MPE CALCULATION (FCC ID: N4TLEAP1000)

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:	2405-2470MHz
Limits for General Population/Uncontrolled Exposure in the band of:	1500 - 100,000 MHz
Power Density Limit:	1 mW/cm2

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 20 cm

EUT: LEAP 2.4GHz RF Module Radio product

Model: 44-100312-00

Power = 15.279 dBm, Internal PIFA antenna gain = 3.4 dBi, Power density = 0.015mW/cm^2

Maximum MPE is 0.0015 mW/cm^2, which is less than 1 mW/cm^2.

The above results show that the device complies with the MPE requirement.

Model: 44-100312-01

Power = 18.532 dBm, Folded Dipole (long) antenna gain = 3.2 dBi, Power density = 0.030 mW/cm^2

Power = 18.532 dBm, Folded Dipole (short) antenna gain = 2.15 dBi, Power density = 0.023 mW/cm^2

Power = 18.532 dBm, Monopole antenna gain = 7 dBi, Power density = 0.071 mW/cm^2

Power = 18.446 dBm, Yagi antenna gain = 12 dBi, Power density = 0.220 mW/cm^2

Maximum MPE is 0.220 mW/cm^2, which is less than 1 mW/cm^2.

The above results show that the device complies with the MPE requirement.

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Date: Oct 31st, 2018