

### Features:

- Full-screen resistive touchscreen design
- Modular design 10.1~21.5" selectable, supports square/wide screen
- Front panel meets IP65 requirements
- Front panel integrates USB Type-A and signal indicator lights
- Utilizes Intel® Celeron® J6412 low-power CPU
- Integrates dual Intel® Gigabit network cards
- Supports dual hard drive storage
- Supports APQ aDoor module expansion
- Supports WiFi/4G wireless expansion
- Fanless design
- Embedded/VESA mounting
- 12~28V DC power supply



Remote Management



Status Monitoring



Remote Operations and Maintenance



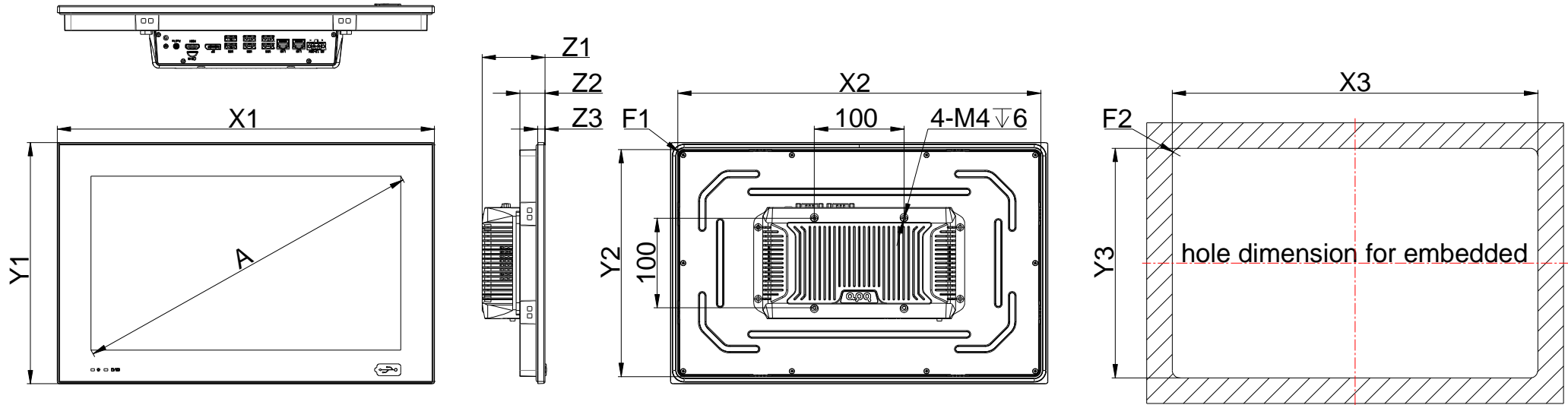
Security Control

## Product Specifications

| Model                   | PL101RQ-E5S                  | PL104RQ-E5S   | PL121RQ-E5S              | PL150RQ-E5S              | PL156RQ-E5S            | PL170RQ-E5S              | PL185RQ-E5S              | PL191RQ-E5S              | PL215RQ-E5S              |                          |
|-------------------------|------------------------------|---|--------------------------|--------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <b>LCD</b>              | Display Size                 | 10.1"   | 10.4"                    | 12.1"                    | 15.0"                  | 15.6"                    | 17.0"                    | 18.5"                    | 19.0"                    | 21.5"                    |
|                         | Display Type                 | WXGA TFT-LCD  | XGA TFT-LCD              | XGA TFT-LCD              | XGA TFT-LCD            | FHD TFT-LCD              | SXGA TFT-LCD             | WXGA TFT-LCD             | WXGA TFT-LCD             | FHD TFT-LCD              |
|                         | Max.Resolution               | 1280 x 800  | 1024 x 768               | 1024 x 768               | 1024 x 768             | 1920 x 1080              | 1280 x 1024              | 1366 x 768               | 1440 x 900               | 1920 x 1080              |
|                         | Luminance                    | 400 cd/m2   | 350 cd/m2                | 350 cd/m2                | 300 cd/m2              | 350 cd/m2                | 250 cd/m2                | 250 cd/m2                | 250 cd/m2                | 250 cd/m2                |
|                         | Aspect Ratio                 | 16:10   | 4:3                      | 4:3                      | 4:3                    | 16:9                     | 5:4                      | 16:9                     | 16:10                    | 16:9                     |
|                         | Viewing Angle                | 89/89/89/89°  | 88/88/88/88°             | 80/80/80/80°             | 88/88/88/88°           | 89/89/89/89°             | 85/85/80/80°             | 89/89/89/89°             | 85/85/80/80°             | 89/89/89/89°             |
|                         | Max. Color                   | 16.7M   | 16.2M                    | 16.7M                    | 16.7M                  | 16.7M                    | 16.7M                    | 16.7M                    | 16.7M                    | 16.7M                    |
|                         | Backlight Lifetime           | 20,000 hr   | 50,000 hr                | 30,000 hr                | 70,000 hr              | 50,000 hr                | 30,000 hr                | 30,000 hr                | 30,000 hr                | 50,000 hr                |
|                         | Contrast Ratio               | 800:1   | 1000:1                   | 800:1                    | 2000:1                 | 800:1                    | 1000:1                   | 1000:1                   | 1000:1                   | 1000:1                   |
| <b>Touchscreen</b>      | Touch Type                   | 5-Wire Resistive Touch  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Controller                   | USB signal  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Input                        | Finger/Touch pen  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Light Transmission           | ≥78%  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Hardness                     | ≥3H   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Click lifetime               | 100gf, 10 million times   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Stroke lifetime              | 100gf, 1 million times  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Response time                | ≤15ms   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Processor System</b> | CPU                          | Intel® Celeron® J6412   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Base Frequency               | 2.00 GHz  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Max Turbo Frequency          | 2.60 GHz  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Cache                        | 1.5MB   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Total Cores/Threads          | 4/4   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | TDP                          | 10W   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Chipset                      | SOC   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | BIOS                         | AMI UEFI BIOS   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Memory</b>           | Socket                       | LPDDR4 3200 MHz (Onboard)   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Capacity                     | 8GB   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Graphics</b>         | Controller                   | Intel® UHD Graphics   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Ethernet</b>         | Controller                   | 2 * Intel® i210-AT (10/100/1000 Mbps, RJ45)   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Storage</b>          | SATA                         | 1 * SATA3.0 Connector (2.5-inch hard disk with 15+7Pin)   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | M.2                          | 1 * M.2 Key-M Slot (SATA SSD, 2280)   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Expansion Slots</b>  | aDoor                        | 1 * aDoor   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Mini PCIe                    | 1 * Mini PCIe Slot (PCIe2.0x1+USB2.0)   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Front I/O</b>        | USB                          | 4 * USB3.0 (Type-A)<br>2 * USB2.0 (Type-A)  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Ethernet                     | 2 * RJ45  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Display                      | 1 * DP++: max resolution up to 4096x2160@60Hz<br>1 * HDMI (Type-A): max resolution up to 2048x1080@60Hz |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Audio                        | 1 * 3.5mm Jack (Line-Out + MIC, CTIA)   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | SIM                          | 1 * Nano-SIM Card slot (Mini PCIe module provides functional support)                                   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Power                        | 1 * Power Input Connector (12~28V)  |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Rear I/O</b>         | Button                       | 1 * Power Button with Power LED   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Serial                       | 2 * RS232/485 (COM1/2, DB9/M, BIOS control)   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Internal I/O</b>     | Front Panel                  | 1 * Front Panel (3x2Pin, PHD2.0)  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | FAN                          | 1 * SYS FAN (4x1Pin, MX1.25)  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Serial                       | 2 * COM (JCOM3/4, 5x2Pin, PHD2.0)<br>2 * COM (JCOM5/6, 5x2Pin, PHD2.0)                                  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | USB                          | 2 * USB2.0 (F_USB2_1, 5x2Pin, PHD2.0)<br>2 * USB2.0 (F_USB2_2, 5x2Pin, PHD2.0)                          |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Display                      | 1 * LVDS/eDP (default LVDS, wafer, 25x2Pin 1.00mm)  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Audio                        | 1 * Speaker (2-W (per channel)/8-Ω Loads, 4x1Pin, PH2.0)  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | GPIO                         | 1 * 16bits DIO (8xDI and 8xDO, 10x2Pin, PHD2.0)   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | LPC                          | 1 * LPC (8x2Pin, PHD2.0)  |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Power Supply</b>     | Type                         | DC  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Power Input Voltage          | 12~28VDC  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Connector                    | 1 * 2Pin Power Input Connector (12~28V, P= 5.08mm)  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | RTC Battery                  | CR2032 Coin Cell  |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>OS Support</b>       | Windows                      | Windows 10  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Linux                        | Linux   |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Watchdog</b>         | Output                       | System Reset  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Interval                     | Programmable 1 ~ 255 sec  |                          |                          |                        |                          |                          |                          |                          |                          |
| <b>Mechanical</b>       | Enclosure Material           | Radiator/Panel: Aluminum, Box/Cover: SGCC   |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Mounting                     | VESA, embedded  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Dimensions (L*W*H, Unit: mm) | 272.1*192.7*70  | 284*231.2*70             | 321.9*260.5*70           | 380.1*304.1*70         | 420.3*269.7*70           | 414*346.5*70             | 485.7*306.3*70           | 484.6*332.5*70           | 550*344*70               |
| <b>Environment</b>      | Weight                       | Net: 2.9kg, Total: 5.1kg  | Net: 3.0kg, Total: 5.2kg | Net: 3.2kg, Total: 5.5kg | Net: 4.6kg, Total: 7kg | Net: 4.5kg, Total: 6.9kg | Net: 5.2kg, Total: 7.7kg | Net: 5.2kg, Total: 7.8kg | Net: 5.9kg, Total: 8.5kg | Net: 6.2kg, Total: 8.9kg |
|                         | Heat Dissipation System      | Passive heat dissipation  |                          |                          |                        |                          |                          |                          |                          |                          |
|                         | Operating Temperature        | -20~60°C  | -20~60°C                 | -20~60°C                 | -20~60°C               | -20~60°C                 | 0~50°C                   | 0~50°C                   | 0~50°C                   | 0~60°C                   |
|                         | Storage Temperature          | -20~60°C  | -20~70°C                 | -30~80°C                 | -30~70°C               | -30~70°C                 | -20~60°C                 | -20~60°C                 | -20~60°C                 | -20~60°C                 |
|                         | Relative Humidity            | 10 to 95% RH (non-condensing)   |                          |                          |                        |                          |                          |                          |                          |                          |

|                            |  |
|----------------------------|--|
| Vibration During Operation | With SSD: IEC 60068-2-64 (1Grms@5-500Hz, random, 1hr/axis) |
| Shock During Operation     | With SSD: IEC 60068-2-27 (15G, half sine, 11ms)            |

## Product Dimensions



| A     | System Dimension |       |    |       |       |    | Panel Mount |       |    |     |     |
|-------|------------------|-------|----|-------|-------|----|-------------|-------|----|-----|-----|
|       | X1               | Y1    | Z1 | X2    | Y2    | Z2 | X3          | Y3    | Z3 | F1  | F2  |
| 10.1" | 272.1            | 192.7 | 70 | 260.9 | 181.5 | 28 | 262.5       | 183.1 | 8  | 6.9 | 7.8 |
| 10.4" | 284              | 231.2 | 70 | 268.1 | 215.3 | 28 | 269.9       | 217.1 | 8  | 7.1 | 8.5 |
| 12.1" | 321.9            | 260.5 | 70 | 307   | 245.6 | 28 | 309.8       | 248.4 | 8  | 7.1 | 8.5 |
| 15.0" | 380.1            | 304.1 | 70 | 364.2 | 288.2 | 28 | 367         | 291   | 8  | 7.1 | 8.5 |
| 15.6" | 420.3            | 269.7 | 70 | 404.5 | 253.8 | 28 | 407.3       | 256.6 | 8  | 7.1 | 8.5 |
| 17.0" | 414              | 346.5 | 70 | 398.2 | 330.6 | 28 | 401         | 333.4 | 8  | 7.1 | 8.5 |
| 18.5" | 485.7            | 306.3 | 70 | 469.8 | 290.4 | 28 | 472.6       | 293.2 | 8  | 7.1 | 8.5 |
| 19.1" | 484.6            | 332.5 | 70 | 468.7 | 316.6 | 28 | 471.5       | 319.4 | 8  | 7.1 | 8.5 |
| 21.5" | 550              | 344   | 70 | 538.7 | 327.7 | 28 | 539.5       | 330.9 | 8  | 7.1 | 8.5 |

## Product I/O

