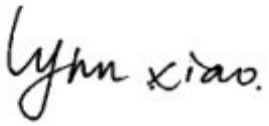
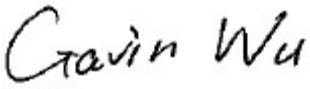
TEST REPORT

Report No.:	**EM201300325-6**	**Application No.:**	**ZJ00029362**
Applicant:	Harman International Industries, Incorporated		
Applicant Address:	8500 Balboa Blvd, Northridge, CA 91329, UNITED STATES		
Sample Description:	Blu-RAY DISC SYSTEM		
Model:	BDS 280		
Adding Model:	/		
FCC ID:	APIBDS280		
Test Specification:	FCC Part 15,Subpart C(Section 15.247)		
Test Date:	2013-05-22 to 2013-06-19		
Issue Date:	2013-06-19		
Test Result:	*PASS*		

Prepared By:	**Reviewed By:**	**Approved By:**
Lynn Xiao/ Test Engineer	Jane Cao / Technical Assistance	Gavin Wu / Manager
		
Date:2013-06-19	Date:2013-06-19	Date:2013-06-19

Other Aspects:

/

Abbreviations: *ok / P = passed; fail / F = failed; n.a. / N = not applicable*

The test result in this test report refers exclusively to the presented test sample. This report shall not be reproduced except in full, without the written approval of GRGT.

GRG Metrology and Test Co., Ltd. Address: 163, Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, P.R. China

Tel:+86-20-38699960 Fax:+86-20-38695185 Email: cert-center@grg.net.cn http://www.grgtest.com Ver.:1.0 / 01.Jan.2011

DIRECTIONS OF TEST

1. This station carries out test task according to the national regulation of verifications which can be traced to National Primary Standards and BIPM.

2. The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

3. If there is any objection concerning the test, the client should inform the laboratory within 15 days from the date of receiving the test report.

Table of Contents

1. TEST RESULT SUMMARY

Section B of FCC Part 15.247:2009			
Standard	**Item**	**Limit / Severity**	**Result**
FCC Part 15,Subpart C (15.247)	Antenna Requirement	§15.203	PASS
	Conducted Emissions	§15.207 (a)	PASS
	Radiated Electromagnetic Disturbance	§15.247(d)	PASS
	6 Db Bandwidth	§15.247 (a)(2)	PASS
	Maximum Peak Output Power	§15.247(b)(3)	PASS
	Power Spectral Density	§15.247(e)	PASS
	Emissions In Non-Restricted Frequency Bands	§15.247(d)	PASS
	Emissions In Restricted Frequency Bands	§15.205	PASS
	Band-Edge Measurements	§15.247(d)	PASS

2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name:	Harman International Industries, Incorporated
Address:	8500 Balboa Blvd, Northridge, CA 91329, UNITED STATES

2.2 MANUFACTURER

Name:	TCL TECHNOLY ELECTRONICS (HUIZHOU) CO., LTD
Address:	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guang Dong Province, China.

2.3 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment:	Blu-RAY DISC SYSTEM
Model No.:	BDS 280
Adding Model	/
Trade Name:	harman/kardon
Power supply	AC 100-240V,50/60Hz
Frequency Range	2400MHZ~ 2483.5MHz
Antenna gain:	2dBi；3dBi
Type of emission	WIFI
Modulation type	DSSS（802.11b）OFDM（802.11g）
Note:	Pretest the two antenna port (con1 and con2). Found that con1 is worst and the antenna of this port is 3dBi. So we record con1 port data.

3. LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests and measurements refer to this report were performed by Guangzhou GRG Metrology and Test CO., LTD.

Add. : 163 Pingyun Rd, West of Huangpu Ave, Guangzhou, 510656, P. R. China

Telephone: +86-20-38699959, 38699960, 38699961

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3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC Listed Lab (No. 688188)
China	CNAS （No.L0446）
China	DILAC (No.DL175)
Canada	Registration No.:8355A-1

3.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		**Frequency**	**Uncertainty**
Radiated Emission	Horizontal	30MHz～1000MHz	4.2dB
		1GHz～26.5GHz	4.2dB
	Vertical	30MHz～1000MHz	4.4dB
		1GHz～26.5GHz	4.4dB
Conducted Emission		9kHz～30MHz	3.1 dB

This uncertainty represents an expanded uncertainty factor of *k*=2.

3.4 LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Conducted Emissions				
EMI Receiver	R&S	ESU40	100529	2014-01-24
L.I.S.N	SCHWARZBECK	NSLK 8127	8127450	2013-08-06
Spurious Emissions at Antenna Port				
Receiver	R&S	ESU40	100106	2014-01-24
Restricted Bands				
Receiver	R&S	ESU40	100106	2014-01-24
Spurious Emissions				
Receiver	R&S	ESU40	100106	2014-01-24
Signal Generator	R&S	SML03	103002	2013-11-14
Biconical Log-periodic Antenna	ETS.LINDGREN	3142C	00075971	2014-05-26
Horn antenna	SCHWARZBECK	BBHA9120D	D752	2013-10-14
6 dB Bandwidth				
Receiver	R&S	ESU40	100106	2014-01-24
Maximum Peak Output Power				
Receiver	R&S	ESU40	100106	2014-01-24
100kHz Bandwidth of Frequency Band Edge				
Receiver	R&S	ESU40	100106	2014-01-24
Power Spectral Density				
Receiver	R&S	ESU40	100106	2014-01-24

NOTE: The calibration interval of the above test instruments is 12 months.

4. ANTENNA REQUIREMENT

The EUT has two antennas. The antenna is a PCB antenna and an exposed antenna.
The gain of antenna 0 is 3dBi and the gain of antenna 1 is 2dBi .which accordance 15.203.is considered sufficient to comply with the provisions of this section

5. CONDUCTED EMISSION MEASUREMENT

5.1 LIMITS

Frequency range	Limits (dBμV)	
	Quasi-peak	Average
150kHz ～ 0.5MHz	66～56	56～46
0.5 MHz ～ 5 MHz	56	46
5 MHz ～ 30 MHz	60	50

NOTE: (1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range of 150 kHz to 0.5MHz.

5.2 TEST PROCEDURES

Procedure of Preliminary Test

Test procedures follow ANSI C63.4:2009.
For measurement of the disturbance voltage the equipment under test (EUT) is connected to the power supply mains and any other extended network via one or more artificial network(s). An EUT, whether intended to be grounded or not, and which is to be used on a table is configured as follows:

– Either the bottom or the rear of the EUT shall be at a controlled distance of 40 cm from a reference ground plane. This ground plane is normally the wall or floor of a shielded room. It may also be a grounded metal plane of at least 2 m by 2 m. This is physically accomplished as follows:

1) place the EUT on a table of non-conducting material which is at least 80 cm high. Place the EUT so that it is 40 cm from the wall of the shielded room, or

2) place the EUT on a table of non-conducting material which is 40 cm high so that the bottom of the EUT is 40 cm above the ground plane;

– All other conductive surfaces of the EUT shall be at least 80 cm from the reference ground plane;

– The EUT are placed on the floor that one side of the housings is 40 cm from the vertical reference ground plane and other metallic parts;

– Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 cm to 40 cm long, hanging approximately in the middle between the ground plane and the table.

– I/O cables that are connected to a peripheral shall be bundled in the centre. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1 m.

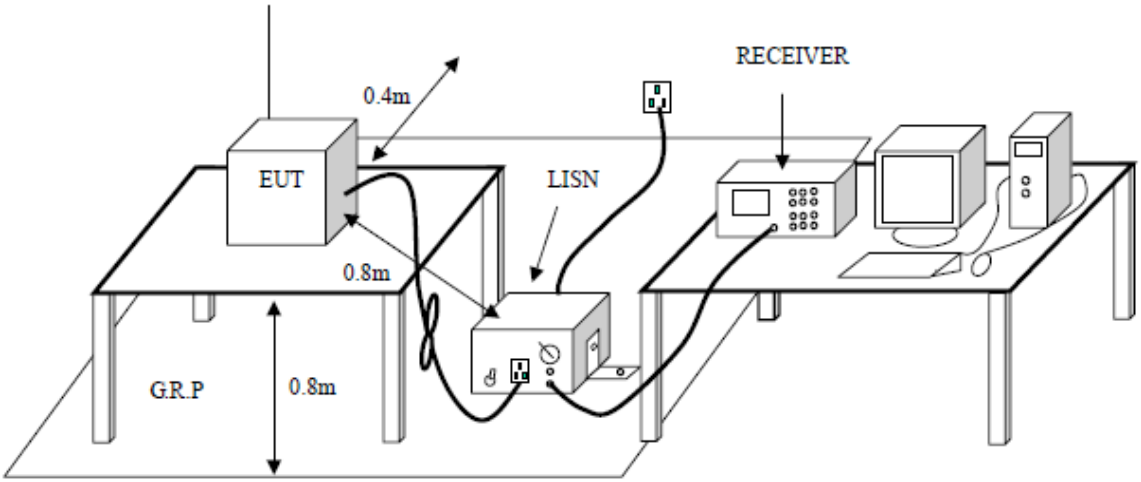
The test mode(s) described in Item 2.4 were scanned during the preliminary test. After the preliminary scan, we found the test mode described in Item 2.4 producing the highest emission level. The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test. A scan was taken on both power lines,

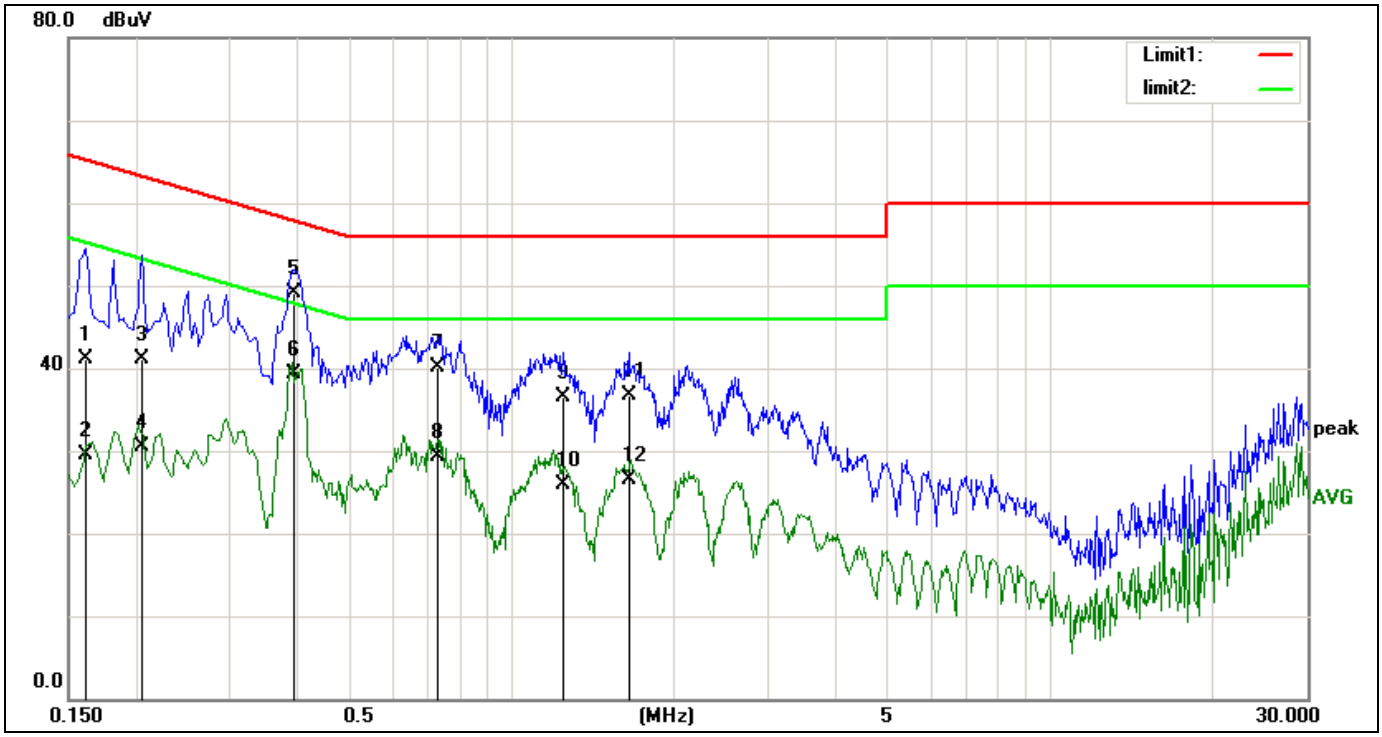
recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. The test data of the worst-case condition(s) was recorded.

5.3 TEST SETUP



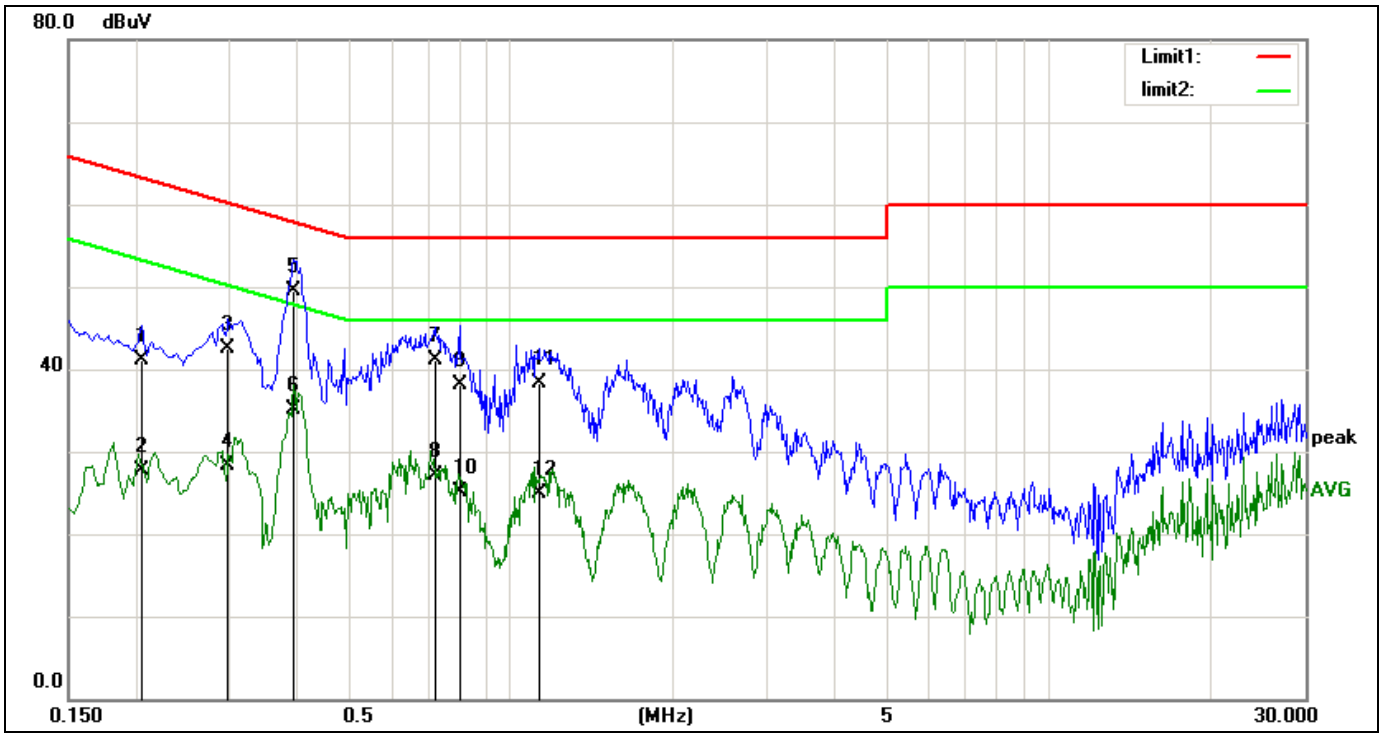
5.4 TEST RESULTS

Project No.:	**ZJ00029362**	**Probe:**	**L1**
Standard:	**(CE)FCC PART 15 class B _QP**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Conduction Test**	**Date:**	**2013-6-13**
Temp./Hum.(%RH):	**25/57%RH**	**Time:**	**8:19:23**
EUT:	**Blu-RAY DISC SYSTEM**		
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:			



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV)	(dBuV)	(dB)	
1	0.1620	39.31	1.79	41.10	65.36	-24.26	QP
2	0.1620	27.81	1.79	29.60	55.36	-25.76	AVG
3	0.2060	40.20	1.00	41.20	63.36	-22.16	QP
4	0.2060	29.50	1.00	30.50	53.36	-22.86	AVG
5	0.3940	48.46	0.74	49.20	57.98	-8.78	QP
6	0.3940	38.56	0.74	39.30	47.98	-8.68	AVG
7	0.7300	39.79	0.41	40.20	56.00	-15.80	QP
8	0.7300	28.99	0.41	29.40	46.00	-16.60	AVG
9	1.2460	36.00	0.50	36.50	56.00	-19.50	QP
10	1.2460	25.50	0.50	26.00	46.00	-20.00	AVG
11	1.6460	36.13	0.57	36.70	56.00	-19.30	QP
12	1.6460	26.03	0.57	26.60	46.00	-19.40	AVG

Project No.:	**ZJ00029362**	**Probe:**	**N**
Standard:	**(CE)FCC PART 15 class B _QP**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Conduction Test**	**Date:**	**2013-6-13**
Temp./Hum.(%RH):	**25/57%RH**	**Time:**	**8:19:23**
EUT:	**Blu-RAY DISC SYSTEM**		
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:			



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV)	Factor(dB)	(dBuV)	(dBuV)	(dB)	
1	0.2060	40.20	1.00	41.20	63.36	-22.16	QP
2	0.2060	26.80	1.00	27.80	53.36	-25.56	AVG
3	0.2980	41.69	0.91	42.60	60.30	-17.70	QP
4	0.2980	27.39	0.91	28.30	50.30	-22.00	AVG
5	0.3940	48.86	0.74	49.60	57.98	-8.38	QP
6	0.3940	34.36	0.74	35.10	47.98	-12.88	AVG
7	0.7220	40.79	0.41	41.20	56.00	-14.80	QP
8	0.7220	26.69	0.41	27.10	46.00	-18.90	AVG
9	0.8020	37.79	0.41	38.20	56.00	-17.80	QP
10	0.8020	24.69	0.41	25.10	46.00	-20.90	AVG
11	1.1260	37.78	0.52	38.30	56.00	-17.70	QP
12	1.1260	24.48	0.52	25.00	46.00	-21.00	AVG

6. RADIATED ELECTROMAGNETIC DISTURBANCE

6.1 LIMITS

Frequency (MHz)	Quasi-peak(dBμV/m)
30 ~ 88	40
88~216	43.5
216 ~ 960	46
Above 960	54

NOTE: (1) The lower limit shall apply at the transition frequencies.

Frequency (GHz)	Quasi-peak(dBμV/m)
1 ~ 26.5	74
1~ 26.5	54

6.2 TEST PROCEDURES

Test procedures follow ANSI C63.4:2009.

Procedure of Preliminary Test

Radiated emission tests shall be made with the receive or transmit antenna located at a horizontal distance of 3 m plus half of the maximum width of the EUT being tested, measured from the centre of the EUT. The tests shall be performed with the equipment configured as closely as possible to its typical, practical operation. Unless stated otherwise, cables and wiring shall be as specified by the manufacturer and the equipment shall be in its housing (or cabinet) with all covers and access panels in place. Any deviation from normal EUT operating conditions shall be included in the test report.

The EUT (on a non-conductive support structure, where applicable) shall be placed on a remotely operated turntable, to allow the EUT to be rotated. The height of the EUT above the ground plane shall be according to the following requirements.

• Table-top equipment is placed on a non-conductive set-up table with height 0,8 m ± 0,01 m, ANSI C63.4 specifies the method to determine the impact of the non-conductive set-up table on test results.

• Floor-standing equipment is placed on a non-conductive support, as specified in the applicable product standard. If there are no EUT height placement requirements in the product standard, the EUT shall be placed on a non-conductive support at a height of 5 cm to 15 cm above the ground plane.

Interface cables, loads, and devices should be connected to at least one of each type of the interface ports of the EUT and, where practical, each cable shall be terminated in a device typical for its actual use. Where there are multiple interface ports of the same type, a typical number of these devices shall be connected to devices or loads. It is sufficient to connect only one of the loads, provided that it can be shown, for example by preliminary testing, that the connection of further ports would not significantly increase the level of disturbance (that is, more than 2 dB) or significantly degrade the immunity level.

The test mode(s) described in Item 2.4 were scanned during the preliminary test. After the preliminary scan, we found the test mode described in Item 2.4 producing the highest emission level. The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

Procedure of Final Test

EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test. The Analyzer / Receiver scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 meters above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level. Record at least six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only QP reading is presented. The test data of the worst-case condition(s) was recorded.

Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test. A scan was taken on both power lines, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. The test data of the worst-case condition(s) was recorded.

6.3 TEST SETUP

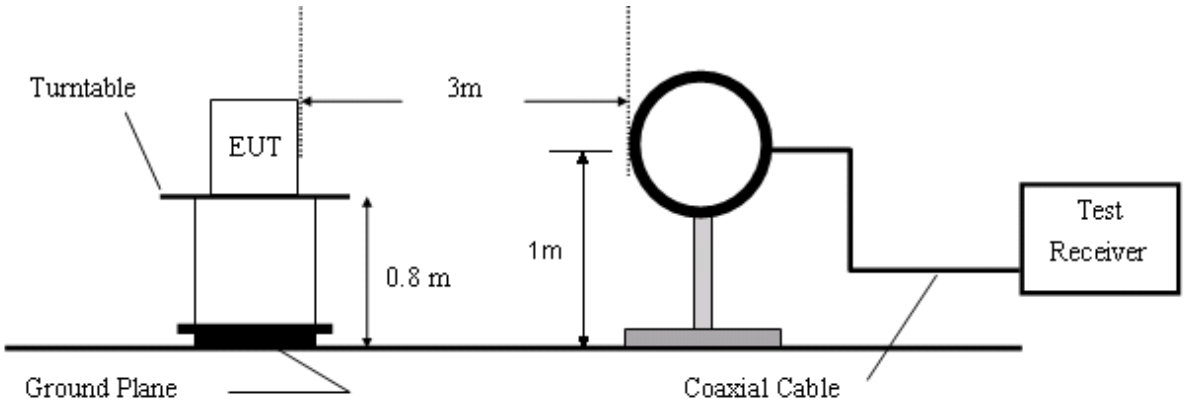


Figure 1. 9KHz to 30MHz radiated emissions test configuration

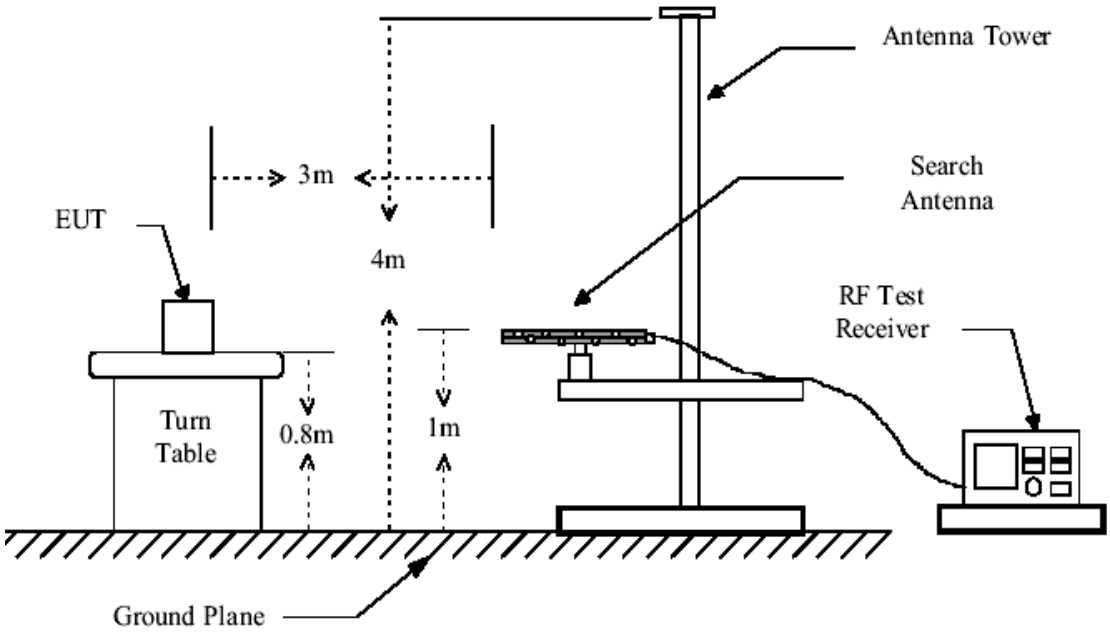


Figure 2. 30MHz to 1GHz radiated emissions test configuration

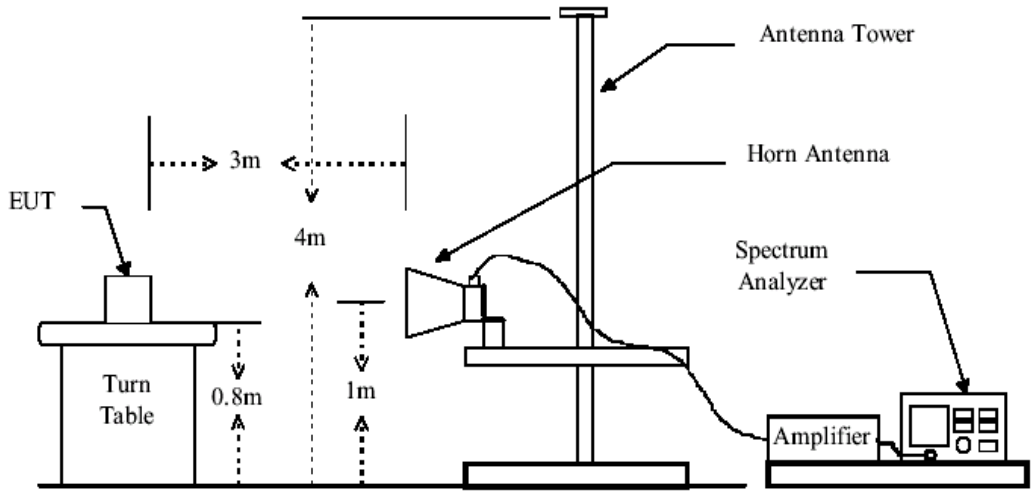
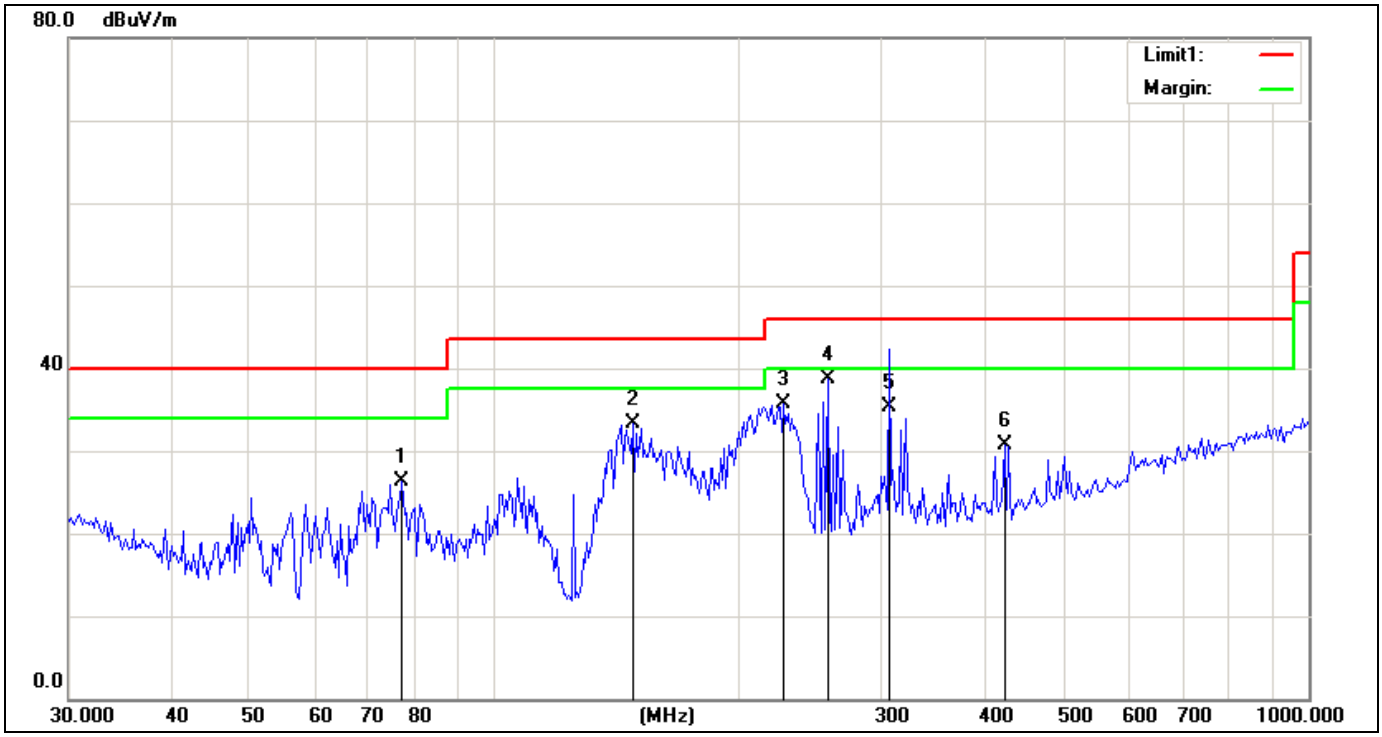


Figure 3. Above 1GHz radiated emissions test configuration

6.4 TEST RESULTS

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**9:15:32**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11B 2412**		

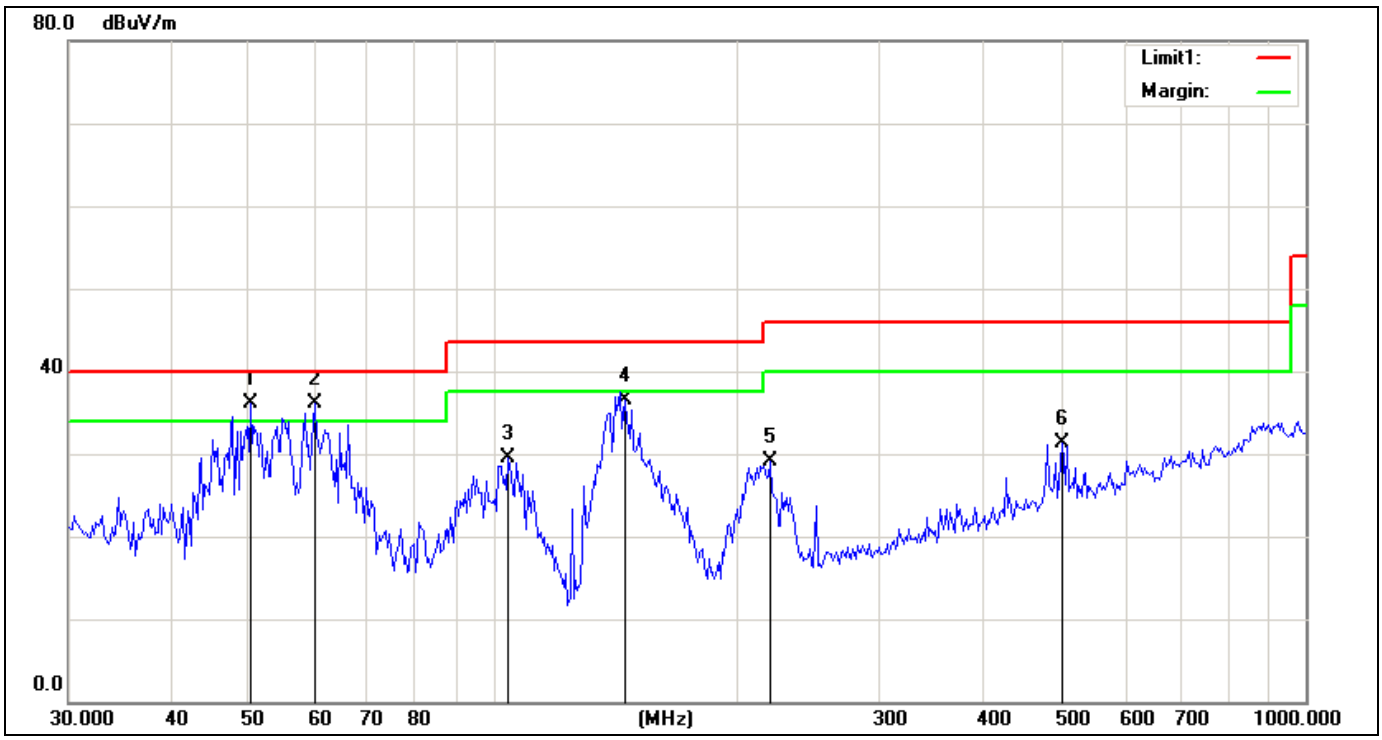


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	77.1129	18.07	8.30	26.37	40.00	-13.63	QP
2	147.9879	23.42	9.94	33.36	43.50	-10.14	QP
3	226.8324	22.94	12.81	35.75	46.00	-10.25	QP
4	256.6826	24.95	13.85	38.80	46.00	-7.20	QP
5	305.5288	19.88	15.38	35.26	46.00	-10.74	QP
6	423.2548	12.44	18.34	30.78	46.00	-15.22	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2022.306	41.71	14.19	55.90	74.00	-18.10	peak
2	2022.306	33.60	14.19	47.79	54.00	-6.21	AVG
3	2511.279	36.40	17.10	53.50	74.00	-20.50	peak
4	2511.279	20.50	17.10	37.60	54.00	-16.40	AVG
5	12826.912	30.28	27.61	57.89	74.00	-16.11	peak
6	12826.912	11.79	27.61	39.40	54.00	-14.60	AVG
7	17591.230	30.98	35.62	66.60	74.00	-7.40	peak
8	17591.230	13.48	35.62	49.10	54.00	-4.90	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**8:56:09**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11B 2412**		

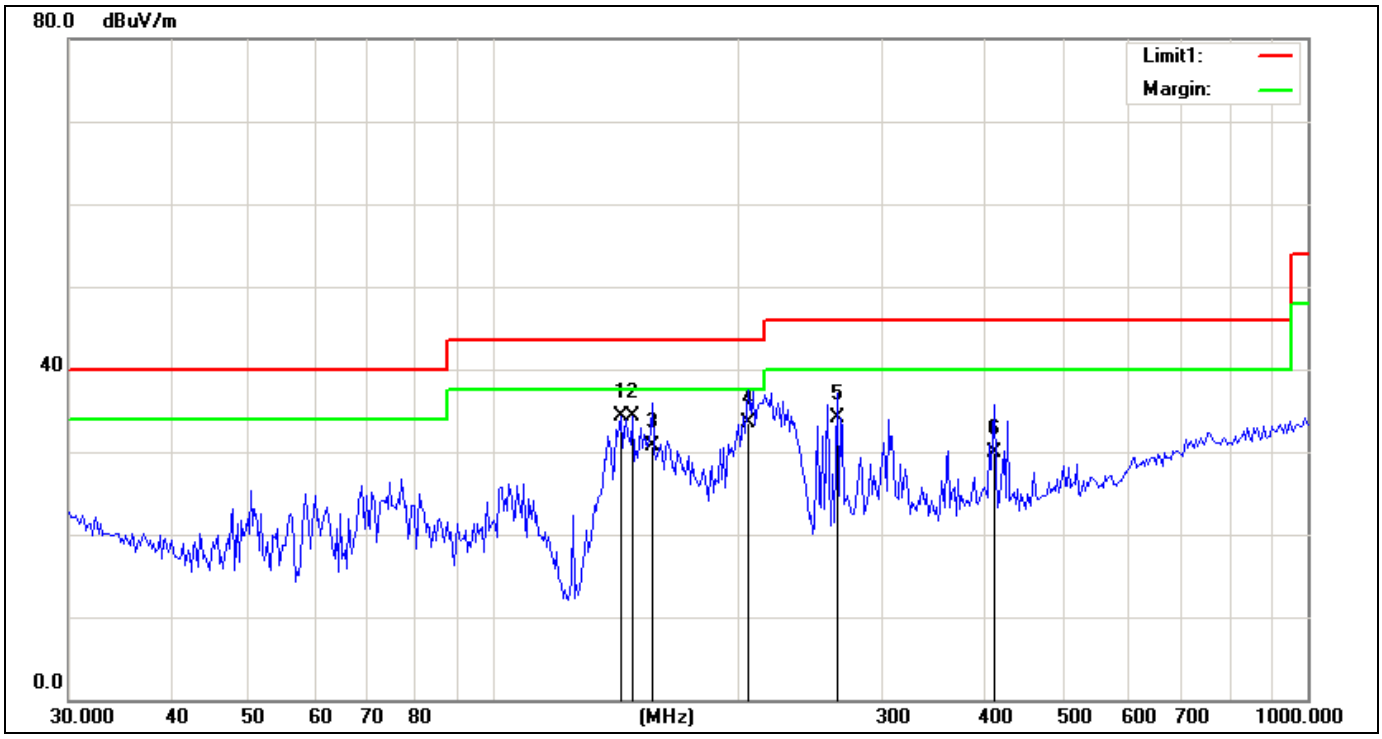


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	50.3092	26.34	9.68	36.02	40.00	-3.98	QP
2	60.2205	28.17	8.01	36.18	40.00	-3.82	QP
3	104.4515	19.76	9.77	29.53	43.50	-13.97	QP
4	145.5140	26.80	9.70	36.50	43.50	-7.00	QP
5	219.3118	16.62	12.45	29.07	46.00	-16.93	QP
6	500.9763	11.45	19.79	31.24	46.00	-14.76	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1594.497	41.16	12.14	53.30	74.00	-20.70	peak
2	1594.497	35.20	12.14	47.34	54.00	-6.66	AVG
3	2022.306	30.61	14.19	44.80	74.00	-29.20	peak
4	2022.306	22.40	14.19	36.59	54.00	-17.41	AVG
5	12826.912	29.54	27.61	57.15	74.00	-16.85	peak
6	12826.912	11.79	27.61	39.40	54.00	-14.60	AVG
7	16801.328	30.78	34.94	65.72	74.00	-8.28	peak
8	16801.328	12.96	34.94	47.90	54.00	-6.10	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**8:42:02**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11B 2437**		

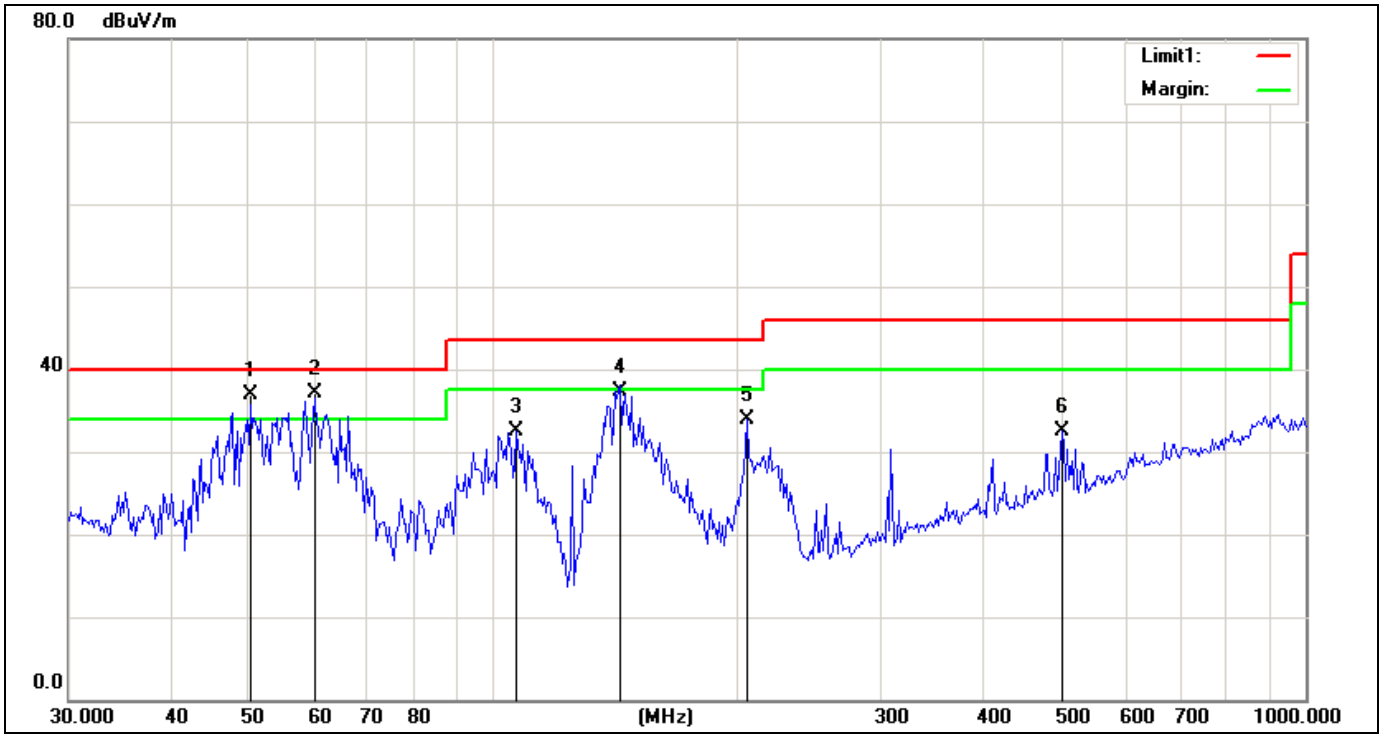


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	143.0814	24.75	9.47	34.22	43.50	-9.28	QP
2	147.9879	24.33	9.94	34.27	43.50	-9.23	QP
3	156.5422	20.30	10.50	30.80	43.50	-12.70	QP
4	205.0104	21.94	11.66	33.60	43.50	-9.90	QP
5	263.9970	20.18	14.02	34.20	46.00	-11.80	QP
6	411.5279	11.72	18.28	30.00	46.00	-16.00	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.982	42.75	13.58	56.33	74.00	-17.67	peak
2	1864.982	22.11	13.58	35.69	54.00	-18.31	AVG
3	2560.387	41.78	17.64	59.42	74.00	-14.58	peak
4	2560.387	19.77	17.64	37.41	54.00	-16.59	AVG
5	12546.148	29.15	28.02	57.17	74.00	-16.83	peak
6	12546.148	10.38	28.02	38.40	54.00	-15.60	AVG
7	16849.641	31.25	35.14	66.39	74.00	-7.61	peak
8	16849.641	14.56	35.14	49.70	54.00	-4.30	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**22/51%RH**	**Time:**	**8:52:12**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11B 2437**		

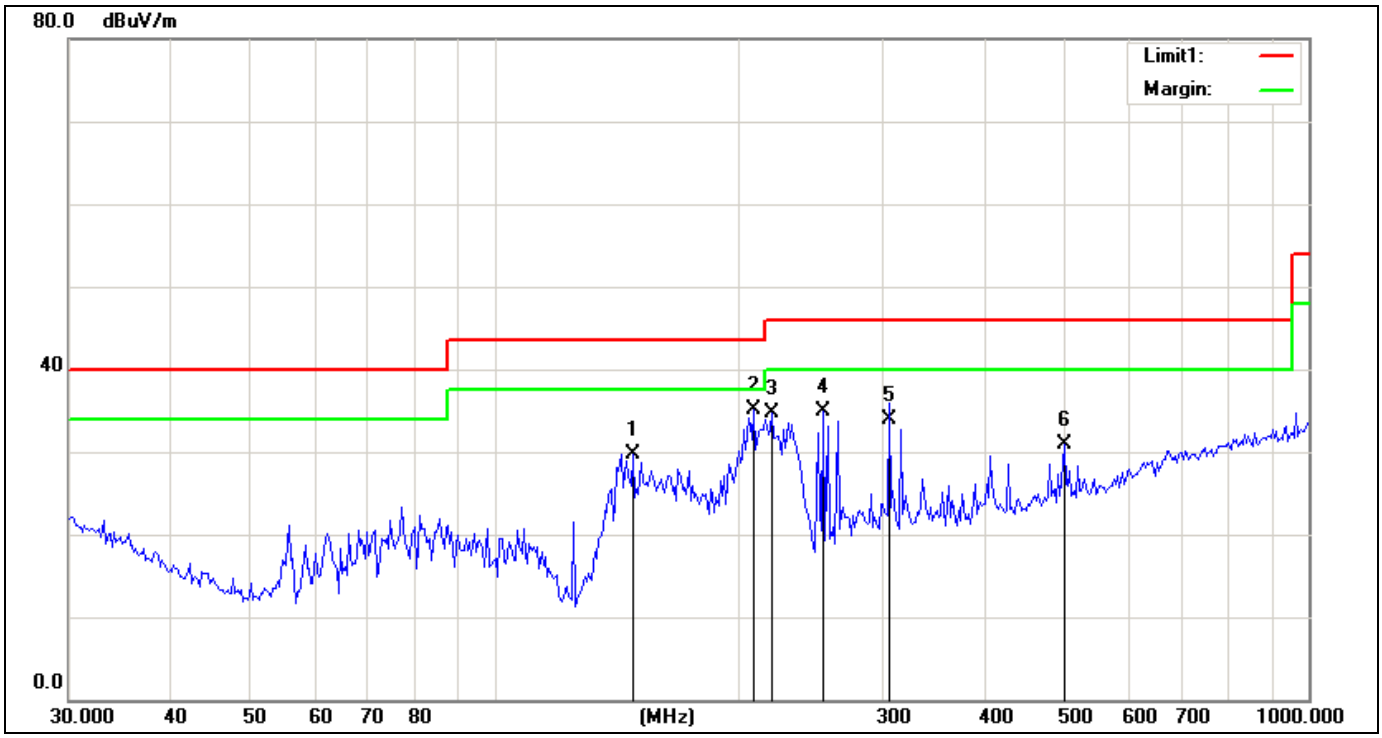


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	50.3092	27.22	9.68	36.90	40.00	-3.10	QP
2	60.2205	29.19	8.01	37.20	40.00	-2.80	QP
3	106.8259	22.83	9.66	32.49	43.50	-11.01	QP
4	143.0814	27.83	9.47	37.30	43.50	-6.20	QP
5	205.0104	22.28	11.66	33.94	43.50	-9.56	QP
6	500.9763	12.62	19.79	32.41	46.00	-13.59	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.982	41.90	13.58	55.48	74.00	-18.52	peak
2	1864.982	19.92	13.58	33.50	54.00	-20.50	AVG
3	2022.306	40.29	14.19	54.48	74.00	-19.52	peak
4	2022.306	21.71	14.19	35.90	54.00	-18.10	AVG
5	13546.148	29.15	29.02	58.17	74.00	-15.83	peak
6	13546.148	10.38	29.02	39.40	54.00	-14.60	AVG
7	16849.641	31.25	35.14	66.39	74.00	-7.61	peak
8	16849.641	14.56	35.14	49.70	54.00	-4.30	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**22/51%RH**	**Time:**	**9:16:41**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11B 2462**		

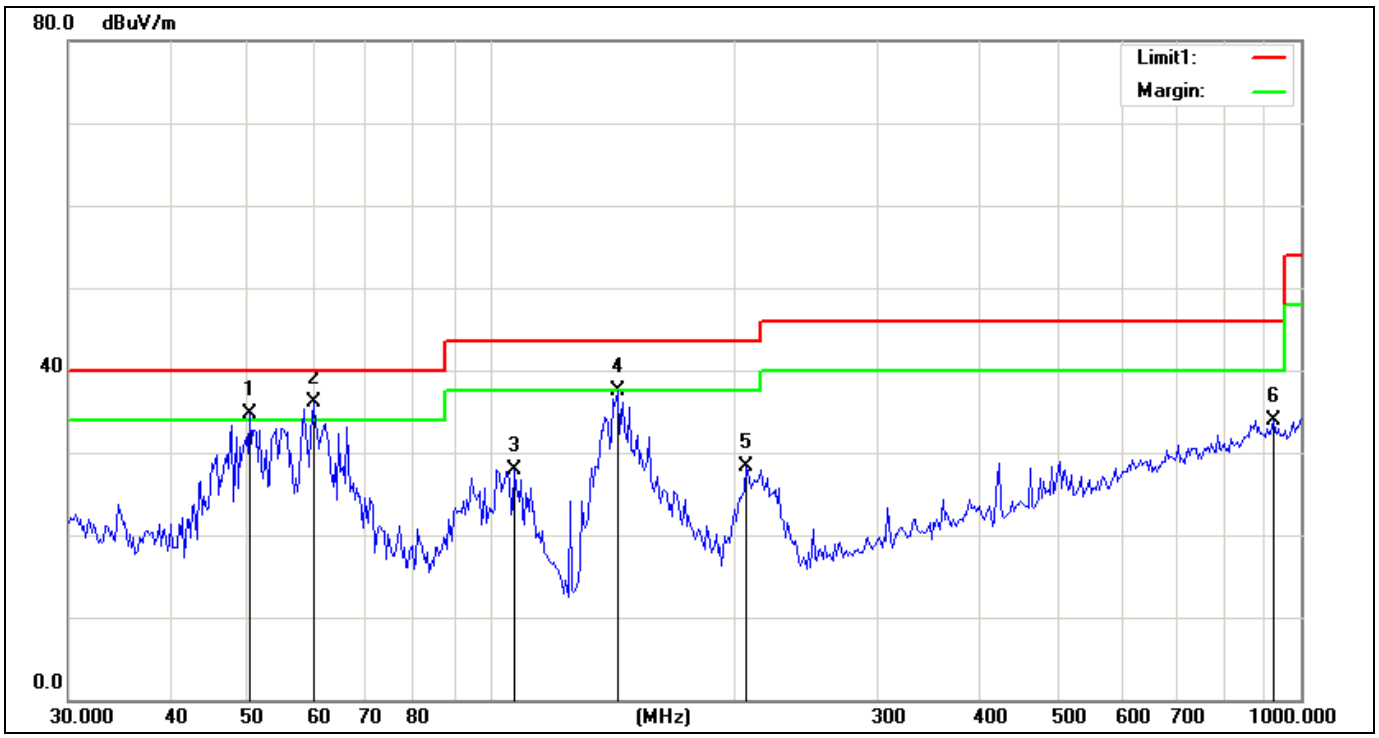


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	147.9879	19.79	9.94	29.73	43.50	-13.77	QP
2	208.4958	23.34	11.86	35.20	43.50	-8.30	QP
3	219.3118	22.27	12.45	34.72	46.00	-11.28	QP
4	253.8139	21.14	13.77	34.91	46.00	-11.09	QP
5	305.5288	18.54	15.38	33.92	46.00	-12.08	QP
6	500.9763	11.04	19.79	30.83	46.00	-15.17	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1594.496	43.06	12.14	55.20	74.00	-18.80	peak
2	1594.496	19.96	12.14	32.10	54.00	-21.90	AVG
3	2022.306	38.81	14.19	53.00	74.00	-21.00	peak
4	2022.306	17.01	14.19	31.20	54.00	-22.80	AVG
5	13546.148	29.50	29.02	58.52	74.00	-15.48	peak
6	13546.148	11.18	29.02	40.20	54.00	-13.80	AVG
7	16801.328	30.02	34.94	64.96	74.00	-9.04	peak
8	16801.328	12.26	34.94	47.20	54.00	-6.80	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**8:57:14**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11b 2462**		

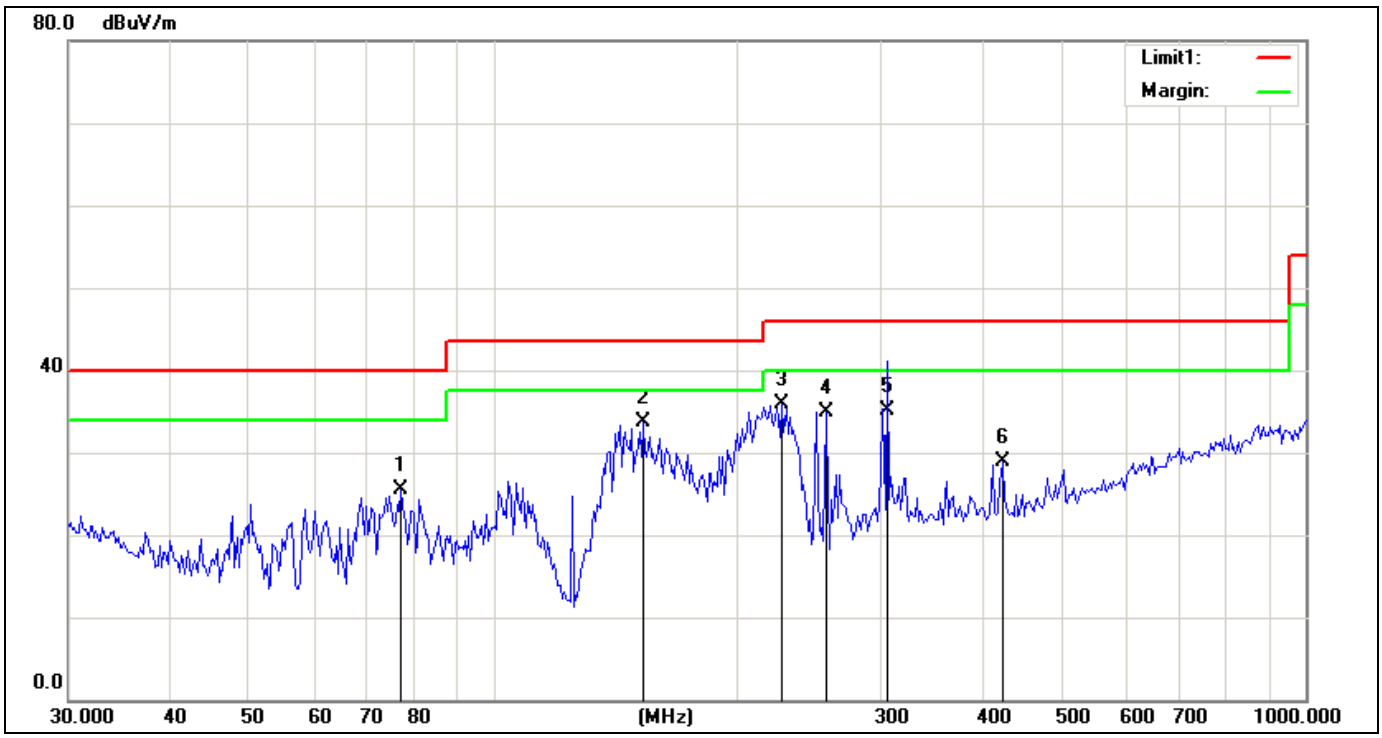


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	50.3092	24.96	9.68	34.64	40.00	-5.36	QP
2	60.2205	28.18	8.01	36.19	40.00	-3.81	QP
3	106.8259	18.27	9.66	27.93	43.50	-15.57	QP
4	143.0814	27.97	9.47	37.44	43.50	-6.06	QP
5	206.1657	16.62	11.72	28.34	43.50	-15.16	QP
6	924.3423	7.82	26.08	33.90	46.00	-12.10	QP

Emission above 1GHz:

o.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1594.497	42.16	12.14	54.30	74.00	-19.70	peak
2	1594.497	20.76	12.14	32.90	54.00	-21.10	AVG
3	2022.306	40.16	14.19	54.35	74.00	-19.65	peak
4	2022.306	18.11	14.19	32.30	54.00	-21.70	AVG
5	13546.148	30.21	29.02	59.23	74.00	-14.77	peak
6	13546.148	11.48	29.02	40.50	54.00	-13.50	AVG
7	16801.328	30.65	34.94	65.59	74.00	-8.41	peak
8	16801.328	13.36	34.94	48.30	54.00	-5.70	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**9:14:40**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11g 2412**		

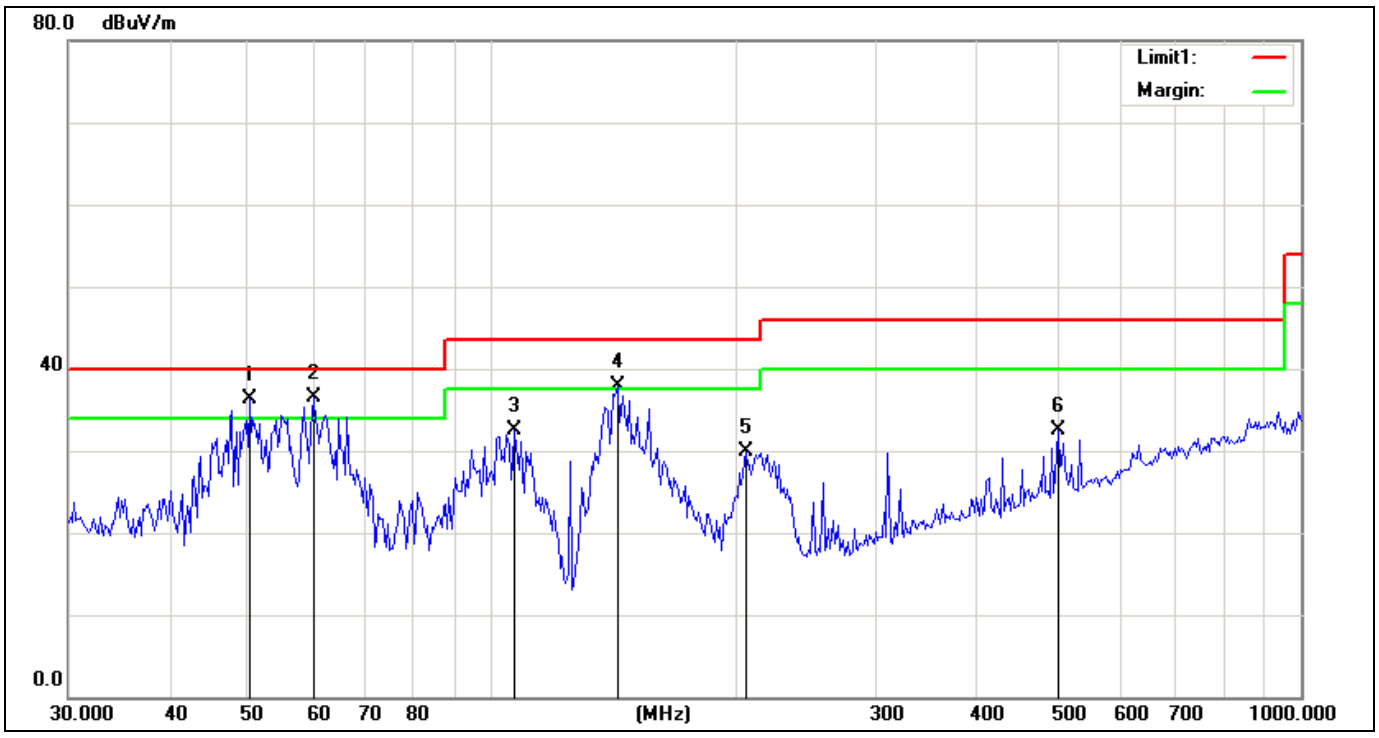


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	77.1129	17.20	8.30	25.50	40.00	-14.50	QP
2	153.0627	23.37	10.32	33.69	43.50	-9.81	QP
3	226.8324	23.04	12.81	35.85	46.00	-10.15	QP
4	256.6826	21.13	13.85	34.98	46.00	-11.02	QP
5	305.5288	19.66	15.38	35.04	46.00	-10.96	QP
6	423.2548	10.53	18.34	28.87	46.00	-17.13	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1769.033	43.66	13.16	56.82	74.00	-17.18	peak
2	1769.033	25.76	13.16	38.92	74.00	-35.08	AVG
3	2515.704	37.83	17.14	54.97	74.00	-19.03	peak
4	2515.704	20.81	17.14	37.95	74.00	-36.05	AVG
5	13507.307	30.85	28.94	59.79	74.00	-14.21	peak
6	13507.307	12.36	28.94	41.30	54.00	-12.70	AVG
7	16801.328	29.93	34.94	64.87	74.00	-9.13	peak
8	16801.328	12.66	34.94	47.60	54.00	-6.40	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**8:59:42**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11g 2412**		

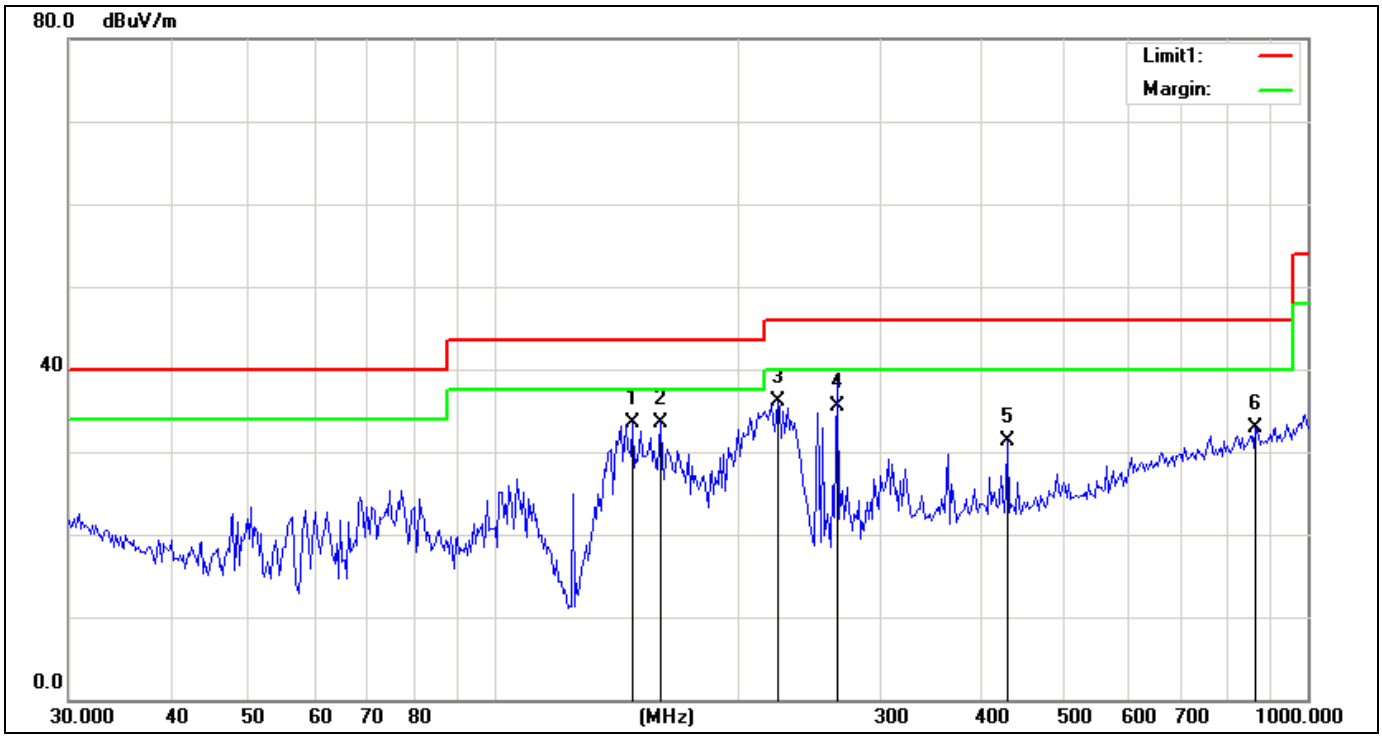


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	50.3092	26.65	9.68	36.33	40.00	-3.67	QP
2	60.2205	28.49	8.01	36.50	40.00	-3.50	QP
3	106.8259	22.75	9.66	32.41	43.50	-11.09	QP
4	143.0814	28.34	9.47	37.81	43.50	-5.69	QP
5	206.1657	18.09	11.72	29.81	43.50	-13.69	QP
6	500.9763	12.75	19.79	32.54	46.00	-13.46	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1765.921	41.81	13.14	54.95	74.00	-19.05	peak
2	1765.921	30.84	13.14	43.98	54.00	-10.02	AVG
3	2022.306	42.84	14.19	57.03	74.00	-16.97	peak
4	2022.306	31.56	14.19	45.75	54.00	-8.25	AVG
5	13546.148	29.66	29.02	58.68	74.00	-15.32	peak
6	13546.148	11.18	29.02	40.20	54.00	-13.80	AVG
7	16753.154	30.50	34.75	65.25	74.00	-8.75	peak
8	16753.154	12.05	34.75	46.80	54.00	-7.20	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**9:13:53**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11g 2437**		

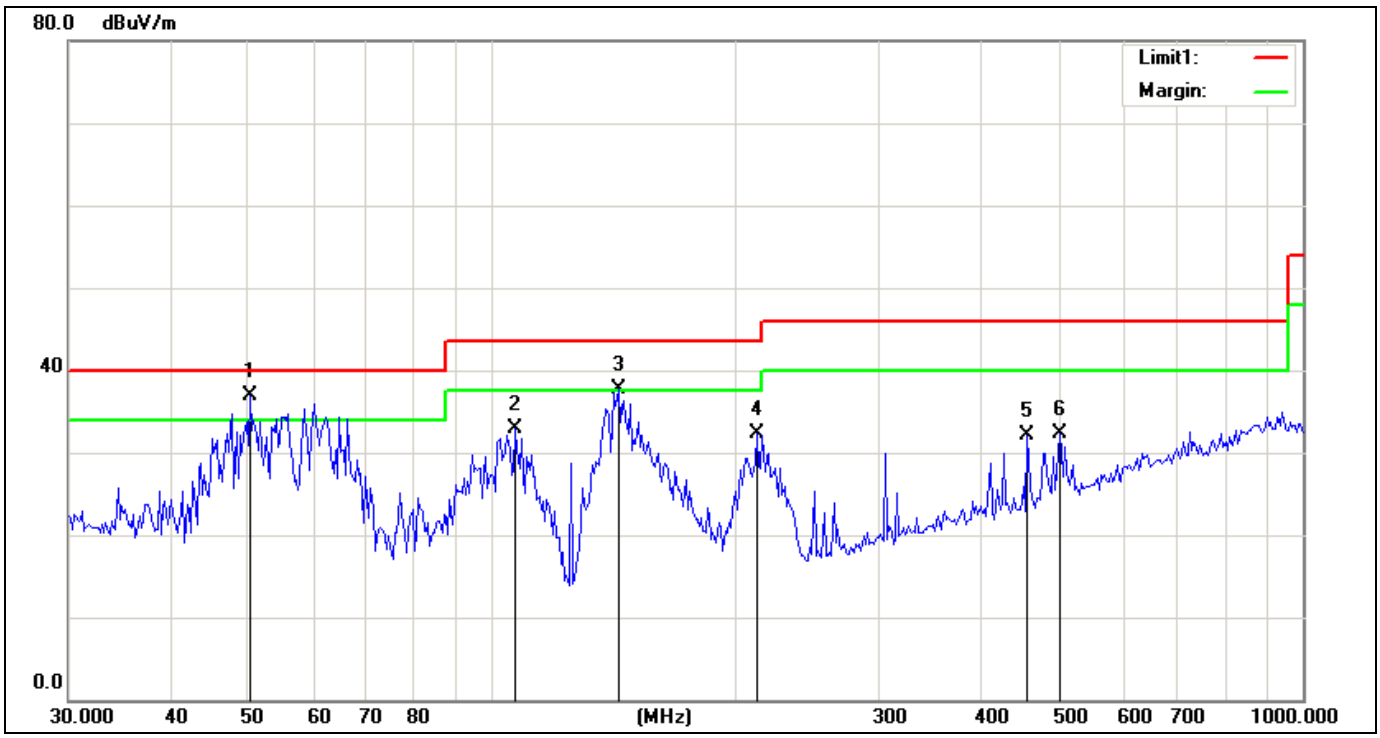


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	147.9879	23.54	9.94	33.48	43.50	-10.02	QP
2	160.1008	22.91	10.69	33.60	43.50	-9.90	QP
3	223.0404	23.38	12.65	36.03	46.00	-9.97	QP
4	263.9970	21.39	14.02	35.41	46.00	-10.59	QP
5	428.0385	12.84	18.40	31.24	46.00	-14.76	QP
6	864.0656	7.51	25.39	32.90	46.00	-13.10	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.982	42.30	13.58	55.88	74.00	-18.12	peak
2	1864.982	20.62	13.58	34.20	54.00	-19.80	AVG
3	2520.137	36.60	17.19	53.79	74.00	-20.21	peak
4	2520.137	15.71	17.19	32.90	54.00	-21.10	AVG
5	12790.133	30.58	27.47	58.05	74.00	-15.95	peak
6	12790.133	13.23	27.47	40.70	54.00	-13.30	AVG
7	17845.610	29.76	35.96	65.72	74.00	-8.28	peak
8	17845.610	13.14	35.96	49.10	54.00	-4.90	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**9:00:39**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11g 2437**		

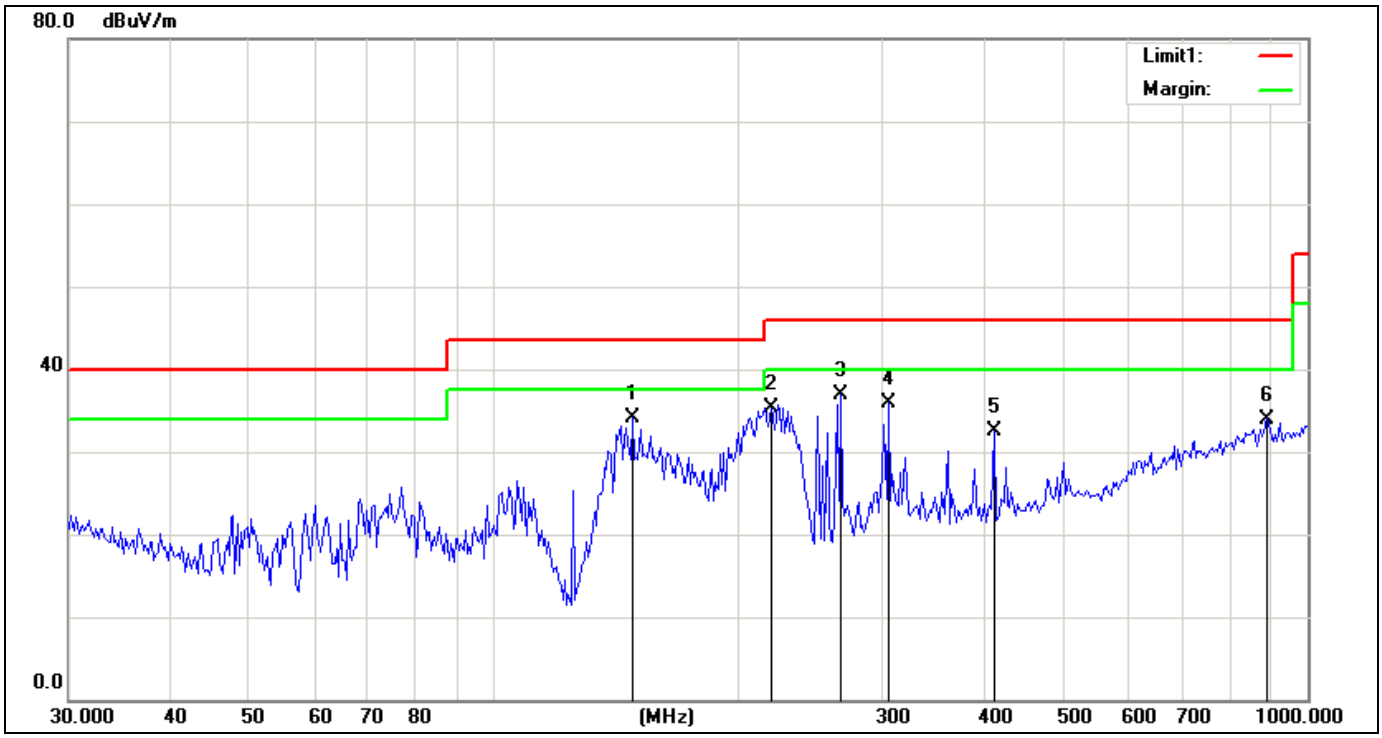


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	50.3092	27.16	9.68	36.84	40.00	-3.16	QP
2	106.8259	23.20	9.66	32.86	43.50	-10.64	QP
3	143.0814	28.33	9.47	37.80	43.50	-5.70	QP
4	212.0406	20.19	12.05	32.24	43.50	-11.26	QP
5	457.8983	12.78	19.27	32.05	46.00	-13.95	QP
6	500.9762	12.54	19.79	32.33	46.00	-13.67	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.982	41.15	13.58	54.73	74.00	-19.27	peak
2	1864.982	22.52	13.58	36.10	54.00	-17.90	AVG
3	2524.578	37.44	17.23	54.67	74.00	-19.33	peak
4	2524.578	16.68	17.23	33.91	54.00	-20.09	AVG
5	13702.631	28.15	29.40	57.55	74.00	-16.45	peak
6	13702.631	9.50	29.40	38.90	54.00	-15.10	AVG
7	16849.641	30.93	35.14	66.07	74.00	-7.93	peak
8	16849.641	13.96	35.14	49.10	54.00	-4.90	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**9:13:03**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11 g 2462**		

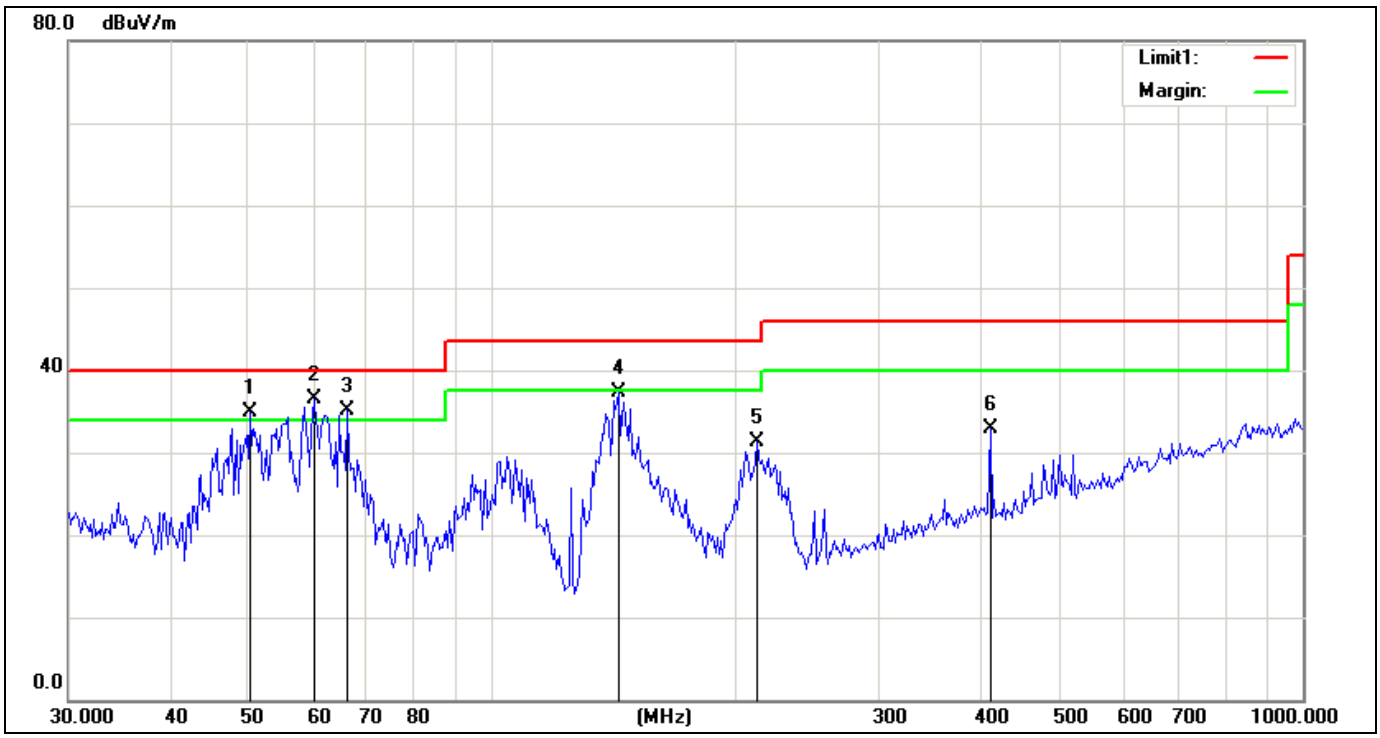


No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	147.9879	24.09	9.94	34.03	43.50	-9.47	QP
2	219.3118	22.94	12.45	35.39	46.00	-10.61	QP
3	266.9808	22.74	14.08	36.82	46.00	-9.18	QP
4	305.5288	20.48	15.38	35.86	46.00	-10.14	QP
5	411.5279	14.17	18.28	32.45	46.00	-13.55	QP
6	893.6959	7.98	26.02	34.00	46.00	-12.00	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.982	40.42	13.58	54.00	74.00	-20.00	peak
2	1864.982	19.92	13.58	33.50	54.00	-20.50	AVG
3	2619.665	36.92	18.37	55.29	74.00	-18.71	peak
4	2619.665	18.13	18.37	36.50	54.00	-17.50	AVG
5	9991.481	30.22	25.68	55.90	74.00	-18.10	peak
6	9991.481	11.82	25.68	37.50	54.00	-16.50	AVG
7	16849.641	29.51	35.14	64.65	74.00	-9.35	peak
8	16849.641	12.76	35.14	47.90	54.00	-6.10	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15 class B 3m**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-14**
Temp./Hum.(%RH):	**23/55%RH**	**Time:**	**8:58:10**
EUT:	**Blu-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280**	**Test Result:**	**Pass**
Note:	**802.11 g 2462**		



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	50.3092	25.30	9.68	34.98	40.00	-5.02	QP
2	60.2205	28.45	8.01	36.46	40.00	-3.54	QP
3	66.2572	27.35	7.78	35.13	40.00	-4.87	QP
4	143.0814	27.90	9.47	37.37	43.50	-6.13	QP
5	212.0406	19.31	12.05	31.36	43.50	-12.14	QP
6	411.5279	14.55	18.28	32.83	46.00	-13.17	QP

Emission above 1GHz:

No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	1864.982	40.54	13.58	54.12	74.00	-19.88	peak
2	1864.982	21.92	13.58	35.50	54.00	-18.50	AVG
3	2551.388	37.70	17.53	55.23	74.00	-18.77	peak
4	2551.388	18.77	17.53	36.30	54.00	-17.70	AVG
5	12826.912	29.81	27.61	57.42	74.00	-16.58	peak
6	12826.912	12.19	27.61	39.80	54.00	-14.20	AVG
7	16801.328	30.45	34.94	65.39	74.00	-8.61	peak
8	16801.328	11.76	34.94	46.70	54.00	-7.30	AVG

Note: Below 30MHz, since the radiated emission of the EUT is too weak to be detected.

7. 6dB BANDWIDTH TESTING

7.1 LIMITS

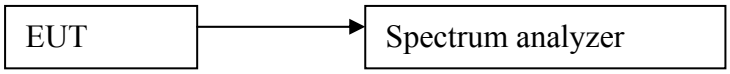
Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

7.2 TEST PROCEDURES

Test procedures follow ANSI C63.4:2009 and KDB 558074 D01 DTS Measurement Guidance v03r01.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Set resolution bandwidth (RBW) = 100kHz.Set the video bandwidth (VBW) ≥ 3 x RBW. Detector = Peak. Trace mode = max hold. Sweep = auto couple. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission. Compare the resultant bandwidth with the RBW setting of the analyzer.
5. Repeat above procedures until all frequencies measured were complete.

7.3 TEST SETUP

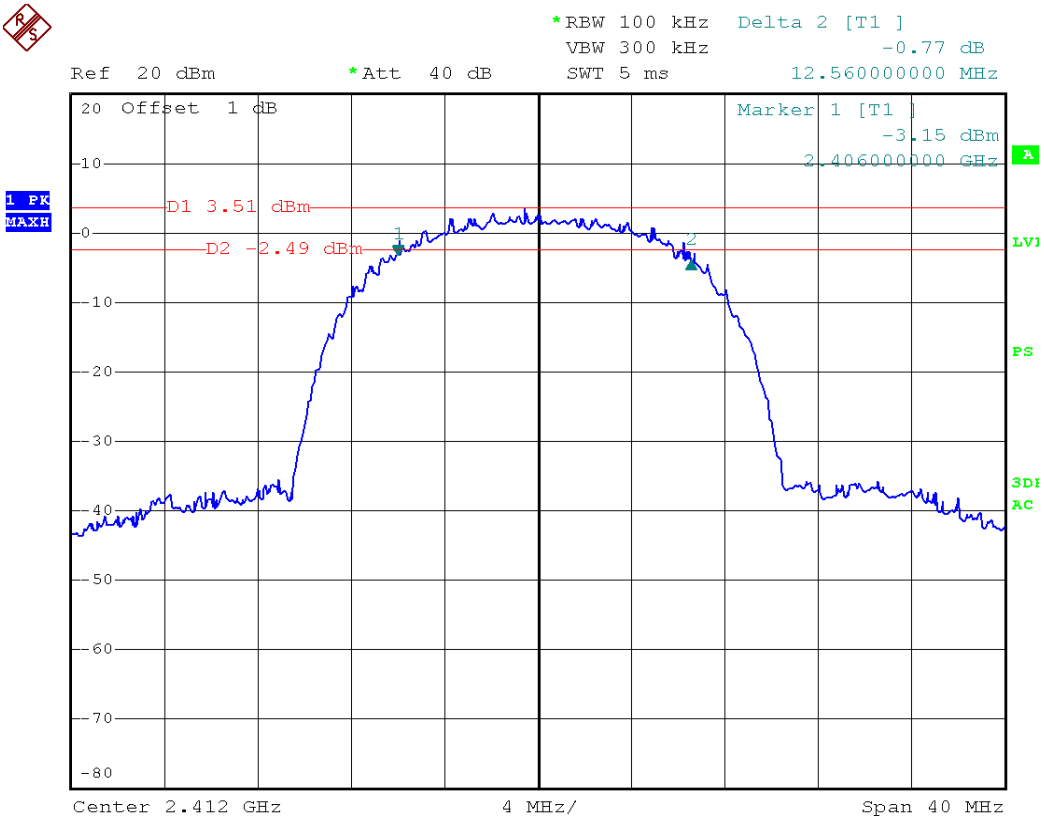


7.4 TEST RESULTS

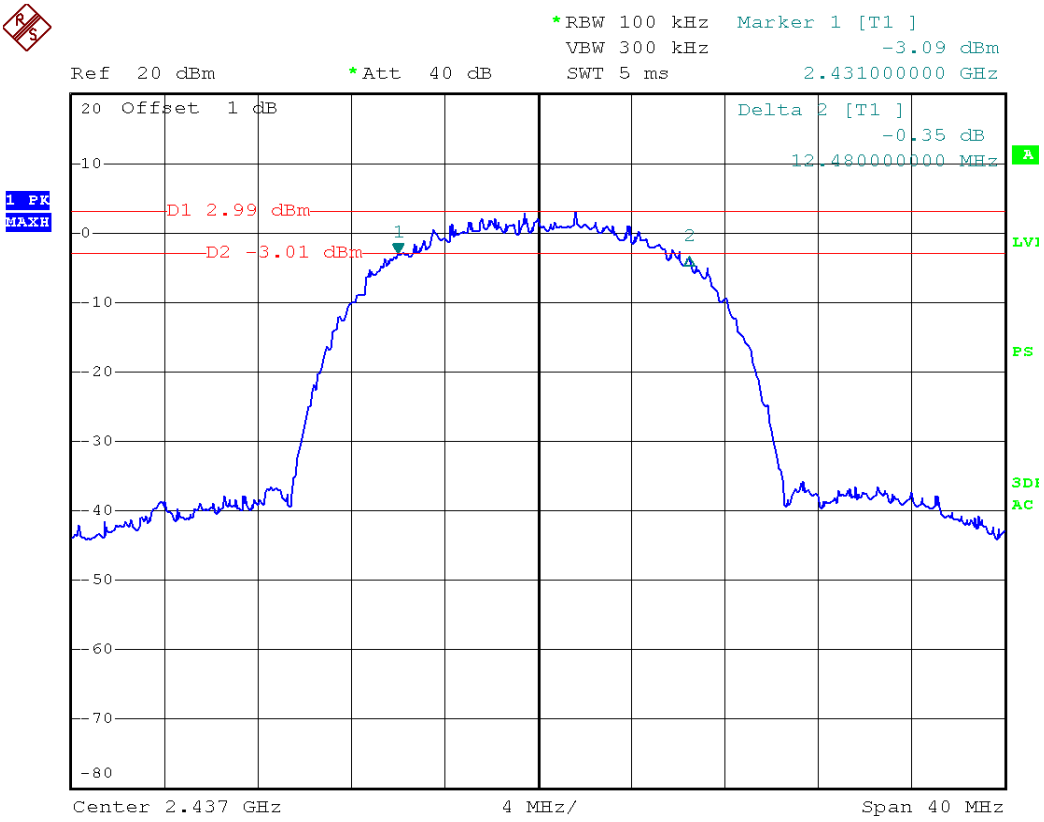
Channel	Channel Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (MHz)	Limit (kHz)
802.11b Mode				
Low Channel	2412	11	12.56	＞500
Middle Channel	2437	11	12.48	＞500
High Channel	2462	11	12.36	＞500

802.11b mode:

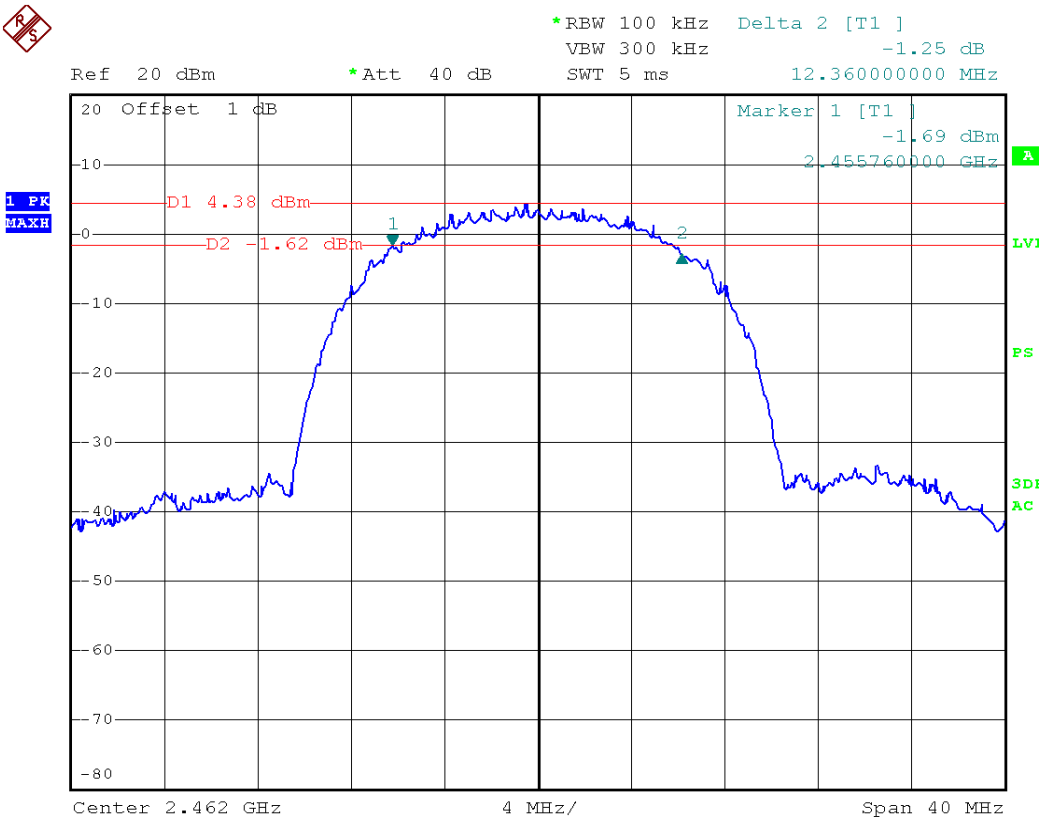
Channel 2412MHz



Channel 2437MHz



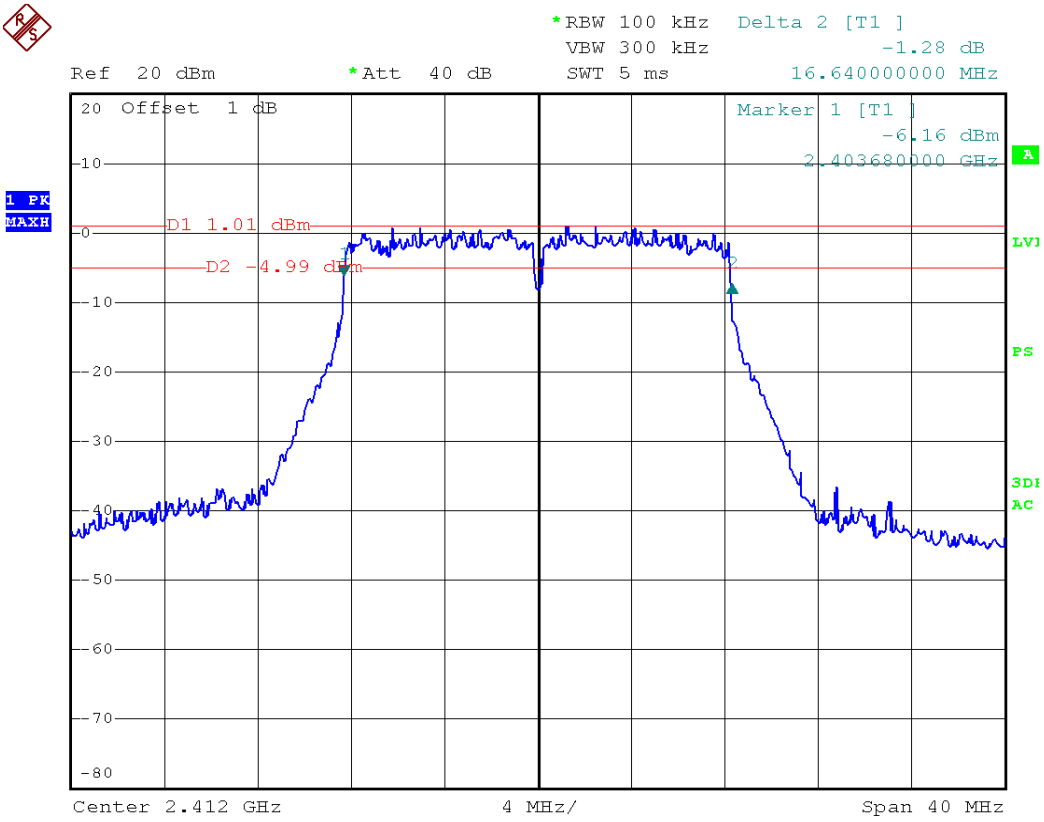
Channel 2462MHz



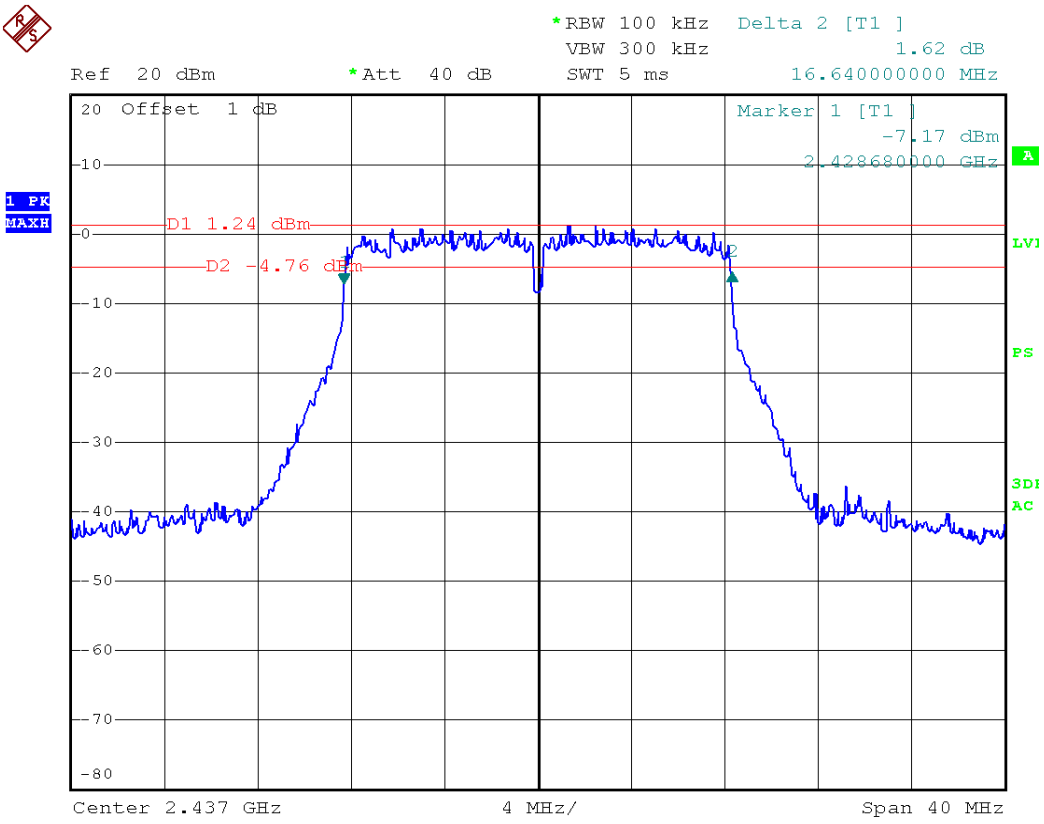
Channel	Channel Frequency (MHz)	Data Rate (Mbps)	6dB Bandwidth (MHz)	Limit (kHz)
802.11g Mode				
Low Channel	2412	54	16.64	＞500
Middle Channel	2437	54	16.64	＞500
High Channel	2462	54	16.64	＞500

802.11g mode:

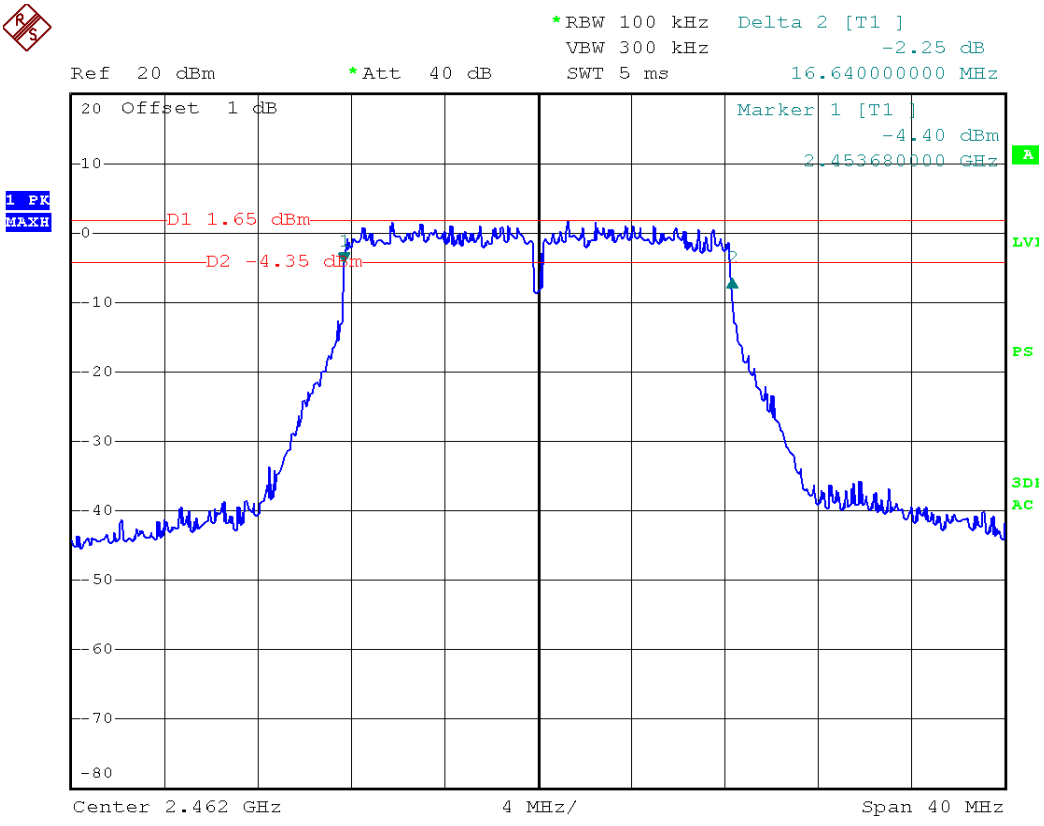
Channel 2412MHz



Channel 2437MHz



Channel 2462MHz



8. MAXIMUM PEAK OUTPUT POWER

8.1 LIMITS

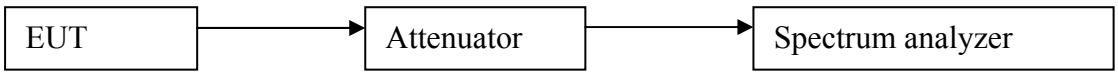
The maximum Peak output power measurement is 1W

8.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 DTS Measurement Guidance v03r01.

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to an EMI Test Receiver.
3. The spectrum analyzer resolution bandwidth that is ≤EBW. So we test the Maximum Conducted Output Power ——Integrated band power method.
4. Set the analyzer span≥ 1.5 x DTS bandwidth. Set the RBW = 1 MHz. Set the VBW ≥ 3 MHz. Sweep time = auto couple. Detector = peak. Allow trace to fully stabilize.

8.3 TEST SETUP



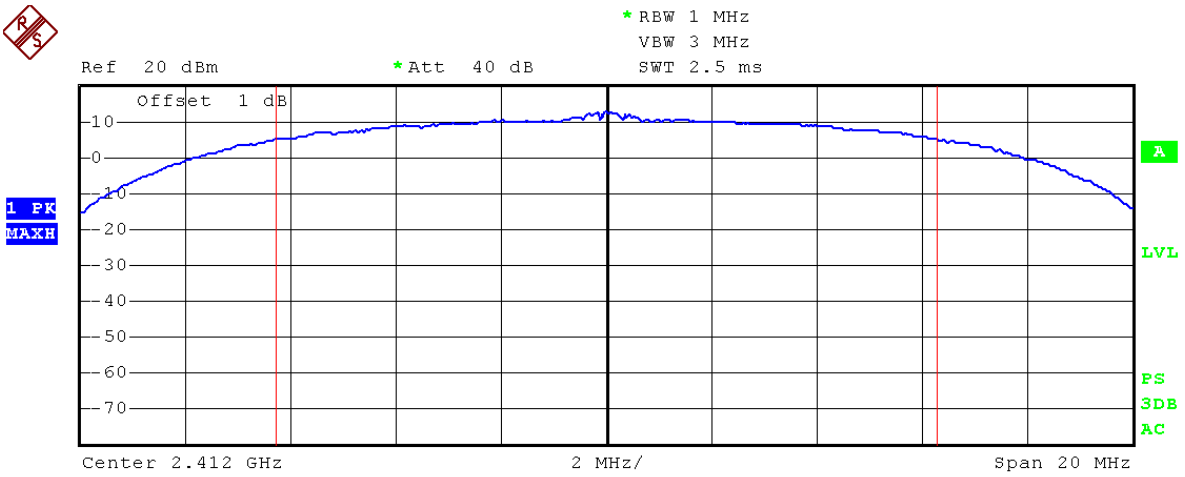
8.4 TEST RESULTS

802.11b Mode:

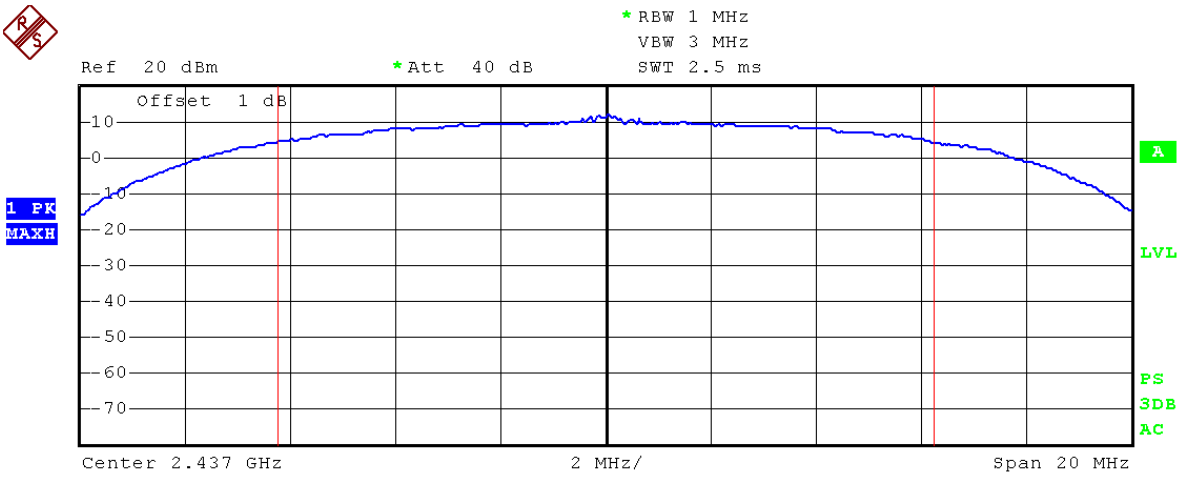
Channel No.	Frequency (MHz)	Mode	Data Rate	Measured Channel Power (dBm)	Limit	Result
1	2412	802.11b	1Mbps	19.41	1W (30dBm)	Pass
6	2437			18.66		Pass
11	2462			20.12		Pass
1	2412		2Mps	19.45		Pass
6	2437			18.71		Pass
11	2462			20.13		Pass
1	2412		5.5Mbps	19.48		Pass
6	2437			18.74		Pass
11	2462			20.16		Pass
1	2412		11Mbps	19.59		Pass
6	2437			18.85		Pass
11	2462			20.24		Pass

802.11b mode: 11Mbps

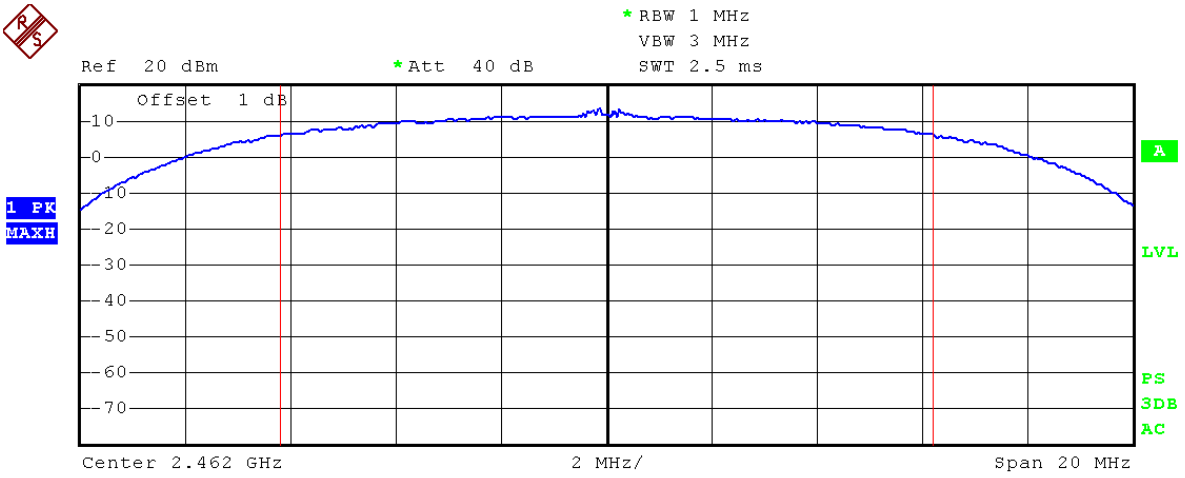
Channel 2412MHz



Channel 2437MHz



Channel 2462MHz

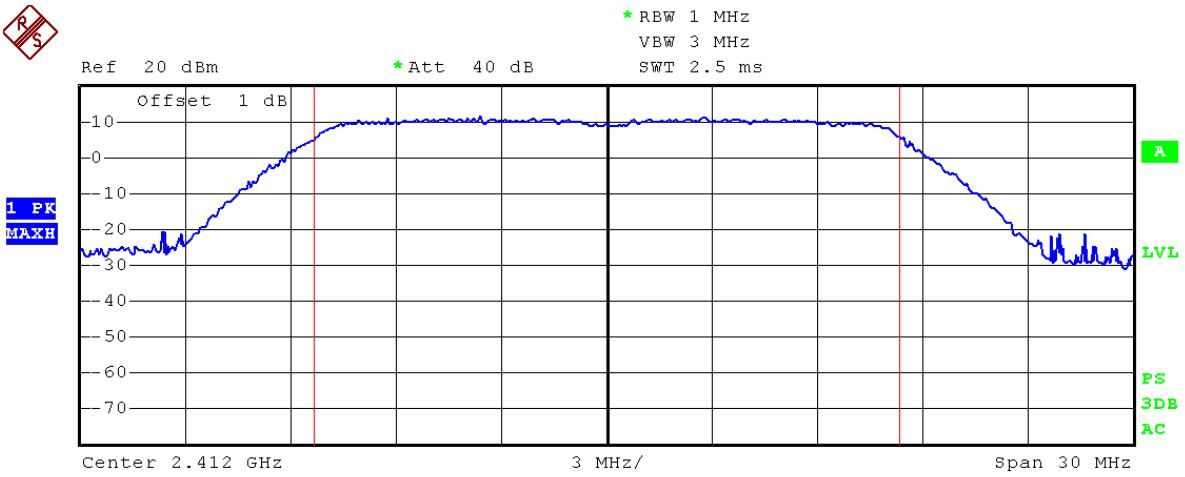


802.11g Mode:

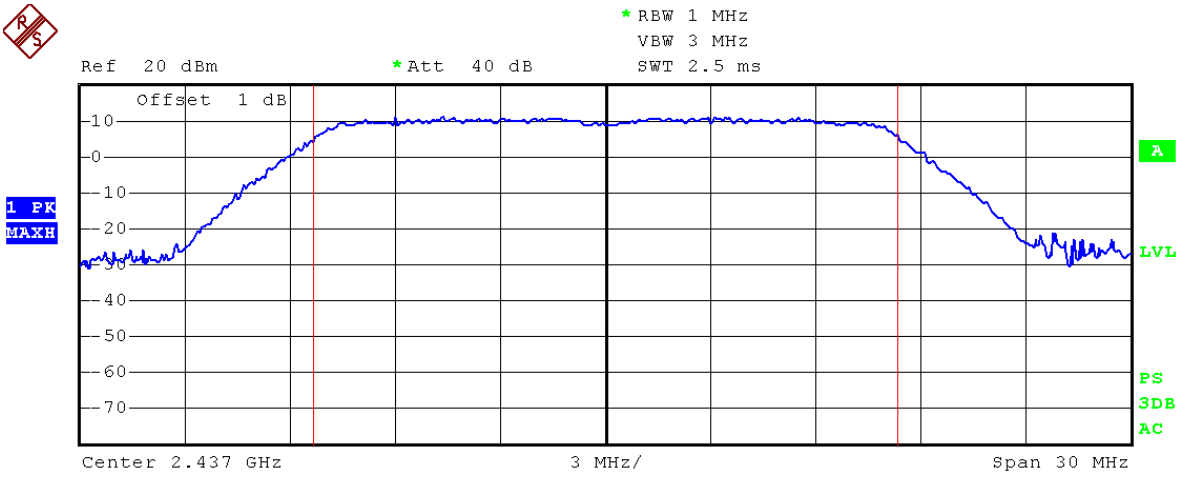
Channel No.	Frequency (MHz)	Mode	Data Rate	Measured Channel Power (dBm)	Limit	Result
1	2412	802.11g	6Mbps	21.03	1W (30dBm)	Pass
6	2437			21.00		Pass
11	2462			21.39		Pass
1	2412		9Mbps	21.13		Pass
6	2437			21.01		Pass
11	2462			21.51		Pass
1	2412		12Mbps	21.18		Pass
6	2437			21.07		Pass
11	2462			21.55		Pass
1	2412		18Mbps	21.21		Pass
6	2437			21.01		Pass
11	2462			21.57		Pass
1	2412		24Mbps	21.29		Pass
6	2437			21.05		Pass
11	2462			21.64		Pass
1	2412		36Mbps	21.32		Pass
6	2437			21.14		Pass
11	2462			21.71		Pass
1	2412		48Mbps	21.32		Pass
6	2437			21.14		Pass
11	2462			21.79		Pass
1	2412		54Mbps	21.41		Pass
6	2437			21.31		Pass
11	2462			21.89		Pass

802.11g mode: 54Mbps

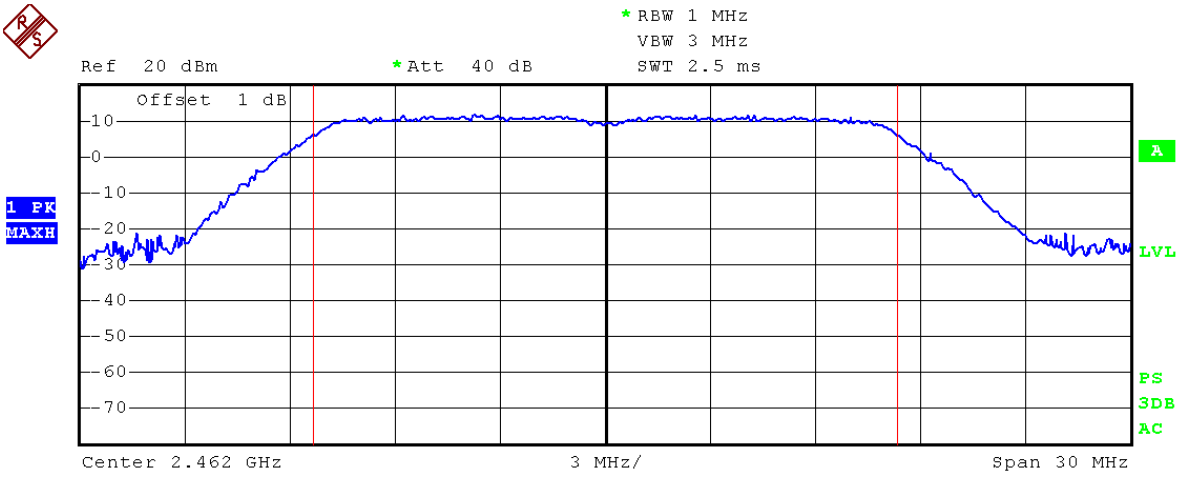
Channel 2412MHz



Channel 2437MHz



Channel 2462MHz



9. POWER SPECTRAL DENSITY

9.1 LIMITS

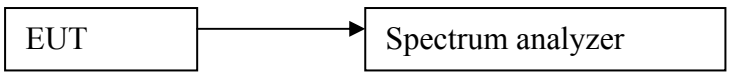
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

9.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 DTS Measurement Guidance v03r01.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set the analyzer span to 1.5 times the DTS bandwidth. Set the RBW = 3 kHz. Set the VBW ≥3 RBW. Detector = peak. 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. Repeat above procedures until all frequencies measured were complete.

9.3 TEST SETUP

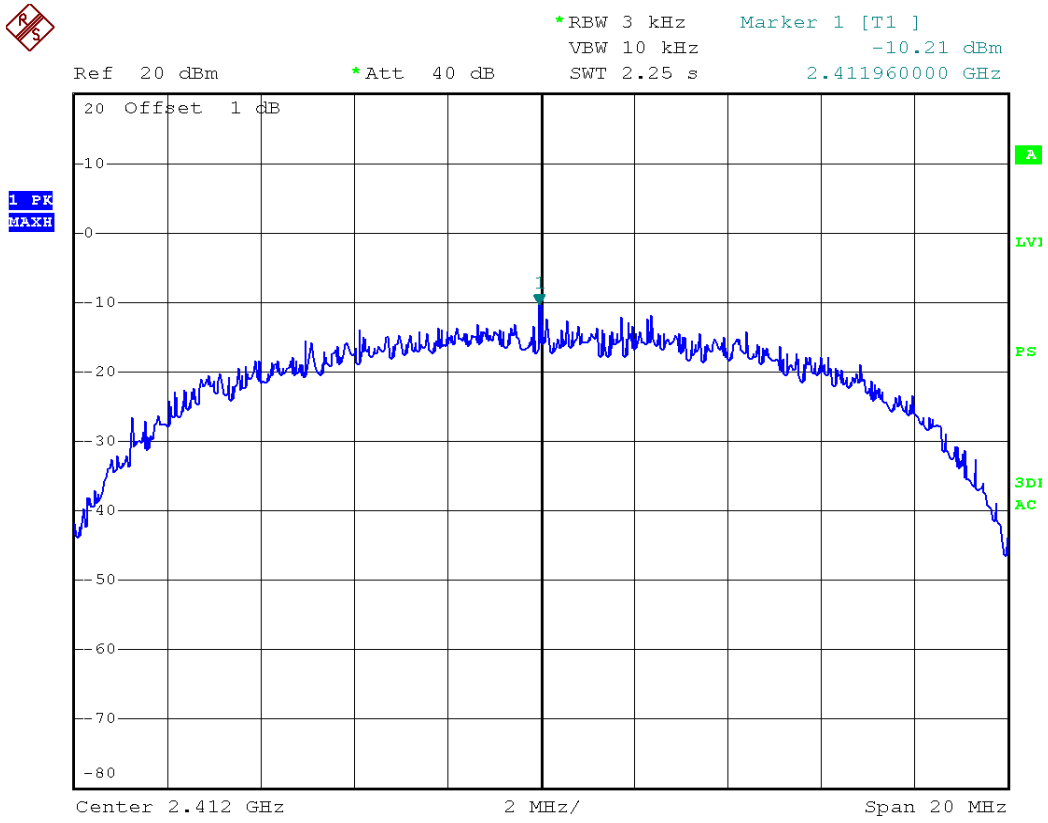


9.4 TEST RESULTS

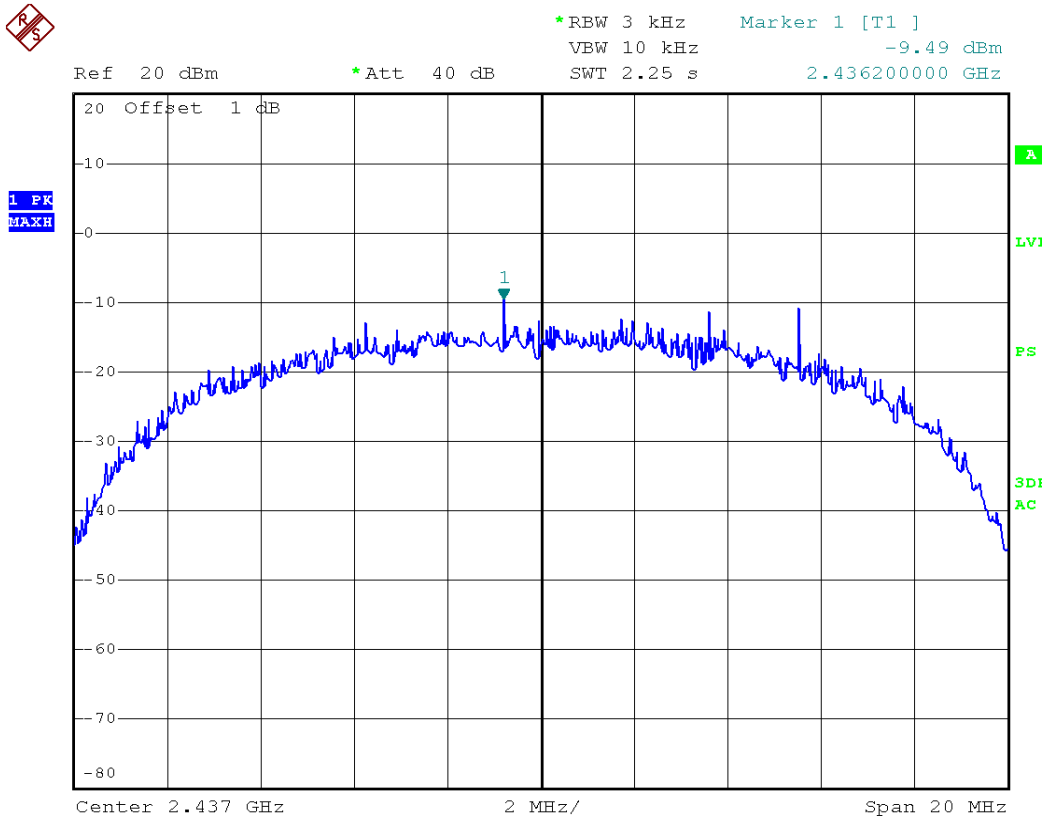
802.11b mode:

Channel No.	Frequency (MHz)	Mode	Data Rate	PSD (dBm/3KHz)	Limit	Result
1	2412	802.11b	11Mbps	-10.21	8dBm/3KHz	Pass
6	2437			-9.49		Pass
11	2462			-10.44		Pass

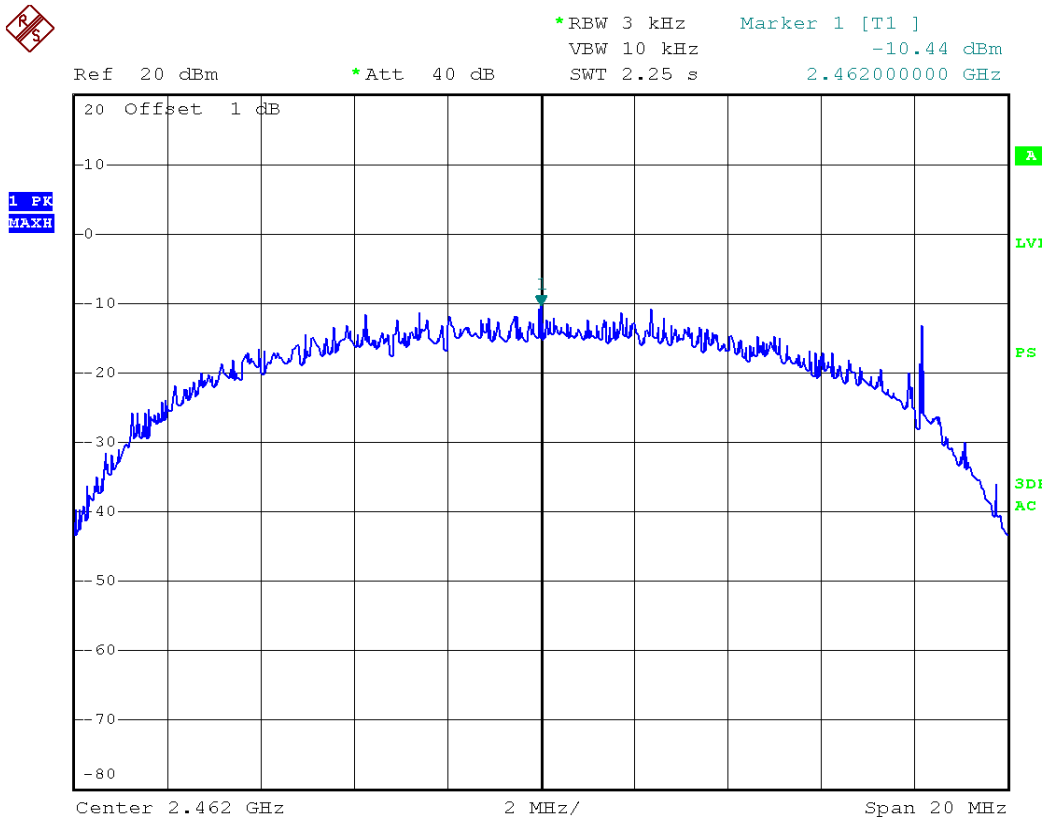
802.11b mode:
Channel 2412MHz



Channel 2437MHz



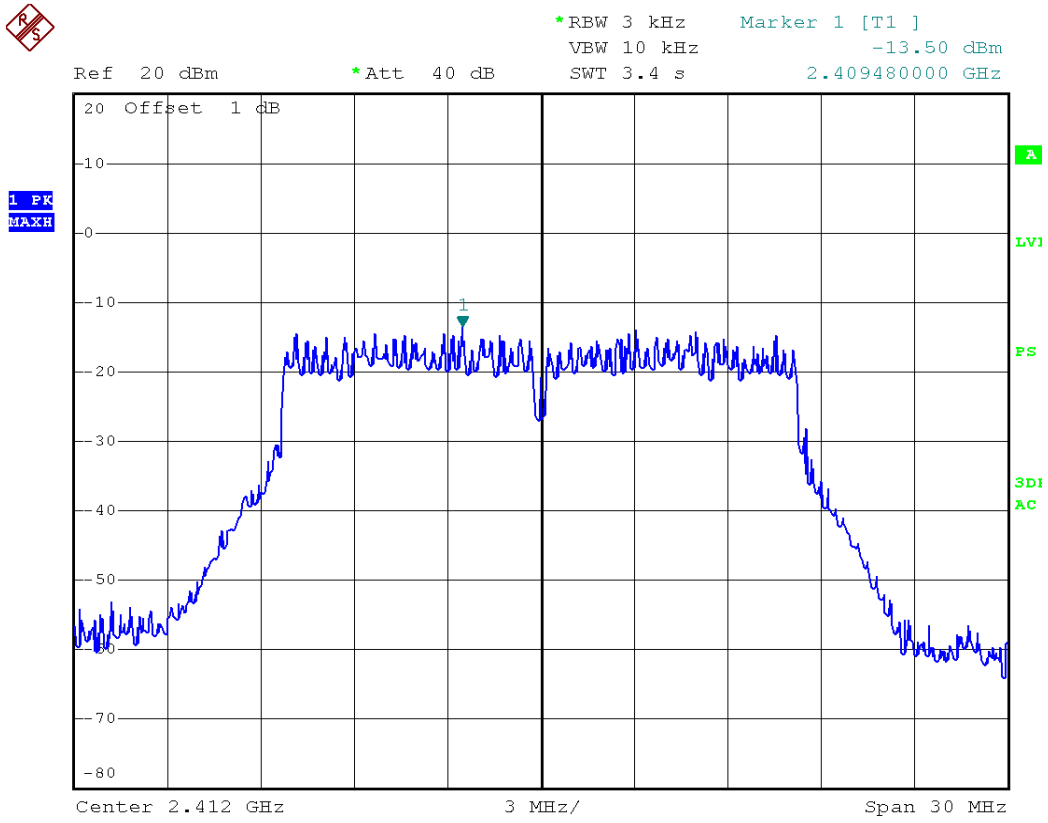
Channel 2462MHz



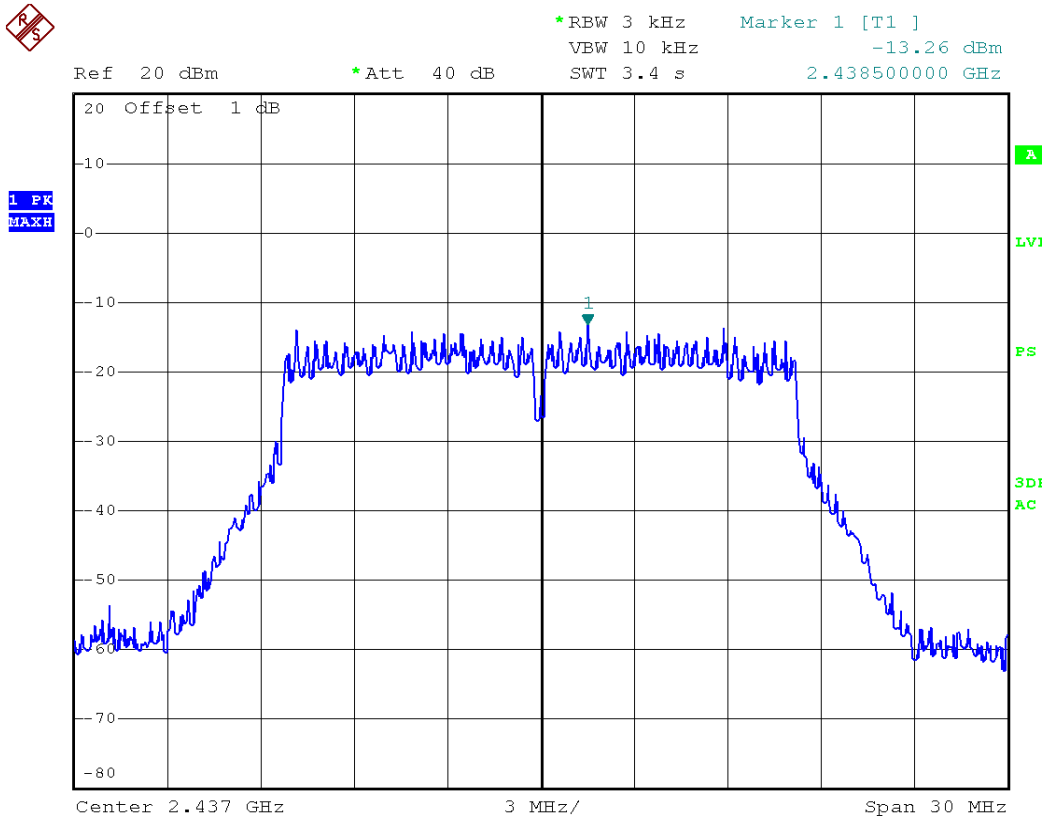
802.11g mode:

Channel No.	Frequency (MHz)	Mode	Data Rate	PSD (dBm/3KHz)	Limit	Result
1	2412	802.11g	54Mbps	-13.50	8dBm/3KHz	Pass
6	2437			-13.26		Pass
11	2462			-12.70		Pass

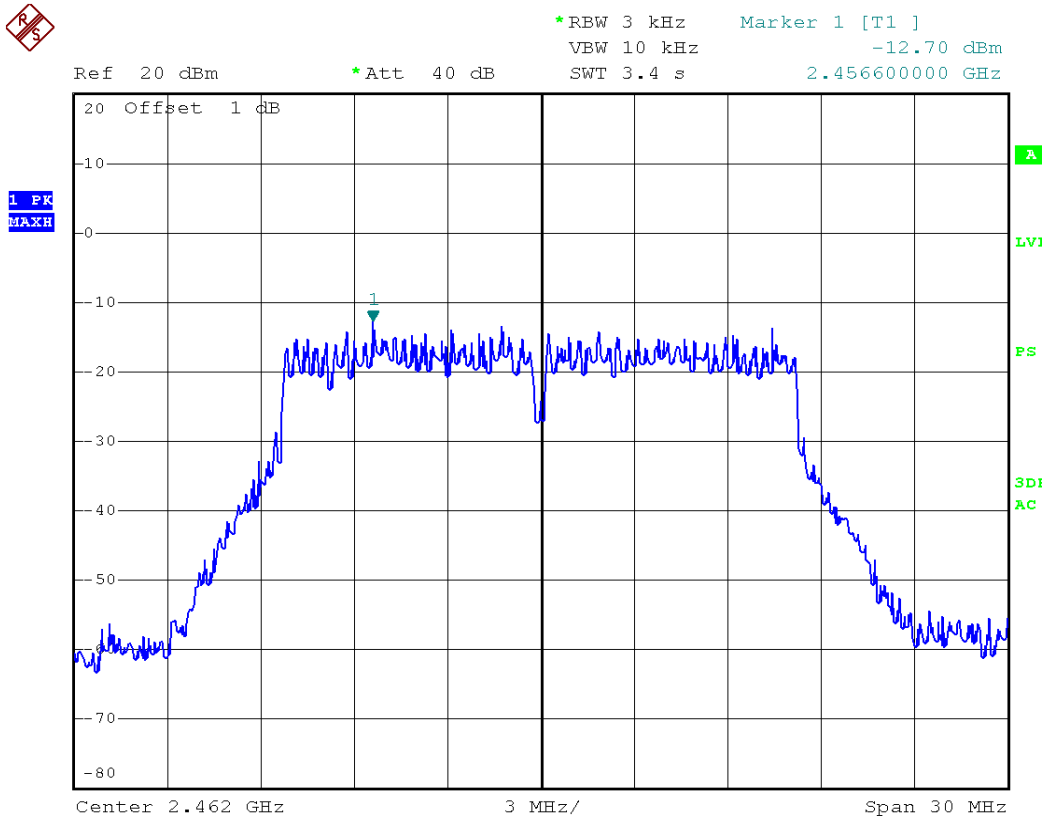
802.11g mode:
Channel 2412MHz



Channel 2437MHz



Channel 2462MHz



10. EMISSIONS IN NON-REST RICTED FREQUENCY BANDS

10.1 LIMITS

FCC 15.247(d) & 15.209

10.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 DTS Measurement Guidance v03r01.

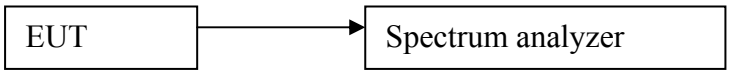
Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.

1. Reference level measurement

Below 1GHz Set the spectrum analyzer: RBW =100KHz VBW >= 3*RBW, Set the span to ≥ 1.5 times the DTS bandwidth. Sweep = auto; Detector Function = peak. Trace = Max-hold. Allow the trace to stabilize.

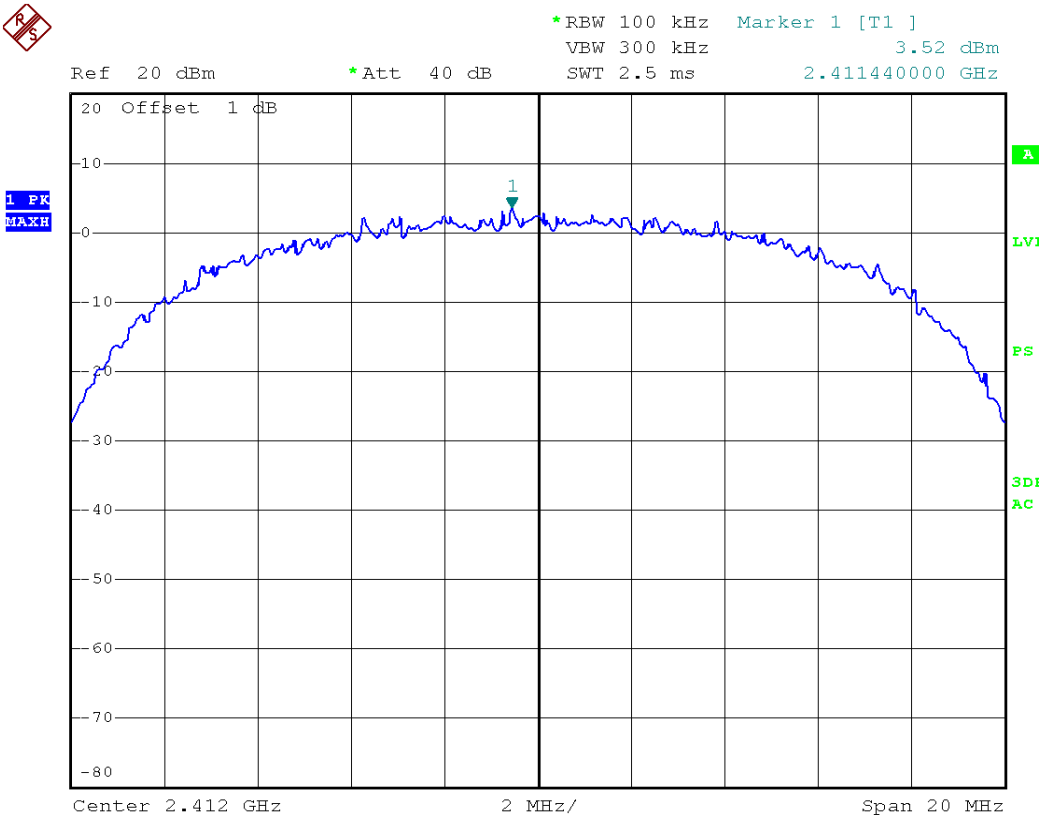
2. Set the spectrum analyzer: RBW =100KHz VBW >= 3*RBW, Set the span to ≥ 1.5 times the DTS bandwidth. Sweep = auto; Detector Function = peak. Trace = Max-hold. Allow the trace to stabilize.

10.3 TEST SETUP



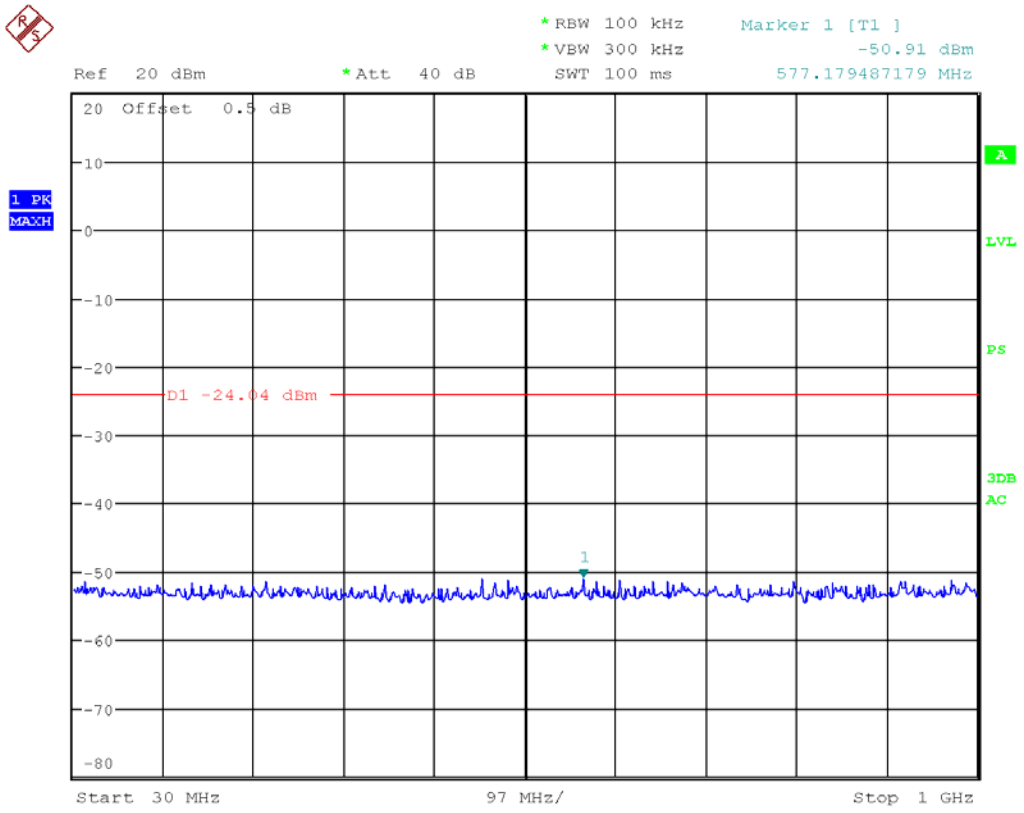
10.4 TEST RESULTS

802.11b mode:
Channel 2412MHz
reference level：

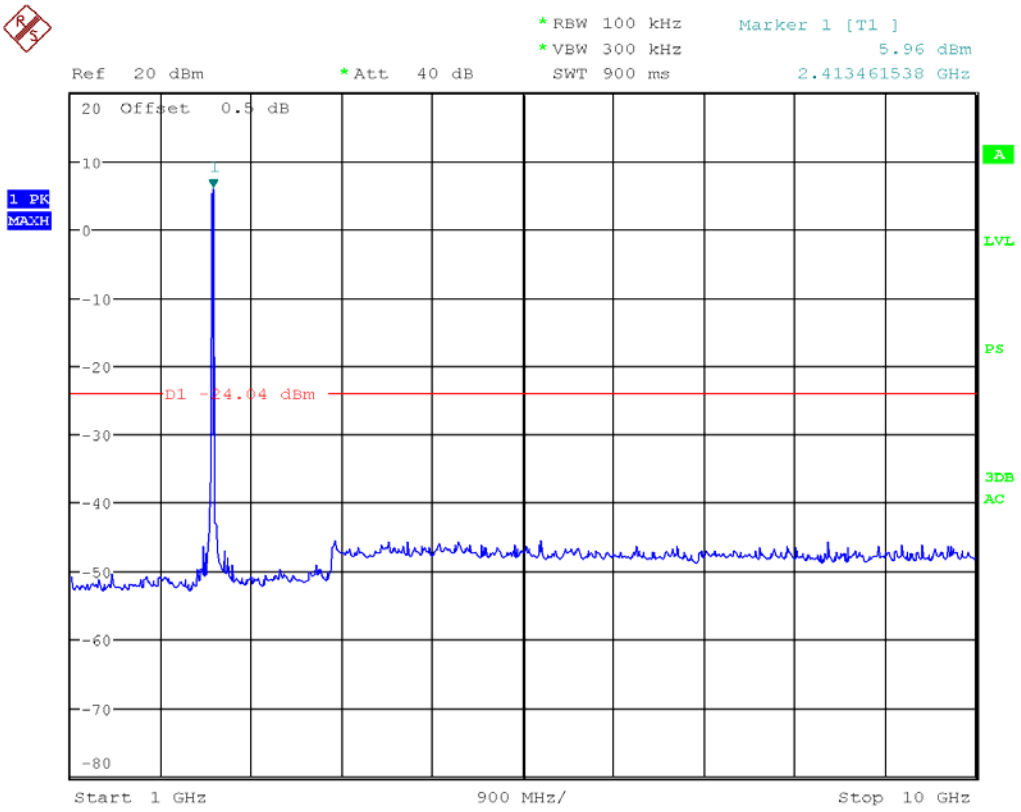


So limit is -16.48dBm

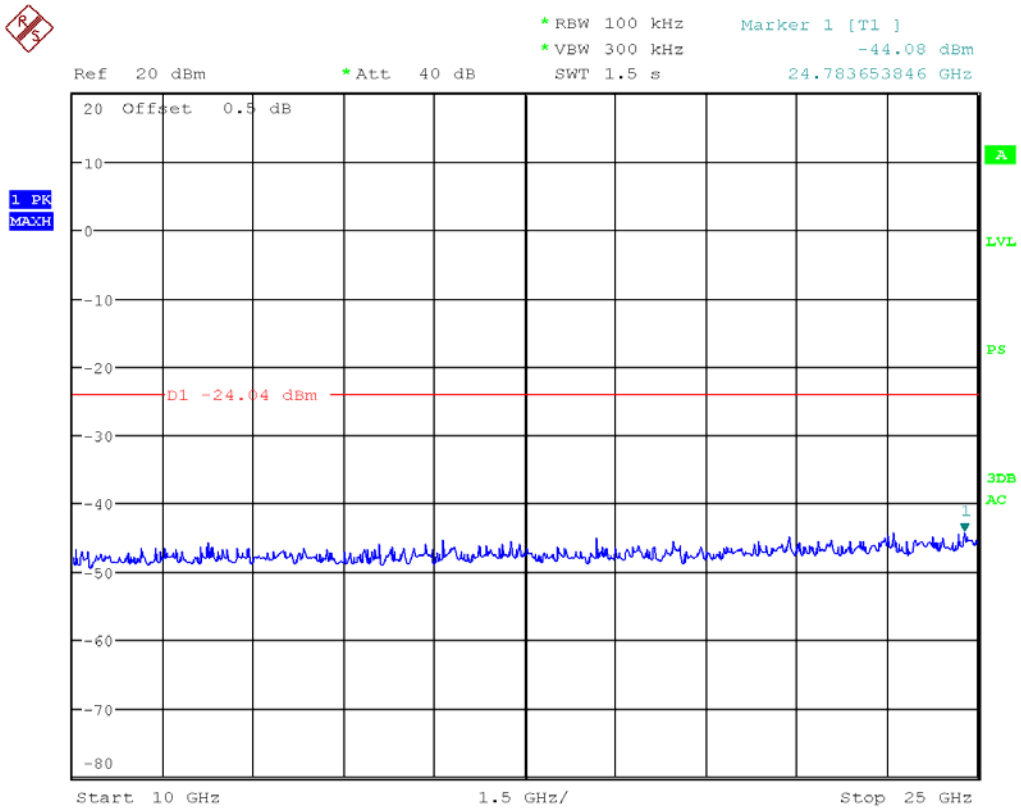
30M-1G



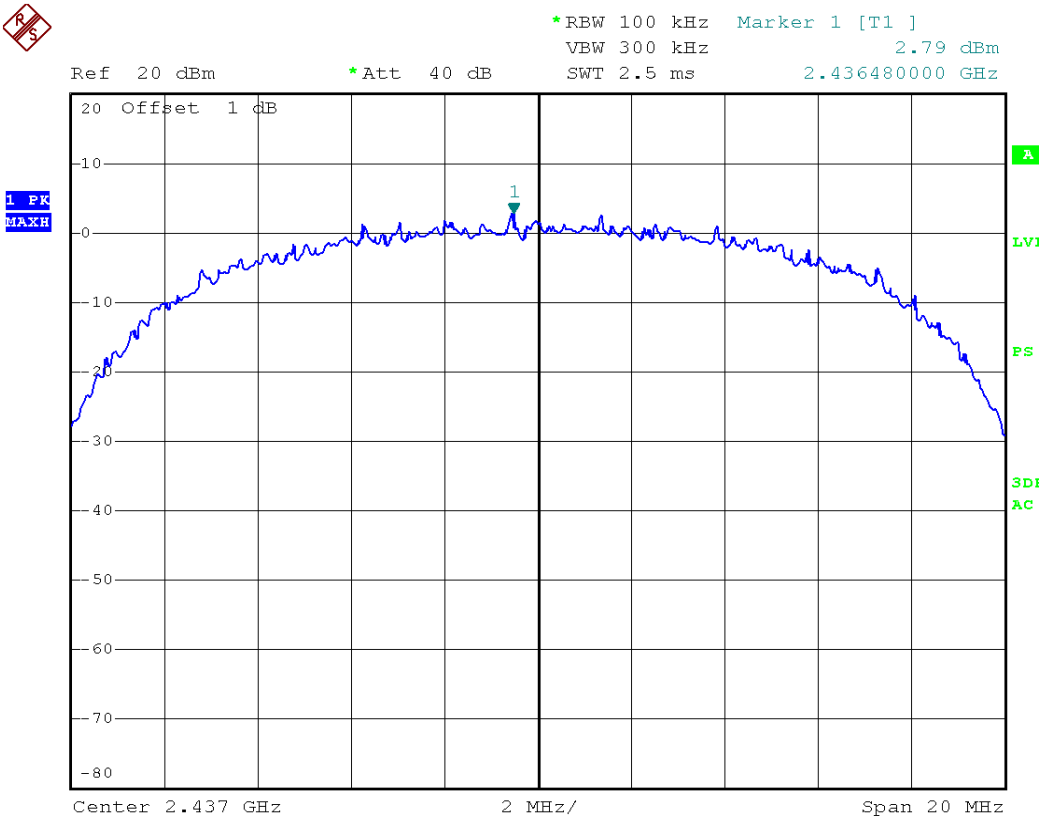
1G-10G



10G-25G

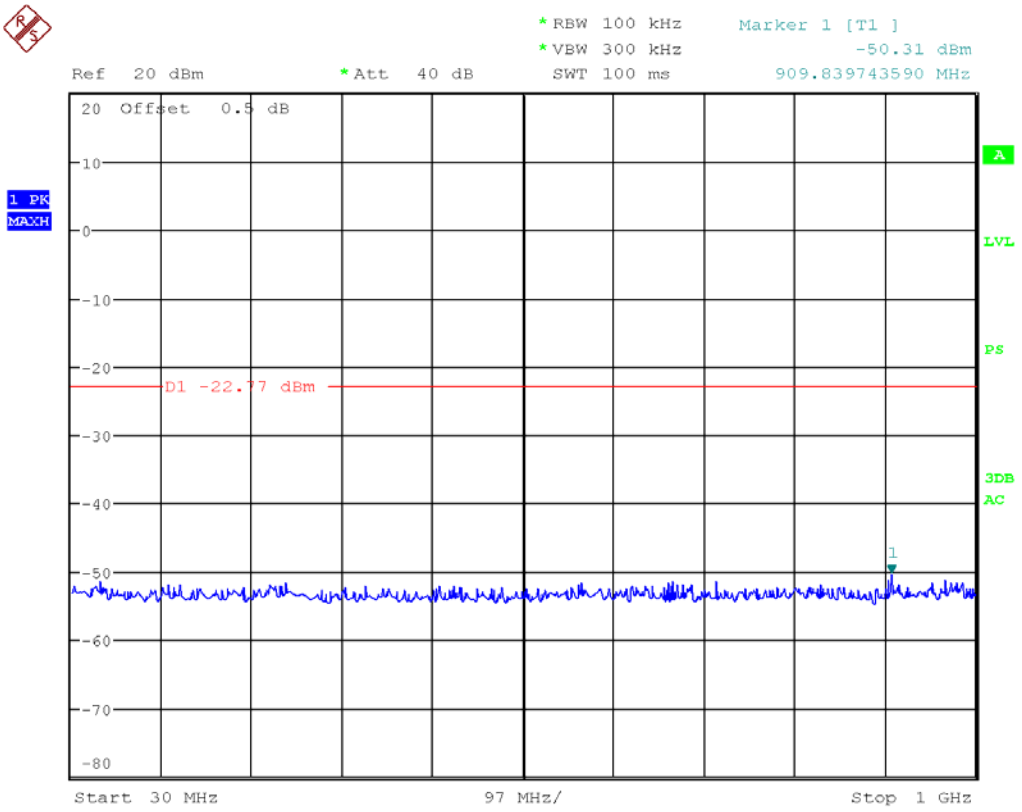


802.11b mode:
Channel 2437MHz
Reference level

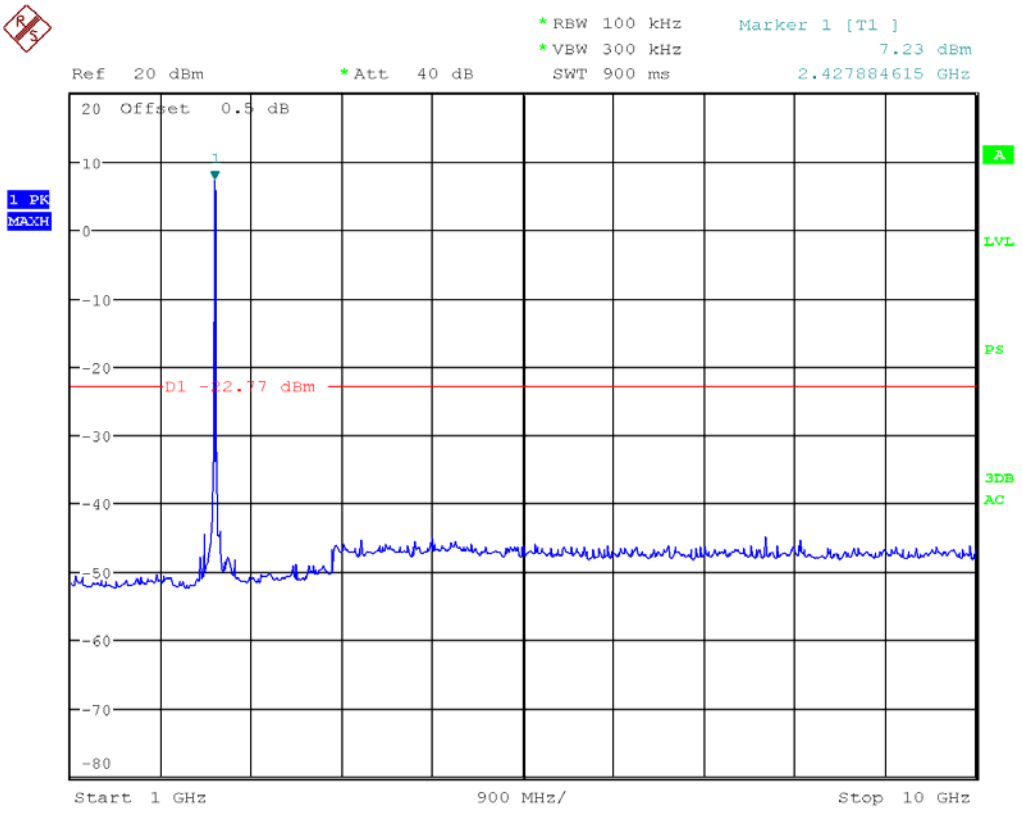


So the limit is -17.21dBm

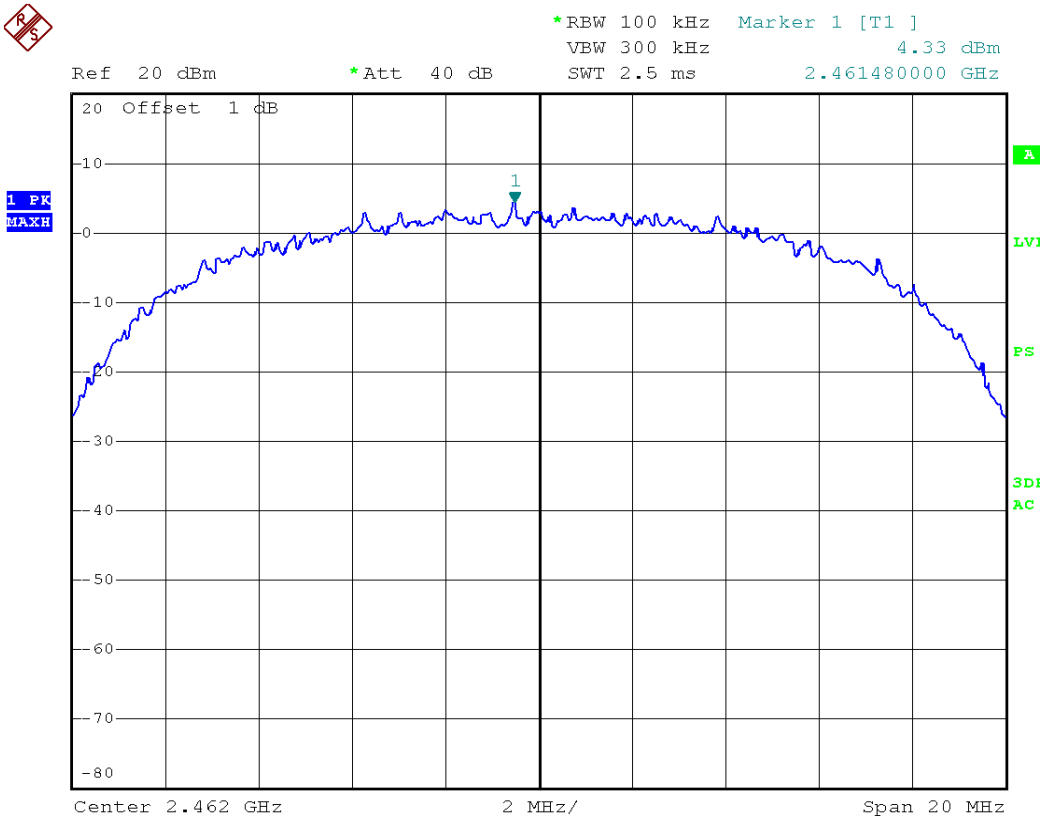
30M-1G


RBW 100 kHz
VBW 300 kHz
SWT 100 ms
Marker 1 [T1]
-50.31 dBm
909.839743590 MHz
Ref 20 dBm
Att 40 dB
Offset 0.5 dB
1 PK
MAXH
D1 -22.77 dBm
A
LVL
PS
3DB
AC
Start 30 MHz
97 MHz/
Stop 1 GHz

1G-10G

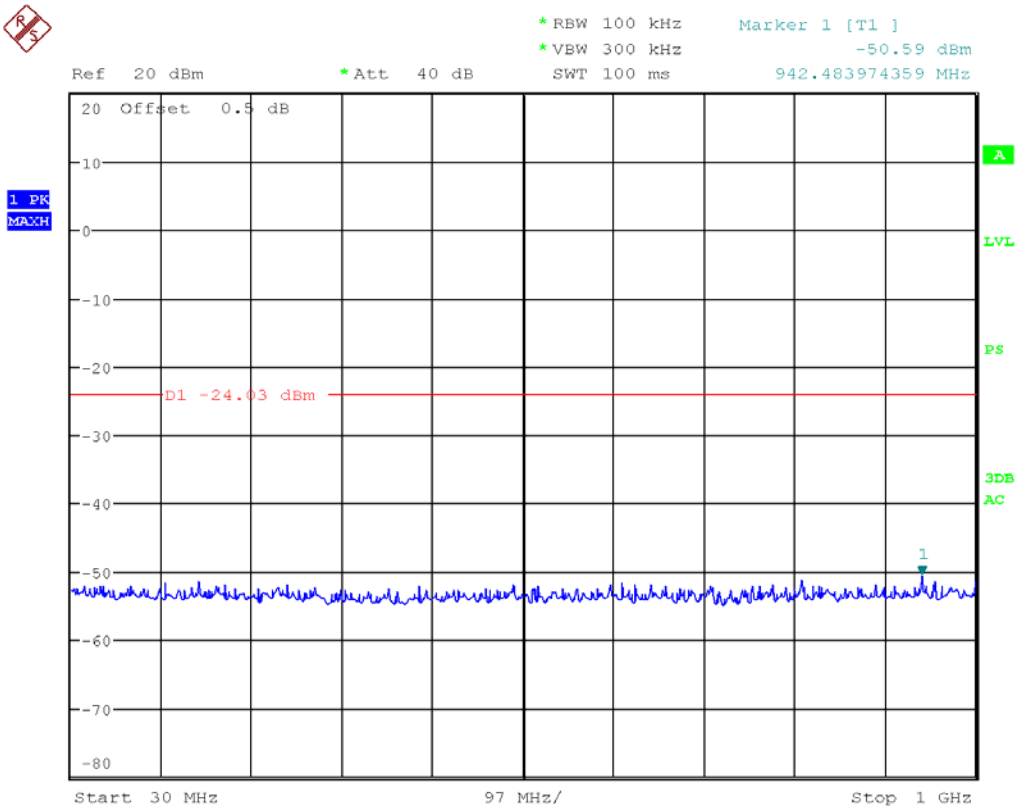

RBW 100 kHz
VBW 300 kHz
SWT 900 ms
Marker 1 [T1]
7.23 dBm
2.427884615 GHz
Ref 20 dBm
Att 40 dB
Offset 0.5 dB
1 PK
MAXH
D1 -22.77 dBm
A
LVL
PS
3DB
AC
Start 1 GHz
900 MHz/
Stop 10 GHz

802.11b mode:
Channel 2462MHz
Reference level

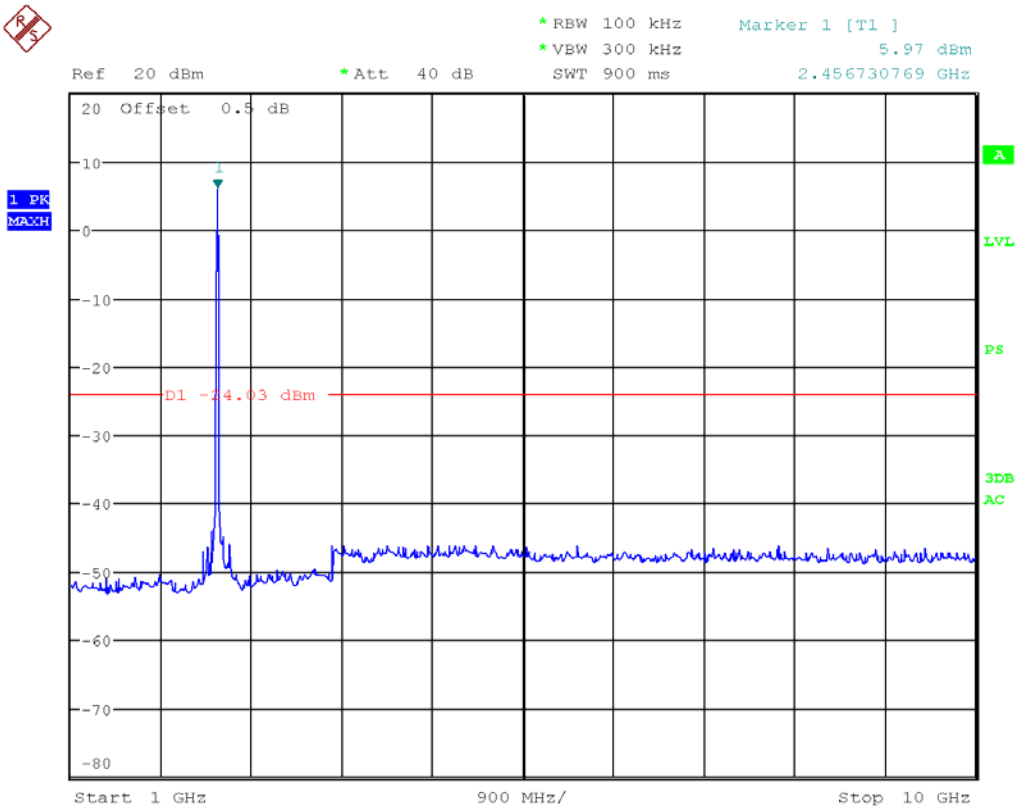


So the limit is -15.67dBm

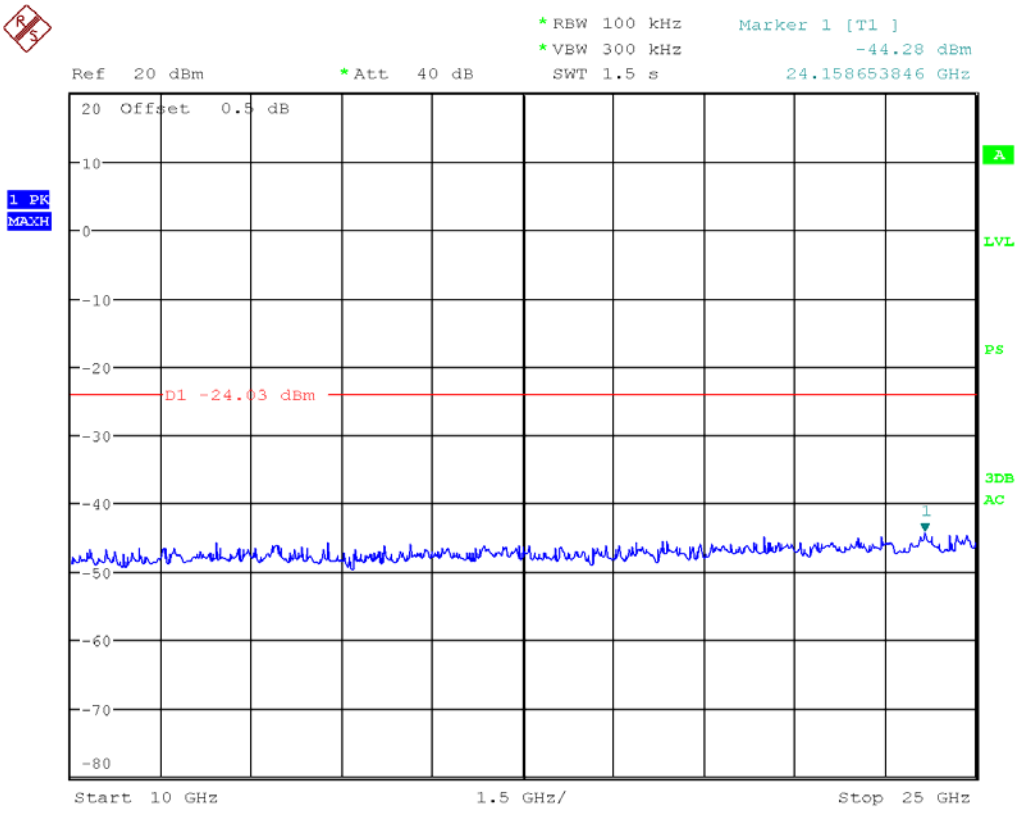
30M-1G



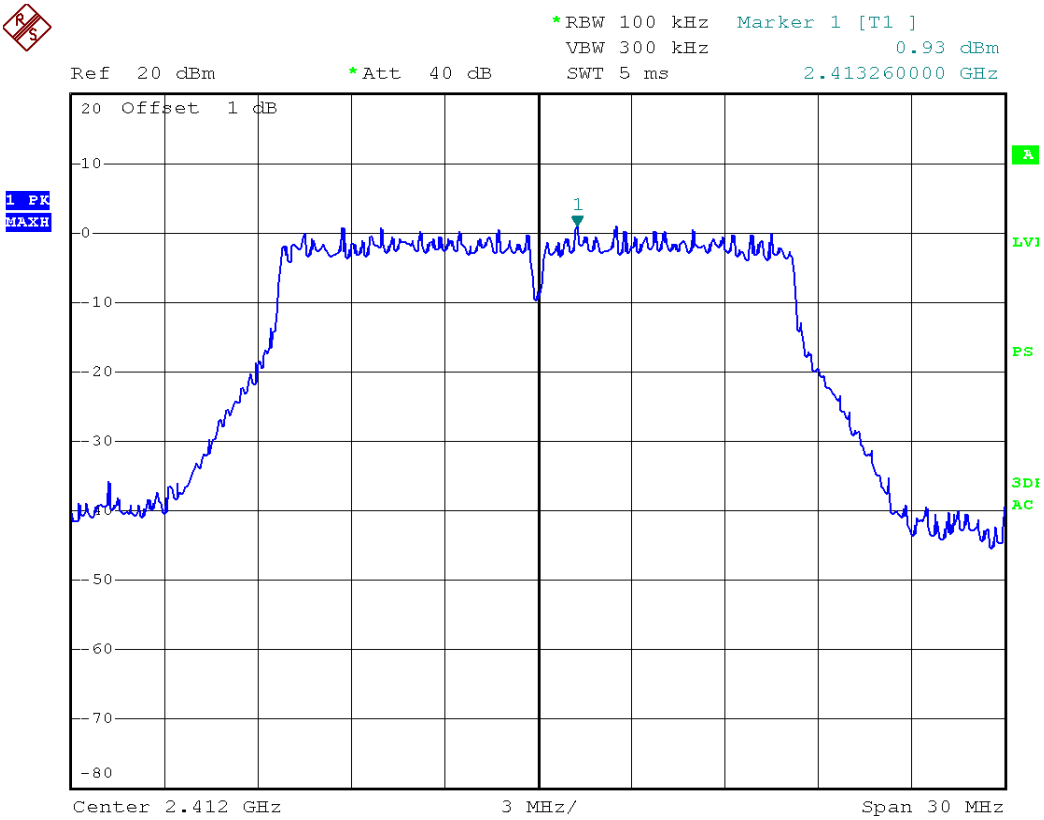
1G-10G



10G-25G

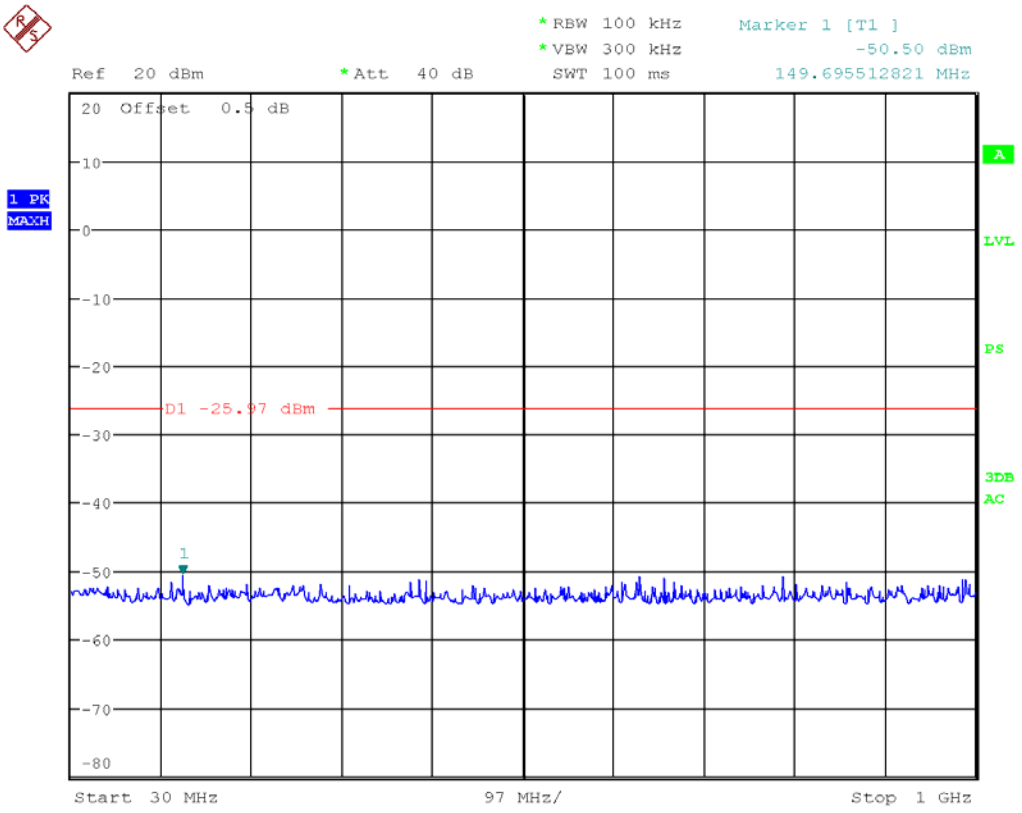


802.11G mode:
Channel 2412MHz
Reference level



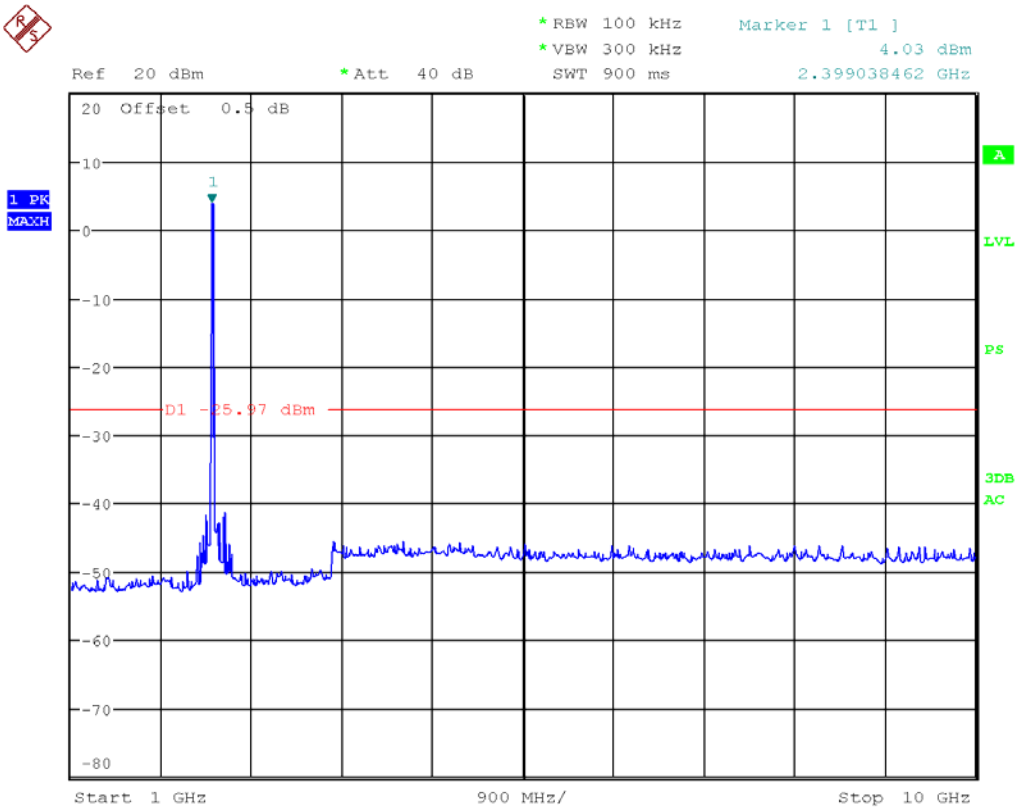
So the limit is -19.17dBm

30M-1G

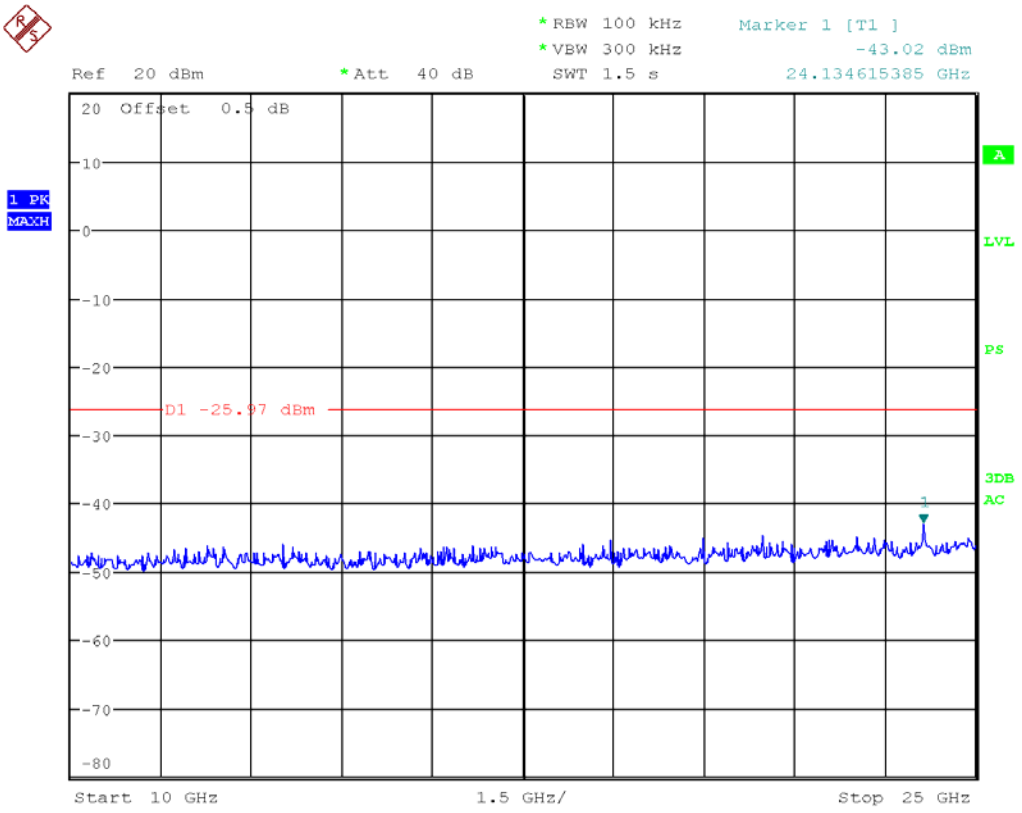


1G-10G

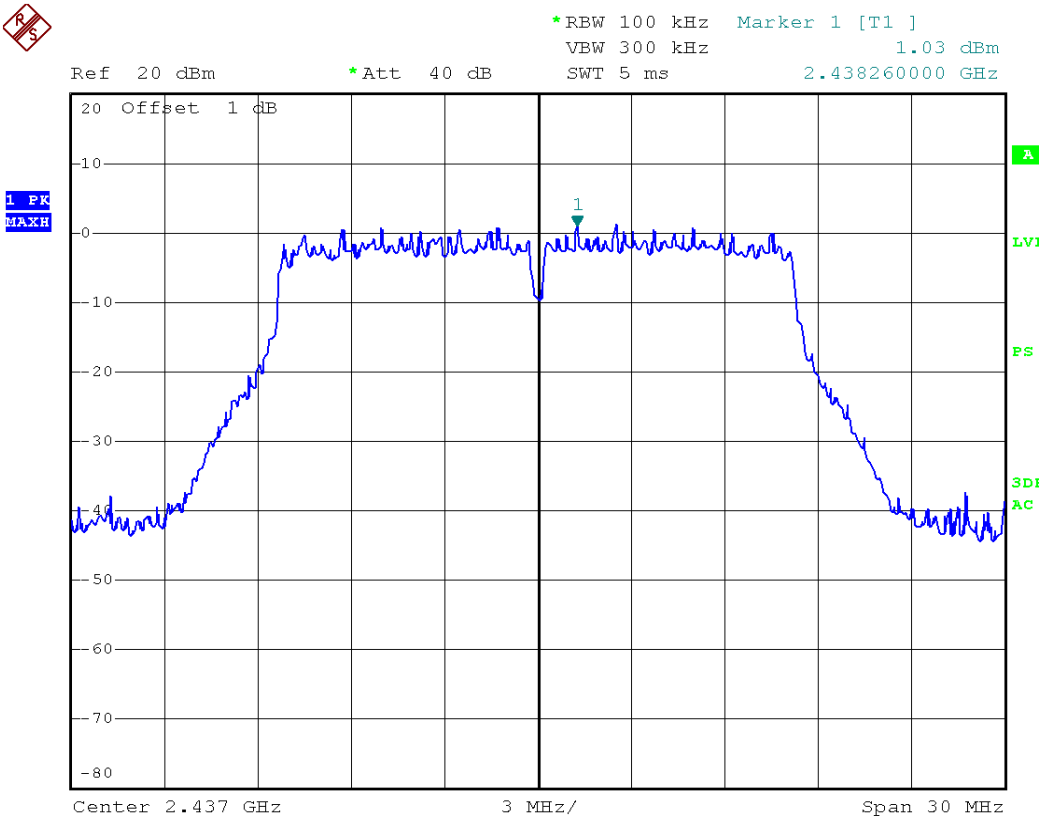
1G-10G



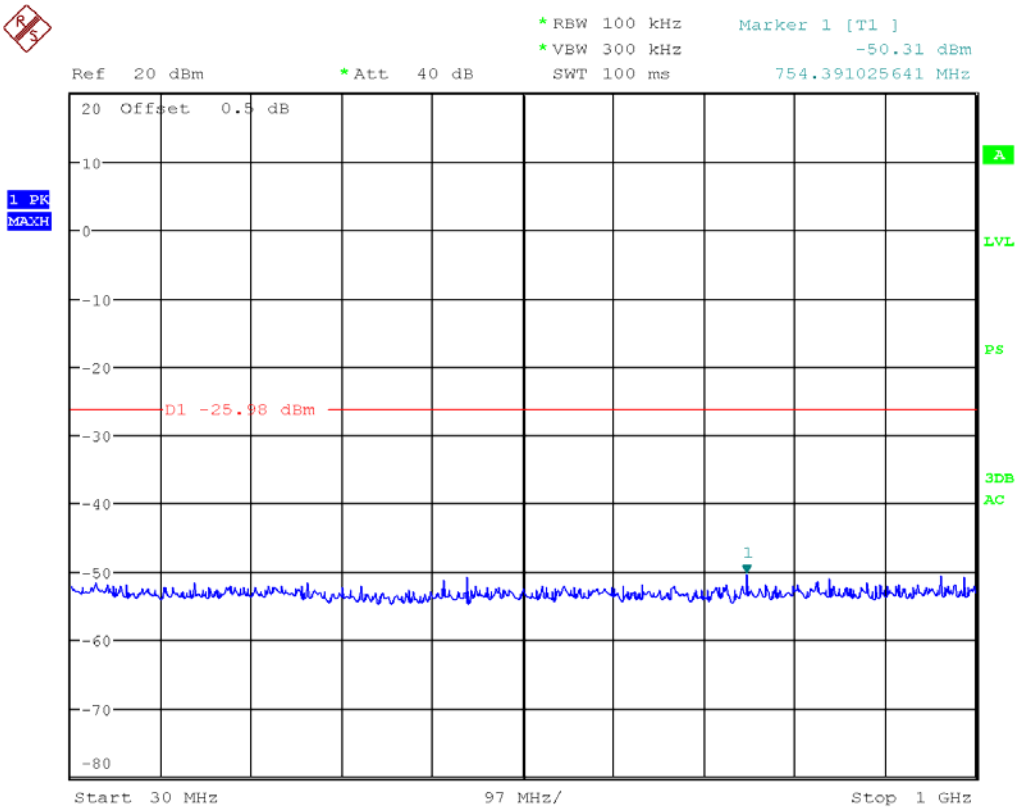
10G-25G



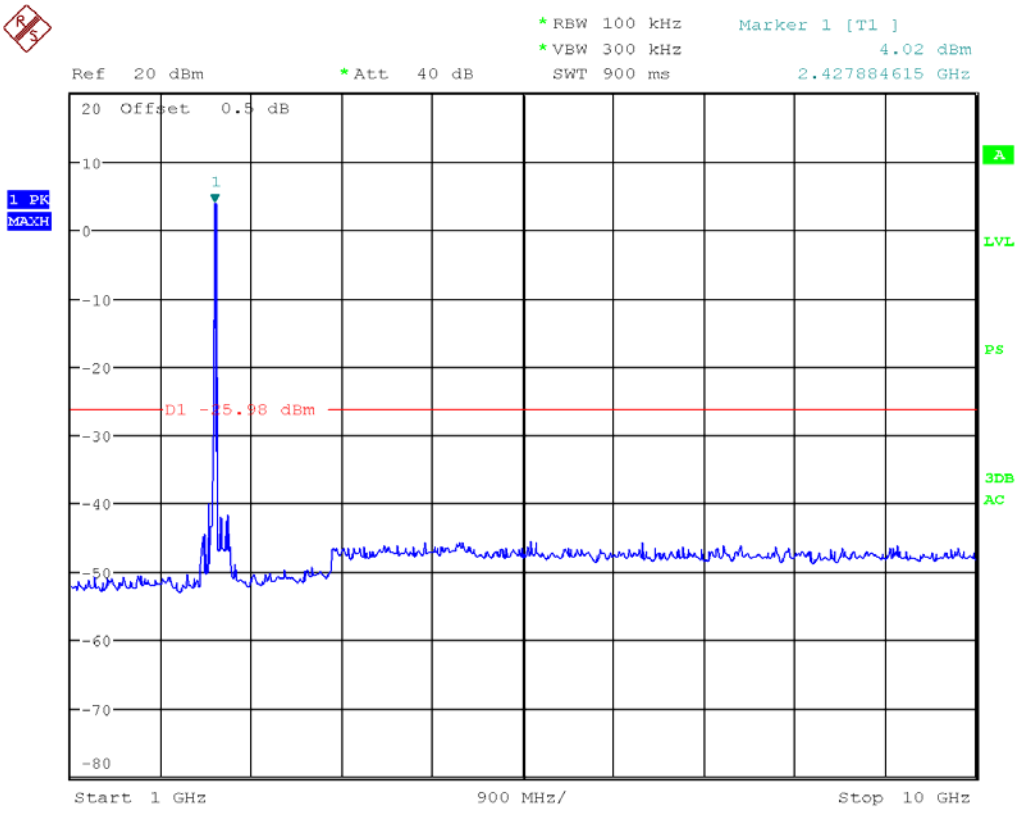
802.11G mode:
Channel 2437MHz
Reference level



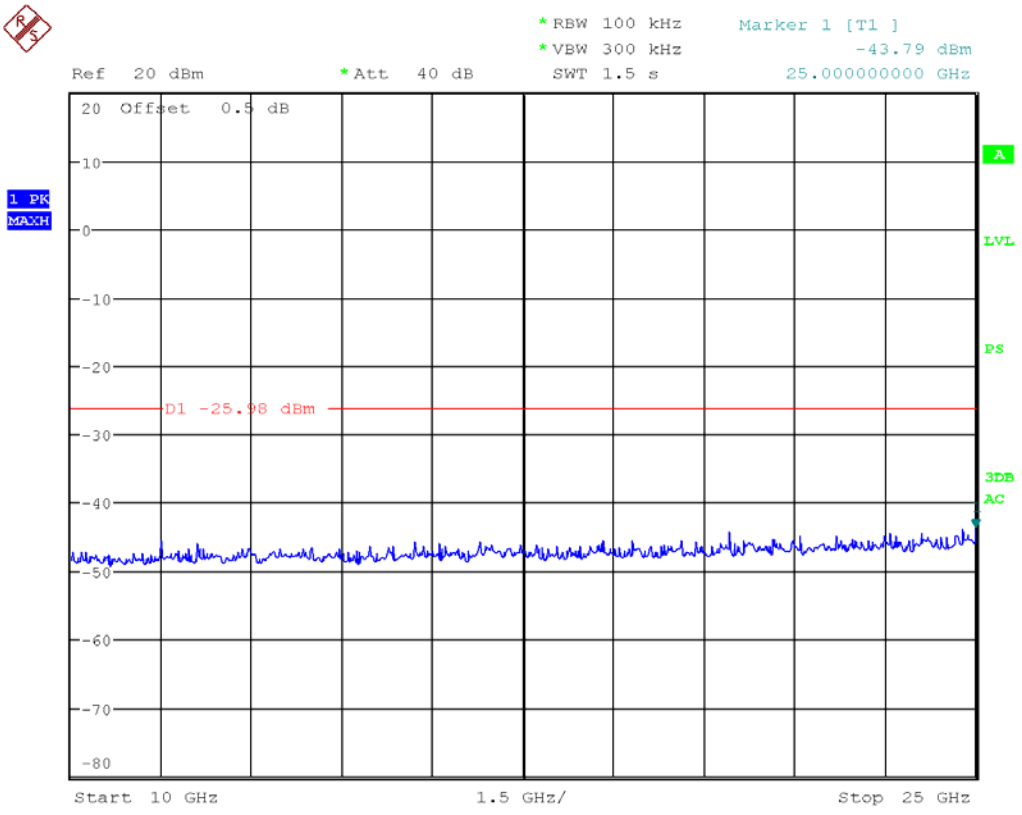
So the limit is -18.97dBm
30M-1G



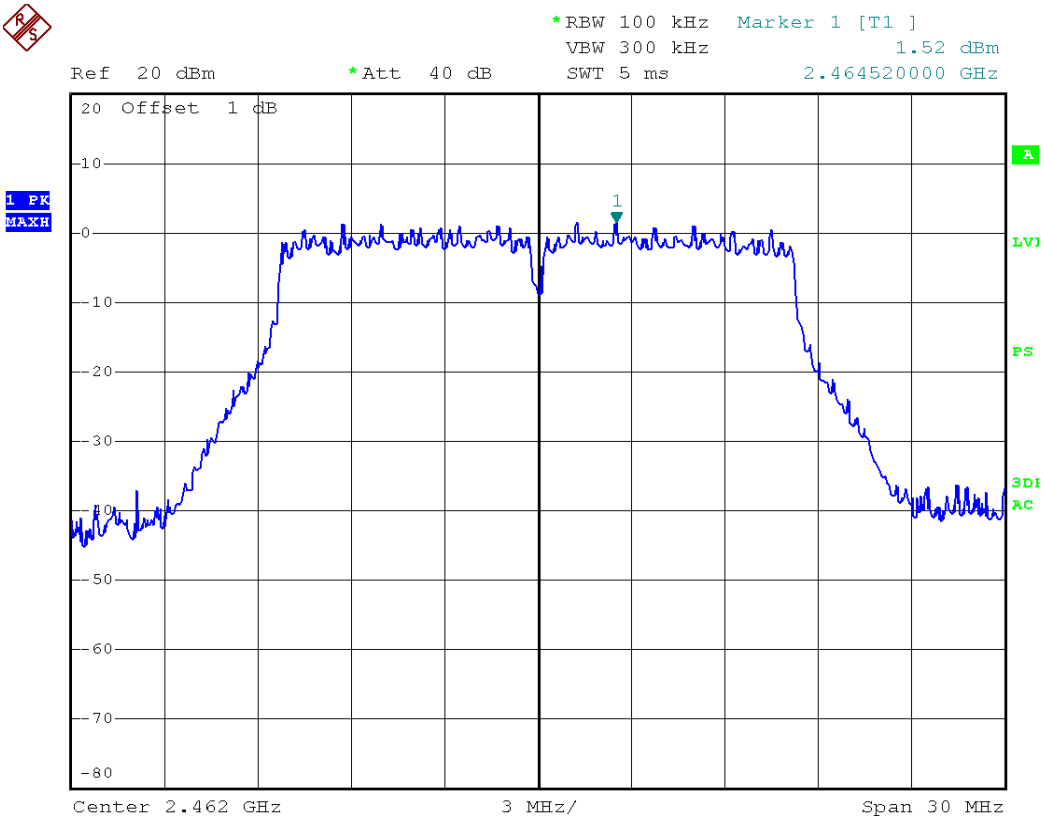
1G-10G



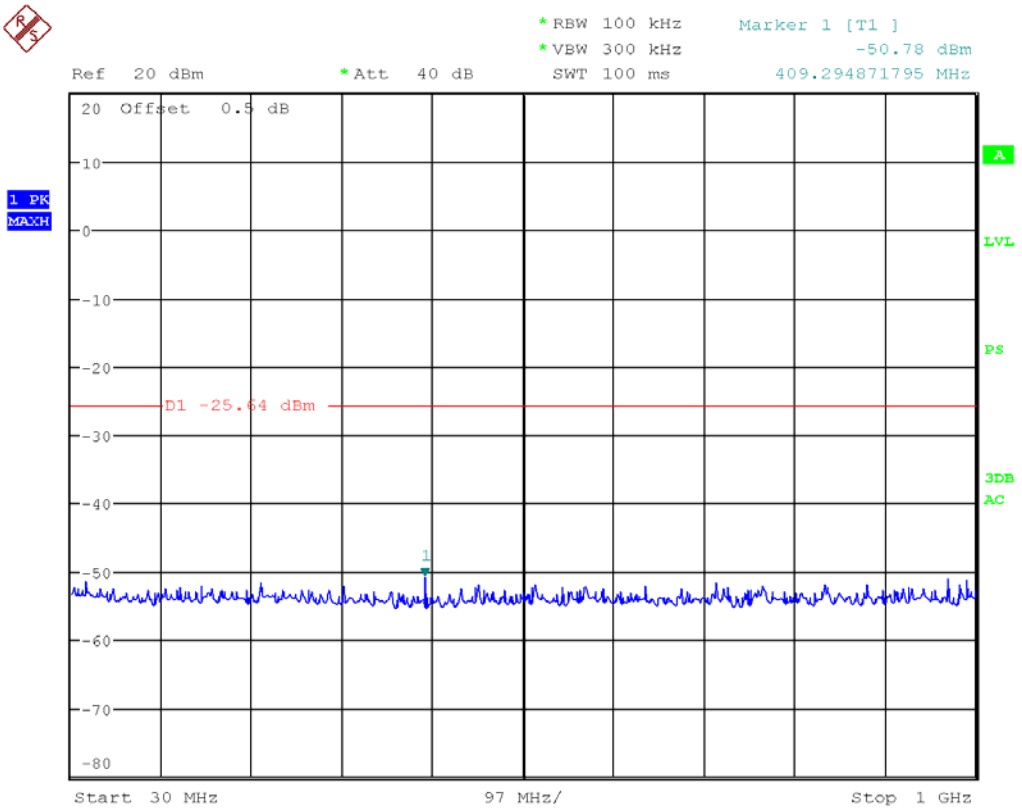
10G-25G



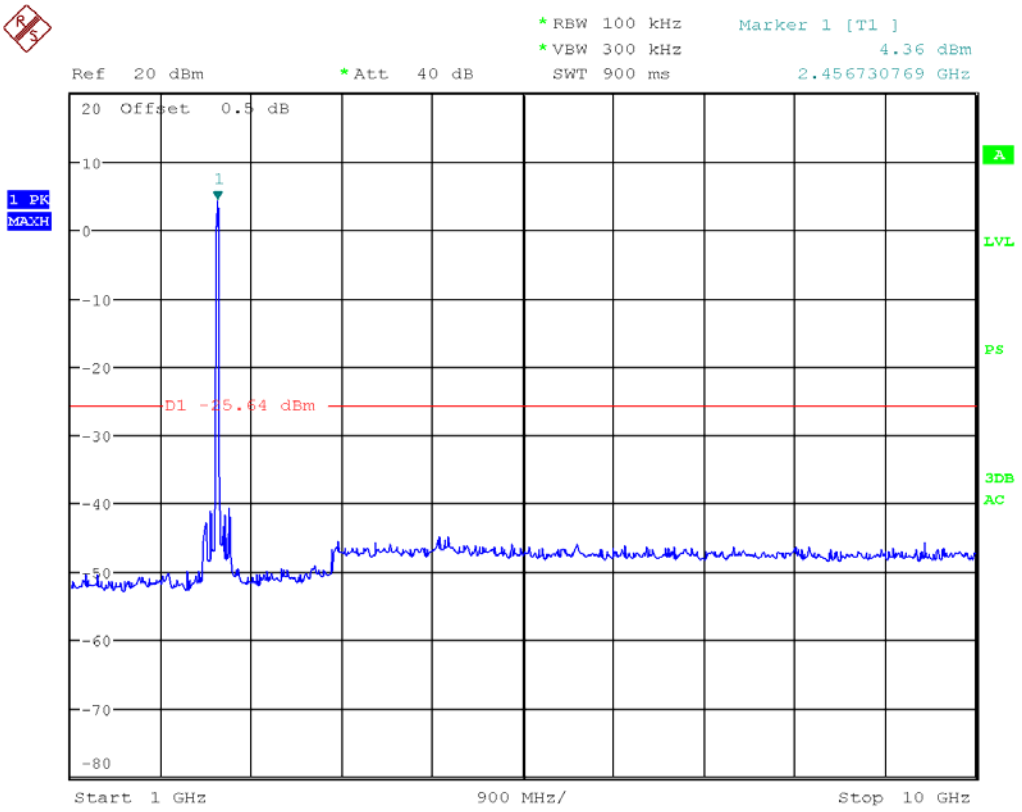
802.11G mode:
Channel 2462MHz
Reference level



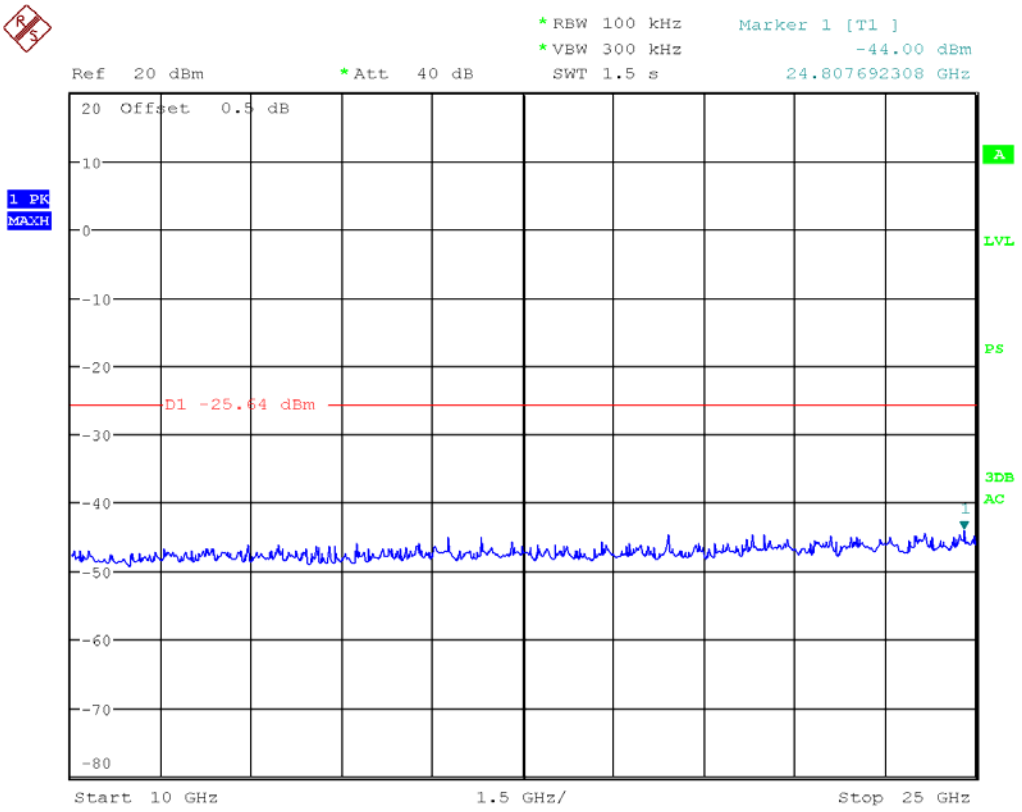
So the limit is -18.48dBm
Channel 2462MHz
30M-1G



1G-10G



10G-25G



11. EMISSIONS IN RESTRICTED FREQUENCY BANDS

11.1 LIMITS

The DTS rules specify that emissions which fall into restricted frequency bands shall comply with the general radiated emission limits..

11.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 DTS Meas Guidance v03r01.

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set the analyzer span to encompass the entire unwanted emission bandwidth above the measurement system noise level.
4. When Detector = peak, Set the RBW = 1 MHz. Set the VBW ≥ 3 MHz. Ensure that the number of measurement points in the sweep ≥ 2 x (span/RBW). Set sweep time = auto couple.When Detector = average. Set the RBW = 1 MHz. Set the VBW =10Hz. Ensure that the number of measurement points in the sweep ≥ 2 x (span/RBW). Set sweep time = auto couple. Employ trace averaging over a minimum of 100 traces.
5. Use the peak marker function to determine the maximum average power level in any 1 MHz of the unwanted emission.
6. Repeat above procedures until all measured frequencies were complete.

11.3 TEST SETUP

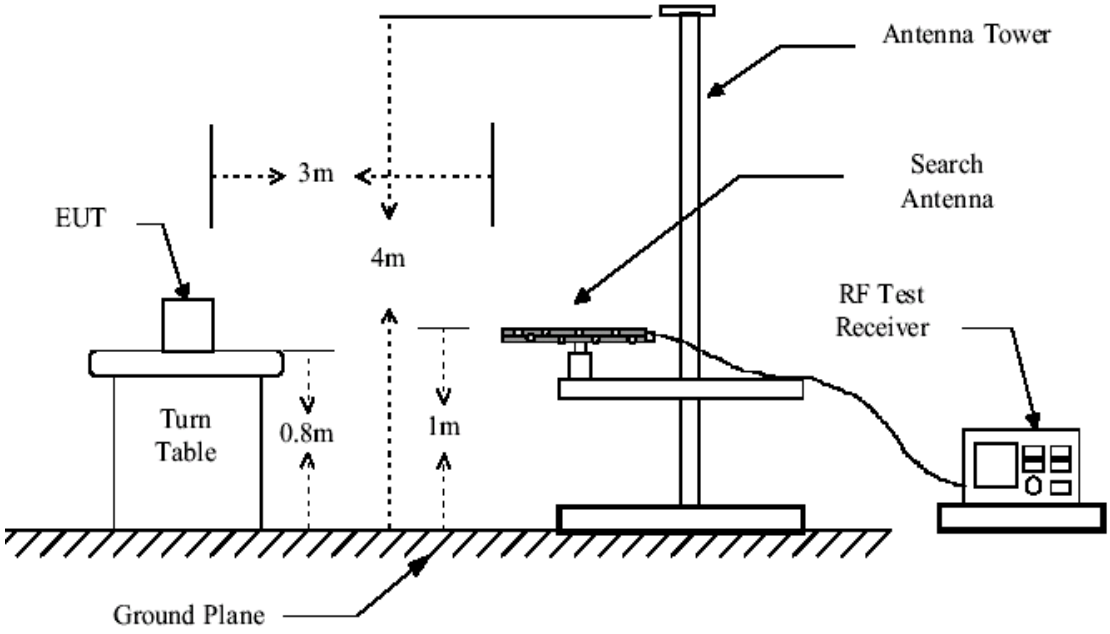


Figure 1. 30MHz to 1GHz radiated emissions test configuration

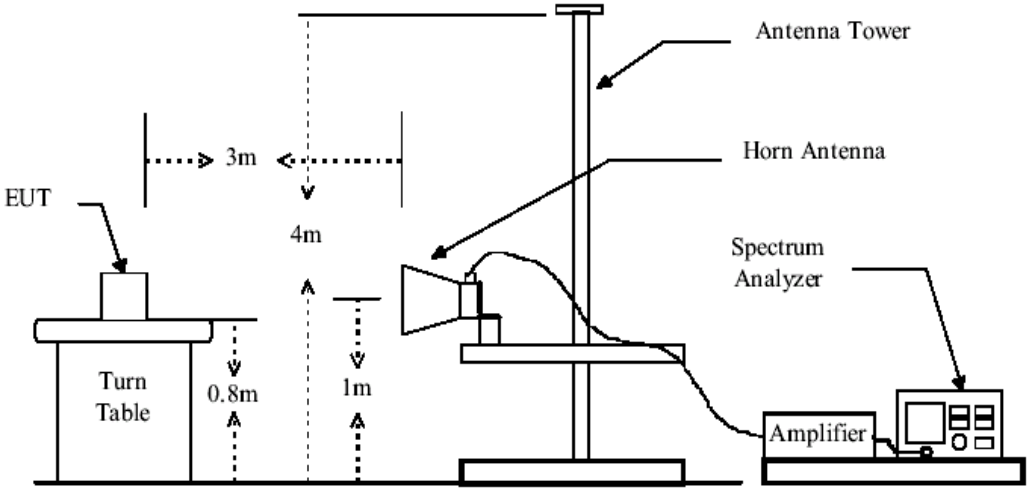
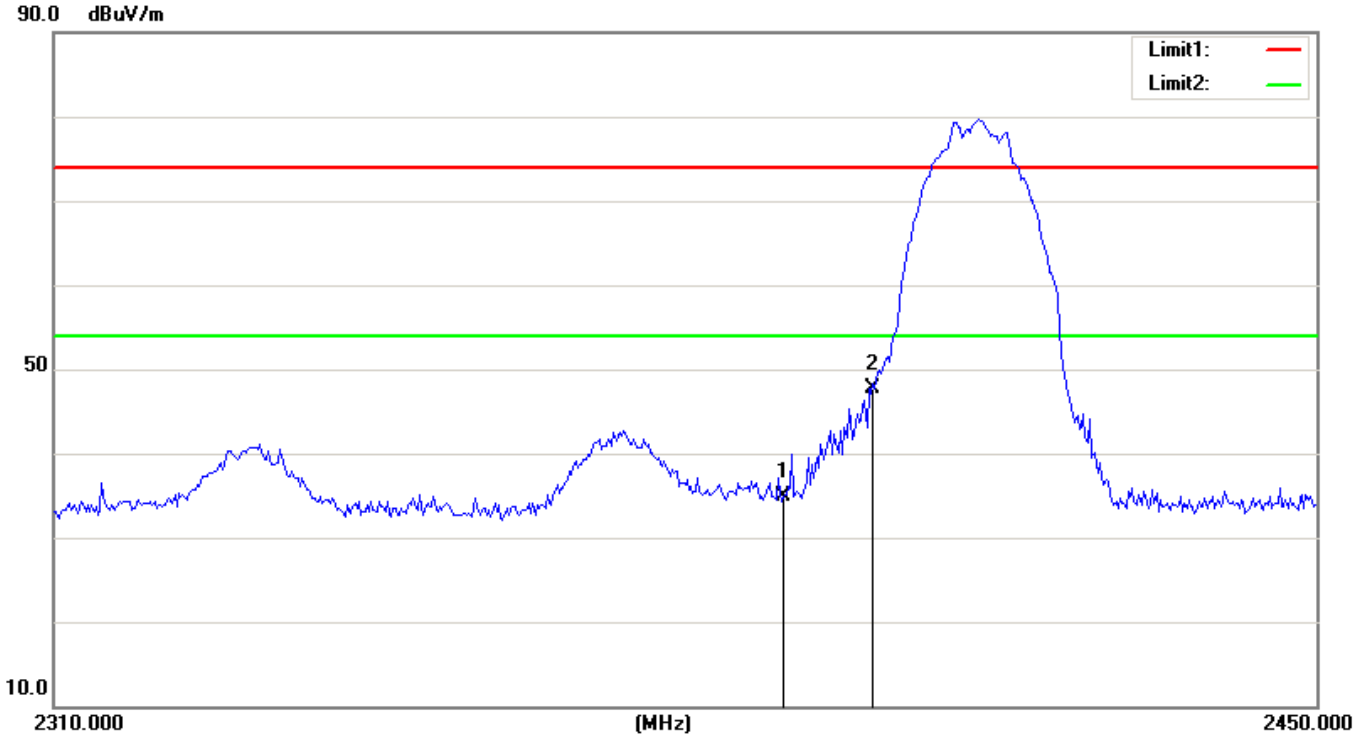


Figure 2. Above 1GHz radiated emissions test configuration

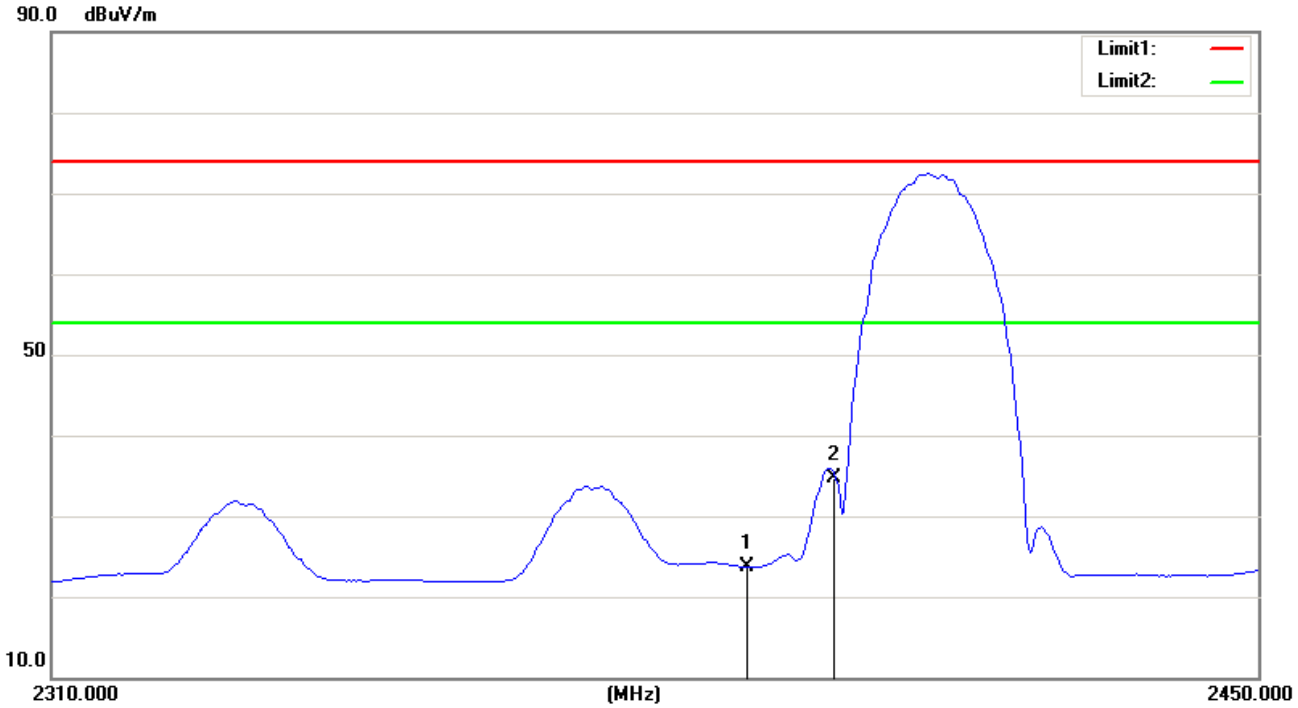
11.4 TEST RESULTS

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15.247_PEAK**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**9:52:50**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2412**		



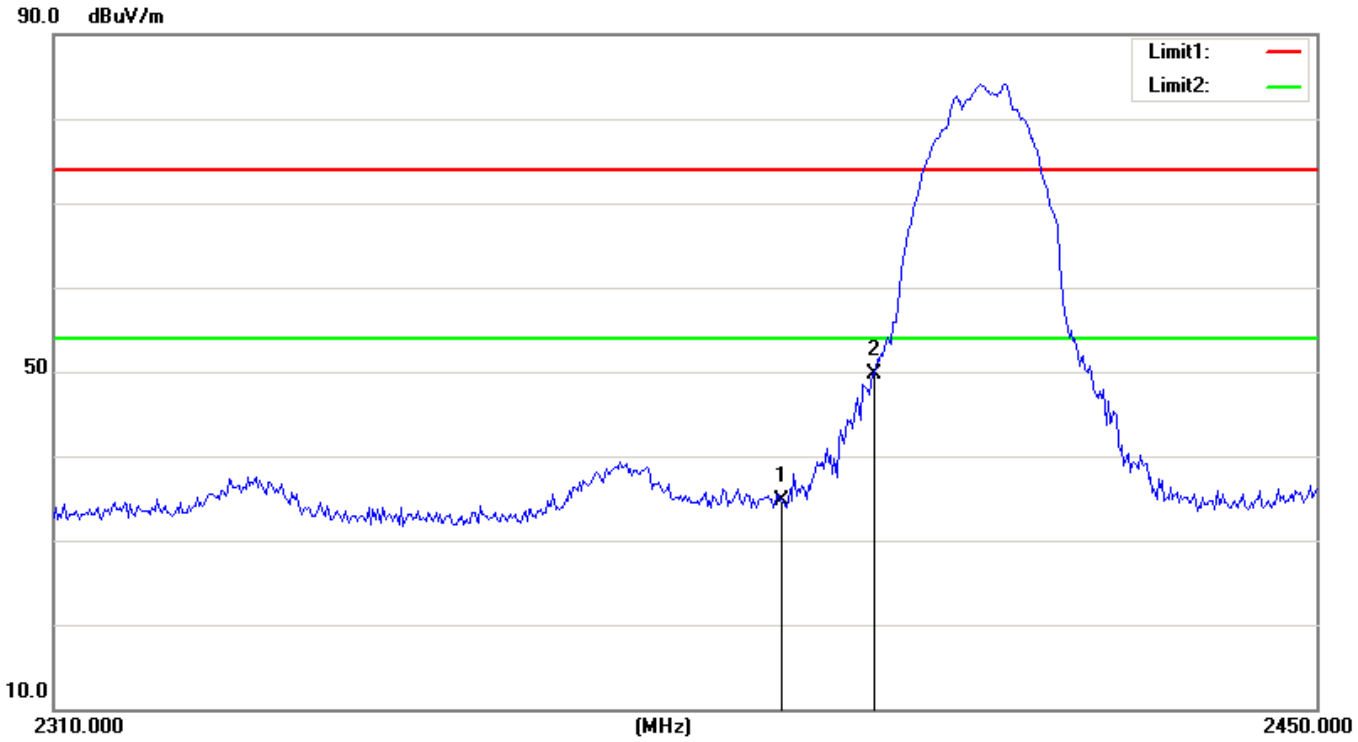
No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	29.70	5.25	34.95	74.00	-39.05	peak
2	2400.000	42.35	5.29	47.64	74.00	-26.36	peak

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15.247_AVG**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2012-8-7**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**19:27:36**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2412**		



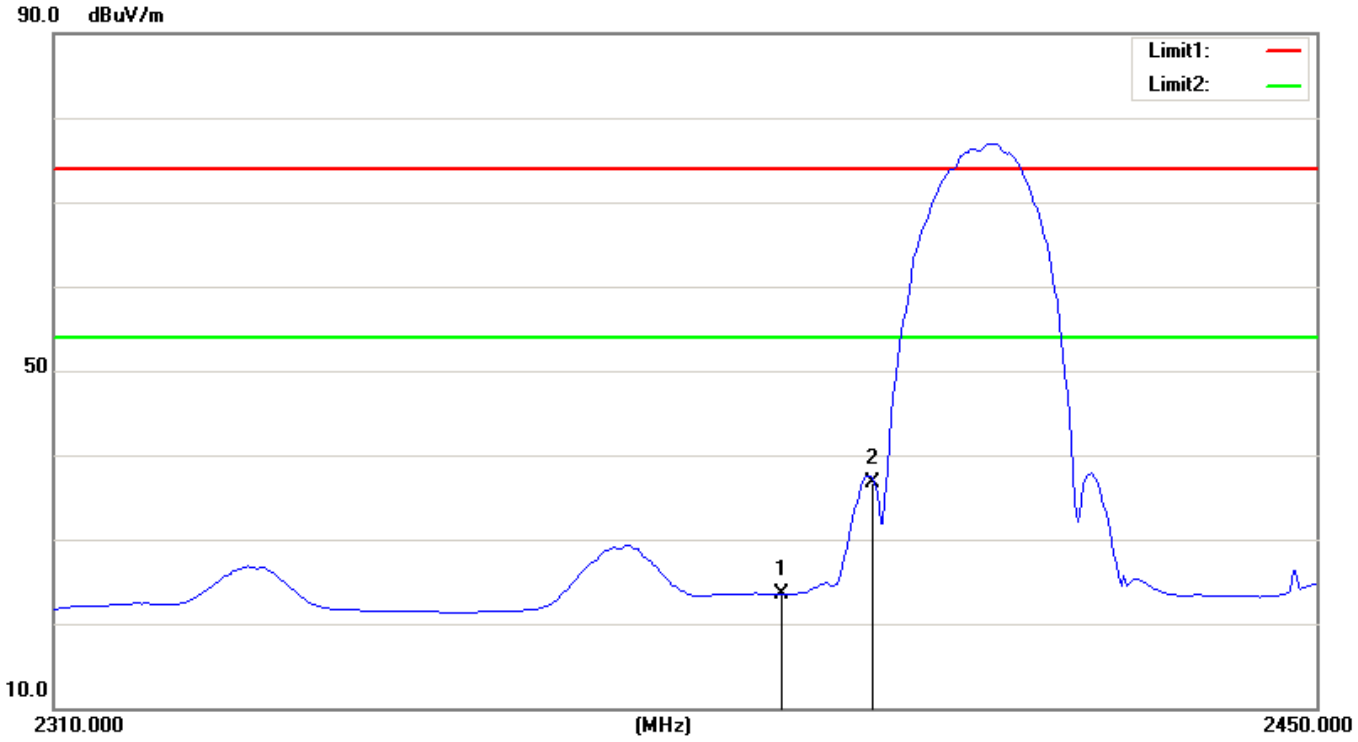
No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2390.000	18.41	5.25	23.66	54.00	-30.34	AVG
2	2400.000	29.46	5.29	34.75	54.00	-19.25	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15.247_PEAK**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**9:45:02**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2412**		



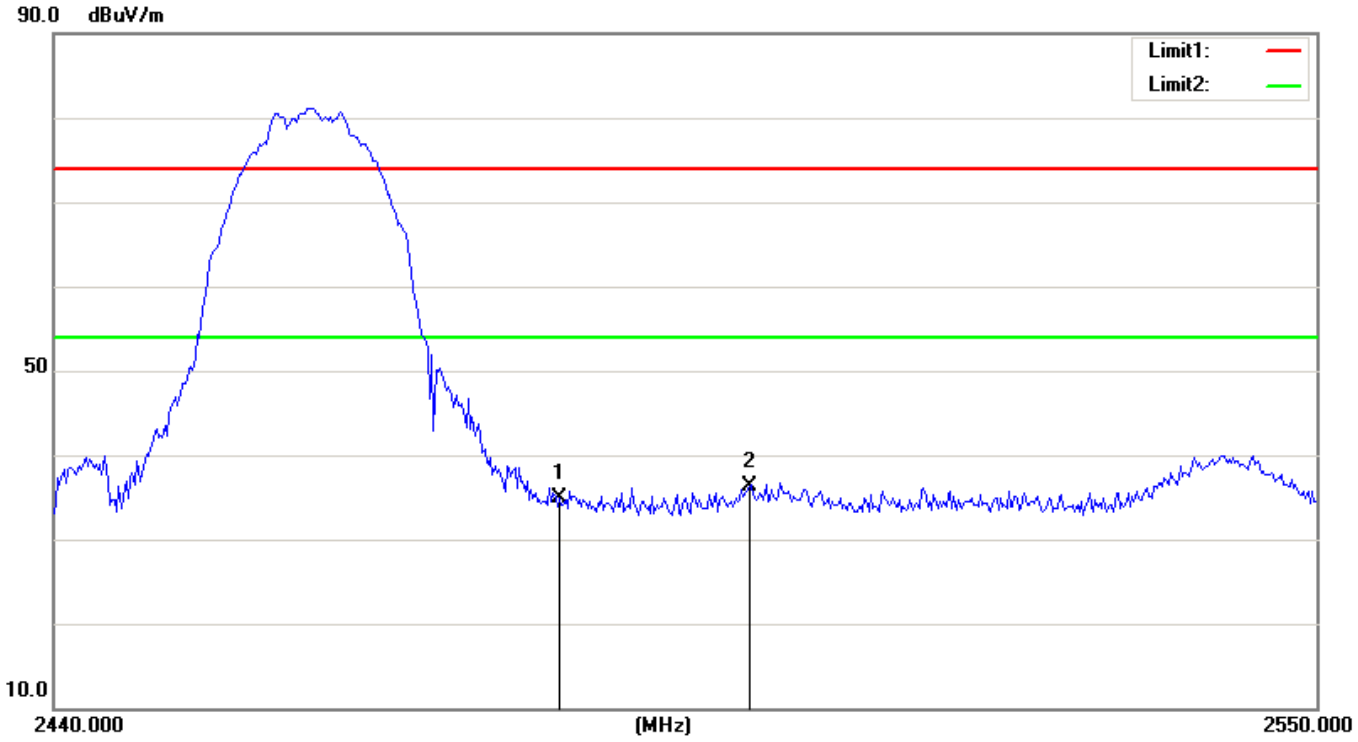
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	29.40	5.25	34.65	74.00	-39.35	peak
2	2400.000	44.48	5.29	49.77	74.00	-24.23	peak

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15.247_AVG**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**9:49:28**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2412**		



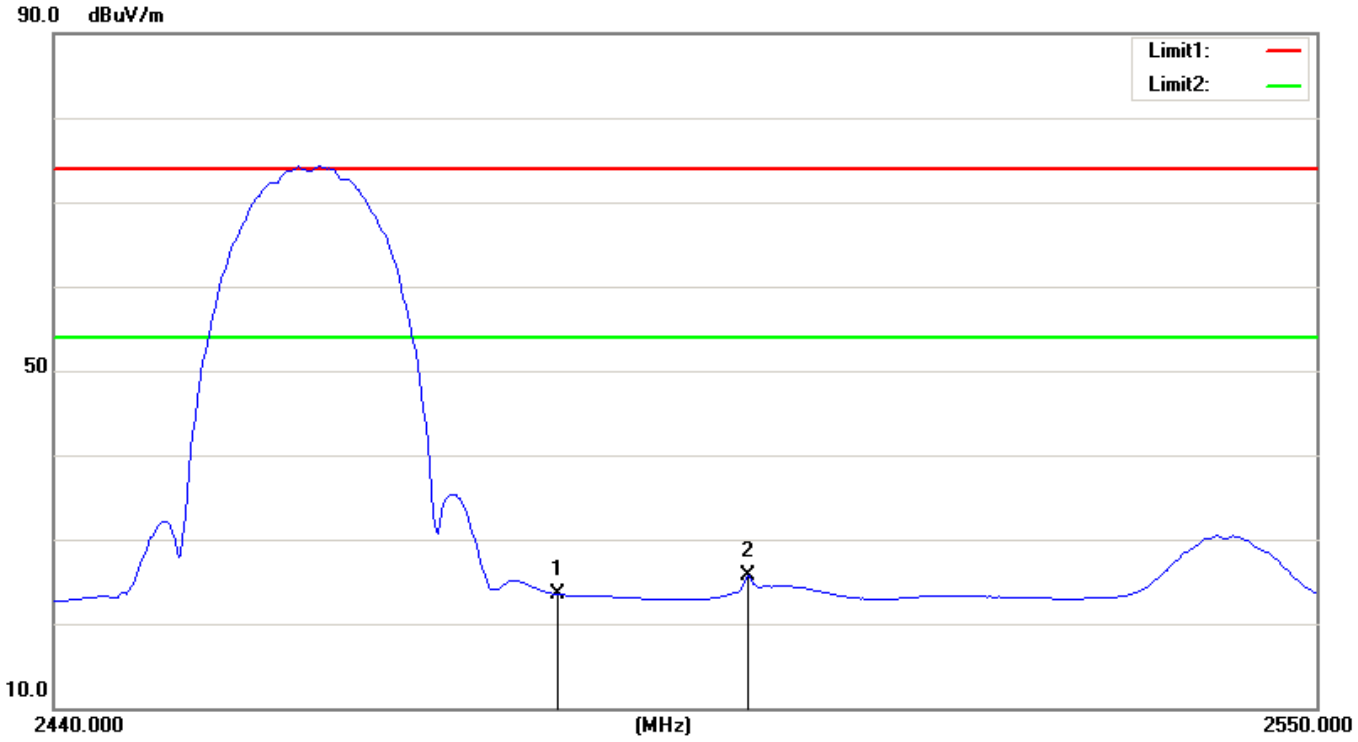
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	
1	2390.000	18.27	5.25	23.52	54.00	-30.48	AVG
2	2400.000	31.40	5.29	36.69	54.00	-17.31	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15.247_PEAK**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**9:56:29**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2462**		



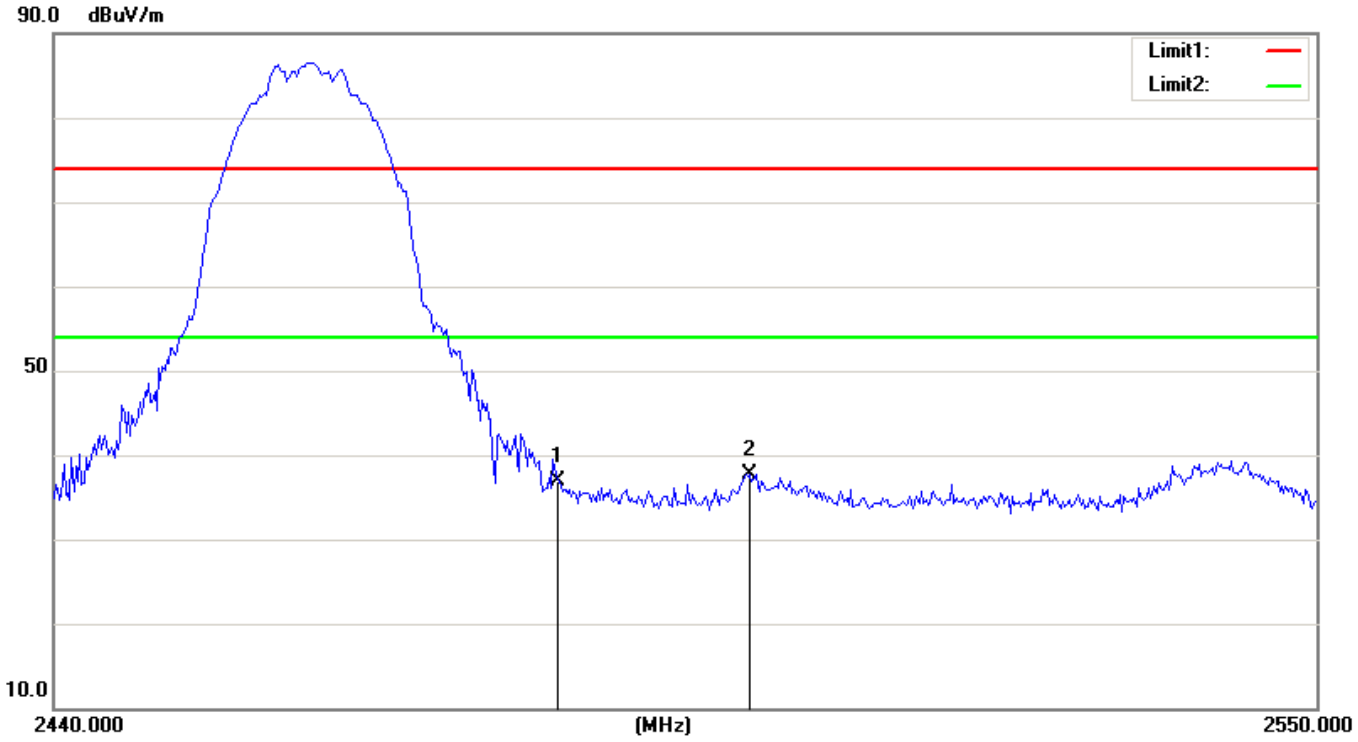
No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	29.30	5.60	34.90	74.00	-39.10	peak
2	2500.000	30.60	5.66	36.26	74.00	-37.74	peak

Project No.:	**ZJ00029362**	**Polarization:**	**Vertical**
Standard:	**(RE)FCC PART 15.247_ AVG**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**9:58:18**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2462**		



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	17.84	5.60	23.44	54.00	-30.56	AVG
2	2500.000	20.01	5.66	25.67	54.00	-28.33	AVG

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15.247_PEAK**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**10:00:15**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2462**		



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	31.32	5.60	36.92	74.00	-37.08	peak
2	2500.000	32.09	5.66	37.75	74.00	-36.25	peak

Project No.:	**ZJ00029362**	**Polarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15.247_ AVG**	**Power Source:**	**AC 120V/60Hz**
Test item:	**Radiation Test**	**Date:**	**2013-6-8**
Temp./Hum.(%RH):	**22/46%RH**	**Time:**	**9:59:40**
EUT:	**BLU-RAY DISC SYSTEM**	**Distance:**	**3m**
Model:	**BDS 280-airplay**	**Test Result:**	**Pass**
Note:	**802.11b 2462**