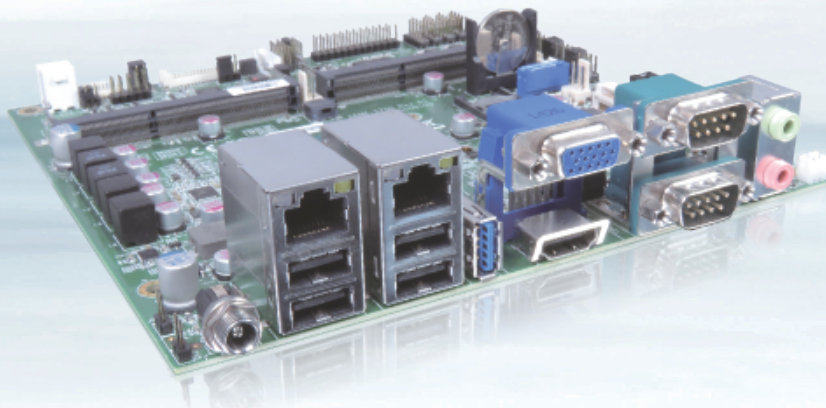


mITX-BYT

EXTENDED TEMPERATURE SUPPORT



MINI-ITX INDUSTRIAL MOTHERBOARD WITH ATOM® E3800 SERIES & CELERON® J1900 SERIES PROCESSORS

- ▶ 1x LVDS, 1x HDMI, 1x VGA for display output
- ▶ 2x GbE LAN for Ethernet
- ▶ 1x USB 3.0, 5x USB 2.0, 2x RS232/422/485, 4x RS232, 8-bit DIO, 1x Parallel Port
- ▶ 1x SATA, 1x mSATA for storage
- ▶ 1x mPCIe, 1x PCIe x1 for expansion

POSSIBILITIES START HERE



mITX-BYT

MINI-ITX INDUSTRIAL MOTHERBOARD WITH ATOM® E3800 SERIES & CELERON® J1900 SERIES PROCESSORS

mITX-BYT is a Mini-ITX form factor industrial mainboard equipped with Atom® E3800 Series & Celeron® J1900 Series processors. Featured are 2x DDR3L SO-DIMM, 2 x GbE LAN, 1x PCIe x1, 6x COM, 1x VGA, 1x HDMI, 5x USB 2.0 and 1x USB 3.0.

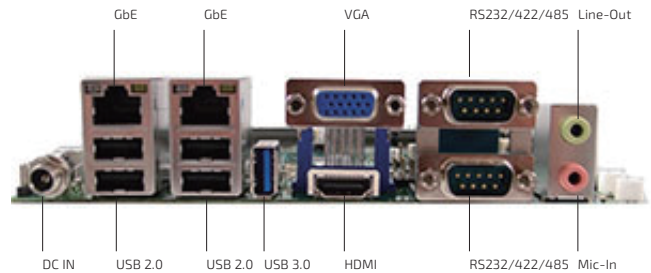
mITX-BYT reserves 1x PCIe x1 slot and 1x mPCIe slot, allowing users to expand I/O capabilities, wireless network or other functional

enhancements.

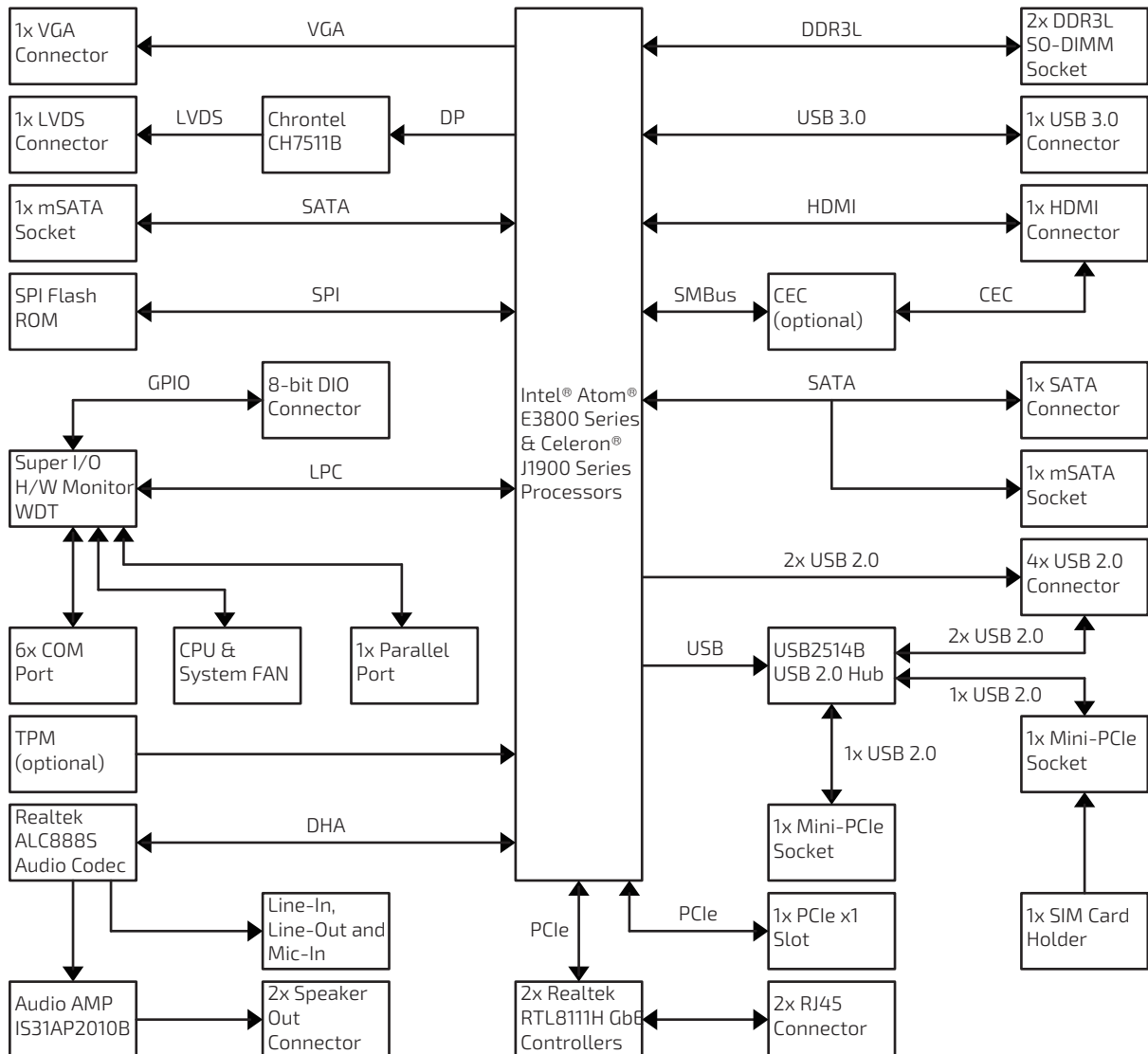
mITX-BYT is a compact, high performance industrial motherboard that is ideal for a variety of applications. In addition, an extended temperature model is offered for this series allowing operation under extreme high, low or radically fluctuating temperatures, which is common in industrial environments.

PRODUCT HIGHLIGHTS

- ▶ Intel® Atom® E3800 Series & Celeron® J1900 Series Processors
- ▶ 2x / 1x DDR3L SO-DIMM memory socket
- ▶ 1x LVDS 1x HDMI, 1x VGA for display output
- ▶ 2x GbE LAN for Ethernet
- ▶ 1x USB 3.0, 5x USB 2.0, 6x COM, 8-bit DIO, 1x Parallel Port
- ▶ 1x SATA, 1x mSATA for storage
- ▶ 1x mPCIe, 1x PCIe x1 for expansion
- ▶ Extended temperature model available



BLOCK DIAGRAM



► TECHNICAL INFORMATION

SYSTEM	PROCESSOR	Intel® Atom® E3845 (Quad Core, 2M Cache, 1.91 GHz, FCBGA1170, 10 W TDP) Intel® Atom® E3825 (Dual Core, 1M Cache, 1.33 GHz, FCBGA1170, 6 W TDP) Intel® Celeron® J1900 (Quad Core, 2M Cache, up to 2.42 GHz, FCBGA1170, 10 W TDP)
	MEMORY	2x DDR3L 1333 SO-DIMM up to 8 GByte (for model w/ J1900 or E3845) 1x DDR3L 1067 SO-DIMM up to 4 GByte (for model w/ E3825)
VIDEO	GRAPHICS	Intel® HD Graphics
	DISPLAY INTERFACE	1x LVDS (24-bit, 2-ch, 1920 x 1200 @ 60 Hz) 1x HDMI (on rear, 1920 x 1080 @ 60 Hz) 1x VGA (on rear, 2560 x 1600 @ 60 Hz)
	MULTIPLE DISPLAY	Dual
AUDIO	AUDIO CODEC	Realtek ALC8885
	AUDIO INTERFACE	2x Speaker-out (3 W) 1x Line-out (on rear) 1x Mic-in (on rear)
NETWORK CONNECTION	ETHERNET	2x GbE LAN (RJ45 on rear, Realtek RTL8111H)
PERIPHERAL CONNECTION	USB	1x USB 3.0 (Type A on rear) 5x USB 2.0 (4x Type A on rear, 1x by header)
	SERIAL PORT	2x RS232/422/485 (DB9 on rear, w/ power selection) 4x RS232 (by header, w/ power selection)
	OTHER I/Os	1x PS/2 Keyboard / Mouse (by header) 1x 8-bit DIO (by wafer) 1x Parallel Port (by header)
STORAGE & EXPANSION	SATA	1x SATA
	mSATA	1x mSATA (full size)
	mPCIe	1x mPCIe (half size)
	PCIe	1x PCIe x1
	SIM CARD Holder	1x SIM Card Cage
POWER	INPUT VOLTAGE	DC 12 V ~ 24 V, DC 12 V
	CONNECTOR	Lockable DC Jack (on rear, DC 12 V ~ 24 V), 2x2-pin ATX Connector (DC 12 V)
FIRMWARE	BIOS	AMI uEFI BIOS w/ 64 Mb SPI Flash
	WATCHDOG	Programmable WDT to generate system reset event
	H/W MONITOR	Voltages, Temperatures
	REAL TIME CLOCK	SoC integrated RTC
	SECURITY	TPM 1.2 (optional, Infineon SLB 9635)
SYSTEM CONTROL & MONITORING	FP HEADER	1x Header for Reset button, HDD LED & External Speaker 1x Header for Power button, Power LED, Keyboard Lock & SM bus 1x Header for mPCIe activity LED
COOLING	FAN	1x Wafer for CPU Smart Fan 1x Wafer for System Smart Fan
SOFTWARE	OS SUPPORT	Windows 7, Windows 8, Windows 10, Linux
MECHANICAL	DIMENSION (L x W)	Mini-ITX (170 mm x 170 mm / 6.70" x 6.70")
ENVIRONMENTAL	OPERATING TEMPERATURE	0 °C ~ 60 °C / 32 °F ~ 140 °F (Standard) -20 °C ~ 70 °C / -4 °F ~ 158 °F (Extended)
	STORAGE TEMPERATURE	-20 °C ~ 80 °C / -4 °F ~ 176 °F (Standard) -40 °C ~ 85 °C / -40 °F ~ 185 °F (Extended)
	HUMIDITY	0 % ~ 95 %
CERTIFICATION	EMC & SAFETY	CE Class A, FCC Class A

▶ ORDERING INFORMATION

ARTICLE	DESCRIPTION
miTX-BYT-E3845	Intel® Atom® E3845, 2x DDR3L SO-DIMM, Operating temperature: 0 °C ~ 60 °C
miTX-BYT-E3825	Intel® Atom® E3825, 1x DDR3L SO-DIMM, Operating temperature: 0 °C ~ 60 °C
miTX-BYT-J1900	Intel® Celeron® J1900, 2x DDR3L SO-DIMM, Operating temperature: 0 °C ~ 60 °C
miTX-BYT-E3845-ET	Intel® Atom® E3845, 2x DDR3L SO-DIMM, Operating temperature: -20 °C ~ 70 °C

OPTIONAL ACCESSORIES - CABLING

PS/2 CABLE	Y-cable, 6-pin pitch 2.0 mm wafer connector to KB & MS connector, L = 25 cm
COM PORT CABLE	WL6008H-2x5P pitch: 2.54 mm 180 degree to D-SUB 9PIN, L = 21 cm
DIO CABLE	D-SUB 2x9 PIN (Female) (180°) to WL6008H-2x5P 2x5P 2.54 pitch (180°), L = 250 mm
USB CABLE (1 PORT)	1x USB to A2001H-4P 1x4P 2.0 pitch 180 degree, L = 20 cm
SATA POWER CABLE	WL2000H 1x4P 2.0 pitch to SATA 1x15P 1.27pitch, L = 46 cm
SATA CABLE	7-pin connector with lock, L = 46 cm
LPT PORT CABLE	Pitch 2.00 mm DB-25, L = 20 cm

▶ PRODUCT CONTACT POINT

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