Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: QISAP7110DN-AGN

Issued Date	**:** Nov. 13, 2012
Project No.	**:** 1209C078A
Equipment	**:** Wireless LAN Access Point
Model	**:** AP7110DN-AGN
Applicant	Huawei Technologies Co.,Ltd.
Address	**:** Bantian, Longgang District, Shenzhen China
According:	**: FCC Guidelines for Human Exposure IEEE C95.1**

Neutron Engineering Inc.

No.3, Jinshagang 1st Road, ShiXia, Dalang Town, Dong Guan, China.

TEL : (0769) 8318-3000 FAX : (0769) 8319-6000

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:

The product has 2 group antenna: Shenglu and Tongyu, The 5.74dBi of Shenglu was the worst case.

Group 1

Ant.	Manufacturer	Model Name	Antenna Type / Connector	function	Gain (dBi)
1	Guangdong Shenglu Telecommunication Tech.Co.Ltd	SL15870A	Dipole / R-SMA	TX/RX	5.74
2	Guangdong Shenglu Telecommunication Tech.Co.Ltd	SL15870A	Dipole / R-SMA	TX/RX	5.74
3	Guangdong Shenglu Telecommunication Tech.Co.Ltd	SL15870A	Dipole / R-SMA	TX/RX	5.74

Group 2

Ant.	Manufacturer	Model Name	Antenna Type / Connector	function	Gain (dBi)
1	Tongyu Communication Inc	TT-2403-6W1	Dipole / R-SMA	TX/RX	5.08
2	Tongyu Communication Inc	TT-2403-6W1	Dipole / R-SMA	TX/RX	5.08
3	Tongyu Communication Inc	TT-2403-6W1	Dipole / R-SMA	TX/RX	5.08

Note: This EUT supports MIMO, all transmit signals are completely uncorrelated, then, **Direction gain** = **G**ANT, that is Directional gain=5.74.

Operating Mode / TX Mode	1TX	2TX	3TX
802.11a	V (ANT2)	V (ANT1& ANT2)	V (ANT1 & ANT2 & ANT3)
802.11n(20MHz)	V (ANT2)	V (ANT1& ANT2)	V (ANT1 & ANT2 & ANT3)
802.11n(40MHz)	V (ANT2)	V (ANT1& ANT2)	V (ANT1 & ANT2 & ANT3)

TEST RESULTS

EUT:	Wireless LAN Access Point	Model Name :	AP7110DN-AGN
Temperature:	25 ℃	Relative Humidity:	58 %
Pressure:	1012 hPa	Test Voltage :	AC 120V/60Hz
Test Mode :	Band 4/TX - For 3TX 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
5.74	**3.7497**	**24.47**	**279.8981**	**0.20890574**	**1**	**Complies**
5.74	3.7497	24.26	266.6859	0.19904459	1	Complies
5.74	3.7497	24.34	271.6439	0.20274510	1	Complies