

RF Exposure Evaluation

FCC ID: 2AFRJ-DESS1

1. Client Information

Applicant : Noke
Address : 2801 Thanksgiving Way, Ste 220 Lehi, UT 84043
Manufacturer : Mapleaf technology CO., LIMITED
Address : 5B1003, Shengtaoshajunyuan, Baoan District, Shenzhen City, Guangdong, China

2. General Description of EUT

EUT Name	:	Electric door strike lock controller	
Models No.	:	DESS1	
Model Difference	:	N/A	
Product Description	:	Operation Frequency:	Bluetooth 4.2(BLE): 2402MHz~2480MHz
		Number of Channel:	Bluetooth 4.2(BLE): 40 channels
		RF Output Power:	0.564 dBm Conducted Power(Module 1) 0.129 dBm Conducted Power(Module 2)
		Antenna Gain:	0.5 dBi Internal Antenna
		Modulation Type:	GFSK
		Bit Rate of Transmitter:	1Mbps(GFSK)
Power Rating	:	DC 3.6V 2800mAh by Li-ion Battery. DC 12V from DC port.	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark: The EUT has two bluetooth Module (N52832), the one is for APP, the other one is for Networking.			

Note:

More test information about the EUT please refer to the RF Test Report.

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)] * $[\sqrt{f_{\text{(GHz)}}}] \leq 3.0$ 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											
BLE Mode (GFSK)											
Frequency (MHz)	Worst Conducted Power 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
	BLE Module No.		BLE Module No.		BLE Module No.		BLE Module No.		BLE Module No.		
	1	2	1	1	1	2	1	2	1	2	
2402	0.565	0.129	0±1	0±1	1	1	1.259	1.259	0.390	0.390	3.0
2442	0.019	-0.093	0±1	0±1	1	1	1.259	1.259	0.393	0.393	
2480	-1.241	-1.233	-1±1	-1±1	0	0	1.000	1.000	0.315	0.315	

So standalone SAR measurements are not required.

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