

MPE Calculation : LTE

RF function or Mode	Frequency range (MHz)	Tune-up Max Conducted power(dBm) ^{Note 1}	Conducted power(dBm)	Max. Measured EIRP(dBm)	Adjusted EIRP to tune-up Max(dBm)	Maximum power density (mW/cm ²)	Requirement (mW/cm ²)
LTE Band 13	782.00 ~ 782.00	23.00	22.17	20.35	21.180	0.0262	0.521
LTE Band 13	779.50 ~ 784.50	23.00	22.14	21.04	21.900	0.0309	0.519
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Note1: Please refer to the tune-up procedure for the max target power.

Where, Adjusted EIRP to tune-up Max = Measured EIRP + (Tune-up Max conducted power - conducted power)

The EUT will only be used with a separation of 20 centimeters or greater between the antenna and the body of the user.

The MPE sample calculation for this exposure is shown below.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 21.18 / (4 \times 20^2 \times \pi) \\
 &= 0.0262 \text{ mW/cm}^2
 \end{aligned}$$

- Note

S= Maximum power density(mW/cm²)

EIRP= Equivalent Isotropic Radiated Power(mW)

R= Distance to the center of the radiation of the antenna(20)

▪ Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm ²)	Averageing time (minutes)
0.3 ~ 1.34	614	1.63	*100	30
1.34 ~ 30	824/f	2.19 / f	*180 / f ²	30
30 ~ 300	27.5	0.073	0.2	30
300 ~ 1,500			f / 1500	30
1,500 ~ 100,000			1.0	30

Conclusion : The exposure condition of this device is compliant with FCC