

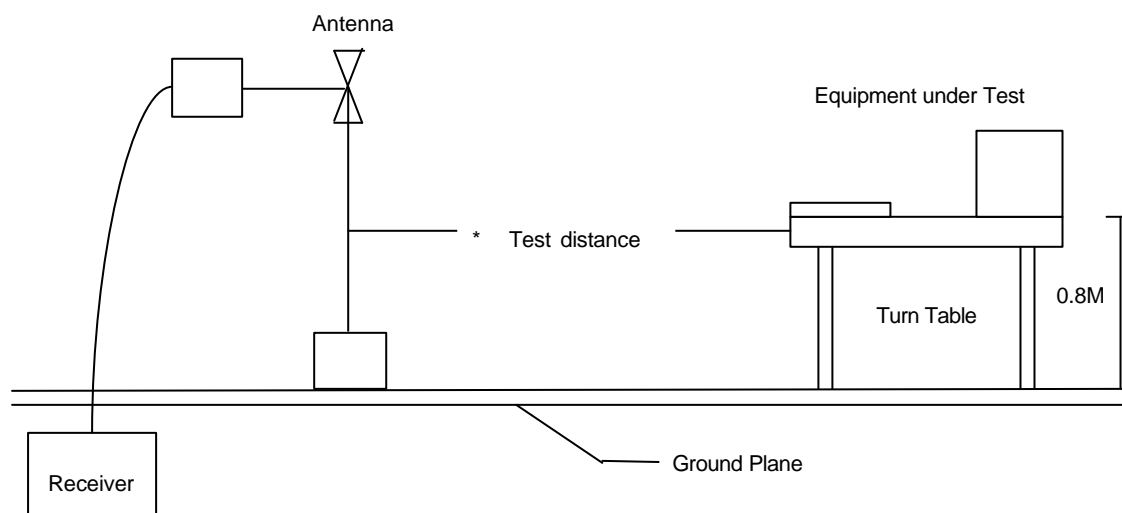
## 6. Test of Radiated Emission

Radiated emissions from 30 MHz to 25 GHz were measured according to the methods defines in ANSI C63.4-2003. The EUT was placed, 0.8 meter above the ground plane, as shown in section 1.4.2. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions

### 6.1. Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
5. For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method and reported.
8. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

### 6.2. Typical Test Setup Layout of Radiated Emission



### 6.3. Test Result of Radiated emission

Test mode 1: Transmit/ Receive (DC 5V from adapter)

Emission frequencies below 1 GHz Channel HI

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
158.04	H	51.21	-13.31	37.90	43.5	-5.60	Peak	192	1.5
224.97	H	51.97	-11.84	40.07	46.0	-5.93	Peak	192	1.5
248.25	H	51.35	-12.03	39.32	46.0	-6.68	Peak	192	1.5
298.69	H	48.40	-11.26	37.14	46.0	-8.86	Peak	192	1.5
318.09	H	48.76	-10.40	38.36	46.0	-7.64	Peak	192	1.5
331.67	H	49.09	-10.34	38.75	46.0	-7.25	Peak	192	1.5
600.36	H	41.33	-3.73	37.60	46.0	-8.40	Peak	122	1.5
640.13	H	43.42	-1.82	41.60	46.0	-4.40	Q.P.	122	1.5
801.15	H	38.02	1.06	39.08	46.0	-6.92	Peak	122	1.5
955.38	H	37.82	3.26	41.08	46.0	-4.92	Q.P.	122	1.5
78.50	V	53.22	-17.93	35.29	40.0	-4.71	Q.P.	192	1.5
158.04	V	49.44	-13.31	36.13	43.50	-7.37	Peak	192	1.5
432.55	V	47.86	-7.35	40.51	46.0	-5.49	Peak	192	1.5
439.34	V	43.62	-7.26	36.36	46.0	-9.64	Peak	192	1.5
463.59	V	48.54	-6.66	41.88	46.0	-4.12	Peak	192	1.5
479.11	V	48.42	-6.08	42.34	46.0	-3.66	Q.P.	192	1.5
641.10	V	40.14	-1.80	38.34	46.0	-7.66	Peak	122	1.5
701.24	V	37.85	-0.57	37.28	46.0	-8.72	Peak	122	1.5
802.12	V	36.00	1.09	37.09	46.0	-8.91	Peak	122	1.5
817.64	V	35.53	1.68	37.21	46.0	-8.79	Peak	122	1.5

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: IEEE 802.11b (11Mbps)

Emission frequencies above 1 GHz Channel LO

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.10	H	55.45	-2.42	53.03	74	-20.97	Peak	122	1.0
1600.10	H	51.69	-2.42	49.27	54	-4.73	Ave	122	1.0
4822.10	H	53.65	8.12	61.77	74	-12.23	Peak	262	1.0
4822.10	H	42.92	8.12	51.04	54	-2.96	Ave	262	1.0
7232.50	H	51.11	11.89	63.00	74	-11.00	Peak	261	1.1
7232.50	H	39.37	11.88	51.25	54	-2.75	Ave	261	1.1
9648.00	H	---	---	---	54	---	Ave	---	---
12060.00	H	---	---	---	54	---	Ave	---	---
1600.10	V	58.79	-2.97	55.82	74	-18.18	Peak	192	1.1
1600.10	V	46.44	-2.96	43.48	54	-10.52	Ave	192	1.1
4822.10	V	48.80	7.36	56.16	74	-17.84	Peak	220	1.0
4822.10	V	44.15	7.35	51.50	54	-2.50	Ave	220	1.0
7232.70	V	51.01	11.05	62.06	74	-11.94	Peak	219	1.0
7232.70	V	38.54	11.05	49.59	54	-4.41	Ave	219	1.0
9648.00	V	---	---	---	54	---	Ave	---	---
12060.75	V	51.98	15.93	67.91	54	-6.09	Peak	174	1.1
12060.75	V	37.38	15.93	53.31	54	-0.69	Ave	174	1.1

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11b (11Mbps)

Emission frequencies above 1 GHz Channel MID

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.10	H	53.77	-2.42	51.35	74	-22.65	Peak	120	1.0
1600.10	H	50.79	-2.42	48.07	54	-5.93	Ave	120	1.0
4872.30	H	54.37	8.32	62.69	74	-11.31	Peak	265	1.1
4872.30	H	40.02	8.31	48.33	54	-5.64	Ave	265	1.1
7307.90	H	50.80	12.05	62.85	74	-11.15	Peak	262	1.0
7307.90	H	36.93	12.04	48.97	54	-5.03	Ave	262	1.0
9748.00	H	---	---	---	54	---	Ave	---	---
12185.00	H	---	---	---	54	---	Ave	---	---
1600.00	V	58.93	-2.96	55.97	74	-18.03	Peak	191	1.0
1600.00	V	46.85	-2.96	43.89	54	-10.11	Ave	191	1.0
2550.00	V	57.73	1.10	58.83	74	-15.17	Peak	192	1.0
2550.00	V	45.02	1.10	46.12	54	-7.88	Ave	192	1.0
4872.10	V	51.47	7.54	59.01	74	-14.99	Peak	211	1.1
4872.10	V	37.64	7.53	45.71	54	-8.83	Ave	211	1.1
7311.00	V	---	---	---	54	---	Ave	---	---
9748.00	V	---	---	---	54	---	Ave	---	---
12185.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120KHz for Peak detection at frequency below 1GHz.
4. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz for Peak detection and Quasi-peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: IEEE 802.11b (11Mbps)

Emission frequencies above 1 GHz Channel HI

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.10	H	55.69	-2.42	53.27	74	-20.73	Peak	126	1.0
1600.10	H	51.28	-2.42	48.86	54	-5.14	Ave	126	1.0
4922.20	H	50.50	8.51	59.01	74	-14.99	Peak	261	1.0
4922.20	H	36.65	8.50	45.15	54	-8.85	Ave	261	1.0
7386.00	H	---	---	---	54	---	Ave	---	---
9848.00	H	---	---	---	54	---	Ave	---	---
12310.00	H	---	---	---	54	---	Ave	---	---
1600.00	V	58.12	-2.96	55.16	74	-18.84	Peak	191	1.1
1600.00	V	47.25	-2.96	44.29	54	-9.71	Ave	191	1.1
4923.10	V	50.12	7.72	57.84	74	-16.16	Peak	219	1.0
4923.10	V	35.48	7.72	43.20	54	-10.80	Ave	219	1.0
7385.00	V	---	---	---	54	---	Ave	---	---
9847.00	V	---	---	---	54	---	Ave	---	---
1209.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11g (54Mbps)

Emission frequencies above 1 GHz Channel LO

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.10	H	55.77	-2.42	53.35	74	-20.65	Peak	123	1.0
1600.10	H	51.76	-2.42	49.34	54	-4.66	Ave	123	1.0
4823.00	H	55.96	8.09	64.05	74	-9.95	Peak	259	1.1
4823.00	H	42.79	8.12	50.91	54	-3.09	Ave	259	1.1
7231.60	H	50.46	11.88	62.34	74	-11.66	Peak	262	1.1
7231.60	H	38.64	11.88	50.52	54	-3.48	Ave	262	1.1
9648.00	H	---	---	---	54	---	Ave	---	---
12060.00	H	---	---	---	54	---	Ave	---	---
1600.10	V	57.83	-2.96	54.87	74	-19.13	Peak	190	1.1
1600.10	V	46.60	-2.96	43.64	54	-10.36	Ave	190	1.1
4824.20	V	54.46	7.34	61.80	74	-12.20	Peak	222	1.1
4824.20	V	39.11	7.36	46.47	54	-7.53	Ave	222	1.1
7232.70	V	46.40	11.05	57.45	74	-16.55	Peak	248	1.0
7232.70	V	34.30	11.05	45.35	54	-8.65	Ave	248	1.0
9648.00	V	---	---	---	54	---	Ave	---	---
12052.30	V	45.59	15.93	61.52	74	-12.48	Peak	334	1.0
12052.30	V	35.55	15.95	51.50	54	-2.50	Ave	334	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11g (54Mbps)

Emission frequencies above 1 GHz Channel MID

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.10	H	55.52	-2.42	53.10	74	-20.90	Peak	117	1.0
1600.10	H	50.82	-2.42	48.40	54	-5.60	Ave	117	1.0
4873.60	H	50.67	8.32	58.99	74	-15.01	Peak	262	1.0
4873.60	H	38.36	8.31	46.67	54	-7.33	Ave	262	1.0
7307.80	H	47.99	12.04	60.03	74	-13.97	Peak	264	1.1
7307.80	H	35.76	12.04	47.80	54	-6.20	Ave	264	1.1
9748.00	H	---	---	---	54	---	Ave	---	---
12185.00	H	---	---	---	54	---	Ave	---	---
1600.10	V	58.43	-2.98	55.45	74	-18.55	Peak	194	1.0
1600.10	V	46.39	-2.96	43.43	54	-10.57	Ave	194	1.0
4872.70	V	49.49	7.52	57.01	74	-16.99	Peak	218	1.0
4872.70	V	34.57	7.54	42.11	54	-11.89	Ave	218	1.0
7311.00	V	---	---	---	54	---	Ave	---	---
9748.00	V	---	---	---	54	---	Ave	---	---
12185.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11g (54Mbps)

Emission frequencies above 1 GHz Channel HI

Test Date: Mar.10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.10	H	55.74	-2.42	53.32	74	-20.68	Peak	118	1.0
1600.10	H	51.95	-2.42	49.53	54	-4.47	Ave	118	1.0
4923.80	H	46.11	8.51	54.62	74	-19.38	Peak	264	1.1
4923.80	H	34.67	8.51	43.18	54	-10.82	Ave	264	1.1
7386.00	H	---	---	---	54	---	Ave	---	---
9848.00	H	---	---	---	54	---	Ave	---	---
12310.00	H	---	---	---	54	---	Ave	---	---
1600.10	V	58.44	-2.96	55.48	74	-18.52	Peak	193	1.0
1600.10	V	45.12	-2.96	42.16	54	-11.84	Ave	193	1.0
4923.50	V	49.78	7.70	57.48	74	-16.52	Peak	225	1.1
4923.50	V	34.62	7.72	42.34	54	-11.66	Ave	225	1.1
7386.00	V	---	---	---	54	---	Ave	---	---
9848.00	V	---	---	---	54	---	Ave	---	---
12310.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.



Test mode 2: Transmit/ Receive (DC 5V from pc system)

Emission frequencies below 1 GHz Channel HI

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
78.50	H	50.87	-17.93	32.94	40.0	-7.06	Peak	192	1.5
158.04	H	50.71	-13.31	37.40	43.5	-6.10	Peak	192	1.5
197.81	H	52.49	-14.29	38.20	43.5	-5.30	Peak	192	1.5
204.60	H	51.21	-13.75	37.46	43.5	-6.04	Peak	192	1.5
248.25	H	51.95	-12.03	39.92	46.0	-6.08	Peak	192	1.5
298.68	H	52.20	-11.26	40.95	46.0	-5.05	Peak	192	1.5
329.73	H	48.80	-10.37	38.42	46.0	-7.58	Peak	192	1.5
365.62	H	51.44	-8.98	42.46	46.0	-3.54	QP	192	1.5
641.10	H	39.83	-1.80	38.03	46.0	-7.97	Peak	122	1.5
696.39	H	39.98	-0.78	39.20	46.0	-6.80	Peak	122	1.5
955.38	H	37.32	3.26	40.58	46.0	-5.42	Peak	122	1.5
78.50	V	53.42	-17.93	35.50	40.0	-4.50	QP	192	1.5
91.11	V	53.46	-16.22	37.24	43.5	-6.26	Peak	192	1.5
104.69	V	54.59	-14.77	39.82	43.5	-3.68	QP	192	1.5
365.62	V	52.53	-8.98	43.55	46.0	-2.45	QP	192	1.5
432.55	V	47.86	-7.35	40.51	46.0	-5.49	Peak	192	1.5
458.74	V	47.54	-6.86	40.67	46.0	-5.33	Peak	192	1.5
465.53	V	47.15	-6.57	40.58	46.0	-5.42	Peak	192	1.5
479.11	V	47.62	-6.08	41.55	46.0	-4.45	QP	192	1.5
533.43	V	44.42	-5.79	38.63	46.0	-7.37	Peak	192	1.5
641.10	V	40.14	-1.80	38.34	46.0	-7.66	Peak	122	1.5

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: IEEE 802.11b (11Mbps)

Emission frequencies above 1 GHz Channel LO

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.31	H	55.74	-2.42	53.32	74	-20.68	Peak	123	1.0
1600.31	H	51.82	-2.42	49.40	54	-4.60	Ave	123	1.0
4822.41	H	52.73	8.12	60.85	74	-13.15	Peak	263	1.1
4822.41	H	41.39	8.12	49.51	54	-4.49	Ave	263	1.1
7232.73	H	50.54	11.89	62.43	74	-11.57	Peak	262	1.1
7232.73	H	38.87	11.88	50.75	54	-3.25	Ave	262	1.1
9648.00	H	---	---	---	54	---	Ave	---	---
12060.00	H	---	---	---	54	---	Ave	---	---
1600.43	V	58.93	-2.97	55.96	74	-18.04	Peak	193	1.1
1600.43	V	46.62	-2.96	43.66	54	-10.34	Ave	193	1.1
4824.35	V	49.08	7.36	56.44	74	-17.56	Peak	221	1.0
4824.35	V	42.64	7.35	49.99	54	-4.01	Ave	221	1.0
7236.12	V	51.25	11.05	62.30	74	-11.70	Peak	220	1.0
7236.12	V	38.71	11.05	49.76	54	-4.24	Ave	220	1.0
9648.00	V	---	---	---	54	---	Ave	---	---
12058.47	V	45.06	15.93	60.99	74	-13.01	Peak	175	1.0
12058.64	V	33.82	15.93	49.75	54	-4.25	Ave	175	1.0

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11b (11Mbps)

Emission frequencies above 1 GHz Channel MID

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.34	H	53.88	-2.42	51.46	74	-22.54	Peak	121	1.1
1600.34	H	50.63	-2.42	48.21	54	-5.79	Ave	121	1.1
4872.43	H	54.48	8.32	62.80	74	-11.20	Peak	266	1.0
4872.43	H	40.24	8.31	48.55	54	-5.45	Ave	266	1.0
7308.22	H	51.13	12.05	63.18	74	-10.82	Peak	263	1.0
7308.22	H	37.18	12.04	49.22	54	-4.78	Ave	263	1.0
9748.00	H	---	---	---	54	---	Ave	---	---
12185.00	H	---	---	---	54	---	Ave	---	---
1600.37	V	59.04	-2.96	56.08	74	-17.92	Peak	192	1.1
1600.37	V	46.92	-2.96	43.96	54	-10.04	Ave	192	1.1
2550.39	V	57.84	1.10	58.94	74	-15.06	Peak	193	1.0
2550.39	V	45.36	1.10	46.46	54	-7.54	Ave	193	1.0
4872.48	V	51.62	7.54	59.16	74	14.84	Peak	222	1.0
4872.48	V	37.82	7.53	45.35	54	-8.65	Ave	222	1.0
7311.00	V	---	---	---	54	---	Ave	---	---
9748.00	V	---	---	---	54	---	Ave	---	---
12185.00	V	---	---	---	54	---	Ave	---	---

## Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120KHz for Peak detection at frequency below 1GHz.
4. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz for Peak detection and Quasi-peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: IEEE 802.11b (11Mbps)

Emission frequencies above 1 GHz Channel HI

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.21	H	55.77	-2.42	53.35	74	-20.65	Peak	127	1.0
1600.21	H	51.36	-2.42	49.94	54	-5.06	Ave	127	1.0
4922.39	H	50.73	8.51	59.24	74	14.76	Peak	262	1.1
4922.39	H	36.82	8.50	45.32	54	-8.68	Ave	262	1.1
7386.00	H	---	---	---	54	---	Ave	---	---
9848.00	H	---	---	---	54	---	Ave	---	---
12310.00	H	---	---	---	54	---	Ave	---	---
1600.19	V	58.42	-2.96	55.46	74	-18.54	Peak	192	1.0
1600.19	V	47.43	-2.96	44.47	54	-9.53	Ave	192	1.0
4923.28	V	50.28	7.72	58.00	74	-16.00	Peak	220	1.1
4923.28	V	35.59	7.72	43.31	54	-10.69	Ave	220	1.1
7385.00	V	---	---	---	54	---	Ave	---	---
9847.00	V	---	---	---	54	---	Ave	---	---
12309.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11g (54Mbps)

Emission frequencies above 1 GHz Channel LO

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.41	H	55.84	-2.42	53.42	74	-20.58	Peak	124	1.1
1600.41	H	51.83	-2.42	49.41	54	-4.59	Ave	124	1.1
4823.19	H	57.14	8.09	65.23	74	-8.77	Peak	260	1.0
4823.19	H	42.93	8.12	51.05	54	-2.95	Ave	260	1.0
7231.74	H	52.66	11.88	64.54	74	-9.46	Peak	236	1.0
7231.74	H	38.88	11.88	50.76	54	-3.24	Ave	263	1.0
9748.00	H	---	---	---	54	---	Ave	---	---
12185.00	H	---	---	---	54	---	Ave	---	---
1600.28	V	57.88	-2.96	54.92	74	-19.08	Peak	191	1.0
1600.28	V	46.92	-2.96	43.96	54	-10.04	Ave	191	1.0
4824.33	V	54.64	7.34	61.98	74	-12.02	Peak	223	1.0
4824.33	V	39.23	7.36	46.59	54	-7.41	Ave	223	1.0
7232.91	V	46.68	11.05	57.73	74	-16.27	Peak	249	1.1
7232.91	V	34.51	11.05	45.56	54	-8.44	Ave	249	1.1
9648.00	V	---	---	---	54	---	Ave	---	---
12052.58	V	46.73	15.93	62.66	74	-11.34	Peak	335	1.1
12052.58	V	34.98	15.95	50.93	54	-3.07	Ave	335	1.1

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11g (54Mbps)

Emission frequencies above 1 GHz Channel MID

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.26	H	55.71	-2.42	53.29	74	-20.71	Peak	118	1.1
1600.26	H	51.02	-2.42	48.60	54	-5.40	Ave	118	1.1
4873.71	H	53.79	8.32	62.11	74	-11.89	Peak	263	1.1
4873.71	H	39.61	8.31	47.92	54	-6.08	Ave	263	1.1
7307.93	H	47.18	12.04	59.22	74	-14.78	Peak	265	1.1
7307.93	H	35.84	12.04	47.88	54	-6.12	Ave	265	1.1
9748.00	H	---	---	---	54	---	Ave	---	---
12185.00	H	---	---	---	54	---	Ave	---	---
1600.17	V	58.54	-2.98	55.56	74	-18.44	Peak	195	1.1
1600.17	V	46.51	-2.96	43.55	54	-10.45	Ave	195	1.1
4872.91	V	49.54	7.52	57.06	74	-16.94	Peak	219	1.1
4872.91	V	39.62	7.54	47.16	54	-6.84	Ave	219	1.1
7311.00	V	---	---	---	54	---	Ave	---	---
9748.00	V	---	---	---	54	---	Ave	---	---
12185.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

Modulation Standard: 802.11g (54Mbps)

Emission frequencies above 1 GHz Channel HI

Test Date: Mar.10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

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)
1600.21	H	55.77	-2.42	53.35	74	-20.65	Peak	127	1.0
1600.21	H	51.49	-2.42	49.07	54	-4.93	Ave	127	1.0
4922.47	H	50.63	8.51	59.14	74	-14.86	Peak	262	1.1
4922.47	H	36.74	8.50	45.24	54	-8.76	Ave	262	1.1
7386.00	H	---	---	---	54	---	Ave	---	---
9848.00	H	---	---	---	54	---	Ave	---	---
12310.00	H	---	---	---	54	---	Ave	---	---
1600.02	V	58.28	-2.96	55.32	74	-18.68	Peak	192	1.0
1600.02	V	47.44	-2.96	44.48	54	-9.52	Ave	192	1.0
4923.47	V	50.32	7.72	58.04	74	-15.96	Peak	220	1.1
4923.47	V	35.54	7.72	43.26	54	-10.74	Ave	220	1.1
7385.00	V	---	---	---	54	---	Ave	---	---
9847.00	V	---	---	---	54	----	Ave	---	---
12309.00	V	---	---	---	54	---	Ave	---	---

Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120 kHz and video bandwidth is 300 kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz.
6. The other emissions is too below to be measured.

6.3.1. Photographs of Radiated Emission Test

Test mode 1: Transmit/ Receive (DC 5V from adapter)

Front View



Rear View





Test mode 2: Transmit/ Receive (DC 5V from pc system)

Front View



Rear View

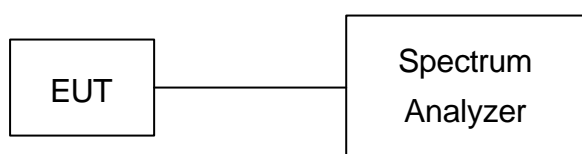


#### 6.4. 6dB Bandwidth Measurement Data

#### 6.5. Test Procedure

1. The transmitter output was connected to the spectrum analyzer.
2. Set RBW of spectrum analyzer to 100 KHz and VBW to 100 KHz.
3. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.

#### 6.6. Test Setup Layout



#### 6.7. Test Result and Data

(1) Modulation Standard: IEEE 802.11b

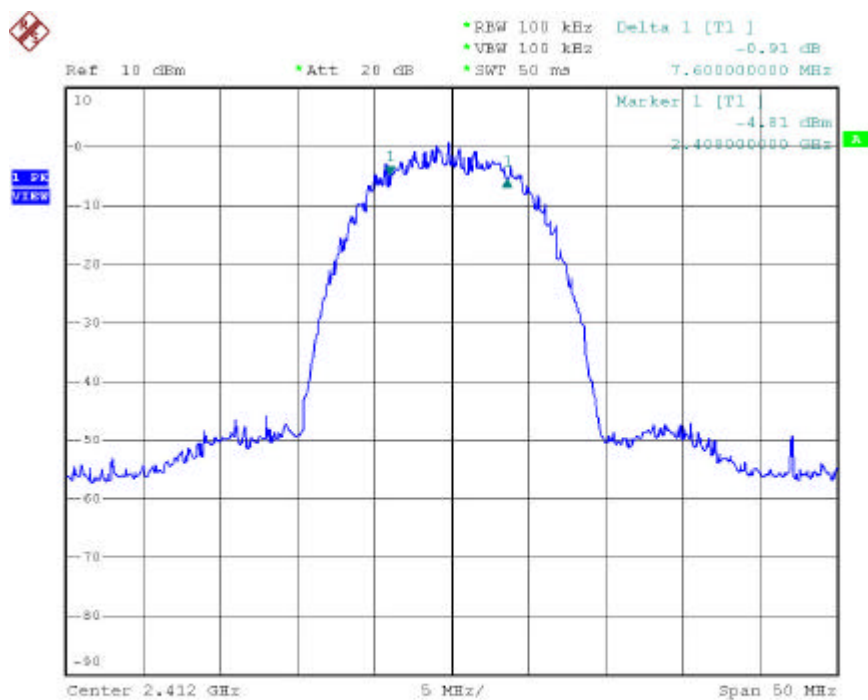
Test Date: Feb. 26, 2005 Temperature: 24 Humidity: 69% Atmospheric pressure: 1031mmHg

Channel	Frequency (MHz)	6dB Bandwidth (MHz)
01	2412	7.6
06	2437	7.6
11	2462	7.6

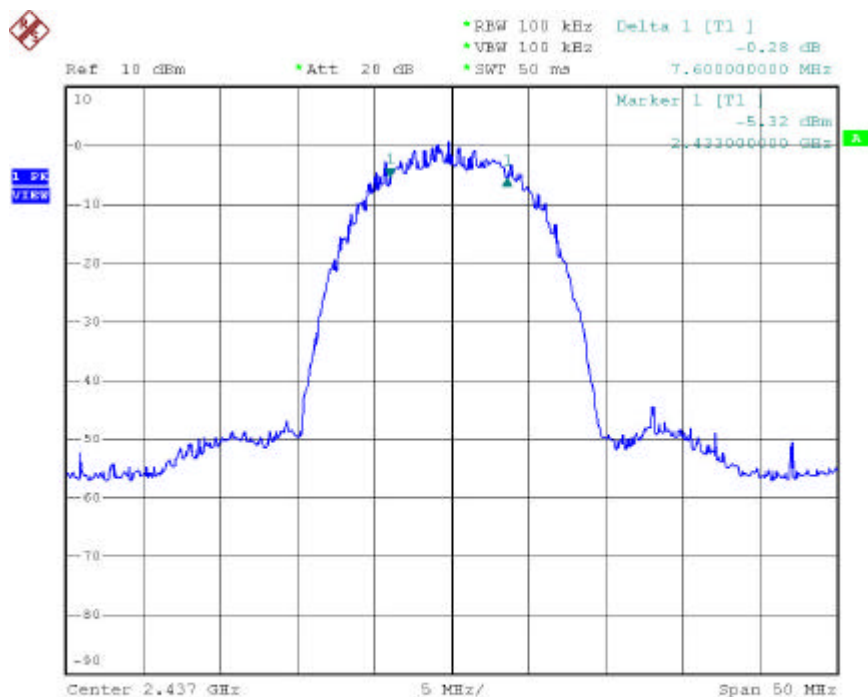
(2) Modulation Standard: IEEE 802.11g

Test Date: Feb. 26, 2005 Temperature: 24 Humidity: 69% Atmospheric pressure: 1031mmHg

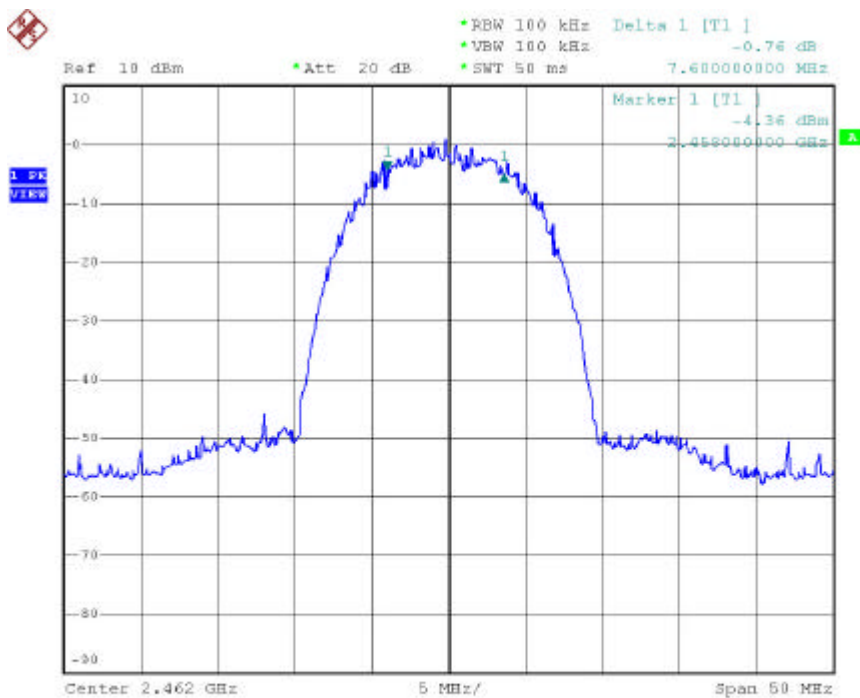
Channel	Frequency (MHz)	6dB Bandwidth (MHz)
01	2412	15.5
06	2437	15.5
11	2462	15.5



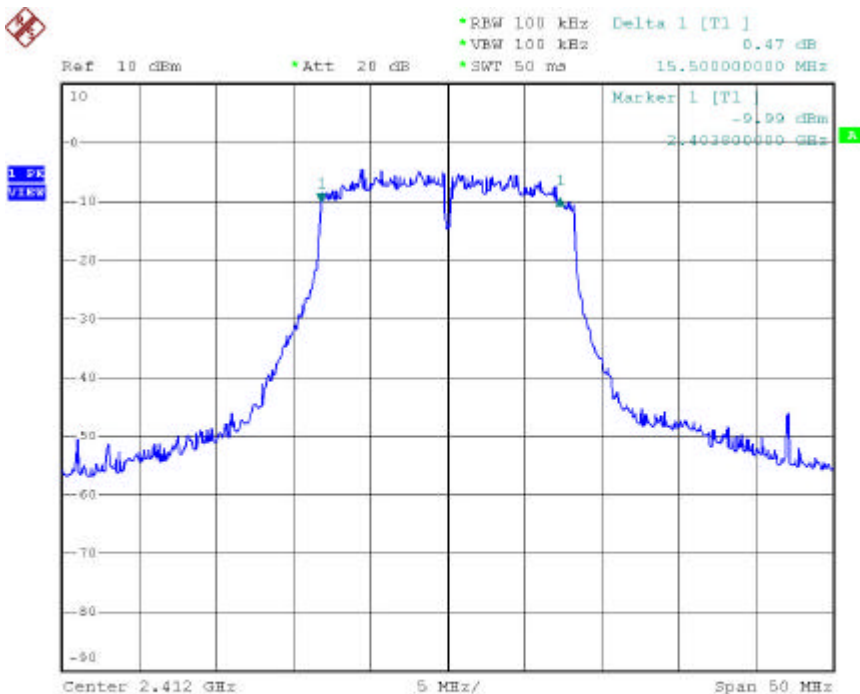
Date: 26.FEB.2005 14:43:46



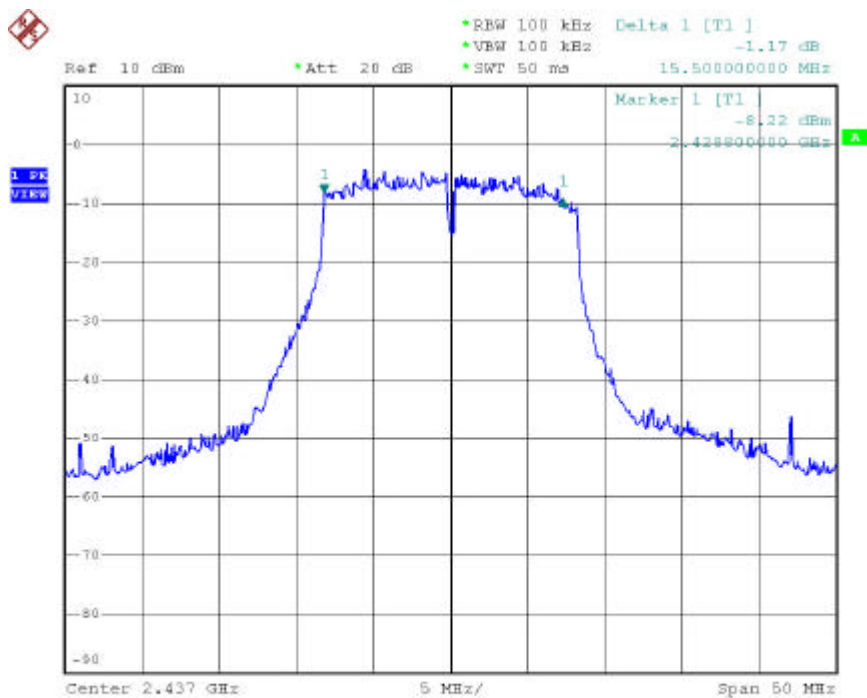
Date: 26.FEB.2005 14:44:53



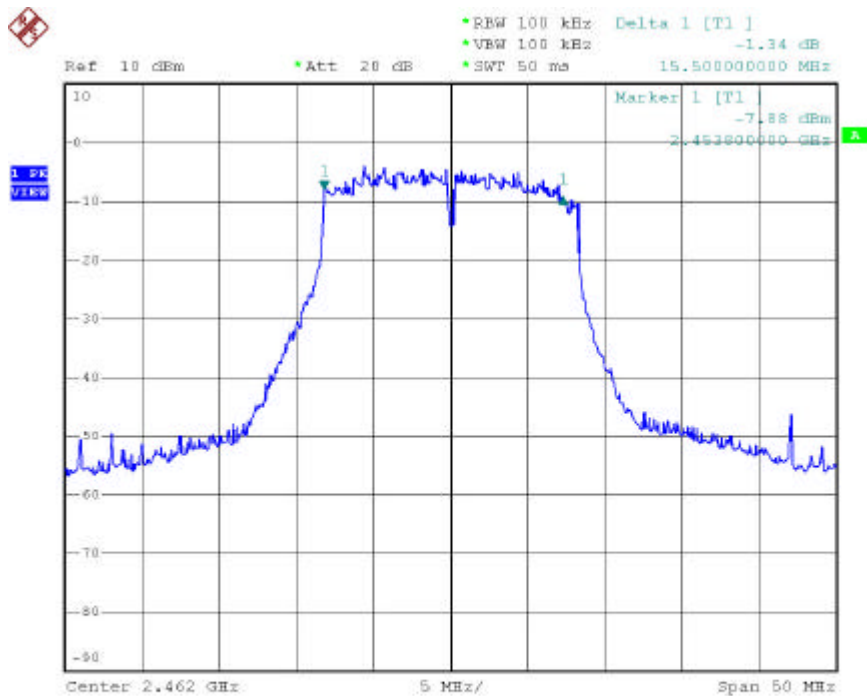
Date: 26.FEB.2005 14:47:57



Date: 26.FEB.2005 14:50:17



Date: 26.FEB.2005 14:51:51



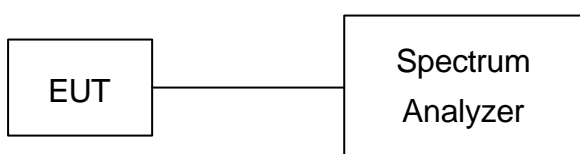
Date: 26.FEB.2005 14:53:45

## 7. Maximum Peak Output Power

### 7.1. Test Procedure

The antenna port ( RF output ) of the EUT was connected to the input ( RF input ) of a spectrum analyzer. Power was read directly from the spectrum analyzer and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

### 7.2. Test Setup Layout



### 7.3. Test Result and Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Feb. 15, 2005 Temperature: 24 Humidity: 64% Atmospheric pressure: 1020mmHg

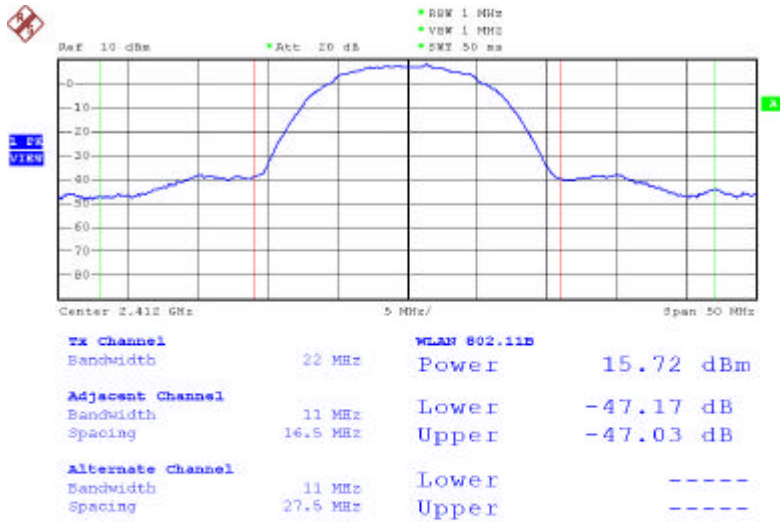
Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)
01	2412	15.72	37.325
06	2437	15.85	38.459
11	2462	16.09	40.644

(2) Modulation Standard: IEEE 802.11g

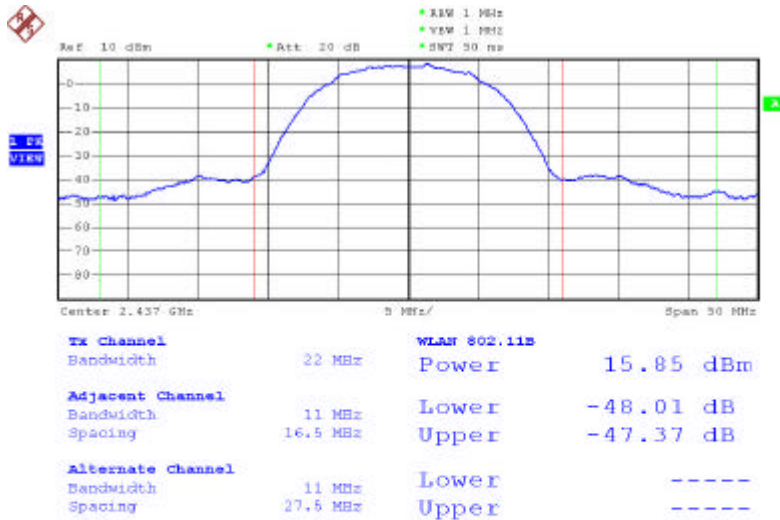
Test Date: Feb. 15, 2005 Temperature: 24 Humidity: 64% Atmospheric pressure: 1020mmHg

Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Output (mW)
01	2412	15.47	35.237
06	2437	15.67	36.898
11	2462	15.86	38.548

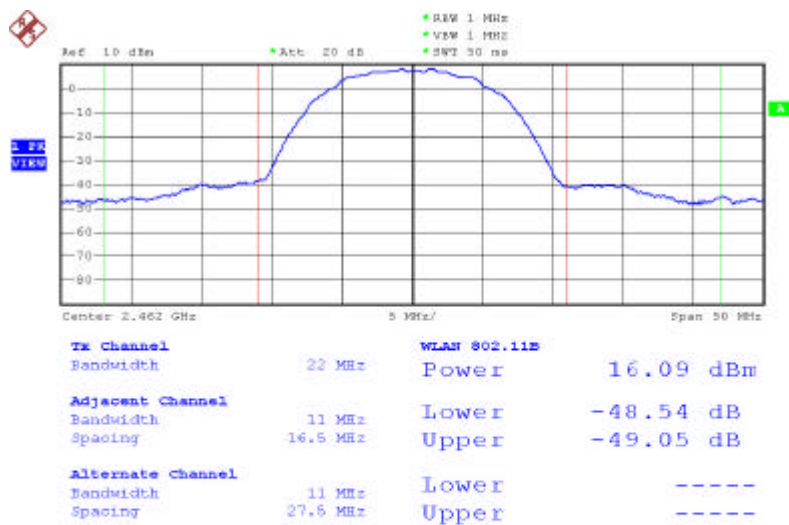
Note: Conducted Power = Reading Value + Cable Loss



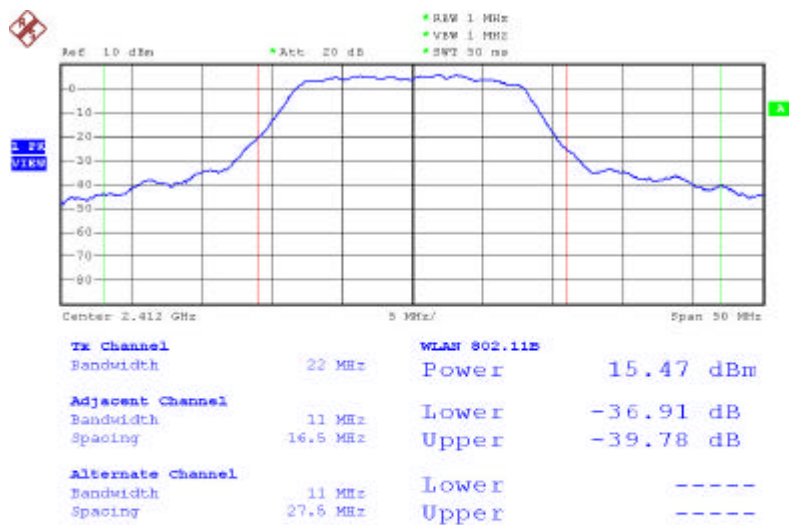
Date: 26.FEB.2005 14:30:39



Date: 26.FEB.2005 14:32:23

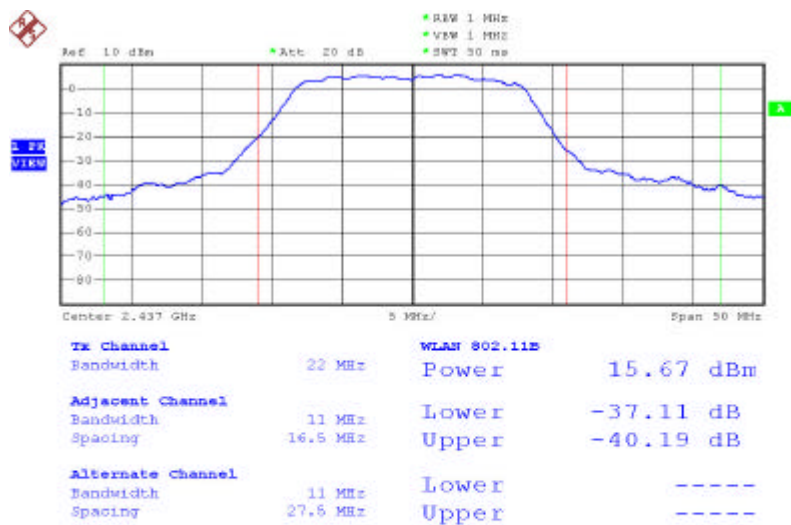


Date: 26.FEB.2005 14:35:15

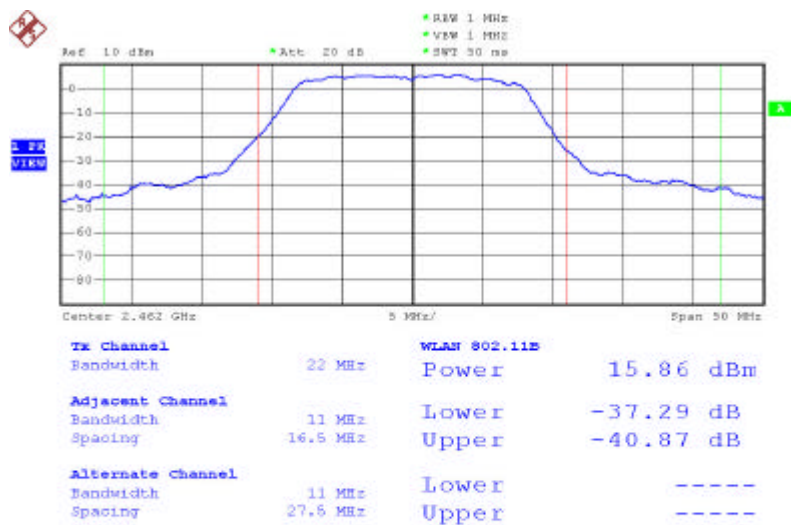


Date: 26.FEB.2005 14:56:20





Date: 26.FEB.2005 14:57:56



Date: 26.FEB.2005 14:59:10

## 8. Band Edges Measurement

### 8.1. Test Procedure

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100 KHz with convenient frequency span including 100 MHz bandwidth from band edge.
3. The band edges was measured and recorded.

### 8.2. Test Result and Data

(1) Modulation Standard: IEEE 802.11b

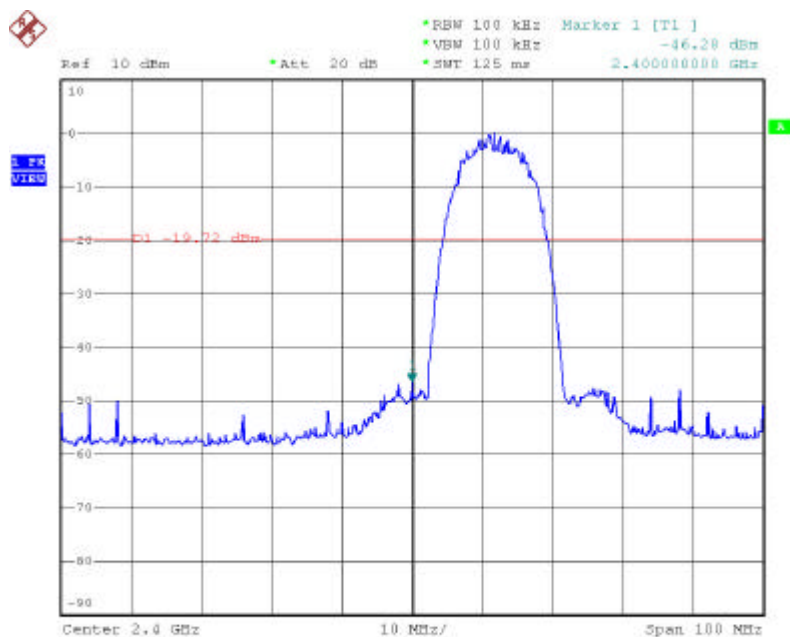
Test Date: Feb. 26, 2005 Temperature: 24 Humidity: 69% Atmospheric pressure: 1031mmHg

Channel	Frequency	maximum value in frequency (MHz)	maximum value is (dBm)
01	2412	2545.0	-45.89
11	2462	2488.1	-47.84

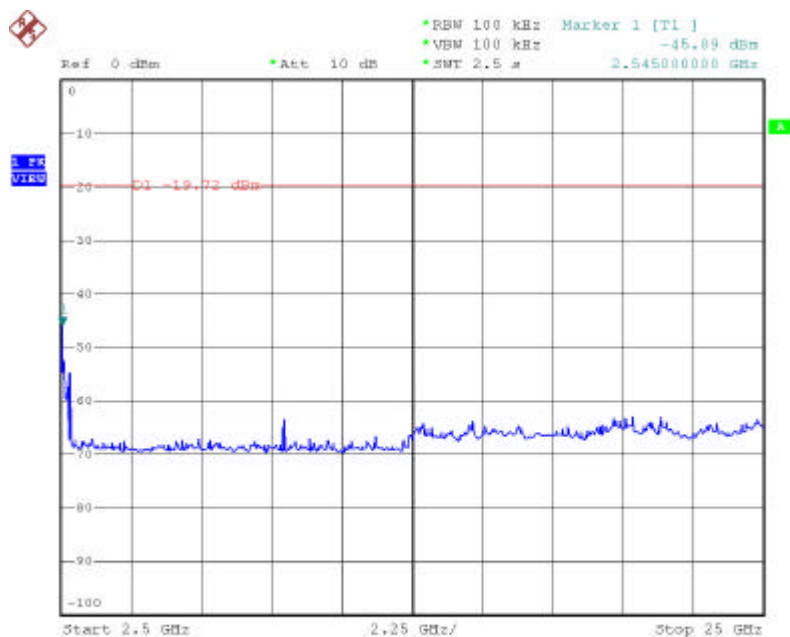
(2) Modulation Standard: IEEE 802.11g

Test Date: Feb. 26, 2005 Temperature: 24 Humidity: 69% Atmospheric pressure: 1031mmHg

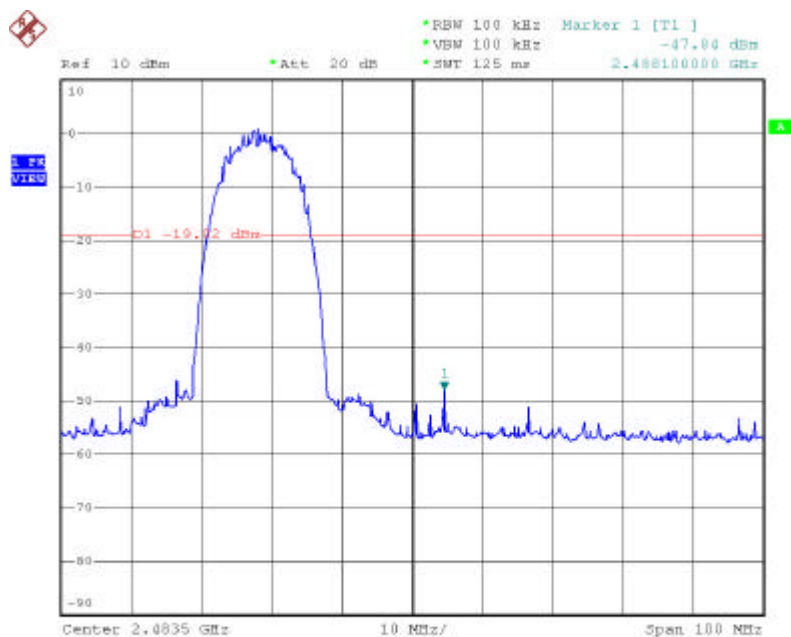
Channel	Frequency	maximum value in frequency (MHz)	maximum value is (dBm)
01	2412	2400.0	-41.34
11	2462	2488.1	-44.18



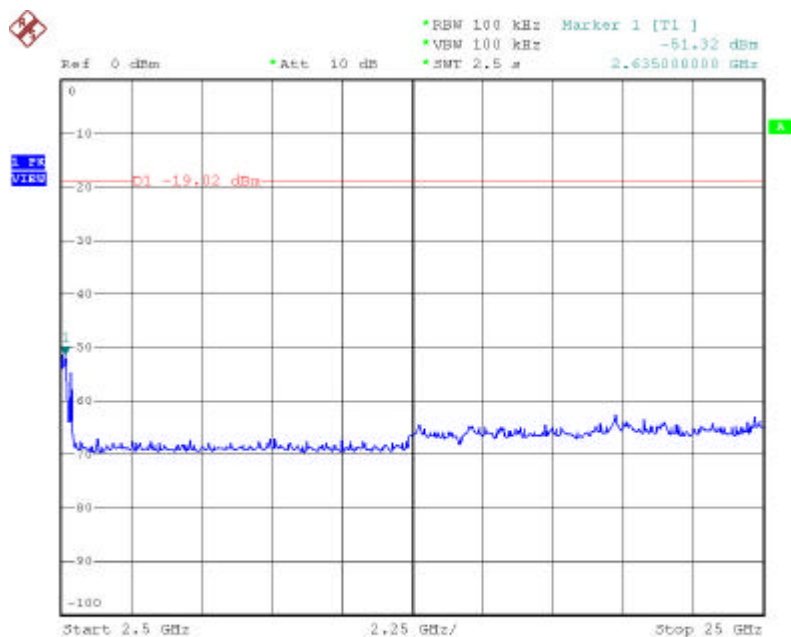
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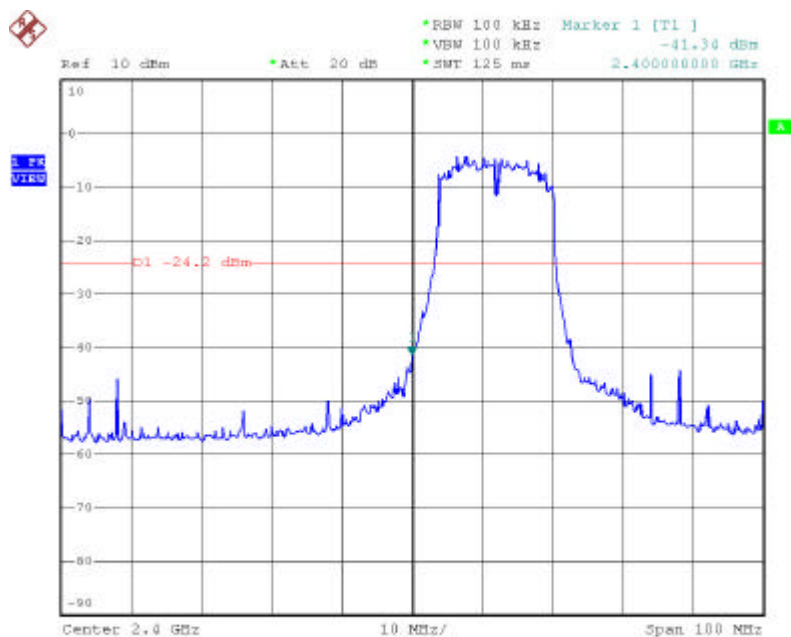
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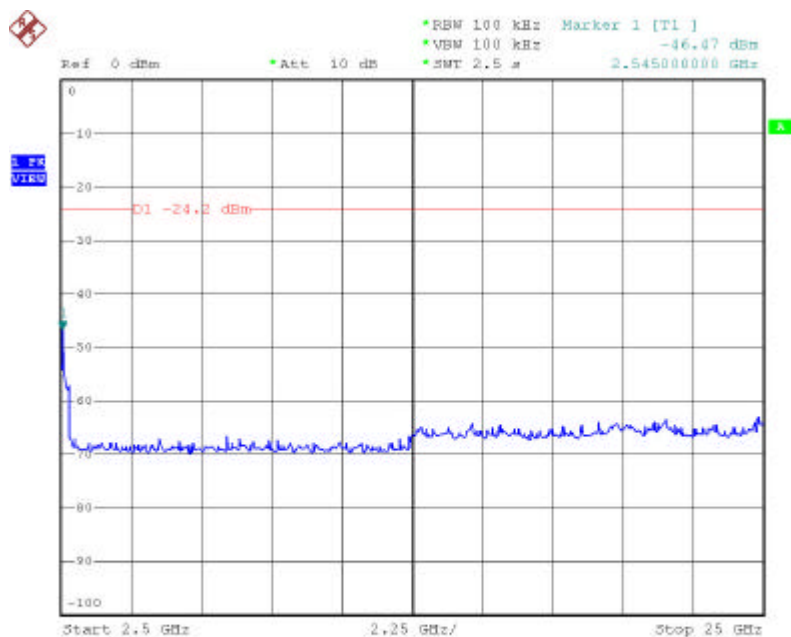
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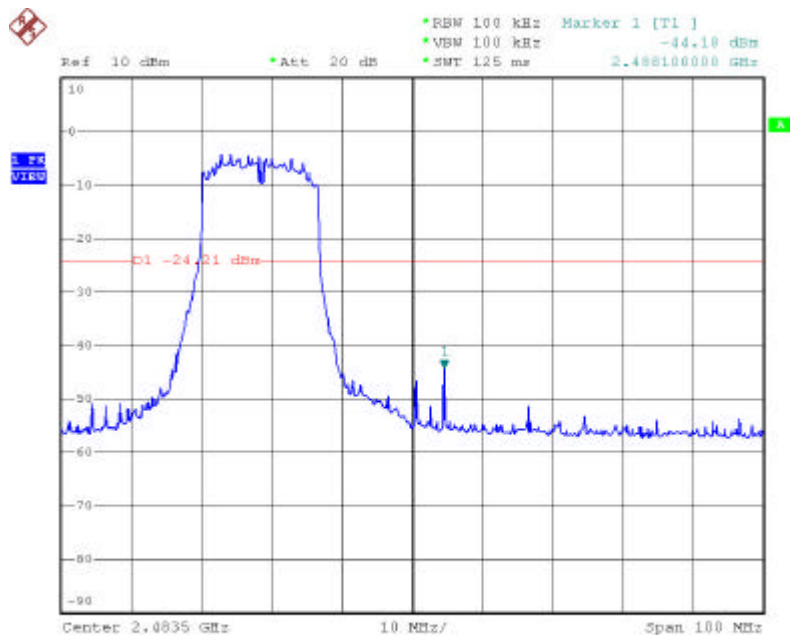
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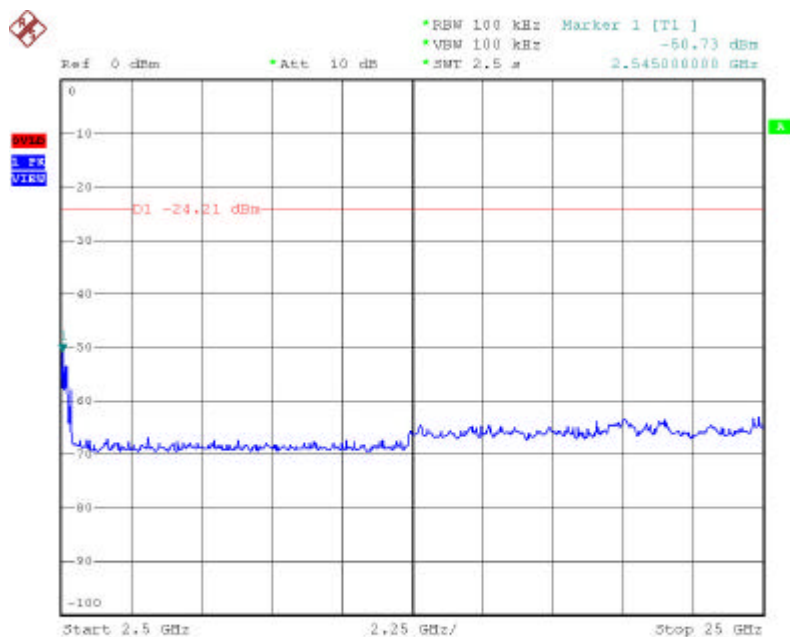
Date: 26.FEB.2005 15:16:50



Date: 26.FEB.2005 15:17:47



Date: 26.FEB.2005 15:19:48



Date: 26.FEB.2005 15:20:56

**8.3. Restrict band emission Measurement Data**

Modulation Standard: IEEE 802.11b

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

## a) Channel 1

Frequency (MHz)	Ant-Pol H/V	Meter Reading	Corrected Factor	Result (dBuV/m)	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table (Deg.)	Ant High (m)
						Peak	Ave.			
2386.296	H	64.58	1.24	65.82	Peak	74	54	-8.18	260	1.0
2388.132	H	51.15	1.24	52.39	Ave.	74	54	-1.61	260	1.0
2386.500	V	63.17	1.24	64.41	Peak	74	54	-8.59	221	1.0
2387.928	V	49.18	1.24	50.42	Ave.	74	54	-3.58	221	1.0

## b) Channel 11

Frequency (MHz)	Ant-Pol H/V	Meter Reading	Corrected Factor	Result (dBuV/m)	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table (Deg.)	Ant High (m)
						Peak	Ave.			
2488.296	H	52.17	1.24	53.41	Peak	74	54	-20.59	265	1.0
2488.068	H	42.14	1.24	43.38	Ave.	74	54	-10.62	265	1.0
2483.888	V	52.54	1.23	53.77	Peak	74	54	-20.23	223	1.0
2484.040	V	38.55	1.23	39.78	Ave.	74	54	-14.22	223	1.0

Modulation Standard: IEEE 802.11g

Test Date: Mar. 10, 2005 Temperature: 25 Humidity: 65% Atmospheric pressure: 1035mmHg

## a) Channel 1

Frequency (MHz)	Ant-Pol H/V	Meter Reading	Corrected Factor	Result (dBuV/m)	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table (Deg.)	Ant High (m)
						Peak	Ave.			
2389.764	H	60.01	1.25	61.26	Peak	74	54	-12.74	260	1.0
2389.968	H	50.73	1.25	51.98	Ave.	74	54	-2.02	260	1.0
2388.132	V	62.71	1.24	63.95	Peak	74	54	-10.05	221	1.0
2388.132	V	50.88	1.24	52.12	Ave.	74	54	-1.88	221	1.0

## b) Channel 11

Frequency (MHz)	Ant-Pol H/V	Meter Reading	Corrected Factor	Result (dBuV/m)	Remark	Limit@3m (dBuV/m)		Margin (dB)	Table (Deg.)	Ant High (m)
						Peak	Ave.			
2483.888	H	54.21	1.23	55.44	Peak	74	54	-18.56	265	1.0
2483.964	H	43.83	1.23	45.06	Ave.	74	54	-8.94	265	1.0
2488.068	V	52.78	1.24	54.02	Peak	74	54	-19.98	223	1.0
2488.068	V	44.80	1.24	46.02	Ave.	74	54	-7.98	223	1.0

Notes:

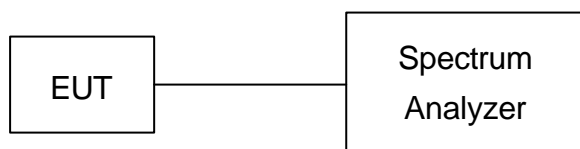
1. Result = Meter Reading + Factor
2. Factor = Antenna Factor + Cable Loss – Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth is 3 MHz for Peak detection at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average detection at frequency above 1GHz

## 9. Power Spectral Density

### 9.1. Test Procedure

1. The transmitter output was connected to spectrum analyzer.
2. The spectrum analyzer's resolution bandwidth were set at 3KHz RBW and 30KHz VBW as that of the fundamental frequency. Set the sweep time=span/3KHz.
3. The power spectral density was measured and recorded.
4. The Sweep time is allowed to be longer than span/3KHz for a full response of the mixer in the spectrum analyzer.

### 9.2. Test Setup Layout



### 9.3. Test Result and Data

(1) Modulation Standard: IEEE 802.11b

Test Date: Feb. 26, 2005 Temperature: 24 Humidity: 69% Atmospheric pressure: 1031mmHg

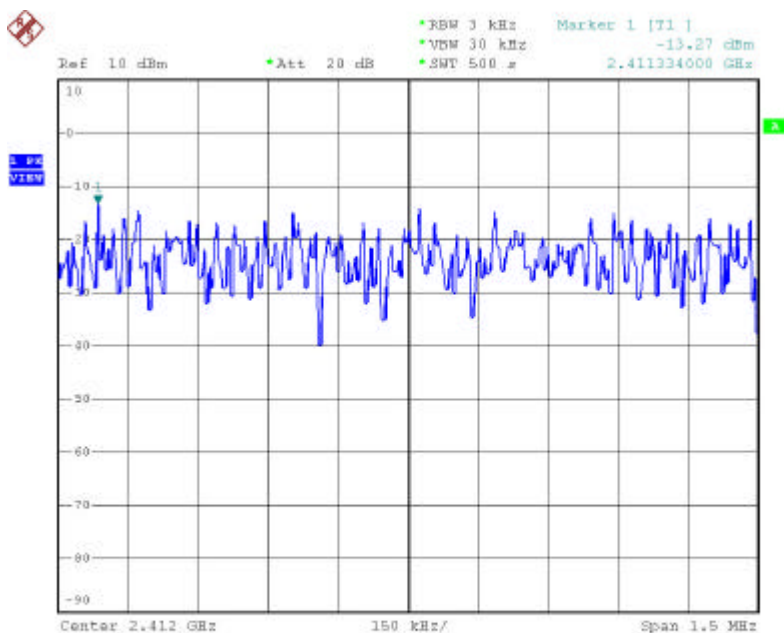
Channel	Frequency	Maximum Power Density of 3 kHz Bandwidth (dBm)
01	2412	-13.27
06	2437	-12.77
11	2462	-12.66

(2) Modulation Standard: IEEE 802.11g

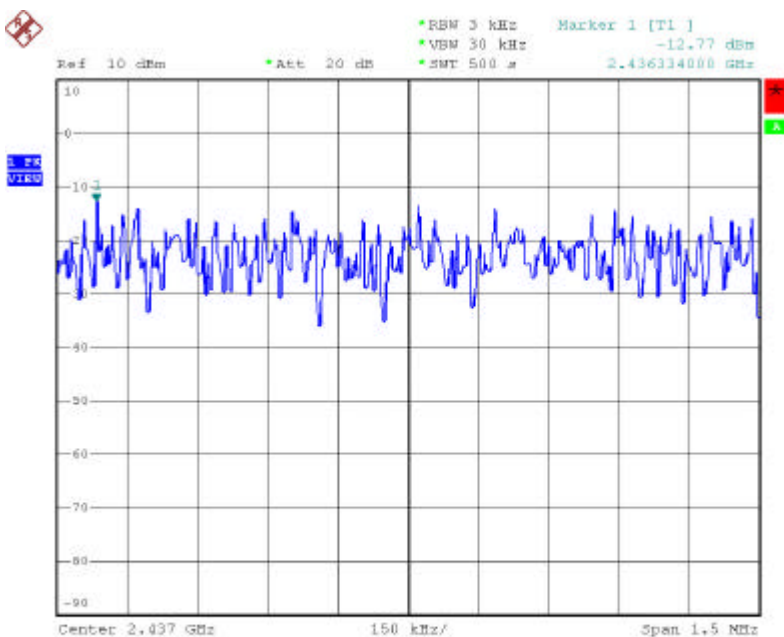
Test Date: Feb. 26, 2005 Temperature: 24 Humidity: 69% Atmospheric pressure: 1031mmHg

Channel	Frequency	Maximum Power Density of 3 kHz Bandwidth (dBm)
01	2412	-18.80
06	2437	-18.44
11	2462	-18.32





Date: 26.FEB.2005 15:47:58



Date: 26.FEB.2005 16:01:08





## 10. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

\*\* : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

### 10.1. Labeling Requirement

The device shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## 11. RF Exposure

FCC Rules and Regulations Part 1.1307, 1.1310, 2.1091, 2.1093:  
RF Exposure Compliance

### 11.1. Limit For Maximum Permissible Exposure (MPE)

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S ( minutes )
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

F=frequency in MHz

\*Plane-wave equivalent power density

### 11.2. MPE Calculations

$$E \text{ (V/m)} = \frac{\sqrt{30 \cdot P \cdot G}}{d} \quad \text{Power Density: Pd (mW/cm}^2\text{)} = \frac{E^2}{3770}$$

E = Electric field (V/m)

P = Peak output power (W)

G = Antenna numeric gain (numeric)

d = Separation distance (m)

Because the EUT is belong to General Population/ Uncontrolled Exposure. So the Limit of Power Density is 10 W/m<sup>2</sup>. We can change the formula to:

$$d = \sqrt{\frac{30 \cdot P \cdot G}{3770}}$$

### 11.3. FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation. Proposed RF exposure safety information to include in User's Manual.

## 12. List of Measuring Equipment Used

No	Instrument/Ancillary	Type	Manufacturer	Serial No.	Valid Date.
1	BILOG ANTENNA	CBL6112B	SCHAFFNER	2840	2005/04/08
2	PREAMPLIFIER	RFP4002	SCHAFFNER	010	2005/11/03
3	RECEIVER	SCR3501	SCHAFFNER	437	2005/11/03
4	SIGNAL GENERATOR	8648B	HP	3629U00612	2006/02/08
5	AMPLIFIER	8447D	AGILENT	2443A04650	2006/02/14
6	AMPLIFIER	8447D	AGILENT	2944A10531	2005/06/30
7	SERIES POWER METER	E4416A	AGILENT	GB41292146	2005/10/11
8	POWER SENSOR	E9327A	AGILENT	US40441392	2005/10/11
9	DIPOLE ANTENNA	AD-100	COM-POWER	721011	2005/12/02
10	DIPOLE ANTENNA	AD-100	COM-POWER	721010	2005/12/02
11	SPECTRUM ANALYZER	FSP40	R&S	100047	2005/12/28
12	PREAMPLIFIER	8449B	AGILENT	3008A01954	2005/12/27
13	HORN ANTENNA	3115	EMCO	31601	2006/02/21
14	HORN ANTENNA	3115	EMCO	31589	2006/01/31
15	HORN ANTENNA	3116	EMCO	31970	2006/01/30
16	HORN ANTENNA	3116	EMCO	31974	2006/02/21
17	EMI RECEIVER	8546A	HP	3807A00454	2006/02/25
18	RF FILTER SECTION	85460A	HP	3704A00386	2006/02/25
19	SIGNAL GENERATOR	83640A	HP	2927A00107	2006/03/16
20	ATTENUATOR	8491B	AGILENT	50703	2005/12/27
21	ATTENUATOR	8491B	AGILENT	50705	2005/12/27
22	TEMPERATURE CHAMBER	TMJ-9712	T MACHINE	T-12-040111	2006/02/21
23	HIGH PASS FILTER	84300-80038	HP	002	N/A
24	HIGH PASS FILTER	84300-80038	HP	006	N/A
25	DC Power Supply	GPD-3030	GM	7020936	N/A
26	AC POWER CONVERTER	AFC-11005	APC	F103120008	N/A