IEEE C95.1

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47 C.F.R. Part 1, Subpart I, Section 1.1310
47 C.F.R. Part 2, Subpart J, Section 2.1091

RF EXPOSURE REPORT

For

300Mbps AV600 Wireless Powerline Adapter

Model: PL7622

Trade Name: netis

Issued for

NETIS SYSTEMS CO., LTD

4F & 5F, R&D Building, Oriental Cyberport, High-Tech Industrial Park, Nanshan, Shenzhen, China

Issued by

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Testing Laboratory
0240

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	01/12/2016	Initial Issue	All Page	Gloria Chang

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1. Limit

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this chapter.

2. EUT Specification

Product Name	300Mbps AV600 Wireless Powerline Adapter
Model Number	PL7622
Identify Number	T151006D04
Received Date	October 06, 2015
Frequency band (Operating)	IEEE 802.11b/g/gn HT20 Mode: 2412MHz ~ 2462MHz IEEE 802.11gn HT40 Mode: 2422MHz ~ 2452MHz
Device category	Mobile (>20cm separation)
Exposure classification	☐ Occupational/Controlled exposure (S = 5mW/cm^2) ☒ General Population/Uncontrolled exposure (S=1mW/cm^2)
Antenna Specification	WiFi (2.4GHz) Ant. 0 Antenna Gain：3.28 dBi (Numeric gain: 2.13) Ant. 1 Antenna Gain：3.28 dBi (Numeric gain: 2.13)
Maximum Peak output power	IEEE 802.11b Mode: 12.67 dBm (18.493 mW) IEEE 802.11g Mode: 25.12 dBm (325.087 mW) IEEE 802.11gn HT 20 Mode 27.58 dBm (572.796 mW) IEEE 802.11gn HT 40 Mode 27.14 dBm (517.607 mW)
Evaluation applied	MPE Evaluation*

Remark:

1. *For more details, please refer to the User's manual of the EUT.*
2. *This submittal(s) (test report) is intended for FCC ID: T58PL7622R filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.*

3. Test Results

No non-compliance noted.

Calculation

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in watts / meter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ ***Equation 1***

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

4. Maximum Permissible Exposure

Substituting the MPE safe distance using d = 20 cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

IEEE 802.11b mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
2437	18.493	2.13	20	0.0078	1

IEEE 802.11g mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
2437	325.087	2.13	20	0.1378	1

IEEE 802.11gn HT20 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
2437	572.796	2.13	20	0.2428	1

IEEE 802.11gn HT40 mode:

Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm2)
2437	517.607	2.13	20	0.2194	1