

FCC RF EXPOSURE REPORT

FCC ID: T58N2R

Project No. : 1907T039
Equipment : AC1200 Wireless Daul Band Gigabit Router
Test Model : N2
Series Model : N2U
Applicant : NETIS SYSTEMS CO., LTD
Address : Floor 8, Building B, TongFang Information Harbor,
No.11 Langshan Road, Nanshan District, Shenzhen,
China.

According : FCC Part 2, Subpart J (2.1093)
KDB 447498 D01 General RF Exposure Guidance v06
IEEE Std C95.1-2005

Authorized Signatory

:



(Herbert Liu)

B T L I N C .

No.18, Ln. 171, Sec. 2, Jiuzong Rd.,
Neihu Dist., Taipei City 114, Taiwan
TEL:+886-2-2657-3299 FAX: +886-2-2657-3331

MPE CALCULATION METHOD:

**Table 4: RF Field Strength Limits for Devices Used by the General Public
(Uncontrolled Environment)**

Frequency Range (MHz)	Electric Field (V/m rms)	Magnetic Field (A/m rms)	Power Density (W/m ²)	Reference Period (minutes)
0.003-10 ²¹	83	90	-	Instantaneous*
0.1-10	-	0.73/ f	-	6**
1.1-10	87/ $f^{0.5}$	-	-	6**
10-20	27.46	0.0728	2	6
20-48	58.07/ $f^{0.25}$	0.1540/ $f^{0.25}$	8.944/ $f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	3.142 $f^{0.3417}$	0.008335 $f^{0.3417}$	0.02619 $f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	616000/ $f^{1.2}$
150000-300000	0.158 $f^{0.5}$	4.21 x 10 ⁻⁴ $f^{0.5}$	6.67 x 10 ⁻⁵ f	616000/ $f^{1.2}$

Note: f is frequency in MHz.
 *Based on nerve stimulation (NS).
 ** Based on specific absorption rate (SAR).

Table for Filed Antenna:

For WLAN

Ant.	Brand	Model	Type	Connector	Gain (dBi)
1	RF link	RF21C04434A	Dipole	IPEX	5.01
2	RF link	RF21C04435A	Dipole	IPEX	5.32

For RLAN

UNII-1:

Ant.	Brand	Model	Type	Connector	Gain (dBi)
1	RF link	RF21C04436A	Dipole	IPEX	5.32
2	RF link	RF21C04437A	Dipole	IPEX	5.32

UNII-3:

Ant.	Brand	Model	Type	Connector	Gain (dBi)
1	RF link	RF21C04436A	Dipole	IPEX	5.32
2	RF link	RF21C04437A	Dipole	IPEX	5.32

NOTE:

- (a) The EUT incorporates a MIMO function. Physically, the EUT provides two completed transmitters and receivers (2T2R). 2.4 GHz and 5GHz can't transmit simultaneously.

Test Result

For WLAN 2.4 GHz:

Frequency (MHz)	Average Power (dBm)	Average Power (W)	Antenna Gain (dBi)	Distance (cm)	Power Density (W/m ²)	Power Density Limit(W/m ²)
2412-2462	29.33	0.8569	5.32	20	0.5804	1

For RLAN 5 GHz:

Frequency (MHz)	Average Power (dBm)	Average Power (W)	Antenna Gain (dBi)	Distance (cm)	Power Density (W/m ²)	Power Density Limit(W/m ²)
5180-5240	20.31	0.1073	5.32	20	0.0727	1
5745-5825	17.04	0.0505	5.32	20	0.0343	1

NOTE:

1. WLAN 2.4GHz:
For $N_{ANT} = 2 < 5$,
Direction gain = $G_{ANT} + 0 = 5.32 + 0 = 5.32$ dBi
2. For RLAN 5GHz:
For $N_{ANT} = 2 < 5$,
Direction gain = $G_{ANT} + 0 = 5.32 + 0 = 5.32$ dBi.

Conclusion:

The formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

$$\text{WLAN 2.4 GHz} + \text{RLAN 5 GHz} = 0.5804 / 1 + 0.0727 / 1 = 0.6531$$

Therefore the maximum calculations of above situations are less than the "1" limit.

End of Test Report