

# TEST REPORT

**Product Name** : BT SPK W/ WIRELESS CHARG  
**Model Number** : SP-0246  
**FCC ID** : 2ADM5-SP-0246

**Prepared for** : Zeeva International Limited  
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# 1. TEST RESULT CERTIFICATION

Applicant : Zeeva International Limited  
Manufacturer : Zeeva International Limited  
EUT : BT SPK W/ WIRELESS CHARG  
Model Name : SP-0246  
Trademark : N.A

Measurement Procedure Used:

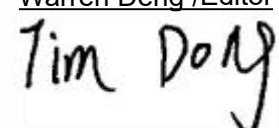
APPLICABLE STANDARDS	
STANDARD	TEST RESULT
§ 15.247(i), § 2.1093	PASS


The above equipment was tested by EMTEK(DONGGUAN) CO., LTD. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules FCC § 15.247(i), § 2.1093.

The test results of this report relate only to the tested sample identified in this report

Date of Test : January 02, 2024 to January 20, 2024

Prepared by :   
Warren Deng /Editor

Reviewer :   
Tim Dong /Supervisor

Approve & Authorized Signer :   
Sam Lv / Manager



## Modified History

Rev.	Summary	Date of Rev.	Report No.
	Original Report	/	EDG2401020021E00101R

## 2. EUT Specification

Characteristics	Description
<b>Product:</b>	BT SPK W/ WIRELESS CHARG All product names refer to the same product, but the descriptions are different.
<b>Model Number:</b>	SP-0246
<b>SKU:</b>	9125328, 9125329, 9125330
<b>UPC:</b>	1922343037866, 1922343037873, 1922343037880
<b>COLOR:</b>	BLACK, WHITE, PINK
<b>Device Type:</b>	Bluetooth V5.3
<b>Data Rate:</b>	1Mbps for GFSK modulation 2Mbps for $\pi/4$ -DQPSK modulation 3Mbps for 8DPSK modulation
<b>Modulation:</b>	GFSK, $\pi/4$ -DQPSK, 8DPSK
<b>Operating Frequency Range(s):</b>	2402-2480MHz
<b>Number of Channels:</b>	79 channels
<b>Transmit Power Max:</b>	3.93 dBm(0.002472 W)
<b>Antenna Type:</b>	PCB Antenna
<b>Antenna Gain:</b>	-0.58 dBi
<b>Input Rating:</b>	DC 5V from USB
<b>Temperature Range:</b>	0°C ~ +45°C

### 3. Test Requirement:

#### RF EXPOSURE EVALUATION

According to FCC 1.1310: 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)

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
<b>(A) Limits for Occupational/Control Exposures</b>				
300-1500	--	--	F/300	6
1500-100000	--	--	5	6
<b>(B) Limits for General Population/Uncontrol Exposures</b>				
300-1500	--	--	F/1500	6
1500-100000	--	--	1	30

#### 1 Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * R^2)$

Where

$P_d$ = Power density in mW/cm<sup>2</sup>

$P_{out}$ =output power to antenna in mW

$G$ = Numeric gain of the antenna relative to isotropic antenna

$\pi$ =3.1416

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

$P_d$  the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

## 4. Measurement Result

Antenna gain: -0.58 dBi

Transmit Frequency (MHz)	Mode	Output Power (dBm)	E.I.R.P(dBm)	Target Power W/tolerance (dBm)	Max tune up power(dBm) tolerance	Max tuneup power(mW) tolerance	Power Density at R=20cm (mW/cm2)	Limit (mW/cm2)
2402	GFSK	1.97	1.39	8±1	2	1.58	0.000276	1
2441	GFSK	1.78	1.2	9±1	2	1.58	0.000276	1
2480	GFSK	2.47	1.89	6±1	3	2.00	0.000347	1
2402	Π/4-DQPSK	3.15	2.57	7±1	4	2.51	0.000437	1
2441	Π/4-DQPSK	2.86	2.28	5±1	3	2.00	0.000347	1
2480	Π/4-DQPSK	3.49	2.91	6±1	4	2.51	0.000437	1
2402	8DPSK	3.54	2.96	-1±1	4	2.51	0.000437	1
2441	8DPSK	3.29	2.71	-1±1	4	2.51	0.000437	1
2480	8DPSK	3.93	3.35	-2±1	4	2.51	0.000437	1

\*\*\* End of Report \*\*\*