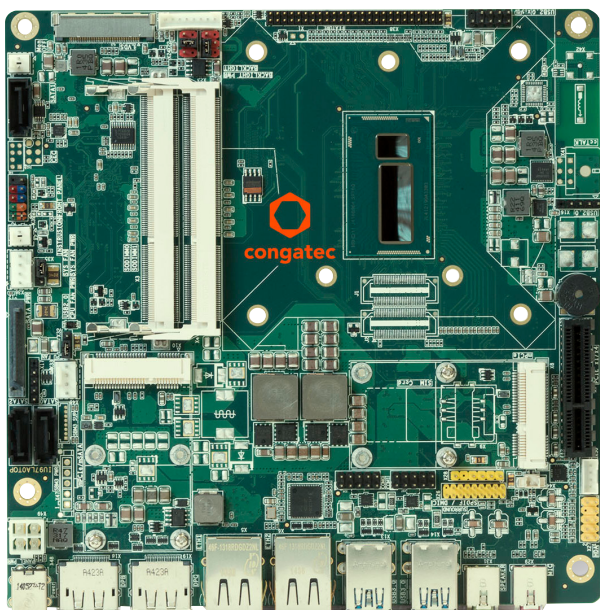


PROFESSIONAL THIN MINI-ITX

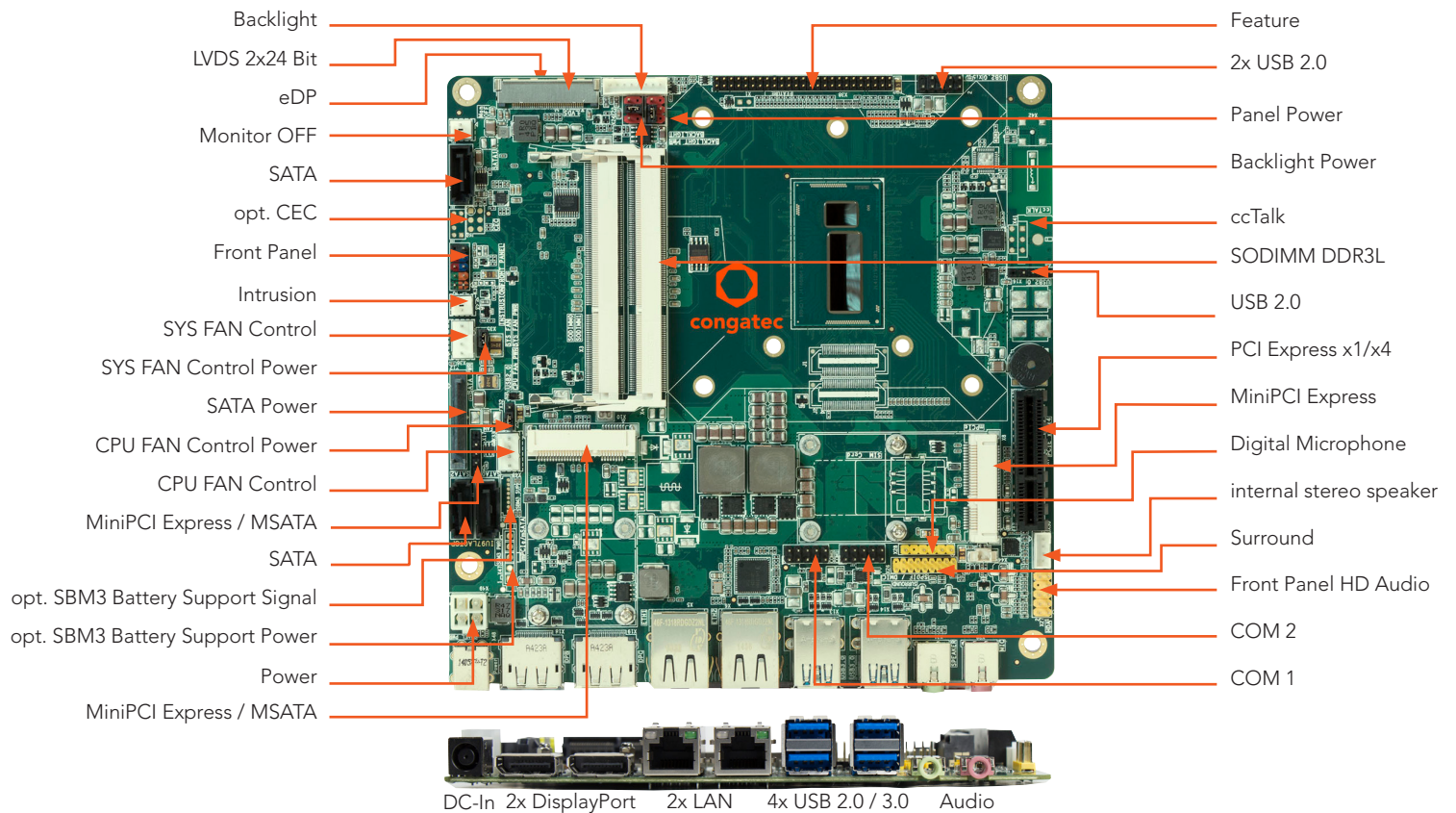
conga-IC97



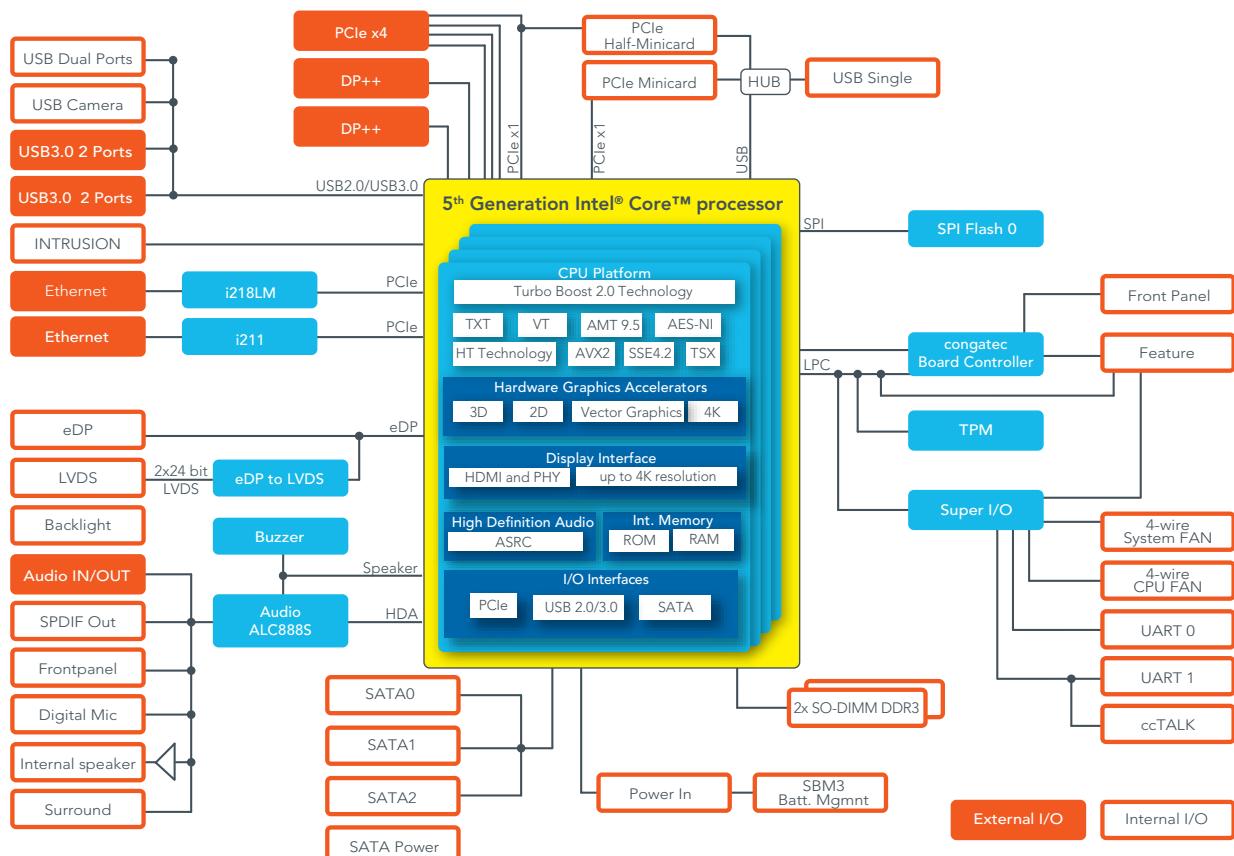
- Highest Performance Thin Mini-ITX board
- 5th Generation Intel® Core™ Mobile SOC U-Processors
- Improved Graphics Performance up to GT3 HD6000
- Wide Range Power Input 12-24 Volt
- congatec embedded Board Controller Features

Formfactor	Professional Thin-Mini-ITX 170 x 170 mm					
CPU	Intel® Core™ i7-5650U	2.2 GHz Dual Core	Turbo Boost 3.2 GHz	4 MB Cache	TDP 15W GT3 HD 6000	
	Intel® Core™ i5-5350U	1.8 GHz Dual Core	Turbo Boost 2.9 GHz	3 MB Cache	TDP 15W GT3 HD 6000	
	Intel® Core™ i3-5010U	2.1 GHz Dual Core		3 MB Cache	TDP 15W HD 6000	
	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 25.6 GByte/sec. memory bandwidth Integrated Intel® HD Graphics 6000 series with dynamic frequency up to 1.1 GHz Intel® Clear Video HD Technology Intel® Virtualization Technology (Intel® VT) Intel® Trusted Execution Technology (Intel® TXT) Intel® Streaming SIMD Extensions 4.2 (Intel® SSE4.2) PCLMULQDQ Instruction Intel® Secure Key Intel® Transactional Synchronization Extensions (Intel® TSX)					
DRAM Memory	Support for 2x SO DIMM Socket (dual channel DDR3L up to 1600 MT/s) max. 16GB					
Ethernet	Dual LAN Gbit / 100 Mbit / 10 Mbit; 1x Intel Gigabit Ethernet PHY i218LM (with AMT support); 1x Intel Gigabit Ethernet Controller i210/i211					
Sound	High Definition Audio Interface Realtek ALC 888S 7.1-channel					
Graphics	Next Generation Intel® HD Graphics with OpenCL 2.0 OpenGL 4.X and DirectX11.1 support; up to three independent displays: HDMI 1.4 DVI, DisplayPort 1.2; High performance hardware MPEG-2 decoding WMV9 (VC-1) and H.264 (AVC) support Blu-ray support @ 40 MBit/s					
Graphic Interfaces	1x 24-bit Dual Channel LVDS Interface or eDP (x4) and 2x DisplayPort					
Internal Connectors	1x PCIe x4 Slot (Gen.2) 1x Full/Half-size Mini PCIe Slot shared with PCIe x1 slot 1x Full/Half-size Mini PCIe Slot (shared with mSATA) 3x SATA (6G) 1x mSATA (SATA-III; 600) 1x SATA Power 4x USB 2.0 1x LVDS (2x24 bit) 1x Embedded DisplayPort (x4) 1x Backlight (Power control) 1x Monitor OFF 1x Surround 1x Front Panel HD Audio 1x Digital Microphone (SPDIF) 1x Internal stereo speaker 1x Serial Port COM1 (opt. as ccTALK) 1x Serial Port COM2 1x Feature connector - congatec custom (8 Bit General Purpose I/O) 1x Frontpanel (Power Switch, LEDs, Reset) 1x Intrusion (Case Open) 1x FAN CPU 1x FAN System 1x internal power header (12-24V) 1x opt. battery header signal + power (SBM3) 1x opt. CEC					
congatec embedded 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					
External Connectors (Frontpanel)	2x DisplayPort dp++ Audio In Line Out 2x LAN RJ45 4x USB 3.0/2.0 1x PCIe x4 (via extension card) 1x DC-In (external input)					
Embedded BIOS	AMI Aptio® 2.X (UEFI) BIOS; SM-BIOS BIOS Update Logo Boot Quiet Boot HDD Password					
Security	The conga-IC97 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.					
Power Specification	Power Management ACPI S3/S4/DeepSx Wake on time from S5 Power Supply 12V - 24V 2 x FAN (CPU system) monitored & controlled					
Operating Systems	Microsoft® Windows 8 Microsoft® Windows 7 Linux Microsoft® Windows® 7/8 embedded Standard					
Power Consumption	Typ. application: tbd. see manual for full details					
Temperature:	Operating: 0 .. +60°C					
Humidity Operating:	Operating: 10 - 90% r. H. non cond.					
Size	170 x 170 mm (6.7" x 6.7")					

conga-IC97 | Connectors



conga-IC97 | Block diagram



conga-IC97 | Order Information

Article	PN	Description
conga-IC97/i7-5650U	052501	Thin Mini-ITX board based on 5th Gen Intel® Core™ i7-5650U dual core processor with 2.2GHz, 4MB L2 cache and 1600MT/s dual channel DDR3L SODIMM memory interface
conga-IC97/i5-5350U	052502	Thin Mini-ITX board based on 4th Gen Intel® Core™ i5-5350U dual core processor with 1.8GHz, 3MB L2 cache and 1600MT/s dual channel DDR3L SODIMM memory interface
conga-IC97/i3-5010U	052503	Thin Mini-ITX board based on 4th Gen Intel® Core™ i3-5010U dual core processor with 2.1GHz, 3MB L2 cache and 1600MT/s dual channel DDR3L SODIMM memory interface

Accessories

conga-IC97/Retention Frame	052255	Retention frame for standard cooling for conga-IC97
conga-IC97/IO Shield-Standard	052256	IO shield for conga-IC97 with Standard Mini-ITX height
conga-IC97/IO Shield - Thin	052257	IO shield for conga-IC97 with Thin Mini-ITX height
conga-IC97/CSA	052252	Active cooling solution for conga-IC97 and with 12V fan and Thin Mini-ITX height
conga-IC97/LGA115x Adapter	052258	Adapter to interface standard LGA115x cooling solutions to the BGA processor of the conga-IC97 (e.g. for CoolJag LGA115x coolers)
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