6.9 RF Exposure requirement

6.9.1 Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm2)	Averaging Times $\|E\|2$, $\|H\|2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100000			1.0	30

6.9.2 MPE Calculation Method

$E (V/m) = (30*P*G)^{0.5}/d$ Power Density: $Pd (W/m2) = E^2/377$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m) The formula can be changed to

Pd = $(30*P*G) / (377*d^2)$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m,
as well as the gain of the used antenna, the RF power density can be obtained.

6.9.3 Result

Operating Mode:802.11 b and 802.11 g

Channal (MHz)	Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Result
2412	1.689	17.02	50.35	0.0169	1	Pass
2437	1.689	17.07	50.93	0.0171	1	Pass
2462	1.689	17.26	53.21	0.0179	1	Pass
2412	1.689	15.07	32.14	0.0108	1	Pass
2437	1.689	15.02	31.77	0.0107	1	Pass
2462	1.689	15.12	32.51	0.0109	1	Pass