



BMX

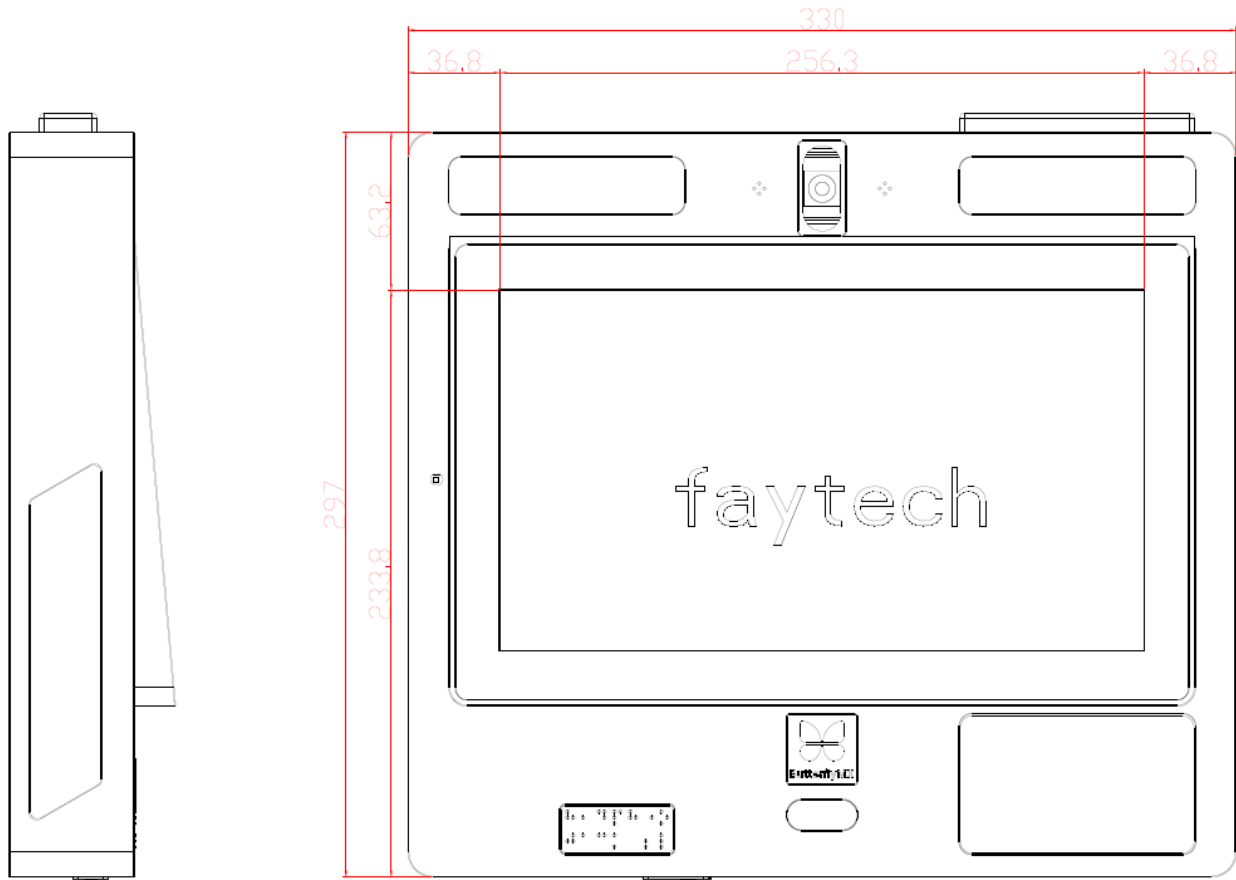
**11.6inch APL SurfaceMount
Phase3**

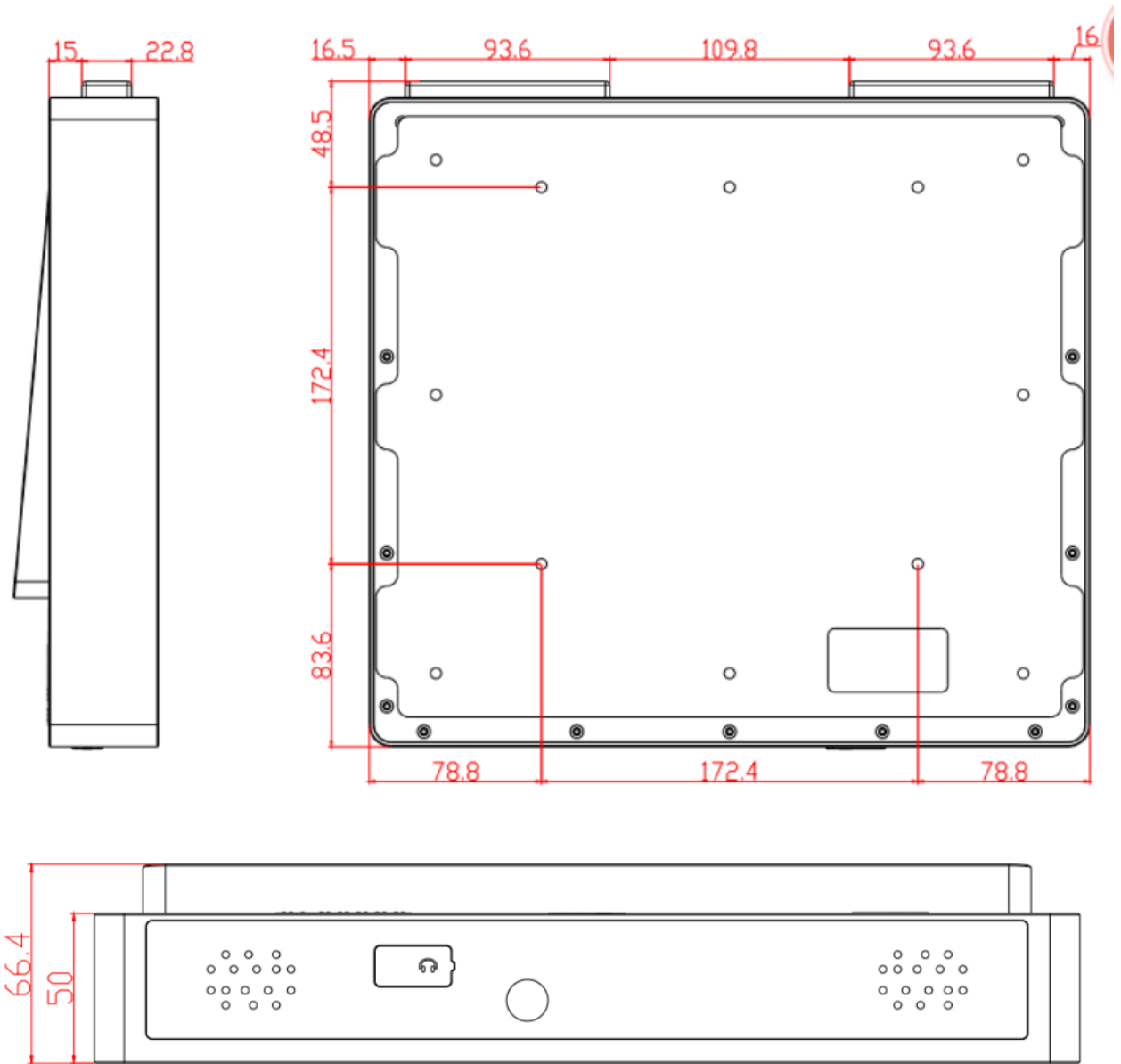
**116N4200APLBMX
Manual**

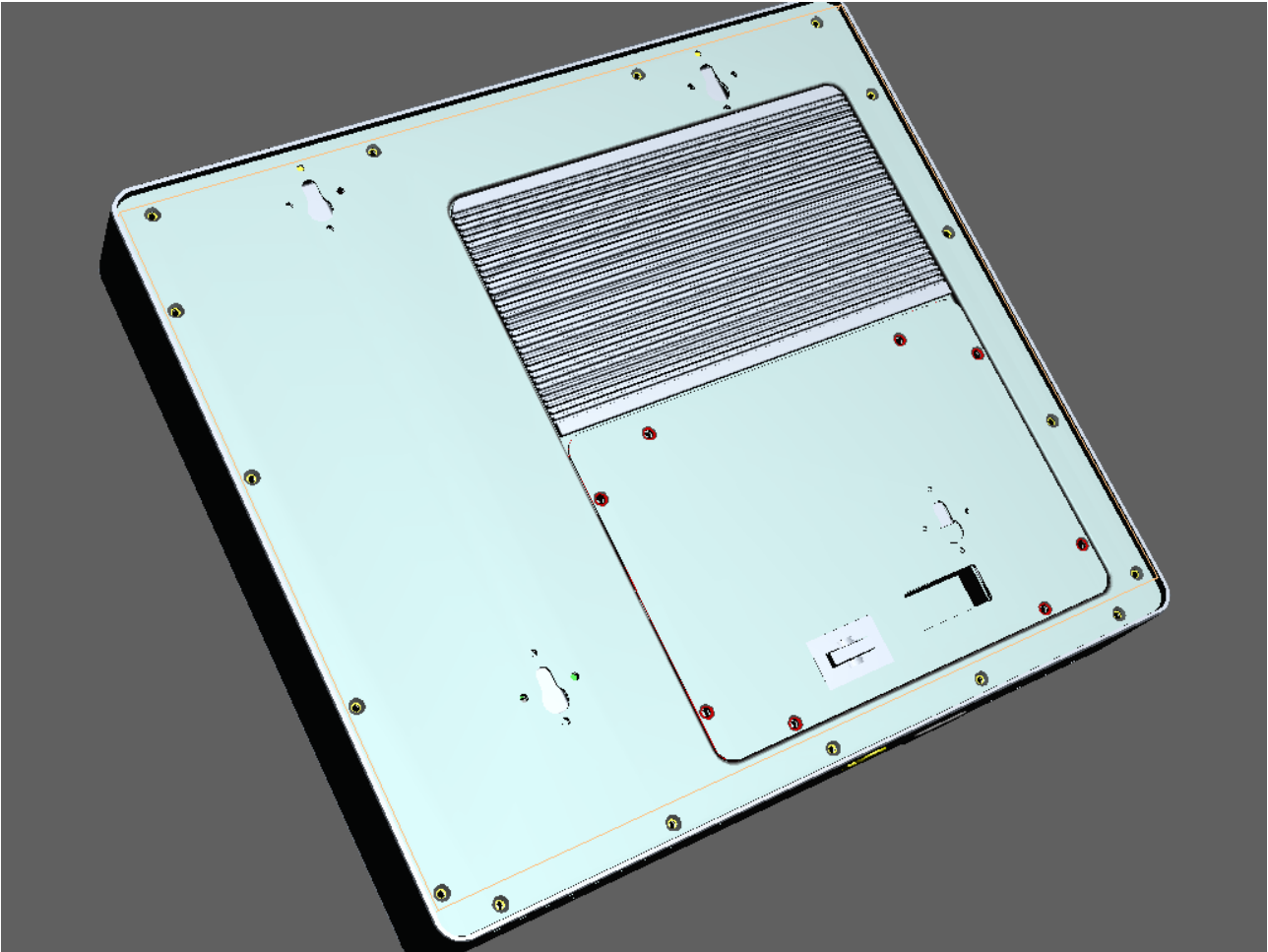
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1 Mechanical specifications







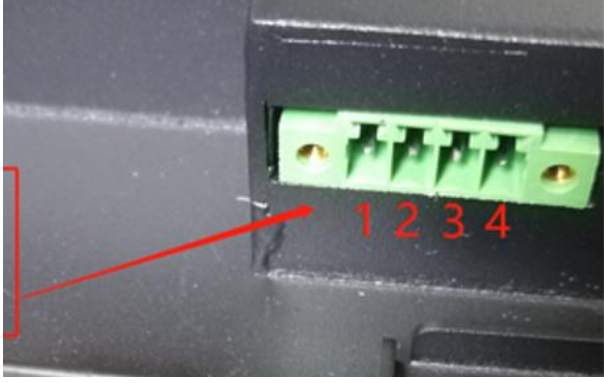
2 Technical Speciation


| | | |
|-----------|------------|------------------------------------|
| Housing | Dimension | 330.00*305.00*66.40mm |
| | Material | Aluminum |
| | Color | Silver, Matt |
| | Cooling | Adding cooling profile on the back |
| LCD Panel | size | 11.6" 16:9 |
| | Resolution | 1920*1080 |
| | Luminance | Typ. 1000nits |


| | | |
|-----------------------|-----------------------|---|
| | Luminance Uniformity | 85% |
| | Contrast | 1000:1 |
| | Viewing Angle | 89/89/89/89 |
| | Response Time | 10/15 |
| Touch Panel | Type | PCAP Capacitive Touch |
| | Surface Treatment | Anti Glare |
| | Cover Glass Thickness | 1.8mm |
| | Surface Hardness | 7H |
| | transparenc y | >85% |
| | Touch Controller | COB EXC80W60 |
| | Touch Driver | EETI touch controller / driver http://home.eeti.com.tw/LinuxDriverDownload.html |
| Mainboard: FAY-APL | CPU | Apollo Lake N4200, (4C @ 2.50GHz CPU (Burst Mode), 750MHz GFX (Turbo), ~6W TDP) |
| | Memory | 1 x SO-DIMM, max. 4GB, DDR3L 1333/1600/1867 non-ECC Single channel memory |
| | Graphics | Intel® HD Graphics |
| | I/O Chipset | NUVOTON NCT6116D |
| | LAN | 1 x LAN1 connector (POE LAN RJ45 connector, POE power connect to 2x2 2.54mm pin header) |

| | | |
|--------|------------------------|--|
| | Audio | 1 x Realtek Realtek/ALC3251 |
| | TPM | NPCT75XXX |
| | WatchDog Timer | 1~255 step by software program |
| | Wake On LAN / PXE | Yes (WOL / PXE) |
| | Power State | S3, S4, S5 |
| | Graphics chipset | Intel® HD Graphics |
| | Graphics Multi display | eDP or LVDS |
| | eDP | Up to 1920 x 1080@60 Hz, (colay LVDS, BOM OPTION) |
| | LVDS | Up to 1920 x 1200 @ 60Hz ,Resolution read from EEPROM, LCD Default 640*480 |
| | LVDS Inverter Control | Voltage / PWM, 1 x DC 5V/12V for LCD backlight inverter board |
| | Battery | Lithium battery |
| | Power Requirement | 1 x onboard 2 pin Power input connector (12 VDC ±10%) |
| System | RAM | 4GB DDR3L |
| | SSD | mSATAIII M.2 2242 64GB |
| | OS | Customized Windows 10 Pre-Installed |
| Camera | Brand/Model # | Logitech C930c |
| | Pixel | 1080P |
| | Focusing | Auto |
| | LEN | FOV : D= 90° |
| | Interface | USB2.0, support USB3.0 |
| | Angle | Motor for angle adjustment available |

| | | |
|---|---------------------|---|
| Relay | Yoctopuce | Supplied by the customer |
| | channel | 4x Channel |
| RFID | Operating frequency | 125kHz, 13.56MHz |
| | Dimension | 50x35mm, with the latest firmware approved by BMX |
| | Interface | USB HID, WG |
| | Support Cards | EM4100、S50、NFC P2P、HID26/34/35/36/37 |
| | Support system | Windows, Linux, mac, ios, Android |
| | Read distance | 5cm |
| | Output format | 8H10D, P2P 16D |
| 4G (Optional) (this product don't has 4G module) | Brand/Model | Sierra MC7455 |
| | | |
| | | |
| Speaker | | 2x 803W |
| Microphone | | HD-6050P |
| Movement Sensor | Sensing Distance | 80CM |
| Braille | | Yes |
| Front Panel Lightening | 8 Colors available | Red, Orange, Yellow, Green, Cyan, Blue, Purple, White |
| Ambient Light sensor | 3 Status available | Standard Lowest Brightest |
| Ibeacon | UUID | Self-setting allowed |
| | Transmission Power | Self-setting allowed |

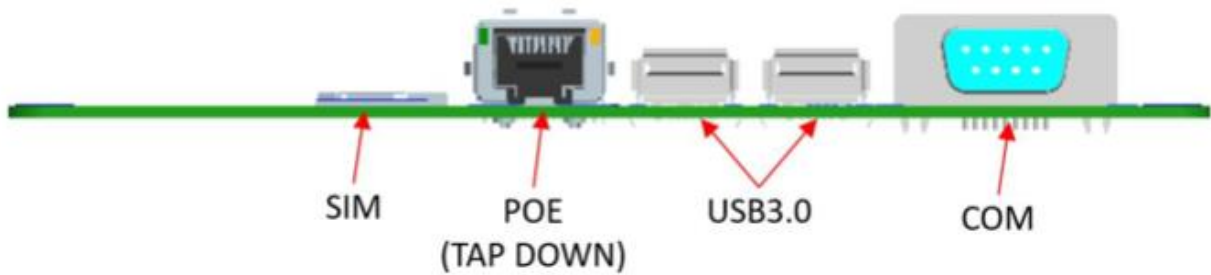
| | | |
|--------------------|---|---|
| | Input Voltage | 5V |
| | frequency | 2.4G |
| External Interface | | 2x USB 3.0 |
| | | 1x COM port |
| | | 1xRJ45 (POE) |
| | | 1x SIM Slot |
| | | 1x24V DC-IN: Pin 1/2: D+, Pin3/4: D- |
| | |  |
| | | 1x 3pin Weigand Out |
| | 4x Relay Channel | |
| | 1x Power Button | |
| Environment | IP rating | IP65 |
| | IP Sealing Sponge Specificatio n | Model #: E-4088 |

| | | <table border="1"> <thead> <tr> <th rowspan="2">Item</th> <th colspan="4">E-4088</th> </tr> <tr> <th>Unit</th> <th>Result</th> <th>Specification</th> <th>Test Method</th> </tr> </thead> <tbody> <tr> <td>Physical</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Hardness</td> <td></td> <td>6</td> <td>7±5</td> <td>ASKER-C</td> </tr> <tr> <td>Tensile Strength</td> <td>MPa</td> <td>0.49</td> <td>0.25以上</td> <td>JIS K 6767</td> </tr> <tr> <td>Elongation</td> <td>%</td> <td>220</td> <td>200以上</td> <td>JIS K 6767</td> </tr> <tr> <td>Apparent Density</td> <td>g/cm³</td> <td>0.11</td> <td>0.10±0.03</td> <td>JIS K 6767</td> </tr> <tr> <td>Compression Se</td> <td>%</td> <td>29.7</td> <td>40以下</td> <td>ASTM D 1056</td> </tr> <tr> <td>Shrinkage Against Heat</td> <td>%</td> <td>1.5</td> <td>2以下</td> <td>70°C×4hr</td> </tr> <tr> <td>Water Absorption Test</td> <td>%</td> <td>1.8</td> <td>5以下</td> <td>ASTM D 1056</td> </tr> <tr> <td>Compression Load Flexibility Test (25°C)</td> <td>kPa</td> <td>37.4</td> <td>14.7~44.1</td> <td>ASTM D 1056</td> </tr> </tbody> </table> | Item | E-4088 | | | | Unit | Result | Specification | Test Method | Physical | | | | | Hardness | | 6 | 7±5 | ASKER-C | Tensile Strength | MPa | 0.49 | 0.25以上 | JIS K 6767 | Elongation | % | 220 | 200以上 | JIS K 6767 | Apparent Density | g/cm ³ | 0.11 | 0.10±0.03 | JIS K 6767 | Compression Se | % | 29.7 | 40以下 | ASTM D 1056 | Shrinkage Against Heat | % | 1.5 | 2以下 | 70°C×4hr | Water Absorption Test | % | 1.8 | 5以下 | ASTM D 1056 | Compression Load Flexibility Test (25°C) | kPa | 37.4 | 14.7~44.1 | ASTM D 1056 |
|--|-----------------------|---|---------------|-------------|--|--|--|------|--------|---------------|-------------|----------|--|--|--|--|----------|--|---|-----|---------|------------------|-----|------|--------|------------|------------|---|-----|-------|------------|------------------|-------------------|------|-----------|------------|----------------|---|------|------|-------------|------------------------|---|-----|-----|----------|-----------------------|---|-----|-----|-------------|--|-----|------|-----------|-------------|
| Item | E-4088 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Unit | Result | Specification | Test Method | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Physical | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness | | 6 | 7±5 | ASKER-C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Elongation | % | 220 | 200以上 | JIS K 6767 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Apparent Density | g/cm ³ | 0.11 | 0.10±0.03 | JIS K 6767 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compression Se | % | 29.7 | 40以下 | ASTM D 1056 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shrinkage Against Heat | % | 1.5 | 2以下 | 70°C×4hr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Absorption Test | % | 1.8 | 5以下 | ASTM D 1056 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compression Load Flexibility Test (25°C) | kPa | 37.4 | 14.7~44.1 | ASTM D 1056 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Operation Temperature | -20~60° | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accessories | | 1x 24V/4A Power Supply, cable length=1.5meter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1x AC Cable 1.5meter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Power adapter cable | Standard cable length=100mm, other length can be customized | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

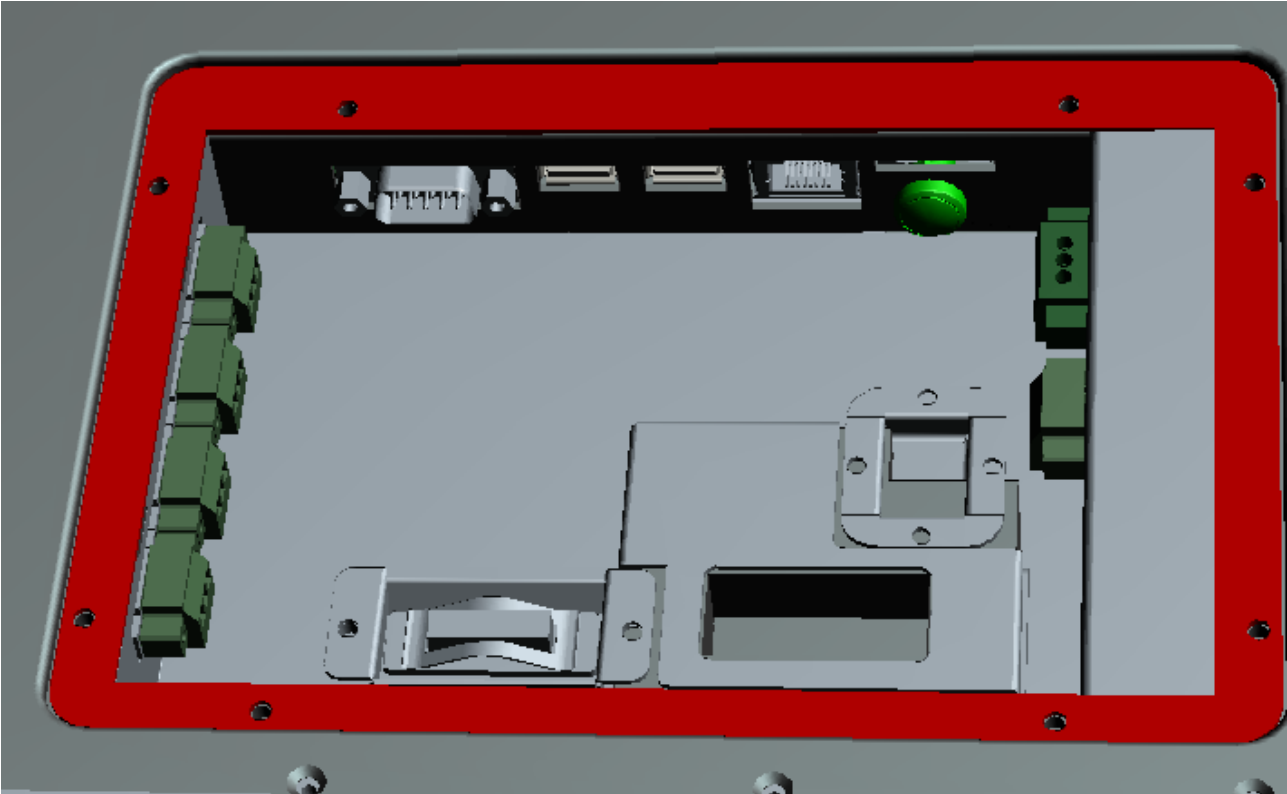
| | | |
|---------------|-----|--|
| | |  |
| | | 1x Wallmount Plate |
| | | 1x Lock Key |
| Certification | FCC | To Be Applied |

3 Explanation

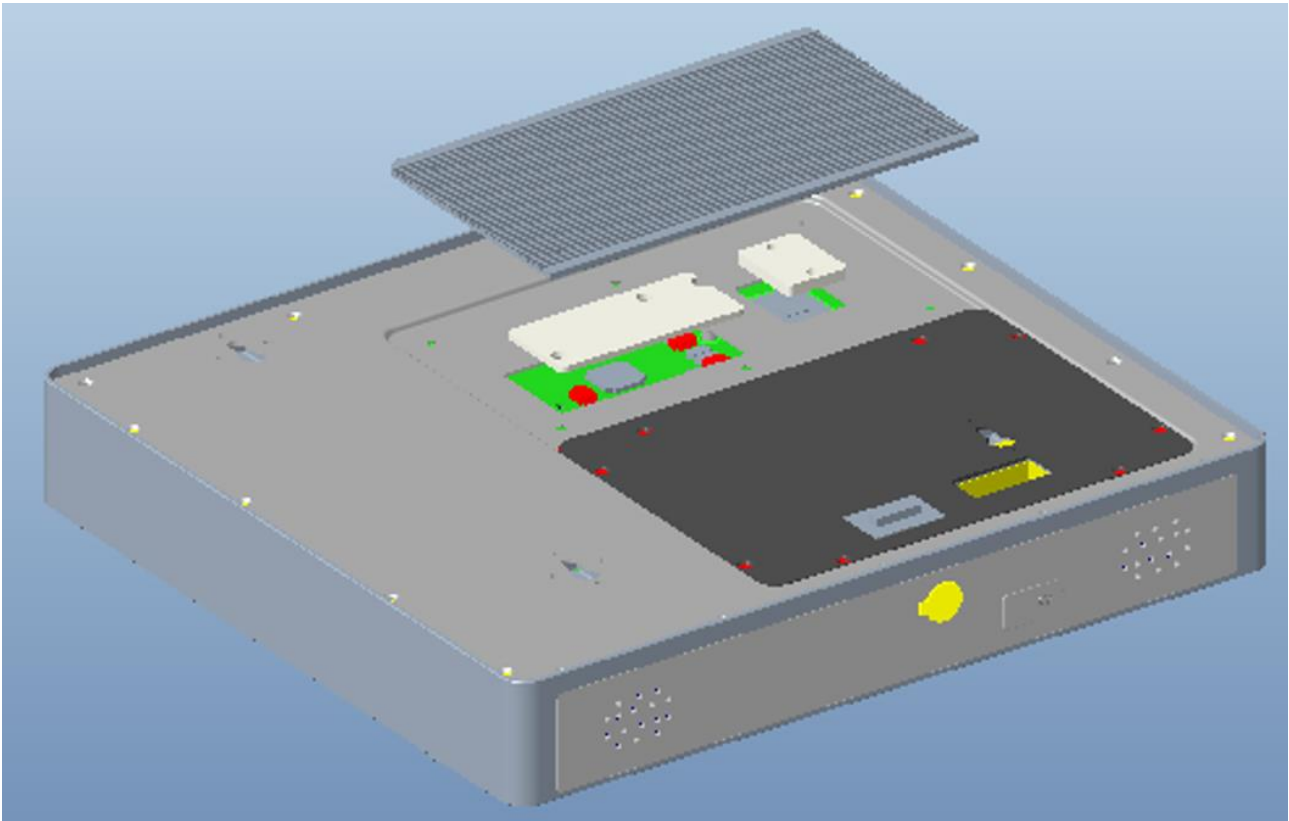
3.1. Mainboard External I/O



3.2. Device External I/O



3.3. CPU Cooling



4. Function Explanation

The product is pre-installed windows system, power on after the normal use.

If want to connect the device through Bluetooth, you need to turn on the Bluetooth switch in the system setting option, and search for the device to be paired and the connection.

If want to connect to the wireless network through WiFi, the system has enabled the WiFi-function by default, select the corresponding wireless network to use.

There is a card swiping area on the front of the product. You can use the card type supported by this device about 5cm close to the swiping area.



5.FCC compliance statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

6. Changelog

- 31.03.2022 Nathan Lu created
- 12.07.2022 Nathan Lu updates
 - Adding in RFID dimension (50x35, the smaller version we used on keypad and 7inch ABS), and latest firmware approved by BMX
 - RFID printing icon update
 - Cooling profile on the back
 - Adding in explanation on CPU cooling,