

## **FCC 47 CFR MPE REPORT**

#### LIFEWORKS TECHNOLOGY GROUP LLC.

Wireless Party Speaker

Model Number: 2SKSK1852

Additional Model: 2SKSK1852B0L2, 2SKSK1852B0W2, 2SKSK1852N0L2, 2SKSK1852N0W2,2SKSK1852I0L2, 2SKSK1852I0W2

FCC ID: WWE-2SKSK1852

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## **Maximum Permissible Exposure**

## 1. Applicable Standards

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

### 1.1. Limits for Maximum Permissible Exposure (MPE)

### (a) Limits for Occupational/Controlled Exposure

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Frequency	Electric Field	Magnetic	Power Density	Averaging Times
Range	Strength (E)	Field Strength	(S) (mW/cm <sup>2</sup> )	E   <sup>2</sup> ,   H   <sup>2</sup> or
(MHz)	(V/m)	(H) (A/m)		S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-10000			5	6

#### (b) Limits for General Population / Uncontrolled Exposure

Frequency	Electric Field	Magnetic	Power Density	Averaging Times
Range (MHz)	Strength (E)	Field Strength	(S) (mW/cm <sup>2</sup> )	E   <sup>2</sup> ,   H   <sup>2</sup> or
	(V/m)	(H) (A/m)	, , ,	S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-10000			1.0	30

Note: f=frequency in MHz; \*Plane-wave equivalent power density



## 1.2. MPE Calculation Method

$$E (V/m) = \frac{\sqrt{30 \times P \times G}}{d}$$
 Power

Power Density: Pd (W/m<sup>2</sup>) =  $\frac{E^2}{377}$ 

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained



# 2. Conducted Power Result

Mode	Frequency (MHz)	Peak output power (dBm)	Peak output power (mW)			
	2402	3.13	2.056			
GFSK	2441	3.04	2.014			
	2480	2.66	1.845			
	2402	3.07	2.028			
π/4-DQPSK	2441	2.98	1.986			
	2480	2.55	1.799			
	2402	3.50	2.239			
8-DPSK	2441	3.40	2.188			
	2480	2.92	1.959			
	2402	2.84	1.923			
BLE 1M	2440	2.64	1.837			
	2480	2.21	1.663			
BLE 2M	2402	2.78	1.897			
	2440	2.71	1.866			
	2480	2.28	1.690			

# 3. Calculated Result and Limit

The Worst Mode	Antenna	Peak output power (dBm)	Target power (dBm)	MAX Target power (dBm)	Anter (dBi)	nna gain (Linear)	Power Density (S) (mW /cm²)	Limited of Power Density (S) (mW /cm²)	Test Result
ВТ	ant 1	3.50	3±1	4	0	1	0.00050	1	Complies
BLE	ant 1	2.84	2±1	3	0	1	0.00040	1	Complies

**End of Test Report**