MPE Calculation / RF Exposure

Product: DOG TRAINING DEVICE
Applicant: Dogtra Co., Ltd.
Model: HF10U
Address: #715-2(146BL-3L) Gojan-dong, Namdong-gu, Incheon, Korea
FCC ID: SWN-HF10U

Per KDB 447498 D01 General RF Exposure Guidance v06 (10/23/2015) section 4.3.1 (a)

Stand alone SAR test exclusion threshold is applied;

a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

[(*max. power of channel, including tune-up tolerance, mW*) / (*min. test separation distance, mm*)] ·
[√f(GHz)] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,

- ◆ where f(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 values 3.0 and 7.5 are referred to as numeric thresholds in step b) below

Freq: 2 450 MHz

Duty cycle is stated at 100 %

Nominal rated field strength: 80.36 dBµV/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

Based on the Maximum allowed field strength of production tolerance was 83.36 dBµV/m at 3m in frequency 2 450 MHz, thus;

The EIRP = [(FS*D) ^2*1000 / 30] = 0.06501 mW

Conducted power = Radiated Power (EIRP) – Antenna Gain

So; Conducted Power = 0.05794 mW.

Min. Test separation distance : 5 mm

SAR exclusion threshold: [(0.05794)/(5)] x [2.450] = 0.02839 (=1, is rouned to one decimal place)

Therefore, the EUT was not evaluated as the value of SAR exclusion threshold was less than 3.0 per KDB 447498 D01 v06 section 4.3.1(a)