

FCC ID: 2A72W-V89

RF exposure evaluation

§ 2.1093 Radiofrequency radiation exposure evaluation: Portable Devices.

According to § 15.247(i) and § 1.1307b(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 guidance.

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

$$\left[\frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0$$
 for 1-g 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
- When the minimum test separation distance is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.
- The result is rounded to one decimal place for comparison
- GFSK

| Modulation | Frequency (GHz) | Max. Power (dBm) | Max. Tune up Power (dBm) | Max. Tune up Power (mW) | Test distance (mm) | Result | exclusion thresholds for 1-g SAR |
|-------------|-----------------|------------------|--------------------------|-------------------------|--------------------|--------|----------------------------------|
| 8DPSK | 2.480 | 3.24 | 3.5 | 2.24 | 5 | 0.71 | 3.0 |
| GFSK(2Mbps) | 2.480 | 4.08 | 4.5 | 2.82 | 5 | 0.89 | 3.0 |

Conclusion:

For the max result: $0.89\text{W/Kg} \leq \text{FCC Limit } 3.0$ for 1g SAR.

The Product unsupported at the same time to Transmitting.