

## Features

- Intel® Atom® x6000E Series and Intel® Pentium® and Celeron® J Series Processors (Bottom Layer Soldered Processor)
- Onboard Single Channel LPDDR4 4GB Memory Down (8GB for BOM Option)
- Dual Display, Mini DP, eDP 1.3
- Single Intel® I210AT/IT Gigabit Ethernet
- M.2 Key-B 3042/2242 Bridge Bracket to 3052 (with PCIe x2 (Via OEM BIOS Request) or Default (PCIe x1+USB2.0/USB3.0), or (SATA III+ USB2.0/USB3.0), SIM Slot for SSD/LTE/IO Cards) with FPC Connector
- 1 x Dual Deck USB3.1 Gen2 Type A for 2 x USB 3.1 Gen2 at I/O, 4 x USB 2.0 by Pin Header
- 1 x RS-232/422/485
- DC in +12V



Mini DP



LPDDR4



USB3.1



RS232/422/485

## Specifications

### System Information

Processor	Onboard Intel® Pentium®/Celeron®/Atom™ SoC BGA Processor (with CPU Bottom Mounted)
Platform Controller Hub	Integrated
System Memory	Onboard Single Channel LPDDR4 4GB Memory Down (8GB for BOM Option)
I/O Chipset	EC iTE IT5571
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec and 1sec. or 1min./step
BIOS	AMI BIOS, 256Mbit SPI Flash ROM
H/W Status Monitor	CPU & System Temperature Monitoring Voltages Monitoring
TPM	Onboard eMMC 5.164GB

### Expansion

Expansion	1 x M.2 Type B 3042/2242 Bridge Bracket to 3052 (with PCI-e x2 via OEM BIOS Request or Default PCI-e x1+USB2.0/USB3.0, or SATA III+ USB2.0/USB3.0, SIM Slot for SSD/LTE/IO Cards)  *Default is PCI-e x1/SATA III+USB2.0/USB3.0Support WWAN+GNSS or NVMe SSD
-----------	---

### Storage

Storage	1 x M.2 Type B
---------	----------------

### Display

Graphic Chipset	Intel® UHD Graphics
Spec. & Resolution	Mini DP: Max Resolution 4096x2160@60Hz eDP1.3: Max Resolution 4096x2160@60Hz
Multiple Display	Dual Display

### Ethernet

LAN Chipset	1 x Intel I210AT/IT Gigabit Ethernet
Ethernet Interface	1 x 10/100/1000 Base-Tx GbE Compatible
LAN Port	1 x RJ-45

### Software Support

OS	Windows 10, Linux
----	-------------------

### Certification

Certification Information	CE, FCC Class, RoHS Compliant
---------------------------	-------------------------------

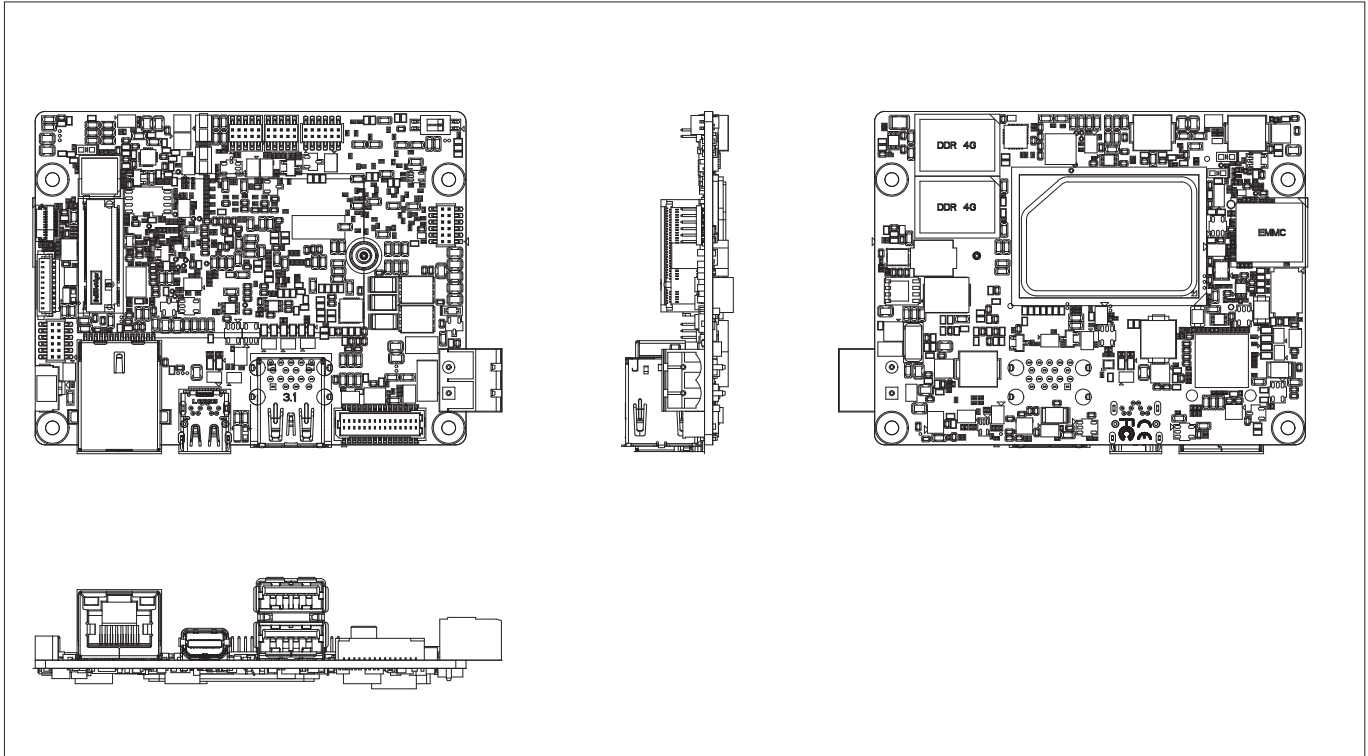
### I/O

USB	2 x USB 3.1 Gen2 4 x USB2.0
COM Port	1 x RS232/422/485
DIO	1 x 8-bit GPIO

### Mechanical & Environmental

Operating Temp.	0-60°C, w/HDD/SSD, Ambient with 0.5 m/s Air Flow Atom N/J Series CPU SKU -20-60°C, w/HDD/SSD, Ambient with 0.5 m/s Air Flow Atom x6000E Series CPU SKU
Storage Temp.	-40°C ~ 75°C (-40°F ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Weight	0.66lbs (0.3Kgs)
Power Requirement	DC in +12V
Power Mode	AT/ATX (Default Setting: ATX)
Dimension (L x W)	3.31" x 2.55" (84mm x 65mm)

## Mechanical Drawing



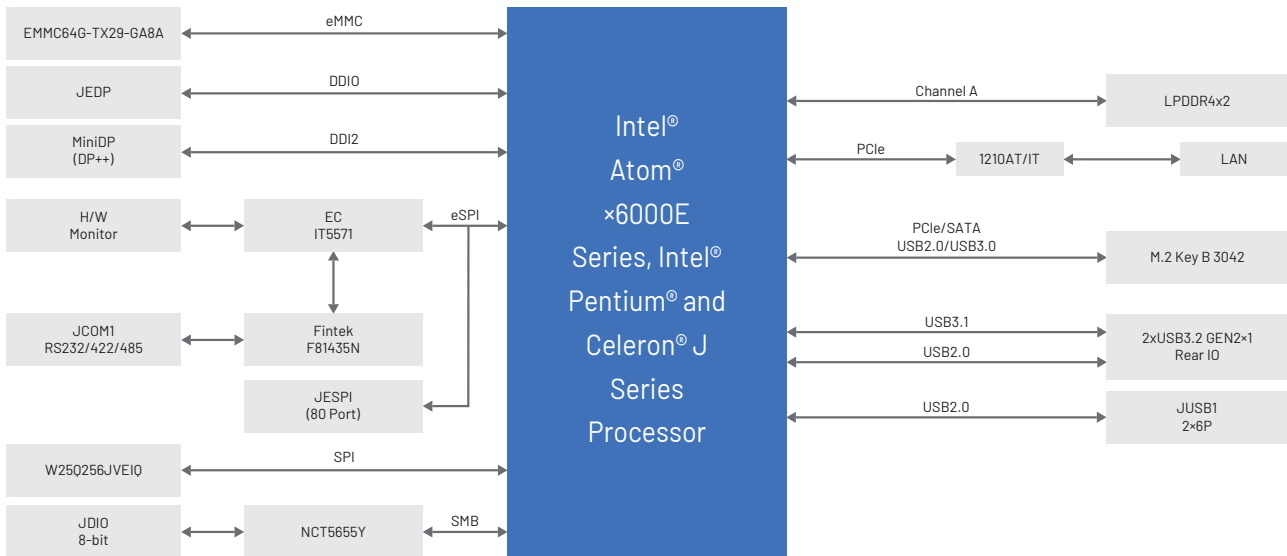
## Ordering Information

P/N	Processor	Chipset	LAN	USB	COM	PCIe Slot	Power Input	Temp.
EZX-EHLP-J6412-A1R	Intel® Celeron® Processor J6412	NA	1	6	1	0	+12V DC	0°C ~ 60°C (32~140°F)
EZX-EHLP-J6413-A1R	Intel® Celeron® Processor J6413	NA	1	6	1	0	+12V DC	0°C ~ 60°C (32~140°F)
EZX-EHLP-X11E-A1R	Intel® Atom® Processor x6211E	NA	1	6	1	0	+12V DC	-20°C ~ 60°C (-4~140°F)
EZX-EHLP-X12RE-A1R	Intel® Atom® Processor x6412RE	NA	1	6	1	0	+12V DC	-20°C ~ 60°C (-4~140°F)
EZX-EHLP-X13E-A1R	Intel® Atom® Processor x6413E	NA	1	6	1	0	+12V DC	-20°C ~ 60°C (-4~140°F)

## Packing List

Item	P/N	Quantity
DC Jack Power Cable	-	1
M.2 42 to 52 bracket with screws	-	1

## Block Diagram



## I/O Overview

