



TEST RESULTS

No non-compliance noted.

Calculation

$$\text{Given } E = \frac{\sqrt{30 \times P \times G}}{d} \quad \& \quad S = \frac{E^2}{3770}$$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770d^2}$$

Changing to units of mW and cm, using:

$$P \text{ (mW)} = P \text{ (W)} / 1000 \text{ and}$$

$$d \text{ (cm)} = d \text{ (m)} / 100$$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2} \quad \text{Equation 1}$$

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm²

**Maximum Permissible Exposure**

Modulation Mode	Frequency band (MHz)	Max. Conducted output power(dBm)	Antenna gain (dBi)	Distance (cm)	Power density (mW/cm ²)	Limit (mW/cm ²)
802.11b	2412-2462	20.52	2.00	20	0.036	1
802.11g	2412-2462	19.66	2.00	20	0.029	1
802.11n(20MHz)(Chain0)	2412-2462	16.58	2.00	20	0.014	1
802.11n(20MHz)(Chain1)	2412-2462	16.82	2.00	20	0.015	1
802.11 n(20MHz) (Chain0+Chain1)	2412-2462	/	/	20	0.029	1
802.11n(40MHz)(Chain0)	2422-2452	16.68	2.00	20	0.015	1
802.11n(40MHz)(Chain1)	2422-2452	17.61	2.00	20	0.018	1
802.11 n(40MHz) (Chain0+Chain1)	2422-2452	/	/	20	0.033	1

NOTE:

Total(Chain0+Chain1) , the formula of calculated the MPE is:

$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density