TPC-1282T

12.1” XGA TFT LED LCD 5th. Gen. Intel® Core™ i3 Touch Panel Computer

Features
- Industrial 12.1” XGA TFT LCD with 50K Lifetime LED Backlight
- Intel 5th Gen. Generation Core Processors with 4GB DDR3L SDRAM
- Compact Fanless Embedded System with Al 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-1282T touch panel computer with a 12.1” XGA LCD, low power embedded Intel 5th Generation Core processor and 4GB DDR3L SDRAM provides the high computing performance in a compact fanless system. To enhance its durability, the TPC-1282T is designed with IP66 front protection, die-cast Al 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: 24VDC ± 20%
- Watchdog Timer: 1 ~ 255 sec (system)
- Weight (Net): 3.2 kg (7.02 lbs)

System Hardware
- CPU: Intel 5th Generation Core i3-5010U 2.10GHz
- 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
  - 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
- Ingress Protection: Front panel: IP66
- Operating Temperature: 0 ~ 50°C (32 ~ 122°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. 24VDC 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
TPC-1282T

### Dimensions

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

### Ordering Information

- **TPC-1282T-533AE**
  - 12.1” XGA Panel PC, Intel i3-50101U, 4GB, iDoor, PCIe

### Optional Accessories

- **96PSA-A150W24T2**
  - Adapter 100-240V 150W 24V
- **1702002600**
  - 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-W1S1H01E**
  - 802.11bgn RTL8188EE 1T1R, Half-size Mini-PClE (also need 9655EWMG00E)
- **9655EWMG00E**
  - Half-size miniPClE to Full-size miniPClE bracket set
- **1750000318**
  - EMI Antenna 20dB 2.4GHz SMA CONNECT for ARK-3384
- **1750003222**
  - 802.11b/g 5dBi Dipole Antenna
- **1750003418**
  - Wireless Antenna AN2400-5901RS R/P SMA M9dB
- **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
- **ERM-W1S1H01E**
  - 802.11b/gn RTL8188EE 1T1R, Half-size Mini-PClE (also need 9655EWMG00E)
- **9655EWMG00E**
  - Half-size miniPClE to Full-size miniPClE bracket set
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  - EMI Antenna 20dB 2.4GHz SMA CONNECT for ARK-3384
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### Application Software

- **WebAccess/SCADA**
  - Advantech WebAccess is a 100% web-based SCADA (Supervisory Control And Data Acquisition) software and it acts as an IoT 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/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.

- **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, 2GB RAM, 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.

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**Embedded O/S**

- **2070013700**
  - WS7P x86 V4.12 B001 MUI. for TPC-1282T

**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**
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