



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)



TEST RESULTS

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX B MODE /CH01, CH06, CH11		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
24.68	293.7650	0.18490573	1	Complies
24.46	279.2544	0.17577227	1	Complies
24.57	286.4178	0.18028117	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX G MODE /CH01, CH06, CH11		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
24.62	289.7344	0.18236873	1	Complies
24.82	303.3891	0.19096350	1	Complies
24.56	285.7591	0.17986654	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11-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
17.84	60.8135	0.03827810	1	Complies
17.62	57.8096	0.03638735	1	Complies
17.74	59.4292	0.03740678	1	Complies



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EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	WS323
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11-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
17.38	54.7016	0.03443106	1	Complies
17.56	57.0164	0.03588809	1	Complies
17.73	59.2925	0.03732075	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11-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
17.52	56.4937	0.03555907	1	Complies
17.67	58.4790	0.03680869	1	Complies
17.72	59.1562	0.03723492	1	Complies



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EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11- 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
27.36	544.5027	0.34272862	1	Complies
27.39	548.2770	0.34510430	1	Complies
27.50	562.3413	0.35395689	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09-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
17.57	57.1479	0.03597082	1	Complies
17.76	59.7035	0.03757945	1	Complies
17.83	60.6736	0.03819006	1	Complies



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Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09-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
17.57	57.1479	0.03597082	1	Complies
17.76	59.7035	0.03757945	1	Complies
17.83	60.6736	0.03819006	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09-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
17.21	52.6017	0.03310933	1	Complies
17.33	54.0754	0.03403693	1	Complies
17.27	53.3335	0.03356992	1	Complies

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Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09-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
17.44	55.4626	0.03491004	1	Complies
17.52	56.4937	0.03555907	1	Complies
17.63	57.9429	0.03647123	1	Complies



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Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09-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
27.18	522.3962	0.32881405	1	Complies
27.31	538.2698	0.33880544	1	Complies
27.35	543.2503	0.34194036	1	Complies

Note: The evaluated distance is 20cm