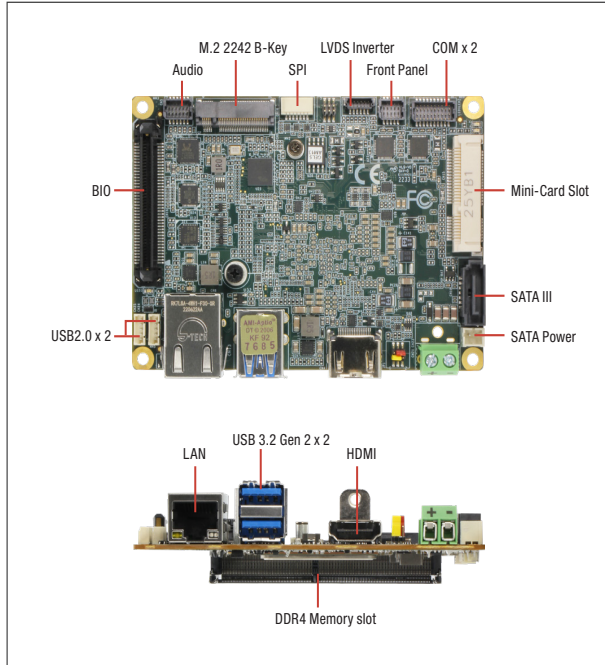


PICO-EHL1

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

Pico-ITX Boards



Specifications

SYSTEM	
FORM FACTOR	PICO-ITX
CPU	Intel® Atom® x6000E series, Pentium®, and Celeron® N and J series Processors: Intel Atom® x6000E Series/Pentium® and Celeron® N and J Series Processors: Intel® Celeron® Processor J6412 (4C/4T, 2.0 GHz, 10W) Intel® Celeron® Processor N6210 (2C/2T, 1.2 GHz, 6.5W) Intel Atom® x6425E (4C/4T, 2.0 GHz, 12W) Intel Atom® x6211E (2C/2T, 1.3 GHz, 6W)
CHIPSET	Integrated with Intel® SoC
MEMORY TYPE	DDR4 3200MHz SODIMM x 1, up to 32GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM 2.0 (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 (2CH 18/24-bit) 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)
Speaker	—
EXTERNAL I/O	
ETHERNET	Realtek 8111H-CG 1GbE, RJ45 x 1
USB	USB 3.2 Gen 2 x 2

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)



SERIAL PORT	—
VIDEO	HDMI 1.4 x 1
INTERNAL I/O	
USB	USB 2.0 x 2
SERIAL PORT	COM 1, COM 2 (RS-232/422/485, 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 (Optional)
DIO/GPIO	GPIO 4-bit
SMBus/I2C	SMBus/I2C x1 (Default: SMBus)
Touch	4pins Smart Fan x1
FAN	HDD LED, PWR LED, Power Button, Buzzer, Reset
SIM	—
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
EXPANSION	
Mini PCI-E/mSATA	Full-Size mSATA/mPCIe x 1 (Default: mSATA, select with BIOS)
M.2	M.2 2242 B-Key x 1 (PCIe 3.0 [x2] as default, USB 2.0 is optional)
Others	BIO x 1 (Optional, supports PCIe [x2], line out, DDI, GPIO, LPC, SMBUS, USB 3.0/2.0)
ENVIRONMENT & CERTIFICATION	
OPERATING TEMP	32°F ~ 140°F (0°C ~ 60°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

Packing List

- PICO-EHL1

Optional Accessories

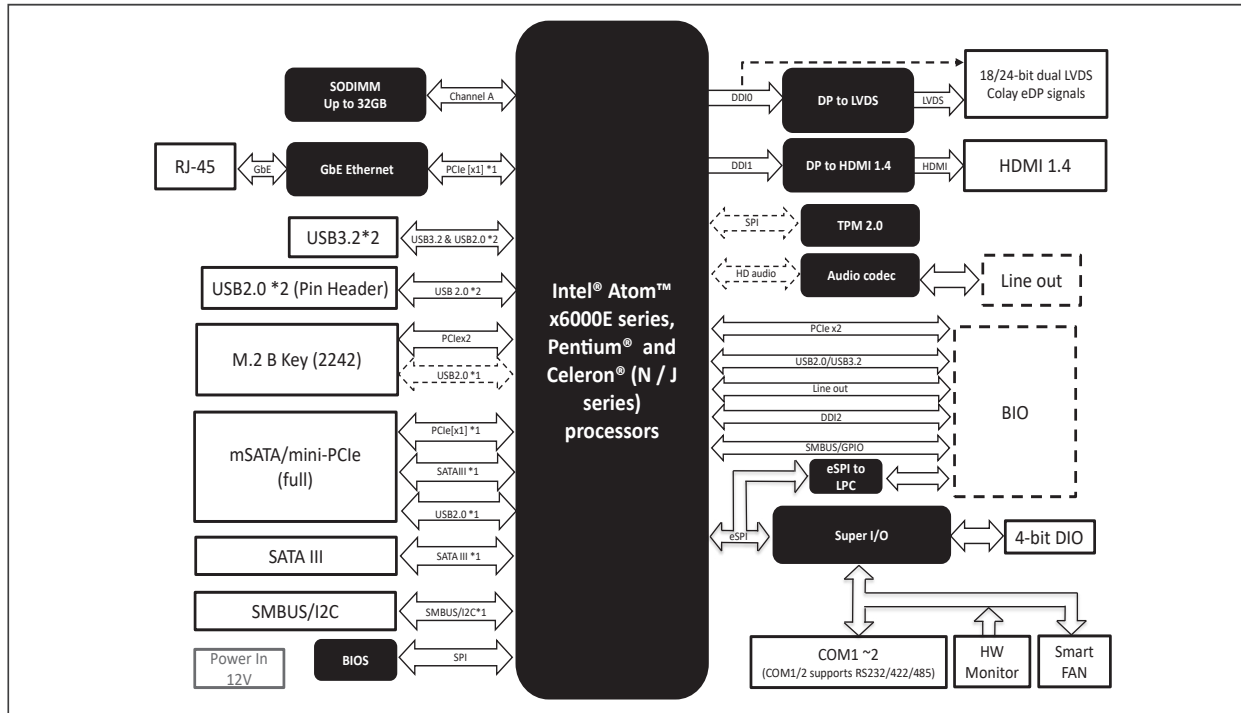
Part Number	Description	QTY
1709100108	Front Panel cable.10cm	1
170X000231	Dual COM cable.30cm	1
1700050207	USB2.0 cable.20cm	1
170X000593	SATA CABLE.15cm	1
1702150155	SATA power cable.15cm	1
1702030200	Power cable (Phoenix type to DC Jack).20cm	1
170X000156	Audio cable.25cm	1
PICO-EHL1-FAN01	Cooler.100*72*24mm.for 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-EHL1-HSK01	Heat Sink.100*72*15.5mm.Silver.To be used with HS	1

PICO-EHL1

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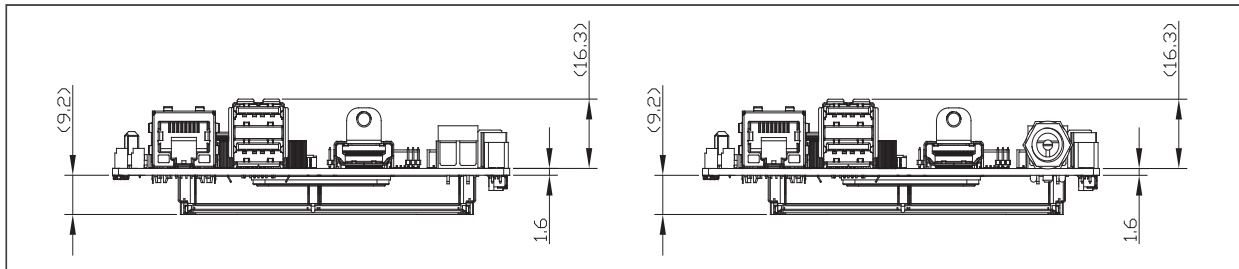
Pico-ITX Boards

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-EHL1-A10-0003	Intel Atom® x6211E	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-A10-0004	Intel Atom® x6425E	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

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Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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