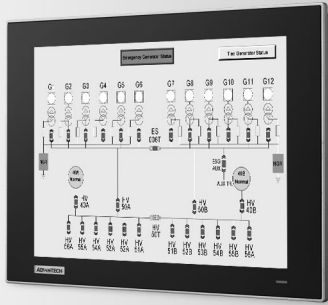# PE-TPC1251-CT1400A

12.1" XGA TFT LED LCD
Intel® Atom™ Thin Client Terminal

NEW

Features

- Industrial 12.1" XGA TFT LCD with 50K Lifetime LED Backlight
- Intel® Atom™ E3827 1.75 GHz Processor with 4GB (8GB optional) DDR3L SDRAM
- Support wide operating temperatures -20~60°C
- Compact Fanless Embedded System with Al Alloy Front Bezel
- True-flat with IP66 / non-flat with IP65 certified front panel protection
- Durable 5-wire Resistive Touch Screen
- Full-size Mini PCIe Expansion Support
- Supports iDoor technology for diverse applications (optional accessory required)
- Chassis Grounding Protection
- Supports USB 3.0
- Embedded Microsoft WES 7 Pro 64-bit OS
- Bundle Panel Express HMI Runtime software(1400tags)

SUSIAccess iDoor R33138 CCC CE FCC LISTED E180881 I.T.E.

Introduction

The TPC-1251T thin client terminal with a 12.1" XGA LCD, low power embedded Intel® Atom™ E3827 1.75 GHz Processor and 4GB (8GB optional) DDR3L SDRAM provides computing performance in a compact fanless system. To enhance its durability, the TPC-1251T is true-flat touch screen designed with IP66 front protection, die-cast Al Alloy front bezel and 5-wire resistive touch. It supports wide operating temperatures -20~60°C and includes full size mini-PCIe slot to extend the functionality and meet a variety of automation applications needs. Through the Mini-PCIe slot, Advantech iDoor technology (optional) can provide more I/O connectors, Isolated Digital IO, the Fieldbus Protocol, 3G/GPS/GPRS/ Wi-Fi Communication and Battery-backup MRAM.

The built-in Microsoft WES 7Pro OS platform which bundles Panel Express lets the TPC-1251T become a control HMI solution for flexible system integration.

Specifications

General

- **BIOS** — AMI UEFI
- **Certification** — BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** — Fanless design
- **Dimensions (W x H x D)** — 311.80 x 238 x 57.2 mm (12.28" x 9.37" x 2.25")
- **Enclosure** — Front bezel: Die-cast Aluminum alloy / Back housing: SECC
- **Mounting** — Desktop, Wall or Panel Mount
- **OS Support** — Microsoft WES 7 Pro 64-bit
- **Power Consumption** — 18 W (Typical)
- **Power Input** — 24 V_{DC} ± 20%
- **Watchdog Timer** — 1 ~ 255 sec (system)
- **Weight (Net)** — 2.5 KG

System Hardware

- **CPU** — Intel® Atom™ E3827 1.75 GHz Processor
- **Memory** — 4GB (8GB optional) DDR3L 1600MHz SO-DIMM SDRAM
- **LAN** — 10/100/1000 Base-T x 2
- **Expansion Slots** — Full-size Mini PCI-E
- **Storage** — CFast 32Gb x 1
- **I/O** — RS-232 x 1, RS-232/422/485 x 1 / USB 3.0 x 1 / USB 2.0 x 1

LCD Display

- **Display Type** — XGA TFT LED LCD
- **Display Size** — 12.1"
- **Max. Resolution** — 1024 x 768
- **Max. Colors** — 16.2M
- **Luminance cd/m²** — 600
- **Viewing Angle (H/V°)** — 160/140
- **Backlight Life** — 50,000 hrs
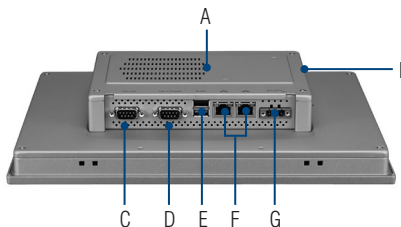- **Contrast Ratio** — 700:1

Touchscreen

- **Lifespan** — 36 million touches at single point
- **Light Transmission** — Above 75%
- **Resolution** — Linearity
- **Type** — 5-wire, analog resistive

Environment

- **Humidity** — 10 ~ 95% RH @ 40°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** — With CFast: 2 Grms (5~500 Hz)

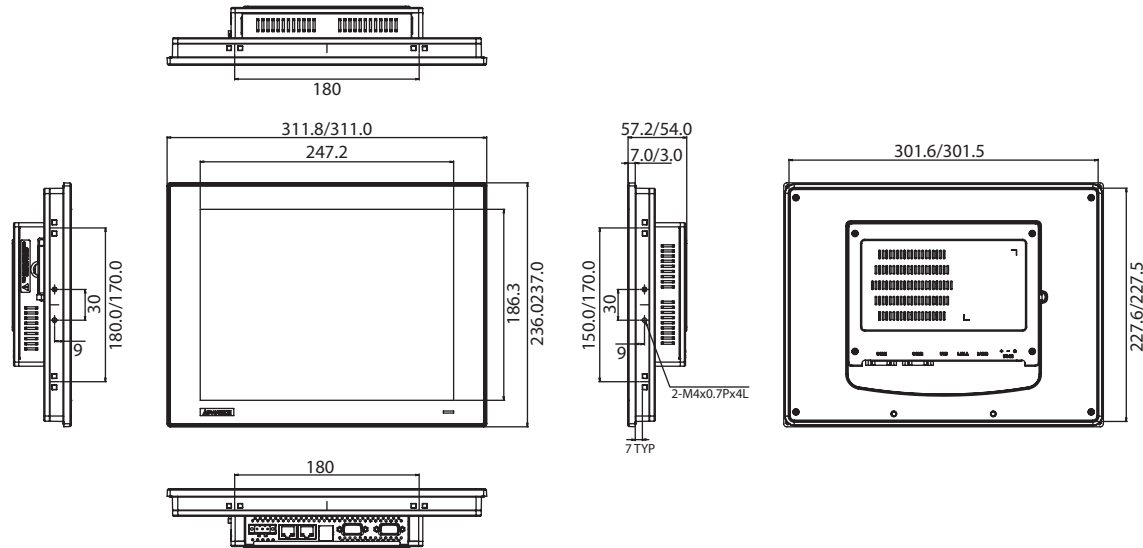## Rear View

A. External HDD/iDoor kit (TPC-1251T-EHKE) (Optional)
B. CFast Slot
C. RS-232
D. RS-232/422/485
E. USB 3.0 & 2.0
F. LAN (10/100/1000)
G. Power Receptor

ADVANTECH **Automation Panels**

All product specifications are subject to change without notice

Last updated : 15-Apr-2015

Dimensions

Unit: mm

180

311.8/311.0

247.2

57.2/54.0

7.0/3.0

301.6/301.5

180.0/170.0

30

9

186.3

236.0/237.0

150.0/170.0

30

9

2-M4x0.7Px4L

7 TYP

227.6/227.5

180

TPC-1251T Panel Cut-out Dimensions: 303 x 229 mm (11.93" x 9.02")

Ordering Information

- **PE-TPC1251-CT1400A** 12" XGA Panel PC, Intel® Atom™, 4GB DDR3, CFast 32Gb, WES 7 Pro 64-bit, Panel Express HMI Runtime 1400tags

Accessories

- **PWR-247-BE** 63W DC 24V/2.62A Output Power Supply
- **TPC-1251T-EHKE** HDD/SSD and iDoor extension kit
- **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

Automation S/W & Embedded O/S

- **968WEXP050X** PanelExpress V2.0 5000 tags S/W license
- **968WEXP2USB** PanelExpress V2.0 S/W USB dongle
- **2070013067** WES7P X64 MUI. V4.12 B001
- **2070013359** WEC7 X64 MUI. V4.00 B031

iDoor Modules (TPC-1251T-EHKE is required for iDoor modules)

- **PCM-24D2R4-AE** 2-Port Isolated RS-422/485 mPCIe, DB9
- **PCM-26D2CA-AE** 2-Port Isolated CANBus mPCIe, CANOpen, DB9
- **PCM-27D24DI-AE** 24-Channel Isolated Digital I/O w/ counter mPCIe, DB37
- **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-24U2U3-AE** 2-Port USB 3.0, mPCIe, USB-A type
- **PCM-24S23G-AE** Wide-Temp 3.75G HSPA and GPS, 2-in-1, Full-size mPCIe w/ Redundant SIM Card holder, 2-port SMA

Application Software

SUSIACCESS	Version: V2.1 or above An innovative remote device management software, allowing efficient remote monitoring, quick recovery & backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.
PANELEXPRESS Designed for Convenience	Version: V2.0 or above Panel Express, a windows based HMI mini SCADA, realizes the cross platform flexibility offered by WebOP Designer to switch hardware for the consideration of cost and performance become an easy job. Panel Express software provides the best economic and express solution for data intensive high-end HMI applications.
WebOP Designer	Version: V2.0 or above An easy to use integrated development tool featuring solution-oriented screen objects, high-end graphics, Windows fonts for multi-language applications. WebOP runtime, a part of WebOP Designer, guarantees reliability and performance because of the minimum system overhead, high communication data rates, and sub-second screen switching.