

RF Exposure Evaluation

FCC ID: ZLGSMARTBALL

The device is excluded from SAR evaluation and therefore deemed compliant with FCC RF exposure requirements as described below:

FCC KDB 447498 D01 v05r02

Section 4.3.1

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

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \left[\frac{1}{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}$$

where

- $f(\text{GHz})$ 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*
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below*

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 5) in section 4.1 is applied to determine SAR test exclusion.”

The device has a maximum output power of 1.16 mW at 2425.7 MHz. The closest spacing of the antenna to the user's torso is 5 cm. The table below shows the results of the calculation. The value of 0.3613 is well below the exclusion threshold of 3.0, therefore the unit is excluded from SAR evaluation and deemed compliant with FCC RF exposure requirements.

Output Power	Test Separation	Transmit Frequency	Calculated Value	Exclusion Threshold Specification
(mW)	(mm)	(GHz)		
1.16	5	2.4257	0.3613	≤ 3.0