



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: W59XAP1500

Project No. : 1310C127
Equipment : High Power Dual Band Wireless 900N Ceiling Mount
Access Point
Model Name : XAP-1500
Applicant : Luxul Wireless
Address : 14203 Minuteman Dr, Suite 201, Draper ,Utah, United
States
Manufacturer : SHENZHEN TENDA TECHNOLOGY CO.,LTD
Address : Tenda Industrial Park, No. 34-1, Shilong Rd., Shiyan
Town, Bao'an District, Shenzhen, P.R.China 518108

According: : **FCC Guidelines for Human Exposure IEEE C92.76**

Neutron Engineering Inc.

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MPE CALCULATION METHOD:

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi^2} = \frac{EIRP}{4\pi^2}$$




where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
0		Q5078	Internal Antenna	N/A	5.0	TX/RX
1		Q5078	Internal Antenna	N/A	5.0	TX/RX
2		Q5078	Internal Antenna	N/A	5.0	TX/RX

Note: The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers (3T3R).

Operating Mode TX Mode	1TX	3TX
	802.11b	V (ANT 0 or ANT 1 or ANT 2)
802.11g	- V (ANT 0 or ANT 1 or ANT 2)	
802.11n(20MHz)	-	V (ANT 0 & ANT 1 & ANT 2)
802.11n(40MHz)		V (ANT 0 & ANT 1 & ANT 2)



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TEST RESULTS

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX A Mode /CH149, CH157, CH165		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
22.70	186.2087	0.11720614	1	Complies
22.54	179.4734	0.11296668	1	Complies
22.69	185.7804	0.11693657	1	Complies

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Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N20 Mode /CH149, CH157, CH165-ANT 0		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
17.58	57.2796	0.03605374	1	Complies
17.86	61.0942	0.03845478	1	Complies
17.75	59.5662	0.03749302	1	Complies

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Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N20 Mode /CH149, CH157, CH165-ANT 1		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
17.35	54.3250	0.03419404	1	Complies
17.44	55.4626	0.03491004	1	Complies
17.57	57.1479	0.03597082	1	Complies



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Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N20 Mode /CH149, CH157, CH165-ANT 2		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
17.69	58.7489	0.03697859	1	Complies
17.75	59.5662	0.03749302	1	Complies
17.57	57.1479	0.03597082	1	Complies

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Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N20 Mode /CH149, CH157, CH165- ANT 0 + ANT 1 + ANT 2		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
27.31	538.2698	0.33880544	1	Complies
27.46	557.1857	0.35071179	1	Complies
27.40	549.5409	0.34589985	1	Complies



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Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N40 Mode /CH151, CH159- ANT 0		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
17.86	61.0942	0.03845478	1	Complies
17.89	61.5177	0.03872134	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N40 Mode /CH151, CH159- ANT 1		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
17.76	57.1479	0.03597082	1	Complies
17.82	59.7035	0.03757945	1	Complies



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EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N40 Mode /CH151, CH159- ANT 2		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
17.93	62.0869	0.03907962	1	Complies
17.92	61.9441	0.03898974	1	Complies

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Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1010 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N40 Mode /CH151, CH159- ANT 0 + ANT 1 + ANT 2		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
27.62	578.0960	0.36387345	1	Complies
27.64	580.7644	0.36555301	1	Complies

Note: The evaluated distance is 20cm