RF EXPOSURE EVALUATION

EUT Specification

EUT	Wireless Ergonomic Keyboard
Model Number	AK8753
FCC ID	2A84V-AK8753
Antenna gain (Max)	2.96dBi
Operation Frequency	2.4G: 2402-2479MHz BLE: 2402-2480 MHz
Power Supply	DC 5V/ Battery 3.7V
Classification Per Stipulated Test Standard	§15.247(i), §2.1093
Modulation	2.4G: GFSK BLE: GFSK
Max. output power	2.4G: 2 dBm (0.001585W) BLE: -1.81 dBm (0.000659W)

Test Requirement:

According to §15.247(i) and §1.1307(b)(1), 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 of the Commission's guidelines.

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:

[(*max. power of channel, including tune-up tolerance, mW*)/(*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,[24] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[25]
- 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.

Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to quality for TCB approval.

One antenna is available for the EUT. The minimum separation distance is 5mm.

Measurement Result

2.4G:

Transmit Frequency (MHz)	Mode	Measured Power (dBm)	Tune up Power (dBm)	Max tune up power (dBm)	Calculation Result	1-g SAR
2479	GFSK	-21.03	-21±1	-20	0.0031	3

BLE:

Transmit Frequency (MHz)	Mode	Measured Power (dBm)	Tune up Power (dBm)	Max tune up power (dBm)	Calculation Result	1-g SAR
2402	BLE 1M	-24.62	-24±1	-23	0.0016	3

According to KDB 447498, no simultaneous SAR measurement is required.

Signature:

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