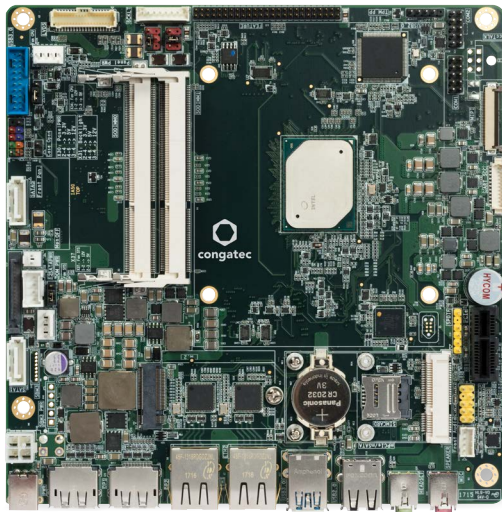


INDUSTRIAL THIN MINI-ITX

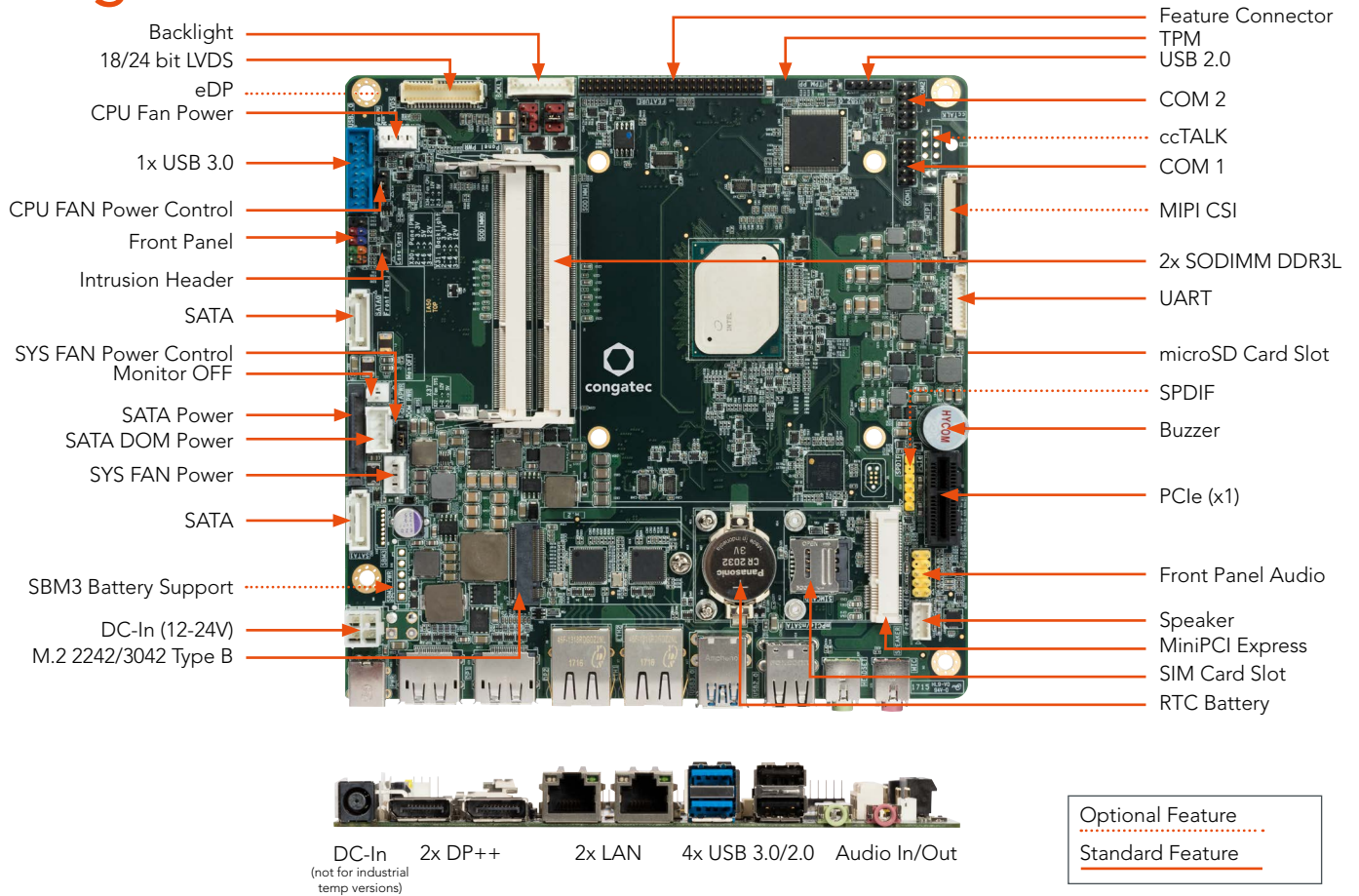
conga-IA5



- 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 ² 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

