

RF Exposure

FCC ID: 2BCAN-RC-RF

These calculations are based on the highest EIRP possible from the EUT considering maximum power output and antenna gain or the highest EIRP possible from the EUT, measured in the radiated mode. 10 % duty cycle for the calculations even though the duty cycle is lower in actual use.

KDB 447498 D04 Interim General RF Exposure Guidance v01, Section 2.1.2: 1mW Test Exemption

As per Section 2.1.2: of KDB 447498 D04 v01:

“Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.”

Band	Freq. (MHz)	Max Power EIRP (dBm)	Tune up Tolerance (dB)	Max Power (mW)	Duty Cycle %	Average EIRP (mW)
2.4G	2463	1.27	1.0	1.69	10	0.17

As can be seen in the table above, the average power is much less than 1 mW, therefore it is exempt from testing. The product is stand-alone transmitter

SAR EXCLUSION RESULT

In accordance with FCC KDB Publication 447498 D01 V05R06 Clause 4.3.1 a),
The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power, mW})/(\text{min. separation distance, mm})] \times [\sqrt{f_{\text{(GHz)}}}] \leq 3.0$$
 for 1-g extremity SAR, where
• $f_{\text{(GHz)}}$ is the RF channel transmit frequency in GHz

MHz	Max EIRP Power dBm	Tune up tolerance dB	Duty Cycle %	EIRP Average mW	Min Sep mm	SAR Exc Threshold 4.3.1 a)	Limit 1-g	Result	
2463	1.27	1.0	10.0	0.169	5	0.0529	3.0	Exempt	

Judgement: The product is exempt from SAR testing