

# RF Exposure Evaluation

## FCC ID: 2AJ4IIGK-011

### 1. Client Information

**Applicant** : Igloohome Pte Ltd  
**Address** : #03-25, Block B, 1557 Keppel Road, Singapore, S089066  
**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

<b>EUT Name</b>	:	igloohome Smart Keybox	
<b>Models No.</b>	:	IGK-01.1, IGK1-C2A4P2-xxxxx (The "xxxxx" can be 00000~99999 denote different production sequence)	
<b>Model Difference</b>	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name for commercial.	
<b>Product Description</b>	:	Operation Frequency:	Bluetooth 4.1(BLE): 2402MHz~2480MHz
		Number of Channel:	Bluetooth 4.1(BLE): 40 channels see note(3)
		RF Output Power:	2.986 dBm Conducted Power
		Antenna Gain:	0dBi PCB Antenna
		Modulation Type:	GFSK
		Bit Rate of Transmitter:	1Mbps(GFSK)
<b>Power Supply</b>	:	DC power by AAA battery.	
<b>Power Rating</b>	:	DC 4*1.5V AAA battery.	
<b>Connecting I/O Port(S)</b>	:	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  $\leq 5$  mm are determined by:

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

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

2. Calculation:

Test separation: 5mm						
BLE (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	2.986	$3 \pm 1$	4	2.512	0.779	3.0
2.442	2.310	$2 \pm 1$	3	1.995	0.624	3.0
2.480	1.209	$1 \pm 1$	2	1.585	0.499	3.0

So standalone SAR measurements are not required.

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