

MPE Calculation : WLAN

RF function or Mode	Frequency range (MHz)	Max Target Power (dBm) ^{Note1}	ANT Gain (dBi)	Maximum EIRP (dBm)	Maximum EIRP (mW)	Maximum power density (mW/cm ²)	Requirment (mW/cm ²)
802.11n(HT20)	5180.00 ~ 5220.00	14.50	5.82	20.32	107.647	0.0214	1.000
802.11n(HT20)	5745.00 ~ 5825.00	14.50	5.65	20.15	103.514	0.0206	1.000
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Note1: Refer to the technical document(operation description) for the max tune-up 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.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 107.6466 / (4 \times 20^2 \times \pi) \\
 &= 0.02142 \text{ mW/cm}^2
 \end{aligned}$$

- 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 General Population/Uncontrolled Exposure

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

f = frequency in MHz * = Plane-wave equivalent power density

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

MPE Calculation : BT

RF function or Mode	Frequency range (MHz)	Max Target Power (dBm) ^{Note1}	ANT Gain (dBi)	Maximum EIRP (dBm)	Maximum EIRP (mW)	Maximum power density (mW/cm ²)	Requirment (mW/cm ²)
BDR(1Mbps)	2402.00 ~ 2480.00	6.50	5.54	12.04	15.996	0.0032	1.000
EDR(2,3Mbps)	2402.00 ~ 2480.00	1.50	5.54	7.04	5.058	0.0010	1.000
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Note1: Refer to the technical document(operation description) for the max tune-up 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.

$$\begin{aligned}
 S &= \text{EIRP} / (4 R^2 \pi) \\
 &= 15.9956 / (4 \times 20^2 \times \pi) \\
 &= 0.00319 \text{ mW/cm}^2
 \end{aligned}$$

- 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 General Population/Uncontrolled Exposure

Frequency range (MHz)	Electric Field strength (V/m)	Magnetic field strength (A/m)	Power Density (mW/cm ²)	Averageing time (minutes)
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1,500 ~ 100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

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