

Product : Wireless LAN PC Card
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Transmit Channel 1(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Peak Detector (Horizontal)

4823.840	6.27	33.50	0.00	19.07	58.84	15.16	74.00
7236.950	8.32	36.24	0.00	17.74	<62.30	11.70	74.00
9647.450	10.18	37.43	0.00	17.25	<64.86	9.14	74.00

Average Detector (Horizontal)

4823.460	6.27	33.50	0.00	6.21	45.98	8.02	54.00
7236.450	8.32	36.24	0.00	6.21	<50.77	3.23	54.00
9647.400	10.18	37.43	0.00	3.84	<51.45	2.55	54.00

Peak Detector (Vertical)

4823.570	6.27	33.50	0.00	19.86	59.63	14.37	74.00
7235.540	8.32	36.24	0.00	18.19	<62.75	11.25	74.00
9647.240	10.18	37.43	0.00	17.46	<65.07	8.93	74.00

Average Detector (Vertical)

4823.540	6.27	33.50	0.00	6.35	46.12	7.88	54.00
7235.550	8.32	36.24	0.00	5.24	<49.80	4.20	54.00
9647.360	10.18	37.43	0.00	3.98	<51.59	2.41	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor + Cable loss.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Transmit Channel 6(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Peak Detector (Horizontal)

4875.900	6.32	33.56	0.00	19.28	59.16	14.84	74.00
7312.400	8.38	36.31	0.00	18.45	<63.13	10.87	74.00
9750.300	10.25	37.45	0.00	17.85	<65.55	8.45	74.00

Average Detector (Horizontal)

4875.300	6.32	33.56	0.00	6.11	45.99	8.01	54.00
7313.030	8.38	36.31	0.00	4.68	<49.36	4.64	54.00
9750.670	10.25	37.45	0.00	4.02	<51.72	2.28	54.00

Peak Detector (Vertical)

4875.600	6.32	33.56	0.00	19.25	59.13	14.87	74.00
7312.800	8.38	36.31	0.00	17.58	<62.26	11.74	74.00
9750.500	10.25	37.45	0.00	18.06	<65.76	8.24	74.00

Average Detector (Vertical)

4875.400	6.32	33.56	0.00	5.98	45.86	8.14	54.00
7312.400	8.38	36.31	0.00	4.84	<49.52	4.48	54.00
9750.300	10.25	37.45	0.00	4.22	<51.92	2.08	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor + Cable loss.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card
 Test Item : Harmonic Radiated Emission Data
 Test Mode : Transmit Channel 11(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Peak Detector (Horizontal)

4926.100	6.37	33.62	0.00	18.52	58.51	15.49	74.00
7387.900	8.45	36.39	0.00	17.59	<62.43	11.57	74.00
9848.900	10.33	37.47	0.00	18.55	<66.35	7.65	74.00

Average Detector (Horizontal)

4926.300	6.37	33.62	0.00	5.99	45.98	8.02	54.00
7387.540	8.45	36.39	0.00	4.85	<49.69	4.31	54.00
9848.650	10.33	37.47	0.00	4.60	<52.40	1.60	54.00

Peak Detector (Vertical)

4924.900	6.37	33.62	0.00	19.95	59.94	14.06	74.00
7388.600	8.45	36.39	0.00	18.24	<63.08	10.92	74.00
9850.500	10.33	37.47	0.00	18.45	<66.25	7.75	74.00

Average Detector (Vertical)

4924.450	6.37	33.62	0.00	6.19	46.18	7.82	54.00
7388.500	8.45	36.39	0.00	5.10	<49.94	4.06	54.00
9850.400	10.33	37.47	0.00	3.65	<51.45	2.55	54.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. Emission Level = Reading Level + Probe Factor + Cable loss.
3. The average measurement was not performed when the peak measured data under the limit of average detection.

Product : Wireless LAN PC Card
 Test Item : General Radiated Emission Data
 Test Mode : Transmit Channel 1(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Horizontal:

*132.820	1.44	12.07	26.89	52.00	38.62	4.88	43.50
241.460	1.88	12.38	26.93	51.80	39.13	6.87	46.00
262.800	1.97	12.57	26.94	52.40	40.01	5.99	46.00
286.080	2.07	12.78	26.94	51.60	39.50	6.50	46.00
456.800	2.77	16.30	26.70	45.00	37.37	8.63	46.00
547.980	3.14	18.02	26.56	41.60	36.20	9.80	46.00

Vertical:

151.250	1.52	14.26	26.89	44.80	33.68	9.82	43.50
267.650	1.99	12.61	26.94	44.80	32.47	13.53	46.00
390.840	2.50	14.80	26.81	40.60	31.10	14.90	46.00
504.330	2.96	17.37	26.63	40.40	34.11	11.89	46.00
*722.580	3.86	20.91	26.29	40.00	38.49	7.51	46.00
777.870	4.09	21.69	26.20	38.80	38.38	7.62	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level- PreAMP.I.
3. Emission Level = Reading Level + Probe Factor + Cable loss.

Product : Wireless LAN PC Card
 Test Item : General Radiated Emission Data
 Test Mode : Transmit Channel 6(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Horizontal:

*132.820	1.44	12.07	26.89	52.60	39.22	4.28	43.50
240.490	1.88	12.37	26.93	53.00	40.32	5.68	46.00
262.800	1.97	12.57	26.94	53.00	40.61	5.39	46.00
286.080	2.07	12.78	26.94	51.60	39.50	6.50	46.00
504.330	2.96	17.37	26.63	43.80	37.51	8.49	46.00
722.580	3.86	20.91	26.29	39.20	37.69	8.31	46.00

Vertical:

134.760	1.45	12.33	26.89	47.60	34.49	9.01	43.50
268.620	2.00	12.62	26.94	44.80	32.48	13.52	46.00
584.840	3.30	18.57	26.50	41.00	36.37	9.63	46.00
*723.550	3.86	20.93	26.28	40.40	38.91	7.09	46.00
777.870	4.09	21.69	26.20	39.20	38.78	7.22	46.00
853.530	4.40	22.70	26.08	36.40	37.42	8.58	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level- PreAMP.
3. Emission Level = Reading Level + Probe Factor + Cable loss.

Product : Wireless LAN PC Card
 Test Item : General Radiated Emission Data
 Test Mode : Transmit Channel 11(1Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Horizontal:

*132.820	1.44	12.07	26.89	52.20	38.82	4.68	43.50
241.460	1.88	12.38	26.93	51.80	39.13	6.87	46.00
334.580	2.27	13.64	26.90	46.20	35.21	10.79	46.00
504.330	2.96	17.37	26.63	44.20	37.91	8.09	46.00
547.980	3.14	18.02	26.56	42.40	37.00	9.00	46.00
854.500	4.40	22.71	26.08	37.60	38.64	7.36	46.00

Vertical:

133.790	1.44	12.20	26.89	47.20	33.95	9.55	43.50
267.650	1.99	12.61	26.94	45.00	32.67	13.33	46.00
505.300	2.97	17.39	26.63	40.60	34.33	11.67	46.00
*722.580	3.86	20.91	26.29	40.80	39.29	6.71	46.00
744.890	3.95	21.23	26.25	39.80	38.73	7.27	46.00
809.880	4.22	22.13	26.15	37.60	37.80	8.20	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level- PreAMP.
3. Emission Level = Reading Level + Probe Factor + Cable loss.

Product : Wireless LAN PC Card
 Test Item : General Radiated Emission Data
 Test Mode : Transmit Channel 1(11Mbps)

Freq. MHz	Cable Loss dB	Probe Factor dB/m	PreAMP dB	Reading Level dBuV	Emission Level dBuV/m	Margin dB	Limit dBuV/m
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Horizontal:

*134.760	1.45	12.33	26.89	52.60	39.49	4.01	43.50
243.400	1.89	12.39	26.93	52.00	39.36	6.64	46.00
267.650	1.99	12.61	26.94	55.00	42.67	3.33	46.00
505.300	2.97	17.39	26.63	43.80	37.53	8.47	46.00
549.920	3.15	18.05	26.56	41.80	36.44	9.56	46.00
724.520	3.87	20.94	26.28	39.20	37.73	8.27	46.00

Vertical:

134.760	1.45	12.33	26.89	47.00	33.89	9.61	43.50
268.620	2.00	12.62	26.94	45.00	32.68	13.32	46.00
505.300	2.97	17.39	26.63	40.60	34.33	11.67	46.00
637.220	3.51	19.47	26.42	39.60	36.16	9.84	46.00
*723.550	3.86	20.93	26.28	40.80	39.31	6.69	46.00
766.230	4.04	21.53	26.22	39.40	38.75	7.25	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level- PreAMP.
3. Emission Level = Reading Level + Probe Factor + Cable loss.

Product : Wireless LAN PC Card
 Test Item : General Radiated Emission Data
 Test Mode : Transmit Channel 6(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Horizontal:

*132.820	1.44	12.07	26.89	52.00	38.62	4.88	43.50
240.490	1.88	12.37	26.93	51.80	39.12	6.88	46.00
287.050	2.07	12.79	26.95	52.00	39.92	6.08	46.00
367.560	2.40	14.31	26.84	46.60	36.47	9.53	46.00
505.300	2.97	17.39	26.63	43.60	37.33	8.67	46.00
854.500	4.40	22.71	26.08	37.80	38.84	7.16	46.00

Vertical:

* 36.790	1.04	6.51	26.85	54.20	34.90	5.10	40.00
133.790	1.44	12.20	26.89	47.20	33.95	9.55	43.50
267.650	1.99	12.61	26.94	45.00	32.67	13.33	46.00
636.250	3.51	19.45	26.42	38.00	34.54	11.46	46.00
744.890	3.95	21.23	26.25	40.40	39.33	6.67	46.00
777.870	4.09	21.69	26.20	39.00	38.58	7.42	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level- PreAMP.
3. Emission Level = Reading Level + Probe Factor + Cable loss.

Product : Wireless LAN PC Card
 Test Item : General Radiated Emission Data
 Test Mode : Transmit Channel 11(11Mbps)

Freq.	Cable	Probe	PreAMP	Reading	Emission	Margin Limit	
MHz	Loss	Factor	dB	Level	Level	dB	dBuV/m
	dB	dB/m		dBuV	dBuV/m		

Horizontal:

*132.820	1.44	12.07	26.89	52.60	39.22	4.28	43.50
241.460	1.88	12.38	26.93	52.00	39.33	6.67	46.00
262.800	1.97	12.57	26.94	53.00	40.61	5.39	46.00
286.080	2.07	12.78	26.94	51.80	39.70	6.30	46.00
504.330	2.96	17.37	26.63	44.00	37.71	8.29	46.00
722.580	3.86	20.91	26.29	39.80	38.29	7.71	46.00

Vertical:

133.790	1.44	12.20	26.89	47.80	34.55	8.95	43.50
266.680	1.99	12.61	26.94	45.00	32.66	13.34	46.00
392.780	2.51	14.85	26.80	41.40	31.95	14.05	46.00
591.630	3.32	18.67	26.49	39.00	34.51	11.49	46.00
*722.580	3.86	20.91	26.29	40.60	39.09	6.91	46.00
778.840	4.09	21.71	26.20	39.20	38.80	7.20	46.00

Note:

1. All Readings below 1GHz are Quasi-Peak, above are average value.
2. “ * ”, means this data is the worst emission level- PreAMP.
3. Emission Level = Reading Level + Probe Factor + Cable loss.

5.7. Test Result of Band Edge

Product : Wireless LAN PC Card
 Test Item : Band Edge Data
 Test Site : No.1 OATS
 Test Mode : Channel 1 (1Mbps)

RF Conducted Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1 (Horizontal)	<2400	>20	Pass
1 (Vertical)	<2400	>20	Pass

Figure Channel 1: 1Mbps(Horizontal)

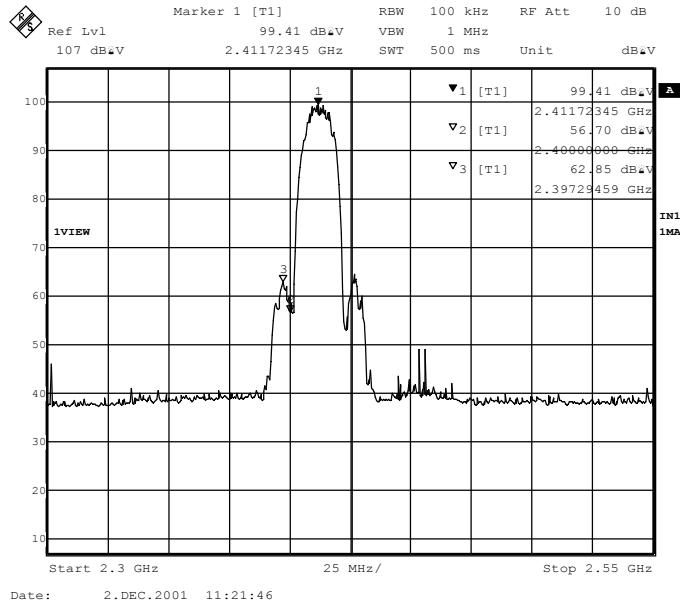
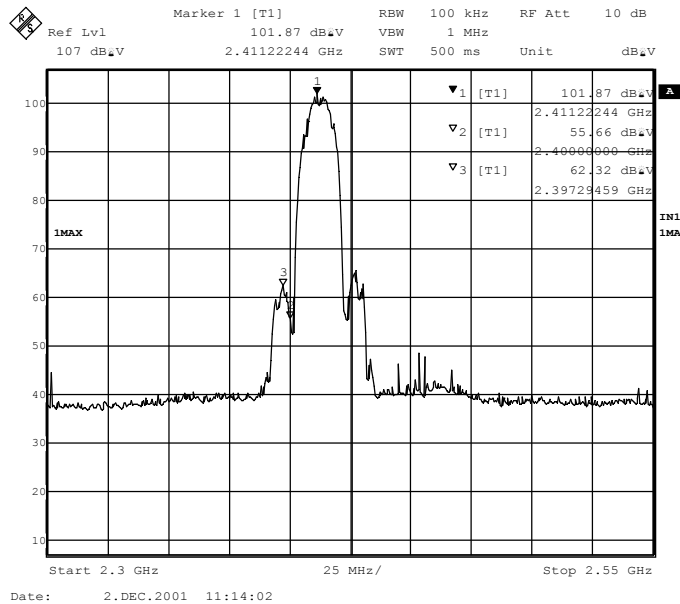


Figure Channel 1:1Mbps(Vertical)



Product : Wireless LAN PC Card
 Test Item : Band Edge Data
 Test Site : No.1 OATS
 Test Mode : Channel 1 (11Mbps)

RF Conducted Measurement:

Channel No.	Frequency (MHz)	Required Limit (dBc)	Result
1 (Horizontal)	<2400	>20	Pass
1(Vertical)	<2400	>20	Pass

Figure Channel 1: 11Mbps(Horizontal)

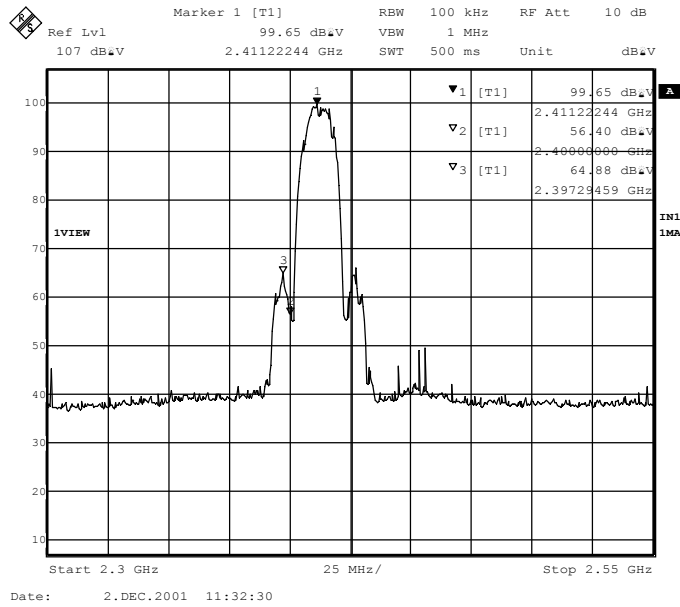
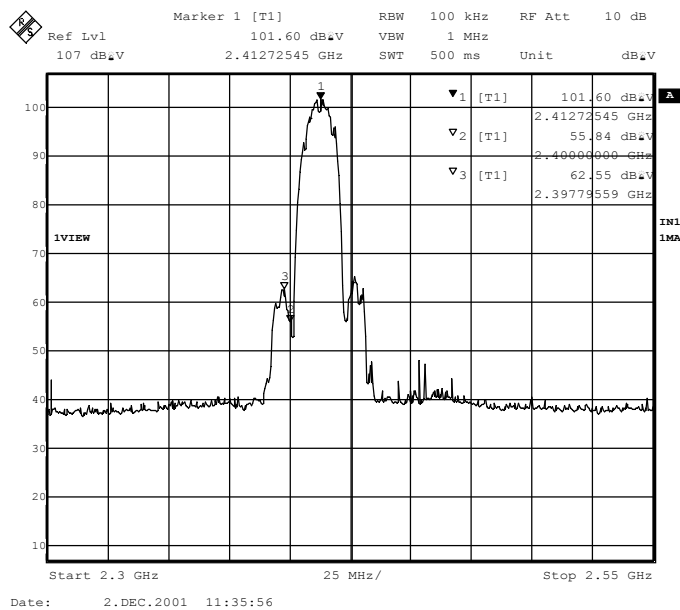


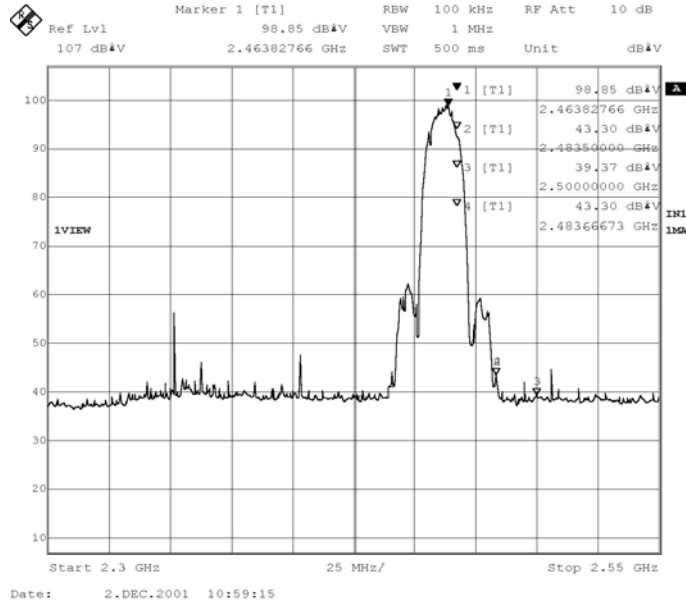
Figure Channel 1:11Mbps(Vertical)



Product : Wireless LAN PC Card
 Test Item : Band Edge Data
 Test Site : No.1 OATS
 Test Mode : Channel 11

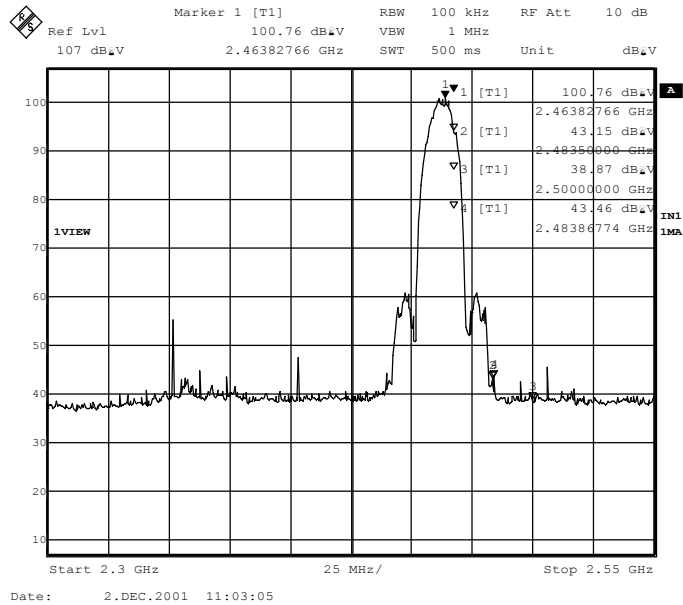
Band Edge-1 Mbps (Horizontal)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2483.366	43.3	41.75	Pass



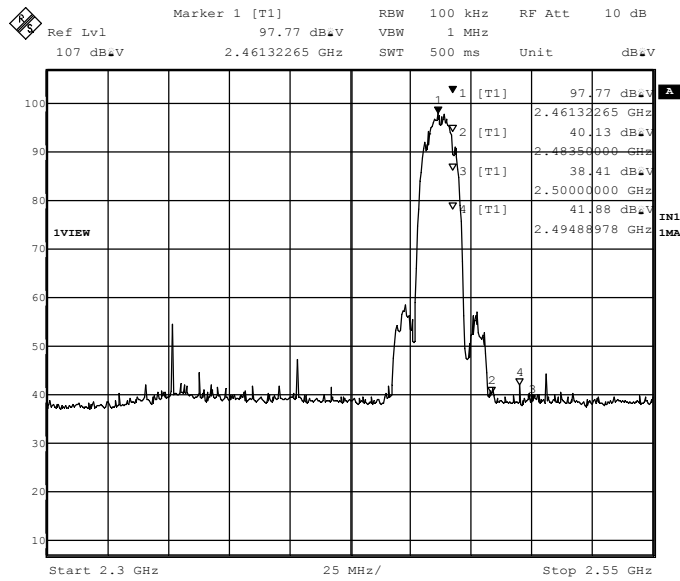
Band Edge-1 Mbps (Vertical)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2483.867	43.46	41.91	Pass



Band Edge-11 Mbps (Horizontal)

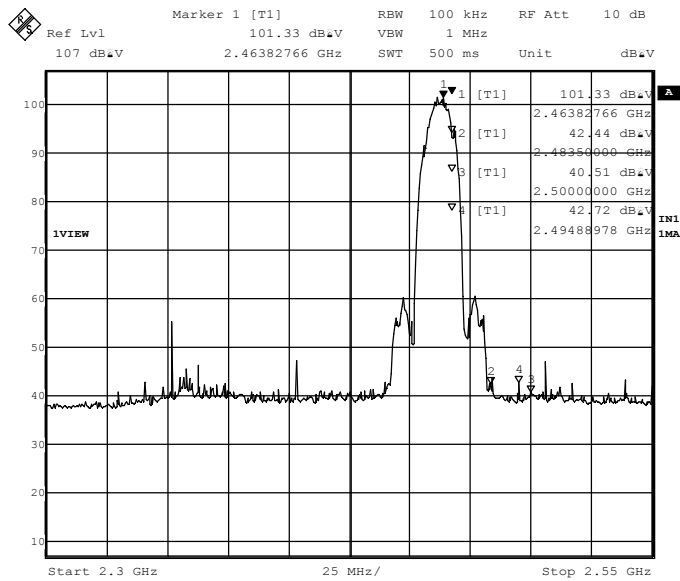
Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2494.889	41.88	40.39	Pass



Date: 2.DEC.2001 10:01:17

Band Edge-11 Mbps (Vertical)

Frequency (MHz).	Reading (dBuV)	Measure (dBuV/m)	Result
2494.889	42.72	41.23	Pass



Date: 2.DEC.2001 09:53:30

6. Occupied Bandwidth

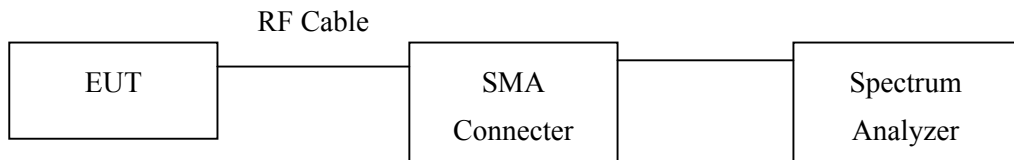
6.1. Test Equipment

The following test equipments are used during the radiated emission tests:

	Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X	Spectrum	Advantest	R3261C / 71720140	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
 2. Mark “X” test instruments are used to measure the final test results.

6.2. Test Setup



6.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

6.4. Standard Requirement

The minimum bandwidth shall be at least 500kHz.

6.5. Test Result of Occupied Bandwidth

Product : Wireless LAN PC Card
 Test Item : Occupied Bandwidth Data
 Test Site : No.1 OATS
 Test Mode : Channel 1

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
1 (1Mbps)	2412	11050	>500	Pass
1 (11Mbps)	2412	10950	>500	Pass

Figure Channel 1: 1Mbps

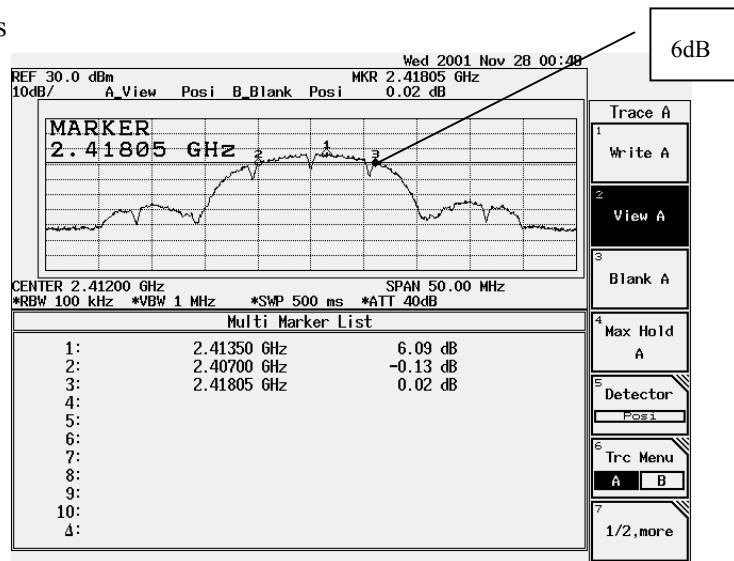
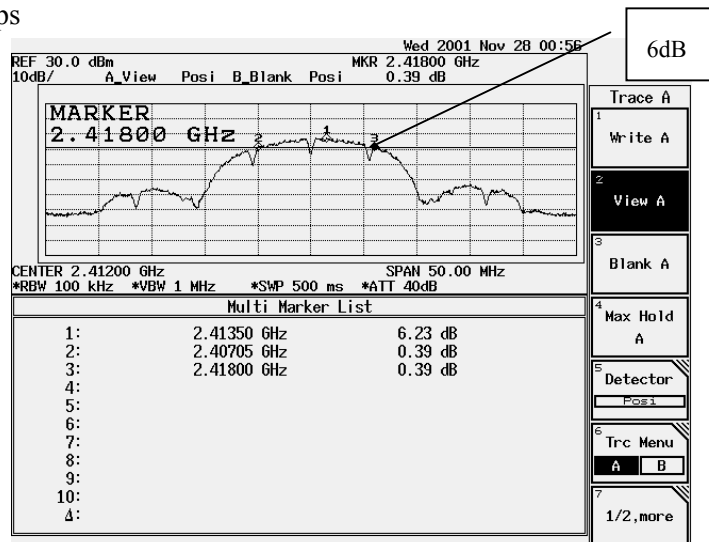


Figure Channel 1: 11Mbps



Product : Wireless LAN PC Card
 Test Item : Occupied Bandwidth Data
 Test Site : No.1 OATS
 Test Mode : Channel 6

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
6 (1Mbps)	2437	11100	>500	Pass
6 (11Mbps)	2437	11050	>500	Pass

Figure Channel 6: 1Mbps

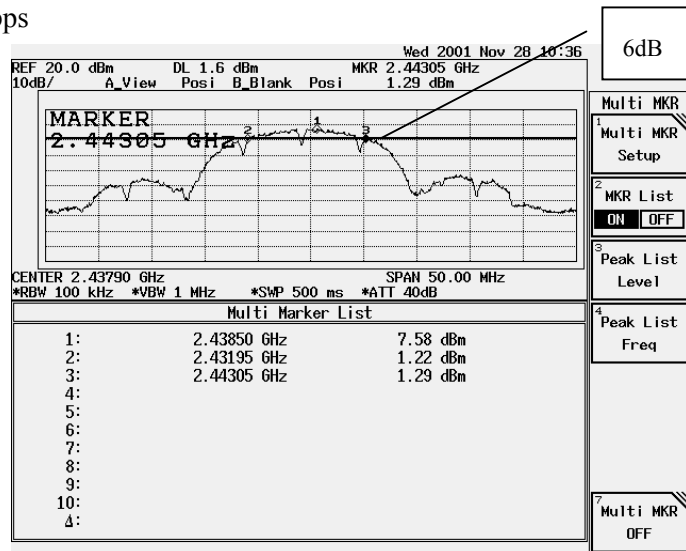
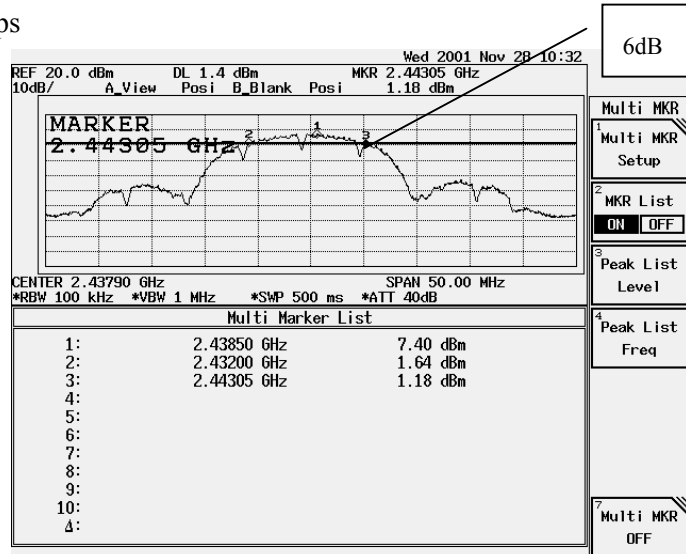


Figure Channel 6: 11Mbps



Product : Wireless LAN PC Card
 Test Item : Occupied Bandwidth Data
 Test Site : No.1 OATS
 Test Mode : Channel 11

Channel No.	Frequency (MHz)	Measurement Level (kHz)	Required Limit (kHz)	Result
11 (1Mbps)	2462	11050	>500	Pass
11 (11Mbps)	2462	11100	>500	Pass

Figure Channel 11: 1Mbps

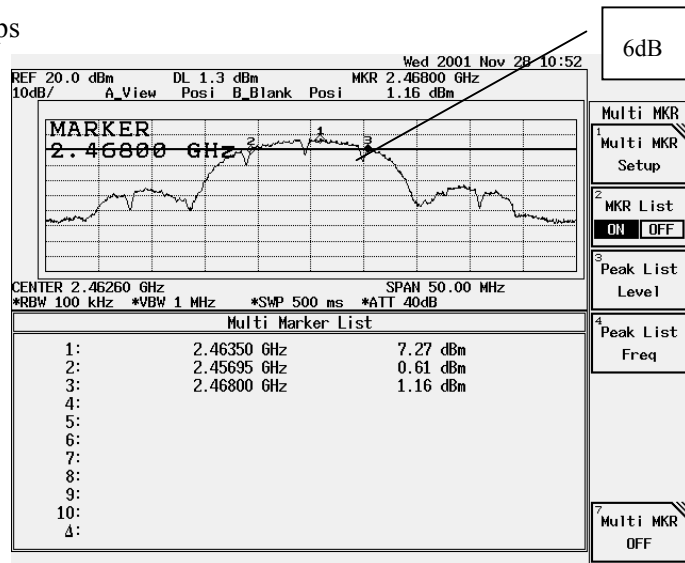
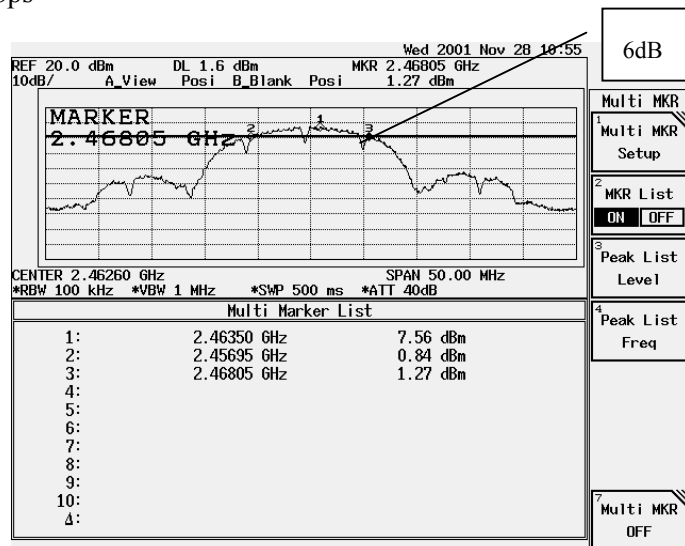


Figure Channel 11: 11Mbps



7. Transmitter Power Density

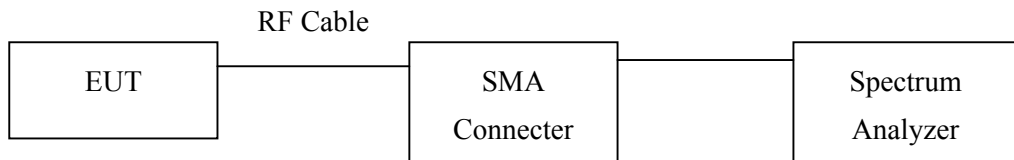
7.1. Test Equipment

The following test equipments are used during the radiated emission tests:

Equipment	Manufacturer	Model No./Serial No.	Last Cal.
X Spectrum	Advantest	R3272 / 72421194	May, 2001

Note: 1. All equipment upon which need to calibrated are with calibration period of 1 year.
 2. Mark "X" test instruments are used to measure the final test results.

7.2. Test Setup



7.3. Test Condition

Standard Temperature and Humidity, Standard Test Voltage

7.4. Standard Requirement

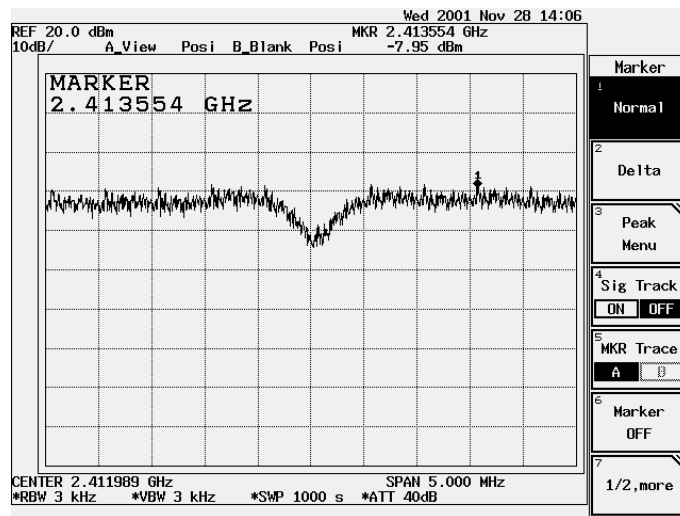
The transmitted power density averaged over any 1 second interval shall not be greater +8dBm in any 3kHz bandwidth.

7.5. Test Result of Transmitter Power Density

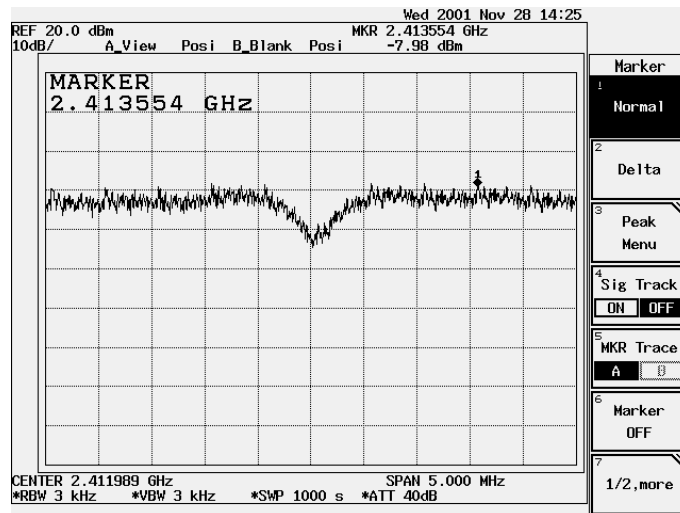
Product : Wireless LAN PC Card
 Test Item : Transmitter Power Density Data
 Test Site : No.1 OATS
 Test Mode : Channel 1

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
1 (1Mbps)	2413.554	-7.95dBm	< 8dBm	Pass
1 (11Mbps)	2413.554	-7.98dBm	< 8dBm	Pass

1Mbps



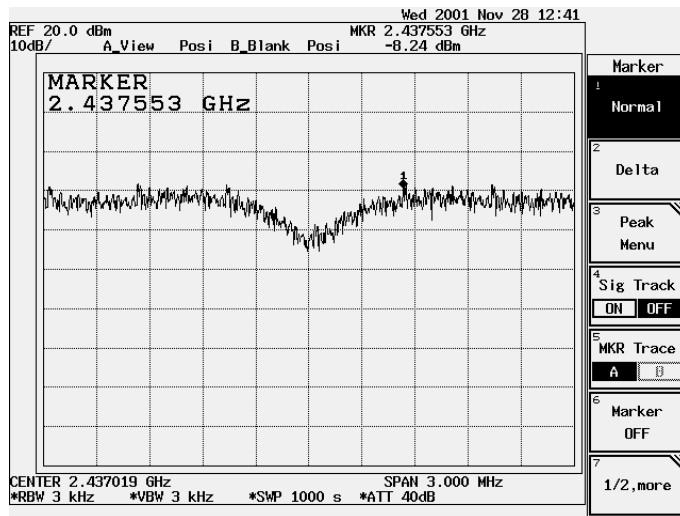
11Mbps



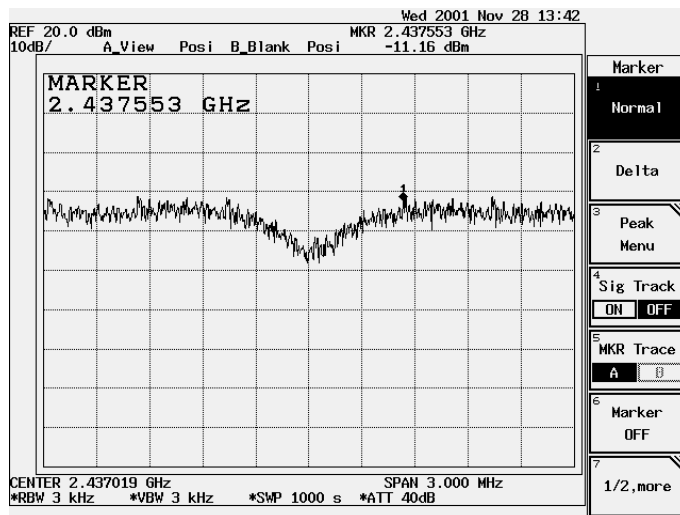
Product : Wireless LAN PC Card
 Test Item : Transmitter Power Density Data
 Test Site : No.1 OATS
 Test Mode : Channel 6

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
6 (1Mbps)	2437.553	-8.24dBm	< 8dBm	Pass
6 (11Mbps)	2437.553	-11.16dBm	< 8dBm	Pass

1Mbps



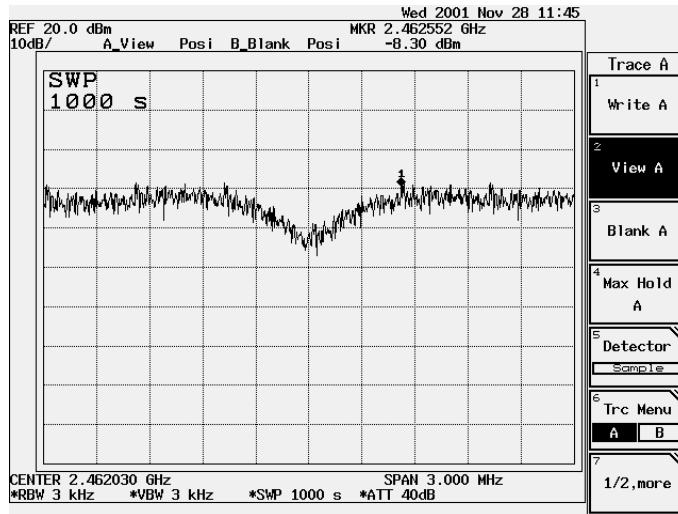
11Mbps



Product : Wireless LAN PC Card
 Test Item : Transmitter Power Density Data
 Test Site : No.1 OATS
 Test Mode : Channel 11

Channel No.	Frequency (MHz)	Measurement Level (dBm)	Required Limit (dBm)	Result
11 (1Mbps)	2462.552	-8.30dBm	< 8dBm	Pass
11 (11Mbps)	2462.552	-8.11dBm	< 8dBm	Pass

1Mbps



11Mbps

