

TPC-B500

Modular TPC - Computing Box Module with Intel® 6th Gen. Core™ i CPU



Features

- Computing Box powered by Intel® Core™ i3-6100U/i5-6300U/ i7-6600U with 8GB SODIMM
- Supports two independent video interfaces with picture-in-picture function and up to 100m long signal transmission distance (iLINK technology) (iLINK technology)
- Multiple sized front panel module offering with P-Cap multi-touch sensor (12.1" & 19" w/ robust 5-wire resistive touch)
- 2 x Full-size mini PCIe
- 1 x Half-size PCIe (Max. Dimension of PCIe card: 167.65mm x 64.41mm x 14.48mm (D x W x H))
- M.2 and SSD expansion
- Supports TPM2.0 hardware security

Introduction

TPC computing box modules are powered by 6th Gen Intel® Core™ processors combined with an industrial-grade LED LCD module, providing compact and fanless control panel solutions that support high-performance computing. With a flexible modular design, they allow users to interchange video interfaces such as industrial monitors which can be used as an interface of two controllers simultaneously via the PiP (Picture-in-Picture) feature or expand the signal transmission distance to 100m via iLINK technology.

Specifications

General

- **Certification** BSMI, CCC, CE, FCC Class A, CB/UL
- **Cooling System** Fanless design
- **Dimensions (W x H x D)** 269 x 203 x 58.50 (mm)
- **Enclosure** Die cast aluminum alloy
- **Mounting** VESA Mount, Desktop, Wall or Panel Mount
- **OS Support** Windows 10 IoT Enterprise LTSC
- **Security** TPM 2.0 (built-in)
- **Power Input** 24 V_{DC} ± 20%
- **Weight (Net)** 3 kg (6.61 lbs)

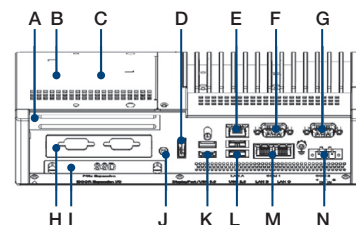
System Hardware

- **CPU**
 - 6th Gen Intel® Core™ i3-6100U 2.30 GHz
 - 6th Gen Intel® Core™ i5-6300U 2.40 GHz
 - 6th Gen Intel® Core™ i7-6600U 2.60 GHz
- **Memory** 8GB DDR4 SDRAM (up to 32GB)
- **Storage**
 - 1 x M.2 (2280) SATA
 - 1 x 2.5" SATA SSD
 - 1 x CFast (optional via iDoor module)
- **LAN**
 - 1 x 1GbE
 - 2 x 2.5GbE
- **Expansion Slot**
 - 1x Half-size PCIe*
 - 2 x Full-size mini PCIe
- **I/O**
 - 1 x RS-232, 1 x RS-232/422/485
 - 2 x USB 3.0, 2 x USB 2.0
 - 1 x Audio line out
 - DisplayPort 1.2 Out x 1
- **Power Input** 24 V_{DC} ± 20%
- **Security** TPM 2.0 (built-in)

Environment

- **Humidity** 95% RH @ 40°C, non-condensing
- **Ingress Protection** IP66 (for optional panel module with "Panel Mount")
- **Operating Temperature** 0~60°C (32~140°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

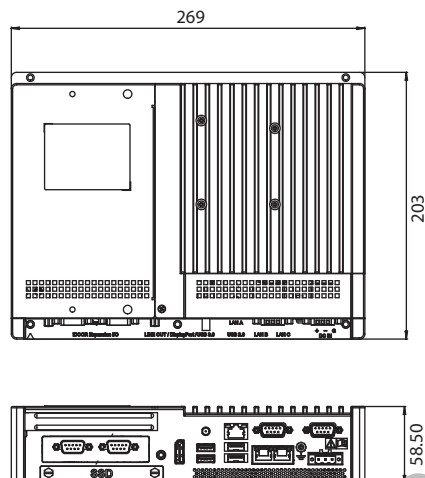


- A. Half-size PCIe
- B. M.2 for storage
- C. 2 x mPCIe
- D. DisplayPort
- E. LAN (1GbE)
- F. RS-232
- G. RS-232/422/485
- H. iDoor Slot
- I. SSD Bay
- J. Audio out
- K. 2 x USB3.0
- L. 2 x USB2.0
- M. 2 x LAN (2.5GbE)
- N. Power input

Note: * Half-size PCIe (Max. Dimension of PCIe card: 167.65mm x 64.41mm x 14.48mm (D x W x H))

Dimensions

Unit: mm



Ordering Information

- **TPC-B500-633BE** Intel® Core™ i3-6100U 2.30 GHz processor with 8 GB DDR4, 2.5GbE LAN
- **TPC-B500-653BE** Intel® Core™ i5-6300U 2.40 GHz processor with 8 GB DDR4, 2.5GbE LAN
- **TPC-B500-673BE** Intel® Core™ i7-6600U 2.60 GHz processor with 8 GB DDR4, 2.5GbE LAN

Panel Module P/N	FPM-D12T-BE	FPM-D15T-BE	FPM-D17T-BE	FPM-D19T-BE	FPM-D15W-FBE	FPM-D18W-BE	FPM-D21W-BE	FPM-D24W-BE
Description	12.1" XGA TFT LED LCD	15" XGA TFT LED LCD	17" SXGA TFT LED LCD	19" SXGA TFT LED LCD	15.6" FHD TFT LED LCD	18.5" HD TFT LED LCD	21.5" FHD LED LCD	23.8" FHD TFT LED LCD

Note: Display modules **cannot** work independently. A computing box (TPC-B200/500) or a monitor box (FPM-B700) is compulsory to operate the display module.


Packing List

Item	Part No.	Description	Qty
Grounding cable	1703011001-11	A Cable G-TEM 4.3 100CM C=GR/Y	1
Plug-In Block	1652007930-01	Plug-in Block 1x3P/5.08mm/PA66/F/VA	1
Manual	2003TPC01A	Simplified Chinese manual for TPC Series 11th Ed	1
Warranty	2190000902	CARDBOARD-WARRANTY REV. A2	1
BOX Fix Screw	1930000686	Screw M3x5L S/S D=5 H=1.3 (2+) ST Ni NK	5
HDD Screw	1930001361	Screw M3x4L S/S D=5 H=1.2 (2+) ST Ni NK	4
China rohs	202KAKMC00	China rohs for AKMC model name 1st ed	1

Optional Accessories

Part Number	Description
PCM-24S2WF-CE	802.11 a/b/g/n/ac 2T2R w/BT4.1, Intel AC9260
96PSA-A120W24T2-3	Power Adapter (120W, 24V) for TPC-B500
20704WX1HS0007	WIN10 LTSC High for TPC-B500-673BE
20704WX1VS0007	Win10 LTSC Value for TPC-B500-633BE/653BE
TPC-5000T-VMKE	VESA Kit for TPC-B200, B500 & FPM-B700
1702002600	Power cable (US) 1.8 M
1702002605	Power cable (EU) 1.8 M
1702031801	Power cable (UK) 1.8 M
1700000596	Power cable (CN/AU) 1.8 M

Application Software

WebAccess/SCADA	Advantech WebAccess is a 100% web-based SCADA (supervisory control and data acquisition) software that serves as an IIoT platform by providing open interfaces for partners to develop IIoT applications for diverse vertical markets.
WebAccess/HMI	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.
 CODESYS	CODESYS is an open control solution that allows users to easily develop a PC-based real-time control system, enables real-time PLC or PLC/SoftMotion control with flexible fieldbus options such as PROFINET, EtherCAT, EtherNet/IP, CANopen, and Modbus TCP/RTU, and facilitates on-site visualized HMI operation. The software/hardware flexibility and the stability of a PC-based cabinet controller are suitable for various control applications in vertical industries.