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INDUSTRIAL PRODUCT DATASHEET

SenseCAP Indicator for Meshtastic® & LoRa®

SenseCAP Indicator for Meshtastic® & LoRa®: a pre-flashed dual-MCU device for off-grid Meshtastic communication and LoRaWAN® gateway use.

SKU	UPDATED	PRICE
114993532	2026-09-21 10:07:35	$60.90(Excl. VAT)



Overview



The SenseCAP Indicator for Meshtastic® & LoRa® is a versatile development board featuring ESP32S3 and RP2040 dual MCUs, over 400 Grove-compatible GPIOs, and a Semtech SX1262 LoRa® chip. Pre-flashed with Meshtastic firmware, it can serve as a Meshtastic node or be converted to a LoRaWAN® Single-Channel Gateway, with full open-source support for flexible expansion.

Key Features

Note:

The device does not come with GPS. If you want to use GPS, please **click the link** to purchase it.

- **Supports Meshtastic:** Pre-flashed with Meshtastic firmware, it is ready to work once powered on. You can also upgrade the firmware using **Meshtastic Flasher**.
- **Dual MCUs and Rich GPIOs:** Equipped with powerful ESP32S3 and RP2040 dual MCUs and over 400 Grove-compatible GPIOs for flexible expansion options.
- **Local LoRa® Hub for IoT Connectivity:** Integrated with the Semtech SX1262 LoRa® chip, the device can be converted to a LoRaWAN® Single-Channel Gateway via **tutorial**. Alternatively, connect LoRa® devices to popular IoT platforms like Matter via Wi-Fi.
- **Fully Open Source Platform:** Leverage the extensive ESP32 and Raspberry Pi open-source ecosystem for infinite application possibilities.
- **Suitable for Multiple Application Scenarios**: Can be used as a Meshtastic desktop node or a car node, as well as a LoRaWAN® Single-Channel Gateway.

Product Gallery



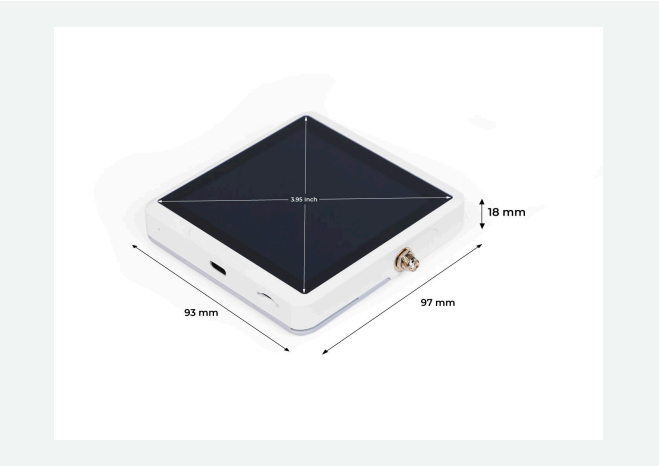












Specification

Screen	3.95 Inch, Capacitive RGB Touch Screen
Screen Resolution	480 x 480 pixels
Power Supply	5V DC, 1A
Battery	N/A
Processor	ESP32-S3: Xtensa® dual-core 32-bit LX7 microprocessor, up to 240MHz RP2040: Dual ARM Cortex-M0+ up to 133MHz
Flash	ESP32S3: 8MB RP2040: 2MB
External Storage	Support up to 32GB Micro SD Card (not included)
LoRa	Supports 862-930MHz
Wi-Fi	802.11b/g/n, 2.4GHz
Bluetooth	Bluetooth 5.0 LE
Certification	CE /FCC
Buzzer（Not developed yet）	MLT-8530, Resonant Frequency：2700Hz

Hardware Overview



Applications

- **Meshtastic®:** As a Meshtastic device, it can build an open-source, off-grid, decentralized, and free LoRa mesh network for reliable long-range, low-power communication with other Meshtastic® nodes. Pair it with your phone in three steps to start communicating with nearby nodes via the Meshtastic app, check signals, and share locations without any network infrastructure.
- **LoRa®:** You can transform the device into a single-channel gateway by flashing the firmware, allowing it to receive and send data from LoRa terminal devices. This is a cost-effective option, especially suited for scenarios that require simple, low-power wireless communication.

Part List

Indicator	x1
USB-C Cable(1M)	x1
2dBi-868-915MHZ-SMA Antenna	x1

Compliance & Logistics



HSCODE	8543709990
USHSCODE	8531200020
UPC	
EUHSCODE	8543709099
COO	CHINA

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

15.21

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy.

If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Resource Links

- https://www.seeedstudio.com/SenseCAP-Indicator-D1L-for-Meshtastic-p-6304.html

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