



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: V7TA31

Project No. : 1310C160
Equipment : Wireless N300 Portable Router
Model : A31
Applicant : SHENZHEN TENDA TECHNOLOGY CO.,LTD.
Address : Tenda Industrial Park, No.34-1, Shilong Rd., Shiyan Town, Bao'an District, Shenzhen, P.R. China 518108

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

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
0	N/A	N/A	Printed Antenna	N/A	3
1	N/A	N/A	Printed Antenna	N/A	3



TEST RESULTS

EUT:	Wireless N300 Portable Router	Model Name :	A31
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
3	1.9953	20.04	100.9253	0.04008209	1	Complies
3	1.9953	20.01	100.2305	0.03980617	1	Complies
3	1.9953	20.15	103.5142	0.04111027	1	Complies

EUT:	Wireless N300 Portable Router	Model Name :	A31
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
3	1.9953	19.54	89.9498	0.03572320	1	Complies
3	1.9953	22.67	184.9269	0.07344299	1	Complies
3	1.9953	21.62	145.2112	0.05767006	1	Complies



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EUT:	Wireless N300 Portable Router	Model Name :	A31
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
3	1.9953	21.27	133.9677	0.05320475	1	Complies
3	1.9953	21.05	127.3503	0.05057669	1	Complies
3	1.9953	20.75	118.8502	0.04720091	1	Complies

EUT:	Wireless N300 Portable Router	Model Name :	A31
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
3	1.9953	18.68	73.7904	0.02930558	1	Complies
3	1.9953	18.21	66.2217	0.02629967	1	Complies
3	1.9953	18.16	65.4636	0.02599862	1	Complies

EUT:	Wireless N300 Portable Router	Model Name :	A31
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-20M MODE /CH01, CH06, CH11 ANT0+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
3	1.9953	23.18	207.9697	0.08259436	1	Complies
3	1.9953	22.87	193.6422	0.07690425	1	Complies
3	1.9953	22.66	184.5015	0.07327408	1	Complies



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EUT:	Wireless N300 Portable Router	Model Name :	A31
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		

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
3	1.9953	21.87	153.8155	0.06108722	1	Complies
3	1.9953	21.09	128.5287	0.05104467	1	Complies
3	1.9953	21.21	132.1296	0.05247475	1	Complies

EUT:	Wireless N300 Portable Router	Model Name :	A31
Temperature:	24 °C	Relative Humidity:	60 %
Pressure:	1016 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	TX N-40M MODE /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
3	1.9953	21.3	134.8963	0.05357354	1	Complies
3	1.9953	21.3	134.8963	0.05357354	1	Complies
3	1.9953	20.68	116.9499	0.04644622	1	Complies

EUT:	Wireless N300 Portable Router	Model Name :	A31
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		

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
3	1.9953	24.6	288.4032	0.11453820	1	Complies
3	1.9953	24.21	263.6331	0.10470089	1	Complies
3	1.9953	23.96	248.8857	0.09884401	1	Complies

The calculated distance is 20 cm