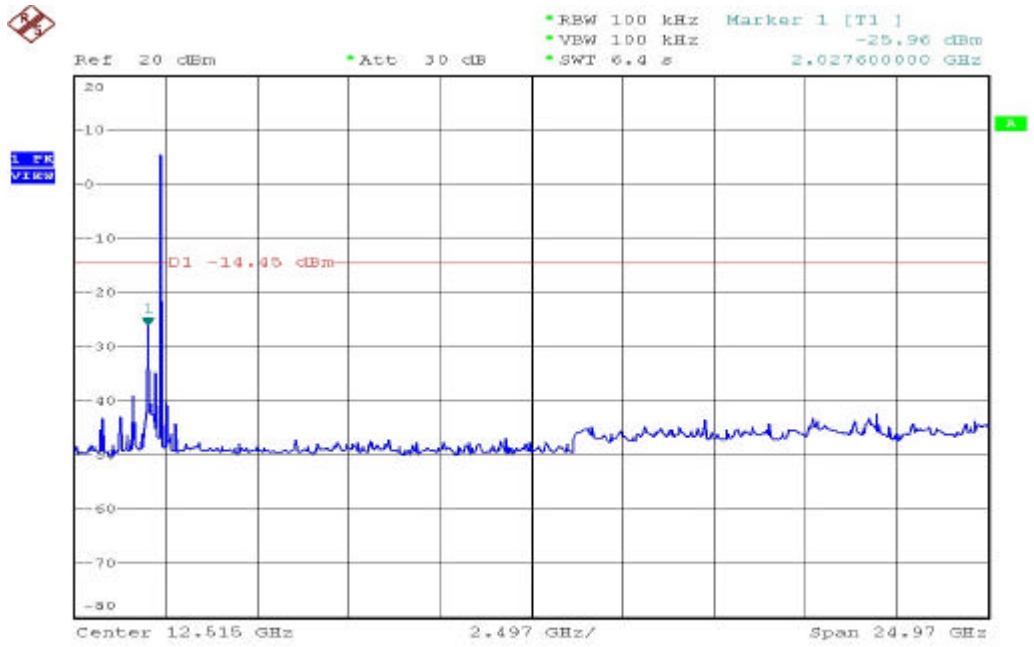
4.3. RF Portion

4.3.1. Test Result of Conducted Emission



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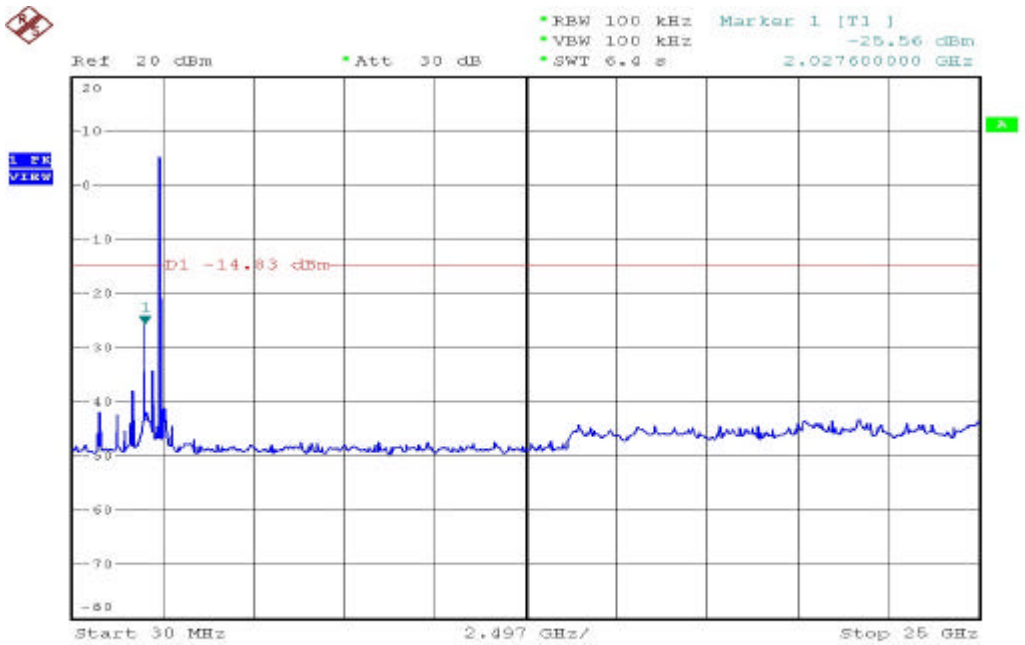

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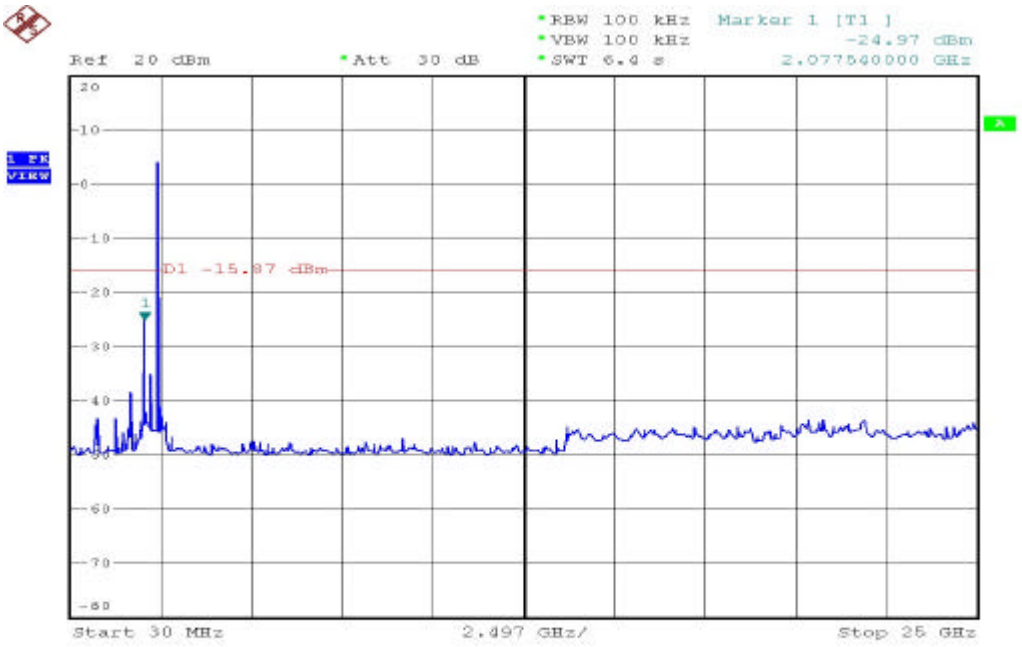

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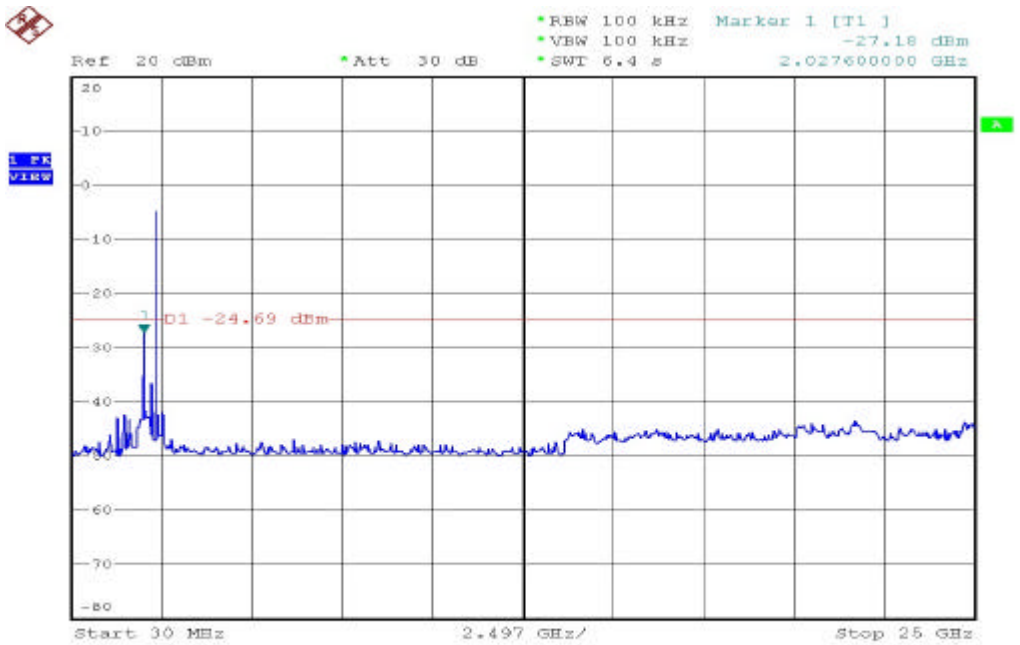

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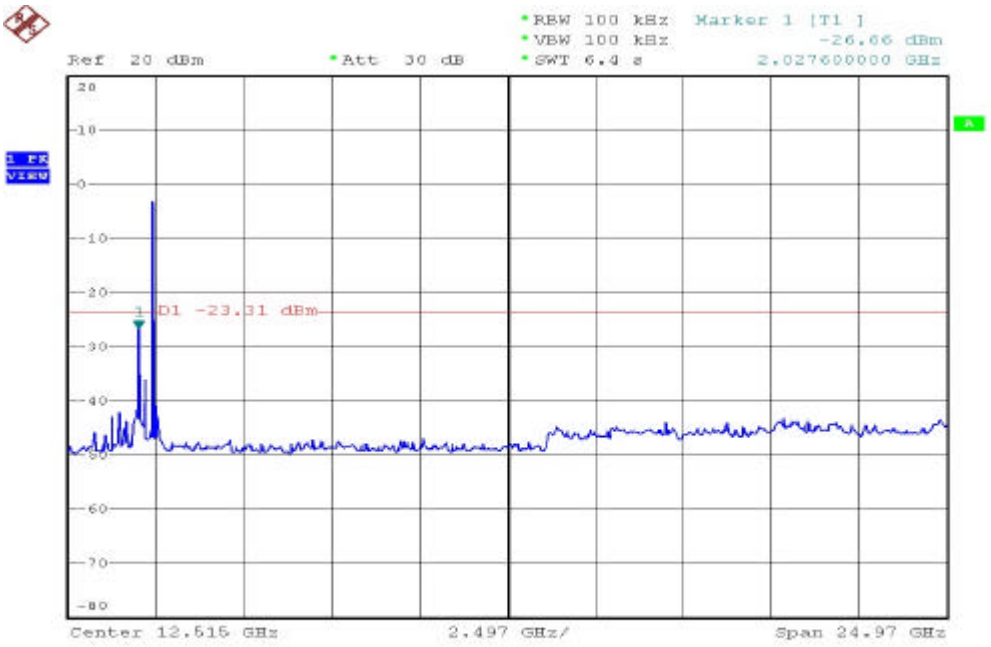

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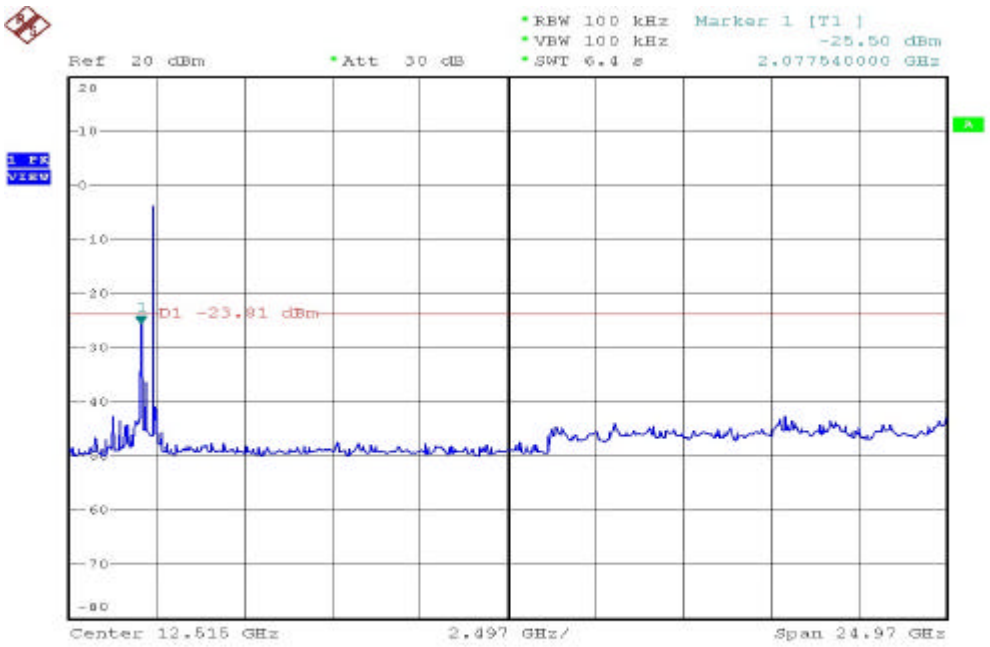


Date: 6.AUG.2004 16:27:56

4.3.2. Test Result of Radiated Emission

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel LO

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
150.69	H	52.40	-16.25	36.15	43.50	-7.35	Peak	230	1.0
250.59	H	57.76	-13.58	44.18	46.00	-1.84	Q.P	100	1.0
160.68	V	55.33	-17.06	38.27	43.50	-5.23	Peak	180	1.5
250.59	V	58.30	-13.58	44.72	46.00	-1.28	Q.P	160	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel LO

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
2038.80	H	65.16	-1.80	63.36	74	-10.64	Peak	210	1.0
2038.80	H	49.51	-1.80	47.71	54	-6.29	Ave	230	1.0
2360.80	H	55.20	-0.69	54.51	74	-19.49	Peak	180	1.5
2360.80	H	41.63	-0.69	40.94	54	-13.06	Ave	186	1.5
2400.00	H	53.93	-0.57	53.36	74	-20.64	Peak	270	1.5
2400.00	H	40.14	-0.57-	39.57	54	-14.43	Ave	270	1.5
2519.52	H	58.56	-0.16	58.40	74	-15.60	Peak	180	1.0
2519.52	H	48.05	-0.16	47.89	54	-6.11	Ave	200	1.0
2653.68	H	63.34	0.37	63.71	74	-10.29	Peak	100	1.0
2653.68	H	48.09	0.37	48.46	54	-5.54	Ave	90	1.0
2038.80	V	67.59	-2.50	65.09	74	-8.91	Peak	230	1.5
2038.80	V	47.35	-2.50	44.85	54	-9.15	Ave	226	1.5
2170.40	V	60.15	-2.03	58.12	74	-15.88	Peak	270	1.5
2170.40	V	35.44	-2.03	33.41	54	-20.59	Ave	270	1.5
2360.80	V	57.27	-1.39	55.88	74	-18.12	Peak	235	1.5
2360.80	V	42.17	-1.39	40.78	54	-13.22	Ave	230	1.5
2519.52	V	57.53	-0.86	56.67	74	-17.33	Peak	200	1.0
2519.52	V	44.02	-0.86	43.16	54	-10.84	Ave	200	1.0
2655.76	V	64.08	-0.36	63.72	74	-10.28	Peak	196	1.5
2655.76	V	46.71	-0.36	46.35	54	-7.65	Ave	210	1.5

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel MID

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
250.59	H	56.37	-13.58	42.79	46.0	-3.21	Peak	165.	1.0
160.68	V	57.30	-17.06	40.24	43.5	-3.26	Peak	220	1.0
250.59	V	58.32	-13.58	44.74	46.0	-1.26	Q.P	140	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel MID

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
2041.60	H	53.81	-1.80	52.01	74	-21.99	Peak	270	1.5
2041.60	H	38.73	-1.80	36.93	54	-17.07	Ave	260	1.5
2064.00	H	61.80	-1.74	60.06	74	-13.94	Peak	236	1.5
2064.00	H	45.08	-1.74	43.34	54	-10.66	Ave	250	1.5
2346.80	H	56.93	-0.75	56.18	74	-17.82	Peak	180	1.5
2346.80	H	43.86	-0.75	43.11	54	-10.89	Ave	200	1.5
2519.52	H	56.99	-0.16	56.83	74	-17.17	Peak	210	1.0
2519.52	H	41.91	-0.16	41.75	54	-12.25	Ave	205	1.0
2651.84	H	62.36	0.37	62.73	74	-11.27	Peak	180	1.0
2651.84	H	48.11	0.37	48.48	54	-5.52	Ave	200	1.0
2041.60	V	54.97	-2.50	52.47	74	-21.53	Peak	190	1.5
2041.60	V	39.81	-2.50	37.31	54	-16.69	Ave	200	1.5
2064.00	V	63.31	-2.44	60.87	74	-13.13	Peak	270	1.5
2064.00	V	43.26	-2.44	40.82	54	-13.18	Ave	300	1.5
2344.00	V	57.93	-1.45	56.48	74	-17.52	Peak	180	1.5
2344.00	V	44.18	-1.45	42.73	54	-11.27	Ave	190	1.5
2519.52	V	54.61	-0.86	53.75	74	-20.25	Peak	210	1.0
2519.52	V	44.72	-0.86	43.86	54	-10.14	Ave	220	1.0
2657.84	V	62.58	-0.36	62.22	74	-11.78	Peak	200	1.0
2657.84	V	48.97	-0.36	48.61	54	-5.36	Ave	200	1.0

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel HI

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
250.59	H	57.69	-13.58	44.11	46.0	-1.89	Q.P	165	1.0
160.68	V	57.19	-17.06	40.13	43.5	-3.37	Peak	220	1.0
250.59	V	58.55	-13.58	44.97	46.0	-1.13	Q.P	180	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel HI

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
2088.00	H	62.52	-1.63	60.89	74	-13.11	Peak	180	1.5
2088.00	H	41.94	-1.63	40.31	54	-13.69	Ave	190	1.5
2356.00	H	59.14	-0.75	58.39	74	-15.61	Peak	200	1.5
2356.00	H	40.67	-0.75	39.92	54	-14.08	Ave	210	1.5
2664.00	H	64.60	0.44	65.04	74	-8.96	Peak	200	1.0
2664.00	H	42.80	0.44	43.24	54	-10.76	Ave	180	1.0
2040.00	V	54.42	-2.50	51.92	74	-22.08	Peak	270	1.5
2040.00	V	33.23	-2.50	30.73	54	-23.27	Ave	280	1.5
2088.00	V	61.14	-2.33	58.81	74	-15.19	Peak	180	1.5
2088.00	V	37.59	-2.33	35.26	54	-18.74	Ave	170	1.5
2356.00	V	60.01	-1.45	58.56	74	-15.44	Peak	190	1.5
2356.00	V	33.20	-1.45	31.75	54	-22.25	Ave	185	1.5
2644.00	V	63.47	-0.29	63.18	74	-10.82	Peak	270	1.5
2644.00	V	46.49	-0.29	46.20	54	-7.80	Ave	250	1.5

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz Channel LO

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
250.59	H	56.65	-13.58	43.07	46.0	-2.93	Q.P	160	1.0
160.68	V	58.63	-17.06	41.57	43.5	-1.93	Q.P	200	1.0
250.59	V	55.68	-13.58	42.10	46.0	-3.90	Peak	170	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel LO

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
2040.00	H	64.24	-1.80	62.44	74	-11.56	Peak	220	1.5
2040.00	H	44.00	-1.80	42.20	54	-11.80	Ave	210	1.5
2360.00	H	56.47	-0.69	55.78	74	-18.22	Peak	230	1.5
2360.00	H	41.37	-0.69	40.68	54	-13.32	Ave	226	1.5
2524.00	H	55.68	-0.16	55.52	74	-18.48	Peak	185	1.5
2524.00	H	45.17	-0.16	45.01	54	-8.99	Ave	166	1.5
2660.00	H	62.67	0.44	63.11	74	-10.89	Peak	180	1.0
2660.00	H	45.30	0.44	45.74	54	-8.26	Ave	180	1.0
2040.00	V	66.68	-2.5	64.18	74	-9.82	Peak	230	1.5
2040.00	V	46.44	-2.5	43.94	54	-10.16	Ave	226	1.5
2360.00	V	56.99	-1.39	55.60	74	-18.40	Peak	270	1.5
2360.00	V	41.92	-1.39	40.53	54	-13.47	Ave	260	1.5
2524.00	V	54.83	-0.86	53.97	74	-20.03	Peak	200	1.5
2524.00	V	41.32	-0.86	40.46	54	-13.54	Ave	210	1.5
2656.00	V	61.92	-0.29	61.63	74	-12.37	Peak	200	1.0
2656.00	V	44.55	-0.29	44.26	54	-9.74	Ave	190	1.0

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz Channel MID

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
250.59	H	56.02	-13.58	42.44	46.0	-3.56	Peak	165	1.0
160.68	V	58.80	-17.06	41.74	43.5	-1.76	Q.P	200	1.0
250.59	V	56.83	-13.58	43.25	46.0	-2.75	Q.P	170	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

b) Emission frequencies above 1 GHz Channel MID

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
2040.00	H	54.33	-1.80	52.53	74	-21.47	Peak	180	1.5
2040.00	H	39.01	-1.80	37.21	54	-16.79	Ave	190	1.5
2064.00	H	61.61	-1.74	59.87	74	-14.13	Peak	270	1.5
2064.00	H	44.98	-1.74	43.24	54	-10.76	Ave	250	1.5
2344.00	H	58.38	-0.75	57.63	74	-16.37	Peak	176	1.5
2344.00	H	45.76	-0.75	45.01	54	-8.99	Ave	150	1.5
2532.00	H	55.66	-0.09	55.57	74	-18.43	Peak	200	1.5
2532.00	H	40.57	-0.09	40.48	54	-13.52	Ave	205	1.5
2660.00	H	62.22	0.44	62.66	74	-11.34	Peak	180	1.0
2660.00	H	47.74	0.44	48.18	54	-5.82	Ave	185	1.0
2040.00	V	55.71	-2.50	53.21	74	-20.79	Peak	210	1.5
2040.00	V	40.61	-2.50	38.11	54	-15.89	Ave	210	1.5
2064.00	V	63.24	-2.44	60.80	74	-13.20	Peak	230	1.5
2064.00	V	46.56	-2.44	44.08	54	-9.92	Ave	236	1.5
2344.00	V	58.49	-1.45	57.04	74	-16.96	Peak	185	1.5
2344.00	V	44.86	-1.45	43.41	54	-10.59	Ave	170	1.5
2660.00	V	61.35	-0.29	61.06	74	-12.94	Peak	205	1.0
2660.00	V	47.74	-0.29	47.45	54	-6.55	Ave	189	1.0

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz Channel HI

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
250.59	H	55.98	-13.58	42.40	46.0	-3.60	Peak	180	1.0
160.68	V	57.02	-17.06	39.96	43.5	-3.54	Peak	210	1.0
250.59	V	26.85	-13.58	43.27	46.0	-2.73	Q.P	165	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier

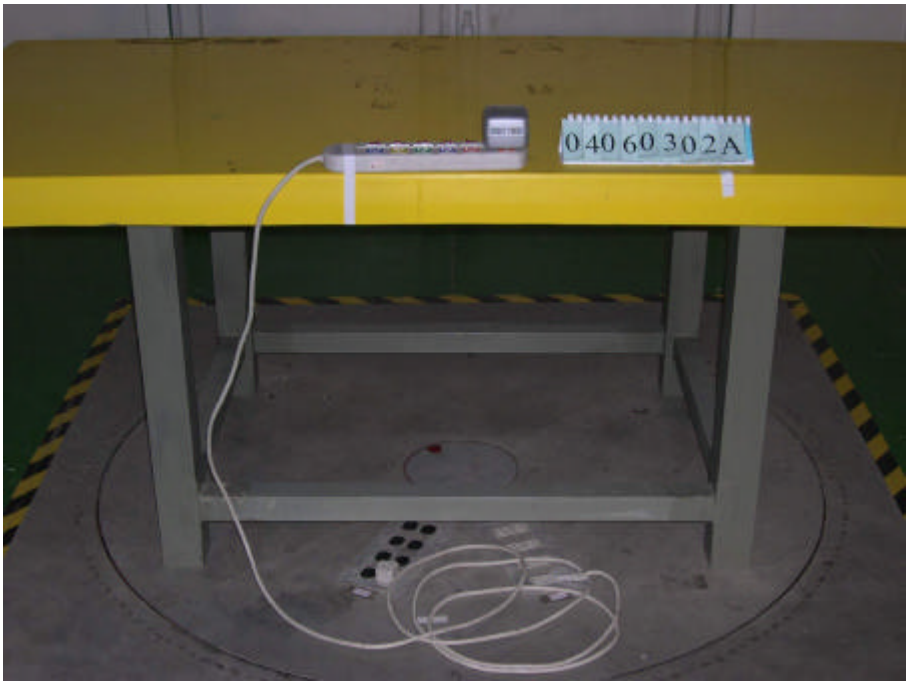
b) Emission frequencies above 1 GHz Channel HI

Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
2088.00	H	62.44	-1.63	60.81	74	-13.19	Peak	175	1.5
2088.00	H	41.72	-1.63	40.09	54	-13.91	Ave	175	1.5
2356.00	H	58.18	-0.75	57.43	74	-16.57	Peak	180	1.5
2356.00	H	35.01	-0.75	34.26	54	-19.74	Ave	165	1.5
2508.00	H	56.41	-0.22	56.19	74	-17.81	Peak	180	1.5
2508.00	H	37.39	-0.22	37.17	54	-16.83	Ave	180	1.5
2660.00	H	63.80	0.44	64.24	74	-9.76	Peak	270	1.0
2660.00	H	46.69	0.44	47.13	54	-6.87	Ave	265	1.0
2040.00	V	55.72	-2.50	53.22	74	-20.78	Peak	300	1.5
2040.00	V	34.53	-2.50	32.03	54	-21.97	Ave	305	1.5
2088.00	V	61.30	-2.33	58.97	74	-15.03	Peak	190	1.5
2088.00	V	37.72	-2.33	35.39	54	-18.61	Ave	185	1.5
2356.00	V	57.99	-1.45	56.54	74	-17.46	Peak	180	1.5
2356.00	V	37.56	-1.45	36.11	54	-17.89	Ave	170	1.5
2660.00	V	63.27	-0.29	62.98	74	-11.05	Peak	220	1.0
2660.00	V	46.42	-0.29	46.13	54	-7.87	Ave	210	1.0

4.3.3. Photographs of Radiated Emission Test

FRONT VIEW

REAR VIEW



4.4. 6dB Bandwidth Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 06, 2004 Temperature: 23℃ Humidity: 64%

a) Channel 01: 6dB Emission Bandwidth is 8.1 MHz

b) Channel 06: 6dB Emission Bandwidth is 7.6 MHz

c) Channel 11: 6dB Emission Bandwidth is 7.4 MHz

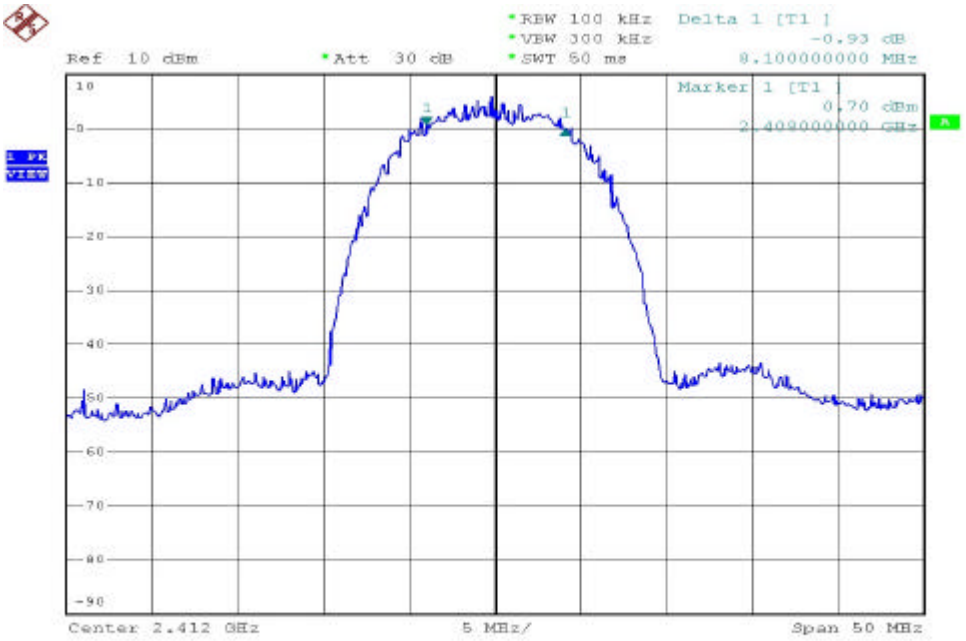
(2) Modulation Standard: IEEE 802.11g

Test Date: Aug. 06, 2004 Temperature: 23℃ Humidity: 64%

a) Channel 01: 6dB Emission Bandwidth is 15.2 MHz

b) Channel 06: 6dB Emission Bandwidth is 14.2 MHz

c) Channel 11: 6dB Emission Bandwidth is 12.9 MHz



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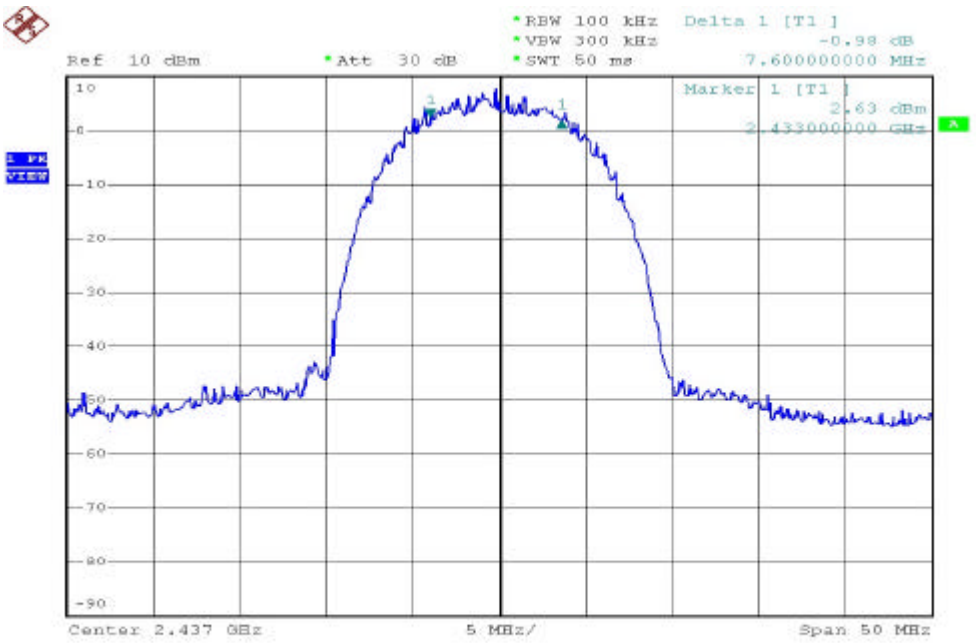

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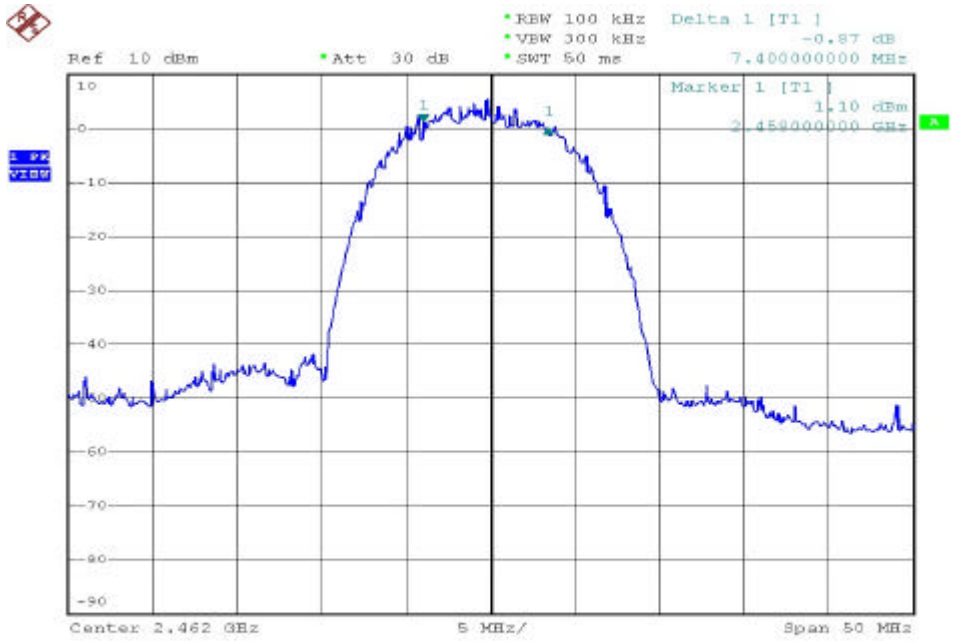

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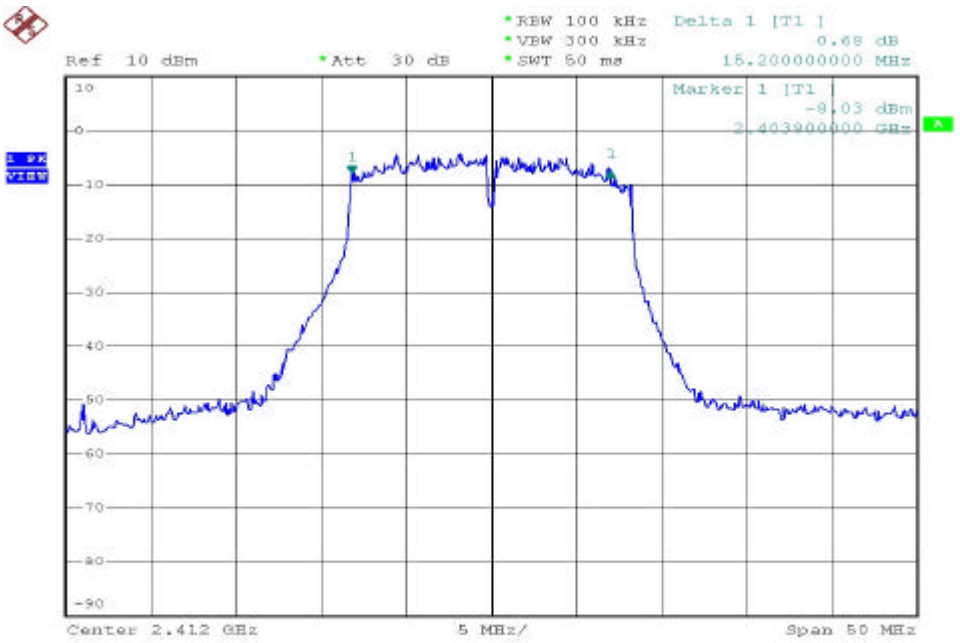

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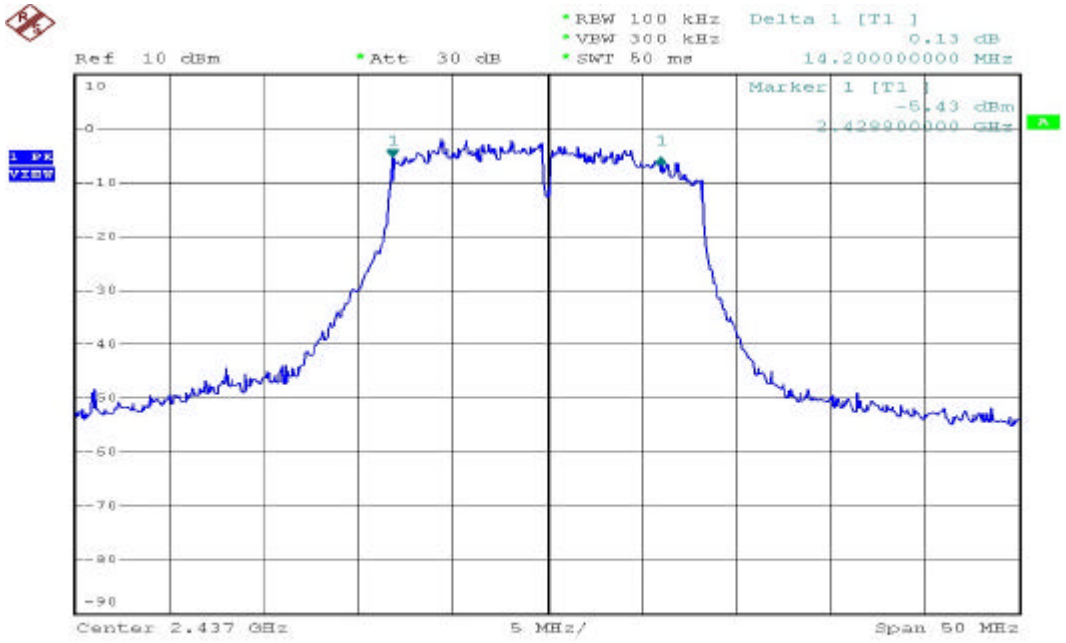

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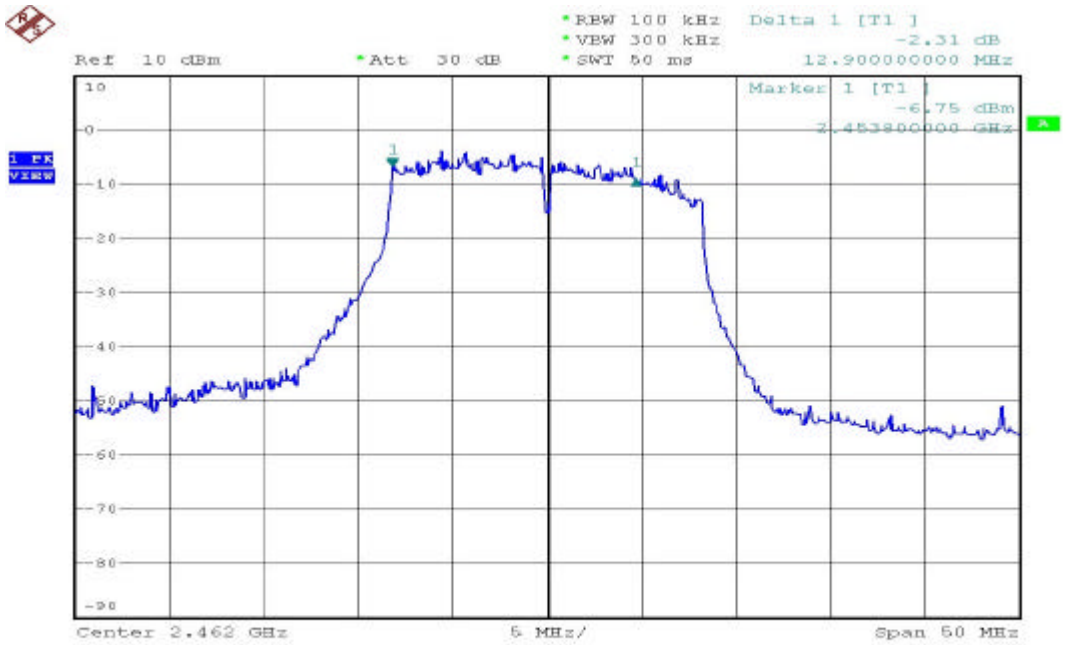


Date: 6.AUG.2004 12:07:35

4.5. Peak Output Power Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 06. 2004 Temperature: 23℃ Humidity: 64%

a) Channel 01: Output Peak Power is 20.83 dBm or 121.072 mW

b) Channel 06: Output Peak Power is 21.95 dBm or 156.811 mW

c) Channel 11: Output Peak Power is 19.81 dBm or 95.763 mW

(2) Modulation Standard: IEEE 802.11g

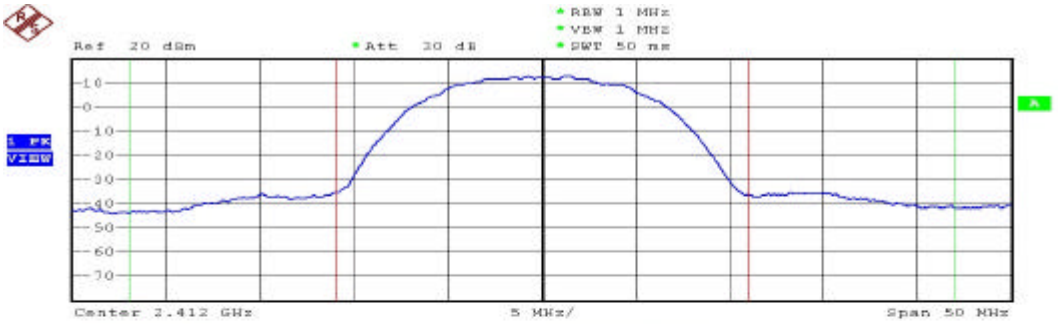
Test Date: Aug. 06. 2004 Temperature: 23℃ Humidity: 64%

a) Channel 01: Output Peak Power is 16.44 dBm or 44.083 mW

b) Channel 06: Output Peak Power is 17.88 dBm or 61.371 mW

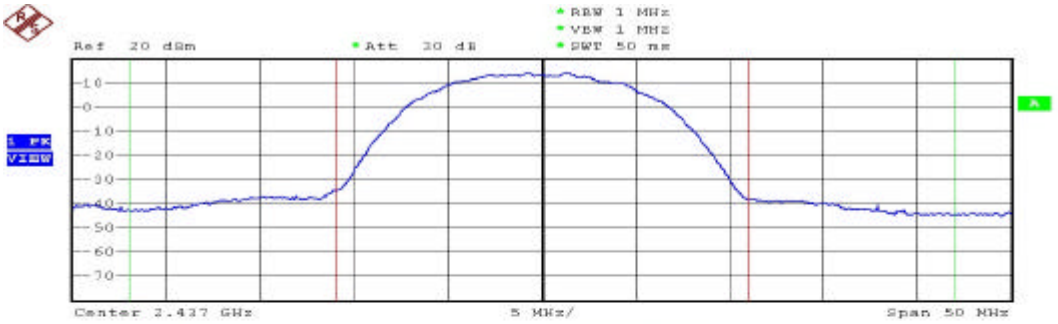
c) Channel 11: Output Peak Power is 15.61 dBm or 36.364 mW

Note: Conducted Power = Reading Value + Cable Loss



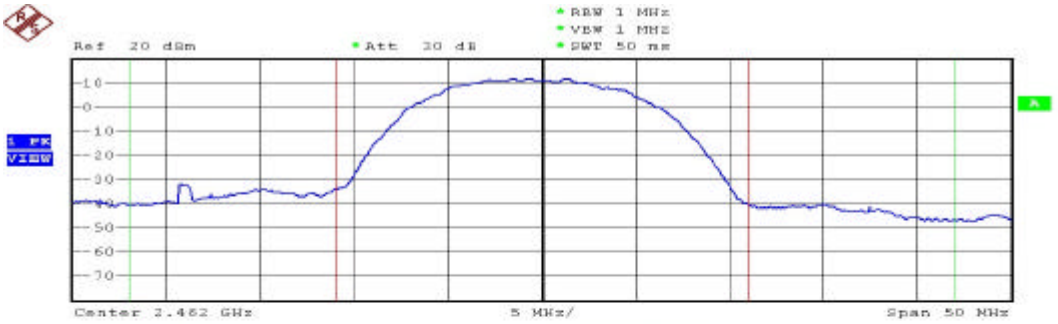
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	20.83 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-49.52 dB
Spacing	16.5 MHz	Upper	-48.46 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 6.AUG.2004 11:39:05



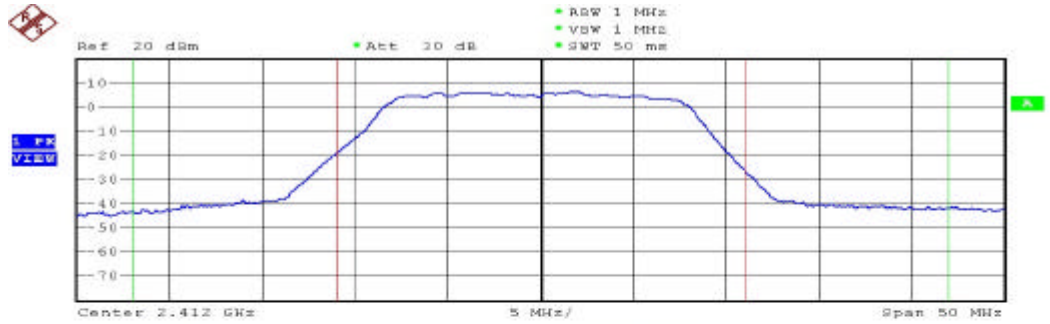
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	21.95 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-50.70 dB
Spacing	16.5 MHz	Upper	-52.91 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 6.AUG.2004 11:38:04



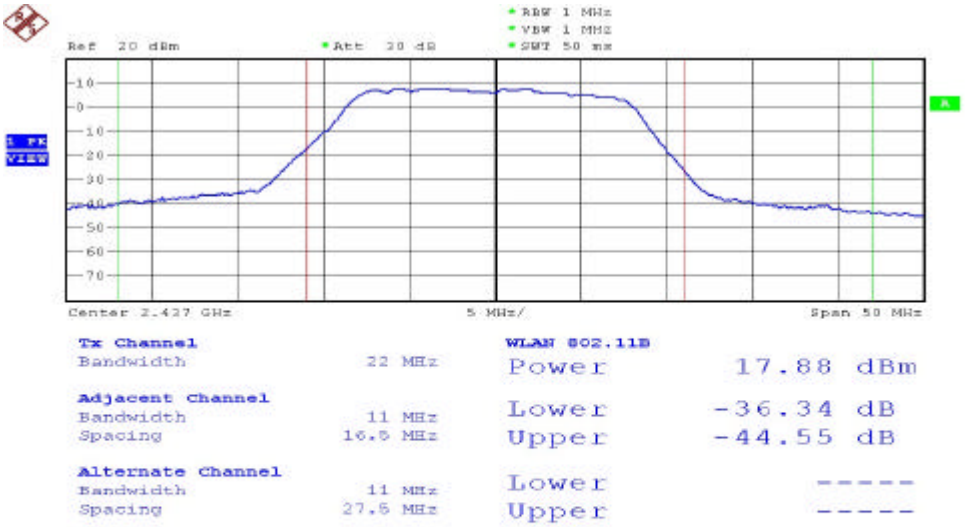
Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	19.81 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-46.06 dB
Spacing	16.5 MHz	Upper	-52.42 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 6.AUG.2004 11:40:15



Tx Channel		**WLAN 802.11B**	
Bandwidth	22 MHz	Power	16.44 dBm
Adjacent Channel			
Bandwidth	11 MHz	Lower	-37.15 dB
Spacing	16.5 MHz	Upper	-43.41 dB
Alternate Channel			
Bandwidth	11 MHz	Lower	-----
Spacing	27.5 MHz	Upper	-----

Date: 6.AUG.2004 11:45:26



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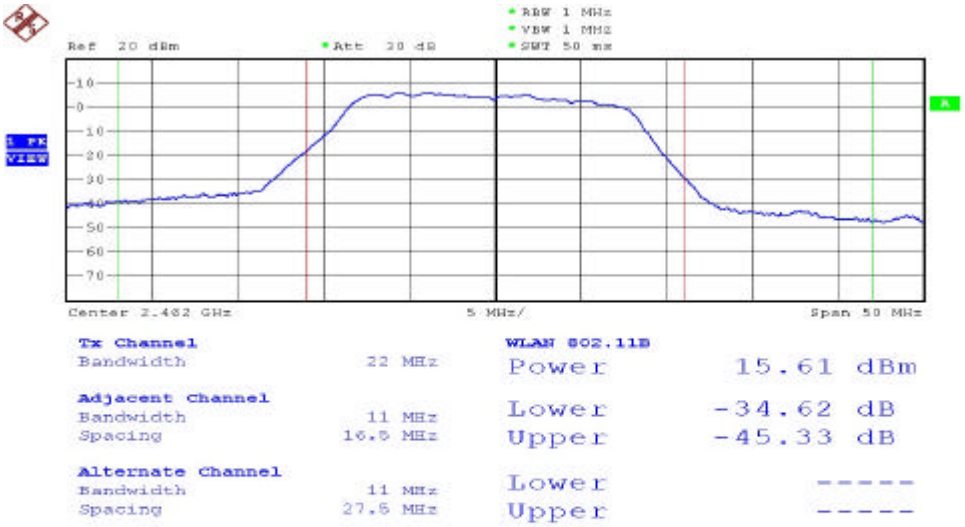


Date: 6.AUG.2004 11:42:25

4.6. Band Edges Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 06, 2004 Temperature: 23℃ Humidity: 64%

a) Lower Band Edge: maximum value is -26.61 dBm that is attenuated more than 20dB

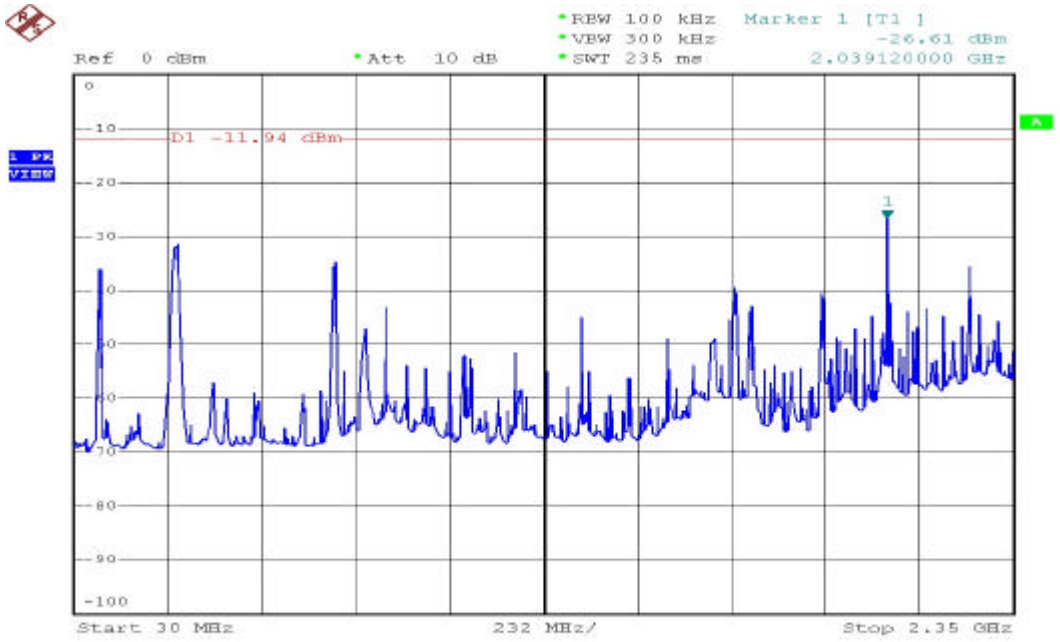
b) Upper Band Edge: maximum value is -25.66 dBm that is attenuated more than 20dB

(2) Modulation Standard: IEEE 802.11g

Test Date: Aug. 06. 2004 Temperature: 23℃ Humidity: 64%

a) Lower Band Edge: maximum value is -27.36 dBm that is attenuated more than 20dB

b) Upper Band Edge: maximum value is -25.98 dBm that is attenuated more than 20dB



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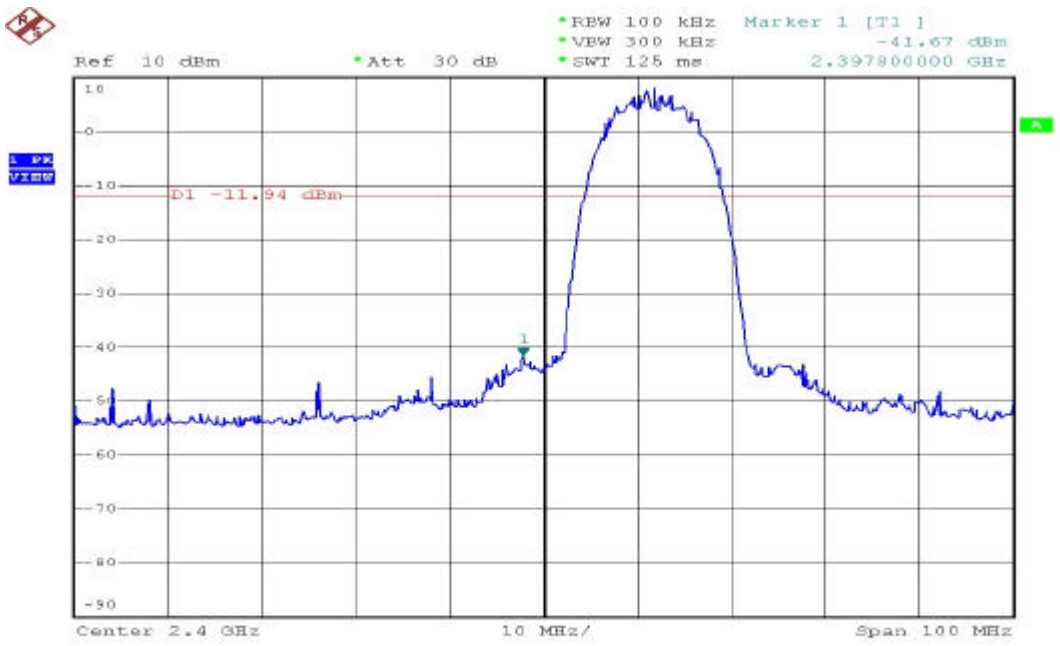

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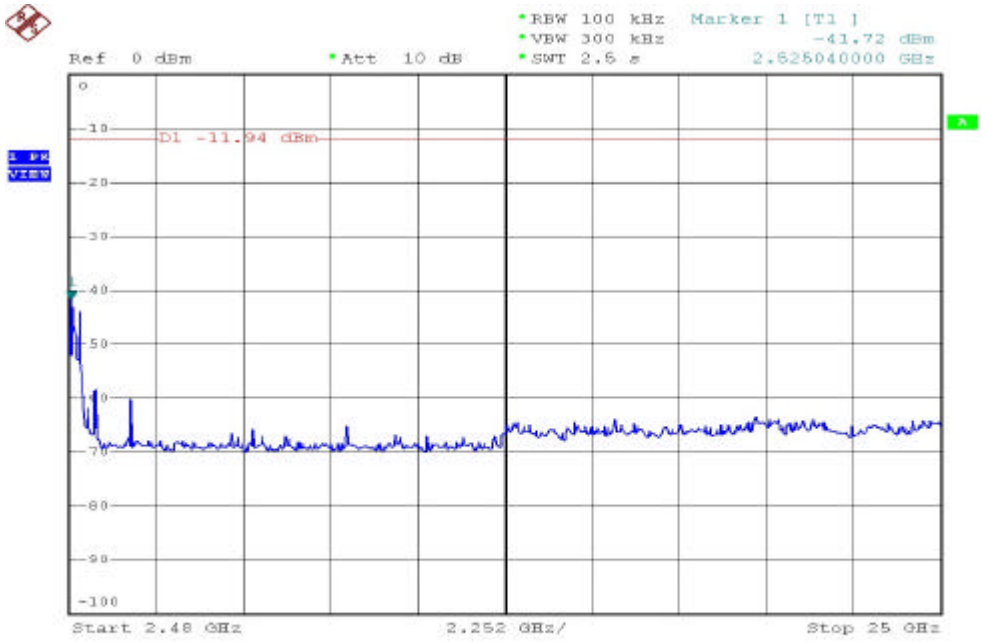

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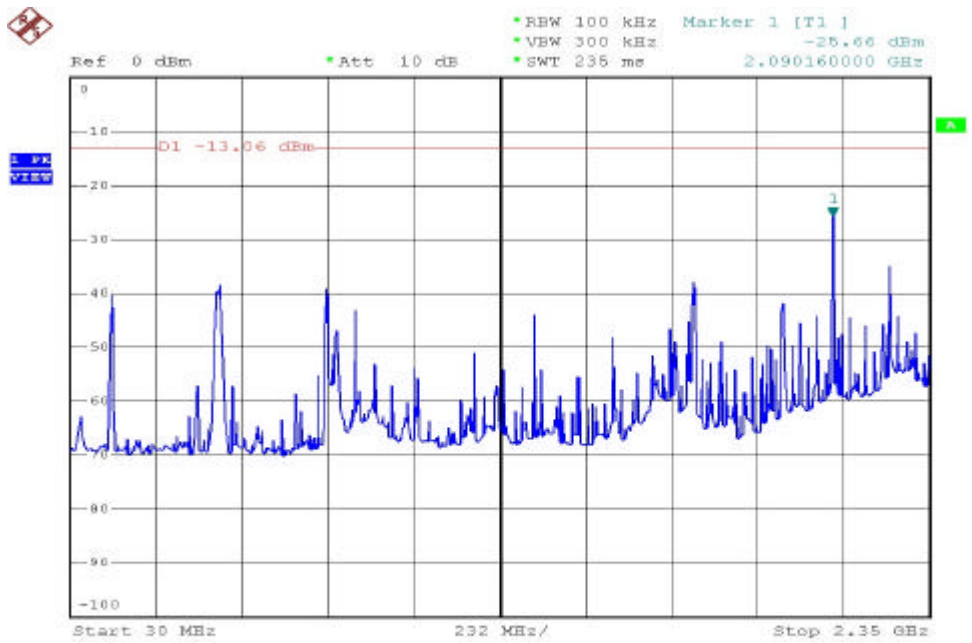

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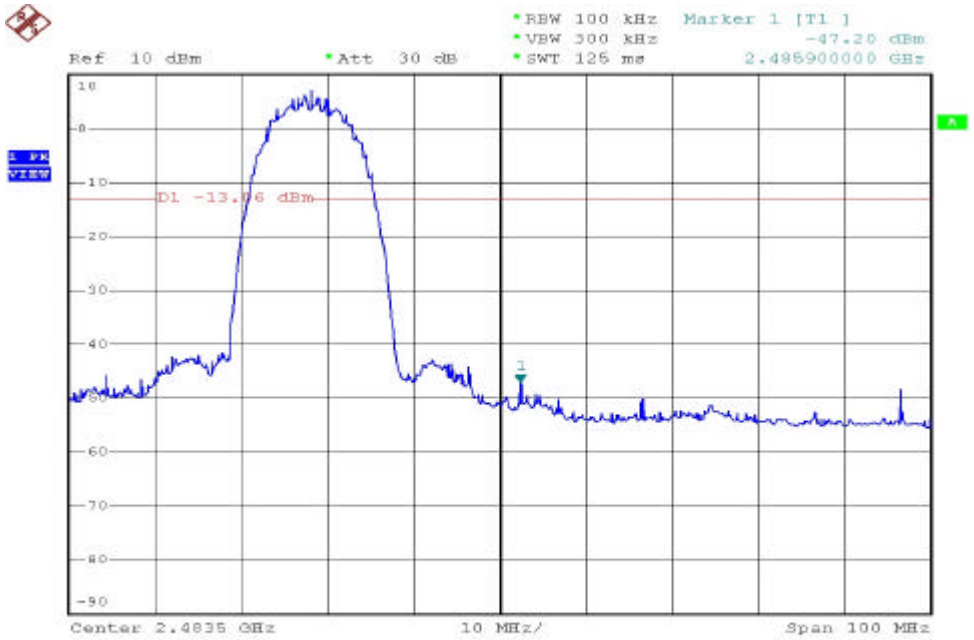

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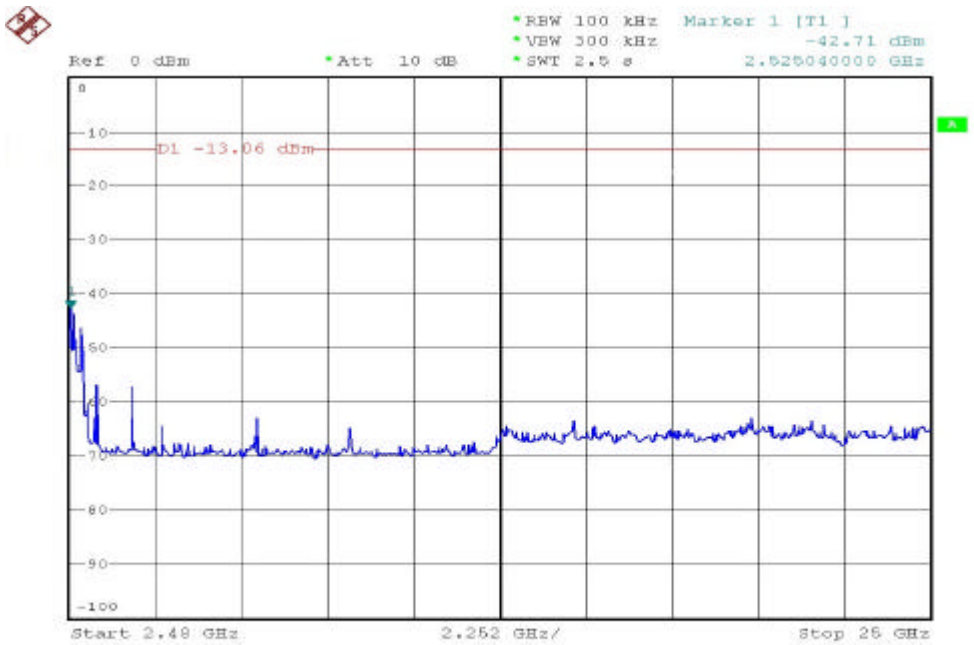

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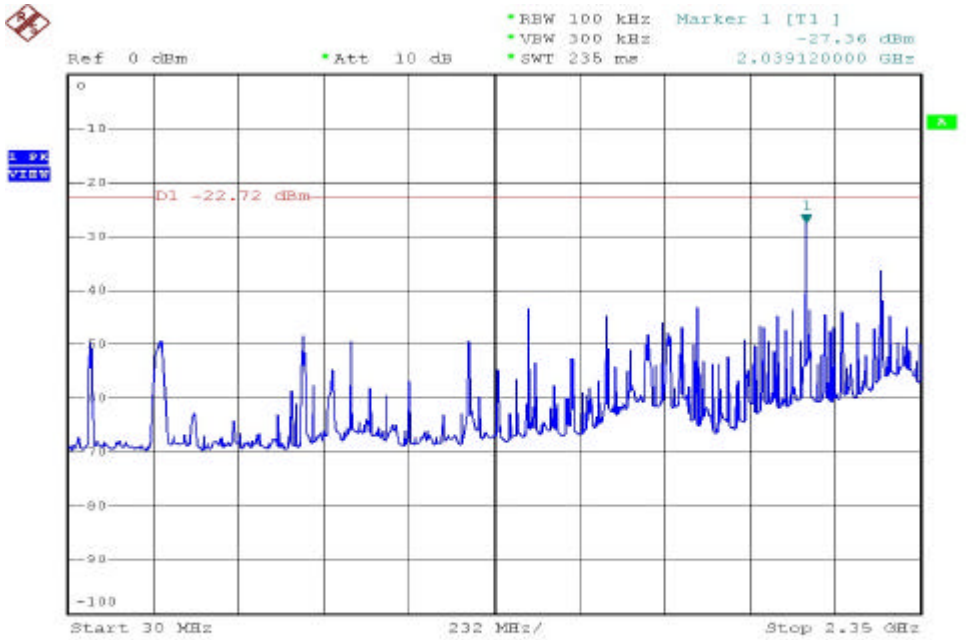

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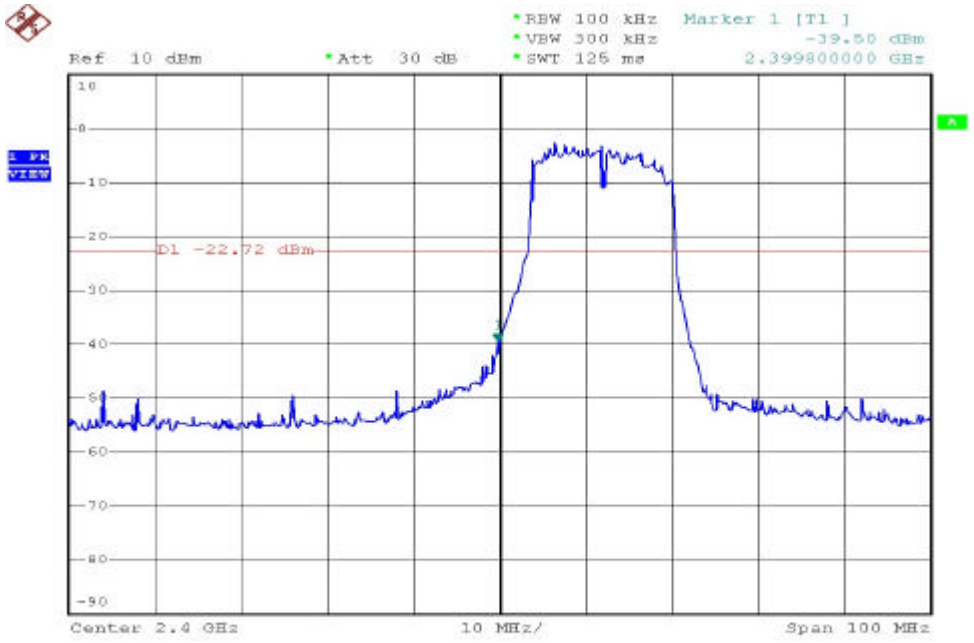

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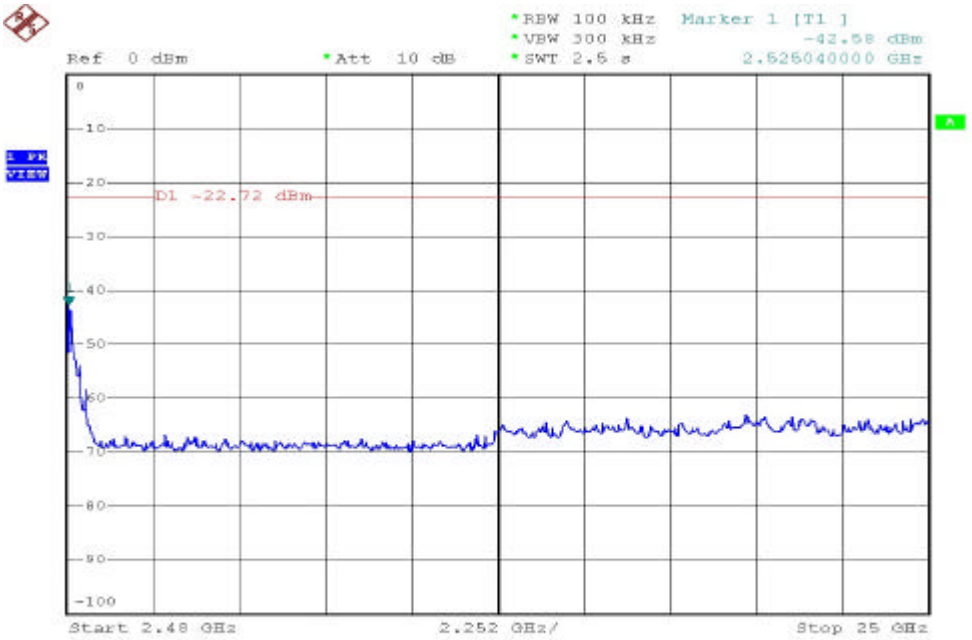

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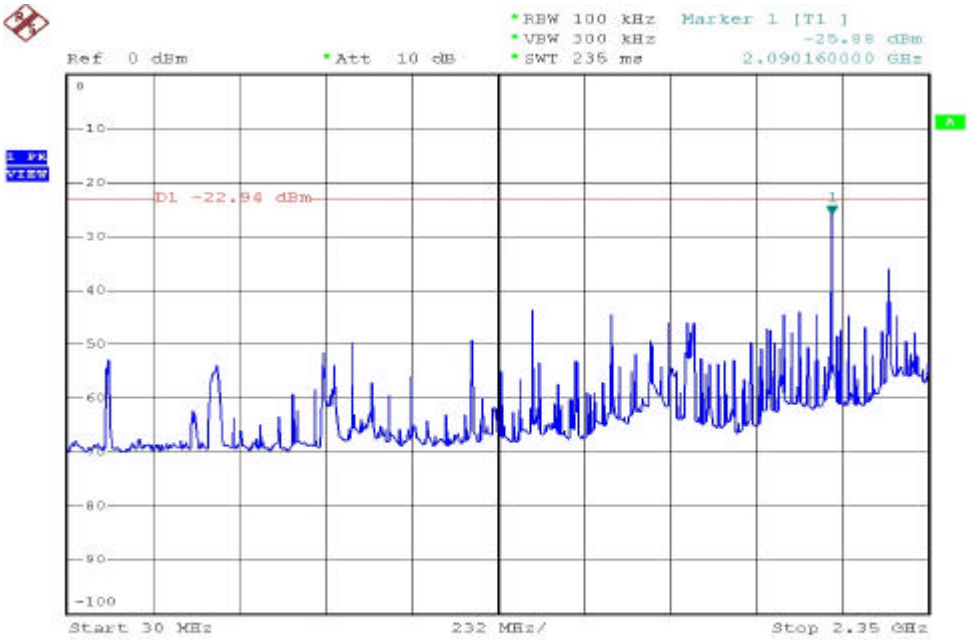

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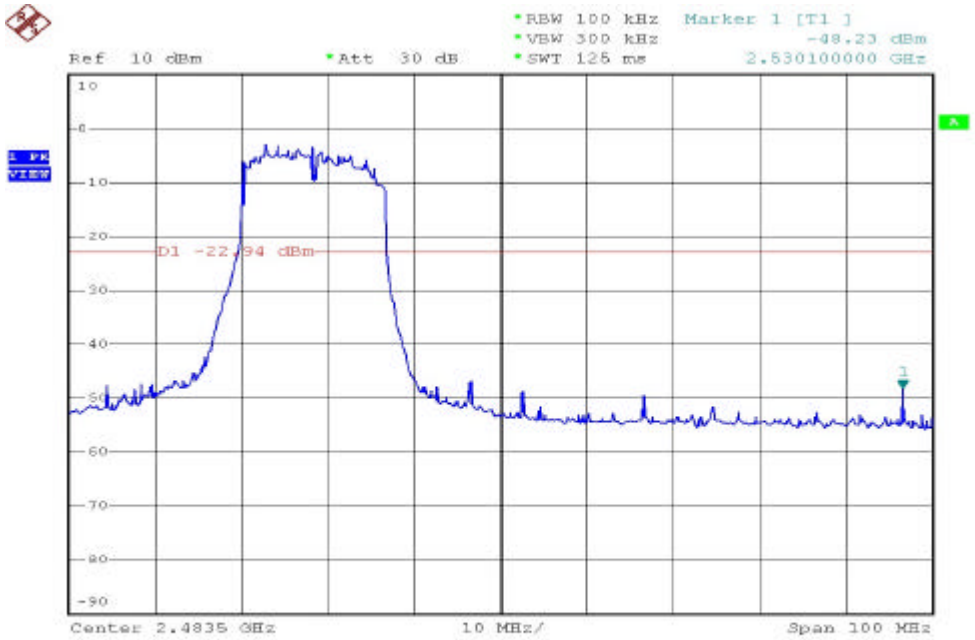

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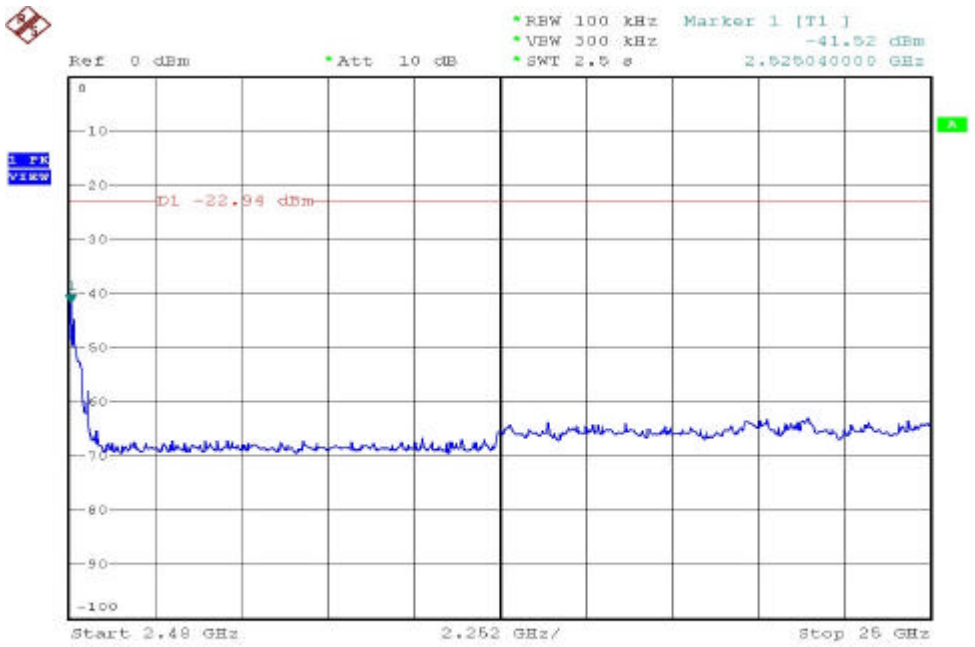


Date: 6.AUG.2004 16:10:00

4.6.1. Note on Band edge Emission

Modulation Standard: IEEE 802.11b

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

a) Channel 1

Fundamental Frequency: 2412 MHz

Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2353.860	55.64	H	Peak	74	54	-18.36	126	1.0
2354.064	47.07	H	Ave	74	54	-6.93	150	1.0
2354.064	55.76	V	Peak	74	54	-18.24	130	1.0
2354.064	46.11	V	Ave	74	54	-7.90	125	1.0

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2499.792	54.82	H	Peak	74	54	-19.18	150	1.5
2500.000	43.08	H	Ave	74	54	-10.92	180	1.5
2499.696	51.75	V	Peak	74	54	-22.25	145	1.0
2500.000	42.25	V	Ave	74	54	-11.75	130	1.0

Modulation Standard: IEEE 802.11g

Test Date: Aug. 15, 2004 Temperature: 24 ℃ Humidity: 60%

a) Channel 1

Fundamental Frequency: 2412 MHz

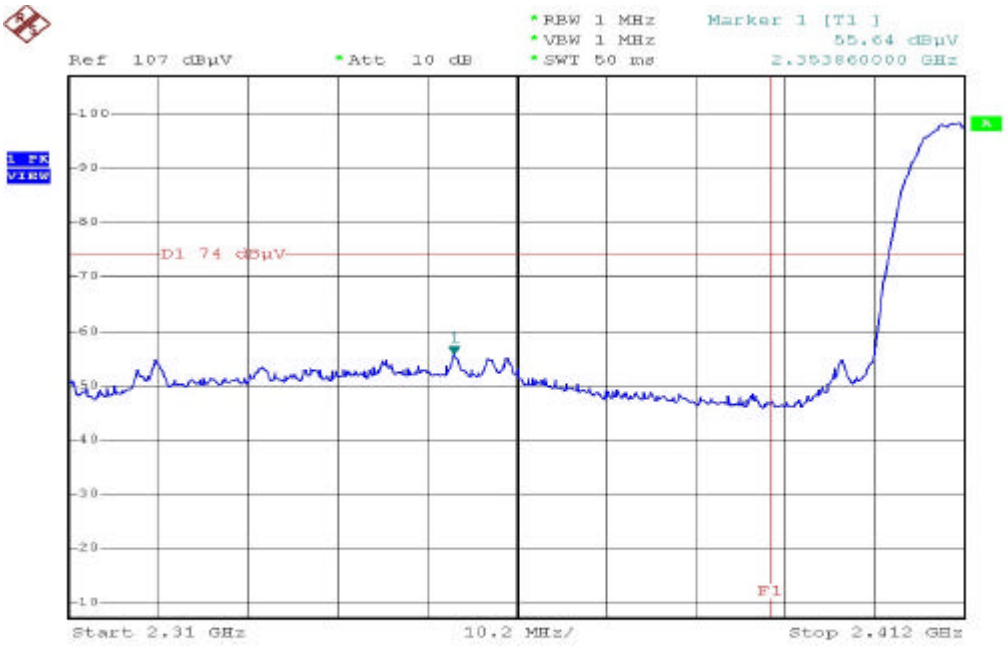
Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2357.940	56.93	H	Peak	74	54	-17.07	180	1.0
2357.940	51.34	H	Ave	74	54	-2.66	170	1.0
2357.940	57.27	V	Peak	74	54	-16.73	200	1.5
2358.144	51.74	V	Ave	74	54	-2.26	210	1.5

b) Channel 11

Fundamental Frequency: 2462 MHz

Frequency (MHz)	Level (dBuV)	Polarization	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table Deg. (Deg.)	Ant High (m)
				Peak	Ave.			
2499.772	53.86	H	Peak	74	54	-20.14	225	1.0
2486.016	40.12	H	Ave	74	54	-13.88	240	1.0
2499.696	51.75	V	Peak	74	54	-22.25	160	1.0
2500.000	40.50	V	Ave	74	54	-13.50	155	1.0

Modulation Standard: IEEE 802.11b
Pol/Phase: Horizontal



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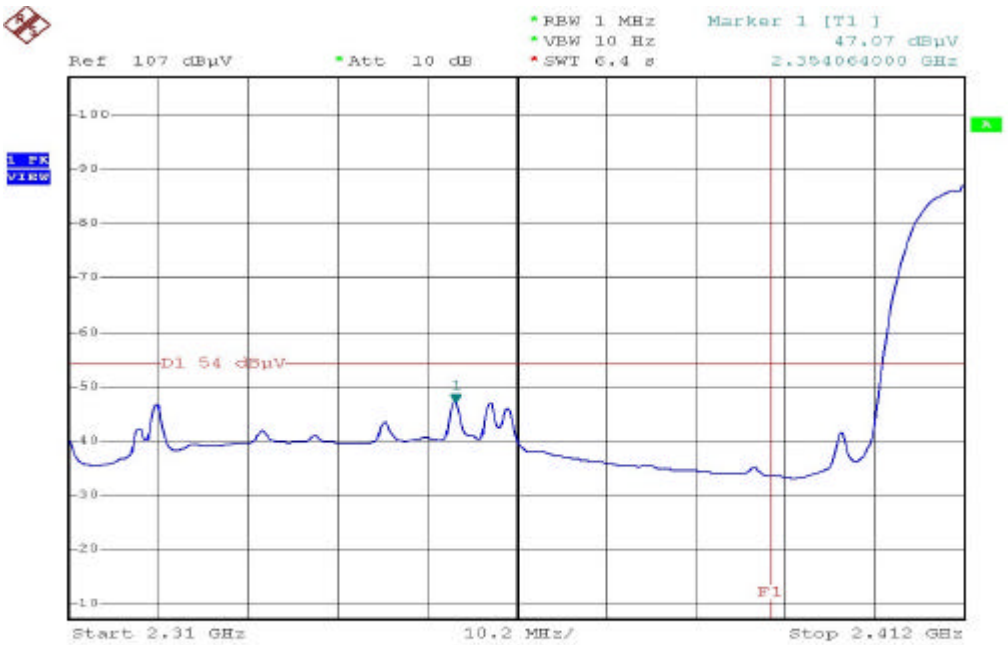

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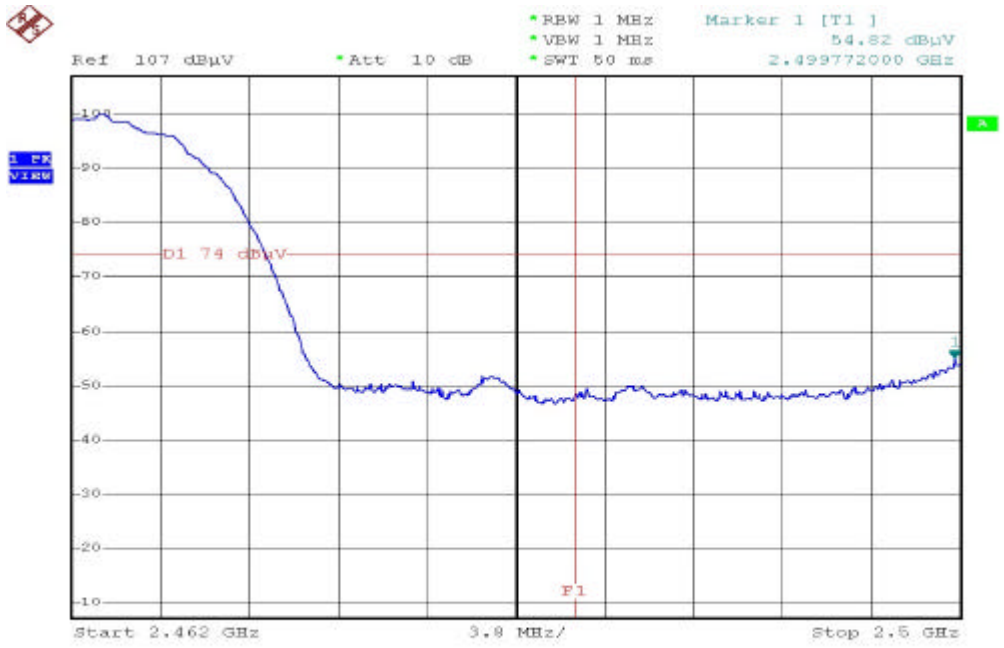

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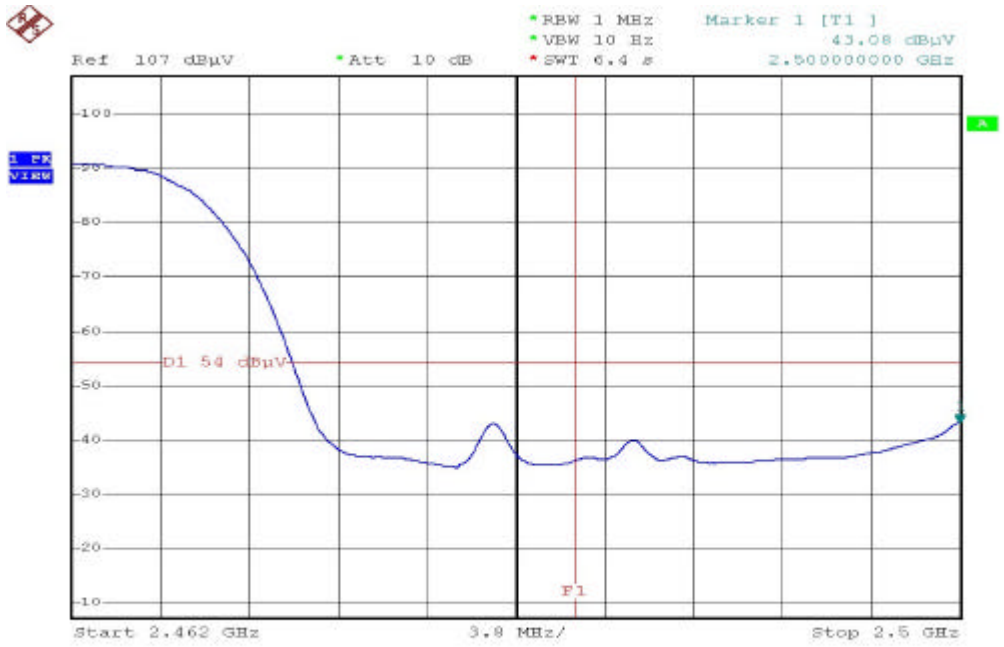
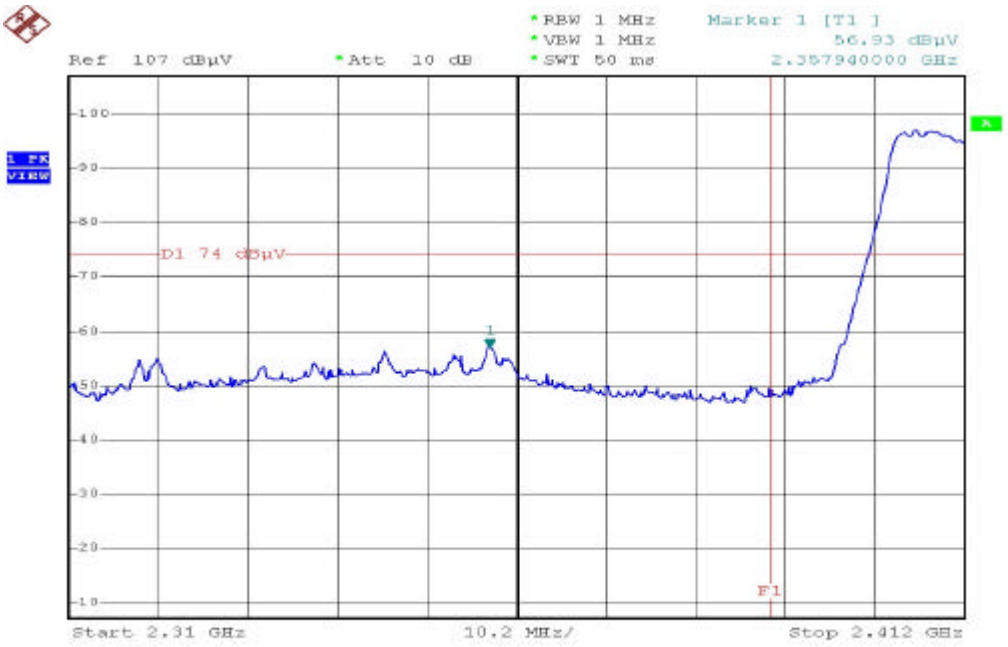


Date: 15.AUG.2004 17:06:41

Modulation Standard: IEEE 802.11g
Pol/Phase: Horizontal



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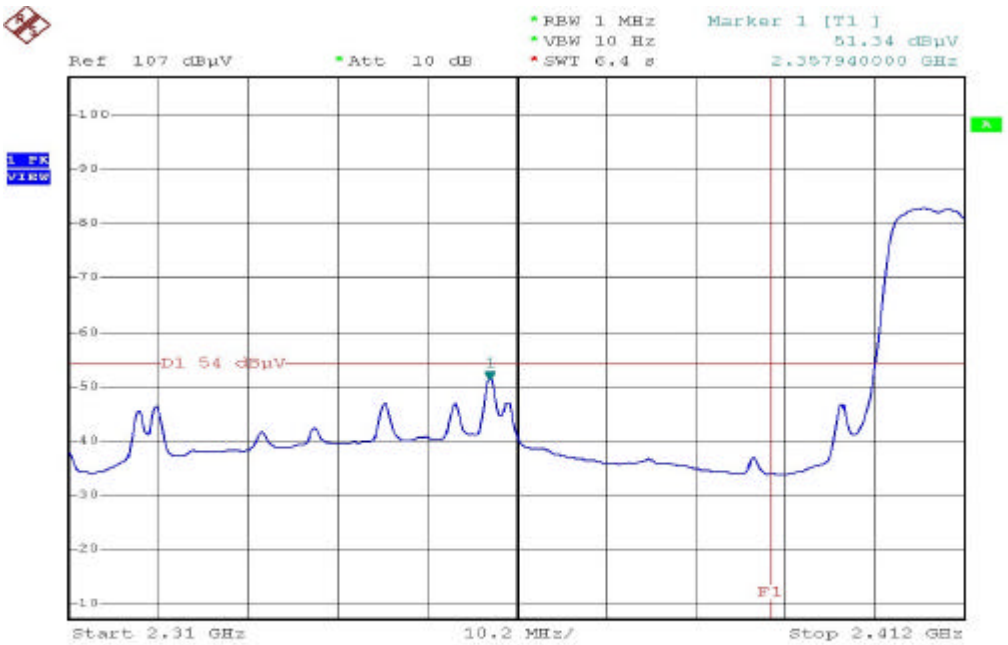

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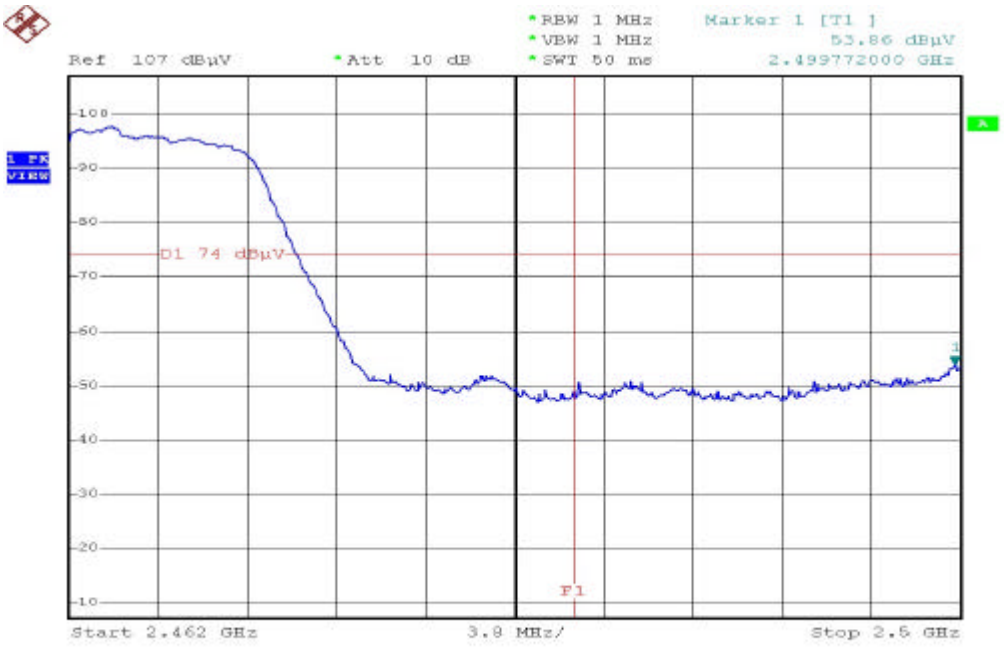

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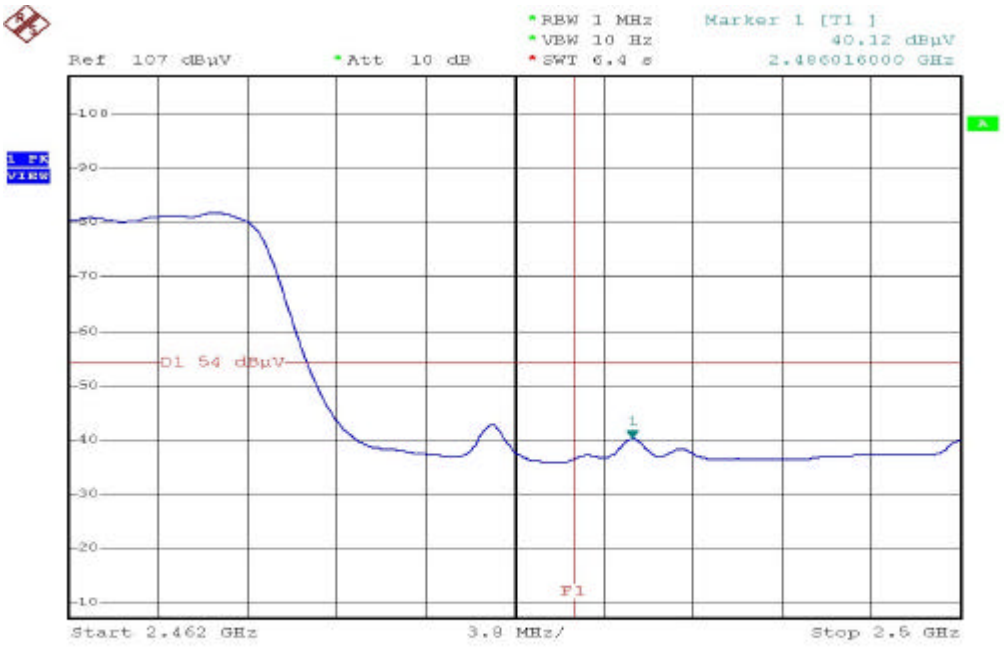


Date: 15.AUG.2004 16:54:02

4.7. Power Spectral Density Measurement Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Aug. 06, 2004 Temperature: 23℃ Humidity: 64%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -7.15 dBm

b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -7.36 dBm

c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -7.50 dBm

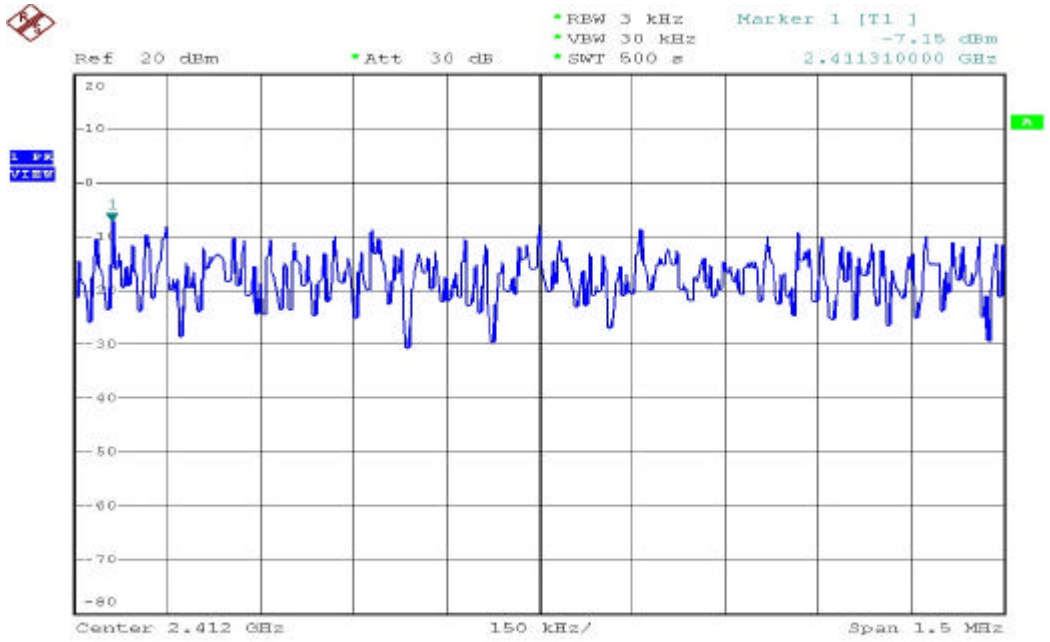
(2) Modulation Standard: IEEE 802.11g

Test Date: Aug. 06, 2004 Temperature: 23℃ Humidity: 64%

a) Channel 01: Maximum Power Density of 3 kHz Bandwidth is -17.21 dBm

b) Channel 06: Maximum Power Density of 3 kHz Bandwidth is -17.12 dBm

c) Channel 11: Maximum Power Density of 3 kHz Bandwidth is -17.51 dBm



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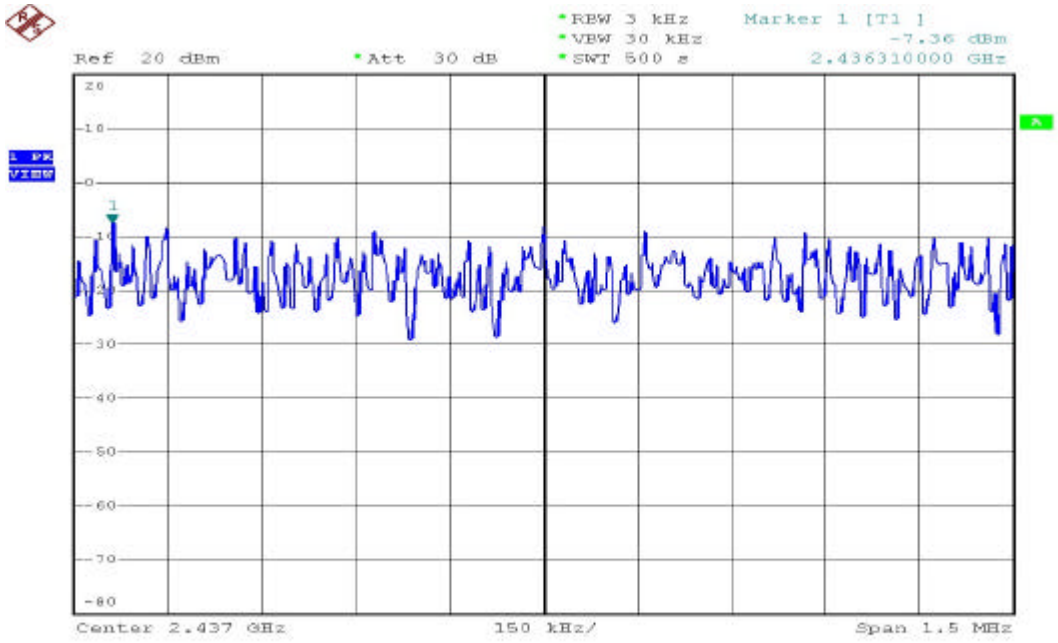

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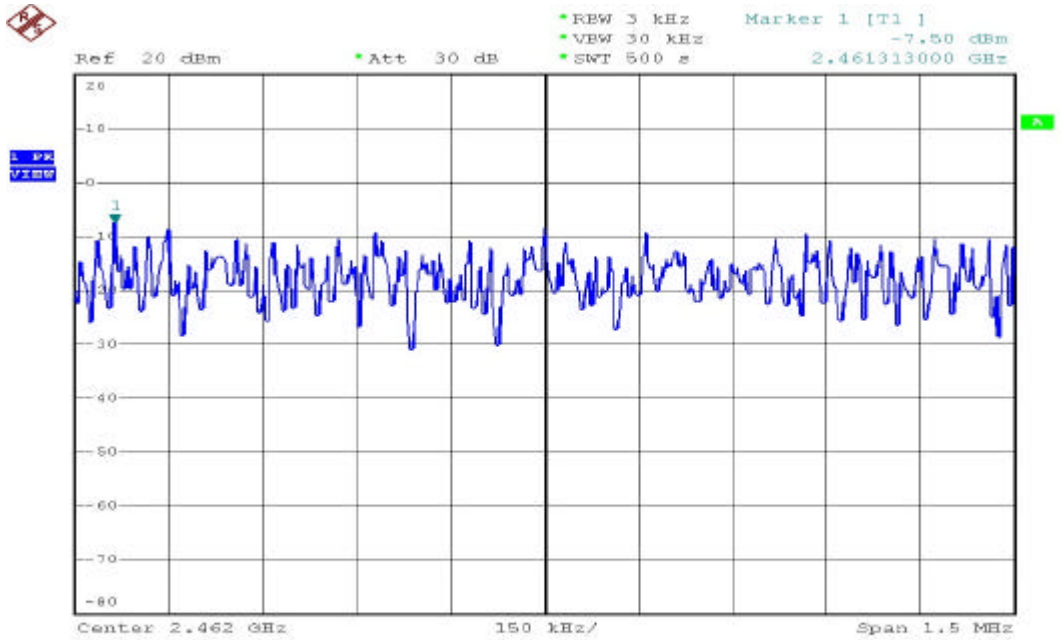

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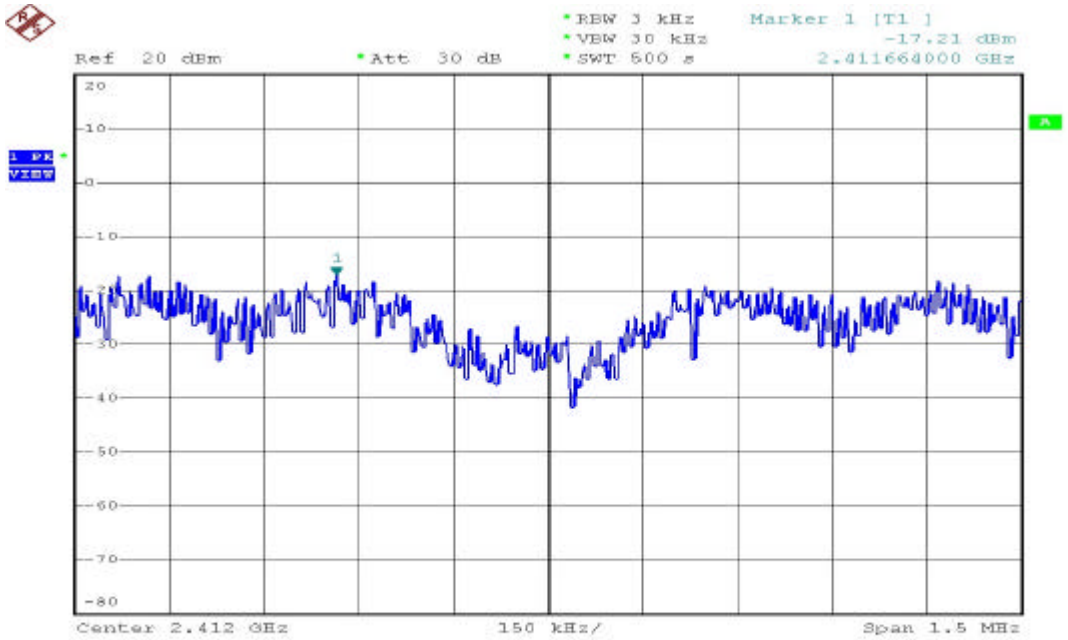

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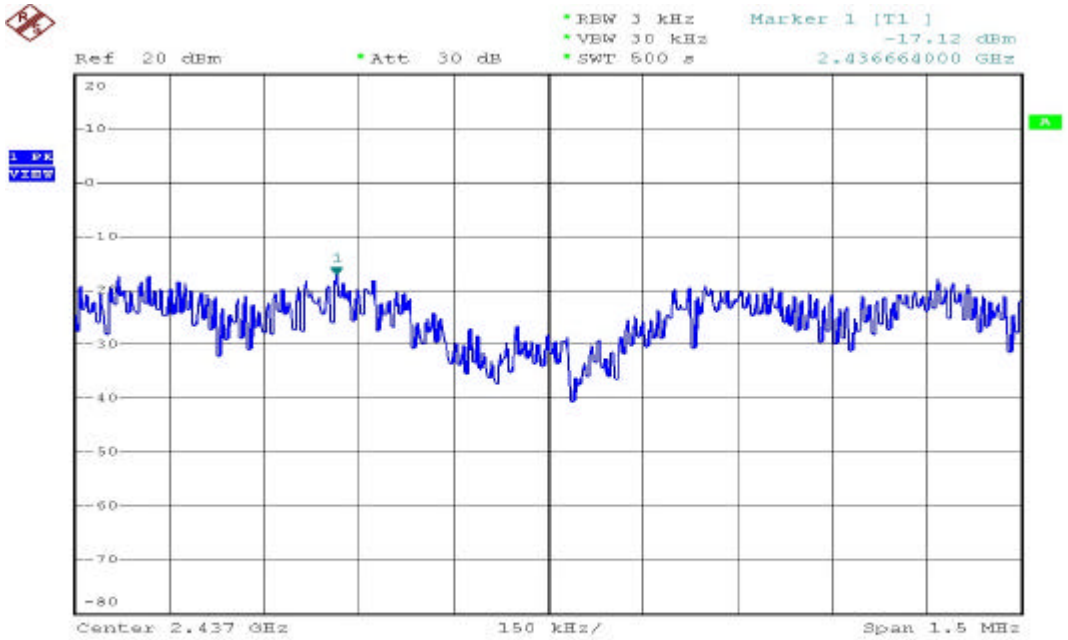

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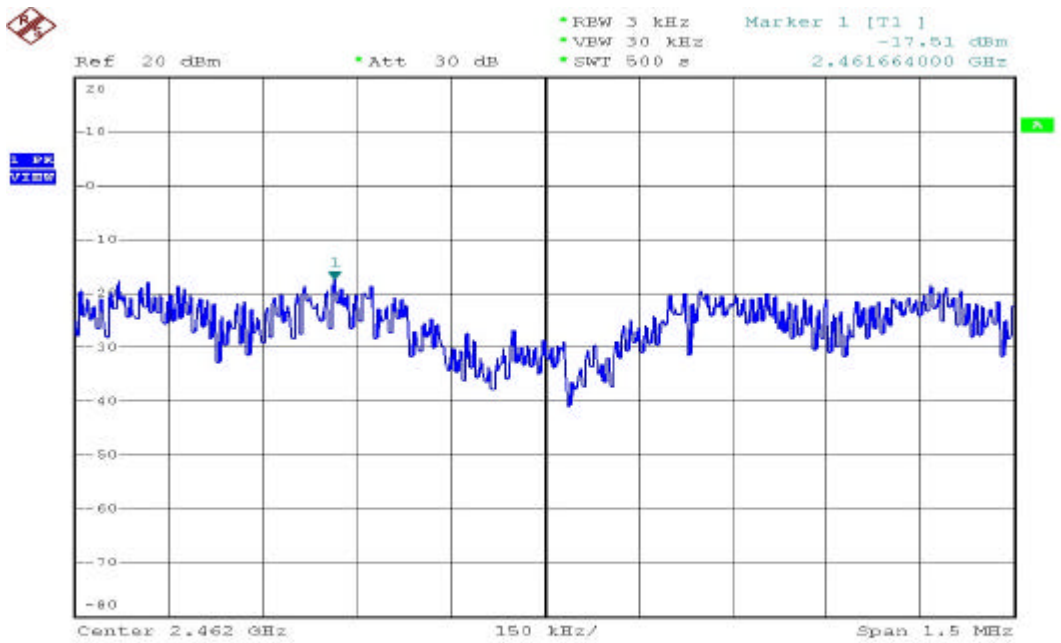

Date: 6.AUG.2004 17:36:49

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 +1.0dBi.

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: Aug. 15, 2004 Temperature: 24℃ Humidity: 60%

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum allowable Distance ®From Skin (cm)
01	2412	20.83	3.104
06	2437	21.95	3.532
11	2462	19.81	2.761

Modulation Standard: IEEE 802.11g
Test Date: Aug. 15, 2004 Temperature: 24℃ Humidity: 60%

Channel	Channel Frequency (MHz)	Output Power to Antenna (dBm)	Minimum allowable Distance ®From Skin (cm)
01	2412	16.44	1.873
06	2437	17.88	2.210
11	2462	15.61	1.701

The distance r (4th column) calculated from the Friis 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	2006/02/09
5	Spectrum Analyzer	8594E	HP	3520A01913	2005/01/15
6	Amplifier	8447D	Agilent	2944A10593	2004/10/09
7	Amplifier	8447D	Agilent	2944A10531	2005/06/30
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	2005/01/13
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	2006/04/02
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	2005/02/05
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