

## 4.2.4 Out of band Emission – Radiated

### - 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:

Tested frequency = Low, Middle, High Frequencies

Frequency Range = 30 MHz ~ 10th harmonic.

RBW and VBW = 1. Frequency range: 30MHz ~ 1GHz

RBW = 120KHz / VBW =  $\geq$  RBW

2. Frequency range: 1GHz ~ 10<sup>th</sup> harmonics

Peak mode: RBW = 1MHz / VBW =  $\geq$  RBW

Average mode: RBW = 1MHz / VBW = 10Hz

Detector function = Peak

Sweep = auto

Trace = max hold

### - Measurement Data: **Comply**

Note 1: See next pages for actual measured spectrum plots and data.

### - Minimum Standard:

#### ▪ FCC Part 15.209(a) and (b)

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

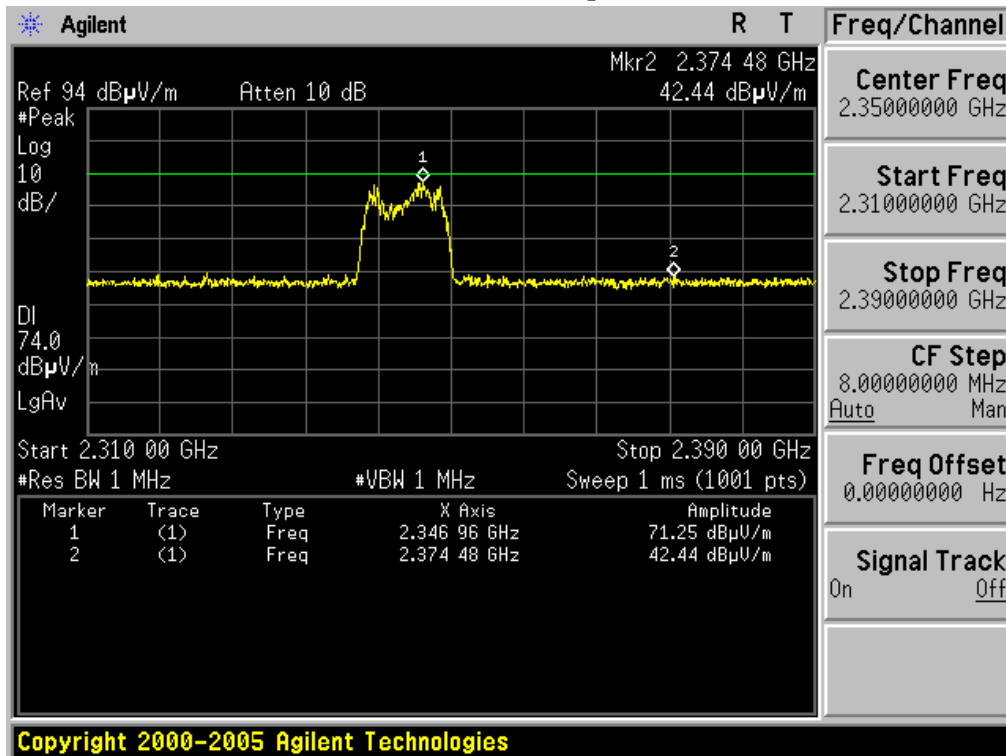
\*\* Except as provided in 15.209(g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88MHz, 174-216MHz or 470-806MHz. However, operation within these frequency bands is permitted under other sections of this Part,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

#### ▪ FCC Part 15.205 (a): Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	3600 ~ 4400	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	4.5 ~ 5.15	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	5.35 ~ 5.46	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~ 156.52525	1660 ~ 1710	7.25 ~ 7.75	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.7 ~ 156.9	1718.8 ~ 1722.2	8.025 ~ 8.5	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	162.0125 ~ 167.17	2200 ~ 2300	9.0 ~ 9.2	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	167.72 ~ 173.2	2310 ~ 2390	9.3 ~ 9.5	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	240 ~ 285	2483.5 ~ 2500	10.6 ~ 12.7	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	322 ~ 335.4	2655 ~ 2900	13.25 ~ 13.4	
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	960 ~ 1240	3345.8 ~ 3358		

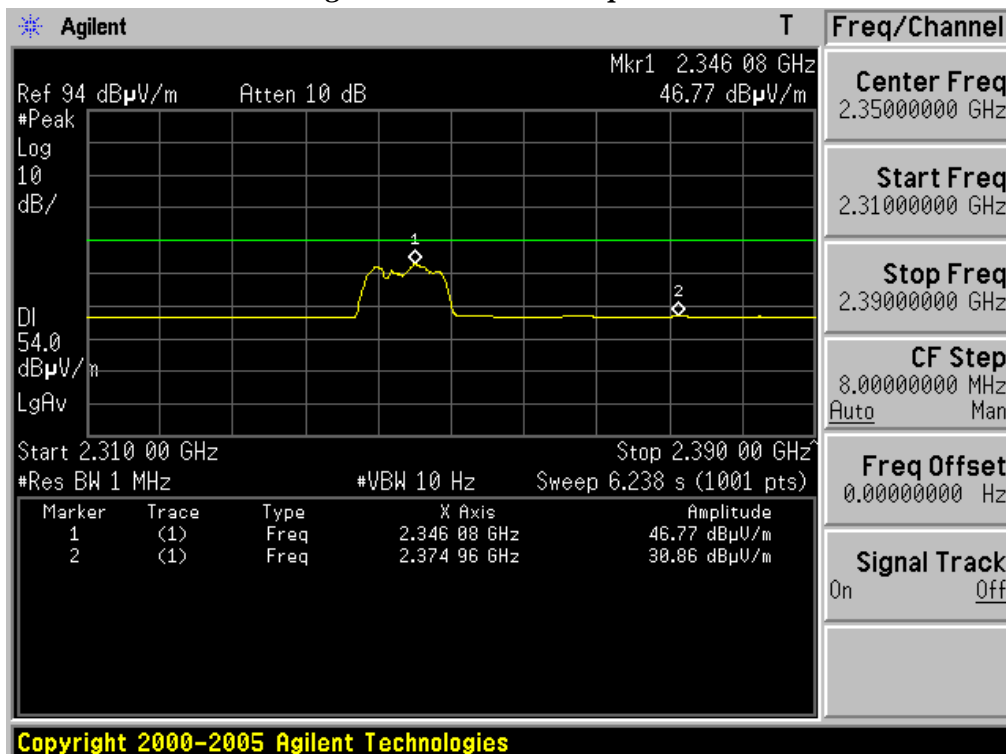
▪ **FCC Part 15.205(b):** The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 1  
*Peak mode / Horizontal polarization*



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

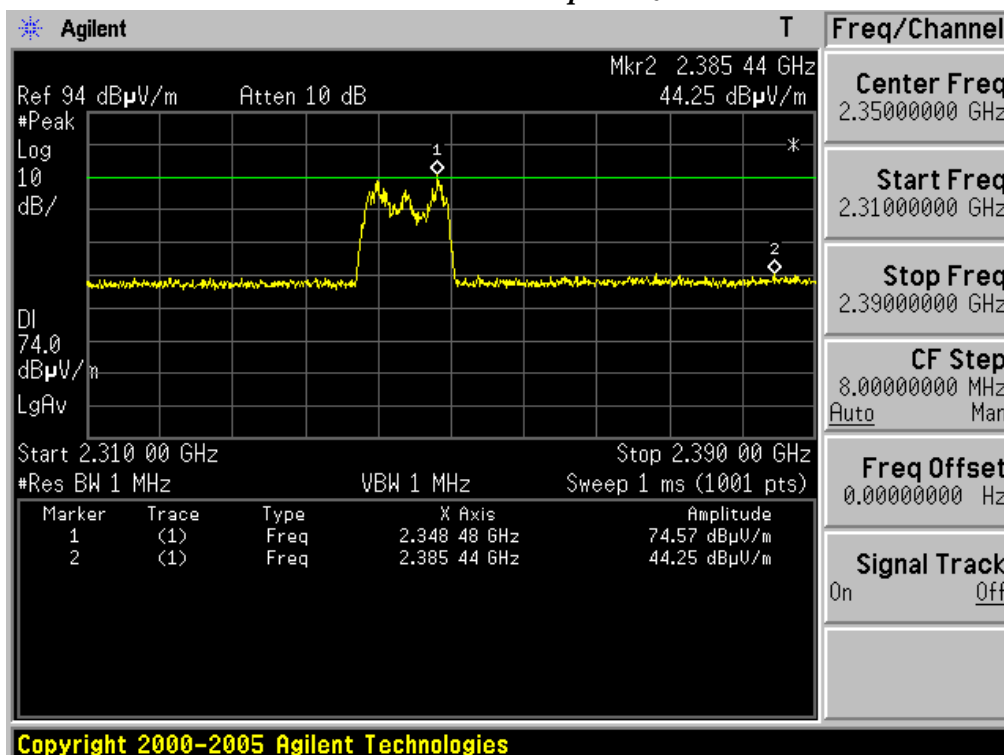
**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 1  
*Average mode / Horizontal polarization*



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

Restricted Band Edge Test Mode: 802.11b & Lowest Frequency & Test case 1

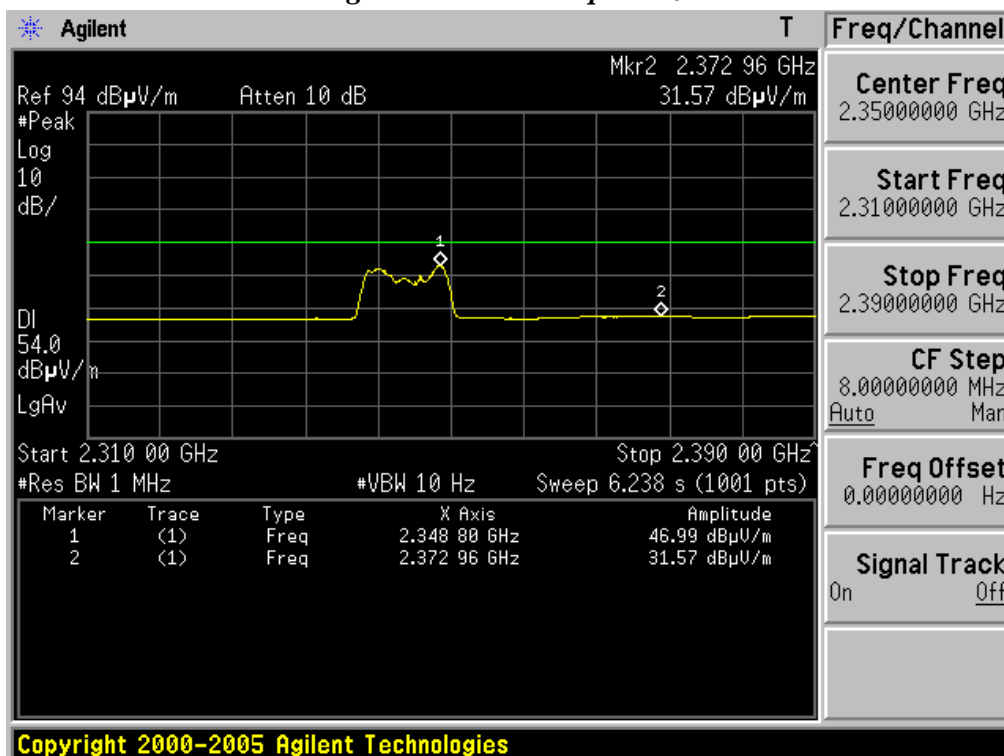
*Peak mode / Vertical polarization*



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Restricted Band Edge Test Mode: 802.11b & Lowest Frequency & Test case 1

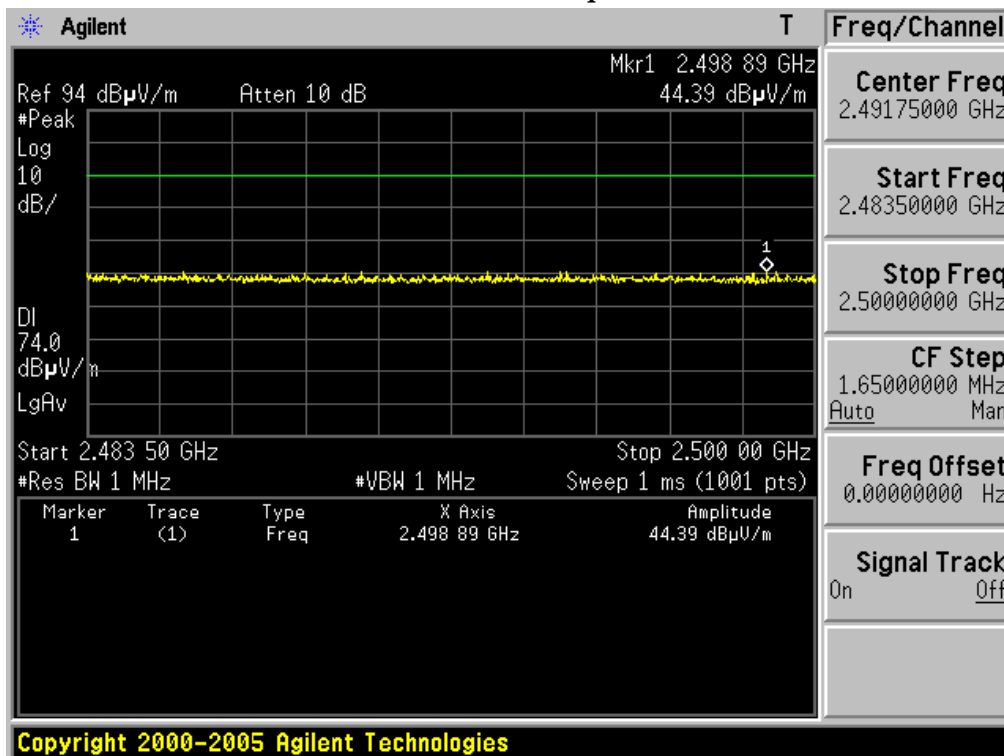
*Average mode / Vertical polarization*



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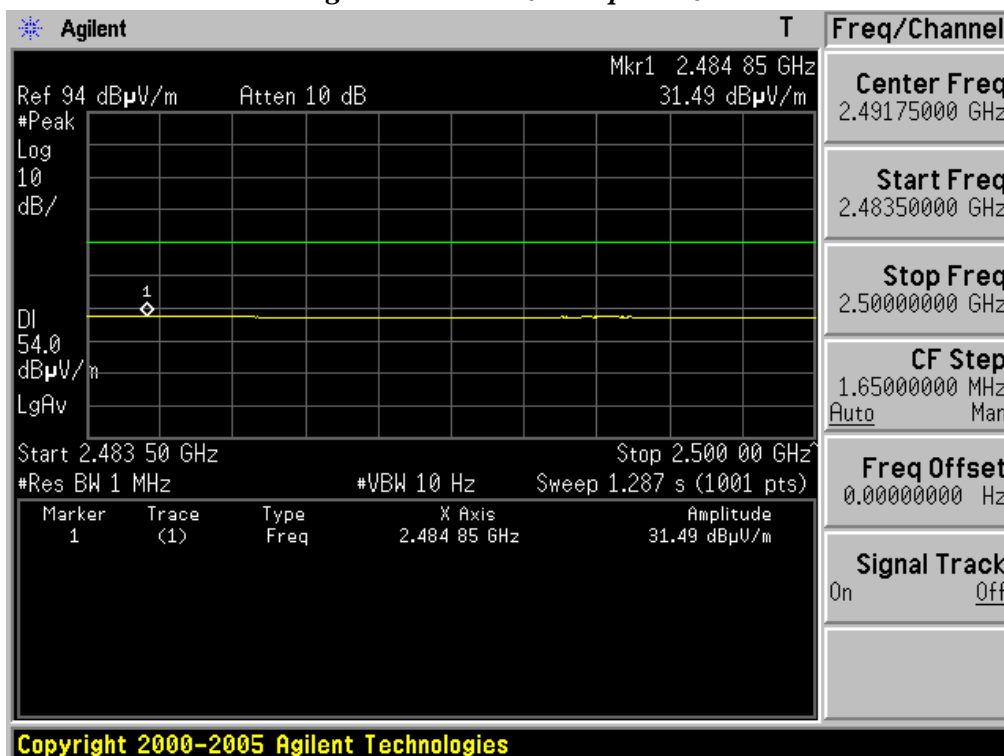
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 1

*Peak mode / Horizontal polarization*



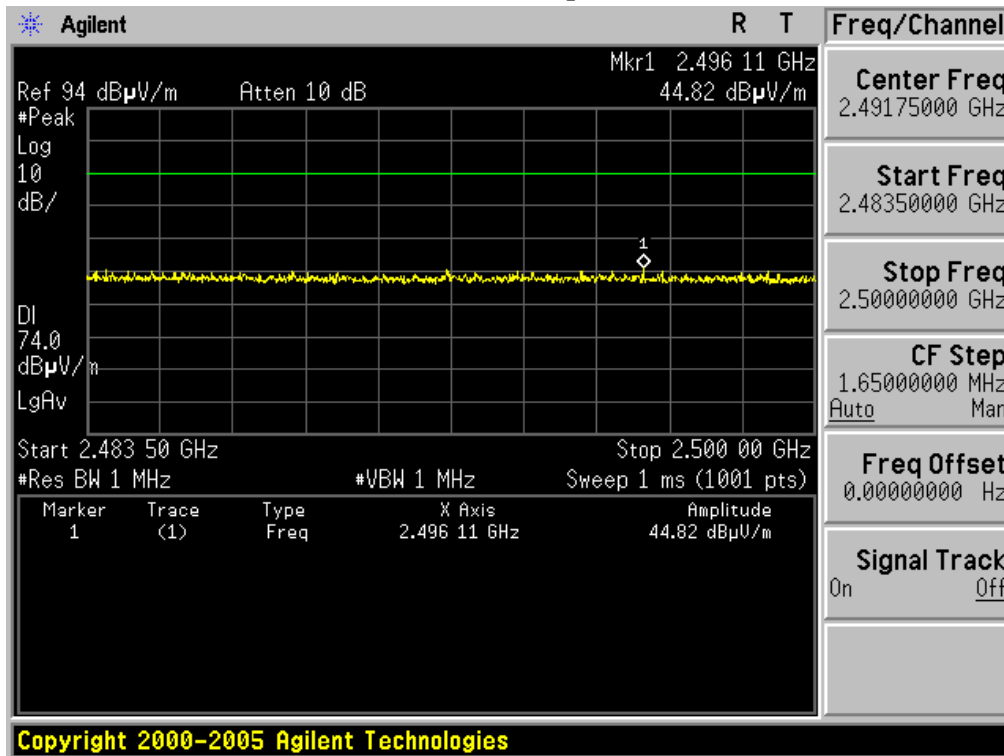
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 1

*Average mode / Horizontal polarization*



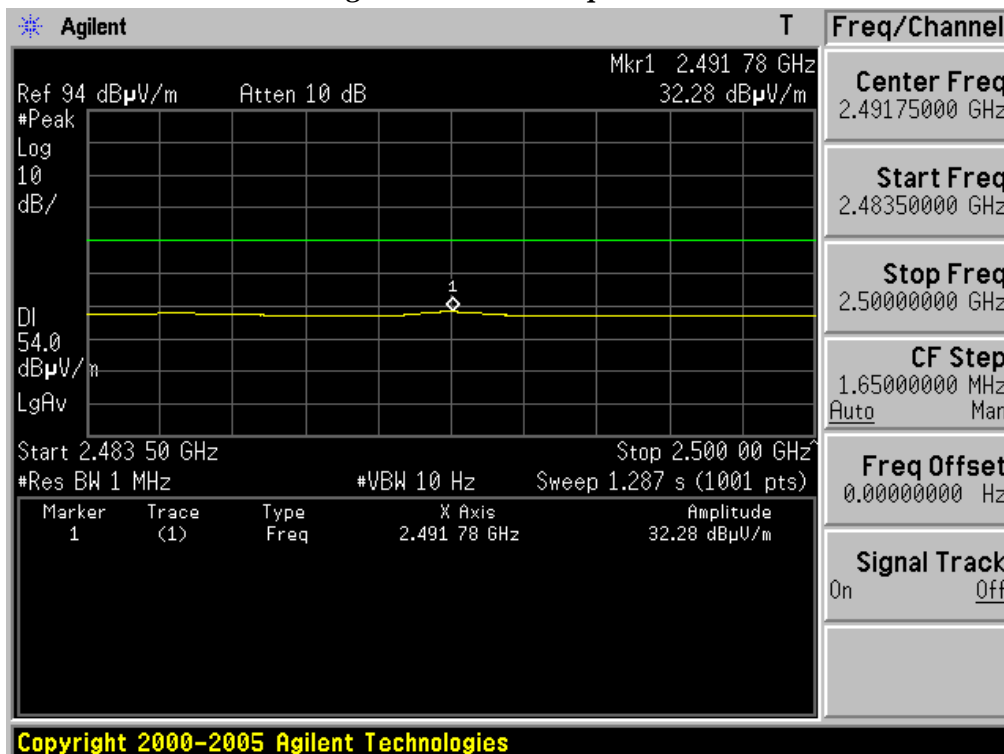
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 1

*Peak mode / Vertical polarization*

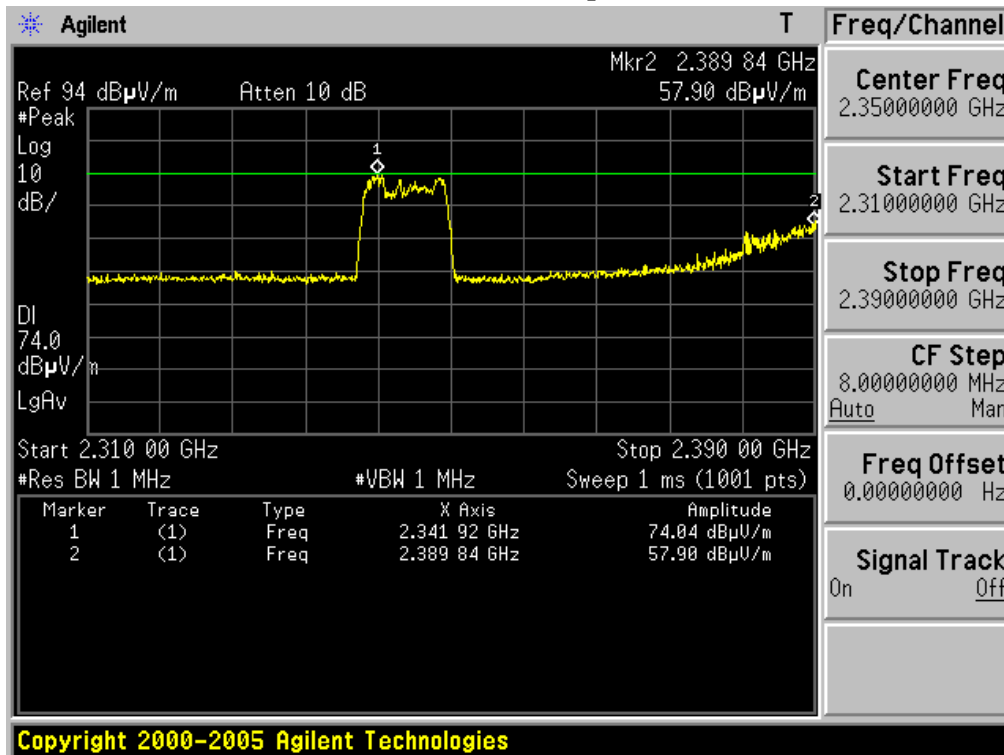


Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 1

*Average mode / Vertical polarization*

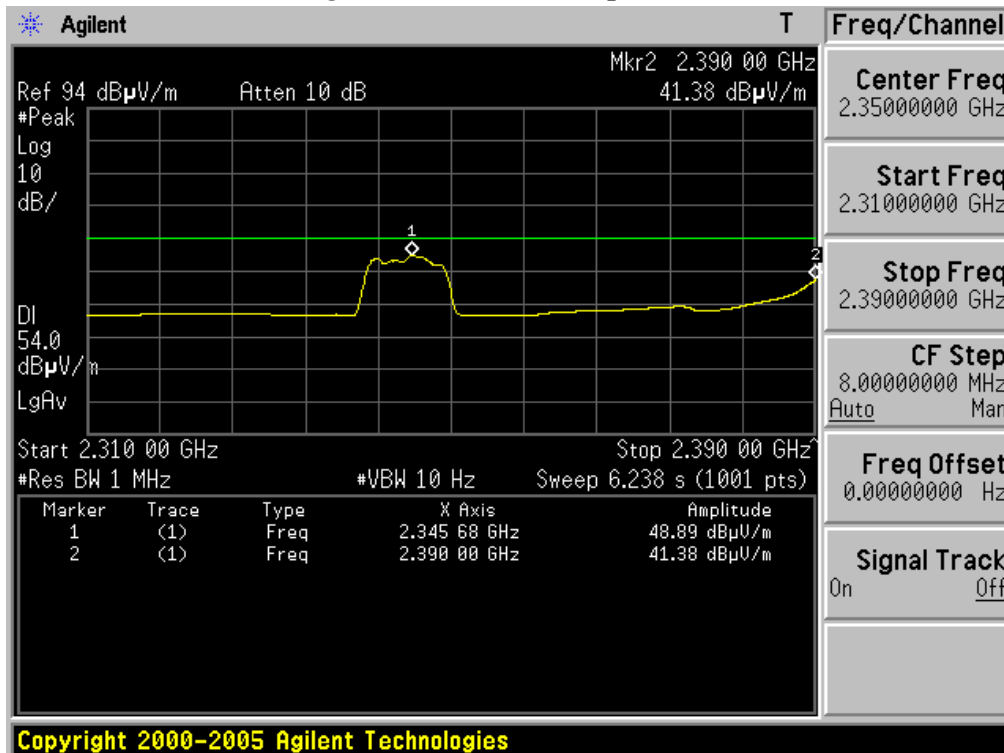


**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 1  
*Peak mode / Horizontal polarization*



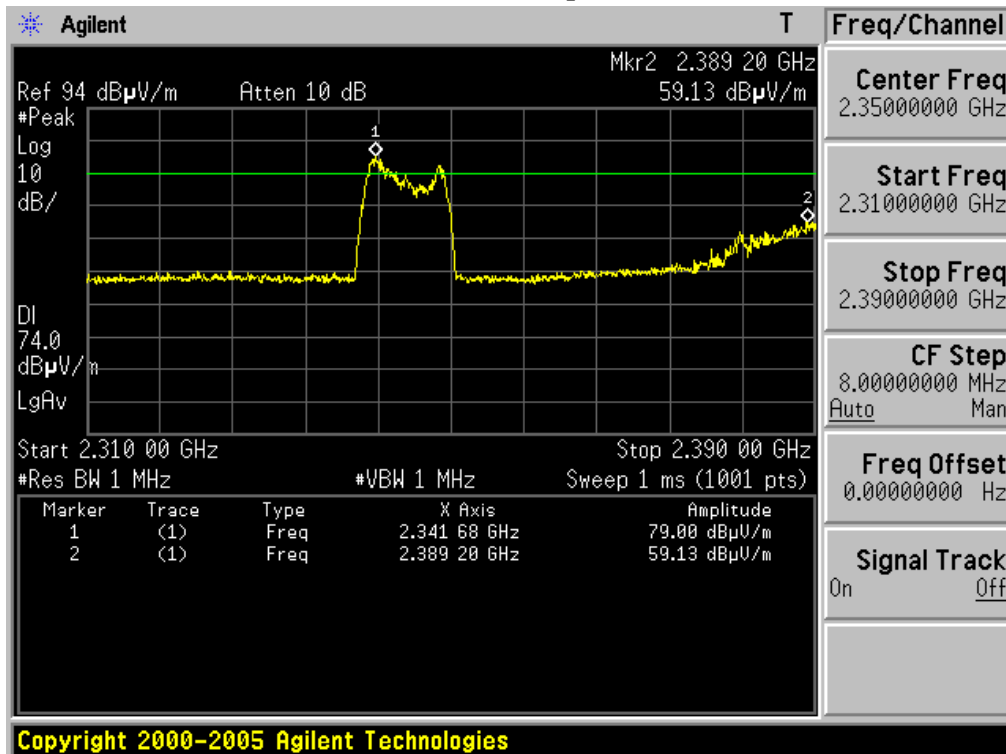
Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 1  
*Average mode / Horizontal polarization*



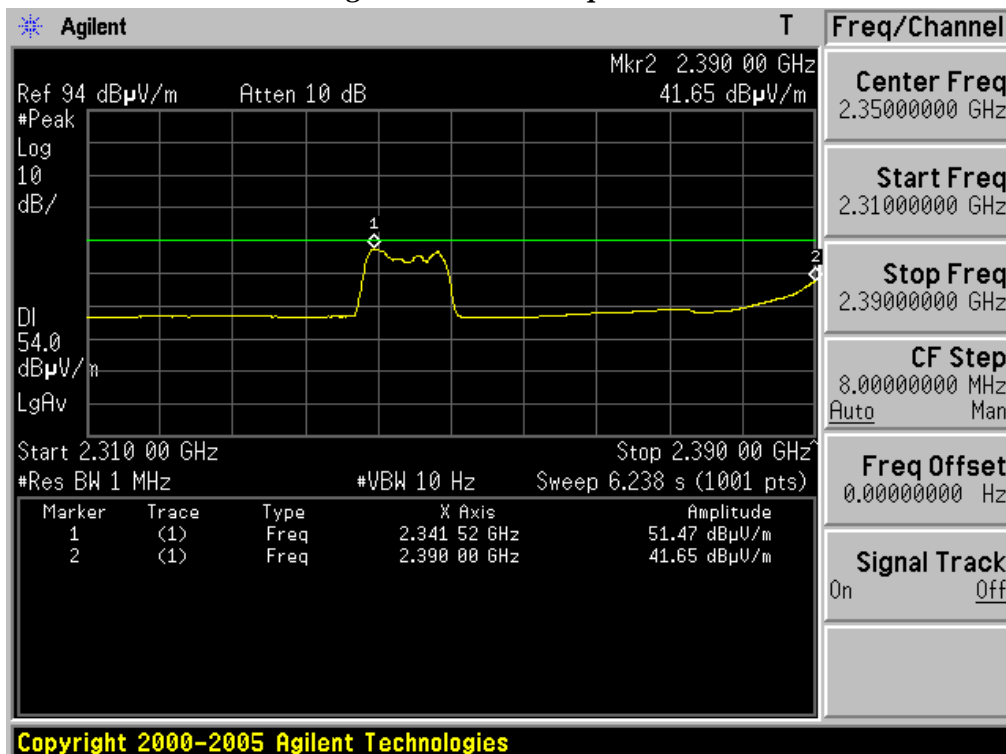
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**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 1  
*Peak mode / Vertical polarization*



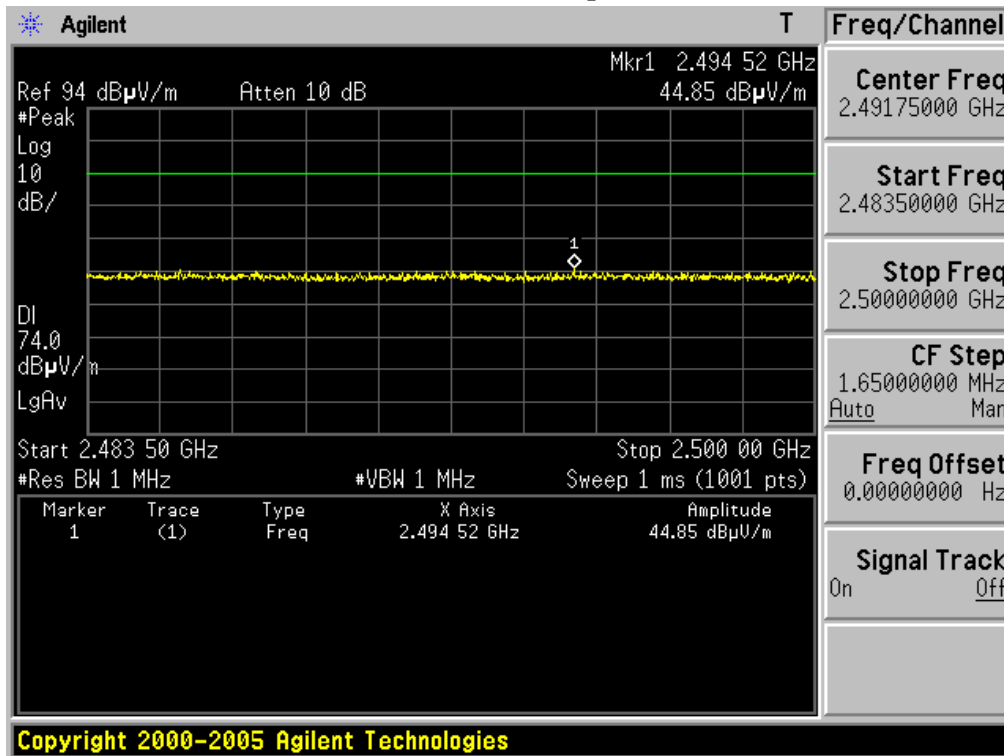
Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 1  
*Average mode / Vertical polarization*

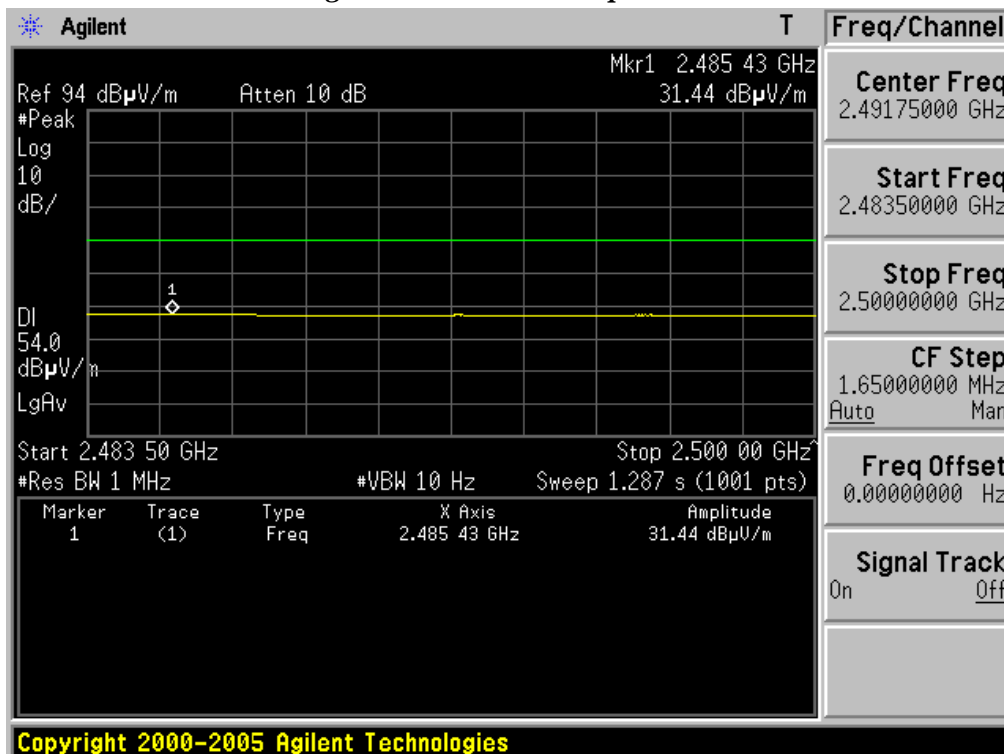


Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

**Restricted Band Edge**    Test Mode: 802.11g   &   Highest Frequency   & Test case 1  
**Peak mode / Horizontal polarization**



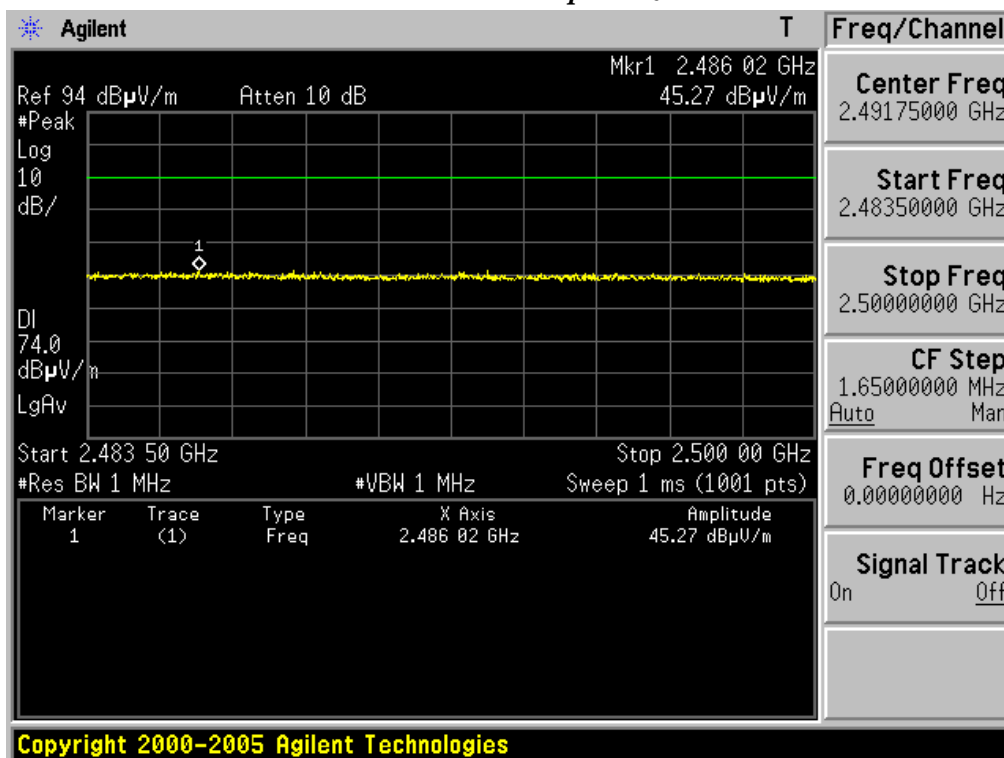
**Restricted Band Edge**    Test Mode: 802.11g   &   Highest Frequency   & Test case 1  
**Average mode / Horizontal polarization**





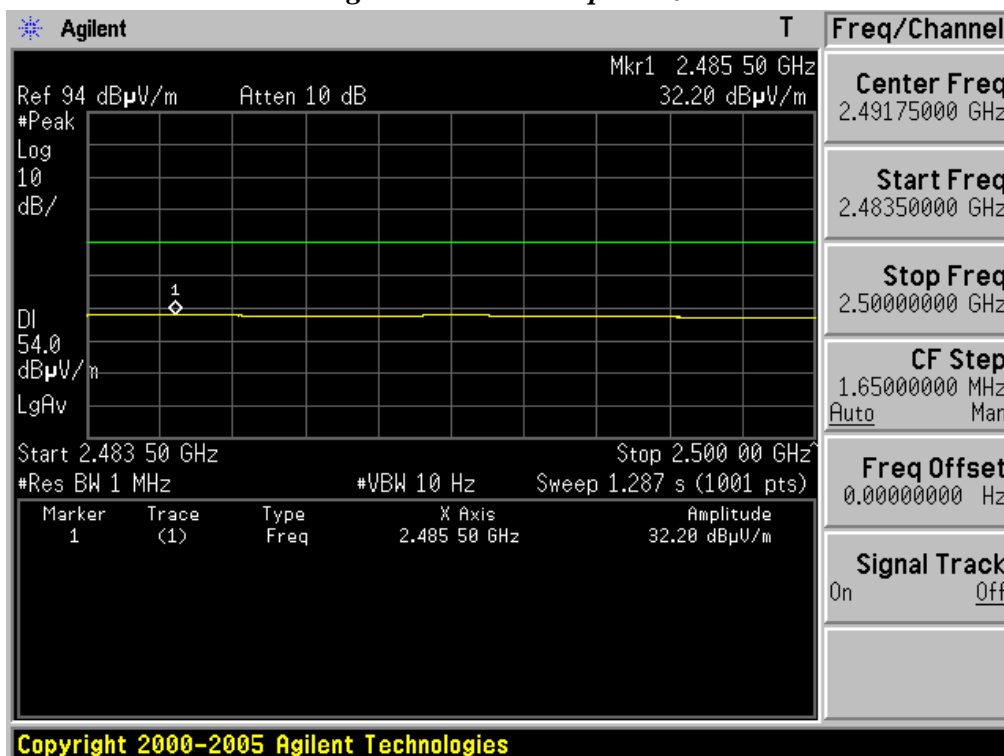
Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 1

*Peak mode / Vertical polarization*



Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 1

*Average mode / Vertical polarization*



# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Lowest Frequency & Test case 1



## RADIATED EMISSION

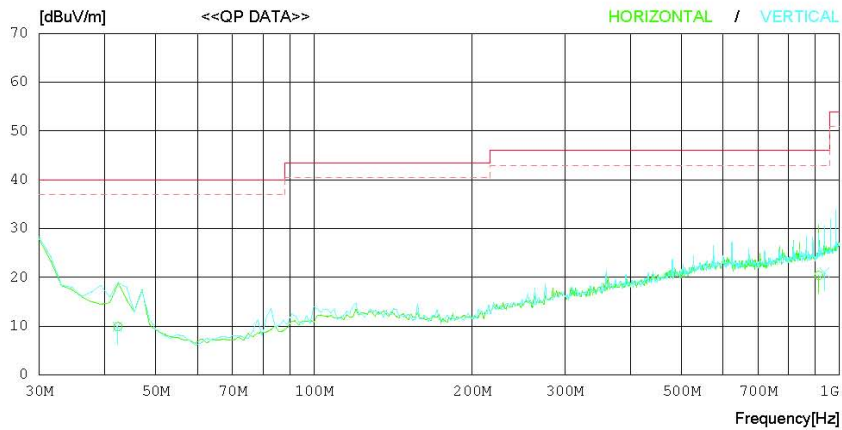
Date : 2010-04-14

Model Name : IMW-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 1

Reference No. :  
Power Supply : DC 3.7V  
Temp/Humi : 22°C 44 % R.H  
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	42.342	18.4	13.2	0.9	22.6	9.9	40.0	30.1	121	60
2	912.850	18.7	19.9	5.0	23.2	20.4	46.0	25.6	224	182
----- Vertical -----										
3	42.332	18.4	13.2	0.9	22.6	9.9	40.0	30.1	110	354
4	936.154	18.7	20.3	5.1	23.1	21.0	46.0	25.0	106	44

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Middle Frequency & Test case 1



## RADIATED EMISSION

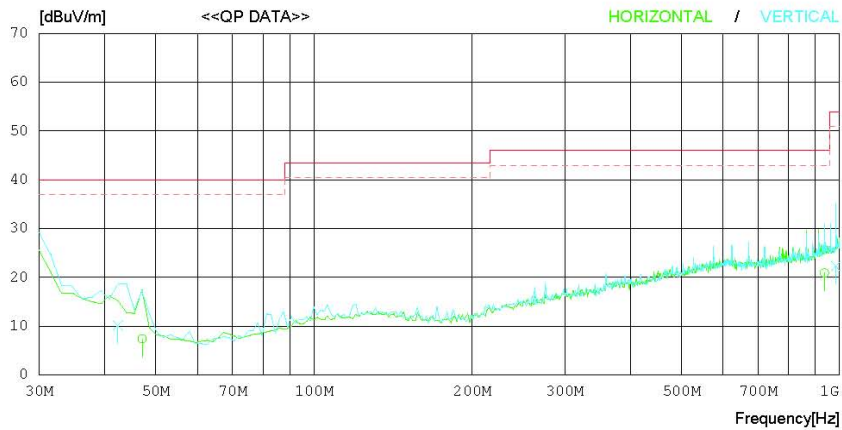
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 1

Reference No. :  
Power Supply : DC 3.7V  
Temp/Humi : 22 °C 44 % R.H  
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	47.124	18.4	10.7	1.0	22.7	7.4	40.0	32.6	106	59
2	936.244	18.6	20.3	5.1	23.1	20.9	46.0	25.1	110	159
----- Vertical -----										
3	42.350	18.6	13.2	0.9	22.6	10.1	40.0	29.9	114	40
4	984.463	18.7	21.1	5.3	22.8	22.3	54.0	31.7	113	60

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Highest Frequency & Test case 1



## RADIATED EMISSION

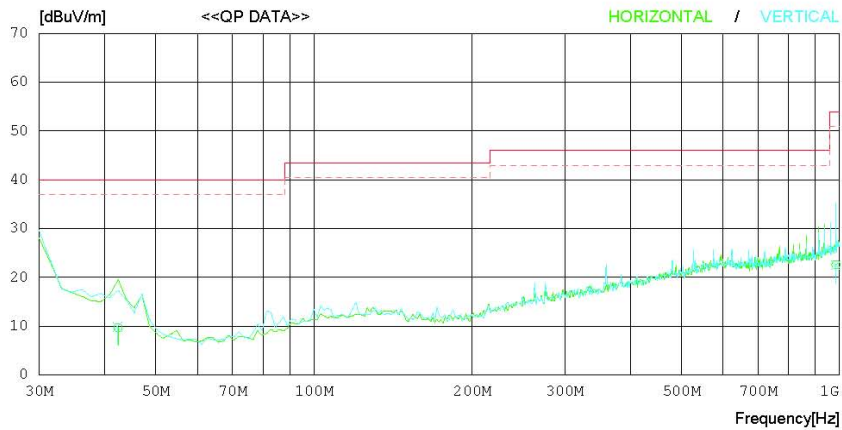
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 1

Reference No. :  
Power Supply : DC 3.7V  
Temp/Humi : 22 °C / 43 % R.H  
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	42.430	18.2	13.2	0.9	22.6	9.7	40.0	30.3	111	251
2	984.448	19.0	21.1	5.3	22.8	22.6	54.0	31.4	100	319
----- Vertical -----										
3	42.274	18.4	13.2	0.9	22.6	9.9	40.0	30.1	112	348
4	984.377	18.9	21.1	5.3	22.8	22.5	54.0	31.5	110	244

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Lowest Frequency & Test case 1



## RADIATED EMISSION

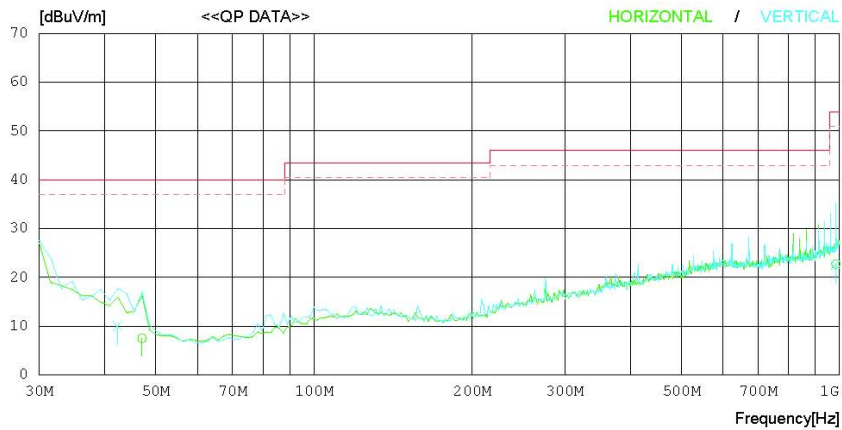
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 1

Reference No. :  
Power Supply : DC 3.7V  
Temp/Humi : 22 °C / 43 % R.H  
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	47.100	18.5	10.7	1.0	22.7	7.5	40.0	32.5	113	1
2	984.345	19.1	21.1	5.3	22.8	22.7	54.0	31.3	142	358
----- Vertical -----										
3	42.332	18.5	13.2	0.9	22.6	10.0	40.0	30.0	110	65
4	984.441	19.0	21.1	5.3	22.8	22.6	54.0	31.4	100	112

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Middle Frequency & Test case 1



## RADIATED EMISSION

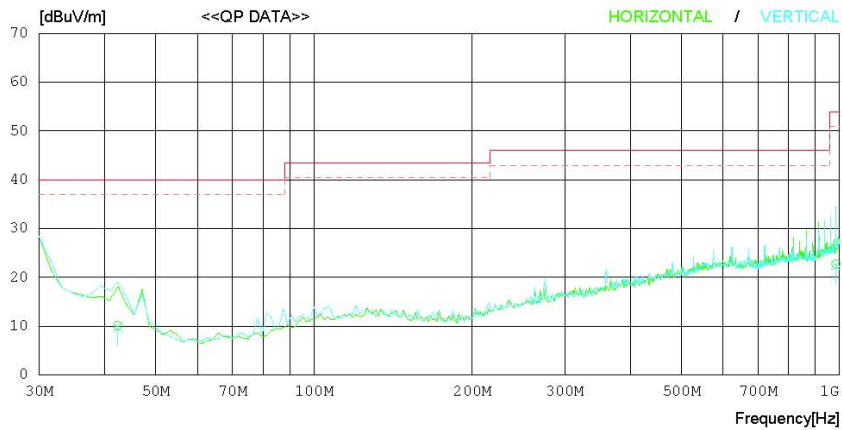
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 1

Reference No. :  
Power Supply : DC 3.7 V  
Temp/Humi : 22 °C 43 % R.H  
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	42.314	18.6	13.2	0.9	22.6	10.1	40.0	29.9	112	340
2	984.440	19.1	21.1	5.3	22.8	22.7	54.0	31.3	225	359
----- Vertical -----										
3	42.341	18.2	13.2	0.9	22.6	9.7	40.0	30.3	110	74
4	984.447	18.9	21.1	5.3	22.8	22.5	54.0	31.5	100	285

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Highest Frequency & Test case 1



## RADIATED EMISSION

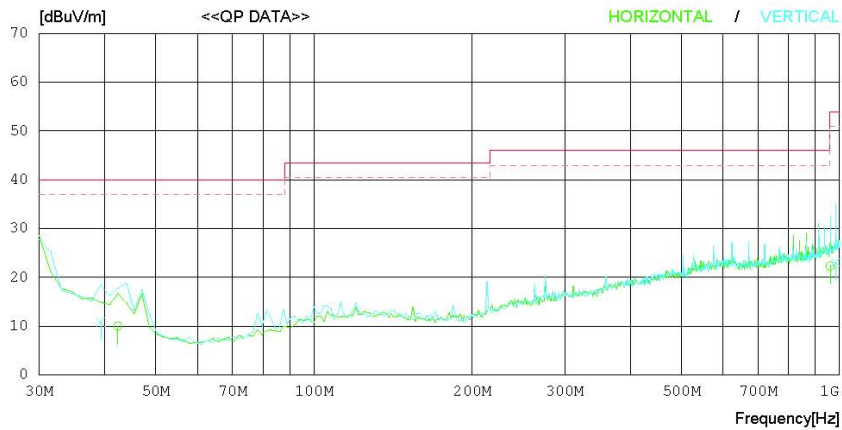
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 1

Reference No. :  
Power Supply : DC 3.7 V  
Temp/Humi : 22 °C 40 % R.H  
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	42.350	18.5	13.2	0.9	22.6	10.0	40.0	30.0	112	358
2	961.110	19.4	20.7	5.2	23.0	22.3	54.0	31.7	110	211
----- Vertical -----										
3	39.320	18.4	14.1	0.9	22.6	10.8	40.0	29.2	114	75
4	984.441	19.5	21.1	5.3	22.8	23.1	54.0	30.9	110	155

## 1GHz ~ 25GHz Radiated Spurious Emissions

▪ Test Mode: 802.11b & Lowest Frequency & Test case 1

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4820.950	H	38.62	25.53	7.27	45.89	32.80	74.00	54.00	28.11	21.20
4822.450	V	38.47	25.57	7.27	45.74	32.84	74.00	54.00	28.26	21.16
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11b & Middle Frequency & Test case 1

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4840.650	H	37.94	25.27	7.65	45.49	32.92	74.00	54.00	28.41	21.08
4850.400	V	37.03	25.39	7.65	44.68	33.04	74.00	54.00	29.32	20.96
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11b & Highest Frequency & Test case 1

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4864.350	H	45.25	31.85	7.96	53.21	39.81	74.00	54.00	20.79	14.19
4863.440	V	43.23	31.72	7.96	51.19	39.68	74.00	54.00	22.81	14.32
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

### Note.

1. No other spurious and harmonic emissions were detected at a level greater than 25dB 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



## 1GHz ~ 25GHz Radiated Spurious Emissions

▪ Test Mode: 802.11g & Lowest Frequency & Test case 1

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4821.800	H	43.25	31.84	7.27	50.52	39.11	74.00	54.00	23.48	14.89
4827.320	V	42.70	31.60	7.27	49.97	38.87	74.00	54.00	24.03	15.13
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11g & Middle Frequency & Test case 1

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4864.510	H	43.45	31.42	7.65	51.10	39.07	74.00	54.00	22.90	14.93
4875.320	V	43.22	31.38	7.65	50.87	39.03	74.00	54.00	23.13	14.97
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11g & Highest Frequency & Test case 1

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4881.350	H	43.71	31.27	7.96	51.67	39.23	74.00	54.00	22.33	14.77
4869.900	V	42.37	31.36	7.96	50.33	39.32	74.00	54.00	23.67	14.68
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

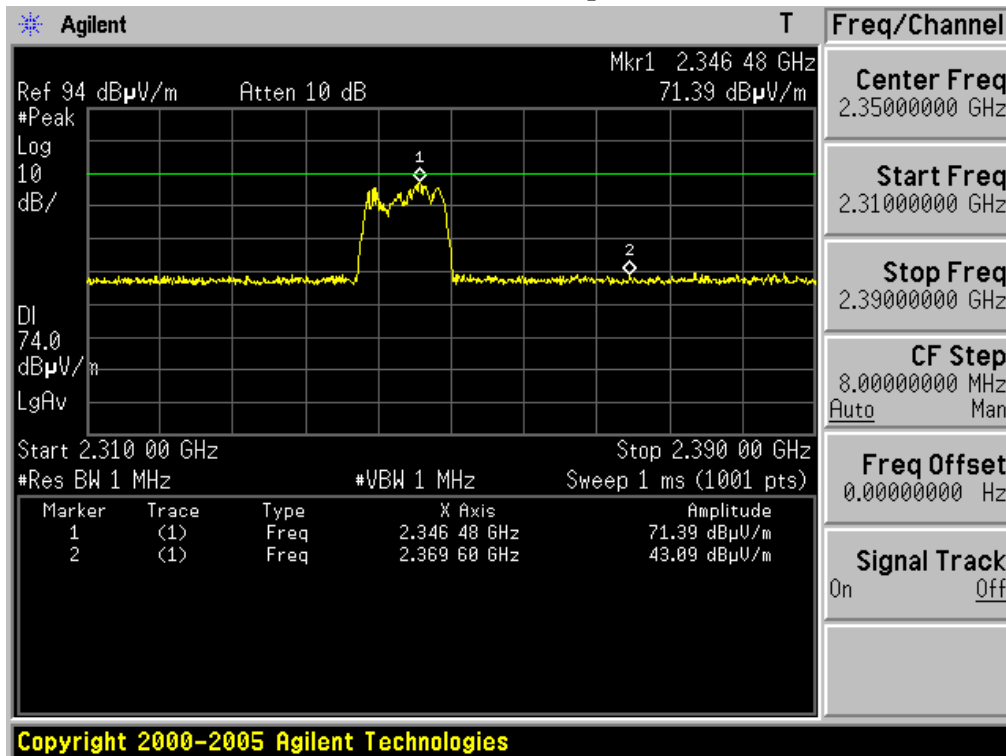
### Note.

1. No other spurious and harmonic emissions were detected at a level greater than 25dB below limit.
2. Sample Calculation.

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

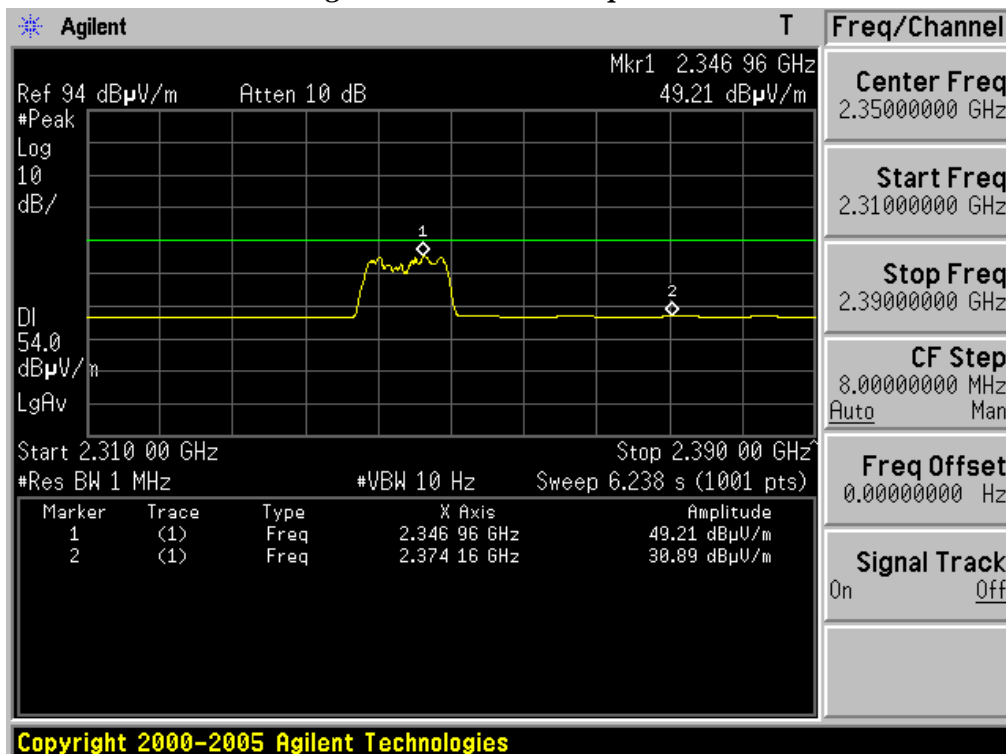
Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 2  
**Peak mode / Horizontal polarization**



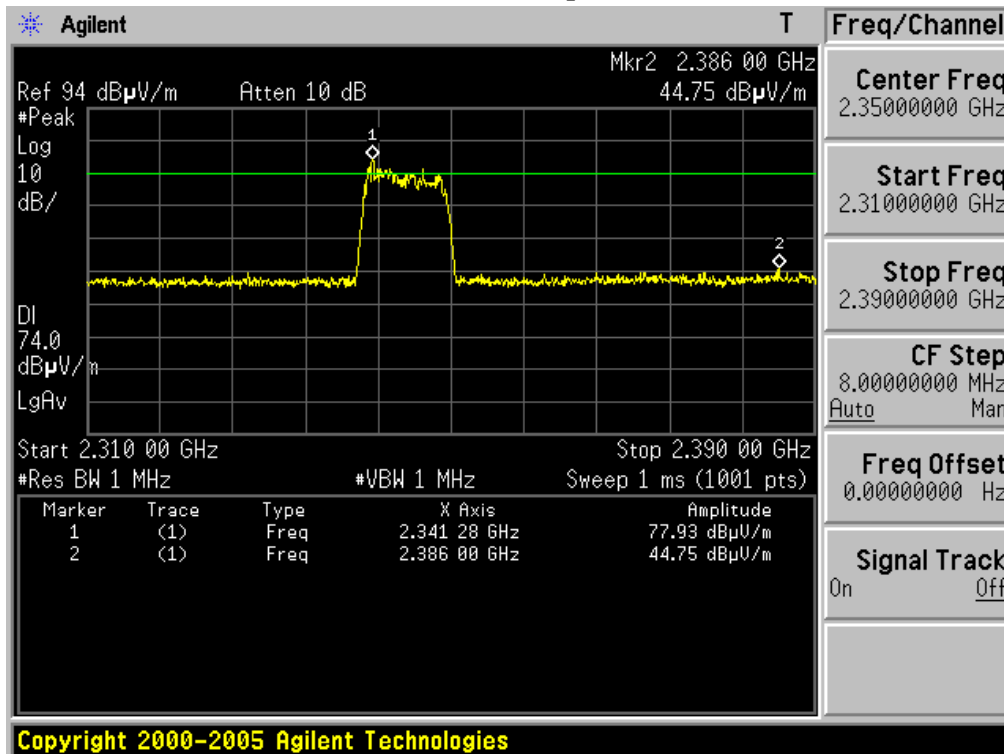
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**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 2  
**Average mode / Horizontal polarization**



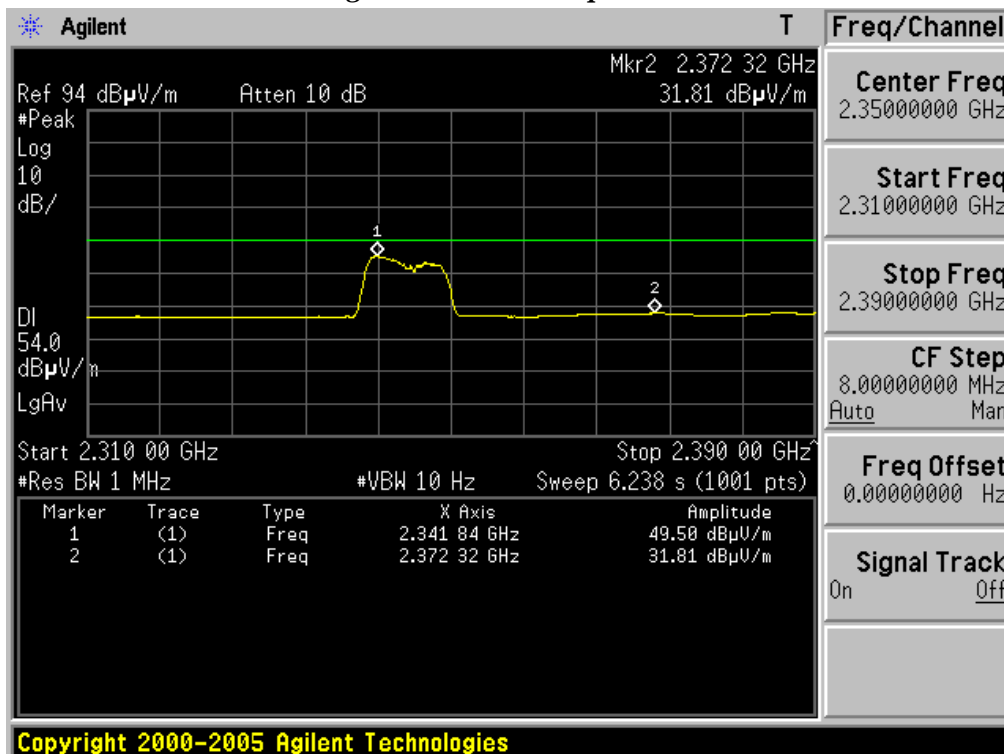
Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 2  
*Peak mode / Vertical polarization*



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

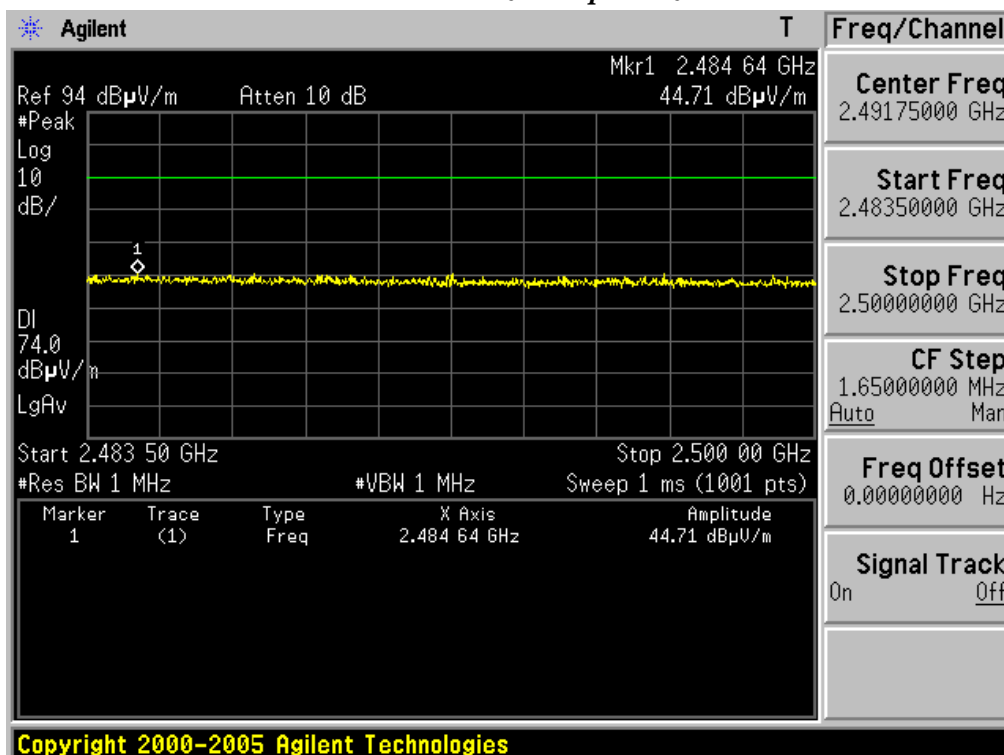
**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 2  
*Average mode / Vertical polarization*



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

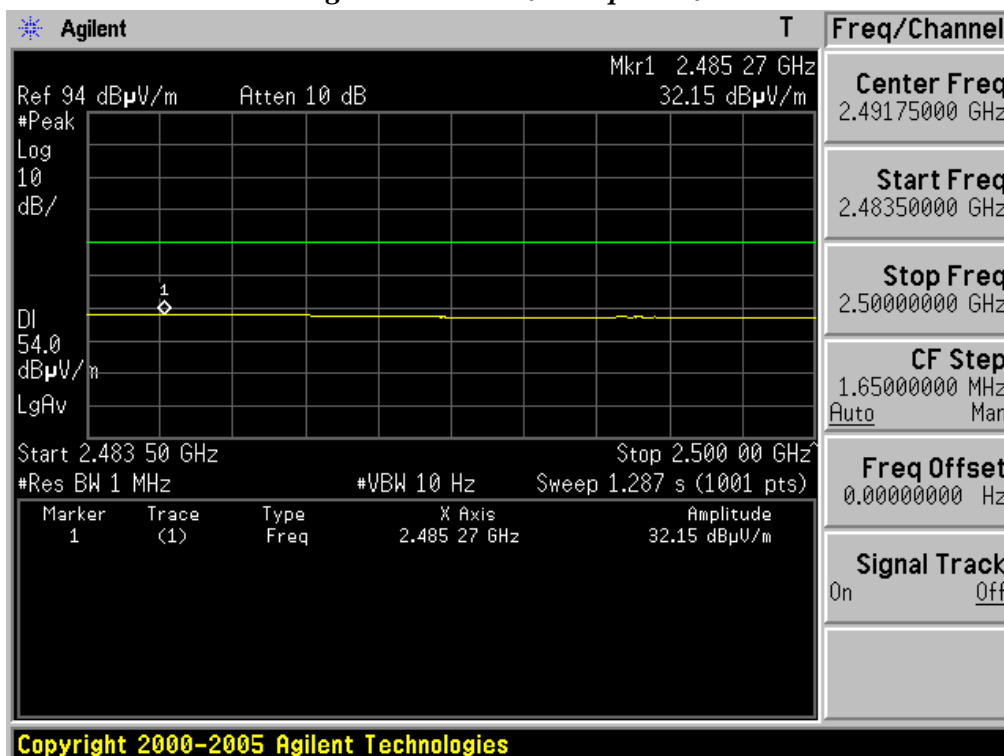
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 2

*Peak mode / Horizontal polarization*



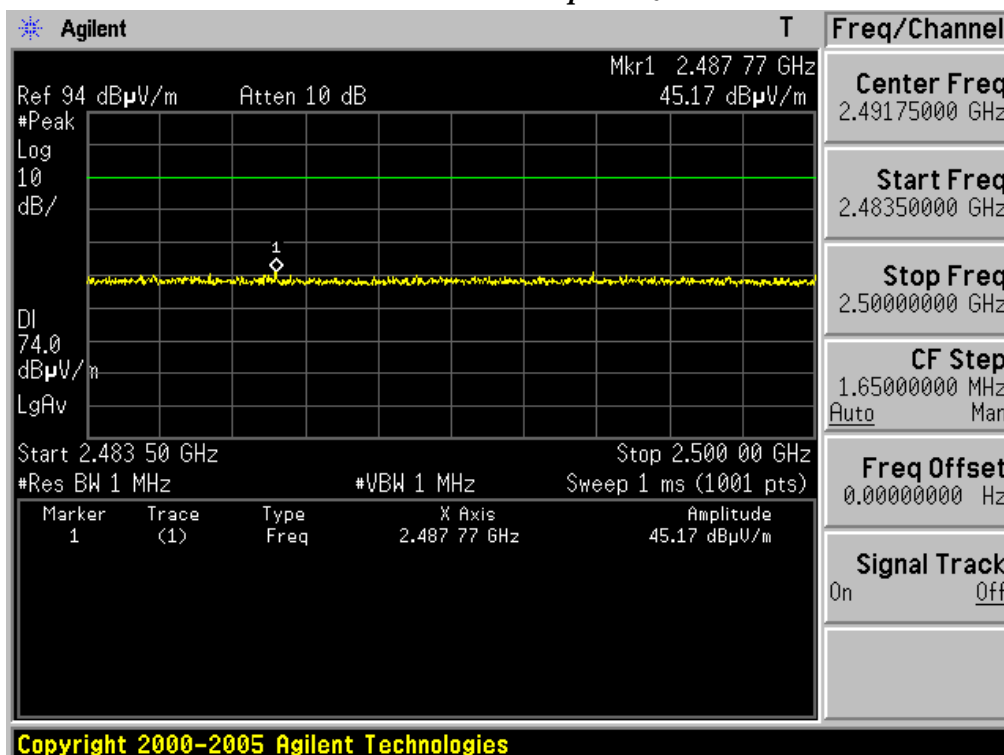
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 2

*Average mode / Horizontal polarization*



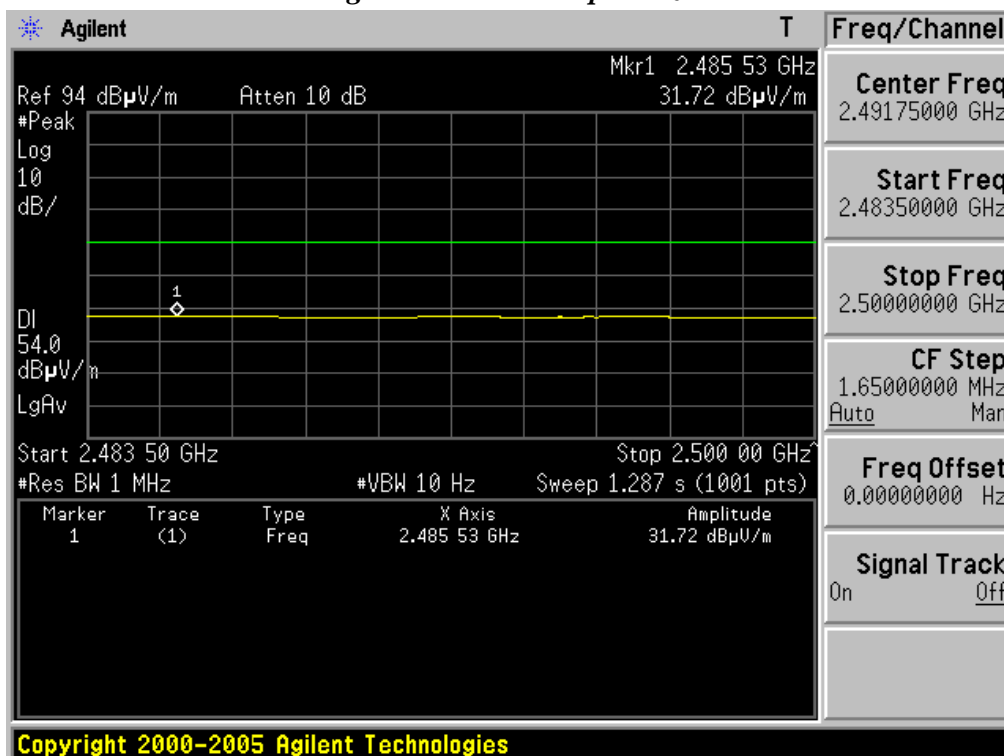
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 2

*Peak mode / Vertical polarization*



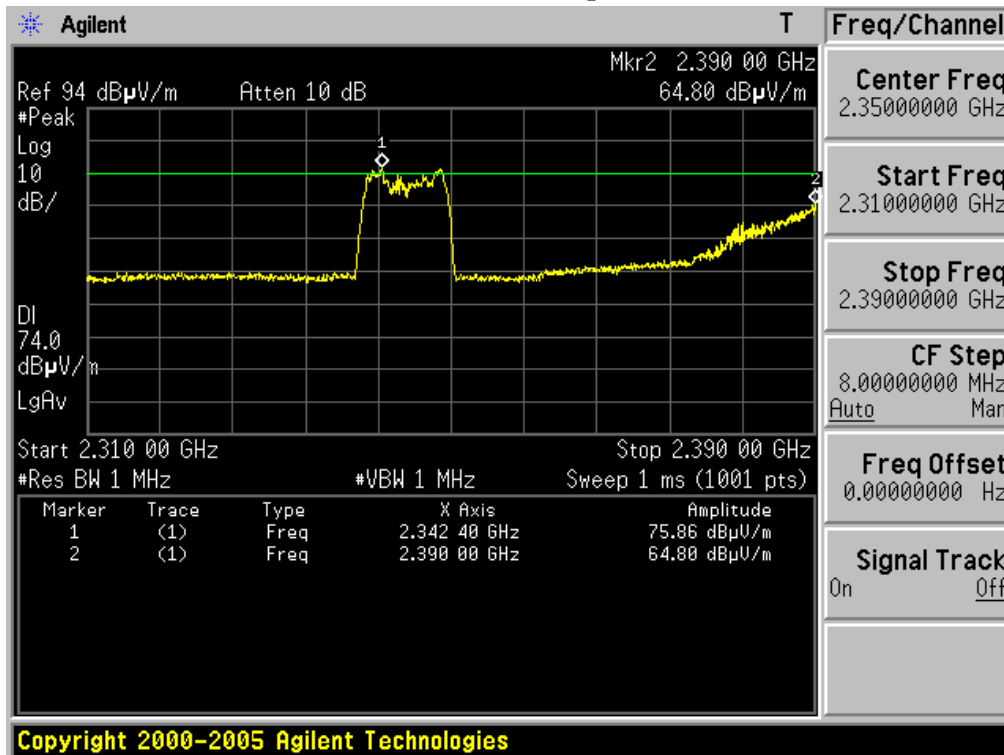
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 2

*Average mode / Vertical polarization*



Restricted Band Edge Test Mode: 802.11g & Lowest Frequency & Test case 2

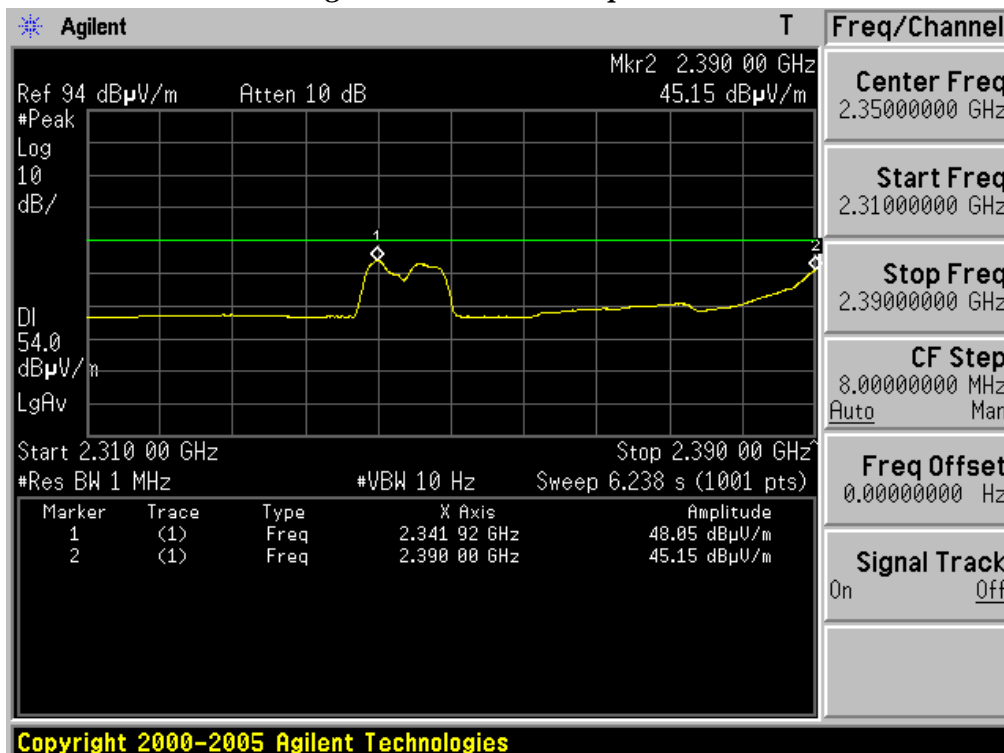
*Peak mode / Horizontal polarization*



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

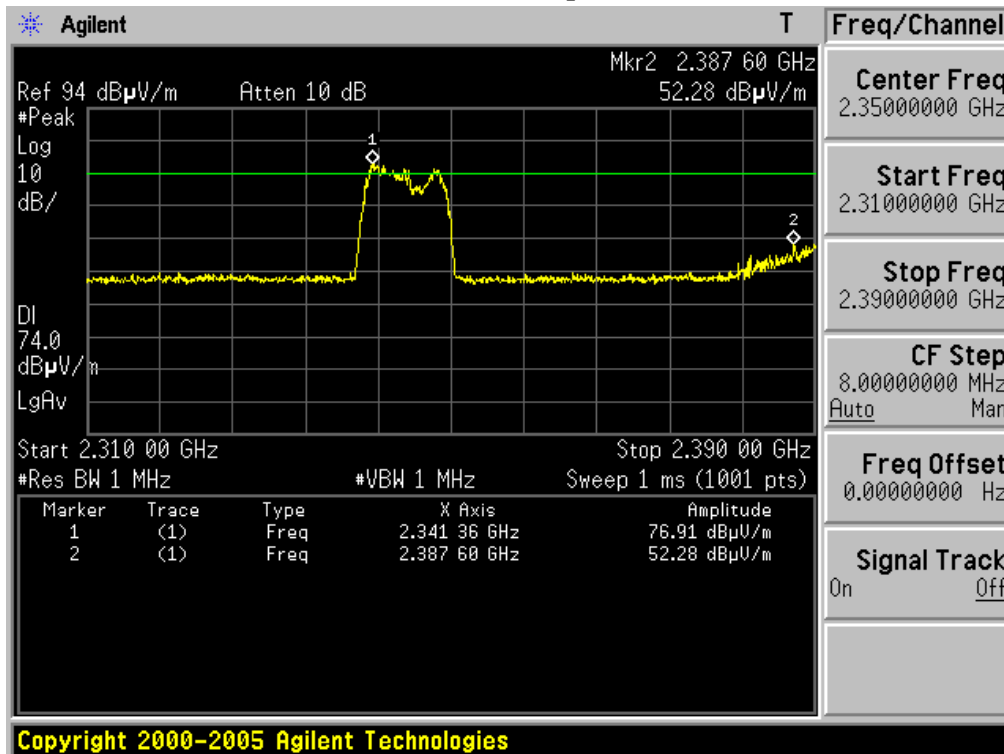
Restricted Band Edge Test Mode: 802.11g & Lowest Frequency & Test case 2

*Average mode / Horizontal polarization*



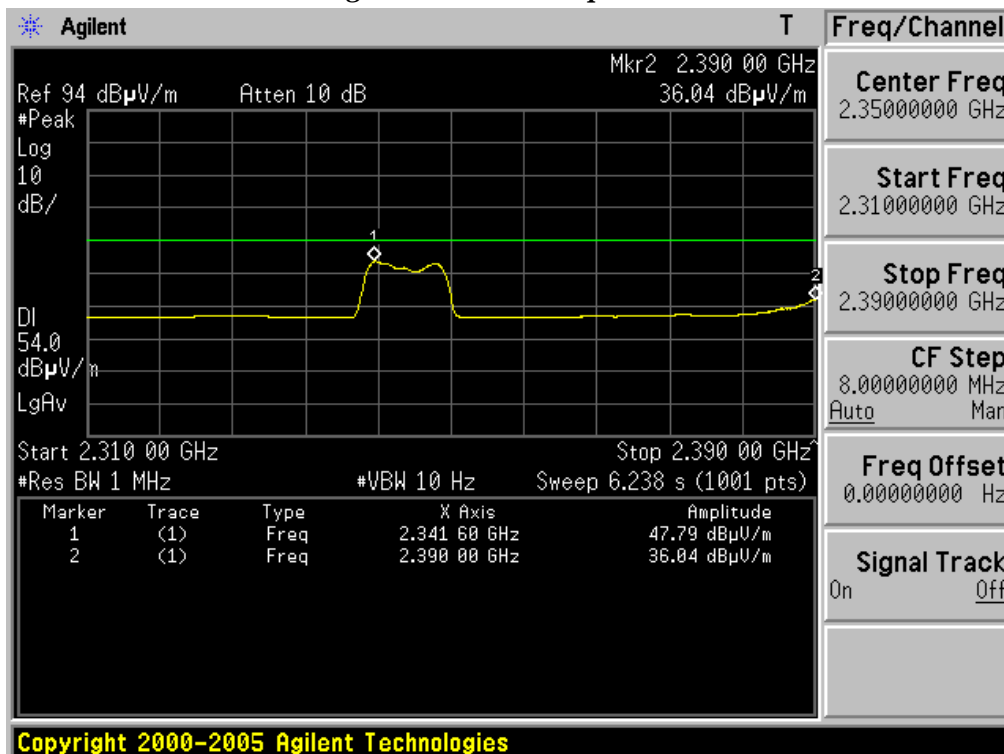
Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 2  
*Peak mode / Vertical polarization*



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

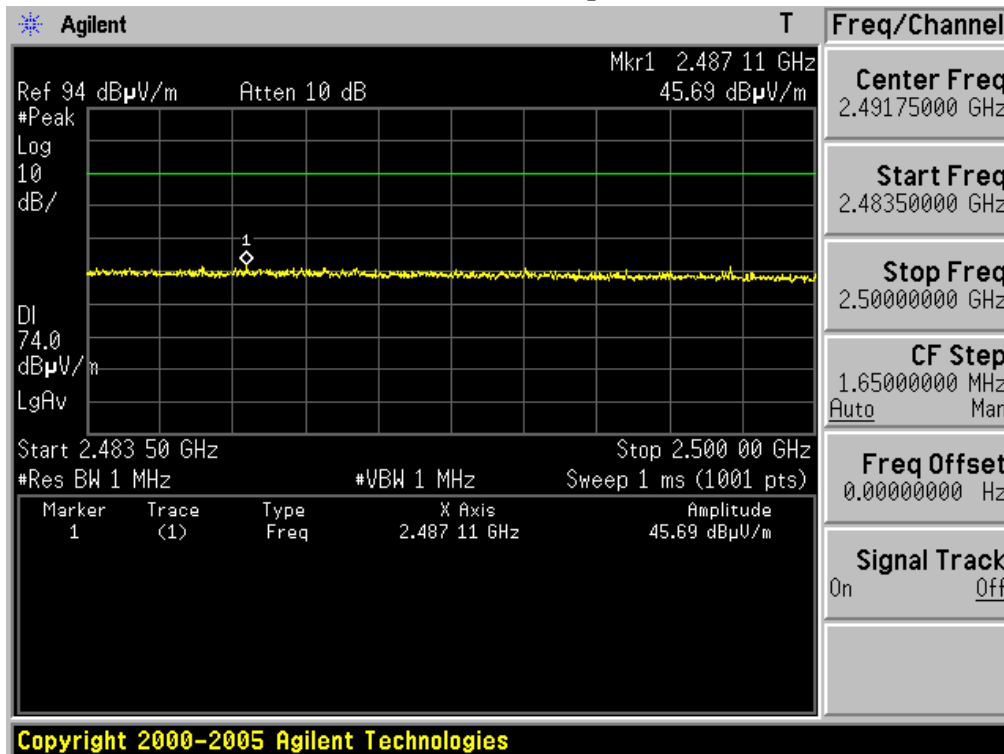
**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 2  
*Average mode / Vertical polarization*



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

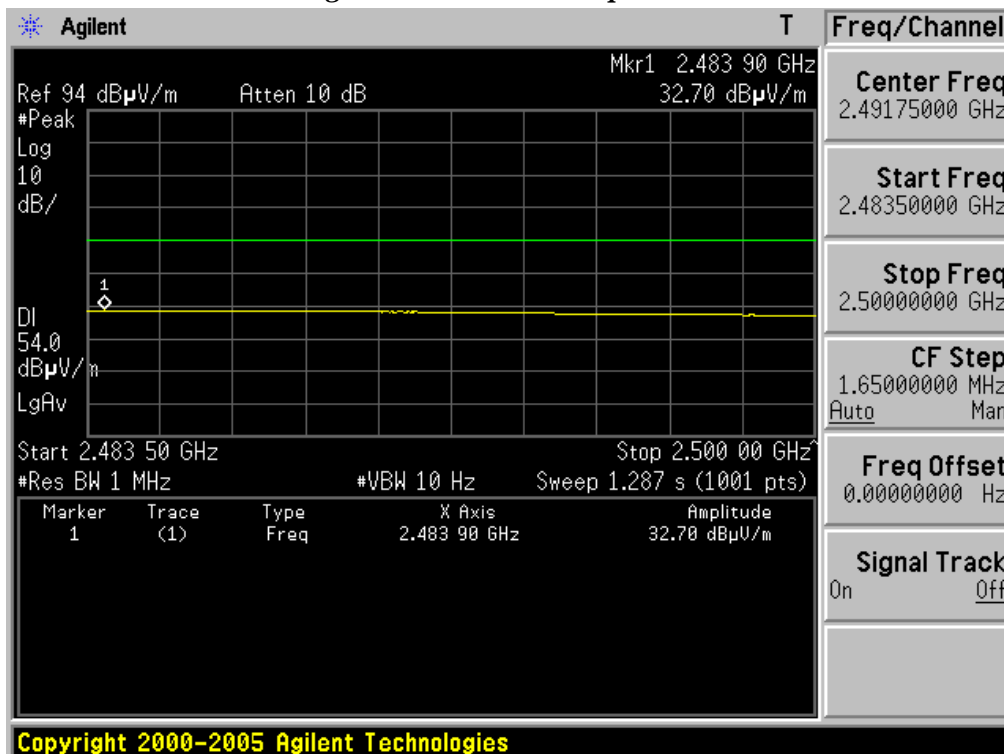
Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 2

*Peak mode / Horizontal polarization*



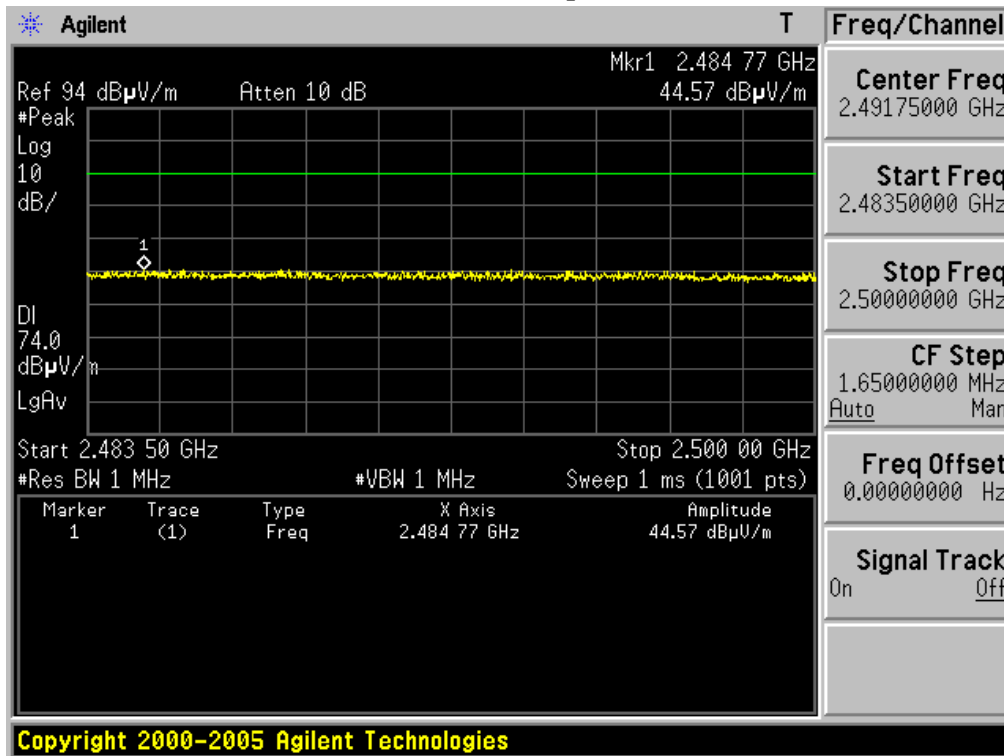
Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 2

*Average mode / Horizontal polarization*

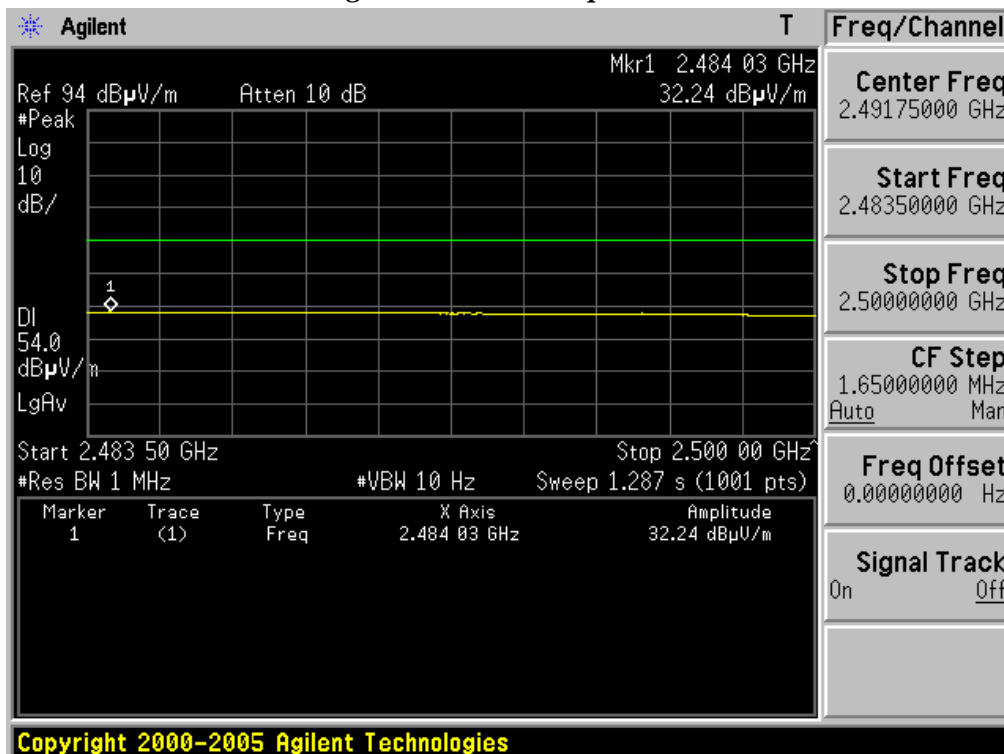




**Restricted Band Edge**    Test Mode: 802.11g   &   Highest Frequency   & Test case 2  
*Peak mode / Vertical polarization*



**Restricted Band Edge**    Test Mode: 802.11g   &   Highest Frequency   & Test case 2  
*Average mode / Vertical polarization*



# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Lowest Frequency & Test case 2



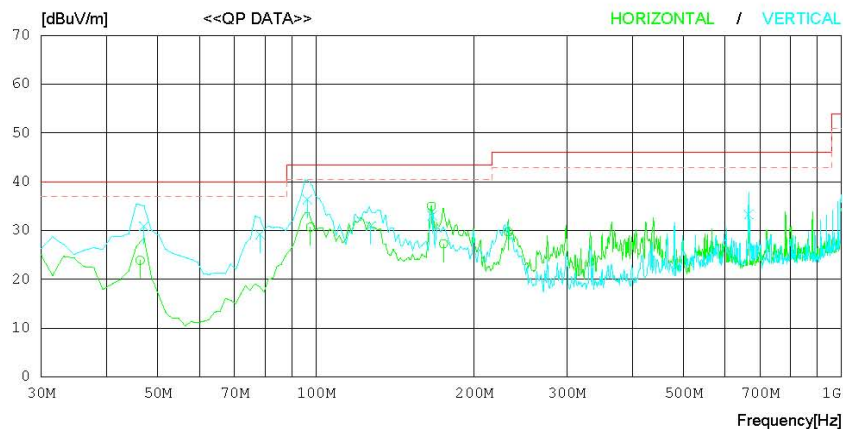
## RADIATED EMISSION

Date : 2010-04-14

Model Name : IMW-C610W  
 Model No. :  
 Serial No. : Identical prototype  
 Test Condition : Test Case 2  
 Reference No. :  
 Power Supply : 120 V 60 Hz  
 Temp/Humi : 22°C 44 % R.H  
 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	46.295	34.2	11.4	1.0	22.7	23.9	40.0	16.1	165	254
2	97.602	41.7	10.3	1.4	22.7	30.7	43.5	12.8	305	1
3	165.930	45.9	10.4	1.8	23.1	35.0	43.5	8.5	275	163
4	175.000	38.4	10.3	1.8	23.2	27.3	43.5	16.2	201	358
5	232.290	38.6	12.4	2.2	23.5	29.7	46.0	16.3	138	1
----- Vertical -----										
6	47.080	41.9	10.7	1.0	22.7	30.9	40.0	9.1	199	1
7	78.360	43.4	7.2	1.3	22.7	29.2	40.0	10.8	100	105
8	96.285	47.6	10.1	1.4	22.7	36.4	43.5	7.1	100	254
9	127.160	40.5	11.8	1.5	22.9	30.9	43.5	12.6	100	358
10	166.560	44.0	10.4	1.8	23.1	33.1	43.5	10.4	102	358
11	666.370	34.5	18.9	4.1	24.2	33.3	46.0	12.7	100	316

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Middle Frequency & Test case 2



## RADIATED EMISSION

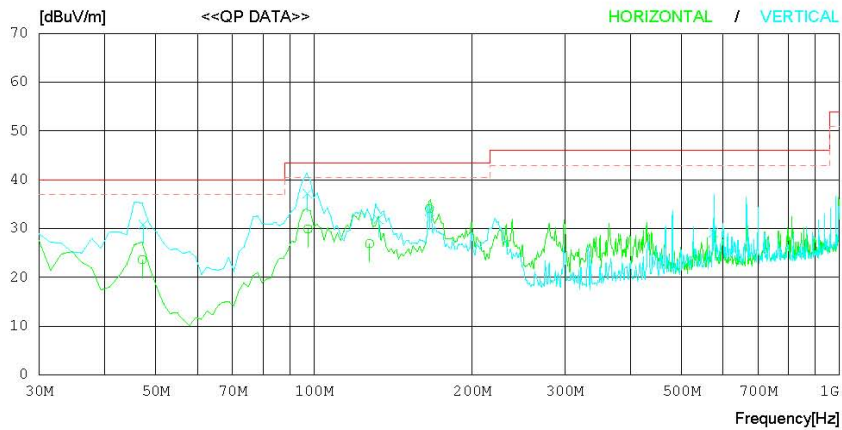
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 2

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 44 % R.H  
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	47.150	34.7	10.6	1.0	22.7	23.6	40.0	16.4	170	358
2	97.442	40.9	10.3	1.4	22.7	29.9	43.5	13.6	197	280
3	127.600	36.5	11.8	1.5	22.9	26.9	43.5	16.6	301	152
4	165.910	45.0	10.4	1.8	23.1	34.1	43.5	9.4	214	159
----- Vertical -----										
5	47.403	42.1	10.4	1.0	22.7	30.8	40.0	9.2	100	358
6	97.192	48.3	10.2	1.4	22.7	37.2	43.5	6.3	100	358
7	132.746	41.7	11.5	1.6	22.9	31.9	43.5	11.6	100	226
8	165.927	44.4	10.4	1.8	23.1	33.5	43.5	10.0	100	358
9	575.993	30.7	18.9	3.9	24.4	29.1	46.0	16.9	100	358

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Highest Frequency & Test case 2

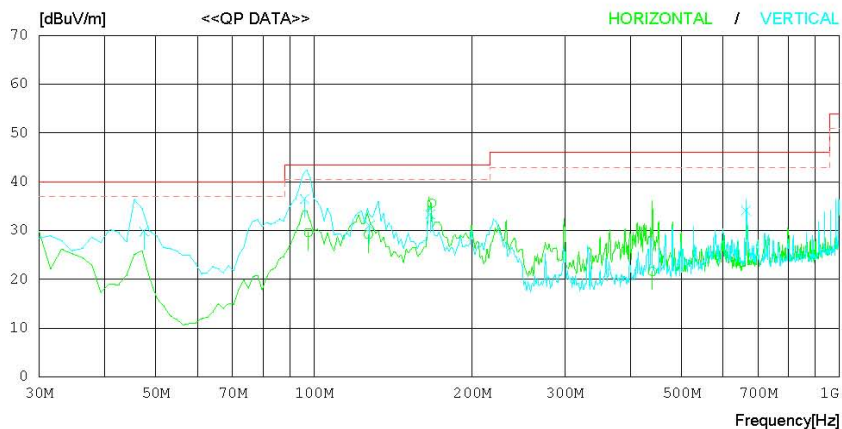


## RADIATED EMISSION

Date : 2010-04-14

Model Name : IMV-C610W  
 Model No. :  
 Serial No. : Identical prototype  
 Test Condition : Test Caes 2  
 Reference No. :  
 Power Supply : 120 V 60 Hz  
 Temp/Humi : 22°C 44 % R.H  
 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	97.596	40.6	10.3	1.4	22.7	29.6	43.5	13.9	308	358
2	127.000	38.8	11.8	1.5	22.9	29.2	43.5	14.3	201	139
3	167.567	46.5	10.4	1.8	23.1	35.6	43.5	7.9	201	358
4	440.430	25.7	17.1	3.2	24.4	21.6	46.0	24.4	100	1
----- Vertical -----										
5	47.500	41.2	10.3	1.0	22.7	29.8	40.0	10.2	100	358
6	96.038	47.8	10.0	1.4	22.7	36.5	43.5	7.0	100	358
7	127.670	40.6	11.8	1.5	22.9	31.0	43.5	12.5	100	358
8	166.530	44.2	10.4	1.8	23.1	33.3	43.5	10.2	100	61
9	663.519	35.3	18.9	4.1	24.2	34.1	46.0	11.9	100	358

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Lowest Frequency & Test case 2



## RADIATED EMISSION

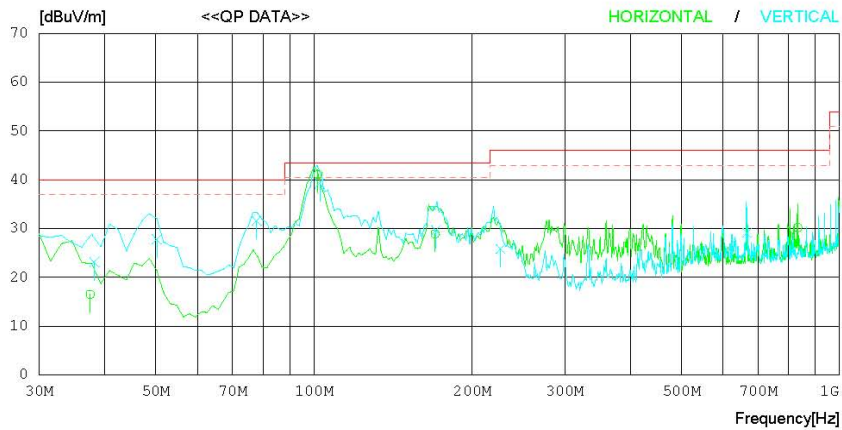
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 2

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 44 % R.H  
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	37.500	23.6	14.6	0.9	22.6	16.5	40.0	23.5	400	308
2	101.760	51.6	10.8	1.4	22.7	41.1	43.5	2.4	299	323
3	170.006	39.8	10.4	1.8	23.1	28.9	43.5	14.6	185	149
4	833.000	29.3	19.7	4.7	23.5	30.2	46.0	15.8	100	1
----- Vertical -----										
5	38.235	30.4	14.4	0.9	22.6	23.1	40.0	16.9	100	70
6	50.250	41.4	8.1	1.0	22.7	27.8	40.0	12.2	201	314
7	77.769	45.8	7.2	1.3	22.7	31.6	40.0	8.4	100	358
8	102.538	49.7	10.8	1.4	22.7	39.2	43.5	4.3	100	347
9	170.599	40.7	10.3	1.8	23.1	29.7	43.5	13.8	100	159
10	226.506	34.9	12.1	2.2	23.4	25.8	46.0	20.2	100	358
11	667.045	30.3	18.9	4.1	24.2	29.1	46.0	16.9	201	359

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Middle Frequency & Test case 2



## RADIATED EMISSION

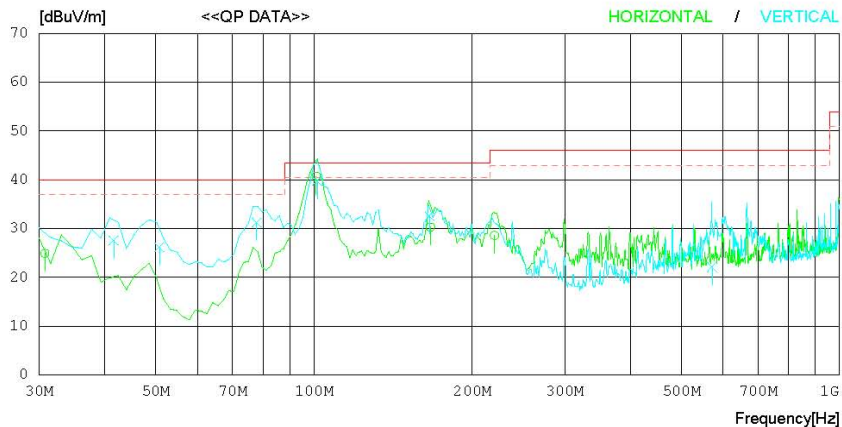
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 2

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 44 % R.H  
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	30.750	29.0	17.7	0.8	22.6	24.9	40.0	15.1	100	0
2	101.038	51.3	10.7	1.4	22.7	40.7	43.5	2.8	301	177
3	166.640	41.2	10.4	1.8	23.1	30.3	43.5	13.2	215	1
4	220.477	38.1	11.8	2.1	23.4	28.6	46.0	17.4	100	358
----- Vertical -----										
5	41.602	35.9	13.4	0.9	22.6	27.6	40.0	12.4	100	1
6	50.826	40.0	7.9	1.0	22.7	26.2	40.0	13.8	100	1
7	77.769	45.4	7.2	1.3	22.7	31.2	40.0	8.8	100	1
8	101.442	50.4	10.7	1.4	22.7	39.8	43.5	3.7	100	1
9	165.935	43.5	10.4	1.8	23.1	32.6	43.5	10.9	100	177
10	572.649	23.8	18.8	3.9	24.4	22.1	46.0	23.9	100	189

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Highest Frequency & Test case 2



## RADIATED EMISSION

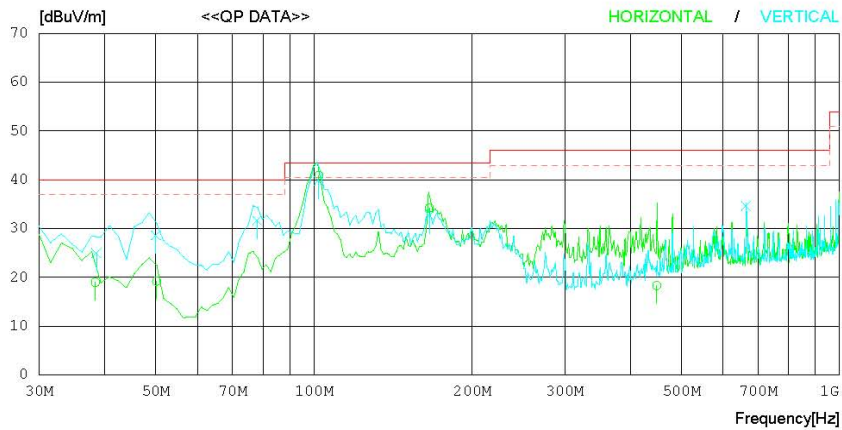
Date : 2010-04-14

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 2

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 44 % R.H  
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	50.147	32.8	8.1	1.0	22.7	19.2	40.0	20.8	284	268
2	38.368	26.3	14.4	0.9	22.6	19.0	40.0	21.0	400	1
3	102.083	51.4	10.8	1.4	22.7	40.9	43.5	2.6	201	163
4	165.945	45.1	10.4	1.8	23.1	34.2	43.5	9.3	201	1
5	448.815	22.4	17.2	3.2	24.5	18.3	46.0	27.7	100	0
----- Vertical -----										
6	38.557	32.4	14.3	0.9	22.6	25.0	40.0	15.0	100	1
7	49.993	42.2	8.1	1.0	22.7	28.6	40.0	11.4	100	1
8	77.993	45.8	7.2	1.3	22.7	31.6	40.0	8.4	100	1
9	102.000	50.3	10.8	1.4	22.7	39.8	43.5	3.7	100	89
10	165.929	43.6	10.4	1.8	23.1	32.7	43.5	10.8	100	346
11	663.570	35.8	18.9	4.1	24.2	34.6	46.0	11.4	172	320

## 1GHz ~ 25GHz Radiated Spurious Emissions

▪ Test Mode: 802.11b & Lowest Frequency & Test case 2

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4811.100	H	38.83	25.61	7.27	46.10	32.88	74.00	54.00	27.90	21.12
4819.300	V	38.46	25.59	7.27	45.73	32.86	74.00	54.00	28.27	21.14
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11b & Middle Frequency & Test case 2

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4840.000	H	37.15	25.29	7.65	44.80	32.94	74.00	54.00	29.20	21.06
4851.450	V	38.45	25.14	7.65	46.10	32.79	74.00	54.00	27.90	21.21
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11b & Highest Frequency & Test case 2

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4879.050	H	44.52	31.92	7.96	52.48	39.88	74.00	54.00	21.52	14.12
4880.800	V	43.92	31.69	7.96	51.88	39.65	74.00	54.00	22.12	14.35
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

### Note.

1. No other spurious and harmonic emissions were detected at a level greater than 25dB 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



## 1GHz ~ 25GHz Radiated Spurious Emissions

▪ Test Mode: 802.11g & Lowest Frequency & Test case 2

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4806.150	H	44.30	31.40	7.27	51.57	38.67	74.00	54.00	22.43	15.33
4828.750	V	42.80	31.77	7.27	50.07	39.04	74.00	54.00	23.93	14.96
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11g & Middle Frequency & Test case 2

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4836.350	H	42.79	31.40	7.65	50.44	39.05	74.00	54.00	23.56	14.95
4870.700	V	43.28	31.37	7.65	50.93	39.02	74.00	54.00	23.07	14.98
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11g & Highest Frequency & Test case 2

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4882.250	H	42.28	31.24	7.96	50.24	39.20	74.00	54.00	23.76	14.80
4871.450	V	43.81	31.36	7.96	51.77	39.32	74.00	54.00	22.23	14.68
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

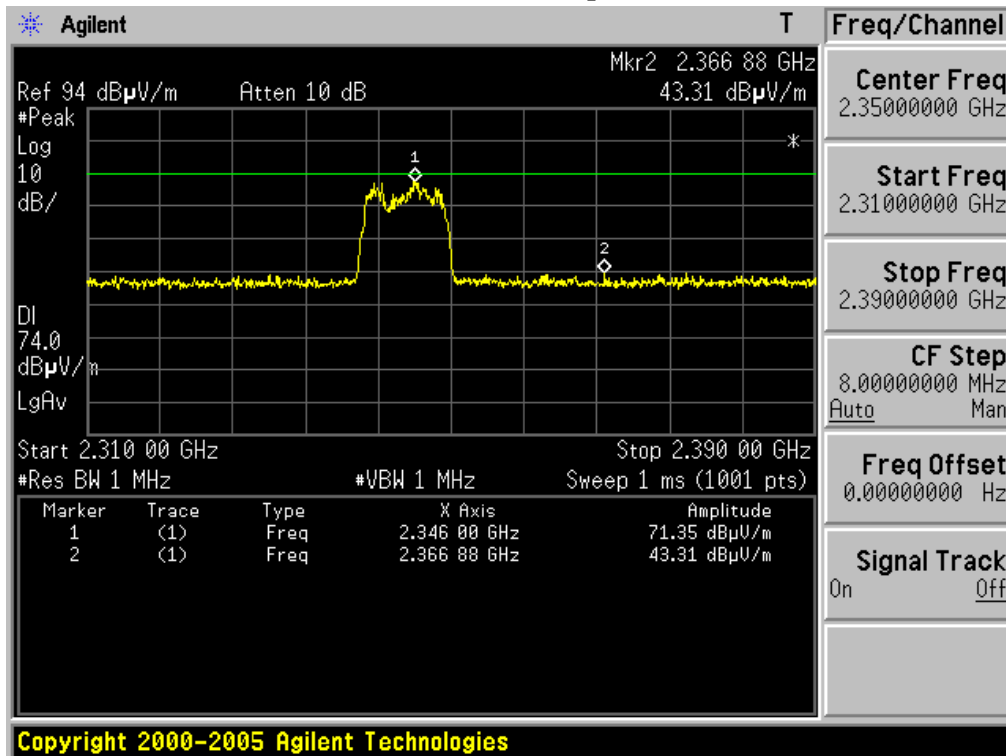
### Note.

1. No other spurious and harmonic emissions were detected at a level greater than 25dB below limit.
2. Sample Calculation.

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

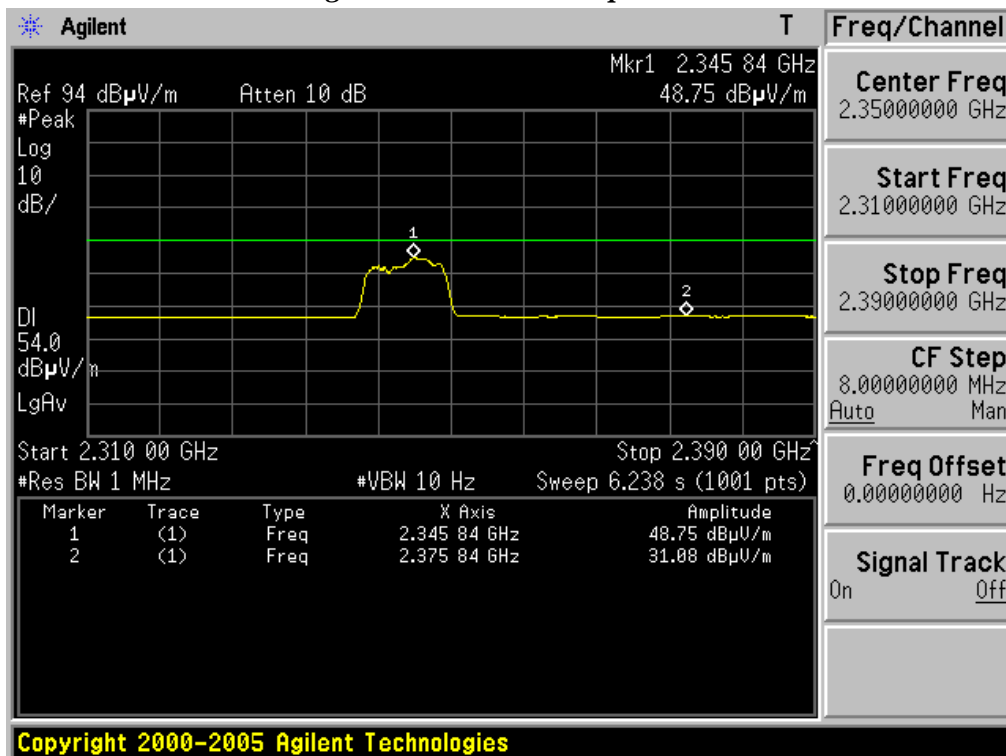
Where, T.F = Total Factor, AF = Antenna Factor, CL = Cable Loss, AG = Amplifier Gain

**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 3  
**Peak mode / Horizontal polarization**



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

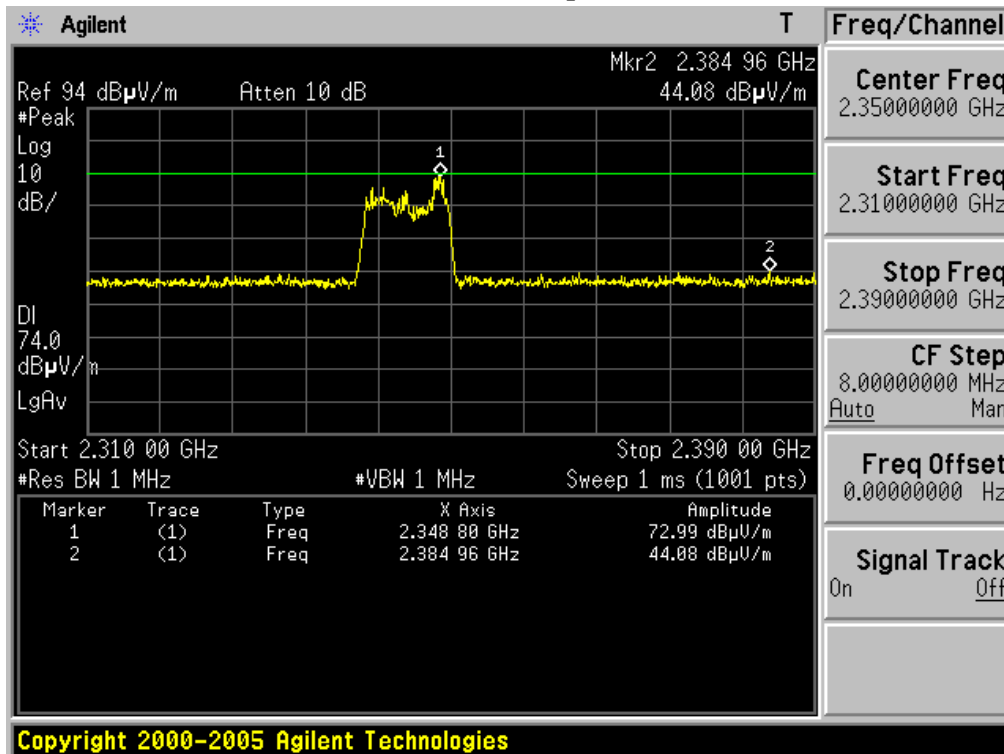
**Restricted Band Edge**    Test Mode: 802.11b   &   Lowest Frequency   & Test case 3  
**Average mode / Horizontal polarization**



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

Restricted Band Edge Test Mode: 802.11b & Lowest Frequency & Test case 3

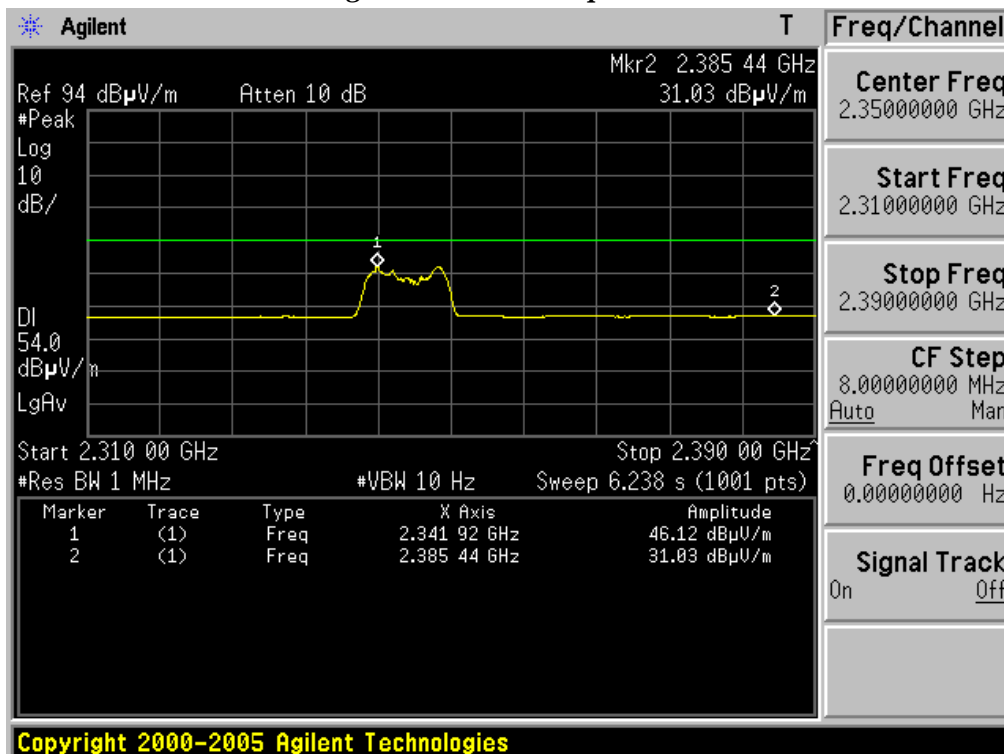
*Peak mode / Vertical polarization*



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

Restricted Band Edge Test Mode: 802.11b & Lowest Frequency & Test case 3

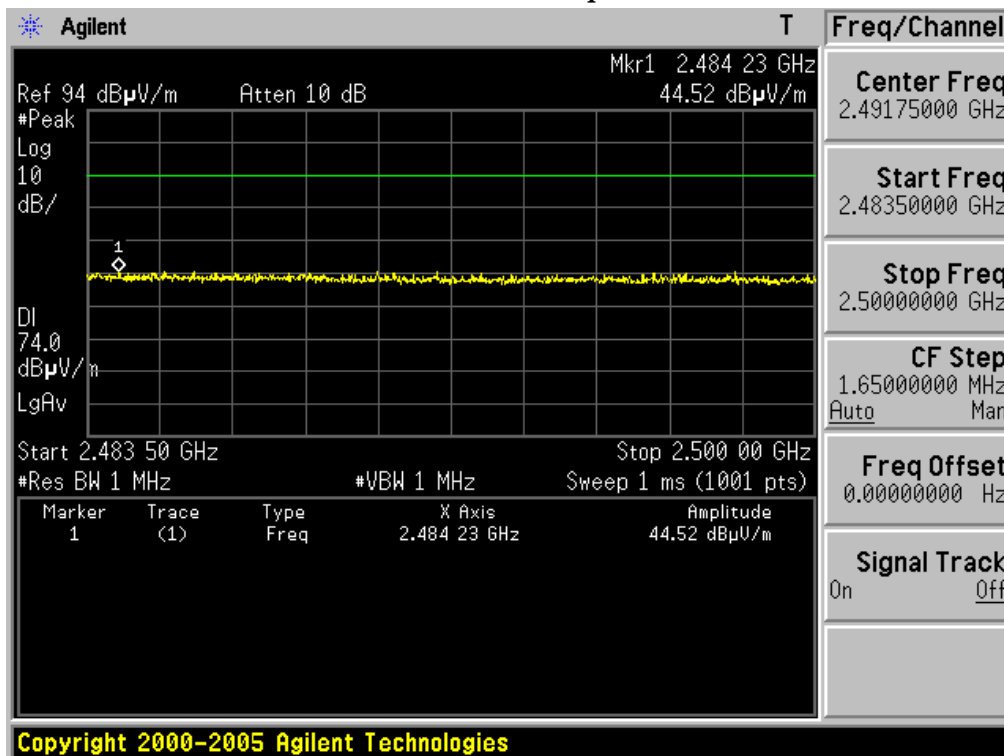
*Average mode / Vertical polarization*



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

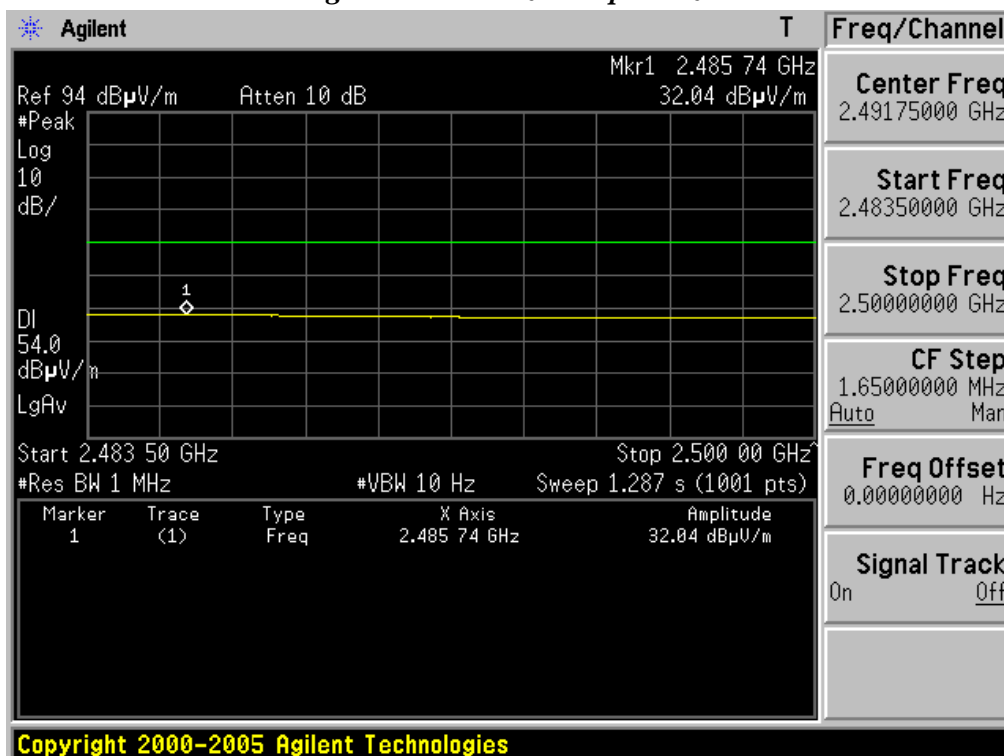
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 3

*Peak mode / Horizontal polarization*



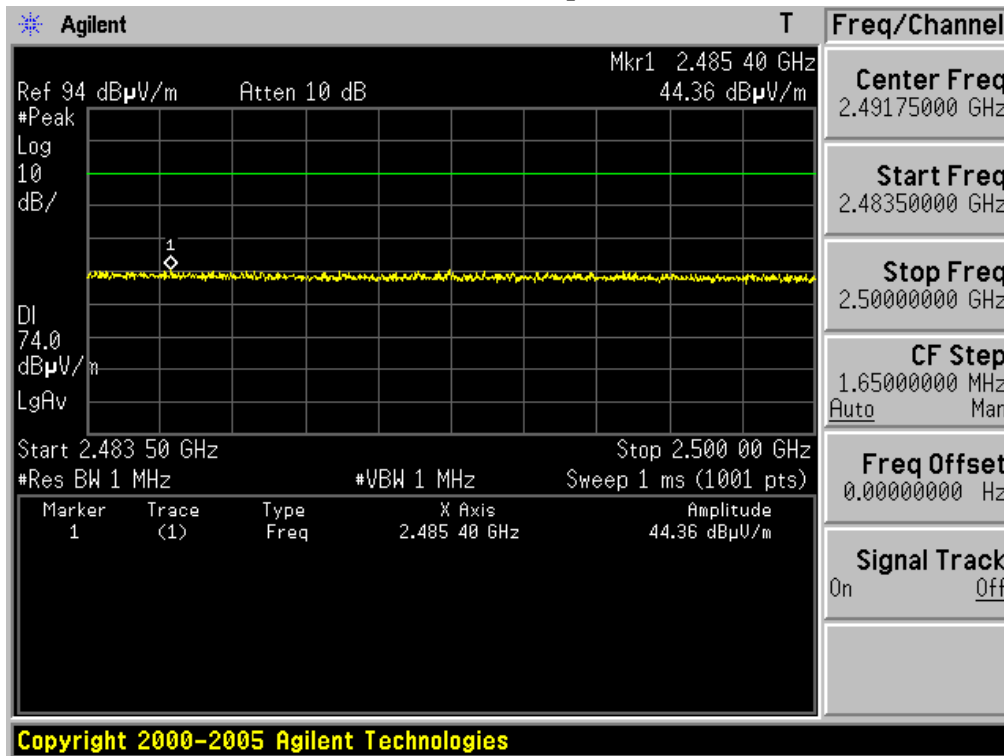
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 3

*Average mode / Horizontal polarization*



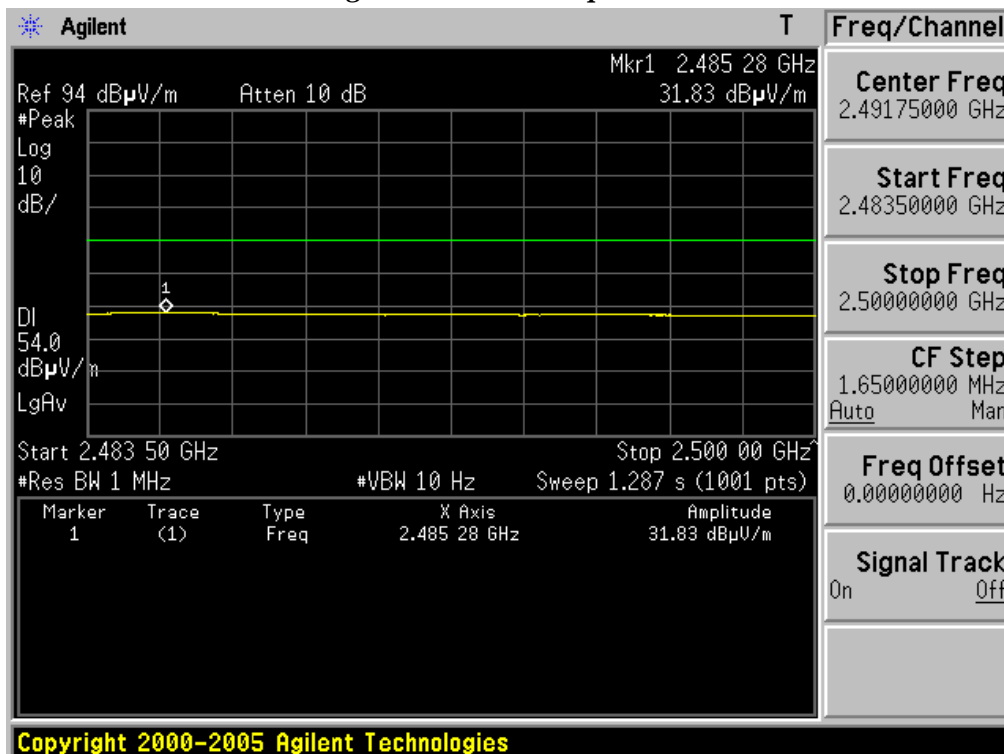
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 3

*Peak mode / Vertical polarization*



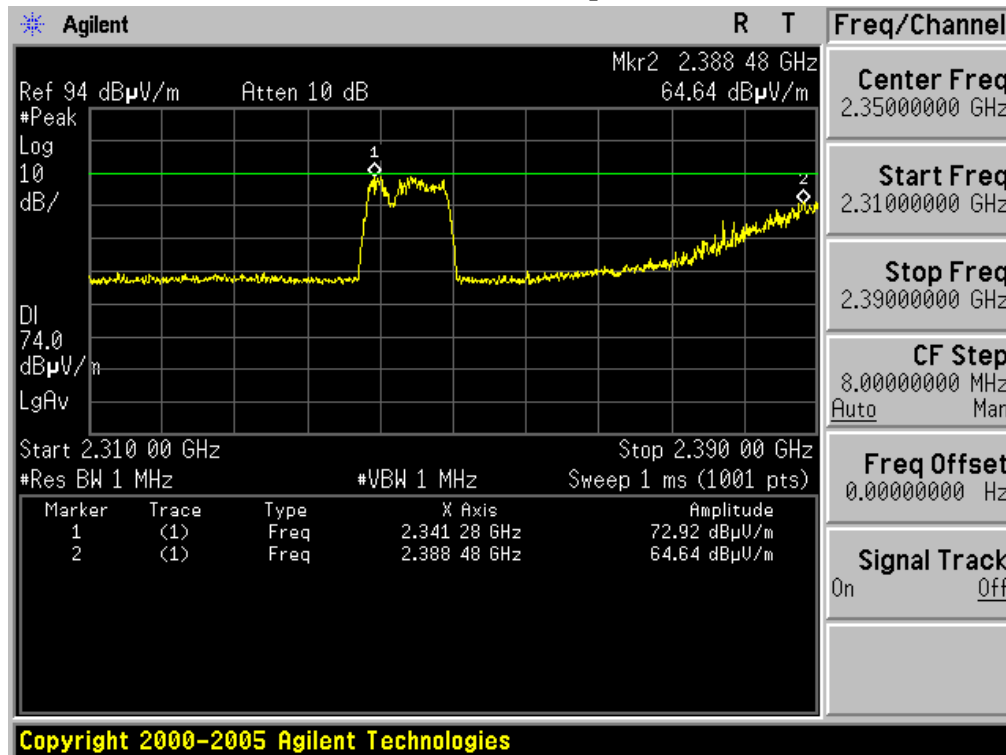
Restricted Band Edge Test Mode: 802.11b & Highest Frequency & Test case 3

*Average mode / Vertical polarization*



Restricted Band Edge Test Mode: 802.11g & Lowest Frequency & Test case 3

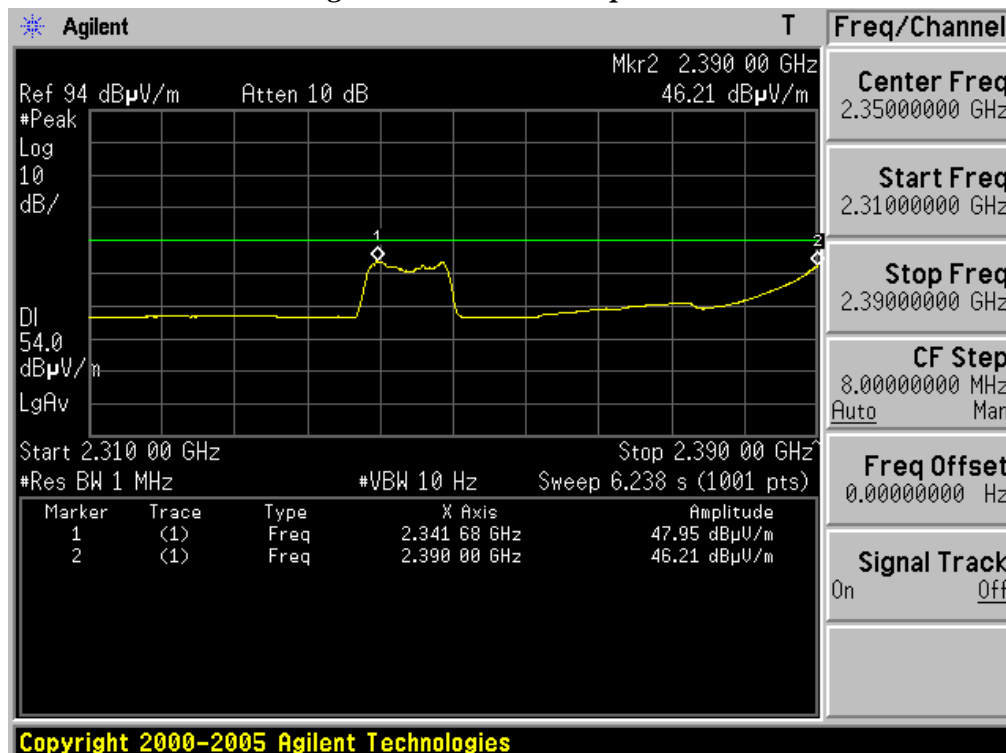
*Peak mode / Horizontal polarization*



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

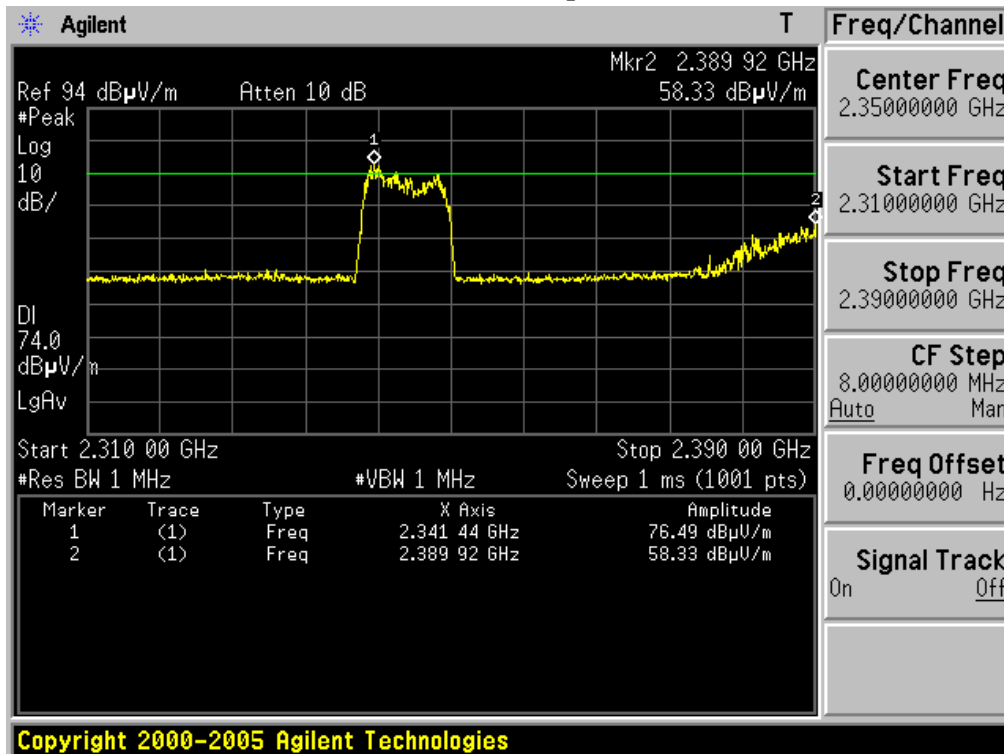
Restricted Band Edge Test Mode: 802.11g & Lowest Frequency & Test case 3

*Average mode / Horizontal polarization*



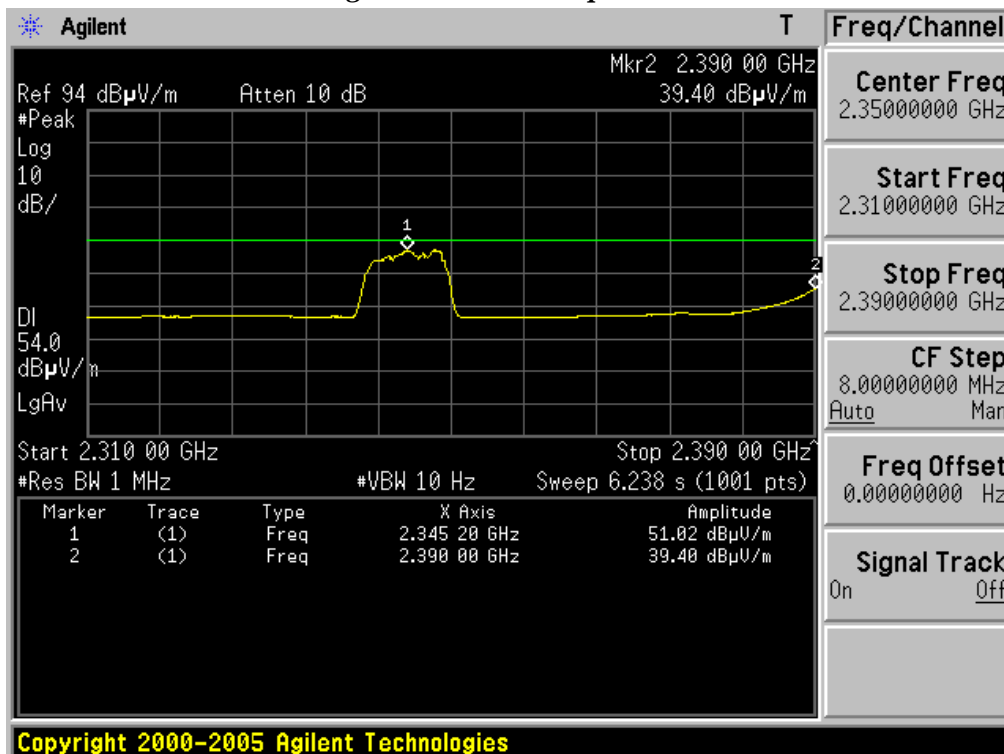
Marker 1's emissions of the low band edge test plots are emissions from WIMAX downlink signal in Korea.

**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 3  
*Peak mode / Vertical polarization*



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

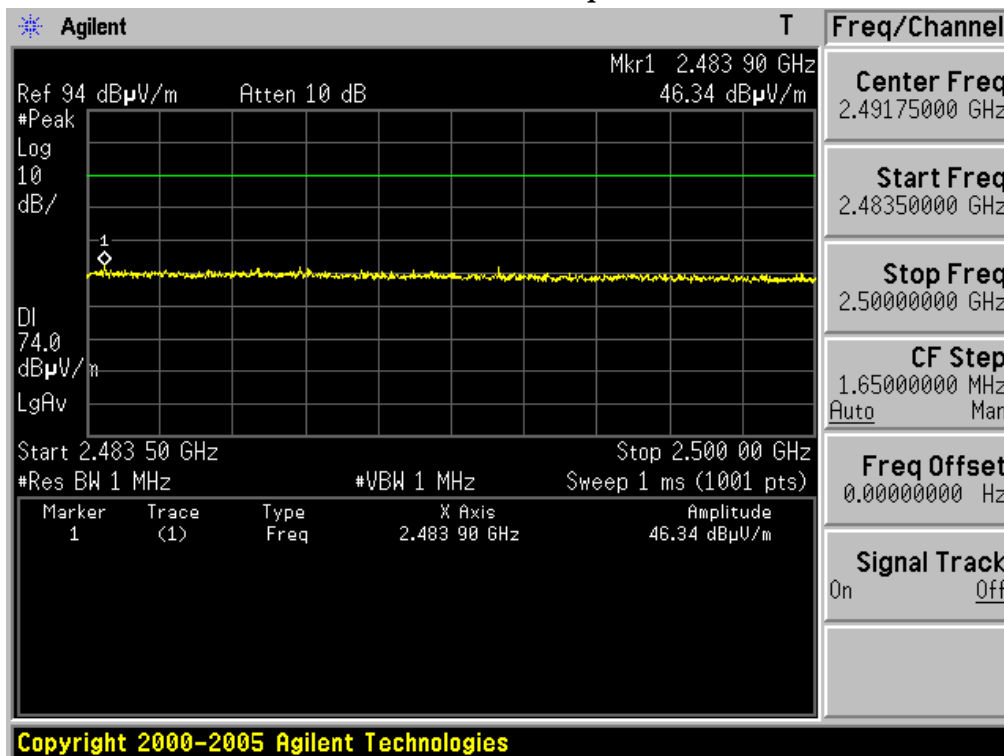
**Restricted Band Edge**    Test Mode: 802.11g   &   Lowest Frequency   & Test case 3  
*Average mode / Vertical polarization*



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

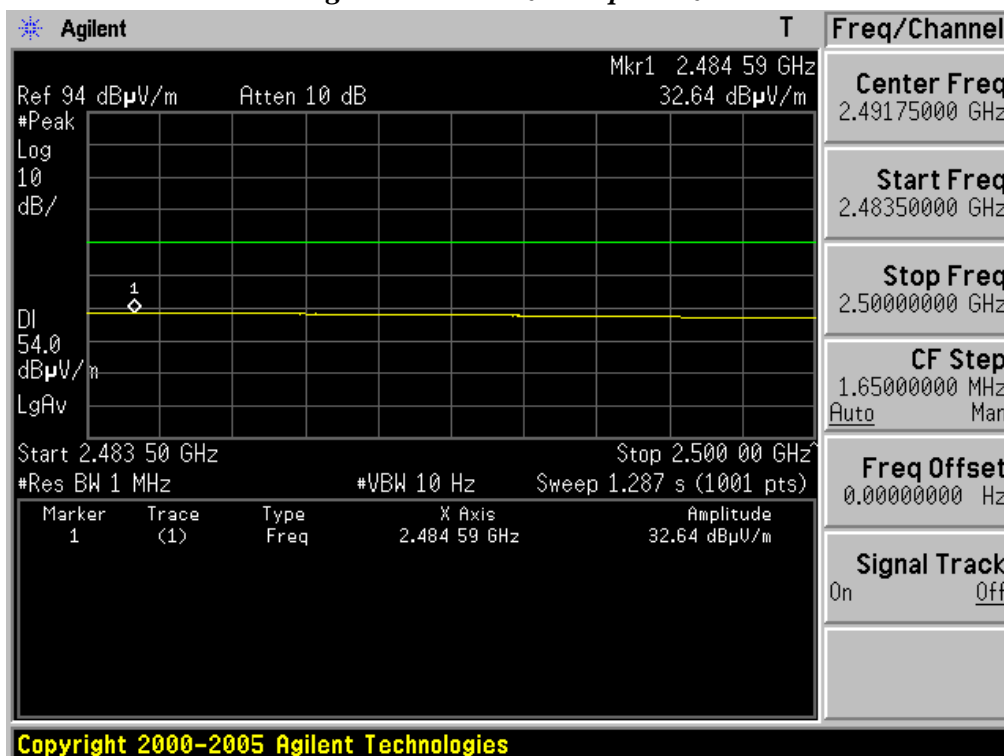
Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 3

*Peak mode / Horizontal polarization*



Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 3

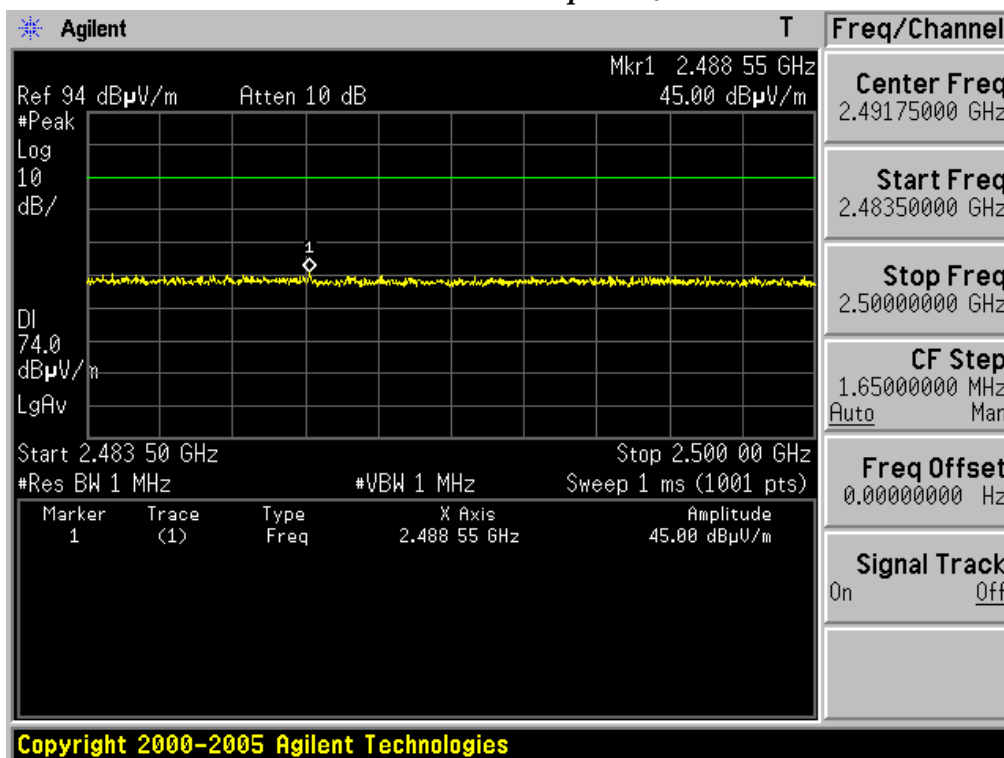
*Average mode / Horizontal polarization*





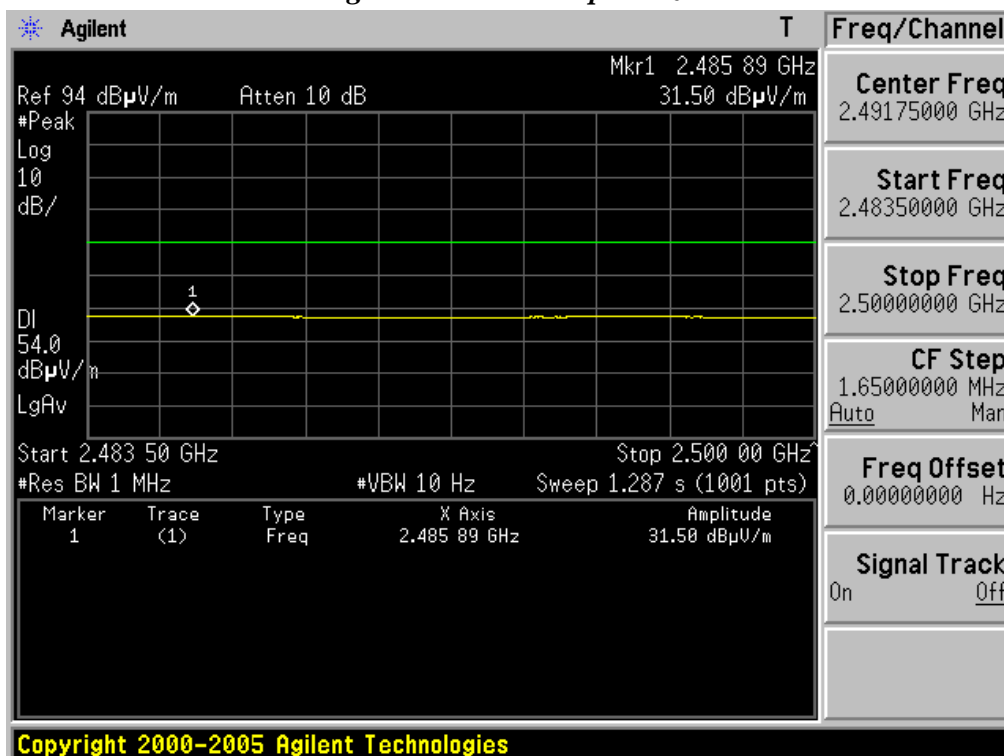
Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 3

*Peak mode / Vertical polarization*



Restricted Band Edge Test Mode: 802.11g & Highest Frequency & Test case 3

*Average mode / Vertical polarization*



# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Lowest Frequency & Test case 3



## RADIATED EMISSION

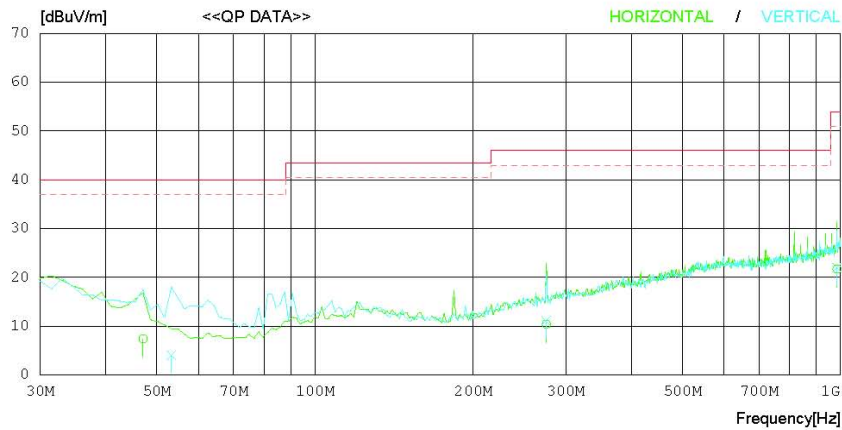
Date : 2010-04-17

Model Name : IMW-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 3

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 40 % R.H  
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	47.100	18.4	10.7	1.0	22.7	7.4	40.0	32.6	100	55
2	275.598	17.8	13.8	2.4	23.6	10.4	46.0	35.6	113	165
3	984.455	18.1	21.1	5.3	22.8	21.7	54.0	32.3	114	291
----- Vertical -----										
4	53.310	18.3	7.4	1.0	22.7	4.0	40.0	36.0	100	358
5	275.611	18.5	13.8	2.4	23.6	11.1	46.0	34.9	116	91
6	984.438	18.4	21.1	5.3	22.8	22.0	54.0	32.0	113	250

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Middle Frequency & Test case 3



## RADIATED EMISSION

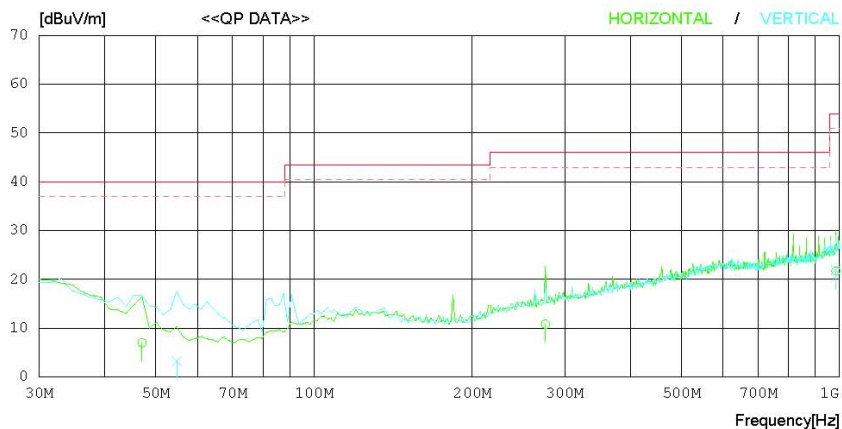
Date : 2010-04-17

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 3

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 40 % R.H  
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	47.101	18.0	10.7	1.0	22.7	7.0	40.0	33.0	114	358
2	275.589	18.2	13.8	2.4	23.6	10.8	46.0	35.2	115	184
3	984.446	18.1	21.1	5.3	22.8	21.7	54.0	32.3	100	46
----- Vertical -----										
4	54.869	17.9	7.0	1.0	22.7	3.2	40.0	36.8	121	160
5	984.441	18.3	21.1	5.3	22.8	21.9	54.0	32.1	118	359

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11b & Highest Frequency & Test case 3



## RADIATED EMISSION

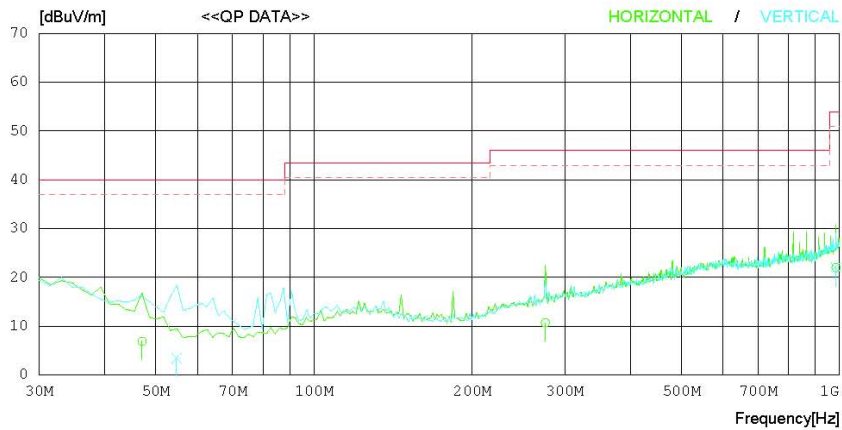
Date : 2010-04-17

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 3

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 40 % R.H  
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	47.100	17.9	10.7	1.0	22.7	6.9	40.0	33.1	116	25
2	275.584	18.1	13.8	2.4	23.6	10.7	46.0	35.3	117	179
3	984.435	18.4	21.1	5.3	22.8	22.0	54.0	32.0	121	292
----- Vertical -----										
4	54.771	18.1	7.0	1.0	22.7	3.4	40.0	36.6	116	64
5	984.450	18.5	21.1	5.3	22.8	22.1	54.0	31.9	120	174

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Lowest Frequency & Test case 3



## RADIATED EMISSION

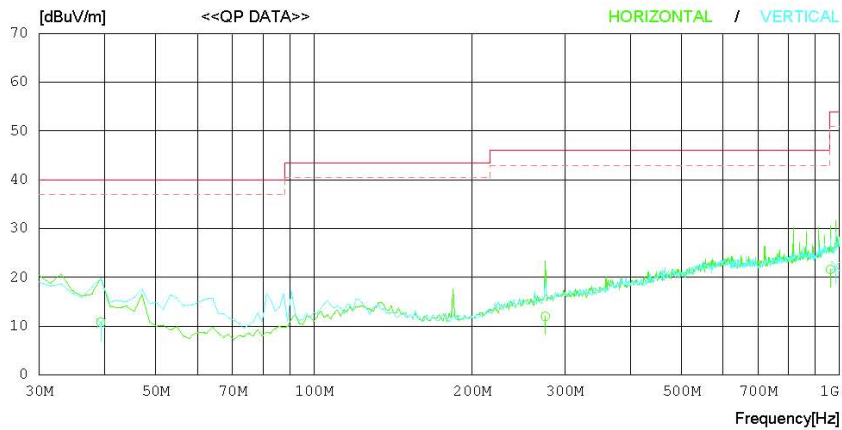
Date : 2010-04-17

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 3

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 40 % R.H  
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	39.300	18.4	14.1	0.9	22.6	10.8	40.0	29.2	113	65
2	961.222	18.7	20.7	5.2	23.0	21.6	54.0	32.4	110	301
3	275.556	19.4	13.8	2.4	23.6	12.0	46.0	34.0	100	185
----- Vertical -----										
4	39.330	18.2	14.1	0.9	22.6	10.6	40.0	29.4	400	183
5	984.442	18.7	21.1	5.3	22.8	22.3	54.0	31.7	100	358

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Middle Frequency & Test case 3



## RADIATED EMISSION

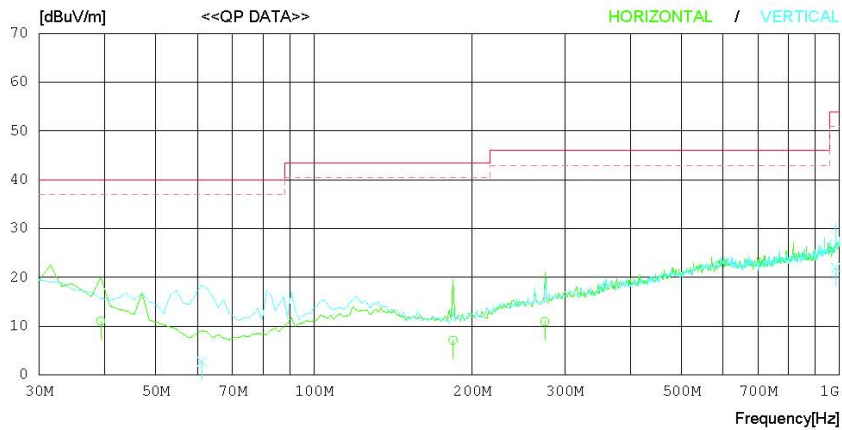
Date : 2010-04-17

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 3

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 40 % R.H  
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	39.289	18.6	14.1	0.9	22.6	11.0	40.0	29.0	114	358
2	183.864	17.9	10.5	1.9	23.2	7.1	43.5	36.4	115	315
3	275.145	18.3	13.8	2.4	23.6	10.9	46.0	35.1	113	169
----- Vertical -----										
4	61.113	18.4	5.9	1.1	22.7	2.7	40.0	37.3	120	186
5	984.314	18.4	21.1	5.3	22.8	22.0	54.0	32.0	115	68

# 30MHz ~ 1GHz Radiated Spurious Emissions

Test Mode: 802.11g & Highest Frequency & Test case 3



## RADIATED EMISSION

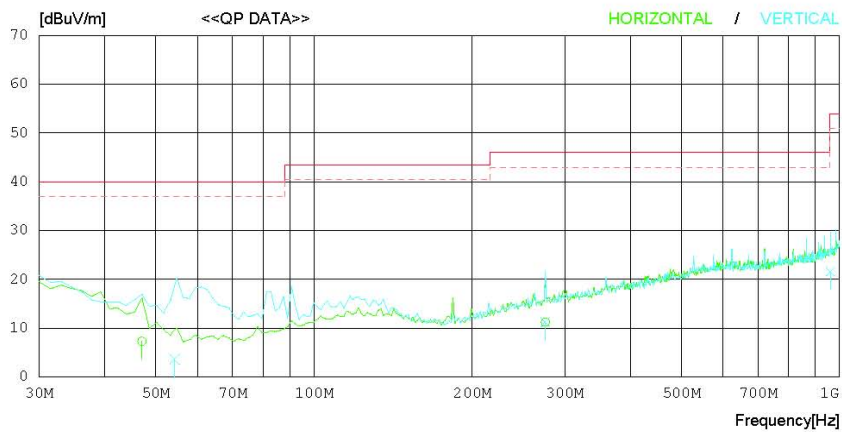
Date : 2010-04-17

Model Name : IMV-C610W  
Model No. :  
Serial No. : Identical prototype  
Test Condition : Test Case 3

Reference No. :  
Power Supply : 120 V 60 Hz  
Temp/Humi : 22°C 40 % R.H  
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	47.045	18.3	10.7	1.0	22.7	7.3	40.0	32.7	116	291
2	275.585	18.6	13.8	2.4	23.6	11.2	46.0	34.8	118	20
----- Vertical -----										
3	54.345	18.2	7.1	1.0	22.7	3.6	40.0	36.4	113	310
4	275.547	18.6	13.8	2.4	23.6	11.2	46.0	34.8	116	358
5	961.101	18.7	20.7	5.2	23.0	21.6	54.0	32.4	100	34

## 1GHz ~ 25GHz Radiated Spurious Emissions

▪ Test Mode: 802.11b & Lowest Frequency & Test case 3

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4806.750	H	39.05	25.74	7.27	46.32	33.01	74.00	54.00	27.68	20.99
4810.100	V	38.53	25.51	7.27	45.80	32.78	74.00	54.00	28.20	21.22
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11b & Middle Frequency & Test case 3

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4860.950	H	37.87	25.19	7.65	45.52	32.84	74.00	54.00	28.48	21.16
4872.000	V	38.28	25.49	7.65	45.93	33.14	74.00	54.00	28.07	20.86
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11b & Highest Frequency & Test case 3

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4878.850	H	43.57	32.09	7.96	51.53	40.05	74.00	54.00	22.47	13.95
4879.200	V	44.14	31.40	7.96	52.10	39.36	74.00	54.00	21.90	14.64
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

### Note.

1. No other spurious and harmonic emissions were detected at a level greater than 25dB 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



## 1GHz ~ 25GHz Radiated Spurious Emissions

▪ Test Mode: 802.11g & Lowest Frequency & Test case 3

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4801.550	H	44.91	31.27	7.27	52.18	38.54	74.00	54.00	21.82	15.46
4803.950	V	43.32	31.52	7.27	50.59	38.79	74.00	54.00	23.41	15.21
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11g & Middle Frequency & Test case 3

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4875.650	H	42.48	31.22	7.65	50.13	38.87	74.00	54.00	23.87	15.13
4878.350	V	43.32	31.16	7.65	50.97	38.81	74.00	54.00	23.03	15.19
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

▪ Test Mode: 802.11g & Highest Frequency & Test case 3

Frequency (MHz)	ANT Pol	Reading(dBuV)		T.F (dB)	Result(dBuV/m)		Limit(dBuV/m)		Margin(dB)	
		PK	AV		PK	AV	PK	AV	PK	AV
4880.300	H	42.77	31.28	7.96	50.73	39.24	74.00	54.00	23.27	14.76
4878.950	V	43.04	31.18	7.96	51.00	39.14	74.00	54.00	23.00	14.86
-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-

### Note.

1. No other spurious and harmonic emissions were detected at a level greater than 25dB 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

## 4.2.5 Transmitter Power Spectral Density

### - Procedure:

The transmitter output is connected to a spectrum analyzer. Locate and zoom in on emission peak within the passband. The maximum level in a 3 kHz bandwidth is measured with the spectrum analyzer using RBW = 3kHz and VBW > 9kHz, sweep time= auto, video averaging is turned off. Trace average 100 traces in power averaging mode. The PPSD is the highest level found across the emission in any 3kHz band. The test is performed in accordance with FCC document “Measurement of Digital Transmission Systems Operating under Section 15.247”, March 23, 2005. The transmitter output power was measured with power output option #2. Therefore, PSD was measured with PSD option #2.

### - Measurement Data: **Comply**

Test Mode	Frequency	Test Results (dBm)
802.11b	Lowest	-21.731
	Middle	-22.035
	Highest	-23.604
802.11g	Lowest	-23.437
	Middle	-23.536
	Highest	-21.764

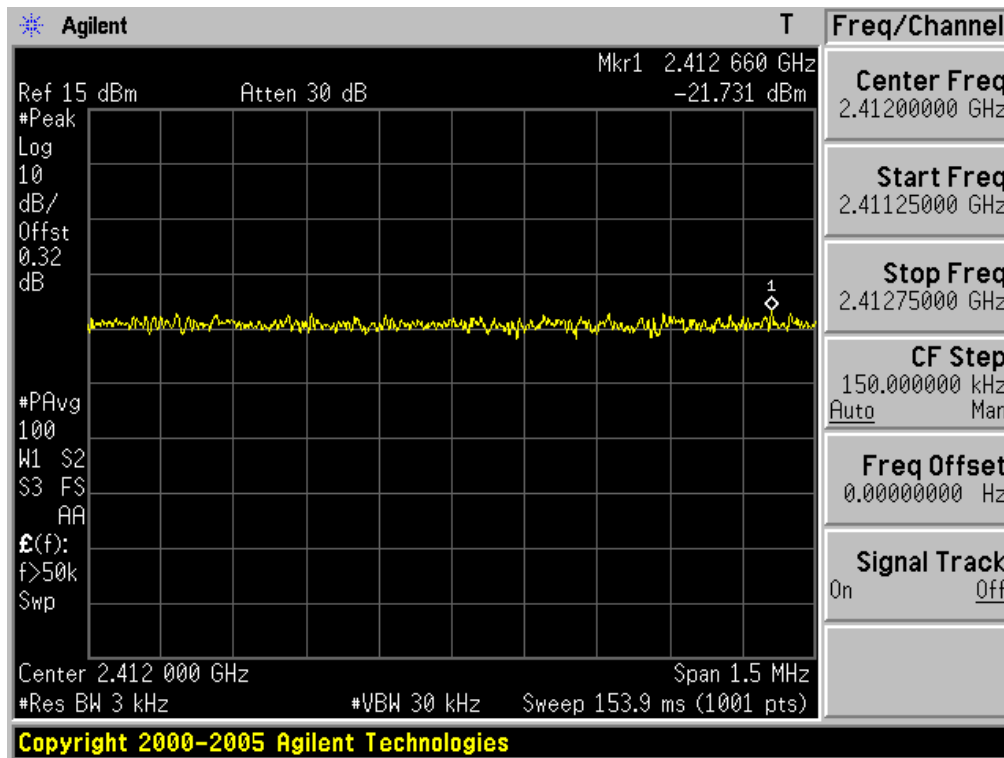
Note 1: See next pages for actual measured spectrum plots.

### - Minimum Standard:

The transmitter power density average over 1-second interval shall not be greater than 8 dBm in any 3kHz BW.

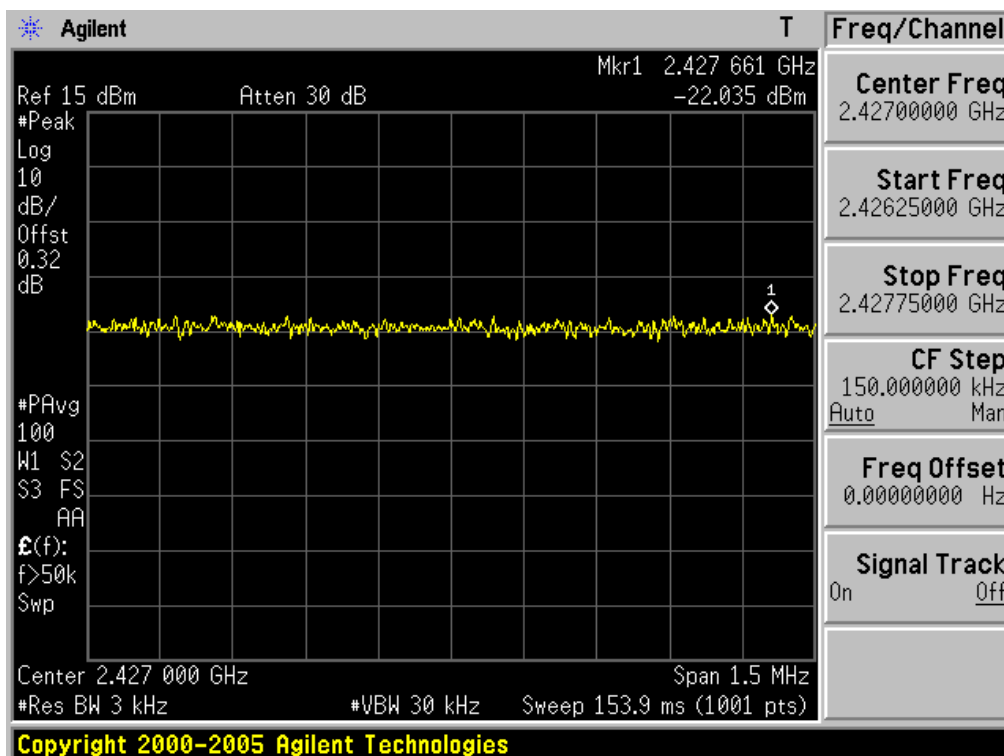
# Transmitter Power Spectral Density

Test Mode: 802.11b & Lowest Frequency



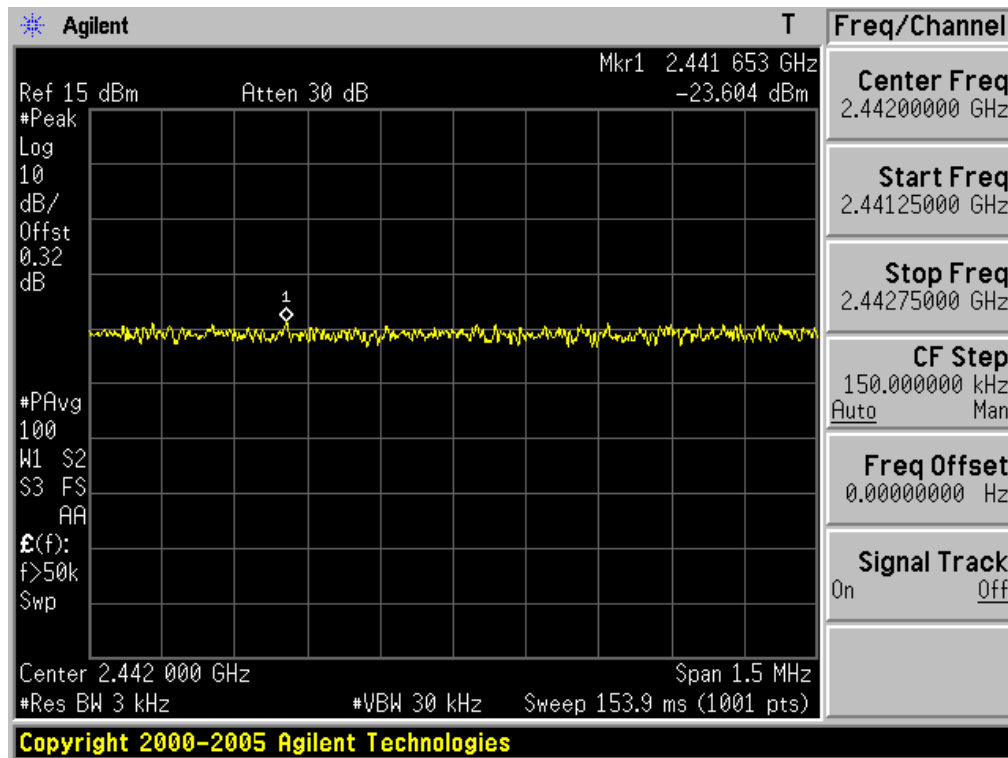
# Transmitter Power Spectral Density

Test Mode: 802.11b & Middle Frequency



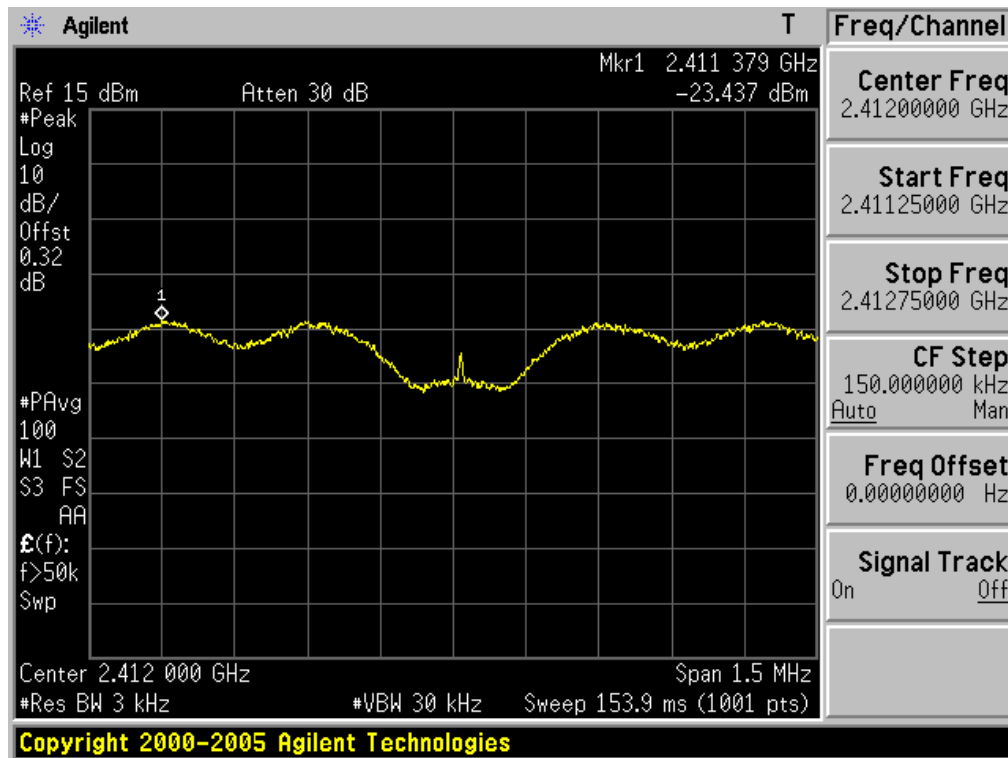
# Transmitter Power Spectral Density

Test Mode: 802.11b & Highest Frequency



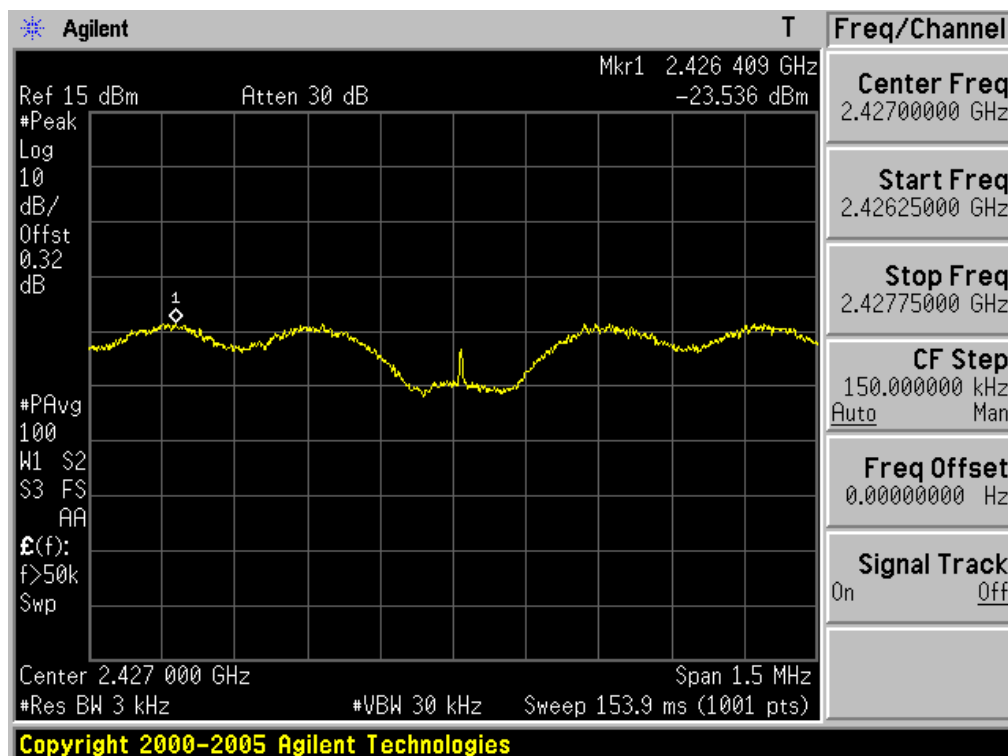
# Transmitter Power Spectral Density

Test Mode: 802.11g & Lowest Frequency



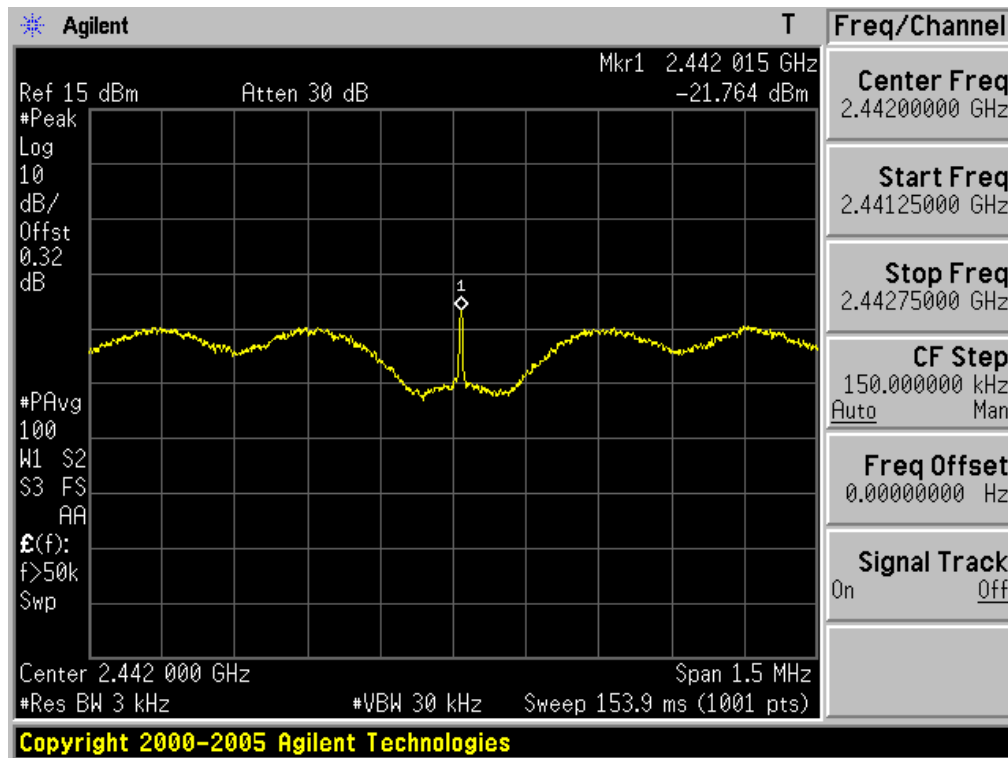
# Transmitter Power Spectral Density

Test Mode: 802.11g & Middle Frequency



# Transmitter Power Spectral Density

Test Mode: 802.11g & Highest Frequency



## 4.2.6 AC Conducted Emissions

### - Procedure:

The conducted emissions are measured in the shielded room with a spectrum analyzer in peak hold. Emissions closest to the limit are measured in the quasi-peak mode (QP) and average mode (AV) 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**

Note 1: See next pages for actual measured spectrum plots and data.

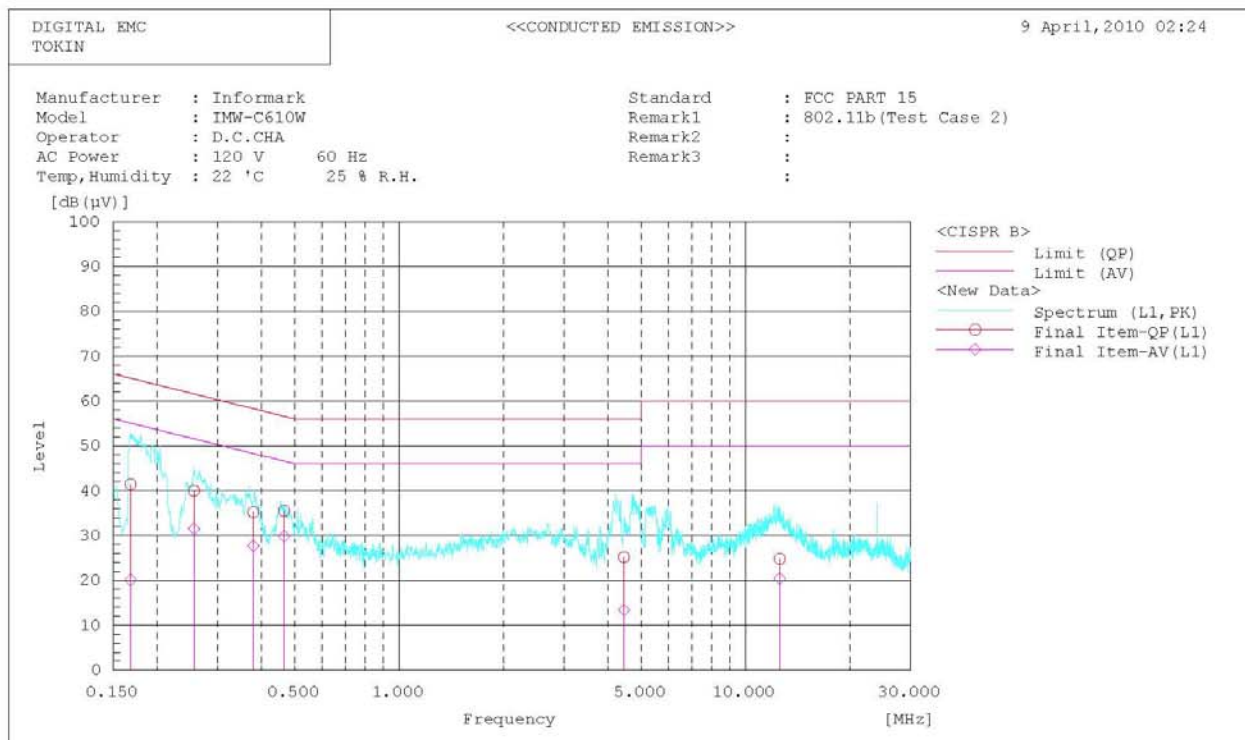
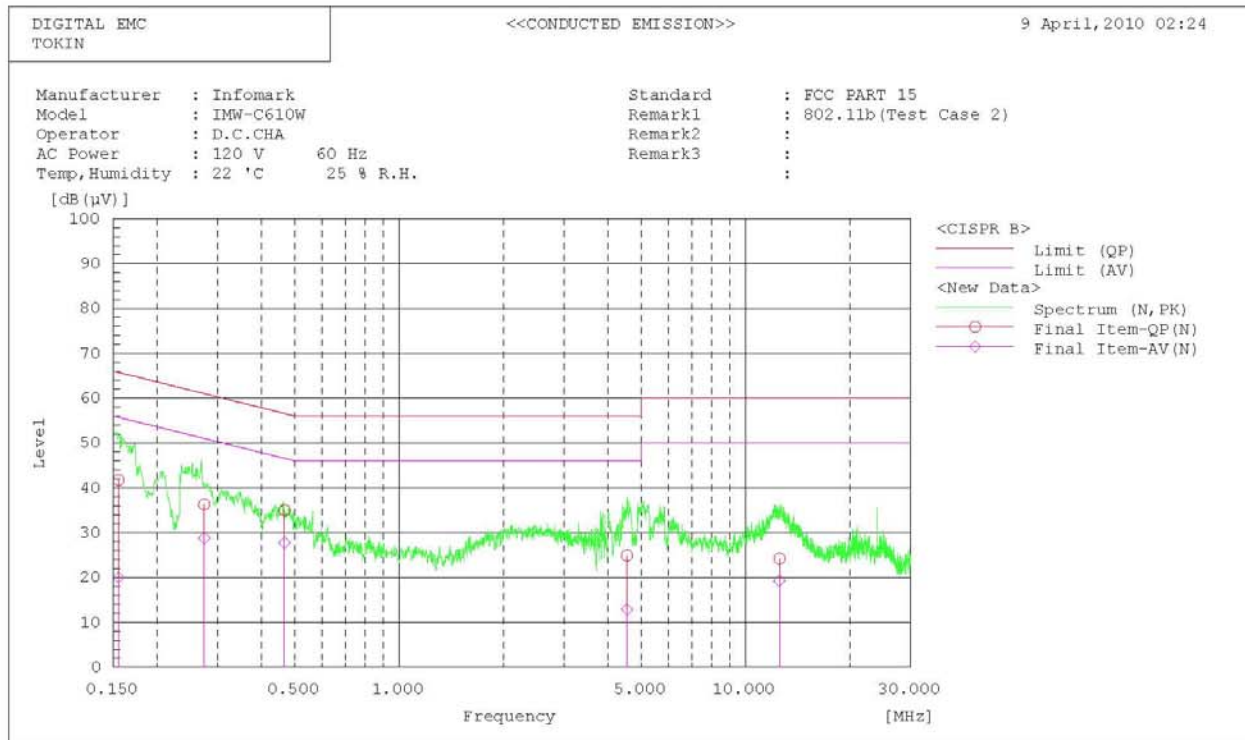
### - Minimum Standard: FCC Part 15.207(a)/EN 55022

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

# AC Line Conducted Emissions (Graph)

Test Mode: 802.11b & Test case 2





# AC Line Conducted Emissions (Data List)

Test Mode: 802.11b & Test case 2

```
***** DIGITAL EMC *****
<<CONDUCTED EMISSION>>
9 April,2010 02:24

Standard      : FCC PART 15
Manufacturer  : Infomark
Model         : IMW-C610W
Operator      : D.C.CHA
AC Power      : 120 V      60 Hz
Temp, Humidity : 22 'C      25 % R.H.
Remark1       : 802.11b(Test Case 2)
Remark2       :
Remark3       :
*****

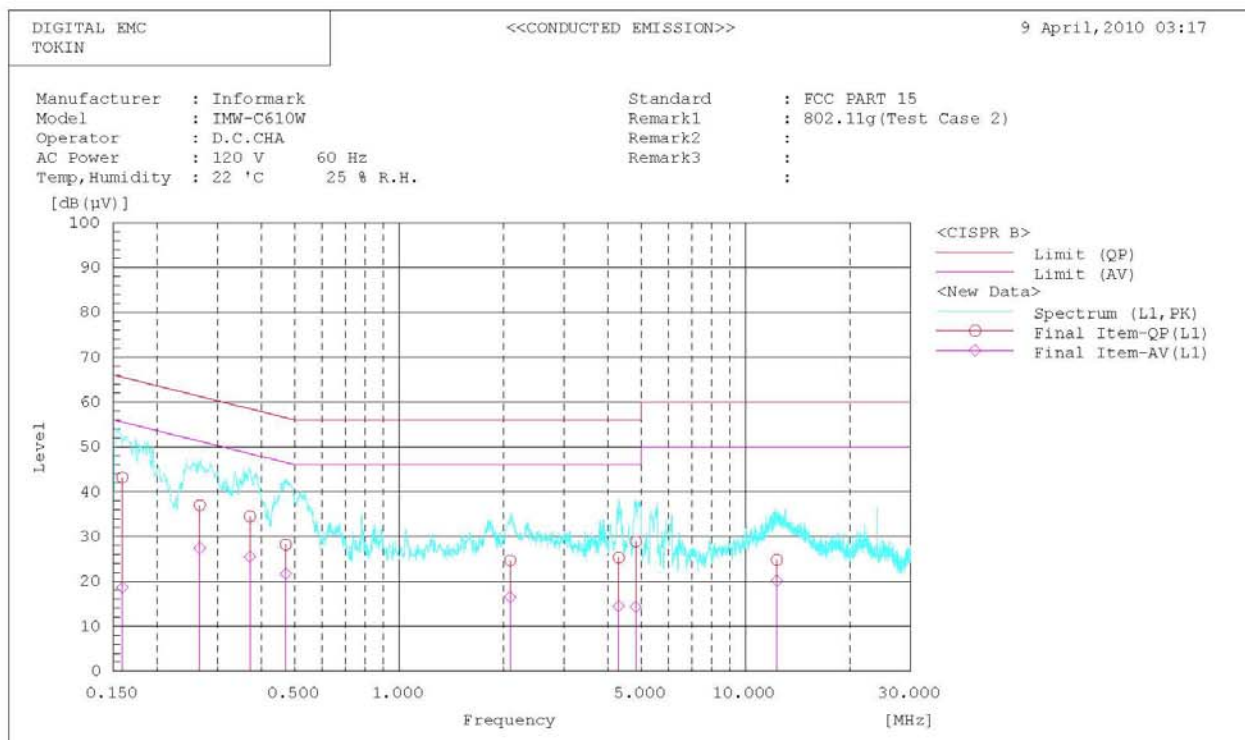
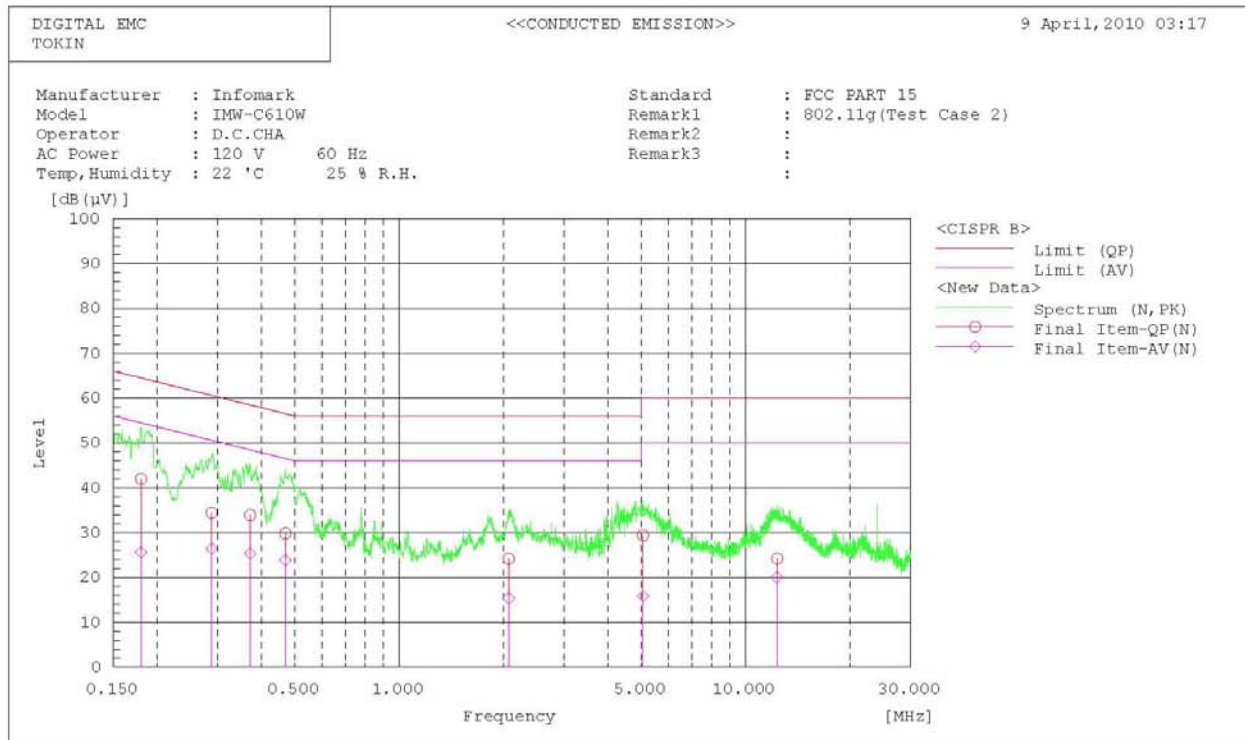
Final Result

--- N Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]    [dB(µV)] [dB(µV)] [dB]  [dB(µV)] [dB(µV)] [dB(µV)] [dB(µV)] [dB]  [dB]
1     0.155     41.5     19.8   0.2   41.7     20.0   65.7     55.7   24.0   35.7
2     0.274     36.0     28.5   0.3   36.3     28.8   61.0     51.0   24.7   22.2
3     0.467     34.6     27.4   0.4   35.0     27.8   56.6     46.6   21.6   18.8
4     4.552     24.6     12.6   0.3   24.9     12.9   56.0     46.0   31.1   33.1
5    12.536     23.7     18.8   0.5   24.2     19.3   60.0     50.0   35.8   30.7

--- L1 Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]    [dB(µV)] [dB(µV)] [dB]  [dB(µV)] [dB(µV)] [dB(µV)] [dB(µV)] [dB]  [dB]
1     0.168     41.3     20.0   0.1   41.4     20.1   65.1     55.1   23.7   35.0
2     0.256     39.8     31.3   0.2   40.0     31.5   61.6     51.6   21.6   20.1
3     0.380     34.9     27.4   0.3   35.2     27.7   58.3     48.3   23.1   20.6
4     0.466     35.1     29.5   0.4   35.5     29.9   56.6     46.6   21.1   16.7
5     4.459     24.5     12.7   0.7   25.2     13.4   56.0     46.0   30.8   32.6
6    12.555     23.7     19.3   1.1   24.8     20.4   60.0     50.0   35.2   29.6
```

# AC Line Conducted Emissions (Graph)

Test Mode: 802.11g & Test case 2



## AC Line Conducted Emissions (Data List)

Test Mode: 802.11g &amp; Test case 2

```

***** DIGITAL EMC *****
<<CONDUCTED EMISSION>>
9 April,2010 03:17

Standard      : FCC PART 15
Manufacturer  : Infomark
Model         : IMW-C610W
Operator      : D.C.CHA
AC Power      : 120 V      60 Hz
Temp, Humidity : 22 'C      25 % R.H.
Remark1       : 802.11g(Test Case 2)
Remark2       :
Remark3       :
*****

Final Result

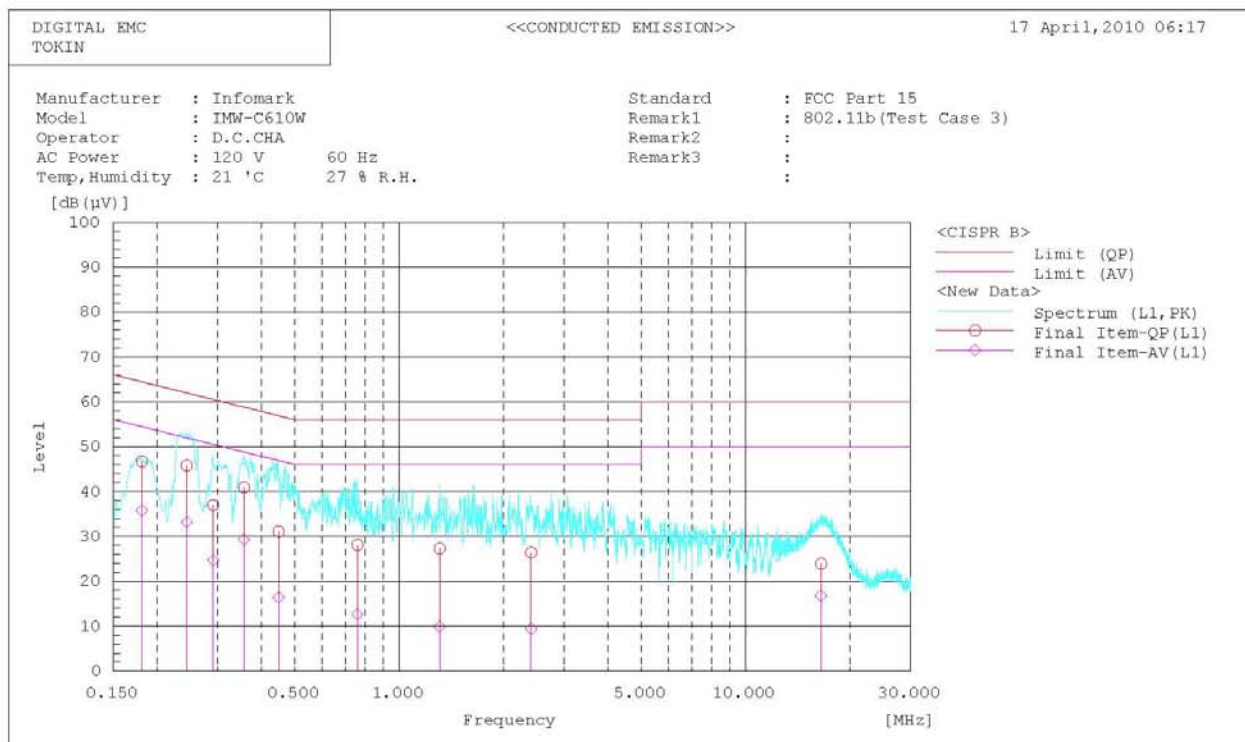
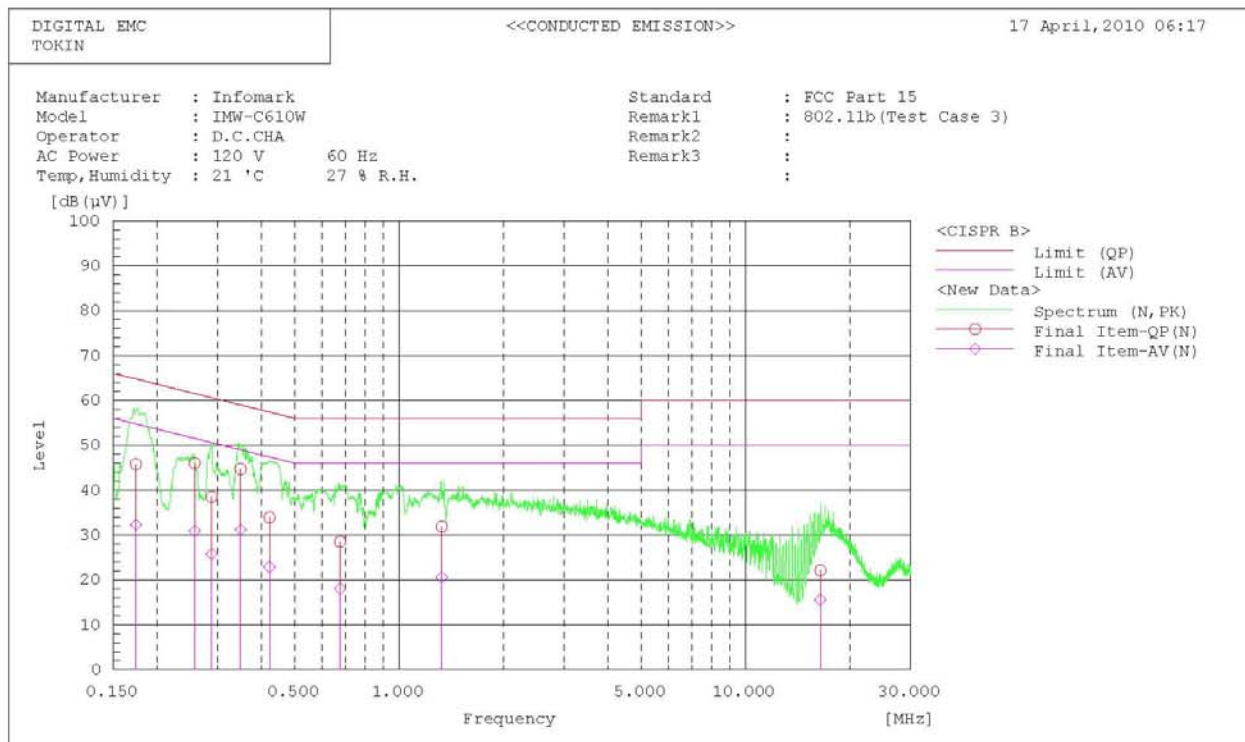
--- N Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]     [dB(μV)] [dB(μV)] [dB]  [dB(μV)] [dB(μV)] [dB(μV)] [dB(μV)] [dB]  [dB]
1     0.180     41.8     25.4   0.2   42.0     25.6   64.5   54.5   22.5   28.9
2     0.288     34.1     26.2   0.3   34.4     26.5   60.6   50.6   26.2   24.1
3     0.372     33.6     25.1   0.3   33.9     25.4   58.5   48.5   24.6   23.1
4     0.470     29.4     23.5   0.4   29.8     23.9   56.5   46.5   26.7   22.6
5     2.072     23.8     15.0   0.4   24.2     15.4   56.0   46.0   31.8   30.6
6     5.063     29.1     15.6   0.3   29.4     15.9   60.0   50.0   30.6   34.1
7    12.338     23.7     19.5   0.5   24.2     20.0   60.0   50.0   35.8   30.0

--- L1 Phase ---
No.  Frequency  Reading  Reading  c.f  Result  Result  Limit  Limit  Margin  Margin  Remark
      [MHz]     [dB(μV)] [dB(μV)] [dB]  [dB(μV)] [dB(μV)] [dB(μV)] [dB(μV)] [dB]  [dB]
1     0.159     43.1     18.6   0.1   43.2     18.7   65.5   55.5   22.3   36.8
2     0.266     36.8     27.2   0.2   37.0     27.4   61.2   51.2   24.2   23.8
3     0.371     34.2     25.2   0.3   34.5     25.5   58.5   48.5   24.0   23.0
4     0.471     27.8     21.3   0.4   28.2     21.7   56.5   46.5   28.3   24.8
5     2.093     24.1     15.9   0.6   24.7     16.5   56.0   46.0   31.3   29.5
6     4.308     24.6     13.8   0.7   25.3     14.5   56.0   46.0   30.7   31.5
7     4.825     28.2     13.6   0.7   28.9     14.3   56.0   46.0   27.1   31.7
8    12.315     23.7     19.0   1.1   24.8     20.1   60.0   50.0   35.2   29.9

```

# AC Line Conducted Emissions (Graph)

Test Mode: 802.11b & Test case 3



# AC Line Conducted Emissions (Data List)

Test Mode: 802.11b & Test case 3

\*\*\*\*\* DIGITAL EMC \*\*\*\*\*

<<CONDUCTED EMISSION>>

17 April,2010 06:17

Standard : FCC Part 15

Manufacturer : Infomark

Model : IMW-C610W

Operator : D.C.CHA

AC Power : 120 V 60 Hz

Temp, Humidity : 21 °C 27 % R.H.

Remark1 : 802.11b(Test Case 3)

Remark2 :

Remark3 :

\*\*\*\*\*

Final Result

--- N Phase ---

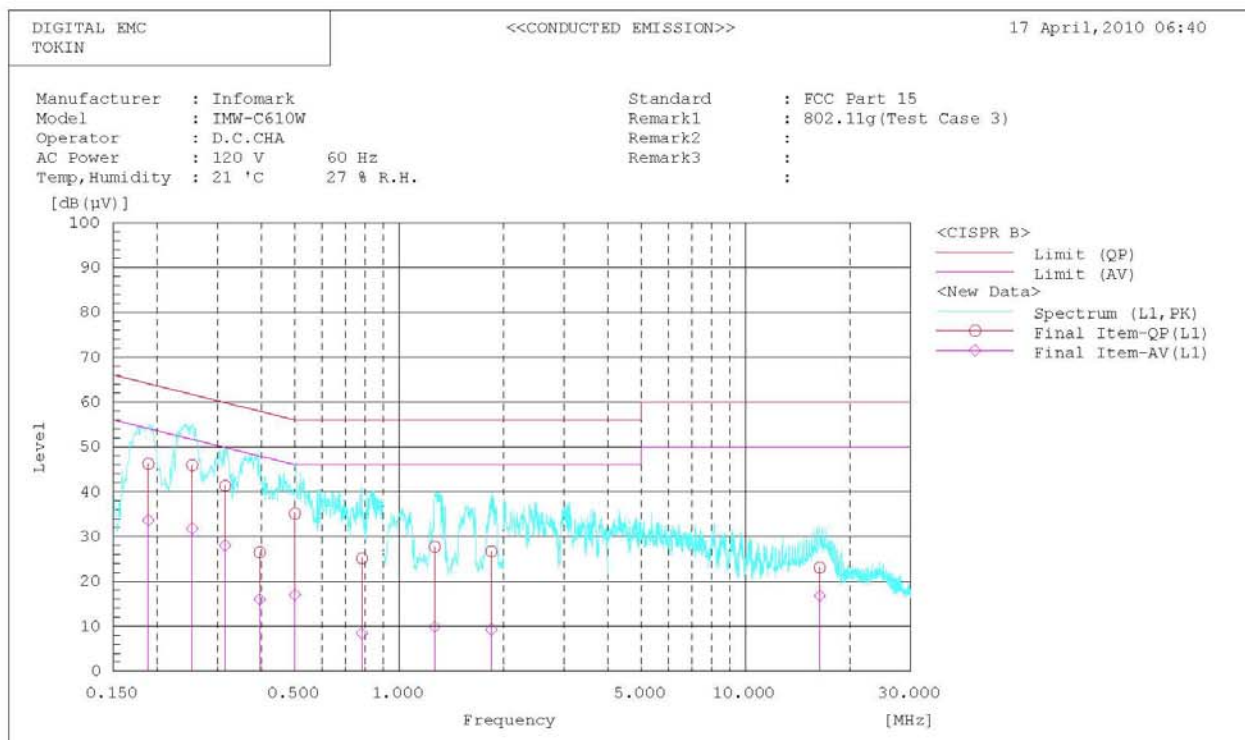
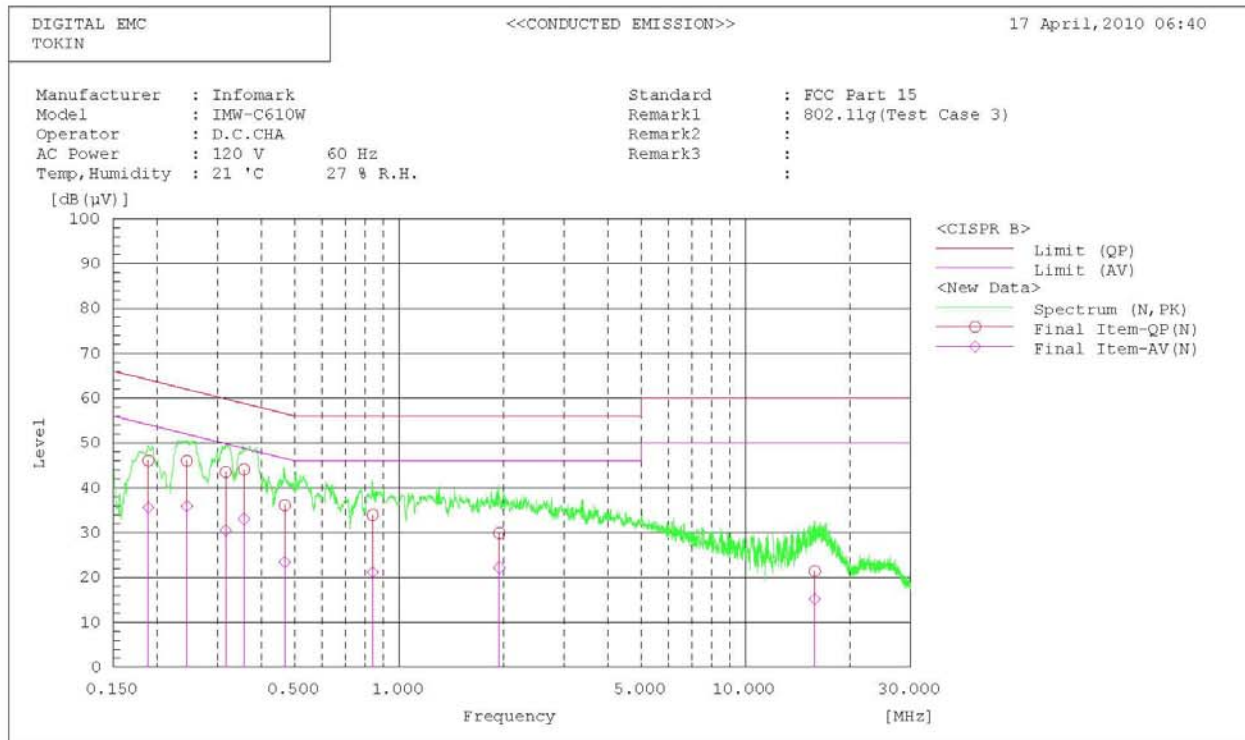
No.	Frequency	Reading QP	Reading AV	c.f	Result QP	Result AV	Limit QP	Limit AV	Margin QP	Margin AV	Remark
	[MHz]	[dB(μV)]	[dB(μV)]	[dB]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB(μV)]	[dB]	[dB]	
1	0.174	45.6	32.1	0.2	45.8	32.3	64.8	54.8	19.0	22.5	
2	0.257	45.7	30.6	0.3	46.0	30.9	61.5	51.5	15.5	20.6	
3	0.288	38.2	25.5	0.3	38.5	25.8	60.6	50.6	22.1	24.8	
4	0.349	44.4	30.9	0.3	44.7	31.2	59.0	49.0	14.3	17.8	
5	0.423	33.6	22.6	0.3	33.9	22.9	57.4	47.4	23.5	24.5	
6	0.676	28.1	17.7	0.4	28.5	18.1	56.0	46.0	27.5	27.9	
7	1.328	31.5	20.2	0.4	31.9	20.6	56.0	46.0	24.1	25.4	
8	16.440	21.5	15.0	0.6	22.1	15.6	60.0	50.0	37.9	34.4	

--- 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	0.181	46.6	35.7	0.1	46.7	35.8	64.4	54.4	17.7	18.6	
2	0.244	45.6	33.0	0.2	45.8	33.2	62.0	52.0	16.2	18.8	
3	0.291	36.8	24.5	0.2	37.0	24.7	60.5	50.5	23.5	25.8	
4	0.357	40.6	29.0	0.3	40.9	29.3	58.8	48.8	17.9	19.5	
5	0.449	30.7	16.0	0.4	31.1	16.4	56.9	46.9	25.8	30.5	
6	0.759	27.6	12.1	0.5	28.1	12.6	56.0	46.0	27.9	33.4	
7	1.310	26.8	9.4	0.5	27.3	9.9	56.0	46.0	28.7	36.1	
8	2.405	25.8	8.8	0.6	26.4	9.4	56.0	46.0	29.6	36.6	
9	16.516	22.6	15.5	1.3	23.9	16.8	60.0	50.0	36.1	33.2	

# AC Line Conducted Emissions (Graph)

Test Mode: 802.11g & Test case 3



# AC Line Conducted Emissions (Data List)

Test Mode: 802.11g & Test case 3

\*\*\*\*\* DIGITAL EMC \*\*\*\*\*

<<CONDUCTED EMISSION>>

17 April,2010 06:40

Standard : FCC Part 15

Manufacturer : Infomark

Model : IMW-C610W

Operator : D.C.CHA

AC Power : 120 V 60 Hz

Temp, Humidity : 21 °C 27 % R.H.

Remark1 : 802.11g(Test Case 3)

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	0.189	45.9	35.4	0.2	46.1	35.6	64.1	54.1	18.0	18.5	
2	0.244	45.8	35.7	0.2	46.0	35.9	62.0	52.0	16.0	16.1	
3	0.316	43.2	30.2	0.3	43.5	30.5	59.8	49.8	16.3	19.3	
4	0.357	43.8	32.8	0.3	44.1	33.1	58.8	48.8	14.7	15.7	
5	0.468	35.7	23.0	0.4	36.1	23.4	56.5	46.5	20.4	23.1	
6	0.839	33.5	20.8	0.4	33.9	21.2	56.0	46.0	22.1	24.8	
7	1.946	29.5	21.8	0.4	29.9	22.2	56.0	46.0	26.1	23.8	
8	15.849	20.8	14.6	0.6	21.4	15.2	60.0	50.0	38.6	34.8	

--- 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	0.189	46.1	33.6	0.1	46.2	33.7	64.1	54.1	17.9	20.4	
2	0.253	45.7	31.6	0.2	45.9	31.8	61.7	51.7	15.8	19.9	
3	0.315	41.1	27.8	0.2	41.3	28.0	59.8	49.8	18.5	21.8	
4	0.396	26.2	15.7	0.3	26.5	16.0	57.9	47.9	31.4	31.9	
5	0.501	34.7	16.6	0.4	35.1	17.0	56.0	46.0	20.9	29.0	
6	0.782	24.6	7.9	0.5	25.1	8.4	56.0	46.0	30.9	37.6	
7	1.268	27.2	9.4	0.5	27.7	9.9	56.0	46.0	28.3	36.1	
8	1.847	26.2	8.8	0.5	26.7	9.3	56.0	46.0	29.3	36.7	
9	16.377	21.8	15.5	1.3	23.1	16.8	60.0	50.0	36.9	33.2	

## 4.2.7 Antenna Requirements

### - Procedure:

Describe how the EUT complies with the requirement that either its antenna is permanently attached, or that it employs a unique antenna connector, for every antenna proposed for use with the EUT.

### - Conclusion: **Comply**

The antenna is permanently attached by soldering.(Refer to Internal Photo file.)

### - Minimum Standard:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions.



# 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
<input checked="" type="checkbox"/>	Spectrum Analyzer	Agilent	E4440A	25/09/09	25/09/10	MY45304199
<input type="checkbox"/>	Spectrum Analyzer	Rohde Schwarz	FSQ26	25/02/10	25/02/11	200347
<input type="checkbox"/>	Spectrum Analyzer(RE)	H.P	8563E	13/10/09	13/10/10	3551A04634
<input type="checkbox"/>	Power Meter	H.P	EMP-442A	02/07/09	02/07/10	GB37170413
<input type="checkbox"/>	Power Sensor	H.P	8481A	02/07/09	02/07/10	3318A96332
<input type="checkbox"/>	Power Divider	Agilent	11636B	13/10/09	13/10/10	56471
<input type="checkbox"/>	Power Splitter	Anritsu	K241B	13/10/09	13/10/10	20611
<input type="checkbox"/>	Power Splitter	Anritsu	K241B	02/07/09	02/07/10	017060
<input type="checkbox"/>	Frequency Counter	H.P	5342A	13/07/09	13/07/10	2119A04450
<input type="checkbox"/>	TEMP & HUMIDITY Chamber	JISCO	KR-100/J-RHC2	10/10/09	10/10/10	30604493/021031
<input checked="" type="checkbox"/>	Digital Multimeter	H.P	34401A	12/03/10	12/03/11	3146A13475, US36122178
<input type="checkbox"/>	Multifunction Synthesizer	HP	8904A	06/10/09	06/10/10	3633A08404
<input checked="" type="checkbox"/>	Signal Generator	Rohde Schwarz	SMR20	12/03/10	12/03/11	101251
<input checked="" type="checkbox"/>	Signal Generator	H.P	ESG-3000A	02/07/09	02/07/10	US37230529
<input type="checkbox"/>	Vector Signal Generator	Rohde Schwarz	SMJ100A	11/01/10	11/01/11	100148
<input type="checkbox"/>	Vector Signal Generator	Rohde Schwarz	SMBV100A	23/02/10	23/02/11	255571
<input type="checkbox"/>	Audio Analyzer	H.P	8903B	02/07/09	02/07/10	3011A09448
<input type="checkbox"/>	Modulation Analyzer	H.P	8901B	02/07/09	02/07/10	3028A03029
<input type="checkbox"/>	8960 Series 10 Wireless Comms. Test Set	Agilent	E5515C	02/07/09	02/07/10	GB43461134
<input type="checkbox"/>	Universal Radio communication Tester	Rohde Schwarz	CMU 200	19/05/09	19/05/10	106760
<input type="checkbox"/>	Bluetooth Tester	TESCOM	TC-3000B	02/07/09	02/07/10	3000B000268
<input type="checkbox"/>	Thermo hygrometer	BODYCOM	BJ5478	28/01/10	28/01/11	090205-3
<input checked="" type="checkbox"/>	Thermo hygrometer	BODYCOM	BJ5478	28/01/10	28/01/11	090205-2
<input type="checkbox"/>	Thermo hygrometer	BODYCOM	BJ5478	28/01/10	28/01/11	090205-4
<input type="checkbox"/>	AC Power supply	DAEKWANG	5KVA	12/03/10	12/03/11	20060321-1
<input type="checkbox"/>	DC Power Supply	HP	6622A	12/03/10	12/03/11	3448A03760
<input checked="" type="checkbox"/>	DC Power Supply	HP	6633A	12/03/10	12/03/11	3524A06634
<input type="checkbox"/>	BAND Reject Filter	Microwave Circuits	N0308372	06/10/09	06/10/10	3125-01DC0352
<input type="checkbox"/>	BAND Reject Filter	Wainwright	WRCG1750	06/10/09	06/10/10	2
<input type="checkbox"/>	High-Pass Filter	ANRITSU	MP526D	06/10/09	06/10/10	M27756
<input type="checkbox"/>	High-pass filter	Wainwright	WHKX2.1	N/A	N/A	1
<input checked="" type="checkbox"/>	High-Pass Filter	Wainwright	WHKX3.0	N/A	N/A	9
<input type="checkbox"/>	High-Pass Filter	Wainwright	WHNX5.0	N/A	N/A	8
<input type="checkbox"/>	High-Pass Filter	Wainwright	WHNX8.5	N/A	N/A	1
<input type="checkbox"/>	Tunable Notch Filter	Wainwright	WRCT800.0 /960.0-0.2/40-8SSK	N/A	N/A	32
<input type="checkbox"/>	Tunable Notch Filter	Wainwright	WRCD1700.0 /2000.0-0.2/40-10SSK	N/A	N/A	53
<input type="checkbox"/>	Tunable Notch Filter	Wainwright	WRCT1900.0 /2200.0-5/40-10SSK	N/A	N/A	30
<input checked="" type="checkbox"/>	HORN ANT	ETS	3115	17/06/09	17/06/10	6419
<input type="checkbox"/>	HORN ANT	ETS	3115	23/09/09	23/09/10	21097
<input type="checkbox"/>	HORN ANT	A.H.Systems	SAS-574	10/06/09	10/06/10	154
<input type="checkbox"/>	HORN ANT	A.H.Systems	SAS-574	10/06/09	10/06/10	155

	Type	Manufacturer	Model	Cal.Due.Date (dd/mm/yy)	Next.Due.Date (dd/mm/yy)	S/N
<input type="checkbox"/>	Dipole Antenna	Schwarzbeck	VHA9103	06/10/09	06/10/10	2116
<input type="checkbox"/>	Dipole Antenna	Schwarzbeck	VHA9103	06/10/09	06/10/10	2117
<input type="checkbox"/>	Dipole Antenna	Schwarzbeck	UHA9105	05/10/09	05/10/10	2261
<input type="checkbox"/>	Dipole Antenna	Schwarzbeck	UHA9105	05/10/09	05/10/10	2262
<input type="checkbox"/>	LOOP Antenna	ETS	6502	14/09/09	14/09/10	3471
<input type="checkbox"/>	Coaxial Fixed Attenuators	Agilent	8491B	02/07/09	02/07/10	MY39260700
<input type="checkbox"/>	Attenuator (3dB)	WEINSCHTEL	56-3	16/12/09	16/12/10	Y2342
<input type="checkbox"/>	Attenuator (3dB)	WEINSCHTEL	56-3	16/12/09	16/12/10	Y2370
<input type="checkbox"/>	Attenuator (10dB)	WEINSCHTEL	23-10-34	01/10/09	01/10/10	BP4386
<input type="checkbox"/>	Attenuator (10dB)	WEINSCHTEL	23-10-34	11/01/10	11/01/11	BP4387
<input type="checkbox"/>	Attenuator (20dB)	WEINSCHTEL	86-20-11	06/10/09	06/10/10	432
<input type="checkbox"/>	Attenuator (10dB)	WEINSCHTEL	31696	06/10/09	06/10/10	446
<input type="checkbox"/>	Attenuator (10dB)	WEINSCHTEL	31696	06/10/09	06/10/10	408
<input type="checkbox"/>	Attenuator (40dB)	WEINSCHTEL	57-40-33	01/10/09	01/10/10	NN837
<input type="checkbox"/>	Attenuator (30dB)	JFW	50FH-030-300	12/03/10	12/03/11	060320-1
<input type="checkbox"/>	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0088CAN	02/07/09	02/07/10	788
<input type="checkbox"/>	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0185CAN	02/07/09	02/07/10	790
<input type="checkbox"/>	Type N Coaxial CIRCULATOR	NOVA MICROWAVE	0215CAN	02/07/09	02/07/10	112
<input checked="" type="checkbox"/>	Amplifier (30dB)	Agilent	8449B	10/10/09	10/10/10	3008A01590
<input type="checkbox"/>	Amplifier	EMPOWER	BBS3Q7ELU	02/11/09	02/11/10	1020
<input type="checkbox"/>	RF Power Amplifier	OPHIRRF	5069F	02/07/09	02/07/10	1006
<input checked="" type="checkbox"/>	EMI TEST RECEIVER	R&S	ESU	29/01/10	29/01/11	100014
<input checked="" type="checkbox"/>	BILOG ANTENNA	SCHAFFNER	CBL6112B	02/06/09	02/06/10	2737
<input checked="" type="checkbox"/>	Amplifier (22dB)	H.P	8447E	29/01/10	29/01/11	2945A02865
<input type="checkbox"/>	EMI TEST RECEIVER	R&S	ESCI	12/05/09	12/05/10	100364
<input type="checkbox"/>	LOG-PERIODIC ANT.	Schwarzbeck	UHALP9108A	30/05/09	30/05/10	590
<input type="checkbox"/>	BICONICAL ANT.	Schwarzbeck	VHA 9103	02/06/09	02/06/10	2233
<input type="checkbox"/>	LOG-PERIODIC ANT.	Schwarzbeck	UHALP 9108 A-1	07/10/09	07/10/10	1098
<input type="checkbox"/>	BICONICAL ANT.	Schwarzbeck	VHA 9103	06/10/09	06/10/10	91031946
<input type="checkbox"/>	Low Noise Pre Amplifier	TSJ	MLA-100K01-B01-2	12/03/10	12/03/11	1252741
<input type="checkbox"/>	Amplifier (25dB)	Agilent	8447D	12/05/09	12/05/10	2944A10144
<input type="checkbox"/>	Amplifier (25dB)	Agilent	8447D	03/07/09	03/07/10	2648A04922
<input checked="" type="checkbox"/>	Spectrum Analyzer(CE)	H.P	8591E	12/03/10	12/03/11	3649A05889
<input checked="" type="checkbox"/>	LISN	Kyoritsu	KNW-407	29/01/10	29/01/11	8-317-8
<input checked="" type="checkbox"/>	LISN	Kyoritsu	KNW-242	29/01/10	29/01/11	8-654-15
<input checked="" type="checkbox"/>	CVCF	NF Electronic	4420	12/03/10	12/03/11	304935/337980
<input checked="" type="checkbox"/>	50 ohm Terminator	HME	CT-01	12/01/10	12/01/11	N/A
<input checked="" type="checkbox"/>	RFI/FIELD Intensity Meter	Kyoritsu	KNM-2402	03/07/09	03/07/10	4N-170-3