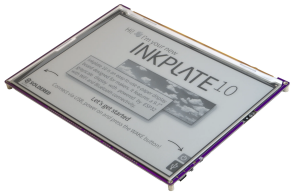
PRODUCT DATASHEET

Inkplate 10



333241

The Inkplate 10 is a 9.7-inch e-Paper display with low power consumption, ideal for IoT projects, offering months of battery life.

Full product documentation, files and tutorials: **solde.red/333241**

CORE ATTRIBUTES

SKU **333241**

WEIGHT **402 g**

BARCODE **732388676507**

DESCRIPTION

Transform your large-scale IoT projects with the **Inkplate 10**, a 9.7-inch grayscale e-Paper display boasting **1200 × 825 pixel resolution** and ultra-low power consumption of just 22 µA in deep sleep mode. Powered by the versatile **ESP32** microcontroller with Wi-Fi and Bluetooth 4.0 BLE, it delivers months of battery life from a single Li-Ion charge, thanks to the onboard charger and **Real-Time Clock (RTC)**. Ideal for open-source photo frames, smart home dashboards, or weather displays, its fast 1.61s full refresh and quick partial update support ensure reliable performance.

Getting started is fast and easy with full support for **Arduino** (100% compatible with Adafruit GFX library) or **MicroPython**, allowing you to have your project up and running in a few minutes. Expand your setup with microSD card storage for images and data, plus additional available GPIO, I²C, SPI, and Qwiic/Qwiic-compatible connectors for seamless integration. Completely open-source hardware and software make customization straightforward for any application. Of course, you're not alone with our documentation and getting started guides.

Designed for high-performance embedded development, the Inkplate 10 fully supports Espressif's official **ESP-IDF** framework. This native environment grants developers low-level control over the hardware, enabling precise memory management, optimized display rendering routines, and custom power profiling to take full advantage of the board's ultra-low deep sleep capabilities. Whether building home prototypes or commercial-grade e-paper applications, ESP-IDF provides the robust foundation needed to unlock the full potential of Inkplate's wireless and processing features. A **USB-C to USB-C** cable is included in the package, so you can start using it right out of the box.

Choose from options: **with e-Paper** or **with e-Paper enclosure and battery** for portable power and a beautiful protective enclosure. Have your projects run for months, even a year on a single charge! The Inkplate 10 measures 224.3 × 163 × 10 mm without EPD or 240 × 179.5 × 13.5 mm with enclosure. It's an awesome choice to bring your e-Paper project to life, today!

TECHNICAL DETAILS

- **Display Size:** 9.7" e-paper (grayscale)
- **Resolution:** 1200 × 825 pixels
- **Refresh Time:** 1.61s (full), supports partial updates
- **Microcontroller:** ESP32 (Wi-Fi + Bluetooth 4.0 BLE)
- **Power Supply:** USB or Li-Ion battery (charger onboard)
- **Power Consumption:** 22 µA in deep sleep mode
- **Programming Support:** Arduino library, MicroPython
- **Storage:** microSD card slot for image/data loading
- **Clock:** Real-Time Clock (RTC) with battery holder
- **Expansion:** GPIO, I²C, SPI, Qwiic/Qwiic-compatible
- **Open Source:** Hardware and software
- **Dimensions (with e-Paper):** 224.3 × 163 × 10 mm / 8.8 × 6.4 × 0.4 inch
- **Dimensions (with e-Paper, enclosure and battery):** 240 × 179.5 × 13.5 mm / 9.4 × 7.1 × 0.5 inch

SPECIFICATIONS

DISPLAY SIZE (INCH)	9.7 inch
DISPLAY RESOLUTION W	1200
DISPLAY RESOLUTION H	825
DISPLAY COLOR	Grayscale
GRAYSCALE LEVELS	3
FRONTLIGHT	No
FULL REFRESH (S)	1.61 s
TOUCH SUPPORT	None
MCU PART NUMBER	ESP32-WROVER
MCU CLOCK (MHZ)	240 MHz
WIFI	Wifi4
BLUETOOTH	Classic And Ble
QWIIC COMPATIBLE	Yes
SD CARD SLOT	Yes
BATTERY INCLUDED	No
BATTERY CONNECTOR	Jst 2Pin
SLEEP CURRENT UA	22
DEV ENVIRONMENTS	Arduino IDE, MicroPython
HAS ENCLOSURE	No
RTC ONBOARD	Yes

DOCUMENTS

OSHWA Certification	https://certification.oshwa.org/hr000006.html

LINKS

Arduino Library	https://github.com/SolderedElectronics/Inkplate-Arduino-library
Open Source Hardware Files	https://github.com/SolderedElectronics/Soldered-Inkplate-10-hardware-design
MicroPython Module	https://github.com/SolderedElectronics/Inkplate-micropython
Full Documentation	https://docs.soldered.com/inkplate/10/overview
Hardware Details	https://docs.soldered.com/inkplate/10/hardware/design/
Arduino Library Documentation	https://docs.soldered.com/inkplate/10/basics/initialization/
Arduino: Get Started	https://docs.soldered.com/inkplate/10/quick-start-guide/

GALLERY




Hi! I'm your new
INKPLATE 10
Inkplate 10 is an easy-to-use e-paper display board designed for makers. It features a 9.7" grayscale display with powered by ESP32 with WiFi and Bluetooth connectivity.
Let's get started
Connect via USB, power on and press the WAKE button!
SOLDERED

