

# Maximum Permissive Exposure

FCC ID: BEJ-GB8773

Product Name: Bluetooth Module

Model No: GB8773

According to FCC CFR 47 §1.1310, the criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b).

Table 1 Limits for Maximum Permissible Exposure

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (Minutes)
(A) Limits For Occupational / Control Exposures (f = frequency)				
30-300	61.4	0.163	1.0	6
300-1500	...	...	f/300	6
1500-100,000	...	...	5.0	6
(B) Limits For General Population / Uncontrolled Exposure (f = frequency)				
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

**LG Electronics USA** declares that the product described above has been evaluated and found to comply with the RF exposure limits for humans, as specified based on ANSI/FCC recommendation.

Mode	Max Output Power (dBm)	Tune-up factor	Tune-up max power (dBm)
2.4GHz	10.32	1.017	10.5

\*\*The value presented in the MPE is the maximum tune-up power.

## 2. MPE Calculation

Based on safety distance (r) **20cm**, the antenna gain (G) is **2.042Numerical**, and the highest power output (P) is **11.220mW**, the power density (S) is **0.004558mW/cm<sup>2</sup>**.

RF Exposure Calculations:

$$S = (P * G) / (4 * \pi * r^2) \text{ or } r = \sqrt{(P * G) / (4 * \pi * S)}$$

Where :

Based on safety distance (r)=	20 cm
Highest Power Output (P)=	10.5 dBm = <b>11.220 mW</b>
Antenna Gain (G)=	3.10 dBi = <b>2.042 Numerical</b>
MPE (S) = (P*G) / (4*π*r <sup>2</sup> ) =	= <b>(11.220*2.042)/(4*π*20<sup>2</sup>)= 0.004558 mW/cm<sup>2</sup></b>

Sincerely Yours,



Mr. Ben Cheng

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