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:

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

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	LUXU	Q5078	Internal Antenna	N/A	5.0	TX/RX
1	LUXU	Q5078	Internal Antenna	N/A	5.0	TX/RX
2	LUXU	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
802.11a	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:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX A Mode/CH36, CH40, CH48		

Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
14.66	29.2415	0.01840562	1	Complies
14.85	30.5492	0.01922872	1	Complies
15.04	31.9154	0.02008863	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48 / 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
8.72	7.4473	0.00468760	1	Complies
8.64	7.3114	0.00460204	1	Complies
8.54	7.1450	0.00449728	1	Complies

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Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48 / 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
9.26	8.4333	0.00530824	1	Complies
9.39	8.6896	0.00546953	1	Complies
9.41	8.7297	0.00549478	1	Complies

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Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48 / 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
9.26	8.4333	0.00530824	1	Complies
9.42	8.7498	0.00550745	1	Complies
9.47	8.8512	0.00557122	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N20 Mode/CH36, CH40, CH48 / 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
13.86	24.3220	0.01530913	1	Complies
13.94	24.7742	0.01559374	1	Complies
13.93	24.7172	0.01555788	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46 / 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
7.84	6.0814	0.00382781	1	Complies
7.89	6.1518	0.00387213	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25˚C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46 / 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
8.49	7.0632	0.00444580	1	Complies
9.15	8.2224	0.00517548	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
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Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46 / 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
9.13	8.1846	0.00515170	1	Complies
9.18	8.2794	0.00521135	1	Complies

EUT:	High Power Dual Band Wireless 900N Low Profile Access Point	Model Name :	XAP-1500
Temperature:	25 °C	Relative Humidity:	58 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	Band 1/TX N40 Mode/CH38, CH46 / 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
13.29	21.3304	0.01342612	1	Complies
13.55	22.6464	0.01425445	1	Complies

Note:The evaluated distance is 20cm.