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.digitalemc.com

CERTIFICATION OF COMPLIANCE

Camos Co., Ltd.

#429-9, Chongchon-2dong, Pupyong-ku, Inchon, Korea

Dates of Tests: August 27 ~ September 05, 2008
Test Report S/N: DR50110809P
Test Site : DIGITAL EMC CO., LTD.

FCC ID **U6CCAMOS-BTS300**

APPLICANT **Camos Co., Ltd.**

FCC Equipment Class	**:**	**Part 15 Spread Spectrum Transmitter(DSS)**
Device name	**:**	**iMC Motorcom Headsets**
Manufacturer	**:**	**Camos Co., Ltd.**
FCC ID	**:**	**U6CCAMOS-BTS300**
Model name	**:**	**BTS-300**
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	**:**	**2.89 dBm Conducted**
Data of issue	**:**	**September 11, 2008**

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

NVLAP LAB CODE 200559-0

TABLE OF CONTENTS

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".
This laboratory is accredited by NVLAP for NVLAP Lab. Code : 200559-0.

Test operator: engineer

Data	Name	Signature
September 11, 2008	D.C. Cha	

Report Reviewed By: manager

Data	Name	Signature
September 11, 2008	Harvey Sung	

Ordering party:

Company name	:	Camos Co., Ltd.
Address	:	#429-9, Chongchon-2dong, Pupyong-ku
City/town	:	Inchon
Country	:	Korea
Date of order	:	June 14, 2008

2. Information about test item

U6CCAMOS-BTS300

2.1 Equipment information

Equipment model no.	BTS-300
Equipment serial no.	Identical prototype
Type of equipment	iMC Motorcom Headsets
Frequency band	2402 ~ 2480 MHz
Type of Modulation	GFSK
Spread Spectrum	Frequency Hopping
Channel Spacing	1.0 MHz
Type of antenna	Chip Antenna

- This device does not have EDR function.

-When charging the internal battery of this device, the Bluetooth function is disabled.

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 (^{o}C)
Relative humidity content	:	20 ~ 75 %
Air pressure	:	86 ~ 103 kPa
Details of power supply	:	3.7 V DC

2.4 Ancillary Equipment

Equipment	Model No.	Serial No.	Manufacturer
Adaptor	TA01-0501000	N/A	SHENZHEN TENWEI ELECTRONICS CO.,LTD

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 outband shall be at least 20dB below the highest inband 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
2439.985	2440.985	1.000	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

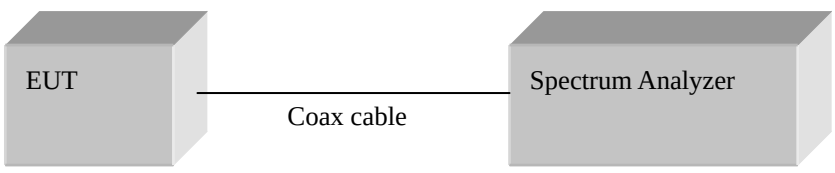
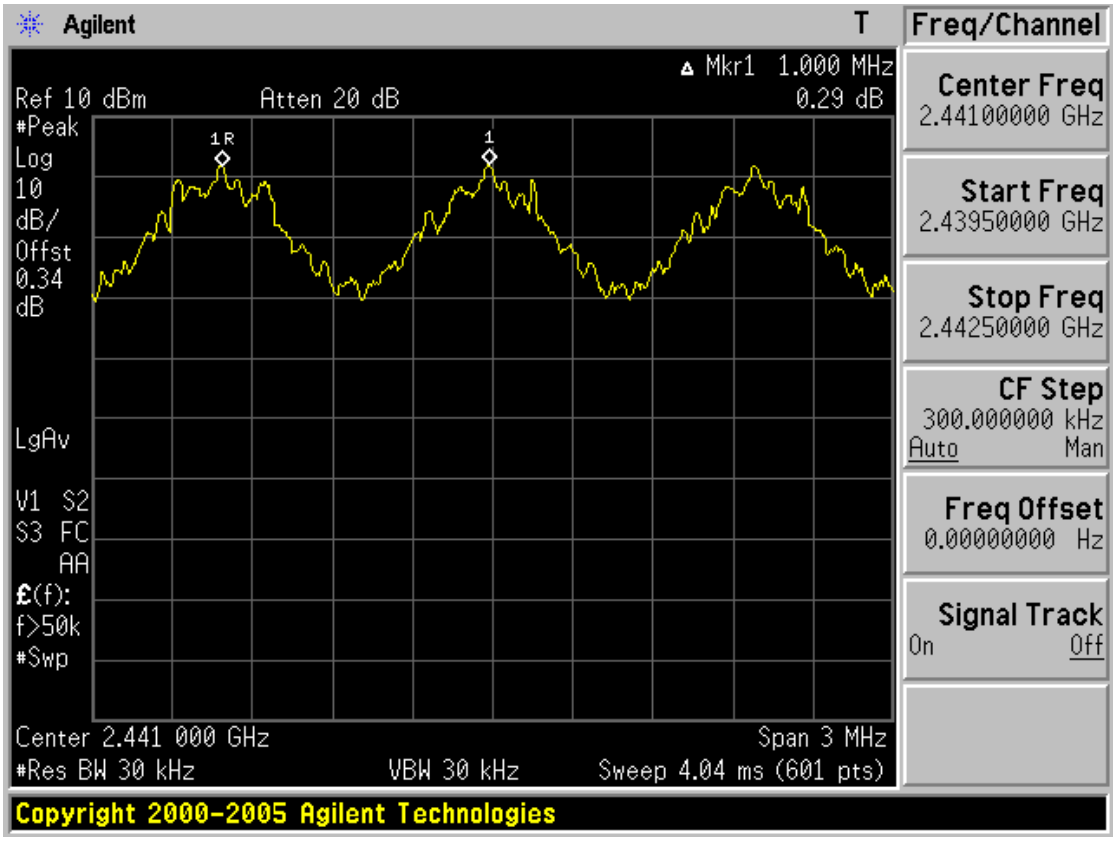


Figure 1: Measurement setup for the carrier frequency separation

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.

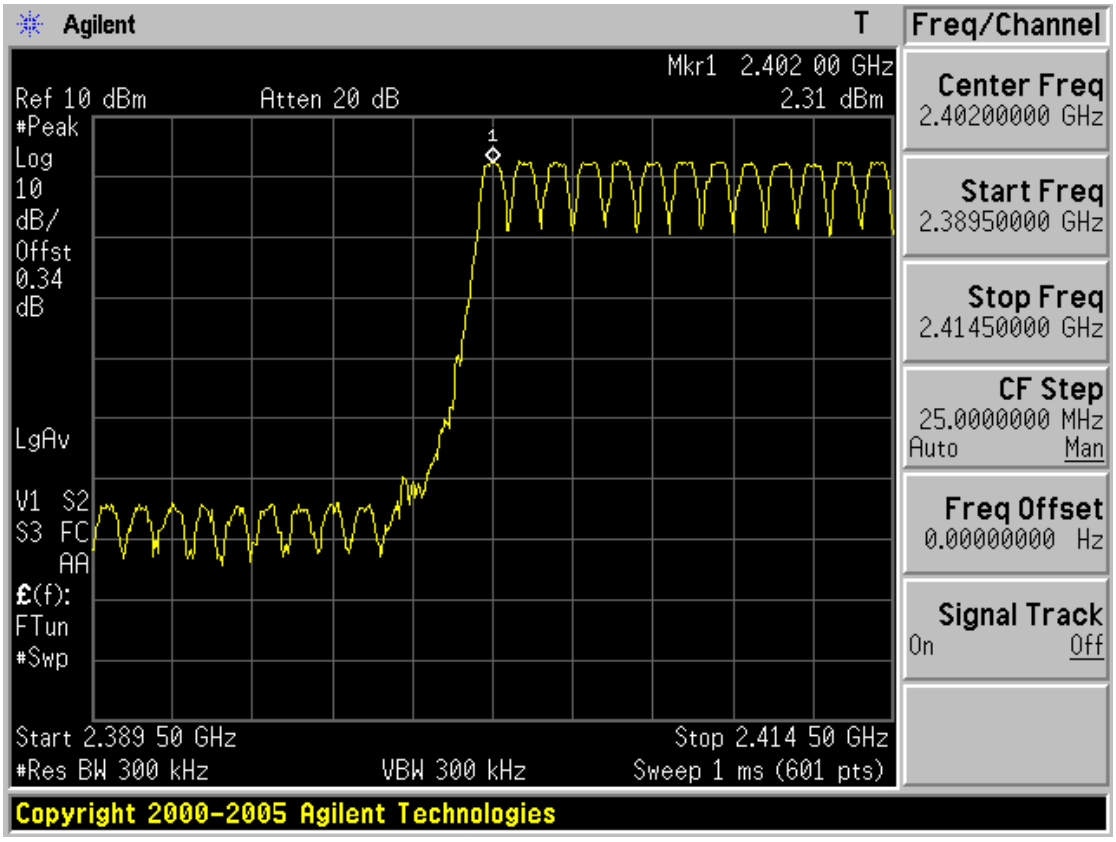
- Minimum Standard:

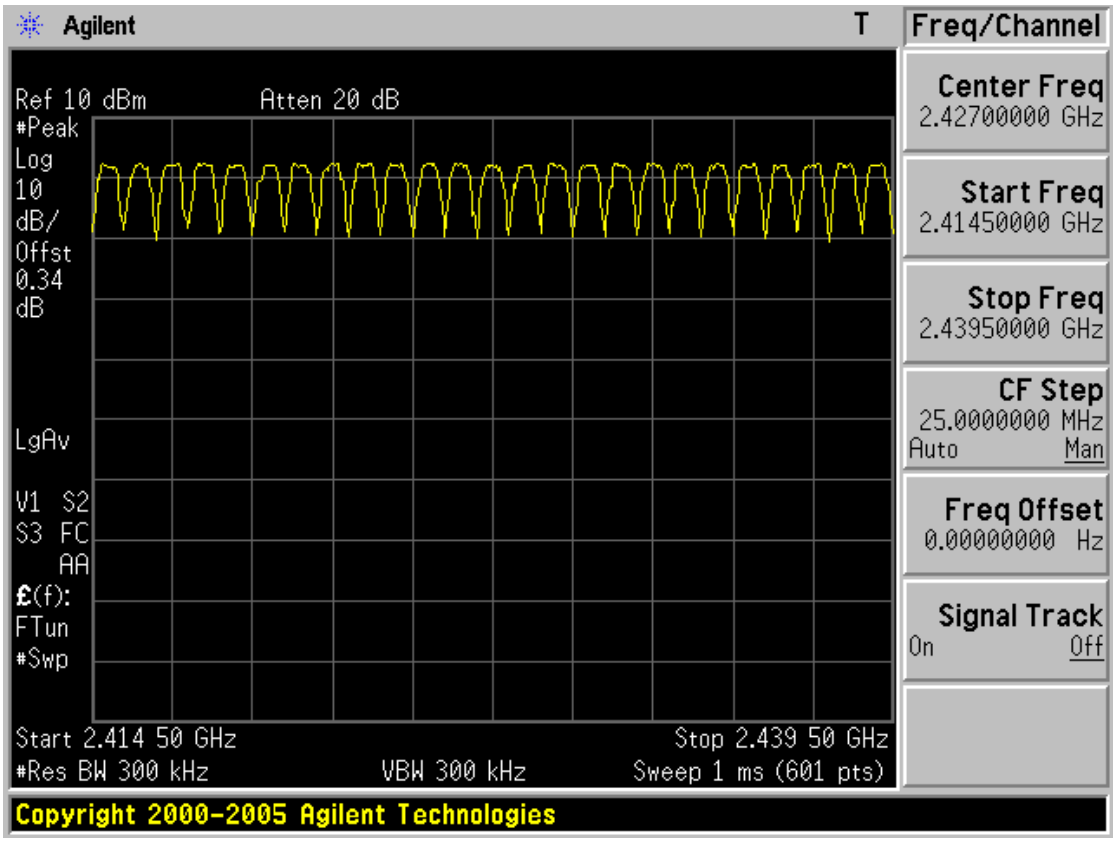
At least 15 hopes

- Measurement Setup

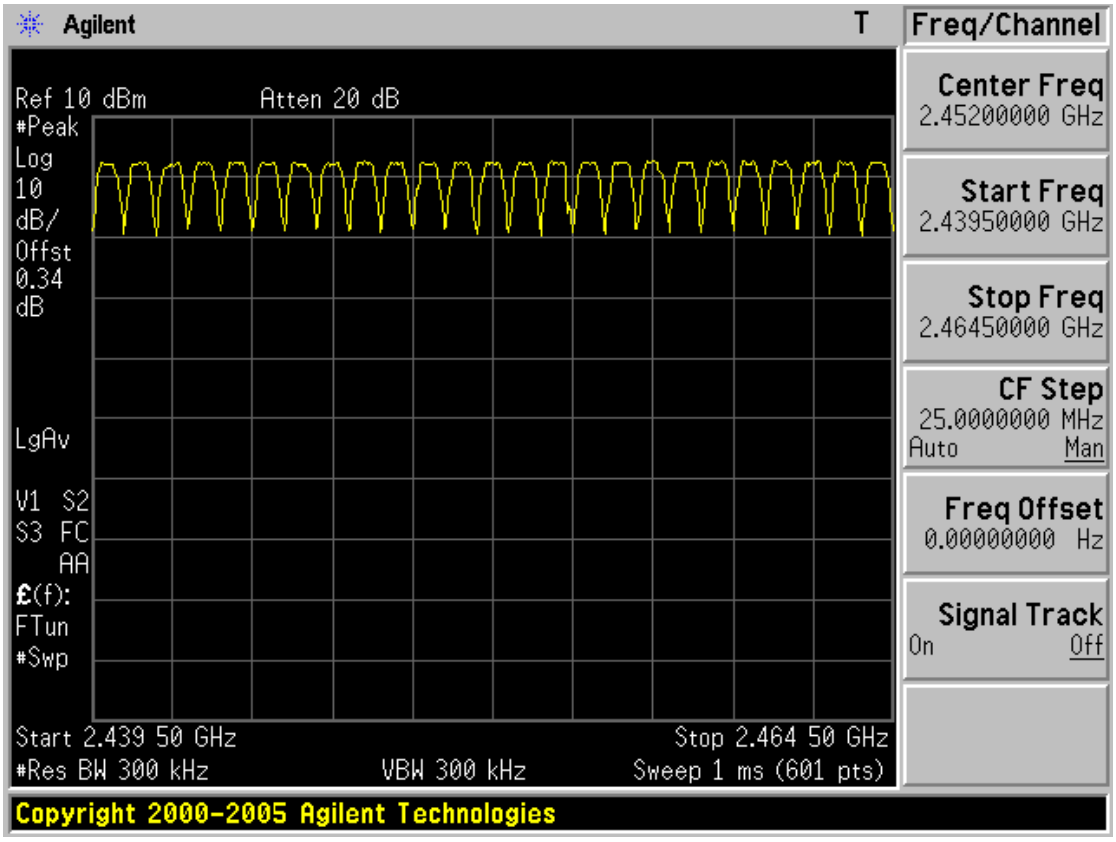
Same as the Chapter 3.2.1 (Figure 1)

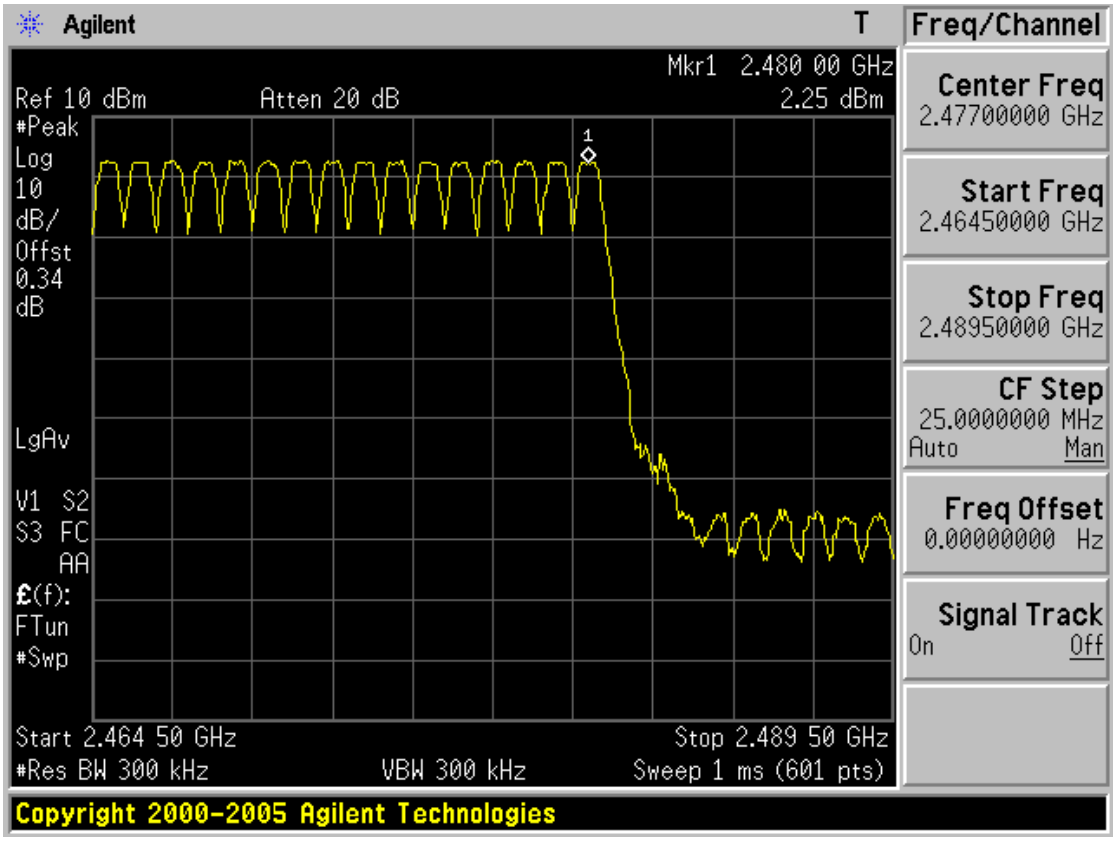
Number of Hopping Frequencies





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 (approximately 2 or 3 times of the 20 dB bandwidth)

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

VBW = 10 kHz (VBW ≥ RBW) Detector function = peak

Trace = max hold

- Measurement Data:

Frequency (MHz)	Channel No.	Test Results	
		Measured Bandwidth (MHz)	Result
2402	1	0.958	Comply
2441	40	0.967	Comply
2480	79	0.958	Comply

- See next pages for actual measured spectrum plots.

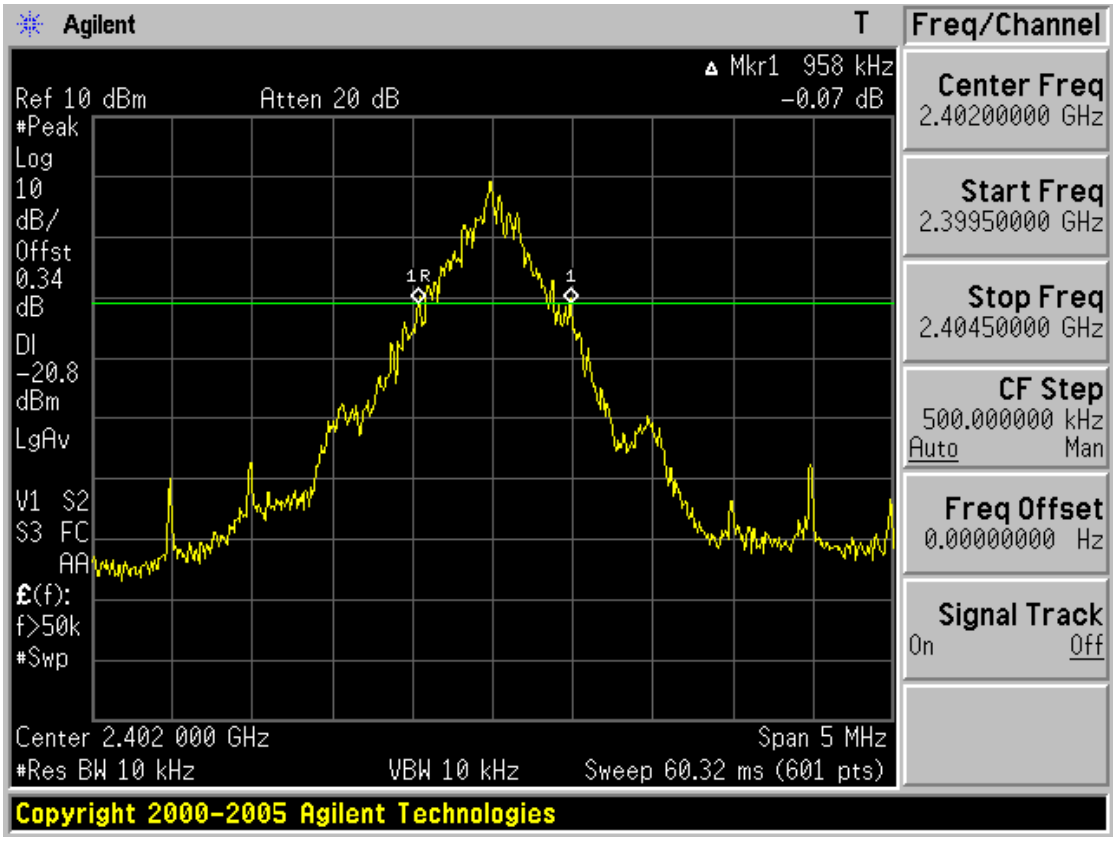
- Minimum Standard:

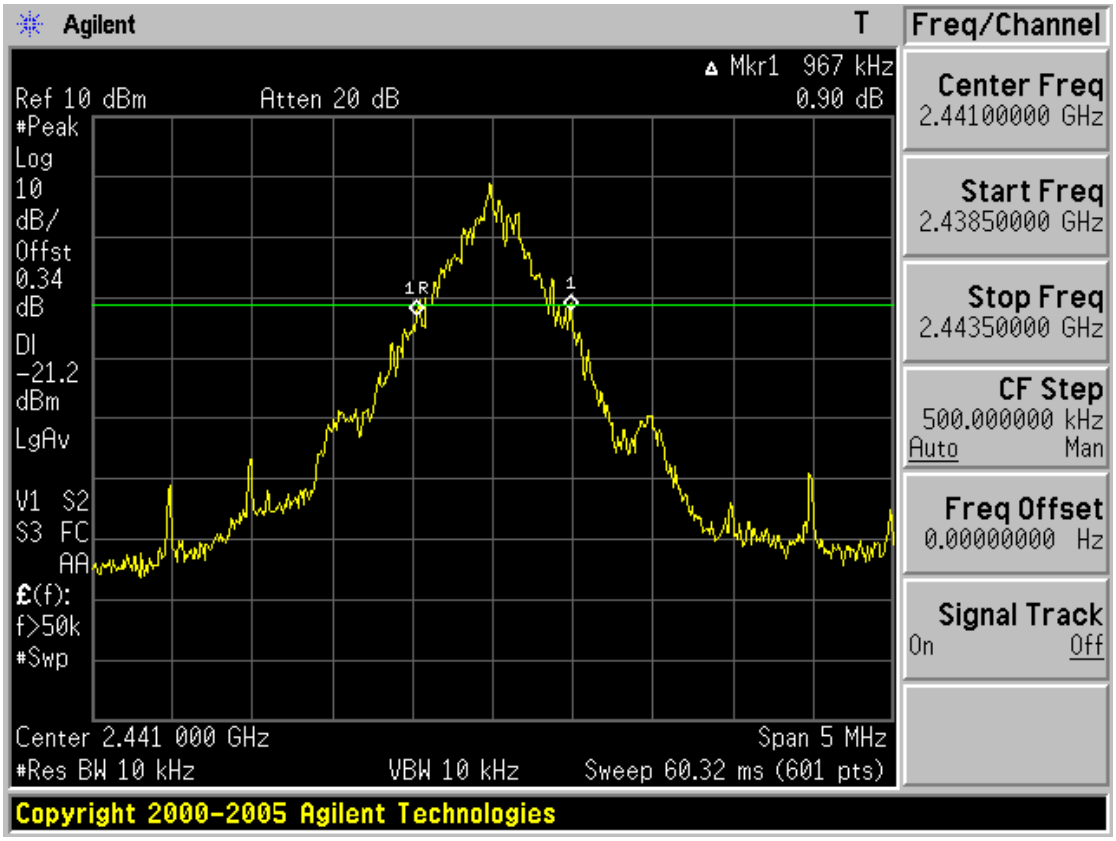
None

- Measurement Setup

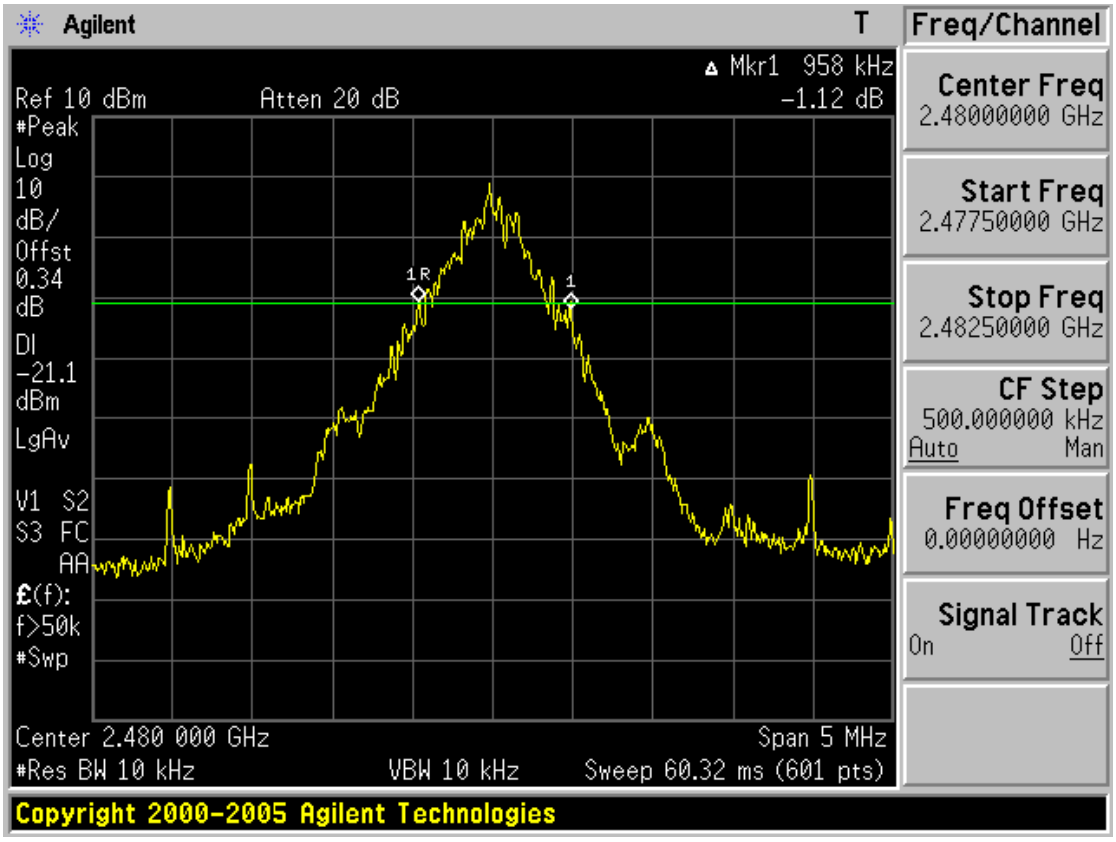
Same as the Chapter 3.2.1 (Figure 1)

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 ≥ 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	**2.930**	**3.750**	**79**	**0.313**	**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.

DWELL TIME=(0.4 x Number of hopping Channels) x Burst On time / (period x Number of hopping Channels)

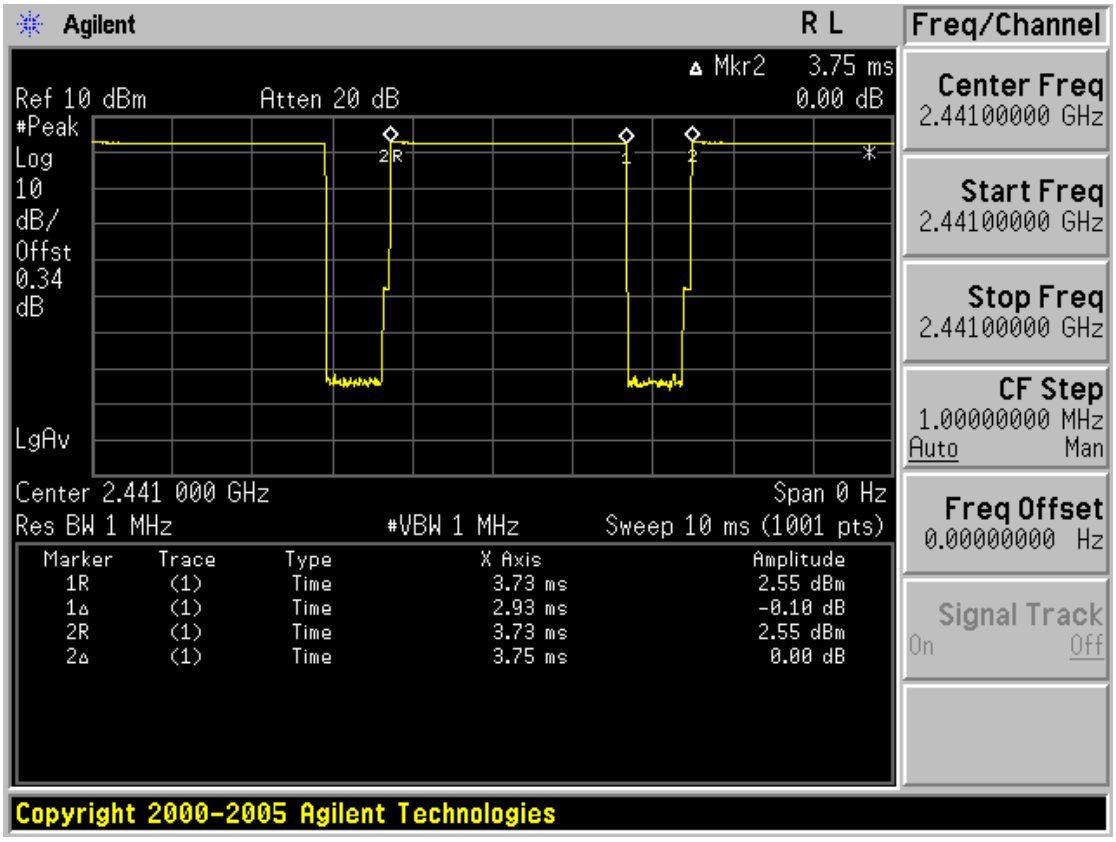
- Minimum Standard:

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 ≥ RBW) Detector function = peak

Trace = max hold Sweep = auto

- Measurement Data:

Frequency (MHz)	Ch.	Test Results		
		dBm	mW	Result
2402	1	**2.89**	**1.945**	**Comply**
2441	40	2.58	1.811	**Comply**
2480	79	2.67	1.849	**Comply**

- See next pages for actual measured spectrum plots.

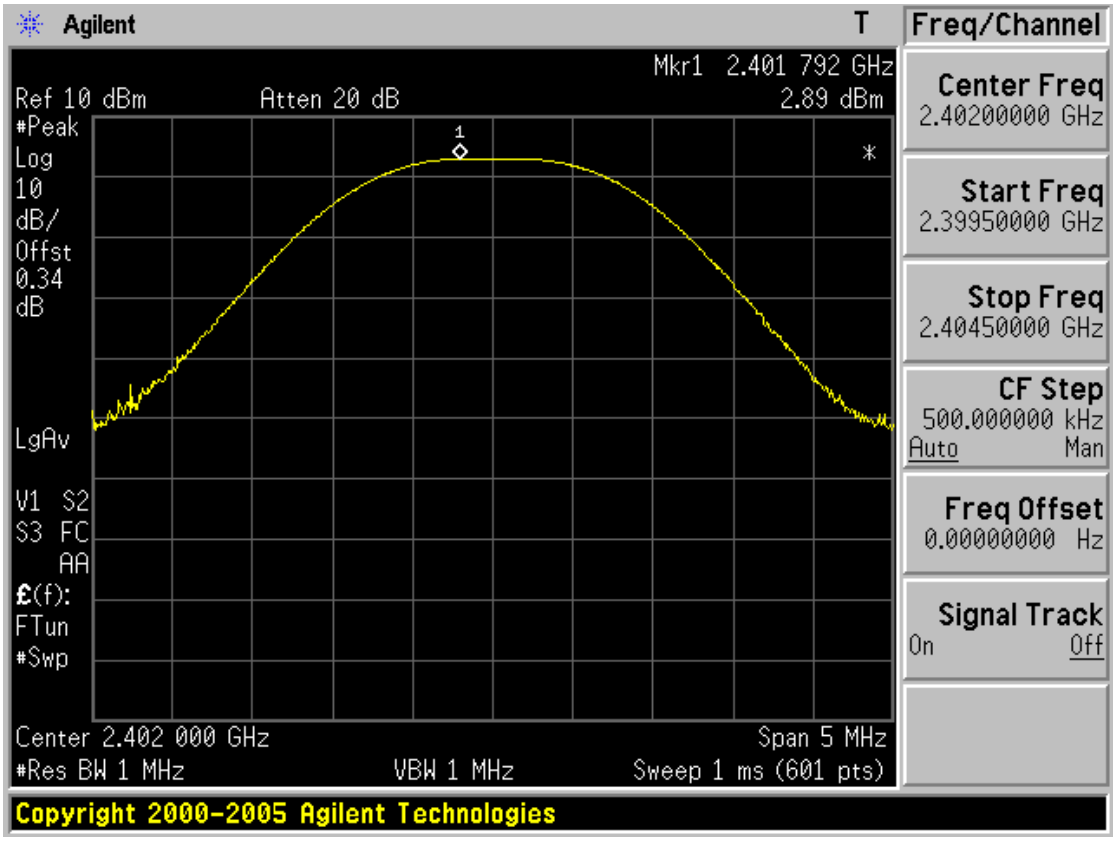
- Minimum Standard:

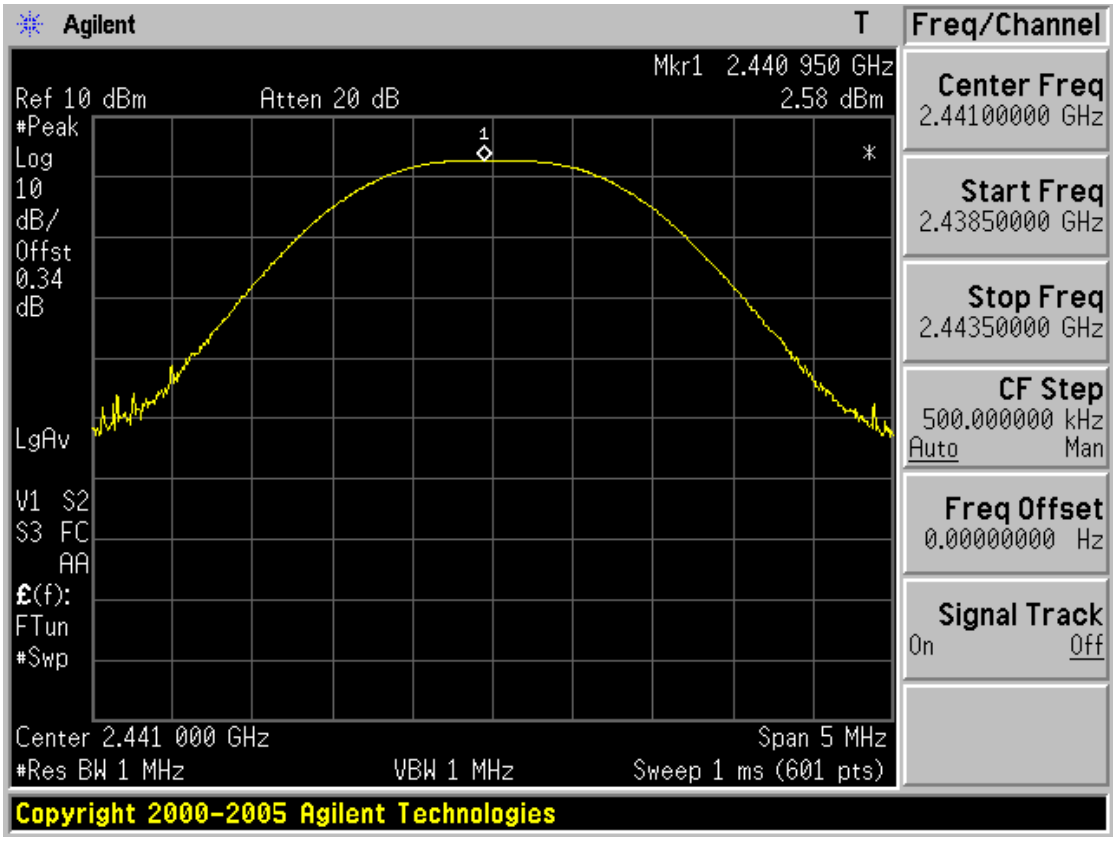
For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: **1 Watt**. For all other frequency hopping systems in the 2400-2483.5 MHz band: **0.125 Watts**

- Measurement Setup

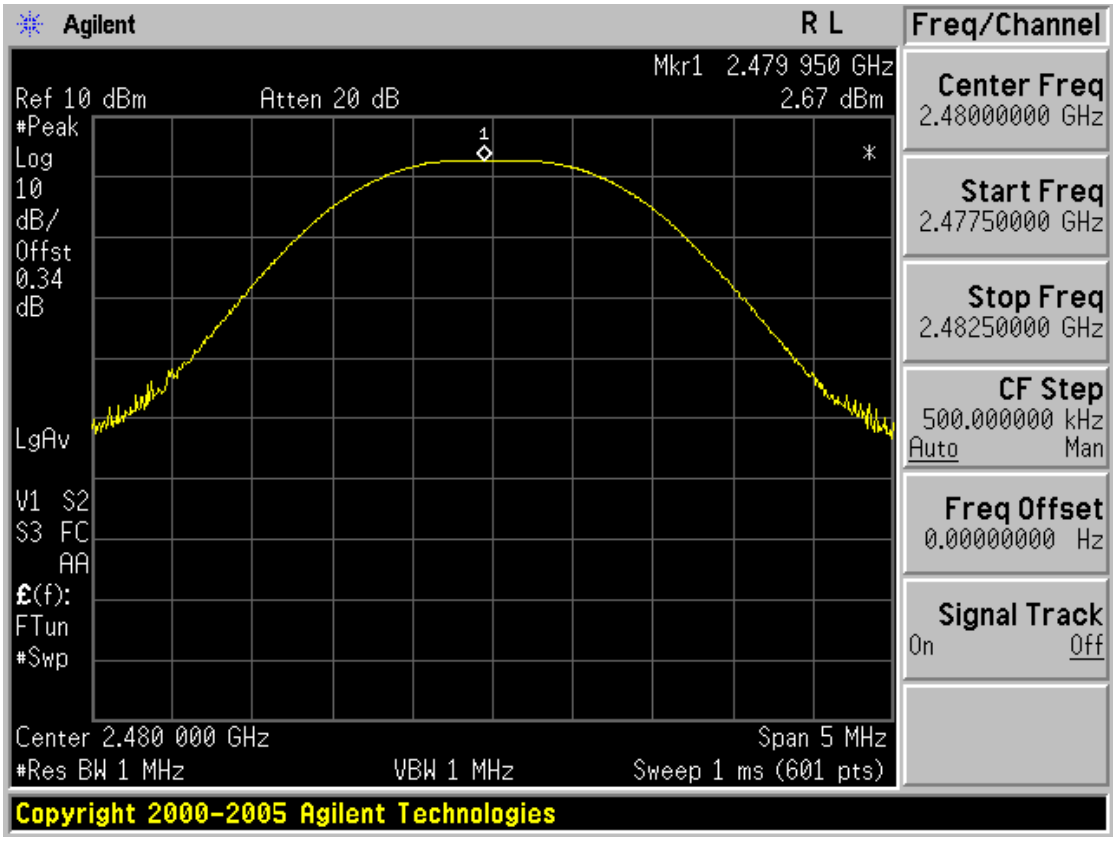
Same as the Chapter 3.2.1 (Figure 1)

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

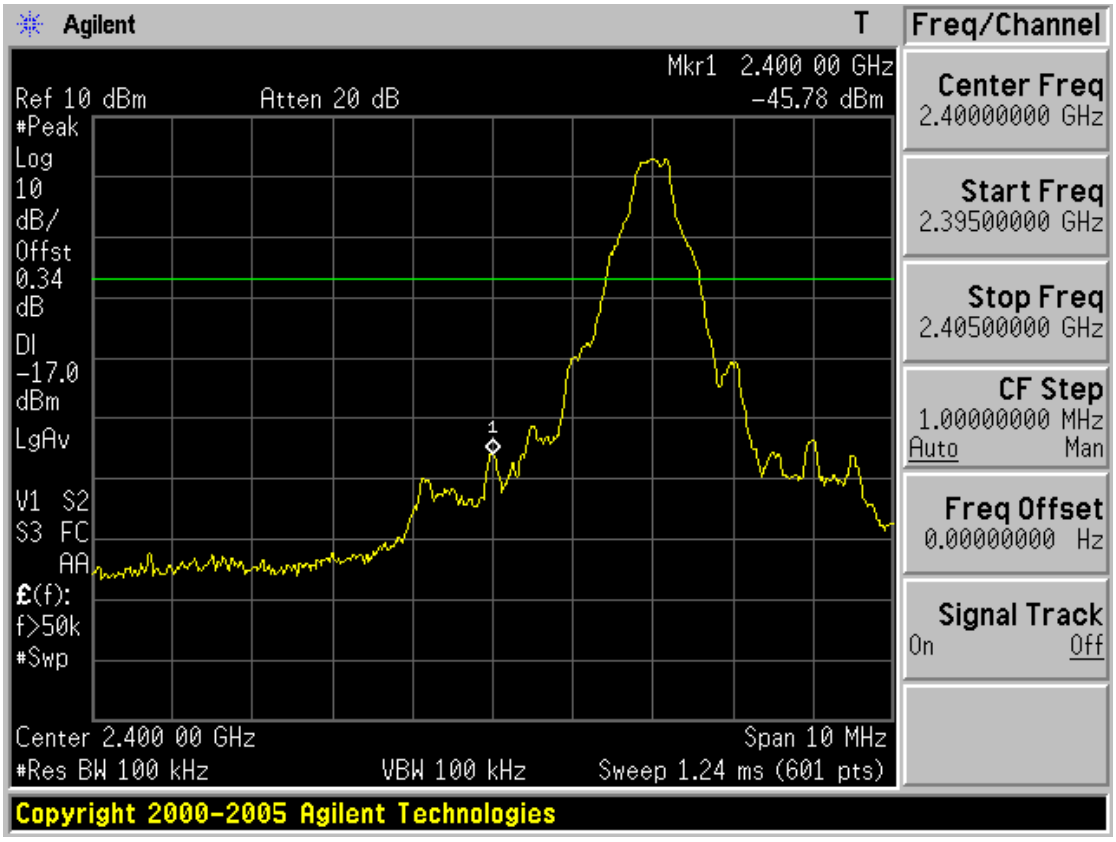
- See next pages for actual measured spectrum plots.

Minimum Standard:	> 20 dBc

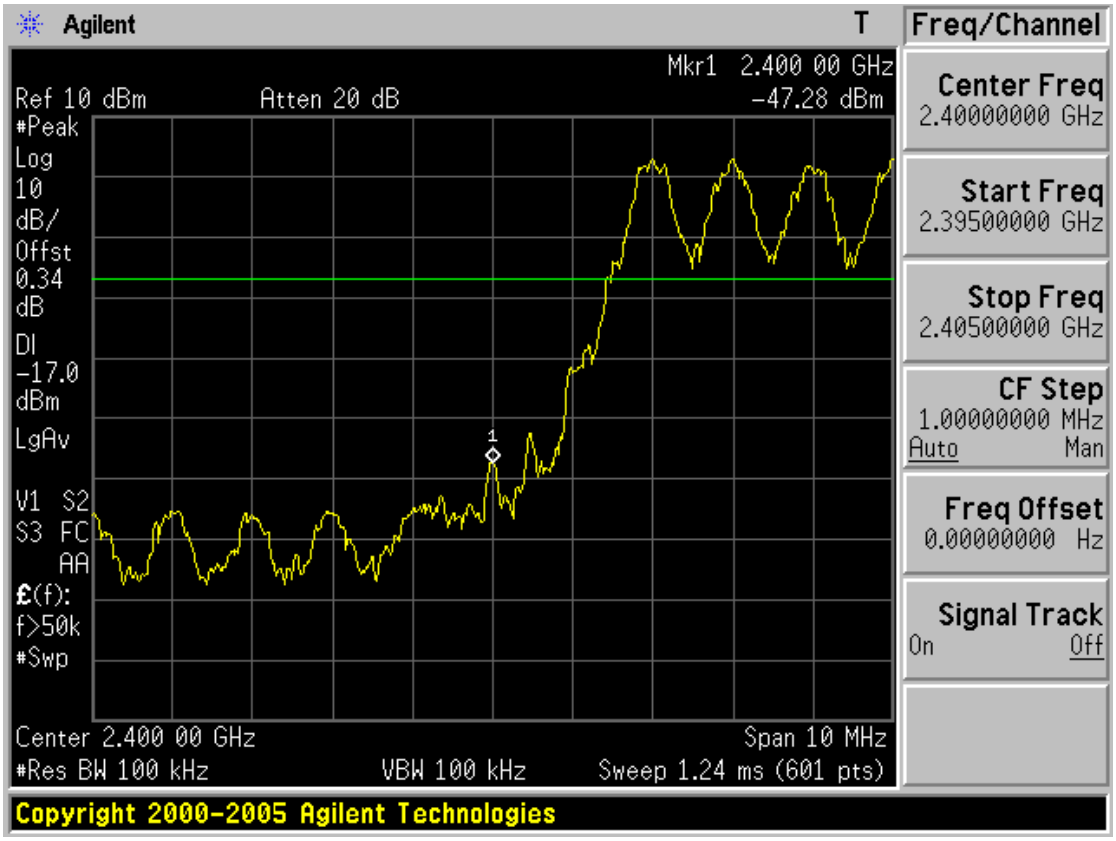
- Measurement Setup

Same as the Chapter 3.2.1 (Figure 1)

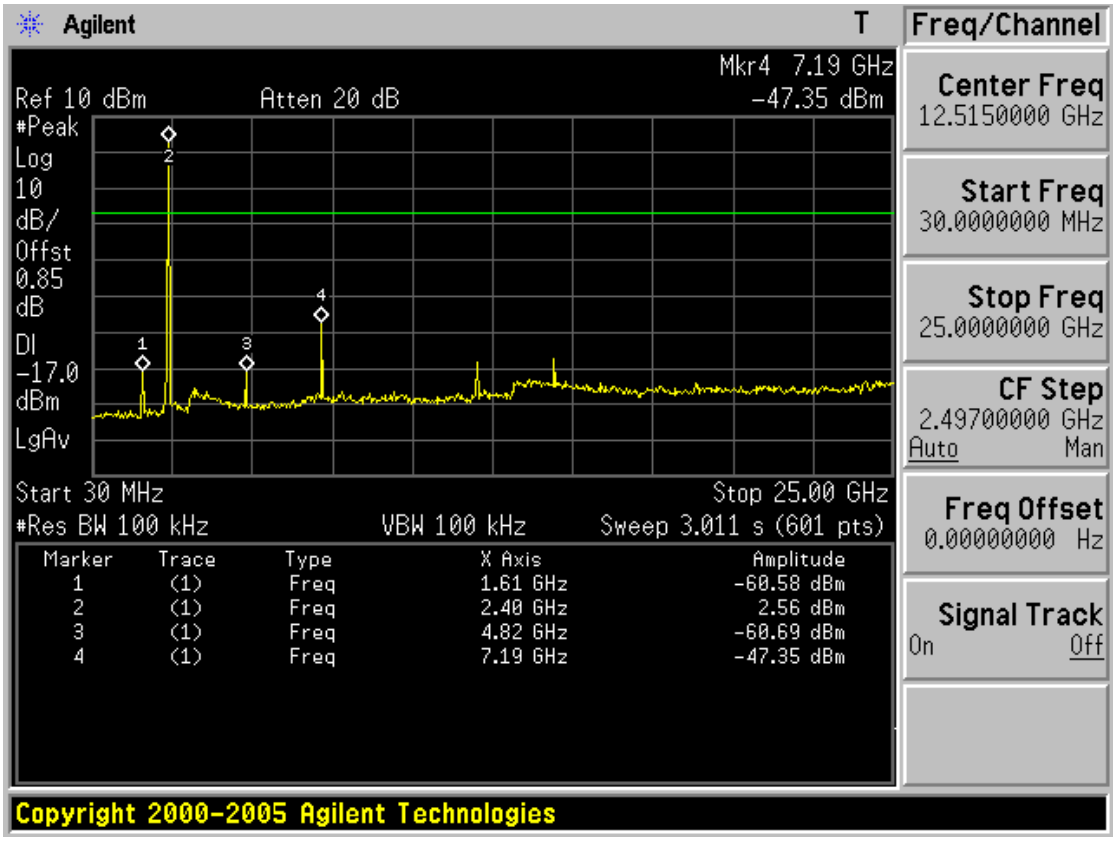
Low band with hopping disabled

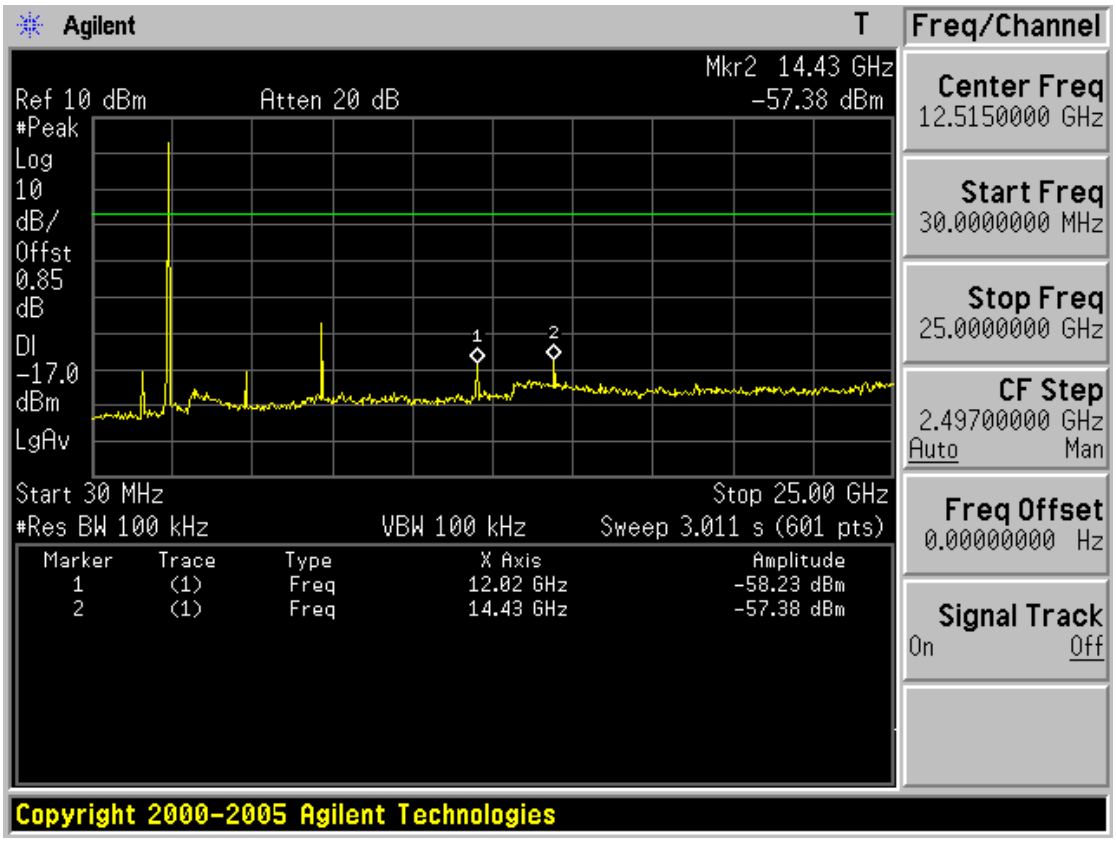


Low band with hopping enabled

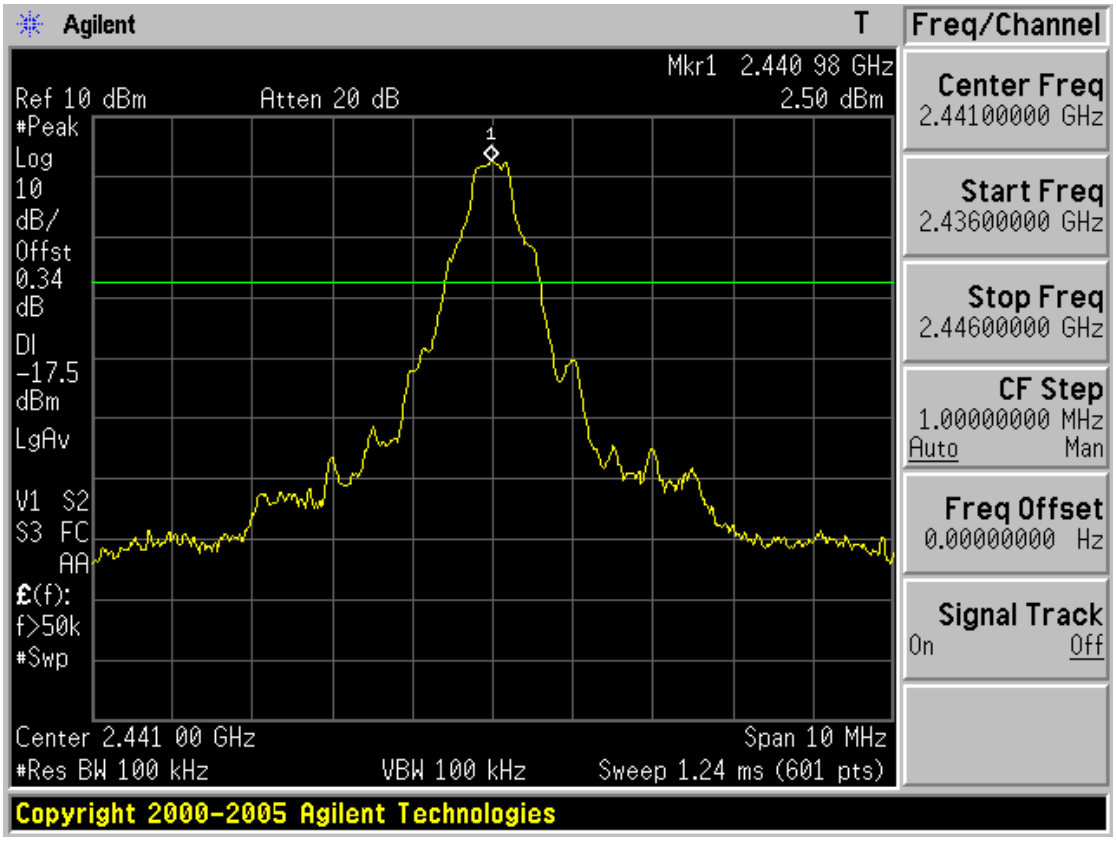


Low channel spurious

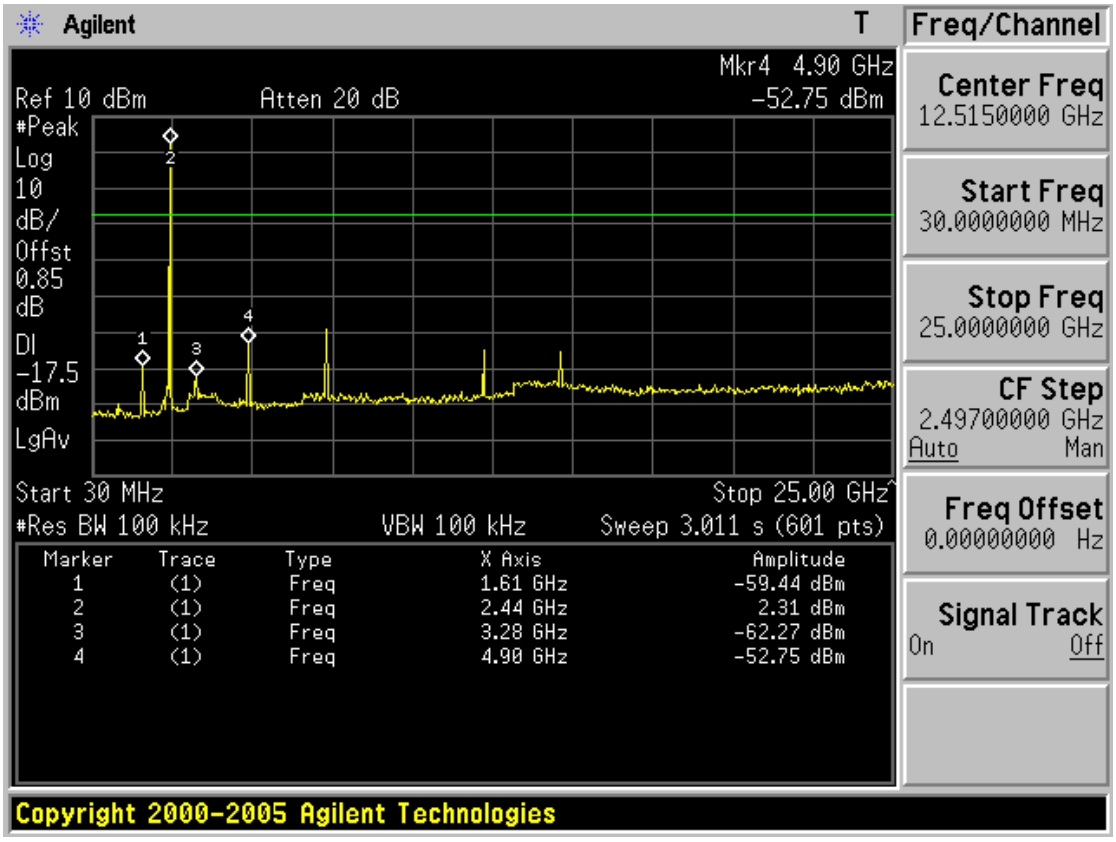


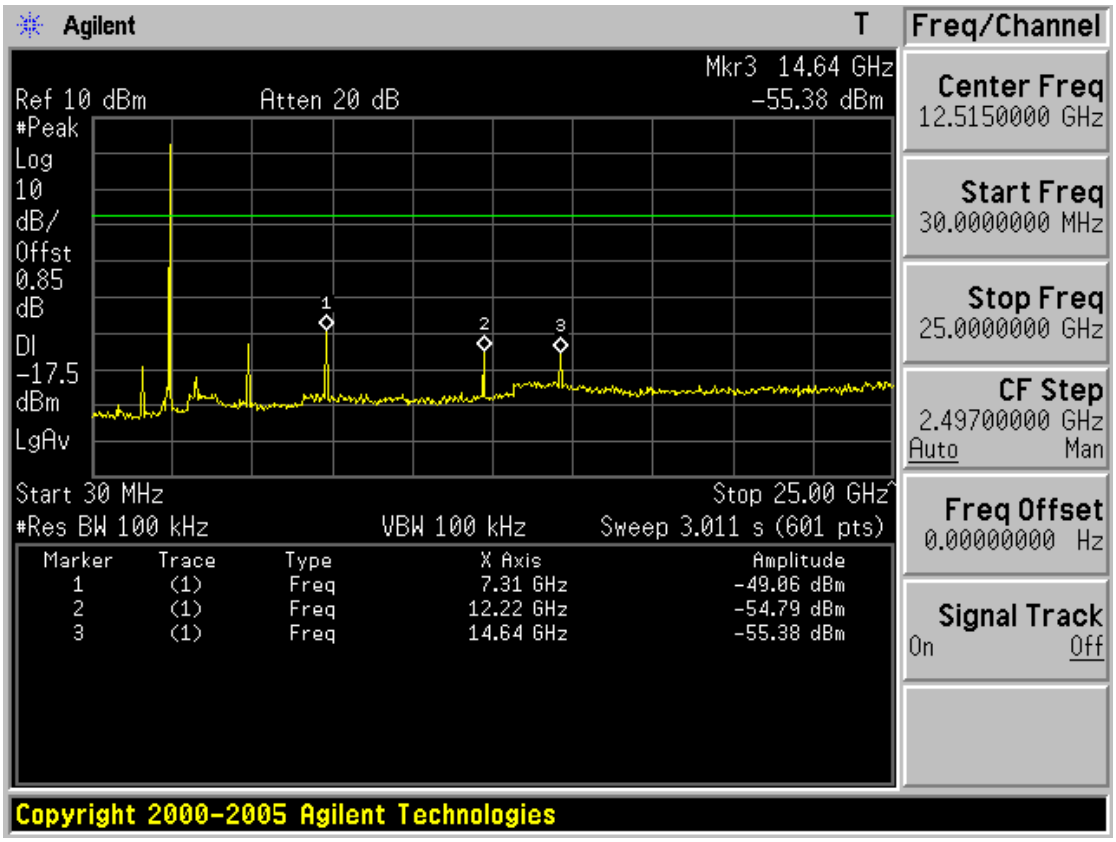


Mid channel ref

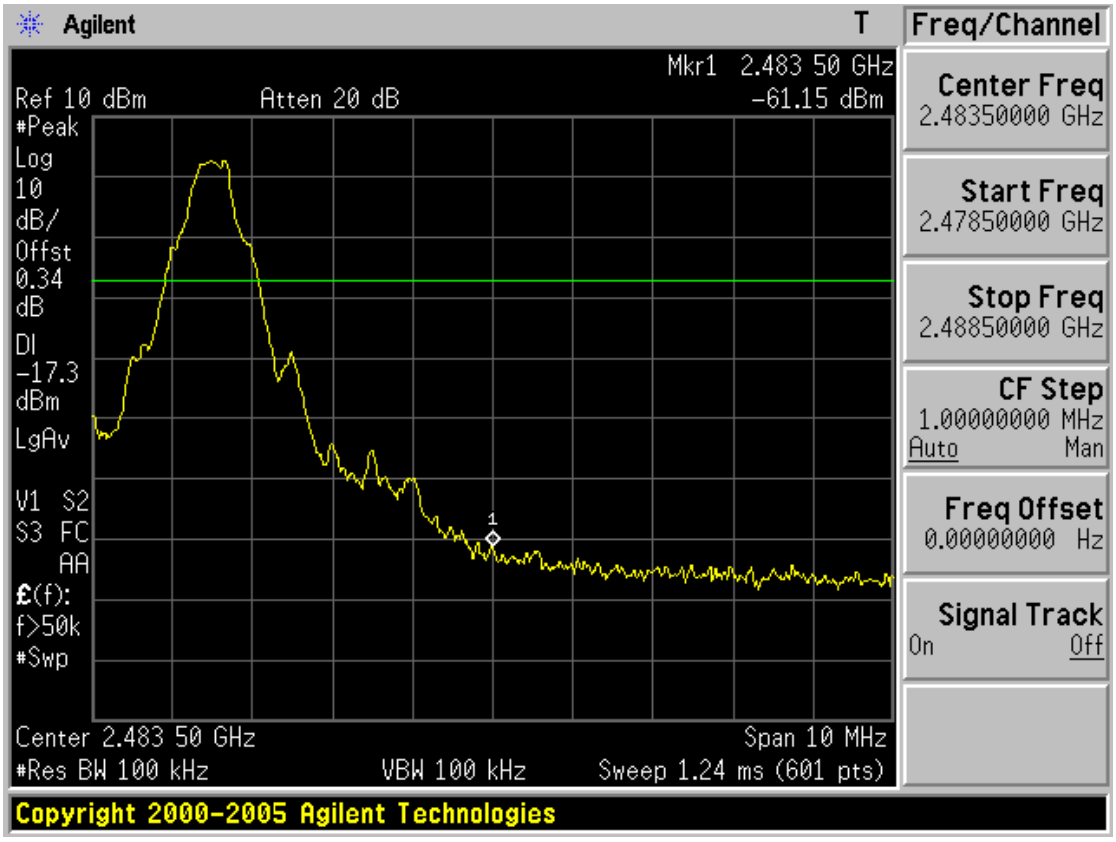


Mid channel spurious

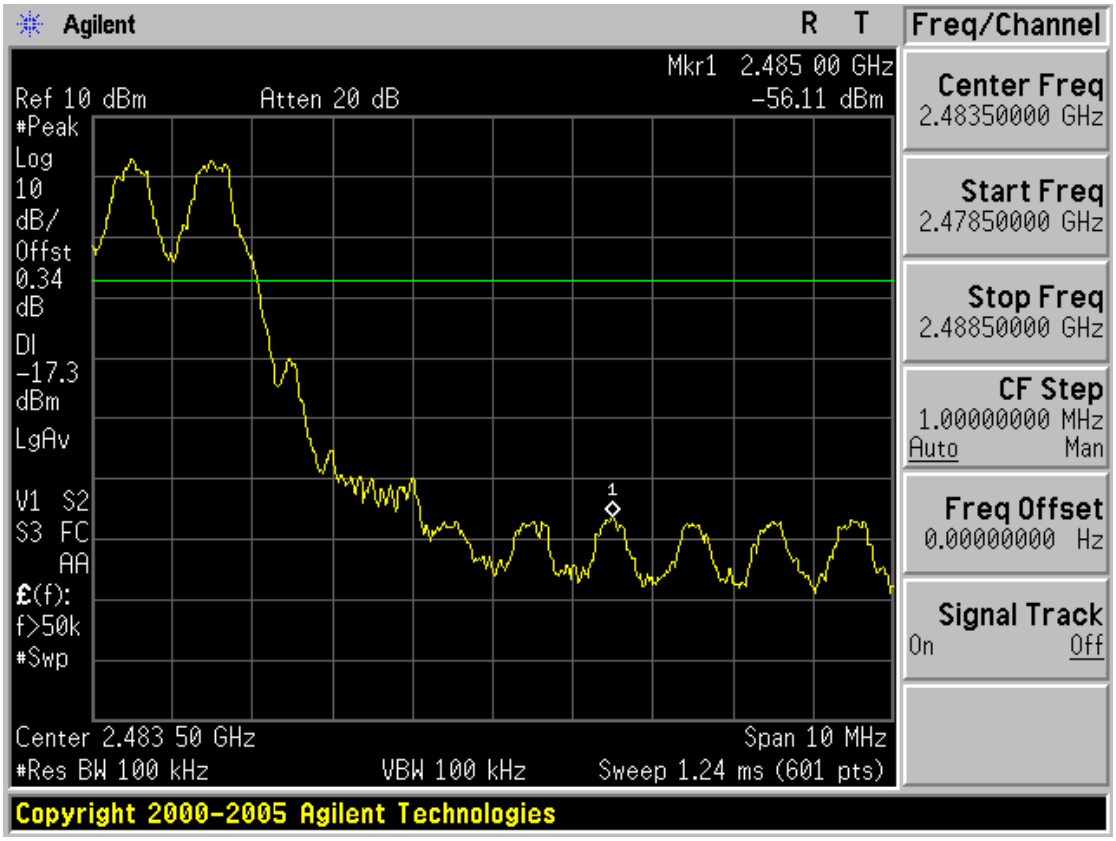




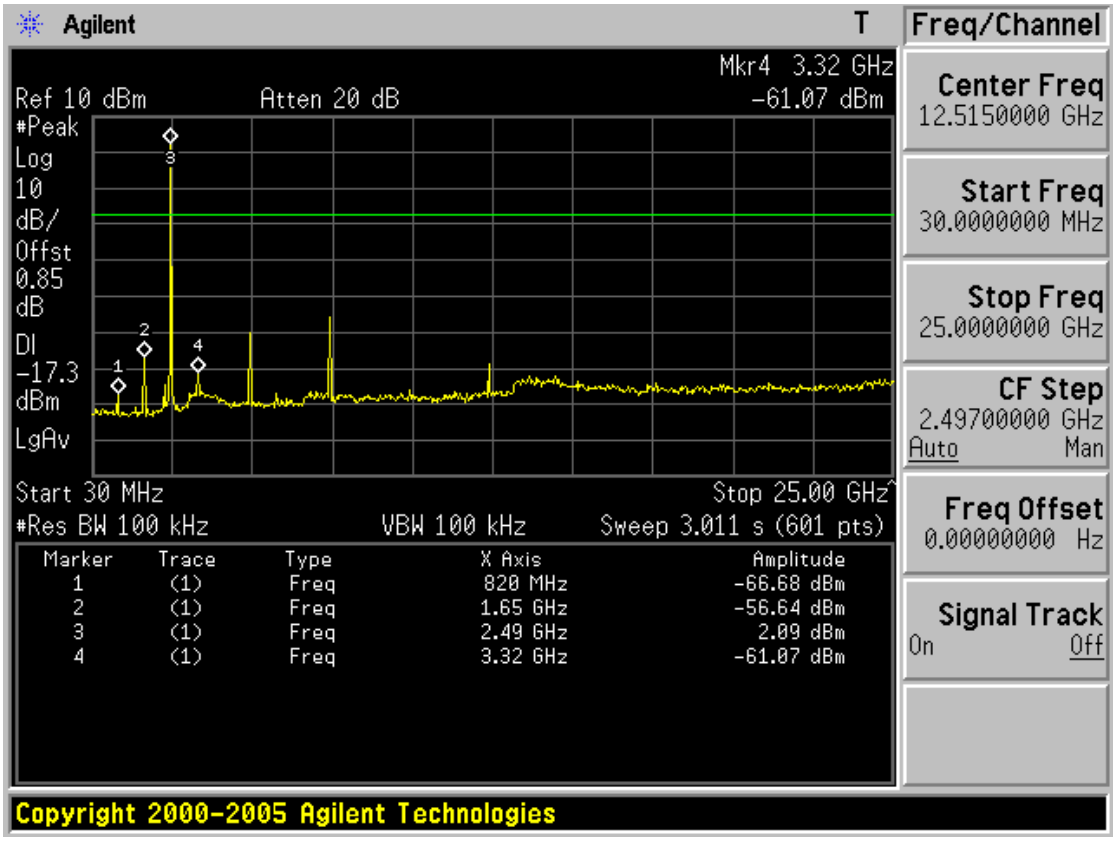
High band with hopping disabled

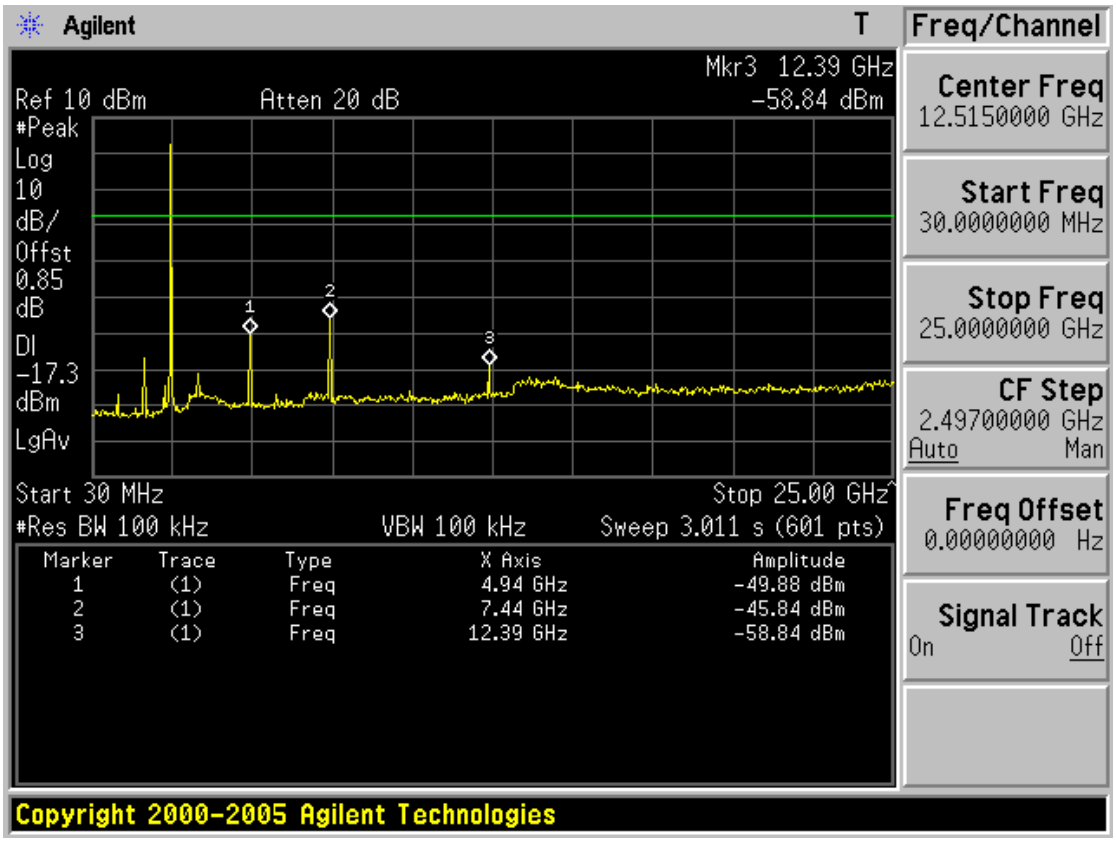


High band with hopping enabled



High channel spurious





3.2.7 Radiated Emissions

- Procedure:

The EUT was placed on a 0.8m high wooden table inside a shielded enclosure. An antenna was placed near the EUT and measurements of frequencies and amplitudes of field strengths were recorded for reference during final measurements. For final radiated testing, measurements were performed in OATS. Measurements were performed with the EUT oriented in 3 orthogonal axis and rotated 360 degrees to determine worst-case orientation for maximum emissions.

The spectrum analyzer is set to:

Center frequency = the worst channel

Frequency Range = 30 MHz ~ 10th harmonic.

RBW = 120 kHz (30MHz ~ 1 GHz) VBW ≥ RBW (Peak)

= 1 MHz (1 GHz ~ 10th harmonic) VBW = 10Hz (Average)

Trace = max hold Sweep = auto

- Measurement Data: Comply (Refer to the next page.)

- This test items were performed with following 3 configurations.

-The differences between below models are only the headset types which are connected to the main device.

1. BTS310

2. BTS330

3. BTS340

- **Note. : Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea. So it's not an emission from this device.**

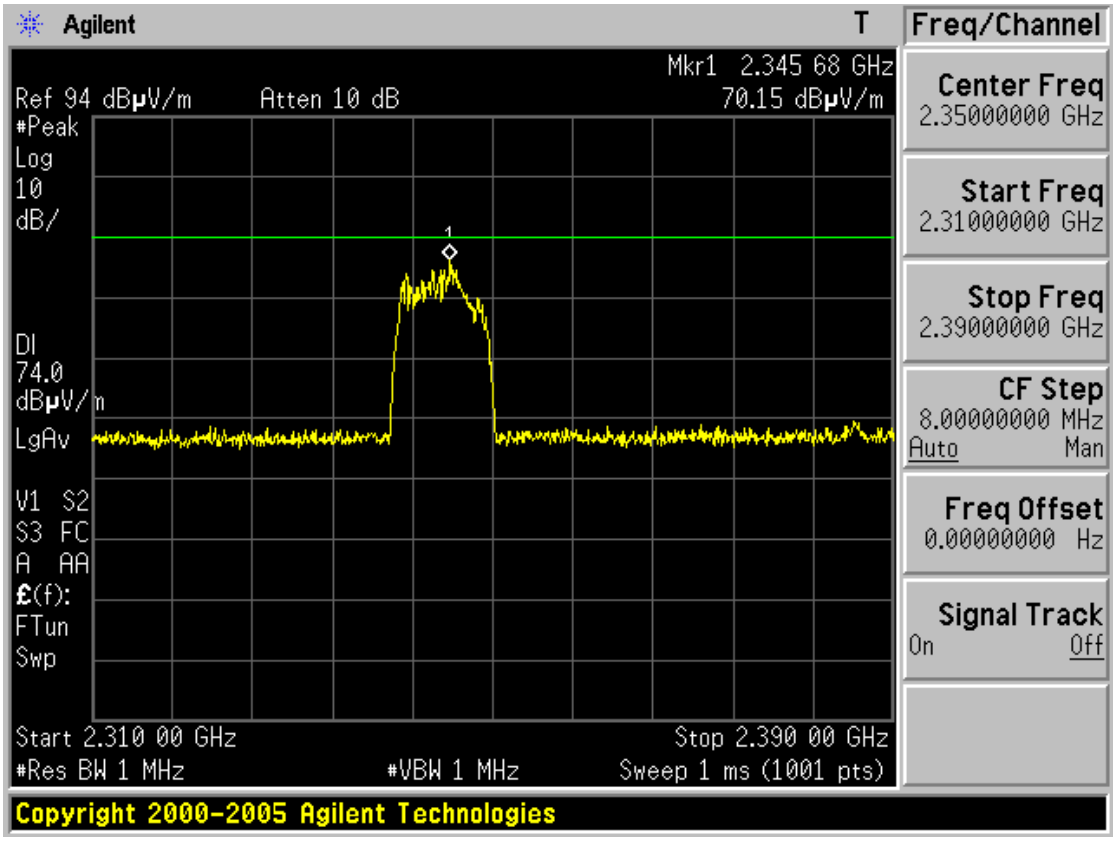
- Minimum Standard: FCC Part 15.205 (a), 15.205(b), 15.209(a) and (b)

- Limit: FCC P15.209(a)

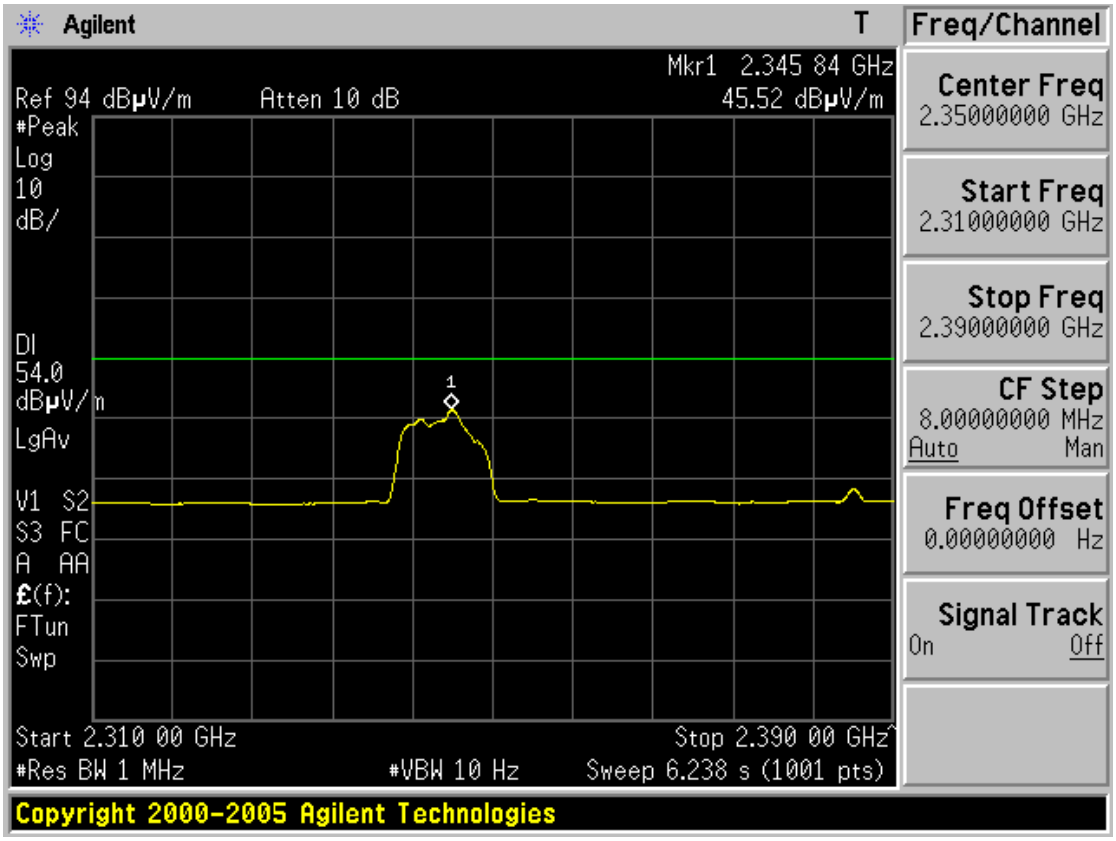
Frequency (MHz)	Limit (uV/m) @ 3m
30 ~ 88	100 **
88 ~ 216	150 **
216 ~ 960	200 **
Above 960	500

** Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g. 15.231 and 15.241.

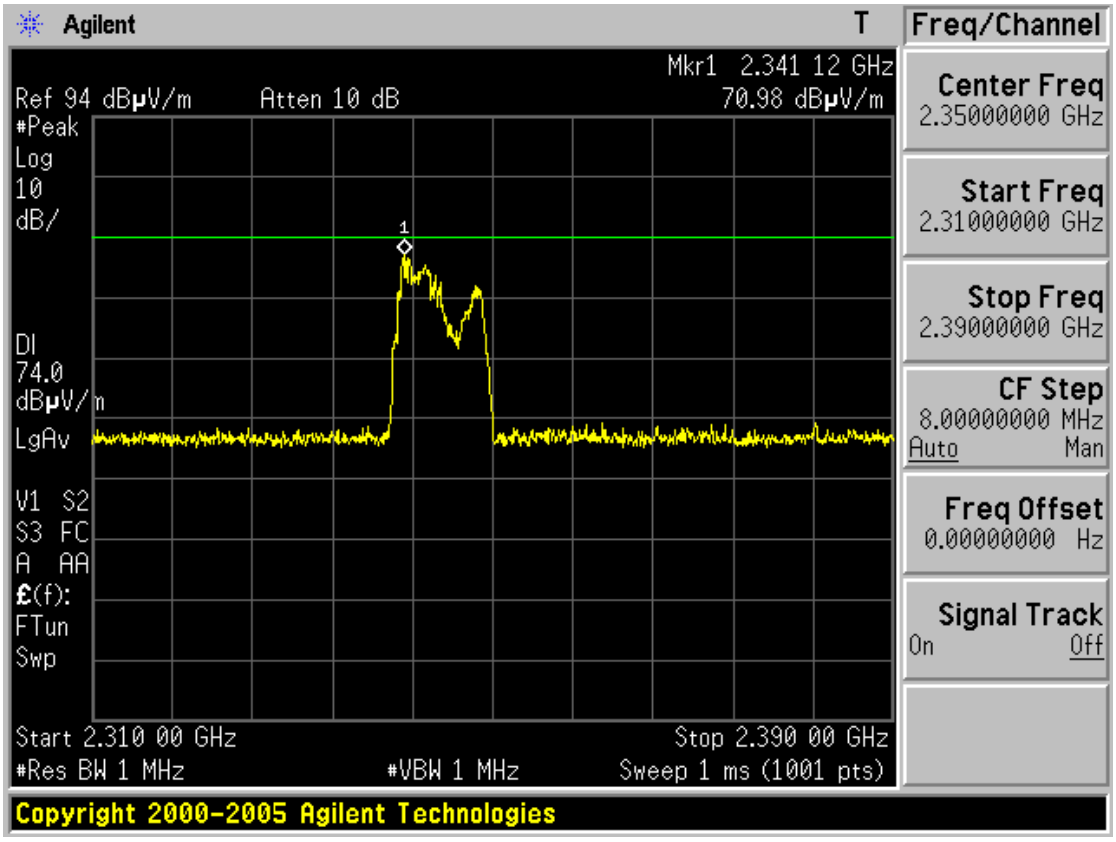
Restricted Band Edge: Low Channel (Peak, Horizontal) - **BTS310** -



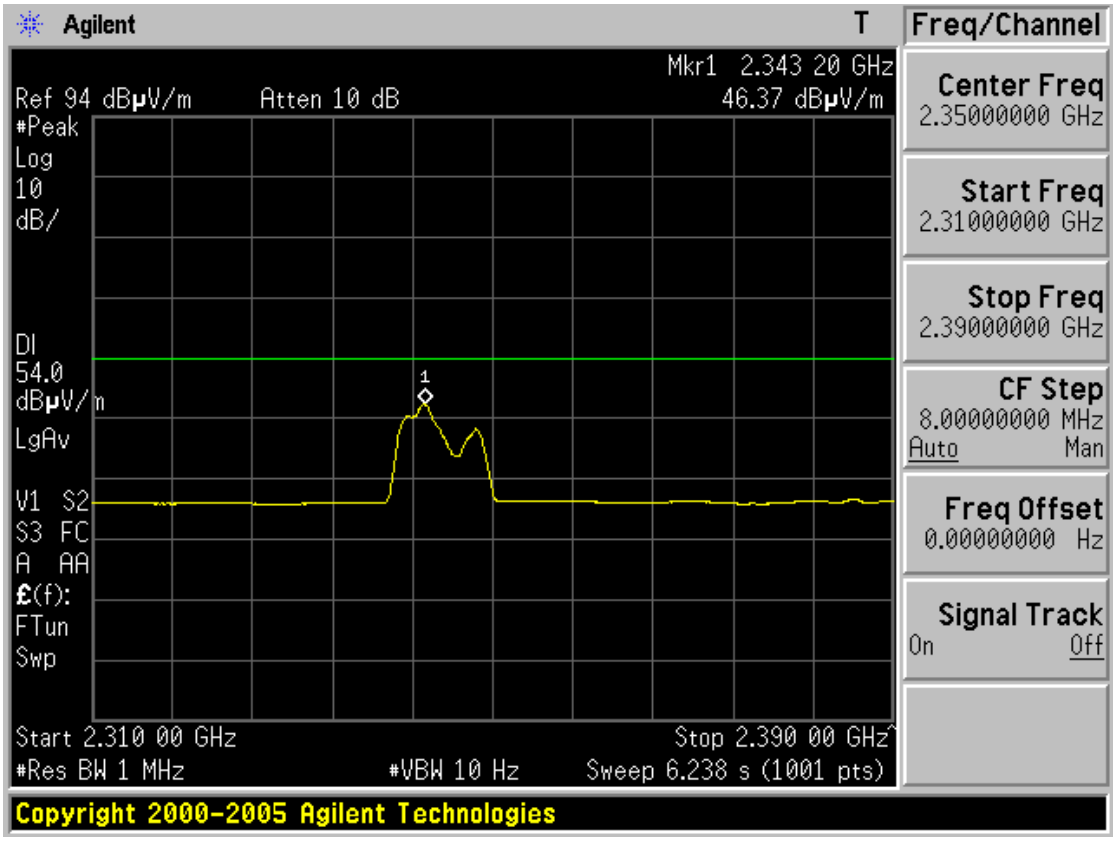
Restricted Band Edge: Low Channel (Average, Horizontal) - **BTS310** -



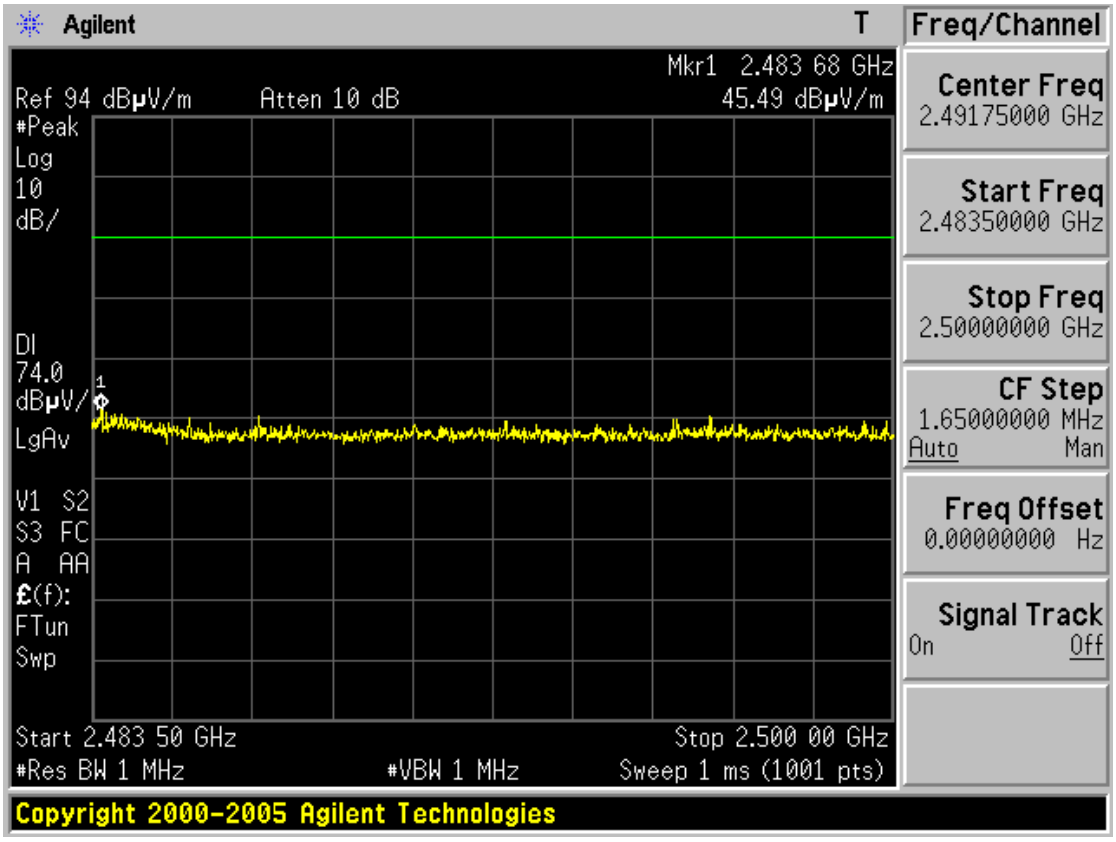
Restricted Band Edge: Low Channel (Peak, Vertical) - **BTS310** -



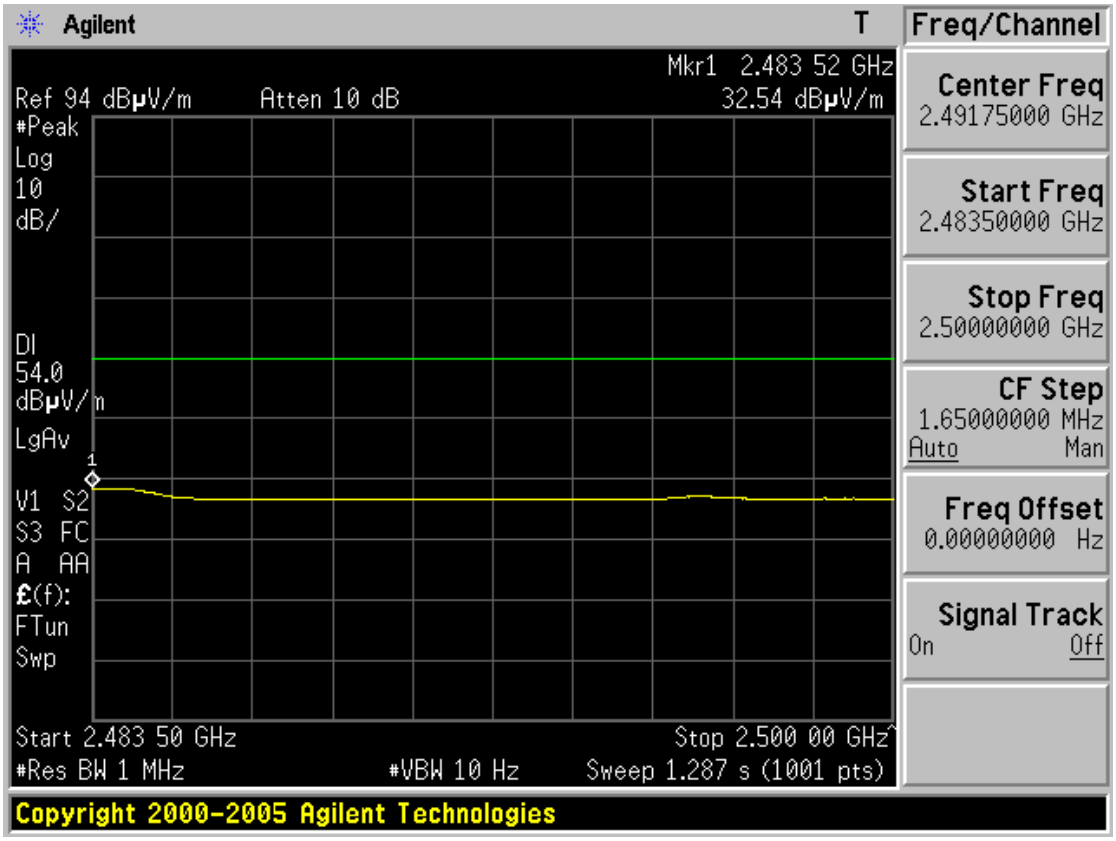
Restricted Band Edge: Low Channel (Average, Vertical) - **BTS310** -



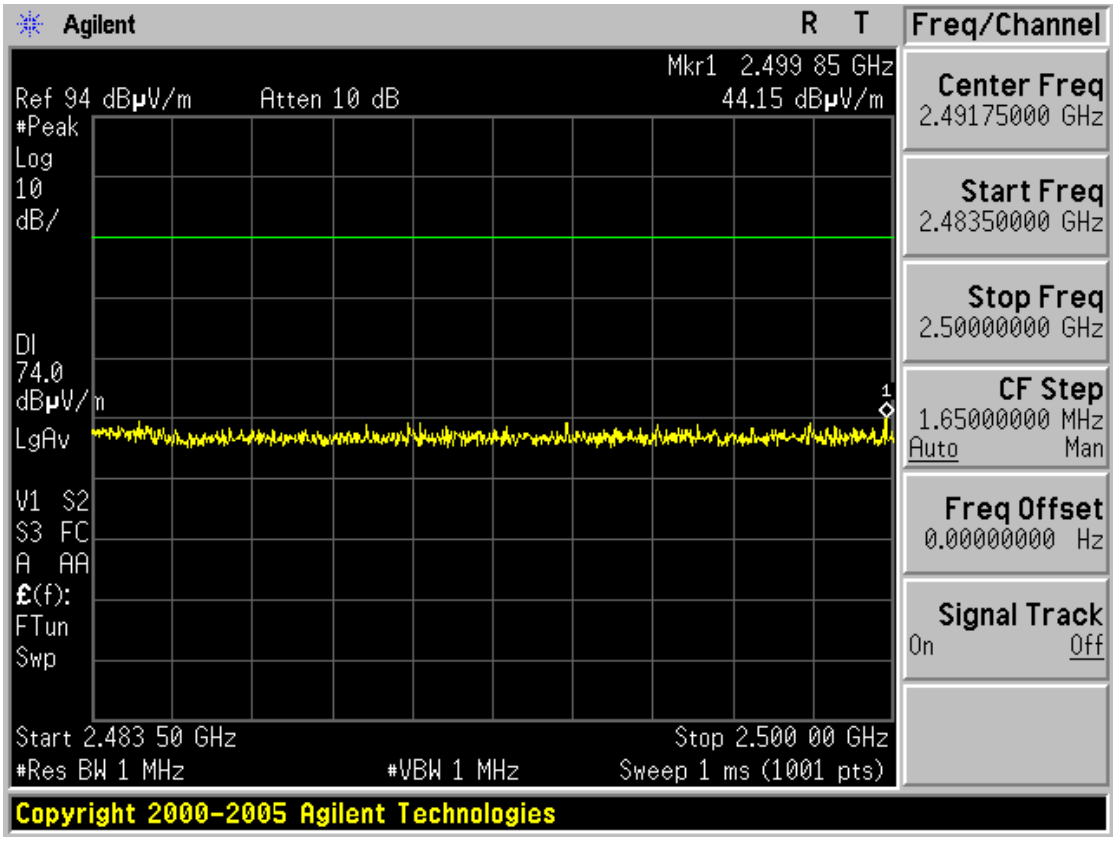
Restricted Band Edge: High Channel (Peak, Horizontal) - **BTS310** -



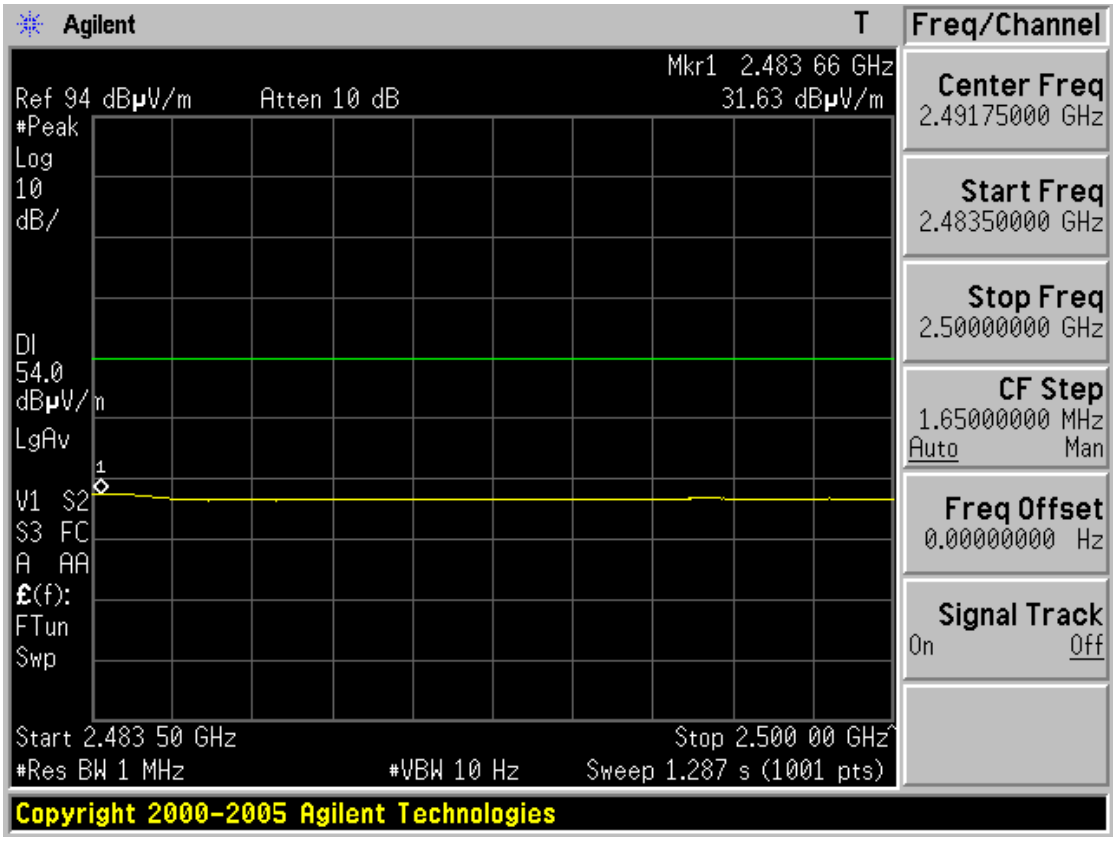
Restricted Band Edge: High Channel (Average, Horizontal) - **BTS310** -



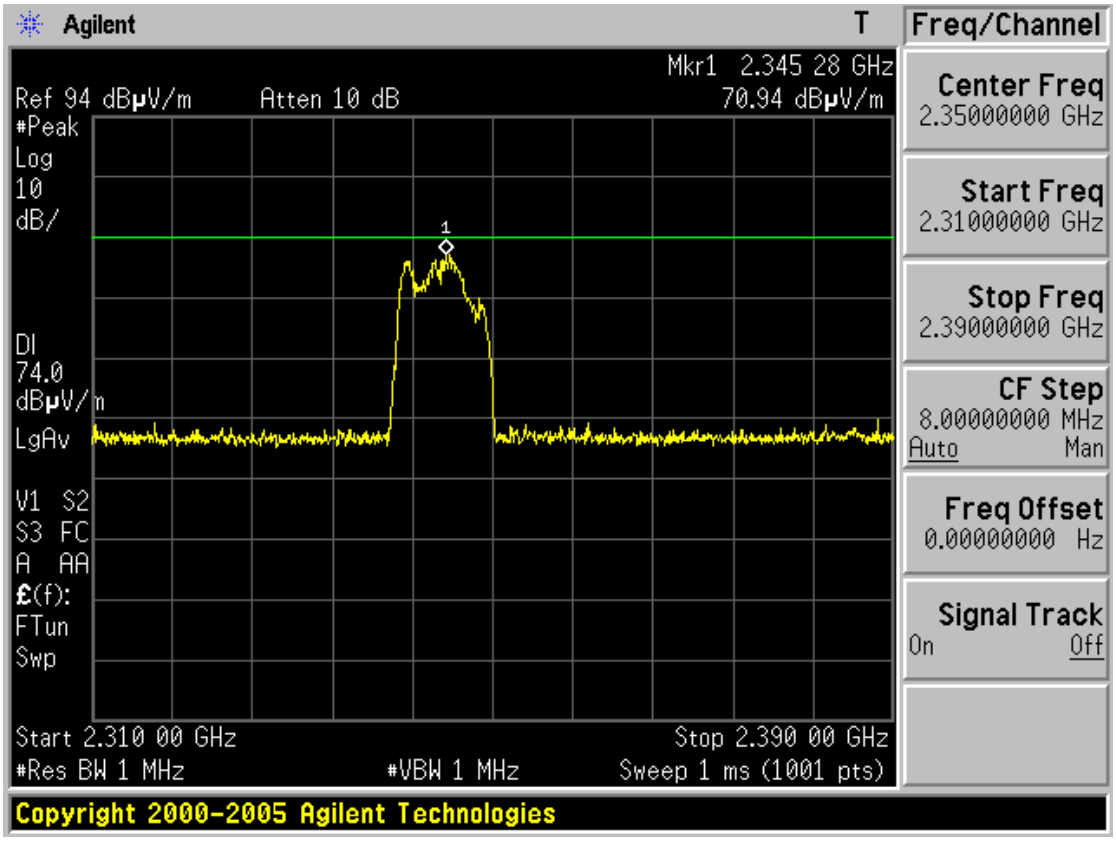
Restricted Band Edge: High Channel (Peak, Vertical) - **BTS310** -



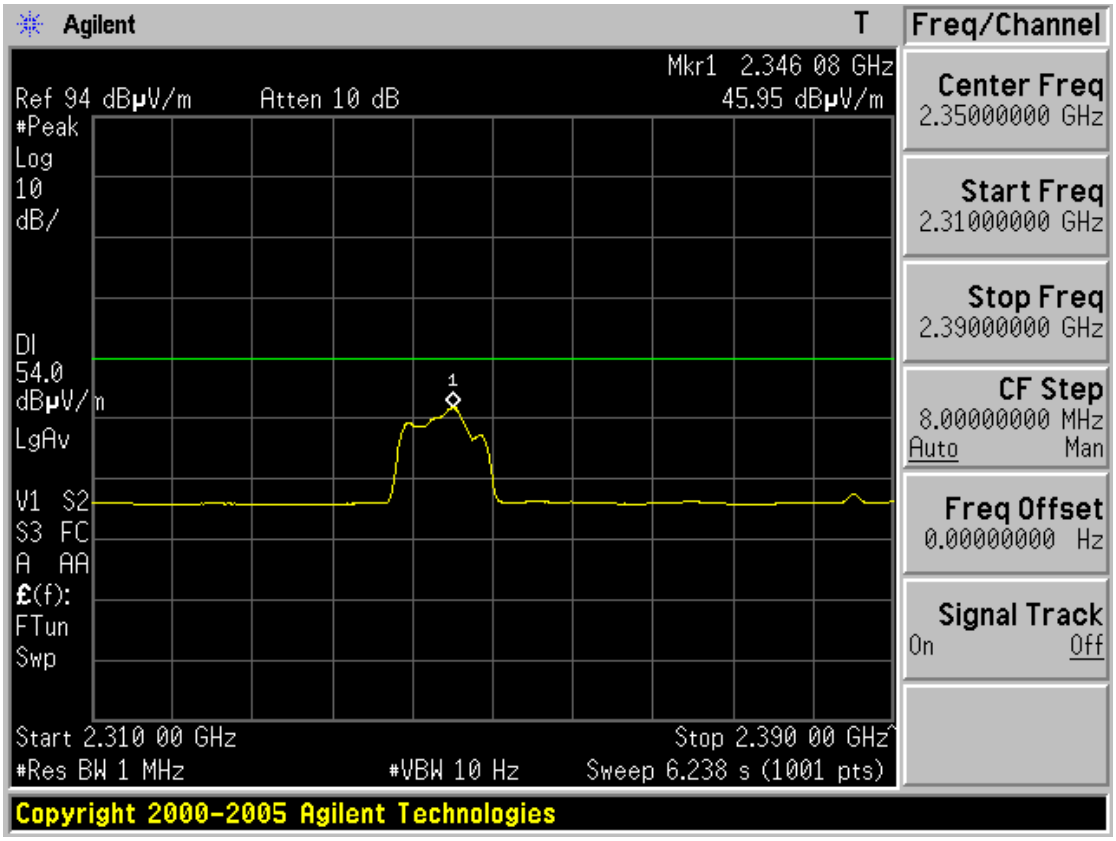
Restricted Band Edge: High Channel (Average, Vertical) - **BTS310** -



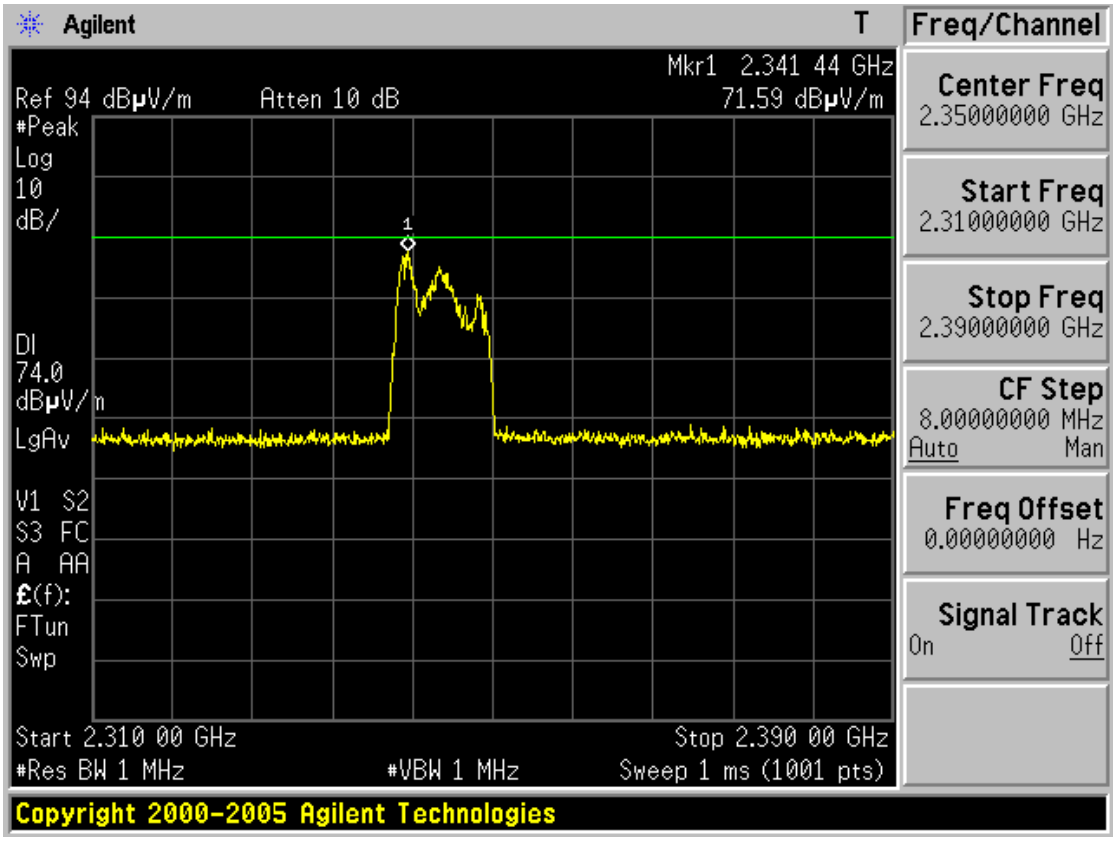
Restricted Band Edge: Low Channel (Peak, Horizontal) - **BTS330** -



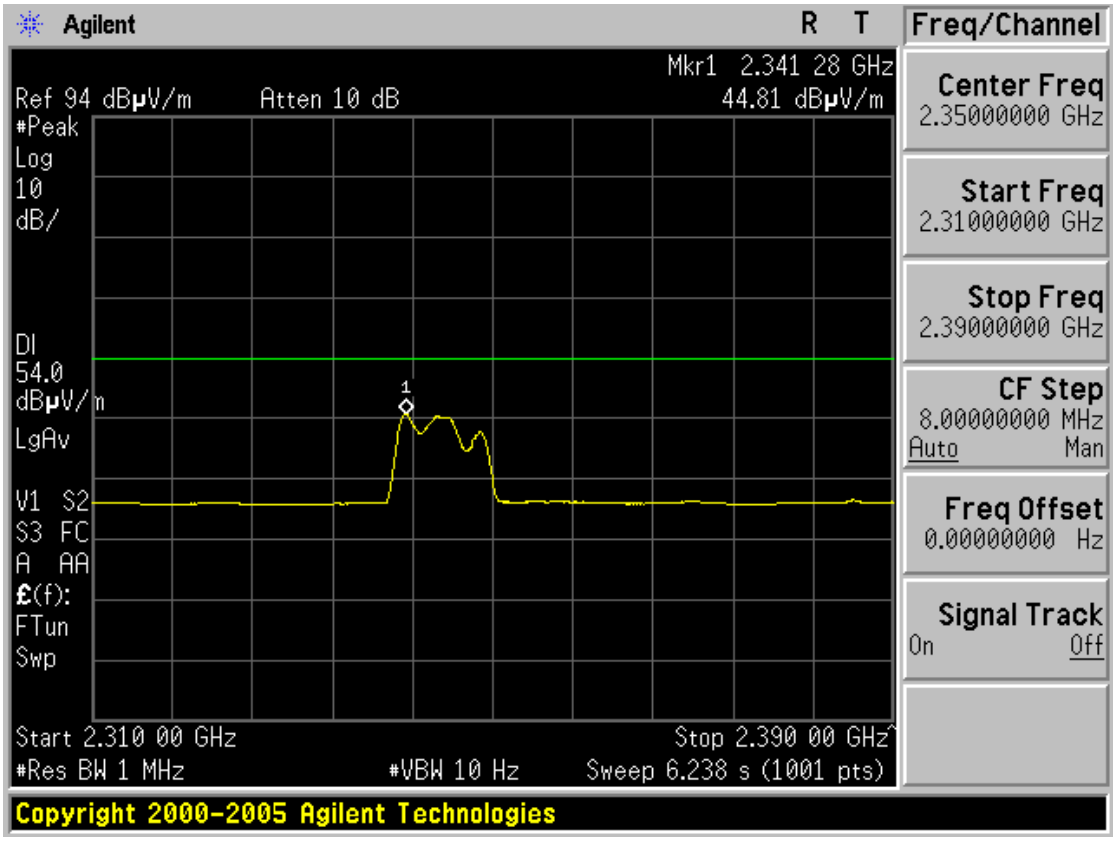
Restricted Band Edge: Low Channel (Average, Horizontal) - **BTS330** -



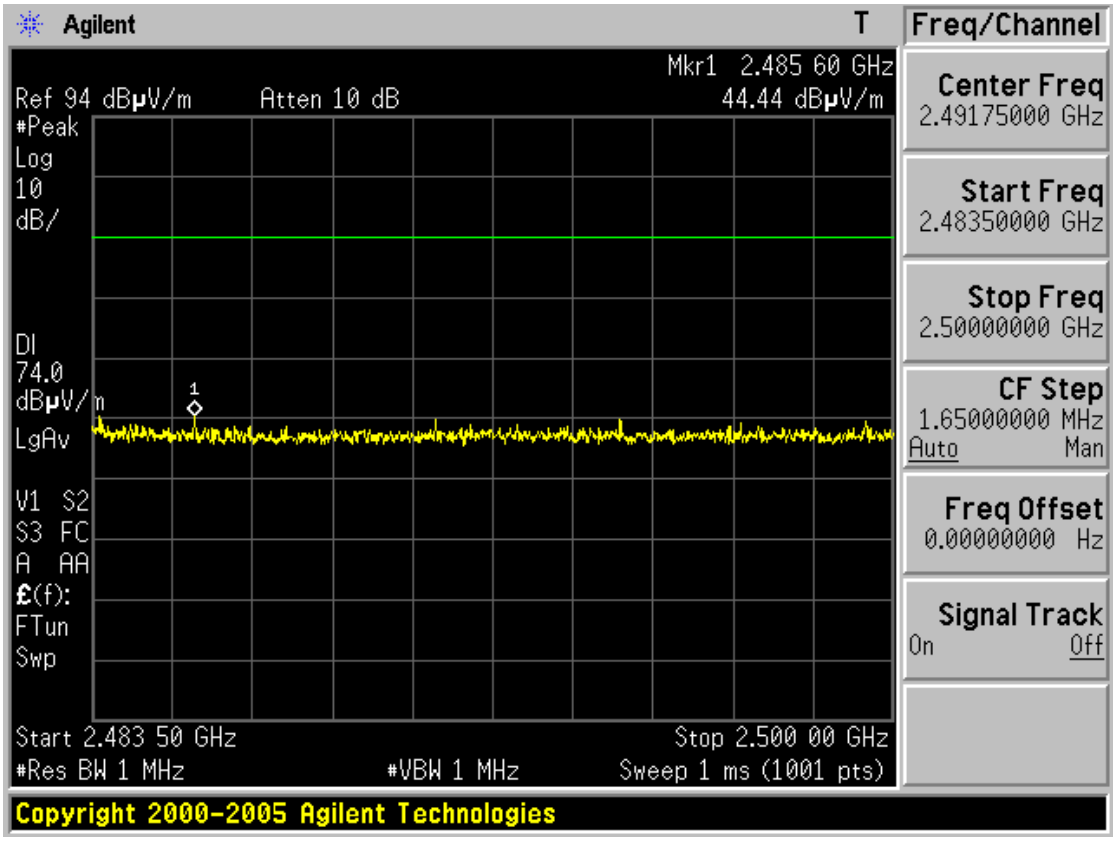
Restricted Band Edge: Low Channel (Peak, Vertical) - **BTS330** -



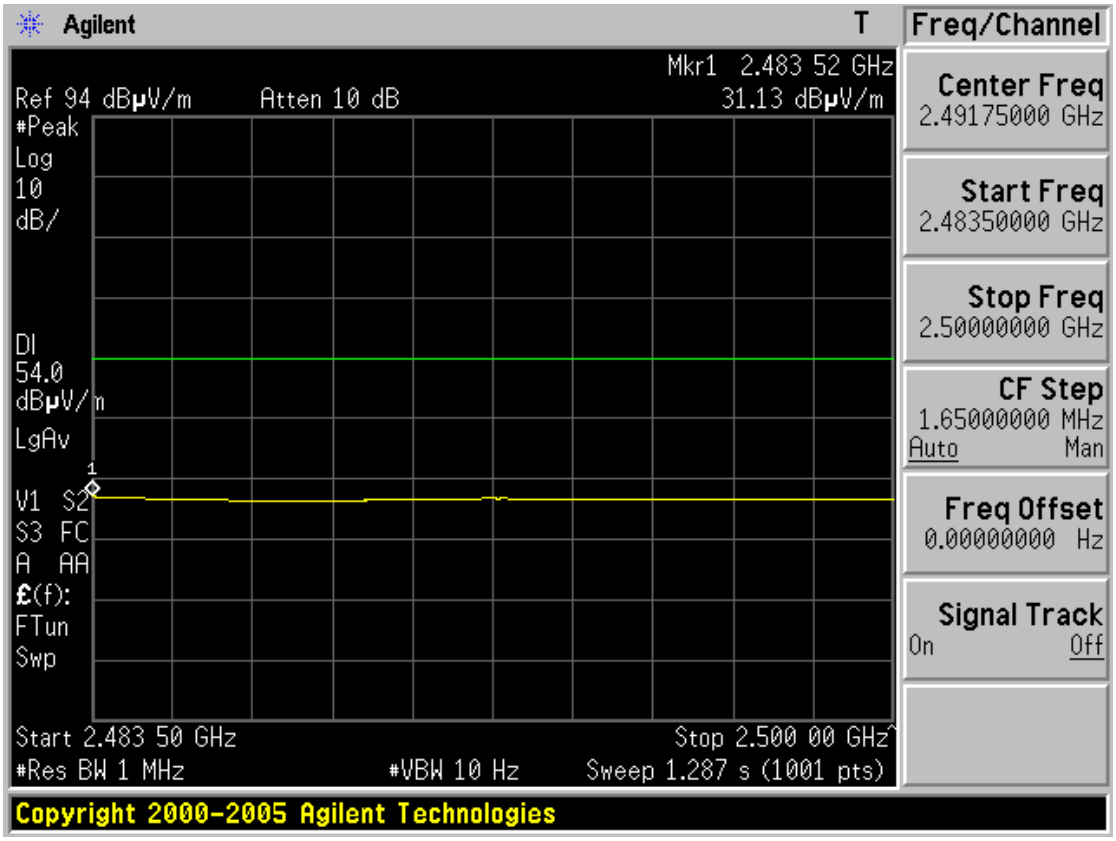
Restricted Band Edge: Low Channel (Average, Vertical) - **BTS330** -



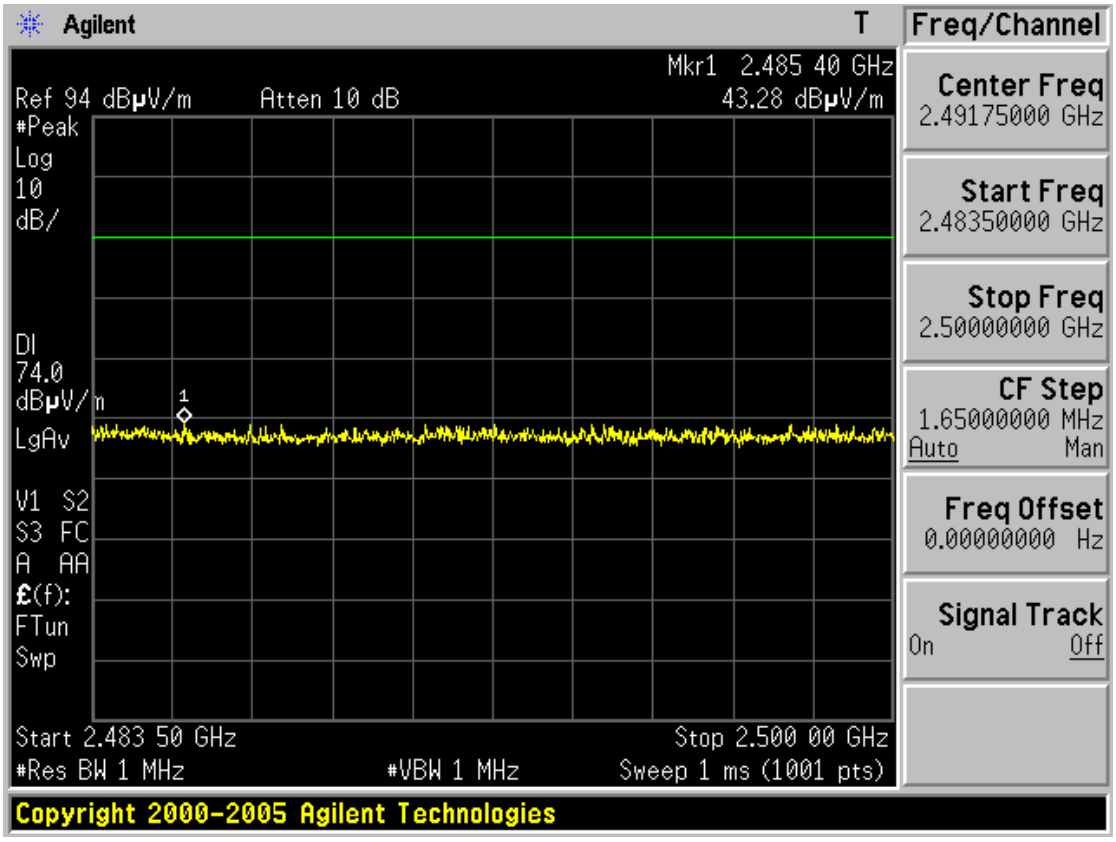
Restricted Band Edge: High Channel (Peak, Horizontal) - **BTS330** -



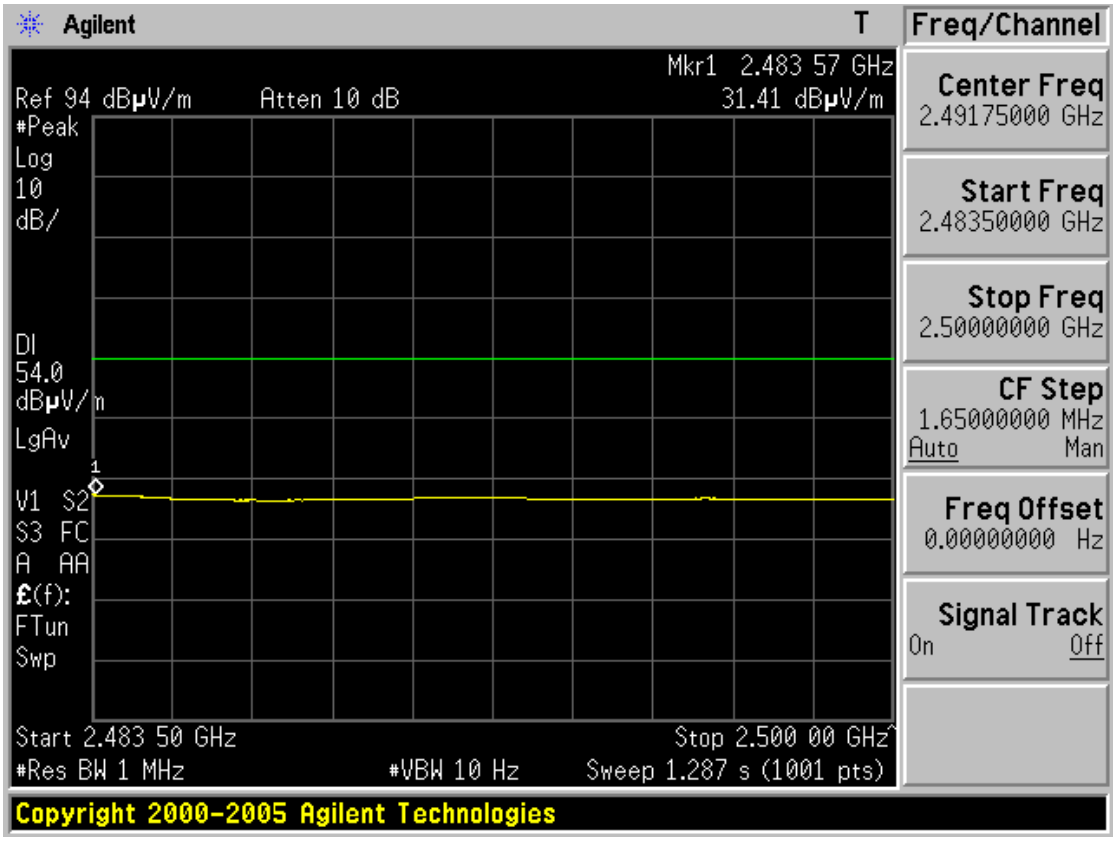
Restricted Band Edge: High Channel (Average, Horizontal) - **BTS330** -



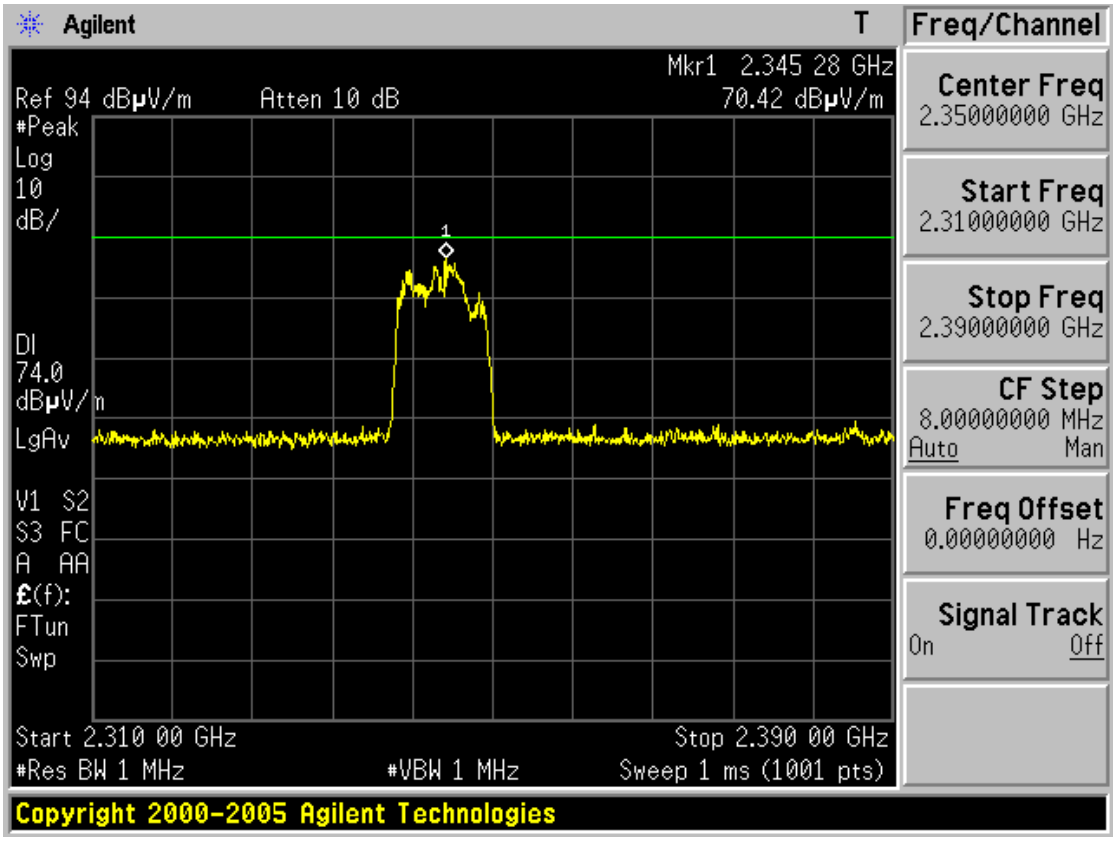
Restricted Band Edge: High Channel (Peak, Vertical) - **BTS330** -



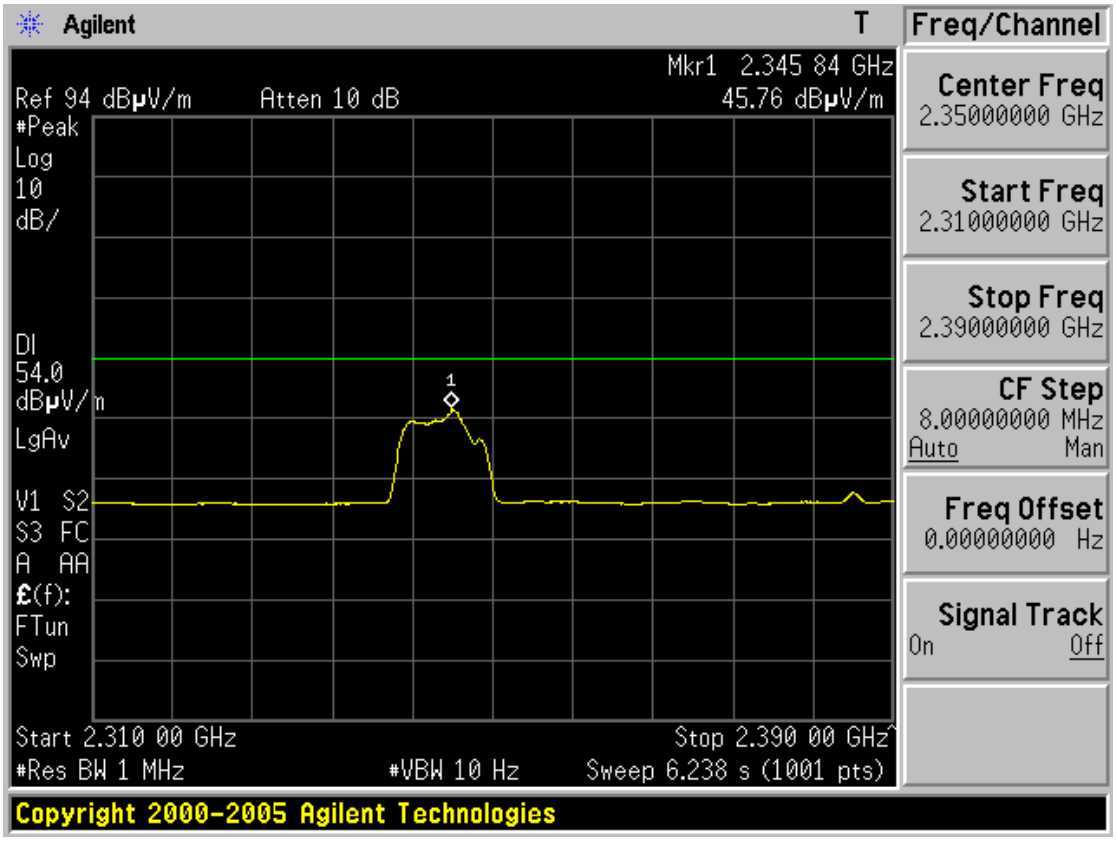
Restricted Band Edge: High Channel (Average, Vertical) - **BTS330** -



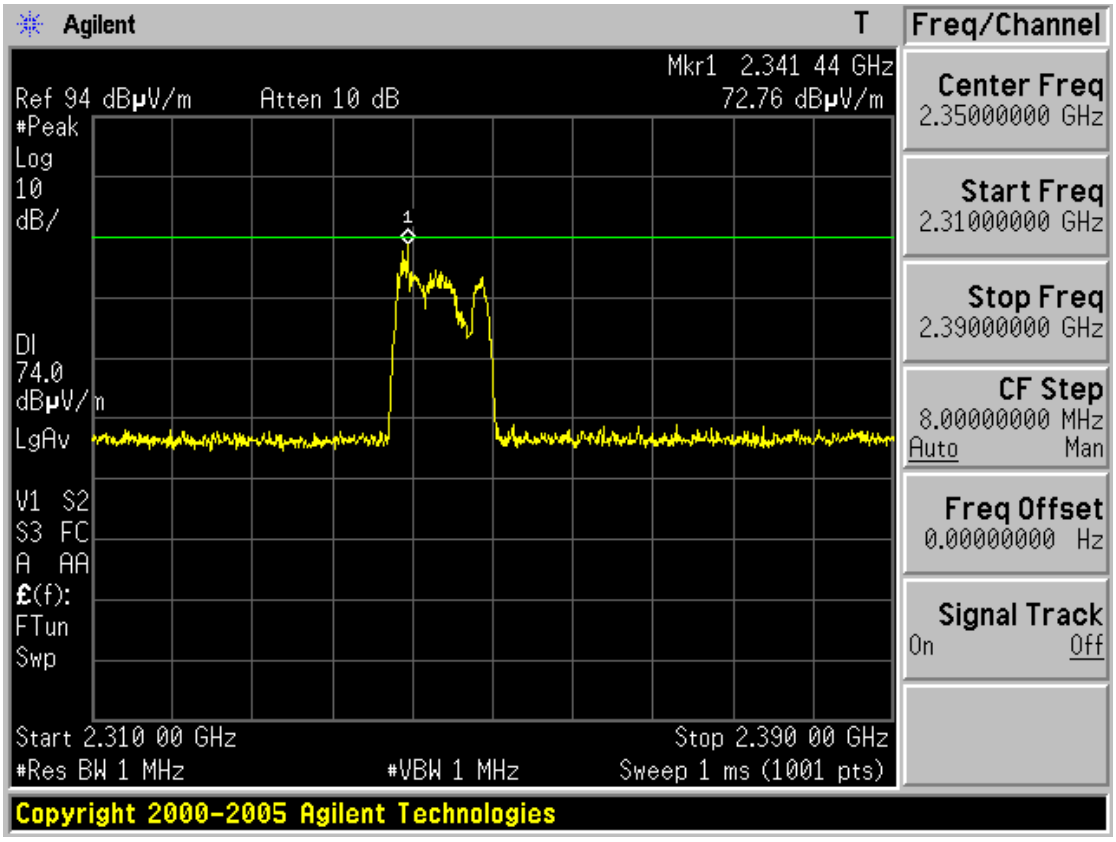
Restricted Band Edge: Low Channel (Peak, Horizontal) - **BTS340** -



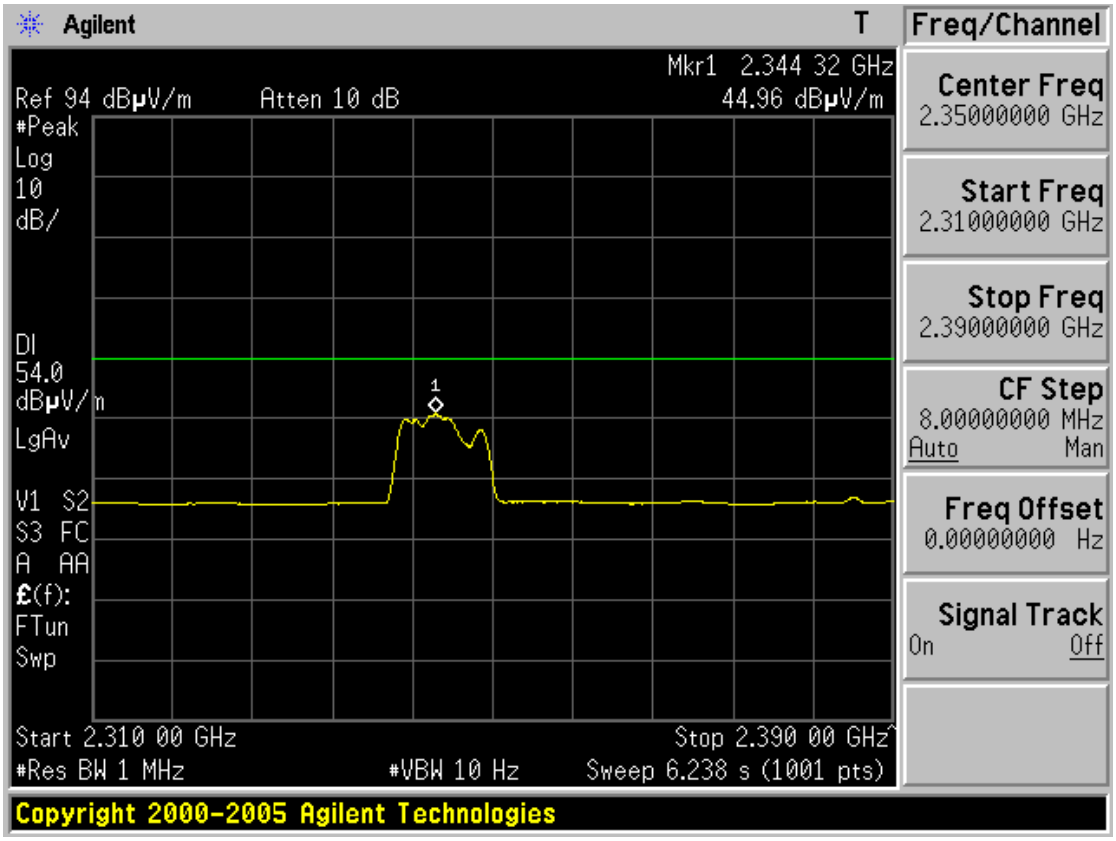
Restricted Band Edge: Low Channel (Average, Horizontal) - **BTS340** -



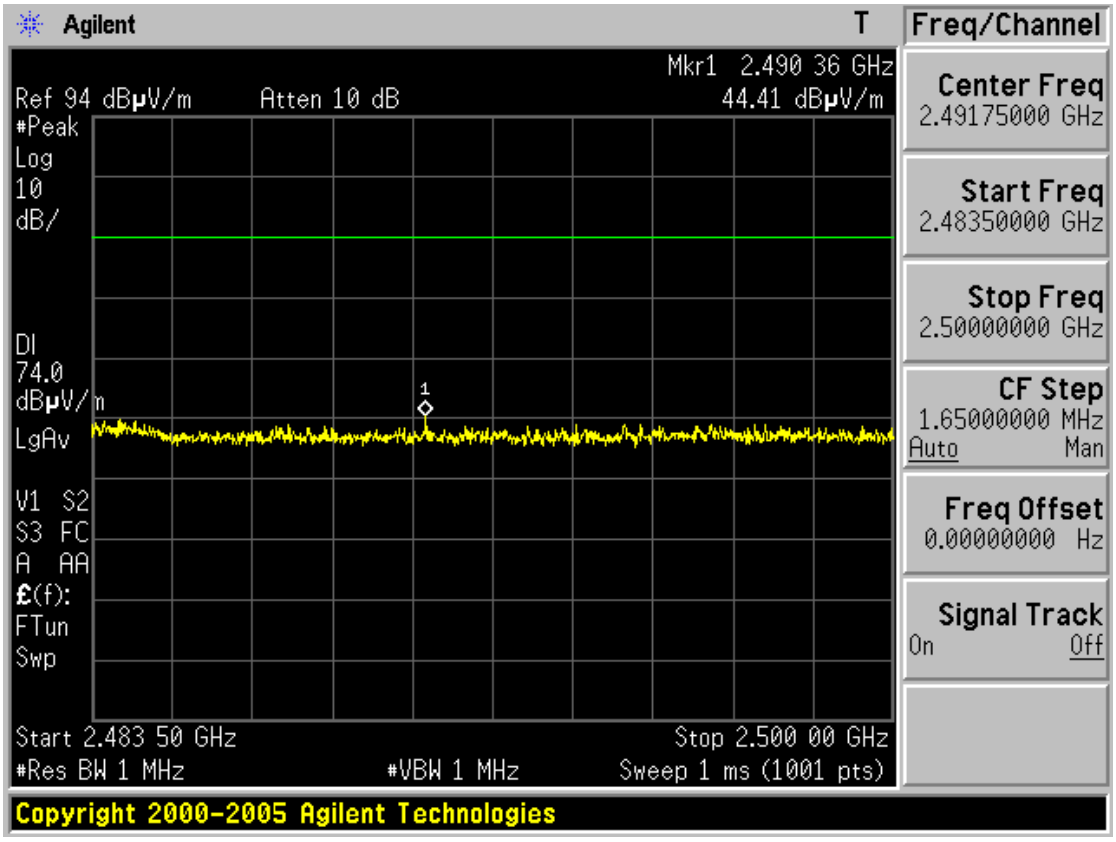
Restricted Band Edge: Low Channel (Peak, Vertical) - **BTS340** -



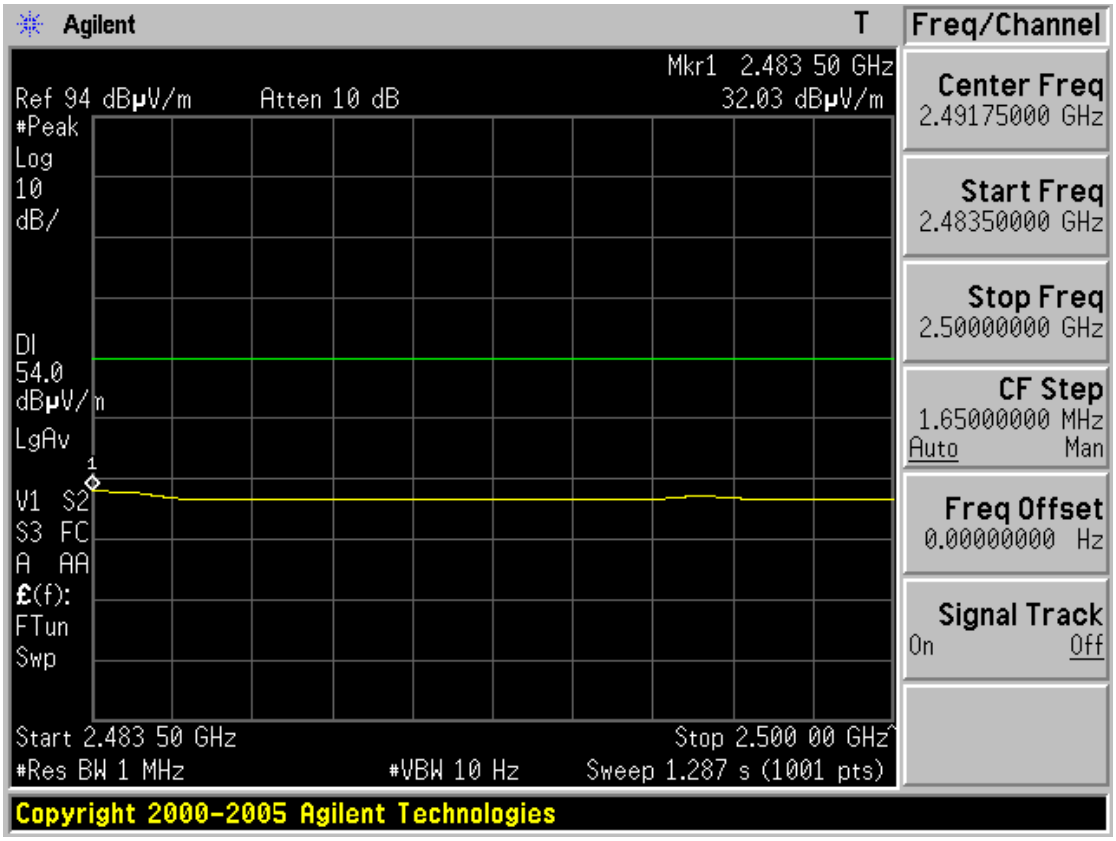
Restricted Band Edge: Low Channel (Average, Vertical) - **BTS340** -



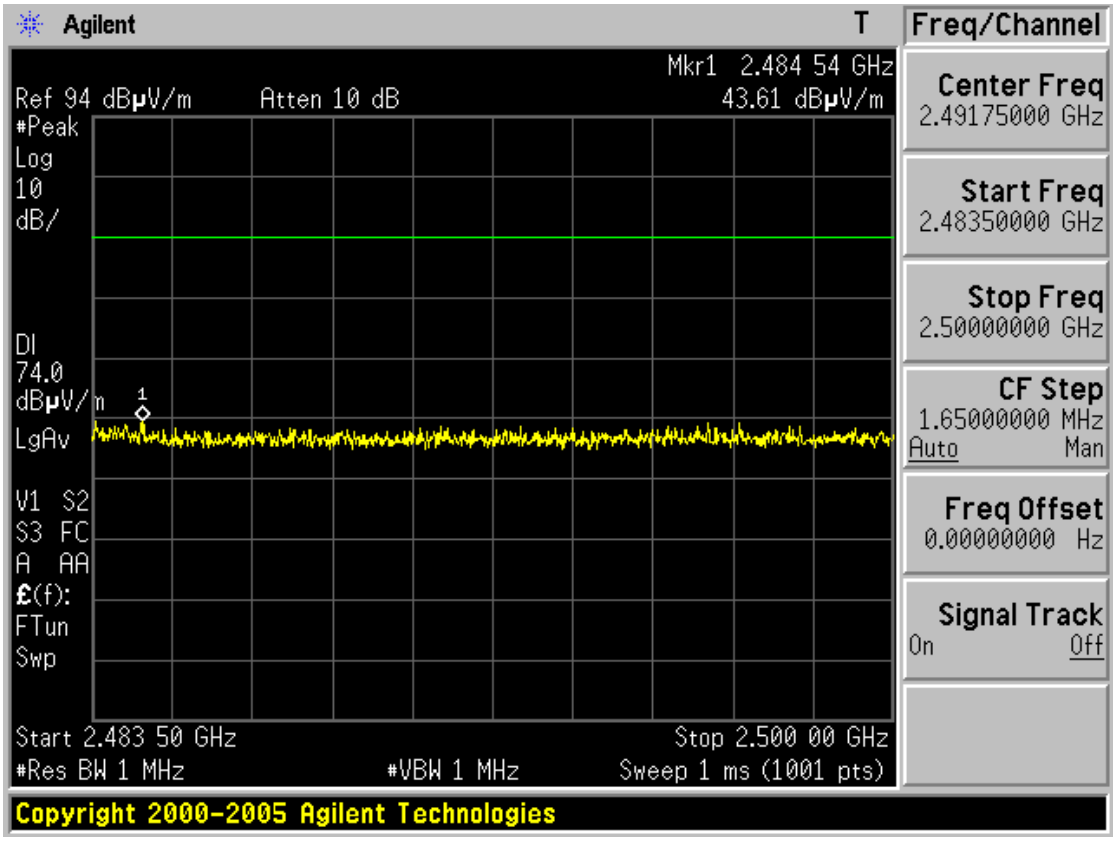
Restricted Band Edge: High Channel (Peak, Horizontal) - **BTS340** -



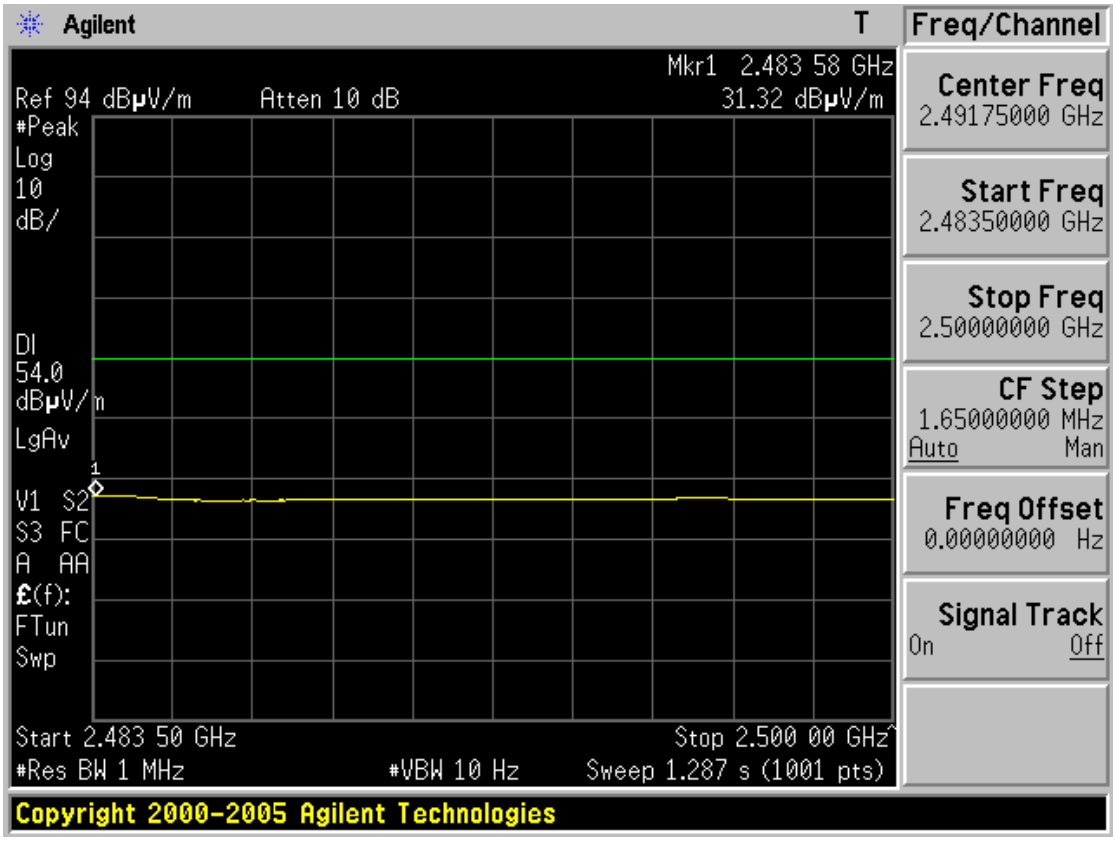
Restricted Band Edge: High Channel (Average, Horizontal) - **BTS340** -



Restricted Band Edge: High Channel (Peak, Vertical) - **BTS340** -



Restricted Band Edge: High Channel (Average, Vertical) - **BTS340** -



- BTS-310 -

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2402MHz

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
34.150	Ver	31.05	-	-	-8.65	22.40	-	-	40.00	-	-	17.60	-	-
39.250	Ver	35.65	-	-	-10.45	25.20	-	-	40.00	-	-	14.80	-	-
76.110	Ver	56.56	-	-	-18.36	38.20	-	-	40.00	-	-	1.80	-	-
76.150	Hor	48.15	-	-	-18.35	29.80	-	-	40.00	-	-	10.20	-	-
4804	Hor	-	49.37	41.59	7.19	-	56.56	48.78	-	74.00	54.00	-	17.44	5.22
4804	Ver	-	51.84	44.49	7.19	-	59.03	51.68	-	74.00	54.00	-	14.97	2.32

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2441MHz

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
34.130	Ver	31.54	-	-	-8.64	22.90	-	-	40.00	-	-	17.10	-	-
36.740	Ver	33.96	-	-	-9.56	24.40	-	-	40.00	-	-	15.60	-	-
76.110	Hor	49.16	-	-	-18.36	30.80	-	-	40.00	-	-	9.20	-	-
76.120	Ver	56.66	-	-	-18.36	38.30	-	-	40.00	-	-	1.70	-	-
4882	Hor	-	50.43	42.52	7.48	-	57.91	50.00	-	74.00	54.00	-	16.09	4.00
4882	Ver	-	52.38	45.17	7.48	-	59.86	52.65	-	74.00	54.00	-	14.14	1.35

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2480MHz

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
34.160	Ver	31.75	-	-	-8.65	23.10	-	-	40.00	-	-	16.90	-	-
36.800	Ver	33.17	-	-	-9.57	23.60	-	-	40.00	-	-	16.40	-	-
76.120	Ver	56.76	-	-	-18.36	38.40	-	-	40.00	-	-	1.60	-	-
76.130	Hor	49.56	-	-	-18.36	31.20	-	-	40.00	-	-	8.80	-	-
4960	Hor	-	48.63	41.05	7.89	-	56.52	48.94	-	74.00	54.00	-	17.48	5.06
4960	Ver	-	52.34	45.34	7.89	-	60.23	53.23	-	74.00	54.00	-	13.77	0.77

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. If peak result meet AV limit, AV measurement is omitted.
3. Sample Calculation.

   Margin = Limit – Result / Result = Reading + T.F / T.F = AF + CL - AG

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

- BTS-330 - **(Continued…)**

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2402MHz

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
36.750	Ver	32.36	-	-	-9.56	22.80	-	-	40.00	-	-	17.20	-	-
68.140	Ver	52.74	-	-	-18.54	34.20	-	-	40.00	-	-	5.80	-	-
76.120	Ver	56.46	-	-	-18.36	38.10	-	-	40.00	-	-	1.90	-	-
78.650	Hor	48.32	-	-	-18.22	30.10	-	-	40.00	-	-	9.90	-	-
91.730	Ver	44.65	-	-	-16.15	28.50	-	-	43.50	-	-	15.00	-	-
4804	Hor	-	49.37	41.59	7.19	-	56.56	48.78	-	74.00	54.00	-	17.44	5.22
4804	Ver	-	51.84	44.49	7.19	-	59.03	51.68	-	74.00	54.00	-	14.97	2.32

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2441MHz

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
36.750	Ver	32.96	-	-	-9.56	23.40	-	-	40.00	-	-	16.60	-	-
68.240	Ver	54.26	-	-	-18.56	35.70	-	-	40.00	-	-	4.30	-	-
76.110	Ver	56.66	-	-	-18.36	38.30	-	-	40.00	-	-	1.70	-	-
78.750	Hor	47.92	-	-	-18.22	29.70	-	-	40.00	-	-	10.30	-	-
91.860	Ver	45.43	-	-	-16.13	29.30	-	-	43.50	-	-	14.20	-	-
4882	Hor	-	50.43	42.52	7.48	-	57.91	50.00	-	74.00	54.00	-	16.09	4.00
4882	Ver	-	52.38	45.17	7.48	-	59.86	52.65	-	74.00	54.00	-	14.14	1.35

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2480MHz **(Continued…)**

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
35.980	Ver	31.38	-	-	-9.28	22.10	-	-	40.00	-	-	17.90	-	-
68.190	Ver	54.25	-	-	-18.55	35.70	-	-	40.00	-	-	4.30	-	-
76.110	Ver	56.86	-	-	-18.36	38.50	-	-	40.00	-	-	1.50	-	-
78.750	Hor	48.32	-	-	-18.22	30.10	-	-	40.00	-	-	9.90	-	-
91.850	Ver	44.83	-	-	-16.13	28.70	-	-	43.50	-	-	14.80	-	-
4960	Hor	-	48.63	41.05	7.89	-	56.52	48.94	-	74.00	54.00	-	17.48	5.06
4960	Ver	-	52.34	45.34	7.89	-	60.23	53.23	-	74.00	54.00	-	13.77	0.77

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. If peak result meet AV limit, AV measurement is omitted.
3. Sample Calculation.

   Margin = Limit – Result / Result = Reading + T.F / T.F = AF + CL - AG

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

-BTS-340 - **(Continued…)**

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2402MHz

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
37.230	Ver	35.92	-	-	-9.72	26.20	-	-	40.00	-	-	13.80	-	-
60.200	Ver	40.39	-	-	-17.99	22.40	-	-	40.00	-	-	17.60	-	-
66.610	Ver	52.63	-	-	-18.43	34.20	-	-	40.00	-	-	5.80	-	-
76.120	Ver	56.46	-	-	-18.36	38.10	-	-	40.00	-	-	1.90	-	-
76.140	Hor	49.26	-	-	-18.36	30.90	-	-	40.00	-	-	9.10	-	-
89.210	Ver	47.65	-	-	-16.55	31.10	-	-	43.50	-	-	12.40	-	-
140.900	Ver	36.39	-	-	-9.99	26.40	-	-	43.50	-	-	17.10	-	-
4804	Hor	-	49.37	41.59	7.19	-	56.56	48.78	-	74.00	54.00	-	17.44	5.22
4804	Ver	-	51.84	44.49	7.19	-	59.03	51.68	-	74.00	54.00	-	14.97	2.32

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2441MHz

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
36.750	Ver	34.96	-	-	-9.56	25.40	-	-	40.00	-	-	14.60	-	-
60.370	Ver	40.81	-	-	-18.01	22.80	-	-	40.00	-	-	17.20	-	-
65.610	Ver	52.87	-	-	-18.37	34.50	-	-	40.00	-	-	5.50	-	-
76.120	Hor	49.66	-	-	-18.36	31.30	-	-	40.00	-	-	8.70	-	-
76.120	Ver	56.56	-	-	-18.36	38.20	-	-	40.00	-	-	1.80	-	-
89.250	Ver	48.35	-	-	-16.55	31.80	-	-	43.50	-	-	11.70	-	-
141.760	Ver	37.52	-	-	-9.92	27.60	-	-	43.50	-	-	15.90	-	-
4882	Hor	-	50.43	42.52	7.48	-	57.91	50.00	-	74.00	54.00	-	16.09	4.00
4882	Ver	-	52.38	45.17	7.48	-	59.86	52.65	-	74.00	54.00	-	14.14	1.35

- **Continue to next page.**

Harmonic and other emissions Measurement Data: Fundamental Frequency = 2480MHz

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
36.920	Ver	35.71	-	-	-9.61	26.10	-	-	40.00	-	-	13.90	-	-
61.310	Ver	40.97	-	-	-18.07	22.90	-	-	40.00	-	-	17.10	-	-
65.720	Ver	51.97	-	-	-18.37	33.60	-	-	40.00	-	-	6.40	-	-
76.080	Hor	49.16	-	-	-18.36	30.80	-	-	40.00	-	-	9.20	-	-
76.130	Ver	56.66	-	-	-18.36	38.30	-	-	40.00	-	-	1.70	-	-
89.250	Ver	48.65	-	-	-16.55	32.10	-	-	43.50	-	-	11.40	-	-
141.540	Ver	36.73	-	-	-9.93	26.80	-	-	43.50	-	-	16.70	-	-
4960	Hor	-	48.63	41.05	7.89	-	56.52	48.94	-	74.00	54.00	-	17.48	5.06
4960	Ver	-	52.34	45.31	7.89	-	60.23	53.20	-	74.00	54.00	-	13.77	0.80

Note.

1. No other spurious and harmonic emissions were detected at a level greater than 20dB below limit.
2. If peak result meet AV limit, AV measurement is omitted.
3. Sample Calculation.

   Margin = Limit – Result / Result = Reading + T.F / T.F = AF + CL - 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: Comply (See next pages for actual measured spectrum plots.)

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

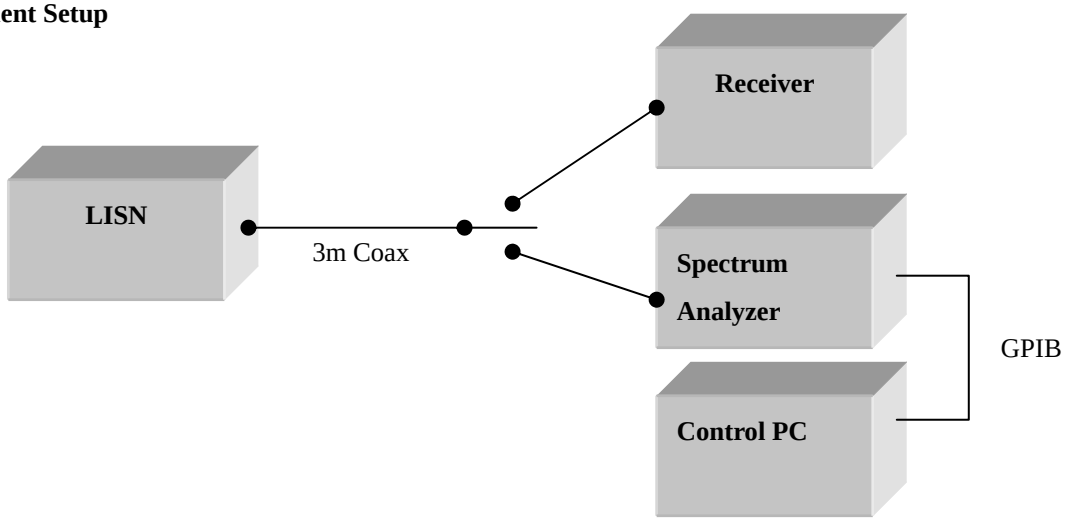
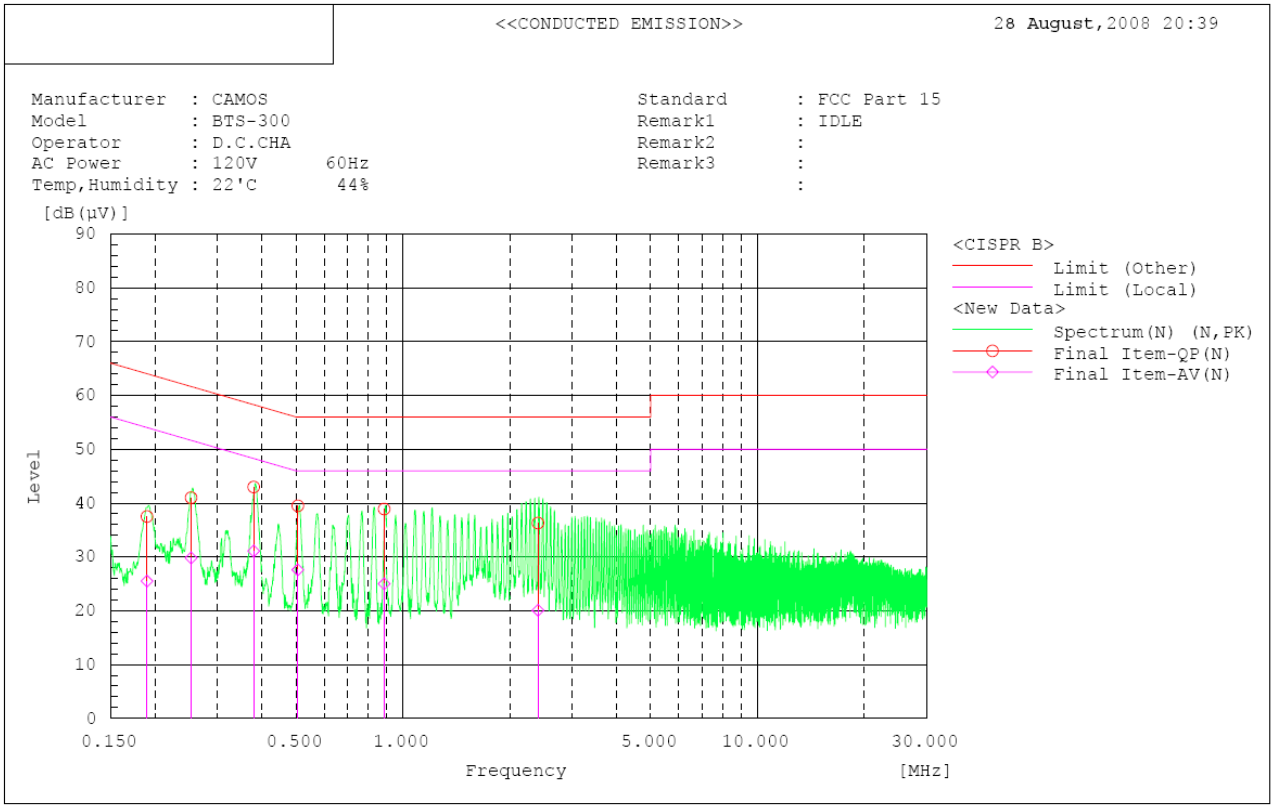
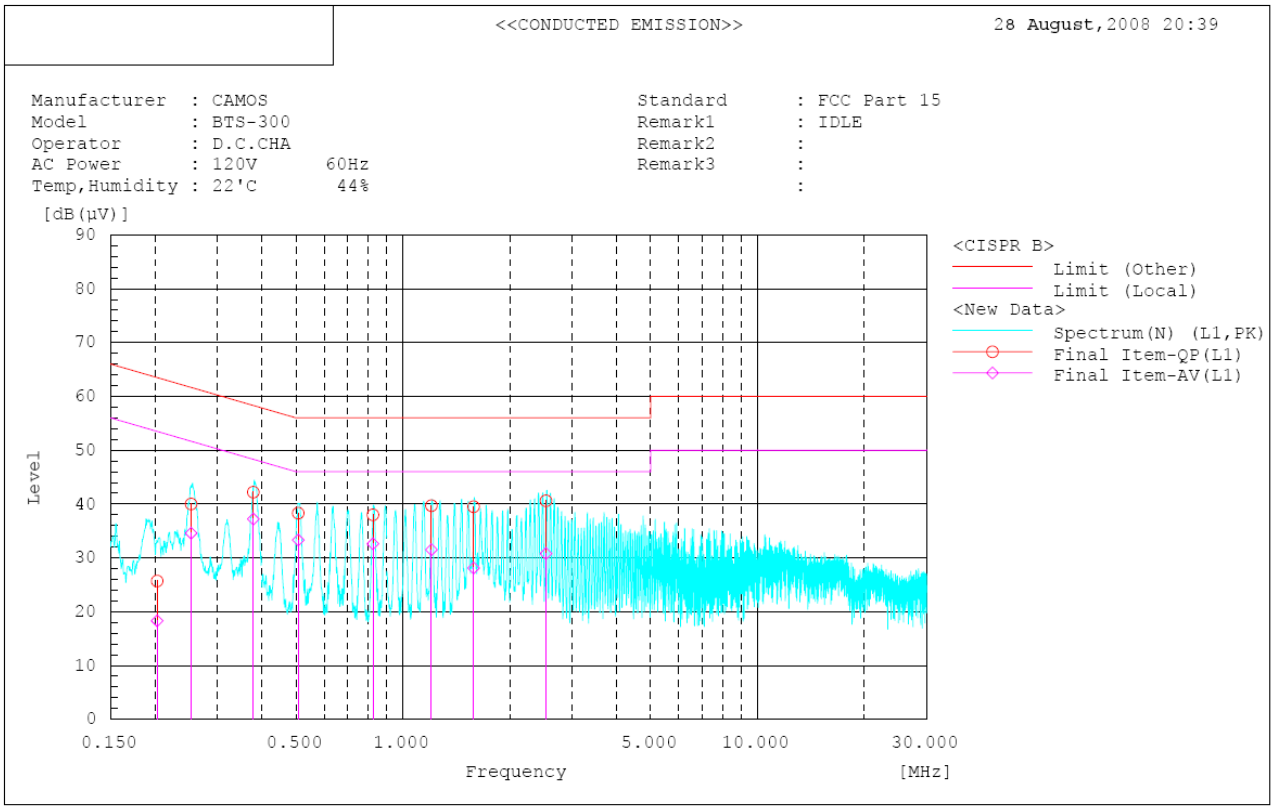


Figure 2: Measurement setup for AC Conducted Emission

- Conducted Emission Graph -





- Conducted Emission List -

<<CONDUCTED EMISSION>>

28 August,2008 20:39

Standard : FCC Part 15
Manufacturer : CAMOS
Model : BTS-300
Operator : D.C.CHA
AC Power : 120V 60Hz
Temp,Humidity : 22'C 44%
Remark1 : IDLE
Remark2 :
Remark3 :
:

Final Result

--- N Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.190	37.4	25.4	0.1	37.5	25.5	64.0	54.0	26.5	28.5	
2	0.253	40.8	29.6	0.2	41.0	29.8	61.7	51.7	20.7	21.9	
3	0.380	42.8	30.9	0.2	43.0	31.1	58.3	48.3	15.3	17.2	
4	0.506	39.3	27.4	0.2	39.5	27.6	56.0	46.0	16.5	18.4	
5	0.886	38.7	24.8	0.2	38.9	25.0	56.0	46.0	17.1	21.0	
6	2.405	36.0	19.8	0.3	36.3	20.1	56.0	46.0	19.7	25.9	

--- L1 Phase ---

No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.203	25.3	17.9	0.4	25.7	18.3	63.5	53.5	37.8	35.2	
2	0.253	39.6	34.2	0.4	40.0	34.6	61.7	51.7	21.7	17.1	
3	0.379	41.8	36.8	0.4	42.2	37.2	58.3	48.3	16.1	11.1	
4	0.507	37.9	32.9	0.4	38.3	33.3	56.0	46.0	17.7	12.7	
5	0.824	37.6	32.2	0.4	38.0	32.6	56.0	46.0	18.0	13.4	
6	1.204	39.2	31.0	0.5	39.7	31.5	56.0	46.0	16.3	14.5	
7	1.584	39.0	27.6	0.5	39.5	28.1	56.0	46.0	16.5	17.9	
8	2.534	40.0	30.2	0.6	40.6	30.8	56.0	46.0	15.4	15.2	

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
01	Spectrum Analyzer	Agilent	E4404B	21/03/08	21/03/09	US41061134
02	Spectrum Analyzer	Agilent	E4440A	06/11/08	06/11/09	MY45304199
03	Spectrum Analyzer	H.P	8563E	13/10/08	13/10/09	3551A04634
04	Spectrum Analyzer	H.P	8591E	26/04/08	26/04/09	3649A05889
05	Spectrum Analyzer	Rohde Schwarz	FSP	09/09/08	09/09/09	100385
06	EMI TEST RECEIVER	R&S	ESU	11/01/08	11/01/09	100014
07	EMI TEST RECEIVER	R&S	ESCI	13/05/08	13/05/09	100364
08	Power Meter	H.P	EMP-442A	10/07/08	10/07/09	GB37170413
09	Power Sensor	H.P	8481A	11/03/08	11/03/09	3318A96566
10	Power Divider	Agilent	11636B	17/12/07	17/12/08	56471
11	Signal Generator	Rohde Schwarz	SMR20	02/04/08	02/04/09	101251
12	Signal Generator	H.P	ESG-3000A	09/07/08	09/07/09	US37230529
13	Vector Signal Generator	Rohde Schwarz	SMJ100A	17/01/08	17/01/09	100148
14	Audio Analyzer	H.P	8903B	09/07/08	09/07/09	3011A09448
15	Modulation Analyzer	H.P	8901B	18/07/08	18/07/09	3028A03029
16	Oscilloscope	Tektronix	TDS3052	07/10/08	07/10/09	B016821
17	8960 Series 10 Wireless Comms. Test Set	Agilent	E5515C	31/07/08	31/07/09	GB43461134
18	Universal Radio communication Tester	Rohde Schwarz	CMU 200	02/04/08	02/04/09	107631
19	Bluetooth Tester	TESCOM	TC-3000A	01/08/08	01/08/09	3000A4A0121
20	Power Splitter	WEINSCHEL	1593	06/10/08	06/10/09	332
21	Power Splitter	Anritsu	K241B	14/10/08	14/10/09	020611
22	BAND Reject Filter	Microwave Circuits	N0308372	06/10/08	06/10/09	3125-01DC0352
23	BAND Reject Filter	Wainwright	WRCG1750	06/10/08	06/10/09	2
24	AC Power supply	DAEKWANG	5KVA	20/03/08	20/03/09	20060321-1
25	DC Power Supply	H.P	6622A	20/03/08	20/03/09	3448A03760
26	DC Power Supply	HP	6633A	20/03/08	20/03/09	3524A06634
27	HORN ANT	ETS	3115	13/06/08	13/06/09	6419
28	HORN ANT	ETS	3115	10/09/08	10/09/09	21097
29	HORN ANT	A.H.Systems	SAS-574	13/06/08	13/06/09	154
30	HORN ANT	A.H.Systems	SAS-574	13/06/08	13/06/09	155
31	Dipole Antenna	Schwarzbeck	VHA9103	19/12/07	19/12/08	2116

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	Next.Due.Date (dd/mm/yy)	S/N
32	Dipole Antenna	Schwarzbeck	VHA9103	19/12/07	19/12/08	2117
33	Dipole Antenna	Schwarzbeck	UHA9105	20/12/07	20/12/08	2261
34	Dipole Antenna	Schwarzbeck	UHA9105	20/12/07	20/12/08	2262
35	TEMP & HUMIDITY Chamber	JISCO	J-RHC2	10/10/08	10/10/09	021031
36	Log Periodic Antenna	Schwarzbeck	UHALP9108A1	30/09/08	30/09/09	1098
37	Biconical Antenna	Schwarzbeck	VHA9103	13/06/08	13/06/09	2233
38	Digital Multimeter	H.P	34401A	20/03/08	20/03/09	3146A13475,US36122178
39	Attenuator (10dB)	WEINSCHEL	23-10-34	01/10/08	01/10/09	BP4386
40	Attenuator (10dB)	WEINSCHEL	23-10-34	30/01/08	30/01/09	BP4387
41	High-Pass Filter	ANRITSU	MP526D	06/10/08	06/10/09	MP27756
42	Attenuator (3dB)	Agilent	8491B	01/08/08	01/08/09	MY39260700
43	Attenuator (20dB)	Aeroflex/Weinschel	86-20-11	06/10/08	06/10/09	432
44	Attenuator (10dB)	Aeroflex/Weinschel	86-10-11	06/10/08	06/10/09	446
45	Attenuator (10dB)	Aeroflex/Weinschel	86-10-11	06/10/08	06/10/09	408
46	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0088CAN	11/07/08	11/07/09	788
47	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0185CAN	11/07/08	11/07/09	790
48	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0215CAN	11/07/08	11/07/09	112
49	Amplifier (25dB)	Agilent	8447D	21/05/08	21/05/09	2944A10144
50	Amplifier (30dB)	Agilent	8449B	13/10/08	13/10/09	3008A01590
51	Amplifier (22dB)	H.P	8447E	27/02/08	27/02/09	2945A02865
52	Position Controller	TOKIN	5901T	N/A	N/A	14173
53	Driver	TOKIN	5902T2	N/A	N/A	14174
54	LISN	Kyorits	KNW-407	04/08/08	04/08/09	8-317-8
55	LISN	Kyorits	KNW-242	13/10/08	13/10/09	8-654-15
56	CVCF	NF Electronic	4420	21/03/08	21/03/09	304935/337980
57	Software	ToYo EMI	EP5/RE	N/A	N/A	Ver 2.0.800
58	Software	ToYo EMI	EP5/CE	N/A	N/A	Ver 2.0.801
59	Software	AUDIX	e3	N/A	N/A	Ver 3.0
60	Software	Agilent	Benchlink	N/A	N/A	A.01.09 021211
61	RFI/FIELD Intensity Meter	Kyorits	KNW-2402	11/09/08	11/09/09	4N-170-3