Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: VW3FAST4320US

Project No. : **1211C023**
Equipment : **Wireless xDSL Bonding Router**
Model : **F@ST 4320 US**
Applicant : **SAGEMCOM BROADBAND SAS**
Address : **250 Route de l'Empereur - 92848 RUEIL MALMAISON CEDEX- FRANCE**
According: : **FCC Guidelines for Human Exposure IEEE C95.1**

Tested by:
Neutron Engineering Inc. EMC Laboratory
Date of Receipt: Nov. 05, 2012
Date of Test:
Nov. 05, 2012 ~ Nov. 30, 2012

Testing Engineer : David Mao
(David Mao)

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(Leo Hung)

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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

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain (dBi)
1	Airgain	N2430GNS	Embedded Antenna	N/A	5
2	Airgain	N2430GNS	Embedded Antenna	N/A	5

This EUT supports MIMO 2T2R, All transmit signals are completely uncorrelated, then $\text{Directional gain} = 10\log[(10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10})/N]$ dBi , that is Directional gain=5;

TEST RESULTS

EUT：	Wireless xDSL Bonding Router	Model Name ：	F@ST 4320 US
Temperature：	24 ℃	Relative Humidity：	60 %
Pressure：	1012 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	18.34	68.2339	0.04294873	1	Complies
5	3.1623	17.75	59.5662	0.03749302	1	Complies
5	3.1623	17.56	57.0164	0.03588809	1	Complies

EUT：	Wireless xDSL Bonding Router	Model Name ：	F@ST 4320 US
Temperature：	24 ℃	Relative Humidity：	60 %
Pressure：	1012 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
5	3.1623	20.76	119.1242	0.07498085	1	Complies
5	3.1623	20.39	109.3956	0.06885736	1	Complies
5	3.1623	20.96	124.7384	0.07851459	1	Complies

EUT：	Wireless xDSL Bonding Router	Model Name ：	F@ST 4320 US
Temperature：	24 ℃	Relative Humidity：	60 %
Pressure：	1012 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX N20MHz MODE CH01/CH06/CH11-ANT1+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	20.82	120.7814	0.07602394	1	Complies
5	3.1623	21.07	127.9381	0.08052864	1	Complies
5	3.1623	20.85	121.6186	0.07655091	1	Complies

EUT：	Wireless xDSL Bonding Router	Model Name ：	F@ST 4320 US
Temperature：	24 ℃	Relative Humidity：	60 %
Pressure：	1012 hPa	Test Voltage ：	AC 120V/60Hz
Test Mode ：	TX N40MHz MODE CH03/CH06/CH09-ANT1+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	18.63	72.9458	0.04591455	1	Complies
5	3.1623	18.43	69.6627	0.04384806	1	Complies
5	3.1623	18.31	67.7642	0.04265308	1	Complies