

FCC TEST REPORT  
for  
T-Link Industrial Development Co., Ltd.

Tablet PC  
Model No.: M910, NEXTab 9

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Report Number : 201308906F  
Date of Test : Aug. 27~ Oct. 22, 2013  
Date of Report : Oct. 22, 2013

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## TEST REPORT

Applicant : T-Link Industrial Development Co., Ltd.  
Manufacturer : T-Link Industrial Development Co., Ltd.  
EUT : Tablet PC  
Model No. : M910, NEXTab 9  
Serial No. : N/A  
Trade Mark : NEXGeneration Electronics  
Rating : DC 5.0V, 2.0A Via Adapter (Input AC 100-240V, 50/60Hz, 0.3A)

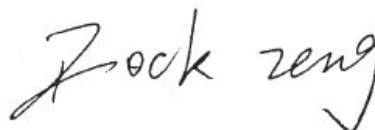
Measurement Procedure Used:  
FCC Part15 Subpart C, Paragraph 15.247

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test : Aug. 27~ Oct. 22, 2013

Prepared by :



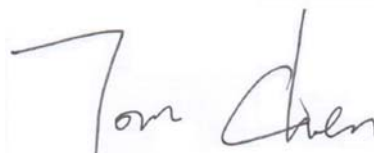
(Engineer / Rock Zeng)

Reviewer :



(Project Manager / Sally Zhang)

Approved & Authorized Signer :



(Manager / Tom Chen)

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

EUT	: Tablet PC
Model Number	: M910, NEXTab 9 (Note: All samples are the same except the model number and appearance color, so we prepare “NEXTab 9” for EMC test only.)
Test Power Supply	: AC 120V/60Hz
RF Transmission Frequency	: 2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20)) 2422MHz~2452MHz ( 802.11n(HT40))
Channels	: 11 For (802.11b/802.11g/802.11n(HT20)) 7 For (802.11n(HT40))
Modulation	: 802.11b CCK 802.11g OFDM 802.11n MCS
Antenna Type	: Integral
Antenna Gain	: 2 dBi
Applicant	: T-Link Industrial Development Co., Ltd.
Address	: 2F A4th Bldg., Hekan Industrial Zone, WuHe Road S., Longgang District, Shenzhen, Guangdong, China 518129
Manufacturer	: T-Link Industrial Development Co., Ltd.
Address	: 2F A4th Bldg., Hekan Industrial Zone, WuHe Road S., Longgang District, Shenzhen, Guangdong, China 518129
Date of receiver	: Aug. 27, 2013
Date of Test	: Aug. 27~ Oct. 22, 2013

## 1.2. Auxiliary Equipment Used during Test

PC	: Manufacturer: DELL M/N: OPTIPLEX 380 S/N: 1J63X2X CE , FCC: DOC
MONITOR	: Manufacturer: DELL M/N: E170Sc S/N: CN-00V539-64180-055-0UPS CE , FCC: DOC
KEYBOARD	: Manufacturer: DELL M/N: SK-8115 S/N: CN-0DJ313-71616-06C-02XN CE , FCC: DOC Cable: 1m, unshielded
MOUSE	: Manufacturer: DELL M/N: M-UARDEL7 S/N: N/A CE , FCC: DOC Cable: 1m, unshielded
Printer	: Manufacturer: Brother M/N: MFC-3360C S/N: N/A CE, FCC: DOC
Power Cord of Printer	: Non-shielded, Detachable, 0.8m, w/o core
USB Cable for Printer	: Non-Shielded , 1.5m
Power Line	Non-Shielded, 1.5m
VGA Cable	: Non-Shielded, 1.5m
Network Cable	: Non-Shielded, 1.5m
USB Cable for EUT	: Non-Shielded, 1.2m

### 1.3. Description of Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

**CNAS - LAB Code: L3503**

Shenzhen Anbotek Compliance Laboratory Limited., Laboratory has been assessed and in compliance with CNAS/CL01: 2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.

**FCC-Registration No.: 752021**

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 752021, July 10, 2013.

**IC-Registration No.: 8058A-1**

Shenzhen Anbotek Compliance Laboratory Limited., EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration 8058A, February 22, 2013.

**Test Location**

All Emissions tests were performed at  
Shenzhen Anbotek Compliance Laboratory Limited. at 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China

### 1.4. Measurement Uncertainty

Radiation Uncertainty : Ur = 4.3dB

Conduction Uncertainty : Uc = 3.4dB

## 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4: 2009 and FCC Part 15, Paragraph 15.247.

### 2.1. Summary of Test Results

The EUT has been tested according to the following specifications:

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107, 15.207	Conducted Emission Test	PASS	Complies
FCC Part 15, Paragraph 15.247(b)(1)	Peak Output Power	PASS	Complies
FCC Part 15, Paragraph 15.247(a)(2)	6dB Bandwidth	PASS	Complies
FCC Part 15, Paragraph 15.247(c)	100kHz Bandwidth of Frequency Band Edges	PASS	Complies
FCC Part 15, Paragraph 15.209(a)(f)	Spurious Emission	PASS	Complies
FCC Part 15, Paragraph 15.247(a)(1)	Frequency Separation	-	N/A
FCC Part 15, Paragraph 15.247(a)(1)(iii)	Number of Hopping Frequency	-	N/A
FCC Part 15, Paragraph 15.247(a)(1)(iii)	Time of Occupancy	-	N/A
FCC Part 15, Paragraph 15.247(c)	Peak Power Density	PASS	Complies

\* The digital circuit porting of the EUT has been tested and verified to comply with FCC Part 15, Subpart B., Class B Digital Devices and the associated Radio Receiver has also been tested and found to comply with FCC Part 15, Subpart B – Radio Receivers.

### 2.2. Description of Test Modes

The EUT has been tested under operating condition.

Software used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

IEEE802.11b: Channel 1(2412MHz), Channel 6(2437MHz) and Channel 11(2462MHz) with 1 Mbps lowest data rate (worst case) are chosen for the final testing.

IEEE802.11g: Channel 1(2412MHz), Channel 6(2437MHz) and Channel 11(2462MHz) with 6 Mbps lowest data rate (the worst case) are chosen for the final testing.

IEEE802.11n (HT20): Channel 1(2412MHz), Channel 6(2437MHz) and Channel 11(2462MHz) with MCS 0 Mbps lowest data rate (the worst case) are chosen for the final testing.

IEEE802.11n (HT40): Channel 3(2422MHz), Channel 6(2437MHz) and Channel 9(2452MHz) with MCS 0 Mbps lowest data rate (the worst case) are chosen for the final testing.

## 2.3. List of channels:

√ - available

X - tested

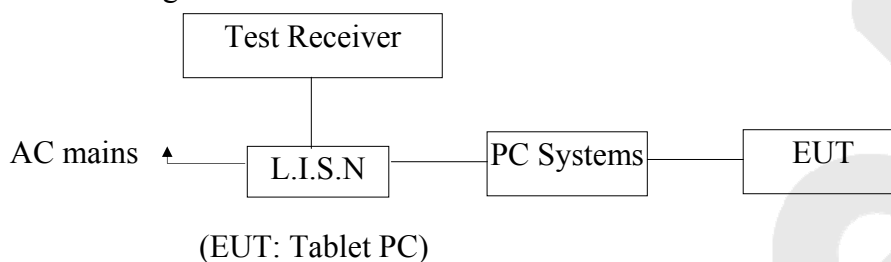
Number	Frequency(MHz)		802.11 b/g/n (HT20)	802.11 b/g/n (HT40)
1	2412	√	X	
2	2417	√		
3	2422	√		X
4	2427	√		
5	2432	√		
6	2437	√	X	X
7	2442	√		
8	2447	√		
9	2452	√		X
10	2457	√		
11	2462	√	X	



### 3. Conducted Emission Test

#### 3.1. Block Diagram of Test Setup

##### 3.1.1. Block diagram of connection between the EUT and simulators



#### 3.2. Power Line Conducted Emission Measurement Limits (15.207)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

- Notes: 1. \*Decreasing linearly with logarithm of frequency.  
2. The lower limit shall apply at the transition frequencies.

#### 3.3. Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

EUT : Tablet PC  
Model Number : NEXTab 9  
Applicant : T-Link Industrial Development Co., Ltd.

#### 3.4. Operating Condition of EUT

- 3.4.1. Setup the EUT and simulator as shown as Section 3.1.
- 3.4.2. Turn on the power of all equipment.
- 3.4.3. Let the EUT work in test mode (Charging and Communication) and measure it.

### 3.5. Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.4-2003 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.

The frequency range from 150KHz to 30MHz is checked.

The test results are reported on Section 3.6.

### 3.6. Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Two-Line V-network	Rohde & Schwarz	ENV216	100055	Apr. 23, 2013	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Apr. 23, 2013	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Apr. 23, 2013	1 Year

### 3.7. Power Line Conducted Emission Measurement Results

**PASS.**

The frequency range from 150KHz to 30 MHz is investigated.

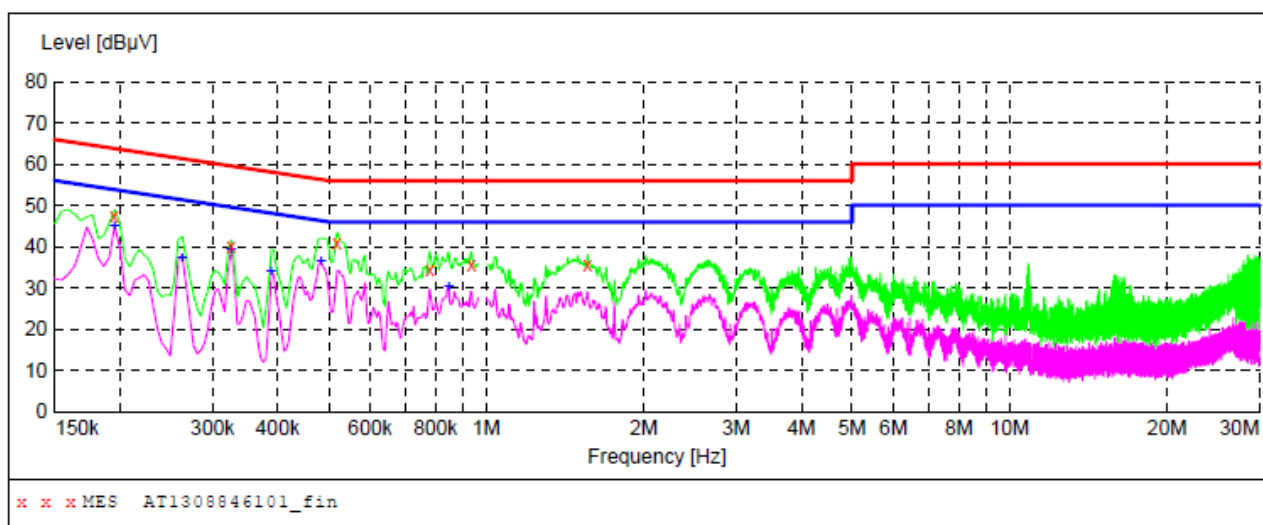
Please refer the following pages.

**CONDUCTED EMISSION TEST DATA**

EUT: Tablet PC M/N:NEXTab 9  
Operating Condition: Charging and Communication  
Test Site: 1# Shielded Room  
Operator: Barak Ban  
Test Specification: AC 120V/60Hz for PC  
Comment: L  
Tem:25°C Hum:50%

**SCAN TABLE: "Voltage (150K~30M) FIN"**

Short Description: 150K-30M Disturbance Voltages

**MEASUREMENT RESULT: "AT1308846101\_fin"**

8/29/2013 9:44AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	47.40	20.1	64	16.4	QP	L1	GND
0.325500	39.90	20.1	60	19.7	QP	L1	GND
0.519000	41.00	20.1	56	15.0	QP	L1	GND
0.780000	34.60	20.1	56	21.4	QP	L1	GND
0.937500	35.60	20.1	56	20.4	QP	L1	GND
1.562500	35.60	20.3	56	20.4	QP	L1	GND

**MEASUREMENT RESULT: "AT1308846101\_fin2"**

8/29/2013 9:44AM

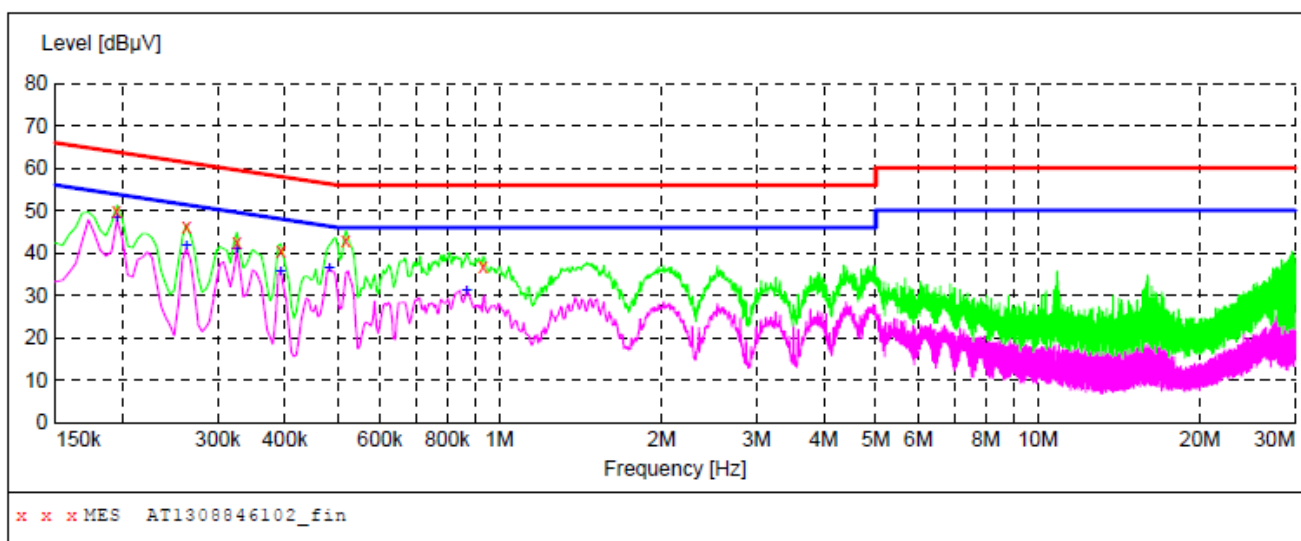
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.195000	45.00	20.1	54	8.8	AV	L1	GND
0.262500	37.20	20.1	51	14.2	AV	L1	GND
0.325500	39.40	20.1	50	10.2	AV	L1	GND
0.388500	33.90	20.1	48	14.2	AV	L1	GND
0.483000	36.40	20.1	46	9.9	AV	L1	GND
0.847500	30.20	20.1	46	15.8	AV	L1	GND

**CONDUCTED EMISSION TEST DATA**

EUT: Tablet PC M/N:NEXTab 9  
Operating Condition: Charging and Communication  
Test Site: 1# Shielded Room  
Operator: Barak Ban  
Test Specification: AC 120V/60Hz for PC  
Comment: N  
Tem:25°C Hum:50%

**SCAN TABLE: "Voltage (150K~30M) FIN"**

Short Description: 150K-30M Disturbance Voltages

**MEASUREMENT RESULT: "AT1308846102\_fin"**

8/29/2013 9:47AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	50.00	20.1	64	13.8	QP	N	GND
0.262500	46.10	20.1	61	15.3	QP	N	GND
0.325500	42.40	20.1	60	17.2	QP	N	GND
0.393000	40.40	20.1	58	17.6	QP	N	GND
0.519000	43.00	20.1	56	13.0	QP	N	GND
0.933000	36.70	20.1	56	19.3	QP	N	GND

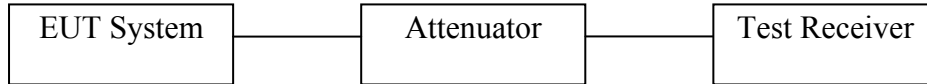
**MEASUREMENT RESULT: "AT1308846102\_fin2"**

8/29/2013 9:47AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.195000	48.10	20.1	54	5.7	AV	N	GND
0.262500	41.80	20.1	51	9.6	AV	N	GND
0.325500	40.80	20.1	50	8.8	AV	N	GND
0.393000	35.70	20.1	48	12.3	AV	N	GND
0.483000	36.30	20.1	46	10.0	AV	N	GND
0.870000	31.10	20.1	46	14.9	AV	N	GND

## 4. FCC Part 15.247 Requirements for DSSS & OFDM Modulation

### 4.1 Test Setup



### 4.2 6dB Bandwidth

#### a. Limit

For the direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

#### b. Test Procedure

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as:  
RBW = 100kHz, VBW  $\geq$  3\*RBW = 300kHz,  
Detector= Peak  
Trace mode= Max hold.  
Sweep- auto couple.
4. Mark the peak frequency and -6dB (upper and lower) frequency.
5. Repeat until all the rest channels are investigated.

#### c. Test Setup See 4.1

#### d. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analysis	Agilent	E4407B	US39390582	Aug. 09, 2013	1 Year
2.	Preamplifier	Instruments corporation	EMC011830	980100	Aug. 09, 2013	1 Year
3.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Apr. 23, 2013	1 Year
4.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Aug. 09, 2013	3 Year
5.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Apr. 23, 2013	3 Year
6.	Pre-amplifier	SONOMA	310N	186860	Apr. 23, 2013	1 Year
7.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A

#### e. Test Results

Pass.

**f. Test Data**

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Results
Low	2412	10.08		Pass
Mid	2437	10.08	>500	Pass
High	2462	10.08		Pass

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Results
Low	2412	16.50		Pass
Mid	2437	16.50	>500	Pass
High	2462	16.50		Pass

Test mode: IEEE 802.11n (HT20)

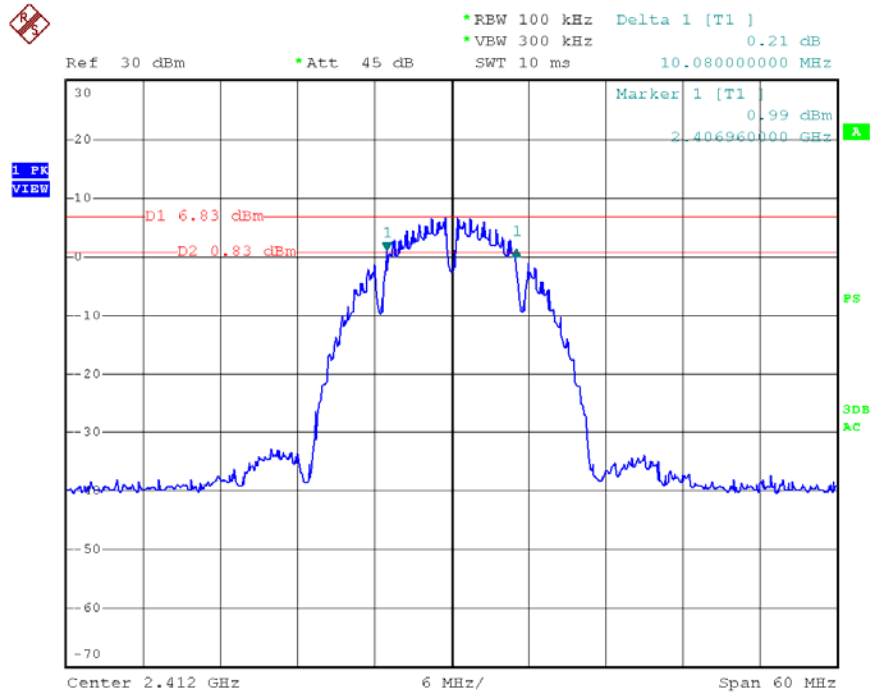
Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Results
Low	2412	17.60		Pass
Mid	2437	17.60	>500	Pass
High	2462	17.60		Pass

Test mode: IEEE 802.11n (HT40)

Channel	Frequency (MHz)	Bandwidth (MHz)	Limit (kHz)	Results
Low	2422	35.64		Pass
Mid	2437	35.64	>500	Pass
High	2452	35.64		Pass

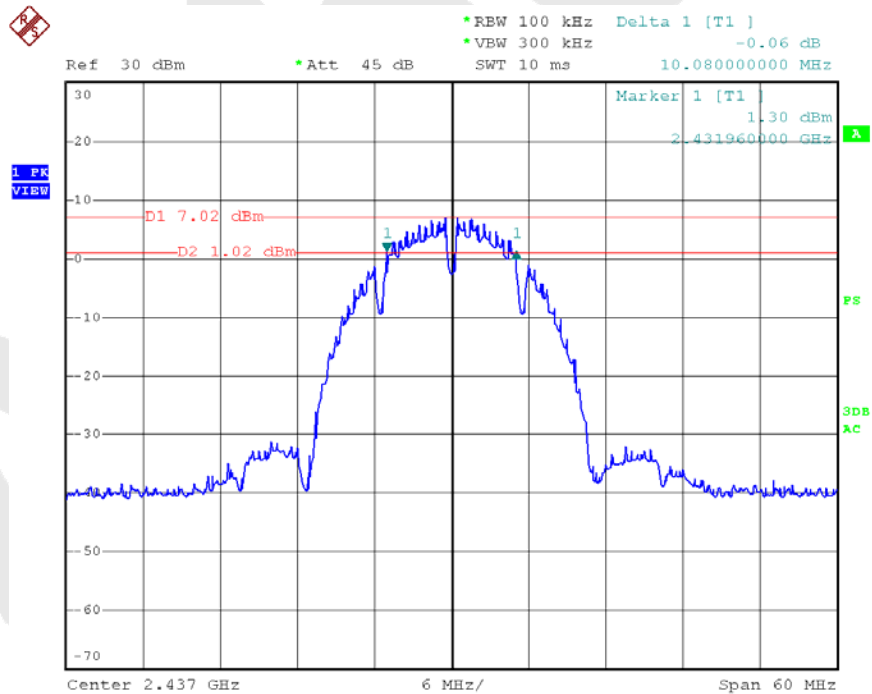
Test Plots See the following page.

Test Mode: 802.11b---Low



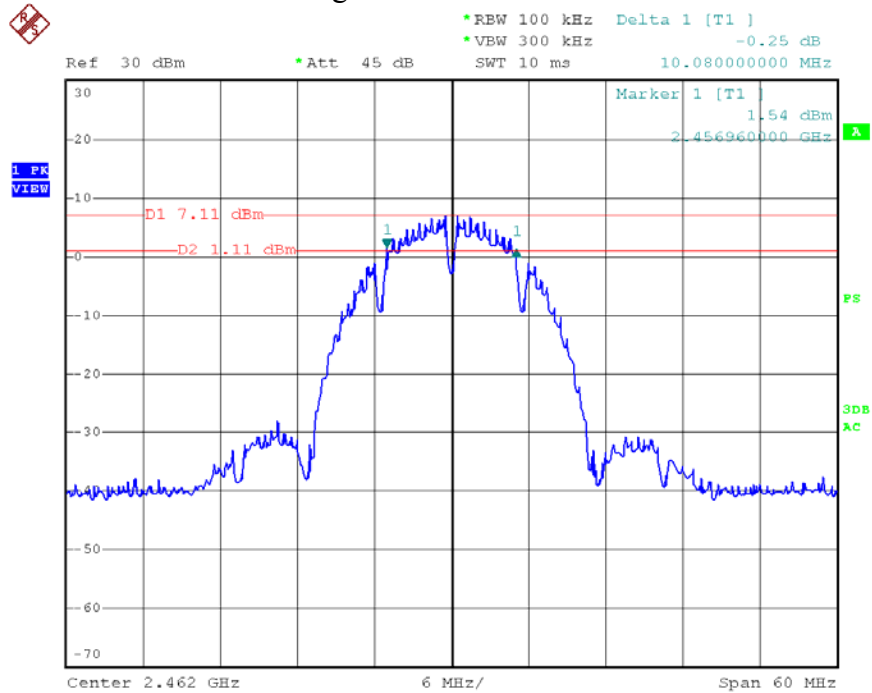
Date: 21.OCT.2013 18:12:19

Test Mode: 802.11b---Mid



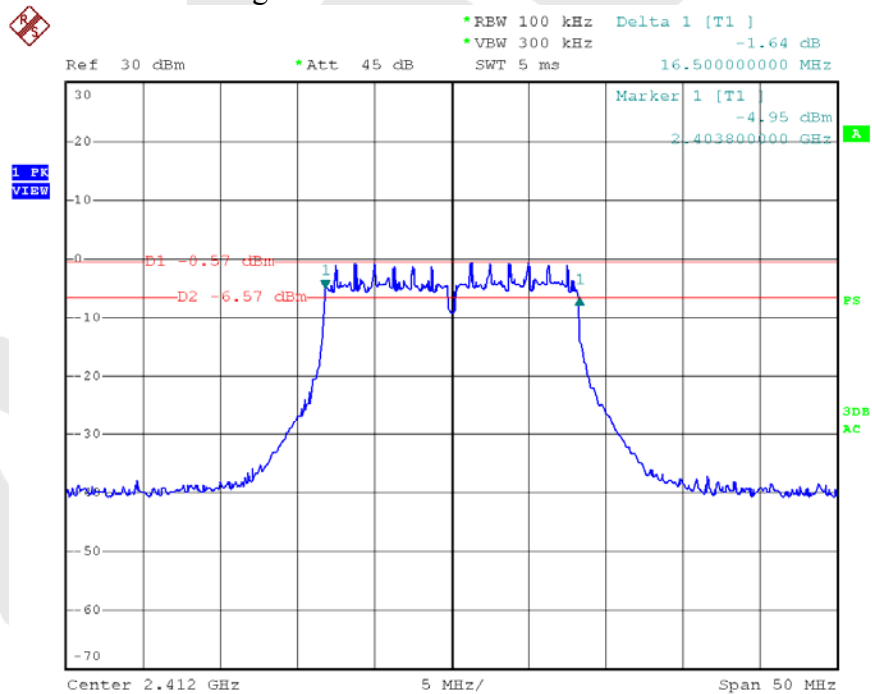
Date: 21.OCT.2013 18:13:23

Test Mode: 802.11b---High



Date: 21.OCT.2013 18:14:14

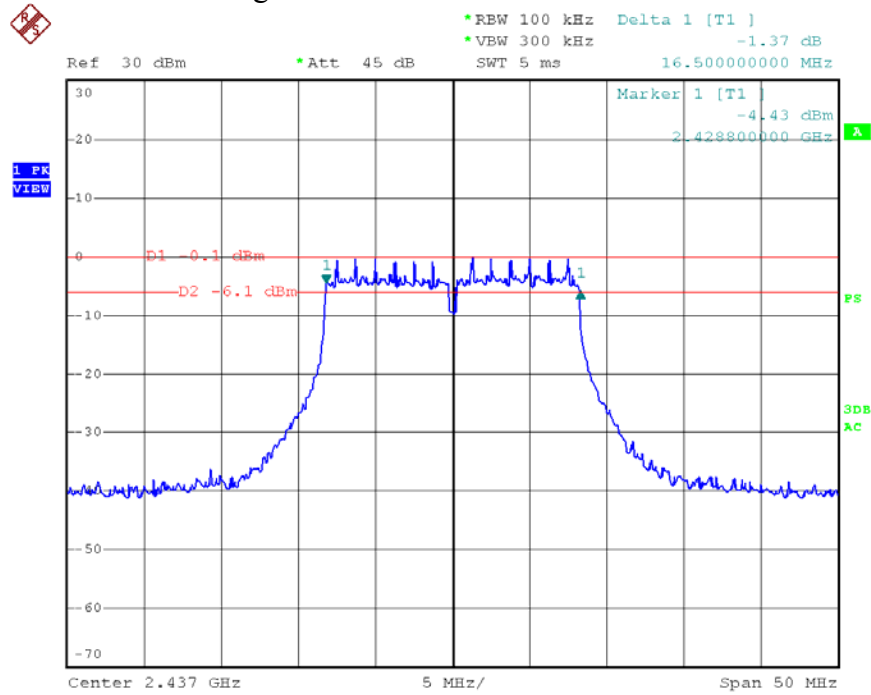
Test Mode: 802.11g---Low



Date: 21.OCT.2013 18:17:55

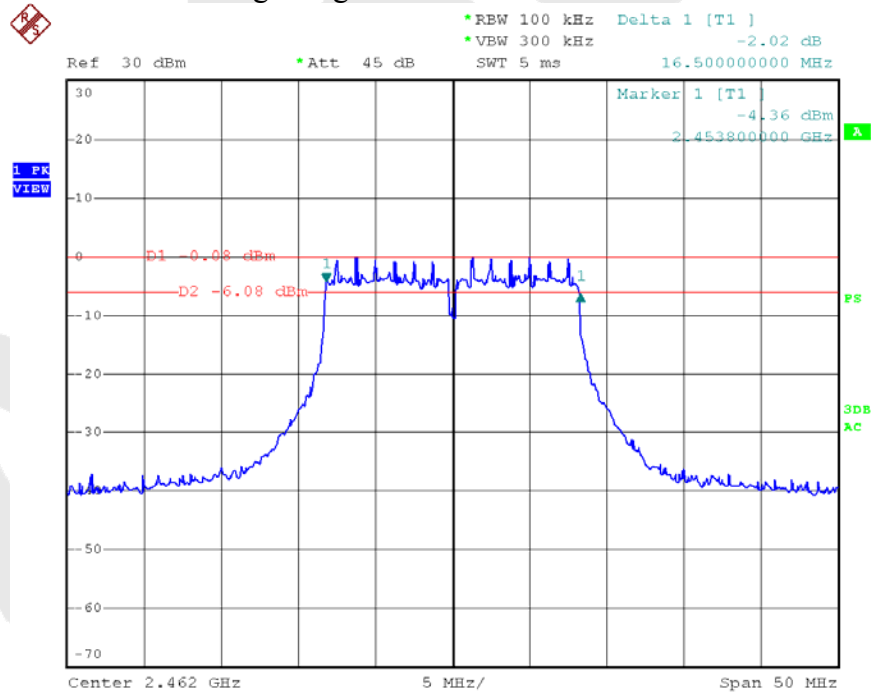


Test Mode: 802.11g---Mid



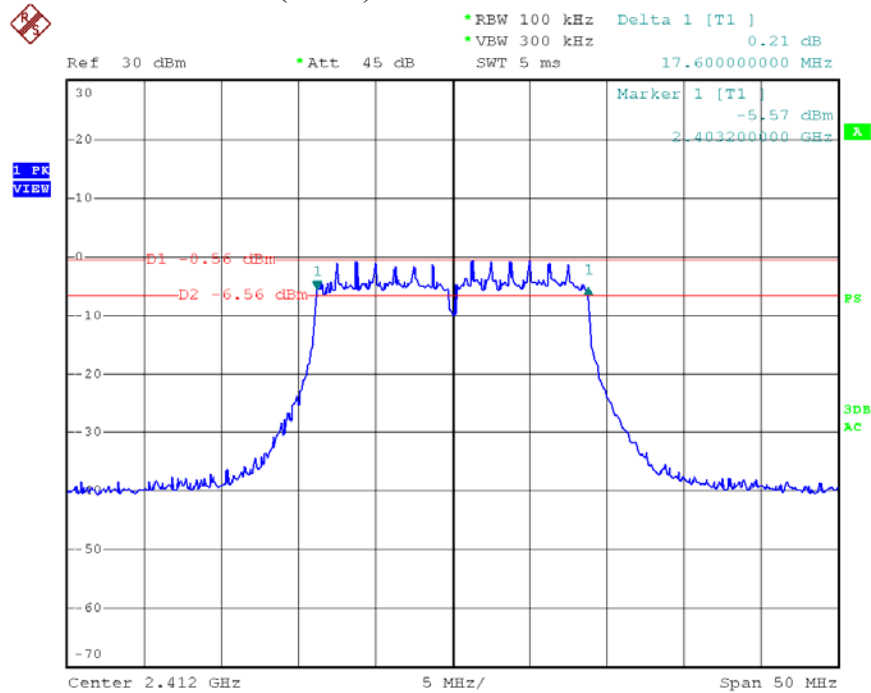
Date: 21.OCT.2013 18:18:46

Test Mode: 802.11g---High



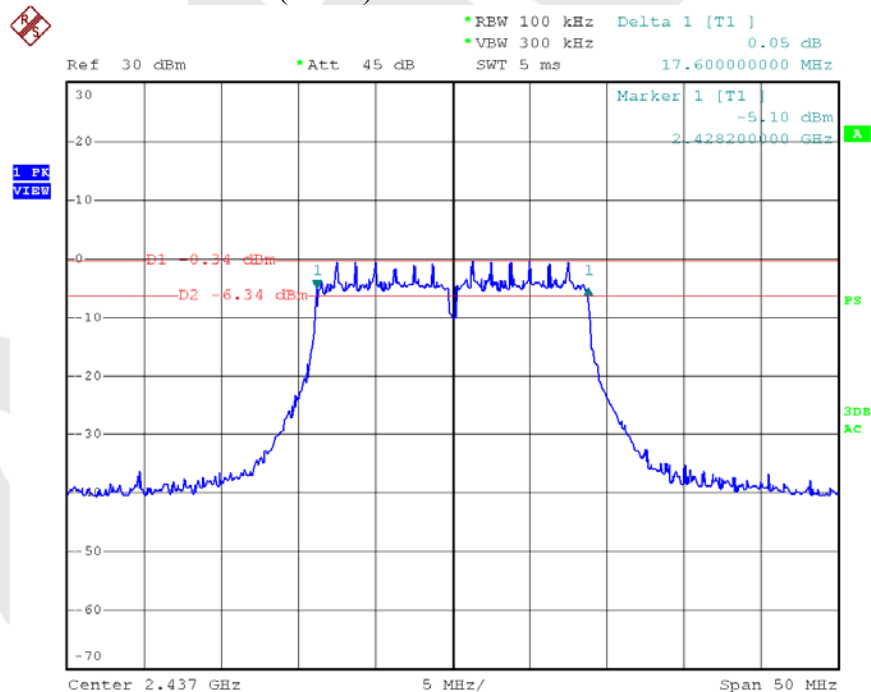
Date: 21.OCT.2013 18:19:54

Test Mode: 802.11n (HT20)---Low



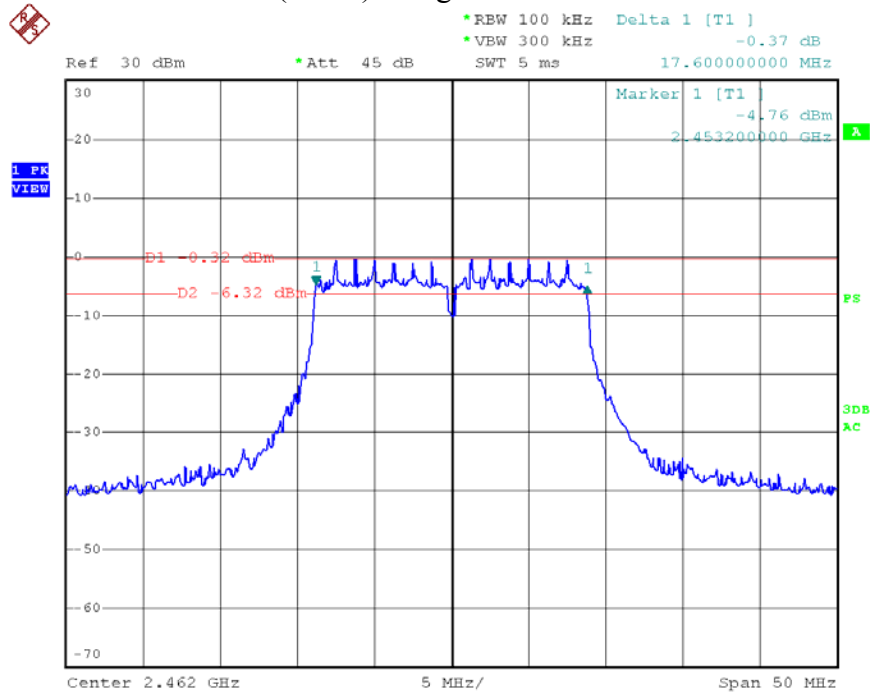
Date: 21.OCT.2013 18:21:06

Test Mode: 802.11n (HT20)---Mid



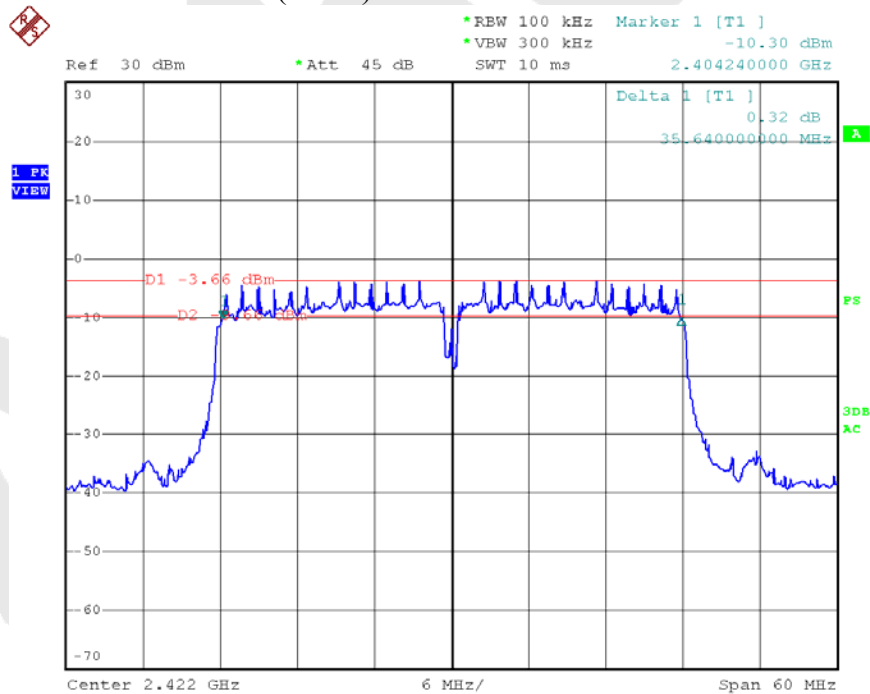
Date: 21.OCT.2013 18:22:16

Test Mode: 802.11n (HT20)---High



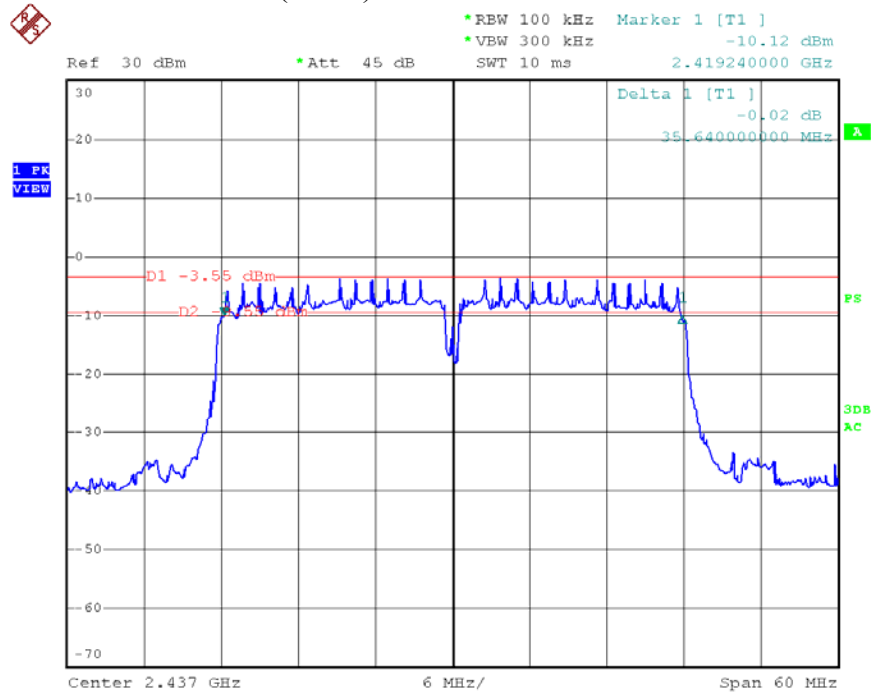
Date: 21.OCT.2013 18:23:14

Test Mode: 802.11n (HT40)---Low



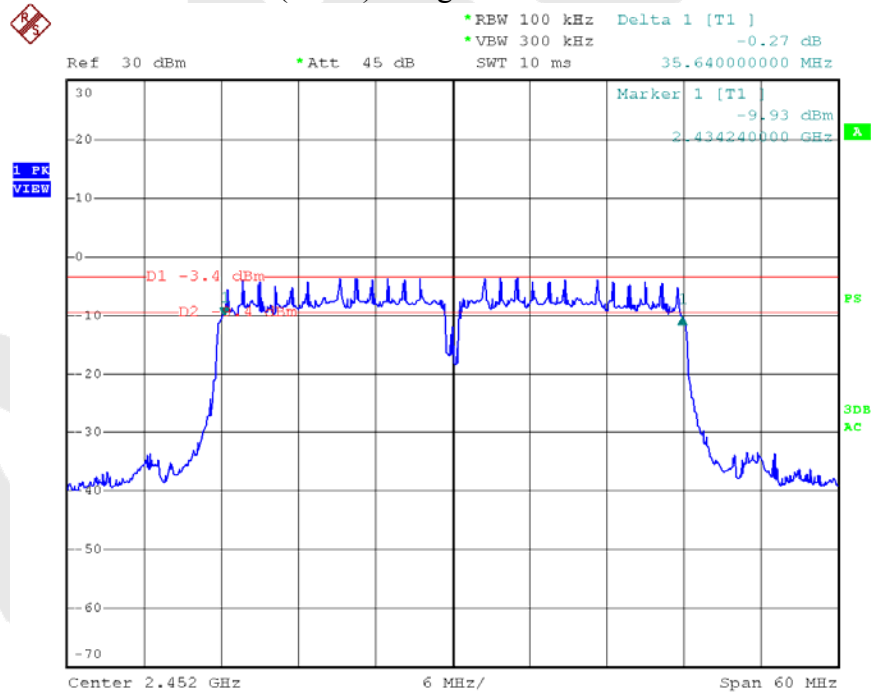
Date: 21.OCT.2013 18:25:48

Test Mode: 802.11n (HT40)---Mid



Date: 21.OCT.2013 18:27:14

Test Mode: 802.11n (HT40)---High



Date: 21.OCT.2013 18:28:28

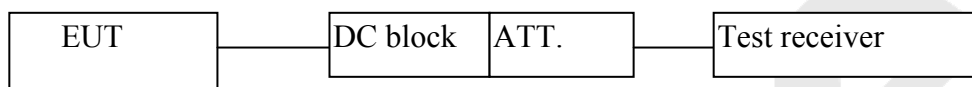
### 4.3. Maximum Peak output power test

#### a. Limit

The maximum peak output power of the intentional radiator shall not exceed the following:

1. For systems using digital modulation in the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz: 1 watt (30dBm).
2. Except as shown in paragraphs (b)(3) (i), (ii) and (iii) of this section, if transmitting antenna of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### b. Configuration of Measurement



#### c. Data Rates

IEEE802.11b: Channel 1(2412MHz), Channel 6(2437MHz) and Channel 11(2462MHz) with 1 Mbps data rate (worst case) are chosen for the final testing.

IEEE802.11g: Channel 1(2412MHz), Channel 6(2437MHz) and Channel 11(2462MHz) with 6 Mbps data rate (the worst case) are chosen for the final testing.

IEEE802.11n (HT20: Channel 1(2412MHz), Channel 6(2437MHz) and Channel 11(2462MHz) with 6.5Mbps data rate (the worst case) are chosen for the final testing.

IEEE802.11n (HT40: Channel 3(2422MHz), Channel 6(2437MHz) and Channel 9(2452MHz) with 13.5Mbps data rate (the worst case) are chosen for the final testing.

#### d. Test Procedure

**This test was according the kDB 558074 9.1.2:**

1. This procedure may be used when the maximum available RBW of the measurement instrument is less than the DTS bandwidth.
2. Set the RBW = 1 MHz.
3. Set the VBW  $\geq 3 \times \text{RBW} = 3 \text{ MHz}$ .
4. Set the span  $\geq 1.5 \times \text{DTS bandwidth}$ .
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select peak detector). If the instrument does not have a band power function, sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS bandwidth.

#### e. Test Equipment

Same as the equipment listed in 4.2.

#### f. Test Results

Pass.

#### g. Test Data

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	Maximum transmit power	Limit		Result
		(dBm)	(dBm)	(watts)	
Low	2412	19.56	30	1	Pass
Mid	2437	19.45			Pass
High	2462	19.58			Pass

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	Maximum transmit power	Limit		Result
		(dBm)	(dBm)	(watts)	
Low	2412	16.24	30	1	Pass
Mid	2437	16.35			Pass
High	2462	16.60			Pass

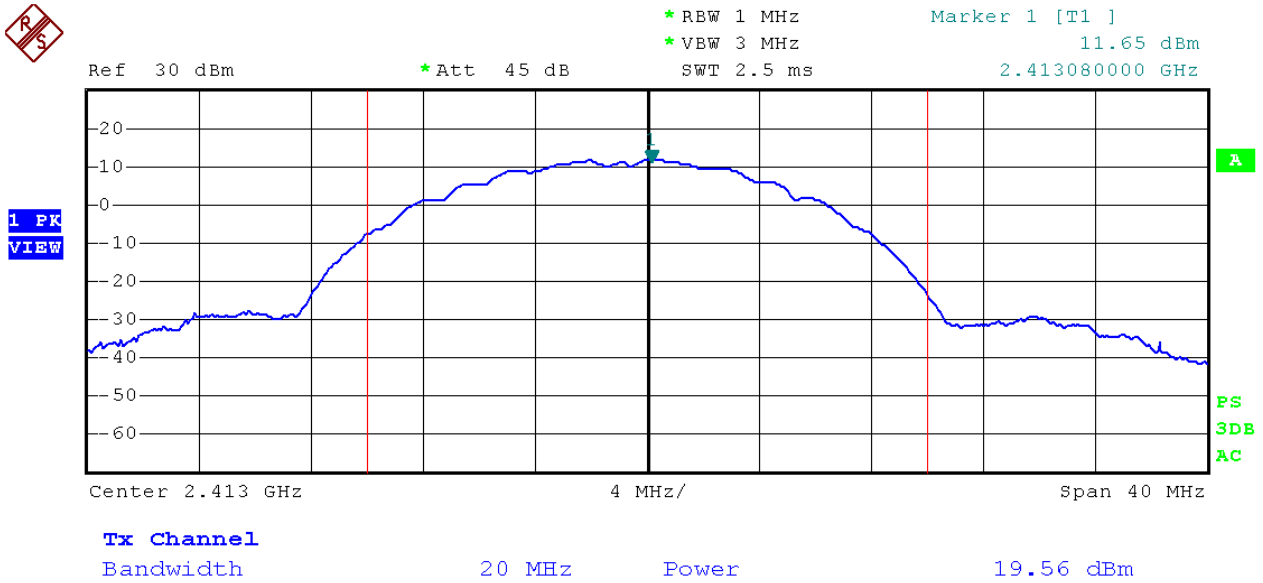
Test mode: IEEE 802.11n (HT20)

Channel	Frequency (MHz)	Maximum transmit power	Limit		Result
		(dBm)	(dBm)	(watts)	
Low	2412	15.78	30	1	Pass
Mid	2437	15.43			Pass
High	2462	15.25			Pass

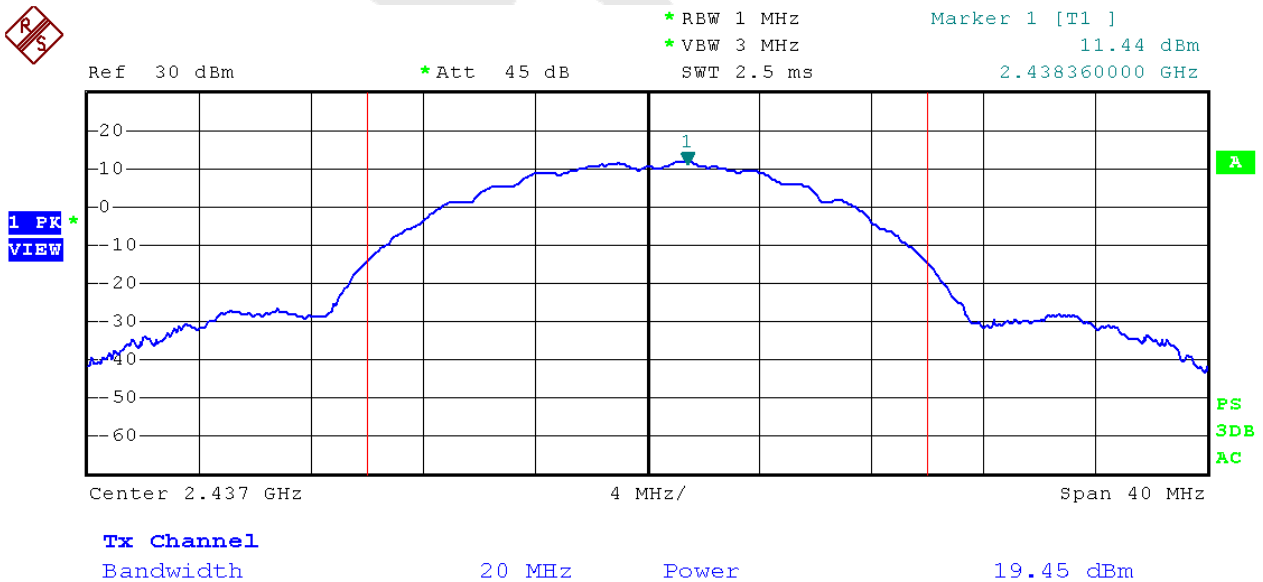
Test mode: IEEE 802.11n (HT40)

Channel	Frequency (MHz)	Maximum transmit power	Limit		Result
		(dBm)	(dBm)	(watts)	
Low	2422	14.51	30	1	Pass
Mid	2437	14.78			Pass
High	2452	14.77			Pass

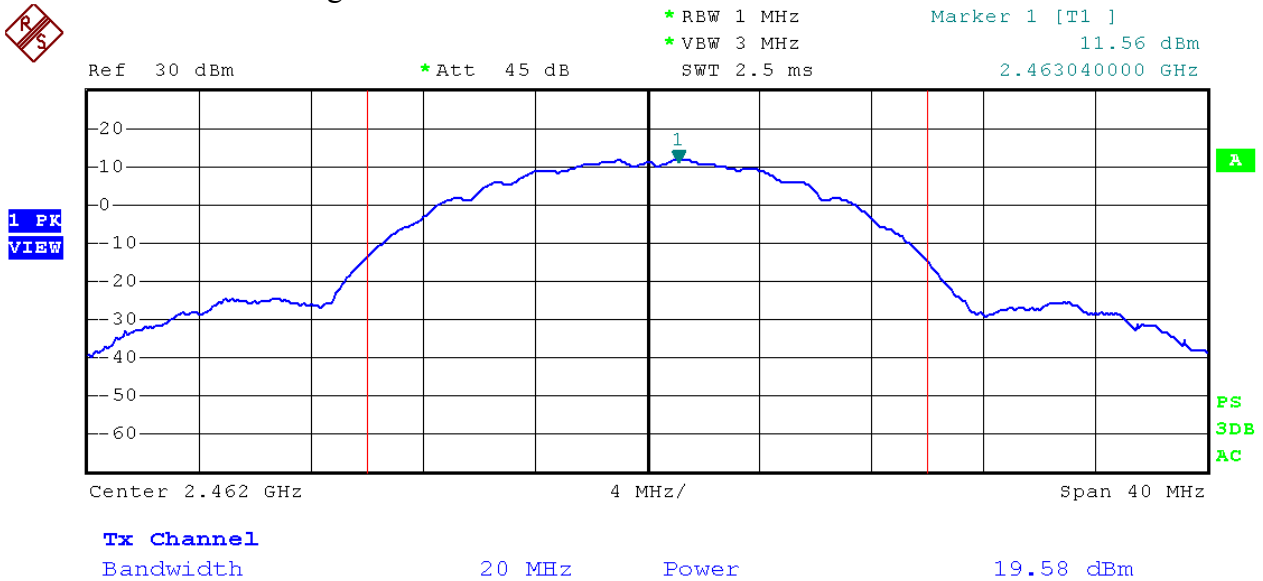
Test Mode: 802.11b---Low



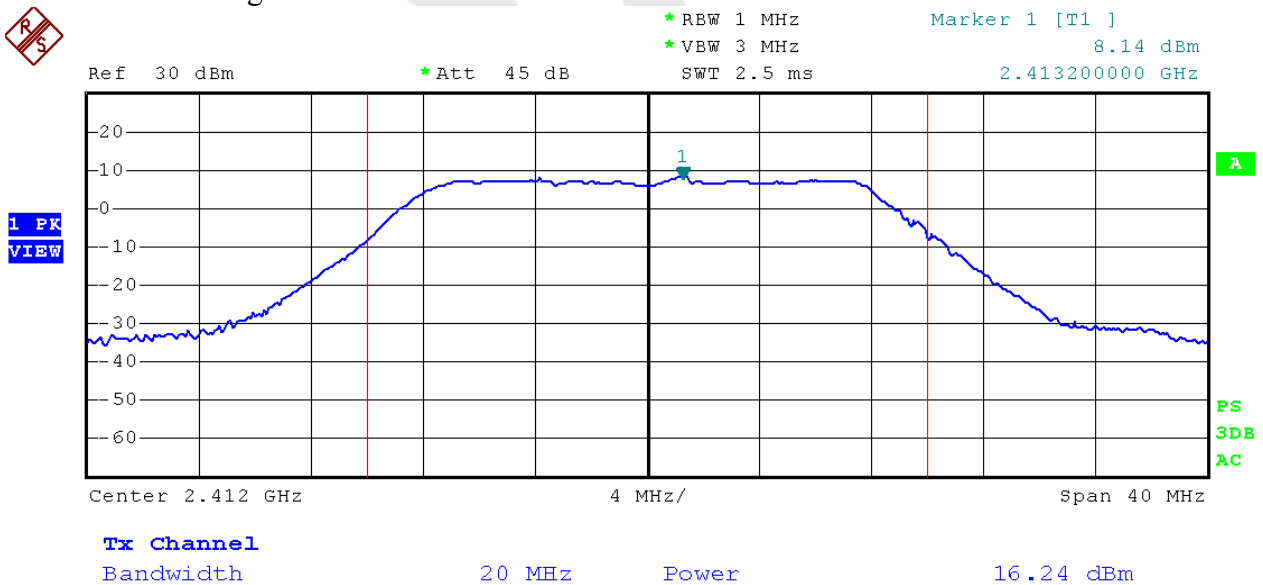
Test Mode: 802.11b---Mid



Test Mode: 802.11b---High



Test Mode: 802.11g---Low

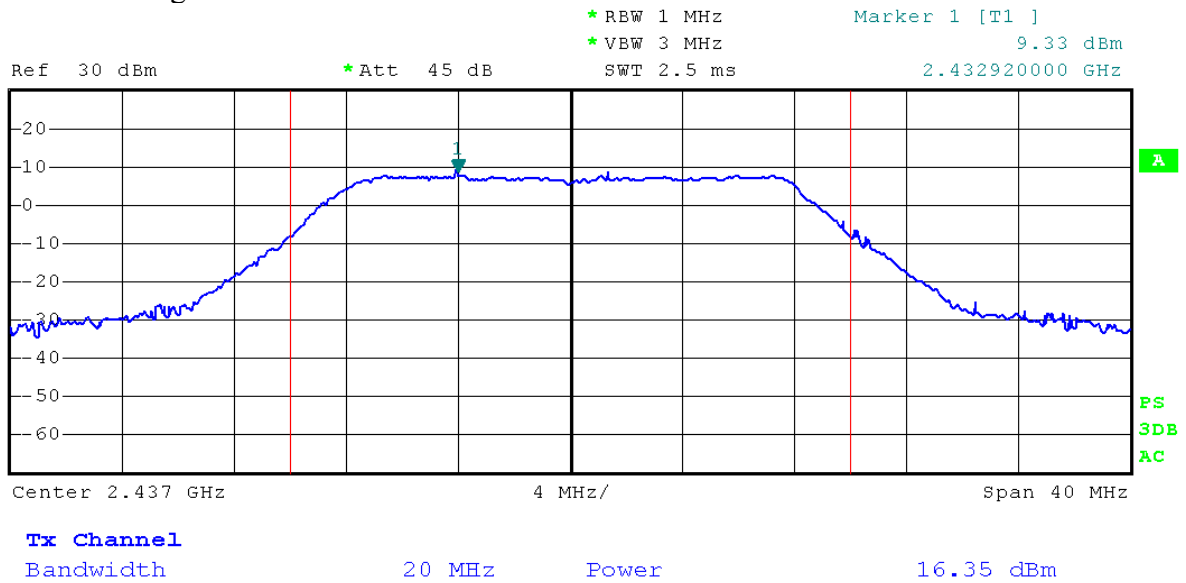




Test Mode: 802.11g---Mid



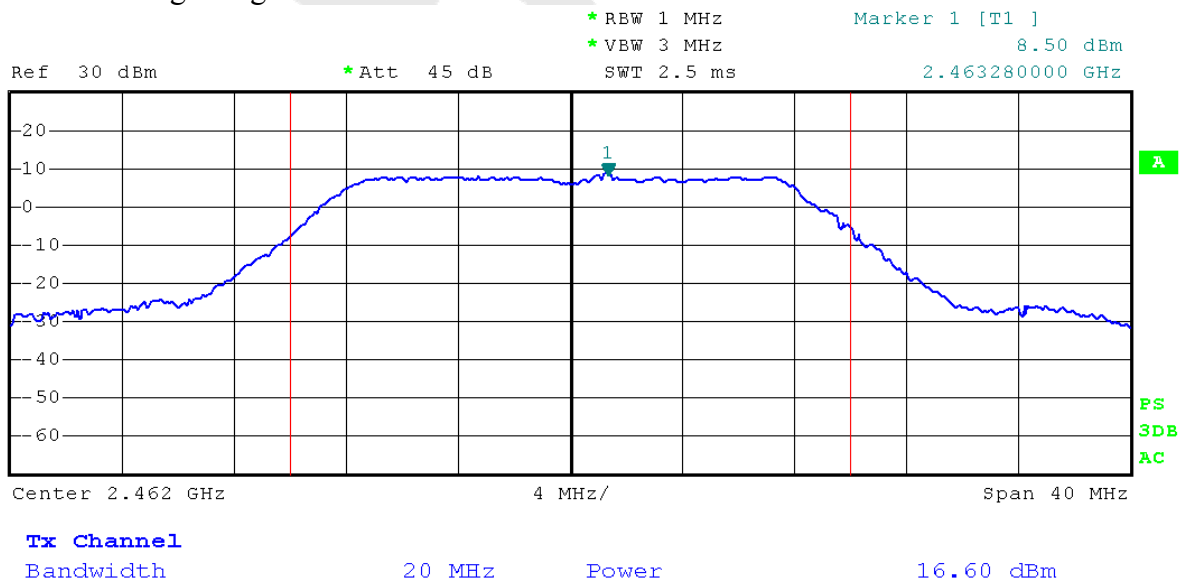
1 PK  
VIEW



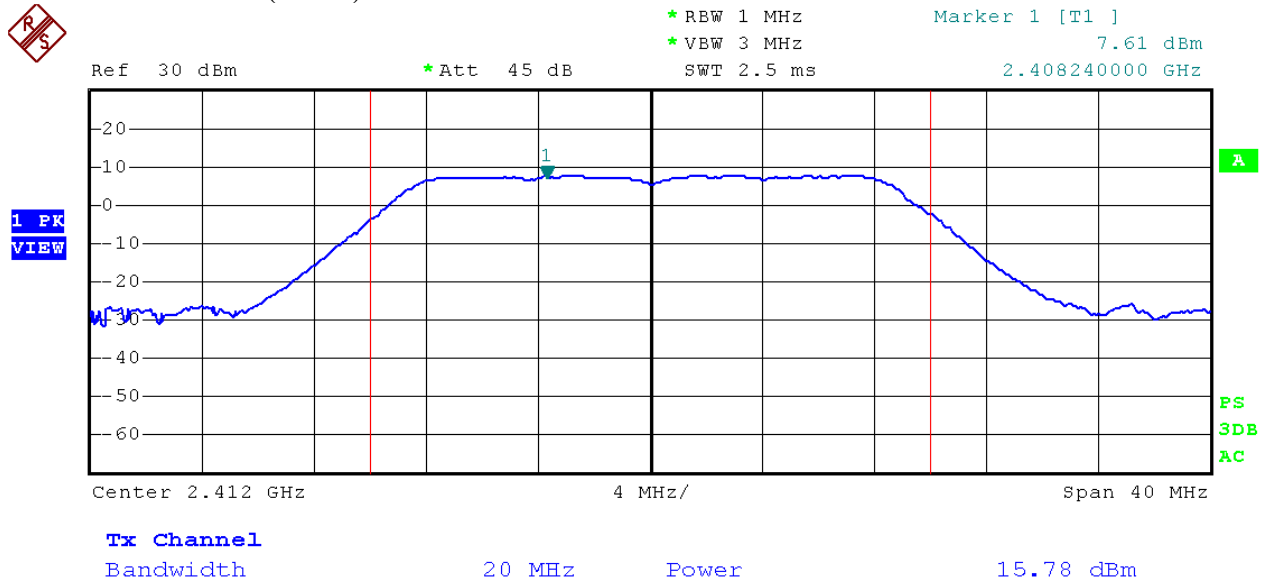
Test Mode: 802.11g---High



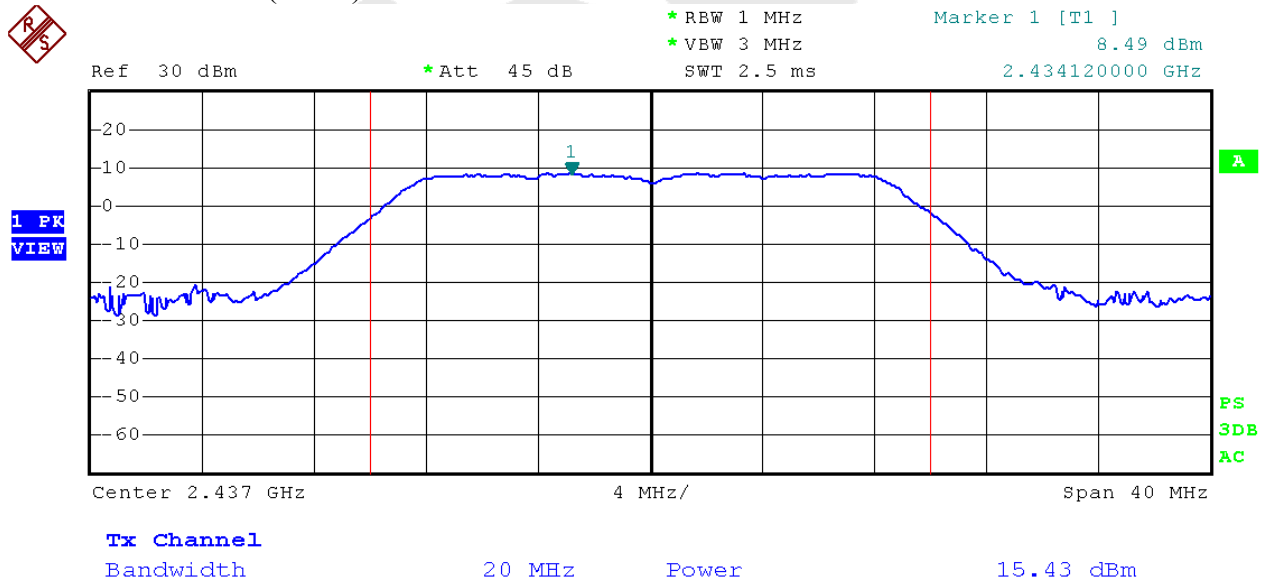
1 PK  
VIEW



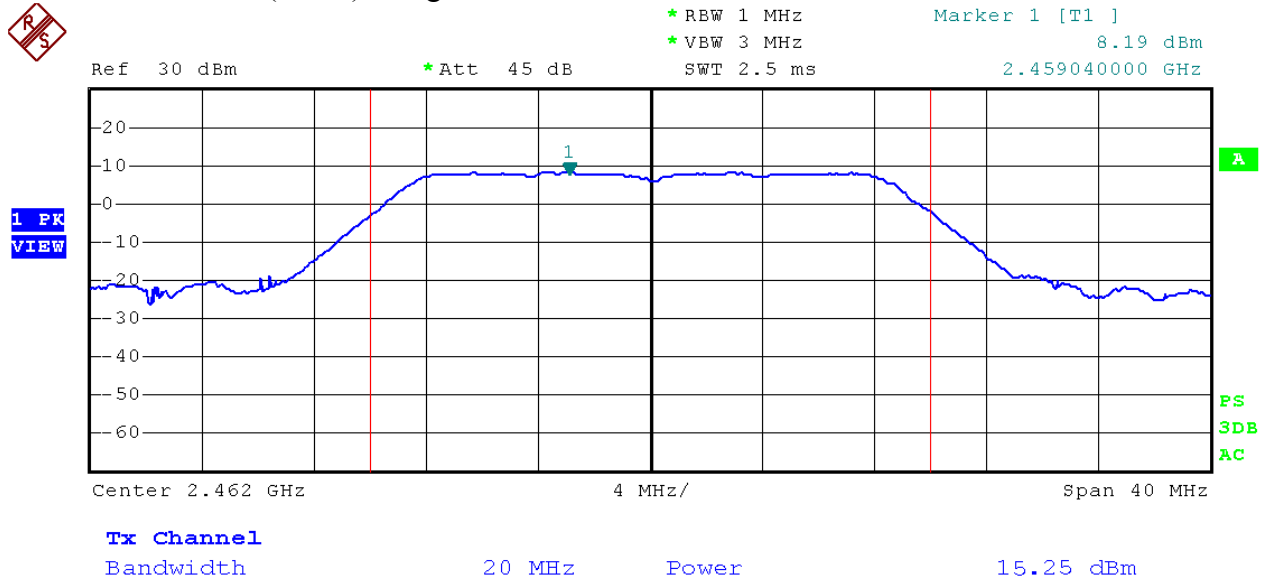
Test Mode: 802.11n(HT20)---Low



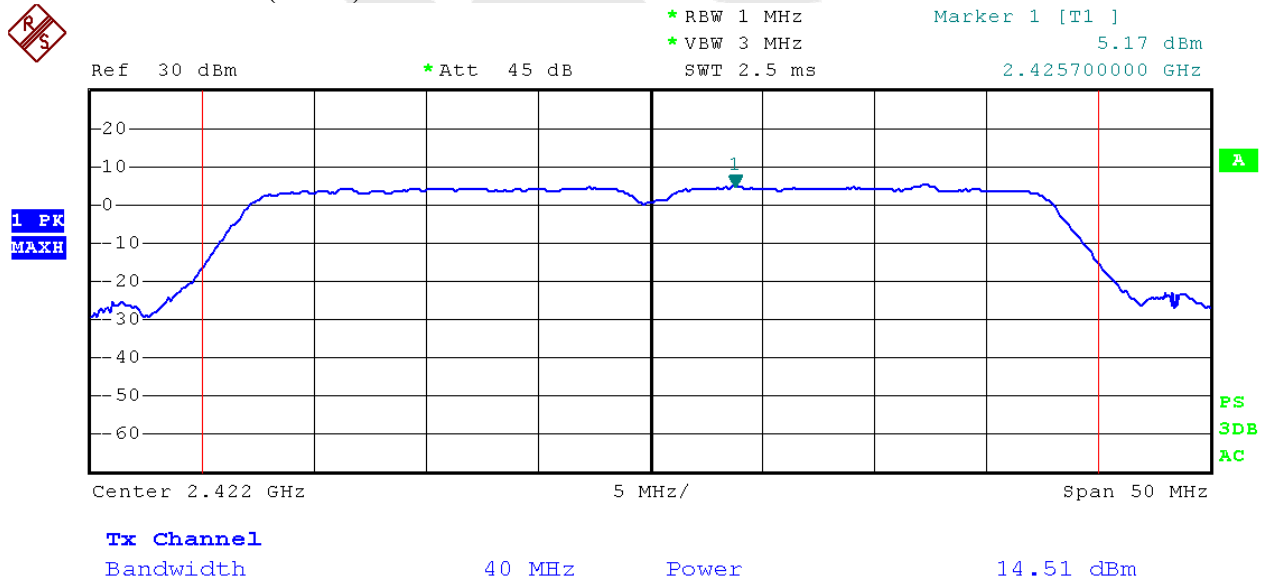
Test Mode: 802.11n(HT20)---Mid



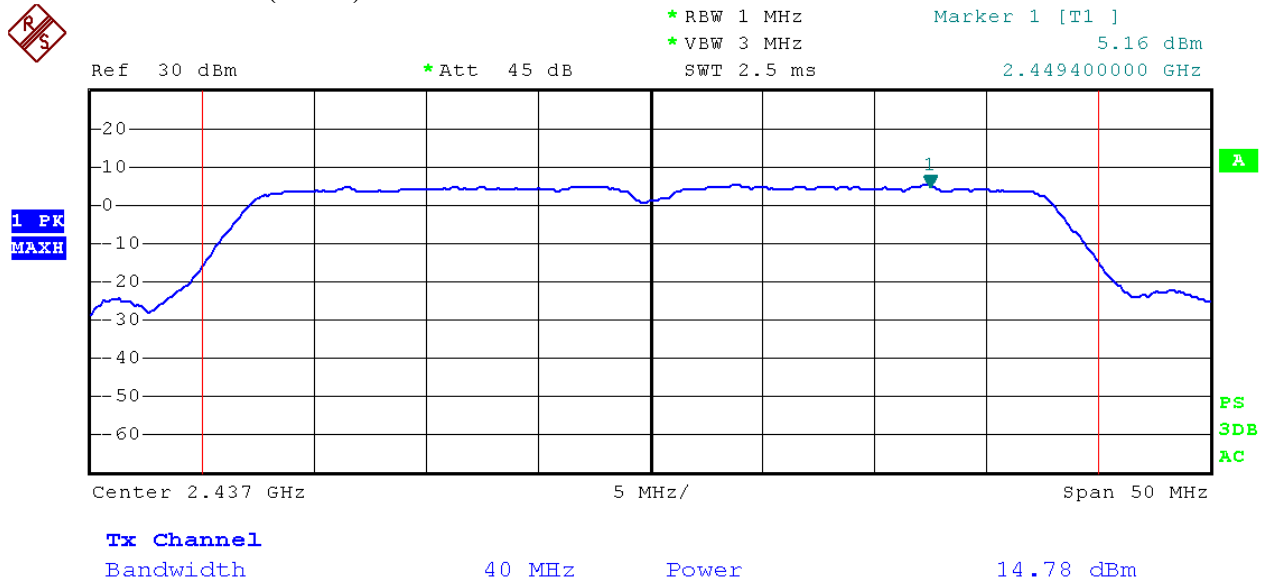
Test Mode: 802.11n(HT20)---High



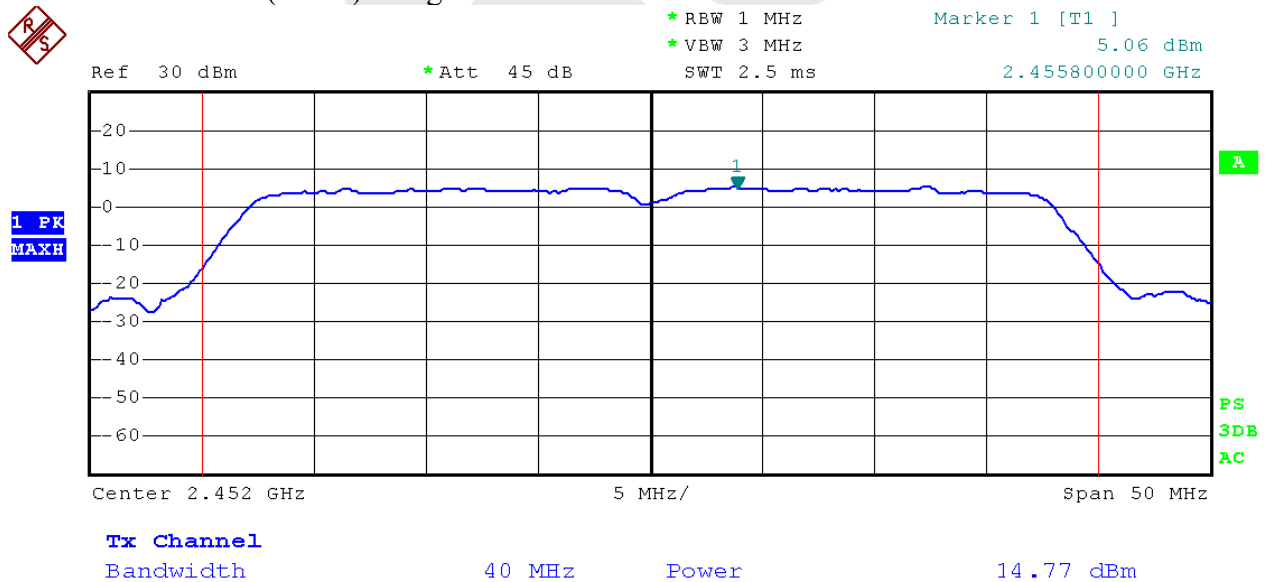
Test Mode: 802.11n(HT40)---Low



Test Mode: 802.11n(HT40)---Mid



Test Mode: 802.11n(HT40)---High



#### 4.4. Band Edges Measurement

##### a. Limit

According to §15.247(c), in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

##### b. Test Procedure

1. Set RBW=100KHz, VBW=300KHz
2. Detector=peak
3. Sweep time= auto
4. Trace mode=max hold.

##### c. Test Equipment

Same as the equipment listed in 4.2.

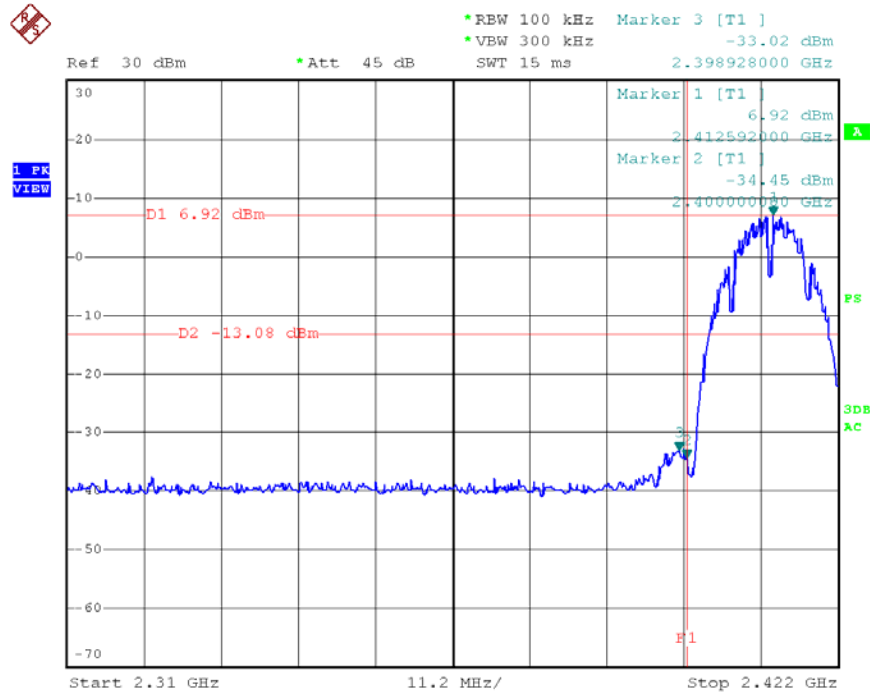
##### d. Test Results

Pass.

##### e. Test Plots

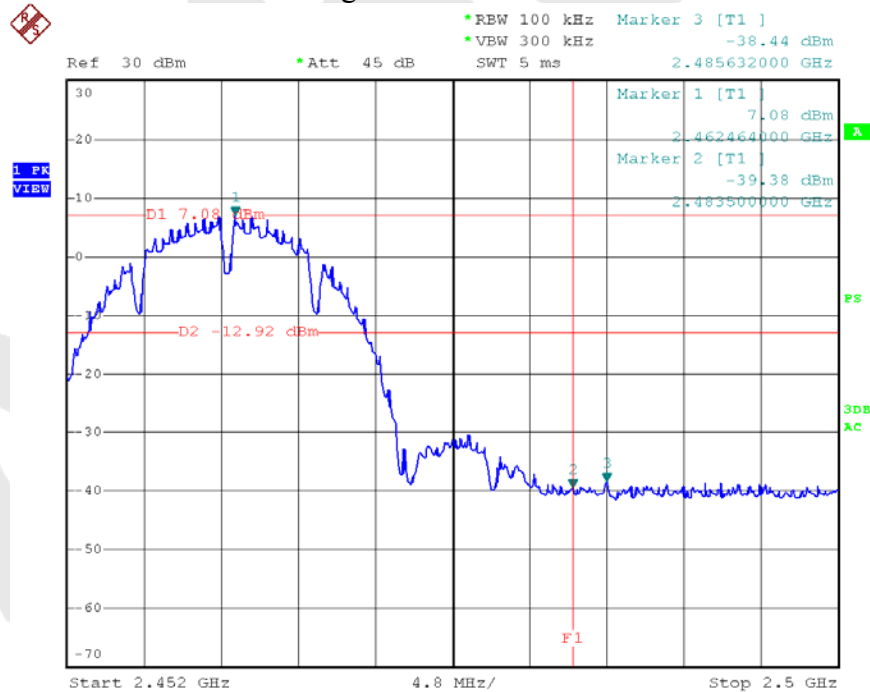
See the following page.

Test Mode: 802.11b ---Low



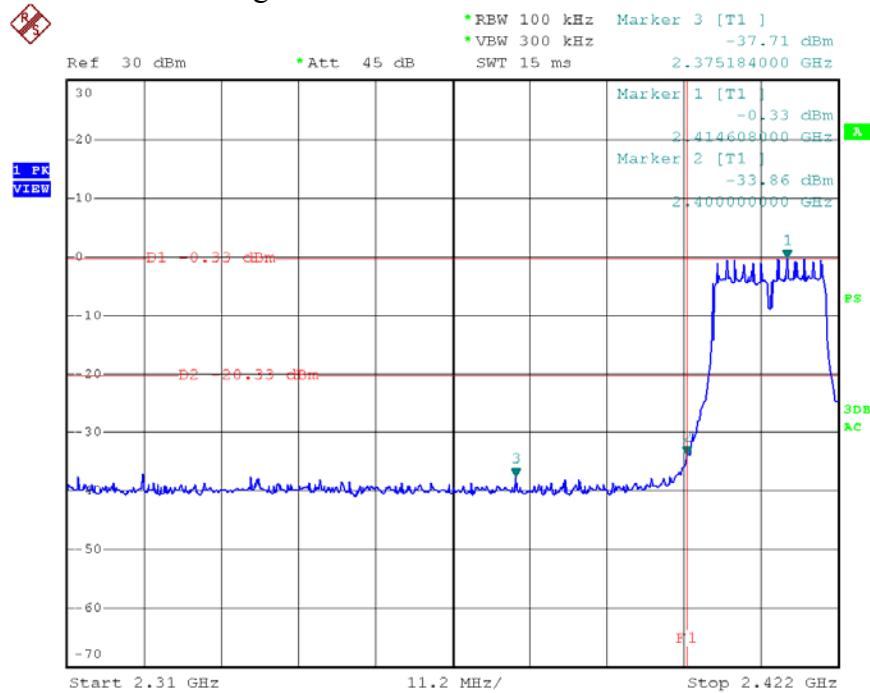
Date: 21.OCT.2013 18:01:11

Test Mode: 802.11b ---High



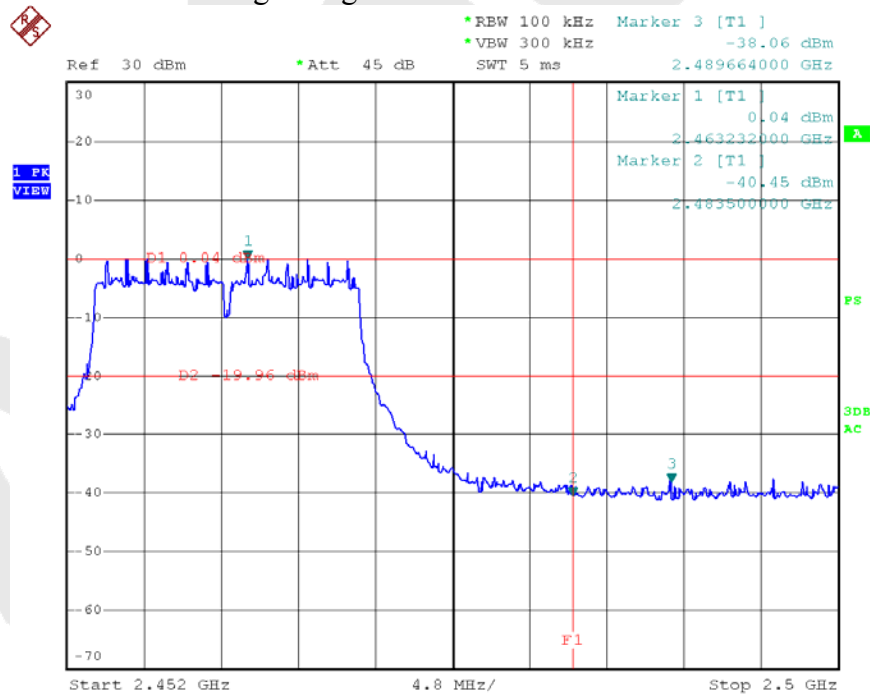
Date: 21.OCT.2013 18:07:16

Test Mode: 802.11g ---Low



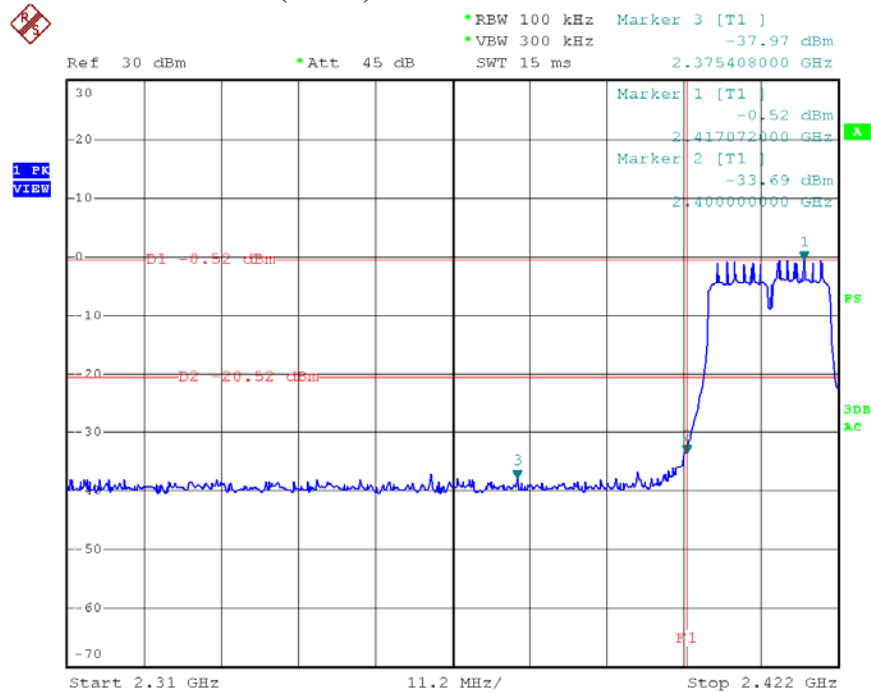
Date: 21.OCT.2013 18:02:25

Test Mode: 802.11g ---High



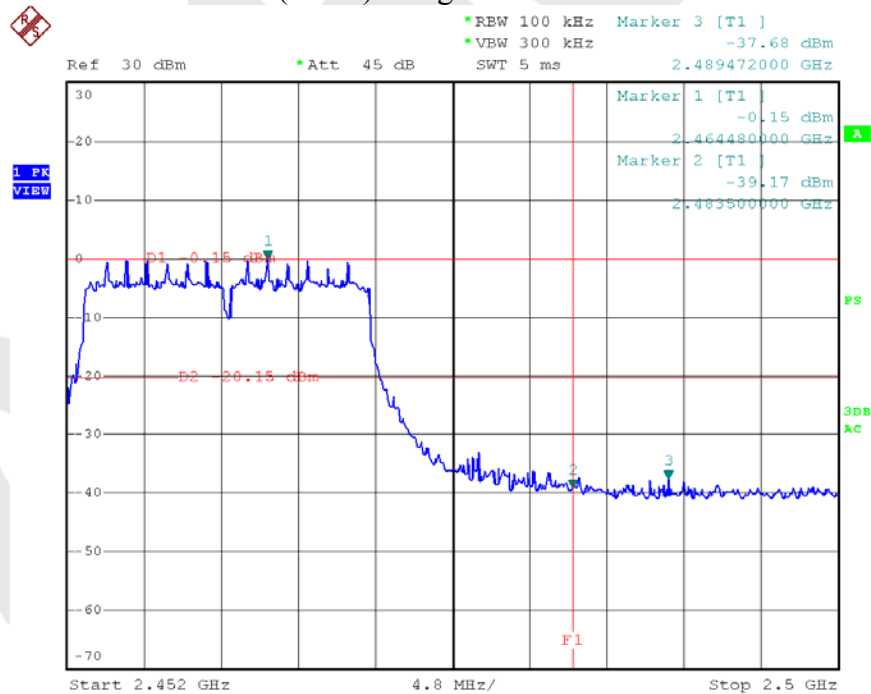
Date: 21.OCT.2013 18:08:13

Test Mode: 802.11n (HT20) ---Low



Date: 21.OCT.2013 18:03:53

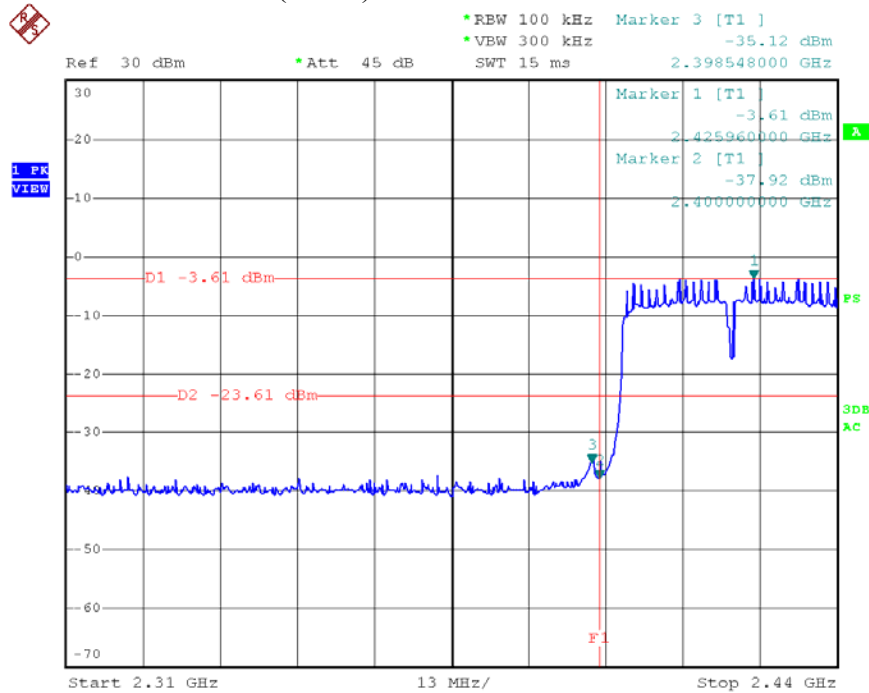
Test Mode: 802.11n (HT20)---High



Date: 21.OCT.2013 18:09:09

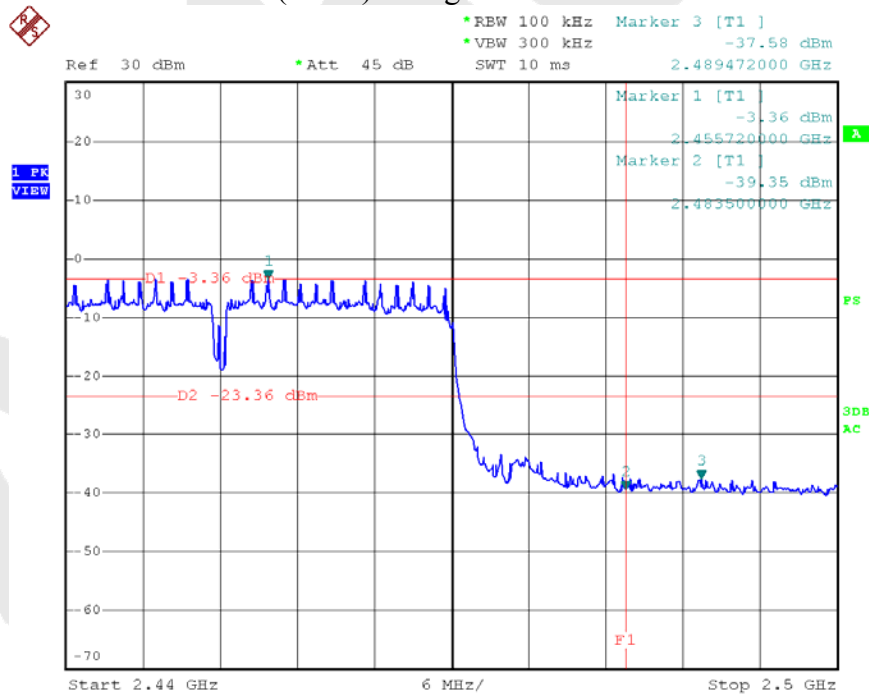


Test Mode: 802.11n (HT40) ---Low



Date: 21.OCT.2013 18:05:19

Test Mode: 802.11n (HT40) ---High



Date: 21.OCT.2013 18:10:29

#### 4.5. Peak Power Spectral Density

##### **a. Limit**

1. For direct sequence systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.
2. The direct sequence operating of the hybrid system, with the frequency hopping operation turned off, shall comply with the power density requirements of paragraph (d) of this section.

##### **b. Test Procedure**

1. Place the EUT on the table and set it in transmitting mode. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
2. Set the spectrum analyzer as RBW = 3kHz, VBW = 10kHz, Span = 1.5MHz, Sweep=500s
3. Record the max. reading.
4. Repeat the above procedure until the measurements for all frequencies are completed.

##### **c. Test Equipment**

Same as the equipment listed in 4.2.

##### **d. Test Setup**

See 4.1

##### **e. Test Results**

Pass

##### **f. Test Data**

Please refer to the following data.

Test mode: IEEE 802.11b

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	$\Sigma$ PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2412	-0.76	-	8.00	Pass
Mid	2437	0.06	-		Pass
High	2462	1.48	-		Pass

Test mode: IEEE 802.11g

Channel	Frequency (MHz)	PPSD (dBm)	$\Sigma$ PPSD (dBm)	Limit (dBm)	Result
Low	2412	-14.96	-	8.00	Pass
Mid	2437	-14.87	-		Pass
High	2462	-14.70	-		Pass

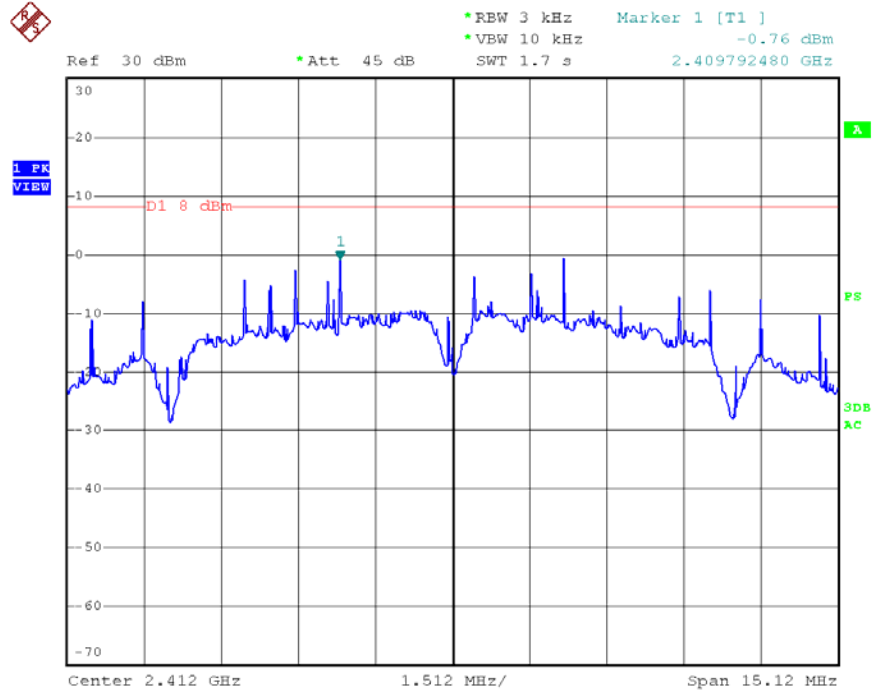
Test mode: IEEE 802.11n (HT20)

Channel	Frequency (MHz)	PPSD (dBm/3KHz)	$\Sigma$ PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2412	-15.13	-	8.00	Pass
Mid	2437	-14.85	-		Pass
High	2462	-14.87	-		Pass

Test mode: IEEE 802.11n (HT40)

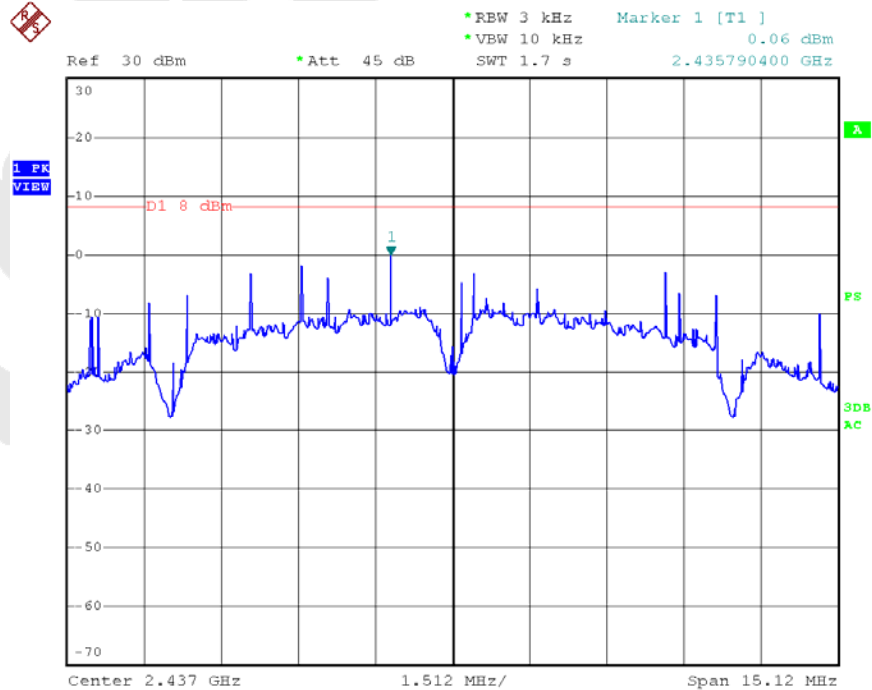
Channel	Frequency (MHz)	PPSD (dBm/3KHz)	$\Sigma$ PPSD (dBm/3KHz)	Limit (dBm)	Result
Low	2422	-15.11	-	8.00	Pass
Mid	2437	-14.80	-		Pass
High	2452	-14.83	-		Pass

g. Test Plot See the following pages  
802.11 b CH--Low

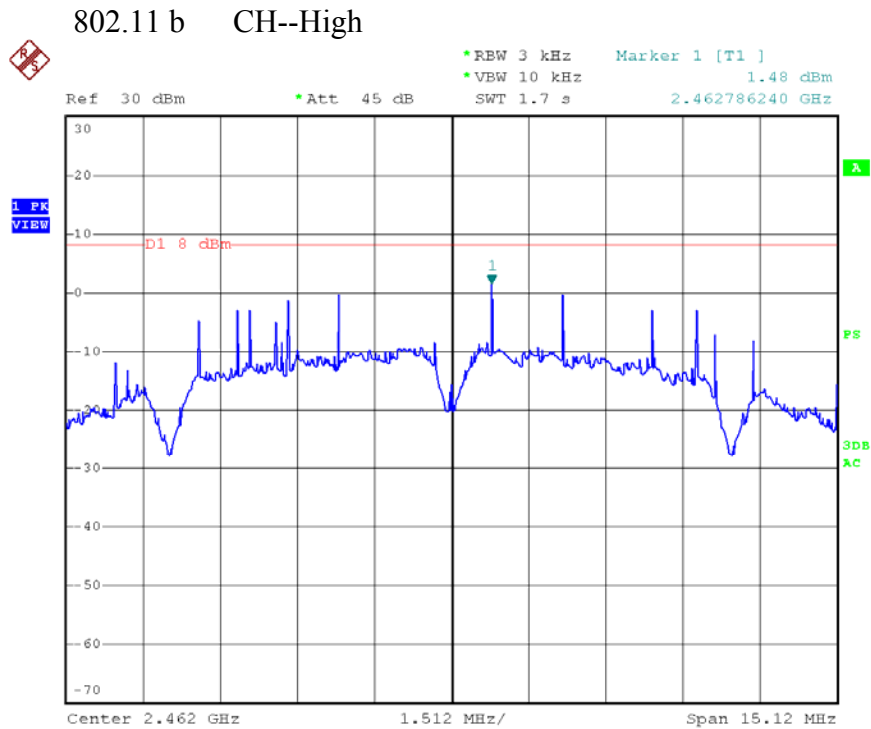


Date: 21.OCT.2013 18:31:44

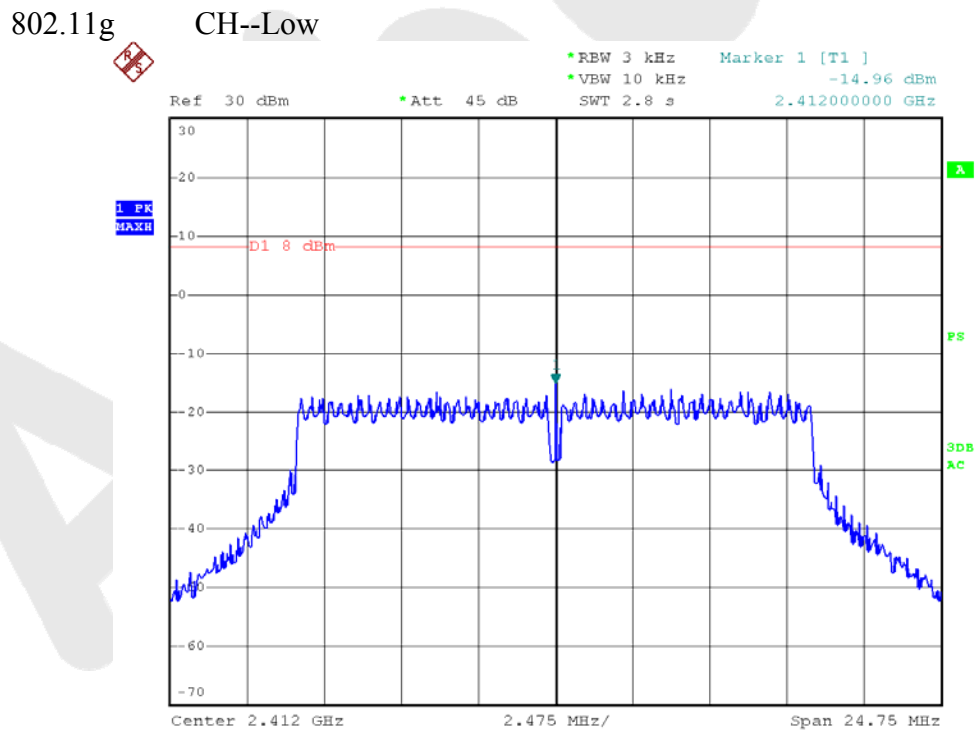
802.11 b CH--Mid



Date: 21.OCT.2013 18:32:33

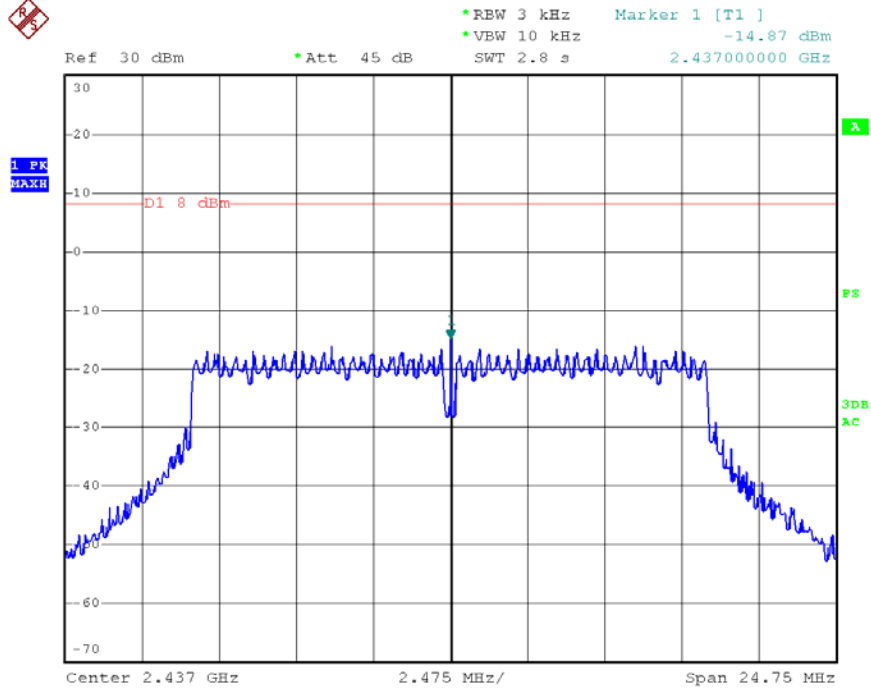


Date: 21.OCT.2013 18:33:17



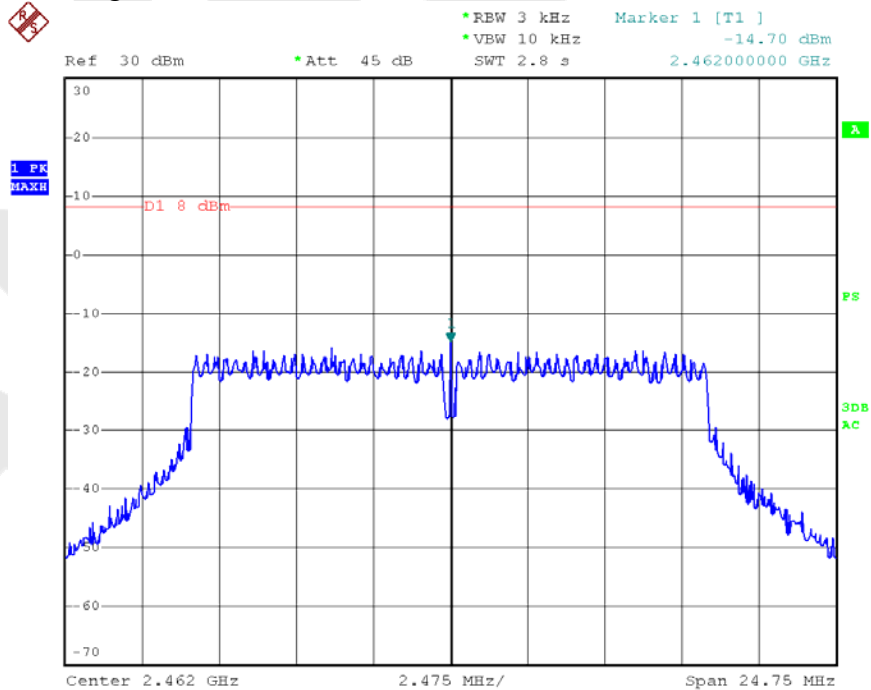
Date: 21.OCT.2013 18:35:23

802.11g CH--Mid



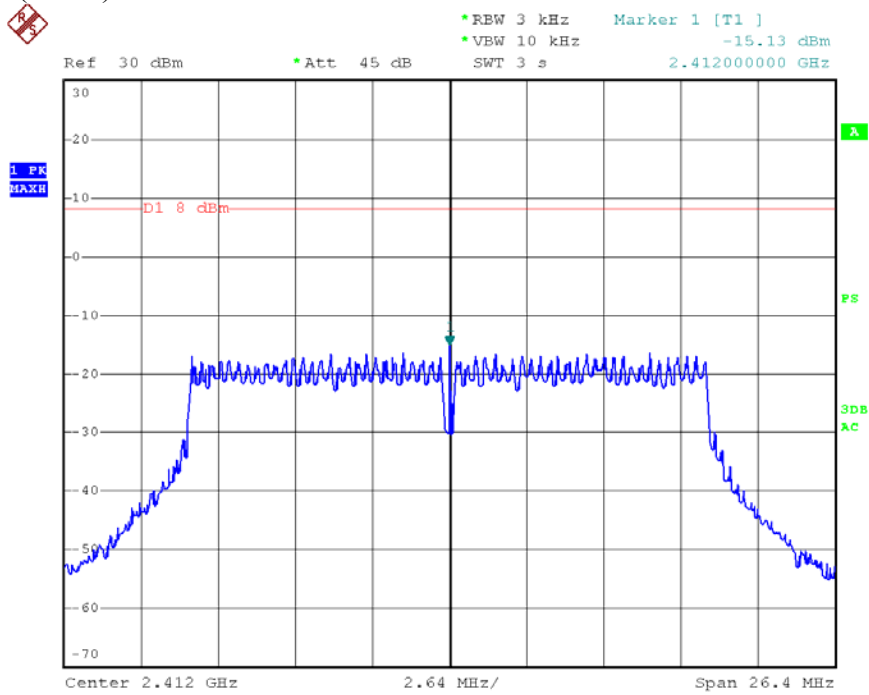
Date: 21.OCT.2013 18:35:49

802.11g CH--High



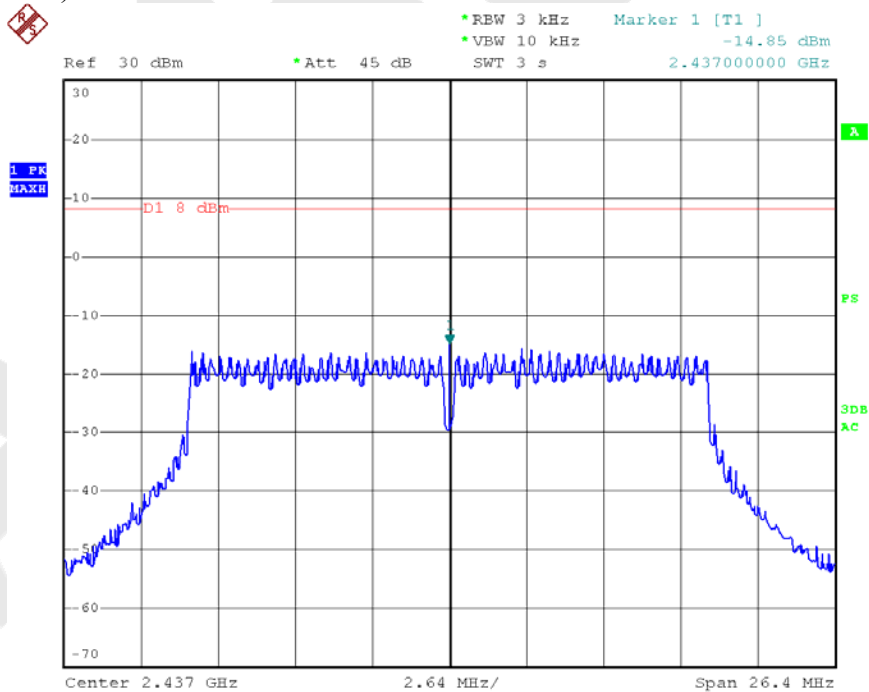
Date: 21.OCT.2013 18:36:33

802.11n (HT20) CH—Low



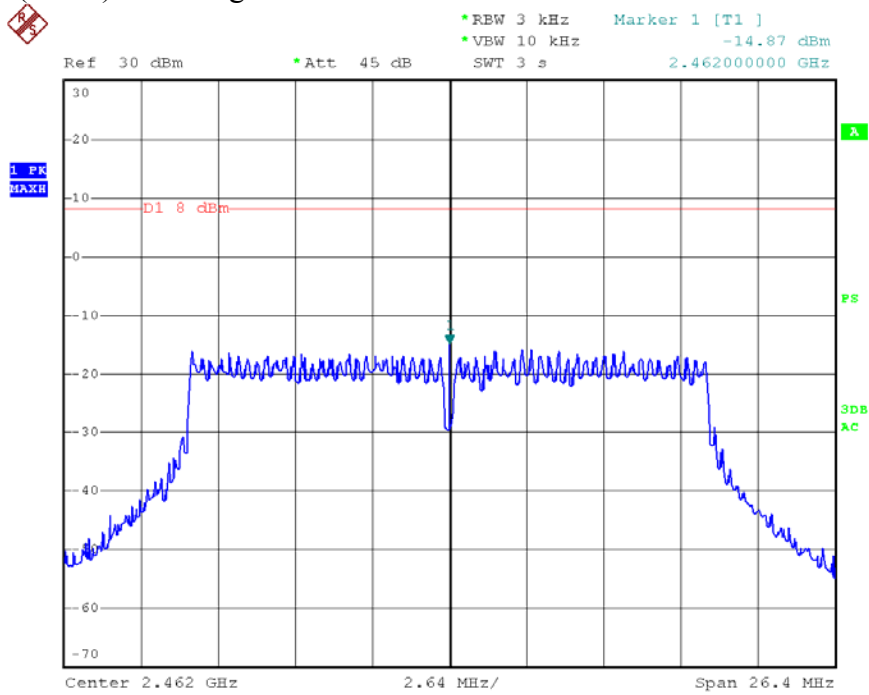
Date: 21.OCT.2013 18:37:19

802.11n (HT20) CH—Mid



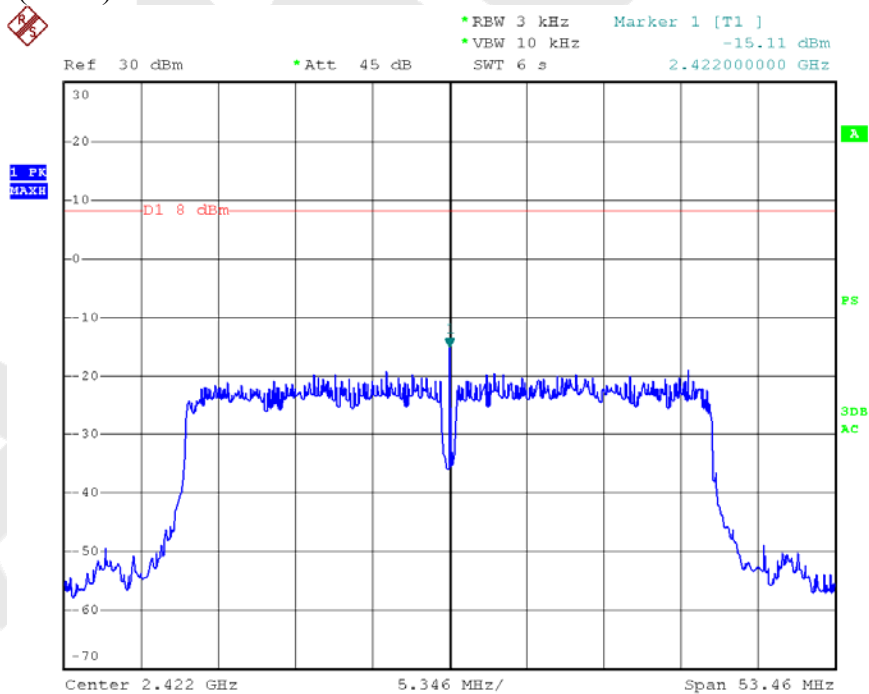
Date: 21.OCT.2013 18:37:49

802.11n (HT20) CH—High



Date: 21.OCT.2013 18:38:15

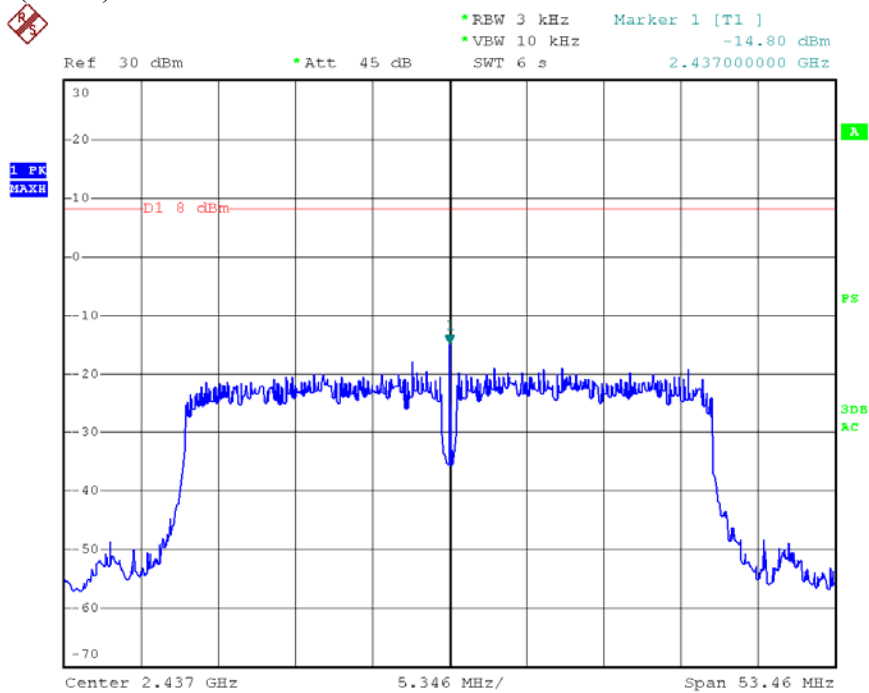
802.11n (HT40) CH—Low



Date: 21.OCT.2013 18:38:55

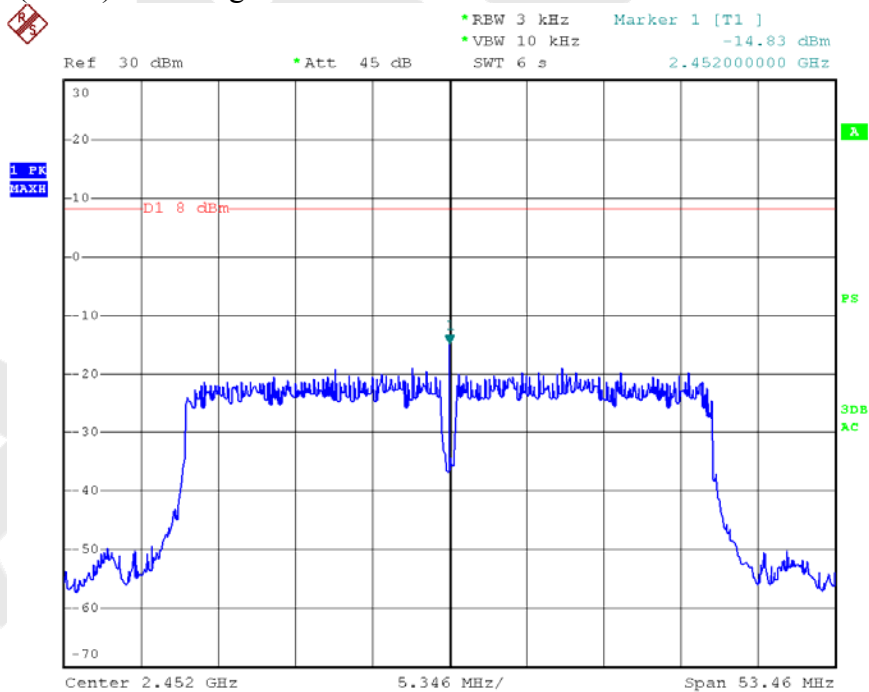


802.11n (HT40) CH—Mid



Date: 21.OCT.2013 18:39:25

802.11n (HT40) CH—High



Date: 21.OCT.2013 18:39:48

## 4.6. Radiated Emissions

### 4.6.1.1. Test Limits (< 30 MHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meter)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30

### 4.6.1.2. Test Limits ( $\geq$ 30 MHz)

FIELD STRENGTH of Fundamental: @3M	FIELD STRENGTH of Harmonics	S15.209 30 - 88 MHz	40 dBuV/m
902-928 MHz		88 - 216 MHz	43.5
2.4-2.4835 GHz		216 - 960 MHz	46
94 dBuV/m @3m	54 dBuV/m @3m	ABOVE 960 MHz	54dBuV/m

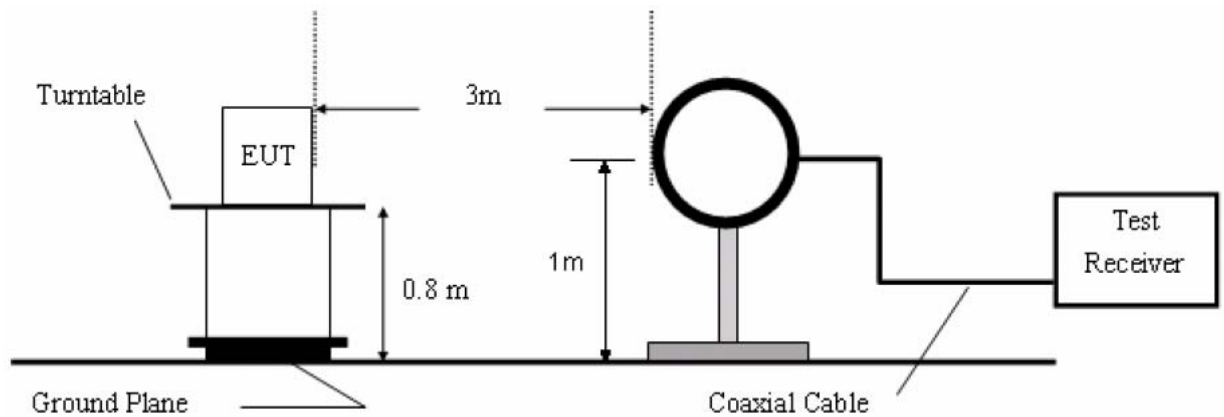
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

### Test Equipment

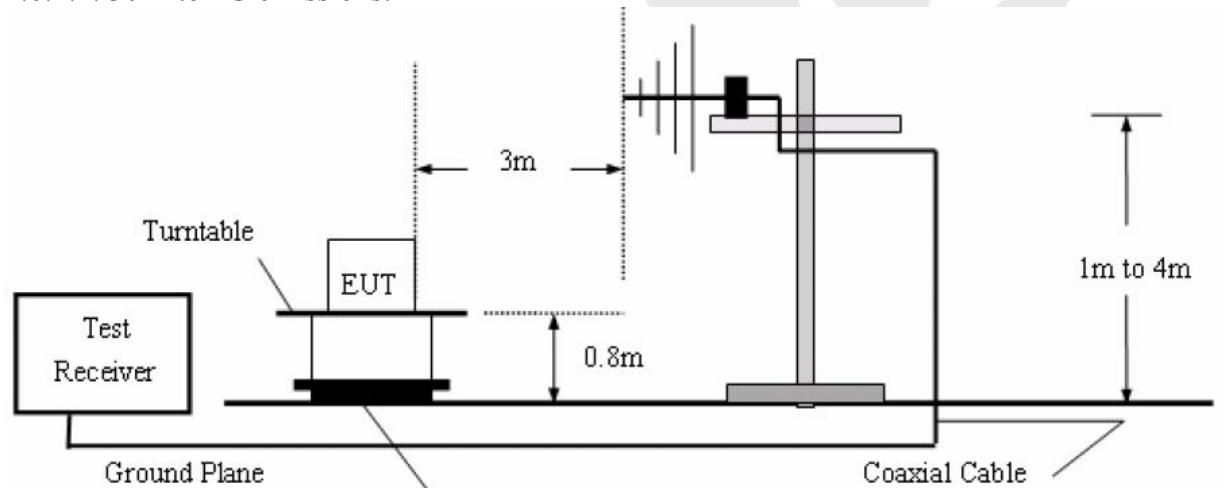
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Preamplifier	Instruments corporation	EMC011830	980100	Aug. 09, 2013	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Apr. 23, 2013	1 Year
3.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Aug. 09, 2013	3 Year
4.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Apr. 23, 2013	3 Year
5.	Pre-amplifier	SONOMA	310N	186860	Apr. 23, 2013	1 Year
6.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A

#### 4.6.2. Test Configuration:

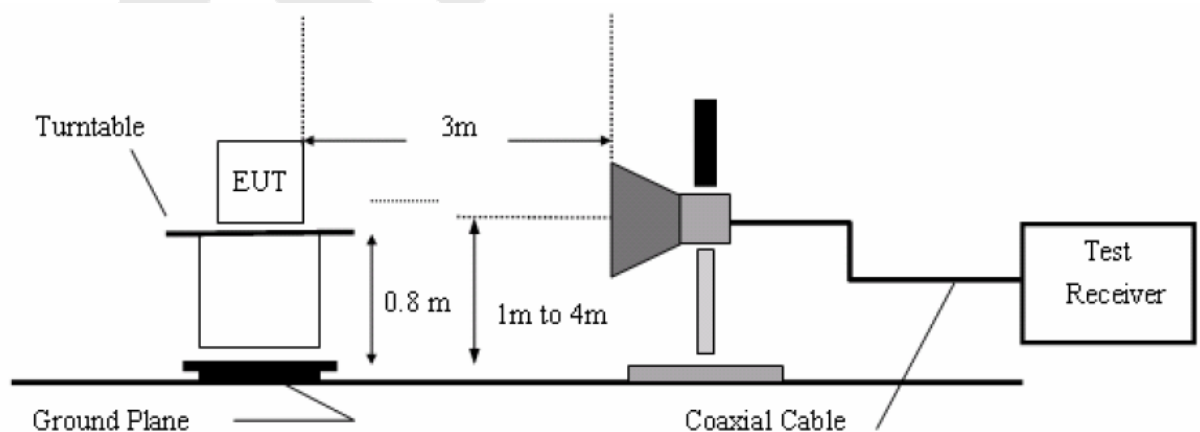
##### 4.6.2.1. 9k to 30MHz emissions:



##### 4.6.2.2. 30M to 1G emissions:



##### 4.6.2.3. 1G to 40G emissions:



#### 4.6.3. Test Procedure

The EUT is placed on a turn table which is 0.8 meter high above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna which is mounted on a antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

Measurements are made on 9KHz to 30MHz and 30MHz to 26GHz range with the transmitter set to the lowest, middle, and highest channels.

All readings from 30MHz to 1GHz are quasi-peak values with a resolution bandwidth of 120kHz. All reading are above 1GHz, peak & average values with a resolution bandwidth of 1MHz.

The EUT is tested in 9\*6\*6 Chamber.

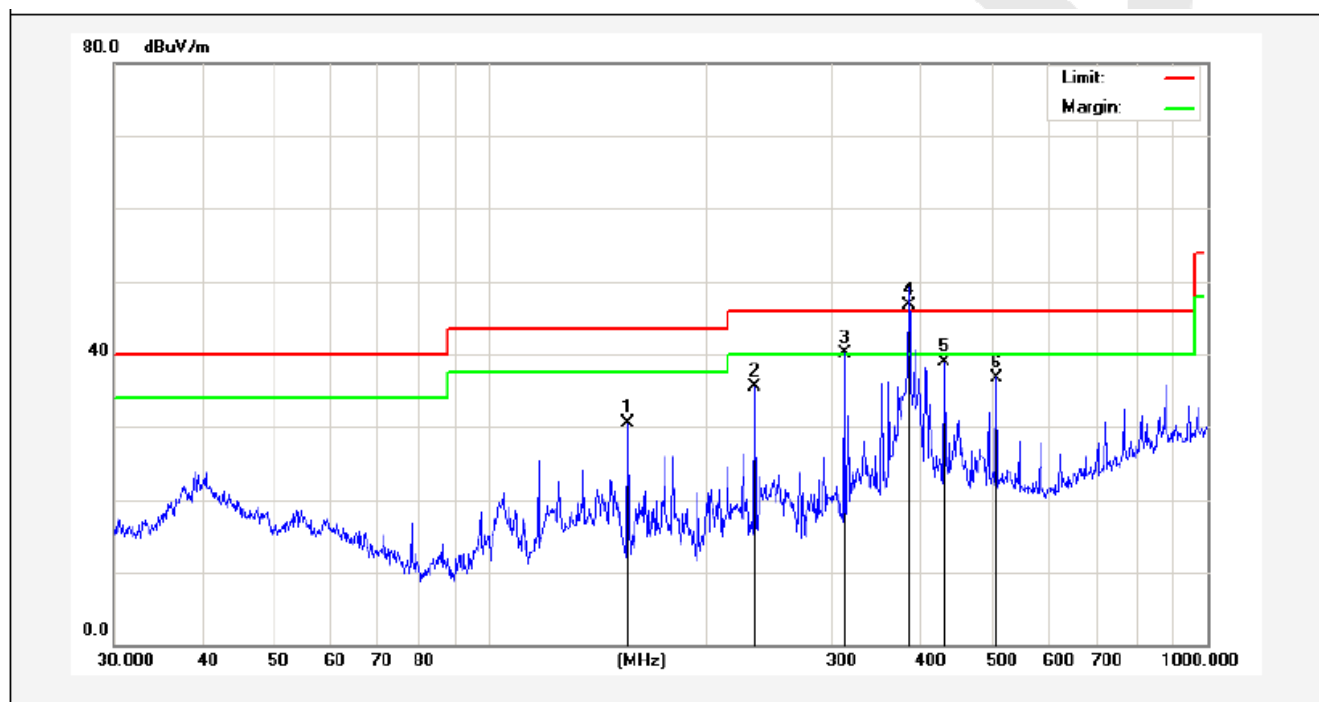
The test results are listed in Section 4.6.4.

#### 4.6.4. Test Results

Please refer to the following pages.

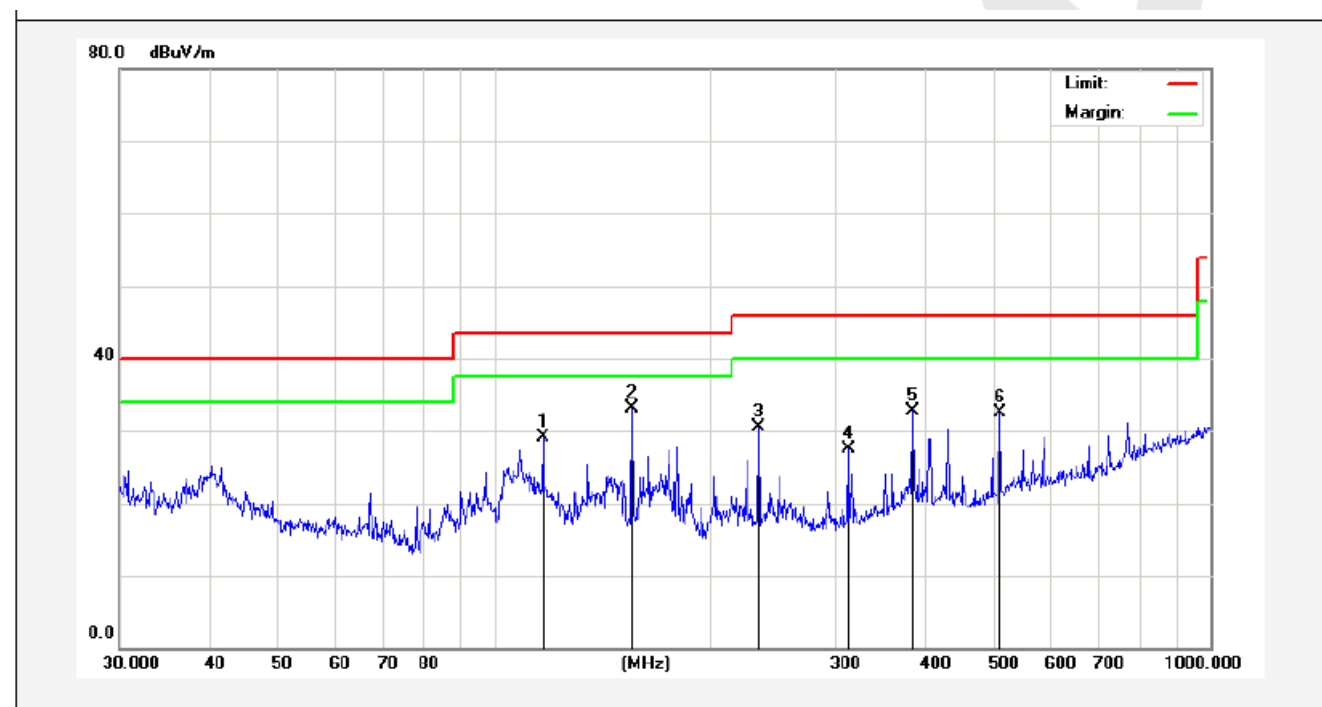
<b>Job No.:</b>	AT1308846F	<b>Polarization:</b>	Horizontal
<b>Standard:</b>	(RE)FCC PART15 C_3m	<b>Power Source:</b>	AC 120V/60Hz for PC
<b>Test item:</b>	Radiation Test	<b>Date:</b>	2013/09/20
<b>Temp.(C)/Hum.(%RH):</b>	24.3( C)/55%RH	<b>Time:</b>	11/07/21
<b>EUT:</b>	Tablet PC	<b>Test By:</b>	Rock Zeng
<b>Model:</b>	NEXTab 9	<b>Distance:</b>	3m

**Note:** WIFI Mode



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	155.9101	53.50	-23.06	30.44	43.50	-13.06	peak			
2	234.1684	54.16	-18.68	35.48	46.00	-10.52	peak			
3	312.1794	56.24	-16.21	40.03	46.00	-5.97	peak			
4	384.0018	59.85	-13.19	46.66	46.00	0.66	QP	100	360	
5	429.5228	51.21	-12.30	38.91	46.00	-7.09	peak			
6	508.2582	47.77	-10.97	36.80	46.00	-9.20	peak			

Job No.:	AT1308846F	Polarization:	Vertical
Standard:	(RE)FCC PART15 C_3m	Power Source:	AC 120V/60Hz for PC
Test item:	Radiation Test	Date:	2013/09/20
Temp.(C)/Hum.(%RH):	24.3( C)/55%RH	Time:	11/03/05
EUT:	Tablet PC	Test By:	Rock Zeng
Model:	NEXTab 9	Distance:	3m
Note:	WIFI Mode		



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	116.9495	45.32	-16.12	29.20	43.50	-14.30	peak			
2	155.9101	51.23	-18.06	33.17	43.50	-10.33	peak			
3	234.1684	44.93	-14.39	30.54	46.00	-15.46	peak			
4	312.1794	41.98	-14.43	27.55	46.00	-18.45	peak			
5	383.9318	44.99	-12.19	32.80	46.00	-13.20	peak			
6	508.2582	43.31	-10.81	32.50	46.00	-13.50	peak			

**Above 1 GHz (The worst Mode)**

Operation Mode: TX / IEEE 802.11g / CH Low

Temperature: 25oC

Humidity: 50 % RH

Test Date: Sep. 20, 2013

Tested by: Rock Zeng

Polarity: Ver. / Hor.

Item	Freq. (MHz)	Ant.Pol H/V	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level		Peak Limit (dBuV/)	AV Limit (dBuV/)	Margin (dB)	Remark
							Peak (dBuV/)	AV (dBuV/)				
1.	4824	H	57.01	35.76	4.58	34.94	62.41	---	74.00	54.00	-11.59	Peak
2.	4824	H	37.19	35.76	4.58	34.94	---	42.59	74.00	54.00	-11.41	AVG
3.	7240	H	43.25	37.85	5.63	35.25	51.48	---	74.00	---	-22.52	Peak
4.	9648	H	44.03	39.39	6.34	35.70	54.06	---	74.00	---	-19.94	Peak
5.	12060	H	---	---	---	---	---	---	---	---	---	---
6.	14472	H	---	---	---	---	---	---	---	---	---	---
7.	16884	H	---	---	---	---	---	---	---	---	---	---
8.	19296	H	---	---	---	---	---	---	---	---	---	---
9.	21708	H	---	---	---	---	---	---	---	---	---	---
10.	24120	H	---	---	---	---	---	---	---	---	---	---

Note: An item 3 and 4 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emission

1.	4824	V	51.94	35.13	4.58	34.94	56.71	---	74.00	54.00	-17.29	Peak
2.	4824	V	38.29	35.13	4.58	34.94	---	43.06	74.00	54.00	-10.94	AVG
3.	7240	V	42.88	36.90	5.63	35.25	50.16	---	74.00	---	-23.84	Peak
4.	9648	V	43.12	38.57	6.34	35.70	52.33	---	74.00	---	-21.67	Peak
5.	12060	V	---	---	---	---	---	---	---	---	---	---
6.	14472	V	---	---	---	---	---	---	---	---	---	---
7.	16884	V	---	---	---	---	---	---	---	---	---	---
8.	19296	V	---	---	---	---	---	---	---	---	---	---
9.	21708	V	---	---	---	---	---	---	---	---	---	---
10.	24120	V	---	---	---	---	---	---	---	---	---	---

Note: An item 3 and 4 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emission

Operation Mode: TX / IEEE 802.11g / CH Mid  
Temperature: 25°C  
Humidity: 50 % RH

Test Date: Sep. 20, 2013  
Tested by: Rock Zeng  
Polarity: Ver. / Hor.

Item	Freq. (MHz)	Ant.Pol H/V	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level		Peak Limit (dBuV/)	AV Limit (dBuV/)	Margin (dB)	Remark
							Peak (dBuV/)	AV (dBuV/)				
1.	4874	H	49.12	35.83	4.61	34.93	54.63	---	74.00	54.00	-19.37	Peak
2.	4874	H	38.05	35.83	4.61	34.93	---	43.56	74.00	54.00	-10.44	AVG
3.	7311	H	42.04	37.86	5.64	35.26	50.28	---	74.00	54.00	-23.72	Peak
4.	9748	H	42.07	39.51	6.36	35.70	52.24	---	74.00	---	-21.76	Peak
5.	12185	H	---	---	---	---	---	---	---	---	---	---
6.	14622	H	---	---	---	---	---	---	---	---	---	---
7.	17059	H	---	---	---	---	---	---	---	---	---	---
8.	19496	H	---	---	---	---	---	---	---	---	---	---
9.	21933	H	---	---	---	---	---	---	---	---	---	---
10.	24370	H	---	---	---	---	---	---	---	---	---	---

Note: An item 4 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emission

1.	4874	V	49.00	35.18	4.61	34.93	53.86	---	74.00	54.00	-20.14	Peak
2.	4874	V	37.26	35.18	4.61	34.93	---	42.12	74.00	54.00	-11.88	AVG
3.	7311	V	42.09	36.92	5.64	35.26	49.39	---	74.00	54.00	-24.61	Peak
4.	9748	V	39.15	38.71	6.36	35.70	48.52	---	74.00	---	-25.48	Peak
5.	12185	V	---	---	---	---	---	---	---	---	---	---
6.	14622	V	---	---	---	---	---	---	---	---	---	---
7.	17059	V	---	---	---	---	---	---	---	---	---	---
8.	19496	V	---	---	---	---	---	---	---	---	---	---
9.	21933	V	---	---	---	---	---	---	---	---	---	---
10.	24370	V	---	---	---	---	---	---	---	---	---	---

Note: An item 4 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emission



Operation Mode: TX / IEEE 802.11g / CH High  
Temperature: 25°C  
Humidity: 50 % RH

Test Date: Sep. 20, 2013  
Tested by: Rock Zeng  
Polarity: Ver. / Hor.

Item	Freq. (MHz)	Ant.Pol H/V	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level		Peak Limit (dBuV/)	AV Limit (dBuV/)	Margin (dB)	Remark
							Peak (dBuV/)	AV (dBuV/)				
1.	4924	H	46.25	35.90	4.68	34.92	51.91	---	74.00	54.00	-22.09	Peak
2.	4924	H	36.21	35.90	4.68	34.92	---	41.87	74.00	54.00	-12.13	AVG
3.	7386	H	41.79	37.88	5.65	35.28	50.04	---	74.00	54.00	-23.96	Peak
4.	9848	H	42.08	39.61	6.38	35.70	52.37	---	74.00	---	-21.63	Peak
5.	12310	H	---	---	---	---	---	---	---	---	---	---
6.	14772	H	---	---	---	---	---	---	---	---	---	---
7.	17234	H	---	---	---	---	---	---	---	---	---	---
8.	19696	H	---	---	---	---	---	---	---	---	---	---
9.	22158	H	---	---	---	---	---	---	---	---	---	---
10.	24620	H	---	---	---	---	---	---	---	---	---	---

Note: An item 4 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emission

1.	4924	V	48.01	35.23	4.68	34.92	53.00	---	74.00	54.00	-21.00	Peak
2.	4924	V	40.25	35.23	4.68	34.92	---	45.24	74.00	54.00	-8.76	AVG
3.	7386	V	42.19	36.96	5.65	35.28	49.52	---	74.00	54.00	-24.48	Peak
4.	9848	V	42.33	38.81	6.38	35.70	51.82	---	74.00	---	-22.18	Peak
5.	12310	V	---	---	---	---	---	---	---	---	---	---
6.	14772	V	---	---	---	---	---	---	---	---	---	---
7.	17234	V	---	---	---	---	---	---	---	---	---	---
8.	19696	V	---	---	---	---	---	---	---	---	---	---
9.	22158	V	---	---	---	---	---	---	---	---	---	---
10.	24620	V	---	---	---	---	---	---	---	---	---	---

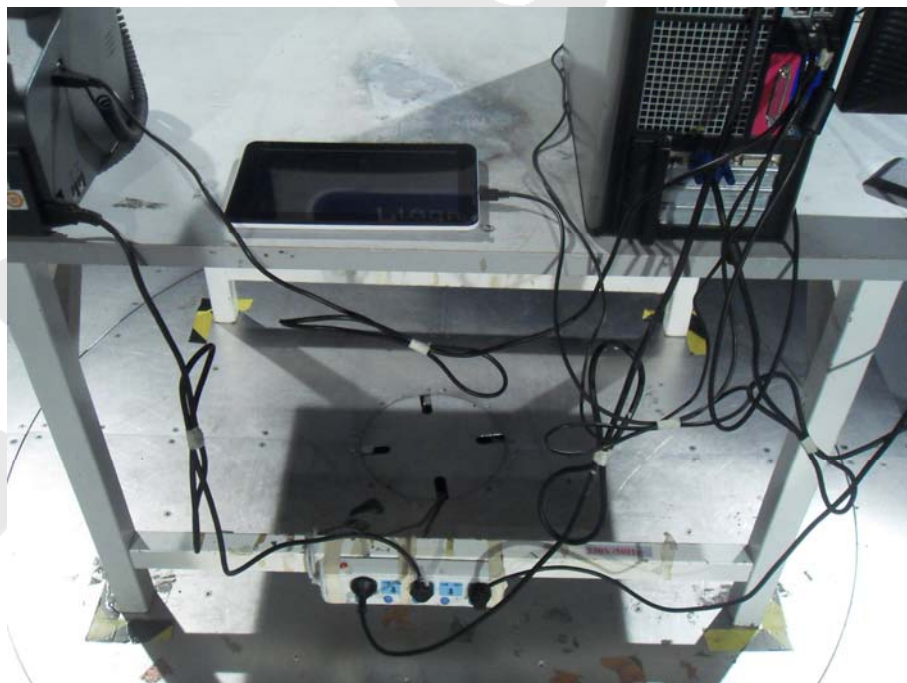
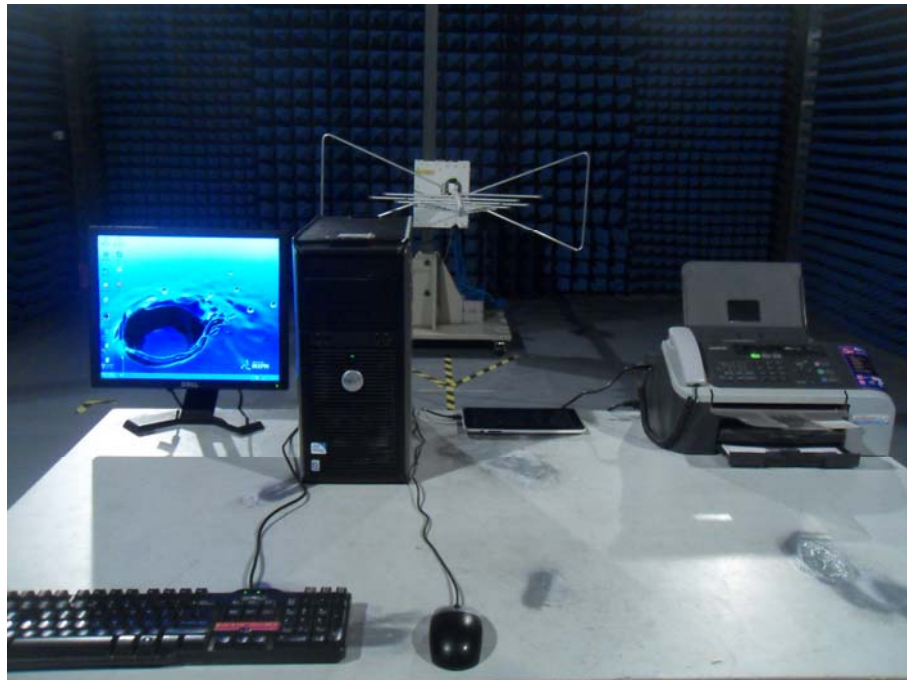
Note: An item 4 are on un-restricted band, so the limit is -20dB for the field strength of the fundamental emission

## 5. PHOTOGRAPH

### 5.1. Photo of Conducted Emission Measurement



## 5.2. Photo of Radiation Emission Test



## Appendix I (External Photos)

Figure 1  
The EUT-Overall View



Figure 2  
The EUT-Front View





Figure 3  
The EUT-Back View



Figure 4  
The EUT-Port View



## Appendix II (Internal Photos)

Figure 5  
The EUT-Inside View



Figure 6  
PCB of the EUT-Front View

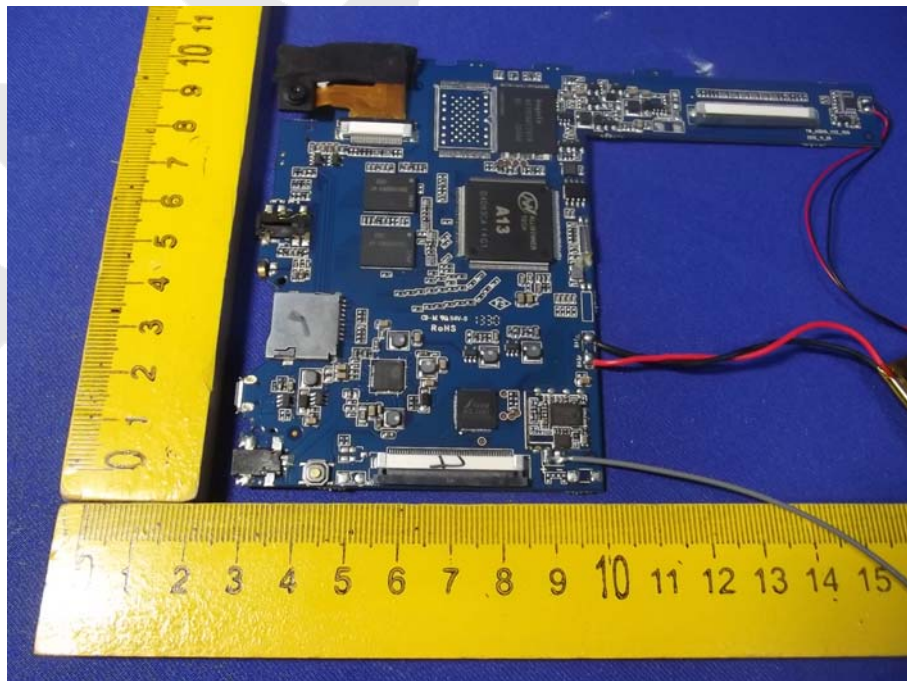


Figure 7  
PCB of the EUT-Back View

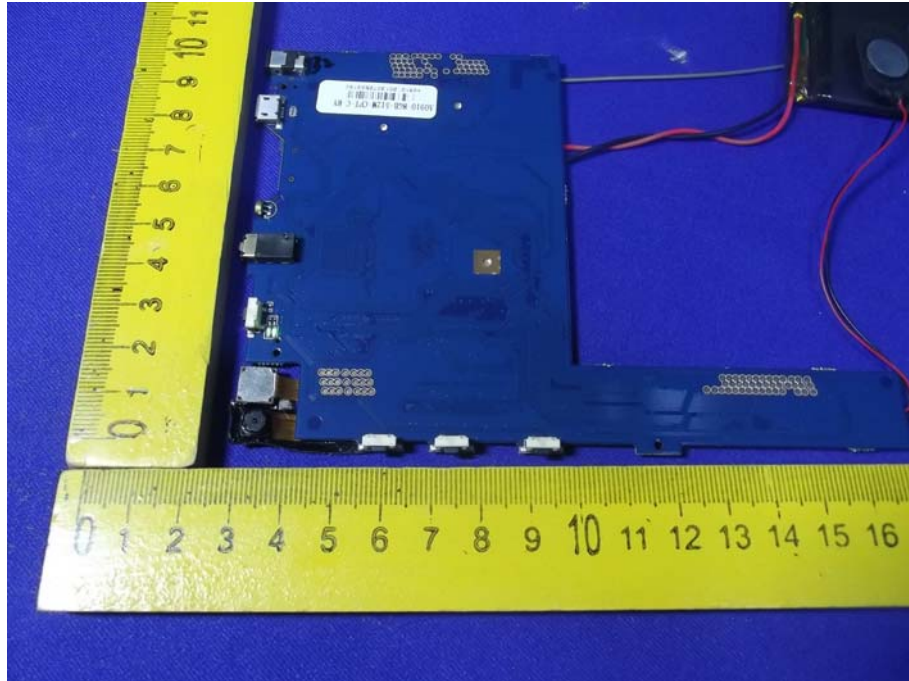


Figure 8  
PCB of the EUT-Front View

