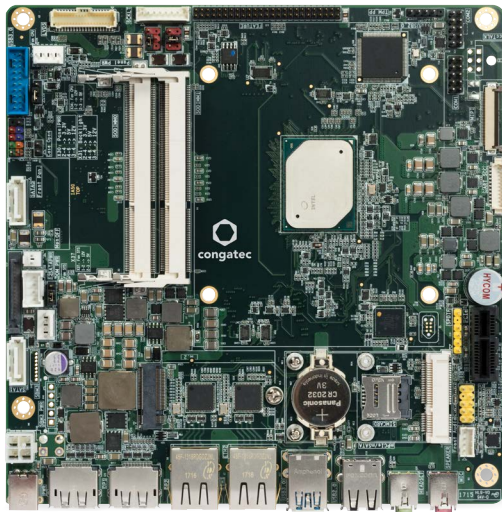


# INDUSTRIAL THIN MINI-ITX

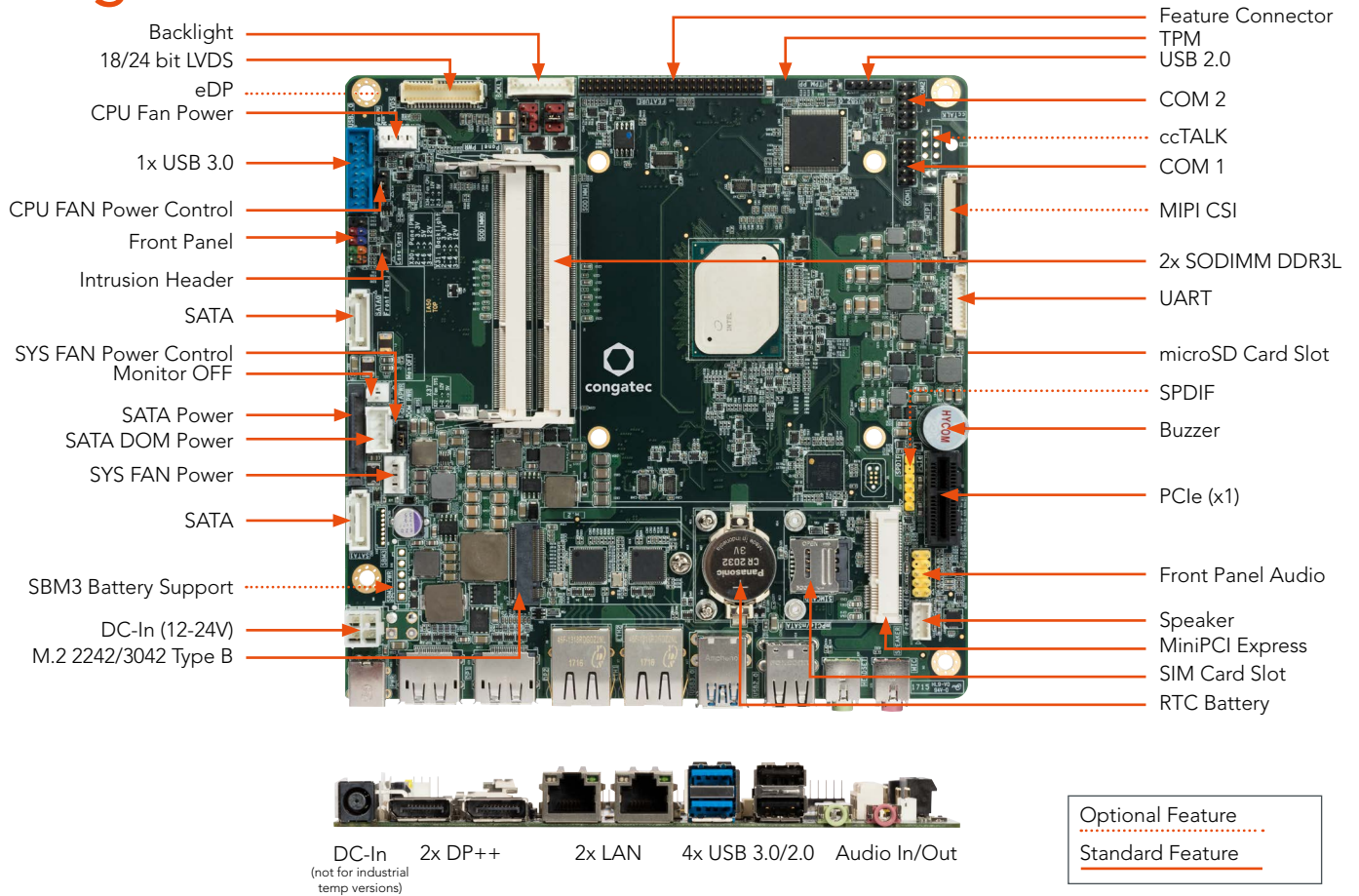
## conga-IA5



- Industrial Intel® Atom™ E3900 processor series
- Intel® Pentium® and Celeron® processors
- Low Power CPUs 6 to 12 Watt TDP
- Enhanced Intel® HD Graphics generation 9
- Long life components for 24/7 embedded use
- Extended temperature variants
- On board TPM for enhanced security

Formfactor	Industrial Thin-Mini-ITX   170 x 170 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	9.5W TDP
	Intel® Atom™ x5-E3930	1.80 GHz (Burst)	1.3 GHz Clock	Dual Core	L2 cache 2MB	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 2MB	6W TDP
DRAM Memory	2x SO-DIMM sockets (dual channel DDR3L up to 1866 MT/s) to support a max. memory size of 8GB					
Ethernet	2x Intel® I211 Gigabit Ethernet controller (commercial)   2x Intel® I210 Gigabit Ethernet controller (Industrial)					
Sound	High Definition Audio Interface with Cirrus 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	18/24-bit Dual Channel LVDS Interface or eDP 1.3 and 2x DisplayPort 1.2					
Internal Connectors	1x PCIe x1 Slot shared with mPCIe   1x mPCIe Half Size shared with PCIe slot   1x M.2 2242/3042 Type B   2x SATA (one shared with M2)   1x SATA Power connector (header)   1x SATA Power   1x USB 3.0/2.0 Header   1x USB 3.0 (on M.2 slot)   1x USB 2.0 (on miniPCIe slot)   1x Micro SD Card   1x SIM Card slot   18/24 bit LVDS or 1x eDP 1.3   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)					
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++   1x LVDS 2x24 bit/shared with eDP 1.3   3.5mm Audio In and 3.5mm Line Out   2x LAN RJ45   2x USB 3.0   2x USB 2.0   1x DC-In (12-24V, 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 <sup>2</sup> C bus (fast mode   400 kHz   multi-master)   Power Loss Control					
Embedded BIOS	AMI Aptio® 2.X (UEFI) SM-BIOS   BIOS Update   Logo Boot   Quiet Boot   HDD Password					
Security	Discrete "Trusted Platform Module" (TPM 2.0) on board					
Power Specification	Power Management   ACPI S3/S4/DeepSx   Wake on time from S5   Power Supply 12V - 24V   2x FAN (CPU, system) monitored & controlled					
Operating Systems	Microsoft® Windows 10   Microsoft® Windows 10 IoT   Linux   Yocto					
Power Consumption	See manual for full details					
Temperature	Commercial Variants:	Operating Temperature: 0 to +60°C		Storage Temperature: -20 to +70°C		
	Industrial Variants:	Operating Temperature: -40 to +85°C		Storage Temperature: -40 to +85°C		
Humidity	Operating:	10 to 90% r. H. non cond.				
	Storage:	5 to 95% r. H. non cond.				
Size	170 x 170 mm (~6.7 x 6.7")					

# conga-IA5 | Connectors



# conga-IA5 | Block diagram

