

FCC ID:2A9NQ-BT30

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 calculatio n | SAR Exclusion threshold | SAR test exclusion |
|---------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| GFSK | 2.402 | -2.922 | 0.51 | -2±1 | -1.00 | 0.79 | <5 | 0.24622 | 3.00 | YES |
| | 2.441 | -2.938 | 0.51 | -2±1 | -1.00 | 0.79 | <5 | 0.24821 | 3.00 | YES |
| | 2.480 | -5.235 | 0.30 | -5±1 | -4.00 | 0.40 | <5 | 0.12539 | 3.00 | YES |
| π /4DQPSK | 2.402 | -2.219 | 0.60 | -2±1 | -1.00 | 0.79 | <5 | 0.24622 | 3.00 | YES |
| | 2.441 | -2.211 | 0.60 | -2±1 | -1.00 | 0.79 | <5 | 0.24821 | 3.00 | YES |
| | 2.480 | -4.581 | 0.35 | -4±1 | -3.00 | 0.50 | <5 | 0.15785 | 3.00 | YES |

BLE:1M

| 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 calculatio n | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| GFSK | 2.402 | -3.215 | 0.48 | -3±1 | -2.00 | 0.63 | <5 | 0.19558 | 3.00 | YES |
| | 2.441 | -3.115 | 0.49 | -3±1 | -2.00 | 0.63 | <5 | 0.19716 | 3.00 | YES |
| | 2.480 | -3.846 | 0.41 | -3±1 | -2.00 | 0.63 | <5 | 0.19873 | 3.00 | YES |

BLE:2M

| 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 calculatio n | SAR Exclusion threshold | SAR test exclusion |
|------------|---------------------|------------------------|-----------------------|---------------------|-------------------------|------------------------|---------------|---------------------|-------------------------|--------------------|
| GFSK | 2.402 | -3.19 | 0.48 | -3±1 | -2.00 | 0.63 | <5 | 0.19558 | 3.00 | YES |
| | 2.441 | -3.028 | 0.50 | -3±1 | -2.00 | 0.63 | <5 | 0.19716 | 3.00 | YES |
| | 2.480 | -3.7 | 0.43 | -3±1 | -2.00 | 0.63 | <5 | 0.19873 | 3.00 | YES |

Conclusion:

For the max result : $0.24821 \leq$ FCC Limit 3.0 for 1g SAR.