data is for information purposes only. Although all the information contained within this document is carefully checked, no guarantee of correctness is implied or expressed. Product names, logos, brands, and other trademarks featured or referred are the property of their respective trademark holders. These trademark holders are not affiliated with congatec AG. Rev. November 04, 2014 MR