TPC-71W

7" Touch Panel Computer with ARM Cortex™-A9 Processor

NEW

Features

- NXP® ARM® Cortex™-A9 i.MX6 dual/quad-core processor
- 7" 16:9 LCD with multi-touch P-CAP and true-flat IP66-rated front panel
- Up to 2 GB DDR3L RAM and 8 GB eMMC storage onboard
- 10/100/1000 Mbps LAN with optional IEEE 802.3at PoE-PD module support
- 1 mb FRAM backup memory for unexpected power interruptions
- Serial port with 120Ω termination resistor that supports the CAN 2.0B protocol and offers a programmable bit rate of up to 1 Mb/sec
- Embedded browser and VNC tool for rapid Web App development
- Supports Linux Yocto, Linux Ubuntu, Android and WEC7
- Optional NFC and mPCIe expansion modules
- Compatible with VESA and panel mounting
- Wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F)

Introduction

TPC-71W is a compact touch panel computer equipped with an NXP® i.MX 6 Cortex™-A9 dual/quad-core processor, 7" TFT LCD display, multi-touch glass sensor, 2 GB of DDR3L RAM, and 8 GB of eMMC storage. To ensure stable operation in harsh industrial environments, TPC-71W supports a wide operating temperature range (-20 ~ 60 °C /-4 ~ 140 °F) and VESA mounting and features an IP66-rated front panel that protects against water and dust ingress.

For web-based operations, TPC-71W offers 10/100/1000 Mbps LAN that supports the IEEE 802.3 PoE-PD standard. The inclusion of VNC Tools and browsers enable rapid Web application development and easy configuration. Finally, TPC-71W supports various OS including Linux Yocto, Linux Ubuntu with full QT graphics, and Android to ensure easy deployment for diverse applications.

Specifications

General

- **Certification**   CE, BSMI, CCC, UL, FCC Class A
- **Dimensions (W x H x D)**   205 x 146.92 x 46 mm (8.07 x 5.78 x 1.81 in)
- **Cutout Dimensions**   192 x 138.5 mm (7.56 x 5.45 in)
- **OS Support**   Linux Yocto 2.1, Linux Ubuntu 16.04, Android 6 and Windows Embedded Compact 7
- **Power Input**   24V$_{DC}$ ±20, 12V by project
- **Power Consumption**   9W (typical)
- **Unit Enclosure**   Die-cast aluminum alloy front bezel PC + ABS rear housing
- **Mount Options**   Panel and VESA
- **Weight (Net)**   1.2 kg (2.65 lb)

System Kernel

- **CPU**   NXP® ARM® Cortex™-A9 i.MX6 dual/quad-core 1.0 GHz processor
- **Backup Memory**   FRAM 1 MB
- **Memory**   Dual core: 1 GB DDR3L RAM
  Quad core: 2 GB DDR3L RAM
- **Storage**   8 GB eMMC onboard

Communication Interface

- **Serial Port**   1 x DB9 selectable mode for RS-232/485 and CAN 2.0 B
- **LAN**   1 x RJ45 with 10/100/1000 Mbps Optional module to support PoE PD
- **Others**   1 x USB 2.0 Type-B Client
  2 x USB 2.0 Type-A Host
  1 x Micro SD

LCD Panel

- **Panel Type**   WSVGA TFT LCD
- **Panel Size**   7 in (177.8 mm)
- **Max. Resolution**   1024 x 600
- **Max. Colors**   16.7M
- **Luminance**   400 cd/m²
- **Viewing Angle (H/V)**   170/170
- **Backlight Life**   50,000 hrs
- **Treatment**   Anti-glare
- **Contrast Ratio**   800:1
- **Front Panel LED Indicator**   Yes

Touchscreen

- **Touch Points**   10 Points
- **Light**   Transmission above 85%
- **Pencil Hardness**   ≧7H
- **Type**   Projected capacitive (P-CAP) touch
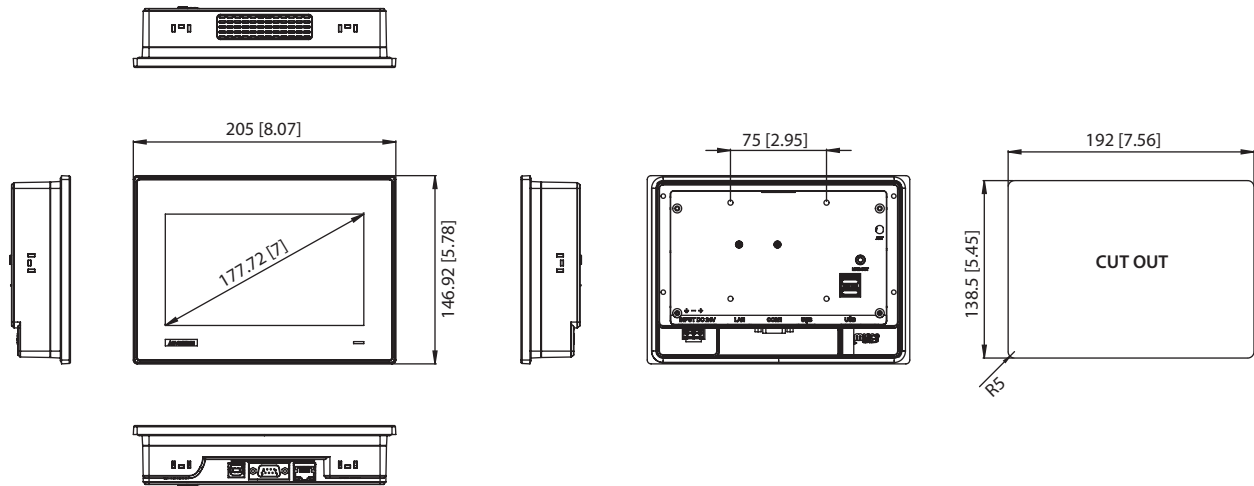
Environment

- **Operating Temperature**   -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature**   -30 ~ 70 °C (-22 ~ 158 °F)
- **Humidity**   90% RH @ 40 °C, non-condensing
- **Ingress Protection**   IP66-rated front panel
- **Vibration Protection**   2 Grms random vibration (5 ~ 500 Hz) during operation (compliant with IEC60068-2-64)
- **Shock Protection**   10 G shock under 11 ms operation (compliant with IEC60068-2-27)

Ordering Information

- **TPC-71W-N10PA**   7" Touch Panel Computer, Cortex™-A9 Dual Core CPU, 1GB DDR3L, 8G eMMC, Ubuntu 16.04
- **TPC-71W-N21PA**   7" Touch Panel Computer, Cortex™-A9 Quad Core CPU, 2GB DDR3L, 8G eMMC, Ubuntu 16.04
- **TPC-71W-N21WA**   7" Touch Panel Computer, Cortex™-A9 Quad Core CPU, 2GB DDR3L, 8G eMMC, WEC7
- **TPC-71W-N21AA**   7" Touch Panel Computer, Cortex™-A9 Quad Core CPU, 2GB DDR3L, 8G eMMC, Android 6
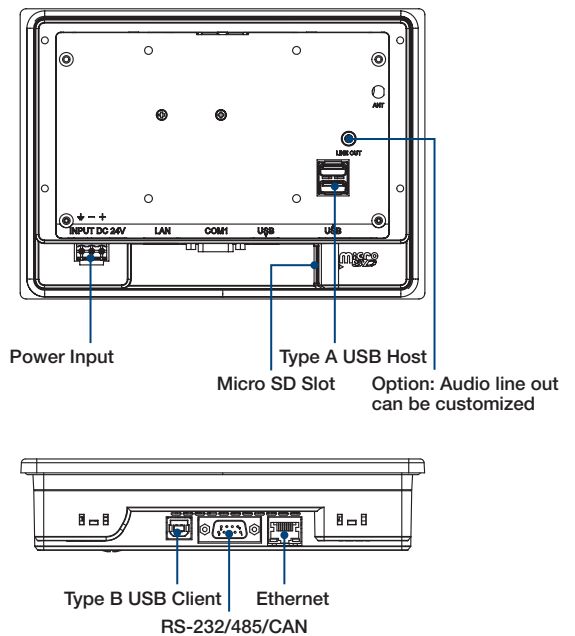
Dimensions

Unit: mm

205 [8.07]

177.72 [7]

146.92 [5.78]

75 [2.95]

192 [7.56]

138.5 [5.45]

CUT OUT

R5

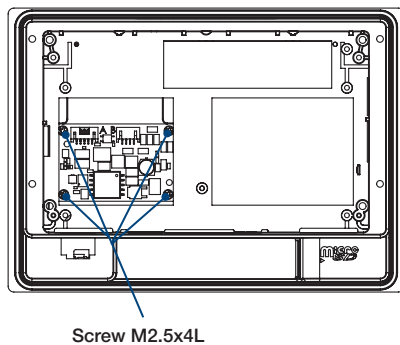**Panel Cutout Dimensions: 192 x 138.5 mm (7.56 x 5.45 in)**

Optional Accessories

- **98R3T71W000** — PoE PD add-on module
- **96PSA-A60W24T2** — Adaptor A/D 100 ~ 240V 60W 24V C14 cord-end terminal
- **1702002600** — Power cable with US plug, 1.8 M
- **1702002605** — Power cable with EU plug, 1.8 M
- **1702031801** — Power cable with UK plug, 1.8 M
- **1702031836** — Power cable with China/Australia plug, 1.8 M

PoE Module Expansion

Screw M2.5x4L

External I/O

Power Input

Type A USB Host

Micro SD Slot

Option: Audio line out can be customized

Type B USB Client

RS-232/485/CAN

Ethernet

Packing List

Item	Part No.	Depiction	Qty
Clamp	1960059571T000	Clamp for Panel Mount for WOP-3000T	6
Screw	1935043010	Screw M4x30L R/S D=7 H=2.6 (2+) ST Zmc-3	6
Screw	1930001024	Screw M4*8L R/S D=8.9 H=2.5 + ST Ni NK	4
Screw	1930000501	Screw M4x10L R/S D=7 H=2.6 (2+) ST Ni NK	4
Warranty Card	2190000902	CARDBOARD-WARRANTY REV. A2	1

Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
Please contact Advantech for certificate compliance.