

INDUSTRIAL PRODUCT DATASHEET

XIAO ePaper Display Board(nRF52840) - EN04

A flexible ePaper display driver board with NFC, broad ePaper compatibility, battery power management, and user-programmable buttons for low-power signage and portable display applications.

SKU

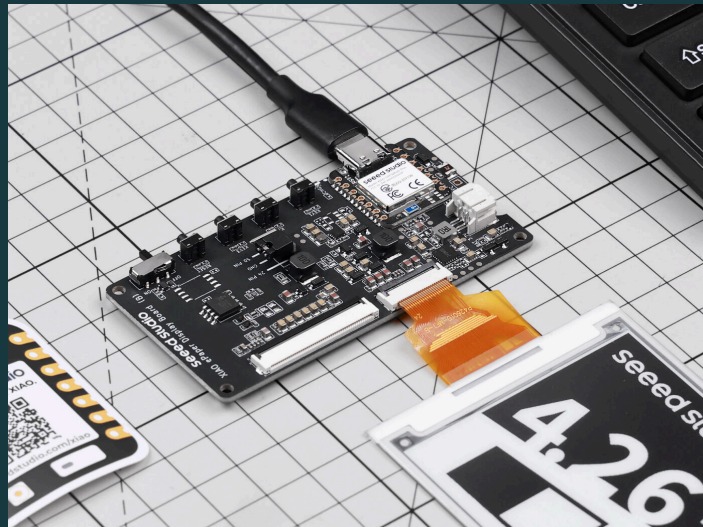
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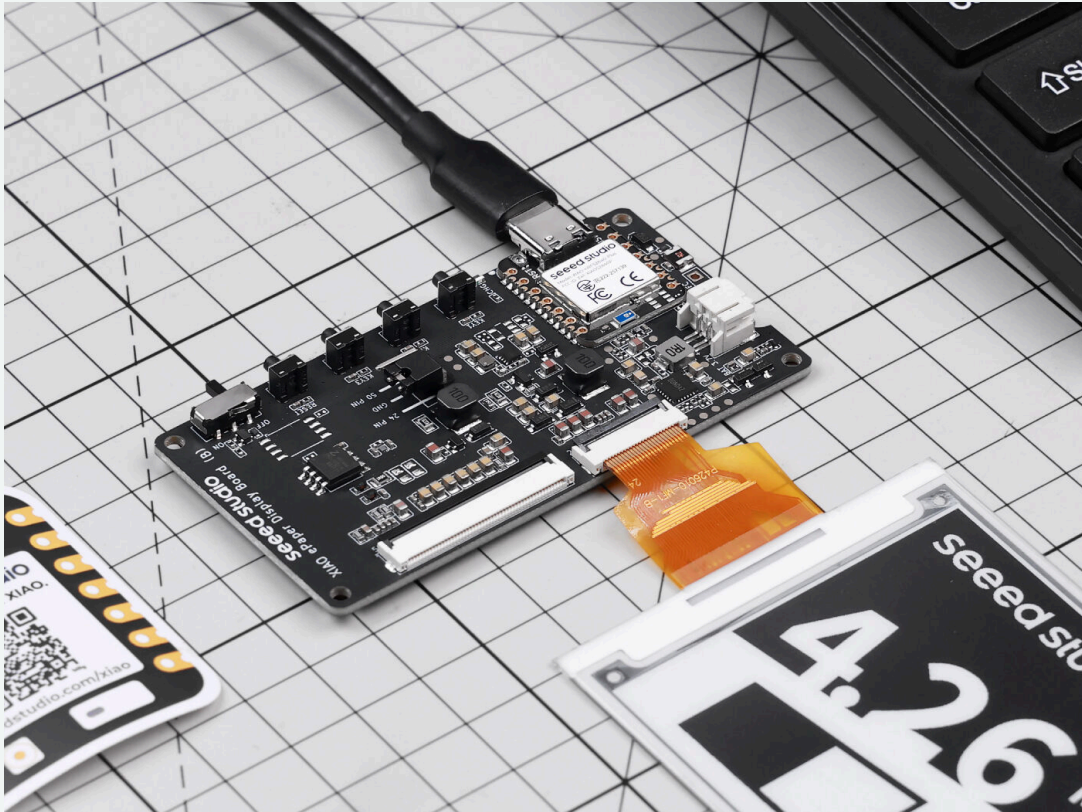
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PRICE

\$10.90(Excl. VAT)



Overview

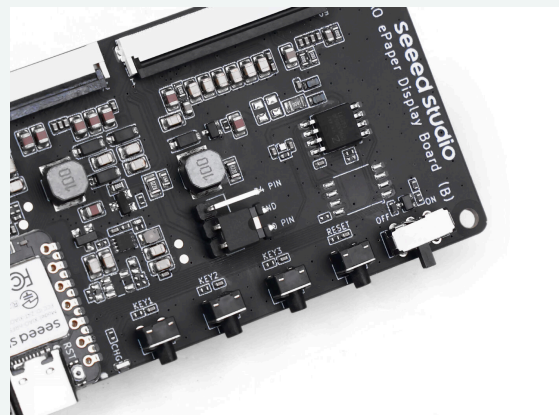
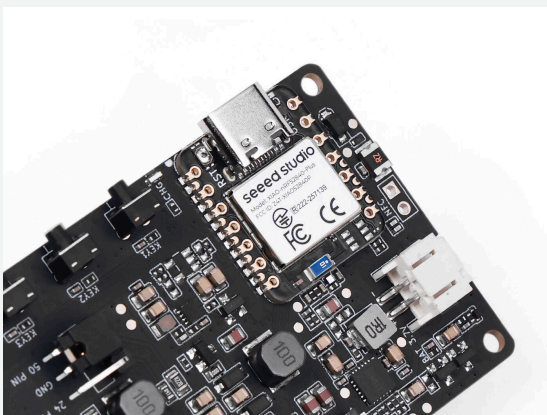
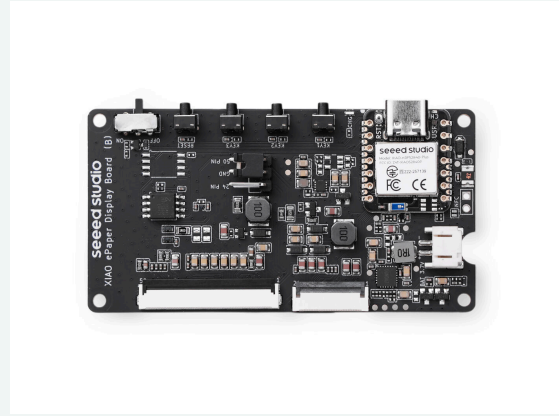


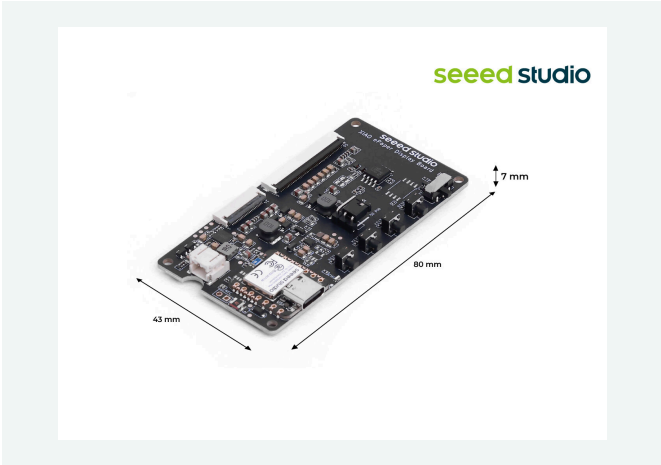
The XIAO ePaper Display Board(nRF52840) - EN04 is a driver board powered by the XIAO nRF52840 Plus, featuring onboard NFC for tap-to-configure, support for 24-Pin and 50-Pin ePaper displays via jumper caps, a battery connector with switch, and user-programmable buttons. It is compatible with Arduino, PlatformIO, ESPHome, and more, enabling applications such as smart name badges, dynamic price tags, meeting room signage, and portable checklist boards.

Key Features

- **Powered by XIAO nRF52840 Plus :** Works immediately when connected to a compatible ePaper display, with onboard NFC interface for tap-to-configure, pairing, or triggering content updates.
- **Versatile Display Support:** Compatible with a wide range of ePaper screens, supporting both 24-Pin and 50-Pin interfaces with easy switching via jumper caps.
- **BAT Connector with Switch:** Provides simple battery connection and integrates a switch, enabling efficient power management and energy savings.
- **User-Friendly Buttons:** Includes 1 reset button and 3 user-programmable buttons, offering flexibility for project acceleration and customizable functions.
- **Compatible with Various Software Platforms:** Whether you prefer coding with Arduino, Platform IO, ESPHome and more, this driver board both approaches, providing maximum flexibility for your projects.

Product Gallery

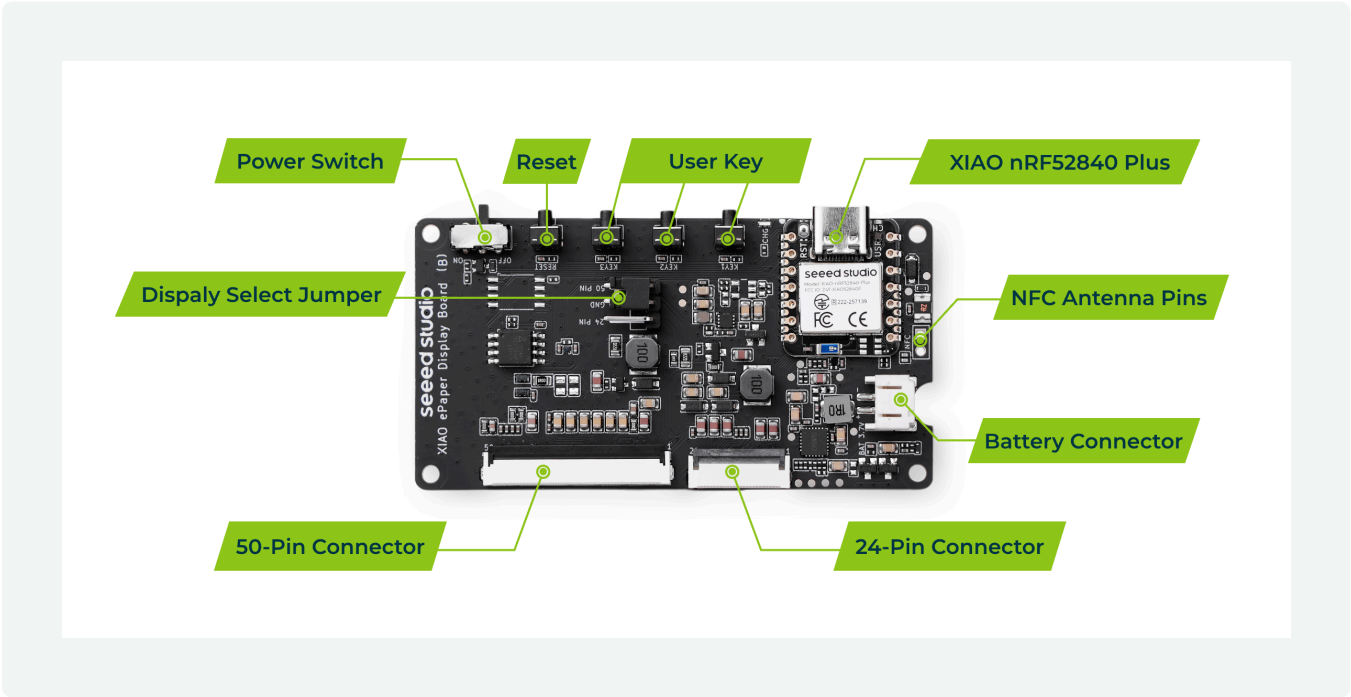




Specification

Parameter	Description
Processor	XIAO nRF52840 Plus
ePaper Connector	FPC 24 Pin 0.5mm FPC 50 Pin 0.5mm
Battery Connector	JST 2.0mm
Switch	Battery Power ON/OFF
Power Supply	- 3.7V Li-Battery - USB Type-C
Button	-1x Reset button -3x User button

Hardware Overview



Applications

- **Smart Name Badge:** Create battery-powered ePaper name tags for events or offices, updated via NFC tap or wireless connection, with buttons to switch profiles or display QR codes.
- **Dynamic Price Tags:** Build low-power retail labels that show prices, stock levels, or promotions on different size ePaper, updated periodically without needing constant power.
- **Meeting Room Signage:** Use as status boards for meeting rooms, showing booking info, occupant name, or “Do Not Disturb” states, with buttons to quickly change modes.
- **Portable Checklist Board:** Make handheld task boards or packing lists that keep their content even when powered off.

Product					
Processor	XIAO ESP32-S3 Plus	XIAO ESP32-S3 Plus	XIAO nRF52840 Plus	N/A(Compatible with XIAO Series)	
Compatible Displays		24 Pin ePaper 50 Pin ePaper	24 Pin ePaper	24 Pin ePaper (NOT for 2.9" BWRY & 7.5" BW)	
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								
Processor	XIAO ESP32-S3 Plus	XIAO nRF52840 Plus	XIAO ESP32-S3 Plus	XIAO nRF52840 Plus	XIAO ESP32-S3 Plus	XIAO ESP32-S3 Plus	N/A(Compatible with XIAO Series)	
Compatible Displays	24 Pin ePaper	24 Pin ePaper 50 Pin ePaper			24 Pin ePaper			
Battery Connector	JST 2.0mm	JST 2.0mm	JST 2.0mm	JST 2.0mm	JST 2.0mm	/		
Battery Power ON/OFF	√	√	√	√	√	/		
Button	1x Reset, 3x User	1x Reset, 3x User	1x Reset 3x User	1x Reset 3x User	/			
Extension IO Port	√	/	/	/	√			
SenseCraft HMI	√	/	√	/	√	√	/	

Product	Name	Resolution	Display Color	Partial Refresh	SenseCraft HMI
		200x200		√	√
		250x122		√	√
		250x122			√
		212x104		√	
		296x128			
		296x128		√	√
		296x128			√
		400x300		√	
		800x480			√
		648x480		√	
		800x480			√
		800x480		√	√

		1404×1872		√	√
		1600×1200			√

Part List

XIAO ePaper Display Board EN04	×1
24Pin Adapter and 24Pin FFC Extension Cable	×1
50Pin Adapter and 50Pin FFC Extension Cable	×1

Compliance & Logistics

HSCODE	8543909000
USHSCODE	8543903500
UPC	
EUHSCODE	8543709099
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/XIAO-ePaper-Display-Board-nRF52840-EN04-p-6589.html>
- [Wiki-XIAO ePaper Display Board EN04 Resources](#)
- [PCN-ePaper Display Board Series Upgrade v1.0.pdf](#)

Seeed Technology Co.,Ltd.
9F, Building G3, International E City,
Zhongshanyuan Road, Nanshan, Shenzhen, China

Tel: +86 0755-80695676
Web: www.seeed.cc
Shop: www.seeedstudio.com