SAR Test Exclusion Evaluation

FCC ID: 2AOPY-ATKEYBLE1
Product Name: Bluetooth Fingerprint Authenticator
Model No: ATKey.BLE

Pursuant to 447498 D01 General RF Exposure Guidance v06 that SAR testing is not required when EUT has output power related to distance satisfy with following table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	SAR Test Exclusion Threshold (mW)
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	
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	SAR Test Exclusion Threshold (mW)
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	

<u>Note</u>: 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.

Alternatively, for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following: **[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0** for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR. When the minimum test separation distance is < 2mm, where a distance of 2 mm is applied to determine SAR test exclusion. The max output power is reference to report number: **EM-F170801.**

Frequency (GHz)	Max Output Power (mW)	Tune-up factor	Tune-up max power (mW)	Min. distance (mm)	Exclusion Threshold
2.4	0.158	1.01	0.16	2	0.1239

Since the exclusion threshold calculated is **0.1239** < 7.5, thus SAR test is exclusion.

Sincerely Yours,

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Manager
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10mm

2mm