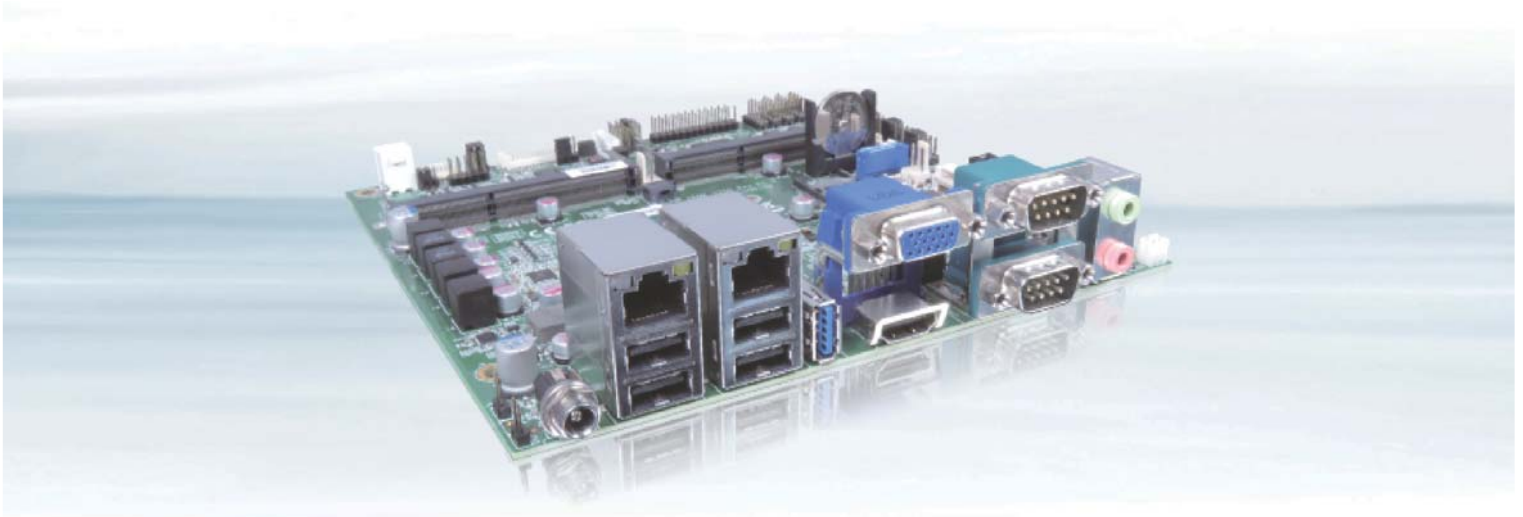


# mITX-BYT

## EXTENDED TEMPERATURE SUPPORT

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### 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

# 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.

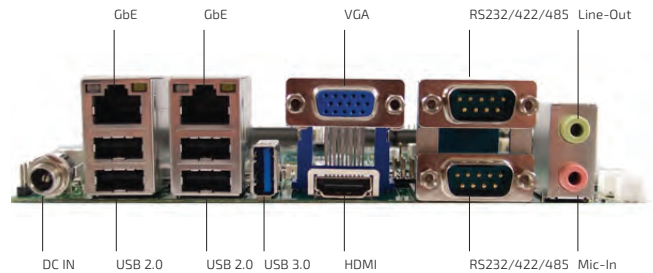
mITX-BYT reserves 1x PCIe x1 slot and 1x mPCIe slot, allowing users to expand I/O capabilities, wireless network or other functional

enhancements.

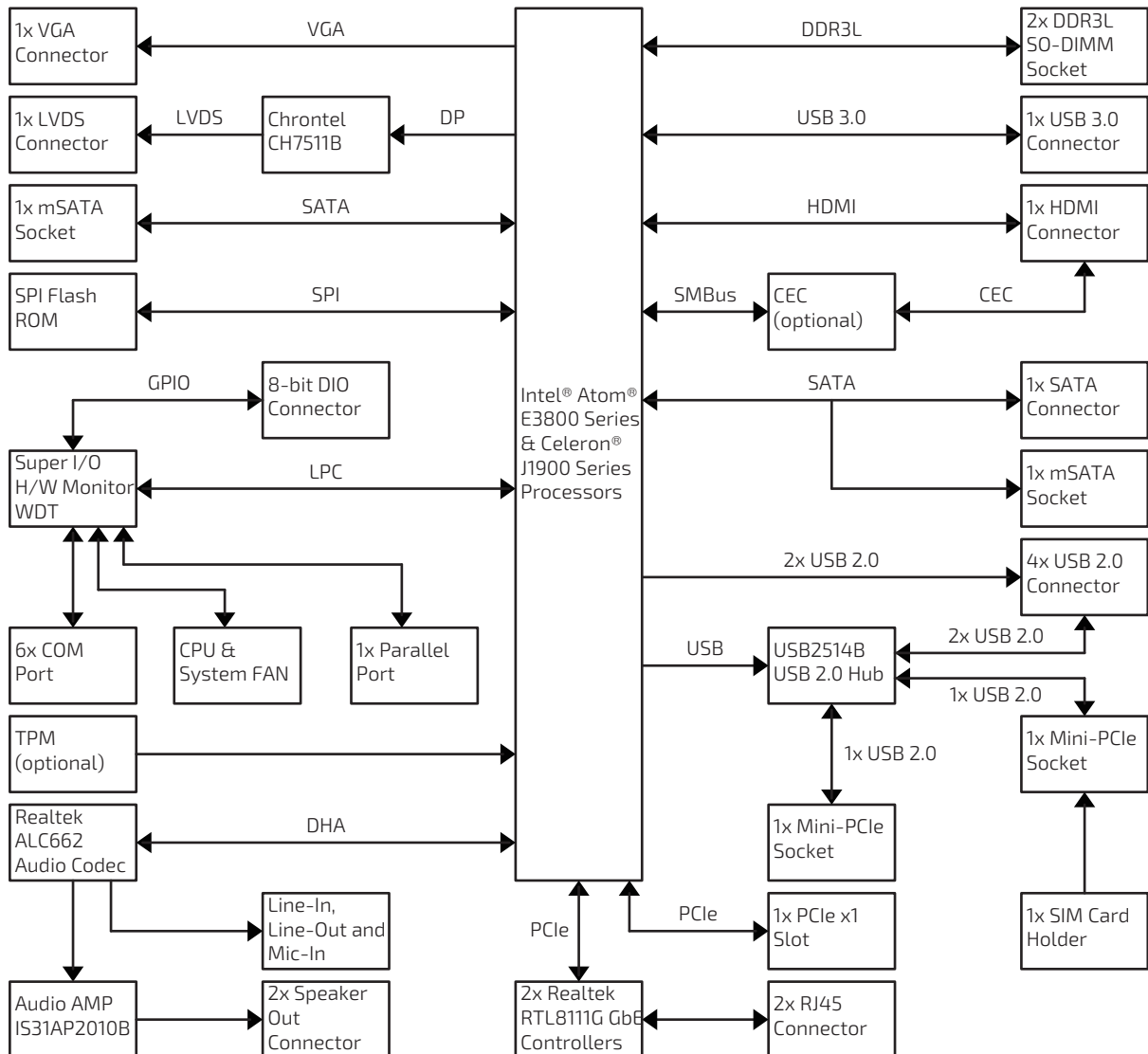
mITX-BYT is a compact, high performance industrial motherboard that is ideal for a variety of applications. In addition, an extended temperature model is offered for this series allowing operation under extreme high, low or radically fluctuating temperatures, which is common in industrial environments.

### 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

<b>SYSTEM</b>	<b>PROCESSOR</b>	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)
	<b>MEMORY</b>	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)
<b>VIDEO</b>	<b>GRAPHICS DISPLAY INTERFACE</b>	Intel® HD Graphics 1x LVDS (24-bit, 2-ch, 1920 x 1200 @ 60 Hz) 1x HDMI (on rear, 1920 x 1080 @ 60 Hz) 1x VGA (by header, 2560 x 1600 @ 60 Hz)
	<b>MULTIPLE DISPLAY</b>	Dual
<b>AUDIO</b>	<b>AUDIO CODEC AUDIO INTERFACE</b>	Realtek ALC662 2x Speaker-out (3 W) 1x Line-out (on rear) 1x Mic-in (on rear)
<b>NETWORK CONNECTION</b>	<b>ETHERNET</b>	2x GbE LAN (RJ45 on rear, Realtek RTL8111G)
<b>PERIPHERAL CONNECTION</b>	<b>USB</b>	1x USB 3.0 (Type A on rear) 5x USB 2.0 (4x Type A on rear, 1x by header)
	<b>SERIAL PORT</b>	2x RS232/422/485 (DB9 on rear, w/ power selection)
	<b>OTHER I/Os</b>	4x RS232 (by header, w/ power selection) 1x PS/2 Keyboard / Mouse (by header) 1x 8-bit DIO (by wafer) 1x Parallel Port (by header)
<b>STORAGE &amp; EXPANSION</b>	<b>SATA</b>	1x SATA
	<b>mSATA</b>	1x mSATA (full size)
	<b>mPCIe</b>	1x mPCIe (half size)
	<b>PCIe</b>	1x PCIe x1
	<b>SIM CARD Holder</b>	1x SIM Card Cage
<b>POWER</b>	<b>CONNECTOR INPUT VOLTAGE</b>	Lockable DC Jack (on rear), 2x2-pin ATX Connector DC 12 V ~ 24 V (DC Jack), DC 12 V (ATX Connector)
<b>FIRMWARE</b>	<b>BIOS WATCHDOG H/W MONITOR REAL TIME CLOCK TPM</b>	AMI uEFI BIOS w/ 64 Mb SPI Flash Programmable WDT to generate system reset event Voltages, Temperatures SoC integrated RTC Optional (Infineon SLB 9635 TPM 1.2)
<b>SYSTEM CONTROL &amp; MONITORING</b>	<b>FP HEADER</b>	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
<b>COOLING</b>	<b>FAN</b>	1x Wafer for CPU Smart Fan 1x Wafer for System Smart Fan
<b>SOFTWARE</b>	<b>OS SUPPORT</b>	Windows 7, Windows 8, Windows 10, Linux
<b>MECHANICAL</b>	<b>DIMENSION (L x W)</b>	Mini-ITX (170 mm x 170 mm / 6.70" x 6.70")
<b>ENVIRONMENTAL</b>	<b>OPERATION TEMPERATURE</b>	0 °C ~ 60 °C / 32 °F ~ 140 °F (Standard) -20 °C ~ 70 °C / -4 °F ~ 158 °F (Extended)
	<b>STORAGE TEMPERATURE</b>	-20 °C ~ 80 °C / -4 °F ~ 176 °F (Standard) -40 °C ~ 85 °C / -40 °F ~ 185 °F (Extended)
	<b>HUMIDITY</b>	0 % ~ 95 %
<b>CERTIFICATION</b>	<b>EMC &amp; SAFETY</b>	CE Class A, FCC Class A

## ▶ ORDERING INFORMATION

ARTICLE	DESCRIPTION
miTX-BYT-E3845	Intel® Atom® E3845, 2x DDR3L SO-DIMM, Op. temp.: 0 °C ~ 60 °C
miTX-BYT-E3825	Intel® Atom® E3825, 1x DDR3L SO-DIMM, Op. temp.: 0 °C ~ 60 °C
miTX-BYT-J1900	Intel® Celeron® J1900, 2x DDR3L SO-DIMM, Op. temp.: 0 °C ~ 60 °C
miTX-BYT-E3845-ET	Intel® Atom® E3845, 2x DDR3L SO-DIMM, Op. temp.: -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