FCC RADIO TEST REPORT
FCC ID:HHOYC007

Product： 2.4G/Wireless N USB Adapter

Trade Name： JCG

Model Name： JHL-N132R

Serial Model： N/A

Report No.： NTEK- 2013NT0225204F

Prepared for

Shenzhen Yichen Technoloy Development Co.,Ltd.

5F, NO.1, Honghualing 2nd Industrial Zone, Xili Town,Nanshan District,Shenzhen,Guangdong, China

Prepared by

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TEST RESULT CERTIFICATION

Applicant's name	:	Shenzhen Yichen Technoloy Development Co.,Ltd.
Address	:	5F, NO.1, Honghualing 2nd Industrial Zone, Xili Town,Nanshan District,Shenzhen,Guangdong, China
Manufacture's Name	:	Shenzhen Yichen Technoloy Development Co.,Ltd.
Address	:	5F, NO.1, Honghualing 2nd Industrial Zone, Xili Town,Nanshan District,Shenzhen,Guangdong, China

Product description

Product name	:	2.4G/Wireless N USB Adapter
Model and/or type reference	:	JHL-N132R
Serial Model	:	N/A
Standards	:	FCC Part15.247
Test procedure		ANSI C63.4-2003

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test	:	
Date (s) of performance of tests	:	25 Feb. 2013 ~21 Mar. 2013
Date of Issue	:	21 Mar. 2013
Test Result	:	**Pass**

Testing Engineer : Apple Huang

(Apple Huang)

Technical Manager : Tom Zhang

(Tom Zhang)

Authorized Signatory : Bovey Yang

(Bovey Yang)

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1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (a)(2)	6dB Bandwidth	PASS	
15.247 (b)	Peak Output Power	PASS	
15.247 (c)	Radiated Spurious Emission	PASS	
15.247 (d)	Power Spectral Density	PASS	
15.205	Band Edge Emission	PASS	
15.203	Antenna Requirement	PASS	

NOTE:

(1)” N/A” denotes test is not applicable in this Test Report

1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd
Add.:1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China.
FCC Registration No.:238937; IC Registration No.:9270A-1
CNAS Registration No.:L5516

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement **y** ± **U**，where expended uncertainty **U** is based on a standard uncertainty multiplied by a coverage factor of **k=2**，providing a level of confidence of approximately **95** %。

No.	Item	Uncertainty
1	Conducted Emission Test	±1.38dB
2	RF power,conducted	±0.16dB
3	Spurious emissions,conducted	±0.21dB
4	All emissions,radiated(<1G)	±4.68dB
5	All emissions,radiated(>1G)	±4.89dB
6	Temperature	±0.5°C
7	Humidity	±2%

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

<table>
<tr><td>Equipment</td><td>2.4G/Wireless N USB Adapter</td></tr>
<tr><td>Trade Name</td><td>JCG</td></tr>
<tr><td>Model Name</td><td>JHL-N132R</td></tr>
<tr><td>Serial Model</td><td>N/A</td></tr>
<tr><td>Model Difference</td><td>N/A</td></tr>
<tr><td>Product Description</td><td>The EUT is a 2.4G/Wireless N USB Adapter
<table>
<tr><td>Operation Frequency:</td><td>802.11b/g/n:2412~2462 MHz</td></tr>
<tr><td>Modulation Type:</td><td>CCK/OFDM/DBPSK/DAPSK</td></tr>
<tr><td>Bit Rate of Transmitter</td><td>802.11b:11/5.5/2/1 Mbps
802.11g:54/48/36/24/18/12/9/6 Mbps
802.11n: 72.2/52/6.5 Mbps</td></tr>
<tr><td>Number Of Channel</td><td>802.11b/g/n20: 11CH</td></tr>
<tr><td>Antenna Designation:</td><td>Please see Note 3.</td></tr>
<tr><td>Output Power(AV):</td><td>802.11b: 12.42 dBm (Max.)
802.11g: 10.47 dBm (Max.)
802.11n: 9.73 dBm (Max.)</td></tr>
<tr><td>Antenna Gain (dBi)</td><td>3.0dbi</td></tr>
</table>
Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.</td></tr>
<tr><td>Channel List</td><td>Please refer to the Note 2.</td></tr>
<tr><td>Ratings</td><td>DC 5V</td></tr>
<tr><td>Adapter</td><td>N/A</td></tr>
<tr><td>Battery</td><td>N/A</td></tr>
<tr><td>Connecting I/O Port(s)</td><td>Please refer to the User's Manual</td></tr>
</table>

Note:

1. For a more detailed features description, please refer to the manufacturer’s specifications or the User's Manual.

2.

Channel List for 802.11b/g/n(20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

3.

Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
A	N/A	N/A	Reserve SMA-type	SMA-type	3.0	N/A

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n CH1/ CH6/ CH11
Mode 4	Link Mode

For Conducted Emission	
Final Test Mode	Description
Mode 4	Link Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11b CH1/ CH6/ CH11
Mode 2	802.11g CH1/ CH6/ CH11
Mode 3	802.11n CH1/ CH6/ CH11

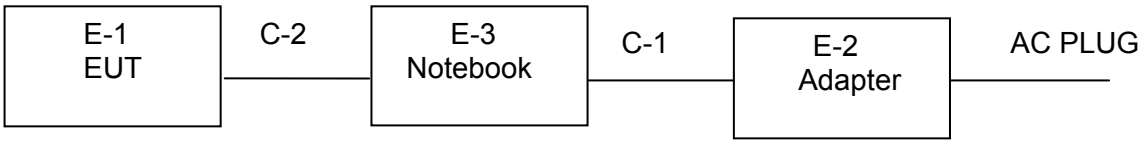
Note:

(1) The measurements are performed at the highest, middle, lowest available channels.

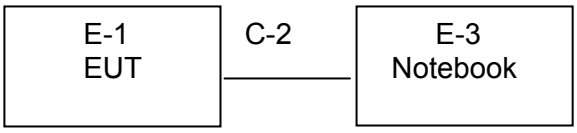
(2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted Emission Test



Radiated Spurious Emission Test



2.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	2.4G/Wireless N USB Adapter r	JCG	JHL-N132R	N/A	EUT
E-2	Adapter	IBM	08K8202	N/A	
E-3	NOTEBOOK	IBM	2366	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	YES	1.2M	
C-2	YES	NO	0.8M	

Note:

(1) The support equipment was authorized by Declaration of Confirmation.
(2) For detachable type I/O cable should be specified the length in cm in『Length』column.

2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2012.07.06	2013.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2012.06.07	2013.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2012.07.06	2013.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2012.06.07	2013.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2012.06.07	2013.06.06	1 year
6	Horn Antenna	EM	EM-AH-10180	2011071402	2012.07.06	2013.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2012.07.06	2013.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2012.12.22	2013.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2012.06.08	2013.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2012.07.06	2013.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.05	2012.07.06	2013.07.05	1 year

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2012.06.06	2013.06.05	1 year
2	LISN	R&S	ENV216	101313	2012.08.24	2013.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2012.08.24	2013.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2012.06.07	2013.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2012.06.07	2013.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2012.06.08	2013.06.07	1 year

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)		Standard
	Quasi-peak	Average	Quasi-peak	Average	
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

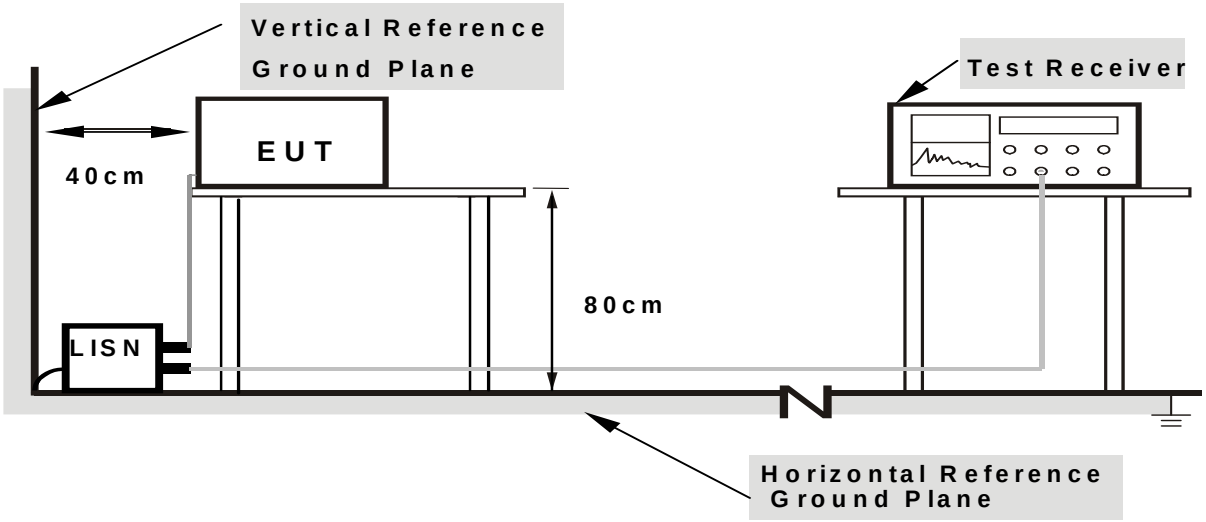
3.1.2 TEST PROCEDURE

a. The EUT was placed 0.4 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
d. LISN at least 80 cm from nearest part of EUT chassis.
e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 DEVIATION FROM TEST STANDARD

No deviation

3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

3.1.5 EUT OPERATING CONDITIONS

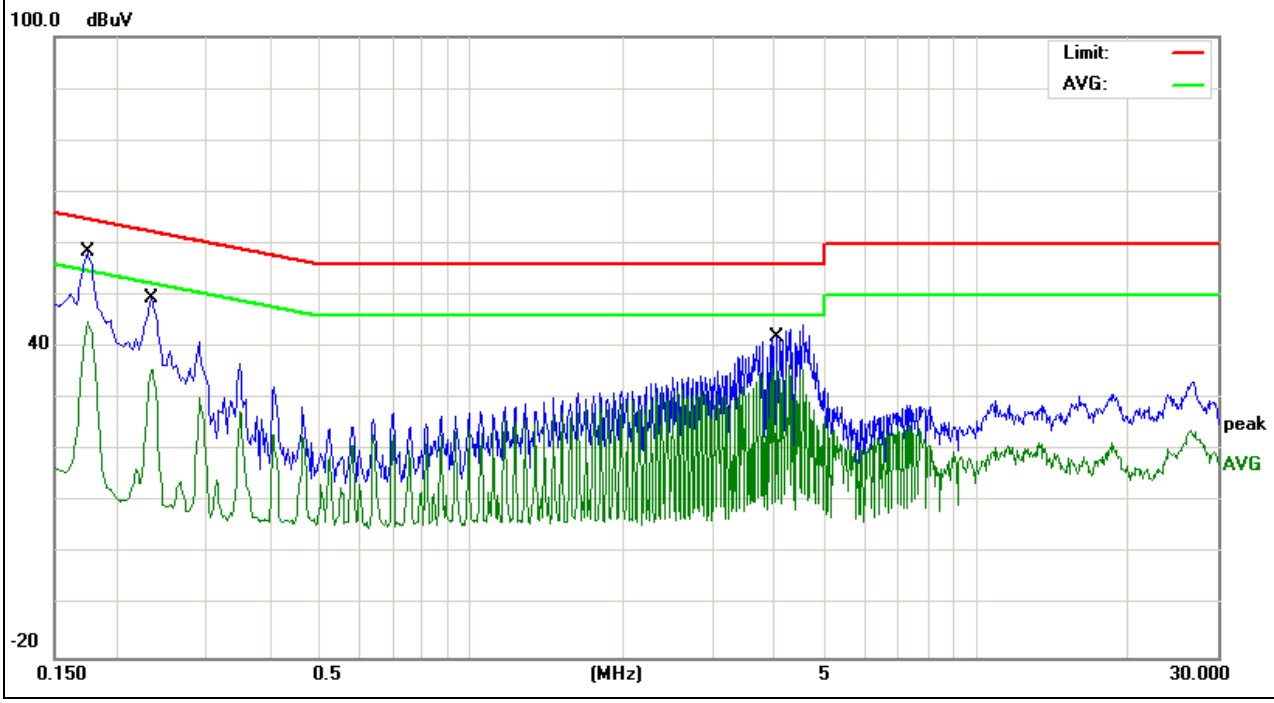
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.6 TEST RESULTS

EUT：	2.4G/Wireless N USB Adapter	Model Name. ：	JHL-N132R
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	L
Test Voltage ：	DC 5V from notebook AC 120V/60Hz	Test Mode：	Mode 4

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.174	48.8	9.8	58.6	64.76	-6.16	QP
0.234	39.51	9.82	49.33	62.3	-12.97	QP
4.022	34.03	10.33	44.36	56	-11.64	QP
4.022	26.46	10.33	36.79	46	-9.21	AVG
0.174	35.29	9.8	45.09	54.76	-9.67	AVG
0.234	25.85	9.82	35.67	52.3	-16.63	AVG

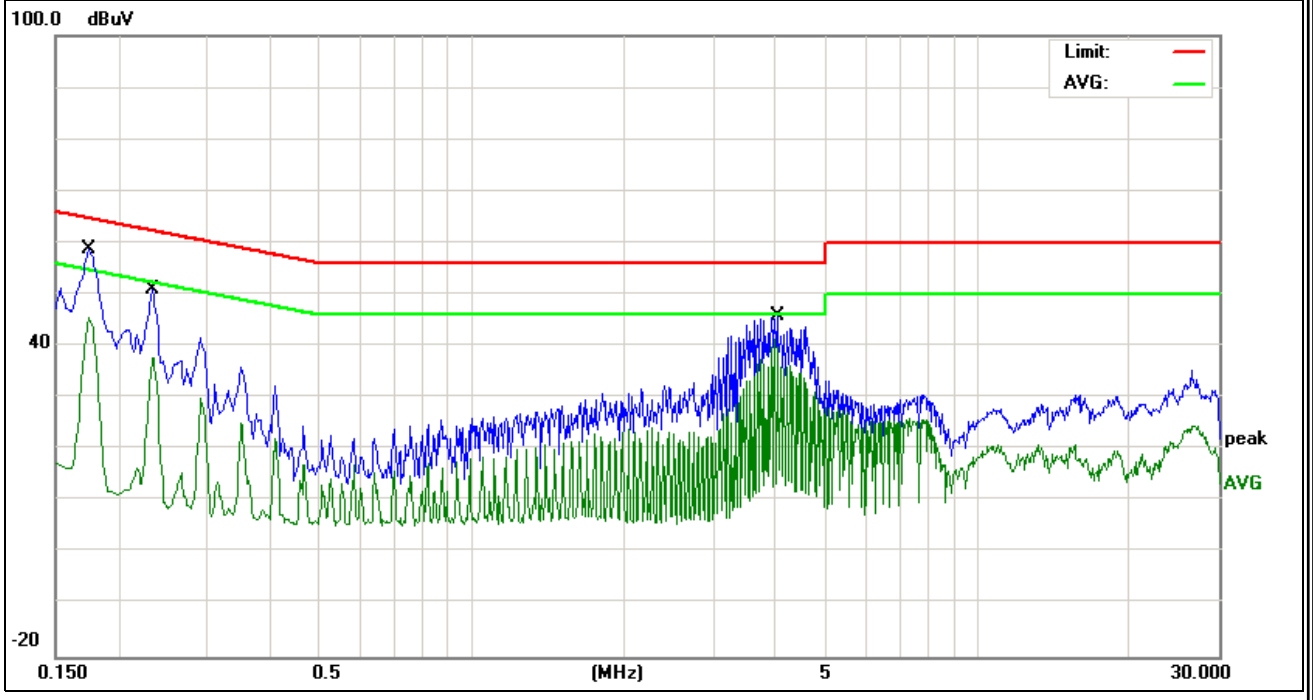
Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



EUT：	2.4G/Wireless N USB Adapter	Model Name. ：	JHL-N132R
Temperature：	26 ℃	Relative Humidity：	54%
Pressure：	1010hPa	Phase：	N
Test Voltage ：	DC 5V from notebook AC 120V/60Hz	Test Mode：	Mode 4

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV)	(dBμV)	(dB)	
0.174	48.85	10	58.85	64.76	-5.91	QP
0.234	40.65	10.2	50.85	62.3	-11.45	QP
4.026	35.57	10.31	45.88	56	-10.12	QP
0.174	35.67	10	45.67	54.76	-9.09	AVG
0.234	27.63	10.2	37.83	52.3	-14.47	AVG
4.026	31.09	10.31	41.4	46	-4.6	AVG

Remark:
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBuV/m) (at 3M)		Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

Notes:

(1) The limit for radiated test was performed according to FCC PART 15C.

(2) The tighter limit applies at the band edges.

(3) Emission level (dBuV/m)=20log Emission level (uV/m).

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / *10Hz* for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

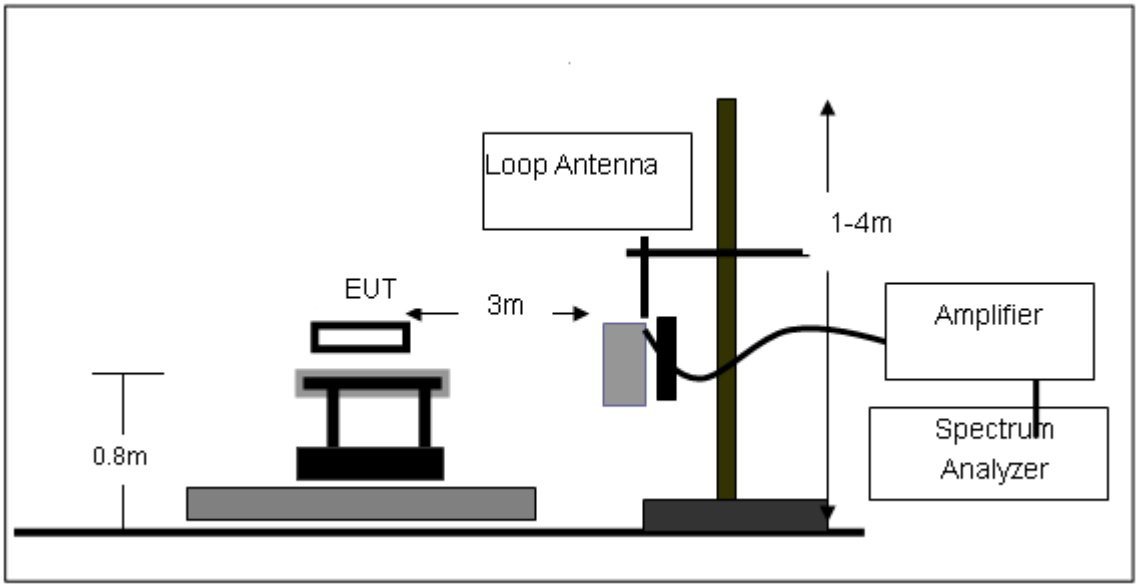
Both horizontal and vertical antenna polarities were tested
and performed pretest to three orthogonal axis. The worst case emissions were reported

3.2.3 DEVIATION FROM TEST STANDARD

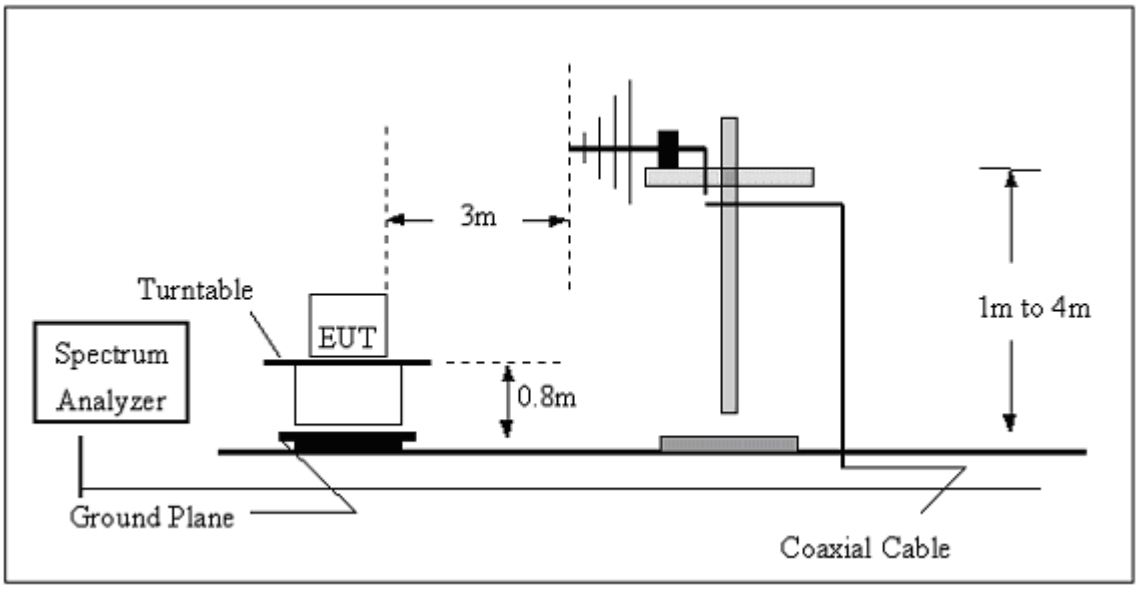
No deviation

3.2.4 TEST SETUP

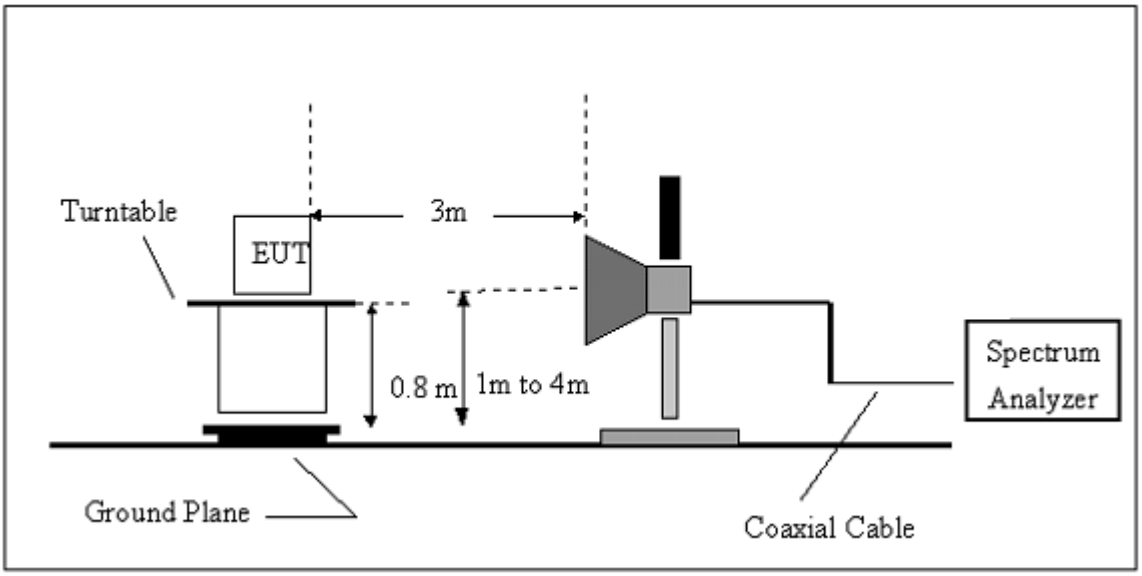
（A）Radiated Emission Test-Up Frequency Below 30MHz



（B）Radiated Emission Test-Up Frequency 30MHz~1GHz



（C）Radiated Emission Test-Up Frequency Above 1GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.6 TEST RESULTS (BETWEEN 9KHZ – 30 MHZ)

EUT：	2.4G/Wireless N USB Adapter	Model Name. ：	JHL-N132R
Temperature：	20 ℃	Relative Humidtity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX	Polarization :	--

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

NOTE:

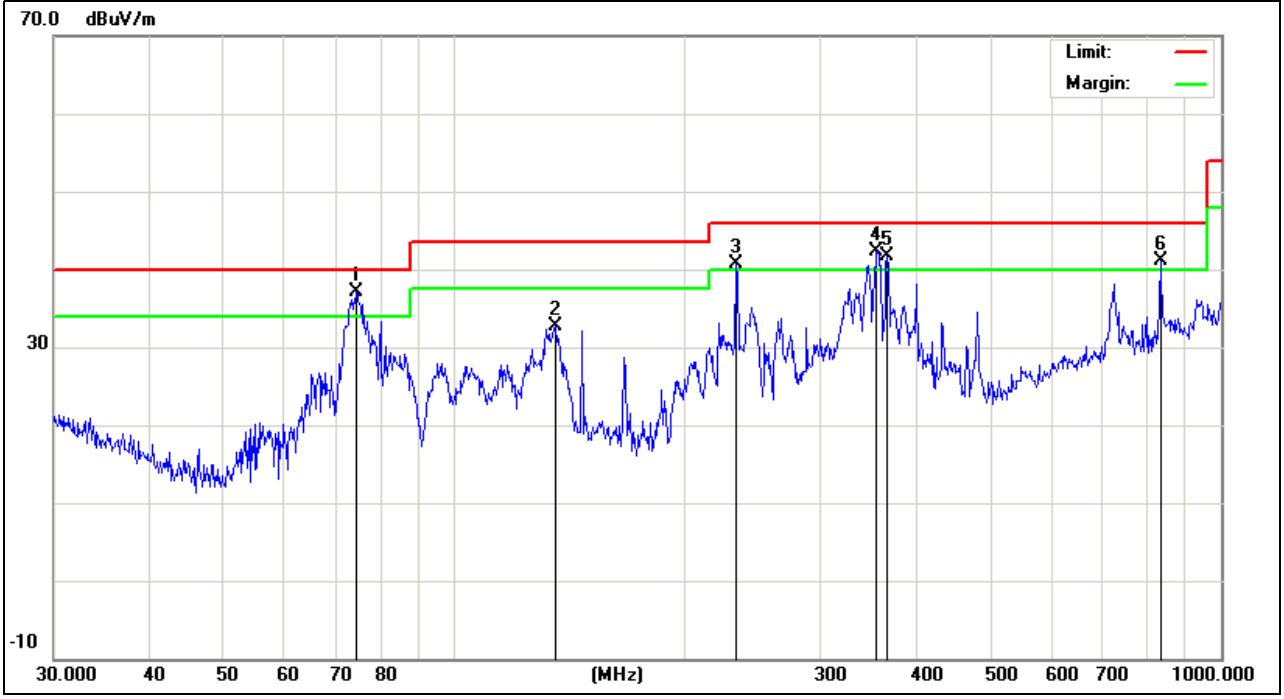
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.
Distance extrapolation factor =40 log (specific distance/test distance)(dB);
Limit line = specific limits(dBuv) + distance extrapolation factor.

3.2.7 TEST RESULTS (BETWEEN 30MHZ – 1GHZ)

EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12V from adapter AC 120V/60Hz
Test Mode ：	Link	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
74.3954	30.45	6.73	37.18	40	-2.82	QP
135.5062	20.51	12.24	32.75	43.5	-10.75	QP
233.3487	29.66	10.99	40.65	46	-5.35	QP
355.4273	25.86	16.41	42.27	46	-3.73	QP
366.8231	25.08	16.62	41.7	46	-4.3	QP
833.317	13.87	27.29	41.16	46	-4.84	QP

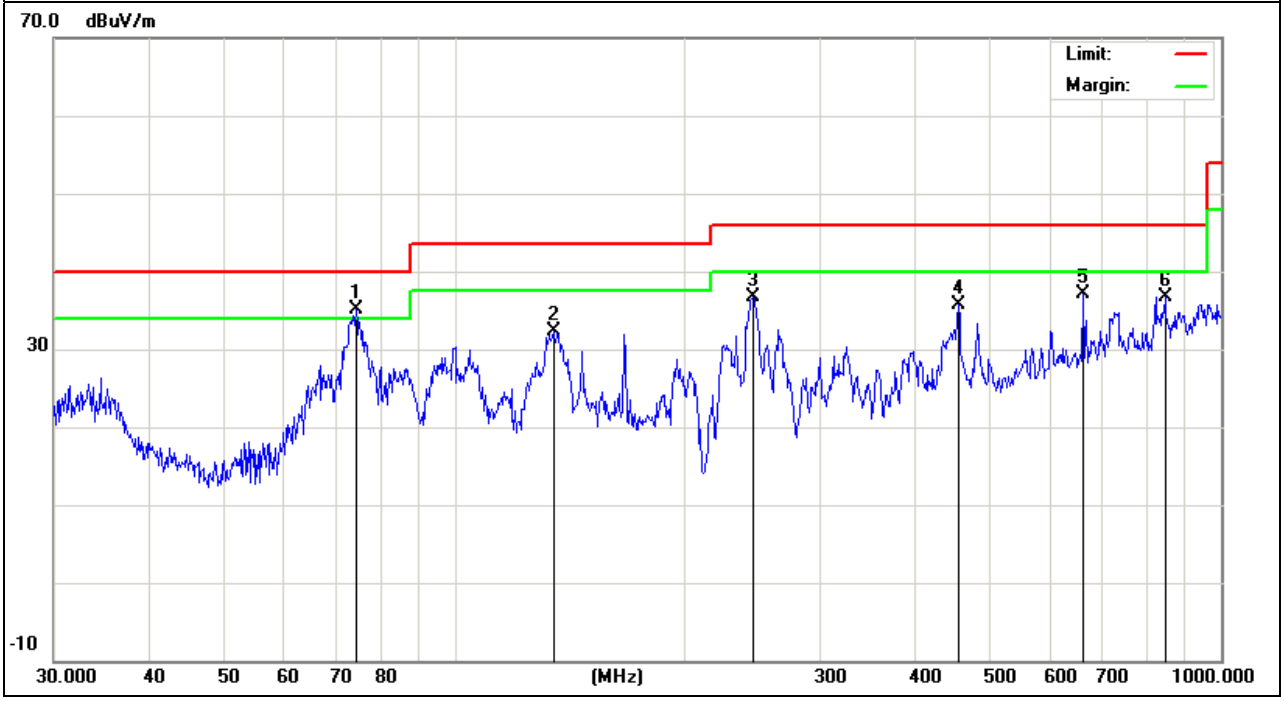
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 12V from adapter AC 120V/60Hz
Test Mode ：	Link	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
74.3954	28.41	6.73	35.14	40	-4.86	QP
134.5592	19.96	12.25	32.21	43.5	-11.29	QP
245.09	24.06	12.68	36.74	46	-9.26	QP
454.31	16.37	19.37	35.74	46	-10.26	QP
661.1503	13.48	23.67	37.15	46	-8.85	QP
845.0878	9.21	27.49	36.7	46	-9.3	QP

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

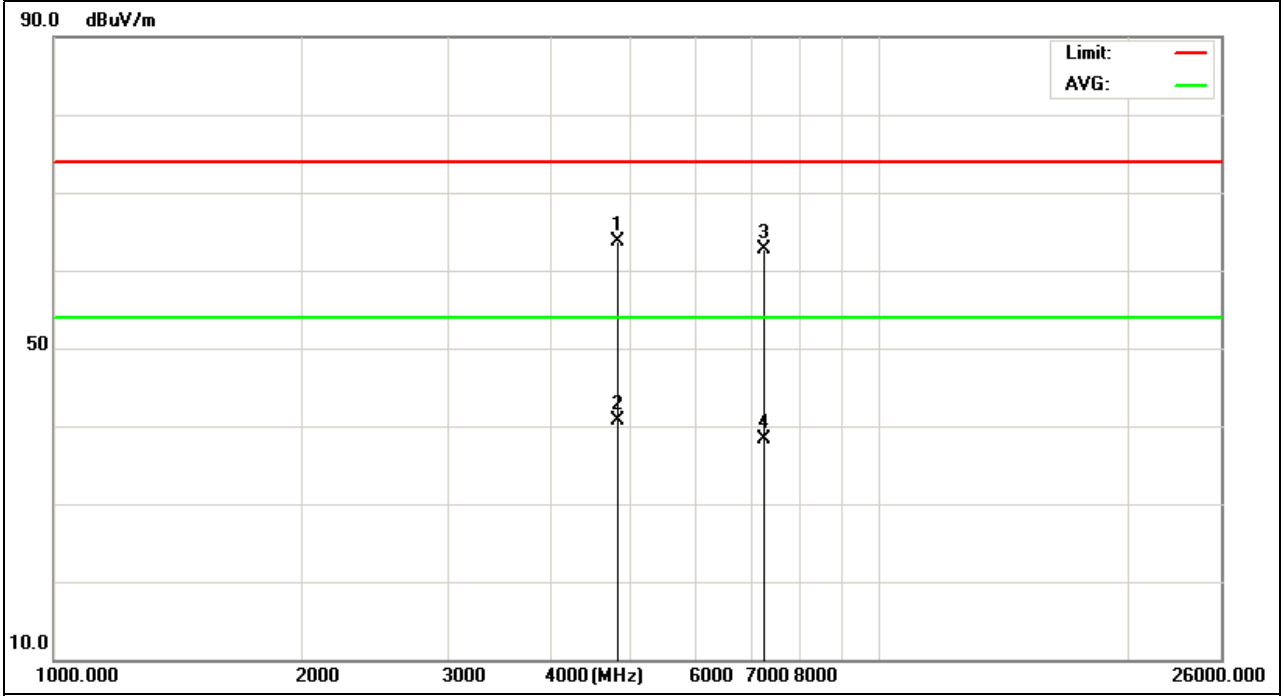


3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1 (802.11b Mode)/2412	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4823.909	53.33	10.44	63.77	74	-10.23	peak
4823.909	30.21	10.44	40.65	54	-13.35	AVG
7236.007	50.37	12.39	62.76	74	-11.24	peak
7236.007	25.96	12.39	38.35	54	-15.65	AVG

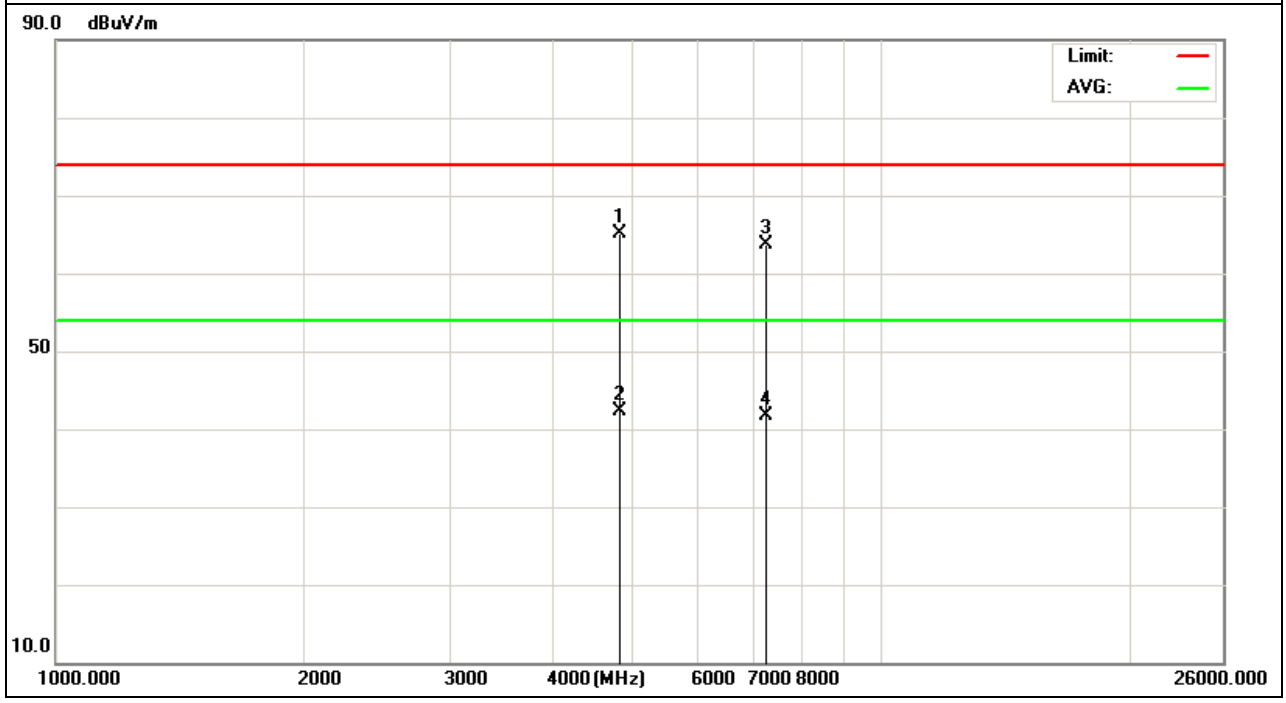
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1 (802.11b Mode)/2412	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4824.211	54.61	10.44	65.05	74	-8.95	peak
4824.211	31.91	10.44	42.35	54	-11.65	AVG
7237.192	51.26	12.39	63.65	74	-10.35	peak
7237.192	29.27	12.39	41.66	54	-12.34	AVG

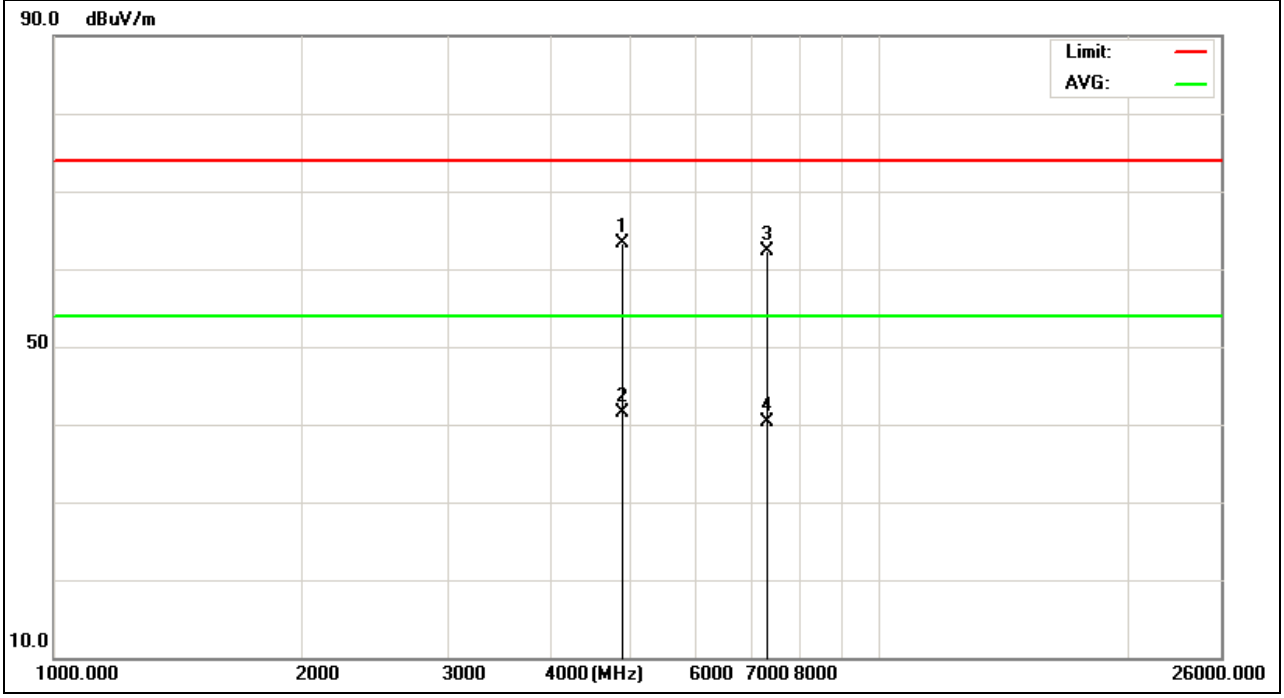
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH6 (802.11b Mode)/2437	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4875.221	52.84	10.39	63.23	74	-10.77	peak
4875.221	31.19	10.39	41.58	54	-12.42	AVG
7311.165	49.64	12.75	62.39	74	-11.61	peak
7311.165	27.62	12.75	40.37	54	-13.63	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.

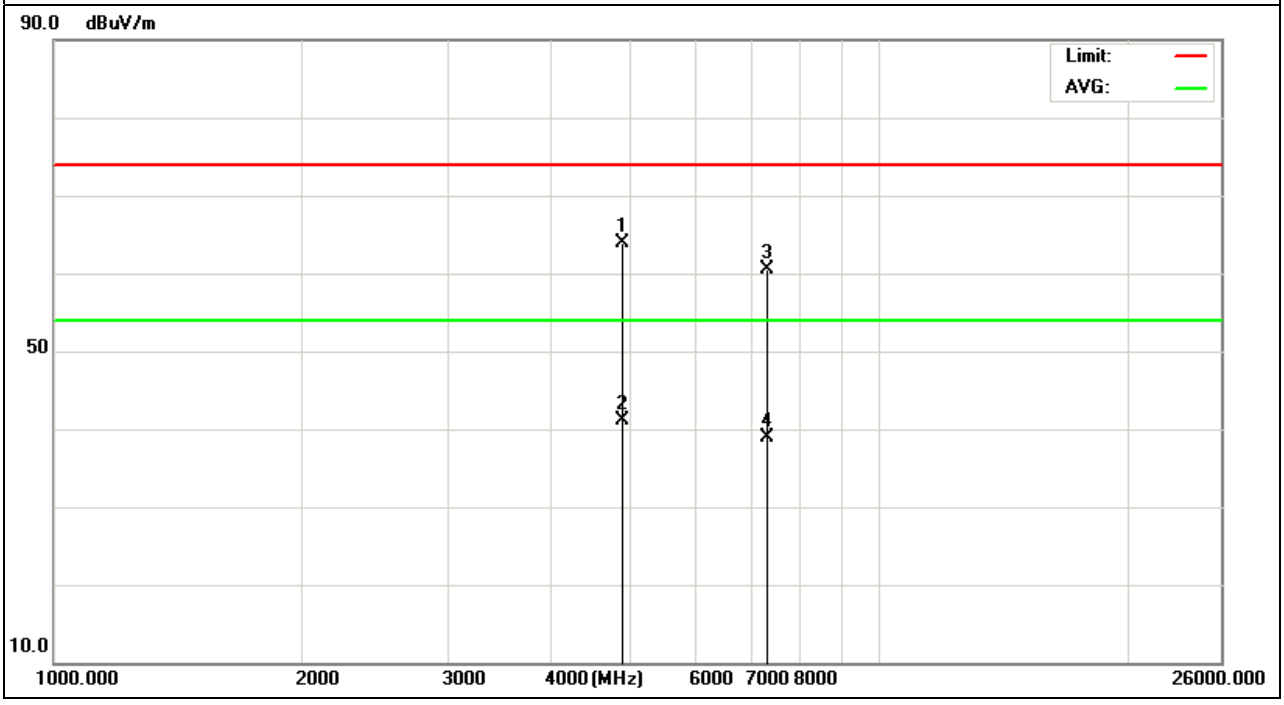


EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH6 (802.11b Mode)/2437	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4874.578	53.46	10.4	63.86	74	-10.14	peak
4874.578	30.75	10.4	41.15	54	-12.85	AVG
7312.164	47.66	12.75	60.41	74	-13.59	peak
7312.164	26.13	12.75	38.88	54	-15.12	AVG

Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. No emission detected above 18GHz

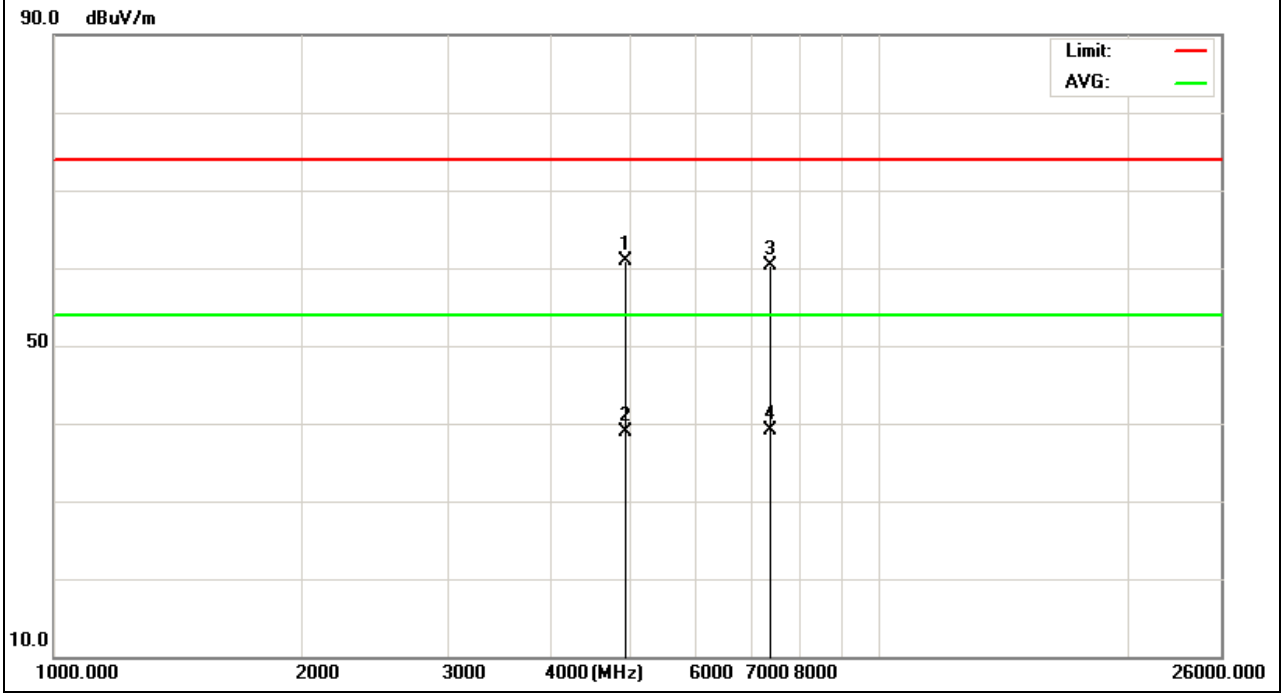


EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11 (802.11b Mode)/2462	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4925.916	50.56	10.4	60.96	74	-13.04	peak
4925.916	28.45	10.4	38.85	54	-15.15	AVG
7386.456	47.64	12.68	60.32	74	-13.68	peak
7386.456	26.49	12.68	39.17	54	-14.83	AVG

Remark:

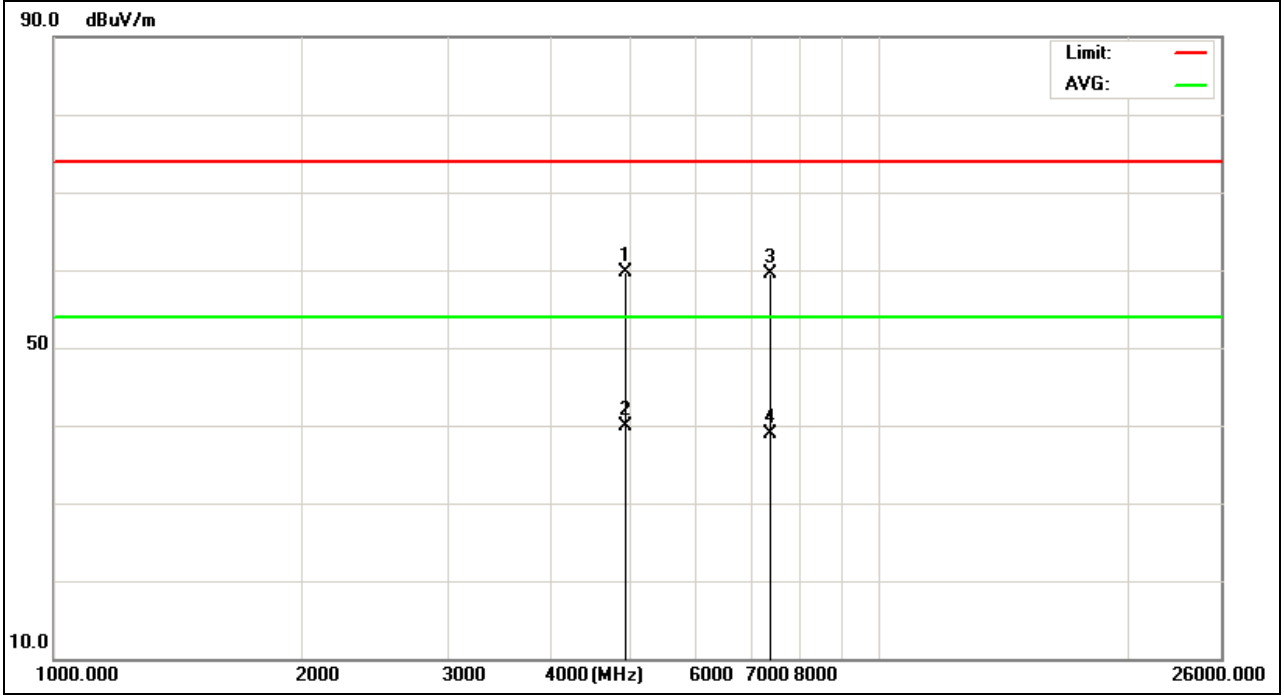
1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. No emission detected above 18GHz



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11 (802.11b Mode)/2462	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4923.671	49.26	10.39	59.65	74	-14.35	peak
4923.671	29.61	10.39	40	54	-14	AVG
7385.494	46.9	12.68	59.58	74	-14.42	peak
7385.494	26.31	12.68	38.99	54	-15.01	AVG

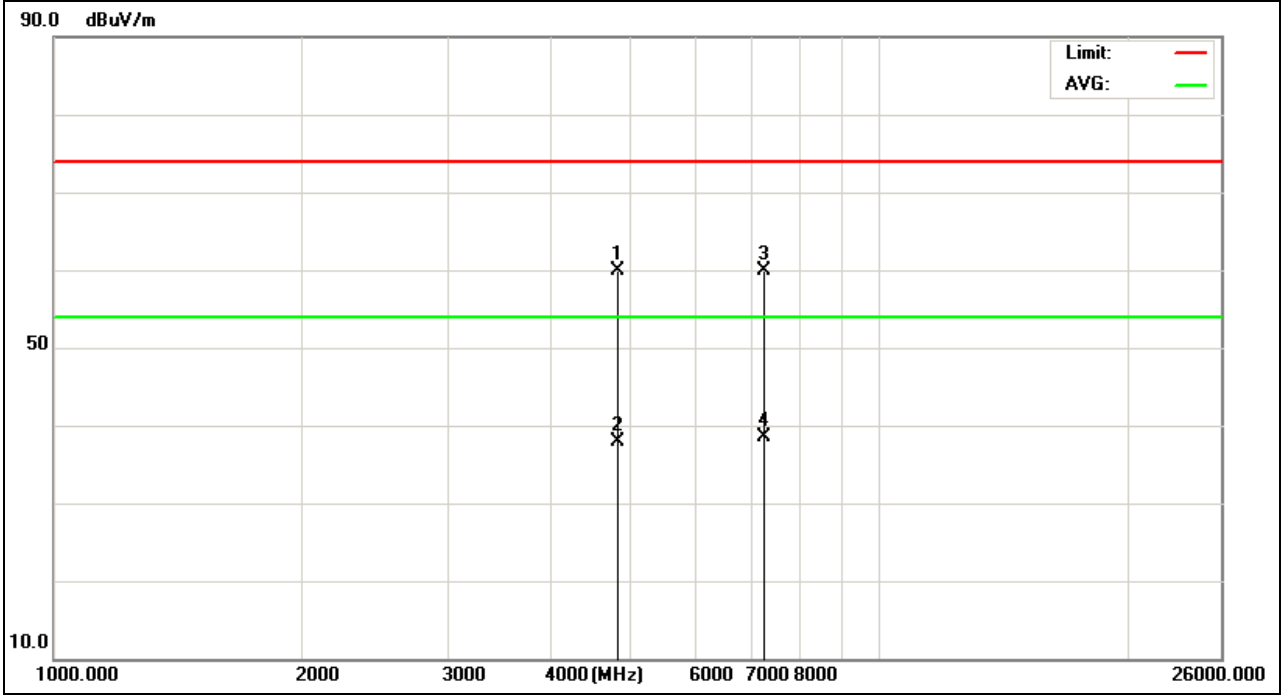
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1 (802.11g Mode)/2412	Polarization：	Horizontal

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4823.617	49.48	10.44	59.92	74	-14.08	peak
4823.617	27.54	10.44	37.98	54	-16.02	AVG
7236.313	47.47	12.39	59.86	74	-14.14	peak
7236.313	26.15	12.39	38.54	54	-15.46	AVG

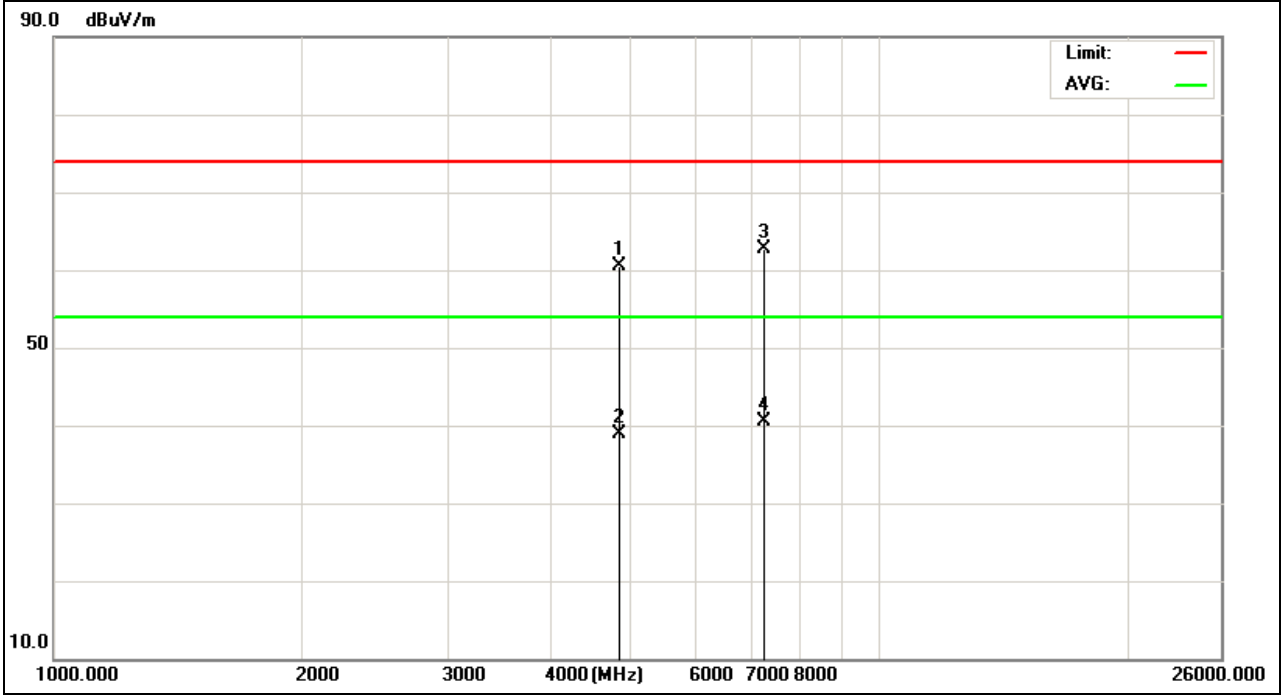
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1 (802.11g Mode)/2412	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4824.736	50.02	10.45	60.47	74	-13.53	peak
4825.367	28.46	10.46	38.92	54	-15.08	AVG
7235.942	50.23	12.39	62.62	74	-11.38	peak
7235.942	28.18	12.39	40.57	54	-13.43	AVG

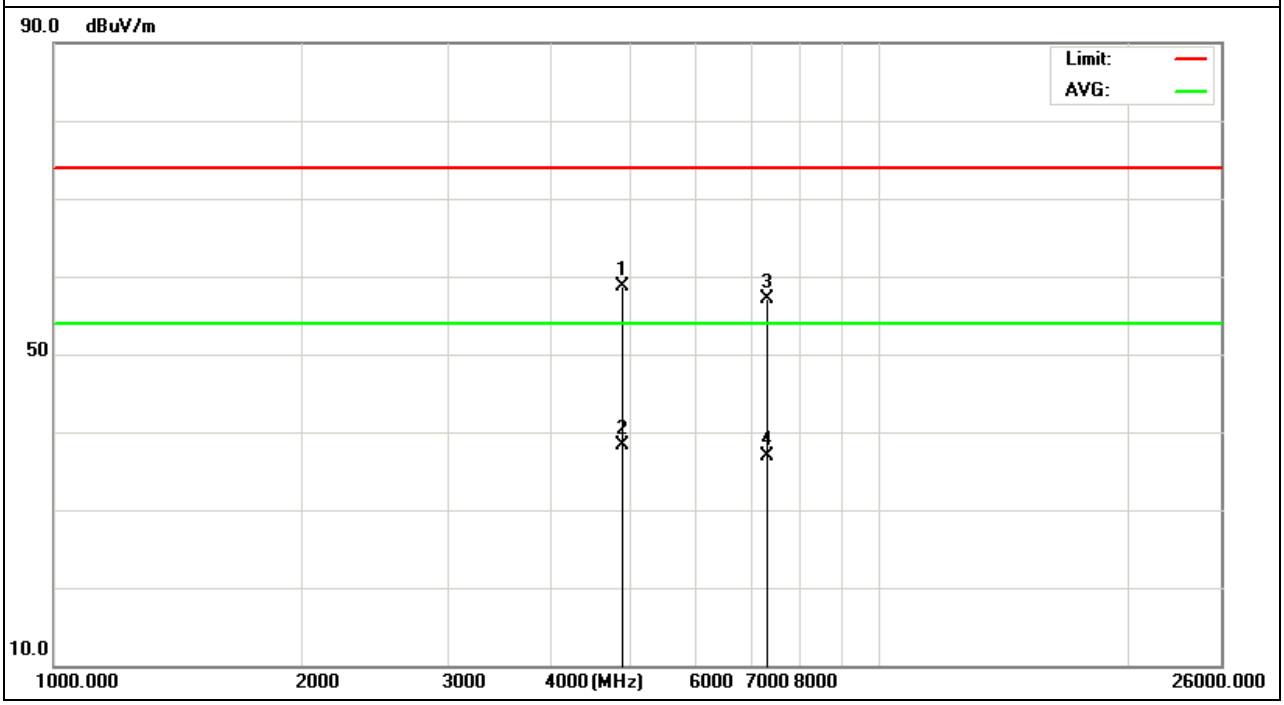
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH6 (802.11g Mode)/2437	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4875.149	48.32	10.39	58.71	74	-15.29	peak
4875.149	27.94	10.39	38.33	54	-15.67	AVG
7312.026	44.43	12.75	57.18	74	-16.82	peak
7312.026	24.11	12.75	36.86	54	-17.14	AVG

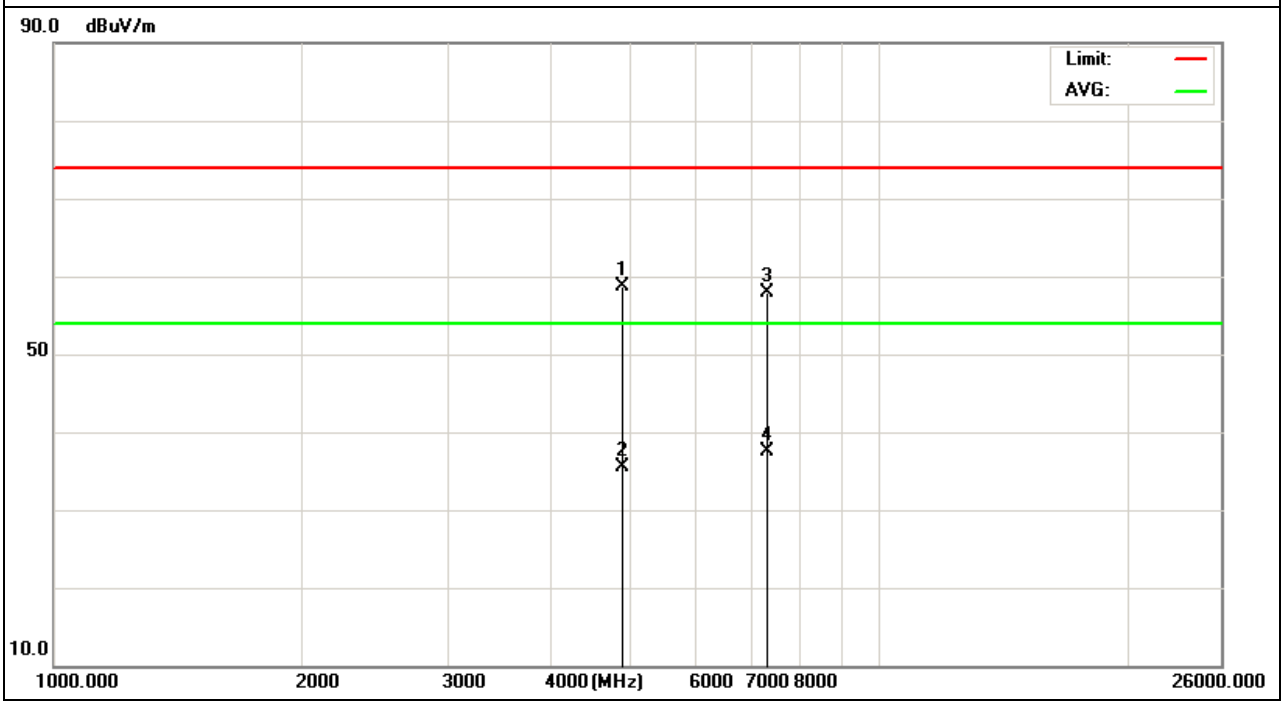
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH6 (802.11g Mode)/2437	Polarization :	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4874.031	48.26	10.4	58.66	74	-15.34	peak
4874.031	25.16	10.4	35.56	54	-18.44	AVG
7311.264	45.13	12.75	57.88	74	-16.12	peak
7311.264	24.79	12.75	37.54	54	-16.46	AVG

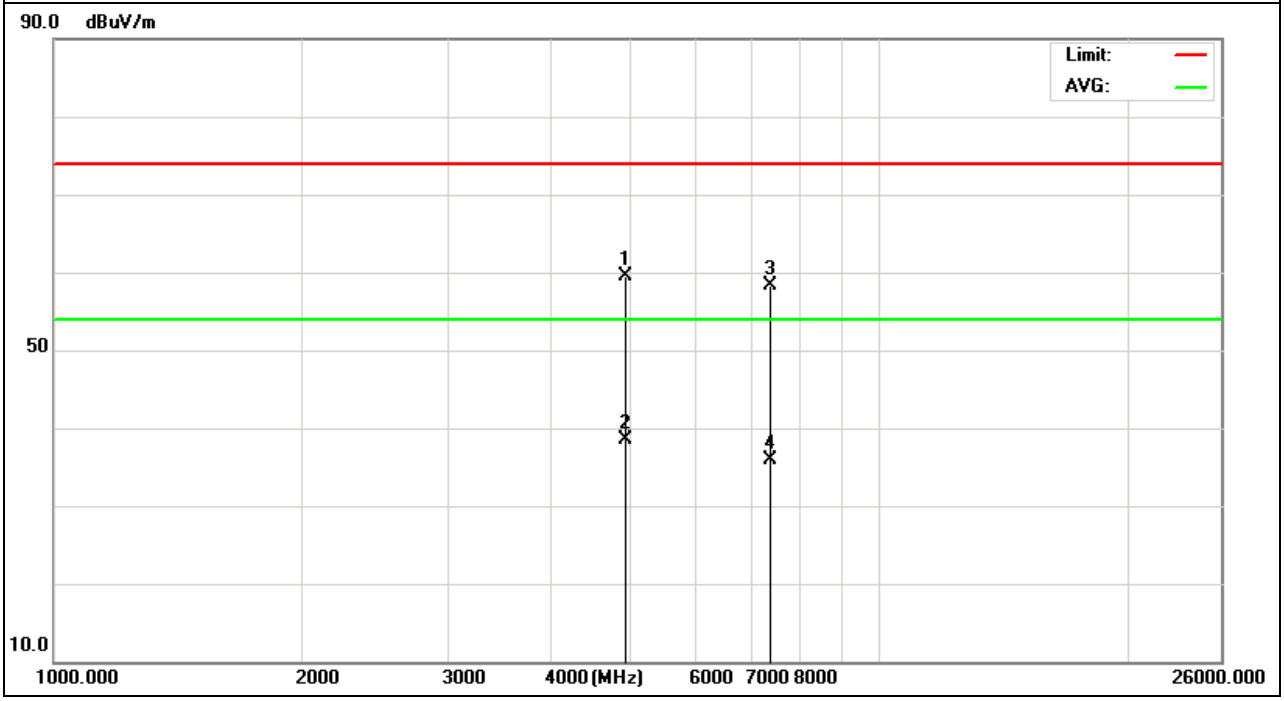
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11 (802.11g Mode)/2462	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924.682	49.03	10.39	59.42	74	-14.58	peak
4924.682	28.15	10.39	38.54	54	-15.46	AVG
7386.159	45.57	12.68	58.25	74	-15.75	peak
7386.159	23.3	12.68	35.98	54	-18.02	AVG

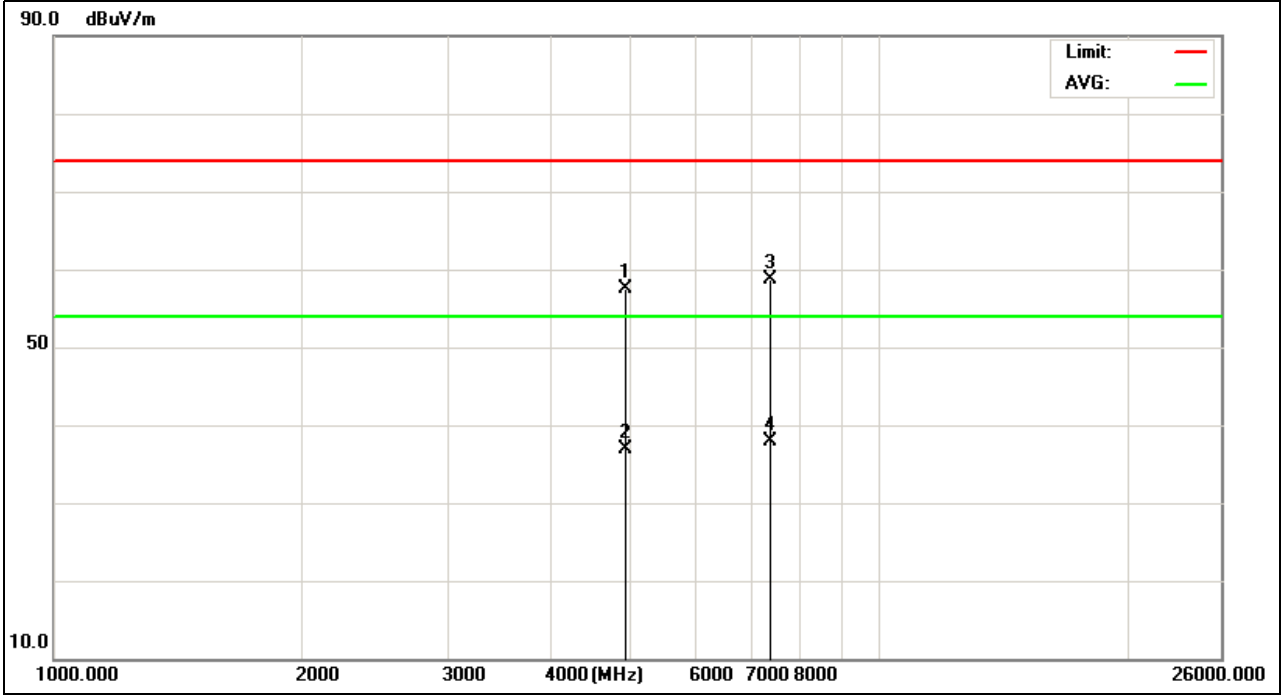
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11(802.11g Mode)/2462	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4925.027	47.01	10.4	57.41	74	-16.59	peak
4925.027	26.41	10.4	36.81	54	-17.19	AVG
7386.732	46.03	12.68	58.71	74	-15.29	peak
7386.732	25.27	12.68	37.95	54	-16.05	AVG

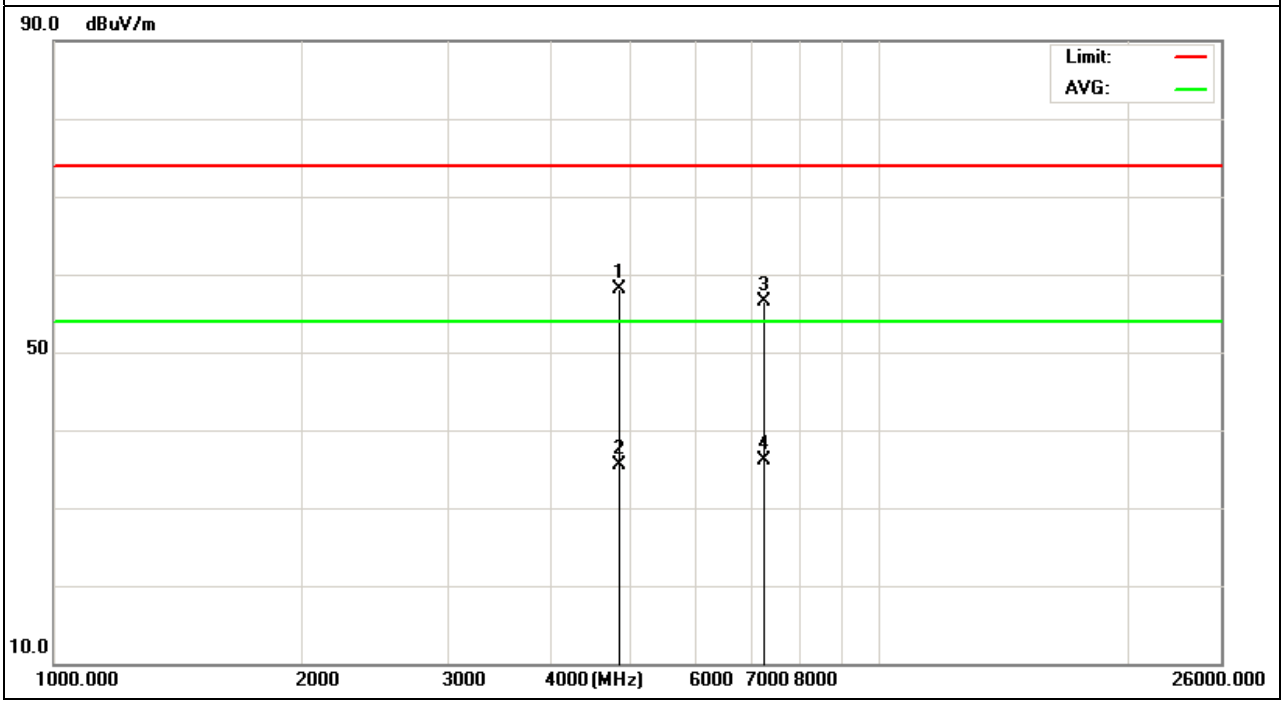
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1(802.11n Mode)	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4824.555	47.59	10.44	58.03	74	-15.97	peak
4824.555	24.99	10.44	35.43	54	-18.57	AVG
7236.858	44.17	12.39	56.56	74	-17.44	peak
7236.858	23.69	12.39	36.08	54	-17.92	AVG

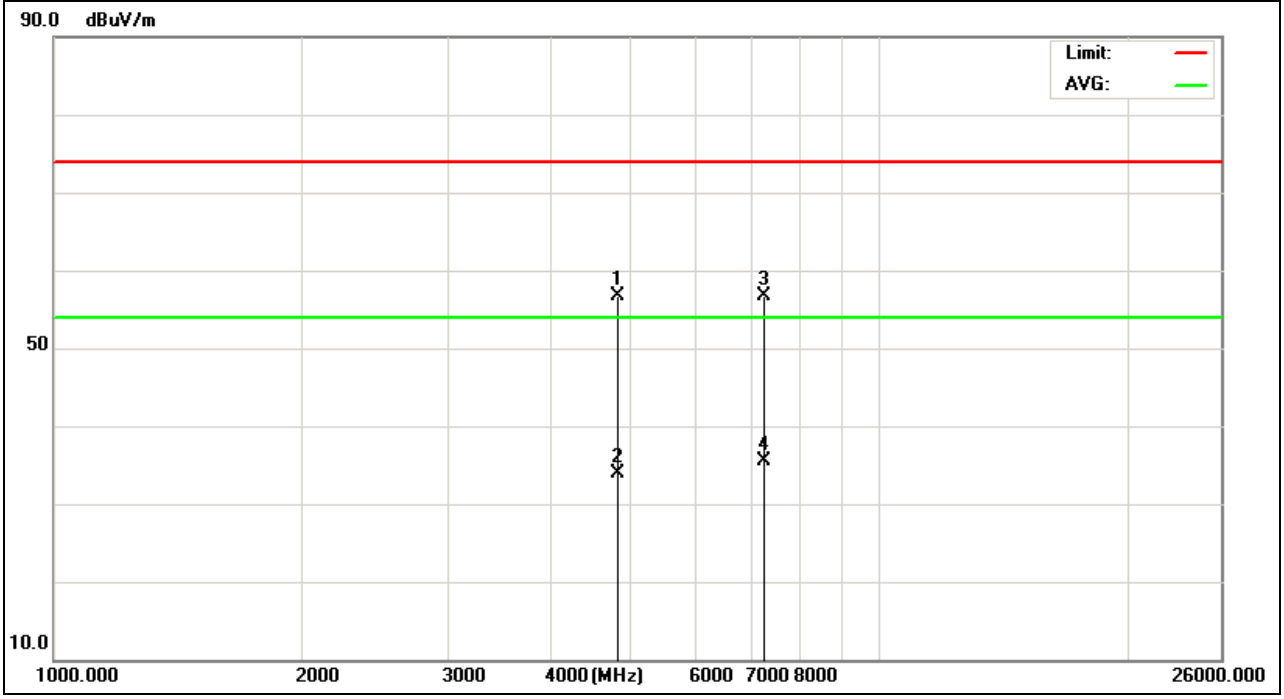
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1(802.11n Mode)	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4823.196	46.27	10.44	56.71	74	-17.29	peak
4823.196	23.4	10.44	33.84	54	-20.16	AVG
7236.651	44.26	12.39	56.65	74	-17.35	peak
7236.651	23.18	12.39	35.57	54	-18.43	AVG

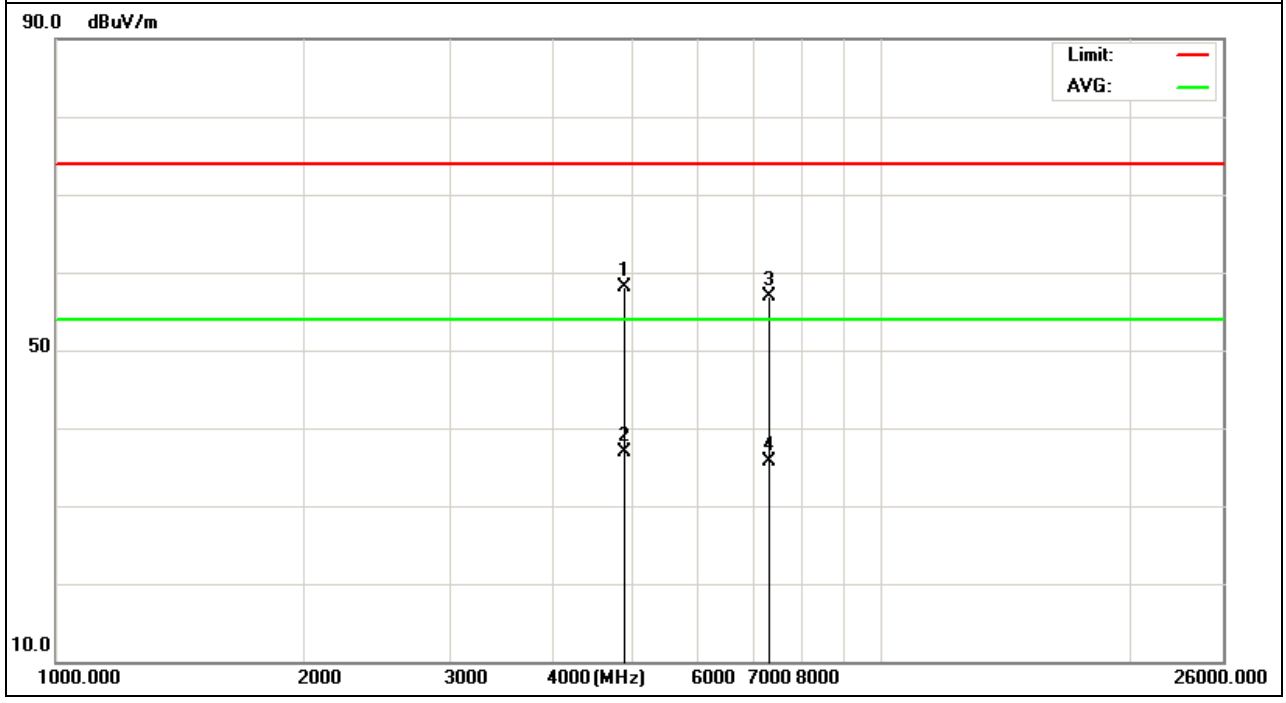
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH6(802.11n Mode)	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4874.353	47.65	10.4	58.05	74	-15.95	peak
4874.353	26.47	10.4	36.87	54	-17.13	AVG
7312.694	44.18	12.75	56.93	74	-17.07	peak
7312.694	22.97	12.75	35.72	54	-18.28	AVG

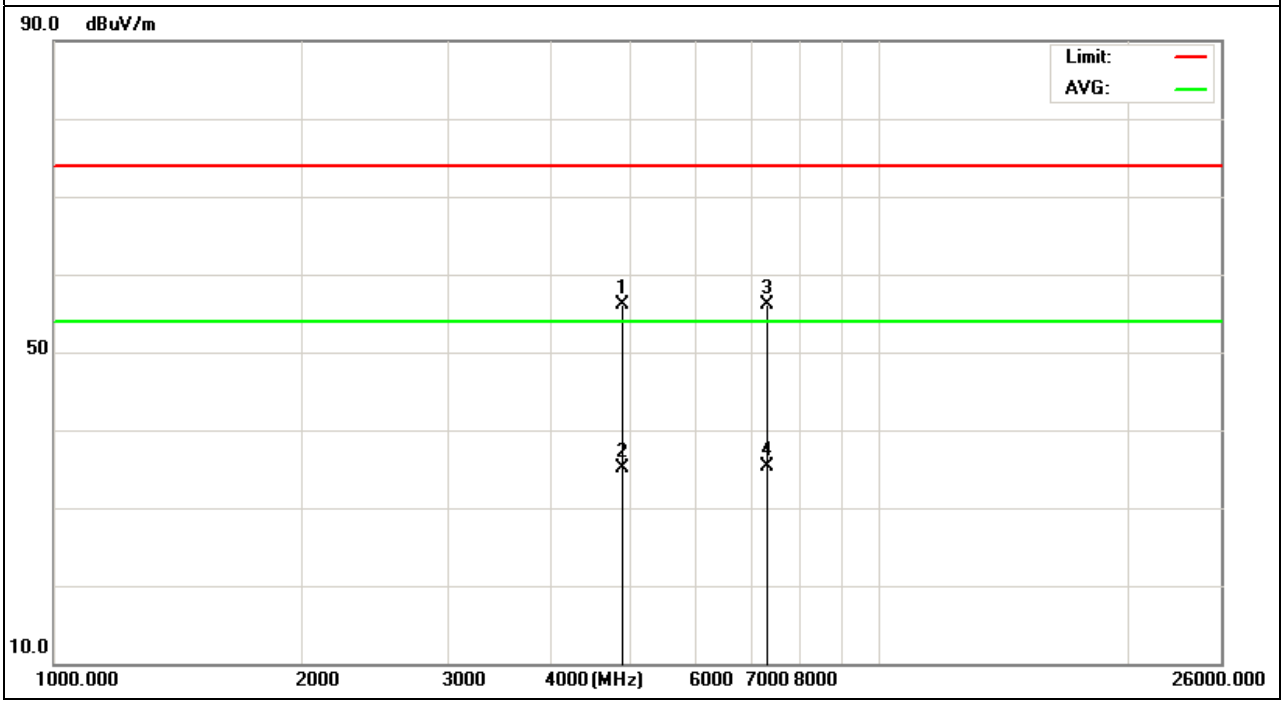
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH6(802.11n Mode)	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4873.249	45.61	10.41	56.02	74	-17.98	peak
4873.249	24.76	10.41	35.17	54	-18.83	AVG
7311.206	43.27	12.75	56.02	74	-17.98	peak
7311.206	22.61	12.75	35.36	54	-18.64	AVG

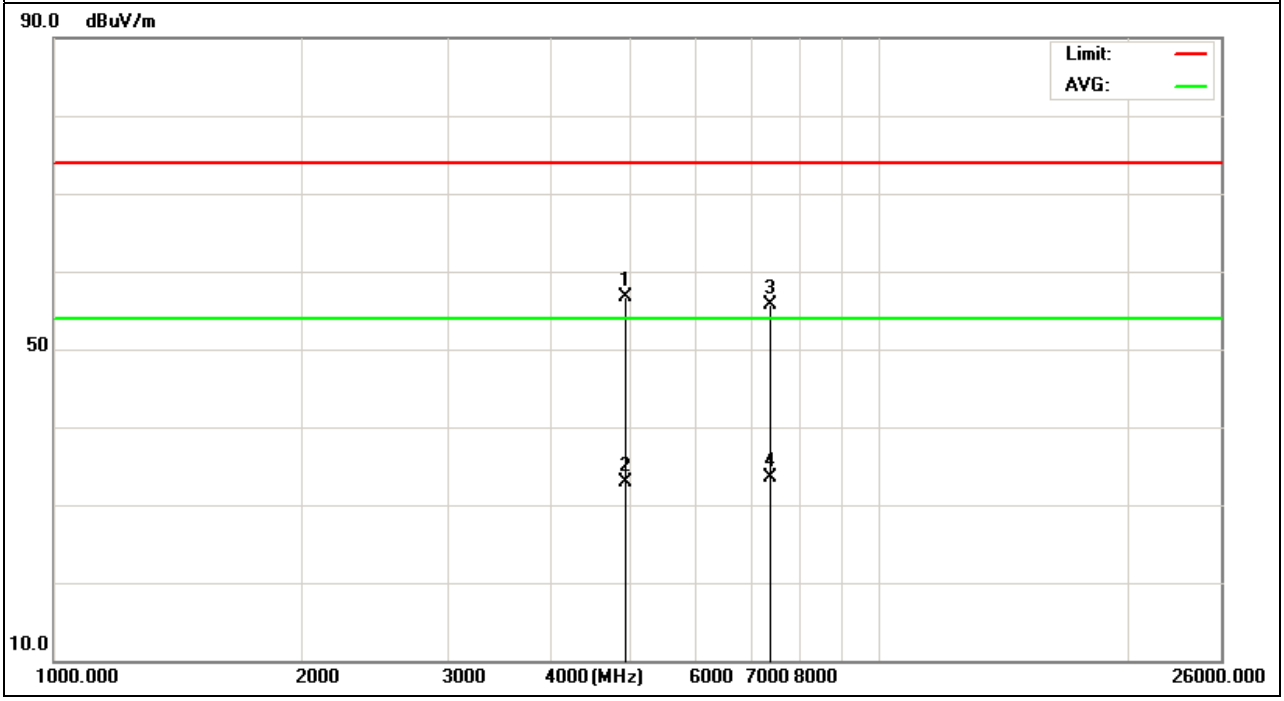
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11(802.11n Mode)	Polarization：	Horizontal

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4923.157	46.39	10.39	56.78	74	-17.22	peak
4923.157	22.48	10.39	32.87	54	-21.13	AVG
7386.543	42.97	12.68	55.65	74	-18.35	peak
7386.543	20.79	12.68	33.47	54	-20.53	AVG

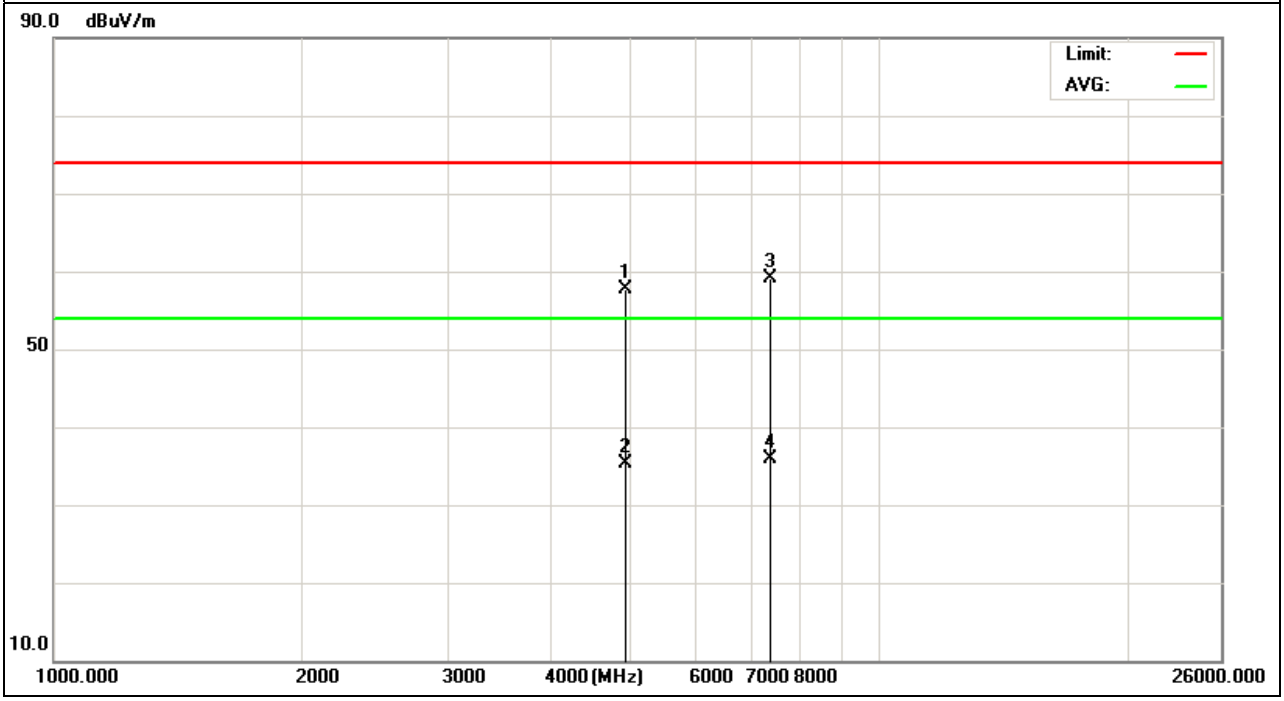
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11(802.11n Mode)	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
4924.467	47.26	10.39	57.65	74	-16.35	peak
4924.467	24.92	10.39	35.31	54	-18.69	AVG
7386.497	46.49	12.68	59.17	74	-14.83	peak
7386.497	23.24	12.68	35.92	54	-18.08	AVG

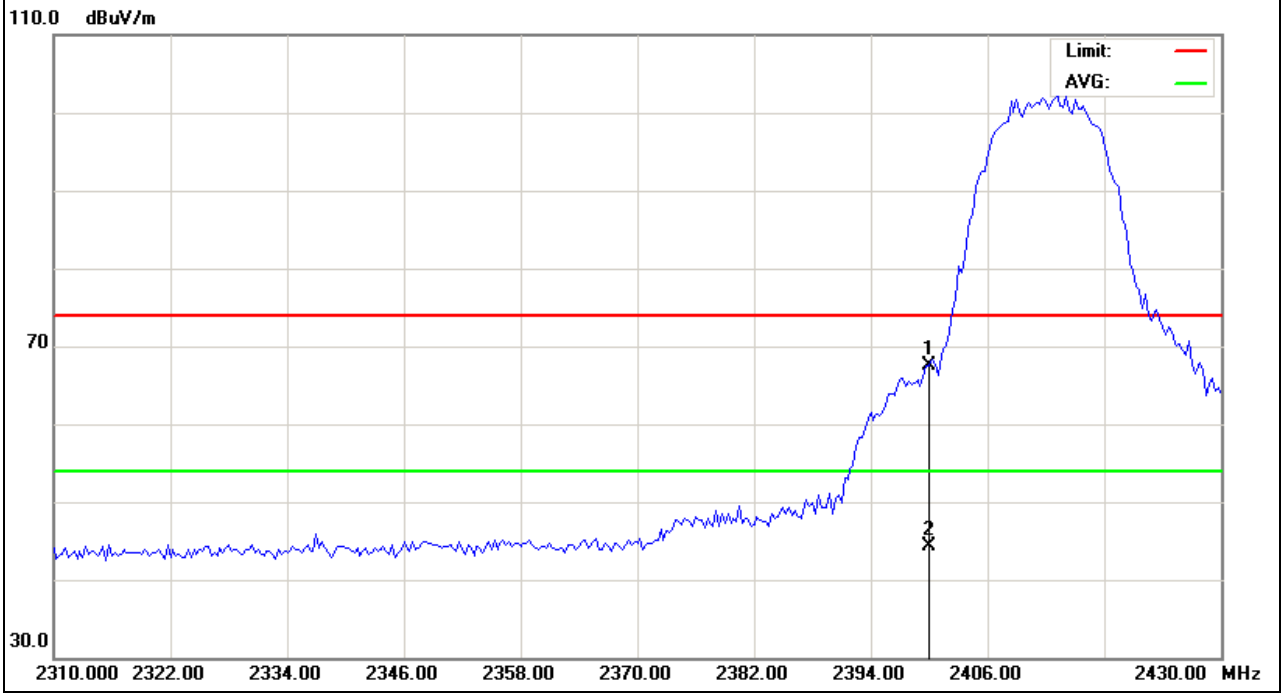
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1(802.11b Mode)	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2400	80.59	-12.99	67.6	74	-6.4	peak
2400	57.26	-12.99	44.27	54	-9.73	AVG

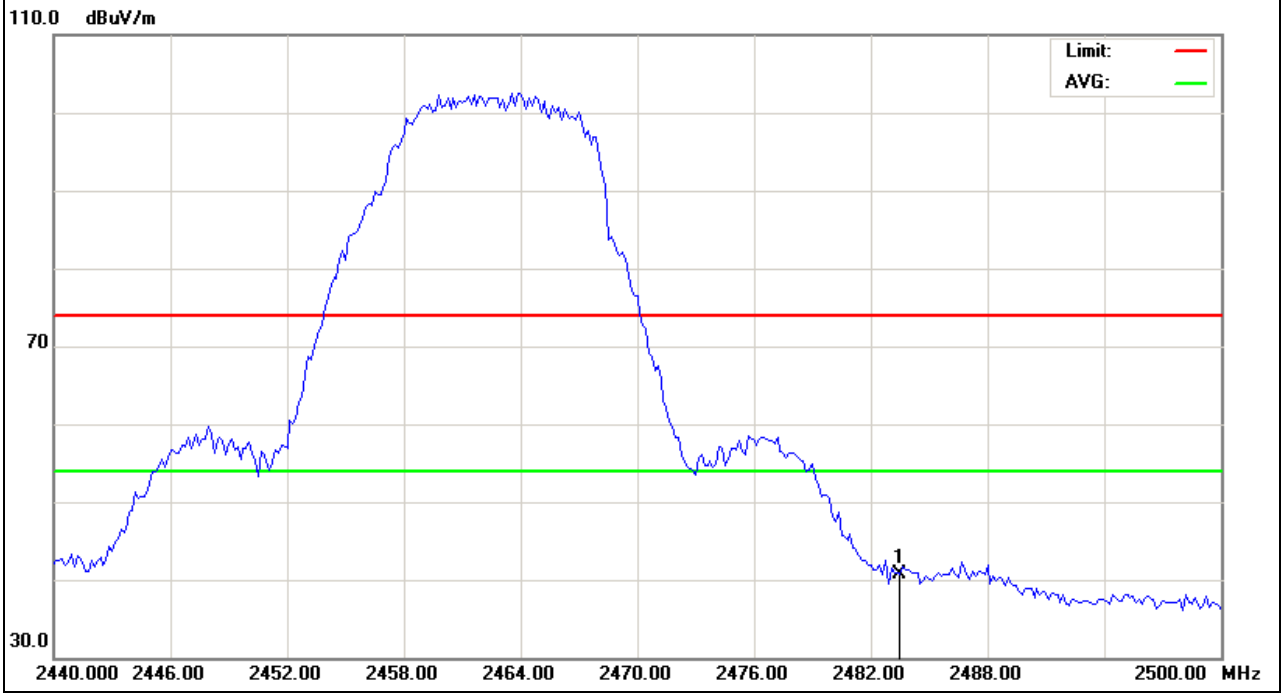
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Both horizontal and vertical antenna polarities were tested for band edge emission.
Vertical antenna polarities is the worst data, and was shown.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11(802.11b Mode)	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	53.54	-12.78	40.76	74	-33.24	peak

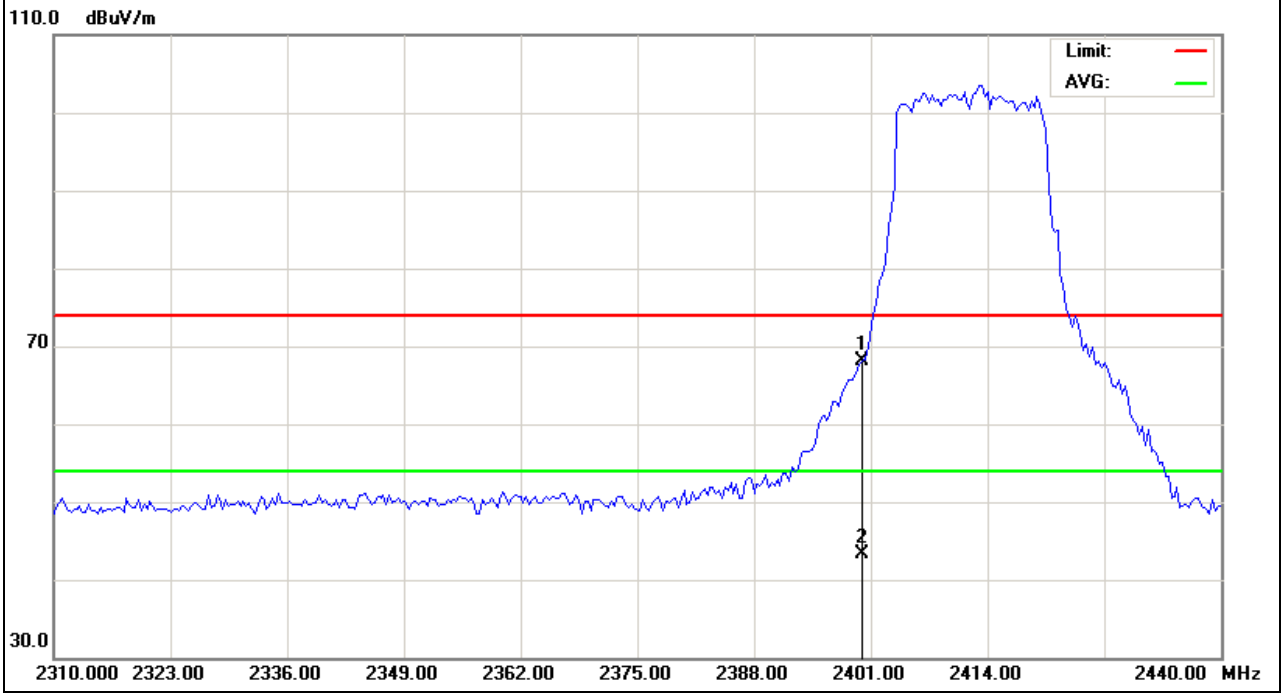
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Both horizontal and vertical antenna polarities were tested for band edge emission.
Vertical antenna polarities is the worst data, and was shown.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1(802.11gMode)	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2400	81.19	-12.99	68.2	74	-5.8	peak
2400	56.29	-12.99	43.3	54	-10.7	AVG

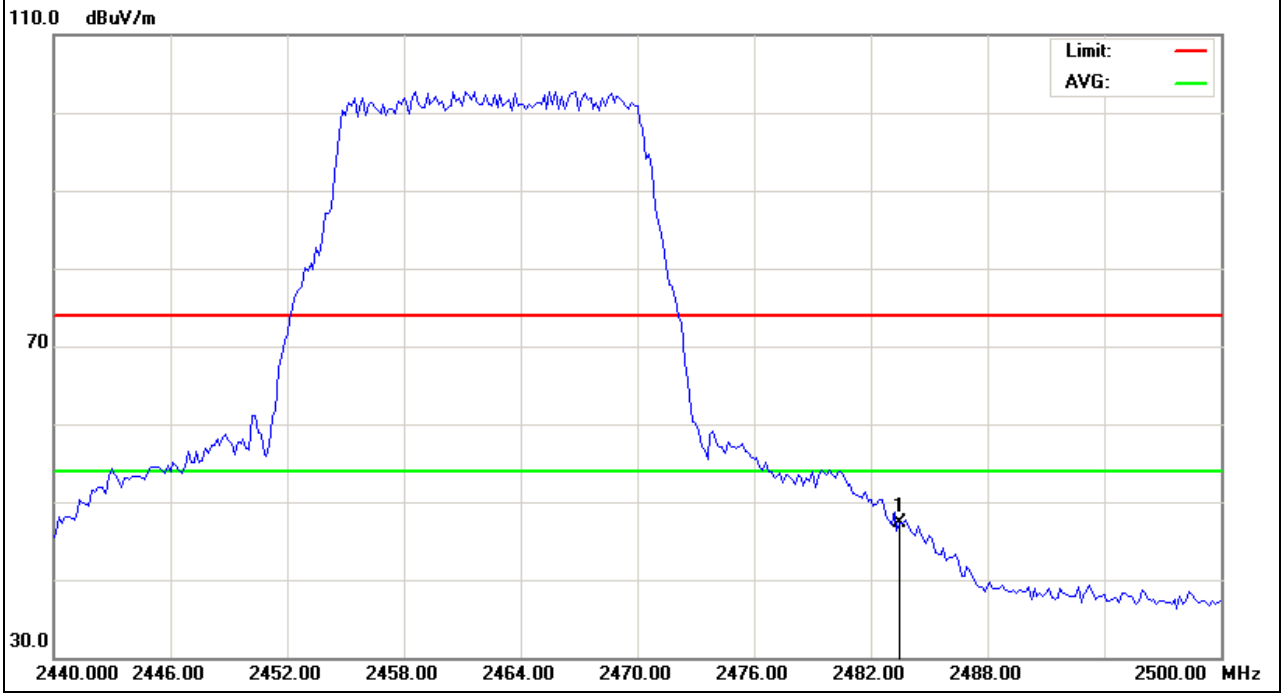
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Both horizontal and vertical antenna polarities were tested for band edge emission.
Vertical antenna polarities is the worst data, and was shown.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11(802.11g Mode)	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2483.5	60.05	-12.78	47.27	74	-26.73	peak

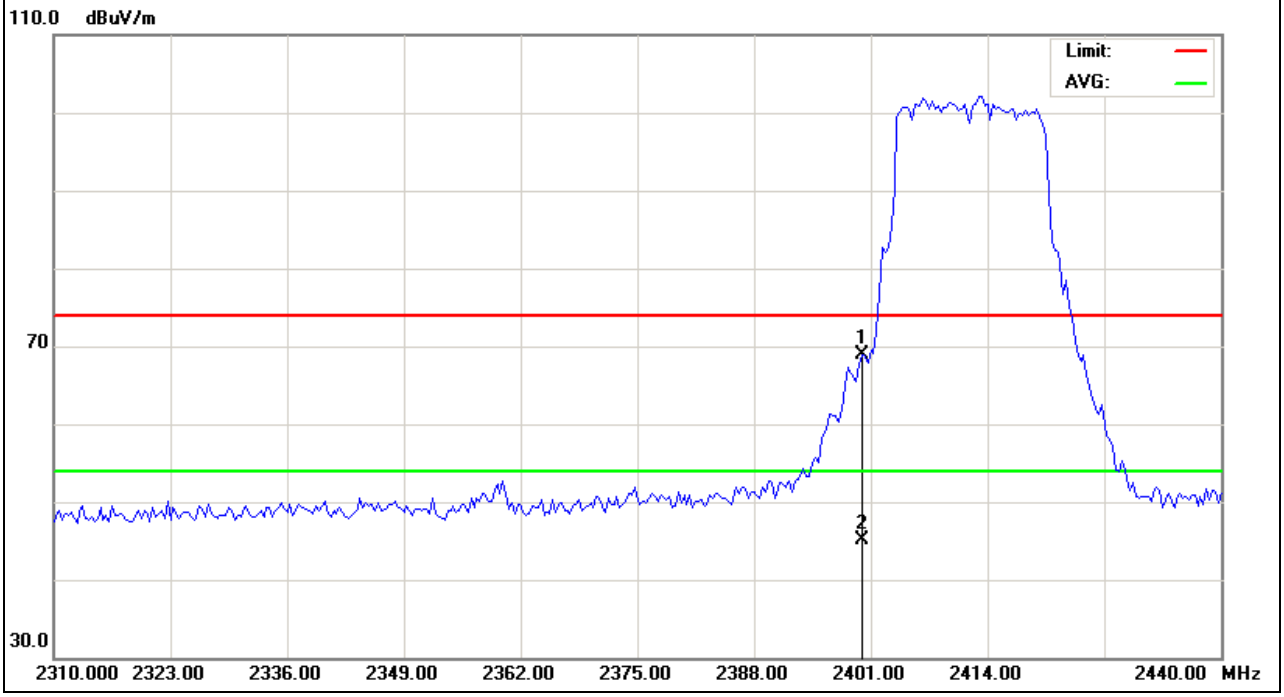
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Both horizontal and vertical antenna polarities were tested for band edge emission.
Vertical antenna polarities is the worst data, and was shown.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH1(802.11N Mode)	Polarization：	Vertical

Frequency (MHz)	Meter Reading (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2400	81.89	-12.99	68.9	74	-5.1	peak
2400	58.03	-12.99	45.04	54	-8.96	AVG

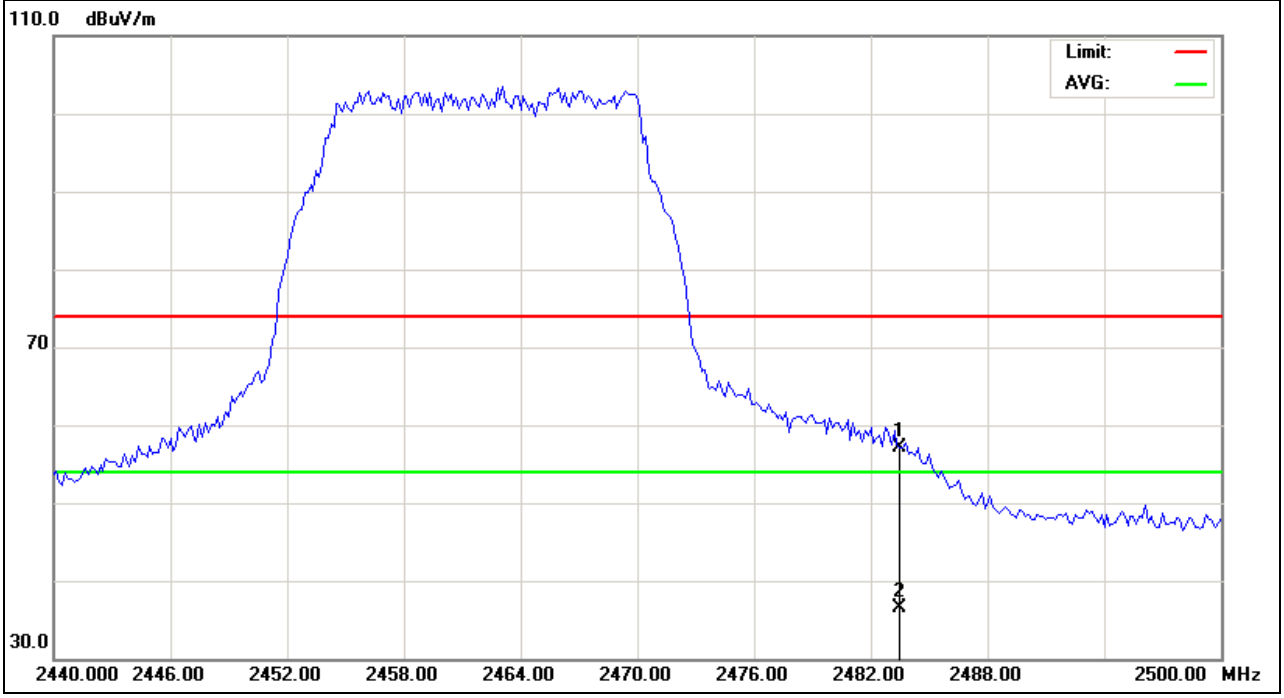
Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Both horizontal and vertical antenna polarities were tested for band edge emission.
Vertical antenna polarities is the worst data, and was shown.



EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	20 ℃	Relative Humidity：	48%
Pressure：	1010 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	CH11(802.11N Mode)	Polarization：	Vertical

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	69.8	-12.78	57.02	74	-16.98	peak
2483.5	49.24	-12.78	36.46	54	-17.54	AVG

Remark:
Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Both horizontal and vertical antenna polarities were tested for band edge emission.
Vertical antenna polarities is the worst data, and was shown.



4. POWER SPECTRAL DENSITY TEST

4.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247	Power Spectral Density	8 dBm (in any 3KHz)	2400-2483.5	PASS

4.1.1 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW ≥ 3 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP

4.1.4 EUT OPERATION CONDITIONS

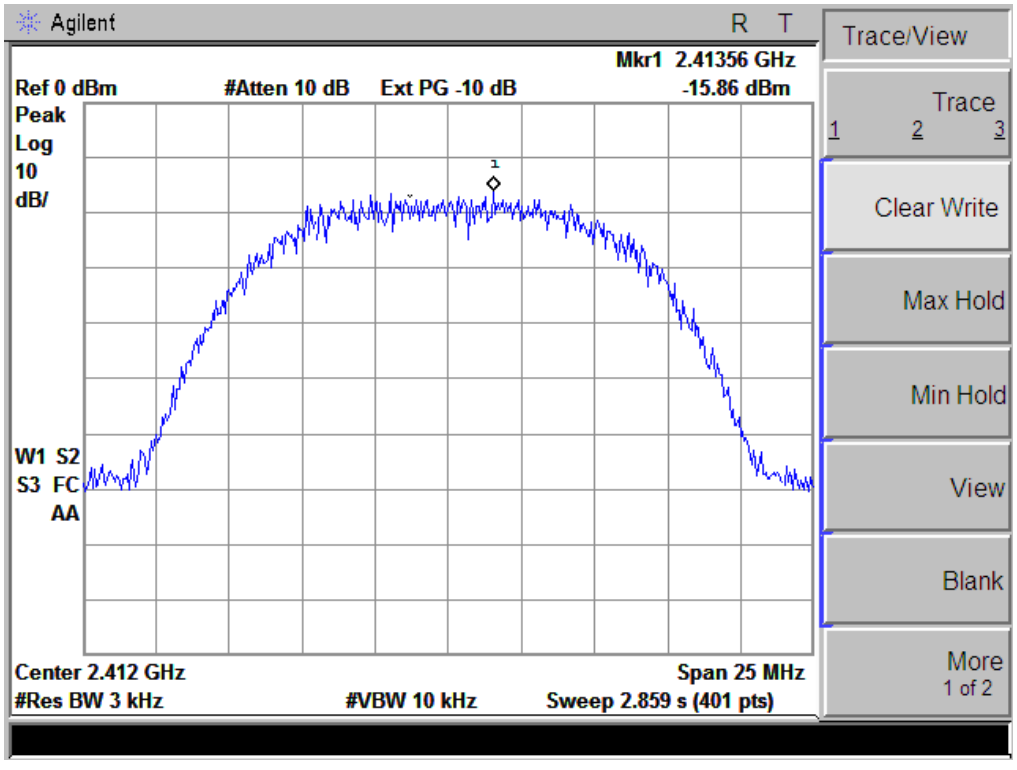
The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

4.1.5 TEST RESULTS

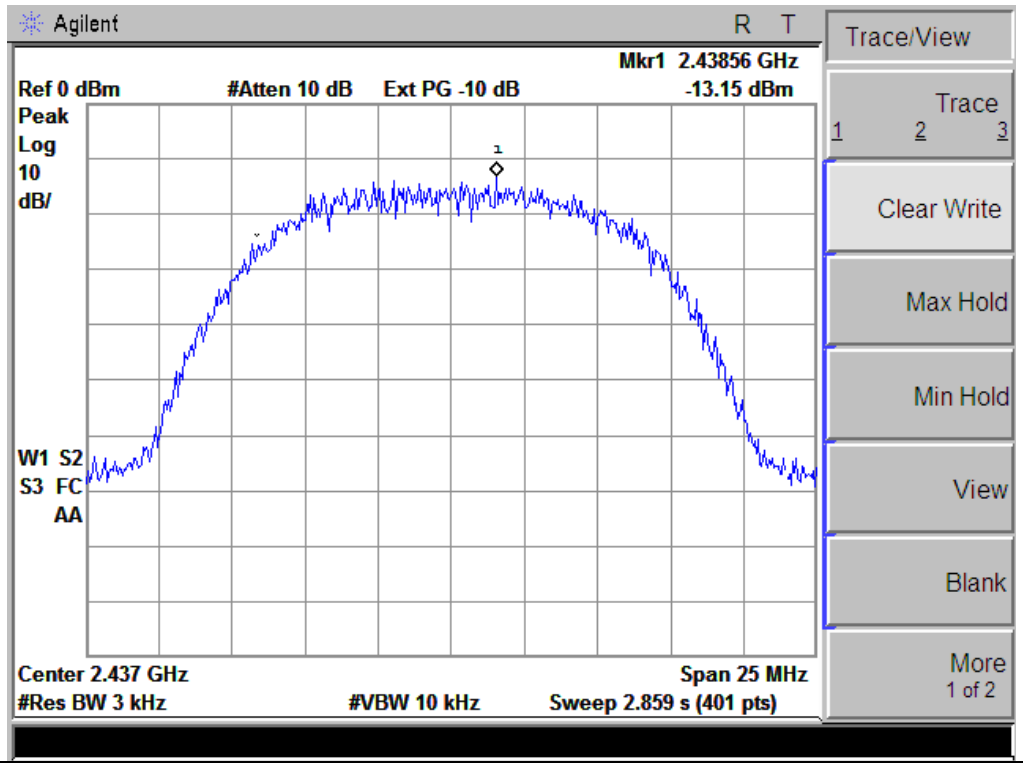
EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX b Mode /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-15.86	8	**PASS**
2437 MHz	-13.15	8	**PASS**
2462 MHz	-13.81	8	**PASS**

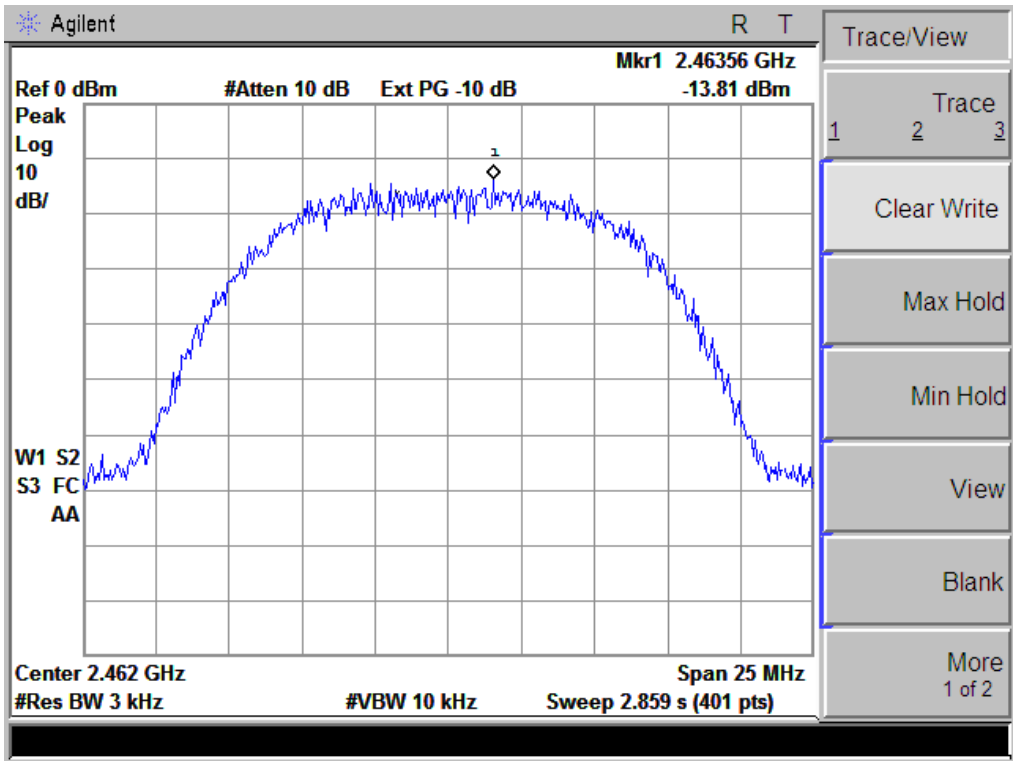
TX CH01



TX CH06



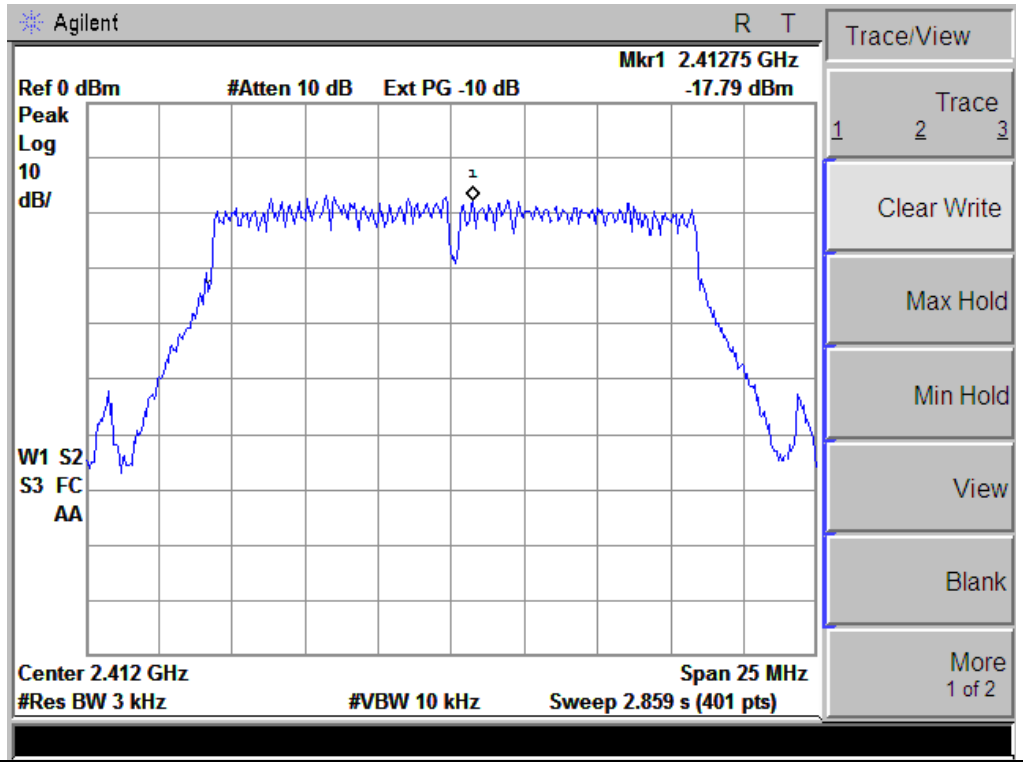
TX CH11



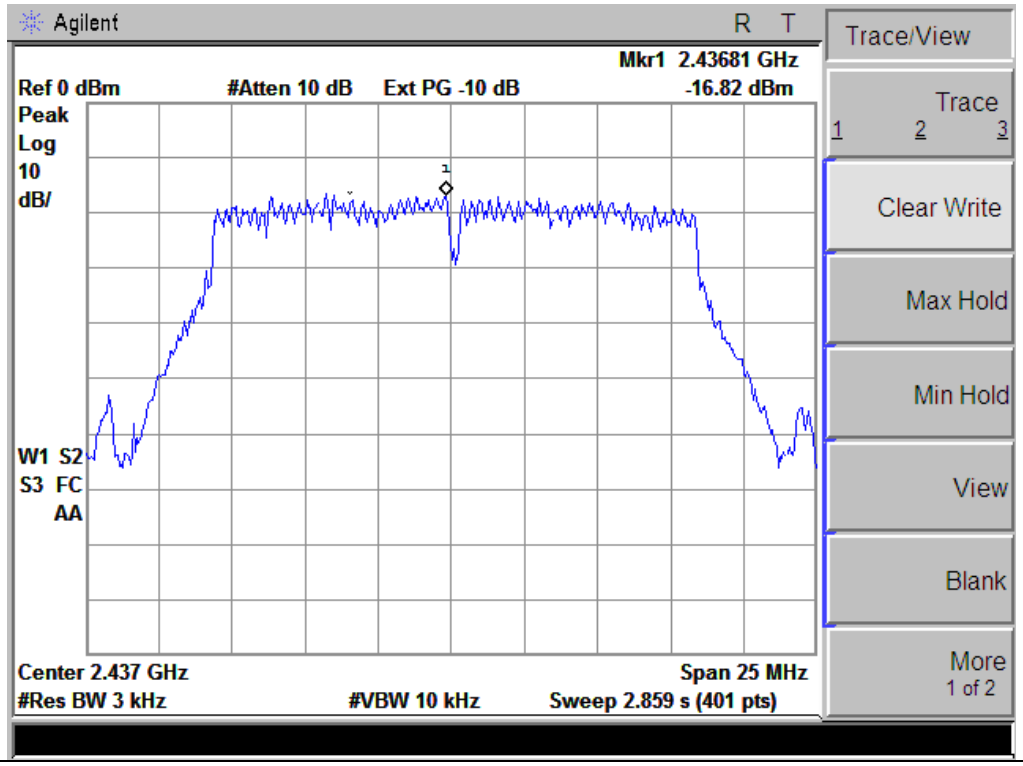
EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX g Mode /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-17.79	8	**PASS**
2437 MHz	-16.82	8	**PASS**
2462 MHz	-16.68	8	**PASS**

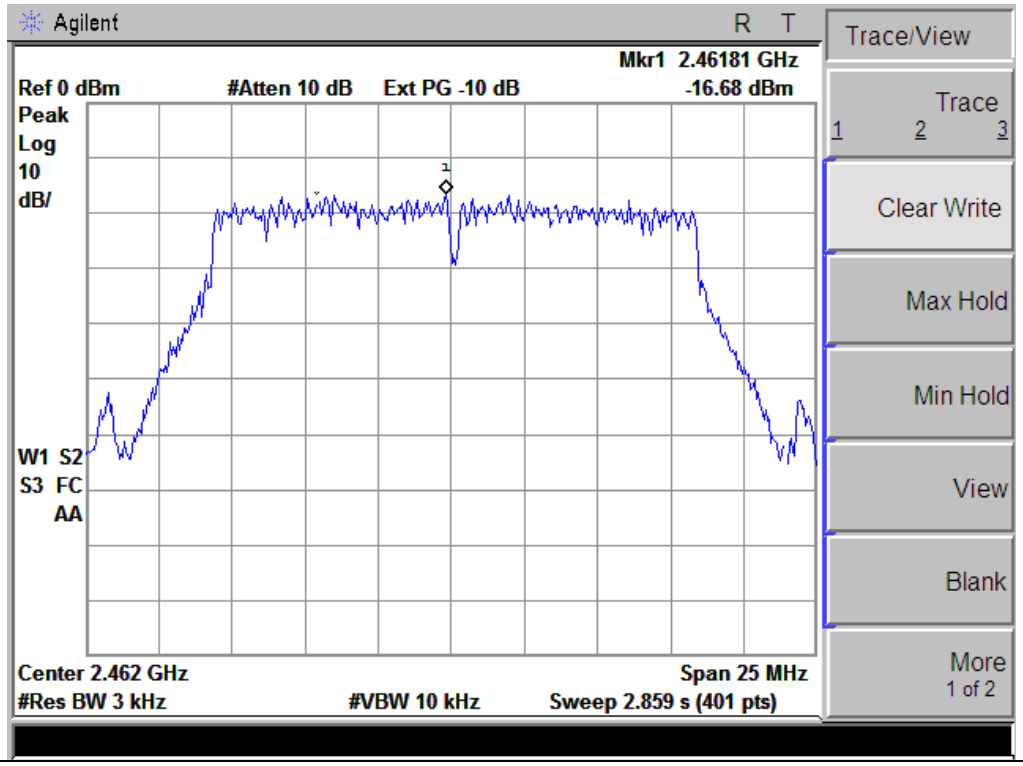
TX CH01



TX CH06



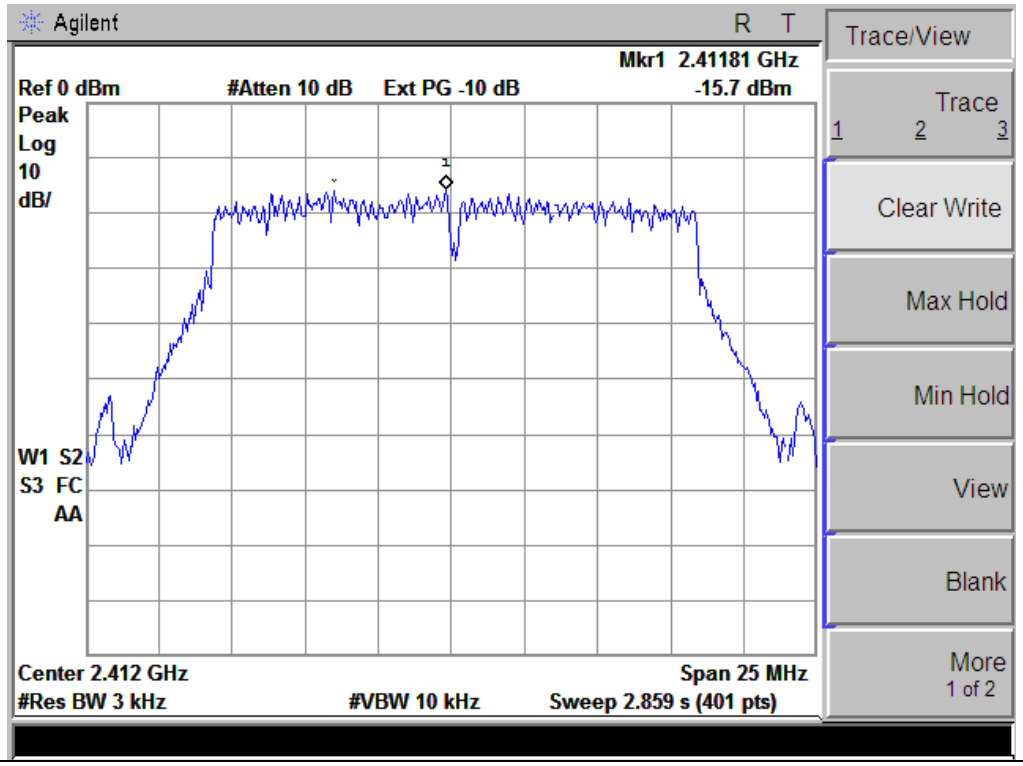
TX CH11



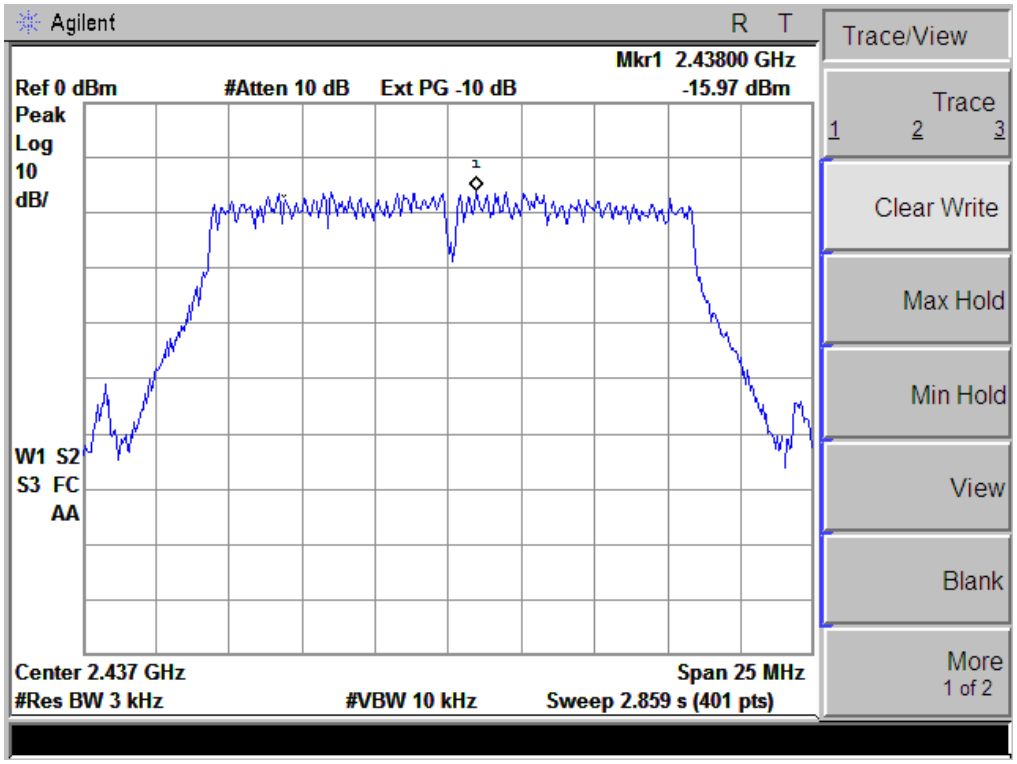
EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1015 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX n(20) Mode /CH01, CH06, CH11		

Frequency	Power Density (dBm)	Limit (dBm)	Result
2412 MHz	-15.7	8	**PASS**
2437 MHz	-15.97	8	**PASS**
2462 MHz	-16.88	8	**PASS**

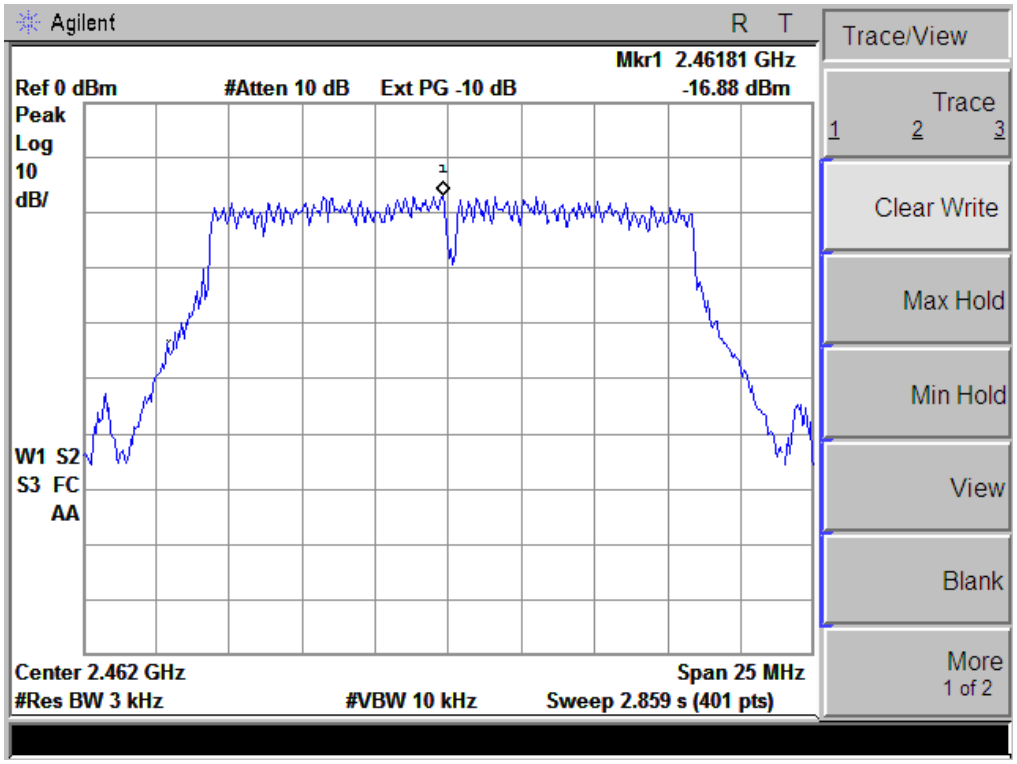
TX CH01



TX CH06



TX CH11



5. BANDWIDTH TEST

5.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	>= 500KHz (6dB bandwidth)	2400-2483.5	PASS

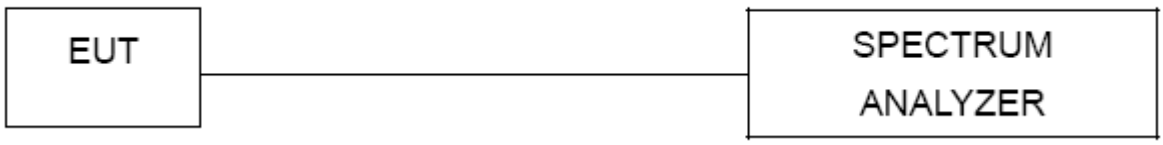
5.1.1 TEST PROCEDURE

1. Set resolution bandwidth (RBW) = 1-5% or DTS BW, not to exceed 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.1.2 DEVIATION FROM STANDARD

No deviation.

5.1.3 TEST SETUP



5.1.4 EUT OPERATION CONDITIONS

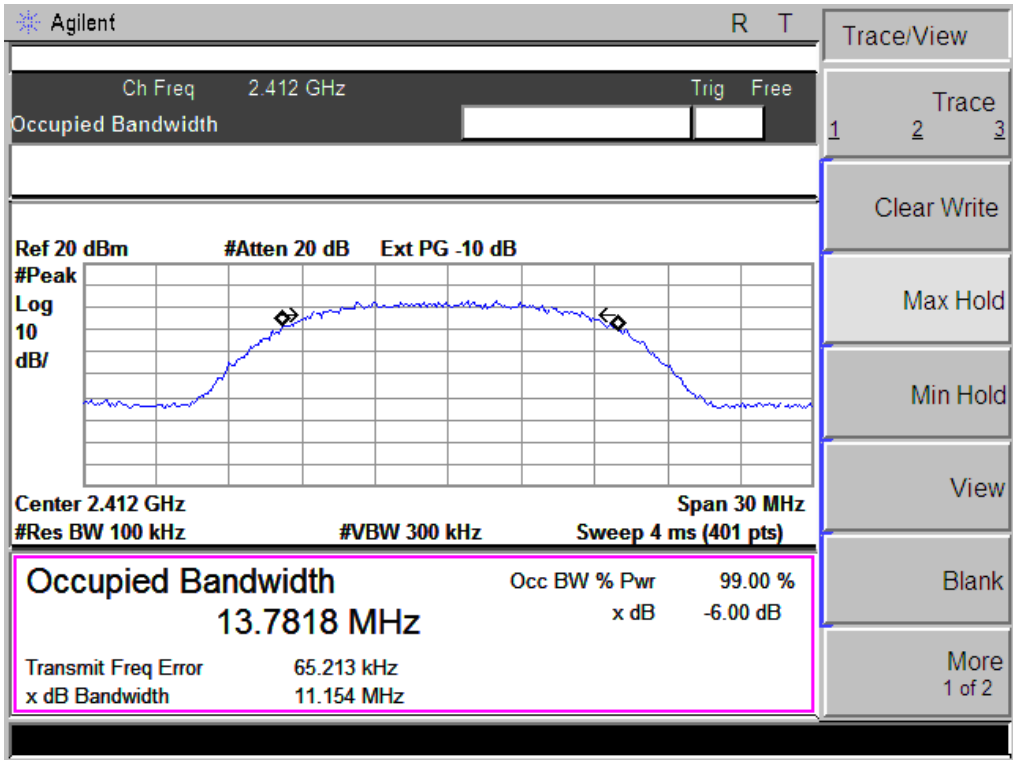
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.5 TEST RESULTS

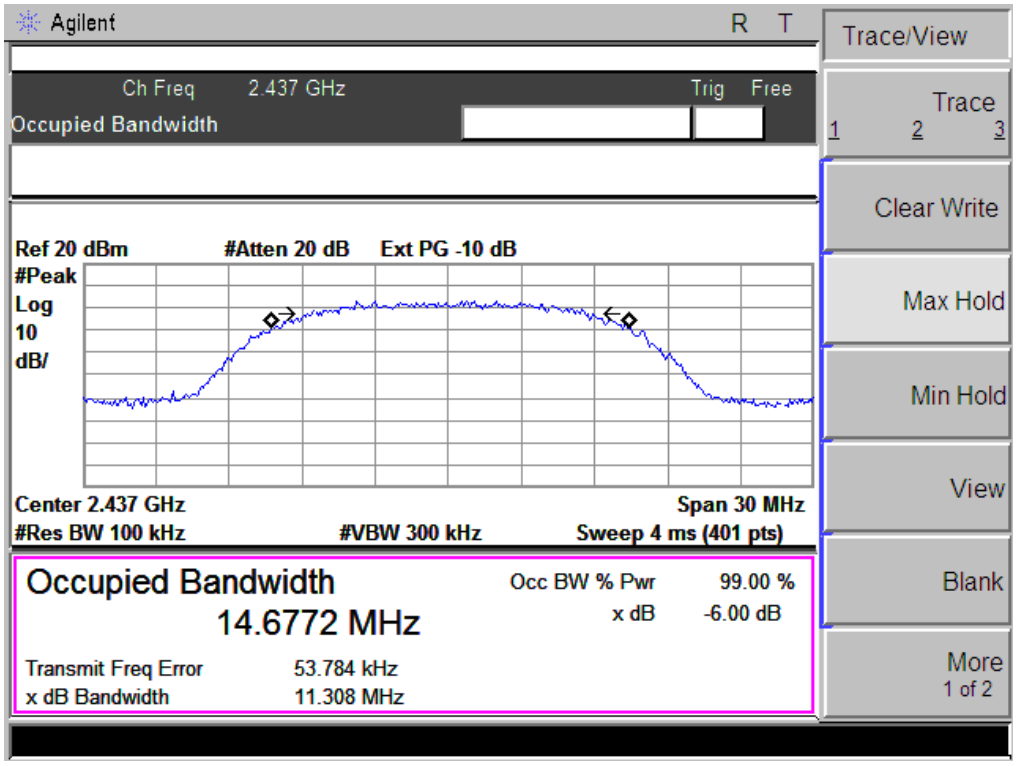
EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX b Mode /CH01, CH06, CH11		

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	11.15	>=500KHz	**PASS**
2437 MHz	11.31	>=500KHz	**PASS**
2462 MHz	11.15	>=500KHz	**PASS**

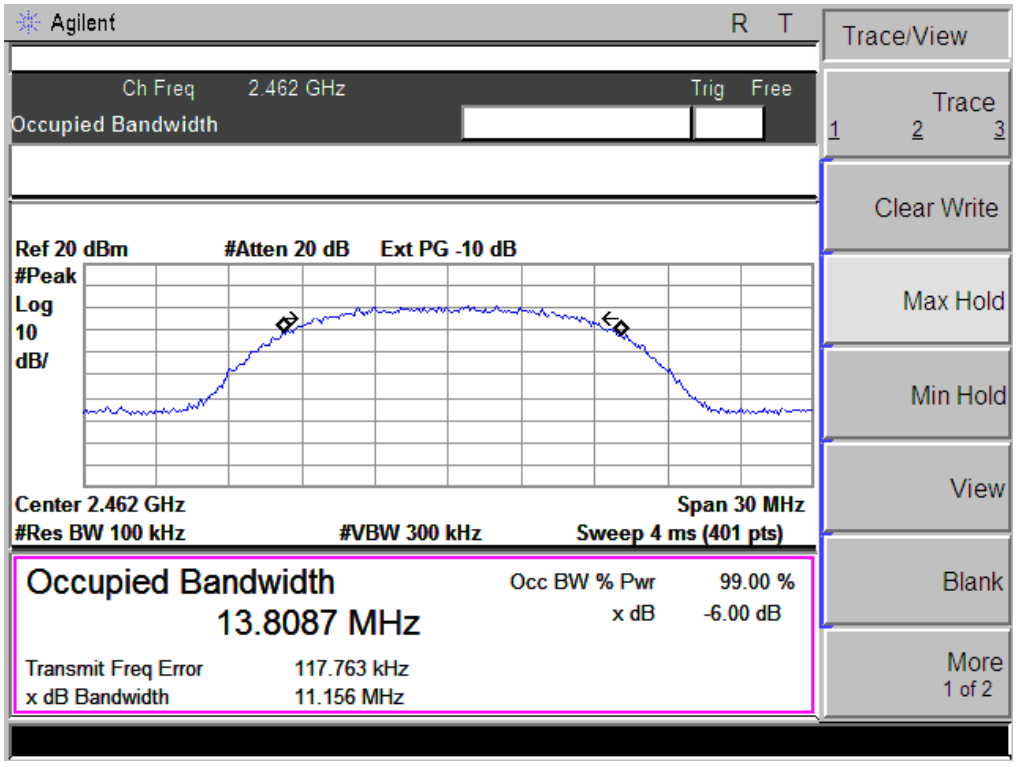
TX CH 01



TX CH 06



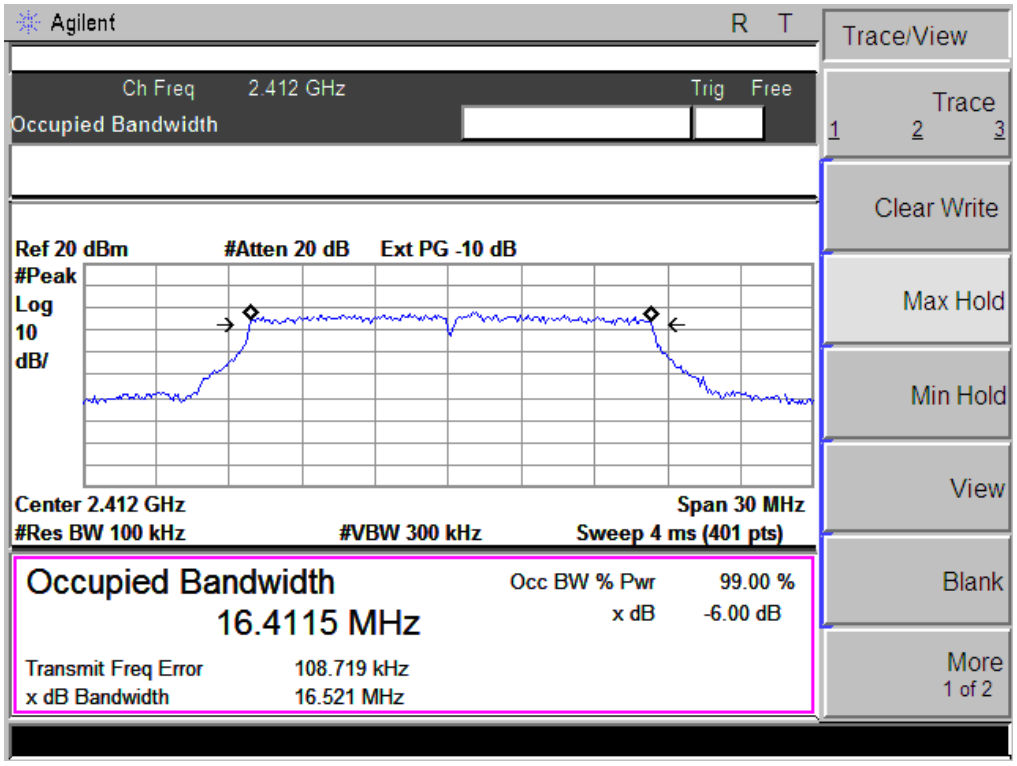
TX CH 11



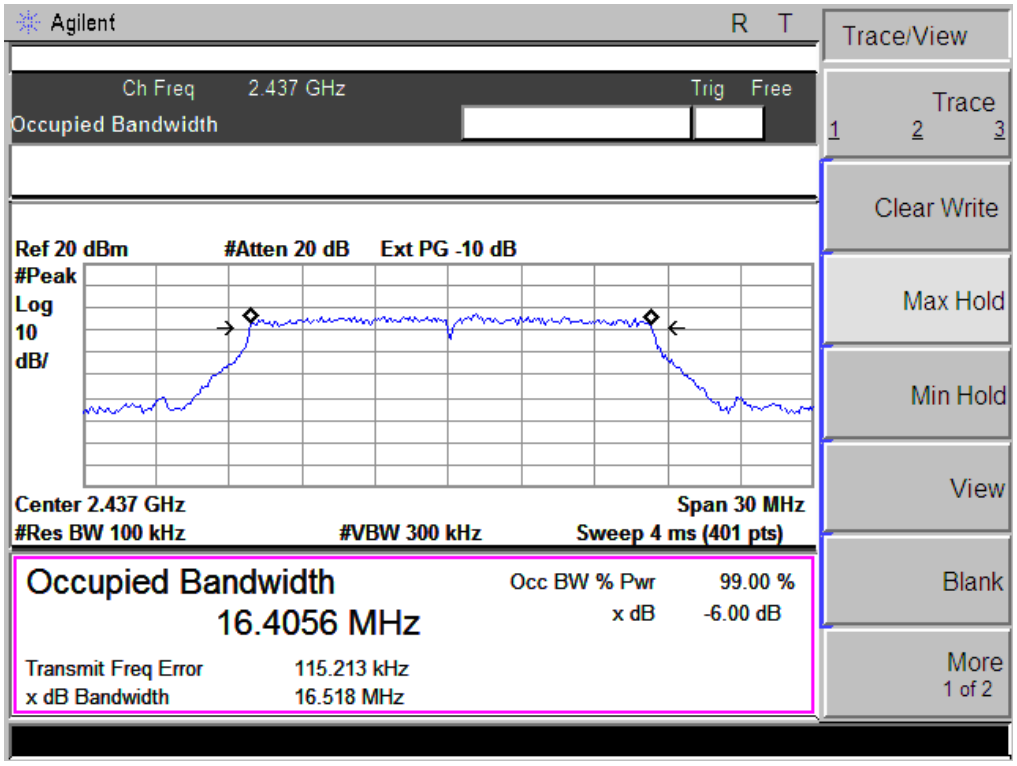
EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX g Mode /CH01, CH06, CH11		

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	16.52	>=500KHz	**PASS**
2437 MHz	16.51	>=500KHz	**PASS**
2462 MHz	16.52	>=500KHz	**PASS**

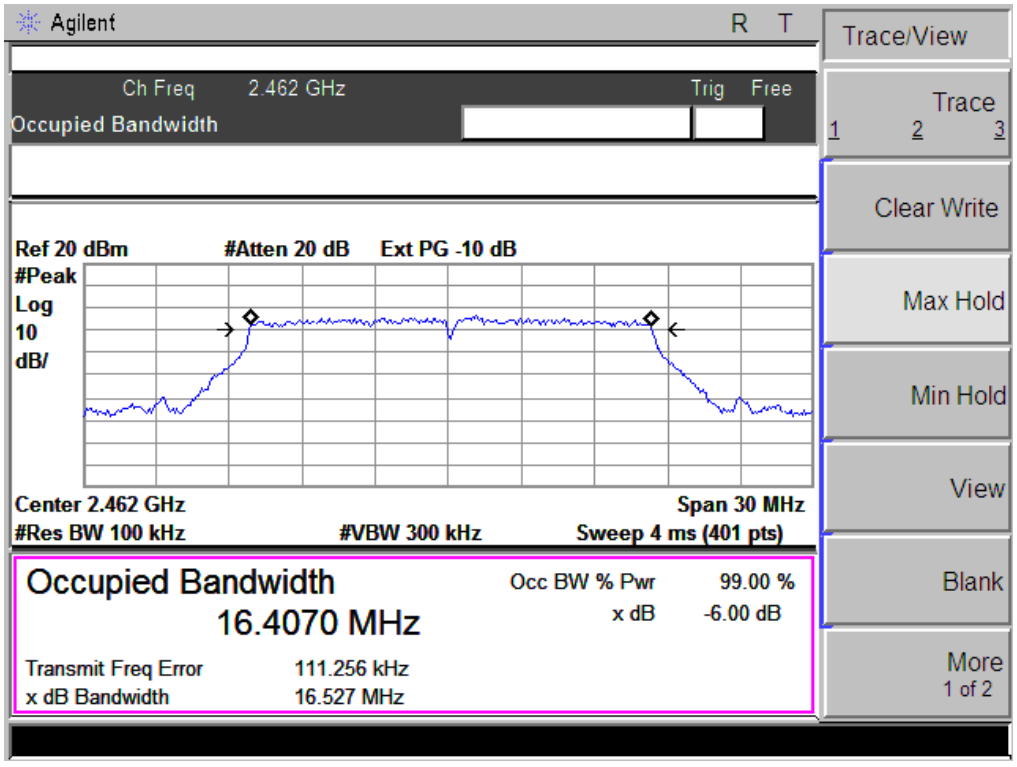
TX CH 01



TX CH 06



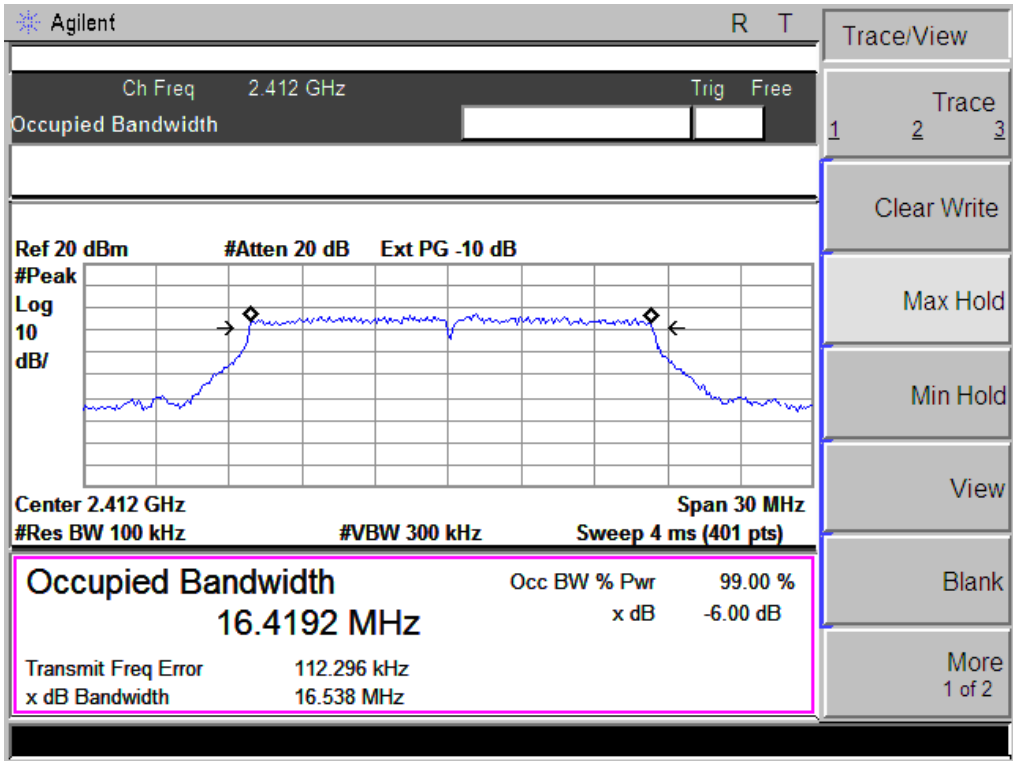
TX CH 11



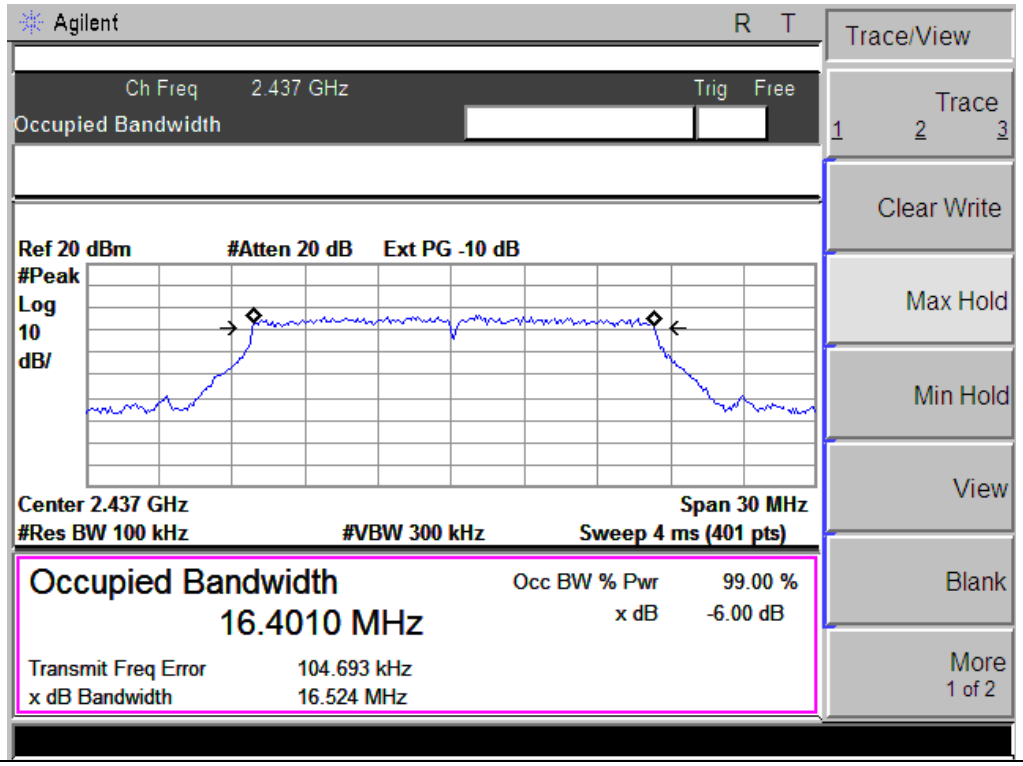
EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX n(20) Mode /CH01, CH06, CH11		

Frequency	6dB Bandwidth (MHz)	Channel Separation (MHz)	Result
2412 MHz	16.53	>=500KHz	**PASS**
2437 MHz	16.52	>=500KHz	**PASS**
2462 MHz	16.52	>=500KHz	**PASS**

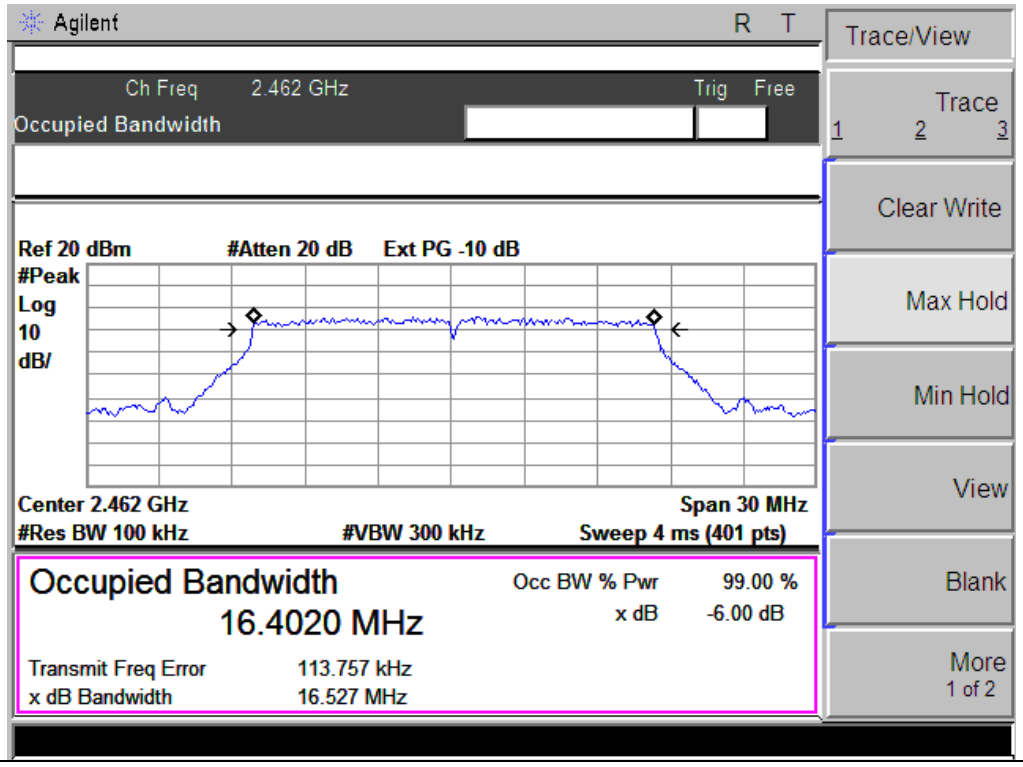
TX CH 01



TX CH 06



TX CH 11



6. PEAK OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

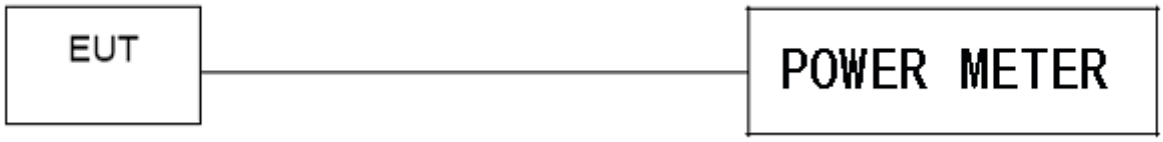
6.1.1 TEST PROCEDURE

a. The EUT was directly connected to the Power meter

6.1.2 DEVIATION FROM STANDARD

No deviation.

6.1.3 TEST SETUP



6.1.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.5 TEST RESULTS

EUT：	2.4G/Wireless N USB Adapter	Model Name ：	JHL-N132R
Temperature：	25 ℃	Relative Humidity：	60%
Pressure：	1012 hPa	Test Voltage ：	DC 5V from notebook
Test Mode ：	TX b/g/n Mode /CH01, CH06, CH11		

TX 802.11b Mode				
Test Channe	Frequency	Maximum Peak Conducted Output Power	Maximum Conducted Output Power(AV)	LIMIT
	(MHz)	(dBm)	(dBm)	dBm
CH01	2412	12.42	9.14	30
CH06	2437	12.99	9.72	30
CH11	2462	12.44	9.19	30
TX 802.11g Mode				
CH01	2412	10.00	8.17	30
CH06	2437	10.23	8.25	30
CH11	2462	10.47	8.94	30
TX 802.11n(20) Mode				
CH01	2412	9.73	7.10	30
CH06	2437	9.39	7.17	30
CH11	2462	9.52	7.46	30

7. ANTENNA REQUIREMENT

7.1 STANDARD REQUIREMENT

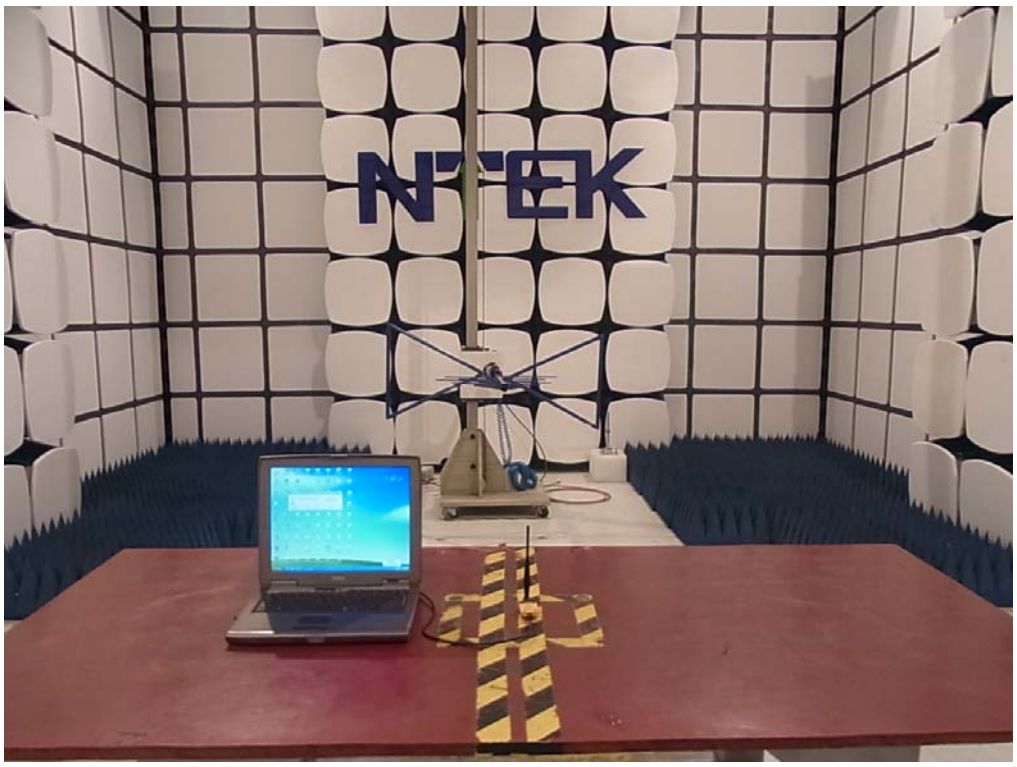
15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

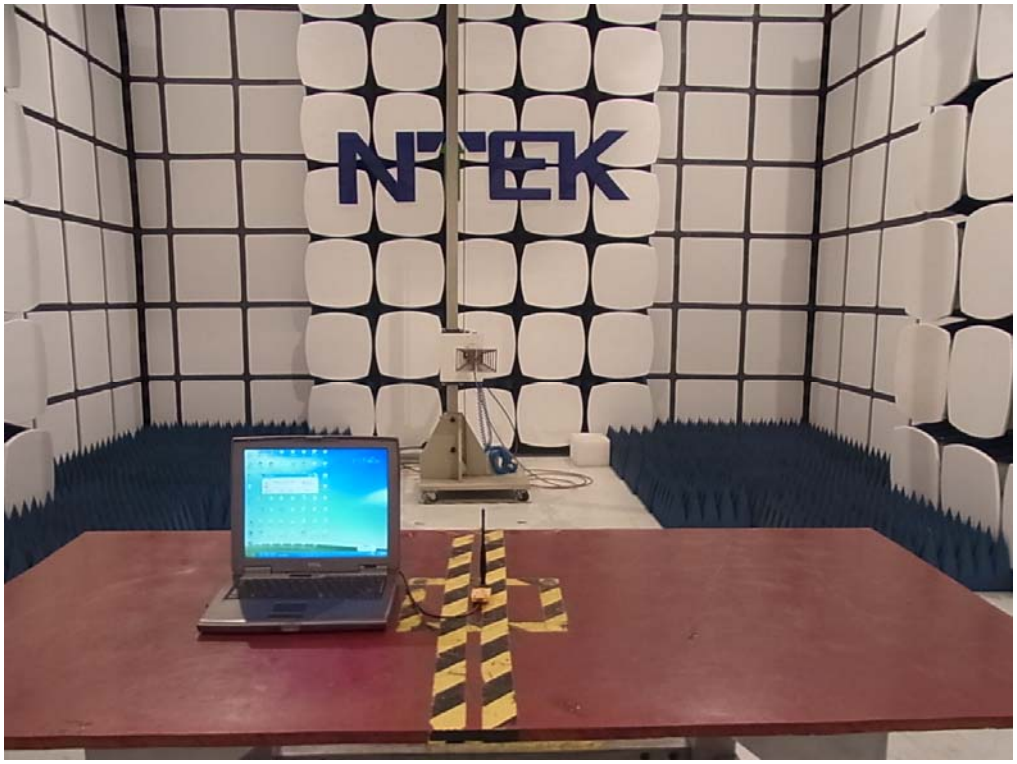
7.2 EUT ANTENNA

The EUT antenna is external antenna(Reserve SMA-type). It comply with the standard requirement.

8. EUT TEST PHOTO

Radiated Measurement Photos





Conducted Measurement Photos