

# FCC ID:2AAWC-GEMINI

## 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 V05

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

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

$f(\text{GHz})$  is the RF channel transmit frequency in GHz;

Power and distance are rounded to the nearest mW and mm before calculation;

The result is rounded to one decimal place for comparison;

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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 is applied to determine SAR test exclusion.

We use 5mm as separation distance to calculated.

Bluetooth DSS:

Transmit Frequency (GHz)	Mode	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up power(dBm)	Result calculation	1g SAR
2.402	GFSK	0.58	1±1	2	0.4913	3
2.441		1.03	1±1	2	0.4952	3
2.48		1.02	1±1	2	0.4992	3
2.402	$\pi/4$ -DQPSK	1.97	2±1	3	0.6185	3
2.441		2.26	2±1	3	0.6235	3
2.48		2.35	2±1	3	0.6284	3
2.402	8DPSK	2.19	2±1	3	0.6185	3
2.441		2.59	2±1	3	0.6235	3
2.48		2.57	2±1	3	0.6284	3

Bluetooth DTS:

Transmit Frequency (GHz)	Mode	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up power(dBm)	Result calculation	1g SAR
2.402	GFSK	-2.19	-1±1	0	0.3100	3
2.440		-1.72	-1±1	0	0.3124	3
2.48		-1.65	-1±1	0	0.3150	3

Maximum measured transmitter power:

Transmit Frequency (GHz)	Mode	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up power(dBm)	Result calculation	1g SAR
2.412	802.11b	9.05	8.5±1	9.5	2.7683	3
2.437		9.35	8.5±1	9.5	2.7826	3
2.462		9.21	8.5±1	9.5	2.7969	3
2.412	802.11g	8.38	8±1	9	2.4673	3
2.437		8.14	8±1	9	2.4800	3
2.462		8.59	8±1	9	2.4927	3
2.412	802.11n HT20	7.49	7±1	8	1.9598	3
2.437		7.28	7±1	8	1.9700	3
2.462		7.84	7±1	8	1.9800	3
2.422	802.11n HT40	6.94	6±1	7	1.5600	3
2.437		6.23	6±1	7	1.5648	3
2.452		6.89	6±1	7	1.5696	3

**Conclusion:**

For the max result : 2.7969≤ 3.0 for 1g SAR, No SAR is required.

*Jason chen*

**Signature:**

**Date:** 2016-9-1

**NAME AND TITLE** (Please print or type): Jason Chen /Manager

**COMPANY** (Please print or type): Shenzhen NTEK Testing Technology Co., Ltd./ 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen P.R. China.