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Report No.:SZEMO080804219RFF  
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FCC ID: VUY1062P

## FCC TEST REPORT

**Application No:** SZEMO080804219RF  
**Applicant/ Manufacture/Factory:** Vocentrix(HK) Limited  
**Applicant Address:** Flat5-6, 11/F, Harry Ind Bidg, 49-51 Au Pui Wan St, Fotan, Shatin, HK  
**Manufacture/Factory Address:** 112, Arising Sun, Ind. City, lincun, Tangxia, Dongguan, China  
**FCC ID:** VUY1062P  
**Fundamental Frequency:** 2.410GHz to 2.475GHz  
**Equipment under Test (EUT):**  
Name: Baby monitor  
Item No.: PU 08279, PU 08302 \*  
\* Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.  
**Standards:** FCC PART 15, SUBPART C and SUBPART B: 2008  
**Date of Receipt:** 27 August 2008  
**Date of Test:** 28 August to 16 September 2008  
& 21 to 22 September 2009  
**Date of Issue:** 22 September 2009

<b>Test Result :</b>	<b>PASS *</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo  
Laboratory Manager

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## 2 Test Summary

Test	Test Requirement	Standard Paragraph	Result
Conducted Emissions	FCC PART 15:2008	Section 15.107 / 15.207	PASS
Radiated Emission	FCC PART 15:2008	Section 15.209	PASS
Transmit spurious Emission	FCC PART 15:2008	Section 15.205/15.209	PASS*
Maximum Peak Output Power	FCC PART 15 :2008	Section 15.247 (b)	PASS
6dB Bandwidth	FCC PART 15 :2008	Section 15.247 (a2)	PASS
Edges Measurement	FCC PART 15 2008	Section 15.247(d)	PASS
Power Spectral Density Measurement	FCC PART 15 :2008	Section 15.247 (e)	PASS
Antenna requirement.	FCC PART 15:2008	Section 15.247 (b)	PASS

Remark:

Item No.: PU 08279, PU 08302

Only the Item PU 08279 was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above items.

The EUT passed the Transmit spurious Emission test after retest.

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## 4 General Information

### 4.1 General Description of E.U.T.

Name: Baby monitor  
Item No.: PU 08279, PU 08302  
Frequency Range 2.410GHz to 2.475GHz  
Antenna Type; Integral

Verify the Frequency and Channel

Channel	Frequency (MHz)
Lowest	2410
Middle	2440
Highest	2475

Note:

1. Section 15.31(m): Measurements on intentional radiators or receivers shall be performed at three frequencies for operating frequency range over 10 MHz. The locations of these frequencies one near the top, one near the middle and one near the bottom.
2. So all the items as followed in testing report are need to test these three frequencies:  
Low channel: 2410 MHz.  
Middle channel: 2440 MHz.  
High channel: 2475 MHz.

### 4.2 Test Location

No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China  
510663  
Telephone: +86 (0) 20 8215 5555 Fax: +86 (0) 20 8207 5059

### 4.3 Other Information Requested by the Customer

None.

## 5 Test Results

### 5.1 Test Instruments

RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	16-06-2009	15-06-2010
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	12-12-2008	11-12-2009
3	EMI Test software	AUDIX	E3	SEL0050	N/A	N/A
4	Coaxial cable	SGS	N/A	SEL0028	18-06-2009	17-06-2010
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0014	12-08-2009	11-08-2010
6	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	18-06-2009	17-06-2010
7	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0005	12-08-2009	11-08-2010
8	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	12-08-2009	11-08-2010
9	Pre-amplifier (1-18GHz)	Rohde & Schwarz	AFS42-00101 800-25-S-42	SEL0081	18-06-2009	17-06-2010
10	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	SEL0080	18-06-2009	17-06-2010
11	Band filter	Amindeon	82346	SEL0094	18-06-2009	17-06-2010
12	Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	15-06-2009	14-06-2010

### 5.2 E.U.T. Operation

EUT supply: AC adapter: Input: AC 120V 60Hz 6VA  
Output: DC 5V 180mA  
Or 3x1.5V(AAA)=4.5V

#### Operating Environment:

Temperature: 24.0 C  
Humidity: 50 % RH  
Atmospheric Pressure: 1010 mbar

#### Operation:

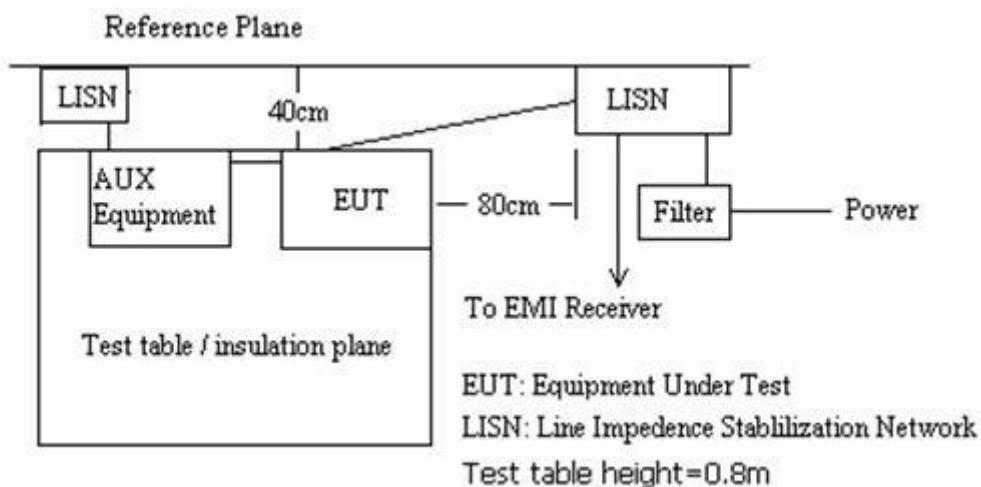
Test the EUT as a product which Direct Sequence Spread Spectrum. the fundamental frequencies are from 2.410GHz to 2.475GHz. The test procedure provided by applicant enabled the EUT to transmit and receive data at lowest channel 2.410GHz, middle channel 2.440GHz, and highest channel 2.475GHz, frequencies individually. Pre-test all the frequencies mode and their power status, compliance test in the worse case: above three channels.

## 5.3 Test Procedure & Measurement Data

### 5.3.1 Conducted Emissions

Test Requirement: FCC Part15 C Section 15.207  
Test Method: ANSI C63.4:2003  
Frequency Range: 150KHz to 30MHz  
Class / Severity: Class B  
Receiver setup: RBW=9KHz VBW=30KHz detector: Peak  
Operating Environment:  
Temperature: 24 °C      Humidity: 50 % RH      Atmospheric Pressure: 1010 Mbar  
EUT Operation: Test in normal mode. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

### Plan View of Test Setup



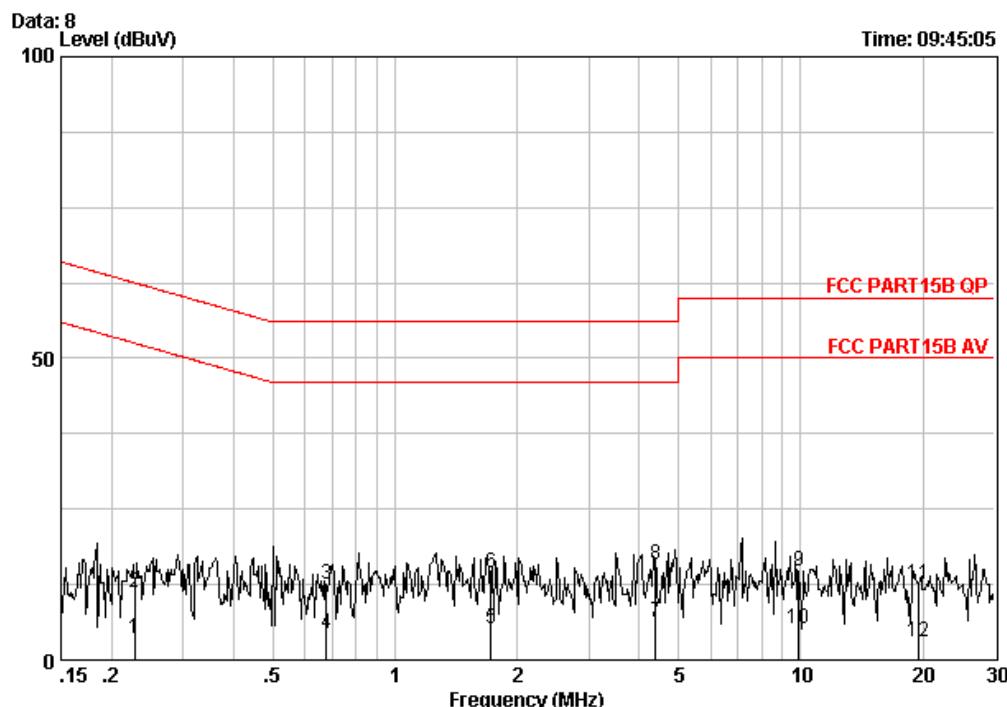
**5.3.1.1 Measurement Data**

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected. For EUT communicating with on mode.

**The following Quasi-Peak and Average measurements were performed on the EUT:**

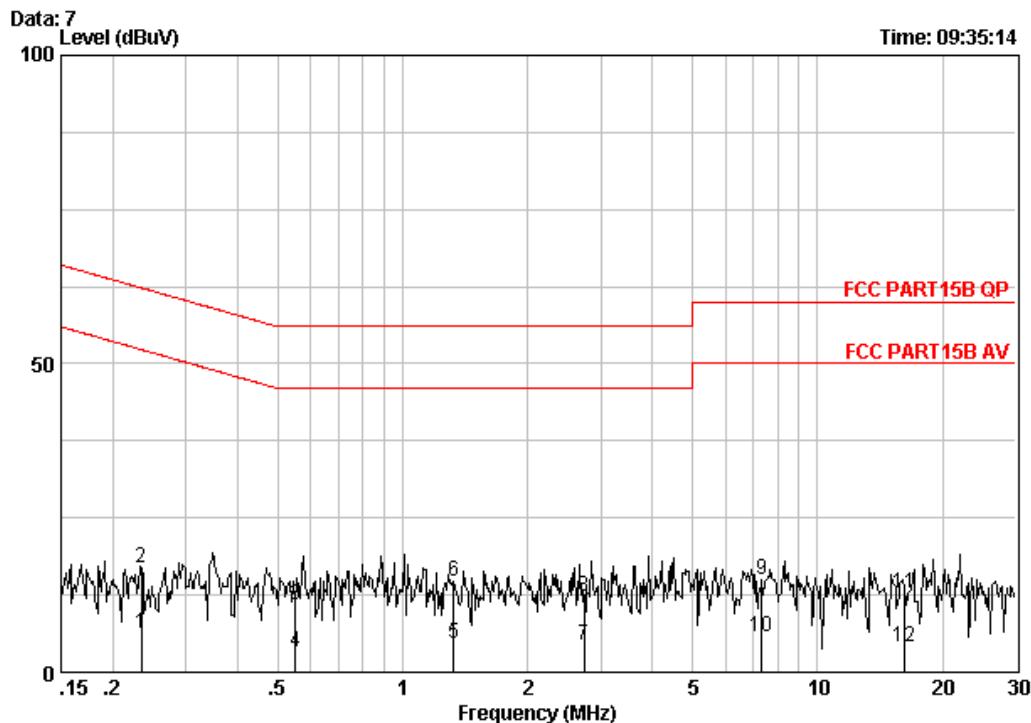
Live Line



Site : Shielding Room  
Condition : FCC PART15B QP CE LINE  
EUT : Baby monitor  
Job No : 4219RF  
Line : N/A  
Test mode : on mode

Freq	Cable	LISN	Read	Limit	Over	Remark	
	Loss	Factor	Level	Level	Line		
	MHz	dB	dB	dBuV	dBuV	dB	
1	0.22797	0.04	-0.04	3.65	3.65	52.52	-48.87 Average
2	0.22797	0.04	-0.04	11.16	11.16	62.52	-51.37 QP
3	0.67544	0.06	-0.05	12.44	12.45	56.00	-43.55 QP
4	0.67544	0.06	-0.05	4.34	4.35	46.00	-41.65 Average
5	1.725	0.11	-0.06	5.26	5.31	46.00	-40.69 Average
6	1.725	0.11	-0.06	14.32	14.37	56.00	-41.63 QP
7 @	4.384	0.16	-0.10	6.32	6.38	46.00	-39.62 Average
8	4.384	0.16	-0.10	15.70	15.76	56.00	-40.24 QP
9	9.913	0.22	-0.29	14.78	14.71	60.00	-45.29 QP
10	9.913	0.22	-0.29	5.25	5.18	50.00	-44.82 Average
11	19.428	0.27	-0.63	12.95	12.59	60.00	-47.41 QP
12	19.428	0.27	-0.63	3.40	3.04	50.00	-46.96 Average

## Neutral Line



Site : Shielding Room  
Condition : FCC PART15B QP CE NEUTRAL  
EUT : Baby monitor  
Job No : 4219RF  
Line : N/A  
Test mode : on mode

Freq	Cable	LISN	Read	Limit		Over	Remark
	Loss	Factor	Level	Level	Line	Limit	
	MHz	dB	dB	dBuV	dBuV	dBuV	dB
1	0.23409	0.04	-0.04	6.34	6.34	52.30	-45.96 Average
2	0.23409	0.04	-0.04	16.81	16.81	62.30	-45.49 QP
3	0.55226	0.06	-0.04	10.90	10.92	56.00	-45.08 QP
4	0.55226	0.06	-0.04	3.35	3.37	46.00	-42.63 Average
5	1.324	0.10	-0.05	4.65	4.69	46.00	-41.31 Average
6	1.324	0.10	-0.05	14.78	14.83	56.00	-41.17 QP
7	2.736	0.14	-0.07	4.31	4.37	46.00	-41.63 Average
8	2.736	0.14	-0.07	12.19	12.25	56.00	-43.75 QP
9	7.329	0.20	-0.19	15.11	15.12	60.00	-44.88 QP
10	7.329	0.20	-0.19	5.68	5.69	50.00	-44.31 Average
11	16.226	0.25	-0.52	13.10	12.84	60.00	-47.16 QP
12	16.226	0.25	-0.52	4.35	4.08	50.00	-45.92 Average

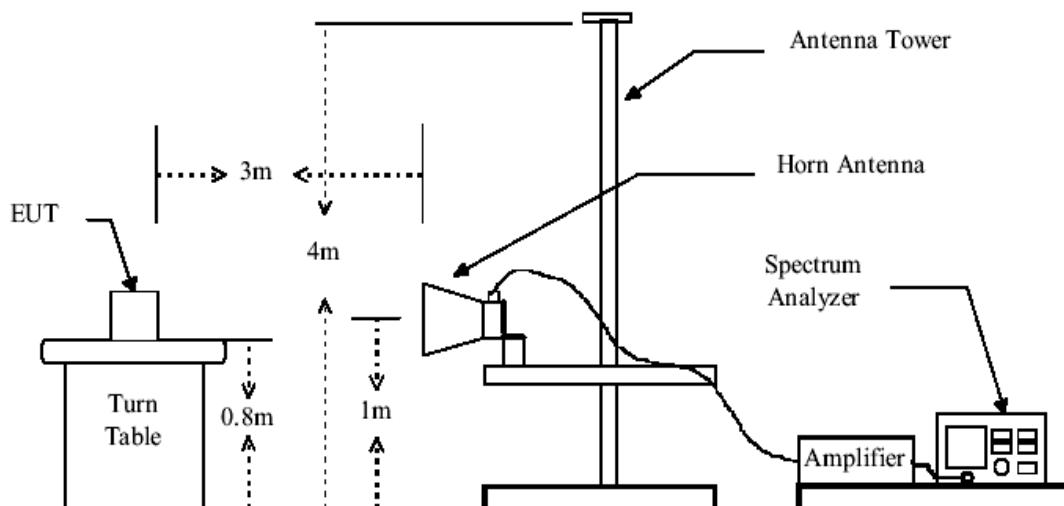
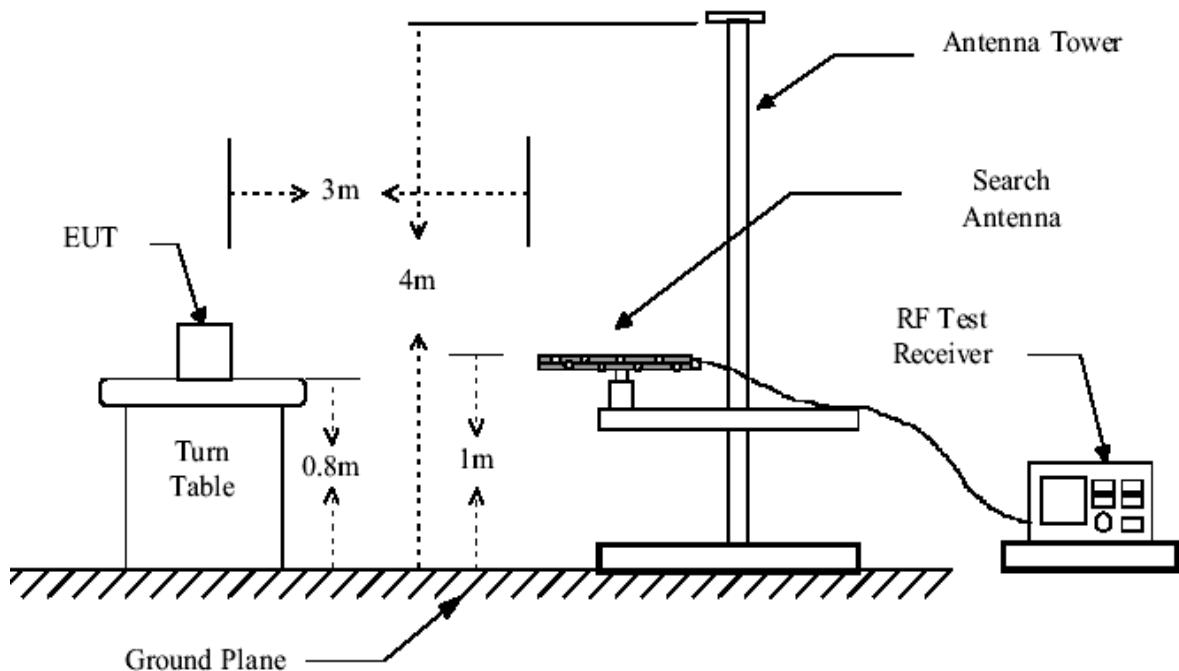
TEST RESULTS: The unit does meet the FCC requirements.

### 5.3.2 Radiated Emissions

Test Requirement:	FCC Part15 C 15.209 and 15.205										
Test Method:	ANSI C63.4: 2003										
Test Status:											
On mode:	Keep the EUT in communicating mode										
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)										
Test Range	30MHz to 13GHz										
Receiver setup:	<table border="1"><thead><tr><th>Frequency range</th><th>RBW</th><th>VBW</th></tr></thead><tbody><tr><td>30MHz-1GHz</td><td>100KHz</td><td>300KHz</td></tr><tr><td>above 1GHz</td><td>1MHz</td><td>3MHz</td></tr></tbody></table>		Frequency range	RBW	VBW	30MHz-1GHz	100KHz	300KHz	above 1GHz	1MHz	3MHz
Frequency range	RBW	VBW									
30MHz-1GHz	100KHz	300KHz									
above 1GHz	1MHz	3MHz									
Limit:	<p>40.0 dB<math>\mu</math>V/m between 30MHz &amp; 88MHz 43.5 dB<math>\mu</math>V/m between 88MHz &amp; 216MHz 46.0 dB<math>\mu</math>V/m between 216MHz &amp; 960MHz 54.0 dB<math>\mu</math>V/m between 960MHz &amp; 1000MHz. Above 1GHz: Peak value limit 74dB<math>\mu</math>V/m Average value limit 54dB<math>\mu</math>V/m</p>										

**Test Procedure:** The procedure used was ANSI Standard C63.4-2003. The receiver was scanned from 30MHz to 13GHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.

### Test Configuration



The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier . The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

**The following test results were performed on the EUT:****On mode:****Horizontal**

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
191.020	1.39	10.11	27.20	38.91	23.21	43.50	-20.29	QP
254.070	1.69	12.40	26.90	39.56	26.75	46.00	-19.25	QP
285.110	1.84	13.26	26.77	49.40	37.73	46.00	-8.27	QP
303.540	1.91	14.03	26.75	40.10	29.29	46.00	-16.71	QP
478.140	2.52	17.80	27.65	35.88	28.55	46.00	-17.45	QP
625.580	2.75	20.50	27.53	36.95	32.67	46.00	-13.33	QP
1035.25	3.08	27.43	37.96	52.48	45.03	74.00	-28.97	PK
1446.50	3.67	27.77	38.20	53.89	47.13	74.00	-26.87	PK
6757.50	7.55	36.36	37.87	42.57	48.61	74.00	-25.39	PK
9906.50	8.76	37.21	33.38	38.75	51.34	74.00	-22.66	PK

**Vertiacal**

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
191.020	1.39	10.11	27.20	40.48	24.78	43.50	-18.72	QP
254.070	1.69	12.40	26.90	40.38	27.57	46.00	-18.43	QP
285.110	1.84	13.26	26.77	48.90	37.23	46.00	-8.77	QP
303.540	1.91	14.03	26.75	38.68	27.87	46.00	-18.13	QP
478.140	2.52	17.80	27.65	36.21	28.88	46.00	-17.12	QP
622.670	2.75	20.44	27.53	43.41	39.07	46.00	-6.93	QP
3902.25	5.98	33.36	38.47	47.47	48.34	74.00	-25.66	PK
5735.25	7.11	34.98	39.11	47.88	50.86	74.00	-23.14	PK
7192.25	7.65	36.33	37.73	43.51	49.76	74.00	-24.24	PK
12350.50	10.22	39.01	34.05	35.18	50.36	74.00	-23.64	PK

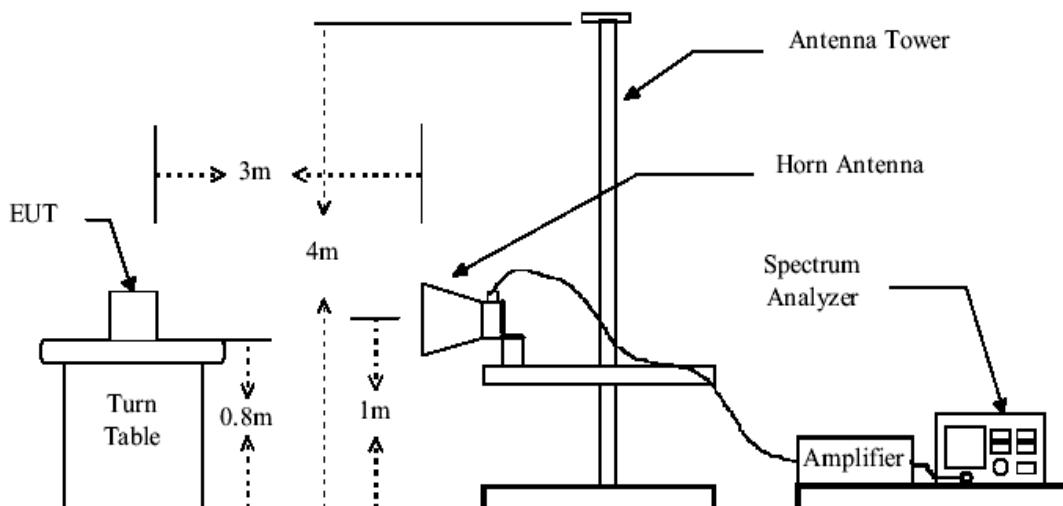
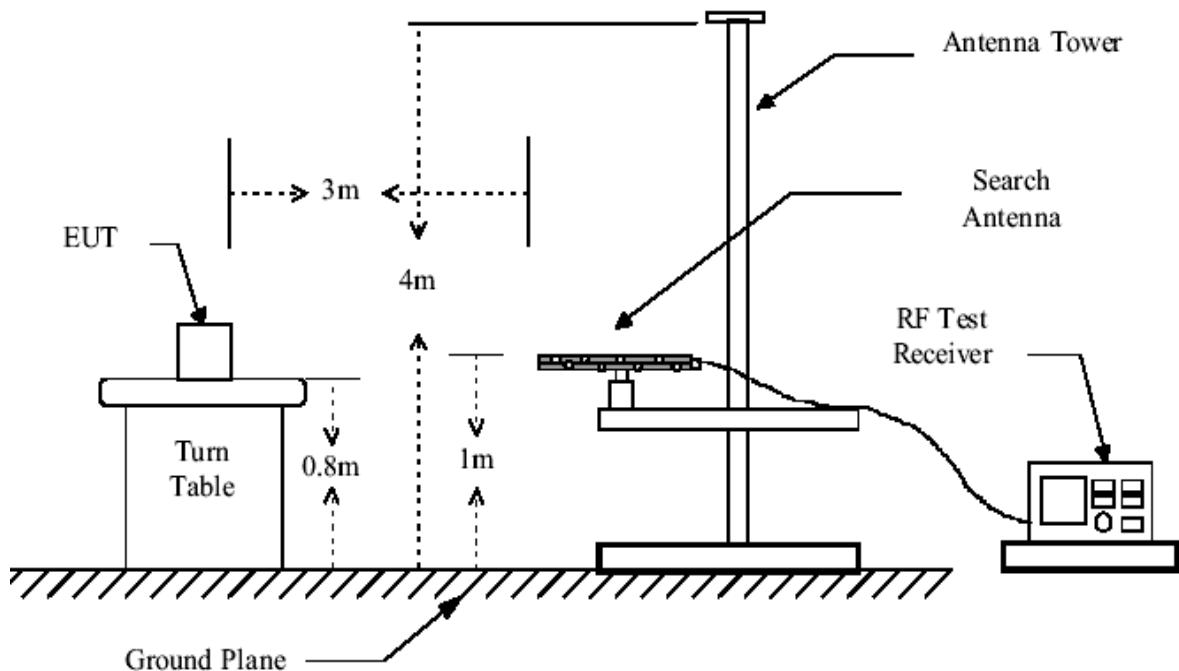


### 5.3.3 Transmit Spurious Emissions

Test Requirement:	FCC Part15 C Section 15.247, 15.209 and 15.205			
Test Method:	ANSI C63.4: 2003, KDB558074			
Test Status:				
Transmitting mode:	Keep the EUT continuously transmitting with modulation.			
Test channel:	Lowest channel, Middle channel, Highest channel			
Test procedure:	Pre-scan the EUT was placed on X axes, Y axes, Z axes; and found the EUT was placed on X axes which it is worse case.			
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)			
Test Range	30MHz to 25GHz			
Receiver setup:	Frequency range	RBW	VBW	Remark
	30MHz-1GHz	100KHz	300KHz	QP value
	above 1GHz	1MHz	3MHz	Peak value
	above 1GHz	1MHz	10Hz	Average value
Limit:	40.0 dB $\mu$ V/m between 30MHz & 88MHz			
	43.5 dB $\mu$ V/m between 88MHz & 216MHz			
	46.0 dB $\mu$ V/m between 216MHz & 960MHz			
	54.0 dB $\mu$ V/m between 960MHz & 1000MHz.			
	Above 1GHz: Peak value limit 74dB $\mu$ V/m			
	Average value limit 54dB $\mu$ V/m			

**Test Procedure:** The procedure used was ANSI Standard C63.4-2003. The receiver was scanned from 30MHz to 25GHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.

### Test Configuration



The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier . The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

**Lowest channel: (2410MHz)**

## Horizontal

Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	remark
225.48	35.49	43.50	8.01	QP
625.91	38.14	46.00	7.86	QP
2389	60.58	74.00	13.42	PK
4825	54.57	74.00	19.43	PK
7239	56.89	74.00	17.11	PK
9653	56.08	74.00	17.92	PK
12050	58.34	74.00	15.66	PK
2389	47.89	54.00	6.11	AV
4825	39.57	54.00	15.43	AV
7239	41.89	54.00	11.11	AV
9653	41.08	54.00	11.92	AV
12050	43.34	54.00	9.66	AV

## Vertiacal

Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	remark
121.47	34.27	43.50	9.23	QP
526.84	35.43	46.00	10.57	QP
2387	59.87	74.00	14.13	PK
4825	54.74	74.00	19.26	PK
7239	57.04	74.00	16.96	PK
9653	55.76	74.00	18.24	PK
12050	57.94	74.00	16.06	PK
2387	45.73	54.00	8.27	AV
4825	39.74	54.00	15.26	AV
7239	42.04	54.00	12.96	AV
9653	40.76	54.00	12.24	AV
12050	42.94	54.00	10.06	AV

**Middle channel: (2440MHz)****Horizontal**

Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	remark
462.88	36.23	46.00	9.77	QP
755.62	37.51	46.00	8.49	QP
2415	60.15	74.00	13.85	PK
4893	54.33	74.00	19.67	PK
7324	56.19	74.00	17.81	PK
9772	54.67	74.00	19.33	PK
12203	57.87	74.00	16.13	PK
2415	44.25	54.00	9.75	AV
4893	39.33	54.00	14.67	AV
7324	41.19	54.00	12.81	AV
9772	39.67	54.00	14.33	AV
12203	42.87	54.00	11.13	AV

**Vertiacal**

Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	remark
352.42	34.93	46.00	11.07	QP
518.37	32.57	46.00	13.43	QP
2480	61.28	74.00	12.72	PK
4893	53.98	74.00	20.02	PK
7324	56.00	74.00	18.00	PK
9772	53.62	74.00	20.38	PK
12203	56.66	74.00	17.34	PK
2480	47.24	54.00	6.76	AV
4893	38.98	54.00	15.02	AV
7324	41.00	54.00	13.00	AV
9772	38.62	54.00	15.38	AV
12203	42.94	54.00	10.06	AV

**Highest channel: (2475MHz)****Horizontal**

Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	remark
138.54	32.17	43.50	11.33	QP
636.71	37.85	46.00	8.15	QP
2483.5	64.35	74.00	9.65	PK
4893	53.98	74.00	20.02	PK
7324	56.00	74.00	18.00	PK
9772	53.62	74.00	20.38	PK
12203	56.66	74.00	17.34	PK
2483.5	48.68	54.00	5.32	AV
4893	38.98	54.00	15.02	AV
7324	41.00	54.00	13.00	AV
9772	38.62	54.00	15.38	AV
12050	42.94	54.00	10.06	AV

**Vertiacal**

Frequency (MHz)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	remark
83.42	33.64	40.00	6.36	QP
496.58	36.49	46.00	9.51	QP
2483.5	62.58	74.00	11.42	PK
4961	54.09	74.00	19.91	PK
7426	57.88	74.00	16.12	PK
9908	57.47	74.00	16.53	PK
12390	60.11	74.00	13.89	PK
2483.5	47.76	54.00	6.24	AV
4961	39.09	54.00	14.91	AV
7426	42.88	54.00	11.12	AV
9908	42.47	54.00	11.53	AV
12390	45.11	54.00	8.89	AV

## Remark:

According to 15.35 (b) When average radiated emission measurements are specified in the regulations, including emission measurements below 1000 MHz, there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see Section 15.255.

## Section 15.205 Restricted bands of operation.

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
<sup>1</sup> 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	2655 - 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	( <sup>2</sup> )
13.36 - 13.41			

**TEST RESULTS: The unit does meet the FCC requirements.**

**5.3.4 6dB Bandwidth**

Test Requirement:	FCC Part15 C Section 15.247(a2)									
Test Method:	ANSI C63.4: 2003, KDB558074									
Test Status:	Transmitting mode: Keep the EUT continuously transmitting with modulation.									
Receiver or spectrum setup:	<table border="1"><tr><td>Equipment Mode</td><td>Spectrum Analyzer</td></tr><tr><td>Detector Function</td><td>Peak Mode</td></tr><tr><td>RBW</td><td>100KHz</td></tr><tr><td>VBW</td><td>300KHz</td></tr></table>		Equipment Mode	Spectrum Analyzer	Detector Function	Peak Mode	RBW	100KHz	VBW	300KHz
Equipment Mode	Spectrum Analyzer									
Detector Function	Peak Mode									
RBW	100KHz									
VBW	300KHz									
Test channel:	Lowest channel, Middle channel, Highest channel									
Requirements	15.247 (a2) For direct sequence systems, the minimum 6 dB bandwidth shall be at least 500 kHz.									

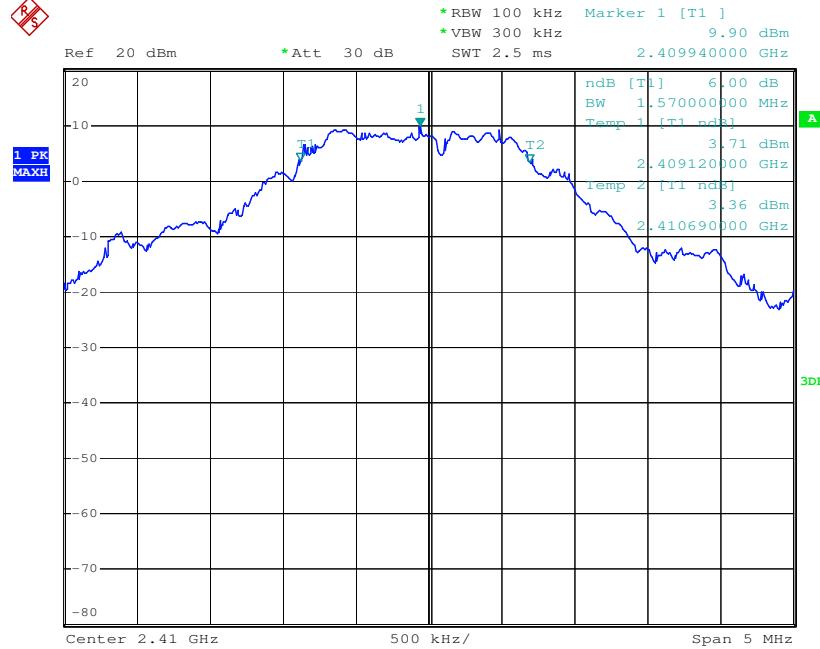
Method of measurement: The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB. Analyzer and the attached plot was taken. The EUT was setup to ANSI C63.4,2003, tested to DTS test procedure of Oct 2002 KDB558074 for compliance with FCC 47CFR 15.247 requirements.

Test results:

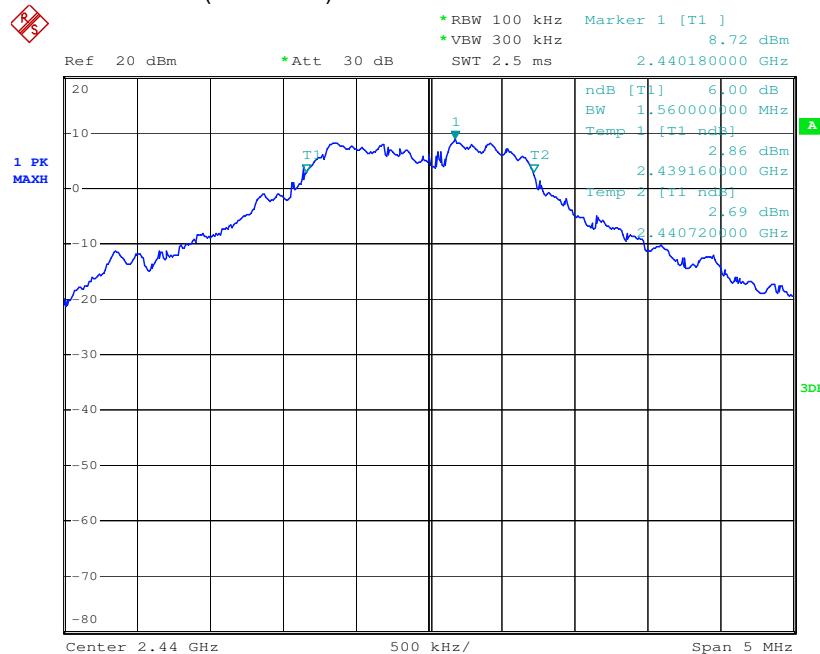
Channel	CHANNEL FREQUENCY (MHz)	6 dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
Lowest	2.410	1.57	0.50	Pass
Middle	2.440	1.56	0.50	Pass
Highest	2.475	1.62	0.50	Pass

**Conclusion:: The unit does meet the FCC requirements.**

Please refer to the graph as below:

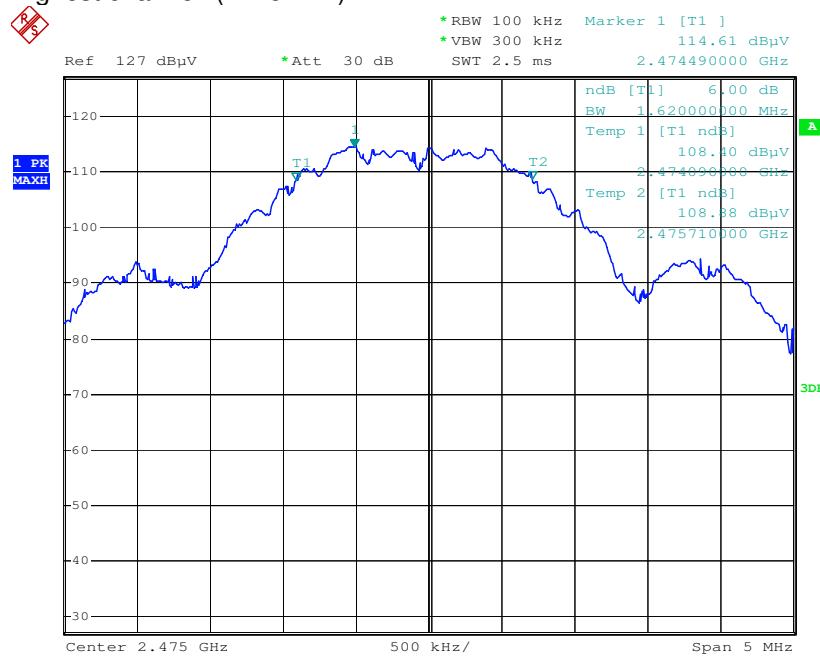
**Lowest channel: (2410MHz)**


Date: 21.SEP.2009 16:01:31

**Middle channel: (2440MHz)**


Date: 21.SEP.2009 16:03:35

## Highest channel: (2475MHz)



Date: 21.SEP.2009 16:09:23

**5.3.5 Maximum Peak Output Power:**

Test Requirement:	FCC Part15 C Section 15.247(b)								
Test Method:	ANSI C63.4: 2003, KDB558074								
Test Status:									
Transmitting mode:	Keep the EUT continuously transmitting with modulation.								
Receiver or spectrum setup:	<table border="1"><tr><td>Equipment Mode</td><td>Spectrum Analyzer</td></tr><tr><td>Detector Function</td><td>Peak Mode</td></tr><tr><td>RBW</td><td>3MHz</td></tr><tr><td>VBW</td><td>10MHz</td></tr></table>	Equipment Mode	Spectrum Analyzer	Detector Function	Peak Mode	RBW	3MHz	VBW	10MHz
Equipment Mode	Spectrum Analyzer								
Detector Function	Peak Mode								
RBW	3MHz								
VBW	10MHz								
Test channel:	Lowest channel, Middle channel, Highest channel								
Requirements	The Limit of Maximum Peak Output Power Measurement is 30dBm.								

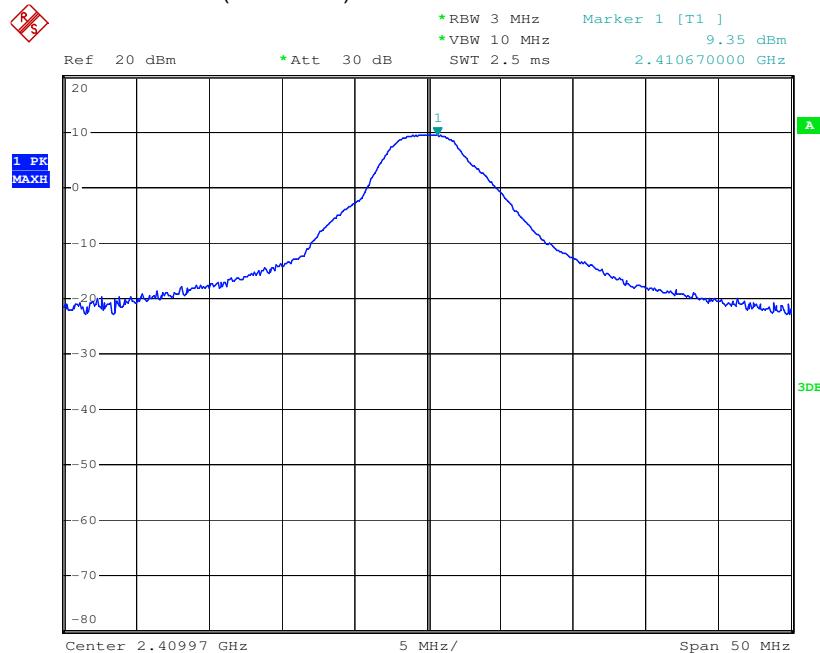
**Test results**

Channel	Channel Frequency (GHz)	Read peak power (dBm)	Cable loss (dB)	Peak power (dBm)	Limit (dBm)
Lowest	2.410	9.35	0.50	9.85	30.0
Middle	2.440	8.52	0.50	9.02	30.0
Highest	2.475	7.49	0.50	7.99	30.0

**Test Result:**

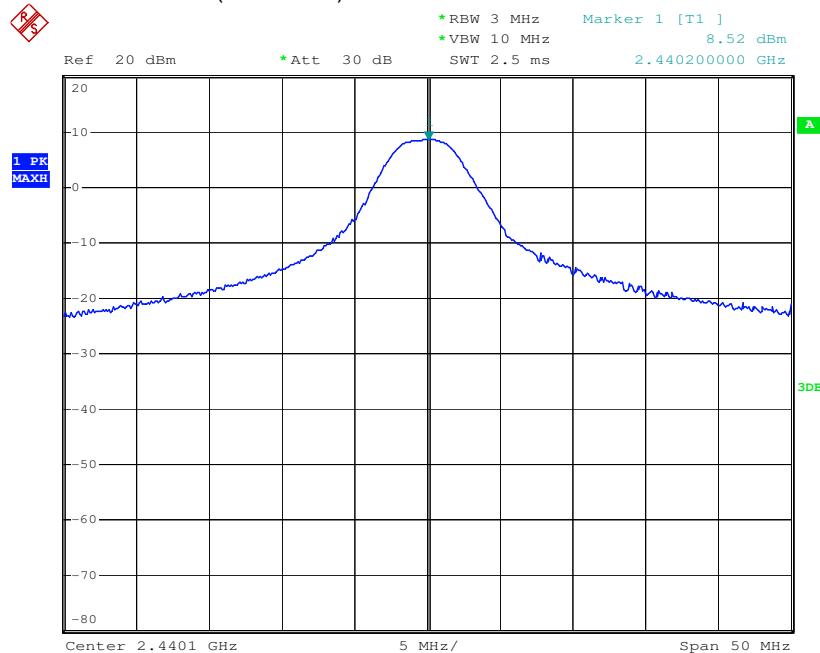
Please refer to the measurement graph and data.

Lowest channel: (2410MHz)



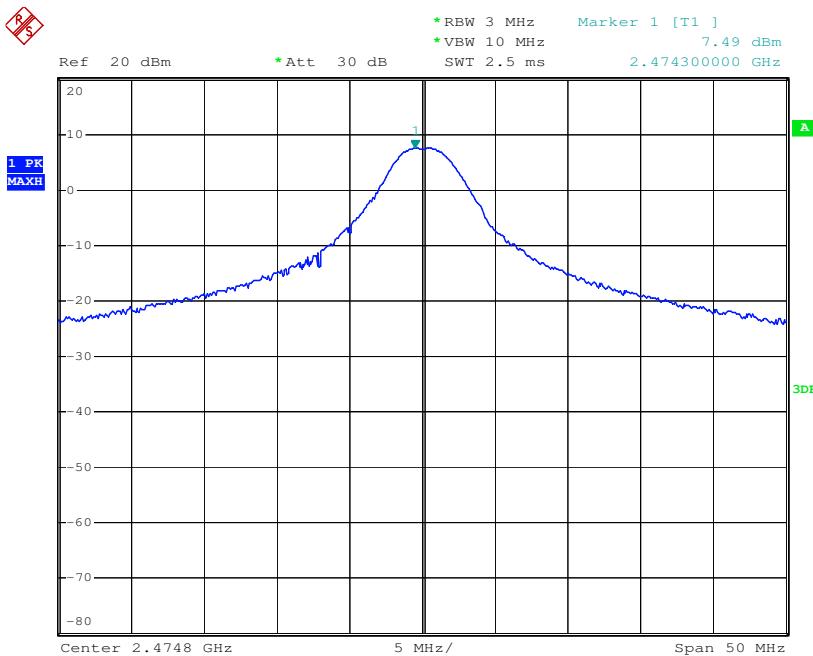
Date: 3.SEP.2008 14:45:46

Middle channel: (2440MHz)



Date: 3.SEP.2008 14:56:50

Highest channel: (2475MHz)



Date: 3.SEP.2008 15:13:01

**Conclusion: The EUT meets the requirements of this section.**

**5.3.6 Band Edges Measurement**

Test Requirement: FCC Part15 C Section 15.247(d)

Test Method: ANSI C63.4: 2003, KDB558074

Test Status:

Transmitting mode: Keep the EUT continuously transmitting with modulation.

Receiver or spectrum setup:

Equipment Mode	Spectrum Analyzer
Detector Function	Peak Mode
RBW	100KHz
VBW	300KHz

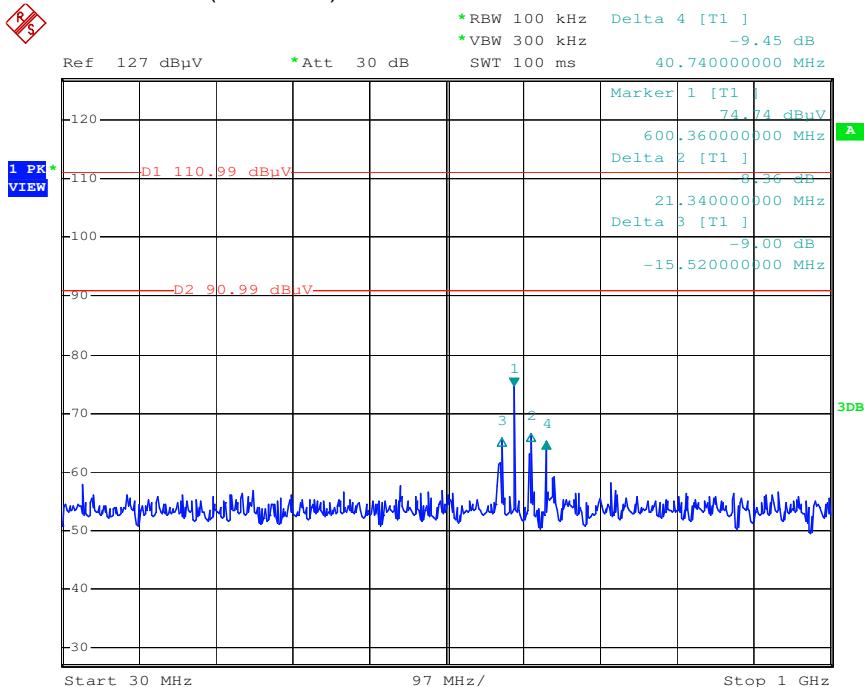
Test channel: Lowest channel, Middle channel, Highest channel

Requirements In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

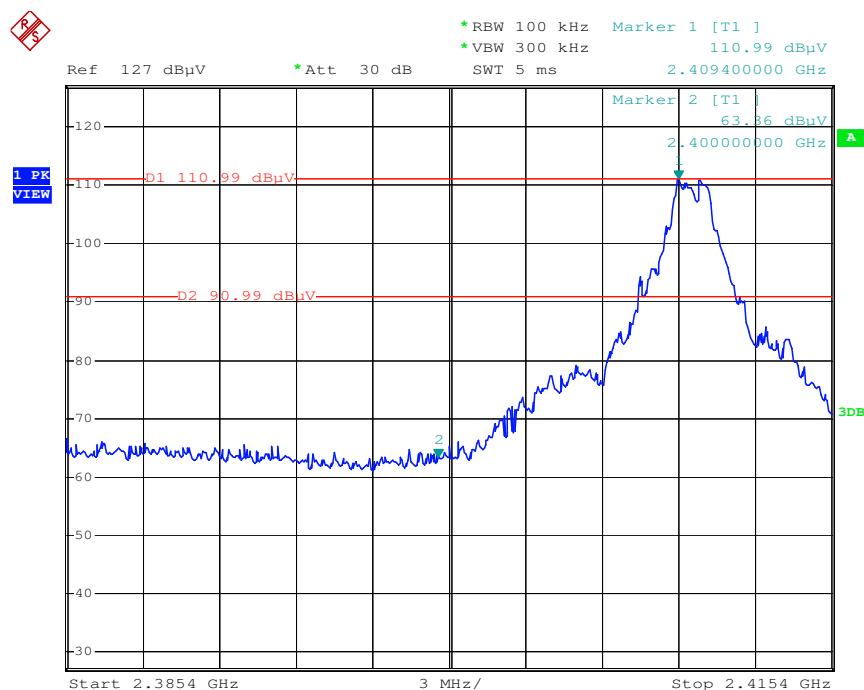
**Test Result:**

Please refer to the measurement graph and data.

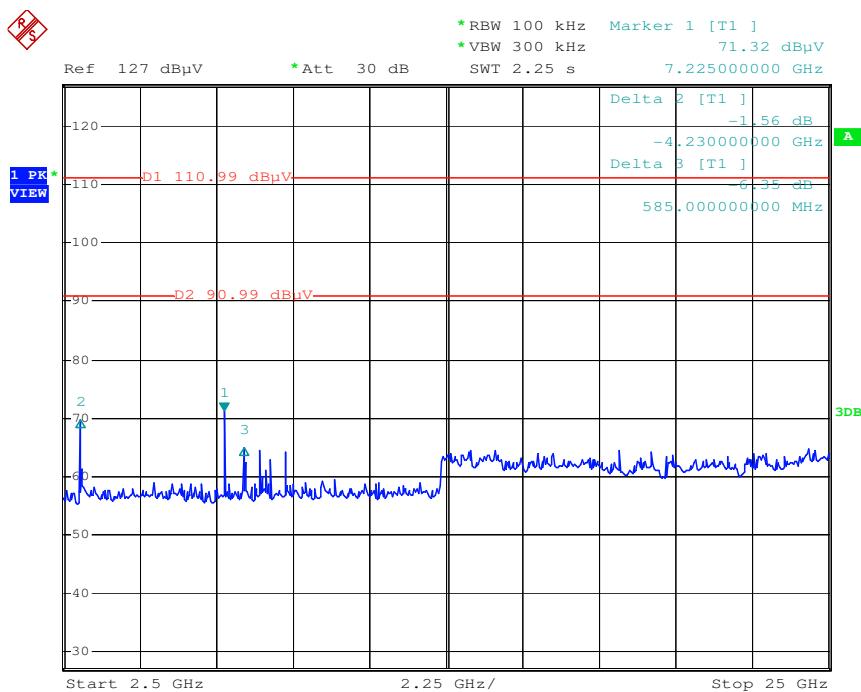
Lowest channel: (2410MHz)



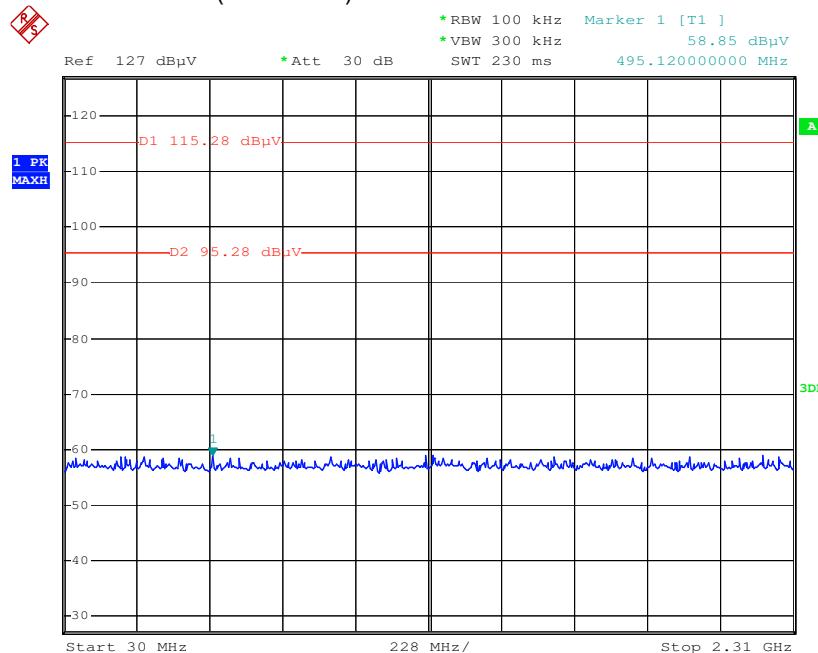
Date: 3.SEP.2008 15:42:08



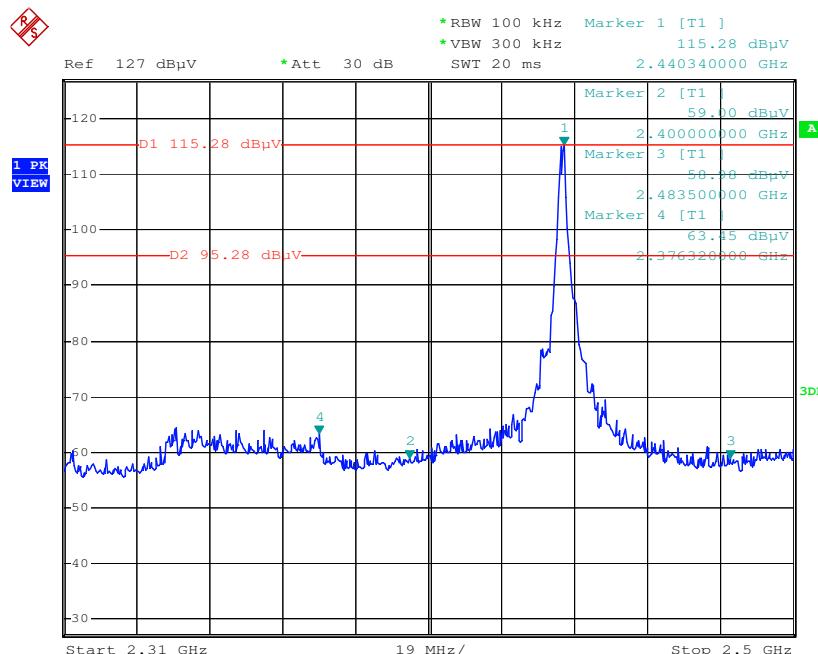
Date: 3.SEP.2008 15:39:43



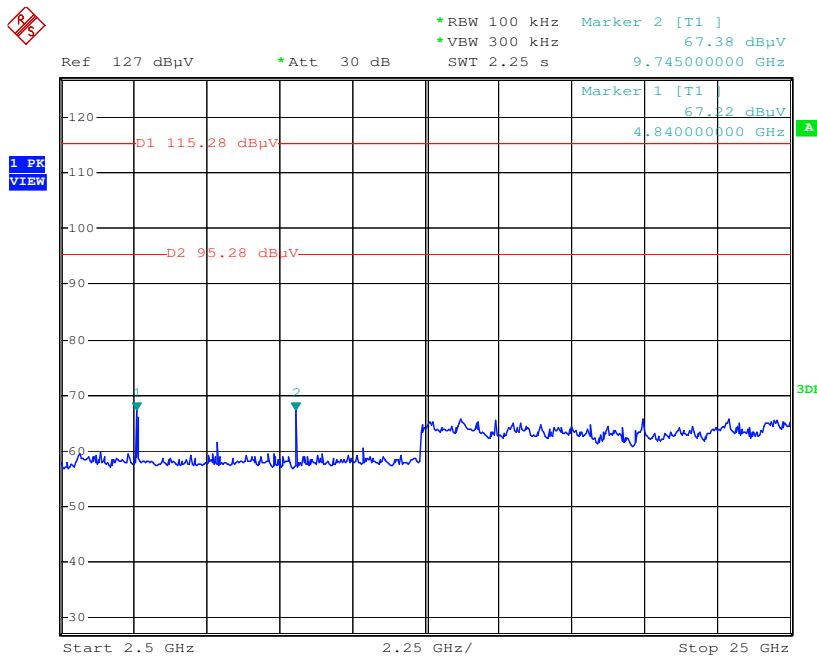
Date: 3.SEP.2008 15:43:29

**Middle channel: (2440MHz)**


Date: 21.SEP.2009 16:12:15

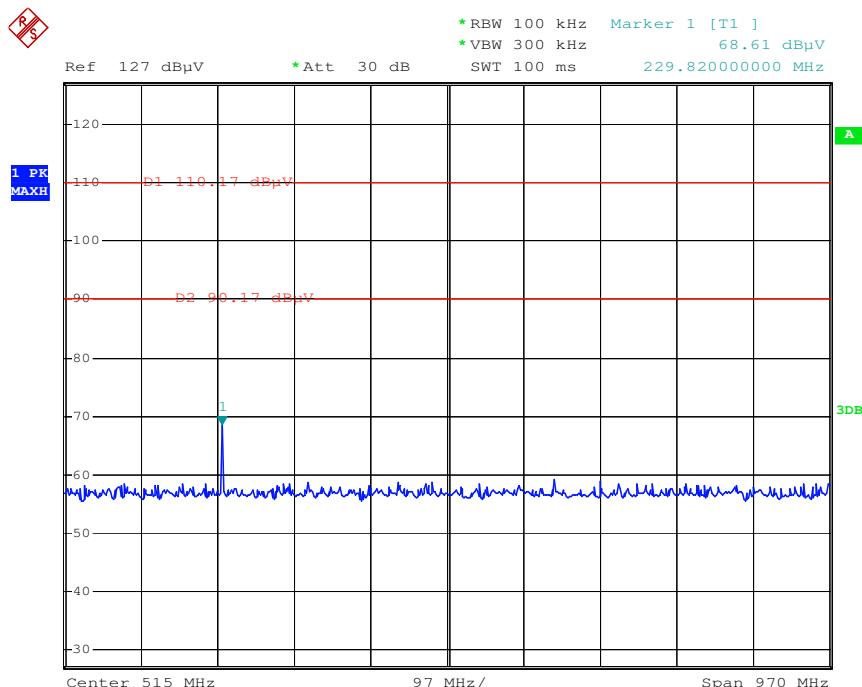


Date: 21.SEP.2009 16:05:40

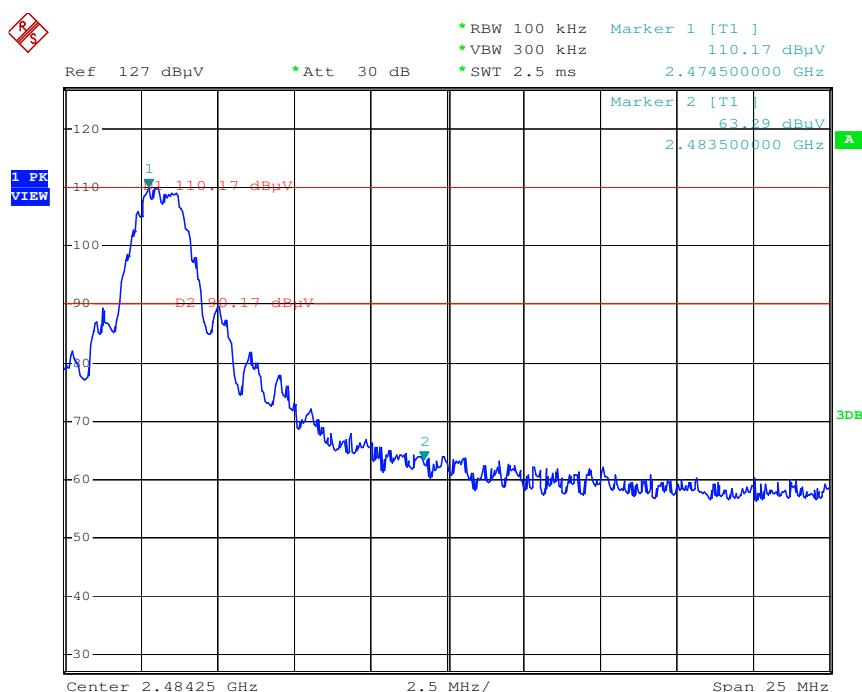


Date: 21.SEP.2009 16:13:03

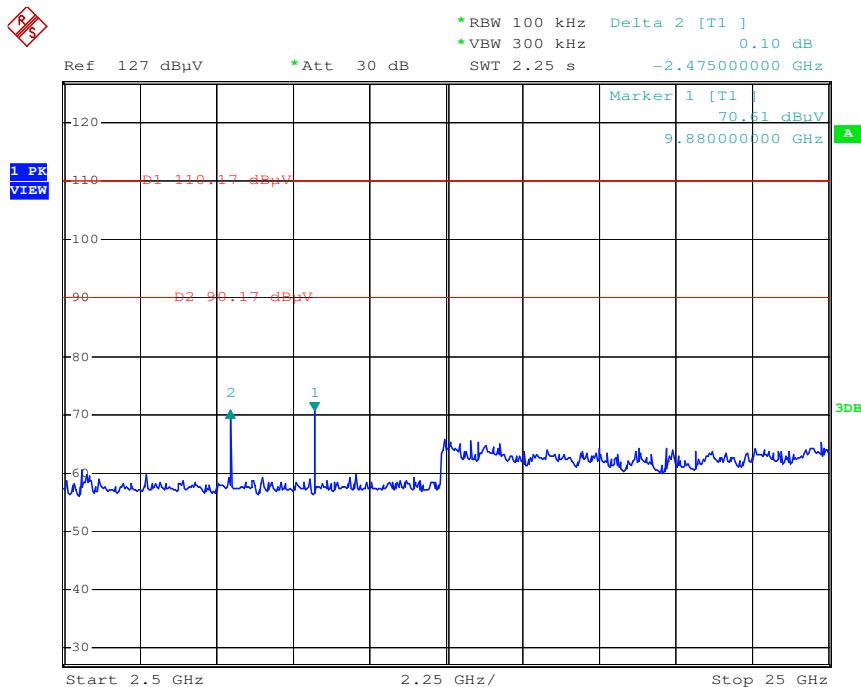
Highest channel: (2475MHz)



Date: 3.SEP.2008 15:31:45



Date: 3.SEP.2008 15:27:30



Date: 3.SEP.2008 15:33:52

**5.3.7 Power Spectral Density Measurement**

Test Requirement: FCC Part15 C Section 15.247(d)

Test Method: ANSI C63.4: 2003, KDB558074

Test Status:

Transmitting mode: Keep the EUT continuously transmitting with modulation.

Receiver or spectrum setup:

Equipment Mode	Spectrum Analyzer
Detector Function	Peak Mode
RBW	3KHz
VBW	10KHz
Span	300KHz
Sweep Time	100S

Test channel: Lowest channel, Middle channel, Highest channel

Requirements For direct sequence systems, the peak 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

**Test Result:**

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 KHz BW (dBm)	MAXIMUM Limit (dBm)	PASS/FAIL
Lowest	2.410	3.67	8.0	Pass
Middle	2.440	1.71	8.0	Pass
Highest	2.475	-1.53	8.0	Pass

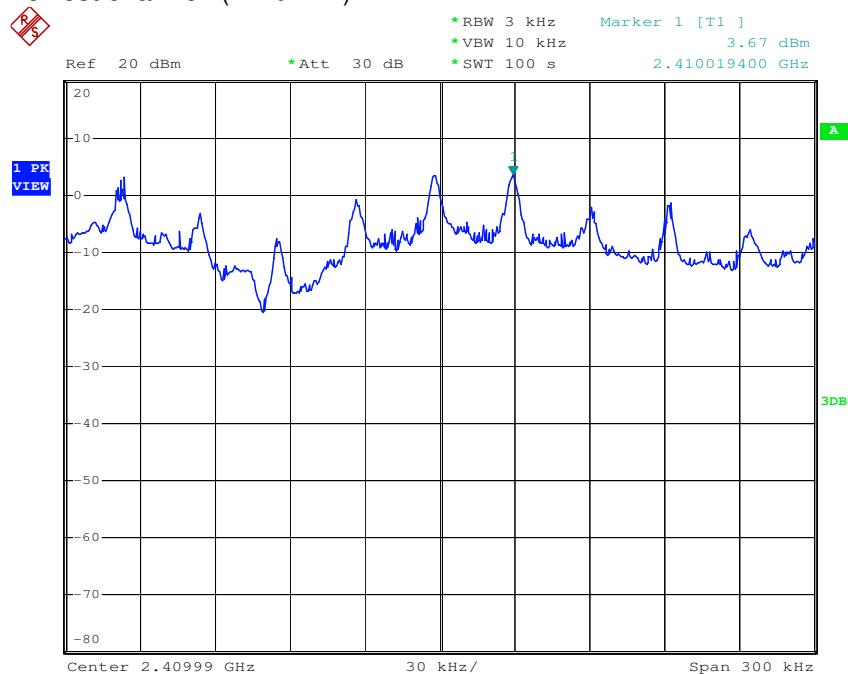
**Conclusion:**

The EUT meets the requirements of this section.

**Test Result:**

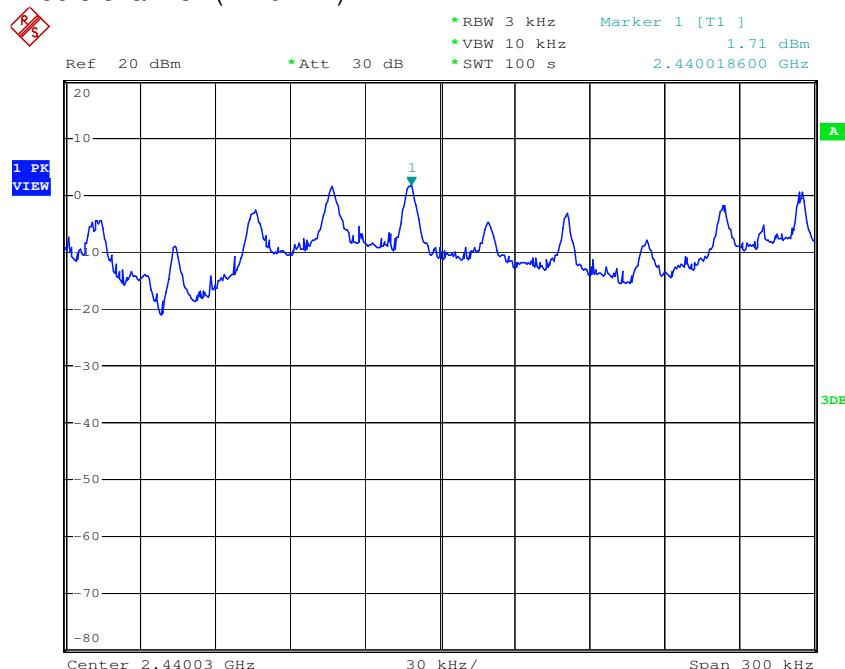
Please refer to the measurement graph and data.

Lowest channel: (2410MHz)

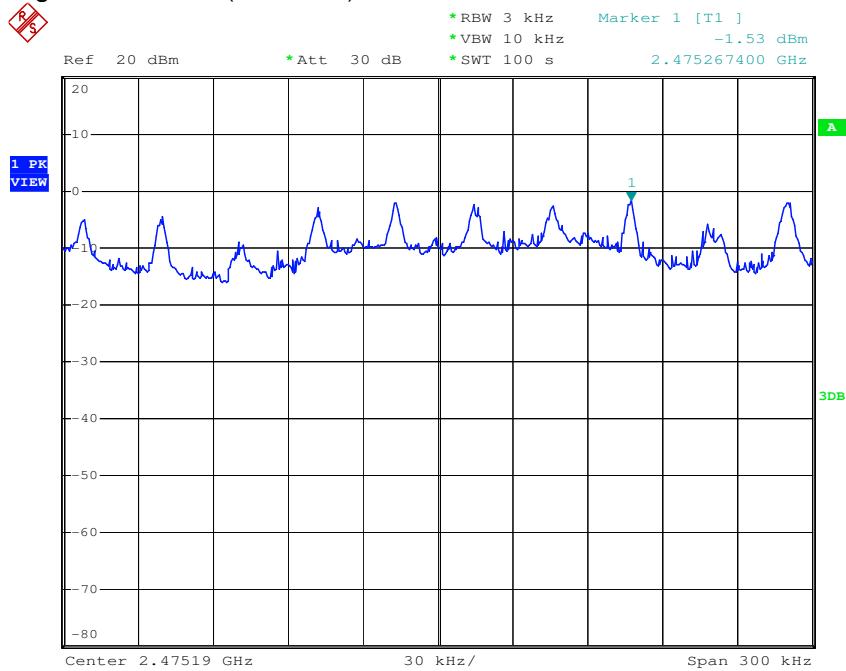


Date: 25.SEP.2008 17:32:50

Middle channel: (2440MHz)



Date: 25.SEP.2008 17:43:36

**Highest channel: (2475MHz)**

Date: 25.SEP.2008 17:51:12

### 5.3.8 Antenna Requirement

#### Standard requirement

##### 15.203 requirement:

For intentional device. according to 15.203. an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

##### 15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed. point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

#### EUT Antenna

The best case gain of the antenna is 0 dBi.