

MPE Calculation

FCC ID: ZUXIBB-M3S

RF Exposure Requirements: 47CFR§1.1307(b)
RF Radiation Exposure Limits: 47CFR§1.1310
RF Radiation Exposure Guidelines: 47CFR§2.1091
EUT Frequency Band: 2412 – 2462MHz
Limits for General Population/Uncontrolled Exposure in the band of: 1500 – 100000MHz
Power Density Limit: 1.0mW/cm²;

Equation: $S = PG/4\pi R^2$
Where, S=Power Density
P=Power Input to Antenna
G=Antenna Gain
R=distance to the center of radiated antenna

For 802.11b-MidHigh Channel (2437MHz):
Power=20.37dBm, Antenna Gain=3dBi, Prediction distance 20cm
 $S = (108.8 * 1.99) / (4 * 3.14 * 20 * 20) = 0.0430 \text{ mW/cm}^2$

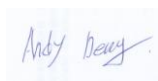
For 802.11g-Mid Channel (2437MHz):
Power=18.69dBm, Antenna Gain=3dBi, Prediction distance 20cm
 $S = (73.9 * 1.99) / (4 * 3.14 * 20 * 20) = 0.0292 \text{ mW/cm}^2$

For 802.11n/HT20- Mid Channel (2437MHz):
Power=18.69dBm, Antenna Gain=3dBi, Prediction distance 20cm
 $S = (73.9 * 1.99) / (4 * 3.14 * 20 * 20) = 0.0292 \text{ mW/cm}^2$

For 802.11n/HT40- Mid Channel (2437MHz):
Power=15.67dBm, Antenna Gain=3dBi, Prediction distance 20cm
 $S = (36.8 * 1.99) / (4 * 3.14 * 20 * 20) = 0.0145 \text{ mW/cm}^2$

Result

The above result had shown that device complied with 1.0mW/cm² Power density requirement for distance of 20 cm.



Completed By: _____

Data: 2012-10-03