

# PPC-L156T

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

NEW



## Features

- 15" TFT XGA LCD
- Embedded Intel® ULV Celeron® M 800 MHz / Pentium® M 1.1 GHz
- Support for up to 2 GB Double Data Rate (DDR) memory
- Built-in 1 W x 2 speakers
- One MiniPCI slot and one CF module slot
- Fanless and ultra-low power consumption
- Automatic data flow control over RS-485
- 10/100Base-T or Gigabit Ethernet with boot on LAN
- Removable front bezel
- Optional Smart Battery Module with UPS functionality
- Optional wireless antenna and one optional PCI expansion kit

## Introduction

The PPC-L156T is a 15" fanless panel computer which is the ideal solution for low noise operating environments and clean room applications. PPC-L156T has two power sources; an optional battery pack and AC power supply. The battery charges when the PPC-L156T is connected to the AC power adapter. The optional rechargeable battery pack has more than 60 minutes battery life and can be used as an UPS during expected loss of power. The PPC-L156T meets the VESA standard for mounting holes so it can be used in many different kinds of installations. The front bezel can be removed to make maintenance of the LCD and touchscreen easier and quicker.

## Specifications

- CPU** Embedded Intel ULV Celeron M 800 MHz  
Embedded Intel Pentium M 1.1GHz
- Secondary Cache** N/A (PPC-L156T-R82-XE)  
1 MB (PPC-L156T-R81-XE)
- Chipset** Intel 852GM / ICH4 (PPC-L156T-R82-XE)  
Intel 855GME / ICH4 (PPC-L156T-R81-XE)
- Memory** 2 x 200 pin SO-DIMM sockets, supporting  
DDR200/266 modules for up to 2 GB  
Standard is built-in 256 MB
- BIOS** AWARD 4 Mbit Flash BIOS
- SSD** Supports CompactFlash card type I/II
- HDD** One internal 2.5" IDE interface
- I/O Ports**
  - 3 serial: RS-232 x 2, RS-232/422/485 x 1 (COM2)
  - 4 USB 2.0 ports: 2 external, 2 internal
  - 1 PS/2 mouse and keyboard port
  - 1 VGA port, 1 Parallel port
  - 2 built-in speakers (1 W each)
  - 2 type II PCMCIA ports
  - Line-in, Line-out & Mic-in port
- Bus Expansion** One MiniPCI socket and  
one 32-bit PCI expansion kit (optional)
- Dimensions (W x H x D)** 415 x 333 x 76.5 (16.3" x 13.1" x 3.0")
- Weight** 6 kg
- COMBO Drive** Optional DVD / CD-RW 8D / 24W / 24E / 24R or above
- Ethernet**
  - Chipset** Intel 82551QM, and 82541GI
  - Speed** 10/100 Mbps; 10/100/1000 Mbps (optional)

### Power Supply

- DC to DC Converter** Input voltage: 18 ~ 25 V<sub>DC</sub>
- AC to DC Converter**
  - Input Voltage: 100 ~ 240 V<sub>AC</sub> @ 50 ~ 60 Hz
  - Output Voltage: 19 V @ 3.16 A

### LCD Display

- Display Type** 15" Color TFT LCD
- Max. Resolution** 1024 x 768
- Max. Colors** 262 k
- Dot Size(mm)** 0.297 x 0.297
- Luminance (cd/m²)** 350 cd/m²
- Viewing Angle** 60° (left), 60° (right), 40° (up), 60° (down)
- Operating Temperature** 0 ~ 50° C
- Brightness Adjustment** Yes
- Backlight Lifetime** 50,000 hours

### Touchscreen (Optional)

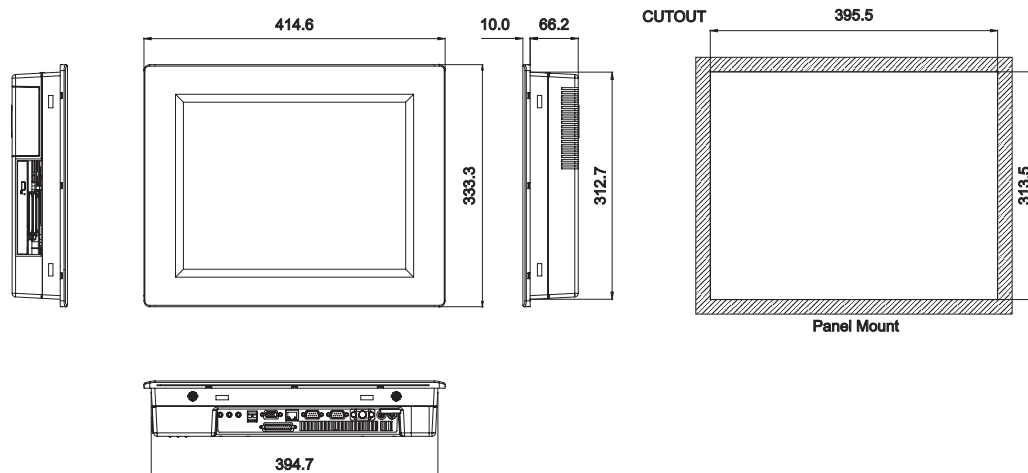
| Types                                | Analog Resistive              | Capacitive    | Infrared      |
|--------------------------------------|-------------------------------|---------------|---------------|
| <b>Resolution</b>                    | Continuous                    | 1024 x 1024   | 4096 x 4096   |
| <b>Light Transmission</b>            | 80%                           | 90%           | 90%           |
| <b>Controller</b>                    | RS-232 Interface (uses COM4)  |               |               |
| <b>Power Consumption</b>             | +5 V @ 200 mA                 | +5 V @ 100 mA | +5 V @ 100 mA |
| <b>Software Driver</b>               | Supports both DOS and Windows |               |               |
| <b>Durability (Touches lifetime)</b> | 35 million                    | 225 million   | 100,000 hrs   |

### Environmental Specifications

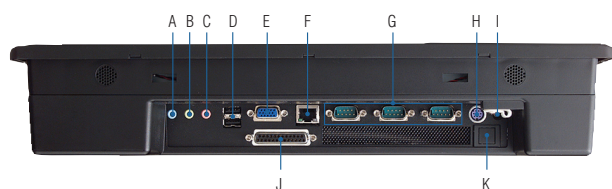
- Operating Temperature** 0 ~ 45° C (32 ~ 113° F)
- Relative Humidity** 10 ~ 95% @ 40° C, non-condensing
- Shock** 10 G peak acceleration (11 ms duration)
- Vibration** 1 G
- EMC** CE, FCC Class B, BSMI
- Safety** CE-CB, UL, BSMI, 3C
- Front Panel Protection** IP65/NEMA4 compliant

## Dimensions

Unit: mm



## Fully Integrated I/O



## Ordering Information

- **PPC-L156T-R82-XE** Intel ULV Celeron M 800 MHz processor-based Fanless Panel Computer with 15" TFT LCD, Resistive Touchscreen
- **PPC-L156T-R81-XE** Intel Pentium M 1.1 GHz processor-based Fanless Panel Computer with TFT 15" LCD, Resistive Touchscreen
- **PPC-L156T-C82-XE** Intel ULV Celeron M 800 MHz processor-based Fanless Panel Computer with TFT 15" LCD, Capacitive Touchscreen
- **PPC-L156T-C81-XE** Intel Pentium M 1.1 GHz processor-based Fanless Panel Computer with TFT 15" LCD, Capacitive Touchscreen
- **PPC-L156T-V82-XE** Intel ULV Celeron M 800 MHz processor-based Fanless Panel Computer with TFT 15" LCD, vandal proof infrared touchscreen (meets 60950/UL1950)
- **PPC-L156T-V81-XE** Intel Pentium M 1.1 GHz processor-based Fanless Panel Computer with TFT 15" LCD, vandal proof infrared touchscreen (meets 60950/UL1950)
- **PPC-S15X Stand-BLK** Desktop Stand, Black, PPC-S15X
- **PPC-ARM-A01** VESA Standard ARM for PPC series
- **PPC-L126 BP** Rechargeable Li-ion 3S2P 11.1 V 4000 mAh battery
- **PPC-174 WL-MT** Wall mount kit for PPC-174T
- **PPC-EXP-L156** PCI expansion kit for PPC-L156T

## Feature Details

### Protection

To meet the requirements of a public environment, the front panel of PPC-L156T complies with the IP65/NEMA4 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 a 10/100Base-T Ethernet port (Gigabit optional) gives the PPC-L156T advanced networking capabilities, and provide a great solution for versatile applications.

### Expansion

To extend functionality, the PPC-L156T is designed with one expansion slot for 32-bit PCI cards, one MiniPCI socket, four USB 2.0 (Universal Serial Bus) ports, two RS-232 ports, one RS-232/422/485 port, one VGA port, and two PCMCIA CardBus ports. With these expansion capabilities, the PPC-L156T not only functions as a 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-L156T's 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 infrared. These options make the PPC-L156T a more user-friendly interface for different environments.