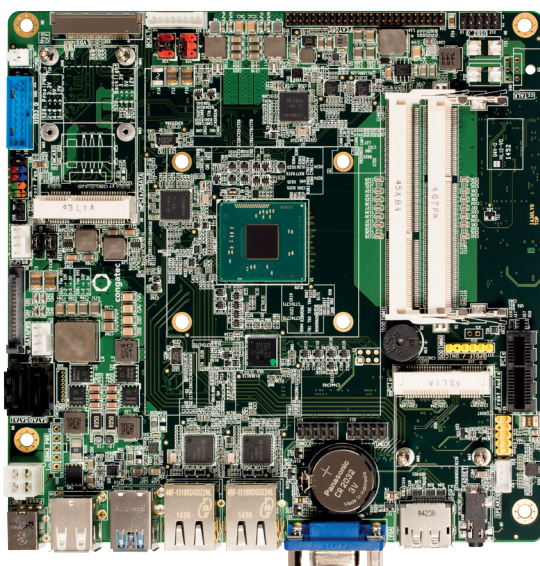


# INDUSTRIAL THIN MINI-ITX

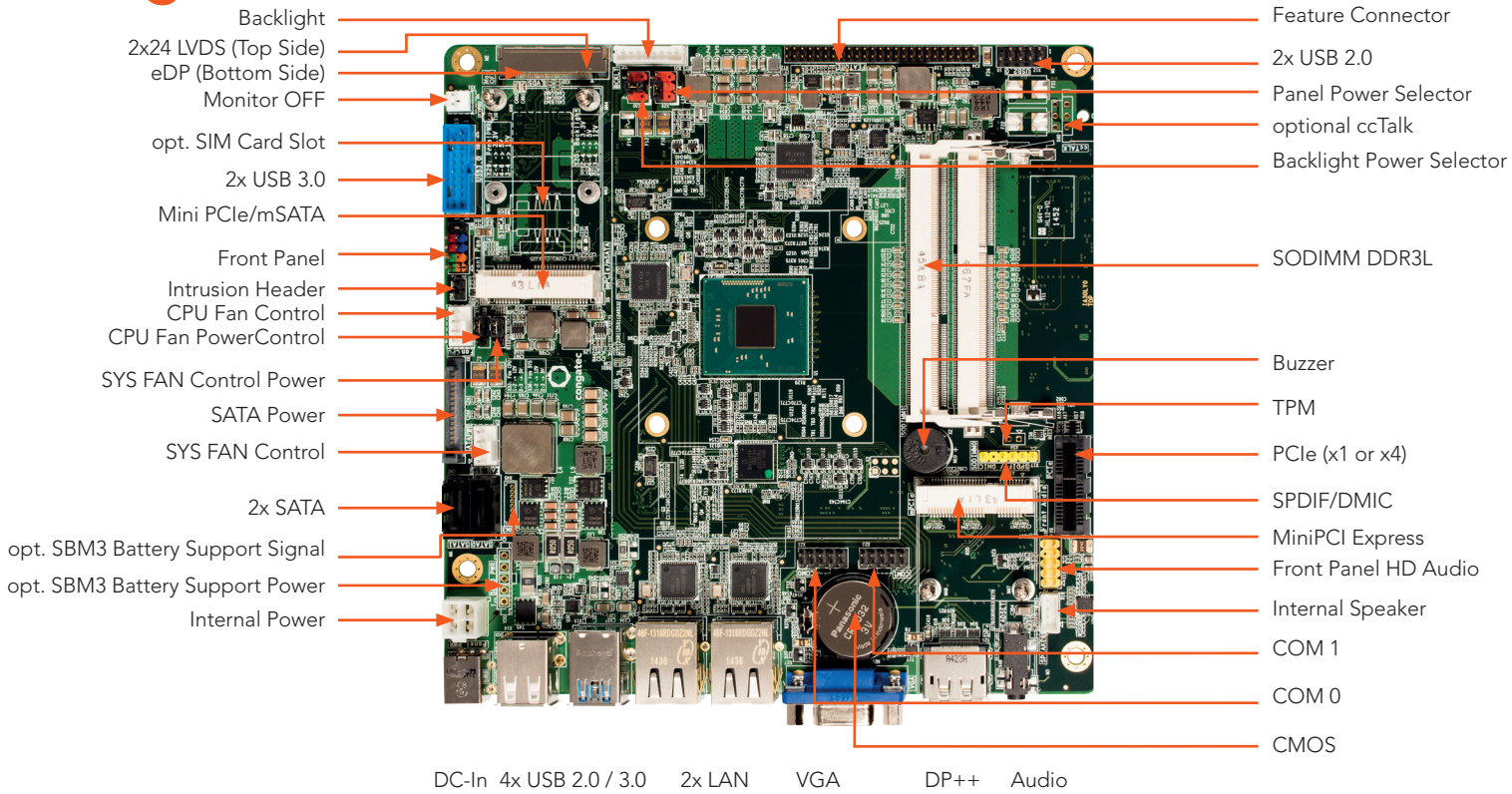
## conga-IA3



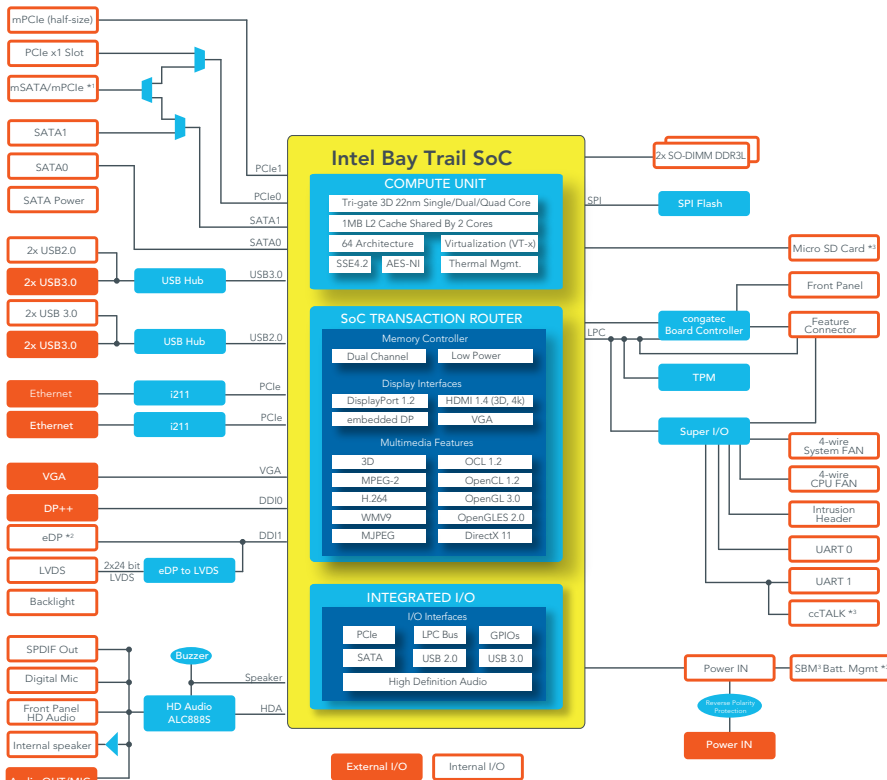
- 3<sup>rd</sup> Generation Intel® Atom™ / Celeron® Processor
- Burst Technology
- Low Power 5 to 10 Watt TDP
- Enhanced Intel HD Graphics Generation 7
- Long life components for 24/7 embedded use

Formfactor	Industrial Thin-Mini-ITX   170 x 170 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
	Intel® Celeron® J1900	2.42 GHz Quad Core	2 MB L2 Cache	10W TDP
	Intel® Celeron® N2930	2.00 GHz Quad Core	2 MB L2 Cache	7.5W TDP
DRAM Memory	2x SODIMM sockets (dual channel DDR3L up to 1333 MT/s) to support a max. memory size of 8GB			
Ethernet	Dual LAN Gbit / 100 Mbit / 10 Mbit; 2x Intel Gigabit Ethernet i210 controller (with AMT support)			
Sound	High Definition Audio Interface   Realtek ALC 888S			
Graphics	Next Generation Intel® HD Graphics with OpenCL 1.2   OpenGL 4.0 and DirectX11.1 support; up to three independent displays: HDMI 1.4   DVI DisplayPort 1.2; High performance hardware MPEG-2 decoding   WMV9 (VC-1) and H.264 (AVC) support Blu-ray support @ 40 MBit/s			
Graphic Interfaces	1x 24-bit Dual Channel LVDS Interface or eDP (x4) and 1x DisplayPort DP++			
Internal Connectors	1x PCIe x1 Slot shared with mSATA/mPCIe   1x mPCIe Full Size shared with mSATA   1x mPCIe Half Size   2x SATA (3G)   1x mSATA (shared with SATA)   1x SATA Power   2x USB 3.0/2.0   2x USB 2.0 Header   2x USB 2.0 internally   1x LVDS (2x24 bit) 1x Embedded DisplayPort (x4) 1x Backlight (Power   control)   1x Front Panel HD Audio   2x Serial Port COM1 (opt. as ccTALK)   1x Feature connector - congatec custom (8 Bit General Purpose I/O)   1x Frontpanel (Power Switch, LEDs, Reset)   1x FAN CPU   1x FAN System   1x internal power header (12-19V) 1x opt. battery header signal + power (SBM3)			
External Connectors (Frontpanel)	1x DisplayPort DP++   1x VGA   3.5mm audio jack (stereo out and mono in)   2x LAN RJ45   2x USB 3.0/2.0   2x USB 2.0   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			
Security	The conga-IA3 can be optionally equipped with a discrete "Trusted Platform Module" (TPM 1.2). It is capable of calculating efficient hash and RSA algorithms with key lengths up to 2,048 bits and includes a real random number generator. Security sensitive applications such as gaming and e-commerce will benefit also with improved authentication   integrity and confidence levels			
Power Specification	Power Management   ACPI S3/S4/DeepSx   Wake on time from S5   Power Supply 12V - 24V   2 x FAN (CPU, system) monitored & controlled			
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			
Power Consumption	Typ. application: tbd.   see manual for full details			
Temperature:	Operating: 0 .. +60°C			
Humidity Operating:	Operating: 10 - 90% r. H. non cond.			
Size	170 x 170 mm (6.7" x 6.7")			

# conga-IA3 | Connectors



# conga-IA3 | Block diagram



\*1 The mSATA/mPCIe connector supports both mPCIe and mSATA devices. The devices are detected automatically.  
 \*2 Located at the bottom side.  
 \*3 Optional feature.

# conga-IA3 | Order Information

Article	PN	Description
conga-IA3/E3845	052300	Thin Mini-ITX board based on Intel® Atom™ E3845 quad core processor with 1.91GHz, 2MB L2 cache and 1333MT/s dual channel DDR3L SODIMM memory interface.
conga-IA3/E3826	052301	Thin Mini-ITX board based on Intel® Atom™ E3826 dual core processor with 1.46GHz, 1MB L2 cache and 1066MT/s dual channel DDR3L SODIMM memory interface.
conga-IA3/J1900	052310	Thin Mini-ITX board based on Intel® Celeron® J1900 quad core processor with 2.00GHz, 2MB L2 cache and 1333MT/s dual channel DDR3L SODIMM memory interface.
conga-IA3/N2930	052311	Thin Mini-ITX board based on Intel® Celeron® N2930 quad core processor with 1.83GHz up to 2.00GHz, 2MB L2 cache and 1333MT/s dual channel DDR3L SODIMM memory interface. Thermal Design Power 7.5W.
conga-IA3/E3845 KIT	052320	Thin Mini-ITX single kit box based on Intel® Atom™ E3845 quad core processor with 1.91GHz, 2MB L2 cache and 1333MT/s dual channel DDR3L SODIMM memory interface. The single package kit includes IO shield, one SATA drive cable, one SATA power cable and a quick-start guide.
conga-IA3/E3826 KIT	052321	Thin Mini-ITX single kit box based on Intel® Atom™ E3826 dual core processor with 1.46GHz, 1MB L2 cache and 1066MT/s dual channel DDR3L SODIMM memory interface. The single package kit includes IO shield, one SATA drive cable, one SATA power cable and a quick-start guide.
conga-IA3/J1900 KIT	052330	Thin Mini-ITX single kit box based on Intel® Celeron® J1900 quad core processor with 2.00GHz, 2MB L2 cache and 1333MT/s dual channel DDR3L SODIMM memory interface. The single package kit includes IO shield, one SATA drive cable, one SATA power cable and a quick-start guide.
conga-IA3/N2930 KIT	052331	Thin Mini-ITX single kit box based on Intel® Celeron® N2930 quad core processor with 1.83GHz up to 2.00GHz, 2MB L2 cache and 1333MT/s dual channel DDR3L SODIMM memory interface. Thermal Design Power 7.5W. The single package kit includes IO shield, one SATA drive cable, one SATA power cable and a quick-start guide.
<b>Accessories</b>		
conga-IA3/Retention Frame	052355	Retention frame for standard cooling for conga-IA3
conga-IA3/IO Shield - Standard	052356	IO shield for conga-IA3 with Standard Mini-ITX height
conga-IA3/IO Shield - Thin	052357	IO shield for conga-IA3 with Thin Mini-ITX height
conga-IA3/CSP	052351	Passive cooling solution for conga-IA3 with Thin Mini-ITX height
cab-ThinMini-ITX-SATA-Power	14000120	Sata power cable for congatec Thin Mini-ITX family. One end 15 pin SATA connector to to 3x15 pin SATA connector
cab-ThinMini-ITX-UART	14000121	UART cable with 9pin DSUB connector for congatec Thin Mini-ITX family
cab-ThinMini-ITX-USB20-Single	14000122	Single USB 2.0 cable for congatec Thin Mini-ITX family
cab-ThinMini-ITX-USB20-Twin	14000123	Dual USB 2.0 cable for congatec Thin Mini-ITX family
cab-ThinMini-ITX-USB30-Twin	14000124	Dual USB 3.0 cable for congatec Thin Mini-ITX family
cab-ThinMini-ITX-BKLT	14000127	Backlight cable for congatec Thin Mini-ITX family
cab-ThinMini-ITX-LVDS-OE	14000125	LVDS cable with open end for congatec Thin Mini-ITX family. Can be used also for eDP with open end
cab-ThinMini-ITX-eDP 1-1	14000129	eDP 1-1 cable for congatec Thin Mini-ITX family. Both sides are with 40pin ACES eDP connector plug.
cab-DP to HDMI Passive	14000128	Passive DisplayPort to HDMI cable
Dual USB 3.0 Slot Bracket	052442	Dual USB 3.0 Slot Bracket for 19pin USB 3.0 motherboard header, 40cm length, blue color
SATA III cable 30cm, straight/straight	48000029	SATA III cable with 30cm length, shielded, end connectors straight/straight
SATA III cable 30cm, down/straight	48000030	SATA III cable with 30cm length, shielded, end connectors down/straight
conga-Thin MITX/eDP to DP Adapter	052231	eDP to standard DisplayPort evaluation adapter for congatec Thin Mini-ITX boards
conga-Thin MITX/eDP to HDMI Adapter	052232	eDP to standard HDMI evaluation adapter for congatec Thin Mini-ITX boards
conga-Thin MITX/LVDS Adapter	052233	LVDS pin header evaluation adapter for congatec Thin Mini-ITX board
NB Power Supply; 65W; 19V@3.42A, FSP065-REBN2, Plug 7.4x5.1x12.5mm	10000145	NB Power Supply; 65W; 19V@3.42A, FSP065-REBN2, Plug 7.4x5.1x12.5mm
NB Power Supply; 90W; 19V@4.74A, FSP090-DIEBN2, Plug 7.4x5.1x12.5mm	10000146	NB Power Supply; 90W; 19V@4.74A, FSP090-DIEBN2, Plug 7.4x5.1x12.5mm
2,5" SSD, 128GB SATA III, Samsung	10000136	2,5" SSD, 128GB Serial ATA interface of 6.0Gbps, NAND, Samsung PM851 Series, 0°C- 70°C
2,5" SSD, 256GB SATA III, Samsung	10000137	2,5" SSD, 256GB Serial ATA interface of 6.0Gbps, NAND, Samsung PM851 Series, 0°C- 70°C
2,5" SSD, 60GB SATA III, Toshiba	10000135	2,5" SSD, 60GB Serial ATA interface of 6.0Gbps, cMLC, Toshiba, 0°C- 70°C
DDR3L-SODIMM-1600 (2GB)	068755	DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 2GB RAM
DDR3L-SODIMM-1600 (4GB)	068756	DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 4GB RAM
DDR3L-SODIMM-1600 (8GB)	068757	DDR3L SODIMM memory module with 1600 MT/s (PC3L-12800S) and 8GB RAM

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