

FCC RF Exposure

EUT Description:iRemote

Test type.:LF-R7

Series model: LF-R9, LF-R7S, LF-R9S, AI-SR01, SR-09, SR-01,SR-C7

Test Report No.: FCS202312003

FCC ID: 2BDZT-LF-R7

Equipment type: Portable Device

1. Test Procedure

According to KDB 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

Power and distance are rounded to the nearest mW and mm before calculation The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6GHz.

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

2. Test Result of RF Exposure Evaluation

Mode	Channel Freq. (MHz)	Maximum Conducted Output Power(PK)	Antenna Gain (dBi)	Antenna gain numeric	Max tune-up power (W)
GFSK	2402	3.90	0.18	1.04	0.0024547
	2441	3.20	0.18	1.04	0.0020892
	2480	3.79	0.18	1.04	0.0023933

Modulation	Channel Freq. (MHz)	Maximum Conducted Output Power(PK)	Antenna Gain (dBi)	Antenna gain numeric	Max tune-up power (W)
802.11b	2412	8.71	0.18	1.04	0.00743019
	2437	8.33	0.18	1.04	0.00680769
	2462	8.66	0.18	1.04	0.00734513
802.11g	2412	7.49	0.18	1.04	0.00561047
	2437	7.90	0.18	1.04	0.00616595
	2462	7.89	0.18	1.04	0.00615176
802.11n	2412	8.67	0.18	1.04	0.00736207
	2437	8.08	0.18	1.04	0.00642687
	2462	8.06	0.18	1.04	0.00639734

WIFI: $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] = 7.43019/5 \cdot \sqrt{2.412} = 2.3079 \leq 3.0$ Threshold at which no SAR required is and ≤ 3.0 for 1-g SAR, Separation distance is 5mm.

BLE: $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] = 2.4547/5 \cdot \sqrt{2.402} = 0.76090 \leq 3.0$ Threshold at which no SAR required is and ≤ 3.0 for 1-g SAR, Separation distance is 5mm.

Conclusion: no SAR required

Note: Single antenna has no dual simultaneous function