FCC RF Exposure Report

FCC ID: 2ALMN-A01SPK

Project No.	:	1711095
Equipment	:	BbSPEAKER
Test Model	:	A01SPK
Series Model	:	N/A
Applicant	:	IHR FAC INC.
Address	:	2F, NO.455, Sec. 2, Zhongqing Rd., Beitun Dist., Taichung City 406, Taiwan (R.O.C)

According: FCC Part 2, Subpart J (§2.1093)
KDB 447498 D01 General RF Exposure Guidance v06

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RF Power Spec

Conducted Power

Technology /Band	Frequency	Peak Power(dBm)	Average Power (dBm)
BT_1M_DH5	2402	7.99	7.14
BT_1M_DH5	2441	9.54	9.05
BT_1M_DH5	2480	9.98	9.28
BT_3M_DH5	2402	4.90	0.93
BT_3M_DH5	2441	7.31	3.54
BT_3M_DH5	2480	8.02	4.26
BT_LE	2402	8.46	8.12
	2440	7.14	6.20
	2480	7.39	6.53

Maximum Average Tune up Power

Technology /Band	Frequency	Target Average Power (dBm)	Tolerance (dBm)	Maximum Average Tune up Power (dBm)
BT_1M_DH5	2402	6.5	±1	7.5
BT_1M_DH5	2441	8.5	±1	9.5
BT_1M_DH5	2480	8.5	±1	9.5
BT_3M_DH5	2402	0	±1	1.0
BT_3M_DH5	2441	3	±1	4.0
BT_3M_DH5	2480	3.5	±1	4.5
BT_LE	2402	7.5	±1	8.5
	2440	5.5	±1	6.5
	2480	6.0	±1	7.0

Table for Filed Antenna:

Ant.	Brand	Test Model	Antenna Type	Connector	Gain (dBi)
1	Master Wave	907X00544X0	Copper Antenna	I-PEX	3.64

Appendix A

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	*SAR Test Exclusion Threshold* (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

MHz	30	35	40	45	50	mm
150	232	271	310	349	387	*SAR Test Exclusion Threshold* (mW)
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
5200	39	46	53	59	66	
5400	39	45	52	58	65	
5800	37	44	50	56	62	

Note: 10-g Extremity SAR Test Exclusion Power Thresholds are 2.5 times higher than the 1-g *SAR Test Exclusion Thresholds* indicated above. These thresholds do not apply, by extrapolation or other means, to occupational exposure limits.

CALCULATION RESULTS

According to KDB 447498 section 4.3.1, the 1-g SAR test exclusion thresholds at test separation distance ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] *·[$\sqrt{}$ f(GHz)] ≤ 3.0

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.

So,

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] * [$\sqrt{}$ f(GHz)] = 2.8 < 3.0

Therefore, standalone SAR measurements are not required for both head and body.

The maximum conducted power is Bluetooth_1M_DH5.

Frequency (MHz)	Average Power (dBm)	Maximum Average Tune up (dBm)	Maximum Average Tune up (mW)	Distance (mm)	Limit (mW)
2480	9.28	9.5	8.91	5	10

Note:
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.

CONCLUSION
No SAR evaluation required since transmitter power is below FCC threshold.