TPC-1581WP

15.6" WXGA TFT LED LCD 4th. Gen. Intel® Core™ i3 Multi-Touch Panel Computer

NEW

Features

- Industrial 15.6 HD TFT LCD with 50K Lifetime LED Backlight
- Intel 4th Generation Core i3-4010U with 4GB DDR3L SDRAM
- 16:9 Wide Screen with PCT Multi-Touch
- IP66 Approved Front Protection & Panel Mounting
- Built-in Intelligent Home key and i Key for Intuitive UI
- Front LED Indicator to Show Operating Status
- Diverse system IO and Isolated Digital IO by iDoor Technology
- Supports Fieldbus Protocol by iDoor Technology
- 3G/GPS/GPRS/WiFi Communication by iDoor Technology
- Supports MRAM by iDoor Technology
- Chassis Grounding Protection
- HDMI and Audio Multimedia Support
- Anti-scratch surface: 7H hardness

Introduction

With growing up in Multi-Touch technology, the TPC-1581WP features Intel 4th Generation Core i3-4010U 1.7GHz processor with 4GB DDR3L SDRAM provides the high computing performance. To enhance reliability and durability, built-in 7H hardness anti-scratch surface on high resolution 15.6" HD display with Multi-Touch in 16:9 format. Through the Mini-PCIe slot, Advantech iDoor technology can provide more I/O connectors, Isolated Digital IO, the Fieldbus Protocol, 3G/GPS/GPRS/WiFi Communication and MRAM. A 2nd monitor and speaker can be attached via the integrated HDMI and Audio port.

Specifications

General

- **BIOS** — AMI UEFI
- **Certification** — BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** — Fanless design
- **Dimensions (W x H x D)** — 419.7 x 269 x 56.7 mm (16.52" x 10.59" 2.23")
- **Enclosure** — Front bezel: Die-cast Aluminum alloy
  Back housing: PC/ABS Resin
- **Mounting** — Panel Mount
- **OS Support** — Microsoft® WES7 32bit/64bit Windows 7 32bit/64bit Windows Embedded 8.1 Industry Pro 64bit Ubuntu 14.04.2 LTS/Windows 10 IoT Enterprise LTSB
- **Power Consumption** — 18W Typical, 60W Max. (Without Add-on card)
- **Power Input** — $24V_{DC} \pm 20\%$
- **Watchdog Timer** — 1 ~ 255 sec (system)
- **Weight (Net)** — 6 kg (13.22 lbs)

System Hardware

- **CPU** — Intel 4th Generation Core i3-4010U 1.7GHz
- **Chipset** — Lynx Point-LP
- **Memory** — 4GB DDR3L 1600MHz SO-DIMM SDRAM
- **LAN** — 10/100/1000 Base-T x 2
- **Expansion Slots** — Full-size Mini PCI-E
- **Storage** — CFast slot x 1
  2.5" SATA SSD slot x 1
  mSATA slot x 1 (via Mini PCIe slot, can't be used simultaneously with iDoor)
- **I/O** — RS-232/422/485 x 1, RS-232 x 1
  USB 3.0 x 2, HDMI 1.4 x 1
  Audio Line out x 1, USB 2.0 x 1 (optional)
  Audio MIC x 1 (optional)

LCD Display

- **Display Type** — WXGA TFT LED LCD
- **Display Size** — 15.6
- **Max. Resolution** — 1366 x 768
- **Max. Colors** — 16.7M
- **Luminance cd/m²** — 300
- **Viewing Angle (H/V°)** — 170/160
- **Backlight Life** — 50,000 hrs
- **Contrast Ratio** — 500:1

Touchscreen

- **Light Transmission** — ≥88%
- **Resolution** — 2048 x 2048 dot
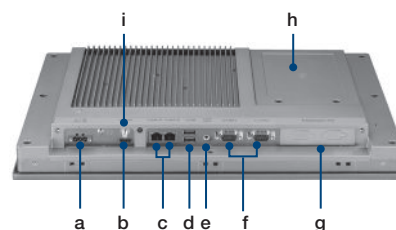- **Type** — Projected capacitive

Environment

- **Humidity** — 10 ~ 95% RH @ 40°C, non-condensing
- **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)
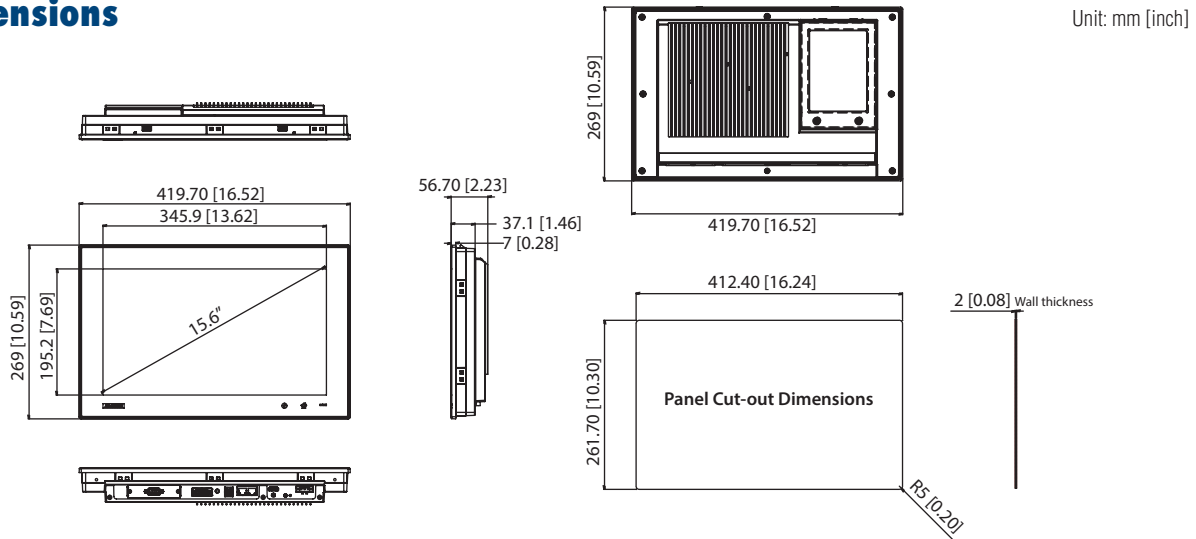
Ordering Information

- **TPC-1581WP-433AE** — 15.6" HD Multi-Touch Panel PC, Intel i3-4010U, 4GB, iDoor

Rear View

a. $24V_{DC}$ Power
b. HDMI
c. GbE
d. USB3.0
e. Audio Line out
f. COM Port RS-232/422/485, RS-232
g. Expansion I/O (iDoor)
h. 2.5" SATA SSD, CFast and Mini PCIe Slot
i. SMA Connector for Antenna

ADVANTECH | **High Performance Control Panels**

Dimensions

Unit: mm [inch]

419.70 [16.52]
345.9 [13.62]
269 [10.59]
195.2 [7.69]
15.6"

56.70 [2.23]
37.1 [1.46]
7 [0.28]

269 [10.59]
419.70 [16.52]

412.40 [16.24]
2 [0.08] Wall thickness

261.70 [10.30]
Panel Cut-out Dimensions

R5 [0.20]

Panel Cut-out Dimensions: 261.7 x 412.4 mm (10.30"x16.24")

Optional Accessories

▪ **96PSA-A150W24T2**	Adapter 100-240V 150W 24V
▪ **1702002600**	Power Cable US Plug 1.8 M
▪ **1702002605**	Power cable EU Plug 1.8M
▪ **1702031801**	Power cable UK Plug 1.8M
▪ **1700000596**	Power Cable China/Australia Plug 1.8 M
▪ **EWM-W151H01E**	802.11bgn RTL8188EE 1T1R, Half-size Mini-PCIe (also need 9656EWMG00E)
▪ **9656EWMG00E**	Half-size miniPCIe to Full-size miniPCIe bracket set
▪ **1750000318**	EMI Antenna 2DBI 2.4GHz SMA CONN for ARK-3384
▪ **1750003222**	802.11b/g 5dBi Dipole Antenna
▪ **1750003418**	Wireless Antenna AN2400-5901RS R/P SMA.M9dB

Embedded O/S

▪ **2070013487**   TPC-xx81WP WS7P x64 MUI Image v4.12 B003

S/W Bundle Offering

▪ **WA-CT1581W-3RHE5AE** TPC-1581WP-433AE, Control RTE & Visua., 128G SSD, 2MB MRAM, WES7P

iDoor Modules

▪ **PCM-24D2R4-AE**	2-Port Isolated RS-422/485 mPCIe, DB9
▪ **PCM-27D24DI-AE**	24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
▪ **PCM-26D2CA-AE**	2-Port Isolated CANBus mPCIe, CANOpen, DB9
▪ **PCM-24R1TP-AE**	1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45
▪ **PCM-24S2WF-AE**	WiFi 802.11 a/b/g/n 2T2R w/ Bluetooth4.0, Half-size mPCIe, 2-port SMA
▪ **PCM-26D1DB-MAE**	1-Port Hilscher netX100 FieldBus mPCIe, PROFIBUS, DB9, Master
▪ **PCM-26R2PN-MAE**	2-Port Hilscher netX100 FieldBus mPCIe, PROFINET, RJ45, Master
▪ **PCM-26R2EC-MAE**	2-Port Hilscher netX100 FieldBus mPCIe, EtherCAT, RJ45, Master
▪ **PCM-26R2EI-MAE**	2-Port Hilscher netX100 FieldBus mPCIe, EtherNet/IP, RJ45, Master
▪ **PCM-26R2S3-MAE**	2-Port Hilscher netX100 FieldBus mPCIe, Sercos III, RJ45, Master

Application Software

WebAccess/SCADA	Advantech WebAccess is a 100% web based SCADA (Supervisory Control And Data Acquisition) software and it acts as an IIoT Platform providing open interfaces for partners to develop IoT applications for different vertical markets. In addition to traditional SCADA functions, WebAccess has an intelligent Dashboard, to provide users with cross-platform, cross-browser data analysis and user interface using HTML5 technology. As well as the built-in widgets, WebAccess also provides Widget Builder to allow customers to build their own.
WebAccess/HMI	WebAccess/HMI is Human Machine Interface (HMI) software based on Microsoft's Windows operating system. It utilizes a PC's ample resources, ie speed, storage, multimedia, peripheral devices, and large screen to produce a complex human-machine interface. WebAccess/HM with its communication and monitoring ability supports more than 350 PLC communication protocols and a wide choice of screen design objects, to satisfy multiple integrations of factory automation and all-round human-machine interface operation and monitoring requirements.
CODESYS	The Codesys application-ready-package offering which includes PC-based Panel Controller with multi-touch panel, high performance Intel Core-i multi-core processor, SSD, 2MB MRAM, Microsoft Windows embedded 7 Pro and CODESYS Control Runtime & Visualization. This allows users to easily achieve an open control solution, the PC-based real-time control system, enabling real-time PLC or PLC/Softmotion control with flexible Fieldbus options such as PROFINET, EtherCAT, EtherNet/IP, CANopen, Modbus TCP/RTU and providing the on-site visualized HMI operation. The software/hardware flexibility and stability of PC-based Cabinet Controller is able to fulfill various control applications in vertical industries.