

# TPC-650H

5.7" VGA TFT LED LCD Intel® Atom™  
Thin Client Terminals



## Features

- Industrial 5.7" VGA TFT LCD with 50K Lifetime LED Backlight
- Intel Atom N270 1.6GHz Ultra Low Voltage processor
- Compact Fanless Embedded System & Energy Star approved
- Low-power and Economical panel pc with sufficient I/O connectors
- IP65 Approved Front Protection & Panel Mounting
- More Durable 5-wire Resistive Touch Screen
- Support Windows, Linux and Android

## Introduction

TPC-650H touch panel computer with a 5.7" VGA LCD, low power embedded Intel Atom N270 1.6GHz processor and 1GB DDR2 SDRAM targets at low-power, essential and economical requirements. The compact fanless design still provide the sufficient I/O connectors. To enhance its durability, TPC-650H is designed with IP65 front protection and 5-wire resistive touch.

## Specifications

### General

- **BIOS** Award® 4Mbit
- **Certification** BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** Fanless design
- **Dimensions (W x H x D)** 195 x 148 x 58 mm (7.68" x 5.83" x 2.28")
- **Enclosure** Front bezel: PC/ABS Resin  
Back housing: SECC
- **Mounting** Panel Mount
- **OS Support** Microsoft® Windows® 7/XPE/WES  
Windows CE 5.0/6.0 with Java Script  
Linux with Firefox explorer and Java Script plugin
- **Power Consumption** 17 W (typical)
- **Power Input** 18 ~ 28 V<sub>dc</sub>
- **Watchdog Timer** 1 ~ 255 sec (system)
- **Weight (Net)** 1.43 kg (3.15 lb)

### System Hardware

- **CPU** Intel® Atom™ N270 1.6 GHz
- **Chipset** Intel® 945GSE+ICH7M
- **Memory** 1GB SO-DIMM DDR2 667 SDRAM
- **LAN** 10/100/1000Base-T x 1
- **Storage** CompactFlash slot x 1
- **I/O** RS-232 x 2 (COM1, 2)  
USB 2.0 x 2 (Host)  
PS/2 x 1

### LCD Display

- **Display Type** VGA TFT LED LCD
- **Display Size** 5.7"
- **Max. Resolution** 640 x 480
- **Max. Colors** 262 K
- **Luminance cd/m<sup>2</sup>** 700
- **Viewing Angle (H/V°)** 160/140
- **Backlight Life** 50,000 hrs
- **Contrast Ratio** 800:1

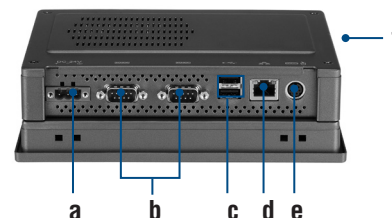
### Touchscreen

- **Lifespan** 10 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: IP65
- **Operating Temperature** 0 ~ 55°C (32 ~ 131°F)
- **Storage Temperature** -20 ~ 60°C (-4 ~ 140°F)
- **Vibration Protection** 2 Grms (5 ~ 500 Hz) (Operating, random vibration)

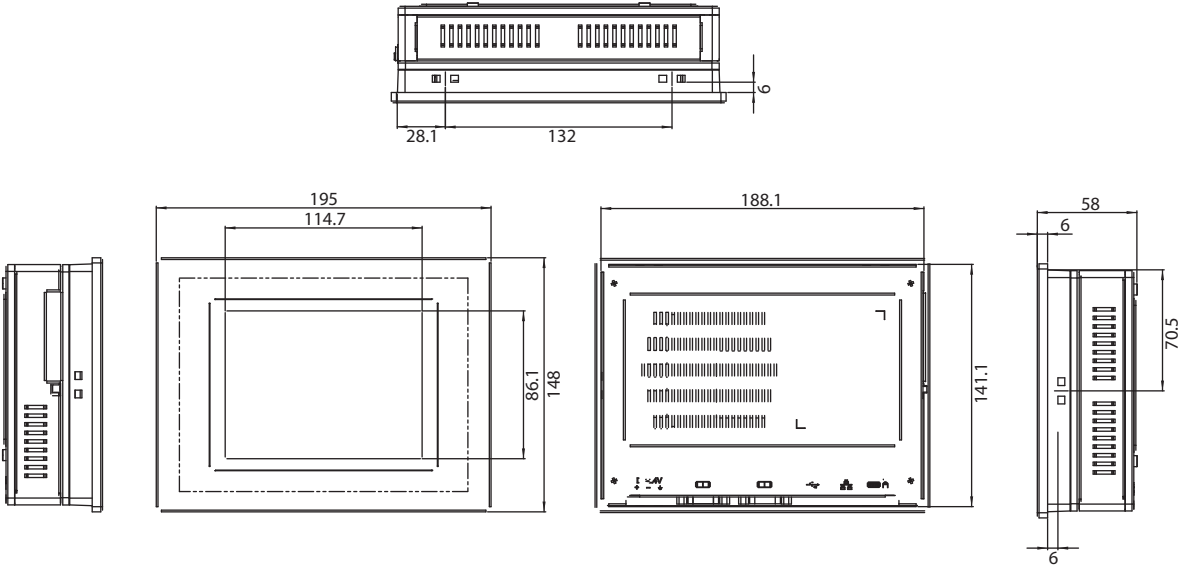
## Rear View



- a. Power Receptor
- b. COM (RS232 x 2)
- c. USB 2.0
- d. LAN (10/100/1000)
- e. PS/2
- f. CompactFlash

**Dimensions**

Unit: mm



**Panel Cut-out Dimensions: 189.1 x 142.1 mm (7.44" x 5.59")**

**Ordering Information**

- **TPC-650H-N2AE** 5.7" VGA Touch Panel PC, Atom™ N270 1.6GHz, 1GB
- **WA-TPC650** TPC-650H-N2AE with WebAccess software

**Accessories**

- **PWR-247-BE** 63W DC 24V/2.62A Output Power Supply
- **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

**Automation Software**

- **968WEXP003X** PanelExpress V2.0 300 tags S/W license
- **968WEXP015X** PanelExpress V2.0 1500 tags S/W license
- **968WEXP050X** PanelExpress V2.0 5000 tags S/W license
- **968WEXP2USB** PanelExpress V2.0 S/W USB dongle

**Application Software**

	<p>Version : V2.1 or above</p> <p>An innovative remote device management software, allowing efficient remote monitoring, quick recovery &amp; backup, and real-time remote configuration, to create a more intelligent and interconnected embedded computing solution.</p>
	<p>Version : V7.1 or above</p> <p>WebAccess, as the core of Advantech's IoT solution, is full web browser-based software package for HMI and SCADA software. All HMI and SCADA software features including: Animated Graphics Displays, Real-time Data, Control, Trends, Alarms and Logs, are available in a standard web browser. WebAccess is built around the latest internet technologies. With its open architecture, vertical domain applications can easily be integrated.</p>
	<p>Version : V2.0.3.8 or above</p> <p>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.</p>
	<p>Version : V2.0.3.8 or above</p> <p>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.</p>