

Radiofrequency Radiation Exposure Evaluation

This exposure evaluation is intended for **FCC ID: 04GT3**

According to KDB 447498 D01v06 section 4.3.1, For frequencies between 100 MHz to 6GHz and test separation distances ≤ 50 mm, the Numeric threshold is determined as:

Step a)

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

>> The fundamental frequency of the EUT is 2457MHz,
the test separation distance is ≤ 50 mm.
(Manufacturer specified the separation distance is: 20mm)
(5mm is the worst case according to the KDB)

Step b)

>> Numeric threshold (2457MHz), $\text{mW} / 5\text{mm} \cdot \sqrt{2.457\text{GHz}} \leq 3.0$
Numeric threshold (2457MHz) $\leq 9.569\text{mW}$

Power calculation (According to C63.10 chapter 9.5)

	Value	Unit
Field Strength Measured (E)	91.48	$\text{dB}\mu\text{V/m}$
Measurement Distance (D)	3	m
Equivalent Isotropically Radiated Power (E.I.R.P in dBm)	-3.68	dBm
Equivalent Isotropically Radiated Power (E.I.R.P in mW)	0.429	mW

Remark: $\text{EIRP} = E + 20\log(D) - 104.7$

(EIRP is in dBm, E is in $\text{dB}\mu\text{V/m}$, D is in metres)

The Power according to the RF Report No: 60.790.23.096.01R02

>> The power (calculated power + tune up tolerance) of EUT at 2457MHz is: 0.429mW
Which is smaller than the Numeric threshold.
Therefore, the device is exempt from stand-alone SAR test requirements.

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