

FCC Part 2 section 2.1091

FCC Application for (FCC ID: 2BEK7WHM200A)

(ii) Limits for General Population/Uncontrolled Exposure				
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	<30

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

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

$$S = \text{EIRP} / (4 R^2 \pi)$$

- Note

S= Maximum power density(mW/cm²)

EIRP= Equivalent Isotropic Radiated Power(mW)

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

Maximum Permissible Exposure Calculation

Operation Mode	Evaluation Frequency (MHz)	MAX Output Power (dBm)	Antenna Gain (dBi)	MAX. EIRP (dBm)	MAX. EIRP (mW)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)	Result
EVK Antenna (SJANT-PCB-900-01)	902.0~928.0	29.60	3.026	32.63	1830.63	20	0.364 2	0.601 3	Pass
External dipole antenna (STDPA201354SMB900)	902.0~928.0	29.60	3.000	32.60	1819.70	20	0.362 0	0.601 3	Pass
External dipole antenna (STDPA131909IBS900)	902.0~928.0	29.60	2.500	32.10	1621.81	20	0.322 6	0.601 3	Pass

Conclusion

maximum calculations of above situations are less than the “0.601 3” limit.