


# FCC RF EXPOSURE REPORT

## FCC ID: T58DL4480V1R

**Project No.** : 1711145  
**Equipment** : SuperVector VDSL2 AC1200 Dual Band Gigabit IAD  
**Test Model** : DL4480V1  
**Series Model** : N/A  
**Applicant** : NETIS SYSTEMS CO., LTD  
**Address** : Building 6, Baolong Plant, Able Technology Park, No.2 of Baolong 4th Road, Baolong Steet, Baolong Community, Longgang District, Shenzhen, China

**According:** : FCC Guidelines for Human Exposure IEEE C95.1

Authorized Signatory :

  
(Herbert Liu)

# **B T L I N C .**

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



## 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

Table for Filed Antenna

### 2.4G WLAN:

Ant.	Brand	Test Model	Antenna Type	Connector	Gain (dBi)
1		RFECA3216060A3T	Chip	N/A	2
2		RFECA3216060A3T	Chip	N/A	2

### 5G RLAN:

Ant.	Brand	Test Model	Antenna Type	Connector	Gain (dBi)
1		RFECA3216060K1T	Chip	N/A	2.8
2		RFECA3216060K1T	Chip	N/A	2.8

Operating Mode / TX Mode	2TX
802.11b	V (ANT 1+ANT 2)
802.11g	V (ANT 1+ANT 2)
802.11n (20MHz)	V (ANT 1+ANT 2)
802.11n (40MHz)	V (ANT 1+ANT 2)
IEEE 802.11a	V (ANT 1+ANT 2)
IEEE 802.11n (20 MHz)	V (ANT 1+ANT 2)
IEEE 802.11n (40 MHz)	V (ANT 1+ANT 2)
IEEE 802.11ac (80 MHz)	V (ANT 1+ANT 2)

# TEST RESULTS

## 2.4G:

Test Mode : TX B Mode Total / CH01, CH06, CH11

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2412	2.00	1.5849	19.59	90.9913	0.02870453	1	Complies
2437	2.00	1.5849	21.27	133.9677	0.04226203	1	Complies
2462	2.00	1.5849	21.96	157.0363	0.04953936	1	Complies

Test Mode : TX G Mode Total / CH01, CH06, CH11

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2412	2.00	1.5849	27.56	570.1643	0.17986654	1	Complies
2437	2.00	1.5849	27.60	575.4399	0.18153082	1	Complies
2462	2.00	1.5849	27.48	559.7576	0.17658360	1	Complies

Test Mode : TX N-20M Mode Total / CH01, CH06, CH11

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2412	2.00	1.5849	27.29	535.7967	0.16902478	1	Complies
2437	2.00	1.5849	27.28	534.5644	0.16863603	1	Complies
2462	2.00	1.5849	26.95	495.4502	0.15629690	1	Complies

Test Mode : TX N-40M Mode / CH03, CH06, CH09

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
2422	2.00	1.5849	27.58	572.7960	0.18069676	1	Complies
2437	2.00	1.5849	27.68	586.1382	0.18490573	1	Complies
2452	2.00	1.5849	26.95	495.4502	0.15629690	1	Complies

**5G:**

Test Mode : UNII-1/TX A Mode Total /CH36, CH40, CH48

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5180	2.80	1.9055	19.62	91.6220	0.03474964	1	Complies
5200	2.80	1.9055	19.49	88.9201	0.03372488	1	Complies
5240	2.80	1.9055	20.11	102.5652	0.03890007	1	Complies

Test Mode : UNII-1/TX N20 Mode Total /CH36, CH40, CH48

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5180	2.80	1.9055	19.68	92.8966	0.03523306	1	Complies
5200	2.80	1.9055	19.53	89.7429	0.03403693	1	Complies
5240	2.80	1.9055	19.76	94.6237	0.03588809	1	Complies

Test Mode : UNII-1/TX N40 Mode / CH38, CH46

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5190	2.80	1.9055	18.39	69.0240	0.02617884	1	Complies
5230	2.80	1.9055	20.02	100.4616	0.03810223	1	Complies

Test Mode : UNII-1/TX AC80 Mode Total / CH42

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5210	2.80	1.9055	19.31	85.3100	0.03235567	1	Complies

Test Mode : UNII-3/TX A Mode Total / CH149, CH157, CH161

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5745	2.80	1.9055	18.94	78.3430	0.02971326	1	Complies
5785	2.80	1.9055	18.52	71.1214	0.02697431	1	Complies
5805	2.80	1.9055	15.94	39.2645	0.01489191	1	Complies

Test Mode : UNII-3/TX N20 Mode Total / CH149, CH157, CH161

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5745	2.80	1.9055	19.91	97.9490	0.03714928	1	Complies
5785	2.80	1.9055	19.34	85.9014	0.03257995	1	Complies
5805	2.80	1.9055	19.34	85.9014	0.03257995	1	Complies

Test Mode : UNII-3/TX N40 Mode / CH151, CH159

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5755	2.80	1.9055	19.36	86.2979	0.03273033	1	Complies
5795	2.80	1.9055	19.83	96.1612	0.03647123	1	Complies

Test Mode : UNII-3/TX AC80 Mode Total / CH155

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	AVG. Output Power (dBm)	AVG. Output Power (mW)	Power Density (S) (mW/cm <sup>2</sup> )	Limit of Power Density (S) (mW/cm <sup>2</sup> )	Test Result
5775	2.80	1.9055	18.77	75.3356	0.02857264	1	Complies

Note:

(1) The calculated distance is 20 cm.

### COLLOCATED POWER DENSITY CALCULATIONS

So for 2.4G+5G simultaneous transmission:  $0.18490573/1+0.03890007/1=0.22380580<1$