



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: W6R-L600N

Issued Date : Oct. 31, 2012
Project No. : 1210C034
Equipment : Dual Band Wireless Router
Model Name : L600N
Applicant : Rosewill Inc.
Address : 17708 Rowland Street, City of Industry,
California 91748 United States

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:

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

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

Table for Filed Antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)	Note
1	HL TECHNOLOGY GROUP LIMITED	800000000219	Dipole	Reverse-SMA	5	TX/RX
2	HL TECHNOLOGY GROUP LIMITED	800000000219	Dipole	Reverse-SMA	5	TX/RX

Note: This EUT supports MIMO 2T2R, all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.

Operating Mode TX Mode	1TX	2TX
802.11b	V (ANT1 or ANT2)	-
802.11g	V (ANT1 or ANT2)	-
802.11n(20MHz)	-	V (ANT1 & ANT2)
802.11n(40MHz)	-	V (ANT1 & ANT2)



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Test Result:

EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	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	20.13	103.0386	0.06485603	1	Complies
5	3.1623	20.06	101.3911	0.06381906	1	Complies
5	3.1623	20.07	101.6249	0.06396617	1	Complies

EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	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	22.53	179.0606	0.11270686	1	Complies
5	3.1623	22.10	162.1810	0.10208228	1	Complies
5	3.1623	22.26	168.2674	0.10591327	1	Complies

EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-20MHz /CH01, CH06, CH11-ANT 1		

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	18.43	69.6627	0.04384806	1	Complies
5	3.1623	18.22	66.3743	0.04177826	1	Complies
5	3.1623	18.46	70.1455	0.04415200	1	Complies



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EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-20MHz /CH01, CH06, CH11-ANT 2		

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	17.40	54.9541	0.03458998	1	Complies
5	3.1623	17.45	55.5904	0.03499052	1	Complies
5	3.1623	17.43	55.3350	0.03482975	1	Complies

EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-20MHz /CH01, CH06, CH11-ANT 1+ANT 2		

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	20.96	124.7384	0.07851459	1	Complies
5	3.1623	20.86	121.8990	0.07672738	1	Complies
5	3.1623	20.99	125.6030	0.07905883	1	Complies

EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-40MHz /CH03, CH06, CH09-ANT 1		

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	16.36	43.2514	0.02722390	1	Complies
5	3.1623	16.32	42.8549	0.02697431	1	Complies
5	3.1623	16.12	40.9261	0.02576027	1	Complies



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EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-40MHz /CH03, CH06, CH09-ANT 2		

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	16.37	43.3511	0.02728666	1	Complies
5	3.1623	16.53	44.9780	0.02831068	1	Complies
5	3.1623	16.17	41.4000	0.02605856	1	Complies

EUT:	Dual Band Wireless Router	Model Name :	L600N
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N MODE-40MHz /CH03, CH06, CH09-ANT 1+ANT 2		

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	19.38	86.6962	0.05456955	1	Complies
5	3.1623	19.44	87.9023	0.05532869	1	Complies
5	3.1623	19.16	82.4138	0.05187408	1	Complies