

INDUSTRIAL PRODUCT DATASHEET

TRMNL 7.5" (OG) DIY Kit

An open-source DIY kit to build the TRMNL 7.5" OG e-ink dashboard from scratch, featuring a 7.5" 800×480 display, XIAO ESP32-S3 Plus board, and support for 375+ TRMNL BYOD plugins.

SKU

104991005

UPDATED

2026-09-20 06:16:27

PRICE

\$44.90(Excl. VAT)



Overview



The TRMNL 7.5" (OG) DIY Kit is an open-source, no-code e-ink dashboard kit sold without an enclosure; it requires a TRMNL BYOD license (\$50) to access over 375 ready-to-deploy plugins and 8 layouts. The kit features a 7.5" monochrome 800×480 e-Ink display, a XIAO ESP32-S3 Plus based XIAO ePaper Display Dev Board compatible with ESPHome and Arduino IDE, and a 3.7V 2000mAh Li-ion battery offering up to 3 months of deep sleep battery life.

Key Features

Note:

- **US Warehouse: Enjoy FREE UNIUNI shipping on orders under \$50! (Excludes XIAO & Raspberry Pi series)**
- This open source kit is sold without an enclosure. All pictures showing enclosures are for demonstration purposes only !
- The TRMNL 7.5" (OG) DIY Kit requires a TRMNL BYOD license (\$50) to access over 300+ ready-to-deploy plugins for building your TRMNL dashboard. **Purchase your BYOD license here.**
- The TRMNL 7.5" (OG) DIY Kit supports **SenseCraft Seeedash**, our no-code UI design platform, formerly known as SenseCraft HMI. All your existing content remains available.

Compatible with TRMNL (TRMNL Access Required)

This kit is specifically designed as the official TRMNL BYOD kit to build the TRMNL 7.5" OG device from scratch. With the TRMNL BYOD Access, you can boast **over 375 ready-to-deploy plugins** and choose from 8 layouts to build the perfect dashboards for your daily and even commercial applications without coding. For example, Calendar, Shopify and Github plugins and so on. It offers a no-code experience, making it super easy for even beginners to get started.

7.5" e-Ink Display for Your Custom Dashboard

This kit features a 7.5" monochrome (black and white) e-Ink display with 800×480 resolution, capable of presenting comprehensive information simultaneously. From sensor data to weather forecasts and full-page calendars, all the information that you need is available at a glance. Moreover, the glare-free e-Ink display ensures clear readability in any lighting condition while reducing eye strain.

Energy-Efficient Design with Low-Power Consumption

Powered by a 3.7V 2000mAh rechargeable Li-ion battery, it operates for up to 3 months on a single charge in deep sleep mode (6-hour refresh interval).

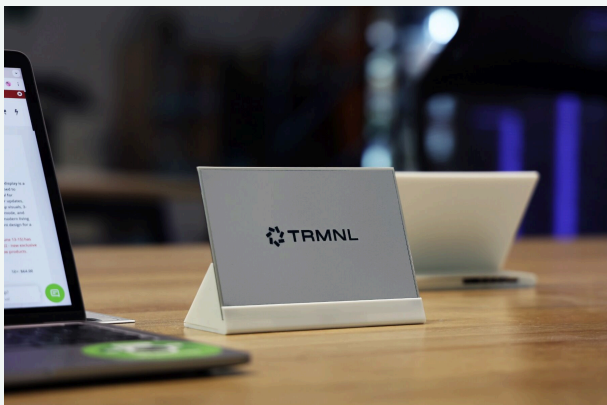
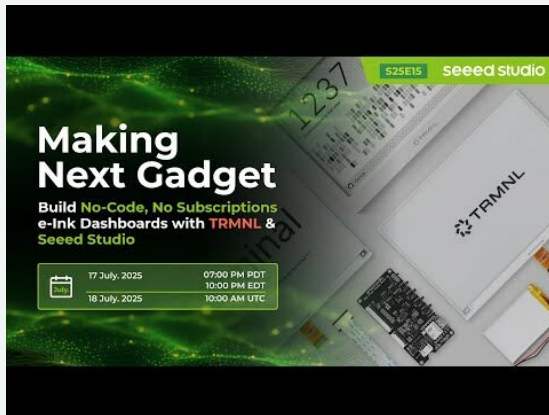
Home Assistant and Arduino IDE Compatibility for Your Applications

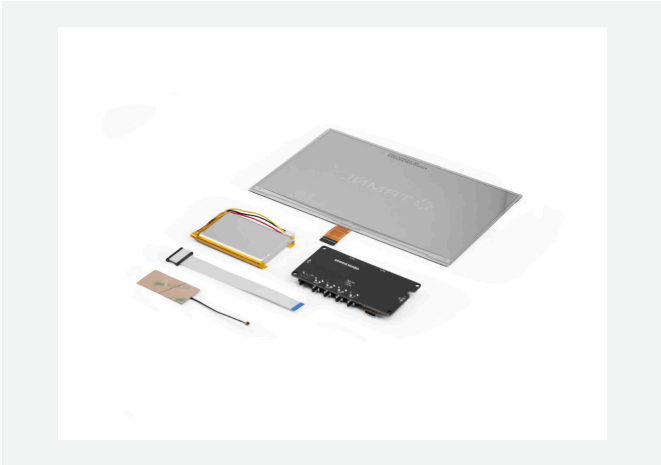
This kit comes with a XIAO ESP32-S3 Plus based XIAO ePaper Display Dev Board, which is compatible with ESPHome for native Home Assistant integration, making it a perfect e-ink screen for your Home Assistant Lovelace dashboard to visualize home automations. Moreover, as an open-source kit with full Arduino IDE compatibility, developers can create custom dashboards using Arduino C programming.

Open Source Enclosures for Your Re-Mix

This kit doesn't include the enclosure, but we provide three beautiful enclosure designs, available open-source on **Printables**, **Thingiverse**, and **Maker World**. Both combine aesthetics and functionality to enhance your project's appeal.

Product Gallery





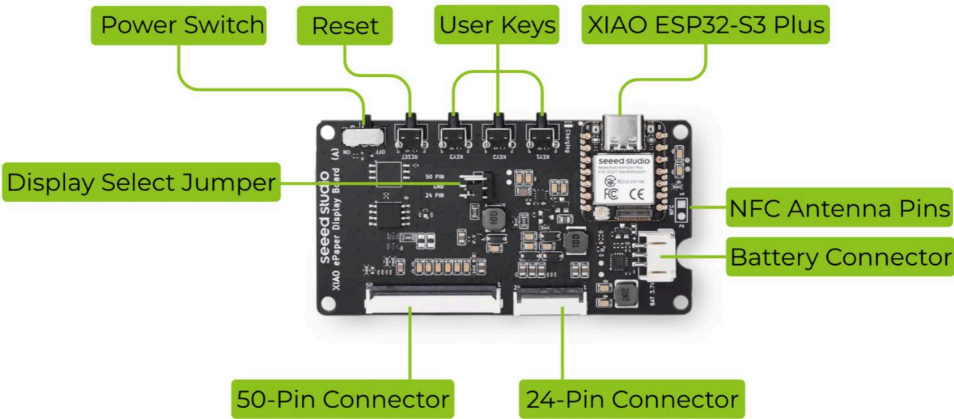
Specification

Parameter	Description
MCU	XIAO ePaper Display Dev Board with XIAO ESP32-S3 Plus onboard
Display	7.5-inch Monocolor ePaper Display
Resolution	800x480
Operating Voltage	3.3V to 5V
Battery	2000mAh Rechargeable Li-ion Battery (3-months battery life in deep sleep mode on a single charge)
Operating Temperature	-40°C to 85°C
Enclosure	Not included. But they are open sourced on Printables and Thingiverse for your custom remix.

ePaper Displays in Comparison		reTerminal E1001	reTerminal E1002	XIAO 7.5" ePaper Panel	T R M N L 7 . 5 . (O G) D I Y K i t
Display	Size	7.5"	7.3"	7.5"	7 . 5 . ,
	Color	Monochrome	Full-color	Monochrome	M o n o c h r o m e
	Resoluti on	800×480	800×480	800×480	8 0 0 × 4 8 0
	Partial Refresh	✓	✗	✓	✓
	Refresh Rate	2-5s	12-15s	2-5s	2 - 5 s
MCU		ESP32-S3	ESP32-S3	ESP32-C3	E S P 3 2 - S 3
Enclosure		Metal	Metal	3D Printed PLA	✗
SD Card Support		✓	✓	✗	✗
Battery	Capacity	2000mAh	2000mAh	2000mAh	2 0 0 0 m A h
	Monitori ng	✓	✓	✗	✓
Expansion Interfaces		UART & I2C	UART & I2C	✗	✗

Compatible Software	SenseCraft Seeedash Home Assistant/ESPHome TRMNL Arduino EEZ Studio	SenseCraft Seeedash Home Assistant/ESPHome TRMNL Arduino Sqaureline Vision EEZ Studio	Home Assistant/ESPHome TRMNL Arduino	T R M N L S e n s e C r a f t S e e d a s h H o m e A s s i s t a n t A r d u i n o
Certifications	FCC/CE/MIC Radio/ROHS	FCC/CE/MIC Radio/ROHS	✗	✗
MSRP	\$69-\$76.99	\$99-\$109.99	\$65.55-\$72.19	\$ 4 2 . 6 6 - \$ 4 6 . 5 4

Hardware Overview



Part List

XIAO ePaper Display Dev Board with XIAO ESP32-S3 Plus Onboard	1
7.5-inch Monocolor ePaper Display (800x480 Pixels)	1
FPC Extension Cable (10 cm)	1
FPC Connector	1
2000mAh Rechargeable Li-ion Battery	1

Compliance & Logistics

HSCODE	8543709990
USHSCODE	8524119000
UPC	
EUHSCODE	8543709099
COO	CHINA

Resource Links

- <https://www.seeedstudio.com/TRMNL-7-5-Inch-OG-DIY-Kit-p-6481.html>
- [Getting Started with TRMNL on TRMNL 7.5inch\(OG\) DIY Kit](#)
- [Open Source Enclosure \(Triangular Version\) on Printables](#)
- [Open Source Enclosure \(L Shape Version\) on Printables](#)
- [Schematic of XIAO ePaper Display Dev Board](#)
- [PCN-104991005](#)

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