

## 5.9 Peak Output Power Measurement

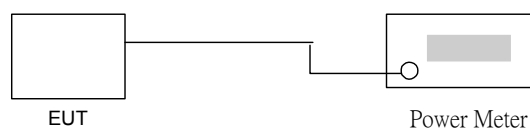
### 5.9.1 Measuring Instruments :

As described in chapter 6 of this test report.

### 5.9.2 Test Procedure :

The antenna port ( RF output ) of the EUT was connected to the input ( RF input ) of a power meter.  
The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.

### 5.9.3 Test Setup Layout :



### 5.9.4 Test Result :

- Application Type : WLAN 802.11b and BT
- Temperature : 26°C
- Relative Humidity : 53 %
- Test Enginner :     Jay

#### **WLAN 802.11b**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
01	2412	14.68	1W/30 dBm
06	2437	14.46	1W/30 dBm
11	2462	14.45	1W/30 dBm

#### **BT**

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm )
00	2402	2.69	1W/30 dBm
39	2441	2.86	1W/30 dBm
78	2480	2.90	1W/30 dBm



## **5.10 Conducted Emission Measurement**

### 5.10.1 Measuring Instruments

As described in chapter 6 of this test Report.

### 5.10.2 Test Procedures

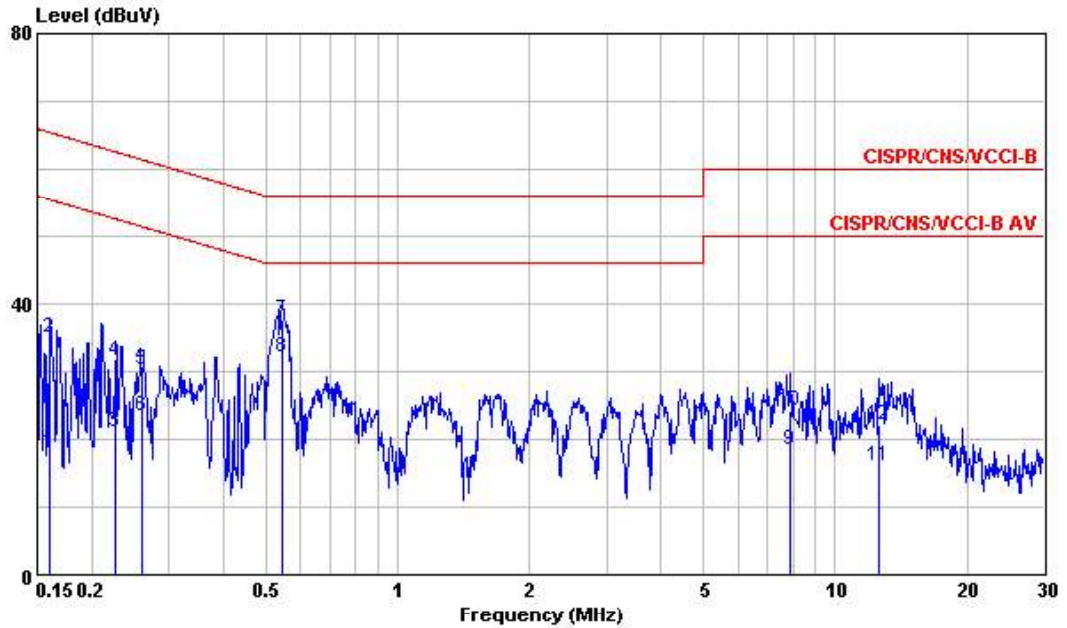
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of the line impedance stabilization network (LISN).
- c. All the support units are connect to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.



5.10.3 Test Data

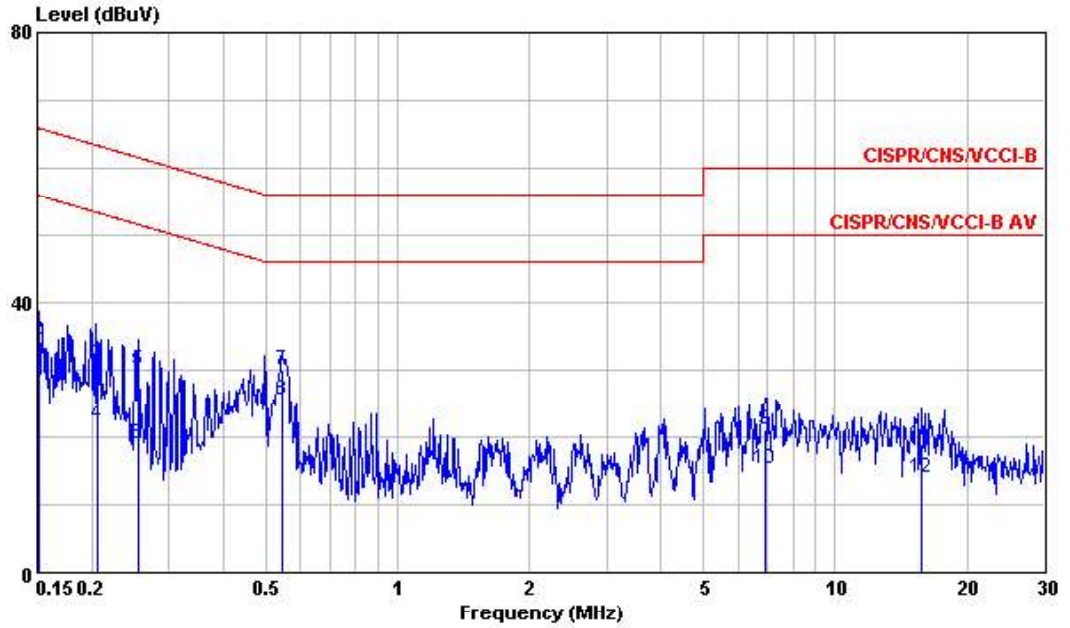
- Application Type : 802.11b
- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner : Jay
- Test Mode : Mode 1

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : site  
 Condition : CISPR/CNS/WCCI-B 2003 2001/004 LINE  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : EUT Only

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1598470	18.06	-37.41	55.47	17.95	0.11	0.10	0.01 Average
2	0.1598470	34.92	-30.55	65.47	34.81	0.11	0.10	0.01 QP
3	0.2271010	21.10	-31.46	52.56	20.99	0.11	0.10	0.01 Average
4	0.2271010	31.50	-31.06	62.56	31.39	0.11	0.10	0.01 QP
5	0.2601590	30.29	-31.14	61.43	30.18	0.11	0.10	0.01 QP
6	0.2601590	23.50	-27.93	51.43	23.39	0.11	0.10	0.01 Average
7	@ 0.5464400	37.60	-18.40	56.00	37.47	0.13	0.10	0.03 QP
8	@ 0.5464400	32.23	-13.77	46.00	32.10	0.13	0.10	0.03 Average
9	7.890	18.41	-31.59	50.00	18.21	0.20	0.10	0.10 Average
10	7.890	24.17	-35.83	60.00	23.97	0.20	0.10	0.10 QP
11	12.580	16.05	-33.95	50.00	15.75	0.30	0.16	0.14 Average
12	12.580	21.99	-38.01	60.00	21.69	0.30	0.16	0.14 QP



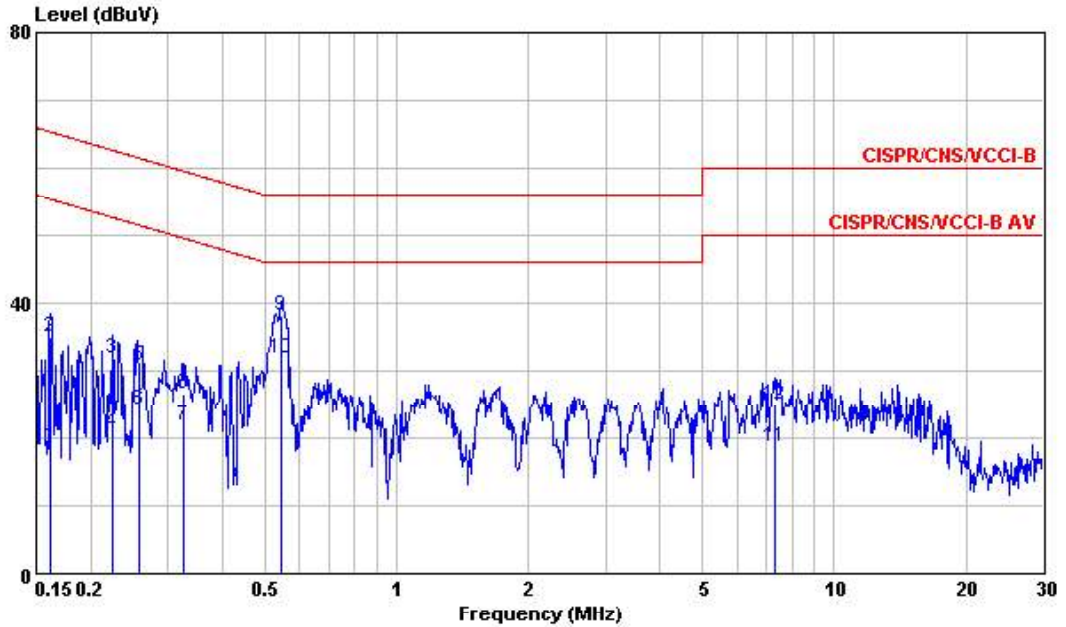
Site : site  
 Condition : CISPR/CNS/WCCI-B 2003 2001/004 NEUTRAL  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : EUT Only

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1515980	26.69	-29.22	55.91	26.58	0.11	0.10	0.01 Average
2	0.1515980	34.51	-31.40	65.91	34.40	0.11	0.10	0.01 QP
3	0.2054430	30.92	-32.47	63.39	30.81	0.11	0.10	0.01 QP
4	0.2054430	21.89	-31.50	53.39	21.78	0.11	0.10	0.01 Average
5	0.2547970	30.08	-31.52	61.60	29.97	0.11	0.10	0.01 QP
6	0.2547970	18.91	-32.69	51.60	18.80	0.11	0.10	0.01 Average
7	0.5464400	30.01	-25.99	56.00	29.88	0.13	0.10	0.03 QP
8	@ 0.5464400	25.56	-20.44	46.00	25.43	0.13	0.10	0.03 Average
9	6.910	21.18	-38.82	60.00	20.93	0.25	0.16	0.09 QP
10	6.910	15.14	-34.86	50.00	14.89	0.25	0.16	0.09 Average
11	15.800	18.88	-41.12	60.00	18.49	0.39	0.22	0.17 QP
12	15.800	14.03	-35.97	50.00	13.64	0.39	0.22	0.17 Average



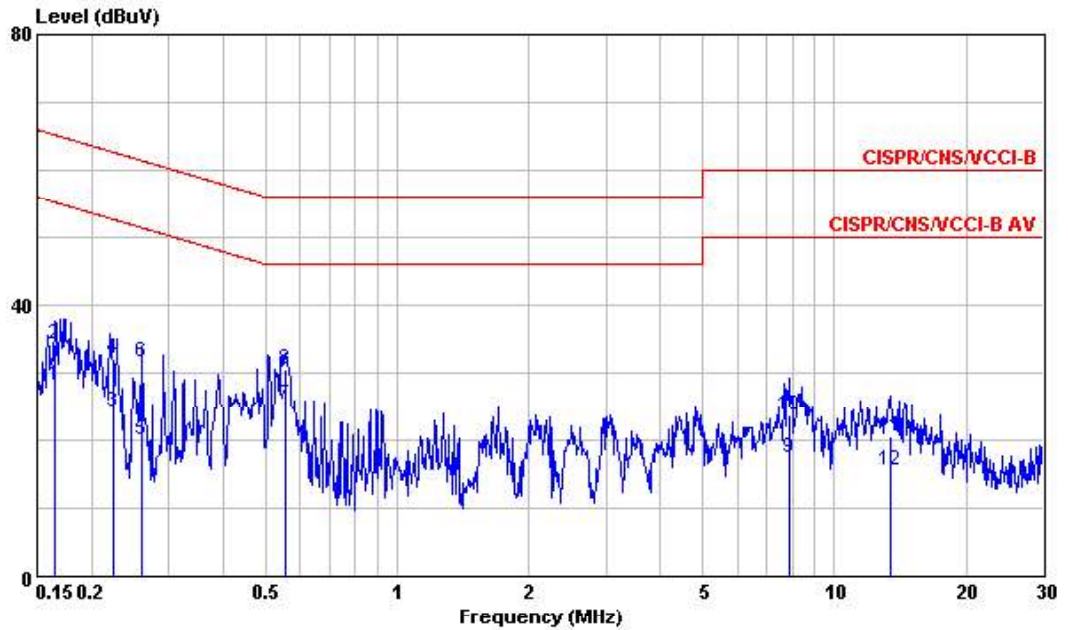
- Application Type : 802.11b
- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner :     Jay
- Test Mode : Mode 2

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : site  
 Condition : CISPR/CNS/VCCI-B 2003 2001/004 LINE  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : Cradle Mode

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Factor	Loss
			dB	dBuV	dBuV	dB	dB	dB
1	0.1615500	18.76	-36.62	55.38	18.65	0.11	0.10	0.01 Average
2	0.1615500	35.09	-30.29	65.38	34.98	0.11	0.10	0.01 QP
3	0.2243730	31.78	-30.88	62.66	31.67	0.11	0.10	0.01 QP
4	0.2243730	20.80	-31.86	52.66	20.69	0.11	0.10	0.01 Average
5	0.2587710	30.78	-30.69	61.47	30.67	0.11	0.10	0.01 QP
6	0.2587710	24.22	-27.25	51.47	24.11	0.11	0.10	0.01 Average
7	0.3251190	21.85	-27.72	49.57	21.73	0.12	0.10	0.02 Average
8	0.3251190	26.54	-33.03	59.57	26.42	0.12	0.10	0.02 QP
9	@0.5435530	38.16	-17.84	56.00	38.03	0.13	0.10	0.03 QP
10	@0.5435530	31.90	-14.10	46.00	31.77	0.13	0.10	0.03 Average
11	7.290	18.74	-31.26	50.00	18.54	0.20	0.10	0.10 Average
12	7.290	25.09	-34.91	60.00	24.89	0.20	0.10	0.10 QP



Site : site  
 Condition : CISPR/CNS/VCCI-B 2003 2001/004 NEUTRAL  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : Cradle Mode

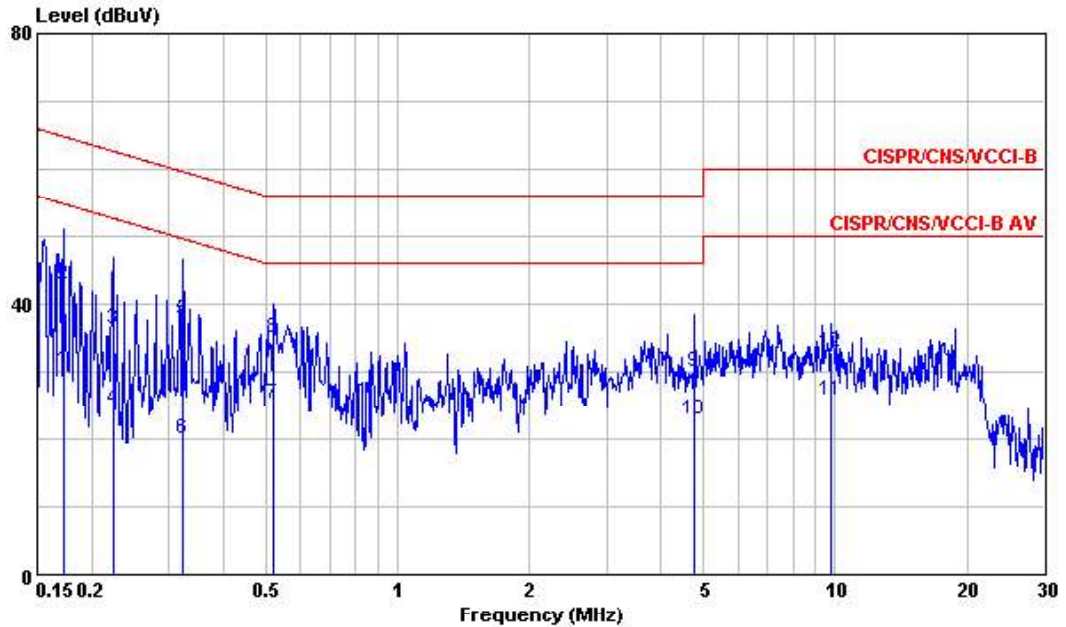
	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1654390	28.06	-27.13	55.19	27.95	0.11	0.10	0.01 Average
2	0.1654390	34.33	-30.86	65.19	34.22	0.11	0.10	0.01 QP
3	0.2238840	24.19	-28.48	52.67	24.08	0.11	0.10	0.01 Average
4	0.2238840	32.11	-30.56	62.67	32.00	0.11	0.10	0.01 QP
5	0.2602550	20.02	-31.40	51.42	19.91	0.11	0.10	0.01 Average
6	0.2602550	31.46	-29.96	61.42	31.35	0.11	0.10	0.01 QP
7	0.5551950	25.38	-20.62	46.00	25.25	0.13	0.10	0.03 Average
8	0.5551950	30.61	-25.39	56.00	30.48	0.13	0.10	0.03 QP
9	7.850	17.35	-32.65	50.00	17.08	0.27	0.17	0.10 Average
10	7.850	23.79	-36.21	60.00	23.52	0.27	0.17	0.10 QP
11	13.480	20.50	-39.50	60.00	20.15	0.35	0.20	0.15 QP
12	13.480	15.60	-34.40	50.00	15.25	0.35	0.20	0.15 Average





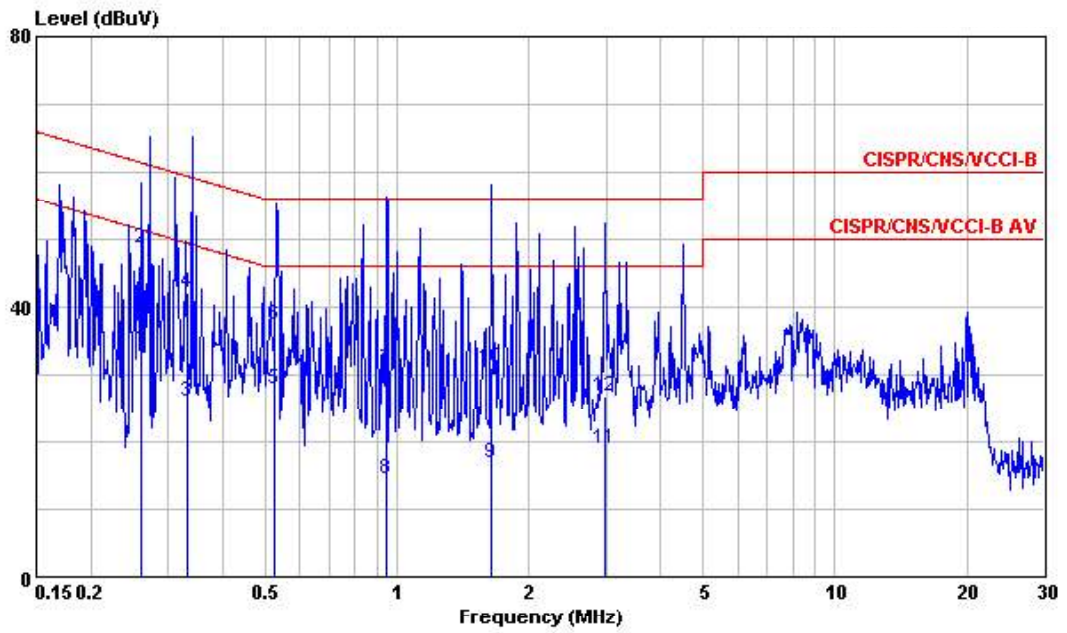
- Application Type : 802.11b
- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner : Jay
- Test Mode : Mode 3

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : site  
 Condition : CISPR/CNS/VCCI-B 2003 2001/004 LINE  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : Cradle + USB Mode

	Freq	Level	Over	Limit	Read	LISM	Cable	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	0.1721540	30.20	-24.66	54.86	30.09	0.11	0.10	0.01	Average
2	0.1721540	42.90	-21.96	64.86	42.79	0.11	0.10	0.01	QP
3	0.2231870	36.21	-26.49	62.70	36.10	0.11	0.10	0.01	QP
4	0.2231870	24.42	-28.28	52.70	24.31	0.11	0.10	0.01	Average
5	0.3234010	37.65	-21.97	59.62	37.53	0.12	0.10	0.02	QP
6	0.3234010	19.99	-29.63	49.62	19.87	0.12	0.10	0.02	Average
7	0.5209950	25.25	-20.75	46.00	25.12	0.13	0.10	0.03	Average
8	0.5209950	34.96	-21.04	56.00	34.83	0.13	0.10	0.03	QP
9	4.770	29.91	-26.09	56.00	29.73	0.18	0.10	0.08	QP
10	4.770	22.96	-23.04	46.00	22.78	0.18	0.10	0.08	Average
11	9.760	25.72	-24.28	50.00	25.51	0.21	0.10	0.11	Average
12	9.760	32.82	-27.18	60.00	32.61	0.21	0.10	0.11	QP



Site : site  
 Condition : CISPR/CNS/VCCI-B 2003 2001/004 NEUTRAL  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : Cradle + USB Mode

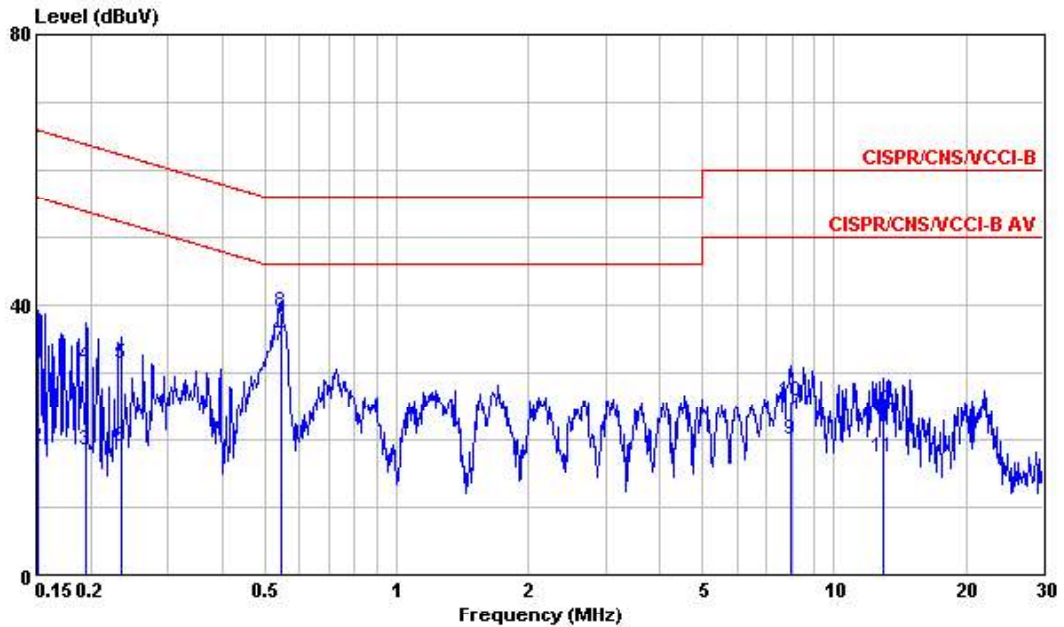
	Freq	Level	Over	Limit	Read	Factor	LISM	Cable	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	dB	
1	@0.2603730	33.74	-17.68	51.42	33.63	0.11	0.10	0.01	Average
2	@0.2603730	48.59	-12.83	61.42	48.48	0.11	0.10	0.01	QP
3	0.3308170	26.14	-23.29	49.43	26.02	0.12	0.10	0.02	Average
4	@0.3308170	42.17	-17.26	59.43	42.05	0.12	0.10	0.02	QP
5	@0.5228120	27.93	-18.07	46.00	27.80	0.13	0.10	0.03	Average
6	@0.5228120	37.28	-18.72	56.00	37.15	0.13	0.10	0.03	QP
7	0.9480900	30.70	-25.30	56.00	30.56	0.14	0.10	0.04	QP
8	0.9480900	14.59	-31.41	46.00	14.45	0.14	0.10	0.04	Average
9	1.640	16.77	-29.23	46.00	16.64	0.13	0.10	0.03	Average
10	1.640	31.03	-24.97	56.00	30.90	0.13	0.10	0.03	QP
11	2.990	18.94	-27.06	46.00	18.79	0.15	0.10	0.05	Average
12	2.990	26.77	-29.23	56.00	26.62	0.15	0.10	0.05	QP





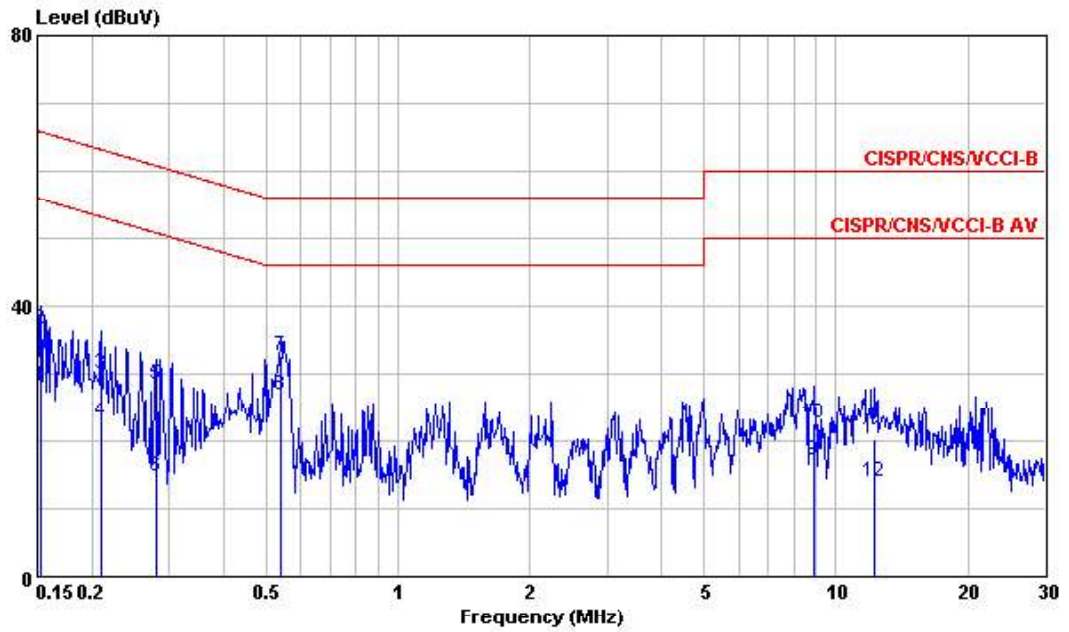
- Application Type : 802.11b
- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner : Jay
- Test Mode : Mode 4

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : site  
 Condition : CISPR/CNS/VCCI-B 2003 2001/004 LINE  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : USB Mode

	Freq	Level	Over	Limit	Read	LISM	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Factor	Loss
			dB	dBuV	dBuV	dB	dB	dB
1	0.1507970	36.48	-29.48	65.96	36.37	0.11	0.10	0.01 QP
2	0.1507970	18.90	-37.06	55.96	18.79	0.11	0.10	0.01 Average
3	0.1954980	18.37	-35.43	53.80	18.26	0.11	0.10	0.01 Average
4	0.1954980	31.08	-32.72	63.80	30.97	0.11	0.10	0.01 QP
5	0.2340870	31.21	-31.09	62.30	31.10	0.11	0.10	0.01 QP
6	0.2340870	19.05	-33.25	52.30	18.94	0.11	0.10	0.01 Average
7	0.5464400	33.94	-12.06	46.00	33.81	0.13	0.10	0.03 Average
8	0.5464400	38.85	-17.15	56.00	38.72	0.13	0.10	0.03 QP
9	7.980	20.11	-29.89	50.00	19.91	0.20	0.10	0.10 Average
10	7.980	25.78	-34.22	60.00	25.58	0.20	0.10	0.10 QP
11	12.920	17.45	-32.55	50.00	17.15	0.30	0.16	0.14 Average
12	12.920	24.57	-35.43	60.00	24.27	0.30	0.16	0.14 QP



Site : site  
 Condition : CISPR/CNS/VCCI-B 2003 2001/004 NEUTRAL  
 EUT : PDA  
 POWER : 120V/60Hz  
 MODEL :  
 MEMO : USB Mode

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1532130	28.07	-27.75	55.82	27.96	0.11	0.10	Average
2	0.1532130	36.47	-29.35	65.82	36.36	0.11	0.10	QP
3	0.2094380	30.04	-33.19	63.23	29.93	0.11	0.10	QP
4	0.2094380	22.81	-30.42	53.23	22.70	0.11	0.10	Average
5	0.2802930	28.38	-32.43	60.81	28.27	0.11	0.10	QP
6	0.2802930	14.63	-36.18	50.81	14.52	0.11	0.10	Average
7	0.5378230	32.51	-23.49	56.00	32.38	0.13	0.10	QP
8	0.5378230	26.77	-19.23	46.00	26.64	0.13	0.10	Average
9	8.920	17.17	-32.83	50.00	16.88	0.29	0.19	Average
10	8.920	22.76	-37.24	60.00	22.47	0.29	0.19	QP
11	12.250	20.32	-39.68	60.00	19.99	0.33	0.20	QP
12	12.250	14.05	-35.95	50.00	13.72	0.33	0.20	Average

## 5.11 Radiated Emission Measurement

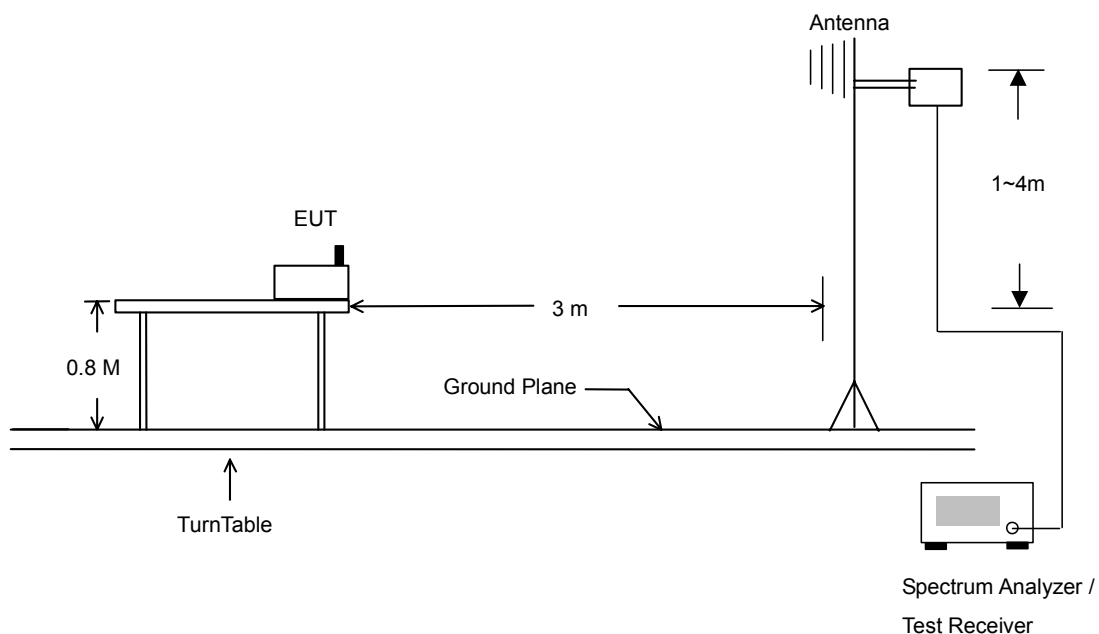
### 5.11.1 Measuring Instruments

As described in chapter 6 of this Report.

### 5.11.2 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 for both horizontal polarization and vertical polarization of the antenna.
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 turntable (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. For testing below 1GHz, 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 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 average 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.

### 5.11.3 Typical Test Setup Layout of Radiated Emission





5.11.4 Test Data

- Application Type : 802.11b
- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner : Jay
- Test Mode : Mode 1
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB		cm	deg
1 @	52.14	23.71	-16.29	40.00	47.22	8.03	32.44	0.90 Peak	0	0
2 @	190.38	32.40	-11.10	43.50	54.27	8.34	31.97	1.76 Peak	0	0
3 @	260.04	35.03	-10.97	46.00	51.86	12.90	31.89	2.16 Peak	100	230

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB		cm	deg
1 @	329.40	28.71	-17.29	46.00	44.50	13.85	32.05	2.41 Peak	0	0
2 @	414.80	32.91	-13.09	46.00	45.65	16.48	32.12	2.91 Peak	0	0
3 @	915.30	30.56	-15.44	46.00	36.21	20.67	31.06	4.73 Peak	0	0

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	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB		cm	deg
1 @	2364.00	42.03	-31.97	74.00	45.62	28.36	35.24	3.29 Peak	0	0
2 @	2364.00	30.28	-23.72	54.00	33.87	28.36	35.24	3.29 Average	0	0
3 @	2438.00	89.92			93.38	28.45	35.25	3.34 Average	142	184
4 @	2438.00	100.29			103.75	28.45	35.25	3.34 Peak	0	0
5 @	2484.00	42.67	-31.33	74.00	46.07	28.48	35.26	3.38 Peak	0	0
6 @	2484.00	32.06	-21.94	54.00	35.46	28.48	35.26	3.38 Average	0	0

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB		cm	deg
1 @	7324.00	51.27	-22.73	74.00	45.02	35.55	35.51	6.21 Peak	---	---



- Test Mode : Mode 1
- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	45.93	35.72	-4.28	40.00	57.59	9.66	32.34	0.81	Peak	100	133
2 @	181.74	27.69	-15.81	43.50	49.64	8.22	31.85	1.69	Peak	0	0
3 @	260.04	33.19	-12.81	46.00	50.01	12.90	31.89	2.16	Peak	0	0

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	414.80	36.31	-9.69	46.00	49.05	16.48	32.12	2.91	Peak	0	0
2 @	605.90	35.65	-10.35	46.00	44.60	18.72	31.37	3.70	Peak	0	0
3 @	955.90	36.35	-9.65	46.00	41.38	20.86	30.91	5.01	Peak	0	0

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Preamp Factor	Cable Loss	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB		cm	deg
1 @	2384.00	43.42	-30.58	74.00	46.97	28.38	35.24	3.31	Peak	---	---
2 @	2384.00	31.52	-22.48	54.00	35.08	28.38	35.24	3.31	Average	---	---
3 @	2438.00	102.66			106.12	28.45	35.25	3.34	Peak	---	---
4 @	2438.00	91.61			95.07	28.45	35.25	3.34	Average	100	358
5 @	2484.00	44.10	-29.90	74.00	47.50	28.48	35.26	3.38	Peak	---	---
6 @	2484.00	33.18	-20.82	54.00	36.58	28.48	35.26	3.38	Average	---	---





- Application Type : 802.11b
- Temperature : 26 °C
- Relating Humidity : 53 %
- Test Enginner :     Jay
- Test Mode : Mode 2
- Polarization : Horizontal

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	36.630	18.73	-21.27	40.00	33.17	12.56	1.03	28.03	Peak	---	---
2	90.350	21.55	-21.95	43.50	38.55	9.30	1.62	27.92	Peak	---	---
3	173.310	24.57	-18.93	43.50	36.58	13.36	2.38	27.75	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	311.200	33.35	-12.65	46.00	43.71	13.86	3.14	27.36	Peak	---	---
2	416.000	29.43	-16.57	46.00	37.77	16.05	3.55	27.94	Peak	---	---
3	960.000	30.31	-15.69	46.00	30.96	21.92	5.67	28.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2372.000	37.87	-36.13	74.00	49.14	28.16	1.70	41.13	Peak	---	---
2	2498.000	36.57	-37.43	74.00	47.49	28.43	1.85	41.20	Peak	---	---
3	2526.000	38.86	-35.14	74.00	49.67	28.52	1.87	41.20	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4902.000	41.44	-32.56	74.00	48.20	33.23	2.49	42.48	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	6886.000	43.68	-30.32	74.00	48.60	35.08	3.06	43.06	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8820.000	46.60	-27.40	74.00	46.30	38.03	3.41	41.14	Peak	---	---





- Test Mode : Mode 2
- Polarization : Vertical

The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	45.300	30.76	-9.24	40.00	47.03	10.59	1.15	28.01	Peak	---	---
2	83.550	27.52	-12.48	40.00	44.20	9.69	1.56	27.93	Peak	---	---
3	176.030	22.64	-20.86	43.50	34.56	13.44	2.39	27.75	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	311.200	30.94	-15.06	46.00	41.30	13.86	3.14	27.36	Peak	---	---
2	416.000	34.52	-11.48	46.00	42.86	16.05	3.55	27.94	Peak	---	---
3	519.200	27.77	-18.23	46.00	34.99	17.51	3.99	28.72	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2364.000	40.51	-33.49	74.00	51.78	28.15	1.70	41.12	Peak	---	---
2	2498.000	38.98	-35.02	74.00	49.90	28.43	1.85	41.20	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4924.000	41.27	-32.73	74.00	48.04	33.27	2.47	42.51	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	6862.000	43.74	-30.26	74.00	48.81	35.03	2.98	43.08	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8892.000	46.52	-27.48	74.00	46.23	38.06	3.26	41.03	Peak	---	---



- Test Mode : Mode 3
- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	47.340	17.13	-22.87	40.00	33.67	10.30	1.16	28.00	Peak	---	---
2	90.350	22.61	-20.89	43.50	39.61	9.30	1.62	27.92	Peak	---	---
3	173.310	25.12	-18.38	43.50	37.13	13.36	2.38	27.75	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	208.000	26.93	-16.57	43.50	37.10	14.91	2.59	27.67	Peak	---	---
2	311.200	34.64	-11.36	46.00	45.00	13.86	3.14	27.36	Peak	---	---
3	416.000	28.59	-17.41	46.00	36.93	16.05	3.55	27.94	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2332.000	38.02	-35.98	74.00	49.34	28.08	1.71	41.11	Peak	---	---
2	2498.000	35.82	-38.18	74.00	46.74	28.43	1.85	41.20	Peak	---	---
3	2540.000	41.06	-32.94	74.00	51.82	28.56	1.88	41.20	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4854.000	40.93	-33.07	74.00	47.67	33.13	2.54	42.41	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	6222.000	43.28	-30.72	74.00	49.47	34.25	2.86	43.30	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8878.000	46.55	-27.45	74.00	46.24	38.05	3.31	41.05	Peak	---	---



- Test Mode : Mode 3
- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	45.300	28.85	-11.15	40.00	45.12	10.59	1.15	28.01	Peak	---	---
2	82.870	26.59	-13.41	40.00	43.28	9.68	1.56	27.93	Peak	---	---
3	173.310	23.38	-20.12	43.50	35.39	13.36	2.38	27.75	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2332.000	39.50	-34.50	74.00	50.82	28.08	1.71	41.11	Peak	---	---
2	2500.000	38.39	-35.61	74.00	49.30	28.44	1.85	41.20	Peak	---	---
3	2542.000	45.74	-28.26	74.00	56.49	28.57	1.88	41.20	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4630.000	41.32	-32.68	74.00	48.35	32.68	2.39	42.10	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	6588.000	43.10	-30.90	74.00	48.70	34.48	3.16	43.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8884.000	46.57	-27.43	74.00	46.28	38.05	3.29	41.05	Peak	---	---



Test Mode : Mode 4

- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	52.270	17.78	-22.22	40.00	34.42	10.13	1.22	27.99	Peak	---	---
2	160.220	22.16	-21.34	43.50	34.93	12.70	2.31	27.78	Peak	---	---
3	193.030	27.42	-16.08	43.50	38.00	14.64	2.49	27.71	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	200.000	23.87	-19.63	43.50	33.61	15.39	2.57	27.70	Peak	---	---
2	352.000	24.73	-21.27	46.00	33.76	15.26	3.27	27.56	Peak	---	---
3	748.800	26.23	-19.77	46.00	30.14	20.00	4.84	28.75	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2102.000	35.12	-38.88	74.00	46.80	27.62	1.67	40.97	Peak	---	---
2	2372.000	42.21	-31.79	74.00	53.48	28.16	1.70	41.13	Peak	---	---
3	2372.000	35.52	-18.48	54.00	46.79	28.16	1.70	41.13	Average	---	---
4	2510.000	46.14	-27.86	74.00	57.01	28.47	1.86	41.20	Peak	---	---
5	2510.000	41.28	-12.72	54.00	52.15	28.47	1.86	41.20	Average	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4998.000	41.34	-32.66	74.00	47.91	33.40	2.63	42.60	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	5734.000	42.94	-31.06	74.00	49.38	34.10	2.66	43.20	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8918.000	46.00	-28.00	74.00	45.68	38.07	3.25	41.00	Peak	---	---



- Test Mode : Mode 4
- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	48.700	35.71	-4.29	40.00	52.32	10.22	1.17	28.00	Peak	---	---
2	102.420	31.16	-12.34	43.50	47.29	9.95	1.81	27.89	Peak	---	---
3	196.260	27.65	-15.85	43.50	38.11	14.72	2.53	27.71	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	200.000	25.90	-17.60	43.50	35.64	15.39	2.57	27.70	Peak	---	---
2	352.000	23.71	-22.29	46.00	32.74	15.26	3.27	27.56	Peak	---	---
3	957.600	29.50	-16.50	46.00	30.19	21.90	5.65	28.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2262.000	35.28	-38.72	74.00	46.67	27.94	1.73	41.06	Peak	---	---
2	2372.000	42.99	-31.01	74.00	54.26	28.16	1.70	41.13	Peak	---	---
3	2372.000	35.43	-18.57	54.00	46.70	28.16	1.70	41.13	Average	---	---
4	2510.000	45.79	-28.21	74.00	56.66	28.47	1.86	41.20	Peak	---	---
5	2510.000	40.38	-13.62	54.00	51.25	28.47	1.86	41.20	Average	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4934.000	41.55	-32.45	74.00	48.32	33.29	2.46	42.52	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8876.000	46.09	-27.91	74.00	45.78	38.05	3.32	41.06	Peak	---	---





Test Mode : Mode 5

- Polarization : Horizontal

The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	33.910	18.80	-21.20	40.00	32.57	13.27	1.00	28.04	Peak	---	---
2	94.260	19.05	-24.45	43.50	35.97	9.34	1.65	27.91	Peak	---	---
3	173.310	23.68	-19.82	43.50	35.69	13.36	2.38	27.75	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	311.200	34.44	-11.56	46.00	44.80	13.86	3.14	27.36	Peak	---	---
2	416.000	29.13	-16.87	46.00	37.47	16.05	3.55	27.94	Peak	---	---
3	957.600	29.34	-16.66	46.00	30.03	21.90	5.65	28.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2372.000	37.28	-36.72	74.00	48.55	28.16	1.70	41.13	Peak	---	---
2	2500.000	61.07	-12.93	74.00	71.98	28.44	1.85	41.20	Peak	100	360
3	2500.000	52.45	-1.55	54.00	63.36	28.44	1.85	41.20	Average	100	360

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4046.000	40.56	-33.44	74.00	47.05	32.58	2.48	41.55	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8878.000	46.55	-27.45	74.00	46.24	38.05	3.31	41.05	Peak	---	---





- Test Mode : Mode 5
- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	47.340	30.93	-9.07	40.00	47.47	10.30	1.16	28.00	Peak	---	---
2	83.550	27.88	-12.12	40.00	44.56	9.69	1.56	27.93	Peak	---	---
3	171.100	22.95	-20.55	43.50	35.05	13.29	2.37	27.76	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	311.200	30.67	-15.33	46.00	41.03	13.86	3.14	27.36	Peak	---	---
2	416.000	32.63	-13.37	46.00	40.97	16.05	3.55	27.94	Peak	---	---
3	957.600	29.18	-16.82	46.00	29.87	21.90	5.65	28.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2364.000	39.38	-34.62	74.00	50.65	28.15	1.70	41.12	Peak	---	---
2	2500.000	58.30	-15.70	74.00	69.21	28.44	1.85	41.20	Peak	100	360
3	2500.000	49.01	-4.99	54.00	59.92	28.44	1.85	41.20	Average	100	360

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4070.000	40.18	-33.82	74.00	46.62	32.57	2.56	41.57	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	5748.000	42.43	-31.57	74.00	48.92	34.10	2.61	43.20	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8884.000	46.57	-27.43	74.00	46.28	38.05	3.29	41.05	Peak	---	---



Test Mode : Mode 6  
 • Polarization : Horizontal

**The test that passed at minimum margin was marked by the frame in the following table.**

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	51.590	21.24	-18.76	40.00	37.89	10.13	1.21	27.99	Peak	---	---
2	103.780	20.07	-23.43	43.50	36.10	10.04	1.82	27.89	Peak	---	---
3	190.820	28.30	-15.20	43.50	38.95	14.59	2.48	27.72	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	200.000	25.67	-17.83	43.50	35.41	15.39	2.57	27.70	Peak	---	---
2	394.400	24.93	-21.07	46.00	33.57	15.68	3.45	27.77	Peak	---	---
3	957.600	30.04	-15.96	46.00	30.73	21.90	5.65	28.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2110.000	35.19	-38.81	74.00	46.86	27.63	1.67	40.97	Peak	---	---
2	2366.000	43.58	-30.42	74.00	54.86	28.15	1.70	41.13	Peak	---	---
3	2366.000	37.22	-16.78	54.00	48.50	28.15	1.70	41.13	Average	---	---
4	2518.000	57.53	-16.47	74.00	68.38	28.49	1.86	41.20	Peak	---	---
5	2518.000	52.73	-1.27	54.00	63.58	28.49	1.86	41.20	Average	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4964.000	41.37	-32.63	74.00	48.12	33.35	2.46	42.56	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	6502.000	42.69	-31.31	74.00	48.74	34.30	2.94	43.29	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8966.000	45.68	-28.32	74.00	45.25	38.09	3.27	40.93	Peak	---	---



- Test Mode : Mode 6
- Polarization : Vertical

■ The test that passed at minimum margin was marked by the frame in the following table.

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	48.700	35.29	-4.71	40.00	51.90	10.22	1.17	28.00	Peak	---	---
2	102.590	31.61	-11.89	43.50	47.73	9.96	1.81	27.89	Peak	---	---
3	194.900	27.64	-15.86	43.50	38.16	14.68	2.51	27.71	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	200.000	24.78	-18.72	43.50	34.52	15.39	2.57	27.70	Peak	---	---
2	394.400	26.20	-19.80	46.00	34.84	15.68	3.45	27.77	Peak	---	---
3	957.600	29.58	-16.42	46.00	30.27	21.90	5.65	28.24	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	2124.000	35.21	-38.79	74.00	46.85	27.66	1.68	40.98	Peak	---	---
2	2366.000	43.88	-30.12	74.00	55.16	28.15	1.70	41.13	Peak	---	---
3	2366.000	40.18	-13.82	54.00	51.46	28.15	1.70	41.13	Average	---	---
4	2518.000	59.16	-14.84	74.00	70.01	28.49	1.86	41.20	Peak	---	---
5	2518.000	50.67	-3.33	54.00	61.52	28.49	1.86	41.20	Average	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	4070.000	41.20	-32.80	74.00	47.64	32.57	2.56	41.57	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	6998.000	43.56	-30.44	74.00	47.99	35.30	3.27	43.00	Peak	---	---

	Freq	Level	Over Limit	Limit Line	Read Level	Probe Factor	Cable Loss	Preamp Factor	Remark	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	dB		cm	deg
1	8876.000	46.06	-27.94	74.00	45.75	38.05	3.32	41.06	Peak	---	---



## **5.11 Antenna Requirements**

### **5.12.1 Standard Applicable**

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

### **5.12.2 Antenna Connected Construction**

The antenna used in this product is a PIFA Antenna with IPEX connector and it is considered to meet antenna requirement of FCC.



## 6. List of Measuring Equipments Used

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100174	9 KHz – 2.75 GHz	Feb. 16, 2004	Feb. 16, 2005	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	2001/004	9 KHz – 30 MHz	Jun. 09, 2004	Jun. 09, 2005	Conduction (CO04-HY)
LISN (Support Unit)	MessTec	NNB-2/16Z	99041	9 KHz – 30 MHz	Apr. 27, 2004	Apr. 27, 2005	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	N/A	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB044	9KHz~30MHz	Apr. 21, 2004	Apr. 21, 2005	Conduction (CO04-HY)
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz~1GHz 3m	Jun. 21, 2004	Jun. 21, 2005	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP40	100004	9KHz~40GHz	Aug. 31, 2004	Aug. 31, 2005	Radiation (03CH03-HY)
Amplifier	HP	8447D	2944A09072	100KHz – 1.3GHz	Nov. 10, 2004	Nov. 10, 2004	Radiation (03CH03-HY)
Biconical Antenna	SCHWARZBECK	VHBB 9124	301	30MHz –200MHz	Jul. 28, 2004	Jul. 28, 2005	Radiation (03CH03-HY)
Log Antenna	SCHWARZBECK	VUSLP 9111	221	200MHz -1GHz	Jul. 28, 2004	Jul. 28, 2005	Radiation (03CH03-HY)
RF Cable-R03m	Jye Bao	RG142	CB021	30MHz~1GHz	Dec. 03, 2003	Dec. 03, 2004	Radiation (03CH03-HY)
Amplifier	MITEQ	AFS44	849984	100MHz~26.5GHz	Mar. 26, 2004	Mar. 26, 2005	Radiation (03CH03-HY)
Horn Antenna	EMCO	3115	6741	1GHz – 18GHz	Apr. 07, 2004	Apr. 07, 2005	Radiation (03CH03-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH03-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH03-HY)
Horn Antenna	Schwarzbeck	BBHA9170	154	18GHz~40GHz	Jun. 09, 2004	Jun. 09, 2005	Radiation (03CH03-HY)
RF Cable-HIGH	Jye Bao	RG142	CB030-HIGH	1GHz~29.5GHz	Dec. 05, 2003	Dec. 05, 2005	Radiation (03CH03-HY)
Spectrum analyzer	R&S	FSP40	100057	9KHz-40GHz	Feb. 26, 2004	Feb. 26, 2005	Radiation (03CH06-HY)
Controller	CT	SC100	N/A	N/A	N/A	N/A	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Dec. 18, 2003	Dec. 18, 2004	Radiation (03CH06-HY)



Horn Antenna	Com-Power	AH118	071025	1G-18G	Feb. 11, 2004	Feb. 11, 2005	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-249	14G - 40G	Jun. 22, 2004	Jun. 22, 2005	Radiation (03CH06-HY)
PreAmplifier	Com-Power	PA-103	161055	1MHz - 1000MHz	Apr. 26, 2004	Apr. 26, 2005	Radiation (03CH06-HY)
HF Amplifier	MITEQ	AFS44	973248	0.1G - 26.5G	May. 20, 2004	May. 20, 2005	Radiation (03CH06-HY)
Amplifier	MITEQ	AMF-6F	997165	26G - 40G	Jun. 24, 2004	Jun. 24, 2005	Radiation (03CH06-HY)
Turn Table	HD	DS 420	420/650/00	0 ~ 360 degree	N/A	N/A	Radiation (03CH06-HY)
Antenna Mast	HD	MA 240	240/560/00	1 m - 4 m	N/A	N/A	Radiation (03CH06-HY)
Wireless Communications Test Set	Agilent	8960	E5515C	Qual-band	N/A	N/A	Radiation (03CH06-HY)





## 7. Uncertainty Evaluation

### Uncertainty of Conducted Emission Evaluation (150kHz ~ 30MHz)

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch Receiver VSWR $\Gamma_1$ = LISN VSWR $\Gamma_2$ = Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	+0.34/-0.35	U-shape	0.24
<b>combined standard uncertainty Uc(y)</b>	<b>1.13</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.26</b>		

### Uncertainty of Radiated Emission Evaluation (30MHz ~ 1000MHz) (Site: 03CH03-HY)

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch Receiver VSWR $\Gamma_1$ = 0.20 Antenna VSWR $\Gamma_2$ = 0.23 Uncertainty= $20\log(1-\Gamma_1*\Gamma_2)$	+0.39/-0.41	U-shaped	0.28
<b>combined standard uncertainty Uc(y)</b>	<b>1.27</b>		
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>2.54</b>		



**Uncertainty of Radiated Emission Evaluation (30MHz ~ 1000MHz) (Site: 03CH06-HY)**

Contribution	Uncertainty of $x_i$		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch Receiver VSWR $\Gamma_1 = 0.20$ Antenna VSWR $\Gamma_2 = 0.23$ Uncertainty = $20\log(1-\Gamma_1\Gamma_2)$	+0.39/-0.41	U-shaped	0.28
<b>combined standard uncertainty <math>U_c(y)</math></b>	<b>1.27</b>		
<b>Measuring uncertainty for a level of confidence of 95% <math>U=2U_c(y)</math></b>	<b>2.54</b>		

**Uncertainty of Radiated Emission Evaluation (1GHz ~ 40GHz)**

Contribution	Uncertainty of $x_i$		$u(x_i)$	$C_i$	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	$\pm 0.10$	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	$\pm 1.70$	Normal(k=2)	0.85	1	0.85
Cable loss calibration	$\pm 0.50$	Normal(k=2)	0.25	1	0.25
Receiver Correction	$\pm 2.00$	Rectangular	1.15	1	1.15
Antenna Factor Directional	$\pm 1.50$	Rectangular	0.87	1	0.87
Site imperfection	$\pm 2.80$	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20\log(1-\Gamma_1\Gamma_2\Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
<b>Combined standard uncertainty <math>U_c(y)</math></b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of confidence of 95% <math>U=2U_c(y)</math></b>	<b>4.72</b>				

$$U = \sqrt{\{(0.3/2)^2 + (2^2 + 1.5^2 + 0.2^2)/3 + (0.2)^2/2\}} = 1.66$$