

SOLDERED INKPLATE 6 MOTION



Weight	225 g
Variant	With e-paper, With e-paper & Enclosure, With e-paper, Enclosure & Battery

DESCRIPTION

The Inkplate 6 MOTION is a supercharged 6-inch e-paper display with a resolution of 1024x758 pixels and support for partial updates. It offers an accelerated refresh rate of 91 ms (up to 11 frames per second), significantly outperforming other DIY e-paper devices, providing smoother motion, less lag, and sharper updates. It also supports 4-bit grayscale, allowing a total of 16 shades on the screen. Powered by a dual-processor setup, the 32-bit STM32H743 microcontroller and ESP32-C3 co-processor, this versatile display integrates seamlessly into dynamic projects, enabling real-time content for applications like animations, interactive menus, or smart-home interfaces.

Its impressive sensor array includes the LSM6DSO32 accelerometer and gyroscope, Sensirion SHTC3 temperature and humidity sensor, and APDS-9960 gesture and proximity sensor, making it ideal for highly interactive environments. The front-facing RGB programmable LED adds customizable visual indicators, enhancing interactivity. Additional hardware features include a microSD card slot, USB-C programming port, multiple GPIO pins for expansions, RTC, a rotary encoder, and 3 button inputs on the sides. It can be easily expanded using the onboard easyC ecosystem if needed.

The device's MCP73831 battery charger and low-power design (only 22 μ A in low-power mode) ensure long-term performance on battery power. With full support for Arduino, MicroPython, ESPHome, and Home Assistant, as well as numerous ready-to-use examples, developers can quickly integrate the Inkplate 6 MOTION into a variety of projects, from real-time data displays to smart-home systems and digital signage. The Inkplate is, of course, 100% open-source.

Its eco-friendliness, along with high-quality craftsmanship, makes it an ideal choice for anyone looking to build sustainable and innovative electronic projects. The Inkplate 6 MOTION uses screens recycled from old e-book readers, which is extremely environmentally friendly. Although minor damage such as scratches is

possible due to the screen recycling, all screens with significant damage are not used in production, ensuring high quality.

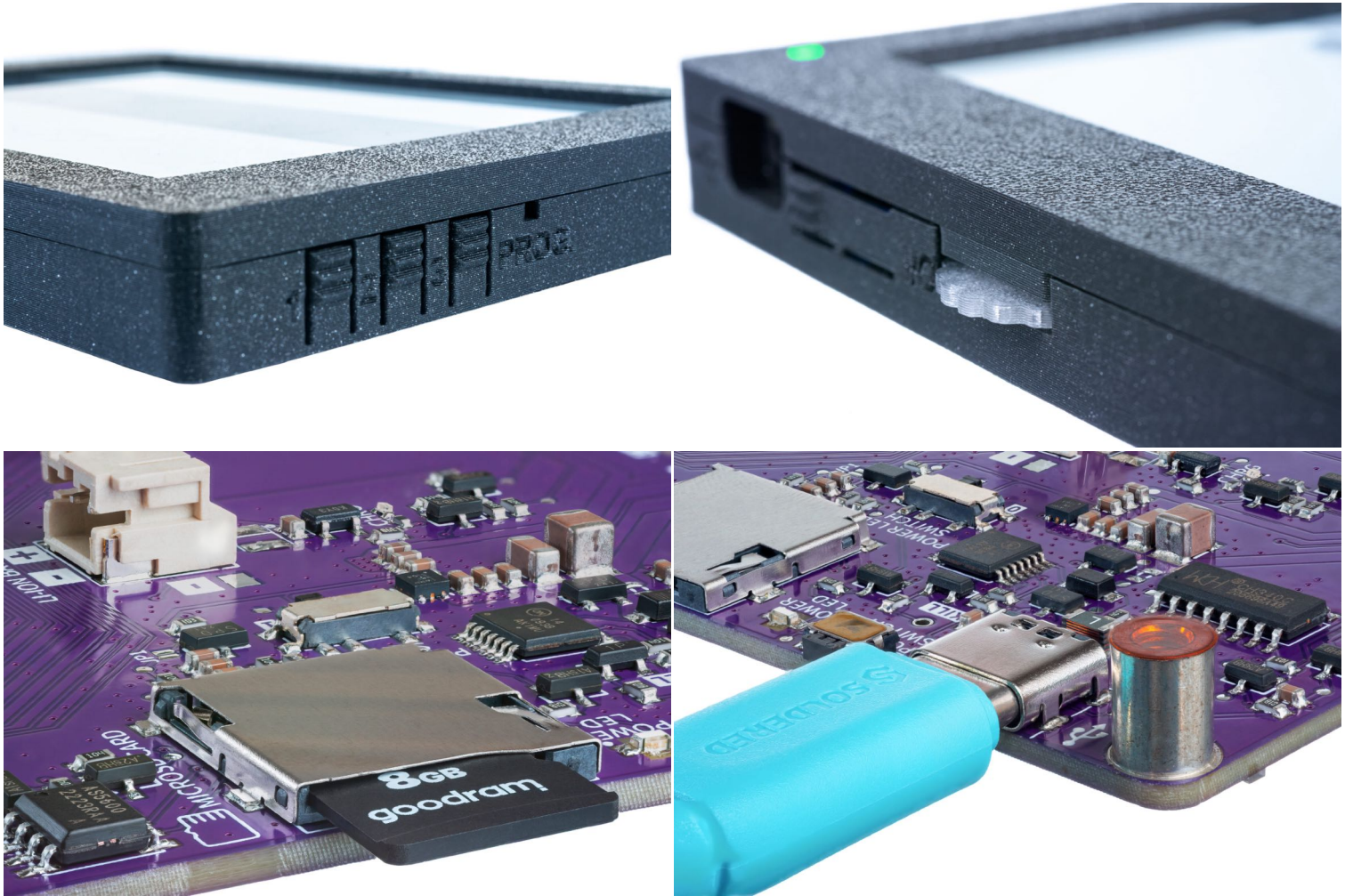
FEATURES

- 6-inch e-paper display with 1024x758 pixels, 212 PPI, and 4-bit greyscale support (16 shades)
- Partial refresh time of 91 ms (11 FPS), with full refresh in 500 ms (B&W) or 800 ms (greyscale)
- Powered by STM32H743ZIT6 microcontroller with 2 MB Flash, 1 MB SRAM, and 32 MB DRAM
- Co-processor ESP32-C3 for Wi-Fi and Bluetooth connectivity
- Low-power mode consumes 22 μ A
- Sensors: LSM6DSO32 accelerometer/gyroscope, SHTC3 temperature sensor, APDS-9960 proximity/gesture sensor
- 3x push buttons and rotary encoder with LED backlighting
- microSD card slot, USB-C port, and MCP73831 battery charger
- Two RGB WS2812B programmable LEDs
- 30+ GPIO pins supporting Ethernet, I²C, SPI, UART, and more

USEFUL LINKS

OTHER IMAGES





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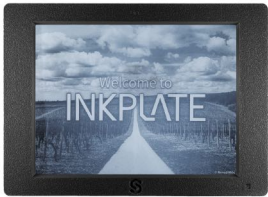
VARIATIONS

Image	SKU	Variant
	333321	With e-paper

Image

SKU

Variant



333322

With e-paper & Enclosure



333324

With e-paper, Enclosure & Battery

Mouser Electronics

Authorized Distributor

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