

SPC-618WE

18.5" FHD TFT LED LCD Touch Panel Computer with Intel® Raptor Lake-U Platform with IECEx/ATEX and Class I Division II Explosion-Proof certification



Introduction

Advantech's SPC-618WE Explosion-Protected Touch panel computer, is powered by Intel Raptor Lake-U Intel Core processors. With its fan-less design, SPC-618WE delivers high performance that not simply meets customer demands for a daily-operation control panel, but a genuine Industry 4.0-era-tailored Industrial PC that features bountiful I/Os including two USB 3.2 ports, one USB Type-C port, expansions with explosion proof certified Solid State Drive and WiFi module that support for ultra speed data transmission. The system was IP66 and IECEx/ATEX/Class I Division Explosion-Protected certified, therefore is suitable for hazardous environment.

Specifications

General

- **BIOS** AMI UEFI
- **Certification** BSMI, CCC, CE, FCC Class A
IECEx/ATEX Zone 2/22 explosion proof certification
Class I Division II explosion proof certification
- **Cooling System** Fanless design
- **Dimensions (W x H x D)** 479.3 x 300.3 x 80 mm
- **Enclosure** Front bezel: Die cast aluminum alloy
Back housing: Die cast aluminum alloy
- **Mounting** Panel Mount
- **OS Support** Windows 11 LTSC
- **Security** TPM 2.0 (built-in)
- **Power Consumption** Typ. 46W; Max. 82W
- **Power Input** 19 - 24 V_{DC} ± 15%
- **Watchdog Timer** 15-255 sec (system)
- **Weight (Net)** 6KG

System Hardware

- **CPU** 13th Gen. Intel® Core™ i7-1365URE 1.7 GHz
Deca-core processor
- **Memory** Single DDR5 4800 SO-DIMM RAM 32GB
- **LAN** 2 x 2.5 GbE with Intel® i226
- **Storage** 1x M.2 2280
sTLC Solid State Drive 256GB & 512GB
TLC Solid State Drive 256GB & 512GB
1 x 2.5 SATA (Optional through customization)
sTLC Solid State Drive 256GB & 512GB
TLC Solid State Drive 256GB & 512GB

*Detailed information listed in "Explosion Proof Certified Component"

- **I/O** 1 x Displayport 1.4a (Video output)
1 x USB Type-C (USB 3.2 Gen.2, DP 1.4a, 5V w/ 3A max)
2 x USB 3.2 (Gen.1)
2 x USB 2.0
2 x RS-232/422/485

Features

- Industrial-grade 18.5" FHD TFT LCD with 50K lifetime and LED backlight
- 13th Gen. Intel® Core™ i7-1365URE deca-core processor
- Built in single DDR5 4800 RAM with 32GB capacity
- Built in Explosion-Proof certified SSD
- Compact, fanless embedded system with aluminum alloy front bezel and chassis grounding protection
- Specialized enhanced impact proof touchscreen with PCAP touch control and IP66-rated front panel
- Support TPM2.0 hardware security
- IECEx/ATEX explosion proof certification for Zone 2/22
- Class I Division II explosion proof certification

LCD Display

- **Display Type** FHD TFT LED LCD
- **Display Size** 18.5"
- **Max. Resolution** 1920 x 1080
- **Max Colour** 16.7M
- **Luminance cd/m²** 350 cd/m²
- **Viewing Angle (H/V°)** 178°/178°
- **Backlight Life** 50,000 hrs
- **Contrast Ratio** 1000:1

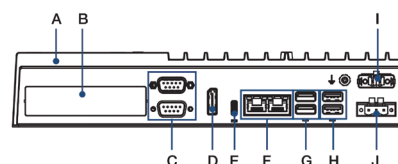
Touchscreen

- **Light Transmission** Above 85%
- **Resolution** Linearity
- **Type** PCAP touch screen

Environment

- **Humidity** 95% RH @ 40°C, non-condensing
- **Ingress Protection** IP66-rated front panel
- **Operating Temperature** -20~60 °C (-4~140 °F) (w/o air flow)
- **Storage Temperature** -30~70 °C (-22~158 °F)
- **Vibration Protection** With SSD: 1 Grms (5 ~ 500 Hz)
(Operating, random vibration)

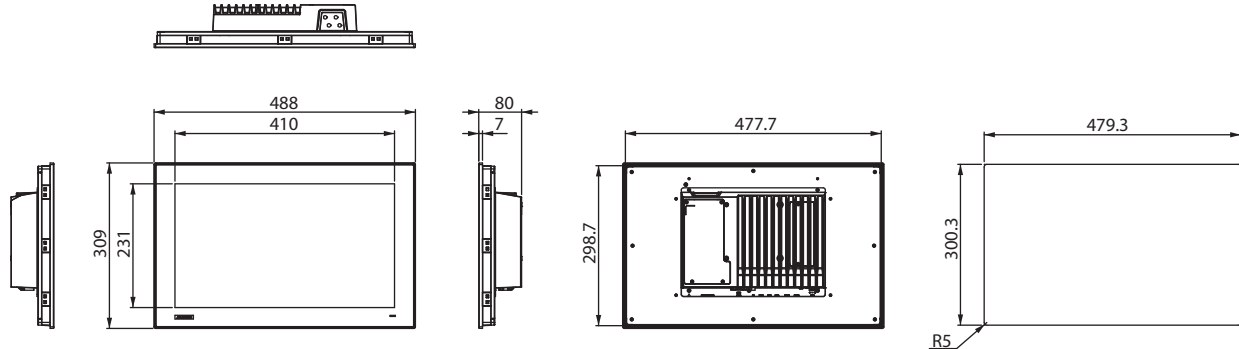
Rear View



- A. Chassis
- B. iDoor Slot (Not Expandable)
- C. RS-232/422/485
- D. Display Port
- E. USB Type-C
- F. 2.5GbE LAN
- G. USB 3.2
- H. USB 2.0
- I. Remote Button
- J. Power DC IN

Dimensions

Unit: mm



Panel Cut-out Dimensions: 479.3 x 300.3mm (18.87 x 11.82 in)

Ordering Information

- SPC-618WE-PUD75A** 18.5" FHD Panel PC, ATEX, Intel® i7-1365URE, 32GB DDR5, 256GB SSD
- SPC-618WE-PUD75B** 18.5" FHD Panel PC, ATEX, Intel® i7-1365URE, 32GB DDR5, 512GB SSD
- SPC-618WE-PUD74C** 18.5" FHD Panel PC, ATEX, Intel® i7-1365URE, 16GB DDR5, 256GB SSD, Model for China Region
- SPC-618WE-PUD74D** 18.5" FHD Panel PC, ATEX, Intel® i7-1365URE, 16GB DDR5, 512GB SSD, Model for China Region

Embedded OS

- 20701WLH1S0004** Win11 LTSC for SPC-618WE
- 20701U24DS0001** Ubuntu for SPC-618WE

Explosion Proof Certification



II 3 G Ex ec IIC T4 Gc
II 3 D Ex tc IIIC T76°C Dc
UL 24 ATEX 3284X
IECEX UL 24.0074X
-20°C ≤ Ta ≤ +60°C



Class I, Division 2,
Group A, B, C and D
Temp. Code T4
Ambient -20°C to +60°C

Optional Accessories

- 96PSA-A150W24T2-4** 150W 24V_{DC} 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

Explosion Proof Certified Component

Item	Part Number	Description	Note
Memory	SQR-SD5116G4K8SNBB	SODIMM DDR5 4800 16GB 2Gx8 (-40~85°C) Samsung	
	SQR-SD5132G4K8SNBB	SODIMM DDR5 4800 32GB 2Gx8 (-40~85°C) Samsung	
Storage	SQF-S8BZ4-256GDSDE	SQF M.2 2280 SSD 650 256G 3D sTLC BiCS5 (-40~85°C)	sTLC
	SQF-S8BZ4-512GDSDE	SQF M.2 2280 SSD 650 512G 3D sTLC BiCS5 (-40~85°C)	sTLC
	SQF-S8BV1-256GDSMD	SQF SATA M.2 2280 650-D 256G 3D TLC BiCS5 (-20~85°C)	TLC
	SQF-S8BV2-512GDSMD	SQF SATA M.2 2280 650-D 512G 3D TLC BiCS5 (-20~85°C)	TLC
	SQF-S25Z4-256GDSDE	SQF 2.5" SSD 650 256G 3D sTLC BiCS5 (-40~85°C)	sTLC
	SQF-S25Z4-512GDSDE	SQF 2.5" SSD 650 512G 3D sTLC BiCS5 (-40~85°C)	sTLC
	SQF-S25V1-256GDSMD	SQF 2.5" SATA SSD 650-D 256G 3D TLC (BiCS5) (-20~85°C)	TLC
	SQF-S25V2-512GDSMD	SQF 2.5" SATA SSD 650-D 256G 3D TLC (BiCS5) (-20~85°C)	TLC
Wi-Fi	EWM-W165M203E (TPC-WLAN)	Wi-Fi 6E + BT Module 2.4/5/6GHz M.2 2230 noVpro	802.11ax

Packing List

Item	Part No.	Description	Qty
Grounding cable	1703011001-11	A Cable G-TEM 4.3 100CM C=GR/Y	1
Power Connector	1652007930-01	Plug-In Block 1x3P/5.08mm/PA66/F/VA	1
Warranty	2190000902	CARDBOARD-WARRANTY REV. A2	1
VESA Screw	1930005204	Screw M4x10L R/S DH=6.8x2.50 + ST ZBK PL	4
China RoHS	202KAKMC00	China rohs for AKMC model name 1st ed	1