

# conga-TCA3 COM Express® module

## conga-TCA3

COM Express Compact Type 6

3rd Generation Intel® Atom™ / Celeron®

Low Power 5 to 10 Watt

Intel® HD Graphics Generation 7

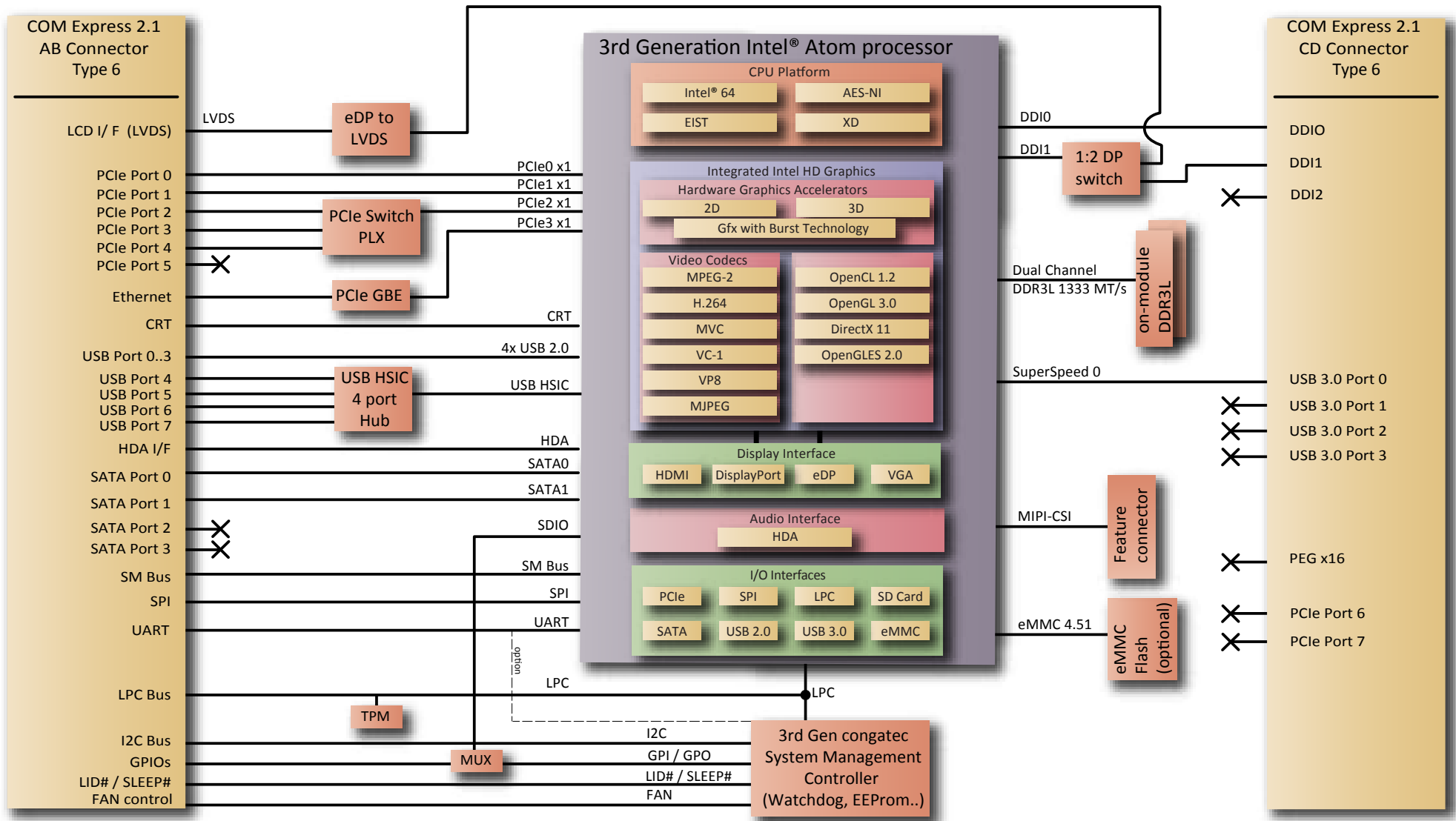
Industrial Temperature Range

**COM**   
**Express®**



<b>Formfactor</b>	<b>Formfactor COM Express™ Compact, (95 x 95 mm), Type 6 Connector Layout</b>
<b>CPU</b>	Intel® Atom™ E3845 quad core processor, 1.91GHz, 2MB L2 cache and 10W TDP Intel® Atom™ E3827 dual core processor, 1.75GHz, 1MB L2 cache and 8W TDP Intel® Atom™ E3826 dual core processor, 1.46GHz, 1MB L2 cache and 7W TDP Intel® Atom™ E3825 dual core processor, 1.33GHz, 1MB L2 cache and 6W TDP Intel® Atom™ E3815 single core processor, 1.46GHz, 512kB L2 cache and 5W TDP Intel® Celeron J1900 quad core processor, 2 GHz, 2MB L2 cache and 10W TDP Intel® Celeron N2920 quad core processor, 1.6 GHz, 2MB L2 cache and 7.5 W TDP
<b>DRAM</b>	2 SO-DIMM sockets for DDR3L memory modules up to 8 GByte with 1333MT/s Dual channel memory interface for increased graphics performance.
<b>Chipset</b>	Integrated in SoC
<b>Ethernet</b>	Intel I210 Gigabit Ethernet
<b>I/O Interfaces</b>	Up to 5x PCIe x1, 8x USB 2.0, 1x USB 3.0, LPC, SPI, I <sup>2</sup> C bus (fast mode 400 kHz, multi-master), SDIO
<b>Sound</b>	Digital High Definition Audio Interface
<b>Graphics</b>	Intel® HD Graphics Gen 7, Full hardware acceleration for MPEG2, H.264, DirectX11, OCL 1.1, OGL 3.2, WMV9 and VC1
<b>LVDS</b>	Dual channel LVDS transmitter, support for flat panels with 2x24 bit data mapping up to a resolution of 1920x1200@60Hz.
<b>Digital Display Interface (DDI)</b>	Up to 2x DisplayPort 1.2 (max. 2560x1600) or HDMI 1.4a (max. 1920x1200)
<b>CRT Interface</b>	320 MHz RAMDAC, resolutions up to 2560x1600
<b>congatec Board Controller</b>	Multi Stage Watchdog, non-volatile User Data Storage, Manufacturing and Board Information, Board Statistics, BIOS Setup Data Backup, I <sup>2</sup> C bus (fast mode, 400 kHz, multi-master), Power Loss Control
<b>Embedded BIOS Features</b>	OEM Logo, OEM CMOS Defaults, LCD Control, Display Auto Detection, Backlight Control, Flash Update, based on AMI Aptio UEFI
<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 5.0 with battery support
<b>Operating Systems</b>	Microsoft® Windows® 8, Microsoft® Windows® 7, Linux, Microsoft® Windows® Embedded Standard, Microsoft® Windows® 7 Embedded Compact
<b>Power Consumption</b>	Typ. application: see user's guide for full details, CMOS Battery Backup
<b>Temperature:</b>	Commercial :      Operating: 0 to +60°C      Storage: -20 to +80°C Industrial :      Operating: -40 to +85°C      Storage: -45 to +85°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")

# conga-TCA3 - Block diagram



# conga-TCA3 - Order information

Article	PN	Description
conga-TCA3/E3845	047300	COM Express module with Intel® Atom™ E3845 quad core processor with 1.91GHz, 2MB L2 cache, dual channel 1333MT/s DDR3L memory interface
conga-TCA3/E3827	047301	COM Express module with Intel® Atom™ E3827 dual core processor with 1.75GHz, 1MB L2 cache, dual channel 1333MT/s DDR3L memory interface
conga-TCA3/E3826	047302	COM Express module with Intel® Atom™ E3826 dual core processor with 1.46GHz, 1MB L2 cache, dual channel 1066MT/s DDR3L memory interface
conga-TCA3/E3825	047303	COM Express module with Intel® Atom™ E3825 dual core processor with 1.33GHz, 1MB L2 cache, dual channel 1066MT/s DDR3L memory interface
conga-TCA3/E3815	047304	COM Express module with Intel® Atom™ E3815 single core processor with 1.46GHz, 512kB L2 cache, dual channel 1066MT/s DDR3L memory interface
conga-TCA3/J1900	047305	COM Express module with Intel® Celeron J1900 quad core processor with 2.0 GHz, 2MB L2 cache, dual channel 1333MT/s DDR3L memory interface
conga-TCA3/N2920	047306	COM Express module with Intel® Celeron N2920 quad core processor with 1.6 GHz, 2MB L2 cache, dual channel 1066MT/s DDR3L memory interface
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 1600MT/s (PC3L-12800S) and 4GB 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

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Rev. September 25, 2013 MD