

RF Exposure Evaluation

1. FCC KDB 447898 D01 v05r02.

SAR test exclusion threshold formula according to KDB 447898 D01 is

$$\frac{EIRP \sqrt{f}}{d} < 3$$

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 14.2 mW (11.5 dBm). The antenna gain, G is 3.0 dBi. Therefore, the maximum calculated average EIRP is 28.4 mW.

As declared by the Applicant, the EUT transmits with the maximum source-based Duty Cycle of 2.84% (see Operational Description, sec. 3.1.1 and 3.1.2).

Therefore, the average EIRP = $28.4 \times 0.0284 = 0.81$ mW.

At 5mm distance the condition for SAR exclusion threshold is:

$$\frac{0.81 \sqrt{2.48}}{5} = 0.26 \text{ which is less than } 3.$$

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

2. IC RSS-102 Issue 5.

SAR Exemption limit according to IC RSS-102 (sec. 2.5.1) is:

at frequency 2450 MHz and separation distance ≤ 5 mm SAR Exemption limit equals 4 mW.

SAR evaluation is not required since the higher of the maximum conducted or equivalent isotropically radiated power (EIRP) source-based, time averaged output power is below the exemption limit.

Results	Complies
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