

## 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)

FCC ID: 2AQA6-H6050

### EUT Specification

<b>EUT</b>	Govee Glow Table Lamp
<b>Frequency band (Operating)</b>	<input checked="" type="checkbox"/> WLAN: 2.412GHz ~ 2.462GHz <input type="checkbox"/> WLAN: 5.18GHz ~ 5.24GHz <input type="checkbox"/> WLAN: 5.745GHz ~ 5.825GHz <input checked="" type="checkbox"/> Others: 2.402GHz~2.480GHz
<b>Device category</b>	<input type="checkbox"/> Portable (<20cm separation) <input checked="" type="checkbox"/> Mobile (>20cm separation) <input type="checkbox"/> Others ____
<b>Exposure classification</b>	<input type="checkbox"/> Occupational/Controlled exposure (S = 5mW/cm <sup>2</sup> ) <input checked="" type="checkbox"/> General Population/Uncontrolled exposure (S=1mW/cm <sup>2</sup> )
<b>Antenna diversity</b>	<input type="checkbox"/> Single antenna <input checked="" type="checkbox"/> Multiple antennas <input type="checkbox"/> Tx diversity <input type="checkbox"/> Rx diversity <input type="checkbox"/> Tx/Rx diversity
<b>Max. output power</b>	BLE: -1.992dBm (0.0006W); 2.4G WIFI: 14.63dBm (0.0290W)
<b>Antenna gain (Max)</b>	BLE: 1.5 dBi; 2.4G WIFI: 1.5 dBi
<b>Evaluation applied</b>	<input checked="" type="checkbox"/> MPE Evaluation <input type="checkbox"/> SAR Evaluation

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

**Friis transmission formula:  $P_d = \frac{P_{out} \cdot G}{4 \cdot \pi \cdot R^2}$**

Where

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

$P_{out}$  = 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

$P_d$  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.

**Measurement Result**

Operating Mode	Channel Frequency	Measured Power	Tune up tolerance	Max. Tune up Power	Antenna Gain	Power density at 20cm	Power density Limits (mW/cm <sup>2</sup> )
	(MHz)	(dBm)	(dBm)	(dBm)	(dBi)	(mW/ cm <sup>2</sup> )	
802.11b	2412	14.55	14.55 ±1	15.55	1.5	0.0101	1
	2437	14.63	14.63 ±1	15.63	1.5	0.0103	1
	2462	14.49	14.49 ±1	15.49	1.5	0.0100	1
802.11g	2412	12.53	12.53 ±1	13.53	1.5	0.0063	1
	2437	12.73	12.73 ±1	13.73	1.5	0.0066	1
	2462	12.44	12.44 ±1	13.44	1.5	0.0062	1
802.11n (HT20)	2412	12.44	12.44 ±1	13.44	1.5	0.0062	1
	2437	12.53	12.53 ±1	13.53	1.5	0.0063	1
	2462	12.35	12.35 ±1	13.35	1.5	0.0061	1
BLE	2402	-1.992	-1.992 ±1	-0.99	1.5	0.0002	1
	2440	-2.044	-2.044 ±1	-1.04	1.5	0.0002	1
	2480	-2.740	-2.740 ±1	-1.74	1.5	0.0002	1

**Note: BT & 2.4G WIFI cannot support simultaneous transmission.**