

## 6. Test of Radiated Emission

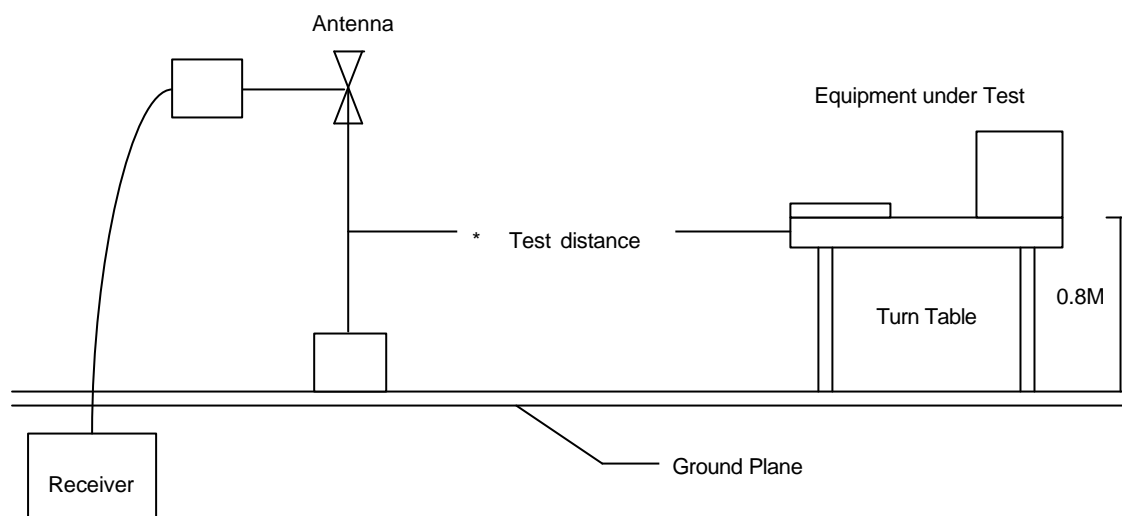
### 6.1. Test Limit

Radiated emissions from 30 MHz to 40 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

### 6.2. 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.

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



### 6.4. Measurement equipment

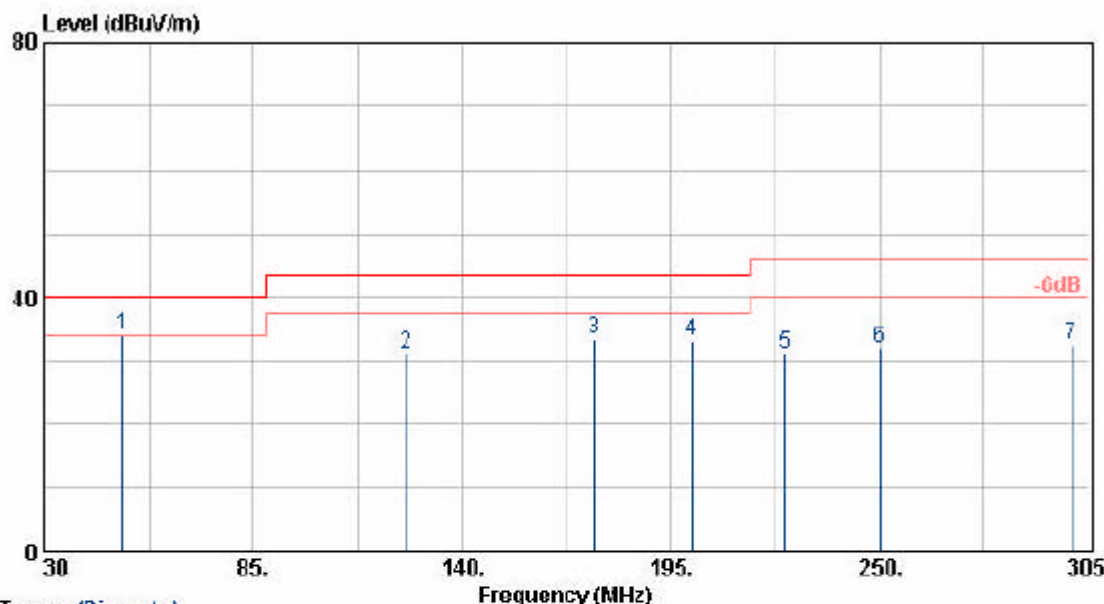
Instrument/Ancillary	Type	Manufacturer	Valid Date
EMI Receiver	8546A	HP	2006/04/13
Spectrum Analyzer	FSP40	R&S	2005/12/28
Horn Antenna	3115	EMCO	2006/02/21
Horn Antenna	3116	EMCO	2006/02/21
Bilog Antenna	CBL6112B	Schaffner	2006/04/12
Amplifier	8447D	Agilent	2005/06/30
Amplifier	8449B	Agilent	2005/12/27

### 6.5. Test Result of Radiated Emission

Antenna type 1: external Dipole Antenna

```

EUT           : Razor
Power         : AC110V
Test Mode     : Transmit/Receive
Operation Channel: 8
Modulation Type : 802.11a
Rate          : 54 Mbps
Pol/Phase     : HORIZONTAL
Temperature   : 24 °C
Humidity      : 65 %
Atmospheric Pressure: 1038 mmHg
    
```

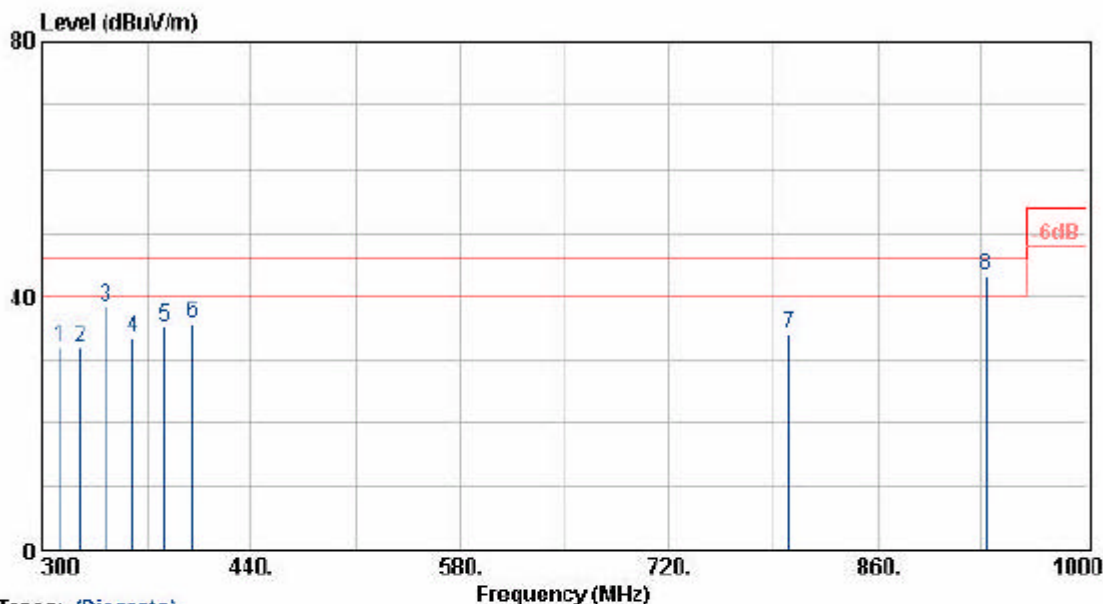


Frequency (MHz)	Meter Reading (dBuV)	Corrected Factor (dBuV/m)	Result (dBuV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
50.54	49.26	-15.11	34.15	40.00	-5.85	QP	180	100
125.15	46.97	-15.91	31.06	43.50	-12.44	Peak	180	100
175.00	50.56	-17.11	33.45	43.50	-10.05	Peak	180	100
200.50	50.14	-17.05	33.09	43.50	-10.41	Peak	180	100
225.00	47.65	-16.39	31.26	46.00	-14.74	Peak	180	100
250.00	45.07	-13.17	31.90	46.00	-14.10	Peak	180	100
300.60	43.68	-11.09	32.59	46.00	-13.41	Peak	180	100

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 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

EUT	: Razor	Pol/Phase	: HORIZONTAL
Power	: AC110V	Temperature	: 24 °C
Test Mode	: Transmit/Receive	Humidity	: 65 %
Operation Channel	: 8	Atmospheric Pressure	: 1030 mmHg
Modulation Type	: 002.11a		
Rate	: 54 Mbps		



Trace: (Discrete)

Frequency (MHz)	Meter Reading (dBuV)	Corrected Factor (dBuV/m)	Result (dBuV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
312.00	42.77	-10.90	31.87	46.00	-14.13	Peak	120	100
325.00	42.64	-10.64	32.00	46.00	-14.00	Peak	180	100
342.70	48.78	-10.29	38.49	46.00	-7.51	Peak	150	100
361.00	43.28	-9.81	33.47	46.00	-12.53	Peak	150	100
382.00	44.10	-9.00	35.10	46.00	-10.90	Peak	150	100
400.10	44.49	-8.59	35.90	46.00	-10.10	Peak	180	100
800.50	34.94	-0.84	34.10	46.00	-11.90	Peak	180	100
933.30	40.99	2.41	43.40	46.00	-2.60	QP	150	100

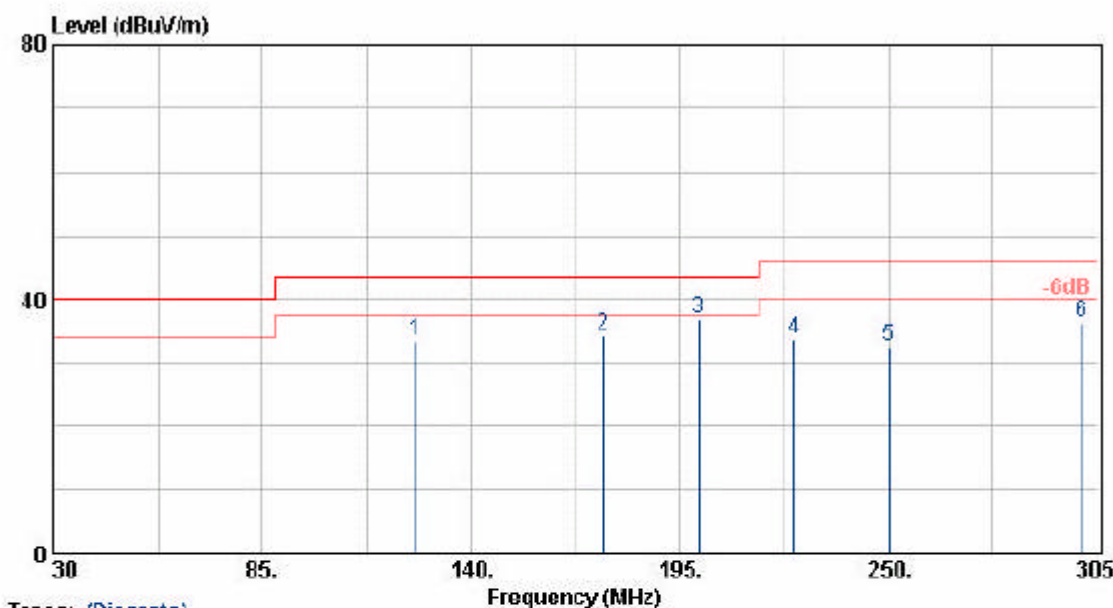
Notes:

1. Result = Meter Reading + Corrected Factor
2. Corrected Factor = Antenna Factor + Cable Loss - Amplifier
3. The resolution bandwidth of test receiver/spectrum analyzer is 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

```

EUT           : Razor
Power         : AC110V
Test Mode     : Transmit/Receive
Operation Channel: 8
Modulation Type : 802.11a
Rate          : 54 Mbps

Pol/Phase     : VERTICAL
Temperature   : 24 °C
Humidity      : 65 %
Atmospheric Pressure: 1030 mmHg
    
```



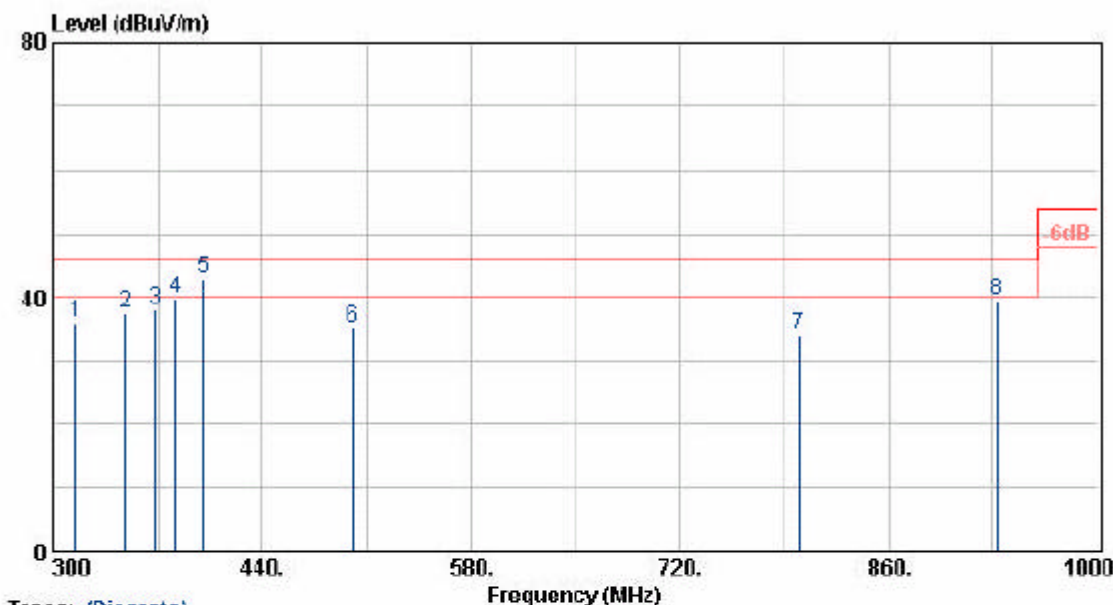
Trace: (Discrete)

Frequency (MHz)	Meter Reading (dBUV)	Corrected Factor (dBUV/m)	Result (dBUV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
125.15	49.41	-15.91	33.50	43.50	-10.00	Peak	180	100
174.99	51.29	-17.10	34.19	43.50	-9.31	Peak	180	100
200.03	53.99	-17.02	36.97	43.50	-6.53	Peak	180	100
225.00	50.28	-16.39	33.89	46.00	-12.11	Peak	180	100
250.00	45.62	-13.17	32.45	46.00	-13.55	Peak	180	100
301.00	47.45	-11.09	36.36	46.00	-9.64	Peak	180	100

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 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

EUT	: Razor	Pol/Phase	: VERTICAL
Power	: AC110V	Temperature	: 24 °C
Test Mode	: Transmit/Receive	Humidity	: 65 %
Operation Channel	: 64	Atmospheric Pressure	: 1038 mmHg
Modulation Type	: 802.11a	Memo	:
Rate	: 54 Mbps		



Trace: (Discrete)

Frequency (MHz)	Meter Reading (dBuV)	Corrected Factor (dBuV/m)	Result (dBuV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
315.40	46.92	-10.81	36.11	46.00	-9.89	Peak	150	100
348.30	47.80	-10.21	37.59	46.00	-8.41	Peak	150	100
358.00	47.76	-9.60	38.16	46.00	-7.84	Peak	150	100
382.00	48.88	-9.00	39.88	46.00	-6.12	Peak	150	100
400.00	51.69	-8.59	43.10	46.00	-2.90	QP	180	100
500.90	41.91	-6.71	35.20	46.00	-10.80	Peak	180	100
800.00	34.95	-0.86	34.09	46.00	-11.91	Peak	180	100
933.33	37.01	2.41	39.42	46.00	-6.58	Peak	150	100

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 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 05, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
10520.0	H	---	15.33	---	68.3	---	Peak	---	---
15780.0	H	---	15.91	---	54.0	---	Ave	---	---
21040.0	H	---	28.90	---	54.0	---	Ave	---	---
26300.0	H	---	32.23	---	68.3	---	Peak	---	---
4896.0	V	51.35	7.62	58.97	74.0	-15.03	Peak	127	1.0
4896.0	V	35.91	7.62	43.53	54.0	-10.47	Ave	127	1.0
10520.0	V	---	15.33	---	68.3	---	Peak	---	---
15780.0	V	---	15.91	---	54.0	---	Ave	---	---
21040.0	V	---	28.90	---	54.0	---	Ave	---	---
26300.0	V	---	32.23	---	68.3	---	Peak	---	---

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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 08, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
10640.0	H	---	15.36	---	54.0	---	Ave	---	---
15960.0	H	---	15.41	---	54.0	---	Ave	---	---
21280.0	H	---	29.75	---	54.0	---	Ave	---	---
26600.0	H	---	32.52	---	68.3	---	Peak	---	---
4896.4	V	50.61	7.62	58.24	74.0	-15.76	Peak	127	1.0
4896.4	V	35.87	7.62	43.49	54.0	-10.51	Ave	127	1.0
10640.0	V	---	15.36	---	54.0	---	Ave	---	---
15960.0	V	---	15.41	---	54.0	---	Ave	---	---
21280.0	V	---	29.75	---	54.0	---	Ave	---	---
26600.0	V	---	32.52	---	68.3	---	Peak	---	---

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.



Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 09, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
11490.0	H	---	16.54	---	54.0	---	Ave	---	---
17235.0	H	---	21.99	---	68.3	---	Peak	---	---
22980.0	H	---	31.49	---	54.0	---	Ave	---	---
28725.0	H	---	33.65	---	68.3	---	Peak	---	---
4896.4	V	52.96	7.62	60.58	74.0	-13.42	Peak	127	1.0
4896.4	V	37.33	7.62	44.95	54.0	-9.05	Ave	127	1.0
11490.0	V	---	16.54	---	54.0	---	Ave	---	---
17235.0	V	---	21.99	---	68.3	---	Peak	---	---
22980.0	V	---	31.49	---	54.0	---	Ave	---	---
28725.0	V	---	33.65	---	68.3	---	Peak	---	---

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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 11, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
11570.0	H	---	16.49	---	54.0	---	Ave	---	---
17355.0	H	---	22.77	---	68.3	---	Peak	---	---
23140.0	H	---	31.62	---	54.0	---	Ave	---	---
28925.0	H	---	33.61	---	68.3	---	Peak	---	---
4896.4	V	51.00	7.62	58.62	74.0	-15.38	Peak	127	1.0
4896.4	V	36.03	7.62	43.65	54.0	-10.35	Ave	127	1.0
11570.0	V	---	16.49	---	54.0	---	Ave	---	---
17355.0	V	---	22.77	---	68.3	---	Peak	---	---
23140.0	V	---	31.62	---	54.0	---	Ave	---	---
28925.0	V	---	33.61	---	68.3	---	Peak	---	---

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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 13, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

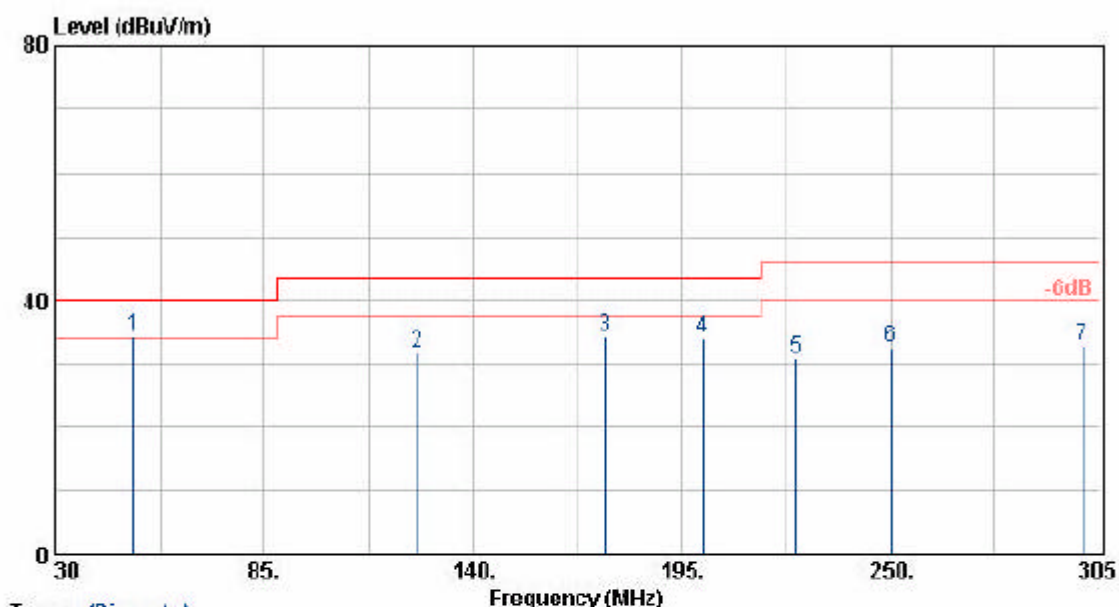
Frequency (MHz)	Ant-Pol H/V	Meter Reading (dBuV)	Corrected Factor (dB)	Result@3m (dBuV/m)	Limit@3m (dBuV/m)	Margin (dB)	Remark	Table Deg.	Ant High (m)
11650.0	H	---	16.41	---	54.0	---	Ave	---	---
17475.0	H	---	23.54	---	68.3	---	Peak	---	---
23300.0	H	---	31.83	---	54.0	---	Ave	---	---
29125.0	H	---	33.66	---	68.3	---	Peak	---	---
4896.8	V	50.41	7.62	58.03	74.0	-15.97	Peak	127	1.0
4896.8	V	35.98	7.62	43.60	54.0	-10.40	Ave	127	1.0
11650.0	V	---	16.41	---	54.0	---	Ave	---	---
17475.0	V	---	23.54	---	68.3	---	Peak	---	---
23300.0	V	---	31.83	---	54.0	---	Ave	---	---
29125.0	V	---	33.66	---	68.3	---	Peak	---	---

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.

Antenna type 2: external GP-Antenna.

EUT : Razor-8dBi  
 Power : AC110V  
 Test Mode : Transmit/Receive  
 Operation Channel: 8  
 Modulation Type : 802.11a  
 Rate : 54 Mbps  
 Pol/Phase : HORIZONTAL  
 Temperature : 24 °C  
 Humidity : 65 %  
 Atmospheric Pressure: 1038 mmHg



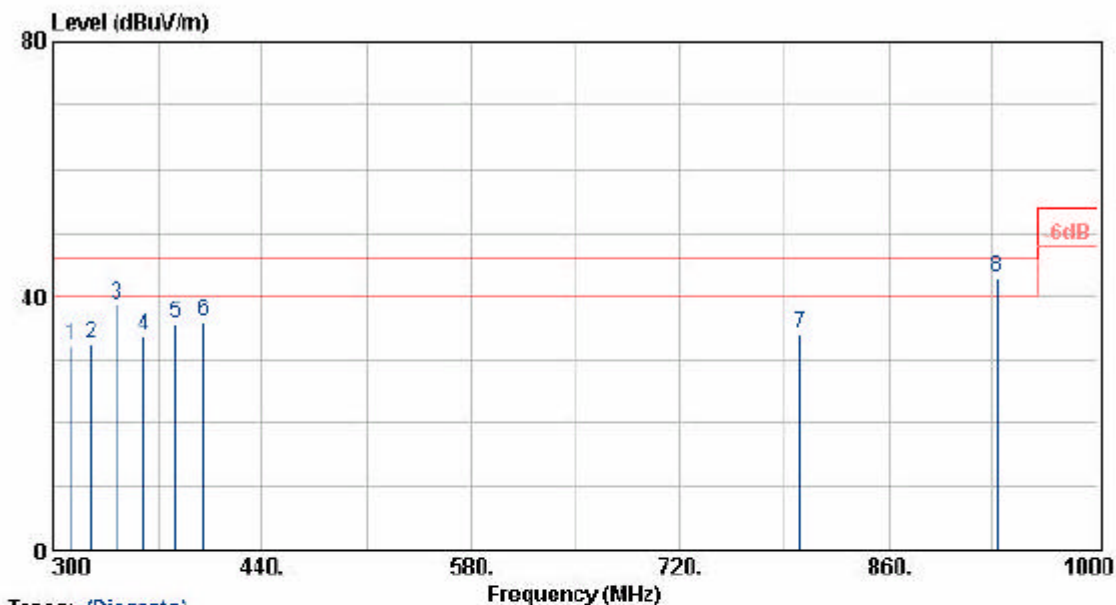
Trace: (Discrete)

Frequency (MHz)	Meter Reading (dBuV)	Corrected Factor (dBuV/m)	Result (dBuV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
50.54	49.33	-15.11	34.22	40.00	-5.78	QP	180	100
125.15	47.51	-15.91	31.60	43.50	-11.90	Peak	180	100
175.00	51.32	-17.11	34.21	43.50	-9.29	Peak	180	100
200.50	51.00	-17.05	33.95	43.50	-9.55	Peak	180	100
225.00	47.34	-16.39	30.95	46.00	-15.05	Peak	180	100
250.00	45.66	-13.17	32.49	46.00	-13.51	Peak	180	100
300.50	43.83	-11.09	32.74	46.00	-13.26	Peak	180	100

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 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

EVT	: Razor-8dBi	Pol/Phase	: HORIZONTAL
Power	: AC110V	Temperature	: 24 °C
Test Mode	: Transmit/Receive	Humidity	: 65 %
Operation Channel	: 8	Atmospheric Pressure	: 1030 mmHg
Modulation Type	: 802.11a		
Rate	: 54 Mbps		



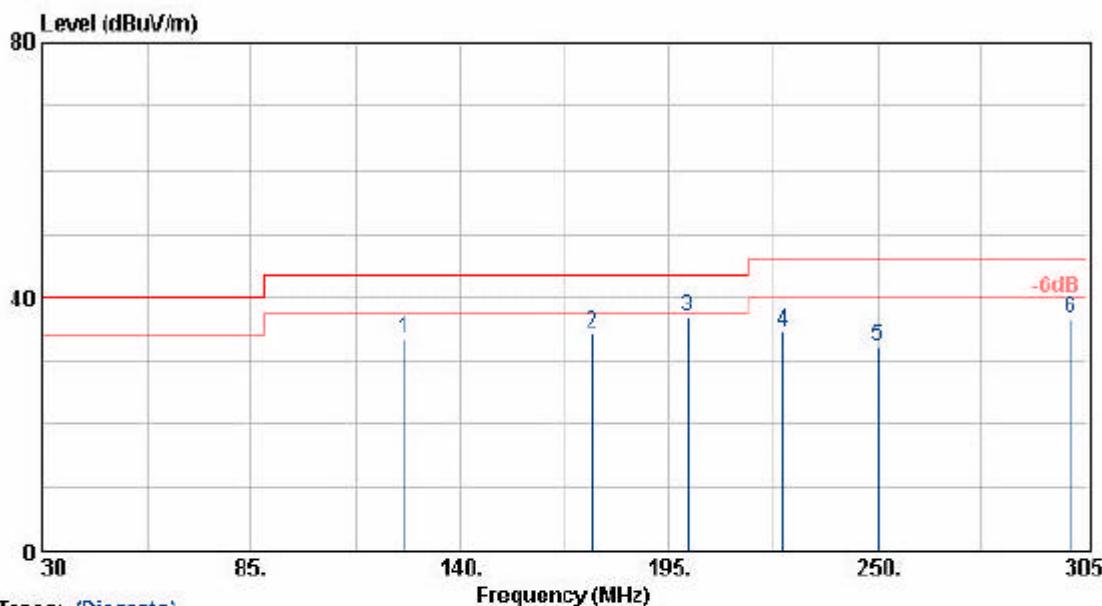
Trace: (Discrete)

Frequency (MHz)	Meter Reading (dBUV)	Corrected Factor (dBUV/m)	Result (dBUV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
312.00	43.20	-10.90	32.30	46.00	-13.70	Peak	120	100
325.00	43.11	-10.64	32.47	46.00	-13.53	Peak	180	100
342.70	48.99	-10.29	38.70	46.00	-7.30	Peak	150	100
361.00	43.50	-9.81	33.69	46.00	-12.31	Peak	150	100
382.00	44.89	-9.00	35.89	46.00	-10.11	Peak	150	100
400.10	44.58	-8.59	35.99	46.00	-10.01	Peak	180	100
800.50	35.02	-0.84	34.18	46.00	-11.82	Peak	180	100
933.30	40.68	2.41	43.09	46.00	-2.91	QP	150	100

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 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

EUT	: Razor-8dBi	Pol/Phase	: VERTICAL
Power	: AC110V	Temperature	: 24 °C
Test Mode	: Transmit/Receive	Humidity	: 65 %
Operation Channel	: 8	Atmospheric Pressure	: 1030 mmHg
Modulation Type	: 002.11a		
Rate	: 54 Mbps		



Trace: (Discrete)

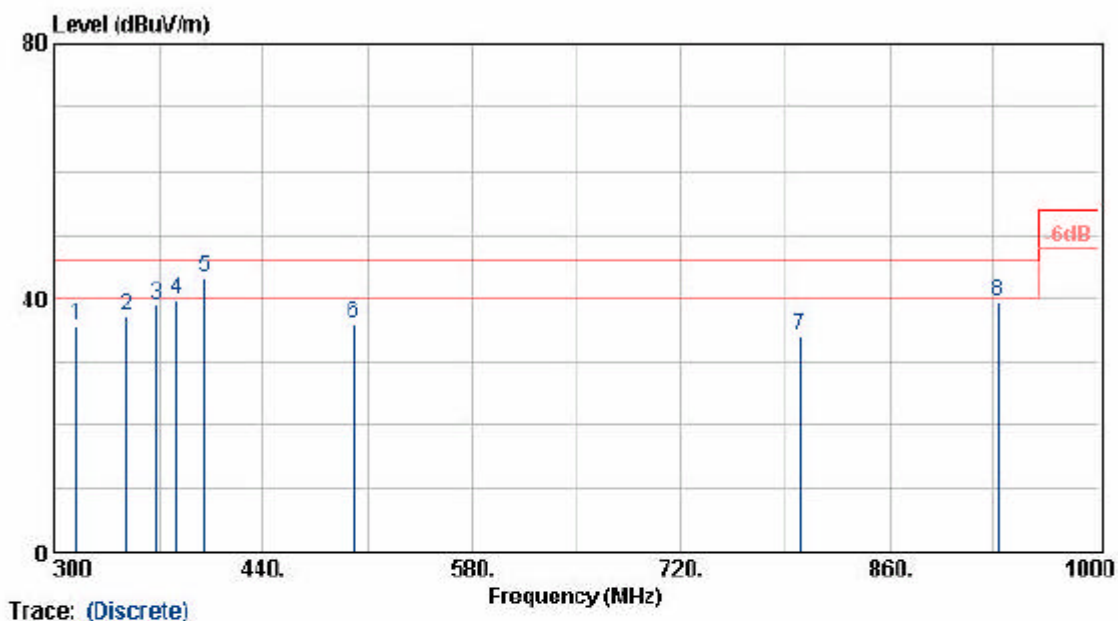
Frequency (MHz)	Meter Reading (dBuV)	Corrected Factor (dBuV/m)	Result (dBuV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
125.15	49.23	-15.91	33.32	43.50	-10.18	Peak	180	100
174.99	51.40	-17.10	34.30	43.50	-9.20	Peak	180	100
200.03	54.11	-17.02	37.09	43.50	-6.41	Peak	180	100
225.00	50.90	-16.39	34.51	46.00	-11.49	Peak	180	100
250.00	45.59	-13.17	32.42	46.00	-13.58	Peak	180	100
301.00	47.68	-11.09	36.59	46.00	-9.41	Peak	180	100

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 120KHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

EUT : Razor-8dBi  
 Power : AC110V  
 Test Mode : Transmit/Receive  
 Operation Channel: 8  
 Modulation Type : 802.11a  
 Rate : 54 Mbps

Pol/Phase : VERTICAL  
 Temperature : 24 °C  
 Humidity : 65 %  
 Atmospheric Pressure: 1038 mmHg



Trace: (Discrete)

Frequency (MHz)	Meter Reading (dBUV)	Corrected Factor (dBUV/m)	Result (dBUV/m)	Limit (dB)	Margin (dB)	Remark	Table Deg.	Ant High (cm)
315.40	46.60	-10.81	35.79	46.00	-10.21	Peak	150	100
348.30	47.47	-10.21	37.26	46.00	-8.74	Peak	150	100
358.00	48.56	-9.60	38.96	46.00	-7.04	Peak	150	100
382.00	48.91	-9.00	39.91	46.00	-6.09	Peak	150	100
400.00	51.95	-8.59	43.36	46.00	-2.64	QP	180	100
500.90	42.73	-6.71	36.02	46.00	-9.98	Peak	180	100
800.00	34.95	-0.86	34.09	46.00	-11.91	Peak	180	100
933.33	37.29	2.41	39.70	46.00	-6.30	Peak	150	100

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 120kHz and video bandwidth is 300kHz for Peak detection and Quasi-peak detection at frequency below 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz 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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 05, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
10520.0	H	---	15.33	---	68.3	---	Peak	---	---
15780.0	H	---	15.91	---	54.0	---	Ave	---	---
21040.0	H	---	28.90	---	54.0	---	Ave	---	---
26300.0	H	---	32.23	---	68.3	---	Peak	---	---
4896.0	V	51.90	7.62	59.52	74.0	-14.48	Peak	127	1.0
4896.0	V	35.48	7.62	43.10	54.0	-10.90	Ave	127	1.0
10520.0	V	---	15.33	---	68.3	---	Peak	---	---
15780.0	V	---	15.91	---	54.0	---	Ave	---	---
21040.0	V	---	28.90	---	54.0	---	Ave	---	---
26300.0	V	---	32.23	---	68.3	---	Peak	---	---

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.



Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 08, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
10640.0	H	---	15.36	---	54.0	---	Ave	---	---
15960.0	H	---	15.41	---	54.0	---	Ave	---	---
21280.0	H	---	29.75	---	54.0	---	Ave	---	---
26600.0	H	---	32.52	---	68.3	---	Peak	---	---
4896.4	V	51.54	7.62	59.16	74.0	-14.84	Peak	127	1.0
4896.4	V	36.39	7.62	44.01	54.0	-9.99	Ave	127	1.0
10640.0	V	---	15.36	---	54.0	---	Ave	---	---
15960.0	V	---	15.41	---	54.0	---	Ave	---	---
21280.0	V	---	29.75	---	54.0	---	Ave	---	---
26600.0	V	---	32.52	---	68.3	---	Peak	---	---

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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 09, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
11490.0	H	---	16.54	---	54.0	---	Ave	---	---
17235.0	H	---	21.99	---	68.3	---	Peak	---	---
22980.0	H	---	31.49	---	54.0	---	Ave	---	---
28725.0	H	---	33.65	---	68.3	---	Peak	---	---
4896.4	V	53.49	7.62	61.11	74.0	-12.89	Peak	127	1.0
4896.4	V	37.81	7.62	45.43	54.0	-8.57	Ave	127	1.0
11490.0	V	---	16.54	---	54.0	---	Ave	---	---
17235.0	V	---	21.99	---	68.3	---	Peak	---	---
22980.0	V	---	31.49	---	54.0	---	Ave	---	---
28725.0	V	---	33.65	---	68.3	---	Peak	---	---

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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 11, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
11570.0	H	---	16.49	---	54.0	---	Ave	---	---
17355.0	H	---	22.77	---	68.3	---	Peak	---	---
23140.0	H	---	31.62	---	54.0	---	Ave	---	---
28925.0	H	---	33.61	---	68.3	---	Peak	---	---
4896.4	V	51.55	7.62	59.17	74.0	-14.83	Peak	127	1.0
4896.4	V	36.60	7.62	44.22	54.0	-9.78	Ave	127	1.0
11570.0	V	---	16.49	---	54.0	---	Ave	---	---
17355.0	V	---	22.77	---	68.3	---	Peak	---	---
23140.0	V	---	31.62	---	54.0	---	Ave	---	---
28925.0	V	---	33.61	---	68.3	---	Peak	---	---

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.

Emission frequencies 1~40 GHz

Test Mode: Normal, Channel 13, Transmit Rate:54Mbps

Test Date: Apr. 20, 2005 Temperature: 24 Humidity: 65% Atmospheric pressure: 1038mmHg

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)
11650.0	H	---	16.41	---	54.0	---	Ave	---	---
17475.0	H	---	23.54	---	68.3	---	Peak	---	---
23300.0	H	---	31.83	---	54.0	---	Ave	---	---
29125.0	H	---	33.66	---	68.3	---	Peak	---	---
4896.8	V	50.95	7.62	58.57	74.0	-15.43	Peak	127	1.0
4896.8	V	36.49	7.62	44.11	54.0	-9.89	Ave	127	1.0
11650.0	V	---	16.41	---	54.0	---	Ave	---	---
17475.0	V	---	23.54	---	68.3	---	Peak	---	---
23300.0	V	---	31.83	---	54.0	---	Ave	---	---
29125.0	V	---	33.66	---	68.3	---	Peak	---	---

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 Photographs

Antenna type 1: external Dipole Antenna.

Front View



Rear View



Antenna type 2: external GP-Antenna.

Front View



Rear View

