

FCC ID: 2ANV3-14PINEBOOK

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

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

$f(\text{GHz})$ 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 ≤ 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	3.7	4±1	5	0.9802	3
2.441		4.49	4±1	5	0.9881	3
2.48		4.07	4±1	5	0.9960	3
2.402	$\pi/4$ -DQPSK	5.01	5±1	6	1.2340	3
2.441		5.71	5±1	6	1.2440	3
2.48		5.31	5±1	6	1.2539	3
2.402	8DPSK	5.46	5±1	6	1.2340	3
2.441		5.19	5±1	6	1.2440	3
2.48		5.96	5±1	6	1.2539	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	0.79	1±1	2	0.4913	3
2.44		1.59	1±1	2	0.4951	3
2.48		1.27	1±1	2	0.4992	3

WIFI DTS:

Transmit Frequency (GHz)	Mode	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up power(dBm)	Result calculation	1g SAR
2.412	802.11b	9.1	8.5±1	9.5	2.7683	3
2.437		9.2	8.5±1	9.5	2.7826	3
2.462		9.3	8.5±1	9.5	2.7969	3
2.412	802.11g	8.8	8±1	9	2.4673	3
2.437		8.6	8±1	9	2.4800	3
2.462		8.5	8±1	9	2.4927	3
2.412	802.11n HT20	8.3	8±1	9	2.4673	3
2.437		8.4	8±1	9	2.4800	3
2.462		8.4	8±1	9	2.4927	3
2.422	802.11n HT40	8.1	8±1	9	2.4724	3
2.437		8.3	8±1	9	2.4800	3
2.452		8.3	8±1	9	2.4877	3

Conclusion:

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

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Signature:

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