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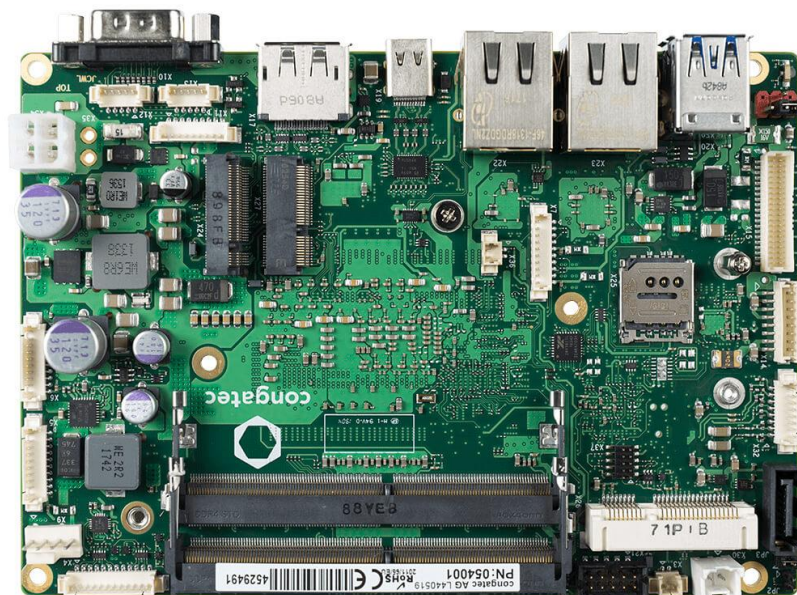


Datasheet

congatec

conga-JC370

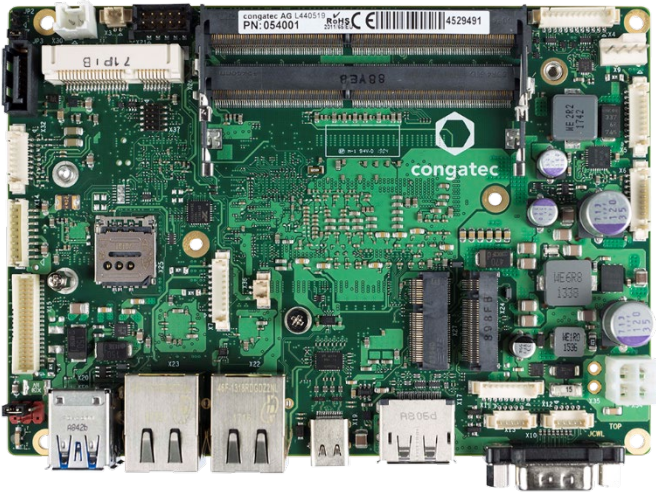
3,5" Single-Board Computer with 8th Generation Intel® Core™ i or Intel® Celeron® Low Power U-Series Processors



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INDUSTRIAL 3.5" QUAD CORE SBC

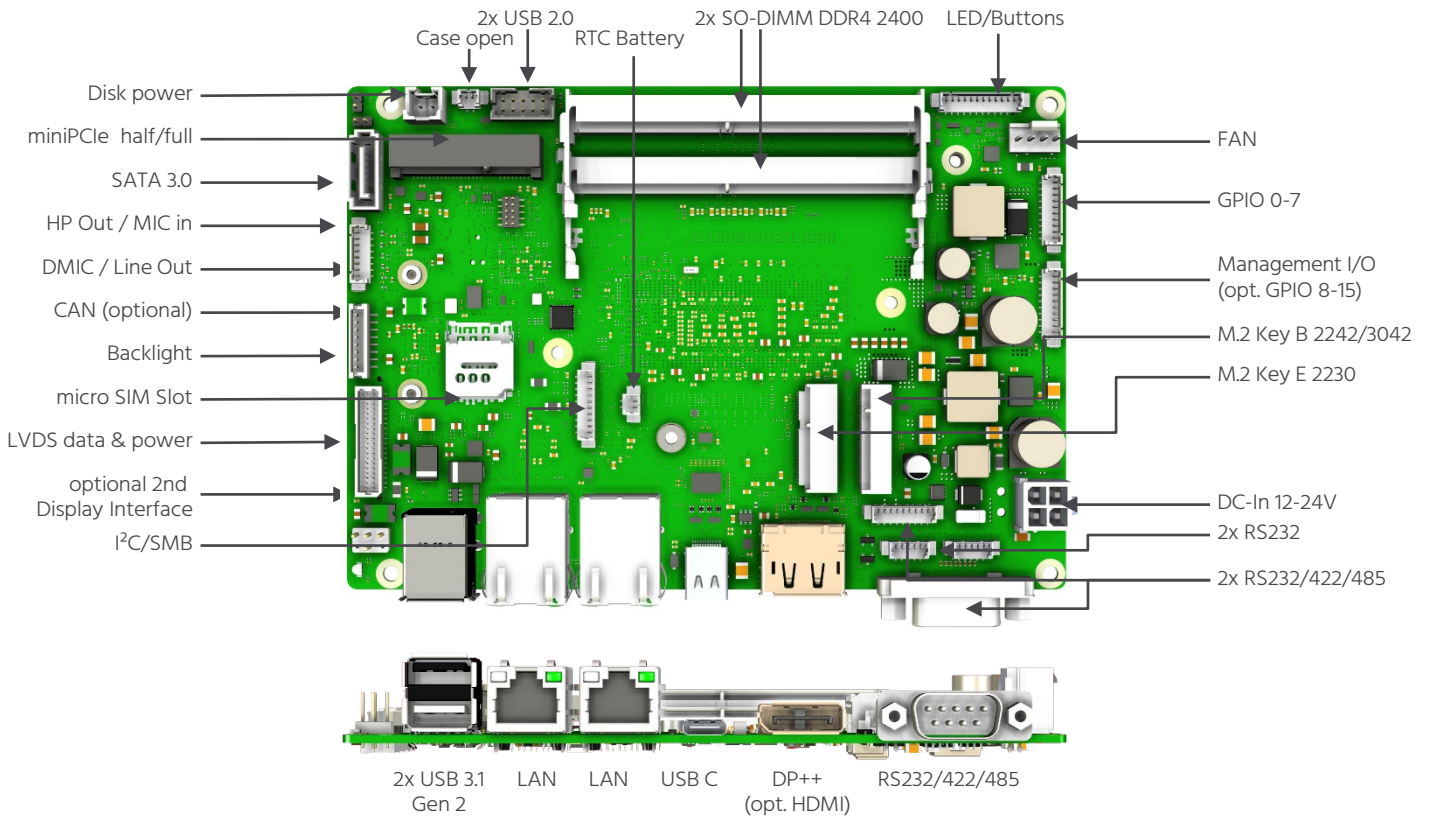
conga-JC370



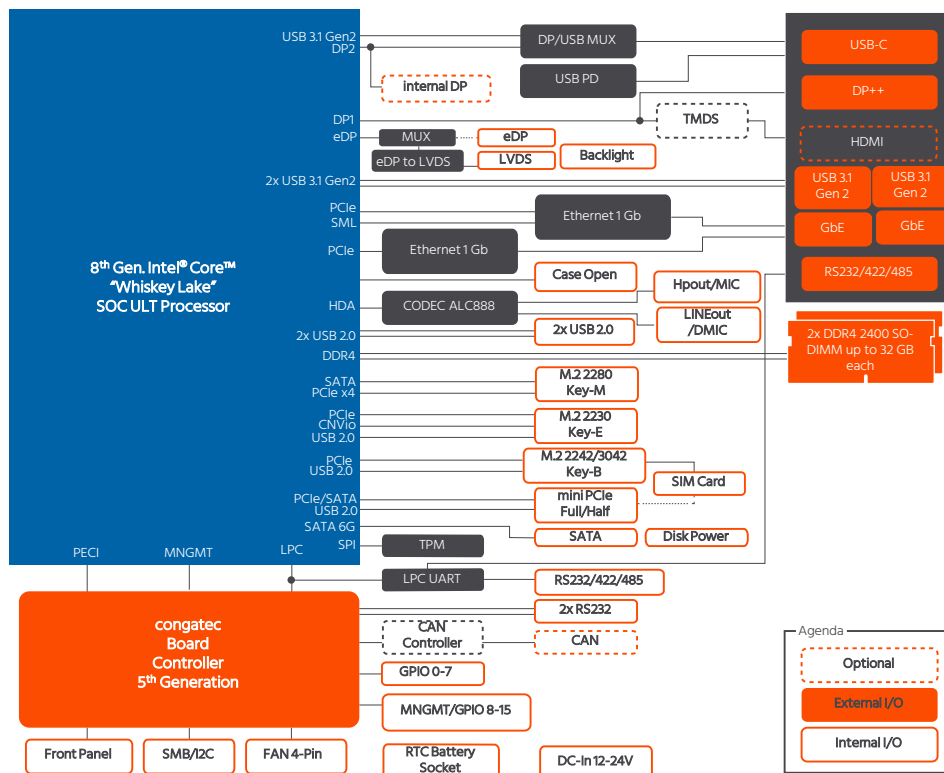
- Highest Performance 3.5" Single Board Computer
- 8th Generation Intel® Core™ SOC processors with up to 4 cores
- Intel® UHD-Graphics 610/620, up to 24 Execution Units
- Up to 64 GByte dual channel DDR4 2400 MT/s
- Multiple Expansion card sockets
- Flexible internal and external Video interfaces
- Wide Range Power Input 12 – 24V
- congatec embedded Board Controller Features

Formfactor	Industrial 3.5" Juke Board 146 x 102 mm (~ 5.75" x 4.02")					
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® 1 GbE (optional 2.5 GbE and optional TSN support under Linux) Intel® 1 GbE with AMT support					
Sound	High Definition Audio over DP/HDMI Realtek ALC888S-VD Audio Codec					
Graphics	Intel® UHD-Graphics 610/620 Graphics, up to 24 Execution Units					
Expansion Sockets	M.2 key M size 2280 (PCIe x4/SATA/Intel® Optane™) M.2 key B size 2242/3042 (PCIe/USB/SIM) M.2 key E size 2230 (PCIe/CNVio/USB) miniPCIe card slot full/half-size (PCIe/SATA/USB/opt. SIM) microSIM card slot					
Internal Connectors	LVDS 24bit Dual channel (or opt. eDP) opt. 2nd LVDS via external adapter Backlight (power/control) SATA/eSATA/SATADOM Disk Power 5V Dual USB 2.0 Audio Front Panel (HPout/MIC) LINEout and DMIC COM port (RS232/422/485) Two 4 pin COM ports (RS232) opt. CAN 8 bit general purpose I/O Management I/O (opt. 8 GPIOs) I ² C/SM Bus Front panel (power switch, LEDs, reset,...) Power DC In (12-24 V) RTC battery Intrusion (case open) FAN (4pin)					
External Connector (Front Panel)	DisplayPort++ (or opt. HDMI) USB 3.1 Gen.2 Type C (PD and DP Alt. Mode) Dual USB 3.1 Gen.2 Type A Dual LAN RJ45 COM DE9 RS232/422/485					
congatec embedded Board 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 redirect					
Embedded BIOS	AMI Aptio® 2X (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 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	146 x 102 mm (~ 5.75" x 4.02")					

conga-JC370 | Connectors



conga-JC370 | Block diagram



conga-JC370 | Order Information

Article	PN	Description
conga-JC370/i7-8665UE	054001	3.5" SBC 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-UE)
conga-JC370/i5-8365UE	054002	3.5" SBC 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-JC370/i3-8145UE	054003	3.5" SBC 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-JC370/4305UE	054005	3.5" SBC 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)
conga-JC370/CSA-B	054050	Standard active cooling solution and integrated 12V fan for conga-JC370 (borehole)
conga-JC370/CSA-T	054051	Standard active cooling solution and integrated 12V fan for conga-JC370 (threaded)
conga-JC370/CSP-B	054052	Standard passive cooling solution for conga-JC370 (borehole)
conga-JC370/CSP-T	054053	Standard passive cooling solution for conga-JC370 (threaded)
conga-JC370/HSP-B	054054	Standard heatspreader solution for conga-JC370 (borehole)
conga-JC370/HSP-T	054055	Standard heatspreader solution for conga-JC370 (threaded)
DDR4-SODIMM-2666 (4GB)	067780	DDR4 SODIMM memory module with 2666 MT/s and 4GB RAM
DDR4-SODIMM-2666 (8GB)	067781	DDR4 SODIMM memory module with 2666 MT/s and 8GB RAM
DDR4-SODIMM-2666 (16GB)	067782	DDR4 SODIMM memory module with 2666 MT/s and 16GB RAM
DDR4-SODIMM-2666 (32GB)	068806	DDR4 SODIMM memory module with 2666 MT/s and 32GB RAM
cab-Backlight ZHR-8, Open End	14000253	Cable for Backlight connector and Open End, 50cm, for conga-JC370
cab-LVDS SHDR-40V, Open End	14000254	Cable for LVDS Panel with JST SHDR-40V connector and Open End, 50cm, for conga-JC370
cab-Backlight ZHR-8 51146-0600	14000255	Cable for Backlight with JST ZHR-8 and Molex 51146-0600 connectors, 50cm for Panel 17" LVDS Panel G170EG01 V.1AUO (Article 10000132)
cab-LVDS SHDR-40V FI-X30HL, 50cm	14000256	Cable for LVDS with JST SHDR-40V and JAE FI-X30HL connectors, 50cm for Panel 17" LVDS Panel G170EG01 V.1AUO (Article 10000132)
cab-pico-ITX-USB20-Twin	14000210	USB 2.0 internal cable adapter – Twin for conga-JC370
cab-Pico-ITX-SATA-Power	14000205	SATA power cable, for 2.5" HDD only (+5V only), cable length 15cm, for conga-JC370
SATA III cable 30 cm, straight/straight	48000029	SATA III cable, 30 cm with data transfer rate of up to 6 Gbps; Connector: straight/straight, for conga-JC370
cab-DSUB9M-PB9	14000252	RS232/422/485 internal Male Cable Adapter, 15cm, for conga-JC370
cab-Pico-ITX-RS232	14000152	RS232 internal 5-wire Cable Adapter, DSUB9 Male, 15cm, for conga-JC370
cab-PicoITX-GPIO Cable	14000151	GPIO Cable, open end, 15 cm for conga-JC370
cab-Pico-ITX-Buttons-LED	14000147	Internal Buttons and LEDs Cable, 15cm, for conga-JC370
cab-ThinMini-ITX-eLVDS, 1:1	14000129	LVDS cable, configuration 1:1, micro-coax, length = 300 mm, for conga-JC370
conga-Thin MITX/eDP to DP Adapter	052231	eDP to standard DisplayPort evaluation adapter for exclusive use with conga-JC370 #054012
conga-Thin MITX/eDP to HDMI Adapter	052232	eDP to standard HDMI evaluation adapter for use with conga-JC370 #054012
conga-eDP to LVDS Adapter	052234	eDP to LVDS evaluation adapter for use with conga-JC370 #054012
cab-Power MiniFIT-4 DELL-7.4/5.0mm	14000266	Power cable adapter for Power Supply Unit 90 W (Article 10000146), for conga-JC370
Power Supply Unit 90W; 19V / 4.74A	10000146	NB Power Supply; 90W; 19V@4.74A Plug 7.4x5.1x12.5mm (right-angled), power cable C6 not included, Power cable adapter (Article 14000266) required for conga-JC370

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