

MPE CALCULATION

FCC ID: WBV-AP3X

RF Exposure Requirements:	47 CFR §1.1307(b)
RF Radiation Exposure Limits:	47 CFR §1.1310
RF Radiation Exposure Guidelines:	FCC OST/OET Bulletin Number 65
EUT Frequency Band:	2412 - 2462 MHz; 5180 - 5825MHz
Limits for General Population/Uncontrolled Exposure in the band of:	1500 - 100,000 MHz
Power Density Limit:	1 mW / cm ²

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

Prediction distance 20cm

EUT: AP 390

(5.3/5.4G Band): Power = 28.89dBm, Antenna Gain = 5 dBi, Power density = 0.487mW/ cm²

(5.1G Band): Power = 28.86dBm, Antenna Gain = 5 dBi, Power density = 0.484mW/ cm²

(5.8 Band): Power = 16.88dBm, Antenna Gain = 5 dBi, Power density = 0.031mW/ cm²

(2.4GHz Band): Power = 26.25dBm, Antenna Gain = 3.6dBi , Power density =0.192mW/ cm²

Total Ratio= $(P_{2.4GHz}/1) + (P_{5GHzDFS}/1) = 0.487\text{mW/cm}^2 + 0.192\text{mW/cm}^2 = 0.679 \text{ mW/cm}^2$

The Above Result had shown that the Device complied with MPE requirement.

Completed By: Nima Molaei

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