

FCC RF EXPOSURE REPORT

FCC ID: KA2WR116A2

Project No. : 1411C277A
Equipment : Wireless N300 3G/4G Multi-WAN Router
Model : DWR-116
Applicant : D-Link Inc.
Address : No.289,Xinhu 3Rd.,Neihu District, Taipei City
11494, Taiwan, ROC

According: : FCC Guidelines for Human Exposure IEEE
C95.1

B T L I N C .

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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.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)
1	N/A	N/A	Dipole	N/A	5.0
2	N/A	N/A	Dipole	N/A	5.0

Note:

The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (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 (ANT 1)	-
802.11g	V (ANT 1)	-
802.11n(20MHz)	-	V (ANT 1 + ANT 2)
802.11n(40MHz)	-	V (ANT 1 + ANT 2)

TEST RESULTS

EUT :	Wireless N300 3G/4G Multi-WAN Router	Model Name :	DWR-116
Temperature :	25 °C	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	19.79	95.2796	0.05997225	1	Complies
5	3.1623	19.96	99.0832	0.06236636	1	Complies
5	3.1623	19.82	95.9401	0.06038796	1	Complies

EUT :	Wireless N300 3G/4G Multi-WAN Router	Model Name :	DWR-116
Temperature :	25 °C	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	19.21	83.3681	0.05247475	1	Complies
5	3.1623	19.82	95.9401	0.06038796	1	Complies
5	3.1623	18.64	73.1139	0.04602040	1	Complies

EUT :	Wireless N300 3G/4G Multi-WAN Router	Model Name :	DWR-116
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-20 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	22.55	179.8871	0.11322710	1	Complies
5	3.1623	23.01	199.9862	0.12587816	1	Complies
5	3.1623	22.55	179.8871	0.11322710	1	Complies

EUT :	Wireless N300 3G/4G Multi-WAN Router	Model Name :	DWR-116
Temperature:	25 °C	Relative Humidity:	55 %
Test Voltage :	AC 120V/60Hz		
Test Mode :	TX N-40 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	23.01	199.9862	0.12587816	1	Complies
5	3.1623	23.22	209.8940	0.13211446	1	Complies
5	3.1623	22.79	190.1078	0.11966038	1	Complies

Note: the calculated distance is 20 cm.