RF Exposure Evaluation

FCC ID: 2A7SL-ZORDAIZ5

Applicable Standard

According to FCC part 2.1093 and part 1.1307(b)(3),systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline

KDB447498 D04 Interim General RF Exposure Guidance v01，clause 2.1.3 SAR-Based Exemption:

A more comprehensive exemption, considering a variable power threshold that depends on both the separation distance and power, is provided in 1.1307(b)(3) (i)(B). This exemption is applicable to the frequency range between 300 MHz and 6 GHz, with test separation distances between 0.5 cm and 40 cm, and for all RF sources in fixed, mobile, and portable device exposure conditions

Accordingly, a RF source is considered an RF exempt device if its available maximum time averaged (matched conducted)power or its effective radiated power(ERP), whichever is greater,are below a specified threshold.

$$P_{th}\ (\text{mW}) = \begin{cases} ERP_{20\ cm}(d/20\ \text{cm})^{x} & d \le 20\ \text{cm} \\ ERP_{20\ cm} & 20\ \text{cm} < d \le 40\ \text{cm} \end{cases}$$

Where

$$x = -\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right) \text{ and } f \text{ is in GHz;}$$

and

$$ERP_{20\ cm}\ (\text{mW}) = \begin{cases} 2040f & 0.3\ \text{GHz} \le f < 1.5\ \text{GHz} \\ 3060 & 1.5\ \text{GHz} \le f \le 6\ \text{GHz} \end{cases}$$

d = the separation distance (cm);

TEST RESULT

☒ **Passed** ☐ **Not Applicable**

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BT

Test mode	Channel Frequency (MHz)	Max. Measured Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Maximum Output Power (mW)	Calculating data	Limit	Results
DH5	2402	3.5	±1	4.5	2.82	0.8736	3.00	Pass
	2441	2.87	±1	3.87	2.44	0.7618		
	2480	1.38	±1	2.38	1.73	0.5448		
2DH5	2402	4.11	±1	5.11	3.24	1.0053		
	2441	3.47	±1	4.47	2.80	0.8746		
	2480	2.05	±1	3.05	2.02	0.6357		
3DH5	2402	4.31	±1	5.31	3.40	1.0527		
	2441	3.46	±1	4.46	2.79	0.8726		
	2480	2.34	±1	3.34	2.16	0.6796		

BLE

Test mode	Channel Frequency (MHz)	Max. Measured Power (dBm)	Tune up tolerance (dBm)	Max. Tune up Power (dBm)	Maximum Output Power (mW)	Calculating data	Limit	Results
GFSK_1M	2402	3.45	±1	4.45	2.79	0.8636	3.00	Pass
	2440	3.24	±1	4.24	2.65	0.8295		
	2480	3.01	±1	4.01	2.52	0.7930		
GFSK_2M	2402	3.34	±1	4.34	2.72	0.8420		
	2440	3.10	±1	4.10	2.57	0.8032		
	2480	2.95	±1	3.95	2.48	0.7821		

Note:

-The maximum antenna gain is 1.4dBi.

- To maintain compliance with the RF exposure guidelines, place the equipment less than 0.5cm from nearby persons.

-The BT and BLE can be transmit simultaneously:1.0527/3+0.8636/3=0.6388<1.

Result: Compliant

--THE END--

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