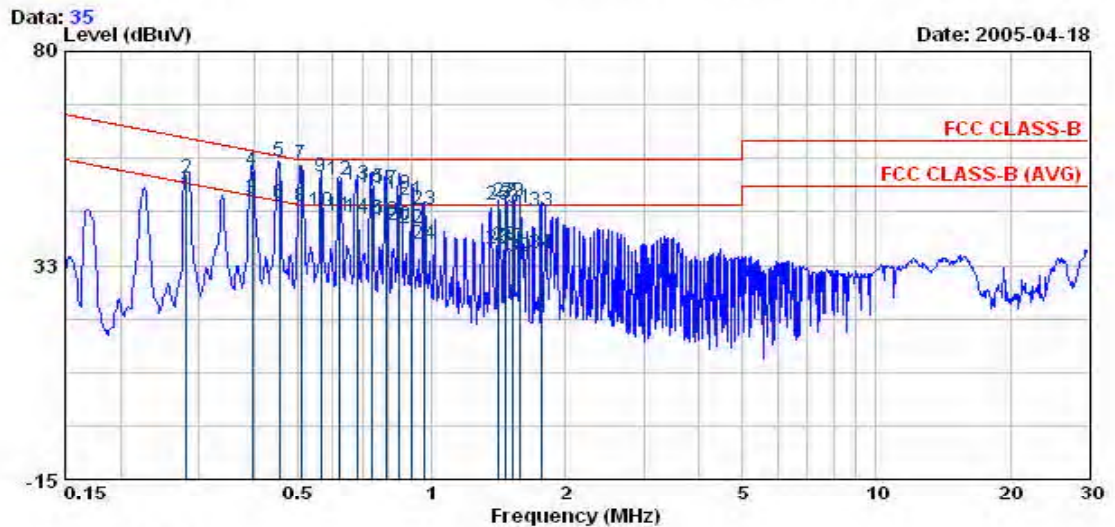Test mode 4

```
EUT        : Razor
Power      : AC 110V
Test Mode  : LINK
Memo       : 2.4G(8dBi)

Pol/Phase    : NEUTRAL
Temperature  : 26    ℃
Humidity     : 58    %
```
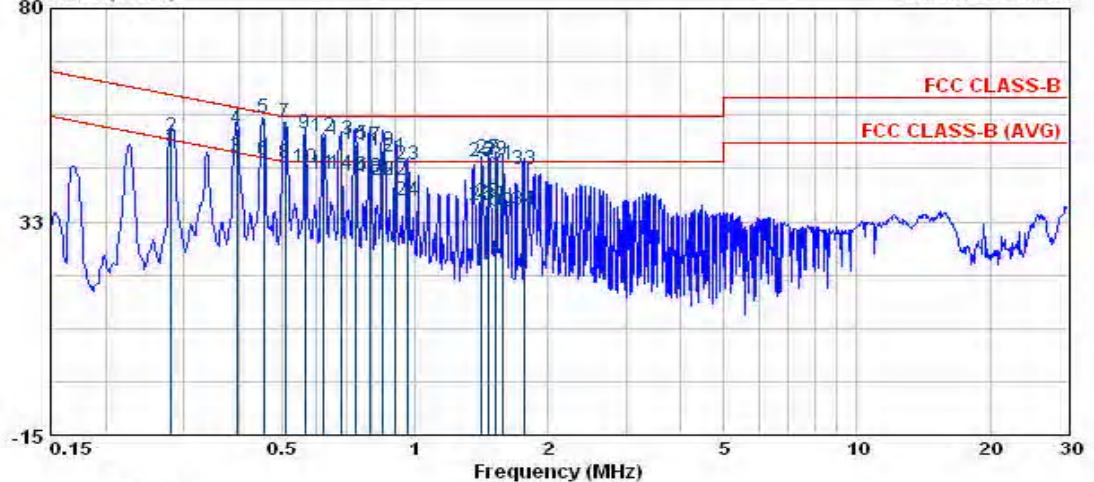

Data: 35   Date: 2005-04-18

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark
MHz	dBuV	dB	dBuV	dBuV	dBuV	
0.282	48.12	0.35	48.47	50.76	-2.29	AVERAGE
0.282	51.31	0.35	51.66	60.76	-9.10	QP
0.396	46.75	0.50	47.25	47.95	-0.70	AVERAGE
0.396	52.97	0.50	53.47	57.95	-4.48	QP
0.454	55.19	0.49	55.68	56.80	-1.12	QP
0.454	45.80	0.49	46.29	46.80	-0.51	AVERAGE
0.510	54.31	0.47	54.78	56.00	-1.22	QP
0.510	45.10	0.47	45.57	46.00	-0.43	AVERAGE
0.564	51.85	0.46	52.31	56.00	-3.69	QP
0.564	43.98	0.46	44.44	46.00	-1.56	AVERAGE
0.621	42.87	0.45	43.32	46.00	-2.68	AVERAGE
0.621	50.96	0.45	51.41	56.00	-4.59	QP
0.679	50.12	0.44	50.56	56.00	-5.44	QP
0.679	42.75	0.44	43.19	46.00	-2.81	AVERAGE
0.731	49.36	0.43	49.79	56.00	-6.21	QP
0.731	42.21	0.43	42.64	46.00	-3.36	AVERAGE
0.792	48.95	0.43	49.38	56.00	-6.62	QP
0.792	41.95	0.43	42.38	46.00	-3.62	AVERAGE
0.848	47.91	0.42	48.33	56.00	-7.67	QP
0.848	41.12	0.42	41.54	46.00	-4.46	AVERAGE
0.904	46.51	0.41	46.92	56.00	-9.08	QP
0.904	40.31	0.41	40.72	46.00	-5.28	AVERAGE
0.963	44.50	0.40	44.90	56.00	-11.10	QP
0.963	36.80	0.40	37.20	46.00	-8.80	AVERAGE
1.418	45.36	0.45	45.81	56.00	-10.19	QP
1.418	35.78	0.45	36.23	46.00	-9.77	AVERAGE
1.472	46.12	0.46	46.58	56.00	-9.42	QP
1.472	36.34	0.46	36.80	46.00	-9.20	AVERAGE
1.527	45.98	0.46	46.44	56.00	-9.56	QP
1.527	35.87	0.46	36.33	46.00	-9.67	AVERAGE
1.585	44.87	0.47	45.34	56.00	-10.66	QP
1.585	34.12	0.47	34.59	46.00	-11.41	AVERAGE
1.762	43.89	0.48	44.37	56.00	-11.63	QP
1.762	34.71	0.48	35.19	46.00	-10.81	AVERAGE

Remarks: 1. Level = Read Level + Factor
         2. Factor = LISN(ISN) Factor + Cable Loss

```
EUT        : Razor                        Pol/Phase    : LINE
Power      : AC 110V                      Temperature  : 26    ℃
Test Mode  : LINK                         Humidity     : 58    %
Memo       : 2.4G(8dBi)
```

Data: 36


```
                   Read                        Over
       Freq        Level   Factor   Level   Limit   Limit   Remark
      -------     -------  -------  -------  -------  -------  --------
       MHz         dBuV     dB      dBuV     dBuV    dBuV

      0.282       48.28    0.35     48.63    50.76   -2.13    AVERAGE
      0.282       51.29    0.35     51.64    60.76   -9.12    QP
      0.396       46.52    0.50     47.02    47.95   -0.93    AVERAGE
      0.396       52.81    0.50     53.31    57.95   -4.64    QP
      0.454       55.19    0.49     55.68    56.80   -1.12    QP
      0.454       45.69    0.49     46.18    46.80   -0.62    AVERAGE
      0.510       54.26    0.47     54.73    56.00   -1.27    QP
      0.510       45.09    0.47     45.56    46.00   -0.44    AVERAGE
      0.564       51.69    0.46     52.15    56.00   -3.85    QP
      0.564       44.12    0.46     44.58    46.00   -1.42    AVERAGE
      0.621       42.71    0.45     43.16    46.00   -2.84    AVERAGE
      0.621       51.12    0.45     51.57    56.00   -4.43    QP
      0.679       50.25    0.44     50.69    56.00   -5.31    QP
      0.679       42.71    0.44     43.15    46.00   -2.85    AVERAGE
      0.731       49.41    0.43     49.84    56.00   -6.16    QP
      0.731       42.36    0.43     42.79    46.00   -3.21    AVERAGE
      0.792       48.81    0.43     49.24    56.00   -6.76    QP
      0.792       41.82    0.43     42.25    46.00   -3.75    AVERAGE
      0.848       47.95    0.42     48.37    56.00   -7.63    QP
      0.848       41.21    0.42     41.63    46.00   -4.37    AVERAGE
      0.904       46.61    0.41     47.02    56.00   -8.98    QP
      0.904       41.42    0.41     41.83    46.00   -4.17    AVERAGE
      0.963       44.69    0.40     45.09    56.00   -10.91   QP
      0.963       36.95    0.40     37.35    46.00   -8.65    AVERAGE
      1.418       45.48    0.45     45.93    56.00   -10.07   QP
      1.418       35.81    0.45     36.26    46.00   -9.74    AVERAGE
      1.472       46.31    0.46     46.77    56.00   -9.23    QP
      1.472       36.31    0.46     36.77    46.00   -9.23    AVERAGE
      1.527       45.71    0.46     46.17    56.00   -9.83    QP
      1.527       35.61    0.46     36.07    46.00   -9.93    AVERAGE
      1.585       44.75    0.47     45.22    56.00   -10.78   QP
      1.585       34.23    0.47     34.70    46.00   -11.30   AVERAGE
      1.762       43.75    0.48     44.23    56.00   -11.77   QP
      1.762       34.65    0.48     35.13    46.00   -10.87   AVERAGE
      -------------------------------------------------------------
```

Remarks: 1. Level = Read Level + Factor
         2. Factor = LISN(ISN) Factor + Cable Loss

Test engineer: _____

2.5.1 Photographs of Conducted Emission Test

Test mode 1, 2

Front View

Rear View

Test mode 3, 4

Front View

Rear View

3.   Test of Radiated Emission

3.1. Test Limit

Radiated emissions from 30 MHz to 1,000 MHz were measured with a bandwidth of 120 kHz according to the methods defines in ANSI C63.4-2003. The EUT was placed on a nonmetallic stand in the open-field site, 0.8 meter above the ground plane, as shown in section 3.2. The interface cables and equipment positions were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

| Frequency (MHz)	Distance Meters	Radiated (μ V / M)	Radiated (dB μ V/M)
30-88	3	100	40.0
88-216	3	150	43.5
216-960	3	200	46.0
Above 960	3	500	54.0

For unintentional device, according to CISPR PUB.22, for Class B digital devices, the general requirement of field strength of radiated emissions from intentional radiators at a distance of 10 meters shall not exceed the above table.

Frequency (MHz)	Distance Meters	Radiated (dB μ V/M)
30-230	10	30
230-1000	10	37

3.2. Test Procedures

a. The EUT was placed on a Rota table top 0.8 meter above ground.

b. The EUT was set 10 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

c. The table was rotated 360 degrees to determine the position of the highest radiation.

d. The antenna is a half wave dipole 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.

e. 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.

f. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

g. If the emission level of the EUT in peak mode was 6 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 6 dB margin will be repeated one by one using the quasi-peak method and reported.

.

3.3. Typical test Setup
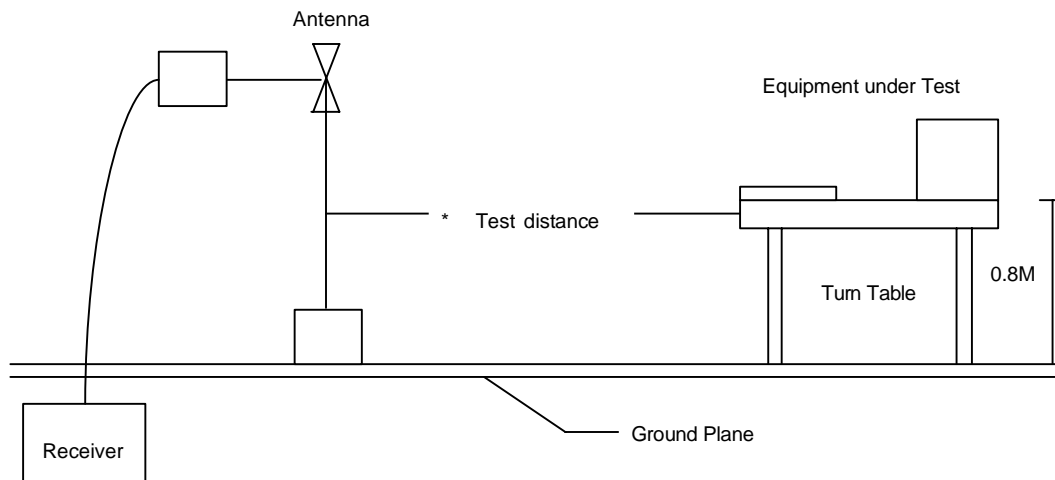
3.4. Measurement equipment

Instrument	Model No.	Manufacturer	Next Cal. Date
Bilog Antenna	CBL6111C	Schaffner	2006/02/14
Signal Generator	8648B	HP	2006/02/09
Amplifier	8447D	Agilent	2005/10/09
Amplifier	8447D	Agilent	2005/06/30
EMI Receiver	8546A	HP	2006/04/13
RF Filter Section	85460A	HP	2006/04/13
AC Power Converter	AFC-11005	APC	N/A

3.5. Test Result and Data

The test result including four kind of mode

Test mode 1

```
EUT        : RAZOR                      Pol/Phase   : HORIZONTAL
Power      : AC 110V                    Temperature : 27      ℃
Test Mode  : LINK                       Humidity    : 68      %
Memo       : 5.8G(4dBi)
```


Data: 24
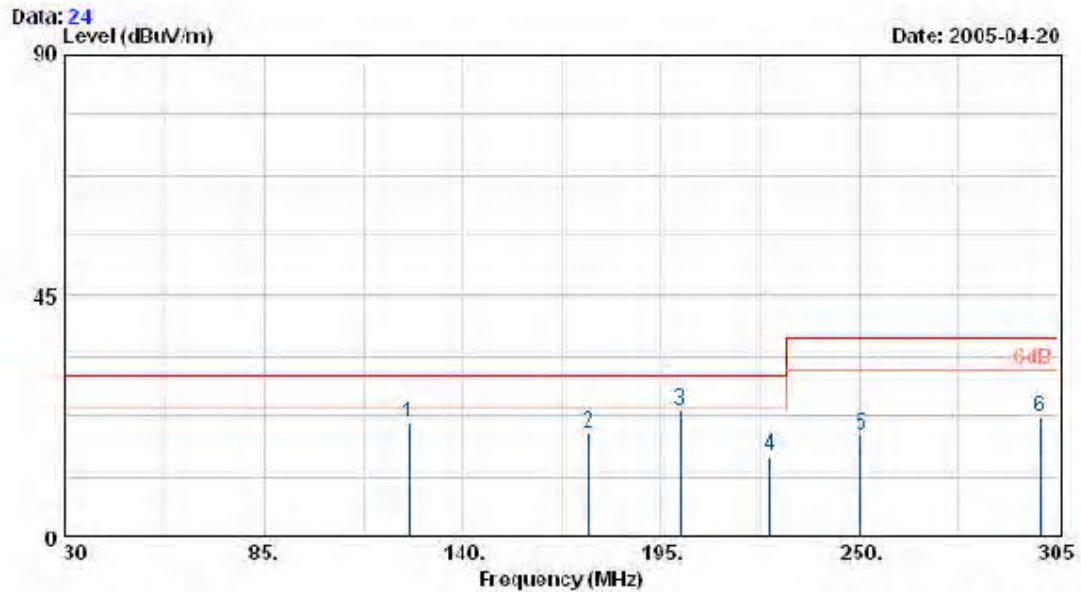
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/n	dB	dB			
124.99	37.00	-15.89	21.12	30.00	-8.88	Peak	400	0
175.01	37.13	-17.69	19.44	30.00	-10.56	Peak	400	0
200.05	40.91	-17.41	23.50	30.00	-6.50	Peak	400	0
225.01	32.00	-17.08	14.93	30.00	-15.07	Peak	400	0
250.36	32.55	-13.64	18.91	37.00	-18.09	Peak	400	0
300.00	33.56	-11.42	22.14	37.00	-14.86	Peak	400	0

Remarks: 1. Level = Read Level + factor
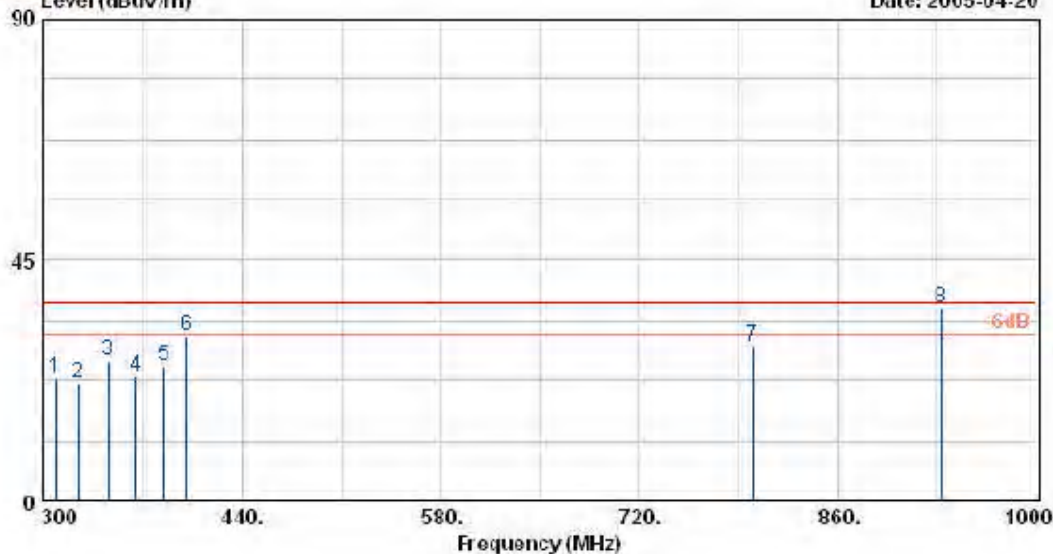2. Factor = Antenna factor + Cable loss - Amplifier factor

```
EUT        : RAZOR                      Pol/Phase   : HORIZONTAL
Power      : AC 110V                    Temperature : 27      ℃
Test Mode  : LINK                       Humidity    : 68      %
Memo       : 5.8G(4dBi)
```

Data:23

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/n	dB	dB			
309.80	34.35	-11.45	22.90	37.00	-14.10	Peak	400	360
325.90	32.98	-11.12	21.86	37.00	-15.14	Peak	400	360
346.90	36.94	-10.91	26.03	37.00	-10.97	Peak	400	360
365.80	33.80	-10.47	23.33	37.00	-13.67	Peak	400	360
385.40	35.20	-9.96	25.25	37.00	-11.75	Peak	400	360
400.00	40.05	-9.33	30.72	37.00	-6.28	QP	400	360
799.96	31.17	-2.27	28.90	37.00	-8.10	Peak	400	360
933.33	34.96	1.03	35.99	37.00	-1.01	Peak	100	360

Remarks: 1. Level = Read Level + factor
         2. Factor = Antenna factor + Cable loss - Amplifier factor

```
EUT        : RAZOR                    Pol/Phase   : VERTICAL
Power      : AC 110V                  Temperature : 27    ℃
Test Mode  : LINK                     Humidity    : 68    %
Memo       : 5.8G(4dBi)
```

Data: 22

Level (dBuV/m)   Date: 2005-04-20

```
           Read                            Over          Ant   Tab
    Freq   Level  Factor  Level  Limit     Limit Remark  Pos   Pos
   -------  ------  ------  ------  ------  ------  ------  ------  ------
    MHz    dBuV   dBuV/m  dBuV/n    dB      dB

   124.88  35.48  -15.90  19.58   30.00   -10.42  Peak    100   360
   175.25  40.82  -17.69  23.13   30.00    -6.87  Peak    100   360
   200.01  37.96  -17.41  20.55   30.00    -9.45  Peak    100   360
   224.98  36.37  -17.08  19.29   30.00   -10.71  Peak    100   360
   250.04  35.40  -13.68  21.71   37.00   -15.29  Peak    100   360
   300.04  37.08  -11.42  25.66   37.00   -11.34  Peak    100   360
   ------------------------------------------------------------------
Remarks: 1. Level = Read Level + factor
         2. Factor = Antenna factor + Cable loss - Amplifier factor
```

EUT   : RAZOR
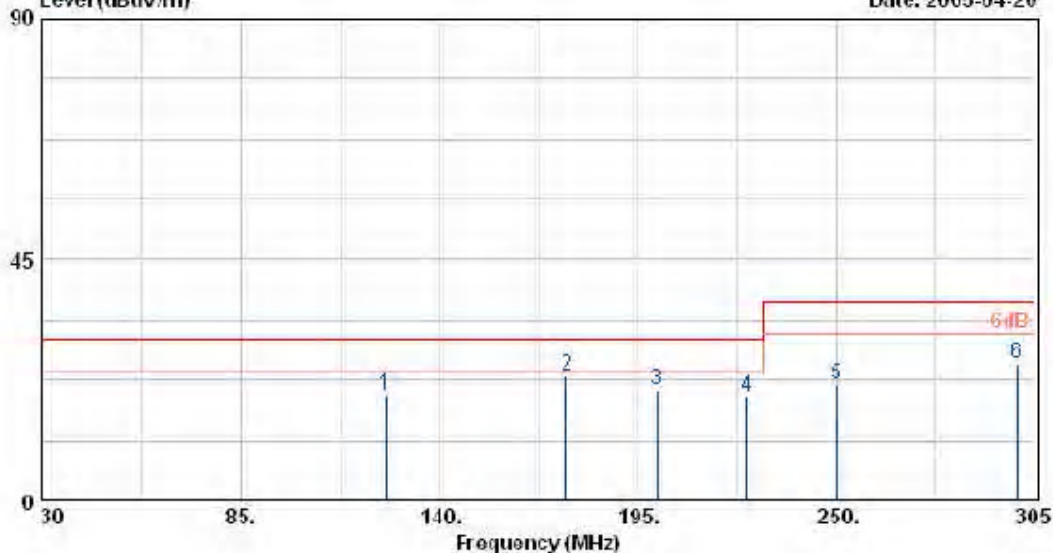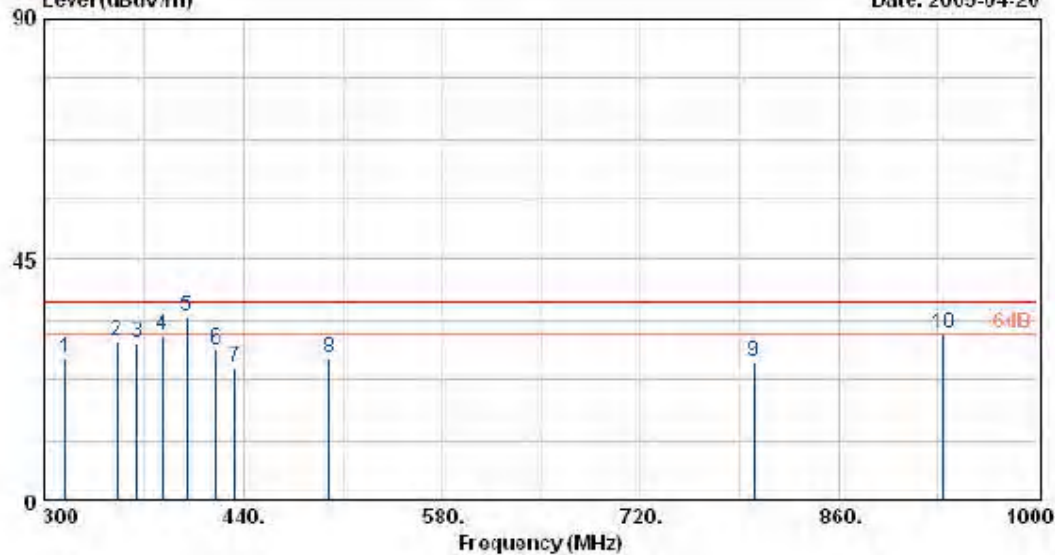Power   : AC 110V
Test Mode : LINK
Memo   : 5.8G(4dBi)

Pol/Phase   : VERTICAL
Temperature : 27   ℃
Humidity   : 68   %

Data: 21

Level (dBuV/m)   Date: 2005-04-20

Frequency (MHz)

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/n	dB	dB			
315.40	37.96	-11.32	26.64	37.00	-10.36	Peak	100	0
351.40	40.60	-10.81	29.78	37.00	-7.22	Peak	100	0
365.76	40.07	-10.47	29.60	37.00	-7.40	Peak	100	0
383.46	40.94	-10.04	30.89	37.00	-6.11	Peak	100	0
400.00	43.57	-9.33	34.24	37.00	-2.76	QP	100	0
420.31	37.05	-8.98	28.07	37.00	-8.93	Peak	100	0
433.45	34.20	-9.23	24.97	37.00	-12.03	Peak	100	0
500.08	34.09	-7.50	26.59	37.00	-10.41	Peak	100	0
800.00	28.06	-2.27	25.79	37.00	-11.21	Peak	100	0
933.34	29.97	1.03	31.00	37.00	-6.00	Peak	100	0

Remarks: 1. Level = Read Level + factor
         2. Factor = Antenna factor + Cable loss - Amplifier factor

Test mode 2

```
EUT        : RAZOR              Pol/Phase  : HORIZONTAL
Power      : AC 110V            Temperature : 27    ℃
Test Mode  : LINK               Humidity   : 68    %
Memo       : 2.4G(3dBi)
```
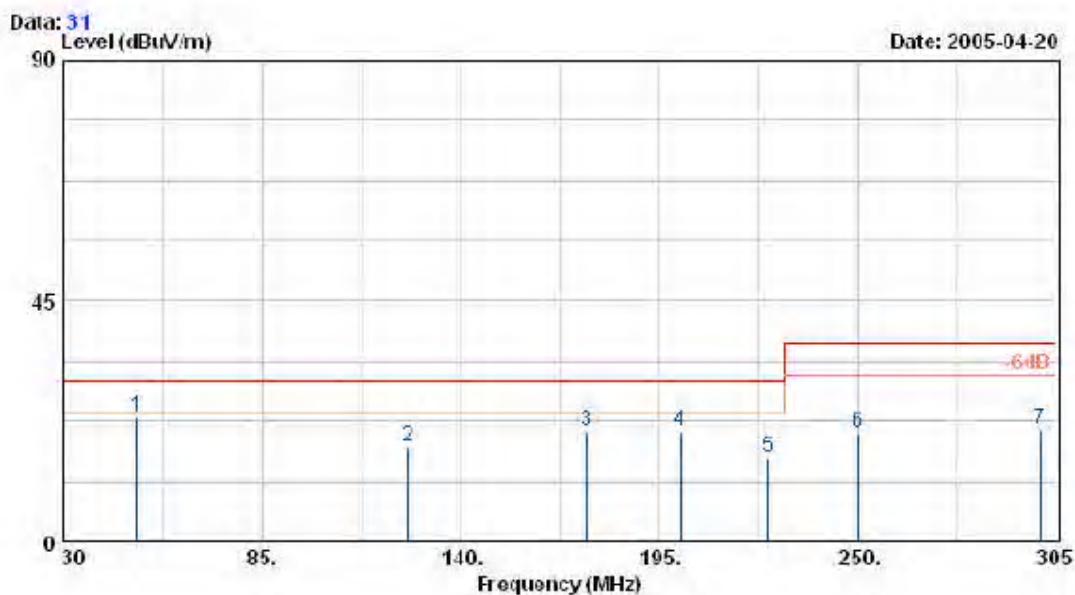

Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/n	dB	dB			
50.54	42.85	-19.70	23.15	30.00	-6.85	QP	400	360
125.15	33.69	-15.87	17.82	30.00	-12.18	Peak	400	360
174.93	38.41	-17.68	20.73	30.00	-9.27	Peak	400	360
200.50	38.14	-17.41	20.73	30.00	-9.27	Peak	400	360
224.98	32.96	-17.08	15.87	30.00	-14.13	Peak	400	360
250.05	34.03	-13.68	20.34	37.00	-16.66	Peak	400	360
300.60	32.42	-11.42	21.00	37.00	-16.00	Peak	400	360

Remarks: 1. Level = Read Level + factor
         2. Factor = Antenna factor + Cable loss - Amplifier factor

```
EUT        : RAZOR                    Pol/Phase   : HORIZONTAL
Power      : AC 110V                  Temperature : 27    ℃
Test Mode  : LINK                     Humidity    : 68    %
Memo       : 2.4G(3dBi)
```

Data: 32
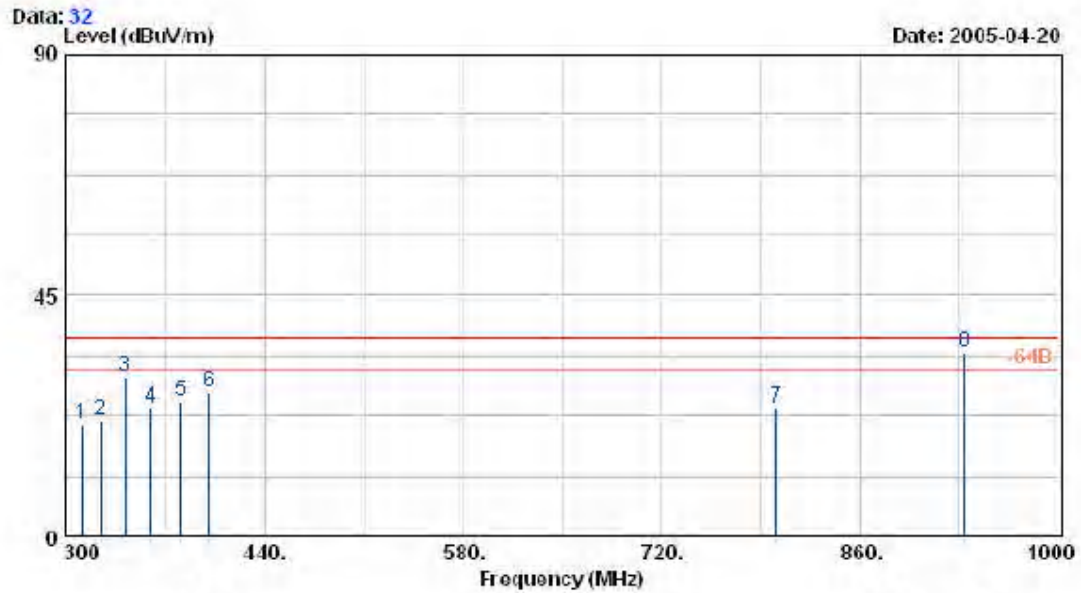
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/n	dB	dB			
311.90	32.51	-11.40	21.11	37.00	-15.89	Peak	400	0
325.90	32.80	-11.12	21.68	37.00	-15.32	Peak	400	0
342.70	40.87	-11.02	29.85	37.00	-7.15	Peak	400	0
360.90	34.57	-10.66	23.91	37.00	-13.09	Peak	400	0
381.90	35.35	-10.11	25.23	37.00	-11.77	Peak	400	0
400.10	36.14	-9.33	26.81	37.00	-10.19	Peak	400	0
800.50	25.06	-2.26	23.80	37.00	-13.20	Peak	400	0
933.50	33.42	1.03	34.46	37.00	-2.54	QP	400	0

Remarks: 1. Level = Read Level + factor
         2. Factor = Antenna factor + Cable loss - Amplifier factor

```
EUT       : RAZOR                      Pol/Phase   : VERTICAL
Power     : AC 110V                    Temperature : 27    ℃
Test Mode : LINK                       Humidity    : 68    %
Memo      : 2.4G(3dBi)
```

Data: 30
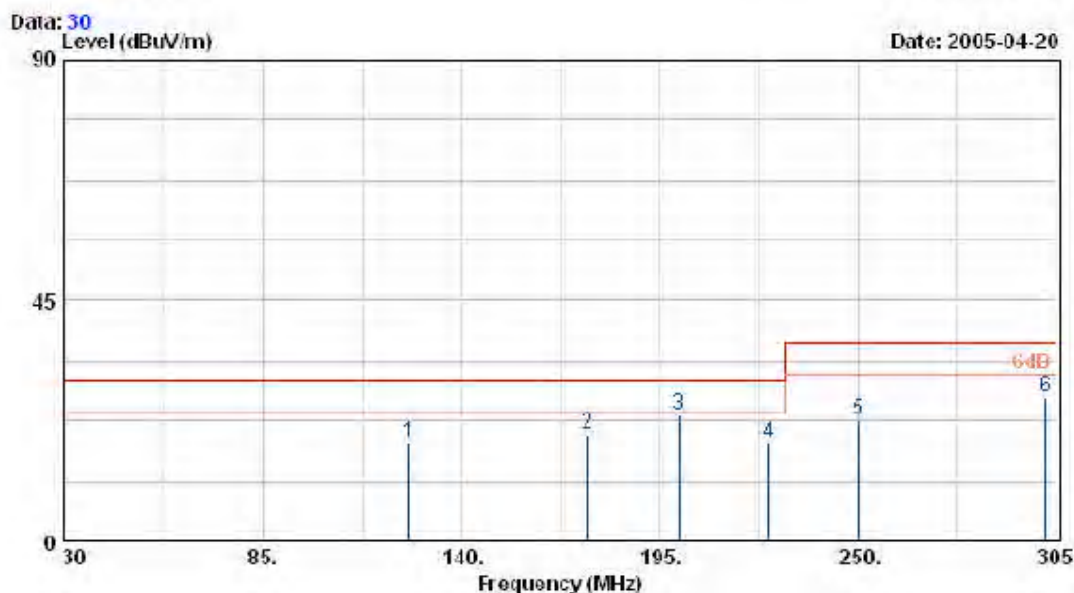

```
            Read                              Over            Ant   Tab
    Freq    Level  Factor   Level   Limit     Limit  Remark   Pos   Pos
    ------- ------ -------  ------- -------  -------  ------   ----- -----
    MHz     dBuV   dBuV/m   dBuV/n    dB       dB

    125.15  34.18  -15.87   18.31   30.00    -11.69  Peak     100   0
    174.99  37.74  -17.68   20.06   30.00     -9.94  Peak     100   0
    200.03  40.98  -17.41   23.57   30.00     -6.43  Peak     100   0
    225.00  35.48  -17.08   18.40   30.00    -11.60  Peak     100   0
    249.99  36.32  -13.69   22.63   37.00    -14.37  Peak     100   0
    301.68  38.31  -11.43   26.89   37.00    -10.11  Peak     100   0
    ------------------------------------------------------------------
Remarks: 1. Level = Read Level + factor
         2. Factor = Antenna factor + Cable loss - Amplifier factor
```

```
EUT        : RAZOR                      Pol/Phase   : VERTICAL
Power      : AC 110V                    Temperature : 27    ℃
Test Mode  : LINK                       Humidity    : 68    %
Memo       : 2.4G(3dBi)
```

Data: 29
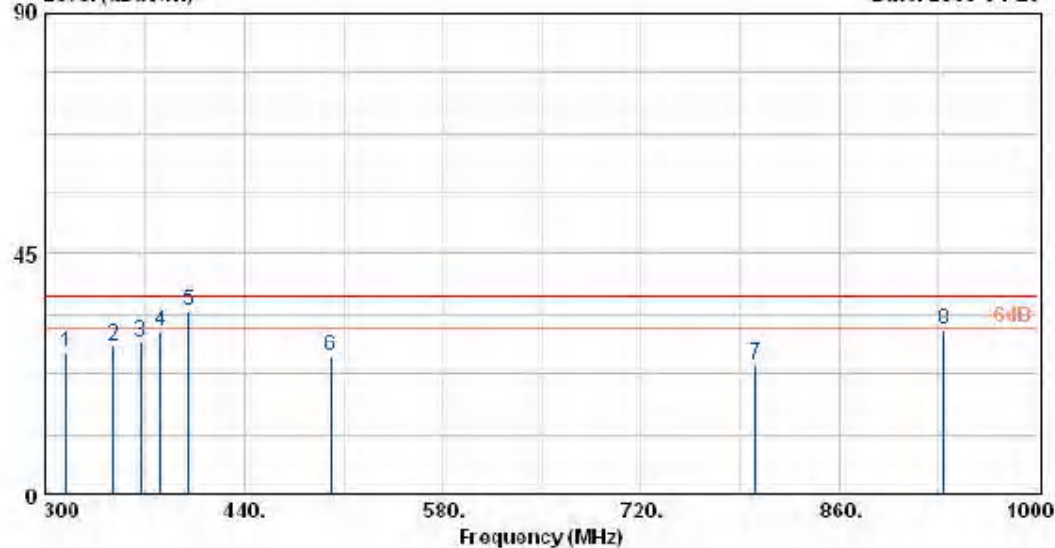
Freq	Read Level	Factor	Level	Limit	Over Limit	Remark	Ant Pos	Tab Pos
MHz	dBuV	dBuV/m	dBuV/n	dB	dB			
315.40	37.91	-11.32	26.59	37.00	-10.41	Peak	100	360
348.30	38.83	-10.87	27.96	37.00	-9.04	Peak	100	360
367.90	38.99	-10.38	28.61	37.00	-8.39	Peak	100	360
381.90	40.50	-10.11	30.39	37.00	-6.61	Peak	100	360
400.01	43.71	-9.33	34.38	37.00	-2.62	QP	100	360
500.90	33.17	-7.44	25.73	37.00	-11.27	Peak	100	360
800.01	25.52	-2.27	24.25	37.00	-12.75	Peak	100	360
933.34	29.80	1.03	30.83	37.00	-6.17	Peak	100	360

Remarks: 1. Level = Read Level + factor
2. Factor = Antenna factor + Cable loss - Amplifier factor