

MPE CALCULATION

FCC ID: S9GT310NS

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: 2.4GHz	2412-2462 MHz
EUT Frequency Band: 5 GHz	5180- 5320MHz, 5500-5720MHz, 5745-5825MHz 5210-5290MHz, 5530-5610MHz, 5690-5775MHz
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

EUT: T310 (N/S) Access Point, Model No. : T310

T310N

(2.4GHz Band): Power = 23.23 dBm, Antenna Gain = 8.7 dBi, Power density = 0.31 mW/ cm²

(5 GHz Band): Power = 21.77 dBm, Antenna Gain = 13.5 dBi, Power density = 0.67 mW/ cm²

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Directional Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Measurement Distance (cm)	Calculated MPE (mW/cm ²)	MPE Limit (mW/cm ²)	Pass/Fail
2.4 GHz WLAN	2437	23.23	8.7	8.7	±1dB	24.23	20	0.31	1	Pass
5 GHz WLAN	5745	21.77	13.5	13.5	±1dB	22.77	20	0.67	1	Pass

If 2.4GHz and 5GHz transmit simultaneously.

Total MPE=0.31 + 0.67 = 0.98 mW/cm²

T310S

(2.4GHz Band): Power = 23.26 dBm, Antenna Gain = 6 dBi, Power density = 0.33 mW/ cm²

(5 GHz Band): Power = 23.75 dBm, Antenna Gain = 8 dBi, Power density = 0.133 mW/ cm²

Type	CH Freq (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Directional Gain (dBi)	Tune-Up Tolerance	Tolerance Max Power (dBm)	Measurement Distance (cm)	Calculated MPE (mW/cm ²)	MPE Limit (mW/cm ²)	Pass/Fail
2.4 GHz WLAN	2437	23.26	6	9	±1dB	24.26	20	0.33	1	Pass
5 GHz WLAN	5230	23.75	8	11	±1dB	24.75	20	0.59	1	Pass

If 2.4GHz and 5GHz transmit simultaneously.

Total MPE=0.33 + 0.59 = 0.92 mW/cm²

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

Completed By: Cipher



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