§1.1307 (b) (1) &§2.1093 – RF EXPOSURE

Applicable Standard

According to FCC §2.1093 and §1.1307(b) (1), 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.

Report No.: RSZ151030831-00

According to KDB 447498 D01 General RF Exposure Guidance

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:

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

- 1. f(GHz) is the RF channel transmit frequency in GHz.
- 2. Power and distance are rounded to the nearest mW and mm before calculation.
- 3. The result is rounded to one decimal place for comparison.
- 4. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test Exclusion.

Evaluation data:

The maximum tune-up conducted peak output power is 20 dBm(100 mW) @1928.448 MHz

And

Duty Cycle = Ton/Tp*100% = 4.10%

Which, Ton = 412 μ s, Tp= 10.05 ms, please refer to the report RSZ151110830-00 with model number RF1G9V1 (FCC ID: B4HRF1900V1) page 44 and 45 for plot detail

So,the maximum conducted source-based, time-averaged output power is: 100*4.10%mW=4.10~mW@1928.448~MHz

 $(4.10/5)*\sqrt{1.928448}=1.1<3.0$

Result: No SAR test is required

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