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

Test Report No.	**: W166R-D012**
AGR No.	**: A164A-140**
Applicant	**: LG Electronics USA**
Address	**: 1000 Sylvan Avenue, Englewood Cliffs, New Jersey, 7632, United States**
Manufacturer	**: LG Electronics USA**
Address	**: 1000 Sylvan Avenue, Englewood Cliffs, New Jersey, 7632, United States**
Type of Equipment	**: BT Module**
FCC ID.	**: BEJ-LGBTM**
Model Name	**: LGBTM**
Serial number	**: N/A**
Total page of Report	**: 6 pages (including this page)**
Date of Incoming	**: April 25, 2016**
Date of issue	**: June 08, 2016**

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: Ki-Hong, Nam / Asst, Chief Engineer, ONETECH Corp.

Approved by: Sung-Ik, Han/ Managing Director, ONETECH Corp.

ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

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ONETECH Corp.: 43-14, Jinsaegol-gil, Chowol-eup, Gwangju-si, Gyeonggi-do, 12735, Korea (TEL: 82-31-799-9500, FAX: 82-31-799-9599)

Revision History

Issued Report No.	Issued Date	Revisions	Effect Section
W166R-D012	June 08, 2016	Initial Issue	All

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1. VERIFICATION OF COMPLIANCE

Applicant	: LG Electronics USA
Address	: 1000 Sylvan Avenue, Englewood Cliffs, New Jersey, 7632, United States
Contact Person	: Yongduk Kwon / Research Engineer
Telephone No.	: +82-31-610-9606
FCC ID	: BEJ-LGBTM
Model Name	: LGBTM
Serial Number	: N/A
Date	: June 08, 2016

EQUIPMENT CLASS	DSS – PART 15 SPREAD SPECTRUM TRANSMITTER
KIND OF EQUIPMENT	Modular Transmitter
E.U.T. DESCRIPTION	BT Module
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.

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2. GENERAL INFORMATION

2.1 Product Description

The LG Electronics USA, Model LGBTM (referred to as the EUT in this report) is a BT Module. The product specification described herein was obtained from product data sheet or user's manual.

Device Type	BT Module	
Temperature Range	-25 °C ~ +75 °C	
Operating Frequency	2 402 MHz ~ 2 480 MHz	
RF Output Power	1 Mbps	-2.50 dBm
	2 Mbps	-0.76 dBm
	3 Mbps	-0.11 dBm
Number of Channel	79 Channel	
Modulation Type	GFSK for 1Mbps, π/4–QPSK for 2Mbps, 8-DPSK for 3Mbps	
Antenna Type	Chip Antenna	
USED RF CHIP	Marker: TOSHIBA Model Name: TC35668IXBG	
Antenna Gain	3.5 dBi	
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	38.4 MHz	

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

-. None

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4. RADIO FREQUENCY EXPOSURE

4.1 RF Exposure Limit

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	BT Module	
Operating Frequency Band	☐ WLAN: 2 412 MHz ~ 2 462 MHz ☐ WLAN: 5 180 MHz ~ 5 320 MHz / 5 500 MHz ~ 5 700 MHz ☐ WLAN: 5 745 MHz ~ 5 825 MHz ■ Bluetooth: 2 402 MHz ~ 2 480 MHz	
Device Category	☐ Portable (< 20 cm separation) ■ Mobile (> 20 cm separation) ☐ Others	
Max. Output Power	1 Mbps	-2.50 dBm
	2 Mbps	-0.76 dBm
	3 Mbps	-0.11 dBm
Used Antenna	Chip Antenna	
Used Antenna Gain	3.5 dBi	
Exposure Evaluation Applied	■ MPE ☐ SAR ☐ N/A	

4.3 Test Result

Operating Mode	Target Power W/tolerance	Max tune up power		Antenna Gain		Safe Distance (cm)	Power Density (mW/cm²) @ 20 cm Separation	Limit (mW/cm²)
	(dBm)	(dBm)	(mW)	Log	Linear			
1 Mbps	-2.5 ± 0.5	-2.0	0.63	3.5	2.24	0.34	0.000 3	1.00
2 Mbps	-0.5 ± 0.5	0	1.0			0.42	0.000 4	
3 Mbps	-0.5 ± 0.5	0	1.0			0.42	0.000 4	

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