TPC-312 EHL
TPC-315 EHL
TPC-317 EHL

Elkhart Lake Thin-Client Terminal with Intel® Atom™/ Celeron® Processor

Features

- Intel® Elkhart Lake (EHL) Atom™ x6425E 2.00 GHz quad-core / Celeron® J6412 2.00 GHz quad-core processor
- True-flat touchscreen with 5-wire resistive touch control and IP66-rated front panel
- Wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F)
- Front-facing LED indicators to show operating status
- Built-in Advantech iDoor technology, SSD/HDD bay and VESA mount
- Compact, fanless system with aluminum alloy front bezel and chassis grounding protection

Vertrieb durch AMC
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Introduction

TPC-3xx EHL thin-client terminal is a industrial panel PC model equipped with TFT LCD, low-power Intel® Atom™ x6425E 2.00 GHz quad-core / Celeron® J6412 2.00 GHz quad-core processor. TPC-3xx EHL delivers high-performance computing in a compact, fanless system. For enhanced durability to satisfy diverse industrial automation applications, TPC-3xx EHL supports a wide operating temperature range (-20 ~ 60 °C/-4 ~ 140 °F) and features a true-flat 5-wire resistive touchscreen with IP66-rated front panel, die-cast aluminum alloy front bezel, and bult-in 100 x 100 VESA mount. Moreover, with the provision of one full-size mini PCIe slot, which supports USB/PCIe interface for Advantech's iDoor technology, TPC-3xx EHL can be easily expanded to provide additional I/O ports, isolated digital I/O, fieldbus protocols, MRAM, and 5G/GPS/GPRS/Wi-Fi communication capabilities.

Specifications

General

- **BIOS** AMI UEFI
- **Certification** BSMI, CCC, CE, FCC Class A, UL
- **Cooling System** Fanless design
- **Dimensions (W x H x D)** 12.1": 311.8 x 238 x 67 mm (12.28 x 9.37 x 2.64 in)
  15": 383.2 x 307.3 x 66.5 mm (15.09 x 12.10 x 2.62 in)
  17: 410.4 x 324.4 x 68 mm (16.1 x 12.7 x 2.67 in)
- **Enclosure** Front bezel: Die cast aluminum alloy
  Back housing: Die cast aluminum alloy
- **Mount Options** VESA mount, Desktop/wall/panel
- **OS Support** Windows 10 Enterprise LTSC, Advantech Linux, Android
- **Security** TPM 2.0 (built-in)
- **Power Consumption** 12.1": 39.01W (Typical)
  15": 30.16W (Typical)
  17": 35.81W (Typical)
- **Power Input** 24 V_{DC} ± 20%
- **Watchdog Timer** 15 ~ 255 sec (system)
- **Weight (Net)** 12.1": 4.2kg (9.26lbs)
  15": 5.15kg (11.35lbs)
  17": 6.1kg (13.45lbs)

System Hardware

- **CPU** Intel® Elkhart Lake
  Atom™ x6425E 2.00 GHz, quad core
  Celeron® J6412 2.00 GHz, quad core
- **Memory** 1 x SODIMM DDR4 (up to 32 GB)
- **LAN** 2 x Intel® I226; 2.5GbE
- **Expansion Slots** 1 x Full-size mini PCIe (PCIE/USB2.0)
  1 x M.2 AE key 2230 (PCIE/USB2.0)
- **Storage** 1 x M.2 B key 2242/ 2280 (SATA/USB2.0)
  3042/ 3052 (USB3.0 for 5G LTE optional)
  1 x 2.5" SSD/ HDD (SATA, Max. 7mm)
- **I/O** 1 x RS-232
  1 x RS-232/422/485
  3 x USB 3.2
  1 x USB 2.0
  1 x iDoor slot
  1 x Displayport (Video output)
  1 x Audio line out/ mic in
  1 x Remote Power Buttom

LCD

	TPC-312 EHL	TPC-315 EHL	TPC-317 EHL
Display Type	XGA TFT LED LCD	XGA TFT LED LCD	SXGA TFT LED LCD
Display Size	12.1" (4:3)	15" (4:3)	17" (4:3)
Max. Resolution	1024 x 768	1024 x 768	1280 x 1024
Max. Colors	16.2M	16.2M	16.7M
Luminance cd/m²	600	300	300
Viewing Angle (H/V°)	178°/178°	176°/176°	160°/140°
Backlight Life	50,000 hr	70,000hrs	50,000 hrs
Contrast Ratio	1000:1	2000:1	800:1

Touchscreen

- **Lifespan** 36 million touches at a single point
- **Light Transmission** Above 75%
- **Resolution** Linearity
- **Type** 5-wite resistive: TPC-312/TPC-315/TPC-317

Environment

- **Relative Humidity** Operating, 95% RH @ 40° C, Non-Condensing
  Non-Operating, 95% RH @ 60° C, Non-Condensing
- **Ingress Protection** IP66-rated front panel
- **Operating Temperature** -20 ~ 60 °C (-4 ~ 140 °F) : TPC-312/TPC-315/TPC-317
- **Storage Temperature** -30 ~ 70 °C (-22 ~ 158 °F)
- **Vibration Protection** With SSD: 1 Grms (5 ~ 500 Hz)
  (operating, random vibration)

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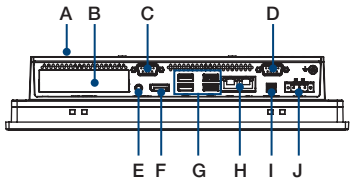
Rear View

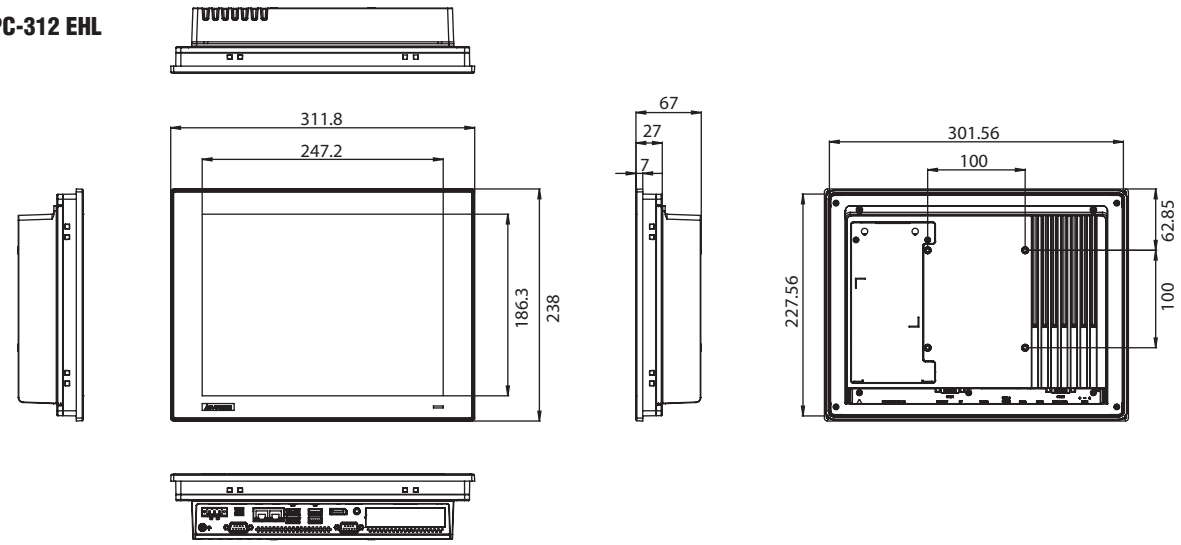


A. Default HDD/SSD Bay
B. iDoor slot
C. RS-232/422/485
D. RS-232
E. Audio line out/ mic in
F. Display Port
G. USB 3.2/2.0
H. LAN
I. Remote Power Button
J. Power Receptor

Dimensions

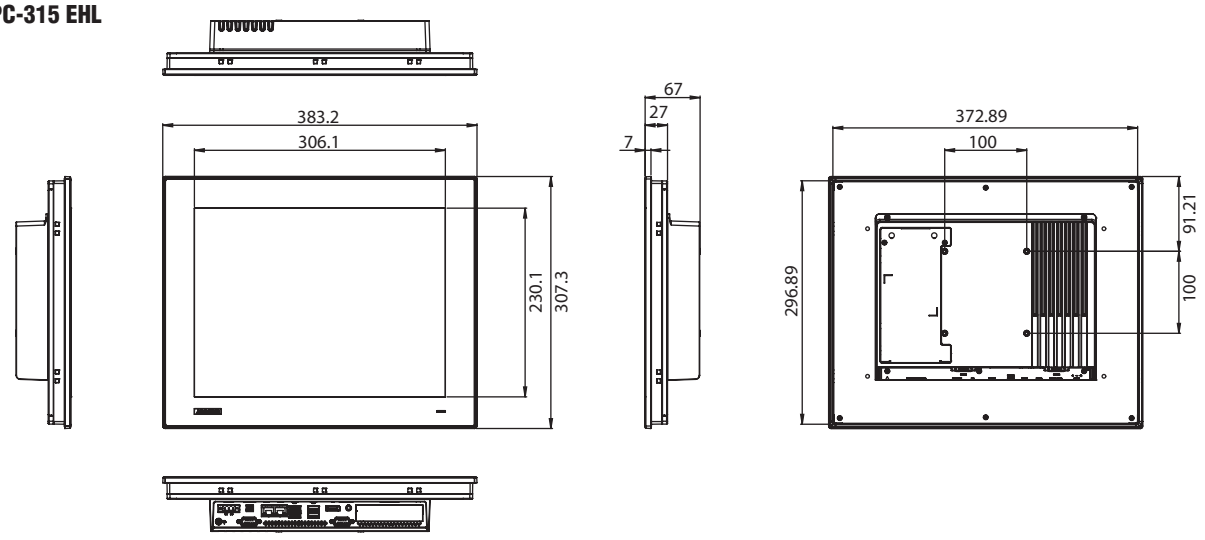
Unit: mm

TPC-312 EHL



TPC-312 EHL Panel Cutout Dimensions: 303 x 229 mm (11.93 x 9.02 in)

TPC-315 EHL



TPC-315 EHL Panel Cutout Dimensions: 374.5 x 298.5 mm (14.74 x 11.75 in)

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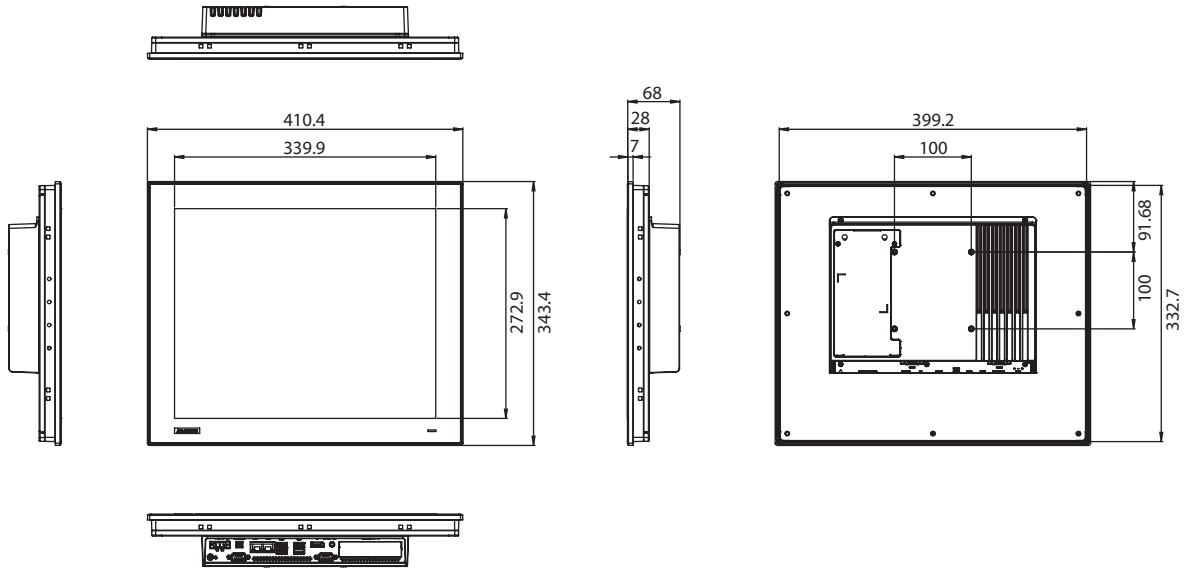
Dimensions

Unit: mm

TPC-317 EHL



TPC-317 EHL Panel Cutout Dimensions: 401.3 x 334.8 (15.8" x 13.18")

Ordering Information

8G DRAM

- **TPC-312-RE23A** 12.1" XGA panel PC with Intel® Atom™ x6425E 2.00 GHz quad-core CPU, 8 GB DDR4 SDRAM (-20 ~ 60 °C)
- **TPC-312-RJ23A** 12.1" XGA panel PC with Intel® Celeron® J6412 2.00 GHz quad-core CPU, 8 GB DDR4 SDRAM (-10 ~ 50 °C)
- **TPC-315-RE23A** 15" XGA panel PC with Intel® Atom™ x6425E 2.00 GHz quad-core CPU, 8 GB DDR4 SDRAM (-20 ~ 60 °C)
- **TPC-315-RJ23A** 15" XGA panel PC with Intel® Celeron® J6412 2.00 GHz quad-core CPU, 8 GB DDR4 SDRAM (-10 ~ 50 °C)
- **TPC-317-RE23A** 17" SXGA panel PC with Intel® Atom™ x6425E 2.00 GHz quad-core CPU, 8 GB DDR4 SDRAM (-20 ~ 60 °C)
- **TPC-317-RJ23A** 17" SXGA panel PC with Intel® Celeron® J6412 2.00 GHz quad-core CPU, 8 GB DDR4 SDRAM (-10 ~ 50 °C)

Optional Accessories

- **PWR-247-DE** 60W 24 V_{DC} /2.5A power supply
- **96PSA-A120W24T2-3** 120W 24V_{DC} power supply
- **1702002600-31** 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
- **ARES-12240-AR01100** Wall Mount, support 2~10kg, 75/100mm
- **ARES-12250-L101000** WallMount, max.support 25kg, 75/100mm
- **ARES-2423S-A770L01** TableStand, Black, 21.5"~34", 4~12kg, 100x100 75x75
- **ARES-5222A-ATW2000** WallArm, ≦32", support 2~10kg, wo/KBtray, 75/100mm

Embedded OS

- **20704WX1ES0008** Img WIN10 LTSC TPC-3xx(W) Entry
- **20701WLE1S0018** Img W11LTSC x64 v7.01.029 TPC-3xx(W)-x2xxx Entry
- **20701U22DS0004** Image AdvLinuxTu-IOTG_x64 V4.0.6 for TTPC series

iDoor Modules

- **PCM-24D2R2-BE** Isolated RS-232, DB9 x 2, (USB type)
- **PCM-24D2R4-BE** Isolated RS-422/485, DB9 x 2, (USB type)
- **PCM-24D4R2-BE** Non-Isolated RS-232, DB37 x 1 (USB Type)
- **PCM-24D4R4-BE** Non-Isolated RS-422/485, DB37 x 1 (USB Type)
- **PCM-27D24DI-AE** Digital I/O, 16 DI / 8 DO, Isolation, DB37 x 1
- **PCM-24R2GL-AE** 2 Port Giga LAN Intel i350 PCIe mini card
- **PCM-24R2PE-AE** Intel i350, GbE, PoE IEEE 802.3af, PD, RJ45 x 2
- **PCM-24U2U3-BE** PCM-24U2U3, 2-Port USB 3.0, mPCIe
- **PCM-24S2WF-CE** 802.11 a/b/g/n/ac 2T2R w/BT4.1, Intel AC9260
- **PCM-23U1DG-CE** Internal locked USB Slot for USB Dongle, mPCIe
- **PCM-26D2CA-BE** SJA1000 CANBus, Lattice, CANOpen, DB9 x 2

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Packing List

Item	Part No.	Description	Qty
Grounding cable	1703011001-11	A Cable G-TEM 4.3 100CM C=GR/Y	1pcs
Plug-In Block	1652007930-01	Plug-In Block 1x3P/5.08mm/PA66/F/VA	1pcs
Remote Plug 2P	1652006941-01	Plug 2P 3.5mm 180D(F) MC420-35002ZY	1pcs
Warranty	2190000902	CARDBOARD-WARRANTY REV. A2	1pcs
VESA Screw	1930005204	Screw M4x10L R/S DH=6.8x2.50 + ST ZBK PL	4pcs
HDD Screw	1930001361	Screw M3x4L S/S D=5 H=1.2 (2+) ST Ni NK	4pcs
Copper Pillars	1910003084-01	POST F=M3*4L M=M3*4L B=5.02 H=6.5 CU	1pcs
Clamp	1962055040	CLAMPER PPC-55 M1632611 A2	8pcs : TPC-312 10pcs : TPC-315 / TPC-317
Clamp Screw	1935042520	Screw M4x25L R/S D=8.3 H=2.5 (2+) ST BZn	8pcs : TPC-312 10pcs : TPC-315 / TPC-317
China RoHS	202KAKMC00	China rohs for AKMC model name 1st ed	1pcs

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

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