

seed studio

INDUSTRIAL PRODUCT DATASHEET

# SenseCAP Indicator + D1S, 4-Inch Touch Screen IoT development platform powered by ESP32S3 & RP2040

SenseCAP Indicator D1S: a 4-inch touch screen IoT platform with ESP32S3 & RP2040 dual MCU, Wi-Fi/BLE/LoRa, environmental sensors, and open-source ecosystem for versatile IoT applications including air quality monitoring, weathe...

SKU

114993069

UPDATED

2026-04-22 05:58:54

PRICE

\$79.00(Excl. VAT)



# Overview



The SenseCAP Indicator D1S is a 4-inch touch screen IoT development platform powered by ESP32S3 and RP2040 dual MCUs, featuring Wi-Fi/BLE/LoRa communication and built-in tVOC and CO2 sensors plus an external Grove AHT20 temperature and humidity sensor. With over 400 Grove-compatible GPIOs and full open-source support, it enables applications like air quality monitoring, weather stations, smart home assistants, and customizable IoT dashboards.

# Key Features

---

## Note

SenseCAP Indicator has FCC, CE, RoHS, and REACH certifications for all models (D1, D1S, D1L, D1Pro), and TELEC certification formal certificate for D1, D1S versions. Please download the certificate [here](#).

For big quantity orders please contact [iot@seeed.cc](mailto:iot@seeed.cc).

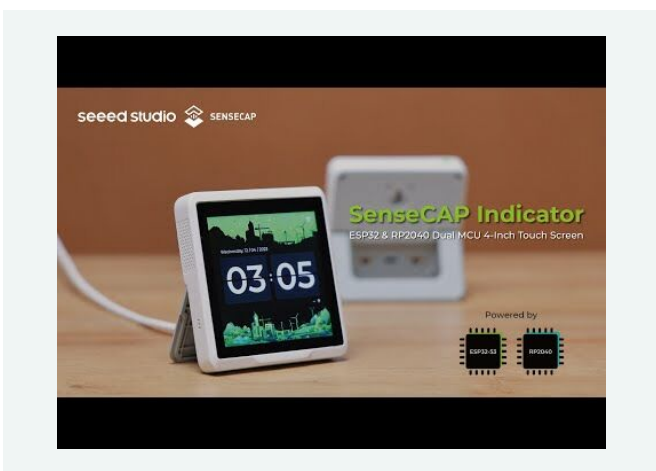
SenseCAP Indicator is a 4-inch touch screen driven by ESP32 and RP2040 dual-MCU and supports Wi-Fi/BLE/LoRa® communication.

The board comes with Type-C and Grove interfaces, supports ADC and IIC transmission protocols, and can easily connect to other peripherals with rich GPIOs.

SenseCAP Indicator is a fully open-source powerful IoT development platform for developers. One-stop ODM Fusion service is also available for customization and quick scale-up.

- **Dual MCUs and Rich GPIOs:** Equipped with powerful ESP32S3 and RP2040 dual MCUs and over 400 Grove-compatible GPIOs for flexible expansion options.
- **Real-time Air Quality Monitoring:** Built-in tVOC and CO2 sensors, and an external Grove AHT20 temperature and humidity sensor for more precise
- **Fully Open Source Platform:** Leverage the extensive ESP32 and Raspberry Pi open-source ecosystem for infinite application possibilities.
- **Fusion ODM Service Available:** Seeed Studio also provides one-stop ODM service for quick customization and scale-up to meet various needs.

# 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)	
Wi-Fi	802.11b/g/n, 2.4GHz	
Bluetooth	Bluetooth 5.0 LE	
Sensors(Optional)	Built-in CO2 (SCD41)	Range: 0-40000ppm Accuracy: 400ppm - 5000ppm
	Built-in TVOC (SGP40)	Range: 1-500 VOC Index Points
	External Temperature and Humidity Sensor	Range: -40 ~ + 85 °C/± 0.3 °C; 0 ~
Buzzer	MLT-8530, Resonant Frequency : 2700Hz	

# Applications

---

- **Air Quality Monitor:** SenseCAP Indicator native firmware enables you to use it as a desktop air quality detector or you could customize one of your own styles. There are built-in tVOCs and CO2 sensors, and a Grove TH sensor is provided to connect externally to reduce heat interference to get more accurate temperature and humidity results.
- **Weather Station Display**
- **Sensor Data Dashboard**
- **Smart Home Assistant**
- **Mini Sensor Hub**
- **Stock Price Indicator**
- **Digital Album**
- **Standard Operation Procedure Reminder**
- **LoRa Hub for Smart Home (Matter over Wi-Fi):** The embedded SX1262 LoRa® module enables you to build the LoRa® application and connect your local LoRa® sensors to the Cloud via Wi-Fi. For example, you could build a LoRa® hub device to connect your LoRa® sensors to your smart home ecosystem to implement Matter over Wi-Fi.
- **Customizable IoT Display:** You could customize one of your own styles.
- **ChatGPT & DALL-E Integration**
- **Home Assistant Integration**

## Part List

---

SenseCAP Indicator	x1
USB Type-C Cable (1m)	x1
Grove AHT20 TH Sensor (For D1S and D1Pro version)	x1

## Compliance & Logistics



HSCODE	9027100090
USHSCODE	8531200020
UPC	
EUHSCODE	9027109000
COO	CHINA

## Resource Links

- <https://www.seeedstudio.com/SenseCAP-Indicator-D1S-p-5645.html>

**Seeed Technology Co.,Ltd.**

9F, Building G3, International E City,  
Zhongshanyuan Road, Nanshan, Shenzhen, China

**Tel:** +86 0755-80695676

**Web:** www.seeed.cc

**Shop:** www.seeedstudio.com