

FCC RF Exposure

FCC ID: 2A3JV-UT82

Applicant: Bresee Technology Co.,Ltd.

Exposure category: General population/uncontrolled environment

EUT Type: Production Unit

Device Type: DR21-8UW , DE21-8TW

Refer Standard: FCC Part 2.1091: Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

FCC MPE Limited:

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging 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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Test Data

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

Where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Antenna Gain information

Antenna Gain: 2.6dBi

Conducted Output Power Results

Mode	Test Frequency (MHz)	Maximum Conducted Output Power (dBm)	Tune Up Tolerance (dBm)
802.11b	2412	15.77	16 ± 1.0
802.11b	2437	15.54	16 ± 1.0
802.11b	2462	15.12	16 ± 1.0
802.11g	2412	14.54	14 ± 1.0
802.11g	2437	14.06	14 ± 1.0
802.11g	2462	14.17	14 ± 1.0
802.11n (HT20)	2412	13.81	14 ± 1.0
802.11n (HT20)	2437	13.69	14 ± 1.0
802.11n (HT20)	2462	13.15	14 ± 1.0
802.11n (HT40)	2422	12.62	13 ± 1.0
802.11n (HT40)	2437	12.38	13 ± 1.0
802.11n (HT40)	2452	12.28	13 ± 1.0

Worst-Case Calculation results: pass

Frequency (MHz)	RF distance(cm)	Result (mW/cm ²)	Limit (mW/cm ²)
2412	20	0.018	1.0
2437	20	0.018	1.0
2462	20	0.018	1.0