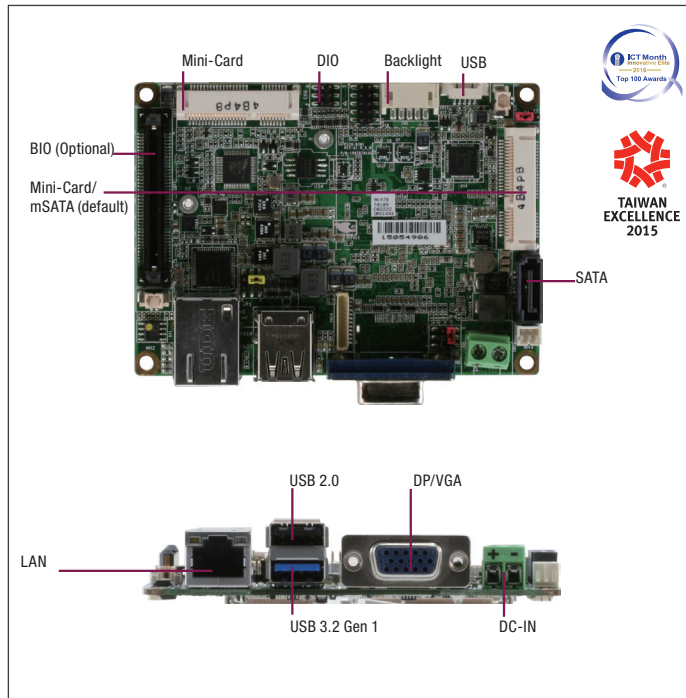


# PICO-BT01

Pico-ITX Board with Intel® Atom™/ Celeron® Processor SoC



## Specifications

SYSTEM	
FORM FACTOR	PICO-ITX
CPU	Intel® Atom™/ Celeron® Processor: Celeron® J1900 (4C/4T, 2.00GHz, up to 2.42GHz, TDP 10W) Celeron® N2807 (2C/2T, 1.58GHz, up to 2.16GHz, TDP 4.3W) Atom™ E3845 (4C/4T, 1.91 GHz, TDP 10W) Atom™ E3825 (2C/2T, 1.33 GHz, TDP 6W)
CHIPSET	Integrated with Intel® SoC
MEMORY TYPE	DDR3L up to 2133MHz, SODIMM x 1, up to 8GB, Non-ECC
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	—
RTC Battery	Lithium Battery 3V/240mAh
DIMENSION	3.94" x 2.84" (100mm x 72mm)
Gross Weight	0.18 lbs (0.08 kg)
OS Support	Windows 10 (64 bit) Windows 7 (64 bit) Ubuntu 21.04.3/Kernel 5.11
POWER	
POWER REQUIREMENT	+12V
POWER SUPPLY TYPE	AT/ATX
CONNECTOR	Phoenix 2-pin Connector (Default) Lockable DC Jack Connector (colay)
POWER CONSUMPTION	Intel® J1900, DDR3L 1333MHz 8GB 1.14A@ +12V(TYPICAL)
DISPLAY	
CONTROLLER	Intel® HD Graphics for Intel Atom® Processor Z3700 Series
LVDS/eDP	LVDS (18/24-bit) up to 1400 x 900 @60Hz
Display Interface	VGA (up to 2048 x 1152 @60Hz) or DP (up to 2560 x 1400 @60Hz)
Multiple Display	Up to 2 Simultaneous Displays
AUDIO	
CODEC	Realtek ALC897/892
AUDIO INTERFACE	Line-out
Speaker	—
EXTERNAL I/O	
ETHERNET	Intel® i210, 10/100/1000Base, RJ-45 x 1
USB	USB 3.2 Gen 1 x 1 USB 2.0 x 1
SERIAL PORT	—
VIDEO	VGA (up to 2048 x 1152 @60Hz) or DP (up to 2560 x 1400 @60Hz)

## Features

- Onboard Intel® Atom™ E3800/ Celeron® J1900/N2807 Processor SoC
- DDR3L 1066/1333 MHz SODIMM x 1, Up to 8 GB
- 18/24-bit LVDS LCD, CRT Co-lay Display Port
- SATA 3.0Gb/s x 1, Mini-Card(Full size)/mSATA(default) x 1
- USB 3.2 Gen 1 x 1, USB 2.0 x 2
- Gigabit Ethernet x 1, RJ-45 x 1
- RS-232 x 1, RS-232/422/485 x 1
- Mini-card x 1 (Half size)
- 4-Bit Digital I/O
- BIO Connector for Daughter Board Optional



INTERNAL I/O	
USB	USB 2.0 x 1
SERIAL PORT	COM1: RS-232 x 1 COM2: RS-232/422/485 x 1 (Ring/ +5V/ +12V)
VIDEO	LVDS (18/24-bit) up to 1400 x 900 @60Hz
SATA	SATA II (3.0Gb/s) x 1 +5V SATA Power Connector x 1
AUDIO	Line-out
DIO/GPIO	4-bit
SMBus/I2C	I2C/SMBus x1 (SMBUS as default)
Touch	—
FAN	—
SIM	—
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
EXPANSION	
Mini PCI-E/mSATA	Full size mPCIe/mSATA or USB2.0 x 1 (SATA as default, PCIe selected by HW BOM)
M.2	—
Others	BIO (Optional)
ENVIRONMENT & CERTIFICATION	
OPERATING TEMP	32°F ~ 140°F (0°C ~ 60°C) WITAS 2 -40°F ~ 185°F (-40°C ~ 85°C)
STORAGE TEMP	-40°F ~ 185°F (-40°C ~ 85°C)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing
MTBF (HOURS)	80,000
EMC	CE/FCC Class A

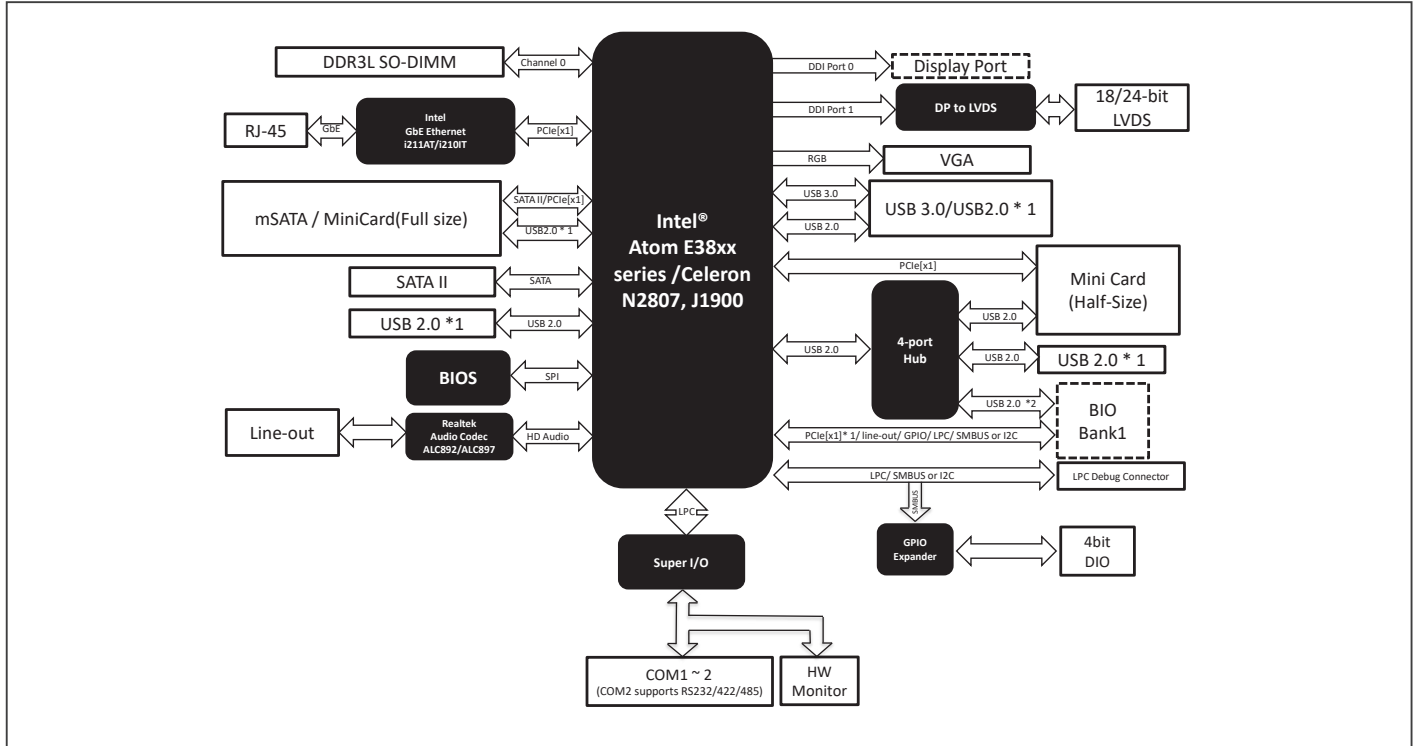
## Packing List

- PICO-BT01-HSP01  
Heat Spreader
- 1703200153  
COM x 2, Line-out Cable
- PICO-BT01

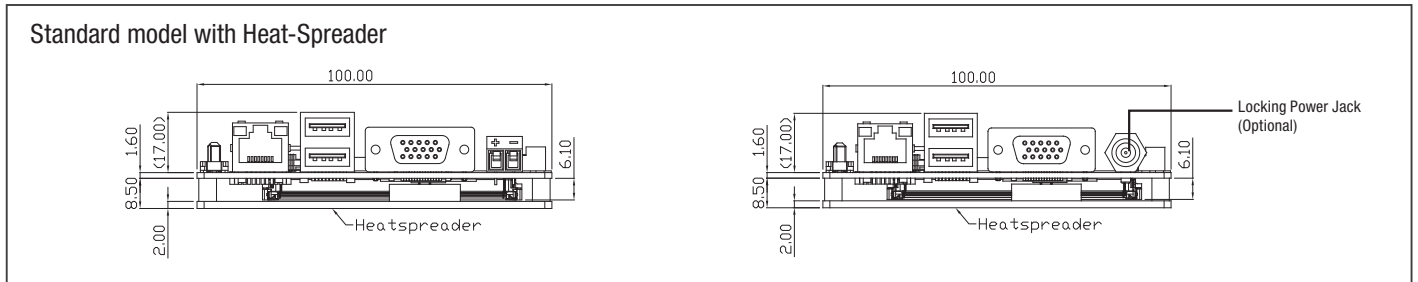
## Optional Accessories

Part Number	Description	Qty.
1709070500	SATA Cable	1
1702150155	SATA Power Cable	1
1702040167	Power/FAN Cable 16cm	1
1700050207	USB Cable 20cm	1
PICO-BT01-FAN01	CPU Cooler.84 x 53 x 22.2mm.Silver.used with HSP	1
PICO-BT01W1-HSK01	Heatsink for E3845 WITAS. To be used with heat Spreader	1
PICO-BT01-HSK01	Heatsink. 84 x 53 x 12mm. To be used with heat spreader	1
PICO-BT01-HSK02	Heatsink. 100 x 72 x 15.5mm. To be used with heat spreader	1

## Block Diagram



## Dimension Unit: mm



## Ordering Information

Part number	CPU	Memory	FAN/FANLESS	Display	Storage	LAN	USB	RS-232	RS-422/485	Expansion slot	Power	Operating Temp	Others
PICO-BT01-A12-00A2	N2807	DDR3L, Max. 4GB	Heat-spreader	LVDS x 1 DP x 1	SATAII x 1 mSATA (Full size) x 1	GbE x 1	USB 3.2 Gen 1 x 1 USB 2.0 x 2	1	1	miniCard x 1 (Half-size)	12V	0°C ~ 60°C	Line-out, DIO
PICO-BT01-A12-00A3	E3845	DDR3L, Max. 8GB	Heat-spreader	LVDS x 1 VGA x 1	SATAII x 1 mSATA (Full size) x 1	GbE x 1	USB 3.2 Gen 1 x 1 USB 2.0 x 2	1	1	miniCard x 1 (Half-size)	12V	0°C ~ 60°C	BIO, Line-out, DIO
PICO-BT01-A12-00A4	E3825	DDR3L, Max. 8GB	Heat-spreader	LVDS x 1 DP x 1	SATAII x 1 mSATA (Full size) x 1	GbE x 1	USB 3.2 Gen 1 x 1 USB 2.0 x 2	1	1	miniCard x 1 (Half-size)	12V	0°C ~ 60°C	Line-out, DIO
PICO-BT01-A12-00A5	J1900	DDR3L, Max. 8GB	Heat-spreader	LVDS x 1 VGA x 1	SATAII x 1 mSATA (Full size) x 1	GbE x 1	USB 3.2 Gen 1 x 1 USB 2.0 x 2	1	1	miniCard x 1 (Half-size)	12V	0°C ~ 60°C	Line-out, DIO
PICO-BT01W2-A12-0003	E3845	DDR3L, Max. 8GB	Heat-spreader	LVDS x 1 VGA x 1	SATAII x 1 mSATA (Full size) x 1	GbE x 1	USB 3.2 Gen 1 x 1 USB 2.0 x 2	1	1	miniCard x 1 (Half-size)	12V	-40°C ~ 85°C	BIO, Line-out, DIO
PICO-BT01W2-A12-0004	E3825	DDR3L, Max. 8GB	Heat-spreader	LVDS x 1 DP x 1	SATAII x 1 mSATA (Full size) x 1	GbE x 1	USB 3.2 Gen 1 x 1 USB 2.0 x 2	1	1	miniCard x 1 (Half-size)	12V	-40°C ~ 85°C	Line-out, DIO