User manual ArimAir RW300

Version 10/2023

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Overview

The ArimAir RA300 is a real-time air quality meter that simultaneously measures particulate matter (PM 2.5), radon, carbon dioxide (CO2), volatile organic compounds (VOCs), temperature, and humidity.
It is equipped with a display that shows air quality information in real time, and has been certified as Grade 1 for fine particulate matter performance.

Components

1. ArimAir RA300
2. USB-C Cable

ArimAir RA300

USB-C 电缆

Specification

Manufacturer		ARIM SCIENCE Inc.	
Model		ArimAir RA300	
Measurement		PM2.5, RADON, CO_2,, VOC, TEMP, HUMI	
Measurement range	PM 2.5 PM 10	Measurement Range	0 ~ 1,000 ㎍/㎥
		Measurement Sensitivity	1 ㎍/㎥
		Accuracy	±10 ㎍/㎥ (0 ~ 100 ㎍/㎥)
			±10 % (00 ~ 1,000 ㎍/㎥)
		Particle Size Sensitivity	0.3 ~ 10 ㎛
		Flow Rate	1.3 CFM
		Response Time	≤ 1 sec
		Linearity	R2 = 0.9897
	RADON	Range	0.2 ~ 99.9pCi/L (7~3,700Bq/㎥)
		Sensitivity	0.3cpm/pCi/L
		Accuracy	< ±15%
	CO_2	Range	0 – 40,000 ppm
		Accuracy	± (50 ppm + 5% of reading)
		Response time	60 s
	VOC	Range	0 – 1000 ppm
		Output signals	1 – 500 VOC Index
		Response time	10 s
	TEMPERATURE	Accuracy@Range	±0.2@-40 ~ 125 °C
		Resolution	0.01 °C
		Response time	2 s
	HUMIDITY	Accuracy@Range	±1.8@0-100% RH
Communication		WIFI, USB Serial	
Power		5V 2A	

Certificates

KC Certification (ArimAir RA300)

9D41-375E-CA1A-3147

방송통신기자재등의 적합등록 필증

Registration of Broadcasting and Communication Equipments

상호 또는 성명 Trade Name or Registrant	(주)아림사이언스
기자재명칭(제품명칭) Equipment Name	ArimAir RA300
기기부호/추가 기기부호 Equipment code /Additional Equipment code	IMI61 / LARN8
기본모델명 Basic Model Number	ArimAir RA300W
파생모델명 Series Model Number	RA300-W03458
등록번호 Registration No.	R-R-iAR-RA300W
제조자/제조국가 Manufacturer/Country of Origin	(주)아림사이언스/한국
등록연월일 Date of Registration	2022-11-25
기타 Others	

위 기자재는 「전파법」 제58조의2 제3항에 따라 등록되었음을 증명합니다.

It is verified that foregoing equipment has been registered under the Clause 3, Article 58-2 of Radio Waves Act.

2023년(Year) 06월(Month) 19일(Day)

국립전파연구원장 국립전파연구원장인

Director General of National Radio Research Agency

※ 적합등록 방송통신기자재는 반드시 "적합성평가표시" 를 부착하여 유통하여야 합니다.
위반시 과태료 처분 및 등록이 취소될 수 있습니다.

ESP32-WROOM-32E (Certificates Attachment)

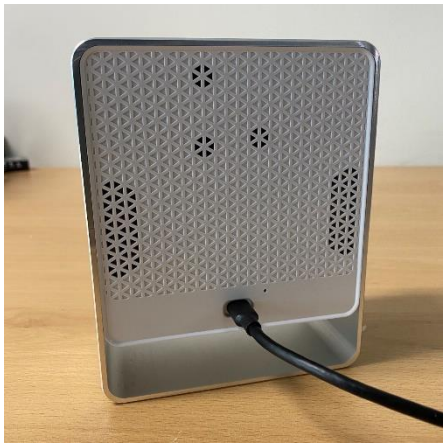
ESP32-WROOM-32E NCC Certification
ESP32-WROOM-32E & ESP32-WROOM-32UE KCC Certification
ESP32-WROVER-E & ESP32-WROVER-IE & ESP32-WROOM-32E & ESP32-WROOM-32UE BQB Certification
ESP32-WROOM-32E MIC Certification
ESP32-WROOM-32E IC Certification
ESP32-WROOM-32E Wi-Fi Certification
ESP32-WROOM-32E SRRC Certification
ESP32-WROOM-32E FCC DTS Certification
ESP32-WROOM-32E CE Certification
ESP32-WROOM-32E CE Certification Appendix
ESP32-WROOM-32E FCC DSS Certification

Install

Set up the ArimAir RA300.

Connecting to power

Connect the USB-C cable to the RA300W rear connector.

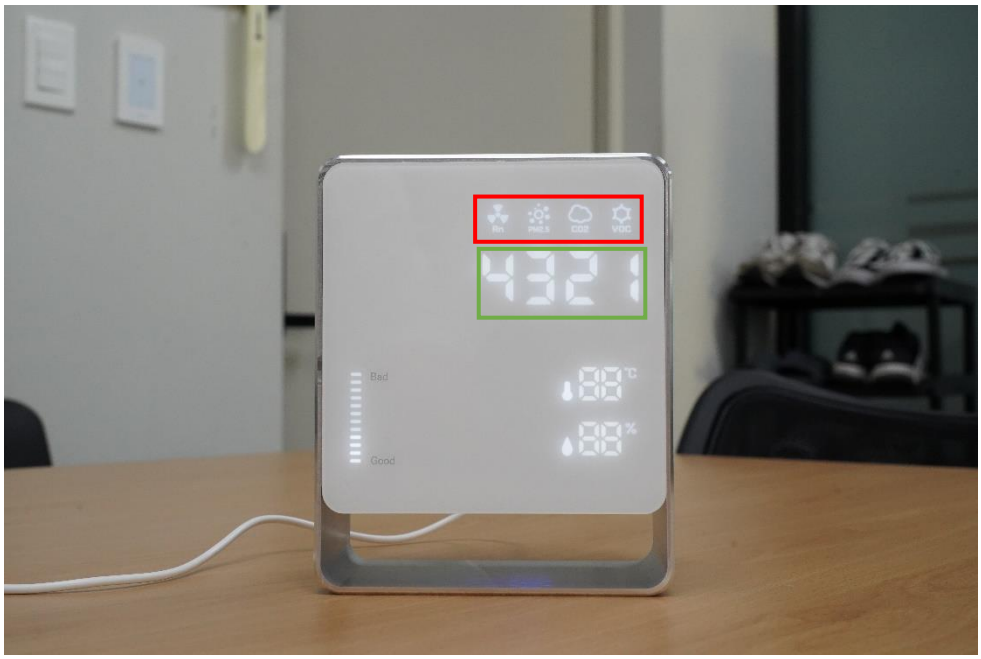


Power off

Unplug the USB-C cable to disconnect power

Operation

1. Red box: Metrics
2. Green box : Value
3. Bottom left: Current status visualization
4. Bottom right : Temperature and humidity



FCC Compliance Statement(FCC ID: 2BDYS-RA300)

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.

Caution
Any changes or modifications (including the antenna) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons. This device must not be co-located or operation in conjunction with any other antenna or transmitter.

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 and, if not installed and used in accordance with the instructions, 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.

This equipment complies with FCC