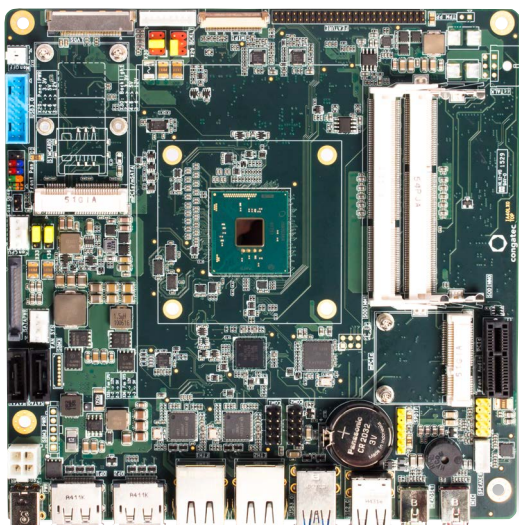


INDUSTRIAL THIN MINI-ITX

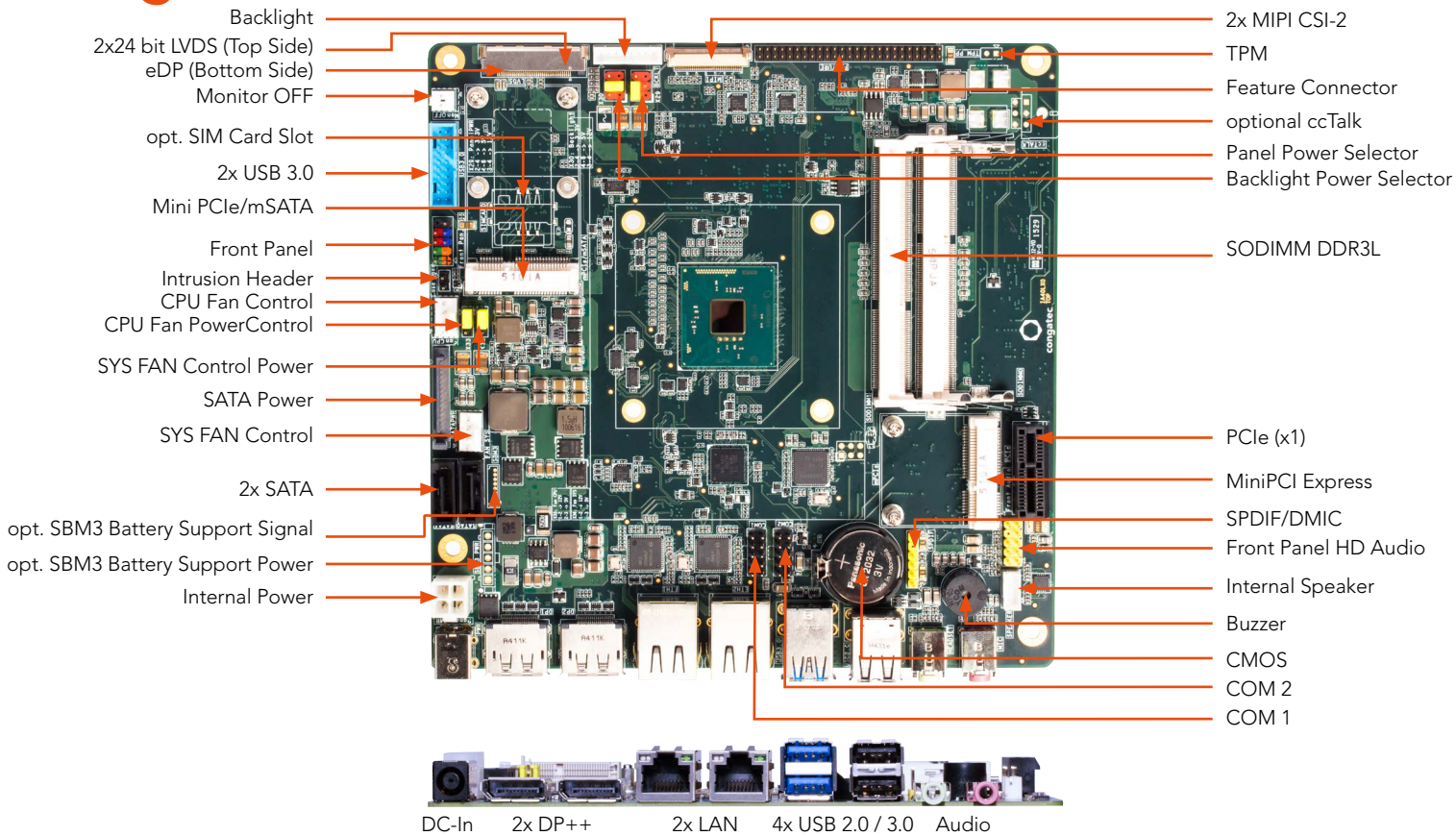
conga-IA4



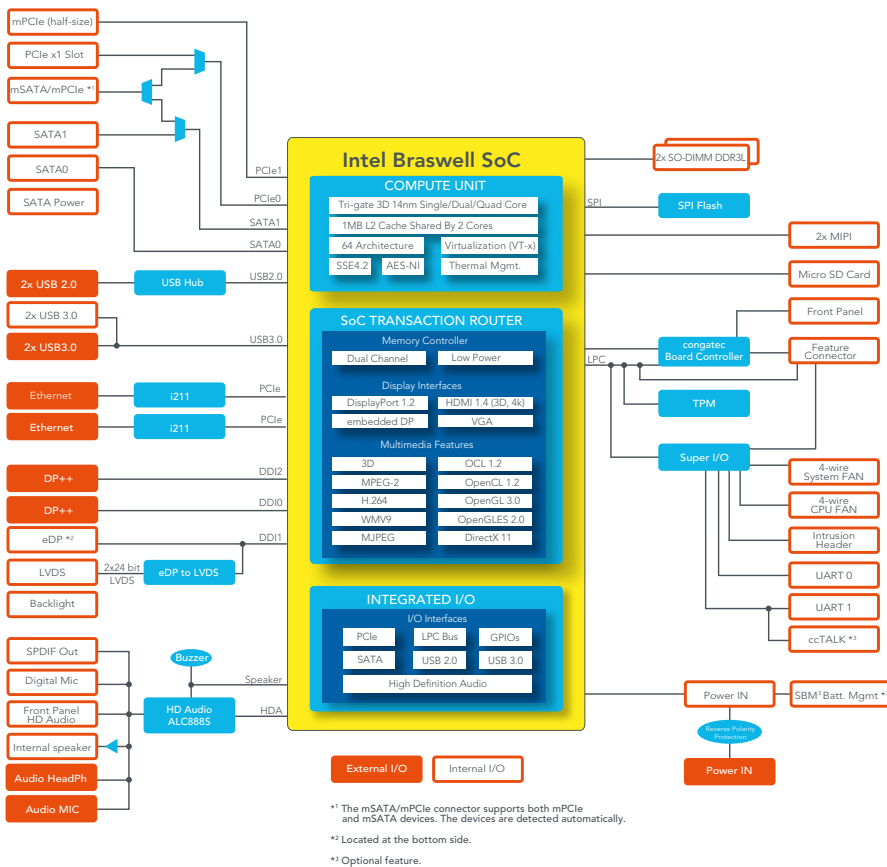
- Next Generation Intel® Celeron® and Pentium® Processor
- Burst Technology
- Low Power 4 to 6 Watt TDP
- Enhanced Intel HD Graphics Generation 8
- Long life components for 24/7 embedded use

Formfactor	Industrial Thin-Mini-ITX 170 x 170 mm																				
CPU	<table border="0"> <tr> <td>Intel® Pentium® N3700</td> <td>2.40 GHz (Burst) 1.6 GHz Clock</td> <td>Quad Core</td> <td>L2 cache 2MB</td> <td>4W SDP 6W TDP</td> </tr> <tr> <td>Intel® Celeron® N3150</td> <td>2.08 GHz (Burst) 1.6 GHz Clock</td> <td>Quad Core</td> <td>L2 cache 2MB</td> <td>4W SDP 6W TDP</td> </tr> <tr> <td>Intel® Celeron® N3050</td> <td>2.16 GHz (Burst) 1.6 GHz Clock</td> <td>Dual Core</td> <td>L2 cache 2MB</td> <td>4W SDP 6W TDP</td> </tr> <tr> <td>Intel® Celeron® N3000</td> <td>2.08 GHz (Burst) 1.04 GHz Clock</td> <td>Dual Core</td> <td>L2 cache 2MB</td> <td>3W SDP 4W TDP</td> </tr> </table>	Intel® Pentium® N3700	2.40 GHz (Burst) 1.6 GHz Clock	Quad Core	L2 cache 2MB	4W SDP 6W TDP	Intel® Celeron® N3150	2.08 GHz (Burst) 1.6 GHz Clock	Quad Core	L2 cache 2MB	4W SDP 6W TDP	Intel® Celeron® N3050	2.16 GHz (Burst) 1.6 GHz Clock	Dual Core	L2 cache 2MB	4W SDP 6W TDP	Intel® Celeron® N3000	2.08 GHz (Burst) 1.04 GHz Clock	Dual Core	L2 cache 2MB	3W SDP 4W TDP
Intel® Pentium® N3700	2.40 GHz (Burst) 1.6 GHz Clock	Quad Core	L2 cache 2MB	4W SDP 6W TDP																	
Intel® Celeron® N3150	2.08 GHz (Burst) 1.6 GHz Clock	Quad Core	L2 cache 2MB	4W SDP 6W TDP																	
Intel® Celeron® N3050	2.16 GHz (Burst) 1.6 GHz Clock	Dual Core	L2 cache 2MB	4W SDP 6W TDP																	
Intel® Celeron® N3000	2.08 GHz (Burst) 1.04 GHz Clock	Dual Core	L2 cache 2MB	3W SDP 4W TDP																	
DRAM Memory	2 SO-DIMM sockets for DDR3L memory modules up to 8 GByte with 1600 MT/s Dual channel memory interface for increased graphics performance																				
Ethernet	2x Intel® I211 Gigabit Ethernet controller																				
Sound	High Definition Audio Interface Realtek ALC 888S																				
Graphics	Intel® Gen 8 HD Graphics with support for DirectX11.1 OpenGL 4.2 OpenCL 1.2 OpenGL ES 2.0 MPEG2 full HW acceleration with H.265/HEVC decoding and H.264 encoding MVC and 2x independent display support in 4K (3840 x 2160 px) @30 Hz or WQXGA (2560 x 1600 px) @60 Hz																				
Graphic Interfaces	1x 24-bit Dual Channel LVDS Interface or eDP 1.4 and 2x DisplayPort 1.2																				
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 Header 1x LVDS (2x24 bit) s1x Embedded DisplayPort 1.4 1x Backlight (Power Control) 1x Front Panel HD Audio 2x Serial Port COM1 (opt. as ccTALK) 1x Frontpanel (Power Switch, LEDs, Reset) 1x FAN CPU 1x FAN System 1x internal power header (12-24V) 1x opt. battery header signal + power (SBM3) MIPI CSI-2																				
Feature Connector	congatec custom (8 Bit General Purpose I/O) SPI(for external BIOS) SMB LPC ACPI S3/S4																				
External Connectors (Frontpanel)	2x DisplayPort DP++ 3.5mm Audio In and 3.5mm Line Out 2x LAN RJ45 2x USB 3.0/2.0 2x USB 2.0 1x DC-In (external input 12-24V)																				
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																				
Security	The conga-IA4 can be optionally equipped with a discrete "Trusted Platform Module" (TPM 1.2/2.0). 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 8 Microsoft® Windows 7 Linux Microsoft® Windows® 7/8 embedded Standard Microsoft® Windows® 10																				
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-IA4 | Connectors



conga-IA4 | Block diagram



conga-IA4 | Order Information

Article	PN	Description
conga-IA4/N3000	052601	Thin Mini ITX Baseboard with Intel® Celeron® N3000 dual core processor with 1.04/2.08GHz, 2MB L2 cache and dual DDR3L-1600 memory interface
conga-IA4/N3050	052602	Thin Mini ITX Baseboard with Intel® Celeron® N3050 dual core processor with 1.6/2.16GHz, 2MB L2 cache and dual DDR3L-1600 memory interface
conga-IA4/N3150	052603	Thin Mini ITX Baseboard with Intel® Celeron® N3150 quad core processor with 1.6/2.08GHz, 2MB L2 cache and dual DDR3L-1600 memory interface
conga-IA4/N3700	052604	Thin Mini ITX Baseboard with Intel® Pentium® N3700 quad core processor with 1.6/2.4GHz, 2MB L2 cache and dual DDR3L-1600 memory interface

Accessories

conga-IA3/CSP	052351	Passive cooling solution suitable for conga IA3 and conga-IA4 with Thin Mini-ITX height
conga-IA3/Retention Frame	052355	Retention frame for standard cooling conga-IA3/CSP (052351) suitable for conga-IA3 and conga-IA4
conga-IA4/IO Shield - Standard	052656	I/O shield for conga-IA4 with Standard Mini-ITX height
conga-IA4/IO Shield - Thin	052657	I/O shield for conga-IA4 with Thin Mini-ITX height
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