

MPE Calculation

RF feature(Worst Mode)	Frequency range (MHz)			Norminal Target Power(dBm) ^{Note1}	Tolerance (dB)	ANT Gain (dBi) ^{Note2}	Maximum EIRP (dBm)	Maximum EIRP (mW)	Maximum power density (mW/cm ²)	Requirement (mW/cm ²)
NR Band n2(ANT1)	1850.00	~	1910.00	23.00	2.70	1.88	27.58	572.797	0.114 0	1.000 0
NR Band n5(ANT2)	824.00	~	849.00	23.00	2.70	-0.01	25.69	370.681	0.073 8	0.549 0
NR Band n12(ANT1)	699.00	~	716.00	23.00	2.70	-1.15	24.55	285.102	0.056 8	0.466 0
NR Band n66(ANT1)	1710.00	~	1780.00	23.00	2.70	0.18	25.88	387.258	0.077 1	1.000 0
NR Band n77(ANT2)	3450.00	~	3550.00	22.50	2.50	-1.13	23.87	243.782	0.048 5	1.000 0
NR Band n77(ANT2)	3700.00	~	3980.00	22.50	2.50	-2.36	22.64	183.654	0.036 6	1.000 0
Band14(ANT2)	788.00	~	798.00	23.00	2.70	-0.54	25.16	328.096	0.065 3	0.525 0
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Note1: Please refer to the operation description for Max tune-up power.

Note2: including path loss between conducted test feeding point and antenna feeding point.

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.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 572.797 / (4 \times 20^2 \times \pi) \\
 &= 0.114 \text{ mW/cm}^2
 \end{aligned}$$

- Note

S= Maximum power density(mW/cm²)

EIRP= Equivalent Isotropic Radiated Power(mW)

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

▪ Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)			Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm ²)	Averaging 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