
Test Report

Report No.: AGC00688210908SR01

PRODUCT DESIGNATION : RuuviTag Pro
BRAND NAME : /
MODEL NAME : R-PRO-IP67, R-PRO-IP68, R-PRO-IP69
APPLICANT : Ruuvi Innovations Ltd.
DATE OF ISSUE : Sept.17,2021
STANDARD(S) : See text
REPORT VERSION : V1.0

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TEST REPORT

Applicant : Ruuvi Innovations Ltd.
Address : Hämeenkatu 10 B132, 11100 Riihimäki, Finland
Sample Name : RuuviTag Pro
Sample Model : R-PRO-IP67, R-PRO-IP68, R-PRO-IP69
Brand Name : /
Sample Quantity : 6PCS
Sample Received Date : Sept.13,2021
Tested Date : Sept.14,2021-Sept.16,2021
Test Standard : See text
Test Result : Pass

Prepared by

Mila . Huang

Mila.Huang(HuangXiaoLing)

Sept.17,2021

Reviewed by

ERIC . LU

Eric.lu(Lubiwen)

Sept.17,2021

Approved by

David Wan

David Wan(Wan De Ji)
Authorized Officer

Sept.17,2021

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REPORT REVISE RECORD

Report version	Revise time	Issued date	Valid version	Notes
V1.0	/	Sept.17,2021	Valid	Original Report

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TEST REPORT

Test Item 1: IP6X test

1) Environment conditions:

Temperature: 26.9 °C Humidity: 64%RH

2) Tested Sample:

Sample No.	Sample Name	Sample Model	Sample Quantity
210913131-001	RuuviTag Pro	R-PRO-IP67, R-PRO-IP68, R-PRO-IP69	1pc
210913132-001	RuuviTag Pro	R-PRO-IP67, R-PRO-IP68, R-PRO-IP69	1pc
210913133-001	RuuviTag Pro	R-PRO-IP67, R-PRO-IP68, R-PRO-IP69	1pc

3) Test Standard: IEC 60529-1989+Amd 1-1999+Amd 2-2013

4) Test Condition:

1. Protection test for dangerous parts:

Use a rigid steel rod (1 mm diameter) push against any openings of the enclosure, the test force is 1N.

2. Dust proof test:

1) The sample is pumped at negative pressure, the volume of air is <40times the volume of the shell per hour, the pressure inside the sample shell and the pressure outside the shell are not more than 2KPa.

2) The amount of talcum powder: 2kg/m³

3) Test duration: 8H.

5) Test Equipment:

Sequence	Equipment Name	Equipment No.	Cal. Date	Cal. Due
1	Φ1mm test probe	AGC-RE-E193	2021.03.17	2022.03.16
2	Dust Tester	AGC-RE-E181	2021.03.04	2022.03.03

6) Test Results:

Sample No.	Test Result	Test Conclusion
210913131-001	The test probe could not penetrate the inside of the sample; After the test, no dust inside the sample by visual inspection.	Pass
210913132-001		
210913133-001		

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TEST REPORT

Sample Photo Before Test:



210913131-001



210913132-001



210913133-001

Sample Photo During Test:



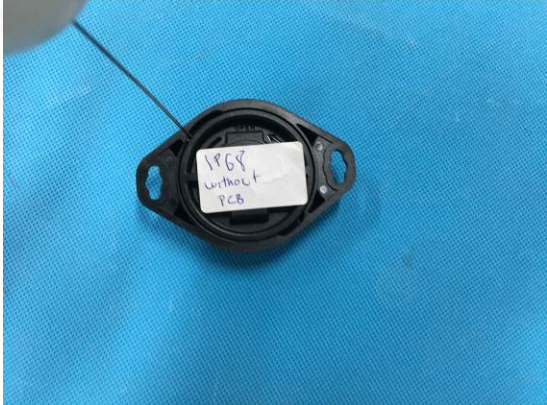





210913131-001



210913131-001

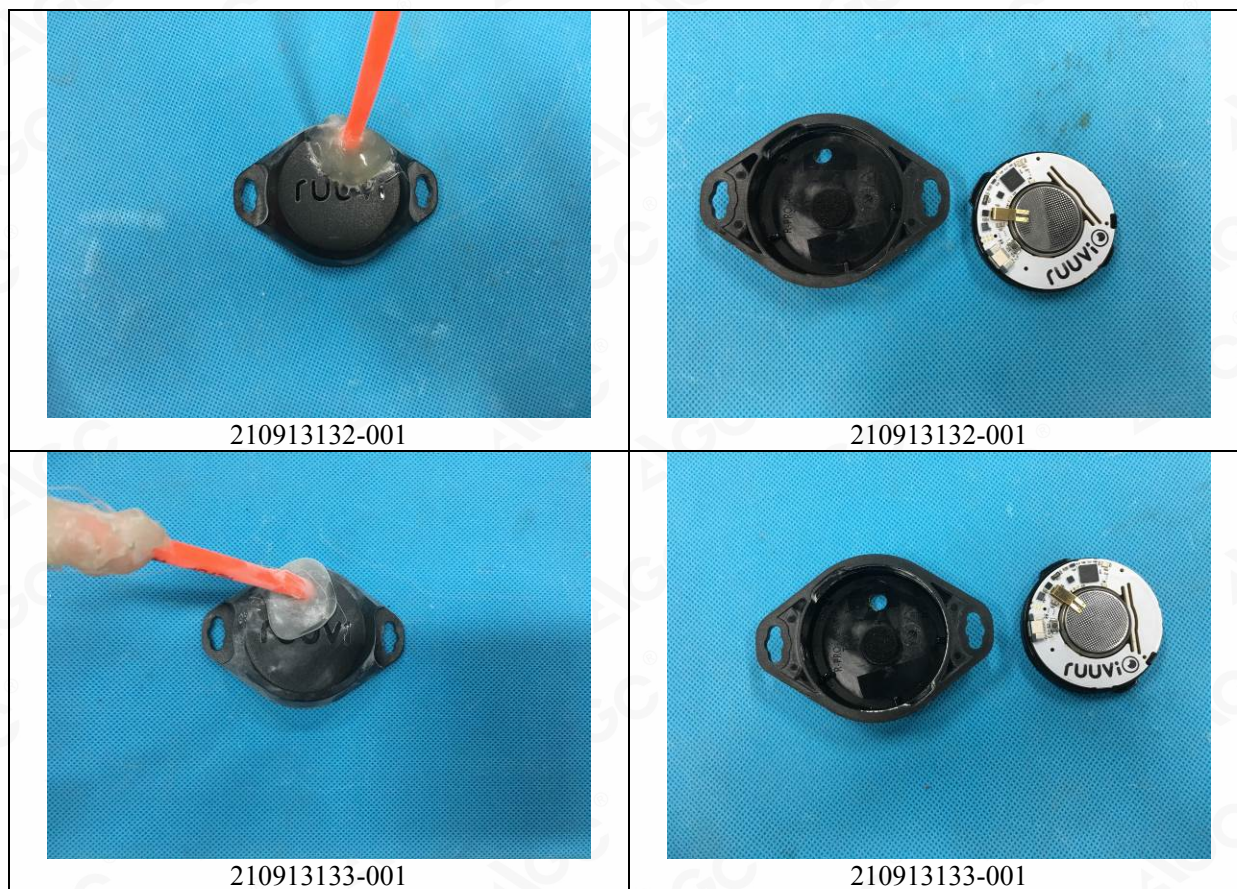
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TEST REPORT

	
210913132-001	210913132-001
	
210913133-001	210913133-001
Sample Photos After Test:	
	
210913131-001	210913131-001

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TEST REPORT

Test Item 2: IPX7 test

1) Environment conditions:

Temperature: 27.2°C Humidity: 65%RH

2) Tested Sample:

Sample No.	Sample Name	Sample Model	Sample Quantity
210913131-002	RuuviTag Pro	R-PRO-IP67, R-PRO-IP68, R-PRO-IP69	1pc

3) Test Standard: IEC 60529-1989+Amd 1-1999+Amd 2-2013

4) Test Condition:

1. Water-Level On Sample: at least 0.15 m above the top of the sample device, and at least 1 m above the bottom of the sample device.

2. Test Duration: 30 min.

5) Test Equipment:

Sequence	Equipment Name	Equipment No.	Cal. Date	Cal. Due
1	Waterproof test system	AGC-RE-E020	2021.03.11	2022.03.10

6) Test Results:

Sample No.	Test Result	Test Conclusion
210913131-002	After the test, no water inside the sample by visual inspection	Pass

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TEST REPORT

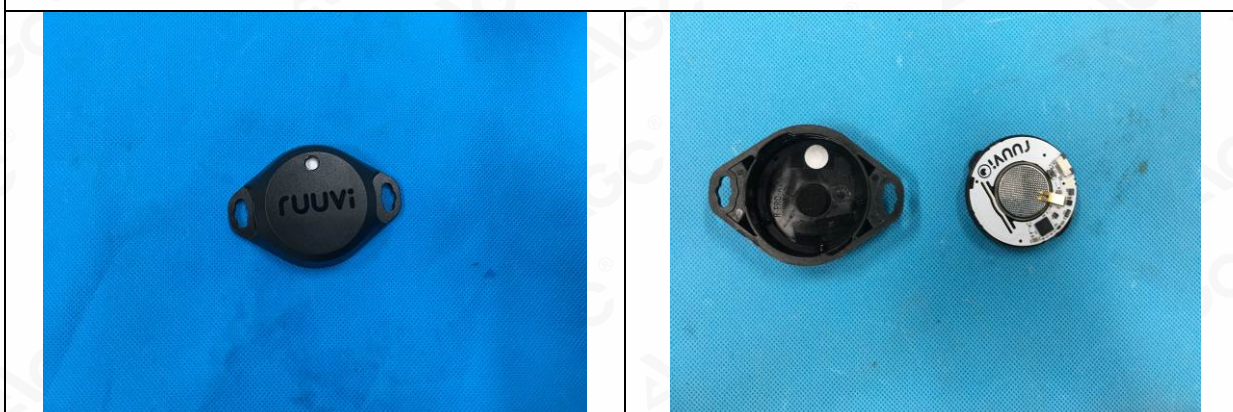
Sample Photo Before Test:



Sample Photo During Test:



Sample Photos After Test:



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TEST REPORT

Test Item 3: IPX8 test

1) Environment conditions:

Temperature: 27.4°C Humidity: 68%RH

2) Tested Sample:

Sample No.	Sample Name	Sample Model	Sample Quantity
210913132-002	RuuviTag Pro	R-PRO-IP67, R-PRO-IP68, R-PRO-IP69	1pc

3) Reference Basis: IEC 60529-1989+Amd 1-1999+Amd 2-2013

4) Test Condition:

1. Test water depth: 50m

2. Test time: 24h

5) Test Equipment:

Sequence	Equipment Name	Equipment No.	Cal. Date	Cal. Due
1	Waterproof test system	AGC-RE-E020	2021.03.11	2022.03.10

6) Test Results:

Sample No.	Test result	Judgement
210913132-002	After the test, no water inside the sample by visual inspection.	Pass

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TEST REPORT

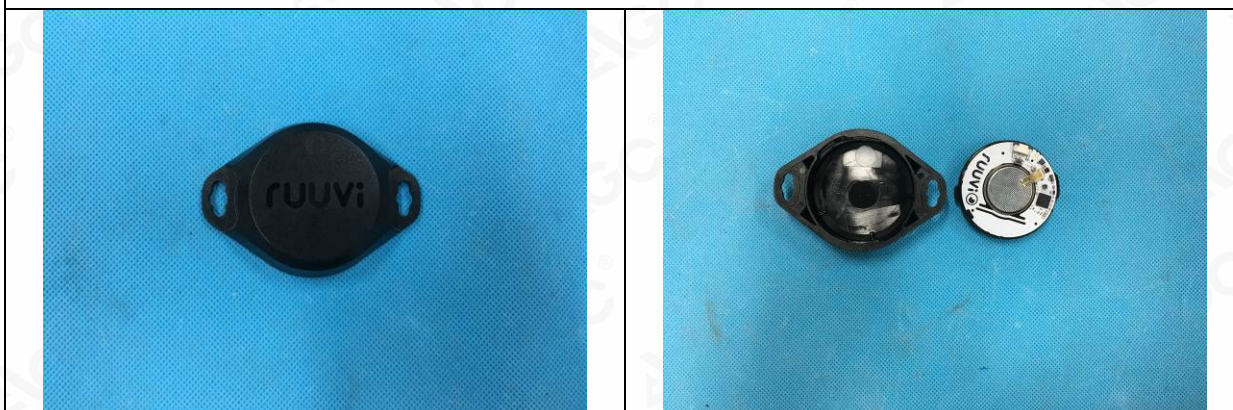
Sample Photo Before Test:



Sample Photo During Test:



Sample Photos After Test:



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TEST REPORT

Test Item 4: IPX9K test

1) Environment conditions:

Temperature: 26.5 °C Humidity: 53%RH

2) Tested Sample:

Sample No.	Sample Name	Sample Model	Sample Quantity
210913133-002	RuuviTag Pro	R-PRO-IP67, R-PRO-IP68, R-PRO-IP69	1pc

3) Test Standard: IEC 60529:2013&GB/T 4208-2017+ Client's requirement

4) Test Condition:

- The inner diameter of the spray port of the nozzle is 12.5mm; Spray angle: 0°, 30°, 60°, 90° (four angles).
Number of nozzles: 4; Sample table speed: 5rpm / min; 200mm away, 30 seconds water spraying at each position;
The flow rate is 14.76l/min, the pressure is 112.8bar, and the water temperature is 80 °C.
- Test time: 4min (2 cycles).

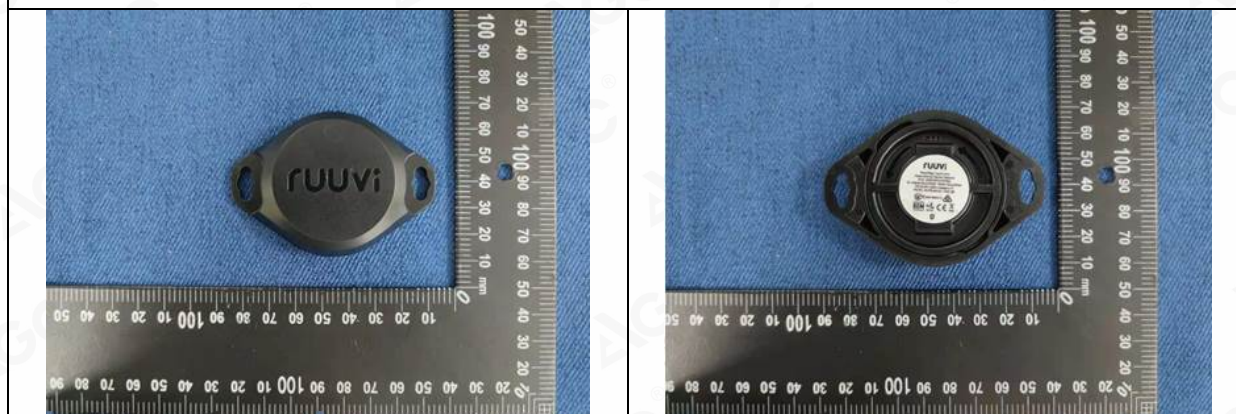
5) Test Equipment:

Sequence	Equipment Name	Equipment No.	Cal. Due
1	Waterproof test box	T2416	2021.09.15

6) Test Results:

Sample No.	Test Result	Test Conclusion
210913133-002	After the test, there is no water in the sample.	Pass

Sample Photo Before Test:



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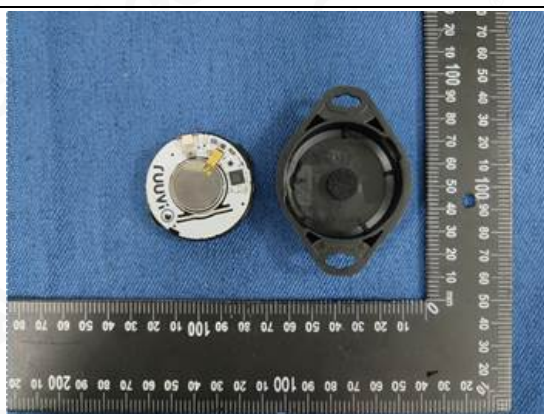


TEST REPORT

Sample Photo During Test:



Sample Photos After Test:



*** End of Report ***

laboratory address: 101, Building 2 & 101, Building 5, Sanwei Chaxi Industrial Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.

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