Report No.: JYTSZ-R12-2202430

RF Exposure Evaluation Report

Applicant:	Shenzhen Mindray Bio-Medical Electronics Co., Ltd.
Address of Applicant:	Mindray Building, Keji 12th Road South, High-tech Industrial Park Nanshan, 518057 Shenzhen, PEOPLE'S REPUBLIC OF CHINA
Equipment Under Test (EUT)	
Product Name:	wireless module
Model No.:	WL6PR1101
Trade Mark:	mindray
FCC ID:	ZLZ-WL6PR
Applicable standards:	FCC CFR Title 47 Part 2 (§2.1091)
Date of sample receipt:	08 Dec., 2022
Date of Test:	09 Dec., to 23 Dec., 2022
Date of report issue:	04 Apr., 2023
Test Result:	PASS

Tested by:	Mike.ou ***Test Engineer***	***Date:***	*04 Apr., 2023*
Reviewed by:	Winner Zhang ***Project Engineer***	***Date:***	*04 Apr., 2023*
Approved by:	Manager ***Manager***	***Date:***	*04 Apr., 2023*

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

1 Version

Version No.	Date	Description
00	26 Dec., 2022	*Original*
01	*04 Apr., 2023*	*Update page 4 and page 7*

2 Contents

3 General Information

3.1 Client Information

Applicant:	Shenzhen Mindray Bio-Medical Electronics Co., Ltd.
Address:	Mindray Building, Keji 12th Road South, High-tech Industrial Park Nanshan, 518057 Shenzhen, PEOPLE'S REPUBLIC OF CHINA
Manufacturer:	Shenzhen Mindray Bio-Medical Electronics Co., Ltd.
Address:	Mindray Building, Keji 12th Road South, High-tech Industrial Park Nanshan, 518057 Shenzhen, PEOPLE'S REPUBLIC OF CHINA
Factory:	Shenzhen Mindray Bio-Medical Electronics Co., Ltd.
Address:	1203 Nanhuan Avenue, Guangming District, 518106 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

3.2 General Description of E.U.T.

Product Name:	wireless module					
Model No.:	WL6PR1101					
Operation Frequency:	2.4G Wi-Fi: 2412MHz~2462MHz 5.2G Wi-Fi Band 1: 5180MHz~5240MHz 5.3G Wi-Fi Band 2: 5260MHz~5320MHz 5.6G Wi-Fi Band 3: 5500MHz~5700MHz 5.8G Wi-Fi Band 4: 5725MHz~5875MHz					
Modulation technology:	802.11b: DSSS, 802.11a/g/n: OFDM					
Antenna Type:	ANT1/2/3: FPC dipole antenna			ANT4/5: Copper pipe dipole antenna		
	ANT6: FPC PIFA antenna					
Antenna gain:	2.4GWIFI					
	ANT1	-0.95 dBi	ANT2	2.05 dBi	ANT3	2.45 dBi
	ANT4	1.32 dBi	ANT5	1.87 dBi	ANT6	1.56 dBi
	5GWIFI Band 1					
	ANT1	0.50 dBi	ANT2	1.29 dBi	ANT3	0.70 dBi
	ANT4	1.04 dBi	ANT5	0.85 dBi	ANT6	4.17 dBi
	5GWIFI Band 2					
	ANT1	0.98 dBi	ANT2	1.45 dBi	ANT3	1.07 dBi
	ANT4	1.60 dBi	ANT5	0.6 dBi	ANT6	3.76dBi
	5GWIFI Band 3					
	ANT1	2.59 dBi	ANT2	3.06 dBi	ANT3	2.12 dBi
	ANT4	2.75 dBi	ANT5	0.94 dBi	ANT6	3.67 dBi
	5GWIFI Band 4					
	ANT1	3.29 dBi	ANT2	3.17 dBi	ANT3	2.77 dBi
	ANT4	2.24 dBi	ANT5	0.92 dBi	ANT6	4.14 dBi
Test Sample Condition:	The test samples were provided in good working order with no visible defects.					

3.3 Operating Modes

Operating mode	Detail description
2.4G WIFI mode	Keep the EUT in continuously transmitting in 2.4G WIFI mode
5G WIFI mode	Keep the EUT in continuously transmitting in 5G WIFI mode

3.4 Additions to, deviations, or exclusions from the method

No

3.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

- **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

3.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.
Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info-JYTee@lets.com, Website: http://jyt.lets.com

4 Technical Requirements Specification

4.1 Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*($900/f^2$)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*($180/f^2$)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

4.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

4.3 Result

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm^2)	Limits for General Population/ Uncontrolled Exposure (mW/cm^2)
2.4G Wi-Fi							
2462	16.65	46.238	2.45	1.758	20.00	0.016	1.0
5.2G Wi-Fi							
5240	14.71	29.580	4.17	2.612	20.00	0.015	1.0
5.3G Wi-Fi							
5300	14.59	28.774	3.76	2.612	20.00	0.014	1.0
5.6G Wi-Fi							
5500	13.84	24.210	3.67	2.612	20.00	0.011	1.0
5.8G Wi-Fi							
5745	13.93	24.717	4.14	2.612	20.00	0.013	1.0

Simultaneous transmission(Worse mode):

Mode	Ratio	Total Ratio	Limit
2.4G Wi-Fi	0.016	0.031	1.00
5.2G Wi-Fi	0.015		

Note: Just the worst case mode was shown in report.

4.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

------End of report------