

MPE ESTIMATION

FCC ID: 2ARCP-SMK37ELITE

1. Limit for Portable Equipment Exposure

Frequency	1-g SAR
100MHz-6GHz	3.0

According to 447498 D01 General RF Exposure Guidance v06

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

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR.}$$

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

2. Estimation Result

Here,

BT:

Frequency	Reading result(dBμV/m)	PK Output Power (dBm)	Output Power(mW)	Test Separation Distance (mm)	Measurement Result	1-g SAR
8DPSK 2402 MHz	103.48	8.18	6.58	5	2.04	3.0
Note: PK Output Power (dBm)= Reading result(dBμV/m)-95.2						

BLE:

Frequency	Reading result(dBμV/m)	PK Output Power (dBm)	Output Power(mW)	Test Separation Distance (mm)	Measurement Result	1-g SAR
GFSK 2402 MHz	95.3	0.1	1.02	5	0.32	3.0
Note: PK Output Power (dBm)= Reading result(dBμV/m)-95.2						

Conclusion:

- $\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot \sqrt{f(\text{GHz})} < 3.0$.
- SAR Test Exclusion Thresholds is 3.0 for separation distance 5mm. Therefore, SAR test is not required.

-----The End-----