



Smart Eco

SEI 100A

DEVICE USER MANUAL

Indoor Air Quality Monitor



 <https://smarteco.ai/>

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SMART ECO/INDOOR AIR QUALITY

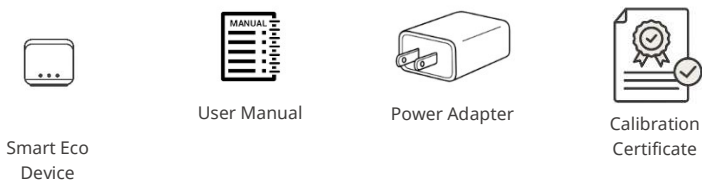


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Smart Eco User Manual

Package Contents



Safety Instructions

Please read all safety instructions before installation and use. Follow the recommended precautions to ensure safe operation, reliable performance, and accurate environmental monitoring.

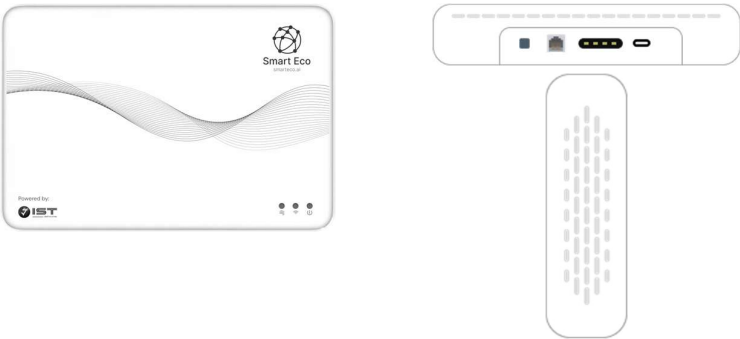
 WARNING

- All installation work must be carried out only by qualified or authorized personnel.
- Always switch the power OFF before performing wiring, installation, or maintenance.
- Use only the supplied or approved power adapter and approved connection methods.
- Do not expose the device to water, moisture, or excessive humidity.
- Ensure all ventilation openings remain clear and unobstructed during operation.
- Do not open, disassemble, or tamper with the device enclosure.
- Do not apply reverse polarity or reverse voltage to the device.
- Do not install or operate the device in outdoor environments.
- Keep the device away from radiators, heaters, ovens, furnaces, stoves, or other heat sources.

Product Overview

Smart Eco is an indoor air quality monitoring device designed to continuously measure key environmental parameters.

It provides real-time air quality insights for schools, hospitals, offices, and other indoor environments, helping support better health, comfort, and productivity.



Monitored Parameters

- PM2.5
- PM10
- CO
- TVOC
- CH₂O
- NO₂
- SO₂
- CO₂
- Ambient Temperature
- Humidity
- Noise

Indicators & Interfaces

Front Panel	Power LED (Green = ON), Wi-Fi LED (Green = Connected), Air Quality LED (Green = Good, Amber = Moderate, Red = Poor)
Bottom	Power Switch, USB-C Power Input, Ethernet (LAN), RS-485 (Modbus)
Top / Left / Right Sides	Ventilation Openings
Back Panel	Wall-Mount Keyhole Slots



Installation

1. Select an indoor location with adequate airflow.
2. Securely mount the device using the two rear keyhole mounting slots.
3. Ensure ventilation openings remain unobstructed.
4. Connect power using the approved power adapter.
5. Connect Ethernet or RS-485 if required for deployment.
6. Verify normal LED status before starting app onboarding.

Device Onboarding & Mobile App

To configure and onboard the Smart Eco device, use the Smart Eco mobile app.

Onboarding

1. Scan the QR code below to download the Smart Eco app from the Google Play Store.
2. Complete app registration and sign in to the app.
3. Select Add Device.
4. Scan the QR code located on the back of the device.
5. Enter the device location and Wi-Fi details, then save.
6. Then the device will connect using the configured Wi-Fi network.
7. Once connected, device data will sync to the cloud and become available in the web application.



Google Play
Store

Troubleshooting

If the device is not operating as expected:

- Confirm the power connection is secure.
- Check that the Ethernet connection is properly connected, if applicable.
- Ensure ventilation openings are not blocked.
- Verify status LED behaviour during startup and normal operation.

For additional assistance, please contact the Smart Eco support team.

Warranty Information

Smart Eco is covered under the applicable product warranty. Coverage and service availability may vary by device model and deployment configuration. For warranty support or technical assistance, please contact the Smart Eco support team or your authorised representative.

Note

For custom cloud configuration, app-related issues, troubleshooting, or warranty information, please contact:

ist.smartecoai@ispatialtec.com

Technical Specifications

Model: SEI 100A

Power input: 5 V, 2 A (USB-C); consumption less than 15 W

Connectivity: Wi-Fi 2.4 GHz (802.11 b/g/n); Bluetooth 5 (LE)

Wired interfaces: Ethernet (LAN); RS-485 (Modbus RTU)

Operating temperature: 0 °C to 50 °C

Operating humidity: 10 % to 90 % RH, non-condensing

Dimensions: 180 × 123 × 48 mm; weight less than 1 kg

Wireless (RF) Specification

Wi-Fi (802.11 b/g/n): 2400 – 2483.5 MHz; max. RF output power 20 dBm EIRP

Bluetooth Low Energy: 2400 – 2483.5 MHz; max. RF output power 20 dBm EIRP

Antenna: Integrated PCB antenna, maximum gain 2.33 dBi

FCC RF Radiation Exposure Statement

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.
3. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Regulatory Information

EU Declaration of Conformity: iSpatial Techno Solutions Inc. hereby declares that the Smart Eco SEI 100A radio equipment is in compliance with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available from the manufacturer on request.

EU use restrictions: This device may be operated in all EU member states without restriction.

Disposal (WEEE): At end of life, do not dispose of this device with household waste. Dispose of it in accordance with local regulations for electrical and electronic equipment.

FCC Caution

FCC ID: 2BXDY-SEI100A

Part 15.21

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

Part 15.19

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.

NOTE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Product Label

The product rating label carries the CE marking, the trademark (Smart Eco), the product name, the model number (SEI 100A), the FCC ID, and the manufacturer name and address: iSpatial Techno Solutions Inc., 16225 Park Ten Place, Suite 500, Houston, Texas 77084, USA.