

## 10 Appendix A - General Product Information

### Radiofrequency radiation exposure evaluation

This exposure evaluation is intended for **FCC ID: TFO-13012**

According to KDB 447498 D01v06 section 4.3.1, For frequencies below 100 MHz and test separation distances  $\leq$  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

Step b)

$\{[\text{Power allowed at numeric threshold for 50mm in step a})] + [(\text{test separation distance} - 50\text{mm}) \cdot (f(\text{MHz})/150)]\}$   
mW

Step c) 1)

For test separation distances  $>$  50mm and  $<$  200mm, the power threshold at the corresponding test separation distance at 100MHz in step b) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$

Step c) 2)

For test separation distances  $\leq$  50mm, the power threshold determined by the equation in c) 1) for 50mm and 100MHz is multiplied by  $\frac{1}{2}$ .

>> The fundamental frequency of the EUT is 112kHz, the test separation distance is  $\leq$  50mm.  
(Manufacturer specified the separation distance is: 20mm)

Step a)

>> Numeric threshold, mW / 50mm \*  $\sqrt{0.1\text{GHz}}$   $\leq$  3.0  
Numeric threshold  $\leq$  474.3mW

Step b)

>> Numeric threshold  $\leq$  474.3mW + (50mm-50mm) \* 100MHz/150  
Numeric threshold  $\leq$  474.3mW

Step c) 1) & c) 2)

>> Numeric threshold  $\leq$  474.3mW \*  $[1 + \log 100/100\text{MHz}] * \frac{1}{2}$   
Numeric threshold  $\leq$  237.15mW

>> The power (calculated power + tune up tolerance) of EUT at 112kHz is: 0.001mW

Which is smaller than the Numeric threshold.

Therefore, the device is exempt from stand-alone SAR test requirements.

## Appendix A

Power calculation (According to C63.10 chapter 9.5)

	Value	Unit
Field Strength Measured (E)	65.23	dB $\mu$ V/m
Measurement Distance (D)	3	m
Equivalent Isotropically Radiated Power (E.I.R.P in dBm)	-29.93	dBm
Equivalent Isotropically Radiated Power (E.I.R.P in mW)	0.001	mW

Remark: EIRP = E + 20log(D) -104.7

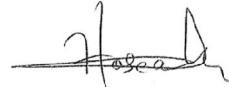
(EIRP is in dBm, E is in dB $\mu$ V/m, D is in meters)

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