



Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: QISAP5010DNAGN

Project No. : Nov. 16, 2012
Equipment : 1209C079A
Model : Wireless LAN Access Point
Applicant : AP5010DN-AGN
Address : Bantian, Longgang District, Shenzhen China

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

Antenna Specification:

Table for Filed Antenna

The product has 2 group antenna: Amphenol-SAA and Nippon Antenna(Shanghai)

Ant.	Brand	Model Name	Antenna Type / Connector	function	Gain (dBi)
1	Amphenol-SAA	N/A	Integral	TX/RX	5.3
2	Amphenol-SAA	N/A	Integral	TX/RX	5.5

Ant.	Brand	Model Name	Antenna Type / Connector	function	Gain (dBi)
1 (Short)	Nippon Antenna (Shanghai)	N/A	Integral	TX/RX	5.79
2 (Long)	Nippon Antenna (Shanghai)	N/A	Integral	TX/RX	5.51

Note: This EUT supports MIMO, all transmit signals are completely uncorrelated, then, **Direction gain = G_{ANT}**, that is Directional gain=5.79.

Operating Mode TX Mode	1TX	2TX
	802.11a	V (ANT2)
802.11n(20MHz)	V (ANT2)	V (ANT1& ANT2)
802.11n(40MHz)	V (ANT2)	V (ANT1& ANT2)



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TEST RESULTS

EUT:	Wireless LAN Access Point	Model Name :	AP5010DN-AGN
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 1/TX - For 2TX Total		

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
5.79	3.7931	14.56	28.5759	0.02157498	1	Complies
5.79	3.7931	14.51	28.2488	0.02132801	1	Complies
5.79	3.7931	14.75	29.8538	0.02253982	1	Complies

EUT:	Wireless LAN Access Point	Model Name :	AP5010DN-AGN
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 2/TX - For 2TX Total		

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
5.79	3.7931	16.19	41.5911	0.03140150	1	Complies
5.79	3.7931	16.36	43.2514	0.03265505	1	Complies
5.79	3.7931	16.42	43.8531	0.03310933	1	Complies

EUT:	Wireless LAN Access Point	Model Name :	AP5010DN-AGN
Temperature:	25 °C	Relative Humidity:	58 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 3/TX - For 2TX Total		

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
5.79	3.7931	15.81	38.1066	0.02877070	1	Complies
5.79	3.7931	16.44	44.0555	0.03326215	1	Complies
5.79	3.7931	15.77	37.7572	0.02850692	1	Complies