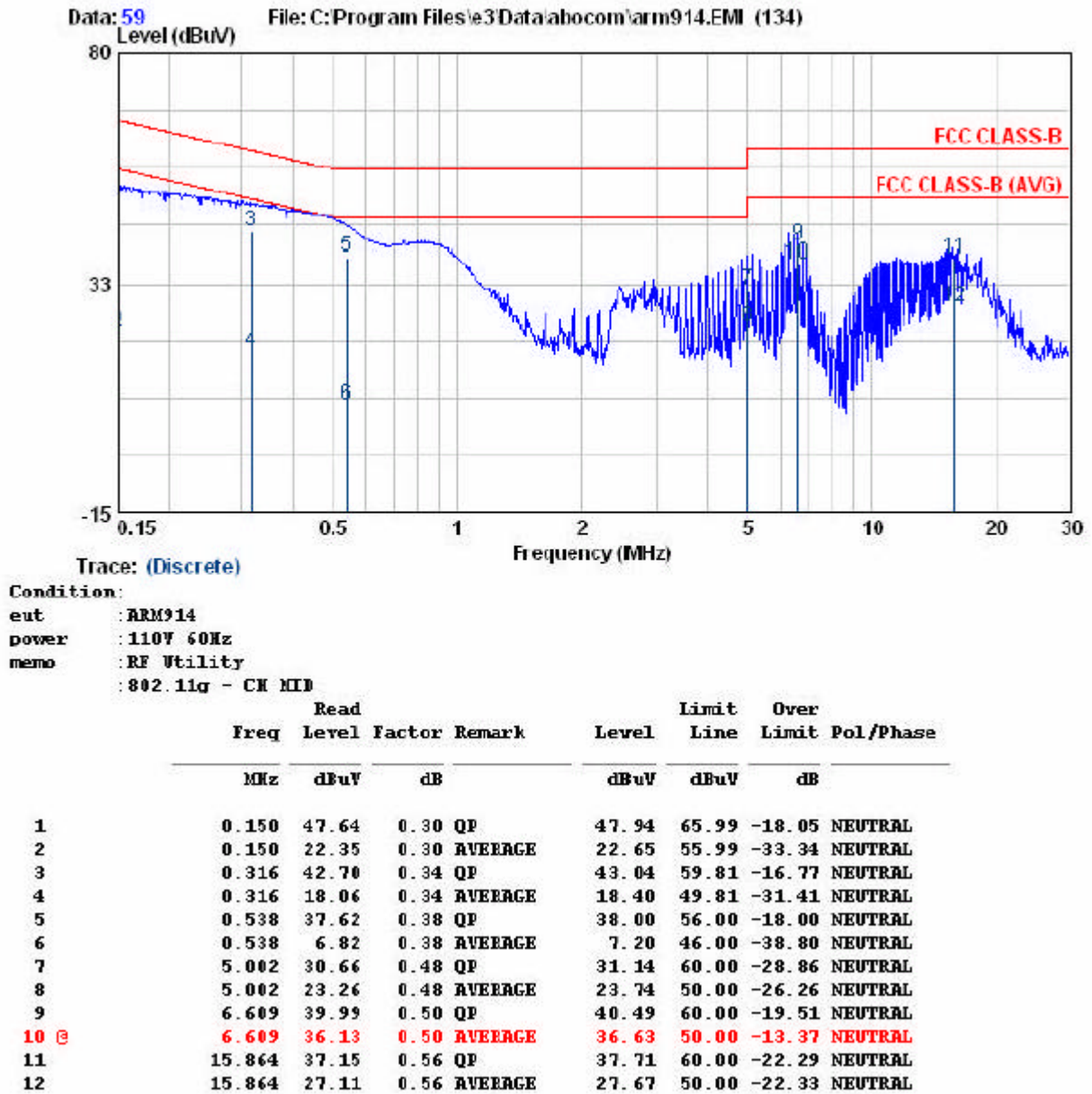
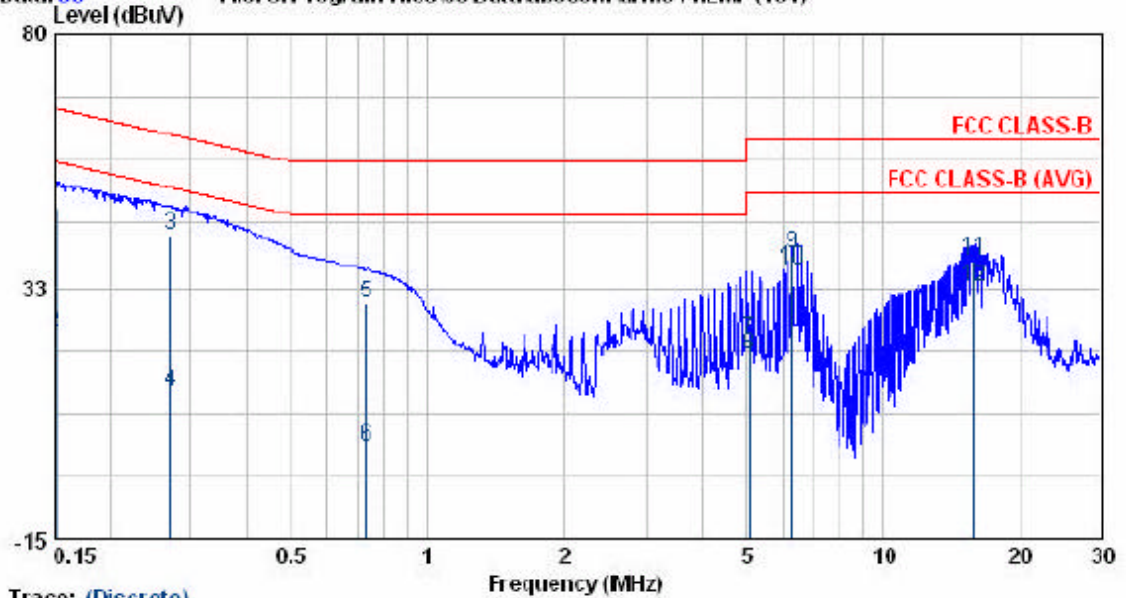


4.2.5. Test Mode 5: 802.11g (CH MID)

- Relative Humidity: 58 %
- Temperature: 27°C
- Test Date: Mar. 11, 2004



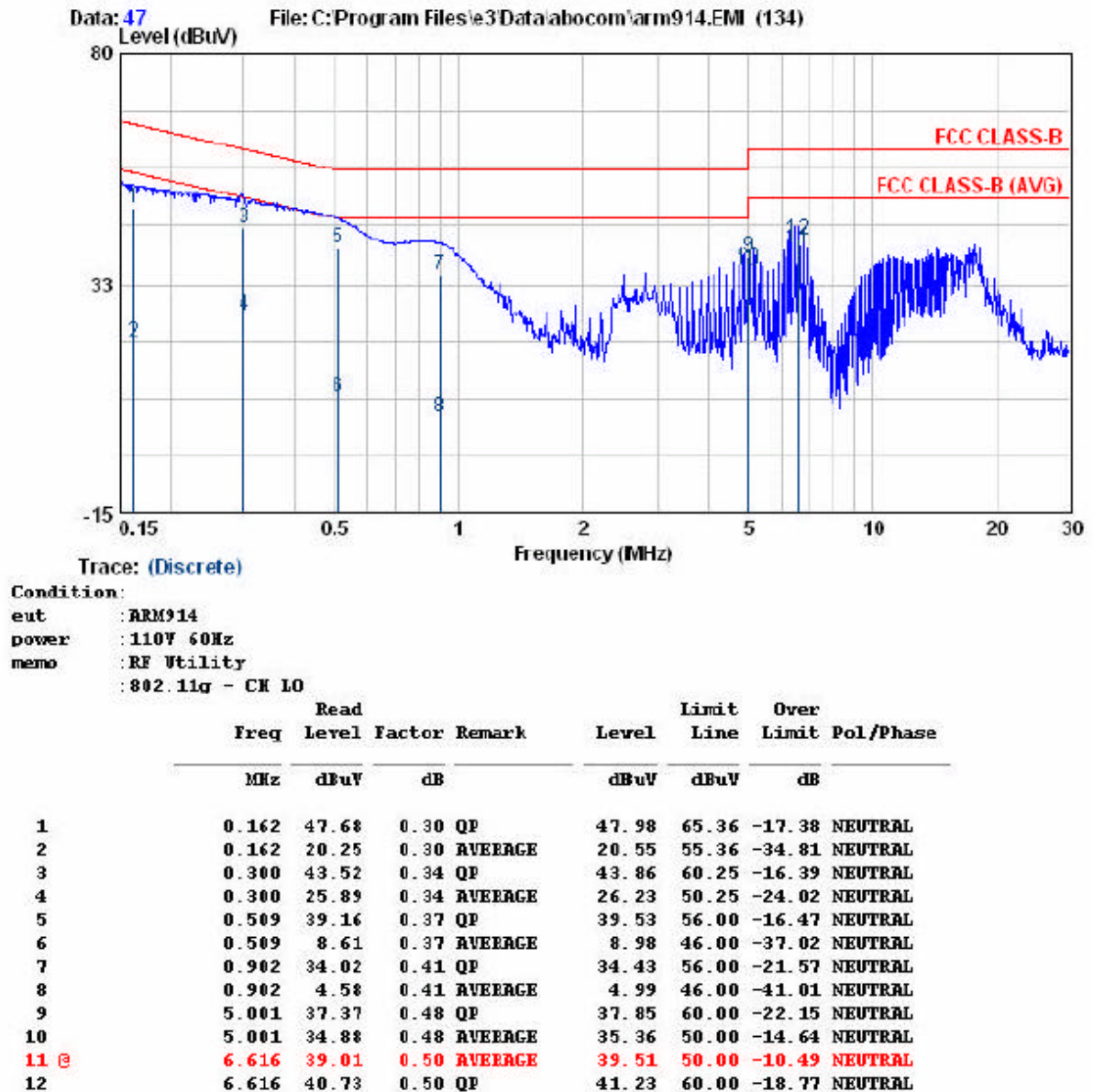
Data: 55 File: C:\Program Files\3Data\labocom\arm914.EMI (134)

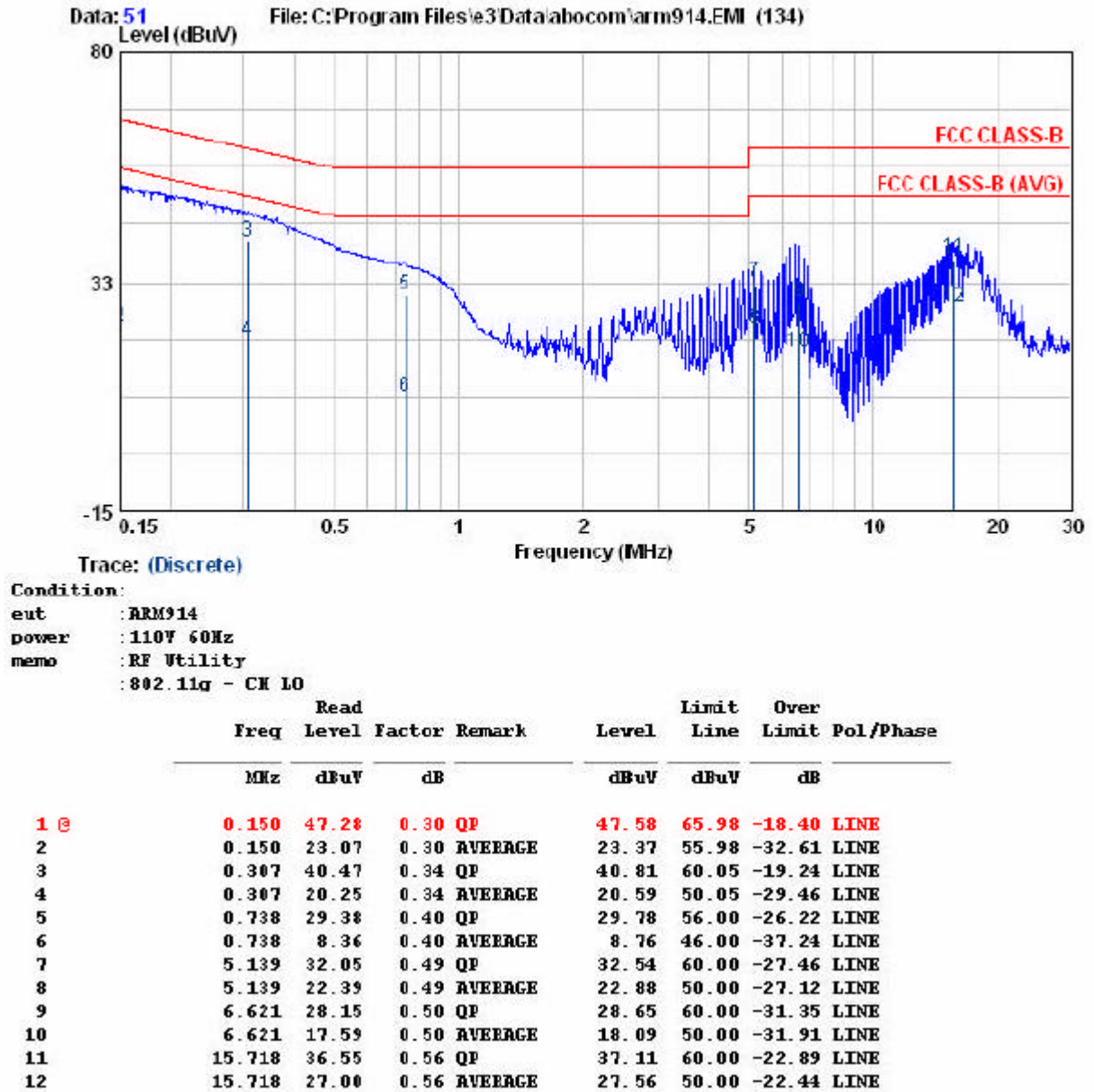


		Read			Limit	Over	
	Freq	Level	Factor	Remark	Level	Line	Limit Pol/Phase
	MHz	dBuV	dB		dBuV	dBuV	dB
1	0.151	46.99	0.30	QP	47.29	65.96	-18.67 LINE
2	0.151	23.82	0.30	AVERAGE	24.12	55.96	-31.84 LINE
3	0.271	41.65	0.34	QP	41.99	61.08	-19.09 LINE
4	0.271	12.33	0.34	AVERAGE	12.67	51.08	-38.41 LINE
5	0.728	29.31	0.39	QP	29.70	56.00	-26.30 LINE
6	0.728	2.05	0.39	AVERAGE	2.44	46.00	-43.56 LINE
7	5.064	22.39	0.49	QP	22.88	60.00	-37.12 LINE
8	5.064	19.26	0.49	AVERAGE	19.75	50.00	-30.25 LINE
9	6.321	38.16	0.50	QP	38.66	60.00	-21.34 LINE
10 @	6.321	35.27	0.50	AVERAGE	35.77	50.00	-14.23 LINE
11	15.872	37.08	0.56	QP	37.64	60.00	-22.36 LINE
12	15.872	32.07	0.56	AVERAGE	32.63	50.00	-17.37 LINE

4.2.6. Test Mode 6: 802.11g (CH LO)

- Relative Humidity: 58 %
- Temperature: 27°C
- Test Date: Mar. 11, 2004





4.2.7. Photographs of Conducted Emission Test

FRONT VIEW



REAR VIEW



4.3. Test Result of Radiated Emission

4.3.1. RF Portion

Modulation Standard: IEEE 802.11b

Operation Mode: Receiving/ Transmitting

Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
4842	51.7	38.7	50.8	39.6	-6.4	45.3	33.2	74	54	-20.8	200	1
7236	55.8	43.3	56.7	42.8	-10.5	46.2	32.8	74	54	-21.2	200	1
12060	---	---	---	---	---	---	---	74	54	---	---	---
14472	---	---	---	---	---	---	---	74	54	---	---	---
19296	---	---	---	---	---	---	---	74	54	---	---	---

b) Channel 6

Fundamental Frequency: 2437 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
4874	53.8	40.7	52.3	40.2	-6.4	47.4	34.3	74	54	-19.7	200	1
7311	54.3	43.2	55.7	42.3	-10.5	45.2	32.7	74	54	-21.3	200	1
12185	---	---	---	---	---	---	---	74	54	---	---	---
19496	---	---	---	---	---	---	---	74	54	---	---	---

c) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
4924	52.8	41.6	54.2	40.9	-6.4	47.8	35.2	74	54	-18.8	200	1
7386	57.8	47.5	58.9	48.2	-10.5	48.4	37.7	74	54	-16.3	200	1
19696	---	---	---	---	---	---	---	74	54	---	---	---
22158	---	---	---	---	---	---	---	74	54	---	---	---

Note:

1. Item of margin shown in above table refer to average limit.
2. Remark"----" means that the emissions level is too low to be measured.
3. Item "Margin" referred to Average limit while there is only peak result.

Modulation Standard: IEEE 802.11g

Operation Mode: Receiving/ Transmitting

Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
4842	47.3	35.8	48.1	34.5	-6.4	41.7	29.4	74	54	-24.6	200	1
7236	57.7	43.2	51.3	45.8	-10.5	47.2	35.3	74	54	-18.7	200	1
12060	---	---	---	---	---	---	---	74	54	---	---	---
14472	---	---	---	---	---	---	---	74	54	---	---	---
19296	---	---	---	---	---	---	---	74	54	---	---	---

b) Channel 6

Fundamental Frequency: 2437 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
4874	50.9	38.2	51.2	39	-6.4	44.8	32.6	74	54	-21.4	200	1
7311	57.7	44.7	56.9	43.9	-10.5	47.2	34.2	74	54	-19.8	200	1
12185	---	---	---	---	---	---	---	74	54	---	---	---
19496	---	---	---	---	---	---	---	74	54	---	---	---

c) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
4924	49.5	36.1	50.2	35.2	-6.4	43.8	29.7	74	54	-24.3	200	1
7386	55.2	40.9	56.3	41.6	-10.5	45.8	31.1	74	54	-22.9	200	1
19696	---	---	---	---	---	---	---	74	54	---	---	---
22158	---	---	---	---	---	---	---	74	54	---	---	---

Note:

1. Item of margin shown in above table refer to average limit.
2. Remark"----" means that the emissions level is too low to be measured.
3. Item "Margin" referred to Average limit while there is only peak result.

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz

Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Table Deg.	Ant High (m)
125.00	V	64.06	-26.87	37.19	43.5	-6.31	240	1
145.68	H	64.99	-26.62	38.37	43.5	-5.13	170	2
151.70	V	66.63	-26.57	40.06	43.5	-3.44	240	1
160.03	V	64.09	-26.48	37.61	43.5	-5.89	240	1
200.10	H	65.97	-26.07	39.90	43.5	-3.60	170	2
250.01	H	65.04	-25.59	39.45	46.0	-6.55	240	2
375.20	H	62.99	-25.41	37.58	46.0	-8.42	240	2
502.00	H	62.94	-25.42	37.53	46.0	-8.47	240	2
699.00	V	65.52	-24.93	40.59	46.0	-5.41	240	1
699.20	H	67.48	-24.98	42.50	46.0	-3.50	180	2
960.00	H	64.18	-23.08	41.09	46.0	-4.91	240	2

b) Emission frequencies above 1 GHz

Radiated emission frequencies above 1 GHz to 25 GHz were too low to be measured.

Modulation Standard: IEEE 802.11g

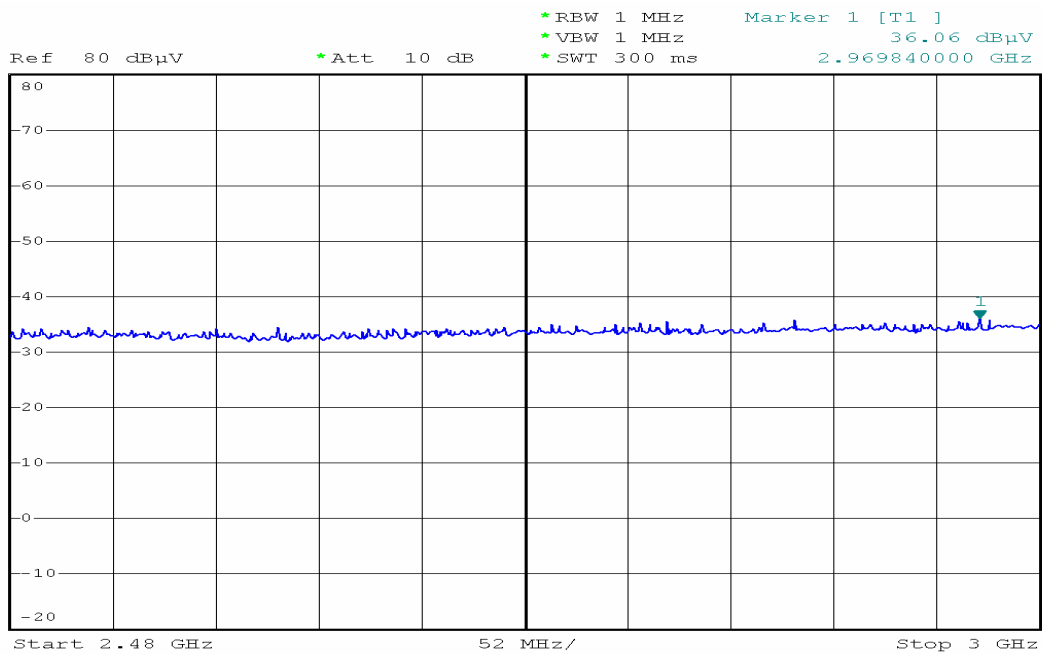
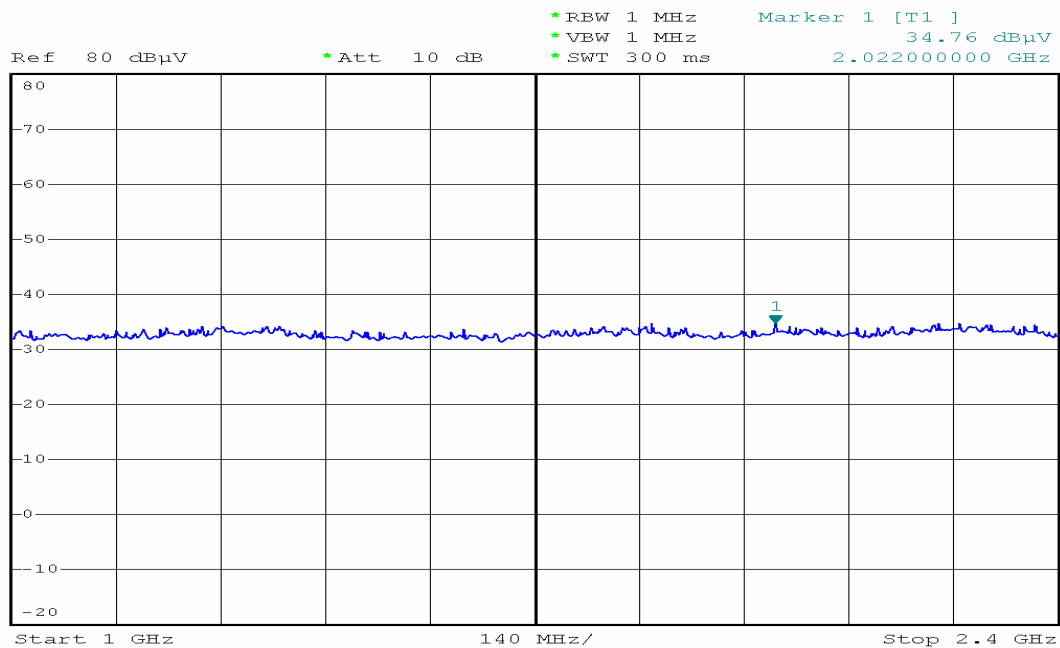
a) Emission frequencies below 1 GHz

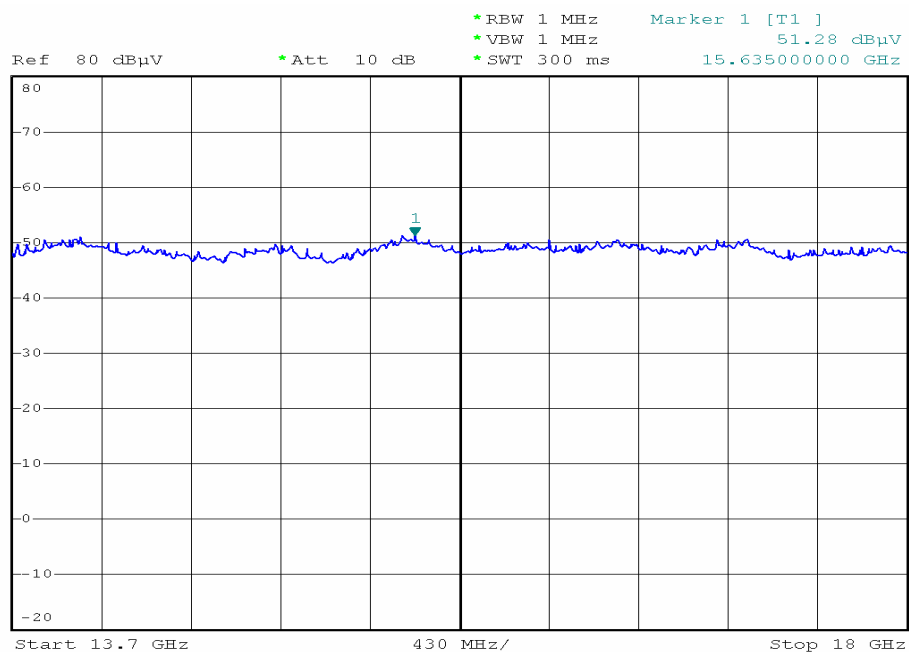
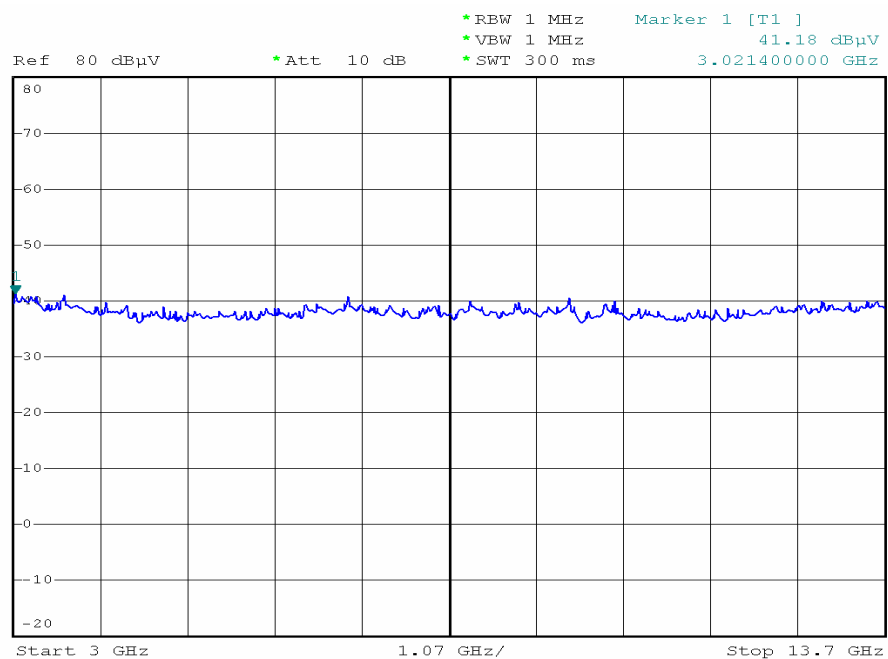
Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

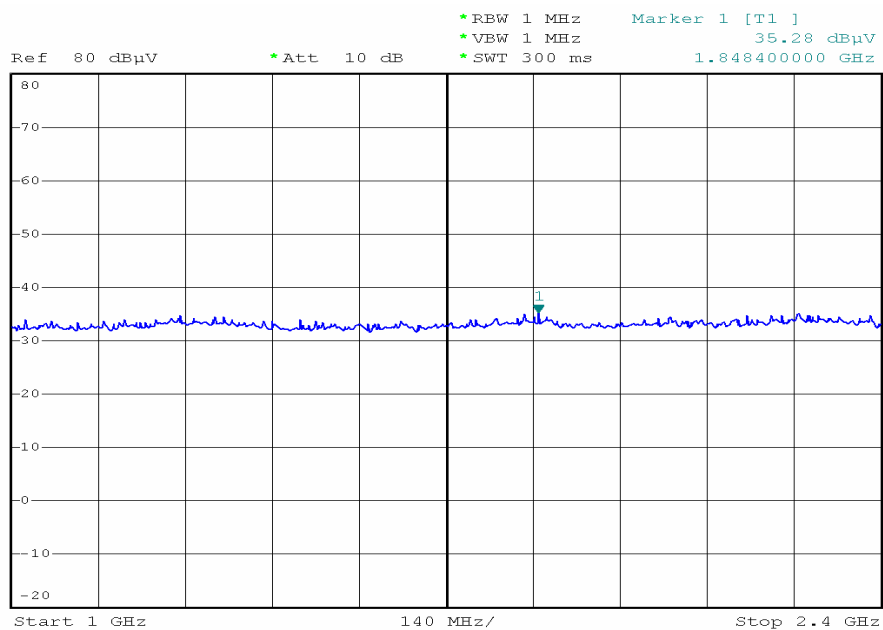
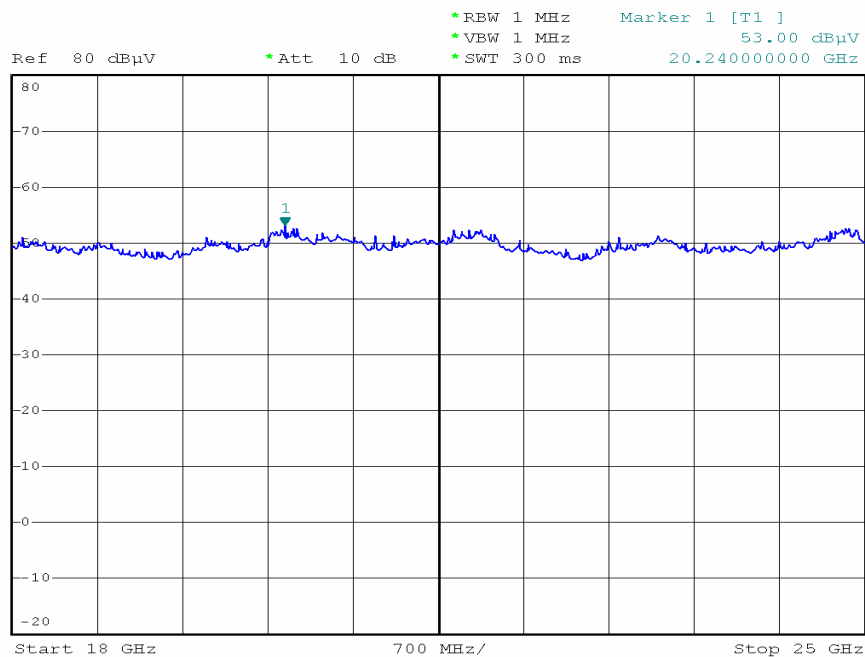
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Table Deg.	Ant High (m)
36.21	V	45.38	-13.75	31.63	40.0	-8.37	180	1
81.80	V	60.04	-27.24	32.80	40.0	-7.20	180	1
160.00	V	58.70	-26.48	32.22	43.5	-11.28	180	1
187.20	V	60.08	-26.25	33.83	43.5	-9.67	180	1
250.00	H	61.14	-25.59	35.55	46.0	-10.45	240	2
285.20	V	65.01	-25.36	39.65	46.0	-6.35	180	1
375.00	H	63.21	-25.41	37.80	46.0	-8.20	240	2
502.00	H	63.52	-25.42	38.10	46.0	-7.90	240	2
750.00	H	64.97	-24.62	40.35	46.0	-5.65	240	2
285.00	H	67.96	-28.36	39.60	46.0	-6.40	240	2
960.00	H	64.17	-23.08	41.09	46.0	-4.91	240	2

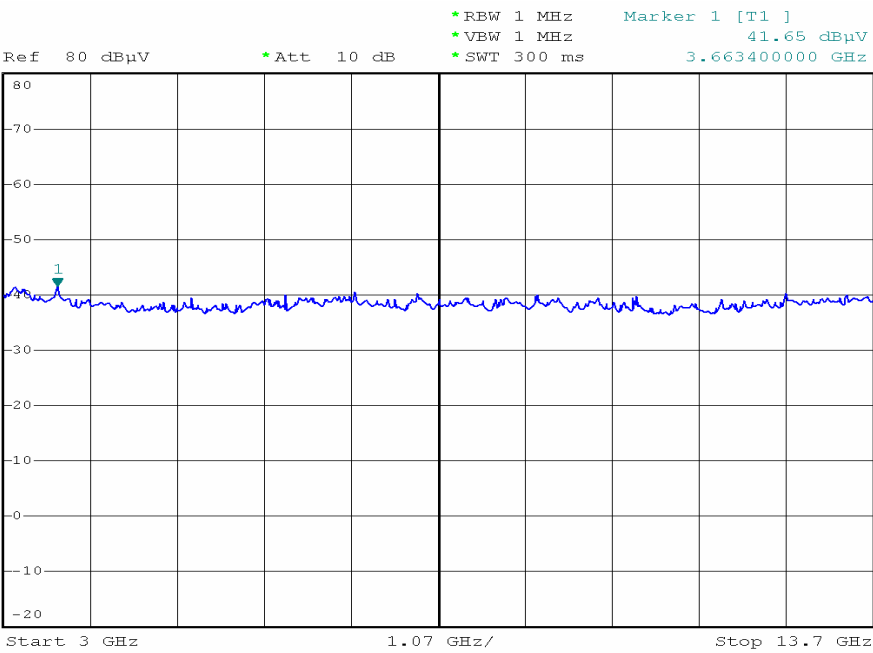
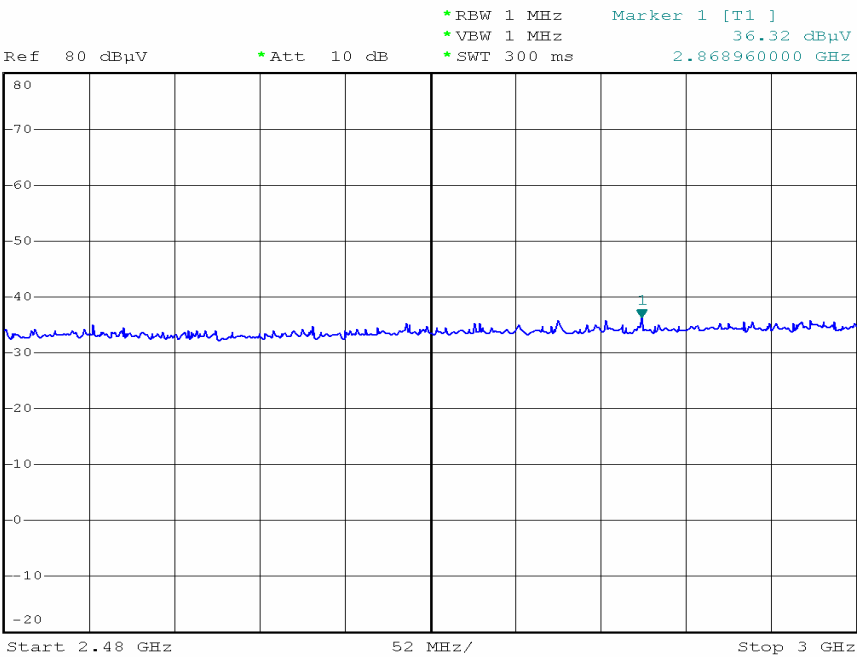
b) Emission frequencies above 1 GHz

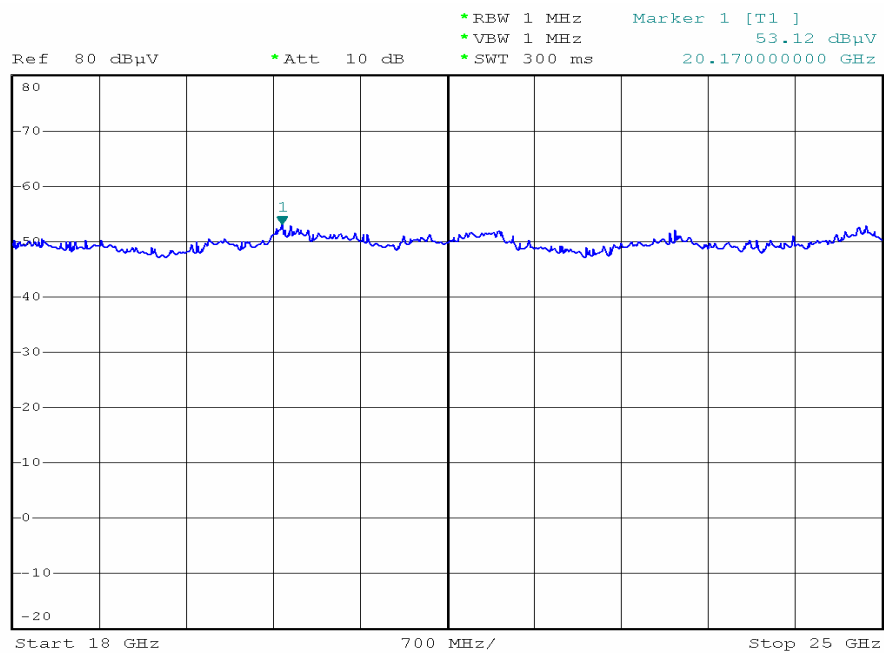
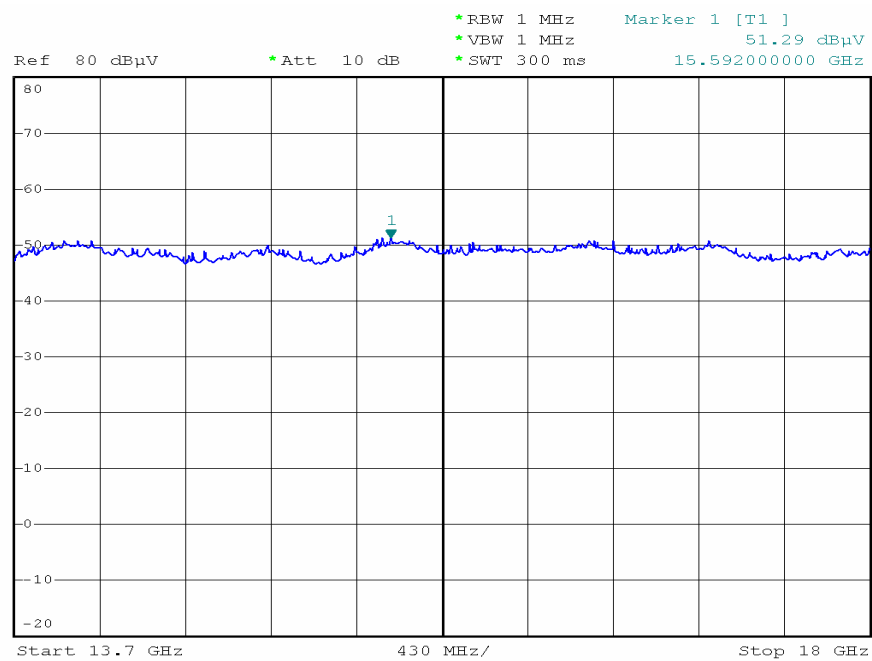
Radiated emission frequencies above 1 GHz to 25 GHz were too low to be measured.

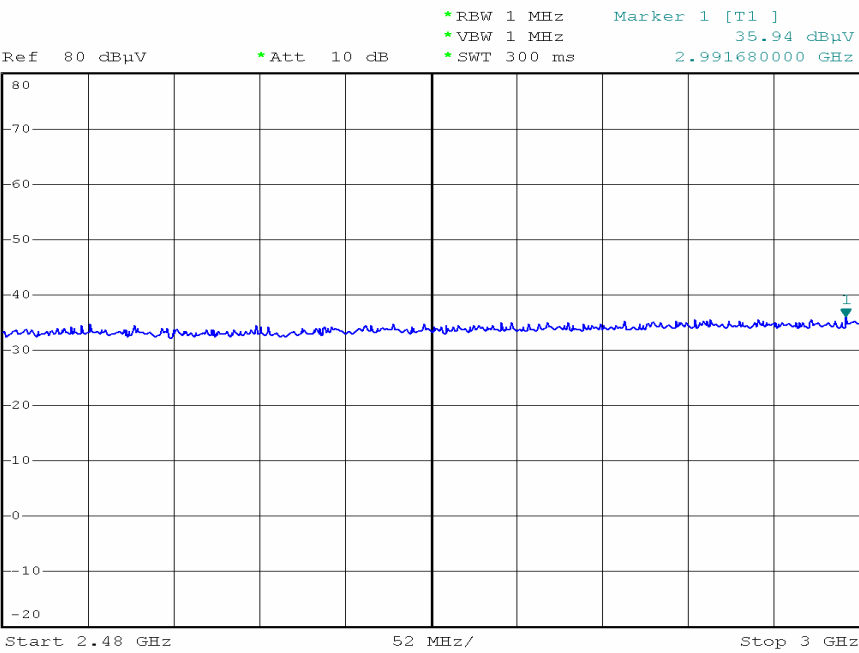
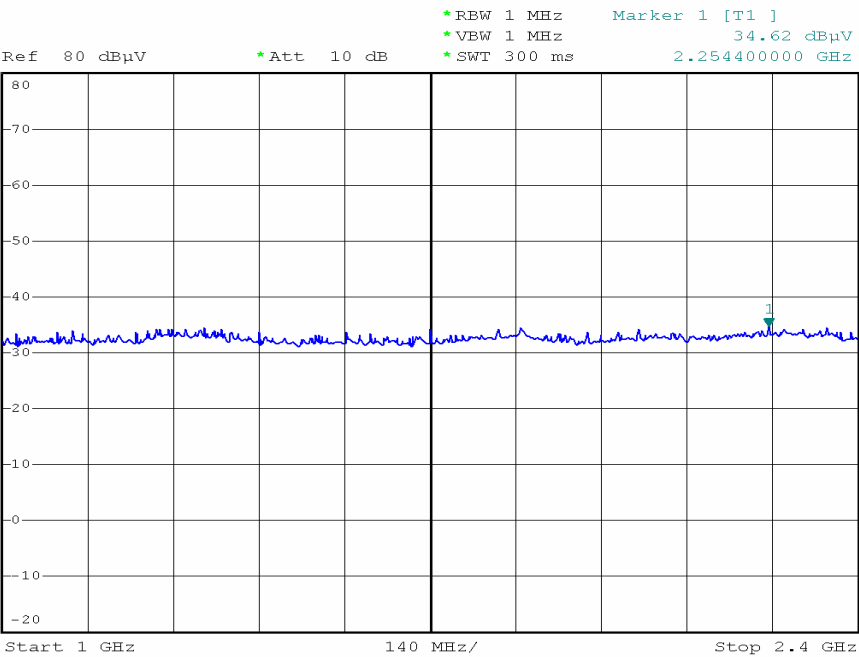


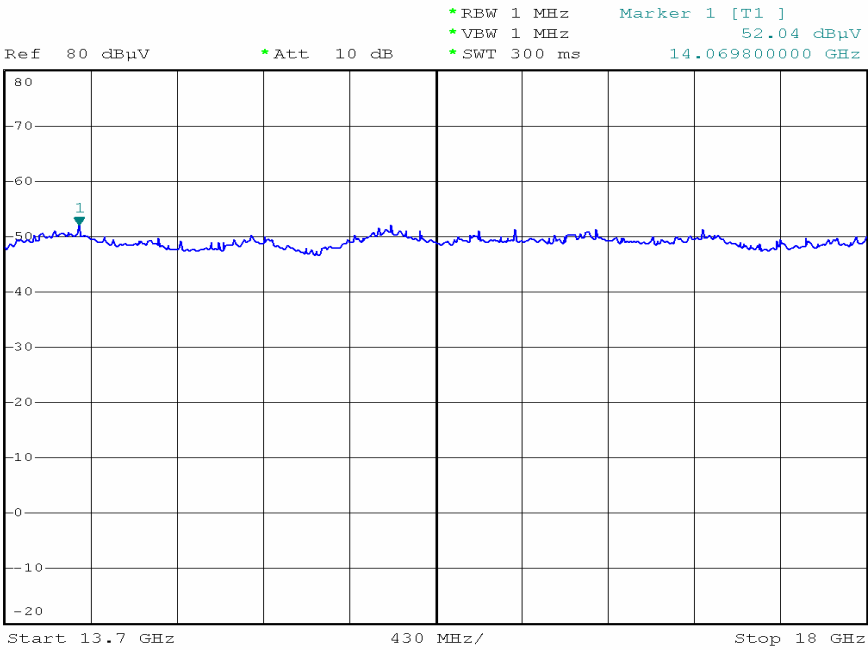
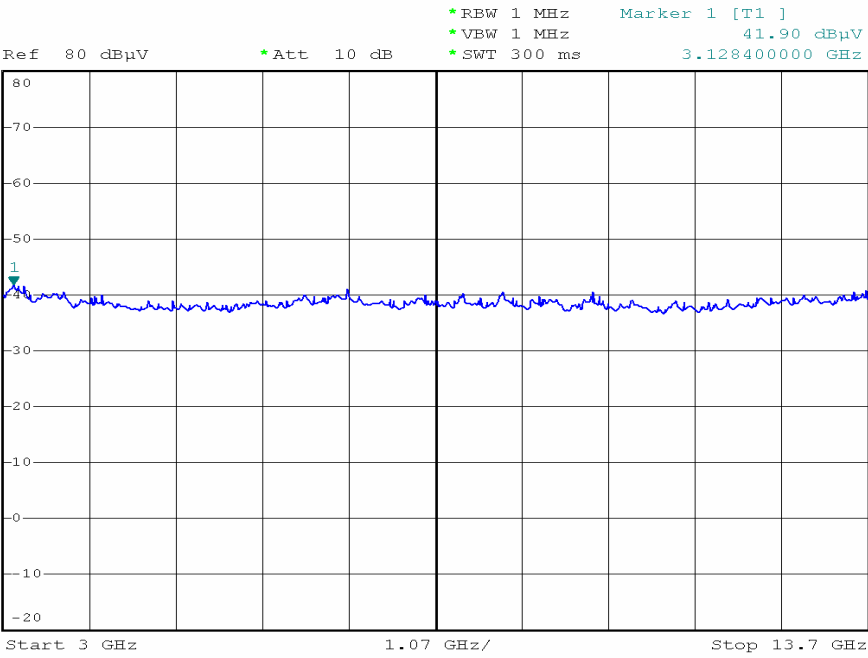


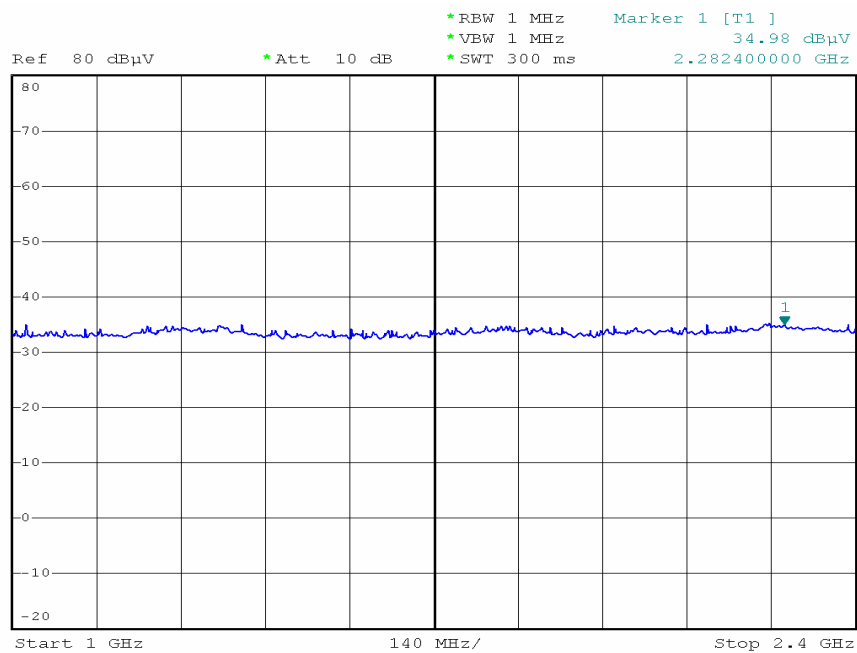
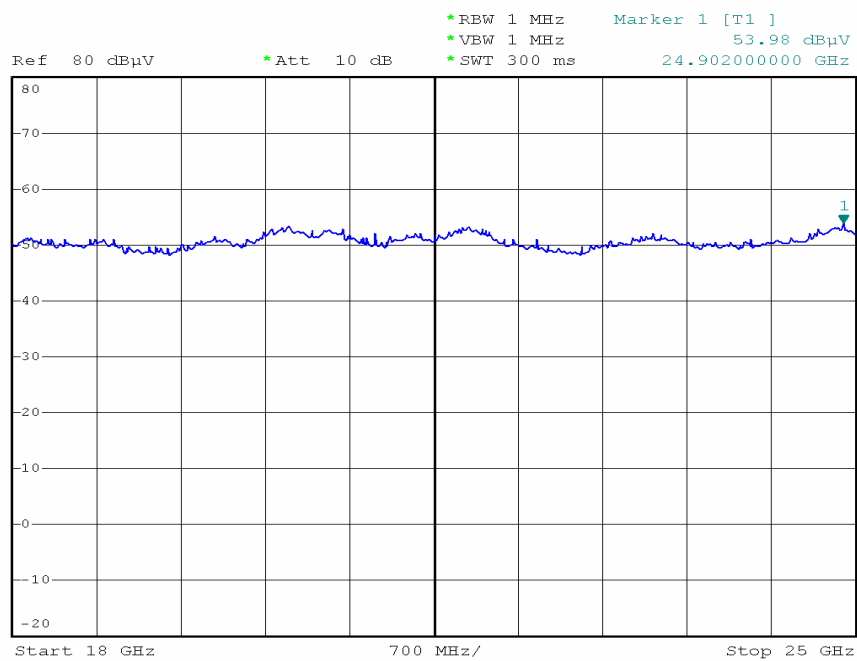


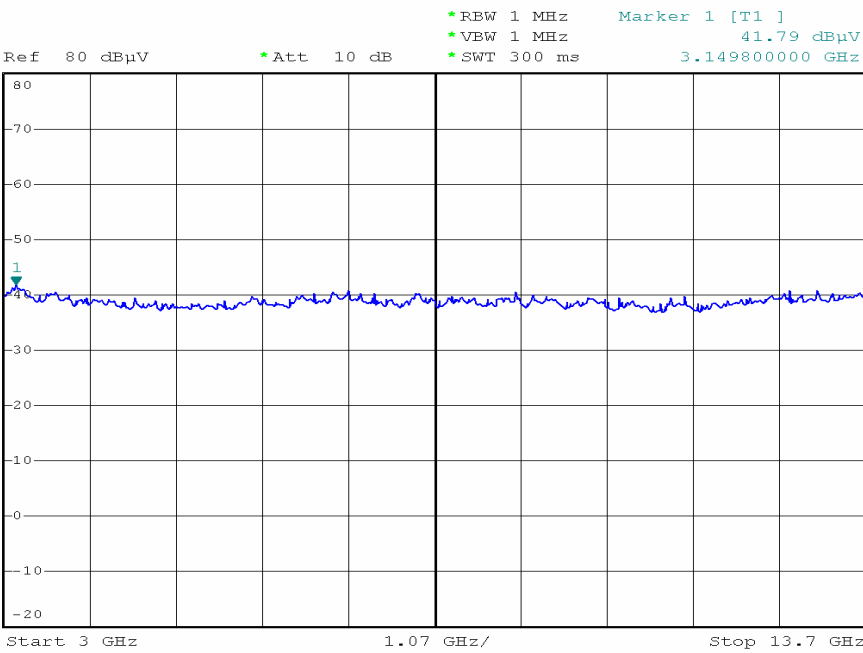
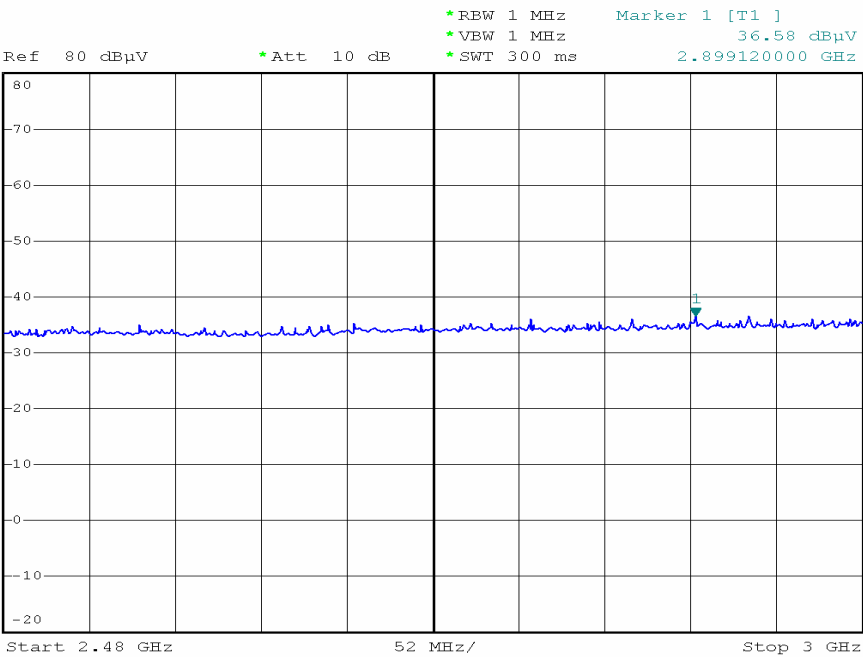


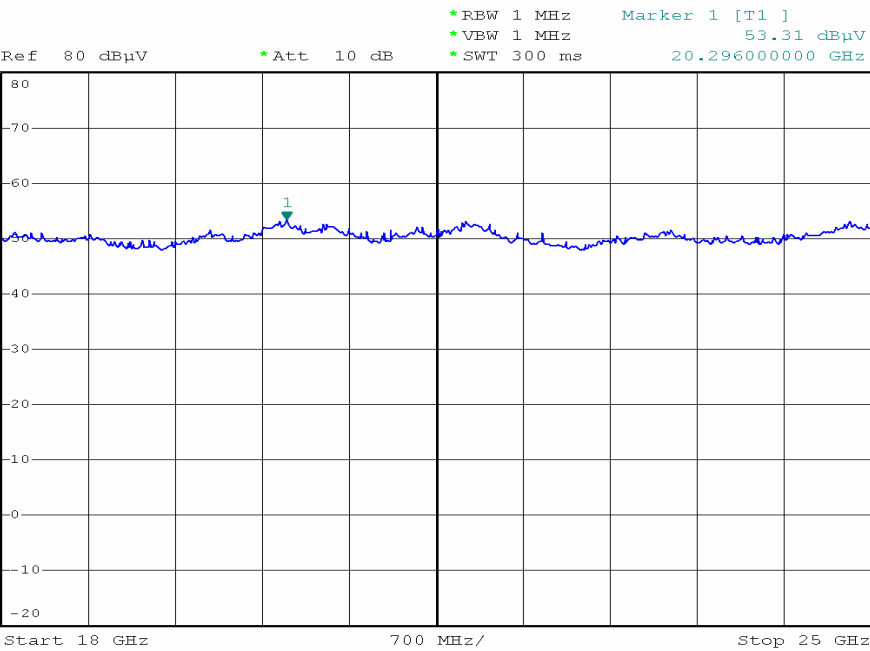
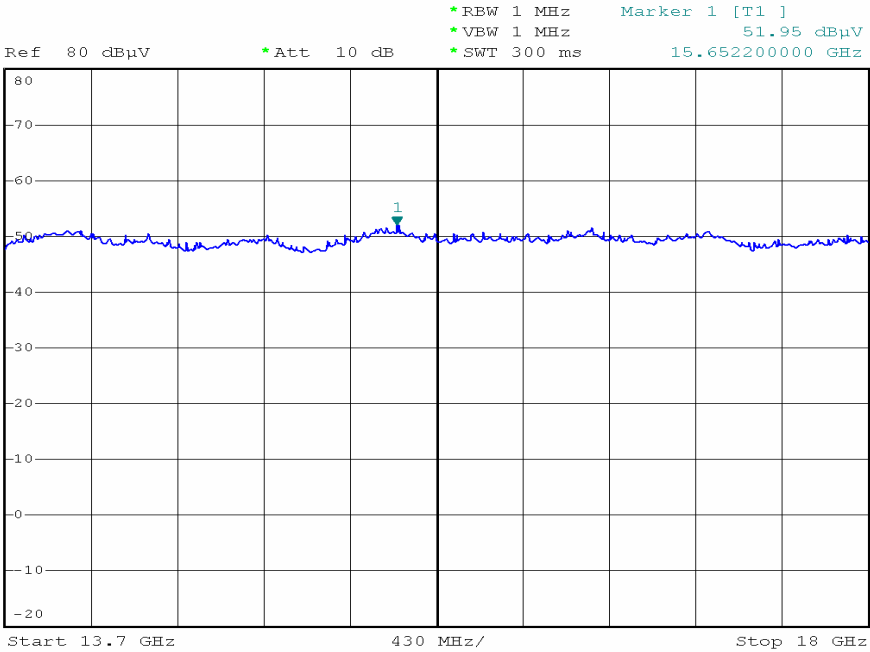












Photographs of Radiated Emission Test

FRONT VIEW



EAR VIEW



4.4. 6dB Bandwidth Measurement Data

(1) Modulation Standard: IEEE 802.11b

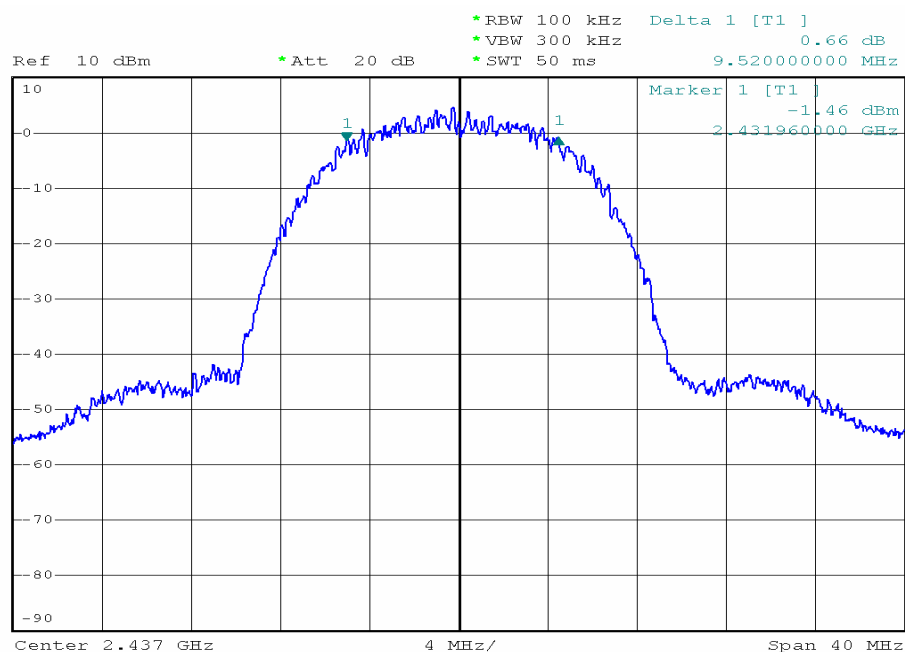
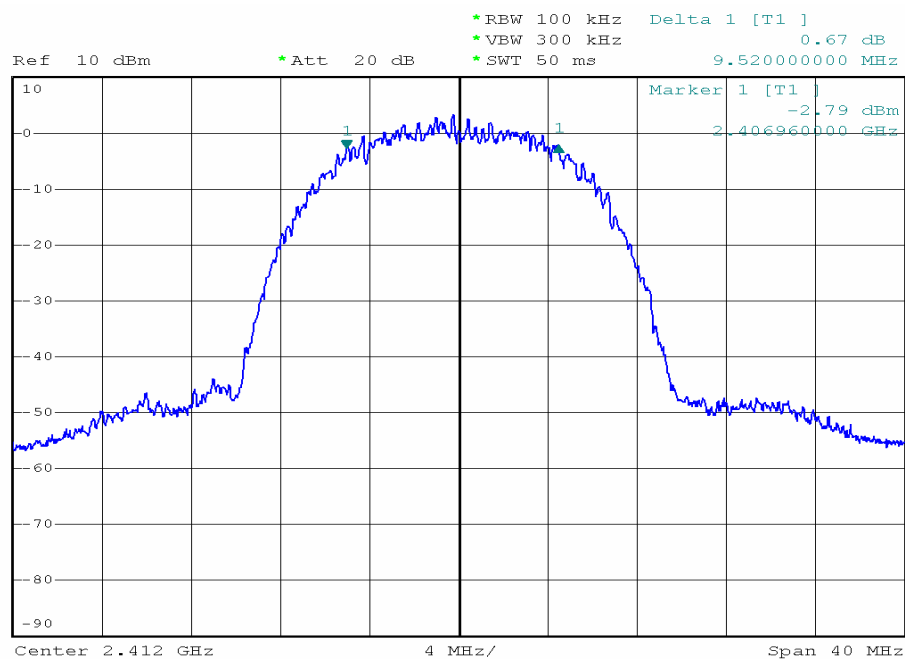
Test Date: Apr. 01. 2004 Temperature: 25 Humidity: 63%

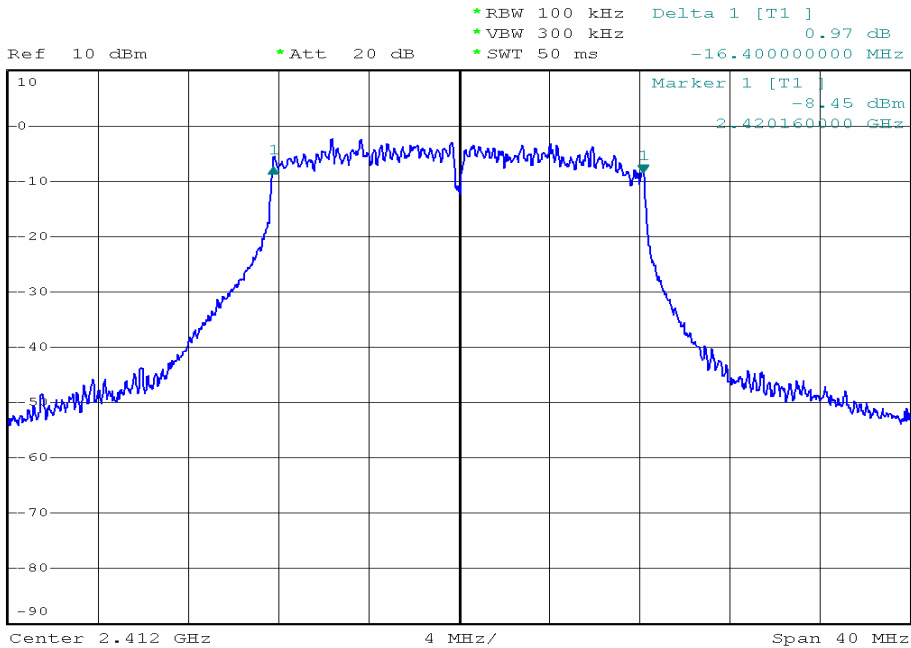
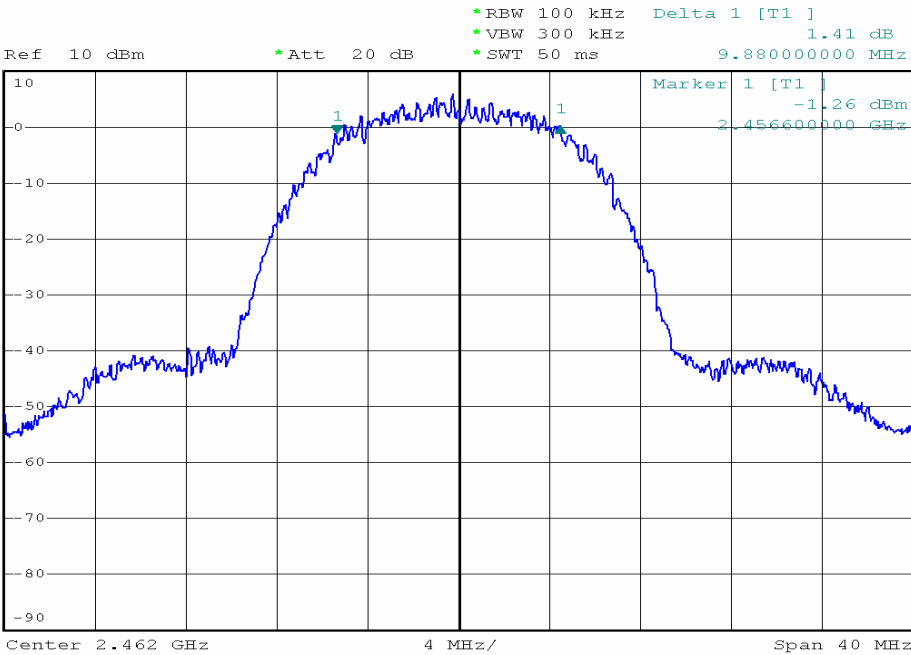
- a) Channel 01: 6dB Emission Bandwidth is 9.52 MHz
- b) Channel 06: 6dB Emission Bandwidth is 9.52 MHz
- c) Channel 11: 6dB Emission Bandwidth is 9.88 MHz

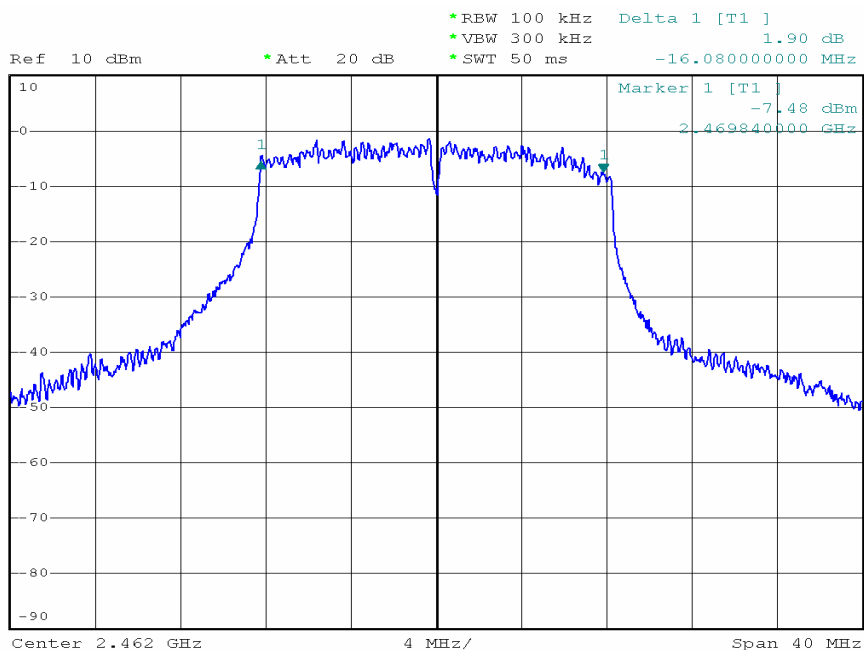
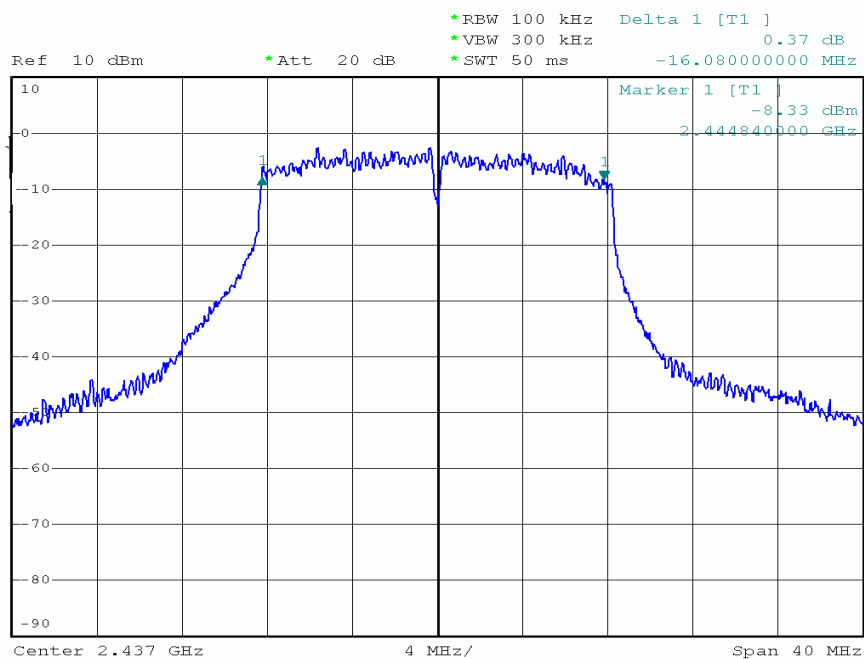
(2) Modulation Standard: IEEE 802.11g

Test Date: Apr. 01. 2004 Temperature: 25 Humidity: 63%

- a) Channel 01: 6dB Emission Bandwidth is 16.40 MHz
- b) Channel 06: 6dB Emission Bandwidth is 16.08 MHz
- c) Channel 11: 6dB Emission Bandwidth is 16.08 MHz







4.5. Peak Output Power Measurement Data

(1) Modulation Standard: IEEE 802.11b

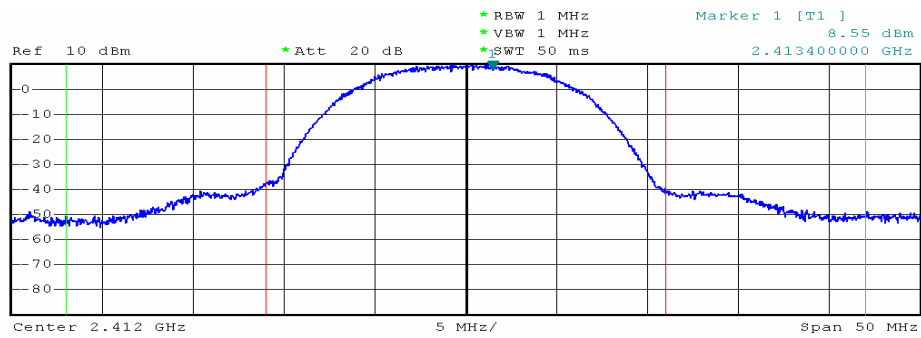
Test Date: Apr. 01. 2004 Temperature: 25 Humidity: 63%

- a) Channel 01: Output Peak Power is 14.47dBm or 28.0mW
- b) Channel 06: Output Peak Power is 15.71dBm or 37.2mW
- c) Channel 11: Output Peak Power is 16.86dBm or 48.5mW

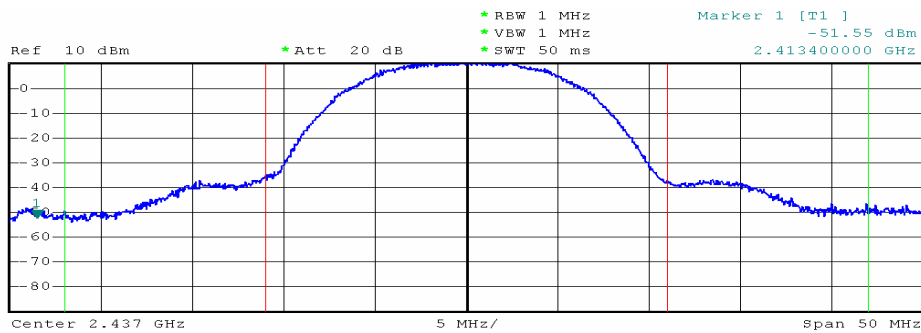
(2) Modulation Standard: IEEE 802.11g

Test Date: Apr. 01. 2004 Temperature: 25 Humidity: 63%

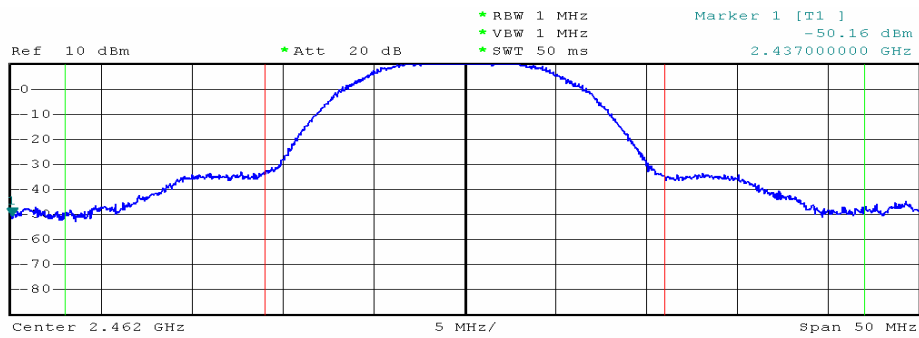
- a) Channel 01: Output Peak Power is 11.55dBm or 14.3mW
- b) Channel 06: Output Peak Power is 12.83dBm or 19.2mW
- c) Channel 11: Output Peak Power is 13.97dBm or 25.0mW



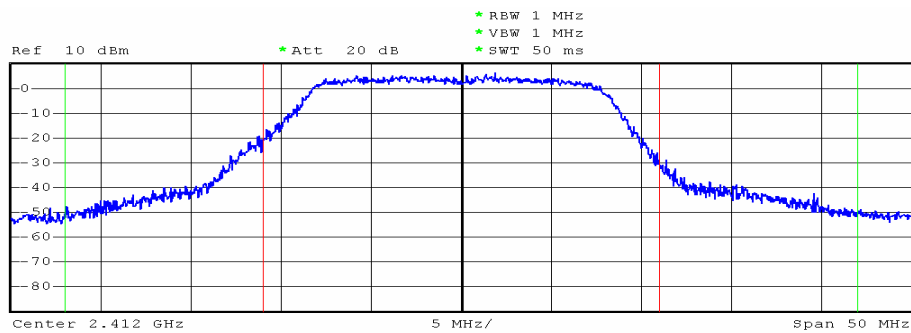
Tx Channel	
Bandwidth	22 MHz
Power	14.47 dBm
Adjacent Channel	
Bandwidth	11 MHz
Spacing	16.5 MHz
Lower	-52.38 dB
Upper	-52.37 dB
Alternate Channel	
Bandwidth	11 MHz
Spacing	27.5 MHz
Lower	-----
Upper	-----



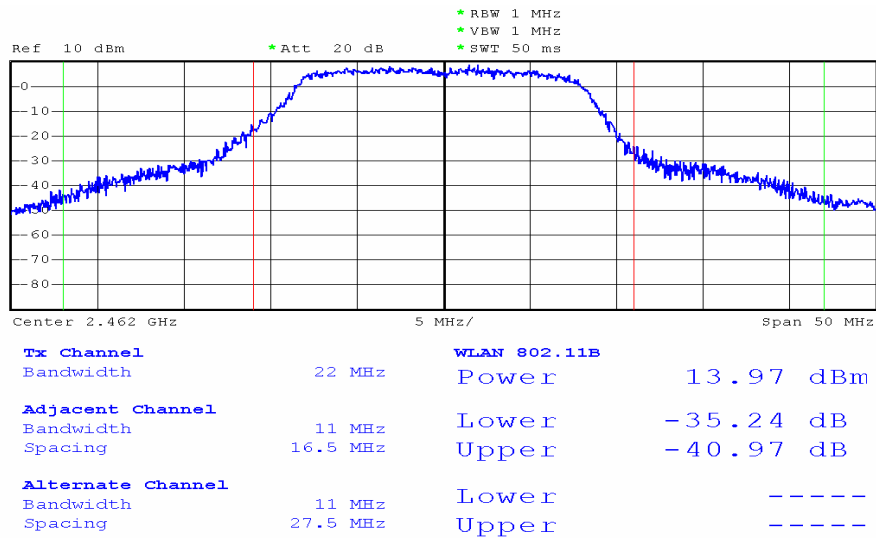
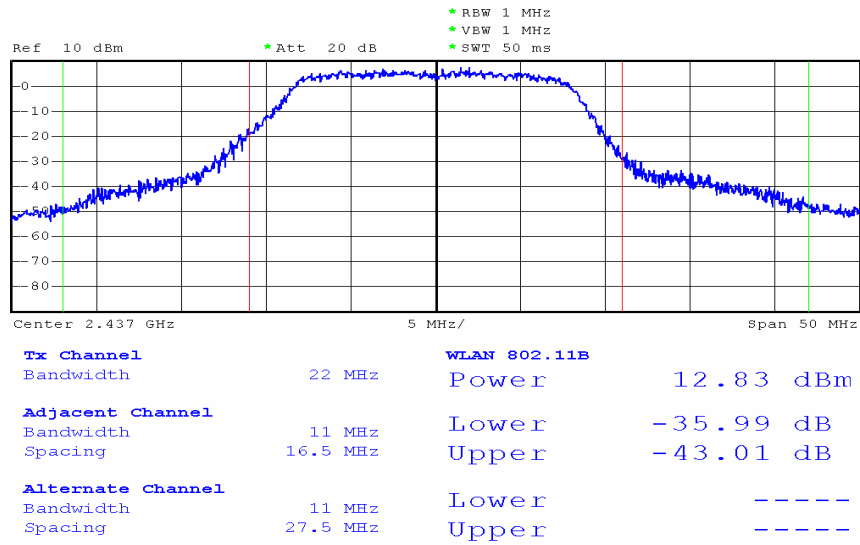
Tx Channel	
Bandwidth	22 MHz
Power	15.71 dBm
Adjacent Channel	
Bandwidth	11 MHz
Spacing	16.5 MHz
Lower	-50.72 dB
Upper	-50.11 dB
Alternate Channel	
Bandwidth	11 MHz
Spacing	27.5 MHz
Lower	-----
Upper	-----



Tx Channel	
Bandwidth	22 MHz
Power	16.86 dBm
Adjacent Channel	
Bandwidth	11 MHz
Lower	-47.92 dB
Spacing	16.5 MHz
Upper	-48.28 dB
Alternate Channel	
Bandwidth	11 MHz
Lower	-----
Spacing	27.5 MHz
Upper	-----



Tx Channel	
Bandwidth	22 MHz
Power	11.55 dBm
Adjacent Channel	
Bandwidth	11 MHz
Lower	-36.42 dB
Spacing	16.5 MHz
Upper	-45.05 dB
Alternate Channel	
Bandwidth	11 MHz
Lower	-----
Spacing	27.5 MHz
Upper	-----



4.6. Band Edges Measurement Data

(1) Modulation Standard: IEEE 802.11b

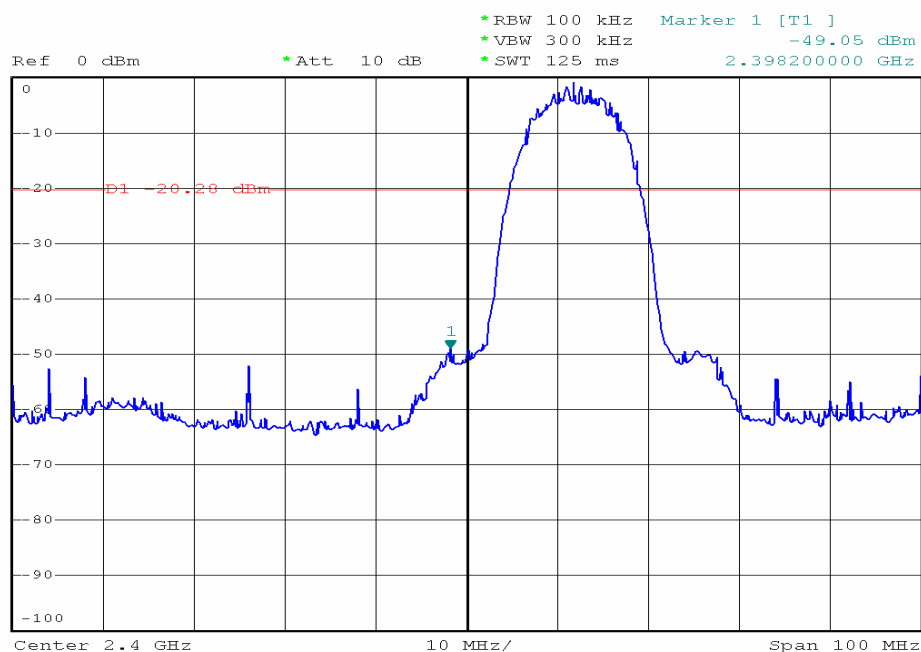
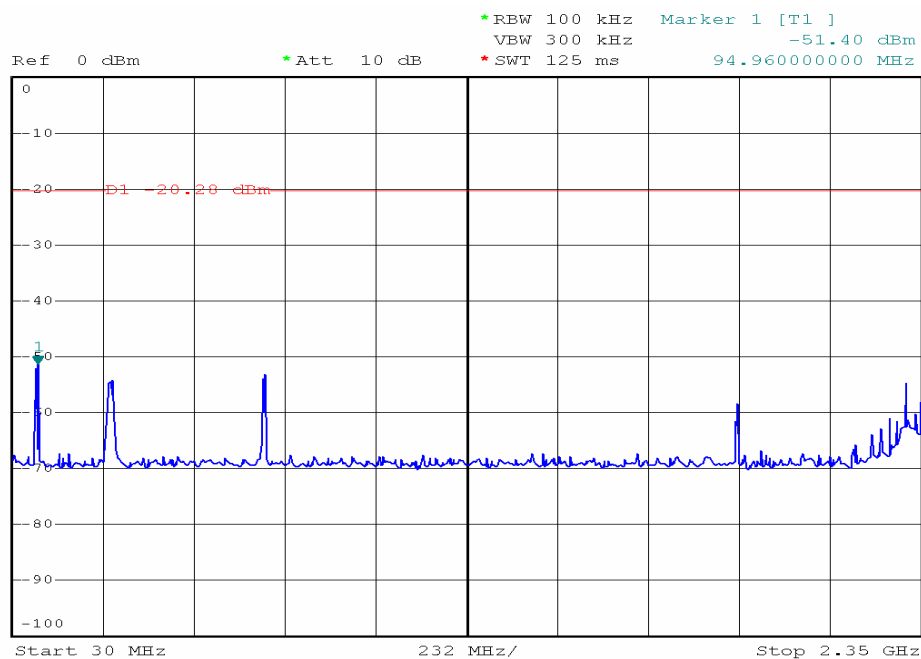
Test Date: Apr. 01. 2004 Temperature: 25 Humidity: 63%

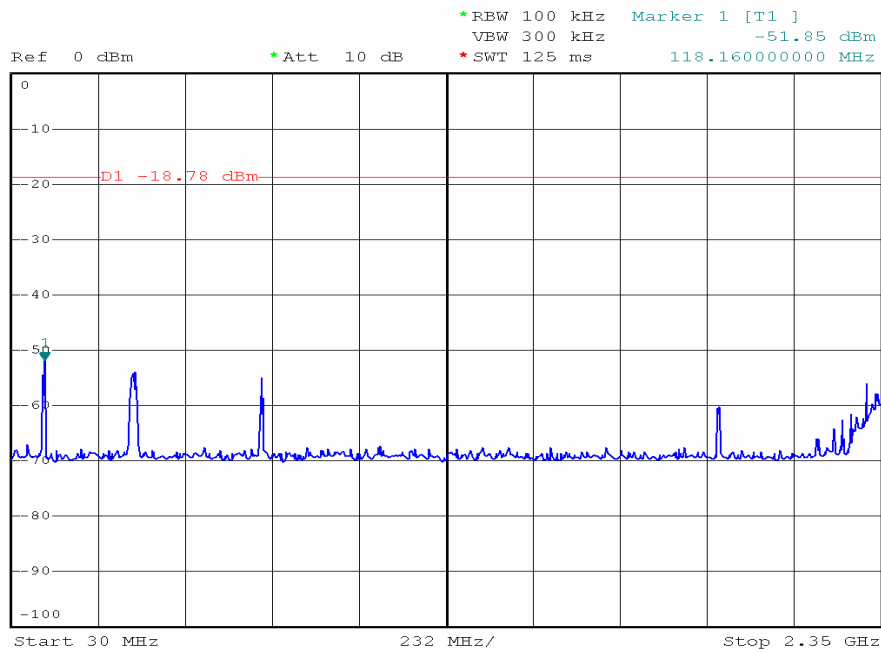
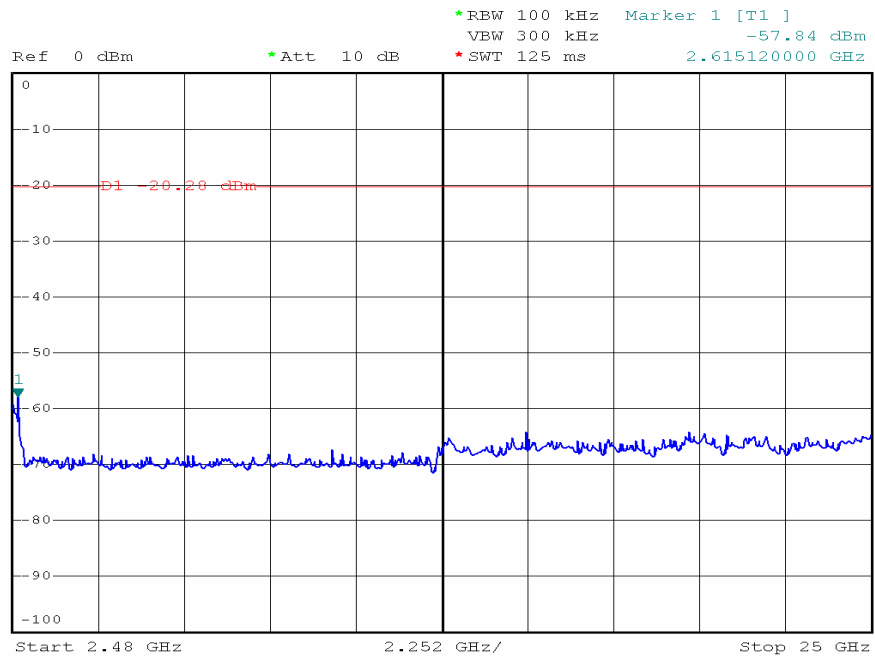
- a) Lower Band Edge: maximum value is -51.40dBm that is attenuated more than 20dB
- b) Upper Band Edge: maximum value is -48.23dBm that is attenuated more than 20dB

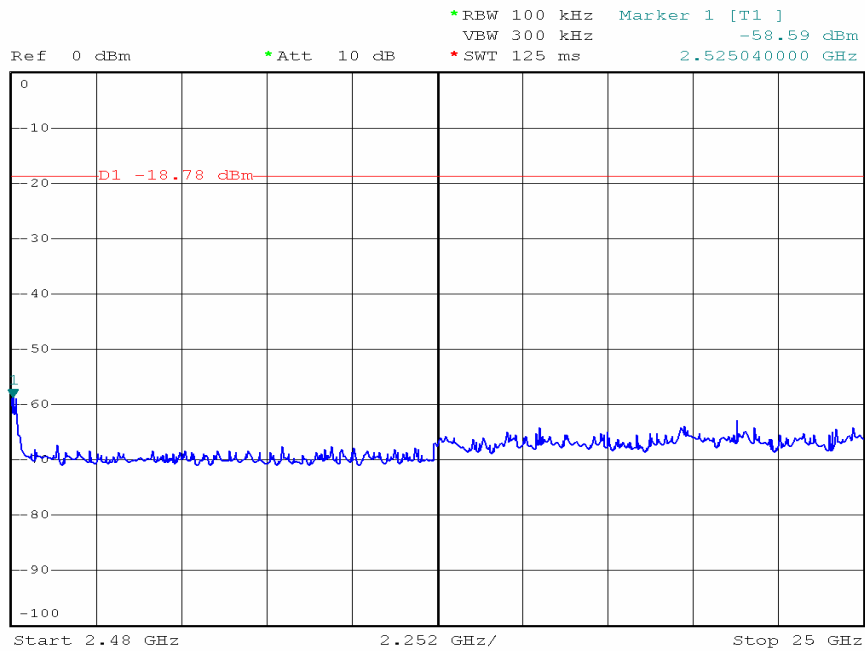
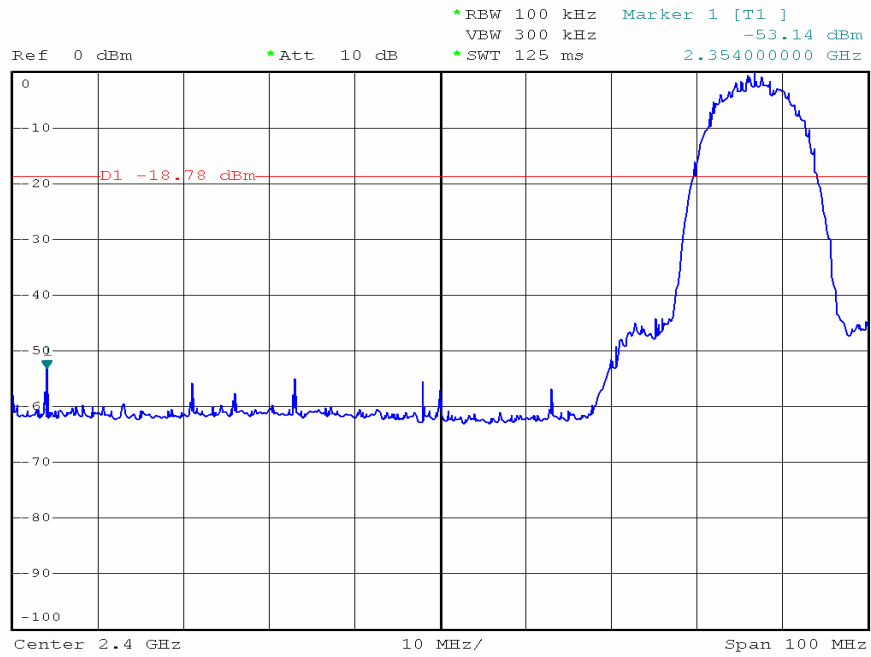
(2) Modulation Standard: IEEE 802.11g

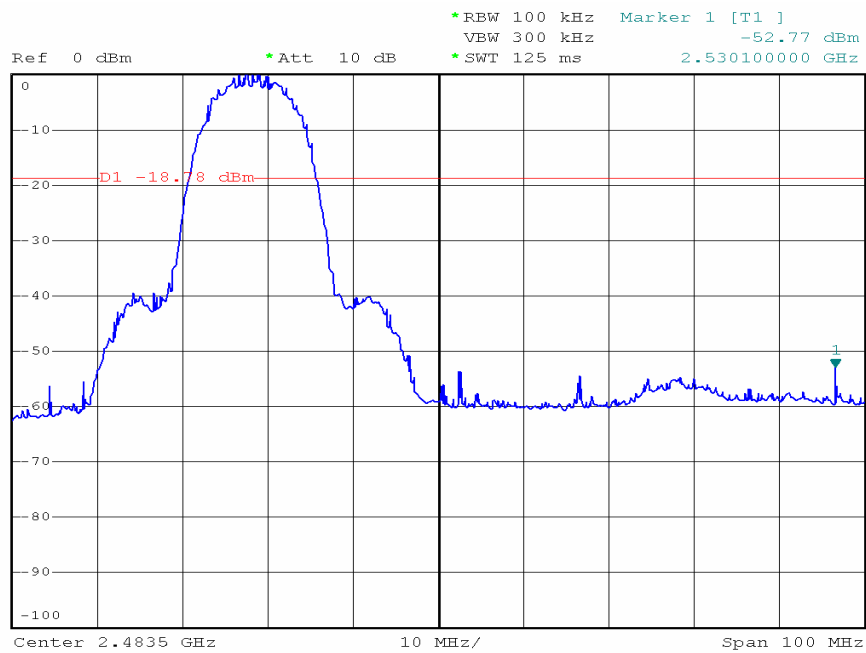
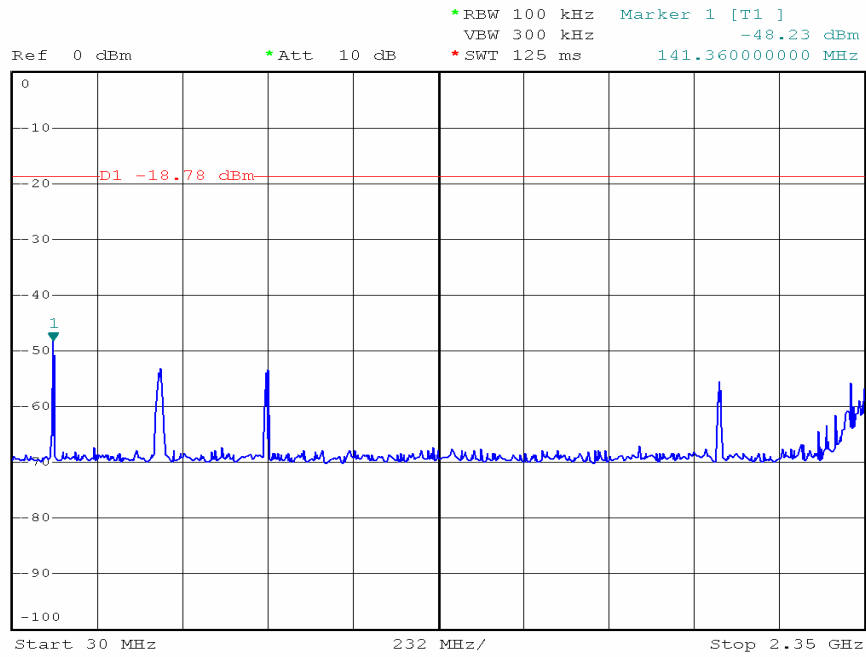
Test Date: Apr. 01. 2004 Temperature: 25 Humidity: 63%

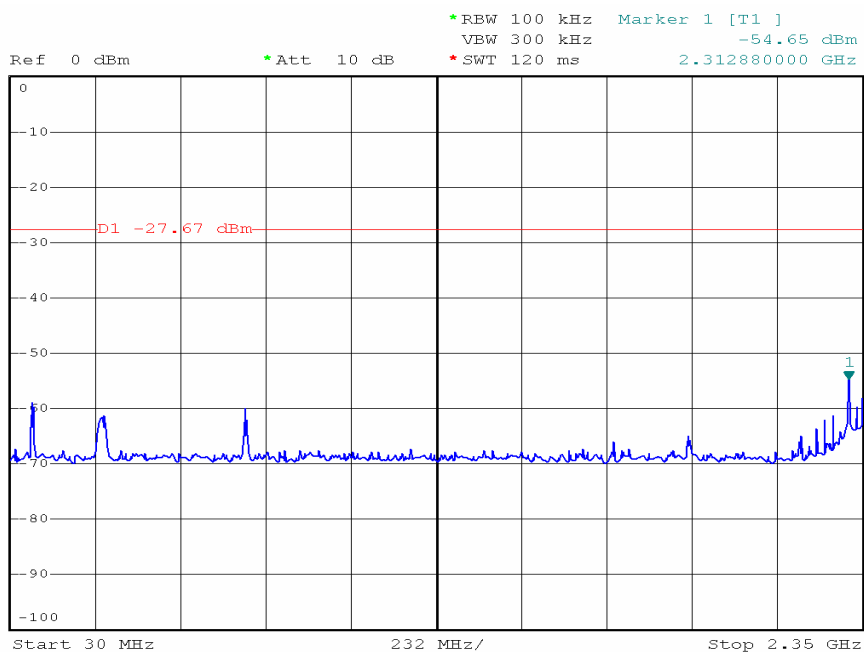
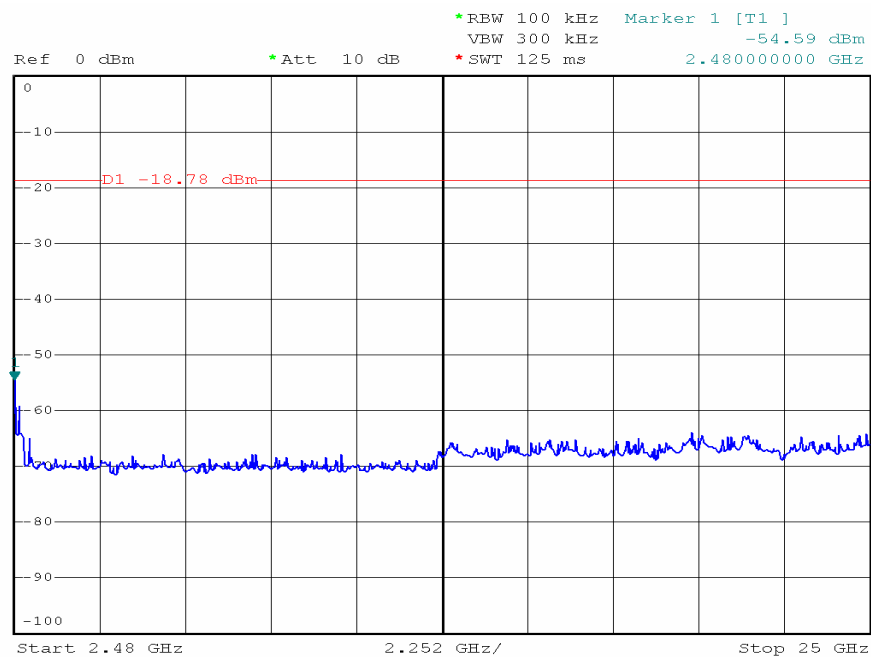
- a) Lower Band Edge: maximum value is -43.48dBm that is attenuated more than 20dB
- b) Upper Band Edge: maximum value is -52.52dBm that is attenuated more than 20dB

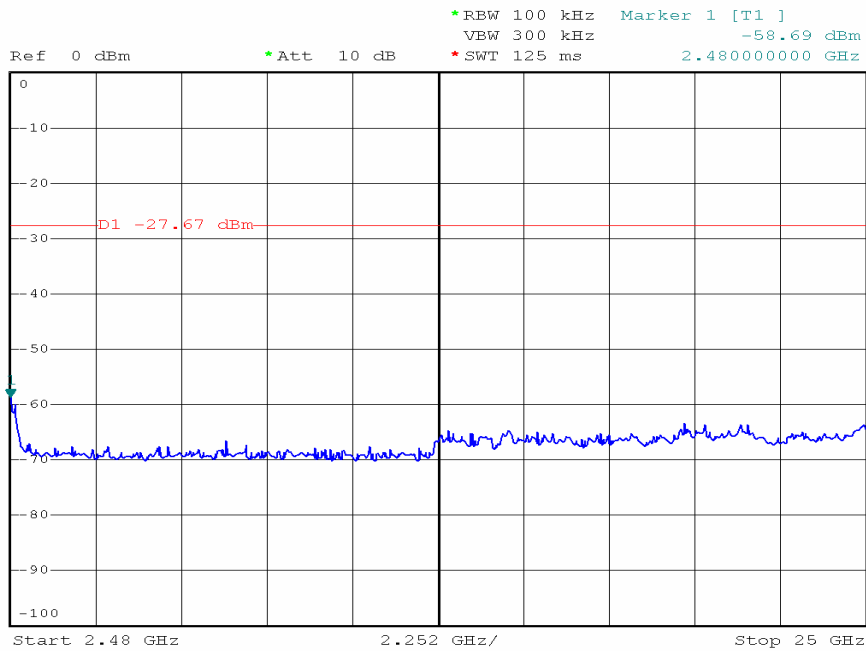
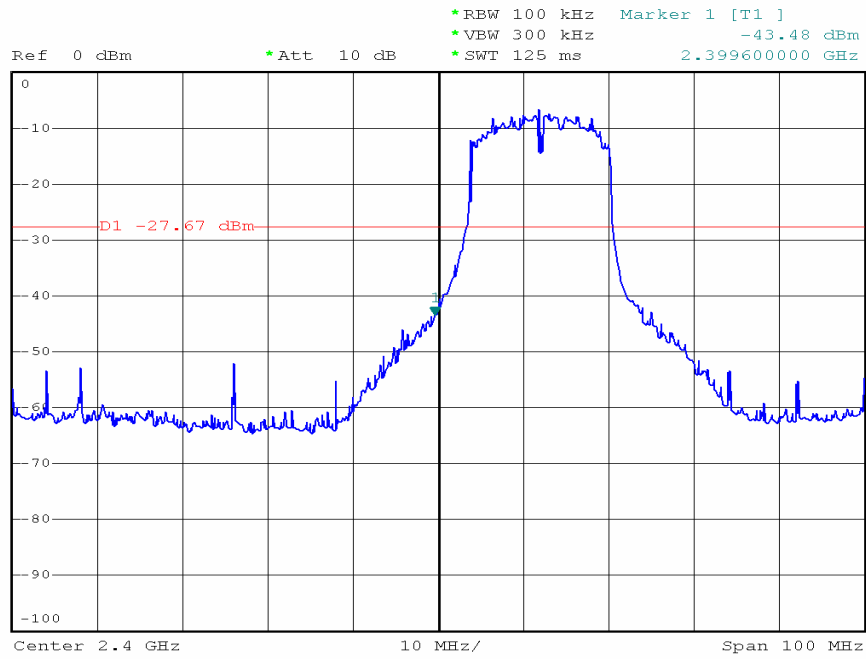


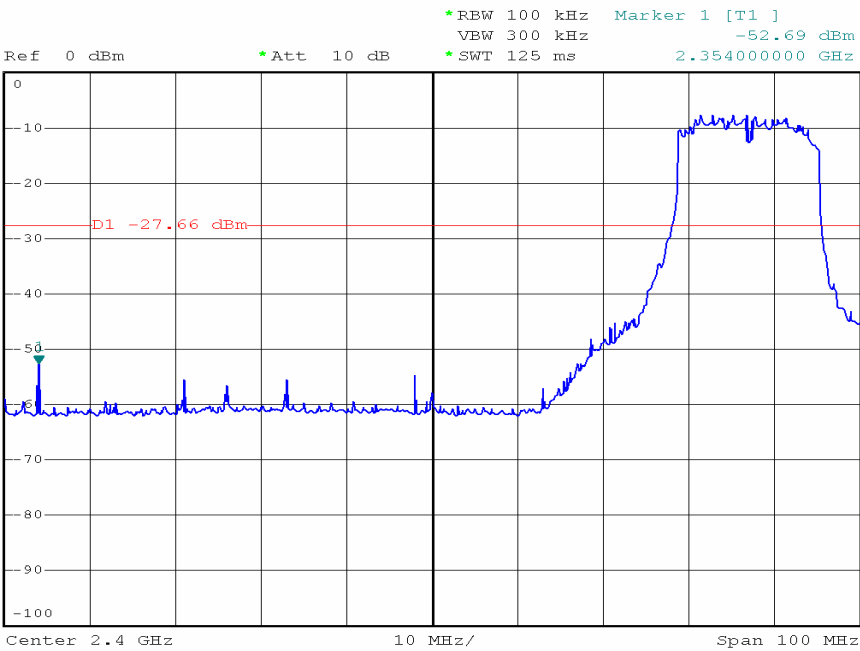
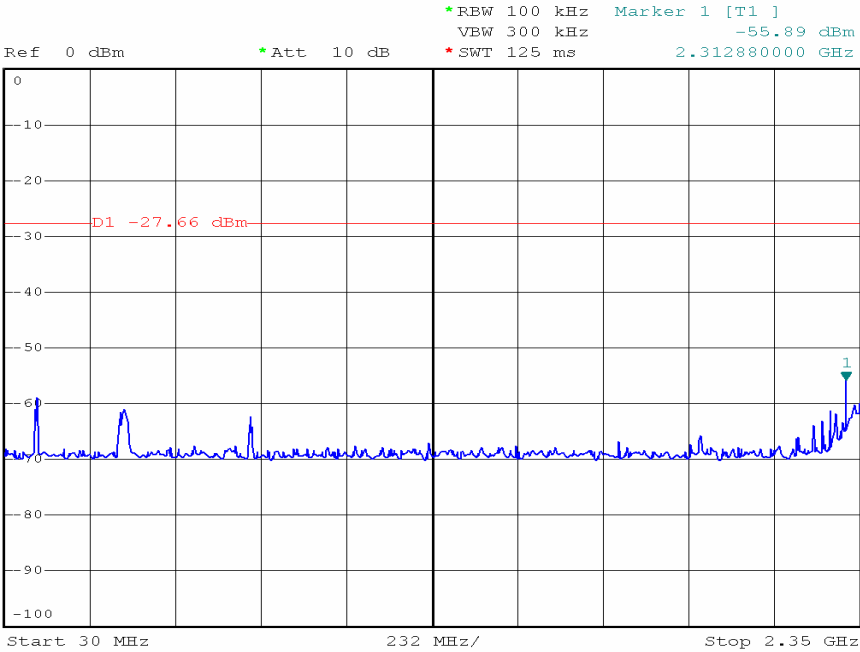


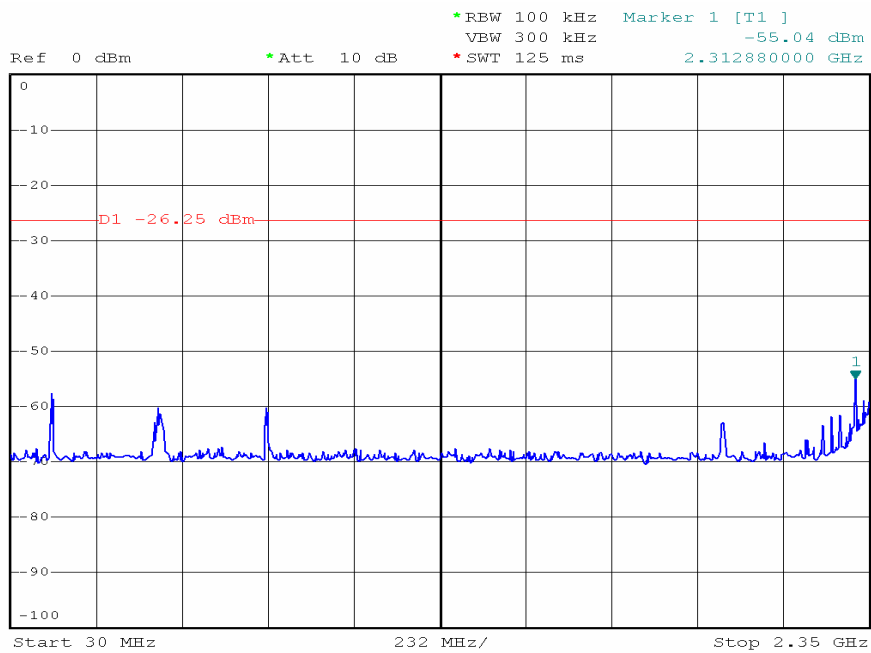
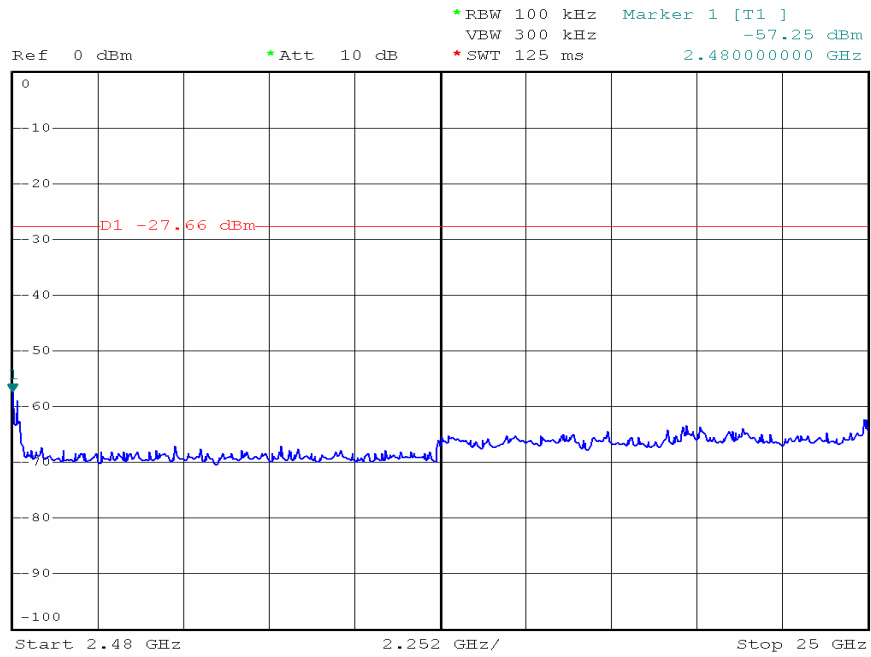


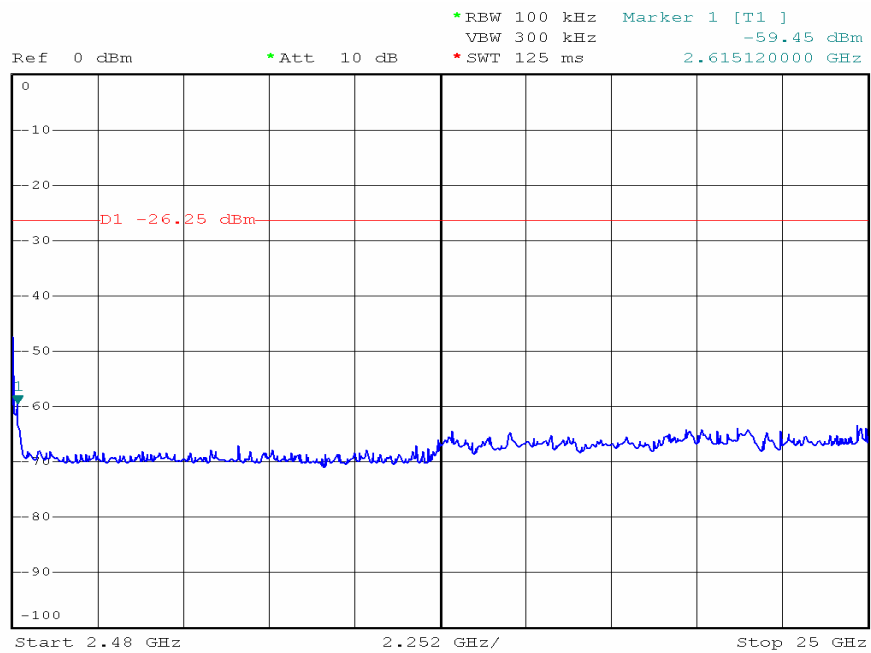
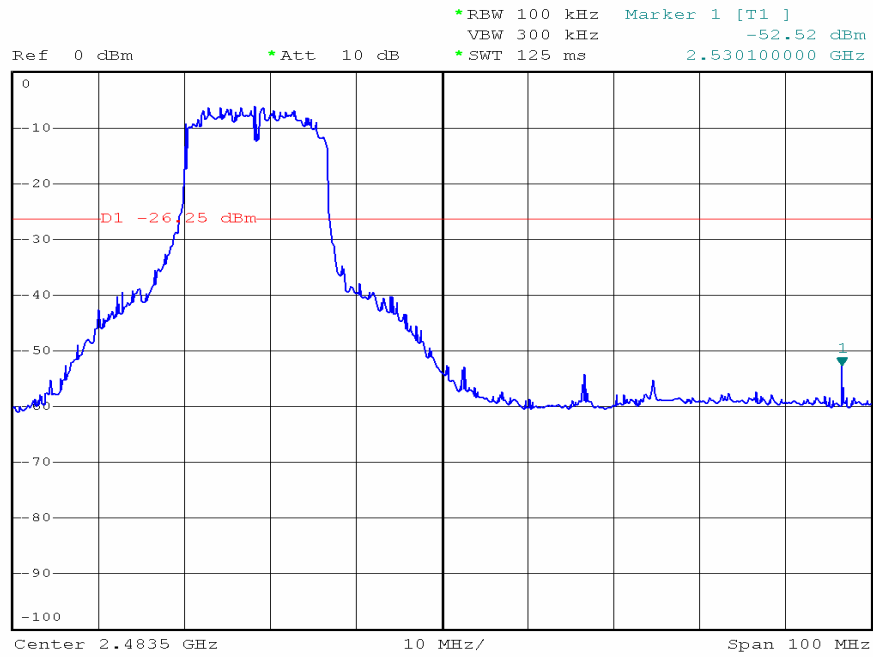












4.6.1. Note on Band edge Emission

Modulation Standard: IEEE 802.11b

Operation Mode: Receiving/ Transmitting

Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
2390	67.7	45.3	66.7	44.9	1	68.7	46.3	74	54	-7.7	180	1
2483	60.9	41.8	61.3	42.2	1	62.3	43.2	74	54	-10.8	180	1

b) Channel 6

Fundamental Frequency: 2437 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
2390	64.3	44.7	63.8	45.3	1	65.3	46.3	74	54	-7.7	180	1
2483	64.2	46.8	64.9	46.4	1	65.9	47.8	74	54	-6.2	180	1

c) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
2390	61.9	46.7	62.3	46.1	1	63.3	47.7	74	54	-6.3	180	1
2483	60.9	44.9	59.8	45.2	1	61.9	46.2	74	54	-7.8	180	1

Modulation Standard: IEEE 802.11g

Operation Mode: Receiving/ Transmitting

Test Date: Apr. 24, 2004 Temperature: 25 Humidity: 63%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
2390	54.2	34.8	56.9	36.2	1	57.9	37.2	74	54	-16.8	180	1
2483	59.2	38.2	59.9	37.5	1	60.9	39.2	74	54	-14.8	180	1

b) Channel 6

Fundamental Frequency: 2437 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
2390	56.4	32.9	57.3	31.7	1	58.3	33.9	74	54	-20.1	180	1
2483	57.2	32.3	59.3	33.7	1	60.3	34.7	74	54	-19.3	180	1

c) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Reading(dBuV)				Factor (dB) Corr.	Result@3m (dBuV/m)		Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
	H		V			Peak	Ave.	Peak	Ave.			
	Peak	Ave.	Peak	Ave.								
2390	61.1	37.3	60.4	38.1	1	62.1	39.1	74	54	-14.9	180	1
2483	59.3	37.2	59.8	36.8	1	60.8	38.2	74	54	-15.8	180	1

4.7. Power Spectral Density Measurement Data

(1) Modulation Standard: IEEE 802.11b

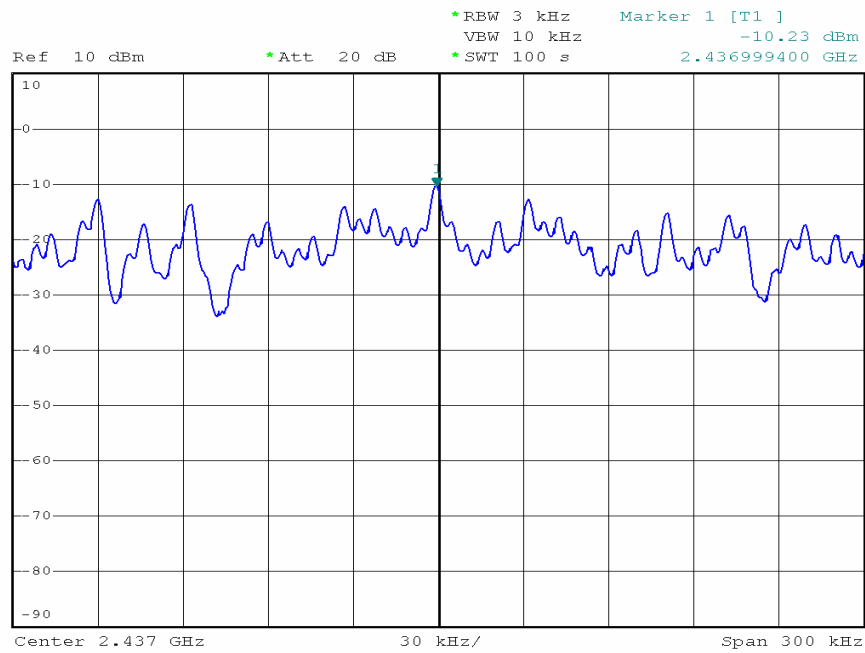
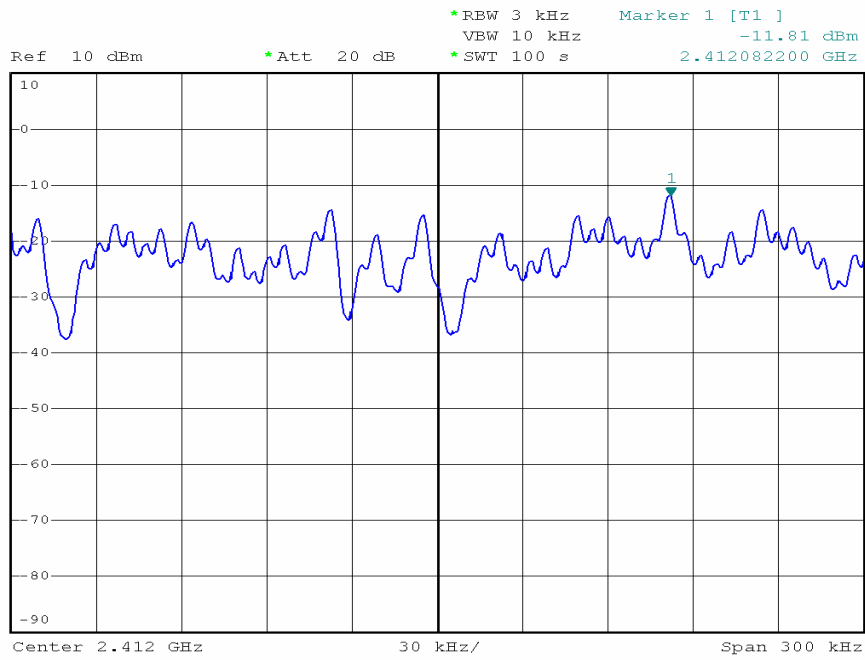
Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

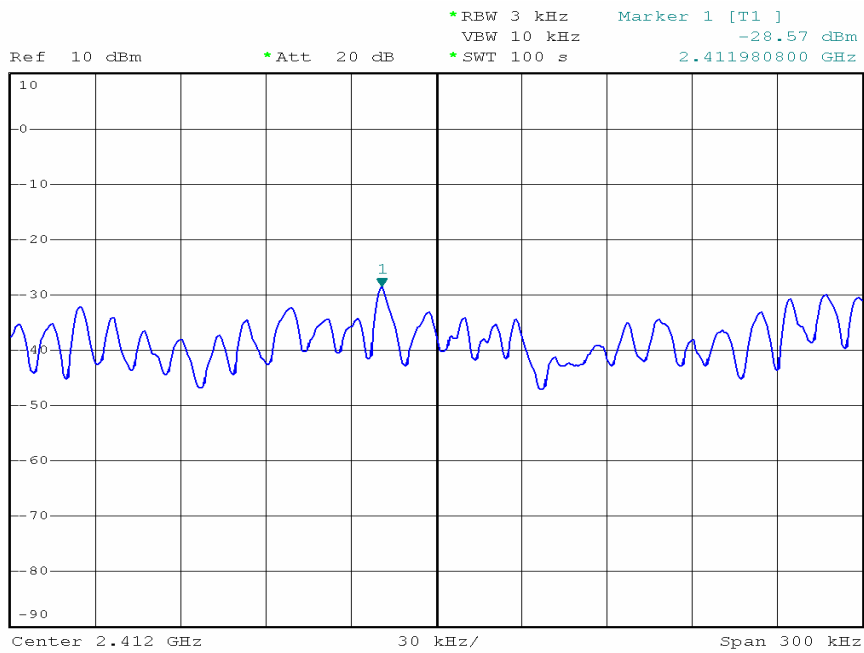
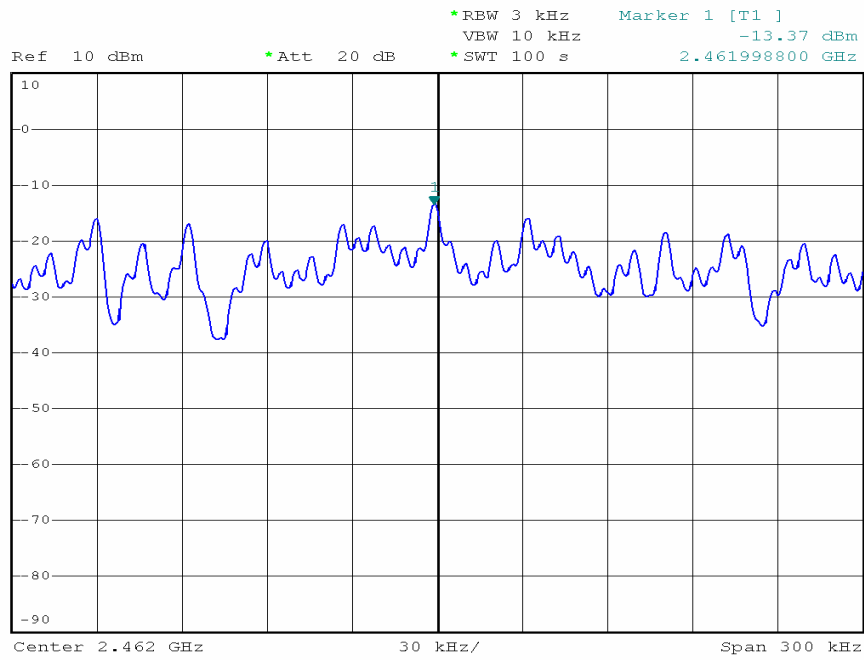
- a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is-11.81dBm
- b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is-10.23dBm
- c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is-13.37dBm

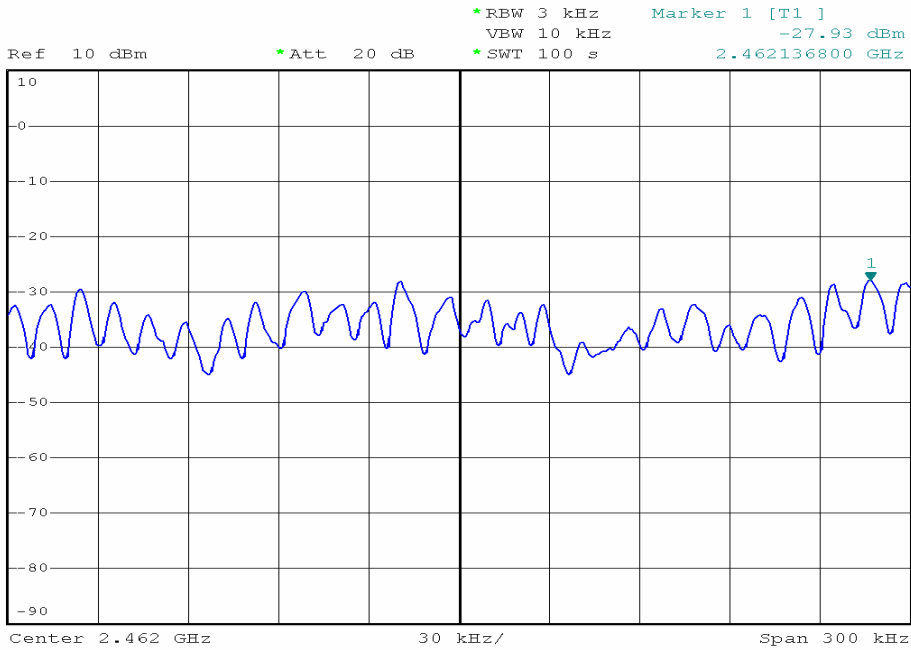
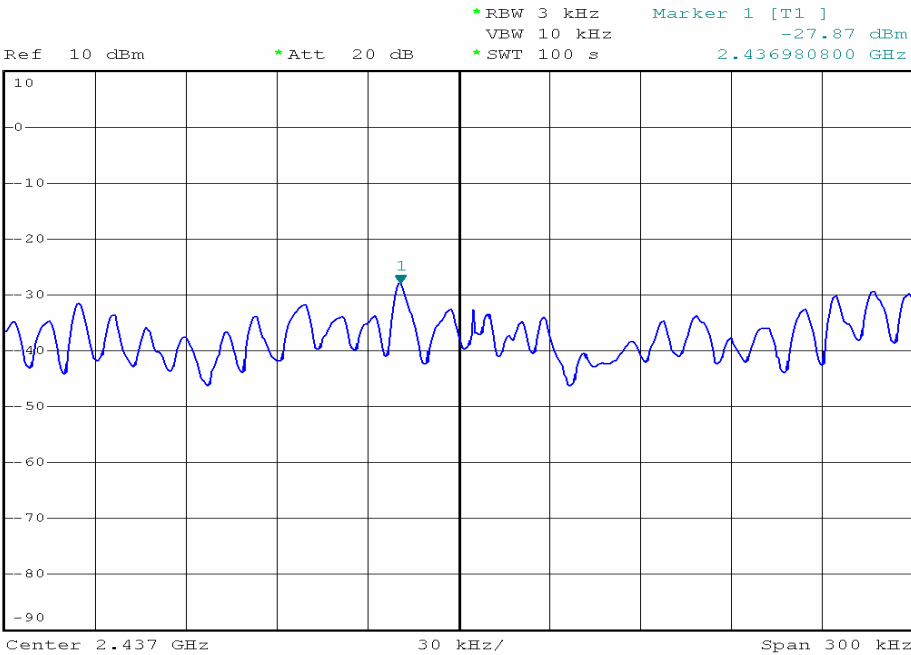
(2) Modulation Standard: IEEE 802.11g

Test Date: Apr. 01, 2004 Temperature: 25 Humidity: 63%

- a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is-28.57dBm
- b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is-27.87dBm
- c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is-27.93dBm







4.8. Test Result of RF Exposure Evaluation

- . Product: Wireless Router
- . Test Item: RF Exposure Evaluation Data
- . Test site: OATSI-SD
- . Test Mode: Normal Operation

4.8.1. Antenna Gain

The maximum Gain is 2.0dBi.

4.8.2. EUT Operation condition

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

4.8.3. Output Power into Antenna & RF Exposure Evaluation Distance

Modulation Standard: IEEE 802.11b

Test Date: Apr. 01, 2004

Temperature: 25

Humidity: 63%

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum allowable Distance @From Skin (cm)
01	2412	14.47	0.111
11	2462	16.86	0.193

Modulation Standard: IEEE 802.11g

Test Date: Apr. 01, 2004

Temperature: 25

Humidity: 63%

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum allowable Distance @From Skin (cm)
01	2412	11.55	0.057
11	2462	13.97	0.099

The distance r (4th column) calculated from the First transmission formula is far shorter than 20 cm separation requirement. So, RF exposure limit warning or SAR test are not required.

5. List of Measuring Equipment Used

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
1	BILOG ANTENNA	CBL6111C	SCHAFFNER	2762	2004/11/03
2	PREAMPLIFIER	RFP4002	SCHAFFNER	010	2004/11/03
3	RECEIVER	SCR3501	SCHAFFNER	437	2004/11/03
4	SIGNAL GENERATOR	8648B	HP	3629U00612	2006/02/08
5	SPECTRUM ANALYZER	8594E	HP	3520A01913	2005/01/15
6	AMPLIFIER	8447D	AGILENT	2944A10593	2004/10/09
7	AMPLIFIER	8447D	AGILENT	2944A10531	2004/07/08
8	SERIES POWER METER	E4416A	AGILENT	GB41292146	2004/11/05
9	POWER SENSOR	E9327A	AGILENT	US40441392	2004/10/06
10	DIPOLE ANTENNA	AD-100	COM-POWER	721011	2004/12/02
11	DIPOLE ANTENNA	AD-100	COM-POWER	721010	2004/12/02
12	SPECTRUM ANALYZER	R3131A	ADVANTEST	131000021	2004/11/24
13	SPECTRUM ANALYZER	FSP40	R&S	100047	2004/12/16
14	PREAMPLIFIER	8449B	AGILENT	3008A01954	2005/01/04
15	HORN ANTENNA	3115	EMCO	31601	2005/01/13
16	HORN ANTENNA	3115	EMCO	31589	2005/01/14
17	HORN ANTENNA	3116	EMCO	31970	2005/01/29
18	HORN ANTENNA	3116	EMCO	31974	2005/01/29
19	EMI RECEIVER	8546A	HP	3807A00454	2005/02/12
20	RF FILTER SECTION	85460A	HP	3704A00386	2005/02/12
21	SIGNAL GENERATOR	83640A	HP	2927A00107	2006/03/16
22	ATTENUATOR	8491B	AGILENT	50703	2004/12/16
23	ATTENUATOR	8491B	AGILENT	50705	2004/12/16
24	TEMPERATURE CHAMBER	TMJ-9712	T MACHINE	T-12-040111	2005/03/05
25	HIGH PASS FILTER	84300-80038	HP	002	N/A
26	HIGH PASS FILTER	84300-80038	HP	006	N/A
27	DC Power Supply	GPD-3030	GM	7020936	N/A
28	AC POWER CONVERTER	AFC-11005	APC	F103120008	N/A