

TPC-100WX

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



Features

- NXP® ARM® Cortex™-A53 i.MX 8M Mini quad-core processor
- 7" and 10.1" 16:9 high brightness LCD with multi-touch P-CAP
- True-flat IP66-rated front panel for water/dust resistance
- IK08 protection for impact resistance
- Wide operating temperature range (-30 ~ 70 °C/-22 ~ 158 °F)
- Up to 4 GB DDR4 RAM and 32 GB eMMC storage onboard
- Chassis grounding protection for electrical safety
- 2 x 10/100/1000 Mbps LANs with optional IEEE 802.3at
- Supports Linux Yocto (with Arm® SystemReady IR certification guarantee) and Secure Boot
- Compatible with VESA and panel mounting
- Supports TPM 2.0 hardware security



Introduction

TPC-100WX, the ultimate solution for demanding environments where performance and reliability are crucial. Designed specifically for manufactures, energy storage systems, and outdoor applications, this High Brightness ARM-based HMI excels in wide temperature ranges(-30~70°C/-22~158°F) and under intense brightness conditions.

With its high-brightness LCD(7"/10.1"), robust and compact design(IP66-rated front panel and IK08 impact protection), and flexible software support for both Linux Yocto and Android, the TPC-100WX meets and exceeds modern industries' expectations. Its advanced features, including chassis ground isolation for enhanced safety and reduced electrical noise, alongside robust cybersecurity capabilities certified by ARM SystemReady IR, make it a top choice for those seeking durability and security without compromising on cost.

Specifications

General

- **Certification** CE, BSMI, CCC, UL, FCC Class A
- **Dimensions (W x H x D)** TPC-107WX: 205 x 146.92 x 52 mm
TPC-110WX: 283.1 x 202.3 x 52 mm
- **Cutout Dimensions** TPC-107WX: 192.4 x 139.0 mm
TPC-110WX: 274.1 x 193.3 mm
- **OS Support** Linux Yocto 4.2 (Secure Boot supported), Android 13
- **Power Input** 24V_{DC} ±20
- **Power Consumption** TPC-107WX: 8.92W (typ.); 10.4W (max.)
TPC-110WX: 20.78W (typ.); 23.8W (max.)
- **Security** TPM 2.0 (built-in)
- **Unit Enclosure** Die-cast aluminum alloy front bezel
Metal Shell
- **Mount Options** Panel and VESA
- **Weight (Net)** 7": 1.36kg (3 lb)
10.1": 2.17kg (4.78 lb)
-

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: 4 GB DDR4 RAM
- **Storage** 32 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)
- **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)

LCD Panel

	TPC-107WX	TPC-110WX
Panel Size	7"	10.1"
Panel Type	WVGA TFT LCD	WXGA TFT LCD
Aspect Ratio	16:9	16:10
Max. Resolution	800 x 480	1280 x 800
Max. Colors	16M	16M
Luminance (nits)	1000	1200
Viewing Angle (H/V)	176/176	176/176
Backlight Life	50000	50000
Treatment	Anti-glare	Anti-glare
Contrast Ratio	800:1	800:1
LED Indicator	Yes	Yes

Touchscreen

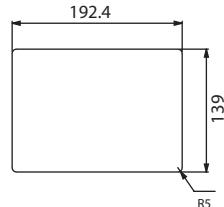
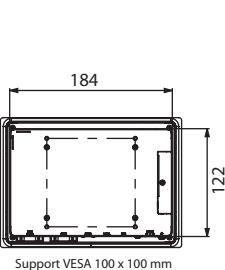
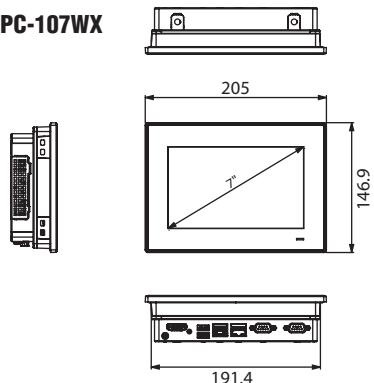
- **Touch Points** 10 Points
- **Light** Transmission above 85%
- **Pencil Hardness** ≥7H
- **Type** Projected capacitive (P-CAP) touch

Environment

- **Operating Temperature** -30 ~ 70 °C (-22 ~ 158 °F)
- **Storage Temperature** -40 ~ 85 °C (-40 ~ 185 °F)
- **Humidity** 95% 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)
- **Impact protection** IK08

Dimensions

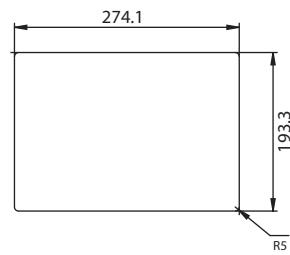
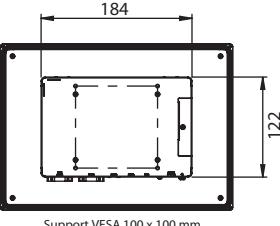
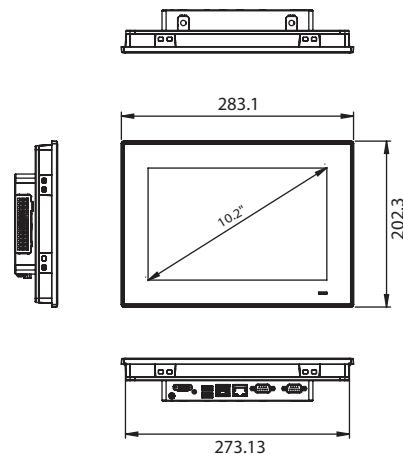
TPC-107WX



Unit: mm

Panel Cutout Dimensions: 192.4 x 139.0 mm, R=5.0 mm (± 0.5 mm)

TPC-110WX



Panel Cutout Dimensions: 274.1 x 193.3 mm, R=5.0 mm (± 0.5 mm)

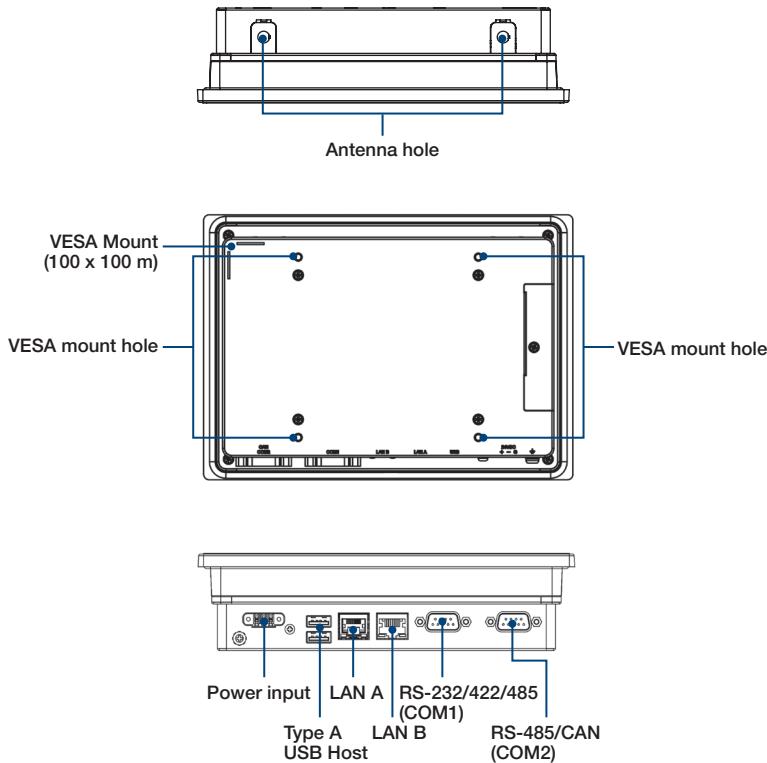
Ordering Information

- **TPC-107WX-N32YA** 7" high brightness Touch Panel Computer, Cortex™-A53 Quad Core CPU, 4GB DDR4, 32G eMMC, Linux Yocto 4.2 with QT Browser and Chromium
- **TPC-107WX-N32AA** 7" high brightness Touch Panel Computer, Cortex™-A53 Quad Core CPU, 4GB DDR4, 32G eMMC, Android 13
- **TPC-107WX-N32YAU** 7" high brightness Touch Panel Computer, Cortex™-A53 Quad Core CPU, 4GB DDR4, 32G eMMC, Linux Yocto 4.2 with QT Browser and Chromium (Made in TW)
- **TPC-110WX-N32YA** 10.1" high brightness Touch Panel Computer, Cortex™-A53 Quad Core CPU, 4GB DDR4, 32G eMMC, Linux Yocto 4.2 with QT Browser and Chromium
- **TPC-110WX-N32AA** 10.1" high brightness Touch Panel Computer, Cortex™-A53 Quad Core CPU, 4GB DDR4, 32G eMMC, Android 13
- **TPC-110WX-N32YAU** 10.1" high brightness Touch Panel Computer, Cortex™-A53 Quad Core CPU, 4GB DDR4, 32G eMMC, Linux Yocto 4.2 with QT Browser and Chromium (made in TW)

Optional Accessories

- **96PSA-A60W24T2-3** 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
- **98R4T100W01** Economic package for TPC-100W, WiFi/Bluetooth KIT

External I/O



Packing List

Item	Part No.	Description	TPC-107WX Q'ty	TPC-110WX Q'ty
Terminal block	1652000049	PLUGGABLE BLOCK 3P Flanges DIP	1	1
Cable	1703011001-11	A Cable G-TEM 4.3 100CM C=GR/Y 1 1	1	1
Clamp Screw	1935042520	Screw M4x25L R/S D=8.3 H=2.5 (2+) ST BZn 4	4	8
Clamp	1962055040	CLAMPER PPC-55 M1632611 A2	4	8
Lock Cable	1990026084S000	PO CABLE TIE 80X2.5mm YJ-80(B) FOR SCHNEIDER LI	2	2
Lock Cable	1990026085S000	WC LOCKINE CABLE 62x8mm WL3-60T For SCH	2	2

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.