

# MPE CALCULATION

## FCC ID: N6C-SDMAN

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:	5470-5725MHz
Limits for General Population/Uncontrolled Exposure in the band of:	300 – 1500 GHz
Power Density Limit:	1 mW/ cm <sup>2</sup> ;

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

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For 802.11a at 5700MHz

Power = 12.315 dBm, Max Antenna Gain = 2.5 dBi, Prediction distance 20cm, **S = 0.006029 mW/cm<sup>2</sup>**

For 802.11n-20MHz at 5700MHz

Power = 13.123 dBm, Max Antenna Gain = 2.5 dBi, Prediction distance 20cm, **S = 0.007262mW/cm<sup>2</sup>**

For 802.11n-40MHz at 5670MHz

Power = 10.844 dBm, Max Antenna Gain = 2.5 dBi, Prediction distance 20cm, **S = 0.004297mW/cm<sup>2</sup>**

### Result

The Above Result had shown that Device complied with 1 mW/cm<sup>2</sup> Power density requirement for distance of 20cm.

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