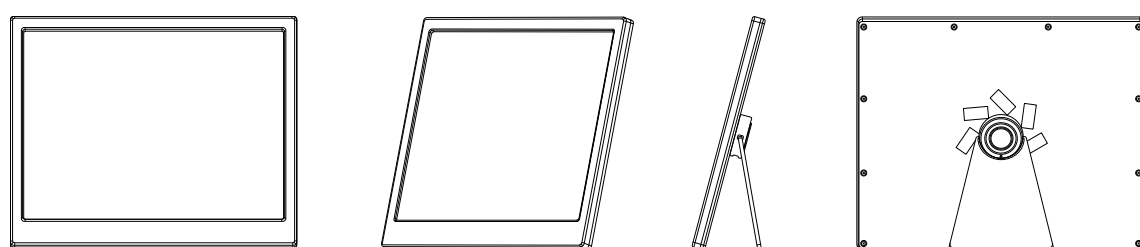


TRMNL X

10.3" ePaper Dashboard



00 OVERVIEW

TRMNL is a battery-powered ePaper display that connects to your data sources and renders them as glanceable dashboards. Choose from 970+ pre-built integrations or build custom dashboards using any API with HTML/CSS templating.

Typical deployments include sales metrics, calendars, operational status boards, and internal announcements. One-way communication architecture ensures your network remains isolated – the device pulls data from the server, never the reverse.

01 IDENTIFICATION

Model	TRMNL-X-GEN1
SKU	TRMNL-X
UPC	613365072669

02 DISPLAY

Screen Size	10.3 inches (diagonal)
Resolution	1872 × 1404 pixels
Pixel Density	227 PPI
Display Type	HD ePaper (EPD)
Grayscale	16 levels
Refresh Rate	200ms - 1.3s
Viewing Angle	180°
Contrast Ratio	15:1

03 PHYSICAL

Dimensions (W × H × D)	233 x 193 x 12 mm (without dock)
Weight	365 grams (single battery), 450 grams (double battery)
Enclosure Material	PC (transparent), ABS (other colors)
Color	Black, White, Transparent, Sage, (faux) Wood, Grey
Orientation	Portrait / Landscape
Mounting Options	Kickstand, wall mount, embedded magnet
Water Resistance	IP65 Pending
Controls	Gesture-based
Logo Placement	Back of device
Custom Branding	Available
Zero-Logo Option	Yes

04 POWER

Battery Type	Rechargeable Li-Po
Battery Capacity	6000/12000 mAh
Battery Life	3~6 months (typical use)
Charging Port	USB-C
Charging Time	TBD
Refresh Interval	15 min (default), configurable
Power Consumption (Sleep)	5h / 10h

05 HARDWARE

PROCESSOR & MEMORY

Processor	ESP32-S3 + ESP32-C5
RAM	16MB + 8MB
Flash Storage	512KB/8MB + 384KB/8MB

WIRELESS

WiFi Standard	802.11 b/g/n/ac
WiFi Frequency	2.4 GHz / 5 GHz
Security Protocols	WPA, WPA2, BLE (Bluetooth)

SENSORS & PERIPHERALS

Temperature Sensor	Yes
Touch Sensor	Yes (Gesture controls)
Accelerometer	Yes
Buttons	Hard reset via magnetic dock
Status LED	No
Power option	OTG 1.2A 5V peripheral via dock

ECOSYSTEM**FIRMWARE**

Operating System	Custom firmware
License	Open source (GPLv3)
Source Code	github.com/usetrmnl/firmware
OTA Updates	Yes
License	GPLv3

SOFTWARE

Connection Options	TRMNL Cloud or Self-Hosted (BYOS)
BYOS Server Implementations	Ruby, Python, PHP, Node.js, Elixir
Mashups	Up to 4 data sources per screen
Smart Playlists	Time-based and conditional logic
Fleet Management	Yes (Partners API)
License	MIT (OSS servers only)

API & CLOUD

Cloud Sync	Yes
API	RESTful
Partner API	Yes
Webhook Support	Yes

APPLICATIONS

Web Dashboard	Yes
iOS App	Yes (Calendar Sync)
Android App	Yes

INTEGRATIONS

Published Plugins	970+ available
Custom Plugins	Supported (HTML/CSS/Liquid)

SECURITY

Communication	One-way (device-initiated only)
Network Access	Device cannot be accessed remotely
Data Storage	User-controlled (Cloud or BYOS)
Encryption	TLS 1/1.1/1.2
GDPR Compliant	Yes
SOC 2	N/A

08 ENVIRONMENTAL

Operating Temperature	0°C to 40°C / 32°F to 104°F
Storage Temperature	-20°C to 60°C / -4°F to 140°F
Operating Humidity	OG: 20% ~ 80% (estimate, not tested) X: 20%-100%, test pending (main board only)
Storage Humidity	OG: 10% ~ 90% (estimate, not tested) X: 20%-100%, test pending (main board only)
Altitude	0 to 2000m
Shock Resistance	Not tested
Vibration Resistance	Not tested

09 COMPLIANCE & CERTIFICATIONS

FCC (USA)	OG: Certified X: Pending
CE (Europe)	OG: Certified X: Pending
UKCA (UK)	OG: Japan, Canada X: Pending
RoHS	OG: Certified X: Pending
WEEE	OG: Compliant X: TBD

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Kickstand	1
Wall Mount Hardware	1
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Screwdriver, magnetic sticker	1
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USB-C Charging Cable	0-1 (optional add-on)
Microfiber Cleaning Cloth	0-1 (optional add-on)

11 WARRANTY & SUPPORT

Warranty Period	1 year manufacturer defects
Support Channels	Live Chat, Email (direct to engineers)
Community	Discord, GitHub
Documentation	docs.trmnl.com
Firmware Updates	Lifetime OTA updates
RMA Process	Contact support

12 ORDERING

Retail Price	\$219 USD
Volume Pricing	Available
Minimum Order Quantity	150 units
Lead Time	Ships within 4 business days
Fulfillment Locations	USA, Berlin (duty-free EU)
Country of Origin	USA

13 ACCESSORIES

Wall Mount Kit	Included
Developer Edition	API access for \$20
Extended Battery	6000mah for \$10
Clarity Kit	\$25
Ethernet Dock (optional PoE)	TBD
Relay Dock	TBD
BYOD License	\$50