



# RF Exposure Requirements

## 1 General Information

### Client Information

**Applicant** ..... : Shenzhen Funpower General Technology Co., Ltd.  
**Address of applicant** ..... : Room 201B, Habor Venture Building, No.1041 Houhai Avenue,  
Shekou, Nanshan District, Shenzhen City, China  
**Manufacturer** ..... : The same as above  
**Address of manufacturer** ..... : The same as above

### General Description of E.U.T

**FCC ID** ..... : 2ABUP-FT12W09Y  
**Product Name** ..... : Remote Control Transmitter  
**Model No.** ..... : FT12W09Y  
**Model Description** ..... : ---  
**Rated Voltage** ..... : AC 120V/60Hz  
**Battery Capacity** ..... : ---  
**Power Adapter** ..... : ---

### Technical Characteristics of EUT

**Operating Frequency** ..... : 433.92 MHz  
**Max. Field Strength** ..... : 87.23 dBuV/m (at 3m distance)  
**Modulation** ..... : ASK  
**Type of Antenna** ..... : PCB Printed Antenna  
**Antenna Gain** ..... : 0 dBi



## 2 Applicable Standard

According to the KDB 447498 D01 v07 and part 2.1093:

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

## 3 Calculation Result

| Frequency<br>(MHz) | Max. Field<br>Strength<br>(dBuV/m) | Max. Output<br>power <sup>1)</sup><br>(dBm) | Max. Tune-up<br>power |        | Min.<br>Separation<br>Distance<br>(mm) | Calculation<br>Result | Limit |
|--------------------|------------------------------------|---------------------------------------------|-----------------------|--------|----------------------------------------|-----------------------|-------|
|                    |                                    |                                             | (dBm)                 | (mW)   |                                        |                       |       |
| 433.92             | 87.23                              | -7.93                                       | -7                    | 0.1995 | 5                                      | 0.0263                | 3     |

Remark:

1)  $E = \text{EIRP} - 20\log D + 104.7$

Where,

E=electric field strength in dBuV/m;

EIRP=equivalent isotropic radiated power in dBm;

D=specified measurement distance in meters.

So,  $\text{EIRP}(\text{Max. Output power}) = E - 104.7 + 20\log D = 89.1 - 104.7 + 20\log 3 = -7.93\text{dBm}$

The exclusion thresholds is  $0.0263 < 3$ , so the transmitter complies with the RF exposure requirements and the SAR is not required.

=====End of Report=====