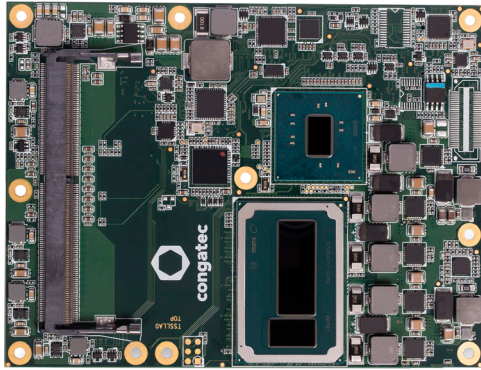


# SERVER-CLASS EMBEDDED PERFORMANCE

# conga-TS170



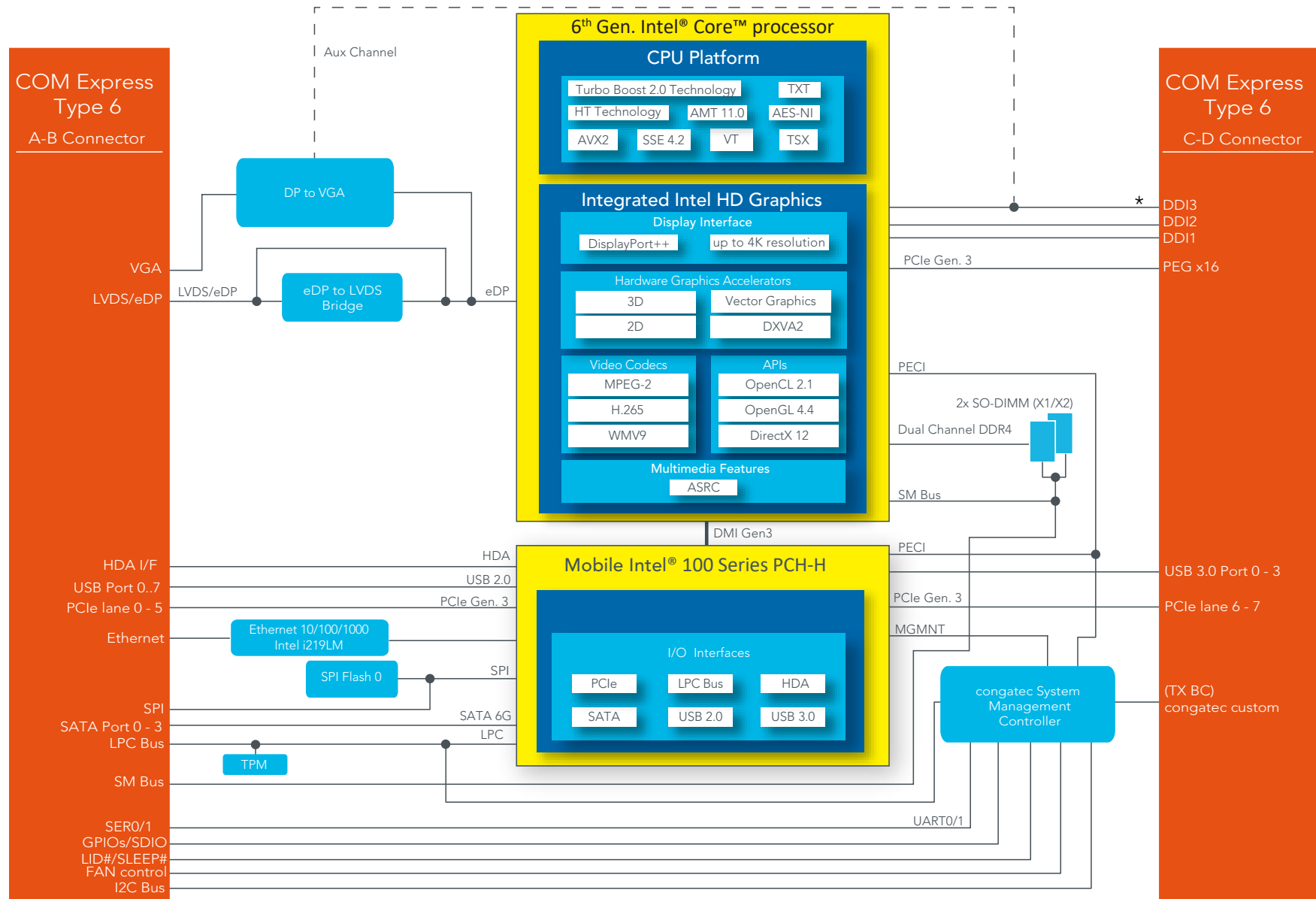
- 6<sup>th</sup> Generation Intel® Core™ processor
- Intel® Gen9 HD Graphics with HEVC (H.265) support up to Intel® Iris™ Pro Graphics P580
- ECC memory support
- Up to 32 GByte dual channel DDR4 memory
- Intel® Xeon® processors for data center applications



Formfactor	COM Express® Basic, (95 x 125 mm), Type 6 Connector Pinout					
<b>CPU</b>	Intel® Xeon® E3-1578LV5	Quad Core	2.0 / 3.4 GHz	8 MB Cache	45W TDP, 35W cTDP	Iris™ Pro P580 Graphics 0.35-1.0 GHz
	Intel® Xeon® E3-1558LV5	Quad Core	1.9 / 3.3 GHz	8 MB Cache	45W TDP, 35W cTDP	Iris™ Pro P555 Graphics 0.35-1.0 GHz
	Intel® Xeon® E3-1515MV5	Quad Core	2.8 / 3.7 GHz	8 MB Cache	45W TDP, 35W cTDP	Iris™ Pro P580 Graphics 0.35-1.0 GHz
	Intel® Xeon® E3-1505MV5	Quad Core	2.8 / 3.7 GHz	8 MB Cache	45W TDP, 35W cTDP	HD P530 Graphics 0.35-1.05 GHz
	Intel® Xeon® E3-1505LV5	Quad Core	2.0 / 2.8 GHz	8 MB Cache	25W TDP	HD P530 Graphics 0.35-1.0 GHz
	Intel® Core™ i7-6820EQ	Quad Core	2.8 / 3.5 GHz	8 MB Cache	45W TDP	HD 530 Graphics 0.35-1.0 GHz
	Intel® Core™ i7-6822EQ	Quad Core	2.0 / 2.8 GHz	8 MB Cache	25W TDP	HD 530 Graphics 0.35-1.0 GHz
	Intel® Core™ i5-6440EQ	Quad Core	2.7 / 3.7 GHz	6 MB Cache	45W TDP	HD 530 Graphics 0.35-1.0 GHz
	Intel® Core™ i5-6442EQ	Quad Core	1.9 / 2.7 GHz	6 MB Cache	25W TDP	HD 530 Graphics 0.35-1.0 GHz
	Intel® Core™ i3-6100E	Dual Core	2.7 GHz	3 MB Cache	35W TDP	HD 530 Graphics 0.35-0.95 GHz
	Intel® Core™ i3-6102E	Dual Core	1.9 GHz	3 MB Cache	25W TDP	HD 530 Graphics 0.35-0.95 GHz
	Intel® Celeron® G3900E	Dual Core	2.4 GHz	2 MB Cache	35W TDP	HD 530 Graphics 0.542-0.792 GHz
	Intel® Celeron® G3902E	Dual Core	1.6 GHz	2 MB Cache	25W TDP	HD 510 Graphics 0.35-0.95 GHz
	Intel® Turbo Boost Technology   Intel® Hyper-Threading Technology (Intel® HT Technology)   Intel® Advanced Vector Extensions 2.0 (Intel® AVX2)   Intel® Advanced Encryption Standard New Instructions (Intel® AES-NI)   Integrated dual channel memory controller   up to 34,1 GByte/sec. memory bandwidth   Integrated Intel® Gen9 HD Graphics with frequency up to 1GHz   Intel® Clear Video HD Technology   Intel® Virtualization Technology (Intel® VT)   Intel® Trusted Execution Technology (Intel® TXT)   Intel® Secure Key					
<b>DRAM</b>	2 Sockets, SO-DIMM DDR4 up to 2133 MT/s and 32GByte dual channel, Intel® Xeon® and Intel® Core® i3 with ECC support					
<b>Chipset</b>	Mobile Intel® 100 Series Chipset					
<b>Ethernet</b>	Intel® i219-LM GbE LAN Controller with AMT 11 support					
<b>I/O Interfaces</b>	8x PCI Express™ gen. 3.0 lanes   4x Serial ATA® Gen 3   4x USB 3.0 (XHCI)   8x USB 2.0 (XHCI)   1x PEG x16 Gen 3   LPC bus (no DMA)   I²C bus (fast mode, 400 kHz, multi-master)   2x UART					
<b>Sound</b>	Digital High Definition Audio Interface with support for multiple audio codecs					
<b>Graphics</b>	Intel® Gen9 HD Graphics Engine with OpenCL 2.0, OpenGL 4.3 and DirectX12 (for Windows 10) support   up to three independent displays High performance hardware MPEG-2 decoding   WMV9 (VC-1) and H.265 (HEVC) support Blu-ray support @ 40 MBit/s HEVC, VP8, VP9 and VDENC encoding					
<b>LVDS (eDP optional)</b>	Dual channel LVDS transmitter, Supports flat panels 2x24 Bit interface   VESA and openLDI colour mappings   resolutions up to 1920x1200   Automatic Panel Detection via EDID/EPI					
<b>Digital Display Interface (DDI)</b>	3x DDI (TMDS/DisplayPort 1.2) with support for Multi-Stream Transport (MST)   resolutions up to 4k   VGA					
<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   8/16 MByte serial SPI firmware flash					
<b>Security</b>	The conga-TS170 can be optionally equipped with a discrete "Trusted Platform Module" (TPM 1.2 / 2.0). It is capable of calculating efficient hash and RSA algorithms with key lengths up to 2,048 bits and includes a real random number generator. Security sensitive applications such as gaming and e-commerce will benefit also with improved authentication, integrity and confidence levels.					
<b>Power Management</b>	ACPI 4.0 with battery support					
<b>Operating Systems</b>	Microsoft® Windows 10   Microsoft® Windows IoT Enterprise   Microsoft® Windows 7   Linux   Microsoft® Windows embedded Standard					
<b>Power Consumption</b>	See User's Guide for full details					
<b>Temperature</b>	Operating: 0 .. +60°C Storage: -20 .. +80°C					
<b>Humidity</b>	Operating: 10 - 90% r. H. non cond. Storage: 5 - 95% r. H. non cond.					
<b>Size</b>	95 x 125 mm (3.74" x 4.92")					



# conga-TS170 | Block diagram



\* See manual for restrictions.