

RF Exposure Evaluation

FCC ID: 2AFRJ-ULOCK

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 | : | 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 <i>see note(3)</i> |
| | | 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:

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

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

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-----