



Japan Display Inc.

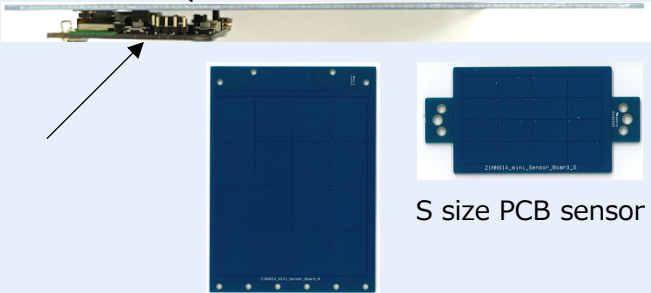
ZINNSIA
Evaluation Kit Overview

Japan Display, Inc.

Jan. 9, 2026

Comparison: ZINNSIA-FULL vs ZINNSIA-MINI



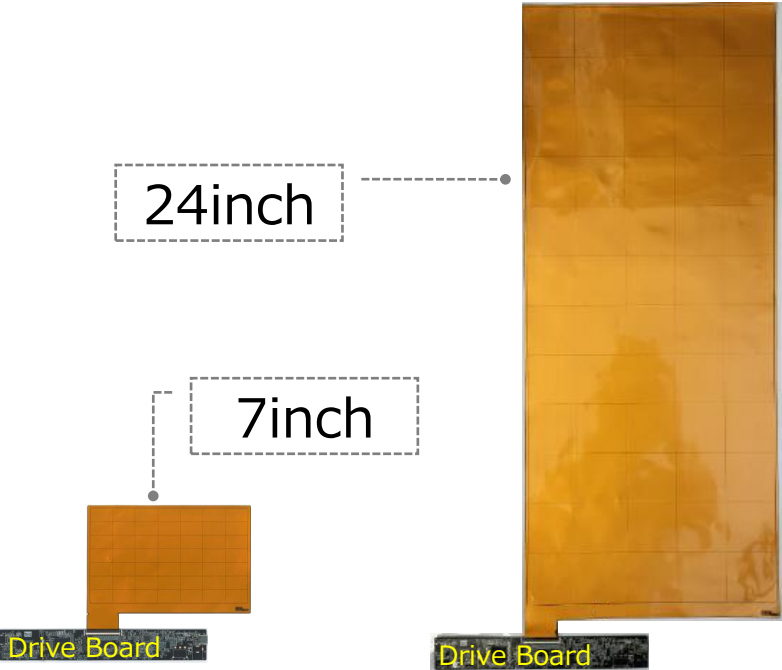
Item		ZINNSIA-Full	ZINNSIA-Mini
Features		High sensitivity, Low noise, High precision, Fast response	Compact size, Low power consumption
Configuration		Sensor board (7" FPC) Drive board 	Sensor board (PCB sensor S/M) Side view Drive board  S size PCB sensor M size PCB sensor
Basic function	Drive Method	Capacitive	Capacitive
	Sensor Board	FPC	PCB
	Number of Channels	Max. 63ch	Max. 18ch
	Interface	USB	USB / I2C / SPI
	Power Supply	5V (USB VBUS)	5V (USB VBUS) or 3.7V-5V
	Detection Capability	Presence: ~100mm, Position: ~50mm (7" FPC sensor)	Presence: ~30mm, Position: ~15mm; Outer Sensor: ~60mm (M-size PCB sensor)
	Communication Speed	120Hz	60Hz
	Power Consumption	Approx. 800mW	Approx. 60mW
	Drive Board Size	30 × 200mm	47 × 62mm



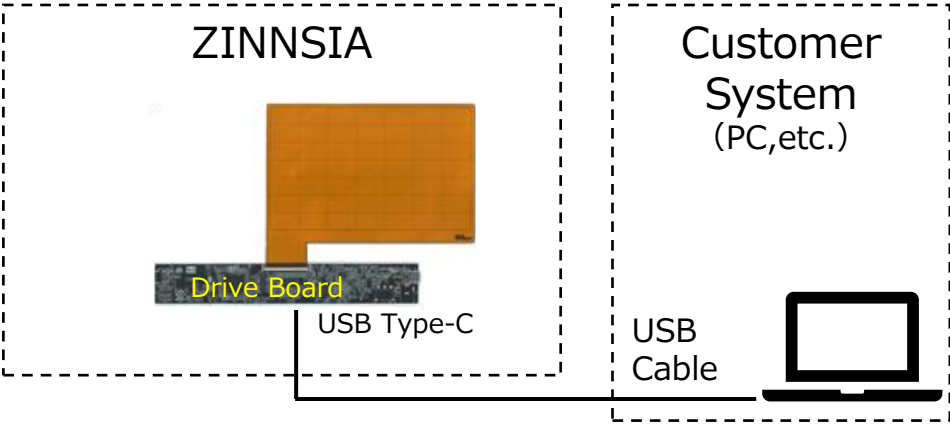
◆ Specification

Product		ZINNSIA	
Operation Mechanism		Capacitance Method	
Configuration		Sensor+ Driving Substrate	
Sensor Substrate		FPC(bendable)/Rigid Substrate	
Sensor Area Max Size		~220x600mm(FPC) ~1000x550(Rigid Substrate)	
Sensor Thickness		0.2mm(FPC), 1.6mm(PCB)	
Sensor Driven Firmware		Self-developed	
Interface		USB (HID/CDC)	
Detection Axis		Plane X, Y axis Hight Z axis (Changeable by Switch)	
Distance	Finger	≤ 5cm ※depends on electrode size	Detectable with Gloves
Accuracy	Height Z 5cm	±20mm ※Depends on Electrode Size	
Detection Points		1 point (※Multiple Pts Possible)	
Detection Speed		Reportage 120Hz (8.3ms)	

【Sensor】



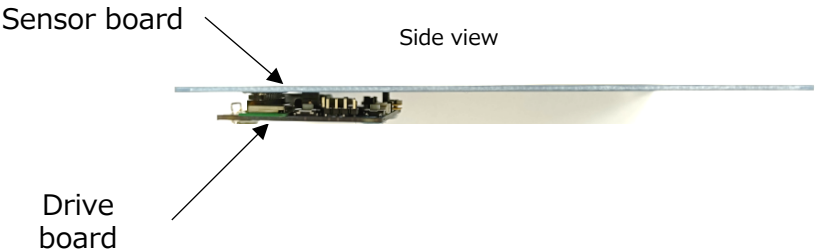
【Connection Example】



Category	Item	ZINNSIA-MINI
System	Drive Method	Capacitive
	Number of Channels	Max. 18ch
	Interface	USB/I2C※1/SPI※2
	Power Supply Voltage	USB or 3.7V~5V
	Detection Capability	Presence: ~30mm, Position: ~15mm; Outer Sensor: ~60mm(outer sensor)
	Communication Speed	60Hz
	Power Consumption	Approx. 60mW (12mA / 5V)
Drive Board	Dimensions	47 × 62mm
	Thickness	1.6mm
	Maximum part height	6mm (※w/o solder height)
	USB	Type-C
	Connector for sensor	FSS-42035-10 (2.54mm pitch dual-row connector)
Sensor Board (M-size)	Dimensions	113.5 x 155.0 mm
	Thickness	1.6mm connector portion9.3mm (※w/o solder height)
	Detection Area	109.5 x 129.5mm
	Electrode Size	25 x 30mm
	# of Ch	16(S1-1~S4-4)

※1) I2C connector is an option
※2) SPI: Coming soon

[System]

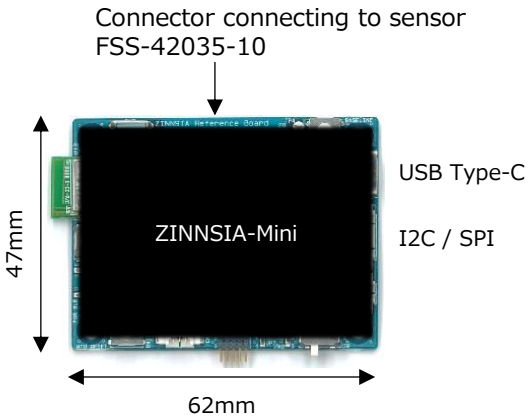


Sensor board (M)

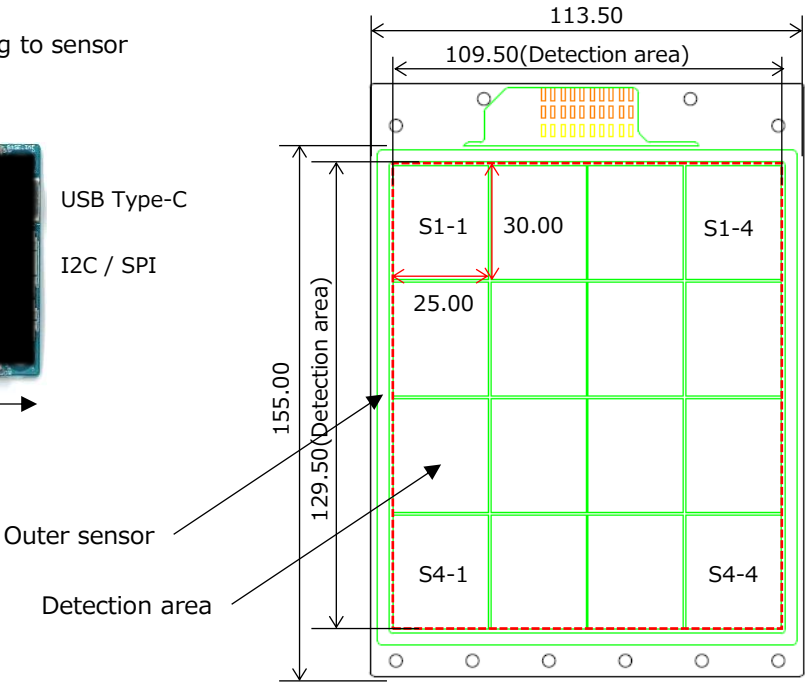


Top view

[Drive board]

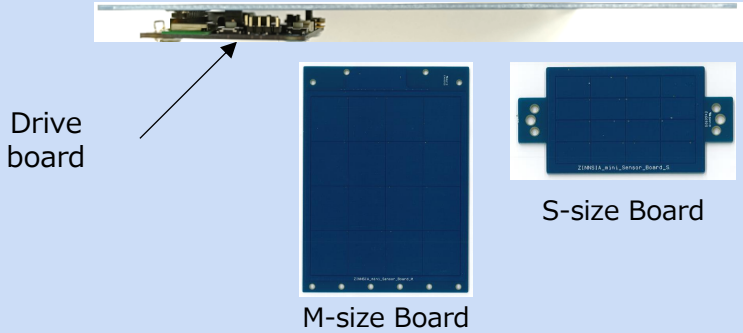
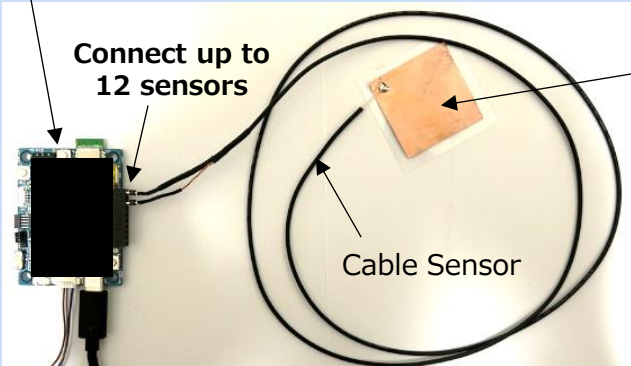


[Sensor board] ※M size



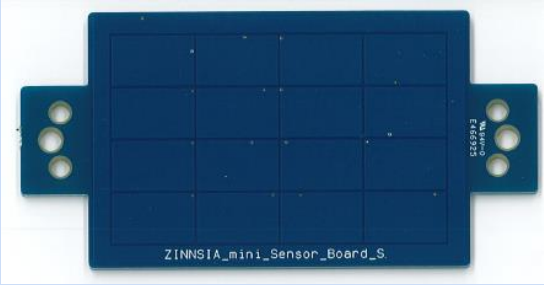
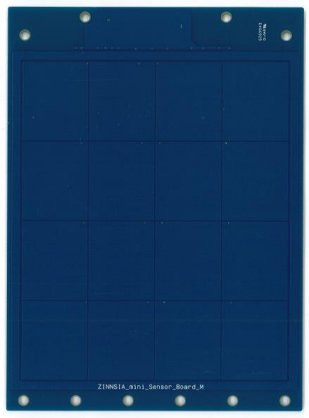
Comparison of ZINNSIA-MINI Sensor Types



項目	PCB Sensor	Cable Sensor
Appearance	Sensor Board (PCB Sensor S/M)  Drive board M-size Board S-size Board	 Drive board Connect up to 12 sensors Cable Sensor Sensor section can be customized.
Drive board Size	47mm x 62mm	47mm x 62mm
Interface	USB / I ² C / SPI *1,*2	USB / I ² C / SPI *1,*2
Firmware	Version A	Version B (Firmware update from the PCB sensor version is required.)
Number of Electrodes	Sensor: 17 ch (16 ch [4×4] + 1 peripheral electrode)Active Shield: 1 ch	Sensor : 12ch Active shield : 6
Position Detection (X-Y Coordinates)	○	×
Available Sensor Options	PCB Sensor (S Size), PCB Sensor (M Size)	Copper Foil Sensor, Cable Sensor, and other custom sensor configurations*3

***1 Operates in I²C Fast Mode.**
***2 SPI support requires additional firmware development**
***3 Sensors are provided for evaluation purposes only.**
Additional verification and consultation are required for mass-production applications

■ PCB sensor

Item	S-SIZE BOARD	M-SIZE BOARD
Appearance		
Dimensions	47 × 94.9mm	155 × 113.5mm
Detection Area	45 × 68mm	129.5 × 109.5mm
Electrode Size	9.13 × 15.06mm	25 × 30mm
Connection	Stack Connection	Stack Connection
Total Thickness	Approx. 10mm	Approx. 10mm
Number of Electrodes	16ch (4×4) + Outer electrode 1ch	16ch (4×4) + Outer electrode 1ch
Detection Capability	Presence: ~10mm, Position: ~5mm; Outer Sensor: ~40mm	Presence: ~30mm, Position: ~15mm; Outer Sensor: ~60mm

(1) For 60fps. Sensitivity can be improved by lowering the fps.

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