MPE Calculation

Regulation(s): Part 1.1310, Part 2.1091

Method: KDB447498 D01v06

RF feature	Frequency range (GHz)			Separation distance(cm)	Max. tune-up EIRP (dBm)[Note1]	Maximum EIRP (mW)	Maximum power density(mW/cm^2)	Requirement (mW/cm^2)
FMCW(Module 1)	79.0	~	81.0	20.0	20.8	120.227	0.024	1.000
FMCW(Module 2)	78.0	~	80.0	20.0	20.6	114.816	0.023	1.000
FMCW(Module 3)	79.0	~	81.0	20.0	20.8	120.227	0.024	1.000
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Note1: Please refer to the tune-up procedure for tune-up max 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.

▪ S = EIRP / (4 R^2 π)

= 120.227 / (4 X R^2 X π)

= 0.024 mW/cm^2

- Note

S = Maximum power density(mW/cm^2)

EIRP = Equivalent Isotropic Radiated Power(mW)

R = Distance to the center of the radiation of the antenna

▪ **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