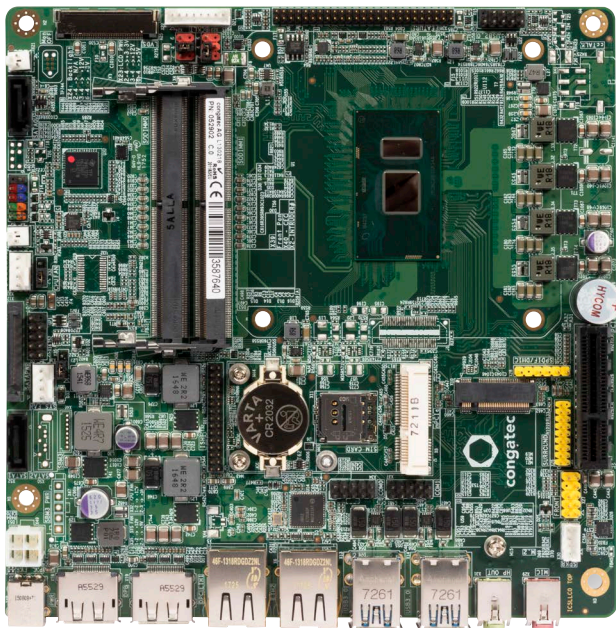


INDUSTRIAL THIN MINI-ITX

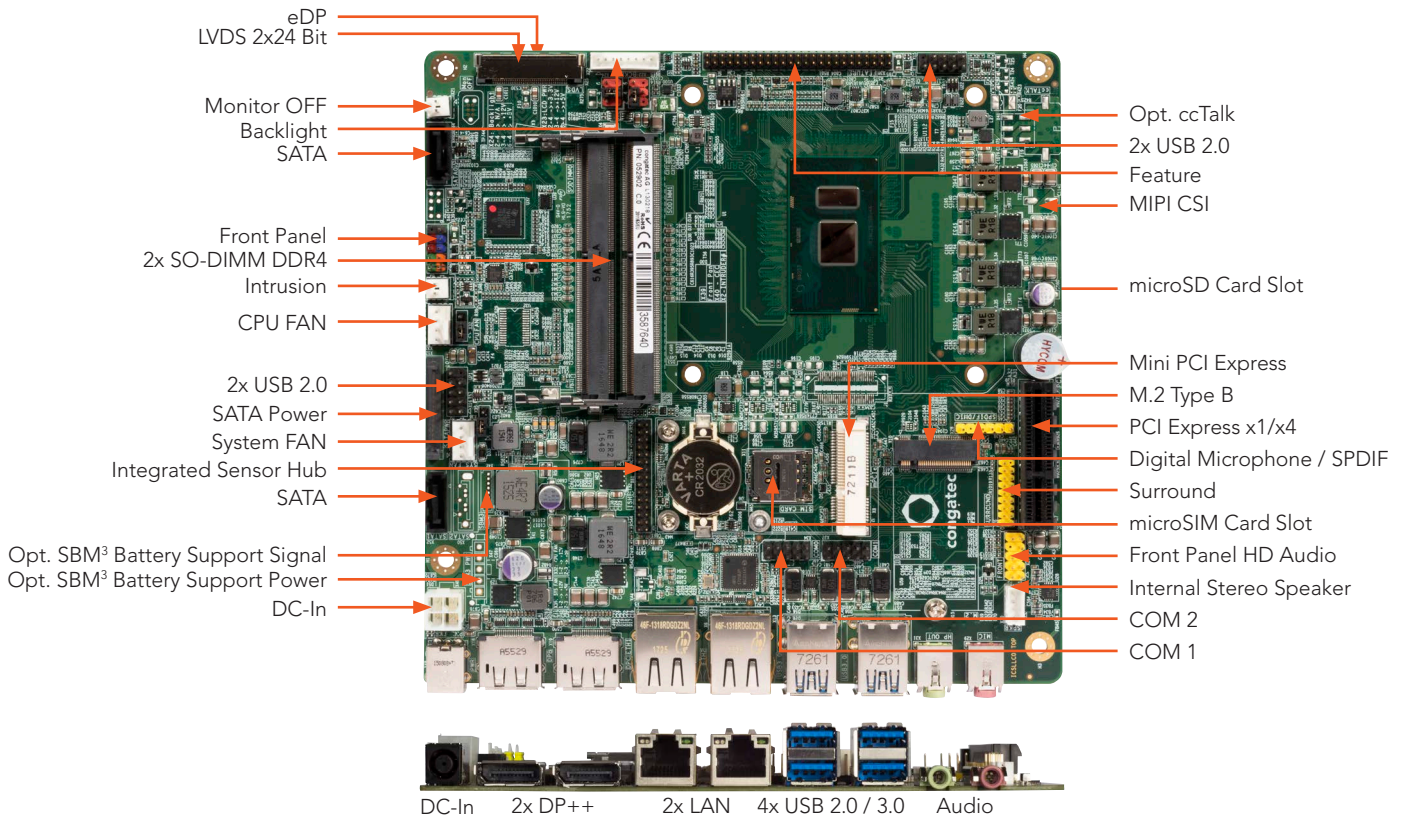
conga-IC175



- Highest Performance Thin Mini-ITX board
- 7th Generation Intel® Core™ Mobile SOC U-Processors
- Improved Graphics Performance with HD600 Series
- Ready for Intel® Optane™ memory technology on M.2
- Wide Range Power Input 12-24 Volt
- congatec embedded Board Controller Features

Formfactor	Industrial Thin Mini-ITX 170 x 170 x 20 mm ³						
CPU	Intel® Core™ i7-7600U	2.8 GHz Dual Core	Turbo Boost 3.9 GHz	4 MB Cache	15W TDP	7.5W cTDP	Intel® HD Graphics 620
	Intel® Core™ i5-7300U	2.6 GHz Dual Core	Turbo Boost 3.5 GHz	3 MB Cache	15W TDP	7.5W cTDP	Intel® HD Graphics 620
	Intel® Core™ i3-7100U	2.4 GHz Dual Core		3 MB Cache	15W TDP	7.5W cTDP	Intel® HD Graphics 620
	Intel® Celeron® 3965U	2.2 GHz Dual Core		2 MB Cache	15W TDP	10W cTDP	Intel® HD Graphics 610
	Intel® Turbo Boost Technology Intel® Hyper-Threading Technology (HT) Intel® Advanced Vector Extensions 2.0 (AVX2) Intel® Advanced Encryption Standard New Instructions (AES-NI) Integrated dual channel memory controller up to 34.1 GByte/sec. memory bandwidth Integrated Intel® HD Graphics 600 series with dynamic frequency up to 1.15 GHz Intel® Clear Video HD Technology Intel® Virtualization Technology (VT)Intel® Trusted Execution Technology (TXT) Intel® Streaming SIMD Extensions 4.2 (SSE4.2) PCLMULQDQ Instruction Intel® Secure Key Intel® Transactional Synchronization Extensions (TSX)						
DRAM Memory	Support for 2x SO DIMM Socket (dual channel DDR4 up to 2133 MT/s) max. 2x 16 GByte						
Ethernet	Dual LAN Gbit / 100 Mbit / 10 Mbit; 1x Intel Gigabit Ethernet PHY i219LM (with AMT support); 1x Intel Gigabit Ethernet Controller i211 (i210 optional)						
Sound	High Definition Audio Interface Realtek ALC 888S 7.1-channel						
Graphics	Next gen Intel® HD Graphics with OpenCL 2.0 OpenGL 4.X and DirectX12 support up to three independent displays: DDI, DVI, DisplayPort 1.2 High performance hardware MPEG-2 decoding WMV9 (VC-1) and H.264 (AVC) support						
Graphic Interfaces	1x 24-bit Dual Channel LVDS Interface or eDP (x4) and 2x DisplayPort (DP++)						
Internal Connectors	1x PCIe x4 slot (gen.3) 1x full/half-size Mini PCIe slot M.2 key B 2242/3042 connector (2x PCIe lanes for Intel® Optane™ key) 3x SATA (6G), one shared with M.2 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 MIC or S/PDIF 1x internal stereo speaker 2x serial port (COM2 opt. as ccTALK) 1x feature connector (8 Bit general purpose I/O) connector for Integrated Sensor Hub 1x front panel (power switch, LEDs, reset) 1x intrusion (case open) 1x fan CPU 1x fan system 1x internal power header (12-24 V) 1x CEC 1x microSIM card slot 1x microSD card slot 1x opt. battery header signal + power (SBM3) 1x I ² C Bus						
congatec embedded Controller	Multi-Stage watchdog Non-volatile user data storage Manufacturing and board information Board statistics BIOS setup data backup I ² C bus (fast mode, 400 kHz, multi-master) Power loss control						
External Connectors (Rearpanel)	2x DisplayPort DP++ Audio In Line Out 2x LAN RJ45 4x USB 3.0/2.0 1x DC-In (12-24 V)						
Embedded BIOS	AMI Aptio® 2.X (UEFI) BIOS; SM-BIOS BIOS Update Logo Boot Quiet Boot HDD Password						
Security	Discrete "Trusted Platform Module" (TPM 2.0) on board						
Power Specification	Power Management ACPI S3/S4/DeepSx Wake on time from S5 Power Supply 12-24 V 2 x fan (CPU / system) monitored & controlled						
Operating Systems	Microsoft® Windows 10 (64bit only) Microsoft® Windows 10 IoT Enterprise (64bit only) Linux						
Power Consumption	See manual for full details						
Temperature	Operating Temperature: 0 to +60°C			Storage Temperature: -20 to +70°C			
Humidity	Operating: 10 to 90% r. H. non cond.			Storage: 5 to 95% r. H. non cond.			
Size	170 x 170 x 20 mm ³						

conga-IC175 | Connectors



conga-IC175 | Block diagram

