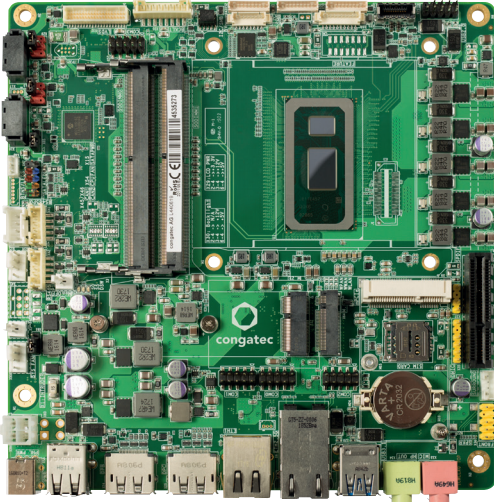


INDUSTRIAL THIN MINI-ITX BOARD

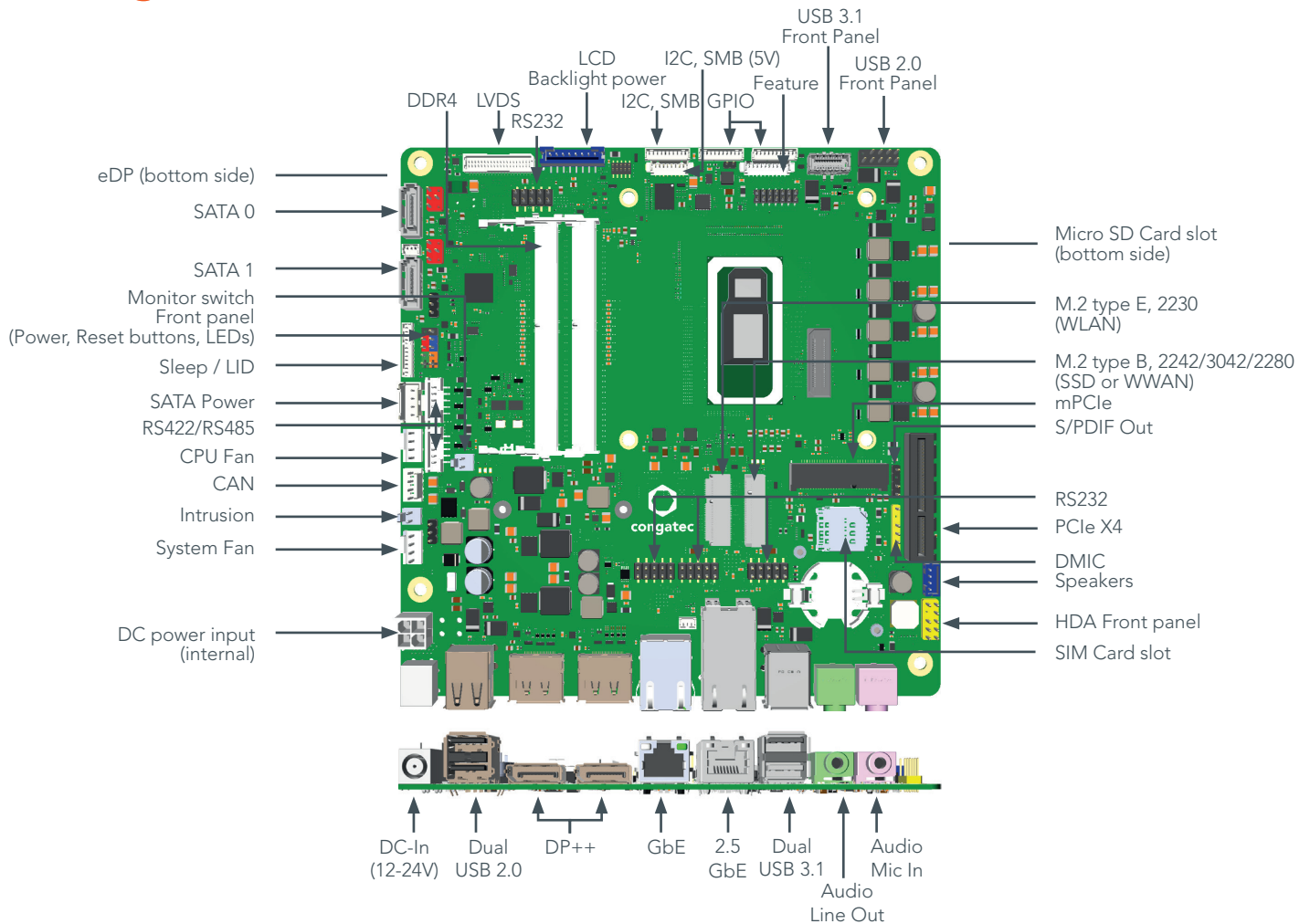
conga-IC370



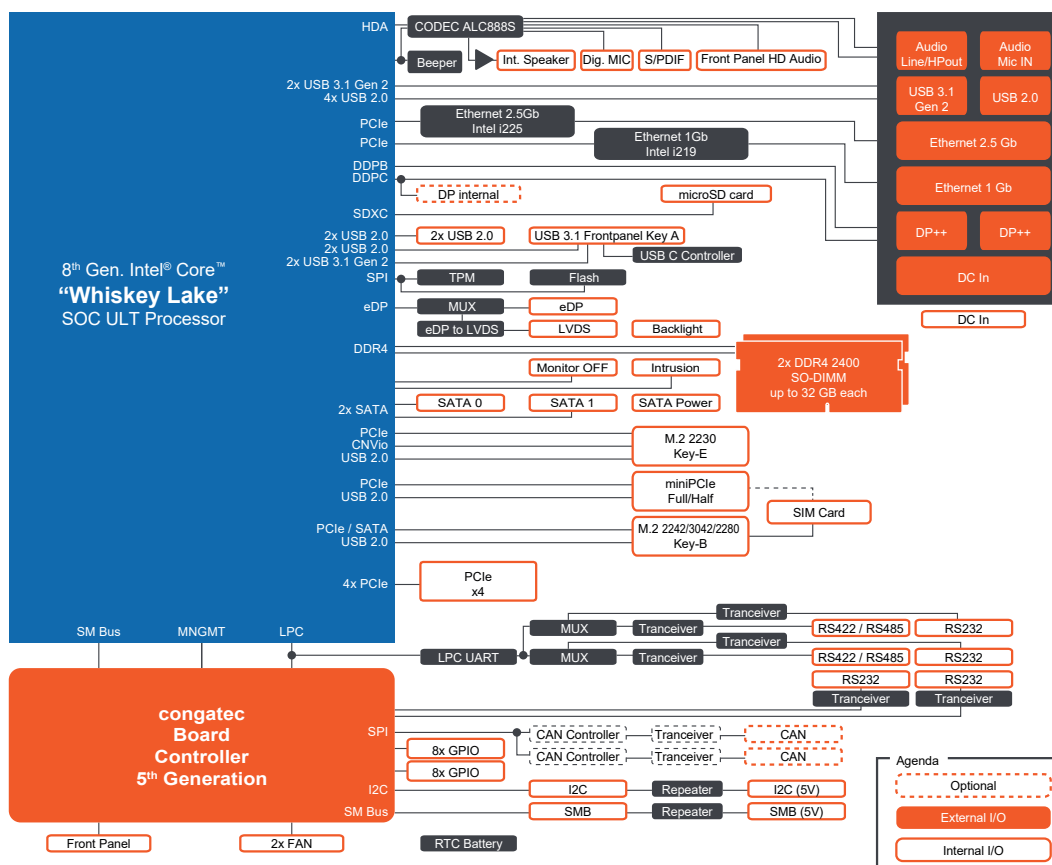
- Highest Performance Thin Mini-ITX board
- 8th Generation Intel® Core™ Mobile Low Power U-Processors with up to 4 cores
- Gen 9 Intel Graphics; up to 24EU
- Options for 2nd internal display
- Wide Range Power Input 12-24 Volt
- congatec embedded Board Controller Features

Formfactor	Industrial Thin Mini-ITX Single Board Computer 170 x 170 mm					
CPU	Intel® Core™ i3-8145U	3.90 GHz (Burst)	2.1 GHz Clock	Dual Core, 4 Threads	L2 cache 4MB	15W TDP (configurable to 10/25W)
	Intel® Core™ i7-8565U	4.60 GHz (Burst)	1.8 GHz Clock	Quad Core, 8 Threads	L2 cache 8MB	15W TDP (configurable to 10/25W)
DRAM	Dual channel DDR4 up to 2400 MT/s 2x SO-DIMM up to 2x 32 Gbyte					
Chipset	Integrated Intel® 300 Series					
Ethernet	Intel Gigabit Ethernet i219LM (with AMT support) Intel 2.5 Gigabit Ethernet i225 (with opt. TSN support)					
Sound	High Definition Audio Interface Realtek ALC888S-VD Audio Codec					
Graphics	Intel Gen. 9 Graphics 24 EU					
Internal Connectors	LVDS 24bit Dual (or opt. 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 front panel HD audio internal stereo speaker SPDIF header 2x COM ports (RS232/422/485) 2x COM ports (RS232) opt. 2x CAN 2x 8Bit general purpose I/O opt. Feature connector (Mgmt. pins) I ² C/SM Bus Front panel (power switch, LEDs, reset,...) Intrusion (case open) CPU fan system fan internal power DC-In (12-24 V)					
Expansion Slots	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/Intel® Optane™) M.2 key E size 2230 (PCIe/CNVio/USB) microSIM card slot microSD card slot					
External Connectors (Frontpanel)	1x DC-In (12-24 V) 2x USB 3.1 Gen.2 (10 Gbs) 2x DisplayPort DP++ 1x LAN Gbit 1x LAN 2.5 Gbit 2x USB 2.0 Audio In Line Out					
congatec embedded Controller	Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics I ² C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirection					
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/DeepS5 Wake on time from 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: 0 .. 60°C Storage: -20 .. +70°C					
Operating:	Operating: 10 .. 90% r. H. non cond. Storage: 5 .. 95% r.H. non cond.					
Size	170 x 170 x 20 mm (Thin Mini-ITX)					

conga-IC370 | Connectors



conga-IC370 | Block diagram



conga-IC370 | Order Information

Article	PN	Description
conga-IC370/i7-8565U	053001	Thin Mini-ITX board based on 8th Gen Intel® Core™ i7-8565U quad core processor with 1.8GHz up to 4.6GHz, 8 MB Intel® Smart Cache, 2400 MT/s dual channel DDR4 SODIMM memory interface
conga-IC370/i3-8145U	053003	Thin Mini-ITX board based on 8th Gen Intel® Core™ i3-8145U dual core processor with 2.1 GHz up to 3.9GHz, 4 MB Intel® Smart Cache, 2400 MT/s dual channel DDR4 SODIMM memory interface

Accessories		Description
ICx/CSA	052252	Active cooling solution for conga-IC97, conga-IC170, conga-IC175 and conga-IC370 con with 12V fan and Thin Mini-ITX height, to be used with conga-ICx/Retention Frame PN 052254.
ICx/CSP	052260	Passive cooling for conga-IC97, conga-IC170, conga-IC175 and conga-IC370, 85L*85W*27H (mm) / 165 g, Aluminum, to be used with conga-ICx/Retention Frame PN 052254.
ICx/Retention Frame	052254	Retention frame for standard cooling for conga-IC97, conga-IC170, conga-IC175, conga-IA5 and conga-IC370
ICx IO Shield Standard Size	tbd	IO shield for conga-IC370 with Standard Mini-ITX height. Neutral marking.
ICx IO Shield Thin Size	tbd	IO shield for conga-IC370 with Thin Mini-ITX height. Neutral marking.
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
cab-ThinMini-ITX-UART RS232	144000121	UART cable with 9pin DSUB RS232 connector for conga-IC370
cab-ThinMini-ITX-UART RS422	tbd	UART cable with 9pin DSUB RS422 connector for conga-IC370
cab-ThinMini-ITX-UART RS485	tbd	UART cable with 9pin DSUB RS485 connector for conga-IC370
cab-ThinMini-ITX-USB20-Twin	14000123	Dual USB 2.0 cable for congatec Thin Mini-ITX family
SATA III cable 30cm, straigh/straight	48000029	SATA III cable with 30cm length, shielded, end connectors straigh/straight
SATA III cable 30cm, down/straight	48000030	SATA III cable with 30cm length, shielded, end connectors down/straight
cab-ThinMini-ITX-SATA-Power	tbd	Sata power cable for conga-IC370
cab-DP to HDMI Passive	14000128	Passive DisplayPort to HDMI cable
eDP to DP Adapter	052231	eDP to standard DisplayPort evaluation adapter for congatec Thin Mini-ITX, 3.5" and SMARC 2.0.
eDP to HDMI Adapter	052232	eDP to standard HDMI evaluation adapter for congatec Thin Mini-ITX boards and 3.5"
cab-ThinMini-ITX-BKLT	tbd	Backlight cable for conga-IC370
Power Supply Unit 90W; 19V / 4.74A	10000146	PSU, 90W; 19V / 4.74A, Plug 7.4x5.1 / 12.5mm length (PSU for all congatec Thin-Mini ITX)
InternPower-adapter	tbd	Internal Power cable (4 pinMini-Fit to standard PSU #10000145)