



BUREAU  
VERITAS

Test Report No.: FS170322N052

## RF EXPOSURE REPORT

Applicant	Shenzhen Baojia Battery Technology Co.,Ltd.
Address	Block A, Yonghe Road, Tongfuyu Industrial Zone Heping, Fuyong, Baoan, Shenzhen, 518103 China

Manufacturer or Supplier	Shenzhen Baojia Battery Technology Co.,Ltd.
Address	Block A, Yonghe Road, Tongfuyu Industrial Zone Heping, Fuyong, Baoan, Shenzhen, 518103 China
Product	PLAYBULB ZOOCORO
Brand Name	MIPOW
Model	BTL302W
Additional Model & Model Difference	N/A
Date of tests	Mar. 25, 2017 ~ Apr. 17, 2017

**FCC Part 2 (Section 2.1091)**

**KDB 447498 D01**

**IEEE C95.1**

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

Tested by Breeze Jiang Project Engineer / EMC Department	Approved by Glyn He Supervisor / EMC Department

Date: Apr. 24, 2017

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification



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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FS170322N051	Original release	Apr. 24, 2017



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## 1. CERTIFICATION

<b>FCC ID:</b>	SL7BTL302W
<b>PRODUCT:</b>	PLAYBULB ZOOCORO
<b>BRAND NAME:</b>	MIPOW
<b>MODEL NO.:</b>	BTL302W
<b>ADDITIONAL NO.:</b>	N/A
<b>TEST SAMPLE:</b>	Engineering Sample
<b>APPLICANT:</b>	Shenzhen Baojia Battery Technology Co.,Ltd.
<b>STANDARDS:</b>	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1



## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

## 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



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## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
2402-2480 for FHSS	2	PCB Antenna
2402-2480 for DTS	3	PCB Antenna

## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

The tuned conducted Average Power (declared by client)

	Frequency (MHz)	Target Power (dBm)	Tolerance (dBm)	Lower Tolerance (dBm)	Upper Tolerance (dBm)
GFSK	2402-2480	-6	+2	-8	-4
8DPSK	2402-2480	-6	+2	-8	-4
BTLE(GFSK)	2402-2480	-2	+2	-4	0

The measured conducted Average Power

Mode	Frequency (MHz)	Averaged Power (dBm)
GFSK	2480	-4.81
8DPSK	2480	-5.04
BTLE(GFSK)	2480	-0.75

FREQUENCY BAND (MHz)	MAX AVERAGE POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2402-2480 for FHSS	-4	2	20	0.00013	1.0
2402-2480 for DTS	0	3	20	0.00040	1.0



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## **CONCLUSION:**

The FHSS and DTS can transmit simultaneously, the formula of calculated the MPE is:

**CPD1 / LPD1 + CPD2 / LPD2 + .....etc. < 1**

**CPD = Calculation power density**

**LPD = Limit of power density**

$(0.00013/1)+(0.00040/1) = 0.00053 < 1$ , which is less than the "1" limit.

**--- END ---**