FCC ID : 2AAAH-OHM001

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency(RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density(mW/cm^2)	Average Time
(A) Limits for Occupational/Control Exposures				
300-1500	**--**	**--**	**F/300**	**6**
1500-100000	**--**	**--**	**5**	**6**
(B) Limits for General Population/Uncontrol Exposures				
300-1500	**--**	**--**	**F/1500**	**6**
1500-100000	**--**	**--**	**1**	**30**

11.1 Friis transmission formula: Pd= (Pout*G)\ ($4*pi*R^2$)

Where

Pd= Power density in mW/cm^2

Pout=output power to antenna in mW

G= Numeric gain of the antenna relative to isotropic antenna

Pi=3.1416

R= distance between observation point and center of the radiator in cm

Pd the limit of MPE, $1mW/cm^2$. If we know the maximum gain of the nd total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

11.2 Measurement Result

BT DSS

Channel Freq. (MHz)	modulation	conducted power (mW)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
2402	GFSK	1.04 mW 0.189 dBm	-1dBm to +1dBm For GFSK CH_0	1	0.673	0.00017	1
2441	GFSK	1.79 mW 2.528 dBm	+1dBm to +3dBm For GFSK CH_39	3	0.673	0.00027	1
2480	GFSK	1.79 mW 2.522 dBm	+1dBm to +3dBm For GFSK CH_78	3	0.673	0.00027	1
2402	1/4 π - DQPSK	0.62 -2.102 dBm	-2.5dBm to -0.5dBm for π /4 – DQPSK CH_0	-0.5	0.673	0.00012	1
2441	1/4 π - DQPSK	1.03 mW 0.117 dBm	0dBm to +2dBm for π /4 –DQPSK CH_39	2	0.673	0.00021	1
2480	1/4 π - DQPSK	1.01 mW 0.063 dBm	0dBm to +2dBm for π /4 –DQPSK CH_78	2	0.673	0.00021	1
2402	8DPSK	0.65 mW -1.898 dBm	-2.5dBm to -0.5dBm For 8DPSK CH_0	-0.5	0.673	0.00012	1
2441	8DPSK	1.12 mW 0.49 dBm	0dBm to +2dBm For 8DPSK CH_39	2	0.673	0.00021	1
2480	8DPSK	1.10 mW 0.408 dBm	0dBm to +2dBm For 8DPSK CH_78	2	0.673	0.00021	1

BT DTS

Channel Freq. (MHz)	modulation	conducted power (mW)	Tune-up power (dBm)	Max tune-up power (dBm)	Antenna Gain Numeric	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
2402	GFSK	0.4mW -4.017dBm	-5dBm to -3dBm For CH_0	-3	0.673	0.00007	1
2440	GFSK	0.87 mW -0.594 dBm	-2dBm to 0dBm For CH_19	0	0.673	0.00013	1
2480	GFSK	0.87 mW -0.593 dBm	-2dBm to 0dBm For CH_39	0	0.673	0.00013	1