# RF Exposure Requirements

## 1.1 Product Description for Equipment Under Test (EUT)

**Client Information**

| | |
|---|---|
| Applicant: | Kool Brands, LLC. |
| Address of applicant: | 1450 Vassar Street, RENO, NV 89502, USA |
| Manufacturer: | Shenzhen Auzmichain Electronic Co.,Ltd |
| Address of manufacturer: | 3/F, Building 2, YongQi Science&Technology industrial park, Xixiang, BaoAn, Shenzhen, China |

| **General Description of EUT** | |
|---|---|
| Product Name: | Switch Chromatic LED Wireless Controller |
| Brand Name: | / |
| Model No.: | KMD-NS-4763 |
| Adding Model(s): | / |
| Rated Voltage: | DC 5V From USB or DC 3.7V From Battery |
| Power Adapter: | 800mAh |
| Software Version: | / |
| Hardware Version: | / |
| Serial Number: | 67322ji87 |
| FCC ID: | 2A78RKMD-NS-4763 |

| **Technical Characteristics of EUT** | |
|---|---|
| Bluetooth Version: | V5.0 BLE |
| Frequency Range: | 2402-2480MHz |
| RF Output Power: | 0.65dBm |
| Data Rate: | 1Mbps |
| Modulation: | GFSK |
| Quantity of Channels: | 40 |
| Channel Separation: | 2MHz |
| Type of Antenna: | PCB |
| Antenna Gain: | -1.42dBi |

## 1.2 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, the following RF exposure evaluation shall to demonstrate RF exposure compliance.

**[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0**

Where

-f(GHz) is the RF channel transmit frequency in GHz

-Power and distance are rounded to the nearest mW and mm before calculation

-The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

## 1.3 Calculation Method

**Bluetooth**

Tx frequency range: 2402~2480MHz
Min. test separation distance: 5mm
Maximum Conducted Output Power:0.65dBm
Maximum Tune-up Conducted Output Power: 1dBm
RF channel transmit frequency: 2402MHz
Result: 0.390
Limit: 3.0

So the transmitter complies with the RF exposure requirements and the SAR is not required.