

FCC TEST REPORT

for

Borqs BeiJing Ltd.

6" Tablet Remote

Model Number: XR6

FCC ID: 2ABDK-XR6

IC ID:12695A-XR6

Prepared for : Borqs BeiJing Ltd.
Address : Tower A, Building B23, Universal Business Park, No. 10
Jiuxianqiao Road, Chaoyang District Beijing, 100015 China

Prepared by : Keyway Testing Technology Co., Ltd.
Address : Building 1, Baishun Industrial Zone, Zhangmutou Town,
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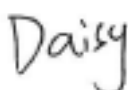
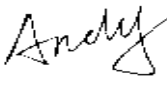

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Report No. : 15KWE012374F
Date of Test : Jan. 15~25, 2015
Date of Report : Jan. 27, 2015

TABLE OF CONTENTS

Test Report Declaration	Page
1. TEST SUMMARY	4
2. GENERAL PRODUCT INFORMATION.....	5
2.1. Product Function.....	5
2.2. Description of Device (EUT)	5
2.3. Independent Operation Modes	6
2.4. Product Version	6
2.5. TEST SITES	6
2.6. List of Test and Measurement Instruments.....	7
3. TEST SET-UP AND OPERATION MODES	8
3.1. Principle of Configuration Selection	8
3.2. Block Diagram of Test Set-up	8
3.3. Test Operation Mode and Test Software	8
3.4. Special Accessories and Auxiliary Equipment	8
3.5. Countermeasures to Achieve EMC Compliance.....	8
4. EMISSION TEST RESULTS	9
4.1. Conducted Emission at the Mains Terminals Test.....	9
4.2. Radiated Emission Test	12
5. BAND EDGE COMPLIANCE TEST.....	31
5.1. Limits.....	31
5.2. Test setup	31
6. 6DB OCCUPY BANDWIDTH.....	33
6.1. Limits.....	33
7. OUTPUT POWER TEST	38
7.1. Limits.....	38
7.2. Test setup	38
7.3. Test result	38
8. POWER SPECTRAL DENSITY TEST	39
8.1. Limits.....	39
8.2. Test setup	39
8.3. Test result	39
9. ANTENNA REQUIREMENTS.....	44
9.1. Limits.....	44
9.2. Result.....	44
10. PHOTOGRAPHS OF TEST SET-UP.....	45
11. PHOTOGRAPHS OF THE EUT.....	47

Keyway Testing Technology Co., Ltd.

Applicant:	Borqs BeiJing Ltd.	
Address:	Tower A, Building B23, Universal Business Park, No. 10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China	
Manufacturer:	Borqs BeiJing Ltd.	
Address:	Tower A, Building B23, Universal Business Park, No. 10 Jiuxianqiao Road, Chaoyang District Beijing, 100015 China	
E.U.T:	6" Tablet Remote	
Model Number:	XR6	
Trade Name:	VIZIO	Serial No.: -----
Date of Receipt:	Jan. 14, 2015	Date of Test: Jan. 15~25, 2015
Test Specification:	FCC Part 15, Subpart C Section 15.247: 2014 ANSI C63.10:2013 RSS-210 Issue 8 December 2010 RSS-Gen Issue 4 November 2014 KDB558074 D01 DTS Meas Guidance v03r02	
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied.	
	Issue Date: Jan. 27, 2015	
Tested by:	Reviewed by:	Approved by:
 <hr style="width: 100%;"/>	 <hr style="width: 100%;"/>	 <hr style="width: 100%;"/>
	Daisy Chen / Engineer	Andy Gao / Supervisor
Other Aspects:	None.	
<i>Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested</i>		
<i>This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Keyway Testing Technology Co., Ltd.</i>		

1.TEST SUMMARY

Test Items	Test Requirement	Result
Conducted Emissions	15.207/ RSS-210/RSS-GEN	PASS
Radiated Emissions	15.205(a) 15.209 15.247(d)/ RSS-210/RSS-GEN	PASS
6dB&99% Bandwidth	15.247(a)(2)/ RSS-210/RSS-GEN	PASS
Power density	15.247(e)/ RSS-210/RSS-GEN	PASS
Maximum Peak Output Power	15.247(b)(3)/ RSS-210/RSS-GEN	PASS
Emissions from out of band	15.247(d)/ RSS-210/RSS-GEN	PASS
Antenna Requirement	15.203	PASS

2.GENERAL PRODUCT INFORMATION

2.1. Product Function

Refer to Technical Construction Form and User Manual.

2.2. Description of Device (EUT)

Product Name:	6" Tablet Remote
Model No.:	XR6
Operation Frequency:	WIFI:2412MHz~2462MHz (802.11b/802.11g/802.11n(H20)) 2422MHz~2452MHz (802.11n(H40)) WIFI:5180-5240 MHz; (5G 802.11a/n(HT20)) 5190-5230 MHz; (802.11n(HT40)) BT: 2402MHz~2480MHz
Channel numbers:	WIFI:11 for 802.11b/802.11g/802.11n(H20) ,7 for 802.11n(H40) BT: 79 Channels 7channels for 5G 802.11a/n(HT20) 8channels 5G for 802.11n(HT40)
Modulation technology:	WIFI: Direct Sequence Spread Spectrum (DSSS) for (IEEE 802.11b) Orthogonal Frequency Division Multiplexing(OFDM) for (IEEE 802.11g/802.11n) BT: GFSK
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps,54Mbps
Data speed (IEEE 802.11n):	Up to 150Mbps
Antenna Type:	Internal
Antenna gain:	1.0dBi for WIFI 1.0dBi for BT
Power supply:	DC 3.7V form battery DC 5V from adapter
Adapter	Manufacturer: AQUIL STAR PRECISION INDUSTRIAL(SHENZHEN)CO., LTD M/N: ASUC41a-050120 I/P:AC 100~240V 50/60Hz 0.2A O/P:DC 5V 1.2A

2.3. Independent Operation Modes

The basic operation modes are:

2.3.1. EUT work WFI TX mode, and frequency as below:

	Channel	Frequency
802.11b	Low	2412MHz
	Middle	2437MHz
	High	2462MHz
802.11g	Low	2412MHz
	Middle	2437MHz
	High	2462MHz
802.11n(HT20)	Low	2412MHz
	Middle	2437MHz
	High	2462MHz
802.11 n(HT40)	Low	2422MHz
	Middle	2437MHz
	High	2452MHz

Remark: According to ANSI C63.10 standards, the test results are both the "worst case" and "worst setup" 11MHz for 802.11b, 54MHz for 802.11g, 6.5Mbps for 802.11n(H20), 13Mbps for 802.11n(H40).

2.4. Product Version

Product SW version	BORQS_VIZIO_141204_1213 40
Product HW version	DVT1
Radio SW version	80-WL007-1 Rev. D
Radio HW version	WCN3680B Rev. D
Test SW Version	TV1.0
RF power setting in TEST SW	2.4G:11b 15 dBm;11g 14 dBm;11n(HT20) 13 dBm; 11n(HT40) 11 dBm 5G:11n 12 dBm; 11a 14 dBm BT:0dBm

Note: SW means software, HW means hardware.

2.5. TEST SITES

2.5.1. Test Facilities

Lab Qualifications : Certified by Industry Canada
Registration No.: 9868A
Date of registration: December 8, 2011

Certificated by FCC, USA
Registration No.: 370994
Date of registration: February 21, 2012

Certificated by CNAS China
Registration No.: CNAS L5783
Date of registration: August 8, 2012

2.6. List of Test and Measurement Instruments

2.6.1. For conducted emission at the mains terminals test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	Apr. 27,14	Apr. 27,15
Artificial Mains Network	Rohde&Schwarz	ENV216	101315	Apr. 27,14	Apr. 27,15
Artificial Mains Network (AUX)	Rohde&Schwarz	ENV216	101314	Apr. 27,14	Apr. 27,15
RF Cable	FUJIKURA	3D-2W	944 Cable	Apr. 27,14	Apr. 27,15

2.6.2. For radiated emission test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESCI	101156	Apr. 27,14	Apr. 27,15
System Simulator	Agilent	E5515C	GB43130245	Apr. 27,14	Apr. 27,15
Power Splitter	Weinschel	1506A	NW425	Apr. 27,14	Apr. 27,15
Bilog Antenna	ETS-LINDGREEN	3142D	135452	Apr. 27,14	Apr. 27,15
Spectrum Analyzer	Agilent	E4411B	MY4511304	Apr. 27,14	Apr. 27,15
Spectrum Analyzer	R&S	FSV40	132.1.3008K39 -100967	Apr. 27,14	Apr. 27,15
3m Semi-anechoic Chamber	ETS-LINDGREEN	966	KW01	Apr. 27,14	Apr. 27,15
Signal Amplifier	SONOMA	310	187016	Apr. 27,14	Apr. 27,15
Signal Amplifier	Agilent	8449B	3008A00251	Apr. 27,14	Apr. 27,15
RF Cable	IMRO	IMRO-400	966 Cable 1#	N/A	N/A
MULTI-DEVICE Controller	ETS-LINDGREEN	2090	126913	N/A	N/A
Horn Antenna	DAZE	ZN30701	11003	Apr. 27,14	Apr. 27,15
Horn Antenna	SCHWARZBECK	BBHA9170	9170-068	Apr. 27,14	Apr. 27,15
Spectrum Analyzer	Agilent	8593E	3911A04271	Apr. 27,14	Apr. 27,15
Spectrum Analyzer	Agilent	E4408B	MY44211125	Apr. 27,14	Apr. 27,15
Signal Amplifier	DAZE	ZN3380C	11001	Apr. 27,14	Apr. 27,15
High Pass filter	Micro	HPM50111	324216	Apr. 27,14	Apr. 27,15
Filter	COM-MW	ZBSF-C836.5-25-X	KW032	Apr. 27,14	Apr. 27,15
Filter	COM-MW	ZBSF-C1747.5-75-X2	KW035	Apr. 27,14	Apr. 27,15
Filter	COM-MW	ZBSF-C1880-60-X2	KW037	Apr. 27,14	Apr. 27,15
DC Power Supply	LongWei	PS-305D	010964729	Apr. 27,14	Apr. 27,15
Constant temperature and humidity box	GF	GTH-800-40-1P	MAA9906-005	Apr. 27,14	Apr. 27,15
Universal radio communication tester	Rohde&Schwarz	CMU200	3215420	Apr. 27,14	Apr. 27,15
Splitter	Agilent	11636B	0025164	Apr. 27,14	Apr. 27,15

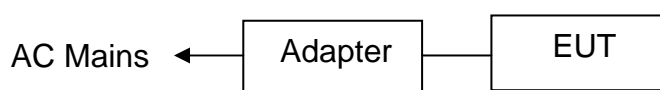
3. TEST SET-UP AND OPERATION MODES

3.1. Principle of Configuration Selection

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the Operating Instructions.

3.2. Block Diagram of Test Set-up

System Diagram of Connections between EUT and Simulators



(EUT: 6" Tablet Remote)

3.3. Test Operation Mode and Test Software

None.

3.4. Special Accessories and Auxiliary Equipment

None.

3.5. Countermeasures to Achieve EMC Compliance

None.

4. EMISSION TEST RESULTS

4.1. Conducted Emission at the Mains Terminals Test

4.1.1. Limit 15.207 limits

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

4.1.2. Test Setup

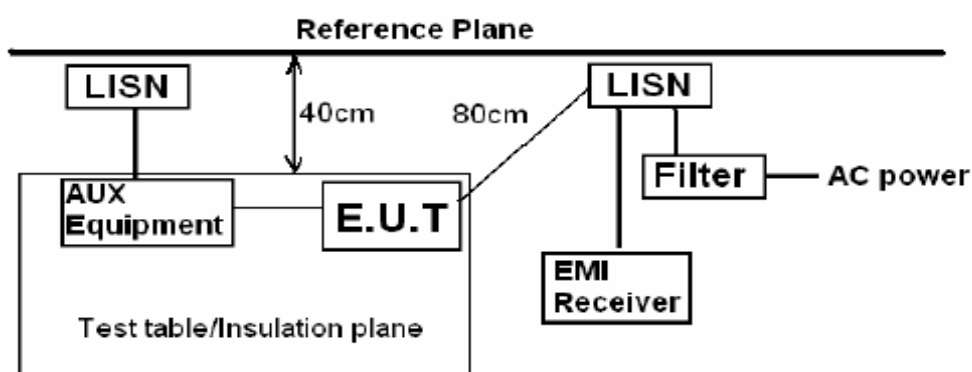
The EUT was put on a wooden table which was 0.8 m high above the ground and connected to the AC mains through the Artificial Mains Network (AMN). Where the mains cable supplied by the manufacture was longer than 0.8 m, the excess was folded back and forth parallel to the cable at the centre so as to form a bundle no longer than 0.4 m.

The EUT was kept 0.4 m from any other earthed conducting surface. Both sides of AC line were checked to find out the maximum conducted emission levels according to the test procedure during the conducted emission test.

The frequency range from 150 kHz to 30 MHz was investigated.

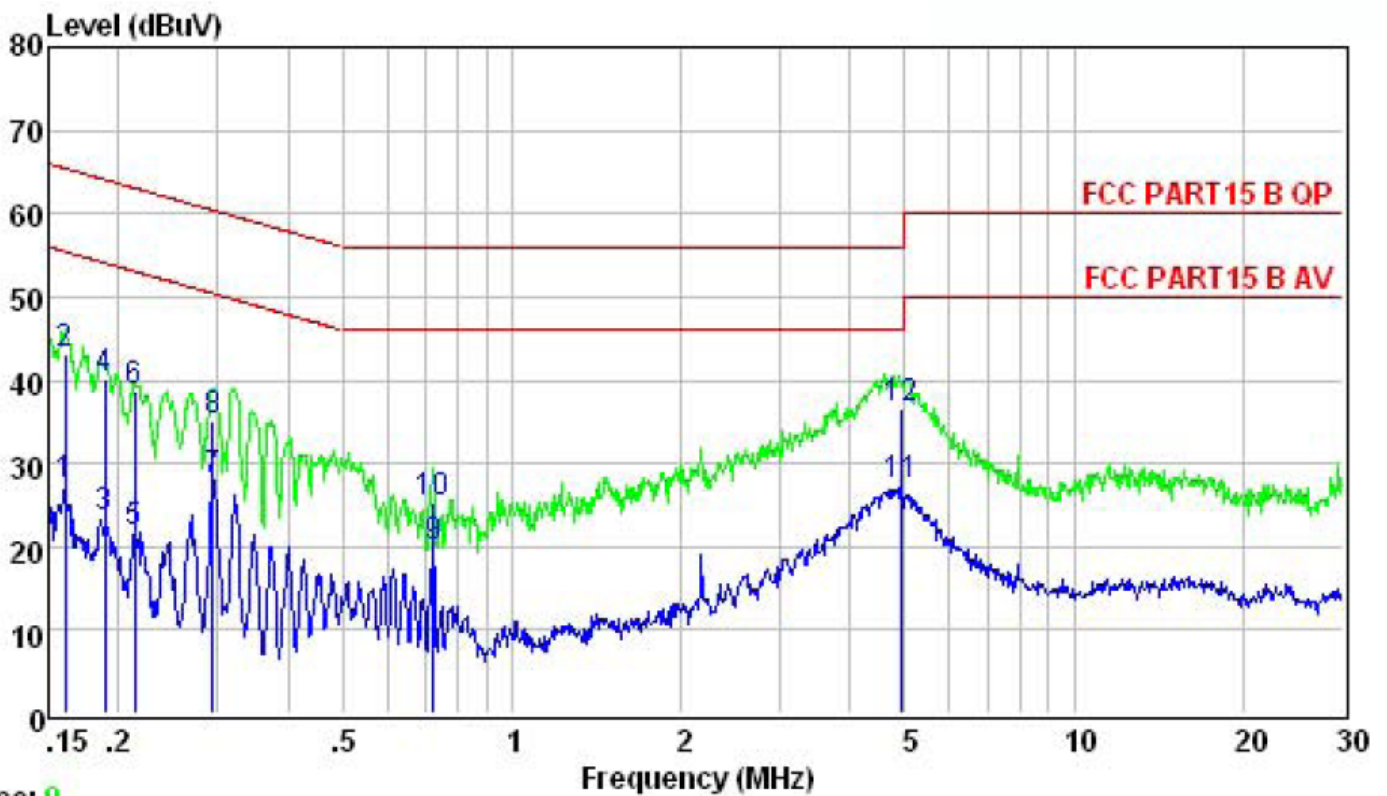
The bandwidth of the test receiver was set at 9 kHz.

Pretest for all mode, The test data of the worst case condition(s) was reported on the following page.



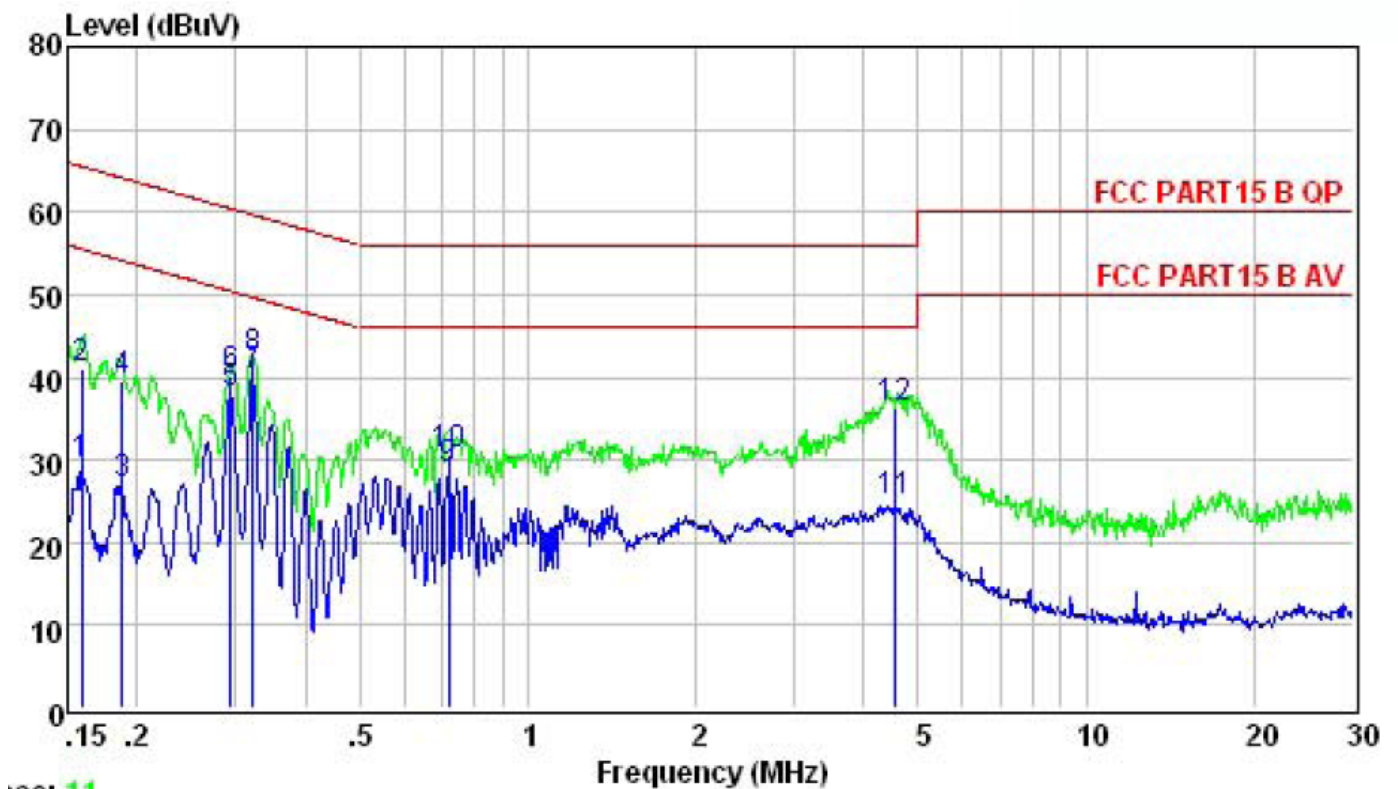
Remark:
E.U.T: Equipment Under Test
LISN: Line Impedance Stabilization Network
Test table height=0.8m

Line



	Freq	Level	Limit	Over	Remark
	MHz	dBuV	dBuV	dB	
1	0.161	27.33	55.43	-28.10	Average
2	0.161	43.25	65.43	-22.18	QP
3	0.189	23.45	54.06	-30.61	Average
4	0.189	40.01	64.06	-24.05	QP
5	0.214	21.65	53.05	-31.40	Average
6	0.214	38.54	63.05	-24.51	QP
7	0.294	27.82	50.41	-22.59	Average
8	0.294	35.14	60.41	-25.27	QP
9	0.724	19.80	46.00	-26.20	Average
10	0.724	25.24	56.00	-30.76	QP
11	4.926	27.28	46.00	-18.72	Average
12	4.926	36.59	56.00	-19.41	QP

Neutral



	Freq	Level	Limit	Over	Remark
	MHz	dBuV	dBuV	dB	
1	0.159	29.37	55.52	-26.15	Average
2	0.159	41.02	65.52	-24.50	QP
3	0.188	27.11	54.11	-27.00	Average
4	0.188	39.51	64.11	-24.60	QP
5	0.294	37.94	50.41	-12.47	Average
6	0.294	40.01	60.41	-20.40	QP
7	0.322	40.09	49.66	-9.57	Average
8	0.322	42.13	59.66	-17.53	QP
9	0.720	28.97	46.00	-17.03	Average
10	0.720	30.58	56.00	-25.42	QP
11	4.525	24.84	46.00	-21.16	Average
12	4.525	36.24	56.00	-19.76	QP

4.2. Radiated Emission Test

4.2.1. Limit 15.209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V}/\text{m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

4.2.2. Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.2.3. Test setup

The EUT was placed on a turn table which was 0.8 m (above 1GHz, the table was 1.5m) above the ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was set 3 m away from the receiving antenna which was mounted on an antenna tower. The measuring antenna moved up and down to find out the maximum emission level. It moved from 1 m to 4 m for both horizontal and vertical polarizations.

The EUT was tested in the Chamber Site. It was pre-scanned with a Peak detector from the spectrum, and all the final readings from the test receiver were measured with the Quasi-Peak detector.

The bandwidth of the EMI test receiver is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz, Both PK and AV measure, PK detector is used.

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

Notes: 1. Emission Level = Antenna Factor + Cable Loss + Meter Reading-Preamp Factor.

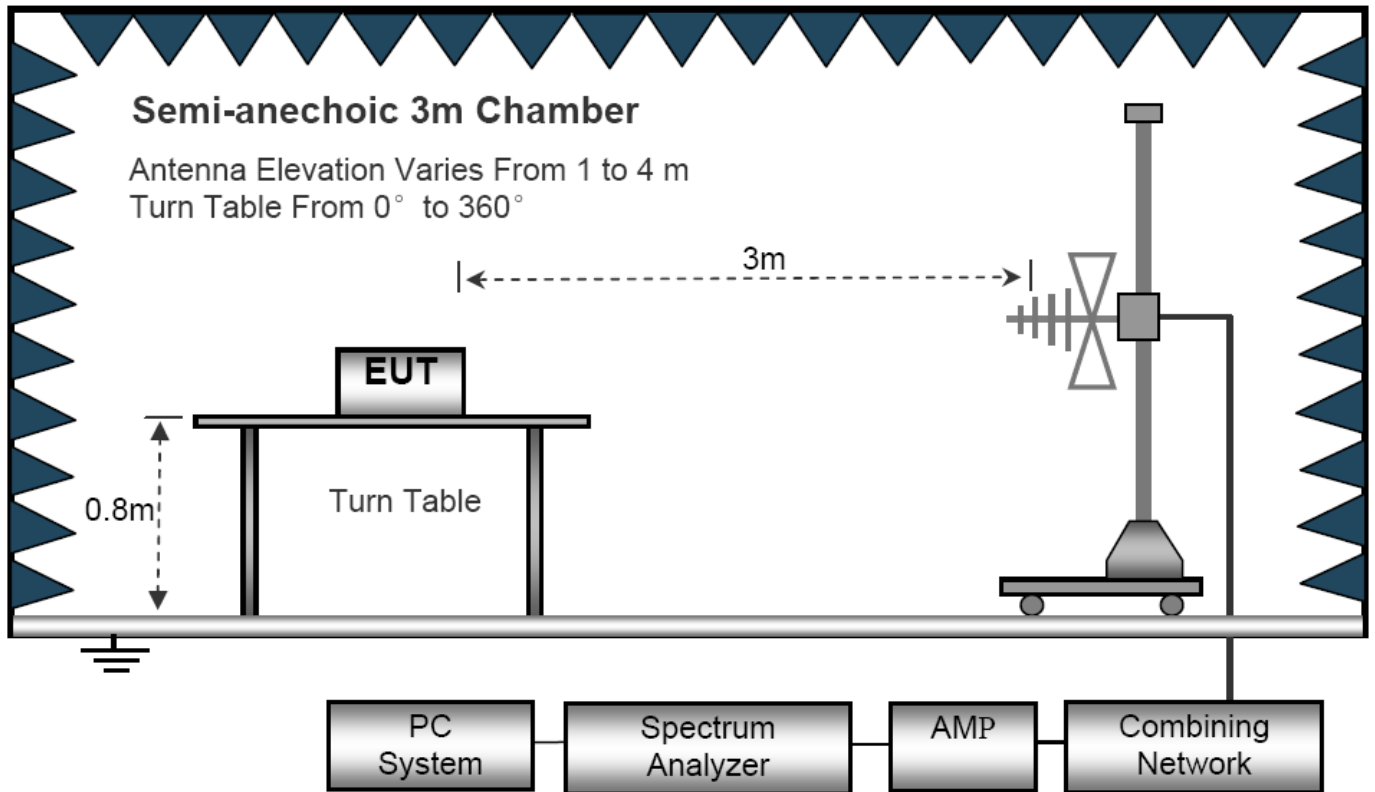
2. Measurement Uncertainty: ± 3.2 dB at a level of confidence of 95%.

3. For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

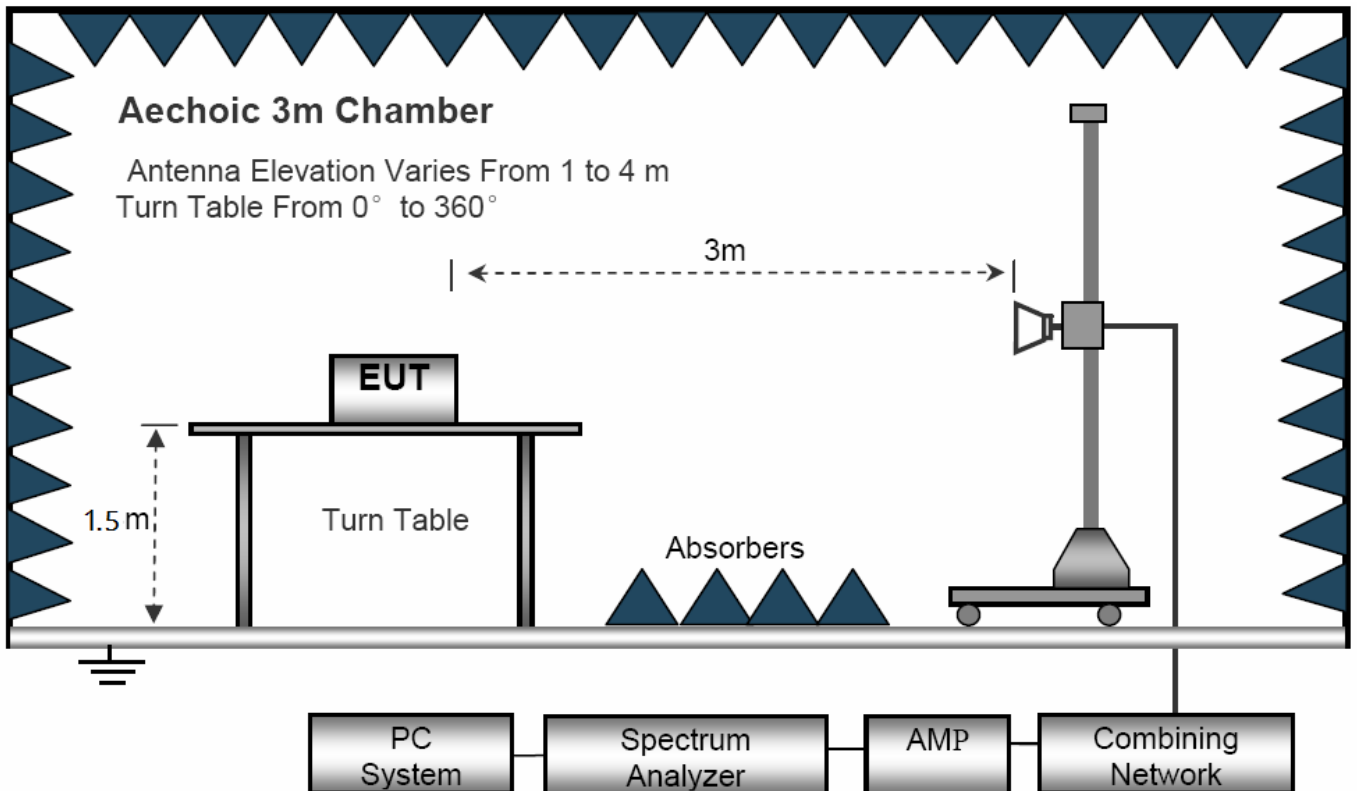
4. For emissions below 1GHz, pretest for all mode, The test data of the worst case condition(s) was reported on the following pages.

5. For Both PK and AV value above 1GHz, PK detector is used.

Below 1GHz

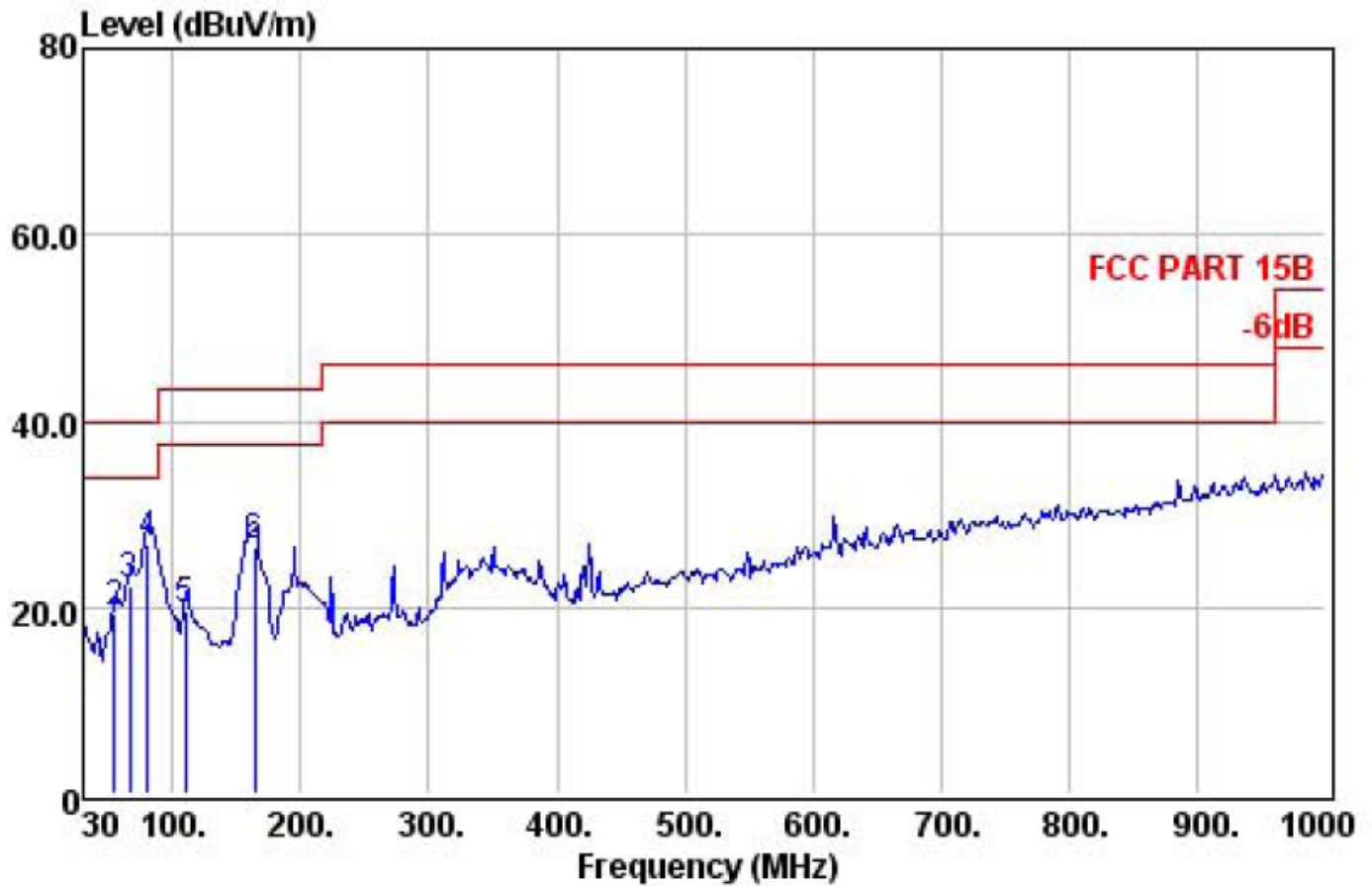


Above 1GHz



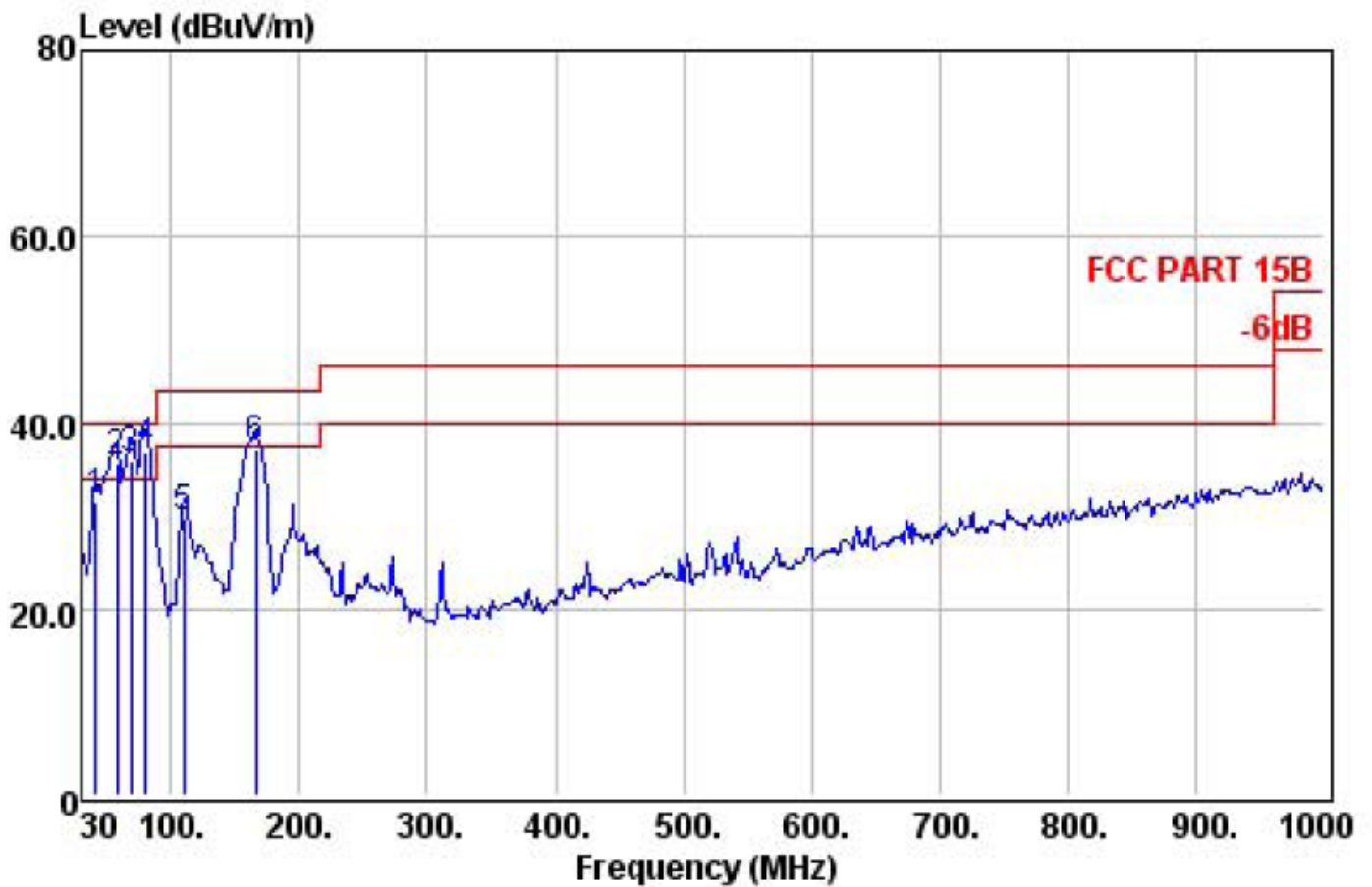
Below 1GHz

Horizontal



	Preamp	Read	CableAntenna		Limit	Over			
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	30.00	31.41	30.20	0.56	18.80	18.15	40.00	-21.85	QP
2	54.25	31.37	41.65	0.75	8.16	19.19	40.00	-20.81	QP
3	66.86	31.31	45.34	0.85	7.44	22.32	40.00	-17.68	QP
4	80.44	31.34	49.28	0.85	8.05	26.84	40.00	-13.16	QP
5	109.54	31.31	40.62	1.03	9.31	19.65	43.50	-23.85	QP
6	163.86	31.21	46.94	1.30	9.55	26.58	43.50	-16.92	QP

Vertical



	Preamp	Read	CableAntenna		Limit	Over			
	Freq	Factor	Level	Loss	Factor	Level	Line	Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	41.64	31.38	50.20	0.56	12.23	31.61	40.00	-8.39	QP
2	57.16	31.36	58.64	0.75	7.73	35.76	40.00	-4.24	QP
3	68.80	31.32	59.06	0.85	7.48	36.07	40.00	-3.93	QP
4	80.44	31.34	59.40	0.85	8.05	36.96	40.00	-3.04	QP
5	109.54	31.31	50.69	1.03	9.31	29.72	43.50	-13.78	QP
6	165.80	31.21	57.40	1.30	9.72	37.21	43.50	-6.29	QP

Above 1GHz

802.11b 2412MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4824.00	27.50	32.02	12.01	32.99	49.52	74.00	-24.48	Peak
2	7236.00	27.95	22.35	16.61	37.30	48.31	74.00	-25.69	Peak
3	8514.00	28.25	15.26	16.77	36.82	40.60	74.00	-33.40	Peak
4	10163.00	28.82	16.30	17.00	38.67	43.15	74.00	-30.85	Peak
5	11098.00	28.91	13.05	17.18	39.58	40.90	74.00	-33.10	Peak
6	13053.00	29.21	12.72	18.28	40.94	42.73	74.00	-31.27	Peak

802.11b 2412MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4824.00	27.50	31.87	12.01	32.99	49.37	74.00	-24.63	Peak
2	7236.00	27.95	22.07	16.61	37.30	48.03	74.00	-25.97	Peak
3	8429.00	28.23	14.73	16.75	36.74	39.99	74.00	-34.01	Peak
4	12424.00	29.08	13.81	17.73	39.49	41.95	74.00	-32.05	Peak
5	14056.00	29.41	8.45	19.40	43.20	41.64	74.00	-32.36	Peak
6	17048.00	30.12	8.22	21.37	44.68	44.15	74.00	-29.85	Peak

802.11b 2437MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	31.59	12.14	33.11	49.31	74.00	-24.69	Peak
2	7311.00	27.96	22.07	16.62	37.32	48.05	74.00	-25.95	Peak
3	8990.00	28.39	18.83	16.88	37.38	44.70	74.00	-29.30	Peak
4	10962.00	28.90	16.34	17.16	39.48	44.08	74.00	-29.92	Peak
5	14243.00	29.44	12.03	19.52	42.10	44.21	74.00	-29.79	Peak
6	16113.00	29.75	14.01	20.71	41.02	45.99	74.00	-28.01	Peak

802.11b 2437MHz Horizontal polarizations

	Preamp Freq	Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	30.53	12.14	33.11	48.25	74.00	-25.75	Peak
2	7311.00	27.96	20.97	16.62	37.32	46.95	74.00	-27.05	Peak
3	9959.00	28.79	8.84	16.96	38.37	35.38	74.00	-38.62	Peak
4	12560.00	29.11	10.44	17.84	39.66	38.83	74.00	-35.17	Peak
5	15161.00	29.57	9.59	20.10	38.47	38.59	74.00	-35.41	Peak
6	16691.00	29.98	7.79	21.11	43.86	42.78	74.00	-31.22	Peak

802.11b 2462MHz Horizontal polarizations

	Preamp Freq	Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4924.00	27.56	30.74	12.28	33.23	48.69	74.00	-25.31	Peak
2	7386.00	27.98	21.51	16.62	37.36	47.51	74.00	-26.49	Peak
3	8905.00	28.37	17.05	16.86	37.28	42.82	74.00	-31.18	Peak
4	12169.00	29.03	16.05	17.52	39.43	43.97	74.00	-30.03	Peak
5	15025.00	29.55	14.88	20.02	38.50	43.85	74.00	-30.15	Peak
6	15841.00	29.68	13.42	20.54	39.71	43.99	74.00	-30.01	Peak

802.11b 2462MHz Vertical polarizations

	Preamp Freq	Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4924.00	27.56	30.99	12.28	33.23	48.94	74.00	-25.06	Peak
2	7386.00	27.98	21.33	16.62	37.36	47.33	74.00	-26.67	Peak
3	9840.00	28.74	15.56	16.95	38.28	42.05	74.00	-31.95	Peak
4	12407.00	29.08	12.97	17.71	39.48	41.08	74.00	-32.92	Peak
5	13784.00	29.36	12.30	19.12	43.28	45.34	74.00	-28.66	Peak
6	15008.00	29.55	14.30	20.01	38.50	43.26	74.00	-30.74	Peak

802.11g 2412MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4824.00	27.50	31.37	12.01	32.99	48.87	74.00	-25.13	Peak
2	7236.00	27.95	21.57	16.61	37.30	47.53	74.00	-26.47	Peak
3	9687.00	28.68	12.05	16.94	38.15	38.46	74.00	-35.54	Peak
4	11574.00	28.96	11.11	17.28	39.83	39.26	74.00	-34.74	Peak
5	14107.00	29.42	8.65	19.43	42.90	41.56	74.00	-32.44	Peak
6	15382.00	29.61	13.70	20.24	38.42	42.75	74.00	-31.25	Peak

802.11g 2412MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4824.00	27.50	30.69	12.01	32.99	48.19	74.00	-25.81	Peak
2	7236.00	27.95	21.67	16.61	37.30	47.63	74.00	-26.37	Peak
3	8361.00	28.21	17.09	16.74	36.69	42.31	74.00	-31.69	Peak
4	11285.00	28.93	14.76	17.22	39.73	42.78	74.00	-31.22	Peak
5	13597.00	29.32	12.23	18.89	43.10	44.90	74.00	-29.10	Peak
6	15059.00	29.56	15.65	20.03	38.49	44.61	74.00	-29.39	Peak

802.11g 2437MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	30.84	12.14	33.11	48.56	74.00	-25.44	Peak
2	7311.00	27.96	21.96	16.62	37.32	47.94	74.00	-26.06	Peak
3	9194.00	28.48	14.84	16.89	37.63	40.88	74.00	-33.12	Peak
4	11268.00	28.93	13.84	17.22	39.71	41.84	74.00	-32.16	Peak
5	13223.00	29.24	10.66	18.46	41.73	41.61	74.00	-32.39	Peak
6	14668.00	29.50	12.21	19.79	39.90	42.40	74.00	-31.60	Peak

802.11g 2437MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	30.47	12.14	33.11	48.19	74.00	-25.81	Peak
2	7311.00	27.96	21.34	16.62	37.32	47.32	74.00	-26.68	Peak
3	9483.00	28.59	16.76	16.92	37.98	43.07	74.00	-30.93	Peak
4	10928.00	28.89	15.05	17.15	39.46	42.77	74.00	-31.23	Peak
5	12118.00	29.02	14.56	17.47	39.42	42.43	74.00	-31.57	Peak
6	14090.00	29.41	12.52	19.43	43.00	45.54	74.00	-28.46	Peak

802.11g 2462MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4924.00	27.56	30.80	12.28	33.23	48.75	74.00	-25.25	Peak
2	7386.00	27.98	21.36	16.62	37.36	47.36	74.00	-26.64	Peak
3	9058.00	28.42	16.73	16.88	37.46	42.65	74.00	-31.35	Peak
4	10996.00	28.90	14.89	17.16	39.50	42.65	74.00	-31.35	Peak
5	12560.00	29.11	13.00	17.84	39.66	41.39	74.00	-32.61	Peak
6	15841.00	29.68	15.37	20.54	39.71	45.94	74.00	-28.06	Peak

802.11g 2462MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4924.00	27.56	31.41	12.28	33.23	49.36	74.00	-24.64	Peak
2	7386.00	27.98	22.27	16.62	37.36	48.27	74.00	-25.73	Peak
3	9364.00	28.54	16.67	16.91	37.83	42.87	74.00	-31.13	Peak
4	11710.00	28.97	13.62	17.31	39.69	41.65	74.00	-32.35	Peak
5	13546.00	29.31	9.78	18.83	43.05	42.35	74.00	-31.65	Peak
6	14957.00	29.54	15.58	19.97	38.71	44.72	74.00	-29.28	Peak

802.11n(HT20) 2412MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4824.00	27.50	30.83	12.01	32.99	48.33	74.00	-25.67	Peak
2	7236.00	27.95	21.49	16.61	37.30	47.45	74.00	-26.55	Peak
3	9024.00	28.41	14.96	16.88	37.42	40.85	74.00	-33.15	Peak
4	11336.00	28.93	13.84	17.23	39.77	41.91	74.00	-32.09	Peak
5	12917.00	29.18	12.43	18.14	40.50	41.89	74.00	-32.11	Peak
6	15076.00	29.56	14.50	20.04	38.49	43.47	74.00	-30.53	Peak

802.11n(HT20) 2412MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4824.00	27.50	31.07	12.01	32.99	48.57	74.00	-25.43	Peak
2	7236.00	27.95	21.40	16.61	37.30	47.36	74.00	-26.64	Peak
3	9177.00	28.47	18.10	16.89	37.61	44.13	74.00	-29.87	Peak
4	12237.00	29.05	14.39	17.56	39.45	42.35	74.00	-31.65	Peak
5	14294.00	29.44	10.13	19.55	41.80	42.04	74.00	-31.96	Peak
6	15739.00	29.66	14.34	20.47	39.32	44.47	74.00	-29.53	Peak

802.11n(HT20) 2437MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	31.26	12.14	33.11	48.98	74.00	-25.02	Peak
2	7311.00	27.96	20.30	16.62	37.32	46.28	74.00	-27.72	Peak
3	8769.00	28.33	19.14	16.83	37.12	44.76	74.00	-29.24	Peak
4	12441.00	29.09	15.39	17.74	39.49	43.53	74.00	-30.47	Peak
5	14804.00	29.52	14.95	19.87	39.34	44.64	74.00	-29.36	Peak
6	15552.00	29.63	16.21	20.35	38.60	45.53	74.00	-28.47	Peak

802.11n(HT20) 2437MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	31.59	12.14	33.11	49.31	74.00	-24.69	Peak
2	7311.00	27.96	21.17	16.62	37.32	47.15	74.00	-26.85	Peak
3	8565.00	28.27	17.84	16.78	36.88	43.23	74.00	-30.77	Peak
4	11234.00	28.92	17.03	17.21	39.69	45.01	74.00	-28.99	Peak
5	13427.00	29.28	13.51	18.71	42.68	45.62	74.00	-28.38	Peak
6	15161.00	29.57	19.75	20.10	38.47	48.75	74.00	-25.25	Peak

802.11n(HT20) 2462MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4924.00	27.56	31.22	12.28	33.23	49.17	74.00	-24.83	Peak
2	7386.00	27.98	21.34	16.62	37.36	47.34	74.00	-26.66	Peak
3	8956.00	28.38	16.18	16.87	37.34	42.01	74.00	-31.99	Peak
4	10945.00	28.89	14.08	17.16	39.47	41.82	74.00	-32.18	Peak
5	12883.00	29.18	13.90	18.11	40.42	43.25	74.00	-30.75	Peak
6	15212.00	29.58	14.75	20.13	38.46	43.76	74.00	-30.24	Peak

802.11n(HT20) 2462MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4924.00	27.56	30.18	12.28	33.23	48.13	74.00	-25.87	Peak
2	7386.00	27.98	20.69	16.62	37.36	46.69	74.00	-27.31	Peak
3	9313.00	28.52	15.93	16.91	37.77	42.09	74.00	-31.91	Peak
4	10656.00	28.87	14.67	17.10	39.29	42.19	74.00	-31.81	Peak
5	12713.00	29.14	14.99	17.97	40.02	43.84	74.00	-30.16	Peak
6	14124.00	29.42	8.43	19.44	42.80	41.25	74.00	-32.75	Peak

802.11n(HT40) 2422MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4844.00	27.51	31.00	12.05	33.03	48.57	74.00	-25.43	Peak
2	7266.00	27.95	21.57	16.61	37.31	47.54	74.00	-26.46	Peak
3	8990.00	28.39	17.12	16.88	37.38	42.99	74.00	-31.01	Peak
4	10503.00	28.85	15.91	17.07	39.20	43.33	74.00	-30.67	Peak
5	13172.00	29.23	10.29	18.40	41.49	40.95	74.00	-33.05	Peak
6	15195.00	29.58	10.73	20.12	38.46	39.73	74.00	-34.27	Peak

802.11n(HT40) 2422MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4844.00	27.51	31.30	12.05	33.03	48.87	74.00	-25.13	Peak
2	7266.00	27.95	21.00	16.61	37.31	46.97	74.00	-27.03	Peak
3	9126.00	28.45	14.12	16.89	37.54	40.10	74.00	-33.90	Peak
4	11353.00	28.94	13.27	17.24	39.78	41.35	74.00	-32.65	Peak
5	13325.00	29.26	9.97	18.59	42.21	41.51	74.00	-32.49	Peak
6	14753.00	29.51	12.11	19.84	39.55	41.99	74.00	-32.01	Peak

802.11n(HT40) 2437MHz Vertical polarizations

	Freq	Preamp Factor	Read Level	CableAntenna Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	31.39	12.14	33.11	49.11	74.00	-24.89	Peak
2	7311.00	27.96	20.61	16.62	37.32	46.59	74.00	-27.41	Peak
3	8922.00	28.37	13.79	16.86	37.30	39.58	74.00	-34.42	Peak
4	10792.00	28.88	13.41	17.12	39.38	41.03	74.00	-32.97	Peak
5	13206.00	29.24	9.22	18.44	41.65	40.07	74.00	-33.93	Peak
6	15008.00	29.55	11.65	20.01	38.50	40.61	74.00	-33.39	Peak

802.11n(HT40) 2437MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4874.00	27.53	30.22	12.14	33.11	47.94	74.00	-26.06	Peak
2	7311.00	27.96	22.05	16.62	37.32	48.03	74.00	-25.97	Peak
3	8718.00	28.31	14.50	16.82	37.06	40.07	74.00	-33.93	Peak
4	10741.00	28.87	12.15	17.11	39.34	39.73	74.00	-34.27	Peak
5	14447.00	29.47	10.44	19.64	40.90	41.51	74.00	-32.49	Peak
6	15671.00	29.65	15.43	20.42	39.06	45.26	74.00	-28.74	Peak

802.11n(HT40) 2452MHz Horizontal polarizations

	Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4904.00	27.55	31.16	12.23	33.19	49.03	74.00	-24.97	Peak
2	7356.00	27.97	20.65	16.62	37.34	46.64	74.00	-27.36	Peak
3	9772.00	28.71	14.83	16.94	38.22	41.28	74.00	-32.72	Peak
4	11778.00	28.98	14.05	17.32	39.62	42.01	74.00	-31.99	Peak
5	13767.00	29.35	11.04	19.10	43.27	44.06	74.00	-29.94	Peak
6	15671.00	29.65	14.43	20.42	39.06	44.26	74.00	-29.74	Peak

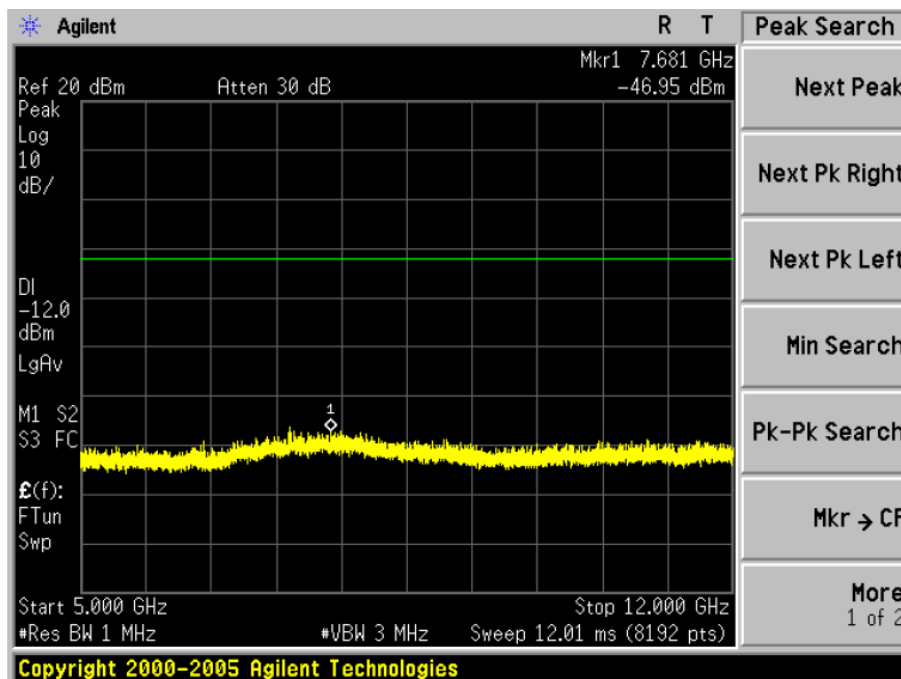
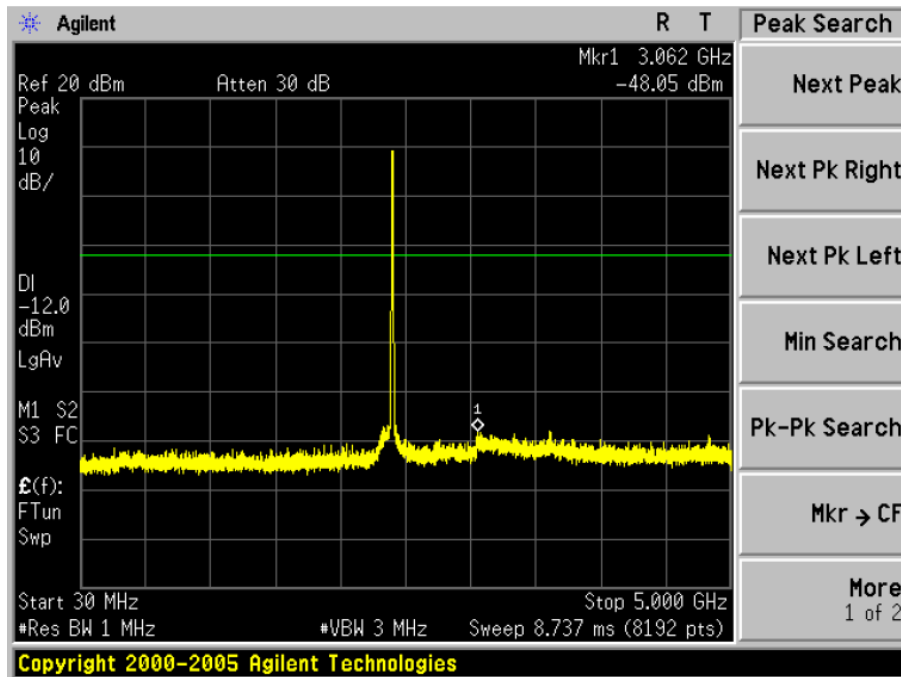
802.11n(HT40) 2452MHz Vertical polarizations

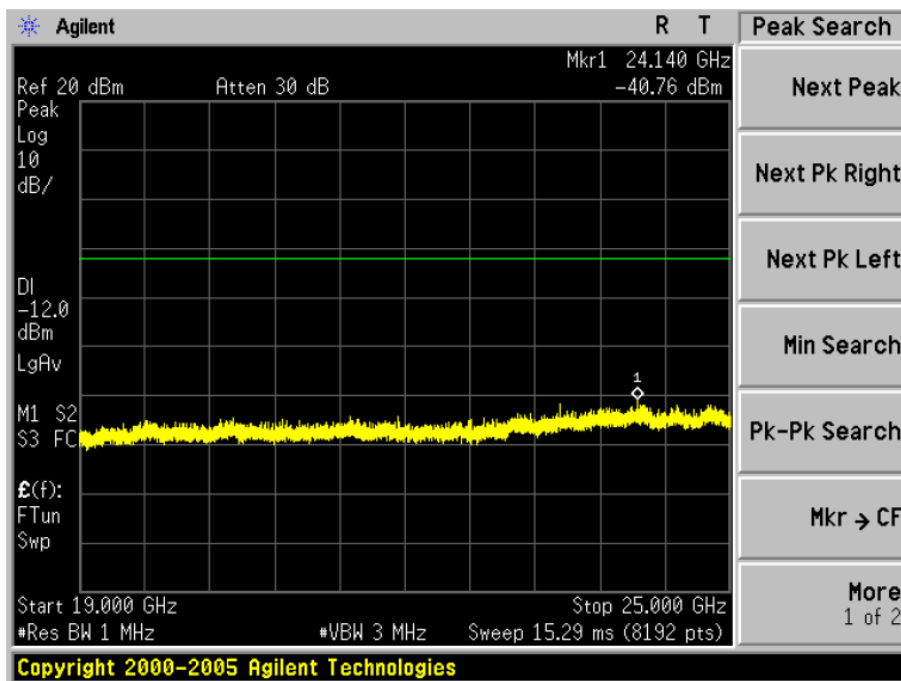
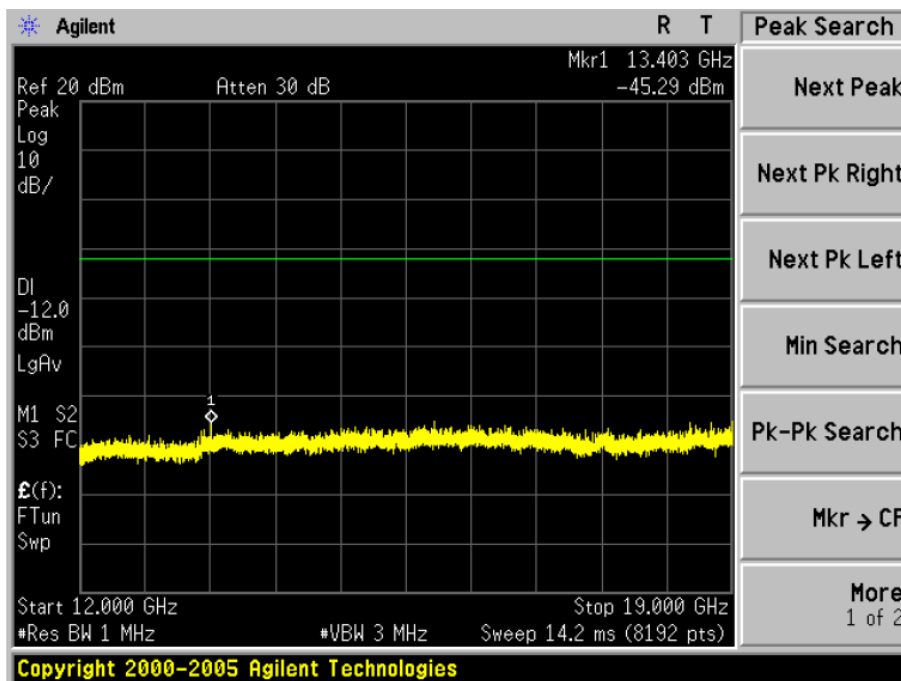
	Freq	Preamp Factor	Read Level	Cable Loss	Antenna Factor	Level	Limit Line	Over Limit	Remark
	MHz	dB	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	4904.00	27.55	30.10	12.23	33.19	47.97	74.00	-26.03	Peak
2	7356.00	27.97	20.39	16.62	37.34	46.38	74.00	-27.62	Peak
3	9415.00	28.57	16.41	16.91	37.90	42.65	74.00	-31.35	Peak
4	10792.00	28.88	16.28	17.12	39.38	43.90	74.00	-30.10	Peak
5	11404.00	28.94	15.28	17.25	39.82	43.41	74.00	-30.59	Peak
6	13597.00	29.32	11.37	18.89	43.10	44.04	74.00	-29.96	Peak

For conducted test

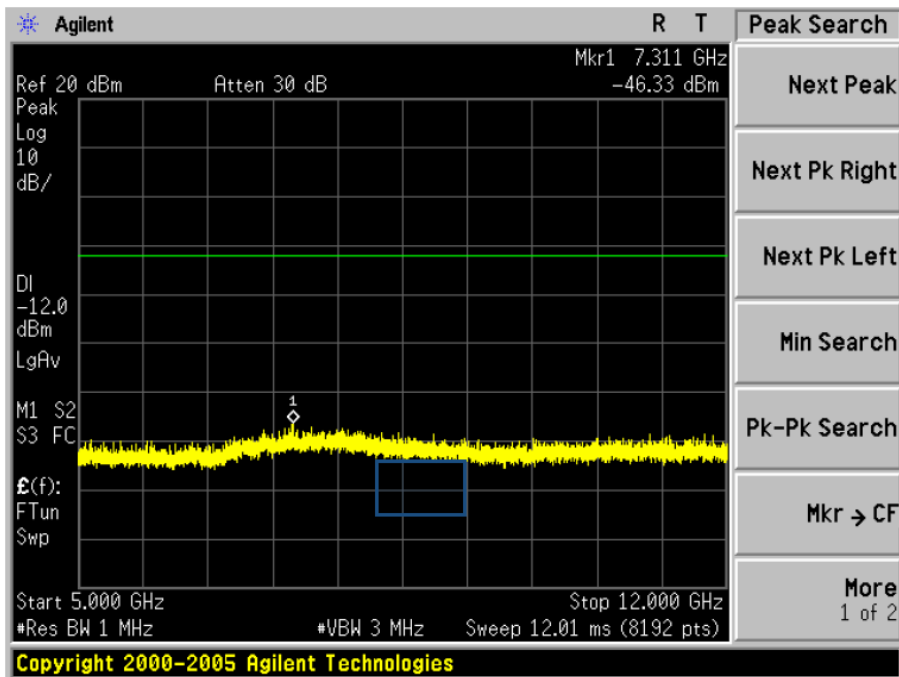
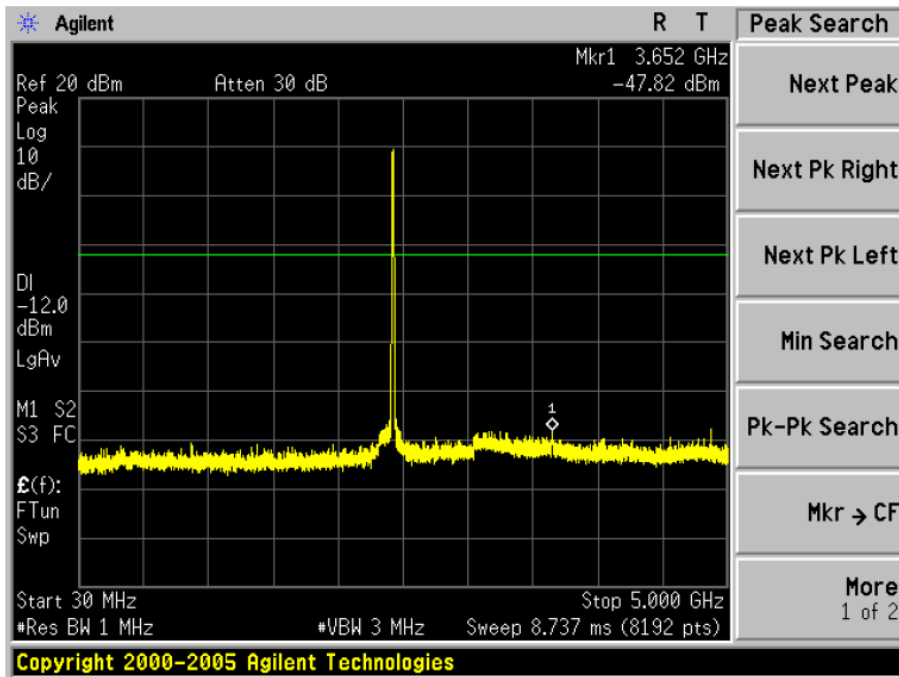
All modes for 802.11b/g/n have tested, and the worst result 802.11b recorded as below.

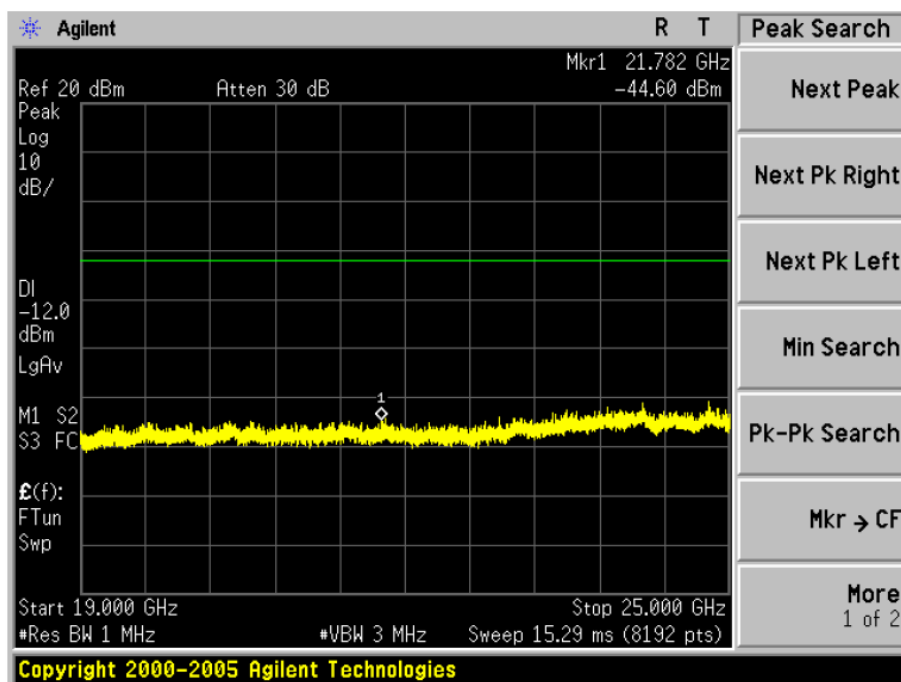
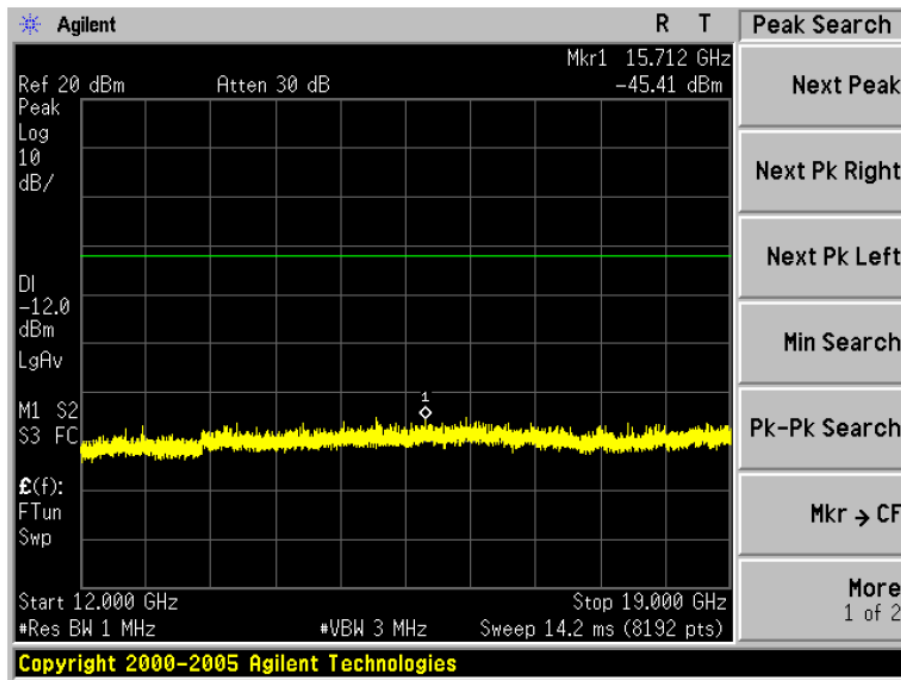
802.11b 2412MHz





802.11b 2437MHz





802.11b 2462MHz

