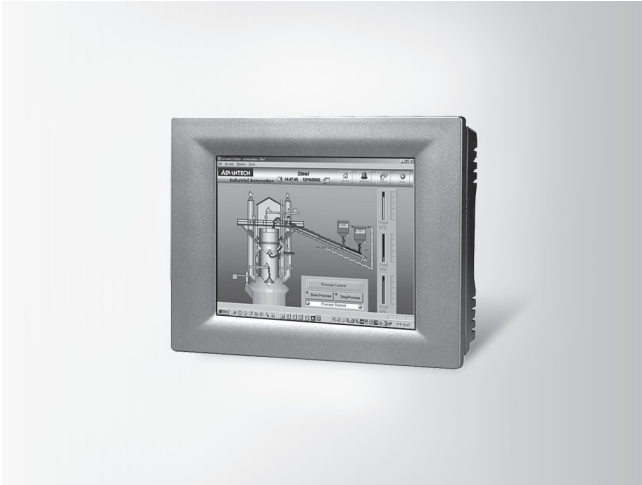# TPC-61T
TPC-31T

5.7"/3.5" QVGA TFT LED LCD TI Cortex-A8 Touch Panel Computer

Features

- TI Cortex-A8 processor on board
- 3.5"/5.7" QVGA TFT LED LCD
- Super slim and compact design with plastic housing
- Fanless cooling system
- IP65 compliant front panel
- Built-in micro SD card with Windows® CE OS
- 1 x SD card slot
- Automatic data flow control RS-485
- Supports 1Mbit FRAM for data back-up

Introduction

The TPC-31T/61T model is a compact platform without redundant functions, and has been designed for small-sized operator interface applications. It has a 3.5"/5.7" TFT LCD display which is a cost effective choice for a limited budget. Its RISC kernel, the TI Cortex-A8 processor consumes minimum power without sacrificing performance. The TPC-31T/61T has a 10/100Base-T Ethernet port offering solid communication ability and comes bundled with a Windows CE OS that supports Thin-Client solutions. The built-in Windows CE OS platform lets the TPC-31T/61T become an Open HMI solution for system integration.

Specifications

General

- **Certification**   CE, BSMI, CCC, UL, FCC Class A
- **Cooling System**   Fanless design
- **Dimensions (W x H x D)**   TPC-31T: 120.79 x 85.5 x 26.5 mm (4.76" x 3.37" x 1.04")
  TPC-61T: 195 x 148 x 44.4 mm (7.68" x 5.83" x 1.75")
- **Enclosure**   TPC-31T:ABS
  TPC-61T: PC/ABS Resin
- **Mounting**   Panel
- **OS Support**   Windows CE 6.0
- **Power Consumption**   8 W/12 W (typical)
- **Power Input**   18 ~ 32 V_{DC}
- **Watchdog Timer**   Programmable as 250 ms, 500 ms, 1 second
- **Weight (Net)**   0.25 kg (0.55 lbs)/0.8 kg (1.76 lb)

System Hardware

- **CPU**   TI Cortex-A8 600MHz
- **Memory**   DDR2 256MB on board
- **LAN**   10/100Base-T x 1
- **Storage**   1 GB on board micro SD card
  1 x SD Card slot
  1Mbit FRAM for Data back-up
- **I/O**   TPC-31T: RS-232/RS-485 X1 with auto data flow control, USB 2.0(Host) x 1, CAN x 1
  TPC-61T: RS-232 x 2 (COM1,2) RS-422/RS-485 x 1 (COM 3) with auto data flow control, USB2.0 (Host) x 1, USB2.0 (Client) x 1

LCD Display

- **Display Type**   QVGA TFT LED LCD
- **Display Size**   3.5"/5.7"
- **Max. Resolution**   320 x 240
- **Max. Colors**   64 K
- **Luminance cd/m²**   450/800
- **Viewing Angle (H/V)**   160/140
- **Backlight Life**   30,000/50,000 hrs
- **Contrast Ratio**   300:1/800:1

Touchscreen

- **Lifespan**   1 million times with an 8mm diameter finger of silicone rubber
- **Light**   Transmission Above 80%
- **Resolution**   Linearity
- **Type**   4-wire, analog resistive

Environment

- **Humidity**   10 ~ 95% RH @ 40°C, non-condensing
- **Ingress Protection**   Front panel: IP65
- **Operating Temperature**   0 ~ 50°C (32 ~ 122°F)
- **Storage Temperature**   -20 ~ 60°C (-4 ~ 140°F)
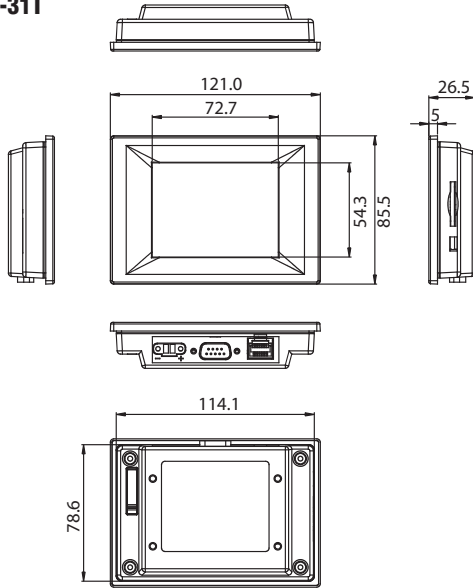- **Vibration Protection**   2 Grms (5 ~ 500 Hz) (Operating, random vibration)

Ordering Information

- **TPC-31T-E3AE**   3.5" QVGA Touch Panel PC, TI AM3517 600 MHz, 256 MB with WinCE 6.0
- **TPC-61T-E3AE**   5.7" QVGA Touch Panel PC TI AM3517 600 MHz, 256 MB with WinCE 6.0
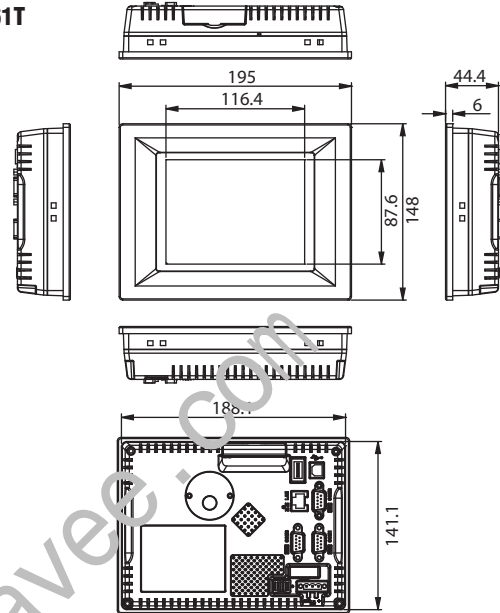
ADVANTECH   **Thin-Client Terminals**

All product specifications are subject to change without notice.   Last updated: 7-Aug-2023

Dimensions

Unit: mm

TPC-31T

121.0
72.7
26.5
5
54.3
85.5
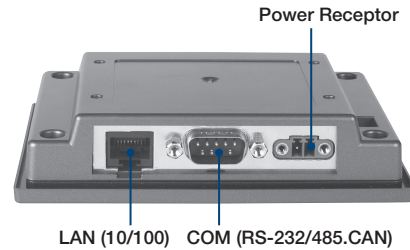114.1
78.6

TPC-61T

195
116.4
44.4
6
87.6
148
188.1
141.1

Panel Cutout Dimensions: TPC-31T: 115 x 79.5 mm (4.6 x 3.18")
TPC-61T: 189 x 142 mm (7.56 x 5.68")
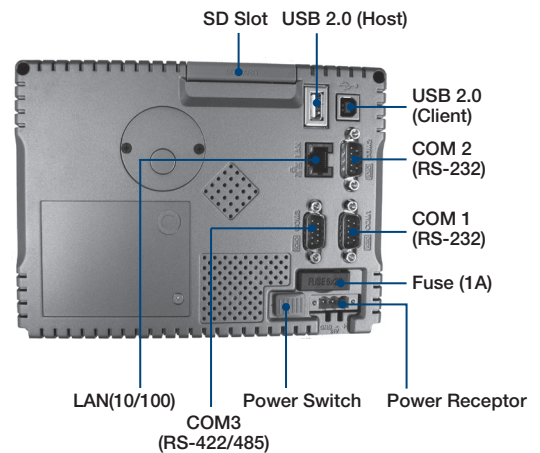
Optional Accessories

- **PWR-247-CE** — 24 V 60 W AC-DC Power Adapter
- **1702002600** — Power Cable US Plug 1.8 M
- **1702002605** — Power Cable EU Plug 1.8 M
- **1702031801** — Power Cable UK Plug 1.8 M
- **1700000596** — Power Cable China/Australia Plug 1.8 M

Rear View

TPC-31T

Power Receptor

LAN (10/100)   COM (RS-232/485.CAN)

TPC-61T

SD Slot   USB 2.0 (Host)

USB 2.0 (Client)

COM 2 (RS-232)

COM 1 (RS-232)

Fuse (1A)

Power Receptor

LAN(10/100)   COM3 (RS-422/485)   Power Switch   Power Receptor

Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
Please contact Advantech for certificate compliance.