

100017057 | reTerminal E1002 Full-color ePaper Display

SKU: 100017057

Product Overview

reTerminal E1002 is a 7.3-inch open-source full-color ePaper display with up to 3-month battery life. Powered by ESP32-S3, it supports SenseCraft HMI no-code UI platform for dashboard creation and integrates with Home Assistant, TRMNL E-ink dashboard, Arduino, and ESP-IDF for development. It features an EInk® Spectra™ 6 full-color ePaper display, suitable for digital frames and colorful dashboard visualization.

Features

Beautiful, Ready-to-Use E Ink® Spectra™6 Color ePaper Display The reTerminal E1002 comes fully assembled as an HMI (Human Machine Interface) in a sleek, durable enclosure, featuring an integrated 800×480 E Ink® Spectra™6 full-color ePaper display. Powered by Espressif's ESP32-S3, it delivers vivid visuals and crisp text straight out of the box-no extra setup required.

Ultra-Low Power with 3-Month Battery Life Equipped with a built-in 2000mAh battery and engineered for maximum power efficiency, the reTerminal E1002 runs for up to 3 months on a single charge in deep sleep mode (6-hour refresh interval). Place it anywhere-on your desk, mounted on a wall, or in any space-without worrying about frequent recharging.

No-Code UI Design & Deployment with SenseCraft HMI Design and deploy personalized dashboards effortlessly with SenseCraft HMI, our new AI-powered no-code platform. Create your UI through simple drag-and-drop elements, choose from our rich templates, or let AI help you. Connect real-time data from onboard sensors or web APIs, then deploy your finished dashboard to reTerminal E1001/E1002 display with just a few clicks. From design to data configuration to deployment, everything happens seamlessly on one single platform.

Works with Popular Software Platforms Enjoy seamless compatibility with multiple software ecosystems. Create no-code TRMNL Dashboards with 300+ plugins for everyday and work data, connect instantly to Home Assistant via ESPHome firmware, or develop your customized applications using Arduino, PlatformIO or ESP32-IDF environment.

Flexible Hardware & Software Customization Leveraging Seeed Studio's extensive OEM/ODM expertise, the reTerminal E1001/E1002 can be customized to fit your exact needs. Whether you require specific sensors, modified I/O configurations, or tailored UI designs, it's built to adapt-ideal for industrial, educational, or personal use.

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Product Image



Product image

Specifications

reTerminal E1001
reTerminal E1002
SenseCraft HMI

Product Name		
Processor	ESP32-S3 with 8MB PSRAM	
Storage	32MB Flash, support Micro SD card	
Display	7.5" Monochrome	7.3" Full Color
Resolution	800x480 Pixels	
Micro SD Card	Maximum support 32GB SD card, FAT32 format	
Wireless Connectivity	2.4GHz 802.11 b/g/n Wi-Fi, Bluetooth 5.0	
Sensor	Temperature, humidity sensors	
Microphone	Reserved for voice interaction application	
Buzzer	Buzzer for sound alert	
Battery	2000mAh	
Power Input	USB-C 5V/1A	

Product Name		
Software	Default firmware support SenseCraft HMI()	
Support ESPHome firmware for Home Assistant		
Support Arduino/PlatformIO /ESP-IDF development platform		
Working Temperature	0-40degC	
Dimensions	176mm120mm53mm(With Stand)/17mm(Without Stand)	

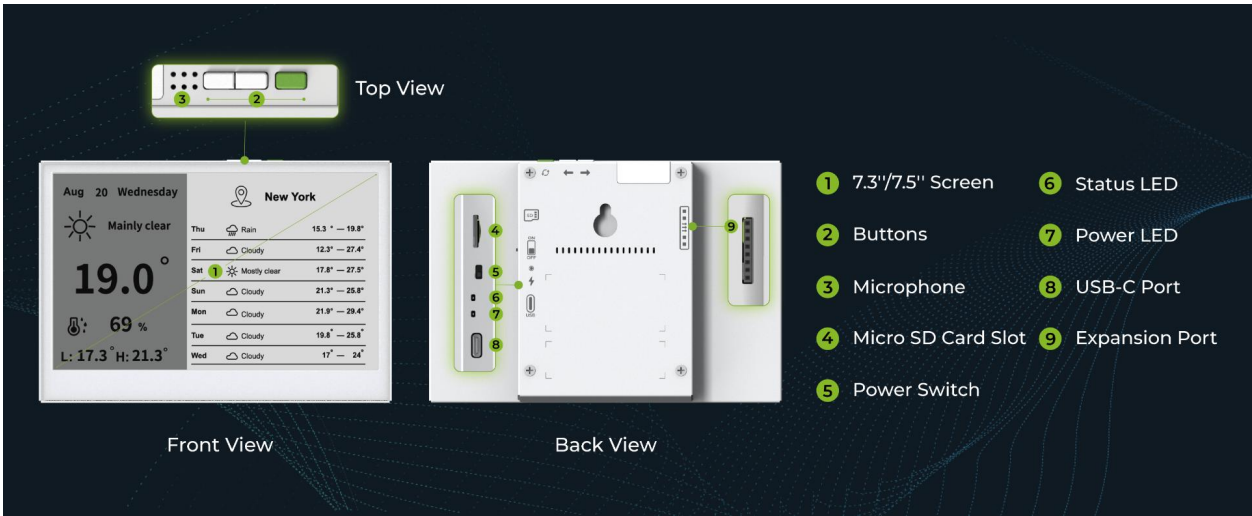
ePaper Device Comparison

- reTerminal E1001
- reTerminal E1002
- XIAO 7.5" ePaper Panel
- TRMNL 7.5" (OG) DIY Kit
- SenseCraft HMI
- Home Assistant/ESPHome
- TRMNL
- Arduino
- EEZ Studio
- SenseCraft HMI
- Home Assistant/ESPHome
- TRMNL
- Arduino
- Sqaureline Vision
- EEZ Studio
- Home Assistant/ESPHome
- TRMNL
- Arduino
- TRMNL
- SenseCraft HMI
- Home Assistant
- Arduino

ePaper Displays in Comparison					
Display	Size	7.5"	7.3"	7.5"	7.5"
Color	Monochrome	Full-color	Monochrome	Monochrome	
Resolution	800×480	800×480	800×480	800×480	

ePaper Displays in Comparison					
Partial Refresh	■	■	■	■	
Refresh Rate	2-5s	12-15s	2-5s	2-5s	
MCU	ESP32-S3	ESP32-S3	ESP32-C3	ESP32-S3	
Enclosure	Metal	Metal	3DPrinted PLA	■	
SD Card Support	■	■	■	■	
Battery	Capacity	2000mAh	2000mAh	2000mAh	2000mAh
Monitoring	■	■	■	■	
Expansion Interfaces	UART & I2C	UART & I2C	■	■	
Compatible Software					
Certifications	FCC/CE/MIC Radio/ROHS	FCC/CE/MIC Radio/ROHS	■	■	
MSRP	\$69-\$76.99	\$99-\$109.99	\$65.55-\$72.19	\$42.66-\$46.54	

Hardware Overview



Hardware overview image