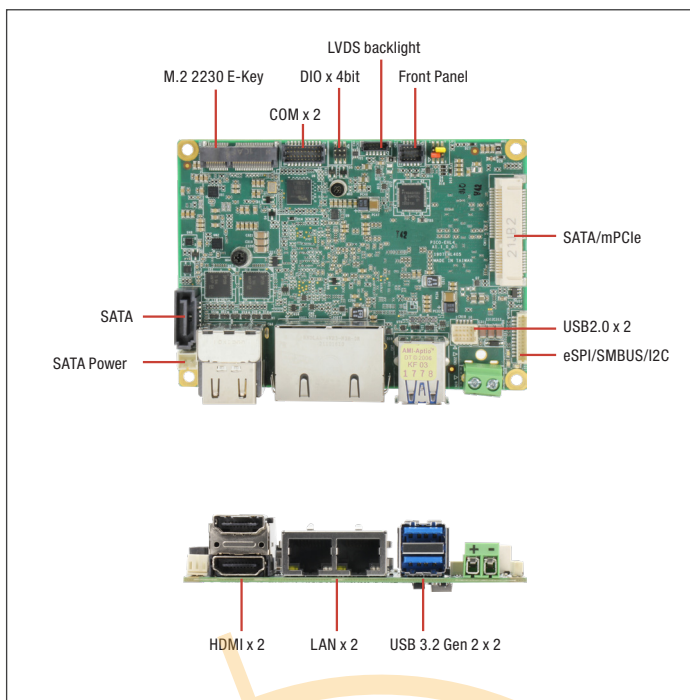


# PICO-EHL4

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



## Features

- Intel® Atom® x6000E series, Intel® Pentium®, and Celeron® N and J series processors (formerly Elkhart Lake)
- HDMI2.0b x 2 + LVDS/eDP1.3 x 1
- GbE x 2
- 2 x USB 3.2 Gen 2, 2 x USB2.0
- LPDDR4x onboard memory, In-Band ECC
- eMMC x 1, SATA x 1
- COM x 2 Full, CANBUS x 2(optional), mSATA x 1, M.2 E-Key 2230 x 1



Distributed by:



## 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	Onboard LPDDR4x 3200, Single Channel, Non-ECC (Max.16GB)
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	Intel® PTT (Integrated TPM)
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 20.04.4/Kernel 5.13.0-30-generic
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, LPDDR4x onboard 16GB, 2.48A@ +12V(TYPICAL) Intel® Atom™ x6425E, LPDDR4x onboard 16GB, 2.62A@ +12V(MAX)
Display	
Controller	Intel® UHD Graphics for 10th Gen Intel® Processors
LVDS/eDP	LVDS x 1 (18/24bit 2CH) 1920 x 1200 @60Hz eDP1.3 x 1, 3840 x 2160 @60Hz (Optional)
Display Interface	HDMI 2.0 x 2, 3840 x 2160 @60Hz
Multiple Display	Up to 3 Simultaneous Displays
Audio	
Codec	—
Audio Interface	—
Speaker	—
External I/O	
Ethernet	Realtek 8111 1GbE, RJ45 x 2
USB	USB 3.2 Gen2 x 2

Serial Port	—
Video	HDMI 2.0 x 2
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 eMMC5.1 32GB (Optional to 16/64/128GB)
Audio	—
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 mPCIe/mSATA x 1 (SATA as default, PCIe selected by BIOS)
M.2	M.2 2230 E-Key x 1 (PCIe 3.0 [x1] + USB2.0)
Others	CANBUS x 2 (Optional, N6210/J6412 not support, support up to 5Mbit/s)
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

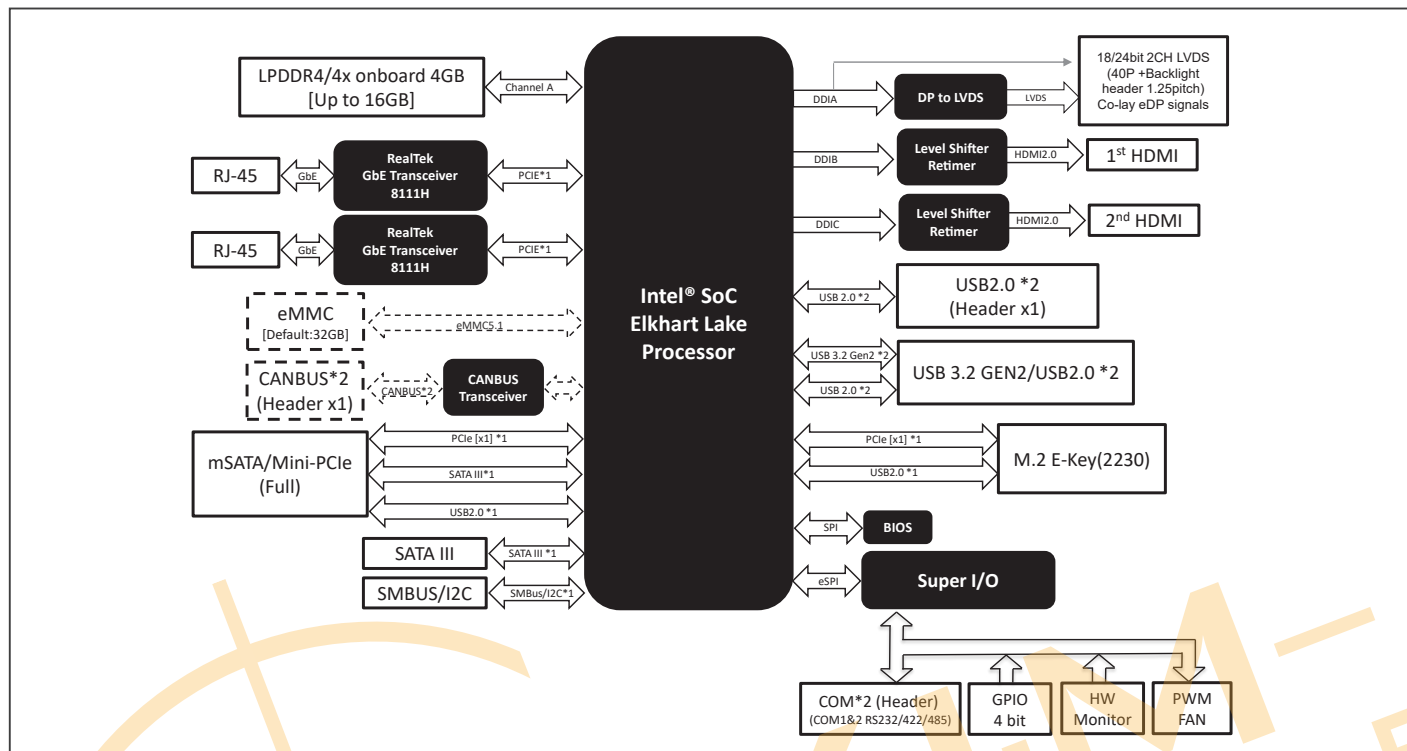
## Optional Accessories

Part Number	Description	Qty.
170X000231	Dual COM cable.300mm	1
170010010D	Dual USB2.0 cable.100mm	1
1702150155	SATA power cable.150mm	1
170X000593	SATA CABLE.15cm	1
1709100108	Front panel cable.100mm	1
1702030200	Power cable (Phoenix type to DC Jack).20cm	1
PICO-EHL4-HSP01	Heat Spreader.AL100*72*6.8mm.for J6412/N6210	1
PICO-EHL4-HSP02	Heat Spreader.AL100*72*5.8mm.for x6425E/x6211E	1
PICO-EHL4-HSK01	Heat Sink.100*72*15.5mm.Silver.To be used with HSP	1
PICO-EHL4-FAN01	Cooler.100*72*20.3mm.for J6412/N6210	1
PICO-EHL4-FAN02	Cooler.100*72*19.3mm.for x6425E/x6211E	1
PER-P30D-A10-0001	120W, DC-DC Converter, 9~36Vin input, 12V output, Rev A1.0, 30 x 72mm	1

Note:  
eDP Panel : B173ZAN01.0-AU0      LVDS Panel : G101EVN01.0-AU0

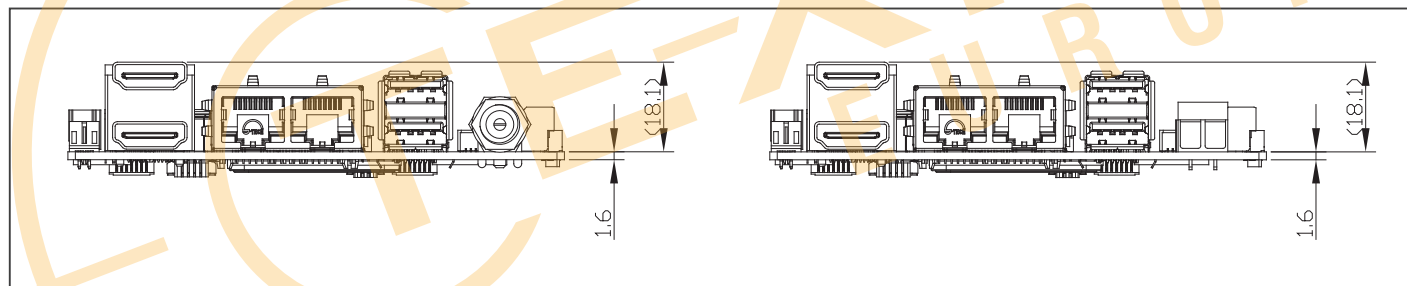


## Block Diagram



## Dimension

Unit: mm



## Packing List

- PICO-EHL4

## Ordering Information

Part number	CPU	Memory	Display	Storage	LAN	USB	RS-232/422/485	Expansion slot	Power	Operating Temp	Others
PICO-EHL4-A11-0001	N6210	4GB	HDMI x 2 LVDS x 1	SATAIII x 1 eMMC 32GB	GbE x 2	USB3.2 Gen 2 x 2 USB2.0 x 2	2	M.2 2230 E-key x 1 mSATA(Full-size) x 1	+12V	0°C ~ 60°C	GPIO 4 bit SMBUS/eSPI x 1
PICO-EHL4-A11-0002	J6412	4GB	HDMI x 2 LVDS x 1	SATAIII x 1 eMMC 32GB	GbE x 2	USB3.2 Gen 2 x 2 USB2.0 x 2	2	M.2 2230 E-key x 1 mSATA(Full-size) x 1	+12V	0°C ~ 60°C	GPIO 4 bit SMBUS/eSPI x 1
PICO-EHL4-A11-0003	J6412	4GB	HDMI x 2 eDP x 1	SATAIII x 1 eMMC 64GB	GbE x 2	USB3.2 Gen 2 x 2 USB2.0 x 2	2	M.2 2230 E-key x 1 mSATA(Full-size) x 1	+12V	0°C ~ 60°C	GPIO 4 bit SMBUS/eSPI x 1
PICO-EHL4-A11-0004	J6412	8GB	HDMI x 2 LVDS x 1	SATAIII x 1	GbE x 2	USB3.2 Gen 2 x 2 USB2.0 x 2	2	M.2 2230 E-key x 1 mSATA(Full-size) x 1	+12V	0°C ~ 60°C	GPIO 4 bit SMBUS/eSPI x 1
PICO-EHL4W2-A11-0005	x6425E	16GB	HDMI x 2 LVDS x 1	SATAIII x 1	GbE x 2	USB3.2 Gen 2 x 2 USB2.0 x 2	2	M.2 2230 E-key x 1 mSATA(Full-size) x 1	+12V	-40°C ~ 85°C	GPIO 4 bit SMBus/eSPI x 1

## **Disclaimer**

ALL PRODUCTS, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Texim Europe B.V. its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Texim"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Texim makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product.

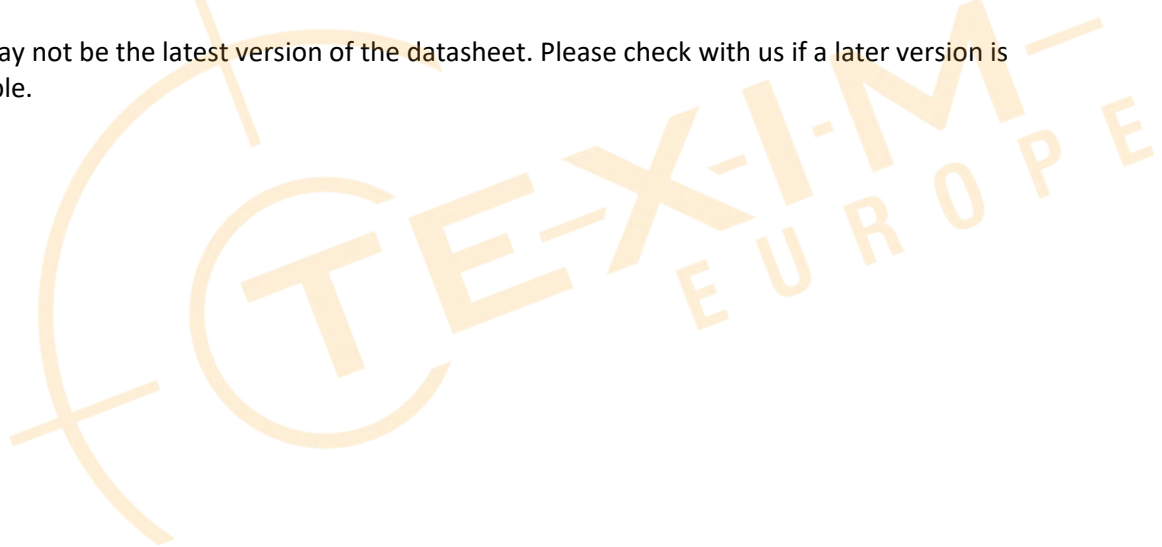
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

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.





## Headquarters & Warehouse

Elektrostraat 17  
 NL-7483 PG Haaksbergen  
 The Netherlands

T: +31 (0)53 573 33 33  
 E: info@texim-europe.com  
 Homepage: www.texim-europe.com



### The Netherlands

Elektrostraat 17  
 NL-7483 PG Haaksbergen

T: +31 (0)53 573 33 33  
 E: nl@texim-europe.com



### Belgium

Zuiderlaan 14, box 10  
 B-1731 Zellik

T: +32 (0)2 462 01 00  
 E: belgium@texim-europe.com



### UK & Ireland

St Mary's House, Church Lane  
 Carlton Le Moorland  
 Lincoln LN5 9HS

T: +44 (0)1522 789 555  
 E: uk@texim-europe.com



### Germany

Bahnhofstrasse 92  
 D-25451 Quickborn

T: +49 (0)4106 627 07-0  
 E: germany@texim-europe.com



### Germany

Martin-Kollar-Strasse 9  
 D-81829 München

T: +49 (0)89 436 086-0  
 E: muenchen@texim-europe.com



### Austria

Warwitzstrasse 9  
 A-5020 Salzburg

T: +43 (0)662 216 026  
 E: austria@texim-europe.com



### Nordic

Stockholmsgade 45  
 2100 Copenhagen

T: +45 88 20 26 30  
 E: nordic@texim-europe.com



### Italy

Martin-Kollar-Strasse 9  
 D-81829 München

T: +49 (0)89 436 086-0  
 E: italy@texim-europe.com