



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 ≤ 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 ≤ 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 (MHz)	Max. Field Strength (dB μ V/m)	Max. Output power ¹⁾ (dBm)	Max. Tune-up power		Min. Separation Distance (mm)	Calculation 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 dB μ V/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=====