



RF Exposure Evaluation for FCC:

SAR Test Exclusion Calculations

FCC: According to KDB 447498 D01 v06.

According to the KDB 447498 D01 v06 section 4.3.1, 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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 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

Test Result of RF Exposure Evaluation

We use 5mm as separation distance to calculated.

DTS:2.4G WiFi

Antenna Gain: 3.42dBi

Modulation	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up	Result	Limit 1-g SAR
			power(dBm)	calculation	
802.11b	7.86	7 $\pm$ 1	8	1.9558	3
802.11g	8.05	8 $\pm$ 1	9	2.4821	3
802.11 n(HT20)	8.14	8 $\pm$ 1	9	2.5018	3
802.11 n(HT40)	8.37	8 $\pm$ 1	9	2.4622	3

Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure.