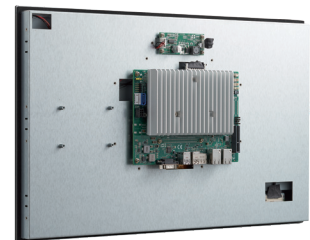
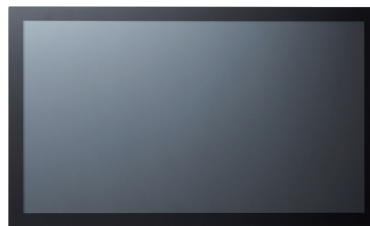


SP2-TGL Series

11th Gen. Intel® Core™
 Processor-based Fanless
 Open-Frame Panel PC



Features

- High performance with 11th Gen. Intel® Core™ Processor
- Extensive I/O and function expansion through wire-to-board connectors and custom function module
- Extensive expansion and customization options for fast and easy integration with all form factor, kiosk and all-in-one panel PC application
- Enhanced data integrity and protection in case of sudden power outage with support for optional back-up battery
- Low-risk cost-effective choice with pre-compliance EMC testing and high ESD tolerance
- High applicability and reliability in case of power fluctuation with a 9-36V voltage range

Software Support

- Windows® 10 IoT Enterprise, Linux Ubuntu 20.04

Optional Accessories

- Memory
Up to 64GB DDR4 memory
- Storage
M.2 SSD, 2.5" HDD/SSD
- Adapter
12V 160W power adapter
12V 84W power adapter

Ordering Information

Model	CPU
SP2-10WP-TGL	10.1" fanless open frame panel PC
SP2-15WP-TGL	15.6" fanless open frame panel PC
SP2-21WP-TGL	21.5" fanless open frame panel PC

- I/O Cables
Power/Reset, keypad, I2C, DI/O, speaker, buzzer, MIC in/
Line out, LED, COM port, fan, and USB cables
- Wireless Kit
Wi-Fi/BT/4G LTE wireless kit
- Function Module with External I/Os

SP-FM | Titan FM | USB FM



• SP-FM



• Titan FM



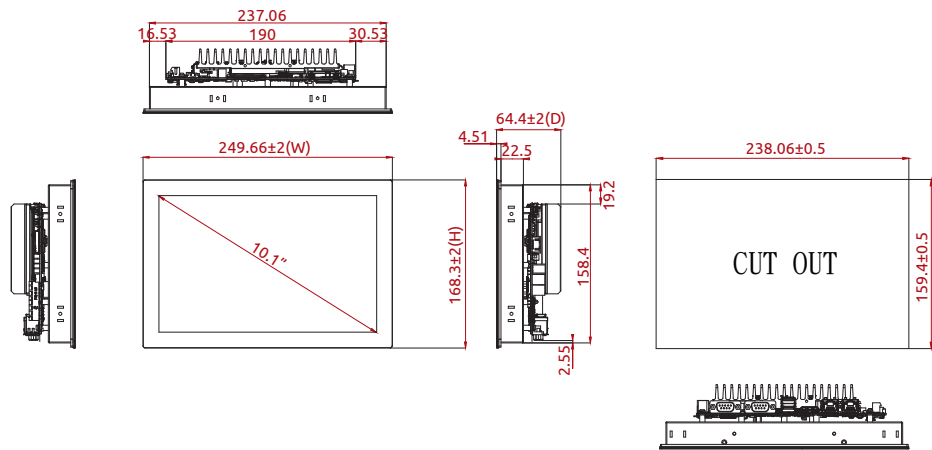
• USB FM

Specifications

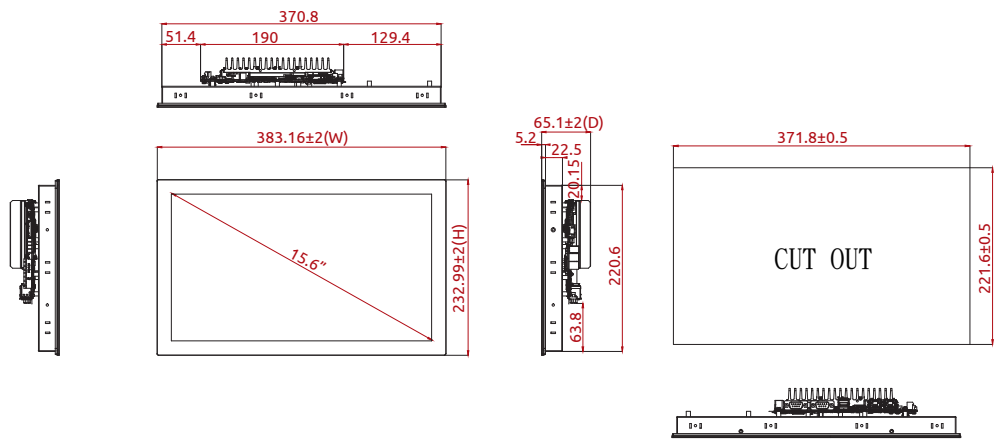
Model	SP2-10WP-TGL		SP2-15WP-TGL		SP2-21WP-TGL	
System						
Processor	11th Gen Intel® Core™ and Celeron® Processors - Mobile 10nm++ process(formerly “Tiger Lake UP3”) Intel® Core™ i7-1185G7E, 2.8(4.4)GHz, 12MB, 15-28W (4C/Iris Xe) Intel® Core™ i5-1145G7E, 2.6 (4.1)GHz, 8MB, 15-28W (4C/Iris Xe) Intel® Core™ i3-1115G4E, 3.0(3.9)GHz 6MB, 15-28W (2C/UHD) Intel® Celeron® 6305E, 1.8 GHz, 4MB, 15W (2C/UHD) Intel® Core™ i7-1185GRE, 2.8 (4.4) GHz, 12MB, 15-28W (4C/Iris Xe) Intel® Core™ i5-1145GRE, 2.6 (4.1) GHz, 8MB, 15-28W (4C/Iris Xe) Intel® Core™ i3-1115GRE, 3.0 (3.9) GHz, 6MB, 15-28W (2C/UHD)					
Memory	2x SODIMM non-ECC 2400/3200 MHz DDR4 memory up to 64GB					
Storage	1x M.2 SATA 6 Gbps port, M key 2280 and 1x 2.5” SSD/HDD SATA 6 Gbps port (Optional)					
Display and Touch						
Size	10.1”		15.6”		21.5”	
Resolution	1280 x 800		1920 x 1080			
Contrast Ratio	800:1		1000:1			
Brightness (Nits)	400 cd/m2 (typ)		420 cd/m2 (typ)		400 cd/m2 (typ)	
Backlight Life (Hrs)	50,000					
Viewing Angle (U/D/R/L)	89/89/89/89					
Touch screen	10 points					
Surface Hardness	7H					
Surface Treatment	Anti-Fingerprint					
External I/O						
Ethernet	2x GbE (Intel® I225), RJ-45, WOL, Up to 2.5 Gb/s					
Serial Port	1x RS-232/422/485 programmable, auto flow					
USB Port	1x USB 2.0, Type A, OCP, 1000mA 1x USB 3.2, 5 Gbps, Type A, OCP, 1600mA 2 x USB 3.2, gen 2, 10 Gbps, Type A, OCP, 1600mA					
DisplayPort	1x DP, DP++, supports resolutions up to 5120x3200@60Hz 1x MiniDP, DP++, supports resolutions up to 5120x3200@60Hz					
Internal I/O with Wire to Board Connectors						
USB Port	1x USB 2.0 client					
I²C	2x for I²C client					
Audio	1x for 2x stereo speaker (2 watt) 1x Mic-in and Line-out 1x buzzer					
Keys	1x for 32 physical keys (BOM optional), 1x supports LCD backlight up/down and volume up/down (BOM optional)					
COM Port	1x RS-232/422/485 programmable, auto flow					
GPIO	1x supports 8-pin GPIO					
PCIe Slot	1x PCIe Gen 4 x4 (Optional)					
M.2	1x A/E key 2230 (Wi-Fi/BT) 1x B key 3042 (4G/5G)					
SIM	1x SIM slot for 4G/5G communication					
Power with Wire to Board Connector						
Power Input	AT/ATX (Default: AT mode) 12V ±5% / 9-36V, both with OVP/UVF protection					
Power Connector	1x 6-pin power connector					
Power/Fail Reset	1x wafer, support system reset & power button and power LED					
Backup Battery	1x wafer for UPS kit to backup data when AC shuts down (Optional)					
Environmental						
Operating Temperature	0°C to 60°C (Default) -20°C to 60°C (By Request)				0°C to 60°C	
Storage Temperature	-20°C to 70°C				-20°C to 60°C	
Humidity	10% to 95%					
Vibration	OP 1 Grms, 5-500Hz w/ SSD, (IEC60068-2-64) X, Y, Z axes, 60 min/axis					
Shock	OP 20G peak acceleration, 11 ms (IEC60068-2-64) ±X, ±Y, ±Z, 3 shocks/asix					
IP Rating	IP65 for front					
ESD	Air: ±15kV, Contact: ±8kV					
EMC/Safety Compliance	EMI: IEC/EN 61000-3-2, IEC/EN 61000-3-3, EN 61000-6-4, EN 55032 EMS: EN 55035, EN 61000-6-2 EMC: CE, FCC Class B, IEC 60601-1-2:2014/EN60601-1-2:2015, UNECE R10, EN 50121-3-2 Safety: Compliant with 60601-1/61010-1/62368-1 *SP2-TGL has passed pre-compliance testing of EMI, EMS, EMC, and Safety.					
Software						
WDT	Watch Dog Timer supported					
Operating System	Windows® 10 IoT Enterprise x64 bit, Linux Ubuntu 22.04					
Mechanical						
Construction	SGCC					
Dimension (W x L x D)	249.66 x 168.3 x 64.4 ± 2mm		383.15 x 232.79 x 65.1 ± 2mm		517.46 x 309.19 x 67.6 ± 2mm	
Weight	2.06 ± 0.2kg		3.02 ± 0.2kg		4.85 ± 0.2kg	
Mounting Kit	1) Panel mounting					
(optional accessories)	2) VESA mounting, support by a rear cover					

Mechanical Overview

SP2-10WP-TGL



SP2-15WP-TGL



SP2-21WP-TGL

