

# FCC ID:2AAWC- ELL1102

## 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:

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

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	<b>8.09</b>	8±1	9	2.4622	3
2.441		7.85	8±1	9	2.4821	3
2.48		7.01	8±1	9	<b>2.5018</b>	3
2.402	$\pi/4$ -DQPSK	6.73	6±1	7	1.5535	3
2.441		6.04	6±1	7	1.5661	3
2.48		5.37	6±1	7	1.5785	3
2.402	8DPSK	6.76	6±1	7	1.5535	3
2.441		6.02	6±1	7	1.5661	3
2.48		5.77	6±1	7	1.5785	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	7.48	7±1	8	1.9558	3
2.440		<b>7.58</b>	7±1	8	1.9716	3
2.48		7.40	7±1	8	<b>1.9873</b>	3

WIFI:

Transmit Frequency (GHz)	Mode	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up power(dBm)	Result calculation	1g SAR
2.412	802.11b	9.10	8.6±1	9.6	2.8328	3
2.437		9.19	8.6±1	9.6	2.8475	3
2.462		9.53	8.6±1	9.6	<b>2.8620</b>	3
2.412	802.11g	8.02	8±1	9	2.4673	3
2.437		8.07	8±1	9	2.4800	3
2.462		8.12	8±1	9	2.4927	3
2.412	802.11n HT20	7.01	7±1	8	1.9598	3
2.437		7.10	7±1	8	1.9700	3
2.462		7.18	7±1	8	1.9800	3

**Conclusion:**

For the max result :  $2.8620 \leq 3.0$  for 1g SAR, No SAR is required.

*Jason chen*

**Signature:**

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**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.