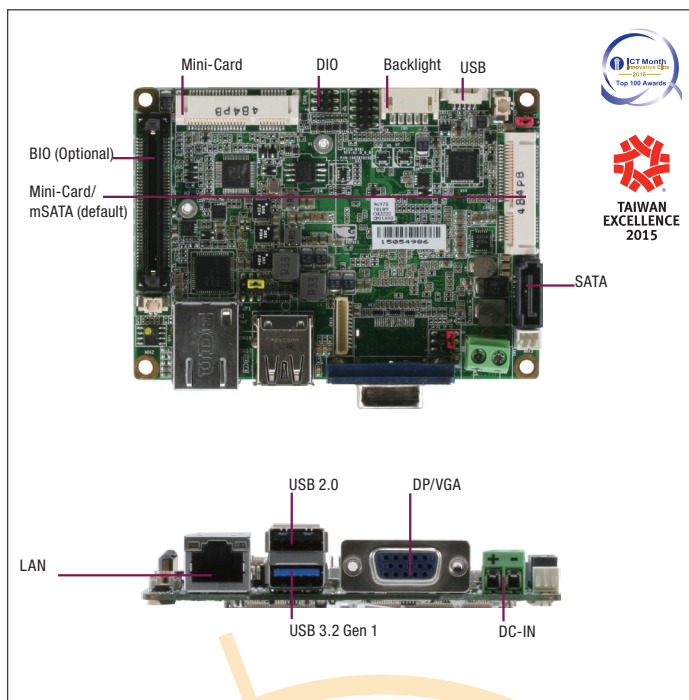


PICO-BT01

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



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



Video	VGA x 1 DP x 1 (Optional)
Internal I/O	
USB	USB 2.0 x 1
Serial Port	COM1 (RS232) COM2 (RS232/422/485, support 5V/12V/RI)
Video	LVDS x 1
SATA	SATA 3.0 Gb/s x 1, +5V SATA Power Connector x 1
Audio	Line-out header x 1 (Audio function not available for WiTAS SKU)
DIO/GPIO	GPIO 4-bit
SMBus/I2C	I2C/SMBus x1 (Default: SMBus)
Fan	—
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
Expansion	
Mini PCIe/mSATA	Full-Size mSATA/mPCIe x 1 (Default: mSATA, select with HW BOM) Half-Sized mPCIe x 1
M.2	—
Others	BIO x 1 (Optional, supports PCIe [x1], line out, GPIO, LPC, SMBUS/I2C, USB3.0/2.0)
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

Specifications

System	
Form Factor	PICO-ITX
CPU	Intel® Atom® / Celeron® Processors: J1900 (4C/4T, 2.00GHz, 10W) N2930 (4C/4T, 1.83GHz, 7.5W) N2807 (2C/2T, 1.58GHz, 4.3W) E3845 (4C/4T, 1.91GHz, 10W) E3825 (2C/2T, 1.33GHz, 6W)
Chipset	Integrated with Intel® SoC
Memory Type	DDR3L 1333, SODIMM x 1, Non-ECC (Max. 8GB)
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 7/10 (64 bit) Linux Ubuntu 21.04.0/ Kernel 5.11.0-13-generic
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 x 1, 1.14A@ +12V(TYPICAL)
Display	
Controller	Intel® HD Graphics for Intel Atom® Processor Z3700 Series
LVDS/eDP	LVDS x 1 (18/24-bit 2CH) 1400 x 900 @60Hz
Display Interface	VGA x 1, 2048 x 1152 @60Hz DP x 1, 2560 x 1400 @60Hz (Optional)
Multiple Display	Up to 2 Simultaneous Displays
Audio	
Codec	Realtek ALC897/892
Audio Interface	Line-Out (Audio function not available for WiTAS SKU)
Speaker	—
External I/O	
Ethernet	Intel® i210 1GbE, RJ45 x 1
USB	USB 3.2 Gen1 x 1 USB 2.0 x 1
Serial Port	—

Packing List

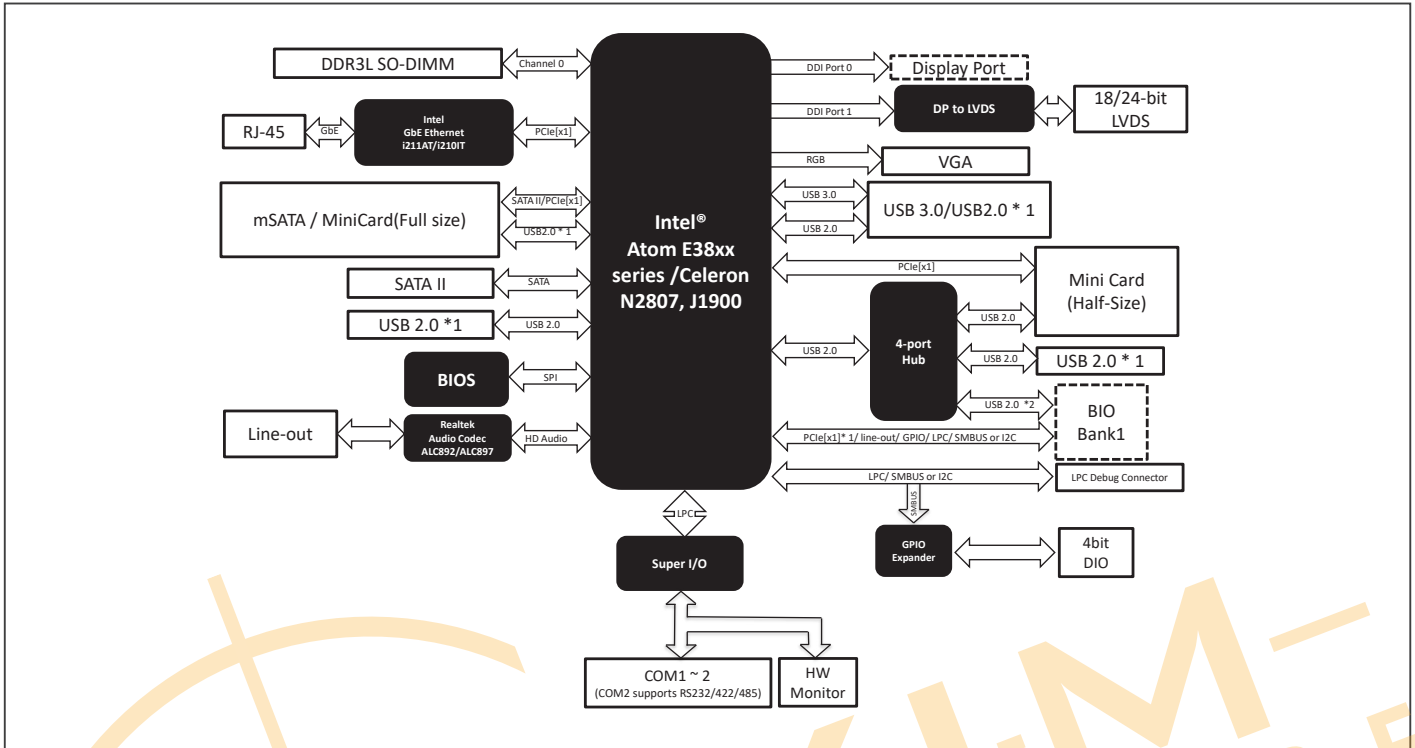
- PICO-BT01-HSP01
Heat Spreader
- 1703200153
COM x 2, Line-out Cable
- PICO-BT01

Optional Accessories

Part Number	Description	Qty.
1709070500	SATA CABLE.500mm	1
1702150155	SATA Power Cable, 150mm	1
1702040167	Power Cable.2ports.160mm	1
1700050207	USB Cable.200mm.for PFM-945C Active Others	1
PICO-BT01-FAN01	CPU Cooler.84*53*22.2mm.Silver. use w/ HSP	1
PICO-BT01-HSK02	Heatsink.100*72*15.5mm.Silver. should use w/ HSP	1
PER-P30D-A10	120W, DC-DC Converter, 9~36V input, 12V output, Rev A1.0, 30 x 72mm	1

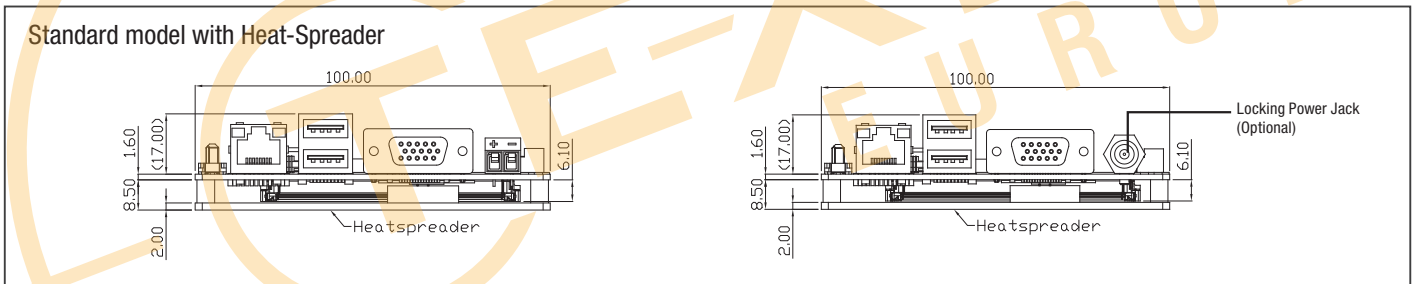
Note: All specifications are subject to change without notice.

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

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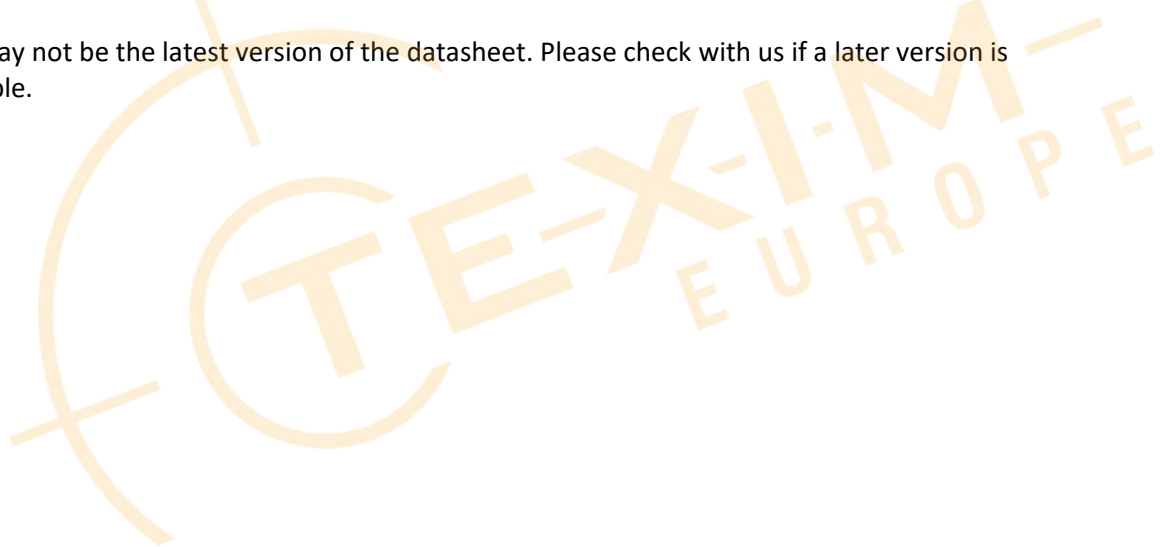
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.





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