

# 1. MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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## 1.1 General Information

### Client Information

Applicant: eMoMo Technology Co., Ltd  
Address of applicant: 4th, Floor, Yong He Building ,Tai Wan Industrial Park ,Shi Yan Town ,Bao'an District ,Shen Zhen, 518108, Guangdong, China

Manufacturer: eMoMo Technology Co., Ltd  
Address of manufacturer: 4th, Floor, Yong He Building ,Tai Wan Industrial Park ,Shi Yan Town ,Bao'an District ,Shen Zhen, 518108, Guangdong, China

### General Description of EUT:

Product Name: Dream Temp  
Trade Name: eMoMo  
Model No.: E602H4F2  
Adding Model(s): /  
Rated Voltage: DC24V  
Battery Capacity: /  
Power Adapter: /  
FCC ID: A4E-E602H4F2  
Equipment Type: Mobile device

### Technical Characteristics of EUT:

Frequency Range: 2432MHz  
RF Output Power: 1.11dBm (Conducted)  
Modulation: GFSK  
Quantity of Channels: 1  
Channel Separation: /  
Type of Antenna: PCB Antenna  
Antenna Gain: 2.07dBi

## 1.2 Standard Applicable

According to §1.1307(b)(1) and KDB 447498 D01 General RF Exposure Guidance v06, system operating under the provisions of this section shall be operating in a manner that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure.

### (a) Limits for Occupational / Controlled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	F/300	6
1500-100000	/	/	5	6

### (b) Limits for General Population / Uncontrolled Exposure

Frequency range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	F/1500	30
1500-100000	/	/	1	30

Note: f = frequency in MHz: \* = Plane-wave equivalents power density

### 1.3 MPE Calculation Method

$$S = (30 * P * G) / (377 * R^2)$$

S = power density (in appropriate units, e.g., mw/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mw)

G = power gain of the antenna in the direction of interest relative to an isotropic radiator,  
the power gain factor is normally numeric gain.

R = distance to the center of radiation of the antenna (in appropriate units, e.g., cm)

### 1.4 MPE Calculation Result

For SRD

Maximum Tune-Up output power: 2(dBm)

Maximum peak output power at antenna input terminal: 1.58(mW)

Prediction distance: >20(cm)

Prediction frequency: 2432 (MHz)

Antenna gain: 2.07 (dBi)

Directional gain (numeric gain): 1.61

The worst case is power density at prediction frequency at 20cm: 0.0005 (mw/cm<sup>2</sup>)

MPE limit for general population exposure at prediction frequency: 1.6213 (mw/cm<sup>2</sup>)

For Wi-Fi & Bluetooth Internet of Things Module:

Wi-Fi:

The worst case is power density at prediction frequency at 20cm: 0.0837 (mw/cm<sup>2</sup>)

Bluetooth:

The worst case is power density at prediction frequency at 20cm: 0.0014 (mw/cm<sup>2</sup>)

Mode for Simultaneous Multi-band Transmission

The worst case is SRD+ Wi-Fi

Evaluation Result:  $0.0005/1.6213+0.0837/1=0.0840$

The worst case is SRD+ Bluetooth

Evaluation Result:  $0.0005/1.6213+0.0014/1=0.0017$

Limit: 1

Result: Pass