

# ECX-BYT

## EXTENDED TEMPERATURE SUPPORT

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Ordered & Served at  
**Kontron Asia**

### 3.5" SINGLE BOARD COMPUTER WITH INTEL® ATOM® E3800 SERIES & CELERON® N2000 / 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 for peripherals
- ▶ 1x SATA, 1x mSATA for storage
- ▶ 1x mPCIe for expansion

# ECX-BYT

## 3.5" SINGLE BOARD COMPUTER WITH INTEL® ATOM® E3800 SERIES & CELERON® N2000 / J1000 SERIES PROCESSORS

ECX-BYT is a 3.5" single board computer equipped with low-power Intel® Atom® E3800 Series & Celeron® N2000 / J1000 Series SoC processors. The ECX-BYT is an ideal platform for integration into a fanless device.

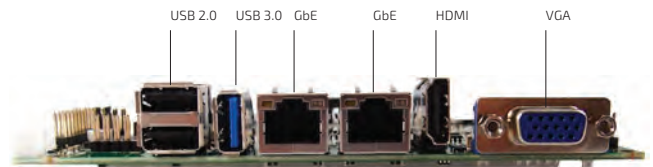
R5232/422/485, 4x R5232, 8-bit DIO for peripheral applications, and reserves a mini PCIe slot allowing possible functionality expansion such as SSD storage, Wi-Fi, Bluetooth or 3G / LTE wireless connection.

The ECX-BYT features a variety of I/O ports including 1x LVDS, 1x HDMI, 1x VGA, 2x GbE LAN, 1x USB 3.0, 5x USB 2.0, 2x

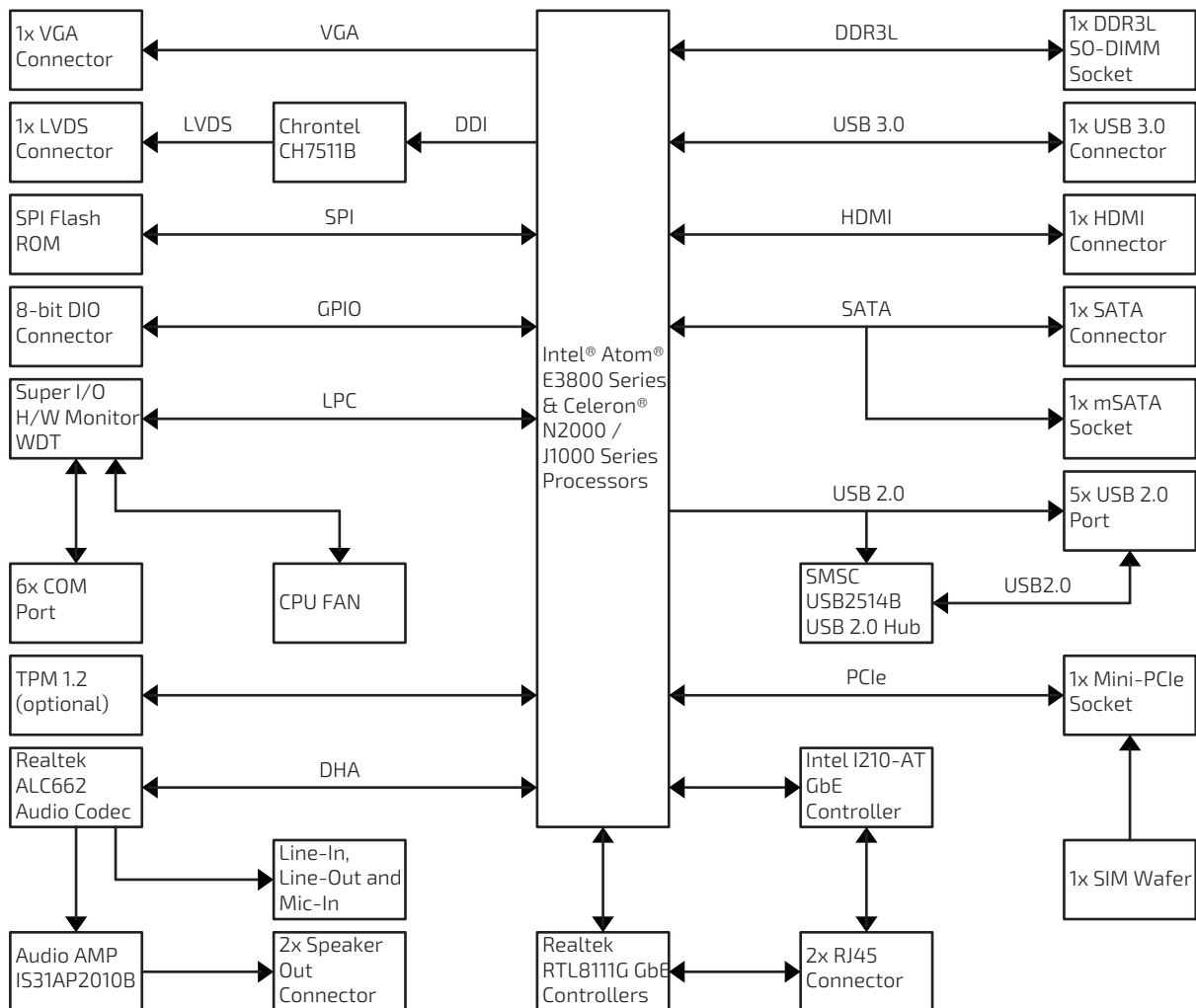
In addition, extended temperature models are available and allow for operation under extreme high, low or radically fluctuating

### ▶ PRODUCT HIGHLIGHTS

- ▶ Intel® Atom® E3800 Series & Celeron® N2000 / J1000 Series Processors
- ▶ 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 for USB device connection
- ▶ 2x RS232/422/485, 4x RS232 for serial device connection
- ▶ 8-bit DIO for device / signal control
- ▶ 1x SATA, 1x mSATA for storage
- ▶ 1x mPCIe 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® N2807 (Dual Core, 1M Cache, up to 2.16 GHz, FCBGA1170, 4.3 W TDP) Intel® Celeron® J1900 (Quad Core, 2M Cache, up to 2.42 GHz, FCBGA1170, 10 W TDP)
	<b>MEMORY</b>	1x DDR3L 1333 SO-DIMM up to 8 GByte (E3845 & J1900) 1x DDR3L 1067 SO-DIMM up to 8 GByte (E3825) 1x DDR3L 1333 SO-DIMM up to 4 GByte (N2807)
<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 (on rear, 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-in (by header) 1x Line-out (by header) 1x Mic-in (by header)
<b>NETWORK CONNECTION</b>	<b>ETHERNET</b>	2x GbE LAN (RJ45 on rear, 1x Intel® I210-AT, 1x Realtek RTL8111G)
<b>PERIPHERAL CONNECTION</b>	<b>USB</b>	1x USB 3.0 (Type A on rear)
	<b>SERIAL PORT</b>	5x USB 2.0 (2x Type A on rear, 3x by header)
	<b>OTHER I/Os</b>	2x RS232/422/485 (by header) 4x RS232 (by header) 1x PS/2 Keyboard/Mouse (by header) 1x 8-bit DIO (by header)
<b>STORAGE &amp; EXPANSION</b>	<b>SATA</b>	1x SATA 2.0
	<b>mSATA</b>	1x mSATA (full size)
	<b>mPCIe</b>	1x mPCIe (full size)
	<b>SIM CARD HOLDER</b>	1x SIM Card Cage (by wafer)
<b>POWER</b>	<b>INPUT VOLTAGE CONNECTOR</b>	DC 12 V 1x4-pin Lockable Wafer
<b>FIRMWARE</b>	<b>BIOS</b>	AMI uEFI BIOS w/ 64 Mb SPI Flash
	<b>WATCHDOG</b>	Programmable WDT to generate system reset event
	<b>H/W MONITOR</b>	Voltages, Temperatures
	<b>REAL TIME CLOCK</b>	SoC integrated RTC
	<b>TPM</b>	Optional for models w/ Atom® E3845 (Infineon SLB 9635 TPM 1.2)
<b>SYSTEM CONTROL &amp; MONITORING</b>	<b>FP HEADER</b>	1x Header Reset button, HDD LED & External Speaker 1x Header for Power button, Power LED & SM bus 1x Header for mPCIe activity LED
<b>COOLING</b>	<b>FAN</b>	1x Wafer for CPU 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>	ECX (146 mm x 105 mm / 5.75" x 4.13")
<b>ENVIRONMENTAL</b>	<b>OPERATION TEMPERATURE</b>	0 °C ~ 60 °C / 32 °F ~ 140 °F (Standard)
	<b>STORAGE TEMPERATURE</b>	-20 °C ~ 70 °C / -4 °F ~ 158 °F (Extended)
	<b>HUMIDITY</b>	-20 °C ~ 80 °C / -4 °F ~ 176 °F (Standard)
		-40 °C ~ 85 °C / -40 °F ~ 185 °F (Extended)
		0 % ~ 95 %
<b>CERTIFICATION</b>	<b>EMC &amp; SAFETY</b>	CE Class A, FCC Class A

## ▶ ORDERING INFORMATION

ARTICLE	DESCRIPTION
ECX-BYT-E3845	Intel® Atom® E3845, Operating temperature: 0 °C ~ 60 °C
ECX-BYT-E3825	Intel® Atom® E3825, Operating temperature: 0 °C ~ 60 °C
ECX-BYT-N2807	Intel® Celeron® N2807, Operating temperature: 0 °C ~ 60 °C
ECX-BYT-J1900	Intel® Celeron® J1900, Operating temperature: 0 °C ~ 60 °C
ECX-BYT-E3845-ET	Intel® Atom® E3845, Operating temperature: -20 °C ~ 70 °C
ECX-BYT-E3825-ET	Intel® Atom® E3825, 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	10-pin pitch = 1.25 mm to DB-9 connector, L = 35 cm
DIO CABLE	WL1025H-10P(51021) 1x10P 1.25 pitch to F83N-3.81-10P 1x10P + F736-3.81-10P 1x10P, L = 100 mm
USB CABLE (2 PORT)	2.54 mm 2x5P to 2x USB connectors, L = 34 cm
USB CABLE (1 PORT)	1x4P 1.25 pitch 180 degree, L = 200 mm
SATA POWER CABLE	SATA 1x15P Pitch: 1.27mm, L = 460 mm
SATA CABLE	7-pin connector with lock, L = 46 cm
AUDIO CABLE	WL6008H 2x6P 2.54 pitch to EAR phone jack x3 pitch: 3.5 mm, L = 35 cm
DC IN CABLE	2.5 DC Jack w/ 2mm Nut, 0.5 mm washer to H-300F-XX 1x4P 3.0 pitch, L = 30 cm
3G MINI SIM CARD HOLDER KIT	W/ SIM card holder x1, 3G SIM card cable x1

(ordered at Kontron Asia and all technical support, RMA and warranty will be provided by Kontron Asia)

## ▶ PRODUCT CONTACT POINT

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