Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: W59XAP1230

Project No.	**: 1401C158**
Equipment	**: High Power Wireless 300N Commercial Grade Access Point**
Model	**: XAP-1230**
Applicant	**: Luxul Wireless**
Address	**: 14203 Minuteman Drive, Suite 201, Draper, UT USA**
According:	**: FCC Guidelines for Human Exposure IEEE C95.1**

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 name	Model Name	Antenna Type	Connector	Gain (dBi)
1	Tenda	Q5003	Dipole	R-SMA	5
1	Tenda	Q5003	Dipole	R-SMA	5

TEST RESULTS

EUT：	High Power Wireless 300N Commercial Grade Access Point	Model Name ：	XAP-1230
Temperature：	18 ℃	Relative Humidity：	55 %
Test Voltage ：	AC 120V/60Hz		
Test Mode ：	TX B Mode/CH01/CH06/CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
5	3.1623	20.04	100.9253	0.05104467	1	Complies
5	3.1623	21.82	152.0548	0.07690425	1	Complies
5	3.1623	22.15	164.0590	0.08297559	1	Complies

EUT：	High Power Wireless 300N Commercial Grade Access Point	Model Name ：	XAP-1230
Temperature：	18 ℃	Relative Humidity：	55 %
Test Voltage ：	AC 120V/60Hz		
Test Mode ：	TX G Mode/CH01/CH06/CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
5	3.1623	26.91	490.9079	0.24828494	1	Complies
5	3.1623	26.92	492.0395	0.24885729	1	Complies
5	3.1623	26.84	483.0588	0.24431513	1	Complies

EUT :	High Power Wireless 300N Commercial Grade Access Point	Model Name :	XAP-1230
Temperature :	18 ℃	Relative Humidity :	60 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20M Mode_Total/CH01/CH06/CH11		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
5	3.1623	29.16	824.1381	0.41682175	1	Complies
5	3.1623	29.18	827.9422	0.41874571	1	Complies
5	3.1623	28.55	716.1434	0.36220160	1	Complies

EUT :	High Power Wireless 300N Commercial Grade Access Point	Model Name :	XAP-1230
Temperature :	18 ℃	Relative Humidity :	60 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40M Mode_Total/CH03/CH06/CH09		

Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
5	3.1623	29.11	814.7043	0.41205043	1	Complies
5	3.1623	29.17	826.0379	0.41778262	1	Complies
5	3.1623	27.14	517.6068	0.26178838	1	Complies

Note: the calculation distance is 20cm.