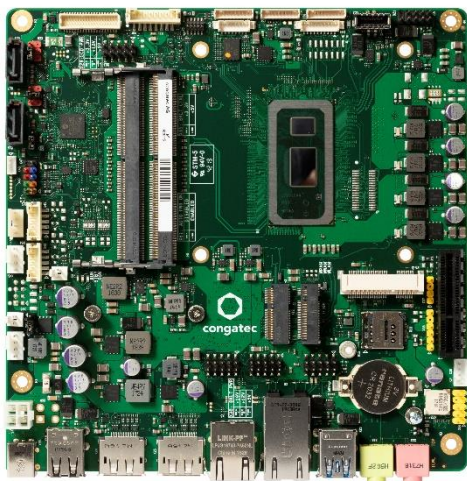


INDUSTRIAL THIN MINI-ITX BOARD

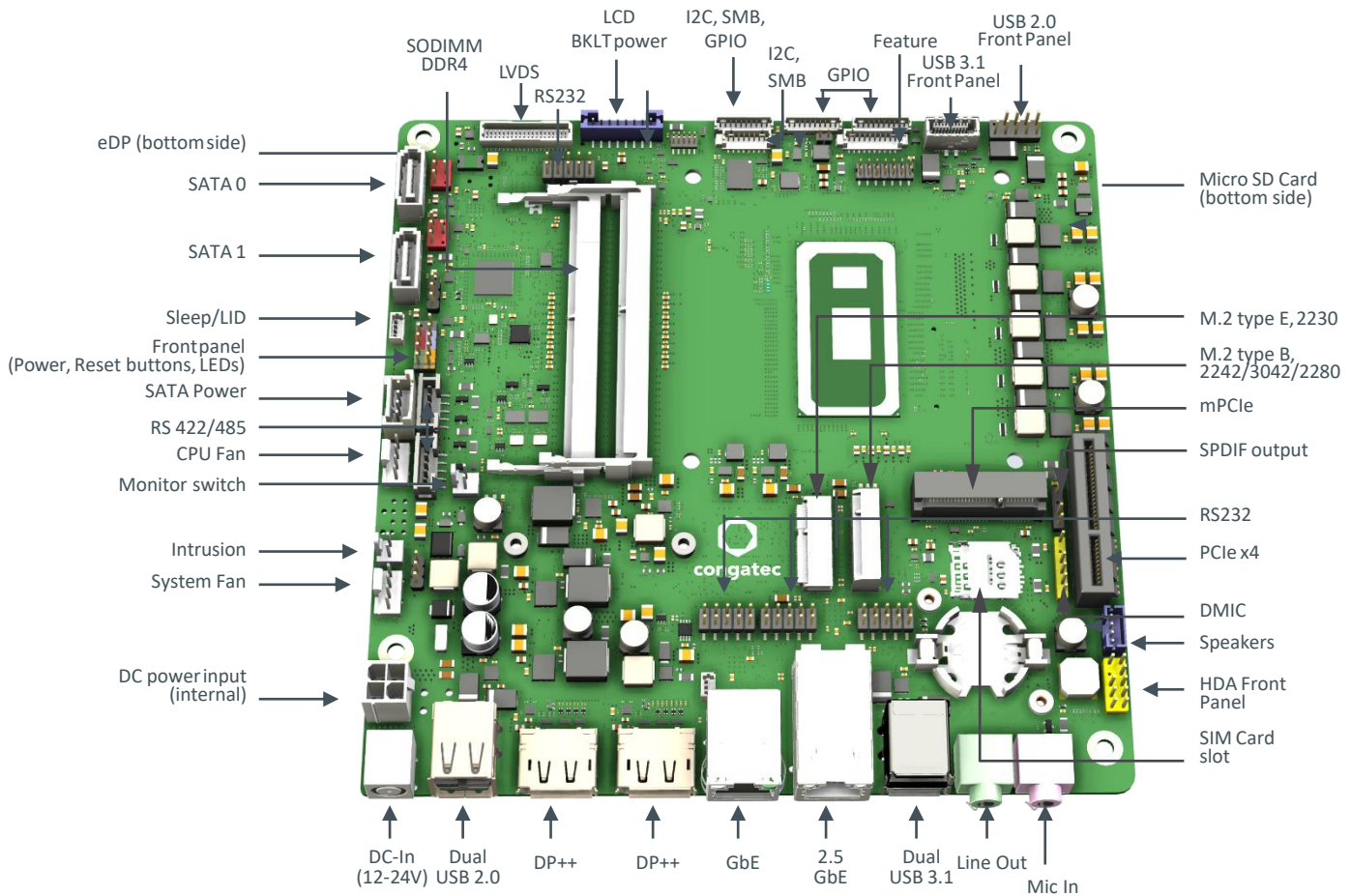
conga-IC370



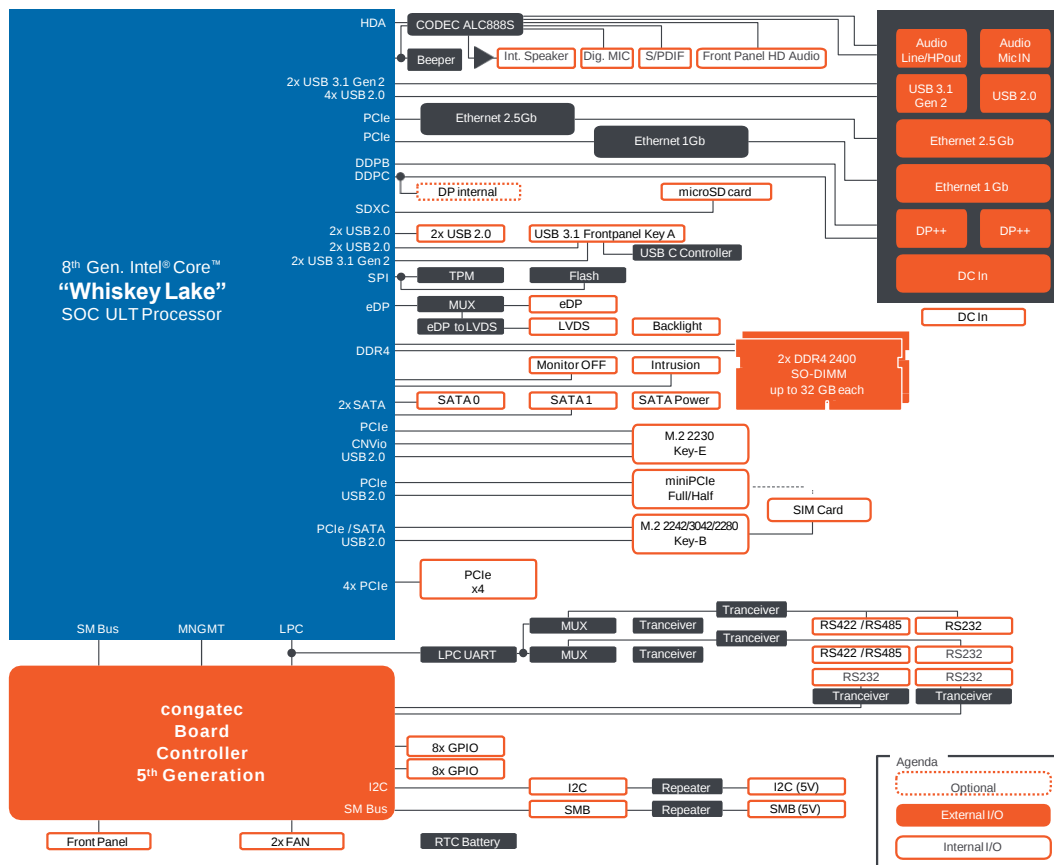
- Highest Performance Thin Mini-ITX Board
- 8th Generation Intel® Core™ SOC processors with up to 4 cores
- Intel® UHD-Graphics 610/620, up to 24 Execution Units
- Up to 64 GByte dual channel DDR4 2400 MT/s
- Flexible internal and external Video interfaces
- Wide Range Power Input 12 – 24V
- congatec embedded Board Controller Features

Formfactor	Industrial Thin Mini-ITX 170 x 170 x 20 mm³					
CPU	Intel® Core™ i7-8665UE	4 Cores 8 Threads	1.7 GHz 4.4 GHz (turbo)	8 MB Cache	15 W TDP (12.5-25W cTDP)	
	Intel® Core™ i5-8365UE	4 Cores 8 Threads	1.6 GHz 4.1 GHz (turbo)	6 MB Cache	15 W TDP (12.5-25W cTDP)	
	Intel® Core™ i3-8145UE	2 Cores 4 Threads	2.2 GHz 3.9 GHz (turbo)	4 MB Cache	15 W TDP (12.5-25W cTDP)	
	Intel® Celeron® 4305UE	2 Cores 2 Threads	2.0 GHz	2 MB Cache	15 W TDP	
DRAM	Dual channel DDR4 up to 2400 MT/s 2x SO-DIMM up to 2x 32 GByte					
Chipset	Integrated in SoC					
Ethernet	Intel® 2.5GbE with TSN support under Linux / Intel® 1GbE with AMT support (AMT with i7 or i5 only)					
Sound	High Definition Audio Interface Realtek ALC888S-VD Audio Codec					
Graphics	Intel® UHD-Graphics 610/620 Graphics, up to 24 Execution Units					
Expansion Sockets	PCIe slot (PCIe x4) miniPCIe card slot full/half-size (PCIe/USB/opt. SIM) M.2 key B size 2242/3042/2280 (PCIe x2/USB/SATA/SIM) M.2 key E size 2230 (PCIe/CNVi/USB) microSIM card slot microSD card slot					
Internal Connectors	LVDS 24bit Dual channel or eDP opt. internal DP (shared with external DP++) Backlight (power/control) 2x SATA/eSATA/SATADOM (6Gbs) with support for VCC pin 7 and 8 SATA power Dual USB 2.0 USB 3.1 Gen. 2 Front panel connector (Key-A) monitor off HDA front panel HD audio internal stereo speaker SPDIF header 2x COM ports (RS232/422/485) 2x COM ports (RS232) 2x 8Bit general purpose I/O opt. Feature connector (Mgmt. pins) I²C/SM Bus Front panel (power switch, LEDs, reset,...) Intrusion (case open) CPU fan system fan internal power DC-In (12-24 V)					
External Connectors (Front Panel)	1x DC-In (12-24 V) 2x USB 3.1 Gen.2 (10 Gb/s) 2x DisplayPort DP++ 1x LAN Gbit 1x LAN 2.5 Gbit 2x USB 2.0 Audio In Line Out					
congatec embedded Board Controller	Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics I²C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirect					
Embedded BIOS	AMI Aptio® 2.X (UEFI) BIOS SM-BIOS BIOS Update Logo Boot Quiet Boot HDD Password					
Security	Trusted Platform Module (TPM 2.0) Secure Root of Trust Secure Memory Encryption Secure Encrypted Virtualization					
Power Specification	Power Supply 12-24V Power Management ACPI S3/S4/S5/DeepS5/S5e Wake on time from S3/S5 FAN monitored & controlled see user’s guide for full details					
Operating Systems	Microsoft® Windows 10 (64bit only) Microsoft® Windows 10 IoT Enterprise (64bit only) Linux					
Temperature	Operating Temperature: 0 to +60°C		Storage Temperature: -20 to +70°C			
Extended Temperature	Screening service on request:		-25 to +80°C (burn-in & cold-soak) -40 to +85°C (burn-in & cold-soak)			
Humidity	Operating: 10 - 90% r. H. non cond.		Storage: 5 - 95% r. H. non cond.			
Size	170 x 170 x 20 mm³					

conga-IC370 | Connectors



conga-IC370 | Block diagram



conga-IC370 | Order Information

Article	PN	Description
conga-IC370/i7-8665UE	053001	Thin Mini-ITX board based on Intel® Core™ i7-8665UE quad core processor with 1.7GHz, 8MB Intel® Smart Cache, Intel® UHD Graphics 620 and 2400MT/s dual channel DDR4 memory interface (Whiskey Lake)
conga-IC370/i5-8365UE	053002	Thin Mini-ITX board based on Intel® Core™ i5-8365UE quad core processor with 1.6GHz, 6MB Intel® Smart Cache, Intel® UHD Graphics 620 and 2400MT/s dual channel DDR4 memory interface (Whiskey Lake-UE)
conga-IC370/i3-8145UE	053003	Thin Mini-ITX board based on Intel® Core™ i3-8145UE dual core processor with 2.2GHz, 4MB Intel® Smart Cache, Intel® UHD Graphics 620 and 2400MT/s dual channel DDR4 memory interface (Whiskey Lake-UE)
conga-IC370/4305UE	053005	Thin Mini-ITX board based on Intel® Celeron® 4305UE dual core processor with 2.0GHz, 2MB Intel® Smart Cache, Intel® UHD Graphics 610 and 2133MT/s dual channel DDR4 memory interface (Whiskey Lake-UE)
ICx/CSA	052252	Active cooling solution for conga-IC97/170/175/370 with 12V fan and Thin Mini-ITX height, to be used with conga-ICx/Retention Frame PN 052254
ICx/Retention Frame	052254	Retention frame for ICx/CSA 052252
conga-IC370 IO Shield Standard Size	053060	IO shield for conga-IC370 with Standard Mini-ITX height
conga-IC370 IO Shield Thin Size	053061	IO shield for conga-IC370 with Thin Mini-ITX height.
DDR4-SODIMM-2400 (4GB)	068790	DDR4 SODIMM memory module with 2400 MT/s and 4GB RAM
DDR4-SODIMM-2400 (8GB)	068791	DDR4 SODIMM memory module with 2400 MT/s and 8GB RAM
DDR4-SODIMM-2400 (16GB)	068792	DDR4 SODIMM memory module with 2400 MT/s and 16GB RAM
DDR4-SODIMM-2666 (32GB)	068806	DDR4 SODIMM memory module with 2666 MT/s and 32GB RAM
cab-ThinMini-ITX-LVDS, 1:1	14000129	edP cable, configuration 1:1, micro-coax, length = 300 mm, for conga-IC370
cab-LVDS SHDR-40V, Open End	14000254	Cable for LVDS Panel with JST SHDR-40V connector and Open End, 50cm, for conga-IC370
cab-Backlight ZHR-8, Open End	14000127	Cable for Backlight connector and Open End, 30cm, for conga-IC370
cab-LVDS SHDR-40V FI-X30HL, 50cm	14000256	Cable for LVDS with JST SHDR-40V and JAE FI-X30HL connectors, 50cm, for Panel AUO G170EG01 (Article 10000132), for conga-IC370
cab-ThinMini-ITX-BKLT 0511460600	14000272	Cable for Backlight with JST PHR-8 and Molex 51146-0600 connectors, 50cm for Panel 17" LVDS Panel G170EG01 V.1AUO (Article 10000132), for conga-IC370
conga-Thin MITX/eDP to DP Adapter	052231	eDP to standard DisplayPort evaluation adapter, for conga-IC370
conga-Thin MITX/eDP to LVDS Adapter	052234	eDP to LVDS evaluation adapter, for conga-IC370
cab-ThinMini-ITX-RS232	14000121	RS232 cable with 9pin DSUB, for conga-IC370
cab-ThinMini-ITX-RS422	14000257	RS422 cable with 9pin DSUB, for conga-IC370
cab-ThinMini-ITX-RS485	14000258	RS485 cable with 9pin DSUB, for conga-IC370
cab-ThinMini-ITX-USB20-Twin	14000123	USB2.0 cable – Twin, 20cm, for conga-IC370
USB C to internal USB 3.1 cable, right-angled, 45cm	14000265	Cable adapter from internal USB 3.1 connector to USB type C (right-angled), approx. 45cm, for conga-IC370
cab-PicoITX-GPIO Cable	14000151	GPIO Cable, Open end, 15 cm, for conga-IC370
SATA Data Cable	48000030	SATA III cable, 30 cm, with data transfer rate of up to 6 Gbps, Connector: down / straight, for conga-IC370
cab-ThinMini-ITX-Front Panel	14000273	Cable adapter for Front Panel (Power button, Reset button, Power LED, SATA LED), length 15cm, for conga-IC370

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 GmbH. Rev. 2022, Feb_04

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[congatec:](#)

[conga-IC370/4305UE](#) [conga-IC370/i3-8145UE](#) [conga-IC370/i5-8365UE](#) [conga-IC370/i7-8665UE](#) [conga-IC370 IO](#)
[Shield Thin](#) [conga-IC370 IO Shield Standard](#) [IC370/4305UE](#)