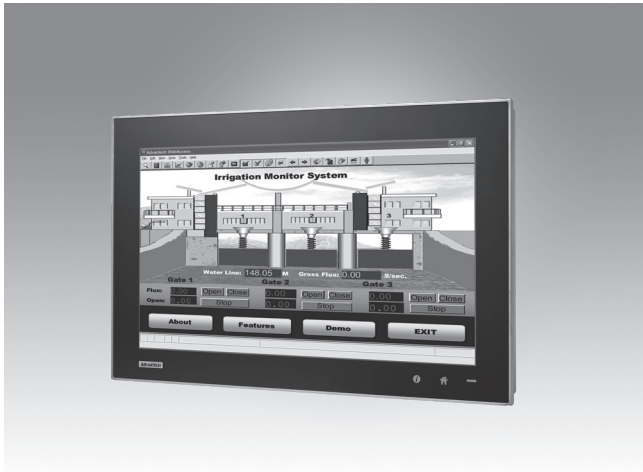# TPC-2140WP

21.5" Full HD TFT LCD Touch Panel Computer with AMD Dual-Core Processor

Features

- 21.5" Full HD TFT LED LCD display with 16:9 widescreen aspect ratio
- AMD dual-core T56E 1.65 GHz processor with independent GPU for advanced graphics performance
- IP66-rated, true-flat touchscreen with PCAP multi-touch control
- Built-in function key and home key for intuitive operation
- Anti-scratch surface with 7H hardness
- Easy-access CFast, HDD, and mini PCIe slots
- Supports expansion via mini PCIe slot
- Supports HDMI for secondary display
- Supports HD audio for alarm applications
- Front-facing LED indicators for showing operating status
- Compact design with die cast magnesium alloy front bezel
- Fanless cooling system
- Winner of the 2013 iF product design award

R33138 CCC CE FCC cULus LISTED E180881 I.T.E.

Introduction

The TPC-2140WP touch panel computer features a 21.5" Full HD TFT LED LCD with a 16:9 widescreen aspect ratio and PCAP multi-touch control. Powered by an AMD T56E 1.65 GHz processor with independent GPU, TPC-2140WP can support advanced graphics performance for complex applications. The built-in function key and home key offer enhanced usability and intuitive operation. The side I/O cover provides easy access to the CFast, HDD, and mini PCIe slots. With the inclusion of a mini PCIe slot, the TPC-2140WP's functionalities can be easily expanded to support diverse applications.

Specifications

General

- **BIOS** — AMI 32Mbit
- **Certification** — BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** — Fanless design
- **Dimensions (W x H x D)** — 558.4 x 349.8 x 56.7 (21.98 x 13.77 x 2.23 in)
- **Enclosure** — Front panel: Die cast magnesium alloy
  Rear cover: PC/ABS resin
- **Mount Options** — Panel
- **OS Support** — Microsoft® Win8/WES7P/XP/WES2009
- **Power Consumption** — 35 W Typical
- **Power Input** — 18 ~ 32 V_{DC}
- **Watchdog Timer** — 1 ~ 255 sec (system)
- **Weight (Net)** — 8.5 kg (18.74 lb)

System Hardware

- **CPU** — AMD G-series T56E 1.65GHz
- **Chipset** — AMD A50M FCH
- **Memory** — 4 GB SODIMM DDR3 SDRAM
- **LAN** — 2 x 10/100/1000BASE-T
- **Expansion Slots** — 1 x Full-size mini PCIe
- **Storage** — 1 x CFast
  1 x 2.5" SATA SSD (optional)
- **I/O** — 3 x RS-232
  1 x RS-422/485
  2 x USB 2.0 (Host)
  1 x HDMI
  1 x Audio mic in, 1 x line out

LCD Display

- **Display Type** — Full HD TFT LED LCD
- **Display Size** — 21.5"
- **Max. Resolution** — 1920 x 1080
- **Max. Colors** — 16.7M
- **Luminance cd/m²** — 300
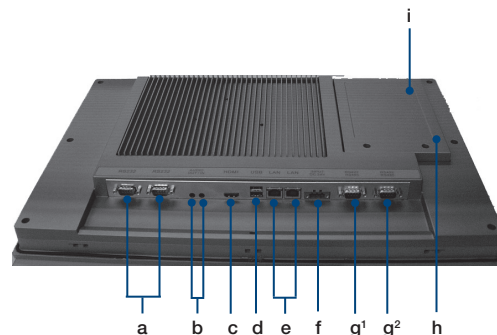- **Viewing Angle (H/V°)** — 178/178
- **Backlight Life** — 50,000 hr

Touchscreen

- **Light Transmission** — ≥88%
- **Resolution** — 4096*4096 dot
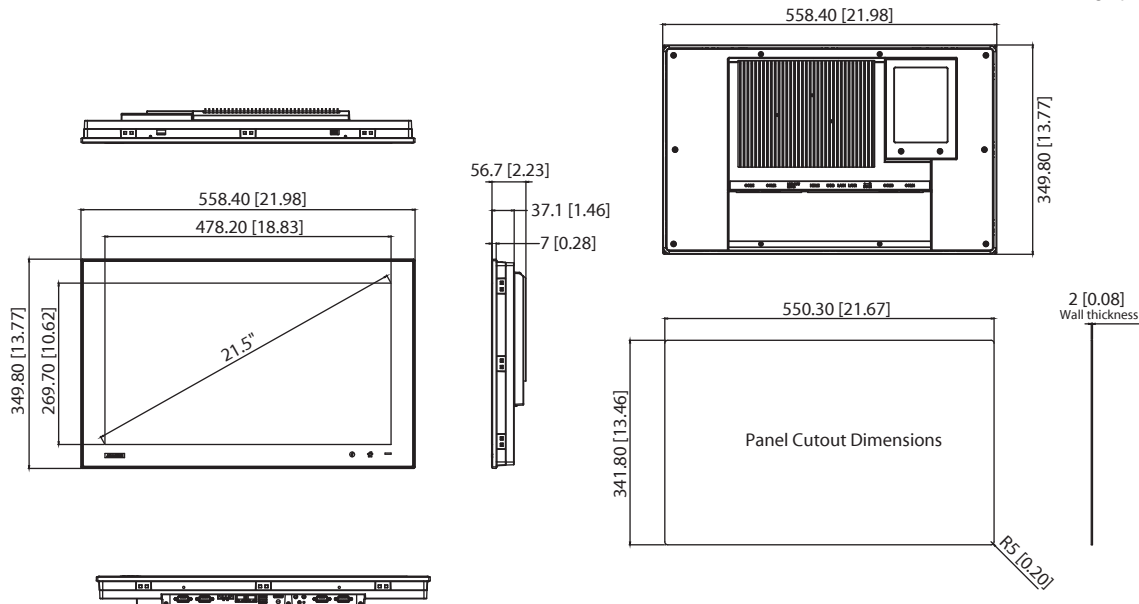- **Type** — Projected capacitive

Environment

- **Humidity** — 10 ~ 95% RH @ 40 °C, non-condensing
  Note: Tested for 48 hr
- **Ingress Protection** — Front panel: IP66
- **Operating Temperature** — 0 ~ 55 °C (32 ~ 131 °F)
- **Storage Temperature** — -20 ~ 60 °C (-4 ~ 140 °F)
- **Vibration Protection** — With HDD: 1 Grms (5 ~ 500 Hz)
  (Operating, random vibration)

Rear View

a. COM 1 & 2 (RS-232)
b. Audio (line out, mic in)
c. HDMI
d. USB 2.0
e. LAN (10/100/1000)
f. Power receptor
g[1]. COM3 (RS-232)
g[2]. COM4 (RS-422/485)
h. Mini PCIe Slot
i. 2.5" SATA HDD

VICPAS HMI Parts Center

Unit: mm [inch]

558.40 [21.98]

349.80 [13.77]

558.40 [21.98]
478.20 [18.83]
56.7 [2.23]
37.1 [1.46]
7 [0.28]

349.80 [13.77]
269.70 [10.62]
21.5"

550.30 [21.67]
2 [0.08]
Wall thickness

341.80 [13.46]

Panel Cutout Dimensions

R5 [0.20]

Panel Cutout Dimensions: 550.3mm x 341.8 mm (21.67 x 13.46 in)

Ordering Information

- **TPC-2140WP-T3AE**   21.5" full-HD Multi-Touch Panel PC, AMD T56E, 4GB

Optional Accessory

- **PWR-247-CE**   60W DC 24V/2.5A Output Power Supply
- **1702002600**   Power Cord 3P UL/CSA 125V 10A 1.83M
- **1702002605**   Power cable EU Plug 1.8M
- **1702031801**   Power cable UK Plug 1.8M
- **1700000596-11**   Power cable China/Australia Plug 1.8M

Embedded OS

- **2070012384**   TPC-xx40WP WS7P x86 MUI Image v4.12

S/W Bundle Offering

- **WA-HT2140W-G15H1AE** TPC-2140WP-T3AE, HMI Runtime 1500 tags, 32G CFast, WES7P
- **WA-ST2140W-G15H4AE** TPC-2140WP-T3AE, SCADA Runtime 1500 tags, 1TB HDD, WES7P

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 is 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 integrations of factory automation and HMI operation and monitoring requirements.