

EMF TEST REPORT

Test Report No. : OT-208-RWD-031

Reception No. : 2008003136

Applicant : BBB Inc.

Address : 7F, 22, Teheran-ro 81-gil, Gangnam-gu, Seoul, Republic of Korea

Manufacturer : BBB Inc.

Address : 7F, 22, Teheran-ro 81-gil, Gangnam-gu, Seoul, Republic of Korea

Type of Equipment : Immnuoassay Analyzer

FCC ID. : 2AKGP-MB101

Model Name : MB-100

Multiple Model Name : N/A

Serial number : N/A

Total page of Report : 8 pages (including this page)

Date of Incoming : August 13, 2020

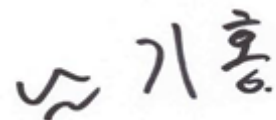
Date of issue : August 28, 2020

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.



Tested by	Reviewed by	Approved by
/Youngyong Kim/ Assistant Manager	/ Ha-Ram Lee / Manager	/ Ki-Hong, Nam / General Manager
ONETECH Corp.	ONETECH Corp.	ONETECH Corp.

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Revision History

Rev. No.	Issue Report No.	Issued Date	Revisions	Section Affected
0	OT-208-RWD-031	August 28, 2020	Initial Issue	All

1. VERIFICATION OF COMPLIANCE

Applicant : BBB Inc.
Address : 7F, 22, Teheran-ro 81-gil, Gangnam-gu, Seoul, Republic of Korea
Contact Person : Jaekyu Choi / CEO
Telephone No. : +82-2-565-9653
FCC ID : 2AKGP-MB101
Model Name : MB-100
Brand Name : MARK-B™ 1 analyzer
Serial Number : N/A
Date : August 28, 2020

EQUIPMENT CLASS	<i>DSS – PART 15 SPREAD SPECTRUM TRANSMITTER</i>
E.U.T. DESCRIPTION	Immunoassay Analyzer
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 BBB Inc., Model MB-100 (referred to as the EUT in this report) is an Immnuoassay Analyzer. The product specification described herein was obtained from product data sheet or user's manual.

Device Type	Immnuoassay Analyzer	
Operating Frequency	Bluetooth LE	2 402 MHz ~ 2 480 MHz
	WLAN 2.4 GHz Band	2 412 MHz ~ 2 462 MHz (802.11b/g/n(HT20))
		2 422 MHz ~ 2 452 MHz (802.11n(HT40))
RF Output Power	Bluetooth LE	-4.51 dBm
	WLAN 2.4 GHz Band	802.11b (12.82 dBm)
		802.11g (12.93 dBm)
		802.11n(HT20) (12.36 dBm)
802.11n(HT40) (12.94 dBm)		
Number of Channel	Bluetooth LE	40 Channels
	WLAN 2.4 GHz Band	11 Channels
Modulation Type	Bluetooth LE	DSSS Modulation(GFSK)
	WLAN 2.4 GHz Band	DSSS Modulation(DBPSK/DQPSK/CCK) OFDM Modulation(BPSK/QPSK/16QAM/64QAM)
Antenna Type	Bluetooth LE	FPC Antenna
	WLAN 2.4 GHz Band	
Antenna Gain	Bluetooth LE	1.74 dBi
	WLAN 2.4 GHz Band	
List of each Osc. or crystal Freq.(Freq. >= 1 MHz)	26 MHz	
Rated Supply Voltage	DC 3.8 V	

Note: Bluetooth and WLAN do not operate simultaneously.

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	Immnuoassay Analyzer	
Operating Frequency Band	☐ Wireless Microphone: 494.000 MHz ~ 501.000 MHz and 498.200 MHz ~ 505.200 MHz ☒ WLAN: 2 412 MHz ~ 2 462 MHz ☒ WLAN: 2 422 MHz ~ 2 452 MHz ☐ WLAN: 5 180 MHz ~ 5 240 MHz ☐ WLAN: 5 745 MHz ~ 5 825 MHz ☐ Bluetooth: 2 402 MHz ~ 2 480 MHz ☒ Bluetooth BLE: 2 402 MHz ~ 2 480 MHz ☐ NFC : 13.56 MHz	
MAX. RF OUTPUT POWER	Bluetooth LE	-4.51 dBm
Antenna Gain	1.74 dBi	
Exposure Evaluation Applied	☐ MPE ☐ SAR ☒ SAR Test Exclusion Evaluation	

4.3 Test Result of SAR Exclusion for Devices

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

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Mim. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 7.5$$

$$= (0.40/5) \times \sqrt{2.402} = 0.12$$

Conclusion: The SAR test exclusion threshold is less than 7.5, so the device meets the RF Exposure Requirement and excluded SAR Test.

Mode	Frequency (MHz)	Target Power W/tolerance (dBm)	Max tune up power (dBm)	Max tune up power (mW)	Separation distance (mm)	RF exposure
BLE	2 402	-4.51 ± 0.5	-4.01	0.40	5	0.12