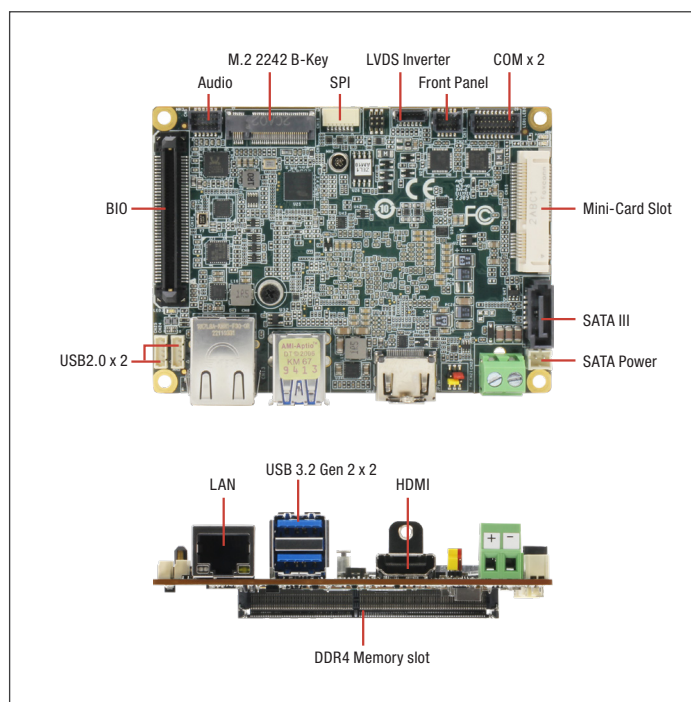


# PICO-EHL1

Pico-ITX Board with Intel Atom® x6000E Series, and Intel® Pentium® and Celeron® N and J Series Processors



## Features

- DDR4 3200MHz SODIMM x 1, up to 32GB
- eDP 1.3/LVDS x 1 (2CH 18/24-bit)
- HDMI 1.4b x 1
- Realtek RTL8111H-CG x 1
- Line-in/Line-out/MIC (Optional)
- TPM 2.0 (Optional)
- Full Size mPCIe/mSATA x 1
- M.2 2242 B-Key x 1
- USB 3.2 Gen 2 x 2, USB 2.0 x 2
- RS-232/422/485 x 2
- BIO (PCIe [x2], line out, DDI, GPIO, LPC, SMBUS, USB 3.0/2.0)



Internal I/O	
USB	USB 2.0 x 2
Serial Port	COM1~2 (RS232/422/485, support 5V/12V/RI)
Video	LVDS/eDP x 1(Default: LVDS)
SATA	SATA 6.0 Gb/s x 1, +5V SATA Power Connector x 1
Audio	Audio Header x 1 (Optional, audio function not available for WiTAS SKU)
DIO/GPIO	GPIO 4-bit
SMBus/I2C	I2C/SMBus x1 (Default: SMBus)
Fan	4pins Smart Fan x1
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 BIOS)
M.2	M.2 2242 B-key x 1 (PCIe [x2] as default, USB2.0 is optional)
Others	BIO x 1 (Optional, supports PCIe [x1] x 2, line out, DDI, GPIO, LPC, SMBUS, USB.3.0/2.0)
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)	489,989
EMC	CE/FCC Class A

## Specifications

System	
Form Factor	PICO-ITX
CPU	Intel® Atom® x6000E series, Pentium®, and Celeron® N and J series Processors: J6412 (4C/4T, 2.00GHz, 10W) N6210 (2C/2T, 1.20GHz, 6.5W) x6425E (4C/4T, 2.0GHz, 12W) x6211E (2C/2T, 1.3GHz, 6W)
Chipset	Integrated with Intel® SoC
Memory Type	DDR4 3200, SODIMM x 1, Non-ECC (Max.32GB)
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM2.0 (Optional)
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) Ubuntu 20.04.5/Kernel 5.15
Power	
Power Requirement	+12V
Power Supply Type	AT/ATX
Connector	Phoenix 2-pin Connector (Default) Lockable DC Jack Connector (colay)
Power Consumption	Intel Atom® x6425E, DDR4 32GB, 2.67A@ +12V (TYPICAL) Intel Atom® x6425E, DDR4 32GB, 2.84A@ +12V (MAX)
Display	
Controller	Intel® UHD Graphics for 10th Gen Intel® Processors
LVDS/eDP	LVDS x 1 (18/24bit 2CH) 1920 x 1200 @60Hz eDP 1.3 x 1, 3840 x 2160 @60Hz (Optional)
Display Interface	HDMI 1.4 x 1, 3480 x 2160 @30Hz
Multiple Display	Up to 2 Simultaneous Displays
Audio	
Codec	Realtek ALC269 (Optional)
Audio Interface	Line-In / Line-Out / Mic (Optional, audio function not available for WiTAS SKU)
Speaker	—
External I/O	
Ethernet	Realtek 8111H-CG 1GbE, RJ45 x 1
USB	USB 3.2 Gen2 x 2
Serial Port	—
Video	HDMI 1.4 x 1

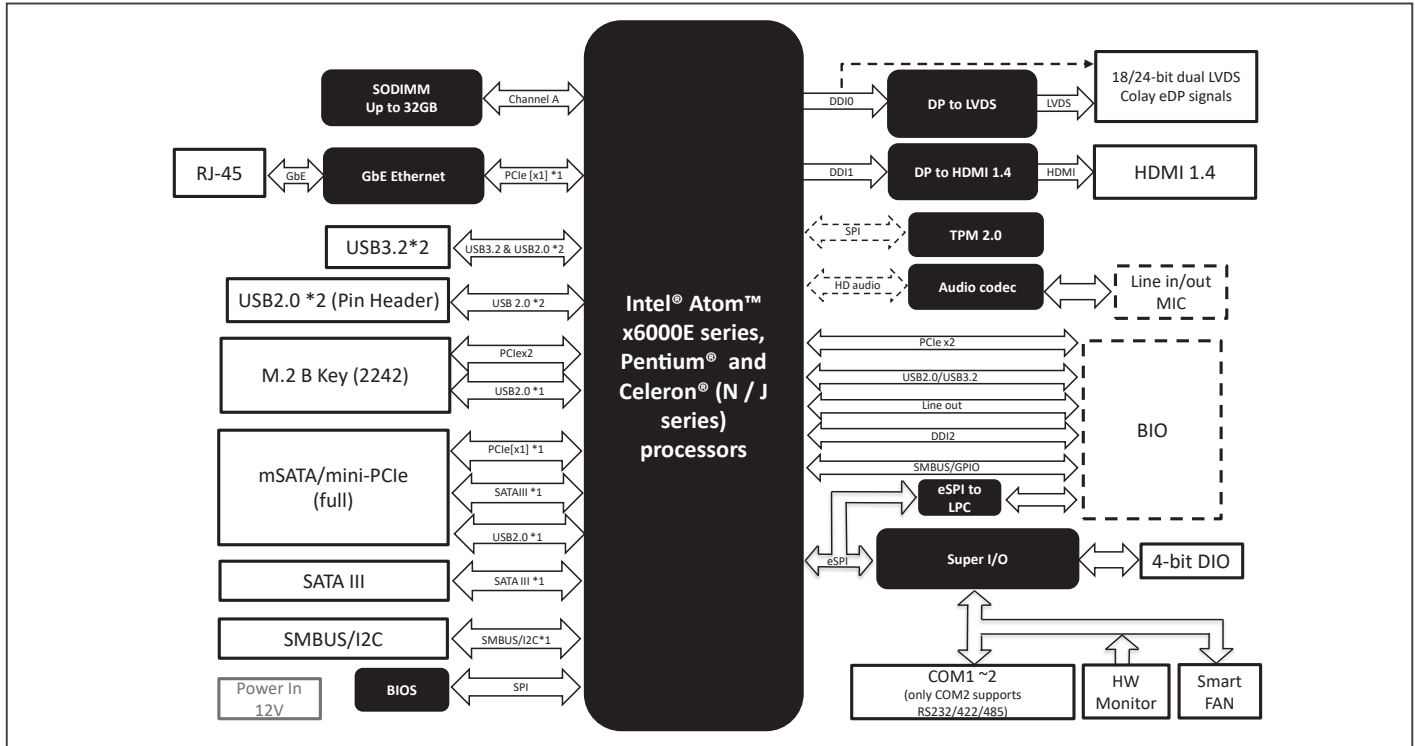
## Packing List

- PICO-EHL1

## Optional Accessories

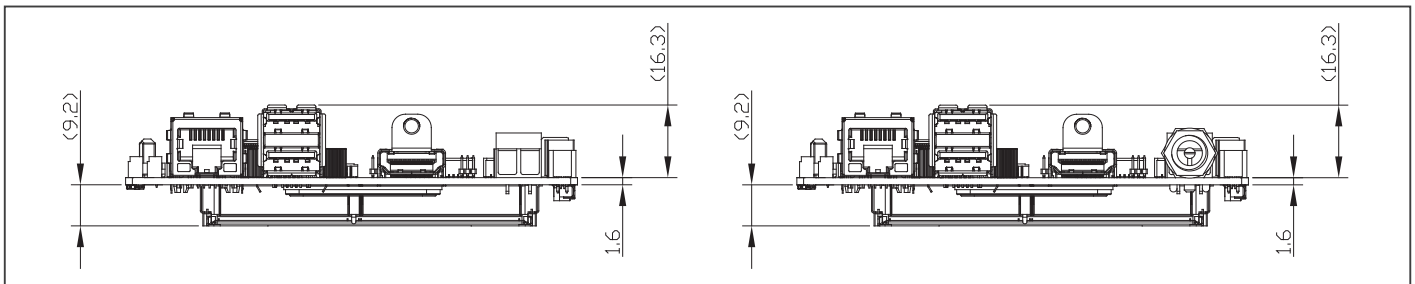
Part Number	Description	QTY
1709100108	Front Panel cable.10cm	1
170X000231	Dual COM cable.30cm	1
1700050207	USB2.0 cable.20cm	1
170X000593	SATA CABLE.15cm	1
1702150155	SATA power cable.15cm	1
1702030200	Power cable (Phoenix type to DC Jack).20cm	1
170X000156	Audio cable.25cm	1
PICO-EHL1-FAN01	Cooler.100*72*24mm.for J6412/N6210	1
PICO-EHL1-FAN02	Cooler.100*72*22.8mm.for x6425E/x6211E	1
PICO-EHL1-HSP01	Heat Spreader.AL.100*72*10.5mm.for J6412/N6210	1
PICO-EHL1-HSP02	Heat Spreader.AL.100*72*9.3mm.for x6425E/x6211E	1
PICO-EHL4-HSK01	Heat Sink.100*72*15.5mm.Silver.To be used with HS	1
PER-P30D-A10	120W, DC-DC Converter, 9~36V input, 12V output, Rev A1.0, 30 x 72mm	1

## Block Diagram



## Dimension

Unit: mm



## Ordering Information

Part number	CPU	Display	Storage	LAN	USB	RS-232/422/485	Expansion slot	Power	Operating Temp	Others
PICO-EHL1-A10-0001	Intel® Celeron® Processor N6210	HDMI x 1 LVDS x 1	SATA III x 1	GbE x 1	USB 2.0 x 2 USB 3.2 Gen 2 x 2	2	M.2 2242 B-Key x 1 Full Size Mini Card x 1	+12V (Terminal block)	0~60°C	DIO
PICO-EHL1-A10-0002	Intel® Celeron® Processor J6412	HDMI x 1 LVDS x 1	SATA III x 1	GbE x 1	USB 2.0 x 2 USB 3.2 Gen 2 x 2	2	M.2 2242 B-Key x 1 Full Size Mini Card x 1	+12V (Terminal block)	0~60°C	DIO
PICO-EHL1W2-A10-0003	Intel Atom® x6425E	HDMI x 1 LVDS x 1	SATAIII x 1	GbE x 1	USB 2.0 x 2 USB3.2 Gen 2 x 2	2	M.2 2242 B-key x 1 miniCard (Full) x 1	+12V (Terminal block)	-40~85°C	DIO