

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

Test Report No. : OT-186-RWD-016

AGR No. : A184A-386

Applicant : BROS&COMPANY INC.

Address : A-101, InnoValley, 253, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea
13486

Manufacturer : BROS&COMPANY INC.

Address : A-101, InnoValley, 253, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea
13486

Type of Equipment : LED Table Lamp With Bluetooth Speaker

FCC ID. : 2AQIS-POUT-00101

Model Name : POUT-EYES1

Serial number : N/A

Total page of Report : 7 pages (including this page)

Date of Incoming : May 02, 2018

Date of issue : June 12, 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.

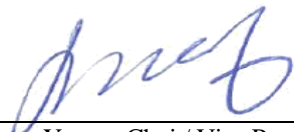
It is not a generally valid assessment of the features of the respective products of the mass-production.

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-186-RWD-016	June 12, 2018	Initial Issue	All

1. VERIFICATION OF COMPLIANCE

Applicant : BROS&COMPANY INC.
 Address : A-101, InnoValley, 253, Pangyo-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea 13486
 Contact Person : PARK KIYEOL / CEO
 Telephone No. : +82-31-286-8646
 FCC ID : 2AQIS-POUT-00101
 Model Name : POUT-EYES1
 Brand Name : -
 Serial Number : N/A
 Date : June 12, 2018

EQUIPMENT CLASS	<i>DSS – PART 15 SPREAD SPECTRUM TRANSMITTER</i>
E.U.T. DESCRIPTION	LED Table Lamp With Bluetooth Speaker
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 BROS&COMPANY INC., Model POUT-EYES1 (referred to as the EUT in this report) is a LED Table Lamp With Bluetooth Speaker. The product specification described herein was obtained from product data sheet or user’s manual.

Device Type	LED Table Lamp With Bluetooth Speaker	
Operating Frequency	2 402 MHz ~ 2 480 MHz	
RF Output Power	1 Mbps	-9.85 dBm
	2 Mbps	-9.65 dBm
Number of Channel	79 Channels	
Modulation Type	GFSK for 1 Mbps, $\pi/4$ -DQPSK for 2 Mbps,	
Antenna Type	PCB Antenna	
Antenna Gain	-0.58 dBi	
List of each Osc. or crystal Freq.(Freq. \geq 1 MHz)	24 MHz	
Rated Supply Voltage	DC 5.0 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 RF Exposure Calculation

According to the FCC rule §1.1310, the limit for General Population/Uncontrolled exposure is 1 mW/cm² for the device operating 1 500 ~ 100 000 MHz.

4.2 EUT Description

Kind of EUT	LED Table Lamp With Bluetooth Speaker	
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	-9.85 dBm
	2 Mbps	-9.65 dBm
Antenna Gain	-0.58 dBi	
Exposure Evaluation Applied	<input checked="" type="checkbox"/> MPE <input type="checkbox"/> SAR <input type="checkbox"/> N/A	

4.3 Calculated MPE Safe Distance

According to above equation, the following result was obtained.

Operating Freq. Band (MHz)	Operating Mode	Target Power W/tolerance	Max tune up power		Antenna Gain		Safe Distance (cm)	Power Density (mW/cm ²) @ 20 cm Separation	Limit (mW/cm ²)
		(dBm)	(dBm)	(mW)	Log	Linear			
2 402 ~ 2 480	1 Mbps	-10.35 ± 0.5	-9.85	0.10	-0.58	0.875	0.08	0.000 018	1.00
	2 Mbps	-10.15 ± 0.5	-9.65	0.11			0.09	0.000 019	1.00

According to above table, for 2 402 MHz ~ 2 480 MHz Band, safe distance,

$$D = 0.282 * \sqrt{(0.10 * 0.875)} / 1.00 = 0.08 \text{ cm}$$

For getting power density at 20 cm separation in above table, following formula was used.

$$S = P * G / (4\pi * R^2) = 0.10 * 0.875 / (4 * 3.14 * 20^2) = 0.000 018$$

Where:

S = Power Density,

P = Power input to the external antenna (Output power from the EUT antenna port (dBm) – cable loss (dB)),

G = Gain of Transmit Antenna (linear gain), R = Distance from Transmitting Antenna



Tested by: Min-Gu Ji / Assistant Manager