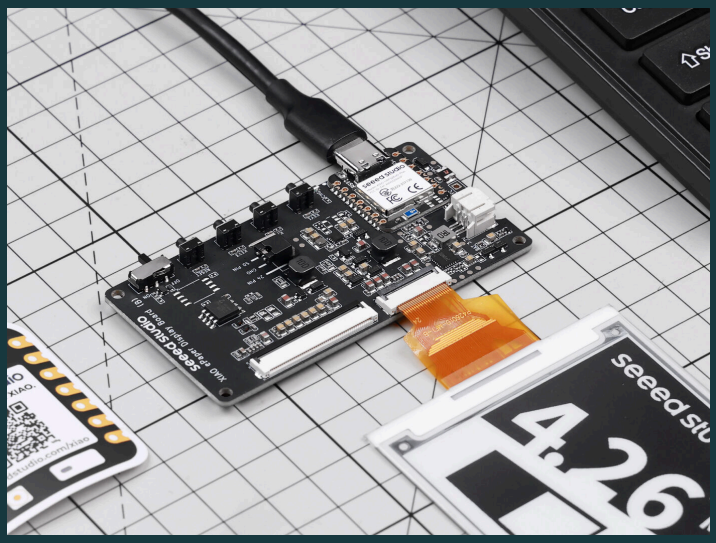
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INDUSTRIAL PRODUCT DATASHEET

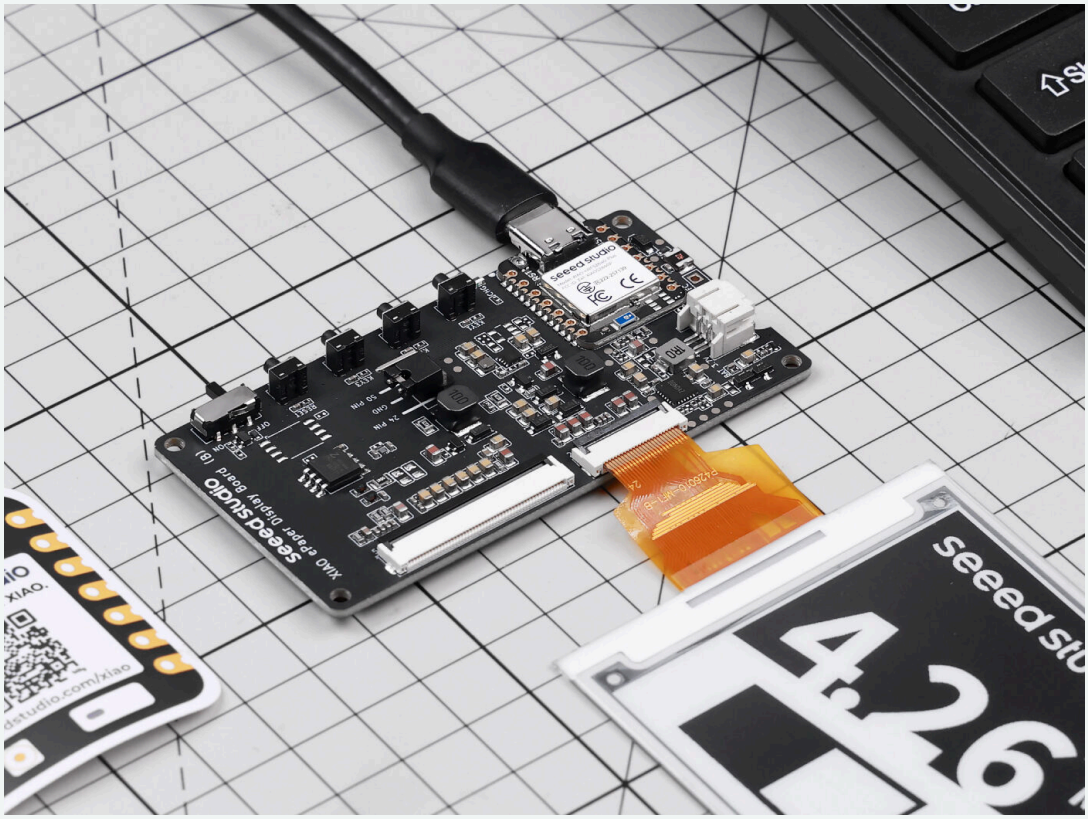
XIAO ePaper Display Board(nRF52840) - EN04

The XIAO ePaper Display Board(nRF52840) - EN04 combines NFC-enabled ePaper driving, flexible display support, battery power management, programmable buttons, and broad software compatibility for smart badges,...

SKU	UPDATED	PRICE
100003489	2026-11-11 09:21:51	$10.90(Excl. VAT)



Overview



The XIAO ePaper Display Board(nRF52840) - EN04 is powered by XIAO nRF52840Plus and supports a wide range of ePaper screens via 24-Pin and 50-Pin interfaces, with onboard NFC, BAT connector with switch, and user-programmable buttons. It is compatible with Arduino, Platform IO, ESPHome and more, enabling applications such as smart name badges, dynamic price tags, meeting room signage, and portable checklist boards.

Key Features

01 **Powered by XIAO nRF52840Plus：Works immediately when connected to a compatible ePaper display, with onboard NFC interface for tap-to-configure, pairing, or triggering content updates.**

02 **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.

03 **BAT Connector with Switch**

Provides simple battery connection and integrates a switch, enabling efficient power management and energy savings.

04 **User-Friendly Buttons**

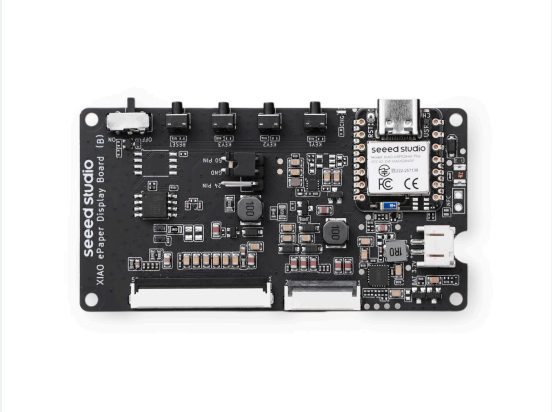
Includes 1 reset button and 3 user-programmable buttons, offering flexibility for project acceleration and customizable functions.

05 **Compatible with Various Software Platforms**

Whether you prefer coding with Arduino, Platform IO, ESPHome and more, this driverboard both approaches, providing maximum flexibility for your projects.

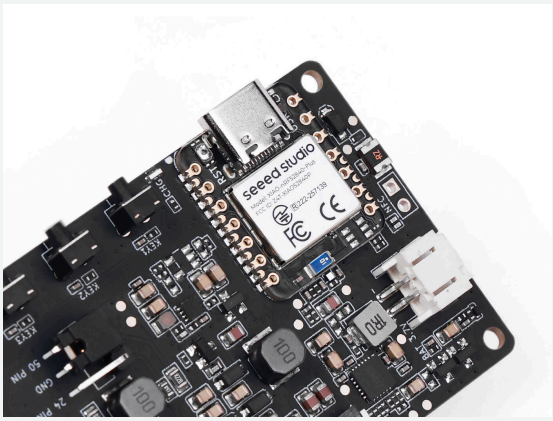
Product Gallery

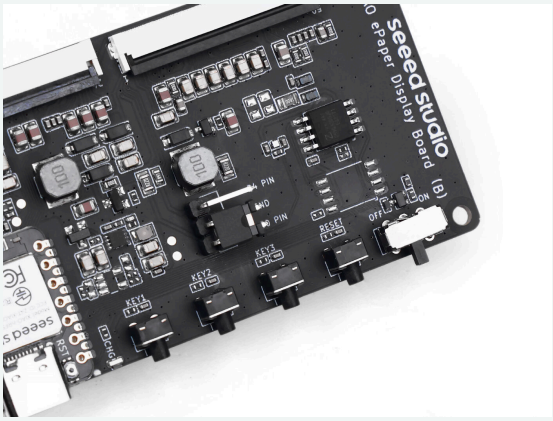




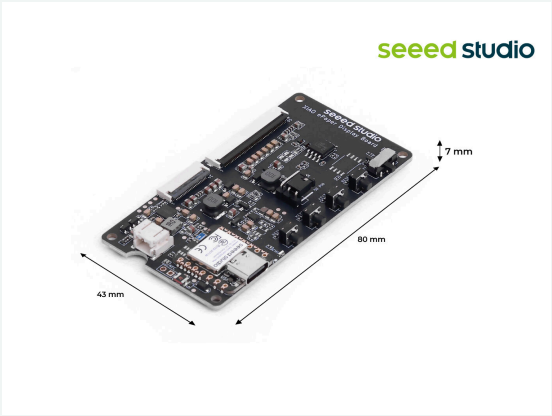




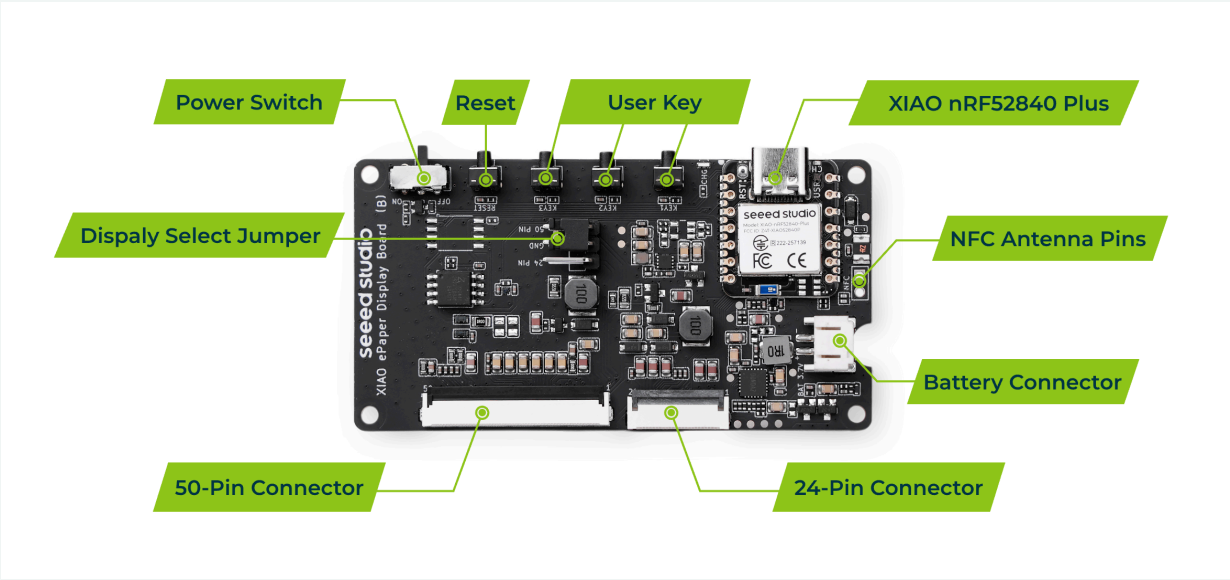








Hardware Overview



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 differerntsize 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.
- **PortableChecklist 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(CompatiblewithXIAO Series)	
CompatibleDisplays		24 Pin ePaper50Pin 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 Reset3x User	1x Reset3x User	/		
Extension IO Port	/	/	√		
SenseCraft HMI	√	√	/	/	

Product								
Processor	XIAOESP32-S3 Plus	XIAOnRF52840 Plus	XIAOESP32-S3 Plus	XIAOnRF52840 Plus	XIAO ESP32-S3 Plus	XIAO ESP32-S3 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	JST 2.0mm	JST 2.0mm	/		
Battery Power ON/OFF	√	√	√	√	√	/		
Button	1x Reset,3x User	1x Reset,3x User	1x Reset3x User	1x Reset3x 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			√

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

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