



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

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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
802.11a	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 A MODE /CH149, CH157, CH165		

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	13.84	24.2103	0.01523879	1	Complies
5	3.1623	13.70	23.4423	0.01475538	1	Complies
5	3.1623	13.81	24.0436	0.01513388	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 N20 MODE / CH149, CH157, CH165-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	10.82	12.0781	0.00760239	1	Complies
5	3.1623	10.87	12.2180	0.00769043	1	Complies
5	3.1623	10.73	11.8304	0.00744647	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 N20 MODE / CH149, CH157, CH165-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	10.75	11.8850	0.00748084	1	Complies
5	3.1623	10.78	11.9674	0.00753269	1	Complies
5	3.1623	10.91	12.3310	0.00776158	1	Complies



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Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N20 MODE / CH149, CH157, CH165-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	21.36	136.7729	0.08608954	1	Complies
5	3.1623	21.23	132.7394	0.08355075	1	Complies
5	3.1623	21.45	139.6368	0.08789221	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 N40 MODE / CH151, CH159-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	10.93	12.3880	0.00779741	1	Complies
5	3.1623	10.95	12.4451	0.00783340	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 N40 MODE / CH151, CH159-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	10.86	12.1899	0.00767274	1	Complies
5	3.1623	10.80	12.0226	0.00756746	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 N40 MODE / CH151, CH159-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	20.58	114.2878	0.07193668	1	Complies
5	3.1623	20.43	110.4079	0.06949449	1	Complies