



DIGITAL EMC CO., LTD.

683-3, Yubang-Dong, Yongin-Si, Kyunggi-Do, Korea. 449-080
 Tel: +82-31-321-2664 Fax: +82-31-321-1664
<http://www.digitalemcc.com>

CERTIFICATION OF COMPLIANCE

LG Electronics USA.

1000 Sylvan Avenue Englewood Cliffs New Jersey United States

Dates of Tests: May 18 ~ 22, 2009

Test Report S/N: DR50110905S

Test Site : DIGITAL EMC CO., LTD.

FCC ID

BEJHBM580

APPLICANT

LG Electronics USA.

FCC Equipment Class	:	Part 15 Spread Spectrum Transmitter(DSS)
Device name	:	Bluetooth Mono Headset
Manufacturer	:	LG Electronics Inc.
FCC ID	:	BEJHBM580
Model name	:	HBM-580
Test Device Serial number	:	Identical prototype
FCC Rule Part(s)	:	FCC Part 15.247 Subpart C
		ANSI C63.4-2003
Frequency Range	:	2402 ~ 2480 MHz
Max. Output power	:	6.60 dBm Conducted
Data of issue	:	May 21, 2009

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1. General information

This report contains the result of tests performed by:

DIGITAL EMC CO., LTD.

Address: 683-3, Yubang-Dong, Yongin-Si, Kyunggi-Do, Korea. 449-080

<http://www.digitalemc.com> E-mail: Harveysung@digitalemc.com

Tel: +82-31-321-2664 Fax: +82-31-321-1664

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competent of calibration and testing laboratory".

Tested by: Engineer

May 21, 2009

D.C. Cha



Data

Name

Signature

Reviewed by: Manager

May 21, 2009

W.J. Lee



Data

Name

Signature

Applicant:

Company name : LG Electronics USA.

Address : 1000 Sylvan Avenue Englewood Cliffs

City/town : New Jersey

Country : United States

Date of order : May 12, 2009

2. Information about test item

BEJHBM580

2.1 Equipment information

Equipment model no.	HBM-580
Equipment serial no.	Identical prototype
Type of equipment	Bluetooth Mono Headset
Frequency band	2402 ~ 2480 MHz
Type of Modulation	GFSK
Spread Spectrum	Frequency Hopping
Channel Spacing	1.0 MHz
Power	DC 3.7V
Type of antenna	Chip Antenna

- This device does not have EDR function.

2.2 Tested frequency

Frequency	TX	RX
Low frequency	2402MHz	2402MHz
Middle frequency	2441MHz	2441MHz
High frequency	2480MHz	2480MHz

2.3 Tested environment

Temperature	: 15 ~ 35 (°C)
Relative humidity content	: 20 ~ 75 %
Air pressure	: 86 ~ 103 kPa
Details of power supply	: DC 3.7V

2.4 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer	Note
-	-	-	-	-
-	-	-	-	-

2.5 EMI Suppression Device(s)/Modifications

EMI suppression device(s) added and/or modifications made during testing

→ None

3. Test Report

3.1 Summary of tests

FCC Part Section(s)	Parameter	Limit (Using in 2400 ~ 2483.5MHz)	Test Condition	Status (note 1)
I. Test Items				
15.247(a)	Carrier Frequency Separation	>= 20dB BW or >= Two-Thirds of the 20dB BW	Conducted	C
	Number of Hopping Frequencies	>= 15 hops		C
	20 dB Bandwidth	None		C
	Dwell Time	=< 0.4 seconds		C
15.247(b)	Transmitter Output Power	=< 1Watt , if CHs >= 75 Others =<0.125W		C
15.247(c)	Band-edge /Conducted	The radiated emission to any 100 kHz of out-band shall be at least 20dB below the highest in-band spectral density.		C
	Conducted Spurious Emissions			C
15.205 15.209	Radiated Emissions	FCC 15.209 Limits	Radiated	C
15.207	AC Conducted Emissions	EN 55022	AC Line Conducted	NA
Note 1: C=Comply NC=Not Comply NT=Not Tested NA=Not Applicable				

The sample was tested according to the following specification:

FCC Parts 15.247; ANSI C-63.4-2003, DA00-705

3.2 Transmitter requirements

3.2.1 Carrier Frequency Separation

- Procedure:

The carrier frequency separation was measured with a spectrum analyzer connected to the antenna terminal, while EUT had its hopping function enabled.

After the trace being stable, the reading value between the peaks of the adjacent channels using the marker-delta function was recorded as the measurement results.

The spectrum analyzer is set to:

Span = 3 MHz (wide enough to capture the peaks of two adjacent channels)

RBW = 30 kHz

Sweep = auto

VBW = 30 kHz

Detector function = peak

Trace = max hold

- Measurement Data:

Frequency of marker #1 (MHz)	Frequency of marker #2 (MHz)	Test Results	
		Carrier Frequency Separation (MHz)	Result
2439.929	2440.952	1.023	Comply

- See next pages for actual measured spectrum plots.

- Minimum Standard:

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW

- Measurement Setup

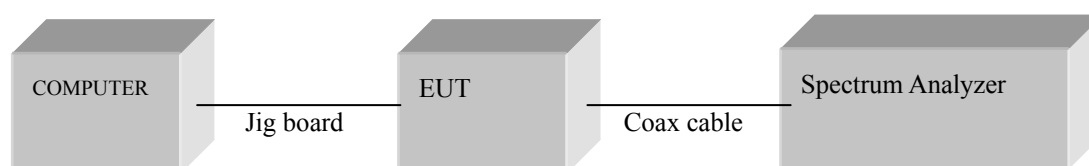
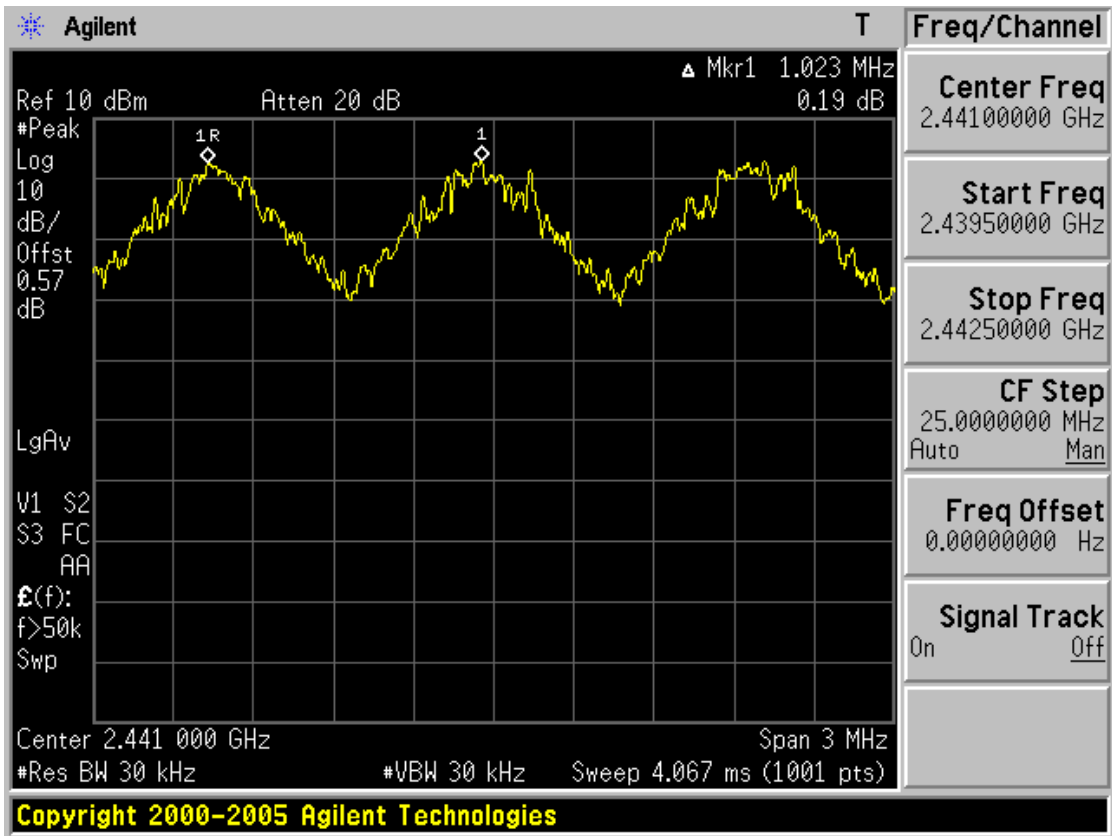


Figure 1: Measurement setup for the carrier frequency separation

Carrier Frequency Separation



3.2.2 Number of Hopping Frequencies

- Procedure:

The number of hopping frequencies was measured with a spectrum analyzer connected to the antenna terminal, while EUT had its hopping function enabled.

To get higher resolution, four frequency ranges within the 2400 ~ 2483.5 MHz FH band were examined.

The spectrum analyzer is set to:

- Frequency range
- 1: Start = 2389.5MHz, Stop = 2414.5 MHz
- 2: Start = 2414.5MHz, Stop = 2439.5 MHz
- 3: Start = 2439.5MHz, Stop = 2464.5 MHz
- 4: Start = 2464.5MHz, Stop = 2489.5 MHz
- RBW = 300 kHz (1% of the span or more)
- Sweep = auto
- VBW = 300 kHz (VBW ≥ RBW)
- Detector function = peak
- Trace = max hold
- Span = 25MHz

- Measurement Data: **Comply**

Total number of Hopping Channels	79
----------------------------------	----

- See next pages for actual measured spectrum plots.

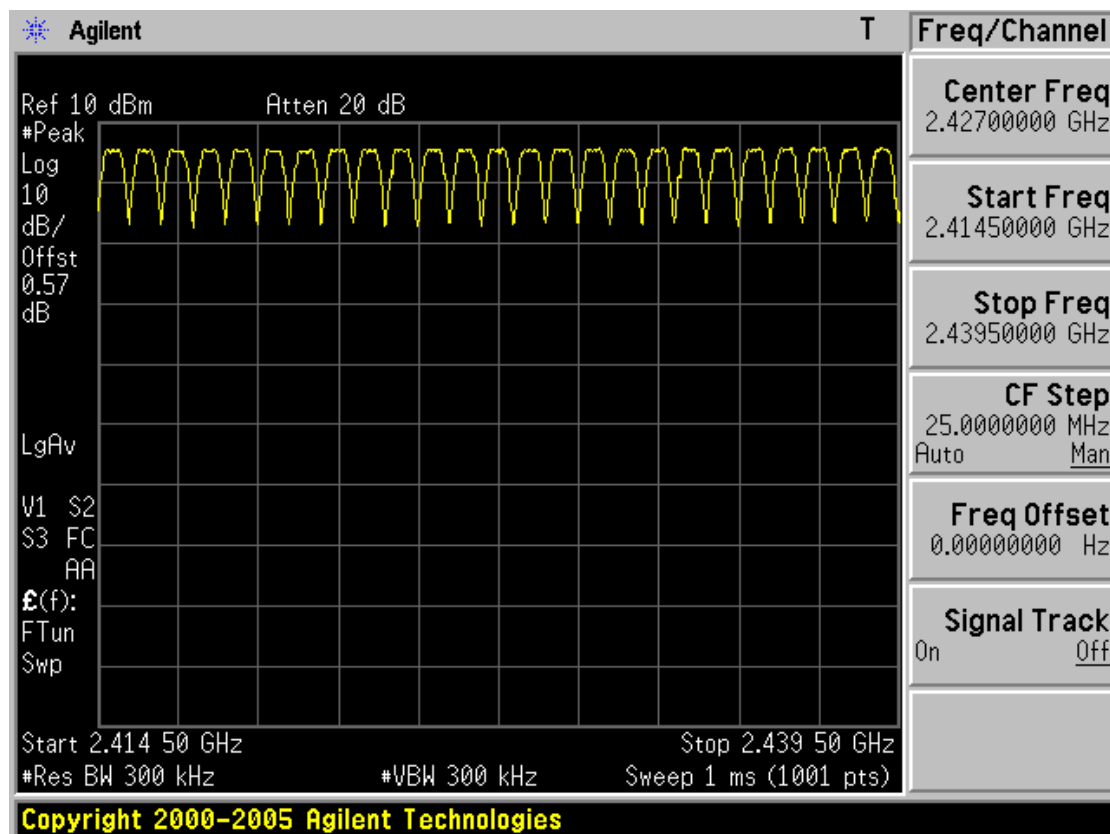
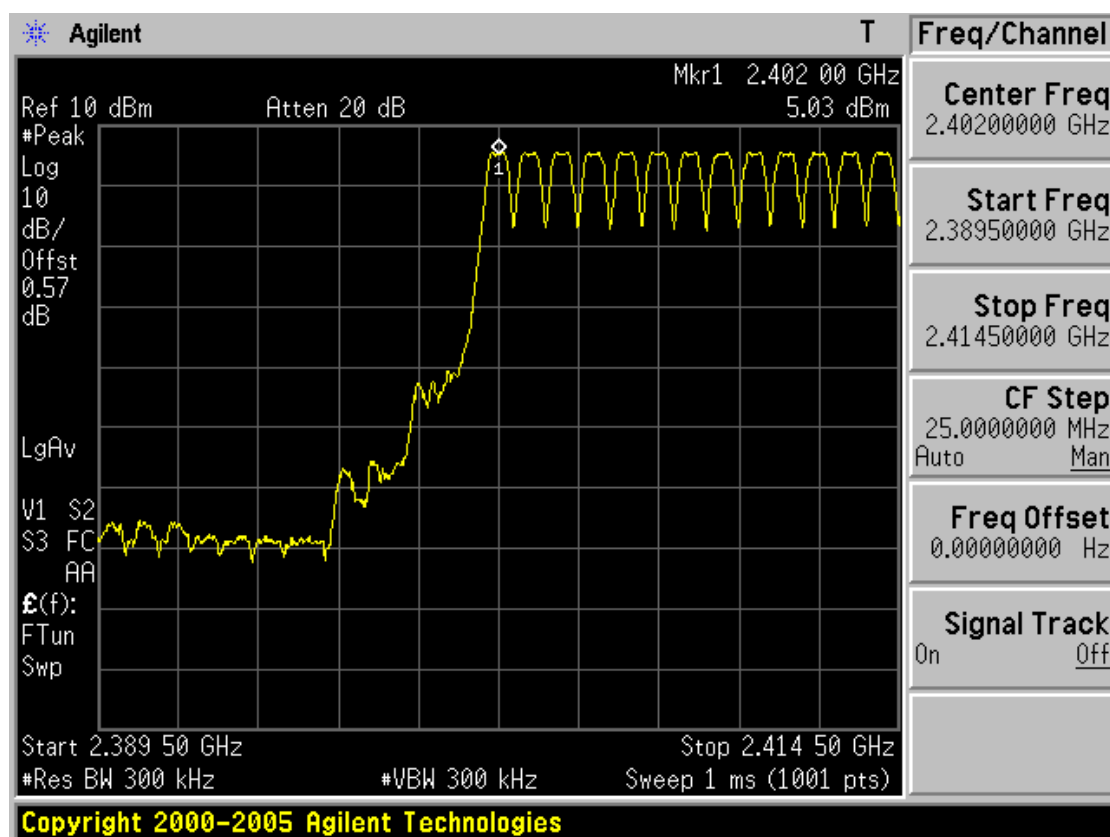
- Minimum Standard:

At least 15 hopes

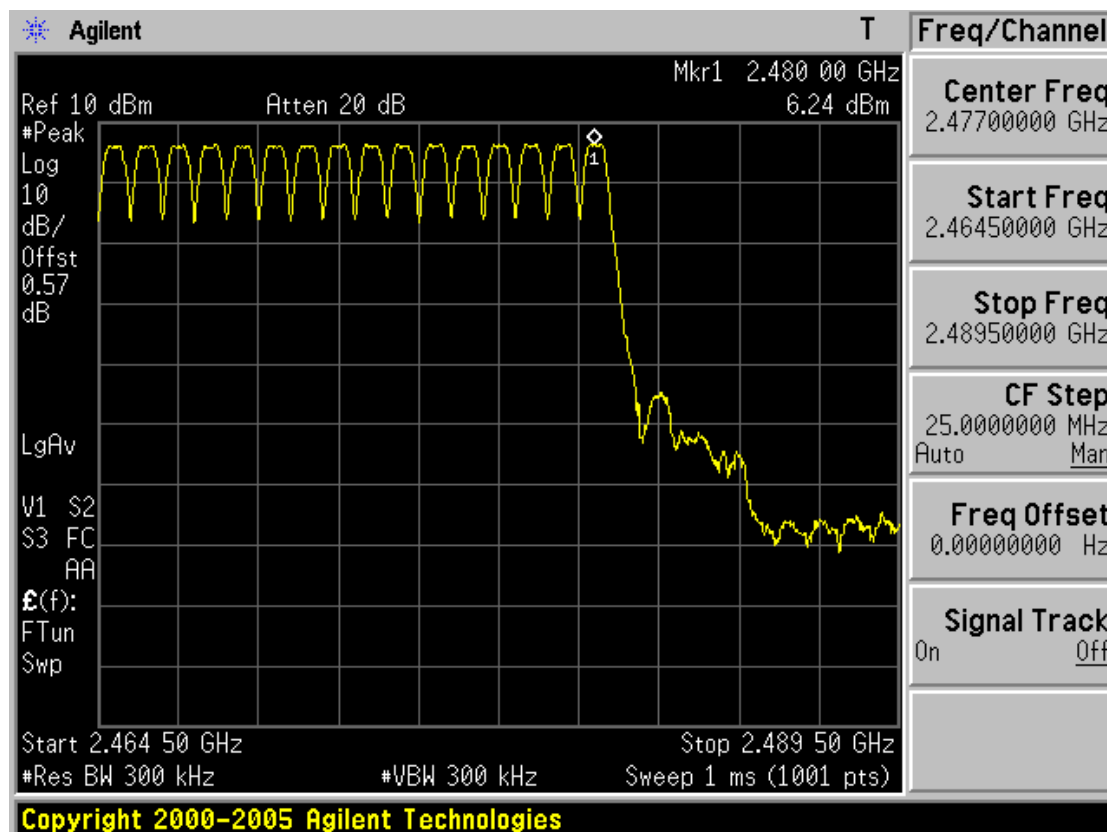
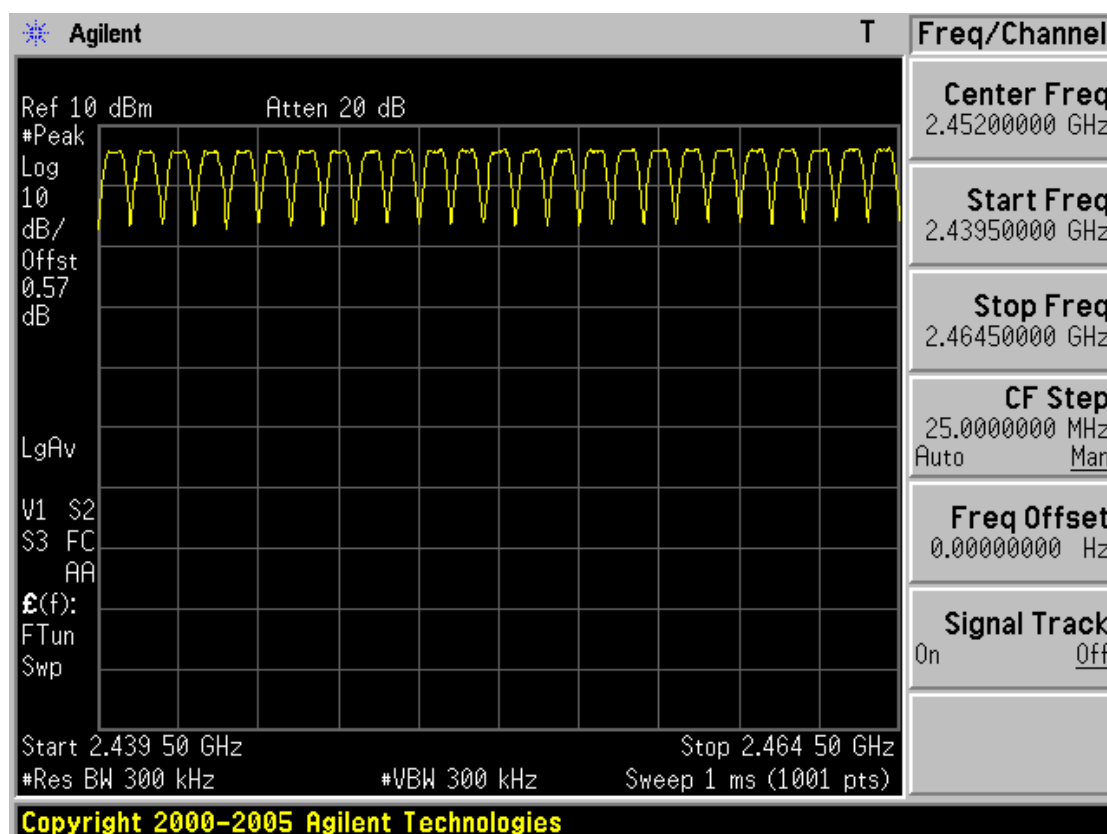
- Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

Number of Hopping Frequencies



Number of Hopping Frequencies



3.2.3 20 dB Bandwidth

- Procedure:

The bandwidth at 20 dB below the highest inband spectral density was measured with a spectrum analyzer connected to the antenna terminal, while EUT had its hopping function disabled at the highest, middle and the lowest available channels.

After the trace being stable, Use the marker-to-peak function to set the marker to the peak of the emission. Use the marker-delta function to measure 20dB down one side of the emission. Reset the marker-delta function, and move the marker to the other side of the emission, until it is (as close as possible to) even with the reference marker level. The marker-delta reading at this point is the 20 dB bandwidth of the emission.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

Span = 5 MHz

RBW = 10 kHz (1% of the 20dB bandwidth or more) Sweep = auto

VBW = 10 kHz (VBW $\geq$ RBW) Detector function = peak

Trace = max hold

- Measurement Data:

Frequency (MHz)	Channel No.	Test Results	
		Measured Bandwidth (MHz)	Result
2402	1	0.925	Comply
2441	40	0.890	Comply
2480	79	0.890	Comply

- See next pages for actual measured spectrum plots.

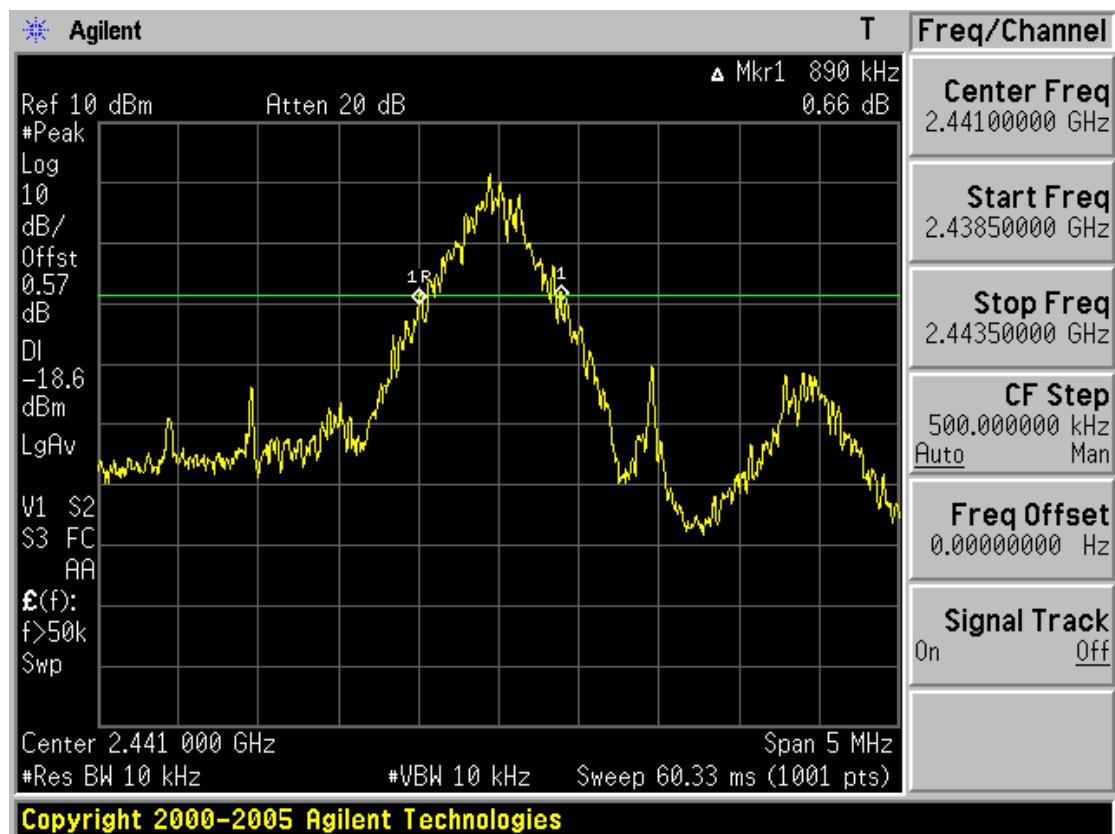
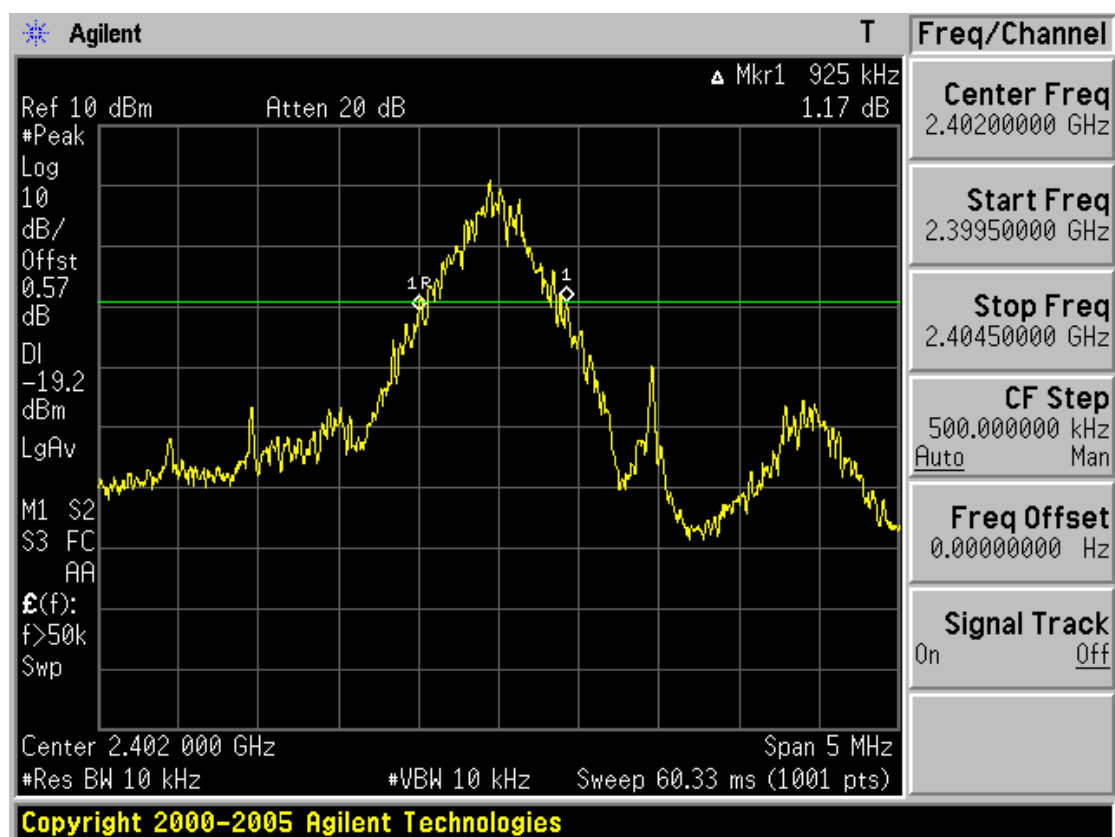
- Minimum Standard:

None

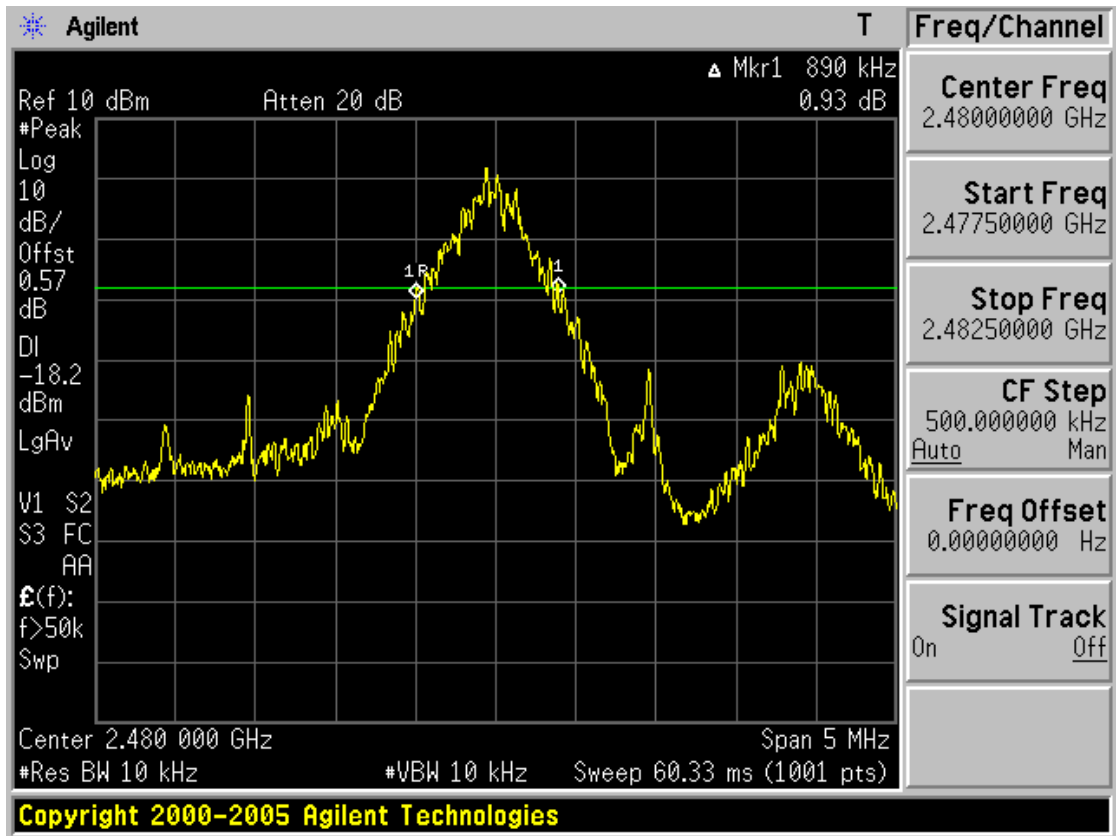
- Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

20 dB Bandwidth



20 dB Bandwidth



3.2.4 Time of Occupancy (Dwell Time)

- Procedure:

The dwell time was measured with a spectrum analyzer connected to the antenna terminal, while EUT had its hopping function enabled.

The spectrum analyzer is set to:

Center frequency = 2441 MHz

Span = zero

RBW = 1 MHz

VBW = 1 MHz (VBW $\geq$ RBW)

Trace = max hold

Detector function = peak

- **Measurement Data:** See next pages for actual measured spectrum plots.

Packet Type	Burst On Time (ms)	Period (ms)	Number of hopping Channels	DWELL TIME (s)	Result
DH 5	2.91	3.75	79	0.310	Comply

Note: Each new transmission event begins on the next channel in the hopping sequence after the final channel used in the previous transmission event.

$$\text{DWELL TIME} = (0.4 \times \text{Number of hopping Channels}) \times \text{Burst On time} / (\text{period} \times \text{Number of hopping Channels})$$

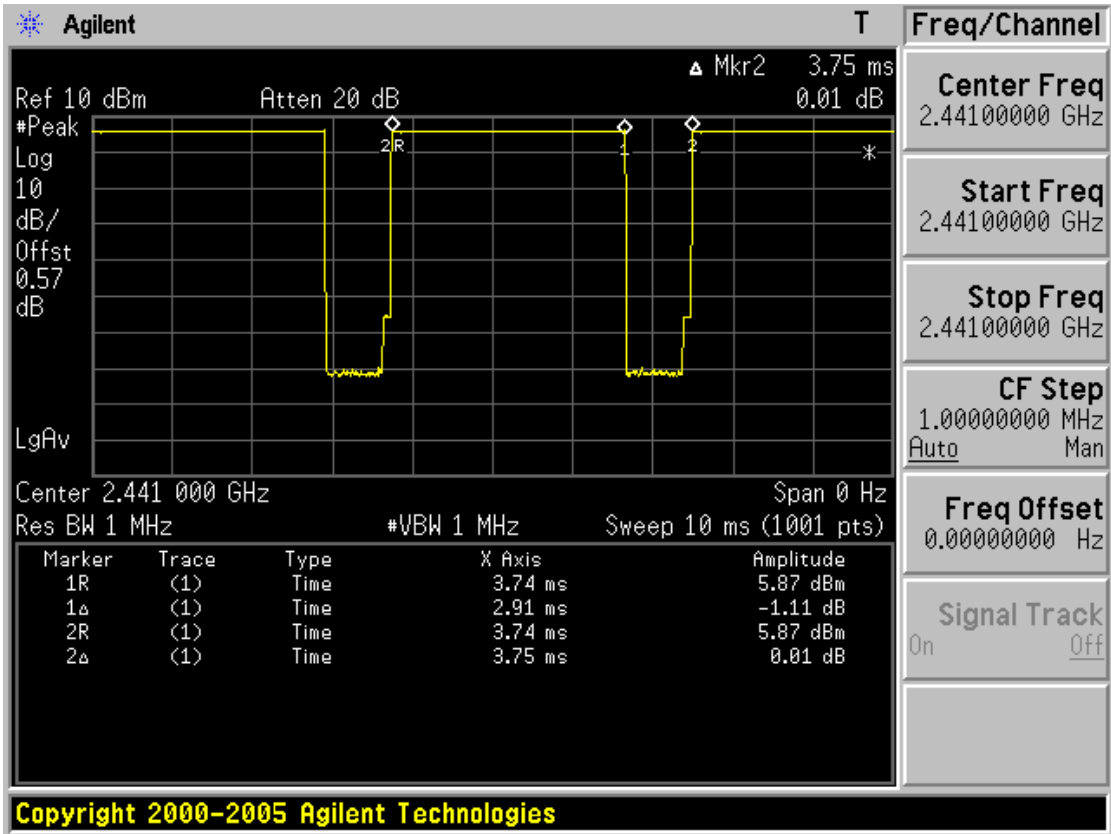
- Minimum Standard:

No greater than 0.4 seconds

- Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

Time of Occupancy for Packet Type DH 5



3.2.5 Peak Output Power

- Procedure:

The peak output power was measured with a spectrum analyzer connected to the antenna terminal, while EUT had its hopping function disabled at the highest, middle and the lowest available channels.

After the trace being stable, Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

Span = 5 MHz (approximately 5 times of the 20 dB bandwidth)

RBW = 1 MHz (greater than the 20dB bandwidth of the emission being measured)

VBW = 1 MHz (VBW $\geq$ RBW)

Detector function = peak

Trace = max hold

Sweep = auto

- Measurement Data:

Frequency (MHz)	Ch.	Test Results		
		dBm	mW	Result
2402	1	5.57	3.606	Comply
2441	40	5.99	3.972	Comply
2480	79	6.60	4.571	Comply

- See next pages for actual measured spectrum plots.

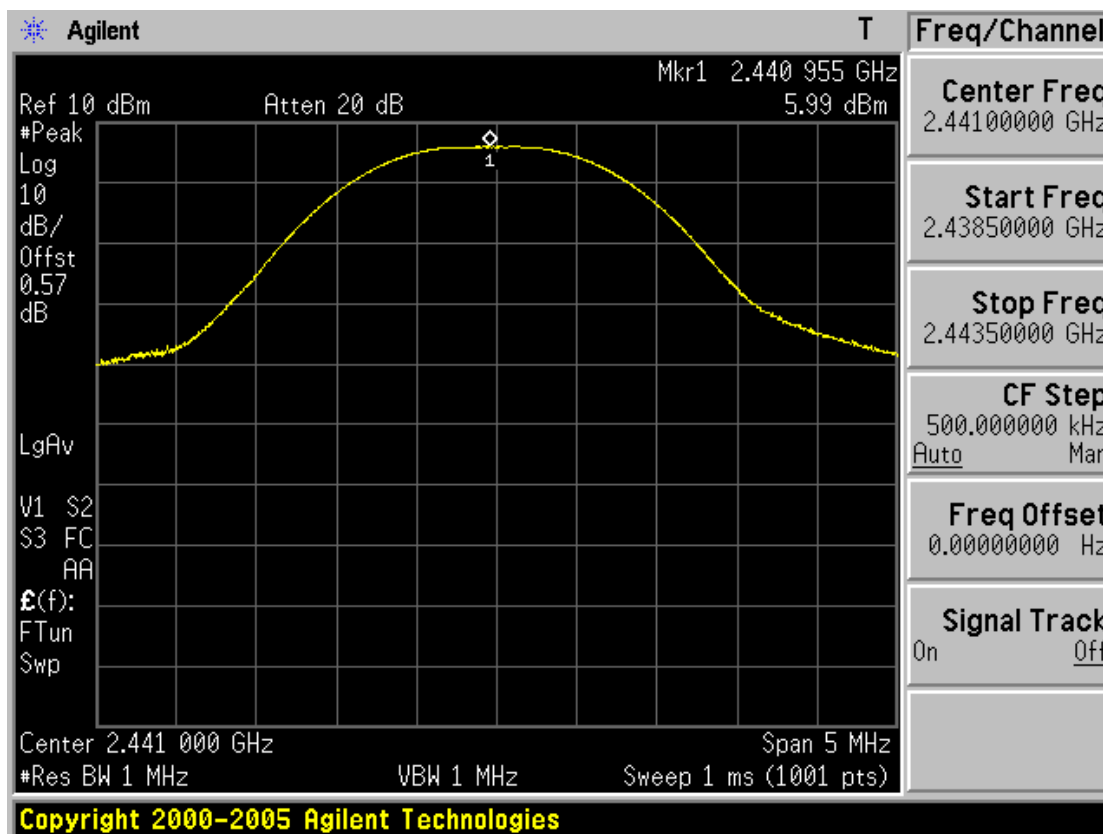
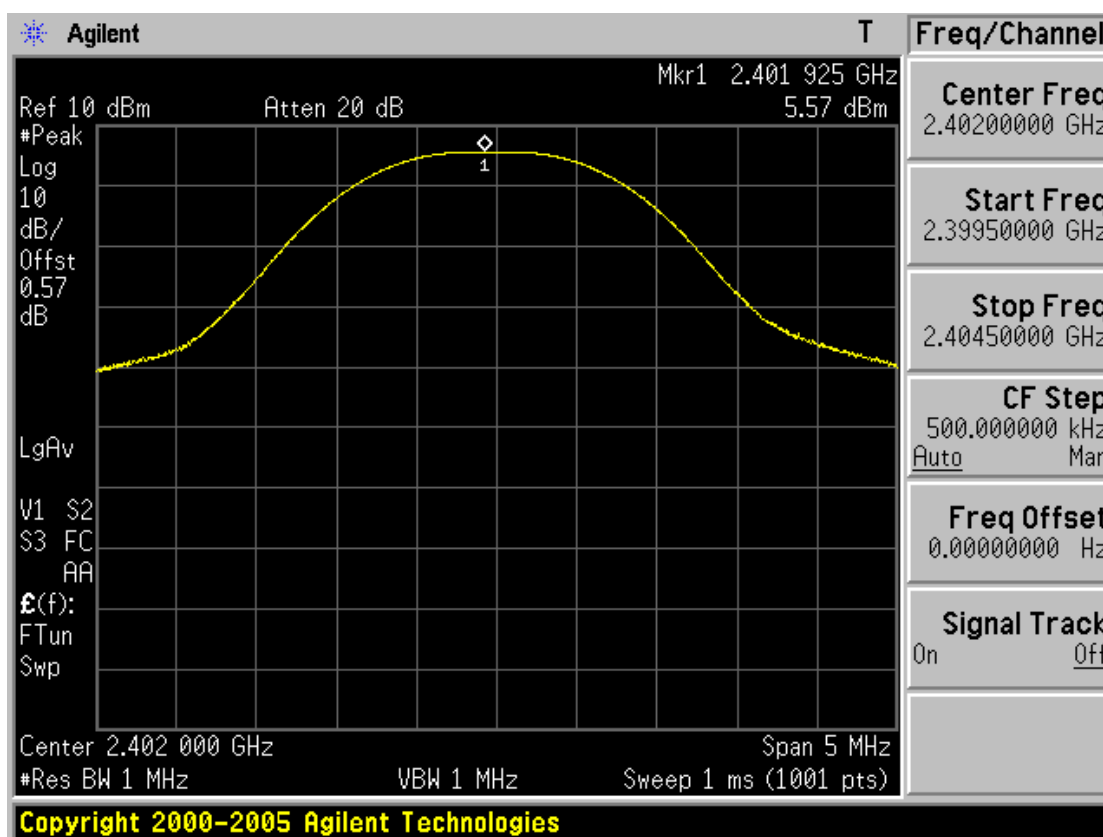
- Minimum Standard:

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: **1 Watt**. For all other frequency hopping systems in the 2400-2483.5 MHz band: **0.125 Watts**

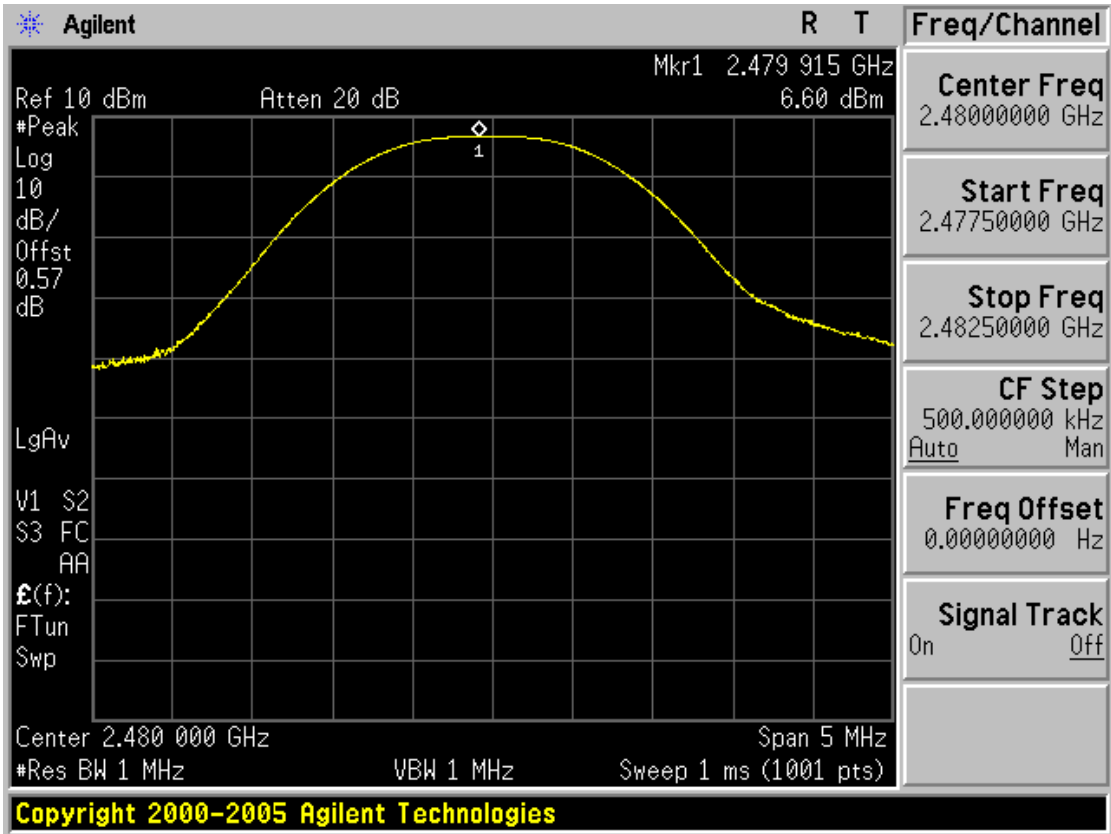
- Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

Peak Output Power



Peak Output Power



3.2.6 Conducted Spurious Emissions

- Procedure:

The bandwidth at 20dB down from the highest inband spectral density is measured with a spectrum analyzer connected to the antenna terminal, while EUT had its hopping function disabled at the highest, middle and the lowest available channels.

After the trace being stable, Use the marker-to-peak function to measure 20 dB down both sides of the intentional emission.

The spectrum analyzer is set to:

Center frequency = the highest, middle and the lowest channels

RBW = 100 kHz

VBW = 100 kHz

Detector function = peak

Trace = max hold

Sweep = auto

- Measurement Data: **Comply**

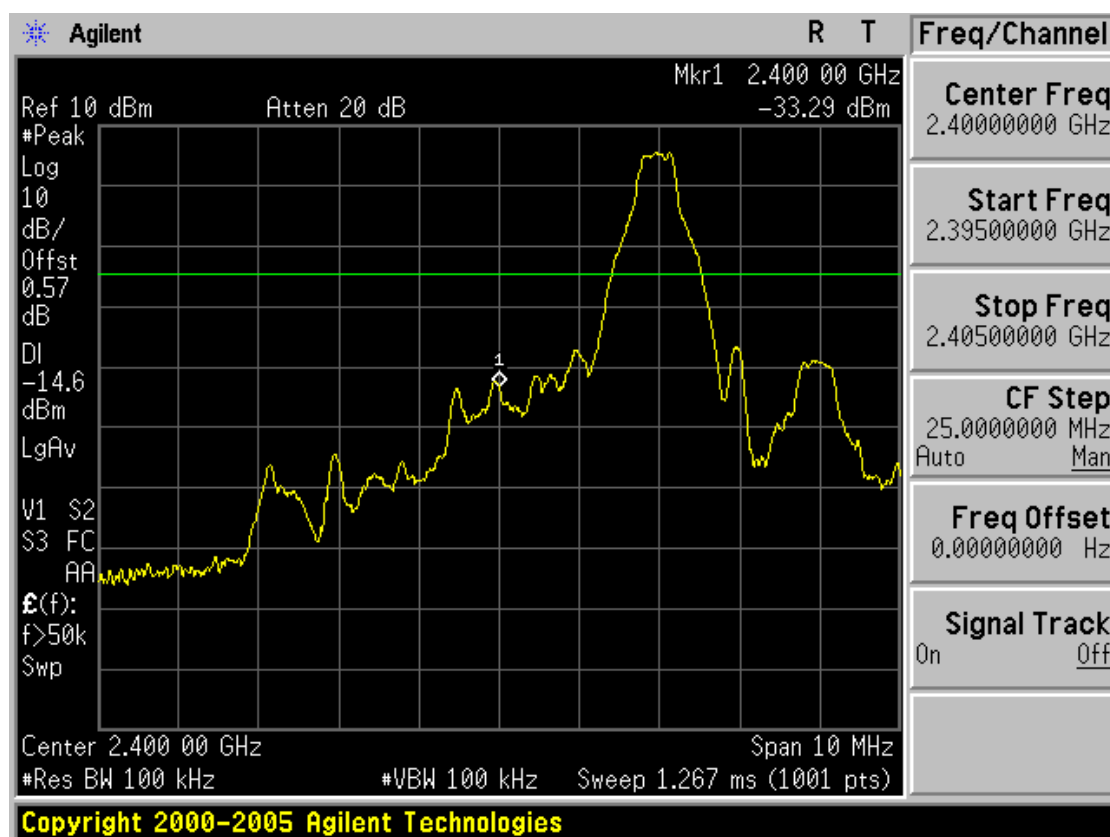
- See next pages for actual measured spectrum plots.

Minimum Standard:	> 20 dBc
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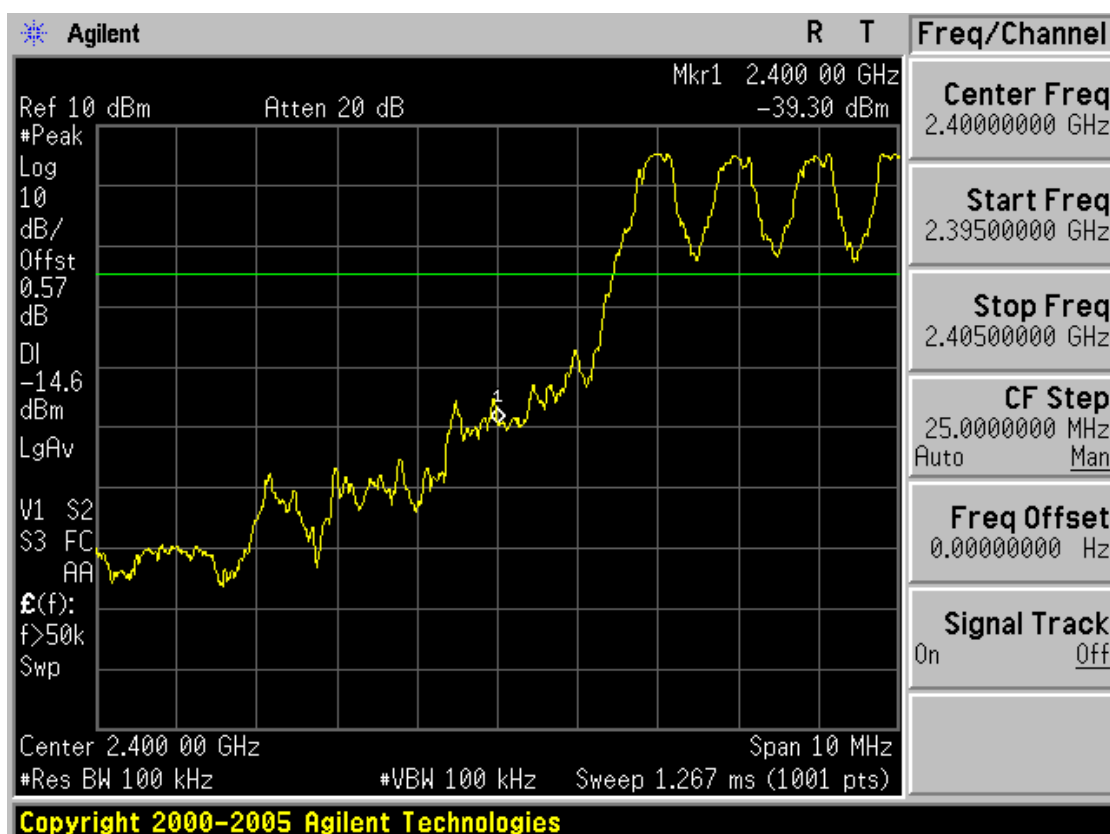
- Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

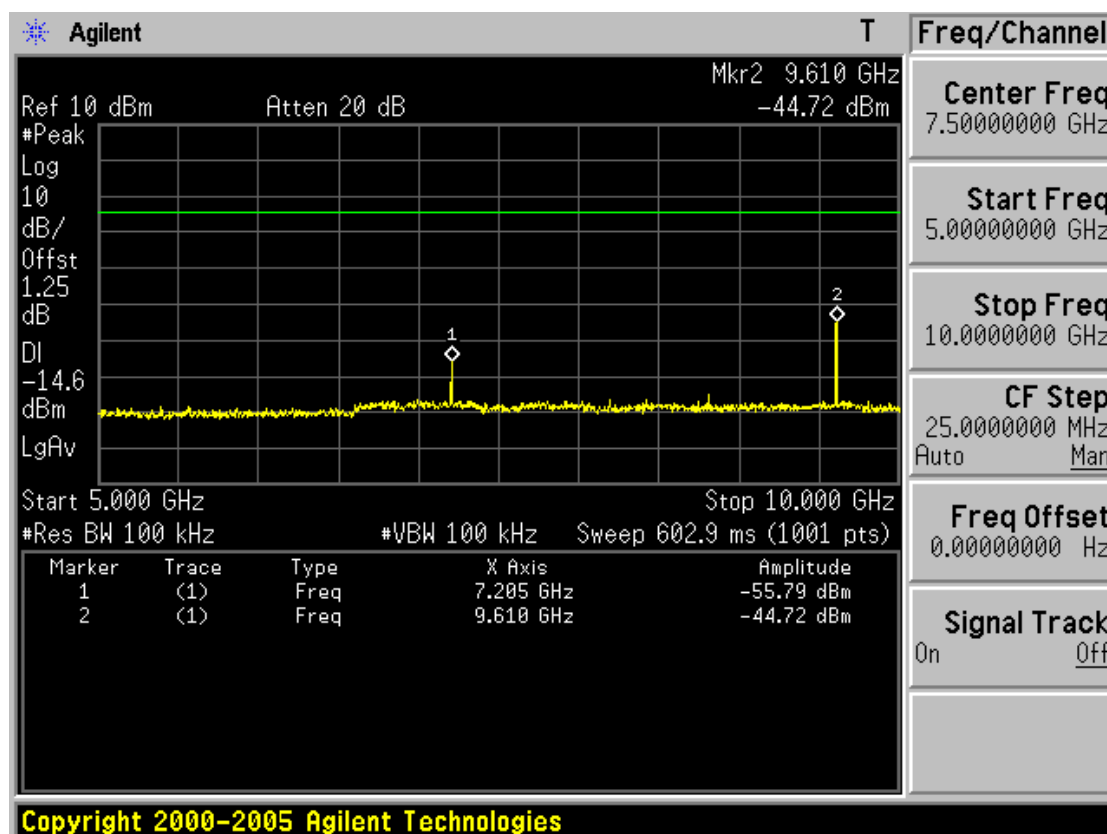
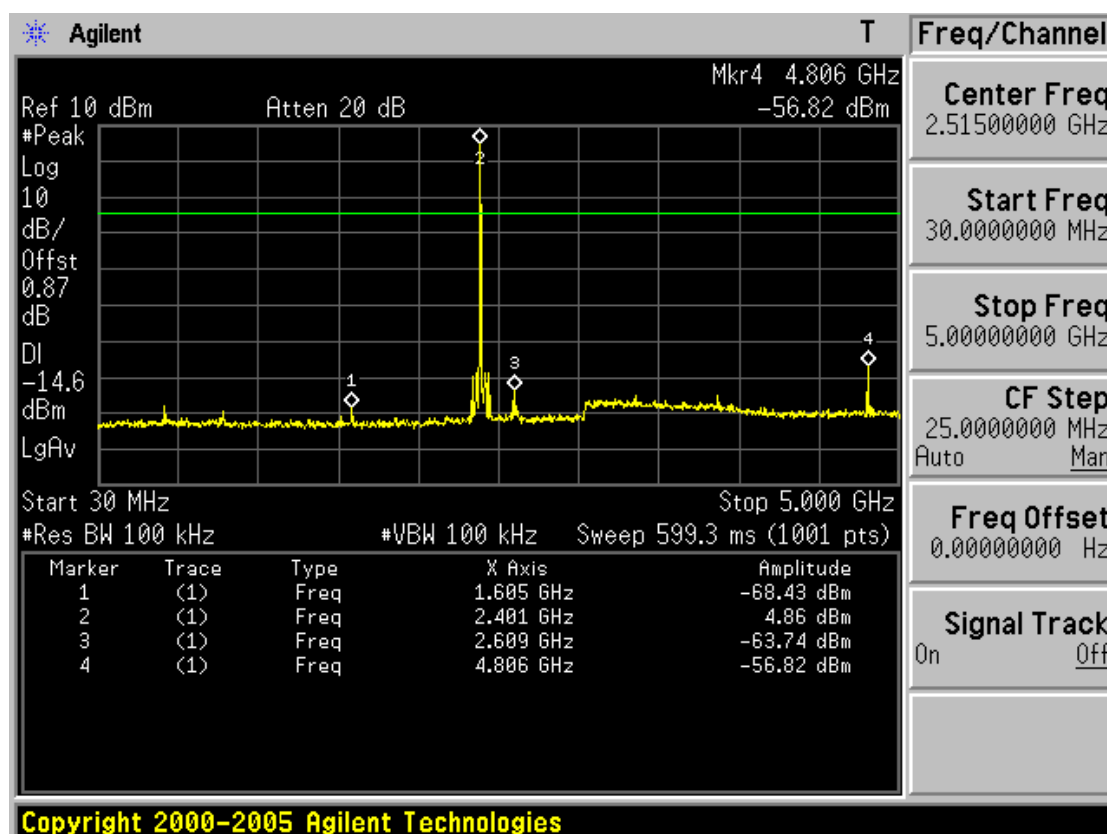
Low band with hopping disabled



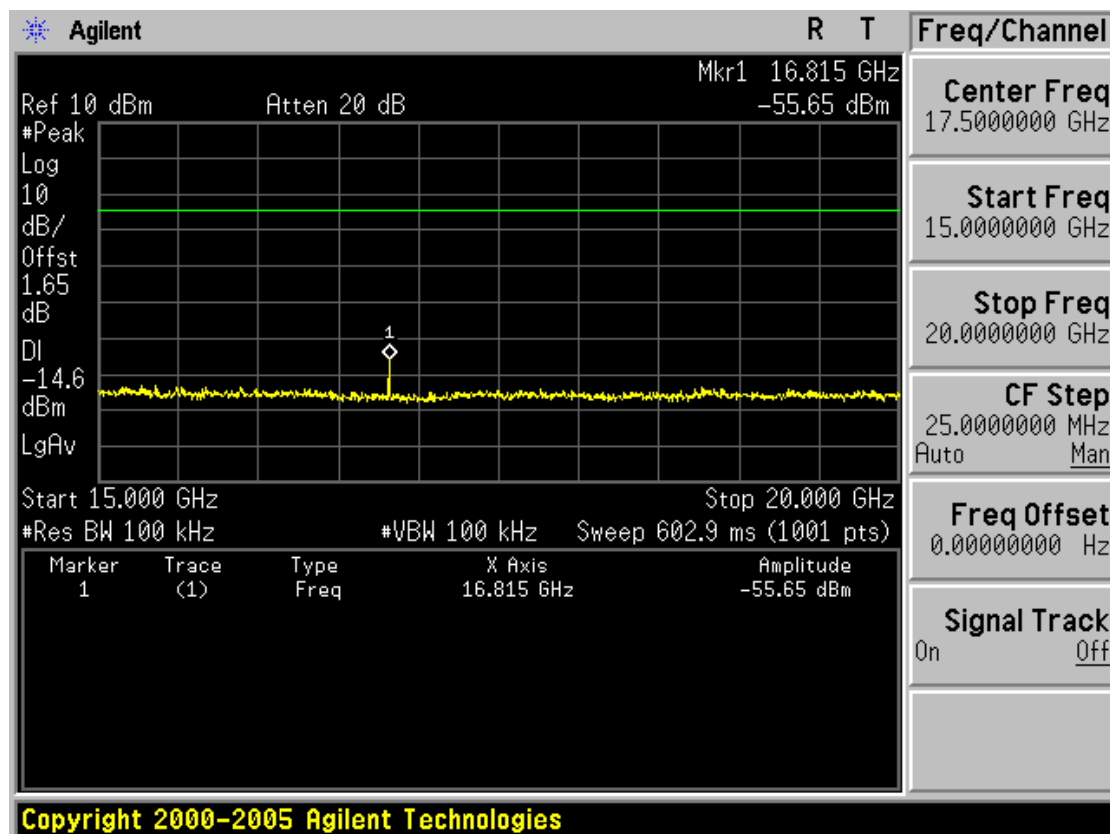
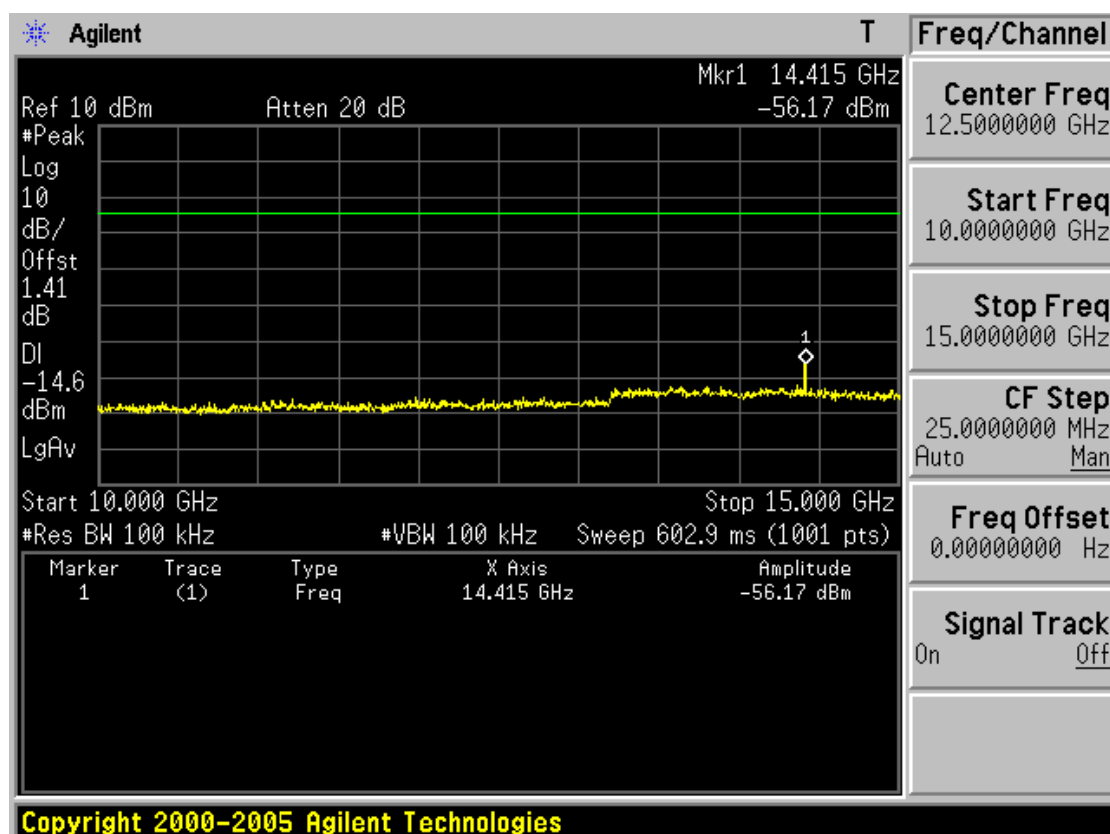
Low band with hopping enabled



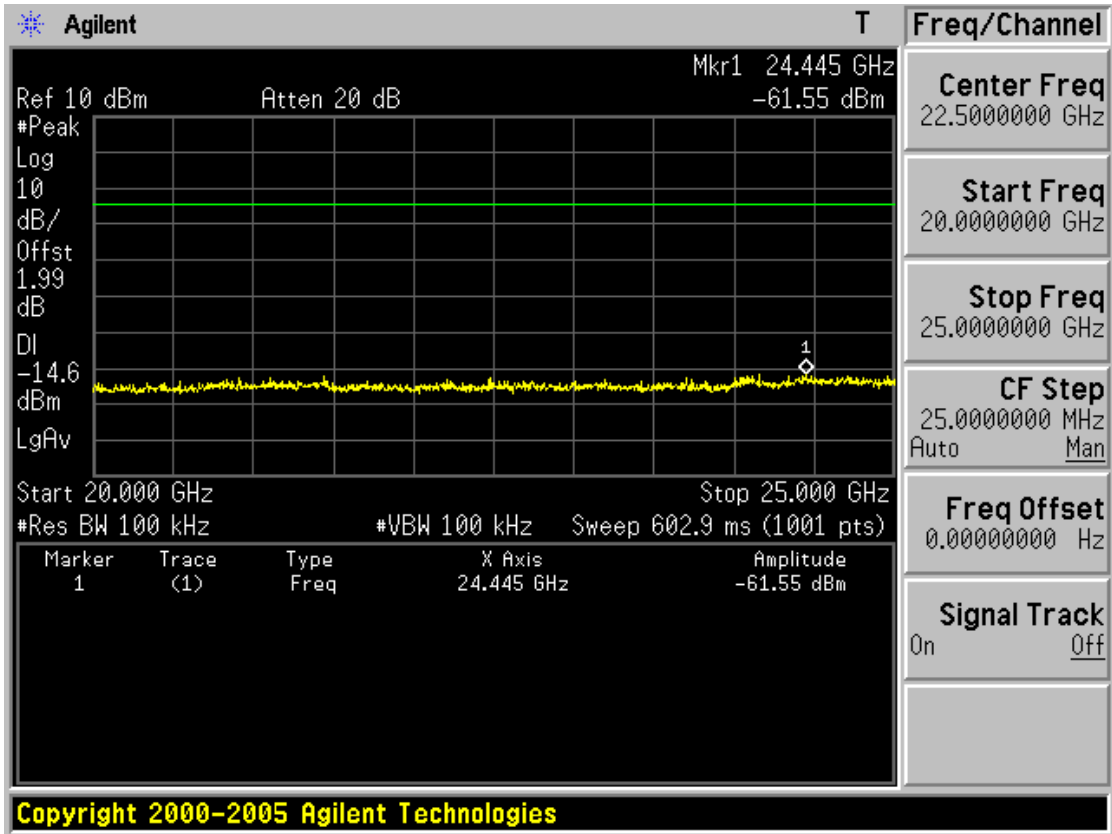
Low channel spurious



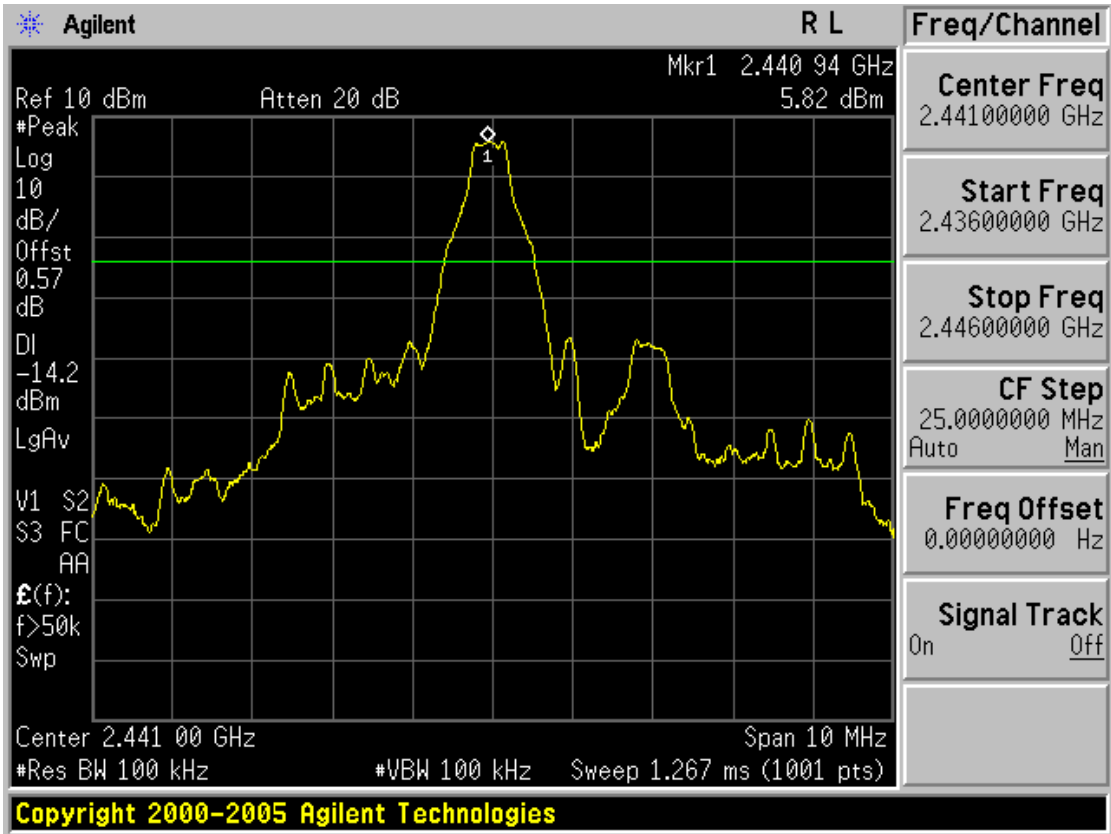
Low channel spurious



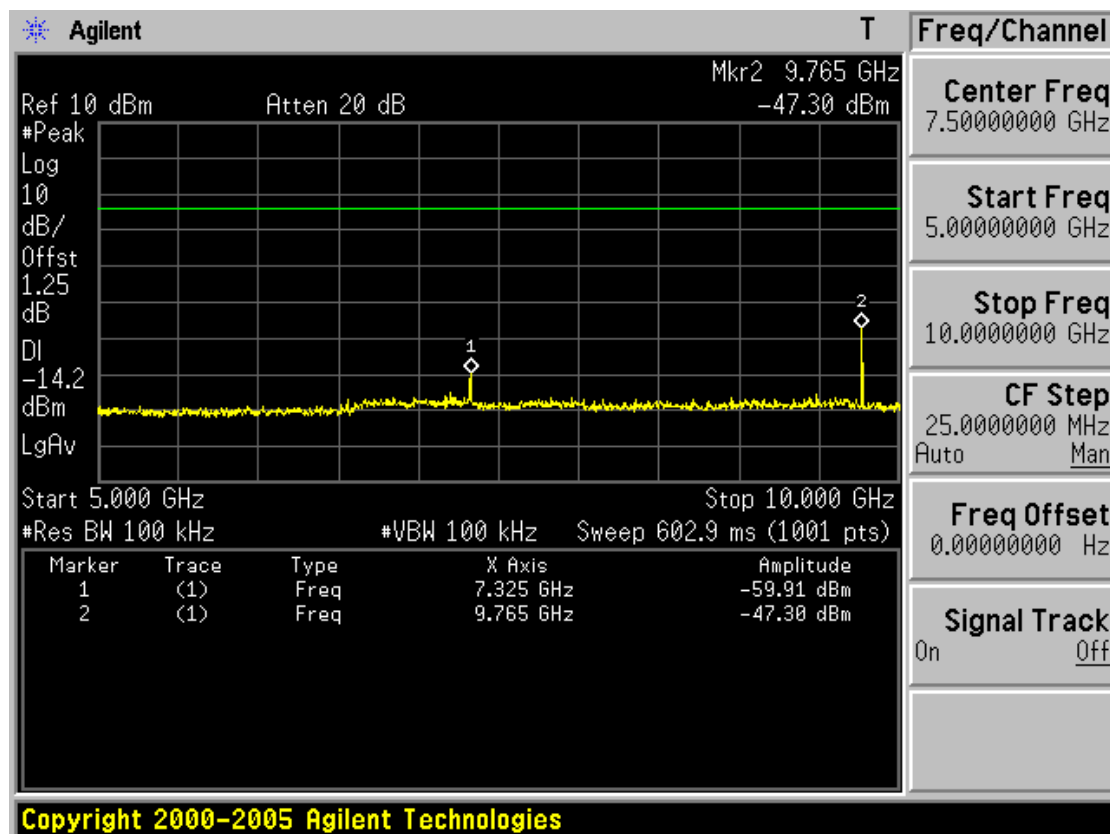
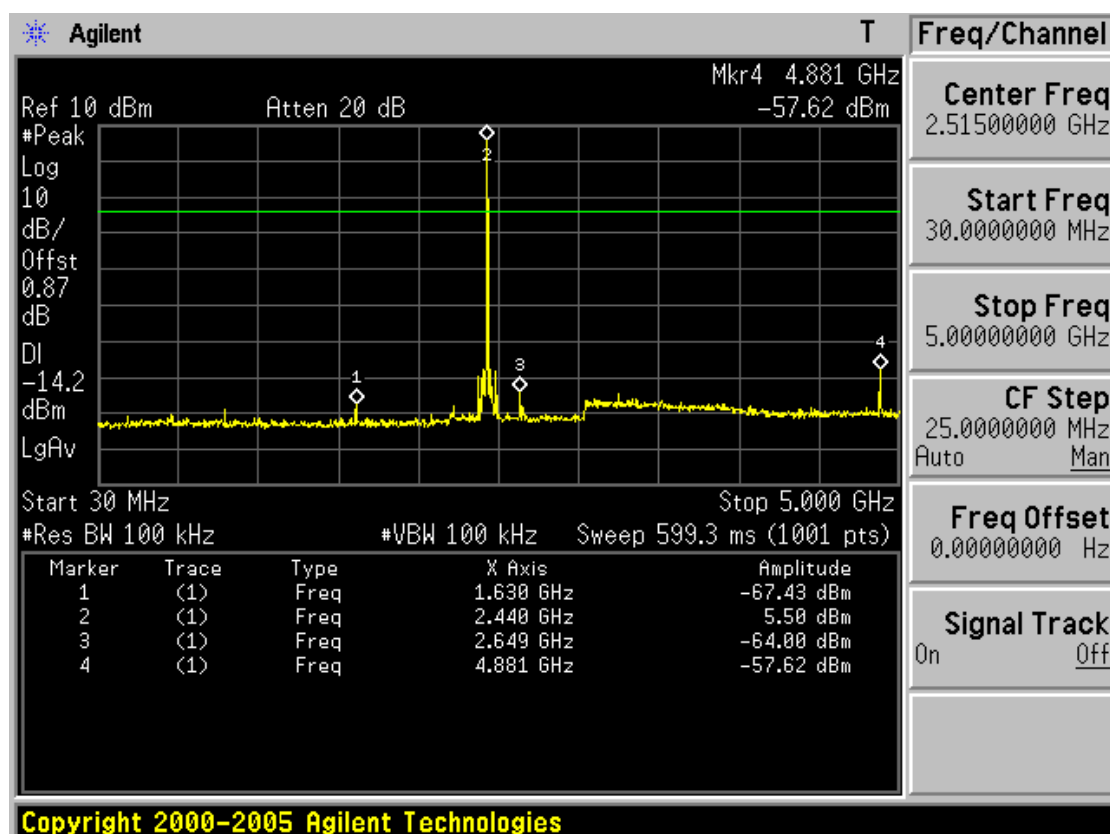
Low channel spurious



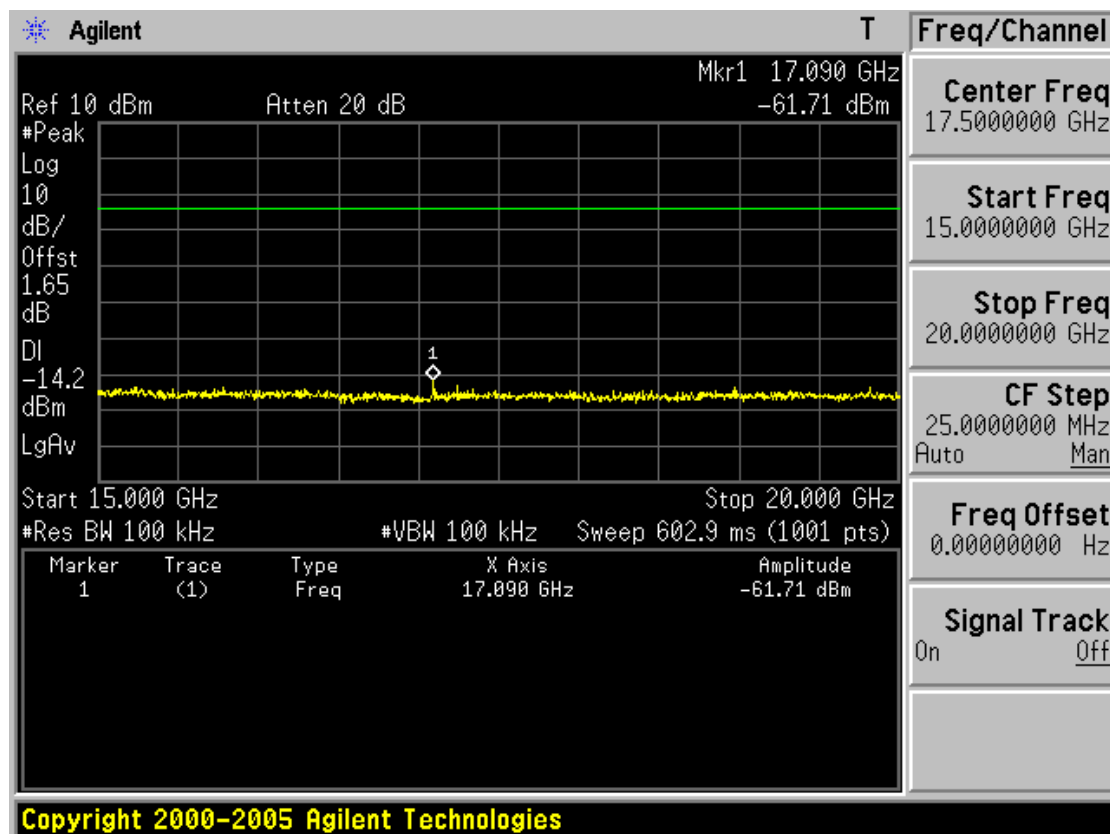
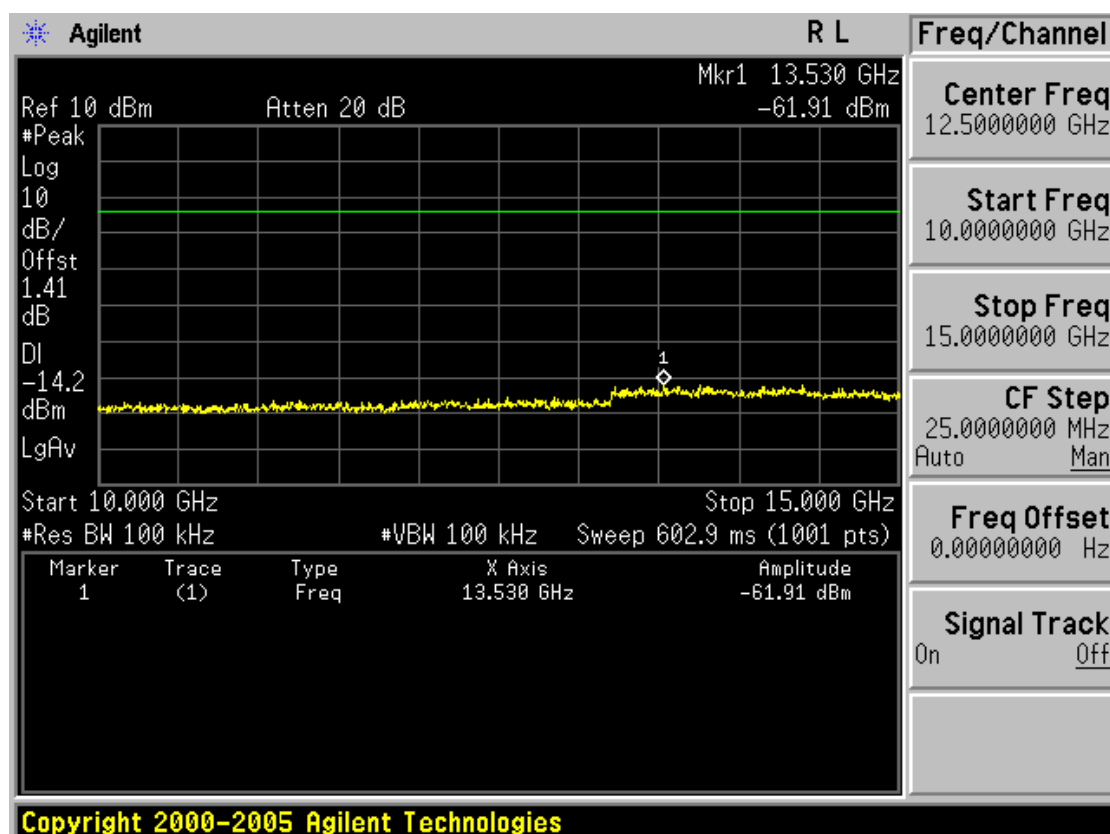
Mid channel ref



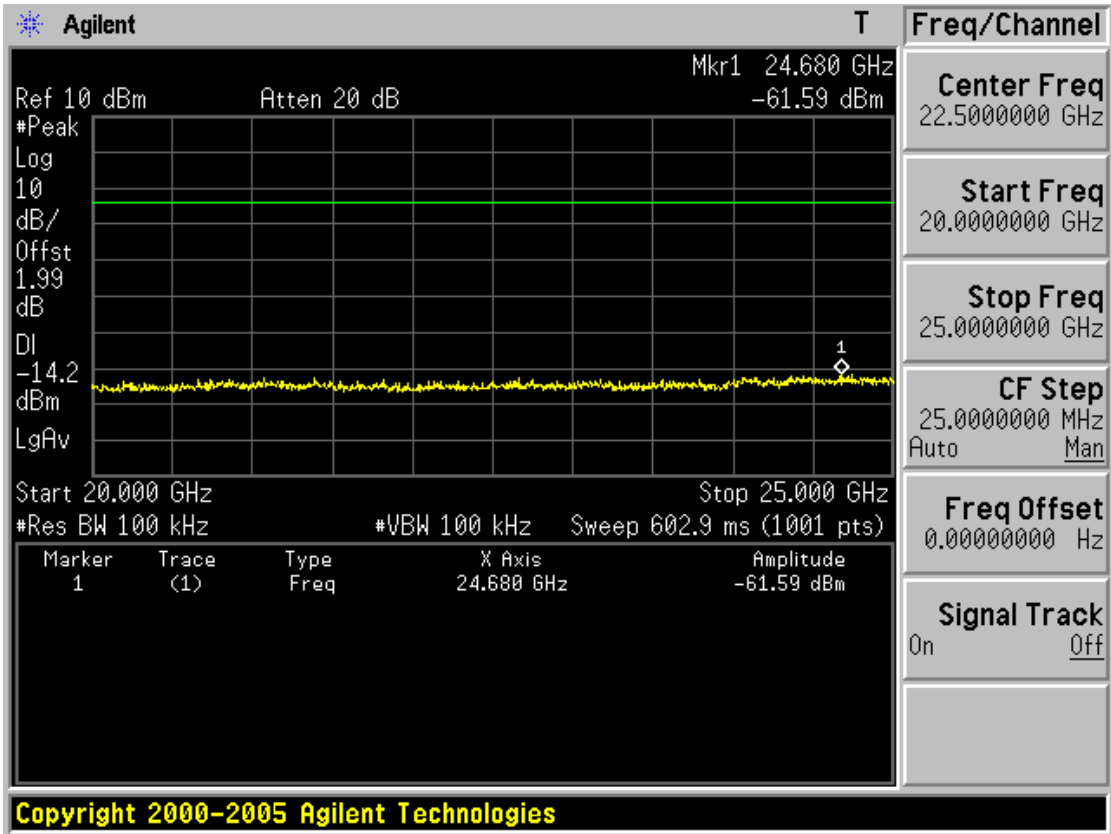
Mid channel spurious



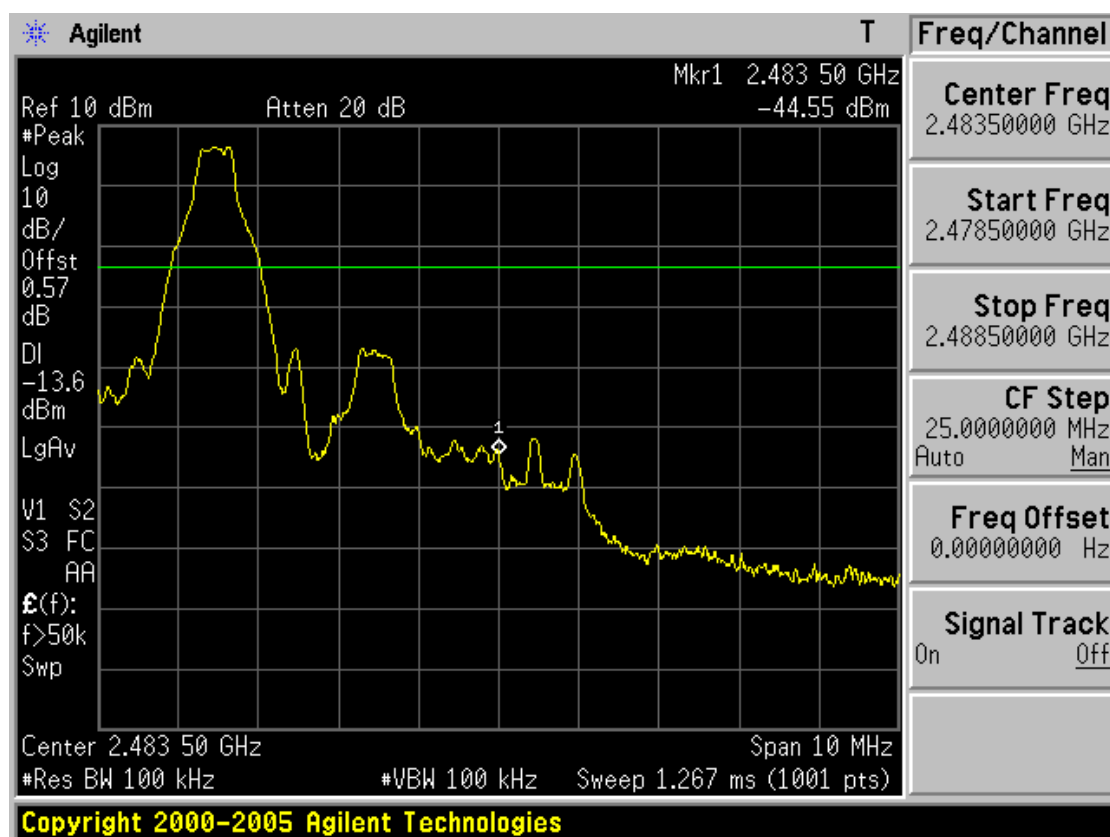
Mid channel spurious



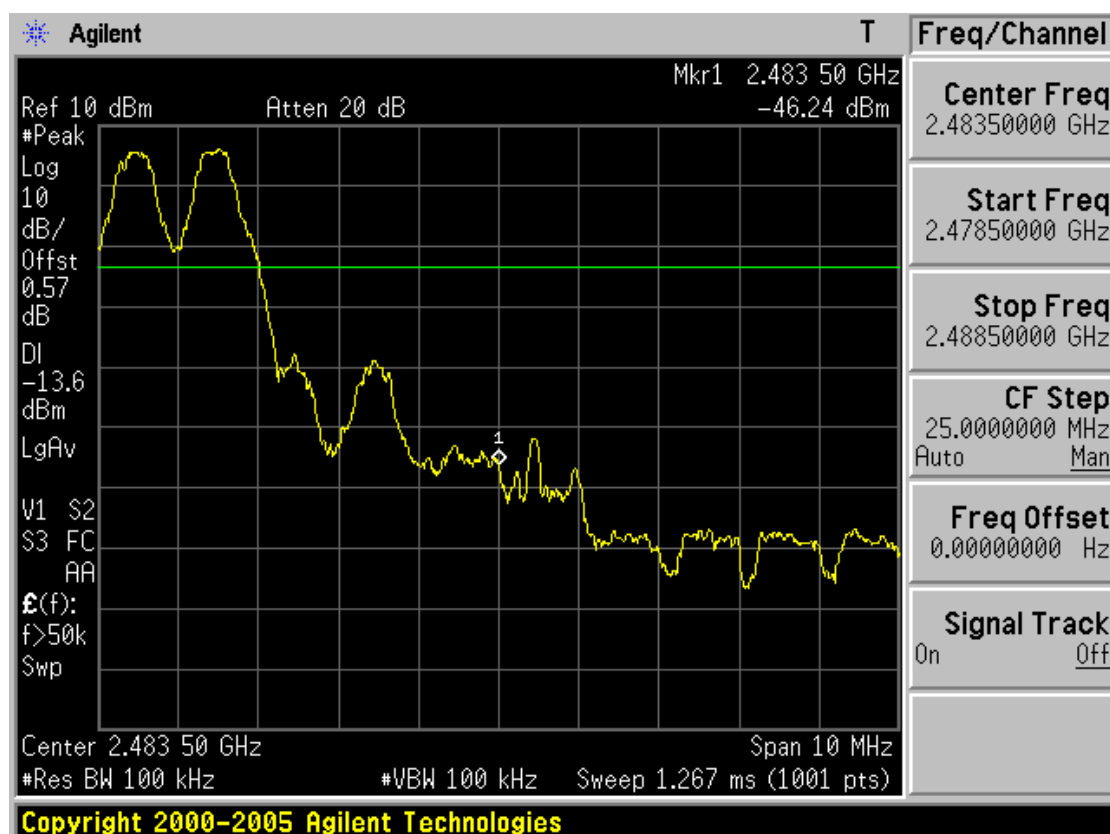
Mid channel spurious



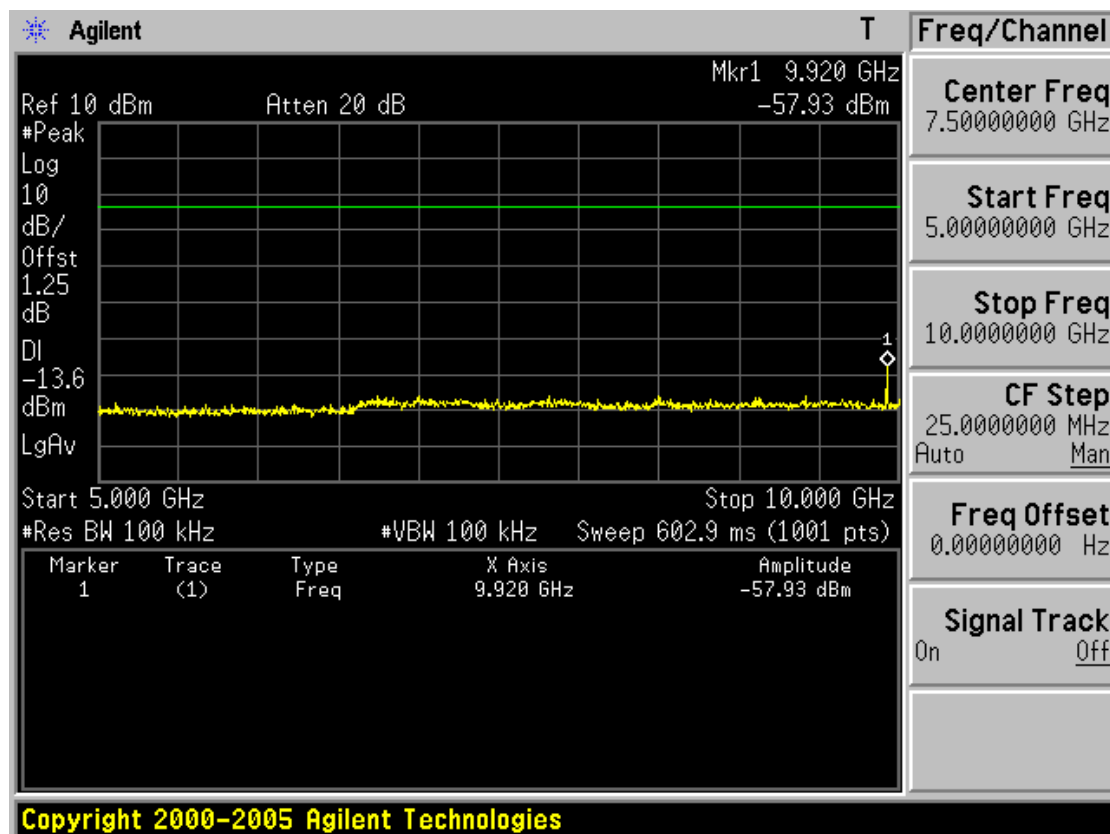
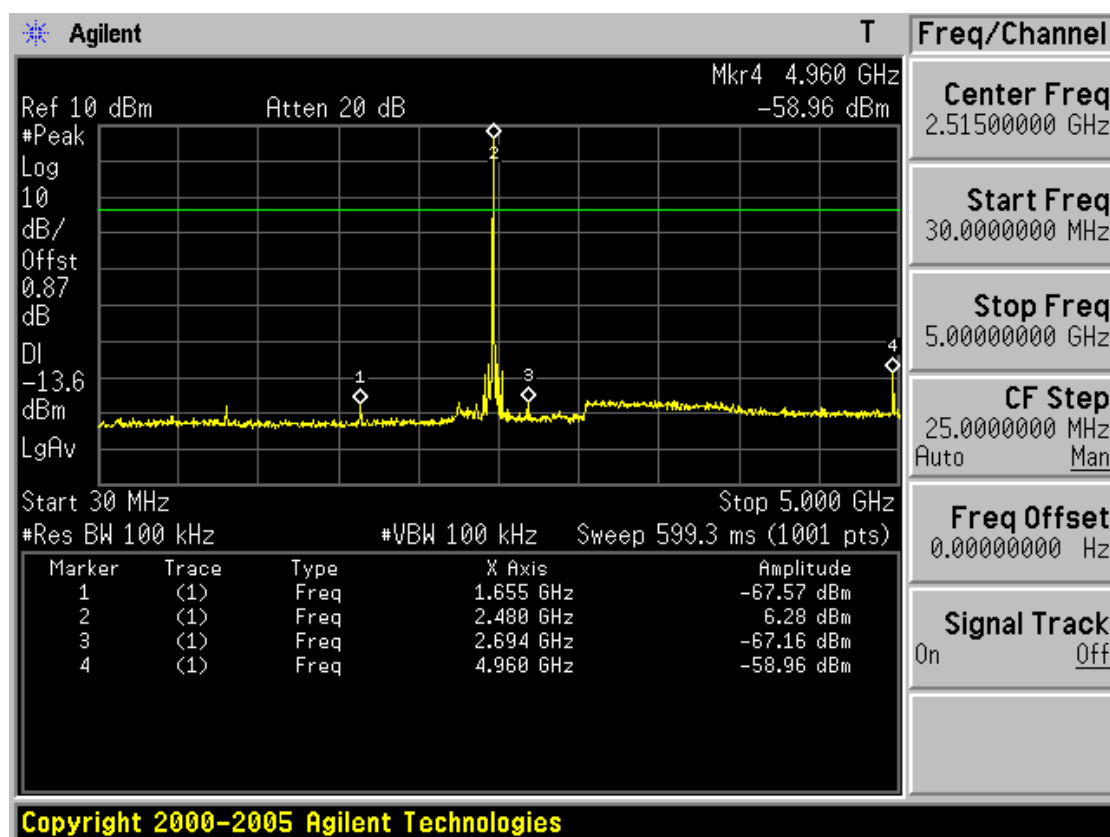
High band with hopping disabled



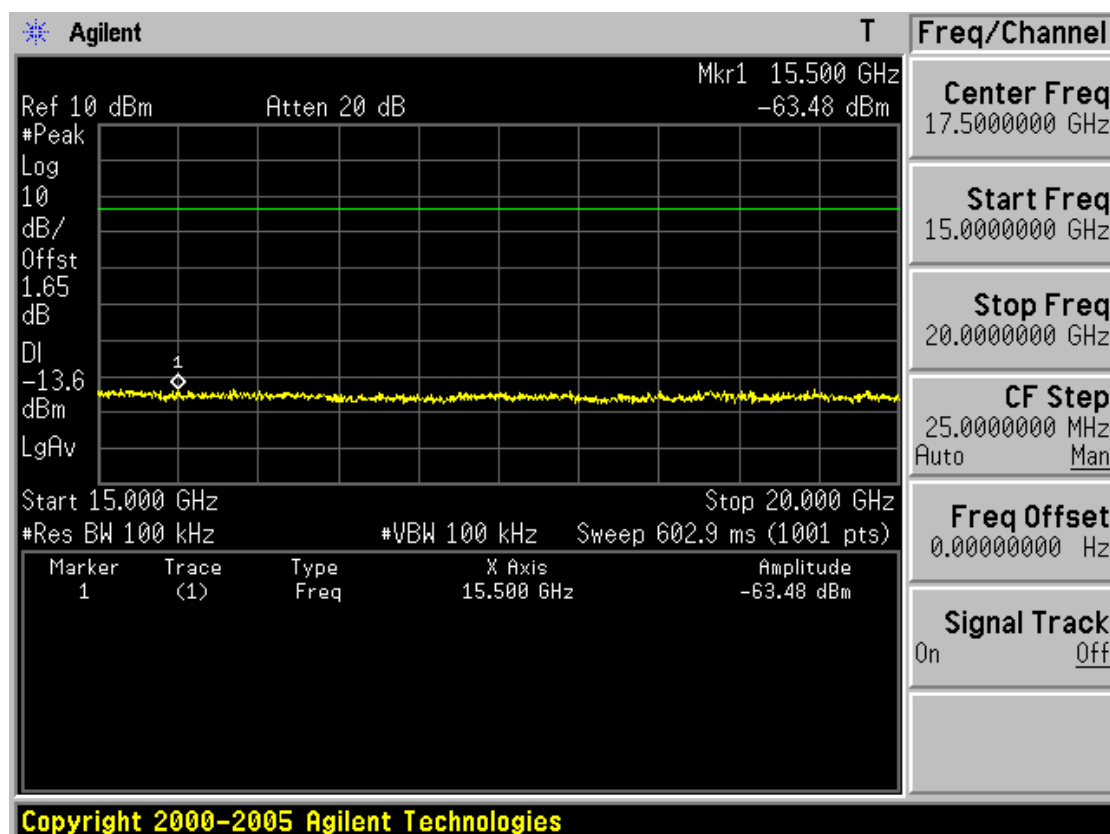
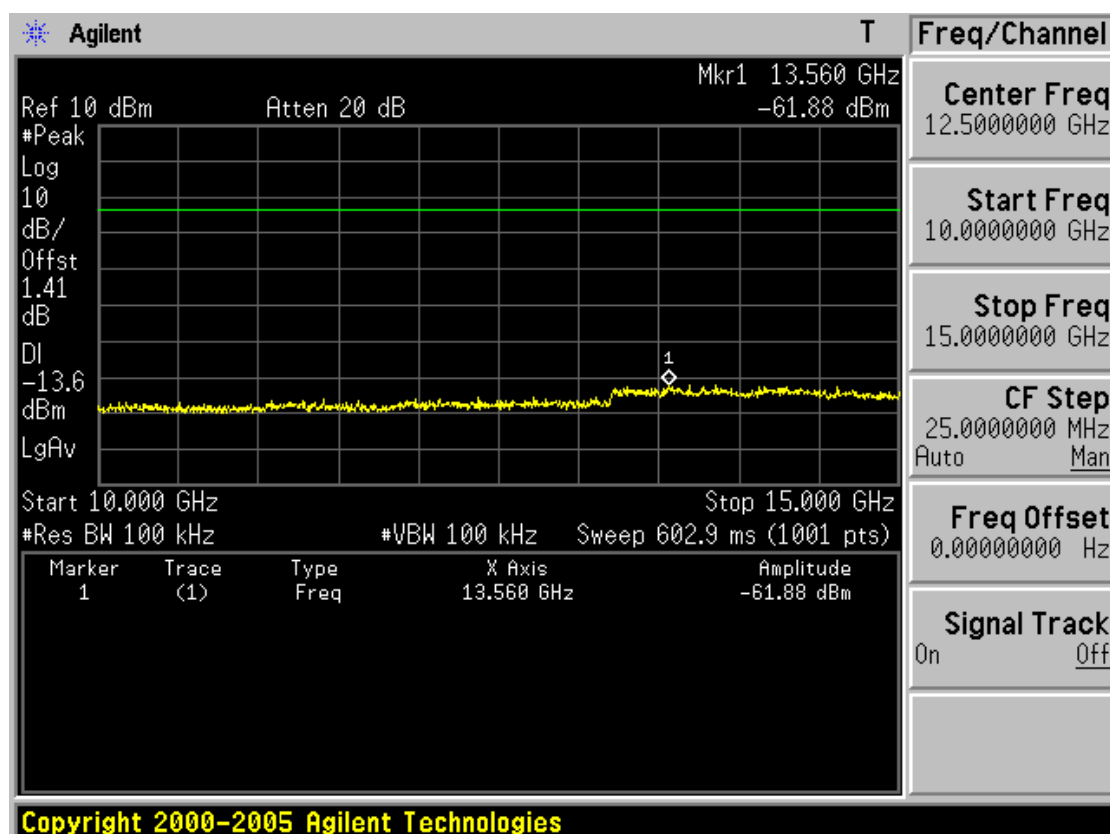
High band with hopping enabled



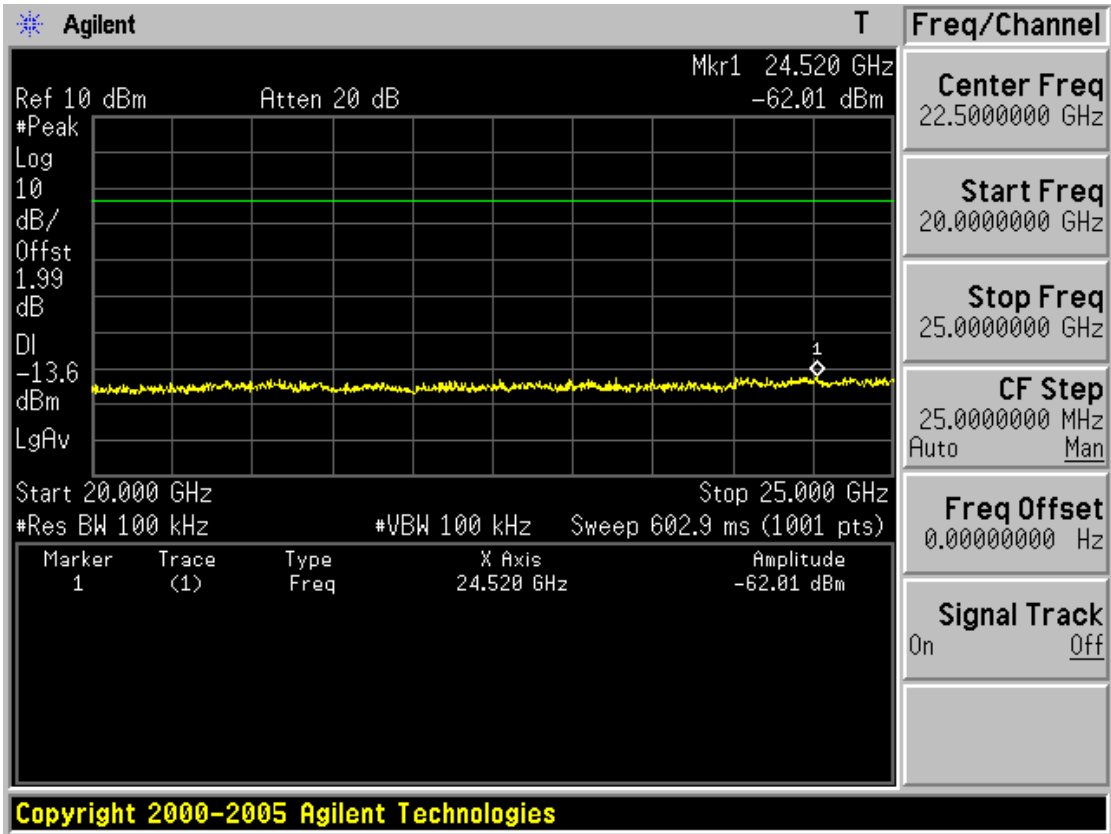
High channel spurious



High channel spurious

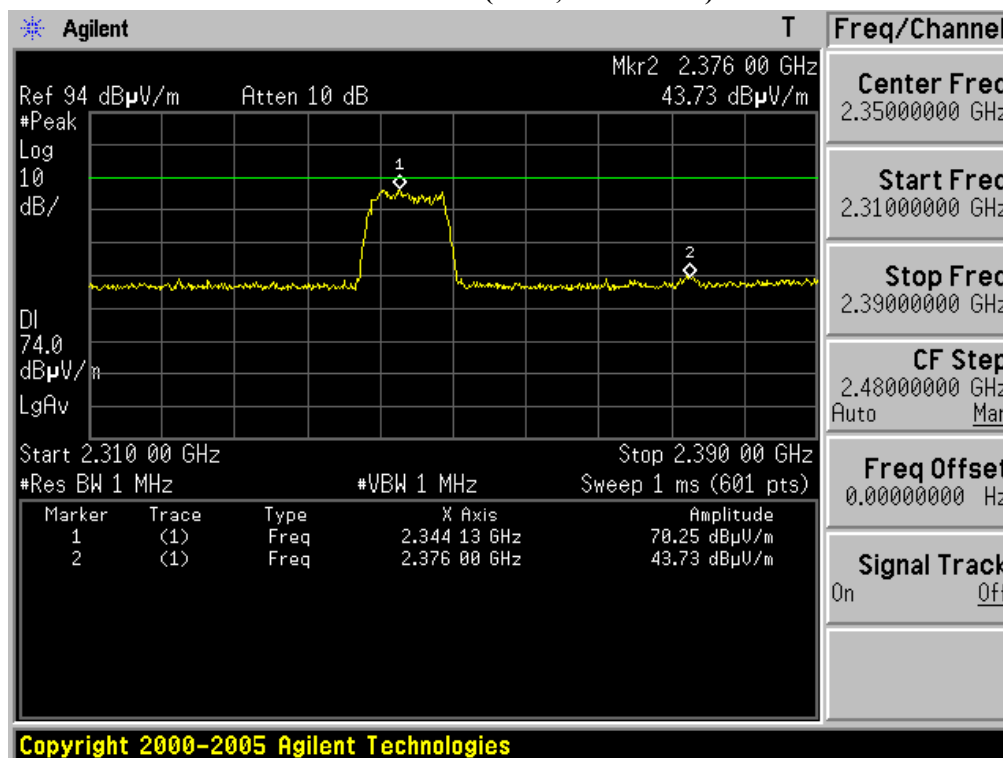


High channel spurious



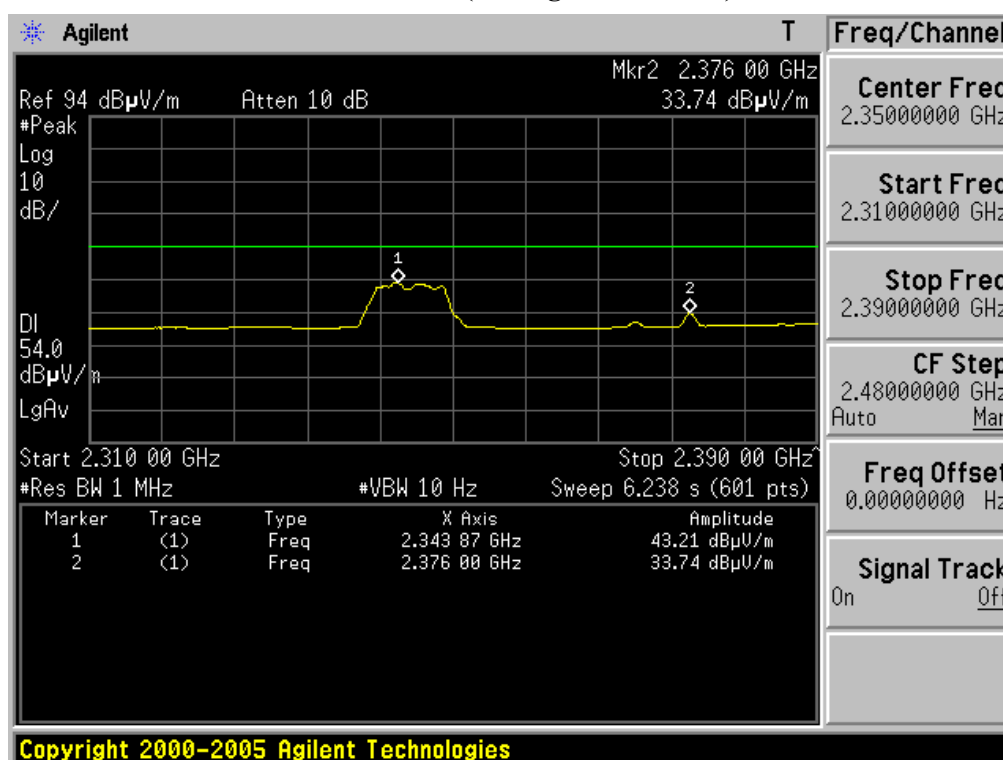
- Measurement Data: Restricted Band Edge

Low Channel (Peak, Horizontal)



Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

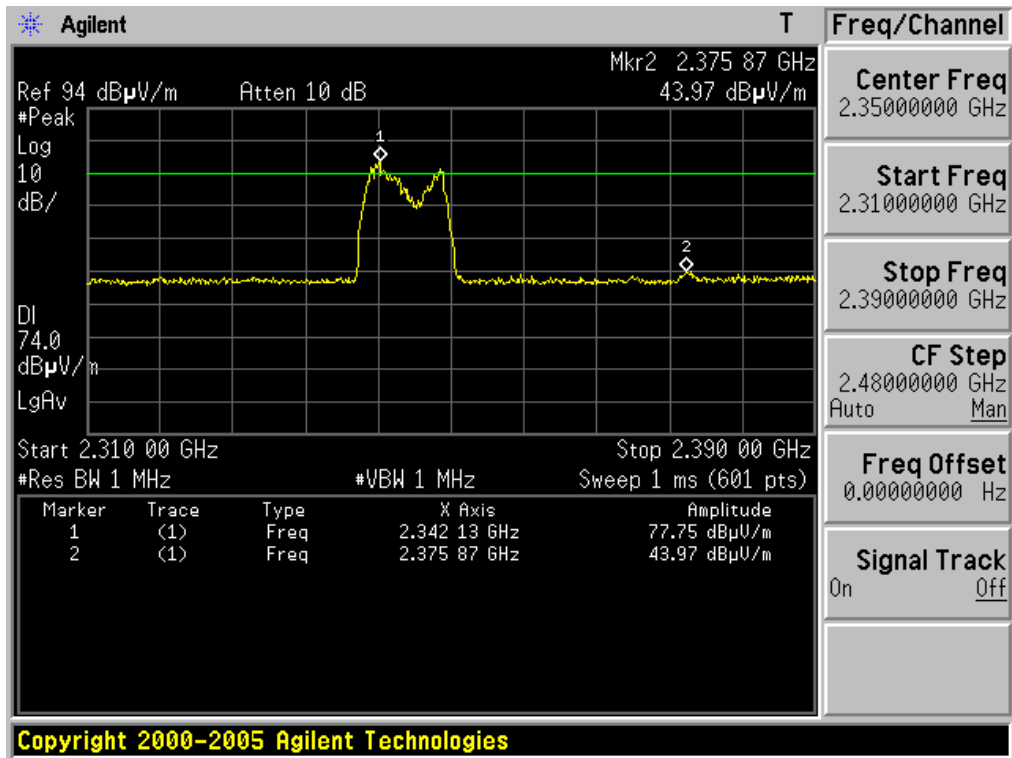
Low Channel (Average, Horizontal)



Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

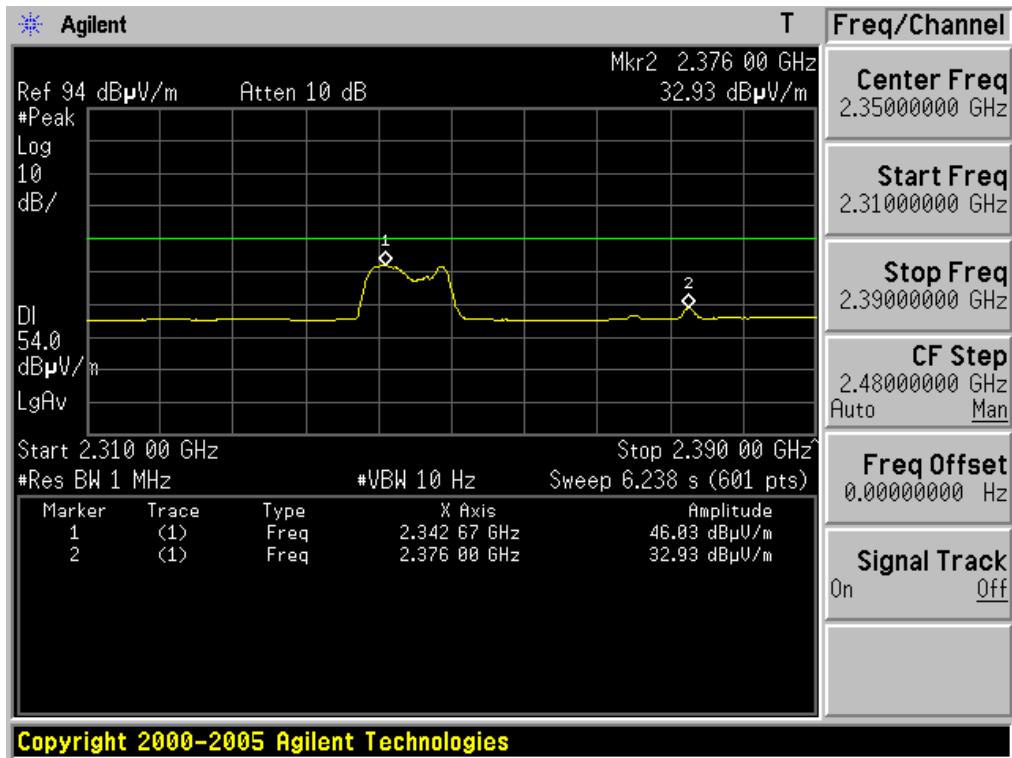
- Measurement Data: Restricted Band Edge

Low Channel (Peak, Vertical)



Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

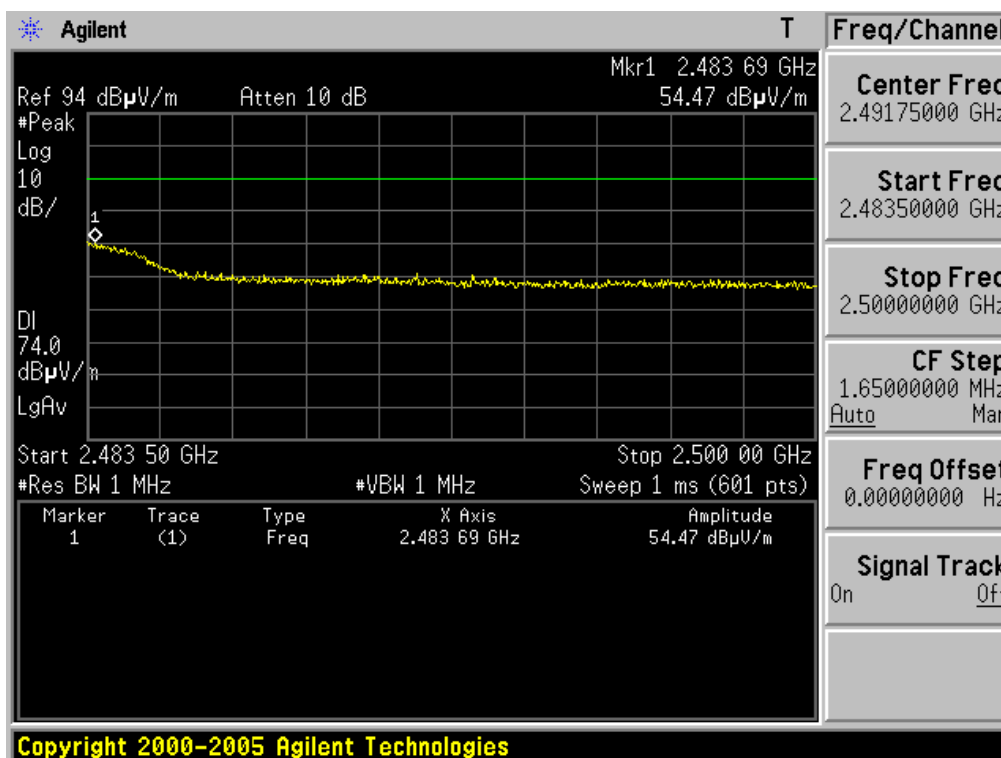
Low Channel (Average, Vertical)



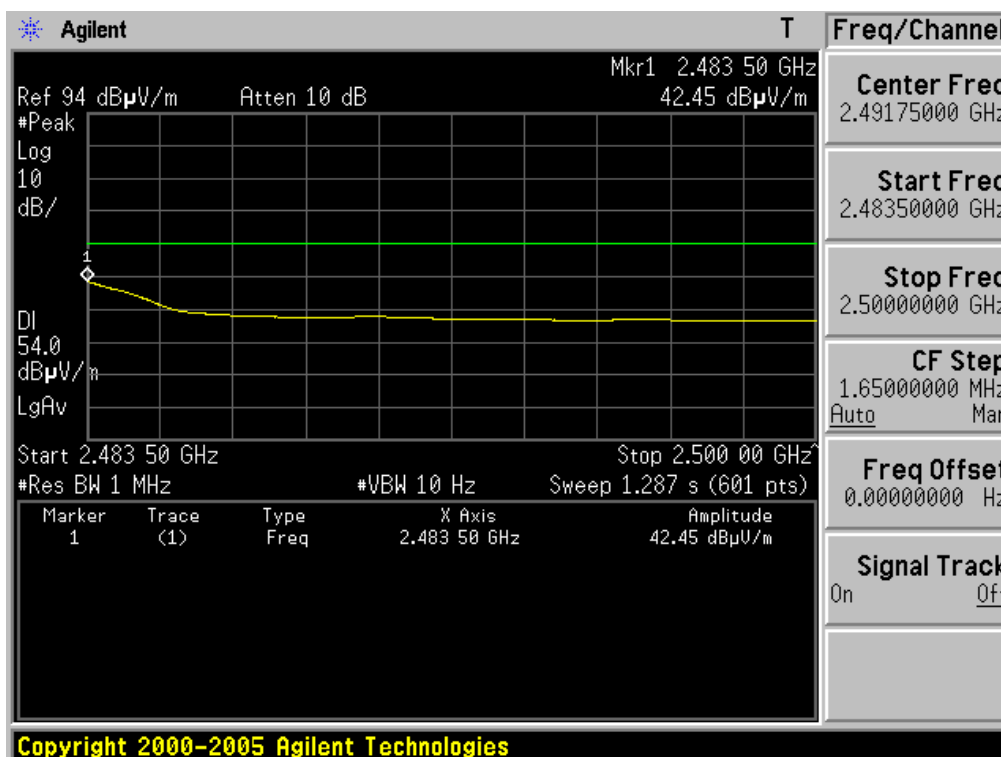
Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

- Measurement Data: Restricted Band Edge

High Channel (Peak, Horizontal)

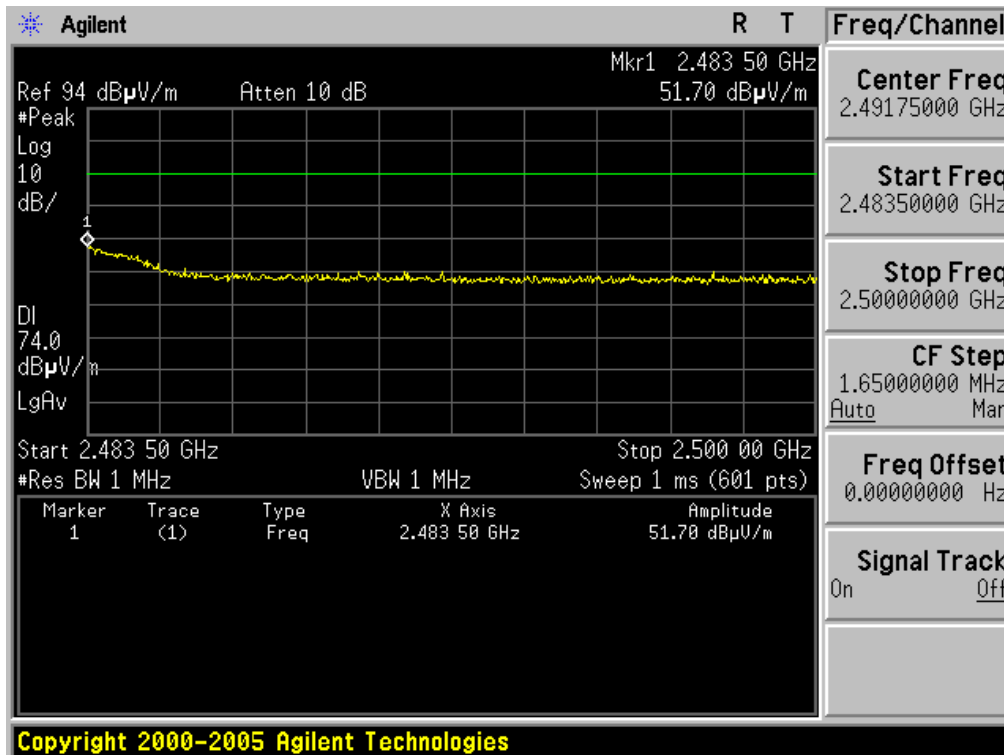


High Channel (Average, Horizontal)

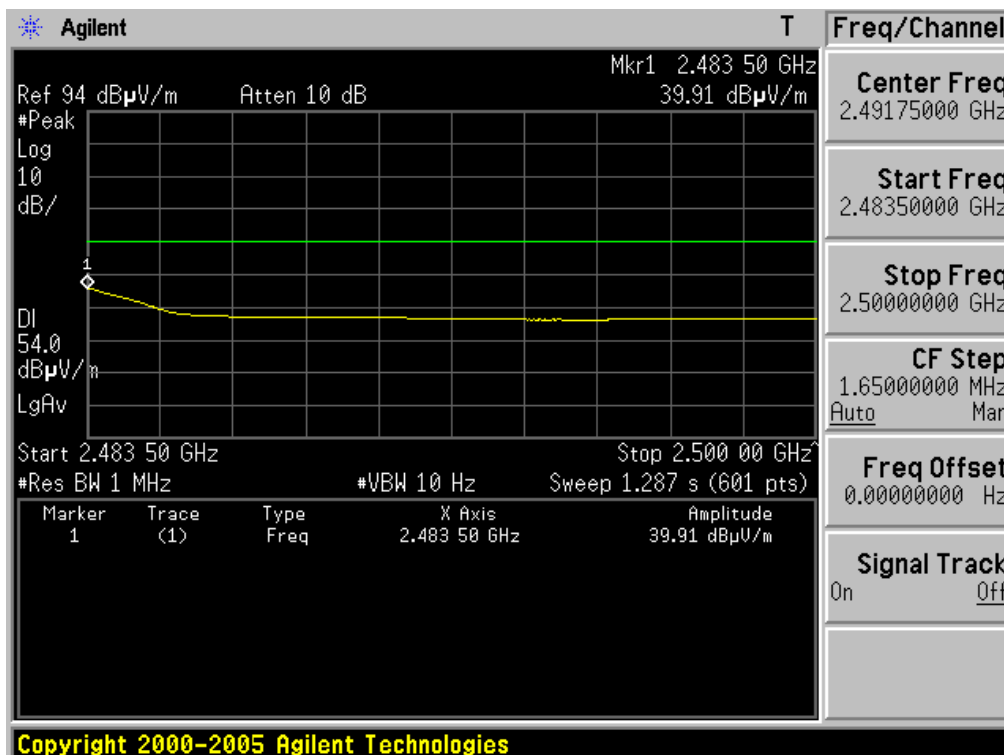


- Measurement Data: Restricted Band Edge

High Channel (Peak, Vertical)



High Channel (Average, Vertical)



- Measurement Data: Low Channel & Test Frequency range = 30MHz ~ 1GHz



RADIATED EMISSION

Date : 2009-05-20

Model Name : HBM-580

Model No. :

Serial No. : Identical prototype

Test Condition : TX: 2402MHz

Reference No. :

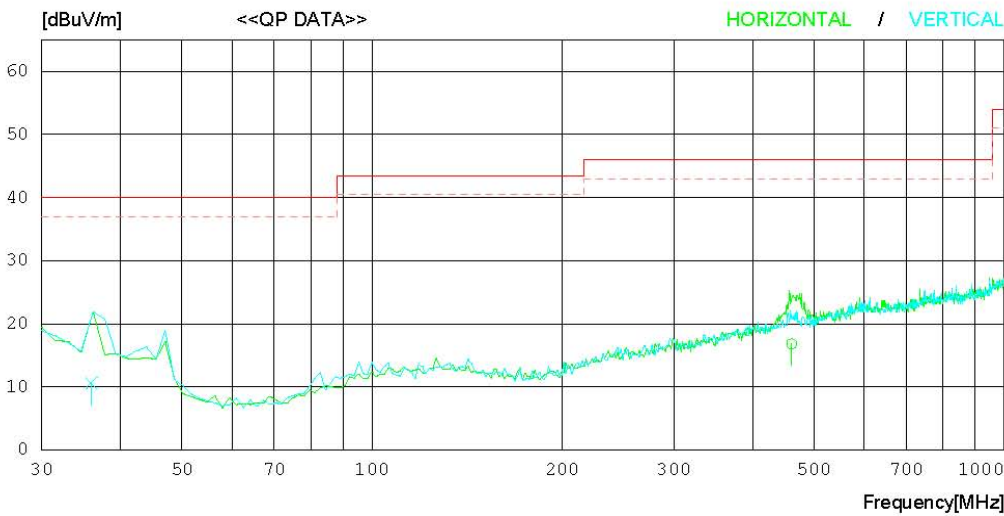
Power Supply : 3.7V

Temp/Humi : 20°C 50%

Operator : D.C.CHA

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
		[dBuV]	[dB]							
----- Horizontal -----										
1	460.939	20.9	16.8	3.3	24.2	16.8	46.0	29.2	201	182
----- Vertical -----										
2	36.001	17.5	14.6	0.9	22.4	10.6	40.0	29.4	100	1

- Measurement Data: Low Channel & Test Frequency range = 1GHz ~ 25GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)			T.F (dB)	Result(dBuV/m)			Limit(dBuV/m)			Margin(dB)		
		QP	PK	AV		QP	PK	AV	QP	PK	AV	QP	PK	AV
4804	Hor	-	47.52	37.91	6.25	-	53.77	44.16	-	74.00	54.00	-	20.23	9.84
4804	Ver	-	47.23	37.23	6.25	-	53.48	43.48	-	74.00	54.00	-	20.52	10.52

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

- Measurement Data: Middle Channel & Test Frequency range = 30MHz ~ 1GHz



RADIATED EMISSION

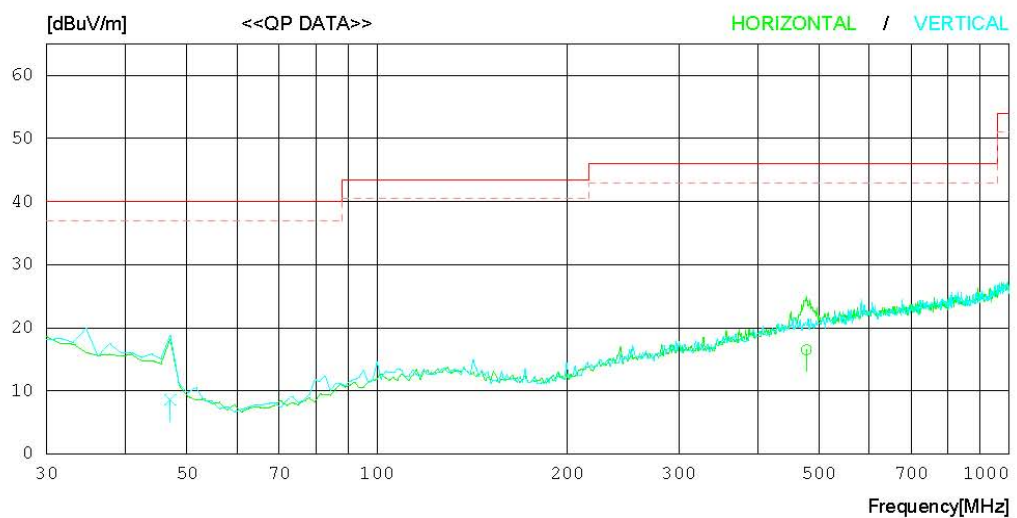
Date : 2009-05-20

Model Name : HBM-580
Model No. :
Serial No. : Identical prototype
Test Condition : TX: 2441MHz

Reference No. :
Power Supply : 3.7V
Temp/Humi : 20°C 50%
Operator : D.C.CHA

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB



No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	477.691	20.3	17.0	3.4	24.2	16.5	46.0	29.5	199	61
----- Vertical -----										
2	47.099	18.6	11.4	1.0	22.4	8.6	40.0	31.4	400	115

- Measurement Data: Middle Channel & Test Frequency range = 1GHz ~ 25GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)			T.F (dB)	Result(dBuV/m)			Limit(dBuV/m)			Margin(dB)		
		QP	PK	AV		QP	PK	AV	QP	PK	AV	QP	PK	AV
4882	Hor	-	46.15	35.39	6.55	-	52.70	41.94	-	74.00	54.00	-	21.30	12.06
4882	Ver	-	46.13	36.09	6.55	-	52.68	42.64	-	74.00	54.00	-	21.32	11.36

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

- Measurement Data: High Channel & Test Frequency range = 30MHz ~ 1GHz



RADIATED EMISSION

Date : 2009-05-20

Model Name : HBM-580

Model No. :

Serial No. : Identical prototype

Test Condition : TX: 2480MHz

Reference No. :

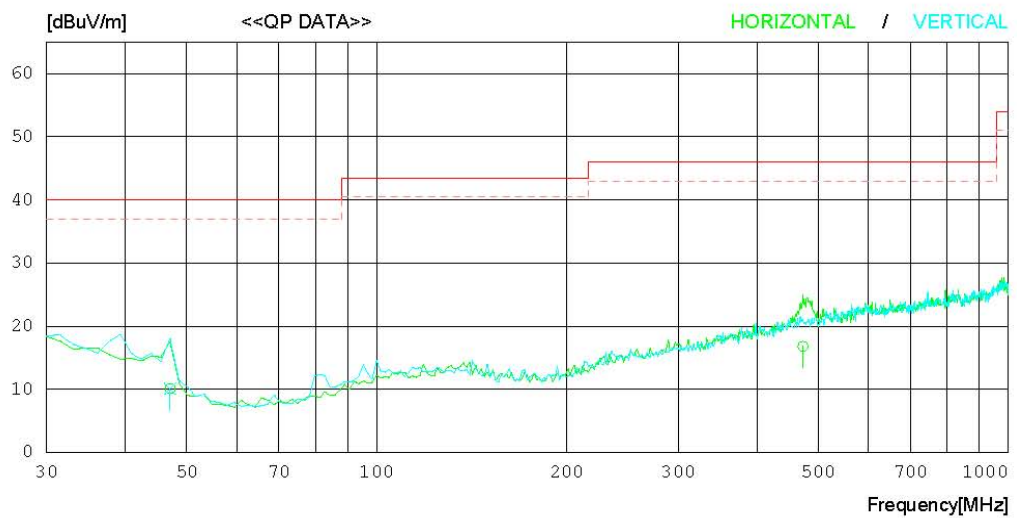
Power Supply : 3.7V

Temp/Humi : 20°C 50%

Operator : D.C.CHA

Memo :

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB



No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	QP	FACTOR	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
		[dBuV]	[dB]							
----- Horizontal -----										
1	473.027	20.6	17.0	3.4	24.2	16.8	46.0	29.2	201	358
2	47.099	20.1	11.4	1.0	22.4	10.1	40.0	29.9	101	356
----- Vertical -----										
3	47.099	20.1	11.4	1.0	22.4	10.1	40.0	29.9	400	157

- Measurement Data: High Channel & Test Frequency range = 1GHz ~ 25GHz

Frequency (MHz)	ANT Pol	Reading(dBuV)			T.F (dB)	Result(dBuV/m)			Limit(dBuV/m)			Margin(dB)		
		QP	PK	AV		QP	PK	AV	QP	PK	AV	QP	PK	AV
4960	Hor	-	43.13	30.88	6.92	-	50.05	37.80	-	74.00	54.00	-	23.95	16.20
4960	Ver	-	43.10	30.58	6.92	-	50.02	37.50	-	74.00	54.00	-	23.98	16.50

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. Sample Calculation.

$$\text{Margin} = \text{Limit} - \text{Result} \quad / \quad \text{Result} = \text{Reading} + \text{T.F} \quad / \quad \text{T.F} = \text{AF} + \text{CL} - \text{AG}$$

Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

3.2.8 AC Line Conducted Emissions

- Procedure:

The conducted emissions are measured in the shielded room with a spectrum analyzer in peak hold. While the measurement, EUT had its hopping function disabled at the middle channels in line with Section 15.31(m). Emissions closest to the limit are measured in the quasi-peak and average detector mode with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation and Exerciser operation. The highest emissions relative to the limit are listed.

- Measurement Data: **NA**

Note: When this device is in the charging mode, the Bluetooth function is disabled.

- Minimum Standard: FCC Part 15.207(a)/EN 55022

Frequency Range (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

* Decreases with the logarithm of the frequency

- Measurement Setup

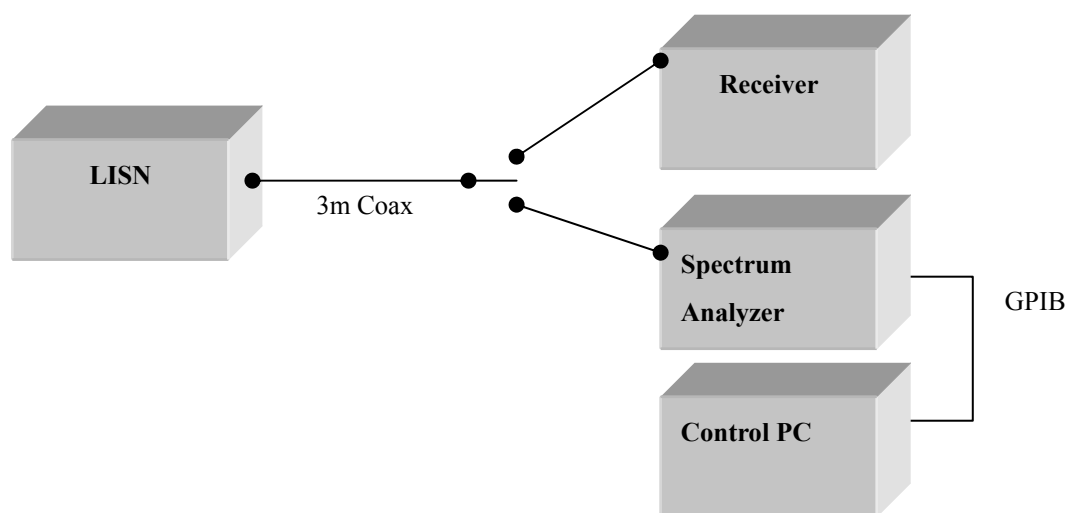


Figure 2: Measurement setup for AC Conducted Emission

APPENDIX

TEST EQUIPMENT FOR TESTS

To facilitate inclusion on each page of the test equipment used for related tests, each item of test equipment.

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	Next.Due.Date (dd/mm/yy)	S/N
☒	Spectrum Analyzer	Agilent	E4440A	06/11/08	06/11/09	MY45304199
☐	Spectrum Analyzer	Rohde Schwarz	FSQ26	02/02/09	02/02/10	200347
☐	Spectrum Analyzer(RE)	H.P	8563E	13/10/08	13/10/09	3551A04634
☐	Power Meter	H.P	EMP-442A	10/07/08	10/07/09	GB37170413
☐	Power Sensor	H.P	8481A	14/07/08	14/07/09	3318A96332
☐	Power Divider	Agilent	11636B	04/12/08	04/12/09	56471
☐	Power Splitter	Anritsu	K241B	14/10/08	14/10/09	020611
☐	Frequency Counter	H.P	5342A	16/09/08	16/09/09	2119A04450
☐	TEMP & HUMIDITY Chamber	JISCO	KR-100/J-RHC2	10/10/08	10/10/09	30604493/021031
☒	Digital Multimeter	H.P	34401A	13/03/09	13/03/10	3146A13475
☐	Multifunction Synthesizer	HP	8904A	06/10/08	06/10/09	3633A08404
☒	Signal Generator	Rohde Schwarz	SMR20	13/03/09	13/03/10	101251
☐	Signal Generator	H.P	ESG-3000A	09/07/08	09/07/09	US37230529
☐	Vector Signal Generator	Rohde Schwarz	SMJ100A	02/02/09	02/02/10	100148
☐	Audio Analyzer	H.P	8903B	09/07/08	09/07/09	3011A09448
☐	Modulation Analyzer	H.P	8901B	18/07/08	18/07/09	3028A03029
☐	8960 Series 10 Wireless Comms. Test Set	Agilent	E5515C	31/07/08	31/07/09	GB43461134
☐	Universal Radio communication Tester	Rohde Schwarz	CMU 200	19/05/09	19/05/10	106760
☐	Thermo hygrometer	BODYCOM	BJ5478	06/02/09	06/02/10	090205-3
☒	Thermo hygrometer	BODYCOM	BJ5478	06/02/09	06/02/10	090205-2
☐	Thermo hygrometer	BODYCOM	BJ5478	06/02/09	06/02/10	090205-4
☐	AC Power supply	DAEKWANG	5KVA	13/03/09	13/03/10	20060321-1
☒	DC Power Supply	HP	6622A	13/03/09	13/03/10	3448A03760
☐	DC Power Supply	HP	6633A	13/03/09	13/03/10	3524A06634
☐	BAND Reject Filter	Microwave Circuits	N0308372	06/10/08	06/10/09	3125-01DC0352
☐	BAND Reject Filter	Wainwright	WRCG1750	06/10/08	06/10/09	2
☐	High-Pass Filter	ANRITSU	MP526D	06/10/08	06/10/09	MP27756
☐	High-pass filter	Wainwright	WHKX2.1	N/A	N/A	1
☒	High-Pass Filter	Wainwright	WHKX3.0	N/A	N/A	9
☐	Tunable Notch Filter	Wainwright	WRCT800.0 /960.0-0.2/40-8SSK	N/A	N/A	10
☐	Tunable Notch Filter	Wainwright	WRCD1700.0 /2000.0-0.2/40-10SSK	N/A	N/A	27
☐	Tunable Notch Filter	Wainwright	WRCT1900.0 /2200.0-5/40-10SSK	N/A	N/A	7
☒	HORN ANT	ETS	3115	13/06/08	13/06/09	6419
☐	HORN ANT	ETS	3115	10/09/08	10/09/09	21097
☐	HORN ANT	A.H.Systems	SAS-574	13/06/08	13/06/09	154
☐	HORN ANT	A.H.Systems	SAS-574	13/06/08	13/06/09	155
☐	Dipole Antenna	Schwarzbeck	VHA9103	25/11/08	25/11/09	2116
☐	Dipole Antenna	Schwarzbeck	VHA9103	25/11/08	25/11/09	2117
☐	Dipole Antenna	Schwarzbeck	UHA9105	25/11/08	25/11/09	2261
☐	Dipole Antenna	Schwarzbeck	UHA9105	25/11/08	25/11/09	2262

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	Next.Due.Date (dd/mm/yy)	S/N
☐	Coaxial Fixed Attenuators	Agilent	8491B	01/08/08	01/08/09	MY39260700
☐	Coaxial Fixed Attenuators	Agilent	8491B	15/07/08	15/07/09	MY39260699
☐	Attenuator (10dB)	WEINSCHEL	23-10-34	01/10/08	01/10/09	BP4386
☐	Attenuator (10dB)	WEINSCHEL	23-10-34	19/01/09	19/01/10	BP4387
☐	Attenuator (20dB)	WEINSCHEL	86-20-11	06/10/08	06/10/09	432
☐	Attenuator (10dB)	WEINSCHEL	86-10-11	06/10/08	06/10/09	446
☐	Attenuator (10dB)	WEINSCHEL	86-10-11	06/10/08	06/10/09	408
☐	Attenuator (40dB)	WEINSCHEL	57-40-33	01/10/08	01/10/09	NN837
☐	Attenuator (30dB)	JFW	50FH-030-300	13/03/09	13/03/10	060320-1
☐	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0088CAN	11/07/08	11/07/09	788
☐	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0185CAN	11/07/08	11/07/09	790
☐	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0215CAN	11/07/08	11/07/09	112
☒	Amplifier (30dB)	Agilent	8449B	13/10/08	13/10/09	3008A01590
☐	Amplifier	EMPOWER	BBS3Q7ELU	02/02/09	02/02/10	1020
☐	RF Power Amplifier	OPHIRRF	5069F	09/07/08	09/07/09	1006
☒	EMI TEST RECEIVER	R&S	ESU	02/02/09	02/02/10	100014
☒	BILOG ANTENNA	SCHAFFNER	CBL6112D	30/09/08	30/09/09	22609
☒	Amplifier (22dB)	H.P	8447E	05/02/09	05/02/10	2945A02865
☐	EMI TEST RECEIVER	R&S	ESCI	12/05/09	12/05/10	100364
☐	LOG-PERIODIC ANT.	Schwarzbeck	UHALP9108A	13/06/08	13/06/09	590
☐	BICONICAL ANT.	Schwarzbeck	VHA 9103	13/06/08	13/06/09	2233
☐	LOG-PERIODIC ANT.	Schwarzbeck	UHALP 9108-A1	30/09/08	30/09/09	1098
☐	BICONICAL ANT.	Schwarzbeck	VHA 9103	30/09/08	30/09/09	91031946
☐	Low Noise Pre Amplifier	TSJ	MLA-100K01-B01-2	13/03/09	13/03/10	1252741
☐	Amplifier (25dB)	Agilent	8447D	12/05/09	12/05/10	2944A10144
☐	Amplifier (25dB)	Agilent	8447D	18/08/08	18/08/09	2648A04922
☐	Spectrum Analyzer(CE)	H.P	8591E	26/04/09	26/04/10	3649A05889
☐	LISN	Kyoritsu	KNW-407	04/08/08	04/08/09	8-317-8
☐	LISN	Kyoritsu	KNW-242	11/09/08	11/09/09	8-654-15
☐	CVCF	NF Electronic	4420	N/A	N/A	304935/337980
☐	DC BLOCK	Hyuplip	KEL-007	N/A	N/A	7-1581-5
☐	50 ohm Terminator	HME	CT-01	22/01/09	22/01/10	N/A
☐	RFI/FIELD Intensity Meter	Kyoritsu	KNM-2402	11/09/08	11/09/09	4N-170-3