

INDUSTRIAL PRODUCT DATASHEET

4.2" Monochrome eInk / ePaper Display with 400x300 Pixels, SPI interface, Support XIAO/Arduino

4.2" Monochrome eInk / ePaper Display with 400x300 Pixels, SPI interface, Support XIAO/Arduino—ultra-low power, eye-friendly, and plug-and-play compatible with XIAO ePaper Driver Boards.

SKU

104990857

UPDATED

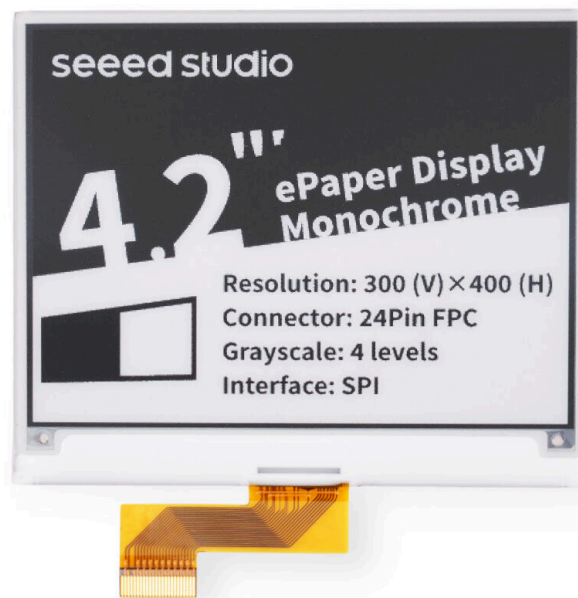
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PRICE

\$19.95(Excl. VAT)



Overview



The 4.2" Monochrome eInk / ePaper Display with 400x300 Pixels, SPI interface, Support XIAO/Arduino offers plug-and-play compatibility with XIAO ePaper Driver Boards and standard 40-pin driver boards, delivering exceptional readability, ultra-low power consumption, and an eye-friendly, heat-free design. It supports no-code customization via SenseCraft HMI and is suitable for reading equipment, mobile devices, electronic tags and price tags, smart wearables, electronic shelf labels, and smart cards.

Key Features

- **Plug & Play with XIAO ePaper Driver Boards:** Natively compatible with a range of 24-pin ePaper displays via the [ePaper Display Board](#), these ready-to-use controller boards offer features such as an optional battery connector and a user button to accelerate prototyping and project development.
- **Exceptional Readability:** The display's reflective properties ensure effortless legibility of text and images in different lighting environments.
- **Ultra-Low Power Consumption:** The ePaper consumes power only during updates, resulting in longer battery life and greater energy efficiency.
- **Eye-Friendly and Heat-free:** Eliminate glare, providing a comfortable viewing experience while remaining cool without generating heat.

Seamless Setup and Customization for Your ePaper Display

This ePaper display is designed to work seamlessly with any standard 40-pin driver board. We recommend the [XIAO ePaper Display Board EE04](#) or [XIAO ePaper Display Board EE05](#).

To make things even easier, we're introducing [SenseCraft HMI](#)—a no-code, AI-powered platform that allows you to quickly design and customize your user interface. Drag and drop elements, choose templates, or let AI generate the perfect layout for you. Get started today and create your ideal display experience with ease!

What is an E-Paper?

E-Paper, short for Electronic Paper, is a type of display technology that aims to mimic the appearance of traditional paper and ink. It's designed to provide high contrast and readability in various lighting conditions, including direct sunlight, without the need for a backlight. E-Paper displays use tiny microcapsules containing charged particles suspended in a liquid to produce images. When an electric field is applied, the particles move to the top or bottom of the microcapsules, resulting in different shades or colors being visible to the viewer. E-Paper is often used in e-readers, electronic shelf labels, smartwatches, and other devices where energy efficiency and readability are essential.

Advantages Over Traditional Displays

E-Paper displays offer advantages over traditional displays, including better readability like paper, visibility in sunlight, low energy consumption, thin design, wide viewing angles, and longer battery life. They are ideal for portable devices and environments where glare and power efficiency matter.

Product Gallery

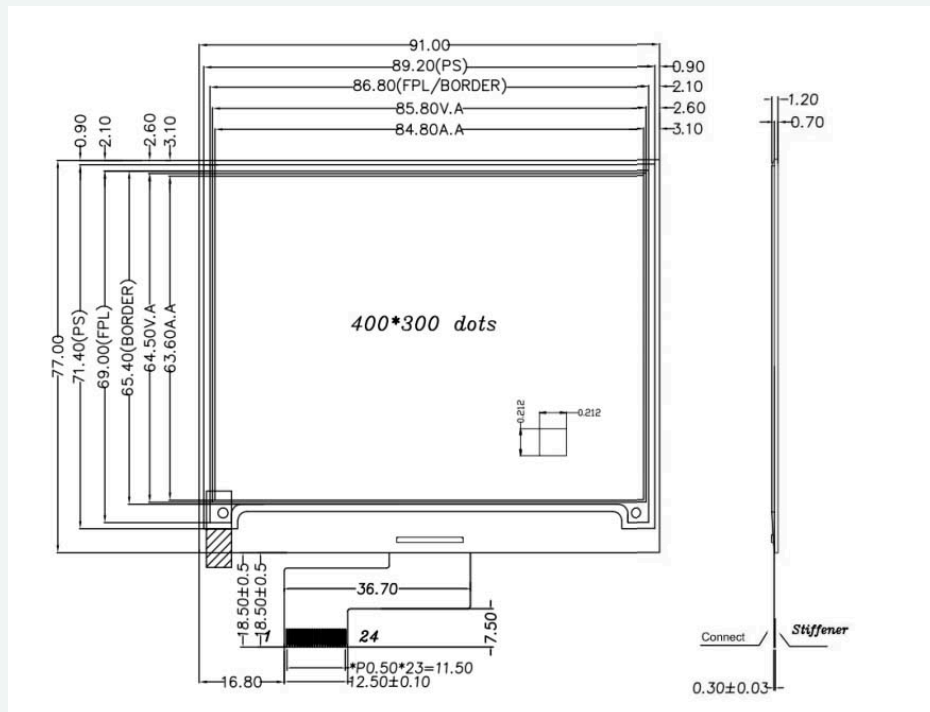


Specification

Parameters	Details
Driver IC	SSD1683
Type	Dot Matrix

Size	4.2 inch
Active Area(mm)	84.8 x 63.6
Resolution	400 x 300 pixels (DPI:120)
Pixel Pitch(mm)	0.212 x 0.212
Display Color	Black, White
Max Grayscale	4
Interface	SPI
Connector	24 Pin FPC, 0.5mm Pitch
Viewing Angle	>170°
Operating Voltage	3.3V
Operating Temperature	0-50°C
Driver Mode	Support XIAO/Arduino/Microphthon
Drawing	Support GUI Drawing
Power Consumption	18.48mW (typ.)
Standby Consumption	0.0165mW
Outline Dimension(mm)	91 x 77 x 1.2
Weight	3.2g

Hardware Overview



Applications

- Reading equipment
- Mobile device
- Electronic tags and price tags
- Smart Wearables
- Electronic Shelf Labels
- Smart Card

Product						
Processor	XIAOESP32-S3 Plus	XIAOnRF52840 Plus	XIAOESP32-S3 Plus	XIAOnRF52840 Plus	N/A(Compatible with XIAO Series)	
Compatible Displays	24 Pin ePaper	24 Pin ePaper50 Pin ePaper	24 Pin ePaper			
Battery Connector	JST 2.0mm	JST 2.0mm	JST 2.0mm	/		
Battery Power ON/OFF	√	√	√	/		
Button	1x Reset,3x User	1x Reset,3x User	/			
Extension IO Port	√	/	√			
SenseCraft HMI	√	/	√	/	/	

Product	Name	Resolution	Display Color	Partial Refresh	SenseCraft HMI
		200x200		√	√
		250x122		√	√
		250×122			√
		212x104		√	
		296x128			
		296x128		√	√
		296x128			√
		400x300		√	
		800x480			√
		648x480		√	
		800x480			√
		800x480		√	√
		1404×1872		√	√
		1600x1200			√

Part List

4.2" Monochrome ePaper Display	×1
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Compliance & Logistics

HSCODE	8543709990
USHSCODE	8531200040
UPC	
EUHSCODE	8543709099
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/4-2-Monochrome-ePaper-Display-with-400x300-Pixels-p-5784.html>
- [4.2-inch Monochrome ePaper Display Datasheet](#)

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