

RF Exposure

FCC ID: 2AWIV-WIFIBLE01

1.0 INTRODUCTION

These calculations are based on the highest average power from the EUT.

The Wi-Fi Module will only be operated at a duty cycle of much less than 10% over any six-minute period. Therefore, 10 % was used in the calculations.

For all calculations 1 dB was added to the power for tune up tolerance.

2.0 FCC SAR TESTING EXCLUSION:

In accordance with FCC KDB Publication 447498 D01 V05R02 Clause 4.3.1(a),

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \times [\sqrt{f_{(\text{GHz})}}] \leq 3.0$ for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,³⁰ where

- $f_{(\text{GHz})}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation³¹
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds*

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

This table is for devices with a separation less than 50 mm.

	Freq. (MHz)	Max Power (dBm)	Duty Cycle %	Average Power per channel (mW)	Min Sep (mm)	SAR Calculation as per 4.3.1 a)	SAR Exemption limit 4.3.2 a)	Result
2G Wifi	2462	3.0	10.0	0.20	5	0.063	3.0	
BT	2480	5.6	100.0	3.63	5	1.144	3.00	
BLE	2480	1.0	100.0	1.26	5	0.397	3.00	
					Total	0.063	3.0	Exempt

Judgement: The product is exempt from SAR testing