

EMF TEST REPORT

Test Report No. : OT-21O-RWD-058
Reception No. : 2110004416
Applicant : Remote Solution Co.,Ltd.
Address : 92, Chogokri Nammyun, Kimchon City, Kyungbuk, 740-871, South Korea
Manufacturer : Remote Solution Co.,Ltd.
Address : 92, Chogokri Nammyun, Kimchon City, Kyungbuk, 740-871, South Korea
Type of Equipment : BLE/RF4CE Remote controller
FCC ID. : TX4RD68A
Model Name : RD68A00
Multiple Model Name : RD68XYY (X : A~Z, YY: 00~99)
Serial number : N/A
Total page of Report : 8 pages (including this page)
Date of Incoming : October 07, 2021
Date of issue : October 28, 2021

SUMMARY

The equipment complies with the regulation; *FCC PART 15 SUBPART C Section 15.247*

This test report only contains the result of a single test of the sample supplied for the examination.

It is not a generally valid assessment of the features of the respective products of the mass-production.

유수민



남기홍

Tested by / Su-Min You / Assistant Manager ONETECH Corp.	Reviewed by / Tae-Ho, Kim / Senior Manager ONETECH Corp.	Approved by / Ki-Hong, Nam / General Manager ONETECH Corp.
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CONTENTS**PAGE**

1. VERIFICATION OF COMPLIANCE	4
2. GENERAL INFORMATION	5
2.1 PRODUCT DESCRIPTION.....	5
2.2 ALTERNATIVE TYPE(S)/MODEL(S); ALSO COVERED BY THIS TEST REPORT.....	6
3. EUT MODIFICATIONS.....	6
4. RF EXPOSURE EVALUATION	7
4.1 STANDARD APPLICABLE	7
4.2 EUT DESCRIPTION.....	7
4.3 TEST RESULT OF SAR EXCLUSION FOR PORTABLE DEVICES	8
4.3.1 Test data for Zigbee	8
4.3.2 Test data for Bluetooth LE	8

Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-21O-RWD-058	October 28, 2021	Initial Release	All

1. VERIFICATION OF COMPLIANCE

Applicant : Remote Solution Co.,Ltd.
 Address : 92, Chogokri Nammyun, Kimchon City, Kyungbuk, 740-871, South Korea
 Contact Person : Byung-Cheol Kim / Manager
 Telephone No. : +82-54-420-4517
 FCC ID : TX4RD68A
 Model Name : RD68A00
 Brand Name : RS OTS
 Serial Number : N/A
 Date : October 28, 2021

EQUIPMENT CLASS	DTS – DIGITAL TRNSMISSION SYSTEM
E.U.T. DESCRIPTION	BLE/RF4CE Remote controller
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2020
TYPE OF EQUIPMENT TESTED	Pre-Production
KIND OF EQUIPMENT AUTHORIZATION REQUESTED	Certification
EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S)	FCC PART 15 SUBPART C Section 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02
Modifications on the Equipment to Achieve Compliance	None
Final Test was Conducted On	3 m, Semi Anechoic Chamber

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The Remote Solution Co.,Ltd., Model RD68A00 (referred to as the EUT in this report) is a BLE/RF4CE Remote controller. The product specification described herein was obtained from product data sheet or user's manual.

Device Type	BLE/RF4CE Remote controller	
Operating Frequency	Bluetooth LE	2 402 MHz ~ 2 480 MHz
	Zigbee	2 405 MHz ~ 2 475 MHz
RF Output Power	Bluetooth LE	5.58 dBm
	Zigbee	5.68 dBm
Number of Channel	Bluetooth LE	40 Channels
	Zigbee	15 Channels
Modulation Type	Bluetooth LE	GFSK
	Zigbee	DSSS
Antenna Type	PCB Antenna	
Antenna Gain	-1.0 dBi	
Rated Supply Voltage	DC 3.0 V	
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	32 MHz	

2.2 Alternative type(s)/model(s); also covered by this test report.

-. The following lists consist of the added model and their differences.

Model Name	Differences	Tested
RD68A00	Basic Model	<input checked="" type="checkbox"/>
RD68XYY (See Note 3)	This model is identical to the basic model except that the printed information (Label, Front cover and Brand) on the appearance is different.	<input type="checkbox"/>

Note: 1. Applicant consigns only basic model to test. Therefore this test report just guarantees the units, which have been tested.

2. The Applicant/manufacturer is responsible for the compliance of all variants.

3. Multiple model name RD68XYY is made up of a combination of X (A~Z) and Y (00~99),

X depends on electric parts, YY depends on appearance, design and brand

3. EUT MODIFICATIONS

-. None

4. RF Exposure Evaluation

4.1 Standard Applicable

According to 1.1307 (b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission’s guideline.

According to the procedure, KDB 447498 D06, the standalone SAR test exclusion threshold is

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3$$

4.2 EUT Description

Kind of EUT	BLE/RF4CE Remote controller
Device Category	<input checked="" type="checkbox"/> Portable (< 20 cm separation) <input type="checkbox"/> Mobile (> 20 cm separation) <input type="checkbox"/> Others
Exposure Evaluation Applied	<input type="checkbox"/> MPE <input type="checkbox"/> SAR <input checked="" type="checkbox"/> SAR Exemption

4.3 Test Result of SAR Exclusion for Portable Devices

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}]$$

$$= (4.55/5) \times \sqrt{2.44} = 1.42 < 3$$

Conclusion: The SAR test exclusion threshold is less than 3, so the device meets the RF Exposure Requirement and excluded SAR Test.

4.3.1 Test data for Zigbee

Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
2 440.00	5.68 ± 0.5	6.18	4.15	5	1.30

4.3.2 Test data for Bluetooth LE

Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
2 440.00	5.58 ± 0.5	6.08	4.06	5	1.27