

RF Exposure Evaluation

FCC ID: 2AJ4IIGK-01

1. Client Information

Applicant : Igloohome Pte Ltd
Address : 1557 Keppel road, #03-25, singapore 089 066
Manufacturer : Smlpretty Technology Co., Limited
Address : 4F-J Commercial Office Building Haihong industrial area West side of the Xixiang Big road, Xixiang street, Baoan District, Shenzhen City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	Igloohome Smart Keybox	
Models No.	:	IGK-01	
Product Description	:	Operation Frequency:	BLE: 2402~2480MHz
		Number of Channel:	BLE: 40 Channels
		Max Peak Output Power:	GFSK: 3.558 dBm
		Antenna Gain:	0 dBi PCB Antenna
		Modulation Type:	1Mbps(GFSK)
Power Supply	:	DC power by AAA battery.	
Power Rating	:	DC 4*1.5V 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					
BLE Mode (GFSK)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.402	3.558	±0.5	2.546	0.789	3.0
2.442	2.908	±0.5	2.192	0.685	3.0
2.480	2.005	±0.5	1.780	0.561	3.0

So standalone SAR measurements are not required.

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