

10 Appendix A - General Product Information

Radiofrequency radiation exposure evaluation

This exposure evaluation is intended for **FCC ID: HS9-RPWL4045A-2**

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)

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

- >> The fundamental frequency of the EUT is 916.8MHz, the test separation distance is ≤ 50 mm.
(Manufacturer specified the separation distance is: 5mm)
(5mm is the worst case according to the KDB)

Step b)

- >> Numeric threshold (916.8MHz), $\text{mW} / 5\text{mm} \cdot \sqrt{0.9168\text{GHz}} \leq 3.0$
Numeric threshold (916.8MHz) $\leq 15.67\text{mW}$

- >> The power (calculated power + tune up tolerance) of EUT at 916.8MHz is: 0.697mW
Which is smaller than the Numeric threshold.
Therefore, the device is exempt from stand-alone SAR test requirements.

Power calculation (According to C63.10 chapter 9.5)

	Value	Unit
Field Strength Measured (E)	93.59	dB μ V/m
Measurement Distance (D)	3	m
Equivalent Isotropically Radiated Power (E.I.R.P in dBm)	-1.568	dBm
Equivalent Isotropically Radiated Power (E.I.R.P in mW)	0.697	mW

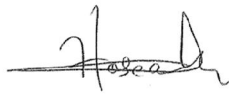
Remark: $\text{EIRP} = E + 20\log(D) - 104.7$
(EIRP is in dBm, E is in dB μ V/m, D is in metres)

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