FCC Radio Test Report

FCC ID: YVR-DC-A11

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

Issued Date : Dec. 01, 2010
Project No. : R1010003
Equipment : Wireless docking
Model Name : DC-A11

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. 18, 2010
Date of Test: Oct. 18, 2010 ~ Nov. 19, 2010

Testing Engineer : Rush Kao
(Rush Kao)

Technical Manager : Jeff Yang
(Jeff Yang)

Authorized Signatory : Andy Chiu
(Andy Chiu)

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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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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 : Wireless docking
Brand Name : Lumens
Model Name : DC-A11
Applicant : Lumens Digital Optics Inc.
Date of Test : Oct. 18, 2010 ~ Nov. 19, 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-R1010003) 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>Wireless docking</td></tr>
<tr><td>Brand Name</td><td>Lumens</td></tr>
<tr><td>Model Name</td><td>DC-A11</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 Wireless docking.
<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</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 135 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: 15.47 dBm Max.
802.11g: 20.59 dBm Max.
802.11n(20MHz): 18.83 dBm Max.
802.11n(40MHz): 16.40 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>Battery supplied or DC Voltage supplied from Switching Adapter.</td></tr>
<tr><td>Power Rating</td><td>I/P: AC 100-240V 1A 47-63Hz / O/P: DC 12V 3A</td></tr>
<tr><td>Products Covered</td><td>1 * LI-ION BATTERY: DC A11 (DC 8.4V 4400mAh)
1 * Switching Adapter:
Base Power Technology Co., Ltd. F1007-12 30
2 * Antenna
1 * USB Standard-A to Standard-B Connector</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	06	2437	11	2462
02	2417	07	2442		
03	2422	08	2447		
04	2427	09	2452		
05	2432	10	2457		

3. Table for Filed Antenna

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	BJTEK	TH-240A	Dipole	Reverse SMA	2.81
2	JOYMAX	IHX-323XRSXX	Dipole	Reverse SMA	1.0

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

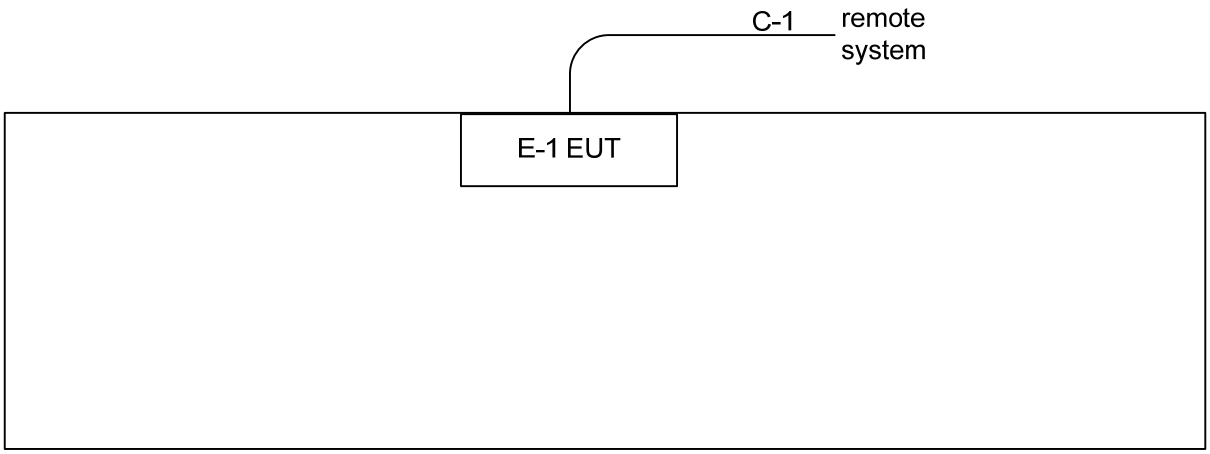
3.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

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	RT3052QA		
Frequency (MHz)	2412 MHz	2442 MHz	2462 MHz
IEEE 802.11b DSSS	0F	0F	0F
IEEE 802.11g OFDM	0F	0F	0F

Test software Version	RT3052QA		
Frequency (MHz)	2412 MHz	2442 MHz	2462 MHz
IEEE 802.11n (20MHz)	0F	0F	0F
Frequency (MHz)	2422 MHz	2437MHz	2452 MHz
IEEE 802.11n (40MHz)	0F	0F	0F

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	Wireless docking	Lumens	DC-A11	YVR-DC-A11	N/A	EUT

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	10.0M	

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.

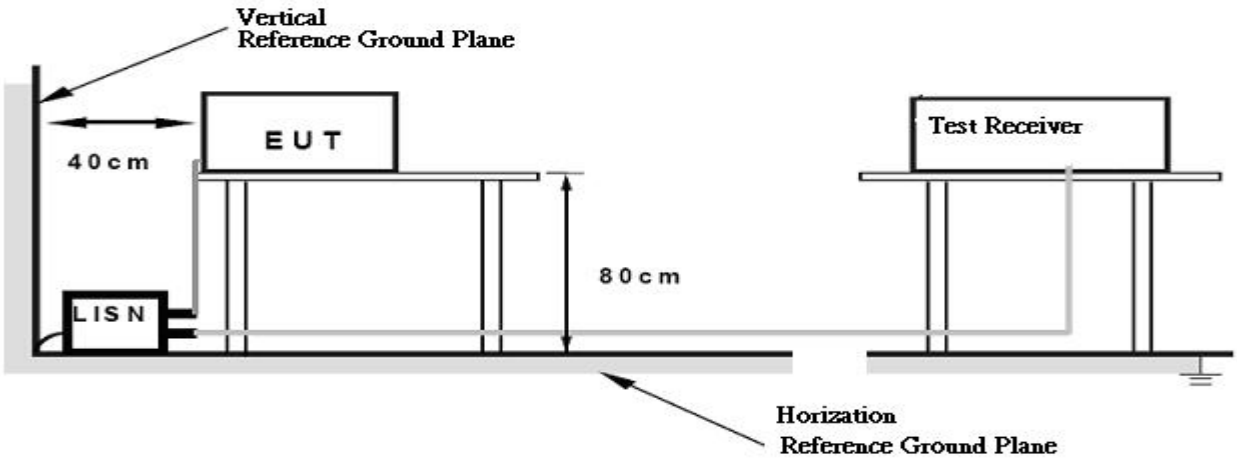
4.1.3 TEST PROCEDURE

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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	43%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b/CH06		

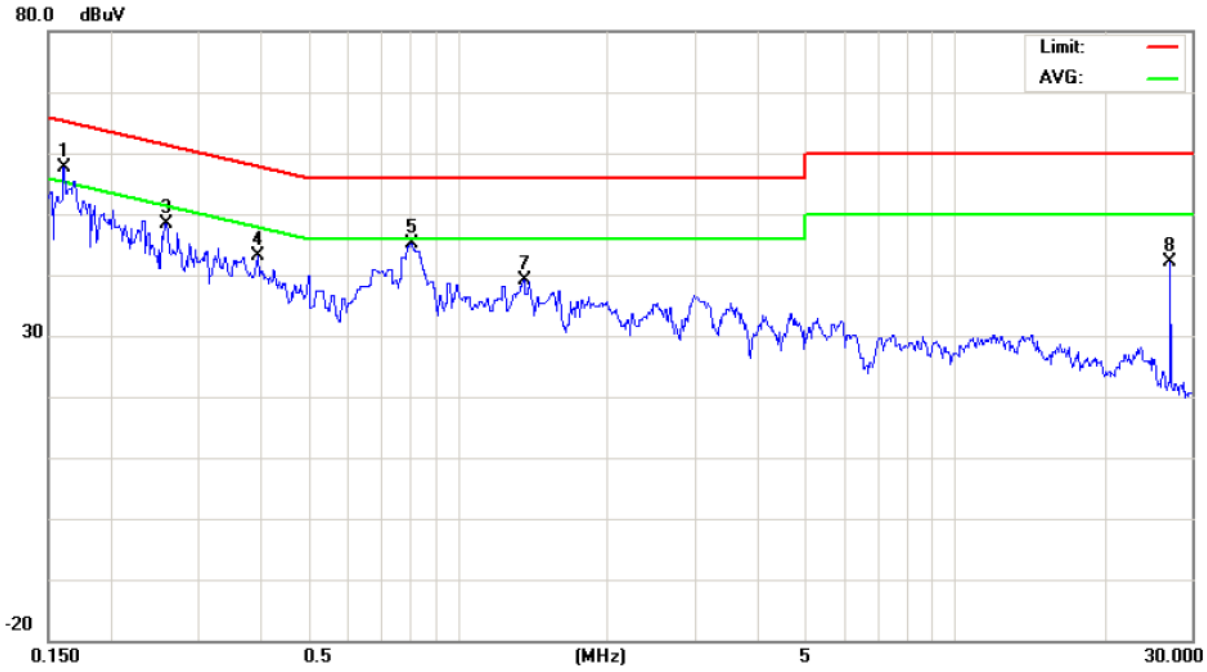
Freq.	Terminal	Reading Level(dBuV)		Correct	Measurement(dBuV)		Limit(dBuV)		Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	Factor(dB)	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	
0.1563	Line	44.47	42.82	9.68	54.15	52.50	65.66	55.66	-3.16	(AV)
0.1983	Line	40.21	*	9.68	49.89	*	63.68	53.68	-13.79	(QP)
0.2928	Line	33.44	*	9.68	43.12	*	60.44	50.44	-17.32	(QP)
0.8059	Line	33.99	*	9.74	43.73	*	56.00	46.00	-12.27	(QP)
1.2830	Line	28.17	*	9.76	37.93	*	56.00	46.00	-18.07	(QP)
27.0499	Line	32.87	*	9.95	42.82	*	60.00	50.00	-17.18	(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	43%
Test Voltage：	AC 110V/60Hz		
Test Mode ：	802.11b/CH06		

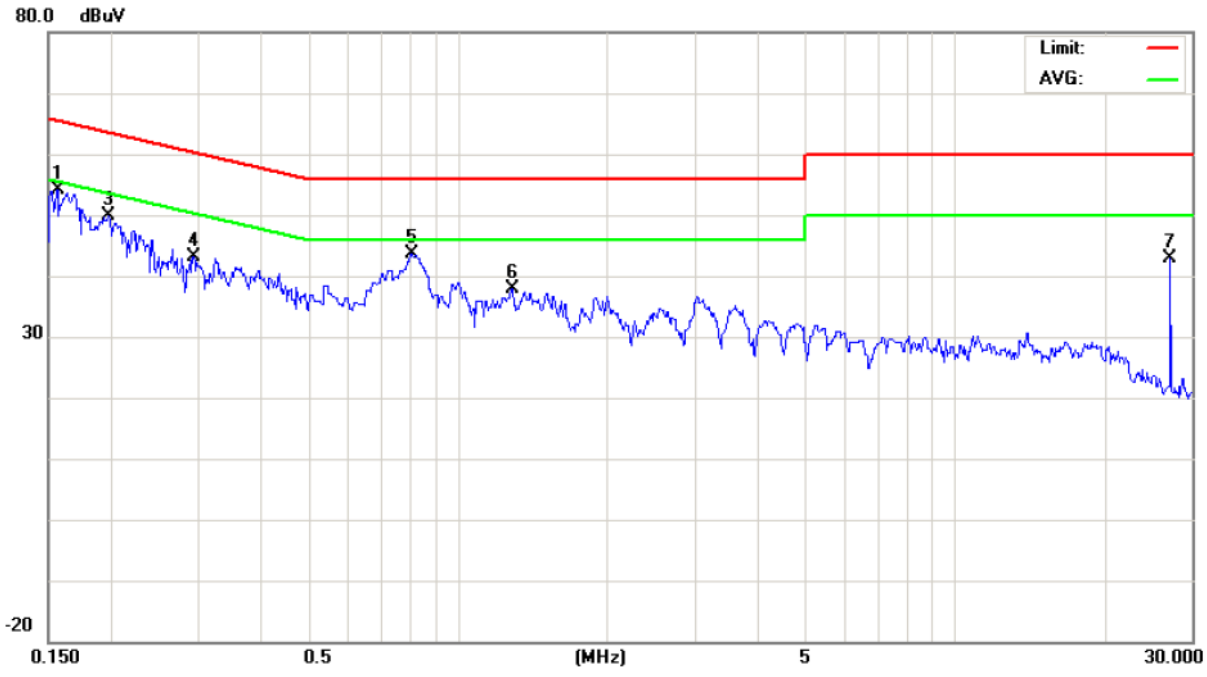
Freq.	Terminal	Reading Level(dBuV)		Correct	Measurement(dBuV)		Limit(dBuV)		Margin	Note
(MHz)	L/N	QP-Mode	AV-Mode	Factor(dB)	QP-Mode	AV-Mode	QP-Mode	AV-Mode	(dB)	
0.1612	Neutral	47.97	43.22	9.69	57.66	52.91	65.40	55.40	-2.49	(AV)
0.2578	Neutral	38.60	*	9.69	48.29	*	61.50	51.50	-13.21	(QP)
0.3950	Neutral	33.37	*	9.69	43.06	*	57.96	47.96	-14.90	(QP)
0.8059	Neutral	35.28	33.18	9.75	45.03	42.93	56.00	46.00	-3.07	(AV)
1.3550	Neutral	29.28	*	9.76	39.04	*	56.00	46.00	-16.96	(QP)
27.0499	Neutral	32.18	*	9.85	42.03	*	60.00	50.00	-17.97	(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

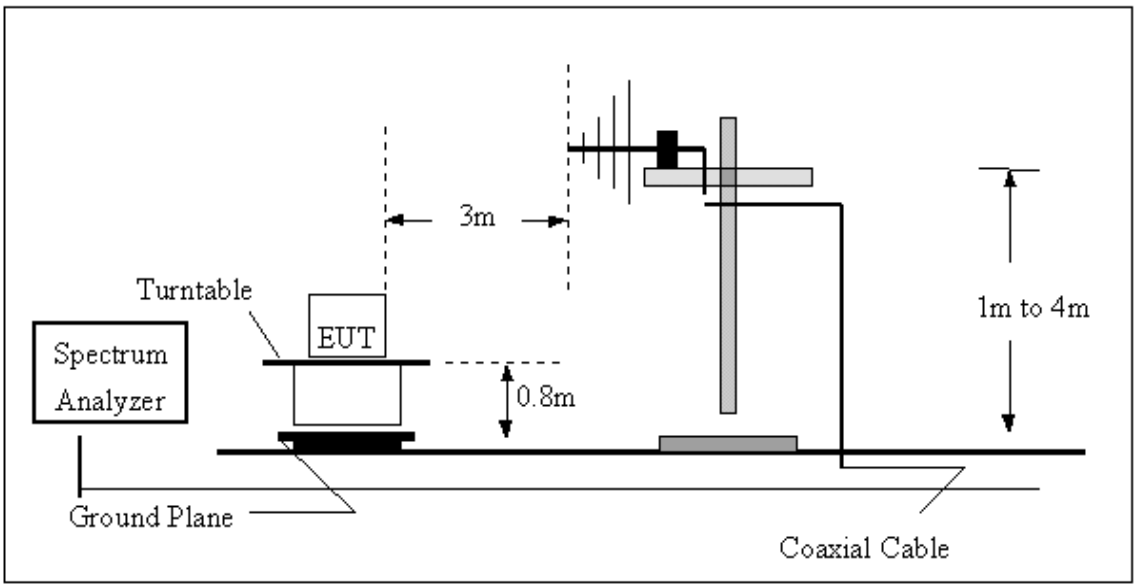
a. The measuring distance of at 10 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table was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

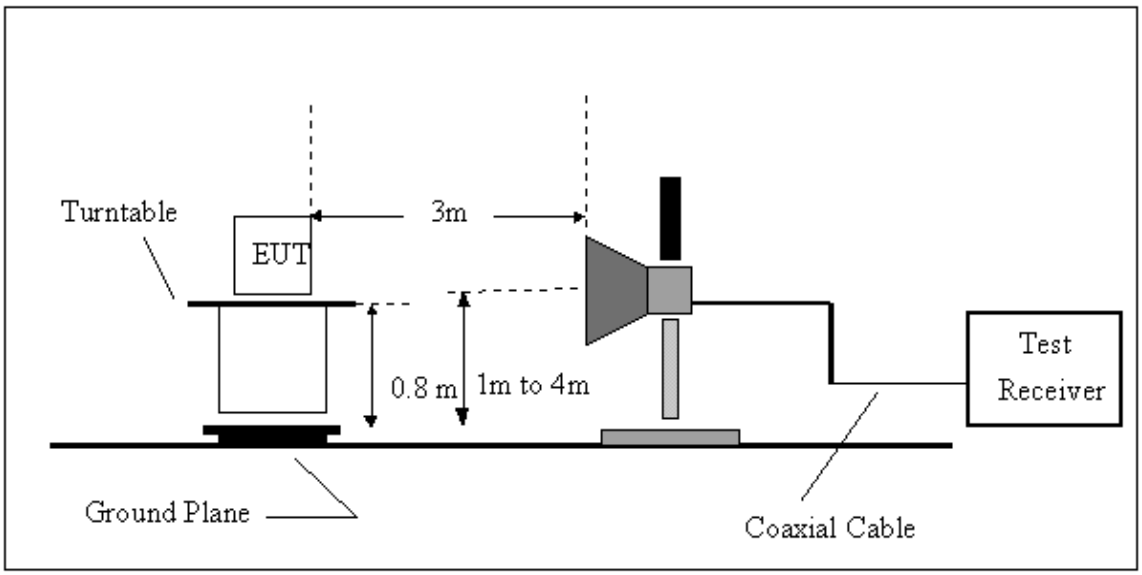
No deviation

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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz		
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
47.4600	V	52.47	-16.58	35.89	40.00	- 4.11	
103.7200	V	55.10	-21.02	34.08	43.50	- 9.42	
185.2000	V	47.02	-18.71	28.31	43.50	- 15.19	
249.2200	V	45.69	-17.63	28.06	46.00	- 17.94	
534.4000	V	42.35	-10.33	32.02	46.00	- 13.98	
699.3000	V	40.95	-7.39	33.56	46.00	- 12.44	

Remark：

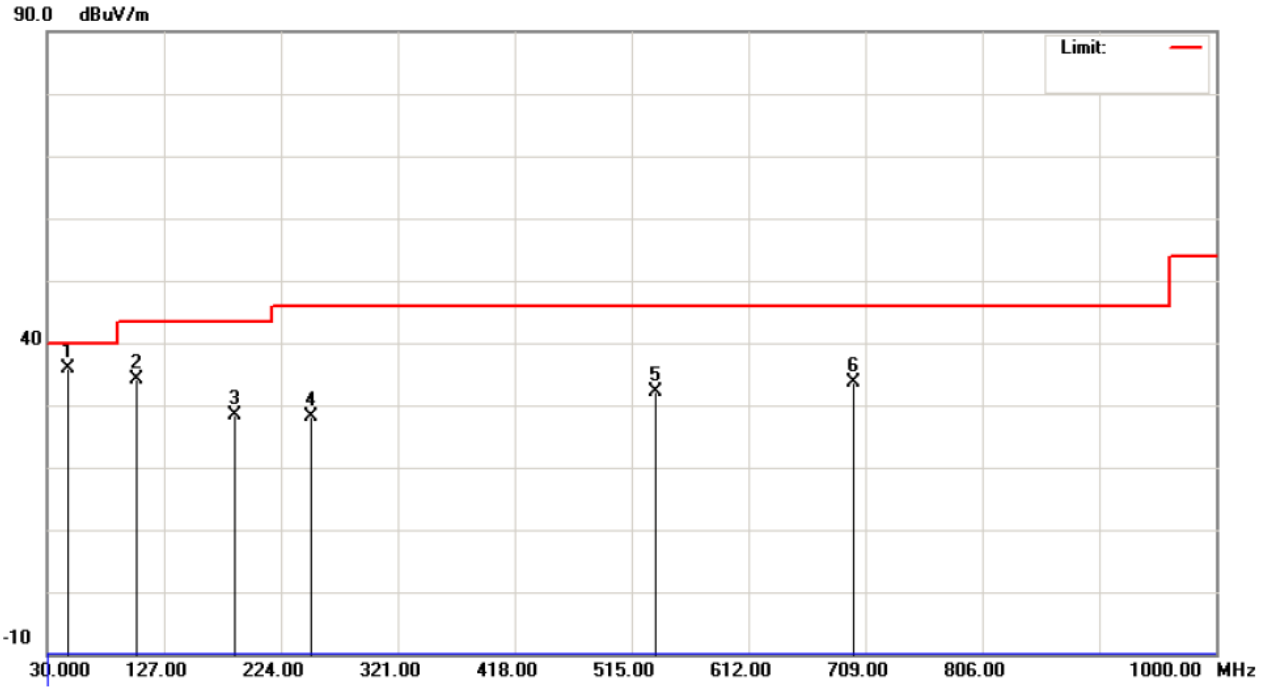
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz		
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
103.7200	H	54.40	-21.02	33.38	43.50	- 10.12	
249.2200	H	50.19	-17.63	32.56	46.00	- 13.44	
427.7000	H	44.96	-12.50	32.46	46.00	- 13.54	
641.1000	H	40.28	-8.23	32.05	46.00	- 13.95	
699.3000	H	44.99	-7.39	37.60	46.00	- 8.40	
854.5000	H	38.20	-4.88	33.32	46.00	- 12.68	

Remark：

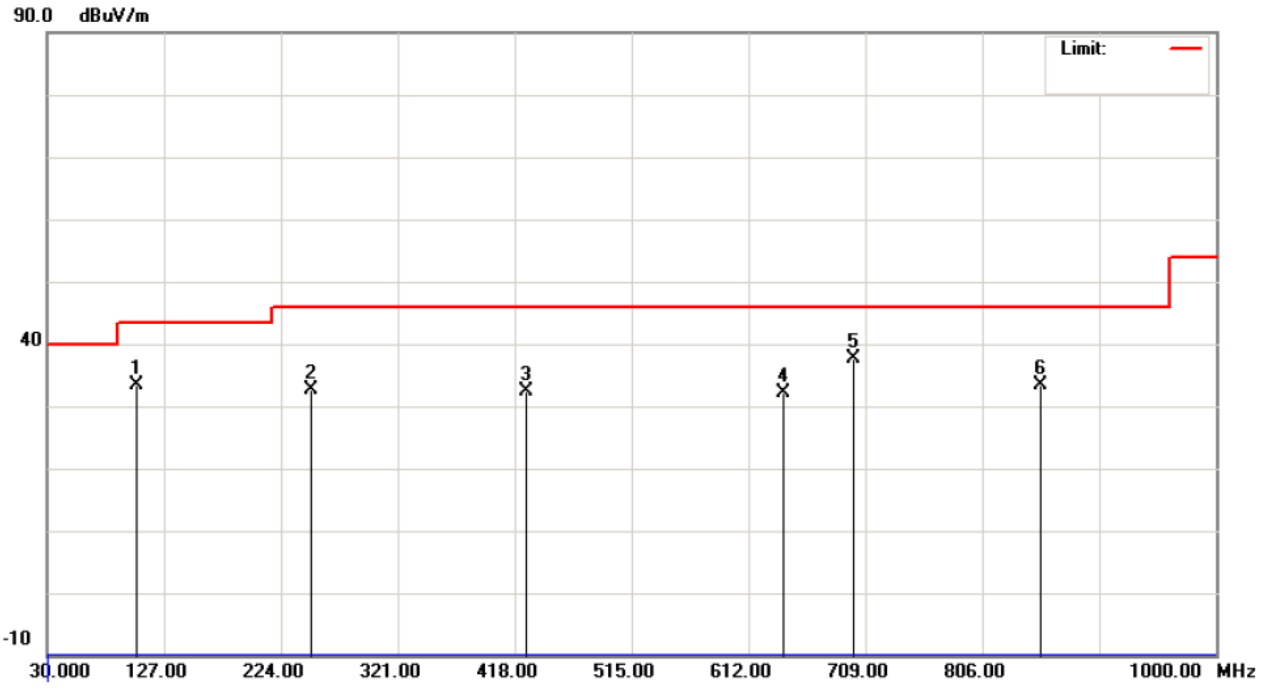
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	2375.800	V	24.21	13.15	31.20	55.41	44.35	74.00	54.00	- 9.65	AV
F	2412.800	V	72.70	68.95	31.36	104.06	100.31				
H	4823.860	V	41.76	30.10	2.89	44.65	32.99	74.00	54.00	- 21.01	AV
H	7236.600	V	42.43	32.59	8.64	51.07	41.23	74.00	54.00	- 12.77	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 。

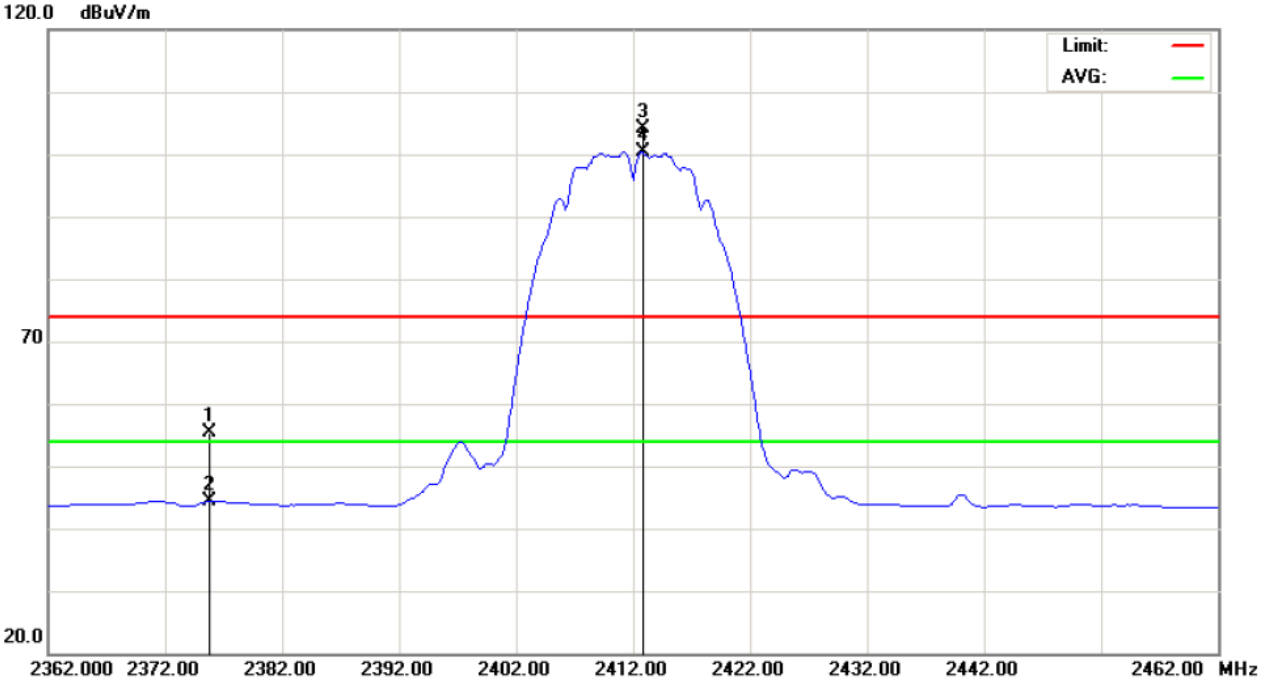
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

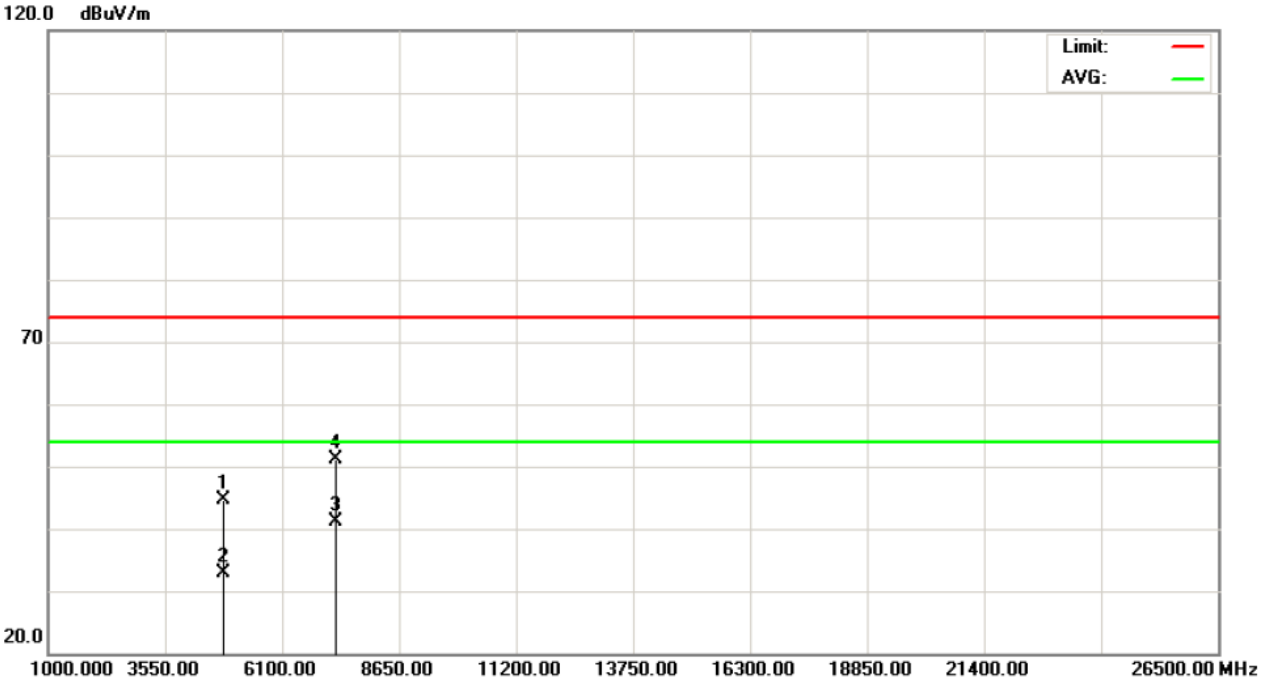
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2375.800	H	24.21	13.15	31.20	55.41	44.35	74.00	54.00	- 9.65	AV
F	2412.800	H	72.70	68.95	31.36	104.06	100.31				
H	4823.930	H	41.59	31.56	2.89	44.48	34.45	74.00	54.00	- 19.55	AV
H	7236.800	H	44.88	32.99	8.65	53.53	41.64	74.00	54.00	- 12.36	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 。

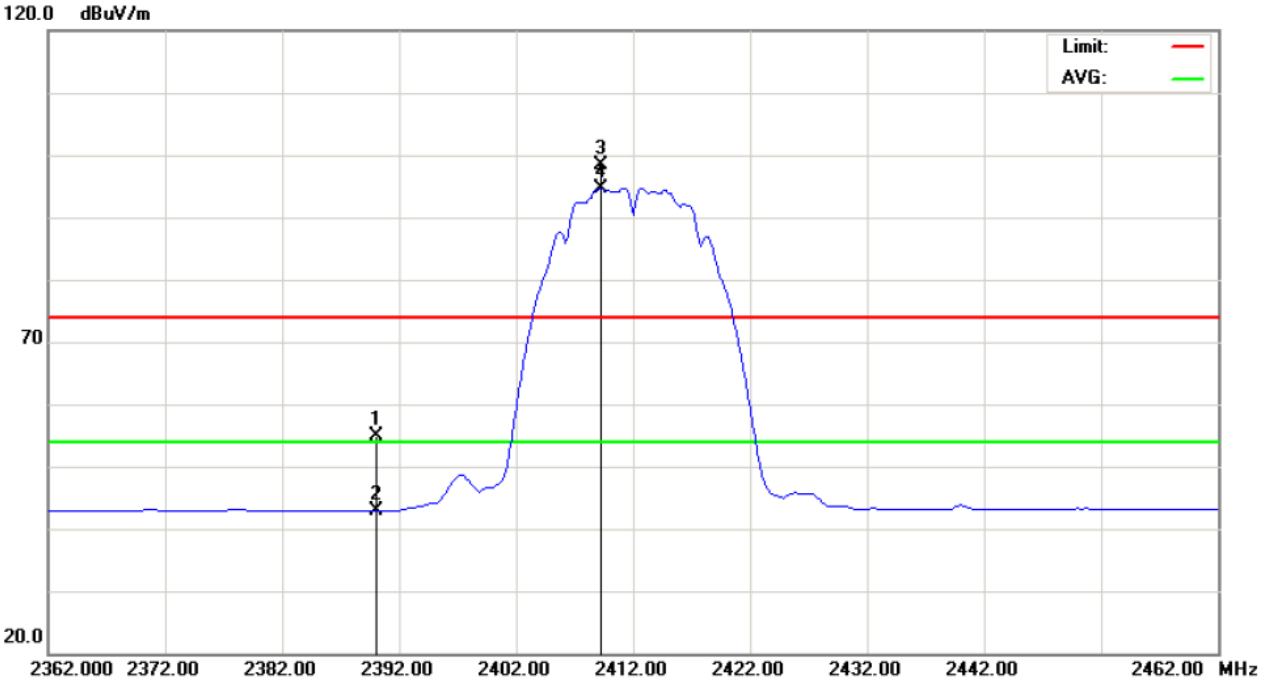
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

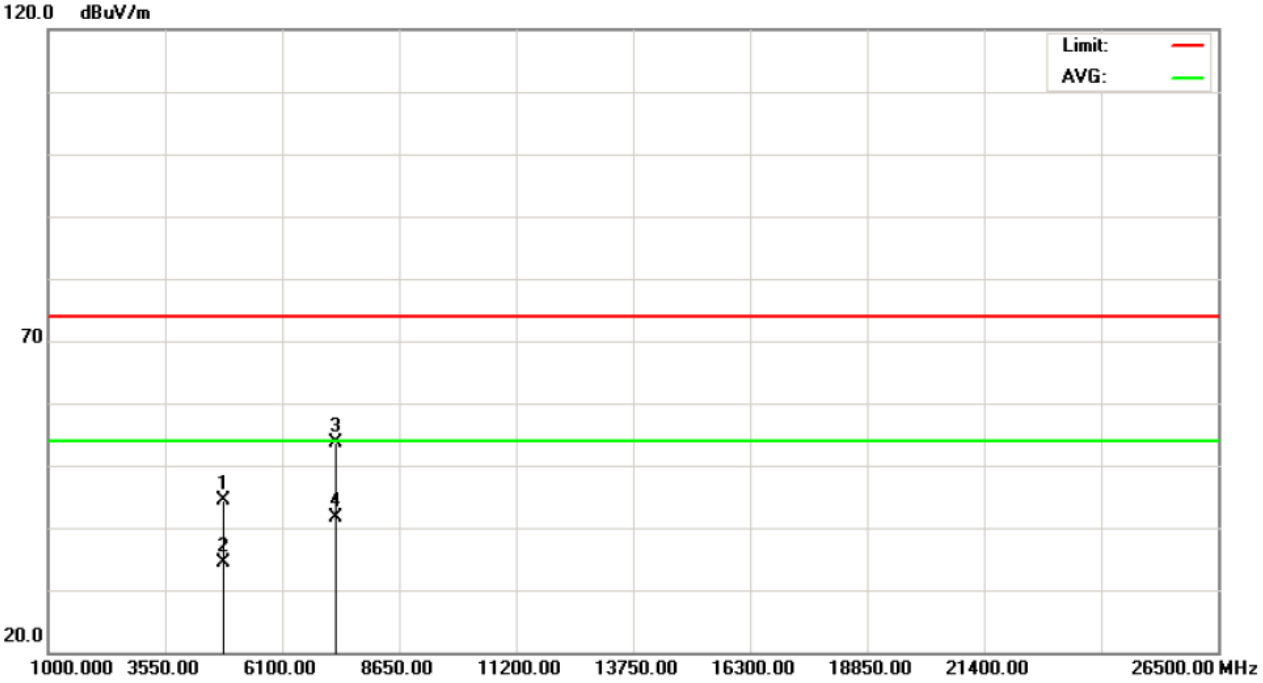
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2434.200	V	70.13	67.42	31.46	101.59	98.88				
H	4874.000	V	42.20	30.35	3.01	45.21	33.36	74.00	54.00	- 20.64	AV
H	7311.480	V	39.90	29.33	8.76	48.66	38.09	74.00	54.00	- 15.91	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 。

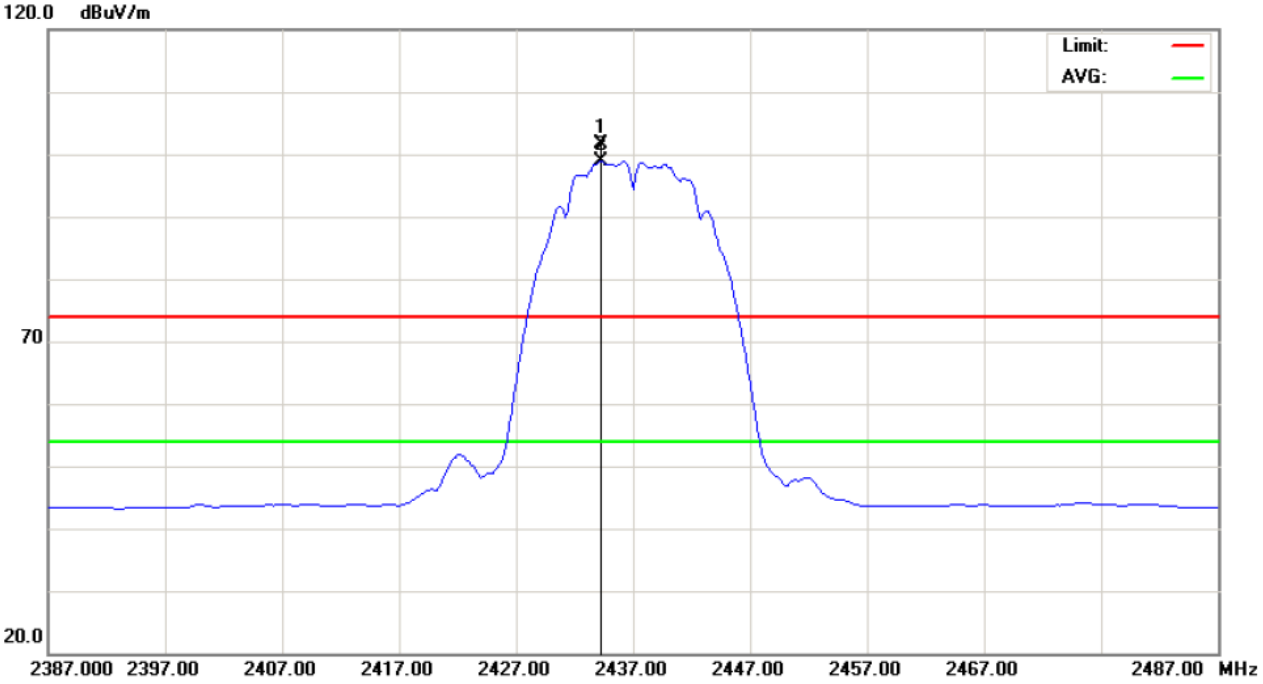
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

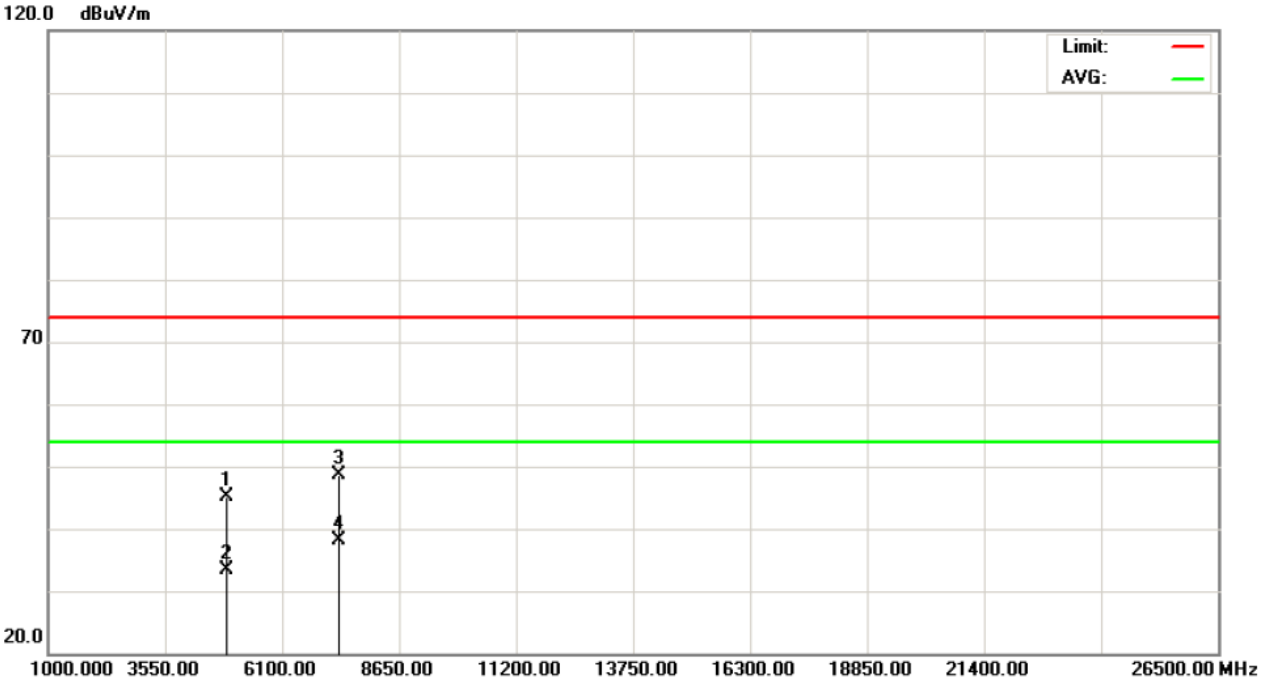
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2434.200	H	65.22	61.50	31.46	96.68	92.96				
H	4873.850	H	40.07	29.70	3.01	43.08	32.71	74.00	54.00	- 21.29	AV
H	7310.880	H	40.41	29.26	8.76	49.17	38.02	74.00	54.00	- 15.98	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 。

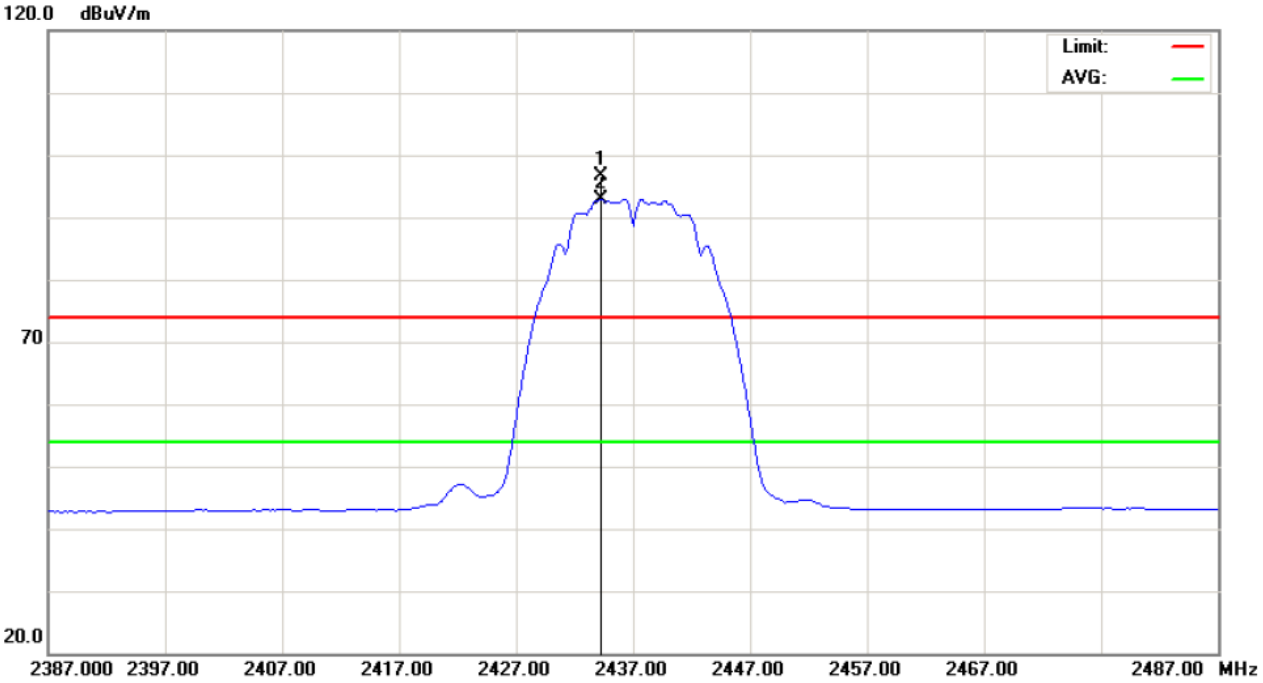
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

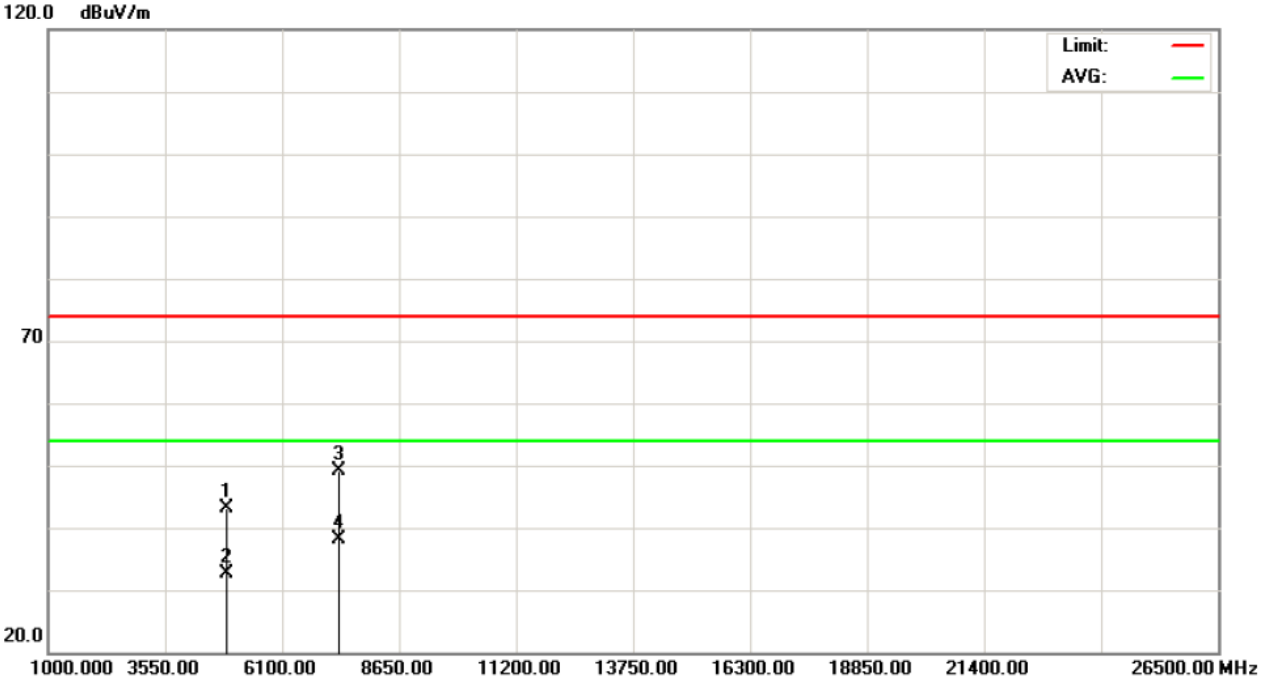
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	V	71.39	67.52	31.59	102.98	99.11				
H	2483.500	V	24.47	12.26	31.68	56.15	43.94	74.00	54.00	- 10.06	AV
H	4923.890	V	44.88	35.30	3.14	48.02	38.44	74.00	54.00	- 15.56	AV
H	7385.080	V	45.56	37.23	8.87	54.43	46.10	74.00	54.00	- 7.90	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 。

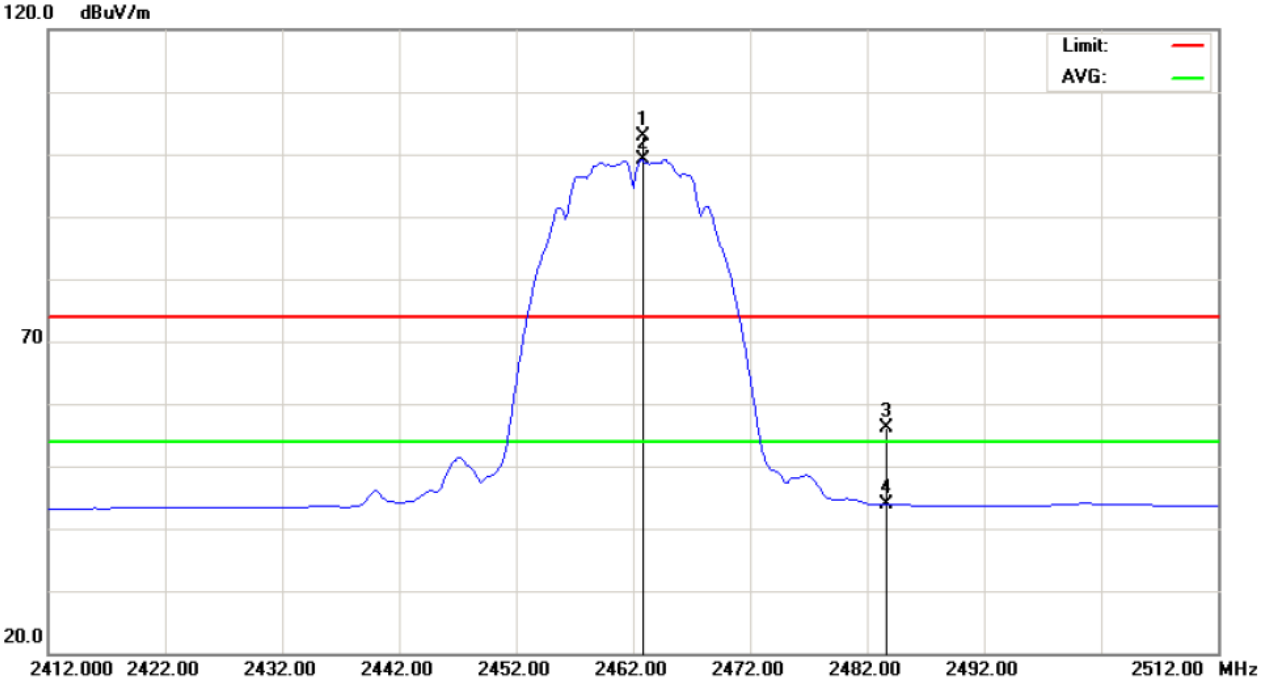
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

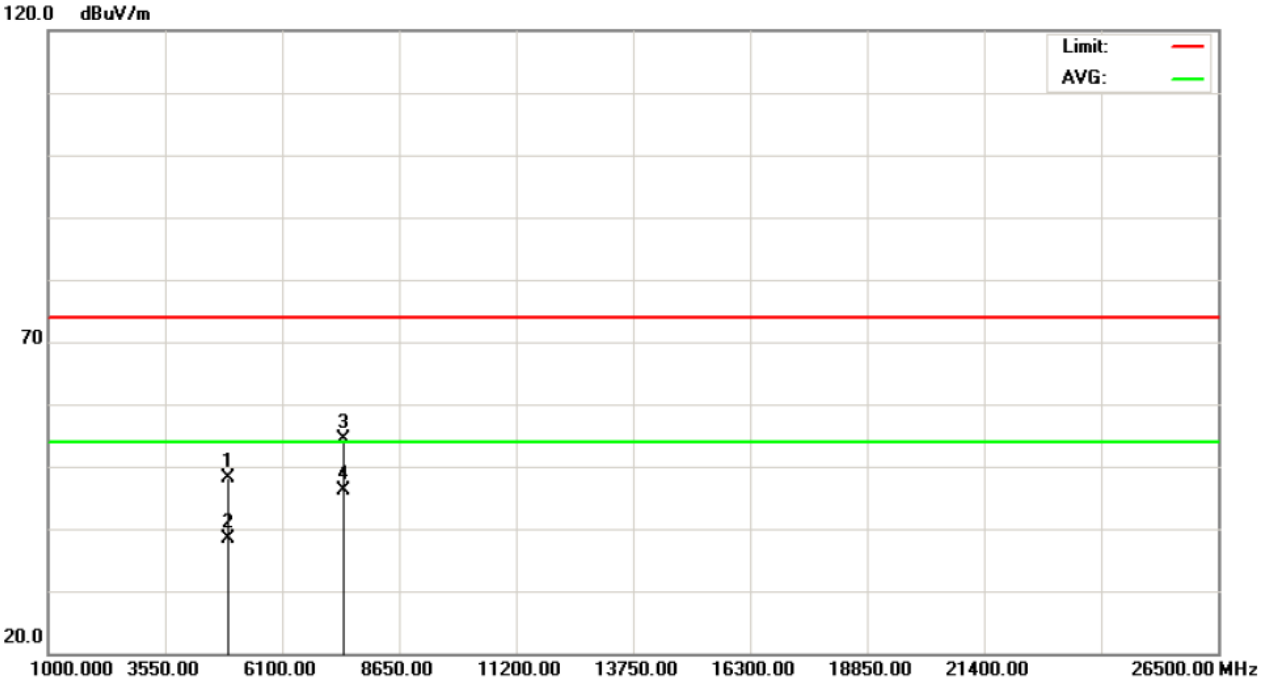
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	64.65	60.79	31.59	96.24	92.38				
H	2483.500	H	22.09	11.53	31.68	53.77	43.21	74.00	54.00	- 10.79	AV
H	4923.950	H	40.88	31.24	3.14	44.02	34.38	74.00	54.00	- 19.62	AV
H	7385.120	H	45.86	37.81	8.87	54.73	46.68	74.00	54.00	- 7.32	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 。

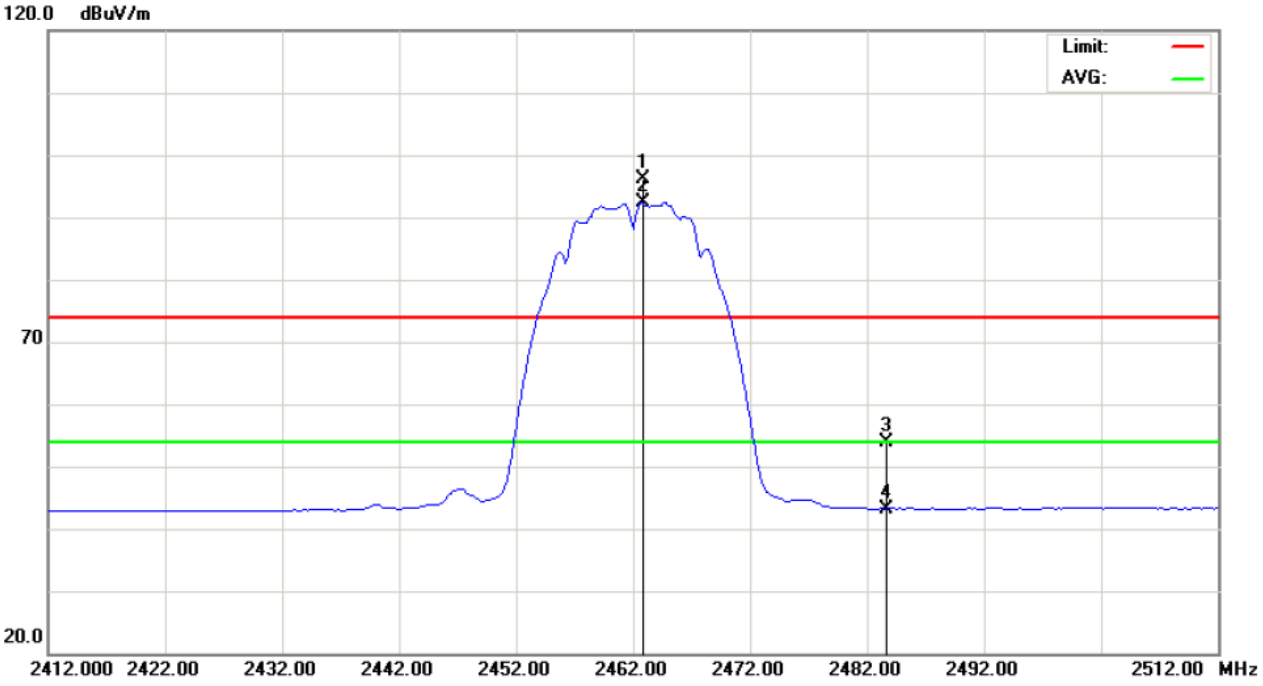
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

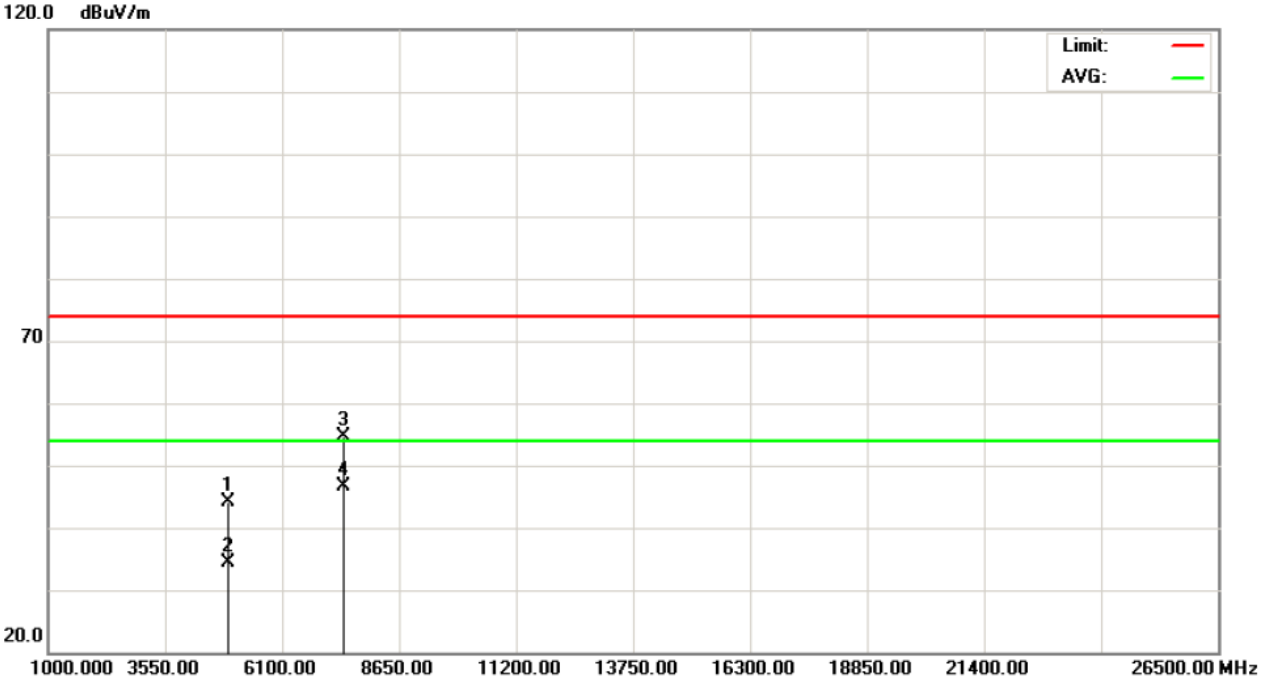
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	Orthogonal Axes:	X
Test Mode ：	802.11g/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	V	24.18	12.76	31.26	55.44	44.02	74.00	54.00	- 9.98	AV
F	2410.400	V	71.74	62.47	31.35	103.09	93.82				
H	4824.800	V	41.50	29.98	2.89	44.39	32.87	74.00	54.00	- 21.13	AV
H	7235.500	V	41.29	29.77	8.64	49.93	38.41	74.00	54.00	- 15.59	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 。

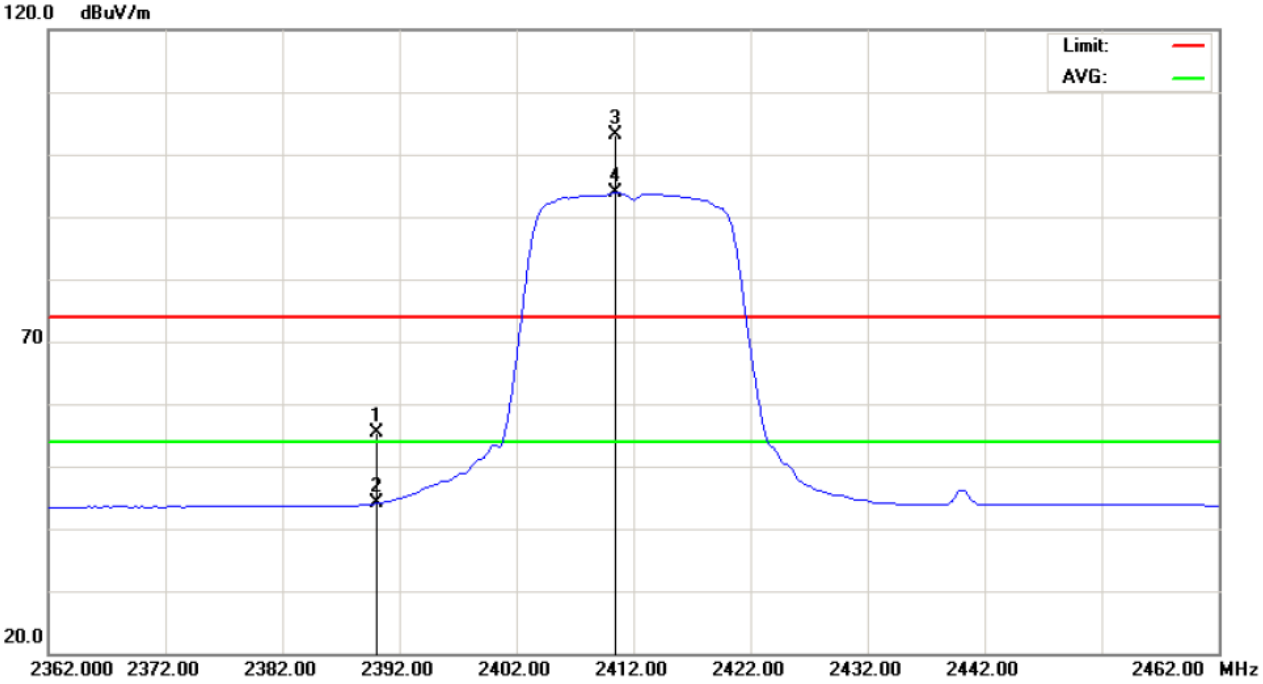
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

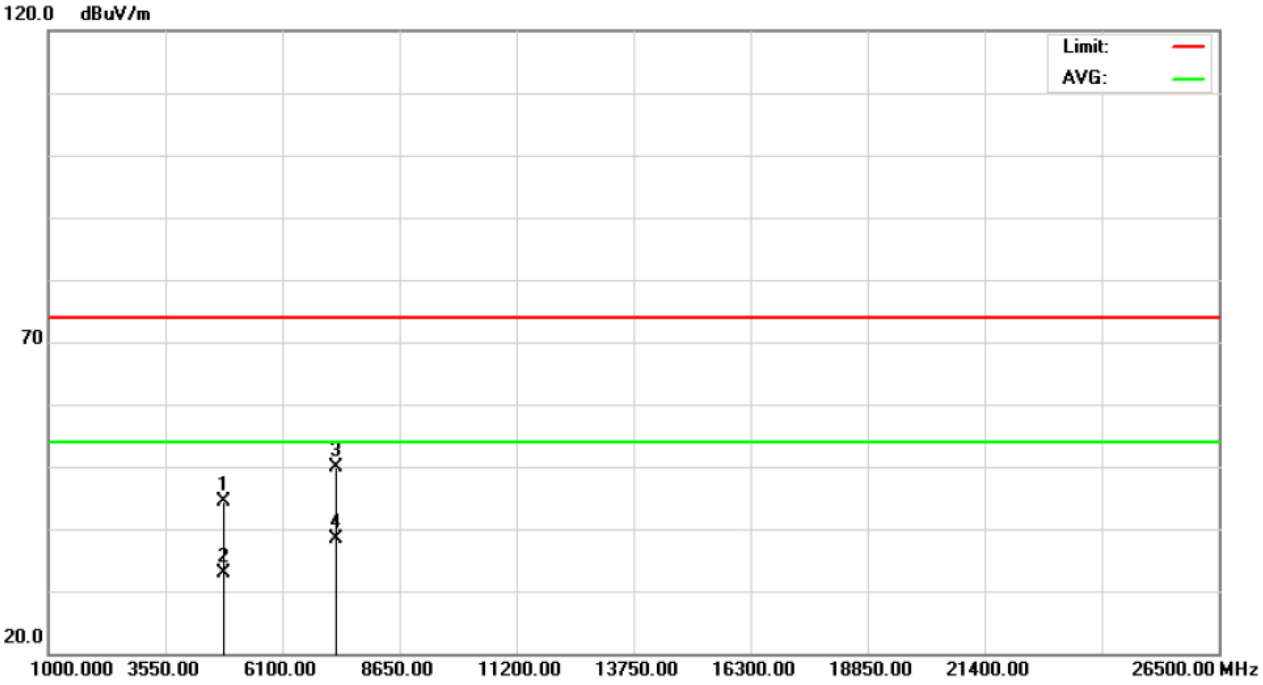
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	Orthogonal Axes:	X
Test Mode ：	802.11g/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	21.88	12.12	31.26	53.14	43.38	74.00	54.00	- 10.62	AV
F	2410.400	H	68.29	59.19	31.35	99.64	90.54				
H	4822.200	H	41.34	30.05	2.89	44.23	32.94	74.00	54.00	- 21.06	AV
H	7235.500	H	41.08	30.71	8.64	49.72	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 。

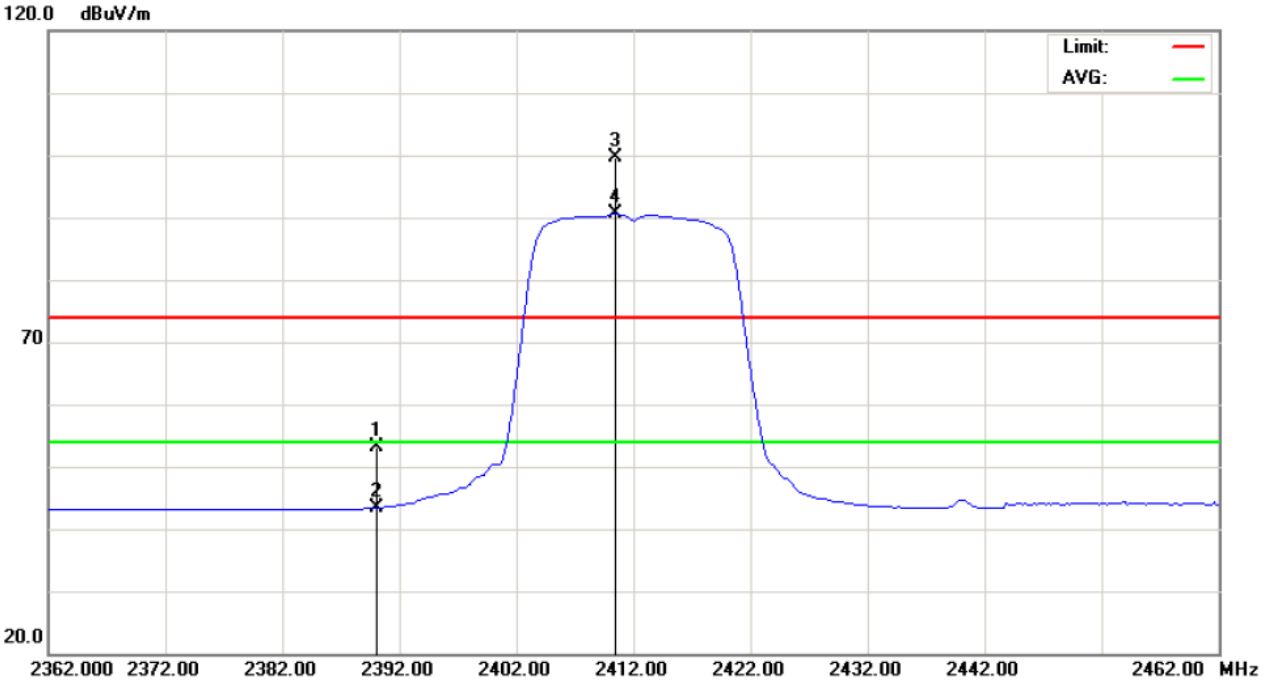
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

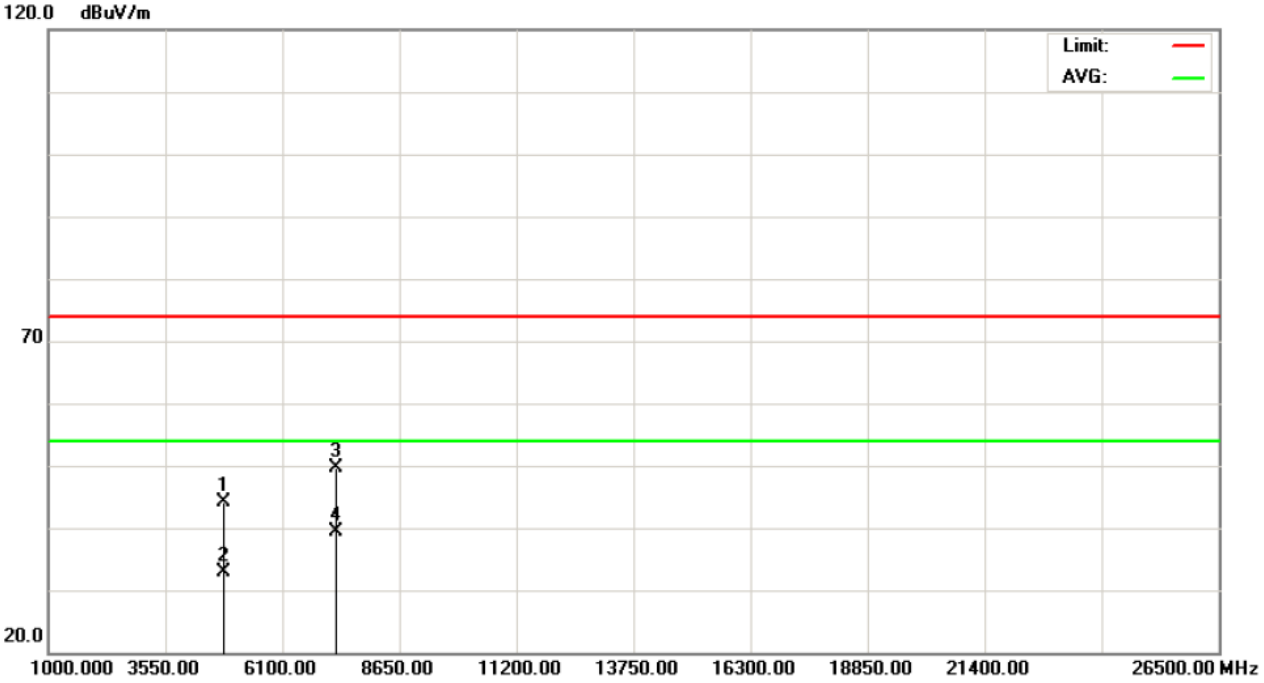
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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
802.11g/CH01(Above 1000 MHz, Horizontal)





EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2435.000	V	69.55	60.47	31.46	101.01	91.93				
H	4874.700	V	42.31	29.75	3.02	45.33	32.77	74.00	54.00	- 21.23	AV
H	7311.600	V	40.51	29.28	8.76	49.27	38.04	74.00	54.00	- 15.96	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 。

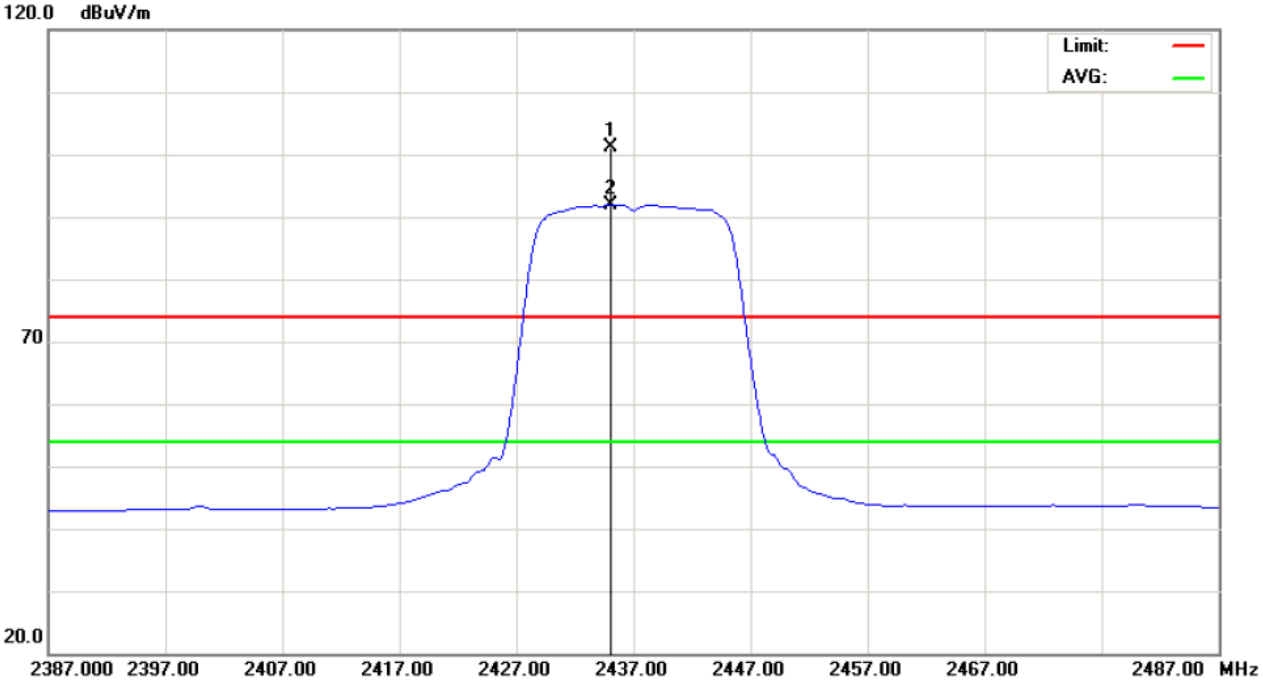
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

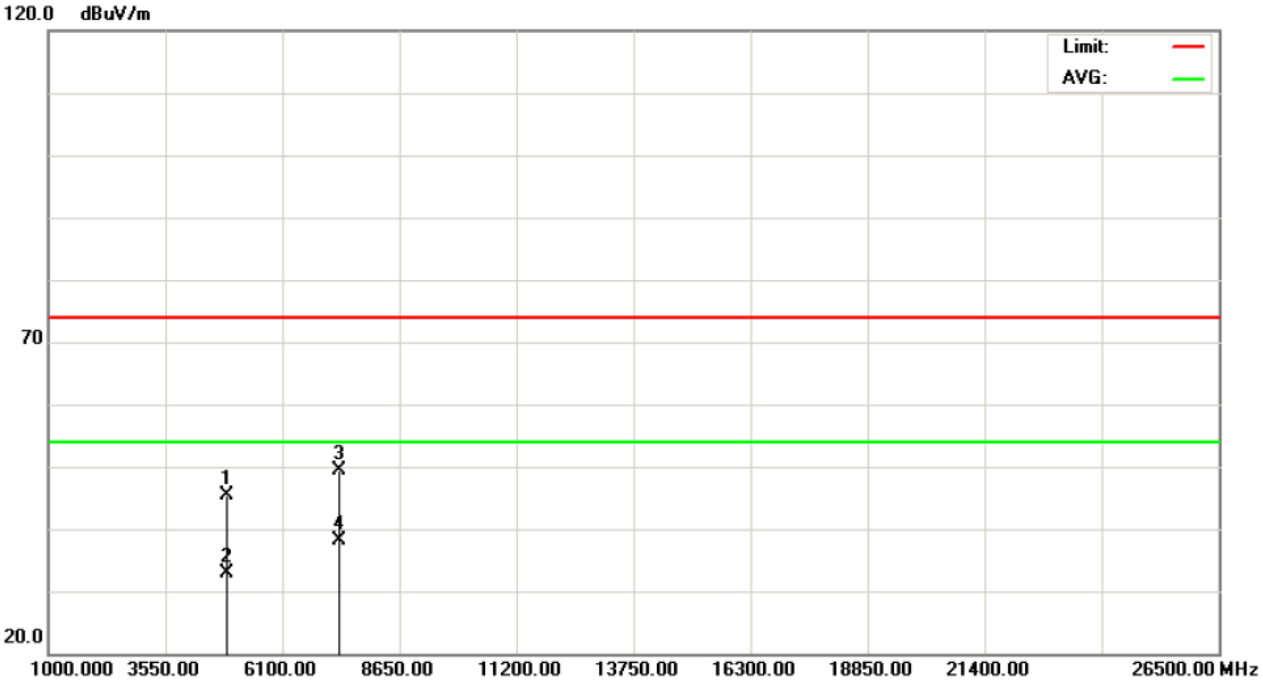
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2435.000	H	63.80	54.65	31.46	95.26	86.11				
H	4873.700	H	40.30	29.69	3.01	43.31	32.70	74.00	54.00	- 21.30	AV
H	7312.400	H	39.86	29.16	8.76	48.62	37.92	74.00	54.00	- 16.08	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 。

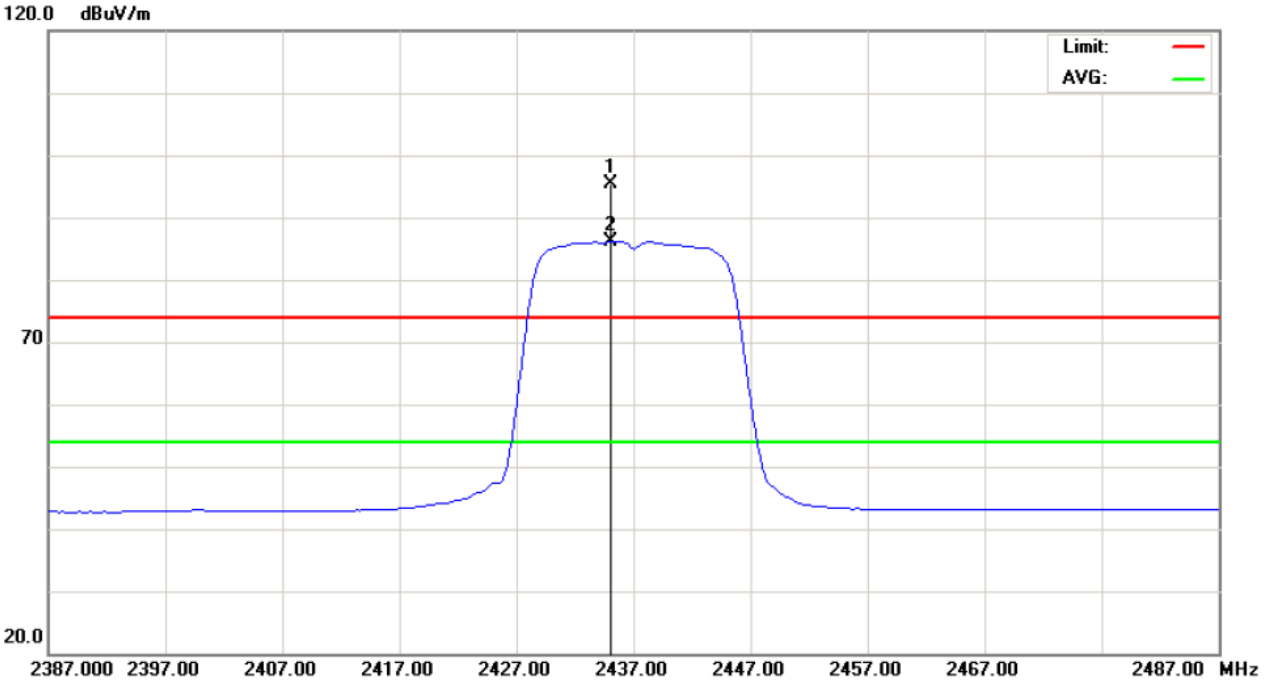
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

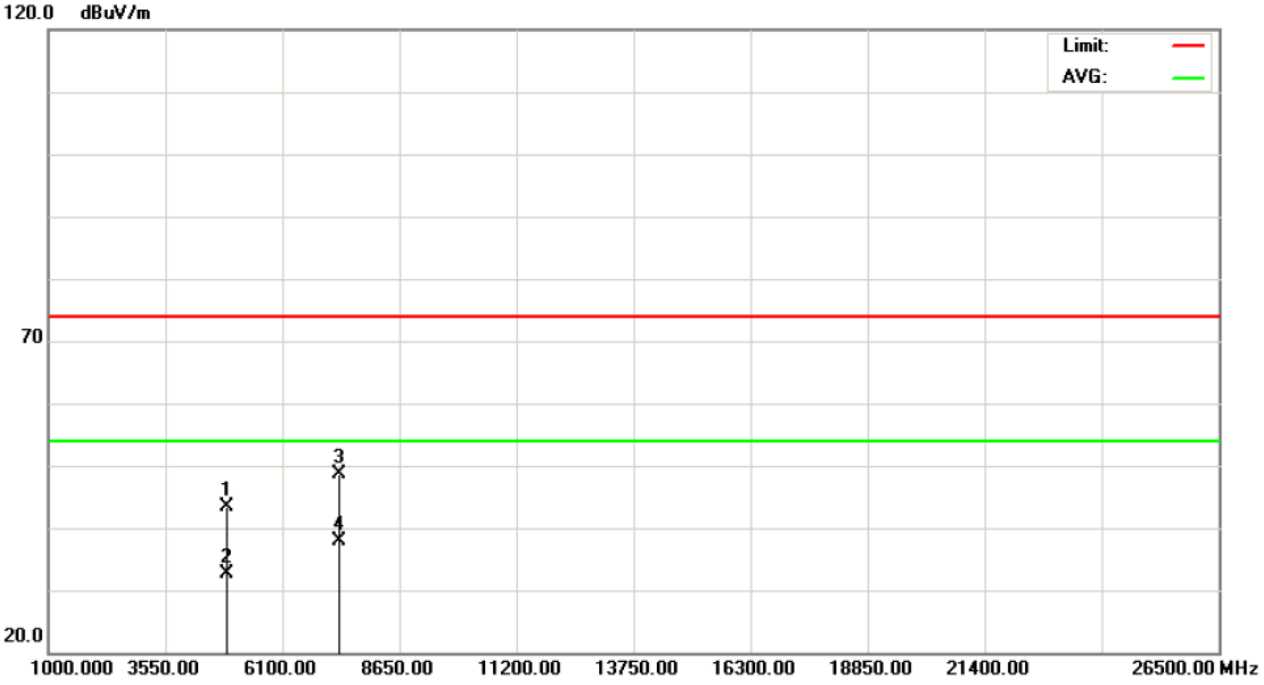
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	2463.400	V	68.07	58.57	31.59	99.66	90.16				
H	2483.500	V	21.86	12.16	31.68	53.54	43.84	74.00	54.00	- 10.16	AV
H	4924.800	V	40.13	29.11	3.14	43.27	32.25	74.00	54.00	- 21.75	AV
H	7386.400	V	41.24	30.52	8.87	50.11	39.39	74.00	54.00	- 14.61	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) 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 。

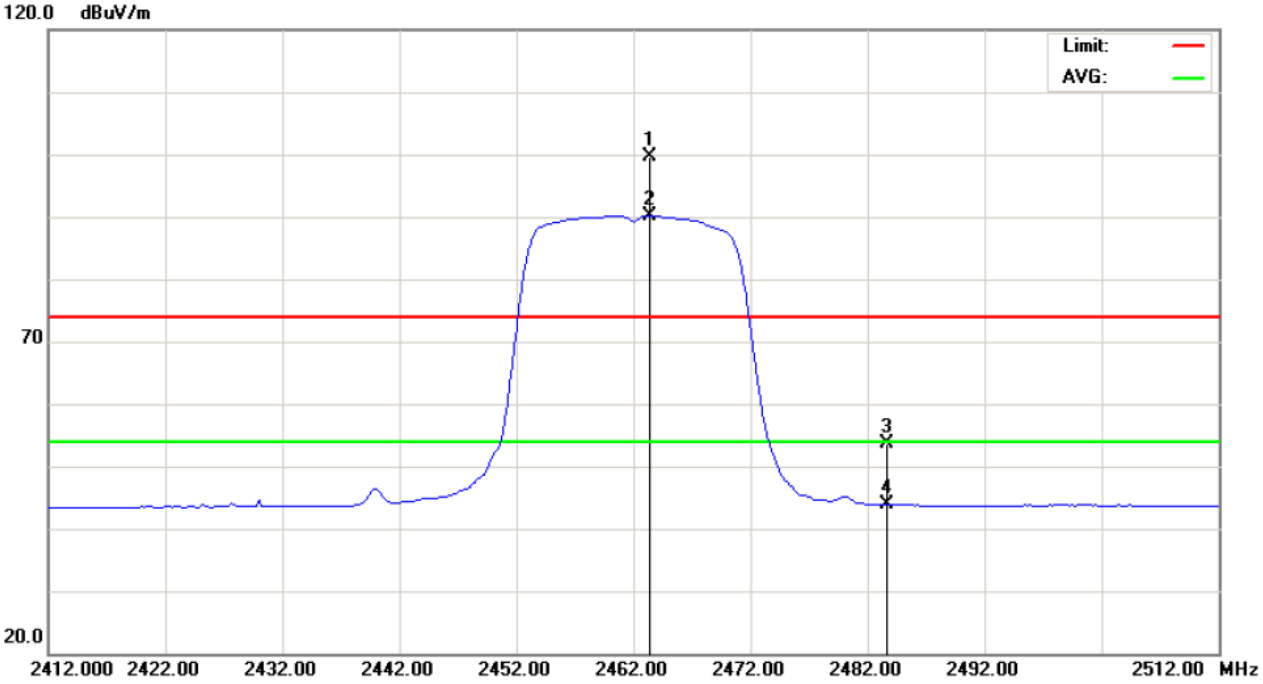
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

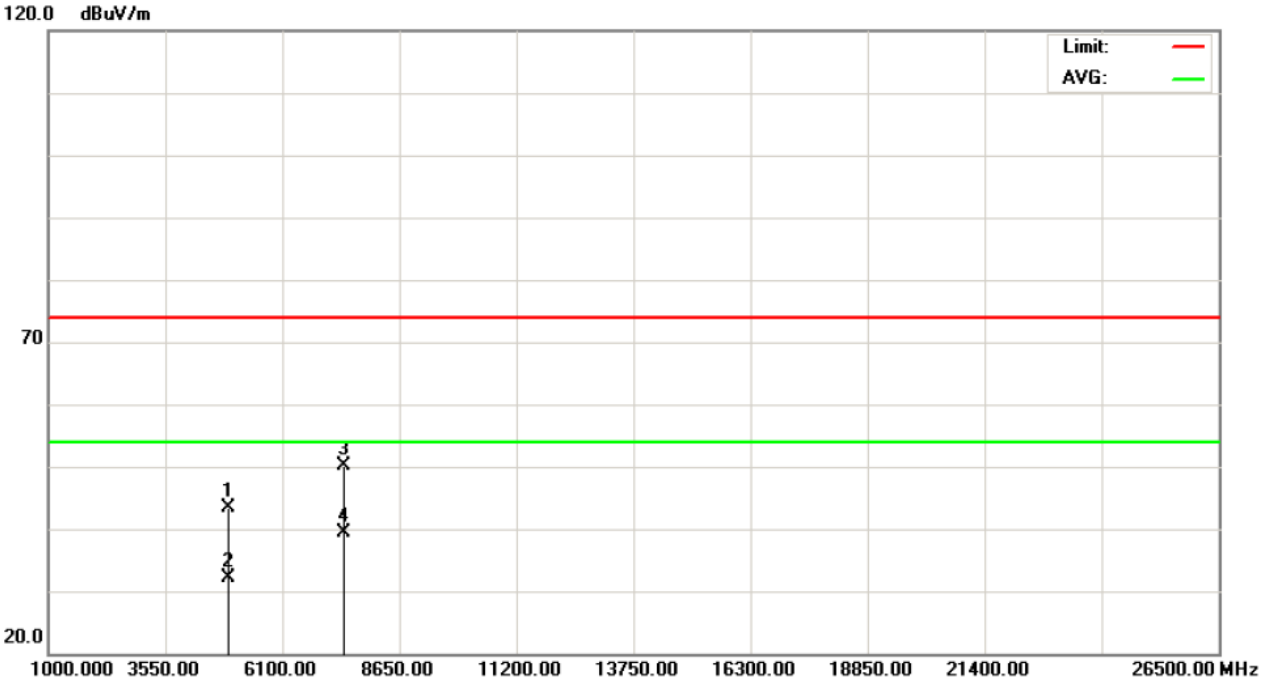
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2463.400	H	65.55	55.91	31.59	97.14	87.50				
H	2483.500	H	22.60	11.91	31.68	54.28	43.59	74.00	54.00	- 10.41	AV
H	4924.800	H	39.82	29.33	3.14	42.96	32.47	74.00	54.00	- 21.53	AV
H	7386.600	H	43.57	31.50	8.87	52.44	40.37	74.00	54.00	- 13.63	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 。

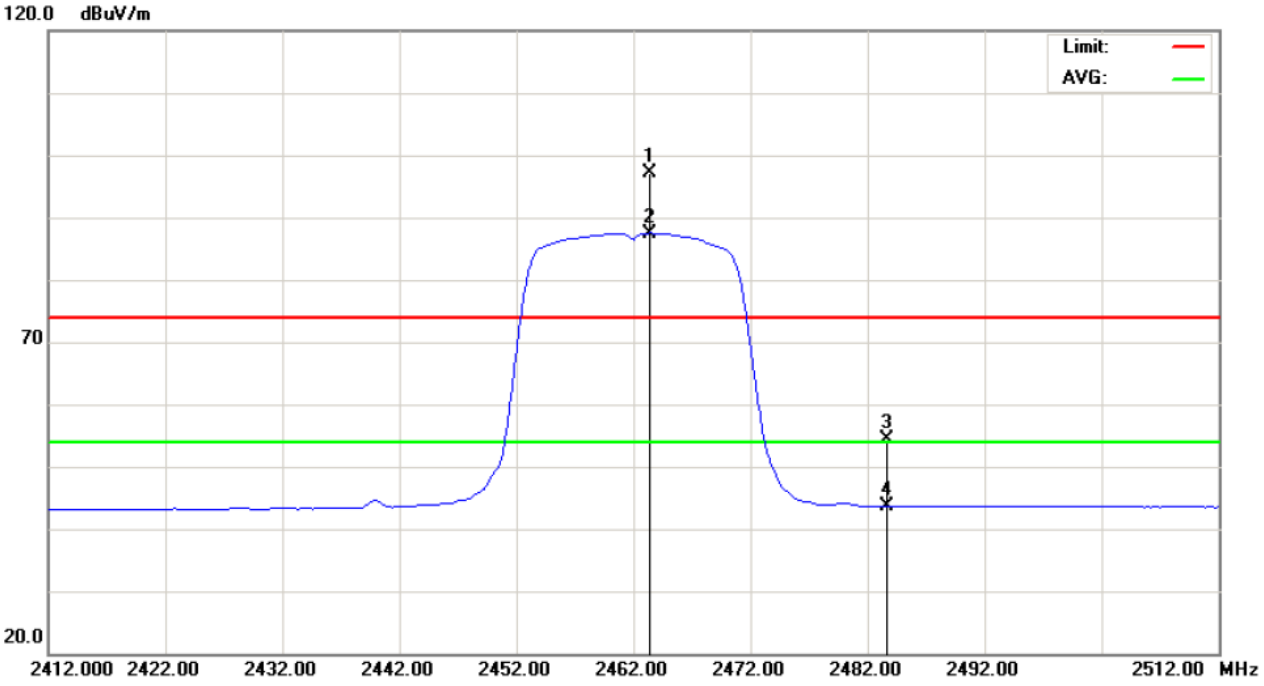
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

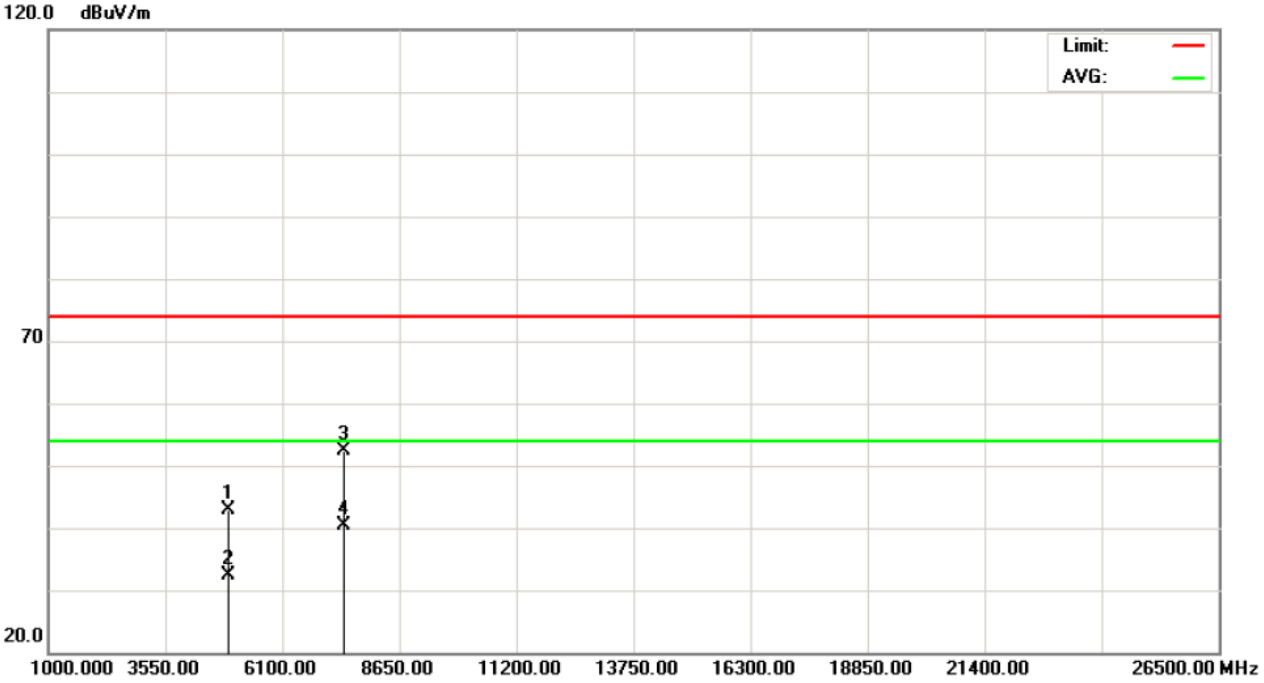
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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
802.11g/CH11(Above 1000 MHz, Horizontal)





EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	V	24.12	12.93	31.26	55.38	44.19	74.00	54.00	- 9.81	AV
F	2413.600	V	71.45	61.76	31.37	102.82	93.13				
H	4824.500	V	41.90	30.66	2.89	44.79	33.55	74.00	54.00	- 20.45	AV
H	7236.240	V	40.58	30.49	8.64	49.22	39.13	74.00	54.00	- 14.87	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 。

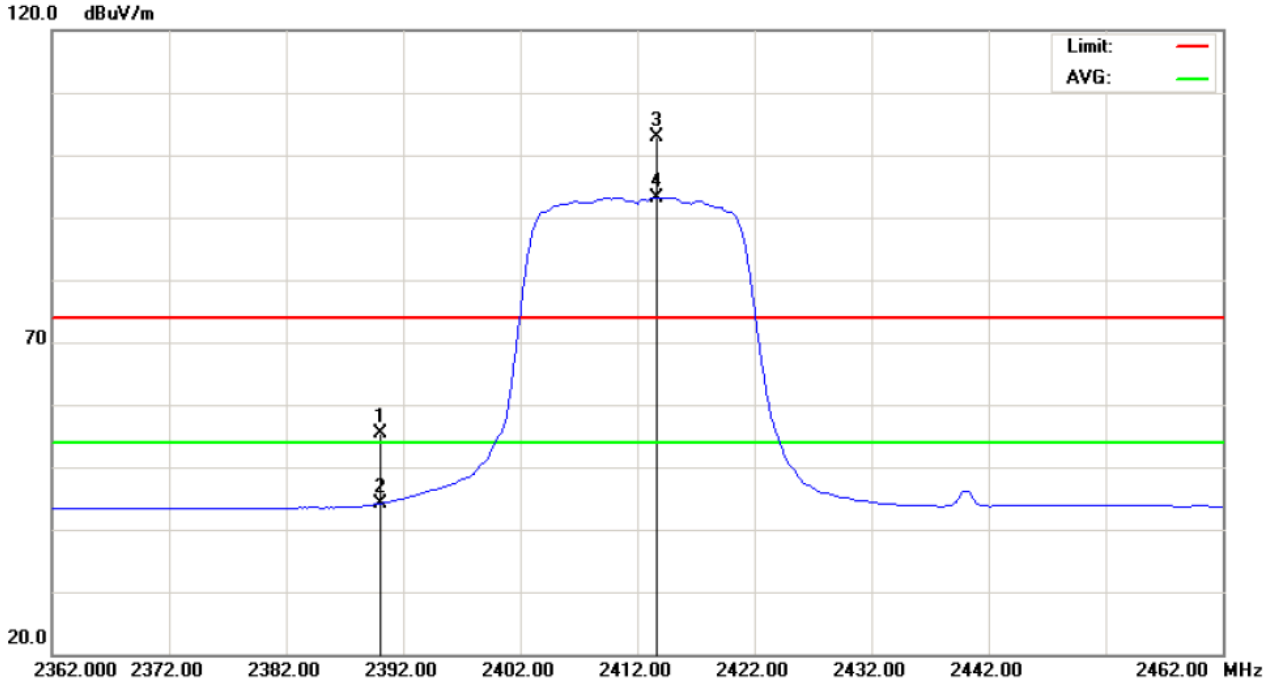
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

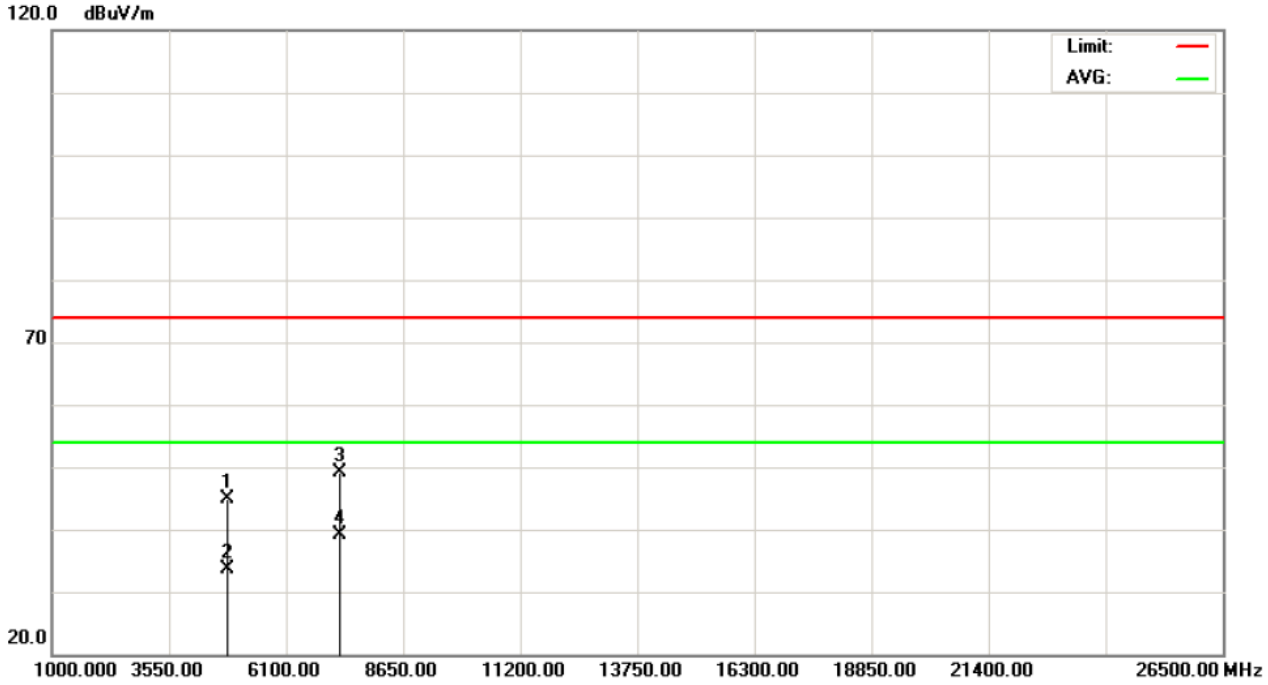
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	22.58	12.27	31.26	53.84	43.53	74.00	54.00	- 10.47	AV
F	2409.400	H	68.06	58.45	31.35	99.41	89.80				
H	4823.920	H	41.47	30.48	2.89	44.36	33.37	74.00	54.00	- 20.63	AV
H	7235.880	H	41.71	30.46	8.64	50.35	39.10	74.00	54.00	- 14.90	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 。

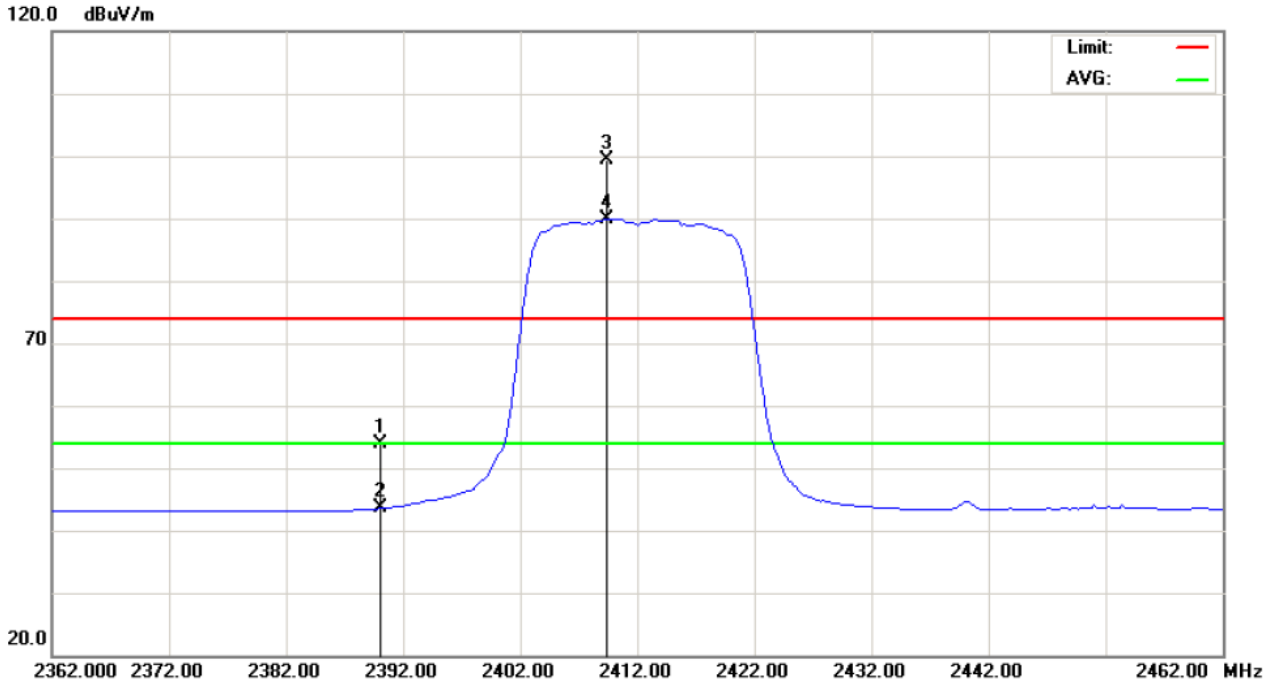
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

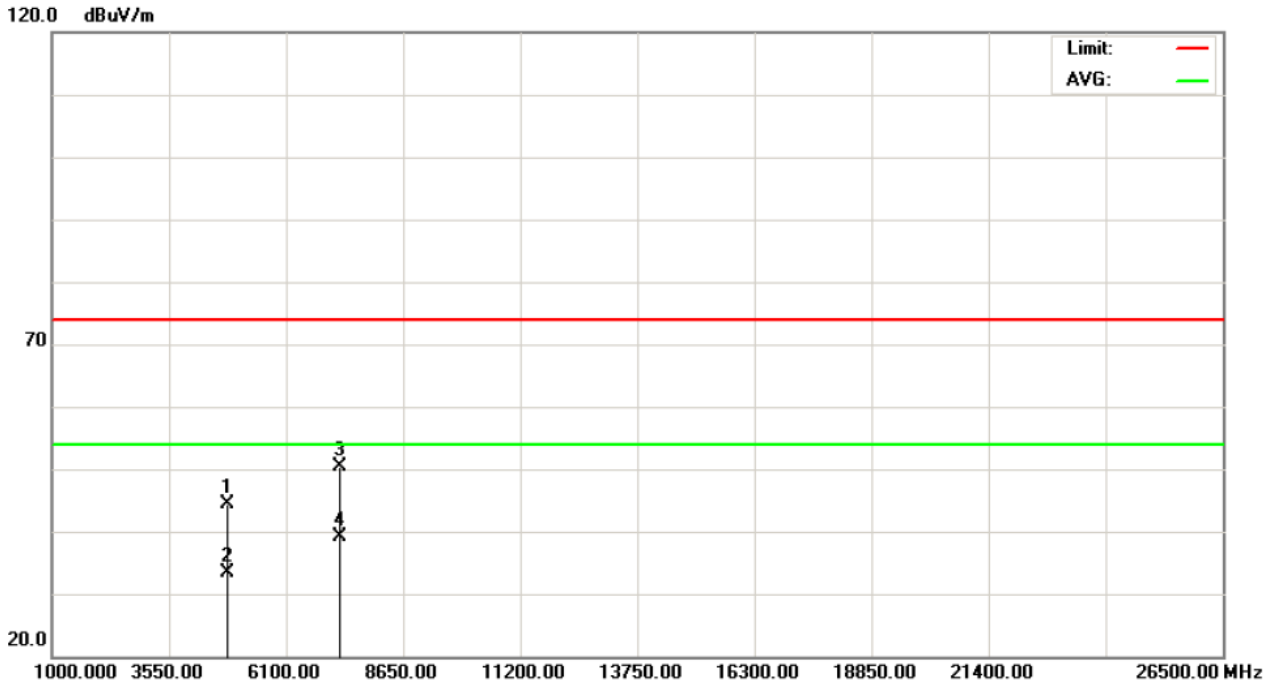
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2435.800	V	69.87	60.75	31.47	101.34	92.22				
H	4873.300	V	41.07	30.58	3.01	44.08	33.59	74.00	54.00	- 20.41	AV
H	7310.300	V	41.19	30.13	8.76	49.95	38.89	74.00	54.00	- 15.11	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 。

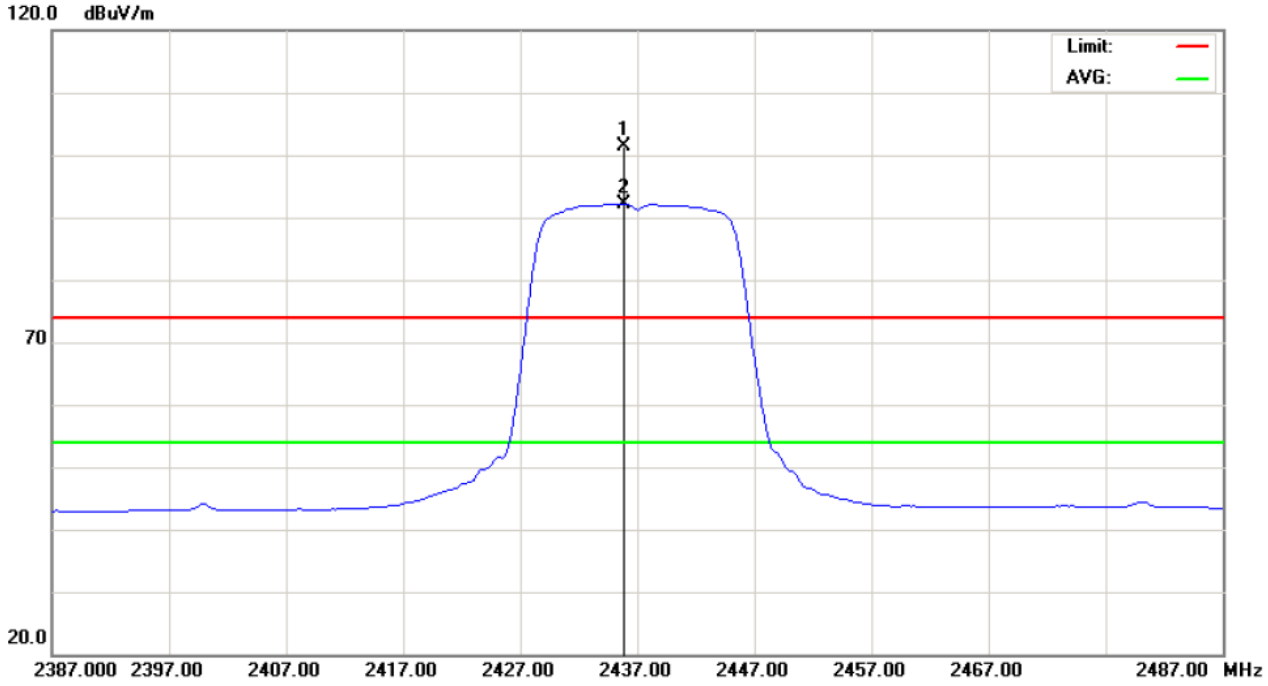
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

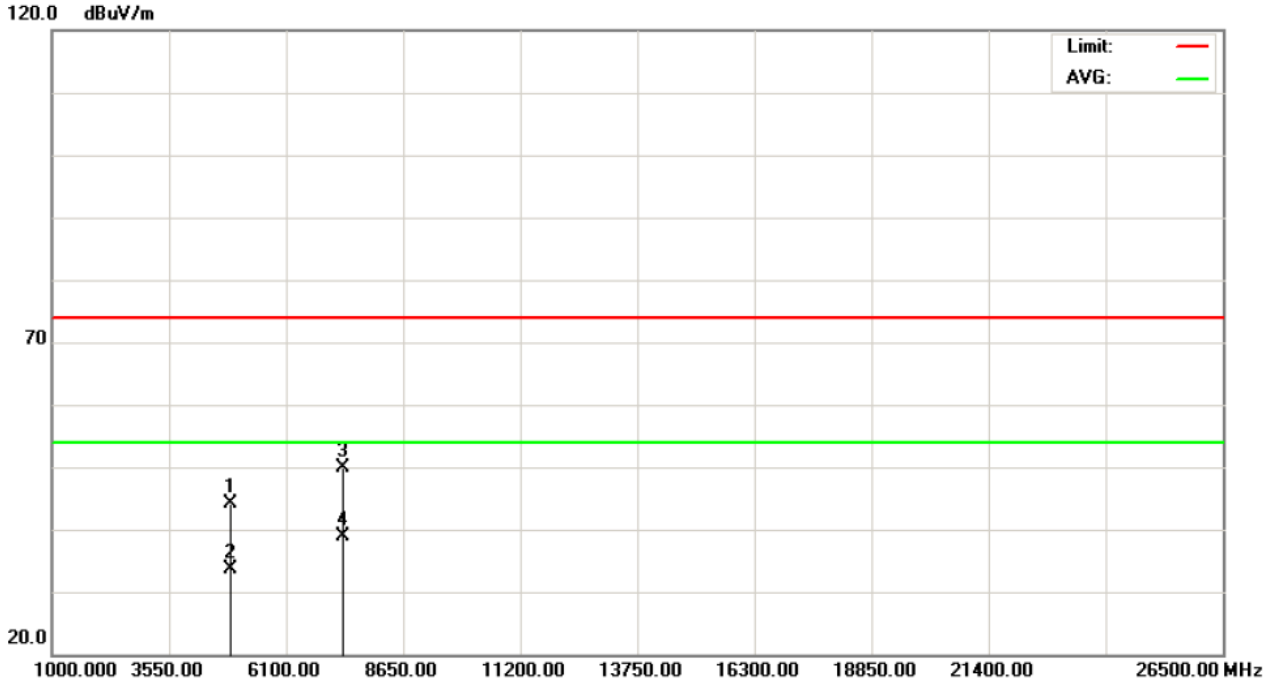
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2435.800	H	63.77	54.69	31.47	95.24	86.16				
H	4875.300	H	41.52	30.42	3.02	44.54	33.44	74.00	54.00	- 20.56	AV
H	7311.700	H	40.41	30.11	8.76	49.17	38.87	74.00	54.00	- 15.13	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 。

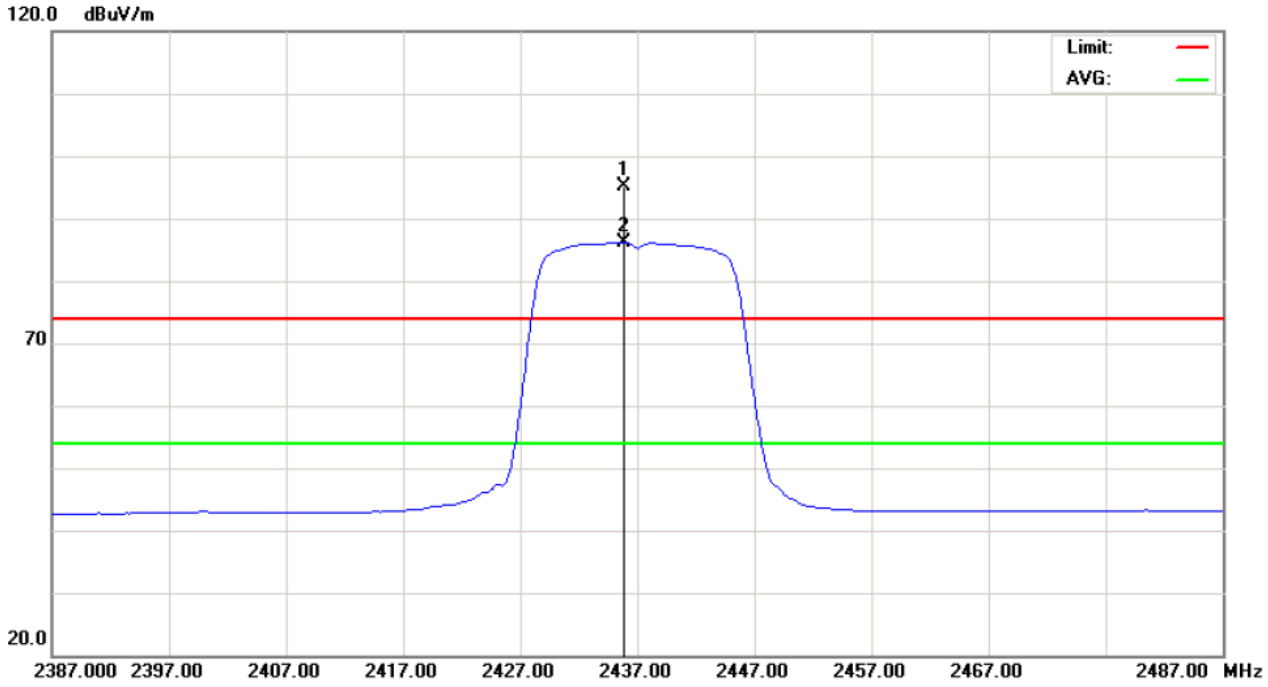
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

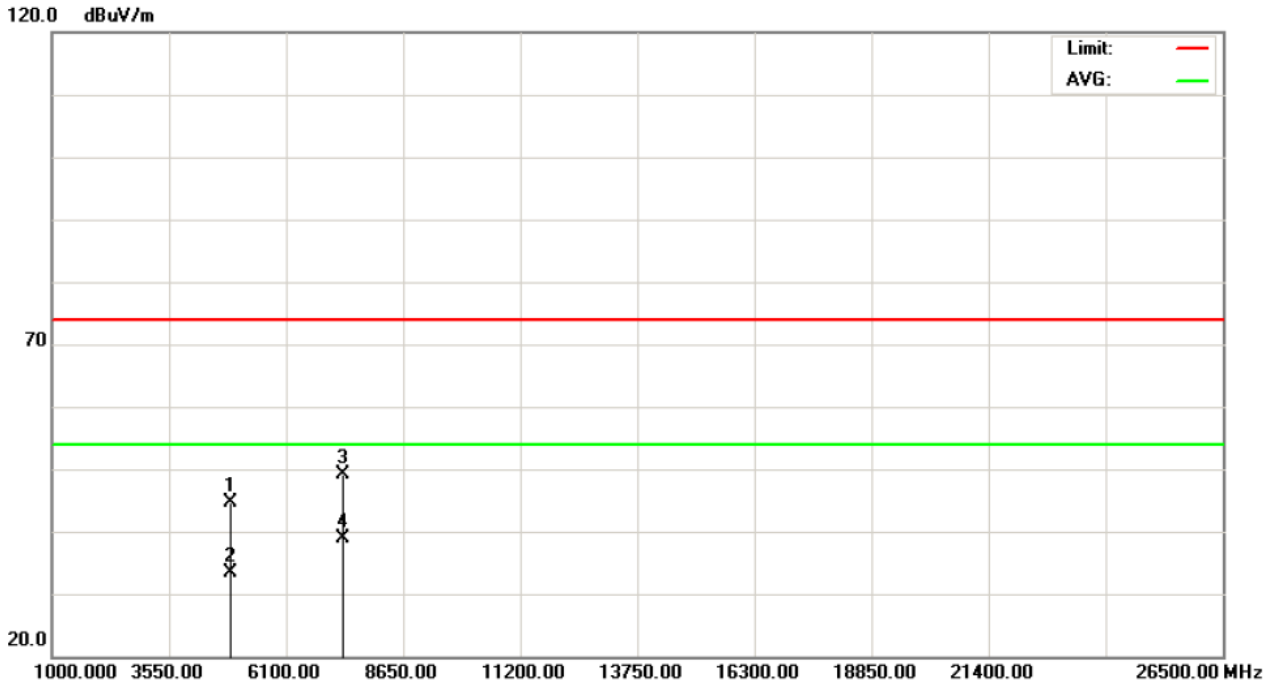
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	2460.200	V	68.07	58.67	31.57	99.64	90.24				
H	2483.500	V	21.24	12.18	31.68	52.92	43.86	74.00	54.00	- 10.14	AV
H	4924.900	V	41.29	30.46	3.14	44.43	33.60	74.00	54.00	- 20.40	AV
H	7385.600	V	41.89	30.65	8.87	50.76	39.52	74.00	54.00	- 14.48	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 。

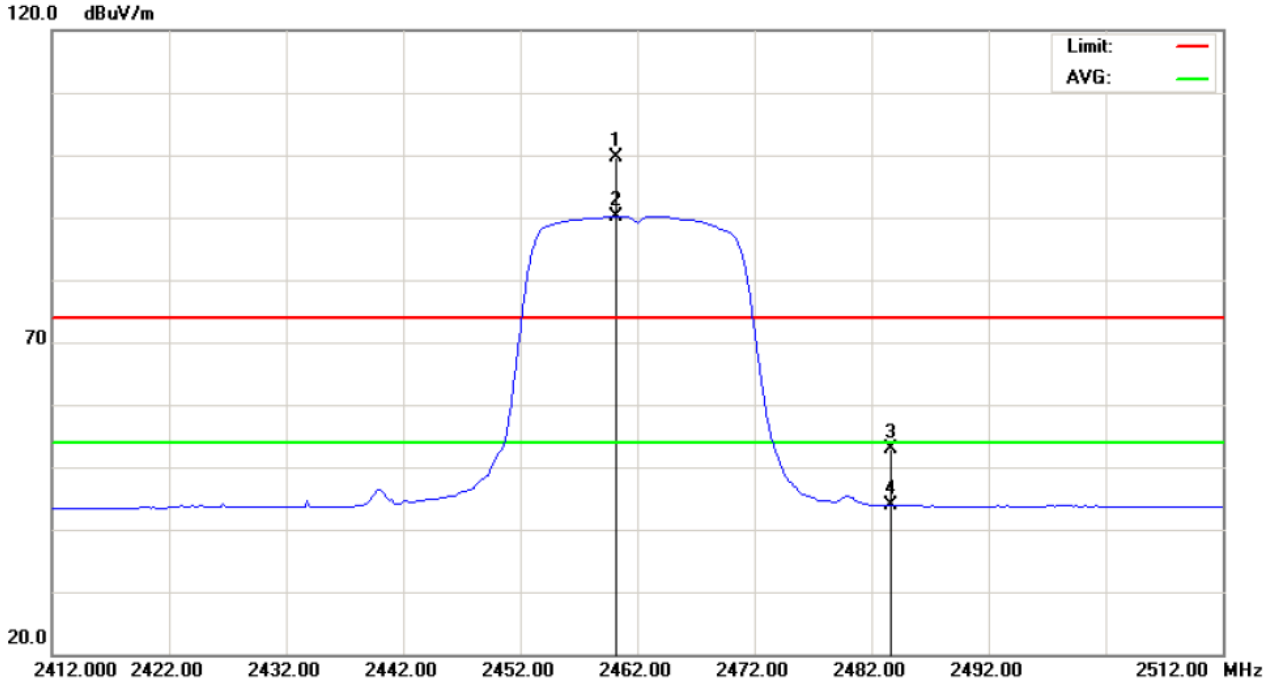
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

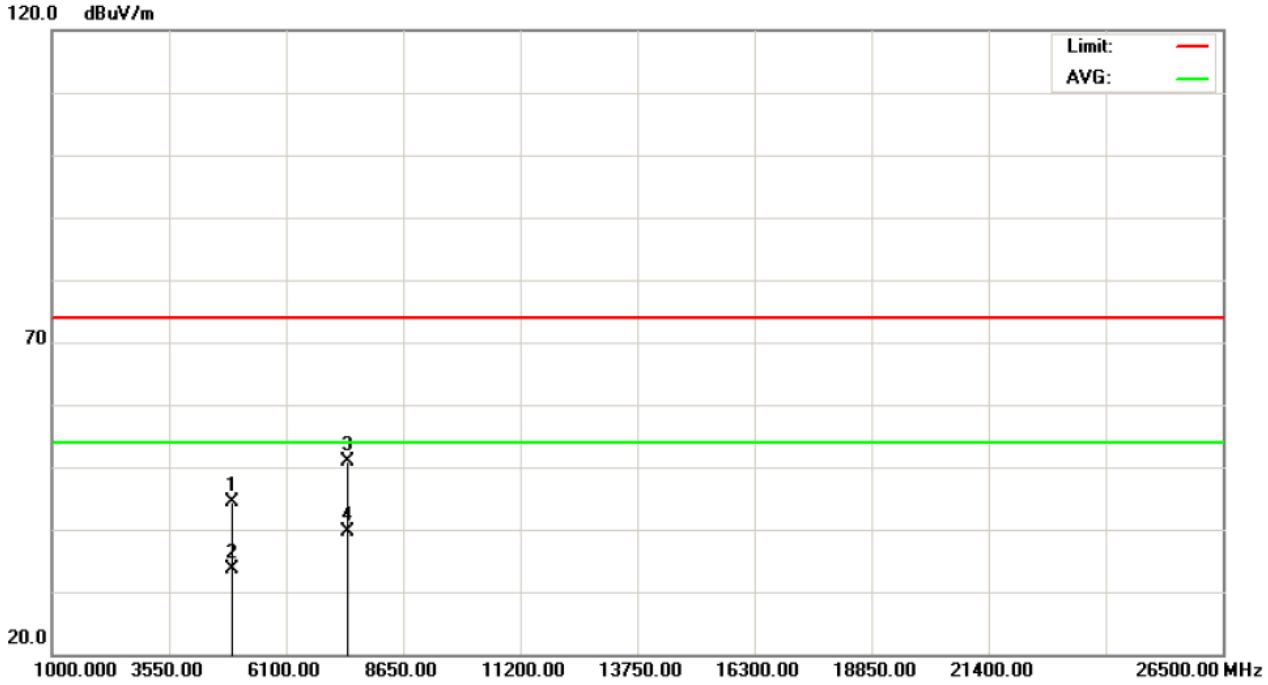
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2463.400	H	65.13	55.87	31.59	96.72	87.46				
H	2483.500	H	21.31	11.90	31.68	52.99	43.58	74.00	54.00	- 10.42	AV
H	4923.700	H	42.04	30.27	3.14	45.18	33.41	74.00	54.00	- 20.59	AV
H	7386.600	H	41.36	30.84	8.87	50.23	39.71	74.00	54.00	- 14.29	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 。

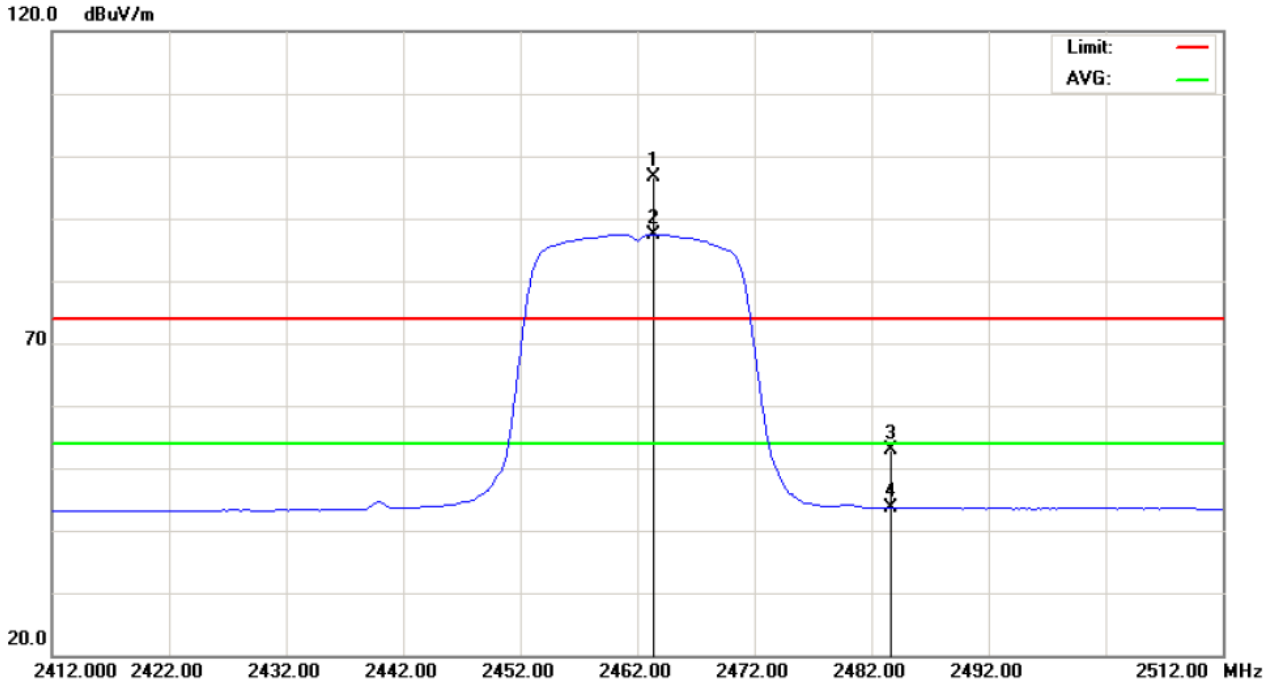
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

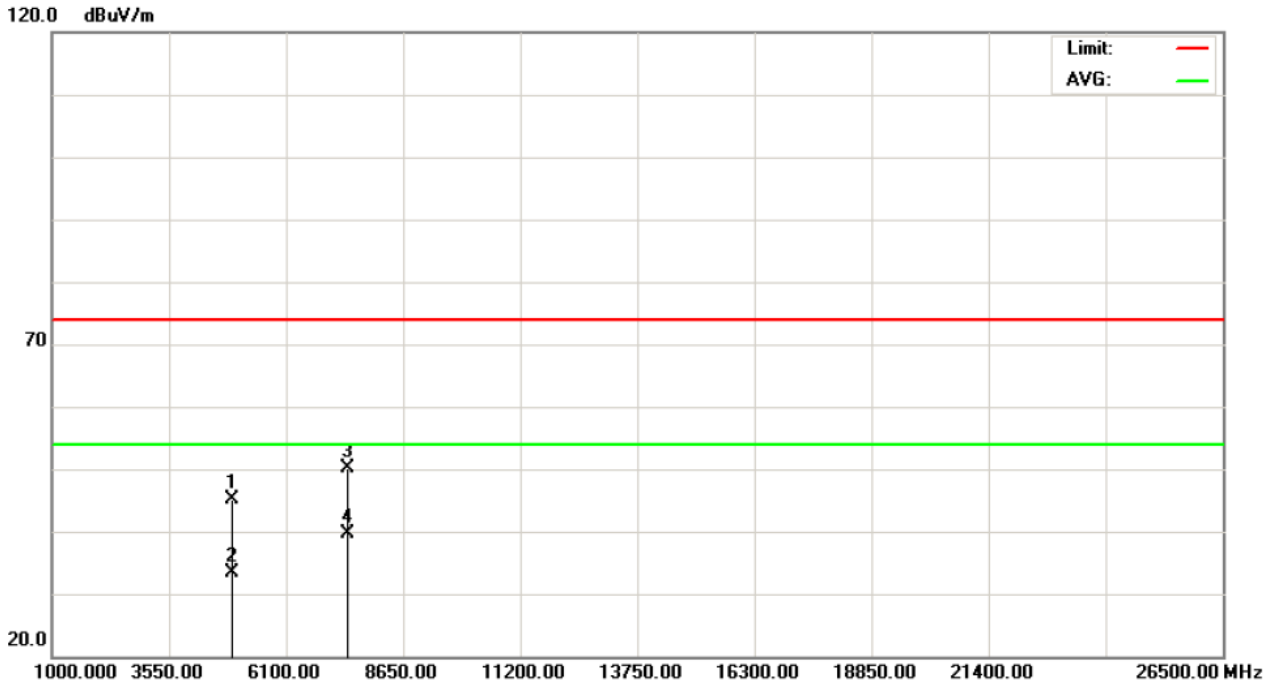
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	2360.000	V	24.71	16.11	31.13	55.84	47.24	74.00	54.00	- 6.76	AV
F	2420.000	V	66.68	56.61	31.40	98.08	88.01				
H	4844.600	V	41.74	30.67	2.94	44.68	33.61	74.00	54.00	- 20.39	AV
H	7267.400	V	41.25	31.17	8.69	49.94	39.86	74.00	54.00	- 14.14	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 。

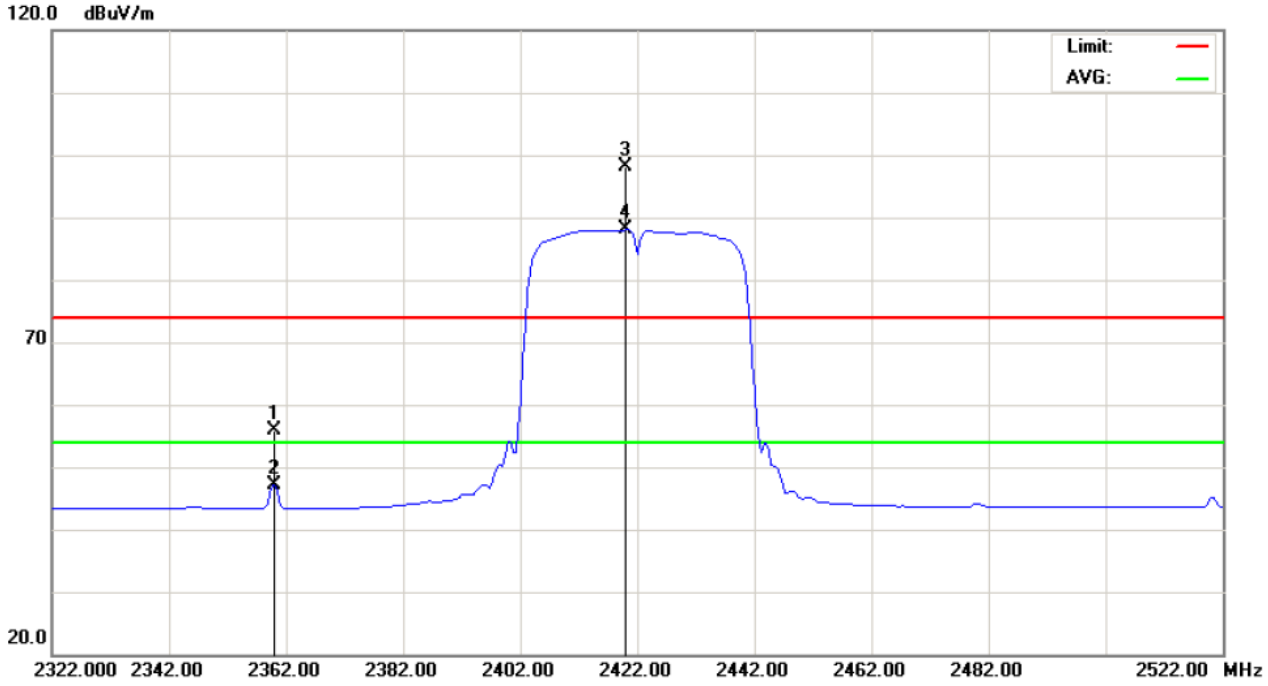
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

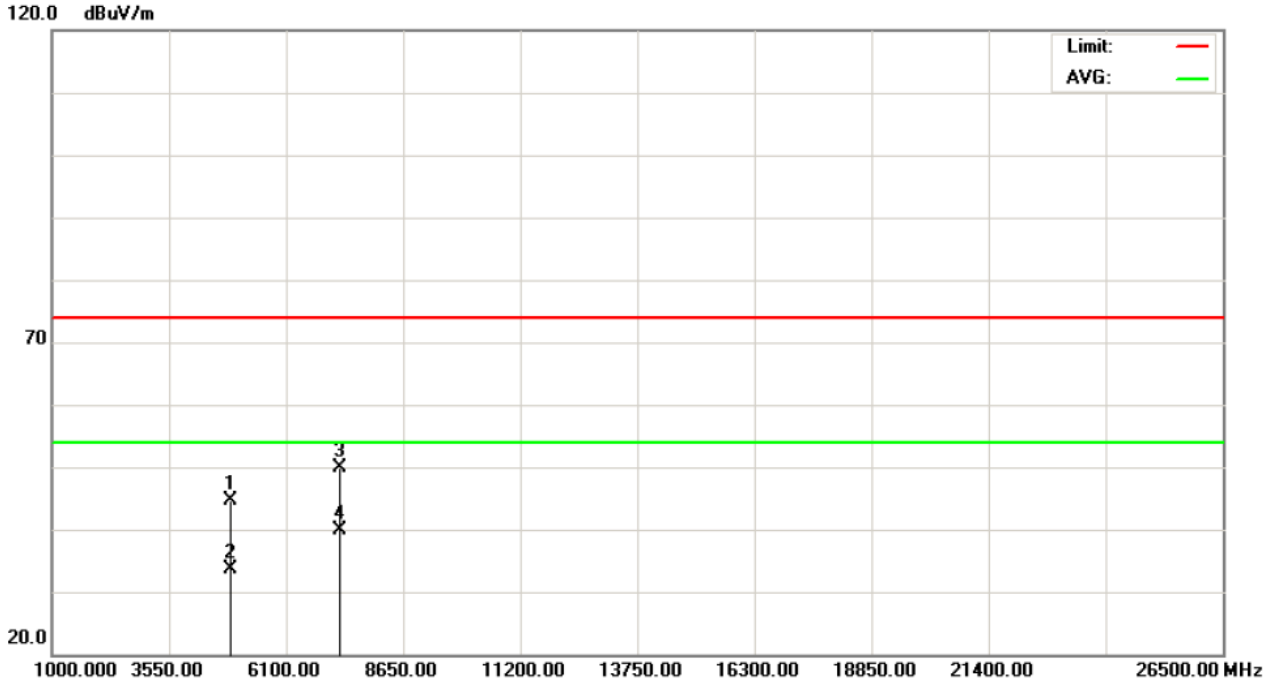
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	2360.000	H	24.05	14.59	31.13	55.18	45.72	74.00	54.00	- 8.28	AV
F	2420.000	H	62.33	53.10	31.40	93.73	84.50				
H	4843.000	H	42.12	30.55	2.94	45.06	33.49	74.00	54.00	- 20.51	AV
H	7265.600	H	42.65	31.17	8.69	51.34	39.86	74.00	54.00	- 14.14	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 。

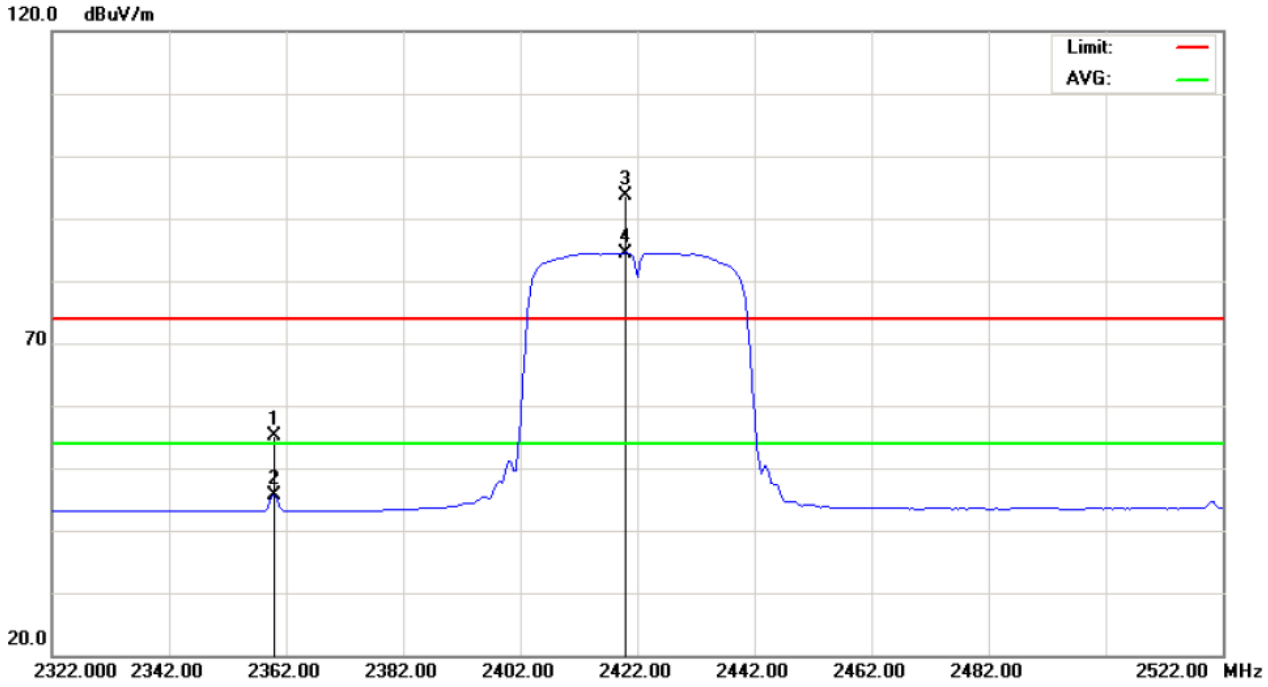
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

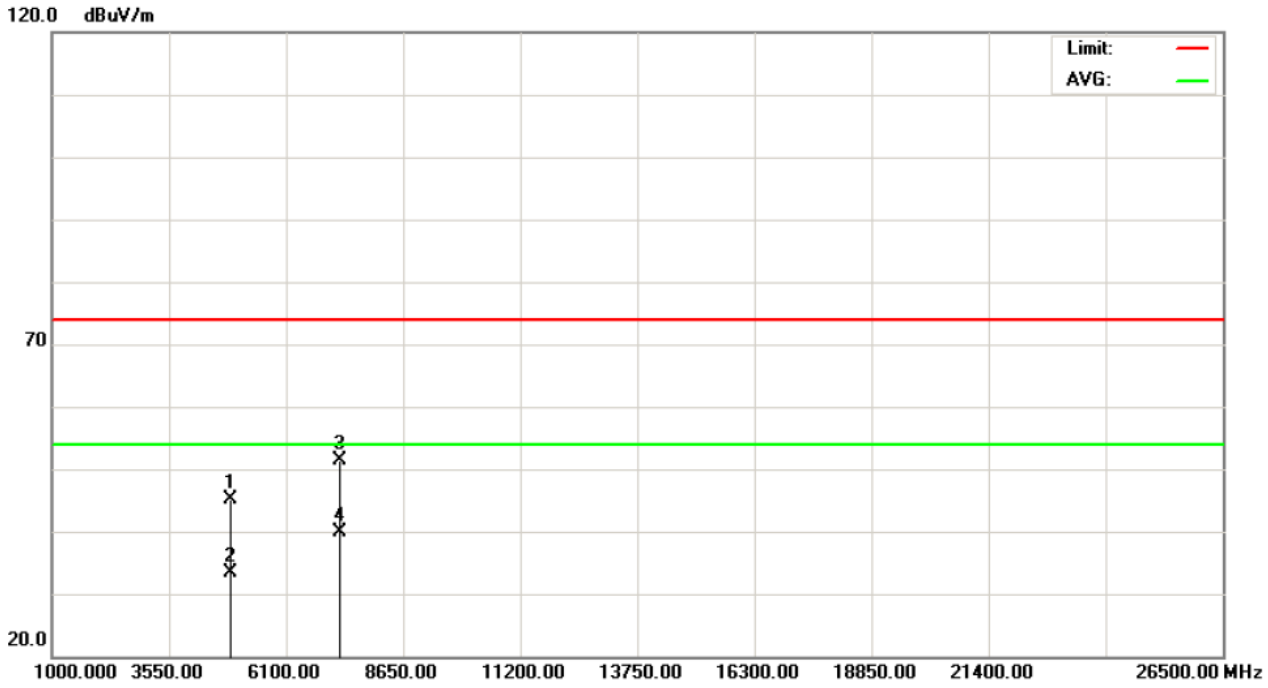
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/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
H	2359.600	V	25.11	17.12	31.13	56.24	48.25	74.00	54.00	- 5.75	AV
F	2431.400	V	65.58	56.17	31.45	97.03	87.62				
H	4873.400	V	42.66	30.38	3.01	45.67	33.39	74.00	54.00	- 20.61	AV
H	7311.300	V	41.56	30.38	8.76	50.32	39.14	74.00	54.00	- 14.86	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 。

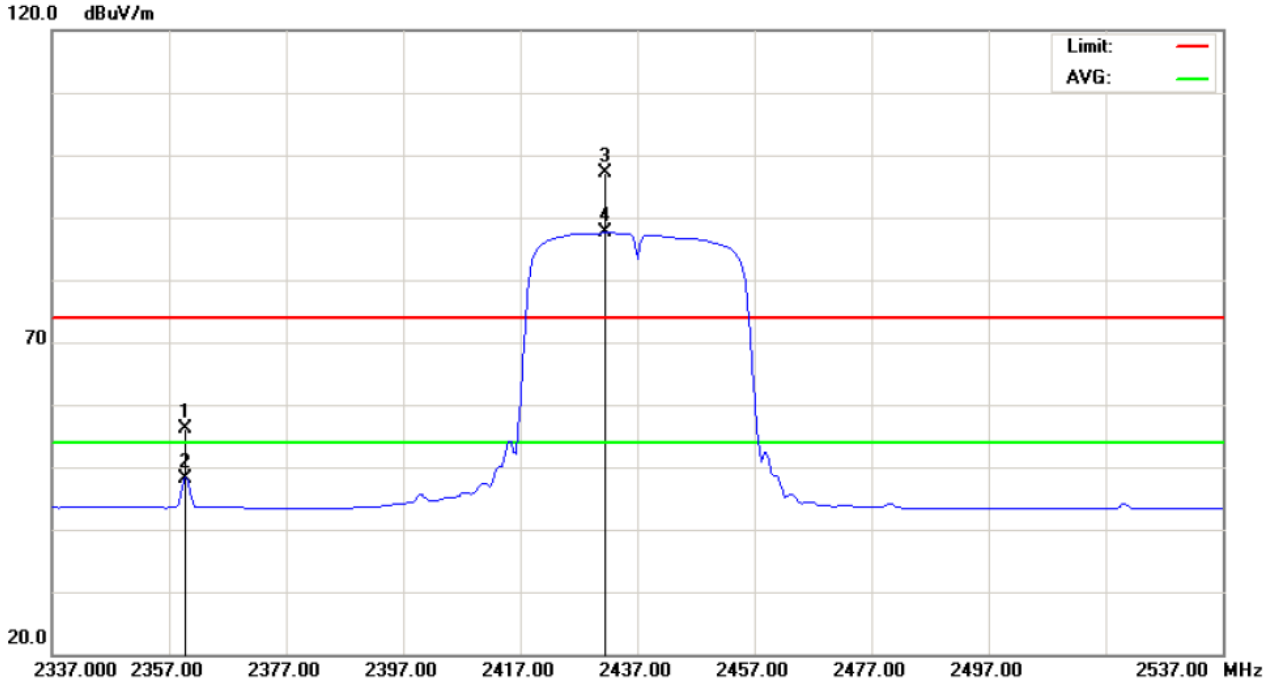
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

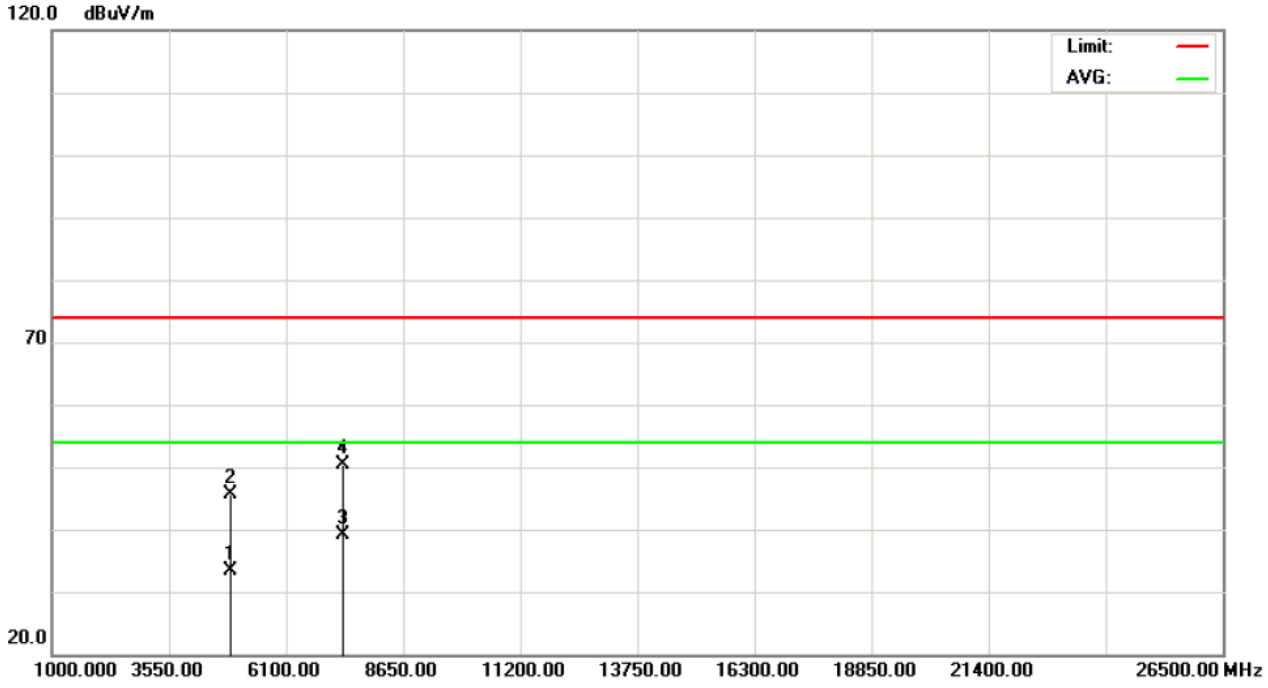
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	Orthogonal Axes:	X
Test Mode ：	802.11n/40M/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
H	2360.000	H	22.19	12.53	31.13	53.32	43.66	74.00	54.00	- 10.34	AV
F	2431.400	H	58.18	48.77	31.45	89.63	80.22				
H	4874.600	H	43.07	30.22	3.02	46.09	33.24	74.00	54.00	- 20.76	AV
H	7310.800	H	41.27	30.43	8.76	50.03	39.19	74.00	54.00	- 14.81	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 。

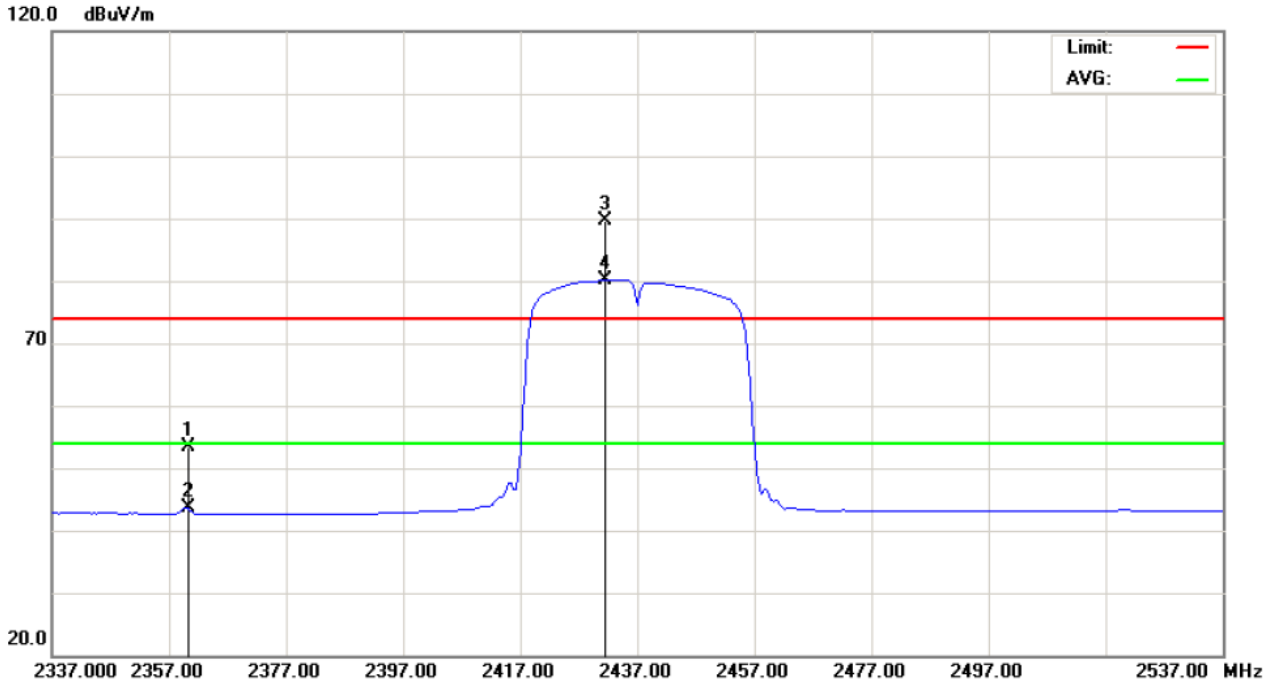
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

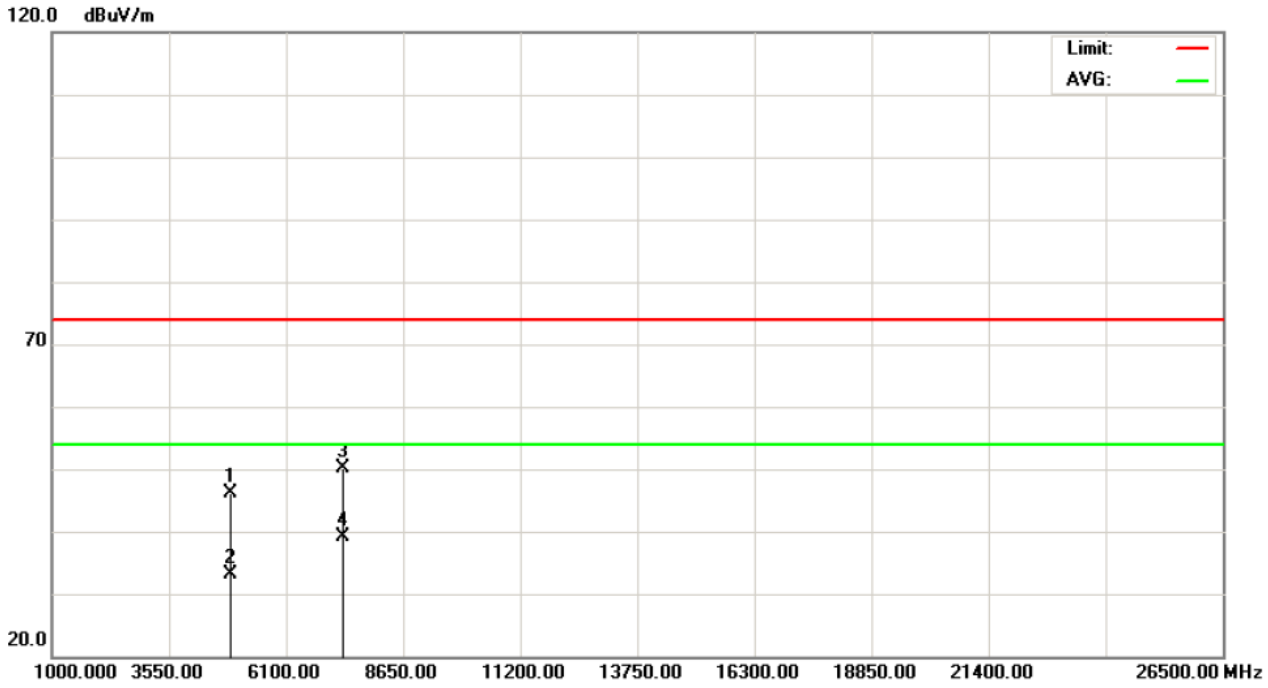
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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		
H	2360.000	V	24.75	16.13	31.13	55.88	47.26	74.00	54.00	- 6.74	AV
F	2450.000	V	65.59	56.34	31.53	97.12	87.87				
H	2519.900	V	24.12	14.27	31.79	55.91	46.06	74.00	54.00	- 7.94	AV
H	4905.000	V	43.29	30.78	3.09	46.38	33.87	74.00	54.00	- 20.13	AV
H	7357.000	V	42.77	31.08	8.83	51.60	39.91	74.00	54.00	- 14.09	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 。

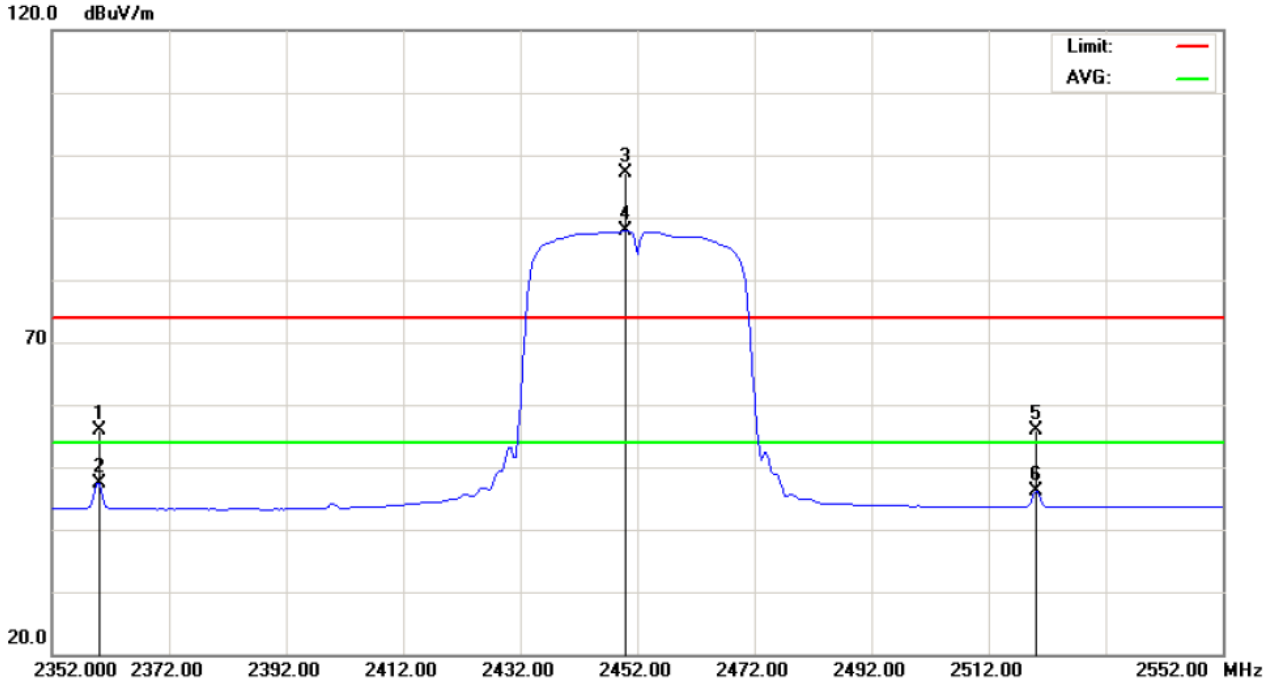
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

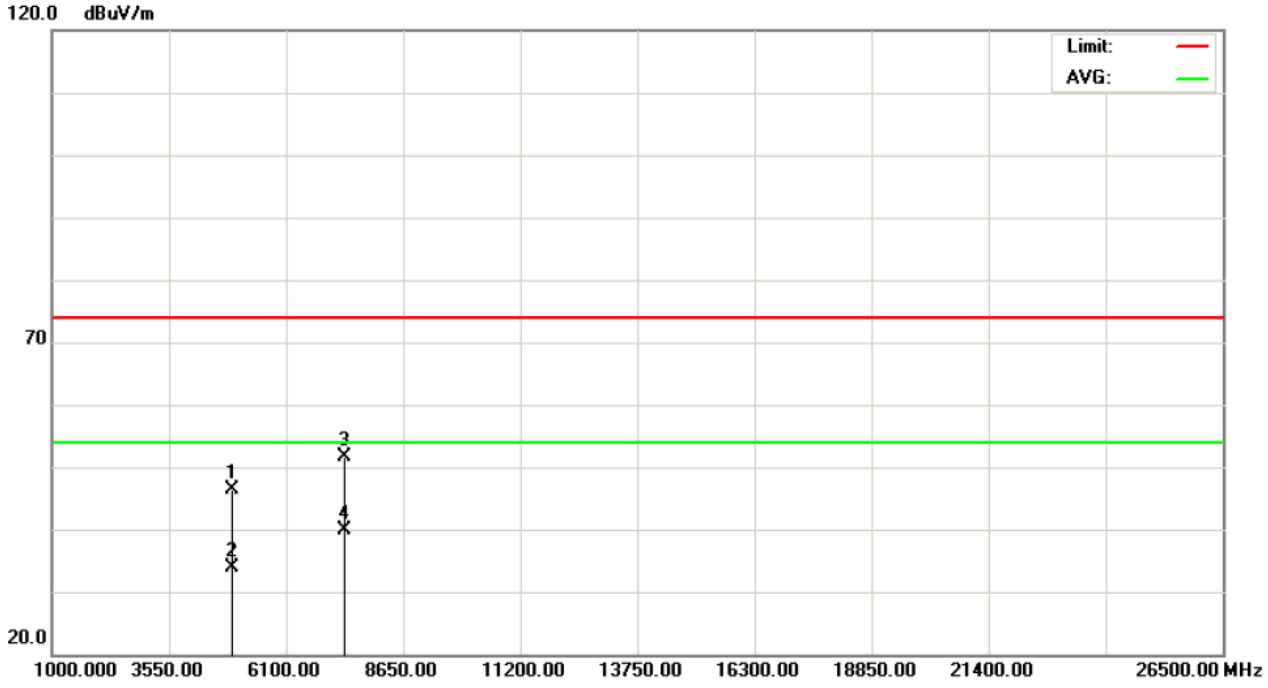
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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		
H	2360.000	H	24.46	14.63	31.13	55.59	45.76	74.00	54.00	- 8.24	AV
F	2455.600	H	52.86	62.29	31.55	84.41	93.84				
H	2520.000	H	22.92	13.09	31.79	54.71	44.88	74.00	54.00	- 9.12	AV
H	4904.800	H	42.58	30.57	3.09	45.67	33.66	74.00	54.00	- 20.34	AV
H	7355.600	H	42.67	31.12	8.82	51.49	39.94	74.00	54.00	- 14.06	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 。

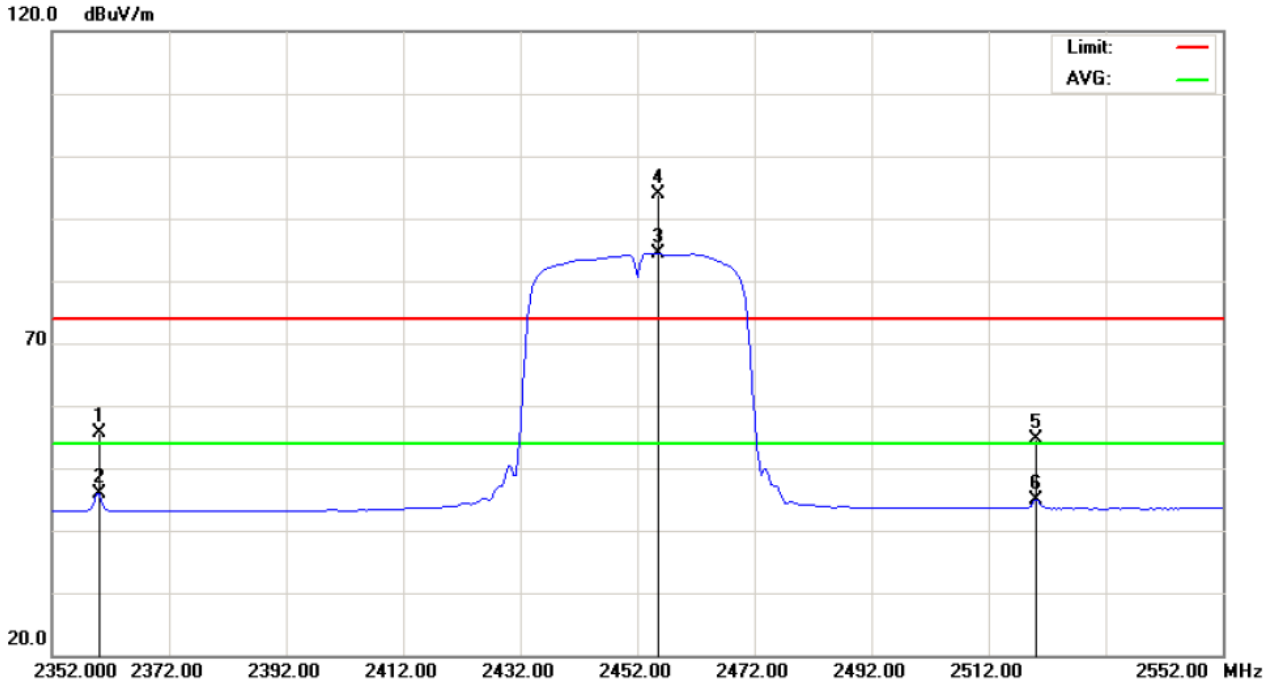
(5) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

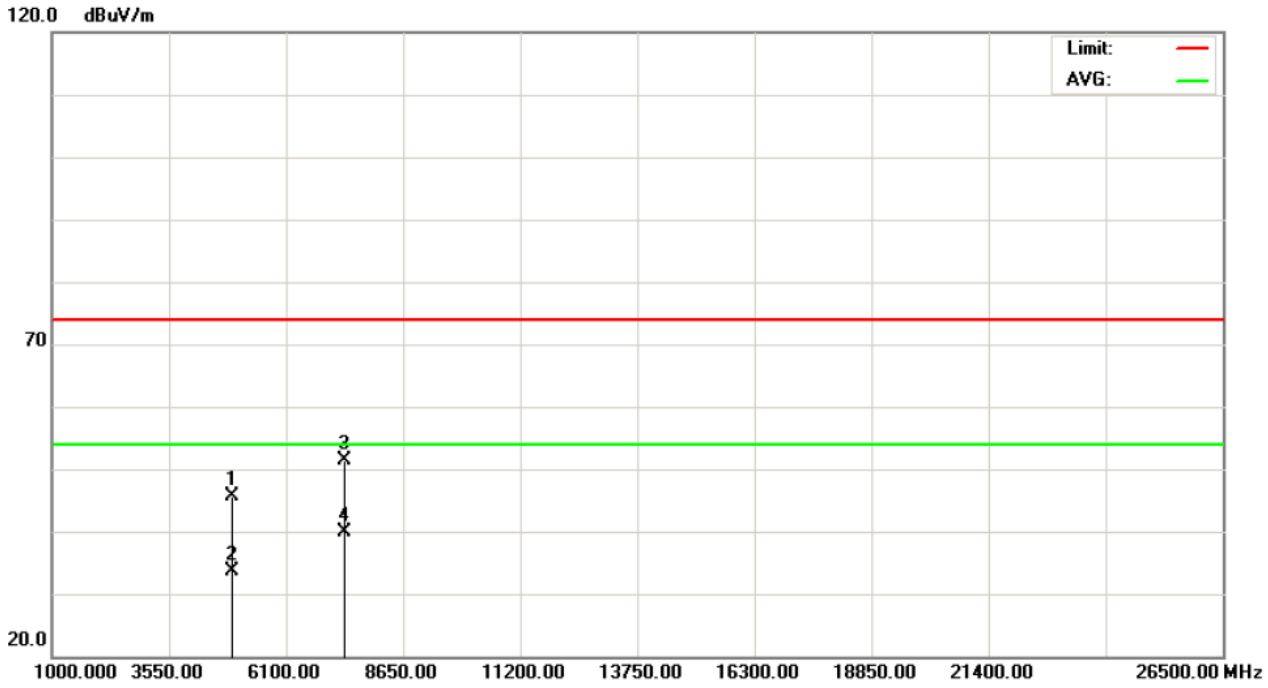
(6) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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)	
2375.800	V	24.21	13.15	31.20	55.41	44.35	74.00	54.00	- 9.65	AV
2483.500	V	24.47	12.26	31.68	56.15	43.94	74.00	54.00	- 10.06	AV

Remark：

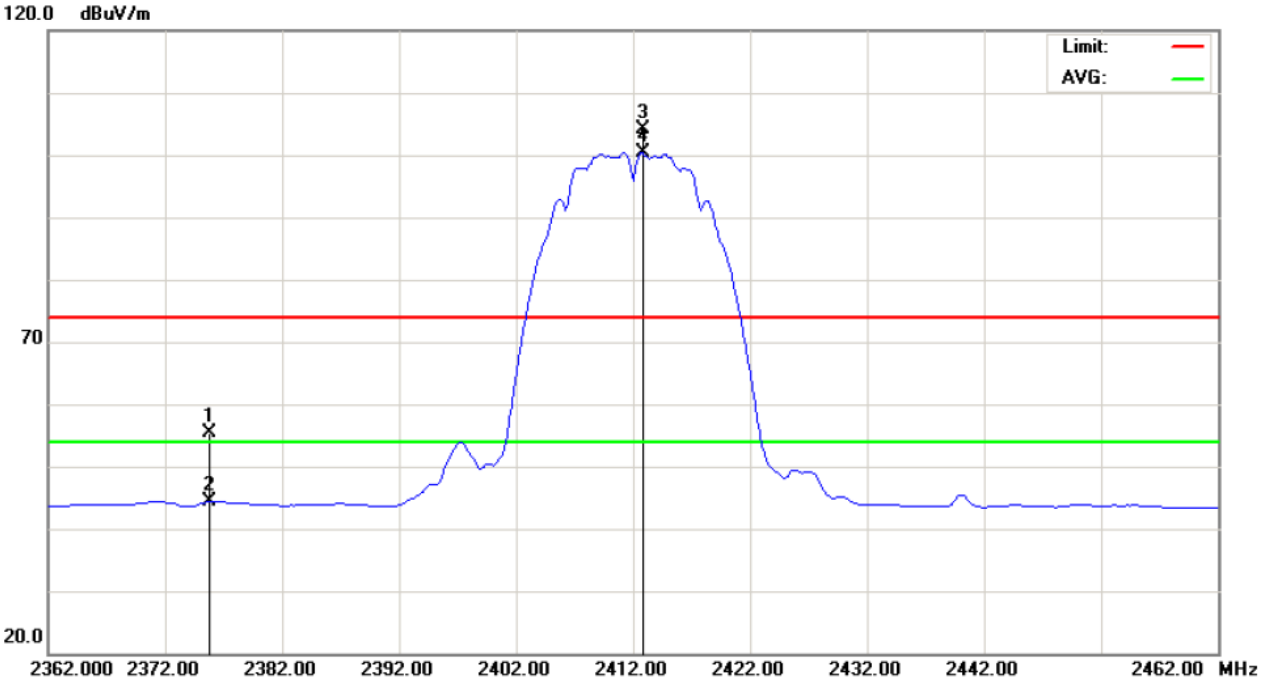
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

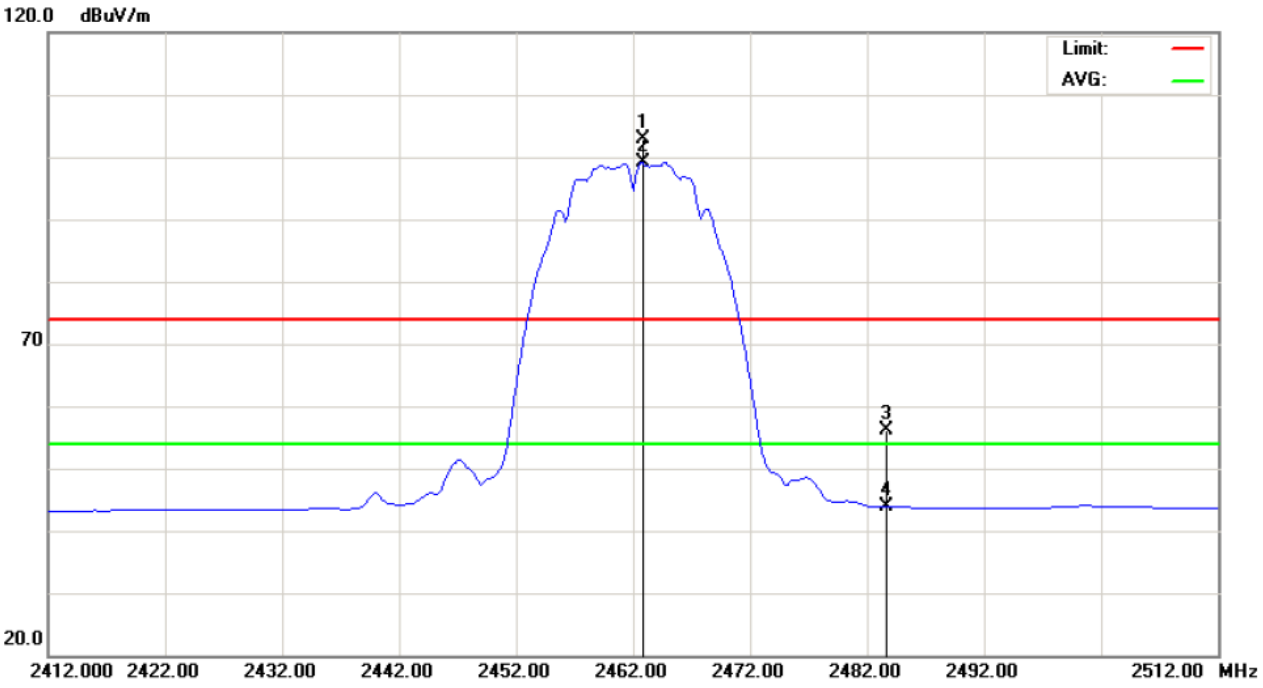
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

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

802.11b (Restricted Bands Requirements, Vertical)





EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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)	
2375.800	H	24.21	13.15	31.20	55.41	44.35	74.00	54.00	- 9.65	AV
2483.500	H	22.09	11.53	31.68	53.77	43.21	74.00	54.00	- 10.79	AV

Remark：

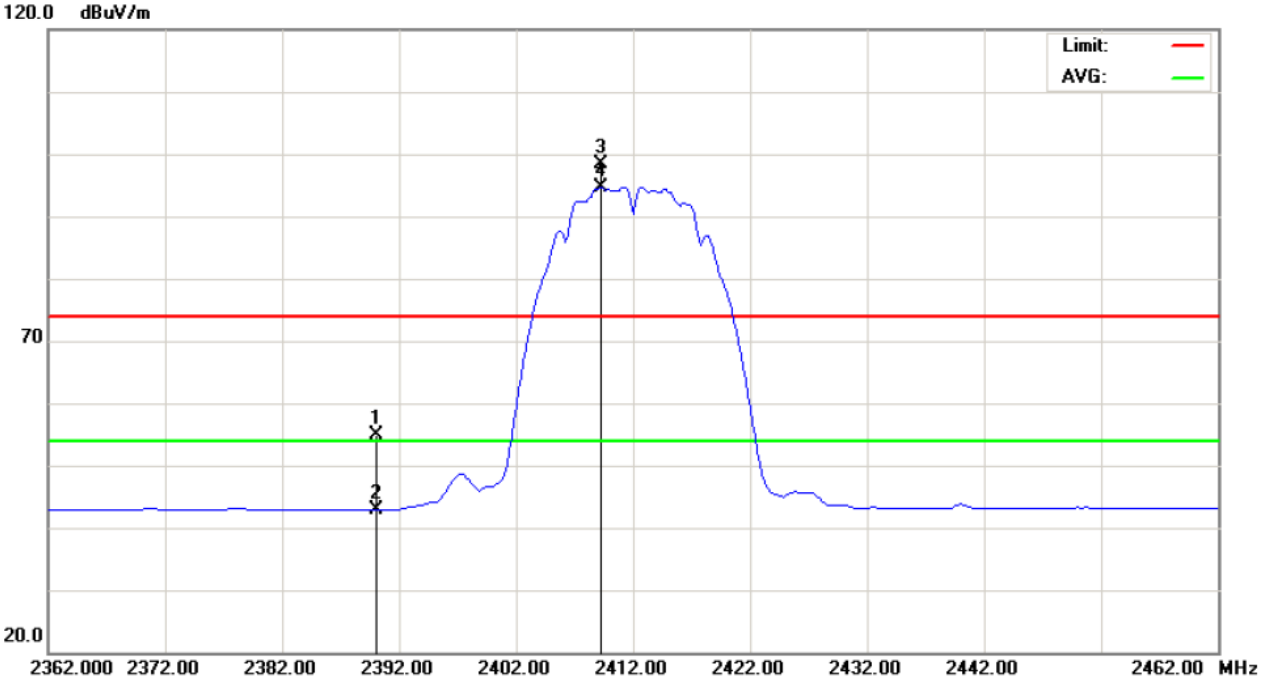
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

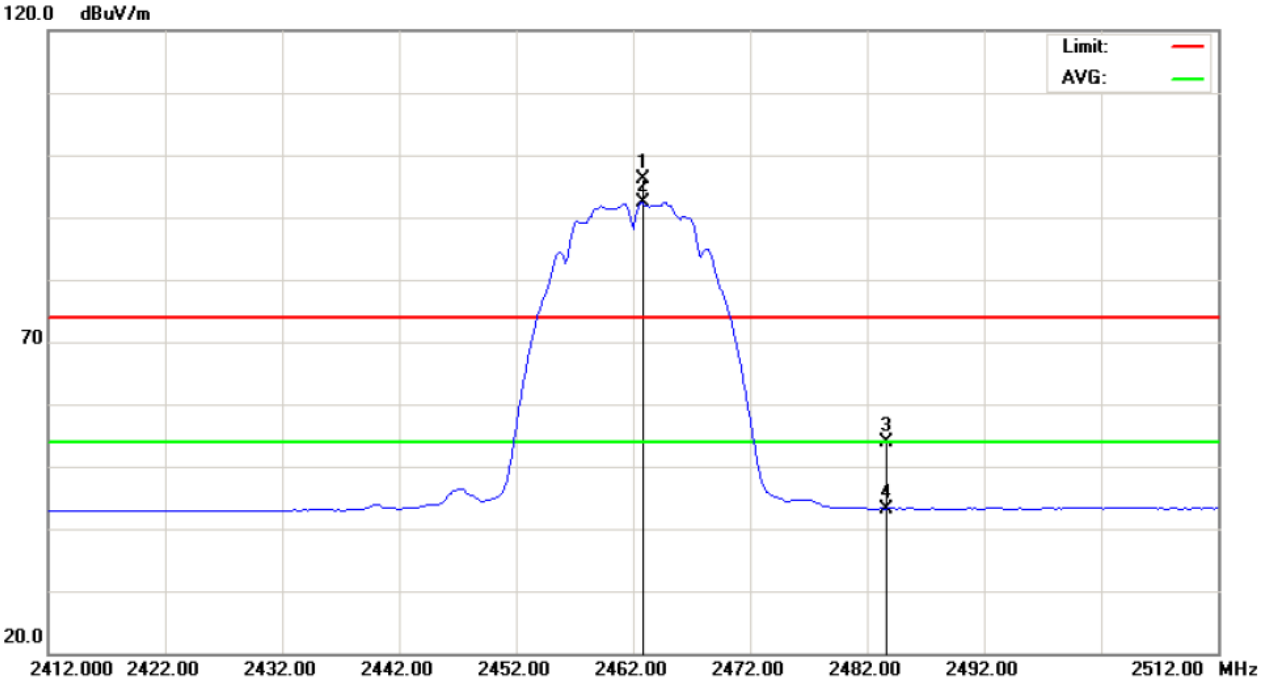
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

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

802.11b (Restricted Bands Requirements, Horizontal)





EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	24.18	12.76	31.26	55.44	44.02	74.00	54.00	- 9.98	AV
2483.500	V	21.86	12.16	31.68	53.54	43.84	74.00	54.00	- 10.16	AV

Remark：

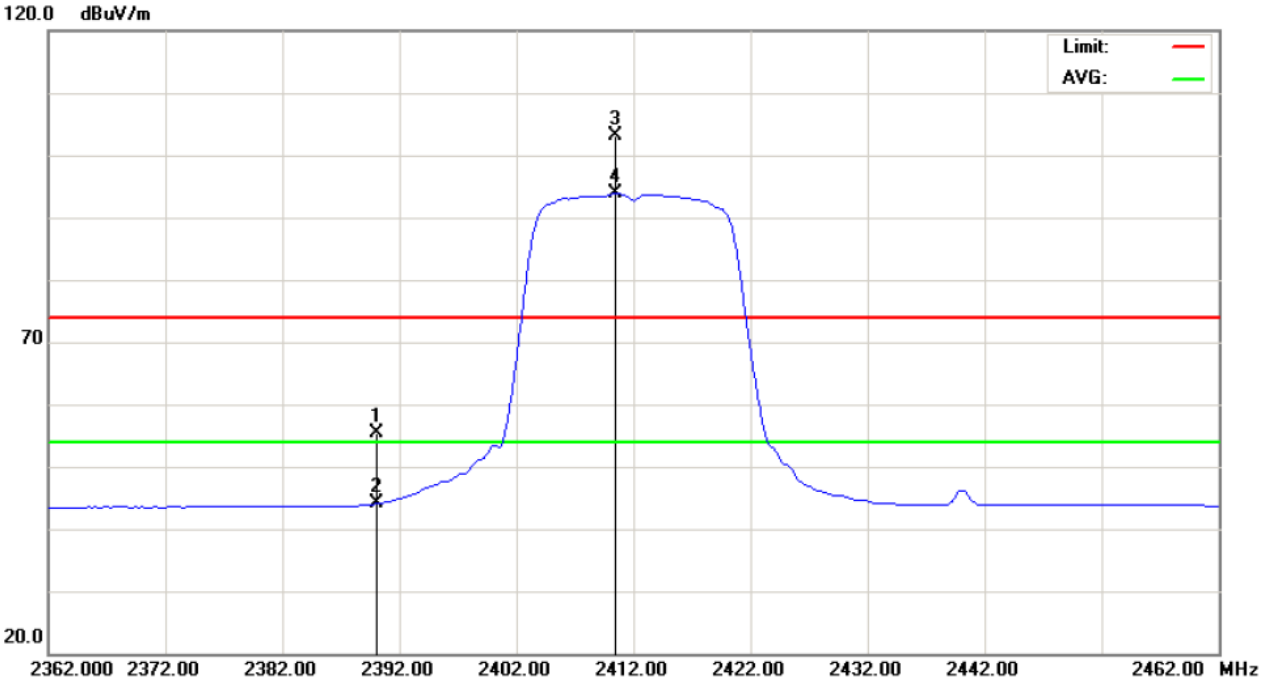
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

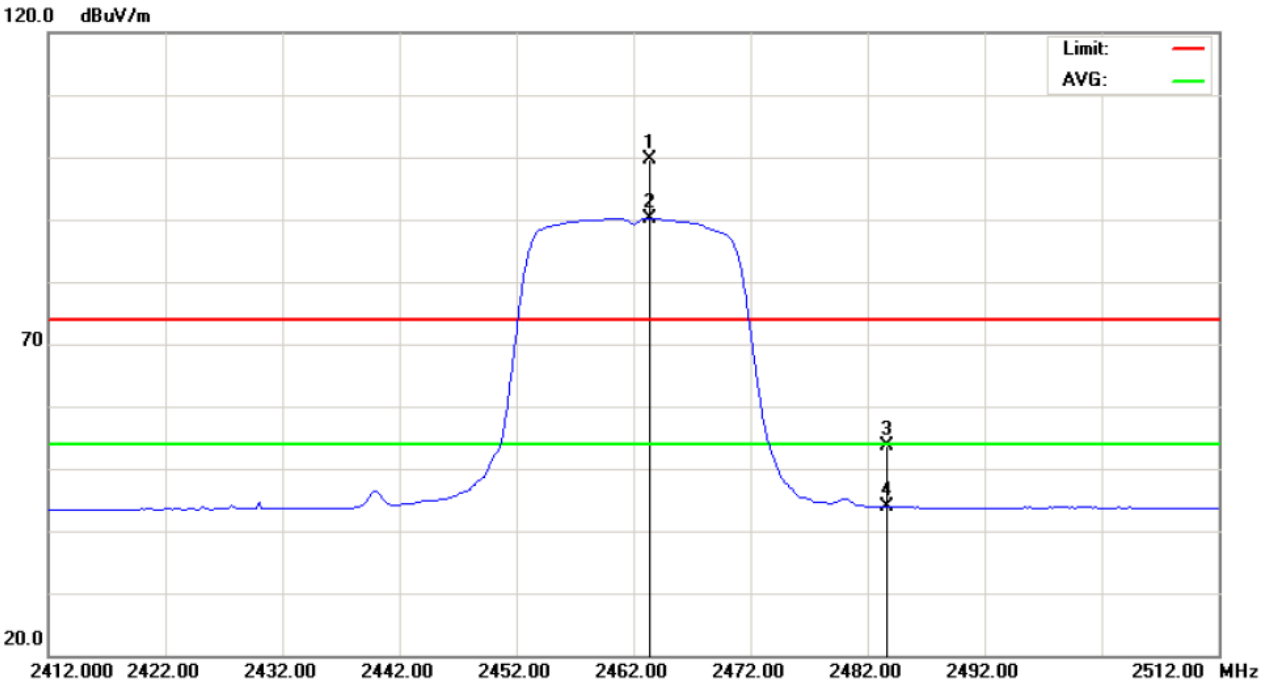
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

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

802.11g (Restricted Bands Requirements, Vertical)





EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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	21.88	12.12	31.26	53.14	43.38	74.00	54.00	- 10.62	AV
2483.500	H	22.60	11.91	31.68	54.28	43.59	74.00	54.00	- 10.41	AV

Remark：

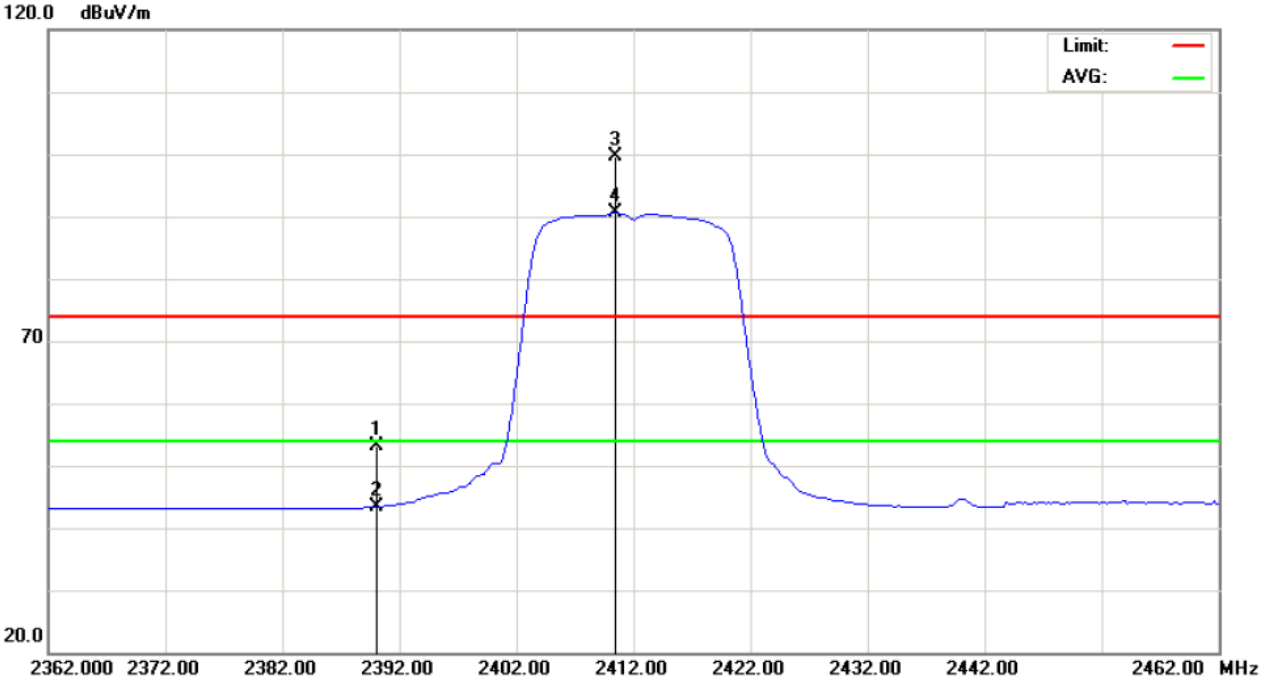
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

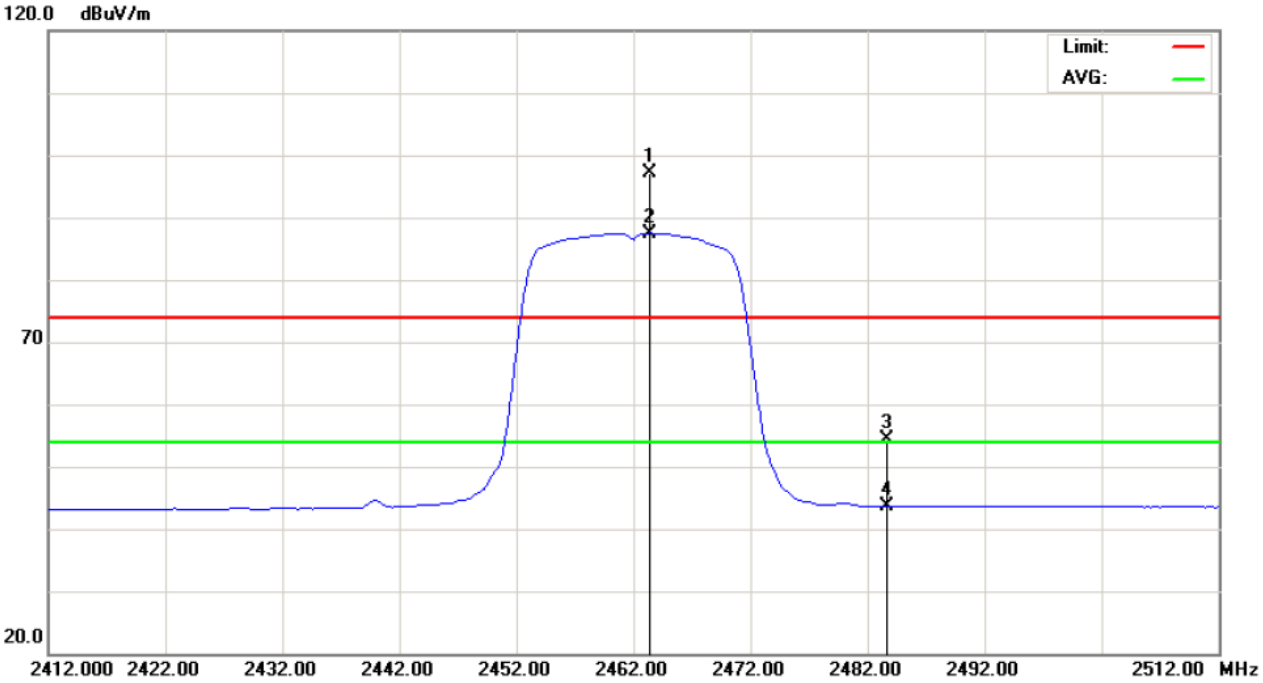
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(3) EUT Orthogonal Axes：

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

802.11g (Restricted Bands Requirements, Horizontal)





EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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	24.12	12.93	31.26	55.38	44.19	74.00	54.00	- 9.81	AV
2483.500	V	21.24	12.18	31.68	52.92	43.86	74.00	54.00	- 10.14	AV

Remark：

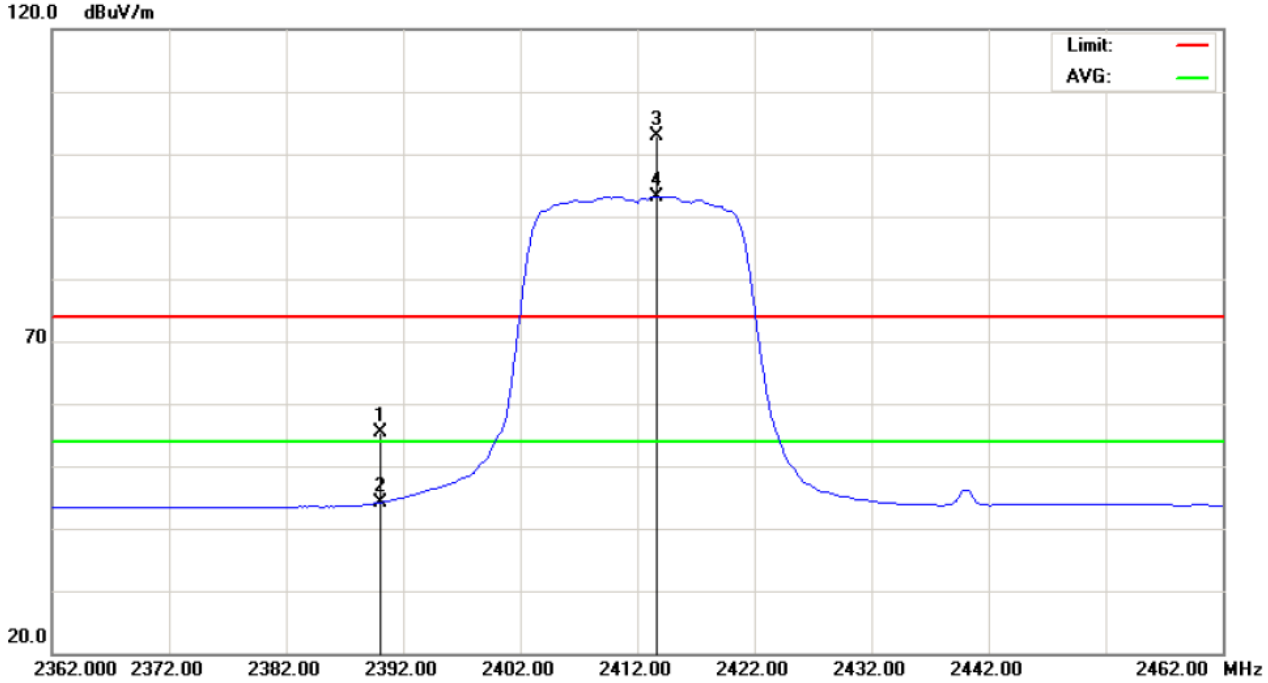
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

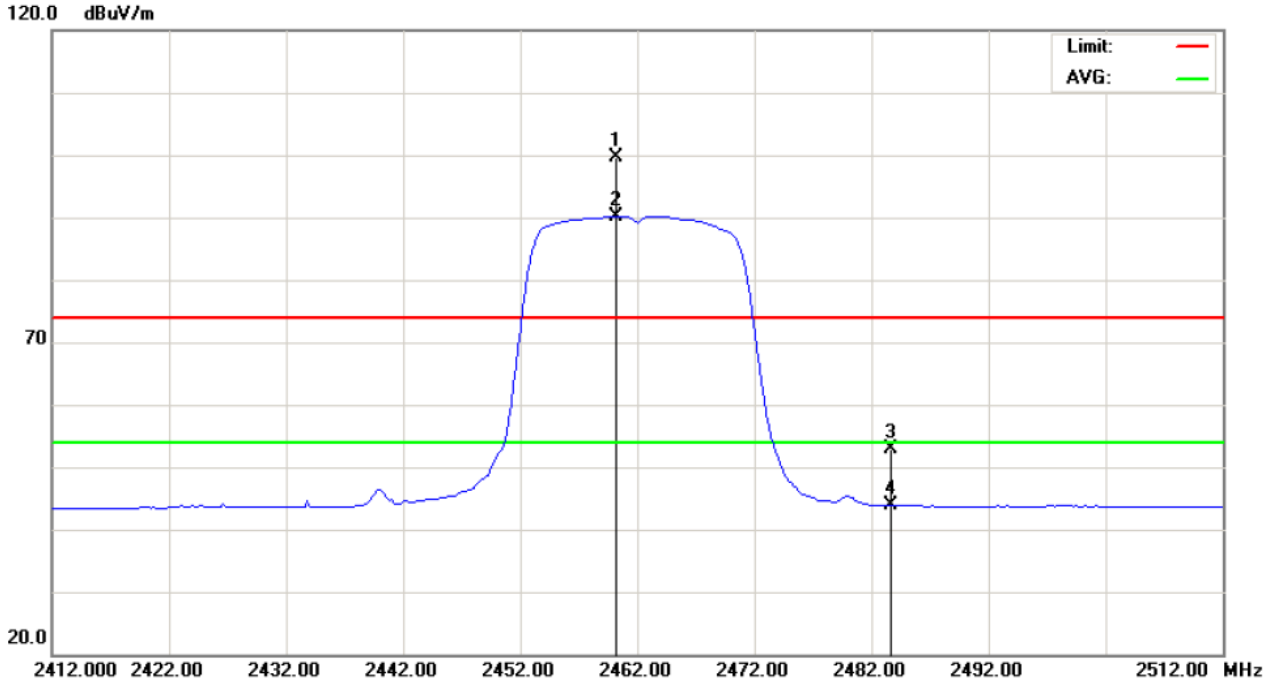
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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. (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		
2390.000	H	22.58	12.27	31.26	53.84	43.53	74.00	54.00	- 10.47	AV
2483.500	H	21.31	11.90	31.68	52.99	43.58	74.00	54.00	- 10.42	AV

Remark：

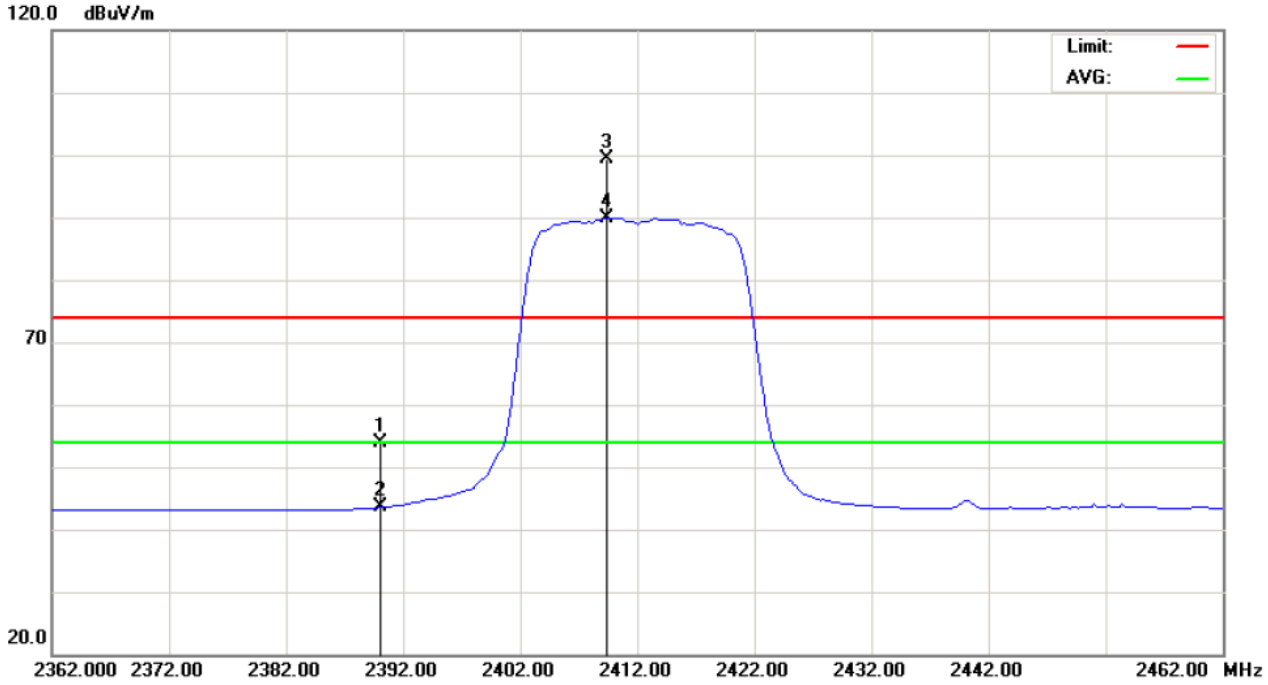
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

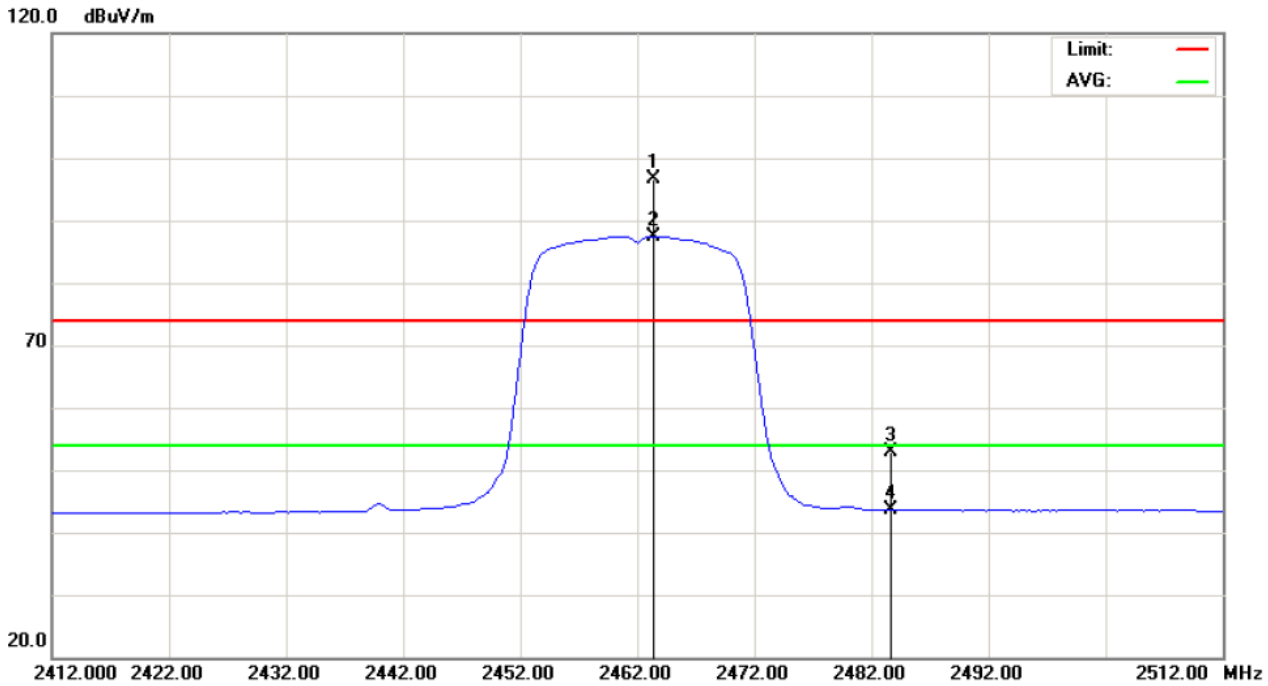
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity :	51%
Test Voltage :	AC 120V/60Hz	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)	
2360.000	V	24.71	16.11	31.13	55.84	47.24	74.00	54.00	- 6.76	AV
2519.900	V	24.12	14.27	31.79	55.91	46.06	74.00	54.00	- 7.94	AV

Remark：

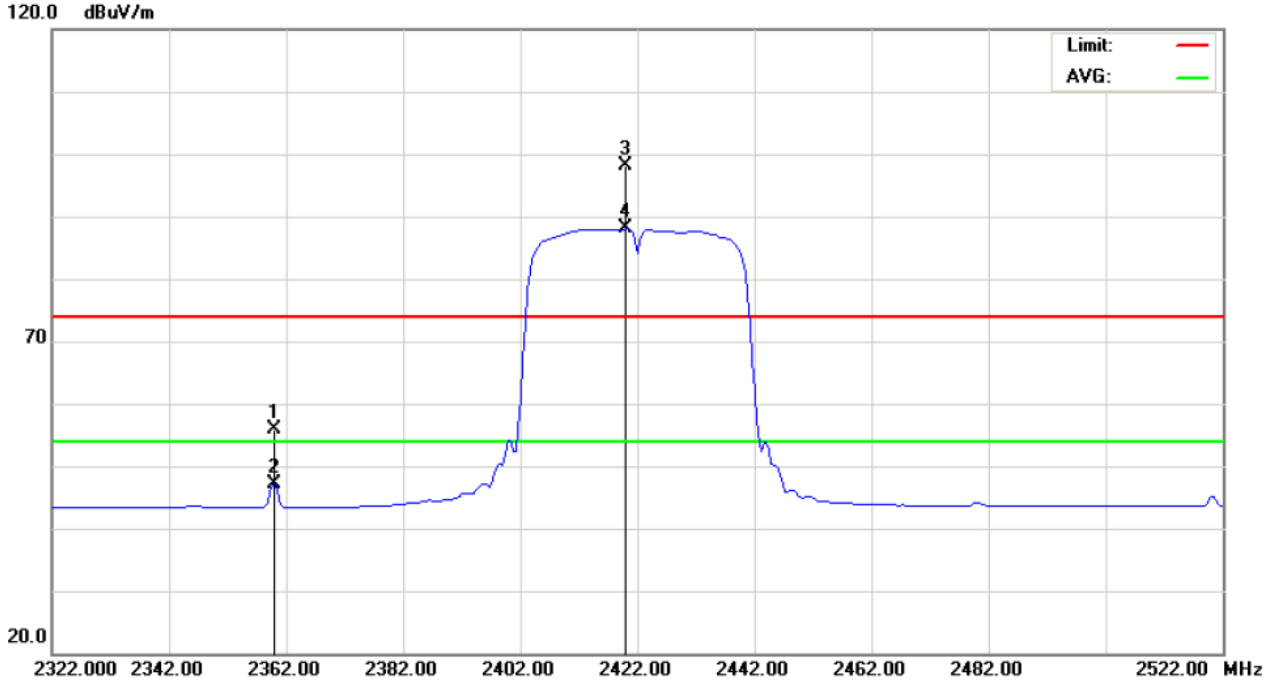
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

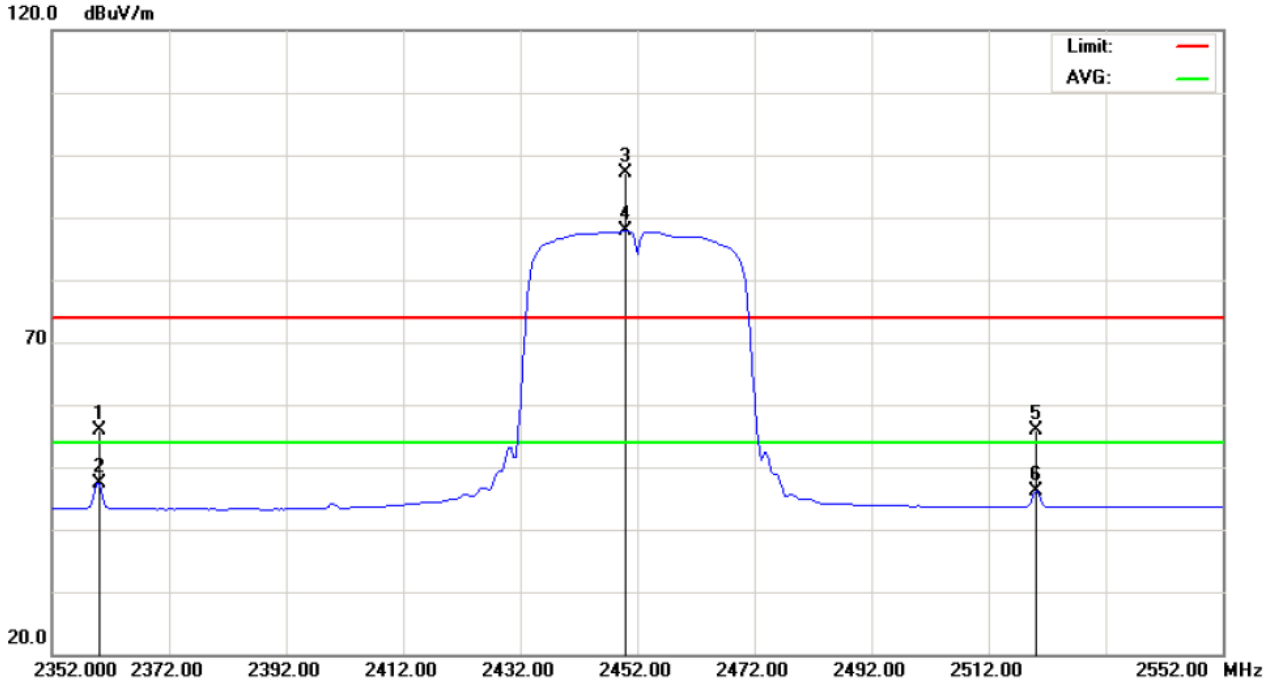
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(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：	Wireless docking	Model Name ：	DC-A11
Temperature：	24°C	Relative Humidity：	51%
Test Voltage：	AC 120V/60Hz	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. (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		
2360.000	H	24.05	14.59	31.13	55.18	45.72	74.00	54.00	- 8.28	AV
2520.000	H	22.92	13.09	31.79	54.71	44.88	74.00	54.00	- 9.12	AV

Remark：

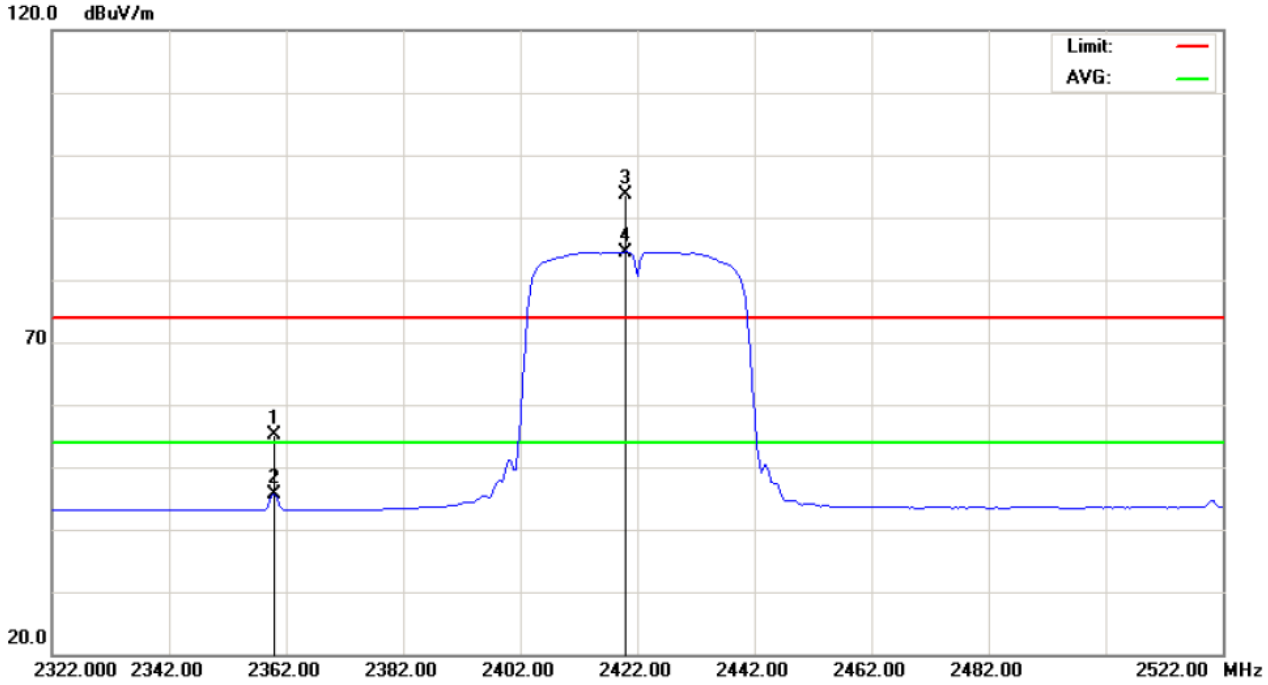
(1) Spectrum Setting : 30MHz – 1000MHz , RBW= 100KHz, VBW=100KHz, Sweep time = 200 ms. 1GHz- 25GHz, RBW= 1MHz, VBW= 1MHz, Sweep time = Auto

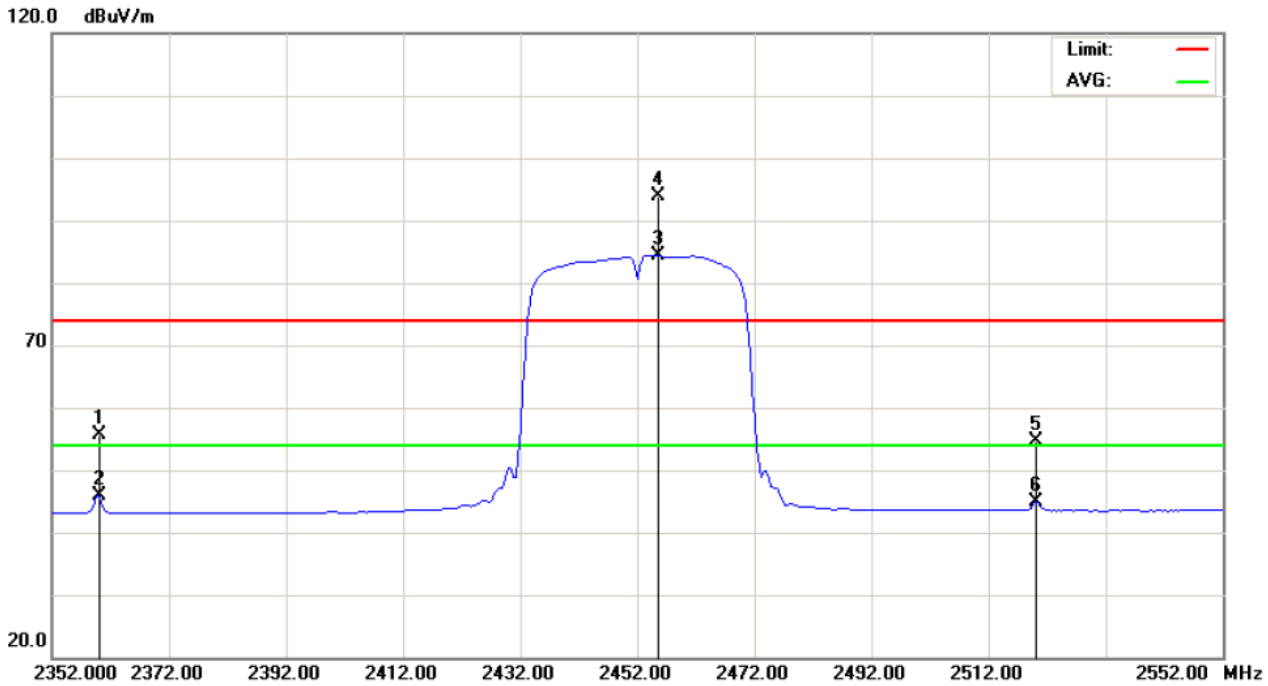
(2) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode and AV detector mode of the emission 。

(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.

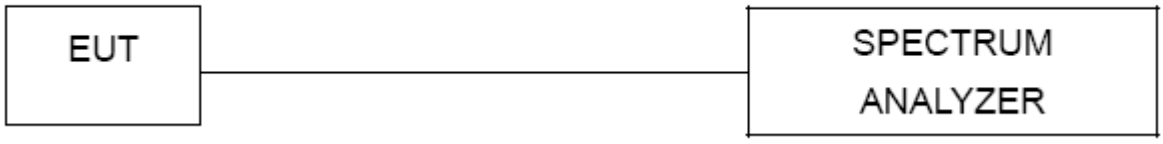
5.1.2 TEST PROCEDURE

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

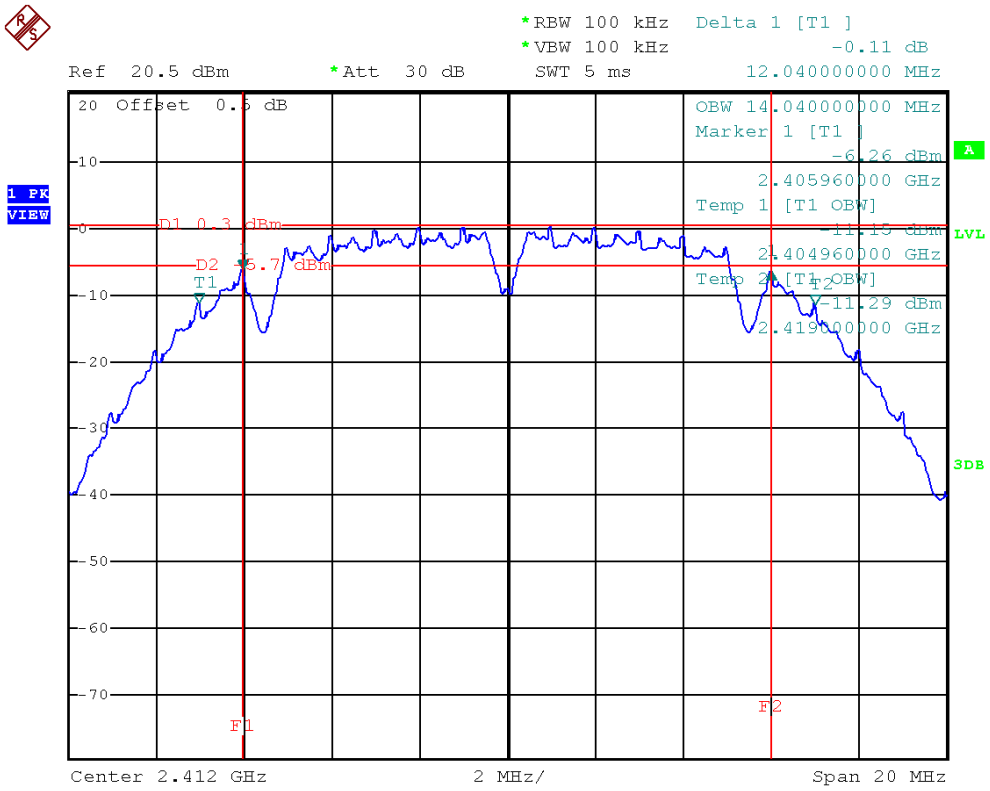
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

5.1.6 TEST RESULTS

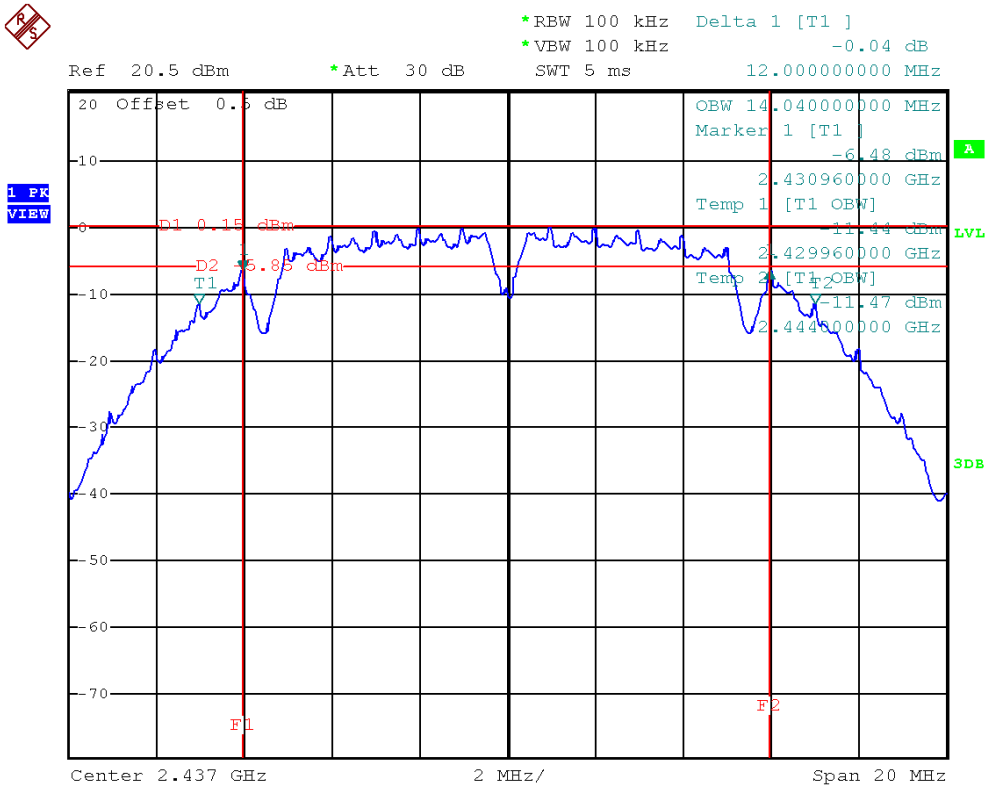
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	12.04	>=500KHz
CH06	2437	12.00	>=500KHz
CH11	2462	12.00	>=500KHz

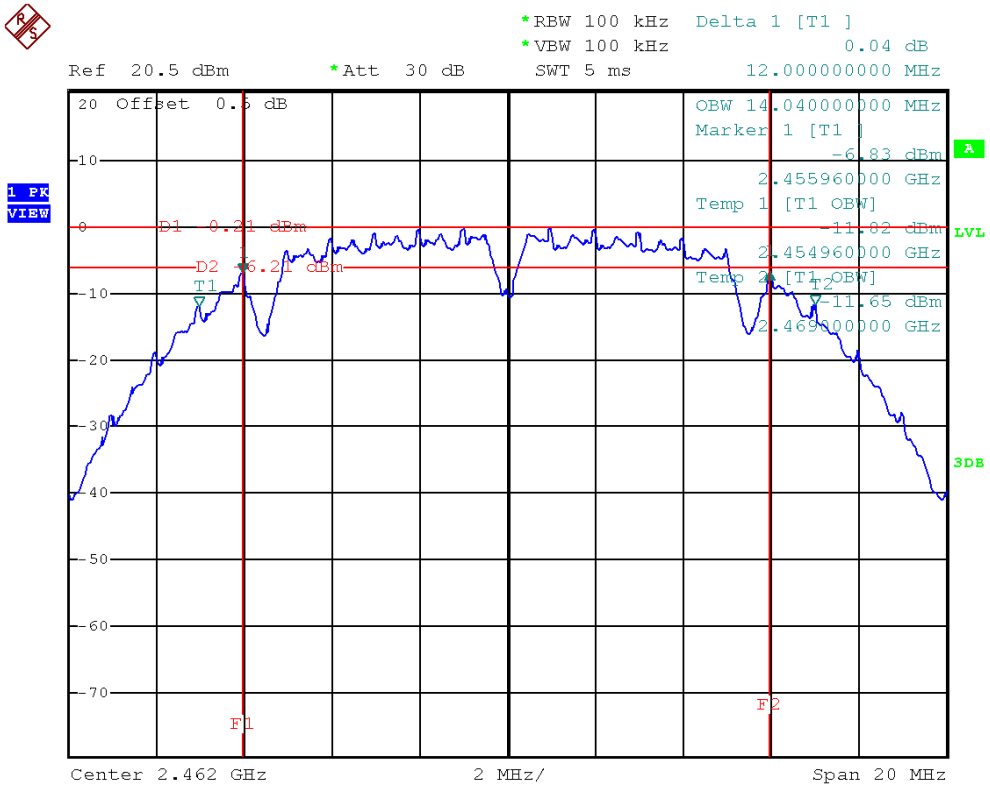
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.04 dB
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
12.000000000 MHz
20 Offset 0.5 dB
OBW 14.040000000 MHz
Marker 1 [T1]
-6.48 dBm
2.430960000 GHz
Temp 1 [T1 OBW]
-11.44 dBm
2.429960000 GHz
Temp 2 [T1 OBW]
-11.47 dBm
2.444000000 GHz
D1 0.15 dBm
D2 -5.85 dBm
T1
F1
F2
1 PK VIEW
A
LVL
3DB
Center 2.437 GHz
2 MHz/
Span 20 MHz

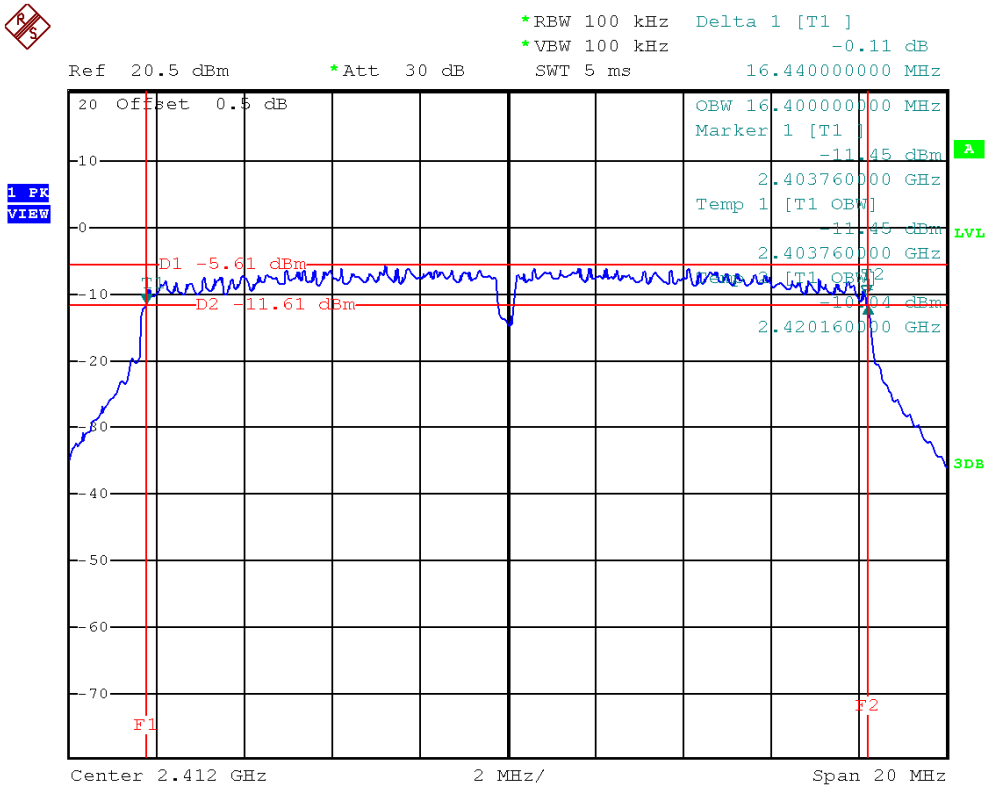
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
0.04 dB
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
12.000000000 MHz
20 Offset 0.5 dB
OBW 14.040000000 MHz
Marker 1 [T1]
-6.83 dBm
2.455960000 GHz
Temp 1 [T1 OBW]
-11.82 dBm
2.454960000 GHz
Temp 2 [T1 OBW]
-11.65 dBm
2.469000000 GHz
D1 0.21 dBm
D2 -6.21 dBm
T1
F1
F2
1 PK VIEW
A
LVL
3DB
Center 2.462 GHz
2 MHz/
Span 20 MHz

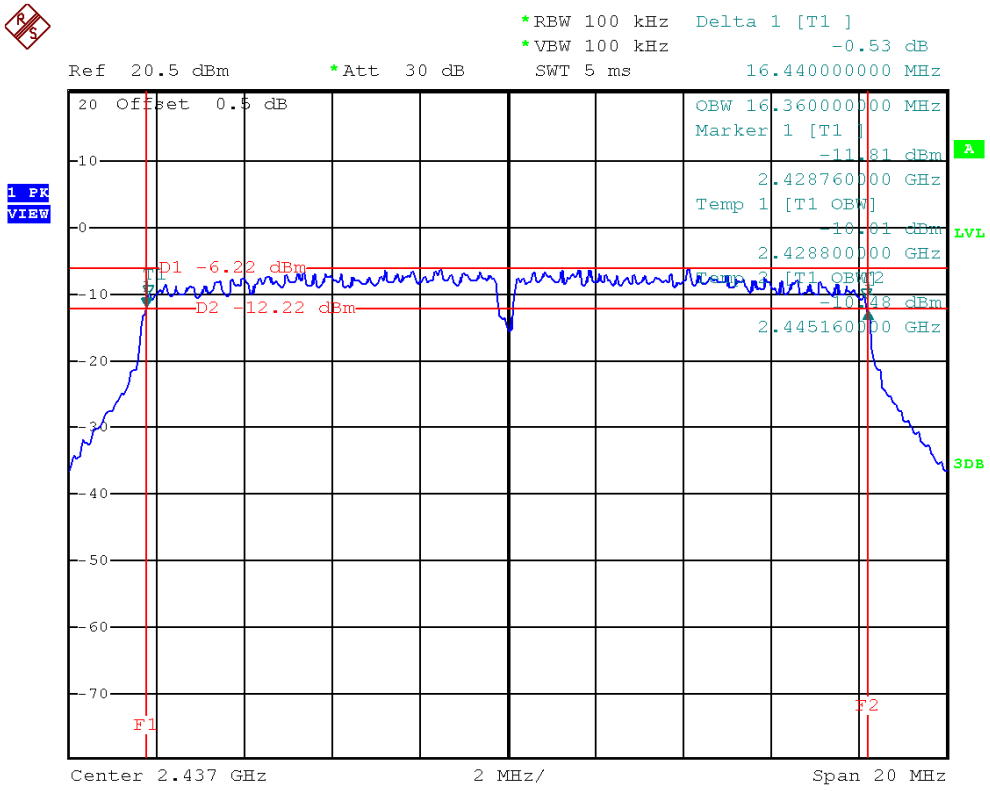
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	16.44	>=500KHz
CH06	2437	16.44	>=500KHz
CH11	2462	16.44	>=500KHz

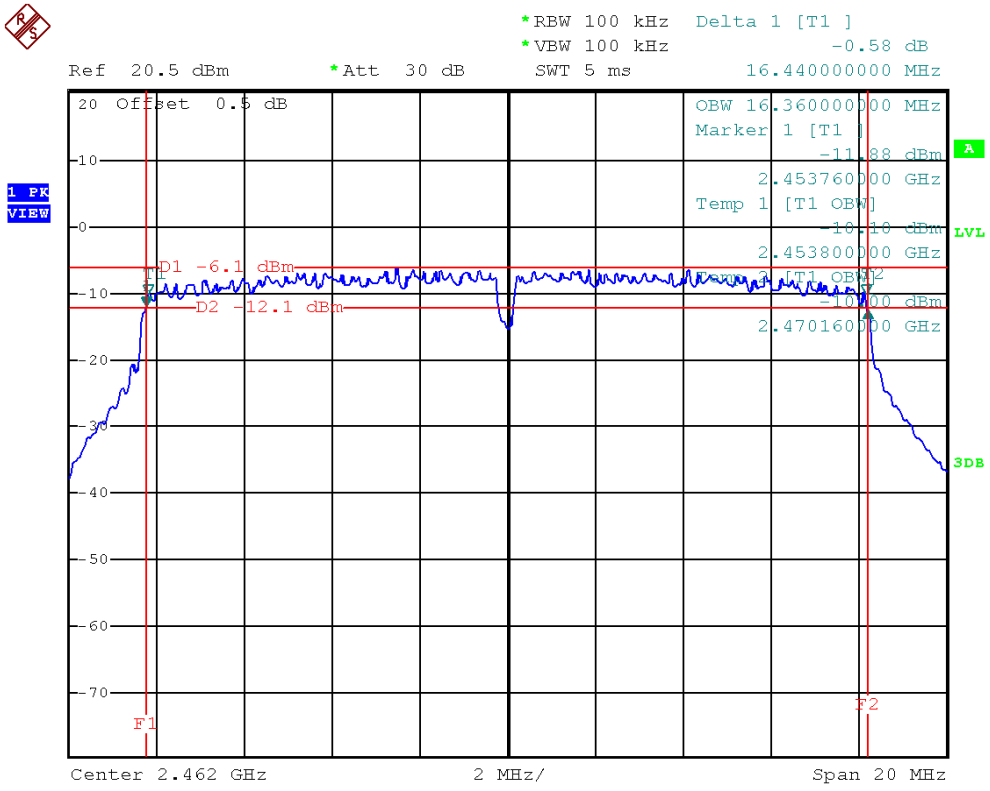
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.53 dB
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
16.440000000 MHz
20 Offset 0.5 dB
OBW 16.360000000 MHz
Marker 1 [T1]
-11.81 dBm
2.428760000 GHz
Temp 1 [T1 OBW]
-10.01 dBm
2.428800000 GHz
D1 -6.22 dBm
D2 -12.22 dBm
Temp 2 [T1 OBW2
-10.48 dBm
2.445160000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

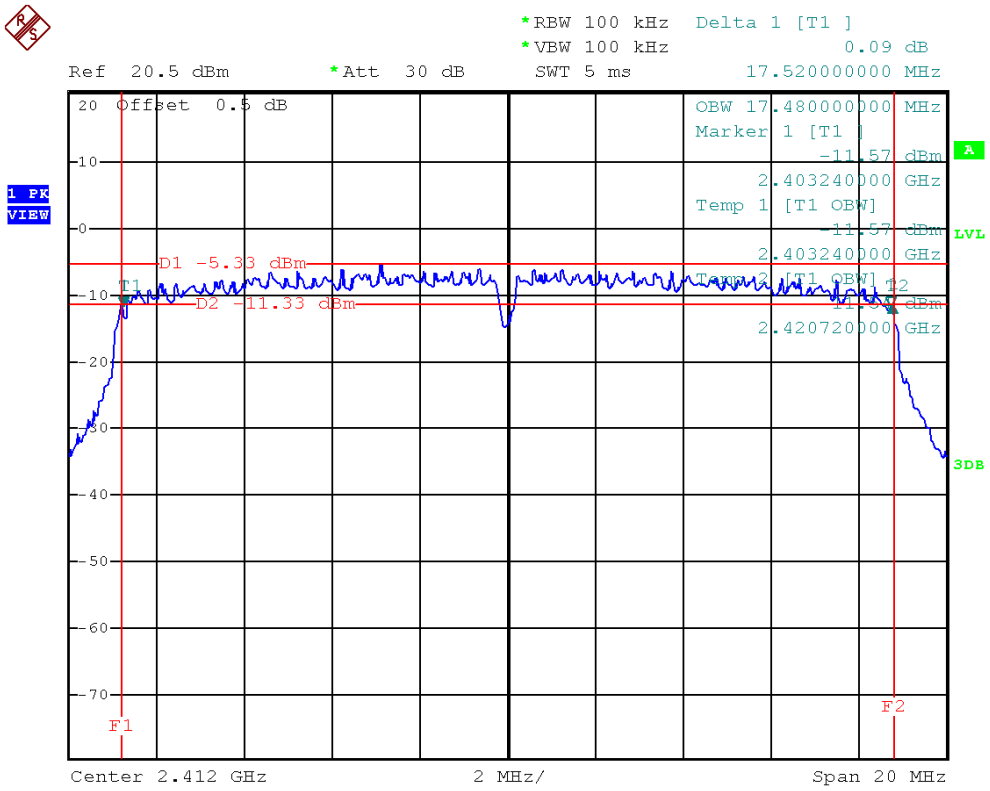
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.58 dB
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
16.440000000 MHz
20 Offset 0.5 dB
OBW 16.360000000 MHz
Marker 1 [T1]
-11.88 dBm
2.453760000 GHz
Temp 1 [T1 OBW]
-10.10 dBm
2.453800000 GHz
D1 -6.1 dBm
D2 -12.1 dBm
Temp 2 [T1 OBW2
-10.00 dBm
2.470160000 GHz
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

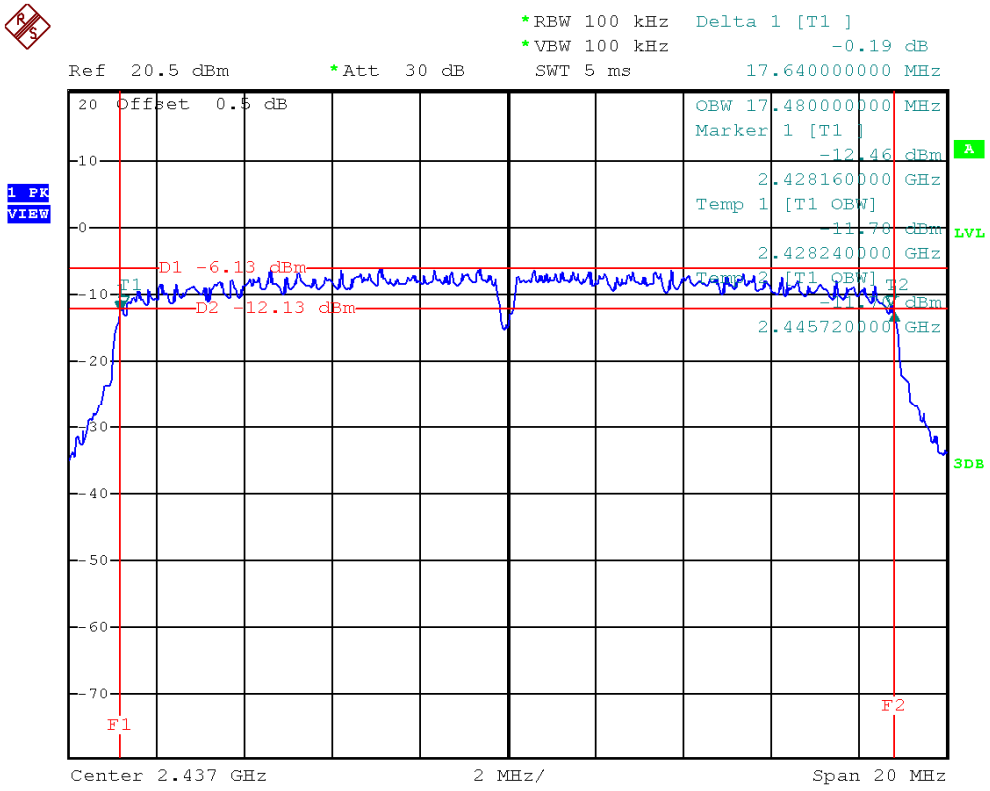
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH01	2412	17.52	>=500KHz
CH06	2437	17.64	>=500KHz
CH11	2462	17.52	>=500KHz

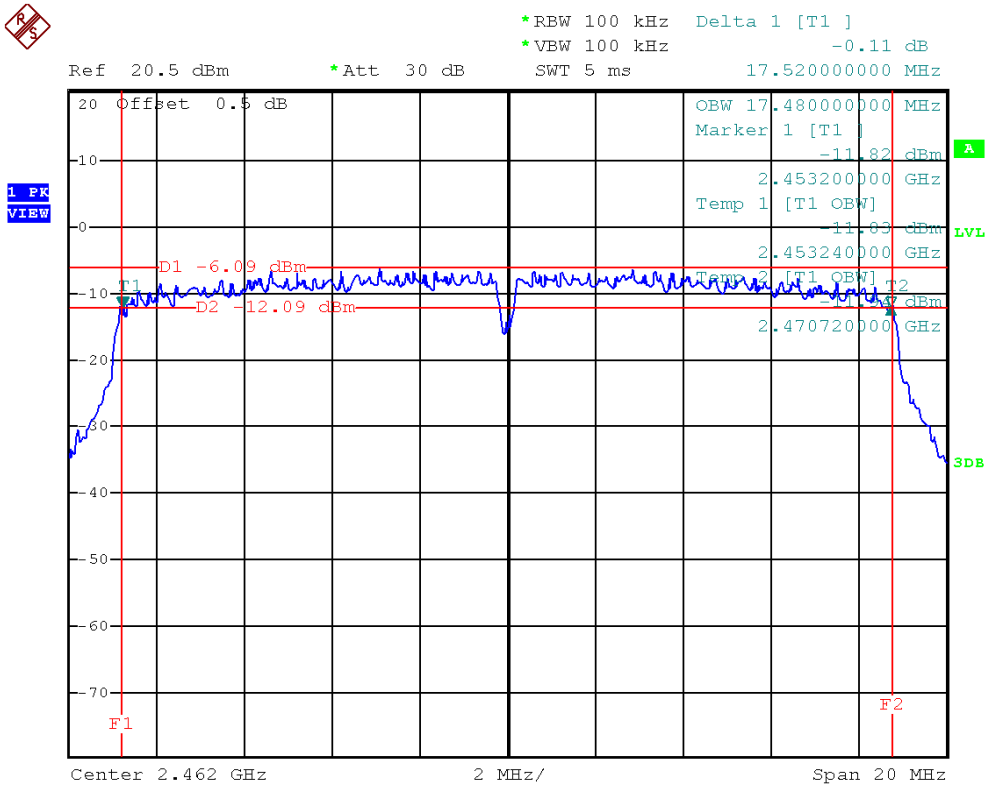
CH01



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.19 dB
17.640000000 MHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
20 Offset 0.5 dB
OBW 17.480000000 MHz
Marker 1 [T1]
-12.46 dBm
2.428160000 GHz
Temp 1 [T1 OBW]
-11.70 dBm
2.428240000 GHz
Temp 2 [T1 OBW]
2.445720000 GHz
D1 -6.13 dBm
D2 -12.13 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.437 GHz
2 MHz/
Span 20 MHz

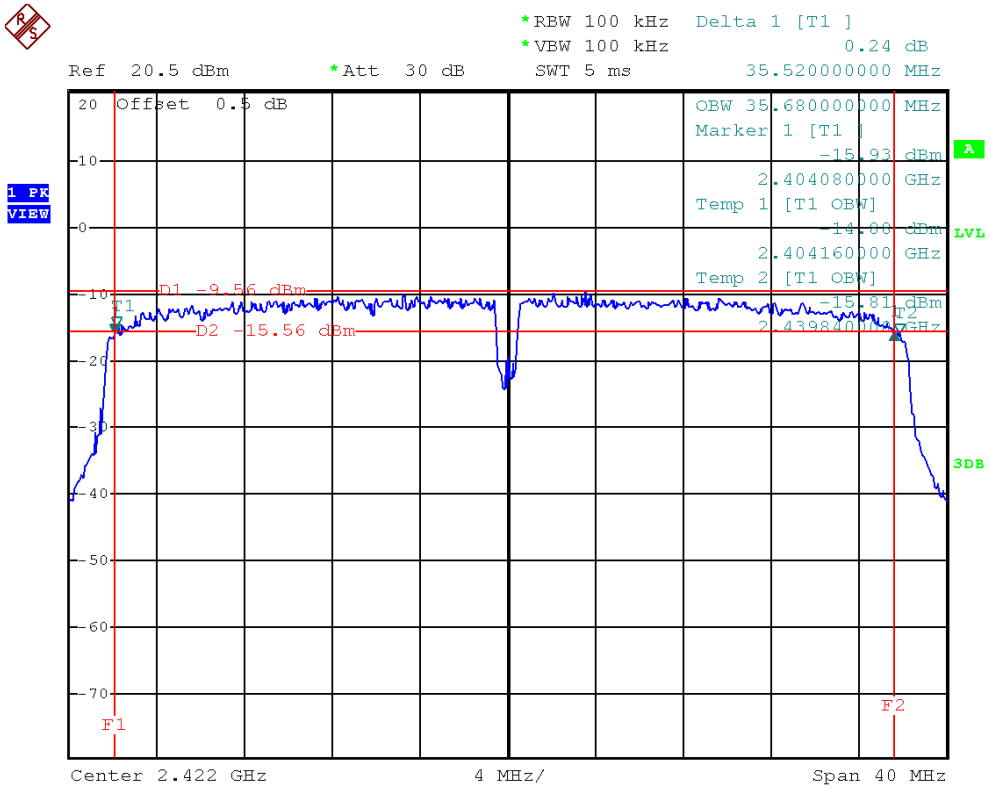
CH11


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.11 dB
17.520000000 MHz
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
20 Offset 0.5 dB
OBW 17.480000000 MHz
Marker 1 [T1]
-11.82 dBm
2.453200000 GHz
Temp 1 [T1 OBW]
-11.03 dBm
2.453240000 GHz
Temp 2 [T1 OBW]
2.470720000 GHz
D1 -6.09 dBm
D2 -12.09 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.462 GHz
2 MHz/
Span 20 MHz

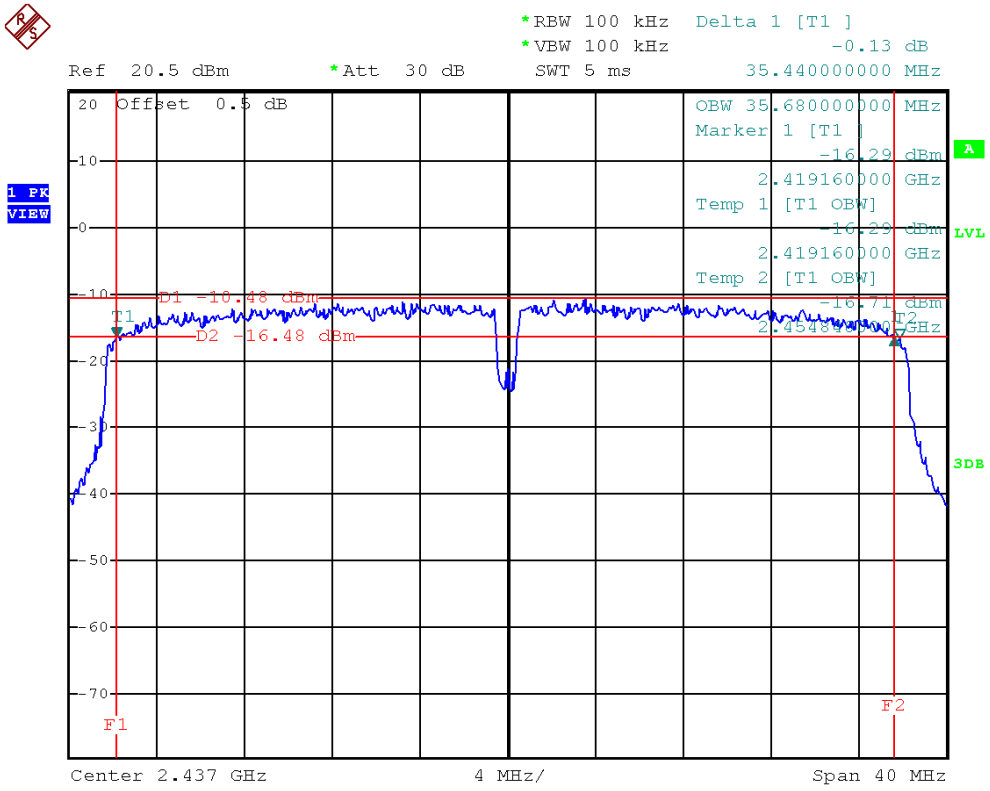
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Bandwidth (MHz)	LIMIT (MHz)
CH03	2422	35.52	>=500KHz
CH06	2437	35.44	>=500KHz
CH09	2452	35.52	>=500KHz

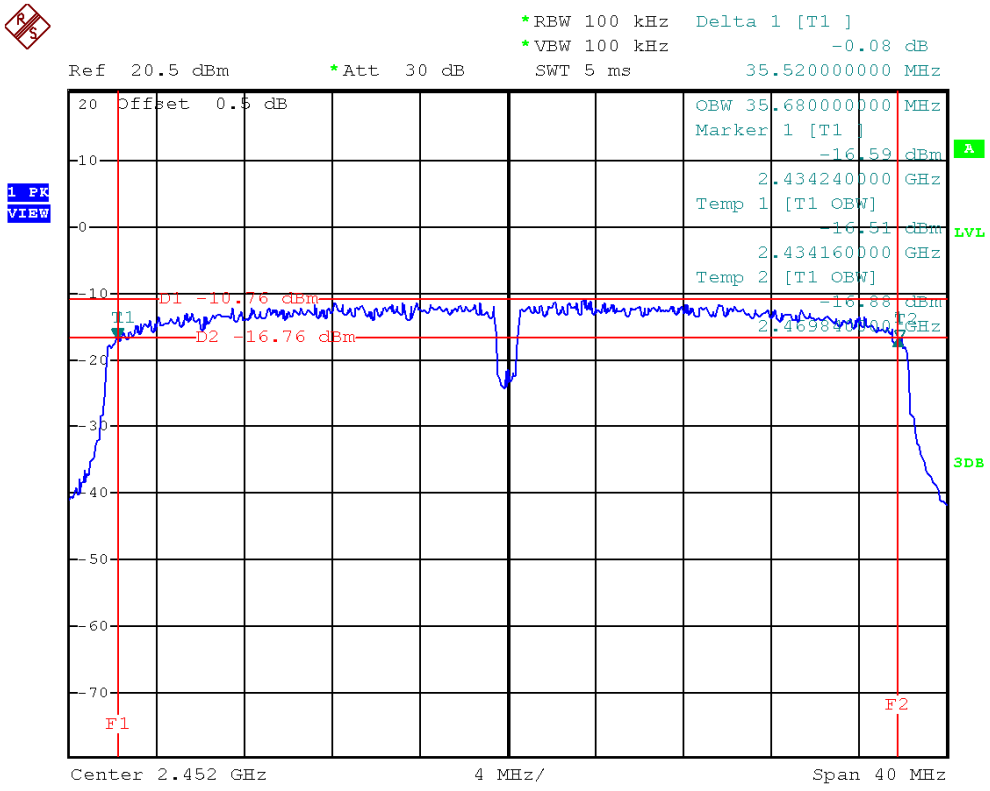
CH03



CH06


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.13 dB
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
35.440000000 MHz
Offset 0.5 dB
OBW 35.680000000 MHz
Marker 1 [T1]
-16.29 dBm
2.419160000 GHz
Temp 1 [T1 OBW]
-16.29 dBm
2.419160000 GHz
Temp 2 [T1 OBW]
-16.71 dBm
D1 -10.48 dBm
D2 -16.48 dBm
T1
T2
F1
F2
1 PK VIEW
A
LVL
3DB
Center 2.437 GHz
4 MHz/
Span 40 MHz

CH09


*RBW 100 kHz
*VBW 100 kHz
Delta 1 [T1]
-0.08 dB
Ref 20.5 dBm
*Att 30 dB
SWT 5 ms
35.520000000 MHz
Offset 0.5 dB
OBW 35.680000000 MHz
Marker 1 [T1]
-16.59 dBm
2.434240000 GHz
Temp 1 [T1 OBW]
-16.51 dBm
2.434160000 GHz
Temp 2 [T1 OBW]
-16.88 dBm
D1 -10.76 dBm
D2 -16.76 dBm
T1
T2
F1
F2
1 PK VIEW
A
LVL
3DB
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.

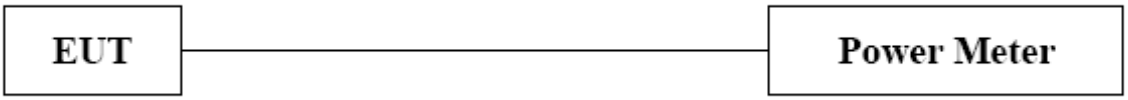
6.1.2 TEST PROCEDURE

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：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	15.40	30	1
CH06	2437	15.16	30	1
CH11	2462	15.47	30	1

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	19.60	30	1
CH06	2437	19.55	30	1
CH11	2462	20.59	30	1

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH01	2412	18.83	30	1
CH06	2437	17.56	30	1
CH11	2462	17.66	30	1

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH03	2422	16.40	30	1
CH06	2437	16.15	30	1
CH09	2452	16.33	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.

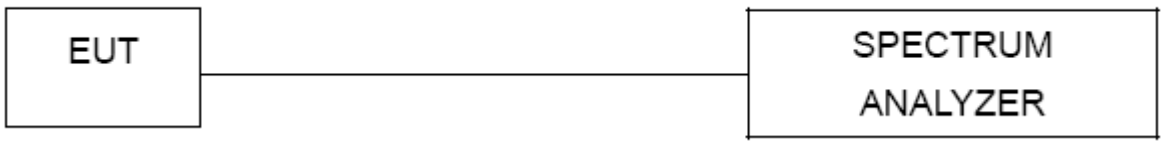
7.1.2 TEST PROCEDURE

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

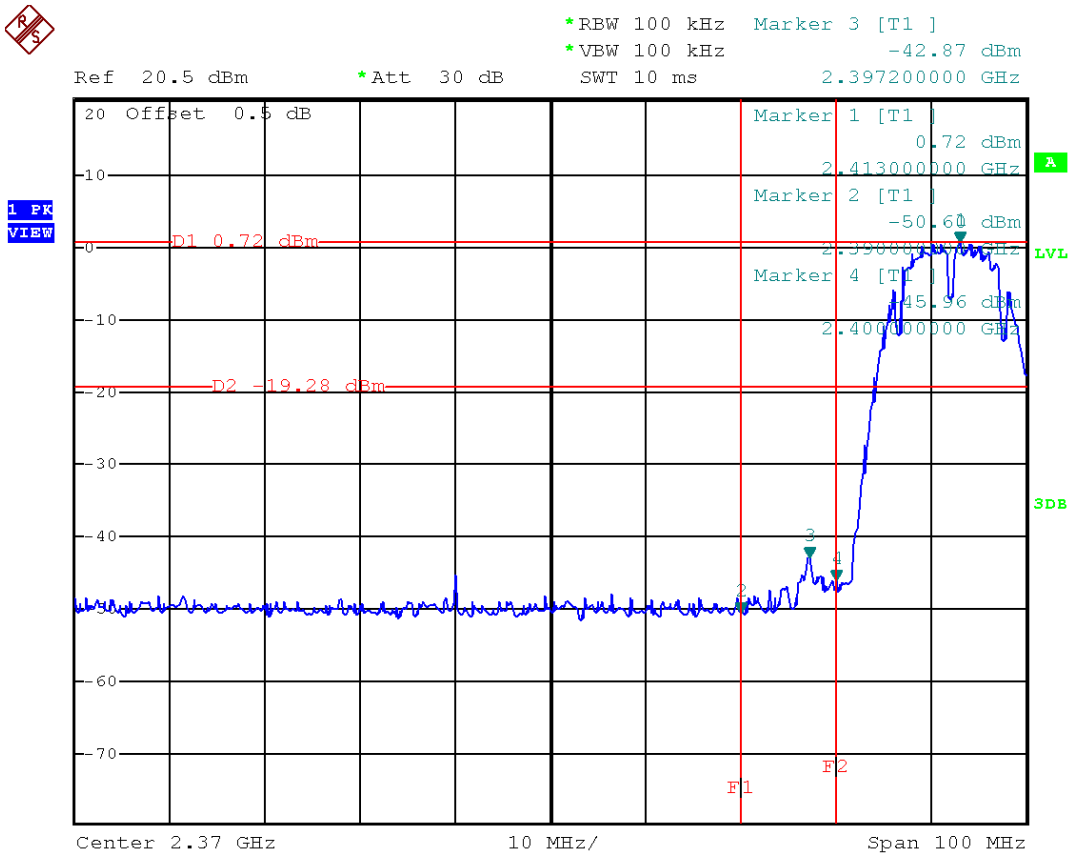
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

7.1.6 TEST RESULTS

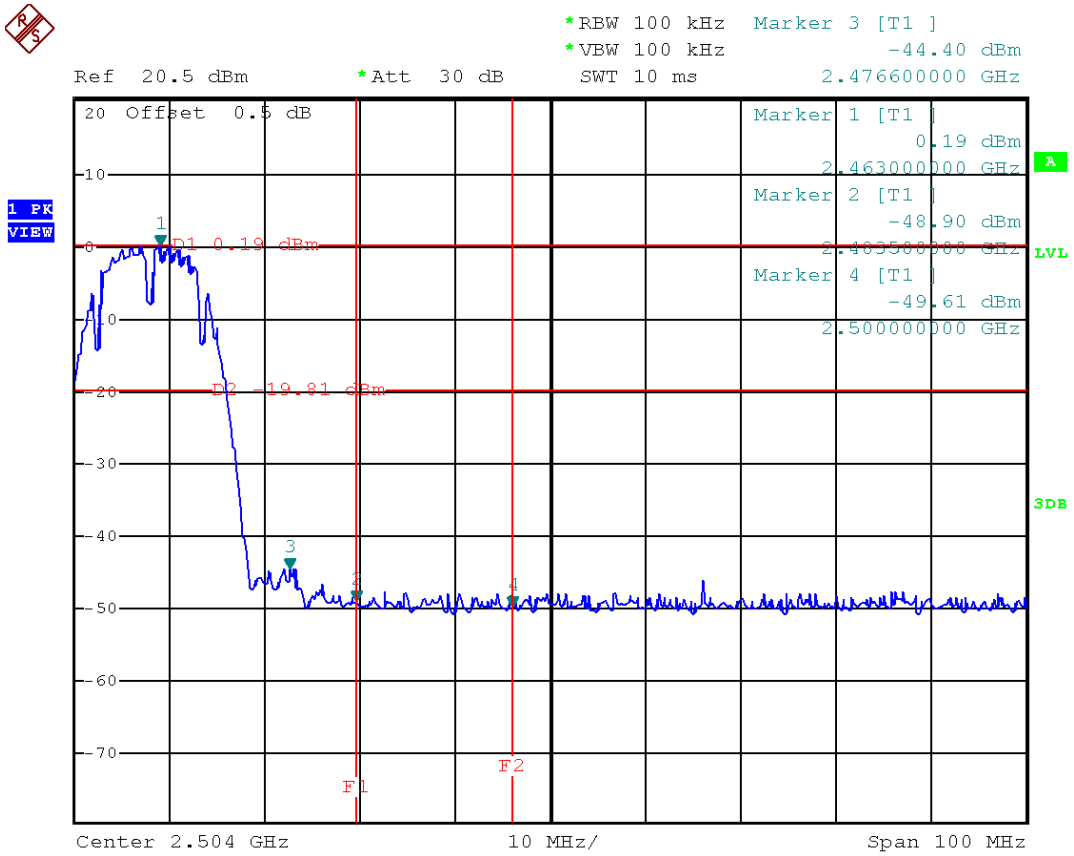
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b/CH01, CH11		

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)
2397.2	-42.87	2476.6	-44.40
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.			

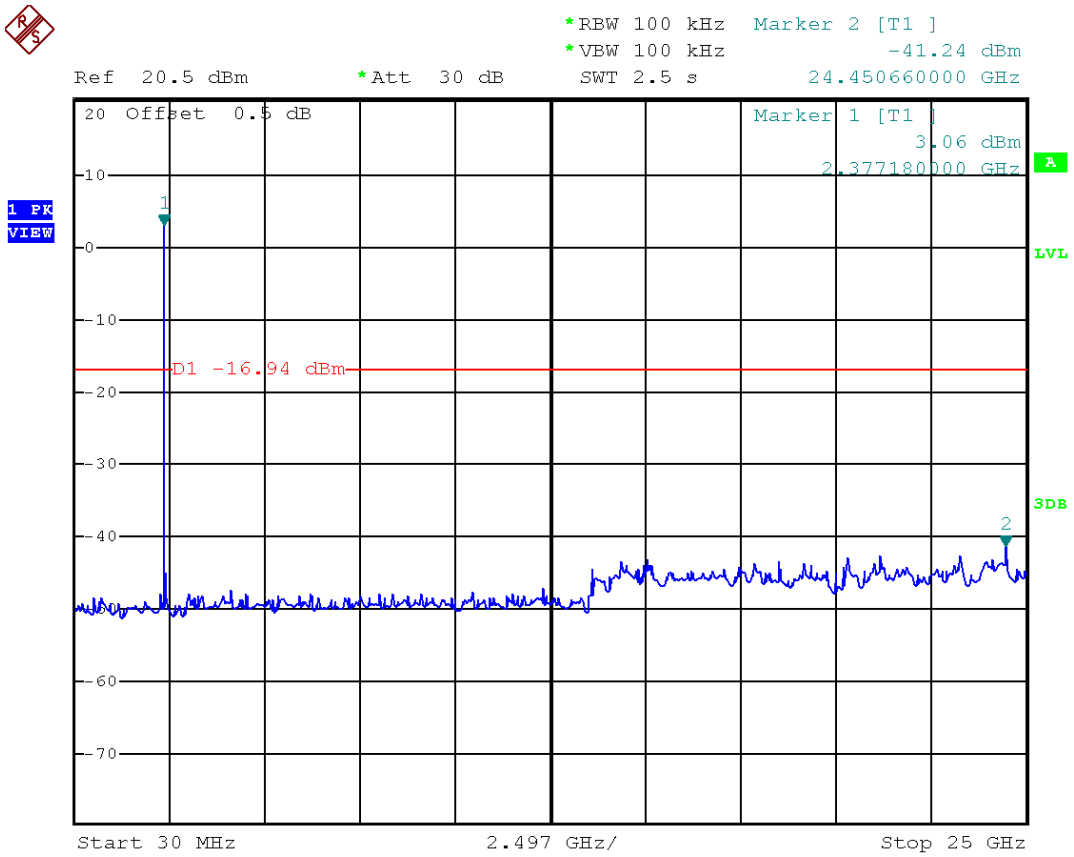
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-42.87 dBm
2.397200000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
0.72 dBm
2.413000000 GHz
Marker 2 [T1]
-50.60 dBm
Marker 4 [T1]
-45.96 dBm
2.400000000 GHz
1 PK VIEW
D1 0.72 dBm
D2 -19.28 dBm
A
LVL
3DB
F1
F2
Center 2.37 GHz
10 MHz/
Span 100 MHz

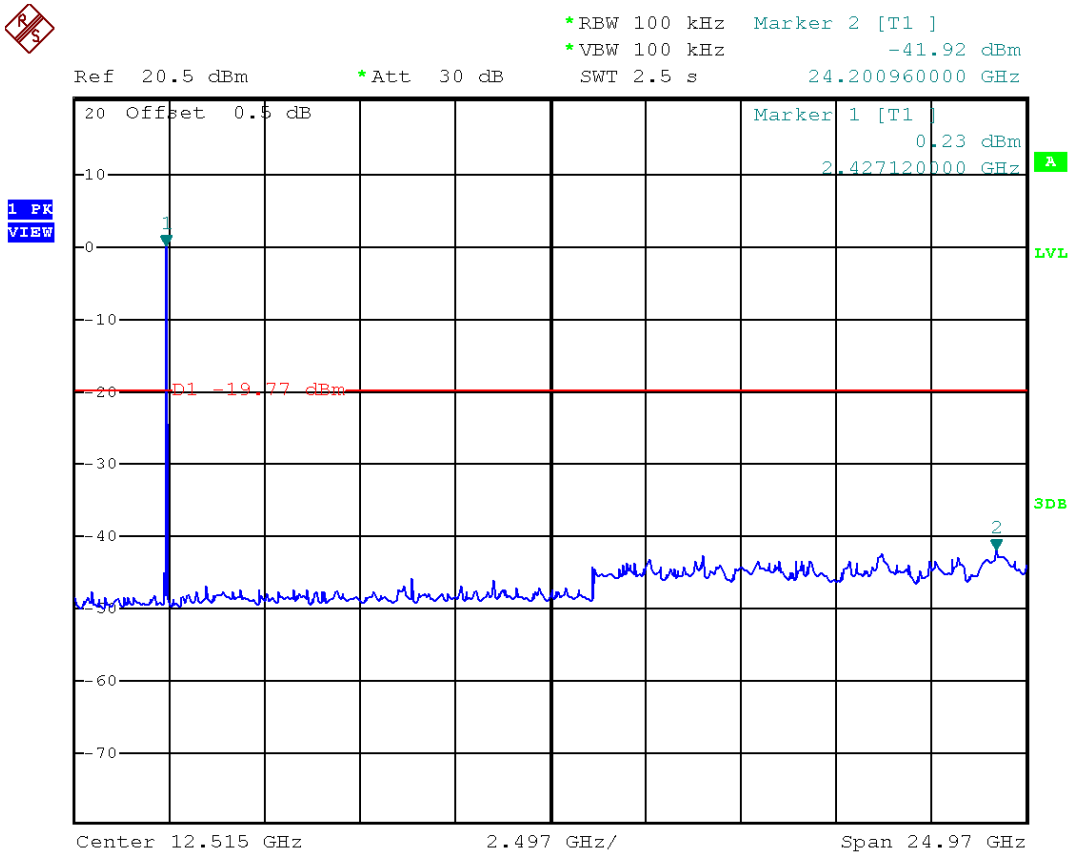
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-44.40 dBm
2.476600000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
0.19 dBm
2.463000000 GHz
Marker 2 [T1]
-48.90 dBm
Marker 4 [T1]
-49.61 dBm
2.500000000 GHz
1 PK VIEW
D1 0.19 dBm
D2 -19.81 dBm
A
LVL
3DB
F1
F2
Center 2.504 GHz
10 MHz/
Span 100 MHz

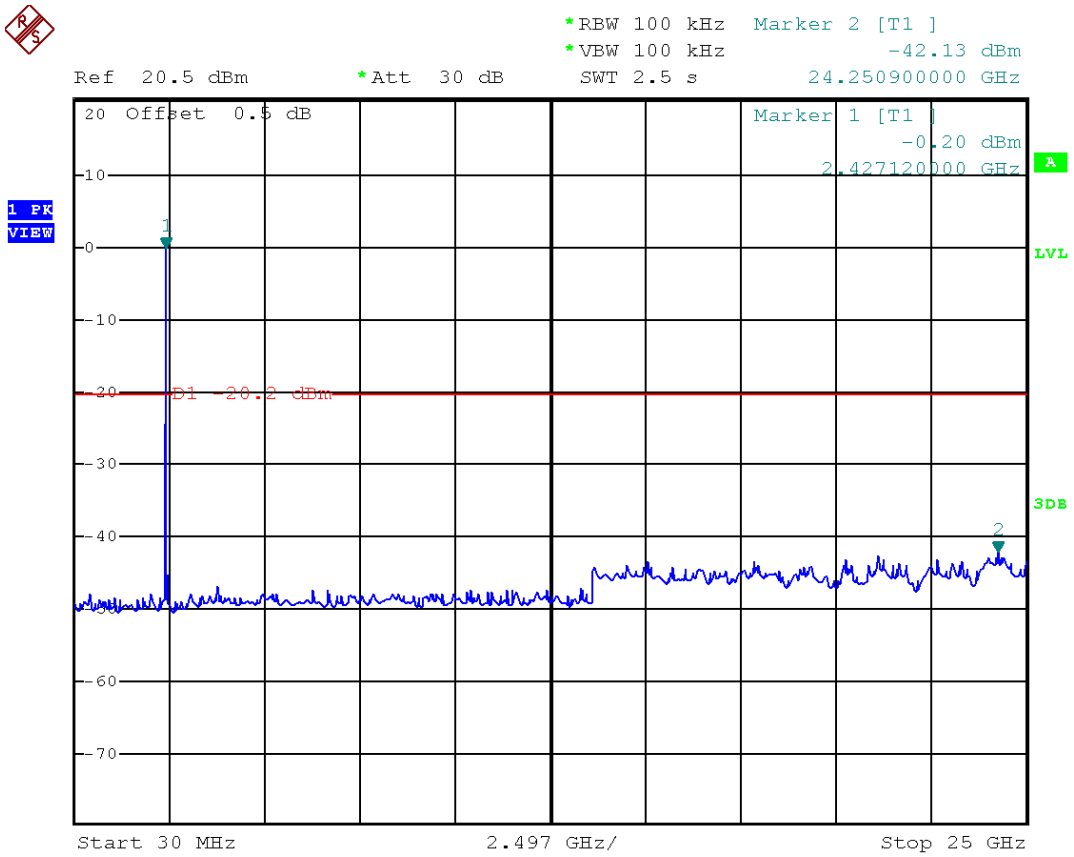
CH01


*RBW 100 kHz
Marker 2 [T1]
*VBW 100 kHz
-41.24 dBm
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
24.450660000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
3.06 dBm
2.377180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -16.94 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH06


*RBW 100 kHz
Marker 2 [T1]
*VBW 100 kHz
-41.92 dBm
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
24.200960000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
0.23 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -19.77 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

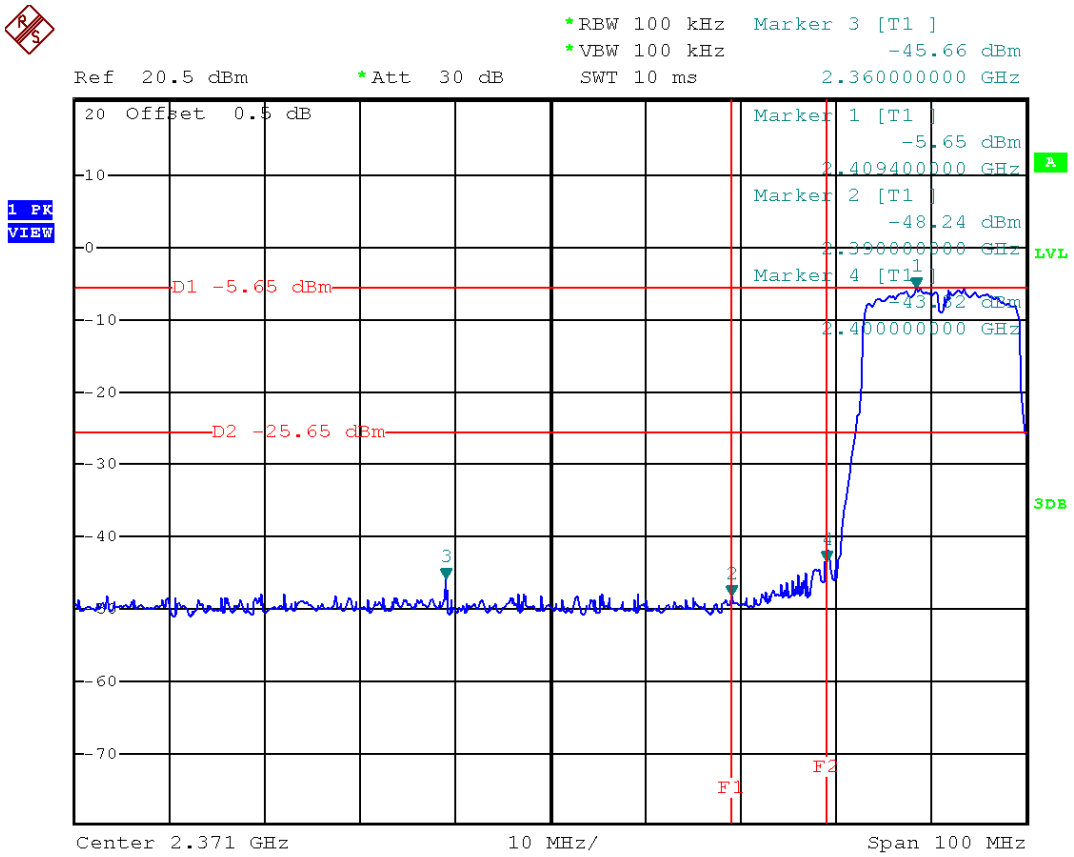
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-42.13 dBm
24.250900000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-0.20 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -20.2 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

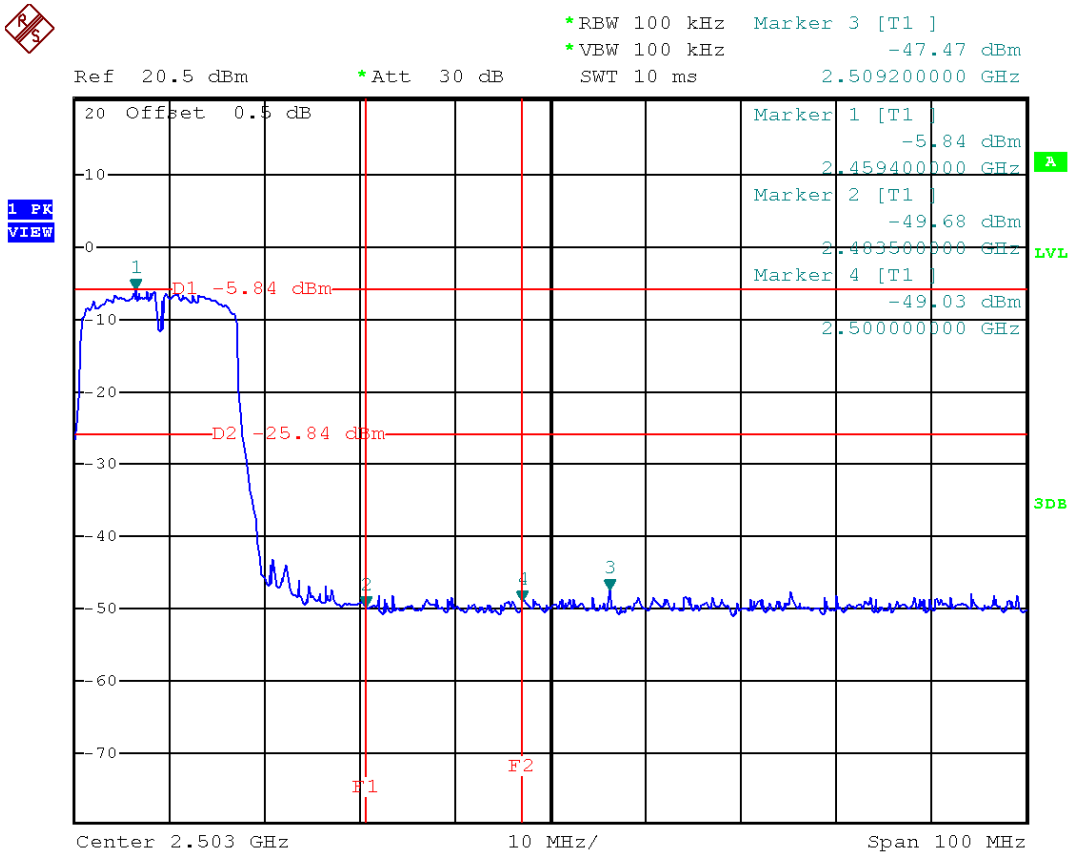
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g/CH01, CH11		

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)
2360.0	-45.66	2509.2	-47.47
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.			

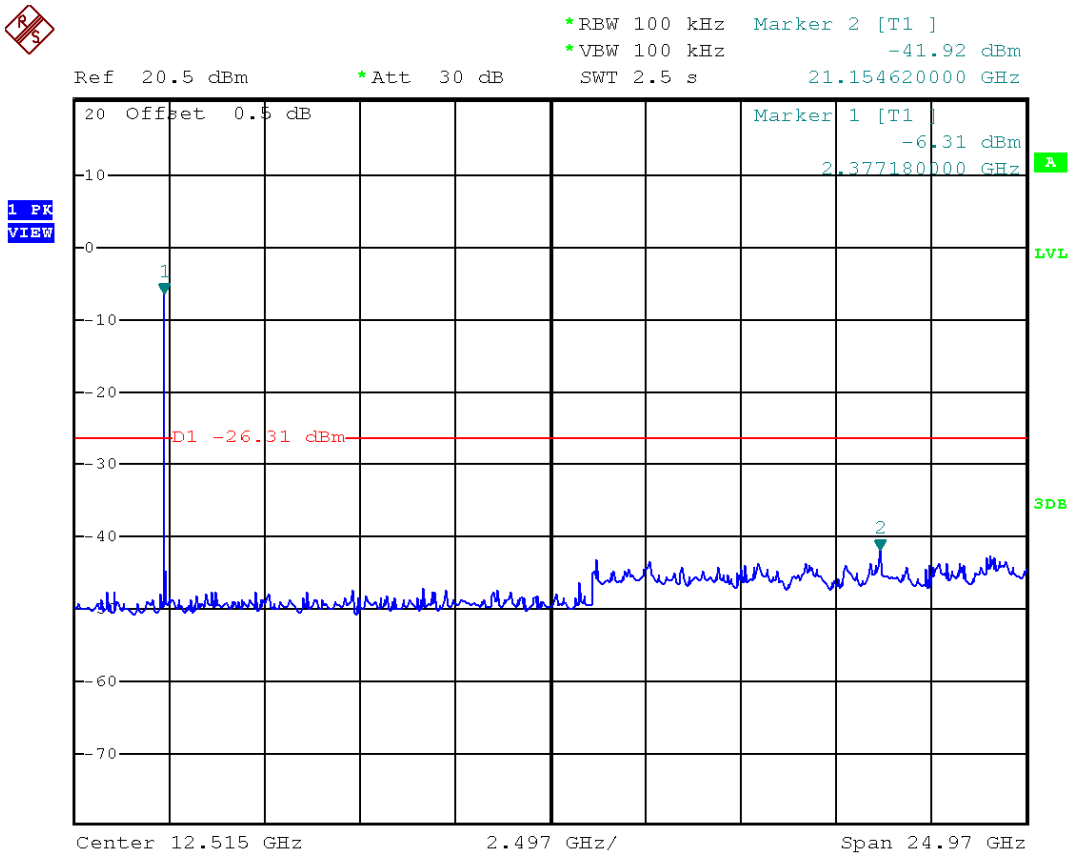
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-45.66 dBm
2.360000000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-5.65 dBm
2.409400000 GHz
Marker 2 [T1]
-48.24 dBm
2.390000000 GHz
Marker 4 [T1]
-43.02 dBm
2.400000000 GHz
1 PK VIEW
A
LVL
3DB
D1 -5.65 dBm
D2 -25.65 dBm
F1
F2
Center 2.371 GHz
10 MHz/
Span 100 MHz

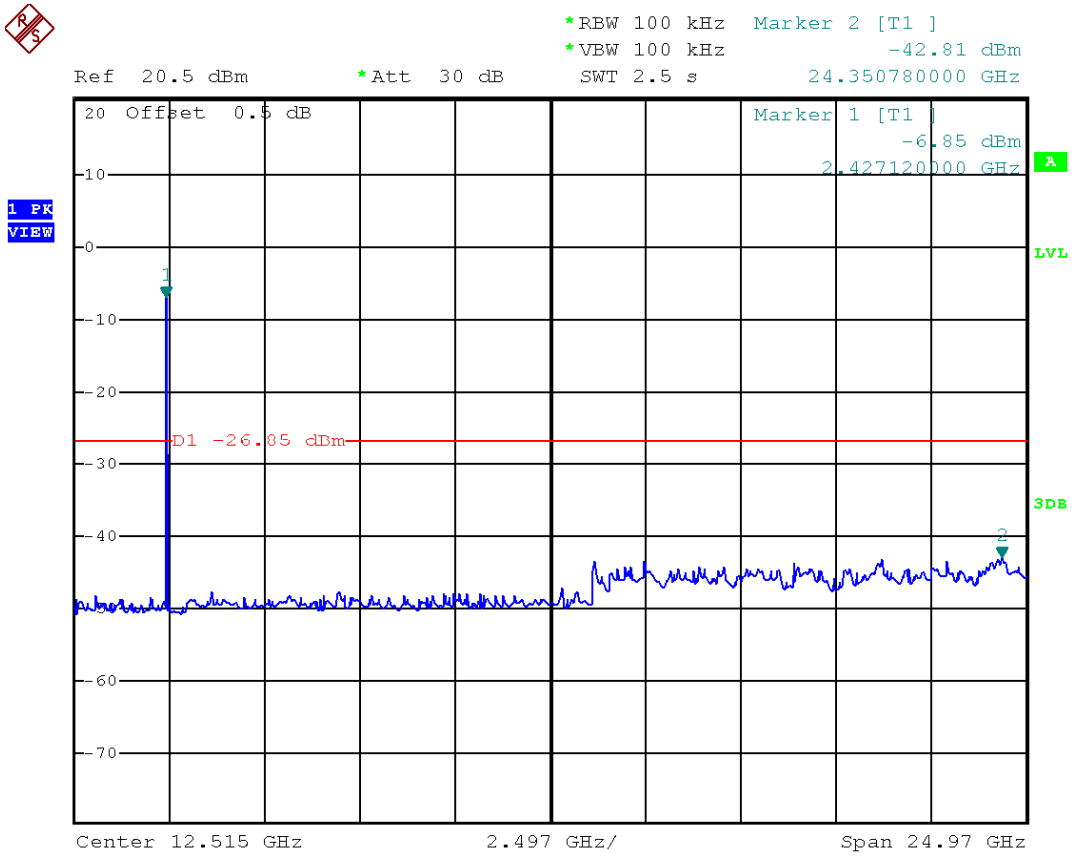
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-47.47 dBm
2.509200000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-5.84 dBm
2.459400000 GHz
Marker 2 [T1]
-49.68 dBm
2.483500000 GHz
Marker 4 [T1]
-49.03 dBm
2.500000000 GHz
1 PK VIEW
A
LVL
3DB
D1 -5.84 dBm
D2 -25.84 dBm
F1
F2
Center 2.503 GHz
10 MHz/
Span 100 MHz

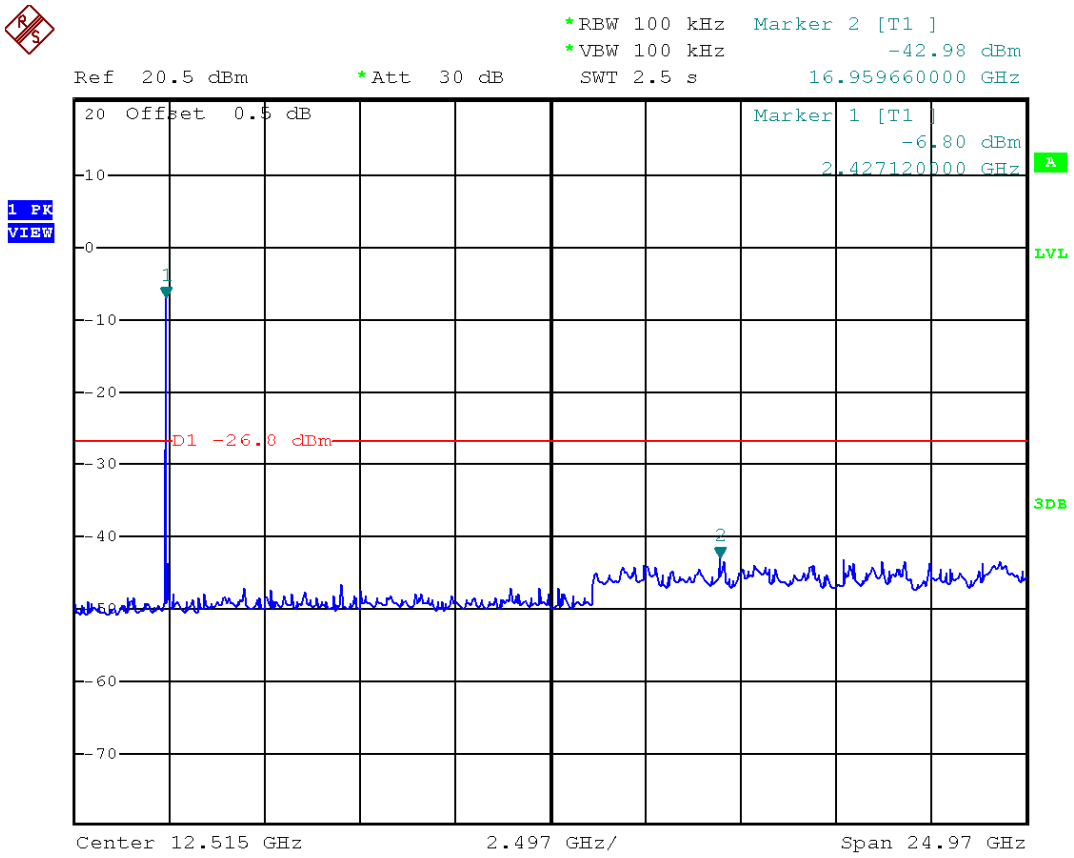
CH01


*RBW 100 kHz
Marker 2 [T1]
*VBW 100 kHz
-41.92 dBm
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
21.154620000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-6.31 dBm
2.377180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -26.31 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

CH06


*RBW 100 kHz
Marker 2 [T1]
*VBW 100 kHz
-42.81 dBm
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
24.350780000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-6.85 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -26.05 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

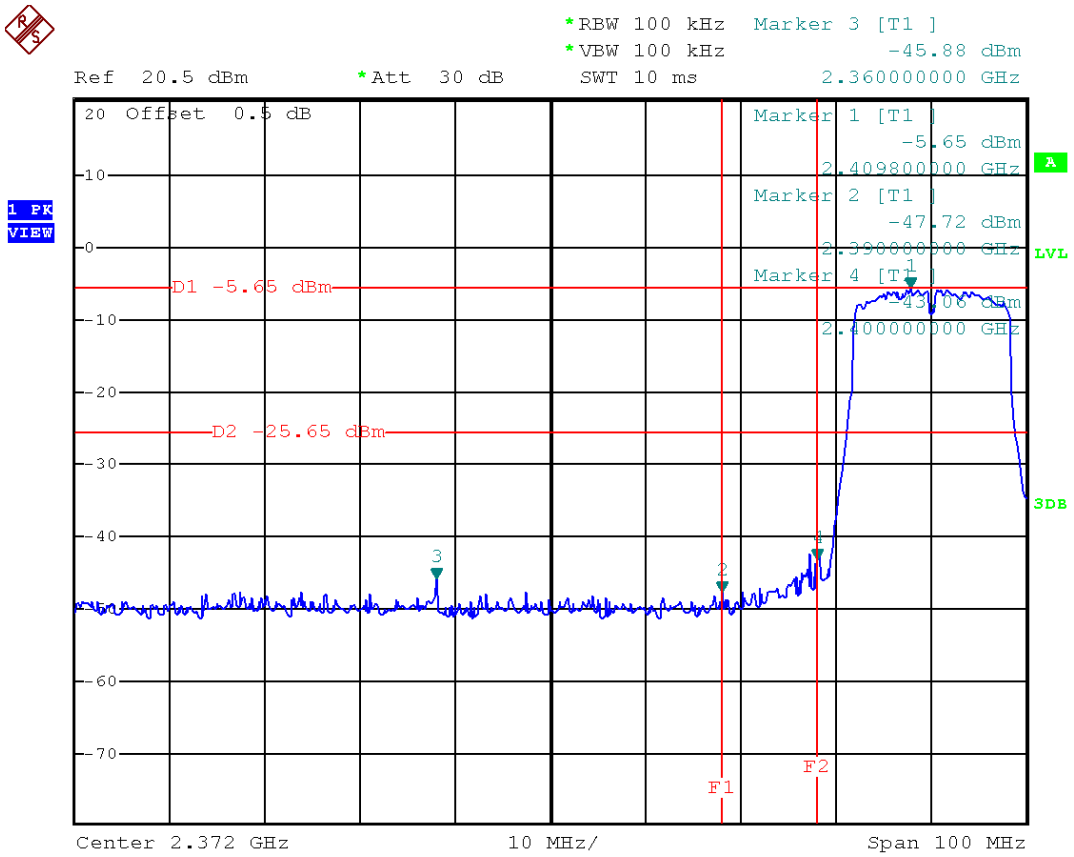
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-42.98 dBm
16.959660000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-6.80 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -26.0 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

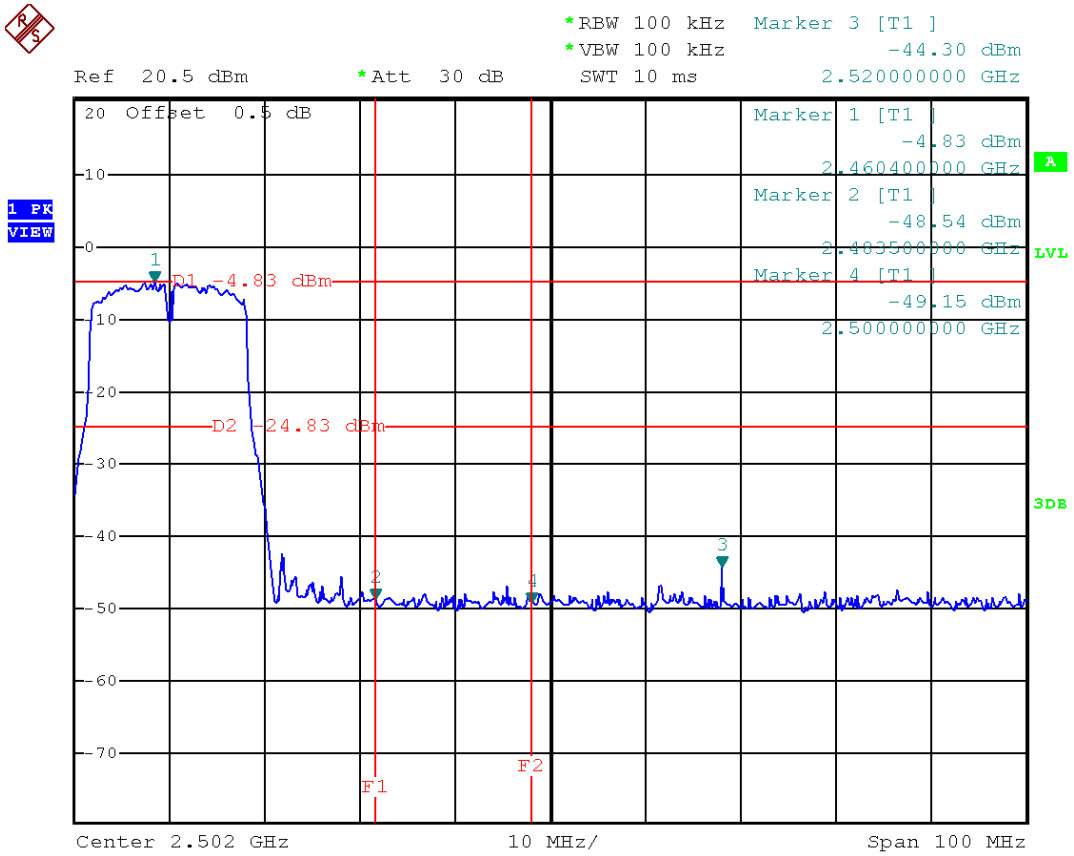
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH01, CH11		

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)
2360.0	-45.88	2520.0	-44.30
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.			

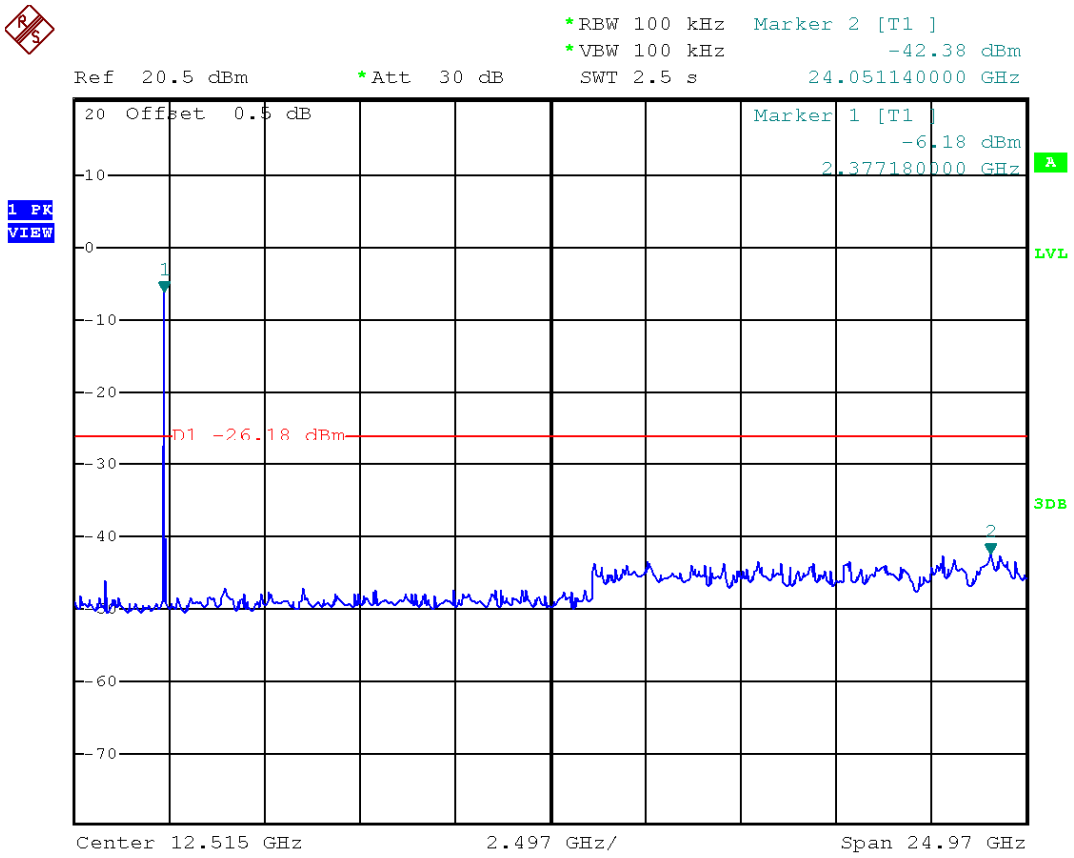
CH01


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-45.88 dBm
2.360000000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-5.65 dBm
2.409800000 GHz
Marker 2 [T1]
-47.72 dBm
2.390000000 GHz
Marker 4 [T1]
-43.06 dBm
2.400000000 GHz
1 PK VIEW
A
LVL
3DB
D1 -5.65 dBm
D2 -25.65 dBm
F1
F2
Center 2.372 GHz
10 MHz/
Span 100 MHz

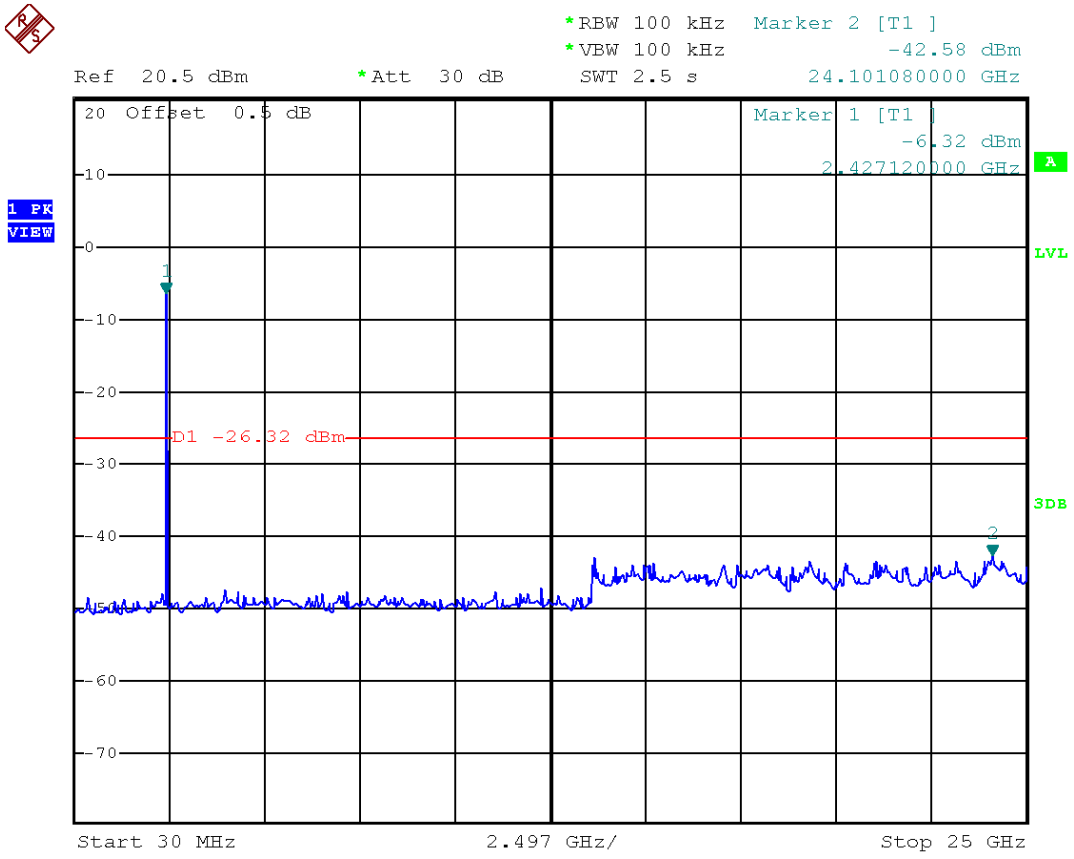
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 10 ms
Marker 3 [T1]
-44.30 dBm
2.520000000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-4.83 dBm
2.460400000 GHz
Marker 2 [T1]
-48.54 dBm
2.483500000 GHz
Marker 4 [T1]
-49.15 dBm
2.500000000 GHz
1 PK VIEW
A
LVL
3DB
D1 -4.83 dBm
D2 -24.83 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz

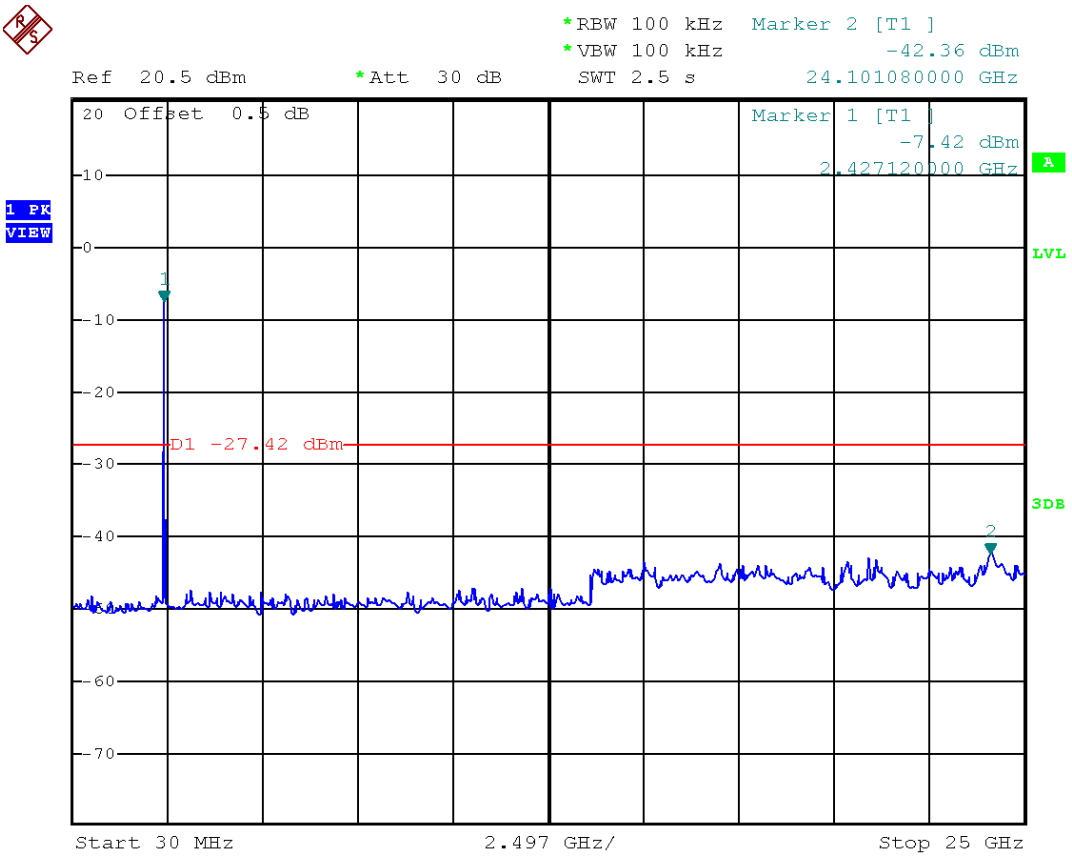
CH01


*RBW 100 kHz
Marker 2 [T1]
*VBW 100 kHz
-42.38 dBm
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
24.051140000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-6.18 dBm
2.377180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -26.18 dBm
Center 12.515 GHz
2.497 GHz/
Span 24.97 GHz

CH06


*RBW 100 kHz
Marker 2 [T1]
*VBW 100 kHz
-42.58 dBm
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
24.101080000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-6.32 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -26.32 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

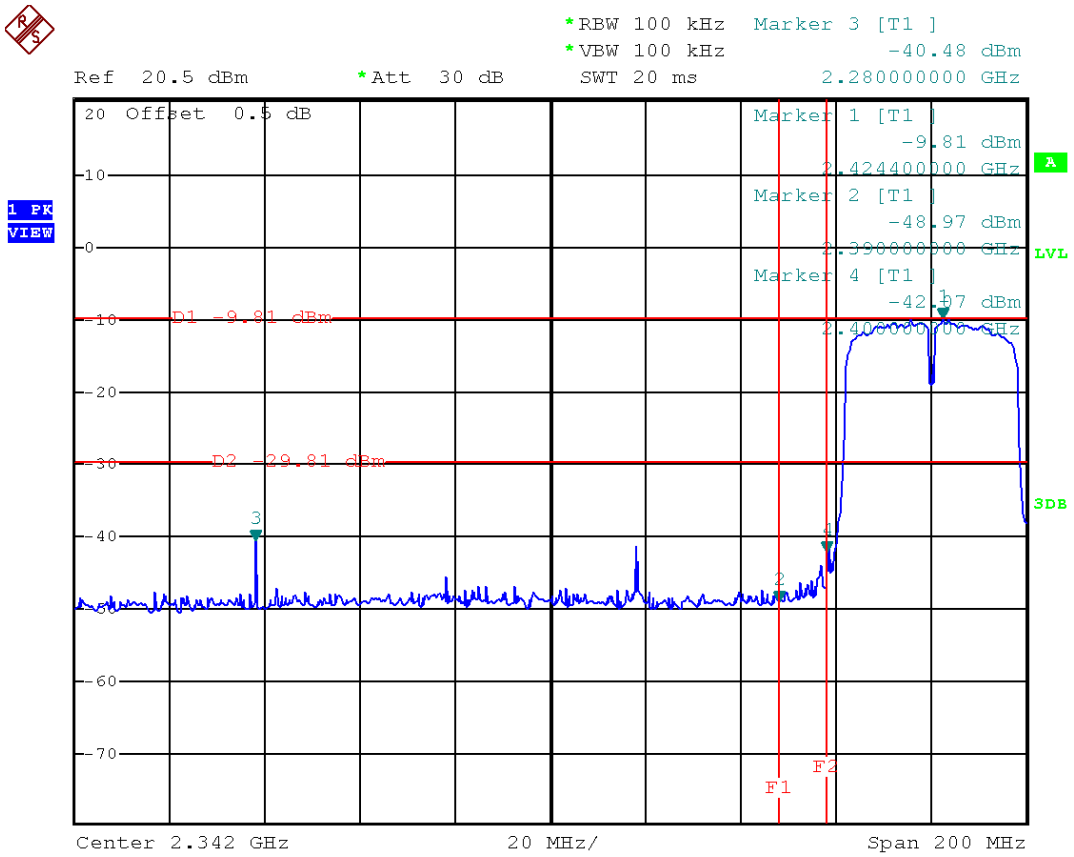
CH11


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 2.5 s
Marker 2 [T1]
-42.36 dBm
24.101080000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-7.42 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -27.42 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

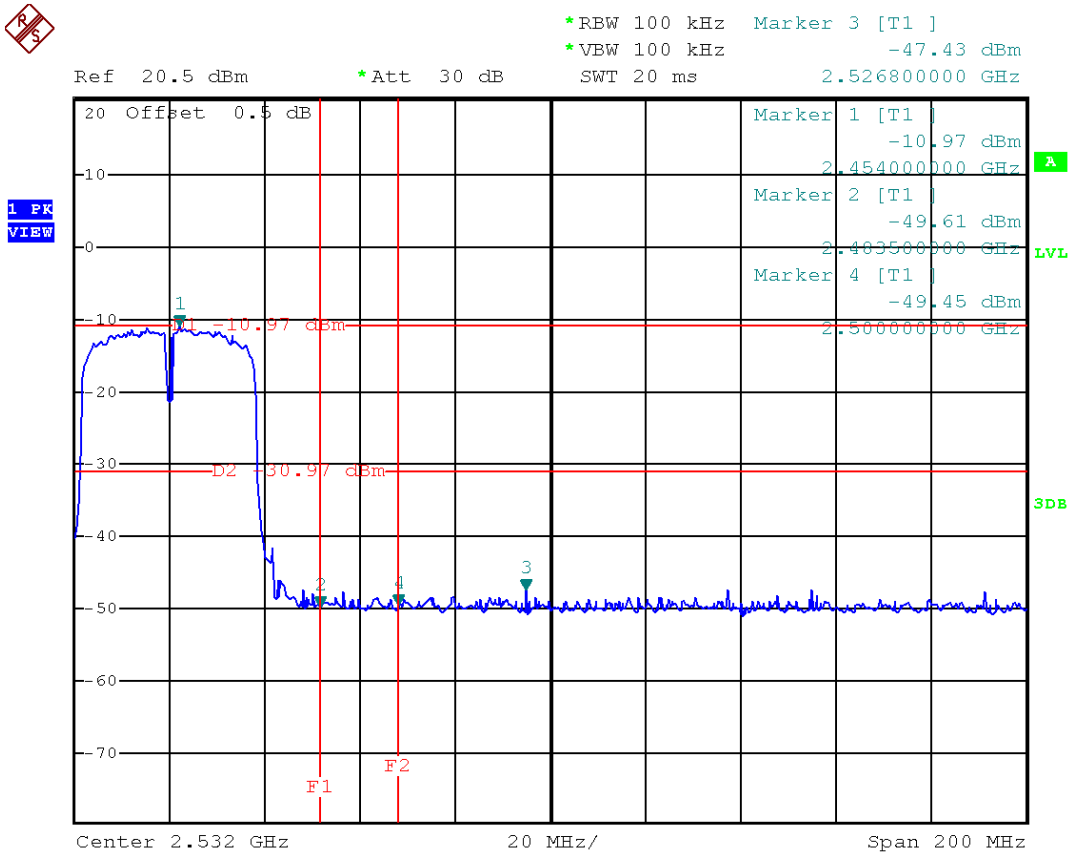
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH03, CH09		

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)
2280.0	-40.48	2526.8	-47.43
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.			

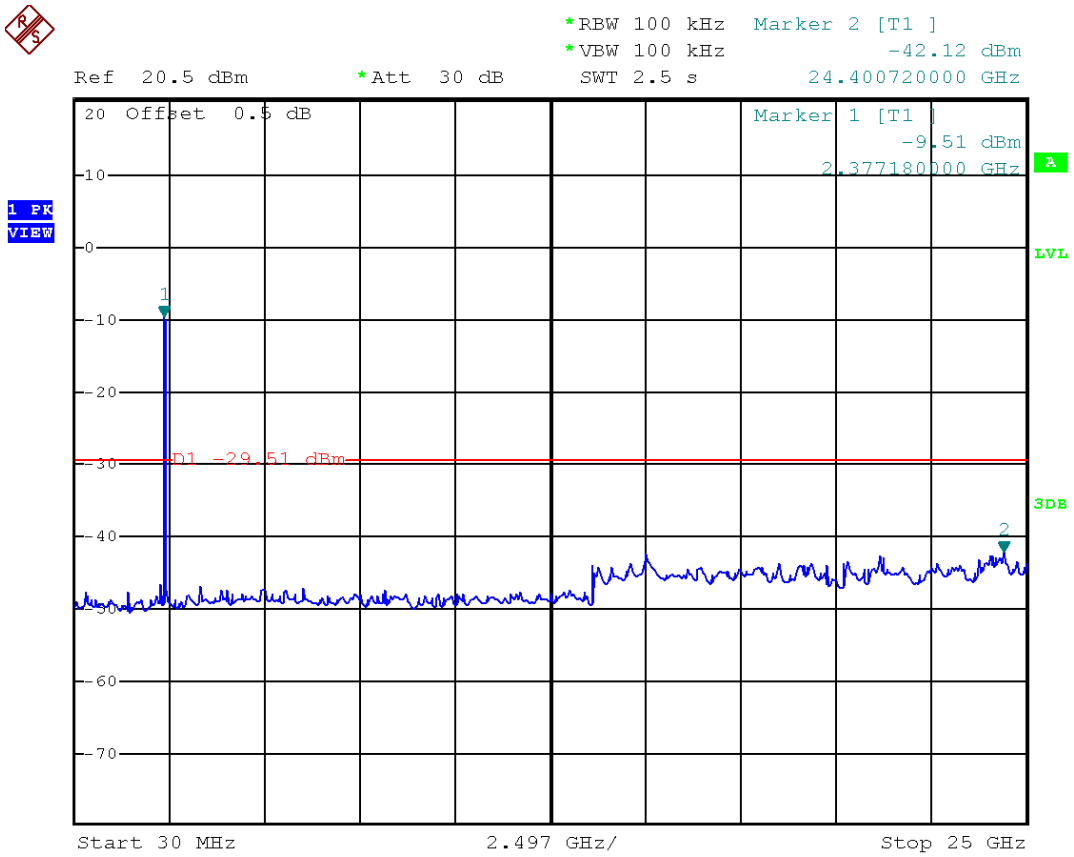
CH03


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 20 ms
Marker 3 [T1]
-40.48 dBm
2.280000000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-9.81 dBm
2.424400000 GHz
Marker 2 [T1]
-48.97 dBm
2.390000000 GHz
Marker 4 [T1]
-42.57 dBm
2.400000000 GHz
D1 -9.81 dBm
D2 -29.81 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.342 GHz
20 MHz/
Span 200 MHz

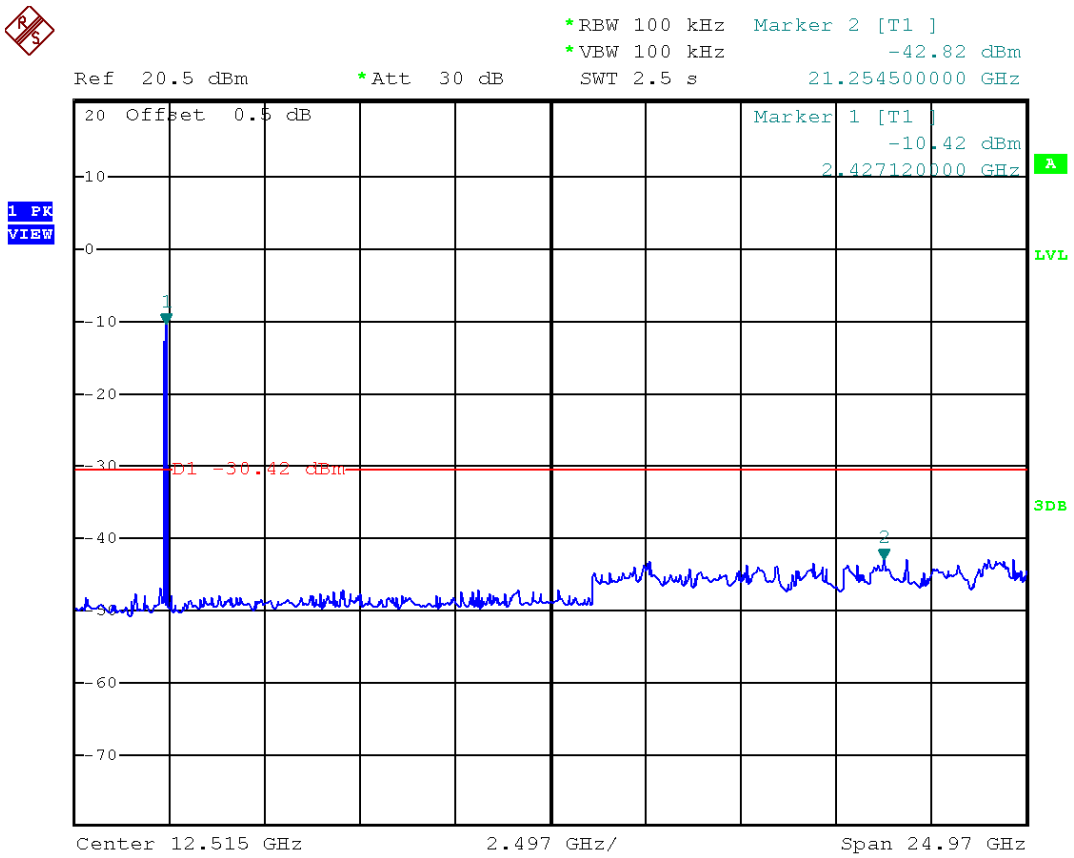
CH09


*RBW 100 kHz
*VBW 100 kHz
Ref 20.5 dBm
*Att 30 dB
SWT 20 ms
Marker 3 [T1]
-47.43 dBm
2.526800000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-10.97 dBm
2.454000000 GHz
Marker 2 [T1]
-49.61 dBm
2.403500000 GHz
Marker 4 [T1]
-49.45 dBm
2.500000000 GHz
D1 -10.97 dBm
D2 -30.97 dBm
1 PK VIEW
A
LVL
3DB
F1
F2
Center 2.532 GHz
20 MHz/
Span 200 MHz

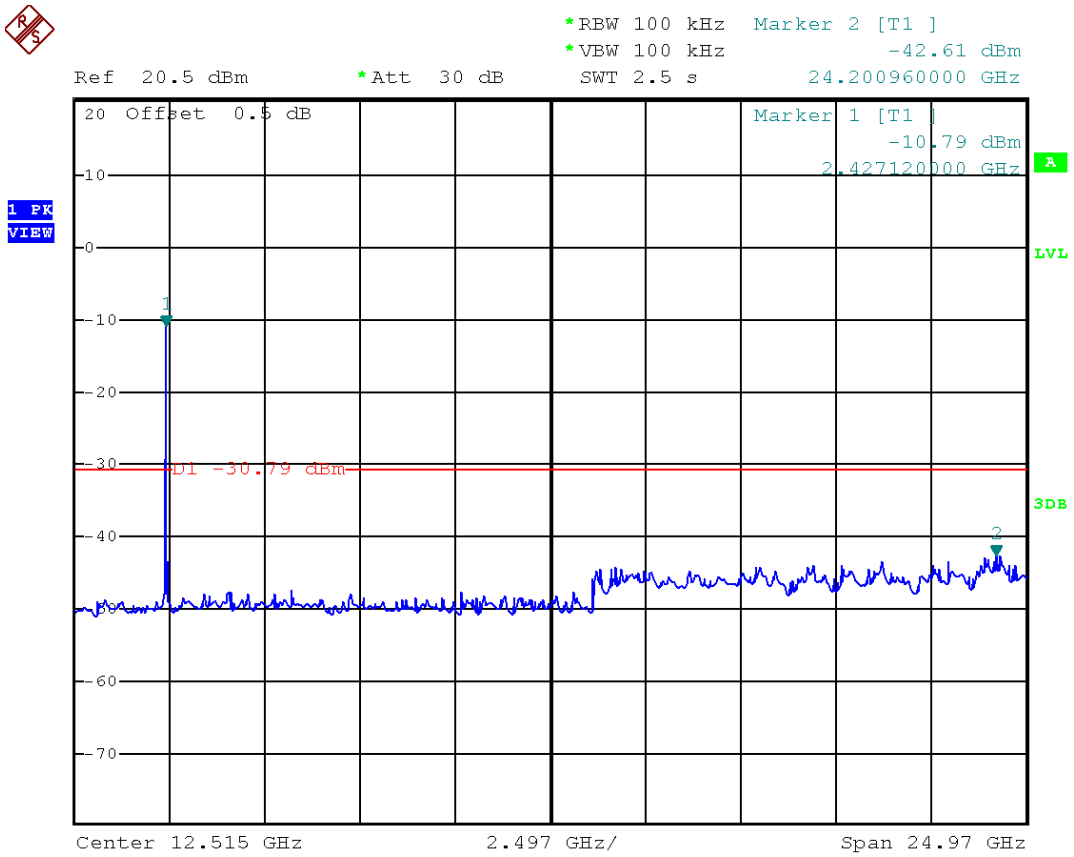
CH03


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 s
Marker 2 [T1]
-42.12 dBm
24.400720000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-9.51 dBm
2.377180000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -29.51 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

CH06


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 s
Marker 2 [T1]
-42.82 dBm
21.254500000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
Marker 1 [T1]
-10.42 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
D1 -30.42 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]
-42.61 dBm
24.200960000 GHz
20 Offset 0.5 dB
Marker 1 [T1]
-10.79 dBm
2.427120000 GHz
1 PK
VIEW
A
LVL
3DB
1
2
D1 -30.79 dBm
10
0
-10
-20
-30
-40
-60
-70
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.

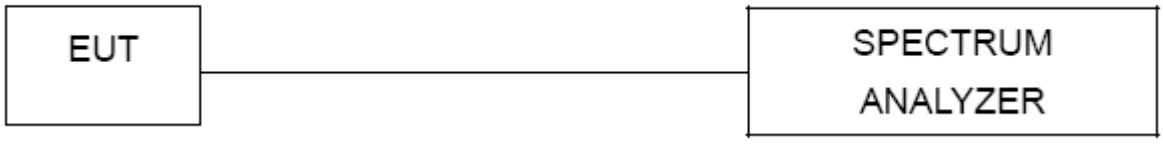
8.1.2 TEST PROCEDURE

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

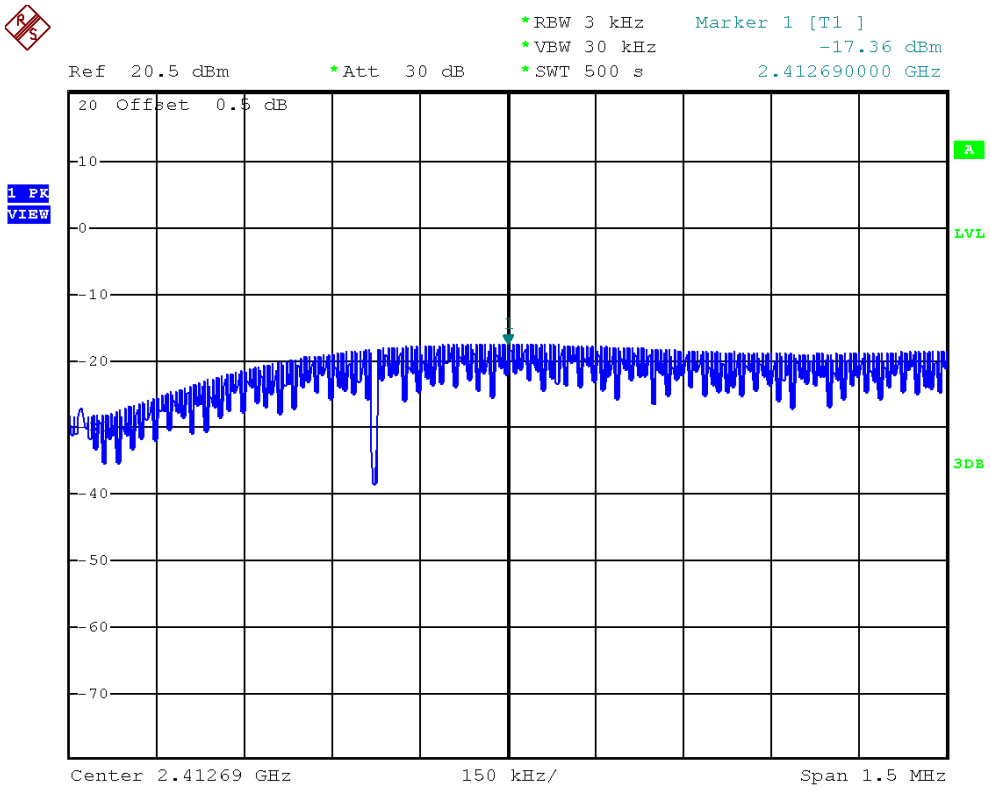
The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

8.1.6 TEST RESULTS

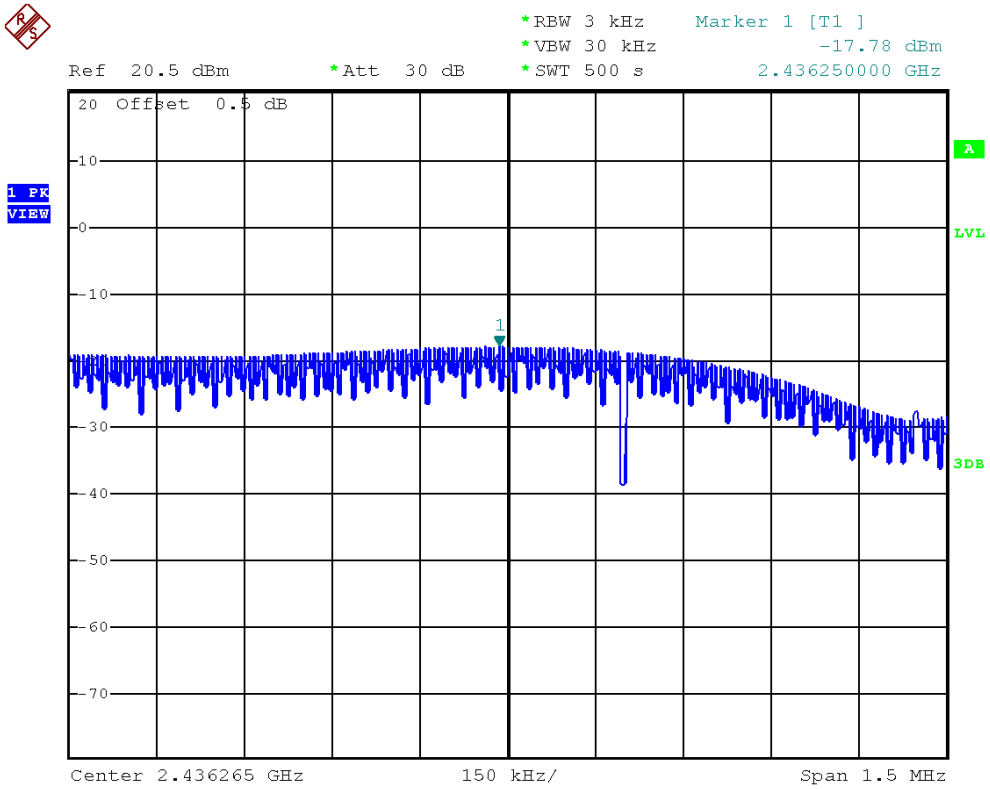
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-17.36	8
CH06	2437	-17.78	8
CH11	2462	-17.83	8

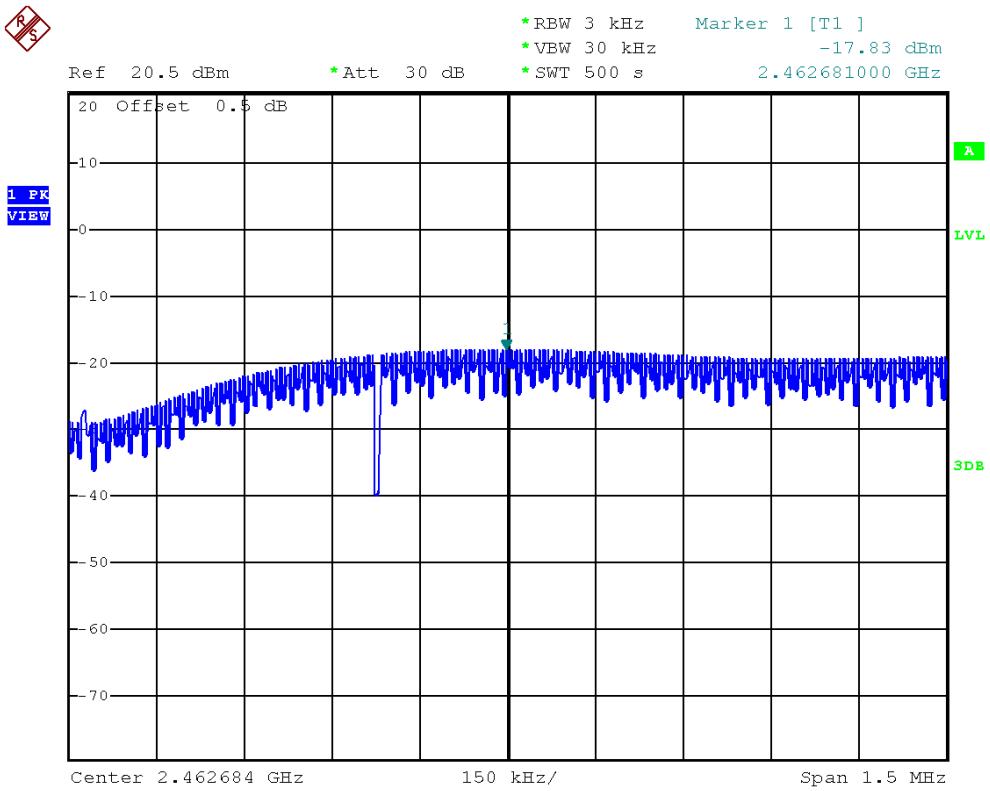
CH01



CH06


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-17.78 dBm
2.436250000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.436265 GHz
150 kHz/
Span 1.5 MHz

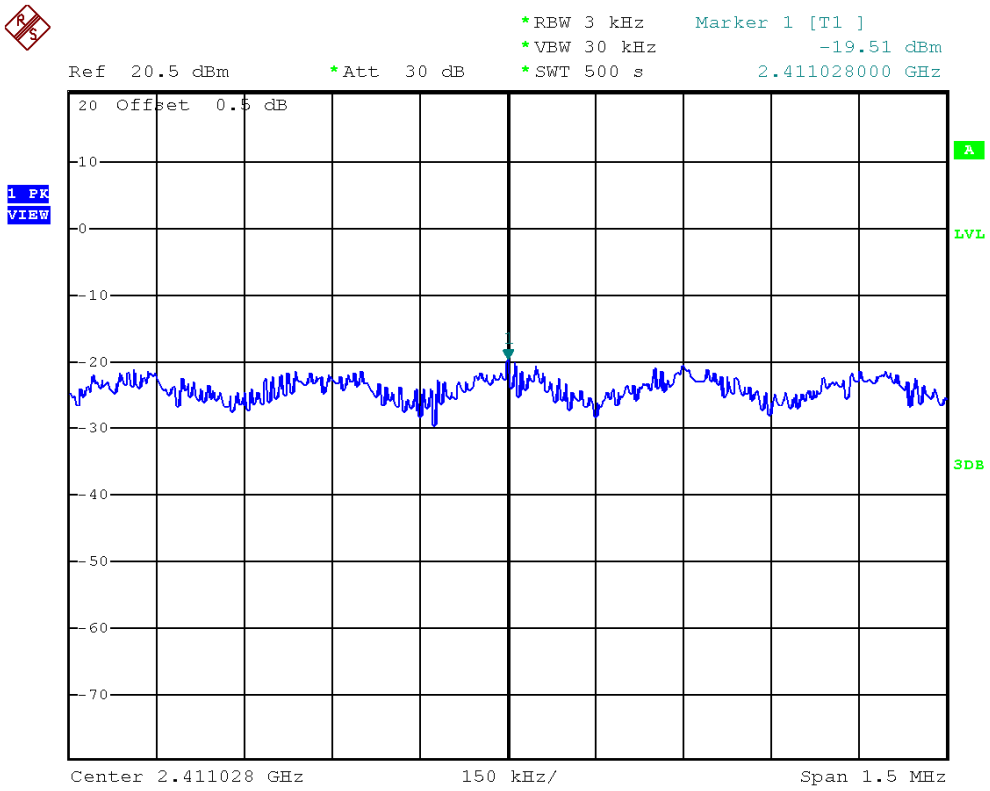
CH11


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-17.83 dBm
2.462681000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.462684 GHz
150 kHz/
Span 1.5 MHz

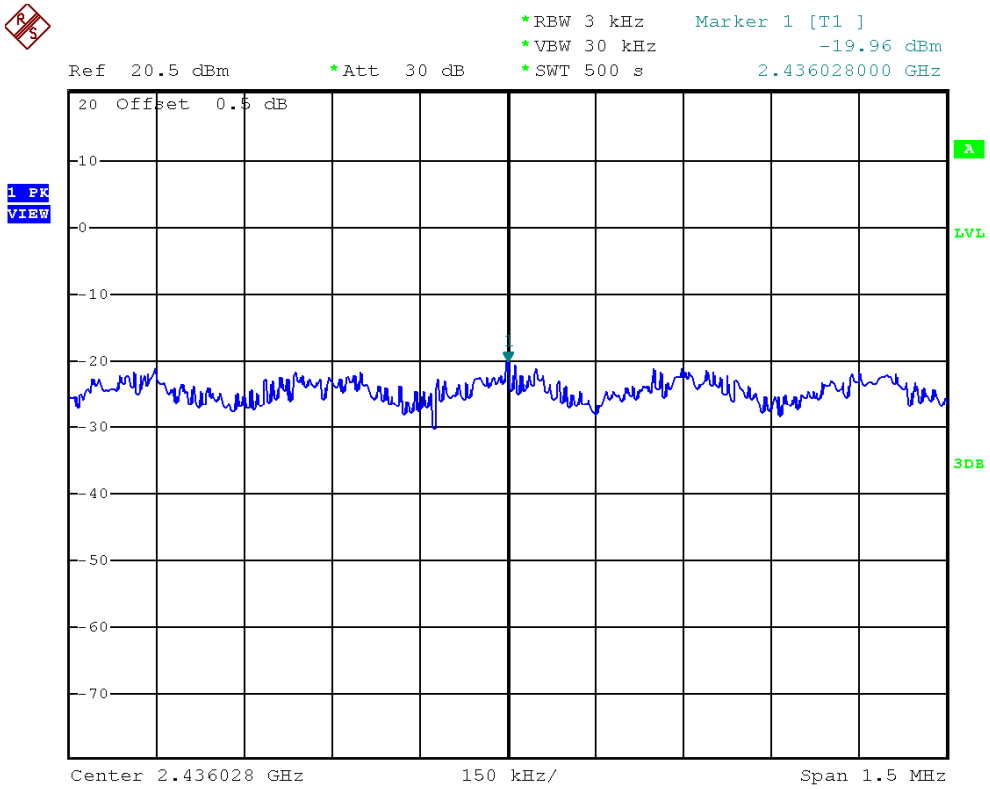
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm)	LIMIT (dBm)
CH01	2412	-19.51	8
CH06	2437	-19.96	8
CH11	2462	-21.25	8

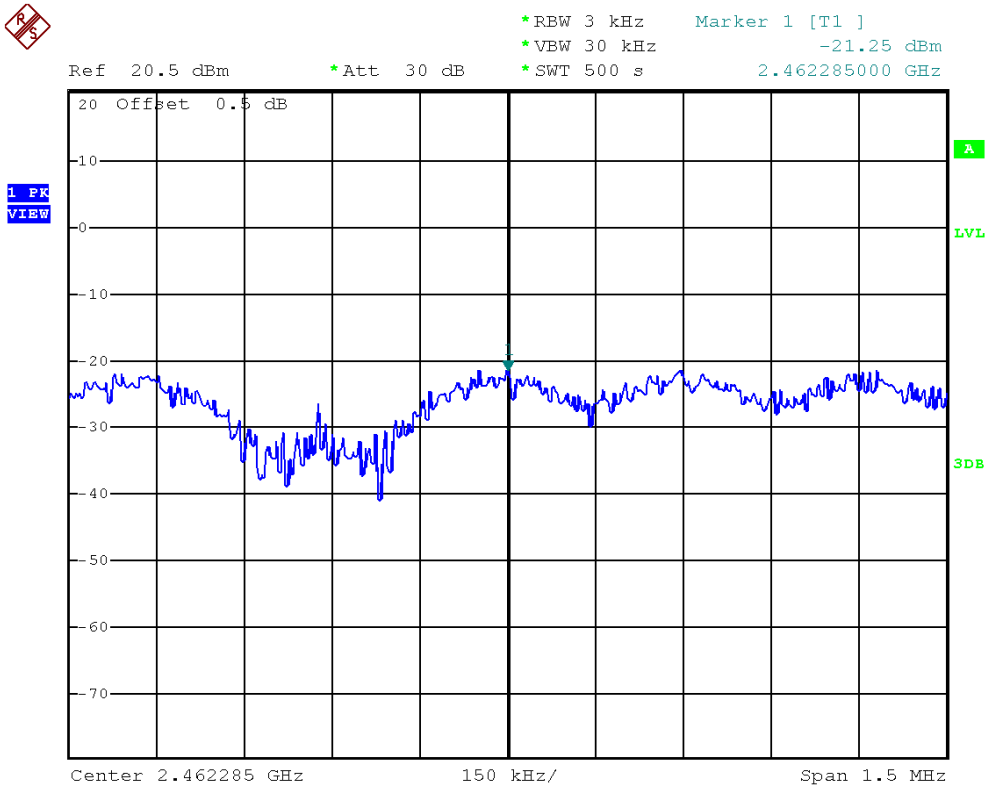
CH01



CH06


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-19.96 dBm
2.436028000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.436028 GHz
150 kHz/
Span 1.5 MHz

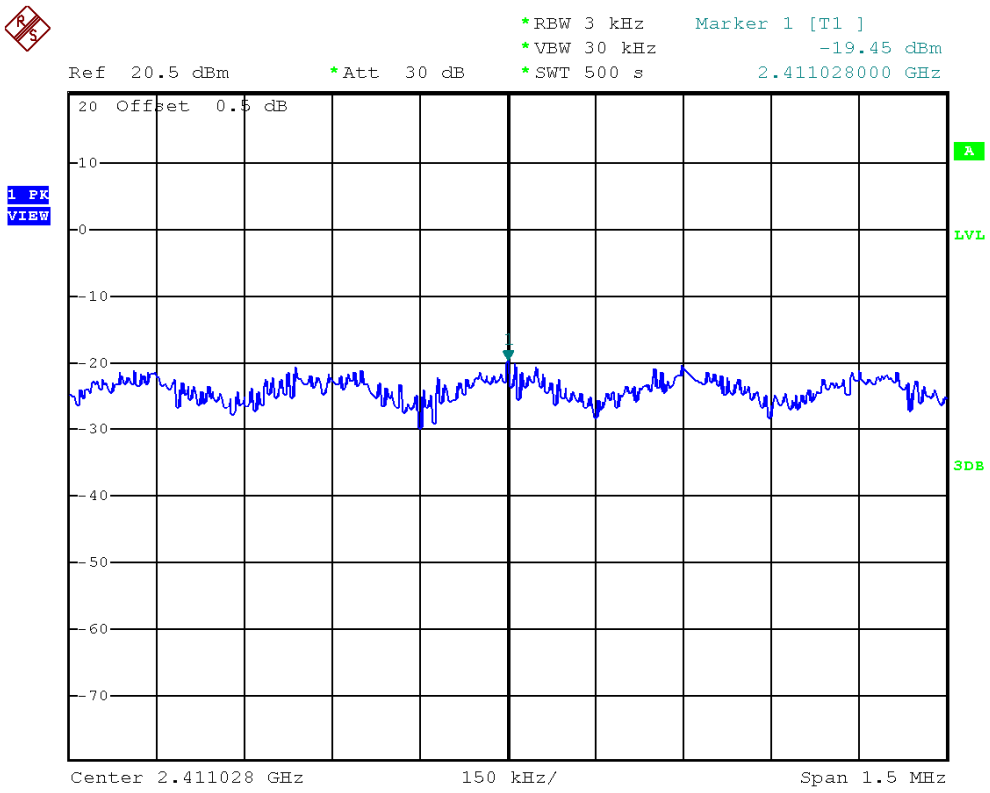
CH11


*RBW 3 kHz
*VBW 30 kHz
*SWT 500 s
Marker 1 [T1]
-21.25 dBm
2.462285000 GHz
Ref 20.5 dBm
*Att 30 dB
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.462285 GHz
150 kHz/
Span 1.5 MHz

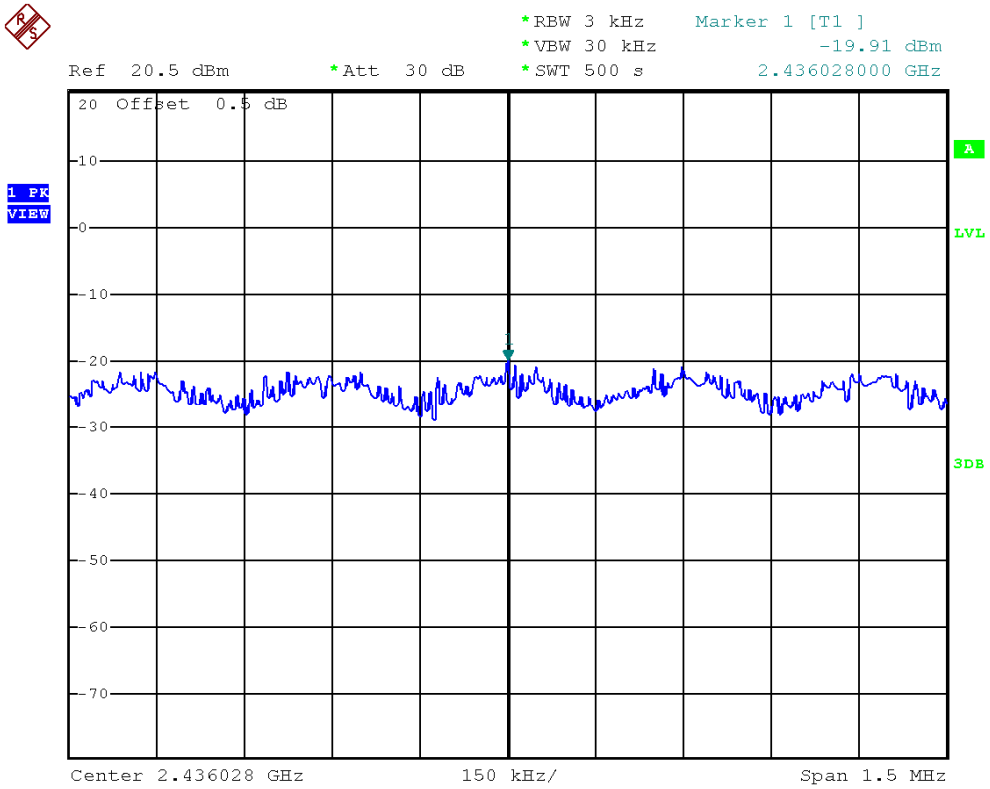
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/20M/CH01, CH06, CH11		

Test Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	LIMIT (dBm)
CH01	2412	-19.45	0.01	8
CH06	2437	-19.91	0.01	8
CH11	2462	-19.65	0.01	8

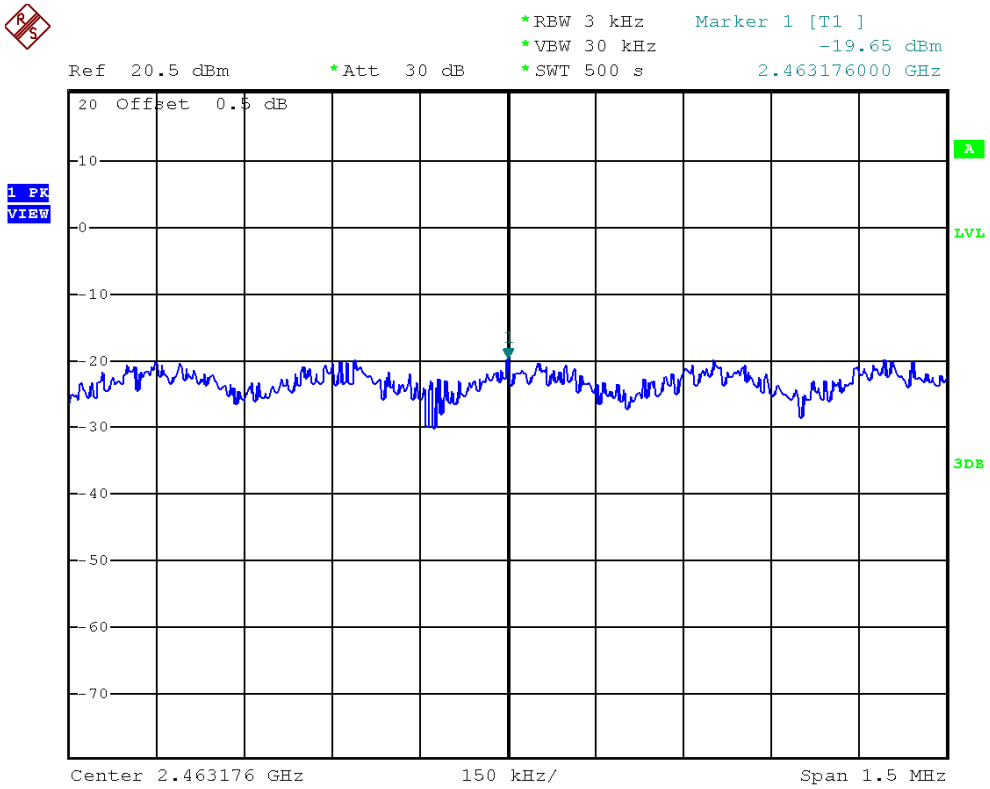
CH01



CH06


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-19.91 dBm
Ref 20.5 dBm
*Att 30 dB
*SWT 500 s
2.436028000 GHz
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.436028 GHz
150 kHz/
Span 1.5 MHz

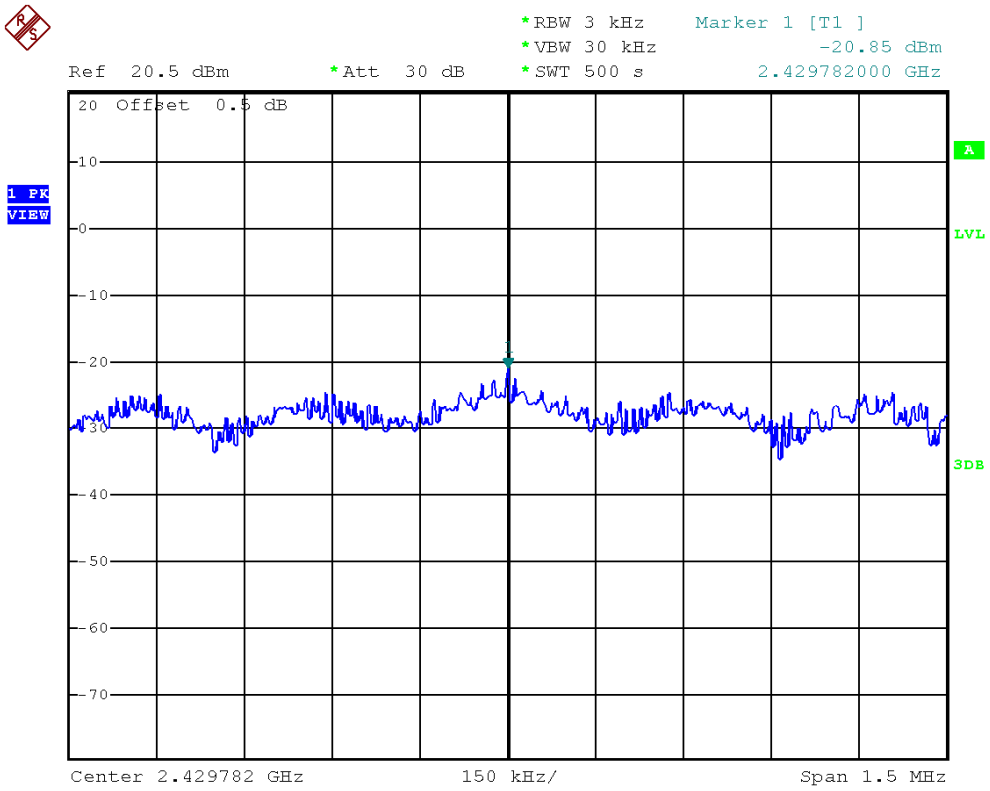
CH11


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-19.65 dBm
Ref 20.5 dBm
*Att 30 dB
*SWT 500 s
2.463176000 GHz
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.463176 GHz
150 kHz/
Span 1.5 MHz

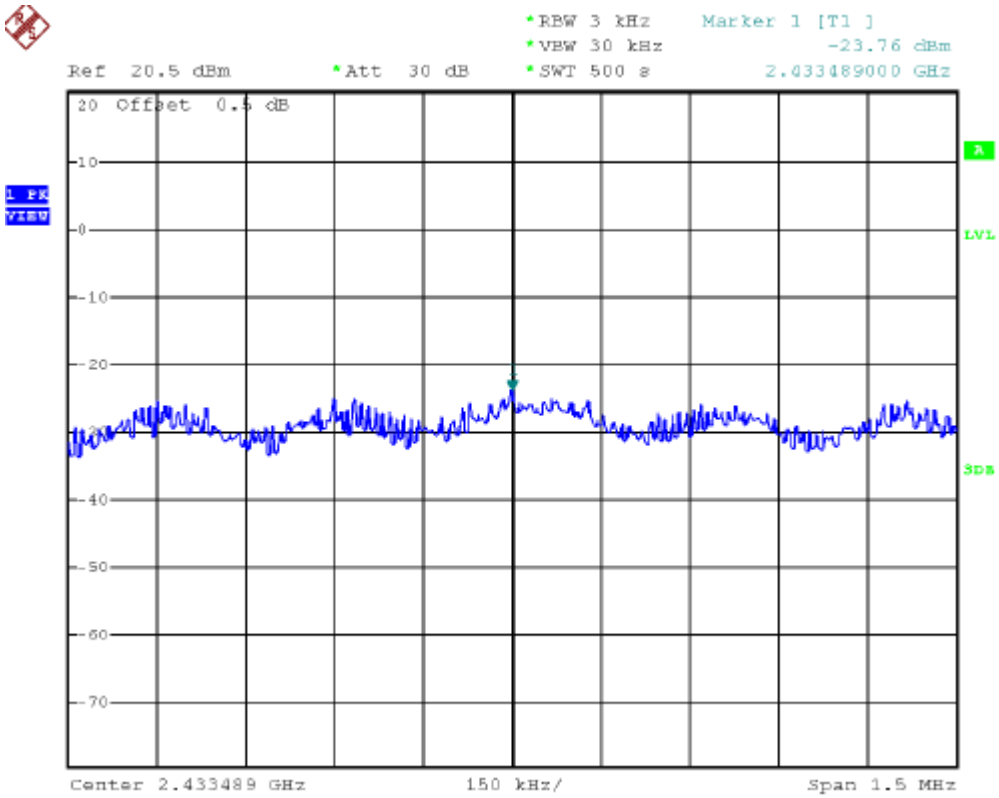
EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n/40M/CH03, CH06, CH09		

Test Channel	Frequency (MHz)	Power Density (dBm/3kHz)	Power Density (mW/3kHz)	LIMIT (dBm)
CH03	2422	-20.85	0.01	8
CH06	2437	-23.76	0.00	8
CH09	2452	-23.42	0.00	8

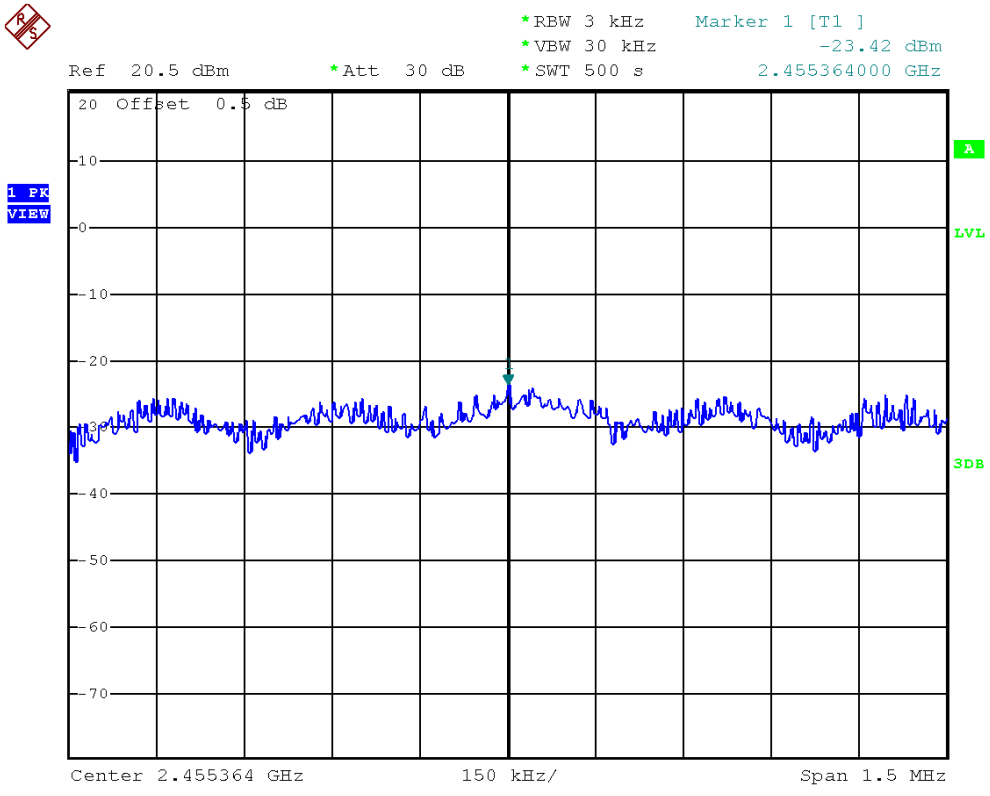
CH03



CH06


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-23.76 dBm
Ref 20.5 dBm
*Att 30 dB
*SWT 500 s
2.433489000 GHz
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.433489 GHz
150 kHz/
Span 1.5 MHz

CH09


*RBW 3 kHz
Marker 1 [T1]
*VBW 30 kHz
-23.42 dBm
Ref 20.5 dBm
*Att 30 dB
*SWT 500 s
2.455364000 GHz
20 Offset 0.5 dB
1 PK VIEW
A
LVL
3DB
Center 2.455364 GHz
150 kHz/
Span 1.5 MHz

9. RF EXPOSURE TEST

9.1 APPLIED PROCEDURES / LIMIT

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

9.1.1 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.

9.1.2 MPE CALCULATION METHOD

E (V/m) $= \frac{\sqrt{30 \times P \times G}}{d}$ Power Density: *Pd* (W/m²) $= \frac{E^2}{377}$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

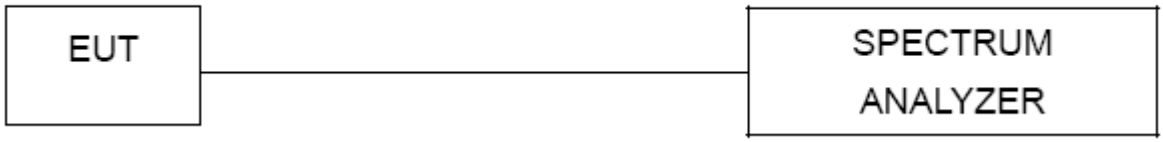
Pd $= \frac{30 \times P \times G}{377 \times d^2}$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

9.1.3 DEVIATION FROM STANDARD

No deviation.

9.1.4 TEST SETUP



9.1.5 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.

9.1.6 TEST RESULTS

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11b		

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)
2412	2.81	1.9099	15.4000	34.6737	0.013181	1
2437	2.81	1.9099	15.1600	32.8095	0.012472	1
2462	2.81	1.9099	15.4700	35.2371	0.013395	1

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11g		

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)
2412	2.81	1.9099	19.6000	91.2011	0.034670	1
2437	2.81	1.9099	19.5500	90.1571	0.034273	1
2462	2.81	1.9099	20.5900	114.5513	0.043546	1

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n HT20 Single TX		

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)
2412	2.81	1.9099	18.8300	76.3836	0.029037	1
2437	2.81	1.9099	17.5600	57.0164	0.021675	1
2462	2.81	1.9099	17.6600	58.3445	0.022179	1

Remark：

(1) The MIMO test requirement, MPE shall measure by using the total sum power of each transmitter chain.

EUT：	Wireless docking	Model Name ：	DC-A11
Temperature：	13℃	Relative Humidity：	64%
Test Voltage：	AC 120V/60Hz		
Test Mode ：	802.11n HT40 Single TX		

Frequency (MHz)	Antenna Gain (dBi)	Antenna Gain (numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)
2422	2.81	1.9099	16.4000	43.6516	0.016594	1
2437	2.81	1.9099	16.1500	41.2098	0.015666	1
2452	2.81	1.9099	16.3300	42.9536	0.016329	1

Remark：

(1) The MIMO test requirement, MPE shall measure by using the total sum power of each transmitter chain.