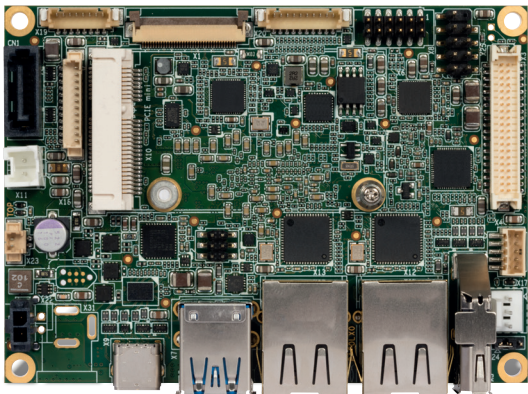


INDUSTRIAL PICO-ITX

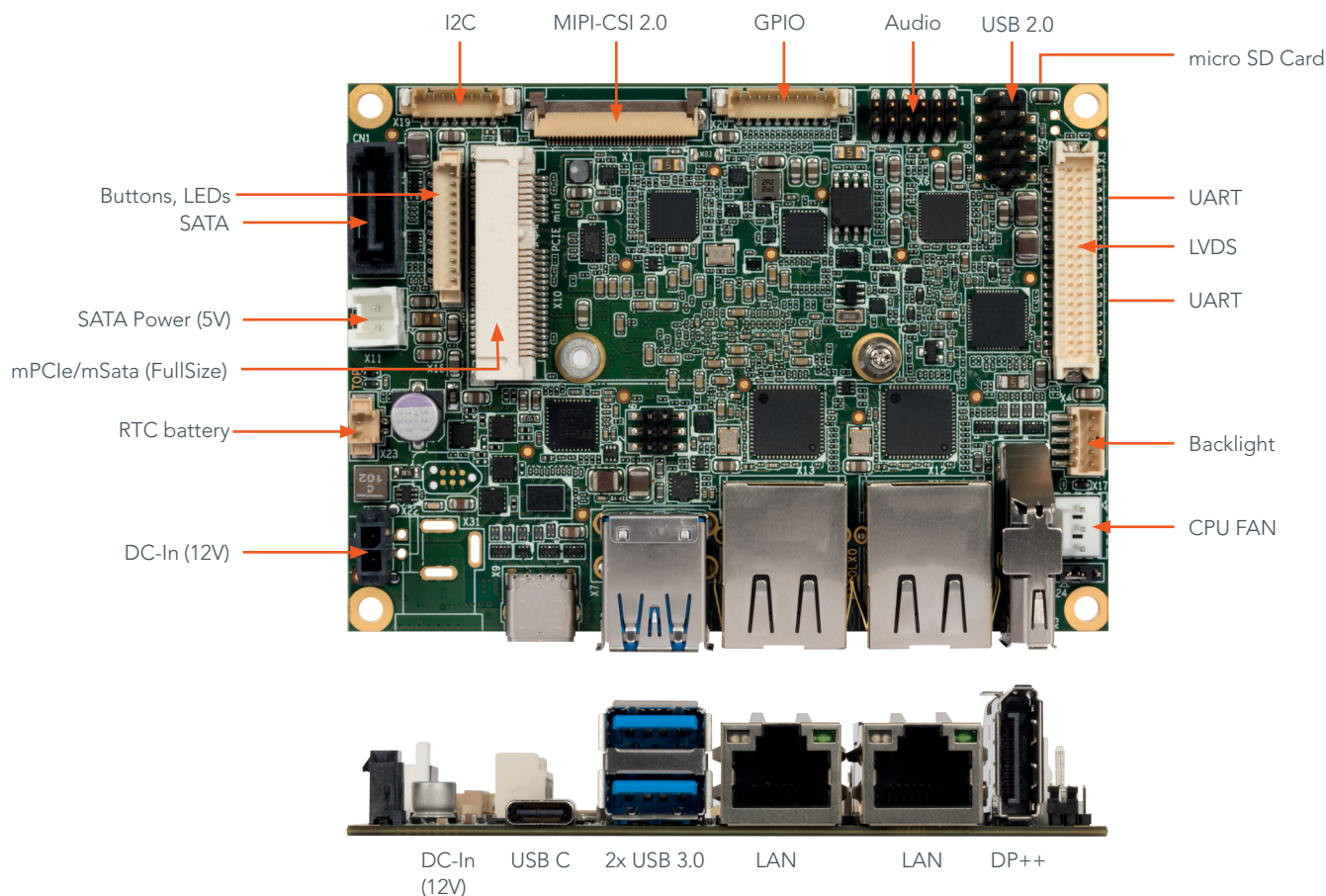
conga-PA5



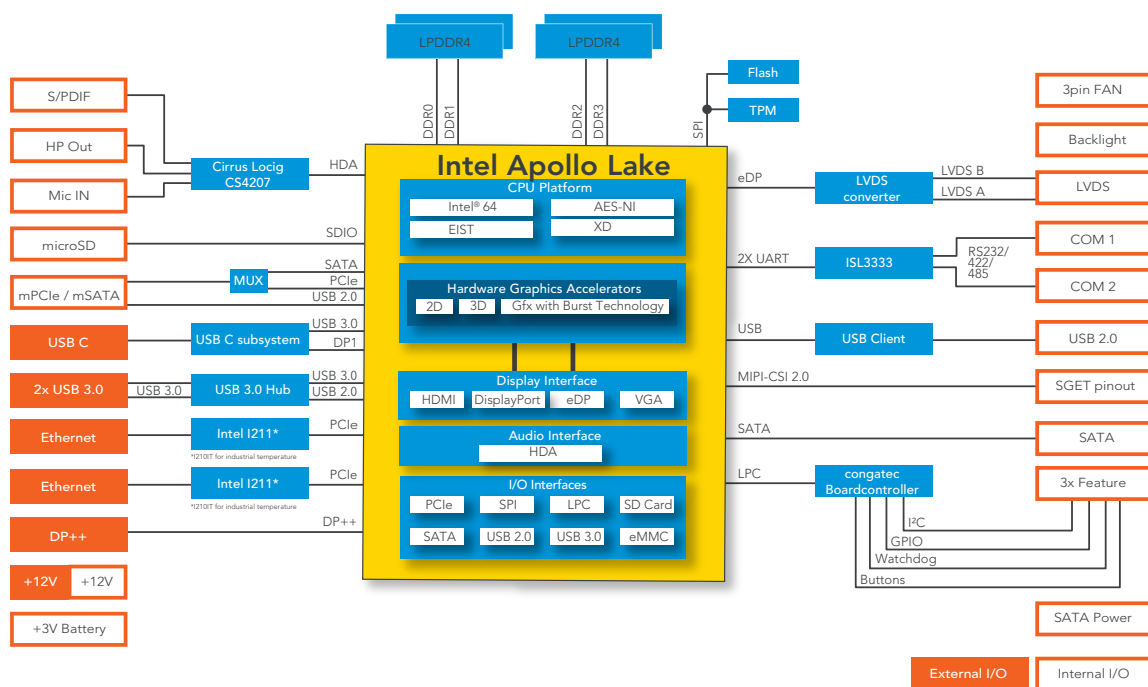
- Intel® 5th Gen. Atom™, Celeron® and
- Pentium® Processors
- Compact design for size-sensitive devices in harsh environments
- Low Power CPUs 6 to 12 Watt TDP
- Enhanced Intel HD Graphics Generation 9
- Long life components for 24/7 embedded use
- Smallest SBC computing and connecting device
- Extended Temperature variants

Formfactor	pico-ITX Singleboard Computer 100x72 mm					
CPU	Intel® Atom™ x7-E3950	2.00 GHz (Burst) 1.6 GHz Clock	Quad Core	L2 cache 2MB	12W TDP	
	Intel® Atom™ x5-E3940	1.80 GHz (Burst) 1.6 GHz Clock	Quad Core	L2 cache 2MB	9W TDP	
	Intel® Atom™ x5-E3930	1.80 GHz (Burst) 1.3 GHz Clock	Dual Core	L2 cache 1MB	6.5W TDP	
	Intel® Pentium® N4200	2.50 GHz (Burst) 1.1 GHz Clock	Quad Core	L2 cache 2MB	6W TDP	
	Intel® Celeron® N3350	2.40 GHz (Burst) 1.1 GHz Clock	Dual Core	L2 cache 1MB	6W TDP	
DRAM Memory	up to 4 Channels onboard LPDDR4 (V1.1) with up to 2400 MT/s max. 8 GB					
Chipset	Integrated in SoC					
Ethernet	2x LAN Gbit / 100 Mbit / 10 Mbit Intel Gigabit Ethernet i211 controller (i210 for industrial temperature)					
Sound	High Definition Audio Interface Cirrus Logic CS4207					
Graphics	Intel® Gen 9 HD Graphics with support for DirectX12 OpenGL 4.3 OpenCL 2.0 OpenGLES 3.x MPEG2 full HW acceleration with H.265/HEVC decoding and H.264 encoding VP9 PAVP 3.x HDCP 1.4 MVC and 2x independent display support in 4K (3840 x 2160 px) @30 Hz or WQXGA (2560 x 1600 px) @60 Hz					
Graphic Interfaces	2x 18/24-bit Single/Dual Channel LVDS Interface (via eDP to LVDS converter PTN3460) 1x DisplayPort DP++ up to 4096x2160 @ 60Hz with eDP					
Internal Connectors	1x miniPCIe or mSATA full size 1x SATA (6G) (with auxiliary +5V power connector for 2.5" HDD) 2x USB 2.0 1x LVDS 2x24bit 1x Backlight power connector 1x Line Out 1xMic In 1x S/PDIF Out 1x Power In (+12V) 2x COM (RS232 / RS-485 / RS422) 1x Fan Connector 3x Feature Connector micro SD Card MIPI-CSI 2.0					
External Connectors (Frontpanel)	1x DisplayPort DP++ 2x LAN RJ45 1x USB 3.0 Type C (with PD and DP++) 2x USB 3.0 1x DC-In (only for commercial variants)					
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					
Embedded BIOS	AMI Aptio® 2.X (UEFI) BIOS; SM-BIOS BIOS Update Logo Boot Quiet Boot HDD Password					
Power Specification	Power Supply 12V RTC battery					
Operating Systems	Microsoft® Windows 10 Microsoft® Windows 10 IoT Linux (Wind River, Yocto) Android Wind River VxWorks					
Operating Temperature:	Operating: Commercial: 0 .. +60°C Storage: Commercial: -40 .. +70°C Industrial: -40 + 85°C Industrial: -40 + 85°C					
Humidity Operating:	Operating: 10 - 90% r. H. Storage: 5 - 95% r.H.					
Size	100 x 72 mm (3.9" x 2.8")					

conga-PA5 | Connectors



conga-PA5 | Block diagram



conga-PA5 | Order Information

Article	PN	Description
conga-PA5/E3950-8G	048100	pico-ITX board based on Intel® Atom™ x7-E3950 quad core processor with 2.00 GHz, 2MB cache and 8 GB 2400 MT/s onboard memory.
conga-PA5/E3940-4G	048101	pico-ITX board based on Intel® Atom™ x5-E3940 quad core processor with 1.80 GHz, 2MB cache and 4 GB 2133 MT/s onboard memory.
conga-PA5/E3930-4G	048102	pico-ITX board based on Intel® Atom™ x5-E3930 dual core processor with 1.80 GHz, 1MB cache and 4 GB 2133 MT/s onboard memory.
conga-PA5/i-E3950-8G	048110	pico-ITX board based on Intel® Atom™ x7-E3950 quad core processor with 2.00 GHz, 2MB cache and 8 GB 2400 MT/s onboard memory. Extended temperature version -40°C to 85°C without audio functionality.
conga-PA5/i-E3940-4G	048111	pico-ITX board based on Intel® Atom™ x5-E3940 quad core processor with 1.80 GHz, 2MB cache and 4 GB 2133 MT/s onboard memory. Extended temperature version -40°C to 85°C without audio functionality.
conga-PA5/i-E3930-4G	048112	pico-ITX board based on Intel® Atom™ x5-E3930 dual core processor with 1.80 GHz, 1MB cache and 4 GB 2133 MT/s onboard memory. Extended temperature version -40°C to 85°C without audio functionality.
conga-PA5/N4200-8G	048120	pico-ITX board based on Intel® Pentium® N4200 quad core processor with 2.50 GHz, 2MB cache and 8 GB 2400 MT/s onboard memory.
conga-PA5/N3350-4G	048121	pico-ITX board based on Intel® Celeron™ N3350 dual core processor with 2.40 GHz, 1MB cache and 4 GB 2400 MT/s onboard memory.

Accessories	PN	Description
conga-PA5/HSP-T	048150	Heatspreader for Pico ITX board conga-PA5 (for boards with standard -non lidded- CPUs)
conga-PA5/i-HSP-T	048151	Heatspreader for Pico ITX board conga-PA5 (for boards with lidded CPUs -with integrated heat spreader)
conga-PA5/CSP-T	052254	Retention frame for standard cooling suitable for for conga-IC87/97/170/IA5
conga-PA5/i-CSP-T	048153	Passive Cooling for Pico ITX board conga-PA5 (for boards with lidded CPUs -with integrated heat spreader)