RF EXPOSURE REPORT



Report No.: 18070662-FCC-R Supersede Report No.: N/A

| Applicant | Remote Solution Co., Ltd | | |
|---|-----------------------------|---------------------------|-----|
| Product Name | Bluetooth Remote Controller | | |
| Model No. | RC89XBB(X is FF | ROM A to Z, BB is 00~ | 99) |
| Serial No. | RC92XBB(X is FF | ROM A to Z, BB is 00~ | 99) |
| Test Standard | FCC 2.1093 | | |
| Test Date | July 04 to July 19, 2018 | | |
| Issue Date | July 20, 2018 | | |
| Test Result | Pass Fail | | |
| Equipment complied with the specification | | | |
| Equipment did not comply with the specification | | | |
| Agaran La | Da | wid Huang | |
| Aaron Lia Test Engir | | David Huang Checked By | |

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Test result presented in this test report is applicable to the tested sample only

Issued by:

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Laboratories Introduction

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Accreditations for Conformity Assessment

| Country/Region | Scope |
|----------------|------------------------------------|
| USA | EMC, RF/Wireless, SAR, Telecom |
| Canada | EMC, RF/Wireless, SAR, Telecom |
| Taiwan | EMC, RF, Telecom, SAR, Safety |
| Hong Kong | RF/Wireless, SAR, Telecom |
| Australia | EMC, RF, Telecom, SAR, Safety |
| Korea | EMI, EMS, RF, SAR, Telecom, Safety |
| Japan | EMI, RF/Wireless, SAR, Telecom |
| Singapore | EMC, RF, SAR, Telecom |
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1. Report Revision History

| Report No. | Report Version | Description | Issue Date |
|----------------|----------------|-------------|---------------|
| 18070662-FCC-R | NONE | Original | July 20, 2018 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

2. Customer information

| Applicant Name | Remote Solution Co., Ltd |
|------------------|---|
| Applicant Add | 92, Chogok-ri, Nammyun, Gimcheon city, Kyungsangbukdo, Korea |
| Manufacturer | Remote Solution HK |
| Manufacturer Add | 7, 6 road, Gaoli Industrial Zone, Tangxia Town, Dong guan city, China |

3. Test site information

| Lab performing tests | SIEMIC (Shenzhen-China) LABORATORIES | |
|----------------------|---|--|
| | Zone A, Floor 1, Building 2 Wan Ye Long Technology Park | |
| Lab Address | South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China | |
| | 518108 | |
| FCC Test Site No. | 535293 | |
| IC Test Site No. | 4842E-1 | |
| Test Software | Radiated Emission Program-To Shenzhen v2.0 | |



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4. Equipment under Test (EUT) Information

| T. Equipment under | 1 Cot (LOT) Illioithation |
|-------------------------------|--|
| Description of EUT: | Bluetooth Remote Controller |
| Main Model: | RC89XBB(X is FROM A to Z, BB is 00~99) |
| Serial Model: | RC92XBB(X is FROM A to Z, BB is 00~99) |
| Date EUT received: | July 03, 2018 |
| Test Date(s): | July 04 to July 19, 2018 |
| Antenna Gain: | BLE: -0.8dBi |
| Antenna Type: | Chip antenna |
| Type of Modulation: | BLE: GFSK |
| RF Operating Frequency (ies): | BLE: 2402-2480 MHz |
| Number of Channels: | BLE: 40CH |
| Port: | Please refer to the user's manual |
| Input Power: | Battery: Spec: 1.5Vdc, 1200 mAh (X2 EA) |
| Trade Name : | HUMAX |
| FCC ID· | TX4RC89 |



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5. FCC §2.1093 - Radiofrequency radiation exposure evaluation: portable devices.

5.1 RF Exposure

Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] $\cdot [\sqrt{f_{(GHz)}}] \le 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, 16 where

- f_(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation¹⁷
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is ≤ 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

result = $P\sqrt{F}/D$

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm



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5.2 Test Result

BLE Mode:

| Modulation | СН | Freq (MHz) | Conducted Power (dBm) | Tune Up Power (dBm) | Max Tune Up Power (dBm) | Max Tune Up Power (mW) | Result | Limit |
|------------|------|---------------|-----------------------|---------------------------|-------------------------|------------------------|--------|-------|
| GFSK | Low | 2402 | -8.32 | -8±1 | -7 | 0.200 | 0.06 | 3 |
| | Mid | 2440 | -8.98 | -8±1 | -7 | 0.200 | 0.06 | 3 |
| | High | 2480 | -8.35 | -8±1 | -7 | 0.200 | 0.06 | 3 |

Result: Compliance

No SAR measurement is required.