MPE EVALUATION

Model Name: ECOSTONE
Model No.: FW3817-40
FCC ID: **WYHFW3817-40**

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**

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

Where
Pd= Power density in mW/cm^2
Pout=output power to antenna in mW
G= gain of antenna in linear scale
Pi=3.1416
R= distance between observation point and center of the radiator in cm
Pd the limit of MPE, 1mW/cm2. If we know the maximum gain of the antenna and total power input to the antenna, through the calculation, we will know the distance where the MPE limit is reached.

Measurement Result

Channel Frequency (MHz)	Output Peak power (mW)	Antenna Gain (dBi)	Power density at 20cm (mW/cm^2)	Power density Limits (mW/cm^2)	Modulation
2402	1.17	0	2.328e-4	1	GFSK
2441	2.15	0	4.277e-4	1	GFSK
2480	2.07	0	4.118e-4	1	GFSK
2402	0.80	0	1.592e-4	1	π /4DQPSK
2441	1.79	0	3.561e-4	1	π /4DQPSK
2480	1.51	0	3.004e-4	1	π /4DQPSK
2402	0.80	0	1.592e-4	1	8DPSK
2441	1.79	0	3.561e-4	1	8DPSK
2480	1.51	0	3.004e-4	1	8DPSK