RF EXPOSURE REPORT



Report No.: 17070297-FCC-H2-V2

Supersede Report No.: N/A

Applicant	Remote Solution co.,Ltd			
Product Name	REMOTE CONTROL UNIT			
Model No.	CRB36	CRB36		
Serial No.	N/A			
Test Standard	FCC 2.109	FCC 2.1093:2016		
Test Date	June 07 to June 21, 2017			
Issue Date	June 30, 2017			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Len Y	good	David Huang		
Leen Yang Test Engineer		David Huang Checked By		

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

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park
South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
Phone: +86 0755 2601 4629801 Email: China@siemic.com.cn



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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

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	
Europe	EMC, RF, SAR, Telecom, Safety	



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1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070297-FCC-H2	NONE	Original	June 22, 2017
17070297-FCC-H2-V1	V1	Changed the Applicant address	June 29, 2017
17070297-FCC-H2-V2	V2	Changed the FCC ID	June 30, 2017

2. Customer information

Applicant Name	Remote Solution co.,Ltd	
Applicant Add	92, Chogokri,Nammyun,Kimchon City, Kyungbuk,South Korea	
Manufacturer	Remote Solution HK Ltd	
Manufacturer Add	No.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.	718246	
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

Description of EUT:	REMOTE CONTROL UNIT
Main Model:	CRB36
Serial Model:	N/A
Date EUT received:	June 06, 2017
Test Date(s):	June 07 to June 21, 2017
Antenna Gain:	0 dBi
Antenna Type:	PCB antenna
Type of Modulation:	QPSK
RF Operating Frequency (ies):	2425-2475 MHz
Number of Channels:	25CH
Port:	N/A
Input Power:	DC: 3V
Trade Name :	N/A
FCC ID:	TX4CRB36C



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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

ZigBee Mode:

Modulation	СН	Freque ncy (MHz)	Conducted Power (dBm)	Tune Up Power (dBm)	Max Tune Up Power (dBm)	Max Tune Up Power (mW)	Result	Limit
GFSK	Low	2425	3.308	2.5±1	3.5	2.239	0.69	3
	Mid	2450	3.438	2.5±1	3.5	2.239	0.70	3
	High	2475	2.572	2.5±1	3.5	2.239	0.71	3

Result: Compliance

No SAR measurement is required.