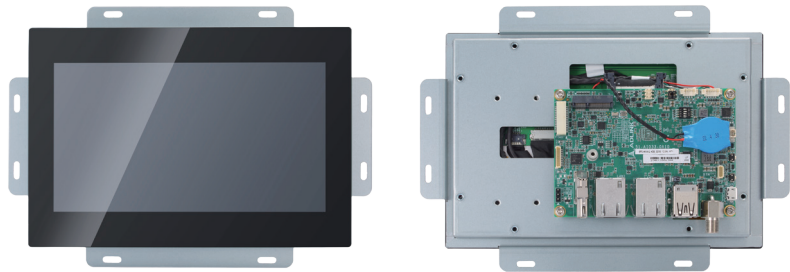


# SP2-IMX8 Series

NXP® ARM processor-based  
Open Frame Computer

Preliminary



**NXP** arm

## Features

- NXP i.MX8M Plus high-performance processor
- Projected capacitive touch screen, full flat design
- 12V DC in or 12-24V DC in
- 32GB eMMC and external Micro SD slot for storage expansion
- IO expansion-able from edge IO
- Physical Recovery and Reset button
- Support Speaker, Mic-in, Line-out and buzzer
- Support 1GbE LAN TSN

## Software Support

- Linux Yocto (Default)
- Android 13 (Planning)
- Windows 10 (By demand)

## Optional Accessories

- Adapter: 12V 60W power adapter
- I/O Cables: Power/Reset, I2C, DI/O, speaker, MIC in/Line out, COM port, and USB cables
- Wireless Kit: Wi-Fi module

## Ordering Information

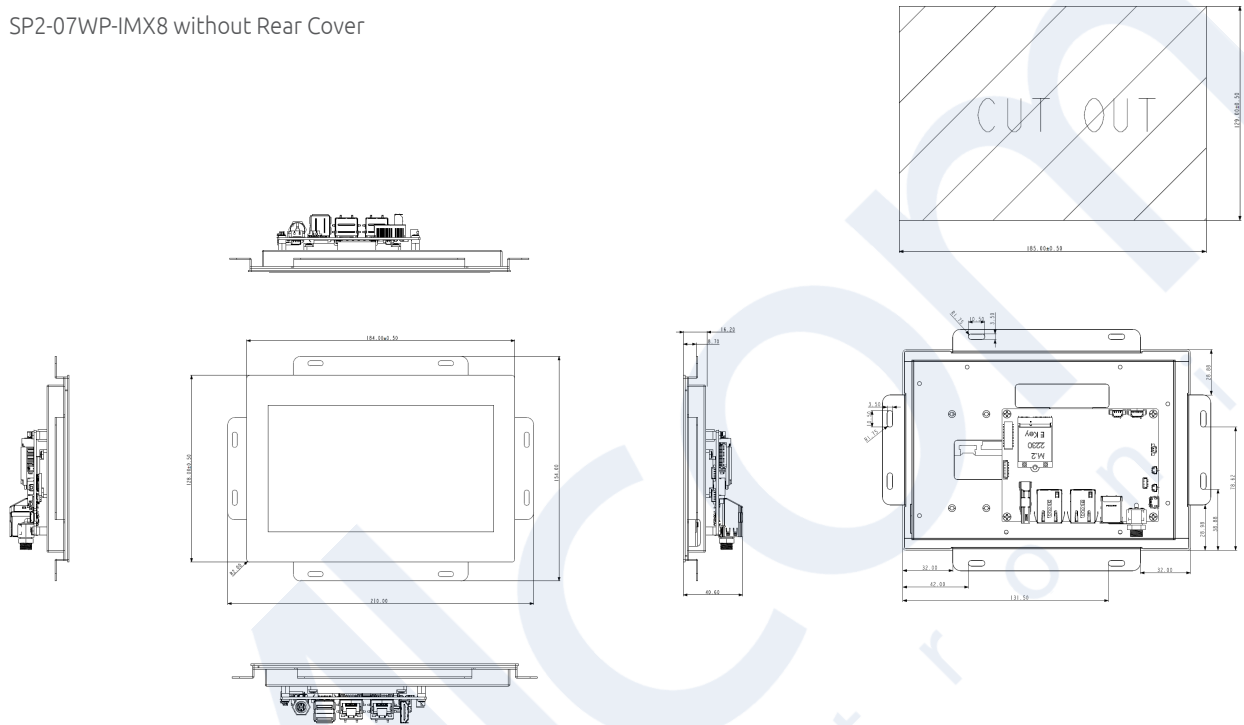
- SP2-07WP-IMX8  
7" ARM-based open frame computer
- SP2-10WP-IMX8  
10.1" ARM-based open frame computer

## Specifications

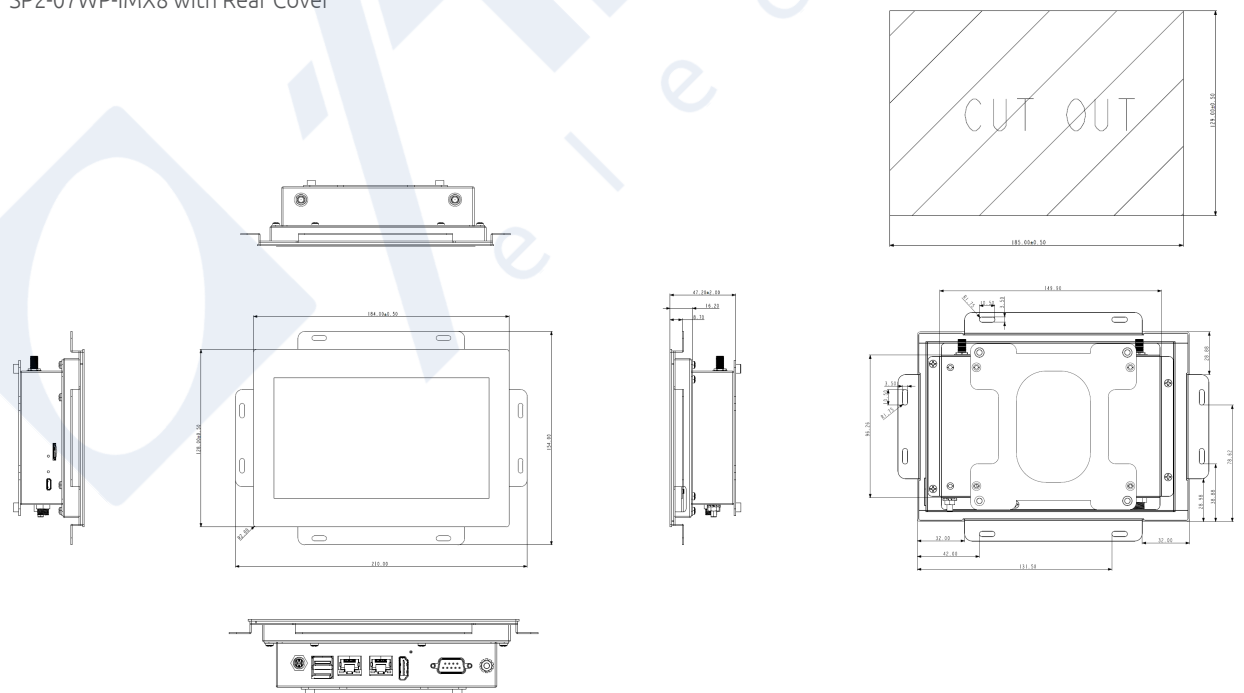
Model	SP2-07WP-IMX8	SP2-10WP-IMX8
<b>System</b>		
Size	7"	10.1"
Processor	NXP i.MX 8M Plus, ARM A53, 64-Bit, 1.8GHz, 4 Core	NXP i.MX 8M Plus, ARM A53, 64-Bit, 1.6GHz, 4 Core
Memory	2 GB (Default) / 4 GB & 8 GB (Optional)	
Storage	32GB eMMC 5.1	
<b>Display and Touch</b>		
Size	7"	10.1"
Resolution	1024 x 600	1280 x 800
Contrast Ratio	800:1	800:1
Brightness	425 cd/m2 (typ)	300 cd/m2 (typ)
Backlight Life (Hrs)	70,000	50,000
Viewing Angle (U/D/R/L)	85/85/85/85	
Touchpoint	5 points	
Touch structure	Glass/Glass	
Surface Hardness	7H	
Surface Treatment	AG	
<b>External I/O</b>		
Ethernet	1x GbE port, RJ45 connector, 1G TSN, support wake on LAN, default 1x GbE port, RJ45 connector, support wake on LAN, optional	
USB Port	1x USB 3.0, Type A, OCP (default) or 1x USB 3.0 + 2.0, Type A, OCP (Optional) 1x USB 2.0 Micro B OTG (default)	
DisplayPort	1x HDMI, supports resolutions up to 1920x1080 @60Hz	
Buttons	1x Reset button 1x Function/Recovery button	
<b>Internal I/O with Wire-to-Board Connectors</b>		
Serial Port	1x RS485, with auto flow control (default) 1x RS-232/422/485 programmable, auto flow (Optional)	
I2C	2x for I2C client, wafer	
Audio (optional)	1x for 2x stereo speaker (2 watts) 1x Mic-in (Mono) and Line-out (Stereo) 1x buzzer	
CAN	1x CAN Bus, wafer	
M.2	1x 2230 A/E key for WiFi/Bluetooth	
Expansion IO (Optional)	1x USB 3.0, 1x USB 2.0, 1x I2C, 1x SPI, 4GPI&4GPO	
<b>Power</b>		
Power Input	12V (default) or 12-24V (optional)	
Power Connector	1x 2.5 $\Phi$ DC Jack (default) or 4-pin power connector (optional)	
Backup Battery	1x RTC battery	
<b>Environmental</b>		
Operating Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Storage Temperature	-20°C ~ 70°C	-20°C ~ 70°C
Humidity	40°C, 95%	
Vibration	OP 1 Grms, 5-500Hz w/ SSD, (Refer to IEC60068-2-64) X, Y, Z axes, 60 min/axis	
Shock	OP 20G peak acceleration (Half-Sine), Pulse Duration: 11ms (Refer to IEC60068-2-27), $\pm$ X, $\pm$ Y, $\pm$ Z, 3 shocks/axes	
ESD	Air: $\pm$ 15kV, Contact: $\pm$ 8kV	
EMC/Safety Compliance	TBD	
<b>Software</b>		
Operating System	Yocto Kirkstone LTS (5.15), by default Android 13, optional Windows 10, by demand	
<b>Mechanical</b>		
Construction	SGCC	
Dimension (H x W x D)	184 x 154 mm	257.6 x 202.2 mm
Weight (without rear cover)	860g $\pm$ 25g	950g $\pm$ 28g
Mounting kit (optional accessories)	1) Panel Mounting 2) Rear cover 3) VESA bracket	

## Mechanical Overview

SP2-07WP-IMX8 without Rear Cover

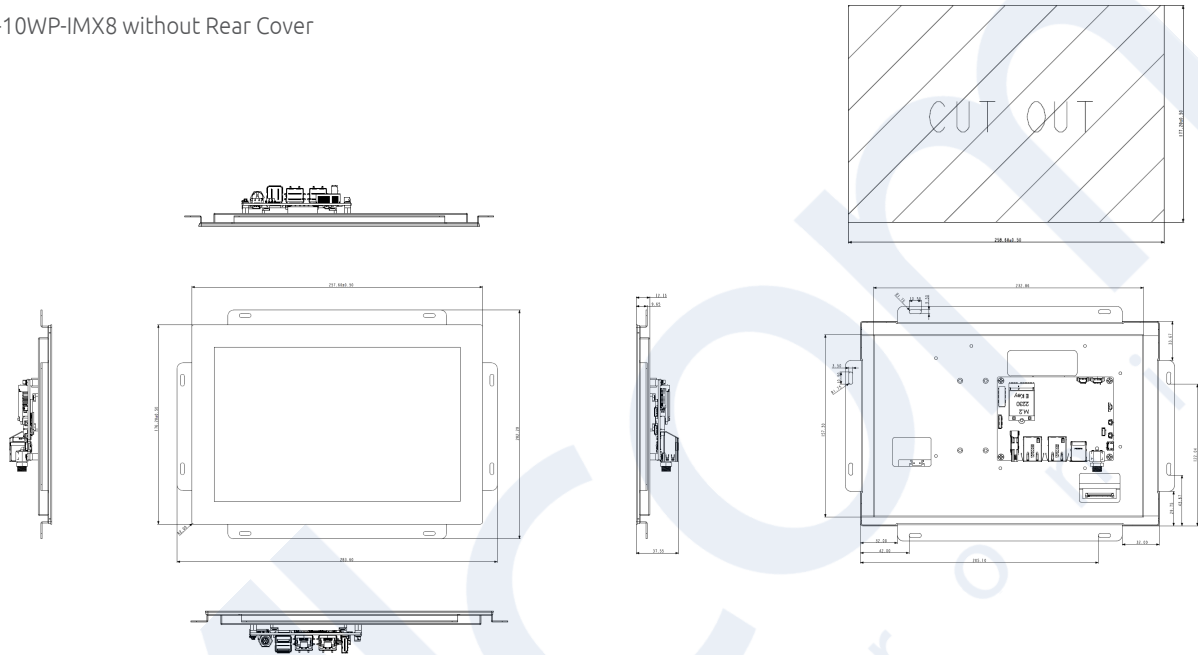


SP2-07WP-IMX8 with Rear Cover



## Mechanical Overview

SP2-10WP-IMX8 without Rear Cover



SP2-10WP-IMX8 with Rear Cover

