Neutron Engineering Inc.

FCC RF EXPOSURE REPORT

FCC ID: T58WF2533B

Project No.	**: 1404C226**
Equipment	**: 300Mbps Wireless N High Power Router**
Model Name	**: NW739;WF2533**
Applicant	**: NETIS SYSTEMS CO., LTD**
Address	**: 4F&5F R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China**
Manufacturer	**: NETIS SYSTEMS CO., LTD**
Address	**: 4F&5F R&D Building , Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China.**
According:	**: FCC Guidelines for Human Exposure IEEE C92.76**

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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

Group 1: Non-detachable antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain(dBi)	Note
1	RF link	WLAN05132	Dipole	N/A	5.17	TX
2	RF link	WLAN05133	Dipole	N/A	5.17	TX
3	RF link	WLAN05134	Dipole	N/A	5.17	RX

Group 2: Detachable antenna

Ant.	Manufacturer	Model Name	Antenna Type	Connector	Gain(dBi)	Note
1	RF link	WLAN05132	Dipole	R-SMA	5.17	TX
2	RF link	WLAN05133	Dipole	R-SMA	5.17	TX
3	RF link	WLAN05134	Dipole	R-SMA	5.17	RX

Note:
(1) The Group 1 antenna is non-detachable and Group 2 is detachable, Group 2 is recorded as the worst case.
(2) The EUT incorporates a MIMO function. Physically, the EUT provides two completed twotransmitters and one receiver (2T1R)

Operating Mode / TX Mode	1TX	2TX
802.11b	V (ANT 1 or ANT 2)	-
802.11g	V (ANT 1 or ANT 2)	-
802.11n(20MHz)	-	V (ANT 1 + ANT 2)
802.11n(40MHz)	-	V (ANT 1 + ANT 2)

TEST RESULTS

EUT:	300Mbps Wireless N High Power Router	Model Name :	MF2533
Temperature:	25 ℃	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
5.17	3.2885	17.7	58.8844	0.03854343	1	Complies
5.17	3.2885	17.9	61.6595	0.04035993	1	Complies
5.17	3.2885	18.1	64.5654	0.04226203	1	Complies

EUT:	300Mbps Wireless N High Power Router	Model Name :	MF2533
Temperature:	25 ℃	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
5.17	3.2885	22.9	194.9845	0.12762929	1	Complies
5.17	3.2885	23	199.5262	0.13060216	1	Complies
5.17	3.2885	23	199.5262	0.13060216	1	Complies

EUT:	300Mbps Wireless N High Power Router	Model Name :	MF2533
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX N-20M MODE_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
5.17	3.2885	22.47	176.6038	0.11559801	1	Complies
5.17	3.2885	22.51	178.2379	0.11666763	1	Complies
5.17	3.2885	22.66	184.5015	0.12076758	1	Complies

EUT:	300Mbps Wireless N High Power Router	Model Name :	MF2533
Temperature:	25 ℃	Relative Humidity:	55 %
Test Voltage:	AC 120V/60Hz		
Test Mode :	TX N-40M MODE_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
5.17	3.2885	23.17	207.4914	0.13581582	1	Complies
5.17	3.2885	23.16	207.0141	0.13550346	1	Complies
5.17	3.2885	23.31	214.2891	0.14026534	1	Complies

Note: The calculated distance is 20cm