## Introduction

The TPC-1551T(B) thin-client terminal is the next-generation model of Advantech's TPC-1551T(A) industrial panel PC. Equipped with a 15" XGA TFT LED LCD, low-power Intel® Atom™ E3845, 1.91GHz, quad-core processor, and 4 GB of DDR3L SDRAM, TPC-1551T(B) delivers high-performance computing in a compact, fanless system. For enhanced durability to satisfy diverse industrial automation applications, TPC-1551T(B) supports a wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F) and features a true-flat 5-wire resistive touchscreen with IP66-rated front panel, die-cast aluminum alloy front bezel, and 100 x 100 VESA mount kit. Moreover, with the provision of a full-size mini PCIe slot that supports mSATA signals and Advantech’s iDoor technology, TPC-1551T(B) can be easily expanded to provide additional I/O ports, isolated digital I/O, fieldbus protocols, MRAM, and 3G/GPS/GPRS/Wi-Fi communication capabilities.

## Specifications

### General
- **BIOS**: AMI UEFI
- **Certification**: BSMI, CCC, CE, FCC Class A, UL
- **Cooling System**: Fanless design
- **Dimensions (W x H x D)**: 383.2 x 307.3 x 55.9 mm (15.09 x 12.10 x 2.2 in)
- **Enclosure**: Front bezel: Die-cast aluminum alloy
  
  Back housing: SECC
- **Mount Options**: Desktop/ WALL/ PANEL
- **OS Support**: Microsoft® WES7 (32/64-bit), Windows 7 (32/64-bit), Windows 10 Enterprise LTSB
- **Power Consumption**: 50.8W (typical)
- **Power Input**: 24 VDC +/- 20%
- **Watchdog Timer**: 1 ~ 255 sec (system)
- **Weight (Net)**: 4.4 kg (9.7 lb)

### System Hardware
- **CPU**: Intel® Atom™ E3845, 1.91 GHz, quad core
- **Memory**: 1 x SODIMM with 4 GB DDR3L SDRAM (up to 8 GB)
- **LAN**: 2 x Intel® I210; 10/100/1000 BASE-T
- **Expansion Slots**: 1 x Full-size mini PCIe with mSATA support
- **Storage**: 1 x 2.5" SATA SSD
- **I/O**: 1 x RS-232
  
  1 x RS-232/422/485
  
  1 x USB 3.0
  
  3 x USB 2.0
  
  1 x iDoor slot

### LCD
- **Display Type**: XGA TFT LED LCD
- **Display Size**: 15"
- **Max. Resolution**: 1024 x 768
- **Max. Colors**: 16.2M
- **Luminance**: 300 cd/m²
- **Viewing Angle (H/V°)**: 176/176
- **Backlight Life**: 70,000 hr
- **Contrast Ratio**: 2000:1

### Touchscreen
- **Lifespan**: 36 million touches at a single point
- **Light Transmission**: Above 75%
- **Resolution**: Linearity
- **Type**: 5-wire analog resistive

### Environment
- **Humidity**: 10 ~ 95% RH @ 40 °C, non-condensing
- **Ingress Protection**: IP66-rated front panel
- **Operating Temperature**: -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature**: -30 ~ 70 °C (-22 ~ 158 °F)
- **Vibration Protection**: With SSD: 1 Grms (5 ~ 500 Hz) (operating, random vibration)

## Features

- Industrial-grade 15" XGA TFT LCD with 70K lifetime and LED backlight
- Intel® Atom™ E3845 1.91 GHz quad-core processor with 4 GB DDR3L SDRAM
- True-flat touchscreen with 5-wire resistive touch control and IP66-rated front panel
- Wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F)
- Front-facing LED indicators to show operating status
- Advantech iDoor technology and SSD/HDD bay
- Compact, fanless system with aluminum alloy front bezel and chassis grounding protection
- Supports VESA mount (100 x 100 mm)
- Supports Advantech’s SNMP Subagent software
- Supports Advantech’s WISE-PaaS/RMM remote management software

### Rear View

- A. HDD/SSD bay
- B. iDoor slot
- C. RS-232
- D. RS-232/422/485
- E. USB 2.0 and 3.0
- F. LAN (10/100/1000)
- G. Power input
- H. Antenna port

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All product specifications are subject to change without notice. Last updated: 15-Apr-2019
TPC-1551T(B)

**Dimensions**

Panel Cutout Dimensions: 374.5 x 298.5 mm (14.74 x 11.75 in)

**Ordering Information**

- **TPC-1551T-E3BE**
  - 15” XGA panel PC with Intel® Atom™ E3845, 1.91 GHz quad-core CPU, 4 GB DDR3L SDRAM, and true-flat touchscreen

  Note: Can be equipped with an Intel® Atom™ J1900 CPU upon request

**Optional Accessories**

- **PWR-247-CE**
  - 60 W, 24 VDC/2.5A power supply
- **1702006200**
  - Power cable (US) 1.8 M
- **1702006205**
  - Power cable (EU) 1.8 M
- **1702031801**
  - Power cable (UK) 1.8 M
- **1700000596-11**
  - Power cable (China/Australia) 1.8 M

**Embedded OS**

- **20703WE7PS0027**
  - TPC-xx517(B) WS7P x86 MUI Image V4.19
- **20703WE7PS0028**
  - TPC-xx517(B) WS7P x64 MUI Image V4.19

**iDoor Modules**

- **PCM-262R2EC-MAE**
  - Hilscher netX100 fieldbus mPCIe with EtherCAT, 2 x RJ45, Master
- **PCM-27J3AU-AE**
  - 3-Port audio stereo with mPCIe and 3.5-mm jack
- **PCM-29R1TX-AE**
  - 1-Port iLink(TX) long-distance display transmitter with RJ45

**Application Software**

**WebAccess/SCADA**

Advantech WebAccess/SCADA is a 100% browser-based IIoT software platform aimed at supervisory control and data acquisition (SCADA) operations. WebAccess/SCADA provides open interfaces that allow our customers and partners to develop unique IoT applications for different vertical markets. In addition to supporting traditional SCADA functions, the platform features an HTML5-based user interface and intelligent dashboard to facilitate cross-platform, cross-browser data analysis. Moreover, WebAccess/SCADA not only offers built-in widgets, but also equipped with an innovative Widget Builder that enables customers to build their own widgets.

**WebAccess/HMI**

Advantech WebAccess/HMI is human-machine interface (HMI) software based on Microsoft’s Windows operating system. This software features excellent communication and monitoring capabilities, supports more than 350 PLC communication protocols, and offers a wide choice of screen design objects to satisfy diverse automation applications and HMI monitoring requirements.