RF Exposure Considerations for FCC ID: UQY-SW1500

Per FCC KDB 447498 D01 General RF Exposure Guidance v05

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 (**Eq.1**) below:

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] * [√f(GHz)]

If result of Eq.1 is less than or equal to the exemption limits below, then corresponding SAR test is not required.

SAR Test Configuration	Exemption limit
1-g SAR	Result of Eq.1 ≤ 3.0
10-g extremity SAR	Result of Eq.1 ≤ 7.5

where;
f(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.

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 is applied to determine SAR test exclusion.

For this device, the parameters for consideration are as follows:

The closest distance from the Bluetooth antenna surface to the outside of the plastic is 0.29 inches (= 7.3mm) according to applicant's CAD design model. Minimum separation distance of 7mm is used for the calculation. Bluetooth output power used in the calculation is the highest peak conducted output power as listed on its grant (FCC ID: PVH0946). Maximum source-based time averaged conducted output power would actually be far lower for a Bluetooth radio.

Frequency (GHz)	*Maximum source-based time averaged conducted output power including tune-up tolerance (mW)*	*Minimum separation distance (mm)*	*Result of Eq. 1*	*Limit for 1-g SAR*	*Limit for 10-g extremity SAR*	*Verdict*
2.450	*11mW*	*7mm*	*2.46*	*3.0*	*7.5*	*Exempt from SAR*

Conclusion: Therefore device complies with FCC's RF radiation exposure limits for general population without SAR evaluation.