



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: W59XWR1750

Project No. : 1308C047
Equipment : Dual Band Wireless AC1750 Gigabit Router
Model : XWR-1750
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:

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

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	M/N	Antenna Type	Connector	Gain (dBi)	Note
0	LUXUL	Q5100	Dipole Antenna	N/A	5.0	TX/RX
1	LUXUL	Q5100	Dipole Antenna	N/A	5.0	TX/RX
2	LUXUL	Q5100	Dipole Antenna	N/A	5.0	TX/RX

TEST RESULTS

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
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	22.56	180.3018	0.11348811	1	Complies
5	3.1623	28.62	727.7798	0.45808953	1	Complies
5	3.1623	24.19	262.4219	0.16517730	1	Complies



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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	28.26	669.8846	0.42164832	1	Complies
5	3.1623	28.14	651.6284	0.41015723	1	Complies
5	3.1623	21.32	135.5189	0.08530026	1	Complies

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
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)		

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	25.24	334.1950	0.21035380	1	Complies
5	3.1623	25.19	330.3695	0.20794590	1	Complies
5	3.1623	25.15	327.3407	0.20603944	1	Complies

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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)		

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	25.27	336.5116	0.21181191	1	Complies
5	3.1623	25.08	322.1069	0.20274510	1	Complies
5	3.1623	25.18	329.6097	0.20746764	1	Complies



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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)		

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	25.12	325.0873	0.20462108	1	Complies
5	3.1623	25.14	326.5878	0.20556557	1	Complies
5	3.1623	25.09	322.8494	0.20321248	1	Complies

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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)		

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	29.98	995.4054	0.62654226	1	Complies
5	3.1623	29.90	977.2372	0.61510657	1	Complies
5	3.1623	29.91	979.4900	0.61652454	1	Complies

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 (ANT0)		

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	17.25	53.0884	0.03341569	1	Complies
5	3.1623	25.21	331.8945	0.20890574	1	Complies
5	3.1623	21.21	132.1296	0.08316687	1	Complies



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EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 (ANT1)		

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	17.46	55.7186	0.03507118	1	Complies
5	3.1623	25.18	329.6097	0.20746764	1	Complies
5	3.1623	21.16	130.6171	0.08221487	1	Complies

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /CH03, CH06, CH09 (ANT2)		

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	17.32	53.9511	0.03395865	1	Complies
5	3.1623	25.23	333.4264	0.20987000	1	Complies
5	3.1623	21.05	127.3503	0.08015865	1	Complies

EUT:	Dual Band Wireless AC1750 Gigabit Router	Model Name :	XWR-1750
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)		

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	29.97	993.1160	0.62510125	1	Complies
5	3.1623	21.52	141.9058	0.08932034	1	Complies
5	3.1623	25.91	389.9420	0.24544284	1	Complies

Note:1) The calculation distance is 20 cm.