

(M)PPC-120T-BT-01/02

12" WXGA 16:9 Marine Panel PC
with Intel® Atom™ E3845, 1.91GHz



Main Features

- 16:9 12" WXGA marine panel computer
- Intel® Atom™ E3845, Quad Core, 1.91GHz
- 12" PCAP touch screen with AR coating
- 4 Gigabit EtherNet/mini DisplayPort for external monitor
- 1 USB 2.0, 1 USB 3.0
- 1 RJ45 output for RS232/422/485
- DDR3L memory/M.2 SATA storage
- 1 swappable SSD Tray for 2.5" SSD
- IP65 compliant front panel
- Built-in 24VDC power input
- Mounting support: flush/VESA 75mm x 75mm
- IEC-60945 maritime standards compliance

Product Overview

PPC-120T-BT-01/02 12-inch panel computer features the Intel® Atom™ E3845 processor with low power consumption and deliver a reliable, durable, high-performance platform of wide versatility for use in maritime and offshore environments. The panel PC has a touch screen LCD panel with 1280 x 800 (WXGA) resolution and 500-nit brightness. The front panel which adopts a flush panel design and has IP65 front panel. It offers a projected-capacitive, glove-friendly multi-touch screen for outdoor applications.

PPC-120T-BT-01/02 has a RJ45 output for RS-232/422/485, four gigabit EtherNet LAN ports, two USB posts, and also comes with a mini DisplayPort for external monitor, allowing you to extend the screen size and reduce the total cost of system development. The PPC-120T-BT series panel computers are designed with a wide -25°C to 70°C temperature range, supports 24VDC power input and come with a minimalistic and fanless enclosure designed, and satisfy IEC-60945 maritime standards compliance.

Specifications

Panel

- LED size: 12", 16:9
- Resolution: WXGA 1280 x 800
- Luminance: 500cd/m2
- Contrast ratio: 1000
- LCD color: 16.2M
- Viewing angle: 88(U), 88(D), 88(L), 88(R)
- Backlight: LED

Touch Screen

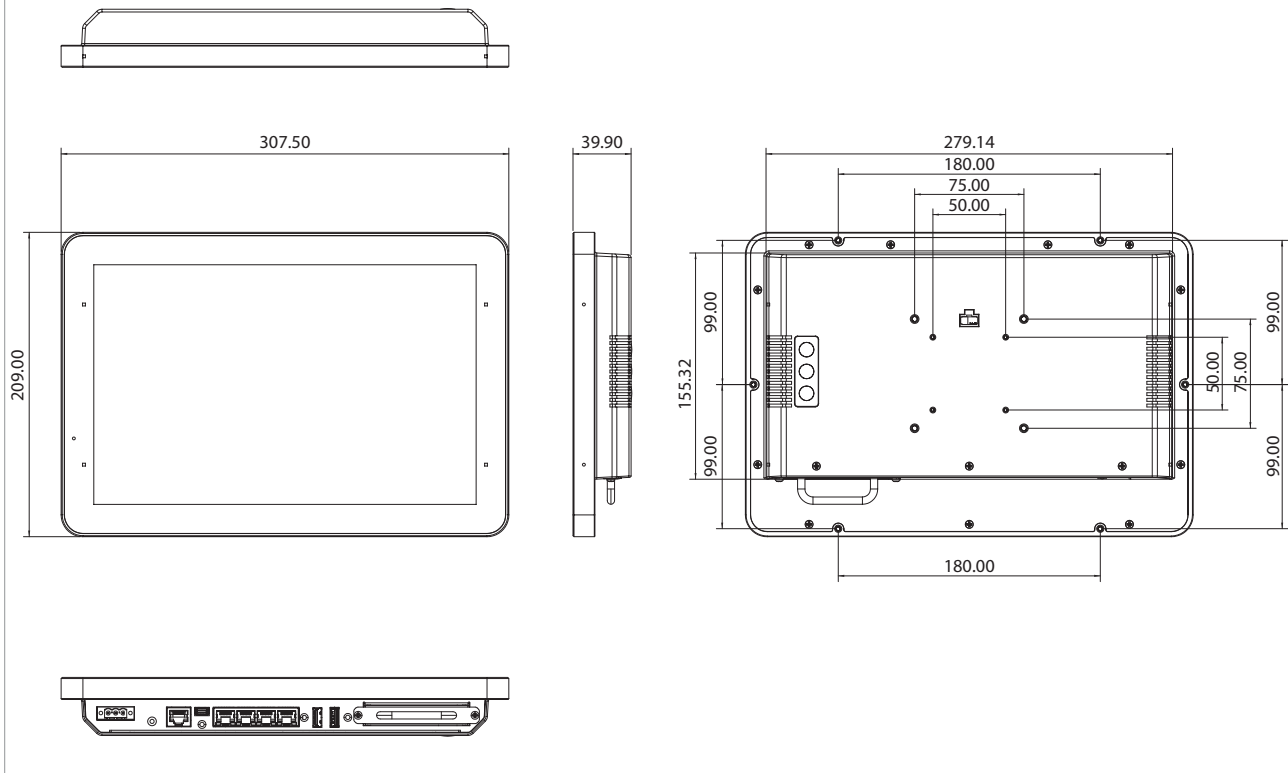
- Projected capacitive (flush panel type)
- Light transmission: 89%
- Interface: USB
- With AR coating

System

- CPU: onboard Intel® Atom™ processor E3845, 1.91 GHz, 2M L2 Cache
- BIOS AMI BIOS
- System memory
 - PPC-120T-BT-01: 1x 204-pin DDR3L SO-DIMM socket, 4GB DDR3L (default), support up to 4GB DDR3L-1067/1333, non-ECC and unbuffered
 - PPC-120T-BT-02: 1x 204-pin DDR3L SO-DIMM socket, 2GB DDR3L

- (default), support up to 4GB DDR3L-1067/1333, non-ECC and unbuffered
- Storage device
 - PPC-120T-BT-01:
 - 1x SATA M.2 connector, 128G M.2 SATA (default)
 - 1x SATA connector, support SATA 3Gb/s and SATA 6Gb/s
 - 1x swappable SSD tray for 2.5" SSD
 - PPC-120T-BT-02:
 - 1x SATA M.2 connector, 32G M.2 SATA (default)
 - 1x SATA connector, support SATA 3Gb/s and SATA 6Gb/s
 - 1x swappable SSD tray for 2.5" SSD
- Graphics: Intel® HD Graphics
- Watchdog timer: Watchdog timeout can be programmable by software from 1 second to 255 seconds and from 1 minute to 255 minutes (tolerance 15% under room temperature 25°C)
- H/W status monitor: monitoring system temperature, and voltage
- Backlight control
 - Control button: increase brightness, decrease brightness, backlight on/off
 - Auto dimming function can be adjust by ambient light sensor
 - Panel backlight can be controlled by software with 45 steps, dimming range from 0% to 100%

Block Diagram



Rear I/O

- EtherNet: 4x RJ45
- 2nd DisplayPort: 1x mini DisplayPort
- USB: 1x USB 2.0, 1x USB 3.0
- COM #1: 1x RJ45 output for RS232/422/485
- Power status LED
- DC power input connector: 3-pin Phoenix terminal blocks

EtherNet

- LAN chip: 4x Intel® I210-IT Gigabit LAN
- EtherNet interface: 10/100/1000 Mbps
- Support wake up on LAN

Power Requirements

- Input voltage: 24VDC
- Reverse polarity protection
- Galvanic isolated
- Power consumption: 22W to 30W

Mechanical & Environment

- Fanless system design
- Color
 - Pantone black RAL9005, powder painting for aluminum front bezel
 - Pantone black RAL9005 for backlight button membrane
- IP protection
 - IP65 front bezel
 - IP20 back system
- Mounting: flush/VESA 75mm x 75mm
- Vibration
 - 1.15Grms @ random condition, 1~200Hz, 1.5hr/axis (operating/non-operating)

- Shock
 - IEC 68 2-27
 - 20G @ wall mount, half sine, 11ms
- Operating temperature: -25°C to 70°C
- Storage temperature: -25°C to 75°C
- Operating humidity: 10%~90% relative humidity, non-condensing
- Dimension: 307.5 x 209 x 39.9 mm
- Weight: 5 KG

Certifications

- CE approval
- FCC Class A
- IEC-60945 maritime standards compliance

Ordering Information

Barebone

- **PPC-120T-BT-01 (P/N: 10M20120T00X0)**
12" WXGA LED backlight touch panel PC, Intel® Atom™ E3845
1.91GHz, touch screen, 4GB DDR3L, 128G M.2 SATA, 1x RJ45 output
for RS23/422/485, brightness adjustment buttons
- **PPC-120T-BT-02 (P/N: 10M20120T01X0)**
12" WXGA LED backlight touch panel PC, Intel® Atom™ E3845
1.91GHz, touch screen, 2GB DDR3L, 32G M.2 SATA, 1x RJ45 output for
RS23/422/485, brightness adjustment buttons