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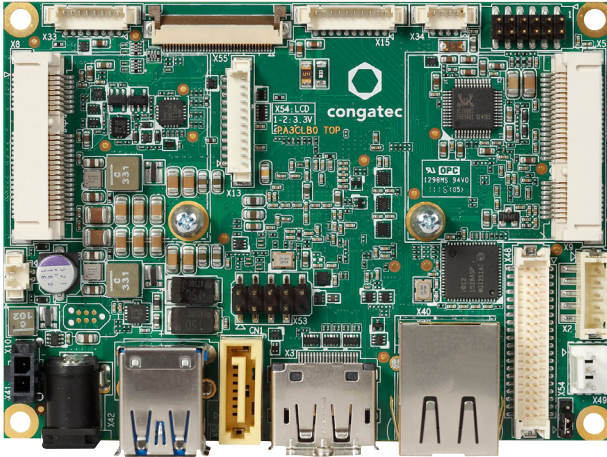
# Datasheet

**congatec**

**conga-PA3**

# INDUSTRIAL PICO-ITX

## conga-PA3

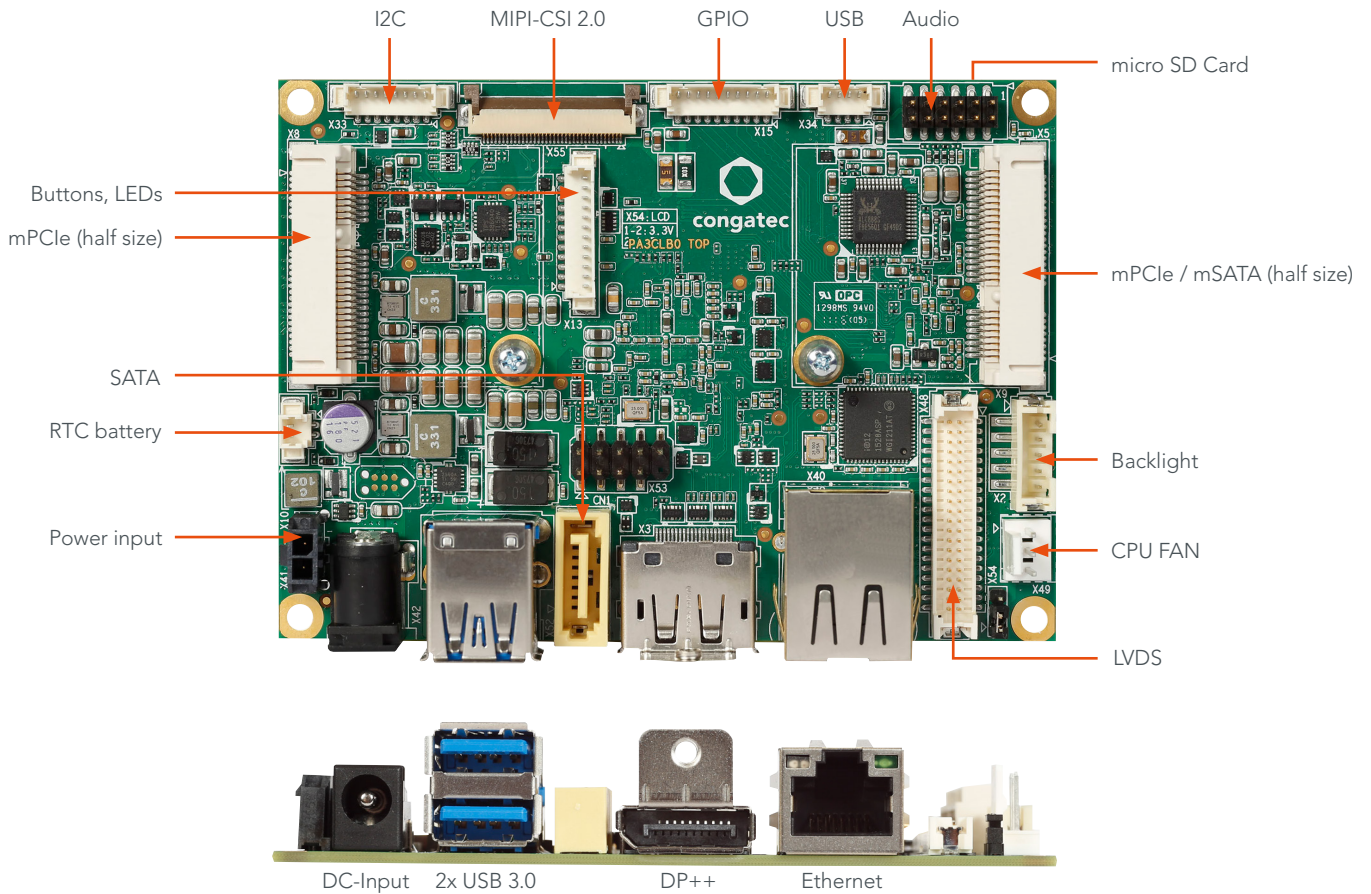


- Compact and complete for small Industry 4.0
- 3<sup>rd</sup> Generation Intel Atom® / Celeron® Processor
- Low Power 5 to 10 Watt TDP
- Enhanced Intel® HD Graphics Generation 7
- Long life components for 24/7 embedded use
- Smallest SBC computing and connecting device
- Extended Temperature

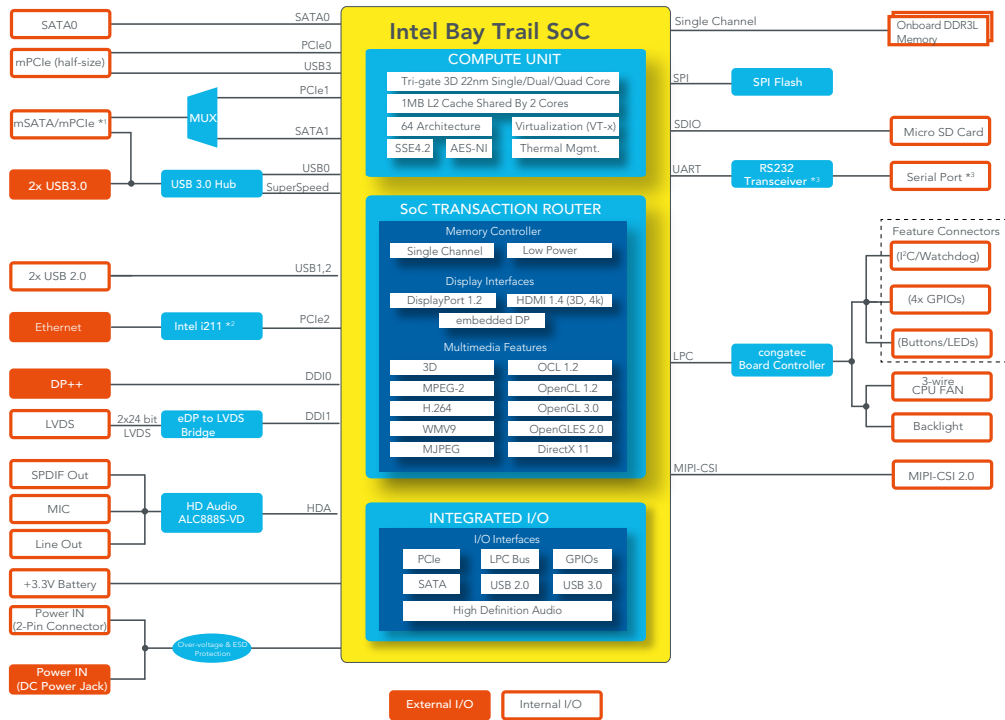
Formfactor	pico-ITX Singleboard Computer   100x72 mm			
CPU	Intel Atom® E3845	1.91 GHz Quad Core	2 MB L2 Cache	10W TDP
	Intel Atom® E3826	1.46 GHz Dual Core	1 MB L2 Cache	7W TDP
	Other Variants by request			
DRAM Memory	Single Channel up to 4GB onboard DDR3L with 1333 MHz			
Chipset	Integrated in SoC			
Ethernet	LAN Gbit / 100 Mbit / 10 Mbit   Intel Gigabit Ethernet i211 controller (i210 for industrial temperature)			
Sound	High Definition Audio Interface*   Realtek ALC 888S-VD   7.1-channel			
Graphics	Next Generation Intel® HD Graphics			
Graphic Interfaces	1x 24-bit Dual Channel LVDS Interface (via eDP to LVDS converter PTN3460)   1x DisplayPort DP++   resolution up 1920x1200 with 60Hz			
Internal Connectors	1x mPCIe Half Size   1x mPCIe Half Size shared with mSATA   1x SATA (3G) (no SATA power)   2x USB 2.0 1x LVDS* 2x24bit   1x Backlight power connector   1x Line Out   1xMic In   1x S/PDIF Out   1x Power In (+12V) 1x COM (RS-232)   1x Fan Connector   1x Feature Connector   micro SD Card   MIPI-CSI 2.0			
External Connectors (Frontpanel)	1x DisplayPort DP++   1x LAN RJ45   2x USB 3.0   1x DC-In (external input)*			
congatec embedded Controller	Multi-Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board Information   Board Statistics   BIOS Setup Data Backup I <sup>2</sup> 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   1 x FAN   RTC battery*			
Operating Systems	Microsoft® Windows 10   Microsoft® Windows 10 IoT Enterprise   Microsoft® Windows 10 IoT Core   Microsoft® Windows 8   Microsoft® Windows 7 Linux   Microsoft® Windows® 7/8 embedded Standard   Android   Yocto   MoonIsland / WindRiver IDP			
Operating Temperature:	Commercial: 0 .. +60°C Industrial: -40* + 85°C			
Humidity Operating:	Operating: 10 - 90% r. H. non cond.			
Size	100 x 72 mm (3.9" x 2.8")			

\* see User-Manual for detailed informations

# conga-PA3 | Connectors



# conga-PA3 | Block diagram



\*1 The mSATA/mPCIe connector supports both mPCIe and mSATA devices. The devices are detected automatically.  
 \*2 Industrial variants are equipped with Intel i210 controller.  
 \*3 Revision B.x and later are equipped with a multiprotocol transceiver.

# conga-PA3 | Order Information

Article	PN	Description
conga-PA3/E3845-4G	047700	pico-ITX board based on Intel Atom E3845 quad core processor with 1.91GHz, 2MB L2 cache and 4GB 1333MT/s onboard memory.
conga-PA3/E3826-2G	047701	pico-ITX board based on Intel Atom E3826 dual core processor with 1.46GHz, 1MB L2 cache and 2GB 1066MT/s onboard memory.
conga-PA3/i-E3845-4G	047720	pico-ITX board based on Intel Atom E3845 quad core processor with 1.91GHz, 2MB L2 cache and 4GB 1333MT/s onboard memory. Extended temperature version -40°C to 85°C without audio functionality.
conga-PA3/i-E3826-2G	047721	pico-ITX board based on Intel Atom E3826 dual core processor with 1.46GHz, 1MB L2 cache and 2GB 1066MT/s onboard memory. Extended temperature version -40°C to 85°C without audio functionality.

Accessories	PN	Description
conga-PA3/HSP	047750	Heatspreader solution conga-PA3. All standoffs are with 2.7 bore hole.
conga-PA3/CSP	047753	Passive cooling solution for conga-PA3. Includes conga-PA3/HSP heatspreader and heat sink with 12mm fins. All standoffs are with 2.7mm bore hole.
17" LVDS Panel G170EG01 V1	10000132	1280 x 1024 px   Dual channel LVDS   LED Back-light   24bits interface   -30° up to 85° C   12VLED LCD   +5V Logic
kab-LCD-Backlight-PA3	14000130	Backlight Cable from PA3 baseboard to LCD panel (+12V LCD) with harddrive Molex outbound connection for +12V/+5V volt devices.
PA3 - LVDS data cable	14000167	LVDS data cable only conga-PA3.

Cables	PN	Description
conga-PA3 Cable Kit	14000162	Cable Kit for conga-PA3 containing cab-Pico-ITX-USB2.0-Twin   cab-Pico-ITX-Audio Cable Adapter   cab-Pico-ITX-Buttons-LED   cab-Pico-ITX-GPIO   cab-Pico-ITX-RS232   cab-Pico-ITX-External-Power   cab-Pico-ITX-Feature   cab-Pico-ITX-SATA-Power
cab-Pico-ITX-RS422	14000153	RS422 cable adapter for Pico-ITX, DSUB9 Male, 15 cm
cab-Pico-ITX-RS485	14000154	RS485 cable adapter for Pico-ITX, DSUB9 Male, 15 cm
cab-Pico-ITX-LVDS	14000167	LVDS data cable for Pico-ITX to connect LCD panel AUO G170EG01 V.1 (Item# 10000132; Item name 17" LVDS Panel G170EG01 V.1)
cab-Pico-ITX-Power	14000172	Internal power cable for industrial versions of Pico-ITX, 15 cm
cab-Pico-ITX-Backlight	14000130	Backlight power cable for Pico-ITX to connect LCD panel AUO G170EG01 V.1 (Item# 10000132; Item name 17" LVDS Panel G170EG01 V.1)

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