

Test No.13

<b>Name of Test:</b>	<b><i>Radio Frequency Exposure</i></b>	<b>Test Standard:</b>	<b><i>FCC OET Bulletin 65 &amp;RSS-GEN</i></b>
<b>Tested By:</b>	WEI LI	<b>Test Date:</b>	06/24/2022-07/08/2022

**Minimum Standard:** For FCC: Public Exposure to Radio Frequency Energy Levels (1.1307 (b)(1)). Limits in Table 1 (B),  
for Public  $S = 1.0 \text{ mW/cm}^2$   
for Professional,  $S = 5.0 \text{ mW/cm}^2$

For IC: With formula of  $1.31 \times 10^{-2} f 0.6834 \text{ W}$ , more restricted EIRP limit value can be calculated.

**Method of Measurement:**

$$d = 0.282 * 10^{((P + G) / 20) / \sqrt{S}}$$

Equation (1)

$$S = 0.0795 * 10^{((P + G)/10)/d^2}$$

Equation (2)

where

d = MPE distance in cm

P = Power in dBm

G = Antenna Gain in dBi

S = Power Density Limit in  $\text{mW/cm}^2$

Equation (1) and the measured peak power is used to calculate the MPE distance.

Equation (2) and the measured peak power is used to calculate the Power density.

**Test Result:**

**Test Data:**

NA

### Calculation:

\*For this EUT, max emission level is under the limit set in Section 15.209. No RF hazard need to be concerned.

**APPLICABLE LIMITS** for separation  $\geq 20\text{cm}$

FCC: From §1.1310 Table 1 (B), for Public  $S = 1.0 \text{ mW/cm}^2$ ; for Professional,  $S = 5.0 \text{ mW/cm}^2$

IC: With formula of  $1.31 \times 10^{-2} f^{0.6834} \text{ W}$ , more restricted EIRP limit value is given as following.

### RESULTS

No non-compliance noted:

Per No.9 testing result, EUT has max. peak emission level, 55.36dBuV/m @3m at 297.6MHz (RBW=1MHz). Converting to 50MHz RBW setting, the max. peak value is 89.33dBuV/m. Therefore the e.r.i.p is -5.87dBm, i.e 0.26mW.

---For FCC, the worst case for this EUT,  $P+G=-5.87\text{dBm}$ , and  $d=20\text{cm}$

Plug all items into equation (2), yielding,

Power Density Limit (mW/cm <sup>2</sup> )	Output Power+ Antenna] Gain (dBm)		Power Density (mW/cm <sup>2</sup> )	Meet min. PD Limit
1.0/5.0	-5.87		5.18E-5	Yes

---For ISSED, the limit @ 300MHz is 0.58W. EUT max. e.r.i.p =0.26mW, which is under the limit.

**Therefore, all of results are below the FCC/ISED limit.**

*NOTE: For mobile or fixed location transmitters, the minimum separation distance between the antenna & radiating structures of the device and nearby persons is 20 cm, even if calculations indicate that the MPE distance would be less.*