

# RF TEST REPORT

Product Name: Wireless Microphone

Model Name: BKW-12

FCC ID: 2BBZH-BKW-12

Issued For : Guangzhou Caihui Technology Co., Ltd

Room 502, Building 1, No. 4 Shuiniu Road, Tan Village, Shijing

Street, Baiyun District, Guangzhou, China

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan

District, Shenzhen, Guangdong, China

Report Number: LGT24L101HA01

Sample Received Date: Dec. 26, 2024

Date of Test: Dec. 26, 2024 ~ Feb. 24, 2025

Date of Issue: Feb. 24, 2025

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## **TEST REPORT CERTIFICATION**

Applicant: Guangzhou Caihui Technology Co., Ltd

Address: Room 502, Building 1, No. 4 Shuiniu Road, Tan Village, Shijing

Street, Baiyun District, Guangzhou, China

Manufacturer: Guangzhou Caihui Technology Co., Ltd

Address: Room 502, Building 1, No. 4 Shuiniu Road, Tan Village, Shijing

Street, Baiyun District, Guangzhou, China

Product Name: Wireless Microphone

Trademark: LEKATO

Model Name: BKW-12

Sample Status: Normal

APPLICABLE STANDARDS				
STANDARD	TEST RESULTS			
FCC 47CFR §2.1093 KDB 447498 D01 General RF Exposure Guidance v06	PASS			

Prepared by:

Zane Shan

Zane Shan Engineer Approved by:

Vita Li

Technical Director

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# **Revision History**

Rev.	Issue Date	Revisions
00	Feb. 24, 2025	Initial Issue

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# 1. GENERAL INFORMATION

# 1.1 GENERAL DESCRIPTION OF THE EUT

Product Name:	Wireless Microphone
Trademark:	LEKATO
Model Name:	BKW-12
Series Model:	N/A
Model Difference:	N/A
Frequency Bands:	902.8-926.8 MHz
Battery:	DC 1.5V*2
Hardware Version:	V2.0
Software Version:	V1.0

### **1.2 TEST LABORATORY**

Company Name:	Shenzhen LGT Test Service Co., Ltd.	
Address:	Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China	
Accreditation Certificate	A2LA Certificate No.: 6727.01	
	FCC Registration No.: 746540	
	CAB ID: CN0136	

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### 2. FCC 47CFR §2.1093 REQUIREMENT

#### 2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in KDB 447498 D01 General RF Exposure Guidance v06 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached. Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

#### **2.2 LIMIT**

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm		
150	39	77	116	155	194			
300	27	55	82	110	137			
450	22	45	67	89	112			
835	16	33	49	66	82			
900	16	32	47	63	79			
1500	12	24	37	49	61	SAR Test Exclusion Threshold (mW)		
1900	11	22	33	44	54			
2450	10	19	29	38	48	Inresnota (IIIV)		
3600	8	16	24	32	40			
5200	7	13	20	26	33			
5400	6	13	19	26	32			
5800	6	12	19	25	31			
MHz	30	35	40	45	50	mm		
150	232	271	310	349	387			
300	164	192	219	246	274			
450	134	157	179	201	224			
835	98	115	131	148	164			
900	95	111	126	142	158	CAD Tool		
1500	73	86	98	110	122	SAR Test Exclusion		
1900	65	76	87	98	109	Threshold (mW)		
2450	57	67	77	86	96	` ′		
3600	47	55	63	71	79			
5200	39	46	53	59	66			
5400	39	45	52	58	65			
5800	37	44	50	56	62			

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The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq$  50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] • [ $\sqrt{f(GHz)}$ ]  $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR,where f(GHz) is the RF channel transmit frequency in GHz.

Power and distance are rounded to the nearest mW and mm before calculation The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $\leq$  5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

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### 2.3 TEST RESULT

### **Turn up Result**

Mode	Turn up Power		
DQPSK	-6±1dBm		

dBm = dBuV/m@3m -95.2=89.84-95.2=-5.38dBm

### The MPE result of worst mode:

RF Function	Frequency (MHz)	Max Turn up Power (dBm)	Max Turn up Power (mW)	Estimated SAR	Limit	Ratio	Result
DQPSK	926.8	-5.00	0.32	0.061	3	0.020	Pass

#### Note:

1. The estimated SAR≤ 3.0 for 1-g SAR, Separation distance ≤ 5mm, complies with the exemption requirements.

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# **APPENDIX I - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS**

Note: Please see the attached BKW-12\_EUT Photos.

\* \* \* \* \* END OF THE REPORT \* \* \* \*

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