

MPE Calculation

RF function or Mode	Frequency range (MHz)			Tune-up Max Conducted power(dBm) ^{Note 1}	Conducted power(dBm)	Measured EIRP (dBm)	Adjusted EIRP to tune-up Max(dBm)	Maximum power density (mW/cm ²)	Requiriment (mW/cm ²)
CDMA850	824.70	~	848.31	25.50	24.88	28.33	28.95	0.1563	0.549
CDMA1900	1851.25	~	1908.75	25.50	25.07	25.31	25.74	0.0746	1.000
LTE Band 13	779.50	~	784.50	25.70	23.52	25.71	27.89	0.1224	0.519
LTE Band 5	824.70	~	848.30	25.70	23.42	27.32	29.60	0.1815	0.549
LTE Band 4	1710.70	~	1754.30	25.70	24.10	21.47	23.07	0.0404	1.000
LTE Band 2	1850.70	~	1909.30	25.70	23.90	23.82	25.62	0.0726	1.000
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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)

$$\text{EIRP} = \text{ERP} + 2.15 \text{ dB}$$

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.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 28.95 / (4 \times 20^2 \times \pi) \\
 &= 0.1563 \text{ mW/cm}^2
 \end{aligned}$$

- Note

S= Maximum power density(mW/cm²)

EIRP= Equivalent Isotropic Radiated Power(mW)

R= Distance to the center of the radiation of the antenna(2C

▪ 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