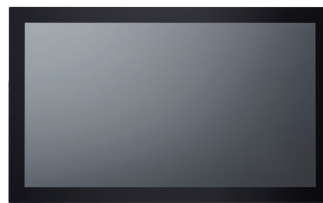


SP2-EHL Series

Intel Atom® Processor-based
Fanless Panel Computer



Features

- 7"/10.1"/15.6"/21.5" Open frame panel PC
- Intel Atom® x6000E series processors (Elkhart Lake)
- Unique function module design for easy I/O expansion
- Default 12V, Wide power input 9-36V (optional)
- Simple cabling with optional Power Over Ethernet (60W)
- Supports up to 3 displays (integrated panel/DisplayPort/USB Type C (Optional))
- Cost-effective solution with pre-compliance EMC testing and high ESD tolerance
- Back-up battery in case of sudden power outage (Optional)

Ordering Information

Category	Part Number	Description
SP2-EHL	93-P1400-2010	SP2-10WP-EHL-J6412,4GB, w/ IO, 12V
	93-P1400-6010	SP2-15WP-EHL-J6412,4GB, w/ IO, 12V
	93-P1400-B010	SP2-21WP-EHL-J6412,4GB, w/ IO, 12V
	93-P1400-2110	SP2-10WP-EHL-x6413E,4GB, w/ IO, 12V
	93-P1400-6110	SP2-15WP-EHL-x6413E,4GB, w/ IO, 12V
	93-P1400-B10E	SP2-21WP-EHL-x6413E,4GB, w/ IO, 12V
Adapter and Power cable	31-62157-0000-A0	AC-DC 12V/ 7A AC-DC Adapter
	30-21863-0000-A0	Power cable MPE/MPC TO 2X3P(P:3.0) , L=300mm

Software Support

- Windows® 10 IoT Enterprise
- Windows® 11 IoT Enterprise
- Ubuntu Linux 22.04.2

Optional Accessories

Category	Part Number	Description
Panel mount Clips	91-95337-0010	SP2/OM-215_Clip_Kits
	91-95337-1010	SP2/OM-156_Clip_Kits
	91-95337-2010	SP2/OM-101_Clip_Kits
Rear cover	91-95354-000E	SP2-EHL_215 Rear cover
	91-95354-100E	SP2-EHL_101/156 Rear cover
Wi-Fi kit	91-95266-0020	INTEL AC9260 Non-VPRO WIFI/ BT KIT
Speaker	23-51635-0020	SPEAKER 2W/8Ω 870Hz
Buzzer	23-52111-0A00	Buzzer with cable,6V/40mA 85dB
Cables	30-21862-0000-A0	COM port cable, DB9, L=300mm
	30-21352-0000-A0	GPIO cable
	30-21353-0000-A0	I ² C cable
	30-21401-0000-A0	USB 2.0 1x6P to USB 2.0/F L=150MM
	30-21350-0000-A0	Power button x1, Reset button x1, LED x1, L=300mm
	30-21429-0020-A0	Rocker Switch Cable Wire Harness 1x5P (1.25mm) to Rocker SW, L:300mm
Function Module	59-A2050-0020	USB_FM_STD_Full function
	59-A2045-1000	Titan-FM
	59-A2039-0010	SP-FM



• SP-FM



• Titan FM



• USB-FM

Specifications

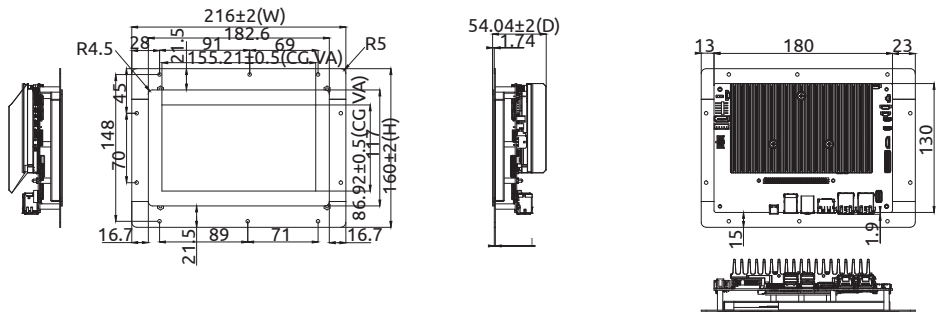
Model	SP2-07WP-EHL	SP2-10WP-EHL	SP2-15WP-EHL	SP2-21WP-EHL
System				
Processor	Intel Atom® x6425E, 2.0(3.0) GHz, 12W, 4C/32EU Intel Atom® x6413E, 1.5(3.0) GHz, 9W, 4C/16EU Intel Atom® x6211E, 1.2(3.0) GHz, 6W, 2C/16EU Intel Atom® J6412, 2.0(2.6) GHz, 10W, 4C/16EU			
Memory	1x SODIMM socket, DDR4 3200MHz (Up to 32GB)			
Storage	1x M.2 SATA M key 2280, support SATA SSD and NVME (PCIe x2) 1x 2.5" SSD/HDD SATA 6 Gbps port			
TPM	1x TPM 2.0 (optional)			
Display and Touch				
Size	7"	10.1"	15.6"	21.5"
Resolution	1024x600	1280 x 800	1920 x 1080	1920 x 1080
Contrast Ratio	600:1	800:1	1000:1	1000:1
Brightness (cd/m², typ)	600 cd/m2 (typ)	400 cd/m2 (typ)	420 cd/m2 (typ)	400 cd/m2 (typ)
Backlight Life (Hrs)	50,000			
Viewing Angle (U/D/R/L)	85/85/85/85	89/89/89/89		
Touch Points	5 points	10 points		
Touchscreen type	Capacitive touch screen (standard), Glass/Glass Resistive Touch Screen (Optional)			
Surface Hardness	7H			
Surface Treatment	Clear	Anti-Fingerprint		
External I/O				
Ethernet	2x GbE (Intel® I226), RJ-45, WOL (Default 1Gbps, optional: 2.5Gbps)			
Power Over Ethernet	Supports 60W PoE (PD) with external module (optional)			
USB Ports	2x USB 3.2, Gen 1 (5 Gbps), OCP, Type A 2x USB 2.0, OCP, Type A 1x USB 3.2 Gen 1, Type C (optional)			
DisplayPort	1x DisplayPort, DisplayPort++, supports resolutions up to 4096x2160@60Hz 1x USB Type C, supports resolutions up to 4096x2160@60Hz (optional)			
Internal I/O with Wire to Board Connectors				
USB Ports	2x USB 2.0 client, wafer			
COM Ports	2x RS-232/422/485 programmable, auto flow (wire to connectors) Default: COM 1, COM 2: BOM optional			
I²C connectors	2x for I2C client, wafer			
Audio (Optional)	1x Stereo speaker (2 watt) 1x Mic-in/line-out 1x buzzer			
Keys	1x for 32 GPIO or physical key (Optional), 1x Supports LCD backlight up/down and volume up/down (BOM optional)			
GPIO	1x 8-pin GPI/O			
Power/Reset	1x Power (with LED) 1x Reset button			
LED	Supports 10 LEDs			
mPCIe	1x full size mPCIe slot			
M.2 2230 slot	1x M.2 2230 E key for wireless (Wi-Fi/Bluetooth)			
Power with Wire to Board Connectors				
Power Input	DC 12V ±5% (default) / 9-36 (optional), both with OVP/UVF protection			
Power Connector	1x 6-pin power connector			
Backup Battery	1x Wafer for UPS kit to backup data when AC shuts down (optional)			

Specifications

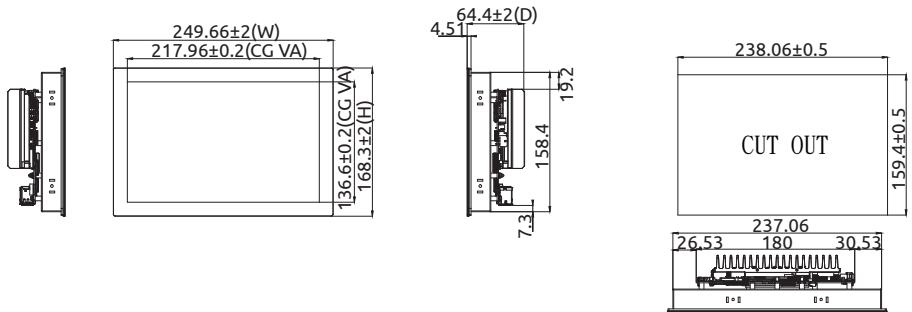
Model		SP2-07WP-EHL	SP2-10WP-EHL	SP2-15WP-EHL	SP2-21WP-EHL
Environmental					
Temperature	SP2-EHL-J6412	Operating: 0°C to 60°C Storage: -20°C to 70°C			
	SP2-EHL-x6211E SP2-EHL-x6213E SP2-EHL-x6425E	Operating: -20°C to 60°C Storage: -20°C to 70°C			Operating: 0°C to 60°C Storage: -20°C to 60°C
	Humidity				
	Up 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/axis			
IP Rating		Front IP65			
Operating System		Windows® 11/10 IoT Enterprise x64bit Ubuntu Linux 22.04 LTS			
ESD		Air: ±15kV, Contact: ±8kV			
EMC Certificated		CE/FCC class B EN 55032:2015 + A11:2020; EN 55035:2017 + A11:2020; BS EN 55032:2015 + A11:2020; BS EN 55035:2017 + A11:2020; AS/NZS CISPR 32:2015 + A1:2020 EN 60601-1-2:2015 + A1:2021; IEC 60601-1-2:2014 + A1:2020 BS EN 60601-1-2:2015 + A1:2021 IEC/EN 61000-3-2, IEC/EN 61000-3-3			
EMC/Safety Compliance		EN 61000-6-4, EN 61000-6-2, EN 50121-3-2 IEC/EN 60601-1 IEC/EN 62368-1 2nd			
Software					
Watchdog Timer		Watchdog timer supported			
Mechanical					
Construction		SGCC			
Dimensions (W x L x D in mm)		216 x 160 x 54.54 ± 2	249.66 x 168.3 x 64.4 ± 2	383.56 x 232.99 x 65.1 ± 2	517.46 x 309.19 x 67.6 ± 2
Weight		1.09 ± 0.2kg	1.5 ± 0.2kg	2.63 ± 0.2kg	4.86 ± 0.2kg
Mounting		Panel mounting (optional) VESA mounting with optional rear attachment (optional)			

Mechanical Overview

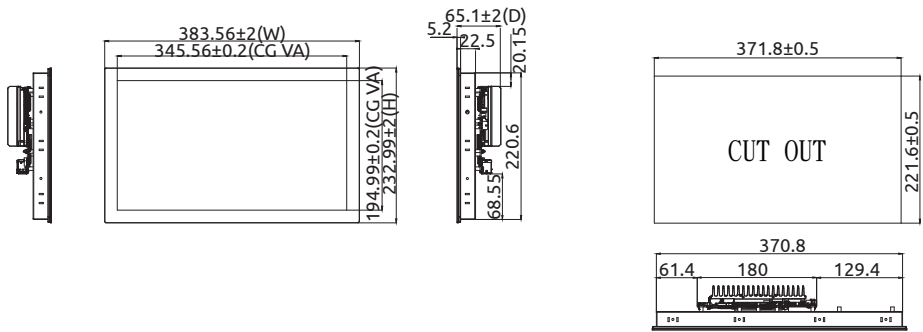
SP2-07WP



SP2-10WP



SP2-15WP



SP2-21WP

