

FCC RF Exposure

FCC ID: SNL-16005900

Frequency: 2404.056 - 2479.095 MHz (75 Ch)

Mid-Channel: 2440.561 MHz

Mid-Channel Peak Power, Conducted, highest valud measured: 16.56 dBm == 45.3 mW

Antenna Gain: G = 1.5 dBi

Peak, Radiated = 16.56 dBm + 1.5 dBi = 18.06 dBm = 63.79 mW

SAR Test Exclusion Thresholds specified in KDB447498 Appendix A:

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	
MHz	30	35	40	45	50	mm
150	232	271	310	349	387	SAR Test Exclusion Threshold (mW)
300	164	192	219	246	274	
450	134	157	179	201	224	
835	98	115	131	148	164	
900	95	111	126	142	158	
1500	73	86	98	110	122	
1900	65	76	87	98	109	
2450	57	67	77	86	96	
3600	47	55	63	71	79	
5200	39	46	53	59	66	
5400	39	45	52	58	65	
5800	37	44	50	56	62	

Evaluation:

Refer to the photos on the next page. Given the position to hold the remote control in front of you with two hands, using left and right hand finger to use the steering handles, the internal antenna is generally is more than 50mm from the human finger. When holding the device fully against the body during operation (belly/chest), the antenna is still 20cm away from the body. This is the reason the user manual contains the 20cm RF exposure 20cm warning. The power this device generates is 63.97mW, thus below the 96mW that is allowed at 50mm.

For body position, the MPE shows that the power density is far below 1 and passes, see MPE calculation below:

Frequency range: **2404.056 - 2479.095** MHz

When using at distance of: $d \geq 20$ cm

Power density limit for mobile devices at 2.4 GHz: $S \leq$

1 mW/cm²

Maximum measured conducted power (Peak): $P_{\text{conducted}} =$

16.56 dBm = 45.29 mW

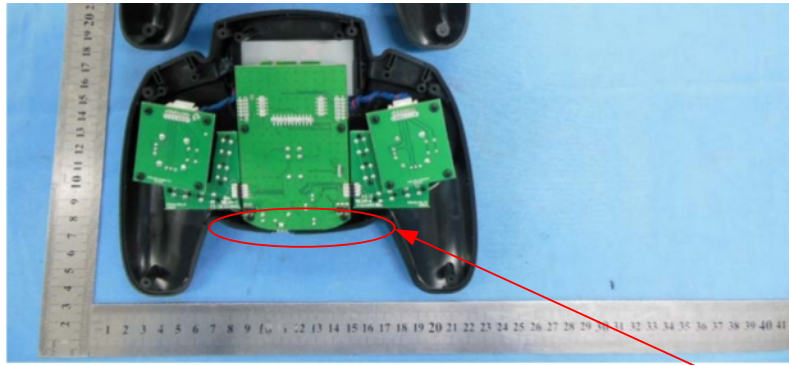
Antenna Gain: G = **1.5** dBi = 1.41 on the linear scale

Calculation: $P_{\text{radiated}} = P_{\text{conducted}} + G_{\text{linear}} =$

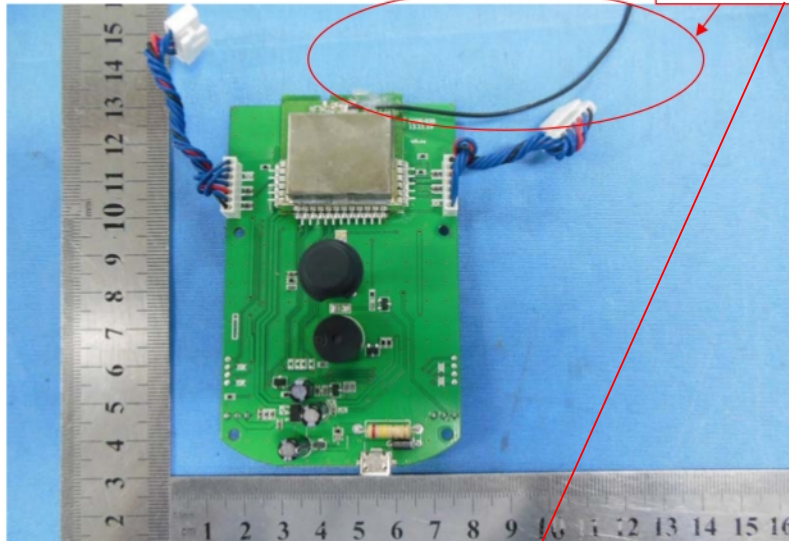
16.56 dBm + 1.5 dBi = 18.06 dBm = 63.97 mW

Power density $S = (P_{\text{radiated}}) / (4\pi \times d^2) =$

63.97 / 5026 = 0.0127 mW/cm² < 1 => below limit



Antenna location



5 cm distance to finger

20 cm distance hand/body
(worst case)

