FCC Radio Test Report

FCC ID: YVR-AW-NU120

This report concerns (check one) : ■ **Original Grant** □ **Class I Change**

Issued Date : Nov. 29, 2010
Project No. : R1010004
Equipment : Dongle
Model Name : AW-NU120

Applicant : Lumens Digital Optics Inc.
Address : 5F, No. 35, Sintai Rd., Jhubei City, Hsinchu County 302, Taiwan

Tested by: Neutron Engineering Inc. EMC Laboratory
Date of Receipt: Oct. 08, 2010
Date of Test: Oct. 08, 2010 ~ Nov. 23, 2010

Testing Engineer : Rush Kao
(Rush Kao)

Technical Manager : Jeff Yang
(Jeff Yang)

Authorized Signatory : Andy Chiu
(Andy Chiu)

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TEL: +886-2-2657-3299
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NVLAP Lab Code: 200145-0 ilac-MRA TAF Testing Laboratory 0659

Declaration

Neutron represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with the standards traceable to National Measurement Laboratory (**NML**) of **R.O.C**., or National Institute of Standards and Technology (**NIST**) of **U.S.A.**

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Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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1. CERTIFICATION

Equipment : Dongle
Brand Name : Lumens
Model Name : AW-NU120
Applicant : Lumens Digital Optics Inc.
Date of Test : Oct. 08, 2010 ~ Nov. 23, 2010
Standards : FCC Part15, Subpart C / ANCI C63.4 : 2003

The above equipment has been tested and found compliance with the requirement of the relative standards by Neutron Engineering Inc. EMC Laboratory.
The test data, data evaluation, and equipment configuration contained in our test report (Ref No. NEI-FCCP-1-R1010004) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of NVLAP and TAF according to the ISO-17025 quality assessment standard and technical standard(s).

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15, Subpart C			
Standard Section	Test Item	Judgment	Remark
15.207	Conducted Emission	PASS	
15.247 (c)	Antenna conducted Spurious 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	
15.203	Antenna Requirement	PASS	
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	PASS	

NOTE:

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

2.1 TEST FACILITY

The test facilities used to collect the test data in this report:

C03: (VCCI RN: T-1667)
B1, No. 37, Lane 365, YangGuang St., NeiHu District 114, Taipei, Taiwan.

CB08: (VCCI RN: G-91; FCC RN: 614388; IC Assigned Code: 4428C-1)
1F., No. 61, Ln. 77, Sing-ai Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

2.2 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**%.

The measurement instrumentation uncertainty considerations contained in CISPR 16-4-2.

A. Conducted Measurement :

Test Site	Method	Measurement Frequency Range	U，(dB)	NOTE
C01	ANSI	150 kHz ~ 30 MHz	1.94	

B. Radiated Measurement :

Test Site	Item	Measurement Frequency Range		Uncertainty	NOTE
CB08	Radiated Emission at 3m	Horizontal Polarization	30 - 200MHz	3.35 dB	
			200 - 1000MHz	3.11 dB	
			1 - 18GHz	3.97 dB	
			18 - 40GHz	4.01 dB	
		Vertical Polarization	30 - 200MHz	3.22 dB	
			200 - 1000MHz	3.24 dB	
			1 - 18GHz	4.05 dB	
			18 - 40GHz	4.04 dB	

Our calculated Measurement Instrumentation Uncertainty is shown in the tables above. These are our U_{lab} values in CISPR 16-4-2 terminology.

Since Table 1 of CISPR 16-4-2 has values of measurement instrumentation uncertainty, called U_{CISPR}, as follows:

Conducted Disturbance (mains port) – 150 kHz – 30 MHz : 3.6 dB

Radiated Disturbance (electric field strength on an open area test site or alternative test site) – 30 MHz – 1000 MHz : 5.2 dB

It can be seen that our U_{lab} values are smaller than U_{CISPR}.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

<table>
<tr><td>Equipment</td><td>Dongle</td></tr>
<tr><td>Brand Name</td><td>Lumens</td></tr>
<tr><td>Model Name</td><td>AW-NU120</td></tr>
<tr><td>OEM Brand/Model Name</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 Dongle.
<table>
<tr><td>Operation Frequency:</td><td>2412~2462 MHz</td></tr>
<tr><td>Modulation Type:</td><td>802.11b:CCK, DQPSK, DBPSK
802.11g:OFDM
802.11n:OFDM(1 TX & 2 RX)</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 up to 300 Mbps</td></tr>
<tr><td>Number Of Channel:</td><td>Please see Note 2.</td></tr>
<tr><td>Antenna Designation:</td><td>Please see Note 3.</td></tr>
<tr><td>Antenna Gain(Peak):</td><td>Please see Note 3.</td></tr>
<tr><td>Peak Output Power(Max):</td><td>802.11b: 19.87 dBm Max.
802.11g: 23.35 dBm Max.
802.11n(20MHz): 21.87 dBm Max.
802.11n(40MHz): 21.32 dBm Max.</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>Power Source</td><td>Supplied from PC USB port.</td></tr>
<tr><td>Power Rating</td><td>I/P: DC 5V</td></tr>
<tr><td>Products Covered</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. CH 01 – CH 11 for 802.11b, 802.11g, 802.11n(20MHz)
   CH 03 – CH 09 for 802.11n(40MHz)

Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	**2412**	05	2432	**09**	**2452**
02	2417	**06**	**2437**	10	2457
03	**2422**	07	2442	**11**	**2462**
04	2427	08	2447		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Printed	N/A	2.05

4. The EUT incorporates MIMO function. Physically, the EUT provides two completed transmitters and two receivers (2T2R)

Modulated type	TX Function
802.11b	1TX
802.11g	1TX
Draft 802.11n(20MHz)	1TX
Draft 802.11n(40MHz)	1TX

3.2 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 Test Mode	Description
Mode 1	802.11b/CH01, CH06, CH11
Mode 2	802.11g/CH01, CH06, CH11
Mode 3	802.11n/20M/CH01, CH06, CH11
Mode 4	802.11n/40M/CH03, CH06, CH09

For Conducted Test	
Final Test Mode	Description
Mode 1	802.11b/CH06

For Radiated Test	
Final Test Mode	Description
Mode 1	802.11b/CH01, CH06, CH11
Mode 2	802.11g/CH01, CH06, CH11
Mode 3	802.11n/20M/CH01, CH06, CH11
Mode 4	802.11n/40M/CH03, CH06, CH09

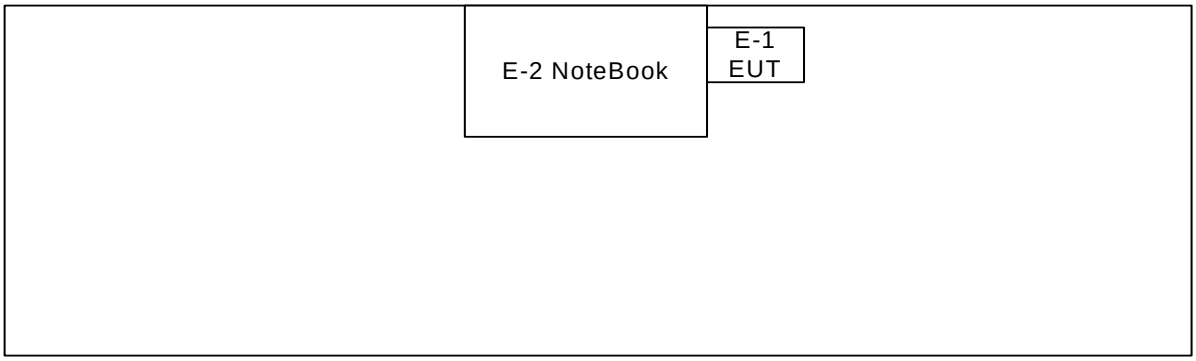
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product

Test software Version	MP_Kit_RTL11n_SingleChip_USB_v034		
Frequency (MHz)	2412 MHz	2442 MHz	2462 MHz
IEEE 802.11b DSSS	45	43	43
IEEE 802.11g OFDM	51	49	48

Test software Version	MP_Kit_RTL11n_SingleChip_USB_v034		
Frequency (MHz)	2412 MHz	2442 MHz	2462 MHz
IEEE 802.11n (20MHz)	49	47	45
Frequency (MHz)	2422 MHz	2442 MHz	2452 MHz
IEEE 802.11n (40MHz)	49	48	47

3.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF RADIATED EMISSION TESTED



3.5 DESCRIPTION OF SUPPORT UNITS

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.	FCC ID	Series No.	Note
E-1	Dongle	Lumens	AW-NU120	YVR-AW-NU120	N/A	EUT
E-2	Notebook PC	DELL	D600	DOC	7T390 A03	

Item	Shielded Type	Ferrite Core	Length	Note
N/A	-	-	-	

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.
(3) " ※ " denotes the support equipment by applicant.

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

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

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

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.

(3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
Margin Level = Measurement Value – Limit Value

4.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	TWO-LINE V-NETWORK	R&S	ENV216	101050	Jun. 07, 2011
2	Test Cable	TIMES	CFD300-NL	130	Jun. 17, 2011
3	EMI Test Receiver	R&S	ESCI	100080	Mar. 10, 2011

Remark: ” N/A” denotes No Model Name , Serial No. or No Calibration specified.

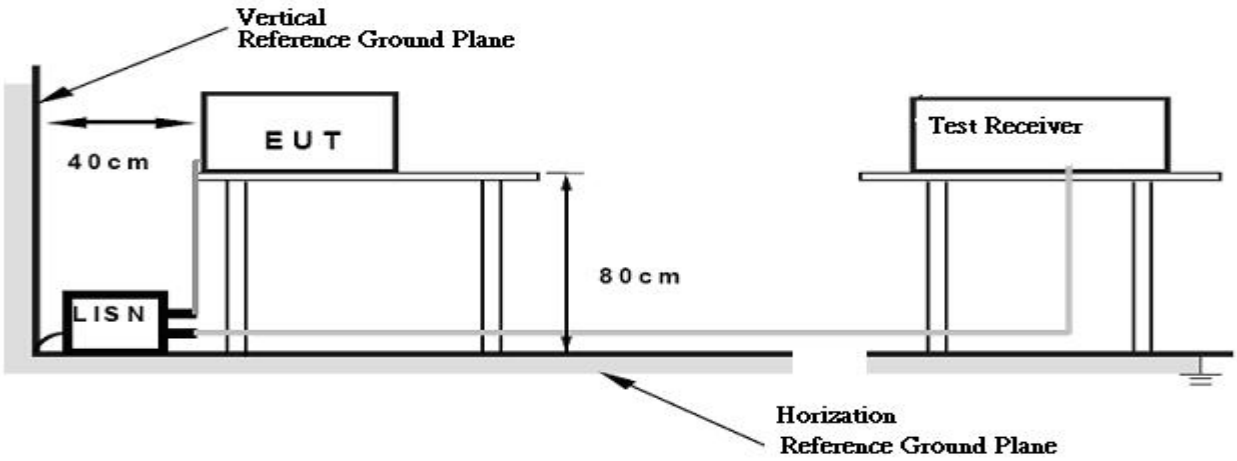
4.1.3 TEST PROCEDURE

a. The EUT was placed 0.8 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.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



4.1.6 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.

4.1.7 TEST RESULTS

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	43%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH06		

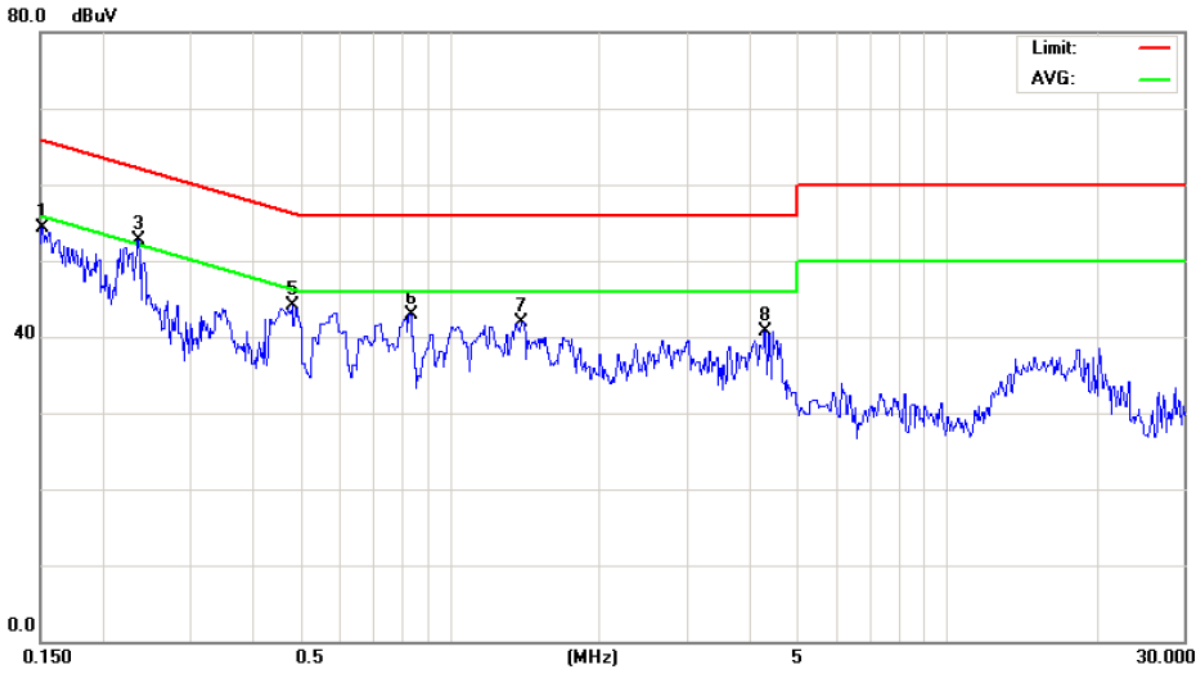
Freq.	Terminal	Reading Level(dBuV)		Correct	Measurement(dBuV)		Limit(dBuV)		Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	Factor(dB)	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	
0.1514	Line	44.68	30.54	9.69	54.37	40.23	65.92	55.92	-11.55	(QP)
0.2354	Line	43.04	31.57	9.69	52.73	41.26	62.26	52.26	-9.53	(QP)
0.4811	Line	34.41	*	9.69	44.10	*	56.32	46.32	-12.22	(QP)
0.8330	Line	33.05	*	9.76	42.81	*	56.00	46.00	-13.19	(QP)
1.3910	Line	32.13	*	9.75	41.88	*	56.00	46.00	-14.12	(QP)
4.2980	Line	30.93	*	9.72	40.65	*	56.00	46.00	-15.35	(QP)

Remark

(1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9 kHz; SPA setting in RBW=10 kHz, VBW =10 kHz, Swp. Time = 0.2 sec./ MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=10 kHz, VBW=10 kHz, Swp. Time =0.2 sec./ MHz.

(2) All readings are QP Mode value unless otherwise stated AVG in column of Note. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.

(3) In the "Note" column, QP means the margin value of QP is higher than Average and the "Margin" column shows the margin value of QP; AV means the margin value of Average is higher than QP and the "Margin" column shows the margin value of Average.



EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	43%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH06		

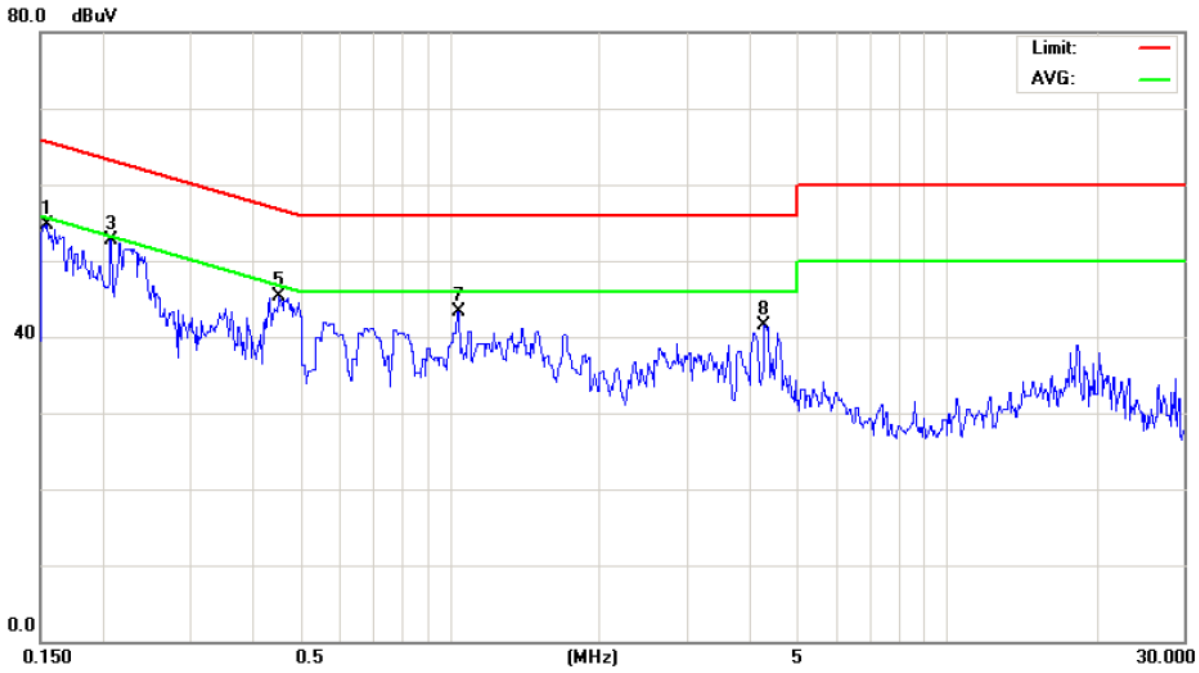
Freq. (MHz)	Terminal L/N	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV)		Limit(dBuV)		Margin (dB)	Note
		QP-Mode	AV-Mode		QP-Mode	AV-Mode	QP-Mode	AV-Mode		
0.1542	Neutral	44.97	28.54	9.68	54.65	38.22	65.77	55.77	-11.12	(QP)
0.2074	Neutral	43.00	30.63	9.68	52.68	40.31	63.31	53.31	-10.63	(QP)
0.4524	Neutral	35.72	26.28	9.68	45.40	35.96	56.83	46.83	-10.87	(AV)
1.0400	Neutral	33.45	*	9.78	43.23	*	56.00	46.00	-12.77	(QP)
4.2890	Neutral	31.86	*	9.71	41.57	*	56.00	46.00	-14.43	(QP)

Remark

(1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9 kHz; SPA setting in RBW=10 kHz, VBW =10 kHz, Swp. Time = 0.2 sec./ MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=10 kHz, VBW=10 kHz, Swp. Time =0.2 sec./ MHz.

(2) All readings are QP Mode value unless otherwise stated AVG in column of Note. If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.

(3) In the "Note" column, QP means the margin value of QP is higher than Average and the "Margin" column shows the margin value of QP; AV means the margin value of Average is higher than QP and the "Margin" column shows the margin value of Average.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 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 on15.205(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 15B.

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

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

(4) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain(if use)
Margin Level = Measurement Value – Limit Value

4.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Aug. 31, 2011
2	Horn Antenna	Schwarzbeck	BBHA 9120	D-325	Dec. 15, 2010
3	Microwave Pre_amplifier	Agilent	8449B	3008A01714	Apr. 20, 2011
4	Microflex Cable	N/A	N/A	1m	May. 19, 2011
5	Microflex Cable	AISI	S104-SMAP-1	10m	Aug. 22, 2011
6	Microflex Cable	N/A	N/A	3m	Aug. 22, 2011
7	Test Cable	N/A	LMR-400	966_12m	Jun. 17, 2011
8	Test Cable	N/A	LMR-400	966_3m	Jun. 17, 2011
9	Pre-Amplifier	EMC	EMC-330	980001	Jun. 03, 2011
10	Log-Bicon Antenna	Schwarzbeck	VULB9168-352	9168-352	Jun. 17, 2011

Remark: ” N/A” denotes No Model Name / Serial No. and No Calibration specified.

4.2.3 TEST PROCEDURE

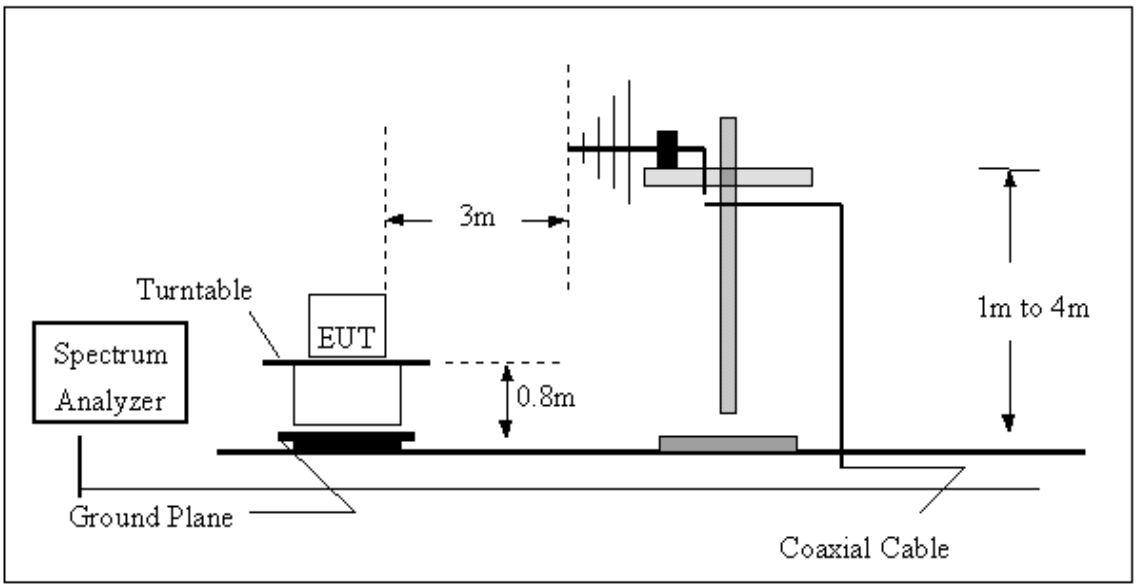
a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was 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.

4.2.4 DEVIATION FROM TEST STANDARD

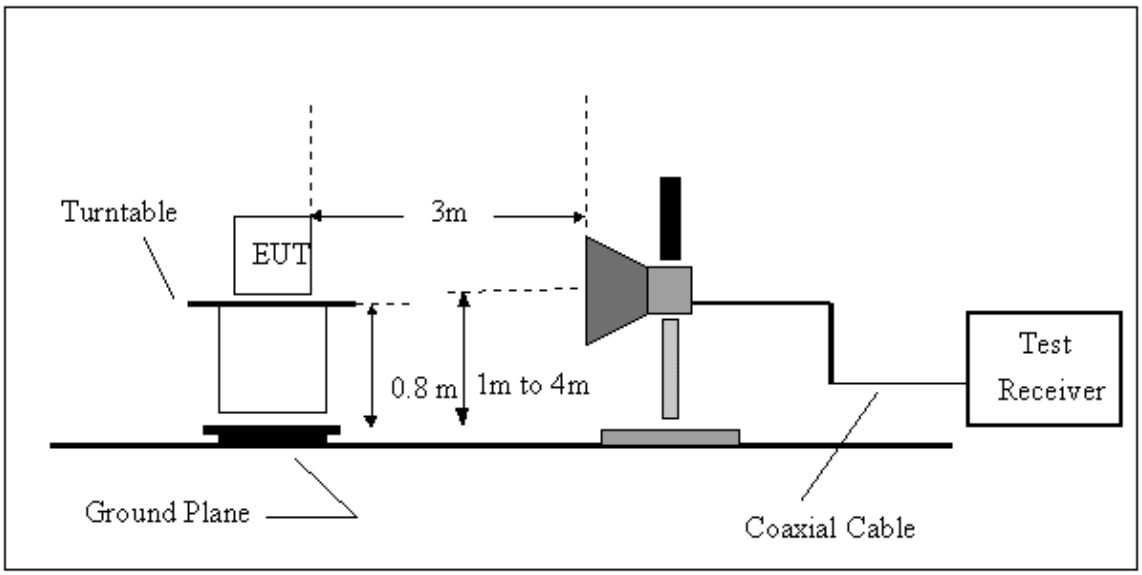
No deviation

4.2.5 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



4.2.6 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **4.1.6** Unless otherwise a special operating condition is specified in the follows during the testing.

4.2.7 TEST RESULTS-BETWEEN 30MHZ - 1000MHZ

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH06		

Freq. (MHz)	Polarization H/V	Reading Level (dBuV)	Correct Factor(dB)	Measurement (dBuV/m)	Limit(Quasi-Peak) (dBuV/m)	Margin (dB)	Note
55.2200	V	48.12	-17.12	31.00	40.00	- 9.00	
336.5200	V	49.58	-14.88	34.70	46.00	- 11.30	
499.4800	V	49.28	-11.02	38.26	46.00	- 7.74	
528.5800	V	42.54	-10.44	32.10	46.00	- 13.90	
567.3800	V	41.52	-9.55	31.97	46.00	- 14.03	
666.3200	V	39.92	-7.89	32.03	46.00	- 13.97	

Remark：

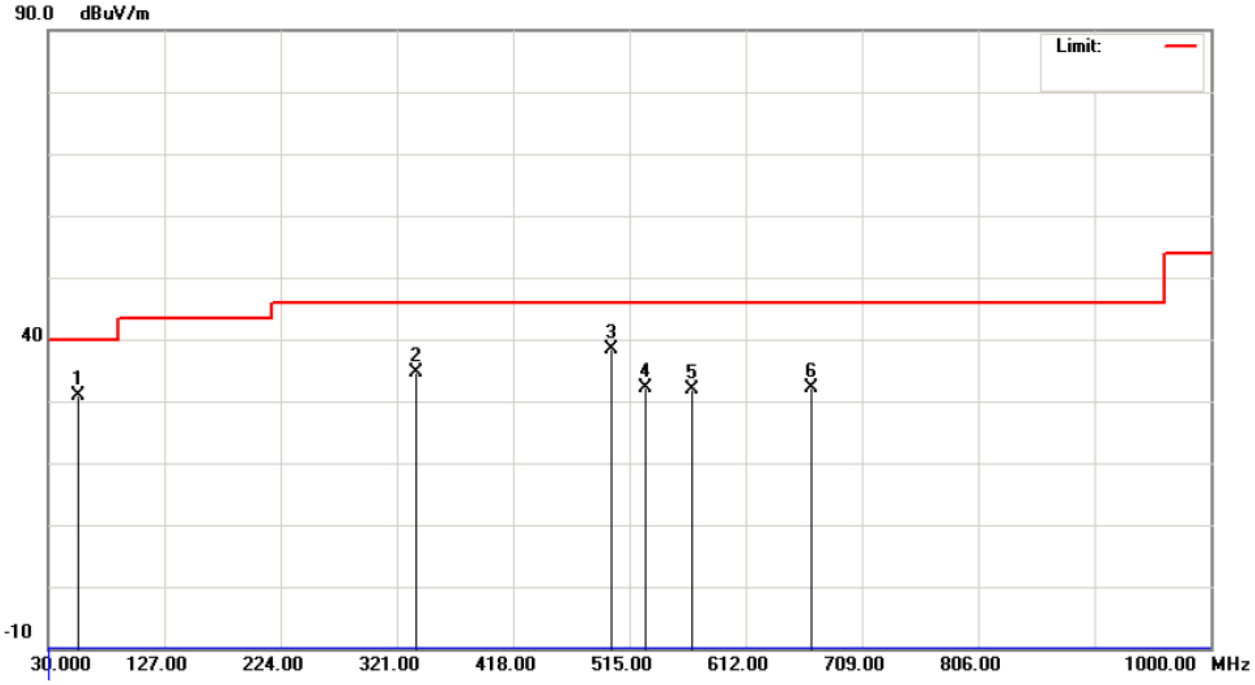
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated QP in column of『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform。

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; " H" denotes spurious frequency. "E" denotes band edge frequency.

(4) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH06		

Freq. (MHz)	Polarization H/V	Reading Level (dBuV)	Correct Factor(dB)	Measurement (dBuV/m)	Limit(Quasi-Peak) (dBuV/m)	Margin (dB)	Note
239.5200	H	50.81	-17.96	32.85	46.00	- 13.15	
336.5200	H	47.18	-14.88	32.30	46.00	- 13.70	
433.5200	H	43.98	-12.34	31.64	46.00	- 14.36	
499.4800	H	42.48	-11.02	31.46	46.00	- 14.54	
567.3800	H	39.01	-9.55	29.46	46.00	- 16.54	
699.3000	H	38.00	-7.39	30.61	46.00	- 15.39	

Remark：

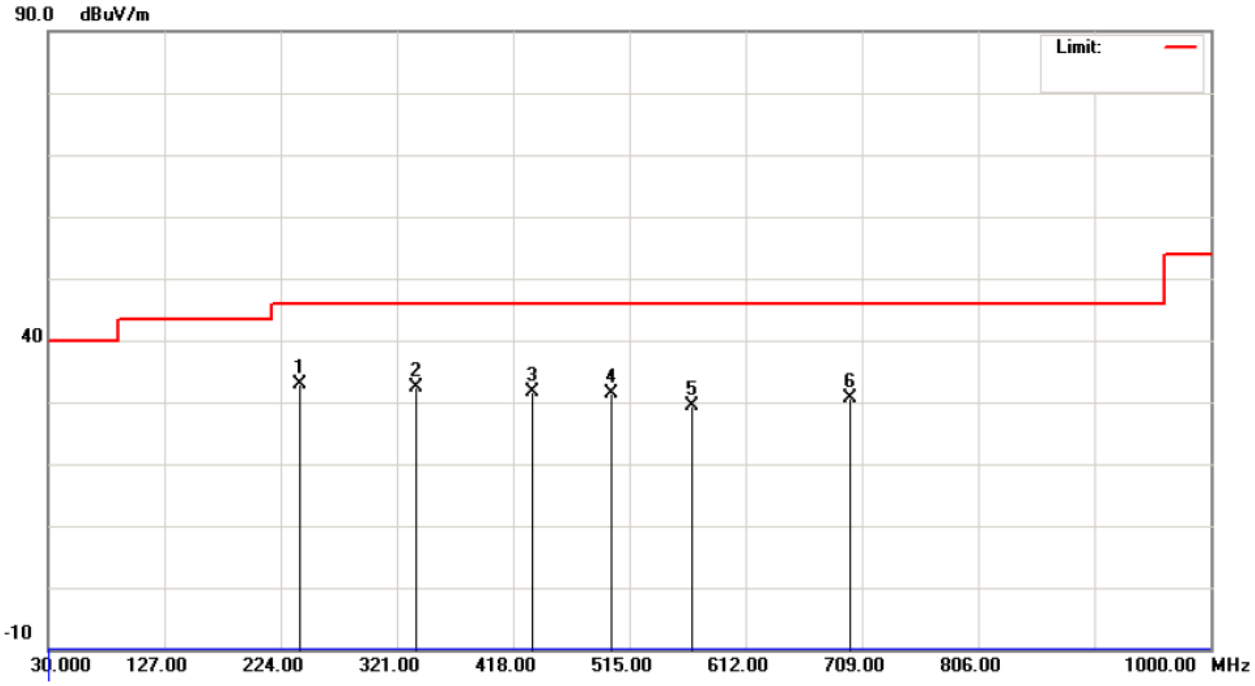
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated QP in column of『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform。

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; " H" denotes spurious frequency. "E" denotes band edge frequency.

(4) Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Peak detector mode or QP detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.



4.2.8 TEST RESULTS - ABOVE 1000MHZ

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b/CH01		

Type	Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
F/H/E	(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
H	2390.000	V	22.19	11.62	31.26	53.45	42.88	74.00	54.00	- 11.12	AV
F	2412.768	V	66.07	62.24	31.36	97.43	93.60				
H	4823.990	V	59.00	45.42	2.89	61.89	48.31	74.00	54.00	- 5.69	AV
H	7236.080	V	42.20	30.99	8.64	50.84	39.63	74.00	54.00	- 14.37	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

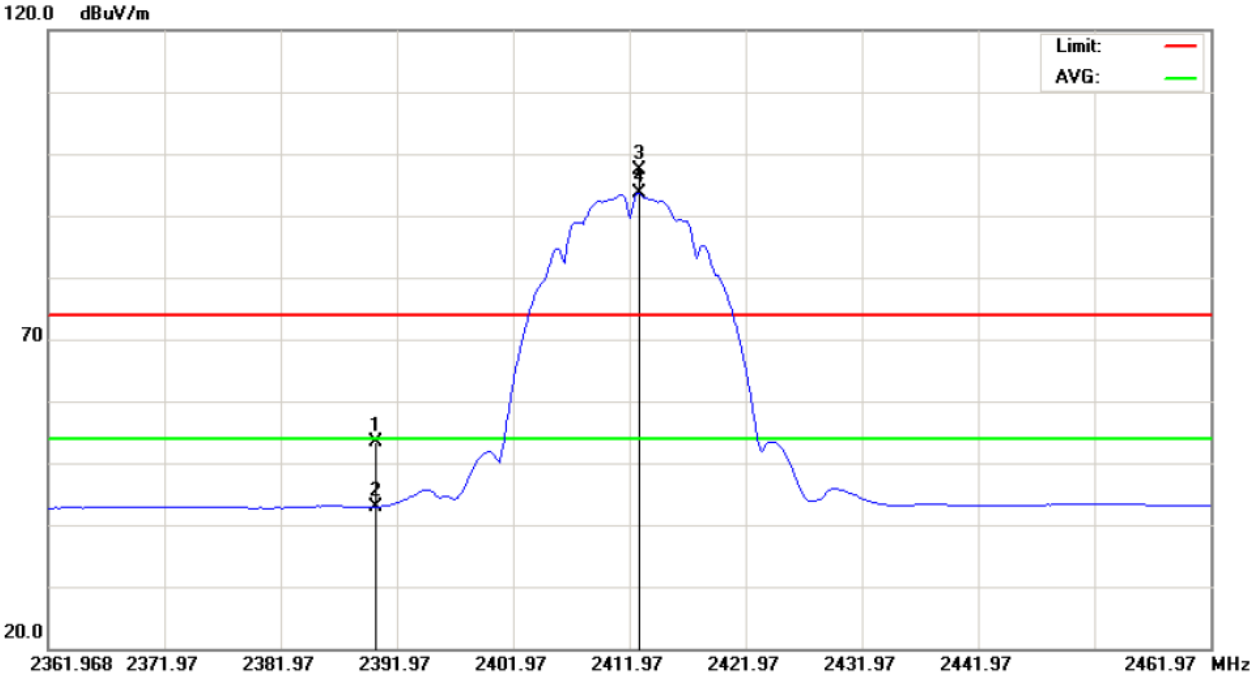
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

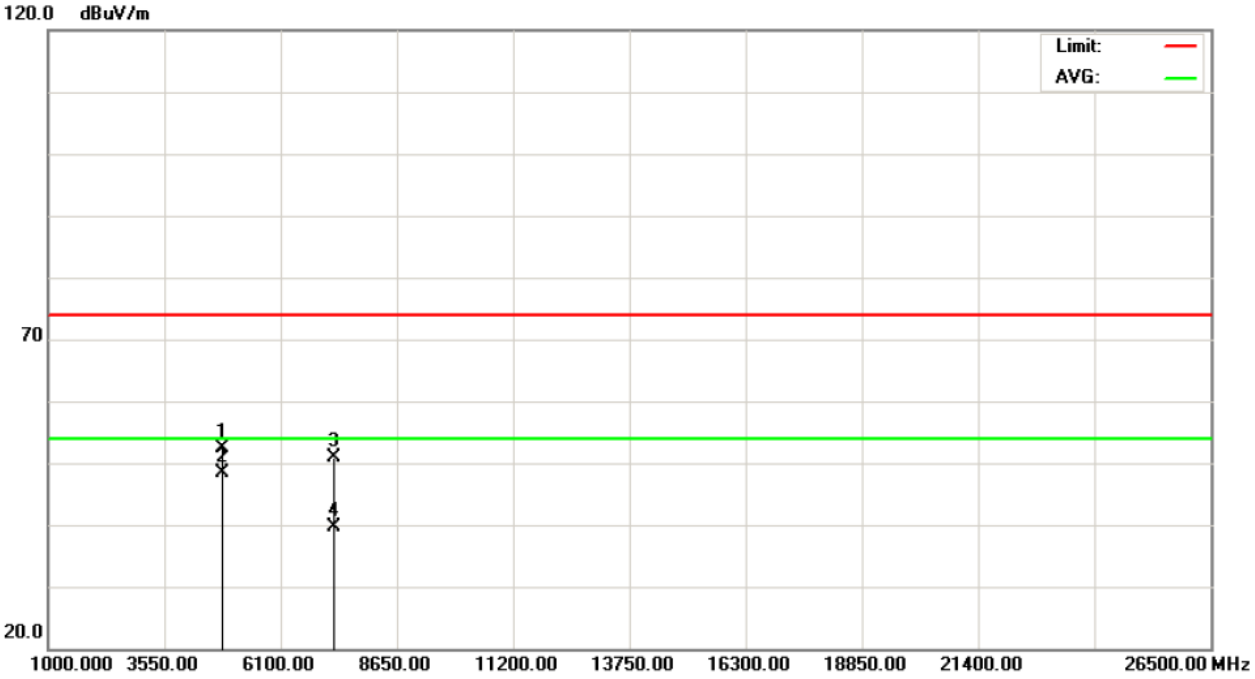
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11b/CH01(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b/CH01		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
H	2386.600	H	22.17	12.27	31.25	53.42	43.52	74.00	54.00	- 10.48	AV
F	2412.768	H	69.49	65.57	31.36	100.85	96.93				
H	4823.976	H	46.07	39.51	2.89	48.96	42.40	74.00	54.00	- 11.60	AV
H	7236.008	H	41.67	30.89	8.64	50.31	39.53	74.00	54.00	- 14.47	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

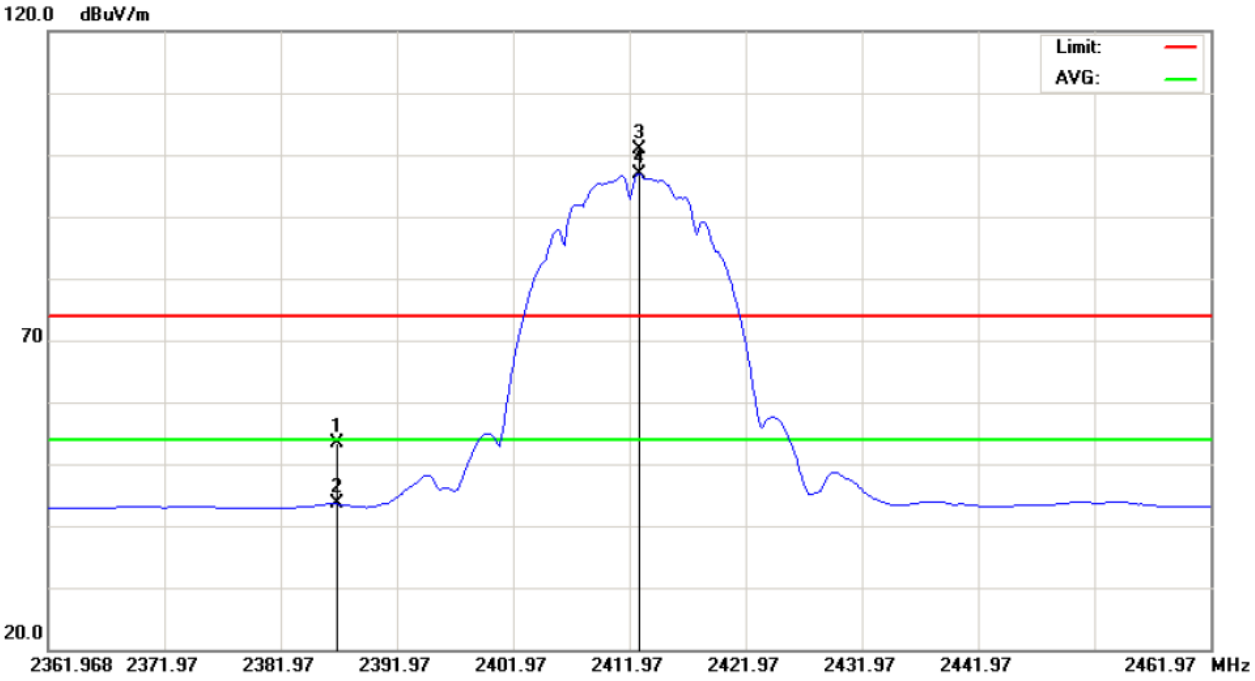
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

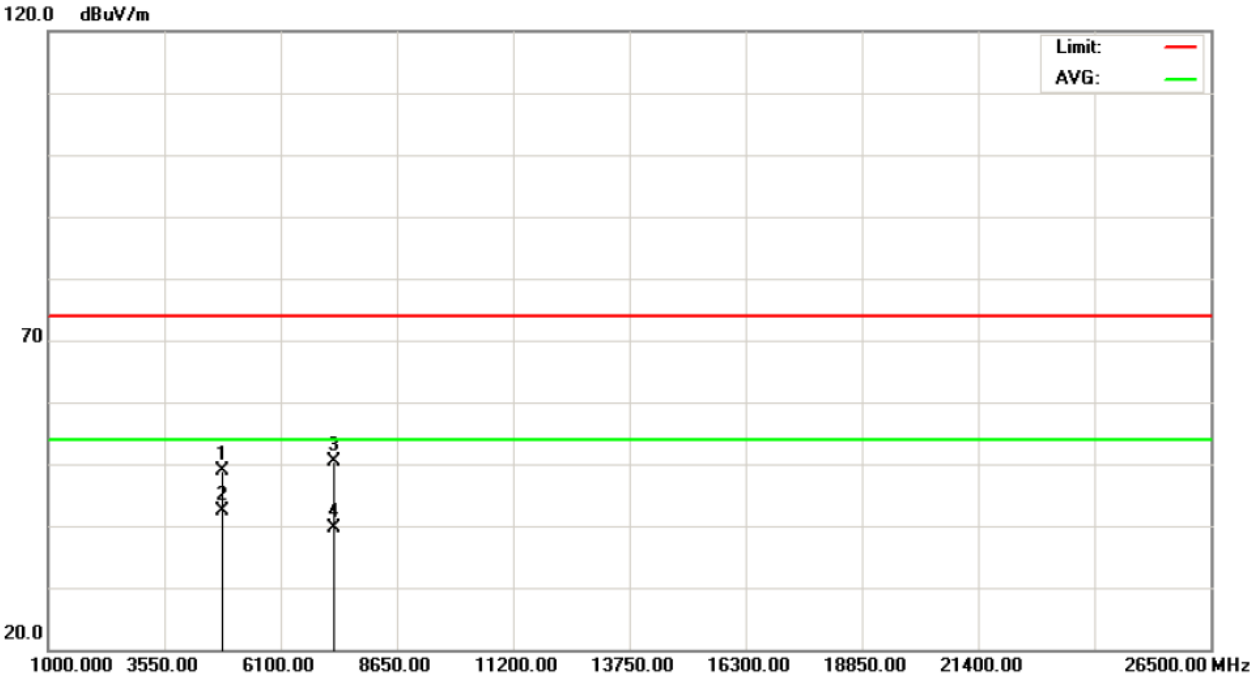
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11b/CH01(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
F	2436.200	V	63.78	67.70	31.47	95.25	99.17				
H	4873.930	V	49.14	44.84	3.01	52.15	47.85	74.00	54.00	- 6.15	AV
H	7311.120	V	41.50	30.45	8.76	50.26	39.21	74.00	54.00	- 14.79	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

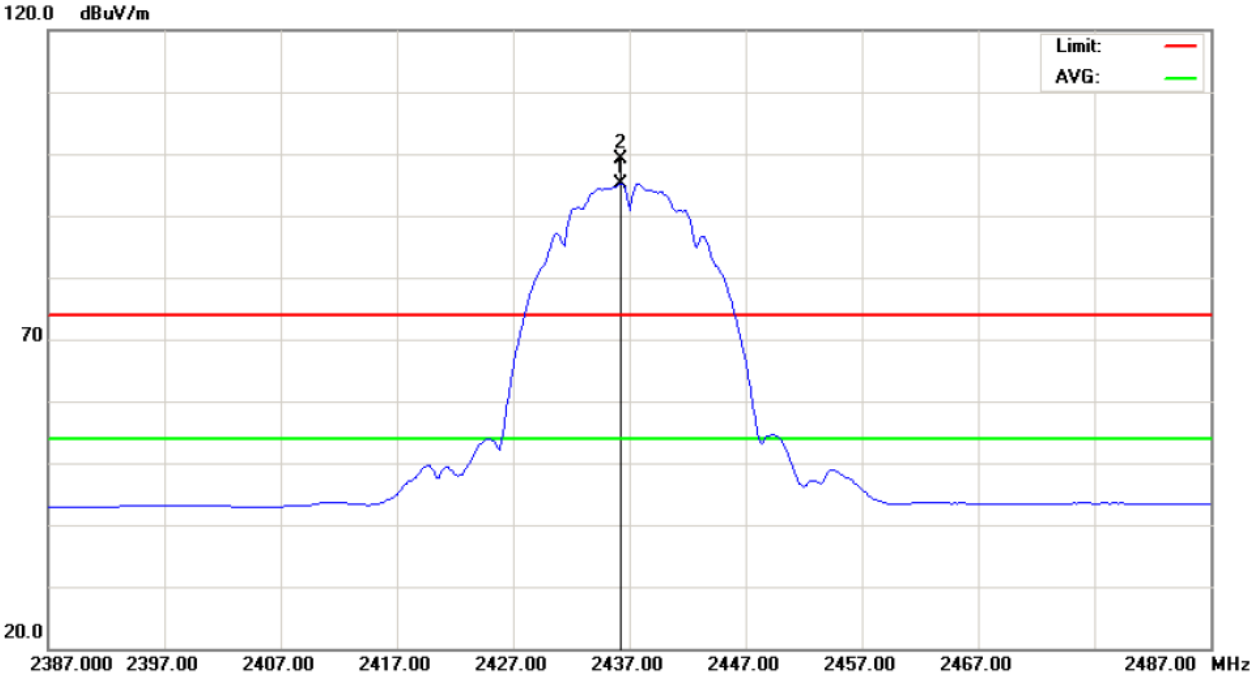
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

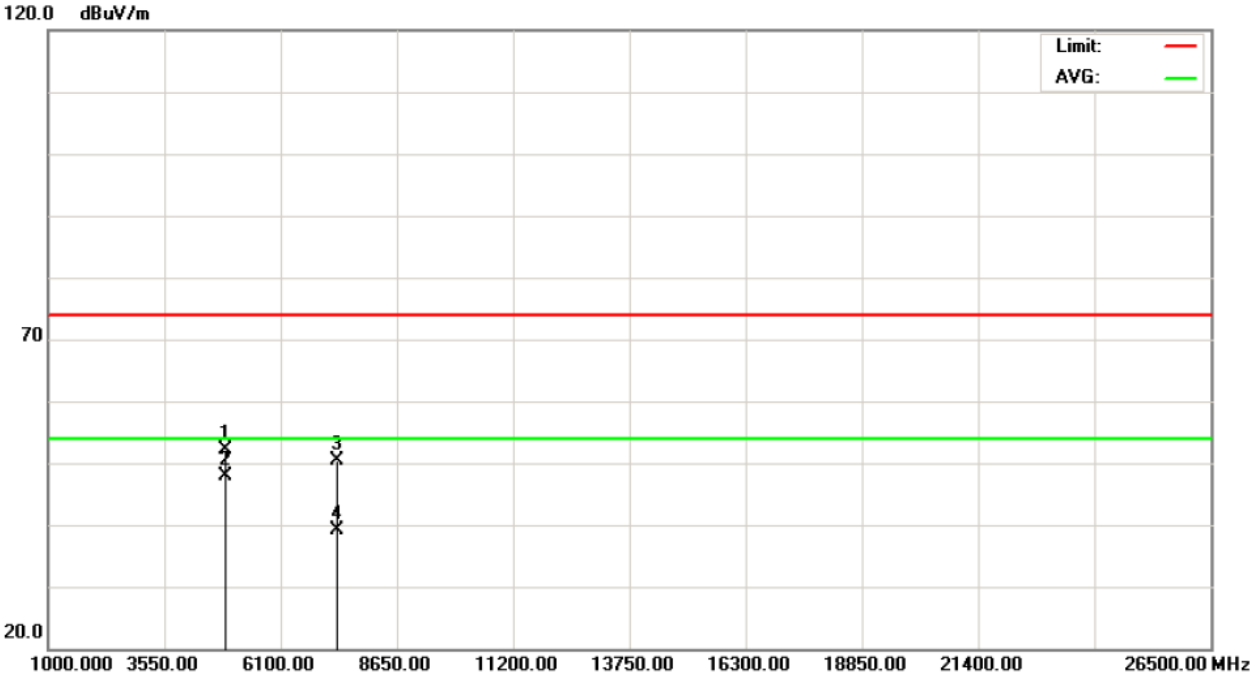
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11b/CH06(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2437.800	H	67.89	63.95	31.48	99.37	95.43				
H	4873.930	H	46.44	39.18	3.01	49.45	42.19	74.00	54.00	- 11.81	AV
H	7310.880	H	40.82	30.36	8.76	49.58	39.12	74.00	54.00	- 14.88	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

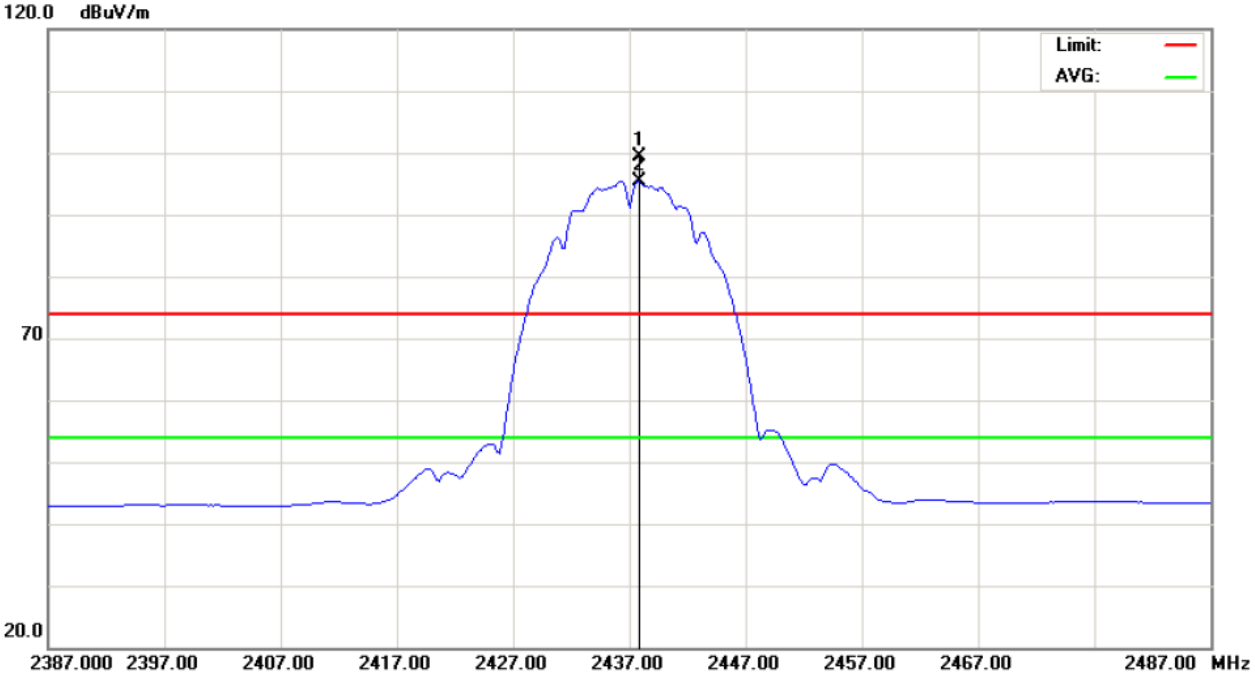
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

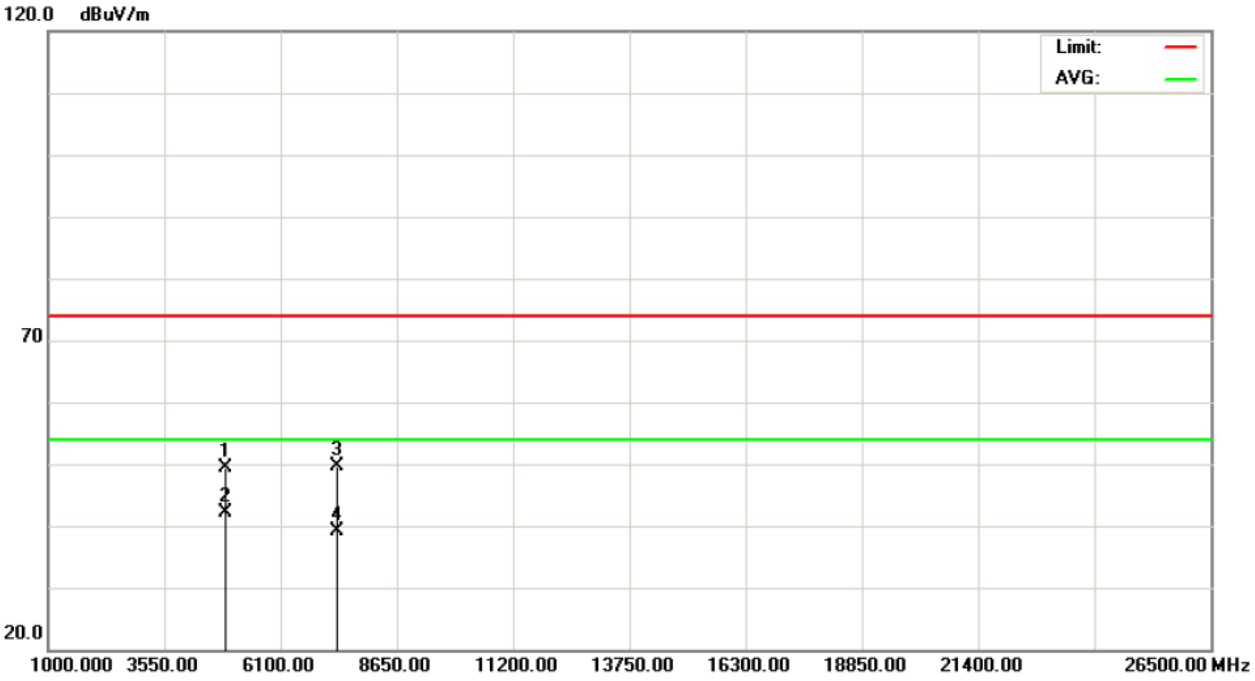
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11b/CH06(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b/CH11		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	462.800	V	67.97	64.08	31.59	99.56	95.67				
H	2483.500	V	21.25	12.10	31.68	52.93	43.78	74.00	54.00	- 10.22	AV
H	4923.990	V	50.11	46.48	3.14	53.25	49.62	74.00	54.00	- 4.38	AV
H	7386.080	V	41.52	30.74	8.87	50.39	39.61	74.00	54.00	- 14.39	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

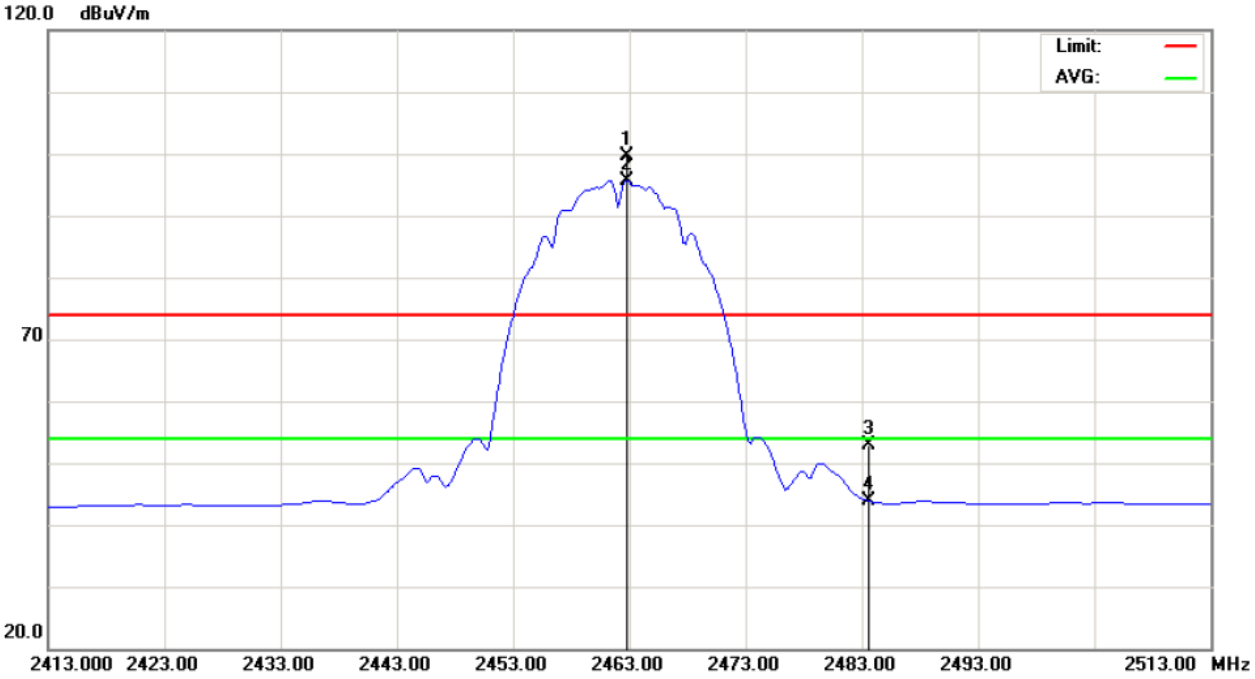
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

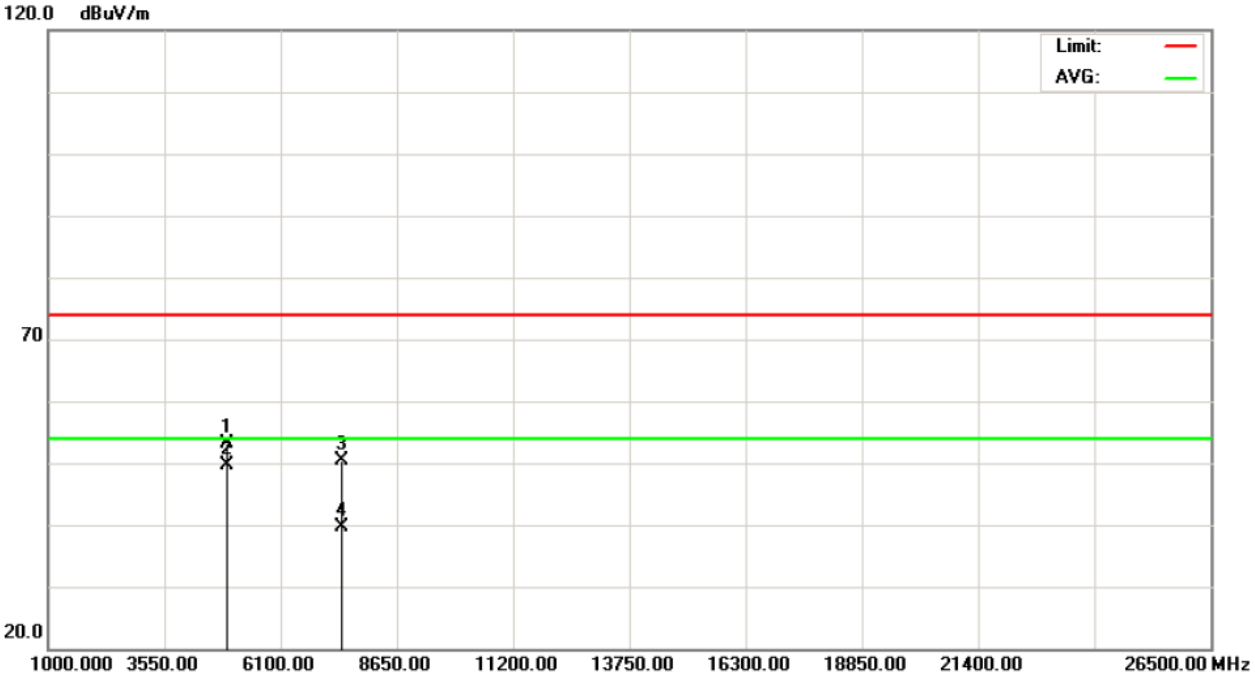
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11b/CH11(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b/CH11		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
F	2462.800	H	68.82	64.89	31.59	100.41	96.48				
H	2483.500	H	23.28	12.62	31.68	54.96	44.30	74.00	54.00	- 9.70	AV
H	4923.990	H	45.67	38.50	3.14	48.81	41.64	74.00	54.00	- 12.36	AV
H	7385.930	H	42.78	30.69	8.87	51.65	39.56	74.00	54.00	- 14.44	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

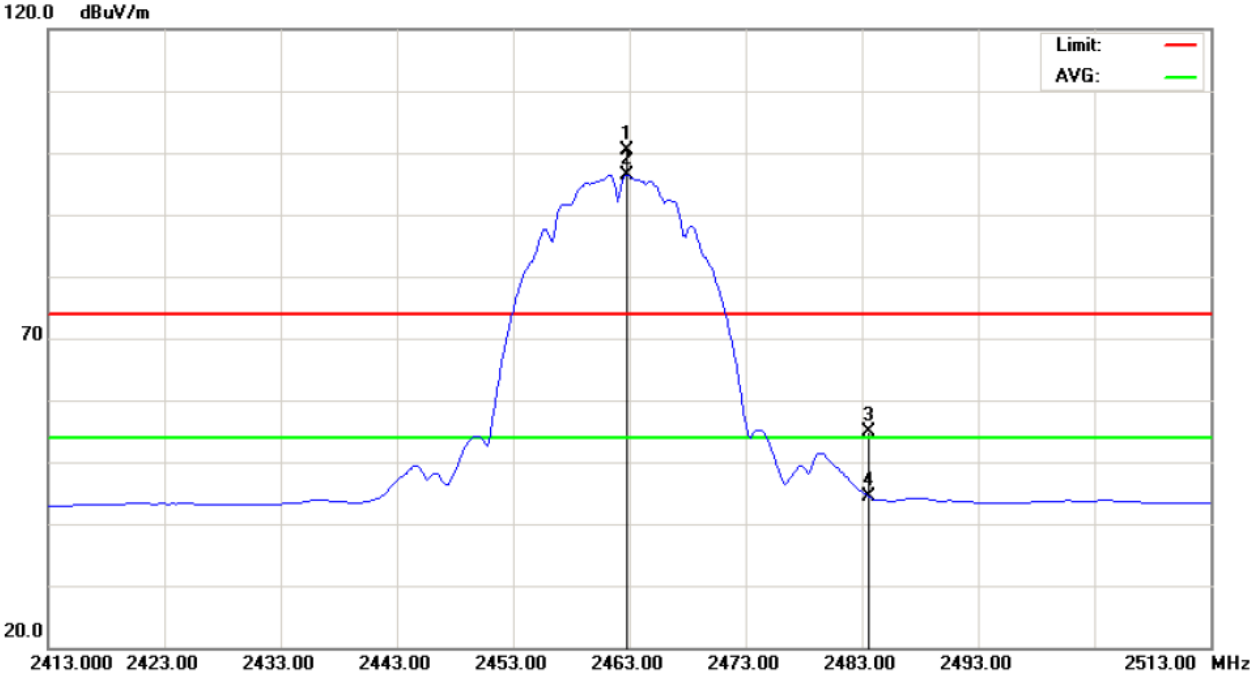
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

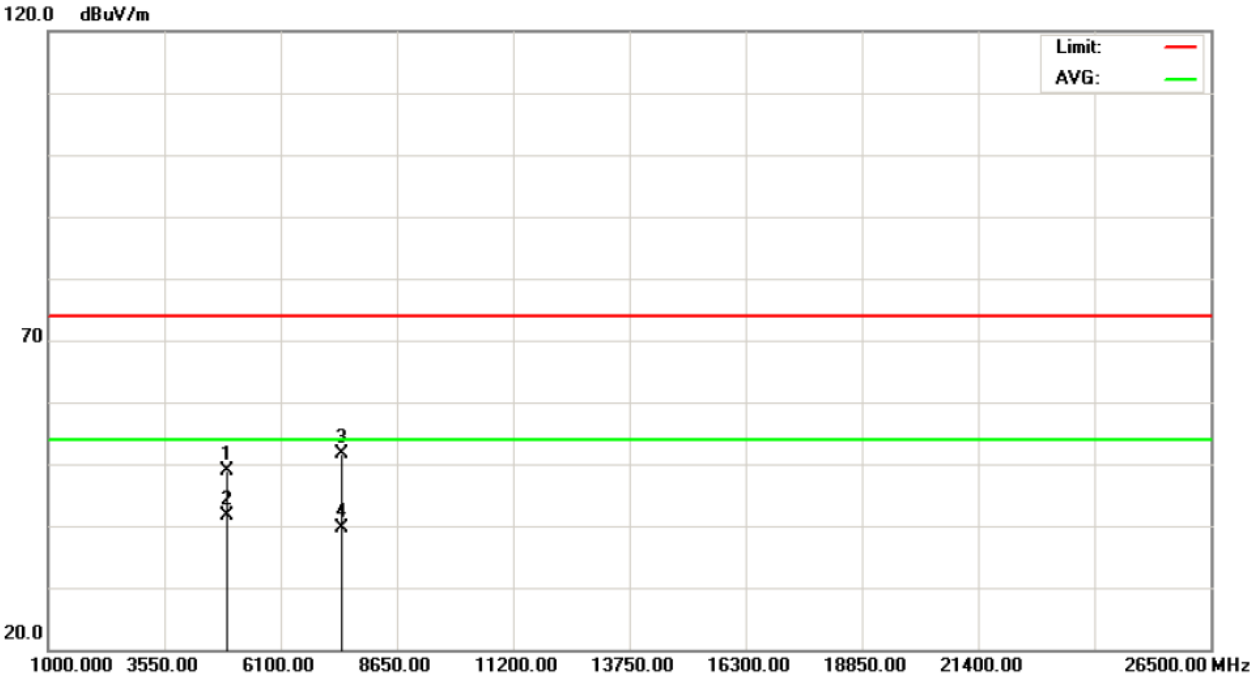
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11b/CH11(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g/CH01		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
H	2390.000	V	23.24	12.47	31.26	54.50	43.73	74.00	54.00	- 10.27	AV
F	2414.600	V	67.02	57.96	31.37	98.39	89.33				
H	4824.000	V	44.43	33.89	2.89	47.32	36.78	74.00	54.00	- 17.22	AV
H	7235.700	V	41.65	30.99	8.64	50.29	39.63	74.00	54.00	- 14.37	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

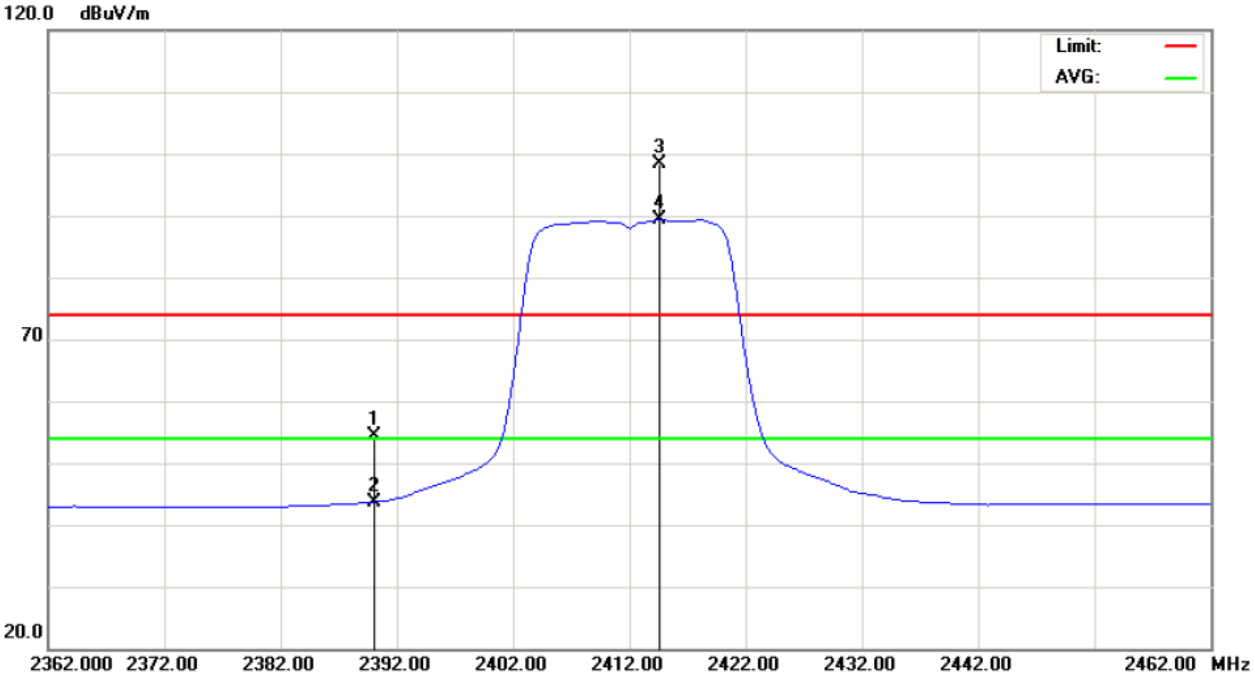
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

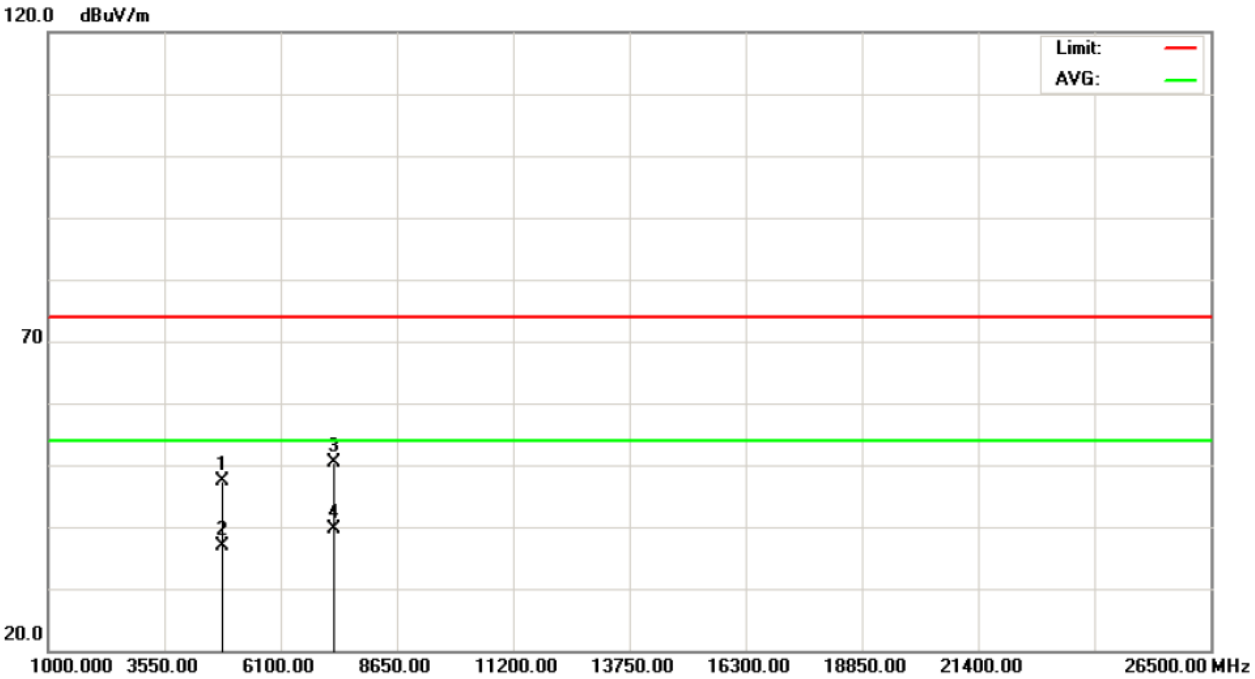
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11g/CH01(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g/CH01		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
H	2390.000	H	22.46	12.35	31.26	53.72	43.61	74.00	54.00	- 10.39	AV
F	2414.600	H	66.69	57.57	31.37	98.06	88.94				
H	4824.400	H	40.52	30.12	2.89	43.41	33.01	74.00	54.00	- 20.99	AV
H	7235.600	H	41.22	30.95	8.64	49.86	39.59	74.00	54.00	- 14.41	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

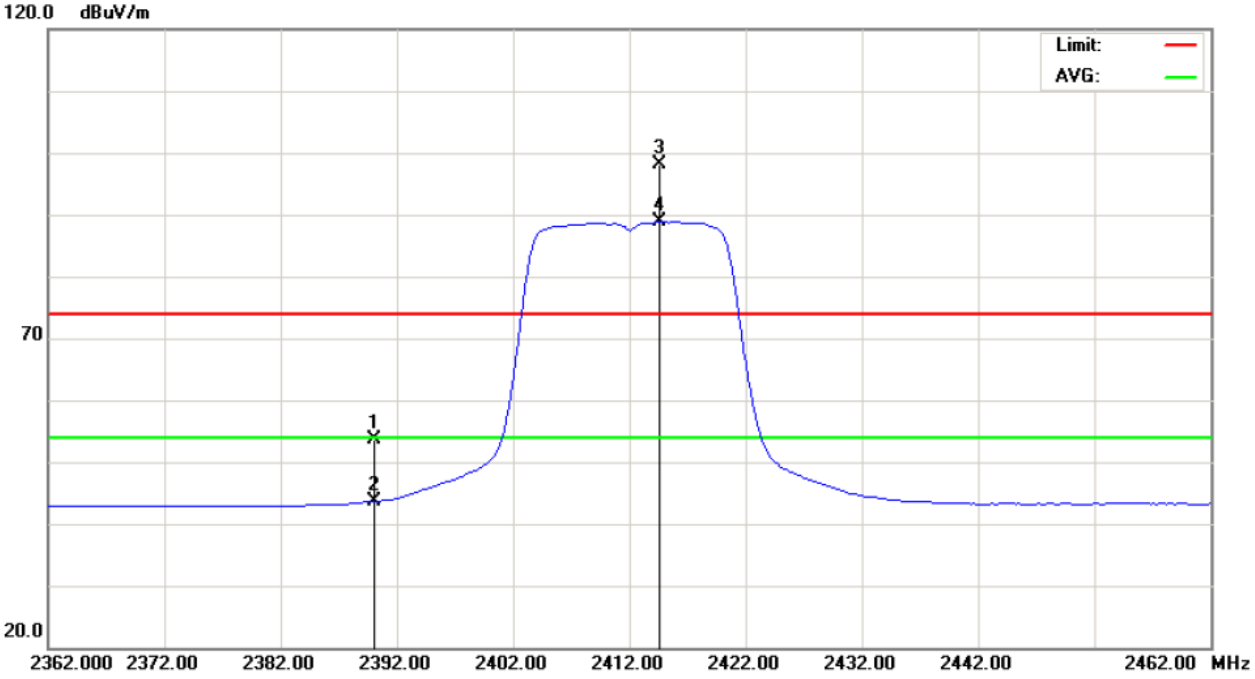
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

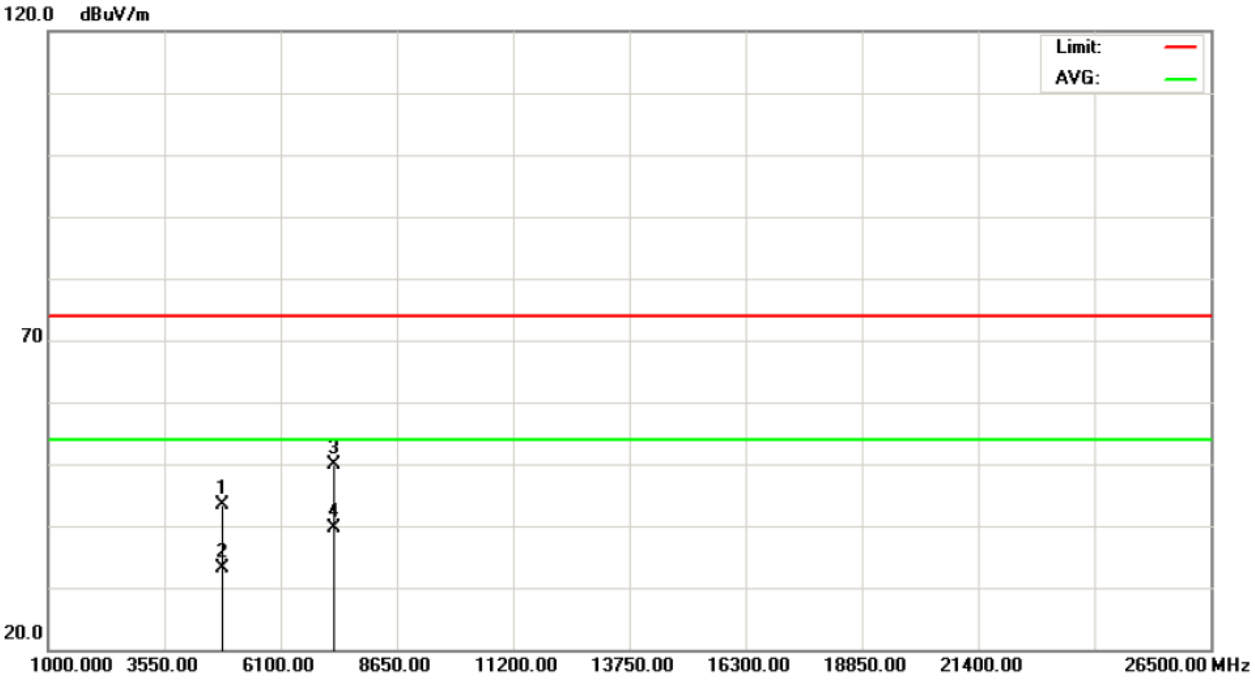
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11g/CH01(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2433.800	V	66.75	57.61	31.46	98.21	89.07				
H	4874.300	V	45.81	33.47	3.02	48.83	36.49	74.00	54.00	- 17.51	AV
H	7311.900	V	41.68	30.56	8.76	50.44	39.32	74.00	54.00	- 14.68	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

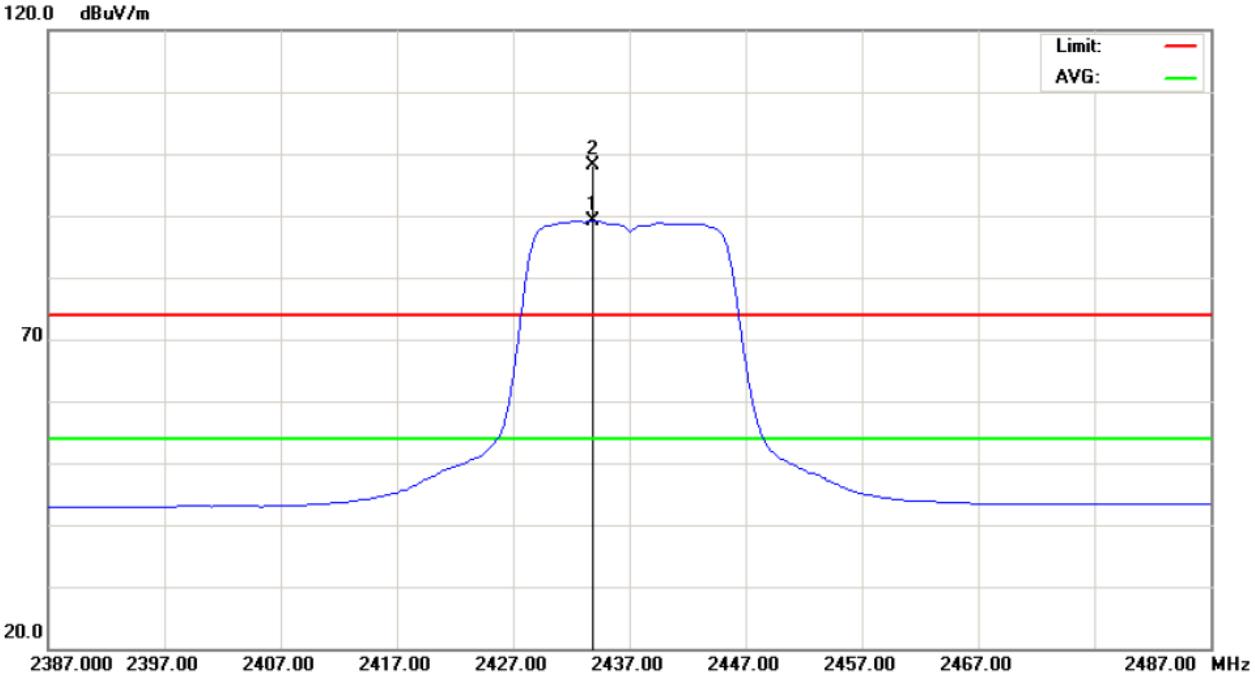
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

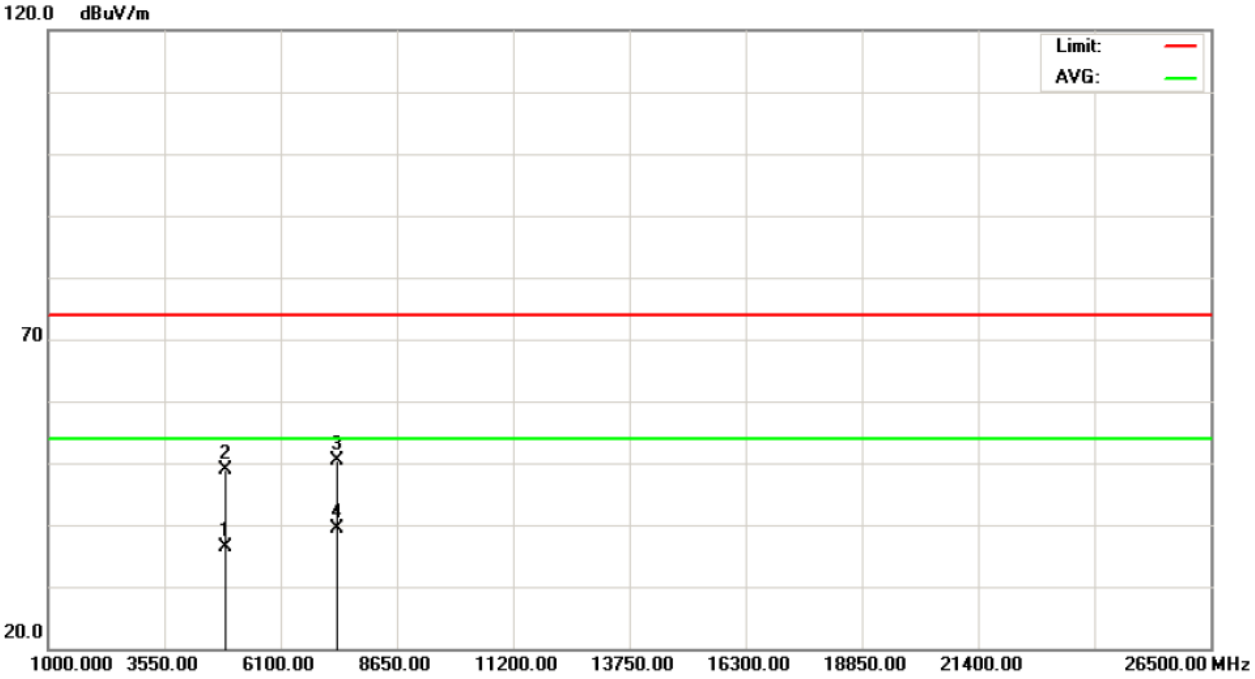
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11g/CH06(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2439.600	H	67.03	57.95	31.48	98.51	89.43				
H	4874.800	H	41.00	30.64	3.02	44.02	33.66	74.00	54.00	- 20.34	AV
H	7310.400	H	40.89	30.48	8.76	49.65	39.24	74.00	54.00	- 14.76	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

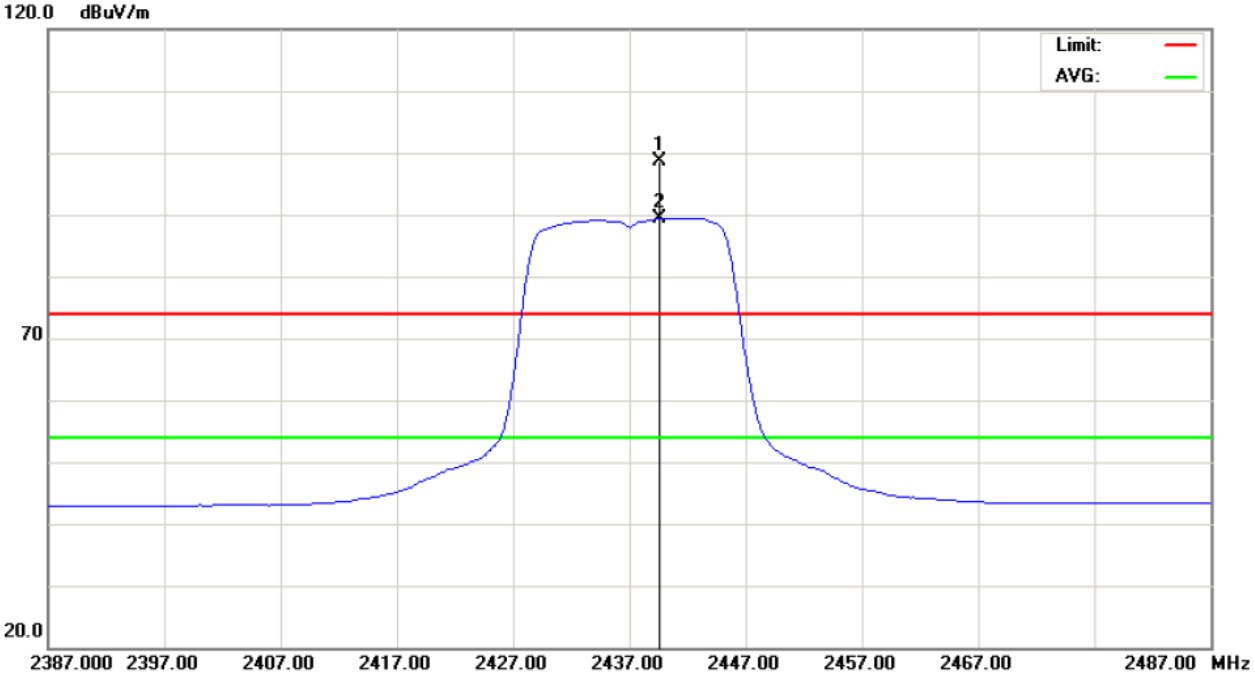
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

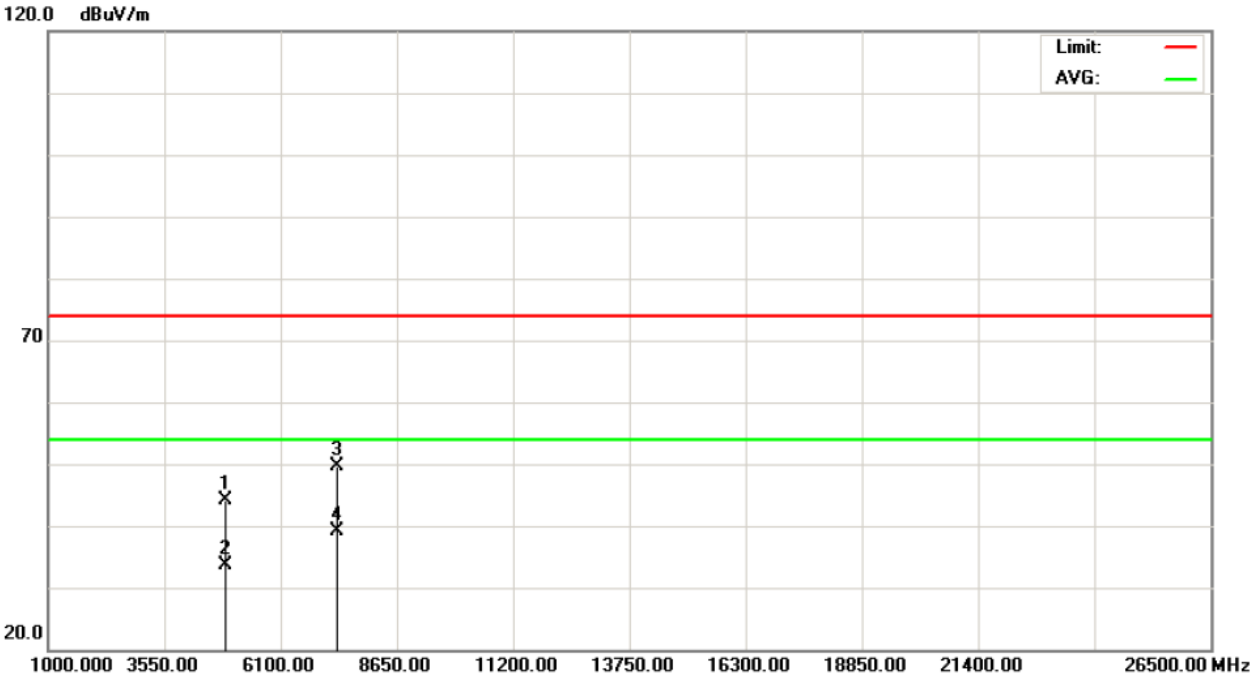
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11g/CH06(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g/CH11		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2464.600	V	67.30	58.04	31.59	98.89	89.63				
H	2483.500	V	23.90	13.69	31.68	55.58	45.37	74.00	54.00	- 8.63	AV
H	4923.400	V	45.01	33.11	3.14	48.15	36.25	74.00	54.00	- 17.75	AV
H	7385.700	V	42.15	30.91	8.87	51.02	39.78	74.00	54.00	- 14.22	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

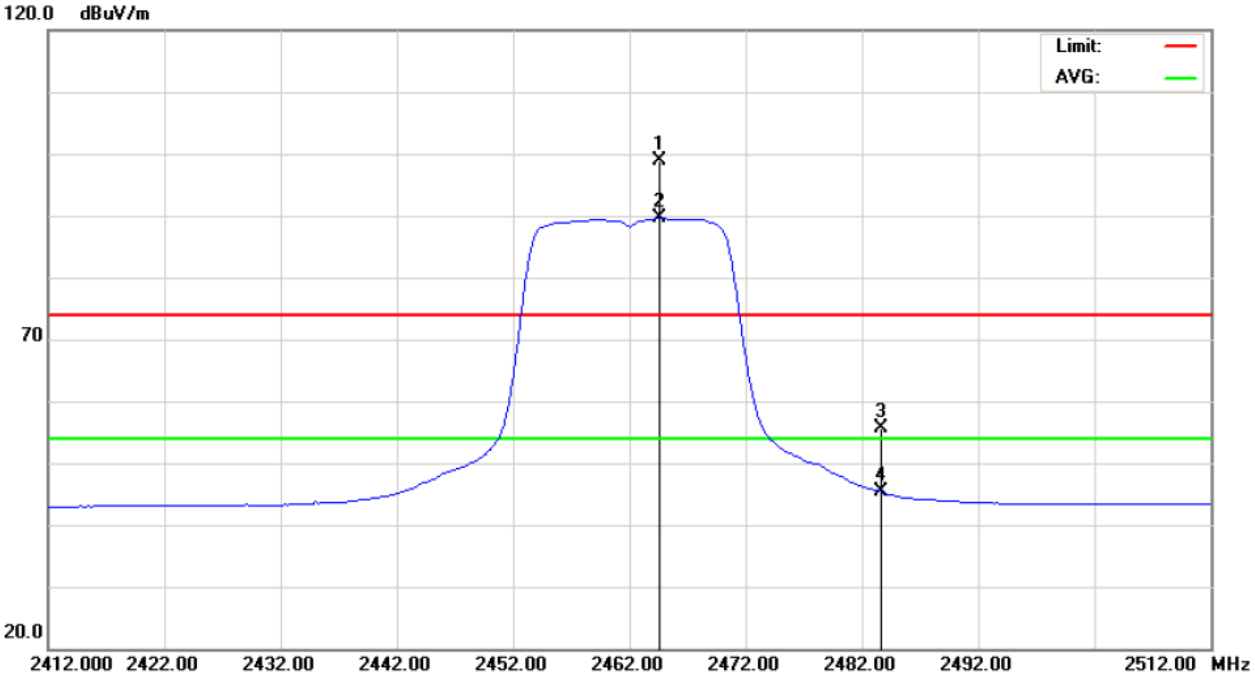
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

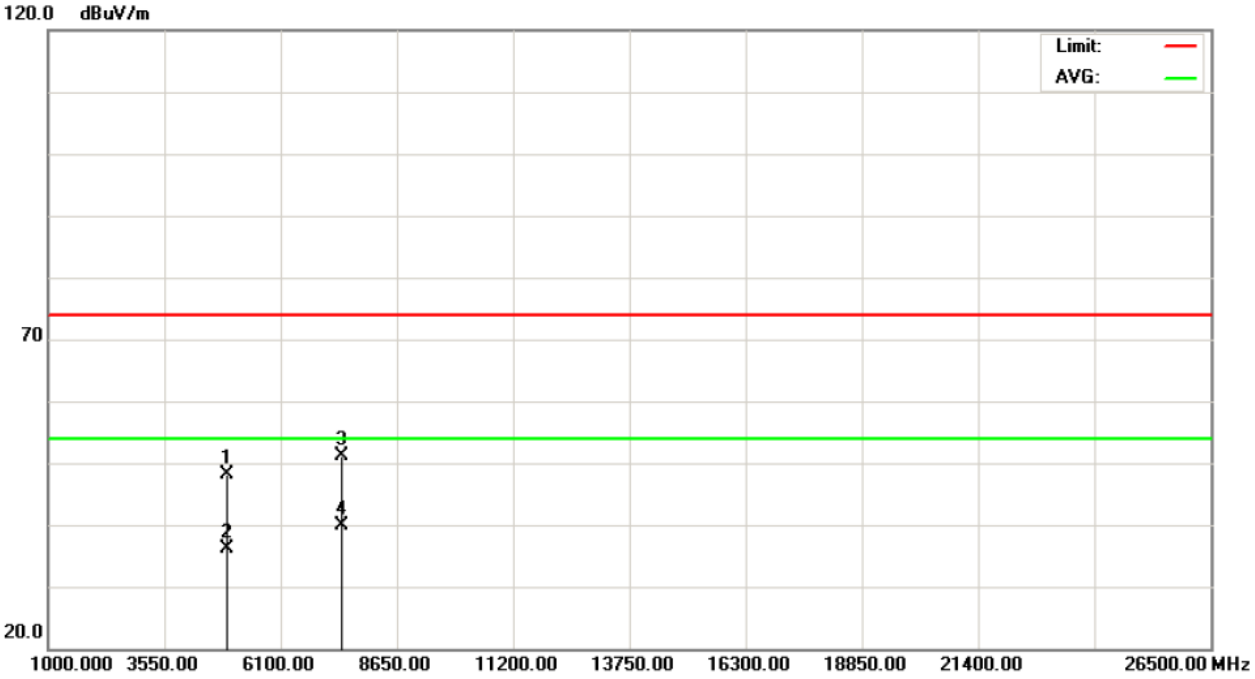
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11g/CH11(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g/CH11		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
F	2464.600	H	67.47	58.35	31.59	99.06	89.94				
H	2483.500	H	25.42	14.07	31.68	57.10	45.75	74.00	54.00	- 8.25	AV
H	4923.700	H	41.77	30.97	3.14	44.91	34.11	74.00	54.00	- 19.89	AV
H	7386.700	H	42.29	30.79	8.87	51.16	39.66	74.00	54.00	- 14.34	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

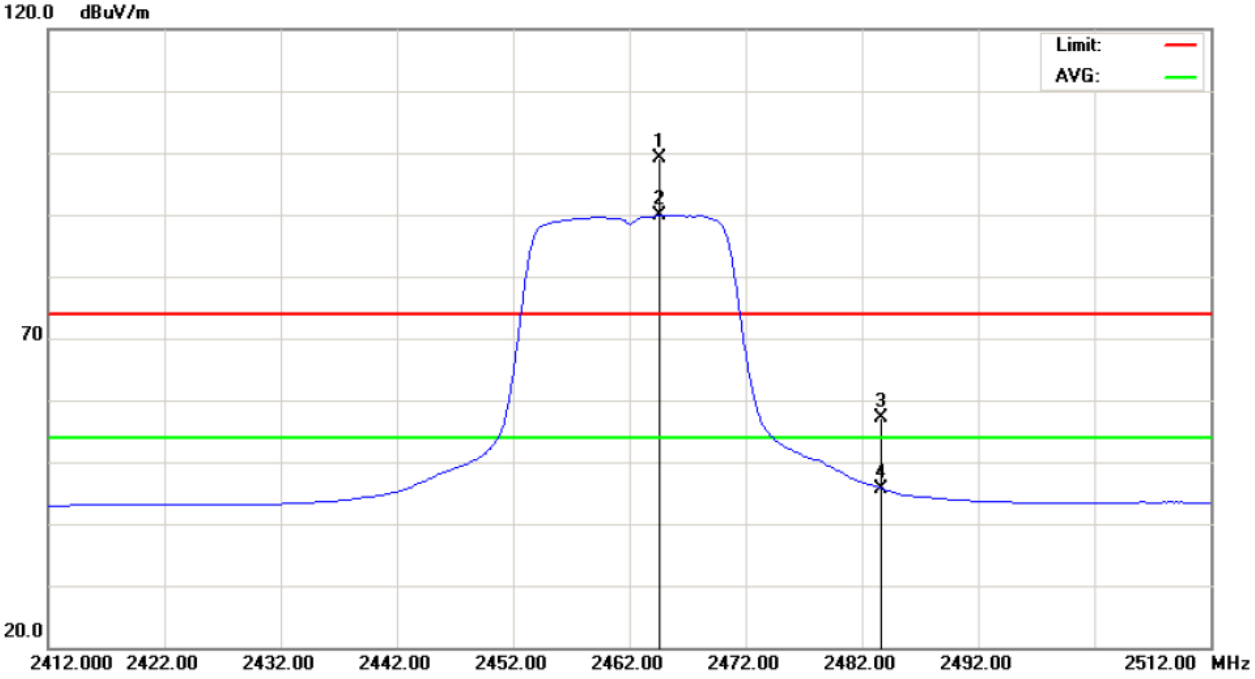
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

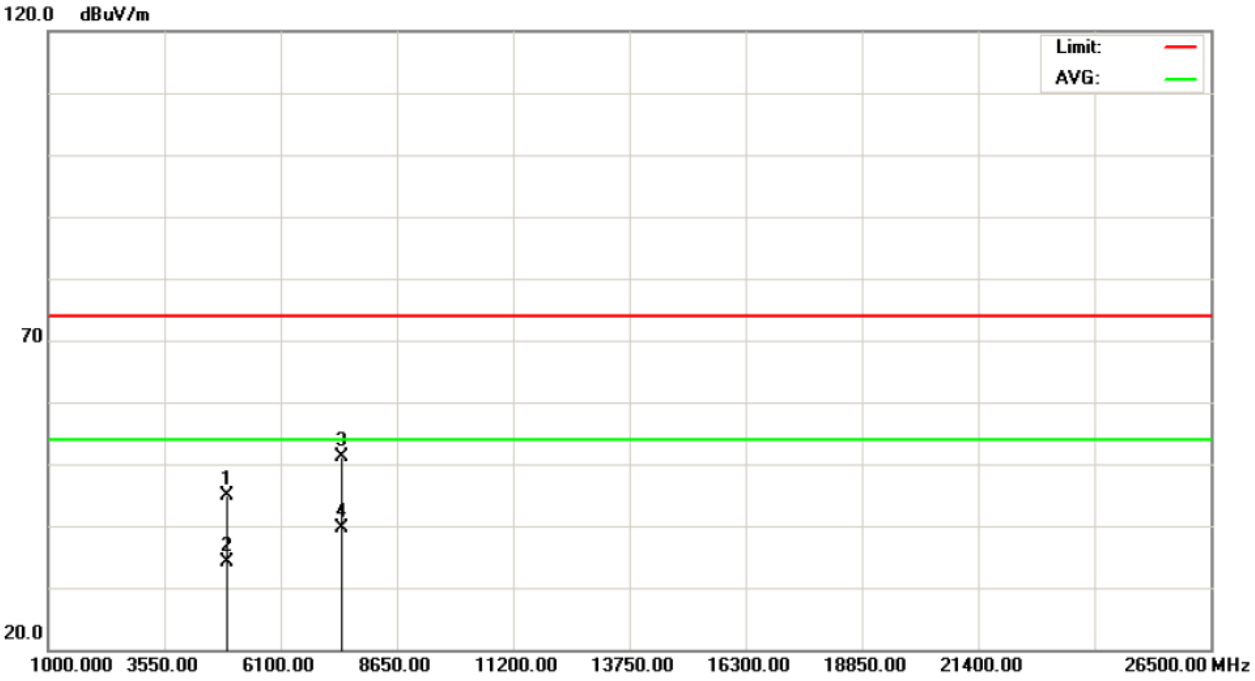
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11g/CH11(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M/CH01		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
H	2390.000	V	22.42	11.89	31.26	53.68	43.15	74.00	54.00	- 10.85	AV
F	2417.200	V	63.24	53.45	31.38	94.62	84.83				
H	4824.200	V	43.00	32.02	2.89	45.89	34.91	74.00	54.00	- 19.09	AV
H	7235.800	V	41.76	30.89	8.64	50.40	39.53	74.00	54.00	- 14.47	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

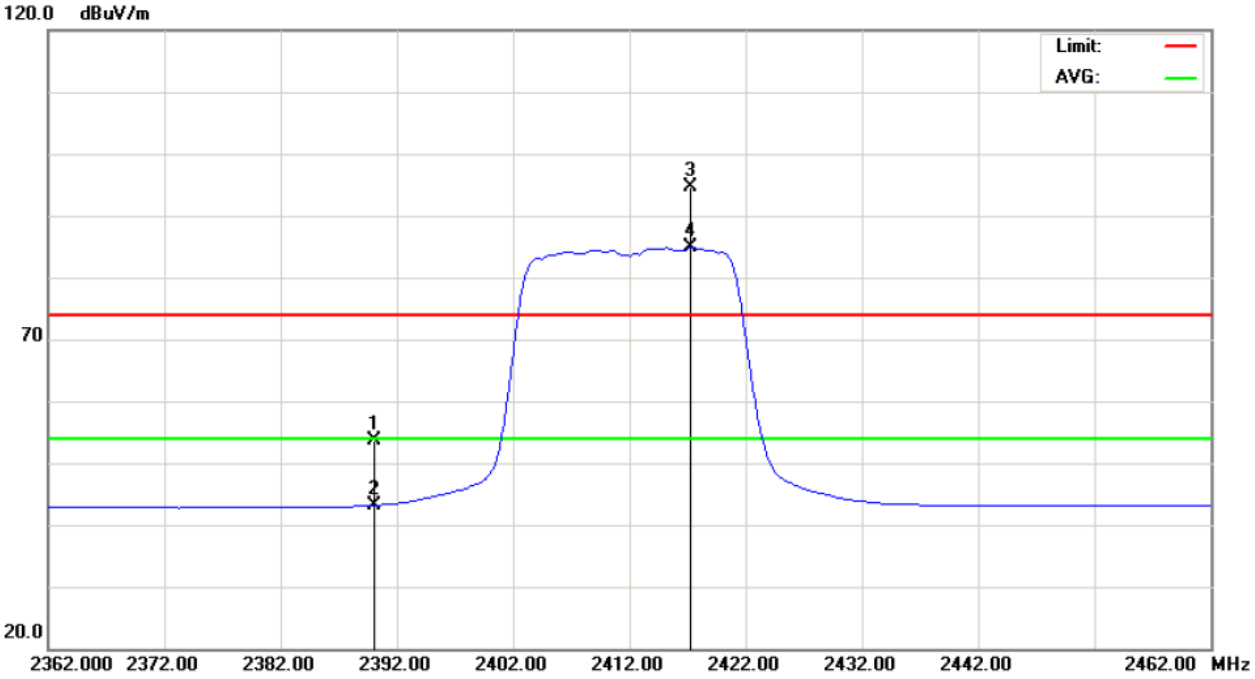
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

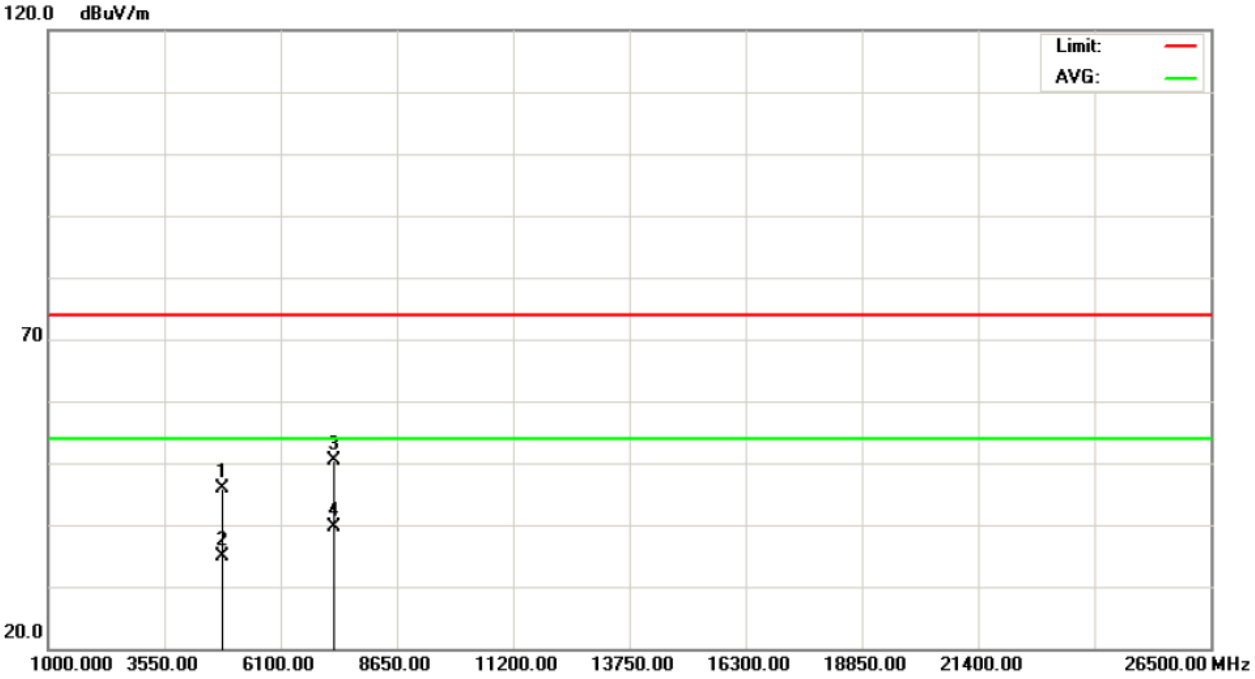
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/20M/CH01(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M/CH01		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
H	2390.000	H	21.51	12.09	31.26	52.77	43.35	74.00	54.00	- 10.65	AV
F	2415.200	H	65.03	55.71	31.38	96.41	87.09				
H	4826.200	H	40.60	30.19	2.90	43.50	33.09	74.00	54.00	- 20.91	AV
H	7234.600	H	40.17	30.74	8.64	48.81	39.38	74.00	54.00	- 14.62	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

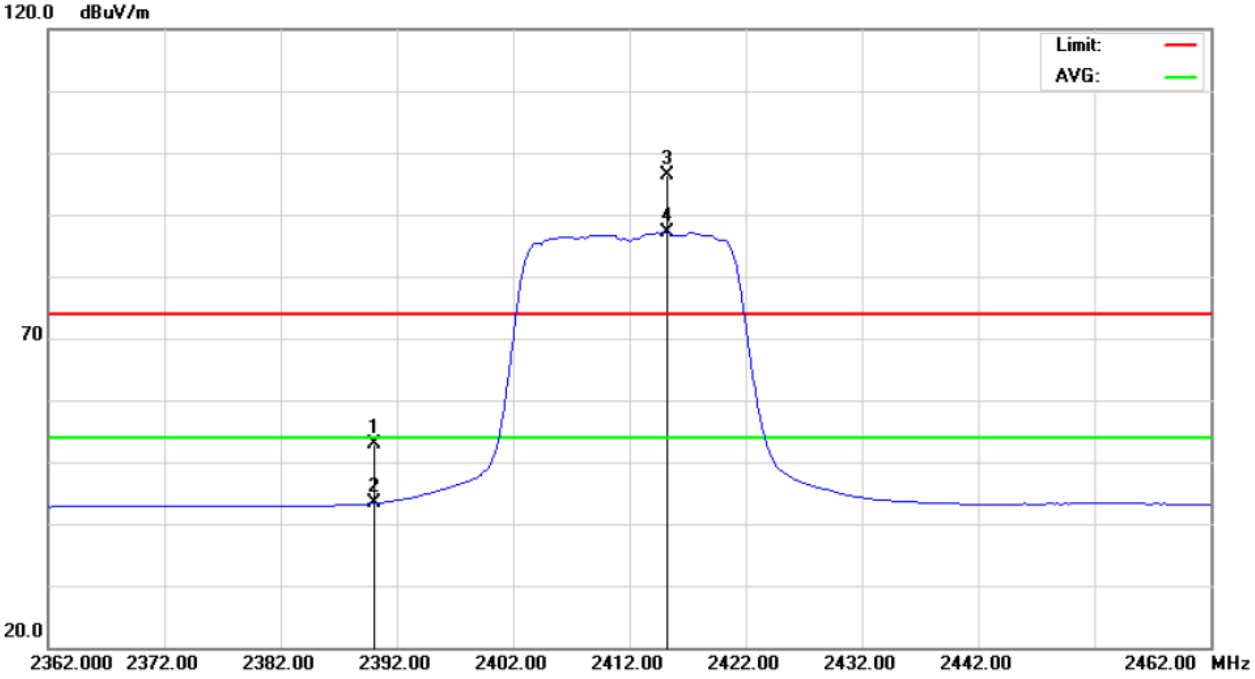
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

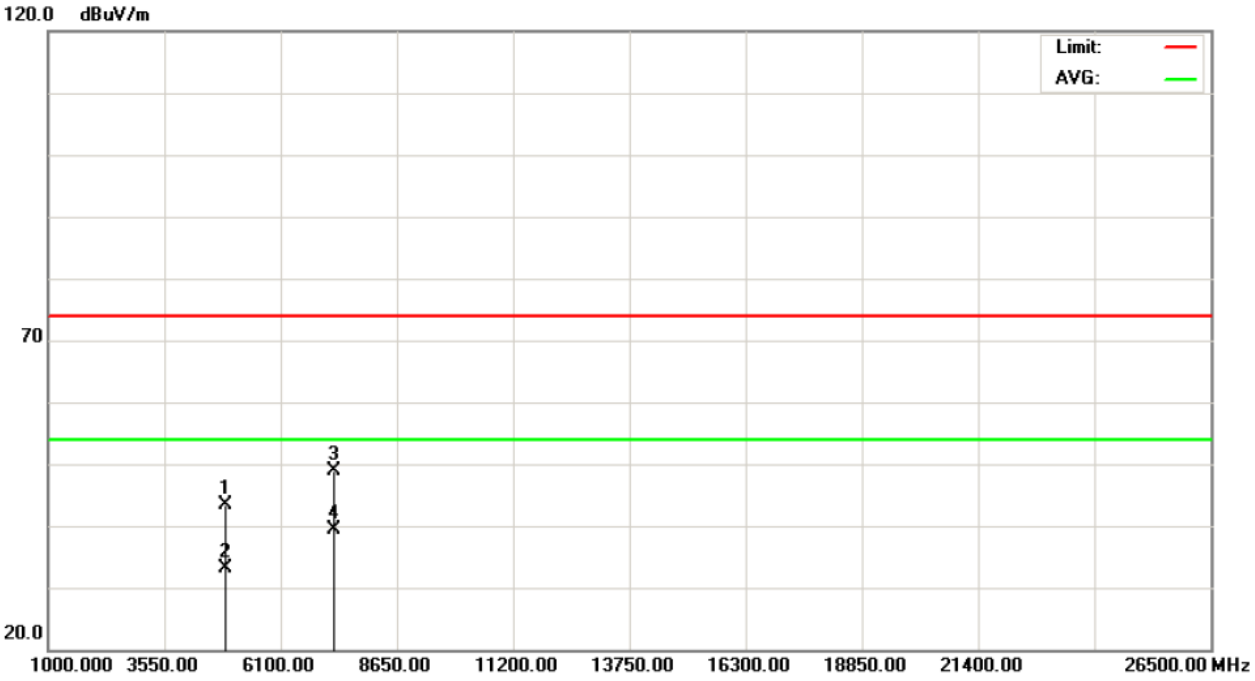
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/20M/CH01(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2433.800	V	62.25	52.78	31.46	93.71	84.24				
H	4873.800	V	44.59	32.76	3.01	47.60	35.77	74.00	54.00	- 18.23	AV
H	7311.000	V	42.04	30.49	8.76	50.80	39.25	74.00	54.00	- 14.75	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

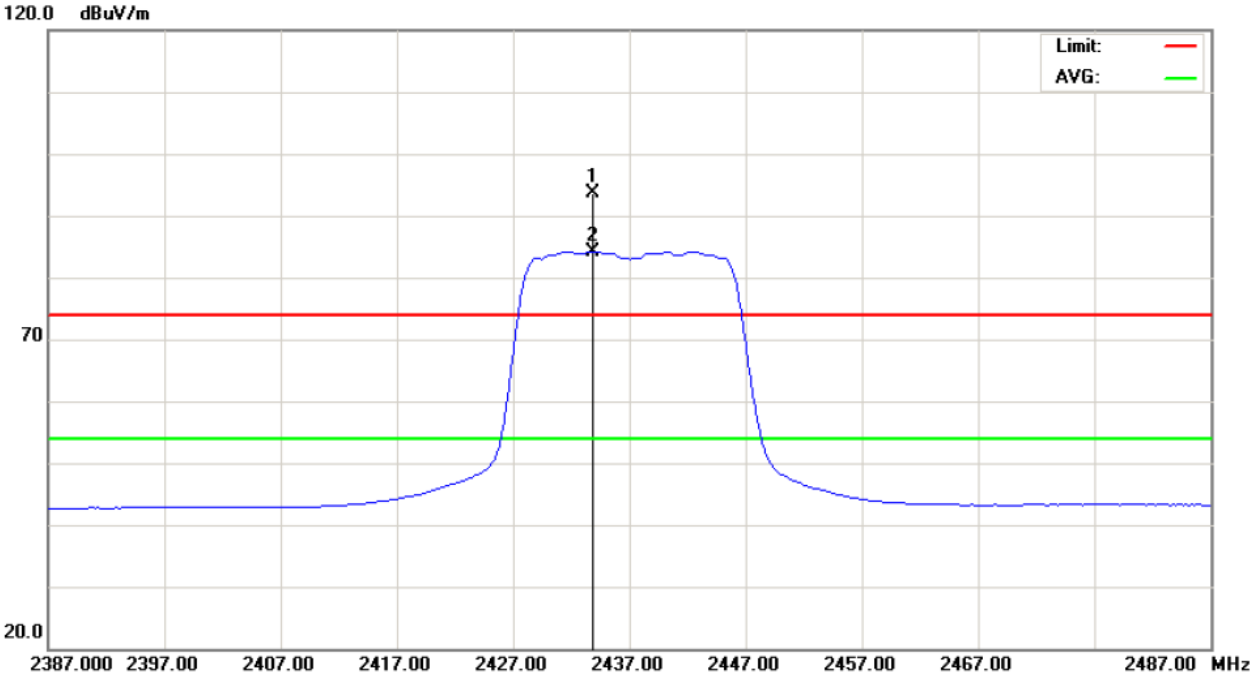
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

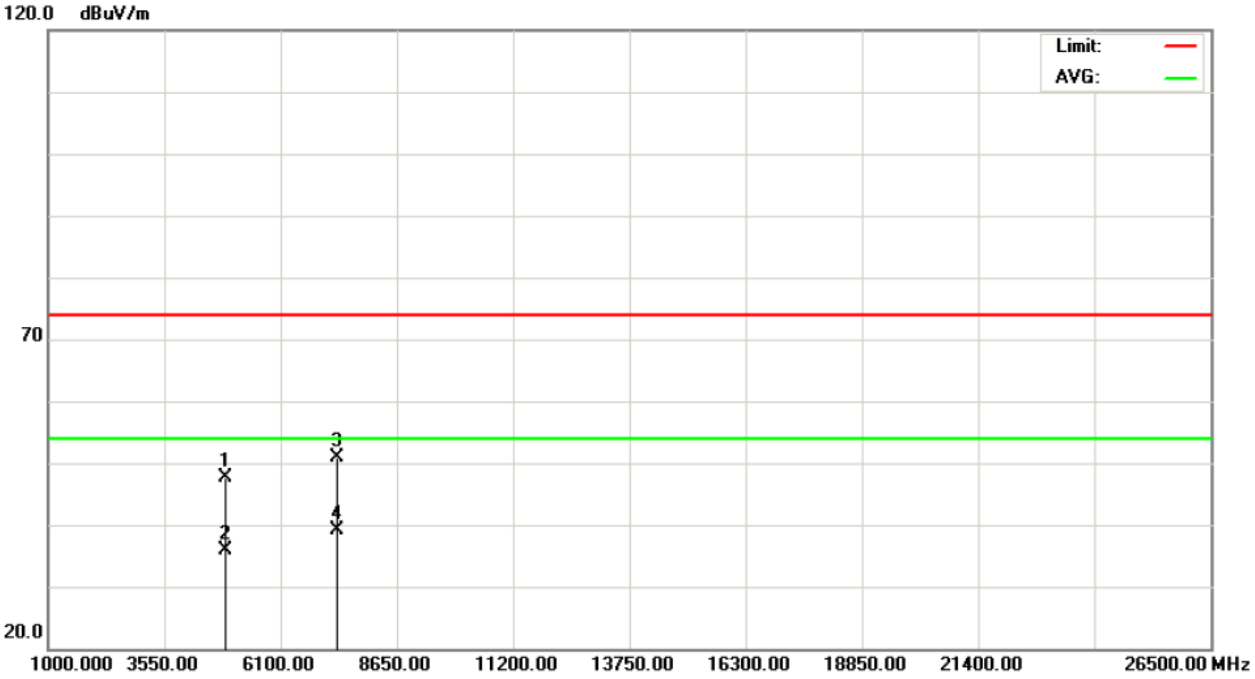
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/20M/CH06(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2440.200	H	64.51	55.54	31.49	96.00	87.03				
H	4876.000	H	39.77	30.15	3.02	42.79	33.17	74.00	54.00	- 20.83	AV
H	7311.000	H	41.37	30.53	8.76	50.13	39.29	74.00	54.00	- 14.71	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

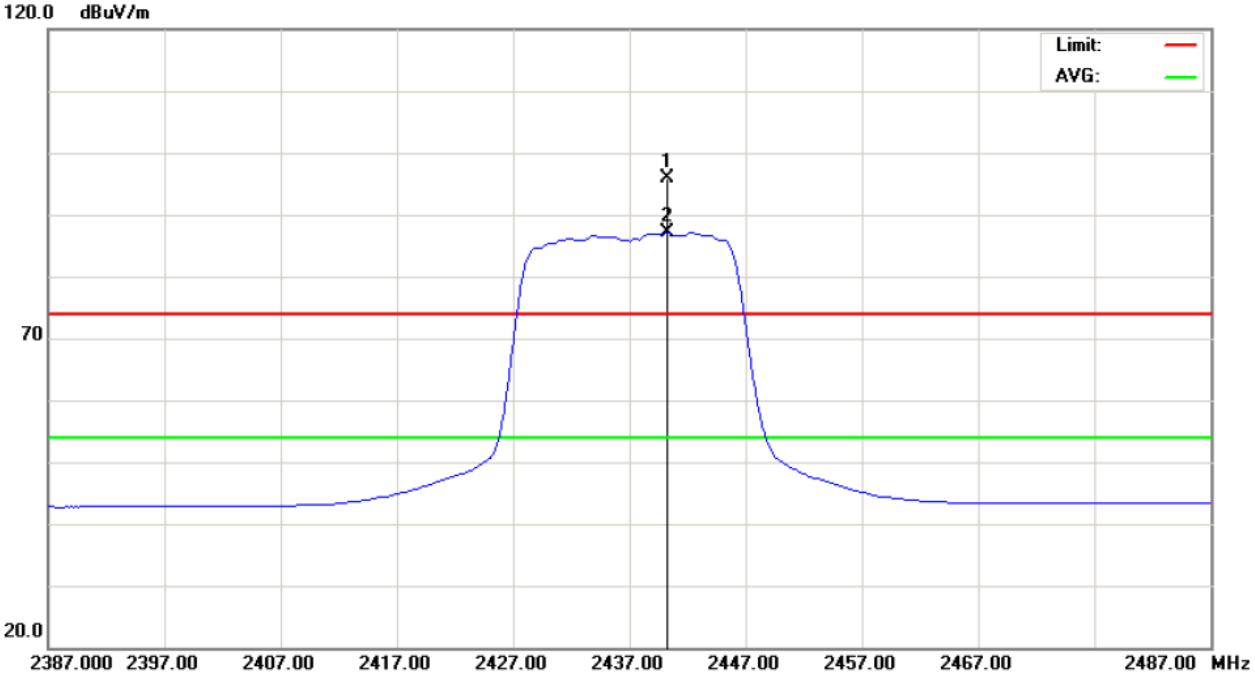
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

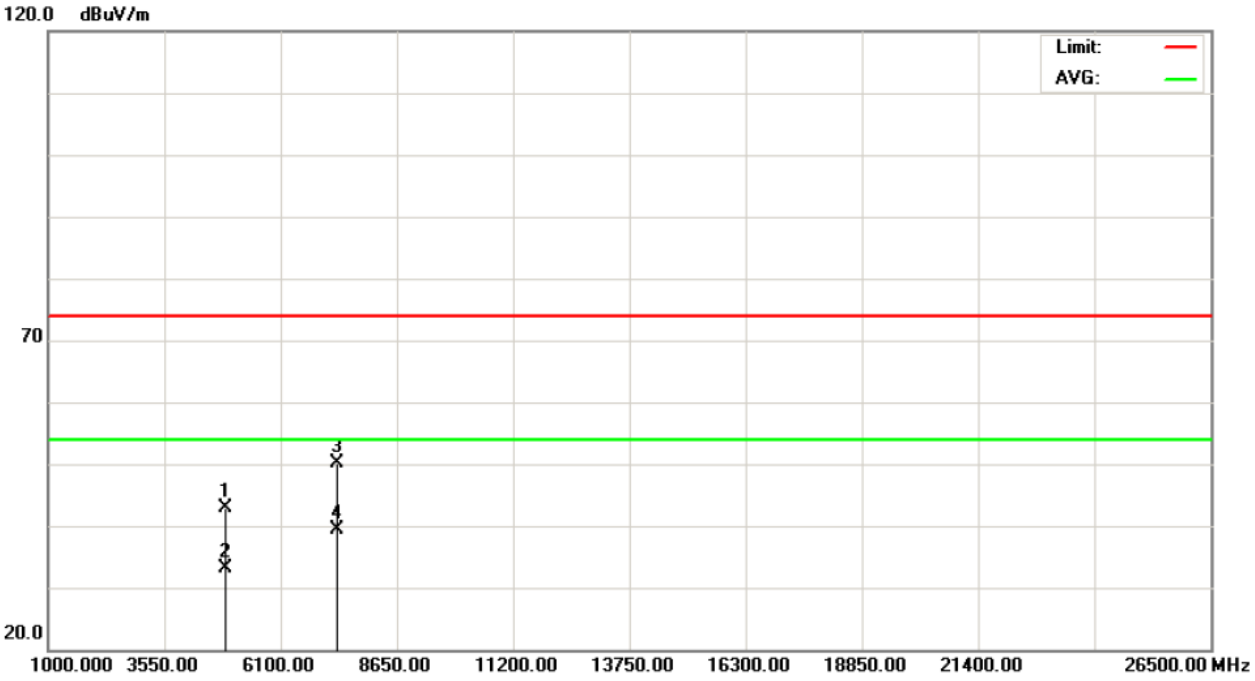
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/20M/CH06(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M/CH11		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
F	2465.200	V	64.20	47.00	31.60	95.80	78.60				
H	2483.500	V	22.14	12.71	31.68	53.82	44.39	74.00	54.00	- 9.61	AV
H	4923.800	V	44.37	32.53	3.14	47.51	35.67	74.00	54.00	- 18.33	AV
H	7385.200	V	41.26	30.83	8.87	50.13	39.70	74.00	54.00	- 14.30	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

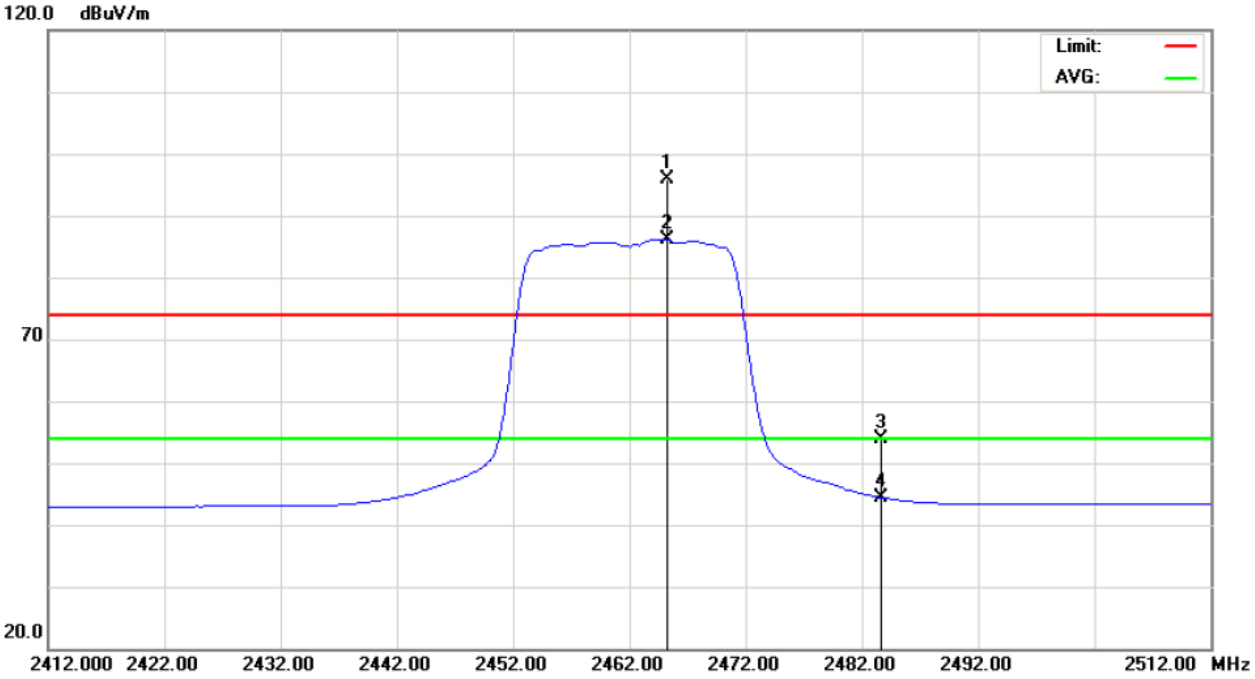
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

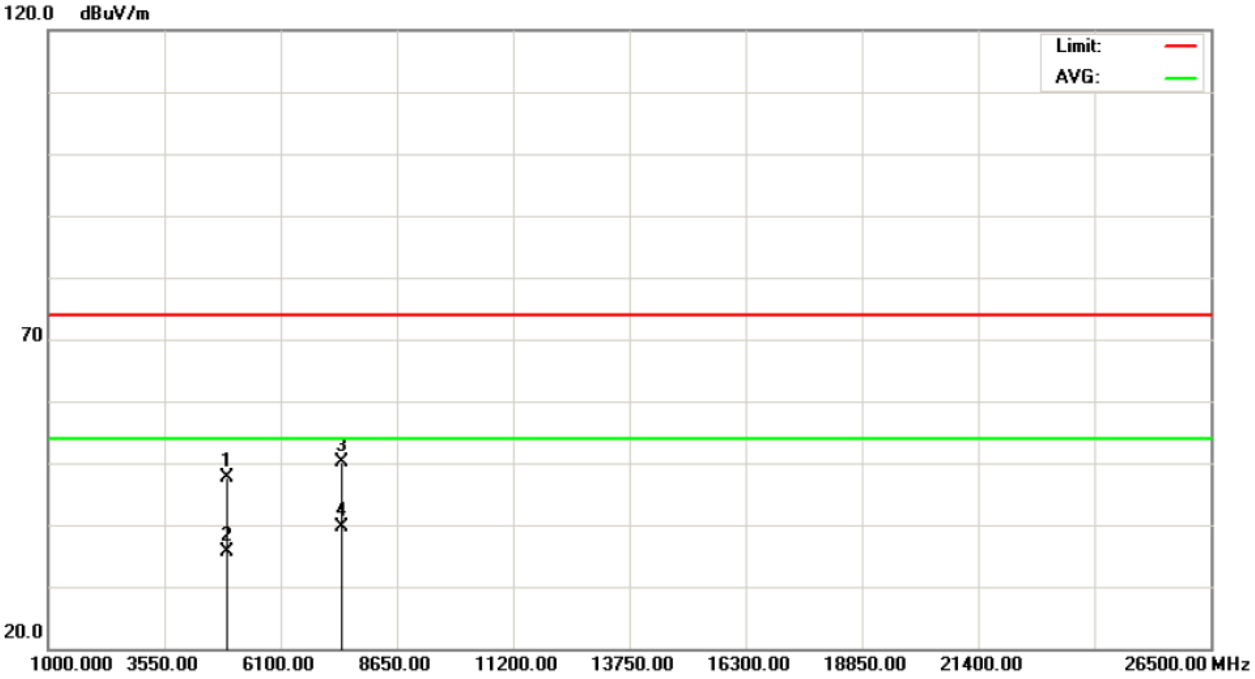
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/20M/CH11(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M/CH11		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
F	2465.200	H	65.96	55.89	31.60	97.56	87.49				
H	2483.500	H	23.07	12.74	31.68	54.75	44.42	74.00	54.00	- 9.58	AV
H	4925.200	H	40.51	30.18	3.14	43.65	33.32	74.00	54.00	- 20.68	AV
H	7384.200	H	41.86	30.73	8.87	50.73	39.60	74.00	54.00	- 14.40	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

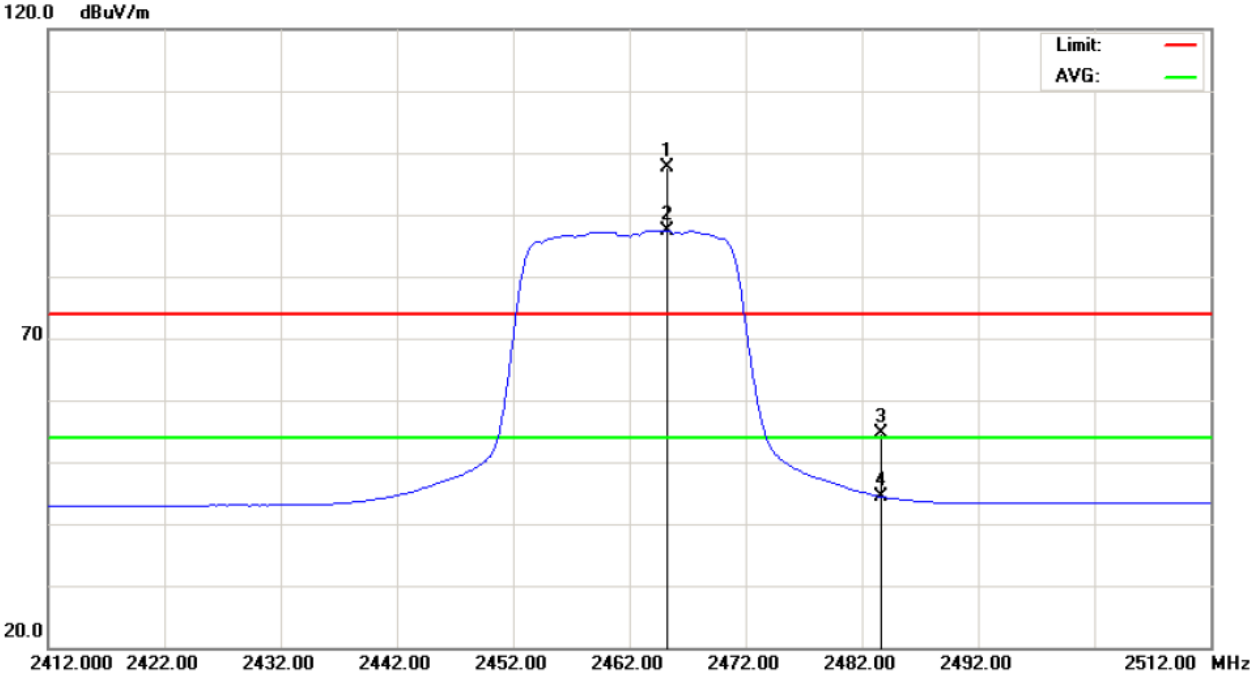
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

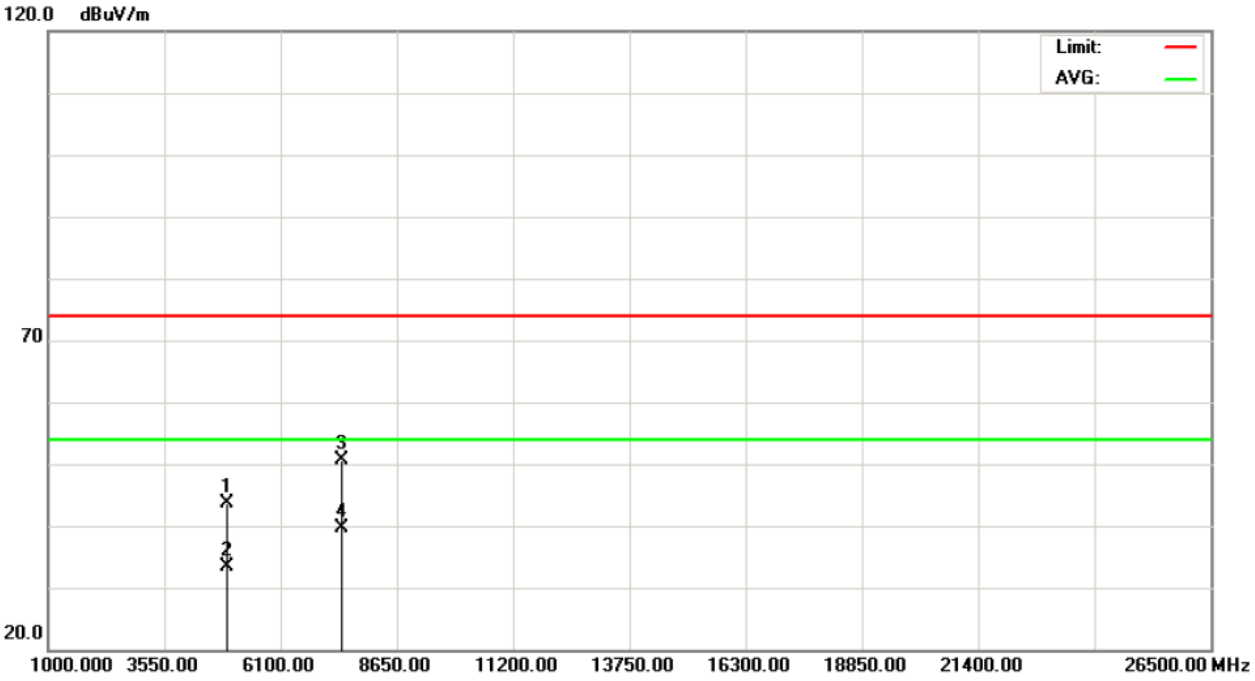
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/20M/CH11(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/CH03		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
H	2390.000	V	24.73	12.65	31.26	55.99	43.91	74.00	54.00	- 10.09	AV
F	2431.200	V	60.91	51.35	31.45	92.36	82.80				
H	4846.000	V	39.99	30.61	2.95	42.94	33.56	74.00	54.00	- 20.44	AV
H	7269.600	V	40.27	30.61	8.69	48.96	39.30	74.00	54.00	- 14.70	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

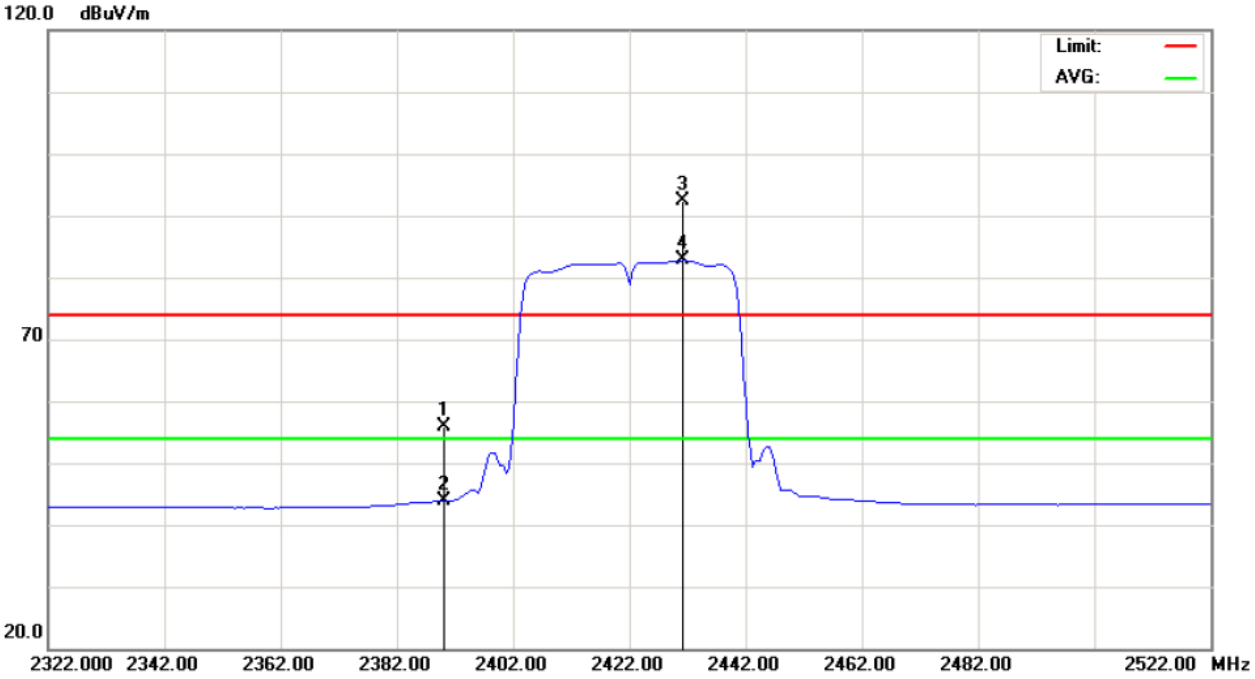
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

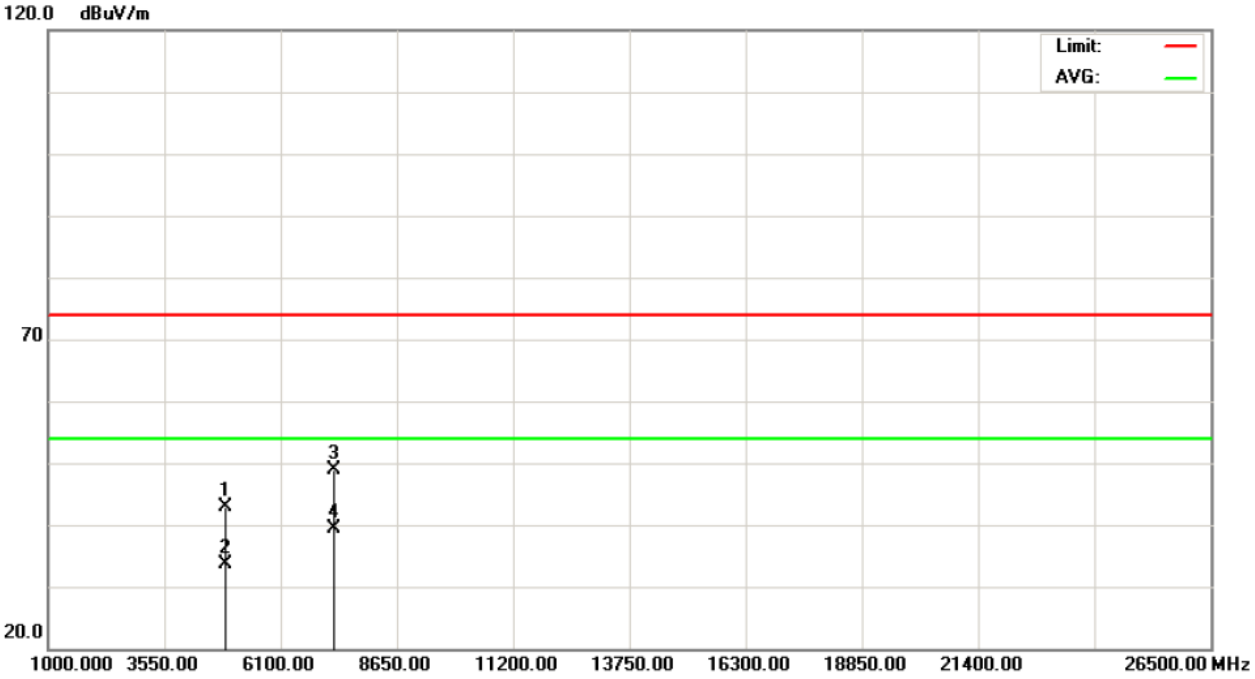
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/40M/CH03(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/CH03		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV) Peak	Reading Level(dBuV) AV	Correct Factor(dB)	Measurement(dBuV/m) Peak	Measurement(dBuV/m) AV	Limit(dBuV/m) Peak	Limit(dBuV/m) AV	Margin (dB)	Note
H	2390.000	H	22.69	12.75	31.26	53.95	44.01	74.00	54.00	- 9.99	AV
F	2437.600	H	61.85	52.57	31.47	93.32	84.04				
H	4843.920	H	39.52	29.86	2.94	42.46	32.80	74.00	54.00	- 21.20	AV
H	7266.080	H	41.06	30.68	8.69	49.75	39.37	74.00	54.00	- 14.63	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

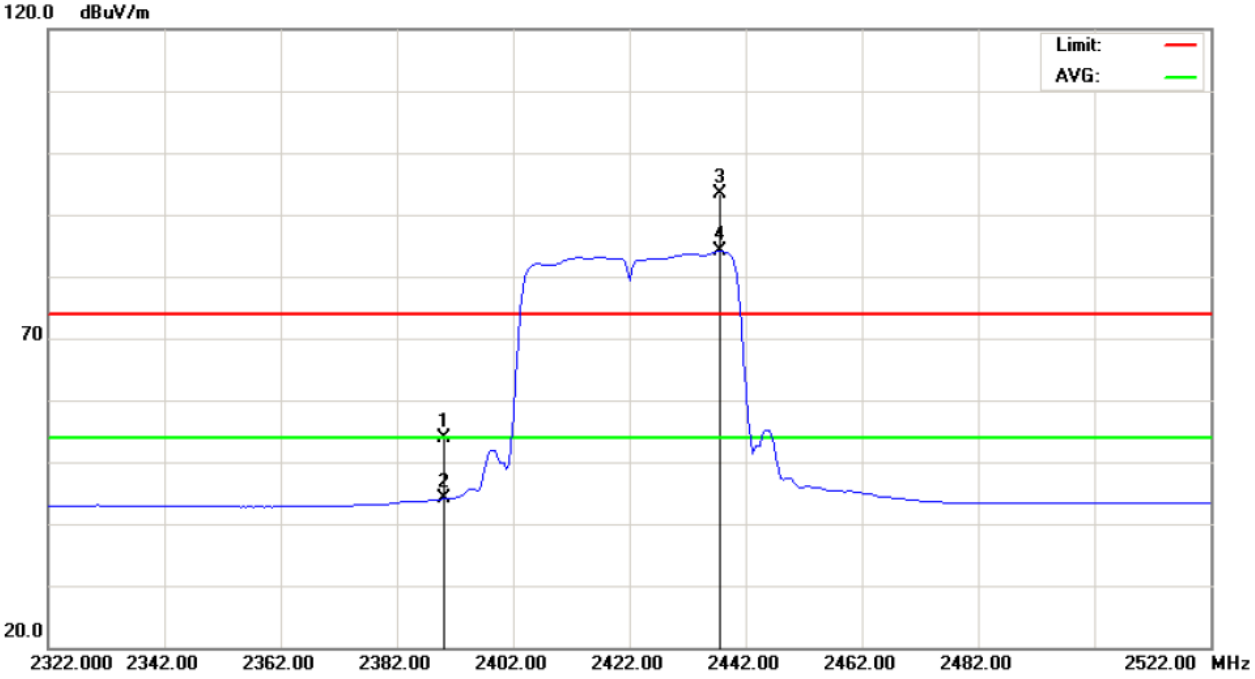
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

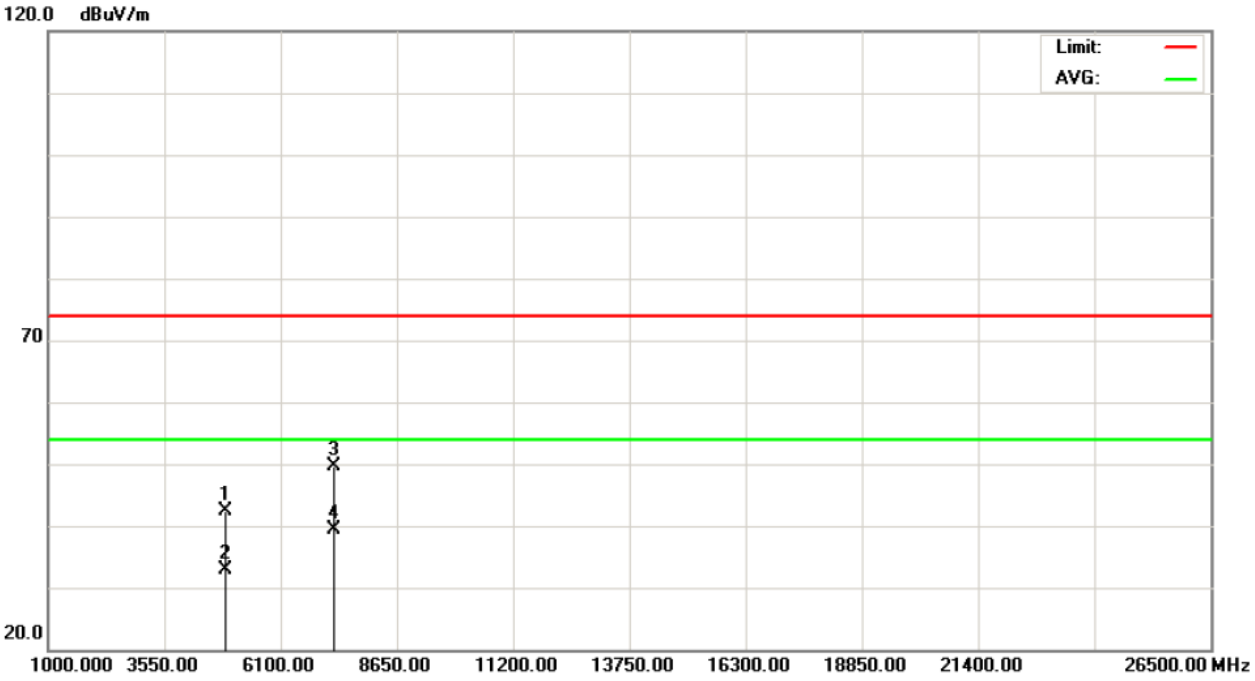
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/40M/CH03(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2446.600	V	59.30	50.35	31.51	90.81	81.86				
H	4873.800	V	40.73	30.19	3.01	43.74	33.20	74.00	54.00	- 20.80	AV
H	7311.500	V	41.22	30.59	8.76	49.98	39.35	74.00	54.00	- 14.65	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

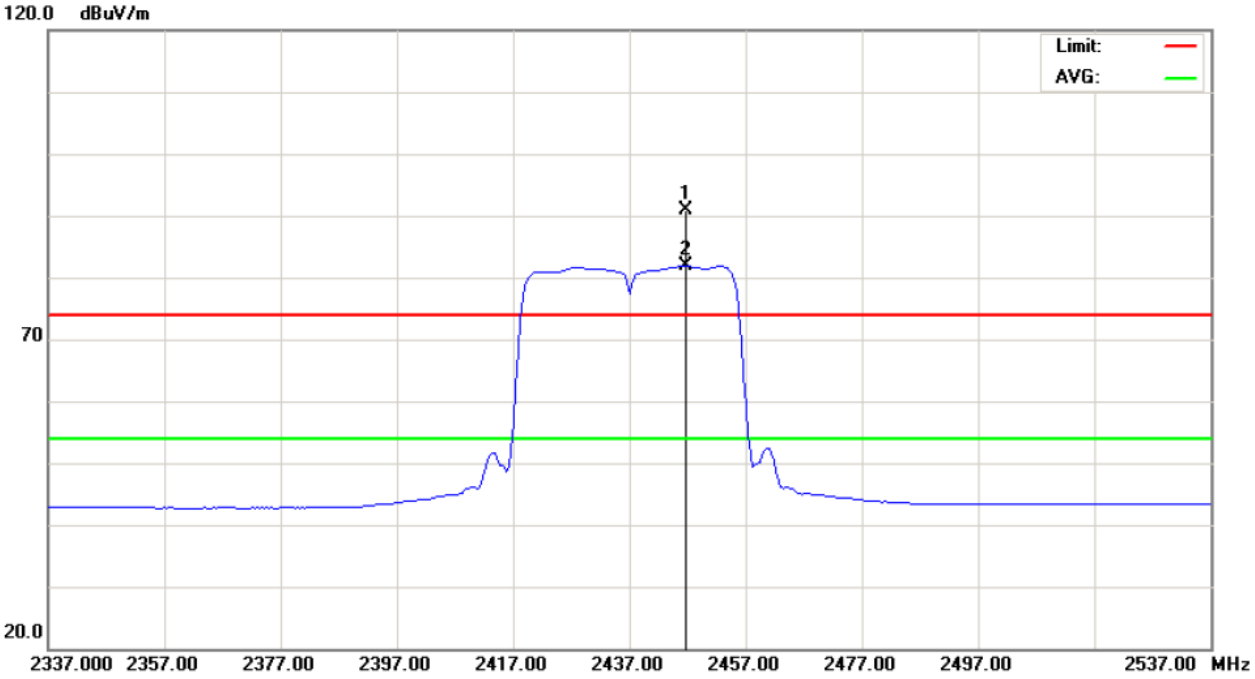
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

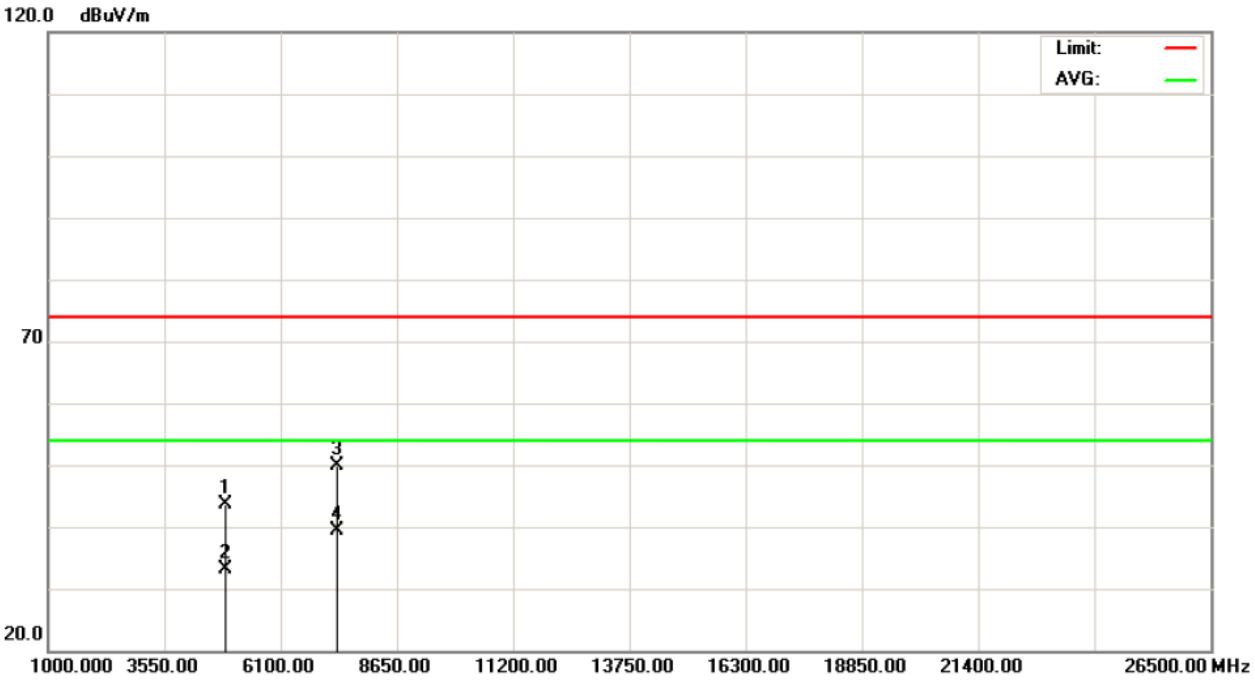
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/40M/CH06(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/CH06		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2452.600	H	61.84	53.02	31.54	93.38	84.56				
H	4873.900	H	43.04	32.31	3.01	46.05	35.32	74.00	54.00	- 18.68	AV
H	7310.500	H	41.35	30.54	8.76	50.11	39.30	74.00	54.00	- 14.70	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

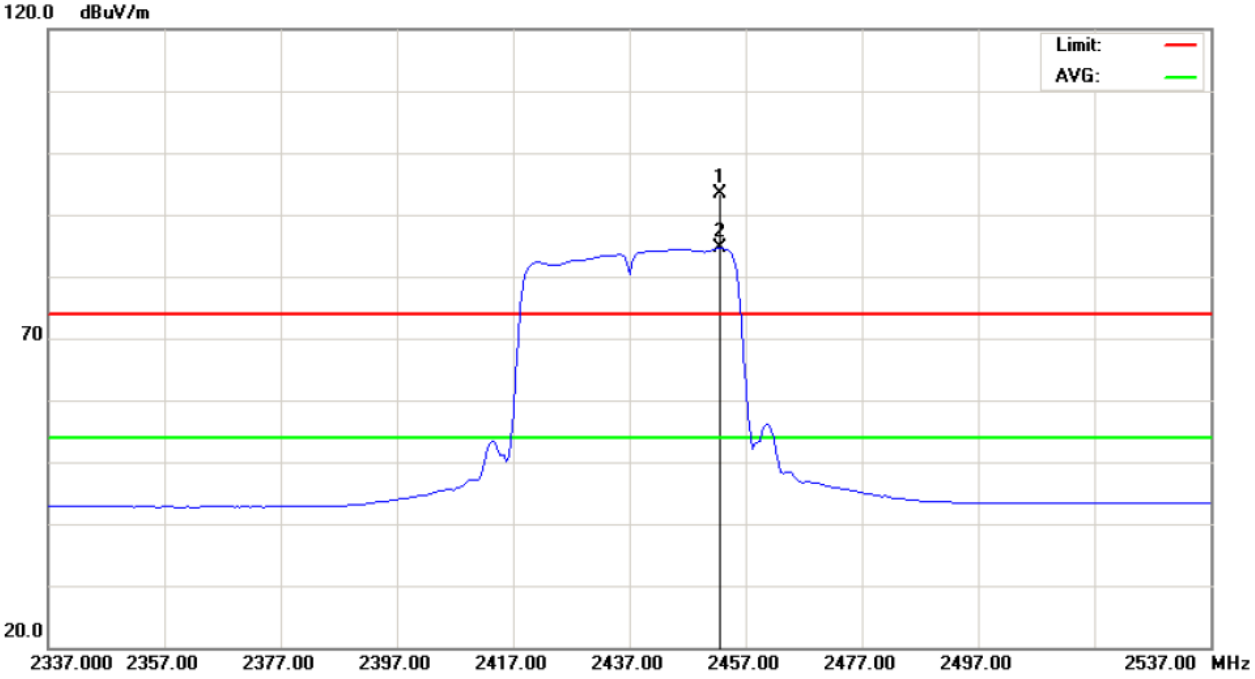
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

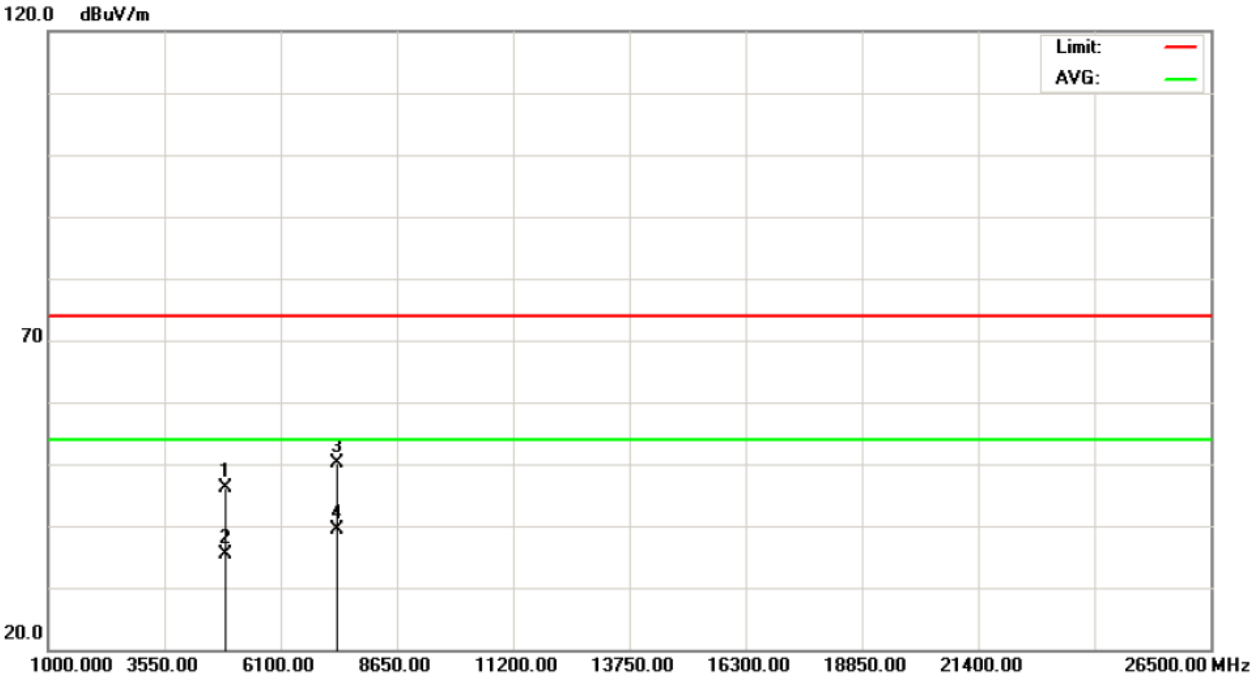
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/40M/CH06(Above 1000 MHz, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/CH09		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2461.200	V	59.85	50.08	31.58	91.43	81.66				
H	2483.500	V	23.38	13.16	31.68	55.06	44.84	74.00	54.00	- 9.16	AV
H	4903.400	V	40.72	30.34	3.09	43.81	33.43	74.00	54.00	- 20.57	AV
H	7356.500	V	41.30	30.71	8.82	50.12	39.53	74.00	54.00	- 14.47	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

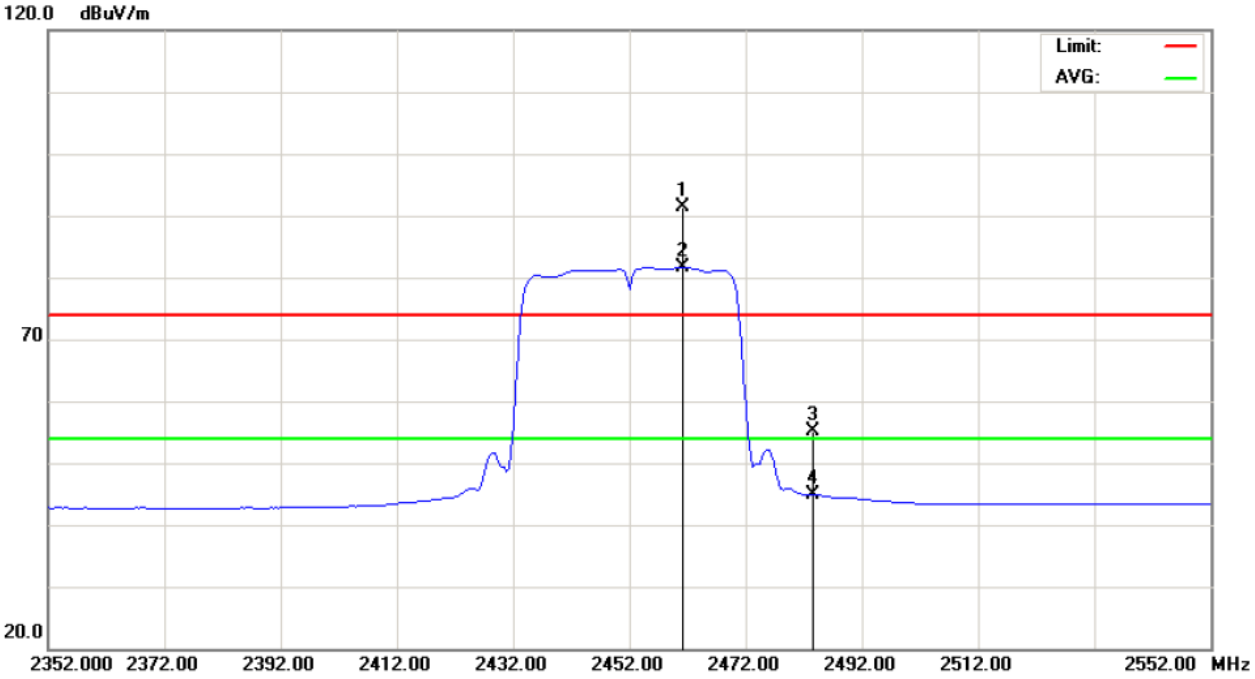
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

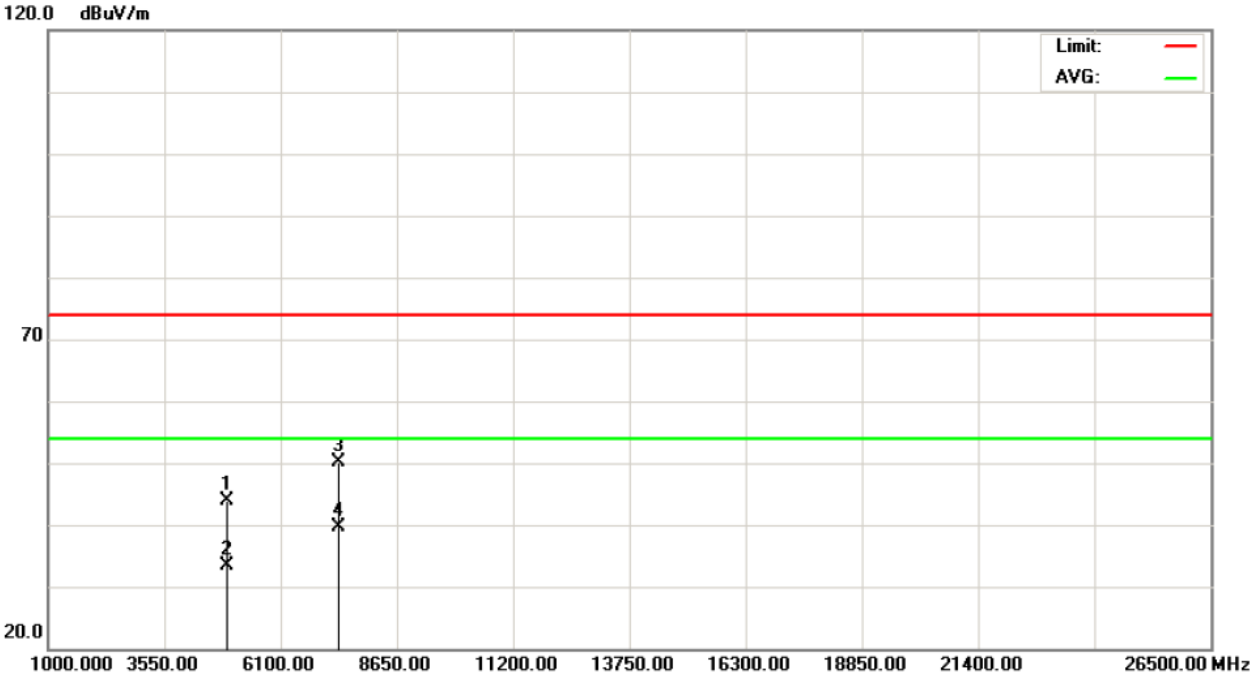
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(7) EUT Orthogonal Axes：
"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/40M/CH09(Above 1000 MHz, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/CH09		

Type F/H/E	Freq. (MHz)	Polarization H/V	Reading Level(dBuV)		Correct Factor(dB)	Measurement(dBuV/m)		Limit(dBuV/m)		Margin (dB)	Note
			Peak	AV		Peak	AV	Peak	AV		
F	2461.600	H	63.91	54.06	31.58	95.49	85.64				
H	2483.500	H	25.16	14.88	31.68	56.84	46.56	74.00	54.00	- 7.44	AV
H	4903.500	H	39.78	30.02	3.09	42.87	33.11	74.00	54.00	- 20.89	AV
H	7355.200	H	42.88	30.83	8.82	51.70	39.65	74.00	54.00	- 14.35	AV

Remark：

(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(2) All readings are Peak unless otherwise stated AV in column of『Note』. Peak denotes that the Peak reading compliance with the AV Limits and then AV Mode measurement didn't perform.

(3) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency。"F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)

(4) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

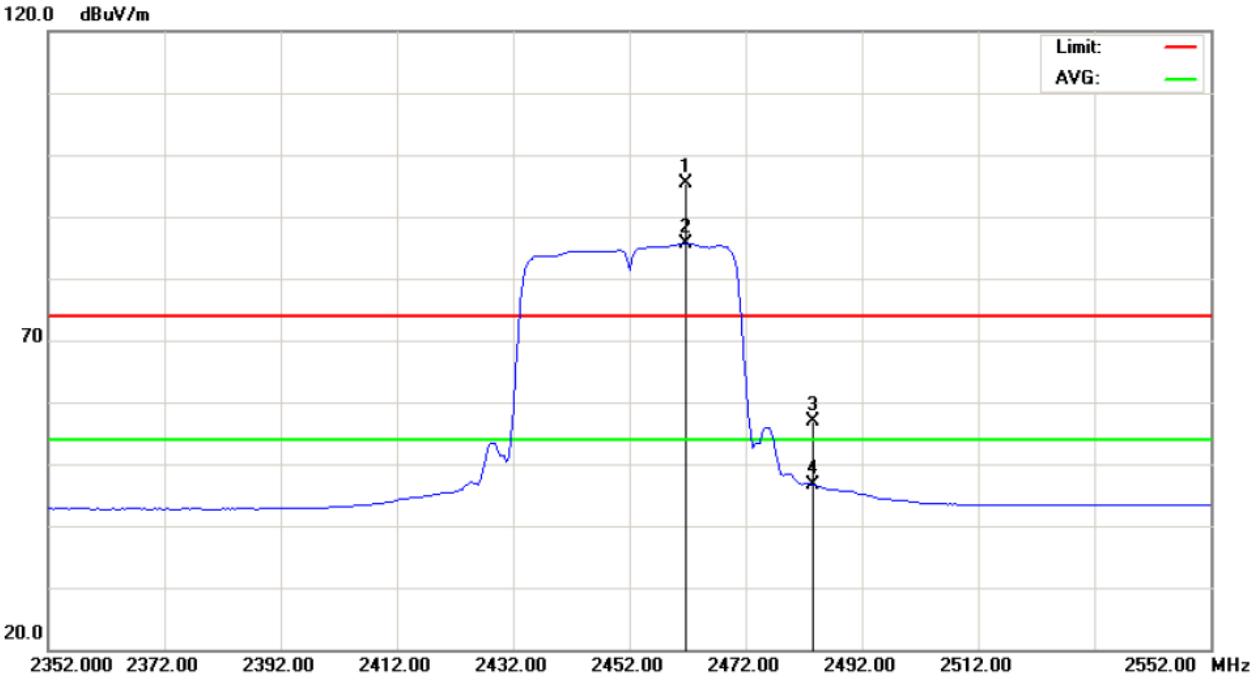
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

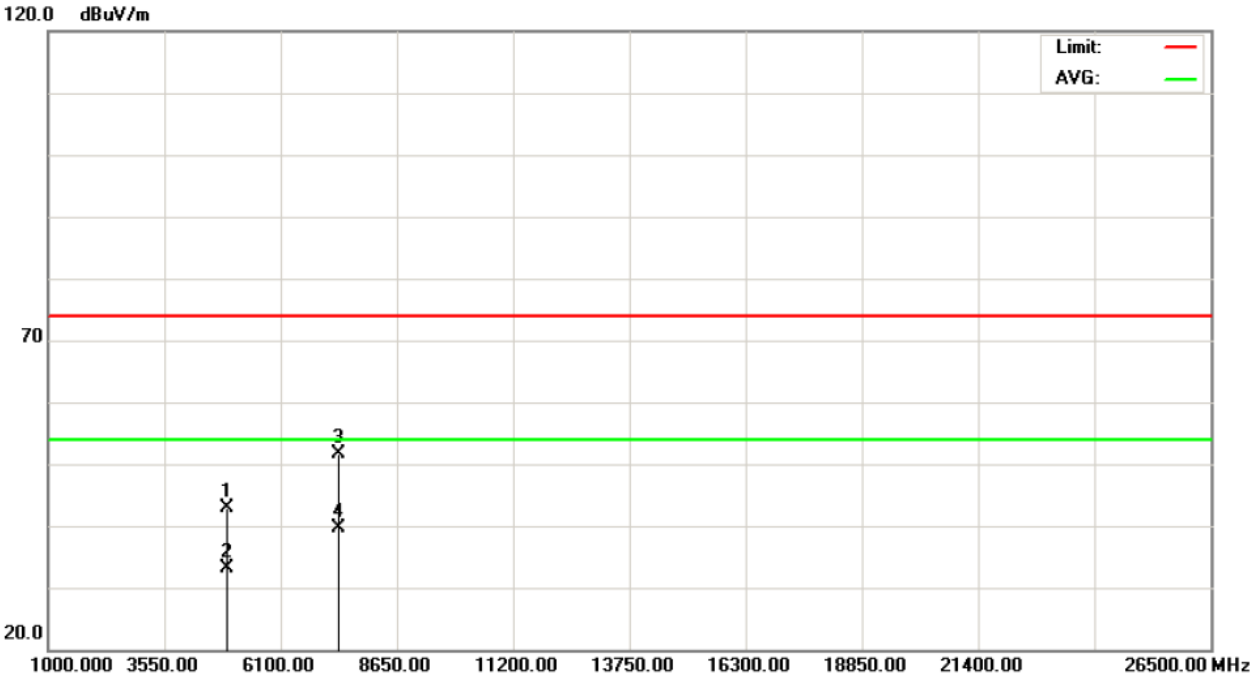
(7) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

(8) During the measurements above 1GHz it is taken care of that the EUT is always within the 3dB cone of radiation BW of the used antenna.

Orthogonal Axis：X
802.11n/40M/CH09(Above 1000 MHz, Horizontal)





4.2.9 TEST RESULTS-RESTRICTED BANDS REQUIREMENTS

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b(Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	V	22.19	11.62	31.26	53.45	42.88	74.00	54.00	- 11.12	AV
2483.500	V	21.25	12.10	31.68	52.93	43.78	74.00	54.00	- 10.22	AV

Remark：

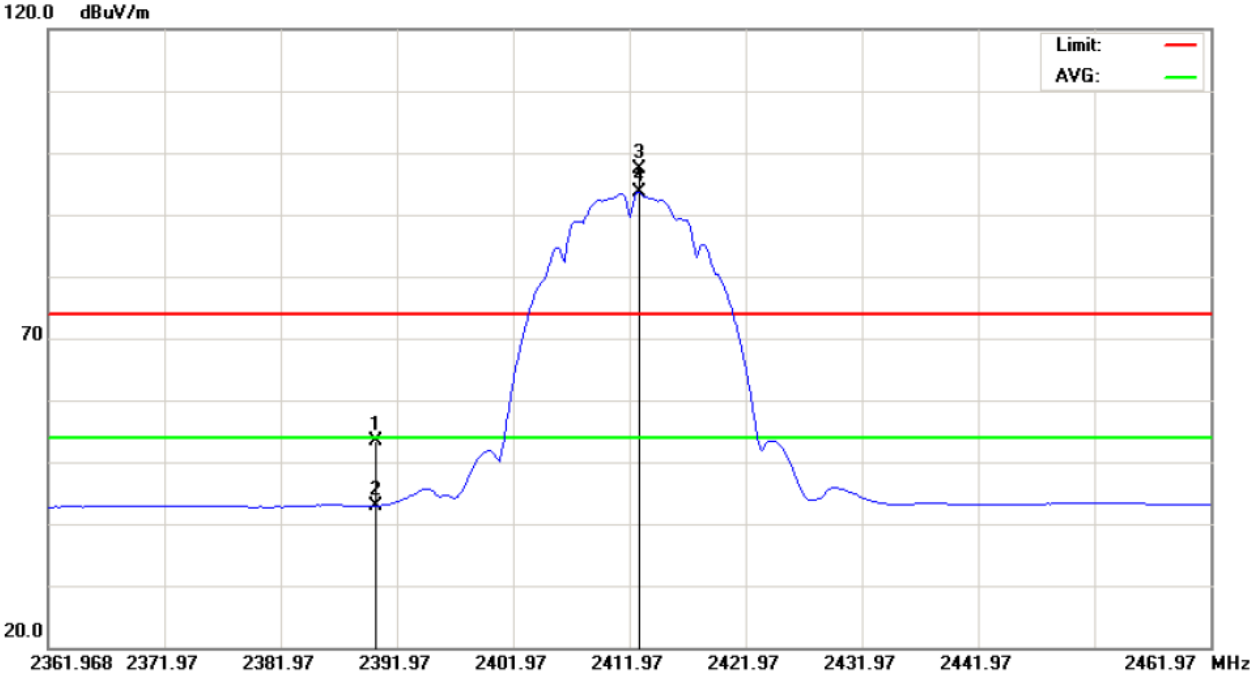
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

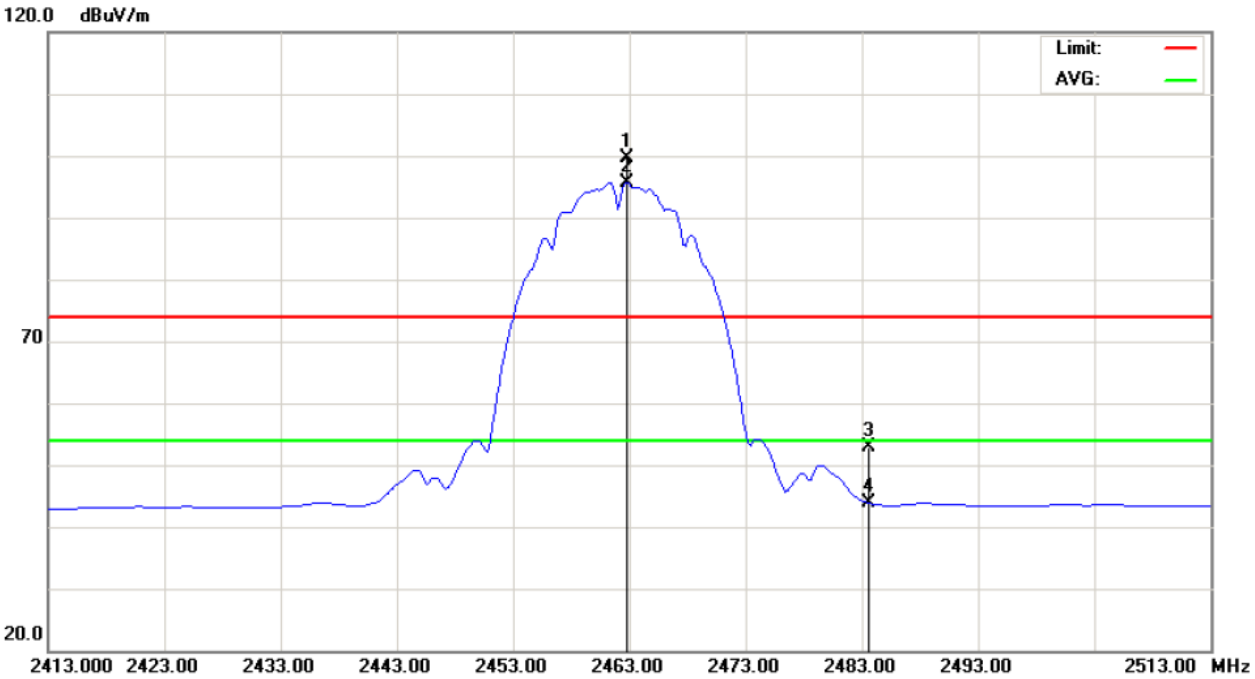
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (Restricted Bands Requirements, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11b(Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2386.600	H	22.17	12.27	31.25	53.42	43.52	74.00	54.00	- 10.48	AV
2483.500	H	23.28	12.62	31.68	54.96	44.30	74.00	54.00	- 9.70	AV

Remark：

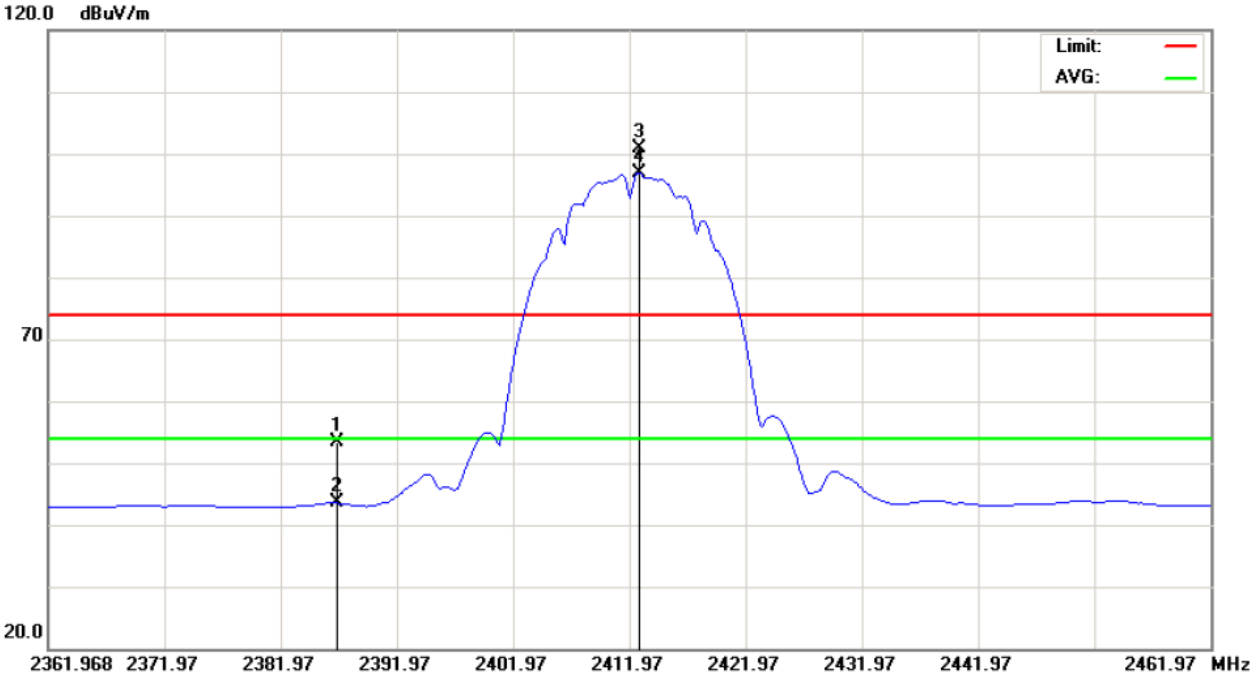
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

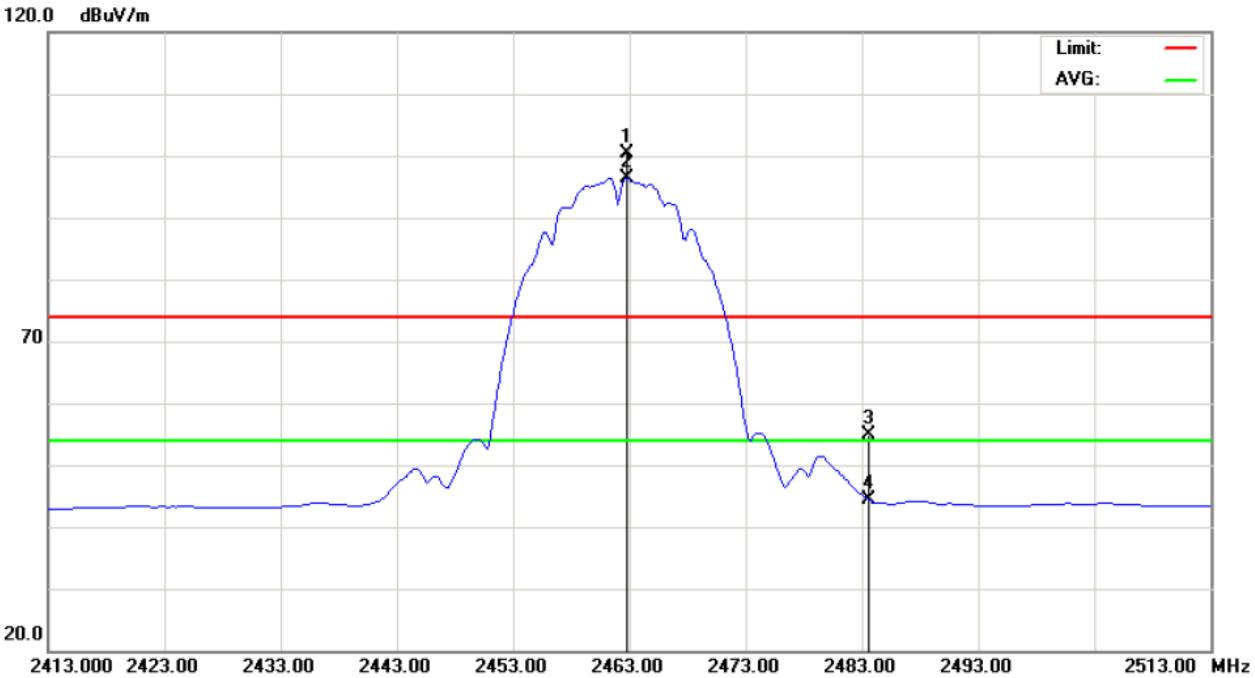
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11b (Restricted Bands Requirements, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g(Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	V	23.24	12.47	31.26	54.50	43.73	74.00	54.00	- 10.27	AV
2483.500	V	23.90	13.69	31.68	55.58	45.37	74.00	54.00	- 8.63	AV

Remark：

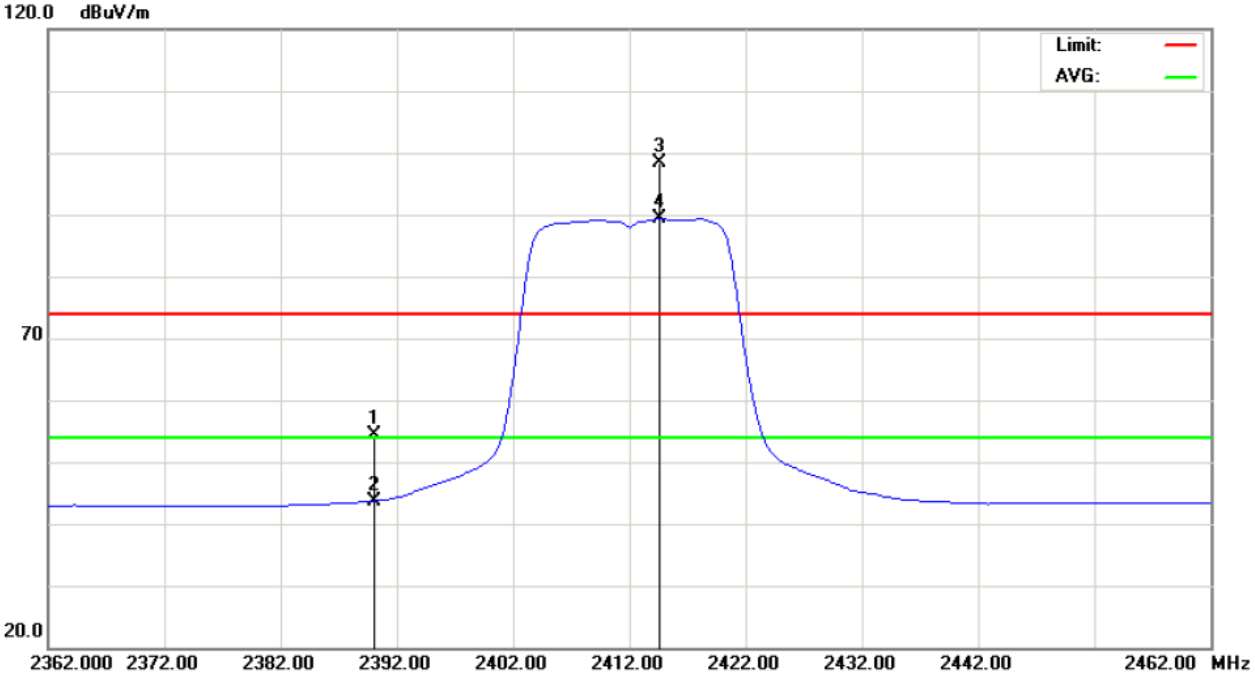
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

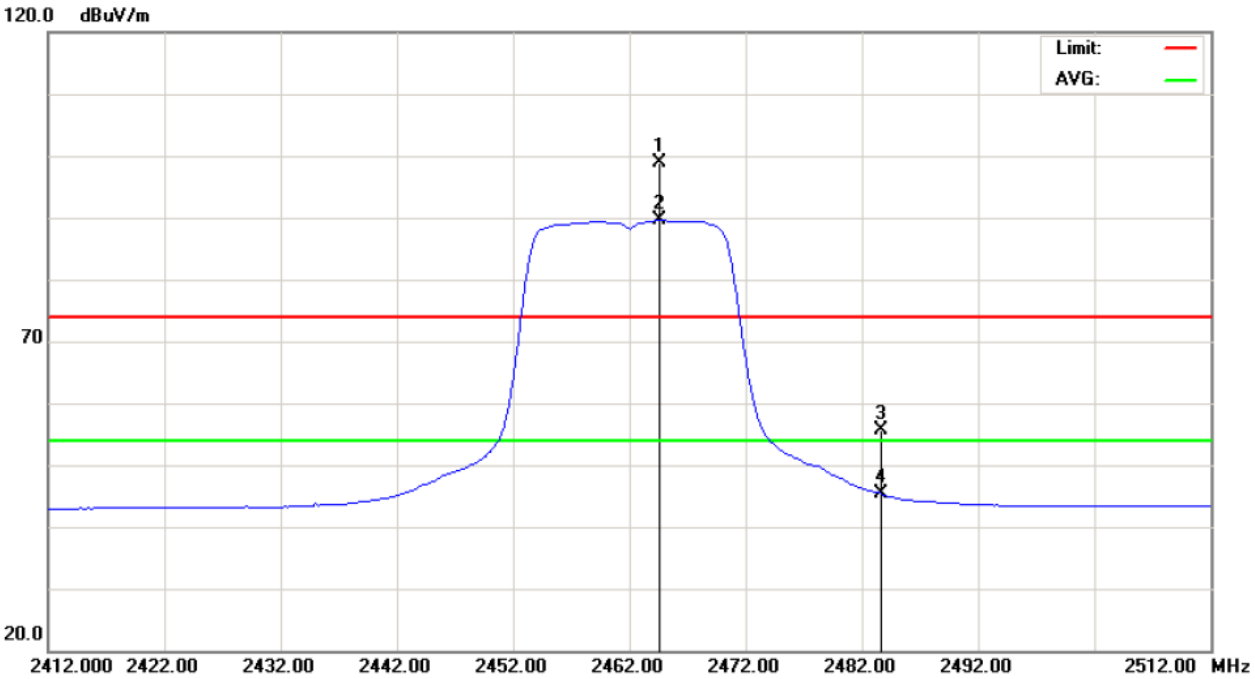
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (Restricted Bands Requirements, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11g(Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	H	22.46	12.35	31.26	53.72	43.61	74.00	54.00	- 10.39	AV
2483.500	H	25.42	14.07	31.68	57.10	45.75	74.00	54.00	- 8.25	AV

Remark：

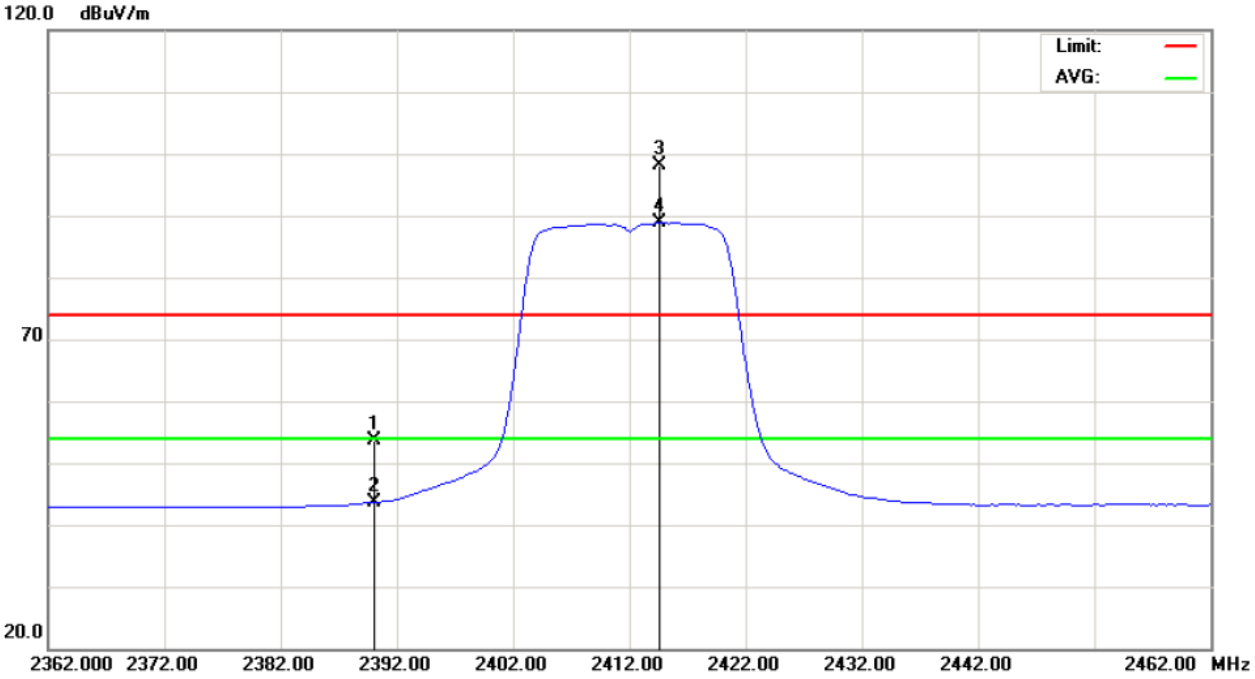
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

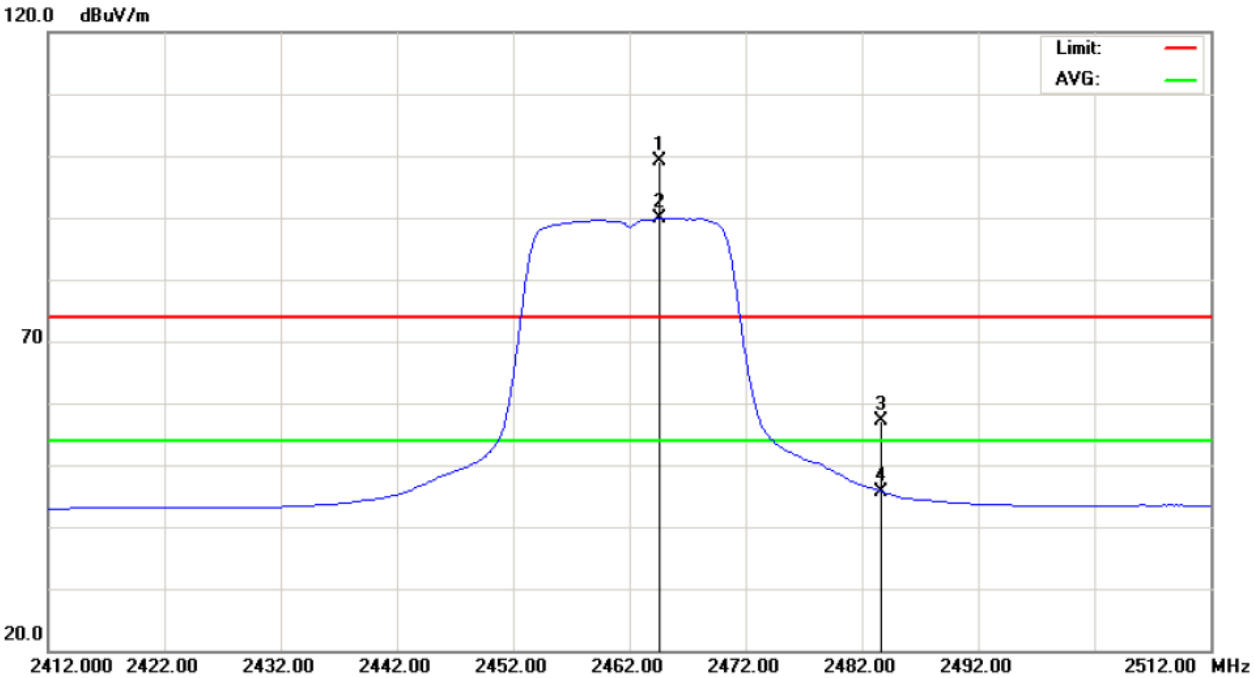
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11g (Restricted Bands Requirements, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M(Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	V	22.42	11.89	31.26	53.68	43.15	74.00	54.00	- 10.85	AV
2483.500	V	22.14	12.71	31.68	53.82	44.39	74.00	54.00	- 9.61	AV

Remark：

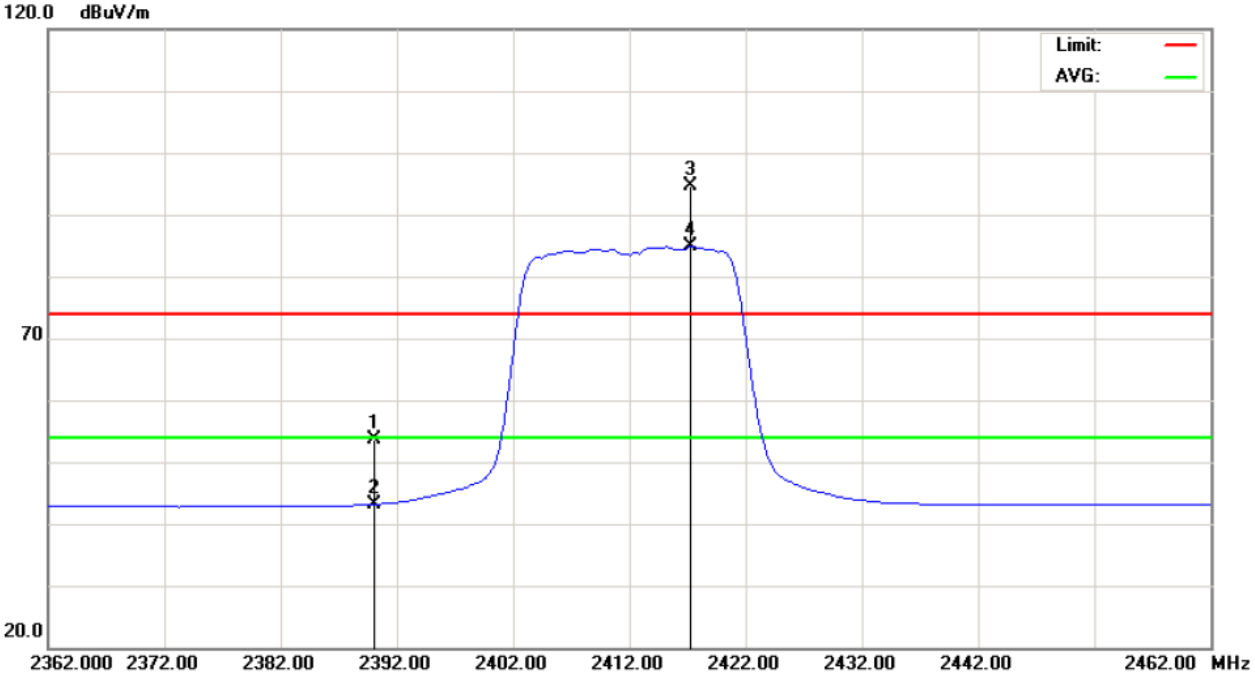
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

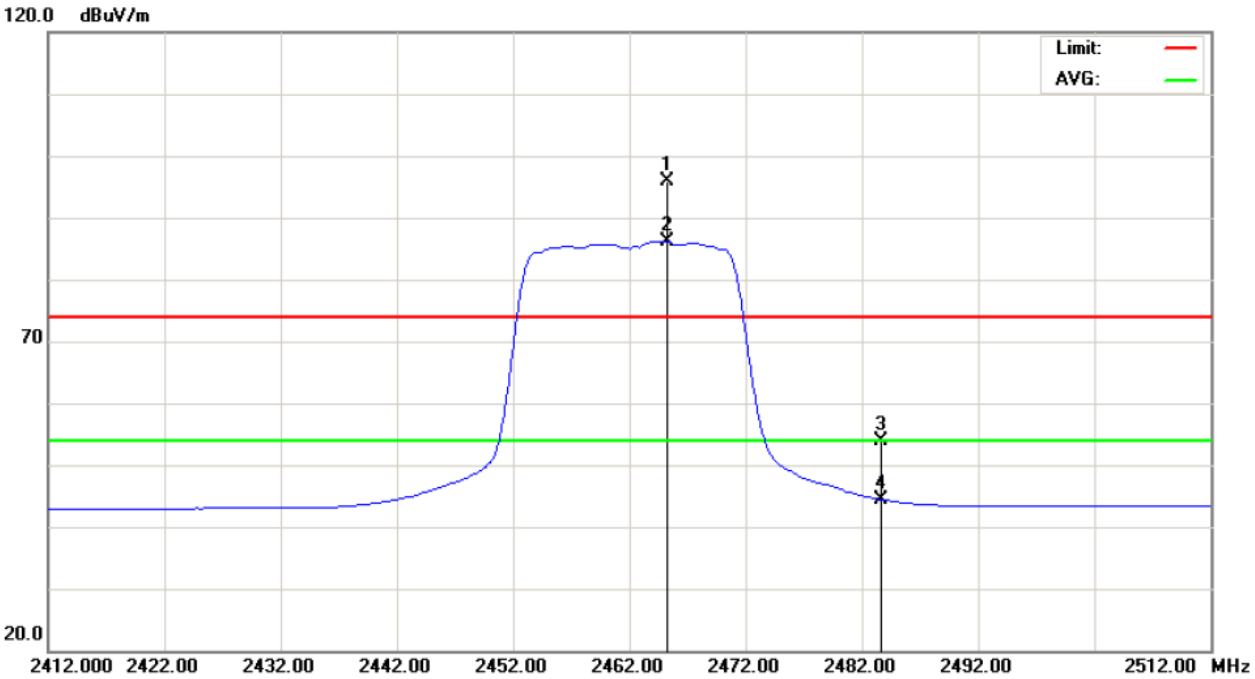
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11n/20M (Restricted Bands Requirements, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/20M(Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH01/CH11 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH01). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH11). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	H	21.51	12.09	31.26	52.77	43.35	74.00	54.00	- 10.65	AV
2483.500	H	23.07	12.74	31.68	54.75	44.42	74.00	54.00	- 9.58	AV

Remark：

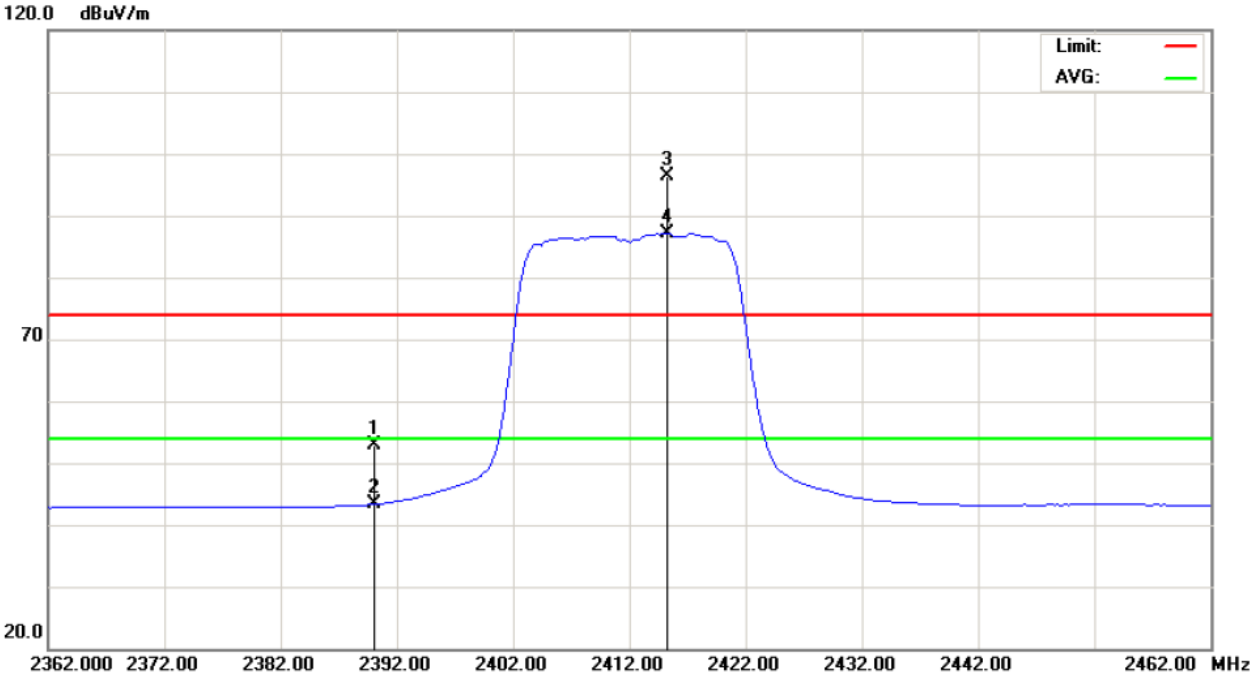
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

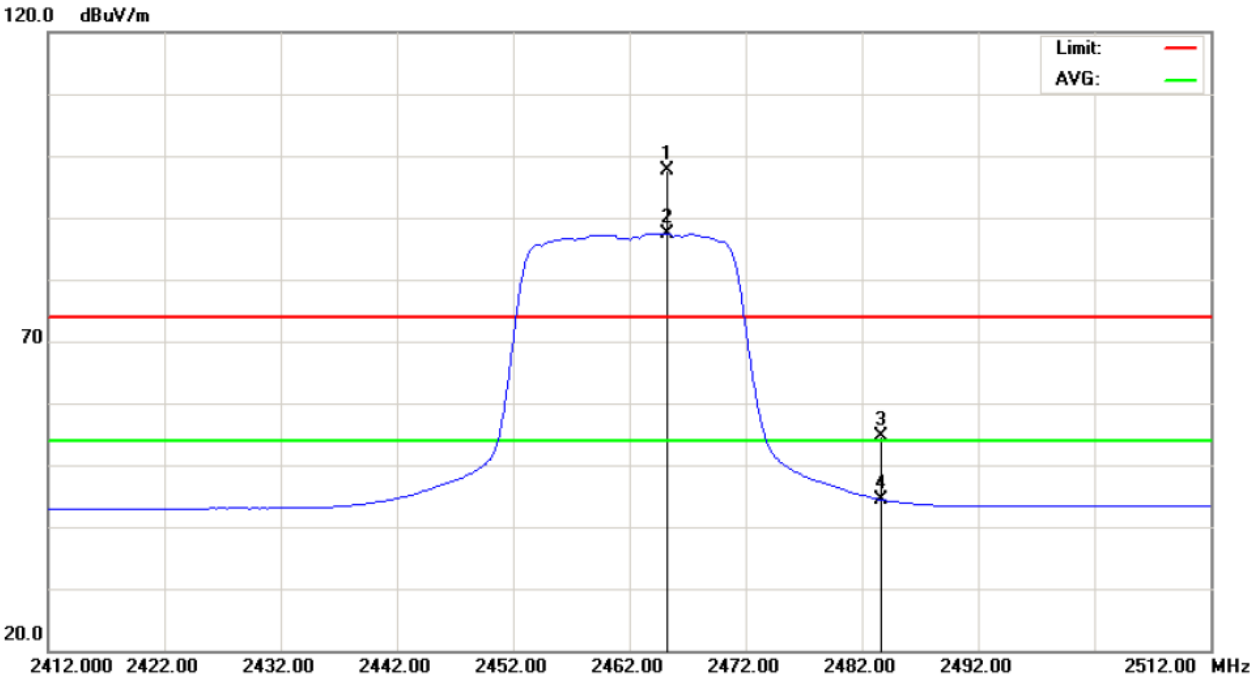
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11n/20M (Restricted Bands Requirements, Horizontal)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M(Vertical)		
Note：	The emission of the carrier radiated field strength is measured for CH03/CH09 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH03). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH09). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	V	24.73	12.65	31.26	55.99	43.91	74.00	54.00	- 10.09	AV
2483.500	V	23.38	13.16	31.68	55.06	44.84	74.00	54.00	- 9.16	AV

Remark：

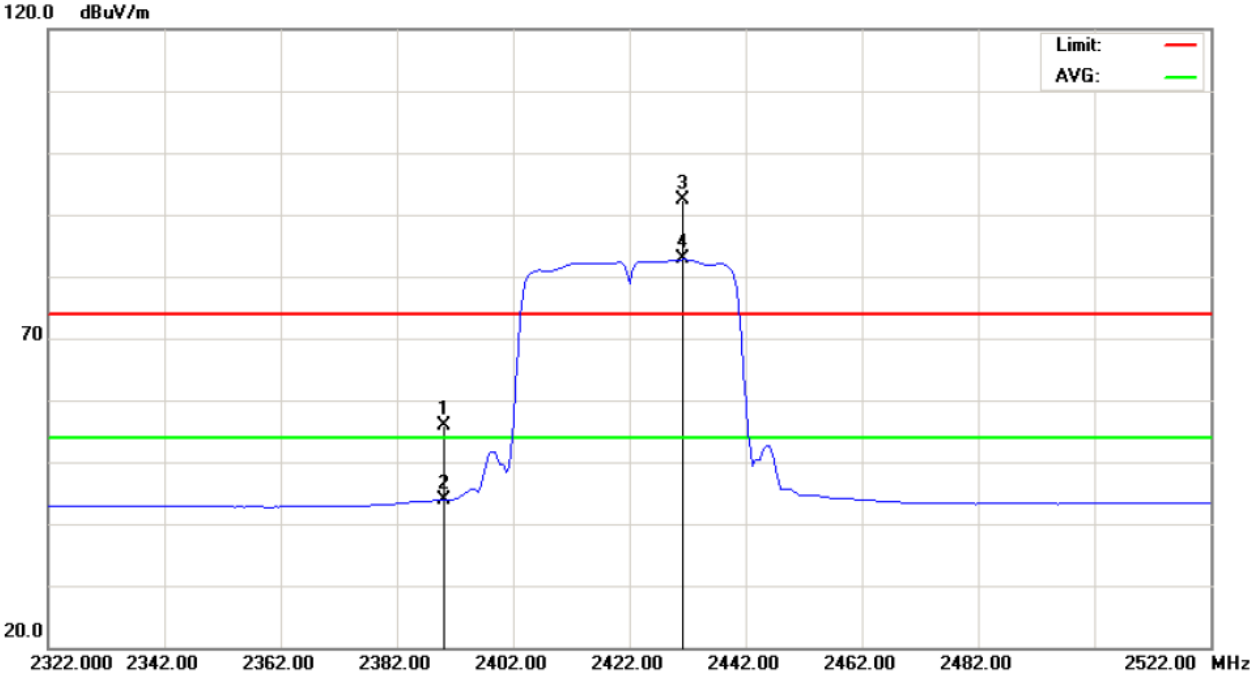
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

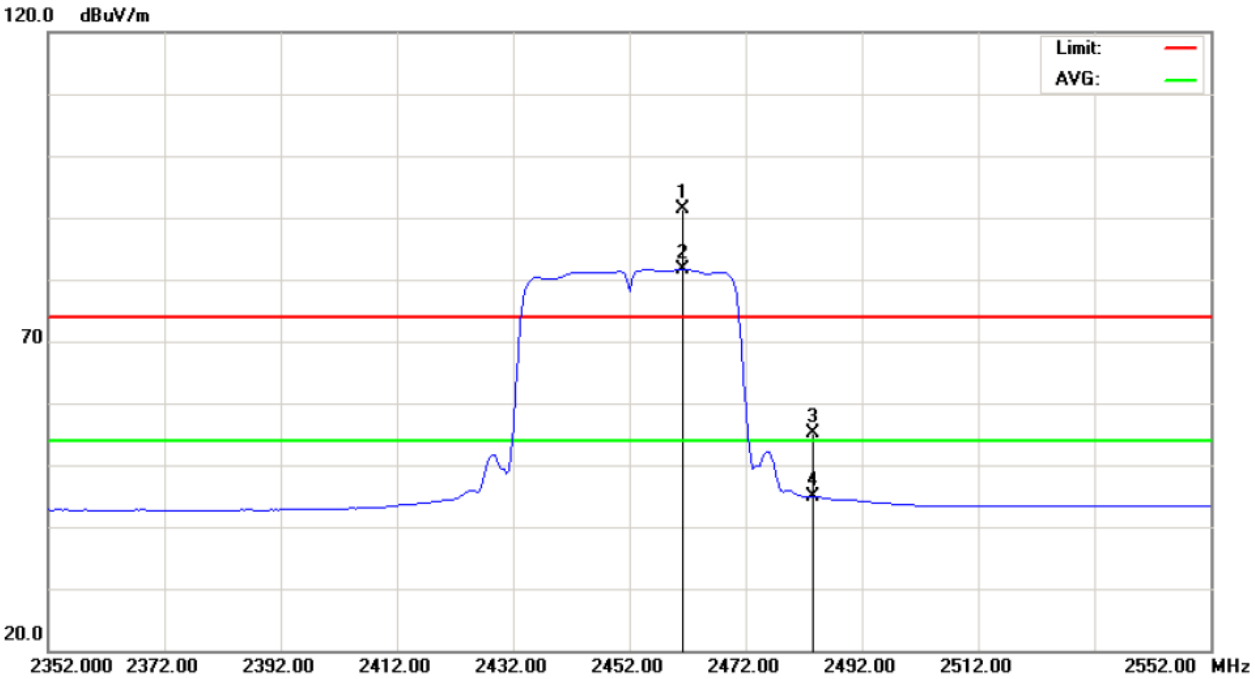
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11n/40M (Restricted Bands Requirements, Vertical)





EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz (System)	Orthogonal Axes:	X
Test Mode ：	802.11n/40M(Horizontal)		
Note：	The emission of the carrier radiated field strength is measured for CH03/CH09 (Peak and AV) as following: 1. The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel (CH03). Then the field strength was measured at 2310-2390 MHz. 2. The transmitter was configured with the worst case antenna and setup to transmit at the highest channel (CH09). Then the field strength was measured at 2483.5-2500 MHz.		

Freq.	Polarization	Reading Level(dBuV)		Correct	Measurement(dBuV/m)		Limit(dBuV/m)		Margin	Note
(MHz)	H/V	Peak	AV	Factor(dB)	Peak	AV	Peak	AV	(dB)	
2390.000	H	22.69	12.75	31.26	53.95	44.01	74.00	54.00	- 9.99	AV
2483.500	H	25.16	14.88	31.68	56.84	46.56	74.00	54.00	- 7.44	AV

Remark：

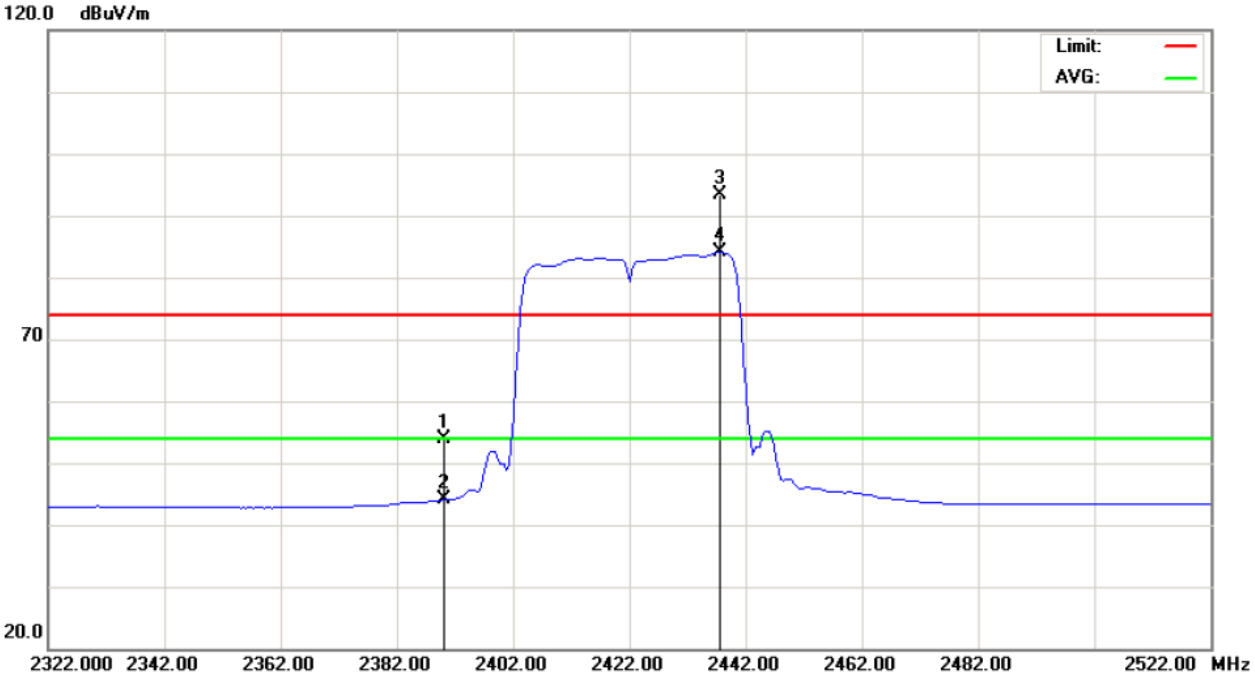
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

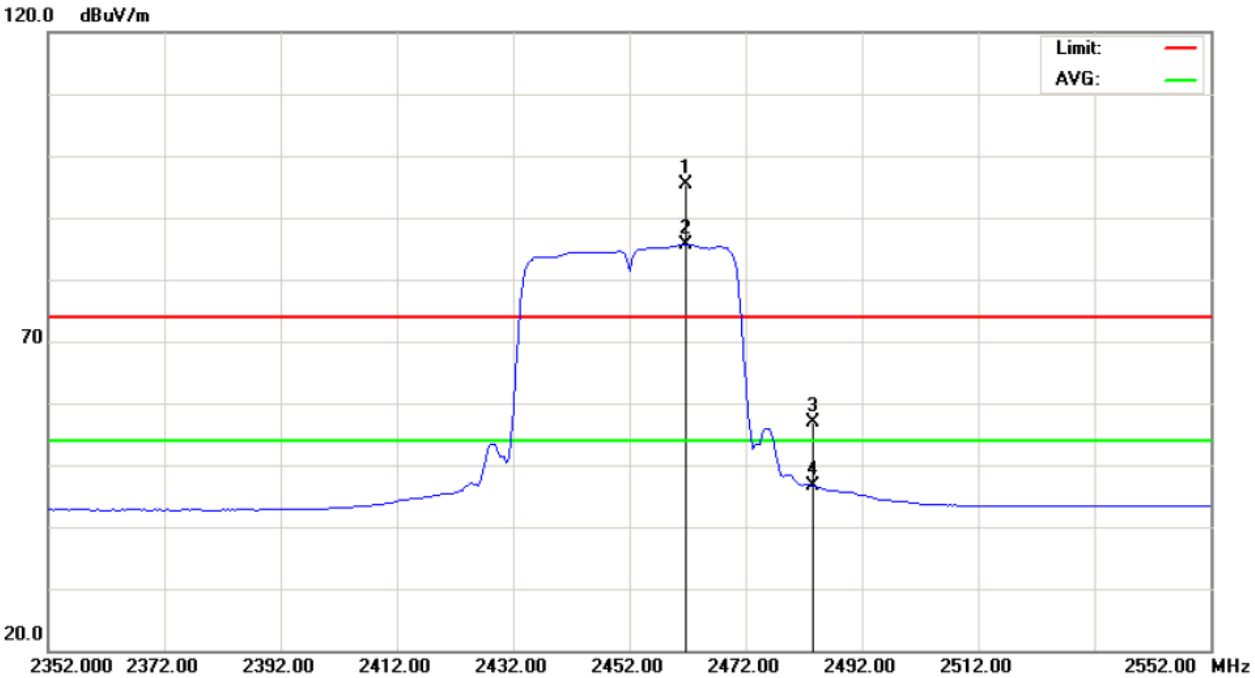
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

"X" - denotes Laid on Table；"Y" - denotes Vertical Stand；"Z" - denotes Side Stand

802.11n/40M (Restricted Bands Requirements, Horizontal)





5. BANDWITH TEST

5.1 APPLIED PROCEDURES / LIMIT

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

5.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Aug. 31, 2011

Remark: ” N/A” denotes No Model Name , Serial No. or No Calibration specified.

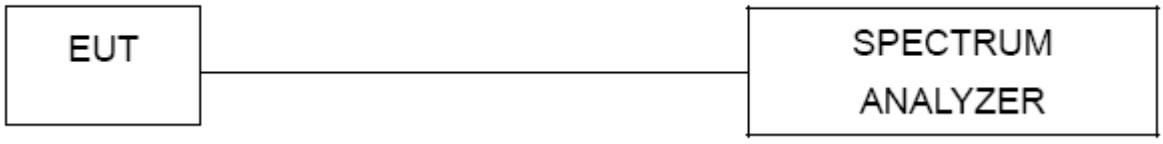
5.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

5.1.3 DEVIATION FROM STANDARD

No deviation.

5.1.4 TEST SETUP



5.1.5 EUT OPERATION CONDITIONS

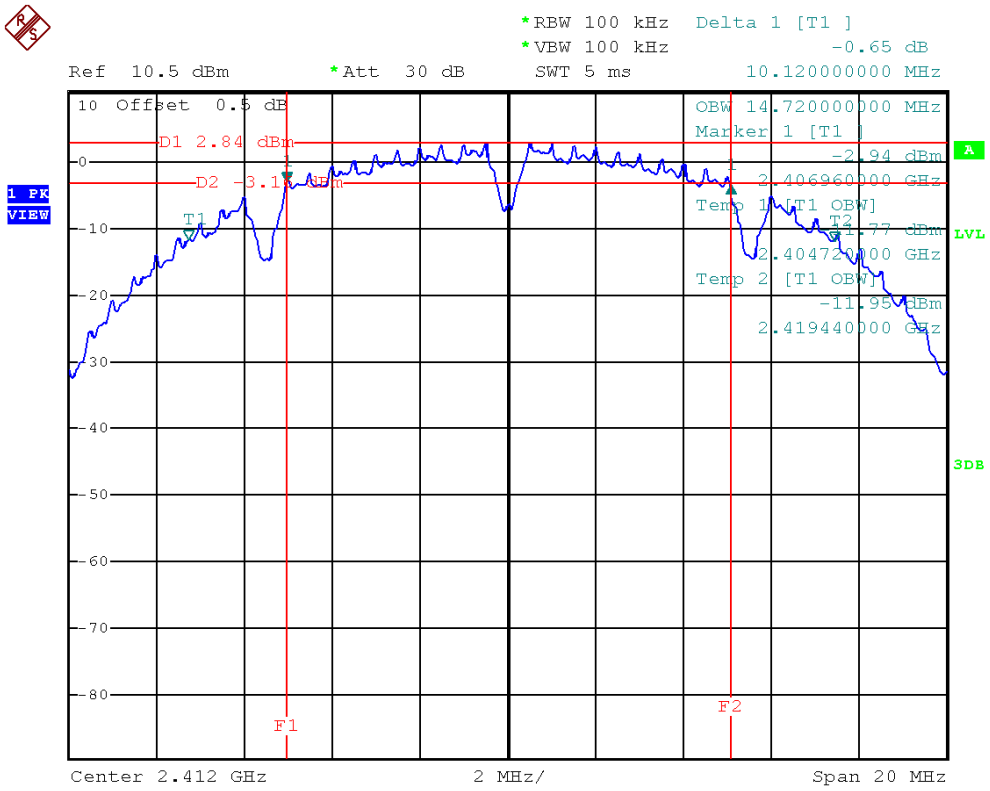
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.6 TEST RESULTS

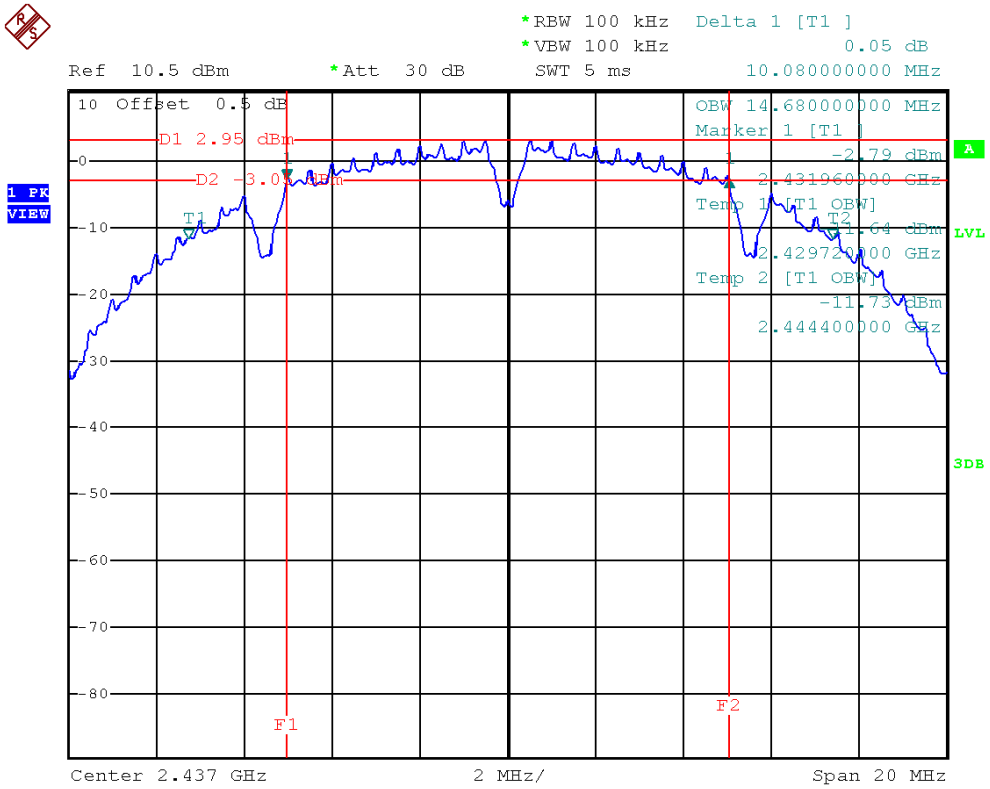
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	10.12	>=500KHz
CH06	2437	10.08	>=500KHz
CH11	2462	10.00	>=500KHz

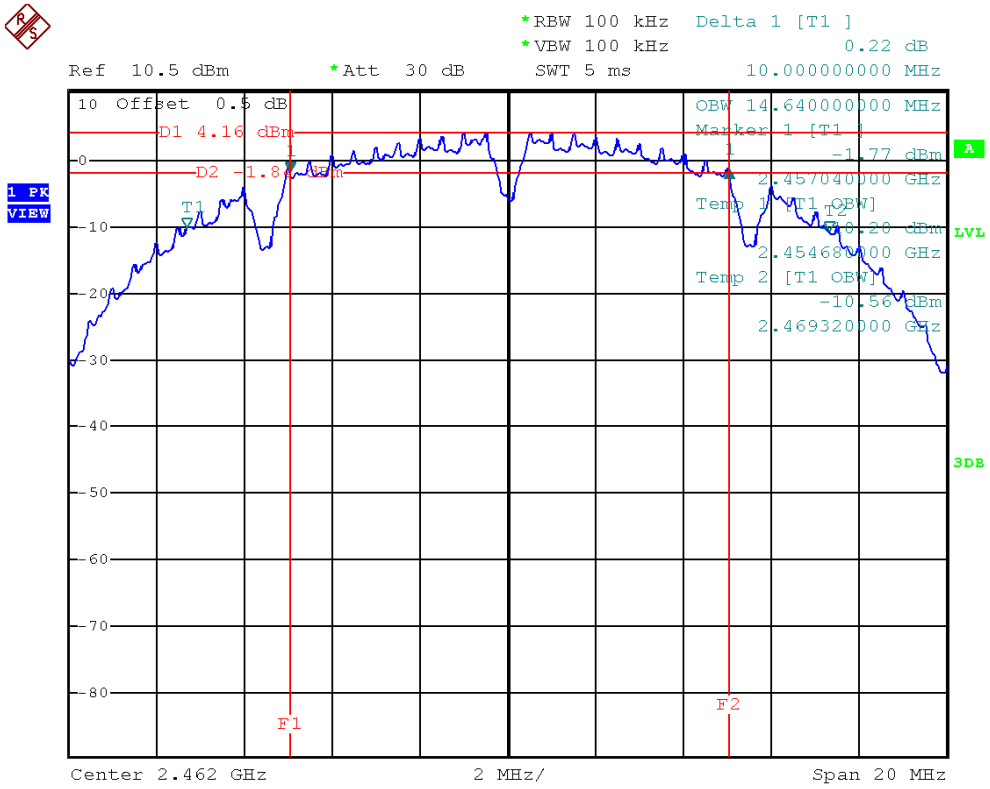
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.05 dB
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
10.080000000 MHz
10 Offset 0.5 dB
D1 2.95 dBm
D2 -3.05 dBm
OBW 14.680000000 MHz
Marker 1 [T1]
-2.79 dBm
2.431960000 GHz
Temp 1 [T1 OBW]
T2
-11.64 dBm
2.429720000 GHz
Temp 2 [T1 OBW]
-11.73 dBm
2.444400000 GHz
1 PK VIEW
A
LVL
3DB
T1
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

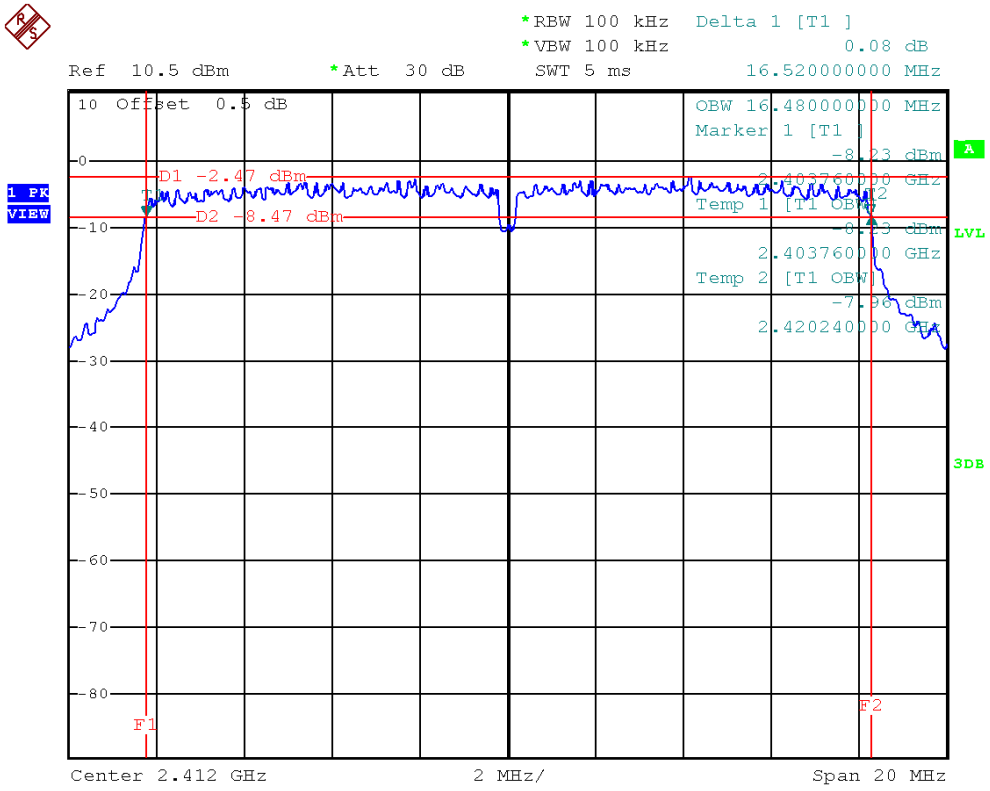
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.22 dB
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
10.000000000 MHz
10 Offset 0.5 dB
D1 4.16 dBm
D2 -1.84 dBm
OBW 14.640000000 MHz
Marker 1 [T1]
-1.77 dBm
2.457040000 GHz
Temp 1 [T1 OBW]
T2
-10.20 dBm
2.454680000 GHz
Temp 2 [T1 OBW]
-10.56 dBm
2.469320000 GHz
1 PK VIEW
A
LVL
3DB
T1
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

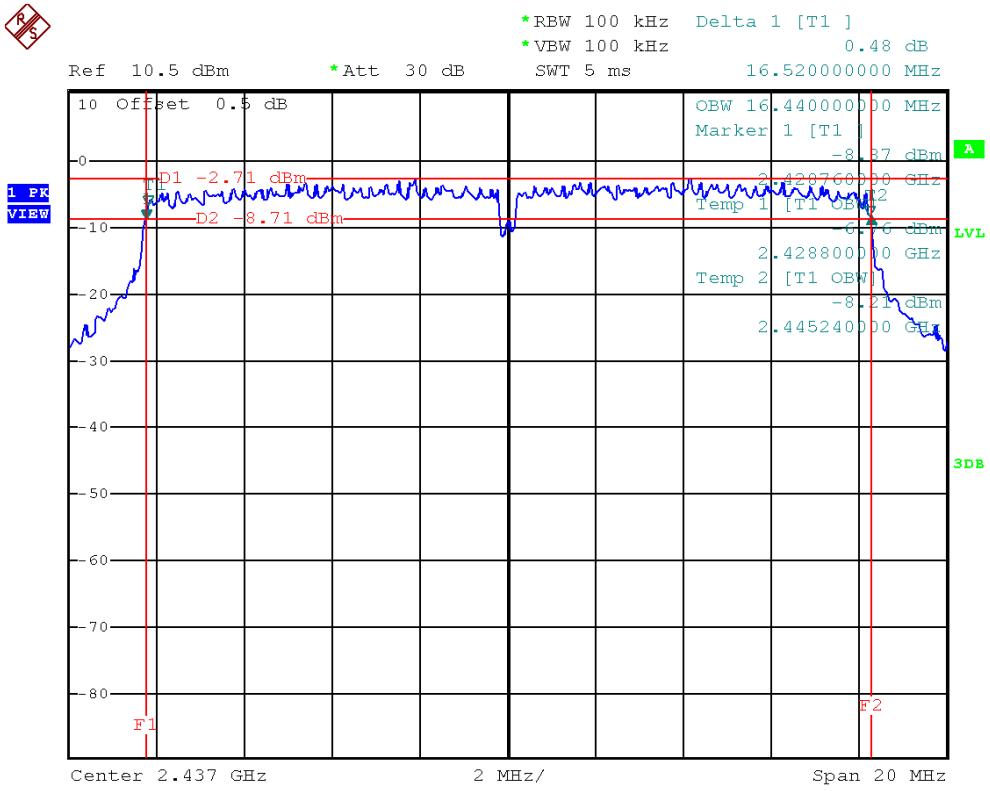
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	16.52	>=500KHz
CH06	2437	16.52	>=500KHz
CH11	2462	16.56	>=500KHz

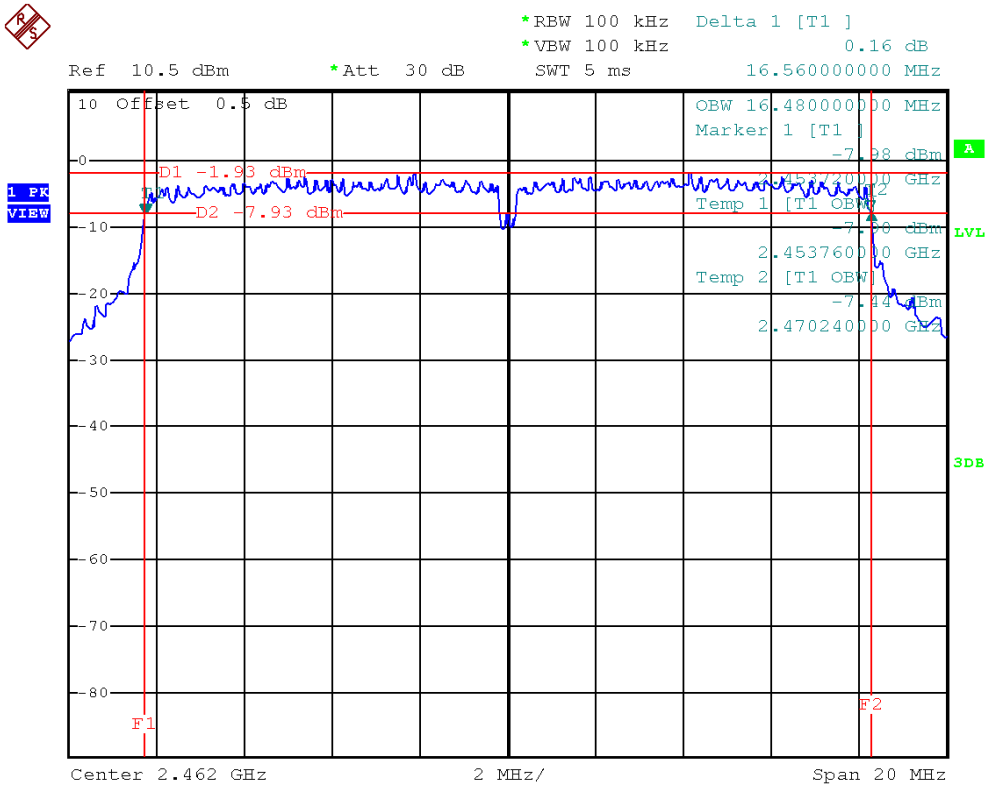
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.48 dB
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
16.520000000 MHz
10 Offset 0.5 dB
OBW 16.440000000 MHz
Marker 1 [T1]
-8.37 dBm
D1 -2.71 dBm
D2 -8.71 dBm
Temp 1 [T1 OBW]
-6.76 dBm
2.428800000 GHz
Temp 2 [T1 OBW]
-8.21 dBm
2.445240000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

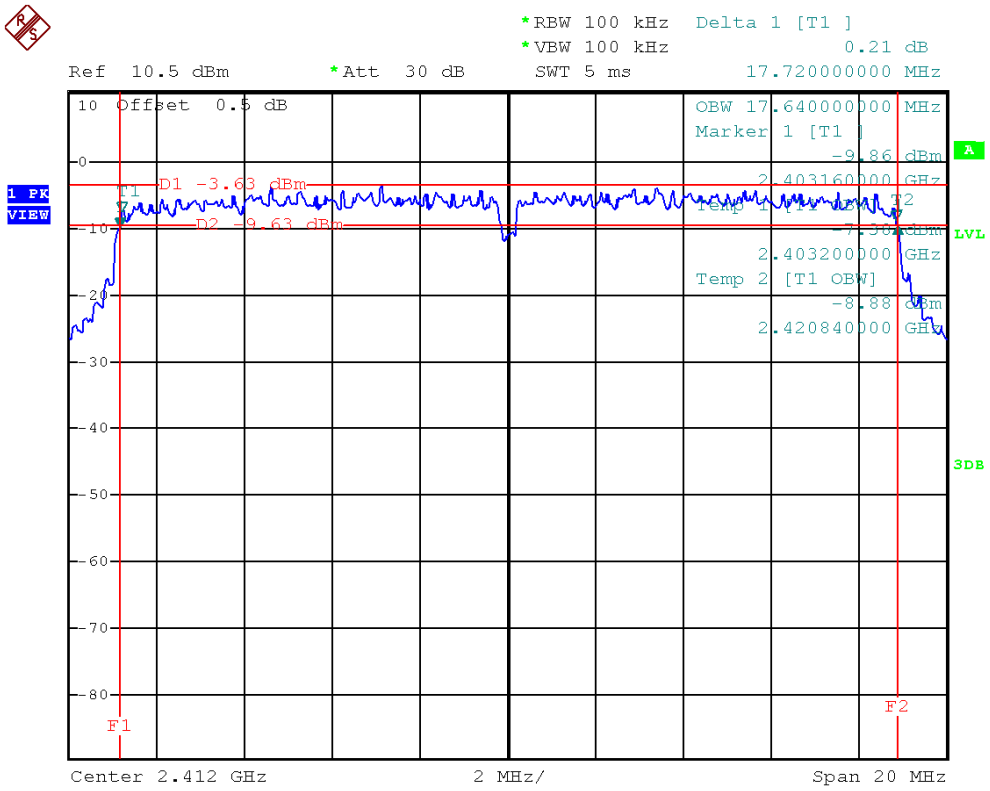
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.16 dB
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
16.560000000 MHz
10 Offset 0.5 dB
OBW 16.480000000 MHz
Marker 1 [T1]
-7.98 dBm
D1 -1.93 dBm
D2 -7.93 dBm
Temp 1 [T1 OBW]
-7.60 dBm
2.453760000 GHz
Temp 2 [T1 OBW]
-7.44 dBm
2.470240000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

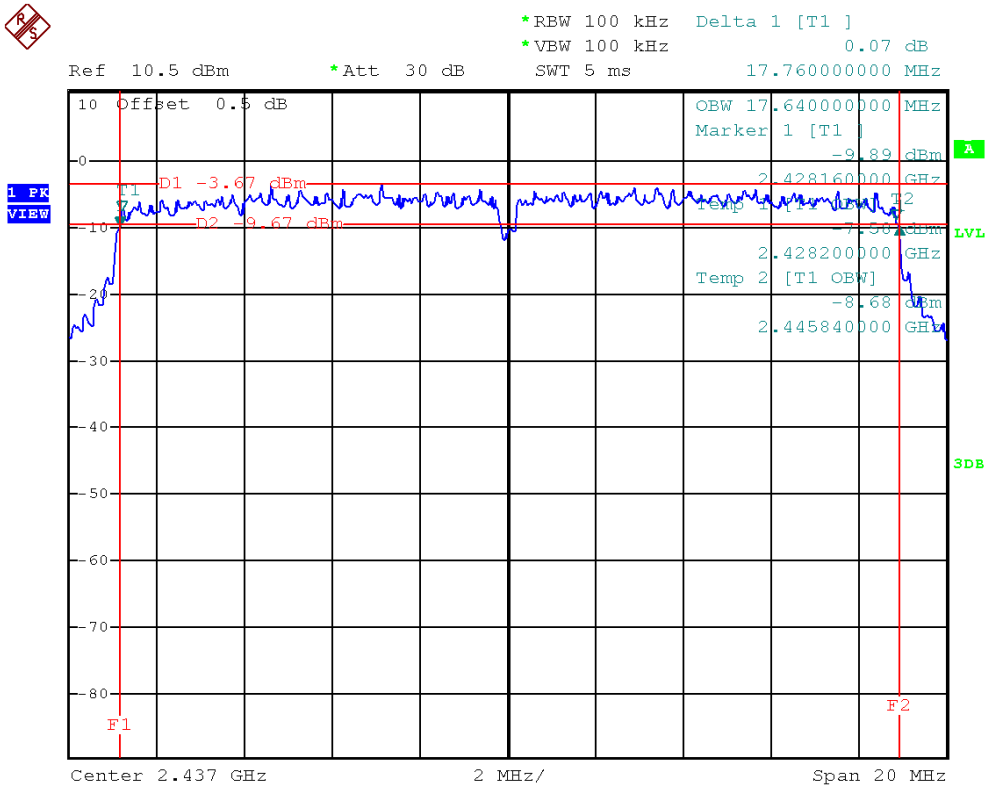
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	17.72	>=500KHz
CH06	2437	17.76	>=500KHz
CH11	2462	17.56	>=500KHz

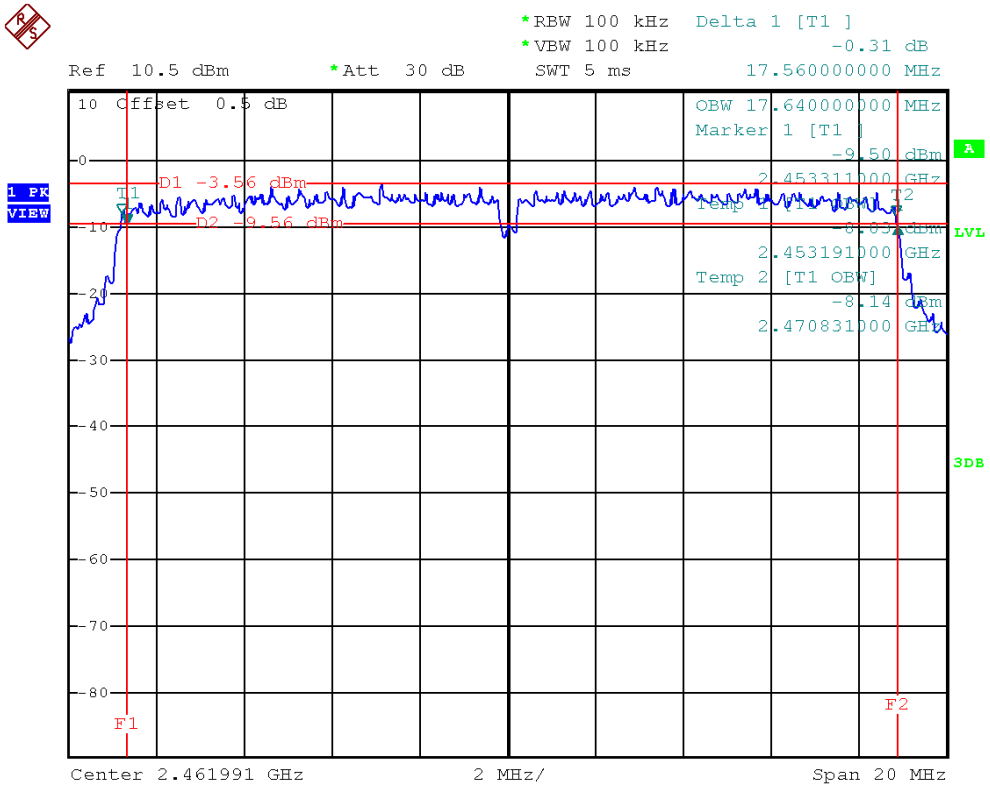
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.07 dB
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
17.760000000 MHz
10 Offset 0.5 dB
OBW 17.640000000 MHz
Marker 1 [T1]
-9.89 dBm
2.428160000 GHz
D1 -3.67 dBm
D2 -9.67 dBm
Temp 2 [T1 OBW]
-8.68 dBm
2.445840000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

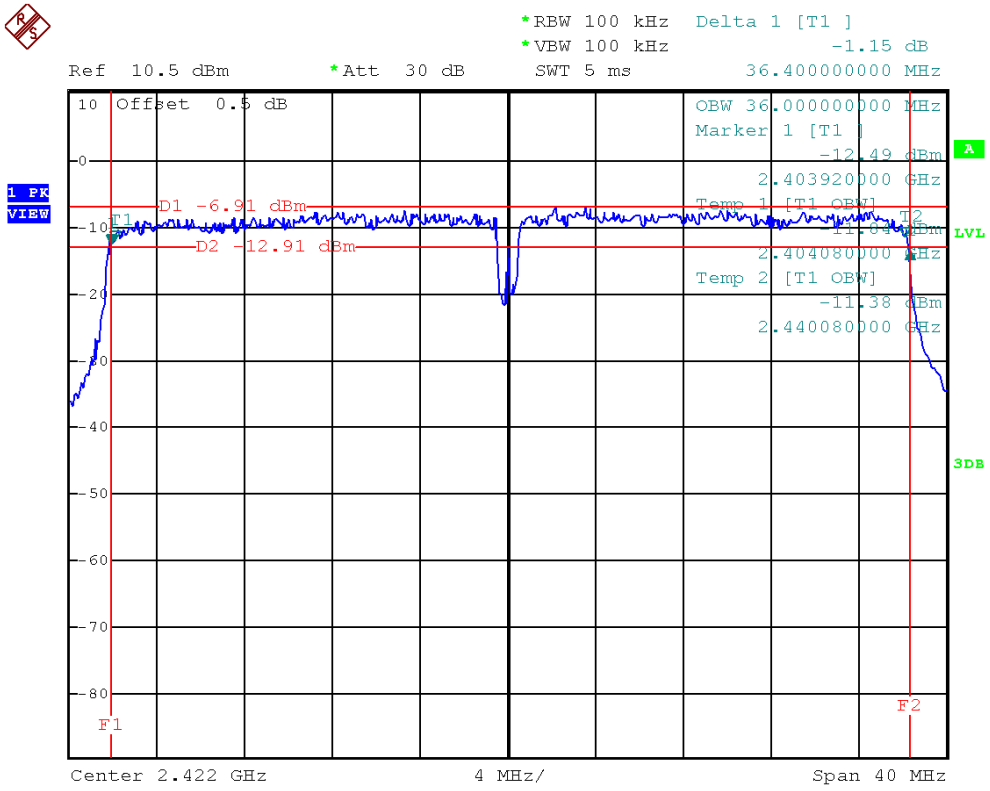
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.31 dB
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
17.560000000 MHz
10 Offset 0.5 dB
OBW 17.640000000 MHz
Marker 1 [T1]
-9.50 dBm
2.453311000 GHz
D1 -3.56 dBm
D2 -9.56 dBm
Temp 2 [T1 OBW]
-8.14 dBm
2.470831000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.461991 GHz
2 MHz/
Span 20 MHz

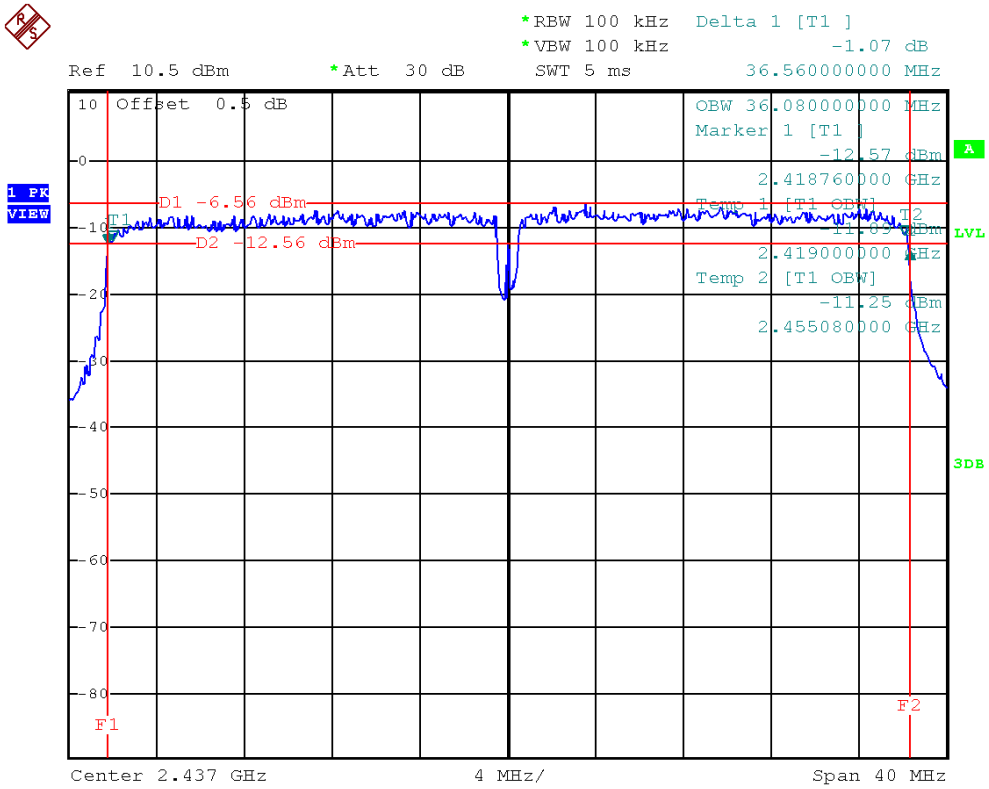
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/40M/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH03	2422	36.40	>=500KHz
CH06	2437	36.56	>=500KHz
CH09	2452	36.56	>=500KHz

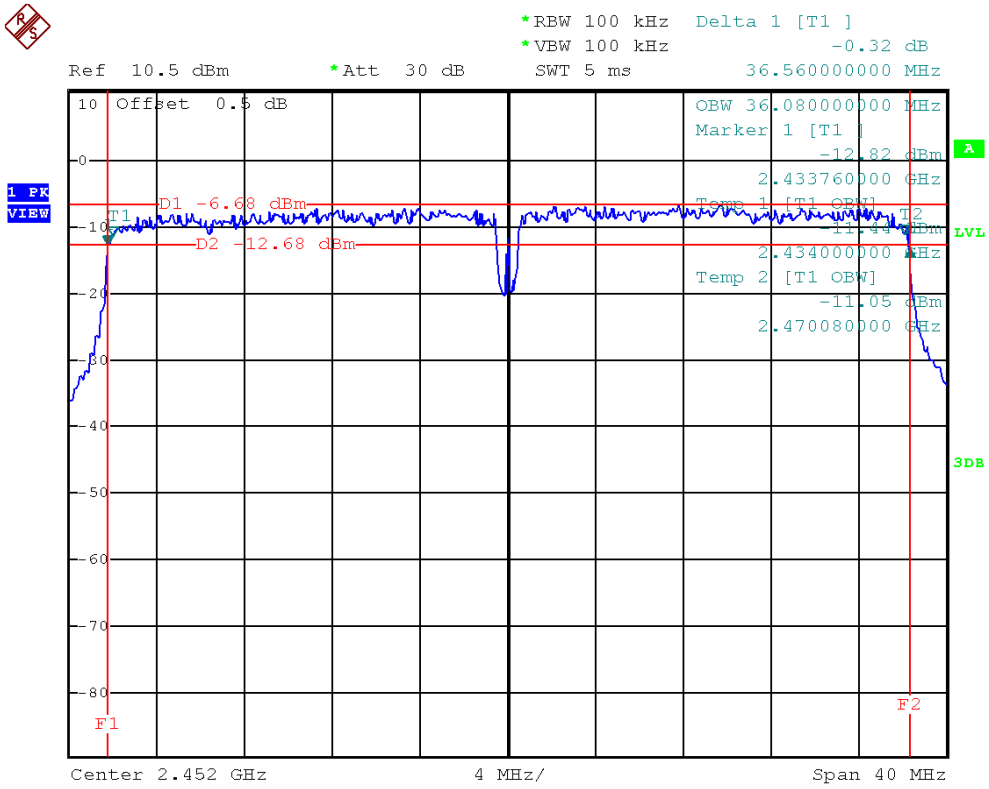
CH03



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-1.07 dB
36.560000000 MHz
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
10 Offset 0.5 dB
OBW 36.080000000 MHz
Marker 1 [T1]
-12.57 dBm
2.418760000 GHz
Temp 1 [T1 OBW]
-11.69 dBm
2.419000000 GHz
Temp 2 [T1 OBW]
-11.25 dBm
2.455080000 GHz
D1 -6.56 dBm
D2 -12.56 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.437 GHz
4 MHz/
Span 40 MHz

CH09


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.32 dB
36.560000000 MHz
Ref 10.5 dBm
*Att 30 dB
SWT 5 ms
10 Offset 0.5 dB
OBW 36.080000000 MHz
Marker 1 [T1]
-12.82 dBm
2.433760000 GHz
Temp 1 [T1 OBW]
-11.44 dBm
2.434000000 GHz
Temp 2 [T1 OBW]
-11.05 dBm
2.470080000 GHz
D1 -6.68 dBm
D2 -12.68 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.452 GHz
4 MHz/
Span 40 MHz

6. PEAK OUTPUT POWER TEST

6.1 APPLIED PROCEDURES / LIMIT

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

6.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Power Meter	Anritsu	ML2487A	6K00004714	Feb. 10, 2011
2	Power Meter Sensor	Anritsu	MA2491A	34138	Feb. 10, 2011

Remark: ” N/A” denotes No Model Name , Serial No. or No Calibration specified.

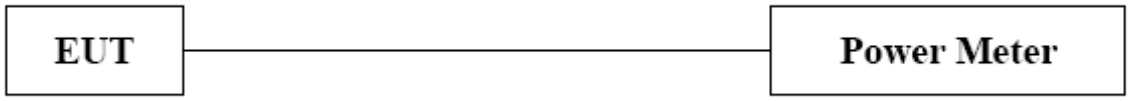
6.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 1MHz, VBW= 1MHz, Sweep time = Auto.

6.1.3 DEVIATION FROM STANDARD

No deviation.

6.1.4 TEST SETUP



6.1.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

6.1.6 TEST RESULTS

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	19.82	30	1
CH06	2437	19.77	30	1
CH11	2462	19.87	30	1

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	23.35	30	1
CH06	2437	23.17	30	1
CH11	2462	23.21	30	1

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	21.2700	30	1
CH06	2437	21.5200	30	1
CH11	2462	21.8700	30	1

EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/40M/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH03	2422	21.0300	30	1
CH06	2437	21.3200	30	1
CH09	2452	21.2900	30	1

7. ANTENNA CONDUCTED SPURIOUS EMISSION

7.1 APPLIED PROCEDURES / LIMIT

FCC Part15, Subpart C			
Test Item	Limit	Frequency Range (MHz)	Result
Antenna conducted Spurious Emission	20dB less than the peak value of fundamental frequency	30-25000	PASS

7.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Aug. 31, 2011

Remark: ” N/A” denotes No Model Name , Serial No. or No Calibration specified.

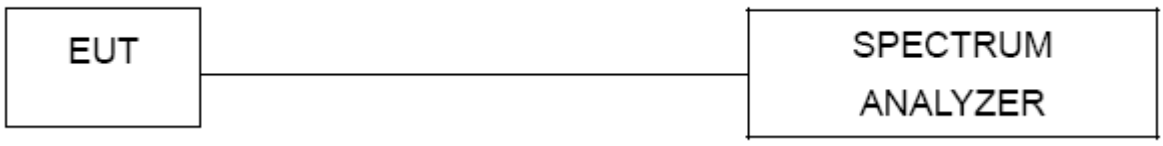
7.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW= 100KHz, VBW=100KHz, Sweep time = Auto.

7.1.3 DEVIATION FROM STANDARD

No deviation.

7.1.4 TEST SETUP



7.1.5 EUT OPERATION CONDITIONS

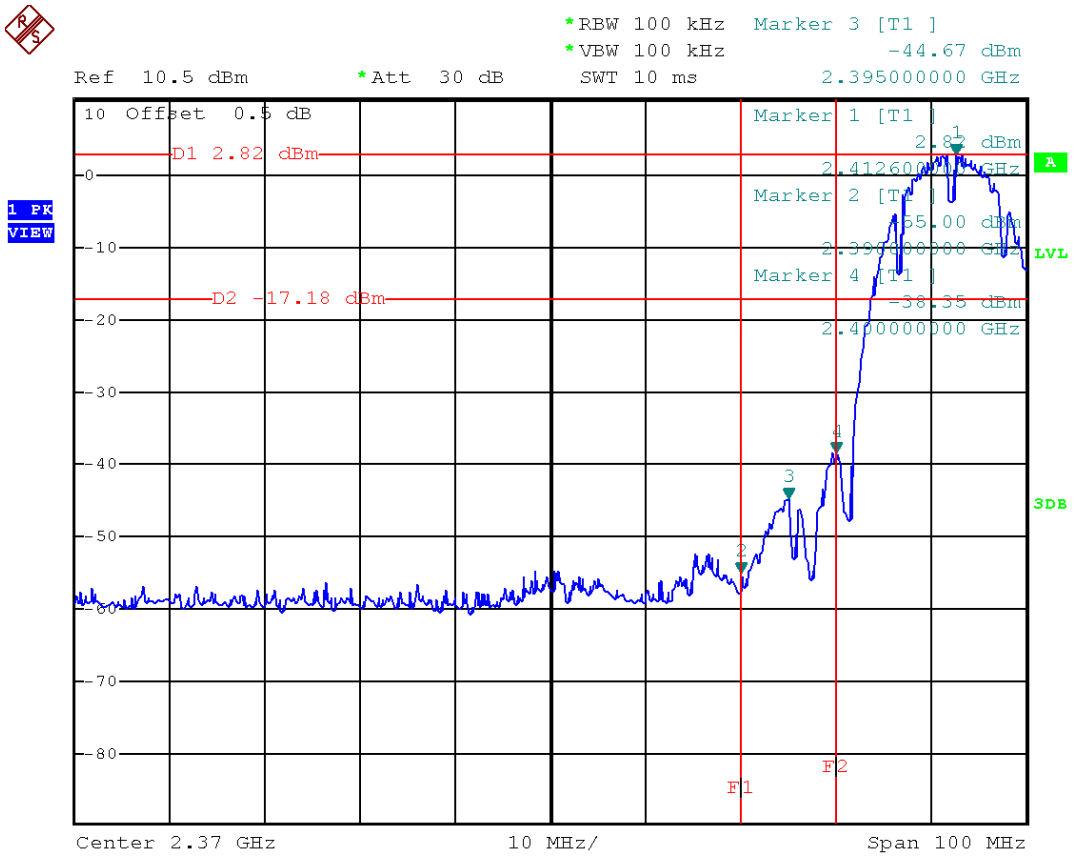
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.6 TEST RESULTS

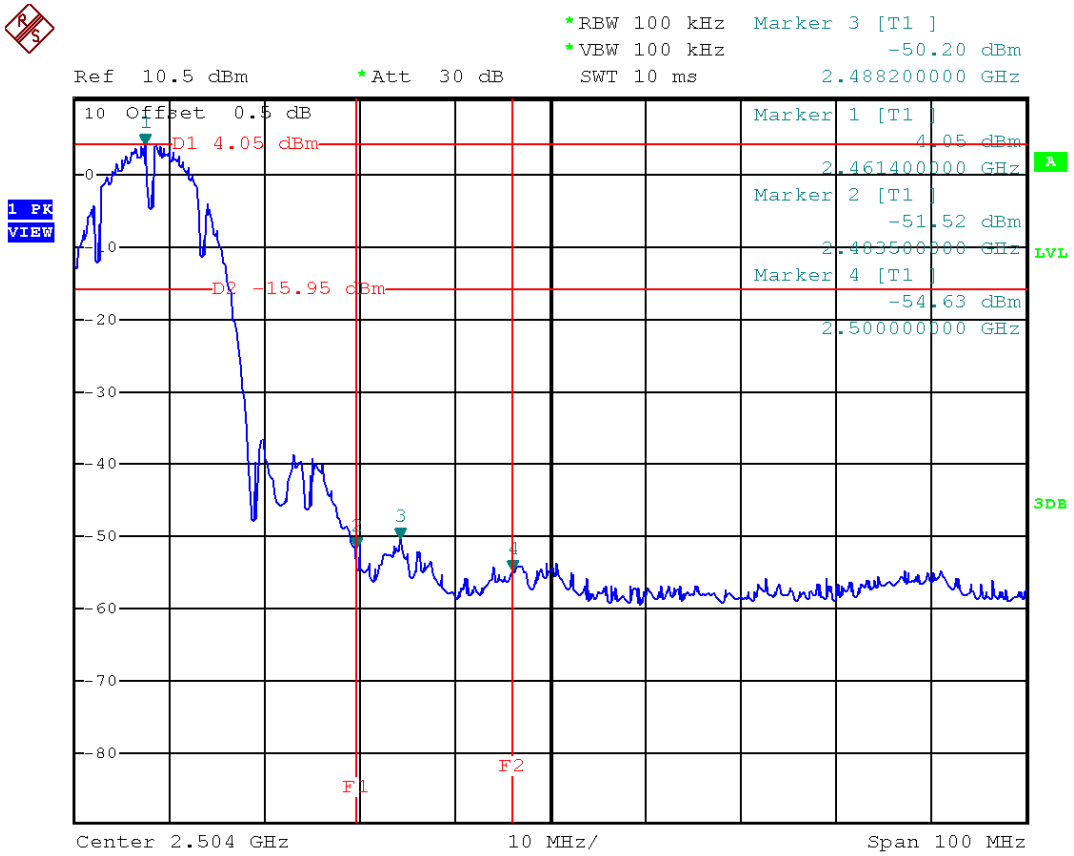
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH01, CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2395.0	-44.67	2488.2	-50.20
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.			

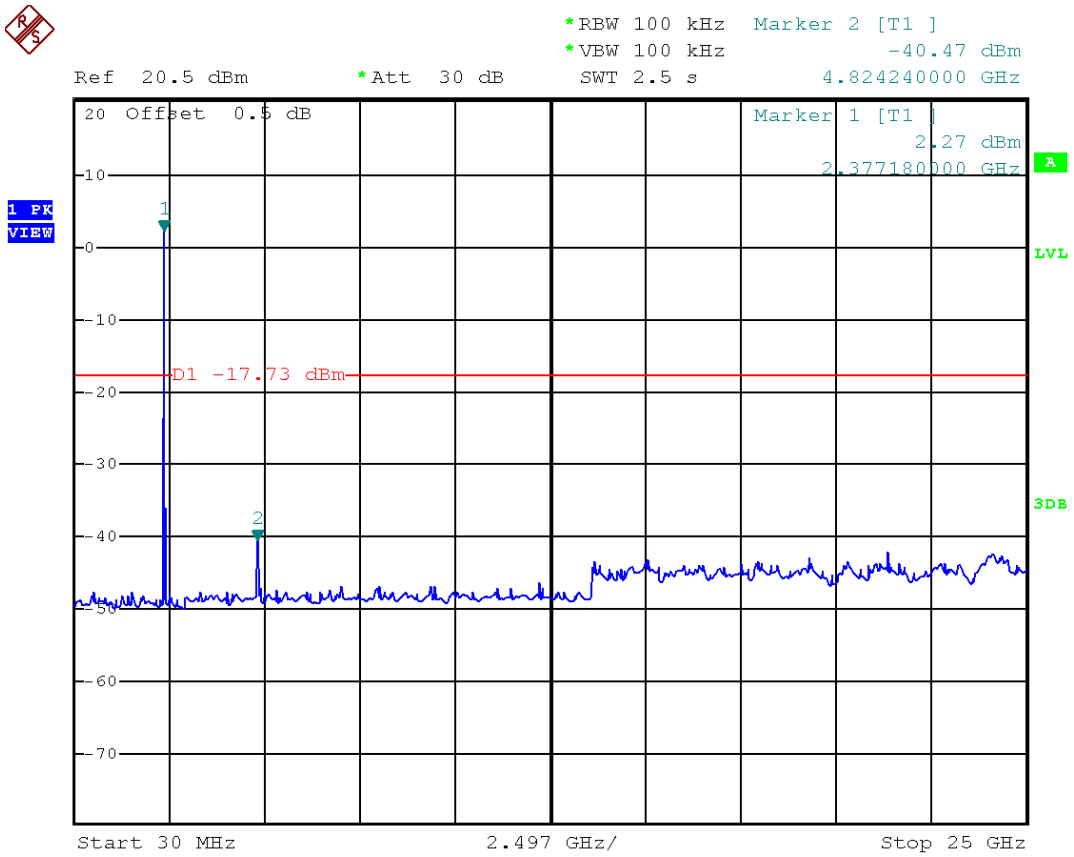
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-44.67 dBm
2.395000000 GHz
10 Offset 0.5 dB
D1 2.82 dBm
D2 -17.18 dBm
Marker 1 [T1]
2.82 dBm
2.412600000 GHz
Marker 2 [T1]
-55.00 dBm
2.390000000 GHz
Marker 4 [T1]
-38.35 dBm
2.400000000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.37 GHz
10 MHz/
Span 100 MHz

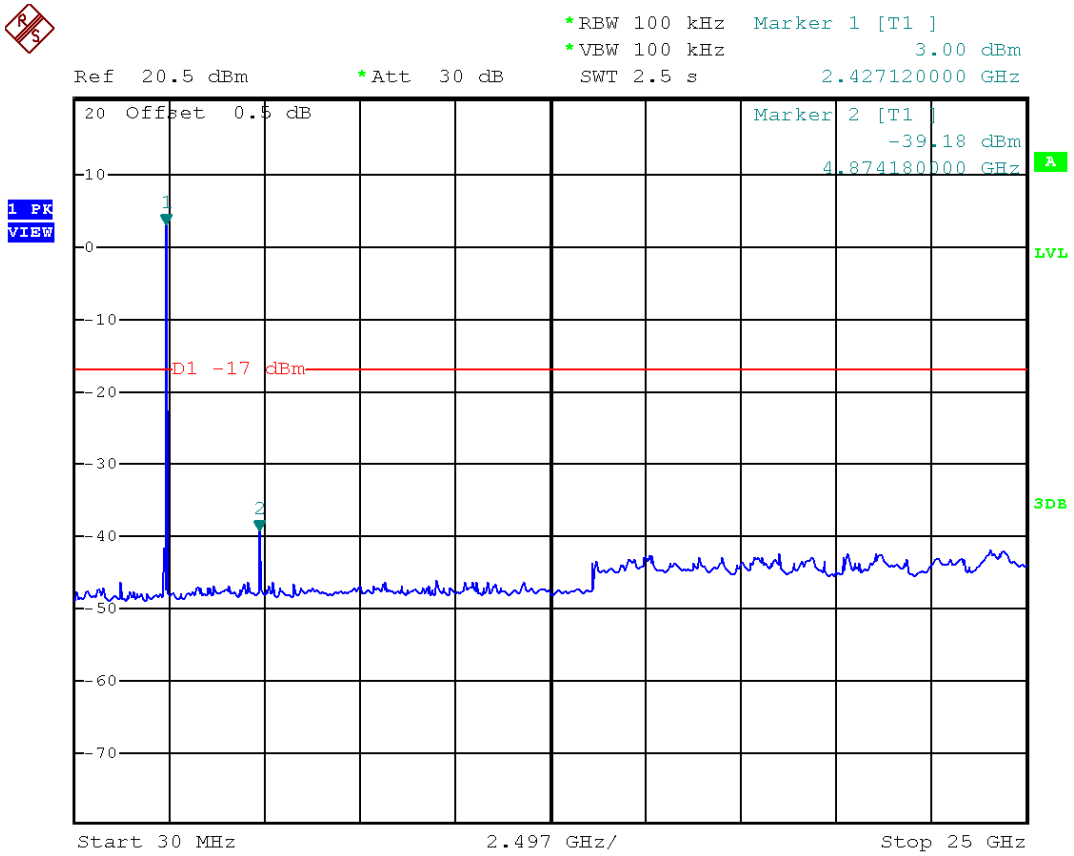
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-50.20 dBm
2.488200000 GHz
10 Offset 0.5 dB
D1 4.05 dBm
D2 -15.95 dBm
Marker 1 [T1]
4.05 dBm
2.461400000 GHz
Marker 2 [T1]
-51.52 dBm
2.403500000 GHz
Marker 4 [T1]
-54.63 dBm
2.500000000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.504 GHz
10 MHz/
Span 100 MHz

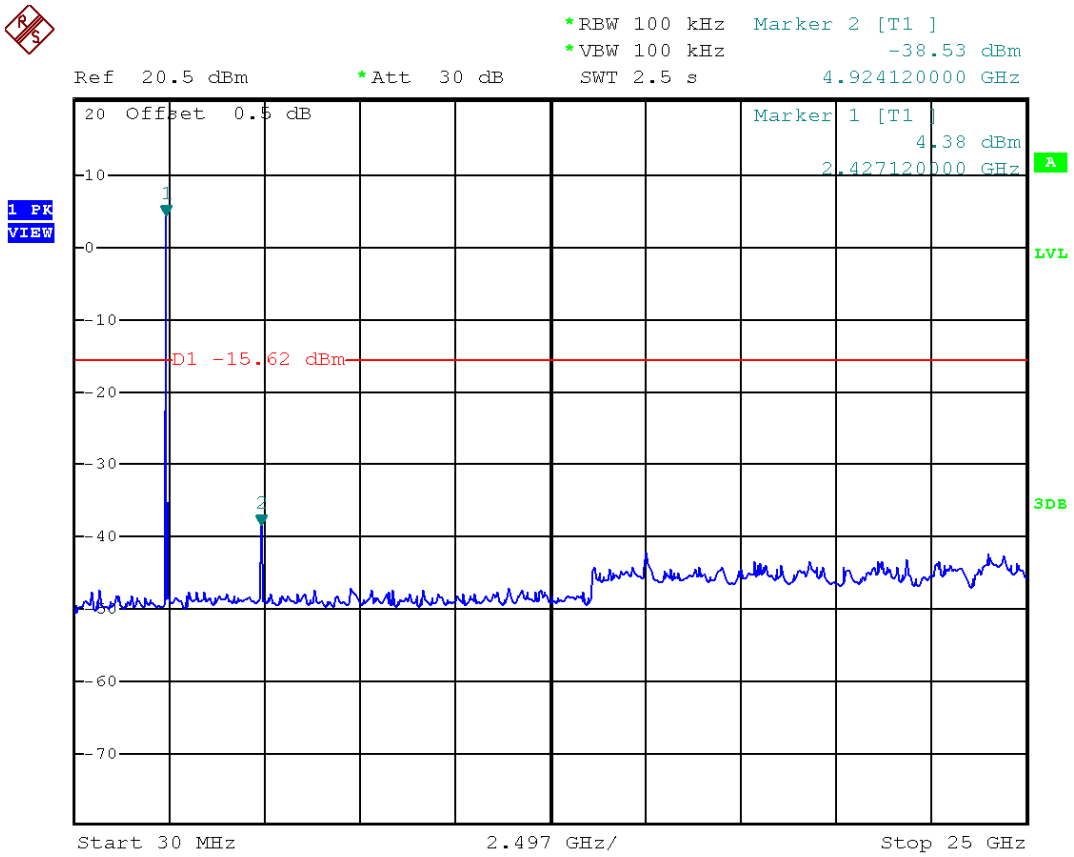
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-40.47 dBm
4.824240000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
2.27 dBm
2.377180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -17.73 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH06


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 1 [T1]
3.00 dBm
2.427120000 GHz
20 Offset 0.5 dB
Marker 2 [T1]
-39.18 dBm
4.874180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -17 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

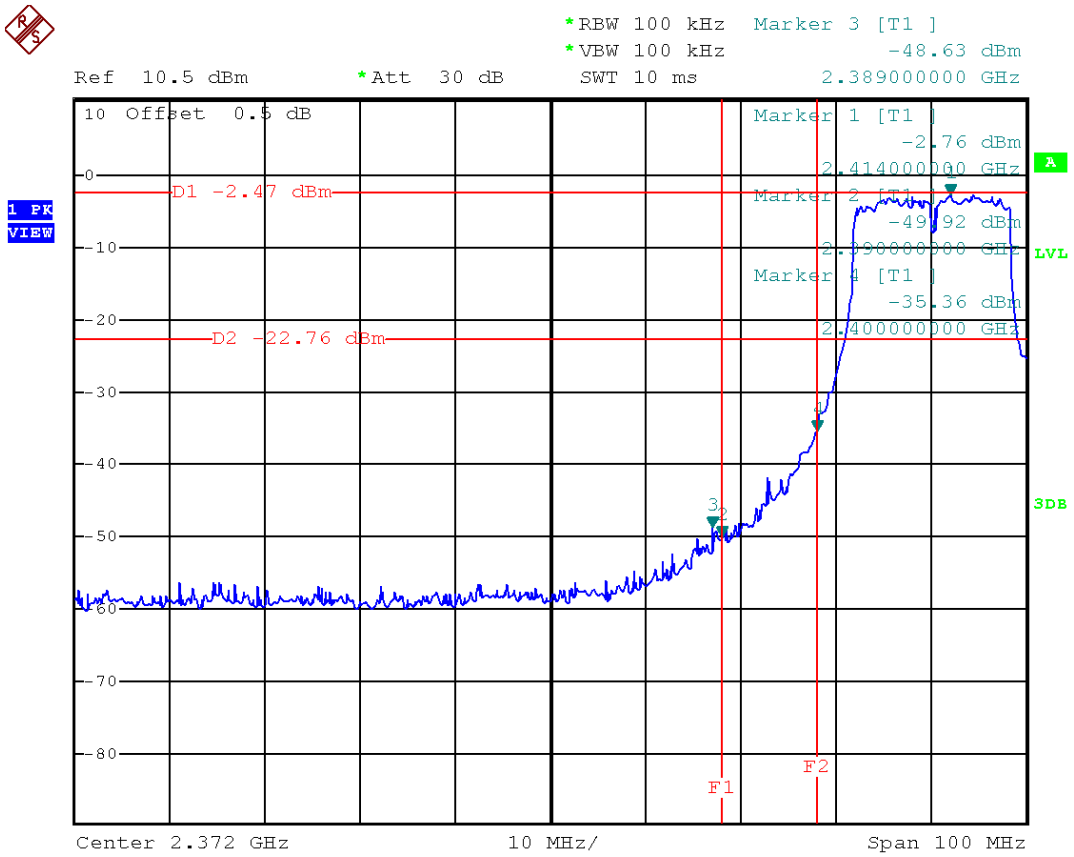
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-38.53 dBm
4.924120000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
4.38 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -15.62 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Start 30 MHz
2.497 GHz/
Stop 25 GHz

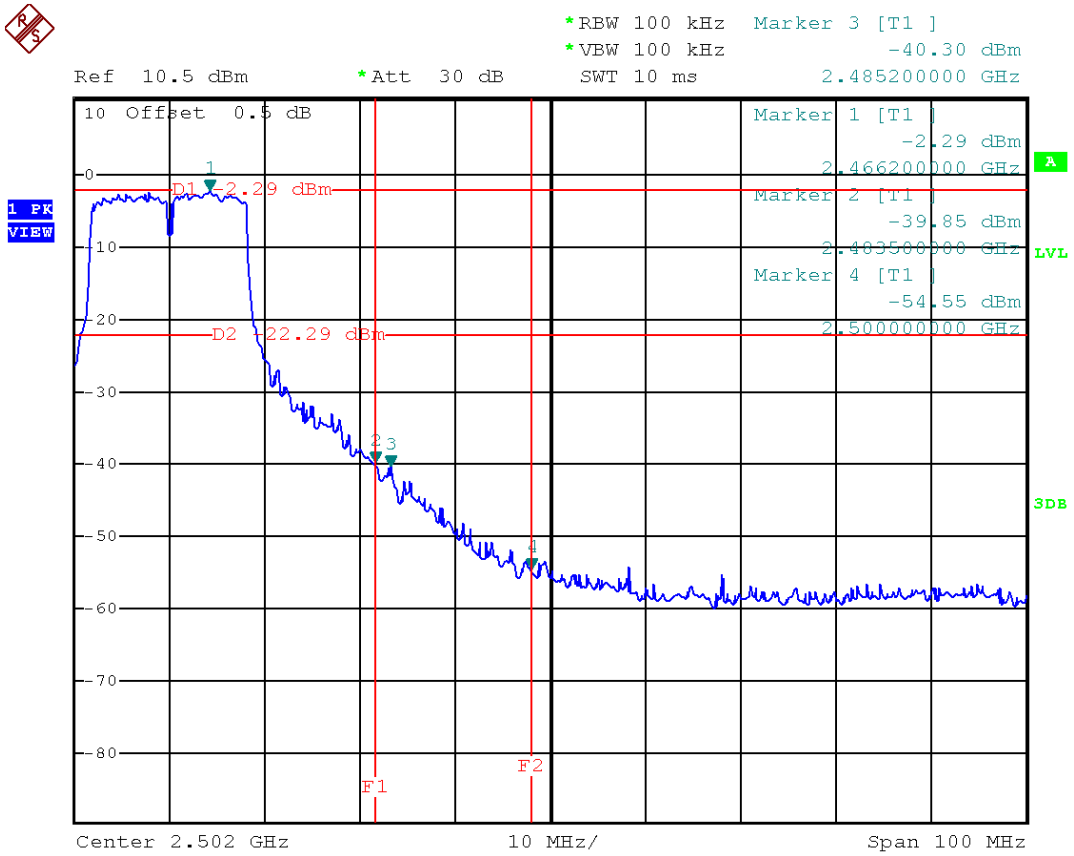
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11g/CH01, CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2389.0	-48.63	2485.2	-40.30
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.			

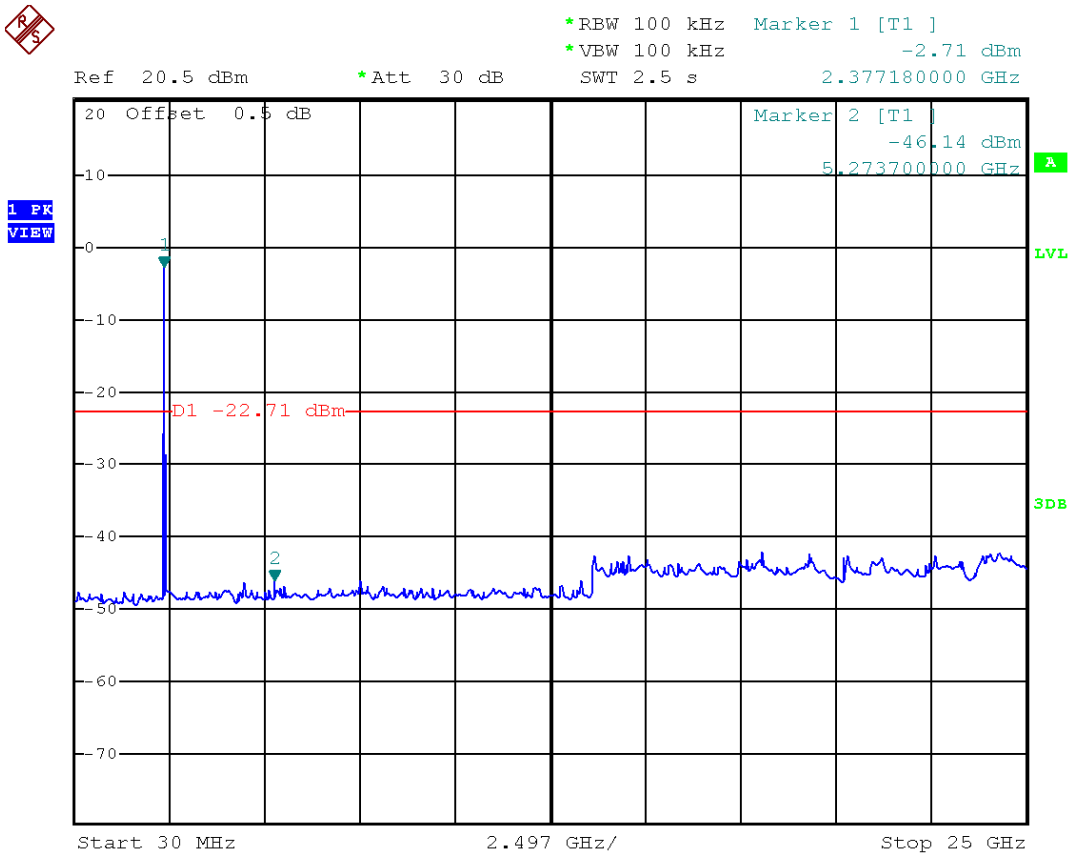
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-48.63 dBm
2.389000000 GHz
10 Offset 0.5 dB
Marker 1 [T1]
-2.76 dBm
2.414000000 GHz
Marker 2 [T1]
-49.92 dBm
2.390000000 GHz
Marker 4 [T1]
-35.36 dBm
2.400000000 GHz
D1 -2.47 dBm
D2 -22.76 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.372 GHz
10 MHz/
Span 100 MHz

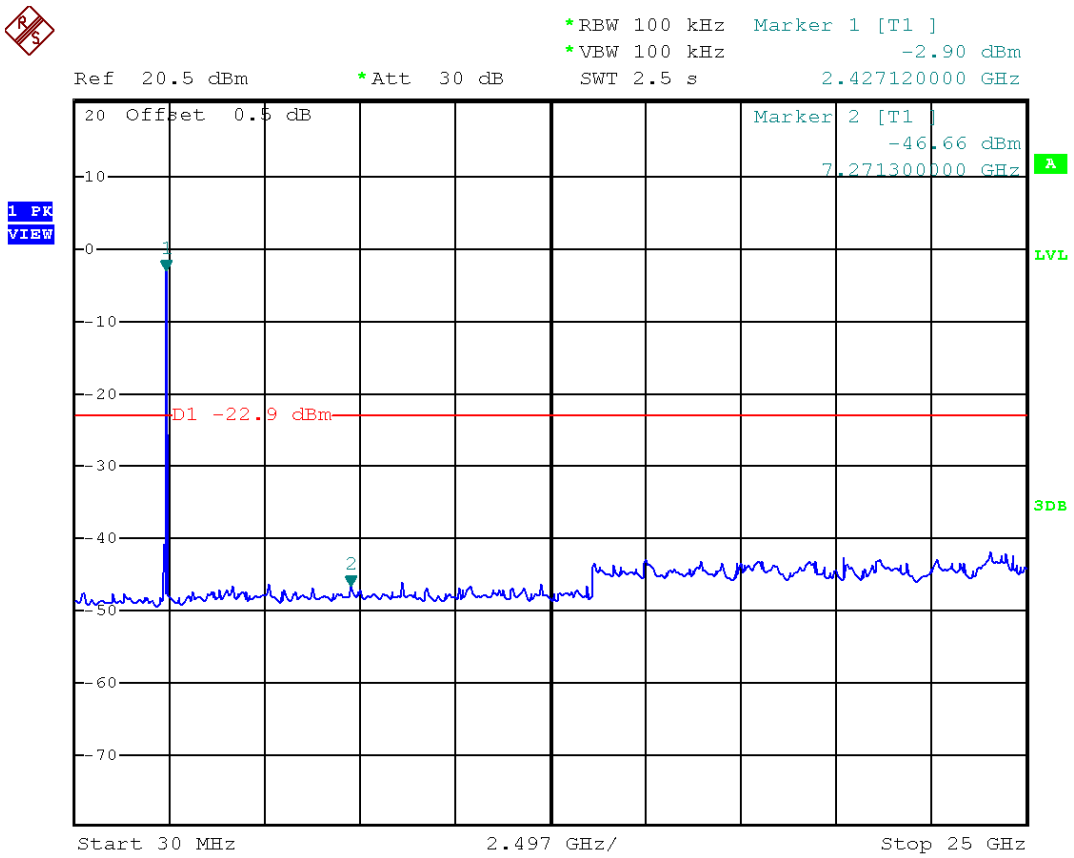
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-40.30 dBm
2.485200000 GHz
10 Offset 0.5 dB
Marker 1 [T1]
-2.29 dBm
2.466200000 GHz
Marker 2 [T1]
-39.85 dBm
2.483500000 GHz
Marker 4 [T1]
-54.55 dBm
2.500000000 GHz
D1 -2.29 dBm
D2 -22.29 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz

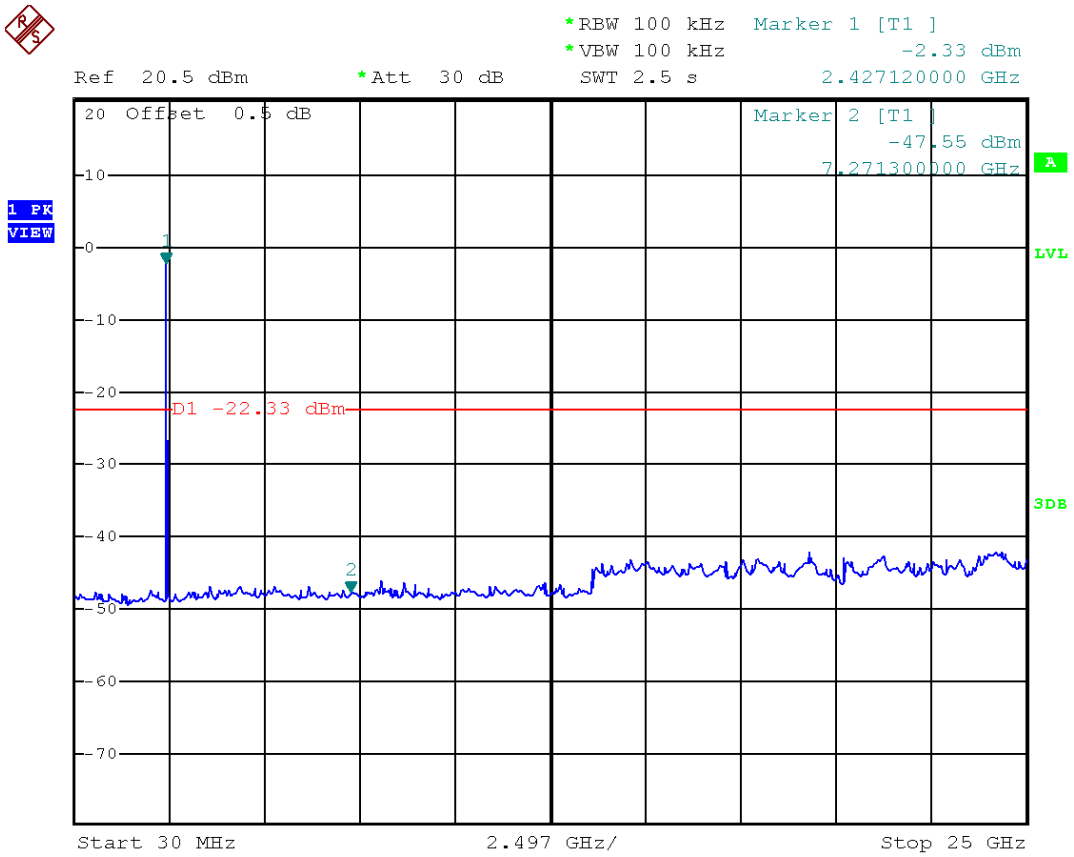
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 1 [T1]
-2.71 dBm
2.377180000 GHz
20 Offset 0.5 dB
Marker 2 [T1]
-46.14 dBm
5.273700000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -22.71 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH06


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 1 [T1]
-2.90 dBm
2.427120000 GHz
20 Offset 0.5 dB
Marker 2 [T1]
-46.66 dBm
7.271300000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -22.9 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

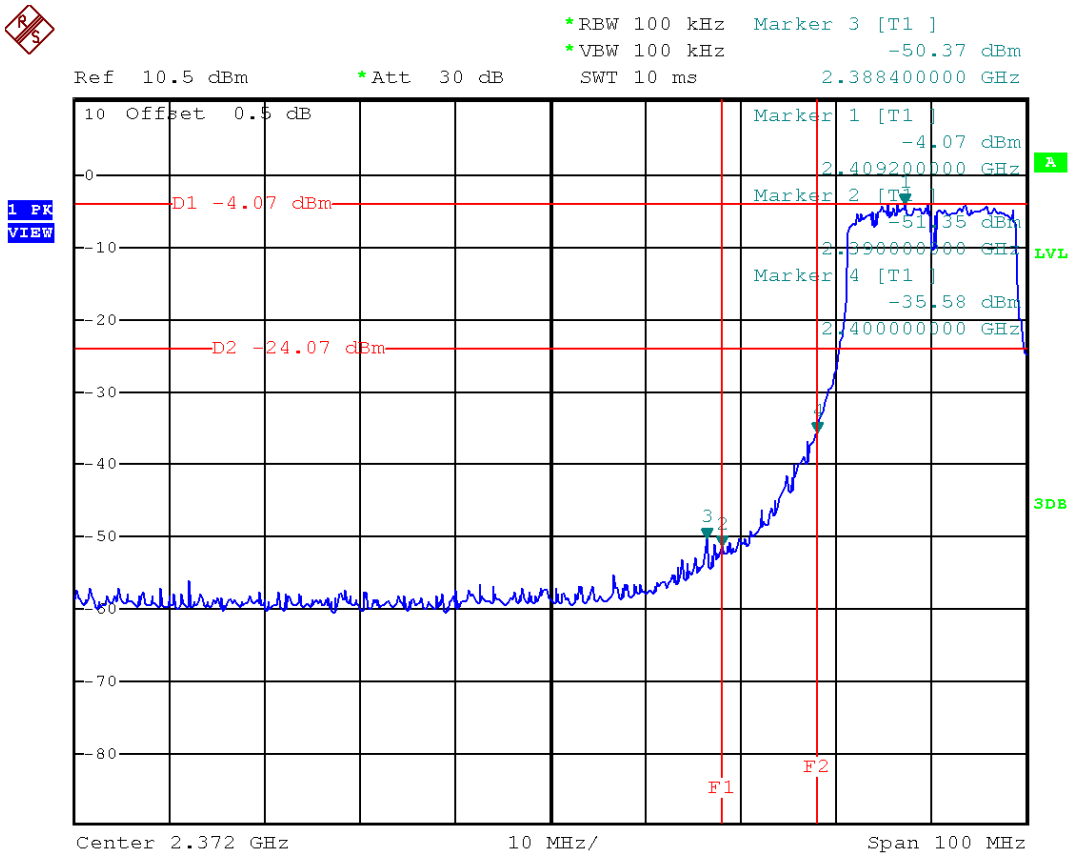
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 1 [T1]
-2.33 dBm
2.427120000 GHz
20 Offset 0.5 dB
Marker 2 [T1]
-47.55 dBm
7.271300000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -22.33 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

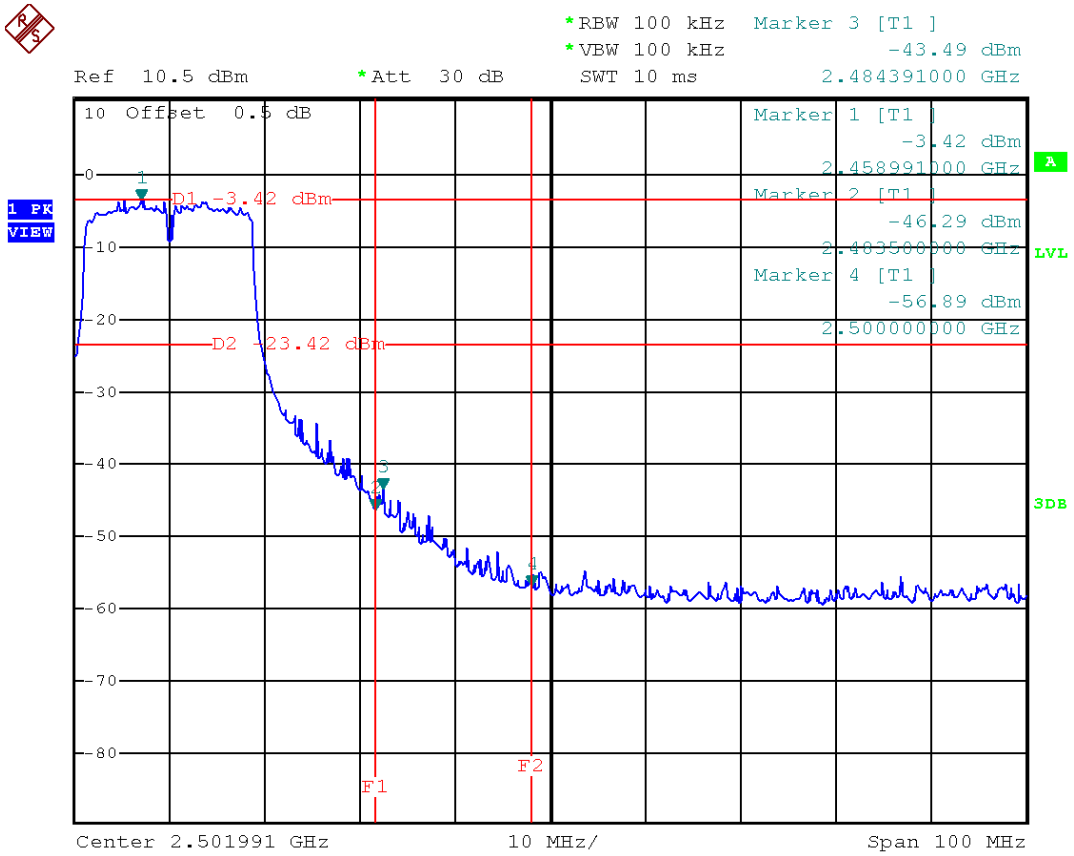
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/20M/CH01, CH11		

Channel of Worst Data: CH1,CH11			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2388.4	-50.37	2484.391	-43.49
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.			

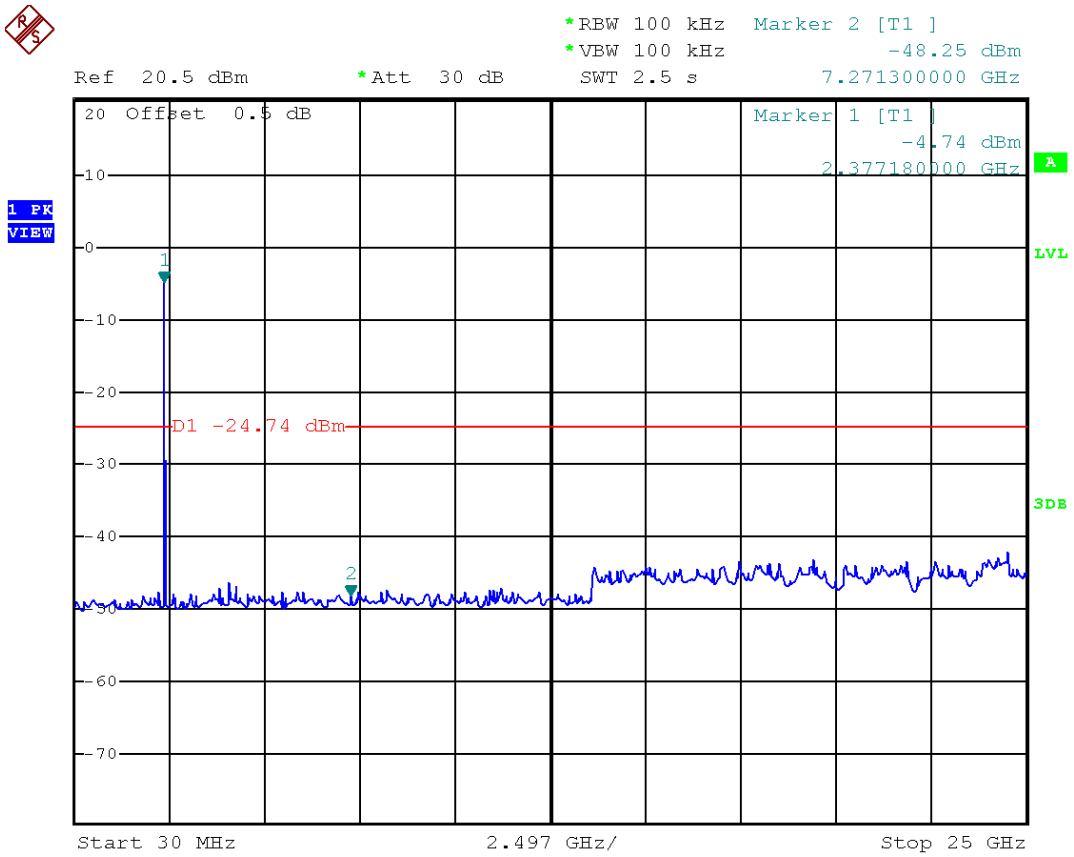
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-50.37 dBm
2.388400000 GHz
10 Offset 0.5 dB
Marker 1 [T1]
-4.07 dBm
2.409200000 GHz
Marker 2 [T1]
-51.35 dBm
2.390000000 GHz
Marker 4 [T1]
-35.58 dBm
2.400000000 GHz
D1 -4.07 dBm
D2 -24.07 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.372 GHz
10 MHz/
Span 100 MHz

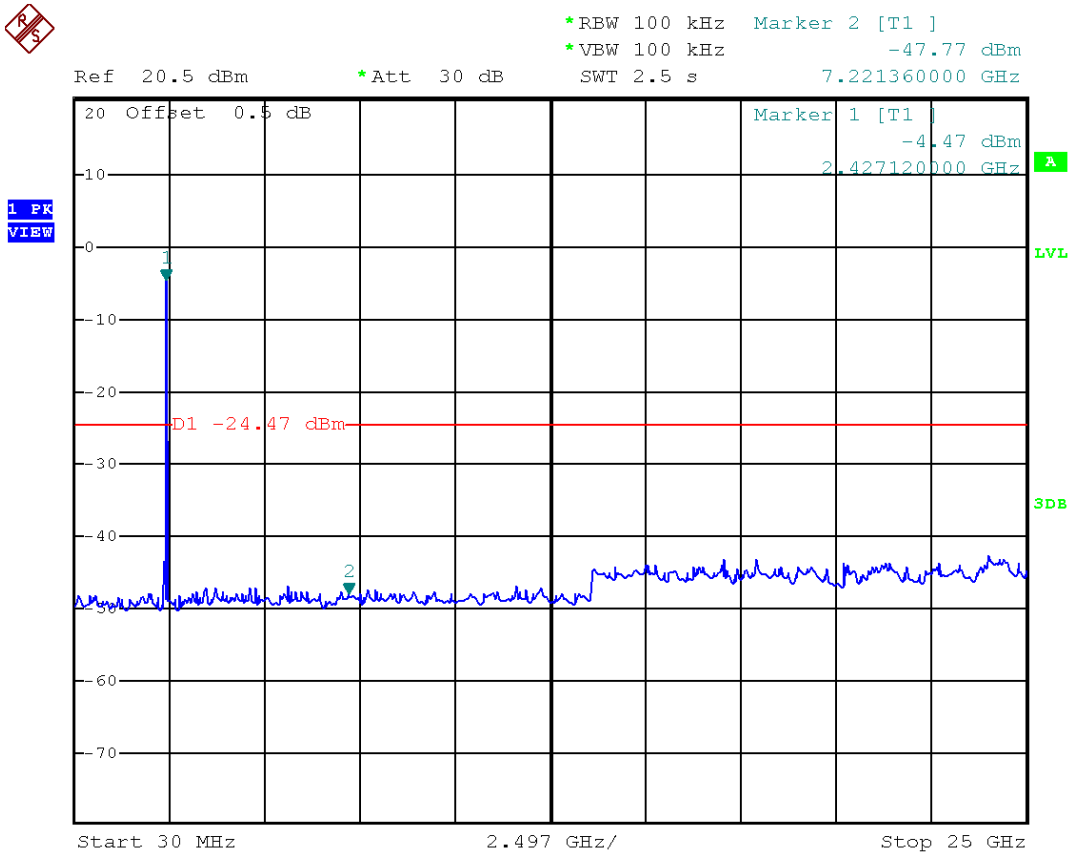
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-43.49 dBm
2.484391000 GHz
10 Offset 0.5 dB
Marker 1 [T1]
-3.42 dBm
2.458991000 GHz
Marker 2 [T1]
-46.29 dBm
2.403500000 GHz
Marker 4 [T1]
-56.89 dBm
2.500000000 GHz
D1 -3.42 dBm
D2 -23.42 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.501991 GHz
10 MHz/
Span 100 MHz

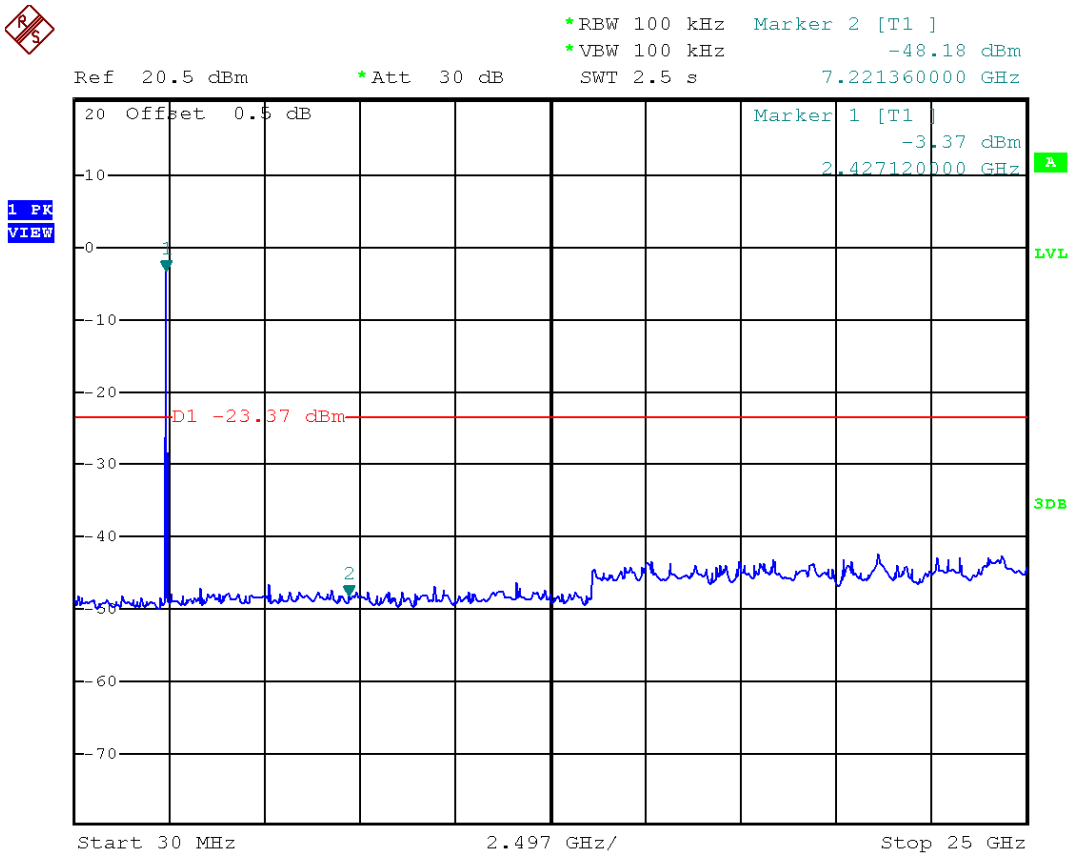
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-48.25 dBm
7.271300000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-4.74 dBm
2.377180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -24.74 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH06


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-47.77 dBm
7.221360000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-4.47 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -24.47 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

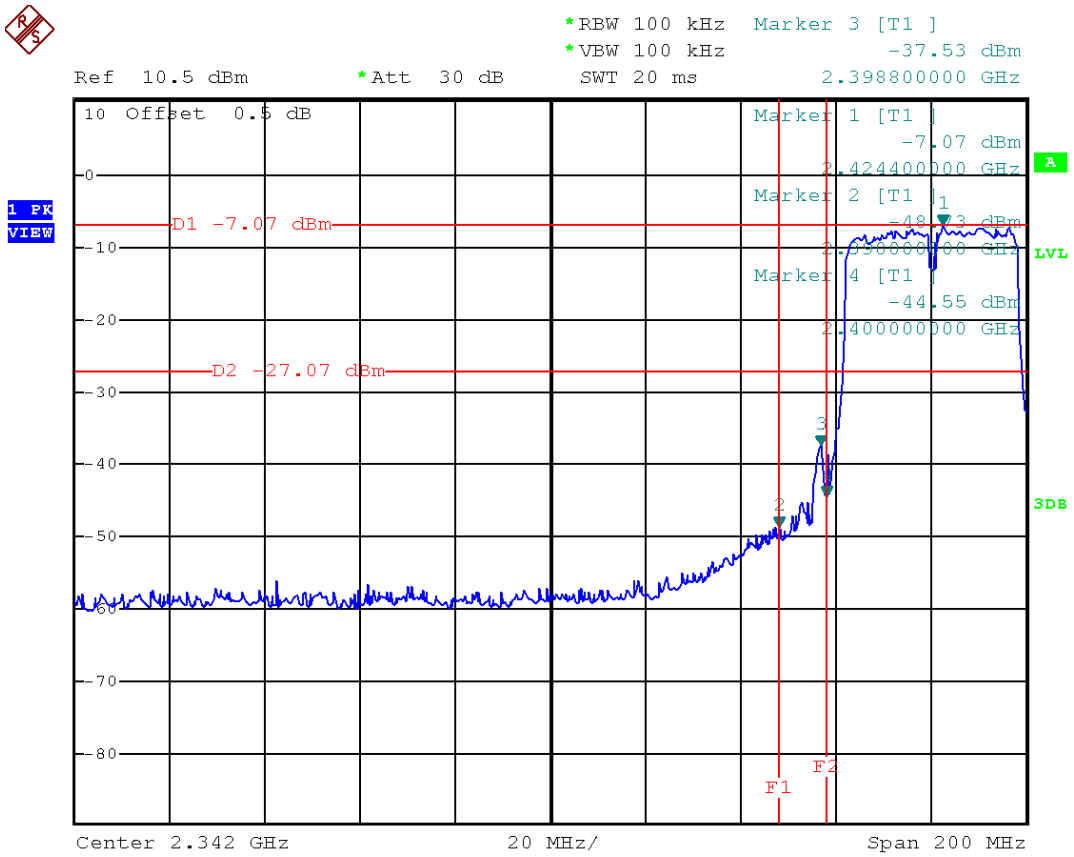
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-48.18 dBm
7.221360000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-3.37 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -23.37 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

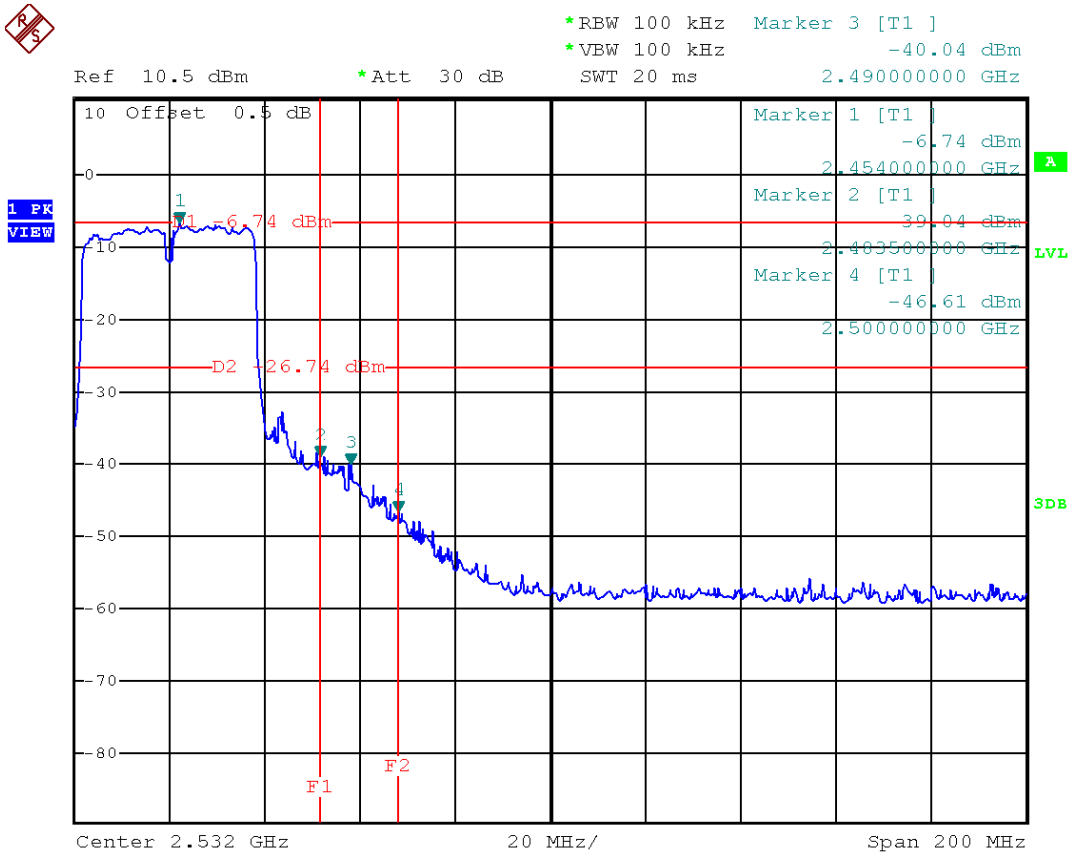
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/40M/CH03, CH09		

Channel of Worst Data: CH03,CH09			
The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.	
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)
2398.8	-37.53	2490.0	-40.04
Result			
In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.			

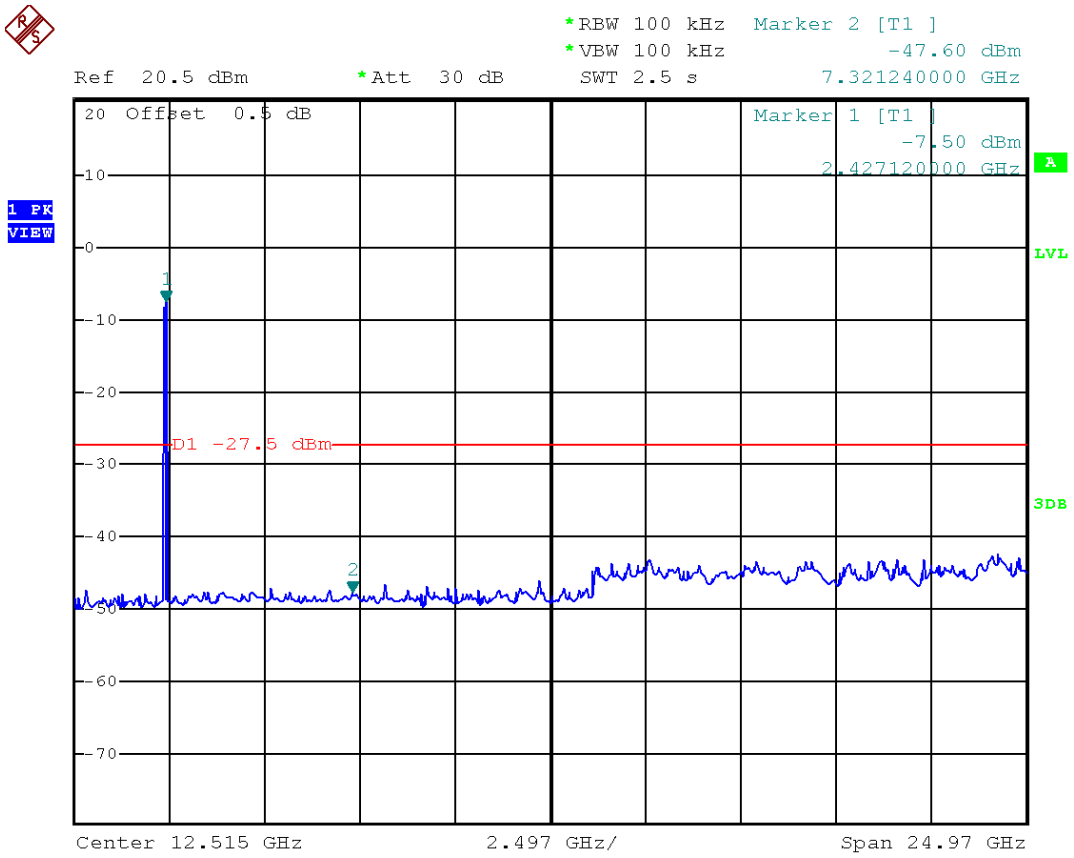
CH03


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 20 ms
Marker 3 [T1]
-37.53 dBm
2.398800000 GHz
10 Offset 0.5 dB
Marker 1 [T1]
-7.07 dBm
2.424400000 GHz
Marker 2 [T1]
-48.23 dBm
2.398000000 GHz
Marker 4 [T1]
-44.55 dBm
2.400000000 GHz
D1 -7.07 dBm
D2 -27.07 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.342 GHz
20 MHz/
Span 200 MHz

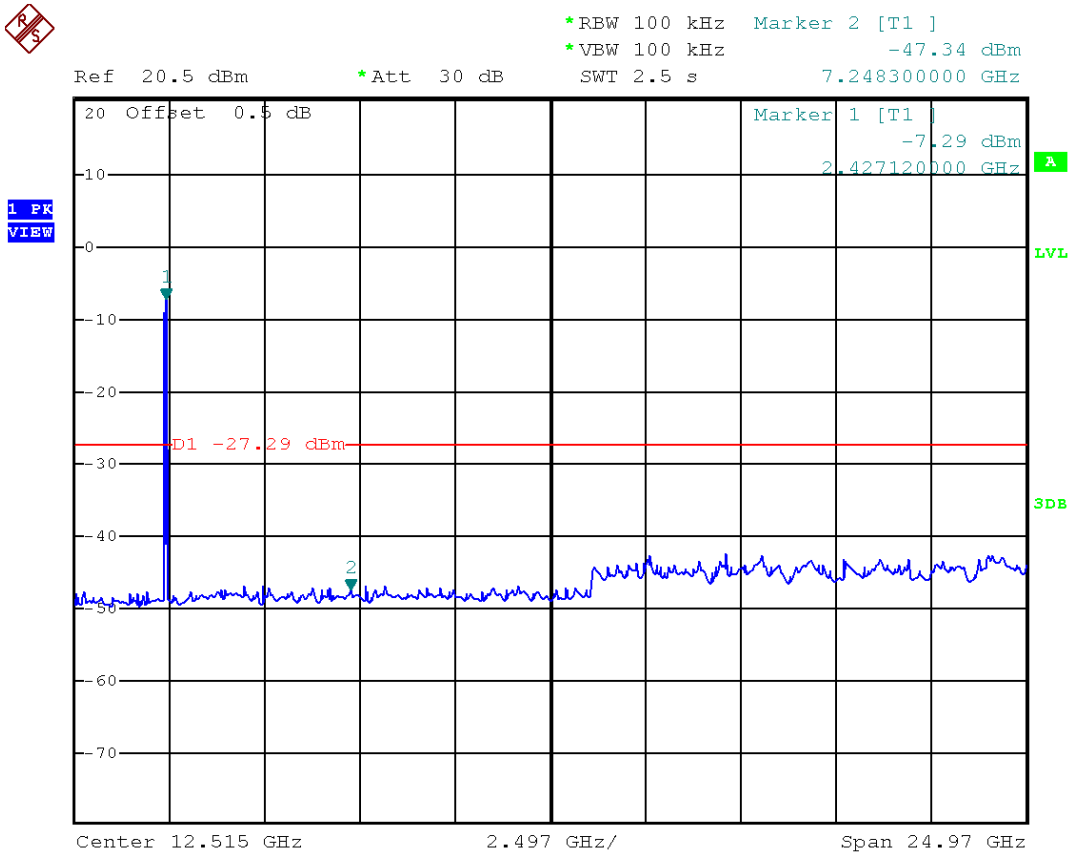
CH09


*RBW 100 kHz
*VBW 100 kHz
Ref 10.5 dBm
*Att 30 dB
SWT 20 ms
Marker 3 [T1]
-40.04 dBm
2.490000000 GHz
10 Offset 0.5 dB
Marker 1 [T1]
-6.74 dBm
2.454000000 GHz
Marker 2 [T1]
-39.04 dBm
2.483500000 GHz
Marker 4 [T1]
-46.61 dBm
2.500000000 GHz
D1 -6.74 dBm
D2 -26.74 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.532 GHz
20 MHz/
Span 200 MHz

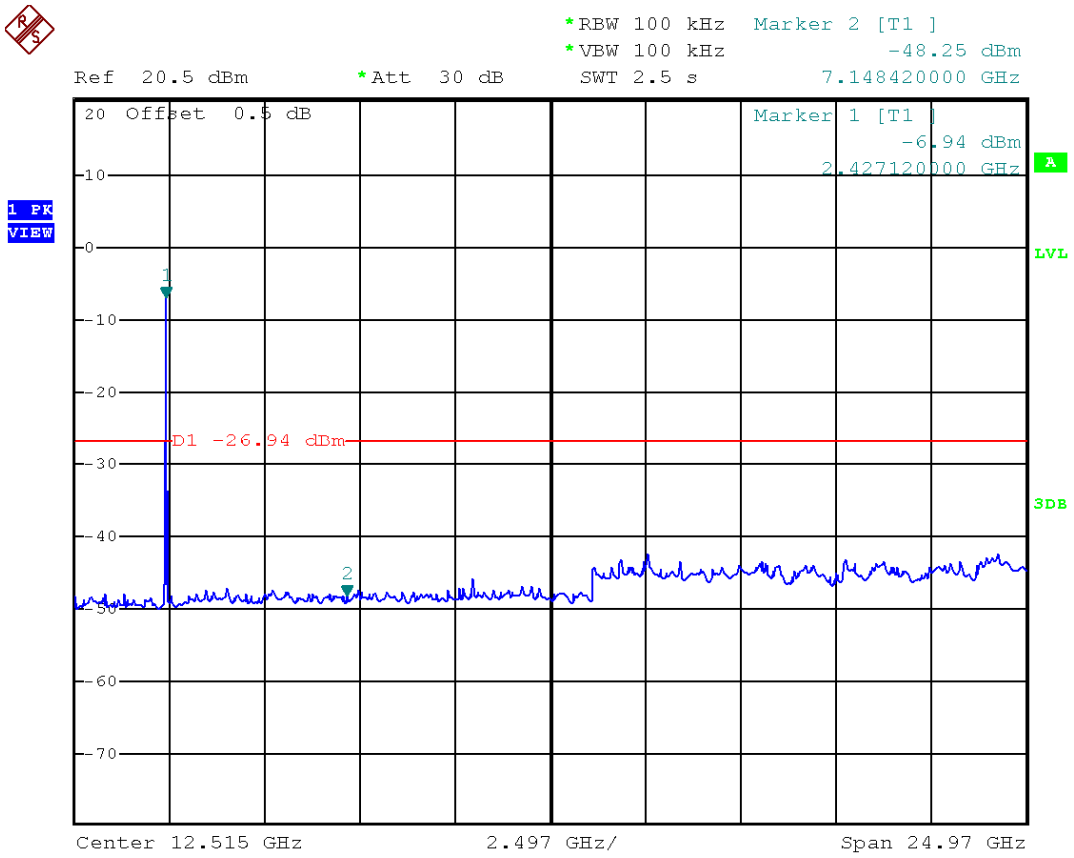
CH03


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-47.60 dBm
7.321240000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-7.50 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -27.5 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

CH06


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-47.34 dBm
7.248300000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-7.29 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -27.29 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

CH09


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-48.25 dBm
7.148420000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-6.94 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -26.94 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

8. POWER SPECTRAL DENSITY TEST

8.1 APPLIED PROCEDURES / LIMIT

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

8.1.1 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Spectrum Analyzer	R&S	FSP-40	100129	Aug. 31, 2011

Remark: ” N/A” denotes No Model Name, Serial No. or No Calibration specified.

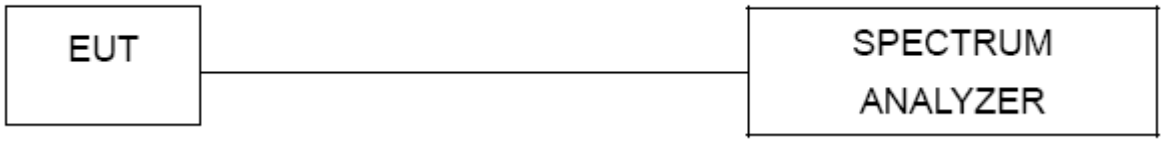
8.1.2 TEST PROCEDURE

a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
b. Spectrum Setting : RBW=3KHz, VBW=30KHz, Sweep time = 500s.

8.1.3 DEVIATION FROM STANDARD

No deviation.

8.1.4 TEST SETUP



8.1.5 EUT OPERATION CONDITIONS

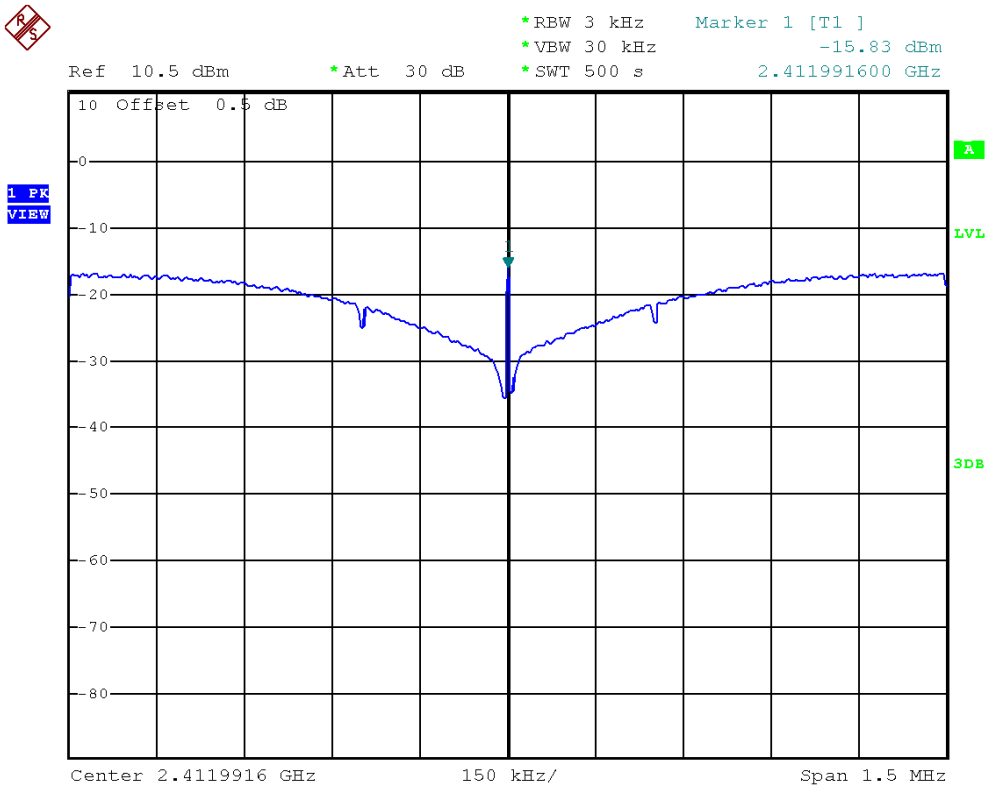
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.6 TEST RESULTS

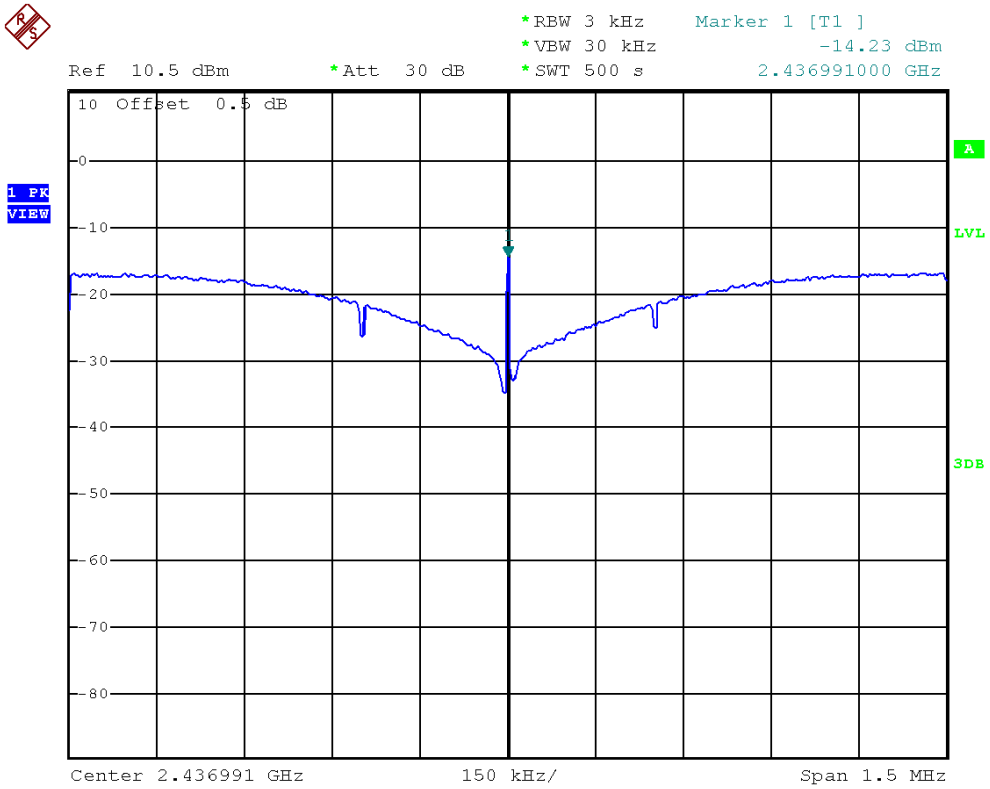
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-15.83	8
CH06	2437	-14.23	8
CH11	2462	-13.98	8

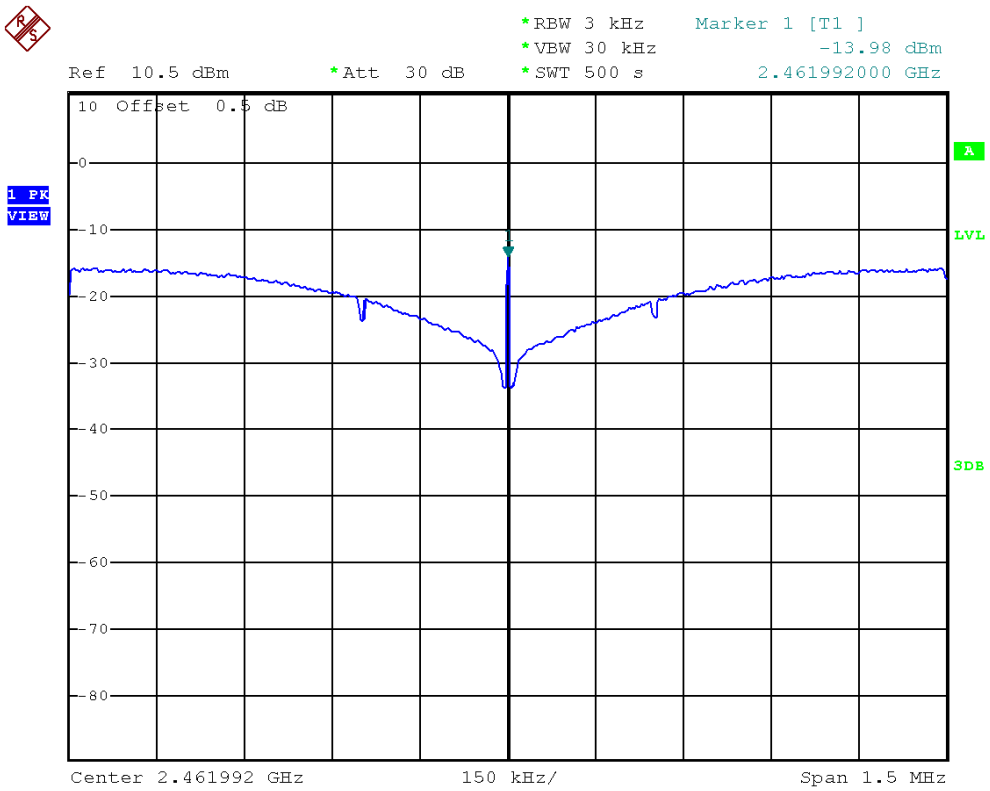
CH01



CH06


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-14.23 dBm
Ref 10.5 dBm
*Att 30 dB
*SWT 500 s
2.436991000 GHz
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.436991 GHz
150 kHz/
Span 1.5 MHz

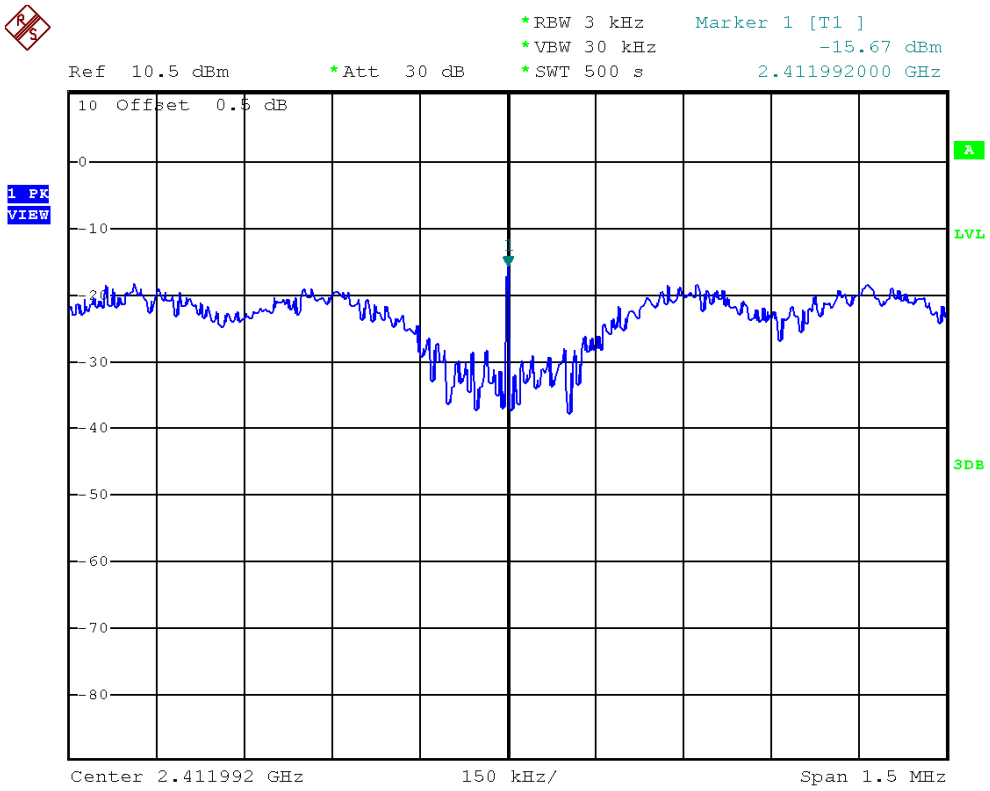
CH11


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-13.98 dBm
Ref 10.5 dBm
*Att 30 dB
*SWT 500 s
2.461992000 GHz
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.461992 GHz
150 kHz/
Span 1.5 MHz

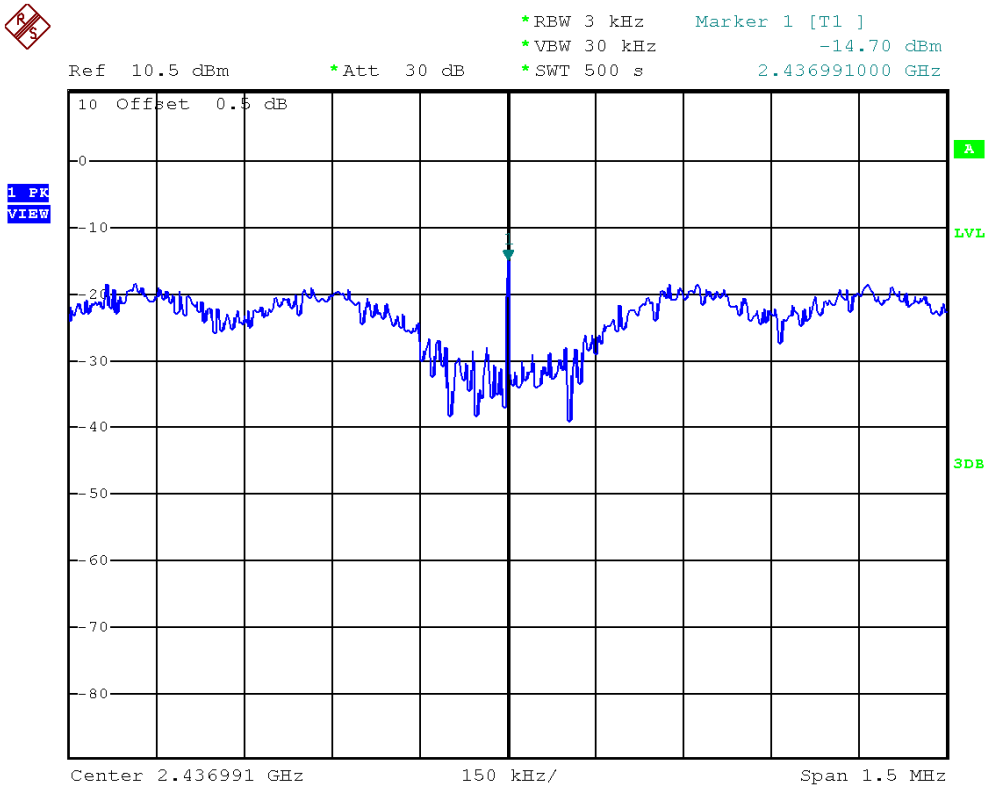
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-15.67	8
CH06	2437	-14.70	8
CH11	2462	-13.75	8

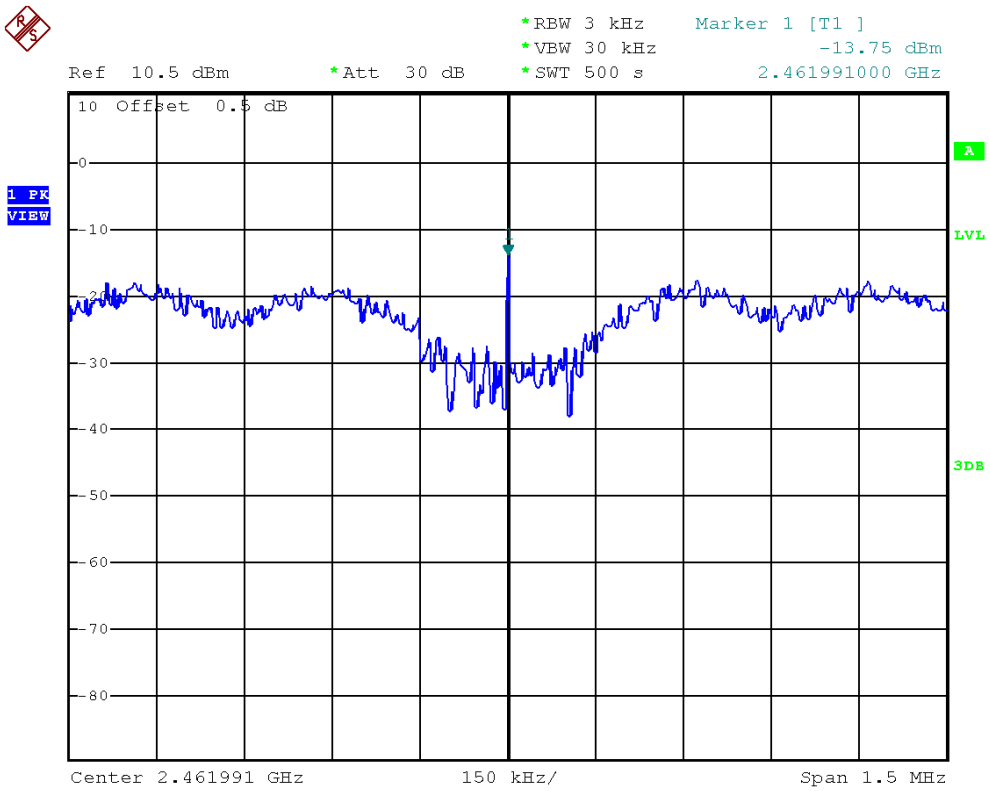
CH01



CH06


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-14.70 dBm
Ref 10.5 dBm
*Att 30 dB
*SWT 500 s
2.436991000 GHz
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.436991 GHz
150 kHz/
Span 1.5 MHz

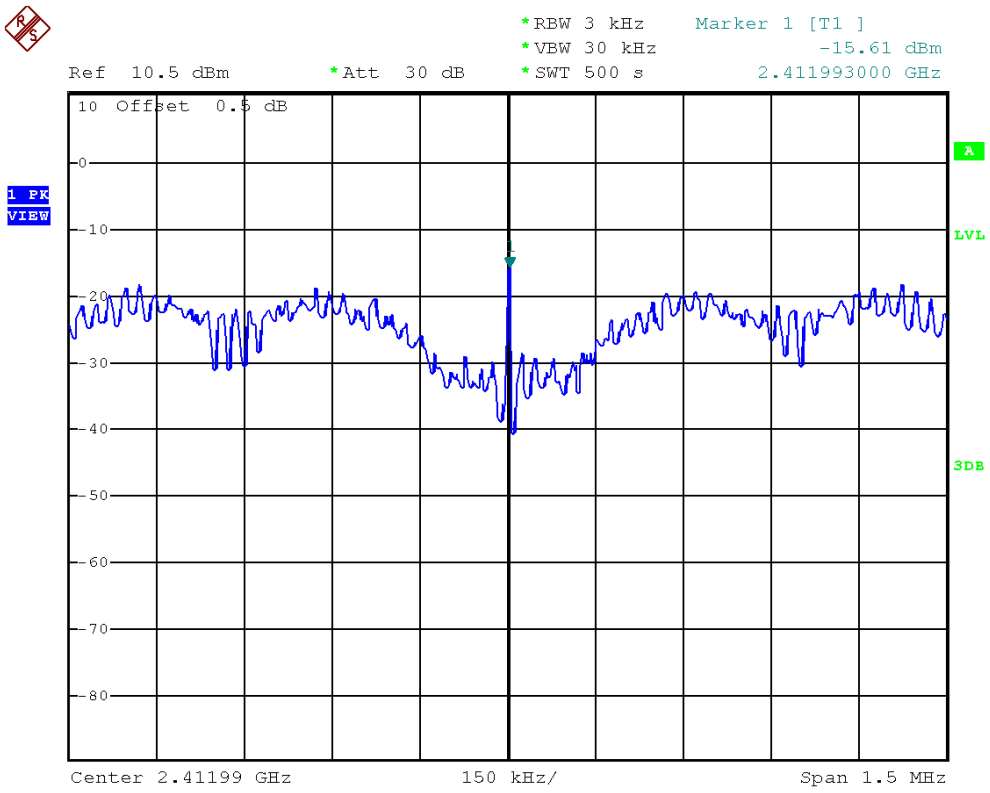
CH11


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-13.75 dBm
Ref 10.5 dBm
*Att 30 dB
*SWT 500 s
2.461991000 GHz
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.461991 GHz
150 kHz/
Span 1.5 MHz

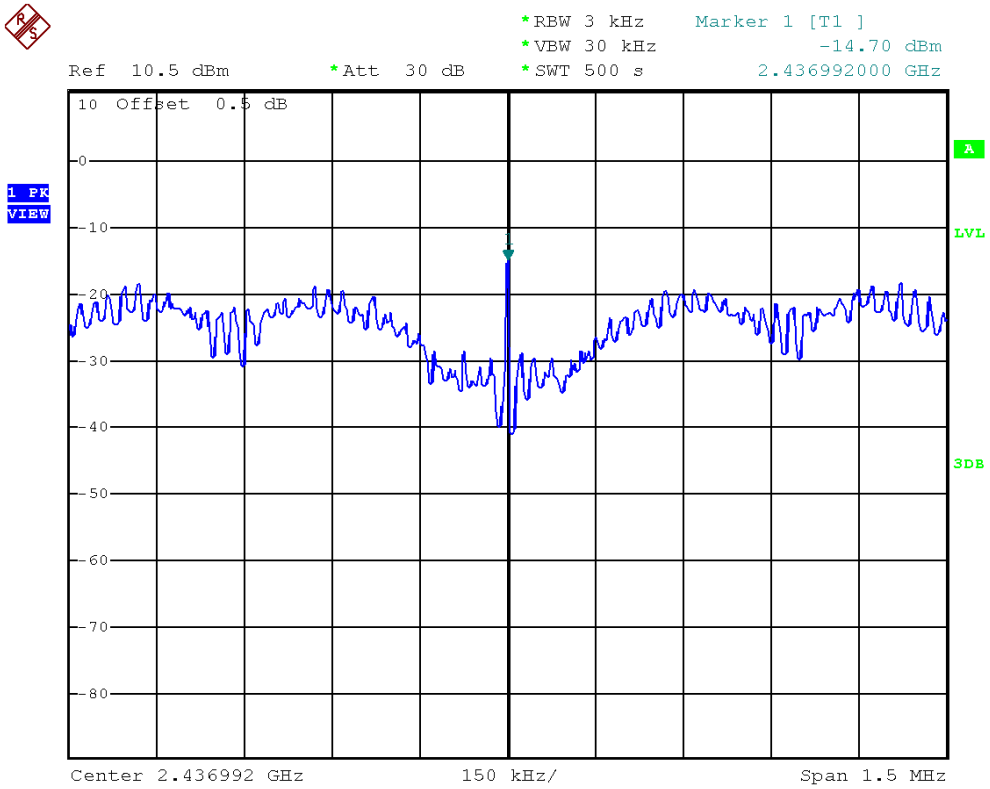
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	LIMIT (dBm)
CH01	2412	-15.61	0.03	8
CH06	2437	-14.70	0.03	8
CH11	2462	-13.67	0.04	8

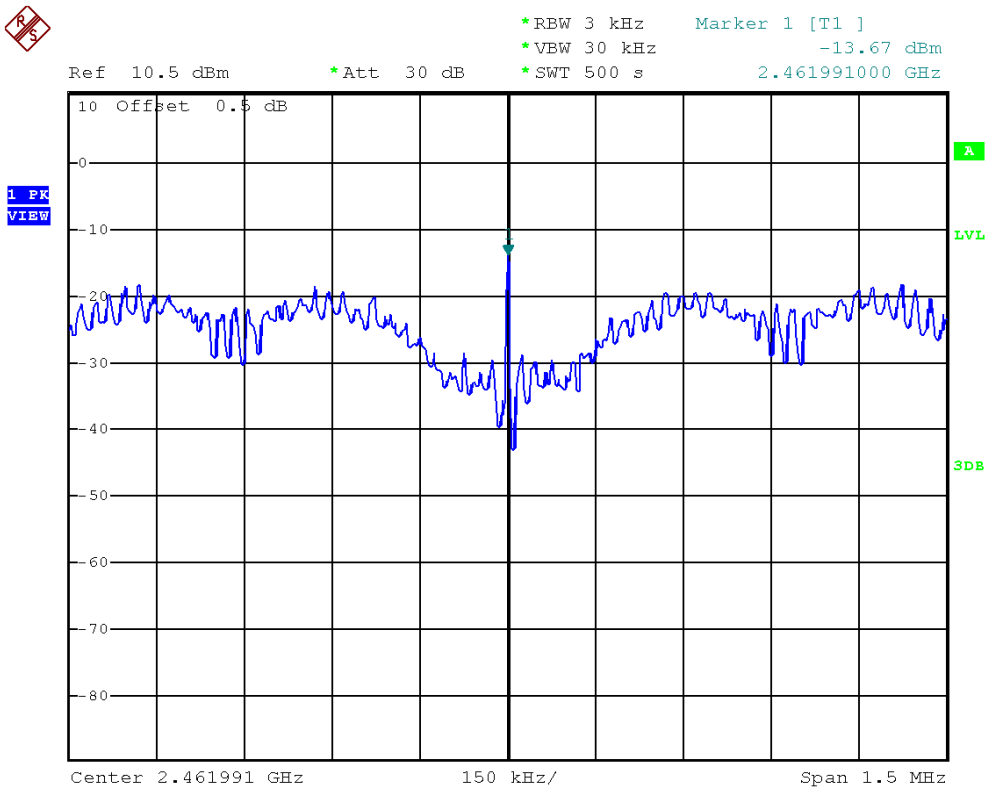
CH01



CH06


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-14.70 dBm
2.436992000 GHz
Ref 10.5 dBm
*Att 30 dB
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.436992 GHz
150 kHz/
Span 1.5 MHz

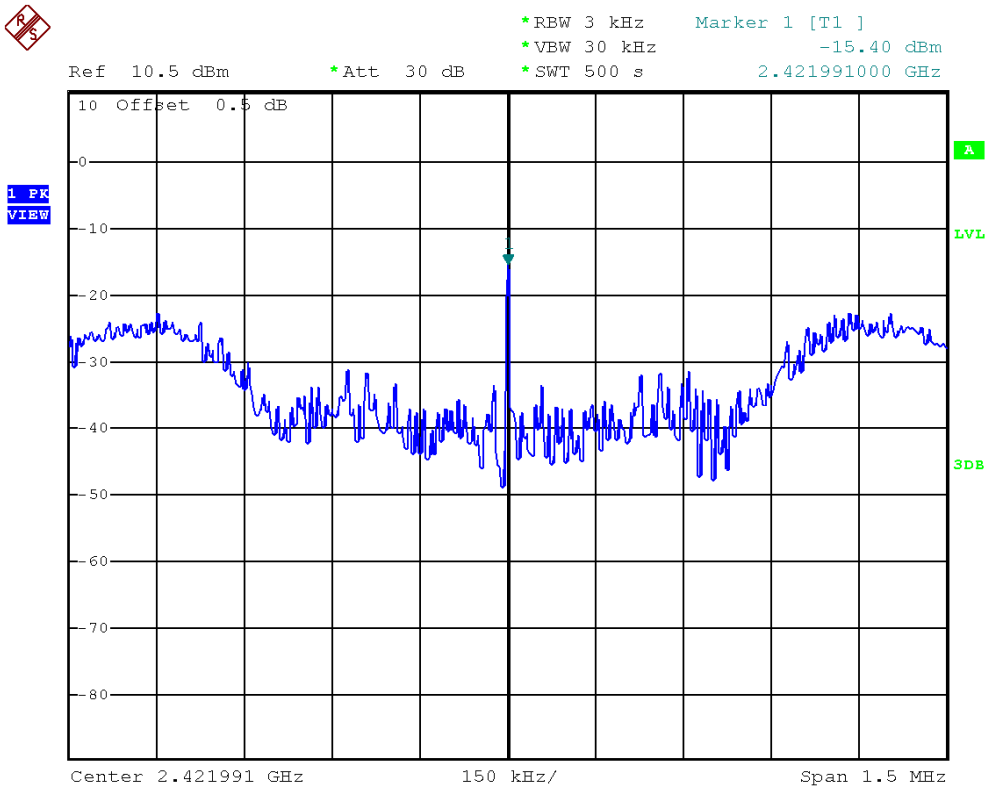
CH11


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-13.67 dBm
2.461991000 GHz
Ref 10.5 dBm
*Att 30 dB
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
0
-10
-20
-30
-40
-50
-60
-70
-80
Center 2.461991 GHz
150 kHz/
Span 1.5 MHz

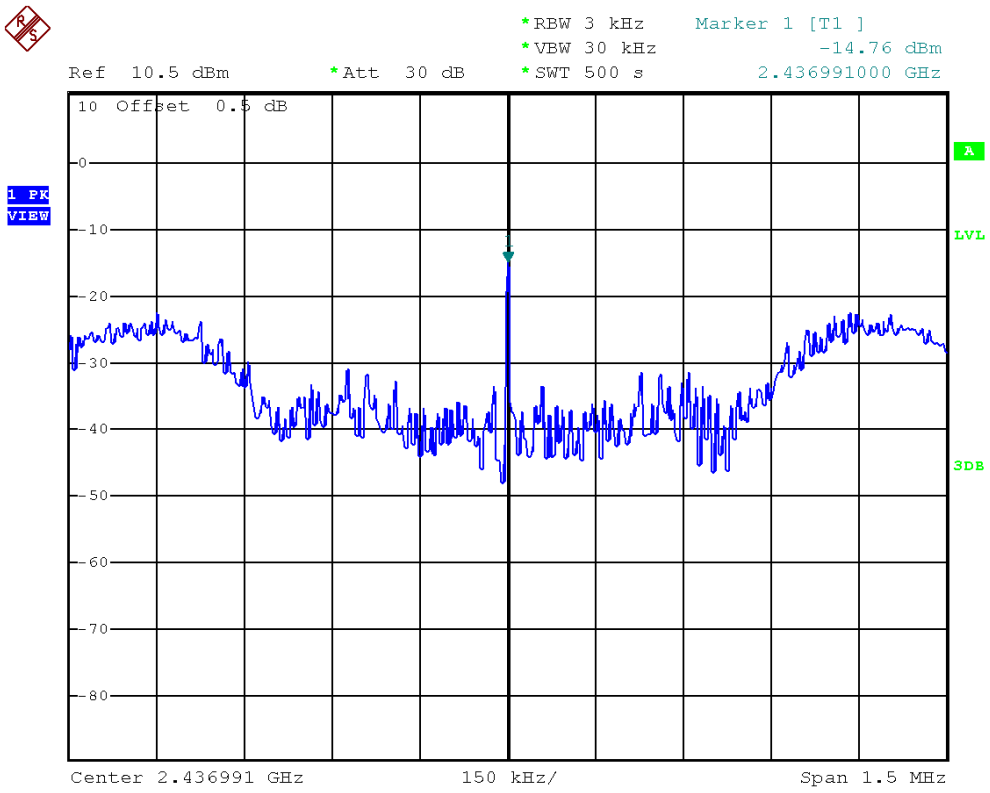
EUT：	Dongle	Model Name ：	AW-NU120
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz (System)		
Test Mode ：	802.11n/40M/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	LIMIT (dBm)
CH03	2422	-15.40	0.03	8
CH06	2437	-14.76	0.03	8
CH09	2452	-14.08	0.04	8

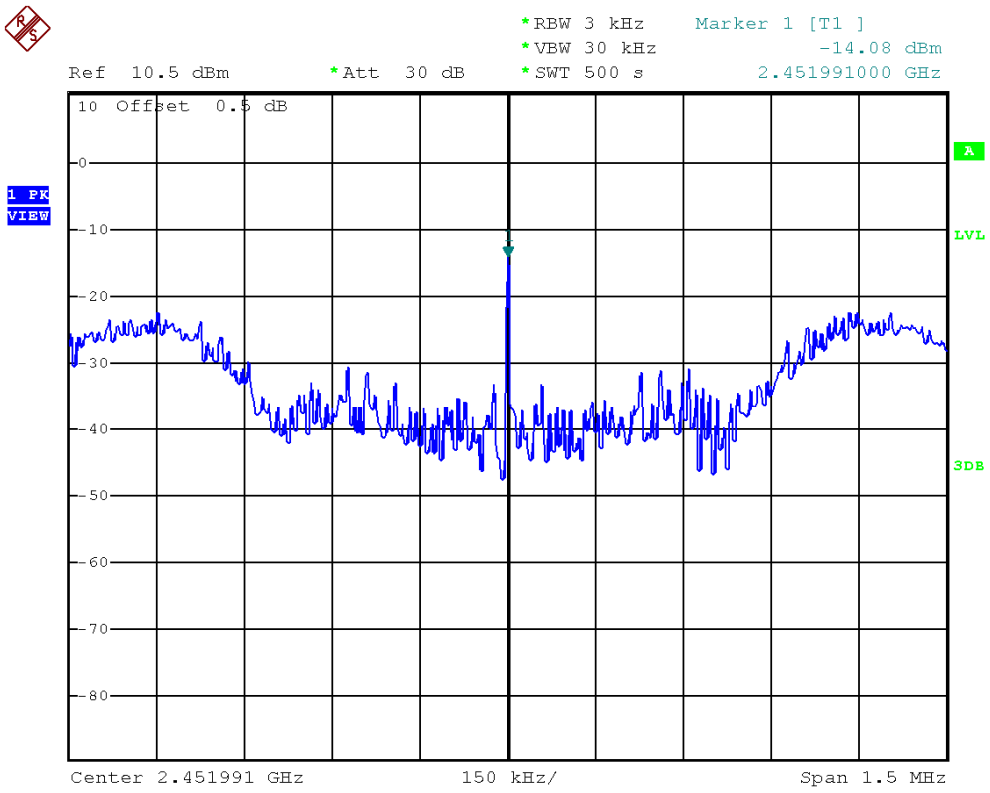
CH03



CH06


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-14.76 dBm
Ref 10.5 dBm
*Att 30 dB
*SWT 500 s
2.436991000 GHz
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.436991 GHz
150 kHz/
Span 1.5 MHz

CH09


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-14.08 dBm
Ref 10.5 dBm
*Att 30 dB
*SWT 500 s
2.451991000 GHz
10 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.451991 GHz
150 kHz/
Span 1.5 MHz