

# PPC2-C12-EHL

## IEI Heavy Industrial Panel PC

Powered by Intel® Elkhart Lake Platform



[www.ieiworld.com](http://www.ieiworld.com)



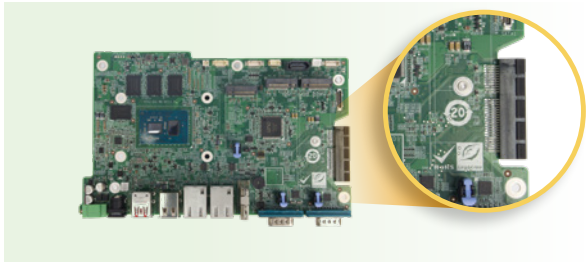
# PPC2-C12-EHL

Panel PC equips Intel® Celeron® J6412 processor, on-board 8GB memory, HDMI display output, dual 2.5G Ethernet port, one M.2 M key & one M.2 B key expansion slots, 12~24V DC input, anti-glare and anti-UV 10-point touchscreen



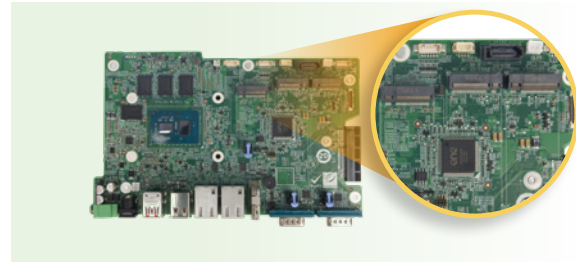
## IP2EHL\_XC Expansion Interface

The IP2EHL\_XC connector allows users to flexibly expand functionality such as network, serial ports and CAN to meet various application requirements. (IEI-designed pin definition, supported functions are customized, for models of 10-inch or above)



## M.2 B Key & M.2 M Key

Dual M.2 ultra-high-speed expansion supporting SSD & AI accelerator to enhance efficiency



## Anti-glare and Anti-UV PCAP

With anti-glare and anti-UV coating, the 10-point touchscreen can display clearly without reflection for a long time use in outdoors and bright light environment.



## Support Gloved and Wet Hand Operation

The whole new PCAP screen allows you to accurately manage every step of your operations even with gloves or in wet conditions.



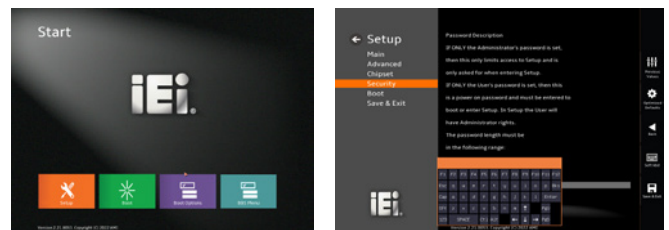
## Newly Designed Panel Mount Kit

The new refined and convenient panel mount kit can be easily fastened by hand, no screwdriver required.

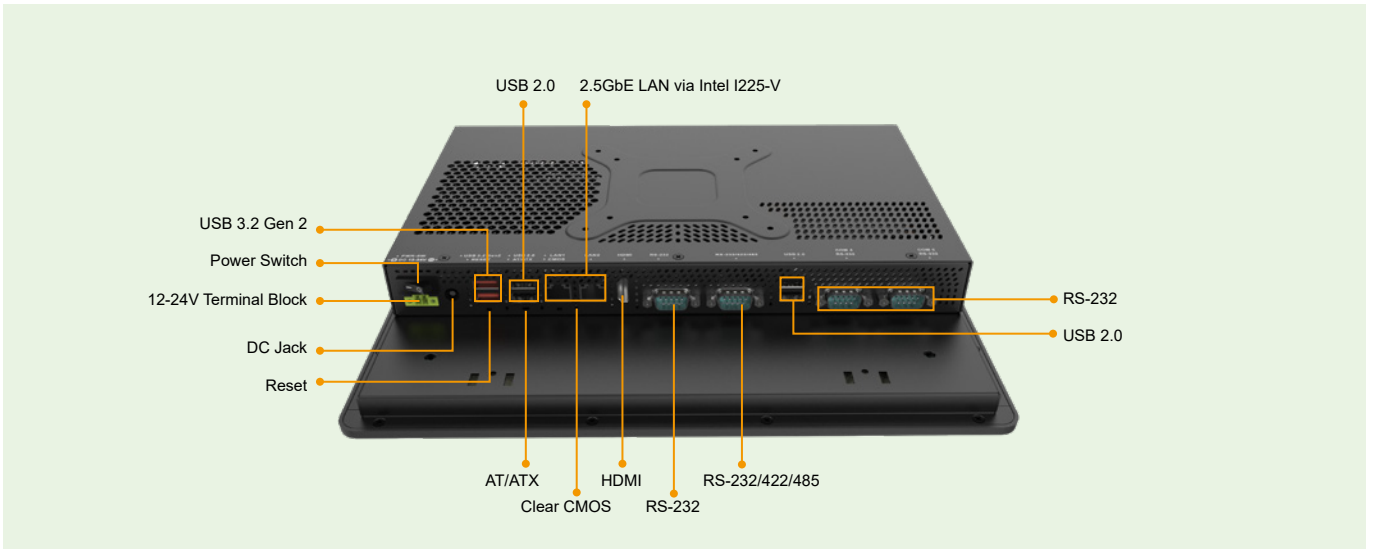


## New Graphical BIOS Interface

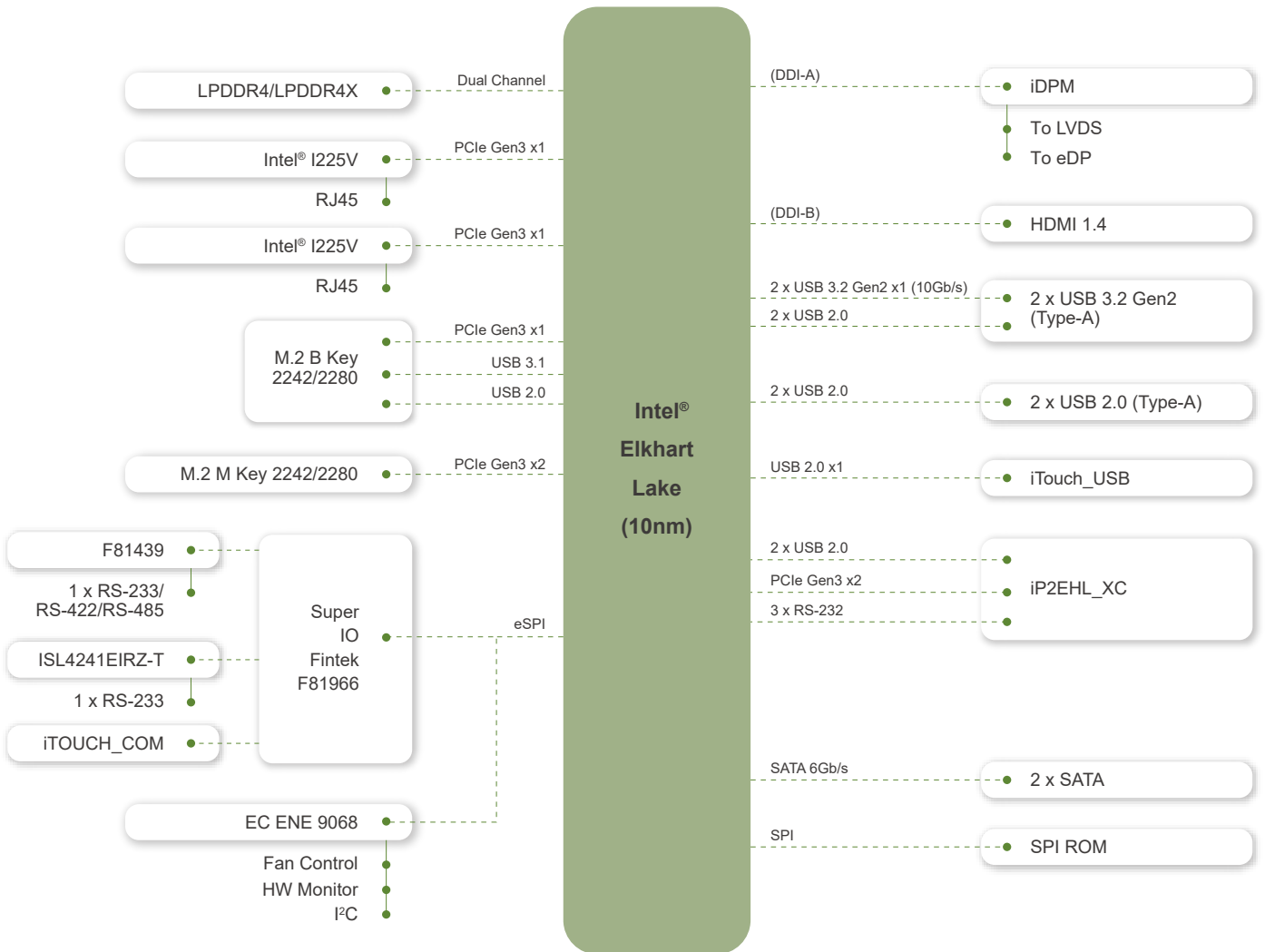
Upgraded with new BIOS interface, which can be navigated with fingers, no keyboard and mouse are required to operate.



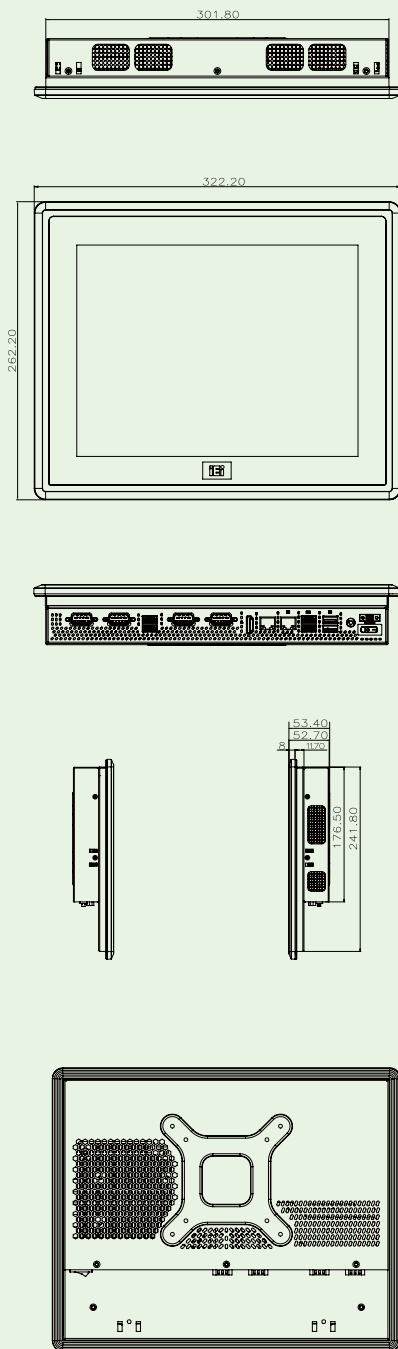
## Fully Integrated I/O



## Block Diagram



## Dimensions (Unit: mm)



## Specifications

| PPC2-C12-EHL                             |  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
|--|--|-----------------|------------------|---------------|------------------|------------------------------|-----------------------|-------------|------------------|--------------------|-------------|------------|----------------|------------------------|-------------------------|----------------------------------|---------------------------|-------------------|--|
| LCD Display                              | 12" (4:3)  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Resolution                               | 1024 (W) x 768 (H)   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Brightness                               | 500 cd/cm <sup>2</sup>   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Contrast Ratio                           | 700:1  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| LCD Color                                | 16.2M  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Pixel Pitch (mm)                         | 0.24 x 0.24  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Viewing Angle (H-V)                      | 160°/140°  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Backlight MTBF                           | 50,000 hours   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| SBC Model                                | PPC2MB2-EHL-RC-R10+<br>PPC2-XIO-01-R10   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| CPU (SoC)                                | Intel® Celeron® Processor J6412 1.5M Cache, up to 2.60 GHz / TDP 10w   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Memory                                   | 8GB dual-channel on-board LPDDR4/LPDDR4X   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Touchscreen                              | Multi-point projected capacitive type<br>(anti-UV / anti-glare coating, support gloves)<br>Surface hardness: ≥7H   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Touch Controller                         | Projected capacitive type: EETI 80   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Storage                                  | 1 x 2.5" HDD/SSD drive bay   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Ethernet                                 | 2 x 2.5GbE LAN via Intel I225-V  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Expansion                                | 1 x M.2 2242/2280 B key (PCIe Gen3 x1 + USB 3.0)<br>1 x M.2 2242 M key (PCIe Gen3 x2)  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Mounting                                 | VESA 100 mm x 100 mm<br>Panel, Wall, Rack, Stand and Arm   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Construction Material                    | Aluminum front cover and sheet metal rear cover  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Enclosure Color                          | Black  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| I/O Ports,<br>Switches and Buttons       | <table border="0"> <tr> <td>1 x HDMI output</td> <td>1 x Power button</td> </tr> <tr> <td>2 x RJ-45 GbE</td> <td>1 x Reset button</td> </tr> <tr> <td>2 x USB 3.2 Gen 2x1 (10Gb/s)</td> <td>1 x Clear CMOS button</td> </tr> <tr> <td>2 x USB 2.0</td> <td>PPC2-XIO-01-R10:</td> </tr> <tr> <td>1 x RS-232/422/485</td> <td>2 x USB 2.0</td> </tr> <tr> <td>1 x RS-232</td> <td>2 x RS-232 DB9</td> </tr> <tr> <td>1 x 12V-24V power jack</td> <td>1 x M.2 B key 2242/2280</td> </tr> <tr> <td>1 x Power terminal block (2-pin)</td> <td>(PCIe Gen3 x 2 + USB 2.0)</td> </tr> <tr> <td>1 x AT/ATX switch</td> <td></td> </tr> </table> | 1 x HDMI output | 1 x Power button | 2 x RJ-45 GbE | 1 x Reset button | 2 x USB 3.2 Gen 2x1 (10Gb/s) | 1 x Clear CMOS button | 2 x USB 2.0 | PPC2-XIO-01-R10: | 1 x RS-232/422/485 | 2 x USB 2.0 | 1 x RS-232 | 2 x RS-232 DB9 | 1 x 12V-24V power jack | 1 x M.2 B key 2242/2280 | 1 x Power terminal block (2-pin) | (PCIe Gen3 x 2 + USB 2.0) | 1 x AT/ATX switch |  |
| 1 x HDMI output                          | 1 x Power button   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 2 x RJ-45 GbE                            | 1 x Reset button   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 2 x USB 3.2 Gen 2x1 (10Gb/s)             | 1 x Clear CMOS button  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 2 x USB 2.0                              | PPC2-XIO-01-R10:   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 1 x RS-232/422/485                       | 2 x USB 2.0  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 1 x RS-232                               | 2 x RS-232 DB9   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 1 x 12V-24V power jack                   | 1 x M.2 B key 2242/2280  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 1 x Power terminal block (2-pin)         | (PCIe Gen3 x 2 + USB 2.0)  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| 1 x AT/ATX switch                        |  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Power Input                              | 12 V ~ 24 V DC   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Power Adapter                            | 60W power adapter  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Power Consumption                        | TBD  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Thermal Solution                         | Fanless  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| TPM                                      | Intel® Platform Trust Technology   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Watchdog Timer                           | Software Programmable support 1~255 sec. system reset  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Operating Temperature<br>(with air flow) | -10°C ~ 60°C   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Storage Temperature                      | -20°C ~ 60°C   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Humidity                                 | 10% ~ 95%, non-condensing  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| IP Level                                 | IP 65 compliant front panel  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Safety and EMC                           | CE, FCC Class A  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| ErP                                      | ErP 2009/125/EC  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Dimensions (H x W x D)<br>(mm)           | 322.2 x 262.2 x 53   |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |
| Net Weight                               | TBD  |                 |                  |               |                  |                              |                       |             |                  |                    |             |            |                |                        |                         |                                  |                           |                   |  |

## Packing List

|                     |                       |         |
|---------------------|-----------------------|---------|
| 1 x Power Cord      | 1 x Power Adapter     | 1 x QIG |
| 1 x Panel Mount Kit | 1 x Screw Pack (SATA) |         |

## Ordering Information

|                        |   |
|------------------------|---|
| PPC2-C12-EHL-J1/8G-R10 | 12.1" 500 cd/cm <sup>2</sup> 1024x768 Panel PC with Intel® Celeron® Processor J6412, 8GB LPDDR4 on-board, TDP 10W, HDMI output, black, 12-24V DC input, projected capacitive touchscreen with AG, R10 |
|------------------------|---|

## Options

| Item           | Part No             | Description                                 |
|----------------|---------------------|---|
| Arm            | ARM-11-RS/ARM-31-RS | VESA 75/100 Desk ARM                        |
| Stand          | STAND-C12-R10       | VESA 75/100 Easy Stand                      |
| Wall Mount Kit | AFLWK-12/AFLWK-19B  | Monitor Wall mounting kit                   |
| OS             | WIN10-IOTE2019-V-RS | Win10 IoT Ent LTSC 2019 MultiLang OEI Value |