TPC-310W

Slim bezel 10.1" WXGA TFT LCD Thin-Client Terminal with Intel® Atom® X6425E / Celeron® J6412

NEW

Features

- Industrial-grade 10.1" WXGA TFT LCD with 50K lifetime and LED backlight
- Intel® Elkhart Lake (EHL) Atom® x6425E Quad-core / Celeron® J6412 Quad-core
- Compact, fanless embedded system with aluminum alloy front bezel
- Wide operating temperature range -20 ~ 60 °C (-4 ~ 140 °F)
- True-flat ultra slim bezel design with IP66 water proof of front panel
- Support high speed M.2 2280 NVMe
- Touchscreen with P-CAP multi-touch control
- Chassis grounding protection

Introduction

The TPC-310W thin-client terminal is equipped with 10.1" WXGA TFT LCD, low-power Intel® Atom® x6425E quad-core / Celeron® J6412 quad-core processor with DDR4 SO-DIMM to deliver ultra slim bezel design , fanless system. To enhance the system's durability, TPC-310W features a true-flat touchscreen with IP66-rated front panel, die-cast aluminum alloy front bezel, and P-CAP multi-touch. In addition to supporting a wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F), TPC-310W includes a M.2 2280 NVMe slot for high speed automation application needs.

Specifications

General

- **BIOS** — AMI UEFI
- **Certification** — BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** — Fanless design
- **Dimensions (W x H x D)** — 260 x 179 x 50mm (10.23 x 7 x 1.96 inch)
- **Enclosure** — Front bezel: Die cast aluminum alloy / Back housing: SECC
- **Mounting** — VESA Mount (75 x 75), Panel, Wall
- **OS Support** — Windows 10 Enterprise LTSB
- **Security** — TPM 2.0 (built-in)
- **Power Consumption** — 19.2 W (typical)
- **Power Input** — $24V_{DC} \pm 20\%$
- **Watchdog Timer** — 1 ~ 255 sec (system)
- **Weight (Net)** — 2.6 kg (5.7lb)

System Hardware

- **CPU** — Intel® Elkhart Lake
  Atom® x6425E, 2.00 GHz, quad core
  Celeron® J6412, 2.00 GHz, quad core
- **Memory** — 1 x DDR4 SO-DIMM (Up to 16G)
- **LAN** — 2 x 10/100/1000BASE-T
- **Expansion Slots** — 1 x M.2 E Key 2230 (USB/PCIe)
- **Storage Slots** — 1 x M.2 M Key 2280 (SATA/PCIe)
- **I/O** — 1 x Power receptor
  1 x RS-232
  1 x RS-232/422/485
  2 x USB3.0
  2 x USB2.0
  1 x Line Out

LCD Display

- **Display Type** — WXGA TFT LED LCD
- **Display Size** — 10.1"
- **Max. Resolution** — 1280 x 800
- **Max. Colors** — 16.7M
- **Luminance cd/m²** — 500
- **Viewing Angle (H/V°)** — 178/178
- **Backlight Life** — 50,000 hr
- **Contrast Ratio** — 800:1

Touchscreen

- **Light Transmission** — 90% ± 3%
- **Type** — P-CAP multi-touch

Environment

- **Relative Humidity** — Operating, 95% RH @ 40°C, non-condensing / Non-operating, 95% RH @ 60°C, non-condensing
- **Ingress Protection** — Front panel: IP66
- **Operating Temperature** — -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature** — -30 ~ 70 °C (-22 ~ 158 °F)
- **Vibration Protection** — 1 Grms (5 ~ 500 Hz) (Operating, random vibration)

Rear View
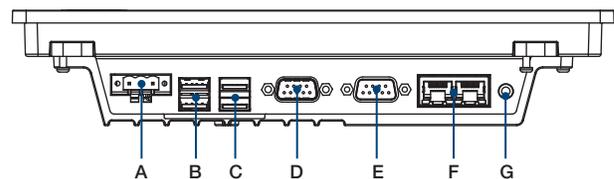
A. Power receptor
B. USB3.0
C. USB2.0
D. RS232
E. RS232/422/485
F. LAN (10/100/1000)
G. Line Out

Last updated: 7-Feb-2025

Dimensions

Unit: mm [inch]
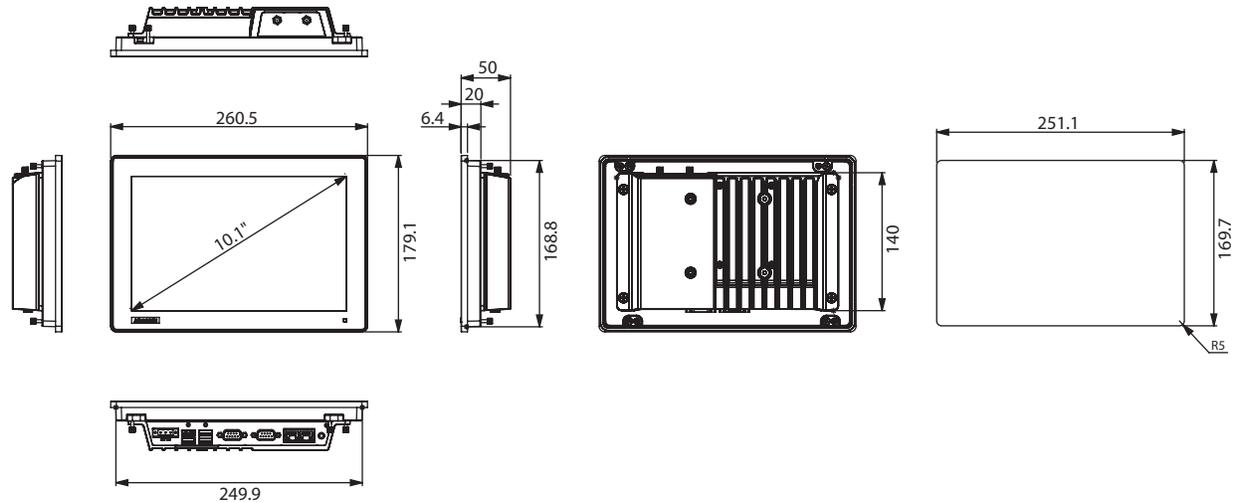
Panel Cutout Dimensions: 251.1 x 169.7mm, corner=R5mm (±0.5mm)

Ordering Information

- **TPC-310W-PE20A** 10.1" WXGA Panel PC with Intel® Atom® x6425E
  2.00 GHz quad-core (-20 ~ 60 °C)
- **TPC-310W-PJ20A** 10.1" WXGA Panel PC with Intel® Celeron® J6412
  2.00 GHz quad-core (-10 ~ 60 °C)

Optional Accessories

- **PWR-247-DE** 60W 24 V_{DC} /2.5A power supply
- **1702002600-31** Power Cable US Plug 1.8 M
- **1702002605** Power Cable EU Plug 1.8 M
- **1702031801** Power Cable UK Plug 1.8 M
- **1700000596-11** Power Cable China/Australia Plug 1.8 M
- **TPC-WLAN-A1** M.2 AE, Wifi6 + BT5.3, 2T2R,w/Antenna, -40~85°C

Embedded OS

- **20701WX1ES0005** WIN10 LTSC V6.09 B008 for TPC-307W/TPC-310W Entry
- **20701U22DS000** Image AdvLinuxTu-IOTG_x64 V4.0.6 for TTPC series
- **20701WLE1S0009** Img WIN11 LTSC x64 v7.01 B014 TPC-3xxW Entry

TPC-310W Photo

Application Software

HMINavi Designer is a powerful and intuitive software program for creating comprehensive human machine interface solutions. HMINavi Designer is an easily integrated development tool with proven value in many application fields. The features include solution-oriented screen objects, high-end vector graphics, Windows fonts for multi-language applications, receipts, alarm functions, as well as data and operation logging capabilities. HMINavi Designer also supports utility programs such as Data Transfer Helper (DTH), recipe editor, and text editor. The HMINavi Designer software is free download for usage, user can directly download before purchase. With online/offline simulation user can directly connect to PLC controller to ensure solid connection and screen design without any issue. HMINavi Runtime, a component of HMINavi, guarantees the reliability and performance of Open Platform because of the minimum system overhead, high data communication rates, sub-second screen switching, and 24/7 operation. Additionally, Advantech's fast response software team is continually adding new functions, communication drivers, and solutions to the software to meet dynamic needs.

HMINavi

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.