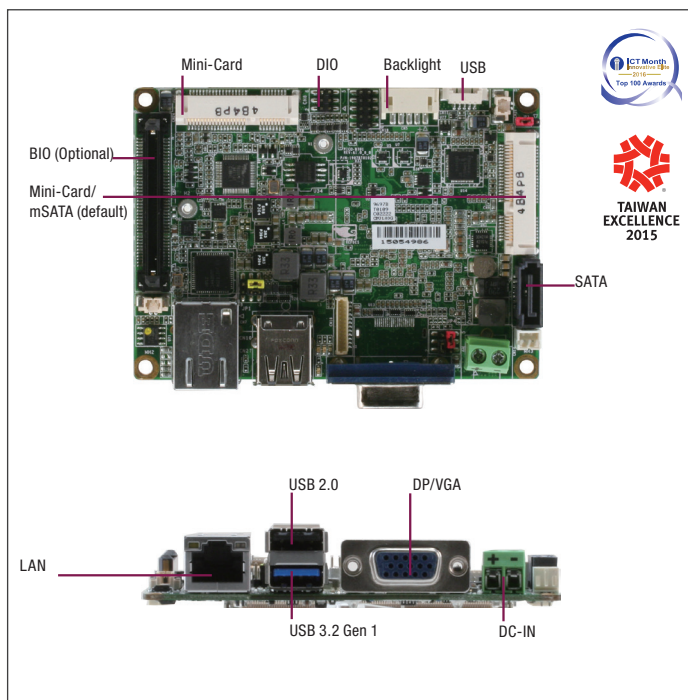


PICO-BT01

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



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	—

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
- BIOS 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

Packing List

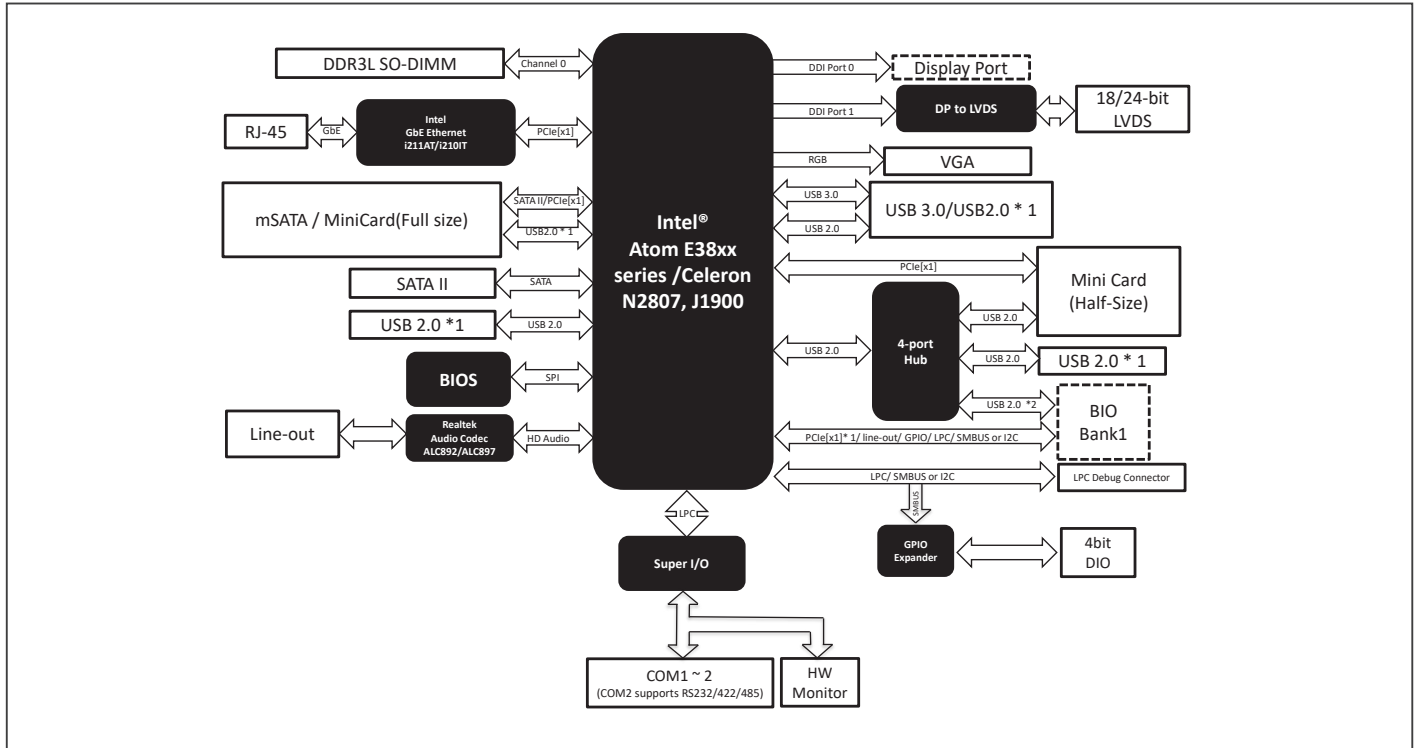
- PICO-BT01-HSP01
Heat Spreader
- 1703200153
COM x 2, Line-out Cable
- PICO-BT01

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.

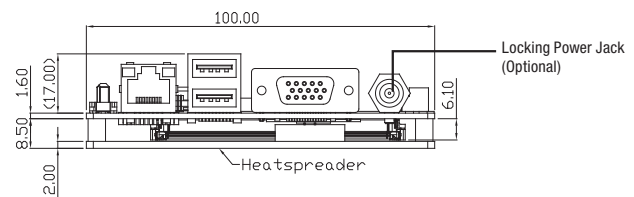
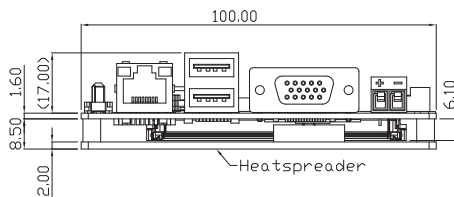
Block Diagram



Dimension

Unit: mm

Standard model with Heat-Spreader



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