

RF Exposure Evaluation

FCC ID: 2AFRJ-ULOCK

1. Client Information

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

2. General Description of EUT

EUT Name	:	Noke U-lock
Models No.	:	ULOCK 1
Model Difference	:	N/A
Product Description	Operation Frequency:	Bluetooth 4.2(BLE): 2402MHz~2480MHz
	Number of Channel:	Bluetooth 4.2(BLE): 40 channels see note(3)
	RF Output Power:	-2.444 dBm Conducted Power
	Antenna Gain:	0.5 dBi Chip Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	1Mbps(GFSK)
Power Rating	:	DC 1.5V by AAA Battery.
Connecting I/O Port(S)	:	Please refer to the User's Manual

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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR}$$
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{(\text{GHz})}}] \leq 7.5.0 \text{ for 10-g SAR}$$

2. Calculation:

Test separation: 5mm						
Bluetooth Mode (GFSK)						
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
2.402	-2.444	-2±1	-1	0.794	0.246	3.0
2.442	-3.151	-3±1	-2	0.631	0.197	3.0
2.480	-4.106	-4±1	-3	0.501	0.158	3.0

So standalone SAR measurements are not required.

-----END OF REPORT-----