

Maximum Permissible Exposure Evaluation

FCC ID: 2AZ8T-BRM00803

1. Client Information

Applicant	:	S&F Corporation
Address	:	375 Rivertown Dr #500 Woodbury MN 55125, USA
Manufacturer	:	Shenzhen Kerui Smart Technology Co., Ltd
Address	:	Room 1501-1504, Building 2, Foresea Life Center, No. 1100, Xingye Road, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

2. General Description of EUT

EUT Name	:	Wi-Fi Control Door & Window Alarm Sensor	
Models No.	:	BRM00803	
Model Different	:	----	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz
		Number of Channel:	802.11b/g/n(HT20):11 channels see note(3)
		RF Output Power:	802.11b:8.962dBm 802.11g: 8.954dBm 802.11n (HT20): 8.940dBm
		Antenna Gain:	-3 dBi PCB Antenna
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM,64QAM)
Power Rating	:	AAA battery*2pcs	
Software Version	:	V2.1.0	
Hardware Version	:	Kr-WD31-E	
Connecting Port(S)	I/O	:	Please refer to the User's Manual
Remark	:	the evaluation report used the EUT(TBBJ-20210128-02#).	

TB-RF-074-1.0

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SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

- (1) Clause 4.3: General SAR test reduction and exclusion guidance

- Sub clause 4.31: Standalone SAR test exclusion considerations

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance ≤ 5 mm are determined by:

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ ≤ 3.0 for 1-g SAR

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ $\leq 7.5.0$ for 10-g SAR

2. Calculation:

Test separation: 5mm						
2.4GWIFI B Mode						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.606	8±1	9	7.943	2.467	3.0
2.437	8.694	8±1	9	7.943	2.480	3.0
2.462	8.962	8±1	9	7.943	2.493	3.0
2.4GWIFI G Mode						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.494	8±1	9	7.943	2.467	3.0
2.437	8.954	8±1	9	7.943	2.480	3.0
2.462	8.475	8±1	9	7.943	2.493	3.0
2.4GWIFI N20 Mode						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dbm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.940	8±1	9	7.943	2.467	3.0
2.437	8.008	8±1	9	7.943	2.480	3.0
2.462	8.771	8±1	9	7.943	2.493	3.0

Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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