

FCC ID:2AEHH-W521B

Portable device

According to §15.247(e)(i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to KDB447498 D01 General RF Exposure Guidance V06

The 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

EDR:

| Modulation | Channel Freq. (GHz) | Conduct ed power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculation | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|--------------------|-------------------------|--------------------|
| GFSK | 2.402 | 6.94 | 4.94 | 6±1 | 7.00 | 5.01 | <5 | 1.55352 | 3.00 | YES |
| | 2.441 | 7.07 | 5.09 | 7±1 | 8.00 | 6.31 | <5 | 1.97158 | 3.00 | YES |
| | 2.480 | 7.709 | 5.90 | 7±1 | 8.00 | 6.31 | <5 | 1.98727 | 3.00 | YES |
| π /4DQPSK | 2.402 | 6.345 | 4.31 | 6±1 | 7.00 | 5.01 | <5 | 1.55352 | 3.00 | YES |
| | 2.441 | 7.114 | 5.15 | 7±1 | 8.00 | 6.31 | <5 | 1.97158 | 3.00 | YES |
| | 2.480 | 6.727 | 4.71 | 6±1 | 7.00 | 5.01 | <5 | 1.57854 | 3.00 | YES |
| 8DQPSK | 2.402 | 6.829 | 4.82 | 6±1 | 7.00 | 5.01 | <5 | 1.55352 | 3.00 | YES |
| | 2.441 | 7.664 | 5.84 | 7±1 | 8.00 | 6.31 | <5 | 1.97158 | 3.00 | YES |
| | 2.480 | 7.077 | 5.10 | 7±1 | 8.00 | 6.31 | <5 | 1.98727 | 3.00 | YES |

BLE:

| Modulation | Channel Freq. (GHz) | Conduct ed power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculation | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|--------------------|-------------------------|--------------------|
| GFSK | 2.402 | 6.973 | 4.98 | 6±1 | 7.00 | 5.01 | <5 | 1.55352 | 3.00 | YES |
| | 2.44 | 7.09 | 5.12 | 7±1 | 8.00 | 6.31 | <5 | 1.97117 | 3.00 | YES |
| | 2.480 | 5.981 | 3.96 | 5±1 | 6.00 | 3.98 | <5 | 1.25388 | 3.00 | YES |

2.4GWIFI:

| Modulation | Channel Freq. (GHz) | Conduct ed power (dBm) | Conducte d power (mW) | Tune-up power (dBm) | Max tune-up power (dBm) | Max tune-up power (mW) | Distance (mm) | Result calculation | SAR Exclusion threshold | SAR test exclusion |
|---------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|--------------------|-------------------------|--------------------|
| 802.11b | 2.412 | 7.579 | 5.73 | 7±1 | 8.00 | 6.31 | <5 | 1.95983 | 3.00 | YES |
| | 2.437 | 7.613 | 5.77 | 7±1 | 8.00 | 6.31 | <5 | 1.96996 | 3.00 | YES |
| | 2.462 | 7.415 | 5.51 | 7±1 | 8.00 | 6.31 | <5 | 1.98004 | 3.00 | YES |
| 802.11g | 2.412 | 6.687 | 4.66 | 6±1 | 7.00 | 5.01 | <5 | 1.55675 | 3.00 | YES |
| | 2.437 | 6.521 | 4.49 | 6±1 | 7.00 | 5.01 | <5 | 1.56480 | 3.00 | YES |
| | 2.462 | 6.511 | 4.48 | 6±1 | 7.00 | 5.01 | <5 | 1.57280 | 3.00 | YES |
| 802.11n(HT20) | 2.412 | 6.801 | 4.79 | 6±1 | 7.00 | 5.01 | <5 | 1.55675 | 3.00 | YES |
| | 2.437 | 6.749 | 4.73 | 6±1 | 7.00 | 5.01 | <5 | 1.56480 | 3.00 | YES |
| | 2.462 | 6.704 | 4.68 | 6±1 | 7.00 | 5.01 | <5 | 1.57280 | 3.00 | YES |

Conclusion:

For the max result : $1.98727 \leq \text{FCC Limit } 3.0$ for 1g SAR.

Note: WIFI and Bluetooth do not support simultaneous transmission