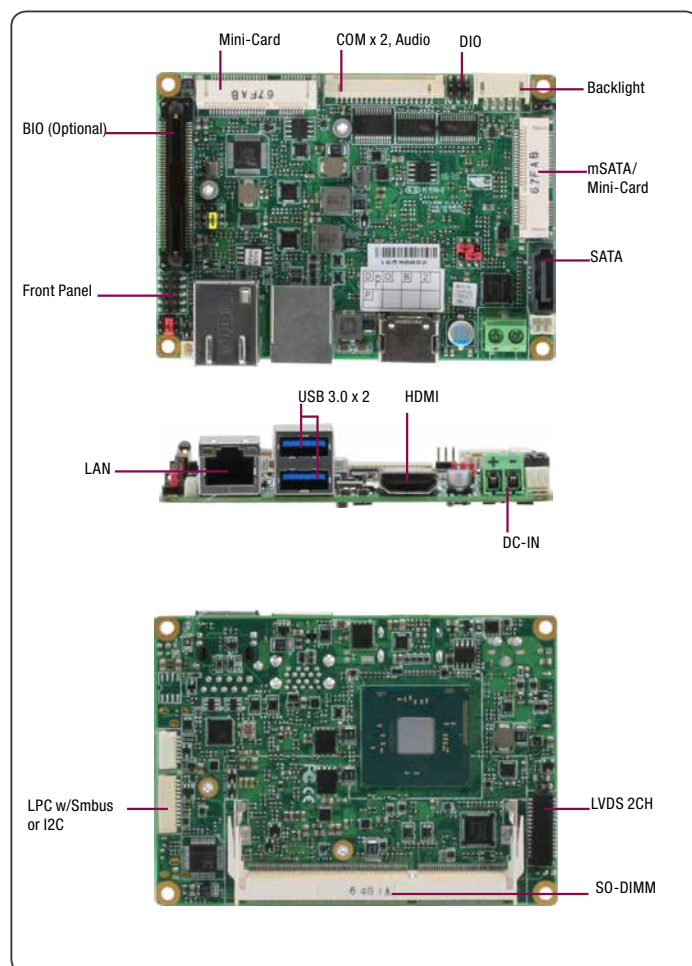


# 05 PICO-BSW1

Pico-ITX Boards

Pico-ITX Board with Intel® Atom™ x5-E8000 Pentium®/Celeron® N3000 Series Processor SoC



## Features

- Onboard Intel® Atom™ x5-E8000 Pentium®/Celeron® N3000 Series Processor SoC
- DDR3L 1600/1066 SODIMM x 1, Up to 8 GB
- LVDS up to 48-bit (2CH)
- Supports Triple Displays (Optional)
- HDMI Up to 3840 x 2160 (4K) Resolution
- SATA 3.0 x 1, mSATA (Full Size) x 1 or MiniCard x 1 (Optional)
- Gigabit Ethernet x 1, RJ-45 x 1
- USB 3.0 x 2
- RS-232 x 1, RS-232/422/485 x 1
- Mini-Card x 1 (Half-Size)
- Digital I/O 4-bit
- BIO Connector for Daughter Board (Optional)



Display	
Chipset	Intel® N3160 Quad Core 1.6GHz (6W), Intel® N3060 Dual Core 1.6GHz (6W), Intel® X5-E8000 Quad Core 1.04GHz (5W)
Resolution	1. LVDS (18/24bit 2CH) 1920 x 1200 2. HDMI up to 3840 x 2160 (4K) 3. DDI (optional by BIO board)
LCD Interface	18/24-bit 2CH LVDS
I/O	
Storage/SSD	SATA 6.0Gb/s x 1, mSATA/MiniCard (Full size) x 1
Ethernet	Realtek RTL 8111E, 10/100/1000Base-TX, RJ-45 x 1
USB Port	USB 3.0 x 2 Rear I/O
Serial Port	COM1: RS-232 x 1, COM2: RS-232/422/485 x 1 (Ring/ +5V/ +12V)
Audio	Line-out x 1
DIO	4-bit (2-in, 2-out)
Expansion Slot	Mini Card(Half-size) x 1, BIO x 1, I2C x 1 or Smbus x 1, LPC
SIM	—
TPM	—
Touch	—

## Specifications

System	
Form Factor	Pico-ITX
CPU	Intel® N3160 Quad Core 1.6GHz (6W), Intel® N3060 Dual Core 1.6GHz (6W), Intel® X5-E8000 Quad Core 1.04GHz (5W)
CPU Frequency	Up to 2.24 GHz
Chipset	Intel® N3160 Quad Core 1.6GHz (6W), Intel® N3060 Dual Core 1.6GHz (6W), Intel® X5-E8000 Quad Core 1.04GHz (5W)
Memory Type	204-pin DDR3L SODIMM x 1, DDR3L 1600, Max. 8GB
Max. Memory Capacity	Up to 8GB
BIOS	AMI/SPI
Wake On LAN	Yes
Watchdog Timer	255 Level
Power Requirement	+12V DC
Power Supply Type	AT/ATX (default), lockable connector optional
Power Consumption (Typical)	Intel® Pentium® N3160@ DDR3L-1600MHz 8GB, 0.91A@+12V
System Cooling	Heat-spreader; Heat-sink & cooler (optional)
Dimension	3.94" x 2.84" (100mm x 72mm)
Gross Weight	200g (0.44 lb)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	100,000
Certification	CE,FCC

## Packing List

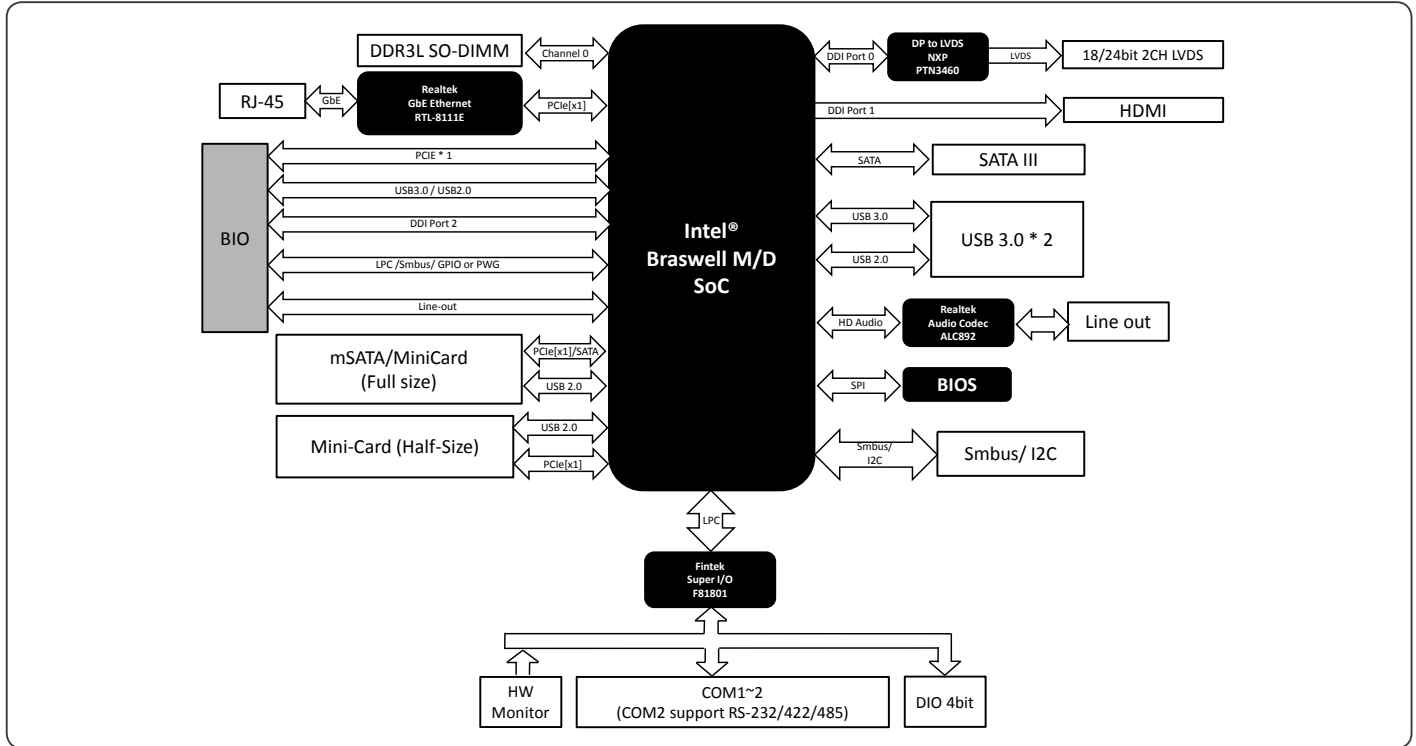
- M10BT01010  
Heat Spreader
- 1703200153  
COM x 2, Line-out Cable
- Product DVD
- PICO-BSW1

## Optional Accessories

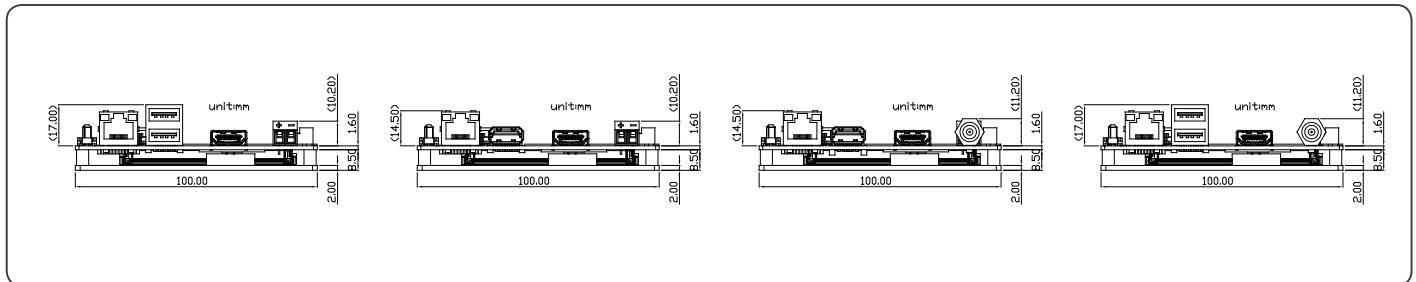
Part Number	Description	Qty.
1709070500	(TF)SATA CABLE.7P Pitch 1.27mm.50cm	1
1702150155	(TF)SATA Power Cable	1
17592BSW10	Cooler for PICO-BSW1	1
M16BSW1000	Heat-sink	1
PICO-BT01-HSP01	Heat-spreader (standard package be included)	—
BIO-ST01-L1U2-A10-01	BIO Board, LAN x 1, USB x 1, 2W Audio Amp.	1
BIO-ST01-M1U1-A10-01	BIO Board, MiniCard x 1, SIM x 1, 2W Audio Amp.	1
BIO-ST01-C4M1-A10-01*	BIO Board, COM x 4, MiniCard x 1, SIM x 1	1

\* Customized BIOS is required.

## Block Diagram



## Dimension Unit: mm



## Ordering Information

Part Number	CPU	Fan/Fanless	Display	LVDS	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
PICO-BSW1-A10-0001	N3160	Heat-Spreader	LVDS/HDMI	24bit,2CH	SATA x 1, mSATA x 1 (Full-size)	GbE x 1	USB3.0 x 2	1	1	miniCard x 1 (Half-size)	12V	0°C ~ 60°C	BIO x 1, DIO x 4, Line-out
PICO-BSW1-A10-0002	X5-E8000	Heat-Spreader	LVDS/HDMI	24bit,2CH	SATA x 1, mSATA x 1 (Full-size)	GbE x 1	USB3.0 x 2	1	1	miniCard x 1 (Half-size)	12V	0°C ~ 60°C	DIO x 4, Line-out