STU Standard Technology Union Co., Ltd.

No.202,Building A,Yushu Industrial Park,Science City, GuangZhou,Guangdong,China

Telephone: +86 (0) 20 82019555
Fax: +86 (0) 20 82019556
Email: Marketing@stu-lab.com
Website: www.stu-lab.com

FCC ID TEST REPORT

Application No.:	STUGZEMO111013539RF1
Applicant:	South Surveying & Mapping Instrument Co., Ltd
Address	F1, No.52, Jian Zhong Rd, Tian He Software Park, Zhong Shan Avenue West, Guangzhou, China
Equipment Under Test (EUT):	
EUT Name:	GNSS RECEIVER
Trade Mark:	SOUTH
Model No.:	S82-V
Serial No.:	Not supplied by client
FCC ID:	Z9PS82-V
Standards:	FCC PART 15C
Date of Receipt:	Nov.16, 2011
Date of Test:	Nov.16, 2011
Test Result :	**PASS***

Tested By: David Li / Test Engineer.....David Li.....

Reviewed By: Jimmy Yao / EMC Manager.....Jimmy Yao.....

VERIFICATION OF COMPLIANCE

Applicant:	South Surveying & Mapping Instrument Co., Ltd
Applicant Address:	F1, No.52, Jian Zhong Rd, Tian He Software Park, Zhong Shan Avenue West, Guangzhou, China
Manufacture:	South Surveying & Mapping Instrument Co., Ltd
Manufacture Address:	F1, No.52, Jian Zhong Rd, Tian He Software Park, Zhong Shan Avenue West, Guangzhou, China
EUT Name:	GNSS RECEIVER
Trade Mark:	SOUTH
Model No.:	S82-V
FCC ID:	Z9PS82-V
Report Number:	STUGZEMO111013539RF1
Date of Test:	Nov.05, 2011 to Nov.16, 2011

WE HEREBY CERTIFY THAT:

The above equipment was tested by STU Standard Technology Union Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2003) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rules Part 15.247.

TABLE OF CONTENTS

1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

The EUT's name is Zenith, which is a short range, lower power equipment. It is designed by way of utilizing the FHSS technology to achieve the system operation.

A major technical description of EUT is described as following

Operation Frequency:	2402 MHz to 2480 MHz
Output Power:	-6 dBm~4dBm
Modulation Type:	GFSK
Number of channels:	79
Antenna Designation:	Intergral Antenna
Channel Separation:	1MHz
Power Supply:	7.2-7.4VDC

1.2 TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
2400~2483.5MHZ	0	2402MHZ
	1	2403MHZ
	:	:
	38	2440 MHZ
	39	2441 MHZ
	40	2442 MHZ
	:	:
	77	2479 MHZ
	78	2480 MHZ

1.3 RECEIVER INPUT BANDWIDTH

The input bandwidth of the receiver is 1MHZ,In every connection one Bluetooth device is the master and the other one is slave. The master determines the hopping sequence. The slave follows this sequence. Both devices shift between RX and TX time slot according to the clock of the master. Additionally the type of connection(e.g. single of multislot packet) is set up at the beginning of the connection. The master adapts its hopping frequency and its TX/RX timing according to the packet type of the connection. Also the slave of the connection will use these settings.
Repeating of a packet has no influence on the hopping sequence. The hopping sequence generated by the master of the connection will be followed in any case. That means, a repeated packet will not be send on the same frequency, it is send on the next frequency of the hopping sequence.

1.4 EXAMPLE OF A HOPPING SEQUENCY IN DATA MODE

Example of a 79 hopping sequence in data mode:
40,21,44,23,42,53,46,55,48,33,52,35,50,65,54,67,56,37,60,39,58,69,62,71,64,25,68,27,66,57,70,59
72,29,76,31,74,61,78,63,01,41,05,43,03,73,07,75,09,45,13,47,11,77,15,00,64,49,66,53,68,02,70,06
01,51,03,55,05,04

1.5 EQUALLY AVERAGE USE OF FREQUENCIES AND BEHAVIOUR

The generation of the hopping sequence in connection mode depends essentially on two input values:
1 LAP/UAP of the master of the connection
2 Internal master clock
The LAP(lower address part) are the 24 LSB's of the 48 BD_ADDRESS. The BD_ADDRESS is an unambiguous number of every Bluetooth unit. The UAP(upper address part) are the 24MSB's of the 48BD_ADDRESS
The internal clock of a Bluetooth unit is derived from a free running clock which is never adjusted and Is never turned off. For synchronisation with other units only offset are used. It has no relation to the time Of the day. Its resolution is at least half the RX/TX slot length of 312.5us.The clock has a cycle of about One day(23h30).In most case it is implemented as 28 bit counter. For the deriving of the hopping sequence the entire.
LAP(24 bits),4LSB's(4bits)(Input 1) and the 27MSB's of the clock(Input 2) are used. With this input values different mathematical procedures(permutations, additions, XOR-operations)are performed to generate te Sequence. This will be done at the beginning of every new transmission.
Regarding short transmissions the Bluetooth system has the following behaviour:
The first connection between the two devices is established, a hopping sequence was generated. For Transmitting the wanted data the complete hopping sequence was not used. The connection ended.
The second connection will be established. A new hopping sequence is generated. Due to the fact the Bluetooth clock has a different value, because the period between the two transmission is longer(and it Cannot be shorter)than the minimum resolution of the clock(312.5us).The hopping sequence will always Differ from the first one.

1.6 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID: Z9PS82-V** filing to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

1.7 TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (2003). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.8 TEST FACILITY

All measurement facilities used to collect the measurement data are located at
Guangdong Electronic & Electrical Products Inspection and Supervision Institute（CGEL）
45 Cunnan Street, Shayongnan, Sanyuanli District, Guangzhou, Guangdong, China
The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 2003.
FCC register No.: 597719

1.9 SPECIAL ACCESSORIES

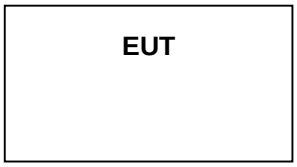
Not available for this EUT intended for grant.

1.10 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

2. SYSTEM TEST CONFIGURATION

2.1 CONFIGURATION OF TESTED SYSTEM



2.2 EQUIPMENT USED IN TESTED SYSTEM

Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID
1	GNSS RECEIVER	SOUTH	S82-V	Z9PS82-V

3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.247	Maximum Output Power	Compliant
§15.247	20 dB Bandwidth	Compliant
§15.247	Band Edges	Compliant
§15.247	Spurious Emission	Compliant
§15.247	Frequency Separation	Compliant
§15.247	Number of Hopping Frequency	Compliant
§15.247	Time of Occupancy	Compliant

4. DESCRIPTION OF TEST MODES

1. The EUT has been set to operate continuously on the lowest, middle and highest operation frequency individually.
2. The EUT stays in continuous transmitting mode on the operation frequency being set.

5. MAXIMUM OUTPUT POWER

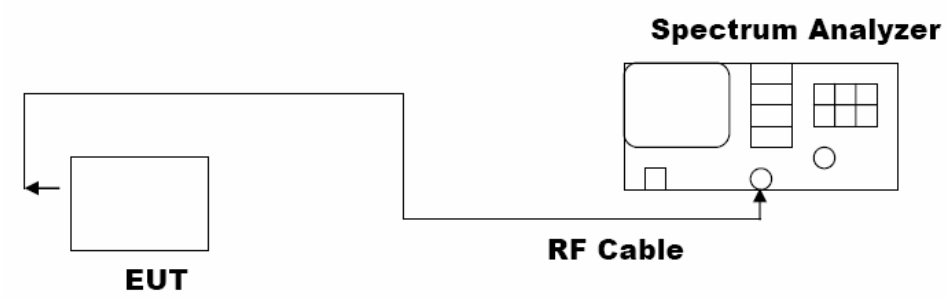
5.1 MEASUREMENT PROCEDURE

CONDUCTED METHOD
1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
4. Set SPA Centre Frequency = Operation Frequency, RBW= 3 MHz,
   VBW= 3 MHz.
5. Set SPA Trace 1 Max hold, then View.

RADIATED METHOD
According to ANSI C63.4:2003

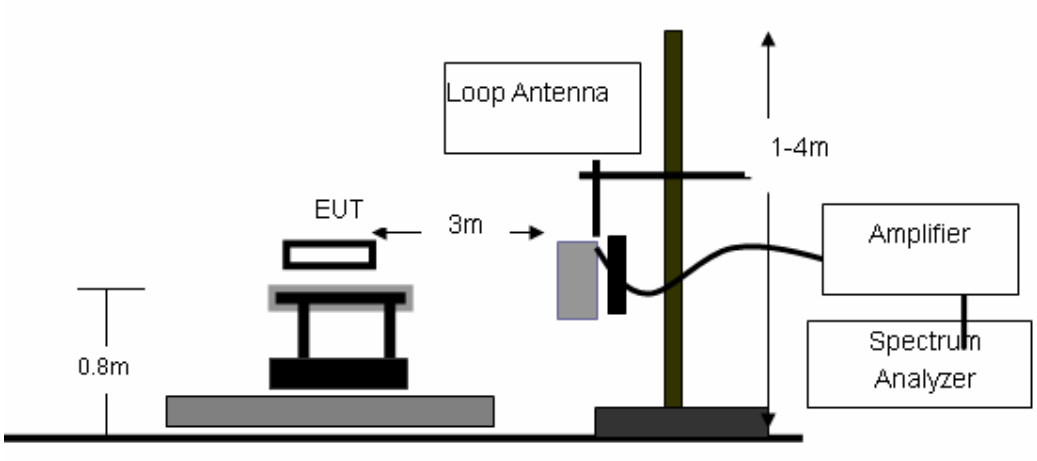
5.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

CONDUCTED METHOD

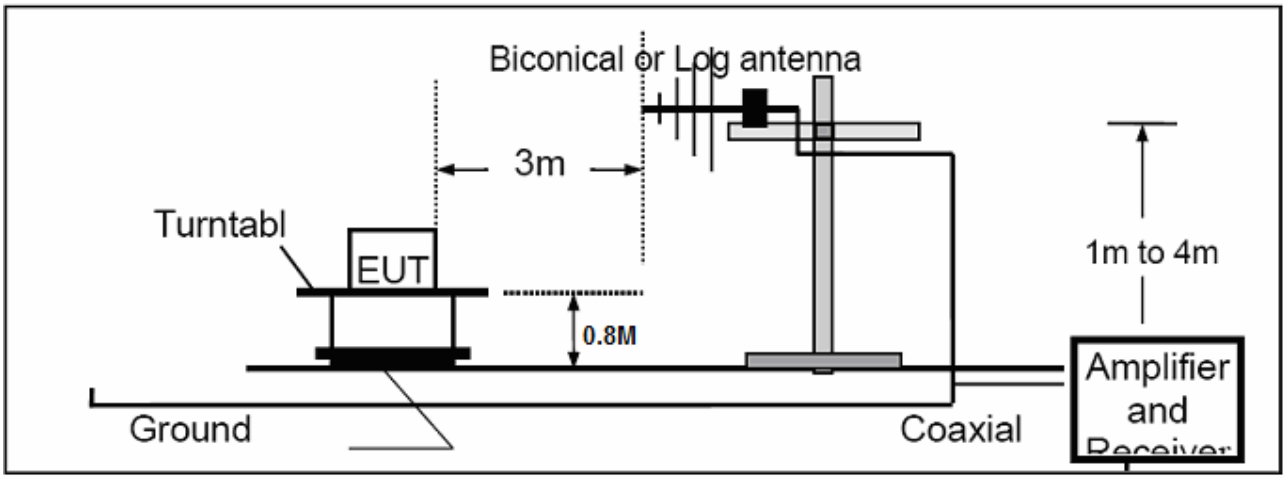


RADIATED EMISSION TEST SETUP

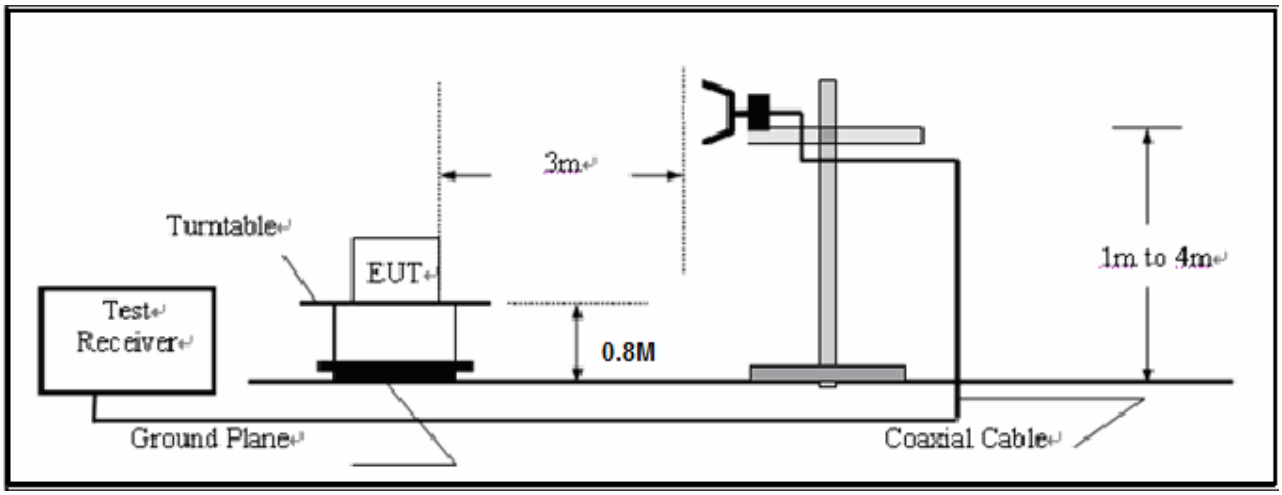
RADIATED EMISSION TEST SETUP BELOW 30MHz



RADIATED MISSION TEST SETUP 30MHz-1000MHz

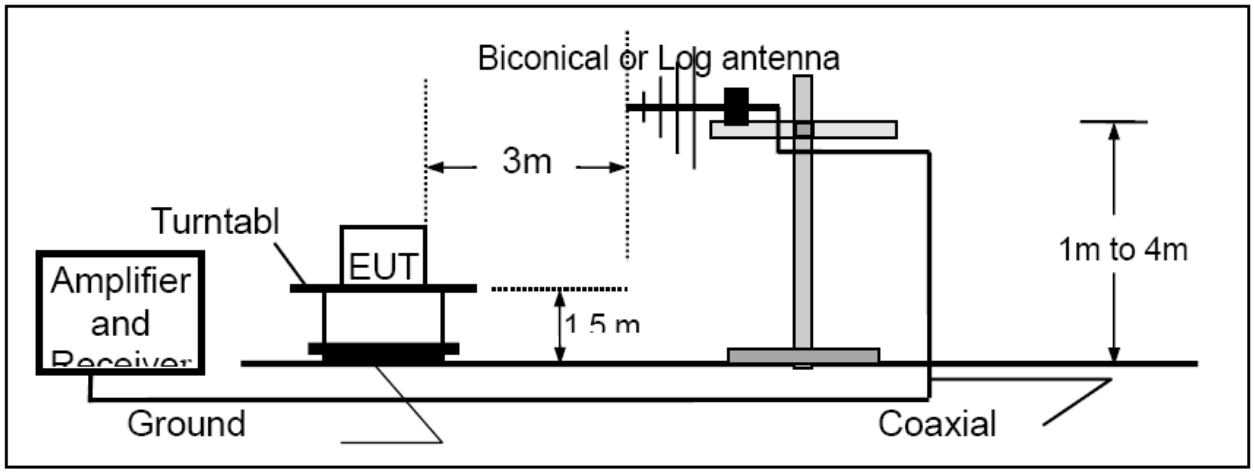


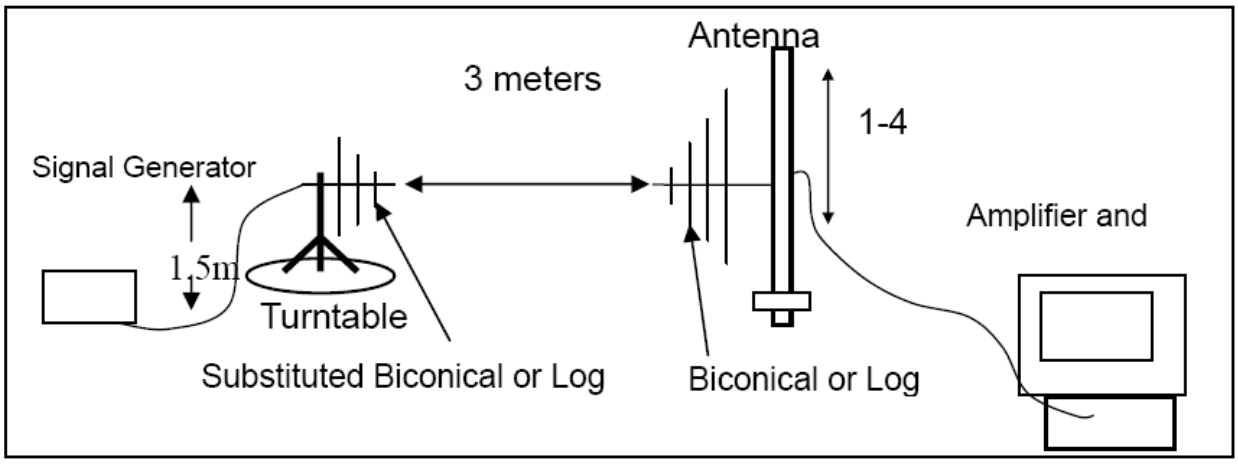
RADIATED MISSION TEST SETUP ABOVE 1000MHz



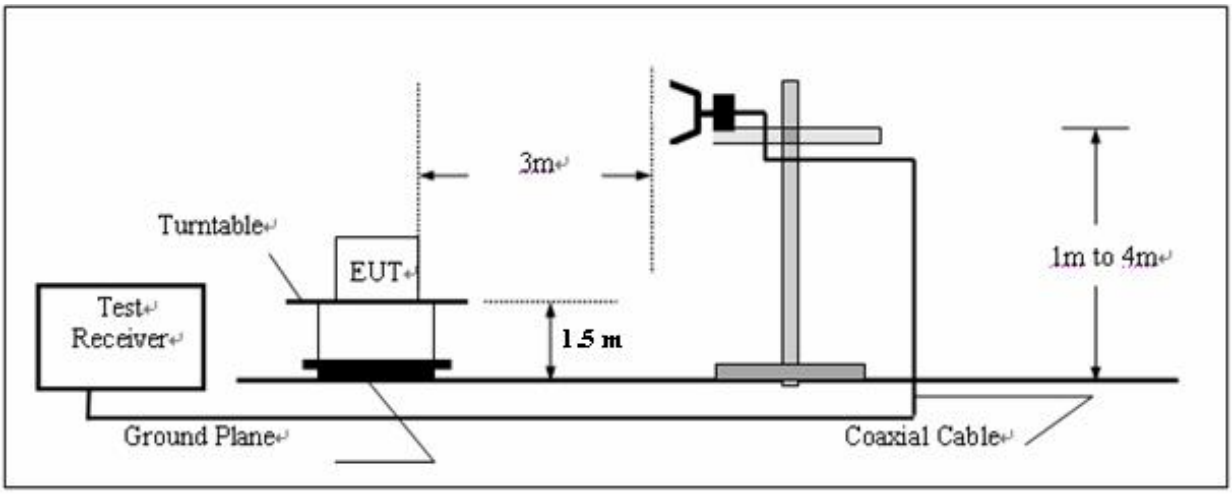
EIRP TEST SETUP

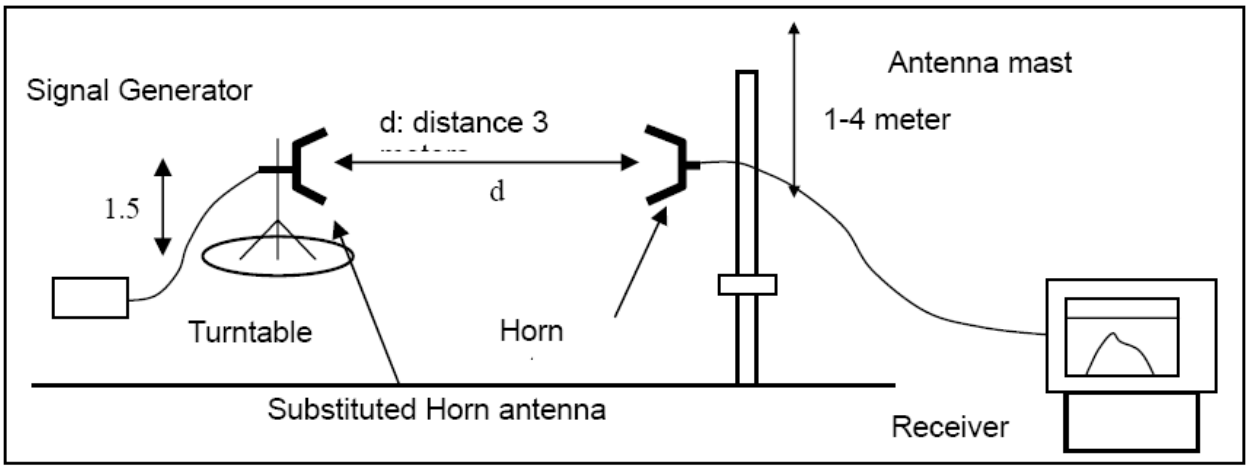
TEST SETUP BELOW 1GHZ





TEST SETUP ABOVE 1GHZ





5.3 MEASUREMENT EQUIPMENT USED

Description	Manufacturer	Model	SERIAL NUMBER	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4440A	N/A	06/29/2011	06/28/2012
Amplifier	EM	EM30180	0607030	06/29/2011	06/28/2012
Horn Antenna	EM	EM-AH-10180	N/A	06/29/2011	06/28/2012
EMI Test Receiver	Rohde & Schwarz	ESCI	N/A	06/29/2011	06/28/2012
Amplifier	EM	EM30180	N/A	06/29/2011	06/28/2012
Bilogical Antenna	A.H. Systems Inc.	SAS-521-4	N/A	06/29/2011	06/28/2012
Loop Antenna	Daze	ZN30900N	SEL0097	06/29/2011	06/28/2012
Isolation Transformer	LETEAC	LTBK	--	06/29/2011	06/28/2012

5.4 LIMITS AND MEASUREMENT RESULT

Applicable Limits	Frequency	Measurement Result		
		EIRP (dBm)	Conducted (dBm)	Criteria
30 dBm	2.402GHz	0.12	0.15	PASS
30 dBm	2.441GHz	0.07	0.10	PASS
30 dBm	2.480GHz	0.11	0.08	PASS

6. 20 DB BANDWIDTH

6.1 MEASUREMENT PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz,
   VBW= 100 KHz.
4. Set SPA Trace 1 Max hold, then View.

6.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The Same as described in Section 5.2

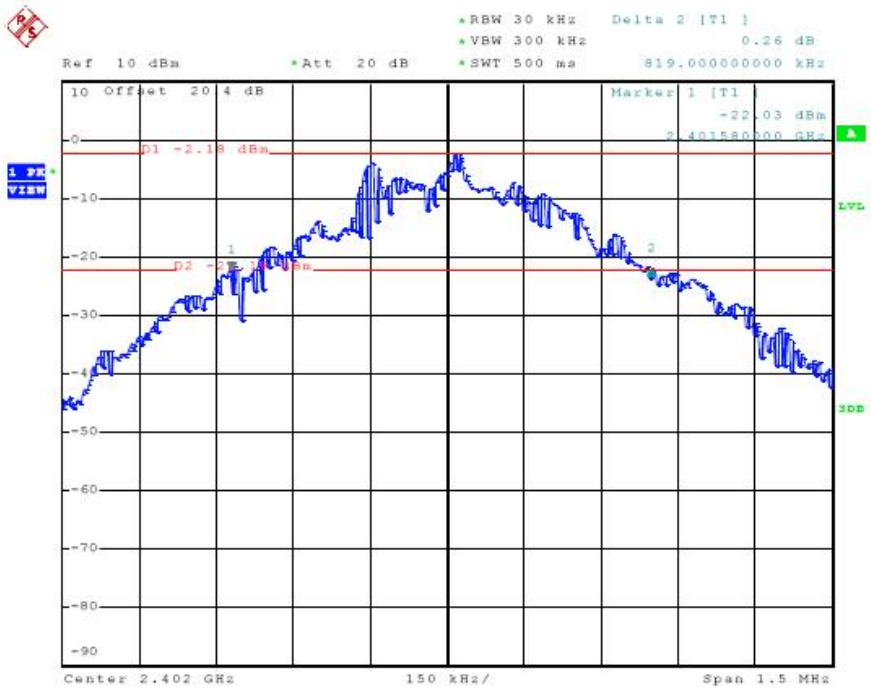
6.3 MEASUREMENT EQUIPMENT USED

The same as described in Section 5.3

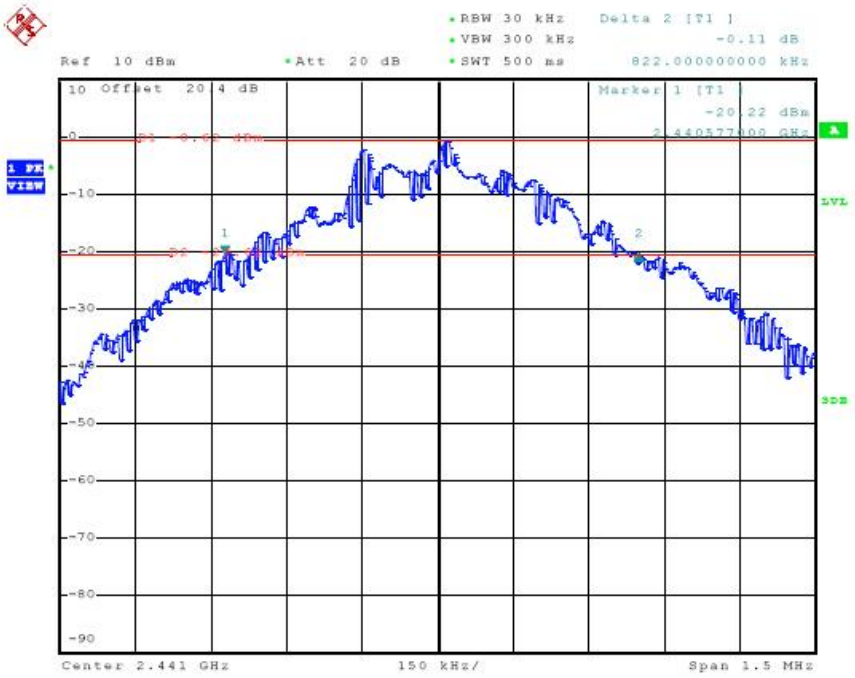
6.4 LIMITS AND MEASUREMENT RESULTS

Applicable Limits	Measurement Result		
	Test Data (MHz)		Criteria
--	Low Channel	0.819	PASS
	Middle Channel	0.822	PASS
	High Channel	0.834	PASS

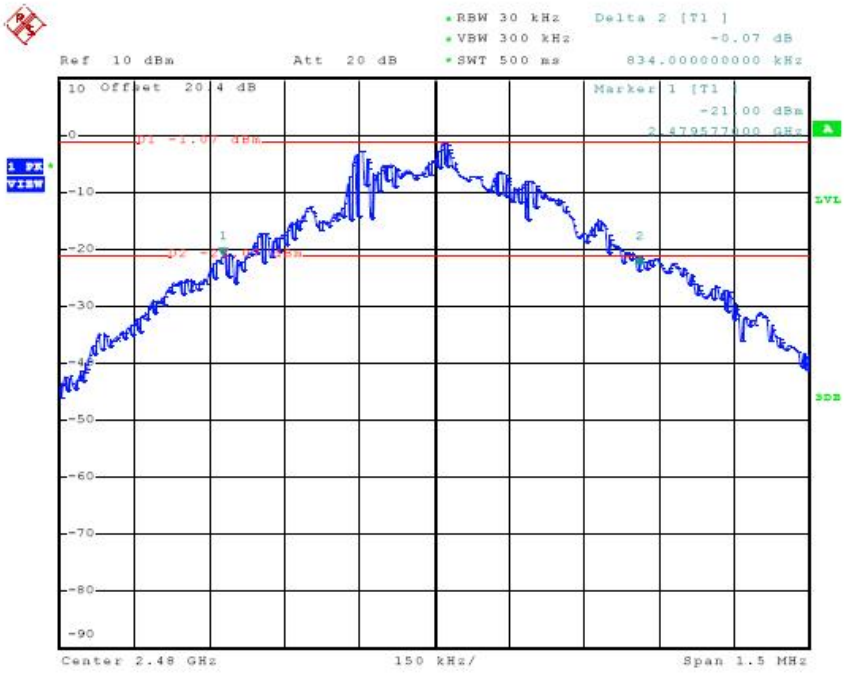
TEST PLOT OF BANDWIDTH FOR LOW CHANNEL



TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL

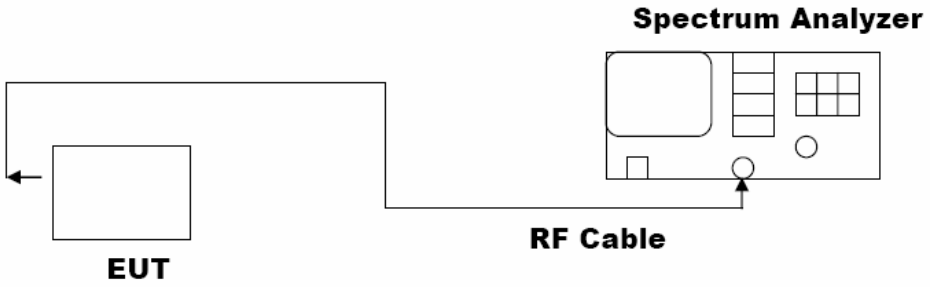


7. MAXIMUM CONDUCTED OUTPUT POWER SPECTRAL DENSITY (N/A)

7.1 MEASUREMENT PROCEDURE

(1). The EUT was placed on a turn table which is 0.8m above ground plane.
(2). Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
(3), Set the EUT Work on the top, the middle and the bottom operation frequency individually.
(4). Set SPA Centre Frequency = Operation Frequency, RBW= 3 KHz,
VBW= 10 KHz., Sweep time= Auto
(5). Set SPA Trace 1 Max hold, then View.

7.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)



7.3 MEASUREMENT EQUIPMENT USED

SHIELDING ROOM					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	Agilent	E4440A	N/A	06/29/2011	06/28/2012

7.4 LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT			
Applicable Limits	Measurement Result		
	Test Data (dBm/3KHz)		Criteria
8 dBm / 3KHz	Low Channel	--	--
	Middle Channel	--	--
	High Channel	--	--

8. OUT OF BAND EMISSION

8.1 MEASUREMENT PROCEDURE

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
3, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
3. Set SPA Centre Frequency = Operation Frequency, RBW= 100 KHz, VBW= 100 KHz.
4. Set SPA Trace 1 Max hold, then View.

8.2 TEST SET-UP (BLOCK DIAGRAM OF CONFIGURATION)

The Same as described in section 5.2

1. Conducted test setup
2. Radiated Emission test Setup below 1GHz and Above 1GHz

8.3 MEASUREMENT EQUIPMENT USED

The Same as described in section 5.3

8.4 LIMITS AND MEASUREMENT RESULT

LIMITS AND MEASUREMENT RESULT		
Applicable Limits	Measurement Result	
	Test Data	Criteria
In any 100 KHz Bandwidth Outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produce by the intentional radiator shall be at least 20 dB below that in 100KHz bandwidth within the band that contains the highest level of the desired power.	At least -20dBc than the limit Specified on the BOTTOM Channel	PASS
In addition, radiation 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))	At least -20dBc than the limit Specified on the TOP Channel	PASS

TEST RESULT OF RADIATED EMISSION TEST (9KHz ~30MHz)

Operation Mode: RF Mode

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS
--	--	--	--	PASS

Note:

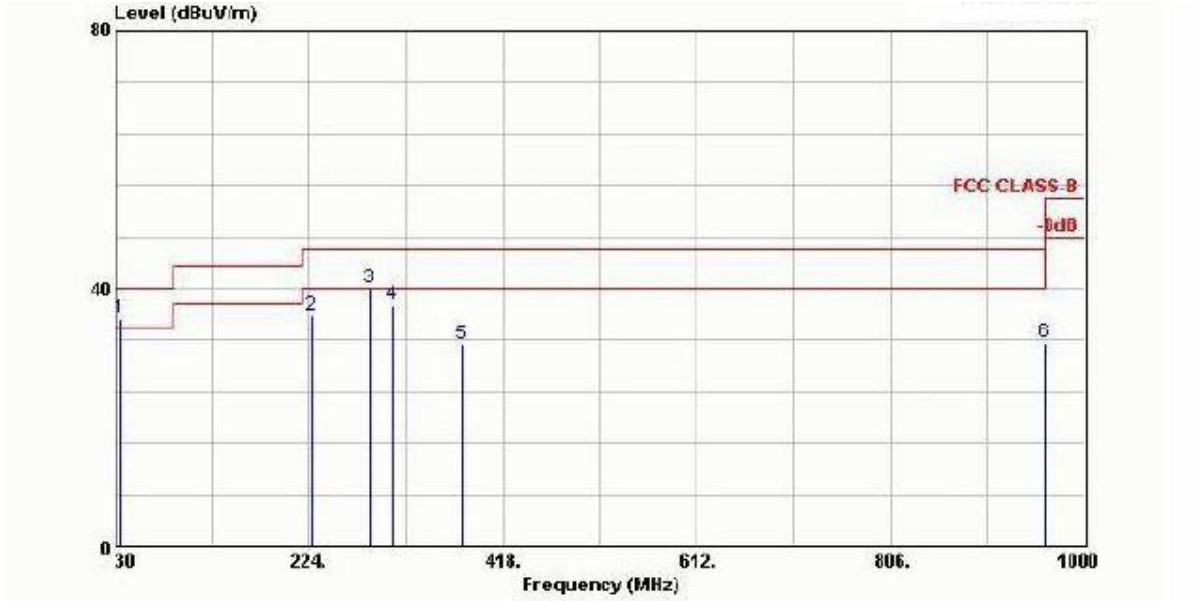
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = 20 log (specific distance / test distance) (dB);

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

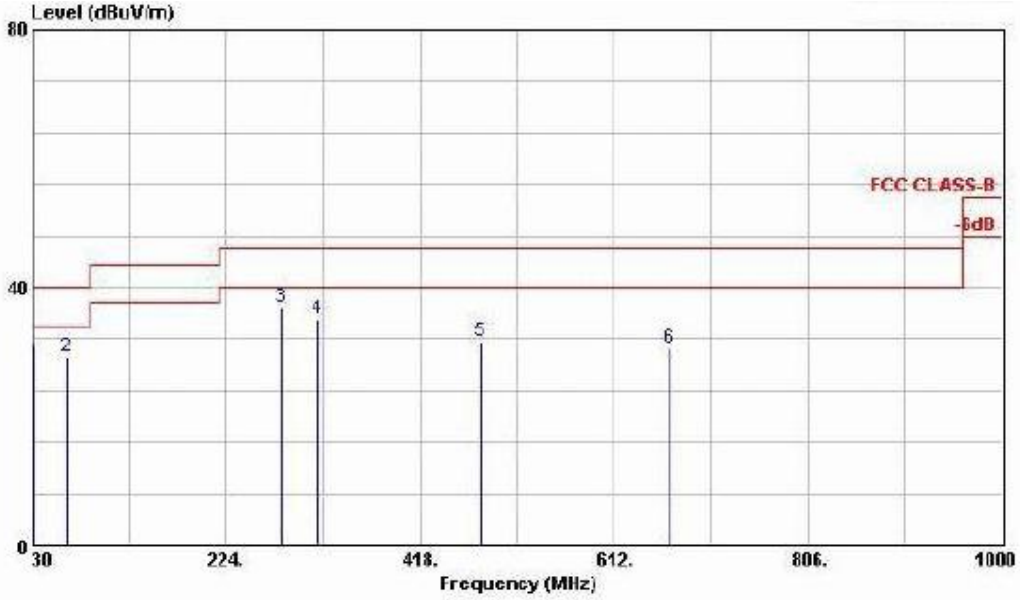
TEST RESULT OF RADIATED EMISSION TEST (30MHZ-1GHZ)

Horizontal:



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 !	35.130	35.39	-4.61	40.00	46.45	16.29	0.91	28.26	100	157	Peak
2	226.020	35.82	-10.18	46.00	50.88	10.72	1.97	27.75	---	---	Peak
3 !	284.340	40.06	-5.94	46.00	53.12	12.39	2.18	27.63	---	---	Peak
4	307.000	37.33	-8.67	46.00	50.14	12.58	2.26	27.65	---	---	Peak
5	377.000	31.24	-14.76	46.00	41.90	14.98	2.49	28.14	---	---	Peak
6	960.100	31.71	-22.29	54.00	31.37	25.04	3.99	28.68	---	---	Peak

Vertical:

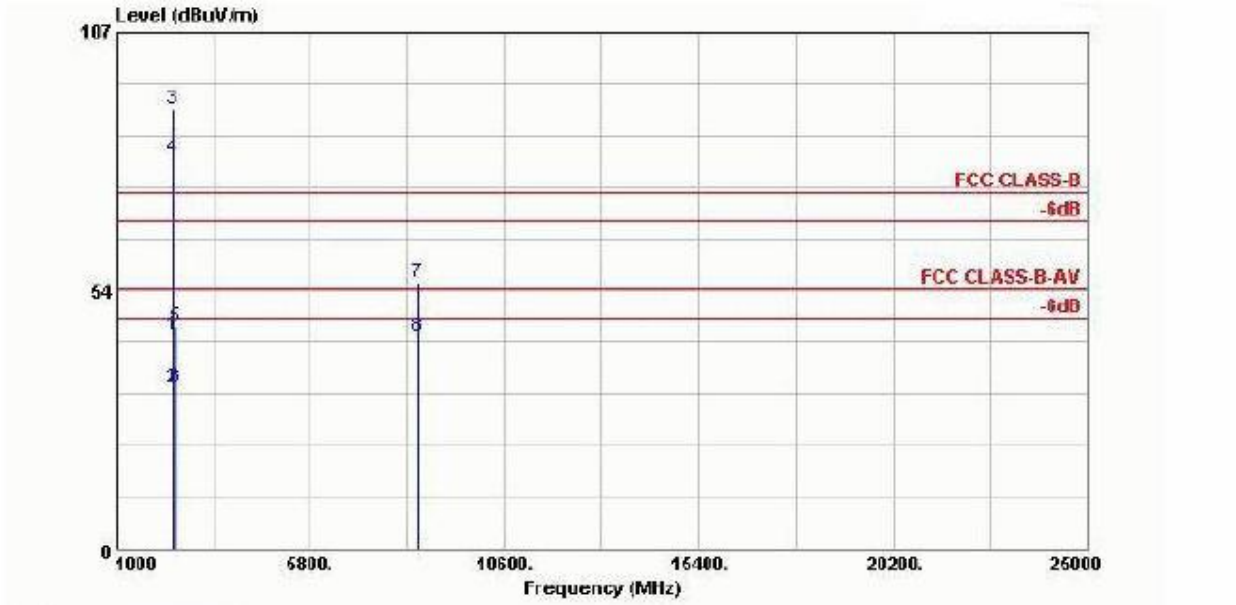


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.080	31.26	-8.74	40.00	42.27	16.36	0.88	28.25	100	58	Peak
2	64.020	29.21	-10.79	40.00	52.05	4.29	1.14	28.27	---	---	Peak
3	280.020	36.87	-9.13	46.00	49.93	12.41	2.17	27.64	---	---	Peak
4	315.400	34.97	-11.03	46.00	47.54	12.84	2.29	27.70	---	---	Peak
5	478.500	31.61	-14.39	46.00	41.03	16.65	2.77	28.85	---	---	Peak
6	668.200	30.63	-15.37	46.00	36.22	20.06	3.45	29.10	---	---	Peak

TEST RESULT OF RADIATED EMISSION TEST (1GHZ-10TH HARMONIC)

channel 00

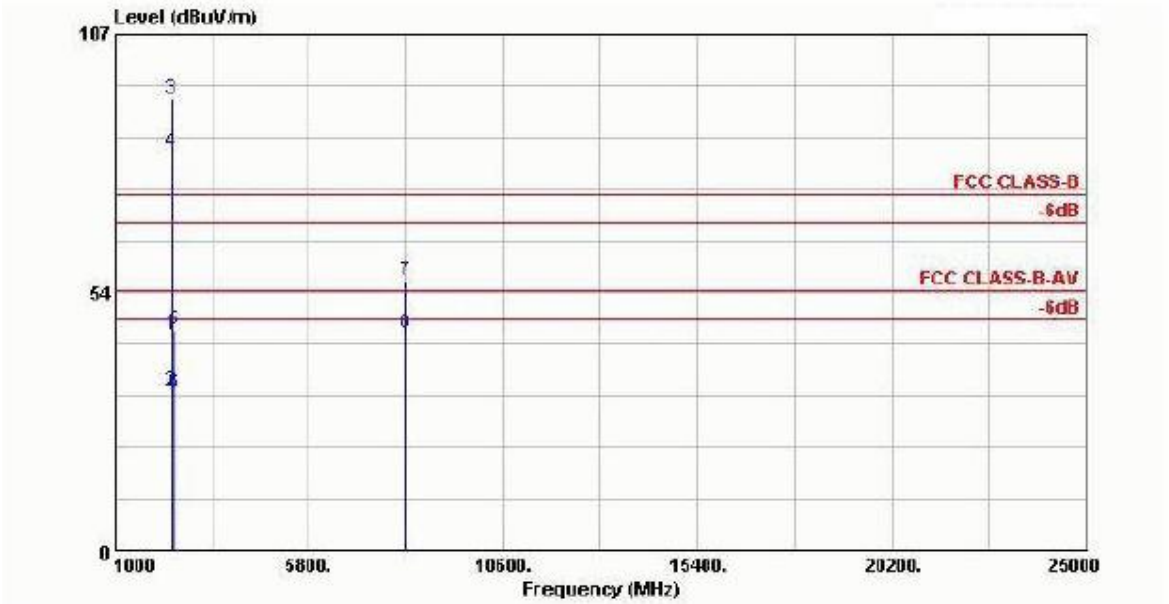
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.000	44.31	-29.69	74.00	41.81	32.54	3.74	33.78	100	0	Peak
2	2390.000	33.50	-20.50	54.00	31.00	32.54	3.74	33.78	100	312	Average
3 X	2402.000	91.23			88.73	32.54	3.74	33.78	100	0	Peak
4 X	2402.000	81.11			78.61	32.54	3.74	33.78	100	312	Average
5	2500.000	46.20	-27.80	74.00	43.56	32.60	3.84	33.80	100	0	Peak
6	2500.000	33.30	-20.70	54.00	30.66	32.60	3.84	33.80	100	312	Average
7	8469.000	55.38	-18.62	74.00	45.29	37.45	7.00	34.36	100	0	Peak
8	8469.000	44.10	-9.90	54.00	34.01	37.45	7.00	34.36	100	252	Average

Remark: #3 and #4 Fundamental Signal

Vertical:

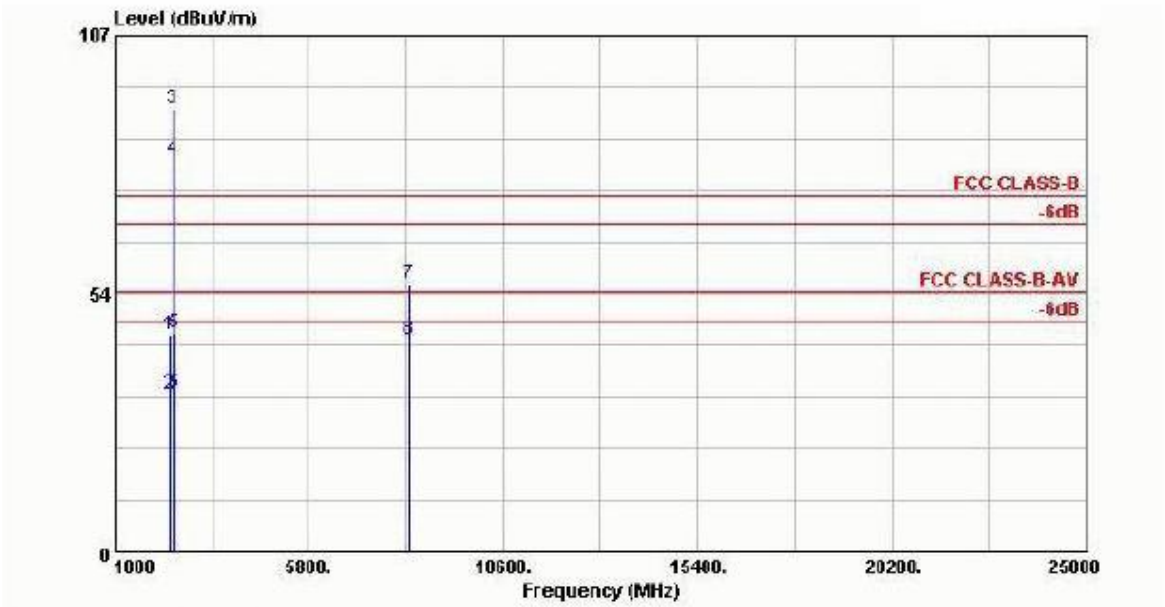


		Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
		MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1		2390.000	44.74	-29.26	74.00	42.24	32.54	3.74	33.78	100	0	Peak
2		2390.000	33.08	-20.92	54.00	30.58	32.54	3.74	33.78	131	247	Average
3	X	2402.000	93.47			90.97	32.54	3.74	33.78	100	0	Peak
4	@	2402.000	82.86			80.36	32.54	3.74	33.78	131	247	Average
5		2486.000	45.77	-28.23	74.00	43.13	32.60	3.84	33.80	100	0	Peak
6		2486.000	32.75	-21.25	54.00	30.11	32.60	3.84	33.80	131	247	Average
7		8214.000	55.93	-18.07	74.00	45.91	37.09	6.87	33.94	100	0	Peak
8		8214.000	45.12	-8.88	54.00	35.10	37.09	6.87	33.94	100	110	Average

Remark: #3 and #4 Fundamental Signal

channel 39

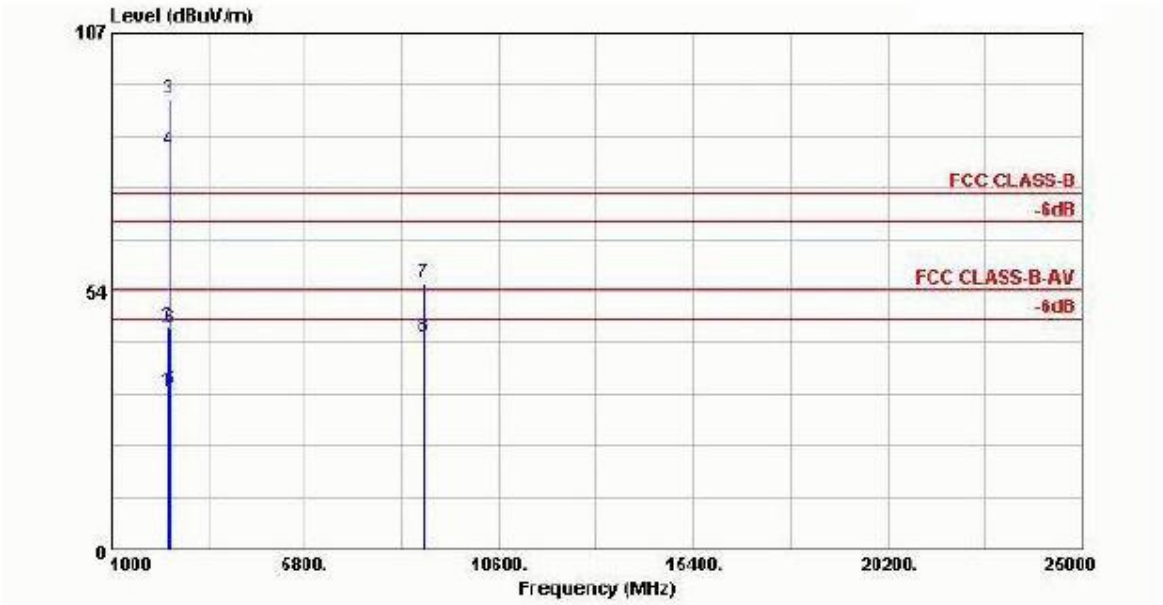
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2364.000	44.94	-29.06	74.00	42.48	32.52	3.71	33.77	100	0	Peak
2	2364.000	32.83	-21.17	54.00	30.37	32.52	3.71	33.77	100	180	Average
3 X	2441.000	91.83			89.26	32.57	3.79	33.79	100	0	Peak
4 X	2441.000	81.42			78.85	32.57	3.79	33.79	100	180	Average
5	2486.000	45.28	-28.72	74.00	42.65	32.59	3.84	33.80	100	0	Peak
6	2486.000	33.01	-20.99	54.00	30.38	32.59	3.84	33.80	100	180	Average
7	8298.000	55.66	-18.34	74.00	45.60	37.21	6.91	34.06	100	0	Peak
8	8298.000	44.12	-9.88	54.00	34.06	37.21	6.91	34.06	100	48	Average

Remark: #3 and #4 Fundamental Signal

Vertical

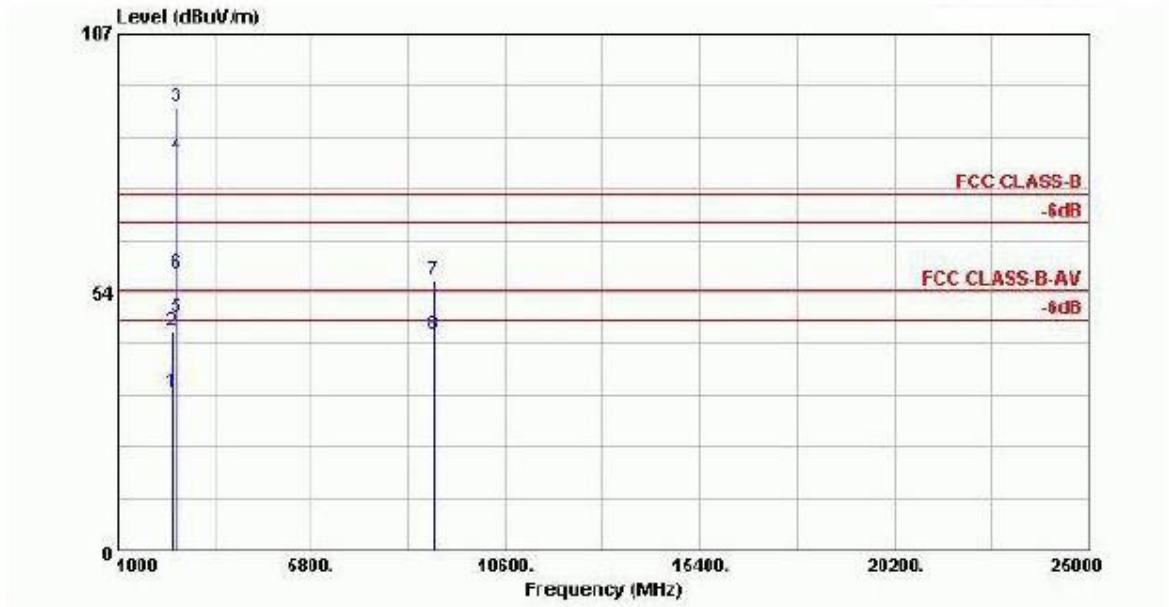


	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.000	32.87	-21.13	54.00	30.37	32.54	3.74	33.78	102	94	Average
2	2390.000	46.23	-27.77	74.00	43.73	32.54	3.74	33.78	100	0	Peak
3 X	2441.000	93.41			90.84	32.57	3.79	33.79	100	0	Peak
4 @	2441.000	82.58			80.01	32.57	3.79	33.79	102	94	Average
5	2492.000	32.95	-21.05	54.00	30.31	32.60	3.84	33.80	102	94	Average
6	2492.000	45.93	-28.07	74.00	43.29	32.60	3.84	33.80	100	0	Peak
7	8754.000	55.37	-18.63	74.00	45.02	37.80	7.15	34.60	100	0	Peak
8	8754.000	43.84	-10.16	54.00	33.49	37.80	7.15	34.60	100	247	Average

Remark: #3 and #4 Fundamental Signal

channel 78

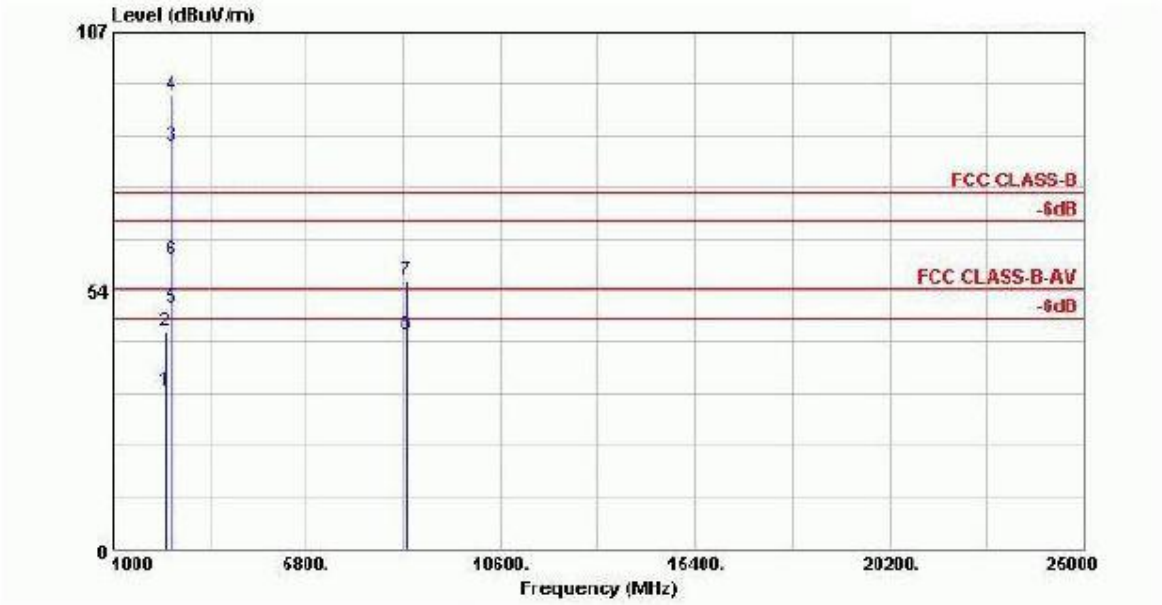
Horizontal



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2358.000	32.81	-21.19	54.00	30.35	32.52	3.71	33.77	144	186	Average
2	2358.000	45.33	-28.67	74.00	42.87	32.52	3.71	33.77	100	0	Peak
3 @	2480.000	91.87			89.24	32.59	3.84	33.80	100	0	Peak
4 @	2480.000	81.54			78.91	32.59	3.84	33.80	144	186	Average
5 @	2483.500	48.29	-5.71	54.00	45.66	32.59	3.84	33.80	144	186	Average
6	2483.500	57.51	-16.49	74.00	54.88	32.59	3.84	33.80	100	0	Peak
7	8817.000	55.99	-18.01	74.00	45.59	37.88	7.18	34.66	100	0	Peak
8	8817.000	44.58	-9.42	54.00	34.18	37.88	7.18	34.66	100	178	Average

Remark: #3 and #4 Fundamental Signal

Vertical



	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2326.000	32.80	-21.20	54.00	30.41	32.50	3.66	33.77	114	150	Average
2	2326.000	45.22	-28.78	74.00	42.83	32.50	3.66	33.77	100	0	Peak
3 @	2480.000	83.27			80.64	32.59	3.84	33.80	114	150	Average
4 @	2480.000	94.08			91.45	32.59	3.84	33.80	100	0	Peak
5 @	2483.500	50.14	-3.86	54.00	47.51	32.59	3.84	33.80	114	150	Average
6	2483.500	59.88	-14.12	74.00	57.25	32.59	3.84	33.80	100	0	Peak
7	8265.000	55.50	-18.50	74.00	45.46	37.16	6.90	34.02	100	0	Peak
8	8265.000	44.46	-9.54	54.00	34.42	37.16	6.90	34.02	100	154	Average

Remark: #3 and #4 Fundamental Signal

9. BAND EDGE EMISSION

9.1 MEASUREMENT PROCEDURE

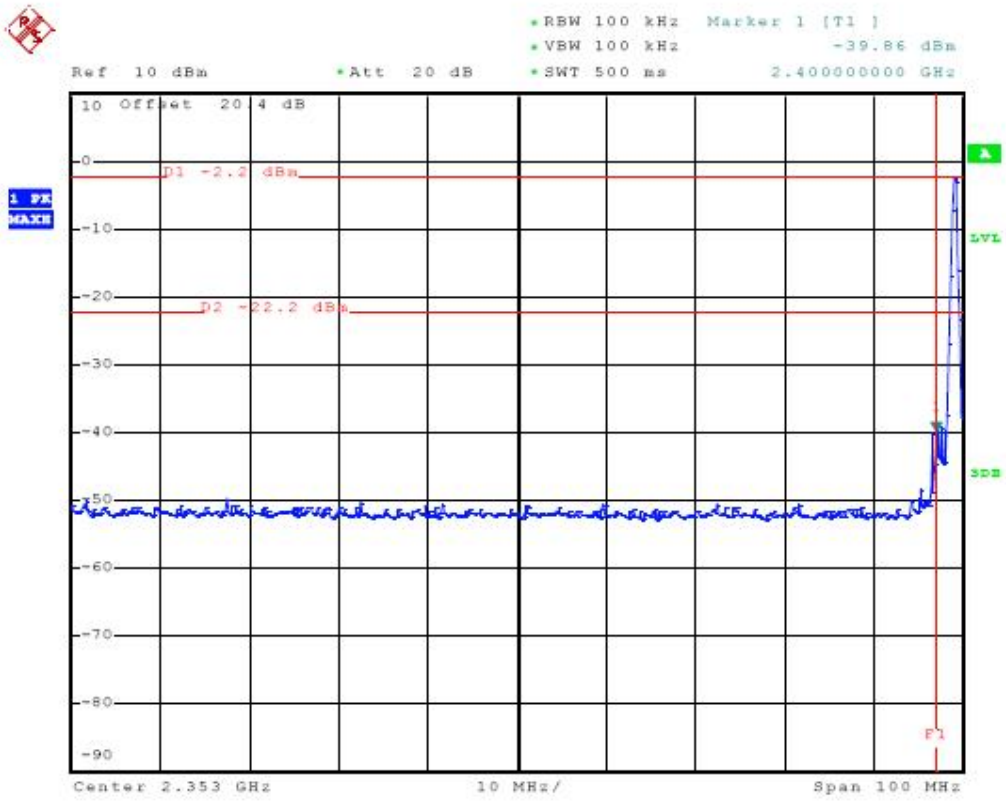
1, Set the EUT Work on the top, the bottom operation frequency individually.
2. Set SPA Start or Stop Frequency = Operation Frequency, RBW= 1MHz, VBW= 1MHz.
3. The band edges was measured and recorded.

9.2 TEST SET-UP

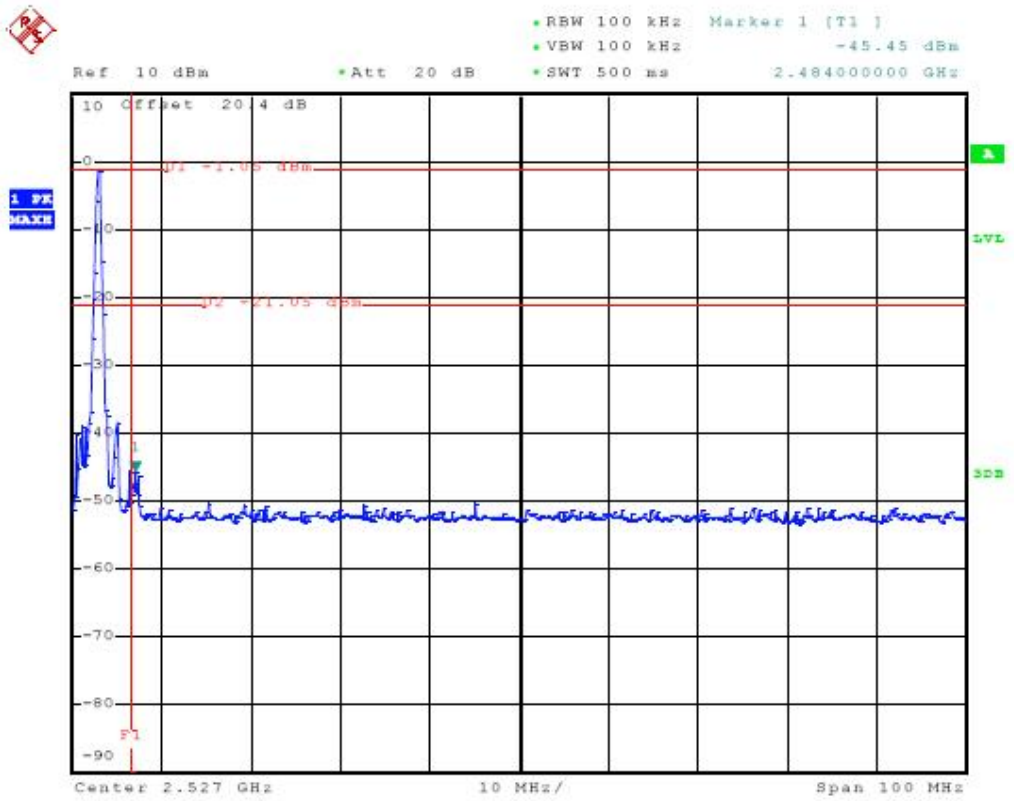
The Same as described in section 5.2

9.3 TEST RESULT

TEST PLOT OF BAND ELDG FOR BOTTOM CHANNEL



TEST PLOT OF BAND ELDG FOR TOP CHANNEL



10. NUMBER OF HOPPING FREQUENCY

10.1 MEASUREMENT PROCEDURE

1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer Start = 2.4GHz Stop = 2.4835GHz
4. Set the Spectrum Analyzer as RBW = 100KHZ

10.2 TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)

Same as described in section 5.2
1. Conducted Method.

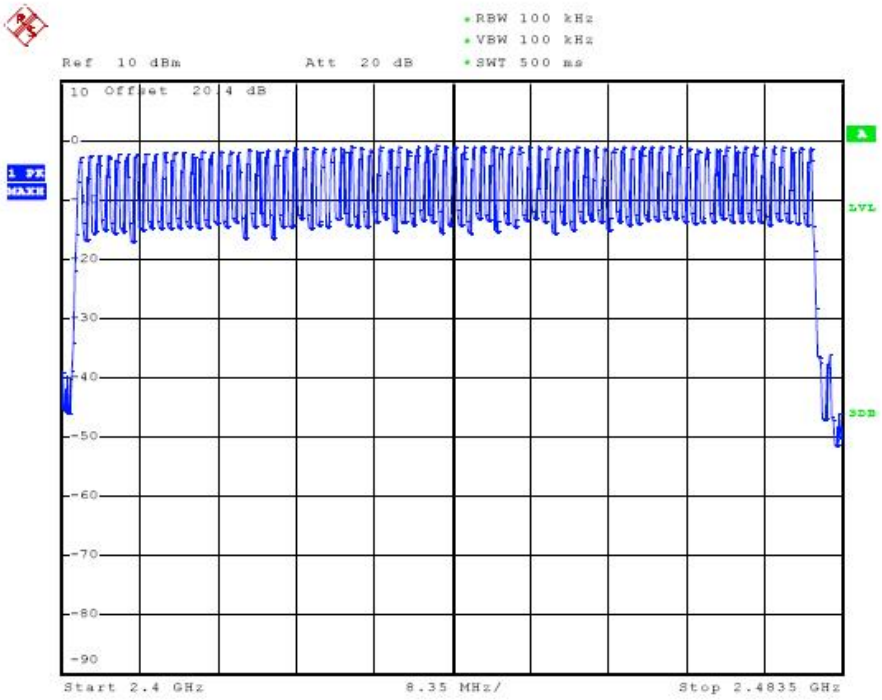
10.3 MEASUREMENT EQUIPMENT USED

The Same as described in section 5.3

10.4 LIMITS AND MEASUREMENT RESULT

TOTAL NO. OF HOPPING CHANNEL	LIMIT (NO. OF CH)	MEASUREMENT (NO. OF CH)	RESULT
	>=15	79	PASS

NUMBER OF HOPPING CHANNEL PLOT ON CHANNEL 0~78



11. TIME OF OCCUPANCY (DWELL TIME)

11.1 MEASUREMENT PROCEDURE

1. Place the EUT on the table and set it in transmitting mode
2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer
3. Set center frequency of spectrum analyzer = Operating frequency
4. Set the spectrum analyzer as RBW, VBW=1MHz, Span = 0 Hz,

11.2 TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)

Same as described in section 5.2
Conducted Method

11.3 MEASUREMENT EQUIPMENT USED

The same as described in section 5.3

11.4 LIMITS AND MEASUREMENT RESULT

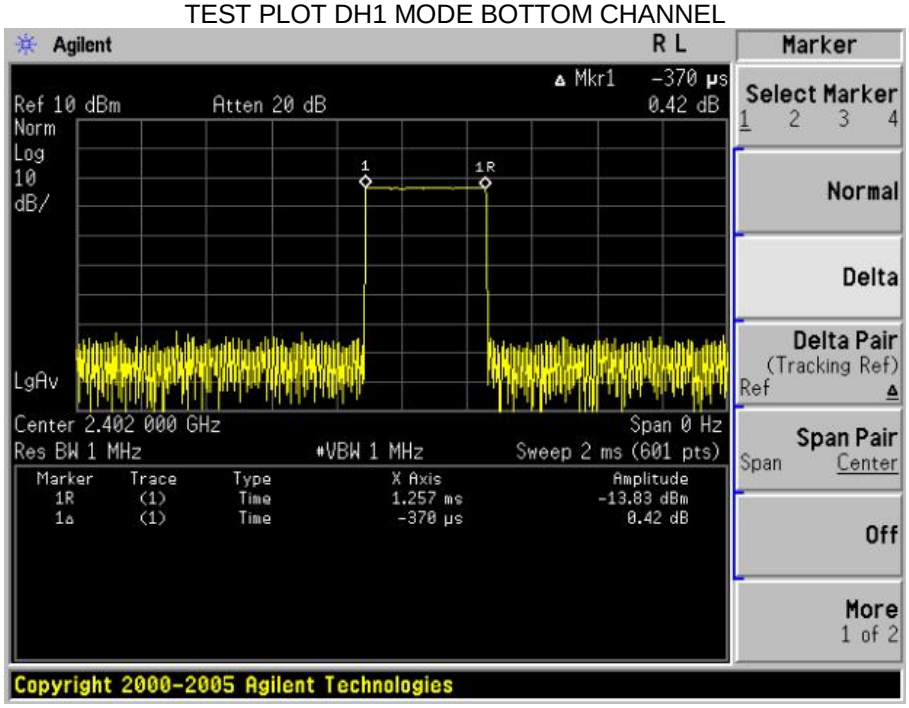
BOTTOM CHANNEL(1Mbps)					
Mode	Frequency	Spectrum Reading	Test Result	Limit	Pass / Fail
	(MHz)	(uS)	(mS)	(mS)	
DH1	2402	370	118.40	400	Pass
DH3	2402	1627	260.32	400	Pass
DH5	2402	2870	306.13	400	Pass

MIDDLE CHANNEL(1Mbps)					
Mode	Frequency	Spectrum Reading	Test Result	Limit	Pass / Fail
	(MHz)	(uS)	(mS)	(mS)	
DH1	2441	373.3	119.46	400	Pass
DH3	2441	1627	260.32	400	Pass
DH5	2441	2860	305.07	400	Pass

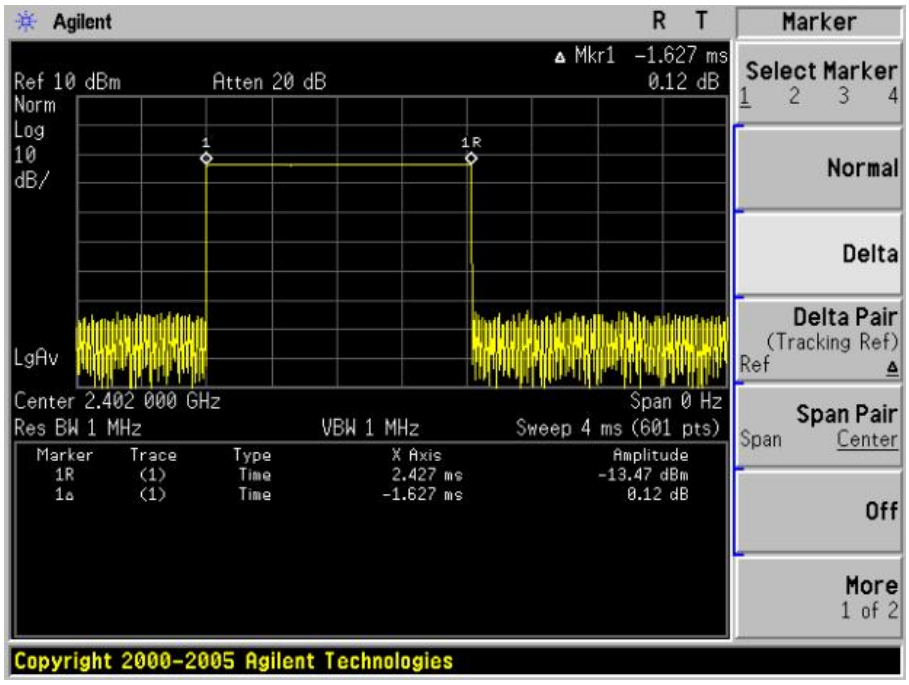
TOP CHANNEL(1Mbps)					
Mode	Frequency	Spectrum Reading	Test Result	Limit	Pass / Fail
	(MHz)	(uS)	(mS)	(mS)	
DH1	2480	370	118.40	400	Pass
DH3	2480	1627	260.32	400	Pass
DH5	2480	2860	305.07	400	Pass

A Period Time = 79*0.4=31.6 S
DH1 Time Slot: Reading * (1600/2)*31.6/79
DH3 Time Slot: Reading * (1600/4)*31.6/79
DH5 Time Slot: Reading * (1600/6)*31.6/79

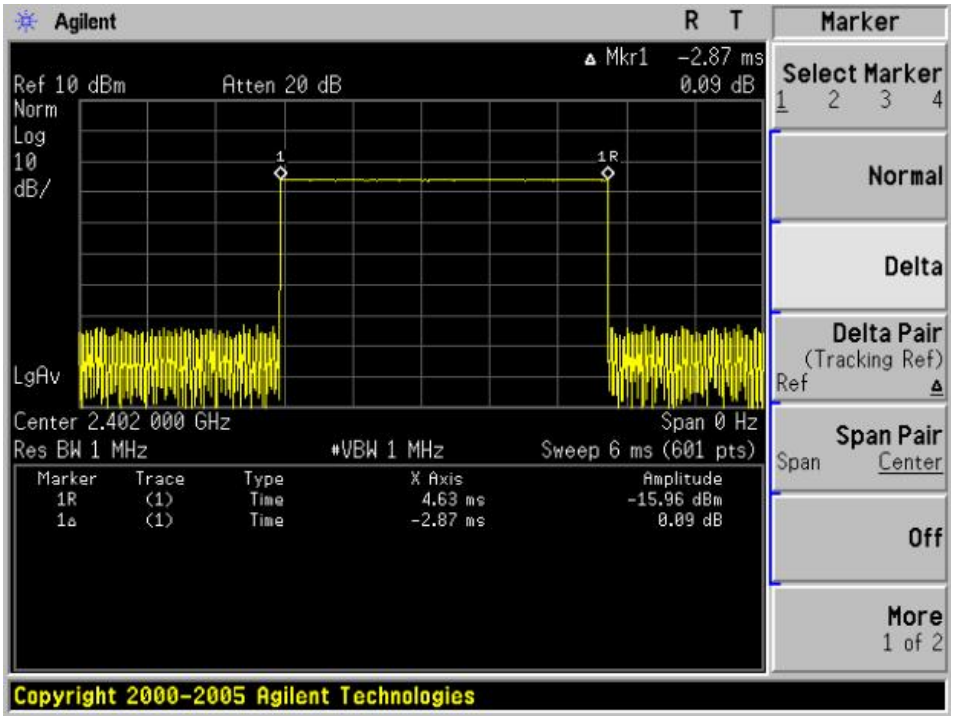
TEST PLOT DH1 MODE BOTTOM CHANNEL



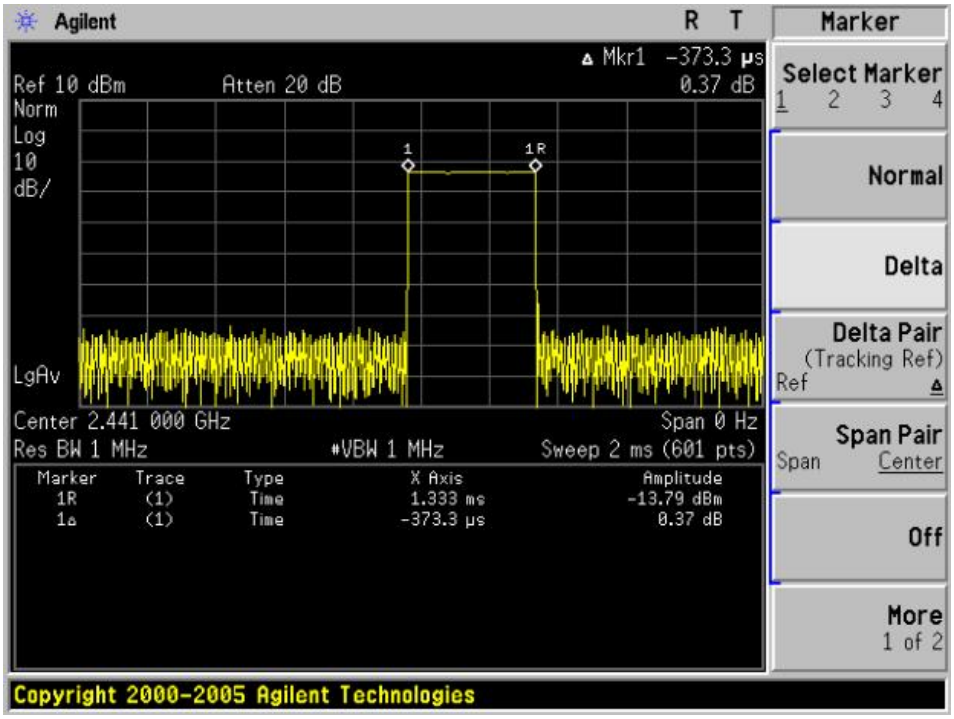
TEST PLOT DH3 MODE BOTTOM CHANNEL



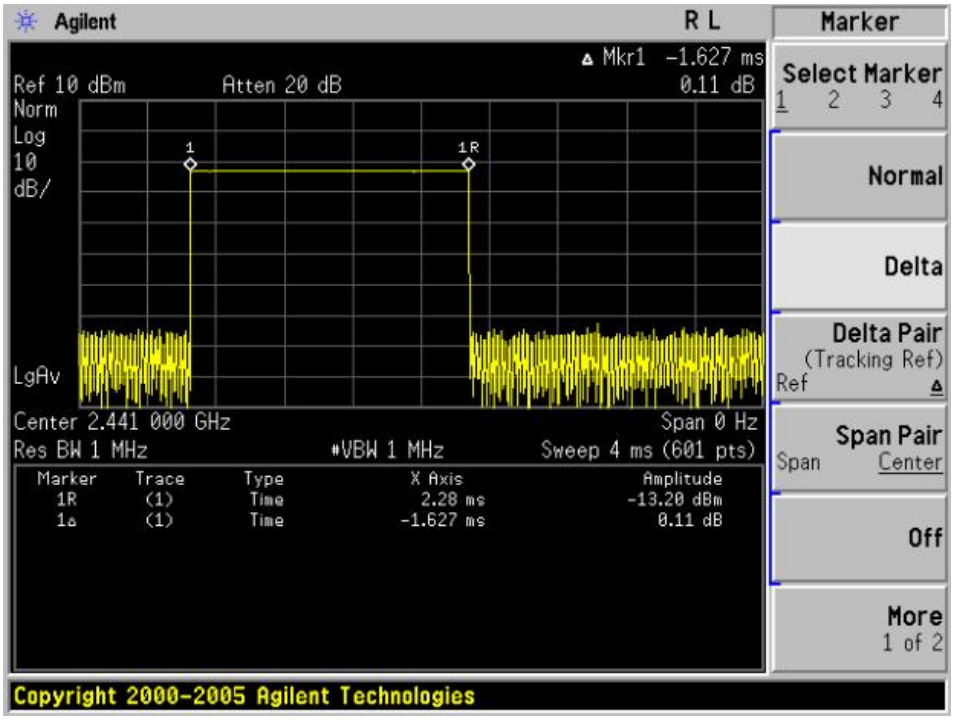
TEST PLOT DH5 MODE BOTTOM CHANNEL



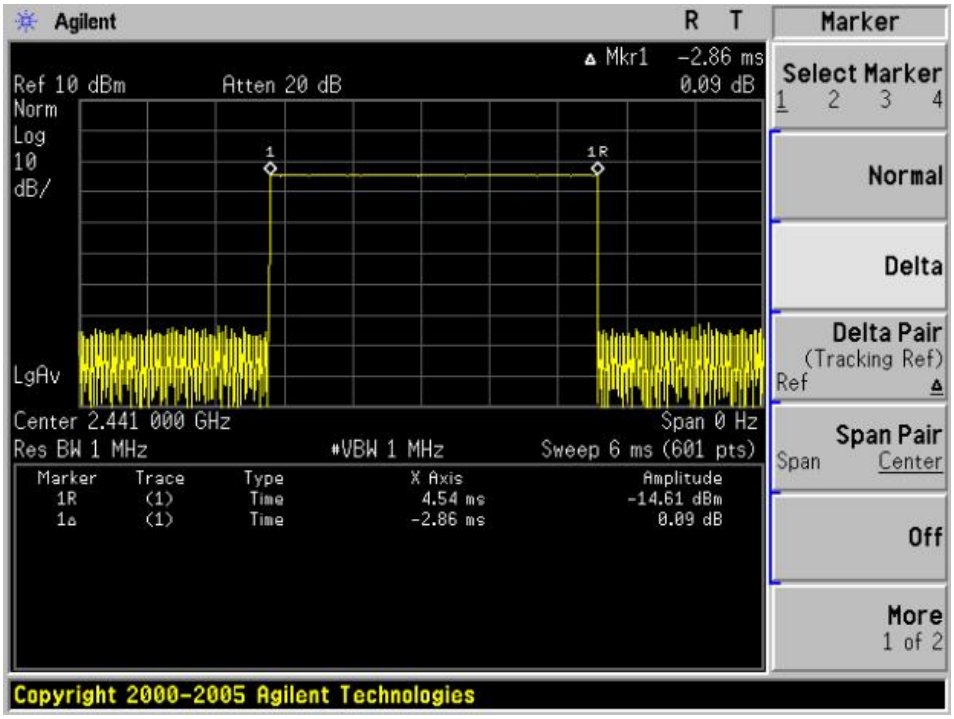
TEST PLOT DH1 MODE MIDDLE CHANNEL



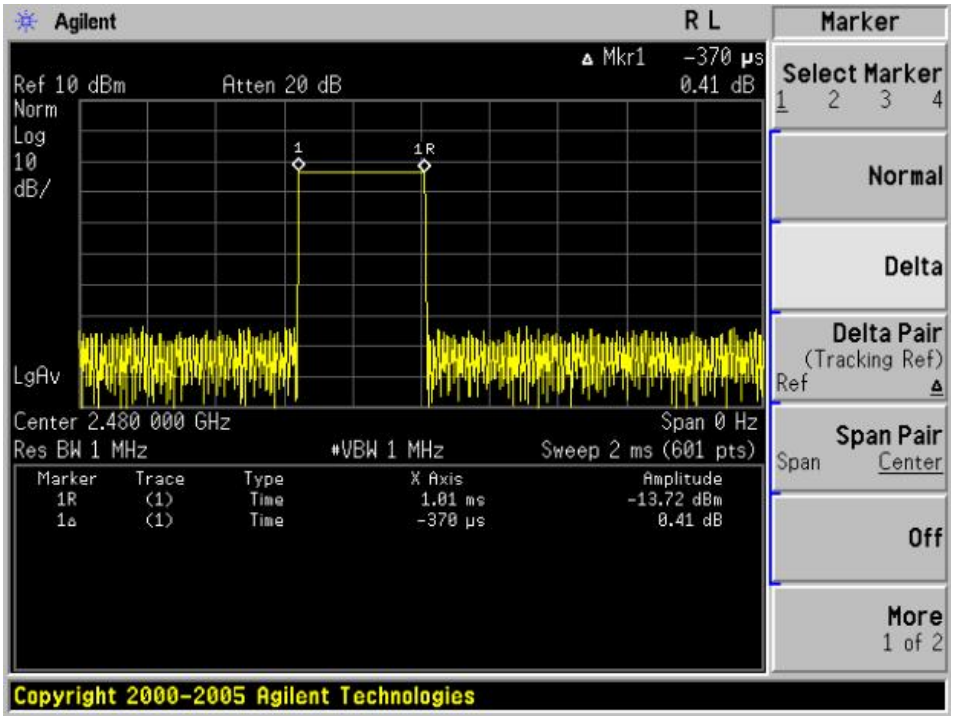
TEST PLOT DH3 MODE MIDDLE CHANNEL



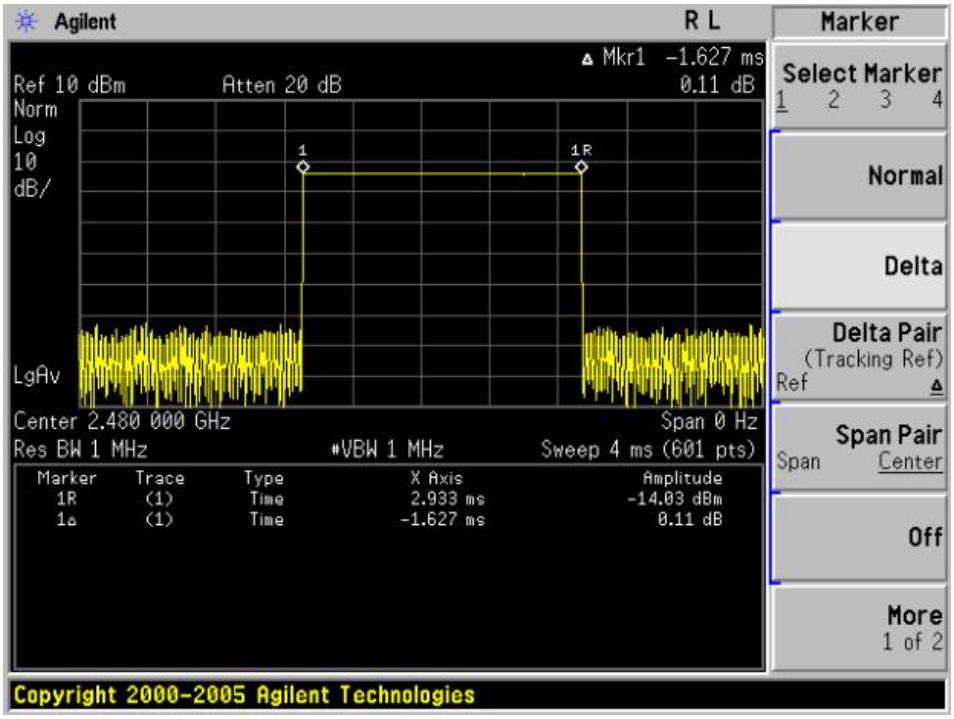
TEST PLOT DH5 MODE MIDDLE CHANNEL



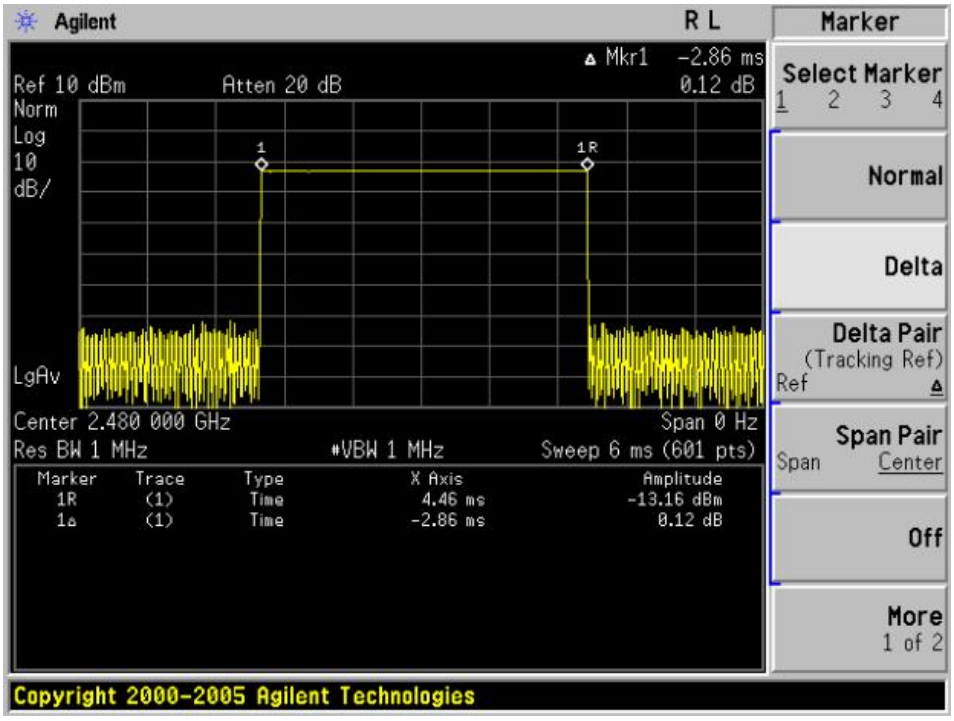
TEST PLOT DH1 MODE TOP CHANNEL



TEST PLOT DH3 MODE TOP CHANNEL



TEST PLOT DH5 MODE TOP CHANNEL



12. FREQUENCY SEPARATION

12.1 MEASUREMENT PROCEDURE

1. Place the EUT on the table and set it in transmitting mode
2. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer
3. Set center frequency of spectrum analyzer = Middle of Operating frequency
4. Set the spectrum analyzer as RBW, VBW=100KHz, Span = 5 MHz,

12.2 TEST SETUP (BLOCK DIAGRAM OF CONFIGURATION)

Same as described in section 5.2

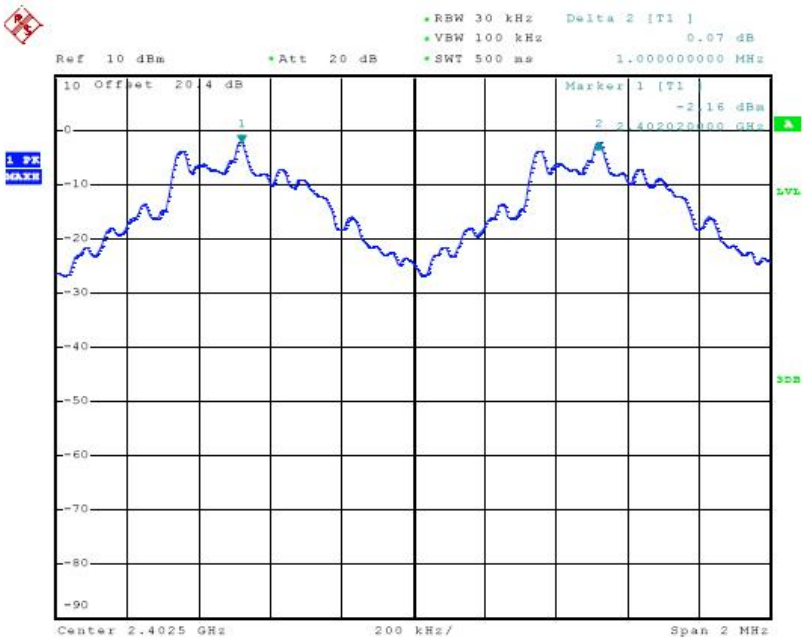
12.3 MEASUREMENT EQUIPMENT USED

The same as described in section 5.3

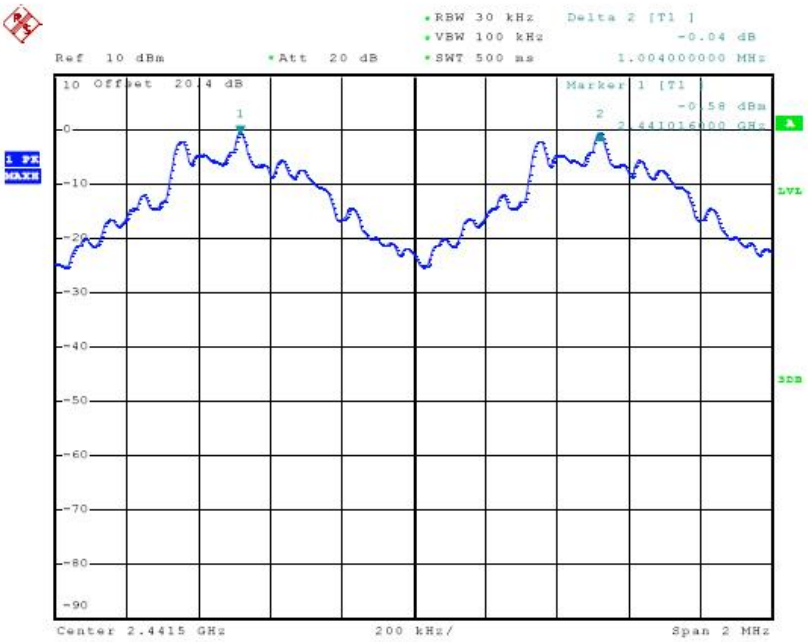
12.4 LIMITS AND MEASUREMENT RESULT

CHANNEL(1Mbps)	CHANNEL SEPARATION	LIMIT	RESULT
	KHz	KHz	Pass
CH00-CH01	1000	>=25 KHz or 2/3 20 dB BW	
CH39-CH40	1004		
CH77-CH78	1004		

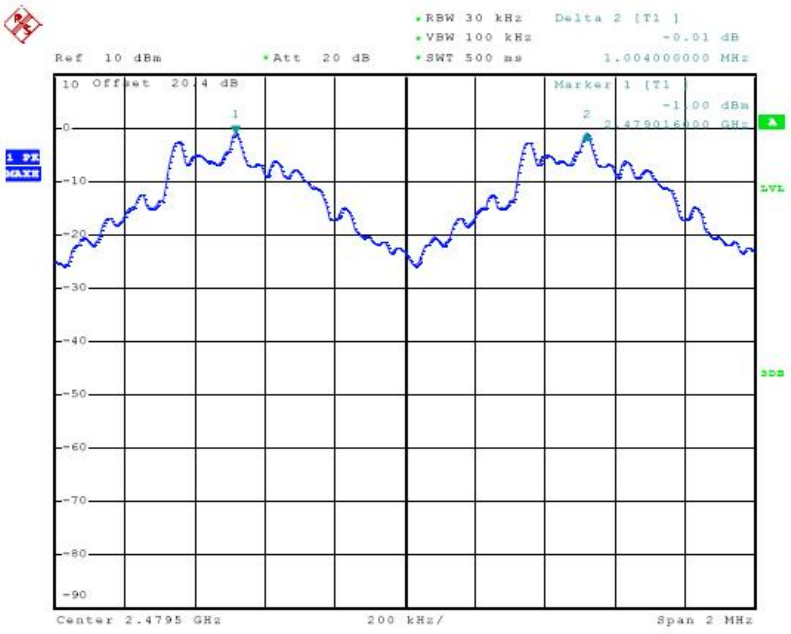
TEST PLOT FOR FREQUENCY SEPARATION –CHANNEL0-1



TEST PLOT FOR FREQUENCY SEPARATION –CHANNEL39-40



TEST PLOT FOR FREQUENCY SEPARATION -CHANNEL77-78



******* END OF REPORT *******