RF Exposure Evaluation

FCC KDB 447898 D01 v05r02.

SAR test exclusion threshold formula according to KDB 447898 D01 is:

$$[(EIRP) / (d)] \cdot [\sqrt{f}] \le 3.0$$

Where:

EIRP is max. average radiated power of a channel, including tune-up tolerance, mW f is operating frequency, GHz d is min. test separation distance, mm

The maximum measured peak conducted output power is 2.43 dBm. The antenna gain, G is 1.7 dBi. Therefore, the maximum calculated average EIRP is 4.13 dBm or 2.59 mW.

As declared by the Applicant, distance from antenna to user: Single pump =30 mm (antenna to breast). Also per applicant user can use two pumps at the same time. Therefore, simultaneous operation was considered.

Therefore, the average EIRP is (2.59+2.59) = 5.18 mW (7.14 dBm).

At 30mm distance the condition for SAR exclusion threshold is:

 $[5.18 / 30] \times \sqrt{2.480} = 0.27$ which is less than 3.

Therefore, SAR testing is not required as the SAR Test Exclusion Threshold condition is satisfied.