FCC ID : 2AN4V-HEUBR

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

1.1 Friis transmission formula: Pd= (Pout*G)\ (4*pi*R2)

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 20cm

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.

1.2 Measurement Result

Mode	Max Measured power (dBm)	Max tune-up power (dBm)	Antenna Gain (dBi)	Antenna Gain(linear)	Evaluation result (mW/cm2)	Power density Limits (mW/cm2)
BLE	2	3	2.4	1.74	0.000690	1
LTE	22.35	24	1.4	1.38	0.069016	1

Simultaneous Transmission MPE

The sample support BLE Antenna and another one LTE transmit antenna, so need consider simultaneous transmission; Simultaneous transmission MPE According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations; ∑of MPE ratios ≤ 1.0

Mode	∑ MPE max ratios	Limit	Results
BLE+LTE	0.069706	1.0	PASS

----------------THE END OF REPORT---------------