TPC-324W

24" FHD TFT LED LCD Touch Panel Computer with 8th Gen. Intel® Core™ i3/ i7 Processor, 8G DDR4 RAM

**Features**
- Industrial-grade 24" FHD TFT LCD with 30K lifetime and LED backlight
- 8th Gen. Intel® Core™ i3-8145UE dual-core/ i7-8665UE quad-core processor with 8 GB DDR4 SO-DIMM
- Compact, fanless embedded system with aluminum alloy front bezel and chassis grounding protection
- True-flat touchscreen with P-CAP multi-touch control and IP66-rated front panel
- Support expansion via Full-size Mini PCIe and 2 M.2 slots (NVMe, 5G)
- Diverse system I/O and isolated digital I/O via iDoor technology
- Support fieldbus protocols via iDoor technology
- GPS/GPRS/Wi-Fi capabilities via iDoor
- Support TPM2.0 hardware security

**Introduction**
TPC-324W touch panel computer is equipped with 23.8" FHD TFT LED LCD, low-power 8th Gen. Intel® Core™ i3-8145UE dual-core/ i7-8665UE quad-core processor, and 8 GB DDR4 SO-DIMM delivering high performance yet compact and fanless computing system. To provide enhanced durability and satisfy diverse applications of industrial automation, TPC-324W features IP66-rated front panel protecting against dust and water ingress, and 2 extra expansion M.2 M Key, B Key slots supporting NVMe, SATA or 5G application. With Advantech’s iDoor technology integrated via mini PCIe slot for function expansions such as additional I/O ports, isolated digital I/O, fieldbus protocols, GPS/GPRS/Wi-Fi communication and MRAM. The integrated DP and audio ports allow a secondary monitor and speakers to be attached for increased functionality.

**Specifications**

**General**
- **BIOS**
  - AMI UEFI
- **Certification**
  - BSMI, CCC, CE, FCC Class A, CB/UL
- **Cooling System**
  - Fanless design
- **Dimensions (W x H x D)**
  - 595.9 x 374.1 x 70 mm (23.46 x 14.73 x 2.76 in)
- **Enclosure**
  - Front bezel: Die cast aluminum alloy
  - Back housing: Die cast aluminum alloy
- **Mounting**
  - VESA Mount, Desktop, Wall or Panel Mount
- **OS Support**
  - Win 10, Android, Linux
- **Power Consumption**
  - 56.31W (Typical)
- **Power Input**
  - 24 V DC ± 20%
- **Watchdog Timer**
  - 15-255 sec (system)
- **Weight (Net)**
  - 9.3kg (20.5lbs)

**System Hardware**
- **CPU**
  - 8th Gen. Intel® Core™ i3-8145UE 2.20 GHz
  - Dual-core/ i7-8665UE 1.70 GHz Quad-core processor
- **Memory**
  - 1 x 8G DDR4 SD-DIMM
- **LAN**
  - 2 x 10/100/1000BASE-T
- **Expansion Slot**
  - 1 x Full-size mini PCIe
- **Storage Slot**
  - 1 x M.2 M key 2280 (SATA or NVMe PCIe x4)
  - 1 x M.2 B key 2242 (SATA / PCIe)
  - 1 x 2.5" SSD (SATA)
- **I/O**
  - 2 x RS-232/422/485
  - 1 x USB 2.0
  - 4 x USB 3.1 (Gen.2)
  - 1 x iDoor slot
  - 1 x Displayport (Video output)
  - 1 x Audio line out/ mic in

**LCD Display**
- **Display Type**
  - FHD TFT LED LCD
- **Display Size**
  - 23.8" (16:9)
- **Max. Resolution**
  - 1920 x 1080
- **Max Colour**
  - 16.7M
- **Luminance cd/m²**
  - 350
- **Viewing Angle (H/V°)**
  - 178°/178°
- **Backlight Life**
  - 30,000hrs
- **Contrast Ratio**
  - 1000:1

**Touchscreen**
- **Light Transmission**
  - 90% ± 3%
- **Type**
  - PCAP

**Environment**
- **Humidity**
  - 10 – 95% RH @ 40°C, non-condensing
- **Ingress Protection**
  - Front panel: IP66
- **Operating Temperature**
  - -10–50°C (-14–122°F) (w/o air flow)
- **Storage Temperature**
  - -20–70°C (-4–158°F)
- **Vibration Protection**
  - With SSD: 1 Grms (5 – 500 Hz) (Operating, random vibration)

**Rear View**

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All product specifications are subject to change without notice. Last updated: 24-Aug-2020
TPC-324W

**Dimensions**

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<thead>
<tr>
<th>Dimensions</th>
<th>Unit: mm</th>
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<tr>
<td>TPC-324W Panel Cutout Dimensions: 587 x 365.3 mm (23.11 x 14.38 in)</td>
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**Ordering Information**

- **TPC-324W-P833A**: 23.8" FHD Panel PC, Intel® Core™ i3-8145UE 2.20GHz Dual-core Processor, 8G DDR4 RAM
- **TPC-324W-P873A**: 23.8" FHD Panel PC, Intel® Core™ i7-8665UE 1.70GHz Quad-core Processor, 8G DDR4 RAM

Optional Accessories

- **96PSA-A120W24T2-3**: 120W 24Vdc power supply
- **1702002600**: Power cable (US) 1.8 M
- **1702002605**: Power cable (EU) 1.8 M
- **1702031801**: Power cable (UK) 1.8 M
- **1700000596-11**: Power cable (China/Australia) 1.8 M

**Embedded OS**

- Win10
- Android
- Advantech Linux

**iDoor Modules**

- **PCM-24D2R4-BE**: Isolated RS-422/485, DB9 x 2, (USB type)
- **PCM-24D2R2-BE**: Isolated RS-232, DB9 x 2, (USB type)
- **PCM-24R1TP-AE**: 1-Port Gigabit Ethernet, Intel® 82574L, mPCIe, RJ45
- **PCM-27D24DI-AE**: Digital I/O, 16 DI / 8 DO, Isolation, DB37 x 1
- **PCM-24S2WF-BE**: 802.11 a/b/g/n/ac 2T2R w/BT4.1, Atheros QCA6174A
- **PCM-26D2CA-AE**: 2-Port Isolated CANBus mPCIe, CANOpen, DB9
- **PCM-23U1DG-CE**: Internal locked USB Slot for USB Dongle, mPCIe

**Application Software**

WebAccess/SCADA

- Advantech WebAccess/SCADA is a 100% browser-based IIoT software platform aimed at supervisory control and data acquisition (SCADA) operations. WebAccess/SCADA provides open interfaces that allow our customers and partners to develop unique IoT applications for different vertical markets. In addition to supporting traditional SCADA functions, the platform features an HTML5-based user interface and intelligent dashboard to facilitate cross-platform, cross-browser data analysis. Moreover, WebAccess/SCADA not only offers built-in widgets, but is also equipped with an innovative Widget Builder that enables customers to build their own widgets.

WebAccess/HMI

- Advantech WebAccess/HMI is human-machine interface (HMI) software based on Microsoft’s Windows operating system. This software features excellent communication and monitoring capabilities, supports more than 350 PLC communication protocols, and offers a wide choice of screen design objects to satisfy diverse integrations of factory automation and HMI operation and monitoring requirements.