

SAR EXCLUSION CALCULATION

FCC ID: LF54NR016

RF Exposure Requirements:

47 CFR §1.1307(b)

RF Radiation Exposure Limits:

47 CFR §1.1310

RF Radiation Exposure Guidelines:

FCC OST/OET Bulletin Number 65

EUT Frequency Band:

402-405MHz, 2402-2480MHz

Equation:

According to the procedure in KDB447498 section 4.3, SAR testing is excluded if the following criteria is met.

$(P/d) * \sqrt{f} \leq 3.0$ for 1-g SAR

Where

P is the time averaged maximum conducted power in mW

d minimum separation distance in mm

f is the frequency in GHz

The distance between the antenna and human body is 5mm. the calculation was based on the distance of 5mm.

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Tune-up Tolerance	Max Tune-up power (dBm)	Measurement Distance (mm)
BLE	2440	-1.02	-0.6	±1	-0.02	5
MICS	402.15	-24.74	-4	±1	-23.74	5

Note: BLE and MICS do not transmit together

For BLE: $(P/d) * \sqrt{f} = 0.311 < 3$ for 1g SAR

For MICS: $(P/d) * \sqrt{f} = 0.0005 < 3$ for 1g SAR

Therefore, EUT is not require SAR Evaluation.

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