

ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

Test Report No. : OT-180-RWD-006
AGR No. : A188A-354
Applicant : BLUECOM Co., Ltd.
Address : 116, Venture-ro, Yeonsu-gu, Incheon, Korea
Manufacturer : BLUECOM Co., Ltd.
Address : 116, Venture-ro, Yeonsu-gu, Incheon, Korea
Type of Equipment : Bluetooth Headset
FCC ID. : U3WBESA1
Model Name : BCS-A1
Serial number : N/A
Total page of Report : 7 pages (including this page)
Date of Incoming : August 28, 2018
Date of issue : October 03, 2018

SUMMARY

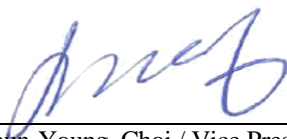
The equipment complies with the regulation; *FCC PART 15 SUBPART C Section 15.247*

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.

Reviewed by: 

 Jae-Ho Lee / Chief Engineer
 ONETECH Corp.

Approved by: 

 Keun-Young, Choi / Vice President
 ONETECH Corp.

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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-18O-RWD-006	October 03, 2018	Initial Issue	All

1. VERIFICATION OF COMPLIANCE

Applicant : BLUECOM Co., Ltd.
 Address : 116, Venture-ro, Yeonsu-gu, Incheon, Korea
 Contact Person : Ki-eok Park / Principal Engineer
 Telephone No. : 82-32-8100-582
 FCC ID : U3WBCSA1
 Model Name : BCS-A1
 Brand Name : -
 Serial Number : N/A
 Date : October 03, 2018

EQUIPMENT CLASS	<i>DSS – PART 15 SPREAD SPECTRUM TRANSMITTER</i>
E.U.T. DESCRIPTION	Bluetooth Headset
KIND OD EQUIPMENT	Modular Transmitter
THIS REPORT CONCERNS	Original Grant
MEASUREMENT PROCEDURES	ANSI C63.10: 2013
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
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 BLUECOM Co., Ltd., Model BCS-A1 (referred to as the EUT in this report) is a Bluetooth Headset. The product specification described herein was obtained from product data sheet or user’s manual.

Device Type	Bluetooth Headset	
Operating Frequency	2 402 MHz ~ 2 480 MHz	
RF Output Power	1 Mbps	3.43 dBm
	2 Mbps	5.84 dBm
	3 Mbps	6.40 dBm
Number of Channel	79 Channels	
Modulation Type	GFSK for 1 Mbps, $\pi/4$ -DQPSK for 2 Mbps, 8-DPSK for 3Mbps	
Antenna Type	FPCB Antenna	
Antenna Gain	5.07 dBi	
List of each Osc. or crystal Freq.(Freq. \geq 1 MHz)	40 MHz	
Rated Supply Voltage	DC 3.6 V	

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

-. None

3. EUT MODIFICATIONS

-. None

4. MAXIMUM PERMISSIBLE EXPOSURE

4.1 EUT Description

Kind of EUT	Bluetooth Headset	
Operating Frequency Band	<input type="checkbox"/> Wireless Microphone: 494.000 MHz ~ 501.000 MHz and 498.200 MHz ~ 505.200 MHz <input type="checkbox"/> WLAN: 2 412 MHz ~ 2 462 MHz <input type="checkbox"/> WLAN: 5 180 MHz ~ 5 240 MHz <input type="checkbox"/> WLAN: 5 745 MHz ~ 5 825 MHz <input checked="" type="checkbox"/> Bluetooth: 2 402 MHz ~ 2 480 MHz <input type="checkbox"/> Bluetooth BLE: 2 402 MHz ~ 2 480 MHz	
MAX. RF OUTPUT POWER	1 Mbps	3.43 dBm
	2 Mbps	5.84 dBm
	3 Mbps	6.40 dBm
Antenna Gain	5.07 dBi	
Exposure Evaluation Applied	<input type="checkbox"/> MPE <input type="checkbox"/> SAR <input checked="" type="checkbox"/> N/A	

4.3 Calculated MPE Safe Distance

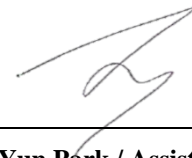
According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

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

$$= (4.37/5) \times \sqrt{2.402} = 1.35$$

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

	Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
1 Mbps	2 402	2.93 ± 0.5	3.43	2.20	5	0.68
2 Mbps	2 402	5.34 ± 0.5	5.84	3.84	5	1.19
3 Mbps	2 402	5.90 ± 0.5	6.40	4.37	5	1.35



Tested by: Ju Yun Park / Assistant Manager