

SAR Test Exclusion Evaluation

Product Name: Radio Control

Model No: T6PV

The standalone SAR test exclusion shall be refer to FCC § 1.1307 (b)(3)(i)(B) SAR-Based exemption which device determined the distance from antenna to user/bystander. The formula is

$$P_{th} \text{ (mW)} = ERP_{20cm} (d / 20)^x \quad \text{for distance } d \leq 20\text{cm}$$

$$P_{th} \text{ (mW)} = ERP_{20cm} \quad \text{for distance } 20\text{cm} < d \leq 40\text{cm}$$

where

$$X = -\log_{10} \left(\frac{60}{ERP_{20cm} \sqrt{f}} \right)$$

ERP_{20cm} (mW) 0.3 GHz ≤ f < 1.5 GHz: 2040f
 1.5 GHz ≤ f ≤ 6 GHz: 3060

$$F = GH^7$$

P_{th} (mW) = available maximum time-average power (matched conducted) or effective radiated power, whichever is greater.

D = the separation distance (cm)

Pursuant to KDB 447498 D04 Interim General RF Exposure Guidance v01 that SAR testing is not required when EUT has output power related to distance satisfy with following table.

Centre Frequency (MHz)	5	10	15	20	25	Distance(mm)
2450	3.000	10.000	22.000	38.000	59.000	Power(mW)
5200	2.000	6.000	15.000	26.000	42.000	
5500	1.000	6.000	14.000	26.000	41.000	
5800	1.000	6.000	14.000	25.000	40.000	
	30	35	40	45	50	Distance(mm)
2450	83.000	111.000	143.000	179.000	219.000	Power(mW)
5200	61.000	84.000	110.000	110.000	110.000	
5500	59.000	82.000	108.000	108.000	108.000	
5800	58.000	80.000	106.000	106.000	106.000	
	7	10	15	20	25	Distance(cm)
2450	415.000	819.000	1770.000	3060.000	3060.000	Power(mW)
5200	350.000	731.000	1689.000	3060.000	3060.000	
5500	345.000	725.000	1683.000	3060.000	3060.000	
5800	341.000	719.000	1678.000	3060.000	3060.000	
	30	33	35	37	40	Distance(cm)
2450	3060.000	3060.000	3060.000	3060.000	3060.000	Power(mW)
5200	3060.000	3060.000	3060.000	3060.000	3060.000	
5500	3060.000	3060.000	3060.000	3060.000	3060.000	
5800	3060.000	3060.000	3060.000	3060.000	3060.000	

Note: 10-g Extremity SAR Test Exclusion Power Thresholds are 2.5 times higher than the 1-g *SAR Test Exclusion Thresholds* indicated above. These thresholds do not apply, by extrapolation or other means, to occupational exposure limits.



T-FHSS

Frequency (GHz)	Tune-up max power (mW)	Min. distance (mm)	Exclusion Power (mW) Note
2.40750	56	32	235.5

Since the exclusion threshold calculated is $56.00 \text{ mW} < 235.5 \text{ mW}$, thus SAR test is exclusion.

Note: $(113-83)/5*2+83=94.283 \times 2.5 = 94.2$, Exclusion Power (mW)= $94.2*2.5 = 235.5$

S-FHSS

Frequency (GHz)	Tune-up max power (mW)	Min. distance (mm)	Exclusion Power (mW) Note
2.40325	80	32	235.5

Since the exclusion threshold calculated is $80.00 \text{ mW} < 235.5 \text{ mW}$, thus SAR test is exclusion.

Note: $(113-83)/5*2+83=94.283 \times 2.5 = 94.2$, Exclusion Power (mW)= $94.2*2.5 = 235.5$

F-4G

Frequency (GHz)	Tune-up max power (mW)	Min. distance (mm)	Exclusion Power (mW) Note
2.47800	28	32	235.5

Since the exclusion threshold calculated is $28.00 \text{ mW} < 235.5 \text{ mW}$, thus SAR test is exclusion.

Note: $(113-83)/5*2+83=94.283 \times 2.5 = 94.2$, Exclusion Power (mW)= $94.2*2.5 = 235.5$

Sincerely Yours,

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