

# EMC TEST REPORT

**Report No.** : EME-051376

**Model No.** : 8550-00003

**Issued Date** : July 26, 2006

**Applicant** : Socket Communications, Inc.  
37400 Central Court, Newark, California, U.S.A., 94560

**Test By** : Intertek Testing Services Taiwan Ltd.  
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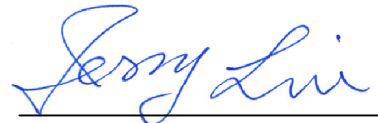
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Project Engineer



Kevin Chen

Reviewed By



Jerry Liu

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**Summary of Tests****Socket Cordless 56K Modem - Model: 8550-00003  
FCC ID: LUB-BM56SV92**

Test	Reference	Results
Maximum Output Power test	15.247(b)	Pass
Carrier Frequency Separation test	15.247(a)(1)	Pass
Number of hopping frequencies test	15.247(a)(1)	Pass
Time of Occupancy (dwell time) test	15.247(a)(1)	Pass
20dB Bandwidth test	15.247(a)(1)	Pass
Radiated Spurious Emission test	15.205, 15.209	Pass
Emission on the Band Edge test	15.247(d)	Pass
AC Power Line Conducted Emission test	15.207	Pass

## 1. General information

### 1.1 Identification of the EUT

Applicant	: Socket Communications, Inc.
Product	: Socket Cordless 56K Mode
Model No.	: 8550-00003
FCC ID.	: LUB-BM56SV92
Frequency Range	: 2400MHz ~ 2483.5MHz
Channel Number	: 79 channels
Frequency of Each Channel	: 2402+k MHz; k=0~78
Type of Modulation	: GFSK
Rated Power	: 3.7Vdc from LI-ION Battery or 100-240Vac, 50-60Hz with adapter (SL05A105C)
Power Cord	: N/A
Sample Received	: Dec. 7, 2005
Test Date(s)	: Dec. 8, 2005 ~ July 26, 2006

A FCC DoC report has been generated for the client.

### 1.2 Additional information about the EUT

The EUT is a Socket Cordless 56K Mode, and was defined as information technology equipment.

For more detail features, please refer to User's manual as file name "Installation Guide.pdf"

### 1.3 Antenna description

The EUT uses a permanently connected antenna.

Antenna Gain : 2dBi max

Antenna Type : Ceramic antenna

Connector Type : MMCX

### 1.4 Peripherals equipment

Peripherals	Manufacturer	Product No.	Serial No.
Notebook	Dell	PP01L	CN-06P83-48643-33V-0112
Notebook	Dell	PP01L	CN-03P83-48643-33O-3930

## **2. Test specifications**

### **2.1 Test standard**

The EUT was performed according to the procedures in FCC Part 15 Subpart C Section § 15.205 、 §15.207 、 §15.209 、 §15.247 and ANSI C63.4/2003.

The test of radiated measurements according to FCC Part15 Section 15.33(a) had been conducted and the field strength of this frequency band were all meet limit requirement, thus we evaluate the EUT pass the specified test.

### **2.2 Operation mode**

The EUT was operated in continuously transmitting status during all the tests.

### 2.3 Test equipment

Equipment	Brand	Frequency range	Model No.	Intertek ID No.	Next Cal. Date
EMI Test Receiver	Rohde & Schwarz	9kHz~2.75GHz	ESCS 30	EC303	08/08/2006
EMI Test Receiver	Rohde & Schwarz	20Hz~26.5GHz	ESMI	EC317	08/07/2006
Spectrum Analyzer	Rohde & Schwarz	9kHz~30GHz	FSP 30	EC353	07/24/2006
Spectrum Analyzer	Rohde & Schwarz	20Hz~40GHz	FSEK 30	EC365	11/01/2006
Horn Antenna	SCHWARZBECK	1GHz~18GHz	BBHA 9120 D	EC371	02/19/2007
Horn Antenna	SCHWARZBECK	14GHz~40GHz	BBHA 9170	EC351	07/08/2007
Bilog Antenna	SCHWARZBECK	25MHz~2GHz	VULB 9168	EC347	03/20/2007
Pre-Amplifier	MITEQ	100MHz~26.5GHz	919981	EC373	2/13/2007
Pre-Amplifier	MITEQ	26GHz~40GHz	828825	EC374	01/15/2008
Wideband Peak Power Meter/ Sensor	Anritsu	100MHz~18GHz	ML2497A/ MA2491A	EC396	11/10/2006
Controller	HDGmbH	N/A	CM 100	EP346	N/A
Antenna Tower	HDGmbH	N/A	MA 240	EP347	N/A
LISN	Rohde & Schwarz	9KHz~30MHz	ESH3-Z5	EC344	01/15/2007

Note: 1. The above equipments are within the valid calibration period.

2. The test antennas (receiving antenna) are calibration per 1 year.



### 3. 20dB Bandwidth test

#### 3.1 Operating environment

Temperature: 25 °C  
Relative Humidity: 55 %  
Atmospheric Pressure: 1023 hPa

#### 3.2 Test setup & procedure

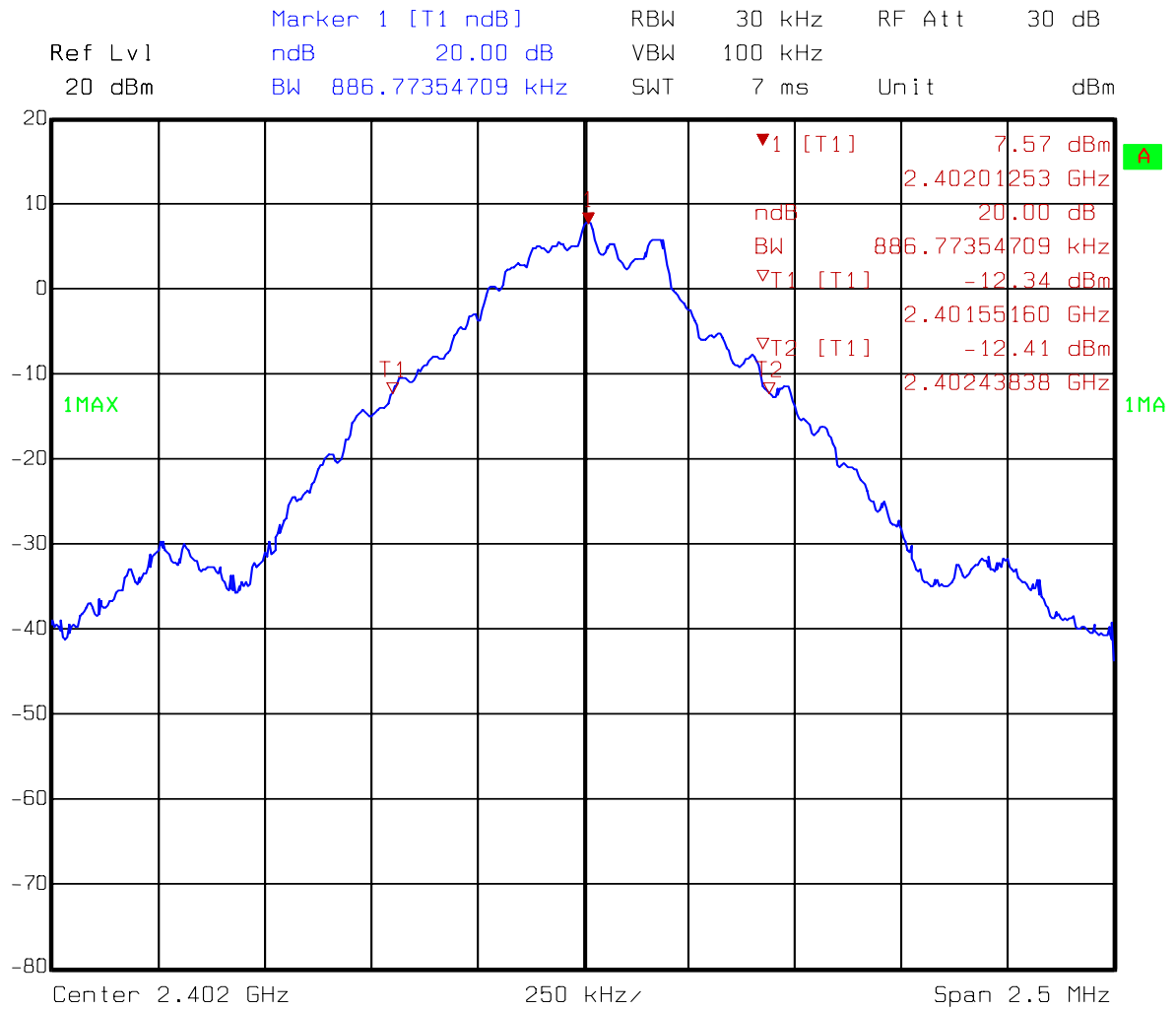
The 20dB bandwidth per FCC §15.247(a)(1) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at 100 kHz, the video bandwidth  $\geq$  RBW, and the SPAN may equal to approximately 2 to 3 times the 20dB bandwidth. The test was performed at 3 channels (lowest, middle and highest channel). The maximum 20dB modulation bandwidth is in the following Table.

#### 3.3 Measured data of modulated bandwidth test results

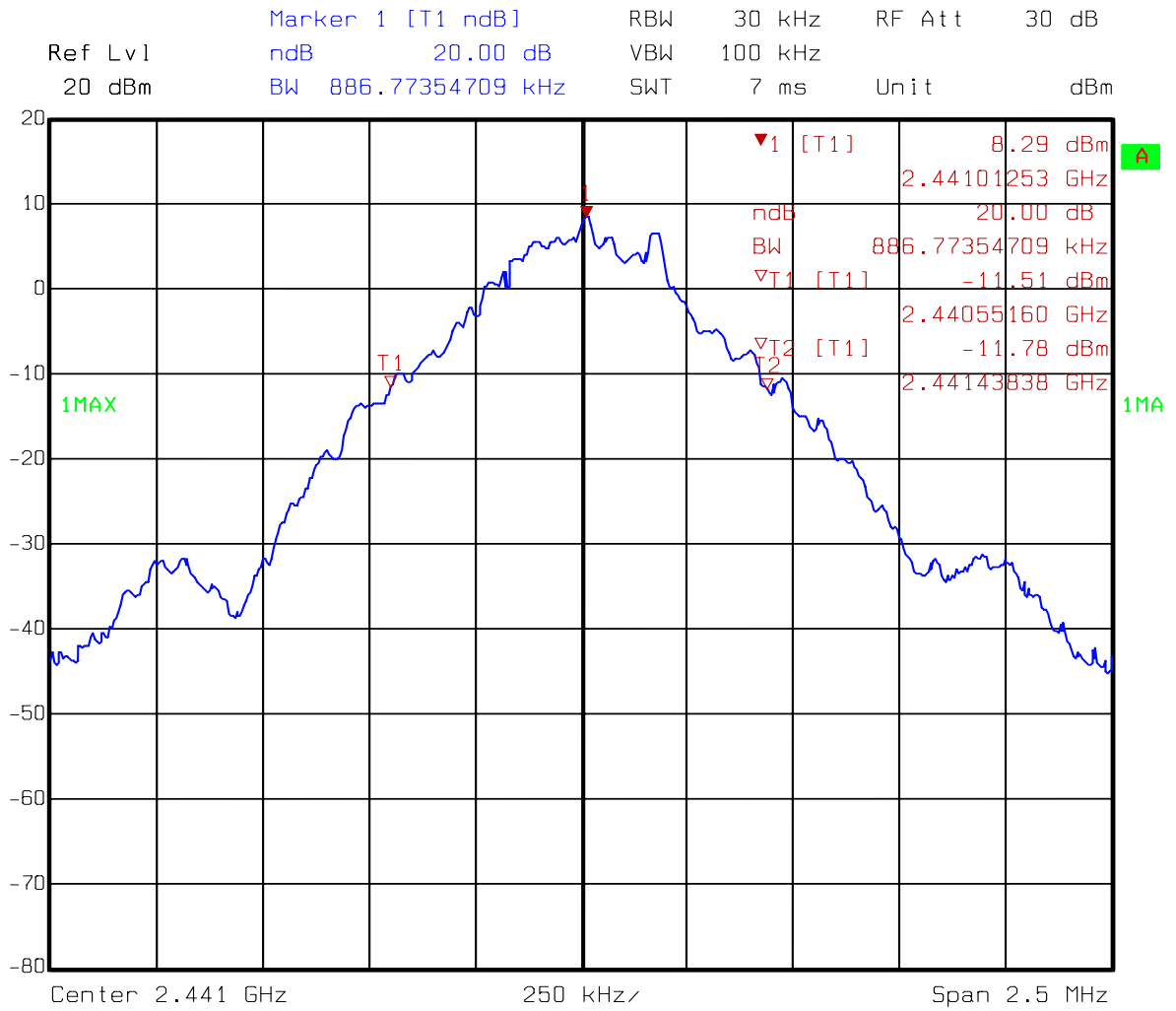
Channel	Frequency (MHz)	Bandwidth (KHz)
1 (lowest)	2402	886.7735
40 (middle)	2441	886.7735
79 (highest)	2480	886.7735

\* The EUT has its hopping function disable.

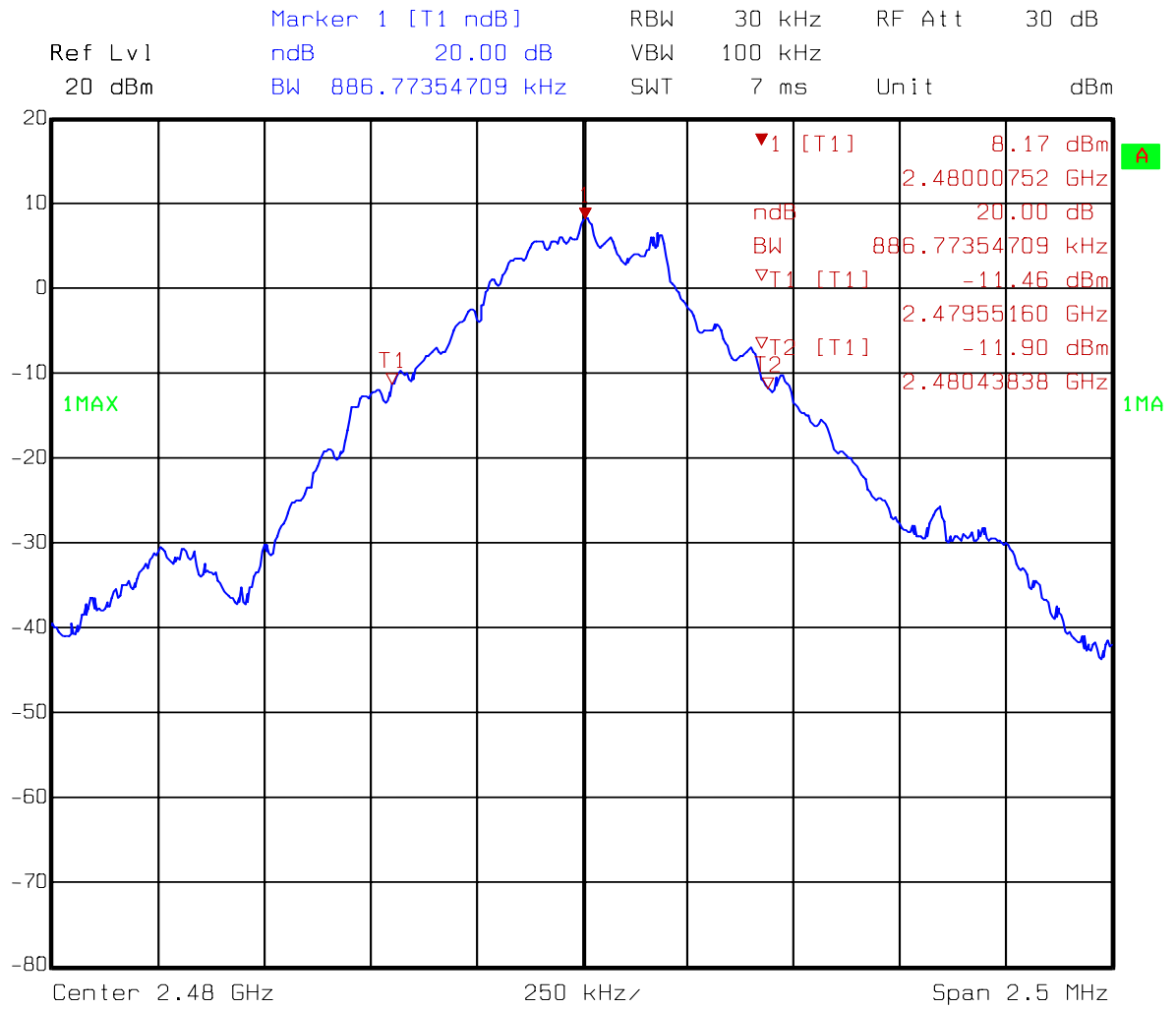
Please see the plot below.



Comment A: 20dB bandwidth at low channel



Comment A: 20dB bandwidth at middle channel



Comment A: 20dB bandwidth at high channel

#### 4. Carrier Frequency Separation test

##### 4.1 Operating environment

Temperature: 25 °C  
Relative Humidity: 55 %  
Atmospheric Pressure: 1023 hPa

##### 4.2 Test setup & procedure

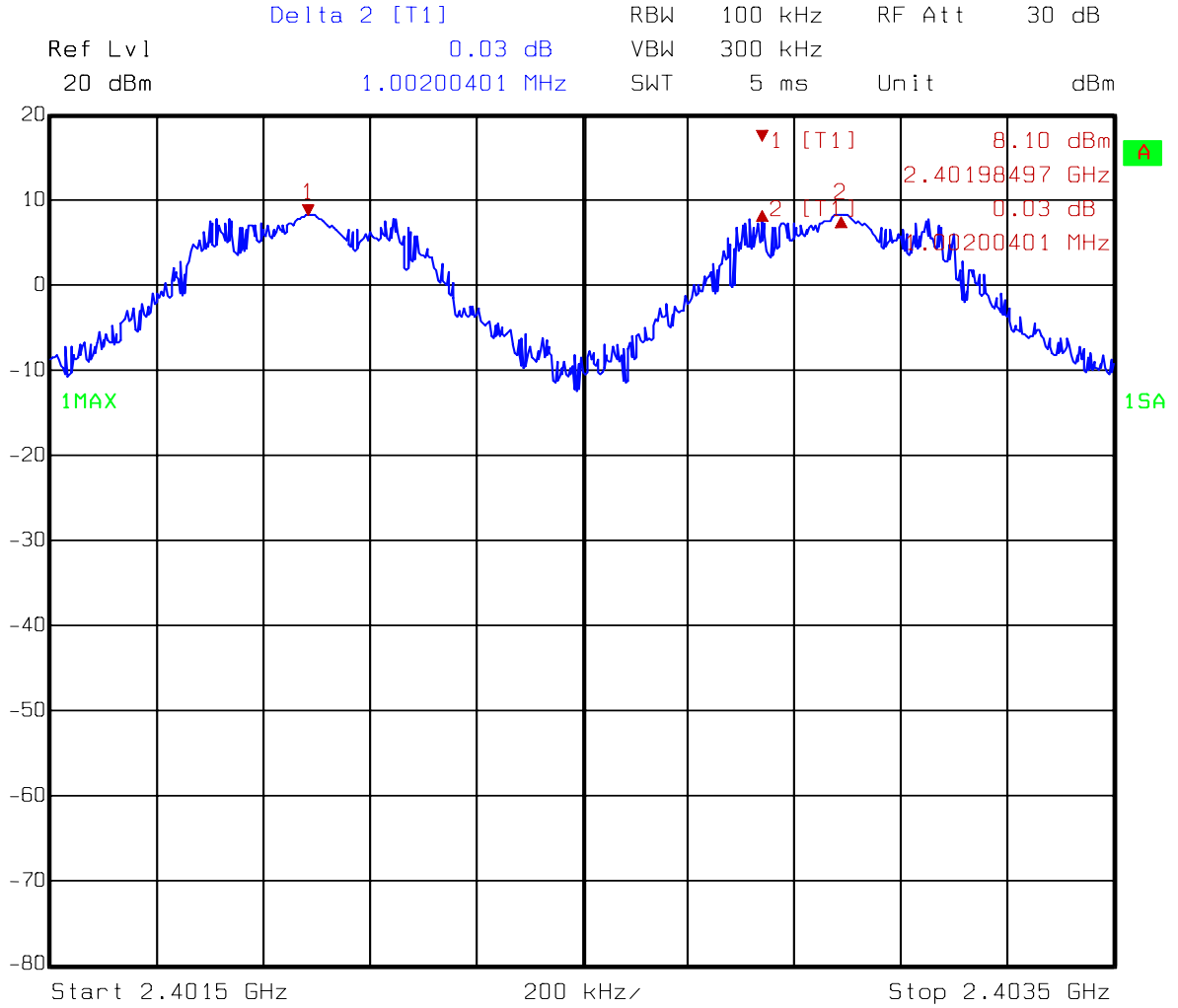
The carrier frequency separation per FCC §15.247(a)(1) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at  $\geq 1\%$  of the span, the video bandwidth  $\geq$  RBW, and the SPAN was wide enough to capture the peaks of two adjacent channels. The carrier frequency separation result is in the following Table.

##### 4.3 Measured data of Carrier Frequency Separation test result

Channel	Frequency (MHz)	Measurement Frequency separation (MHz)
1	2401.98	1.002
2	2403.00	

\* The EUT has its hopping function enable.

Please see the plot below.



Comment A: Carrier frequencies separation between CH1 and CH2

## 5. Number of hopping frequencies test

### 5.1 Operating environment

Temperature: 25 °C  
Relative Humidity: 55 %  
Atmospheric Pressure: 1023 hPa

### 5.2 Test setup & procedure

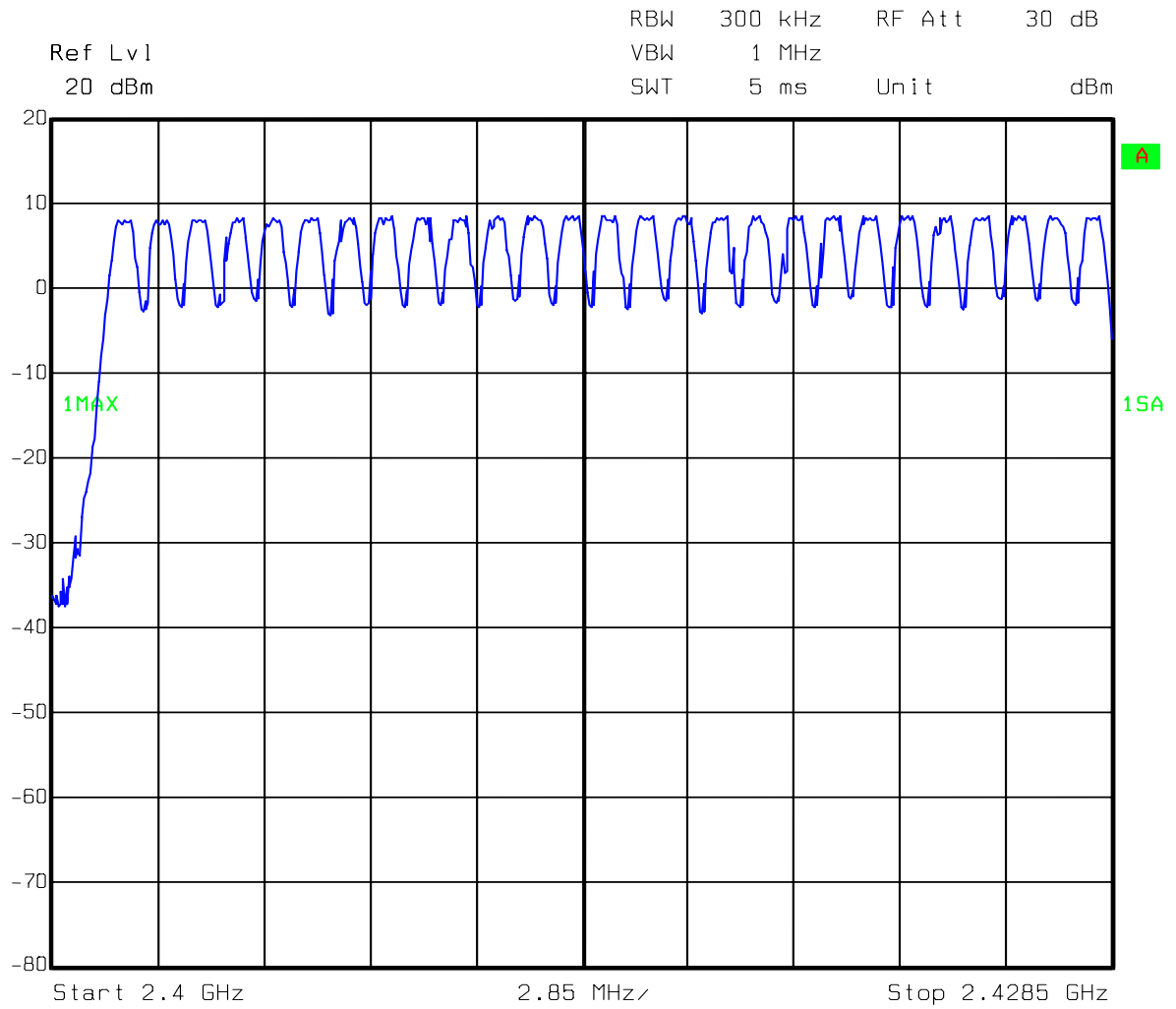
The number of hopping frequencies per FCC §15.247(a)(1) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at  $\geq 1\%$  of the span, the video bandwidth  $\geq$  RBW, and the SPAN was the frequency band of operation. The carrier frequency separation result is in the following Table.

### 5.3 Measured data of number of hopping frequencies test result

Frequency Range (MHz)	Number of hopping frequencies	Total hopping channels
2400 ~ 2428.5	27	79
2429~ 2454.5	26	
2455 ~ 2483.5	26	

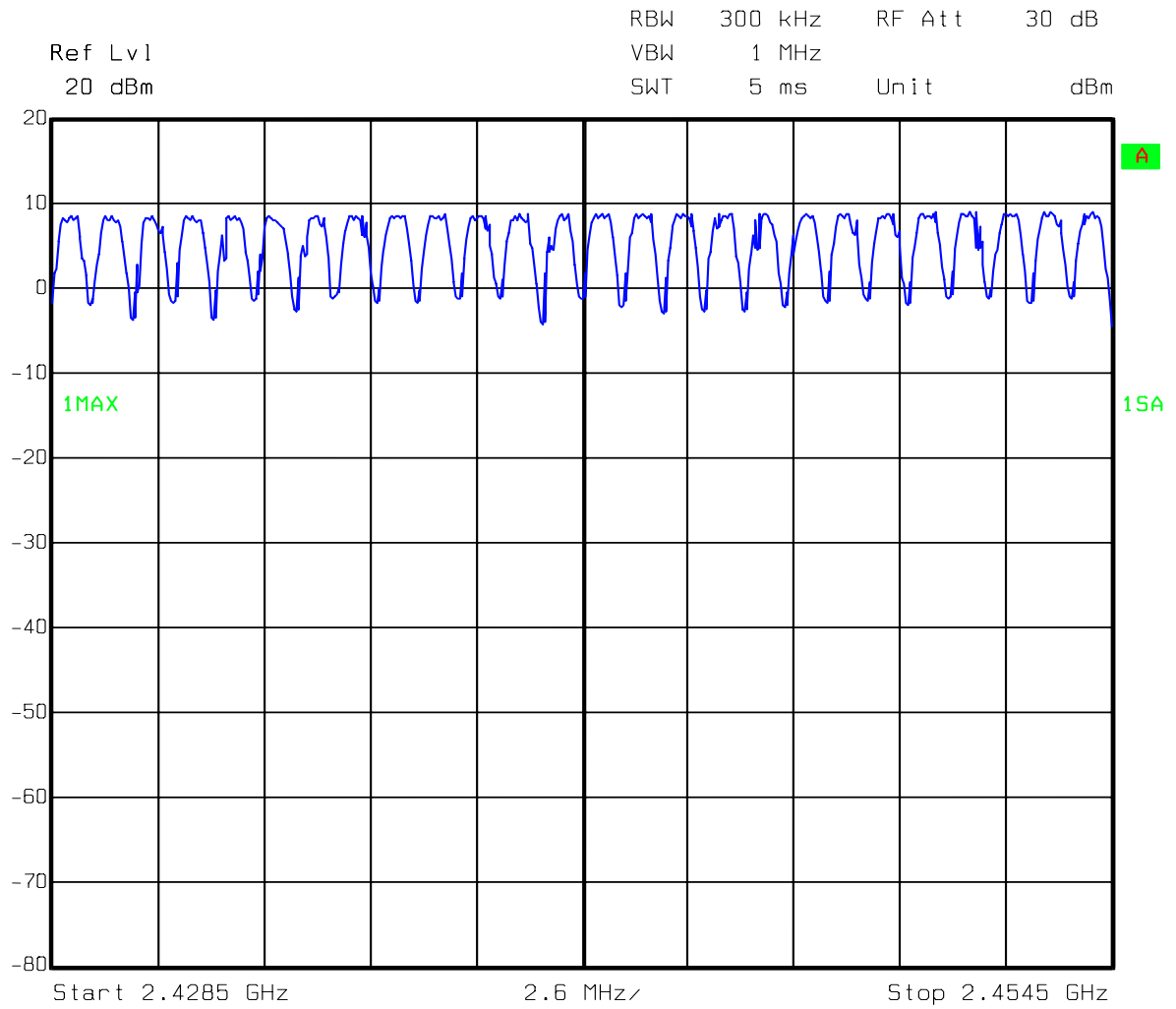
\* The EUT has its hopping function enable.

Please see the plot below.

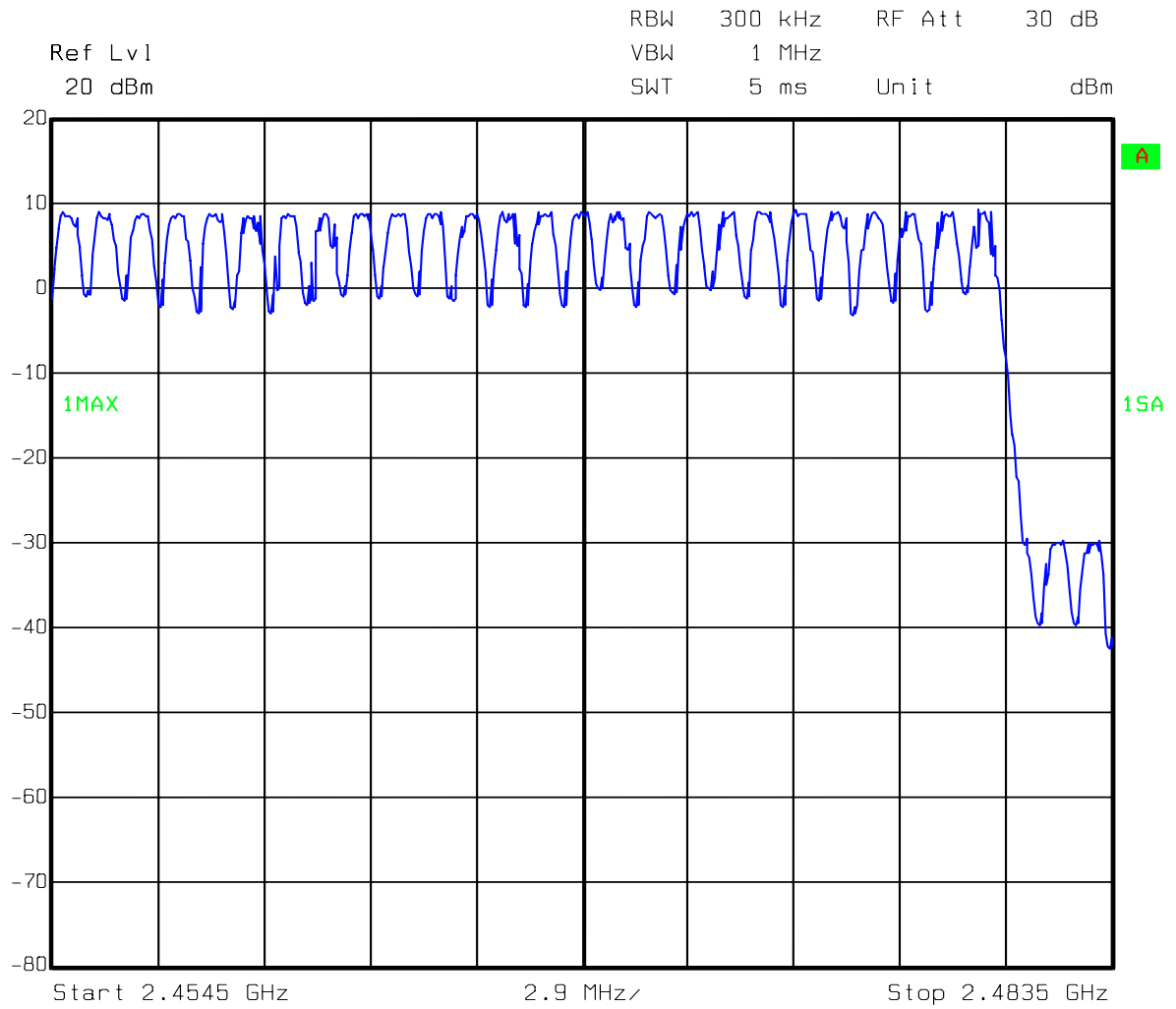


Comment A: Number of hopping channel





Comment A: Number of hopping channel



Comment A: Number of hopping channel

## 6. Time of Occupancy (dwell time) test

### 6.1 Operating environment

Temperature: 25 °C  
Relative Humidity: 55 %  
Atmospheric Pressure: 1023 hPa

### 6.2 Test setup & procedure

The time of occupancy (dwell time) per FCC §15.247(a)(1)(iii) was measured using a 50 ohm spectrum analyzer with the resolutions bandwidth set at 1MHz, the video bandwidth  $\geq$  RBW, and the zero span function of spectrum analyzer was enable. The EUT has its hopping function enable.

The average time of occupancy on any channel shall not greater than 0.4 seconds within a period of 0.4 seconds multiplied by number of hopping channels employed.

The system makes worst case 1600 hops per second or 1 time slot has a length of 625 $\mu$ s with 79 channels. So, the calculation for a 31.6 second period is follows.

$$\text{Dwell time} = \text{time slot length} \times \text{hop rate} / \text{number of hopping channels} \times 31.6\text{s.}$$

#### Time of occupancy (dwell time) for DH1

A DH1 packet needs 1 time slot for transmit and 1 time slot for receive, then the hop rate is  $1600/2 = 800$  1/s

$$\begin{aligned} \text{Dwell time} &= 420.841683 \mu\text{s} \times 800 \text{ 1/s} / 79 \times 31.6\text{s} \\ &= 134.67 \text{ ms (in a 31.6s period)} \end{aligned}$$

#### Time of occupancy (dwell time) for DH3

A DH3 packet needs 3 time slots for transmit and 1 time slot for receive, then the hop rate is  $1600/4 = 400$  1/s

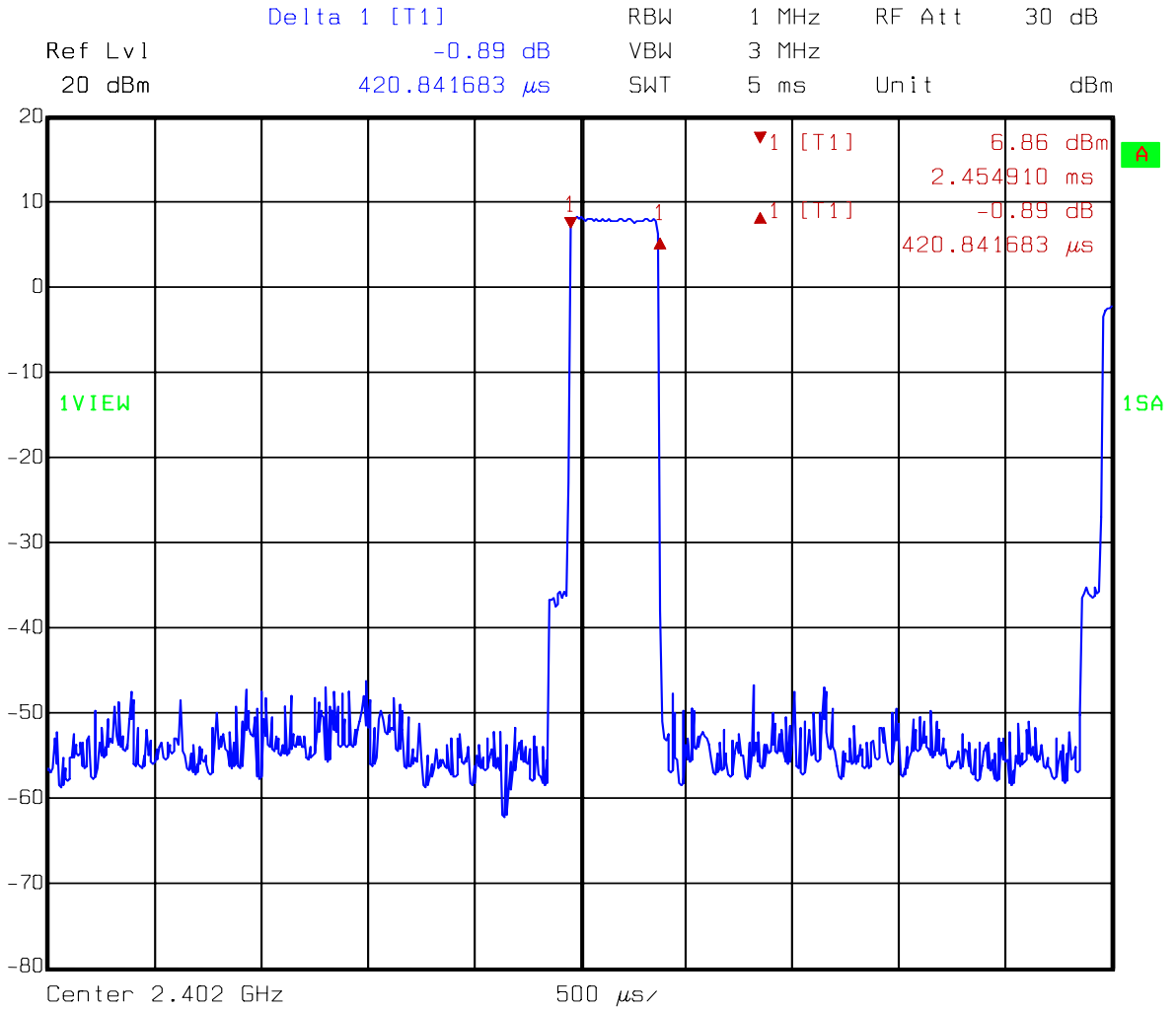
$$\begin{aligned} \text{Dwell time} &= 1.673347 \text{ ms} \times 400 \text{ 1/s} / 79 \times 31.6\text{s} \\ &= 267.74 \text{ ms (in a 31.6s period)} \end{aligned}$$

#### Time of occupancy (dwell time) for DH5

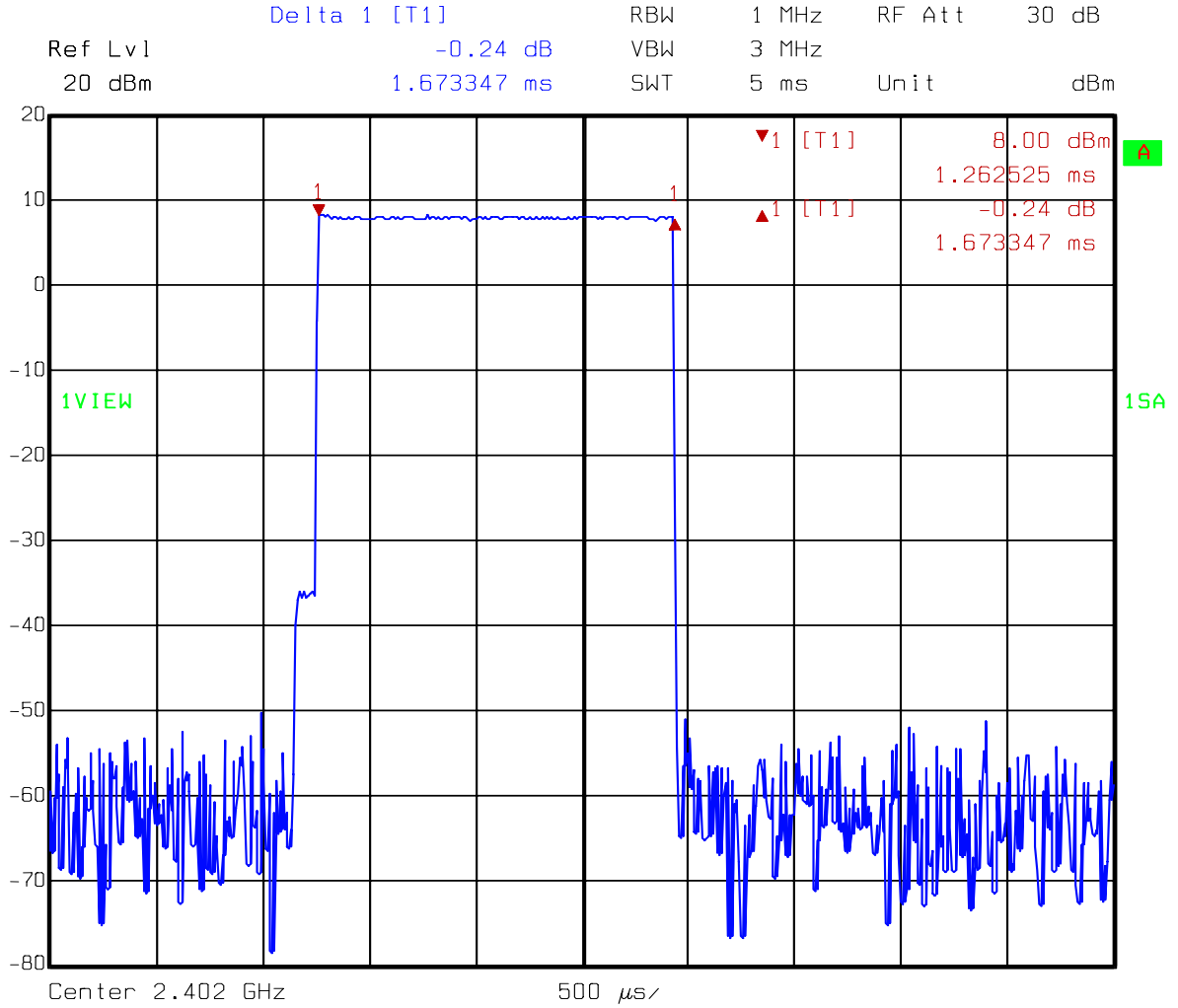
A DH5 packet needs 5 time slots for transmit and 1 time slot for receive, then the hop rate is  $1600/6 = 266.67$  1/s

$$\begin{aligned} \text{Dwell time} &= 2.921844 \text{ ms} \times 266.67 \text{ 1/s} / 79 \times 31.6\text{s} \\ &= 311.66 \text{ ms (in a 31.6s period)} \end{aligned}$$

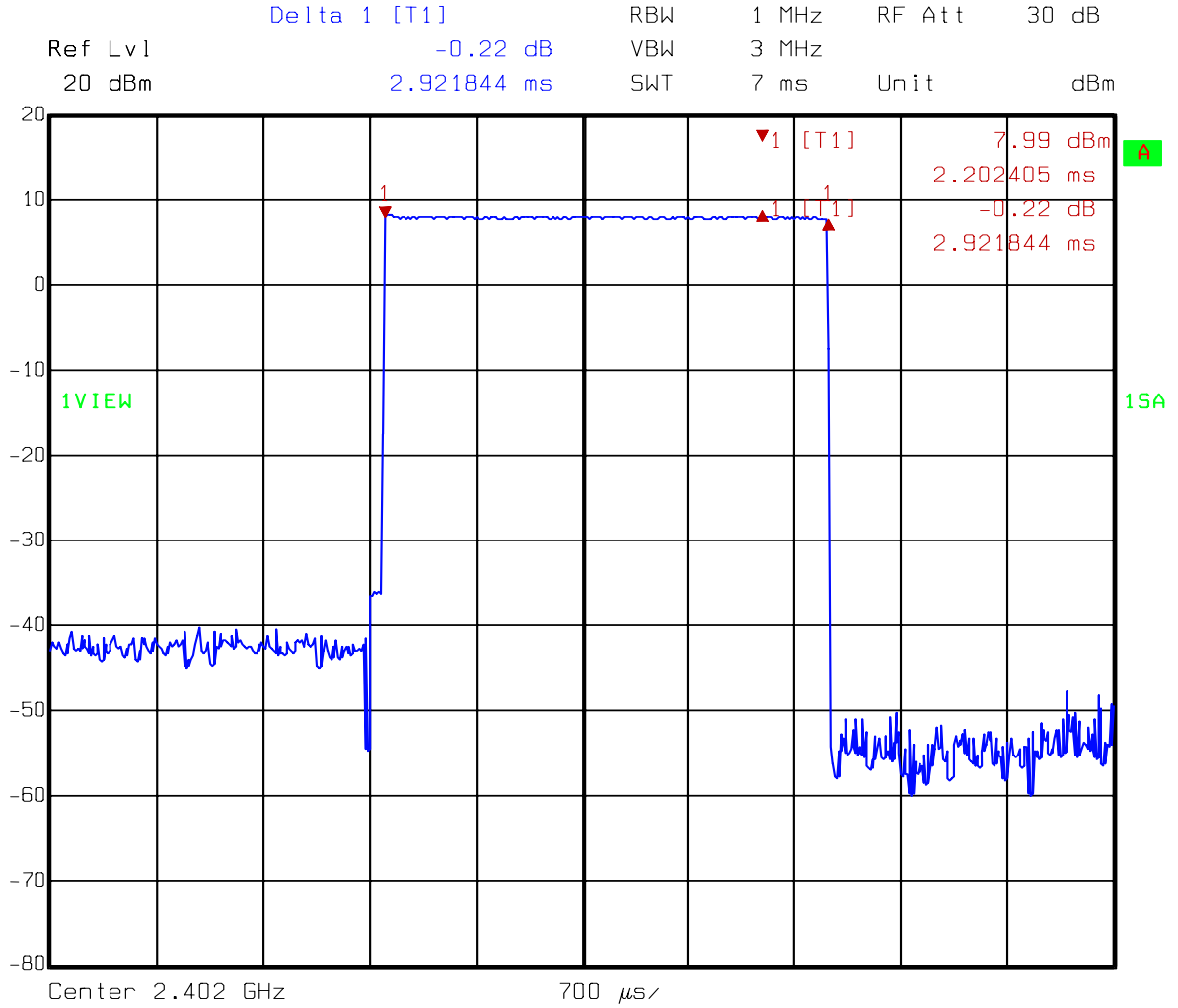
Please see the plot below.



Comment A: Dwell time of DH1 mode



Comment A: Dwell time of DH3 mode



Comment A: Dwell time of DH5 mode

## 7. Maximum Output Power test

### 7.1 Operating environment

Temperature: 25 °C  
 Relative Humidity: 50 %  
 Atmospheric Pressure: 1022 hPa

### 7.2 Test setup & procedure

The power output per FCC §15.247(b) was measured on the EUT using a 50 ohm SMA cable connected to peak power meter via power sensor. Power was read directly added to the reading to obtain power at the EUT antenna terminals. The test was performed at 3 channels (lowest, middle and highest channel).

### 7.3 Measured data of Maximum Output Power test results

Channel	Freq. (MHz)	Reading (dBm)	Conducted Peak Output Power		Limit (W)
			(dBm)	(mW)	
1 (lowest)	2402	11.58	11.58	14.39	1
40 (middle)	2442	12.19	12.19	16.56	1
79 (highest)	2480	12.56	12.56	18.03	1

Remark:

Conducted Peak Output Power = Reading + C.L.

## **8. RF Antenna Conducted Spurious test**

### **8.1 Operating environment**

Temperature: 25 °C  
Relative Humidity: 58 %

### **8.2 Test setup & procedure**

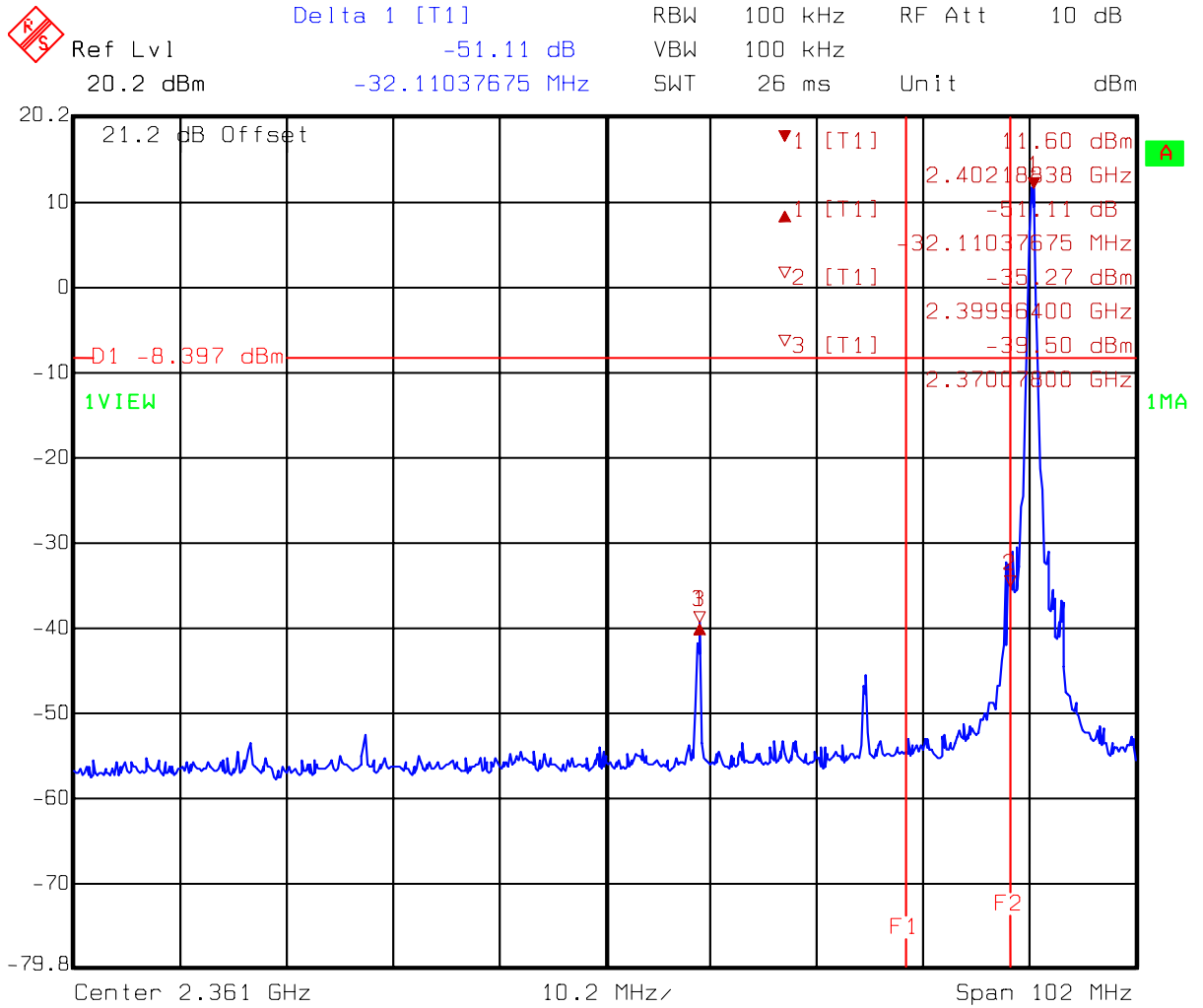
The measurements were performed from 30MHz to 25GHz RF antenna conducted per FCC 15.247 (c) was measured from the EUT antenna port using a 50ohm spectrum analyzer with the resolution bandwidth set at 100 kHz, and the video bandwidth set at 100 kHz.

Harmonics and spurious noise must be at least 20dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. The table below is the results from the highest emission for each channel within the authorized band. This table was used to determine the spurious limits for each channel.

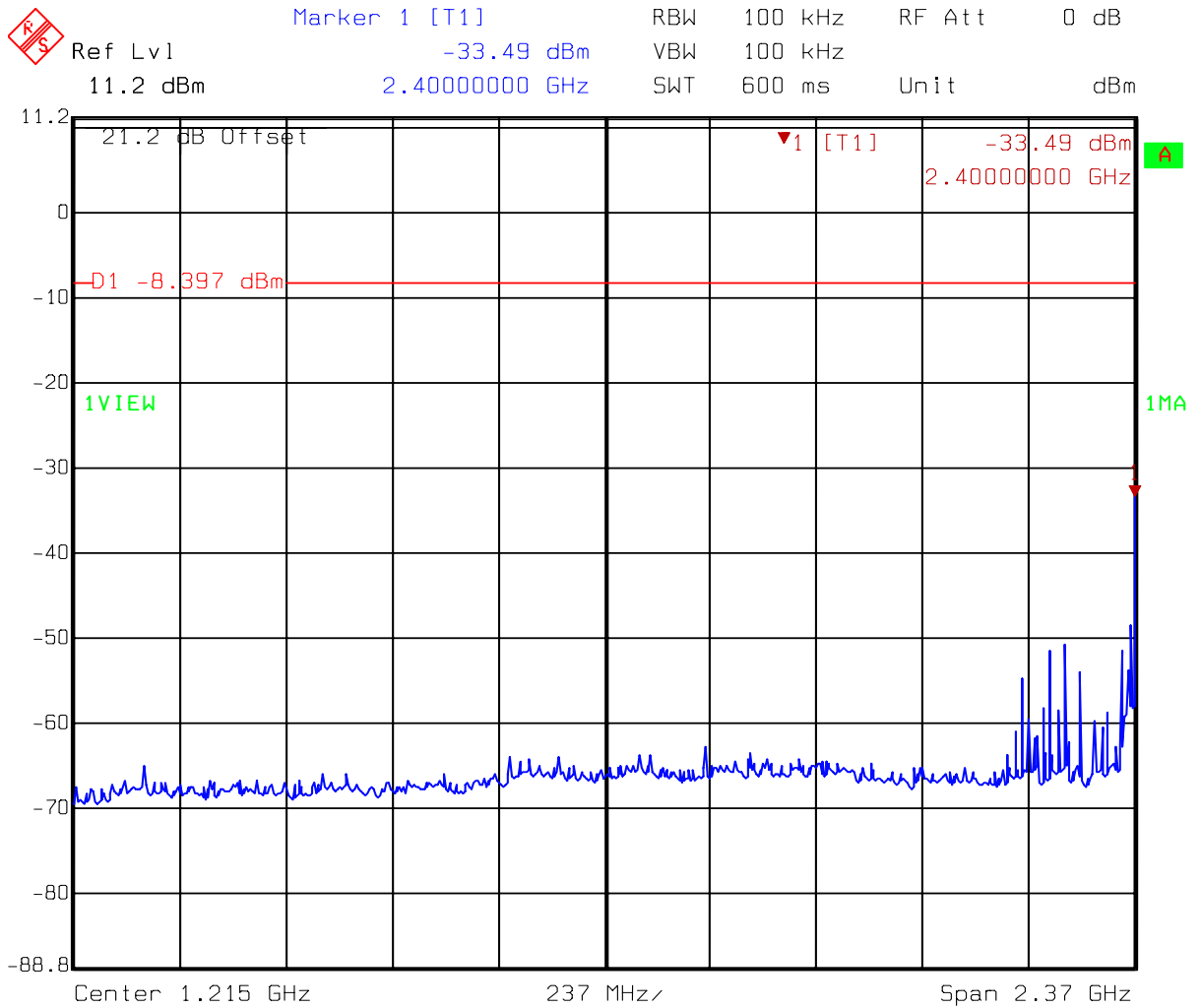
### **8.3 Measured data of the highest RF Antenna Conducted Spurious test result**

The test results please see the plot below.

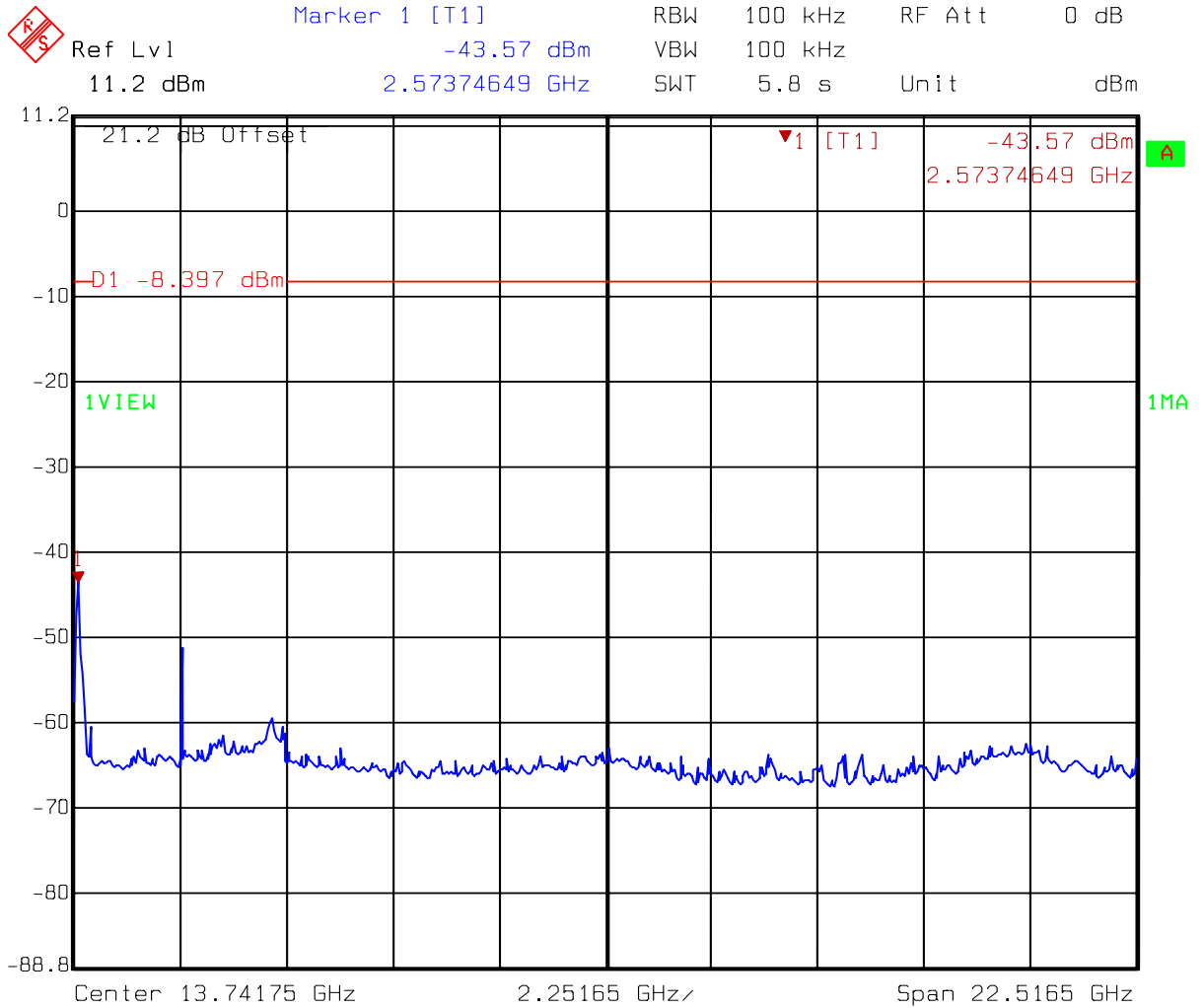




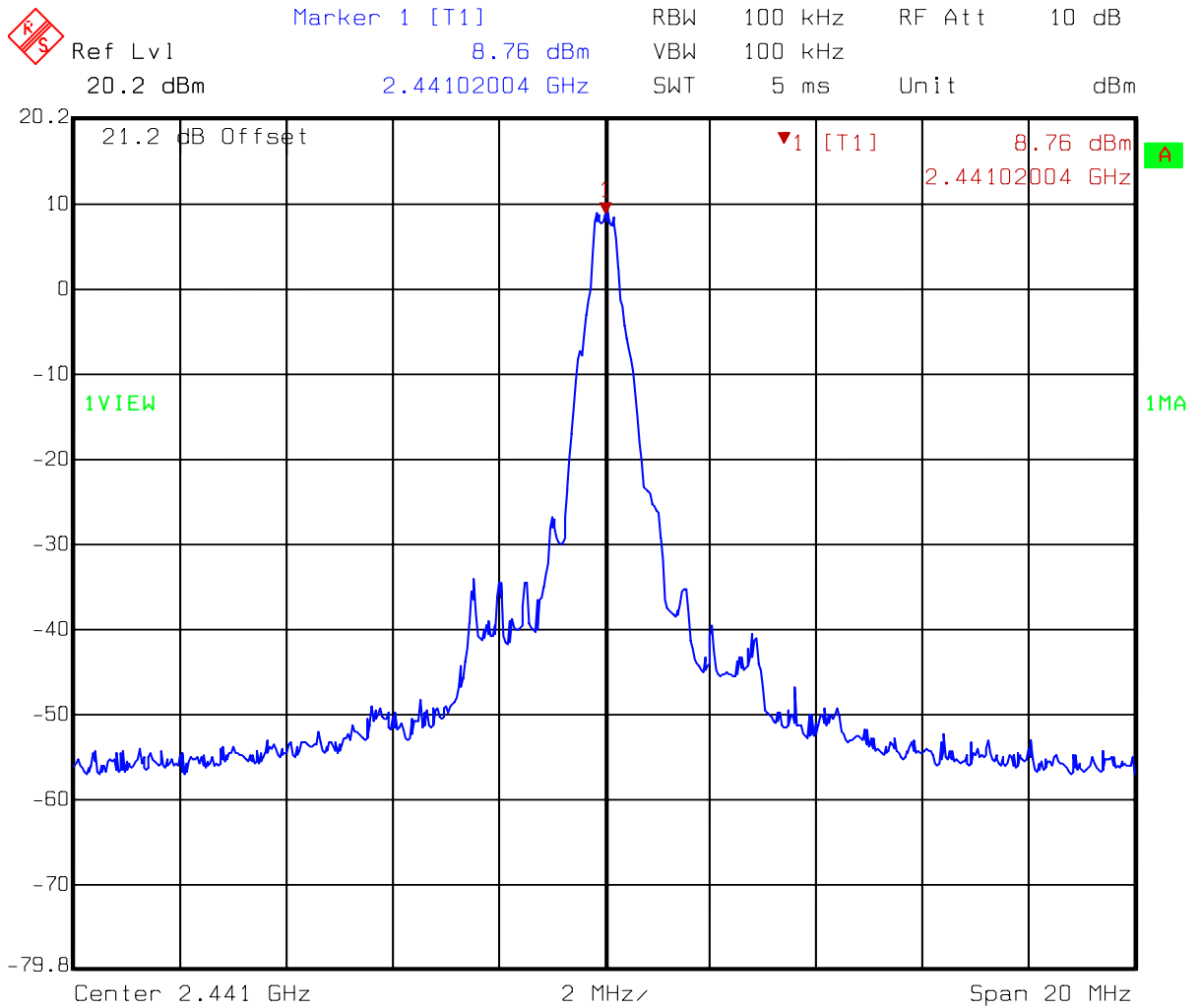
Title: Band Edge  
 Comment A: Channel 01 at Bluetooth mode  
                   F1=2390MHz F2=2400MHz (Peak Detect)  
 Date: 26.JUL.2006 14:21:16



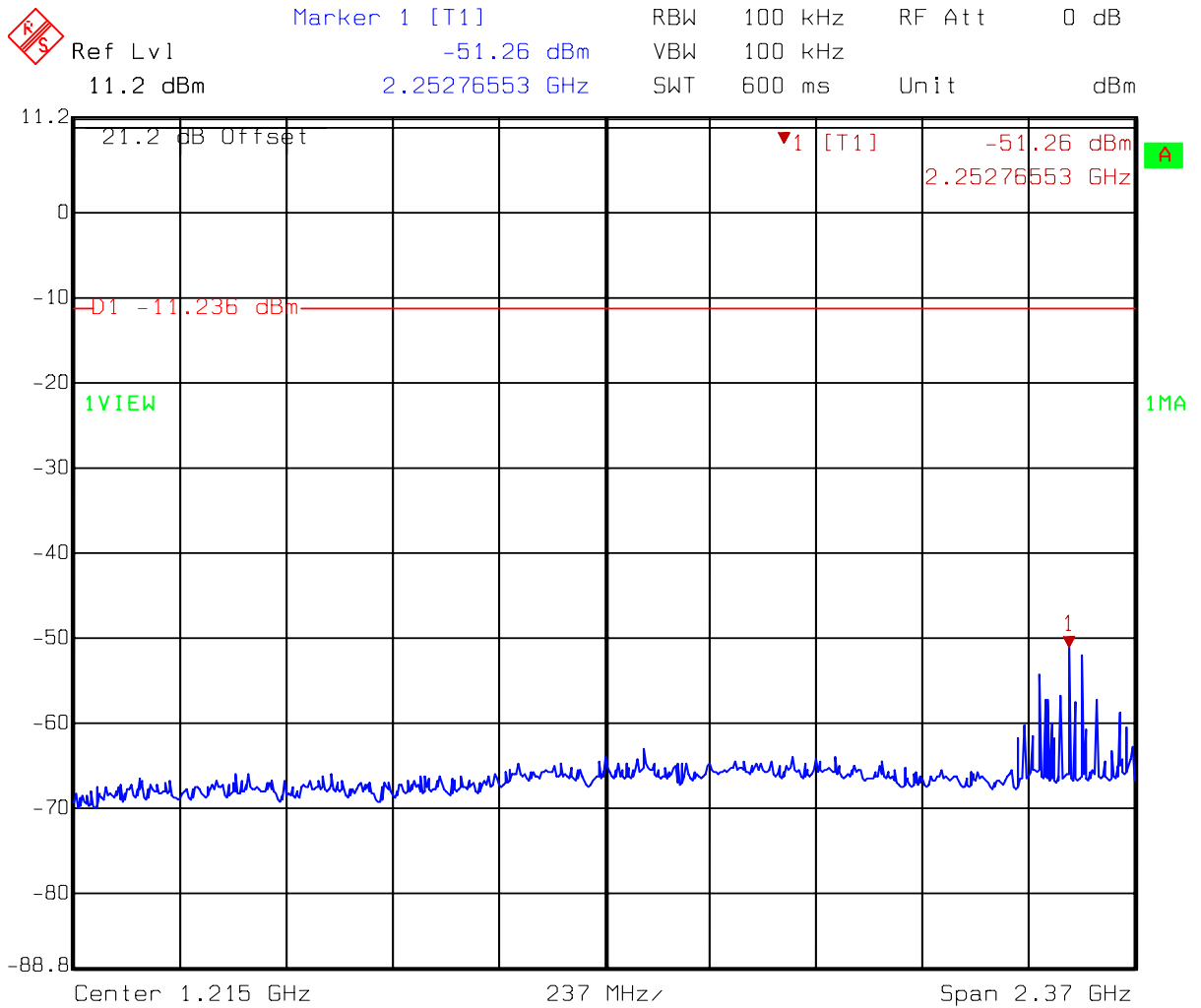
Title: Conductive Spurious  
 Comment A: Channel 01 at Bluetooth mode  
 Date: 26.JUL.2006 14:22:29



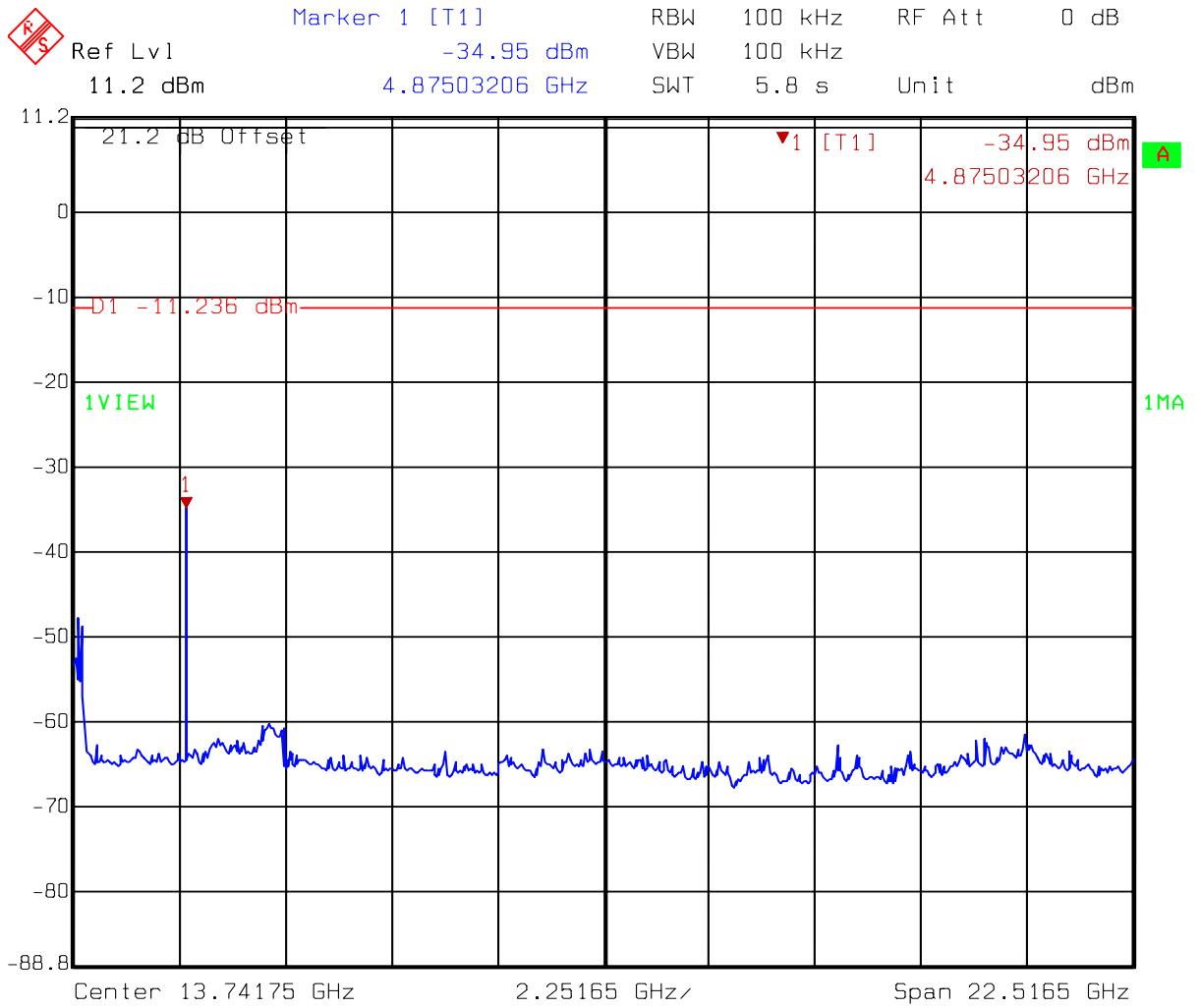
Title: Conductive Spurious  
 Comment A: Channel 01 at Bluetooth mode  
 Date: 26.JUL.2006 14:22:51



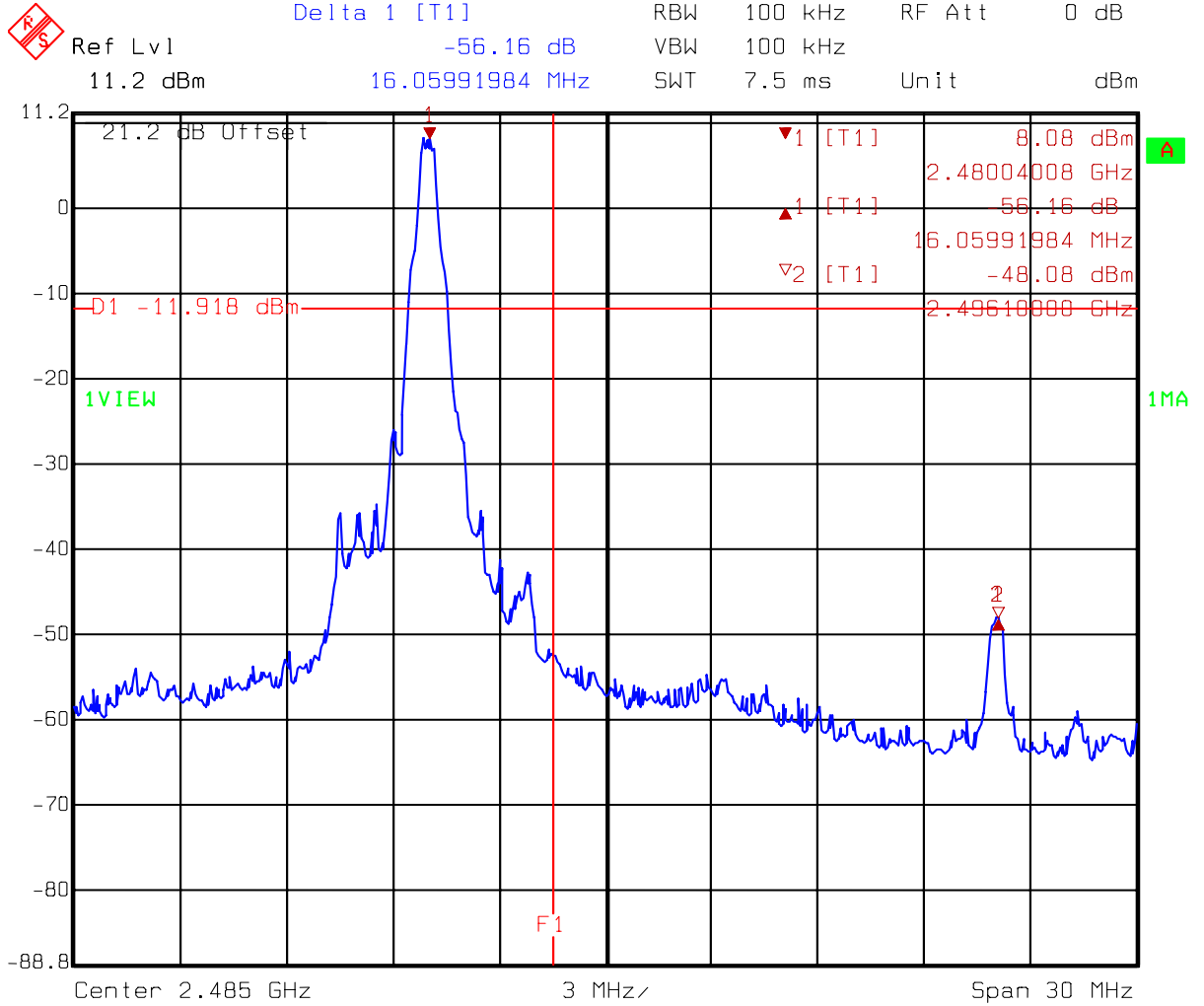
Title: Ch6 Main power  
 Comment A: Channel 40 at Bluetooth mode  
 Date: 26.JUL.2006 14:24:12



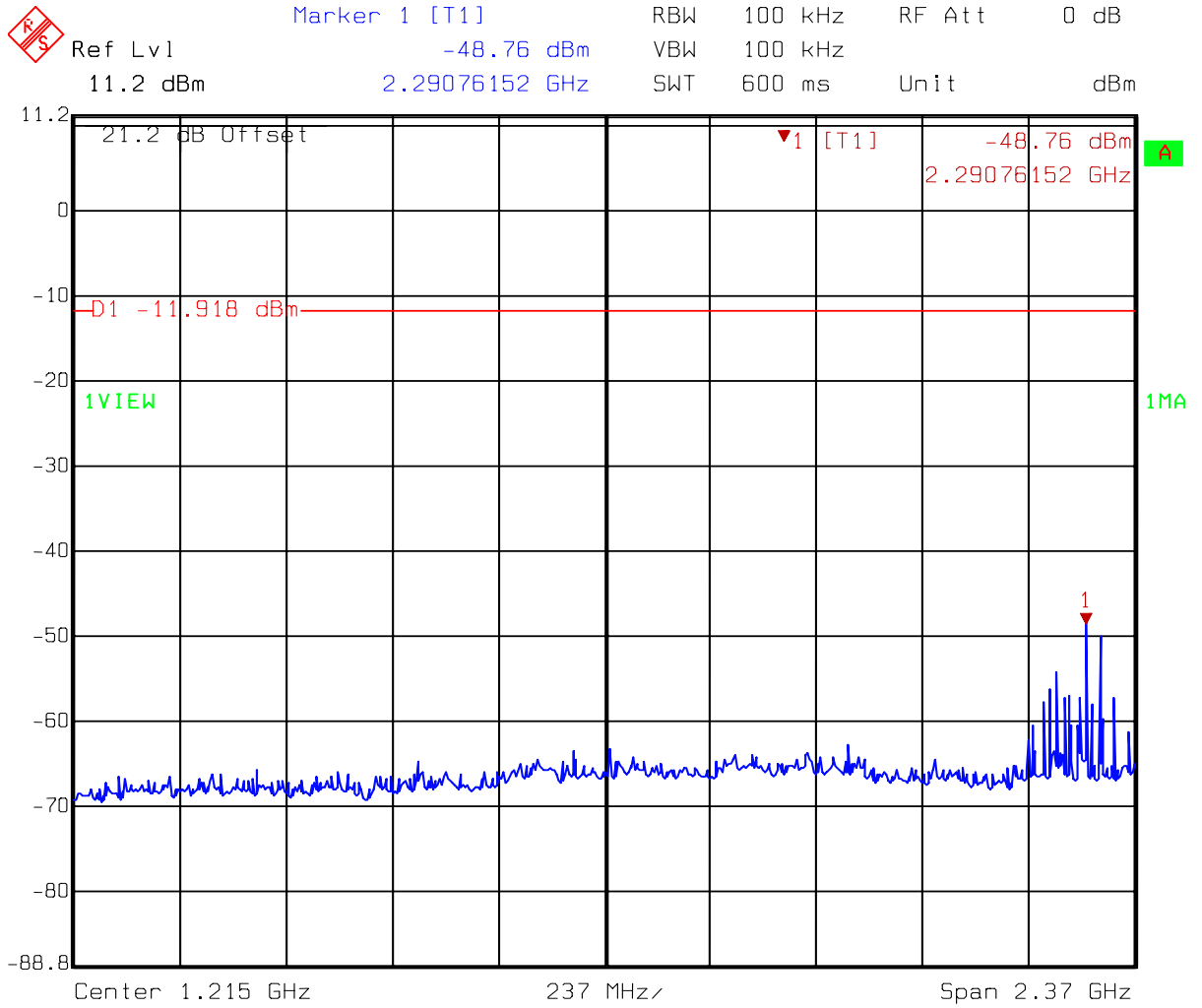
Title: Conductive Spurious  
 Comment A: Channel 40 at Bluetooth mode  
 Date: 26.JUL.2006 14:24:27



Title:            Conductive Spurious  
 Comment A:      Channel 40 at Bluetooth mode  
 Date:            26.JUL.2006 14:24:48

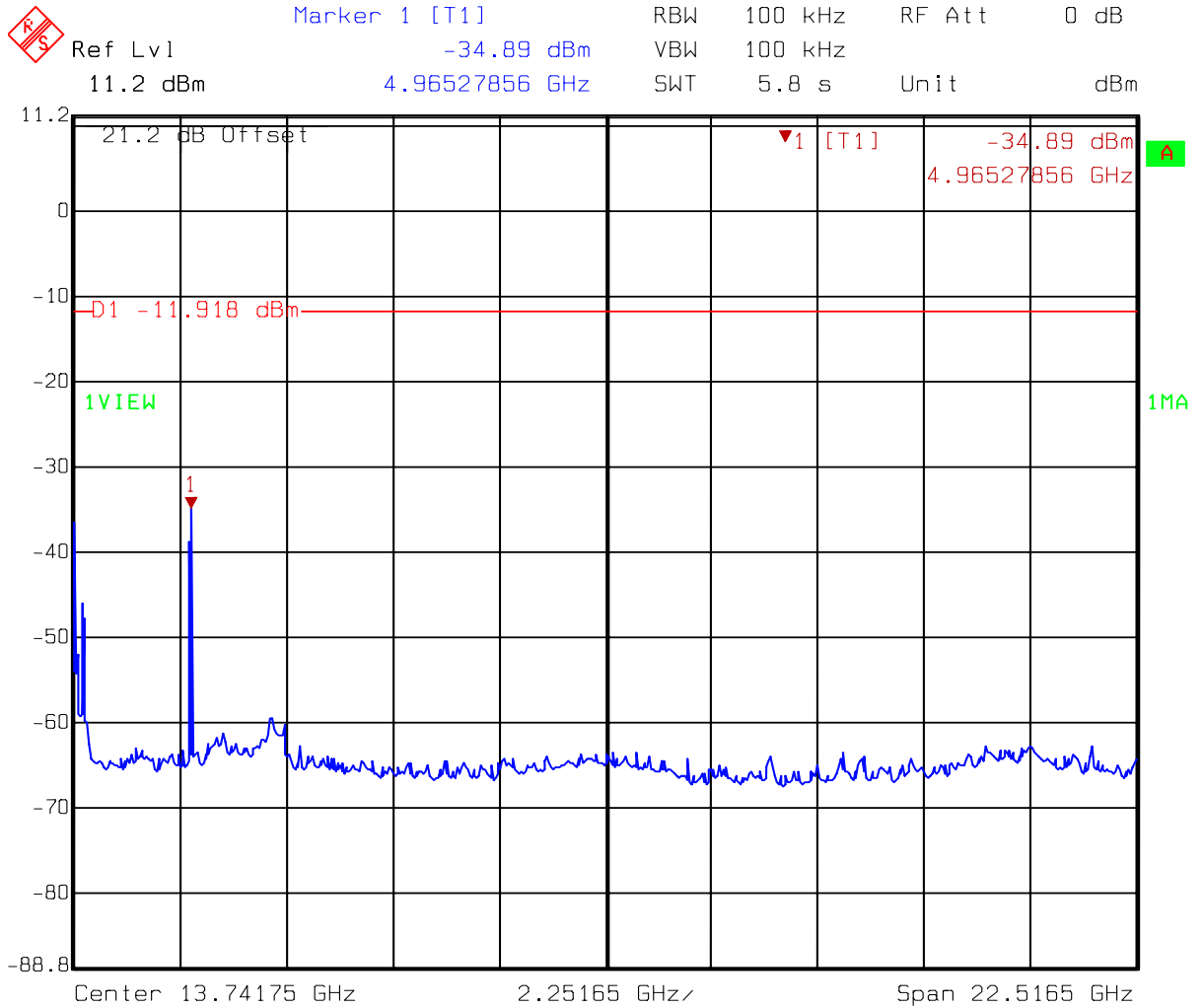


Title: Band Edge  
 Comment A: Channel 79 at Bluetooth mode  
 F1=2483.5MHz (Peak Detect)  
 Date: 26.JUL.2006 14:32:46



Title: Conductive Spurious  
 Comment A: Channel 79 at Bluetooth mode  
 Date: 26.JUL.2006 14:33:57





Title: Conductive Spurious  
 Comment A: Channel 79 at Bluetooth mode  
 Date: 26.JUL.2006 14:34:18

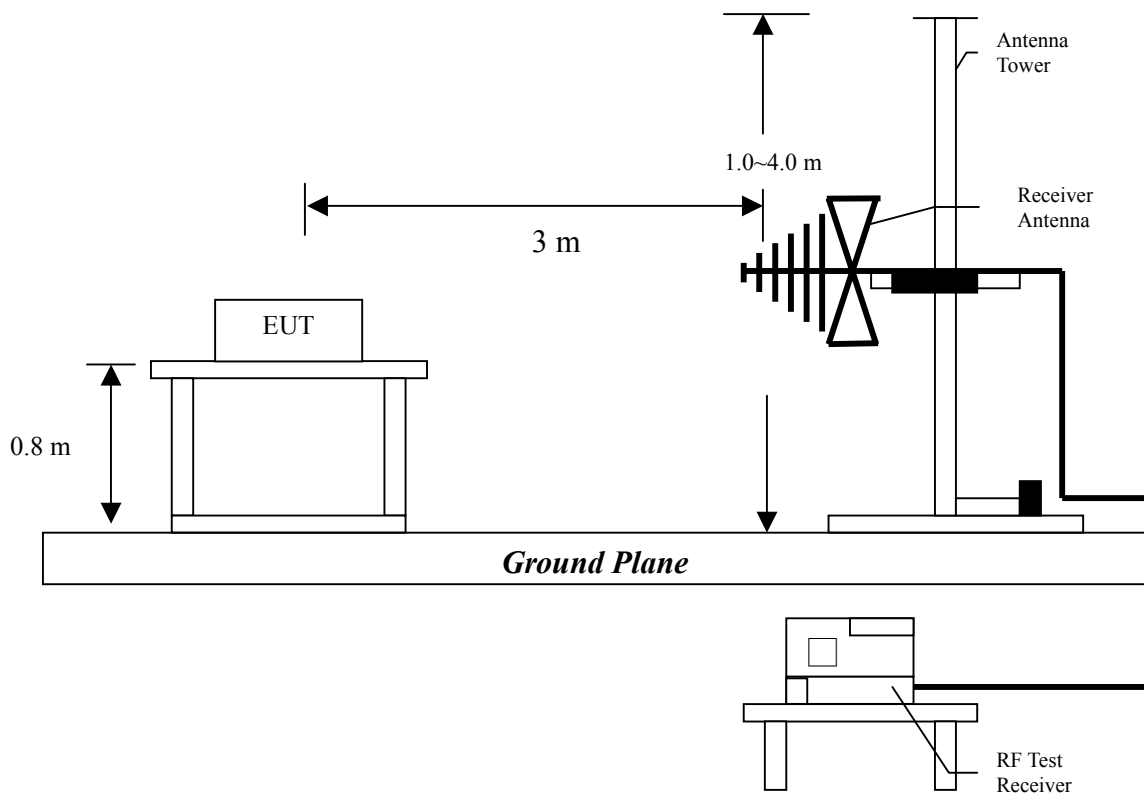
## 9. Radiated Emission test

### 9.1 Operating environment

Temperature: 23 °C  
Relative Humidity: 53 %  
Atmospheric Pressure: 1023 hPa

### 9.2 Test setup & procedure

The Diagram below shows the test setup, which is utilized to make these measurements.



Radiated emissions were investigated cover the frequency range from 30MHz to 1000MHz using a receiver RBW of 120kHz record QP reading, and the frequency over 1GHz using a spectrum analyzer RBW of 1MHz and 10Hz VBW record Average reading. (15.209 paragraph), the Peak reading (1MHz RBW/VBW) recorded also on the report.

The EUT for testing is arranged on a wooden turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.

The measurement for radiated emission will be done at the distance of three meters unless the signal level is too low to measure at that distance. In the case of the reading under noise floor, a pre-amplifier is used and/or the test is conducted at a closer distance. And then all readings are extrapolated back to the equivalent 3 meter reading using inverse scaling with distance.

The EUT configuration please refer to the “Spurious set-up photo.pdf”.

**9.3 Emission limits**

The spurious Emission shall test through the 10th harmonic. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

Frequency (MHz)	Limits (dB $\mu$ V/m@3m)
30-88	40
88-216	43.5
216-960	46
Above 960	54

**Remark:**

1. In the above table, the tighter limit applies at the band edges.
2. Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system

Uncertainty was calculated in accordance with NAMAS NIS 81.  
Expanded uncertainty (k=2) of radiated emission measurement is 4.98 dB.

**9.4 Radiated spurious emission test data**

**9.4.1 Measurement results: frequencies equal to or less than 1 GHz**

EUT : 8550-00003  
 Test Condition : Hopping frequency mode

Antenna Polariz. (V/H)	Freq. (MHz)	Receiver Detector	Corr. Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV/m)	Limit @ 3 m (dBuV/m)	Margin (dB)	Antenna high (cm)	Turn Table angle (degree)
V	40.670	QP	12.38	24.35	36.73	40.00	-3.28	155	244
V	265.710	QP	12.76	23.41	36.17	46.00	-9.83	141	73
V	399.570	QP	16.40	15.67	32.07	46.00	-13.93	125	89
V	450.010	QP	17.68	10.66	28.34	46.00	-17.66	169	122
V	532.460	QP	19.46	15.00	34.46	46.00	-11.54	105	69
V	664.380	QP	21.50	12.00	33.50	46.00	-12.50	100	57
H	398.600	QP	16.74	9.88	26.62	46.00	-19.38	105	322
H	450.010	QP	18.16	7.65	25.81	46.00	-20.19	132	67
H	483.960	QP	18.64	10.56	29.20	46.00	-16.80	167	233
H	533.430	QP	19.65	13.97	33.62	46.00	-12.38	149	79
H	575.140	QP	20.84	12.10	32.94	46.00	-13.07	166	49
H	628.490	QP	21.55	7.14	28.69	46.00	-17.32	159	122

Remark:

1. Corr. Factor = Antenna Factor + Cable Loss
2. Corrected Level = Reading + Corr. Factor

## 9.4.2 Measurement results: frequency above 1GHz

### The radiated spurious emissions at

Frequency(MHz)	Margin
4804	-4.36

**are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.**

EUT : 8550-00003

Test Condition : Tx at channel 1

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)	Antenna high (cm)	Turn Table angle (degree)
4804	PK	V	32.265	35.742	41.243	44.72	74	-29.28	122	111
4804	AV	V	32.265	35.742	37.603	41.08	54	-12.92	122	111
7206	PK	V	34.17	39.966	42.034	47.83	74	-26.17	148	115
7206	AV	V	34.17	39.966	36.224	42.02	54	-11.98	148	115
9608	PK	V	35.753	43.384	37.5985	45.23	74	-28.77	103	105
9608	AV	V	35.753	43.384	25.1885	32.82	54	-21.18	103	105
4804	PK	H	32.265	35.742	47.823	51.3	74	-22.7	177	111
4804	AV	H	32.265	35.742	46.163	49.64	54	-4.36	177	111
7206	PK	H	34.17	39.966	42.164	47.96	74	-26.04	135	101
7206	AV	H	34.17	39.966	37.554	43.35	54	-10.65	135	101
9608	PK	H	35.753	43.384	41.8385	49.47	74	-24.53	143	105
9608	AV	H	35.753	43.384	35.9485	43.58	54	-10.42	143	105

**Remark:**

1. Corrected Level = Reading Level + Correction Factor – Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. The frequency measured ranges from 1GHz to 25GHz. The data value listed above which is higher than the noise floor, the others please refer to noise floor level.

**For PK:**

1GHz-3GHz: 20dBuV  
 3GHz-14GHz: 27dBuV  
 14GHz-26.5GHz: 39dBuV

**For AV:**

1GHz-3GHz: 10dBuV  
 3GHz-14GHz: 16dBuV  
 14GHz-26.5GHz: 28dBuV

**The radiated spurious emissions at**

Frequency(MHz)	Margin
4882	-0.16

**are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.**

EUT : 8550-00003

Test Condition : Tx at channel 40

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)	Antenna high (cm)	Turn Table angle (degree)
4882	PK	V	32.265	35.742	43.933	47.41	74	-26.59	161	18
4882	AV	V	32.265	35.742	40.773	44.25	54	-9.75	161	18
7324	PK	V	34.17	39.966	44.544	50.34	74	-23.66	155	115
7324	AV	V	34.17	39.966	40.894	46.69	54	-7.31	155	115
4882	PK	H	32.265	35.742	52.623	56.1	74	-17.9	152	113
4882	AV	H	32.265	35.742	50.363	53.84	54	-0.16	152	113
7324	PK	H	34.17	39.966	44.814	50.61	74	-23.39	147	111
7324	AV	H	34.17	39.966	41.244	47.04	54	-6.96	147	111

**Remark:**

1. Corrected Level = Reading Level + Correction Factor – Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. The frequency measured ranges from 1GHz to 25GHz. The data value listed above which is higher than the noise floor, the others please refer to noise floor level.

**For PK:**

1GHz-3GHz: 20dBuV  
 3GHz-14GHz: 27dBuV  
 14GHz-26.5GHz: 39dBuV

**For AV:**

1GHz-3GHz: 10dBuV  
 3GHz-14GHz: 16dBuV  
 14GHz-26.5GHz: 28dBuV

**The radiated spurious emissions at**

Frequency(MHz)	Margin
4960	-1.09

**are less than uncertainty. This is within the stated measurement uncertainty, this may affect compliance determined in other test arrangements.**

EUT : 8550-00003  
Test Condition : Tx at channel 79

Frequency (MHz)	Spectrum Analyzer Detector	Antenna Polariz. (H/V)	Preamp (dB)	Correction Factor (dB/m)	Reading (dBuV)	Corrected Level (dBuV)	Limit @ 3 m (dBuV)	Margin (dB)	Antenna high (cm)	Turn Table angle (degree)
4960	PK	V	32.265	35.742	45.083	48.56	74	-25.44	115	109
4960	AV	V	32.265	35.742	42.663	46.14	54	-7.86	115	109
7440	PK	V	34.17	39.966	43.294	49.09	74	-24.91	105	110
7440	AV	V	34.17	39.966	37.294	43.09	54	-10.91	105	110
4960	PK	H	32.265	35.742	52.163	55.64	74	-18.36	139	108
4960	AV	H	32.265	35.742	49.433	52.91	54	-1.09	139	108
7440	PK	H	34.17	39.966	42.854	48.65	74	-25.35	148	109
7440	AV	H	34.17	39.966	36.904	42.7	54	-11.3	148	109

**Remark:**

1. Corrected Level = Reading Level + Correction Factor – Preamp
2. Correction Factor = Antenna Factor + Cable Loss
3. The frequency measured ranges from 1GHz to 25GHz. The data value listed above which is higher than the noise floor, the others please refer to noise floor level.

**For PK:**

1GHz-3GHz: 20dBuV  
3GHz-14GHz: 27dBuV  
14GHz-26.5GHz: 39dBuV

**For AV:**

1GHz-3GHz: 10dBuV  
3GHz-14GHz: 16dBuV  
14GHz-26.5GHz: 28dBuV

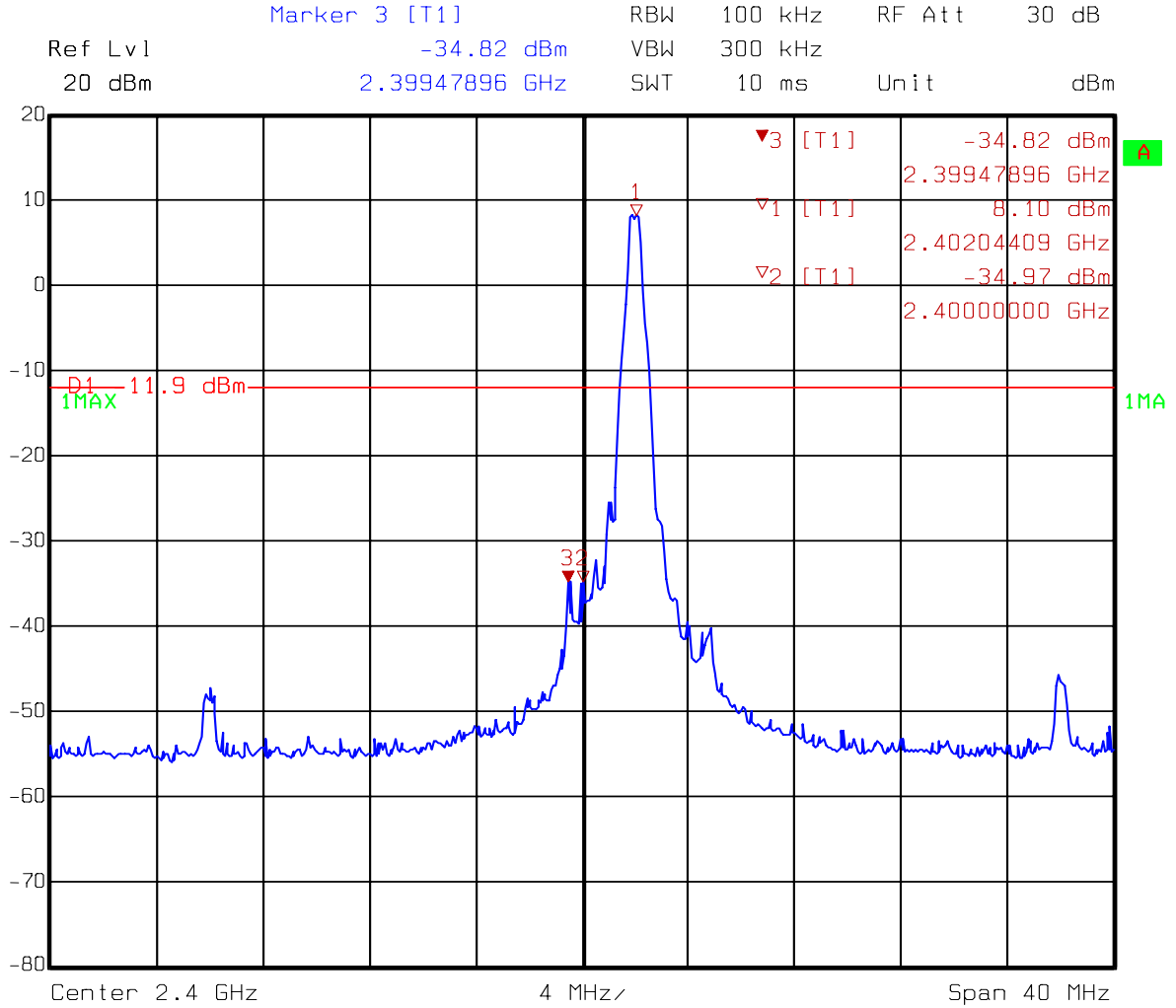
**10. Emission on the band edge §FCC 15.247(C)**

In any 100kHz 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.

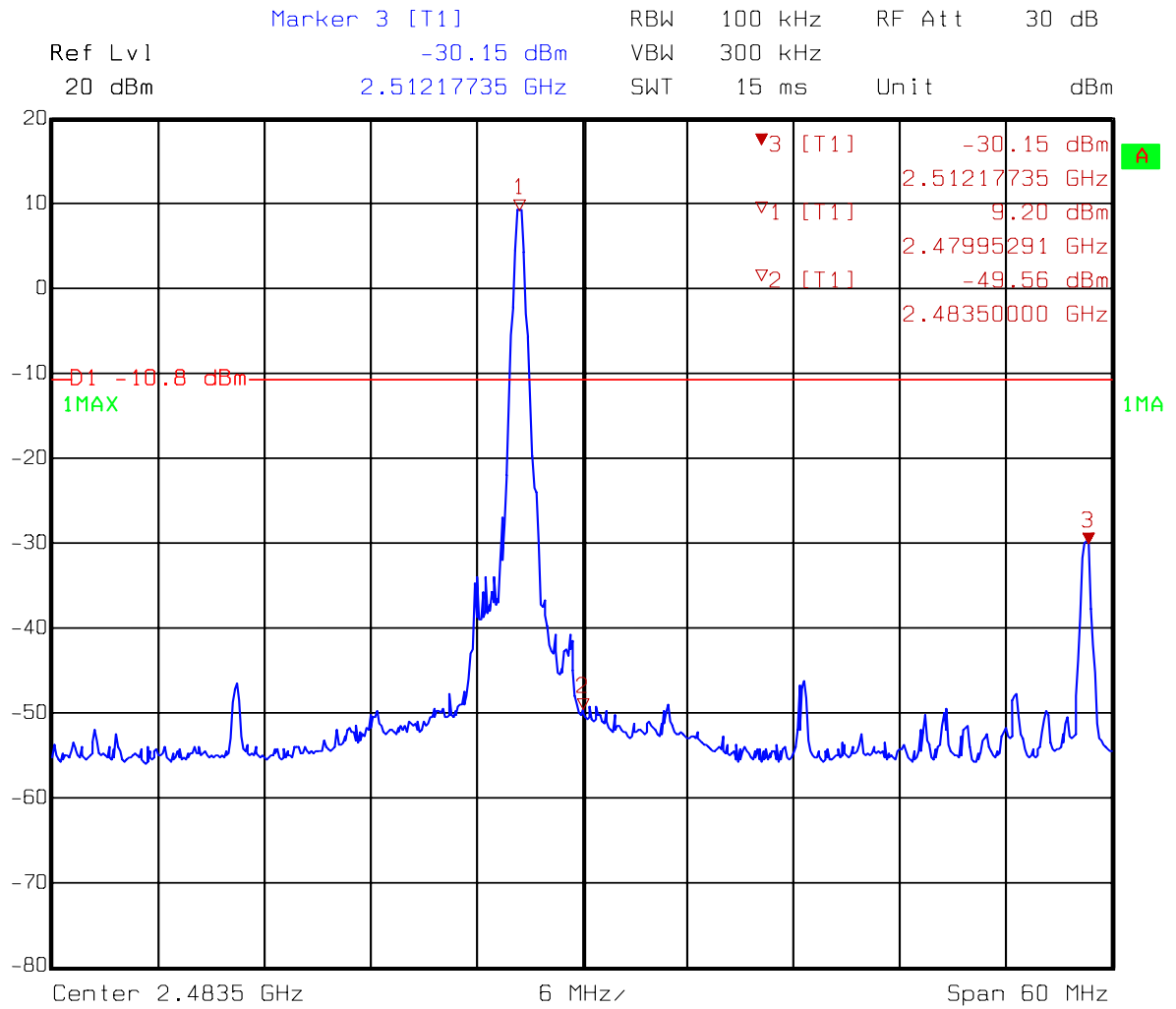
Please see the plot below.



## 10.1 Band-edge (Conducted method)

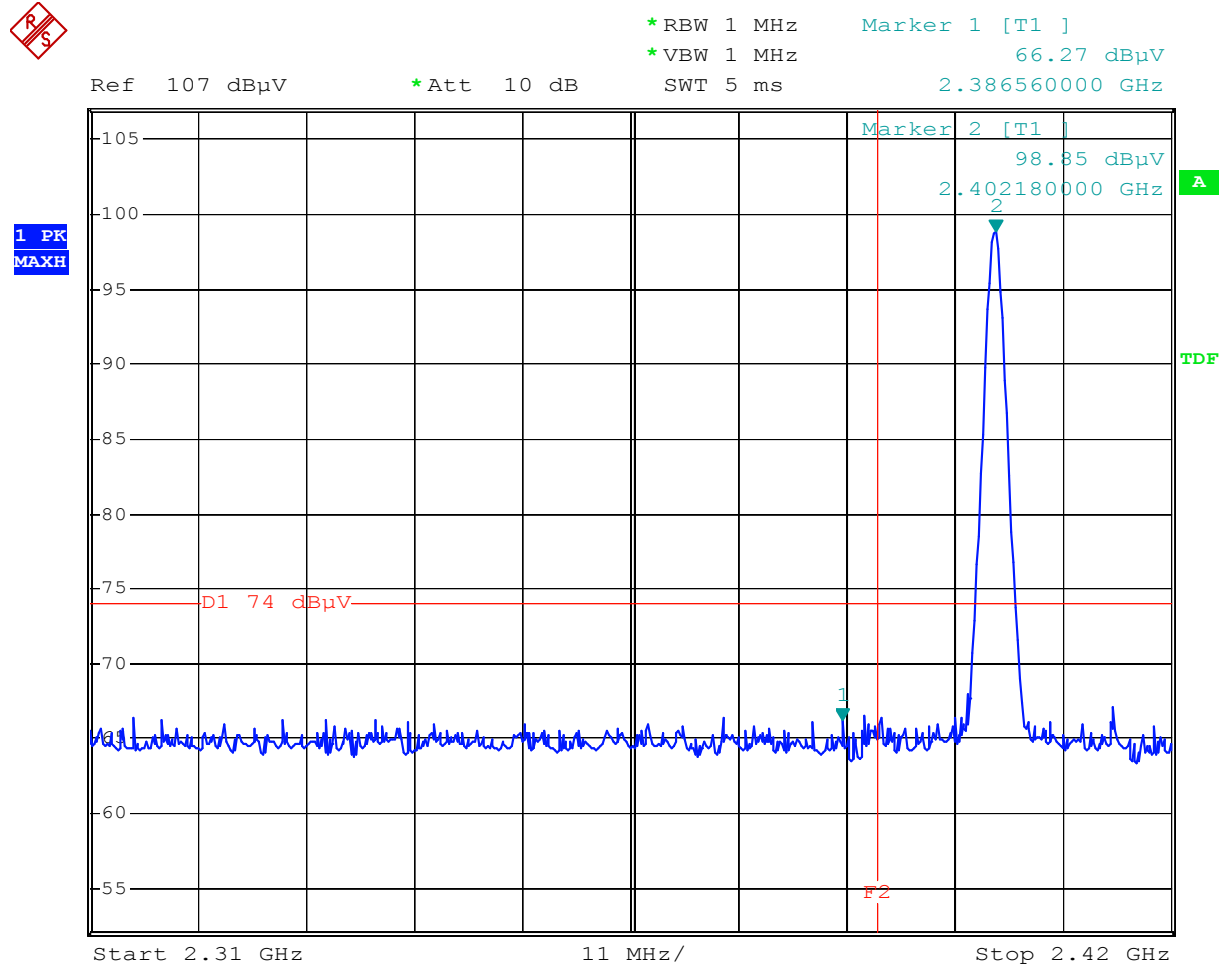


Comment A: Band-edge at low channel



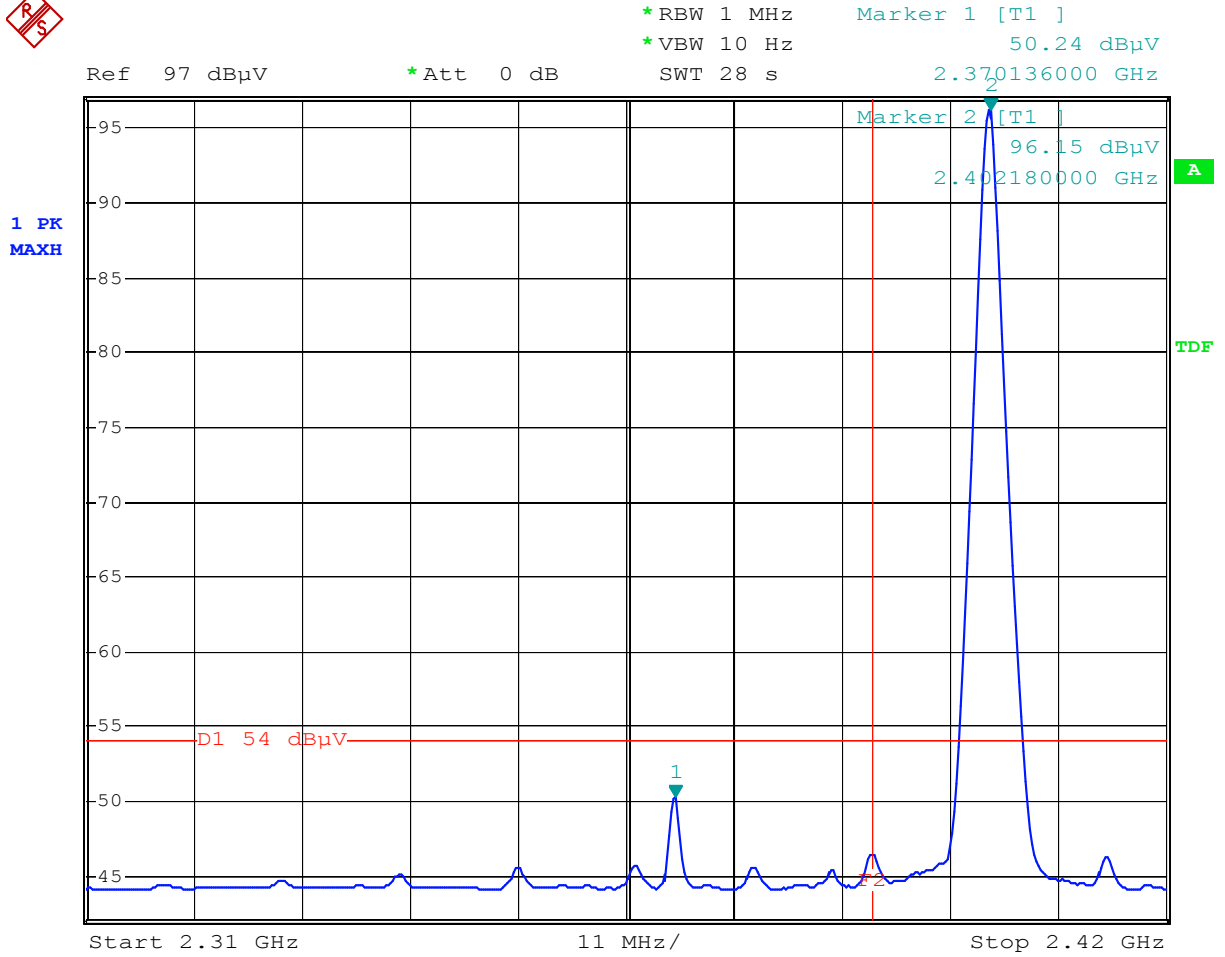
Comment A: Band-edge at high channel

## 10.2 Band-edge (Radiated method)

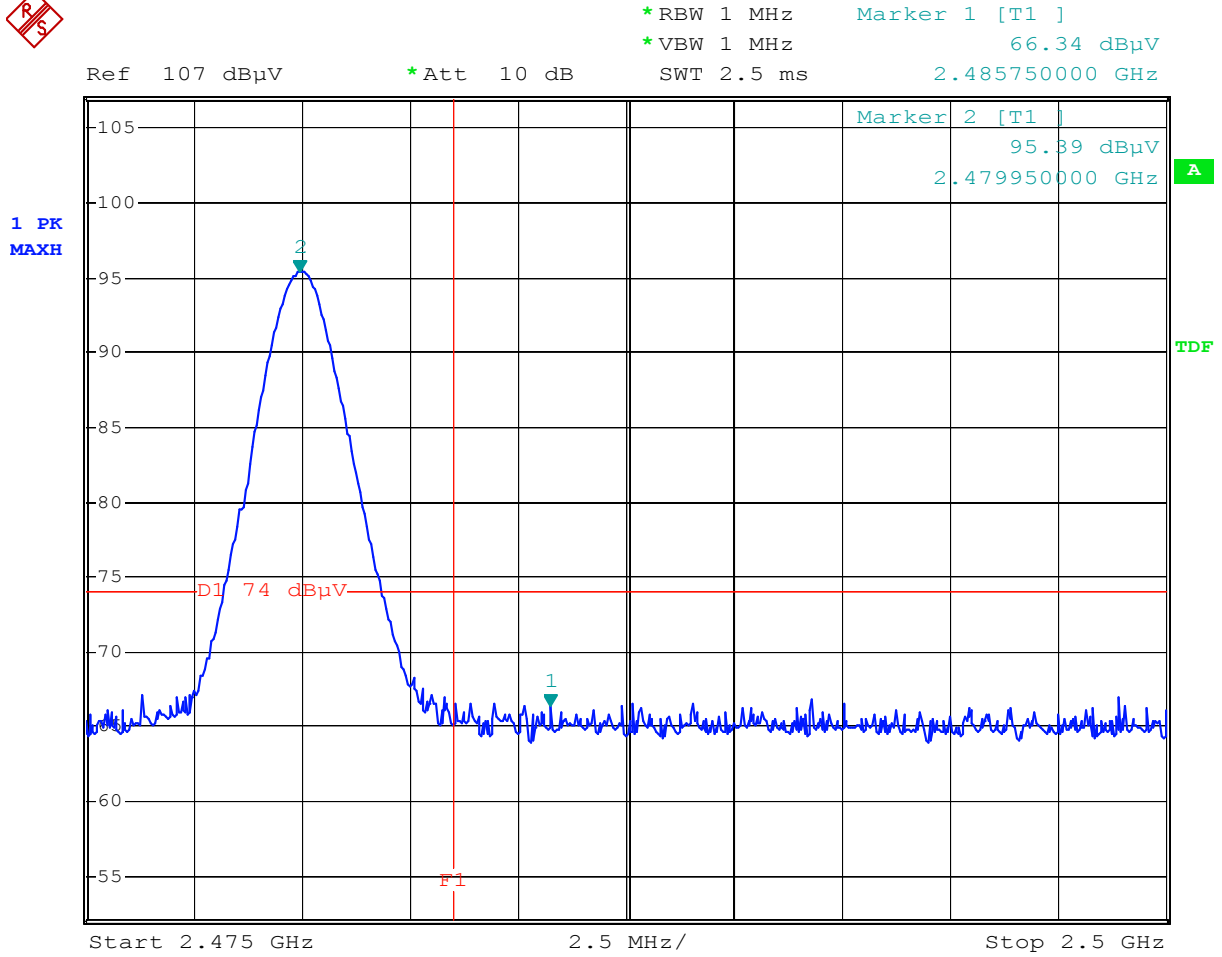


Comment: Band-edge test at low channel

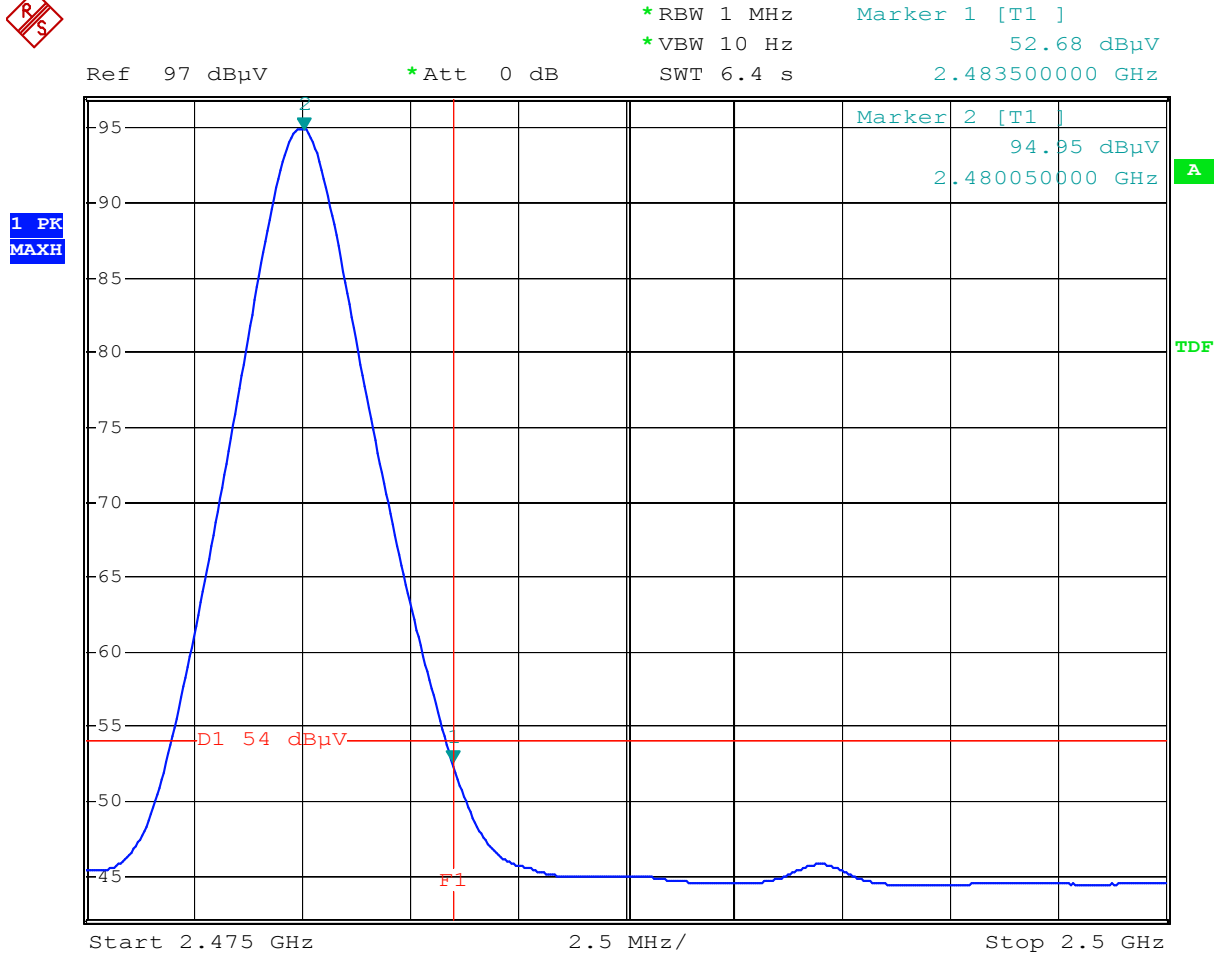
Comment: Peak detector F2=2390MHz



Comment: Band-edge test at low channel  
 Comment: Average detector F2=2390MHz



Comment: Band-edge test at high channel  
 Comment: Peak detector F1=2483.5MHz



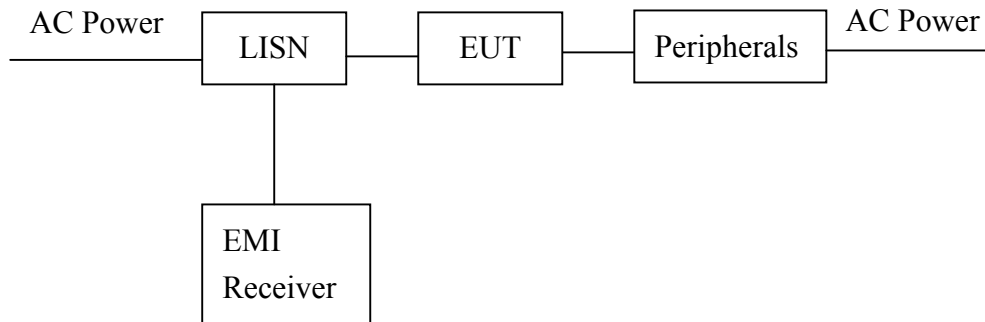
Comment: Band-edge test at high channel  
 Comment: Average detector F1=2483.5MHz

## 11. Power Line Conducted Emission test §FCC 15.207

### 11.1 Operating environment

Temperature:	25	°C
Relative Humidity:	60	%
Atmospheric Pressure	1023	hPa

### 11.2 Test setup & procedure



The EUT are connected to the main power through a line impedance stabilization network (LISN). This provides a 50 ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination.

Both sides (Line and Neutral) of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4/2003 on conducted measurement. The bandwidth of the field strength meter (R & S Test Receiver ESCS 30) is set at 9kHz.

The EUT configuration please refer to the “Conducted set-up photo.pdf”.

**11.3 Emission limit**

Freq. (MHz)	Conducted Limit (dBuV)	
	Q.P.	Ave.
0.15~0.50	66 – 56*	56 – 46*
0.50~5.00	56	46
5.00~30.0	60	50

\*Decreases with the logarithm of the frequency.

**11.4 Uncertainty of Conducted Emission**

Expanded uncertainty (k=2) of conducted emission measurement is  $\pm 2.6$  dB.



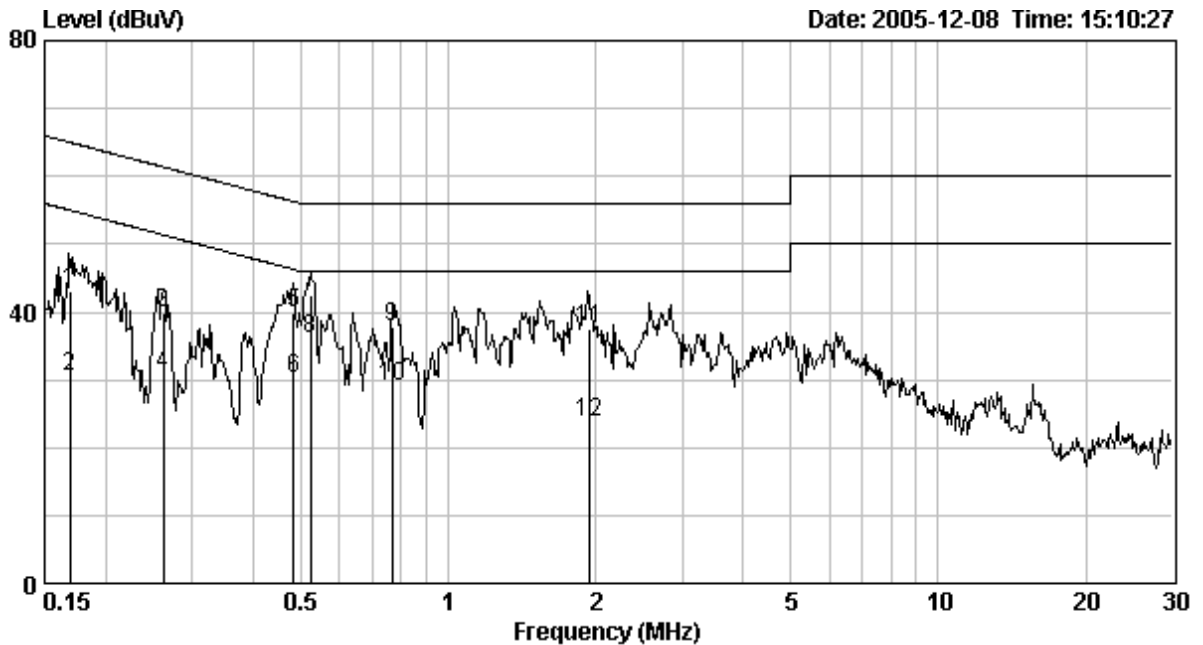
## 11.5 Power Line Conducted Emission test data

Phase : Line  
 EUT : 8550-00003  
 Test Condition : Normal operating mode

Frequency (MHz)	Corr. Factor (dB)	Level	Limit	Level	Limit	Margin (dB)	
		Qp (dBuV)	Qp (dBuV)	AV (dBuV)	Av (dBuV)	Qp	Av
0.169	0.10	43.00	65.01	30.41	55.01	-22.01	-24.60
0.262	0.10	39.92	61.37	30.79	51.37	-21.45	-20.58
0.484	0.10	39.72	56.27	30.16	46.27	-16.55	-16.11
0.524	0.10	42.56	56.00	36.10	46.00	-13.44	-9.90
0.768	0.10	37.73	56.00	28.99	46.00	-18.27	-17.01
1.936	0.10	37.43	56.00	23.59	46.00	-18.57	-22.41

Remark:

1. Correction Factor (dB)= LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Level (dBuV) – Limit (dBuV)



Phase : Neutral  
 EUT : 8550-00003  
 Test Condition : Normal operating mode

Frequency (MHz)	Corr. Factor (dB)	Level	Limit	Level	Limit	Margin (dB)	
		Qp (dBuV)	Qp (dBuV)	AV (dBuV)	Av (dBuV)	Qp	Av
0.176	0.10	43.18	64.68	30.91	54.68	-21.50	-23.77
0.258	0.10	37.30	61.50	28.42	51.50	-24.20	-23.08
0.524	0.10	43.63	56.00	37.40	46.00	-12.37	-8.60
0.774	0.10	38.95	56.00	29.64	46.00	-17.05	-16.36
1.936	0.10	39.77	56.00	27.18	46.00	-16.23	-18.82
2.861	0.14	36.14	56.00	28.68	46.00	-19.86	-17.32

**Remark:**

1. Correction Factor (dB)= LISN Factor (dB) + Cable Loss (dB)
2. Margin (dB) = Level (dBuV) – Limit (dBuV)

