# **PPC-155T**

# 15" Panel PC with Intel® Pentium®/ Celeron® M Processor



## **Features**

- 15" TFT XGA LCD
- Intel® Pentium®/Celeron® M up to 1.8 GB
- System memory up to 2 GB DDR RAM
- Built-in CF card interface (IDE interface for OS booting)
- Two 10/100 Mbps Ethernet ports; Two IEEE 1394 ports
- Resistive, capacitive, and SAW touch screens available
- LED Indicator for Power, LAN and Hard Disk
- Light sensor supports automatic backlight control







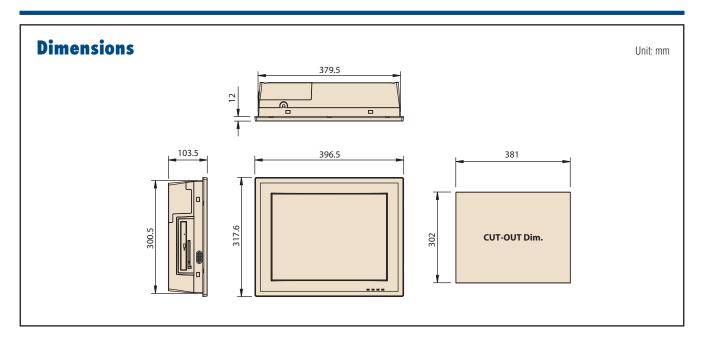


## Introduction

The PPC-155T is an Intel Pentium/Celeron M based Panel PC with 15" color TFT LCD (resolution up to 1024 x 768). PPC-155T has minimized thermal and noise impact and optimized I/O throughput performance. It features multimedia devices, various connectors, and can be installed in virtually any application. In addition, its user-friendly interface makes it a great host for information appliances.

# **Specifications**

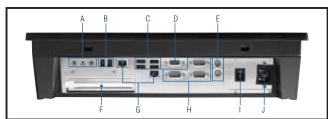
| CPU  |                              |                      |  |                  |  |                       |  |
|--|------------------------------|----------------------|--|------------------|--|-----------------------|--|
| Priorit Panel Protection   PR65/NEMA 4 compliant (not for SAW model)   |                              |                      | Supports Socket 478 based Pentium / Celeron M up to 1.8G /1.5G                             |                  |  |                       |  |
| HOD   DE HDD interface (2.5" HDD bay), SATA interface is available, but converter board needed.  |                              |                      |  |                  |  |                       |  |
| Processor System   |                              |                      |  |                  |  |                       |  |
| Processor System   |                              |                      | IDE HDD interface (2.5" HDD bay), SATA interface is available, but converter board needed. |                  |  |                       |  |
| Processor System         Combo Drive<br>Memory         Optional DVD/CD-RW 8D/24W/24E/24R or above (IDE slim type)           Network (LAN)         2 x ports 10/100 Mbps: themer interface - 3 x COM ports: 2 x RS-232, 1 x RS-232/422/485 - 1 x PS/2 mouse and keyboard interface - 4 x USB 2 ports - 4 x USB 2 ports - 1 x PCMCIA Type II - 2 x IEEE 1394 ports - 2 x IEEE 13   |                              | CD-ROM Drive         | Optional 24X or above (IDE slim type) Optional optical drive bay                           |                  |  |                       |  |
| Memory   Supports up to 2 GB DDR SDRAM (184-pin)   Network (LAN)   2 x ports 10/100 Mbps Ethernet interface   -3 x COM ports 2 x RS-232 1 x RS-232/122/485   -1 x PS/2 mouse and keyboard interface   -4 x USB 2.0 ports   -1 x PCMCIA Type II   -2 x IEEE 1394 ports   -3 x COM ports 2 x RS-232 1 x RS-232/122/485   -1 x PCMCIA Type II   -2 x IEEE 1394 ports   -3 x COM ports 2 x RS-232 1 x RS-232/122/485   -1 x PCMCIA Type II   -2 x IEEE 1394 ports   -3 x COM ports 2 x RS-232 1 x RS-232/122/485   -1 x PCMCIA Type II   -3 x PCMC   |                              | DVD+/-RW Drive       | 1 1 1  |                  |  |                       |  |
| Network (LAN)  | Environmental Specifications | Combo Drive          |  |                  |  |                       |  |
| 1/0 Ports  |                              | ,                    |  |                  |  |                       |  |
| VO Ports   |                              | Network (LAN)        |  |                  |  |                       |  |
|  |                              |                      |  | -232/422/485     |  |                       |  |
| Bus Expansion  |                              | I/O Ports            |  |                  |  |                       |  |
| Operating Temperature  |                              | D 5 :                |  |                  |  |                       |  |
| Relative Humidity   5% - 85% non-condensing  |                              |                      |  |                  |  |                       |  |
| Environmental Specifications         Shock EMC         10 G peak acceleration (11 msec. duration)           EMC         BSMI, VCCI, CE, FCC Class B, CCC           Safety         CB, CE, UL           Power Supply         Output Rating         100 W (max.)           Input Voltage         100 ~ 250 Vdc @ 50 ~ 60 Hz           Output Voltage         43.3 V @ 8.0 A, +5 V @ 12.0 A, +12 V @ 4.0 A, -12 V @ 0.2 A, +5 Vsb @ 2.0 A           Display Type         15° Color TFT LCD           Max. Resolution         1024 x 768           Max. Colors or Grayscales         262 K           Pixel Pitch (mm)         0.297 x 0.297           Luminance (cd/m²)         350           LCD Display         Contrast Ratio         400 : 1           Viewing Angle         80° (left), 80° (right), 70° (up), 60° (down)           Operating Temperature         0 - 50° C           VR Controls         Brightness           Simultaneous Mode         Yes           LCD MTBF         50,000 hrs           Types         Analog Resistive         Capacitive         Surface Acoustic Wave           Resolution         Controller         RS-232 Interface         RS-232 Interface         RS-232 Interface           Touchscreen (Optional)         Controller         RS-232 Interface         RS-2   |                              |                      |  |                  |  |                       |  |
| EMC   Safety   CB, CE, UL  |                              |                      |  |                  |  |                       |  |
| Safety   |                              |                      |  |                  |  |                       |  |
| Output Rating   100 W (max.)   |                              |                      |  |                  |  |                       |  |
| Power Supply   |                              |                      |  |                  |  |                       |  |
| Output Voltage   |                              |                      |  |                  |  |                       |  |
| Display Type   15* Color TFT LCD     Max. Resolution   1024 x 768     Max. Colors or Grayscales   262 K     Pixel Pitch (mm)   0.297 x 0.297     Luminance (cd/m²)   350     Contrast Ratio   400 : 1     Viewing Angle   80° (left), 80° (right), 70° (up), 60° (down)     Operating Temperature   0 ~ 50° C     VR Controls   Brightness     Simultaneous Mode   Yes     LCD MTBF   50,000 hrs     Types   Analog Resistive   Capacitive   Surface Acoustic Wave     Resolution   Continuous   1024 x 1024   4096 x 4096     Light Transmission   80%   91.5%   91%     Touchscreen (Optional)   Controller   RS-232 Interface   RS-232 Interface     Power Consumption   +5 V @ 200 mA   +5 V @ 100 mA   +5 V @ 150 mA     Software Driver   Supports both DOS and Windows  |                              |                      |  |                  |  |                       |  |
| Max. Resolution   1024 x 768     Max. Colors or Grayscales   262 K     Pixel Pitch (mm)   0.297 x 0.297     Luminance (cd/m²)   350     Contrast Ratio   400 : 1     Viewing Angle   80° (left), 80° (right), 70° (up), 60° (down)     Operating Temperature   0 ~ 50° C     VR Controls   Brightness     Simultaneous Mode   Yes     LCD MTBF   50,000 hrs     Types   Analog Resistive   Capacitive   Surface Acoustic Wave     Resolution   Continuous   1024 x 1024   4096 x 4096     Light Transmission   80%   91.5%   91%     Touchscreen (Optional)   Controller   RS-232 Interface   RS-232 Interface     Power Consumption   +5 V @ 200 mA   +5 V @ 100 mA   +5 V @ 150 mA     Software Driver   Supports both DOS and Windows   |                              |                      |  |                  |  |                       |  |
| Max. Colors or Grayscales   262 K     Pixel Pitch (mm)   0.297 x 0.297     Luminance (cd/m²)   350     Contrast Ratio   400 : 1     Viewing Angle   80° (left), 80° (right), 70° (up), 60° (down)     Operating Temperature   0 ~ 50° C     VR Controls   Brightness     Simultaneous Mode   Yes     LCD MTBF   50,000 hrs     Types   Analog Resistive   Capacitive   Surface Acoustic Wave     Resolution   Continuous   1024 x 1024   4096 x 4096     Light Transmission   80%   91.5%   91%     Touchscreen (Optional)   Controller   RS-232 Interface   RS-232 Interface     Power Consumption   +5 V @ 200 mA   +5 V @ 100 mA   +5 V @ 150 mA     Software Driver   Supports both DOS and Windows  |                              |                      |  |                  |  |                       |  |
| Pixel Pitch (mm)   0.297 x 0.297   |                              |                      |  |                  |  |                       |  |
| Luminance (cd/m²)   350  |                              |                      |  |                  |  |                       |  |
| LCD Display         Contrast Ratio         400 : 1           Viewing Angle         80° (left), 80° (right), 70° (up), 60° (down)           Operating Temperature         0 ~ 50° C           VR Controls         Brightness           Simultaneous Mode         Yes           LCD MTBF         50,000 hrs           Types         Analog Resistive         Capacitive         Surface Acoustic Wave           Resolution         Continuous         1024 x 1024         4096 x 4096 x 4096           Light Transmission         80%         91.5%         91%           Touchscreen (Optional)         Controller         RS-232 Interface         RS-232 Interface           Power Consumption         +5 V @ 200 mA         +5 V @ 100 mA         +5 V @ 150 mA           Software Driver         Supports both DOS and Windows  |                              |                      |  |                  |  |                       |  |
| Viewing Angle         80° (left), 80° (right), 70° (up), 60° (down)           Operating Temperature         0 ~ 50° C           VR Controls         Brightness           Simultaneous Mode         Yes           LCD MTBF         50,000 hrs           Types         Analog Resistive         Capacitive         Surface Acoustic Wave           Resolution         Continuous         1024 x 1024         4096 x 4096 x 4096           Light Transmission         80%         91.5%         91%           Touchscreen (Optional)         Controller         RS-232 Interface         RS-232 Interface           Power Consumption         +5 V @ 200 mA         +5 V @ 100 mA         +5 V @ 150 mA           Software Driver         Supports both DOS and Windows   | LCD Display                  |                      |  |                  |  |                       |  |
| Operating Temperature         0 ~ 50° C           VR Controls         Brightness           Simultaneous Mode         Yes           LCD MTBF         50,000 hrs           Types         Analog Resistive         Capacitive         Surface Acoustic Wave           Resolution         Continuous         1024 x 1024         4096 x 4096           Light Transmission         80%         91.5%         91%           Touchscreen (Optional)         Controller         RS-232 Interface         RS-232 Interface         RS-232 Interface           Power Consumption         +5 V @ 200 mA         +5 V @ 100 mA         +5 V @ 150 mA           Software Driver         Supports both DOS and Windows   |                              |                      |  |                  |  |                       |  |
| VR Controls         Brightness           Simultaneous Mode         Yes           LCD MTBF         50,000 hrs           Types         Analog Resistive         Capacitive         Surface Acoustic Wave           Resolution         Continuous         1024 x 1024         4096 x 4096           Light Transmission         80%         91.5%         91%           Touchscreen (Optional)         Controller         RS-232 Interface         RS-232 Interface         RS-232 Interface           Power Consumption         +5 V @ 200 mA         +5 V @ 100 mA         +5 V @ 150 mA           Software Driver         Supports both DOS and Windows   |                              |                      |  |                  |  |                       |  |
| Simultaneous Mode  |                              |                      |  |                  |  |                       |  |
| LCD MTBF         50,000 hrs           Types         Analog Resistive         Capacitive         Surface Acoustic Wave           Resolution         Continuous         1024 x 1024         4096 x 4096           Light Transmission         80%         91.5%         91%           Controller         RS-232 Interface         RS-232 Interface         RS-232 Interface           Power Consumption         +5 V @ 200 mA         +5 V @ 100 mA         +5 V @ 150 mA           Software Driver         Supports both DOS and Windows   |                              |                      |  |                  |  |                       |  |
| Types Analog Resistive Capacitive Surface Acoustic Wave Resolution Continuous 1024 x 1024 4096 x 4096 Light Transmission 80% 91.5% 91%  Touchscreen (Optional) Controller RS-232 Interface RS-232 Interface RS-232 Interface Power Consumption +5 V @ 200 mA +5 V @ 100 mA +5 V @ 150 mA  Software Driver Supports both DOS and Windows  |                              |                      | 50.000 hrs   |                  |  |                       |  |
| Resolution Continuous 1024 x 1024 4096 x 4096 Light Transmission 80% 91.5% 91%  Controller RS-232 Interface RS-232 Interface RS-232 Interface Power Consumption +5 V @ 200 mA +5 V @ 100 mA +5 V @ 150 mA  Software Driver Supports both DOS and Windows   |                              | Types                | Analog Resistive   | Capacitive       |  | Surface Acoustic Wave |  |
| Touchscreen (Optional)  Controller  RS-232 Interface  RS-232 Interface  RS-232 Interface  RS-232 Interface  RS-232 Interface  RS-232 Interface  Power Consumption  +5 V @ 200 mA  50ftware Driver  Supports both DOS and Windows   | Touchscreen (Optional)       |                      |  |                  |  | 4096 x 4096           |  |
| Power Consumption +5 V @ 200 mA +5 V @ 100 mA +5 V @ 150 mA Software Driver Supports both DOS and Windows  |                              | Light Transmission   | 80%  | 91.5%            |  | 91%                   |  |
| Software Driver Supports both DOS and Windows  |                              | Controller           | RS-232 Interface   | RS-232 Interface |  | RS-232 Interface      |  |
| The state of the s |                              | Power Consumption    | +5 V @ 200 mA  | +5 V @ 100 mA    |  | +5 V @ 150 mA         |  |
| Durability (Touches) 35 million 225 million 50 million   |                              | Software Driver      | Supports both DOS and Windows  |                  |  |                       |  |
|  |                              | Durability (Touches) | 35 million   | 225 million      |  | 50 million            |  |



# **Ordering Information**

| Part No.         | Description  |
|------------------|--|
| PPC-155T-BAREE   | Panel PC with 15" color TFT LCD display (resolution 1024 x 768)    |
| PPC-155T-BARE-TE | PPC-155T Bare BOM with resistive touchscreen                       |
| PPC-155T-BARE-CE | PPC-155T Bare BOM with capacitive touchscreen                      |
| PPC-155T-BARE-SE | PPC-155T Bare BOM with SAW touchscreen                             |
| PPC-155 RACK-MT  | 19" Rack Mouting kit for PPC-155                                   |
| PPC-155T STAND   | Stand kit for PPC-154/155/175 Series                               |
| PPC-174 WL-MT    | Wall mount kit for PPC series                                      |
| PPC-ARM-A03      | VESA standard ARM for PPC-123/153/154/155 series                   |
| 1702002600       | Power Cable UL/CSA(USA) 180D 125V10A 1.83M                         |
| 1702002605       | POWER CABLE 90D 220V EUROPEAN 250V/6A 1.8M                         |
| 989KP15500E      | CD-ROM Module of PPC-155/175                                       |
| 989KP15501E      | Combo Module OF PPC-155/175  |
| 989KP15502E      | DVD-RW Module OF PPC-155/175                                       |
| 989KP15503E      | Mini-PCI [VIA] 802.1b/g Wireless Module for PPC-155/175            |
| 989KP15504E      | Mini-PCI [Realtek] 802.1b/g Wireless Module for PPC-155/175        |
| 9898007100E      | 2.5" IDE to SATA HDD Converter Board                               |
| 989KP15505E      | Optical Disc Drive Bracket for PPC-155/175 (Bracket only, W/O ODD) |
| PPC-FP-A01E      | USB Fingerprint Accessory Kit                                      |

# Fully Integrated I/O



A. Line-in/Line-out /Mic-in B. IEEE 1394 x 2 C. USB 2.0 x 4 D. VGA port E. PS/2 mouse & keyboard

F. PCI slot x 1 G. 10/100 Base-T Ethernet x 2 H. RS-232 x 2, RS-232/422/485 x 1 I. Power switch J. AC Inlet

## **Feature Details**

#### **Protection**

To meet the requirements of a public environment, the front panel PPC-155T complies with the IP65/NEMA 4 protection standard. Furthermore, the watchdog timer and power management features make the system secure and stable. The onboard hardware monitoring feature provides automatic protection function, which prevents the CPU from becoming overheated.

#### **Networking**

Three serial ports and two 10/100 Mbps Ethernet ports (Gigabit LAN are optional) gives the PPC-155T advanced networking capabilities, and provide a great solution for versatile applications.

## **Expansion**

To extend functionality, the PPC-155T is designed with one expansion slot for PCI cards, four USB 2.0 (Univeral Serial Bus) ports, and one PCMCIA card bus (Type II x 1). With these expansion capabilities, the PPC-155T not only functions as an HMI, but also as a computing center to build your applications on.

## **Easy Maintenance**

Maintaining and replacing the LCD and touchscreen are made easier through the PPC-155T modular design. In order to replace a defective LCD or touchscreen, one merely needs to remove the front cover and LCD bracket instead of disassembling the whole system.

### **Touchscreen Options**

Customers can choose from three optional types of standardized touchscreens: resistive, capacitive and SAW (Surface Acoustic Wave). These options make the PPC-155T a more user-friendly interface for different environments.