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FCC RADIO TEST REPORT

Applicant's company	**Aerohive Networks, Inc.**
Applicant Address	330 Gibraltar Drive, Sunnyvale, CA 94089
FCC ID	**WBV-AP3X0**
Manufacturer's company	**Accton Technology Corporation**
Manufacturer Address	1, Creation Road 3, Hsinchu Science Park , Hsinchu 30077 , Taiwan , R.O.C

Product Name	Access Point
Brand Name	Aerohive
Model No.	AP370 / AP390
Test Rule Part(s)	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Received Date	Jun. 20, 2013
Final Test Date	Jul. 31, 2013
Submission Type	Original Equipment

Statement

Test result included is only for the IEEE 802.11n, IEEE 802.11b/g part and IEEE 802.11a/ac (5725 ~ 5850MHz) of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in **ANSI C63.10-2009**, **47 CFR FCC Part 15 Subpart C**, **KDB 558074 D01 v03** and **KDB 662911 D01 v02**.

The test equipment used to perform the test is calibrated and traceable to NML/ROC.

Testing Laboratory
1190

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History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR362046AA	Rev. 01	Initial issue of report	Aug. 15, 2013

Certificate No.: CB10208026

1. CERTIFICATE OF COMPLIANCE

Product Name	:	**Access Point**
Brand Name	:	**Aerohive**
Model No.	:	**AP370 / AP390**
Applicant	:	**Aerohive Networks, Inc.**
Test Rule Part(s)	:	**47 CFR FCC Part 15 Subpart C § 15.247**

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Jun. 20, 2013 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.

Sam Chen
SPORTON INTERNATIONAL INC.

2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	**Rule Section**	**Description of Test**	**Result**	**Under Limit**
4.1	15.207	AC Power Line Conducted Emissions	Complies	4.33 dB
4.2	15.247(b)(3)	Maximum Conducted Output Power	Complies	1.14 dB
4.3	15.247(e)	Power Spectral Density	Complies	2.05 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions	Complies	0.25 dB
4.6	15.247(d)	Band Edge Emissions	Complies	0.03 dB
4.7	15.203	Antenna Requirements	Complies	-

3. GENERAL INFORMATION

3.1. Product Details

IEEE 802.11n/ac

Items	Description
Product Type	WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Power Adapter or PoE
Modulation	see the below table for IEEE 802.11n/ac
Data Modulation	For 802.11n: OFDM (BPSK / QPSK / 16QAM / 64QAM) For 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Data Rate (Mbps)	see the below table for IEEE 802.11n/ac
Frequency Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Channel Number	For 2.4GHz Band: 11 for 20MHz bandwidth ; 7 for 40MHz bandwidth For 5GHz Band: 5 for 20MHz bandwidth ; 2 for 40MHz bandwidth ; 1 for 80MHz bandwidth
Channel Band Width (99%)	For EUT 1: Mode 1 / 2.4GHz Band: MCS0 (20MHz): 18.56 MHz ; MCS0 (40MHz): 36.80 MHz Mode 1 / 5GHz Band: 802.11ac MCS0, Nss1 (20MHz): 31.20 MHz ; 802.11ac MCS0, Nss1 (40MHz): 51.20 MHz ; 802.11ac MCS0, Nss1 (80MHz): 76.16 MHz For EUT 2: Mode 2 / 2.4GHz Band: MCS0 (20MHz): 17.60 MHz ; MCS0 (40MHz): 36.80 MHz Mode 2 / 5GHz Band: 802.11ac MCS0, Nss1 (20MHz): 27.12 MHz ; 802.11ac MCS0, Nss1 (40MHz): 60.96 MHz ; 802.11ac MCS0, Nss1 (80MHz): 76.16 MHz

Maximum Conducted Output Power	For EUT 1: Mode 1 / 2.4GHz Band: MCS0 (20MHz): 27.20 dBm ; MCS0 (40MHz): 21.40 dBm Mode 1 / 5GHz Band: 802.11ac MCS0, Nss1 (20MHz): 28.80 dBm ; 802.11ac MCS0, Nss1 (40MHz): 28.68 dBm ; 802.11ac MCS0, Nss1 (80MHz): 25.19 dBm For EUT 1: Mode 2 / 2.4GHz Band: MCS0 (20MHz): 26.25 dBm ; MCS0 (40MHz): 19.94 dBm Mode 2 / 5GHz Band: 802.11ac MCS0, Nss1 (20MHz): 28.83 dBm ; 802.11ac MCS0, Nss1 (40MHz): 28.63 dBm ; 802.11ac MCS0, Nss1 (80MHz): 25.39 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

802.11a/b/g

Items	Description
Product Type	WLAN (1TX, 1RX) ; WLAN (3TX, 3RX)
Radio Type	Intentional Transceiver
Power Type	From Power Adapter or PoE
Modulation	DSSS for IEEE 802.11b ; OFDM for IEEE 802.11a/g
Data Modulation	DSSS (BPSK / QPSK / CCK) ; OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	DSSS (1/ 2/ 5.5/11) ; OFDM (6/9/12/18/24/36/48/54)
Frequency Range	2400 ~ 2483.5MHz / 5725 ~ 5850MHz
Channel Number	11b/g: 11 ; 11a: 5
Channel Band Width (99%)	For EUT 1: Mode 1 / 1TX: 11b: 14.08 MHz ; 11g: 17.28 MHz ; 11a: 20.16 MHz Mode 1 / 3TX: 11b: 14.16 MHz ; 11g: 16.72 MHz ; 11a: 31.44 MHz For EUT 2: Mode 2 / 1TX: 11b: 14.32 MHz ; 11g: 17.12 MHz ; 11a: 29.44 MHz Mode 2 / 3TX: 11b: 9.84 MHz ; 11g: 16.88 MHz ; 11a: 30.40 MHz
Maximum Conducted Output Power	For EUT 1: Mode 1 / 1TX: 11b: 23.77 dBm ; 11g: 23.51 dBm ; 11a: 24.49 dBm Mode 1 / 3TX: 11b: 28.35 dBm ; 11g: 26.79 dBm ; 11a: 28.86 dBm For EUT 2: Mode 2 / 1TX: 11b: 24.87 dBm ; 11g: 22.85 dBm ; 11a: 24.71 dBm Mode 2 / 3TX: 11b: 26.11 dBm ; 11g: 25.48 dBm ; 11a: 28.86 dBm
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Antenna & Band width

Antenna	Single (TX)			Three (TX)		
Band width Mode	20 MHz	40 MHz	80 MHz	20 MHz	40 MHz	80 MHz
IEEE 802.11a	V	X	X	V	X	X
IEEE 802.11b	V	X	X	V	X	X
IEEE 802.11g	V	X	X	V	X	X
IEEE 802.11n	X	X	X	V	V	X
IEEE 802.11ac	X	X	X	V	V	V

IEEE 11n/ac Spec.

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	3	MCS 0-23
802.11n (HT40)	3	MCS 0-23
802.11ac (VHT20)	3	MCS 0-9, Nss1-3
802.11ac (VHT40)	3	MCS 0-9, Nss1-3
802.11ac (VHT80)	3	MCS 0-9, Nss1-3

Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). Then EUT support HT20 and HT40.
Note 2: IEEE Std. 802.11ac modulation consists of VHT20, VHT40, VHT80 and VHT160 (VHT: Very High Throughput). Then EUT support VHT20, VHT40 and VHT80.
Note 3: Modulation modes consist of below configuration:
11a: IEEE 802.11a, HT20/HT40: IEEE 802.11n, VHT20/VHT40/VHT80: IEEE 802.11ac

3.2. Accessories

Power	Brand Holder	Model No.	Rating	Remark
Adapter	Powertron Electronics Corp.	PA1024-2HU	INPUT:100-240V~50-60Hz 0.6A OUTPUT:12V 2.0A, 24W Max	With a Core

3.3. Table for Filed Antenna

For EUT 1 (Model No. AP370)

Ant.	Brand	Model No.	Type	Connector	True Gain (dBi)	
					2.4GHz	5GHz
1	Accton	AC-02-PB002-004	PIFA	I-PEX	4.42	-
2	Accton	AC-02-PB002-005	PIFA	I-PEX	4.42	-
3	Accton	AC-02-PB002-006	PIFA	I-PEX	4.42	-
4	Accton	AC-02-PB001-004	PIFA	I-PEX	-	4.54
5	Accton	AC-02-PB001-005	PIFA	I-PEX	-	4.54
6	Accton	AC-02-PB001-006	PIFA	I-PEX	-	4.54

Note: Chain 1: Connect to Ant. 1, Chain 2: Connect to Ant. 2, Chain 3: Connect to Ant. 3, Chain 4: Connect to Ant. 4, Chain 5: Connect to Ant. 5, Chain 6: Connect to Ant. 6.

For EUT 2 (Model No. AP390)

Ant.	Brand	Model No.	Type	Connector	Gain (dBi)		Cable loss		True Gain (dBi)	
					2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	Master Wave	98152MRSX007	Dipole	I-PEX	4	-	0.4	-	3.6	-
2	Master Wave	98152URSX002	Dipole	I-PEX	-	4	-	0.7	-	3.3

Note: Chain 1~ Chain 3: Connect to Ant. 1, Chain 4~ Chain 6: Connect to Ant. 2.

<For 2.4GHz Band:>

For IEEE 802.11b/g mode (1TX, 1RX):

Only Chain 1 could transmit/receive simultaneously.

For IEEE 802.11b/g mode (3TX, 3RX):

Chain 1, Chain 2 and Chain 3 could transmit/receive simultaneously.

For IEEE 802.11n mode (3TX, 3RX):

Chain 1, Chain 2 and Chain 3 could transmit/receive simultaneously.

<For 5GHz Band:>

For IEEE 802.11a mode (1TX, 1RX):

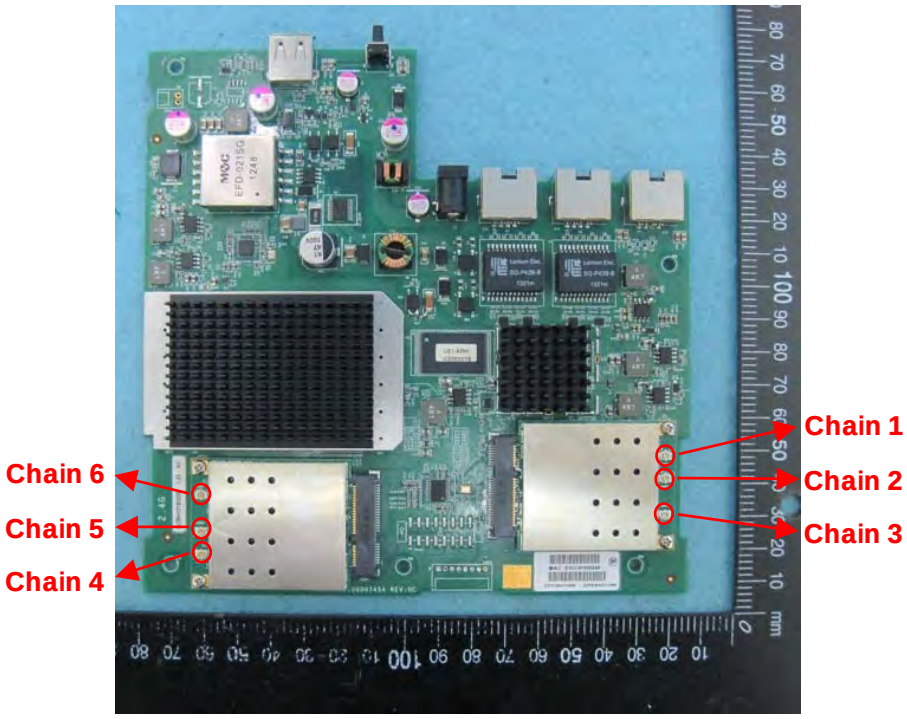
Only Chain 4 could transmit/receive simultaneously.

For IEEE 802.11a mode (3TX, 3RX):

Chain 4, Chain 5 and Chain 6 could transmit/receive simultaneously.

For IEEE 802.11n/ac mode (3TX, 3RX):

Chain 4, Chain 5 and Chain 6 could transmit/receive simultaneously.



3.4. Table for Carrier Frequencies

For 2.4GHz Band:

There are two bandwidth systems.

For 20MHz bandwidth systems, use Channel 1~Channel 11.

For 40MHz bandwidth systems, use Channel 3~Channel 9.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	1	2412 MHz	7	2442 MHz
	2	2417 MHz	8	2447 MHz
	3	2422 MHz	9	2452 MHz
	4	2427 MHz	10	2457 MHz
	5	2432 MHz	11	2462 MHz
	6	2437 MHz	-	-

For 5GHz Band:

There are three bandwidth systems.

For 20MHz bandwidth systems, use Channel 149, 153, 157, 161, 165.

For 40MHz bandwidth systems, use Channel 151, 159.

For 80MHz bandwidth systems, use Channel 155.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
5725~5850 MHz Band 4	149	5745 MHz	157	5785 MHz
	151	5755 MHz	159	5795 MHz
	153	5765 MHz	161	5805 MHz
	155	5775 MHz	165	5825 MHz

3.5. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

For 2.4GHz Band

Test Items	Mode	Data Rate	Channel	Chain
AC Power Line Conducted Emissions	Normal Link	-	-	-
Maximum Conducted Output Power	11n 20MHz	MCS0	1/6/11	1+2+3
	11n 40MHz	MCS0	3/6/9	1+2+3
	11b/CCK	1 Mbps	1/6/11	1 1+2+3
	11g/BPSK	6 Mbps	1/6/11	1 1+2+3
Power Spectral Density	11n 20MHz	MCS0	1/6/11	1, 2, 3
	11n 40MHz	MCS0	3/6/9	1, 2, 3
	11b/CCK	1 Mbps	1/6/11	1 1, 2, 3
	11g/BPSK	6 Mbps	1/6/11	1 1, 2, 3
6dB Spectrum Bandwidth	11n 20MHz	MCS0	1/6/11	1+2+3
	11n 40MHz	MCS0	3/6/9	1+2+3
	11b/CCK	1 Mbps	1/6/11	1 1+2+3
	11g/BPSK	6 Mbps	1/6/11	1 1+2+3
Radiated Emissions Below 1GHz	Normal Link	-	-	-
Radiated Emissions Above 1GHz	11n 20MHz	MCS0	1/6/11	1+2+3
	11n 40MHz	MCS0	3/6/9	1+2+3
	11b/CCK	1 Mbps	1/6/11	1 1+2+3
	11g/BPSK	6 Mbps	1/6/11	1 1+2+3

Band Edge Emissions	11n 20MHz	MCS0	1/6/11	1+2+3
	11n 40MHz	MCS0	3/6/9	1+2+3
	11b/CCK	1 Mbps	1/6/11	1 1+2+3
	11g/BPSK	6 Mbps	1/6/11	1 1+2+3

For 5GHz Band

Test Items	Mode	Data Rate	Channel	Chain
AC Power Line Conducted Emissions	Normal Link	-	-	-
Maximum Conducted Output Power	11ac 20MHz	MCS0, Nss1	149/157/165	4+5+6
	11ac 40MHz	MCS0, Nss1	151/159	4+5+6
	11ac 80MHz	MCS0, Nss1	155	4+5+6
	11a/BPSK	6 Mbps	149/157/165	4 4+5+6
Power Spectral Density	11ac 20MHz	MCS0, Nss1	149/157/165	4, 5, 6
	11ac 40MHz	MCS0, Nss1	151/159	4, 5, 6
	11ac 80MHz	MCS0, Nss1	155	4, 5, 6
	11a/BPSK	6 Mbps	149/157/165	4 4, 5, 6
6dB Spectrum Bandwidth	11ac 20MHz	MCS0, Nss1	149/157/165	4+5+6
	11ac 40MHz	MCS0, Nss1	151/159	4+5+6
	11ac 80MHz	MCS0, Nss1	155	4+5+6
	11a/BPSK	6 Mbps	149/157/165	4 4+5+6
Radiated Emissions Below 1GHz	Normal Link	-	-	-
Radiated Emissions Above 1GHz	11ac 20MHz	MCS0, Nss1	149/157/165	4+5+6
	11ac 40MHz	MCS0, Nss1	151/159	4+5+6
	11ac 80MHz	MCS0, Nss1	155	4+5+6
	11a/BPSK	6 Mbps	149/157/165	4 4+5+6
Band Edge Emissions	11ac 20MHz	MCS0, Nss1	149/157/165	4+5+6
	11ac 40MHz	MCS0, Nss1	151/159	4+5+6
	11ac 80MHz	MCS0, Nss1	155	4+5+6
	11a/BPSK	6 Mbps	149/157/165	4 4+5+6

The following test modes were performed for all tests:

For AC Power Line Conducted Emissions test:

Mode 1. EUT 1+Adapter

Mode 2. EUT 1+PoE

Mode 3. EUT 2+Adapter

Mode 4. EUT 2+PoE

Mode 1 and Mode 3 are the worst case, so it was selected to record in this test report.

For Radiated Emission below 1GHz test:

Mode 1. EUT 1 put vertically+Adapter

Mode 2. EUT 1 put horizontally+Adapter

Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3 will follow this same test mode.

Mode 3. EUT 1 put vertically+PoE

Mode 4. EUT 2 put vertically+Adapter

Mode 5. EUT 2 put horizontally+Adapter

Mode 4 has been evaluated to be the worst case among Mode 4~5, thus measurement for Mode 6 will follow this same test mode.

Mode 6. EUT 2 put vertically+PoE

Mode 3 and Mode 6 are worst test result among Mode 1~6, and the test result of those modes are selected to record in this test report.

For Radiated Emissions above 1GHz test:

Mode 1. EUT 1 put vertically

Mode 2. EUT 1 put horizontally

Mode 3. EUT 2 put vertically

Mode 4. EUT 2 put horizontally

Mode 1 and Mode 3 are the worst case, so it was selected to record in this test report.

For Others test:

Mode 1. EUT 1

Mode 2. EUT 2

For Co-location test:

The mode “EUT 1 put vertically+PoE” and “EUT 2 put vertically+PoE” has been evaluated to be the worst case for Radiated emission above 1GHz test.

Consequently, measurement for Co-location test will follow this same test modes.

Mode 1. EUT 1 put vertically+PoE

Mode 2. EUT 2 put vertically+PoE

All the test result were recorded in the report.

The EUT could be applied with 2.4GHz WLAN function and 5GHz WLAN function; therefore Maximum Permissible Exposure (Please refer to Appendix B) and Co-location (please refer to Appendix C) tests are added for simultaneously transmit between 2.4GHz WLAN function and 5GHz WLAN function.

3.6. Table for Testing Locations

Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.
03CH01-CB	SAC	Hsin Chu	262045	IC 4086D
CO01-CB	Conduction	Hsin Chu	262045	IC 4086D
TH01-CB	OVEN Room	Hsin Chu	-	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC).

Please refer section 6 for Test Site Address.

3.7. Table for Multiple List

The model numbers in the following table are all refer to the identical product.

Model No.	Antenna Type	Remark
AP370	PIFA Antenna	EUT 1
AP390	Dipole Antenna	EUT 2

3.8. Table for Supporting Units

For AC Power Line Conducted Emissions, Radiated Emission below 1GHz and Co-location tests:

Support Unit	Brand	Model	FCC ID
NB	DELL	E6220	QDS-BRCM1049LE
NB	DELL	E6220	QDS-BRCM1049LE
NB	DELL	E6220	QDS-BRCM1049LE
Flash Disk 3.0	ADATA	C103	DoC
PoE	Powerdsine	PD-3501G/AC	N/A

For Others tests:

Support Unit	Brand	Model	FCC ID
NB	DELL	E6220	QDS-BRCM1049LE

3.9. Table for Parameters of Test 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 Mode: Mode 1 (EUT 1) / 2.4GHz Band

Power Parameters of IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Test Software Version	ART2 Version 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
MCS0 20MHz	17.5	23	20

Power Parameters of IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Test Software Version	ART2 Version 2.3		
Frequency	2422 MHz	2437 MHz	2452 MHz
MCS0 40MHz	13.5	16.5	15

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2 Version 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	24	24	24
IEEE 802.11g	20.5	24	21

Power Parameters of IEEE 802.11b/g / Chain 1+ Chain 2+ Chain 3

Test Software Version	ART2 Version 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	17	22	24
IEEE 802.11g	17.5	22.5	20

Test Mode: Mode 1 (EUT 1) / 5GHz Band

Power Parameters of IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS0, Nss1 20MHz	24	24	24

Power Parameters of IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3	
Frequency	5755 MHz	5795 MHz
MCS0, Nss1 40MHz	21	24

Power Parameters of IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3
Frequency	5775 MHz
MCS0, Nss1 80MHz	20

Power Parameters of IEEE 802.11a / Chain 4

Test Software Version	ART2 Version 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24	24	24

Power Parameters of IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24	24	24

Test Mode: Mode 2 (EUT 2) / 2.4GHz Band

Power Parameters of IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Test Software Version	ART2 Version 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
MCS0 20MHz	16	22	16.5

Power Parameters of IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Test Software Version	ART2 Version 2.3		
Frequency	2422 MHz	2437 MHz	2452 MHz
MCS0 40MHz	12.5	15.5	14.5

Power Parameters of IEEE 802.11b/g / Chain 1

Test Software Version	ART2 Version 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	21.5	24	21.5
IEEE 802.11g	17	21.5	17.5

Power Parameters of IEEE 802.11b/g / Chain 1+ Chain 2+ Chain 3

Test Software Version	ART2 Version 2.3		
Frequency	2412 MHz	2437 MHz	2462 MHz
IEEE 802.11b	16	18.5	22.5
IEEE 802.11g	18	21.5	17.5

Test Mode: Mode 2 (EUT 2) / 5GHz Band

Power Parameters of IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
MCS0, Nss1 20MHz	24	24	24

Power Parameters of IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3	
Frequency	5755 MHz	5795 MHz
MCS0, Nss1 40MHz	21	24

Power Parameters of IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Test Software Version	ART2 Version 2.3
Frequency	5775 MHz
MCS0, Nss1 80MHz	20

Power Parameters of IEEE 802.11a / Chain 4

Test Software Version	ART2 Version 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24	24	24

Power Parameters of IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

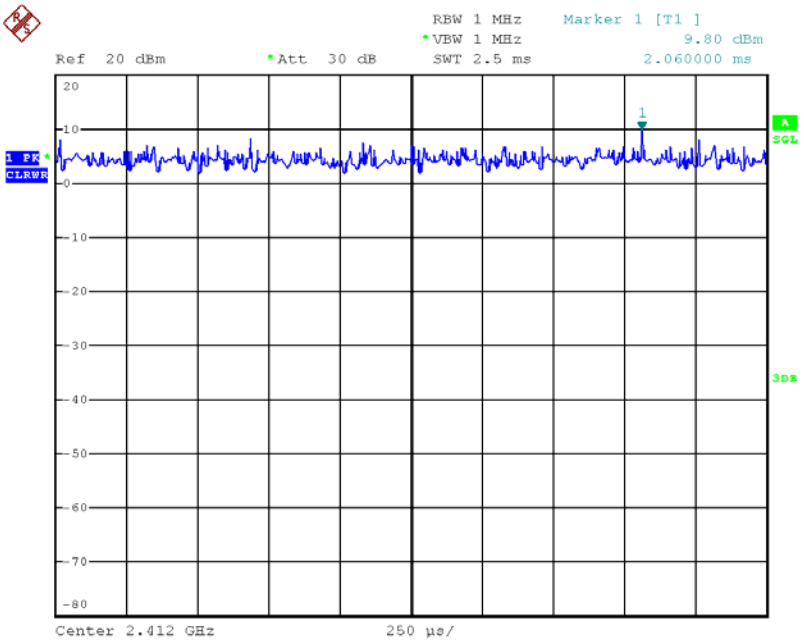
Test Software Version	ART2 Version 2.3		
Frequency	5745 MHz	5785 MHz	5825 MHz
IEEE 802.11a	24	24	24

3.10. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

3.11. Duty Cycle

IEEE 802.11n MCS0 20MHz / 2.4GHz Band / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



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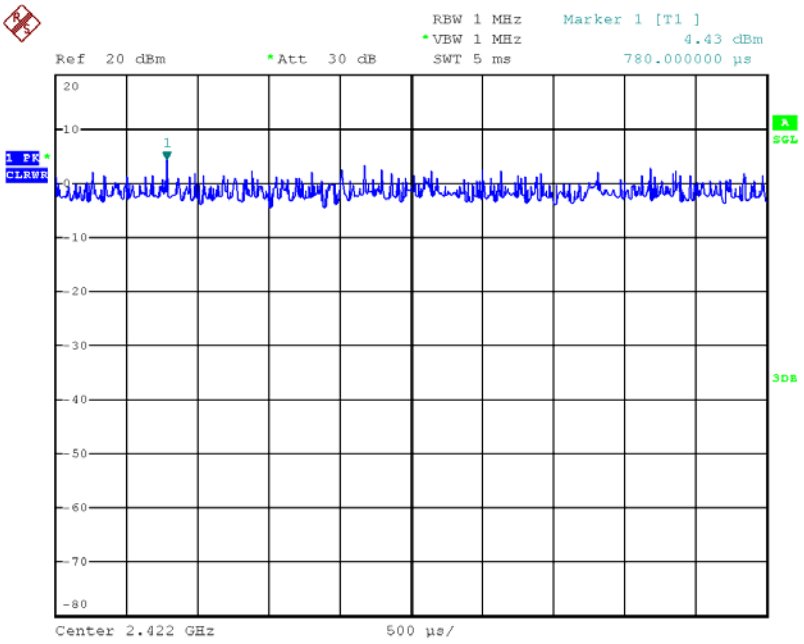

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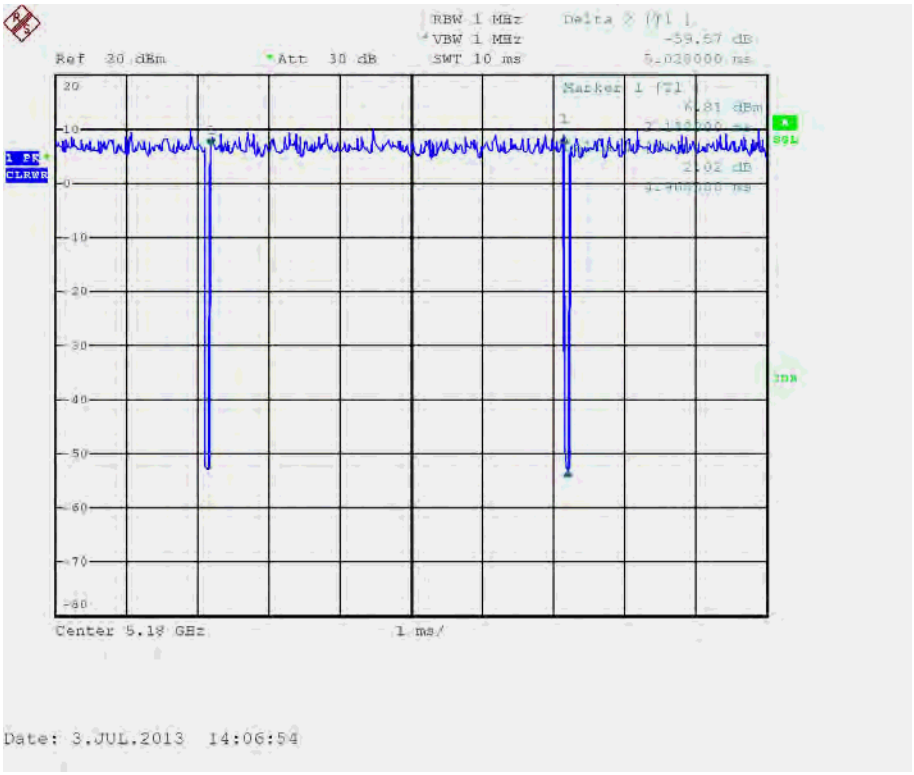
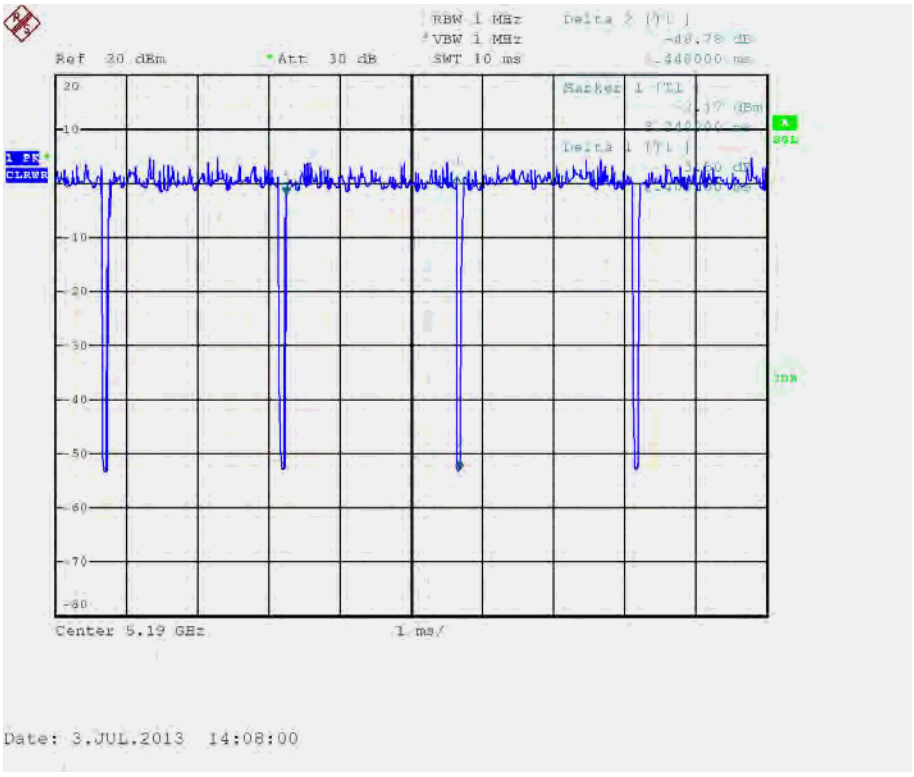
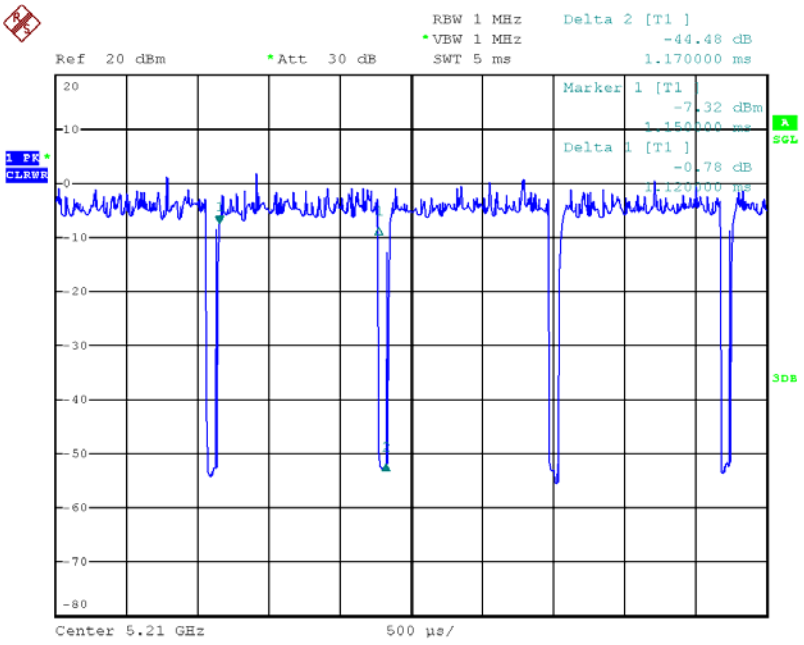
IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

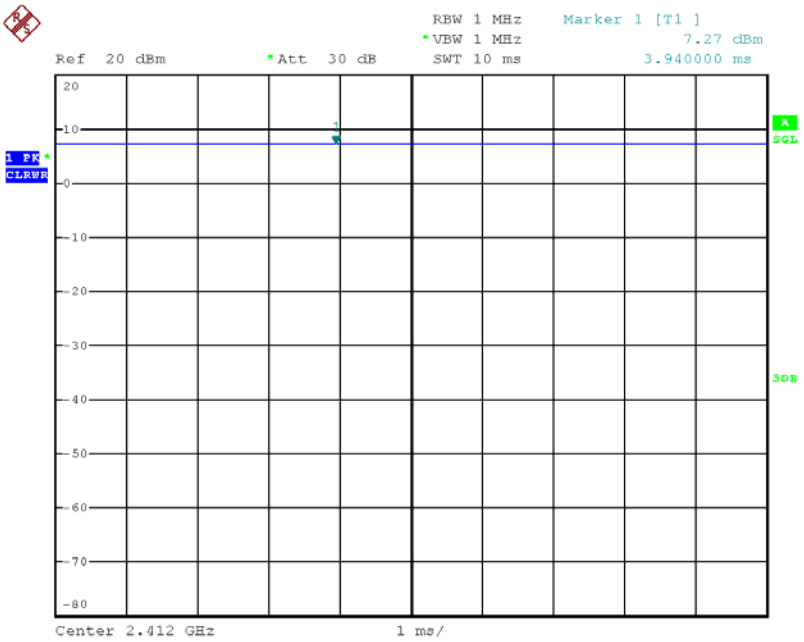


IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



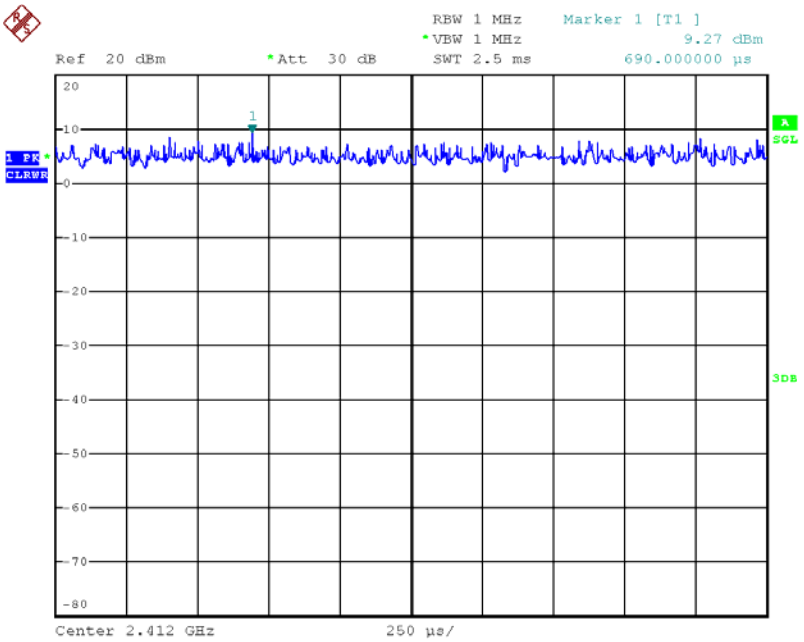
Date: 3.JUL.2013 14:09:27

IEEE 802.11b / Chain 1 / Test Mode: Mode 1 (EUT 1)

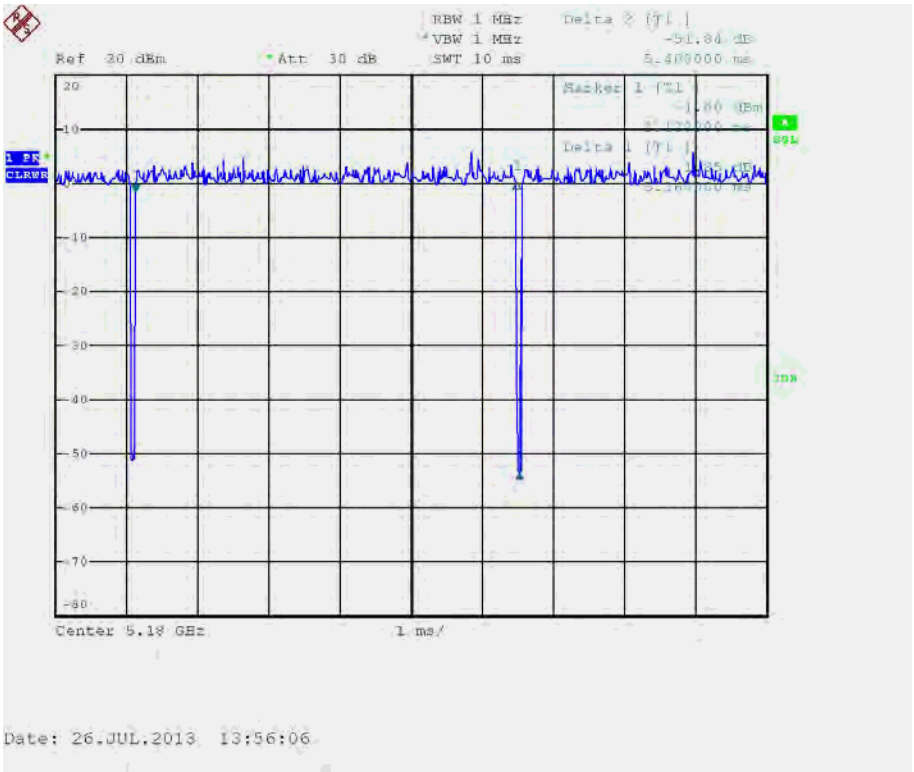


Date: 3.JUL.2013 17:07:36

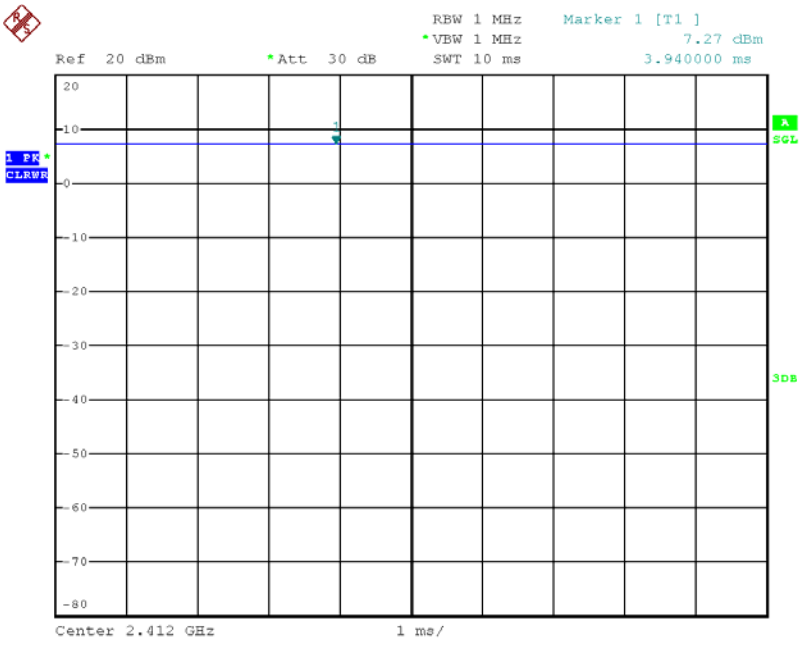
IEEE 802.11g / Chain 1 / Test Mode: Mode 1 (EUT 1)



IEEE 802.11a / Chain 4 / Test Mode: Mode 1 (EUT 1)

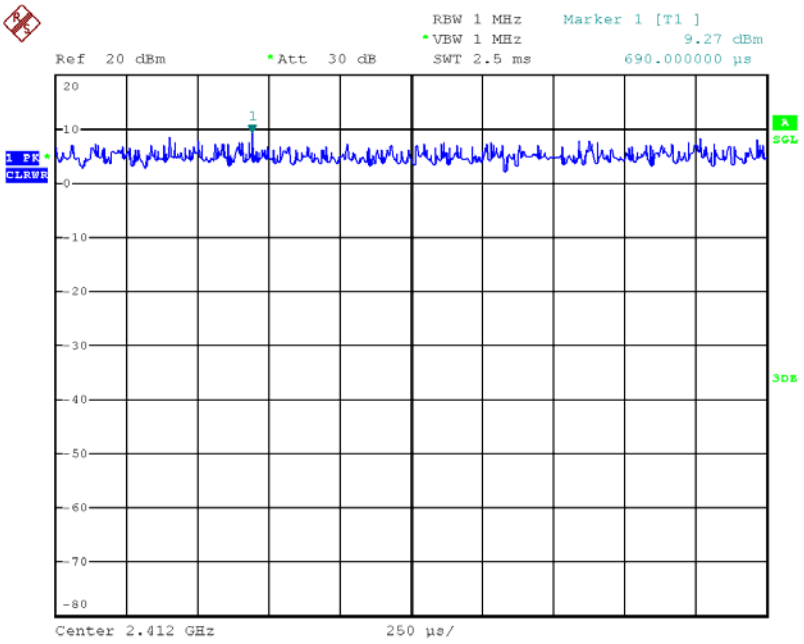


IEEE 802.11b / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



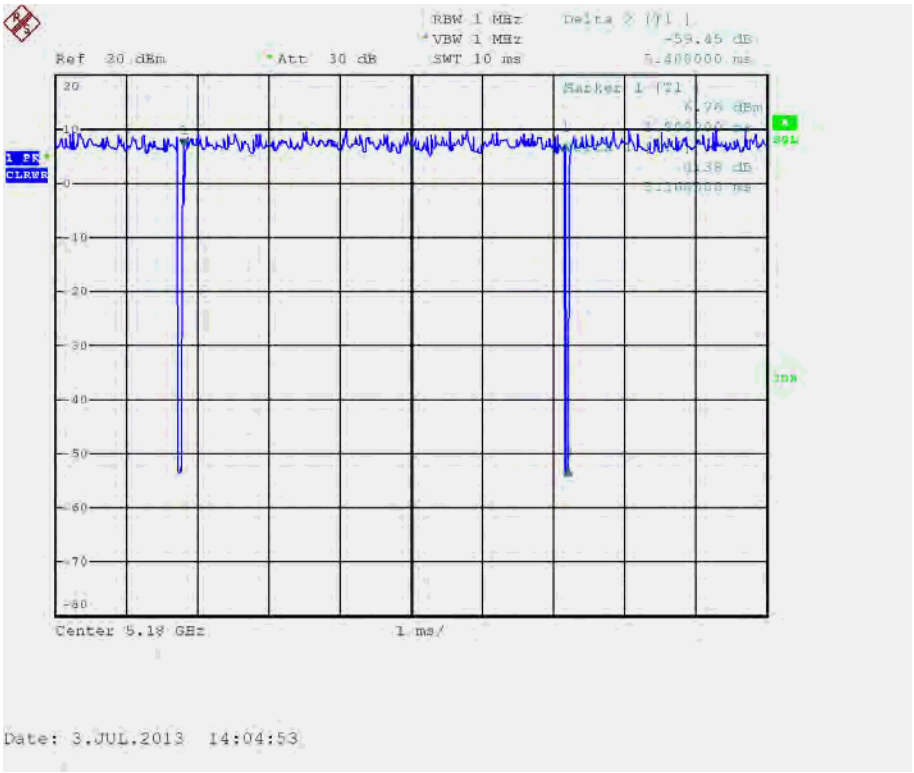
Date: 3.JUL.2013 17:07:36

IEEE 802.11g / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

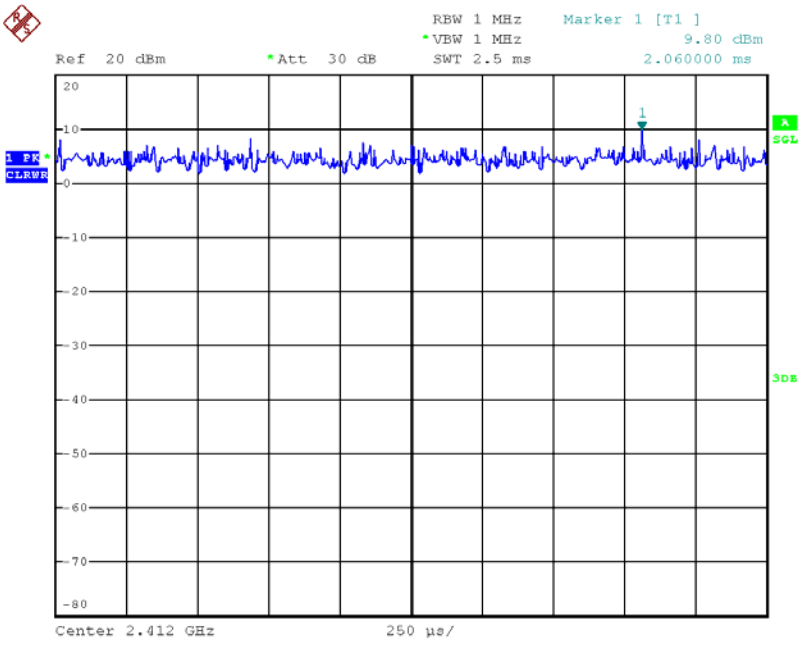


Date: 3.JUL.2013 17:08:20

IEEE 802.11a / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

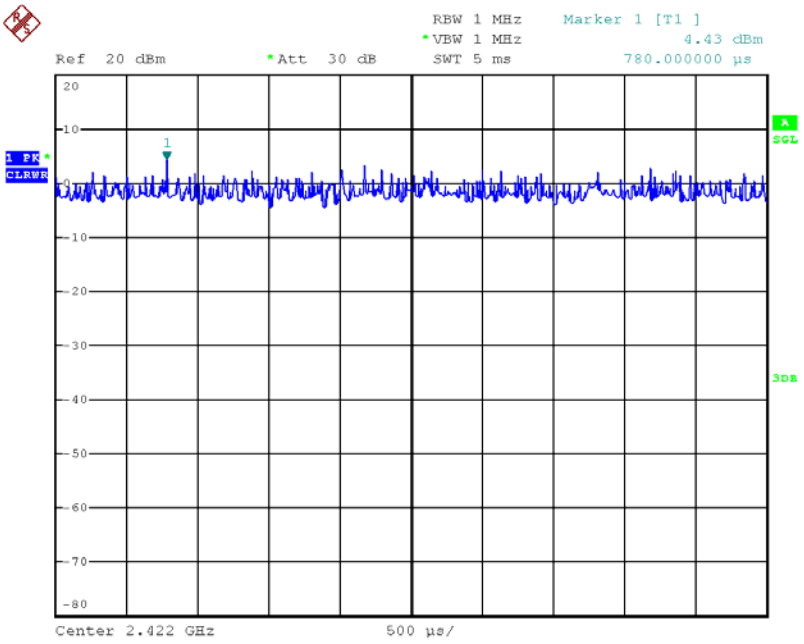


IEEE 802.11n MCS0 20MHz / 2.4GHz Band / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 2 (EUT 2)



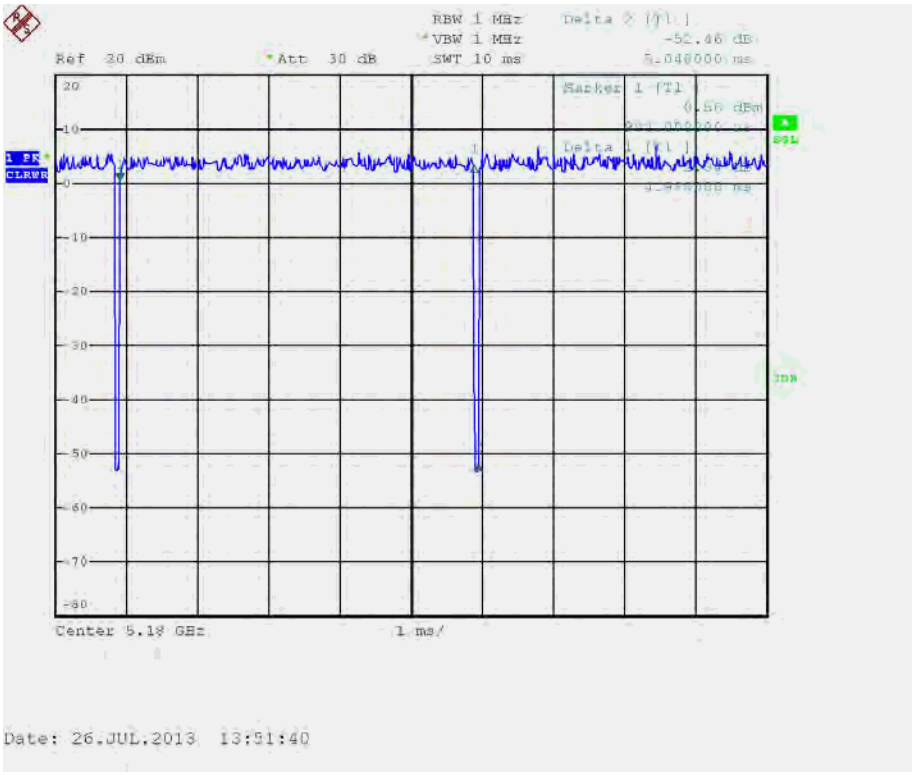
Date: 3.JUL.2013 17:08:51

IEEE 802.11n MCS0 40MHz / 2.4GHz Band / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 2 (EUT 2)

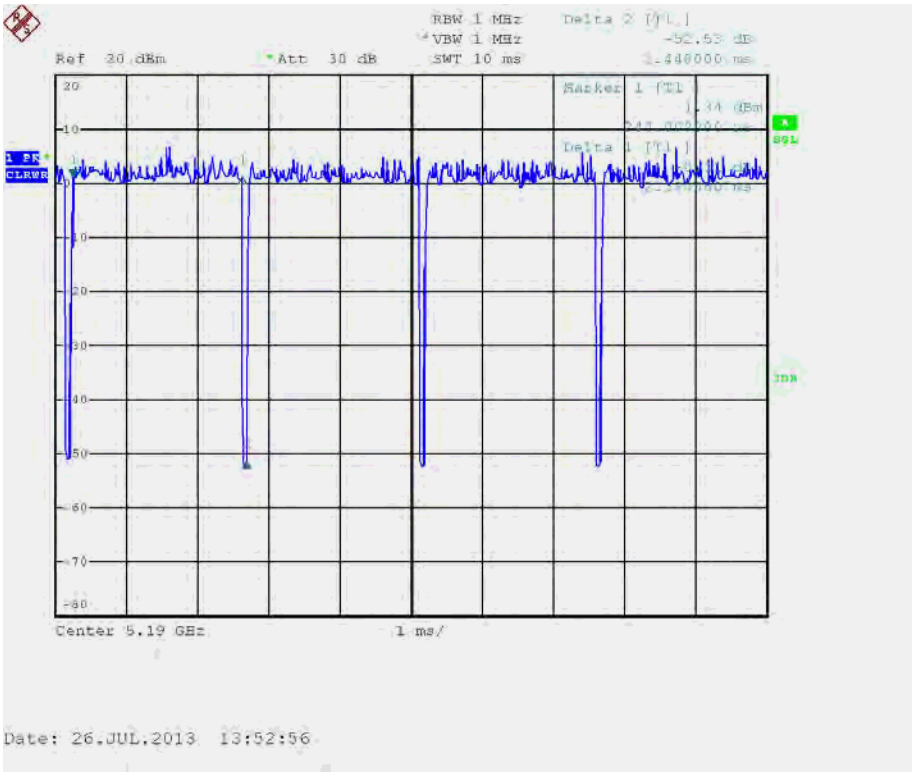


Date: 3.JUL.2013 17:09:32

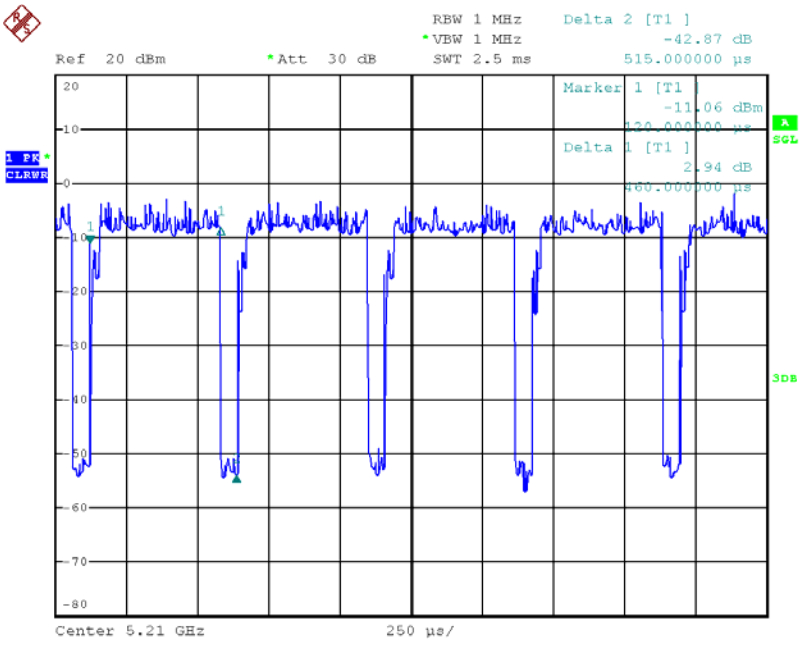
IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 2 (EUT 2)



IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 2 (EUT 2)

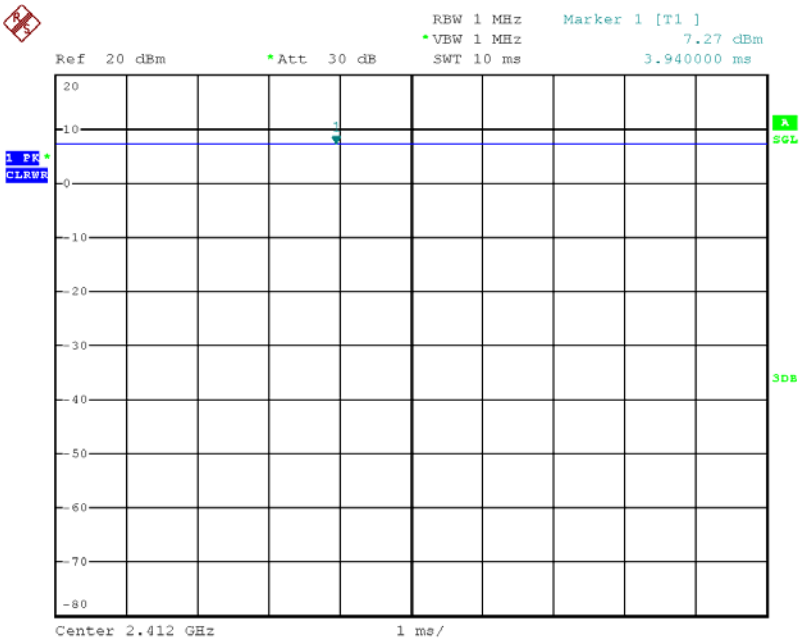


IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 2 (EUT 2)



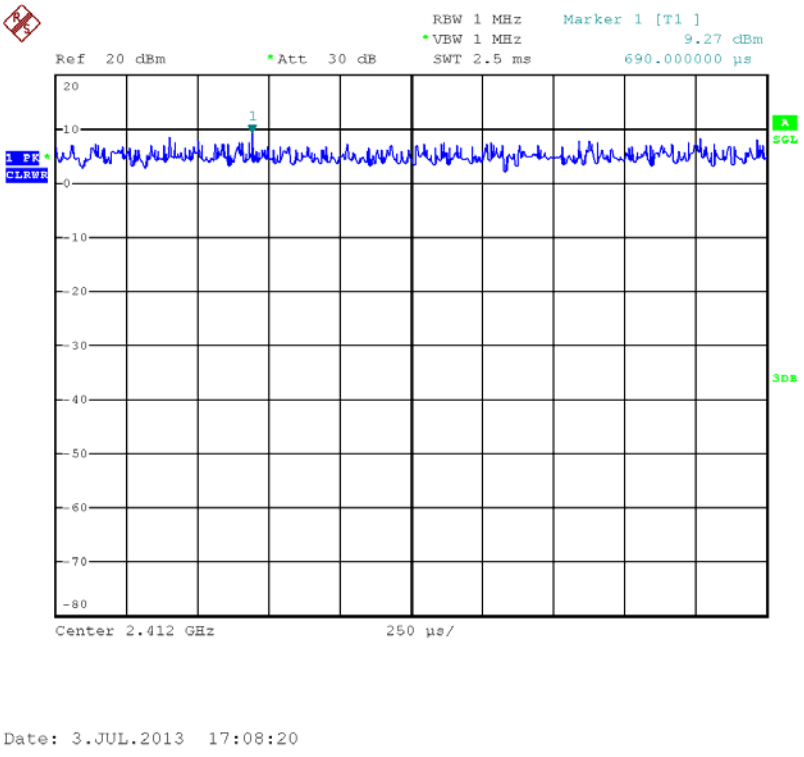
Date: 26.JUL.2013 13:53:58

IEEE 802.11b / Chain 1 / Test Mode: Mode 2 (EUT 2)

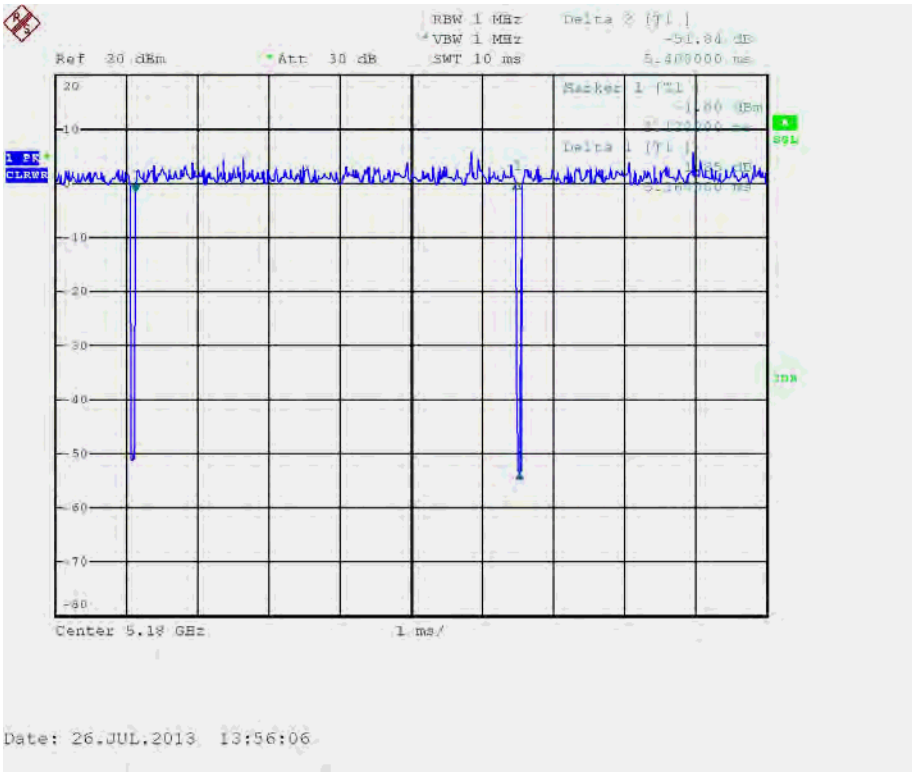


Date: 3.JUL.2013 17:07:36

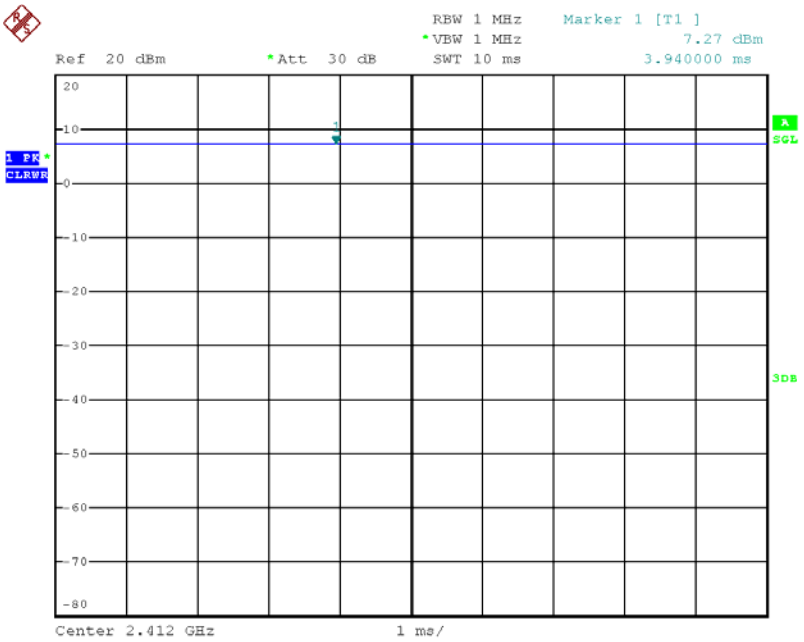
IEEE 802.11g / Chain 1 / Test Mode: Mode 2 (EUT 2)



IEEE 802.11a / Chain 4 / Test Mode: Mode 2 (EUT 2)

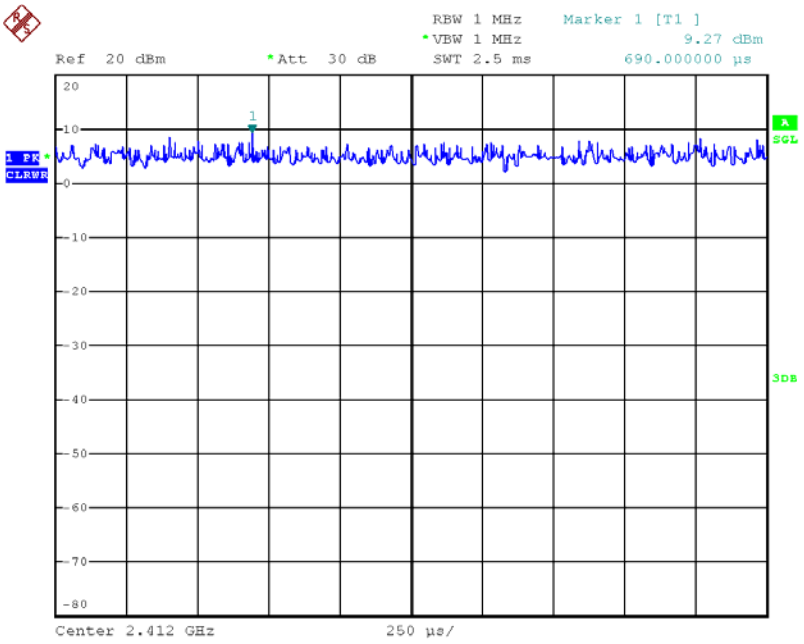


IEEE 802.11b / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 2 (EUT 2)



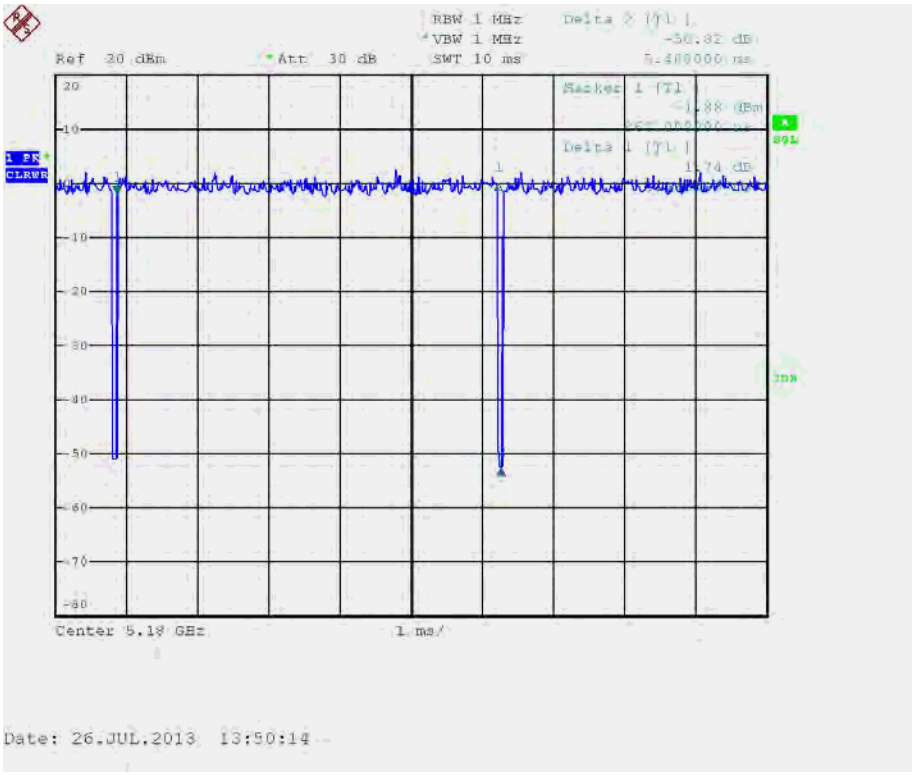
Date: 3.JUL.2013 17:07:36

IEEE 802.11g / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 2 (EUT 2)



Date: 3.JUL.2013 17:08:20

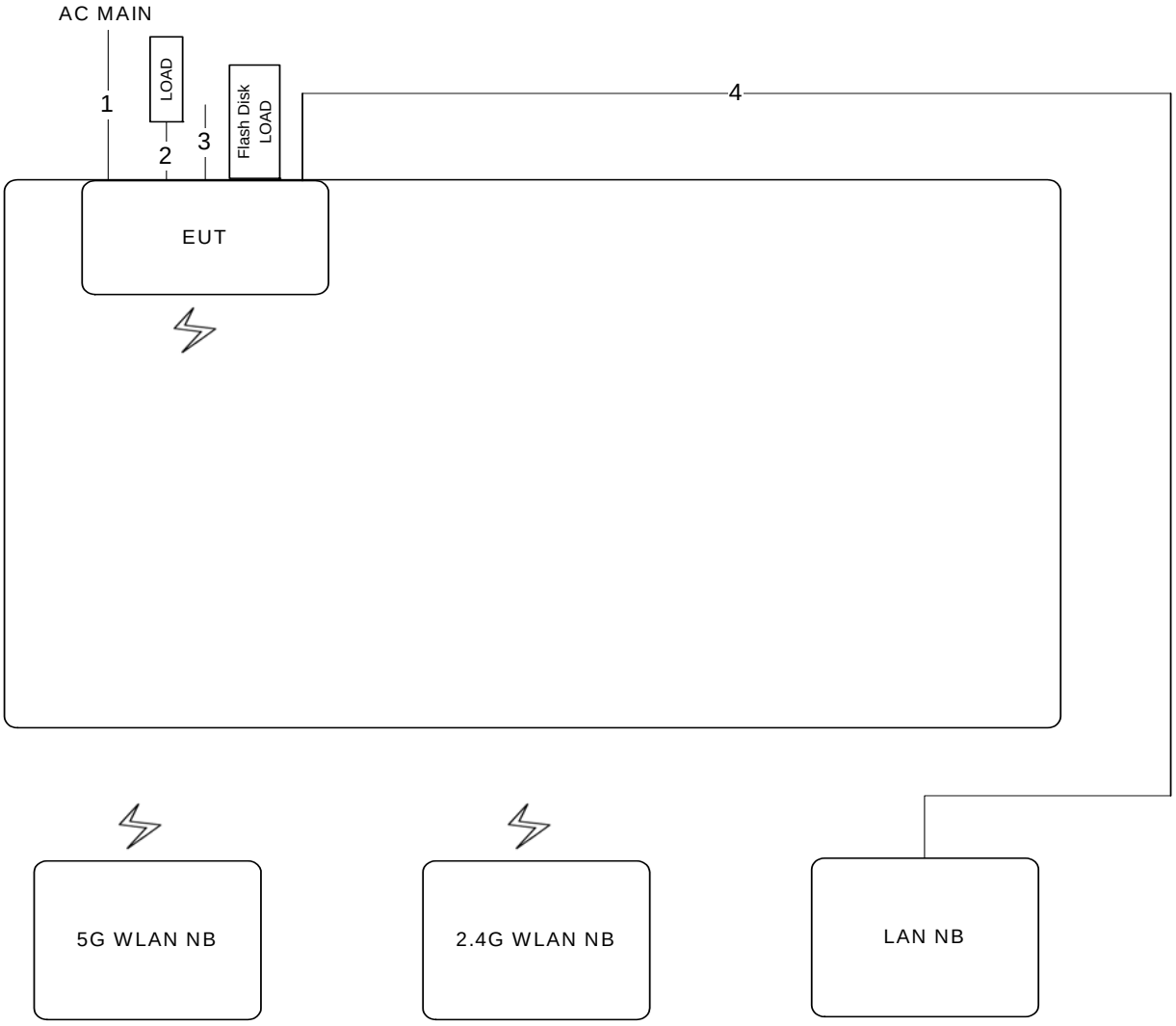
IEEE 802.11a / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 2 (EUT 2)



3.12. Test Configurations

3.12.1. AC Power Line Conduction Emissions Test Configuration

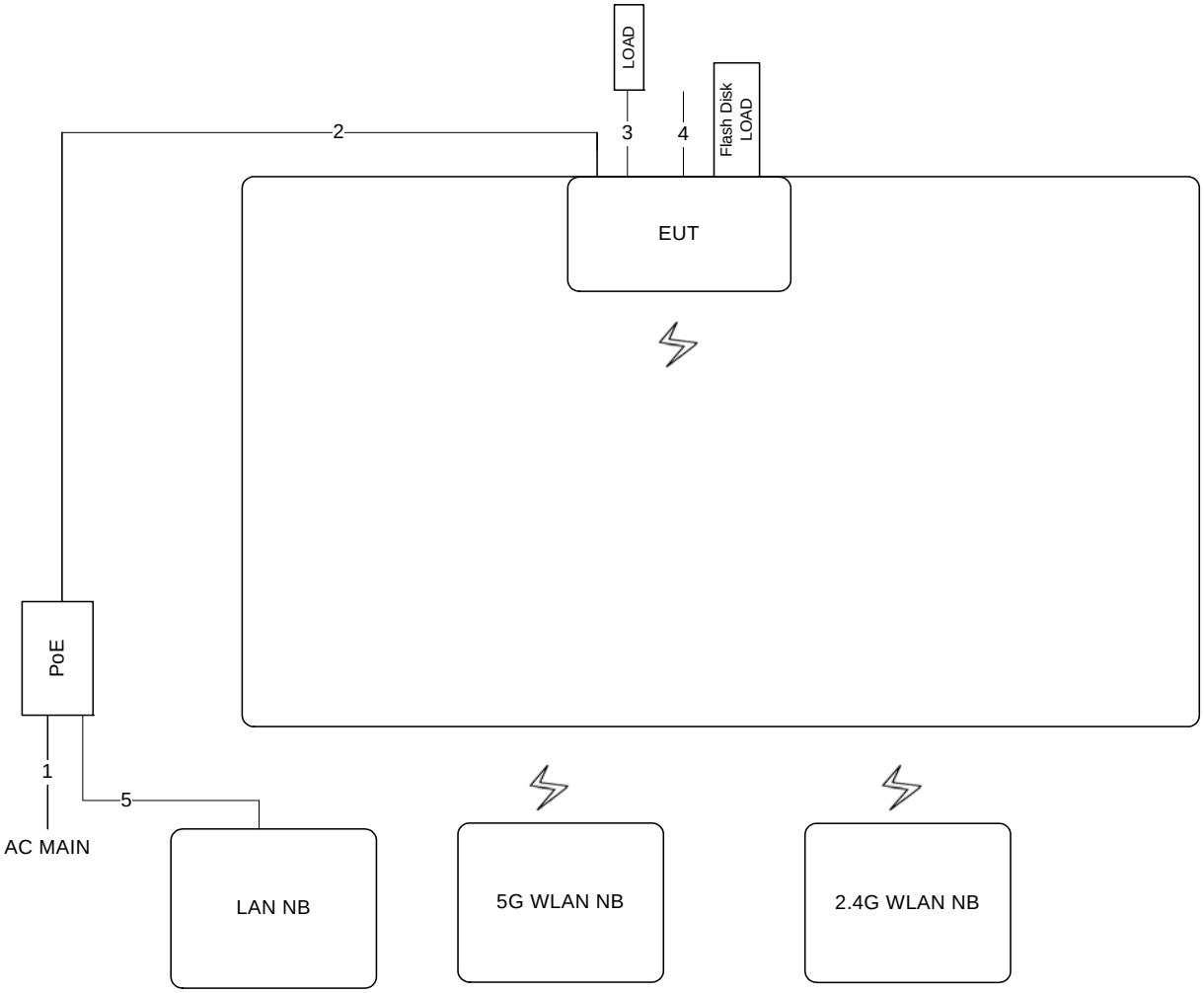
Test Mode: Mode 1, Mode 3



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	1m
3	Console cable	No	1m
4	RJ-45 cable	No	10m

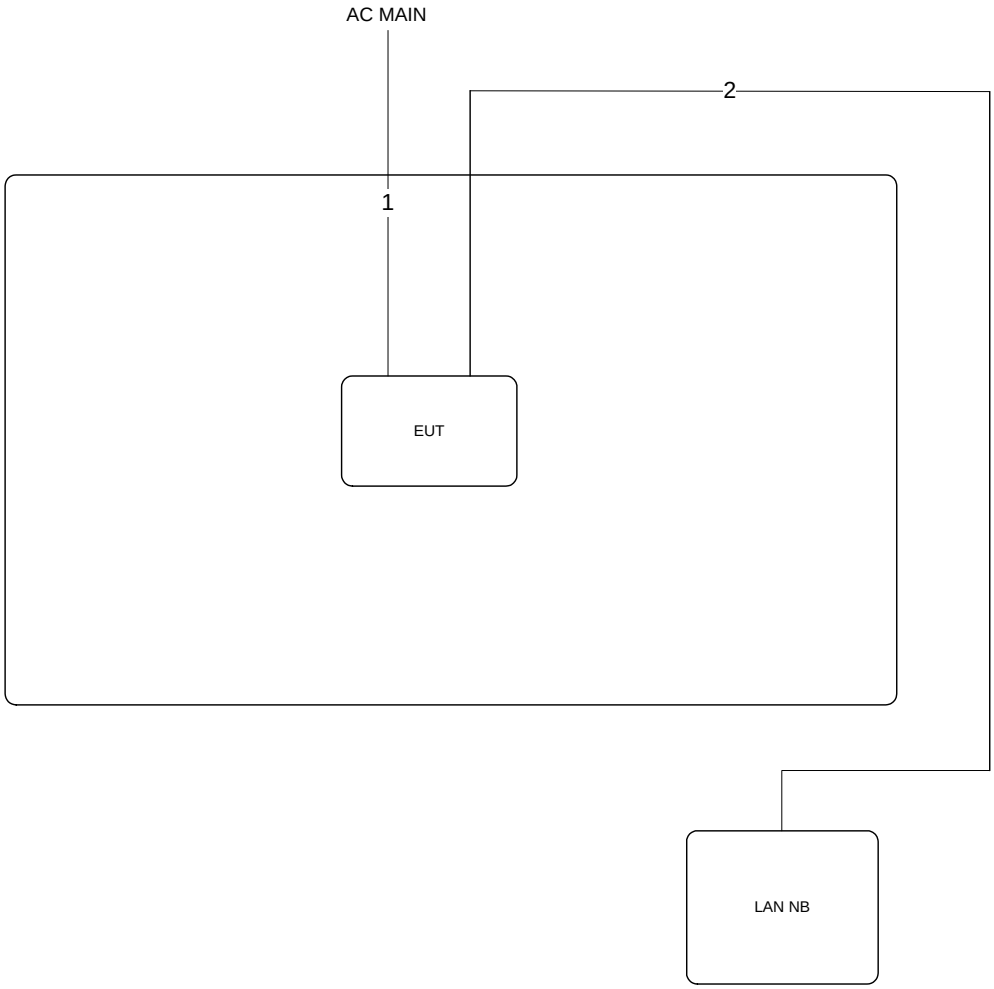
3.12.2. Radiated Emission Test Configuration

Test Configuration: below 1GHz / Test Mode: Mode 3, Mode 6



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ45 cable	No	1m
4	Console cable	No	1m
5	RJ-45 cable	No	1.5m

Test Configuration: above 1GHz / Test Mode: Mode 1, Mode 3



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m

4. TEST RESULT

4.1. AC Power Line Conducted Emissions Measurement

4.1.1. Limit

For this product which is designed to be connected to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

4.1.2. Measuring Instruments and Setting

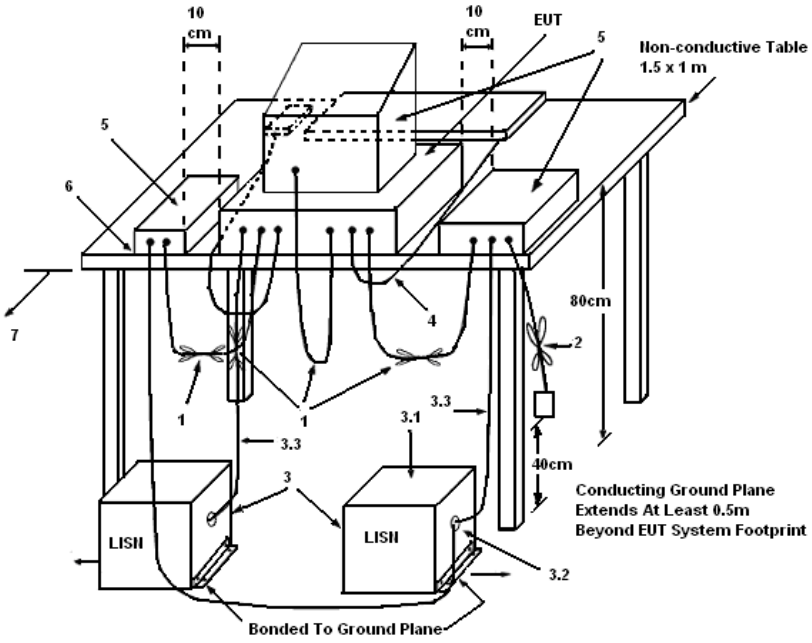
Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

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

4.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.

4.1.4. Test Setup Layout



LEGEND:

(1) 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.

(2) 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.

(3) EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω. LISN can be placed on top of, or immediately beneath, reference ground plane.

(3.1) All other equipment powered from additional LISN(s).

(3.2) Multiple outlet strip can be used for multiple power cords of non-EUT equipment.

(3.3) LISN at least 80 cm from nearest part of EUT chassis.

(4) Cables of hand-operated devices, such as keyboards, mice, etc., shall be placed as for normal use.

(5) Non-EUT components of EUT system being tested.

(6) Rear of EUT, including peripherals, shall all be aligned and flush with rear of tabletop.

(7) Rear of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.

4.1.5. Test Deviation

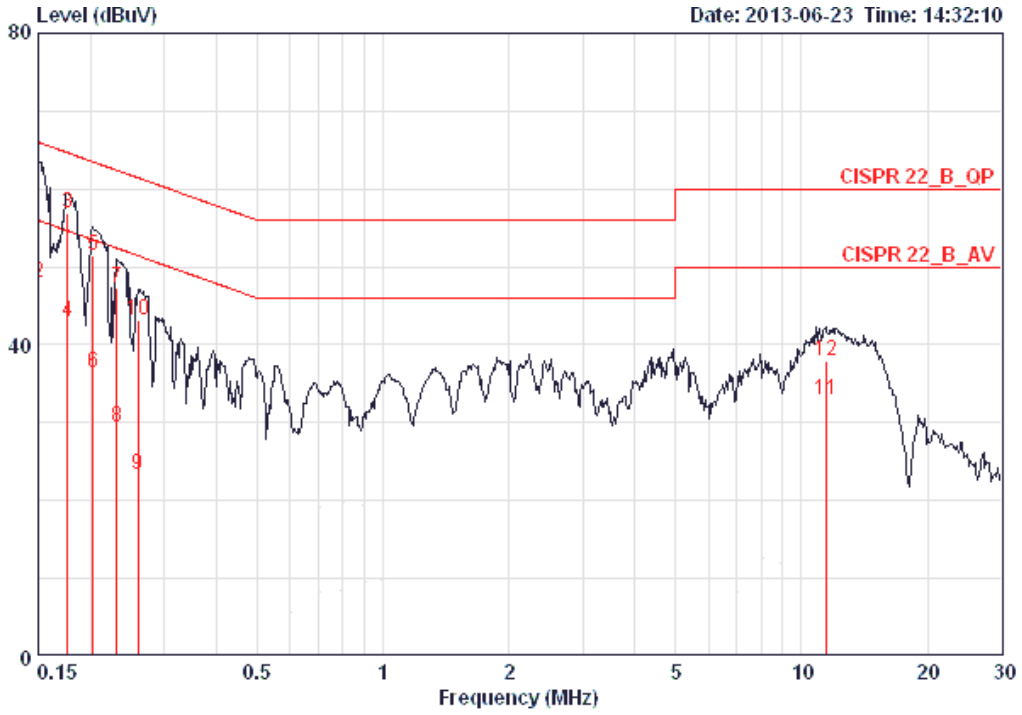
There is no deviation with the original standard.

4.1.6. EUT Operation during Test

The EUT was placed on the test table and programmed in normal function.

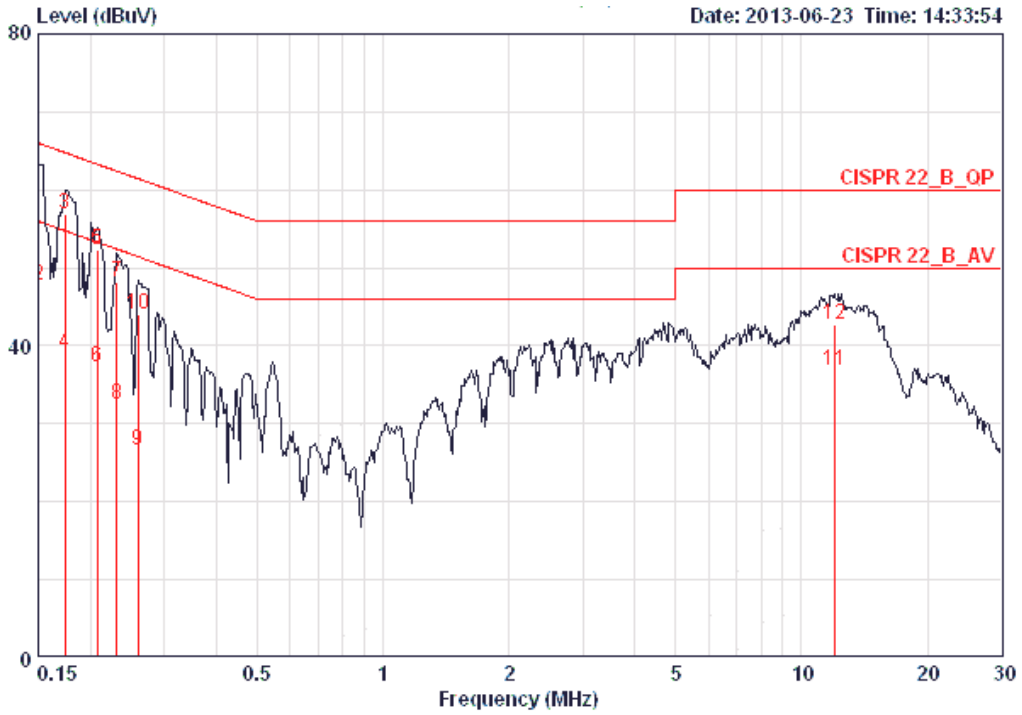
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	25℃	Humidity	49%
Test Engineer	Sin Chang	Phase	Line
Configuration	Normal Link	Test Mode	Mode 1



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1 @	0.15000	61.67	-4.33	66.00	61.34	0.15	0.18	LINE	QP
2 @	0.15000	48.02	-7.98	56.00	47.69	0.15	0.18	LINE	AVERAGE
3 @	0.17584	56.95	-7.73	64.68	56.61	0.15	0.19	LINE	QP
4	0.17584	42.92	-11.76	54.68	42.58	0.15	0.19	LINE	AVERAGE
5	0.20289	51.48	-12.01	63.49	51.13	0.15	0.20	LINE	QP
6	0.20289	36.35	-17.14	53.49	36.00	0.15	0.20	LINE	AVERAGE
7	0.23162	47.28	-15.11	62.39	46.93	0.15	0.20	LINE	QP
8	0.23162	29.51	-22.88	52.39	29.16	0.15	0.20	LINE	AVERAGE
9	0.26026	23.34	-28.08	51.42	22.99	0.15	0.20	LINE	AVERAGE
10	0.26026	43.11	-18.31	61.42	42.76	0.15	0.20	LINE	QP
11	11.438	32.95	-17.05	50.00	32.16	0.40	0.39	LINE	AVERAGE
12	11.438	37.94	-22.06	60.00	37.15	0.40	0.39	LINE	QP

Temperature	25℃	Humidity	49%
Test Engineer	Sin Chang	Phase	Neutral
Configuration	Normal Link	Test Mode	Mode 1

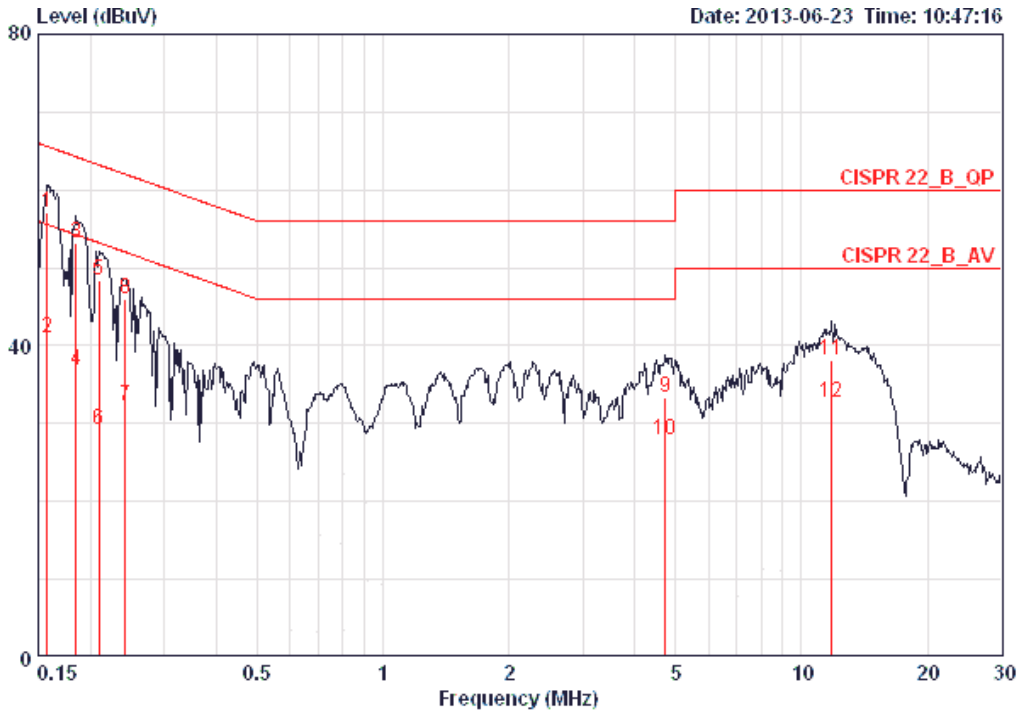


	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1 @	0.15000	61.40	-4.60	66.00	61.15	0.07	0.18	NEUTRAL	QP
2 @	0.15000	47.66	-8.34	56.00	47.41	0.07	0.18	NEUTRAL	AVERAGE
3 @	0.17399	56.89	-7.88	64.77	56.63	0.07	0.19	NEUTRAL	QP
4	0.17399	38.96	-15.81	54.77	38.70	0.07	0.19	NEUTRAL	AVERAGE
5	0.20723	52.40	-10.92	63.32	52.13	0.07	0.20	NEUTRAL	QP
6	0.20723	37.23	-16.09	53.32	36.96	0.07	0.20	NEUTRAL	AVERAGE
7	0.23162	48.20	-14.19	62.39	47.93	0.07	0.20	NEUTRAL	QP
8	0.23162	32.54	-19.85	52.39	32.27	0.07	0.20	NEUTRAL	AVERAGE
9	0.26026	26.56	-24.86	51.42	26.29	0.07	0.20	NEUTRAL	AVERAGE
10	0.26026	43.95	-17.47	61.42	43.68	0.07	0.20	NEUTRAL	QP
11	11.996	36.93	-13.07	50.00	36.22	0.31	0.40	NEUTRAL	AVERAGE
12	11.996	42.63	-17.37	60.00	41.92	0.31	0.40	NEUTRAL	QP

Note:

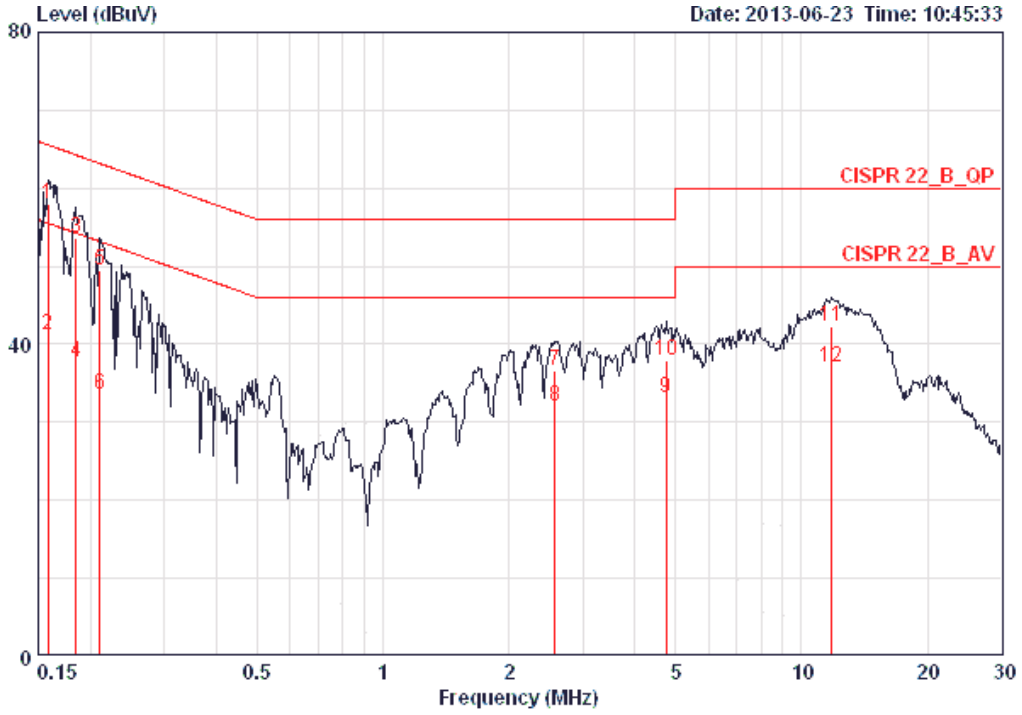
Level = Read Level + LISN Factor + Cable Loss.

Temperature	25℃	Humidity	49%
Test Engineer	Sin Chang	Phase	Line
Configuration	Normal Link	Test Mode	Mode 3



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1 @	0.15733	57.16	-8.44	65.60	56.83	0.15	0.18	LINE	QP
2	0.15733	40.91	-14.69	55.60	40.58	0.15	0.18	LINE	AVERAGE
3	0.18443	53.26	-11.02	64.28	52.92	0.15	0.19	LINE	QP
4	0.18443	36.87	-17.41	54.28	36.53	0.15	0.19	LINE	AVERAGE
5	0.20944	48.46	-14.77	63.23	48.11	0.15	0.20	LINE	QP
6	0.20944	29.31	-23.92	53.23	28.96	0.15	0.20	LINE	AVERAGE
7	0.24165	32.35	-19.69	52.04	32.00	0.15	0.20	LINE	AVERAGE
8	0.24165	45.93	-16.11	62.04	45.58	0.15	0.20	LINE	QP
9	4.721	33.38	-22.62	56.00	32.77	0.29	0.31	LINE	QP
10	4.721	27.87	-18.13	46.00	27.26	0.29	0.31	LINE	AVERAGE
11	11.807	38.09	-21.91	60.00	37.28	0.41	0.40	LINE	QP
12	11.807	32.72	-17.28	50.00	31.91	0.41	0.40	LINE	AVERAGE

Temperature	25℃	Humidity	49%
Test Engineer	Sin Chang	Phase	Neutral
Configuration	Normal Link	Test Mode	Mode 3



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1 @	0.15816	57.90	-7.66	65.56	57.65	0.07	0.18	NEUTRAL	QP
2	0.15816	41.23	-14.33	55.56	40.98	0.07	0.18	NEUTRAL	AVERAGE
3	0.18443	53.60	-10.68	64.28	53.34	0.07	0.19	NEUTRAL	QP
4	0.18443	37.79	-16.49	54.28	37.53	0.07	0.19	NEUTRAL	AVERAGE
5	0.21055	49.40	-13.78	63.18	49.13	0.07	0.20	NEUTRAL	QP
6	0.21055	33.66	-19.52	53.18	33.39	0.07	0.20	NEUTRAL	AVERAGE
7	2.581	36.69	-19.31	56.00	36.33	0.12	0.24	NEUTRAL	QP
8	2.581	32.03	-13.97	46.00	31.67	0.12	0.24	NEUTRAL	AVERAGE
9	4.746	33.11	-12.89	46.00	32.65	0.15	0.32	NEUTRAL	AVERAGE
10	4.746	38.01	-17.99	56.00	37.55	0.15	0.32	NEUTRAL	QP
11	11.807	42.22	-17.78	60.00	41.52	0.30	0.40	NEUTRAL	QP
12	11.807	37.08	-12.92	50.00	36.38	0.30	0.40	NEUTRAL	AVERAGE

Note:

Level = Read Level + LISN Factor + Cable Loss.

4.2. Maximum Conducted Output Power Measurement

4.2.1. Limit

For systems using digital modulation in the 2400-2483.5MHz, the limit for output power is 30dBm. The limited has to be reduced by the amount in dB that the gain of the antenna exceed 6dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi. Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter output power.

4.2.2. Measuring Instruments and Setting

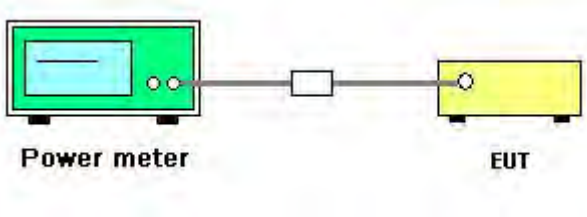
Please refer to section 5 of equipments list in this report. The following table is the setting of the power meter.

Power Meter Parameter	Setting
Detector	Average

4.2.3. Test Procedures

1. Test procedures refer KDB 558074 D01 v03 section 9.2.2 Measurement using a power meter (PM).
2. This procedure provides an alternative for determining the RMS output power using a broadband RF average power meter with a thermocouple detector.

4.2.4. Test Setup Layout



4.2.5. Test Deviation

There is no deviation with the original standard.

4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.2.7. Test Result of Maximum Conducted Output Power

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11n/ac
Test Date	Jul. 28, 2013	Test Mode	Mode 1 (EUT 1)

For 2.4GHz Band

Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	17.48	17.1	16.99	21.97	30.00	**Complies**
6	2437 MHz	23.01	21.8	22.38	27.20	30.00	**Complies**
11	2462 MHz	20.34	19.56	19.99	24.75	30.00	**Complies**

Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	14.18	13.21	13.02	18.27	30.00	**Complies**
6	2437 MHz	16.97	16.15	16.74	21.40	30.00	**Complies**
9	2452 MHz	15.45	14.04	15.28	19.74	30.00	**Complies**

For 5GHz Band

Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
149	5745 MHz	23.51	24.25	24.1	28.74	30.00	**Complies**
157	5785 MHz	23.63	24.34	24.09	28.80	30.00	**Complies**
165	5825 MHz	23.6	24.31	23.72	28.66	30.00	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
151	5755 MHz	21.11	21.52	21.5	26.15	30.00	**Complies**
159	5795 MHz	23.64	24.17	23.9	28.68	30.00	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
155	5775 MHz	20.16	20.81	20.27	25.19	30.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Date	Jul. 28, 2013	Test Mode	Mode 1 (EUT 1)

For 1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	23.39	30.00	**Complies**
6	2437 MHz	23.62	30.00	**Complies**
11	2462 MHz	23.77	30.00	**Complies**

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	20.06	30.00	**Complies**
6	2437 MHz	23.51	30.00	**Complies**
11	2462 MHz	21.03	30.00	**Complies**

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	24.38	30.00	**Complies**
157	5785 MHz	24.49	30.00	**Complies**
165	5825 MHz	24.42	30.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Date	Jul. 28, 2013	Test Mode	Mode 1 (EUT 1)

For 3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	16.84	16.09	15.23	20.87	30.00	**Complies**
6	2437 MHz	22.06	21.36	21.86	26.54	30.00	**Complies**
11	2462 MHz	23.98	23.04	23.67	28.35	30.00	**Complies**

Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	17.69	17.15	16.98	22.06	30.00	**Complies**
6	2437 MHz	22.53	21.43	22.04	26.79	30.00	**Complies**
11	2462 MHz	20.42	19.57	19.96	24.77	30.00	**Complies**

Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
149	5745 MHz	23.7	24.35	24.18	28.86	30.00	**Complies**
157	5785 MHz	23.69	24.37	24.14	28.85	30.00	**Complies**
165	5825 MHz	23.64	24.3	23.81	28.70	30.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11n/ac
Test Date	Jul. 28, 2013	Test Mode	Mode 2 (EUT 2)

For 2.4GHz Band

Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	15.87	15.09	15.47	20.26	30.00	**Complies**
6	2437 MHz	21.95	21.02	21.43	26.25	30.00	**Complies**
11	2462 MHz	16.24	15.28	15.36	20.42	30.00	**Complies**

Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
3	2422 MHz	13.13	11.61	12.73	17.31	30.00	**Complies**
6	2437 MHz	15.68	14.72	15.04	19.94	30.00	**Complies**
9	2452 MHz	14.77	13.66	14.06	18.96	30.00	**Complies**

For 5GHz Band

Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
149	5745 MHz	23.90	24.02	24.26	28.83	30.00	**Complies**
157	5785 MHz	23.75	24.01	23.94	28.67	30.00	**Complies**
165	5825 MHz	23.89	23.78	23.79	28.59	30.00	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
151	5755 MHz	21.66	21.93	22.02	26.64	30.00	**Complies**
159	5795 MHz	23.75	23.90	23.93	28.63	30.00	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
155	5775 MHz	20.61	20.62	20.63	25.39	30.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a/b/g
Test Date	Jul. 26, 2013	Test Mode	Mode 2 (EUT 2)

For 1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	21.76	30.00	**Complies**
6	2437 MHz	24.87	30.00	**Complies**
11	2462 MHz	21.82	30.00	**Complies**

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
1	2412 MHz	17.72	30.00	**Complies**
6	2437 MHz	22.85	30.00	**Complies**
11	2462 MHz	18.17	30.00	**Complies**

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
149	5745 MHz	24.71	30.00	**Complies**
157	5785 MHz	24.61	30.00	**Complies**
165	5825 MHz	24.65	30.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Date	Jul. 28, 2013	Test Mode	Mode 2 (EUT 2)

For 3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	16.18	14.56	15.39	20.20	30.00	**Complies**
6	2437 MHz	17.76	17.13	17.09	22.11	30.00	**Complies**
11	2462 MHz	21.67	21.22	21.12	26.11	30.00	**Complies**

Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3			
1	2412 MHz	17.63	16.98	17.57	22.17	30.00	**Complies**
6	2437 MHz	21.02	20.67	20.43	25.48	30.00	**Complies**
11	2462 MHz	17.15	16.38	16.64	21.51	30.00	**Complies**

Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Conducted Power (dBm)			Total Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 4	Chain 5	Chain 6			
149	5745 MHz	23.88	24.17	24.22	28.86	30.00	**Complies**
157	5785 MHz	23.82	23.92	23.96	28.67	30.00	**Complies**
165	5825 MHz	23.91	23.81	23.75	28.60	30.00	**Complies**

4.3. Power Spectral Density Measurement

4.3.1. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

4.3.2. Measuring Instruments and Setting

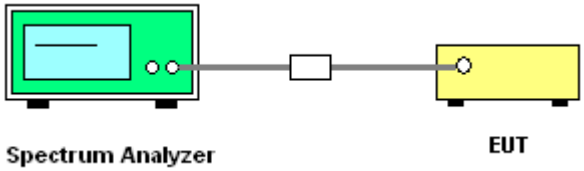
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Set the span to 1.5 times the DTS channel bandwidth.
RBW	3 kHz ≤ RBW ≤ 100kHz
VBW	≥ 3 x RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto couple

4.3.3. Test Procedures

1. Test procedures refer KDB 558074 D01 v03 section 10.2 Method PKPSD (peak PSD) & KDB 662911 D01 v02 section In-Band Power Spectral Density (PSD) Measurements option (2) Measure and add 10 log(NANT) dB.
2. Use this procedure when the maximum conducted output power in the fundamental emission is used to demonstrate compliance. The EUT must be configured to transmit continuously at full power over the measurement duration.
3. Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW (use of a greater number of measurement points than this minimum requirement is recommended).
4. Use the peak marker function to determine the maximum level in any 3 kHz band segment within the fundamental EBW.
5. The resulting PSD level must be ≤ 8 dBm.

4.3.4. Test Setup Layout



4.3.5. Test Deviation

There is no deviation with the original standard.

4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.3.7. Test Result of Power Spectral Density

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11n/ac
Test Mode	Mode 1 (EUT 1)		

For 2.4GHz Band

Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
1	2412 MHz	-11.09	-11.79	-11.78	3.23	**Complies**
6	2437 MHz	-4.96	-6.06	-5.93	3.23	**Complies**
11	2462 MHz	-8.40	-9.31	-9.06	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
3	2422 MHz	-17.91	-18.17	-18.90	3.23	**Complies**
6	2437 MHz	-15.01	-16.17	-15.31	3.23	**Complies**
9	2452 MHz	-17.02	-17.83	-17.77	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

For 5GHz Band

Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
149	5745 MHz	-0.75	0.39	-0.91	3.23	**Complies**
157	5785 MHz	1.18	-0.38	-1.02	3.23	**Complies**
165	5825 MHz	-1.59	-0.21	-0.91	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
151	5755 MHz	-6.77	-5.44	-5.72	3.23	**Complies**
159	5795 MHz	-3.98	-3.99	-4.52	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
155	5775 MHz	-6.61	-6.04	-6.17	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 1 (EUT 1)		

For 1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-0.41	8.00	**Complies**
6	2437 MHz	-0.11	8.00	**Complies**
11	2462 MHz	-0.08	8.00	**Complies**

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-5.47	8.00	**Complies**
6	2437 MHz	-2.11	8.00	**Complies**
11	2462 MHz	-4.49	8.00	**Complies**

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-0.89	8.00	**Complies**
157	5785 MHz	-0.17	8.00	**Complies**
165	5825 MHz	-0.37	8.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 1 (EUT 1)		

For 3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
1	2412 MHz	-8.49	-9.59	-9.01	3.23	**Complies**
6	2437 MHz	-5.01	-5.10	-5.20	3.23	**Complies**
11	2462 MHz	-2.09	-2.96	-2.68	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
1	2412 MHz	-11.31	-11.06	-11.99	3.23	**Complies**
6	2437 MHz	-6.94	-8.04	-7.83	3.23	**Complies**
11	2462 MHz	-8.73	-9.98	-9.30	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
149	5745 MHz	-1.20	-1.00	-0.66	3.23	**Complies**
157	5785 MHz	-0.50	0.25	-1.13	3.23	**Complies**
165	5825 MHz	-0.38	0.10	-0.75	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11n/ac
Test Mode	Mode 2 (EUT 2)		

For 2.4GHz Band

Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
1	2412 MHz	-10.70	-10.94	-11.08	3.23	**Complies**
6	2437 MHz	-4.98	-5.19	-5.60	3.23	**Complies**
11	2462 MHz	-11.08	-11.57	-11.58	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
3	2422 MHz	-16.23	-17.85	-16.65	3.23	**Complies**
6	2437 MHz	-13.89	-15.29	-14.34	3.23	**Complies**
9	2452 MHz	-15.20	-17.22	-16.02	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

For 5GHz Band

Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
149	5745 MHz	-2.21	-2.41	-2.74	3.23	**Complies**
157	5785 MHz	-2.23	-1.98	-2.56	3.23	**Complies**
165	5825 MHz	-2.23	-2.70	-2.89	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
151	5755 MHz	-6.73	-6.03	-6.41	3.23	**Complies**
159	5795 MHz	-4.64	-4.13	-4.74	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
155	5775 MHz	-8.43	-9.48	-9.87	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Temperature	25℃	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 2 (EUT 2)		

For 1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-1.39	8.00	**Complies**
6	2437 MHz	0.41	8.00	**Complies**
11	2462 MHz	-1.77	8.00	**Complies**

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
1	2412 MHz	-7.26	8.00	**Complies**
6	2437 MHz	-3.16	8.00	**Complies**
11	2462 MHz	-6.44	8.00	**Complies**

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	Power Density (dBm/3kHz)	Max. Limit (dBm/3kHz)	Result
149	5745 MHz	-0.88	8.00	**Complies**
157	5785 MHz	-1.12	8.00	**Complies**
165	5825 MHz	-0.90	8.00	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 2 (EUT 2)		

For 3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
1	2412 MHz	-6.83	-8.12	-7.98	3.23	**Complies**
6	2437 MHz	-6.05	-6.11	-6.72	3.23	**Complies**
11	2462 MHz	-1.91	-3.44	-3.74	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3		
1	2412 MHz	-8.71	-9.91	-8.80	3.23	**Complies**
6	2437 MHz	-5.30	-6.07	-6.14	3.23	**Complies**
11	2462 MHz	-9.64	-9.41	-9.47	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

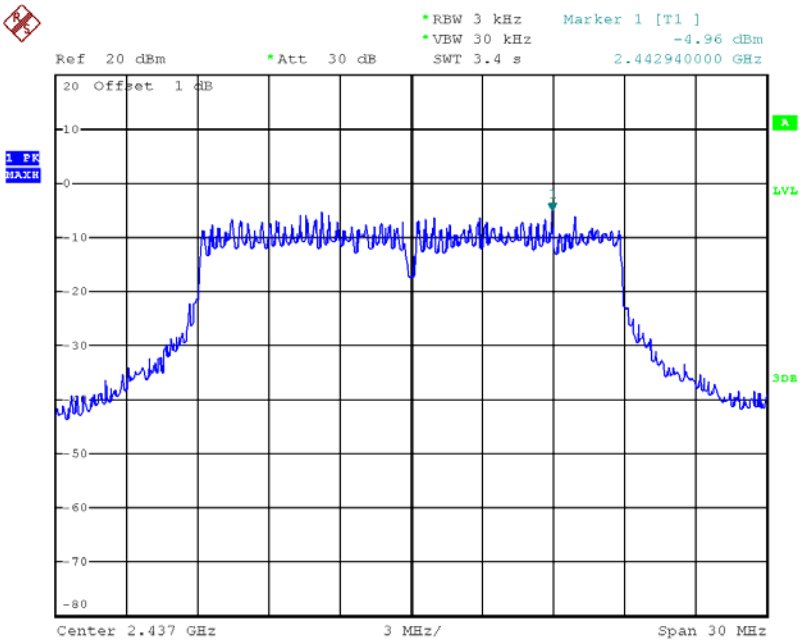
Channel	Frequency	Power Density (dBm/3kHz)			Single Port Limit (dBm/3kHz)	Result
		Chain 4	Chain 5	Chain 6		
149	5745 MHz	-1.65	-1.37	-1.86	3.23	**Complies**
157	5785 MHz	-1.46	-1.70	-1.92	3.23	**Complies**
165	5825 MHz	-1.57	-2.02	-1.82	3.23	**Complies**

Note: PSD Limit =(8dBm/3kHz –(10log(3))=3.23dBm/3kHz

Note: All the test values were listed in the report.

For plots, only the channel with maximum results was shown.

Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (3TX) / 2437 MHz / Test Mode: Mode 1 (EUT 1)



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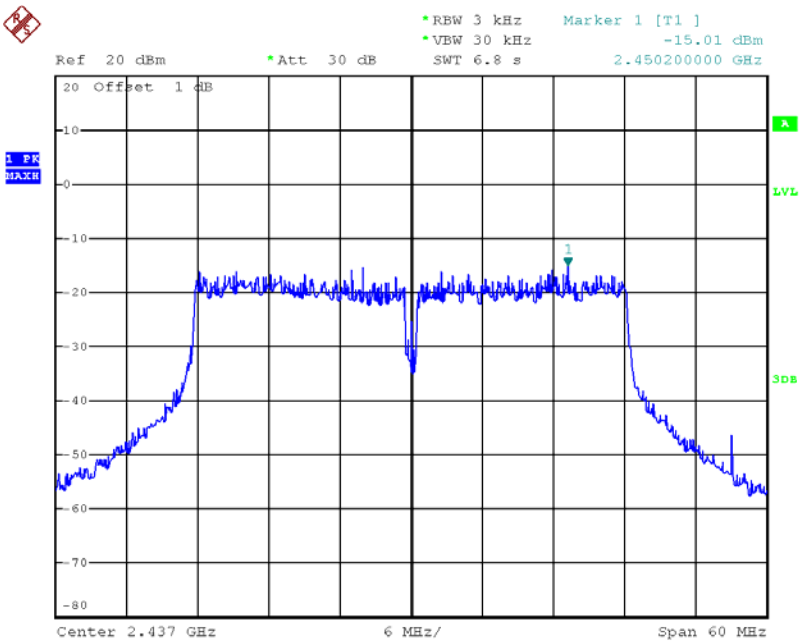
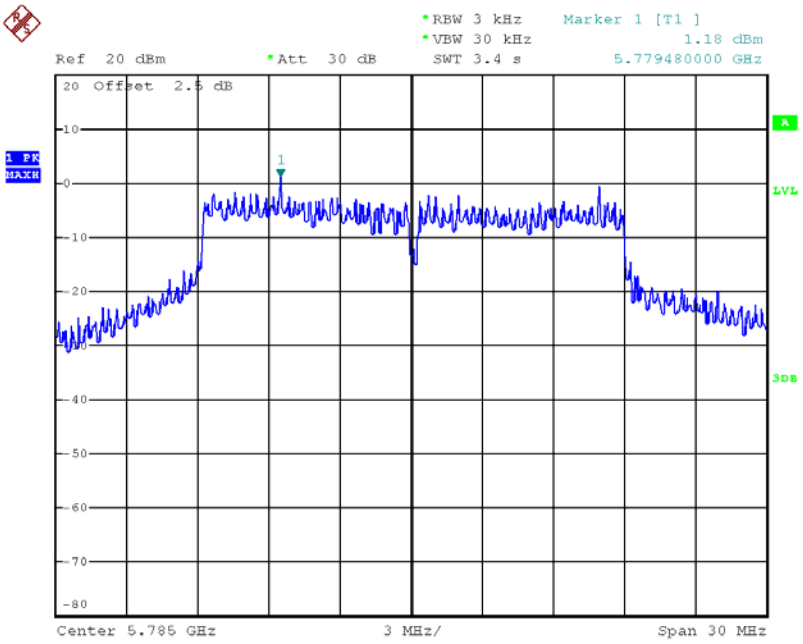
Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (3TX) / 2437 MHz / Test Mode: Mode 1 (EUT 1)



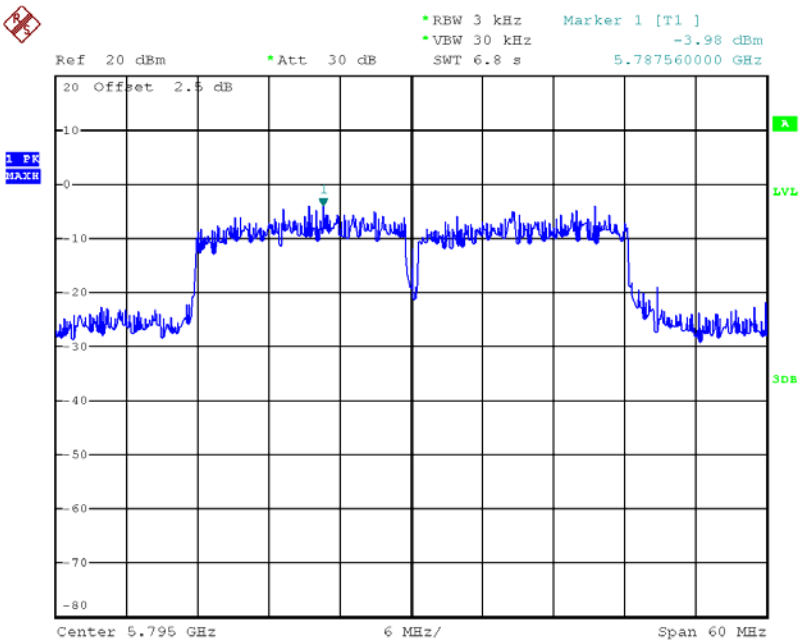
Date: 3.JUL.2013 03:11:11

Power Density Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4 (3TX) / 5785 MHz / Test Mode: Mode 1 (EUT 1)



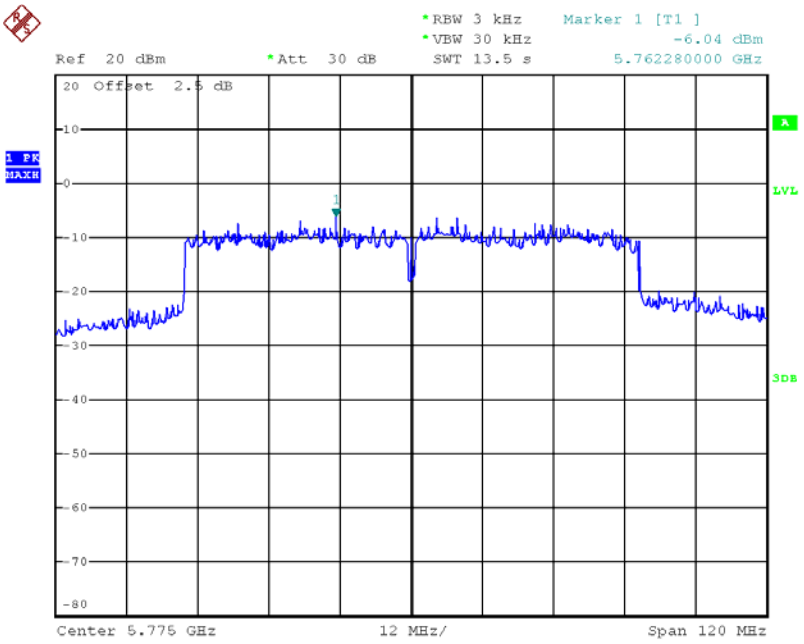
Date: 28.JUL.2013 11:26:22

Power Density Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4 (3TX) / 5795 MHz / Test Mode: Mode 1 (EUT 1)



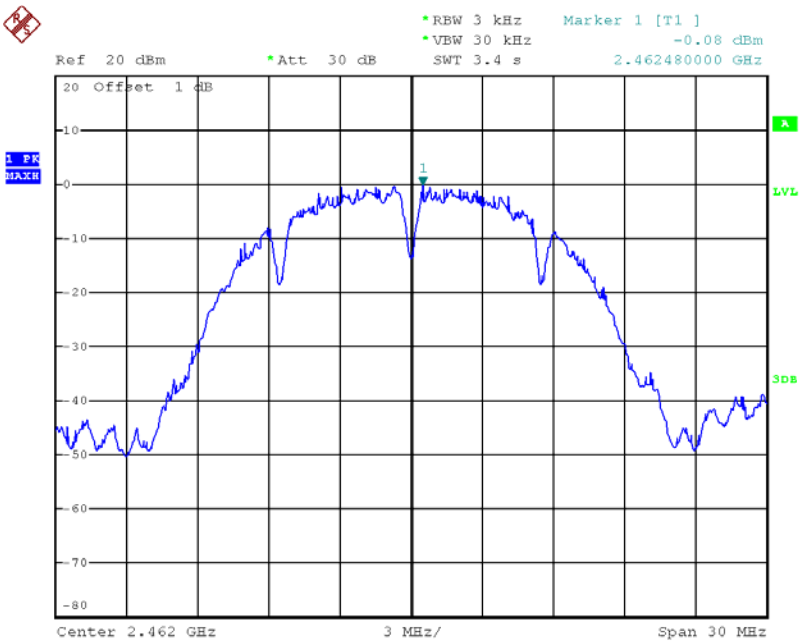
Date: 28.JUL.2013 11:31:33

Power Density Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 5 (3TX) / 5775 MHz / Test Mode: Mode 1 (EUT 1)



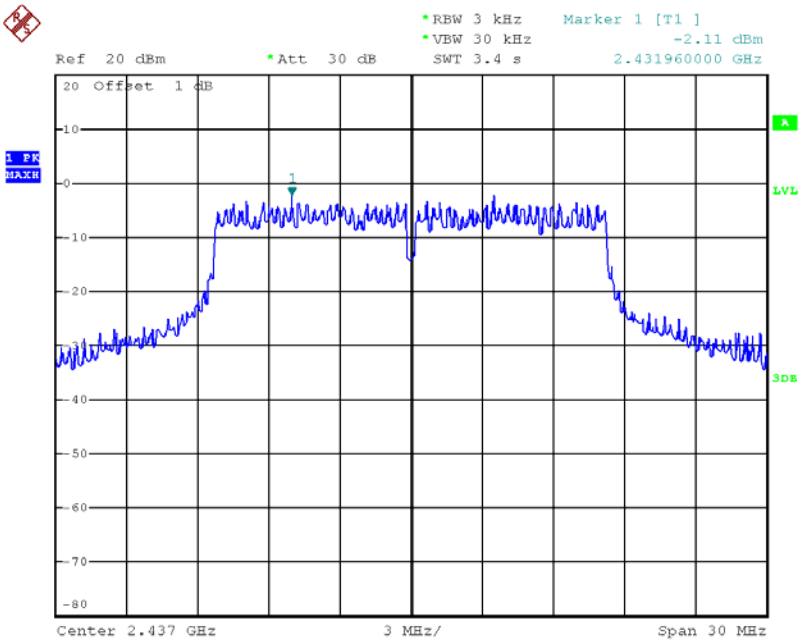
Date: 28.JUL.2013 11:08:59

Power Density Plot on Configuration IEEE 802.11b / Chain 1 (1TX) / 2462 MHz / Test Mode: Mode 1 (EUT 1)



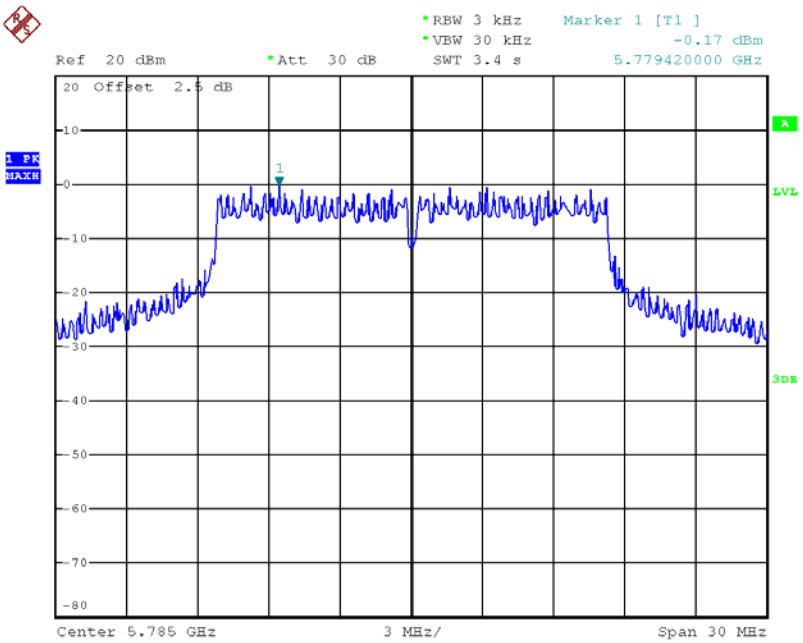
Date: 2.JUL.2013 18:20:50

Power Density Plot on Configuration IEEE 802.11g / Chain 1 (1TX) / 2437 MHz / Test Mode: Mode 1 (EUT 1)



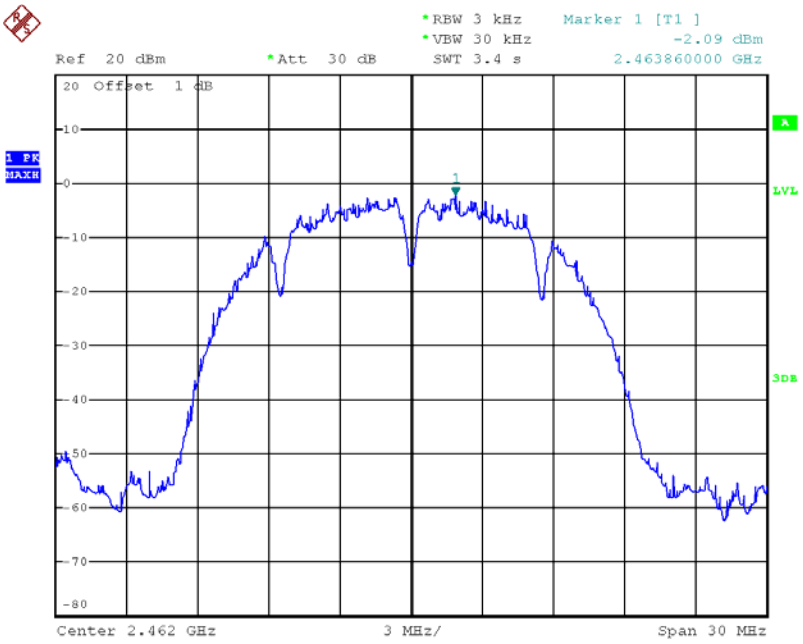
Date: 2.JUL.2013 18:22:56

Power Density Plot on Configuration IEEE 802.11a / Chain 4 (1TX) / 5785 MHz / Test Mode: Mode 1 (EUT 1)



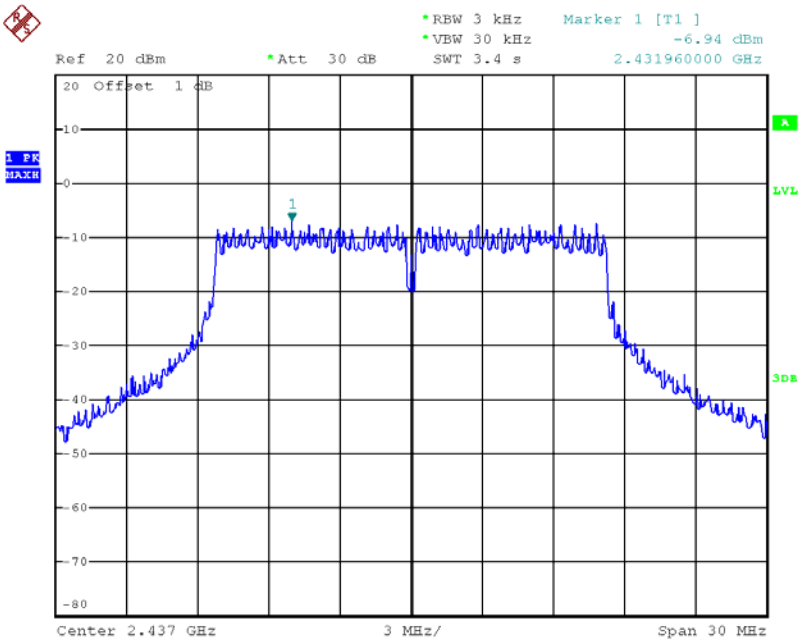
Date: 28.JUL.2013 11:38:45

Power Density Plot on Configuration IEEE 802.11b / Chain 1 (3TX) / 2462 MHz / Test Mode: Mode 1 (EUT 1)



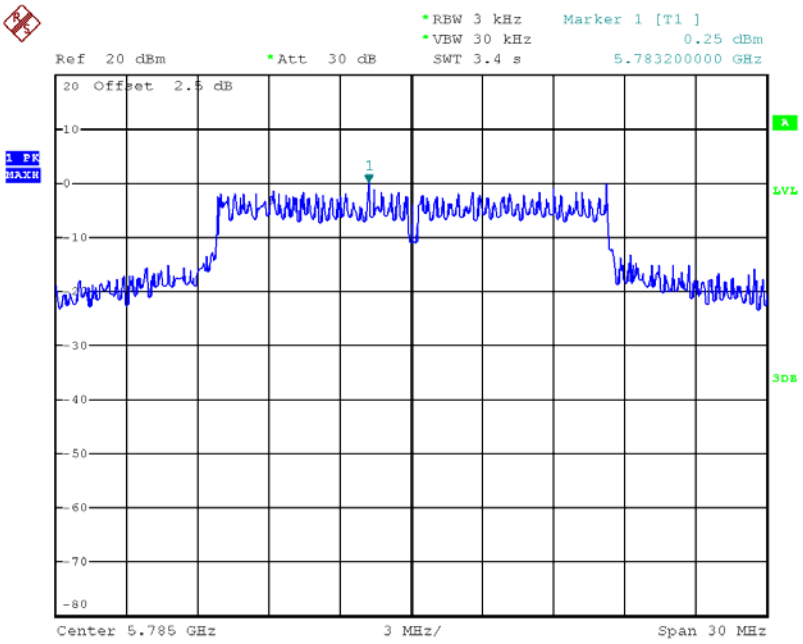
Date: 3.JUL.2013 02:41:11

Power Density Plot on Configuration IEEE 802.11g / Chain 1 (3TX) / 2437 MHz / Test Mode: Mode 1 (EUT 1)

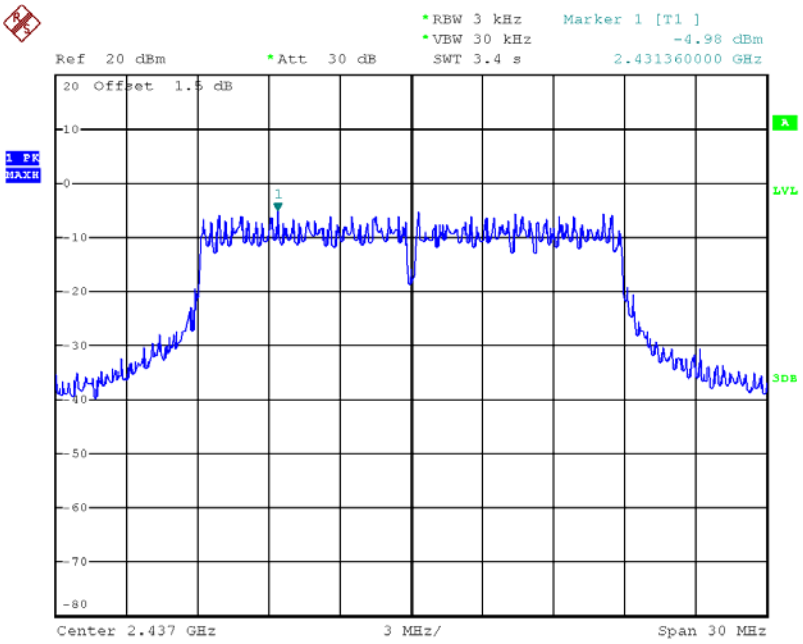


Date: 3.JUL.2013 02:49:52

Power Density Plot on Configuration IEEE 802.11a / Chain 5 (3TX) / 5785 MHz / Test Mode: Mode 1 (EUT 1)

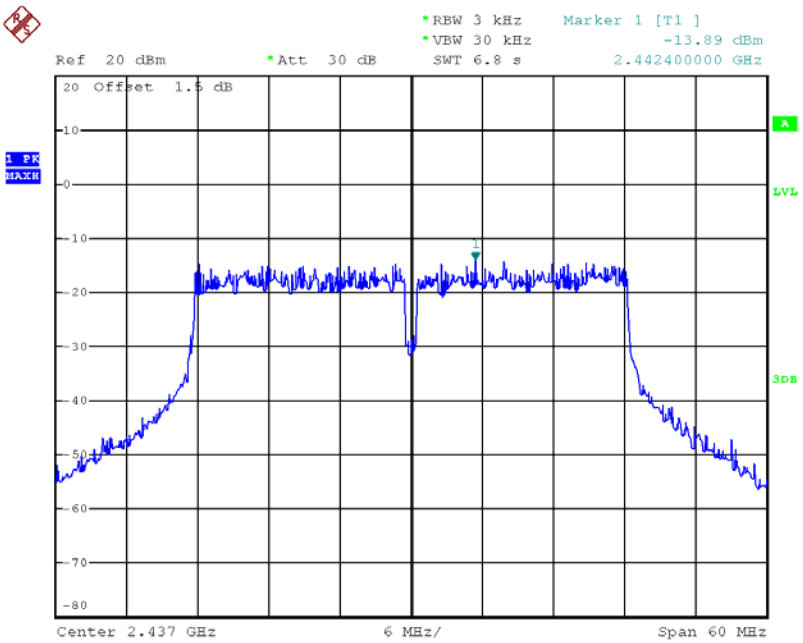


Power Density Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1 (3TX) / 2437 MHz / Test Mode: Mode 2 (EUT 2)



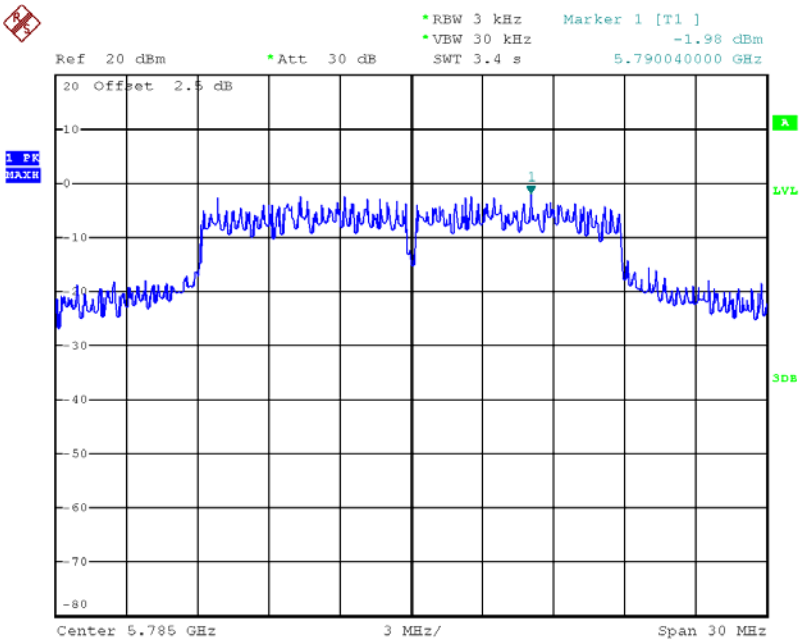
Date: 26.JUL.2013 11:20:18

Power Density Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1 (3TX) / 2437 MHz / Test Mode: Mode 2 (EUT 2)



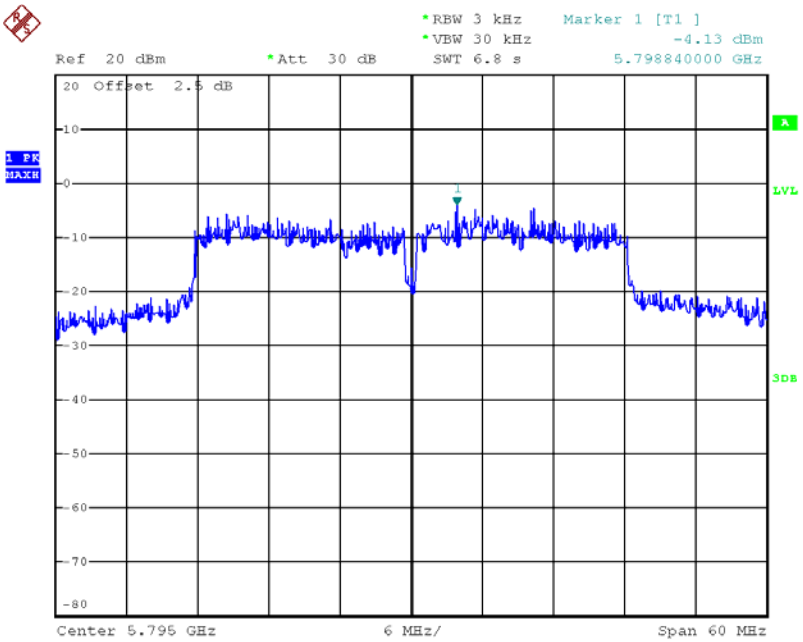
Date: 26.JUL.2013 11:25:12

Power Density Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 5 (3TX) / 5785 MHz / Test Mode: Mode 2 (EUT 2)



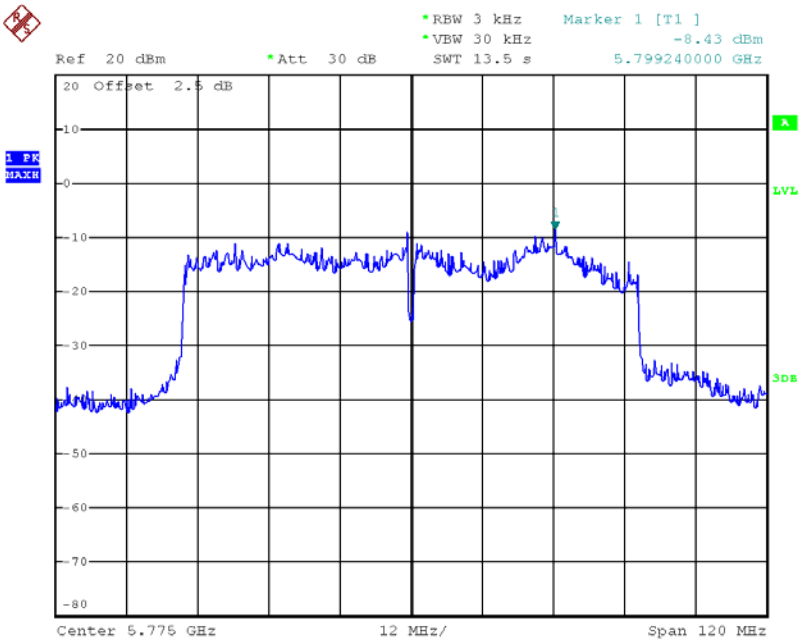
Date: 26.JUL.2013 12:00:02

Power Density Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 5 (3TX) / 5795 MHz / Test Mode: Mode 2 (EUT 2)



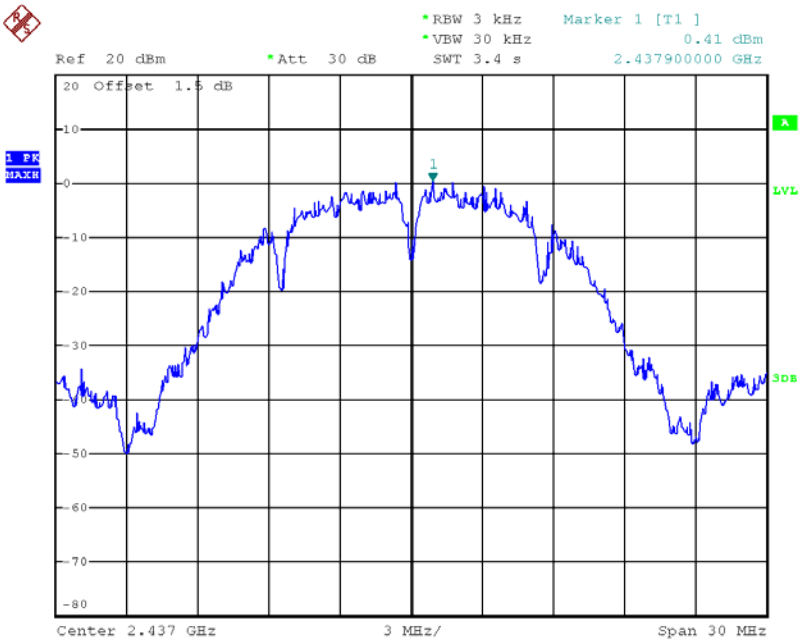
Date: 26.JUL.2013 12:08:21

Power Density Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4 (3TX) / 5775 MHz / Test Mode: Mode 2 (EUT 2)



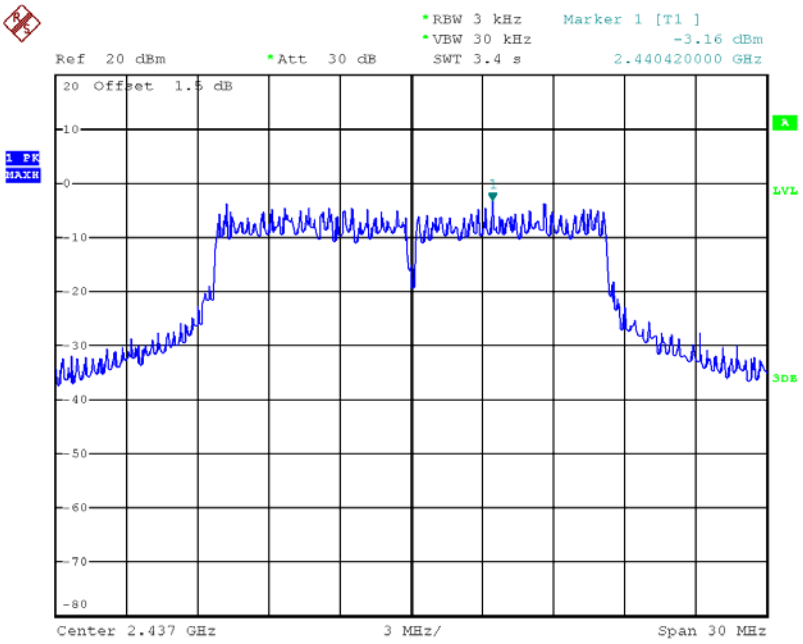
Date: 26.JUL.2013 12:10:03

Power Density Plot on Configuration IEEE 802.11b / Chain 1 (1TX) / 2437 MHz / Test Mode: Mode 2 (EUT 2)



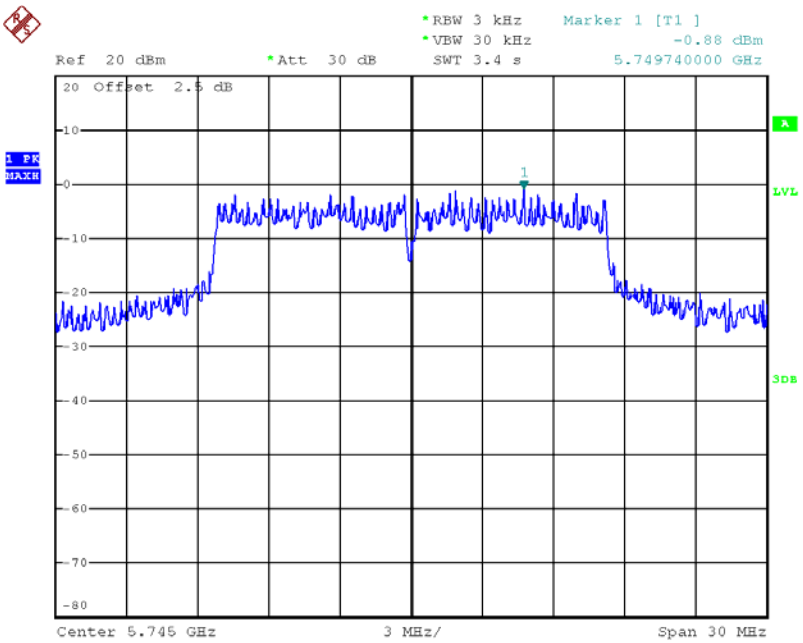
Date: 26.JUL.2013 09:05:20

Power Density Plot on Configuration IEEE 802.11g / Chain 1 (1TX) / 2437 MHz / Test Mode: Mode 2 (EUT 2)



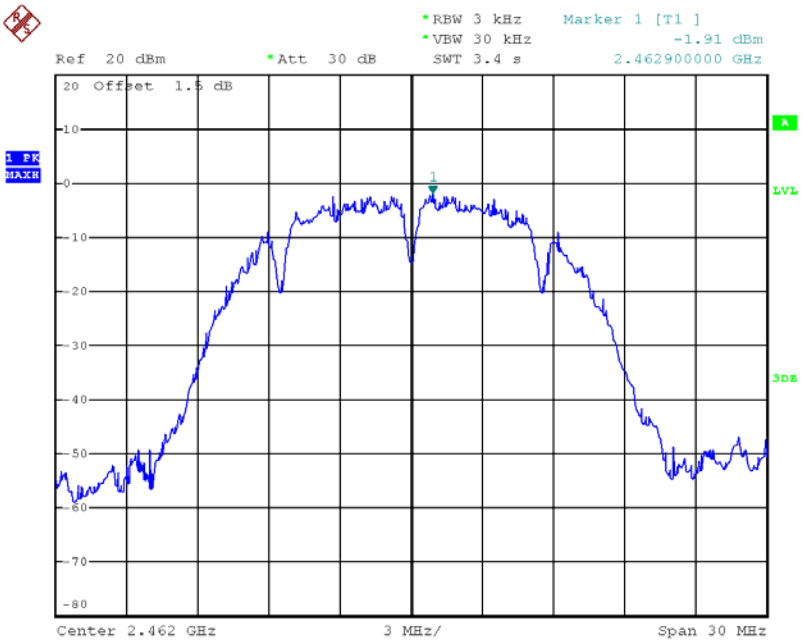
Date: 26.JUL.2013 09:07:11

Power Density Plot on Configuration IEEE 802.11a / Chain 4 (1TX) / 5745 MHz / Test Mode: Mode 2 (EUT 2)



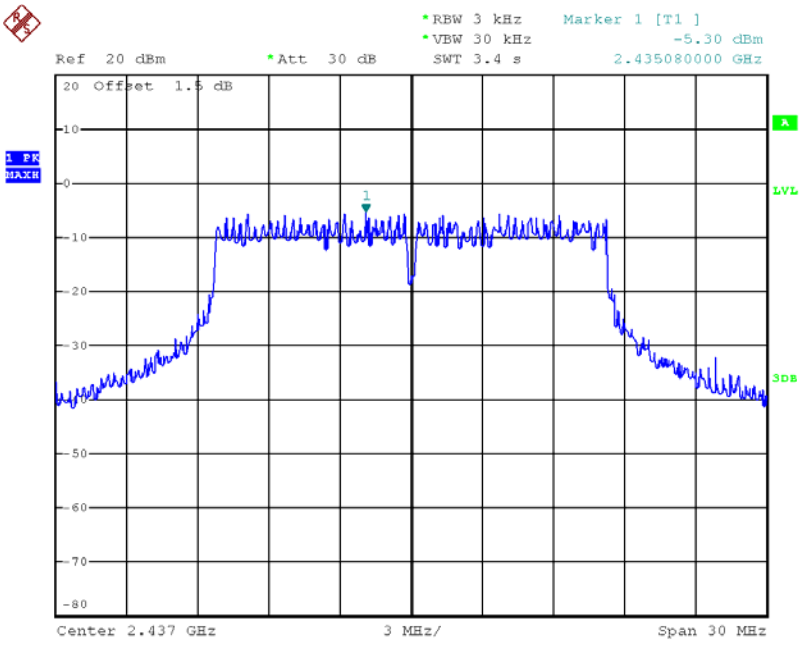
Date: 26.JUL.2013 11:45:39

Power Density Plot on Configuration IEEE 802.11b / Chain 1 (3TX) / 2462 MHz / Test Mode: Mode 2 (EUT 2)



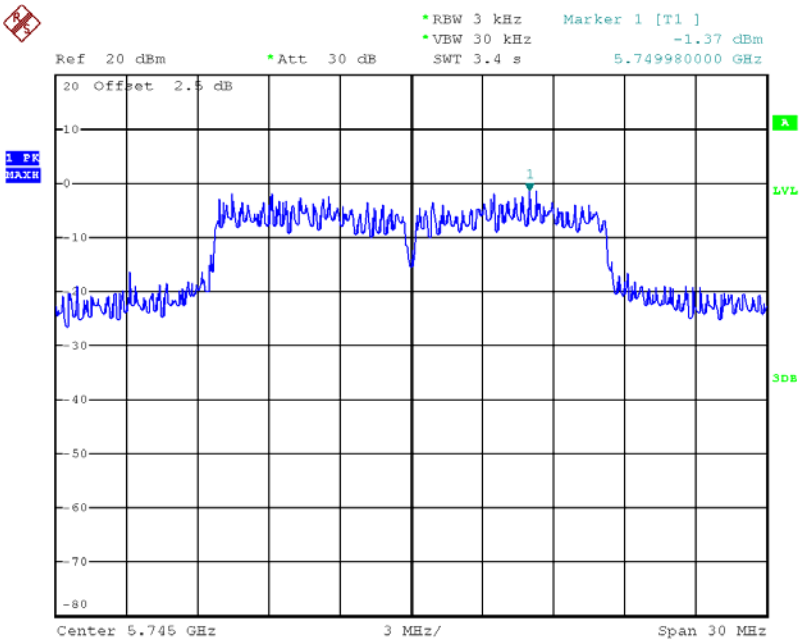
Date: 26.JUL.2013 11:02:37

Power Density Plot on Configuration IEEE 802.11g / Chain 1 (3TX) / 2437 MHz / Test Mode: Mode 2 (EUT 2)



Date: 26.JUL.2013 11:13:59

Power Density Plot on Configuration IEEE 802.11a / Chain 5 (3TX) / 5745 MHz / Test Mode: Mode 2 (EUT 2)



4.4. 6dB Spectrum Bandwidth Measurement

4.4.1. Limit

For digital modulation systems, the minimum 6dB bandwidth shall be at least 500 kHz.

4.4.2. Measuring Instruments and Setting

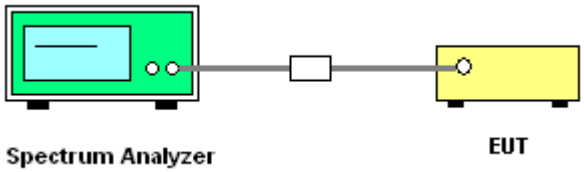
Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer.

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> 6dB Bandwidth
RBW	100kHz
VBW	≥ 3 x RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.4.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.
2. Test was performed in accordance with KDB 558074 D01 v03 for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 8.0 DTS 6-dB signal bandwidth option 1.
3. Multiple antenna system was performed in accordance with KDB 662911 D01 v02 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
4. Measured the spectrum width with power higher than 6dB below carrier.

4.4.4. Test Setup Layout



4.4.5. Test Deviation

There is no deviation with the original standard.

4.4.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.4.7. Test Result of 6dB Spectrum Bandwidth

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11n/ac
Test Mode	Mode 1 (EUT 1)		

For 2.4GHz Band

Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	17.84	18.24	500	**Complies**
6	2437 MHz	17.84	18.56	500	**Complies**
11	2462 MHz	17.92	18.32	500	**Complies**

Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	36.64	36.80	500	**Complies**
6	2437 MHz	36.16	36.48	500	**Complies**
9	2452 MHz	36.64	36.80	500	**Complies**

For 5GHz Band

Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	17.60	29.44	500	**Complies**
157	5785 MHz	17.28	31.20	500	**Complies**
165	5825 MHz	17.60	30.88	500	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	31.84	35.52	500	**Complies**
159	5795 MHz	32.80	51.20	500	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
155	5775 MHz	75.52	76.16	500	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 1 (EUT 1)		

For 1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.08	14.08	500	**Complies**
6	2437 MHz	10.08	13.92	500	**Complies**
11	2462 MHz	10.08	14.08	500	**Complies**

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.64	16.64	500	**Complies**
6	2437 MHz	16.48	17.28	500	**Complies**
11	2462 MHz	16.64	16.64	500	**Complies**

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.40	19.84	500	**Complies**
157	5785 MHz	16.48	19.21	500	**Complies**
165	5825 MHz	16.40	20.16	500	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 1 (EUT 1)		

For 3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.08	14.08	500	**Complies**
6	2437 MHz	11.04	14.08	500	**Complies**
11	2462 MHz	10.16	14.16	500	**Complies**

Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.56	16.64	500	**Complies**
6	2437 MHz	16.48	16.64	500	**Complies**
11	2462 MHz	16.56	16.72	500	**Complies**

Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	15.12	20.56	500	**Complies**
157	5785 MHz	16.32	31.04	500	**Complies**
165	5825 MHz	15.68	31.44	500	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11n/ac
Test Mode	Mode 2 (EUT 2)		

For 2.4GHz Band

Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	15.44	17.36	500	**Complies**
6	2437 MHz	14.88	17.60	500	**Complies**
11	2462 MHz	15.68	17.36	500	**Complies**

Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
3	2422 MHz	36.64	36.64	500	**Complies**
6	2437 MHz	35.84	36.32	500	**Complies**
9	2452 MHz	36.64	36.80	500	**Complies**

For 5GHz Band

Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	17.84	27.12	500	**Complies**
157	5785 MHz	17.60	26.32	500	**Complies**
165	5825 MHz	17.60	26.72	500	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
151	5755 MHz	36.32	41.76	500	**Complies**
159	5795 MHz	36.16	60.96	500	**Complies**

Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
155	5775 MHz	75.20	76.16	500	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Benson Peng	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 2 (EUT 2)		

For 1TX

Configuration IEEE 802.11b / Chain 1

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	10.08	14.00	500	**Complies**
6	2437 MHz	10.08	14.32	500	**Complies**
11	2462 MHz	10.00	14.08	500	**Complies**

Configuration IEEE 802.11g / Chain 1

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.56	16.56	500	**Complies**
6	2437 MHz	16.56	17.12	500	**Complies**
11	2462 MHz	16.56	16.56	500	**Complies**

Configuration IEEE 802.11a / Chain 4

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.40	28.72	500	**Complies**
157	5785 MHz	16.32	29.44	500	**Complies**
165	5825 MHz	16.32	29.12	500	**Complies**

Temperature	25℃	Humidity	56%
Test Engineer	Denis Su	Configurations	IEEE 802.11a/b/g
Test Mode	Mode 2 (EUT 2)		

For 3TX

Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	6.64	9.84	500	**Complies**
6	2437 MHz	7.12	9.84	500	**Complies**
11	2462 MHz	6.56	9.84	500	**Complies**

Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
1	2412 MHz	16.56	16.64	500	**Complies**
6	2437 MHz	16.40	16.88	500	**Complies**
11	2462 MHz	16.32	16.56	500	**Complies**

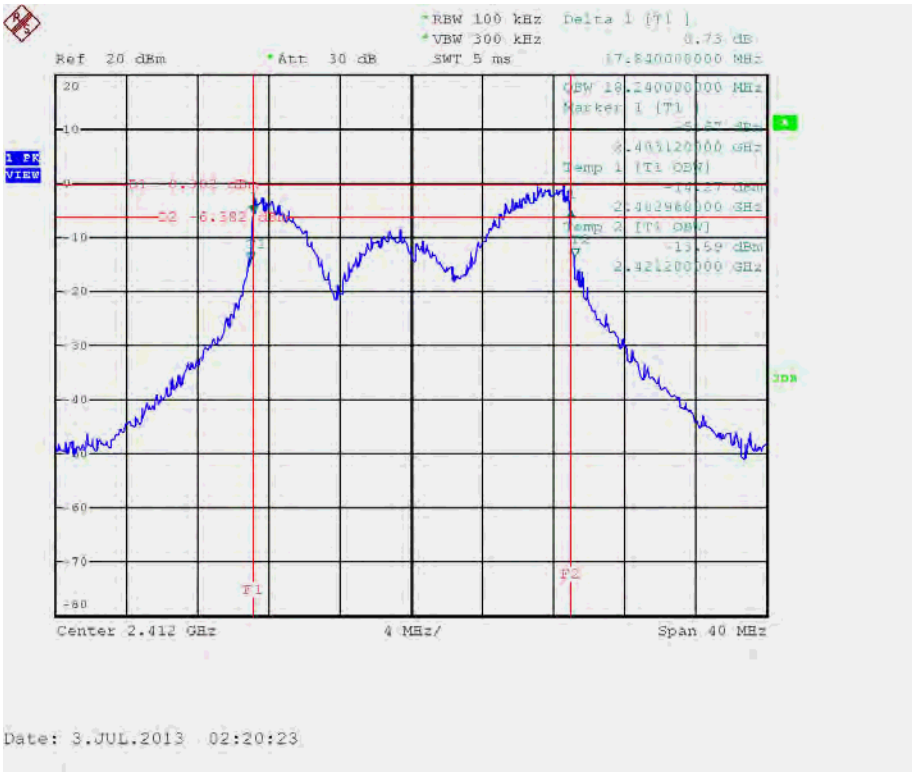
Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6

Channel	Frequency	6dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	Min. Limit (kHz)	Test Result
149	5745 MHz	16.40	27.68	500	**Complies**
157	5785 MHz	16.40	30.40	500	**Complies**
165	5825 MHz	16.32	29.76	500	**Complies**

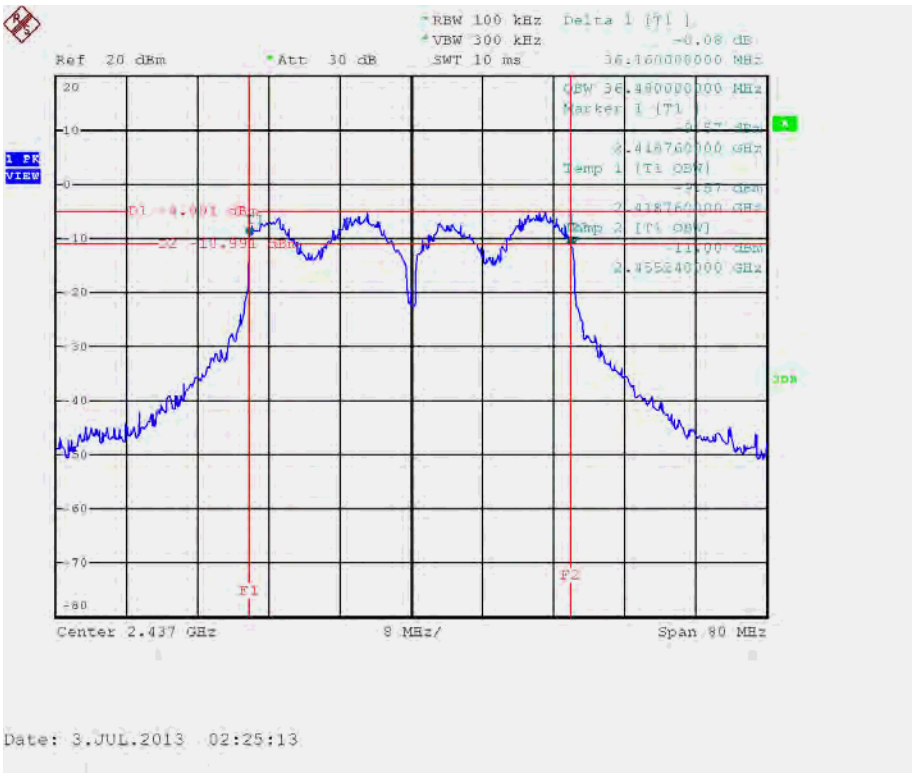
Note: All the test values were listed in the report.

For plots, only the channel with maximum results was shown.

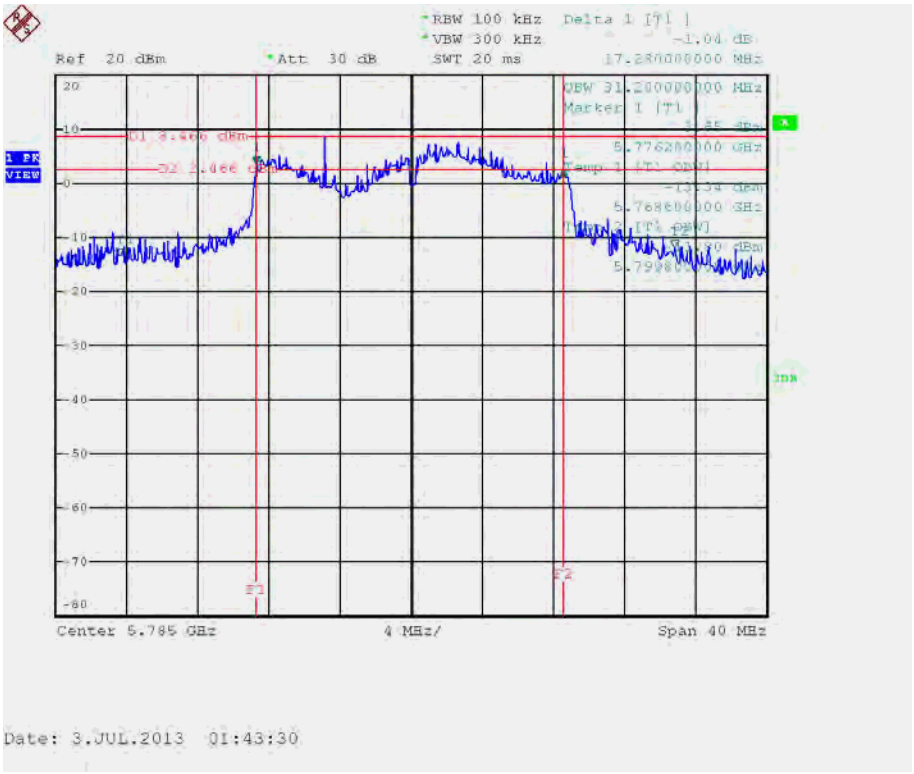
6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3 / 2412 MHz / Test Mode: Mode 1 (EUT 1)



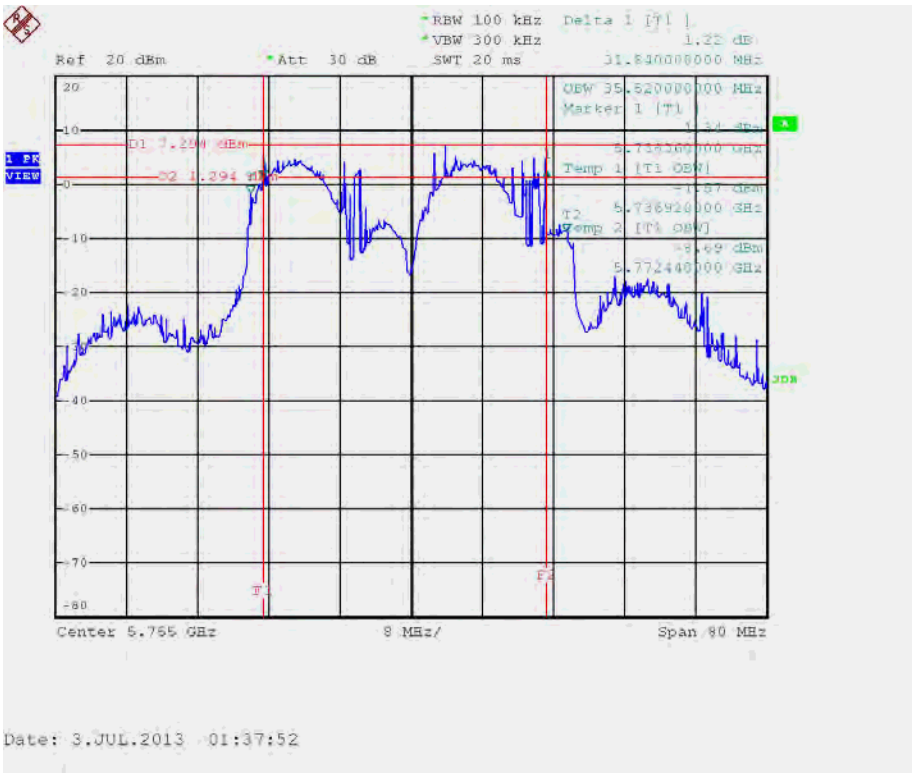
6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3 / 2437 MHz / Test Mode: Mode 1 (EUT 1)



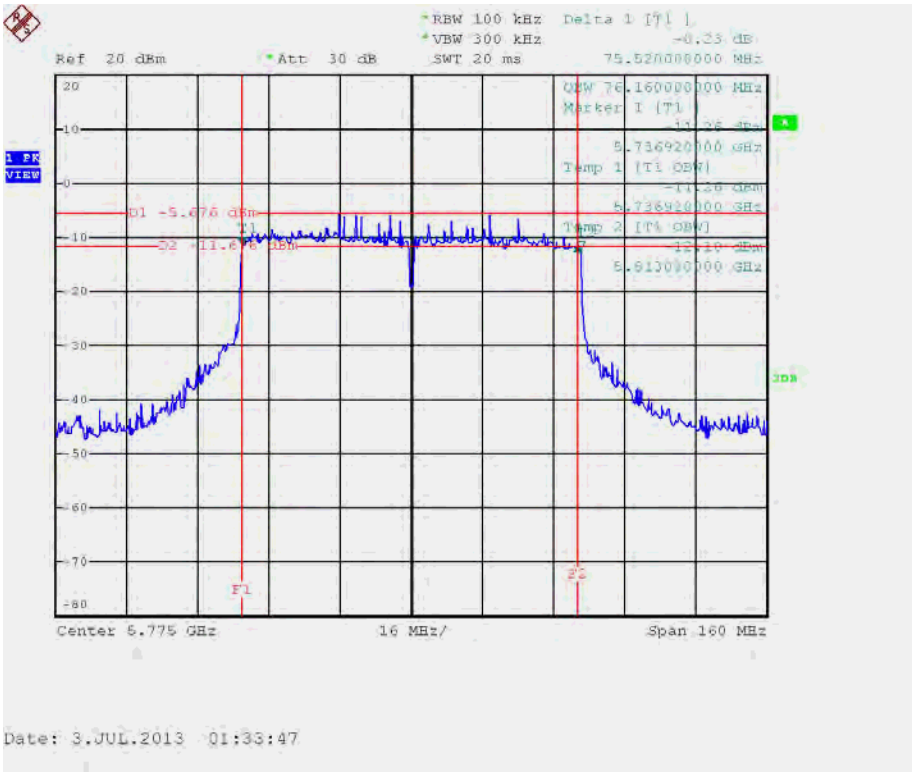
6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6 / 5785MHz / Test Mode: Mode 1 (EUT 1)



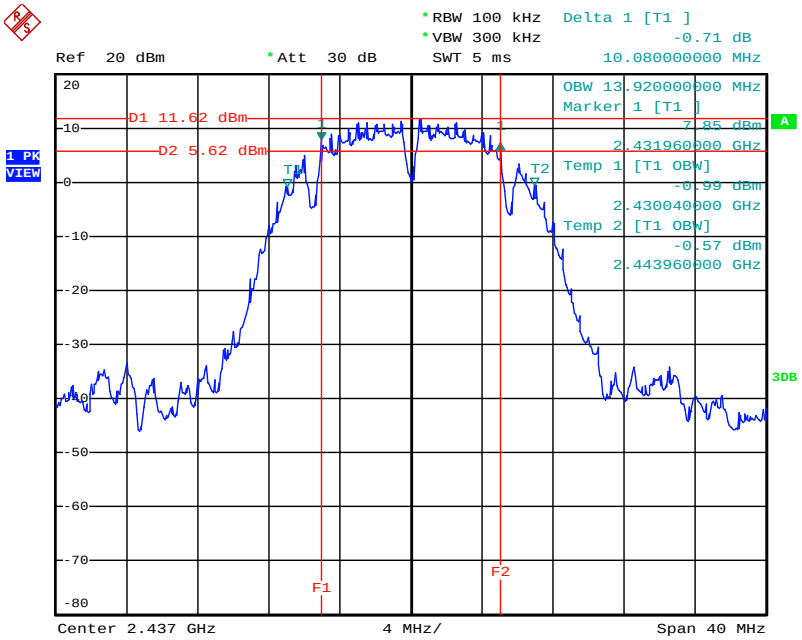
6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6 / 5755MHz / Test Mode: Mode 1 (EUT 1)



6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6 / 5775 MHz / Test Mode: Mode 1 (EUT 1)

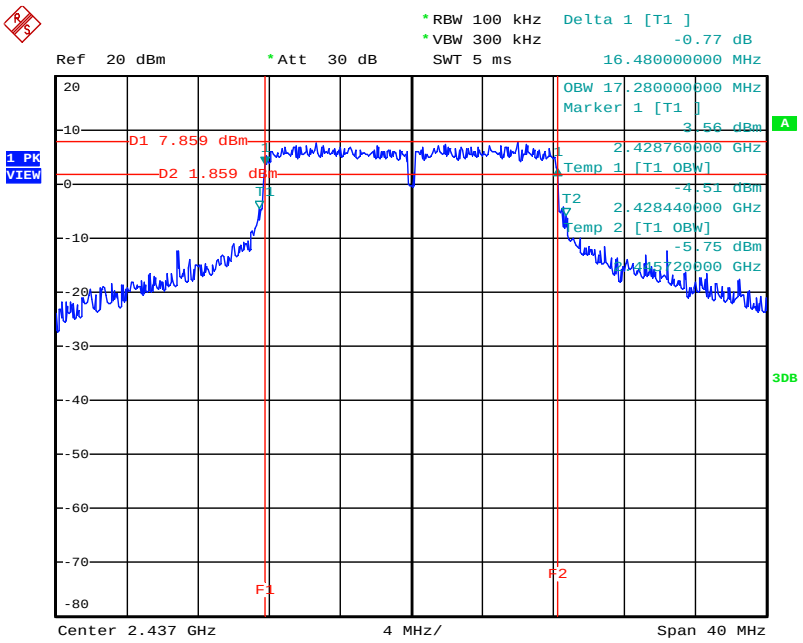


6 dB Bandwidth Plot on Configuration IEEE 802.11b / Chain 1 / 2437 MHz / Test Mode: Mode 1 (EUT 1)



6 dB Bandwidth Plot on Configuration IEEE 802.11g / Chain 1 / 2437 MHz /

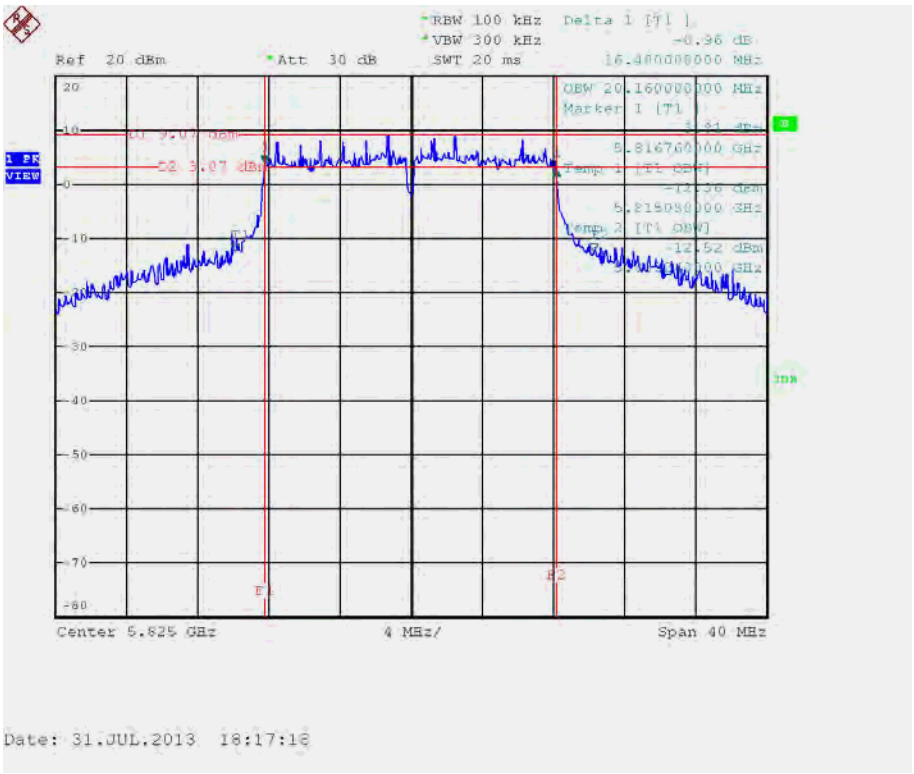
Test Mode: Mode 1 (EUT 1)



Date: 2.JUL.2013 18:44:41

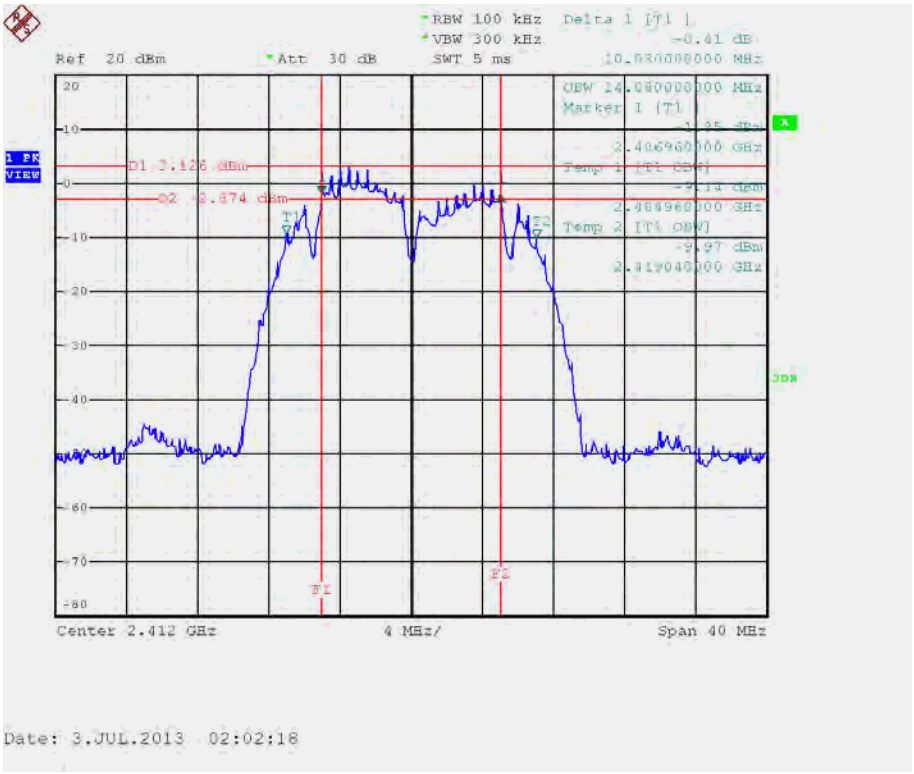
6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5825 MHz/

Test Mode: Mode 1 (EUT 1)

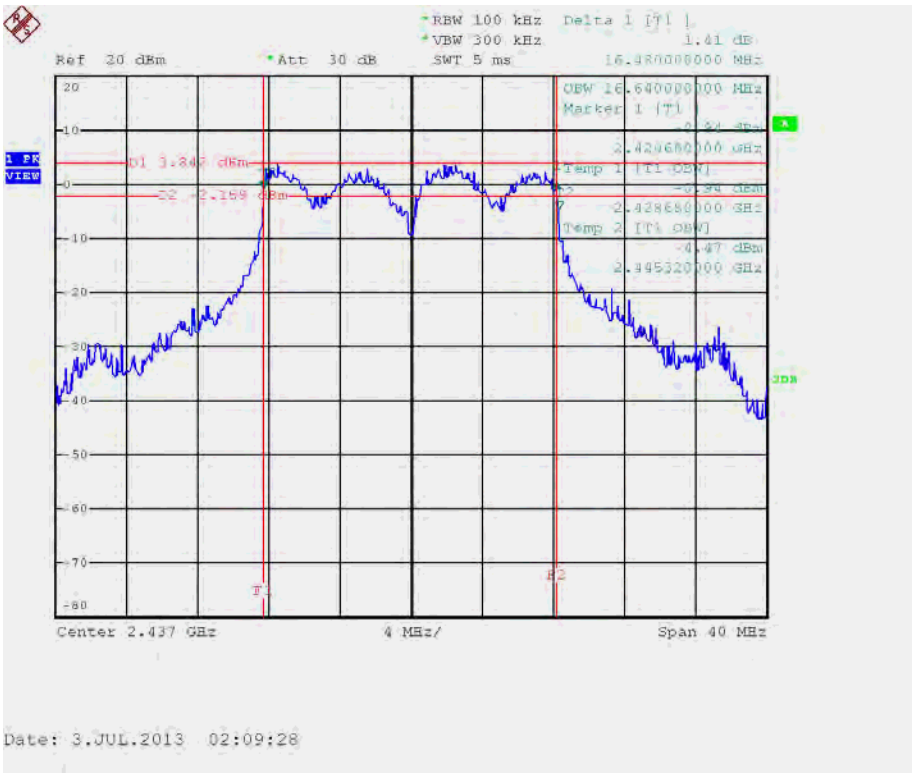


Date: 31.JUL.2013 18:17:18

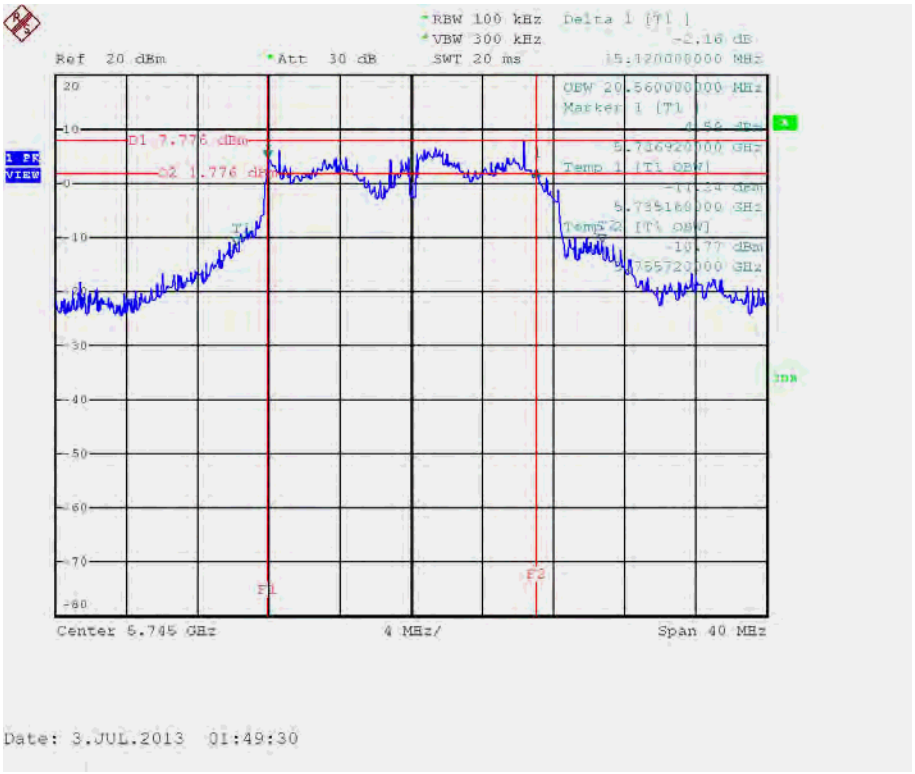
6 dB Bandwidth Plot on Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3 / 2412 MHz / Test Mode: Mode 1 (EUT 1)



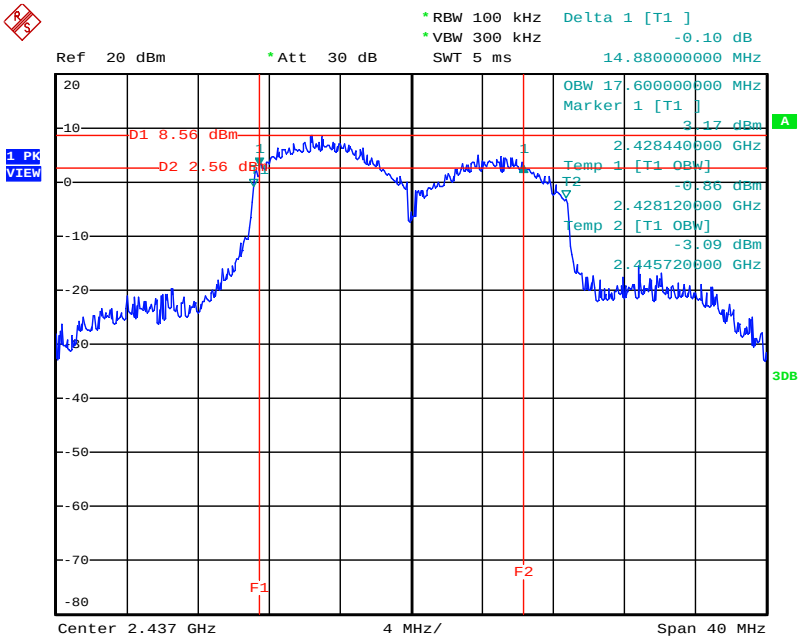
6 dB Bandwidth Plot on Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3 / 2437 MHz / Test Mode: Mode 1 (EUT 1)



6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6 / 5745 MHz / Test Mode: Mode 1 (EUT 1)

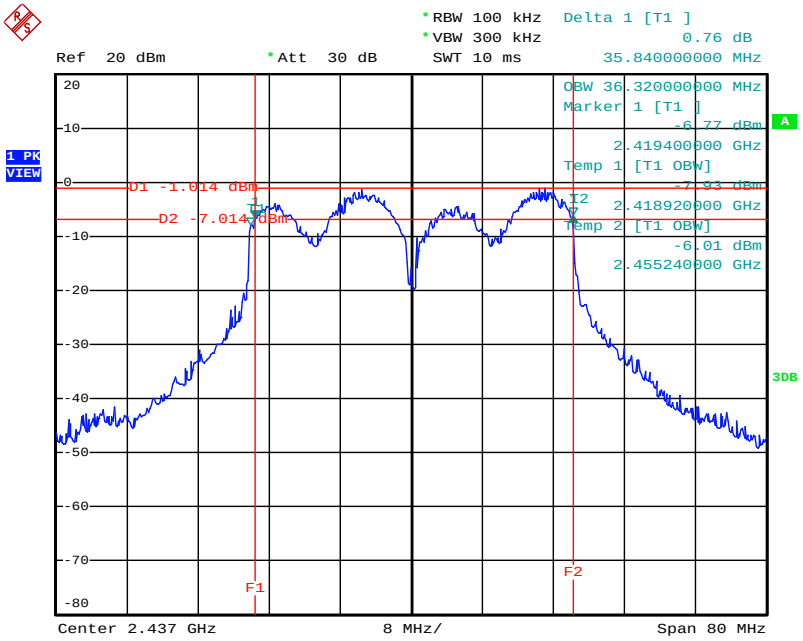


6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 20MHz / Chain 1+ Chain 2+ Chain 3 / 2437 MHz / Test Mode: Mode 2 (EUT 2)



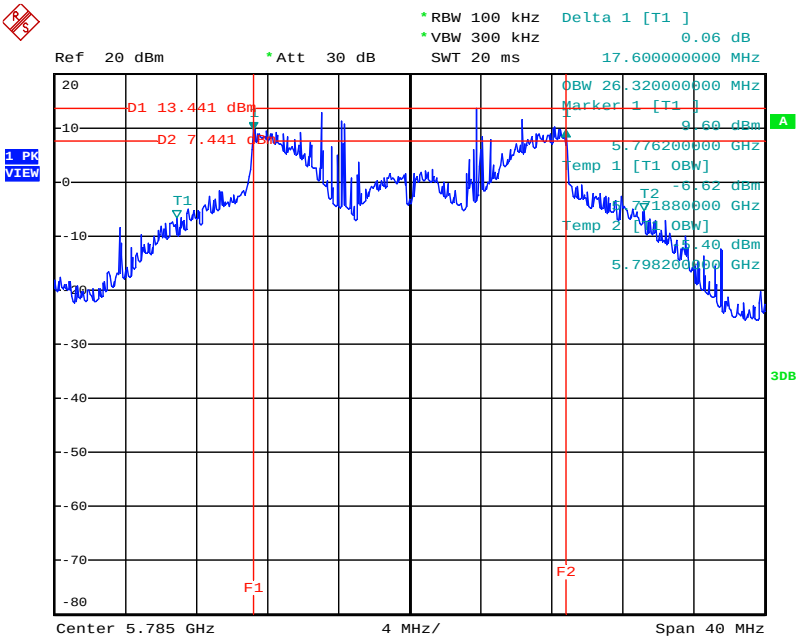
Date: 26.JUL.2013 08:54:43

6 dB Bandwidth Plot on Configuration IEEE 802.11n MCS0 40MHz / Chain 1+ Chain 2+ Chain 3 / 2437 MHz / Test Mode: Mode 2 (EUT 2)



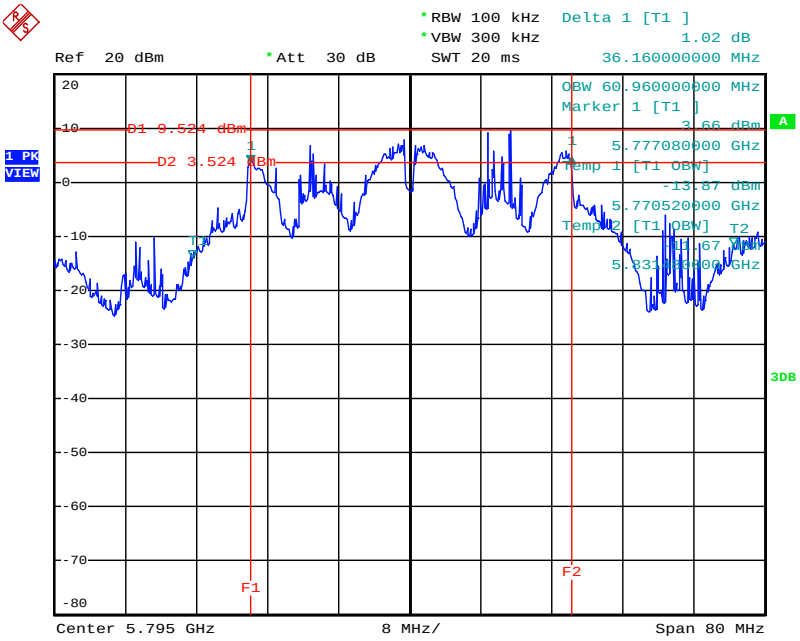
Date: 26.JUL.2013 08:56:35

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Chain 4+ Chain 5+ Chain 6 / 5785MHz / Test Mode: Mode 2 (EUT 2)



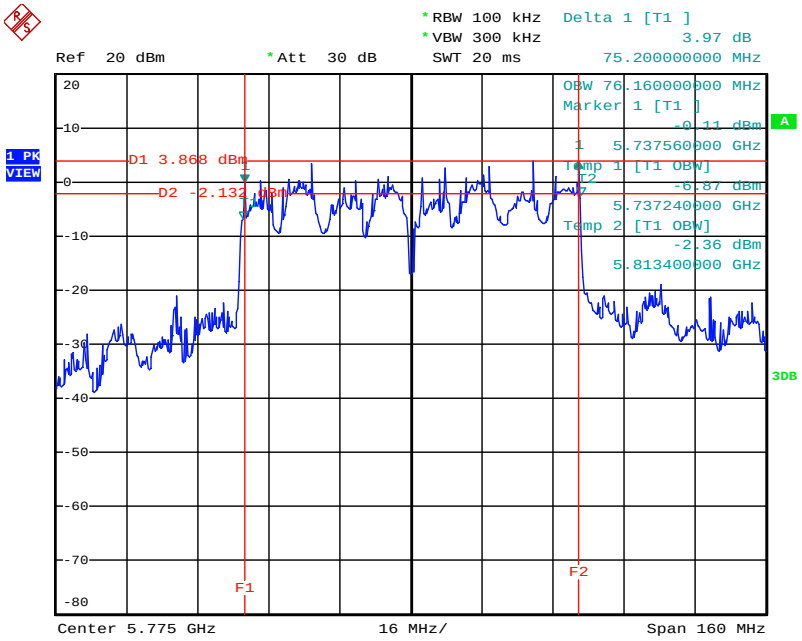
Date: 26.JUL.2013 12:20:47

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Chain 4+ Chain 5+ Chain 6 / 5795MHz / Test Mode: Mode 2 (EUT 2)



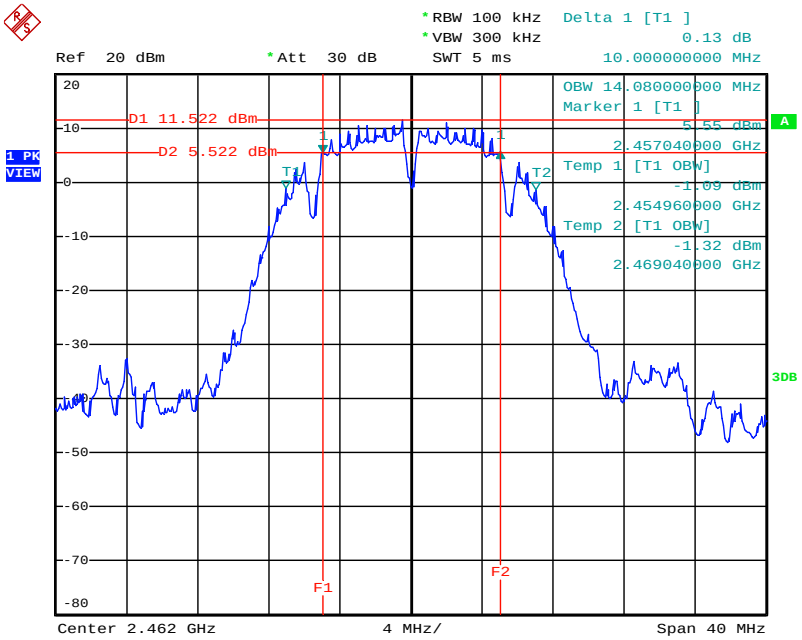
Date: 26.JUL.2013 12:23:53

6 dB Bandwidth Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Chain 4+ Chain 5+ Chain 6 / 5775 MHz / Test Mode: Mode 2 (EUT 2)



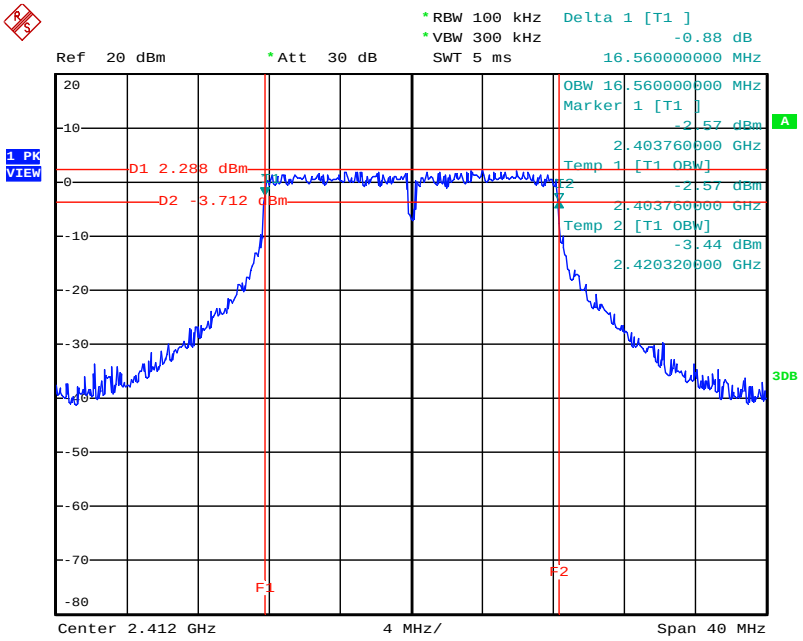
Date: 26.JUL.2013 12:24:35

6 dB Bandwidth Plot on Configuration IEEE 802.11b / Chain 1 / 2462 MHz / Test Mode: Mode 2 (EUT 2)



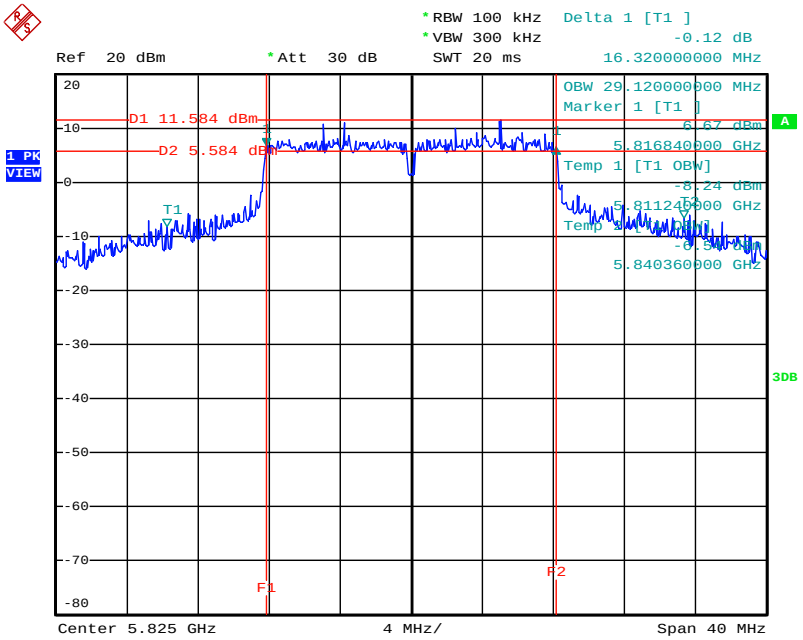
Date: 26.JUL.2013 08:44:36

6 dB Bandwidth Plot on Configuration IEEE 802.11g / Chain 1 / 2412 MHz / Test Mode: Mode 2 (EUT 2)



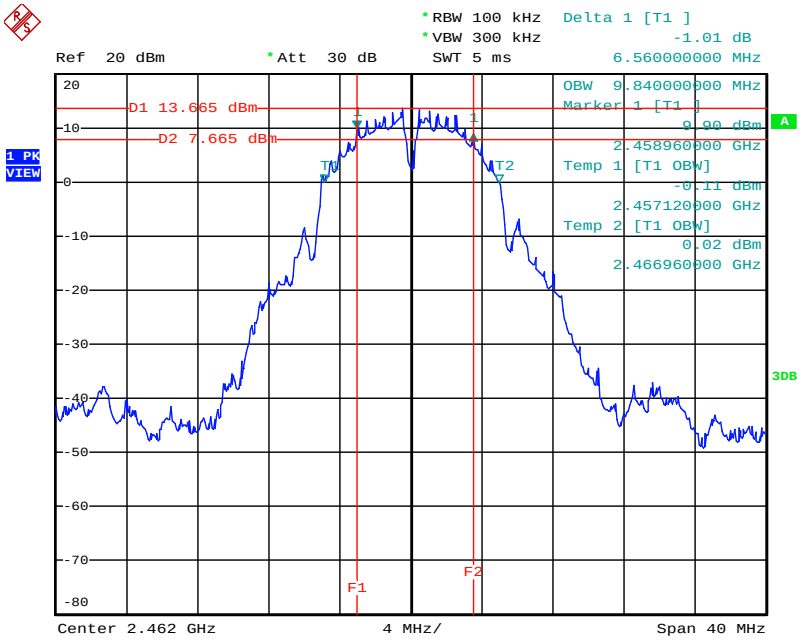
Date: 26.JUL.2013 08:46:01

6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4 / 5825 MHz / Test Mode: Mode 2 (EUT 2)



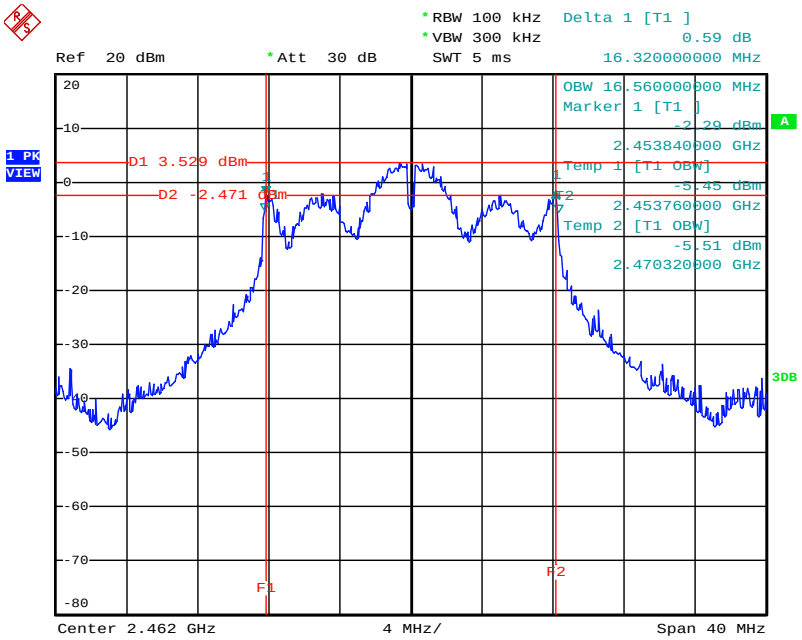
Date: 26.JUL.2013 12:14:38

6 dB Bandwidth Plot on Configuration IEEE 802.11b / Chain 1+ Chain 2+ Chain 3 / 2462 MHz / Test Mode: Mode 2 (EUT 2)



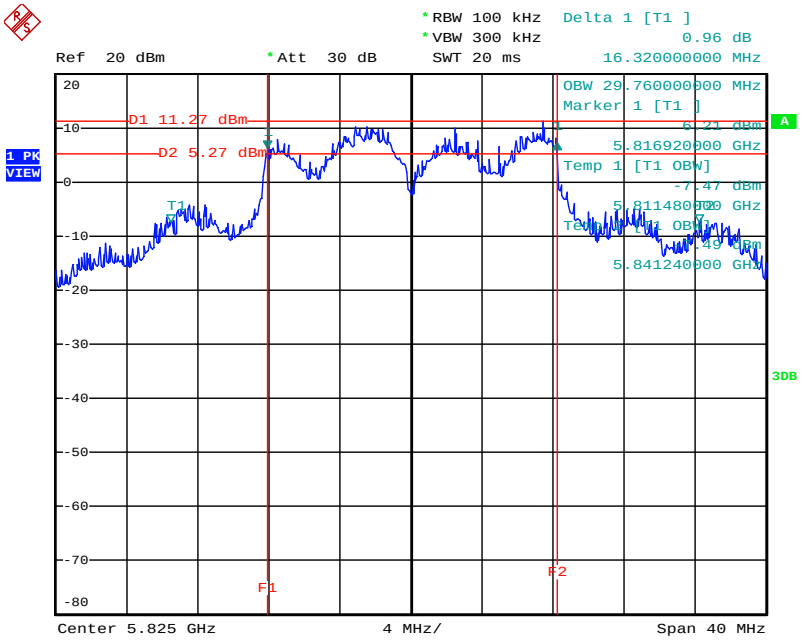
Date: 26.JUL.2013 08:51:03

6 dB Bandwidth Plot on Configuration IEEE 802.11g / Chain 1+ Chain 2+ Chain 3 / 2462 MHz / Test Mode: Mode 2 (EUT 2)



Date: 26.JUL.2013 08:49:15

6 dB Bandwidth Plot on Configuration IEEE 802.11a / Chain 4+ Chain 5+ Chain 6 / 5825 MHz / Test Mode: Mode 2 (EUT 2)



Date: 26.JUL.2013 12:16:41

4.5. Radiated Emissions Measurement

4.5.1. Limit

30dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

4.5.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1GHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1MHz / 10Hz for Average
RBW / VBW (Emission in non-restricted band)	100kHz / 300kHz for peak

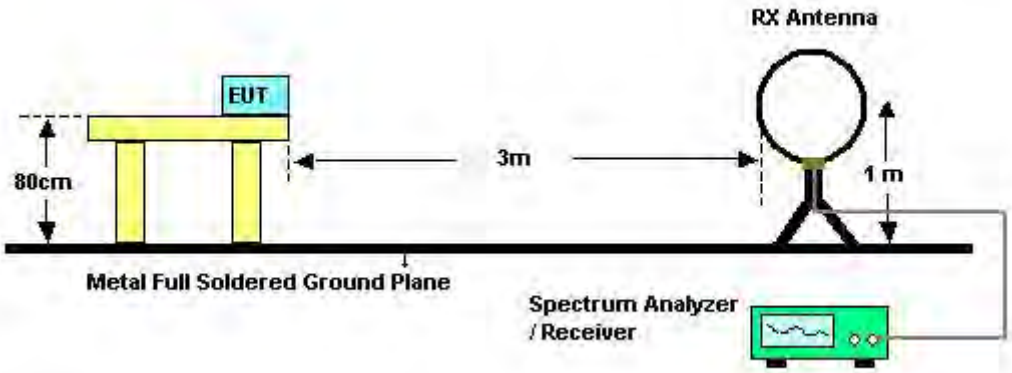
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1GHz / RBW 120kHz for QP

4.5.3. Test Procedures

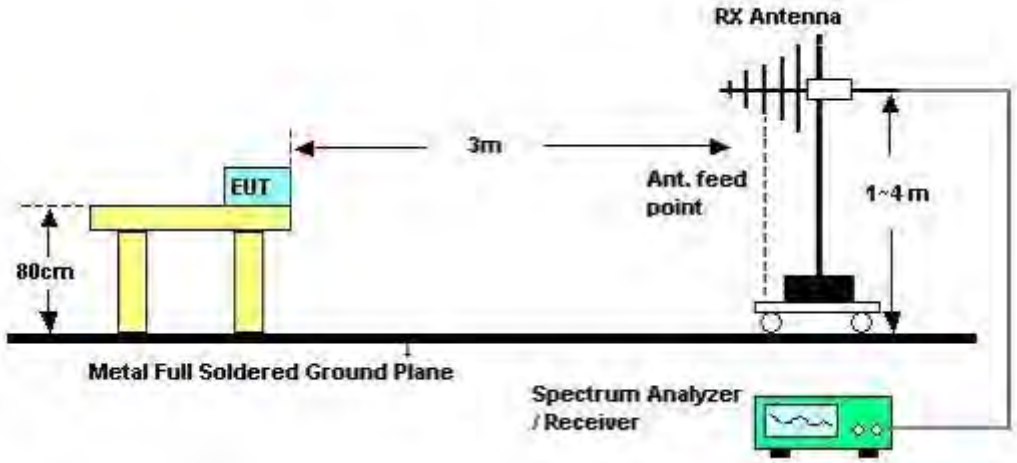
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
6. For emissions above 1GHz, use 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.
8. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High – Low scan is not required in this case.

4.5.4. Test Setup Layout

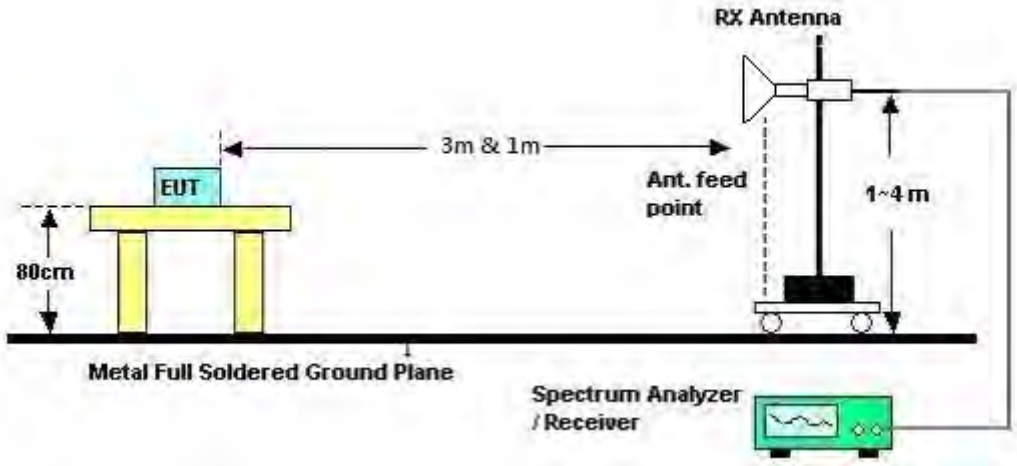
For Radiated Emissions: 9kHz ~30MHz



For Radiated Emissions: 30MHz~1GHz



For Radiated Emissions: Above 1GHz



4.5.5. Test Deviation

There is no deviation with the original standard.

4.5.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.5.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	24℃	Humidity	58%
Test Engineer	Serway Li	Configurations	Normal Link
Test Date	Jul. 27, 2013		

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

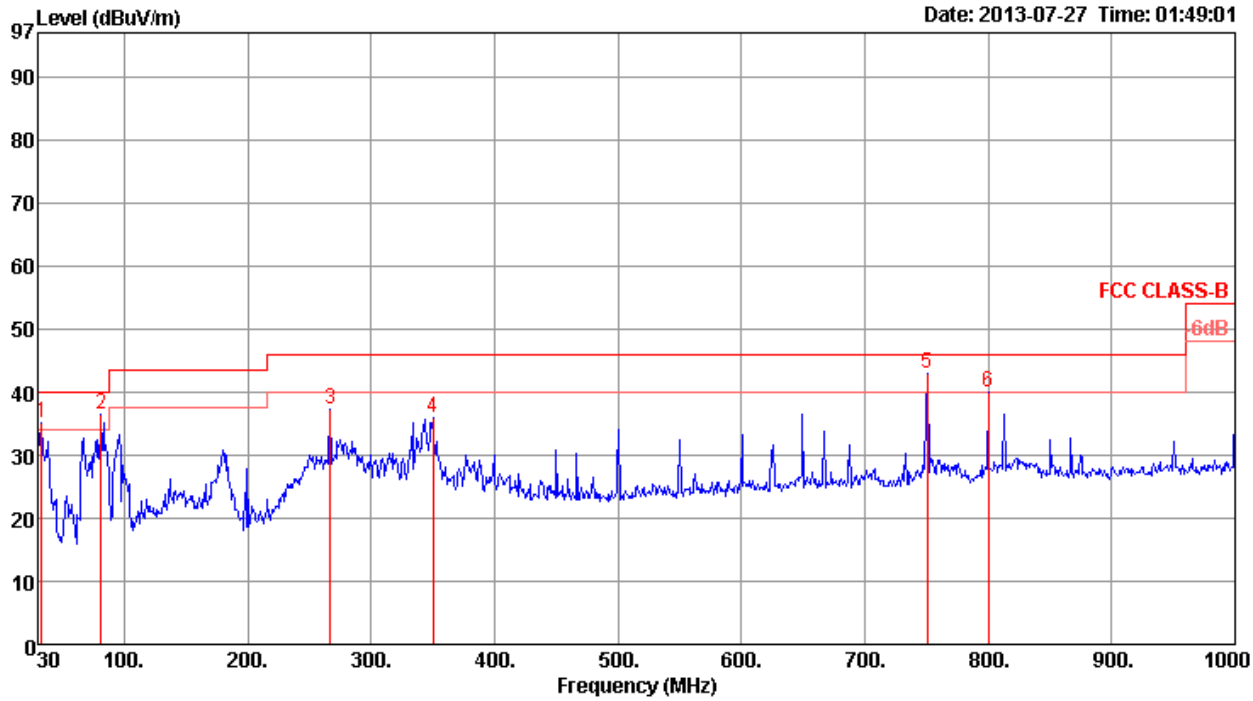
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

4.5.8. Results of Radiated Emissions (30MHz~1GHz)

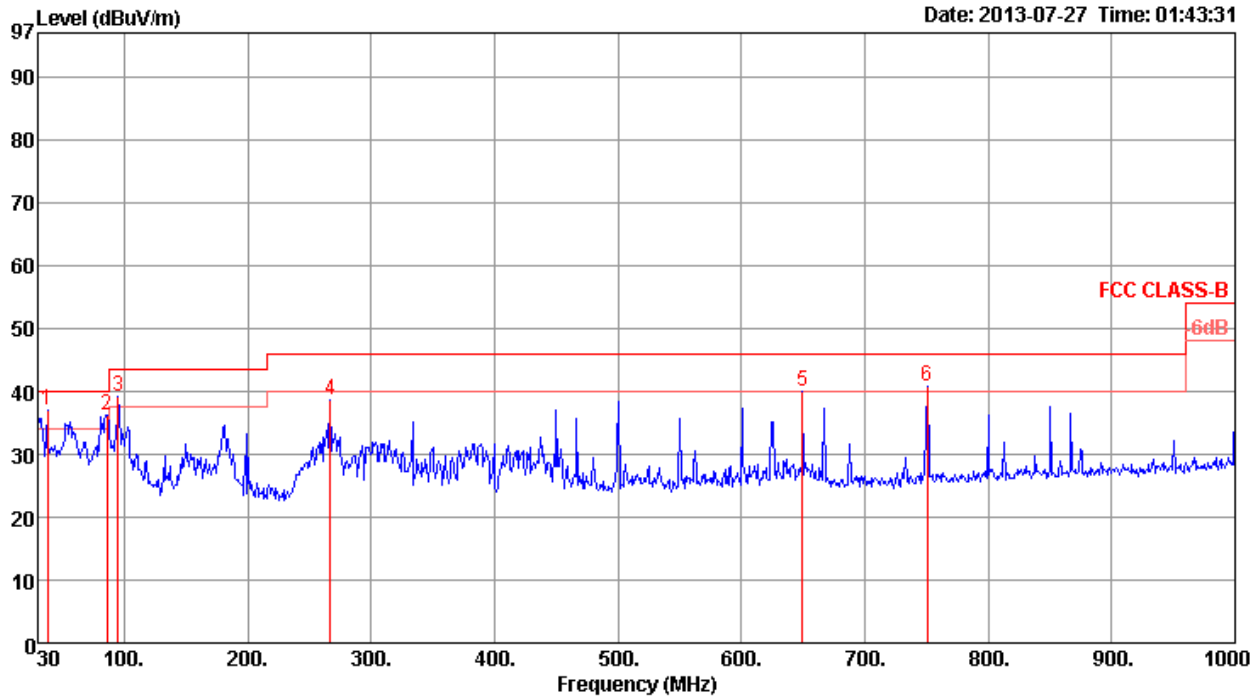
Temperature	24℃	Humidity	58%
Test Engineer	Serway Li	Configurations	Normal Link
Test Mode	Mode 3		

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	32.91	35.19	40.00	-4.81	45.18	0.66	17.15	27.80	Peak	400	0	HORIZONTAL
2	81.41	36.61	40.00	-3.39	55.94	1.00	7.35	27.68	Peak	400	0	HORIZONTAL
3	266.68	37.18	46.00	-8.82	49.32	1.86	12.97	26.97	Peak	400	0	HORIZONTAL
4	350.10	35.90	46.00	-10.10	46.33	2.10	14.72	27.25	Peak	400	0	HORIZONTAL
5	750.71	42.97	46.00	-3.03	48.14	3.20	19.43	27.80	Peak	400	0	HORIZONTAL
6	800.18	40.05	46.00	-5.95	44.66	3.22	19.77	27.60	Peak	400	0	HORIZONTAL

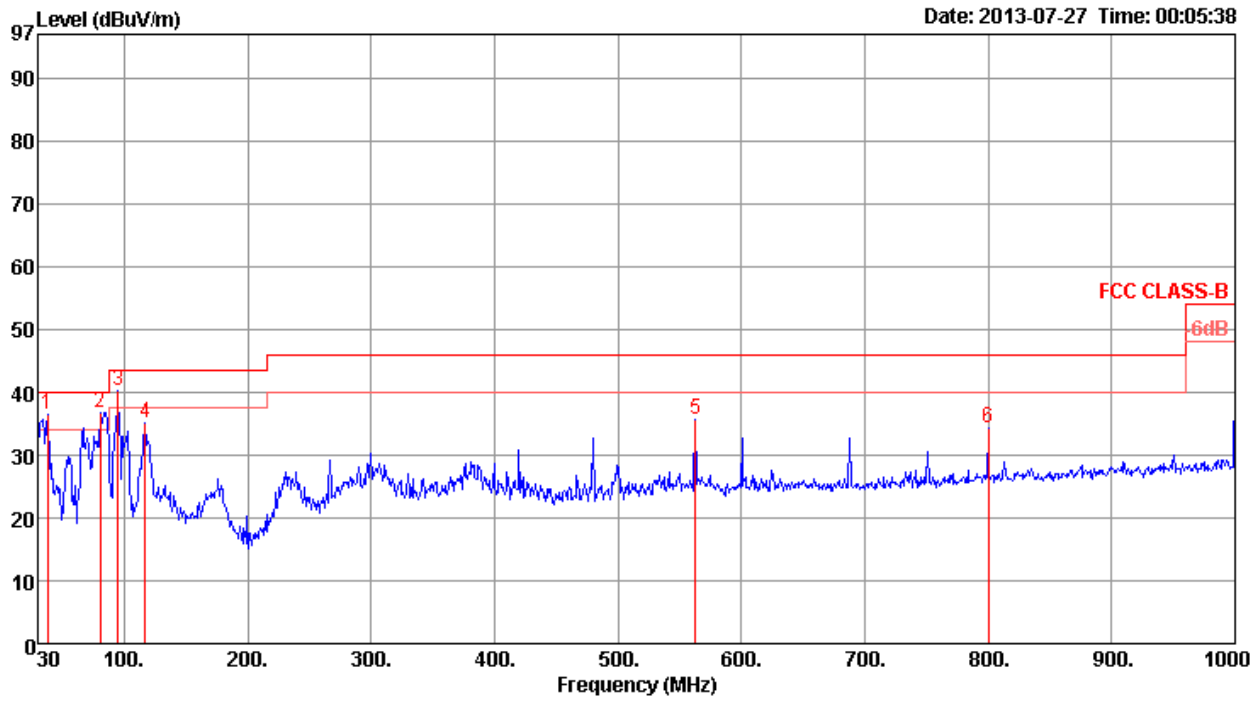
Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	37.76	36.92	40.00	-3.08	49.74	0.68	14.30	27.80	Peak	400	0	VERTICAL
2	86.26	36.24	40.00	-3.76	54.53	1.11	8.26	27.66	Peak	400	0	VERTICAL
3	94.99	39.31	43.50	-4.19	55.76	1.19	9.98	27.62	Peak	400	0	VERTICAL
4	266.68	38.69	46.00	-7.31	50.83	1.86	12.97	26.97	Peak	400	0	VERTICAL
5	649.83	40.06	46.00	-5.94	46.19	2.99	18.93	28.05	Peak	400	0	VERTICAL
6	750.71	40.85	46.00	-5.15	46.02	3.20	19.43	27.80	Peak	400	0	VERTICAL

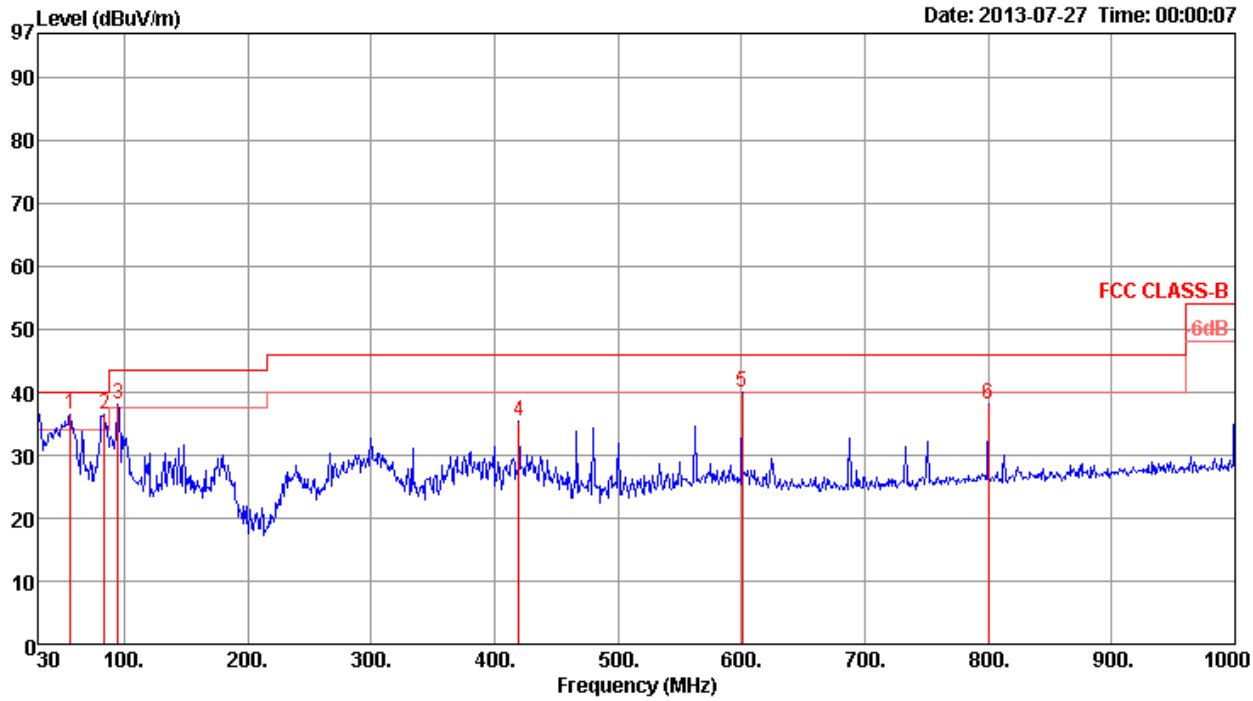
Temperature	24℃	Humidity	58%
Test Engineer	Serway Li	Configurations	Normal Link
Test Mode	Mode 6		

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	37.76	36.34	40.00	-3.66	49.16	0.68	14.30	27.80	Peak	400	0	HORIZONTAL
2	80.44	36.74	40.00	-3.26	56.28	0.97	7.17	27.68	Peak	400	0	HORIZONTAL
3	94.99	40.35	43.50	-3.15	56.80	1.19	9.98	27.62	Peak	400	0	HORIZONTAL
4	117.30	35.23	43.50	-8.27	49.16	1.28	12.31	27.52	Peak	400	0	HORIZONTAL
5	562.53	35.75	46.00	-10.25	42.72	2.79	18.34	28.10	Peak	400	0	HORIZONTAL
6	800.18	34.29	46.00	-11.71	38.90	3.22	19.77	27.60	Peak	400	0	HORIZONTAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	56.19	36.37	40.00	-3.63	55.83	0.85	7.47	27.78	Peak	400	0	VERTICAL
2	84.32	36.53	40.00	-3.47	55.20	1.10	7.89	27.66	Peak	400	0	VERTICAL
3	94.99	38.17	43.50	-5.33	54.62	1.19	9.98	27.62	Peak	400	0	VERTICAL
4	419.94	35.51	46.00	-10.49	44.46	2.37	16.38	27.70	Peak	400	0	VERTICAL
5	600.36	40.09	46.00	-5.91	46.61	2.81	18.77	28.10	Peak	400	0	VERTICAL
6	800.18	38.12	46.00	-7.88	42.73	3.22	19.77	27.60	Peak	400	0	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.5.9. Results for Radiated Emissions (1GHz~10th Harmonic)

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 20MHz Ch 1 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4825.04	53.37	74.00	-20.63	49.31	5.87	33.39	35.20	Peak	140	55	HORIZONTAL
2	4826.32	38.51	54.00	-15.49	34.45	5.87	33.39	35.20	Average	140	55	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.96	54.15	74.00	-19.85	50.09	5.87	33.39	35.20	Peak	131	360	VERTICAL
2	4824.24	39.97	54.00	-14.03	35.91	5.87	33.39	35.20	Average	131	360	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 20MHz Ch 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4876.00	37.86	54.00	-16.14	33.66	5.92	33.48	35.20	Average	175	303	HORIZONTAL
2	4876.44	50.90	74.00	-23.10	46.70	5.92	33.48	35.20	Peak	175	303	HORIZONTAL
3	7314.00	49.85	74.00	-24.15	41.64	7.13	36.51	35.43	Peak	100	357	HORIZONTAL
4	7318.32	37.40	54.00	-16.60	29.18	7.14	36.51	35.43	Average	100	357	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4875.24	39.40	54.00	-14.60	35.20	5.92	33.48	35.20	Average	131	360	VERTICAL
2	4875.36	54.33	74.00	-19.67	50.13	5.92	33.48	35.20	Peak	131	360	VERTICAL
3	7304.68	49.77	74.00	-24.23	41.58	7.13	36.48	35.42	Peak	100	215	VERTICAL
4	7308.48	37.26	54.00	-16.74	29.05	7.13	36.51	35.43	Average	100	215	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 20MHz Ch 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4924.20	48.25	74.00	-25.75	43.90	5.97	33.58	35.20	Peak	175	303	HORIZONTAL
2	4927.08	35.34	54.00	-18.66	30.99	5.97	33.58	35.20	Average	175	303	HORIZONTAL
3	7387.64	49.46	74.00	-24.54	41.14	7.17	36.61	35.46	Peak	100	211	HORIZONTAL
4	7390.24	37.51	54.00	-16.49	29.19	7.17	36.61	35.46	Average	100	211	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4924.48	49.10	74.00	-24.90	44.75	5.97	33.58	35.20	Peak	115	359	VERTICAL
2	4927.12	35.39	54.00	-18.61	31.04	5.97	33.58	35.20	Average	115	359	VERTICAL
3	7389.00	49.45	74.00	-24.55	41.13	7.17	36.61	35.46	Peak	100	129	VERTICAL
4	7392.24	37.49	54.00	-16.51	29.17	7.17	36.61	35.46	Average	100	129	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 40MHz Ch 3 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4839.48	46.09	74.00	-27.91	41.99	5.88	33.42	35.20	Peak	100	81	HORIZONTAL
2	4848.12	33.21	54.00	-20.79	29.11	5.88	33.42	35.20	Average	100	81	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4843.28	45.49	74.00	-28.51	41.39	5.88	33.42	35.20	Peak	100	210	VERTICAL
2	4848.68	33.50	54.00	-20.50	29.40	5.88	33.42	35.20	Average	100	210	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 40MHz Ch 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4877.04	45.98	74.00	-28.02	41.78	5.92	33.48	35.20	Peak	100	92	HORIZONTAL
2	4878.72	33.60	54.00	-20.40	29.40	5.92	33.48	35.20	Average	100	92	HORIZONTAL
3	7314.06	37.52	54.00	-16.48	29.31	7.13	36.51	35.43	Average	100	208	HORIZONTAL
4	7315.84	49.77	74.00	-24.23	41.55	7.14	36.51	35.43	Peak	100	208	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4874.02	35.68	54.00	-18.32	31.48	5.92	33.48	35.20	Average	116	354	VERTICAL
2	4874.30	48.70	74.00	-25.30	44.50	5.92	33.48	35.20	Peak	116	354	VERTICAL
3	7308.86	50.08	74.00	-23.92	41.87	7.13	36.51	35.43	Peak	100	201	VERTICAL
4	7309.60	37.34	54.00	-16.66	29.13	7.13	36.51	35.43	Average	100	201	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 40MHz Ch 9 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4903.76	45.66	74.00	-28.34	41.40	5.95	33.51	35.20	Peak	100	142	HORIZONTAL
2	4908.96	33.15	54.00	-20.85	28.86	5.95	33.54	35.20	Average	100	142	HORIZONTAL
3	7355.64	49.96	74.00	-24.04	41.68	7.16	36.56	35.44	Peak	100	252	HORIZONTAL
4	7360.62	37.17	54.00	-16.83	28.87	7.16	36.59	35.45	Average	100	252	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4906.14	33.28	54.00	-20.72	28.99	5.95	33.54	35.20	Average	100	208	VERTICAL
2	4906.16	45.21	74.00	-28.79	40.92	5.95	33.54	35.20	Peak	100	208	VERTICAL
3	7358.40	36.89	54.00	-17.11	28.62	7.16	36.56	35.45	Average	100	331	VERTICAL
4	7359.48	49.52	74.00	-24.48	41.22	7.16	36.59	35.45	Peak	100	331	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11ac MCS0, Nss1 20MHz CH 149 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11489.36	45.23	54.00	-8.77	36.62	5.11	38.78	35.28	Average	152	37	HORIZONTAL
2	11489.36	57.55	74.00	-16.45	48.94	5.11	38.78	35.28	Peak	152	37	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11491.76	41.30	54.00	-12.70	32.69	5.11	38.78	35.28	Average	100	40	VERTICAL
2	11491.76	53.02	74.00	-20.98	44.41	5.11	38.78	35.28	Peak	100	40	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11ac MCS0, Nss1 20MHz CH 157 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11568.38	54.89	74.00	-19.11	41.25	9.26	39.47	35.09	Peak	100	29	HORIZONTAL
2	11569.50	42.52	54.00	-11.48	28.88	9.26	39.47	35.09	Average	100	29	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11568.68	54.75	74.00	-19.25	41.11	9.26	39.47	35.09	Peak	100	34	VERTICAL
2	11572.26	42.01	54.00	-11.99	28.36	9.26	39.47	35.08	Average	100	34	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11ac MCS0, Nss1 20MHz CH 165 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11646.96	55.68	74.00	-18.32	42.03	9.28	39.44	35.07	Peak	100	35	HORIZONTAL
2	11648.32	42.34	54.00	-11.66	28.69	9.28	39.44	35.07	Average	100	35	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11650.92	56.32	74.00	-17.68	42.67	9.28	39.44	35.07	Peak	100	311	VERTICAL
2	11653.54	42.80	54.00	-11.20	29.15	9.28	39.44	35.07	Average	100	311	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11ac MCS0, Nss1 40MHz CH 151 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11509.96	40.70	54.00	-13.30	32.07	5.12	38.79	35.28	Average	164	47	HORIZONTAL
2	11509.96	52.75	74.00	-21.25	44.12	5.12	38.79	35.28	Peak	164	47	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11505.92	38.71	54.00	-15.29	30.08	5.12	38.79	35.28	Average	100	51	VERTICAL
2	11505.92	49.94	74.00	-24.06	41.31	5.12	38.79	35.28	Peak	100	51	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11ac MCS0, Nss1 40MHz CH 159 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11586.14	41.35	54.00	-12.65	27.69	9.27	39.47	35.08	Average	100	331	HORIZONTAL
2	11587.14	54.05	74.00	-19.95	40.39	9.27	39.47	35.08	Peak	100	331	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11591.68	41.42	54.00	-12.58	27.76	9.27	39.47	35.08	Average	100	37	VERTICAL
2	11594.18	54.03	74.00	-19.97	40.37	9.27	39.47	35.08	Peak	100	37	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11ac MCS0, Nss1 80MHz CH 155 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11555.16	36.17	54.00	-17.83	27.52	5.13	38.82	35.30	Average	164	51	HORIZONTAL
2	11555.16	47.89	74.00	-26.11	39.24	5.13	38.82	35.30	Peak	164	51	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11555.84	37.18	54.00	-16.82	28.53	5.13	38.82	35.30	Average	100	86	VERTICAL
2	11555.84	48.91	74.00	-25.09	40.26	5.13	38.82	35.30	Peak	100	86	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 1 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.92	55.08	74.00	-18.92	53.74	3.31	33.06	35.03	Peak	108	307	HORIZONTAL
2	4823.99	53.08	54.00	-0.92	51.74	3.31	33.06	35.03	Average	108	307	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.97	53.75	54.00	-0.25	52.41	3.31	33.06	35.03	Average	100	344	VERTICAL
2	4823.97	55.68	74.00	-18.32	54.34	3.31	33.06	35.03	Peak	100	344	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 6 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	a	4873.99	43.97	54.00	-10.03	41.76	4.22	34.67	32.66	Average	313	100	HORIZONTAL
2	p	4874.02	49.79	74.00	-24.21	47.58	4.22	34.67	32.66	Peak	313	100	HORIZONTAL
3		7310.30	37.42	54.00	-16.58	30.04	5.34	34.93	36.97	Average	87	100	HORIZONTAL
4		7310.52	49.69	74.00	-24.31	42.31	5.34	34.93	36.97	Peak	87	100	HORIZONTAL

Vertical

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	a	4873.98	46.83	54.00	-7.17	44.62	4.22	34.67	32.66	Average	344	127	VERTICAL
2	p	4874.04	51.08	74.00	-22.92	48.87	4.22	34.67	32.66	Peak	344	127	VERTICAL
3		7309.30	49.53	74.00	-24.47	42.15	5.34	34.93	36.97	Peak	176	100	VERTICAL
4		7310.16	36.65	54.00	-17.35	29.27	5.34	34.93	36.97	Average	176	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 11 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4924.00	44.32	54.00	-9.68	42.72	3.35	33.26	35.01	Average	130	308	HORIZONTAL
2	4924.01	48.94	74.00	-25.06	47.34	3.35	33.26	35.01	Peak	130	308	HORIZONTAL
3	7386.70	40.02	54.00	-13.98	35.27	4.06	36.09	35.40	Average	151	80	HORIZONTAL
4	7387.62	48.80	74.00	-25.20	44.05	4.06	36.09	35.40	Peak	151	80	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.97	48.28	54.00	-5.72	46.68	3.35	33.26	35.01	Average	100	220	VERTICAL
2	4924.03	51.77	74.00	-22.23	50.17	3.35	33.26	35.01	Peak	100	220	VERTICAL
3	7385.20	46.59	74.00	-27.41	41.84	4.06	36.09	35.40	Peak	102	326	VERTICAL
4	7385.26	34.60	54.00	-19.40	29.85	4.06	36.09	35.40	Average	102	326	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 1 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	a	4823.56	33.26	54.00	-20.74	31.18	4.21	34.69	32.56	Average	100	100	HORIZONTAL
2	p	4825.22	45.42	74.00	-28.58	43.34	4.21	34.69	32.56	Peak	100	100	HORIZONTAL

Vertical

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	p	4820.26	46.34	74.00	-27.66	44.26	4.21	34.69	32.56	Peak	307	100	VERTICAL
2	a	4823.60	33.39	54.00	-20.61	31.31	4.21	34.69	32.56	Average	307	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 6 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4871.14	43.95	74.00	-30.05	41.74	4.22	34.67	32.66	Peak	124	100	HORIZONTAL
2	4874.96	31.92	54.00	-22.08	29.71	4.22	34.67	32.66	Average	124	100	HORIZONTAL
3 a	7307.28	36.38	54.00	-17.62	29.00	5.34	34.93	36.97	Average	273	100	HORIZONTAL
4 p	7307.30	48.68	74.00	-25.32	41.30	5.34	34.93	36.97	Peak	273	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4874.74	31.40	54.00	-22.60	29.19	4.22	34.67	32.66	Average	134	100	VERTICAL
2	4877.86	44.43	74.00	-29.57	42.22	4.22	34.67	32.66	Peak	134	100	VERTICAL
3 p	7308.76	48.85	74.00	-25.15	41.47	5.34	34.93	36.97	Peak	238	100	VERTICAL
4 a	7309.22	37.03	54.00	-16.97	29.65	5.34	34.93	36.97	Average	238	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 11 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4925.10	31.45	54.00	-22.55	29.11	4.23	34.65	32.76	Average	187	100	HORIZONTAL
2	4926.38	44.28	74.00	-29.72	41.94	4.23	34.65	32.76	Peak	187	100	HORIZONTAL
3 p	7382.26	49.87	74.00	-24.13	42.41	5.36	34.96	37.06	Peak	280	100	HORIZONTAL
4 a	7386.96	36.85	54.00	-17.15	29.37	5.36	34.96	37.08	Average	280	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4922.16	43.99	74.00	-30.01	41.65	4.23	34.65	32.76	Peak	93	100	VERTICAL
2	4922.78	31.77	54.00	-22.23	29.43	4.23	34.65	32.76	Average	93	100	VERTICAL
3 a	7387.60	36.72	54.00	-17.28	29.24	5.36	34.96	37.08	Average	206	100	VERTICAL
4 p	7387.90	49.21	74.00	-24.79	41.73	5.36	34.96	37.08	Peak	206	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a CH 149 / Chain 4
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11480.72	50.24	74.00	-23.76	41.64	5.11	38.77	35.28	Peak	100	118	HORIZONTAL
2	11481.28	37.13	54.00	-16.87	28.53	5.11	38.77	35.28	Average	100	118	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11483.48	36.91	54.00	-17.09	28.30	5.11	38.78	35.28	Average	100	242	VERTICAL
2	11488.64	50.08	74.00	-23.92	41.47	5.11	38.78	35.28	Peak	100	242	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a CH 157 / Chain 4
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11565.08	37.30	54.00	-16.70	28.65	5.13	38.82	35.30	Average	100	196	HORIZONTAL
2	11572.08	49.78	74.00	-24.22	41.11	5.14	38.83	35.30	Peak	100	196	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11563.88	37.28	54.00	-16.72	28.63	5.13	38.82	35.30	Average	100	295	VERTICAL
2	11579.56	50.10	74.00	-23.90	41.43	5.14	38.83	35.30	Peak	100	295	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a CH 165 / Chain 4
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11640.96	49.35	74.00	-24.65	40.63	5.16	38.86	35.30	Peak	100	153	HORIZONTAL
2	11649.48	37.22	54.00	-16.78	28.50	5.16	38.86	35.30	Average	100	153	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11650.64	49.65	74.00	-24.35	40.93	5.16	38.86	35.30	Peak	100	234	VERTICAL
2	11654.48	37.12	54.00	-16.88	28.40	5.16	38.86	35.30	Average	100	234	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 1 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4824.00	50.56	54.00	-3.44	49.22	3.31	33.06	35.03	Average	170	300	HORIZONTAL
2	4824.05	53.01	74.00	-20.99	51.67	3.31	33.06	35.03	Peak	170	300	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.92	55.36	74.00	-18.64	54.02	3.31	33.06	35.03	Peak	112	25	VERTICAL
2	4824.00	53.40	54.00	-0.60	52.06	3.31	33.06	35.03	Average	112	25	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4874.00	50.78	54.00	-3.22	46.58	5.92	33.48	35.20	Average	127	39	HORIZONTAL
2	4874.00	54.20	74.00	-19.80	50.00	5.92	33.48	35.20	Peak	127	39	HORIZONTAL
3	7314.36	37.15	54.00	-16.85	28.94	7.13	36.51	35.43	Average	100	217	HORIZONTAL
4	7315.72	49.92	74.00	-24.08	41.70	7.14	36.51	35.43	Peak	100	217	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4874.00	56.11	74.00	-17.89	51.91	5.92	33.48	35.20	Peak	114	321	VERTICAL
2	4874.01	53.63	54.00	-0.37	49.43	5.92	33.48	35.20	Average	114	321	VERTICAL
3	7308.16	37.25	54.00	-16.75	29.04	7.13	36.51	35.43	Average	100	70	VERTICAL
4	7313.42	50.12	74.00	-23.88	41.91	7.13	36.51	35.43	Peak	100	70	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.95	51.96	74.00	-22.04	50.36	3.35	33.26	35.01	Peak	174	16	HORIZONTAL
2	4924.00	48.77	54.00	-5.23	47.17	3.35	33.26	35.01	Average	174	16	HORIZONTAL
3	7386.74	40.02	54.00	-13.98	35.27	4.06	36.09	35.40	Average	152	281	HORIZONTAL
4	7388.64	49.31	74.00	-24.69	44.56	4.06	36.09	35.40	Peak	152	281	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.93	54.77	74.00	-19.23	53.17	3.35	33.26	35.01	Peak	111	77	VERTICAL
2	4924.00	51.98	54.00	-2.02	50.38	3.35	33.26	35.01	Average	111	77	VERTICAL
3	7384.74	46.00	74.00	-28.00	41.25	4.06	36.09	35.40	Peak	102	360	VERTICAL
4	7385.24	35.31	54.00	-18.69	30.56	4.06	36.09	35.40	Average	102	360	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 1 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4821.36	37.63	54.00	-16.37	33.57	5.87	33.39	35.20	Average	146	78	HORIZONTAL
2	4821.60	51.09	74.00	-22.91	47.03	5.87	33.39	35.20	Peak	146	78	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.80	54.90	74.00	-19.10	50.84	5.87	33.39	35.20	Peak	118	355	VERTICAL
2	4824.24	40.98	54.00	-13.02	36.92	5.87	33.39	35.20	Average	118	355	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4865.92	50.50	74.00	-23.50	46.35	5.90	33.45	35.20	Peak	100	58	HORIZONTAL
2	4873.44	37.06	54.00	-16.94	32.86	5.92	33.48	35.20	Average	100	58	HORIZONTAL
3	7316.48	49.27	74.00	-24.73	41.05	7.14	36.51	35.43	Peak	100	152	HORIZONTAL
4	7316.92	37.27	54.00	-16.73	29.05	7.14	36.51	35.43	Average	100	152	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4874.08	53.66	74.00	-20.34	49.46	5.92	33.48	35.20	Peak	118	355	VERTICAL
2	4874.88	40.63	54.00	-13.37	36.43	5.92	33.48	35.20	Average	118	355	VERTICAL
3	7311.48	37.07	54.00	-16.93	28.86	7.13	36.51	35.43	Average	100	269	VERTICAL
4	7317.96	49.38	74.00	-24.62	41.16	7.14	36.51	35.43	Peak	100	269	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4915.16	46.51	74.00	-27.49	42.22	5.95	33.54	35.20	Peak	100	246	HORIZONTAL
2	4926.52	34.16	54.00	-19.84	29.81	5.97	33.58	35.20	Average	100	246	HORIZONTAL
3	7389.48	37.50	54.00	-16.50	29.18	7.17	36.61	35.46	Average	100	112	HORIZONTAL
4	7394.04	49.89	74.00	-24.11	41.54	7.17	36.64	35.46	Peak	100	112	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4925.32	49.30	74.00	-24.70	44.95	5.97	33.58	35.20	Peak	115	359	VERTICAL
2	4925.44	35.72	54.00	-18.28	31.37	5.97	33.58	35.20	Average	115	359	VERTICAL
3	7390.32	37.49	54.00	-16.51	29.17	7.17	36.61	35.46	Average	100	258	VERTICAL
4	7390.60	49.90	74.00	-24.10	41.58	7.17	36.61	35.46	Peak	100	258	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a CH 149 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11489.64	47.07	54.00	-6.93	38.46	5.11	38.78	35.28	Average	150	34	HORIZONTAL
2	11490.00	60.46	74.00	-13.54	51.85	5.11	38.78	35.28	Peak	150	34	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11489.20	53.61	74.00	-20.39	45.00	5.11	38.78	35.28	Peak	123	31	VERTICAL
2	11489.92	41.66	54.00	-12.34	33.05	5.11	38.78	35.28	Average	123	31	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a CH 157 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11568.20	58.87	74.00	-15.13	50.21	5.13	38.83	35.30	Peak	152	35	HORIZONTAL
2	11569.48	45.79	54.00	-8.21	37.13	5.13	38.83	35.30	Average	152	35	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11570.32	53.36	74.00	-20.64	44.69	5.14	38.83	35.30	Peak	113	39	VERTICAL
2	11570.48	41.46	54.00	-12.54	32.79	5.14	38.83	35.30	Average	113	39	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11a CH 165 / Chain 4+ Chain 5+ Chain 6
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11652.20	41.55	54.00	-12.45	32.83	5.16	38.86	35.30	Average	172	26	HORIZONTAL
2	11654.08	53.84	74.00	-20.16	45.12	5.16	38.86	35.30	Peak	172	26	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11645.68	53.33	74.00	-20.67	44.61	5.16	38.86	35.30	Peak	101	311	VERTICAL
2	11654.12	40.98	54.00	-13.02	32.26	5.16	38.86	35.30	Average	101	311	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 20MHz Ch 1 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4823.84	34.91	54.00	-19.09	32.83	4.21	34.69	32.56	Average	121	100	HORIZONTAL
2 p	4824.32	47.92	74.00	-26.08	45.84	4.21	34.69	32.56	Peak	121	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4827.00	39.99	54.00	-14.01	37.91	4.21	34.69	32.56	Average	75	100	VERTICAL
2 p	4827.60	52.09	74.00	-21.91	50.01	4.21	34.69	32.56	Peak	75	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 20MHz Ch 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	p	4872.50	51.62	74.00	-22.38	49.41	4.22	34.67	32.66	Peak	125	100	HORIZONTAL
2	a	4874.10	36.89	54.00	-17.11	34.68	4.22	34.67	32.66	Average	125	100	HORIZONTAL
3		7304.10	36.63	54.00	-17.37	29.25	5.34	34.93	36.97	Average	128	100	HORIZONTAL
4		7317.60	49.33	74.00	-24.67	41.93	5.35	34.94	36.99	Peak	128	100	HORIZONTAL

Vertical

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	p	4877.00	53.18	74.00	-20.82	50.97	4.22	34.67	32.66	Peak	75	100	VERTICAL
2	a	4877.30	39.33	54.00	-14.67	37.12	4.22	34.67	32.66	Average	75	100	VERTICAL
3		7311.90	36.67	54.00	-17.33	29.30	5.34	34.94	36.97	Average	108	100	VERTICAL
4		7317.20	49.25	74.00	-24.75	41.85	5.35	34.94	36.99	Peak	108	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 20MHz Ch 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4922.80	33.82	54.00	-20.18	31.48	4.23	34.65	32.76	Average	125	100	HORIZONTAL
2	4923.40	45.65	74.00	-28.35	43.31	4.23	34.65	32.76	Peak	125	100	HORIZONTAL
3 a	7372.20	36.70	54.00	-17.30	29.24	5.36	34.96	37.06	Average	212	100	HORIZONTAL
4 p	7386.30	49.50	74.00	-24.50	42.02	5.36	34.96	37.08	Peak	212	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4921.60	34.30	54.00	-19.70	31.96	4.23	34.65	32.76	Average	328	100	VERTICAL
2	4924.60	45.42	74.00	-28.58	43.08	4.23	34.65	32.76	Peak	328	100	VERTICAL
3 a	7385.30	36.64	54.00	-17.36	29.16	5.36	34.96	37.08	Average	21	100	VERTICAL
4 p	7394.20	48.94	74.00	-25.06	41.46	5.36	34.96	37.08	Peak	21	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 40MHz Ch 3 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4842.50	32.28	54.00	-21.72	30.16	4.21	34.68	32.59	Average	123	100	HORIZONTAL
2 p	4843.60	44.81	74.00	-29.19	42.69	4.21	34.68	32.59	Peak	123	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4844.00	33.48	54.00	-20.52	31.36	4.21	34.68	32.59	Average	4	100	VERTICAL
2 p	4846.30	46.04	74.00	-27.96	43.92	4.21	34.68	32.59	Peak	4	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 40MHz Ch 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1		4872.50	43.91	74.00	-30.09	41.70	4.22	34.67	32.66	Peak	130	100	HORIZONTAL
2		4874.10	32.20	54.00	-21.80	29.99	4.22	34.67	32.66	Average	130	100	HORIZONTAL
3	p	7294.90	49.23	74.00	-24.77	41.87	5.34	34.93	36.95	Peak	359	100	HORIZONTAL
4	a	7295.90	36.54	54.00	-17.46	29.18	5.34	34.93	36.95	Average	359	100	HORIZONTAL

Vertical

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1		4873.80	35.03	54.00	-18.97	32.82	4.22	34.67	32.66	Average	1	100	VERTICAL
2		4877.00	47.09	74.00	-26.91	44.88	4.22	34.67	32.66	Peak	1	100	VERTICAL
3	p	7299.00	49.57	74.00	-24.43	42.19	5.34	34.93	36.97	Peak	200	100	VERTICAL
4	a	7302.10	36.52	54.00	-17.48	29.14	5.34	34.93	36.97	Average	200	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 40MHz Ch 9 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1		4904.60	44.44	74.00	-29.56	42.15	4.22	34.66	32.73	Peak	129	100	HORIZONTAL
2		4904.90	31.48	54.00	-22.52	29.19	4.22	34.66	32.73	Average	129	100	HORIZONTAL
3	p	7356.30	48.66	74.00	-25.34	41.23	5.35	34.95	37.03	Peak	54	100	HORIZONTAL
4	a	7356.90	36.40	54.00	-17.60	28.97	5.35	34.95	37.03	Average	54	100	HORIZONTAL

Vertical

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1		4904.90	45.93	74.00	-28.07	43.64	4.22	34.66	32.73	Peak	4	100	VERTICAL
2		4905.50	32.61	54.00	-21.39	30.32	4.22	34.66	32.73	Average	4	100	VERTICAL
3	a	7356.20	36.47	54.00	-17.53	29.04	5.35	34.95	37.03	Average	330	100	VERTICAL
4	p	7356.40	49.80	74.00	-24.20	42.37	5.35	34.95	37.03	Peak	330	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0, Nss1 20MHz CH 149 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11487.00	50.17	74.00	-23.83	41.56	5.11	38.78	35.28	Peak	100	280	HORIZONTAL
2	11491.16	37.97	54.00	-16.03	29.36	5.11	38.78	35.28	Average	100	280	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11489.96	45.01	54.00	-8.99	36.40	5.11	38.78	35.28	Average	100	216	VERTICAL
2	11491.36	58.44	74.00	-15.56	49.83	5.11	38.78	35.28	Peak	100	216	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0, Nss1 20MHz CH 157 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11569.20	50.48	74.00	-23.52	41.82	5.13	38.83	35.30	Peak	100	310	HORIZONTAL
2	11574.88	38.18	54.00	-15.82	29.51	5.14	38.83	35.30	Average	100	310	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11570.44	57.78	74.00	-16.22	49.11	5.14	38.83	35.30	Peak	100	22	VERTICAL
2	11571.48	45.71	54.00	-8.29	37.04	5.14	38.83	35.30	Average	100	22	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0, Nss1 20MHz CH 165 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11647.76	38.16	54.00	-15.84	29.44	5.16	38.86	35.30	Average	100	22	HORIZONTAL
2	11648.04	50.03	74.00	-23.97	41.31	5.16	38.86	35.30	Peak	100	22	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11650.24	54.90	74.00	-19.10	46.18	5.16	38.86	35.30	Peak	106	276	VERTICAL
2	11650.52	42.66	54.00	-11.34	33.94	5.16	38.86	35.30	Average	106	276	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0, Nss1 40MHz CH 151 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11505.28	37.11	54.00	-16.89	28.48	5.12	38.79	35.28	Average	100	66	HORIZONTAL
2	11513.00	48.95	74.00	-25.05	40.32	5.12	38.79	35.28	Peak	100	66	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11506.84	53.67	74.00	-20.33	45.04	5.12	38.79	35.28	Peak	100	351	VERTICAL
2	11510.16	41.83	54.00	-12.17	33.20	5.12	38.79	35.28	Average	100	351	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0, Nss1 40MHz CH 159 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11592.48	49.90	74.00	-24.10	41.23	5.14	38.83	35.30	Peak	100	139	HORIZONTAL
2	11594.20	37.75	54.00	-16.25	29.08	5.14	38.83	35.30	Average	100	139	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11587.88	42.21	54.00	-11.79	33.54	5.14	38.83	35.30	Average	100	351	VERTICAL
2	11588.84	55.00	74.00	-19.00	46.33	5.14	38.83	35.30	Peak	100	351	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11ac MCS0, Nss1 80MHz CH 155 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11545.68	49.14	74.00	-24.86	40.50	5.13	38.81	35.30	Peak	100	315	HORIZONTAL
2	11554.28	36.87	54.00	-17.13	28.22	5.13	38.82	35.30	Average	100	315	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11550.08	39.54	54.00	-14.46	30.90	5.13	38.81	35.30	Average	100	0	VERTICAL
2	11551.52	51.94	74.00	-22.06	43.29	5.13	38.82	35.30	Peak	100	0	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 1 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.88	49.15	74.00	-24.85	47.81	3.31	33.06	35.03	Peak	100	118	HORIZONTAL
2	4824.01	44.84	54.00	-9.16	43.50	3.31	33.06	35.03	Average	100	118	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.94	49.46	74.00	-24.54	48.12	3.31	33.06	35.03	Peak	100	217	VERTICAL
2	4824.02	45.14	54.00	-8.86	43.80	3.31	33.06	35.03	Average	100	217	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 6 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4874.00	47.15	74.00	-26.85	44.94	4.22	34.67	32.66	Peak	122	100	HORIZONTAL
2 a	4874.01	38.55	54.00	-15.45	36.34	4.22	34.67	32.66	Average	122	100	HORIZONTAL
3	7309.62	37.50	54.00	-16.50	30.12	5.34	34.93	36.97	Average	264	100	HORIZONTAL
4 p	7309.88	49.36	74.00	-24.64	41.98	5.34	34.93	36.97	Peak	264	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4874.01	43.51	54.00	-10.49	41.30	4.22	34.67	32.66	Average	239	100	VERTICAL
2	4874.06	48.64	74.00	-25.36	46.43	4.22	34.67	32.66	Peak	239	100	VERTICAL
3 p	7309.56	50.34	74.00	-23.66	42.96	5.34	34.93	36.97	Peak	318	100	VERTICAL
4	7310.30	38.92	54.00	-15.08	31.54	5.34	34.93	36.97	Average	318	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 11 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.99	43.19	54.00	-10.81	41.59	3.35	33.26	35.01	Average	100	119	HORIZONTAL
2	4924.05	48.17	74.00	-25.83	46.57	3.35	33.26	35.01	Peak	100	119	HORIZONTAL
3	7386.51	34.10	54.00	-19.90	29.35	4.06	36.09	35.40	Average	100	191	HORIZONTAL
4	7387.57	45.84	74.00	-28.16	41.09	4.06	36.09	35.40	Peak	100	191	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.91	48.33	74.00	-25.67	46.73	3.35	33.26	35.01	Peak	102	220	VERTICAL
2	4924.00	43.11	54.00	-10.89	41.51	3.35	33.26	35.01	Average	102	220	VERTICAL
3	7386.79	35.57	54.00	-18.43	30.82	4.06	36.09	35.40	Average	100	145	VERTICAL
4	7388.04	47.38	74.00	-26.62	42.63	4.06	36.09	35.40	Peak	100	145	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 1 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4823.76	31.87	54.00	-22.13	29.79	4.21	34.69	32.56	Average	189	100	HORIZONTAL
2 p	4827.96	42.87	74.00	-31.13	40.79	4.21	34.69	32.56	Peak	189	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 p	4822.32	43.63	74.00	-30.37	41.55	4.21	34.69	32.56	Peak	40	100	VERTICAL
2 a	4825.22	32.13	54.00	-21.87	30.05	4.21	34.69	32.56	Average	40	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 6 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4871.10	32.38	54.00	-21.62	30.17	4.22	34.67	32.66	Average	228	100	HORIZONTAL
2	4872.38	43.89	74.00	-30.11	41.68	4.22	34.67	32.66	Peak	228	100	HORIZONTAL
3 a	7308.98	36.45	54.00	-17.55	29.07	5.34	34.93	36.97	Average	129	100	HORIZONTAL
4 p	7309.82	48.81	74.00	-25.19	41.43	5.34	34.93	36.97	Peak	129	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4869.80	45.21	74.00	-28.79	43.00	4.22	34.67	32.66	Peak	208	100	VERTICAL
2	4874.84	32.86	54.00	-21.14	30.65	4.22	34.67	32.66	Average	208	100	VERTICAL
3 a	7312.98	37.05	54.00	-16.95	29.68	5.34	34.94	36.97	Average	97	100	VERTICAL
4 p	7314.90	49.01	74.00	-24.99	41.64	5.34	34.94	36.97	Peak	97	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 11 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4923.88	31.67	54.00	-22.33	29.33	4.23	34.65	32.76	Average	274	100	HORIZONTAL
2	4924.44	44.23	74.00	-29.77	41.89	4.23	34.65	32.76	Peak	274	100	HORIZONTAL
3 p	7382.72	49.72	74.00	-24.28	42.26	5.36	34.96	37.06	Peak	181	100	HORIZONTAL
4 a	7387.38	36.80	54.00	-17.20	29.32	5.36	34.96	37.08	Average	181	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4923.84	31.94	54.00	-22.06	29.60	4.23	34.65	32.76	Average	215	100	VERTICAL
2	4927.02	45.04	74.00	-28.96	42.70	4.23	34.65	32.76	Peak	215	100	VERTICAL
3 p	7383.00	49.10	74.00	-24.90	41.64	5.36	34.96	37.06	Peak	309	100	VERTICAL
4 a	7387.50	36.84	54.00	-17.16	29.36	5.36	34.96	37.08	Average	309	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 149 / Chain 4
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11489.16	50.33	74.00	-23.67	41.72	5.11	38.78	35.28	Peak	100	352	HORIZONTAL
2	11489.84	37.37	54.00	-16.63	28.76	5.11	38.78	35.28	Average	100	352	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11490.44	54.50	74.00	-19.50	45.89	5.11	38.78	35.28	Peak	100	216	VERTICAL
2	11491.16	40.89	54.00	-13.11	32.28	5.11	38.78	35.28	Average	100	216	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 157 / Chain 4
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11570.64	50.88	74.00	-23.12	42.21	5.14	38.83	35.30	Peak	100	6	HORIZONTAL
2	11571.64	37.47	54.00	-16.53	28.80	5.14	38.83	35.30	Average	100	6	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11570.72	40.89	54.00	-13.11	32.22	5.14	38.83	35.30	Average	100	228	VERTICAL
2	11573.84	52.60	74.00	-21.40	43.93	5.14	38.83	35.30	Peak	100	228	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 165 / Chain 4
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11640.68	49.98	74.00	-24.02	41.26	5.16	38.86	35.30	Peak	100	321	HORIZONTAL
2	11651.32	37.51	54.00	-16.49	28.79	5.16	38.86	35.30	Average	100	321	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11647.56	51.85	74.00	-22.15	43.13	5.16	38.86	35.30	Peak	100	125	VERTICAL
2	11649.40	39.33	54.00	-14.67	30.61	5.16	38.86	35.30	Average	100	125	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 1 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4823.93	50.33	74.00	-23.67	48.99	3.31	33.06	35.03	Peak	100	36	HORIZONTAL
2	4824.02	46.69	54.00	-7.31	45.35	3.31	33.06	35.03	Average	100	36	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4824.02	53.52	54.00	-0.48	52.18	3.31	33.06	35.03	Average	100	210	VERTICAL
2	4824.04	55.80	74.00	-18.20	54.46	3.31	33.06	35.03	Peak	100	210	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 p	4873.99	52.80	74.00	-21.20	50.59	4.22	34.67	32.66	Peak	122	102	HORIZONTAL
2 a	4874.01	49.92	54.00	-4.08	47.71	4.22	34.67	32.66	Average	122	102	HORIZONTAL
3	7307.14	36.75	54.00	-17.25	29.37	5.34	34.93	36.97	Average	200	100	HORIZONTAL
4	7308.70	49.48	74.00	-24.52	42.10	5.34	34.93	36.97	Peak	200	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 p	4874.00	55.84	74.00	-18.16	53.63	4.22	34.67	32.66	Peak	333	102	VERTICAL
2 a	4874.00	53.75	54.00	-0.25	51.54	4.22	34.67	32.66	Average	333	102	VERTICAL
3	7309.72	49.26	74.00	-24.74	41.88	5.34	34.93	36.97	Peak	83	100	VERTICAL
4	7313.00	36.80	54.00	-17.20	29.43	5.34	34.94	36.97	Average	83	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4923.94	52.38	74.00	-21.62	50.78	3.35	33.26	35.01	Peak	155	121	HORIZONTAL
2	4924.03	49.38	54.00	-4.62	47.78	3.35	33.26	35.01	Average	155	121	HORIZONTAL
3	7382.92	33.51	54.00	-20.49	28.76	4.06	36.09	35.40	Average	100	161	HORIZONTAL
4	7389.70	46.39	74.00	-27.61	41.64	4.06	36.09	35.40	Peak	100	161	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	4924.00	51.72	54.00	-2.28	50.12	3.35	33.26	35.01	Average	100	190	VERTICAL
2	4924.05	53.99	74.00	-20.01	52.39	3.35	33.26	35.01	Peak	100	190	VERTICAL
3	7386.42	47.30	74.00	-26.70	42.55	4.06	36.09	35.40	Peak	100	283	VERTICAL
4	7386.77	35.75	54.00	-18.25	31.00	4.06	36.09	35.40	Average	100	283	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 1 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 p	4822.90	49.34	74.00	-24.66	47.26	4.21	34.69	32.56	Peak	124	100	HORIZONTAL
2 a	4823.50	37.61	54.00	-16.39	35.53	4.21	34.69	32.56	Average	124	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1 a	4826.90	37.12	54.00	-16.88	35.04	4.21	34.69	32.56	Average	0	100	VERTICAL
2 p	4827.00	49.57	74.00	-24.43	47.49	4.21	34.69	32.56	Peak	0	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 6 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	p	4873.60	50.14	74.00	-23.86	47.93	4.22	34.67	32.66	Peak	122	100	HORIZONTAL
2		4873.60	36.67	54.00	-17.33	34.46	4.22	34.67	32.66	Average	122	100	HORIZONTAL
3		7293.40	49.11	74.00	-24.89	41.75	5.34	34.93	36.95	Peak	268	100	HORIZONTAL
4	a	7306.40	36.71	54.00	-17.29	29.33	5.34	34.93	36.97	Average	268	100	HORIZONTAL

Vertical

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	p	4873.40	54.75	74.00	-19.25	52.54	4.22	34.67	32.66	Peak	0	100	VERTICAL
2	a	4874.20	39.86	54.00	-14.14	37.65	4.22	34.67	32.66	Average	0	100	VERTICAL
3		7311.00	37.13	54.00	-16.87	29.75	5.34	34.93	36.97	Average	170	100	VERTICAL
4		7312.40	51.12	74.00	-22.88	43.75	5.34	34.94	36.97	Peak	170	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4923.20	34.60	54.00	-19.40	32.26	4.23	34.65	32.76	Average	125	100	HORIZONTAL
2	4923.30	46.89	74.00	-27.11	44.55	4.23	34.65	32.76	Peak	125	100	HORIZONTAL
3 p	7367.10	49.32	74.00	-24.68	41.86	5.36	34.96	37.06	Peak	316	100	HORIZONTAL
4 a	7374.80	36.81	54.00	-17.19	29.35	5.36	34.96	37.06	Average	316	100	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	4923.70	47.03	74.00	-26.97	44.69	4.23	34.65	32.76	Peak	2	100	VERTICAL
2	4925.00	35.11	54.00	-18.89	32.77	4.23	34.65	32.76	Average	2	100	VERTICAL
3 a	7381.40	36.75	54.00	-17.25	29.29	5.36	34.96	37.06	Average	221	100	VERTICAL
4 p	7394.70	48.78	74.00	-25.22	41.30	5.36	34.96	37.08	Peak	221	100	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 149 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11492.92	38.19	54.00	-15.81	29.58	5.11	38.78	35.28	Average	100	10	HORIZONTAL
2	11493.40	49.70	74.00	-24.30	41.08	5.12	38.78	35.28	Peak	100	10	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11490.72	46.01	54.00	-7.99	37.40	5.11	38.78	35.28	Average	105	216	VERTICAL
2	11491.16	58.80	74.00	-15.20	50.19	5.11	38.78	35.28	Peak	105	216	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 157 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11572.44	38.57	54.00	-15.43	29.90	5.14	38.83	35.30	Average	100	201	HORIZONTAL
2	11572.96	51.05	74.00	-22.95	42.38	5.14	38.83	35.30	Peak	100	201	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11570.60	57.64	74.00	-16.36	48.97	5.14	38.83	35.30	Peak	100	23	VERTICAL
2	11570.88	45.51	54.00	-8.49	36.84	5.14	38.83	35.30	Average	100	23	VERTICAL

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11a CH 165 / Chain 4+ Chain 5+ Chain 6
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Horizontal

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11641.96	49.72	74.00	-24.28	41.00	5.16	38.86	35.30	Peak	100	109	HORIZONTAL
2	11652.60	38.87	54.00	-15.13	30.15	5.16	38.86	35.30	Average	100	109	HORIZONTAL

Vertical

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	11648.28	55.42	74.00	-18.58	46.70	5.16	38.86	35.30	Peak	101	281	VERTICAL
2	11648.92	43.31	54.00	-10.69	34.59	5.16	38.86	35.30	Average	101	281	VERTICAL

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

4.6. Emissions Measurement

4.6.1. Limit

30dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

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

4.6.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	100 MHz
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1 MHz / 10Hz for Average
RBW / VBW (Emission in non-restricted band)	100 kHz / 300 kHz for Peak

4.6.3. Test Procedures

For Radiated band edges Measurement:

1. The test procedure is the same as section 4.5.3, only the frequency range investigated is limited to 100MHz around band edges.

For Radiated Out of Band Emission Measurement:

1. Test was performed in accordance with KDB 558074 D01 v03 for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247 section 10.1 Unwanted Emissions into Non-Restricted Frequency Bands Measurement Procedure
2. The radiated emission test is performed on each TX port of operating mode without summing or adding 10log (N) since the limit is relative emission limit. Only worst data of each operating mode is presented.

4.6.4. Test Setup Layout

For Radiated band edges Measurement:

This test setup layout is the same as that shown in section 4.5.4.

For Radiated Out of Band Emission Measurement:

This test setup layout is the same as that shown in section 4.5.4.

4.6.5. Test Deviation

There is no deviation with the original standard.

4.6.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

4.6.7. Test Result of Band Edge and Fundamental Emissions

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 20MHz Ch 1, 6, 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.80	69.09	74.00	-4.91	38.70	2.22	28.17	0.00	Peak	157	313	HORIZONTAL
2	2390.00	53.08	54.00	-0.92	22.69	2.22	28.17	0.00	Average	157	313	HORIZONTAL
3	2409.40	115.90			85.47	2.22	28.21	0.00	Peak	157	313	HORIZONTAL
4	2409.60	106.09			75.66	2.22	28.21	0.00	Average	157	313	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2388.60	53.87	54.00	-0.13	21.73	4.09	28.05	0.00	Average	157	322	HORIZONTAL
2	2390.00	64.28	74.00	-9.72	32.14	4.09	28.05	0.00	Peak	157	322	HORIZONTAL
3	2443.20	107.79			75.48	4.13	28.18	0.00	Average	157	322	HORIZONTAL
4	2443.20	117.70			85.39	4.13	28.18	0.00	Peak	157	322	HORIZONTAL
5	2483.50	51.58	54.00	-2.42	19.16	4.16	28.26	0.00	Average	157	322	HORIZONTAL
6	2483.50	62.07	74.00	-11.93	29.65	4.16	28.26	0.00	Peak	157	322	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2454.80	106.97			76.40	2.24	28.33	0.00	Average	126	312	HORIZONTAL
2	2465.20	116.98			86.41	2.24	28.33	0.00	Peak	126	312	HORIZONTAL
3	2483.50	53.97	54.00	-0.03	23.33	2.26	28.38	0.00	Average	126	312	HORIZONTAL
4	2483.50	72.46	74.00	-1.54	41.82	2.26	28.38	0.00	Peak	126	312	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11n MCS0 40MHz Ch 3, 6, 9 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Channel 3

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	53.83	54.00	-0.17	23.44	2.22	28.17	0.00	Average	156	317	HORIZONTAL
2	2390.00	69.45	74.00	-4.55	39.06	2.22	28.17	0.00	Peak	156	317	HORIZONTAL
3	2411.60	98.15			67.72	2.22	28.21	0.00	Average	156	317	HORIZONTAL
4	2432.40	107.73			77.25	2.23	28.25	0.00	Peak	156	317	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2422 MHz.

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	53.74	54.00	-0.26	21.60	4.09	28.05	0.00	Average	158	310	HORIZONTAL
2	2390.00	72.84	74.00	-1.16	40.70	4.09	28.05	0.00	Peak	158	310	HORIZONTAL
3	2431.00	110.44			78.19	4.12	28.13	0.00	Peak	158	310	HORIZONTAL
4	2432.60	100.89			68.64	4.12	28.13	0.00	Average	158	310	HORIZONTAL
5	2483.50	49.22	54.00	-4.78	16.80	4.16	28.26	0.00	Average	158	310	HORIZONTAL
6	2483.50	58.96	74.00	-15.04	26.54	4.16	28.26	0.00	Peak	158	310	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 9

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2467.60	98.72			68.13	2.26	28.33	0.00	Average	124	308	HORIZONTAL
2	2467.60	108.66			78.07	2.26	28.33	0.00	Peak	124	308	HORIZONTAL
3	2483.50	53.38	54.00	-0.62	22.74	2.26	28.38	0.00	Average	124	308	HORIZONTAL
4	2483.50	71.28	74.00	-2.72	40.64	2.26	28.38	0.00	Peak	124	308	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2452 MHz.

Note:

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 1, 6, 11 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Channel 1

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2386.20	51.81	54.00	-2.19	21.03	2.91	0.00	27.87	Average	312	134	HORIZONTAL
2		2390.00	59.98	74.00	-14.02	29.20	2.91	0.00	27.87	Peak	312	134	HORIZONTAL
3	a	2410.20	108.79			78.03	2.92	0.00	27.84	Average	312	134	HORIZONTAL
4	p	2411.00	112.36			81.60	2.92	0.00	27.84	Peak	312	134	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2349.60	48.62	54.00	-5.38	17.79	2.88	0.00	27.95	Average	312	171	HORIZONTAL
2		2359.60	59.77	74.00	-14.23	28.96	2.89	0.00	27.92	Peak	312	171	HORIZONTAL
3	a	2435.40	108.80			78.06	2.93	0.00	27.81	Average	312	171	HORIZONTAL
4	p	2436.20	112.54			81.80	2.93	0.00	27.81	Peak	312	171	HORIZONTAL
5		2500.00	58.86	74.00	-15.14	28.19	2.97	0.00	27.70	Peak	312	171	HORIZONTAL
6	!	2500.00	49.54	54.00	-4.46	18.87	2.97	0.00	27.70	Average	312	171	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	p	2461.20	113.54			82.83	2.95	0.00	27.76	Peak	325	163	HORIZONTAL
2	a	2461.20	109.63			78.92	2.95	0.00	27.76	Average	325	163	HORIZONTAL
3		2483.50	60.85	74.00	-13.15	30.16	2.96	0.00	27.73	Peak	325	163	HORIZONTAL
4	!	2483.50	52.30	54.00	-1.70	21.61	2.96	0.00	27.73	Average	325	163	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 1, 6, 11 / Chain 1
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.80	72.07	74.00	-1.93	41.68	2.22	28.17	0.00	Peak	108	309	HORIZONTAL
2	2390.00	53.17	54.00	-0.83	22.78	2.22	28.17	0.00	Average	108	309	HORIZONTAL
3	2408.40	109.32			78.89	2.22	28.21	0.00	Peak	108	309	HORIZONTAL
4	2410.20	98.84			68.41	2.22	28.21	0.00	Average	108	309	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2388.40	50.27	54.00	-3.73	19.49	2.91	0.00	27.87	Average	325	170	HORIZONTAL
2		2390.00	62.42	74.00	-11.58	31.64	2.91	0.00	27.87	Peak	325	170	HORIZONTAL
3	a	2431.40	104.57			73.83	2.93	0.00	27.81	Average	325	170	HORIZONTAL
4	p	2433.00	114.37			83.63	2.93	0.00	27.81	Peak	325	170	HORIZONTAL
5		2500.00	60.13	74.00	-13.87	29.46	2.97	0.00	27.70	Peak	325	170	HORIZONTAL
6	!	2500.00	50.60	54.00	-3.40	19.93	2.97	0.00	27.70	Average	325	170	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2467.80	111.59			81.00	2.26	28.33	0.00	Peak	103	307	HORIZONTAL
2	2468.20	101.19			70.55	2.26	28.38	0.00	Average	103	307	HORIZONTAL
3	2483.50	53.95	54.00	-0.05	23.31	2.26	28.38	0.00	Average	103	307	HORIZONTAL
4	2483.50	72.76	74.00	-1.24	42.12	2.26	28.38	0.00	Peak	103	307	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11b CH 1, 6, 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	49.05	54.00	-4.95	16.91	4.09	28.05	0.00	Average	125	304	HORIZONTAL
2	2390.00	60.06	74.00	-13.94	27.92	4.09	28.05	0.00	Peak	125	304	HORIZONTAL
3	2413.00	111.44			79.24	4.11	28.09	0.00	Peak	125	304	HORIZONTAL
4	2413.80	107.57			75.37	4.11	28.09	0.00	Average	125	304	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.80	52.76	54.00	-1.24	20.62	4.09	28.05	0.00	Average	155	310	HORIZONTAL
2	2390.00	63.06	74.00	-10.94	30.92	4.09	28.05	0.00	Peak	155	310	HORIZONTAL
3	2436.20	114.08			81.78	4.12	28.18	0.00	Average	155	310	HORIZONTAL
4	2436.20	117.87			85.57	4.12	28.18	0.00	Peak	155	310	HORIZONTAL
5	2483.50	49.75	54.00	-4.25	17.33	4.16	28.26	0.00	Average	155	310	HORIZONTAL
6	2483.50	61.15	74.00	-12.85	28.73	4.16	28.26	0.00	Peak	155	310	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2463.00	115.11			82.75	4.14	28.22	0.00	Peak	146	308	HORIZONTAL
2	2463.80	111.23			78.87	4.14	28.22	0.00	Average	146	308	HORIZONTAL
3	2483.50	52.62	54.00	-1.38	20.20	4.16	28.26	0.00	Average	146	308	HORIZONTAL
4	2483.50	62.45	74.00	-11.55	30.03	4.16	28.26	0.00	Peak	146	308	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Wen Chao	Configurations	IEEE 802.11g CH 1, 6, 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jun. 26, 2013	Test Mode	Mode 1 (EUT 1)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.60	68.01	74.00	-5.99	37.63	2.21	28.17	0.00	Peak	152	312	HORIZONTAL
2	2390.00	53.11	54.00	-0.89	22.72	2.22	28.17	0.00	Average	152	312	HORIZONTAL
3	2410.20	105.43			75.00	2.22	28.21	0.00	Average	152	312	HORIZONTAL
4	2410.20	115.33			84.90	2.22	28.21	0.00	Peak	152	312	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	53.67	54.00	-0.33	21.53	4.09	28.05	0.00	Average	151	310	HORIZONTAL
2	2390.00	64.36	74.00	-9.64	32.22	4.09	28.05	0.00	Peak	151	310	HORIZONTAL
3	2429.80	111.21			78.96	4.12	28.13	0.00	Average	151	310	HORIZONTAL
4	2429.80	121.27			89.02	4.12	28.13	0.00	Peak	151	310	HORIZONTAL
5	2483.50	52.12	54.00	-1.88	19.70	4.16	28.26	0.00	Average	151	310	HORIZONTAL
6	2483.50	61.83	74.00	-12.17	29.41	4.16	28.26	0.00	Peak	151	310	HORIZONTAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2465.80	115.09			84.52	2.24	28.33	0.00	Peak	178	311	HORIZONTAL
2	2466.20	105.52			74.95	2.24	28.33	0.00	Average	178	311	HORIZONTAL
3	2483.50	53.59	54.00	-0.41	22.95	2.26	28.38	0.00	Average	178	311	HORIZONTAL
4	2483.50	70.75	74.00	-3.25	40.11	2.26	28.38	0.00	Peak	178	311	HORIZONTAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Note:

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 20MHz Ch 1, 6, 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.84	67.43	74.00	-6.57	37.04	2.22	28.17	0.00	Peak	100	27	VERTICAL
2	2390.00	53.45	54.00	-0.55	23.06	2.22	28.17	0.00	Average	100	27	VERTICAL
3	2409.92	114.31			83.88	2.22	28.21	0.00	Peak	100	27	VERTICAL
4	2410.72	104.53			74.10	2.22	28.21	0.00	Average	100	27	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	2390.00	66.16	74.00	-7.84	35.38	2.91	0.00	27.87	Peak	83	100	VERTICAL
2 !	2390.00	53.97	54.00	-0.03	23.19	2.91	0.00	27.87	Average	83	100	VERTICAL
3 a	2433.40	109.30			78.56	2.93	0.00	27.81	Average	83	100	VERTICAL
4 p	2433.60	118.66			87.92	2.93	0.00	27.81	Peak	83	100	VERTICAL
5	2483.50	63.13	74.00	-10.87	32.44	2.96	0.00	27.73	Peak	83	100	VERTICAL
6 !	2483.50	50.85	54.00	-3.15	20.16	2.96	0.00	27.73	Average	83	100	VERTICAL

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2466.97	105.72			75.13	2.26	28.33	0.00	Average	104	289	VERTICAL
2	2466.97	115.82			85.23	2.26	28.33	0.00	Peak	104	289	VERTICAL
3	2483.50	53.40	54.00	-0.60	22.77	2.26	28.37	0.00	Average	104	289	VERTICAL
4	2483.50	72.97	74.00	-1.03	42.34	2.26	28.37	0.00	Peak	104	289	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11n MCS0 40MHz Ch 3, 6, 9 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Channel 3

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.04	53.48	54.00	-0.52	23.10	2.21	28.17	0.00	Average	100	25	VERTICAL
2	2390.00	69.01	74.00	-4.99	38.62	2.22	28.17	0.00	Peak	100	25	VERTICAL
3	2405.97	99.54			69.11	2.22	28.21	0.00	Average	100	25	VERTICAL
4	2405.97	109.11			78.68	2.22	28.21	0.00	Peak	100	25	VERTICAL

Item 3, 4 are the fundamental frequency at 2422 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2390.00	68.12	74.00	-5.88	37.34	2.91	0.00	27.87	Peak	263	100	VERTICAL
2	!	2390.00	53.17	54.00	-0.83	22.39	2.91	0.00	27.87	Average	263	100	VERTICAL
3	a	2431.80	102.33			71.59	2.93	0.00	27.81	Average	263	100	VERTICAL
4	p	2432.60	112.06			81.32	2.93	0.00	27.81	Peak	263	100	VERTICAL
5		2483.50	62.56	74.00	-11.44	31.87	2.96	0.00	27.73	Peak	263	100	VERTICAL
6	!	2483.50	49.76	54.00	-4.24	19.07	2.96	0.00	27.73	Average	263	100	VERTICAL

Item 3, 4 are the fundamental frequency at 2437MHz.

Channel 9

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2461.62	99.54			68.97	2.24	28.33	0.00	Average	100	28	VERTICAL
2	2462.26	109.26			78.69	2.24	28.33	0.00	Peak	100	28	VERTICAL
3	2483.50	53.80	54.00	-0.20	23.17	2.26	28.37	0.00	Average	100	28	VERTICAL
4	2483.50	69.61	74.00	-4.39	38.98	2.26	28.37	0.00	Peak	100	28	VERTICAL

Item 1, 2 are the fundamental frequency at 2452 MHz.

Note:

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 1, 6, 11 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2386.15	53.83	54.00	-0.17	23.45	2.21	28.17	0.00	Average	100	216	VERTICAL
2	2390.00	63.30	74.00	-10.70	32.91	2.22	28.17	0.00	Peak	100	216	VERTICAL
3	2412.96	113.44			83.01	2.22	28.21	0.00	Peak	100	216	VERTICAL
4	2413.76	109.65			79.22	2.22	28.21	0.00	Average	100	216	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2388.80	51.77	54.00	-2.23	20.99	2.91	0.00	27.87	Average	219	100	VERTICAL
2		2389.20	62.39	74.00	-11.61	31.61	2.91	0.00	27.87	Peak	219	100	VERTICAL
3	p	2438.20	117.88			87.16	2.94	0.00	27.78	Peak	219	100	VERTICAL
4	a	2438.60	114.15			83.43	2.94	0.00	27.78	Average	219	100	VERTICAL
5	!	2484.80	53.19	54.00	-0.81	22.50	2.96	0.00	27.73	Average	219	100	VERTICAL
6		2485.10	63.75	74.00	-10.25	33.06	2.96	0.00	27.73	Peak	219	100	VERTICAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2462.96	112.54			81.97	2.24	28.33	0.00	Peak	100	324	VERTICAL
2	2463.76	108.96			78.39	2.24	28.33	0.00	Average	100	324	VERTICAL
3	2483.50	53.09	54.00	-0.91	22.46	2.26	28.37	0.00	Average	100	324	VERTICAL
4	2483.66	62.75	74.00	-11.25	32.12	2.26	28.37	0.00	Peak	100	324	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 1, 6, 11 / Chain 1
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2389.84	69.59	74.00	-4.41	39.20	2.22	28.17	0.00	Peak	100	216	VERTICAL
2	2390.00	53.33	54.00	-0.67	22.94	2.22	28.17	0.00	Average	100	216	VERTICAL
3	2415.21	111.42			80.99	2.22	28.21	0.00	Peak	100	216	VERTICAL
4	2418.89	101.16			70.68	2.23	28.25	0.00	Average	100	216	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2390.00	69.26	74.00	-4.74	38.48	2.91	0.00	27.87	Peak	219	100	VERTICAL
2	!	2390.00	53.66	54.00	-0.34	22.88	2.91	0.00	27.87	Average	219	100	VERTICAL
3	a	2431.60	107.70			76.96	2.93	0.00	27.81	Average	219	100	VERTICAL
4	p	2441.40	117.86			87.14	2.94	0.00	27.78	Peak	219	100	VERTICAL
5		2483.50	63.30	74.00	-10.70	32.61	2.96	0.00	27.73	Peak	219	100	VERTICAL
6	!	2483.50	52.90	54.00	-1.10	22.21	2.96	0.00	27.73	Average	219	100	VERTICAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2465.21	111.85			81.28	2.24	28.33	0.00	Peak	100	325	VERTICAL
2	2467.93	101.61			71.02	2.26	28.33	0.00	Average	100	325	VERTICAL
3	2483.50	53.48	54.00	-0.52	22.85	2.26	28.37	0.00	Average	100	325	VERTICAL
4	2483.66	70.01	74.00	-3.99	39.38	2.26	28.37	0.00	Peak	100	325	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11b CH 1, 6, 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Channel 1

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1		2390.00	57.87	74.00	-16.13	27.09	2.91	0.00	27.87	Peak	13	102	VERTICAL
2		2390.00	47.45	54.00	-6.55	16.67	2.91	0.00	27.87	Average	13	102	VERTICAL
3	p	2411.20	113.74			82.98	2.92	0.00	27.84	Peak	13	102	VERTICAL
4	a	2411.20	109.99			79.23	2.92	0.00	27.84	Average	13	102	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1	!	2388.80	49.04	54.00	-4.96	18.26	2.91	0.00	27.87	Average	30	100	VERTICAL
2		2389.80	62.28	74.00	-11.72	31.50	2.91	0.00	27.87	Peak	30	100	VERTICAL
3	p	2434.60	113.84			83.10	2.93	0.00	27.81	Peak	30	100	VERTICAL
4	a	2435.20	110.22			79.48	2.93	0.00	27.81	Average	30	100	VERTICAL
5		2483.50	58.98	74.00	-15.02	28.29	2.96	0.00	27.73	Peak	30	100	VERTICAL
6		2483.50	47.49	54.00	-6.51	16.80	2.96	0.00	27.73	Average	30	100	VERTICAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2461.04	118.56			87.99	2.24	28.33	0.00	Peak	100	206	VERTICAL
2	2461.36	115.03			84.46	2.24	28.33	0.00	Average	100	206	VERTICAL
3	2483.50	52.39	54.00	-1.61	21.76	2.26	28.37	0.00	Average	100	206	VERTICAL
4	2483.50	61.58	74.00	-12.42	30.95	2.26	28.37	0.00	Peak	100	206	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

Temperature	24℃	Humidity	58%
Test Engineer	Kenneth Huang	Configurations	IEEE 802.11g CH 1, 6, 11 / Chain 1+ Chain 2+ Chain 3
Test Date	Jul. 20, 2013	Test Mode	Mode 3 (EUT 2)

Channel 1

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2390.00	53.76	54.00	-0.24	23.37	2.22	28.17	0.00	Average	100	37	VERTICAL
2	2390.00	69.73	74.00	-4.27	39.34	2.22	28.17	0.00	Peak	100	37	VERTICAL
3	2412.48	116.51			86.08	2.22	28.21	0.00	Peak	100	37	VERTICAL
4	2412.80	106.83			76.40	2.22	28.21	0.00	Average	100	37	VERTICAL

Item 3, 4 are the fundamental frequency at 2412 MHz.

Channel 6

		Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Preamp Factor	Antenna Factor	Remark	T/Pos	A/Pos	Pol/Phase
		MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB	dB/m		deg	cm	
1		2388.80	65.62	74.00	-8.38	34.84	2.91	0.00	27.87	Peak	101	100	VERTICAL
2	!	2390.00	53.27	54.00	-0.73	22.49	2.91	0.00	27.87	Average	101	100	VERTICAL
3	p	2434.80	118.70			87.96	2.93	0.00	27.81	Peak	101	100	VERTICAL
4	a	2435.40	108.73			77.99	2.93	0.00	27.81	Average	101	100	VERTICAL
5		2483.90	66.08	74.00	-7.92	35.39	2.96	0.00	27.73	Peak	101	100	VERTICAL
6	!	2484.30	51.50	54.00	-2.50	20.81	2.96	0.00	27.73	Average	101	100	VERTICAL

Item 3, 4 are the fundamental frequency at 2437 MHz.

Channel 11

	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Remark	A/Pos	T/Pos	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB		cm	deg	
1	2463.44	105.03			74.46	2.24	28.33	0.00	Average	100	254	VERTICAL
2	2464.40	114.99			84.42	2.24	28.33	0.00	Peak	100	254	VERTICAL
3	2483.50	53.40	54.00	-0.60	22.77	2.26	28.37	0.00	Average	100	254	VERTICAL
4	2484.30	72.60	74.00	-1.40	41.97	2.26	28.37	0.00	Peak	100	254	VERTICAL

Item 1, 2 are the fundamental frequency at 2462 MHz.

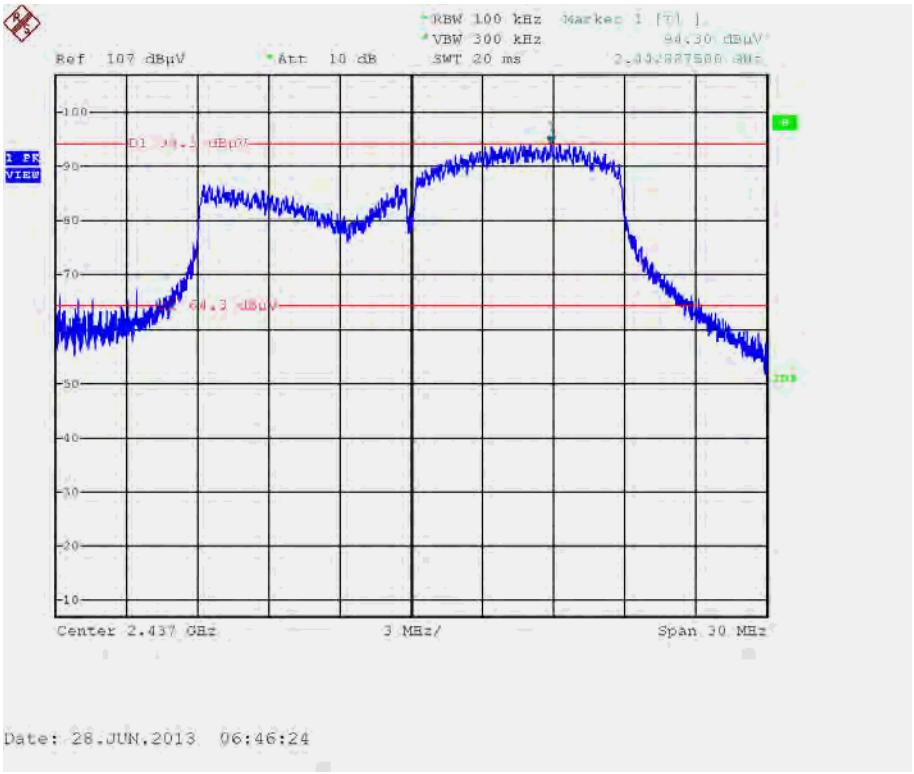
Note:

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

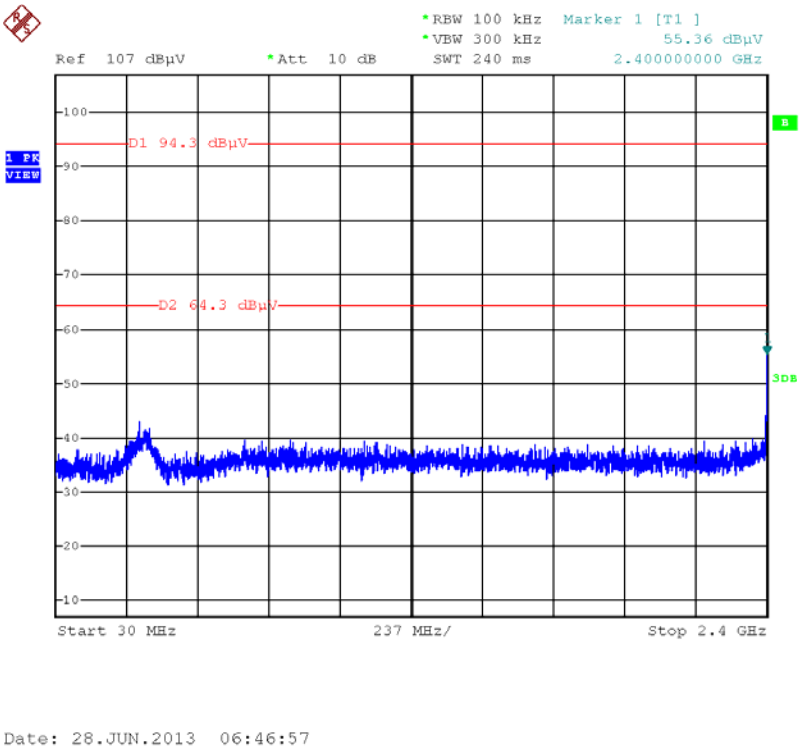
Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

For Emission not in Restricted Band

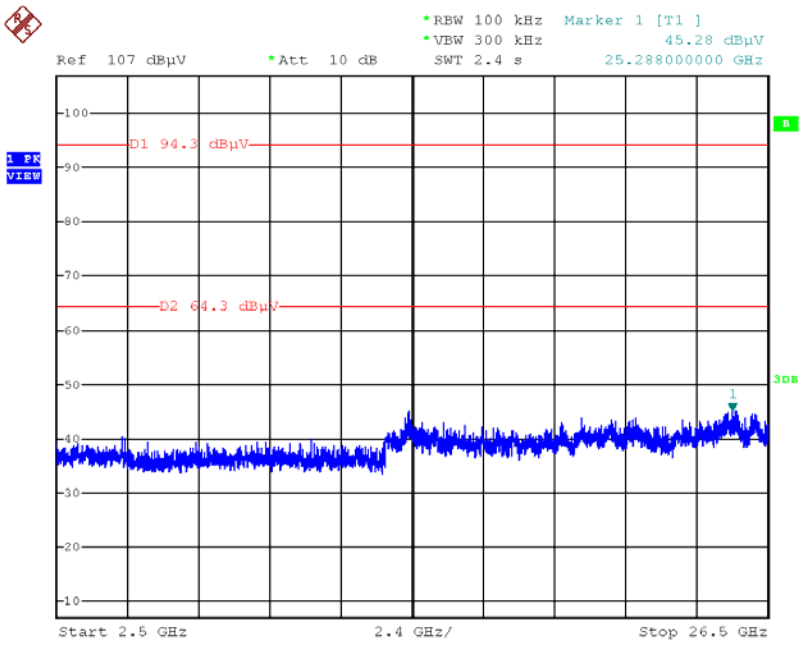
Plot on Configuration IEEE 802.11n MCS0 20MHz / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

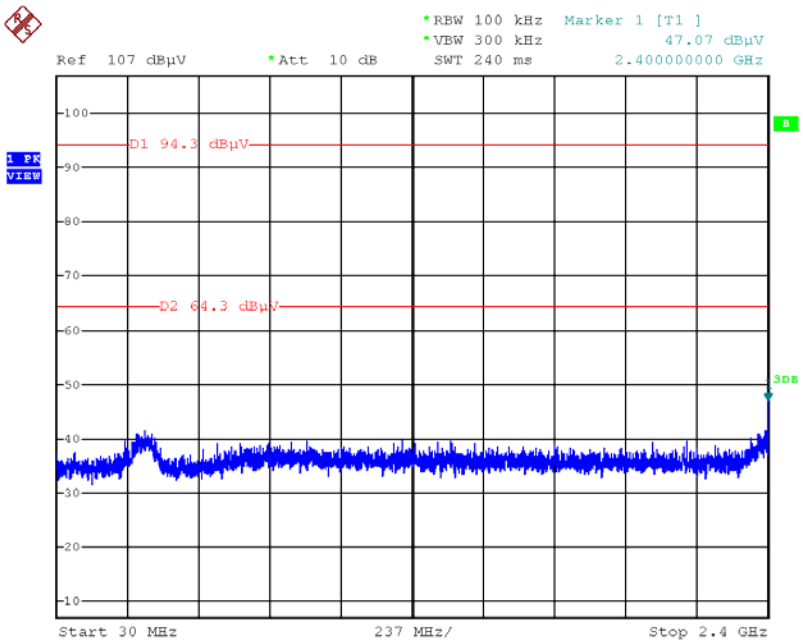


Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



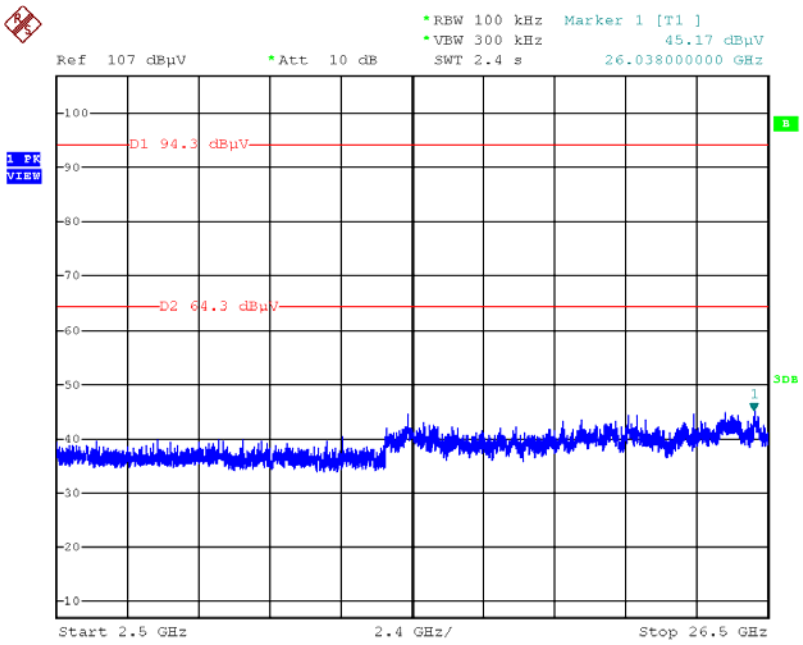
Date: 28.JUN.2013 06:47:22

Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



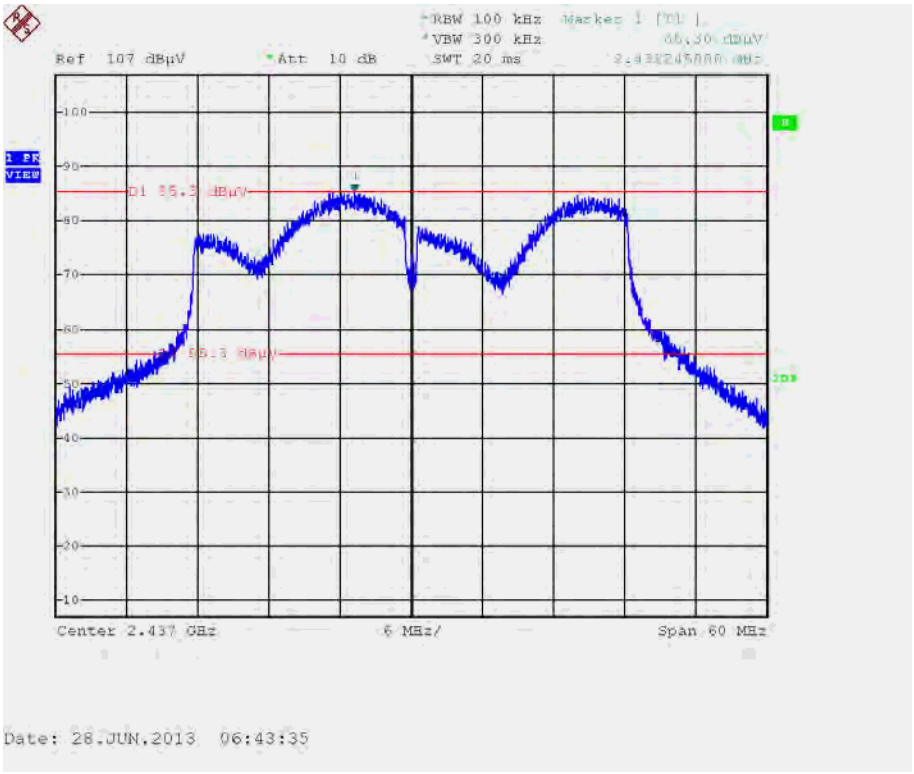
Date: 28.JUN.2013 06:48:28

Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

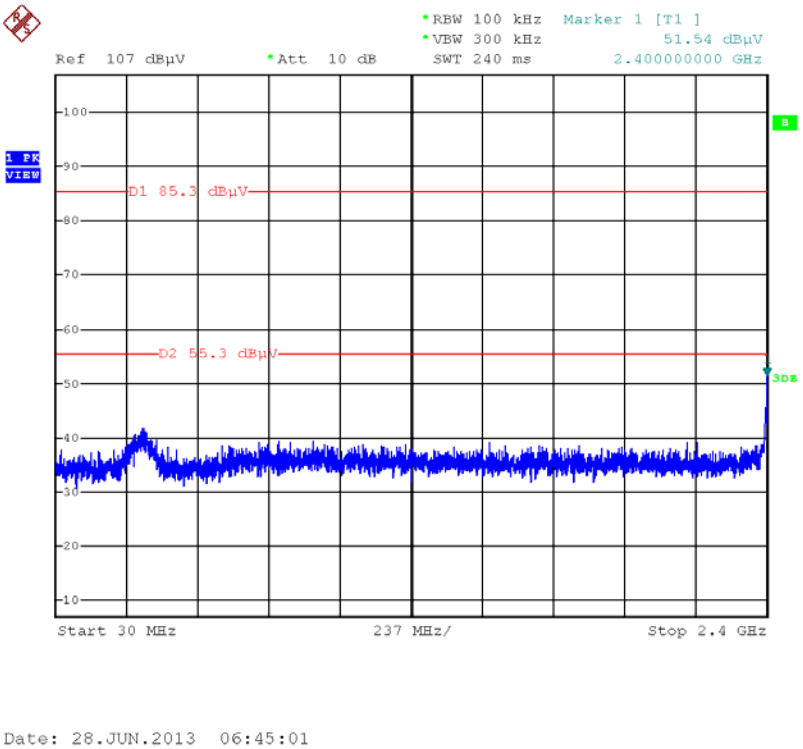


Date: 28.JUN.2013 06:47:55

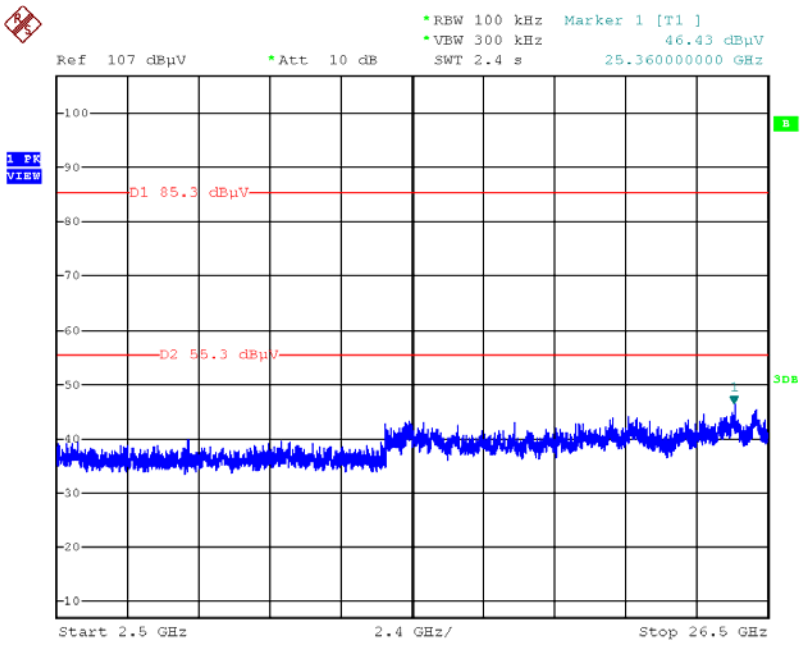
Plot on Configuration IEEE 802.11n MCS0 40MHz / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 3 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

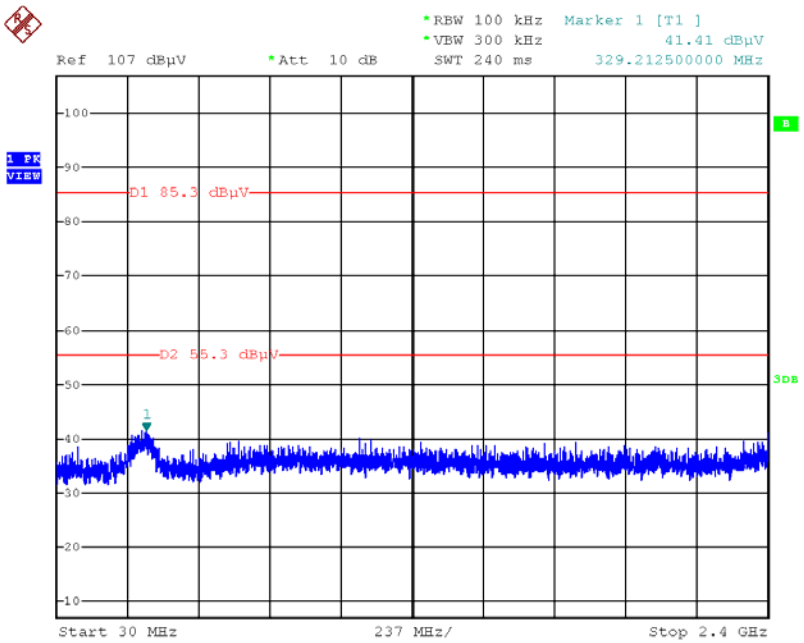


Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 3 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



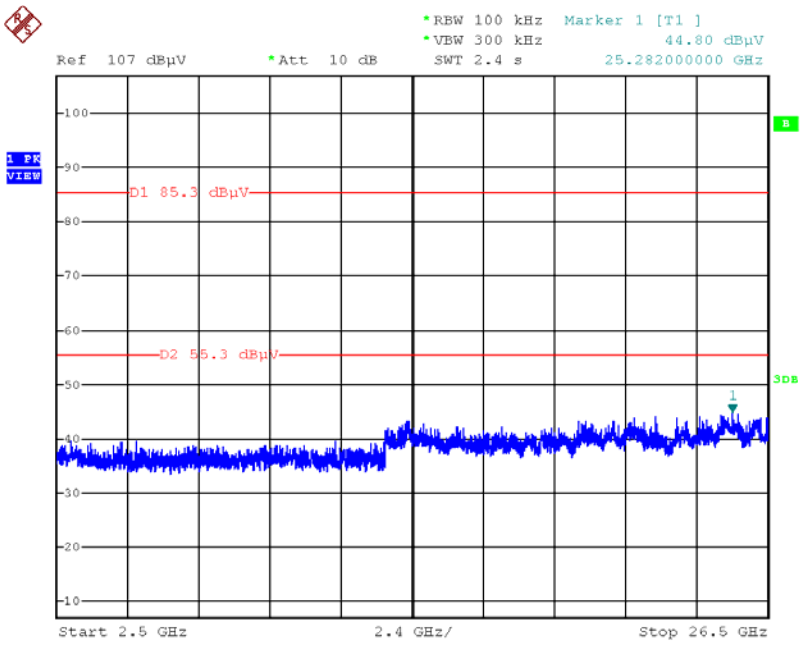
Date: 28.JUN.2013 06:45:25

Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 9 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



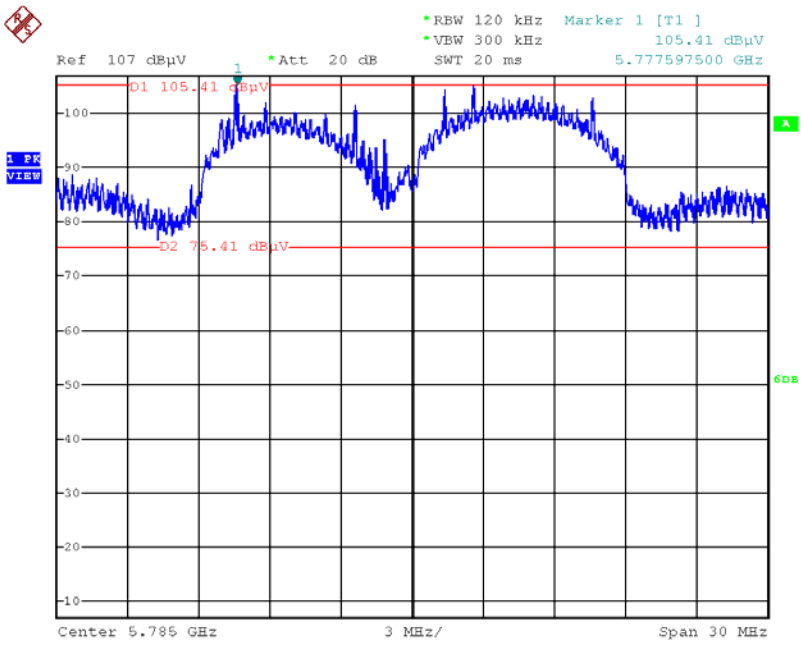
Date: 28.JUN.2013 06:44:05

Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 9 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



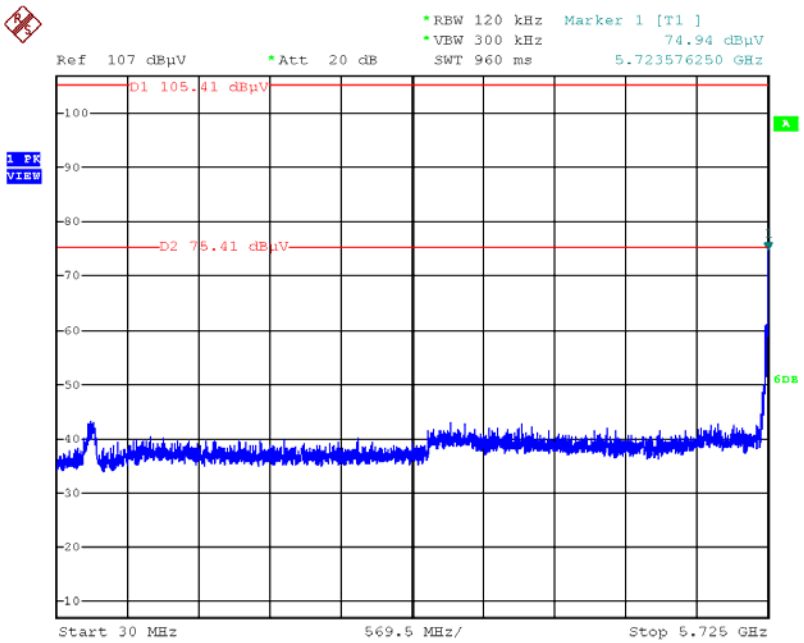
Date: 28.JUN.2013 06:44:30

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



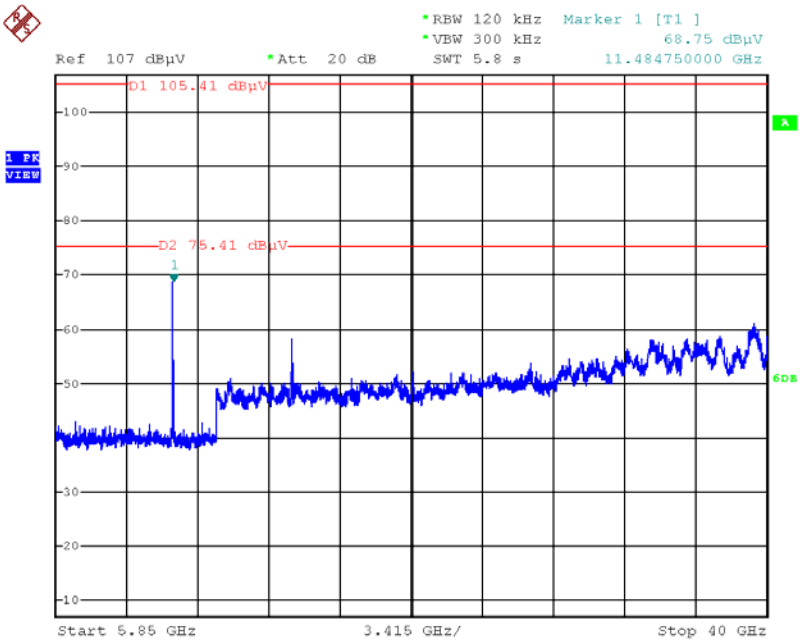
Date: 19.JUL.2013 22:10:09

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 149 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



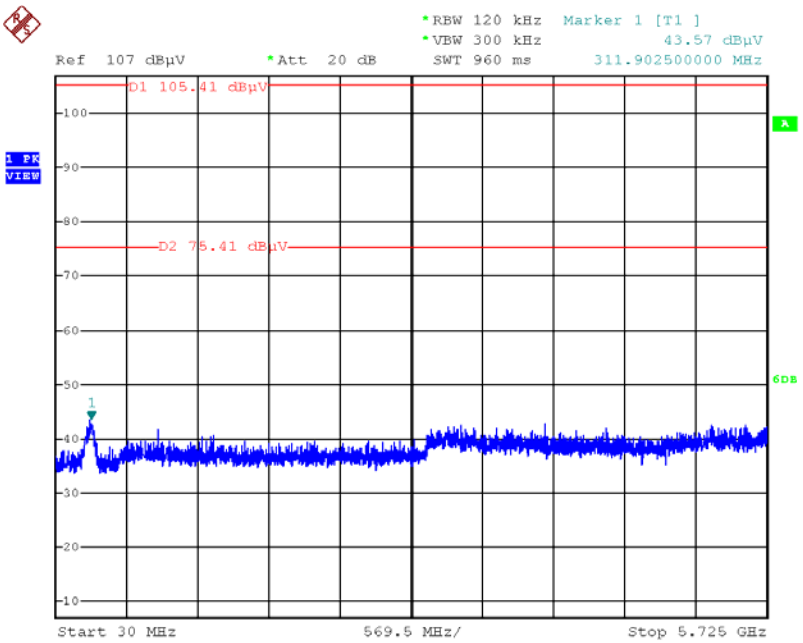
Date: 19.JUL.2013 22:11:19

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 149 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



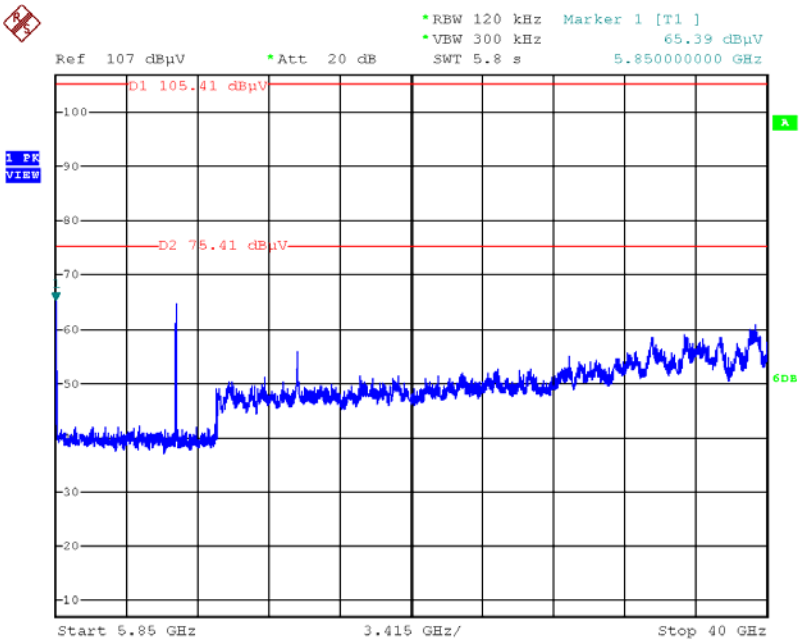
Date: 19.JUL.2013 22:11:55

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 165 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



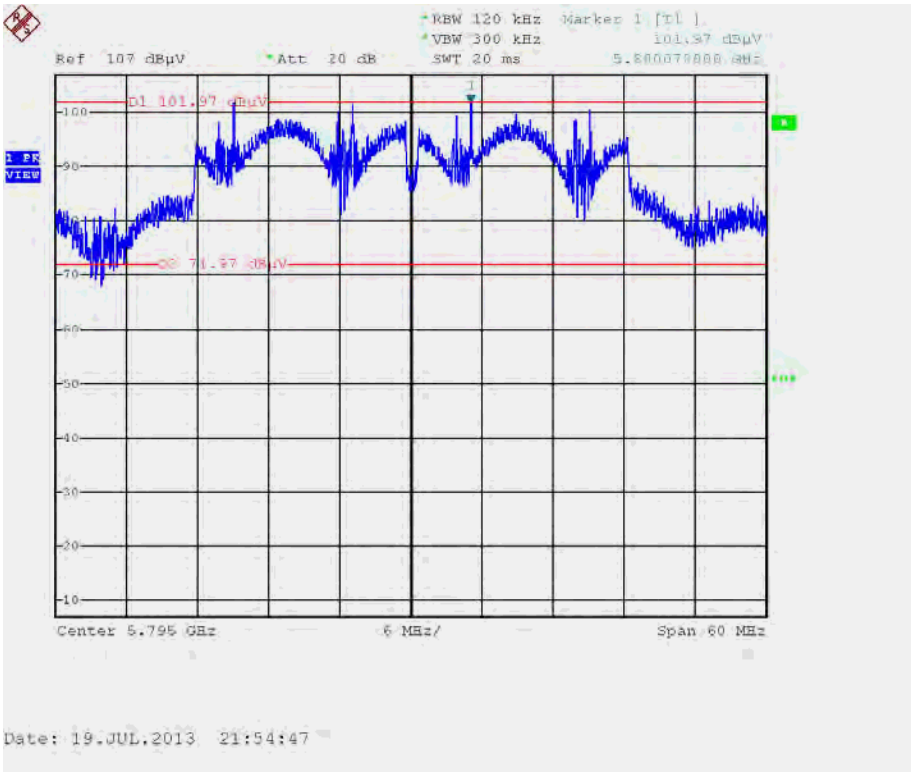
Date: 19.JUL.2013 22:13:09

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 165 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

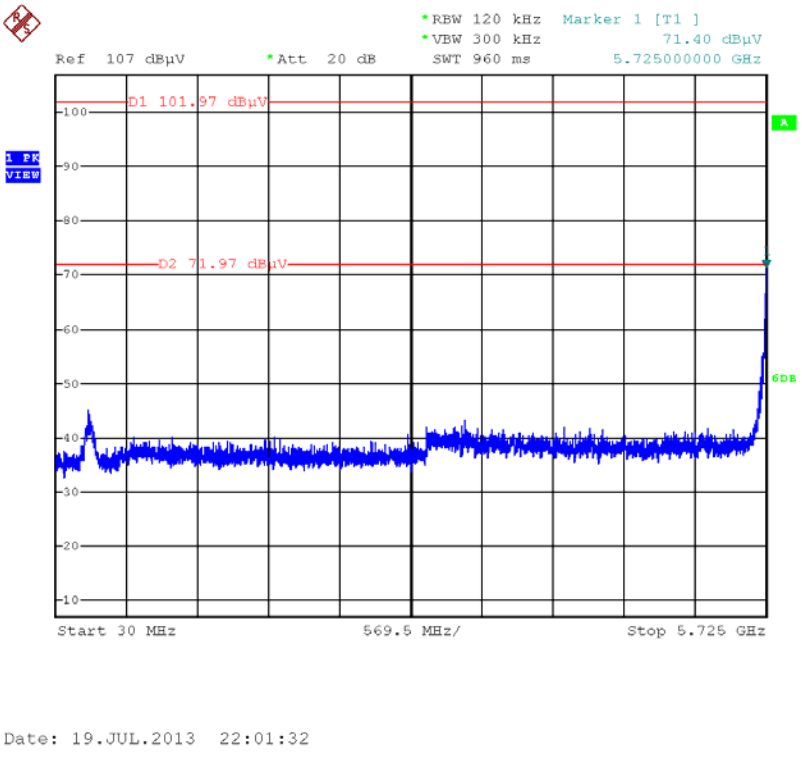


Date: 19.JUL.2013 22:12:51

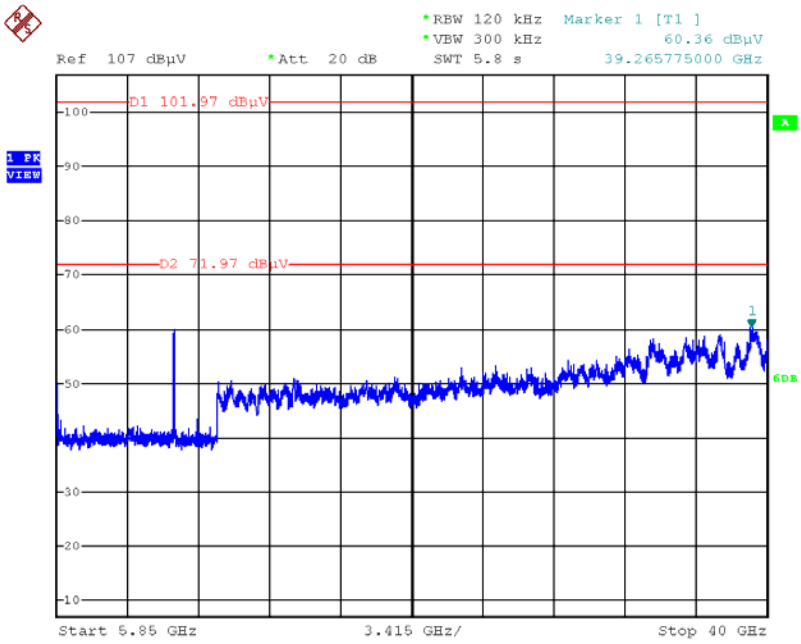
Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 151 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

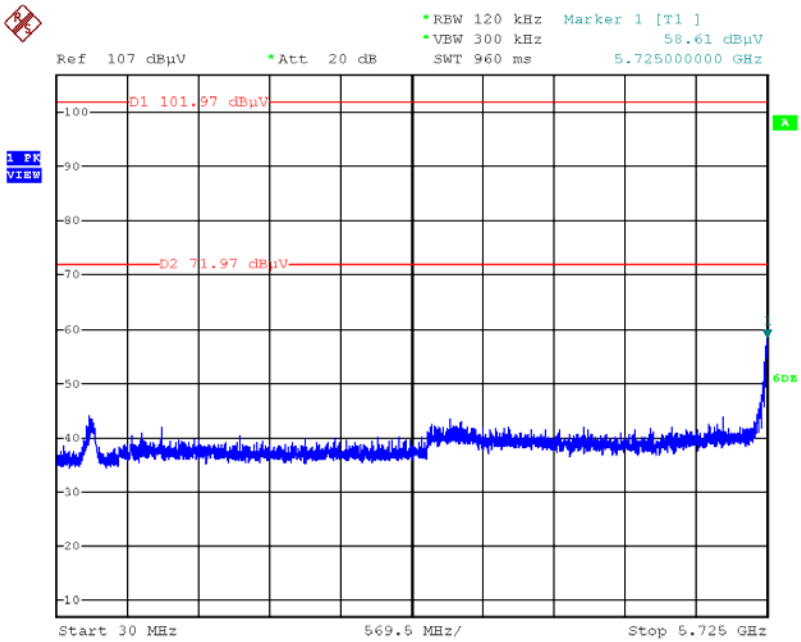


Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 151 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



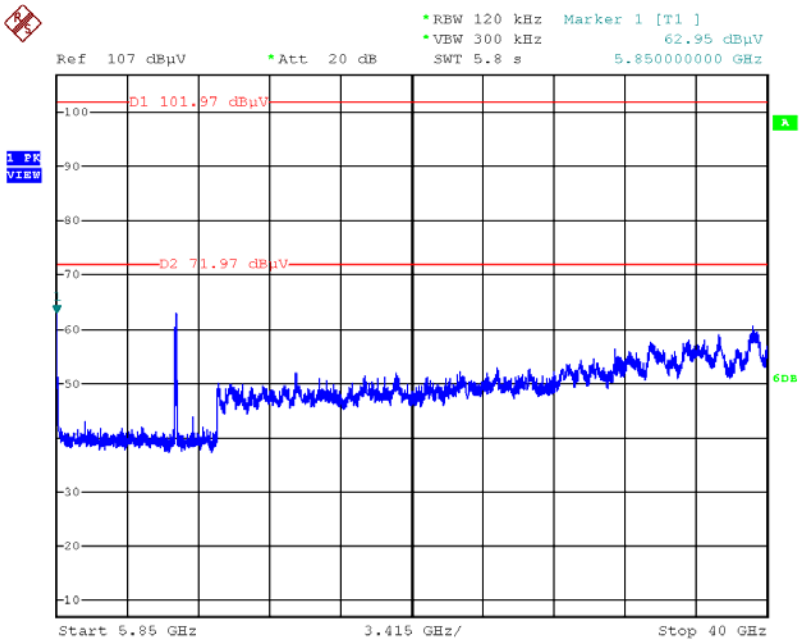
Date: 19.JUL.2013 22:02:04

Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 159 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



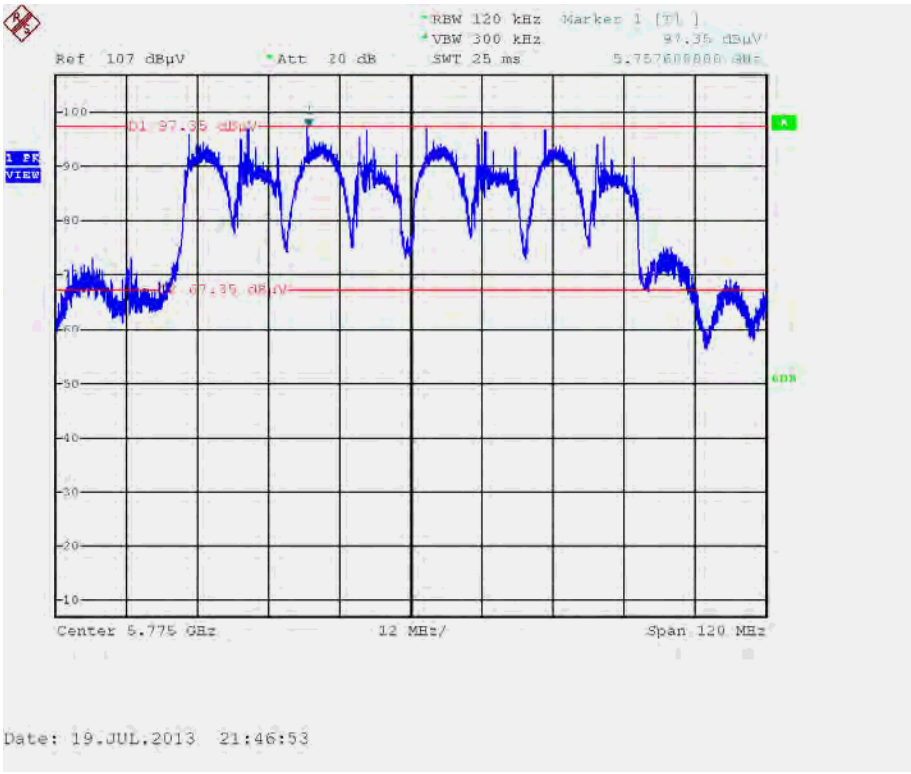
Date: 19.JUL.2013 21:55:09

Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 159 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

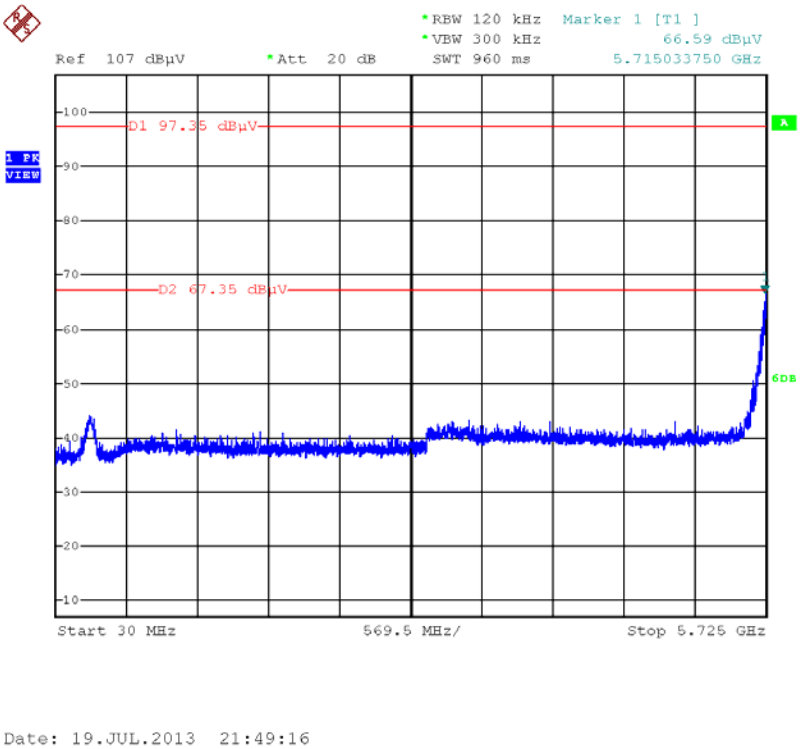


Date: 19.JUL.2013 21:55:41

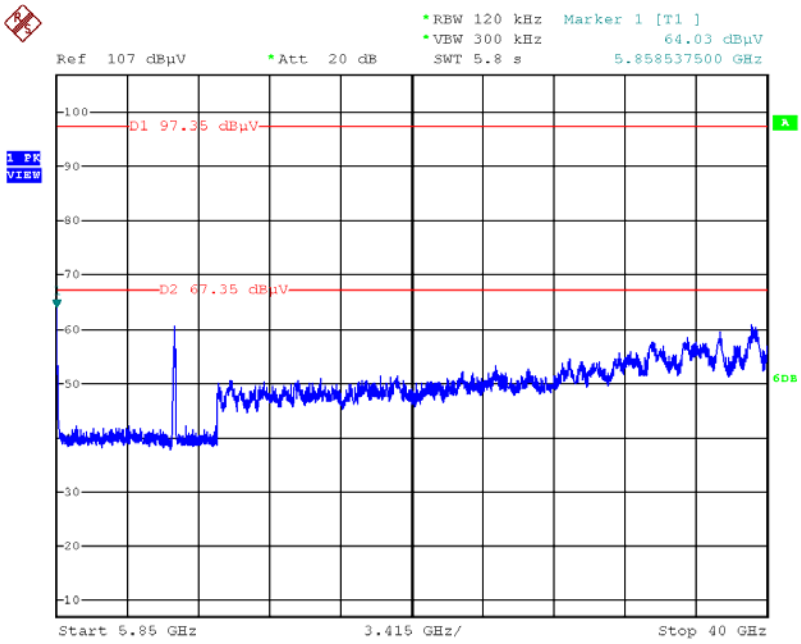
Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / CH 155 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

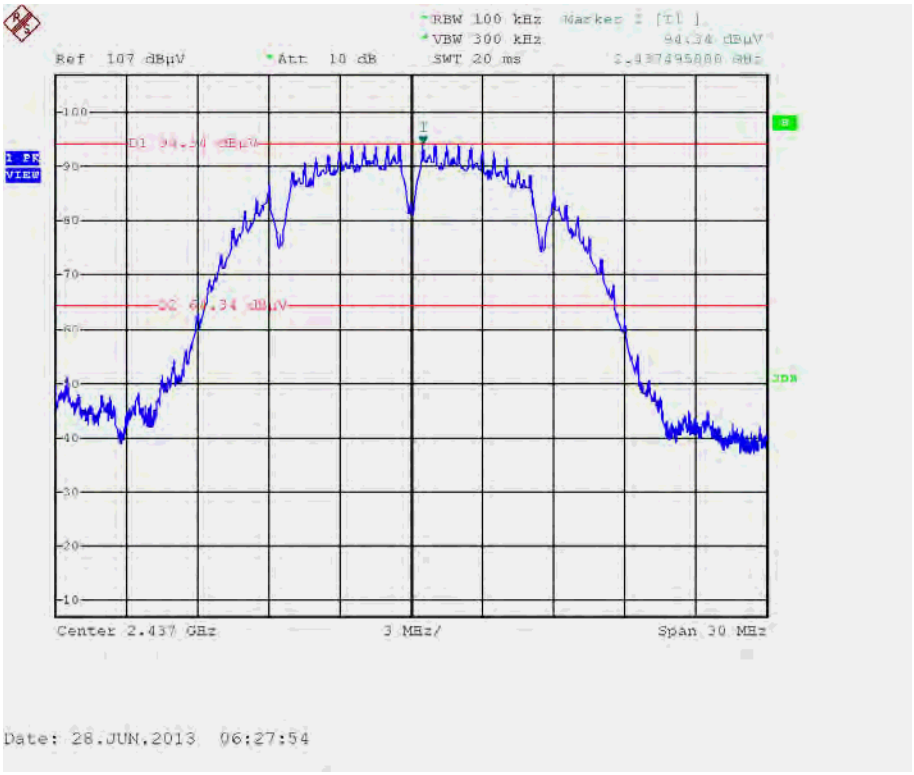


Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / CH 155 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

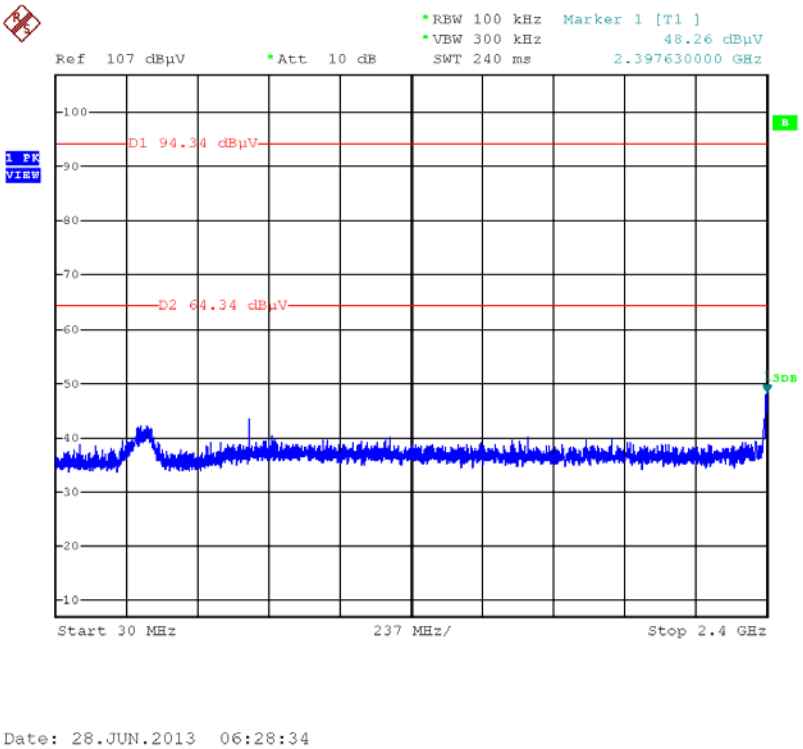


Date: 19.JUL.2013 21:49:57

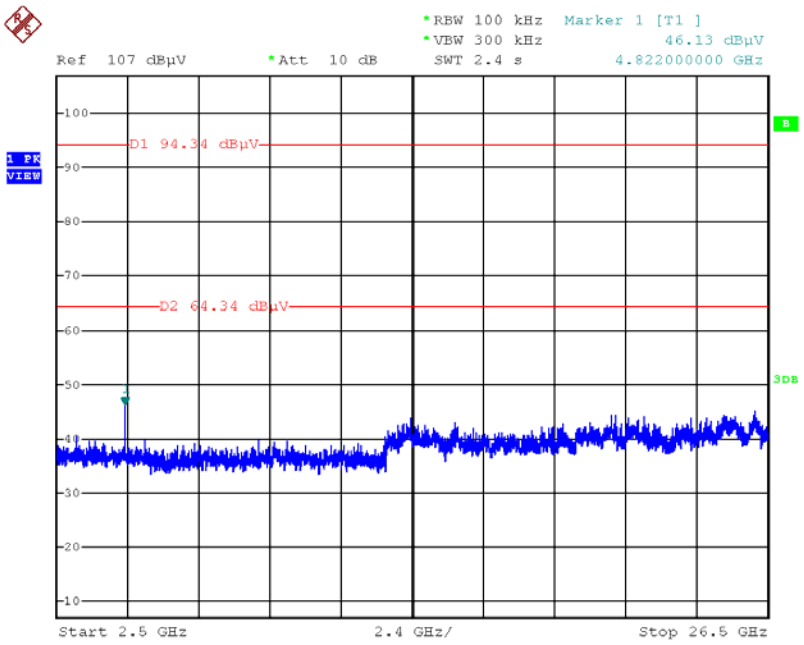
Plot on Configuration IEEE 802.11b / Reference Level / Chain 1 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)

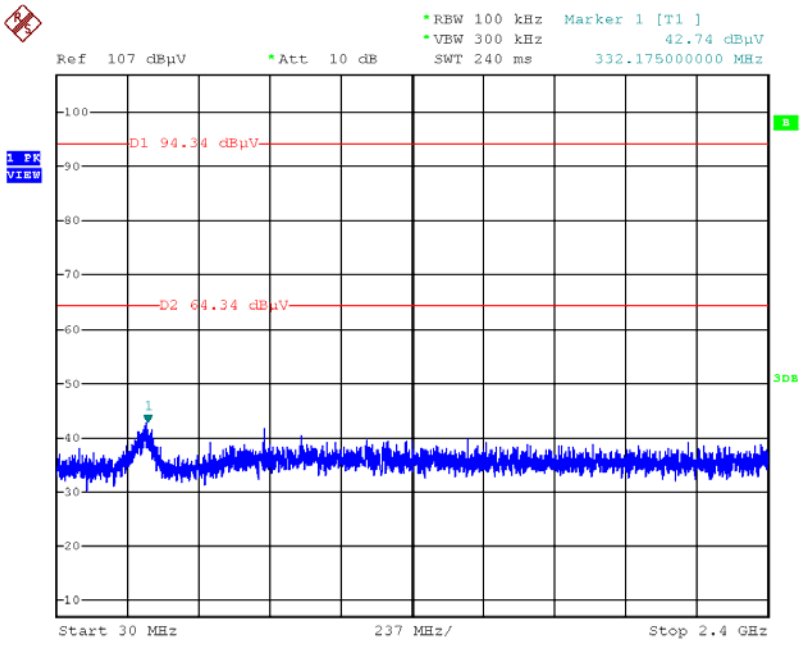


Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)



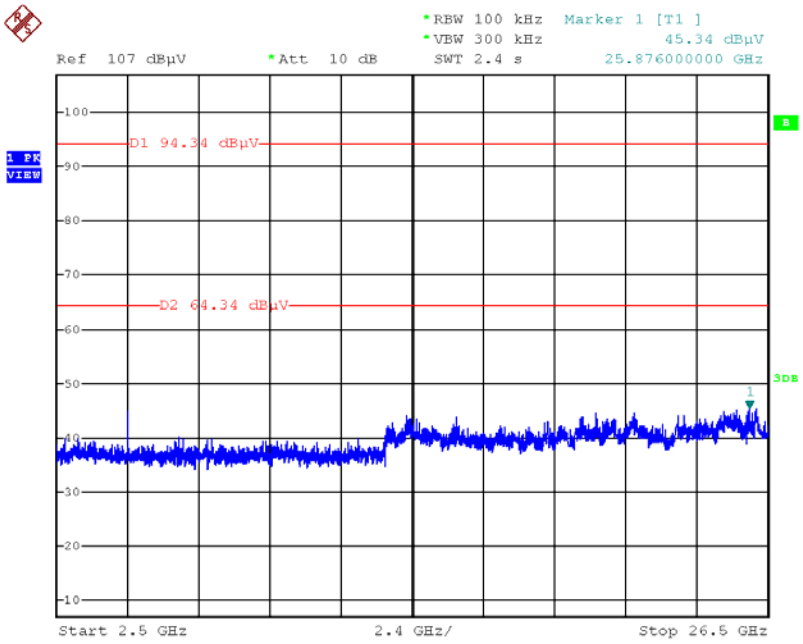
Date: 28.JUN.2013 06:29:00

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)



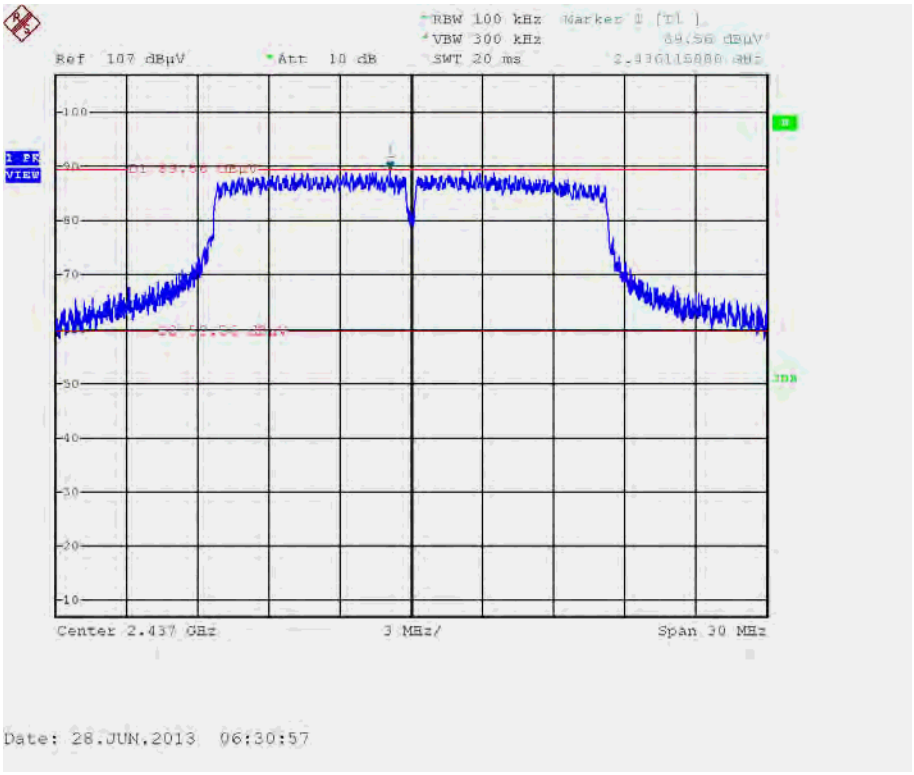
Date: 28.JUN.2013 06:30:03

Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)

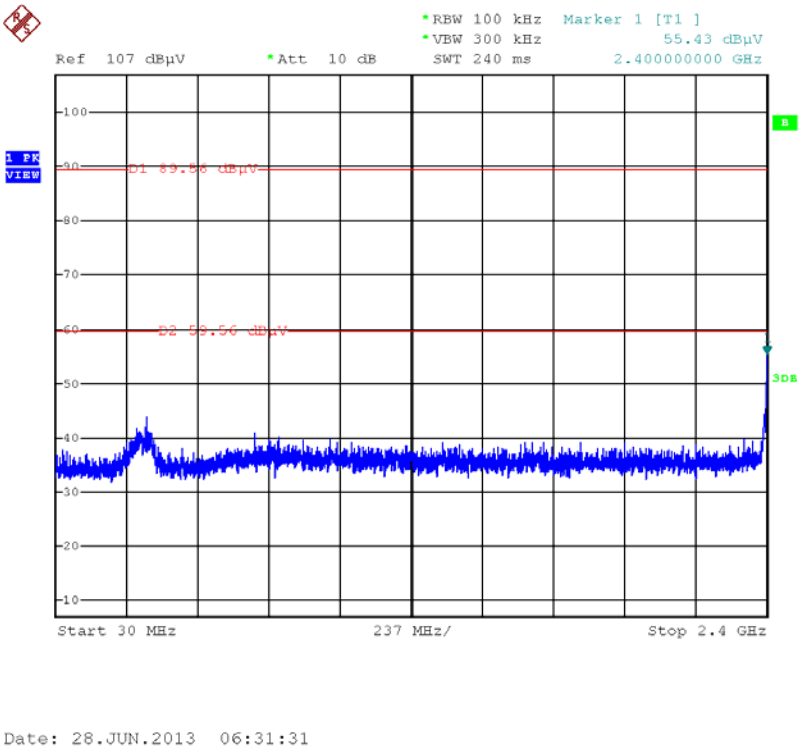


Date: 28.JUN.2013 06:29:35

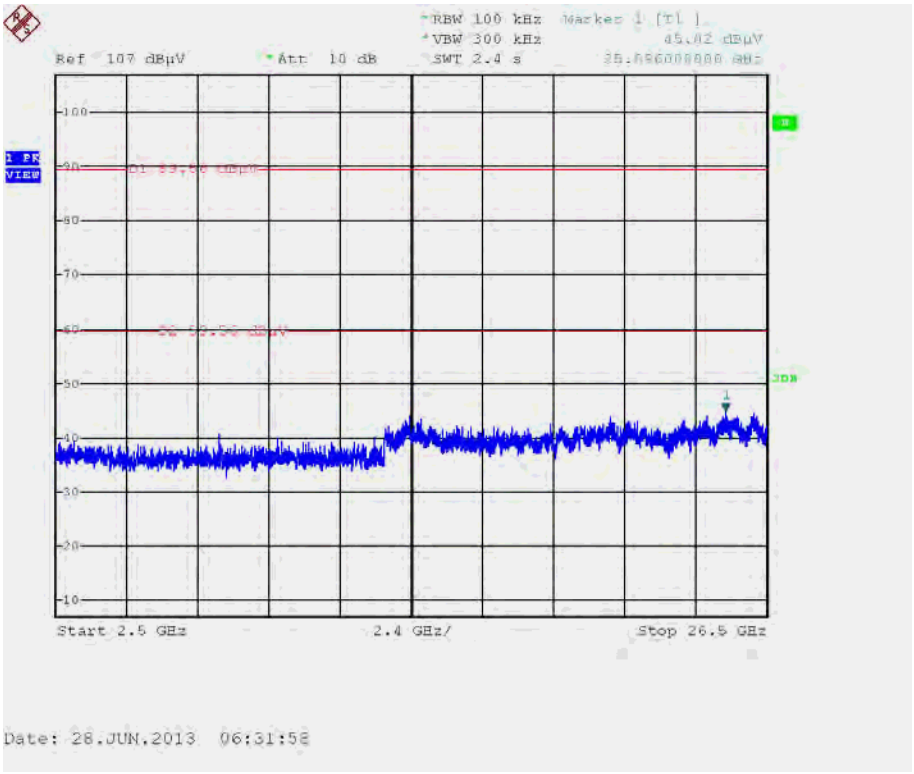
Plot on Configuration IEEE 802.11g / Reference Level / Chain 1 / Test Mode: Mode 1 (EUT 1)



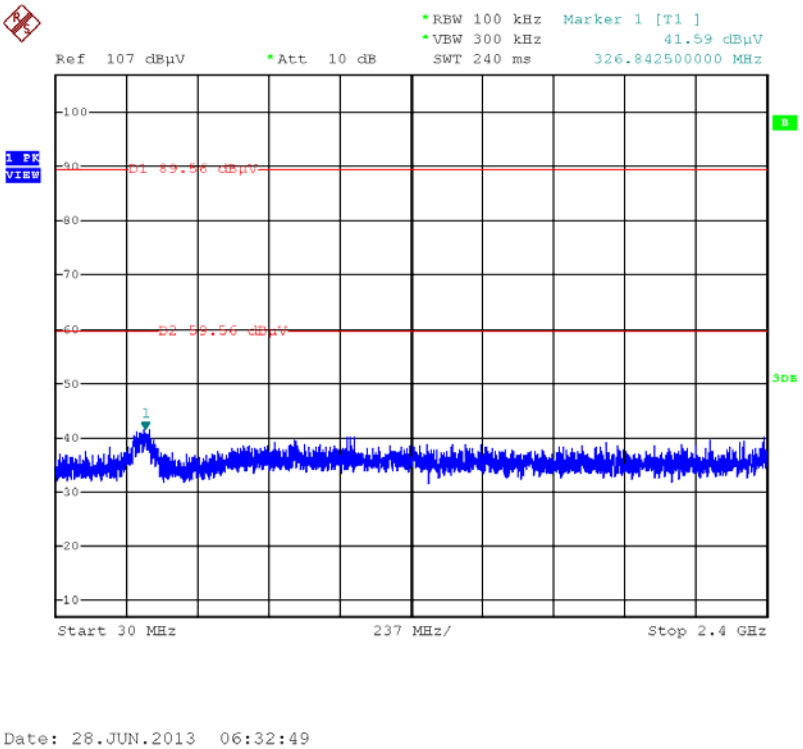
Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)



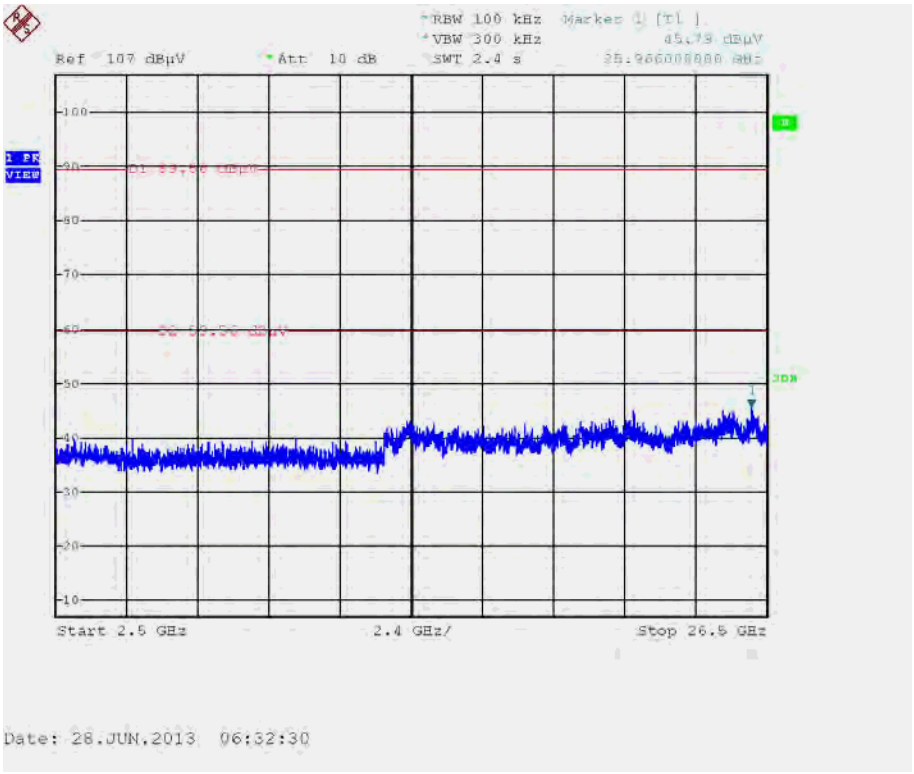
Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)



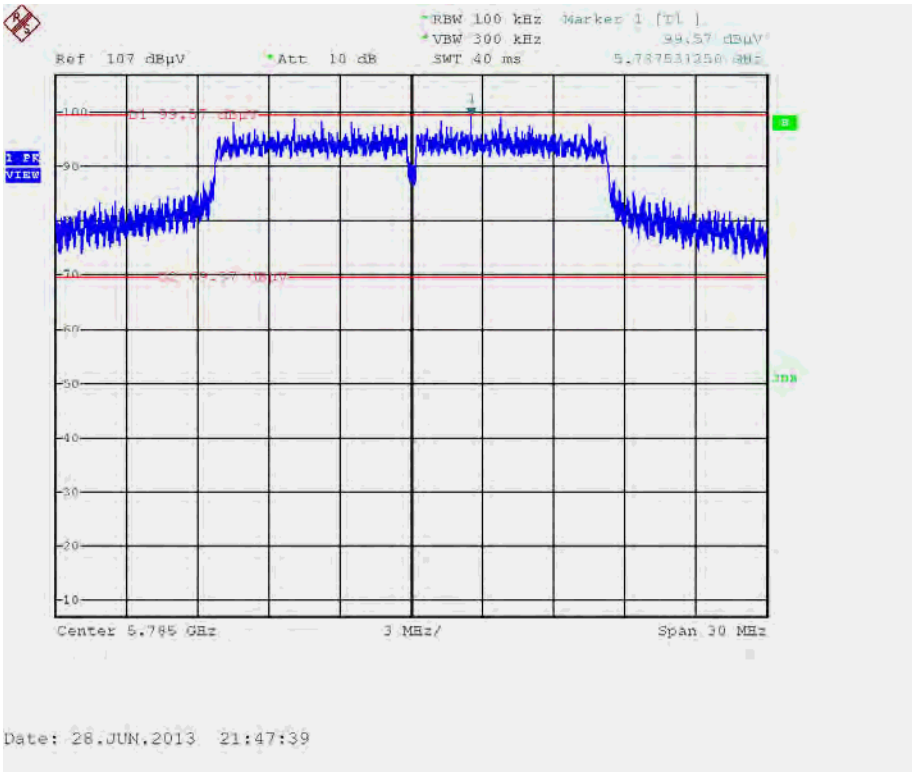
Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)



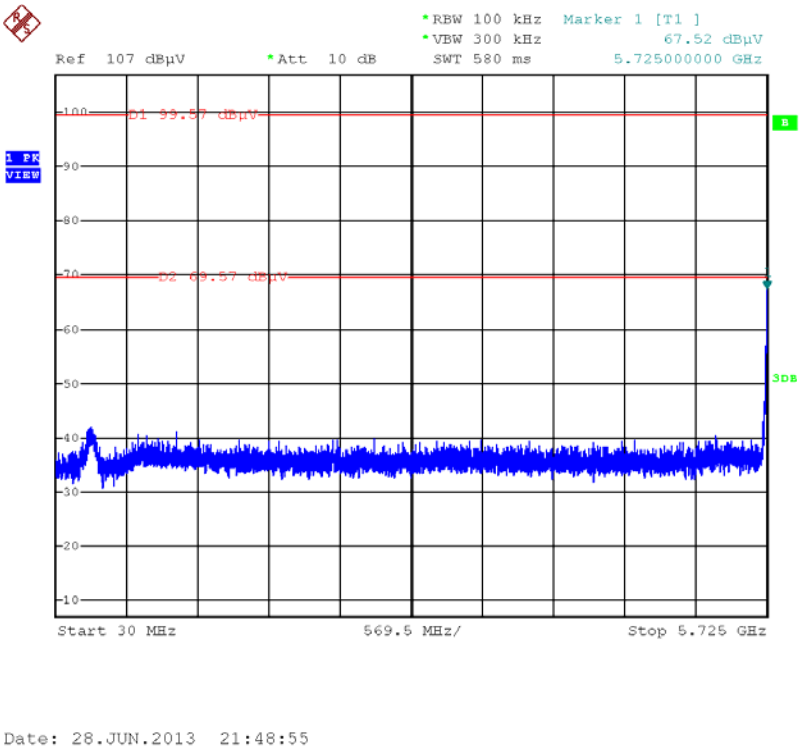
Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 1 (EUT 1)



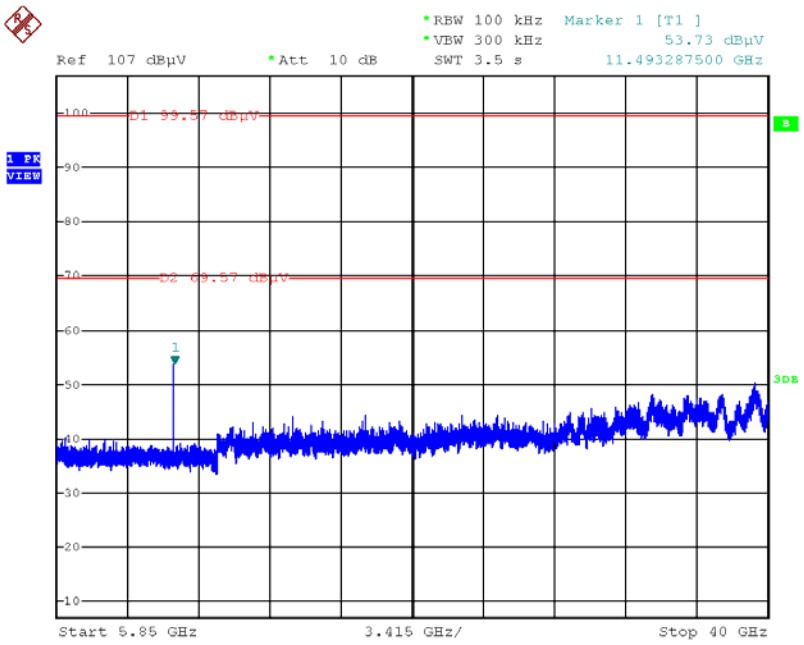
Plot on Configuration IEEE 802.11a / Reference Level / Chain 4 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11a / CH 149 / 30MHz~5725MHz (down 30dBc) / Chain 4 / Test Mode: Mode 1 (EUT 1)

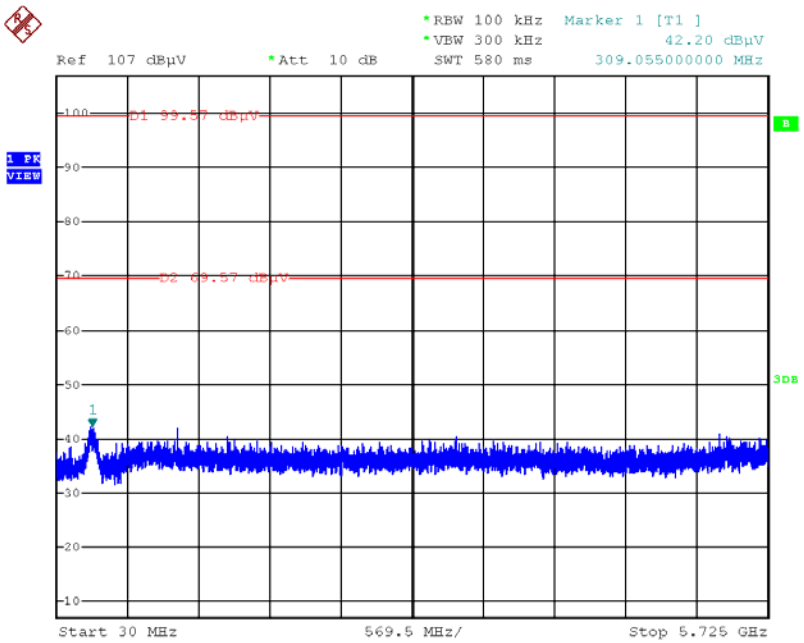


Plot on Configuration IEEE 802.11a / CH 149 / 5850MHz~40000MHz (down 30dBc) / Chain 4 / Test Mode: Mode 1 (EUT 1)



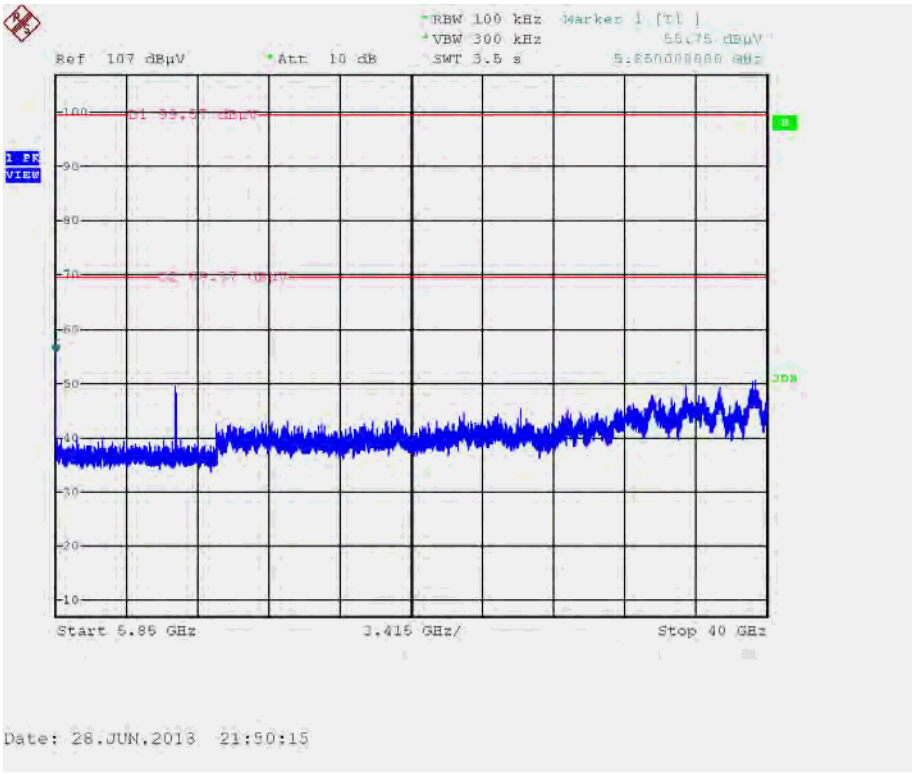
Date: 28.JUN.2013 21:49:35

Plot on Configuration IEEE 802.11a / CH 165 / 30MHz~5725MHz (down 30dBc) / Chain 4 / Test Mode: Mode 1 (EUT 1)

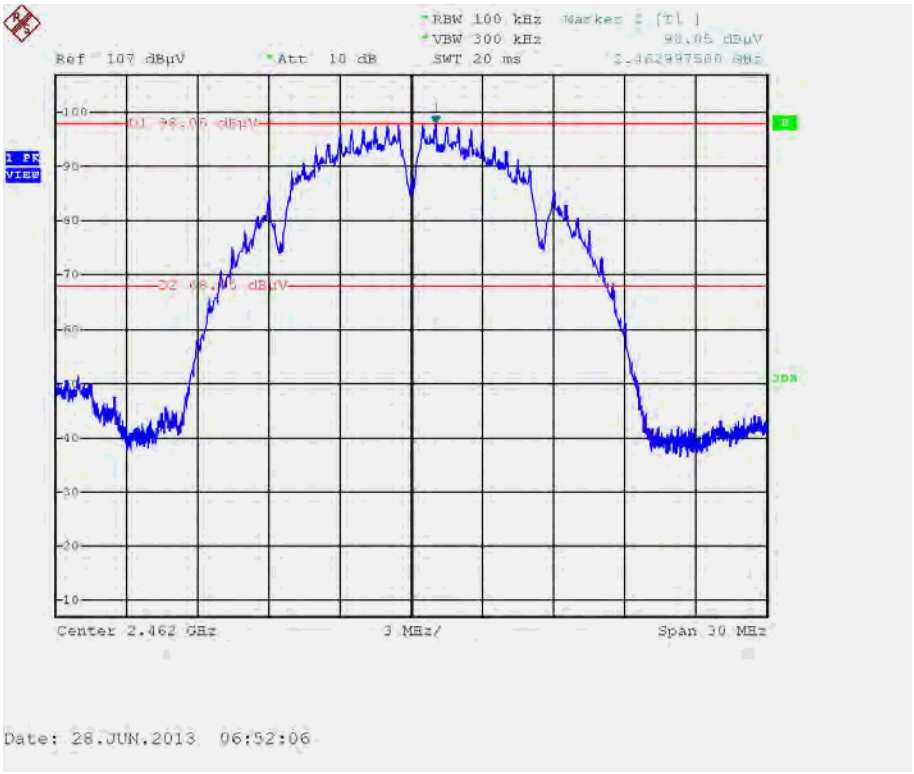


Date: 28.JUN.2013 21:50:46

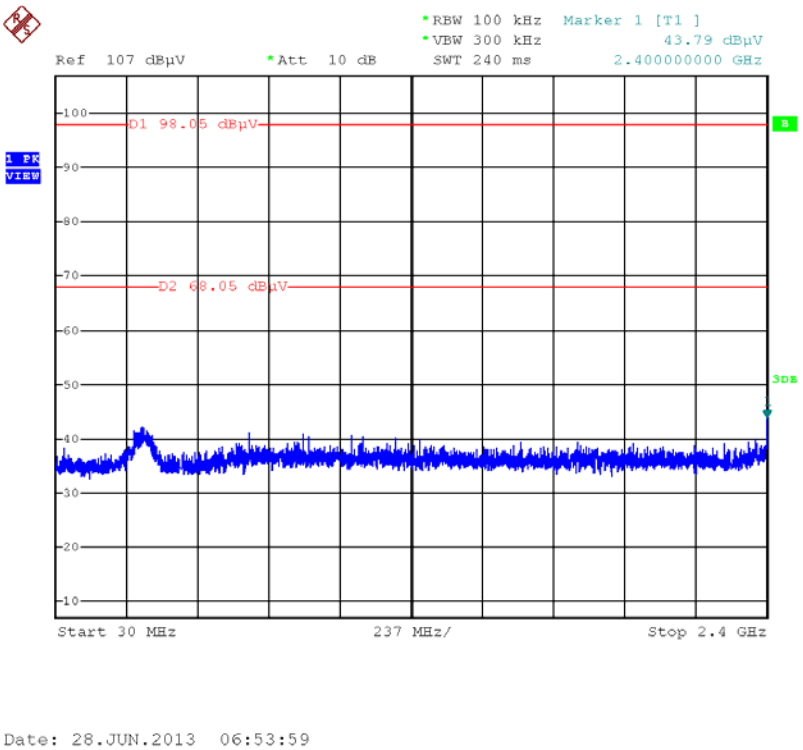
Plot on Configuration IEEE 802.11a / CH 165 / 5850MHz~40000MHz (down 30dBc) / Chain 4 / Test Mode: Mode 1 (EUT 1)



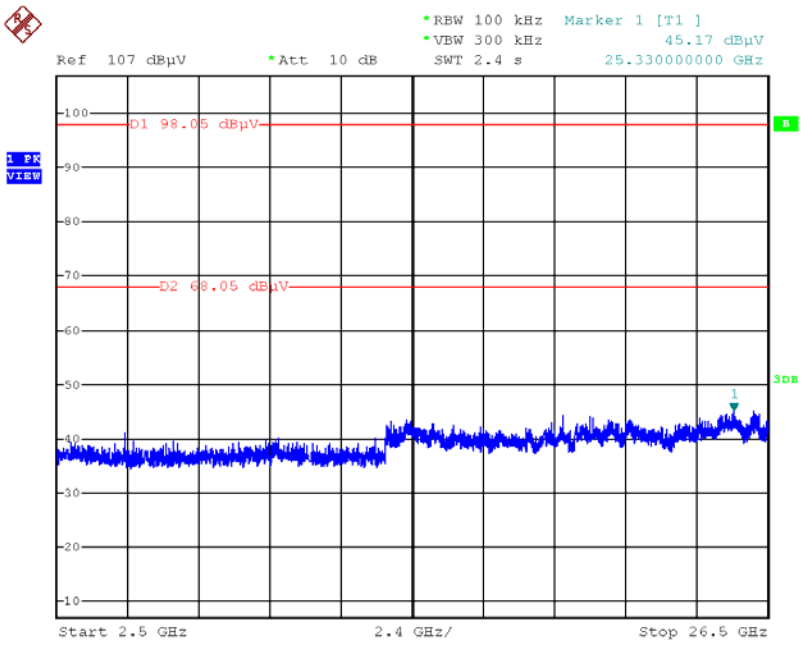
Plot on Configuration IEEE 802.11b / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

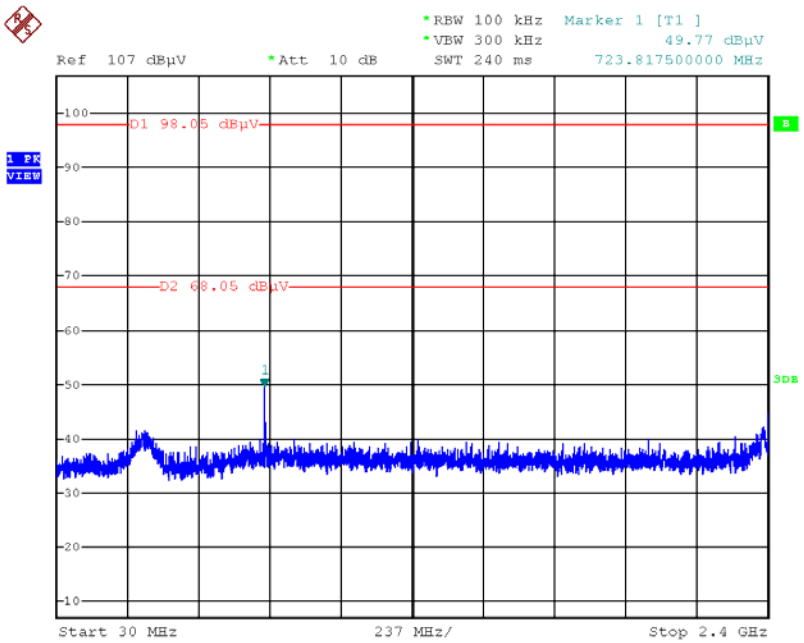


Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



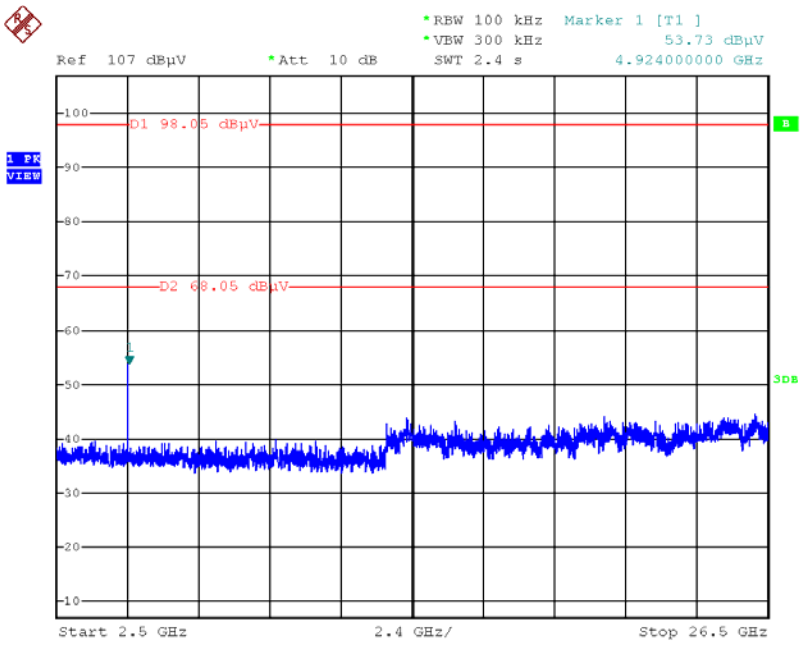
Date: 28.JUN.2013 06:54:28

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



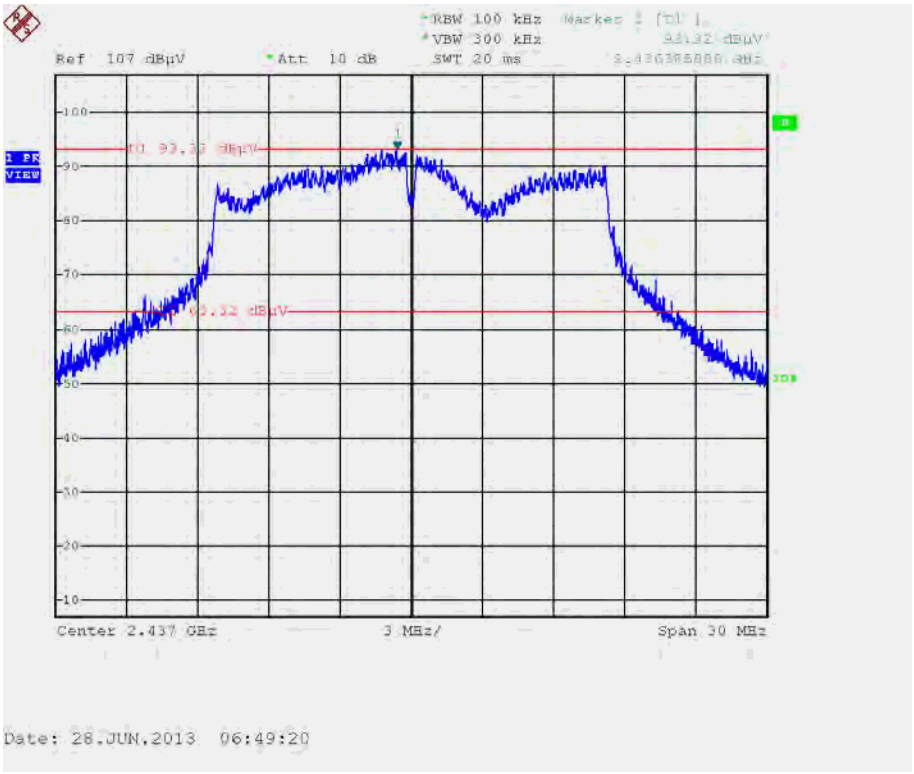
Date: 28.JUN.2013 06:52:43

Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

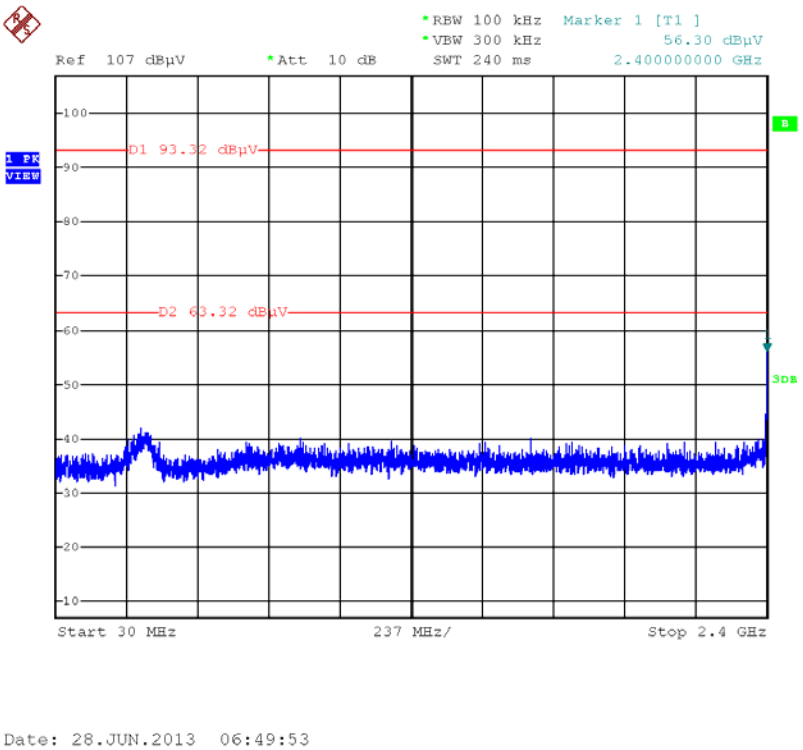


Date: 28.JUN.2013 06:53:08

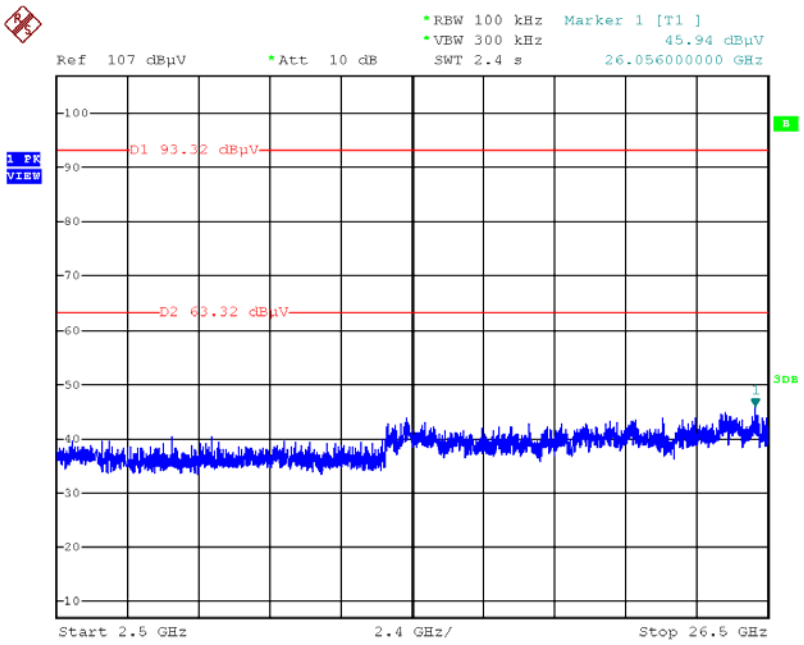
Plot on Configuration IEEE 802.11g / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)

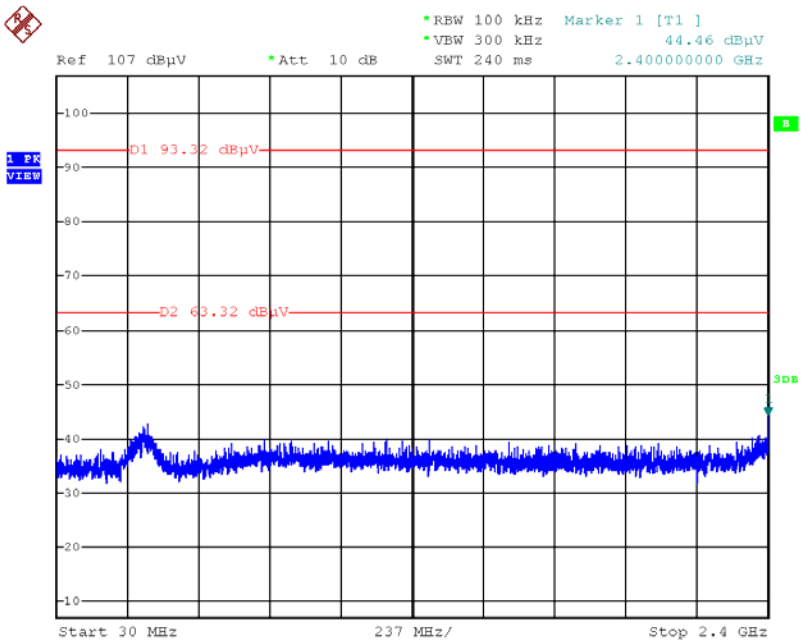


Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



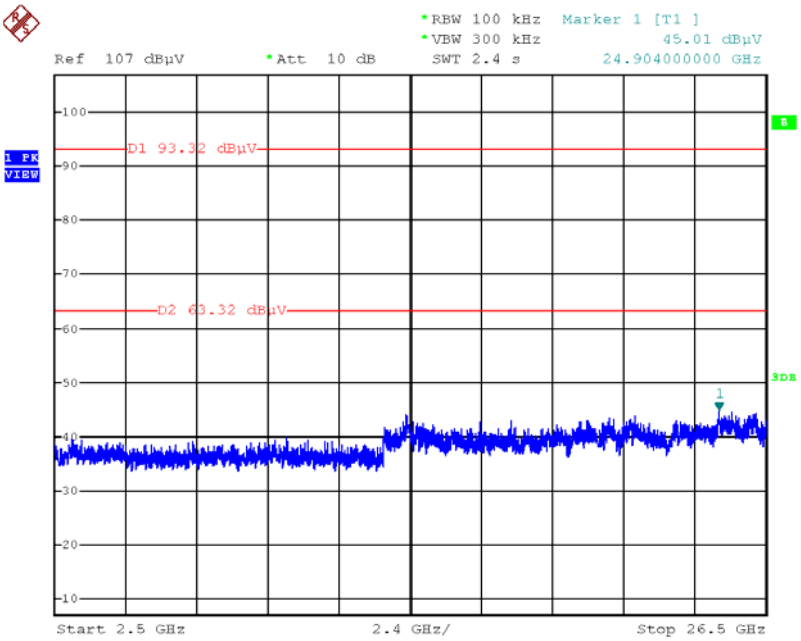
Date: 28.JUN.2013 06:50:18

Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



Date: 28.JUN.2013 06:51:13

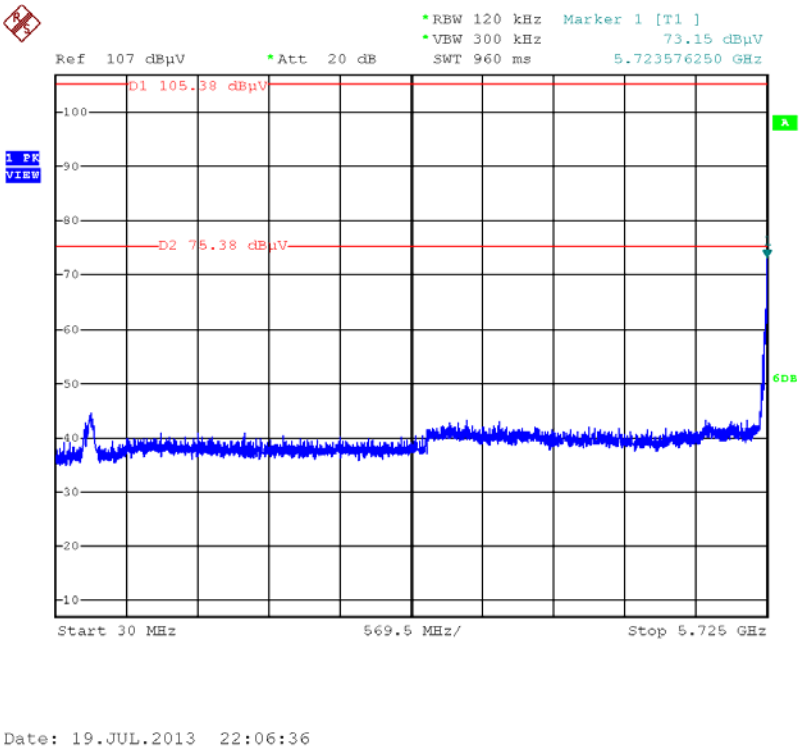
Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 1 (EUT 1)



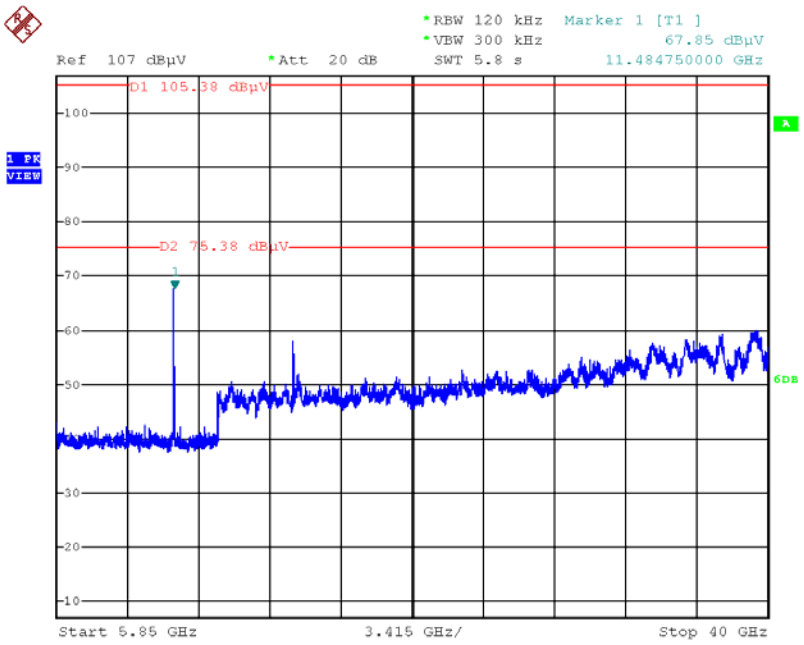
Date: 28.JUN.2013 06:50:51

Plot on Configuration IEEE 802.11a / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

Plot on Configuration IEEE 802.11a / CH 149 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

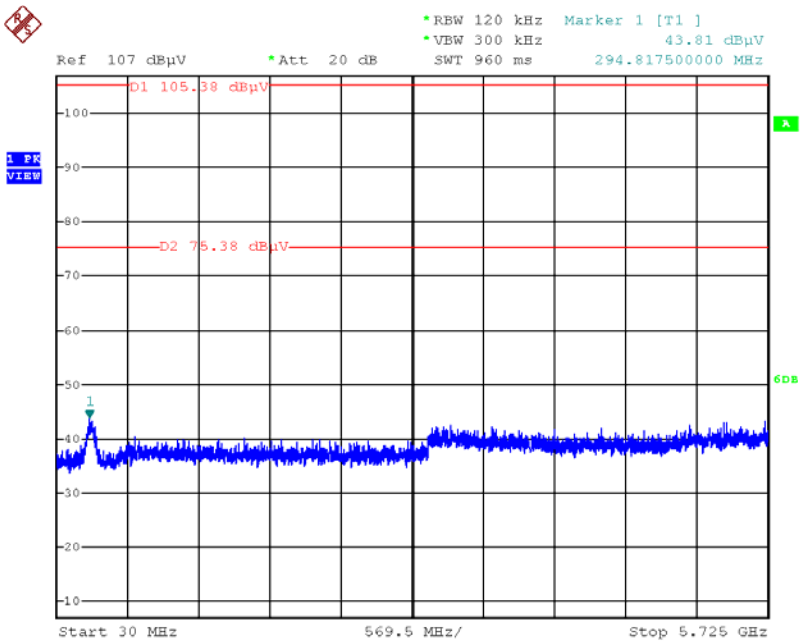


Plot on Configuration IEEE 802.11a / CH 149 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



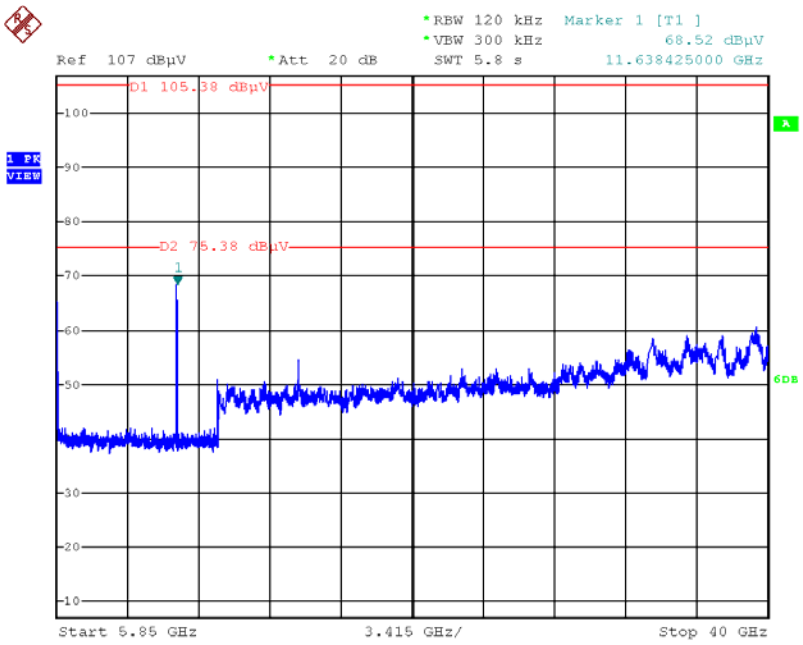
Date: 19.JUL.2013 22:06:58

Plot on Configuration IEEE 802.11a / CH 165 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)



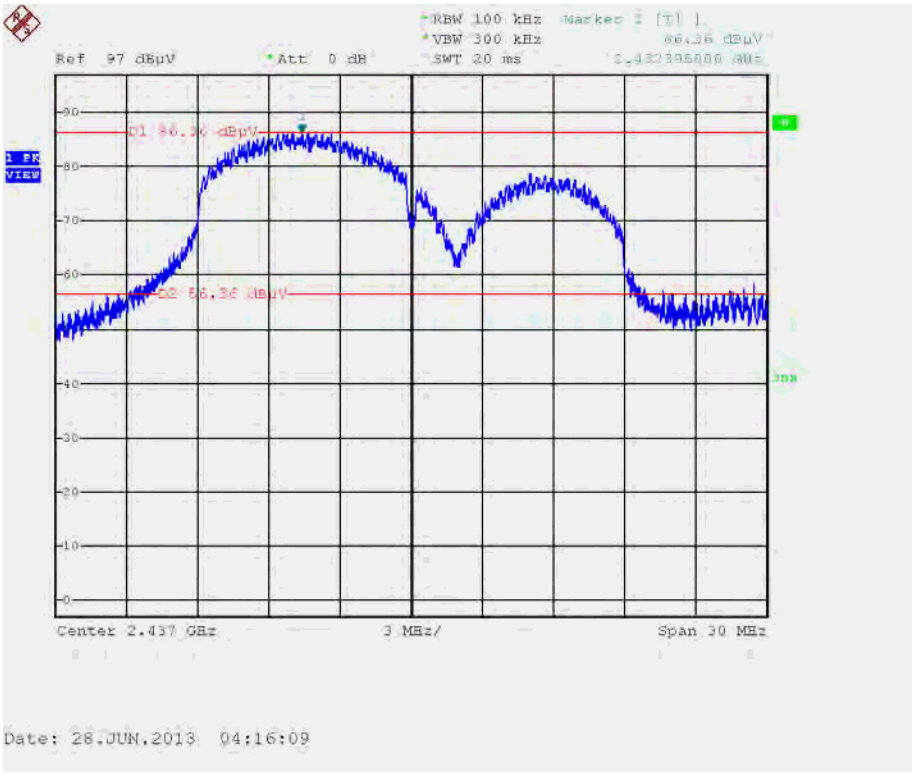
Date: 19.JUL.2013 22:08:27

Plot on Configuration IEEE 802.11a / CH 165 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 1 (EUT 1)

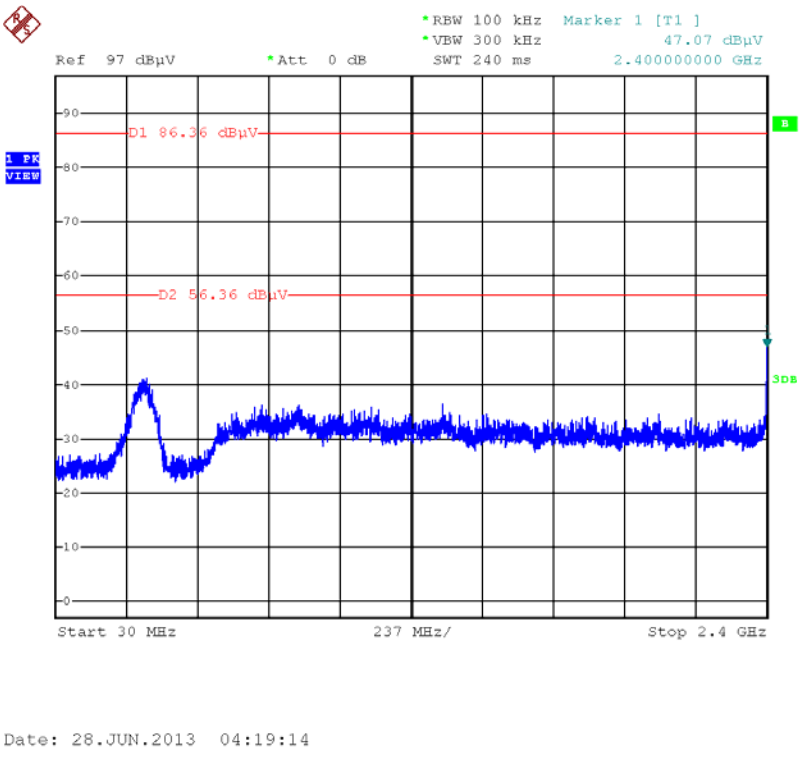


Date: 19.JUL.2013 22:08:07

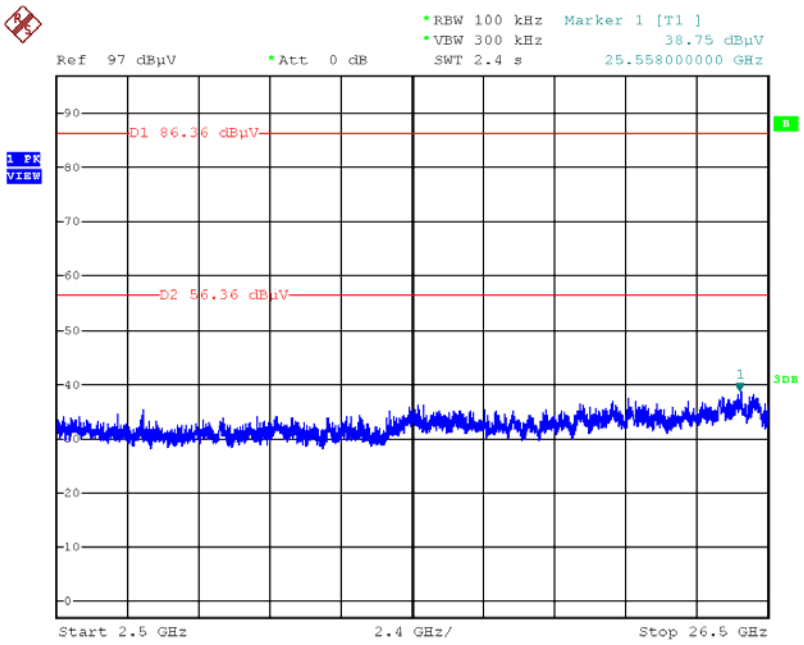
Plot on Configuration IEEE 802.11n MCS0 20MHz / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

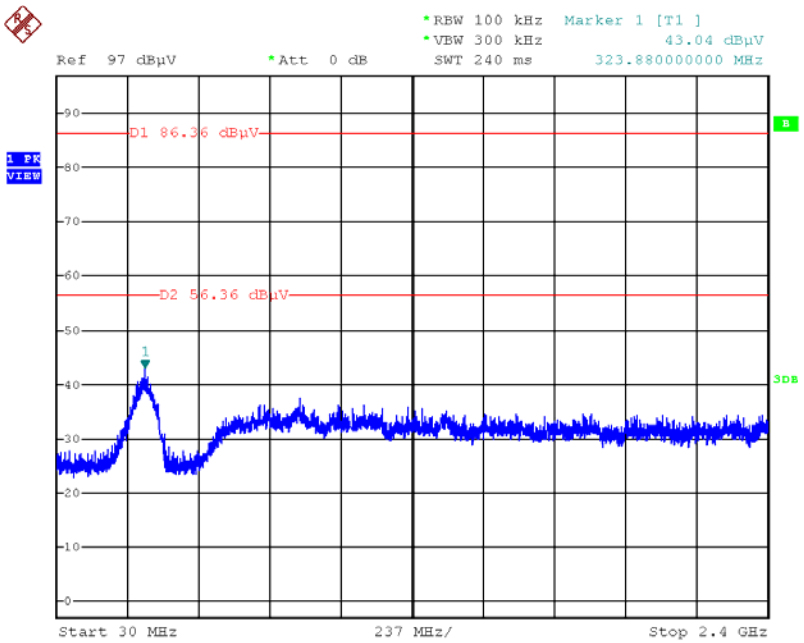


Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



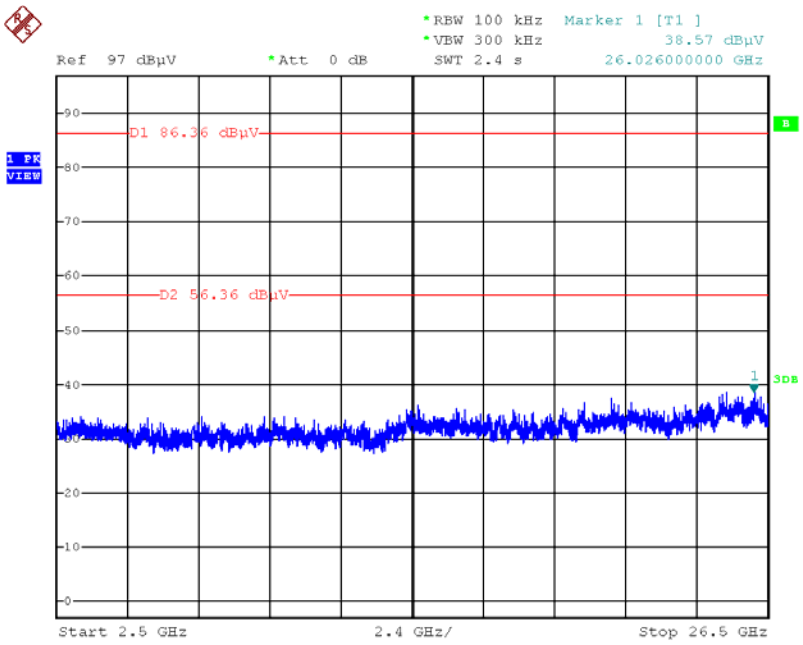
Date: 28.JUN.2013 04:18:49

Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



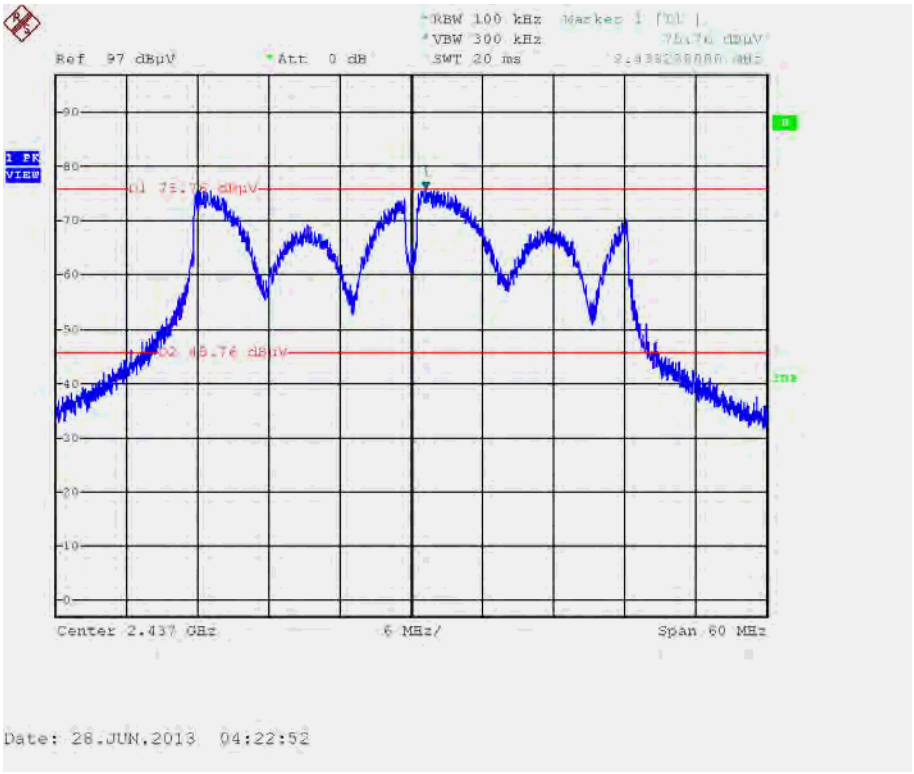
Date: 28.JUN.2013 04:17:03

Plot on Configuration IEEE 802.11n MCS0 20MHz / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

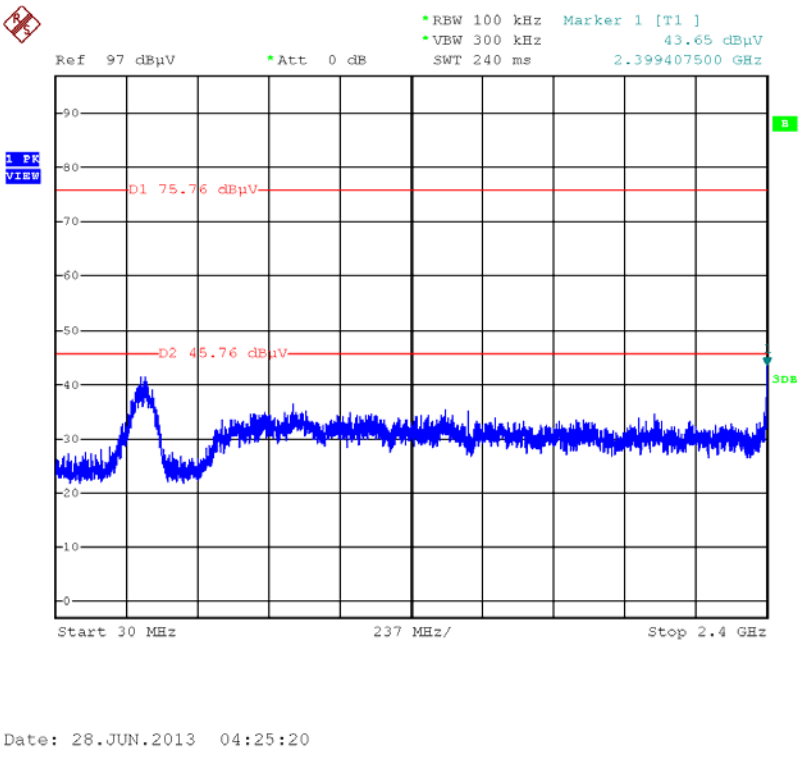


Date: 28.JUN.2013 04:17:31

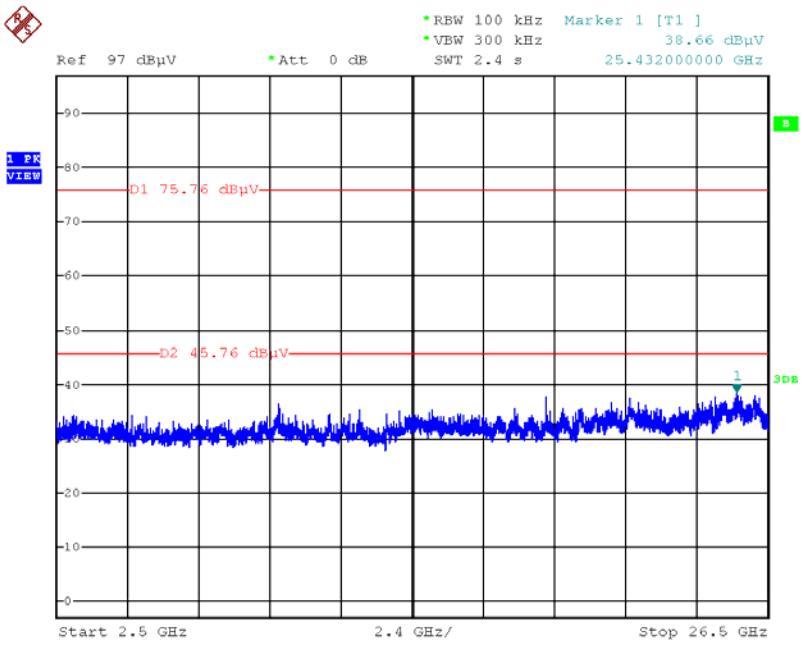
Plot on Configuration IEEE 802.11n MCS0 40MHz / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 3 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

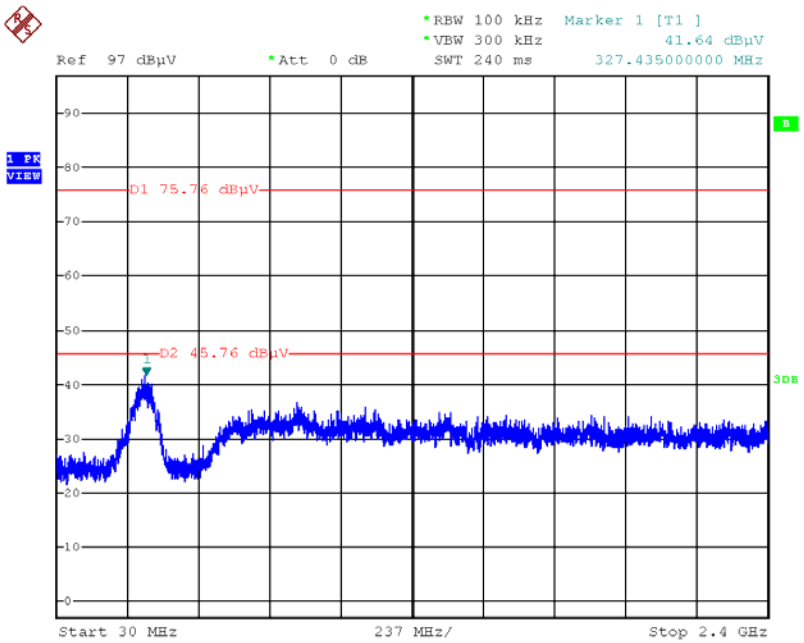


Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 3 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



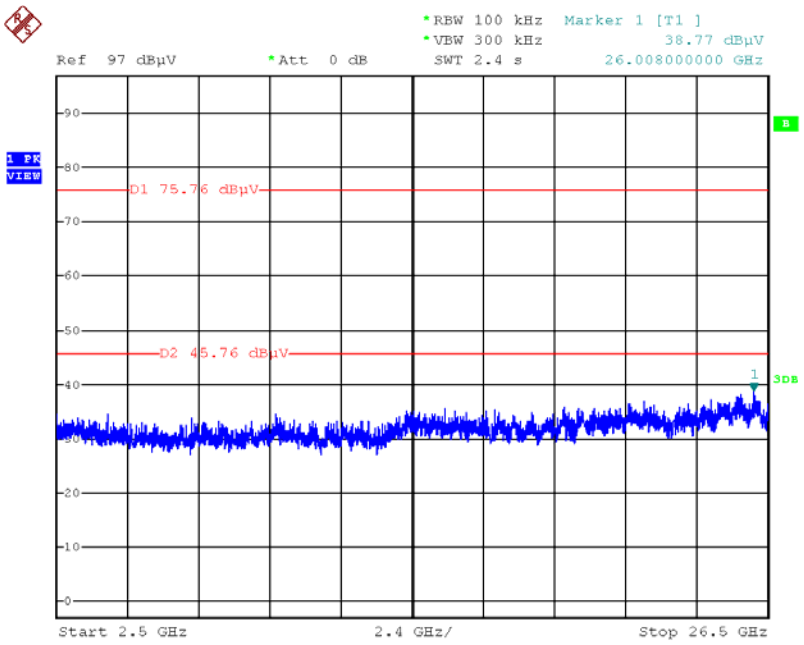
Date: 28.JUN.2013 04:24:57

Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 9 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



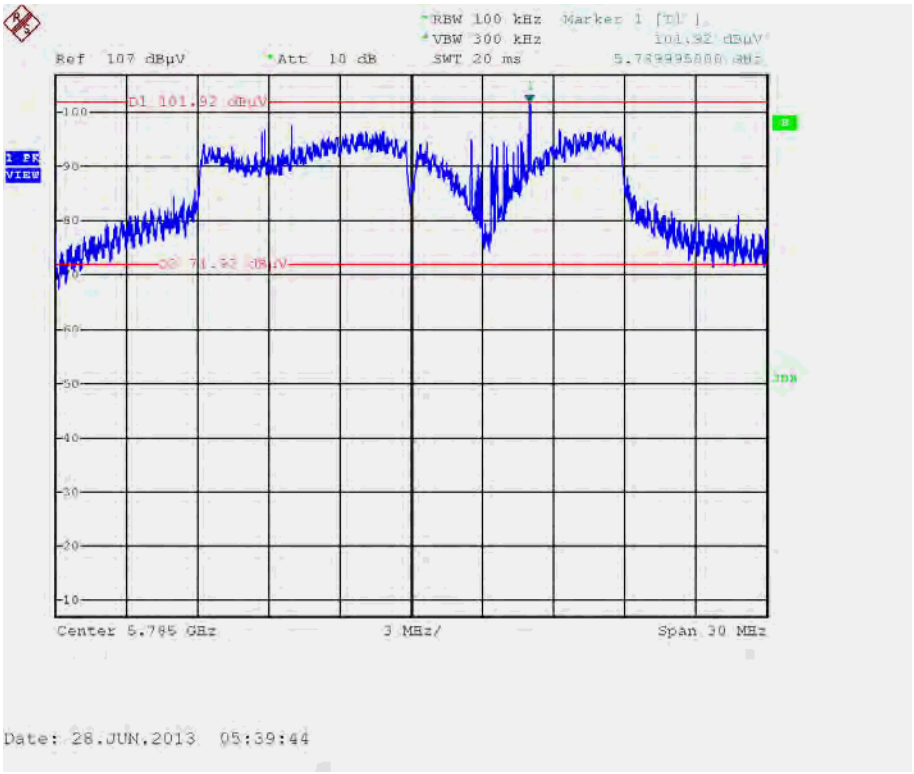
Date: 28.JUN.2013 04:23:31

Plot on Configuration IEEE 802.11n MCS0 40MHz / CH 9 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

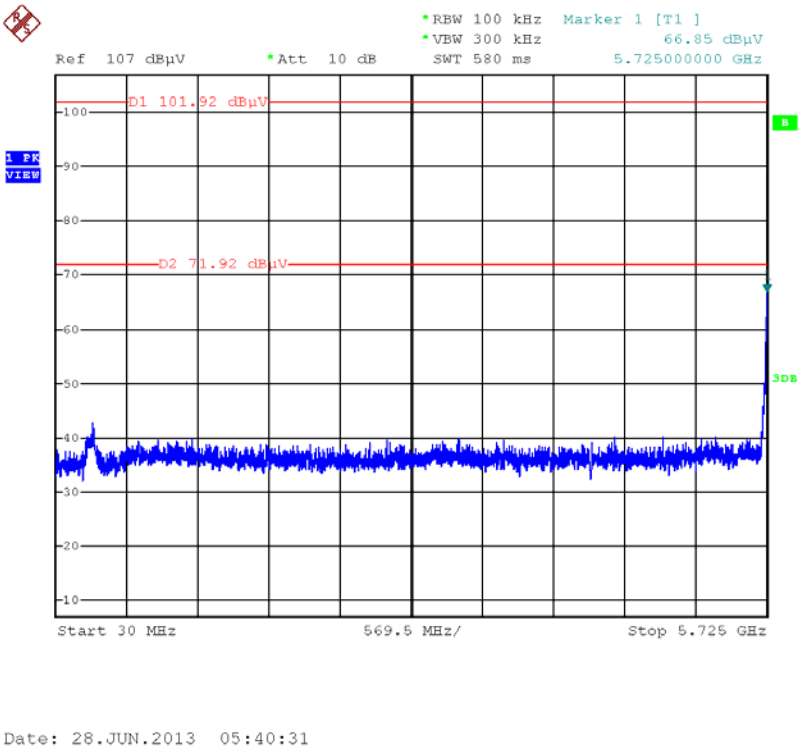


Date: 28.JUN.2013 04:24:02

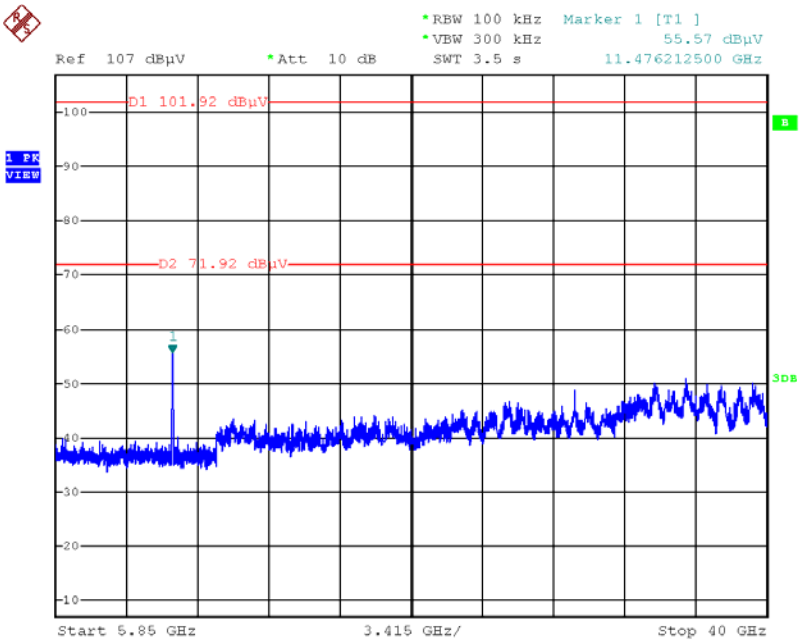
Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 149 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)

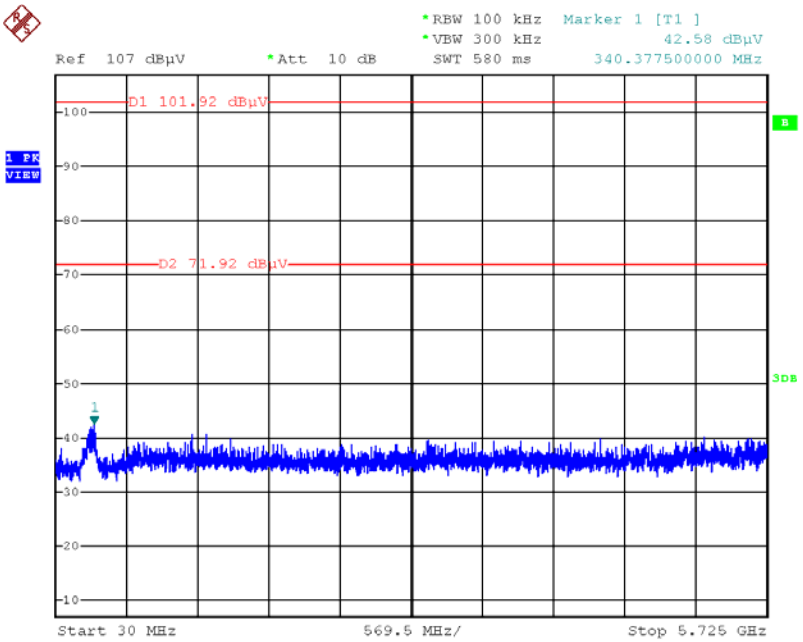


Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 149 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



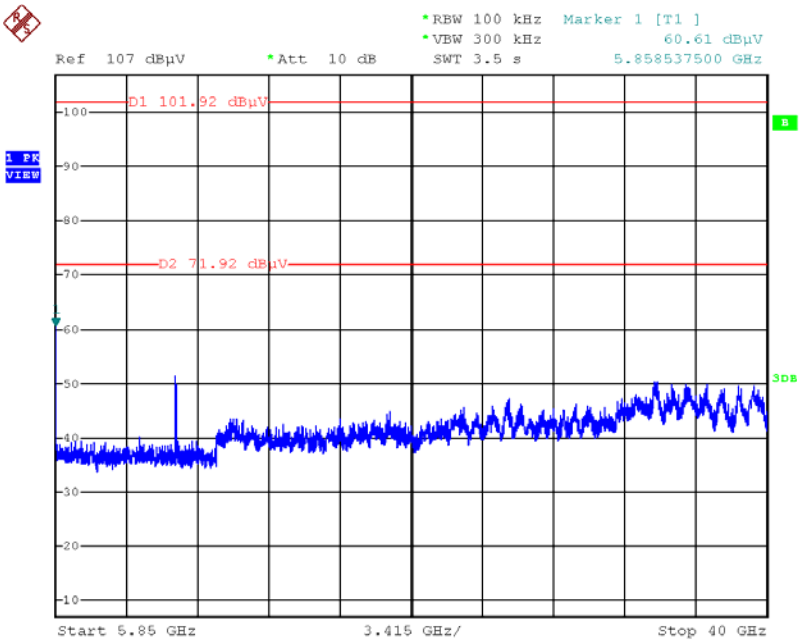
Date: 28.JUN.2013 05:41:12

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 165 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



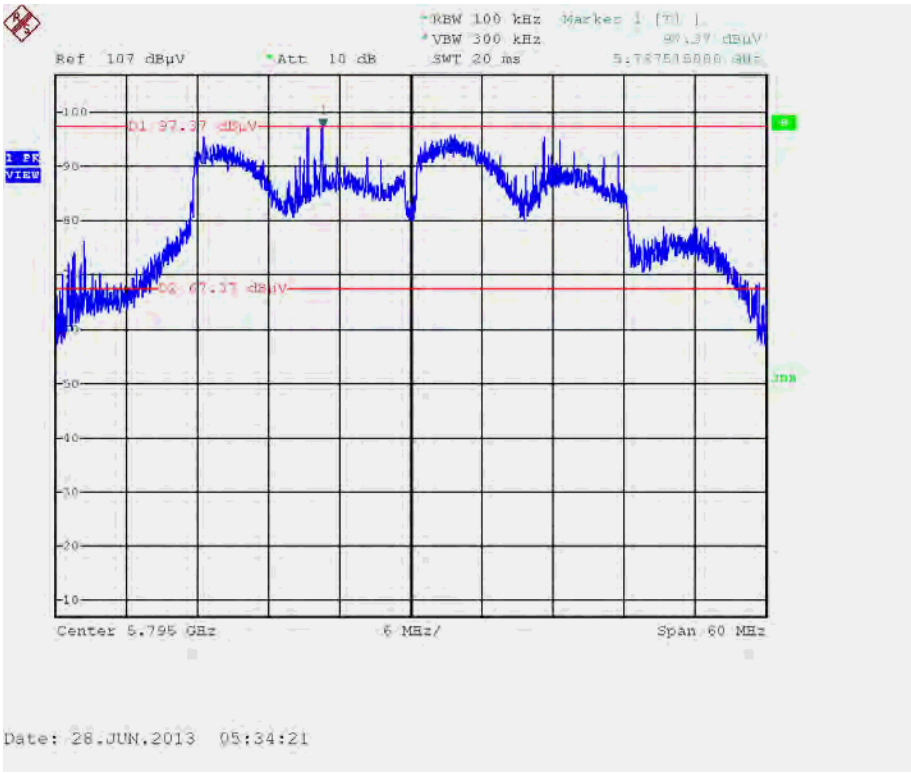
Date: 28.JUN.2013 05:42:15

Plot on Configuration IEEE 802.11ac MCS0, Nss1 20MHz / CH 165 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)

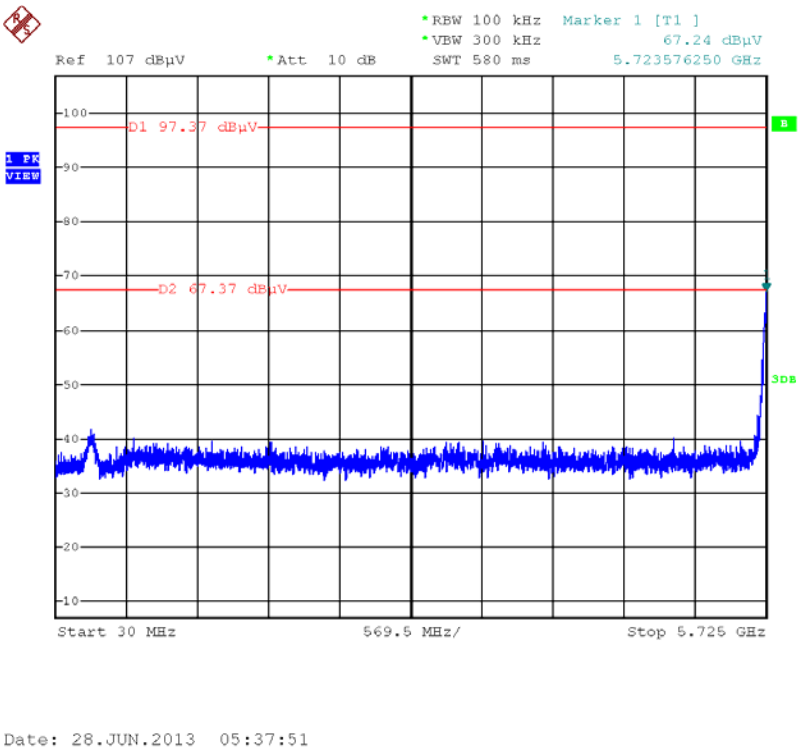


Date: 28.JUN.2013 05:41:50

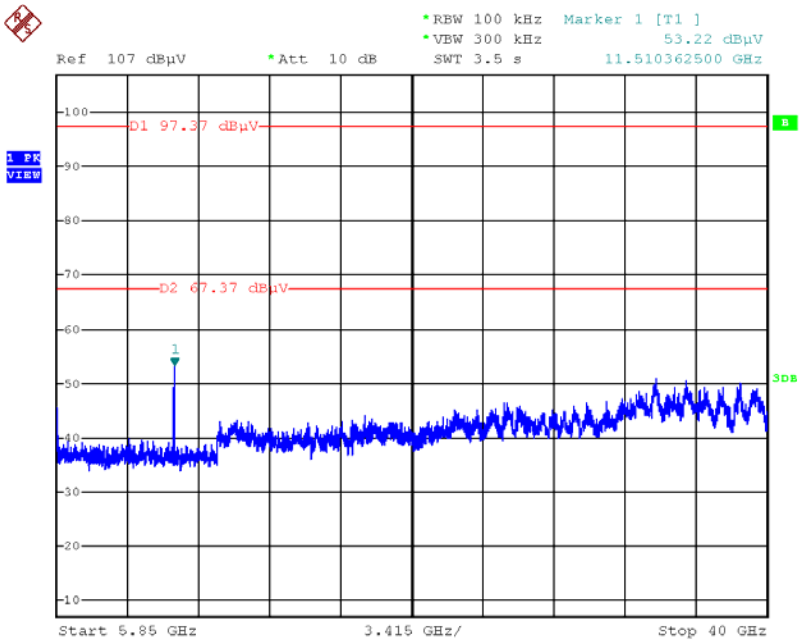
Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 151 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)

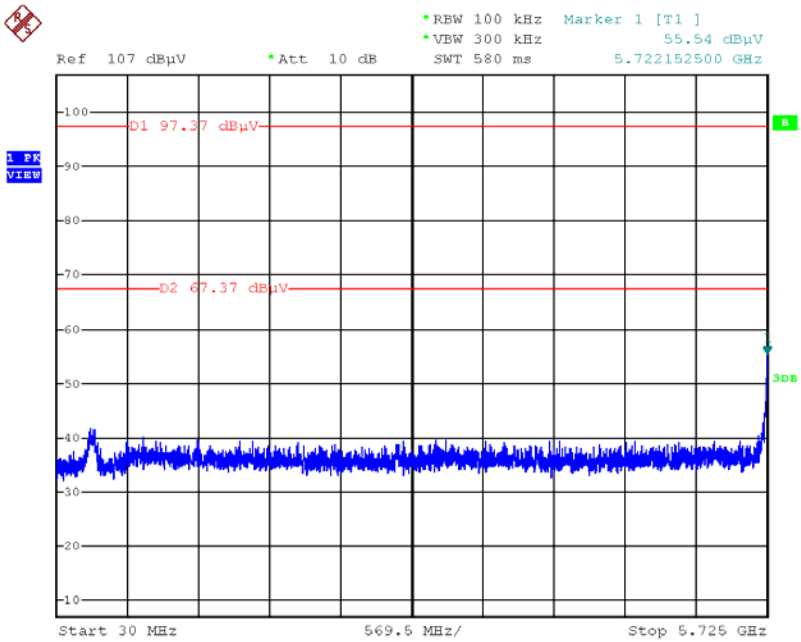


Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 151 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



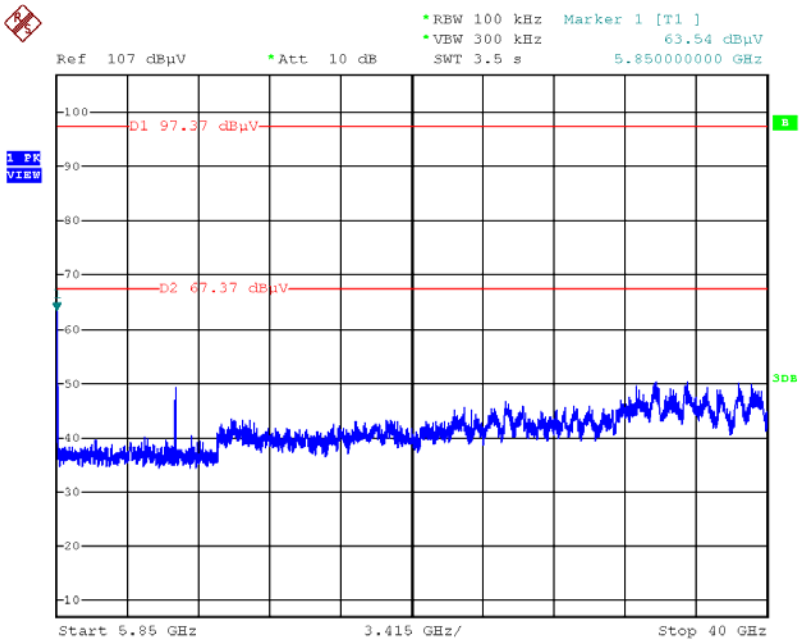
Date: 28.JUN.2013 05:36:15

Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 159 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



Date: 28.JUN.2013 05:34:48

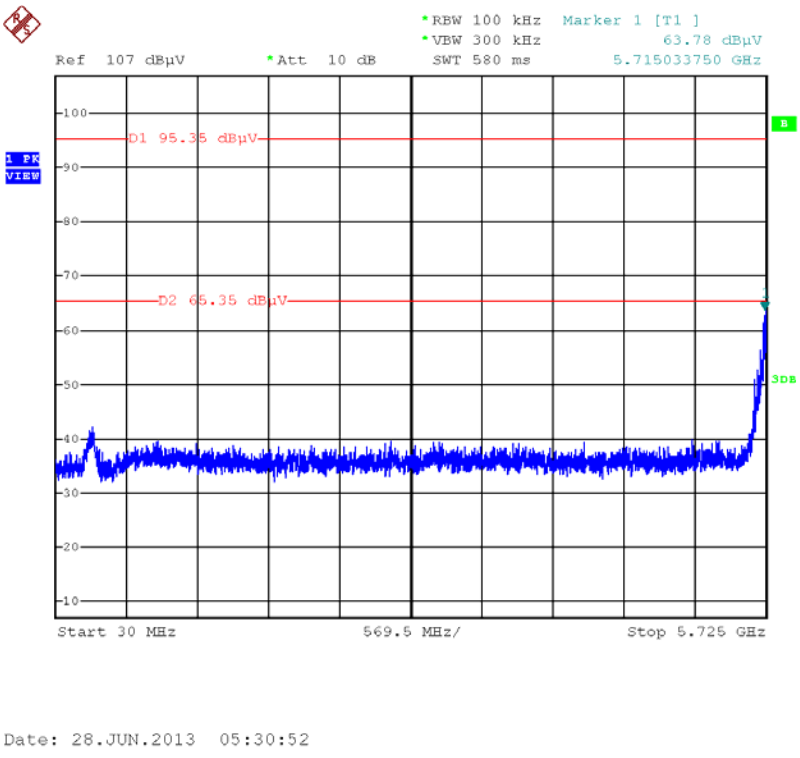
Plot on Configuration IEEE 802.11ac MCS0, Nss1 40MHz / CH 159 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



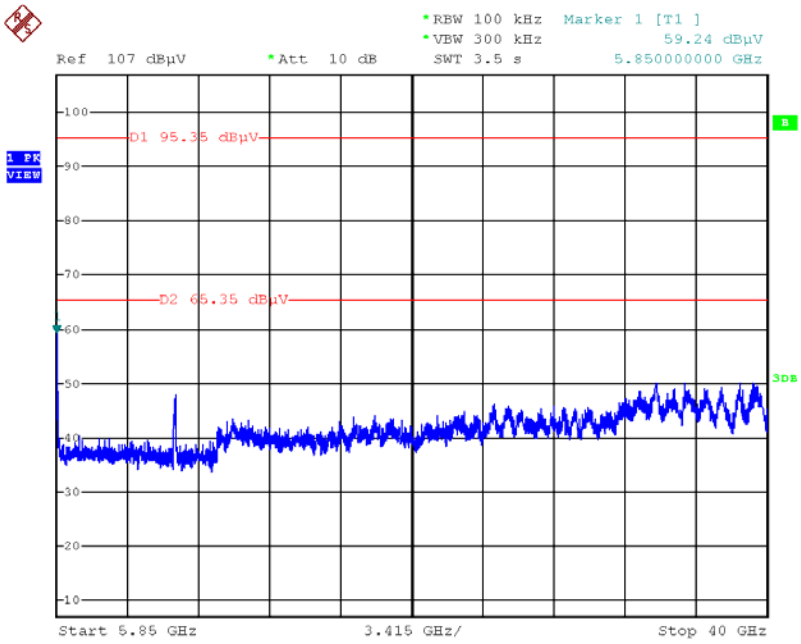
Date: 28.JUN.2013 05:35:27

Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)

Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / CH 155 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)

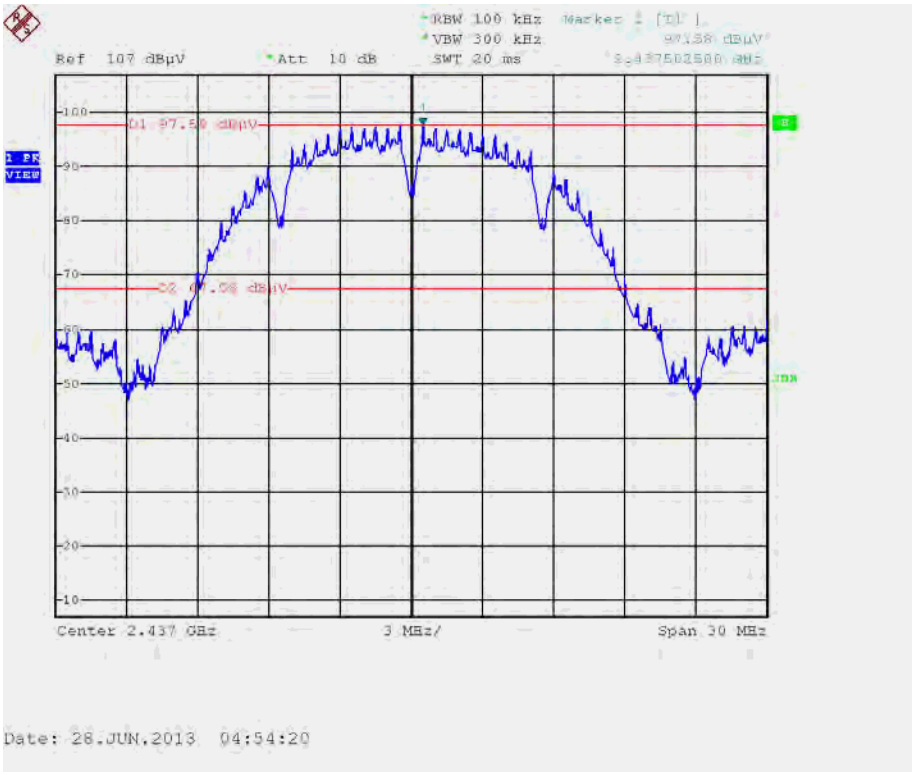


Plot on Configuration IEEE 802.11ac MCS0, Nss1 80MHz / CH 155 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)

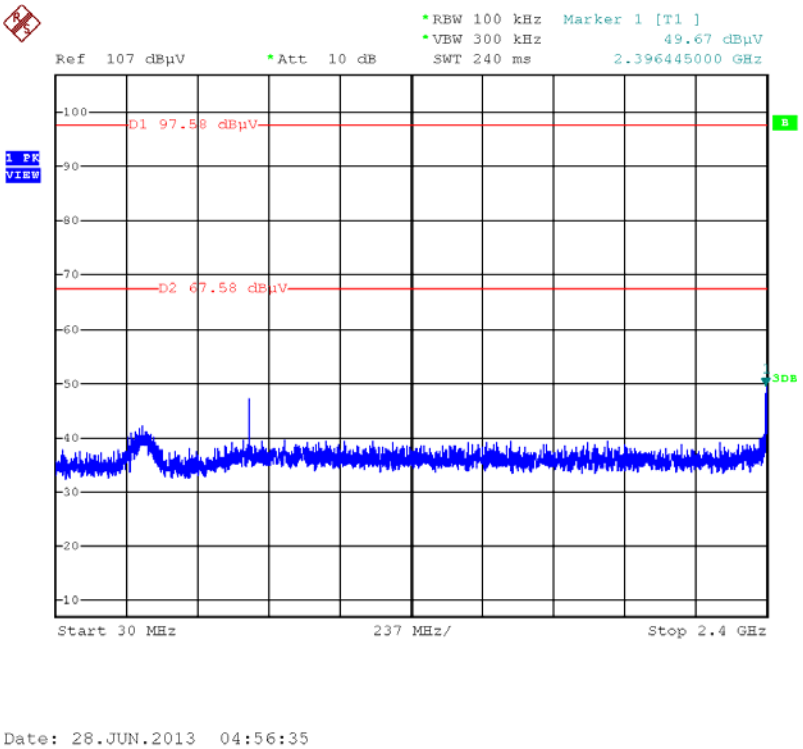


Date: 28.JUN.2013 05:31:32

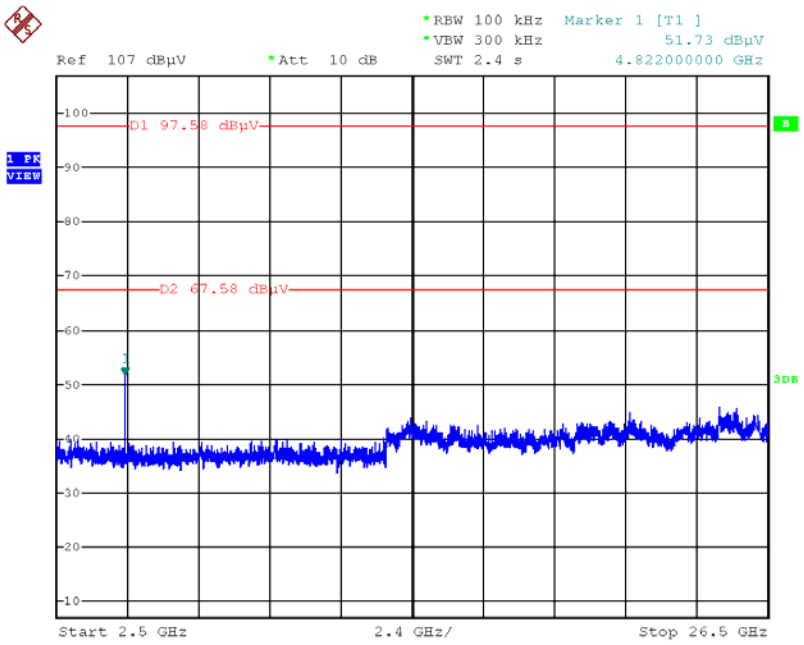
Plot on Configuration IEEE 802.11b / Reference Level / Chain 1 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)

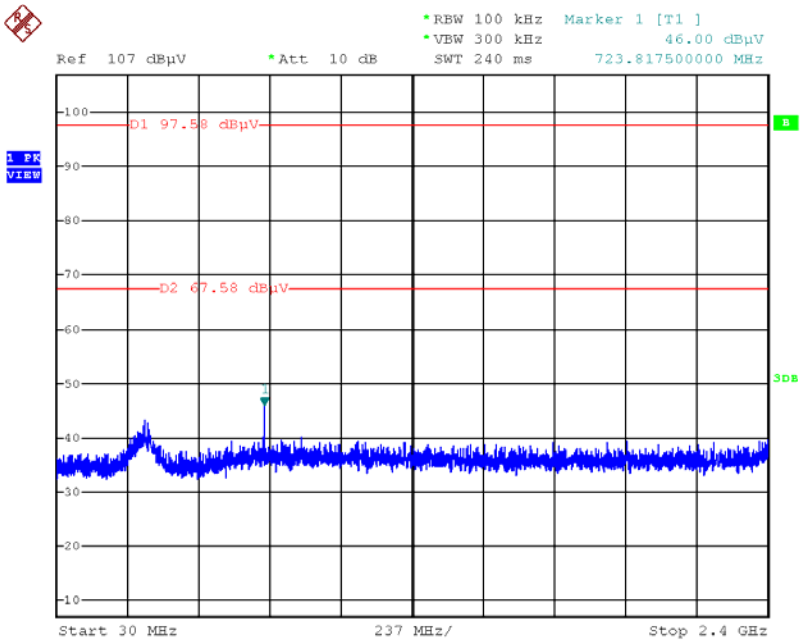


Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)



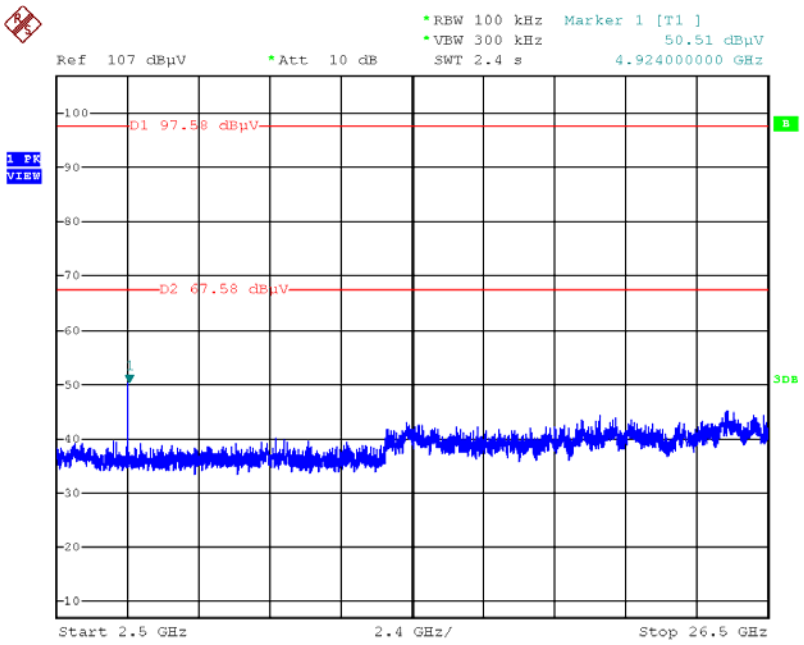
Date: 28.JUN.2013 04:56:08

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)



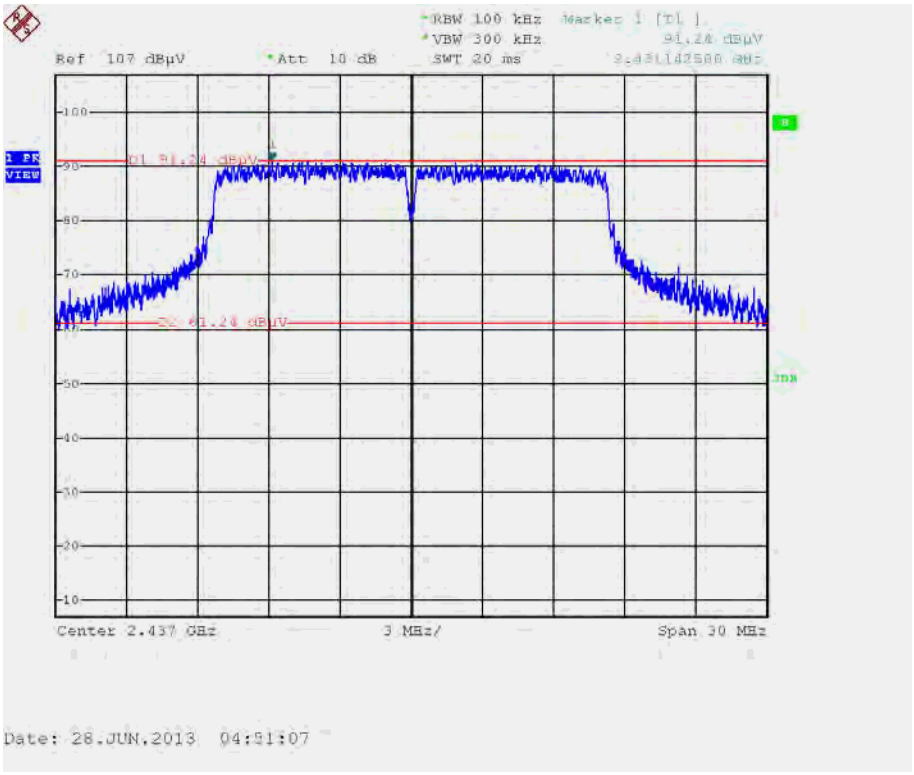
Date: 28.JUN.2013 04:54:57

Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)

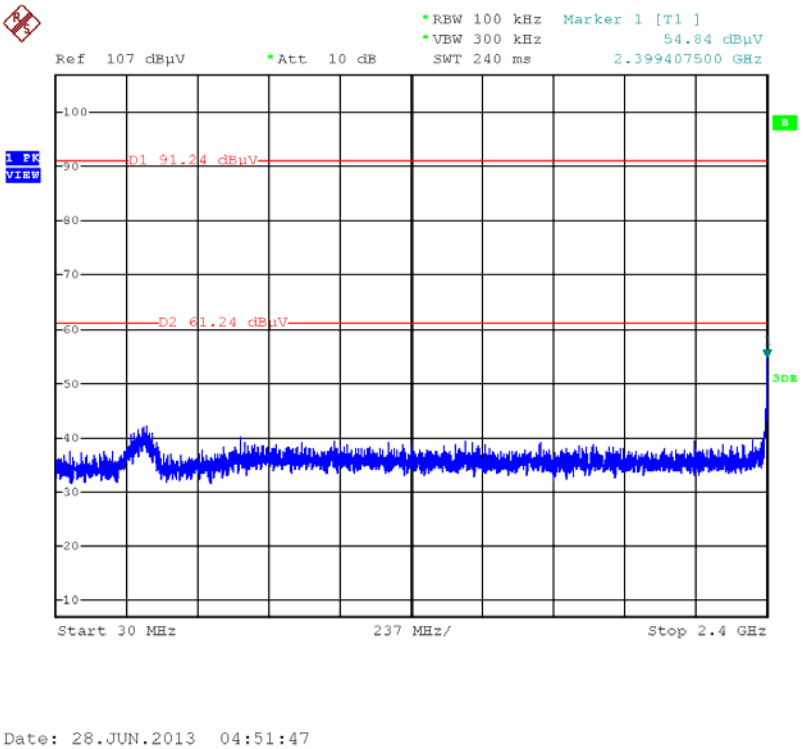


Date: 28.JUN.2013 04:55:32

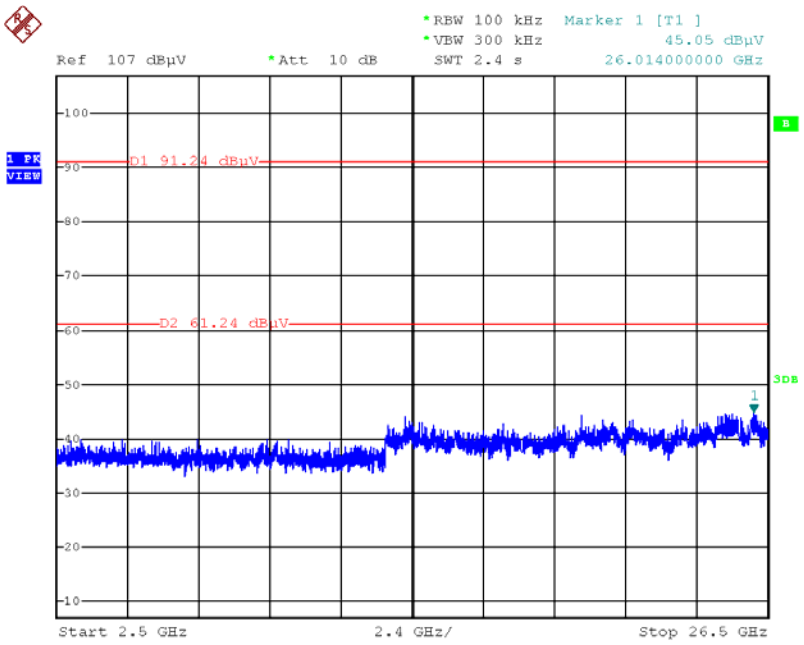
Plot on Configuration IEEE 802.11g / Reference Level / Chain 1 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)

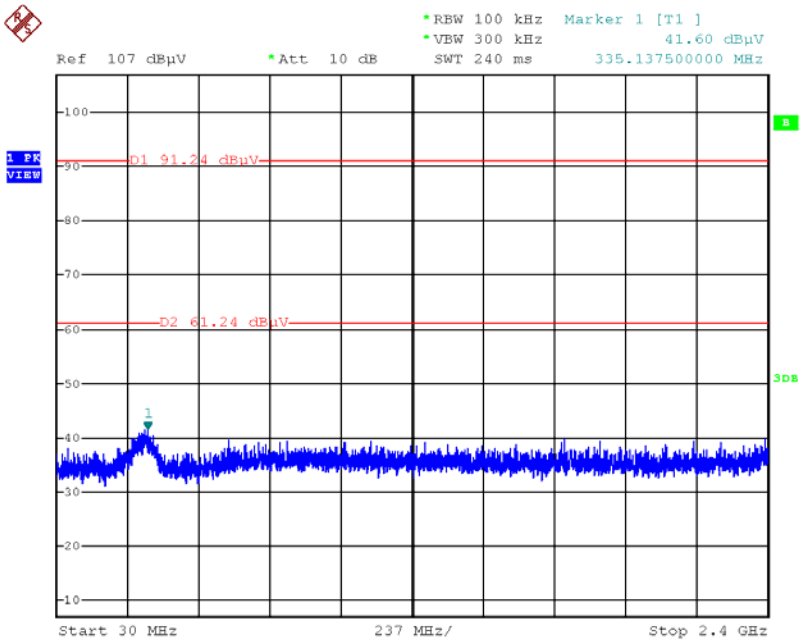


Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode : Mode 3 (EUT 2)



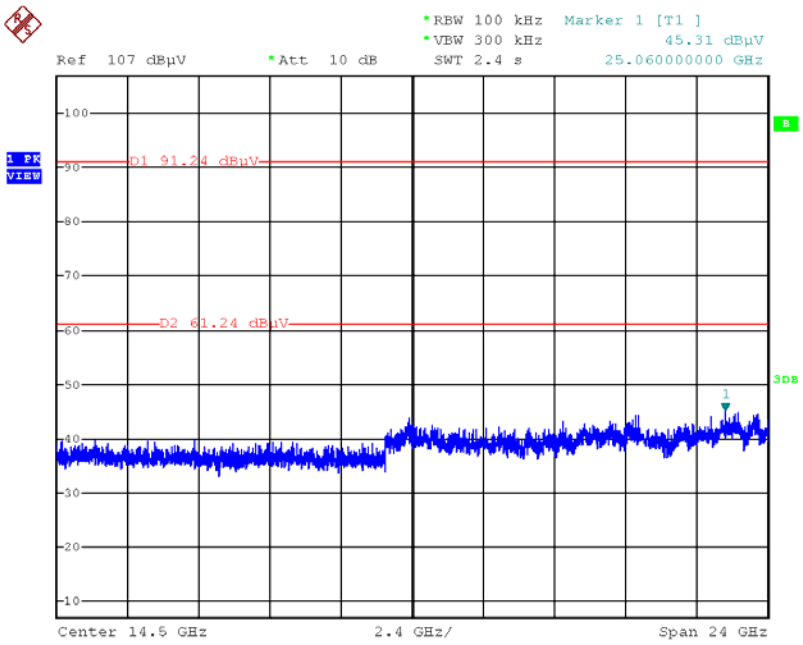
Date: 28.JUN.2013 04:52:15

Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)



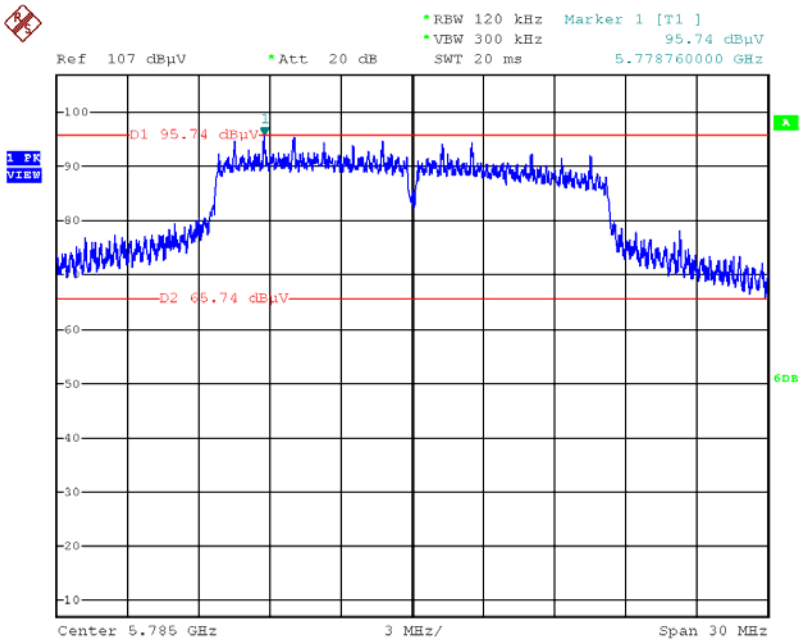
Date: 28.JUN.2013 04:53:11

Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1 / Test Mode: Mode 3 (EUT 2)



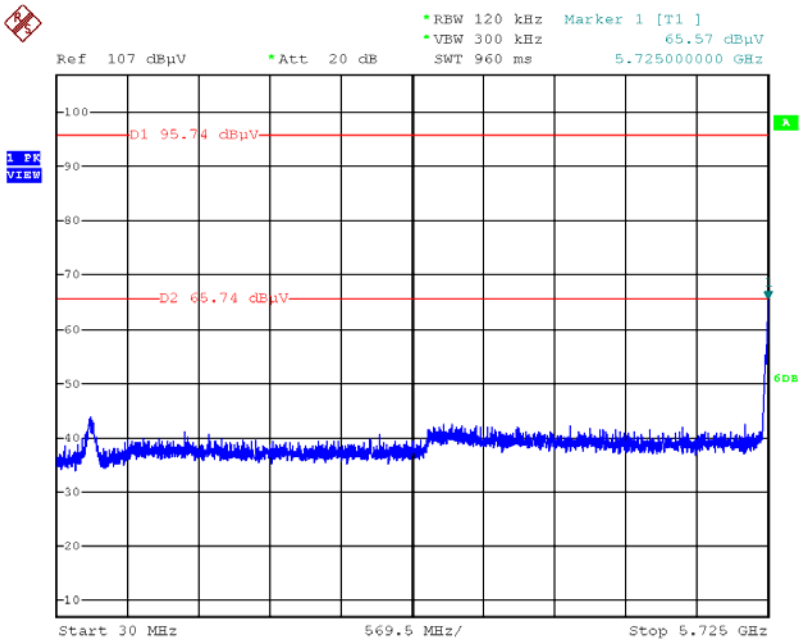
Date: 28.JUN.2013 04:52:51

Plot on Configuration IEEE 802.11a / Reference Level / Chain 4 / Test Mode: Mode 3 (EUT 2)



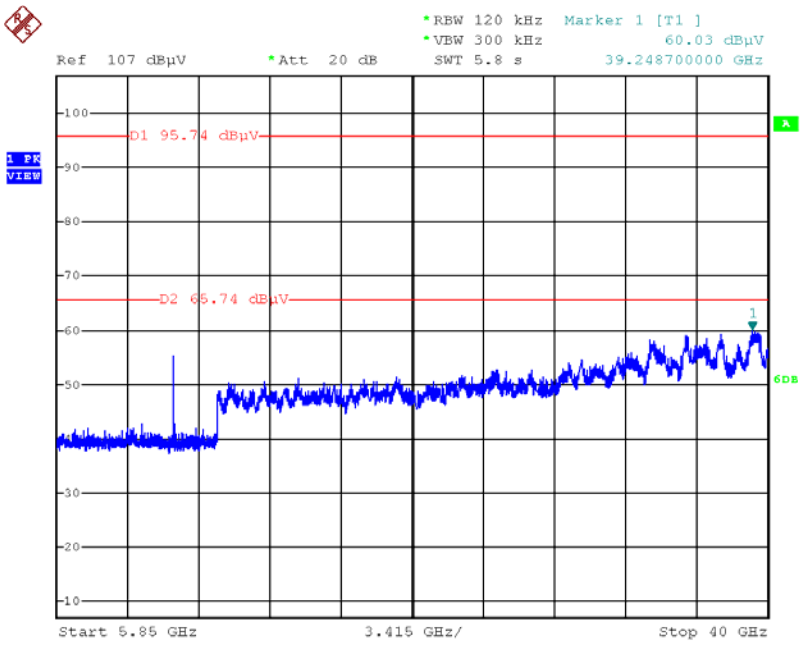
Date: 20.JUL.2013 13:19:32

Plot on Configuration IEEE 802.11a / CH 149 / 30MHz~5725MHz (down 30dBc) / Chain 4 / Test Mode: Mode 3 (EUT 2)



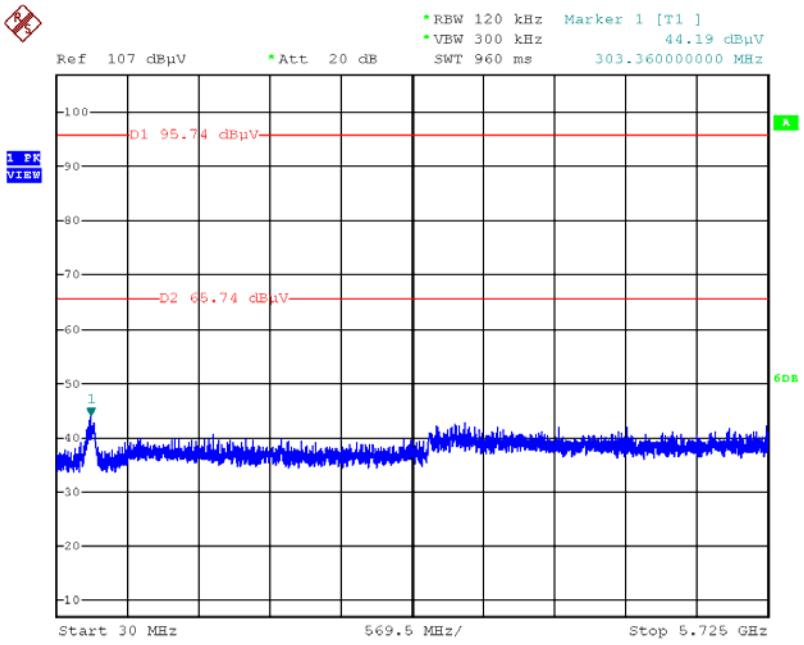
Date: 20.JUL.2013 13:20:25

Plot on Configuration IEEE 802.11a / CH 149 / 5850MHz~40000MHz (down 30dBc) / Chain 4 / Test Mode: Mode 3 (EUT 2)



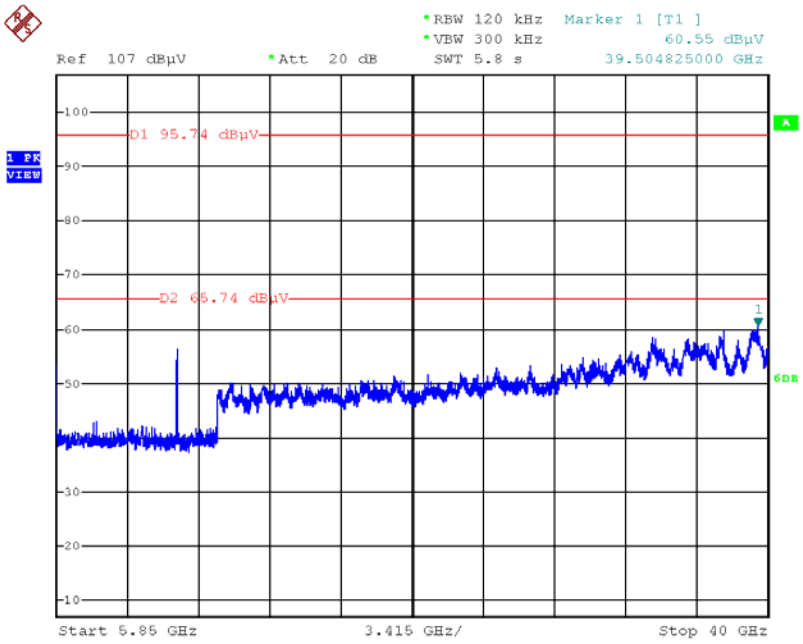
Date: 20.JUL.2013 13:20:52

Plot on Configuration IEEE 802.11a / CH 165 / 30MHz~5725MHz (down 30dBc) / Chain 4 / Test Mode: Mode 3 (EUT 2)



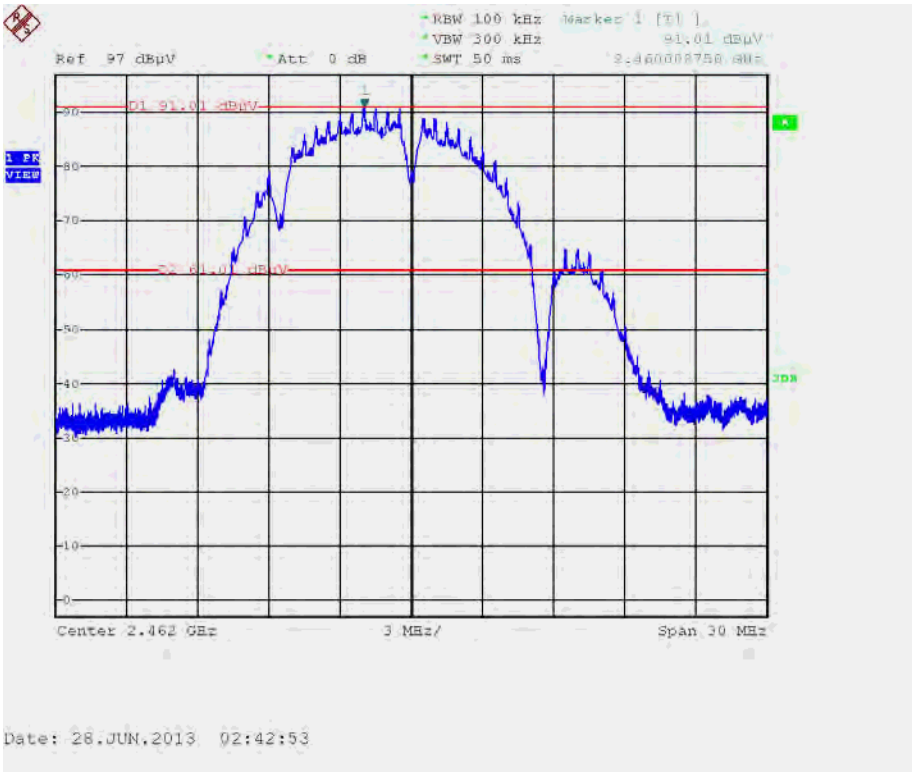
Date: 20.JUL.2013 13:22:08

Plot on Configuration IEEE 802.11a / CH 165 / 5850MHz~40000MHz (down 30dBc) / Chain 4 / Test Mode: Mode 3 (EUT 2)

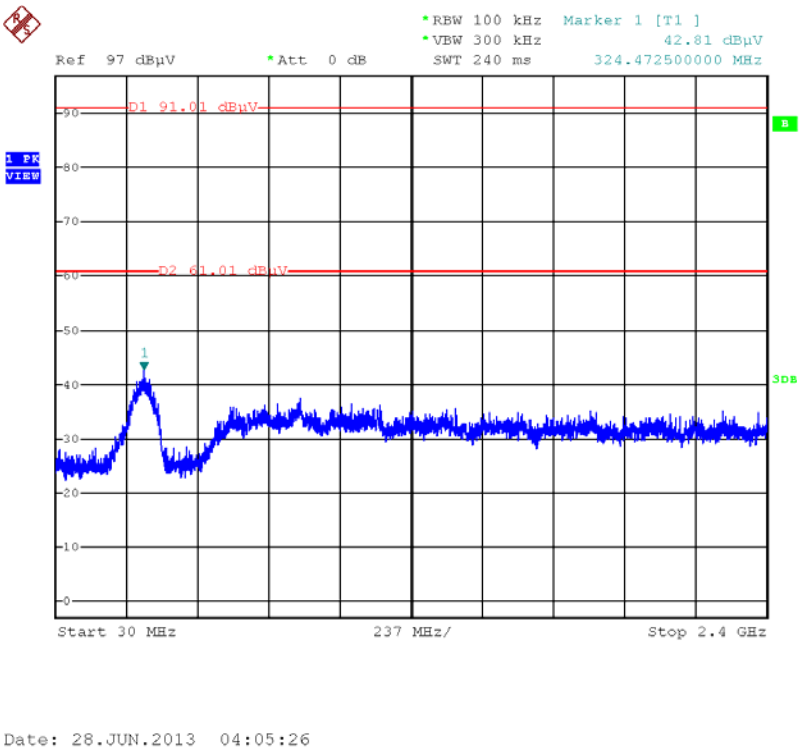


Date: 20.JUL.2013 13:21:49

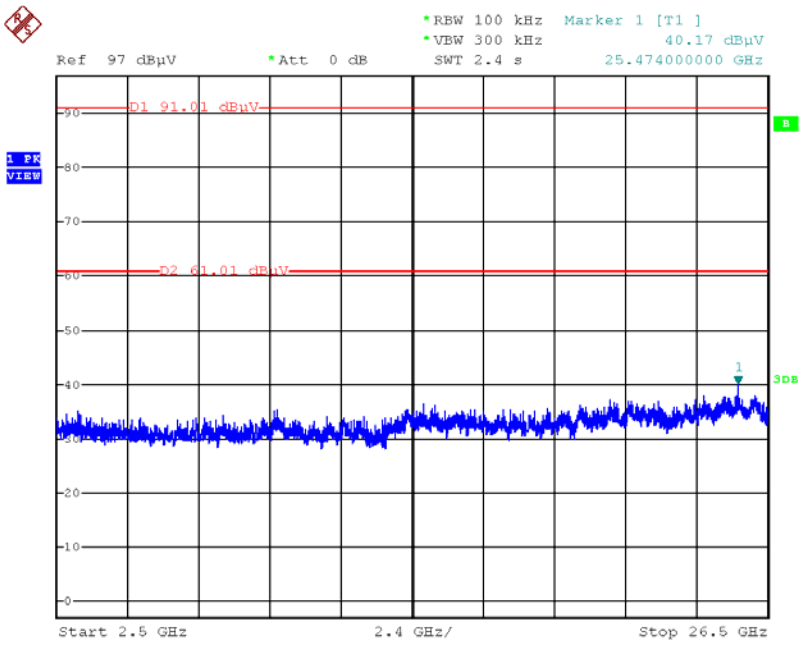
Plot on Configuration IEEE 802.11b / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11b / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

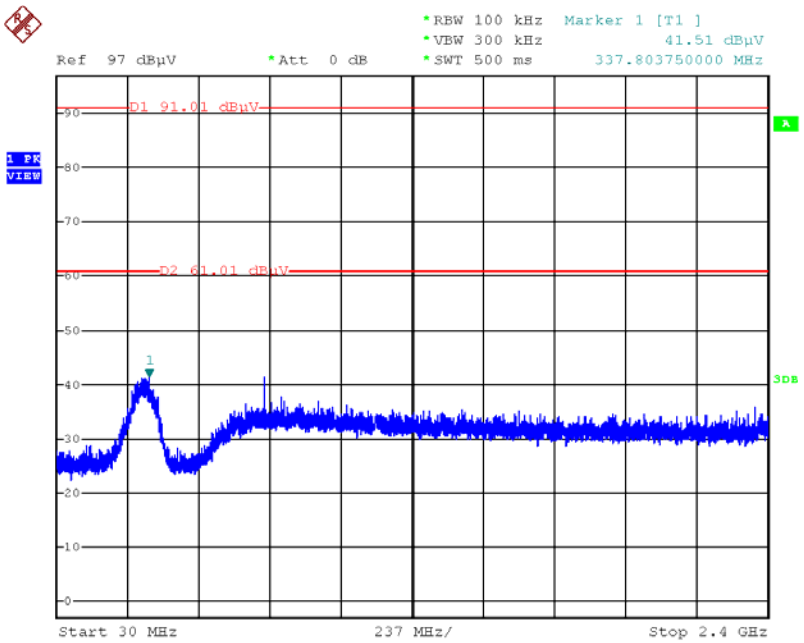


Plot on Configuration IEEE 802.11b / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



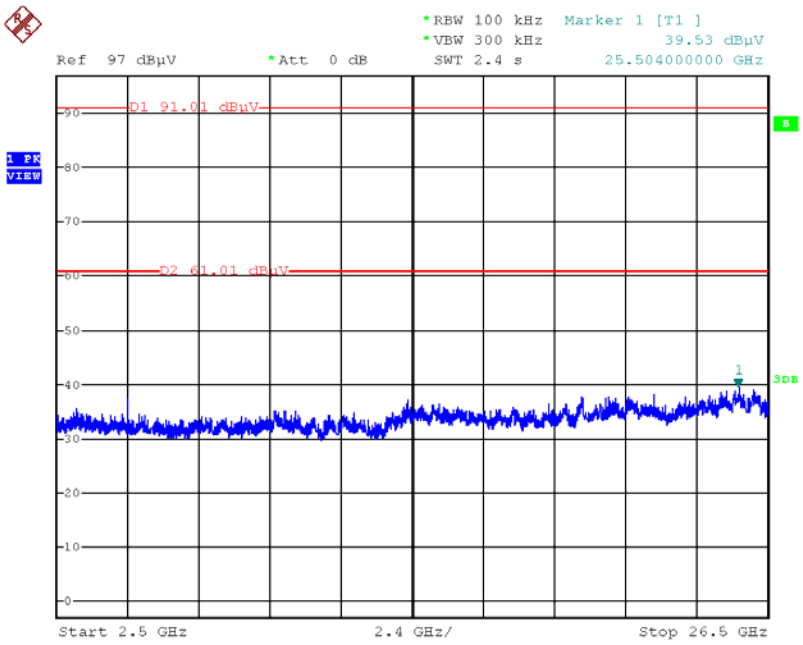
Date: 28.JUN.2013 04:04:44

Plot on Configuration IEEE 802.11b / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



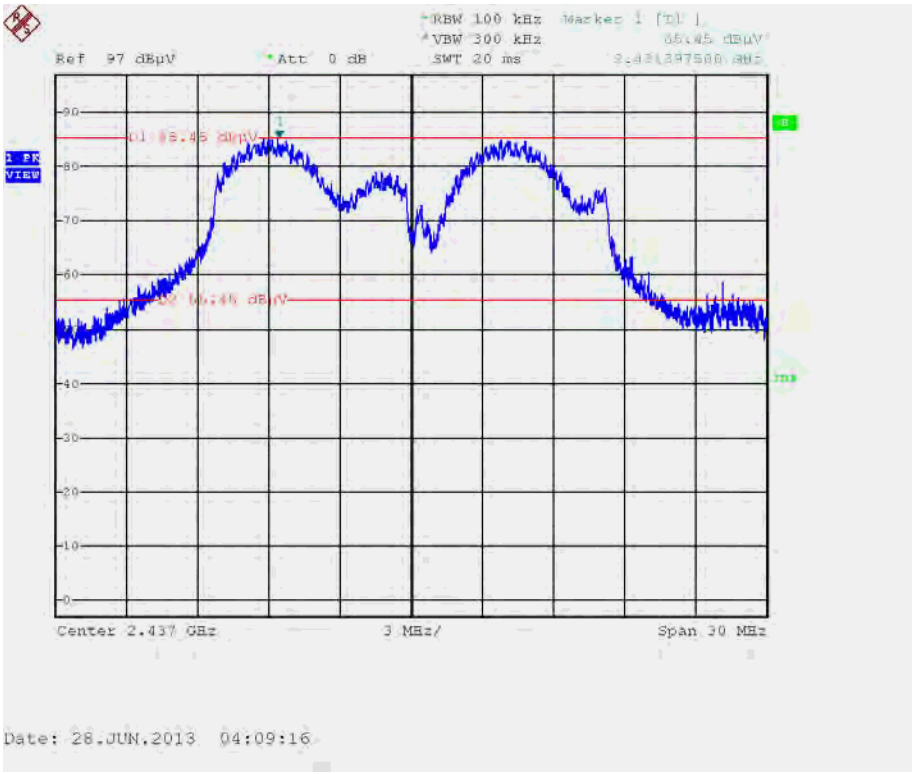
Date: 28.JUN.2013 02:44:47

Plot on Configuration IEEE 802.11b / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

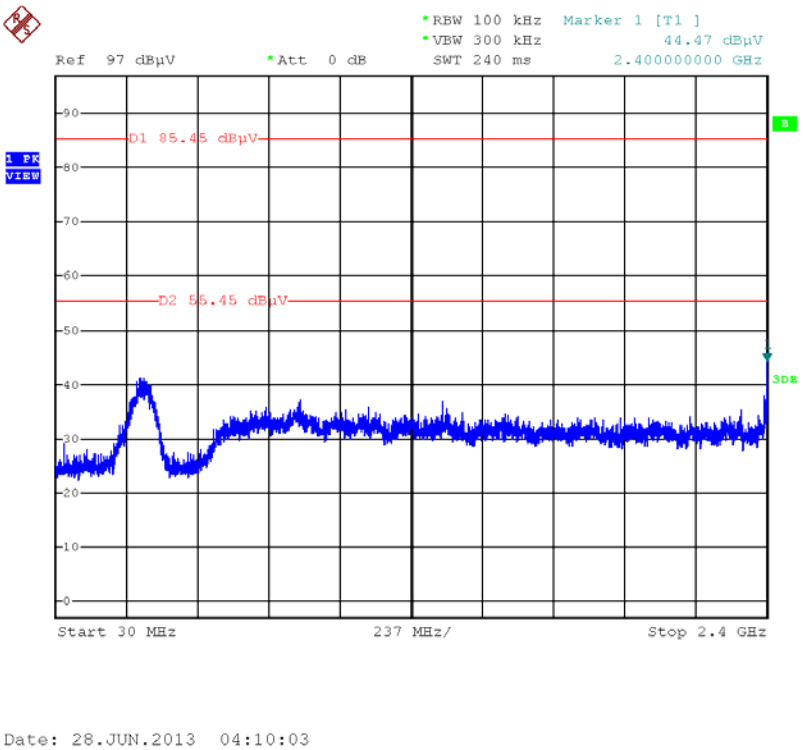


Date: 28.JUN.2013 04:03:50

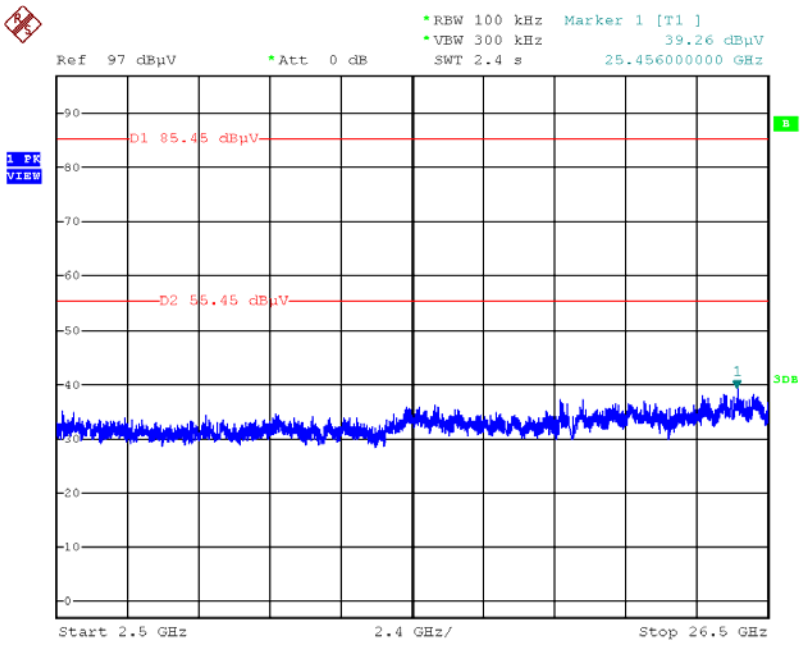
Plot on Configuration IEEE 802.11g / Reference Level / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11g / CH 1 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

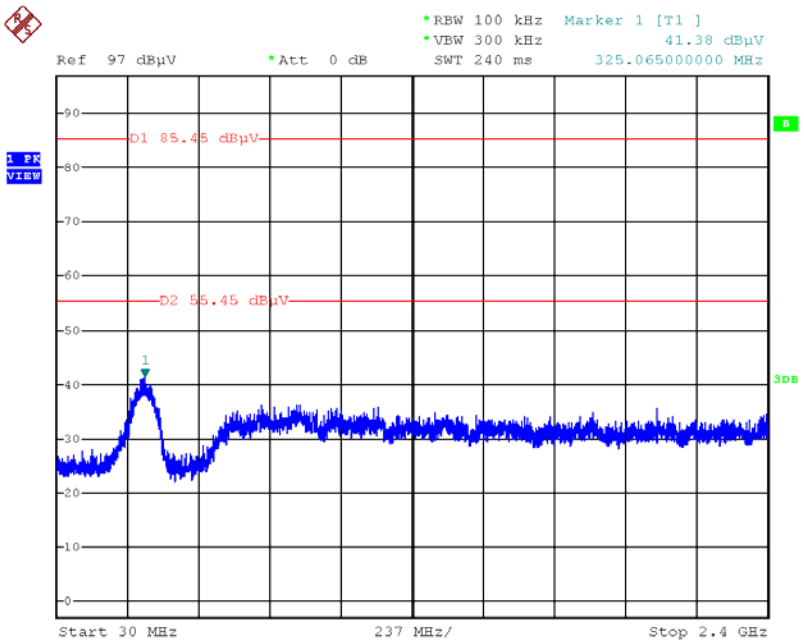


Plot on Configuration IEEE 802.11g / CH 1 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



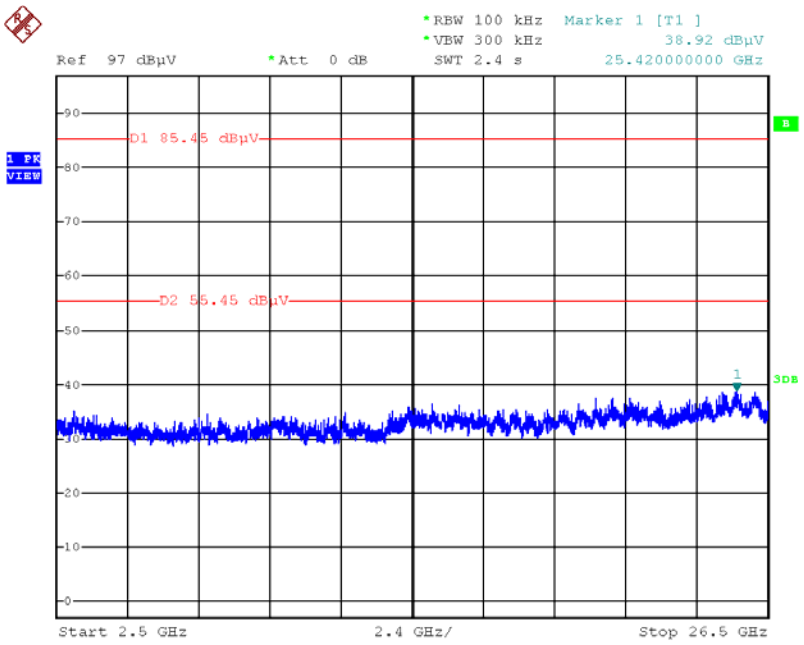
Date: 28.JUN.2013 04:10:41

Plot on Configuration IEEE 802.11g / CH 11 / 30MHz~2400MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)



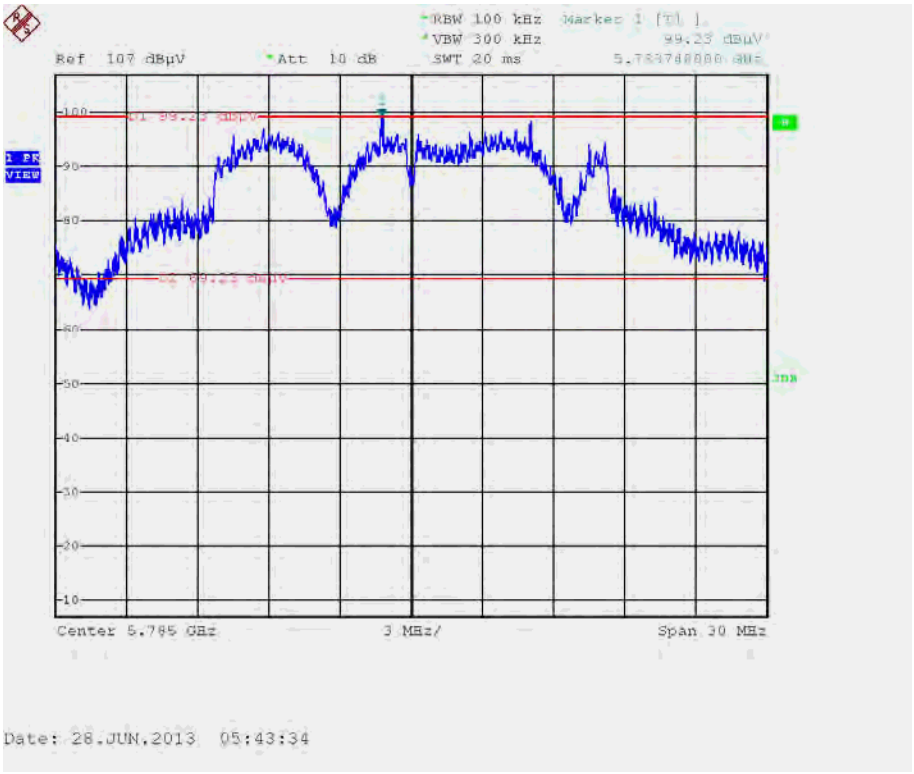
Date: 28.JUN.2013 04:12:00

Plot on Configuration IEEE 802.11g / CH 11 / 2500MHz~26500MHz (down 30dBc) / Chain 1+ Chain 2+ Chain 3 / Test Mode: Mode 3 (EUT 2)

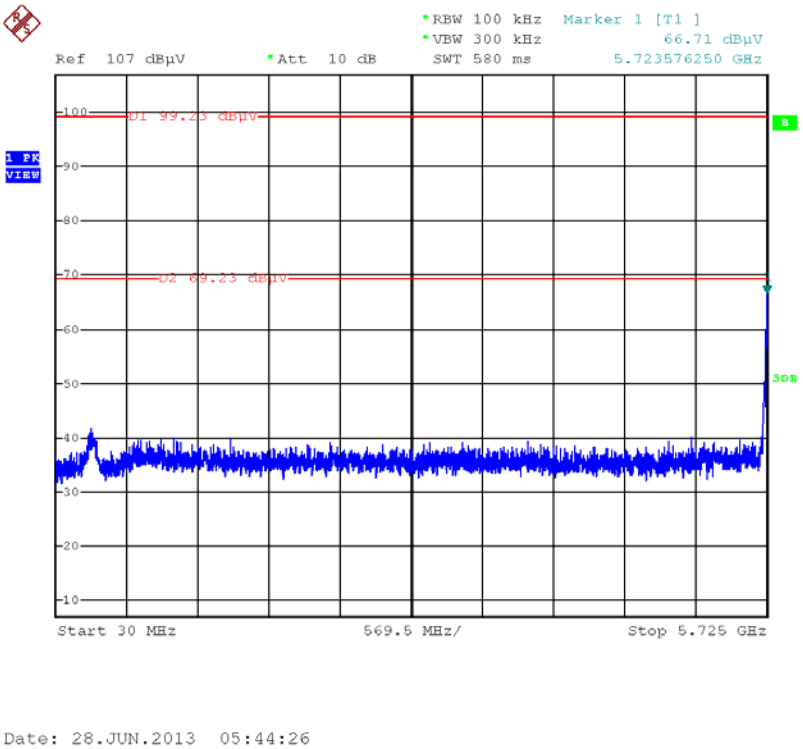


Date: 28.JUN.2013 04:11:35

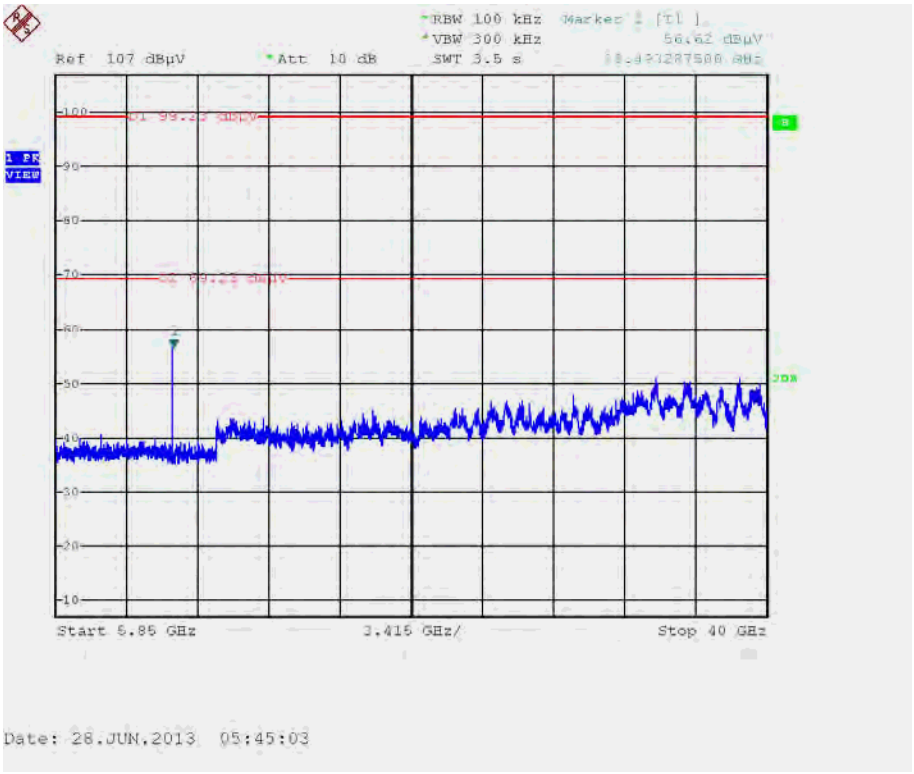
Plot on Configuration IEEE 802.11a / Reference Level / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



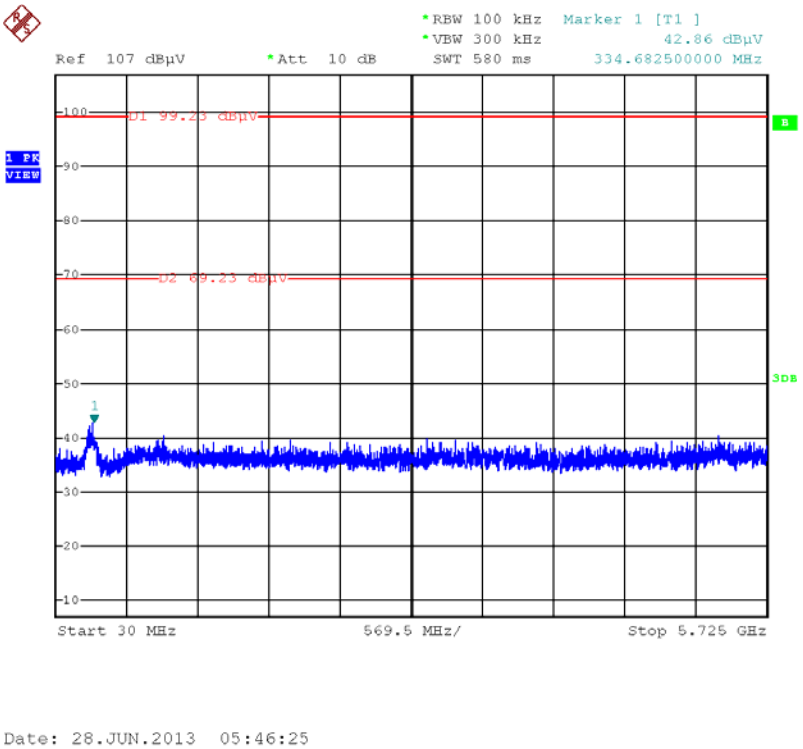
Plot on Configuration IEEE 802.11a / CH 149 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



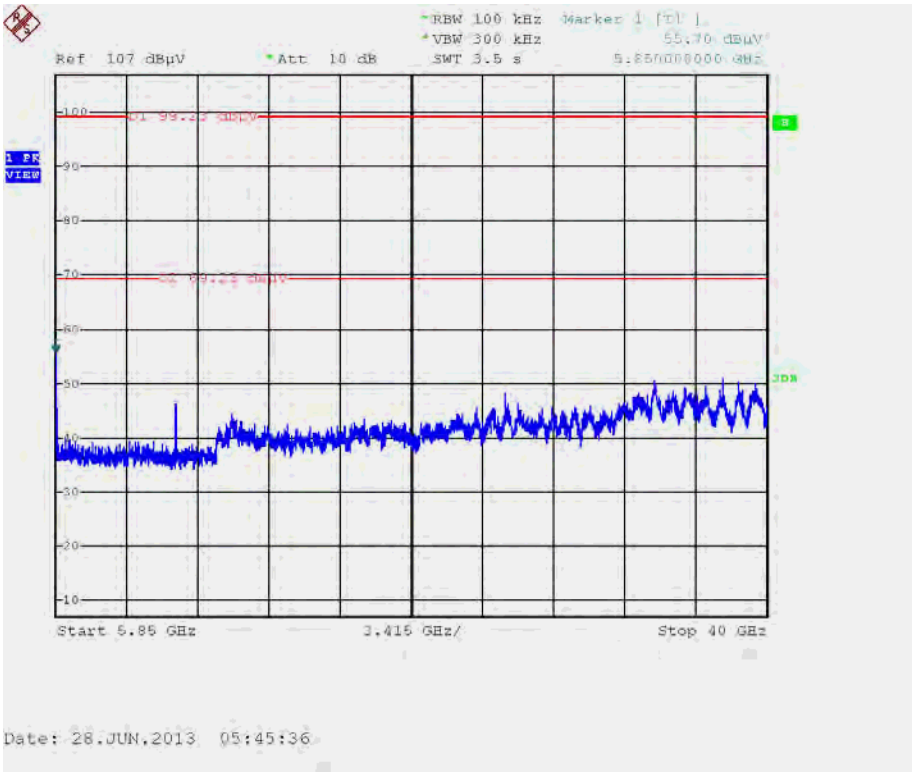
Plot on Configuration IEEE 802.11a / CH 149 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11a / CH 165 / 30MHz~5725MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



Plot on Configuration IEEE 802.11a / CH 165 / 5850MHz~40000MHz (down 30dBc) / Chain 4+ Chain 5+ Chain 6 / Test Mode: Mode 3 (EUT 2)



4.7. Antenna Requirements

4.7.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

4.7.2. Antenna Connector Construction

Please refer to section 3.3 in this test report; antenna connector complied with the requirements.

5. LIST OF MEASURING EQUIPMENTS

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
EMI Test Receiver	R&S	ESCS 30	100377	9kHz ~ 2.75GHz	Oct. 23, 2012	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Nov. 26, 2012	Conduction (CO01-CB)
V- LISN	Schwarzbeck	NSLK 8127	8127478	9kHz ~ 30MHz	Jun. 26, 2012	Conduction (CO01-CB)
Impulsbegrenzer Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz~30MHz	Feb. 21, 2013	Conduction (CO01-CB)
COND Cable	Woken	Cable	01	0.15MHz~30MHz	Dec. 04, 2012	Conduction (CO01-CB)
Software	Audix	E3	5.410e	-	-	Conduction (CO01-CB)
BILOG ANTENNA	Schaffner	CBL6112D	22021	20MHz ~ 2GHz	Apr. 16, 2013	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9 kHz - 30 MHz	Nov. 05, 2012*	Radiation (03CH01-CB)
Horn Antenna	EMCO	3115	00075790	750MHz~18GHz	Nov. 27, 2012	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBEAK	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Nov. 23, 2012	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8447D	2944A10991	0.1MHz ~ 1.3GHz	Nov. 27, 2012	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Nov. 23, 2012	Radiation (03CH01-CB)
Pre-Amplifier	WM	TF-130N-R1	923365	26.5GHz ~ 40GHz	Jul. 31, 2012	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSP40	100056	9kHz~40GHz	Nov. 16, 2012	Radiation (03CH01-CB)
EMI Test Receiver	R&S	ESCS 30	100355	9kHz ~ 2.75GHz	Apr. 12, 2013	Radiation (03CH01-CB)
Turn Table	INN CO	CO 2000	N/A	0 ~ 360 degree	N.C.R	Radiation (03CH01-CB)
Antenna Mast	INN CO	CO2000	N/A	1 m - 4 m	N.C.R	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-1	N/A	30 MHz - 1 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-1	N/A	1 GHz – 26.5 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-2	N/A	1 GHz – 26.5 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-3	N/A	1 GHz - 40 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
RF Cable-high	Woken	High Cable-4	N/A	1 GHz - 40 GHz	Nov. 18, 2012	Radiation (03CH01-CB)
Signal analyzer	R&S	FSV40	100979	9kHz~40GHz	Oct. 08, 2012	Conducted (TH01-CB)
RF Power Divider	Woken	3 Way	MDC2366	2GHz ~ 18GHz	Nov. 18, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-7	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-8	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Remark
RF Cable-high	Woken	High Cable-9	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-10	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
RF Cable-high	Woken	High Cable-11	-	1 GHz – 26.5 GHz	Nov. 19, 2012	Conducted (TH01-CB)
Power Sensor	Anritsu	MA2411B	0917223	300MHz~40GHz	Nov. 28, 2012	Conducted (TH01-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Nov. 27, 2012	Conducted (TH01-CB)

Note: Calibration Interval of instruments listed above is one year.

"*" Calibration Interval of instruments listed above is two years.

N.C.R. means Non-Calibration required.

6. TEST LOCATION

SHIJR	ADD	:	6Fl., No. 106, Sec. 1, Shintai 5th Rd., Shijr City, Taipei, Taiwan 221, R.O.C.
	TEL	:	886-2-2696-2468
	FAX	:	886-2-2696-2255
HWA YA	ADD	:	No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
	TEL	:	886-3-327-3456
	FAX	:	886-3-318-0055
LINKOU	ADD	:	No. 30-2, Dingfu Tsuen, Linkou Shiang, Taipei, Taiwan 244, R.O.C
	TEL	:	886-2-2601-1640
	FAX	:	886-2-2601-1695
DUNGHU	ADD	:	No. 3, Lane 238, Kangle St., Neihu Chiu, Taipei, Taiwan 114, R.O.C.
	TEL	:	886-2-2631-4739
	FAX	:	886-2-2631-9740
JUNGHE	ADD	:	7Fl., No. 758, Jungjeng Rd., Junghe City, Taipei, Taiwan 235, R.O.C.
	TEL	:	886-2-8227-2020
	FAX	:	886-2-8227-2626
NEIHU	ADD	:	4Fl., No. 339, Hsin Hu 2nd Rd., Taipei 114, Taiwan, R.O.C.
	TEL	:	886-2-2794-8886
	FAX	:	886-2-2794-9777
JHUBEI	ADD	:	No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.
	TEL	:	886-3-656-9065
	FAX	:	886-3-656-9085

7. MEASUREMENT UNCERTAINTY

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	0.026	dB	normal(k=2)	0.013
Cable loss	0.002	dB	normal(k=2)	0.001
AMN/LISN specification	1.200	dB	normal(k=2)	0.600
Mismatch Receiver VSWR 1= AMN/LISN VSWR 2=	-0.080	dB	U-shaped	0.060
Combined standard uncertainty Uc(y)				1.2
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)				2.4

Uncertainty of Radiated Emission Measurement (30MHz ~ 1,000MHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	±0.173	dB	K=1	0.086
Cable loss	±0.174	dB	K=2	0.087
Antenna gain	±0.169	dB	K=2	0.084
Site imperfection	±0.433	dB	Triangular	0.214
Pre-amplifier gain	±0.366	dB	K=2	0.183
Transmitter antenna	±1.200	dB	Rectangular	0.600
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty Uc(y)				1.778
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)				3.555

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	±0.191	dB	K=1	0.095
Cable loss	±0.169	dB	K=2	0.084
Antenna gain	±0.191	dB	K=2	0.096
Site imperfection	±0.582	dB	Triangular	0.291
Pre-amplifier gain	±0.304	dB	K=2	0.152
Transmitter antenna	±1.200	dB	Rectangular	0.600
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty Uc(y)				1.839
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)				3.678

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Receiver reading	±0.186	dB	K=1	0.093
Cable loss	±0.167	dB	K=2	0.083
Antenna gain	±0.190	dB	K=2	0.095
Site imperfection	±0.488	dB	Triangular	0.244
Pre-amplifier gain	±0.269	dB	K=2	0.134
Transmitter antenna	±1.200	dB	Rectangular	0.600
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty Uc(y)				1.771
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)				3.541

Uncertainty of Conducted Emission Measurement

Contribution	Uncertainty of x_i			$u(x_i)$
	Value	Unit	Probability Distribution k	
Cable loss	±0.038	dB	K=2	0.019
Attenuator	±0.047	dB	K=2	0.024
Power Meter specification	±0.300	dB	Triangular	0.150
Power Sensor specification	±0.300	dB	Rectangular	0.150
Signal generator	±0.461	dB	Rectangular	0.231
Mismatch	±0.080	dB	U-shape	0.040
Spectrum analyzer	±0.500	dB	Rectangular	0.250
Combined standard uncertainty Uc(y)				0.863
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)				1.726