

RF Exposure Evaluation

According to KDB 447498 and part 2.1093, Unless specifically required by the *published RF exposure KDB procedures*, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding *SAR Test Exclusion Threshold* condition(s), listed below, is (are) satisfied.

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

Manufacturing tolerance

GFSK			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	2.0	0	0
Tolerance \pm (dB)	1.0	1.0	1.0
$\pi/4$ DQPSK			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	0	-1.0	-2.0
Tolerance \pm (dB)	1.0	1.0	1.0
8DPSK			
Channel	Channel 00	Channel 39	Channel 78
Target (dBm)	-1.0	-2.0	-4.0
Tolerance \pm (dB)	1.0	1.0	1.0

Evaluation Result

For Bluetooth

Max Power(including tune-up tolerance) (dBm)	Max Power(including tune-up tolerance) (mW)	Frequency (MHz)	Min. distance(mm)	Calc. thresholds	limit
3.0	1.9953	2402	5	0.6185	3.0

Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06, No SAR is required.