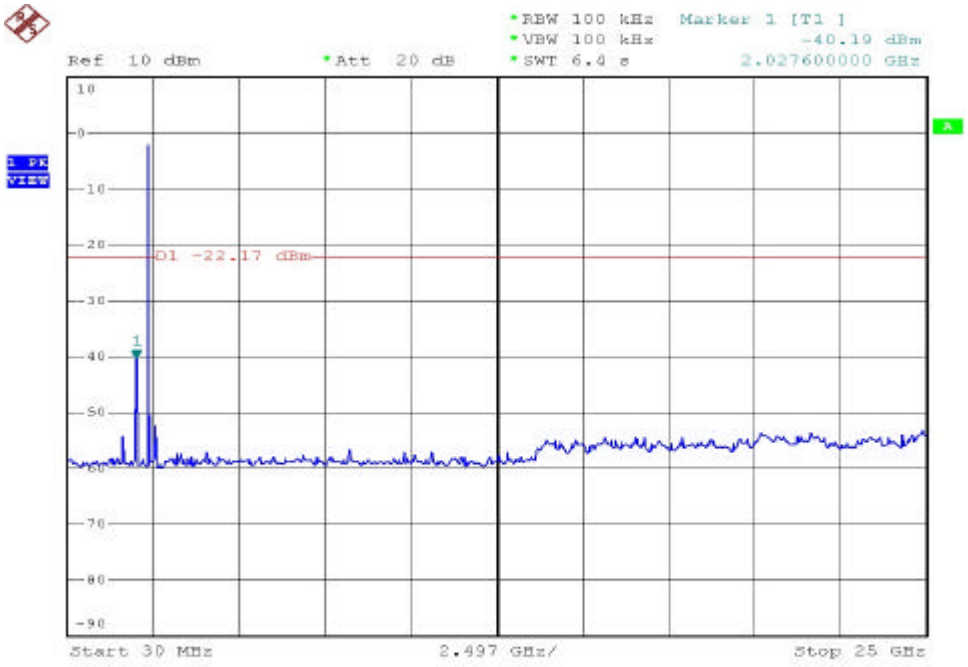
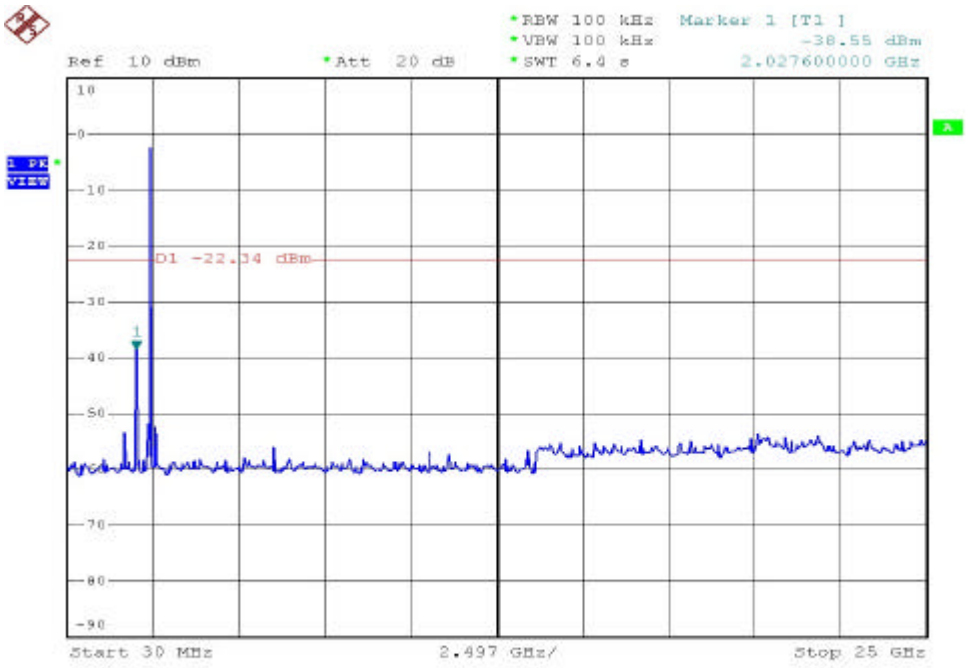
4.3. RF Portion

4.3.1. Test Result of Conducted Emission



Date: 27.AUG.2004 14:41:17



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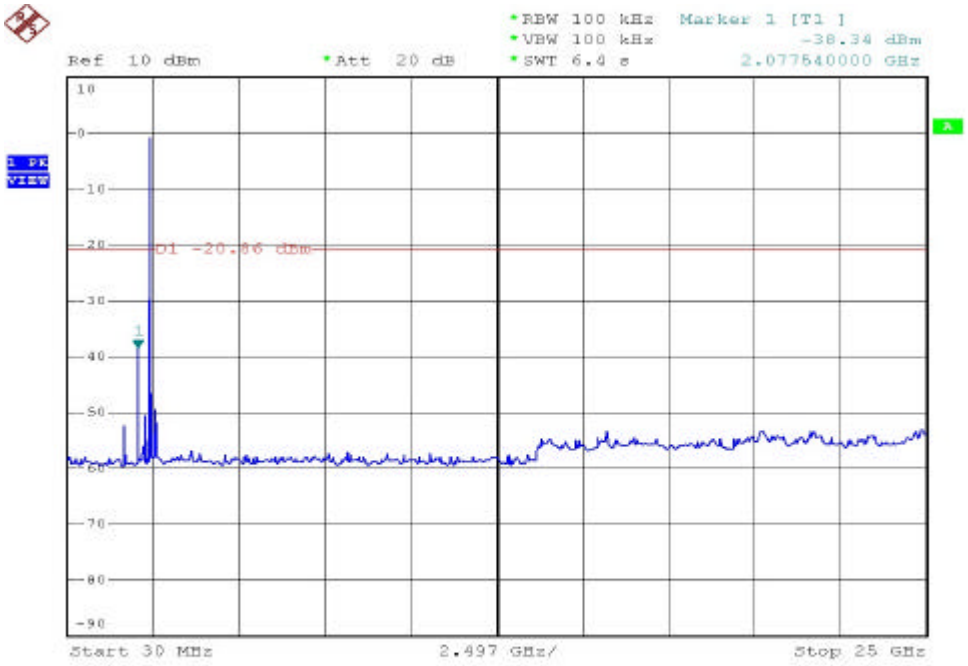
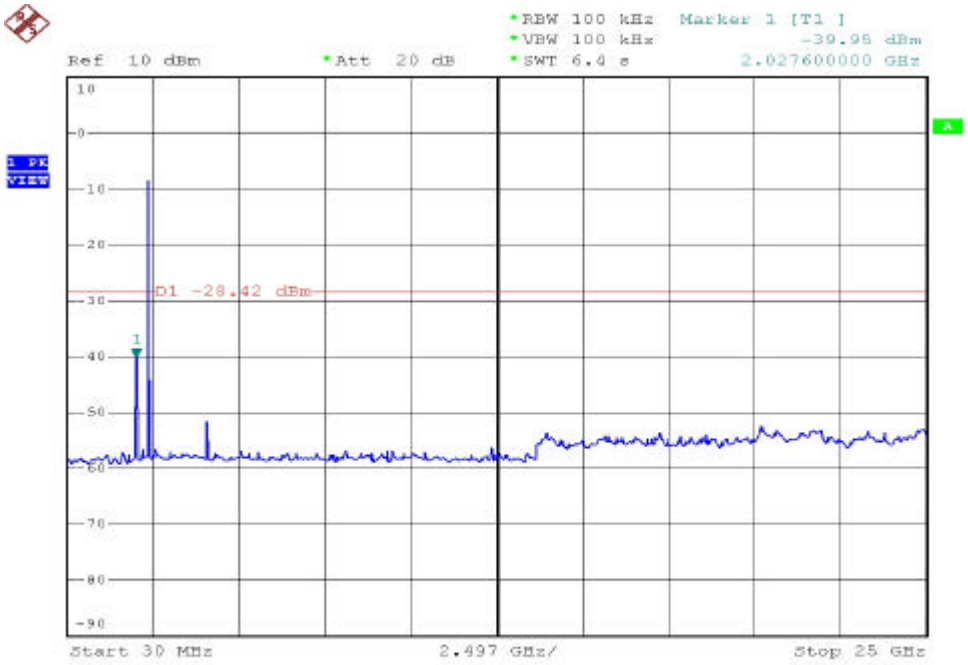


Date: 27.AUG.2004 14:36:03



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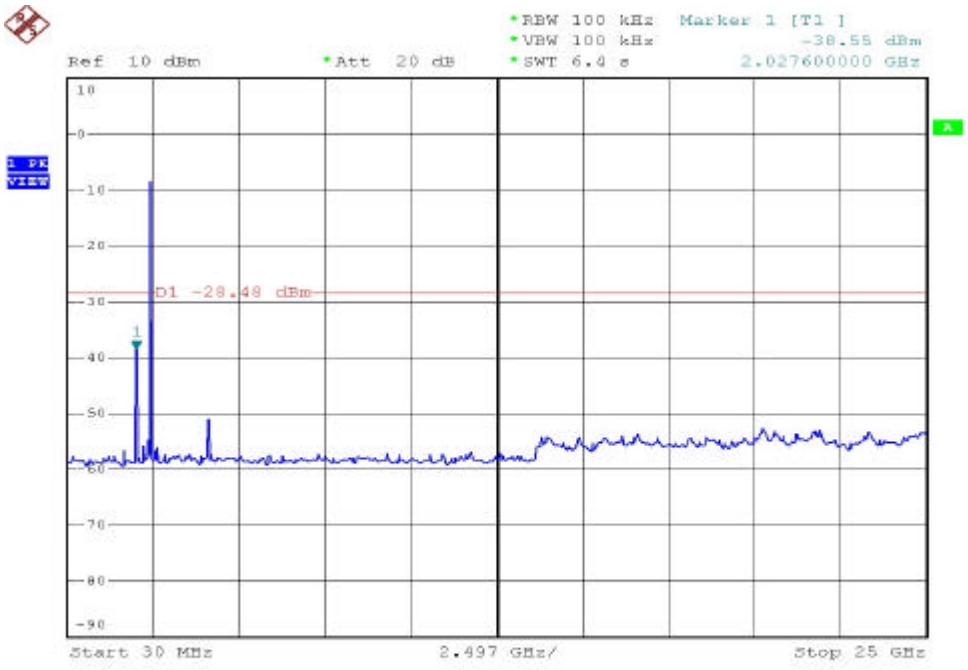

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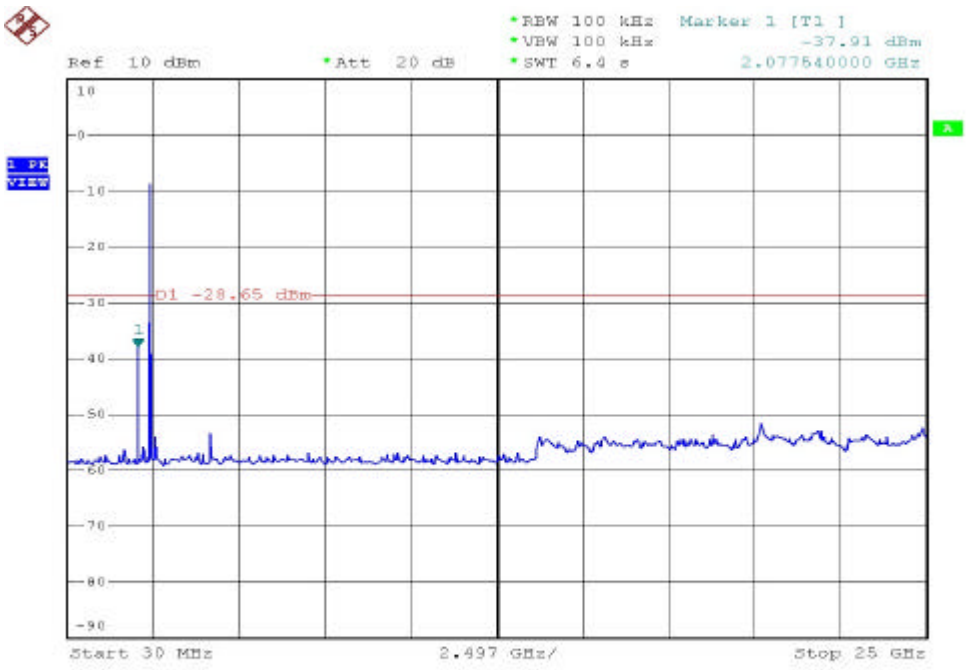
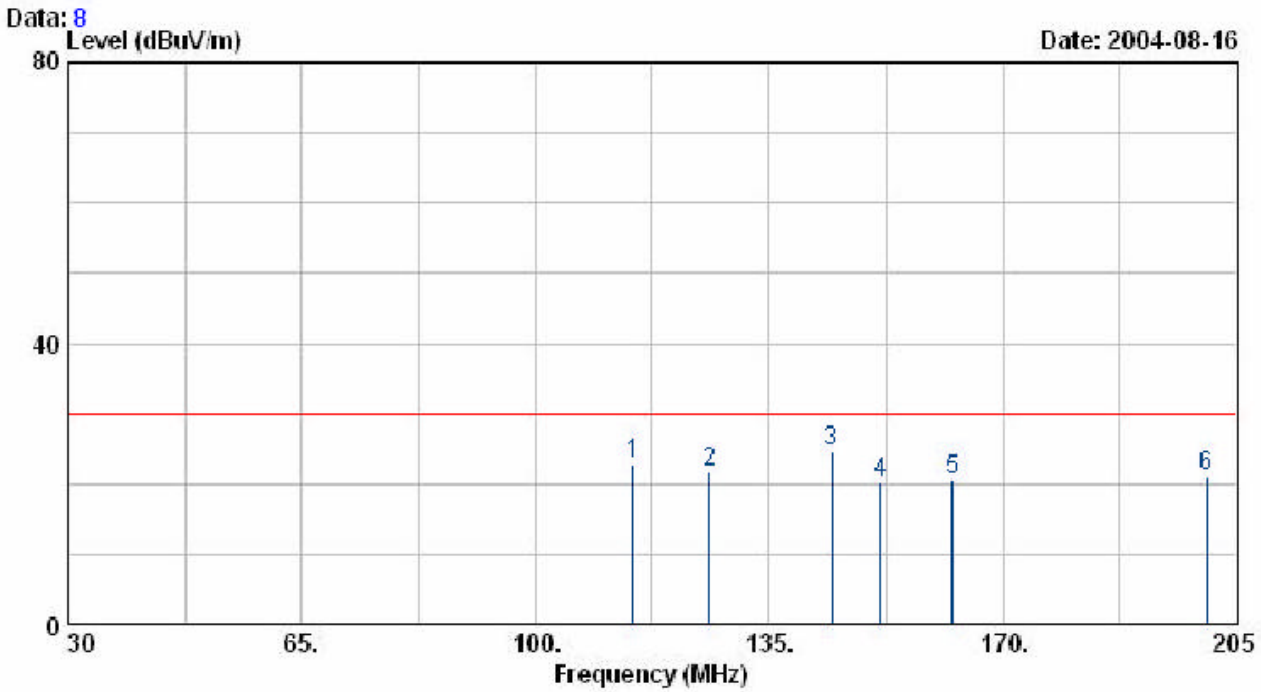


Date: 27.AUG.2004 14:34:13

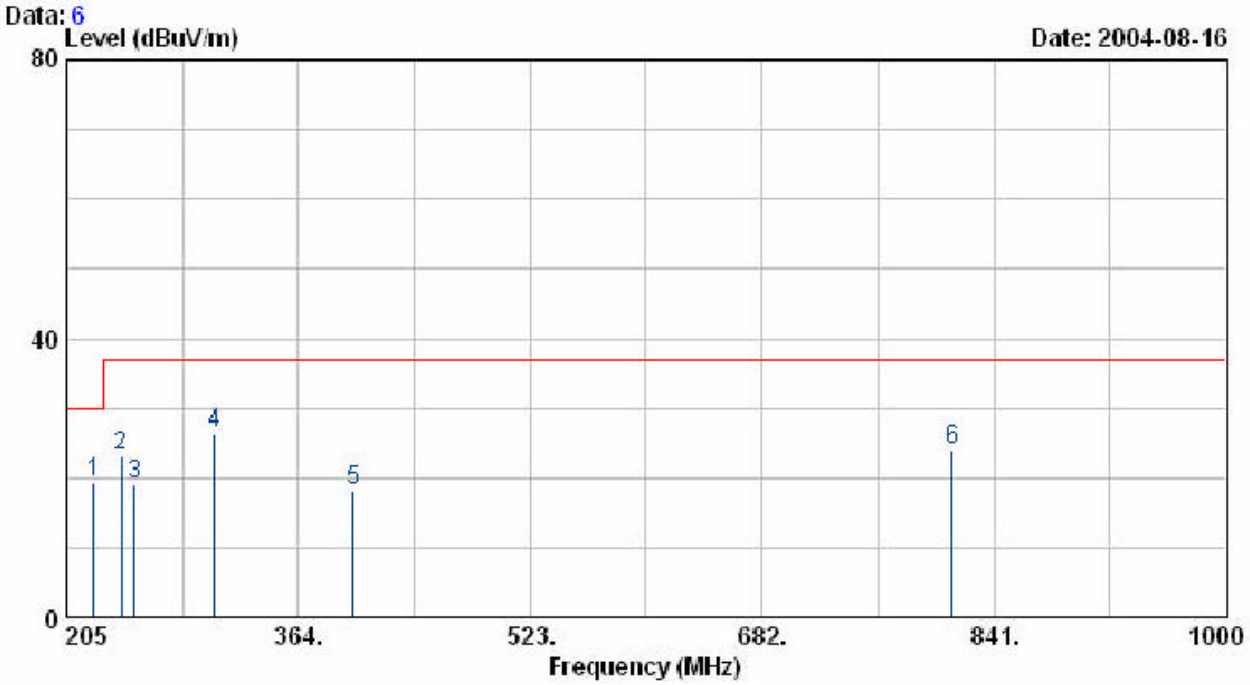
4.3.2. Test Result of Radiated Emission

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Capture (LAN)	Temperature	: 35 ℃
Memo	:	Humidity	: 59 %



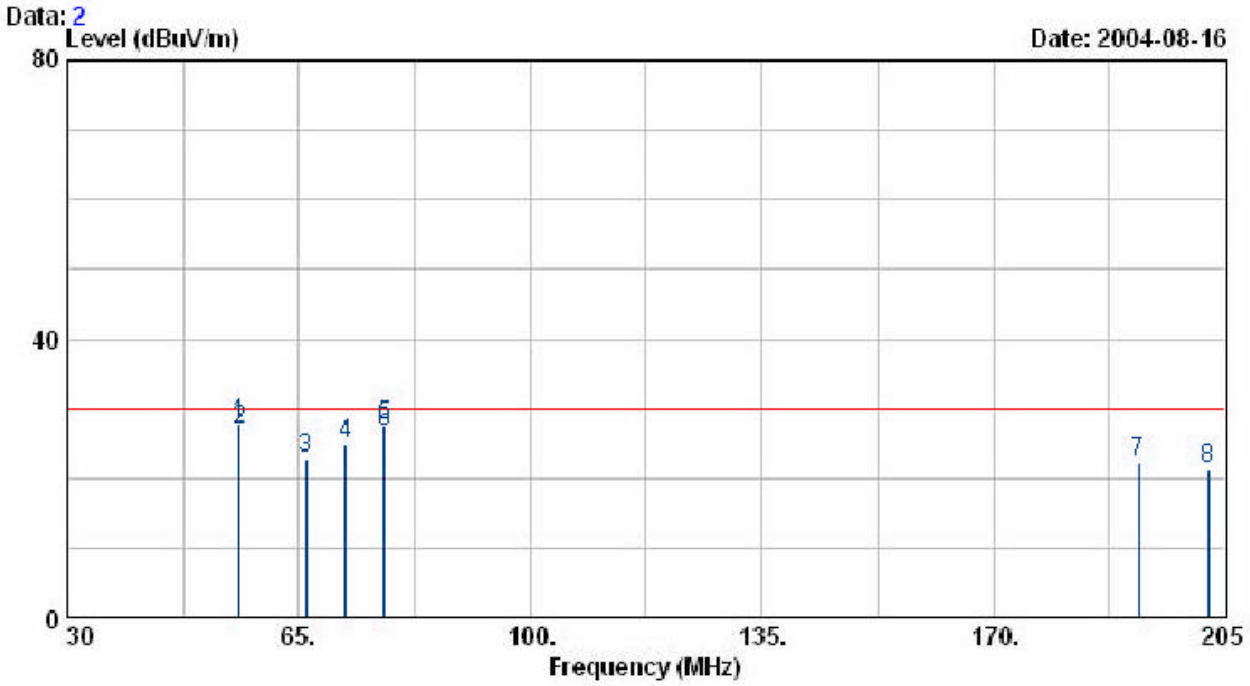
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
114.70	38.27	-15.52	22.74	30.00	-7.26	Peak	400	360
126.08	36.86	-15.18	21.68	30.00	-8.32	Peak	400	360
144.45	39.60	-15.04	24.56	30.00	-5.44	Peak	400	360
151.63	35.64	-15.50	20.14	30.00	-9.86	Peak	400	360
162.48	36.93	-16.30	20.63	30.00	-9.37	Peak	400	360
200.63	38.70	-17.67	21.03	30.00	-8.97	Peak	400	360

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Capture (LAN)	Temperature	: 35 ℃
Memo	:	Humidity	: 59 %



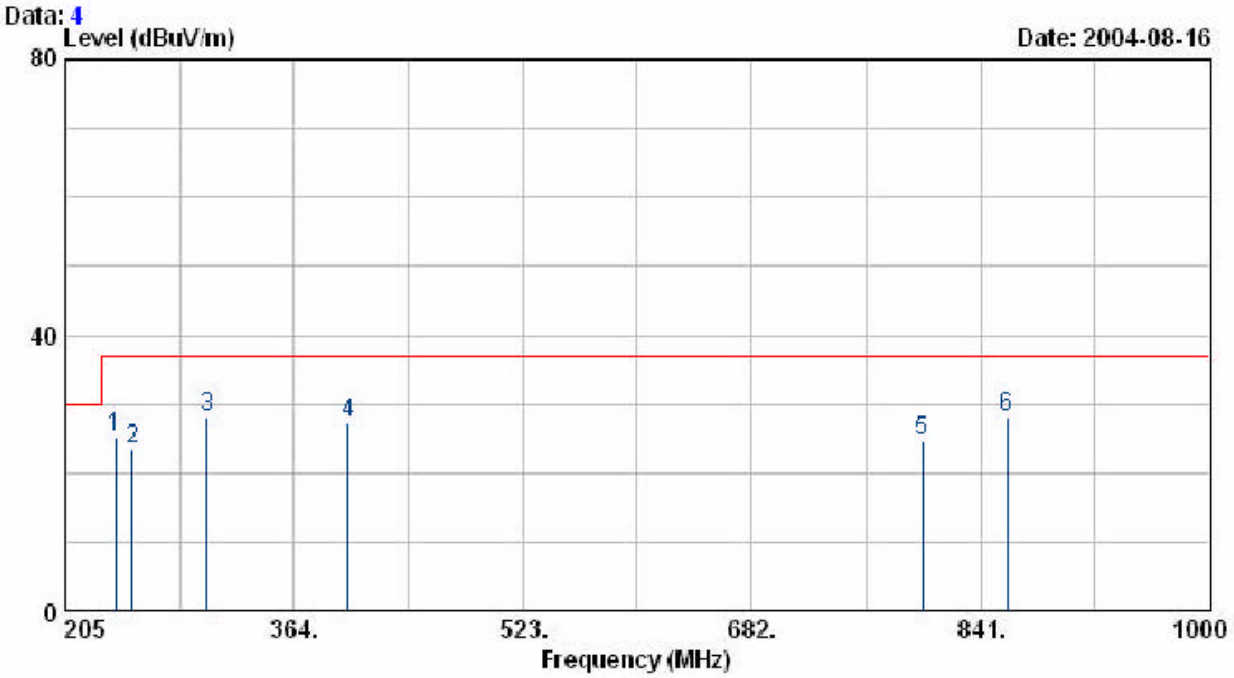
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
223.29	35.73	-16.25	19.48	30.00	-10.52	Peak	400	0
242.37	37.05	-13.83	23.22	37.00	-13.78	Peak	400	0
251.91	31.58	-12.64	18.94	37.00	-18.06	Peak	400	0
305.97	37.73	-11.34	26.39	37.00	-10.61	Peak	400	0
401.37	27.15	-9.11	18.04	37.00	-18.96	Peak	400	0
812.38	24.19	-0.27	23.92	37.00	-13.08	Peak	400	0

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Capture (LAN)	Temperature	: 35 ℃
Memo	:	Humidity	: 59 %



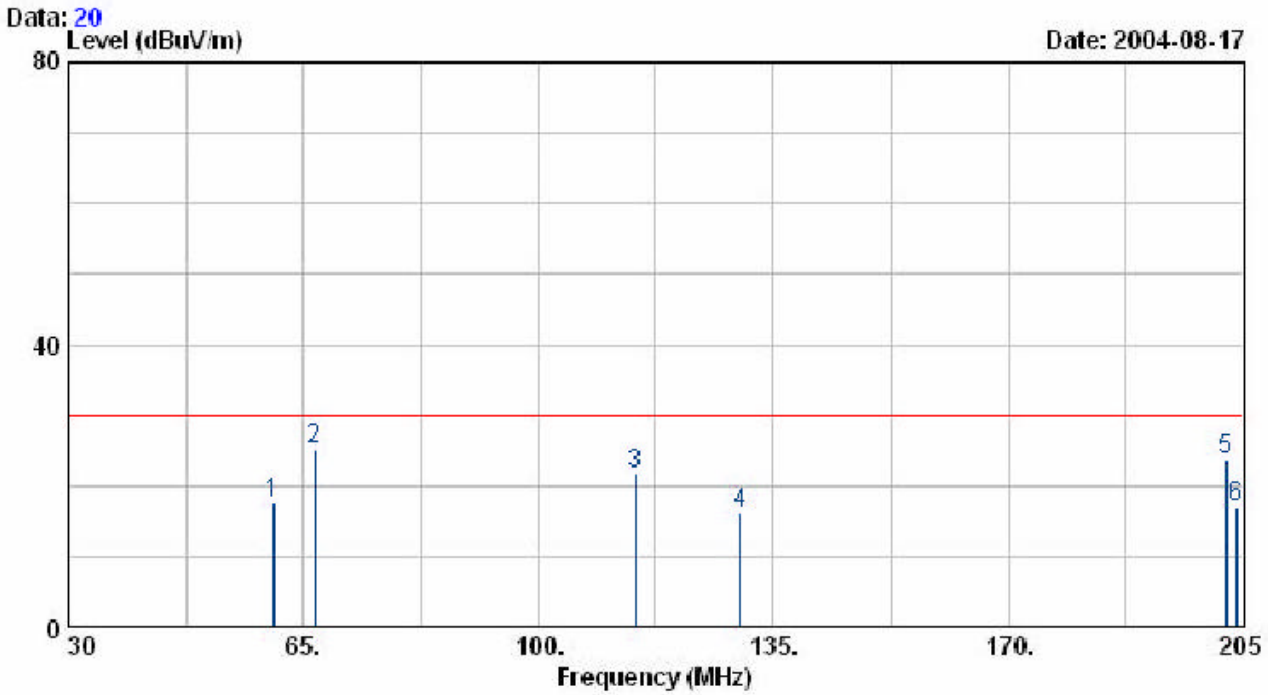
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
56.08	49.16	-21.32	27.84	30.00	-2.16	Peak	100	360
56.08	48.25	-21.32	26.93	30.00	-3.07	QP	100	360
65.98	44.78	-21.89	22.89	30.00	-7.11	Peak	100	360
72.00	46.08	-21.15	24.93	30.00	-5.07	Peak	100	360
77.99	47.71	-20.25	27.46	30.00	-2.54	Peak	100	360
77.99	47.02	-20.25	26.77	30.00	-3.23	QP	100	360
191.96	39.49	-17.30	22.19	30.00	-7.81	Peak	100	360
202.48	39.16	-17.70	21.46	30.00	-8.54	Peak	100	360

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Capture (LAN)	Temperature	: 35 ℃
Memo	:	Humidity	: 59 %



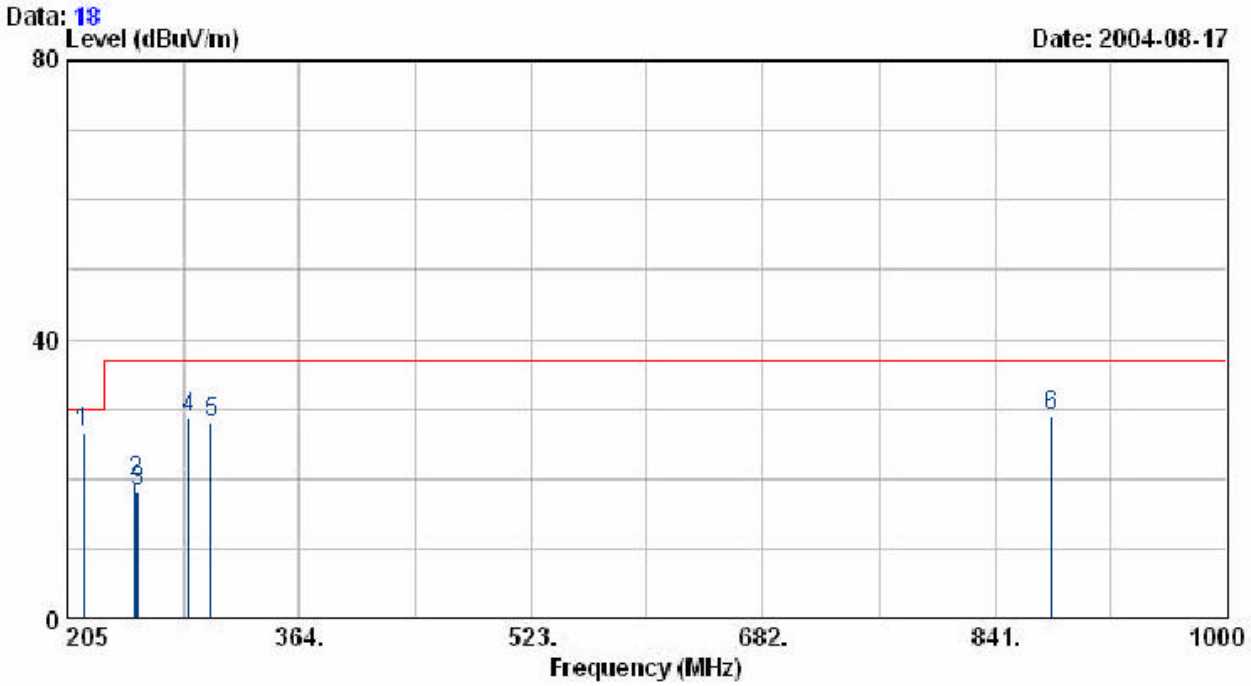
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
239.95	39.38	-14.13	25.25	37.00	-11.75	Peak	100	360
251.91	36.17	-12.64	23.53	37.00	-13.47	Peak	100	360
303.73	39.61	-11.39	28.22	37.00	-8.78	Peak	100	360
401.37	36.28	-9.11	27.18	37.00	-9.82	Peak	100	360
800.46	25.00	-0.52	24.48	37.00	-12.52	Peak	100	360
859.29	27.58	0.55	28.13	37.00	-8.87	Peak	100	360

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Capture (Wireless)	Temperature	: 30 ℃
Memo	:	Humidity	: 72 %



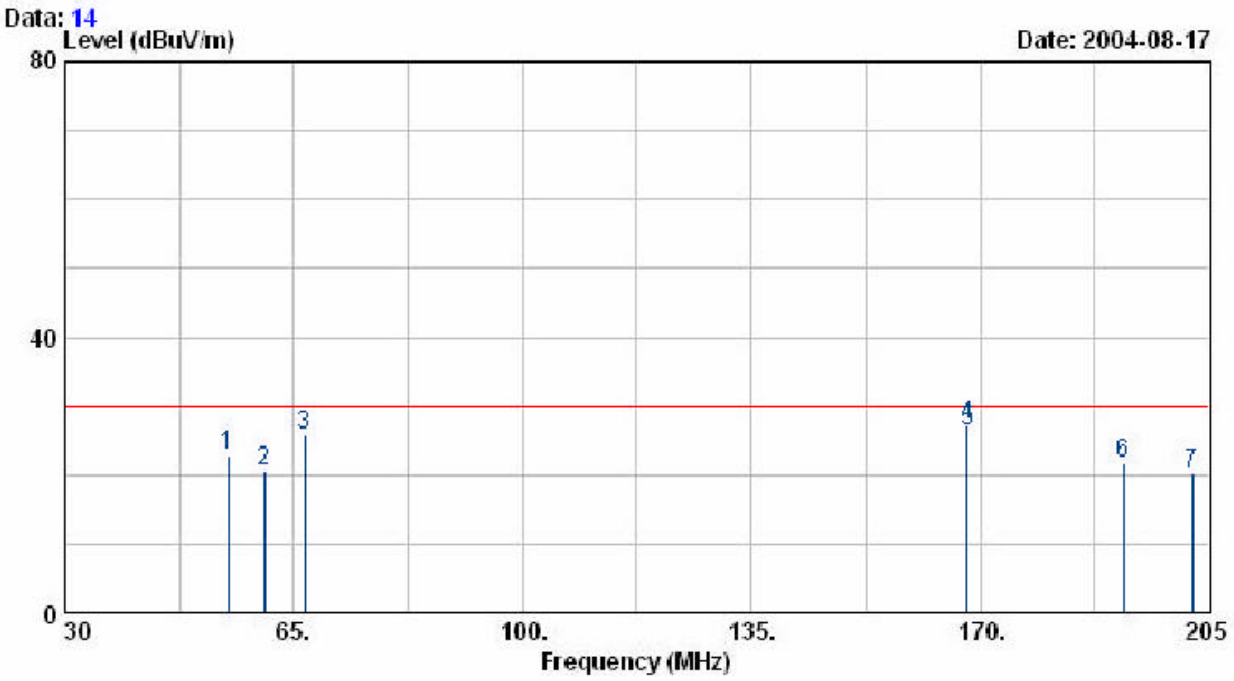
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
60.45	39.42	-21.91	17.51	30.00	-12.49	Peak	400	0
66.58	47.18	-21.87	25.31	30.00	-4.69	Peak	400	0
114.54	37.09	-15.53	21.56	30.00	-8.44	Peak	400	0
130.10	31.09	-14.97	16.12	30.00	-13.88	Peak	400	0
202.48	41.40	-17.70	23.70	30.00	-6.30	Peak	400	0
204.01	34.64	-17.73	16.90	30.00	-13.10	Peak	400	0

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Capture (Wireless)	Temperature	: 30 ℃
Memo	:	Humidity	: 72 %



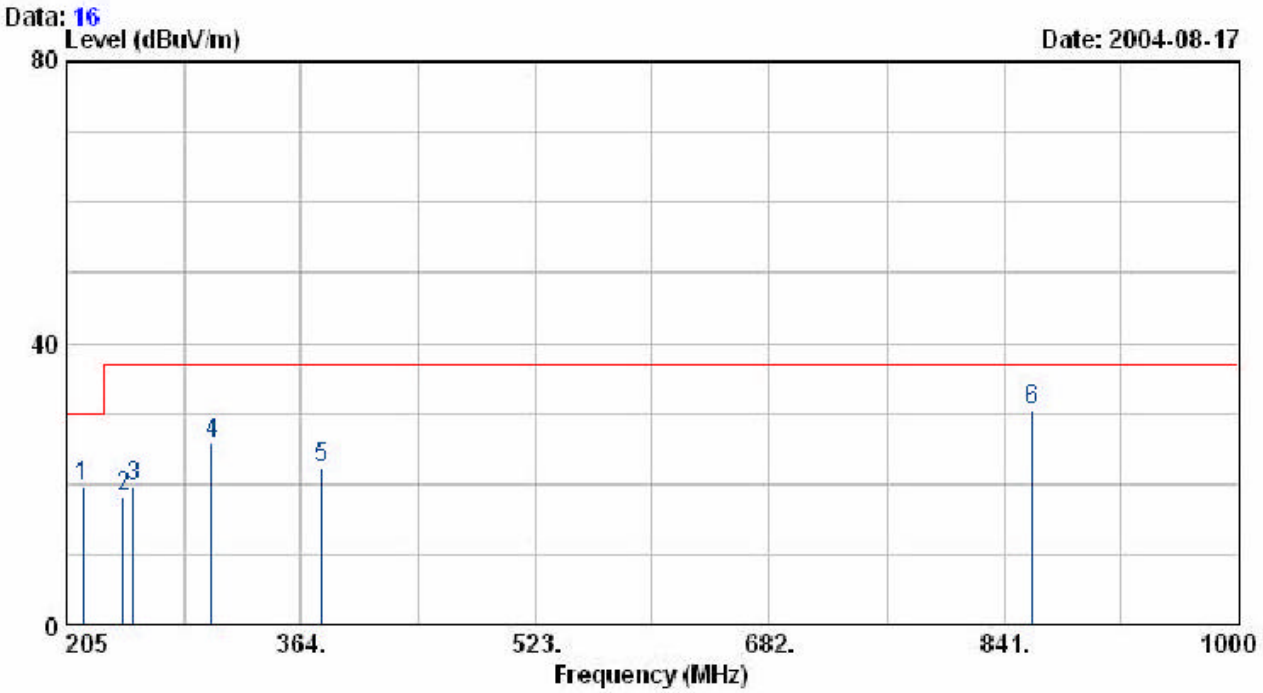
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
215.95	43.66	-16.94	26.72	30.00	-3.28	Peak	400	0
251.96	32.41	-12.63	19.78	37.00	-17.22	Peak	400	0
253.10	30.77	-12.49	18.28	37.00	-18.72	Peak	400	0
288.01	40.67	-11.87	28.80	37.00	-8.20	Peak	400	0
303.73	39.46	-11.39	28.07	37.00	-8.93	Peak	400	0
879.95	28.60	0.31	28.91	37.00	-8.09	Peak	400	0

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Capture (Wireless)	Temperature	: 30 ℃
Memo	:	Humidity	: 72 %

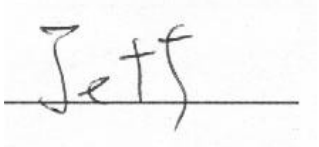


Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
54.85	43.80	-20.92	22.88	30.00	-7.12	Peak	100	360
60.45	42.57	-21.91	20.65	30.00	-9.35	Peak	100	360
66.58	47.73	-21.87	25.85	30.00	-4.15	Peak	100	360
167.97	43.91	-16.66	27.25	30.00	-2.75	Peak	100	360
167.97	42.93	-16.66	26.27	30.00	-3.73	QP	100	360
191.99	38.91	-17.30	21.61	30.00	-8.39	Peak	100	360
202.49	38.02	-17.70	20.32	30.00	-9.68	Peak	100	360

EUT	: NCS801A		
Power	: 110V 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Capture (Wireless)	Temperature	: 30 ℃
Memo	:	Humidity	: 72 %



Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/m	dB	dB			
215.98	36.70	-16.93	19.76	30.00	-10.24	Peak	100	0
242.98	31.99	-13.75	18.24	37.00	-18.76	Peak	100	0
250.32	32.47	-12.84	19.63	37.00	-17.37	Peak	100	0
303.70	37.08	-11.39	25.69	37.00	-11.31	Peak	100	0
377.52	32.03	-9.73	22.30	37.00	-14.70	Peak	100	0
860.08	29.84	0.57	30.41	37.00	-6.59	Peak	100	0

Test By: 

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel LO

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

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)
169.68	H	51.69	-17.55	34.14	43.5	-9.36	Peak	196	1.5
218.18	H	54.00	-18.02	35.98	40.0	-4.02	Peak	135	1.0
31.94	V	47.32	-10.21	37.11	40.0	-2.89	Q.P	185	1.0
56.19	V	58.02	-19.75	38.27	40.0	-1.73	Q.P	300	1.5
67.83	V	60.84	-22.23	38.61	40.0	-1.39	Q.P	260	1.0
72.68	V	57.36	-21.44	35.93	40.0	-4.07	Peak	190	1.0
80.44	V	58.10	-20.20	37.90	40.0	-2.10	Q.P	165	1.0
96.93	V	54.41	-17.89	36.52	43.5	-6.98	Peak	100	1.5

Notes:

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

b) Emission frequencies above 1 GHz Channel LO

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

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)
1663.0	H	51.79	-3.92	47.87	74	-26.13	Peak	173	1.5
2033.5	H	51.08	-1.81	49.26	74	-24.74	Peak	185	1.0
4081.0	H	54.39	5.53	59.92	74	-14.08	Peak	179	1.0
4081.0	H	44.12	5.53	49.65	54	-4.35	Ave	191	1.0
1663.0	V	54.41	-4.48	49.92	74	-24.08	Peak	172	1.5
2038.0	V	58.22	-2.51	55.71	74	-18.29	Peak	185	1.0
2038.0	V	47.08	-2.50	44.58	54	-9.42	Ave	188	1.0
2617.0	V	58.24	-0.52	57.73	74	-16.27	Peak	180	1.0
2617.0	V	45.81	-0.47	45.33	54	-8.67	Ave	173	1.0
4074.0	V	63.17	4.91	68.08	74	-5.92	Peak	182	1.0
4074.0	V	44.38	4.90	49.28	54	-4.72	Ave	171	1.0
4826.0	V	62.17	6.46	68.63	74	-5.37	Peak	168	1.0
4826.0	V	43.39	6.49	49.88	54	-4.12	Ave	165	1.0
6635.5	V	52.91	9.26	62.17	74	-11.83	Peak	192	1.0
6635.5	V	42.18	9.27	51.45	54	-2.55	Ave	183	1.0
7238.0	V	58.00	10.29	68.29	74	-5.71	Peak	181	1.0
7238.0	V	40.91	10.30	51.21	54	-2.79	Ave	177	1.0

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel MID

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

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)
169.68	H	52.10	-17.55	34.55	43.5	-8.95	Peak	192	1.5
218.18	H	53.46	-18.02	35.44	40.0	-4.56	Peak	120	1.0
31.94	V	46.36	-10.21	36.15	40.0	-3.85	Peak	170	1.0
56.19	V	57.65	-19.75	37.90	40.0	-2.10	Q.P	290	1.5
67.83	V	57.75	-22.23	35.47	40.0	-4.51	Peak	200	1.0
72.68	V	56.01	-21.44	34.57	40.0	-5.43	Peak	165	1.0
80.44	V	56.79	-20.20	36.59	40.0	-3.41	Peak	180	1.0
96.93	V	48.21	-17.89	30.32	43.5	-13.18	Peak	95	1.5

Notes:

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

b) Emission frequencies above 1 GHz Channel MID

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

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)
2053	H	50.43	-1.75	48.68	74	-25.32	Peak	171	1.0
4107	H	51.07	5.56	56.63	74	-17.37	Peak	168	1.0
4107	H	40.67	5.58	46.25	54	-7.75	Ave	182	1.0
2053	V	55.73	-2.45	53.28	74	-20.72	Peak	196	1.0
2617	V	56.59	-0.52	56.08	74	-17.92	Peak	185	1.0
2617	V	47.89	-0.47	47.41	54	-6.59	Ave	181	1.0
4124	V	61.55	4.95	66.50	74	-7.50	Peak	176	1.0
4124	V	40.85	4.96	45.81	54	-8.19	Ave	175	1.0
4876	V	56.98	6.63	63.61	74	-10.39	Peak	169	1.0
4876	V	43.83	6.66	50.49	54	-3.51	Ave	172	1.0

Modulation Standard: IEEE 802.11b

a) Emission frequencies below 1 GHz Channel HI

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

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)
169.68	H	52.01	-17.55	34.46	43.5	-9.04	Peak	195	1.5
218.18	H	53.92	-18.02	35.90	40.0	-4.10	Peak	192	1.0
31.94	V	46.18	-10.21	35.97	40.0	-4.03	Peak	90	1.0
56.19	V	58.13	-19.75	38.38	40.0	-1.62	Q.P	295	1.5
67.83	V	60.26	-22.23	38.03	40.0	-1.97	Q.P	166	1.0
72.68	V	56.99	-21.44	35.55	40.0	-4.45	Peak	188	1.0
80.44	V	58.42	-20.20	38.22	40.0	-1.79	Q.P	241	1.0
96.93	V	54.01	-17.89	36.12	43.5	-7.38	Peak	126	1.5

Notes:

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

b) Emission frequencies above 1 GHz Channel HI

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

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)
2293.0	H	49.57	-0.92	48.65	74	-25.35	Peak	196	1.0
2605.5	H	48.54	0.20	48.74	74	-25.26	Peak	205	1.0
4165.5	H	48.44	5.65	54.09	74	-19.91	Peak	185	1.0
4165.5	H	38.56	5.65	44.21	54	-9.79	Ave	181	1.0
2079.0	V	53.49	-2.36	51.13	74	-22.87	Peak	173	1.0
2307.0	V	57.28	-1.62	55.66	74	-18.34	Peak	169	1.0
2307.0	V	48.49	-1.57	46.91	54	-7.09	Ave	175	1.0
2617.0	V	57.38	-0.52	56.86	74	-17.14	Peak	182	1.0
2617.0	V	49.17	-0.47	48.70	54	-5.30	Ave	176	1.0
4174.7	V	54.24	5.02	59.26	74	-14.74	Peak	176	1.0
4174.7	V	42.49	5.03	47.52	54	-6.48	Ave	187	1.0
4926.2	V	57.22	6.80	64.02	74	-9.98	Peak	181	1.0
4926.2	V	39.90	6.82	46.72	54	-7.28	Ave	165	1.0
7387.1	V	50.02	10.50	60.52	74	-13.48	Peak	179	1.0
7387.1	V	41.34	10.50	51.83	54	-2.17	Ave	177	1.0

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz Channel LO

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

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)
169.68	H	53.11	-17.55	35.56	43.5	-7.94	Peak	205	1.5
218.18	H	53.62	-18.02	35.60	40.0	-4.4	Peak	190	1.0
31.94	V	47.06	-10.21	36.85	40.0	-3.15	Peak	95	1.0
56.19	V	58.42	-19.75	38.67	40.0	-1.33	Q.P	310	1.5
67.83	V	59.78	-22.23	37.55	40.0	-2.45	Q.P	172	1.0
72.68	V	57.22	-21.44	35.78	40.0	-4.22	Peak	175	1.0
80.44	V	57.89	-20.20	37.69	40.0	-2.31	Q.P	210	1.0
96.93	V	55.69	-17.89	37.80	43.5	-5.7	Peak	130	1.5

Notes:

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

b) Emission frequencies above 1 GHz Channel LO

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

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)
1845.0	H	49.38	-2.84	46.54	74	-27.46	Peak	174	1.0
4165.5	H	48.83	5.65	54.48	74	-19.52	Peak	170	1.0
4165.5	H	38.65	5.65	44.30	54	-9.70	Ave	179	1.0
2079.0	V	53.56	-2.36	51.21	74	-22.79	Peak	188	1.0
2605.5	V	51.83	-0.52	51.31	74	-22.69	Peak	181	1.0
4176.2	V	56.80	5.02	61.82	74	-12.18	Peak	173	1.0
4176.2	V	46.99	5.03	52.02	54	-1.98	Ave	193	1.0
4919.5	V	46.80	6.80	53.59	74	-20.41	Peak	169	1.0

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz Channel MID

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

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)
169.68	H	51.86	-17.55	34.31	40	-5.69	Peak	215	1.5
218.18	H	52.79	-18.02	34.77	40	-5.23	Peak	185	1.0
31.94	V	45.98	-10.21	35.77	40	-4.23	Peak	105	1.0
56.19	V	57.68	-19.75	37.93	40	-2.07	Q.P	295	1.5
67.83	V	59.25	-22.23	37.02	40	-2.98	Q.P	185	1.0
72.68	V	56.63	-21.44	35.19	40	-4.81	Peak	185	1.0
80.44	V	56.94	-20.20	36.74	40	-3.26	Peak	205	1.0
96.93	V	55.54	-17.89	35.65	40	-4.35	Peak	125	1.5

Notes:

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

b) Emission frequencies above 1 GHz Channel MID

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

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)
2053.0	H	49.32	-1.75	47.57	74	-26.43	Peak	198	1.0
4113.5	H	53.77	5.57	59.34	74	-14.66	Peak	205	1.0
4113.5	H	42.95	5.57	48.52	54	-5.48	Ave	192	1.0
2053.0	V	54.87	-2.45	52.42	74	-21.58	Peak	185	1.0
4126.2	V	58.51	4.95	63.46	74	-10.54	Peak	182	1.0
4126.2	V	47.02	4.97	51.99	54	-2.01	Peak	171	1.0

Modulation Standard: IEEE 802.11g

a) Emission frequencies below 1 GHz Channel HI

Test Date: Sep. 01, 2004 Temperature: 23℃ Humidity: 65%

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)
169.68	H	50.97	-17.55	33.42	43.5	-10.08	Peak	210	1.5
218.18	H	51.98	-18.02	33.96	40.0	-6.04	Peak	175	1.0
31.94	V	45.06	-10.21	34.85	40.0	-5.15	Peak	110	1.0
56.19	V	57.91	-19.75	38.16	40.0	-1.84	Q.P	292	1.5
67.83	V	58.42	-22.23	36.19	40.0	-3.81	Peak	176	1.0
72.68	V	55.78	-21.44	34.34	40.0	-5.66	Peak	170	1.0
80.44	V	56.16	-20.20	35.96	40.0	-4.04	Peak	210	1.0
96.93	V	56.11	-17.89	38.22	43.5	-5.28	Peak	115	1.5

Notes:

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

b) Emission frequencies above 1 GHz Channel HI

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

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)
2033.5	H	49.19	-1.81	47.37	74	-26.63	Peak	169	1.0
4081.0	H	51.67	5.53	57.20	74	-16.80	Peak	173	1.0
2033.5	V	54.97	-2.51	52.46	74	-21.54	Peak	179	1.0
4074.7	V	57.56	4.91	62.47	74	-11.53	Peak	169	1.0
4074.7	V	42.17	4.90	47.07	54	-6.93	Ave	187	1.0
4835.0	V	47.40	6.52	53.92	74	-20.08	Peak	172	1.0

4.3.3. Photographs of Radiated Emission Test

FRONT VIEW

REAR VIEW