TPC-100W

7"/10.1"/15.6" Touch Panel Computer with ARM Cortex™-A53 Processor

NEW

Features

- NXP® ARM® Cortex™-A53 i.MX 8M Mini quad-core processor
- 7", 10.1" and 15.6" 16:9 LCD with multi-touch P-CAP and true-flat IP66-rated front panel
- Up to 2 GB DDR4 RAM and 16 GB eMMC storage onboard
- 2 x 10/100/1000 Mbps LANs with optional IEEE 802.3at/af PoE-PD module support (7", 10.1")
- 1 mb FRAM backup memory for unexpected power interruptions
- 2 x Serial port with 120Ω termination resistor that one supports the CAN 2.0B protocol and offers a programmable bit rate of up to 1 Mb/sec
- Embedded browser and for rapid Web App development
- Supports Linux Yocto and Android
- Optional and mPCIe expansion modules
- Compatible with VESA and panel mounting
- Wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F)

Introduction

TPC-100W series is a compact touch panel computer equipped with an NXP® Cortex™-A53 i.MX 8M Mini quad-core processor, 7"/10.1"/15.6" TFT LCD display, multi-touch glass sensor, 2 GB of DDR4 RAM, and 16 GB of eMMC storage. To ensure stable operation in harsh industrial environments, TPC-100W supports a wide operating temperature range (-20 ~ 60 °C /-4 ~ 140 °F) and Panel/VESA mounting and features an IP66-rated front panel that protects against water and dust ingress.

For web-based operations, TPC-100W offers two 10/100/1000 LANs that one supports the IEEE 802.3 PoE-PD standard. The inclusion of VNC and browsers enable rapid Web application development and easy configuration. Finally, TPC-100W supports various OS including Linux Yocto 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)**   TPC-107W: 205 x 146.92 x 52 mm
  TPC-110W: 283.1 x 202.3 x 52 mm
  TPC-115W: 419.7 x 269 x 52 mm
- **Cutout Dimensions**   TPC-107W: 192.4 x 139.0 mm
  TPC-110W: 274.1 x 193.3 mm
  TPC-115W: 411.9 x 261.2 mm
- **OS Support**   Linux Yocto 3.0, Android 10
- **Power Input**   24V$_{DC}$ ±20
- **Power Consumption**   9W (typ.); 21W (max.)
- **Unit Enclosure**   Die-cast aluminum alloy front bezel Metal Shell
- **Mount Options**   Panel and VESA
- **Weight (Net)**   7": 2kg (4.44lb)
  10.1": 3.9kg (8.63lb)
  15.6": 6.9kg (15.19lb)

System Kernel

- **CPU**   NXP® ARM® Cortex™-A53 i.MX 8M Mini quad-core 1.6 GHz processor
- **Backup Memory**   FRAM 1 MB
- **Memory**   Quad core: 2 GB DDR4 RAM
- **Storage**   16 GB eMMC onboard

Communication Interface

- **Serial Port**   1 x RS-232/422/485 (COM 1)
  1 x selectable mode for RS-485 and CAN 2.0B (COM 2)
- **LAN**   2 x RJ45 (10/100/1000 Mbps)
  Optional module is required to support PoE PD (LAN A) IEEE802.3at PoE-PD standard
- **Others**   1 x USB 2.0 Type-B Client (Internal)
  2 x USB 2.0 Type-A Host
  1 x Micro SD (Internal)
  1 x M.2 Key-E 2230 (Wi-Fi/BT)

*PoE-PD is not supported on TPC-115W.

LCD Panel

	TPC-107W	TPC-110W	TPC-115W
Panel Size	7"	10.1"	15.6"
Panel Type	WSVGA TFT LCD	WXGA TFT LCD	FHD TFT LCD
Aspect Ratio	16:9	16:10	16:9
Max. Resolution	1024 x 600	1280 x 800	1920 x 1080
Max. Colors	16M	16M	16.2M
Luminance (nits)	425	500	450
Viewing Angle (H/V)	150/145	170/170	170/170
Backlight Life	50000	50000	50000
Treatment	Anti-glare	Anti-glare	Anti-glare
Contrast Ratio	700:1	800:1	800:1
LED Indicator	Yes	Yes	Yes

Touchscreen

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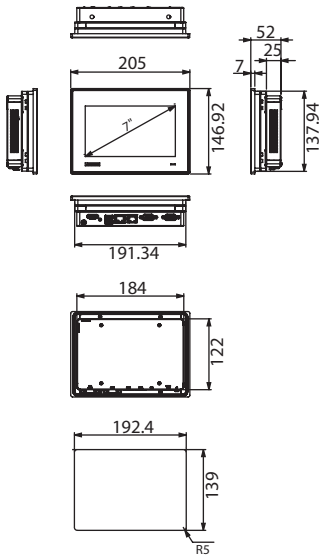- **Type**   Projected capacitive (P-CAP) touch

Environment

- **Operating Temperature**   -20 ~ 60 °C (-4 ~ 140 °F)
- **Storage Temperature**   -30 ~ 70 °C (-22 ~ 158 °F)
- **Humidity**   10 ~ 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)
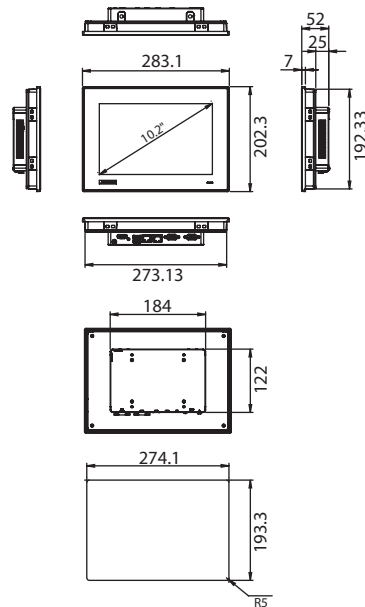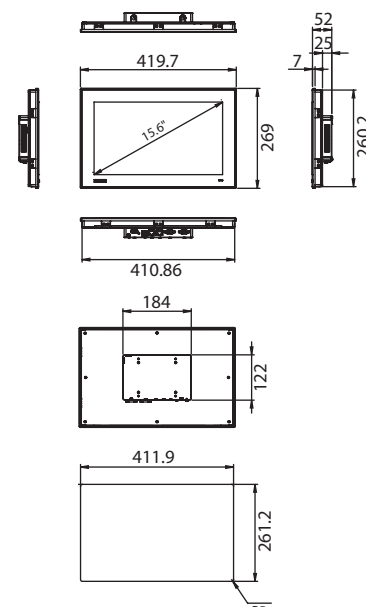- **Shock Protection**   10 G shock under 11 ms operation (compliant with IEC60068-2-27)

ADVANTECH   **Web-Based Operating Terminal**

All product specifications are subject to change without notice.   Last updated: 7-Sep-2022

Dimensions

Unit: mm

TPC-107W

205
146.92
7"
52
25
7
137.94
191.34
184
122

192.4
139
R5

Panel Cutout Dimensions:
192.4mm x 139.0mm

TPC-110W

283.1
10.2"
202.3
52
25
7
192.33
273.13
184
122

274.1
193.3
R5

Panel Cutout Dimensions:
274.1mm x 193.3mm

TPC-115W

419.7
15.6"
269
52
25
7
260.2
410.86
184
122

411.9
261.2
R5

Panel Cutout Dimensions:
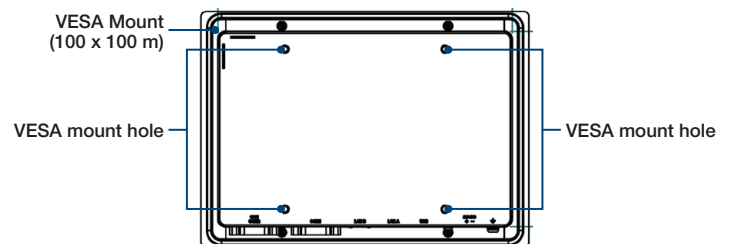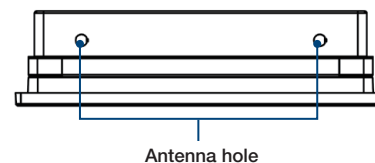**411.9mm x 261.2mm**

Ordering Information

- **TPC-107W-N31YA** — 7" Touch Panel Computer, Cortex™-A53 Quad Core CPU, 2GB DDR4, 16G eMMC, Linux Yocto 3.0 with QT Broswer
- **TPC-107W-N31AA** — 7" Touch Panel Computer, Cortex™-A53 Quad Core CPU, 2GB DDR4, 16G eMMC, Android 10 with Chromium
- **TPC-110W-N31YA** — 10.1" Touch Panel Computer, Cortex™-A53 Quad Core CPU, 2GB DDR4, 16G eMMC, Linux Yocto 3.0 with QT Broswer
- **TPC-110W-N31AA** — 10.1" Touch Panel Computer, Cortex™-A53 Quad Core CPU, 2GB DDR4, 16G eMMC, Android 10 with Chromium
- **TPC-115W-N31YA** — 15.6" Touch Panel Computer, Cortex™-A53 Quad Core CPU, 2GB DDR4, 16G eMMC, Linux Yocto 3.0 with QT Broswer
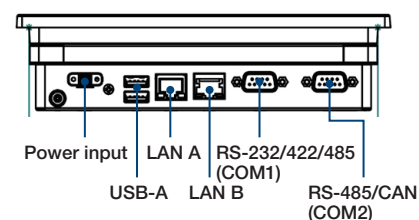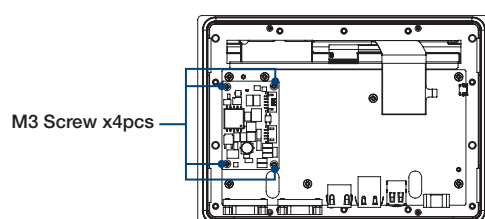
Optional Accessories

- **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
- **968DD00086** — M.2 Key-E 2230 Express Module, support Yocto 3.0(WiFi/BT)
- **EWM-W194M201E** — M.2 Key-E 2230 Express Module, support Android 10(Only WiFi)
- **98R4T100W00** — TPC-100W, PoE Module (7" and 10.1" only)

PoE Module Expansion

M3 Screw x4pcs

External I/O

Antenna hole

VESA Mount (100 x 100 m)

VESA mount hole

VESA mount hole

Power input
USB-A
LAN A
LAN B
RS-232/422/485 (COM1)
RS-485/CAN (COM2)

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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

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