

TPC-1273H

12.1" XGA TFT LED LCD Intel® 3765U Touch Panel Computer



Features

- Industrial 12.1" XGA TFT LCD with 50K Lifetime LED Backlight
- Intel 3765U Processors with 4GB DDR3L SDRAM
- Compact Fanless Embedded System with AI Alloy Front Bezel
- True-flat with IP66 certified front panel protection
- More Durable 5-wire Resistive Touch Screen
- PCIe and Mini PCIe Expansion Support
- 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
- Supports Advantech SNMP Subagent
- Supports Advantech WISE-PaaS/RMM

Introduction

The TPC-1273H touch panel computer with a 12.1" XGA LCD, low power embedded Intel 3765U 1.90GHz processor and 4GB DDR3L SDRAM provides the high computing performance in a compact fanless system. To enhance its durability, the TPC-1273H is designed with IP66 front protection, die-cast AI Alloy front bezel and 5-wire resistive touch. It also includes PCIe slot and Mini-pcie slots to extend the functionality and meet a variety of automation applications needs. 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)**: 311.8 x 238 x 77.2 mm (12.28" x 9.38" x 3.04")
- Enclosure**: Front bezel: Die-cast Aluminum alloy
Back housing: PC/ABS Resin
- Mounting**: Desktop, Wall or Panel Mount
- OS Support**: Microsoft® WES7 32bit/64bit Windows 7 32bit/64bit
Windows Embedded 8.1 Industry Pro 64bit/Windows 10 IoT Enterprise LTSB
- Power Consumption**: 19W Typical, 60W Max. (Without Add-on card)
- Power Input**: 24V_{DC} ± 20%
- Watchdog Timer**: 1 ~ 255 sec (system)
- Weight (Net)**: 3.2 kg (7.02 lbs)

System Hardware

- CPU**: Intel 3765U 1.90GHz
- Chipset**: WildcatPoint-LP
- Memory**: 4GB DDR3L 1600MHz SO-DIMM SDRAM
- LAN**: 10/100/1000 Base-T x 2
- Expansion Slots**: Half-size PCI-E and Full-size Mini PCI-E
- Storage**: CFast slot x 1
2.5" SATA SSD slot x 1
mSATA slot x 1 (via Mini PCIe)
- I/O**: RS-232 x 1, RS-232/422/485 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**: XGA TFT LED LCD
- Display Size**: 12.1"
- Max. Resolution**: 1024 x 768
- Max. Colors**: 16.2 M
- Luminance cd/m²**: 600

- Viewing Angle (H/V°)**: 160/140
- Backlight Life**: 50,000 hrs
- Contrast Ratio**: 700:1

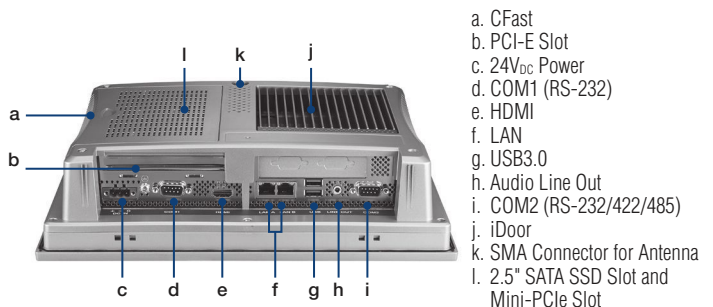
Touchscreen

- Lifespan**: 36 million touches at single point
- Light Transmission**: 81 ± 3%
- Resolution**: Linearity
- Type**: 5-wire, analog resistive

Environment

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

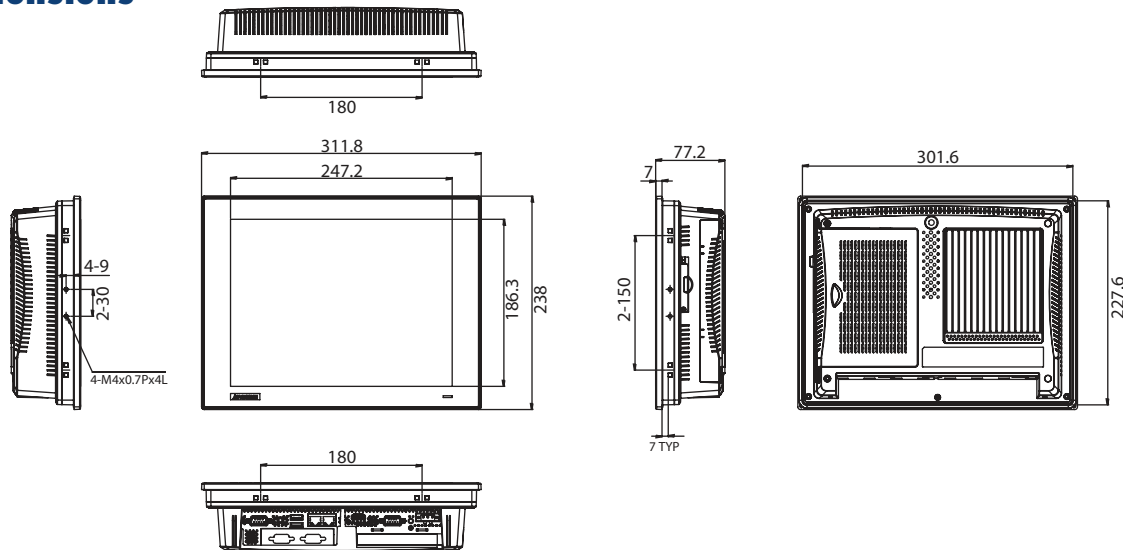
Rear View



- a. CFast
- b. PCI-E Slot
- c. 24V_{DC} Power
- d. COM1 (RS-232)
- e. HDMI
- f. LAN
- g. USB3.0
- h. Audio Line Out
- i. COM2 (RS-232/422/485)
- j. iDoor
- k. SMA Connector for Antenna
- l. 2.5" SATA SSD Slot and Mini-PCIe Slot

Dimensions

Unit: mm



Panel Cut-out Dimensions: 303 x 229 mm (11.93" x 9.02")

Ordering Information

- TPC-1273H 12.1" XGA Panel PC, Intel 3765U, 4GB, iDoor, PCIe

Optional Accessories

- 96PSA-A150W24T2 Adapter 100-240V 150W 24V
- 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
- TPC-1000H-WMKE TPC VESA Mounting Kit from 10" to 17" TPC
- TPC-1000H-SMKE TPC Stand kit from 10" to 17" TPC
- 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


- 2070013700 WS7P x86 V4.12 B001 MUI. for TPC-1273H

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-AE 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

<p>WebAccess/SCADA</p>	<p>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 IIoT 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.</p>
<p>WebAccess/HMI</p>	<p>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/HMI 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.</p>
	<p>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.</p>