

# TSP-5645-12

12.1" Panel PC



## Key Highlights

- 12.1" LCD Touchscreen
- Intel 8th Gen Core i3/i5 Processor
- Slim and Fanless Design
- IP66/IP69K Stainless Steel Front Bezel
- Windows 11 Capabilities

[VIEW ONLINE](#)

The 12" Waterproof Touchscreen Computer, featuring a stainless steel front panel and aluminum back cover, is the perfect solution for demanding environments where exposure to liquids, sprays, or humidity is common. This computer can be easily panel mounted, creating a waterproof solution that can withstand harsh conditions. Powered by an Intel 8th Gen Core i3/i5 CPU and supporting Windows 11, it offers exceptional performance and seamless software integration. This 12" [panel PC](#) provides a compact yet powerful computing solution for those seeking ruggedness and reliability in a smaller form factor.

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# Technical Specifications

## Primary Components

<b>Processor Family</b>	Intel Core I series 8th Generation Whiskey Lake-U
<b>Processor Model</b>	Core i3 8145UE, Core i5-8365UE
<b>Processor Speed</b>	2.3 GHz, Up to 4.1 GHz
<b>Memory Type</b>	1x DDR4 SO-DIMM
<b>Memory Support</b>	4GB, 8GB, 16GB, 32GB
<b>Storage Type</b>	1x M.2 M Key, PCIe or SATA, 2242 default or 2280
<b>Storage Support</b>	128GB-1TB

## Power

<b>Input Voltage Range</b>	9-36V DC
<b>Max Power Consumption</b>	56W
<b>Standard Power Adapter</b>	Optional 12V 5A AC/DC Adapter

## Operating Systems

<b>Windows</b>	Windows 10 IoT, Windows 10 Pro, Windows 11 IoT, Windows 11 Pro
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## Expansion Slots

<b>Internal M.2</b>	1x M.2 for NVME SSD Support
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## Enclosure

<b>Material</b>	Aluminum, Optional SUS316 Stainless Steel, SUS304 Stainless Steel
<b>IP Rating</b>	IP66 Front Bezel, IP69K Front Bezel
<b>Color</b>	Silver, Stainless Steel
<b>Mounting Options</b>	Panel Mount, VESA 100 Mount
<b>Approved Cleaning Solutions</b>	Acetic Acid (low concentration), Ammonium Nitrate (low concentration), Benzine, Citric Acid (low concentration), Ethanol, Ethylene Glycol Solution (1:1 with water), Hexane, Hydrochloric Acid (low concentration), Iron Chloride Solution, Isooctane, Isopropyl Alcohol, Nitric Acid (low concentration), Paraffin, Perhydrol (30% in water), Phosphoric Acid (low concentration), Propane, Silicone Oil, Sodium Carbonate (low concentration), Sodium Chloride Solution, Sodium Nitrate (low concentration), Sulfuric Acid (low concentration), Triethylene Glycol

## Weight / Dimensions

<b>Weight</b>	2.5 kg (5.5 lbs)
<b>Dimensions</b>	331 x 257 x 52 mm mm (13.0 x 10.1 x 2.0 in)

## Certification

<b>Certifications</b>	CE, EN 1672-2 Complaint (PCAP Touchscreen Only), FCC Class A
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*Specifications subject to change.*

## Display

<b>Screen Size</b>	12.1"
<b>Screen Resolution</b>	1024 x 768 (XGA)
<b>Screen Ratio</b>	4:3
<b>Brightness</b>	450 nits, Optional 1000 nit High Brightness

## Touch Screen

<b>Touch Screen</b>	Projected Capacitive, Resistive
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## External I/O Ports

<b>USB</b>	4x USB 3.0
<b>Serial / Com</b>	2x COM
<b>Serial Protocol Detail</b>	Included Y-Cable provides two DB-9 Com ports: 1x 5-pin RS-232 (COM1) and 1x Configurable 3-Pin RS-232/422/485 (COM2)
<b>Ethernet / LAN</b>	2x RJ45 GbE LAN
<b>Video Outputs</b>	1x DisplayPort
<b>Audio Ports</b>	1x Audio Line-Out
<b>Power Input Port</b>	DC-in Jack (Phoenix Type)

## Thermal & Environmental

<b>Operating Temperature</b>	0°C - 50°C (32°F - 122°F (i3/i5)), -20°C - 60°C (Optional -4°F - 140°F)
<b>Storage Temperature</b>	-20°C - 60°C (-4°F - 140°F)
<b>Cooling Solution</b>	Passive - Fanless
<b>Humidity Range</b>	10% - 95% Non-condensing
<b>Storage Humidity</b>	10% - 90% Non-condensing

## Peripherals & Wireless Connectivity

<b>WiFi</b>	Optional 802.11 ac + Bluetooth with External Antennas
<b>Bluetooth</b>	Optional Bluetooth 4.0
<b>Sim Card</b>	1x Nano SIM Card Slot

## Warranty

<b>Warranty</b>	Up to 5 Years
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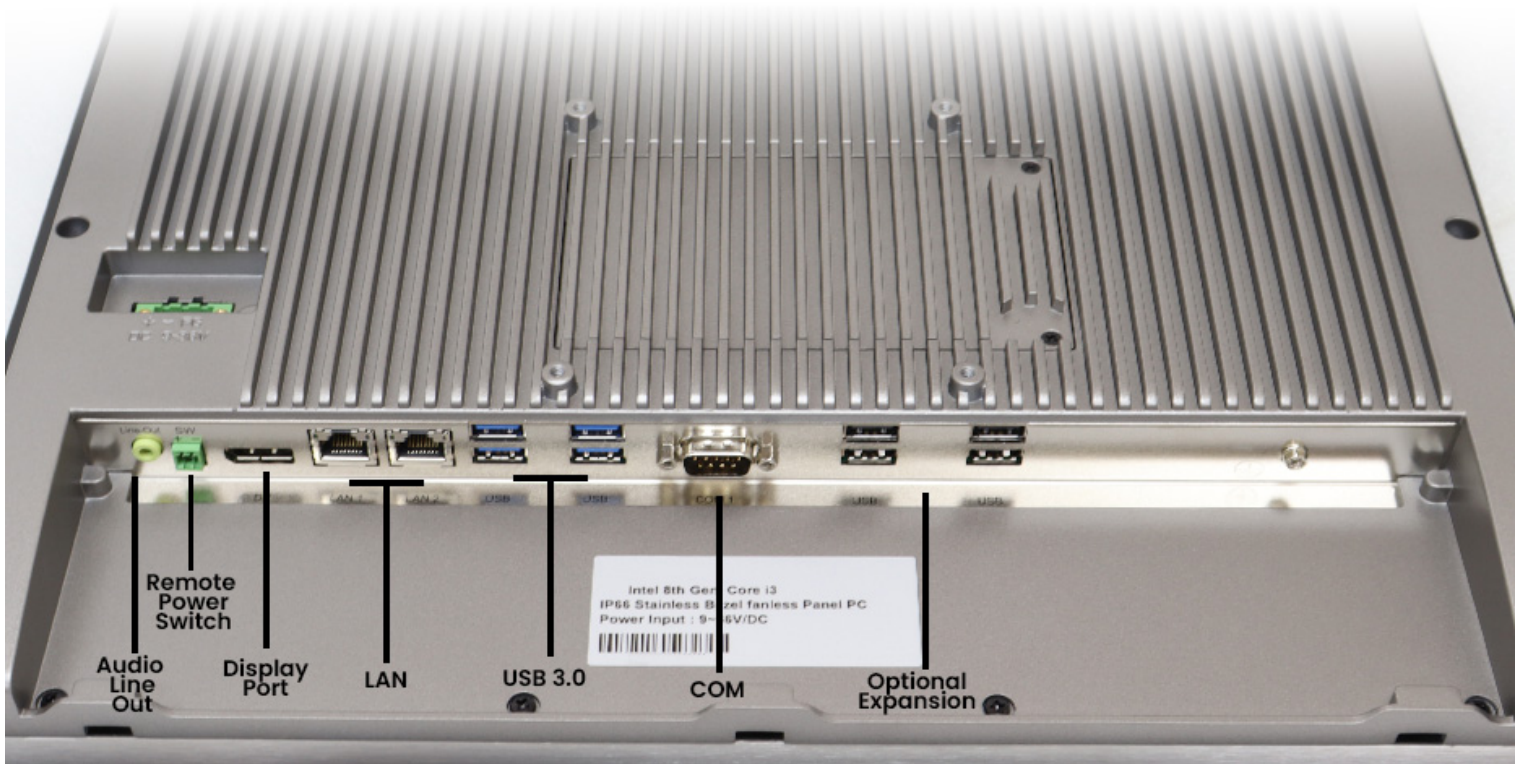
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# I/O Diagram Images



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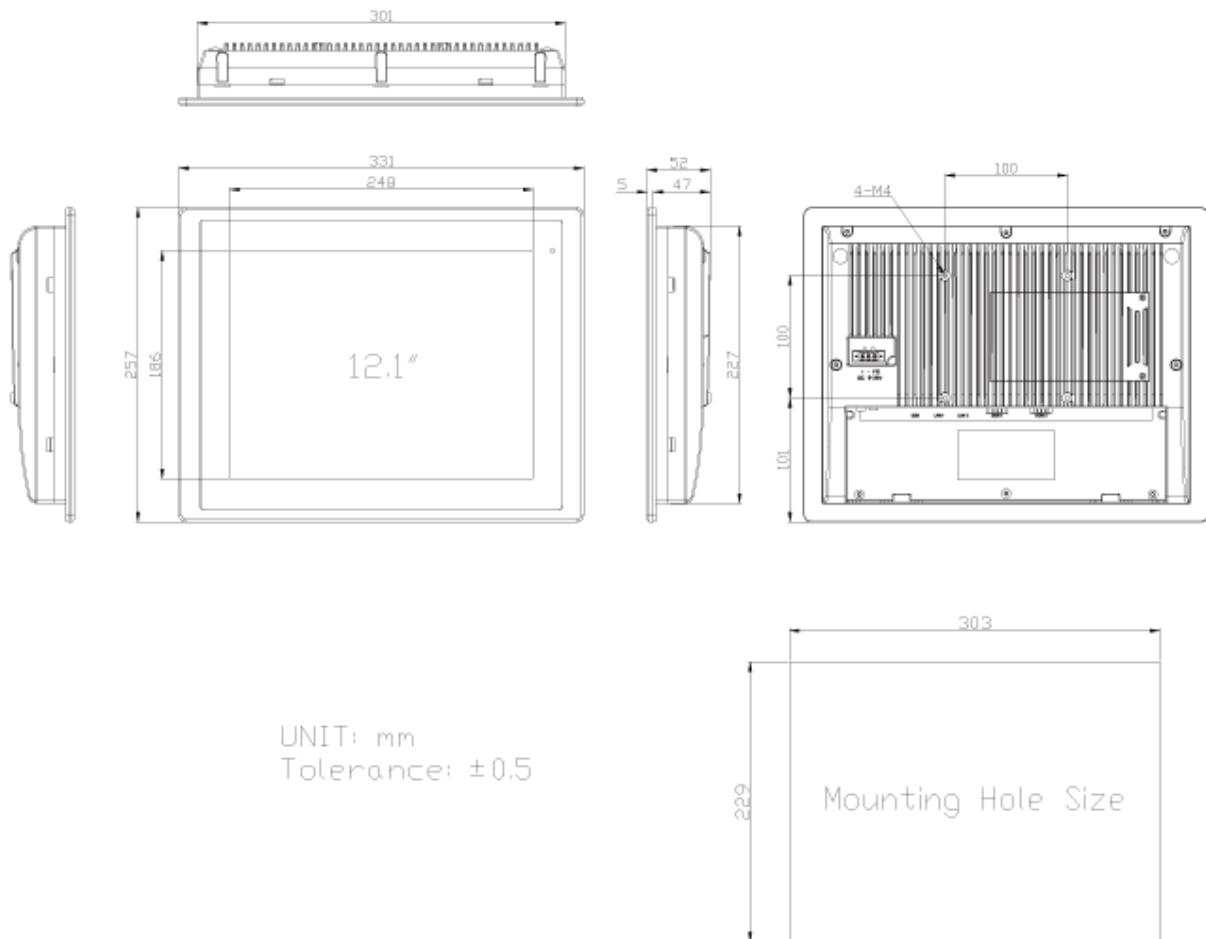
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# Tech Diagram Images



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