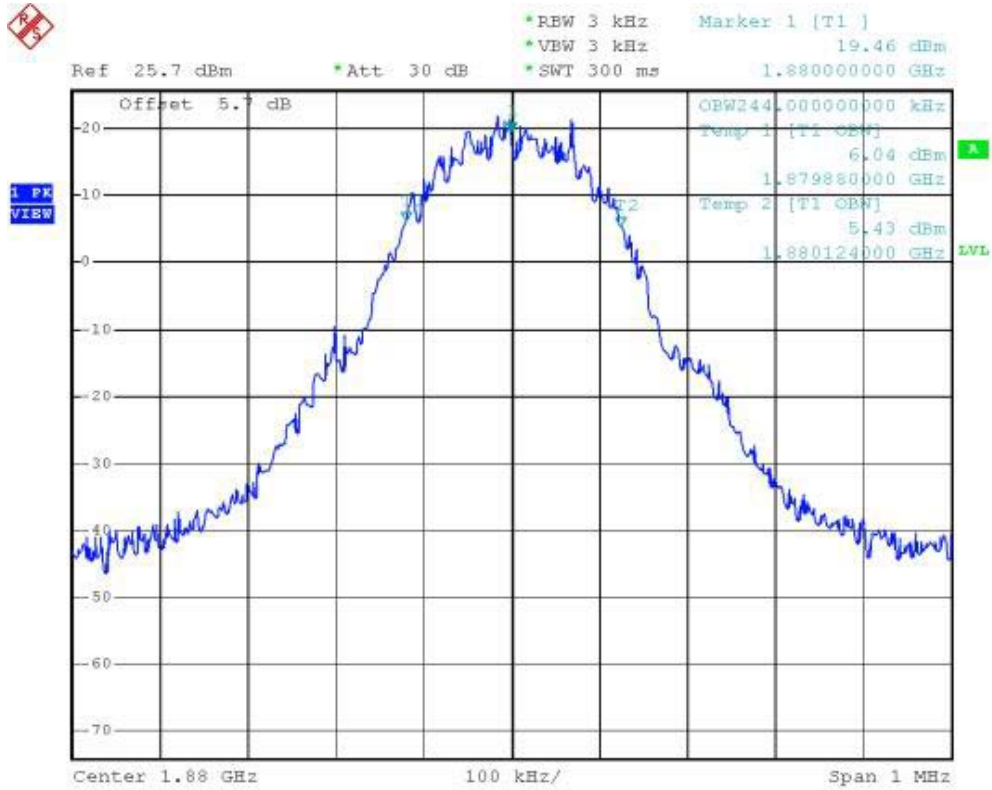


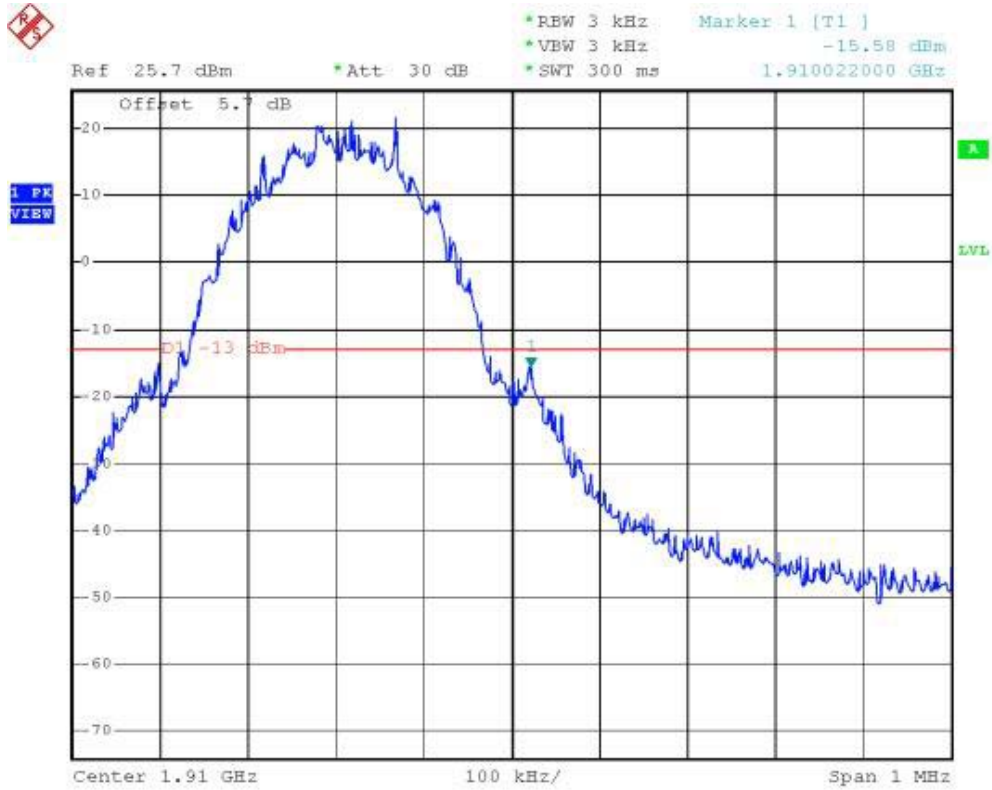
Name of Test: Emission Masks (Occupied Bandwidth)  
State 2:High Power



Date: 7.SEP.2004 09:43:15

Power: HIGH  
Modulation: PCS 1900  
99% BANDWIDTH

Name of Test: Emission Masks (Occupied Bandwidth)  
State 2:High Power



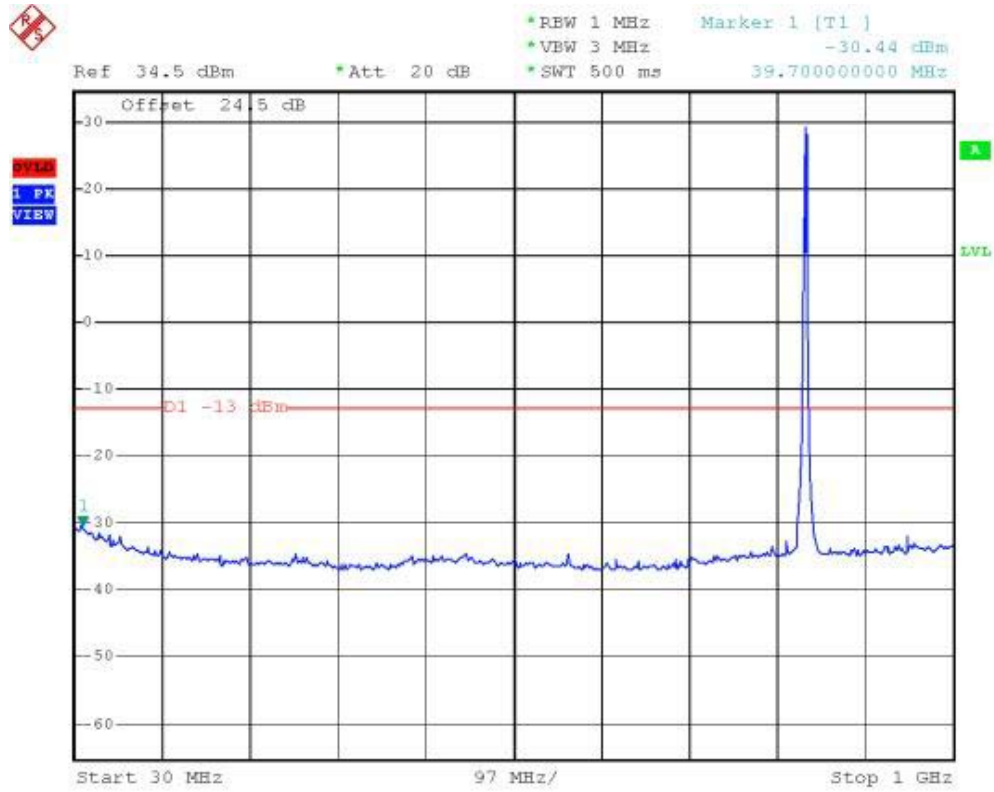
Date: 7.SEP.2004 09:41:55

Power: HIGH  
Modulation: PCS 1900  
UPPER BAND EDGE

**FCC TEST REPORT**

Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
GSM850  
30M-1G

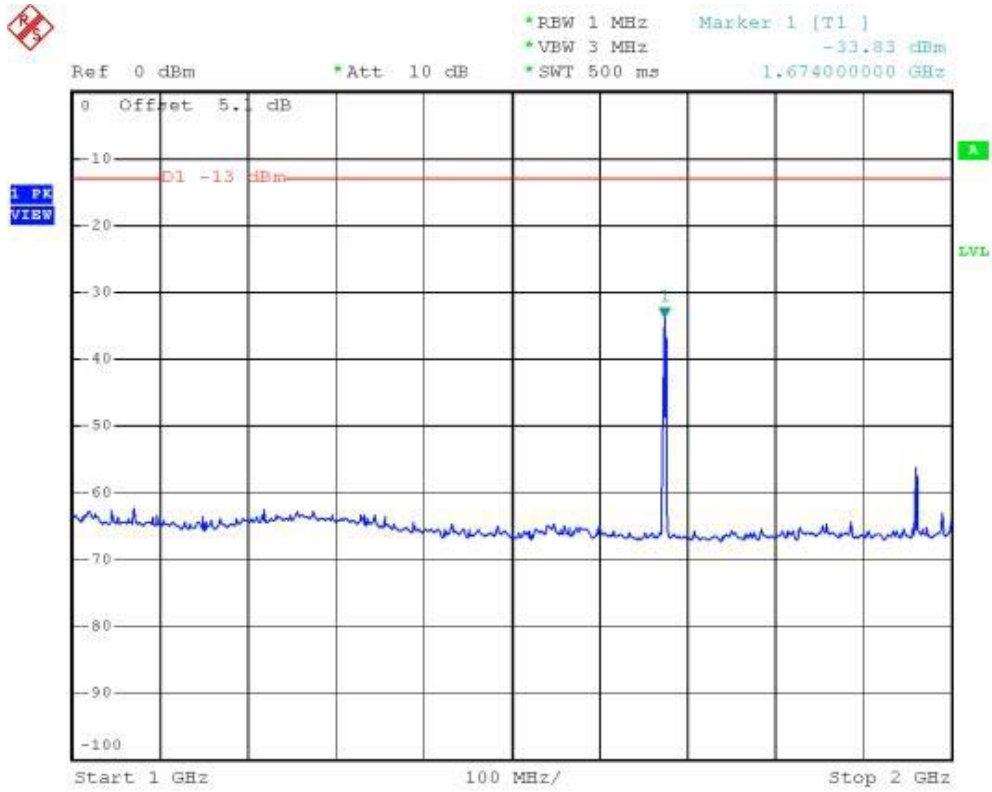


Date: 7.SEP.2004 09:06:32

**FCC TEST REPORT**

Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
GSM850  
1G-2G

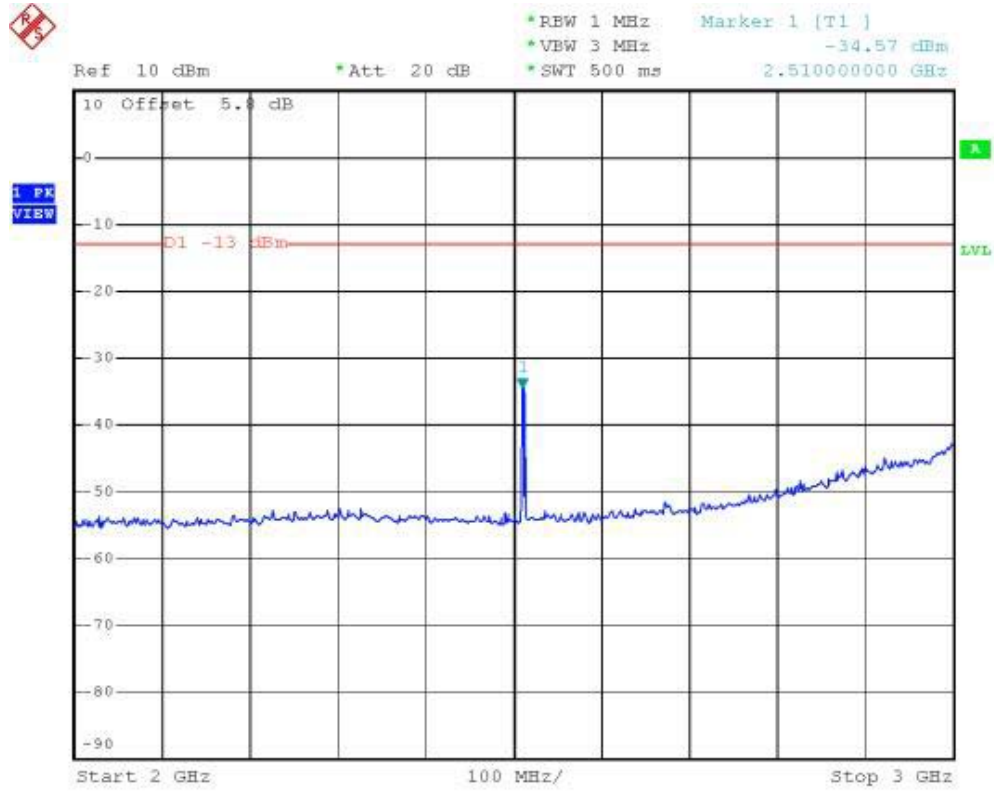


Date: 7.SEP.2004 09:03:45

**FCC TEST REPORT**

Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
GSM850  
2G-3G

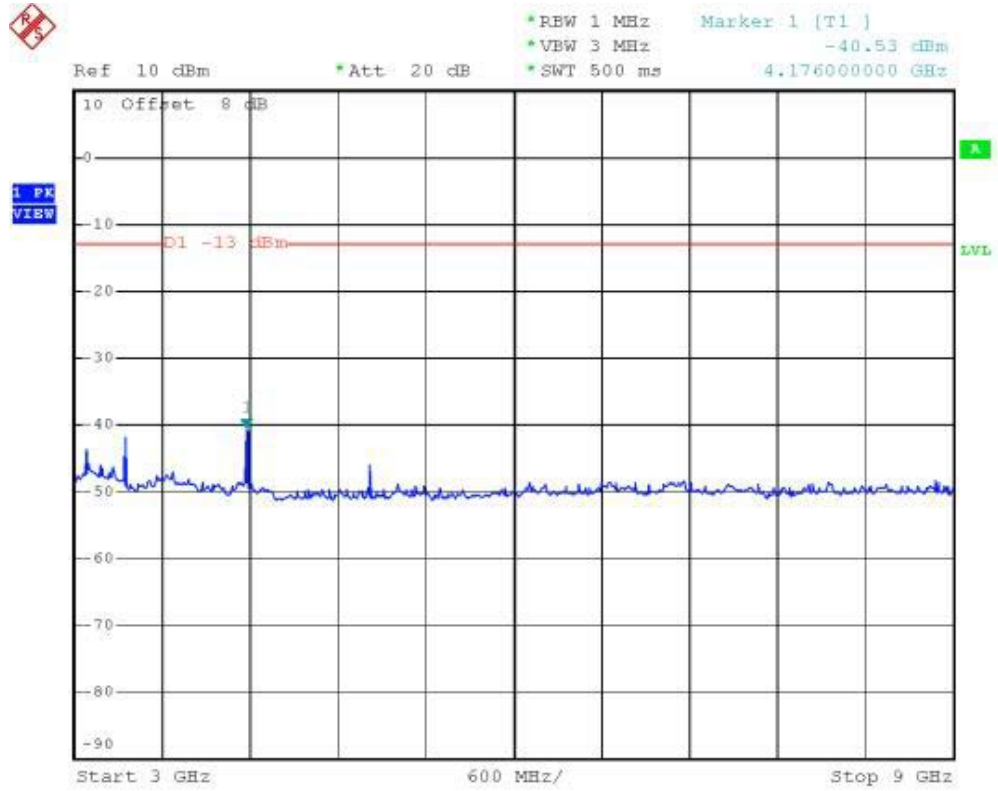


Date: 7.SEP.2004 09:10:15

**FCC TEST REPORT**

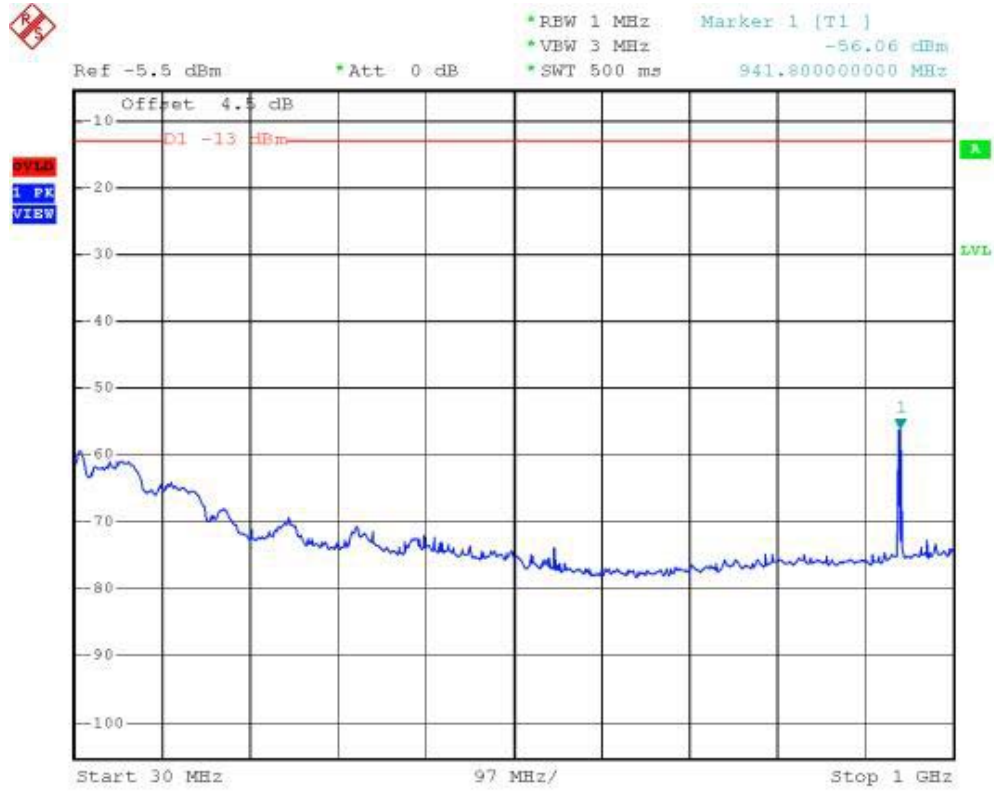
Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
GSM850  
3G-9G



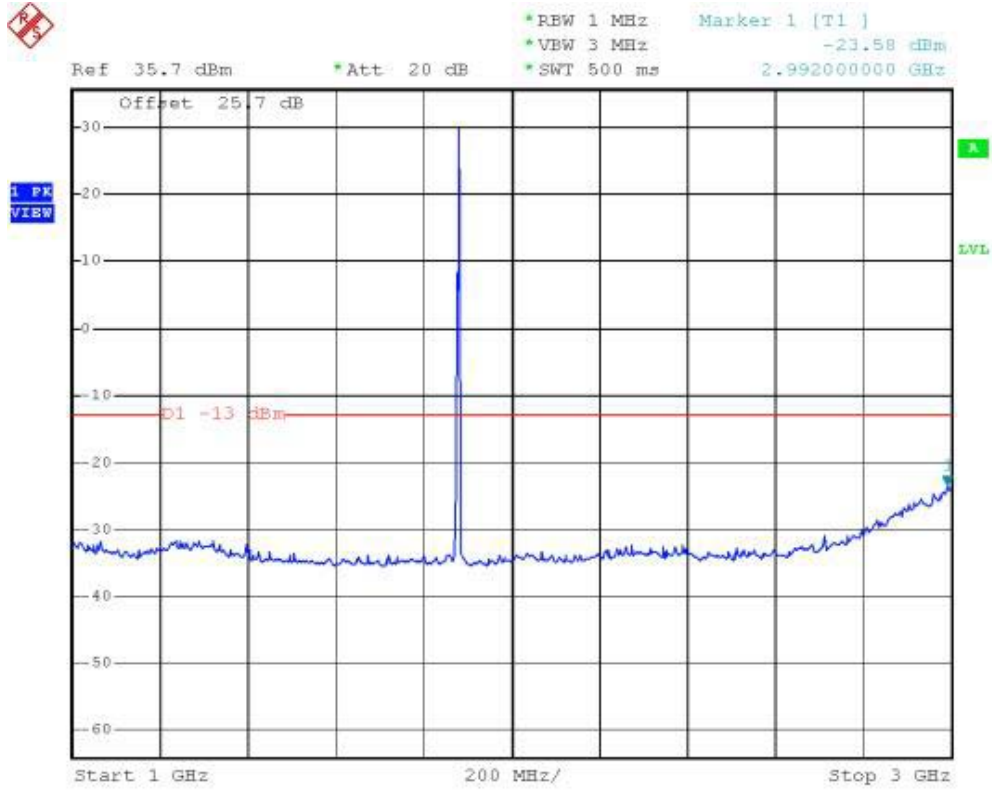
Date: 7.SEP.2004 09:12:13

Name of Test: Conducted Spurious Emission  
PCS1900  
30M-1G



Date: 7.SEP.2004 08:57:15

Name of Test: Conducted Spurious Emission  
PCS1900  
1G-3G



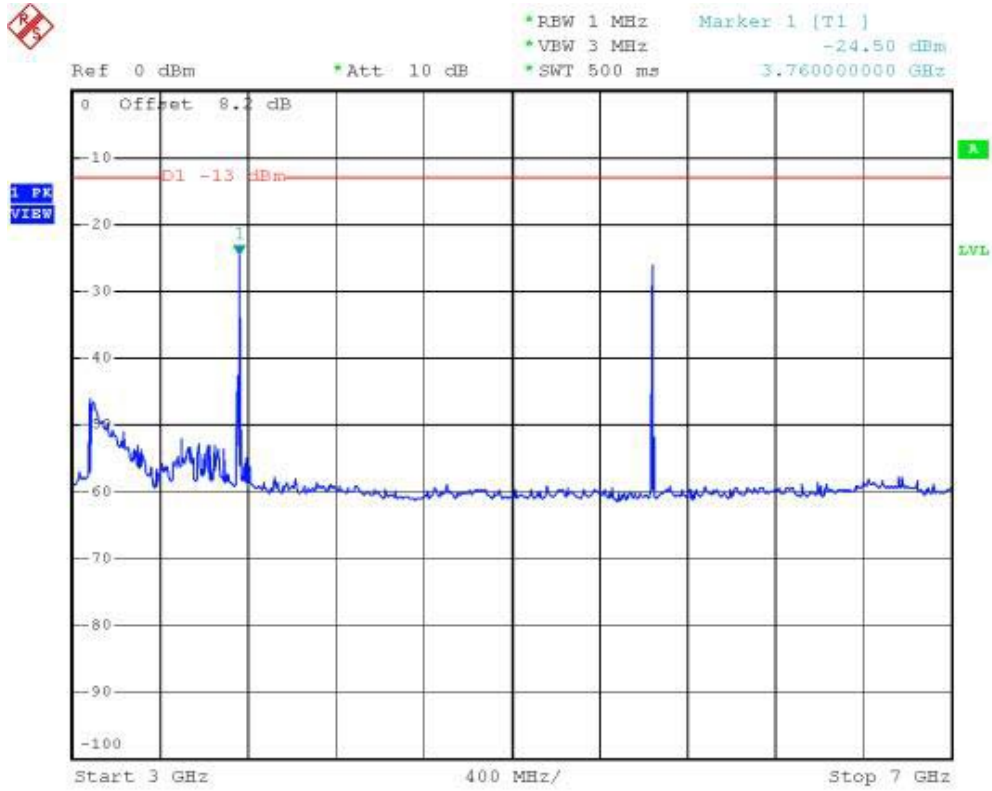
Date: 7.SEP.2004 08:46:12



**FCC TEST REPORT**

Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
PCS1900  
3G-7G

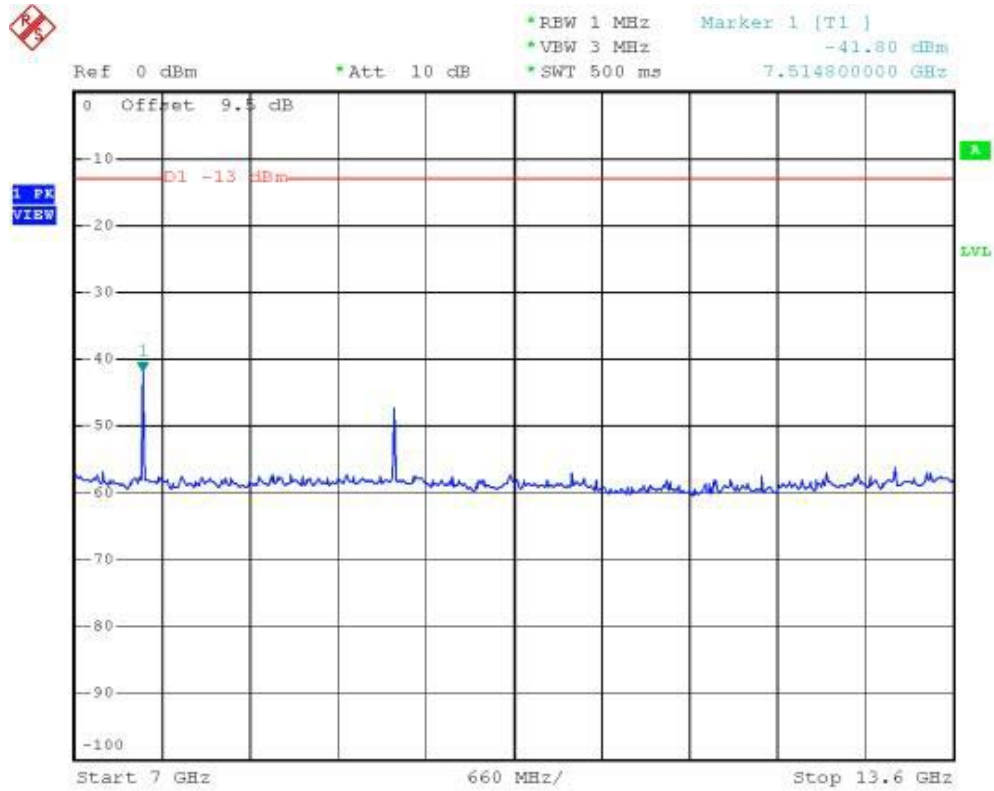


Date: 7.SEP.2004 08:52:50

**FCC TEST REPORT**

Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
PCS1900  
7G-13.6G

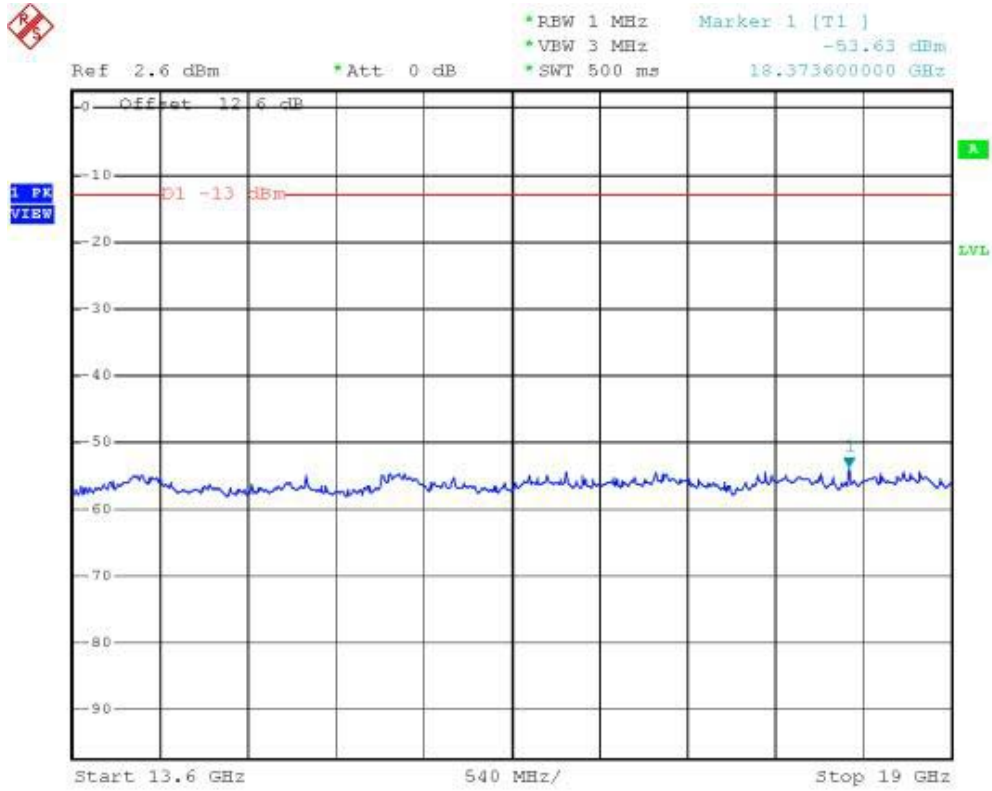


Date: 7.SEP.2004 08:54:43

**FCC TEST REPORT**

Report No. : F481401

**Name of Test:** Conducted Spurious Emission  
PCS1900  
13.6G-19G



Date: 7.SEP.2004 08:58:42

**Name of Test:** Field Strength of Spurious Radiation

**Specification:** 47 CFR 2.1053(a)

**Guide:** ANSI/TIA/EIA-603-1992/2001, Paragraph 1.2.12 and Table 16

**Measurement Procedure**

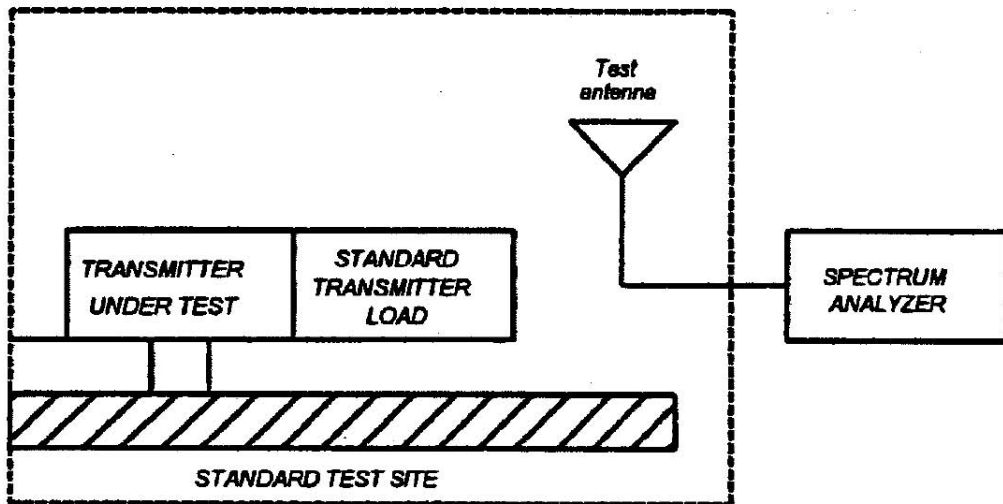
1.2.12.1 Definition: Radiated spurious emissions are emissions from the equipment when transmitting into a non-radiating load on a frequency or frequencies which are outside an occupied band sufficient to ensure transmission of information of required quality for the class of communications desired.

1.2.12.2 Method of Measurement

A) Connect the equipment as illustrated

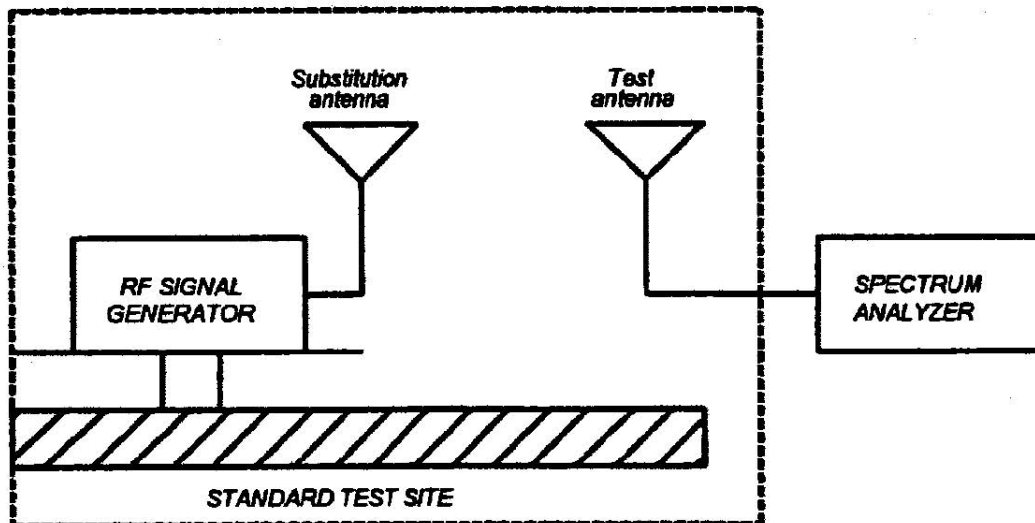
- B) Adjust the spectrum analyzer for the following settings:
- 1) Resolution Bandwidth 100 kHz (<1 GHz), 1 MHz (> 1GHz).
  - 2) Video Bandwidth  $\geq 3$  times Resolution Bandwidth
  - 3) Sweep Speed  $\leq 2000$  Hz/second
  - 4) Detector Mode = Mean or Average Power

C) Place the transmitter to be tested on the turntable in the standard test site. If the antenna is detachable, The transmitter is transmitting into a non-radiating load which is placed on the turntable. The RF cable to this load should be of minimum length.



**Name of Test:** Field Strength of Spurious Radiation (Cont.)

- D) For each spurious measurement the test antenna should cover the measured frequency. Measurements shall be made from the lowest radio frequency generated in the equipment to the tenth harmonic of the carrier, except for the region close to the carrier equal to  $\pm$  the test bandwidth (see section 1.3.4.4).
- E) For each spurious frequency, raise and lower the test antenna from 1 m to 4 m to obtain a maximum reading on the spectrum analyzer with the test antenna at horizontal polarity. Repeat this procedure to obtain the highest possible reading. Record this maximum reading.
- F) Repeat step E) for each spurious frequency with the test antenna polarized vertically.
- G) Reconnect the equipment as illustrated.
- H) Keep the spectrum analyzer adjusted as in step B).
- I) Remove the transmitter and replace it with a substitution antenna. The center of the substitution antenna should be approximately at the same location as the center of the transmitter. At lower frequencies, where the substitution antenna is very long, this will be impossible to achieve when the antenna is polarized vertically. In such case the lower end of the antenna should be 0.3 m above the ground.



**Name of Test:** Field Strength of Spurious Radiation (Cont.)

- J) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
- K) Repeat step J) with both antennas vertically polarized for each spurious frequency.
- L) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps J) and K) by the power loss in the cable between the generator and the antenna and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna.

NOTE: It is permissible that other antennas provided can be referenced to a dipole.



Tested By:

Tim Kao

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**SPORTON International Inc.**

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FAX : 886-2-2696-2255

FCC ID SCWI375U

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Issued Date Sep. 13, 2004

**FCC TEST REPORT**

Report No. : F481401

Name of Test: Field Strength of Spurious Radiation

## GSM 850 (Channel 189)

Freq MHz	Pol	Substitution Antenna Input Power (dBm)	Substitution Antenna Gain (dBd)	Et (dBuV/m)	Es (dBuV/m)	Et - Es (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
295.41	H	-1.44	-0.48	35.44	93.32	-57.88	-59.80	-13.0	-46.80
940.50	H	-2.63	-1.38	45.49	93.04	-47.55	-51.56	-13.0	-38.56
1676.00	H	-3.60	4.42	49.31	102.05	-52.74	-51.92	-13.0	-38.92
3062.00	H	-5.03	5.26	50.89	99.71	-48.82	-48.59	-13.0	-35.59
3348.00	H	-4.91	5.32	46.25	99.63	-53.38	-52.97	-13.0	-39.97
101.82	V	-1.08	0.12	32.78	92.61	-59.83	-60.79	-13.0	-47.79
912.50	V	-2.68	-1.22	40.98	92.93	-51.95	-55.84	-13.0	-42.84
1670.00	V	-3.59	4.42	49.90	102.06	-52.16	-51.34	-13.0	-38.34
3342.00	V	-4.91	5.32	49.39	99.63	-50.24	-49.84	-13.0	-36.84
6692.00	V	-7.57	6.90	53.32	97.28	-43.96	-44.64	-13.0	-31.64

## PCS 1900 (Channel 661)

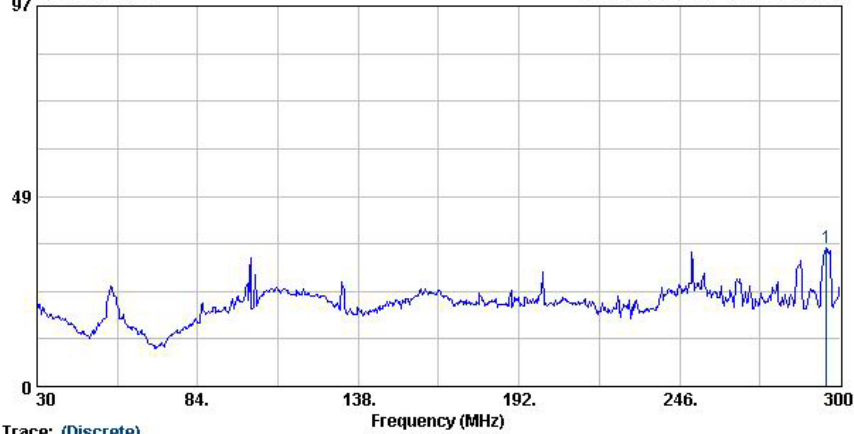
Freq MHz	Pol	Substitution Antenna Input Power (dBm)	Substitution Antenna Gain (dBi)	Et (dBuV/m)	Es (dBuV/m)	Et - Es (dB)	EIRP (dBm)	Limit (dBm)	Margin (dB)
141.78	H	-1.08	1.26	55.56	91.94	-36.38	-36.20	-13.0	-23.20
250.05	H	-1.45	1.77	33.36	93.69	-60.33	-60.01	-13.0	-47.01
295.41	H	-1.44	1.67	35.44	93.32	-57.88	-57.65	-13.0	-44.65
318.90	H	-1.56	1.61	52.83	93.38	-40.55	-40.49	-13.0	-27.49
329.40	H	-1.58	1.58	52.32	93.50	-41.18	-41.18	-13.0	-28.18
940.50	H	-2.63	0.77	44.49	93.04	-48.55	-50.41	-13.0	-37.41
1804.00	H	-3.71	6.62	40.37	101.79	-61.42	-58.51	-13.0	-45.51
3758.00	H	-5.25	7.45	48.87	99.07	-50.20	-48.00	-13.0	-35.00
54.84	V	-0.77	0.33	32.59	82.04	-49.45	-49.89	-13.0	-36.89
101.82	V	-1.08	2.27	32.78	92.61	-59.83	-58.64	-13.0	-45.64
141.78	V	-1.08	1.26	53.24	91.94	-38.70	-38.52	-13.0	-25.52
321.00	V	-1.56	1.61	40.66	93.40	-52.74	-52.70	-13.0	-39.70
634.60	V	-2.12	1.28	37.34	94.20	-56.86	-57.70	-13.0	-44.70
912.50	V	-2.68	0.93	39.98	92.93	-52.95	-54.69	-13.0	-41.69
2966.00	V	-5.03	7.41	41.26	99.60	-58.34	-55.97	-13.0	-42.97
3758.00	V	-5.25	7.45	47.18	99.07	-51.89	-49.69	-13.0	-36.69
5638.00	V	-6.67	8.44	50.60	98.79	-48.19	-46.42	-13.0	-33.42

**FCC TEST REPORT**

Report No. : F481401

Radiated Scanned Data  
GSM 850, Horizontal Polarization

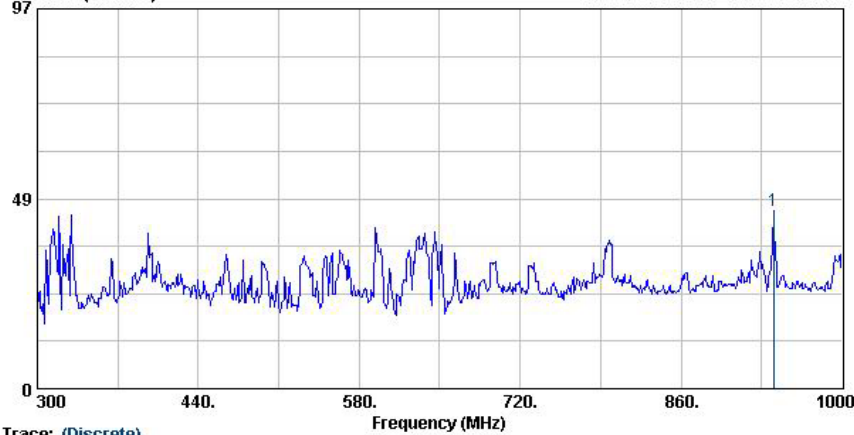
Data: 1 File: D:\Project\481401\_所羅門\Part 22 Spurious.EMI (12) Date: 2004-09-07 Time: 18:34:55



Site : 03CH06-HY  
Condition : 3m BI LOG 2004 0629 HORIZONTAL 0cm 0deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V / 60Hz  
Model : SCW1375u  
Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	295.41	35.44	-----	-----	52.75	12.90	31.93	1.72	0 0

Data: 2 File: D:\Project\481401\_所羅門\Part 22 Spurious.EMI (12) Date: 2004-09-07 Time: 18:38:01



Site : 03CH06-HY  
Condition : 3m BI LOG 2004 0629 HORIZONTAL 0cm 0deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V / 60Hz  
Model : SCW1375u  
Memo : GSM850 CH189 Link mode

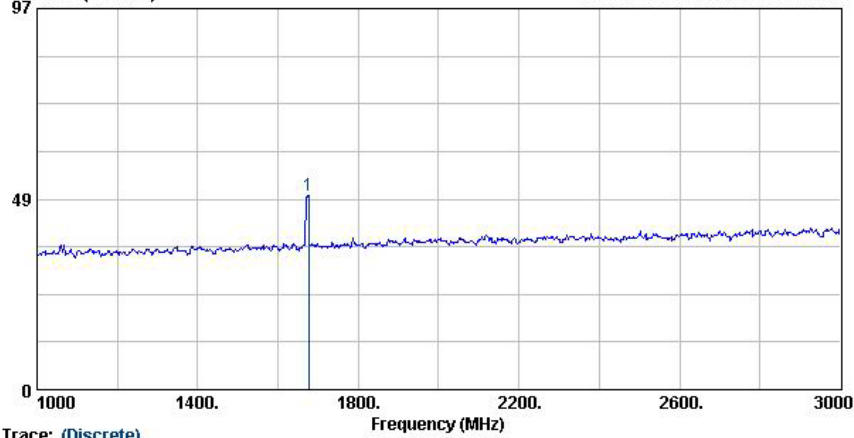
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	940.50	45.49	-----	-----	52.46	20.78	31.00	3.24	0 0



**FCC TEST REPORT**

Report No. : F481401

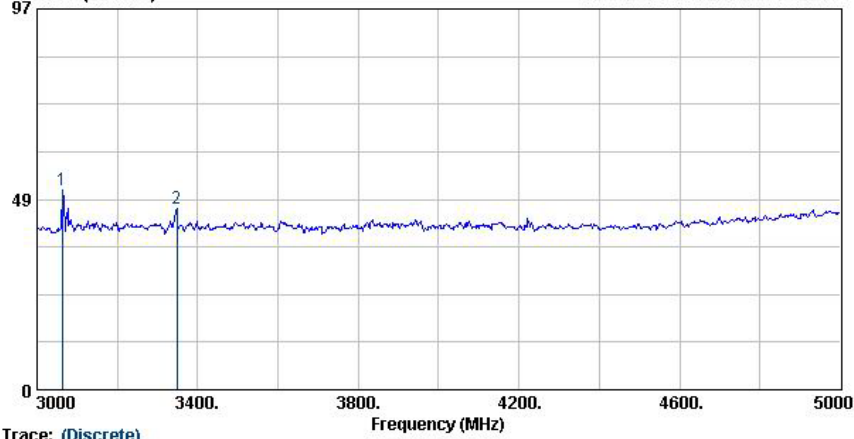
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Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCWI375u  
 Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	1676.00	49.31	-----	-----	64.35	26.42	44.24	2.78	114 0

Data: 4 File: D:\Project\481401\_所羅門\Part 22 Spurious.EMI (12) Date: 2004-09-02 Time: 15:22:39



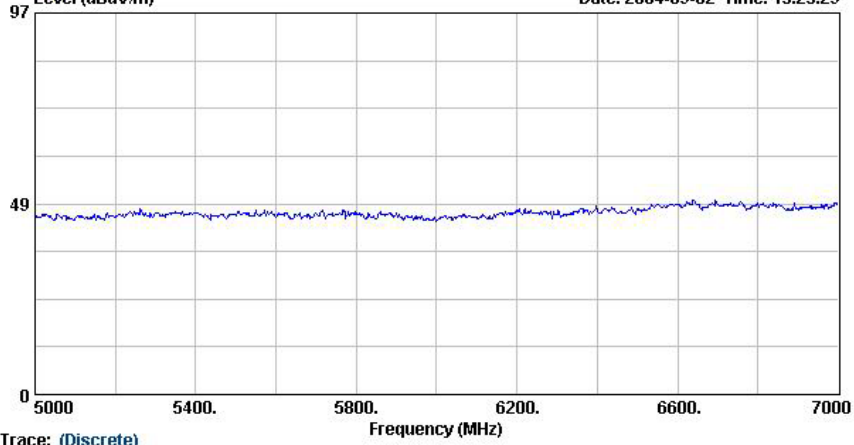
Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 HORIZONTAL 0cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCWI375u  
 Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	3062.00	50.89	-----	-----	61.51	30.00	44.14	3.52	0 0
2 @	3348.00	46.25	-----	-----	56.71	30.00	44.38	3.92	0 0

**FCC TEST REPORT**

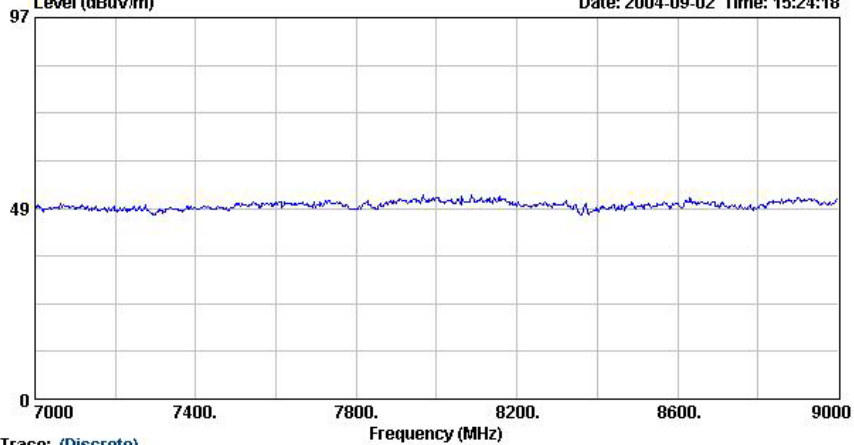
**Report No. : F481401**

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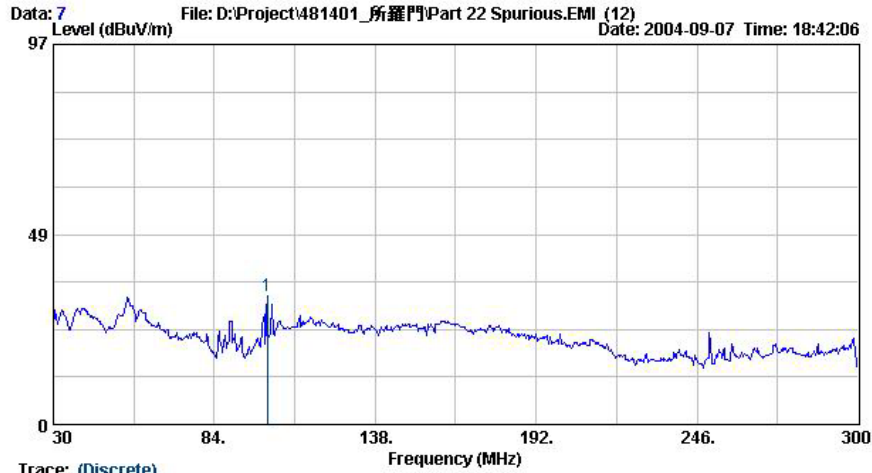
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Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 0deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V / 60Hz  
Model : SCWi375u  
Memo : GSM850 CH189 Link mode

Data: 6 File: D:\Project\481401\_所羅門\Part 22 Spurious.EML (12) Date: 2004-09-02 Time: 15:24:18



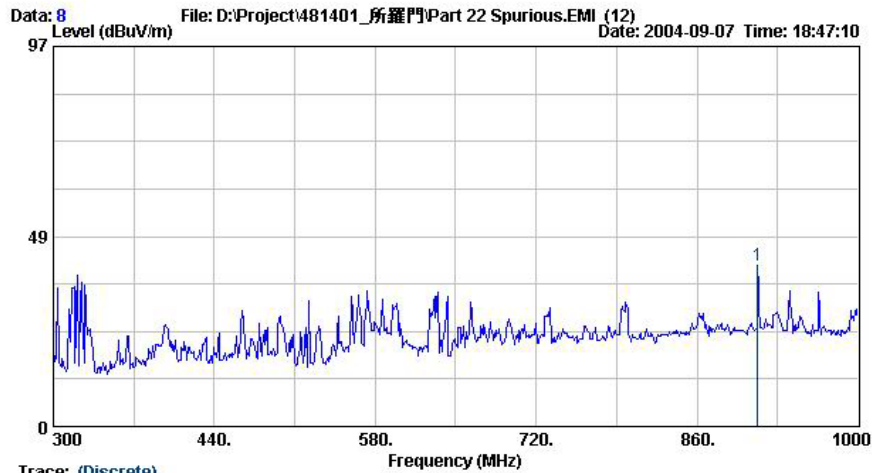
Trace: (Discrete)  
Site : 03CH06-HY  
Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 360deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V / 60Hz  
Model : SCWi375u  
Memo : GSM850 CH189 Link mode

GSM 850, Vertical Polarization



Site : 03CH06-HY  
 Condition : 3m B1 LOG 2004 0629 VERTICAL 0cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCW1375u  
 Memo : GSM850 CH189 Link mode

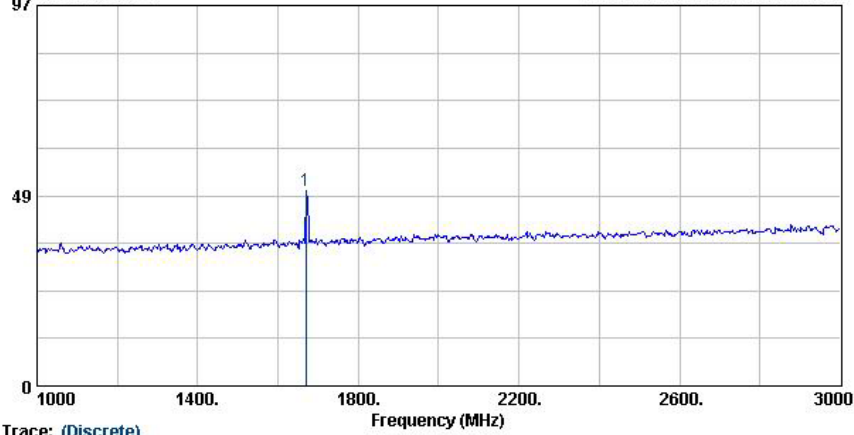
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	101.82	32.78	-----	-----	53.58	10.51	32.27	0.95	0



Site : 03CH06-HY  
 Condition : 3m B1 LOG 2004 0629 VERTICAL 0cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCW1375u  
 Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	912.50	40.98	-----	-----	48.04	20.66	30.99	3.28	0

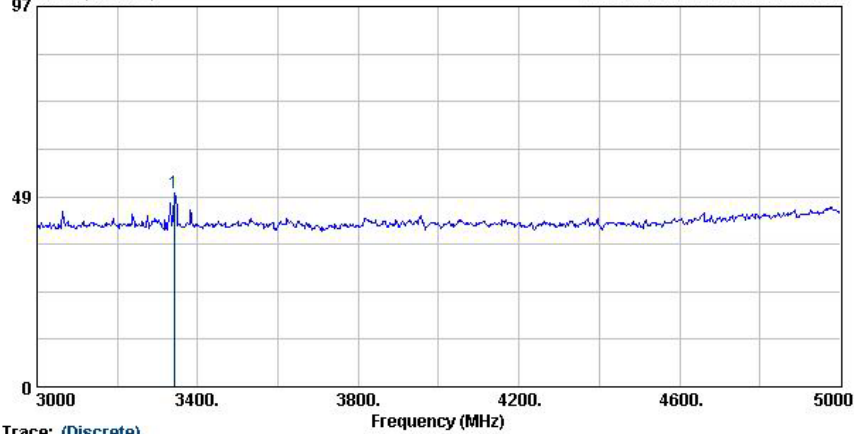
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Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCW1375u  
 Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	1670.00	49.90	-----	-----	65.05	26.33	44.24	2.76	114 360

Data: 10 File: D:\Project\481401\_所羅門\Part 22 Spurious.EMI (12) Date: 2004-09-02 Time: 15:11:35



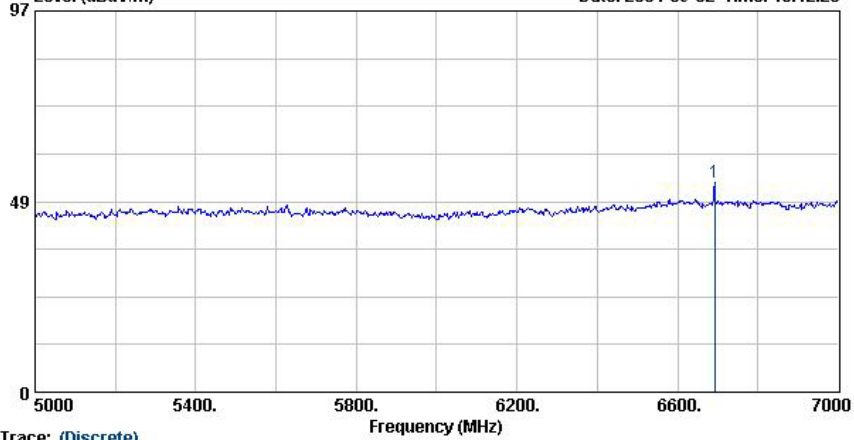
Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCW1375u  
 Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	3342.00	49.39	-----	-----	59.84	30.00	44.38	3.92	114 0

**FCC TEST REPORT**

Report No. : F481401

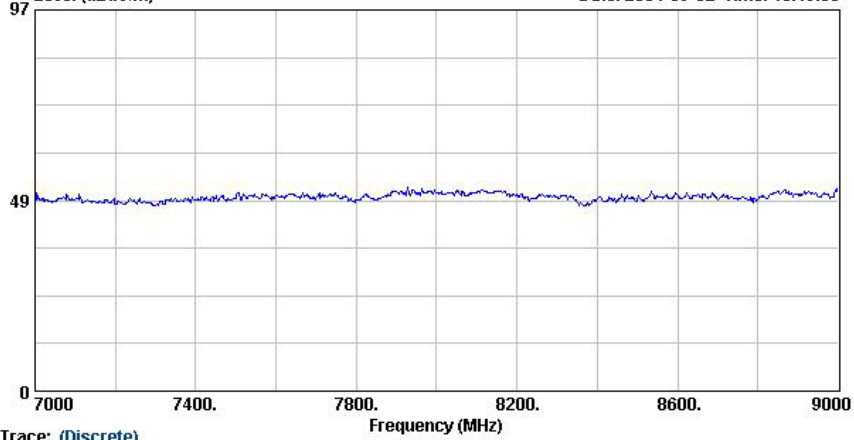
Data: 11 File: D:\Project\481401\_所羅門\Part 22 Spurious.EMI (12) Date: 2004-09-02 Time: 15:12:23



Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCWI375u  
 Memo : GSM850 CH189 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	6692.00	53.32	-----	-----	59.03	34.64	46.42	6.08	114 360

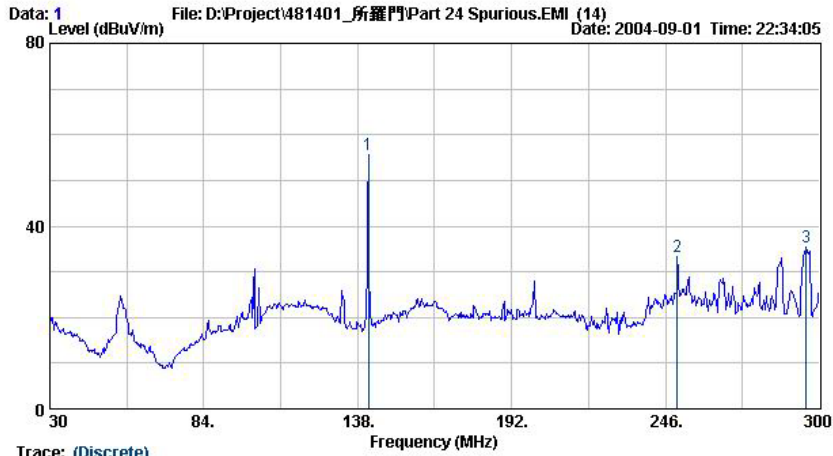
Data: 12 File: D:\Project\481401\_所羅門\Part 22 Spurious.EMI (12) Date: 2004-09-02 Time: 15:19:06



Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V / 60Hz  
 Model : SCWI375u  
 Memo : GSM850 CH189 Link mode

➤ Mark:  
 Frequency from 9GHz to 19GHz, the emission emitted by the EUT is too low to be measured.

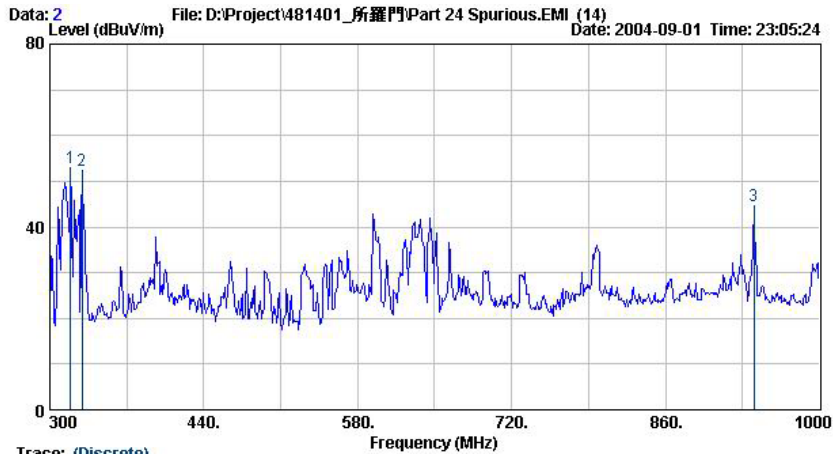
PCS 1900, Horizontal Polarization



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : 3m BI LOG 2004 0629 HORIZONTAL 0cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW375u  
 Memo : PCS CH661 Link mode

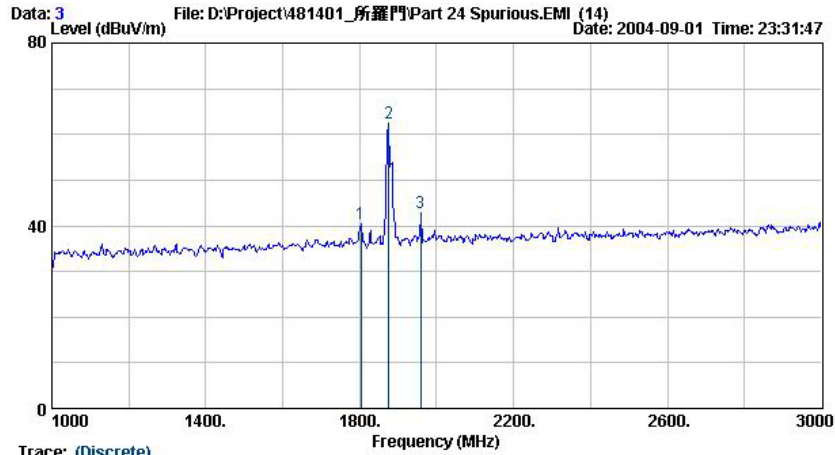
	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	141.78	55.56	-----	-----	76.07	10.74	32.27	1.03	0
2 @	250.05	33.36	-----	-----	51.79	12.00	31.83	1.40	0
3 @	295.41	35.44	-----	-----	52.99	12.90	31.93	1.49	0



Trace: (Discrete)

Site : 03CH06-HY  
 Condition : 3m BI LOG 2004 0629 HORIZONTAL 214cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	318.90	52.83	-----	-----	69.90	13.67	32.30	1.56	214
2 @	329.40	52.32	-----	-----	68.93	13.85	32.05	1.59	214
3 @	940.50	44.49	-----	-----	51.60	20.78	31.00	3.10	214

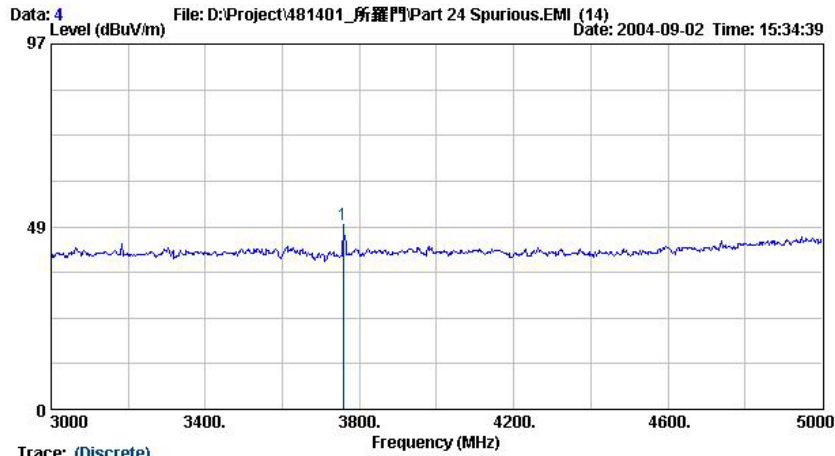


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW1375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	1804.00	40.37	-----	-----	54.82	27.00	44.34	114	0
2 @	1876.00	62.42	-----	-----	76.47	27.42	44.40	114	0
3 @	1958.00	42.71	-----	-----	56.40	27.75	44.46	114	0

Remark :

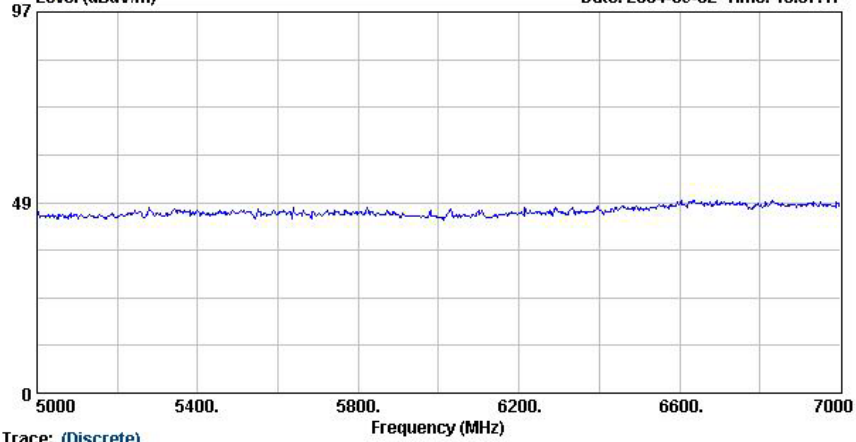
1. #2 : Fundamental Signal
2. #3 : BCCH Signal



Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW1375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over	Limit	ReadAntenna	Preamp	Cable	Ant	Table
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	3758.00	48.87	-----	-----	59.14	30.26	44.75	114	0

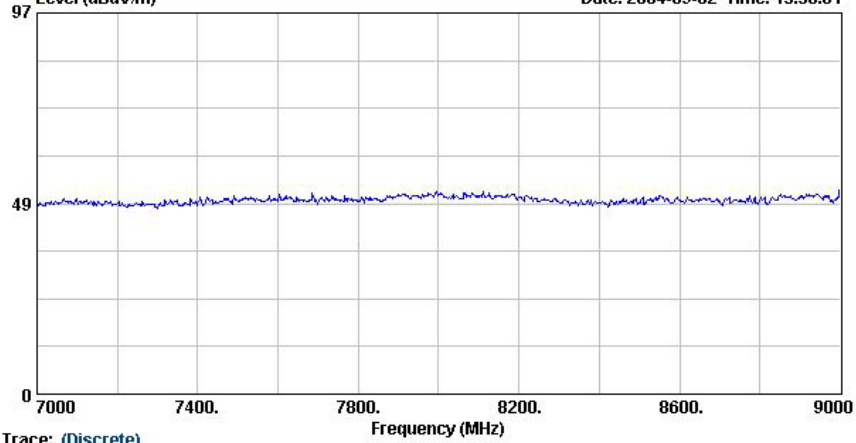
Data: 5 File: D:\Project\481401\_所羅門\Part 24 Spurious.EMI (14) Date: 2004-09-02 Time: 15:37:17



Trace: (Discrete)

Site : 03CH06-HY  
Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 0deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V/60Hz  
Model : SCW1375u  
Memo : PCS CH661 Link mode

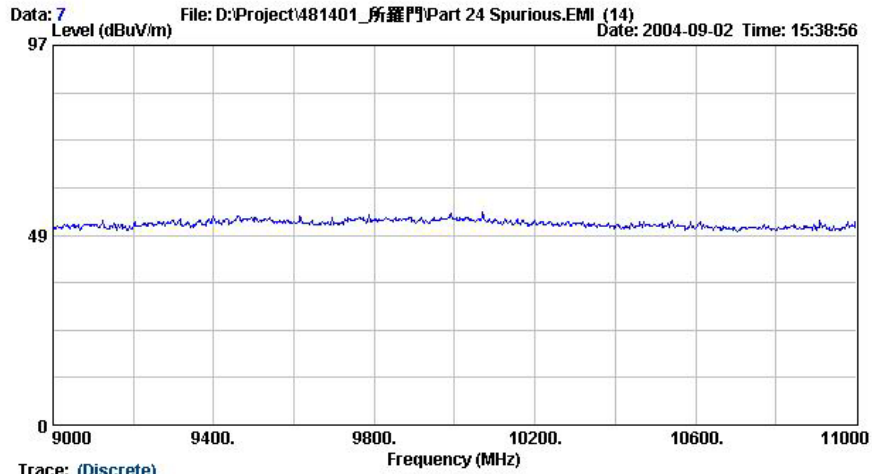
Data: 6 File: D:\Project\481401\_所羅門\Part 24 Spurious.EMI (14) Date: 2004-09-02 Time: 15:38:01



Trace: (Discrete)

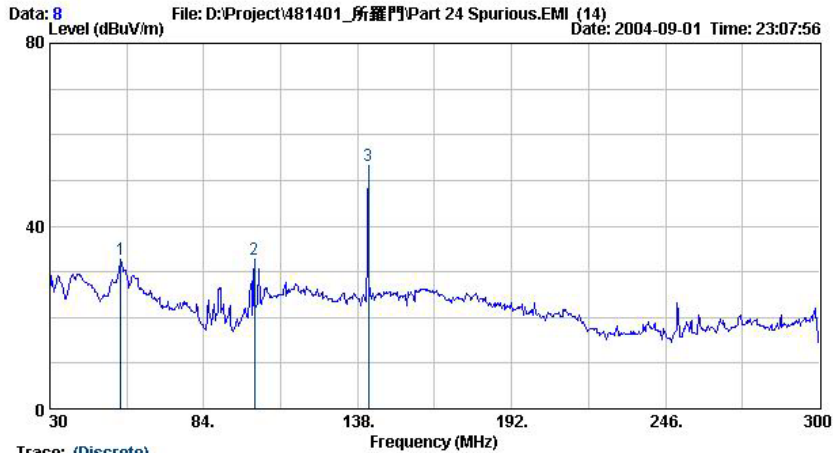
Site : 03CH06-HY  
Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 360deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V/60Hz  
Model : SCW1375u  
Memo : PCS CH661 Link mode





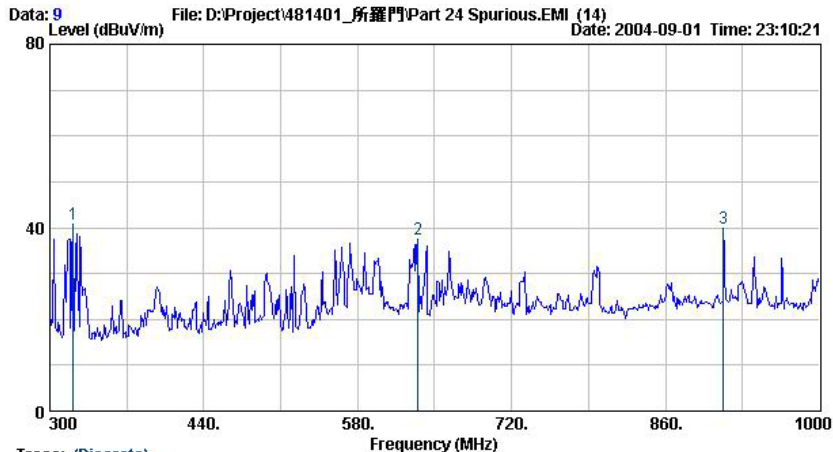
Site : 03CH06-HY  
Condition : 3m HF-HORN AH-118 HORIZONTAL 114cm 0deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V/60Hz  
Model : SCW1375u  
Memo : PCS CH661 Link mode

PCS 1900, Vertical Polarization



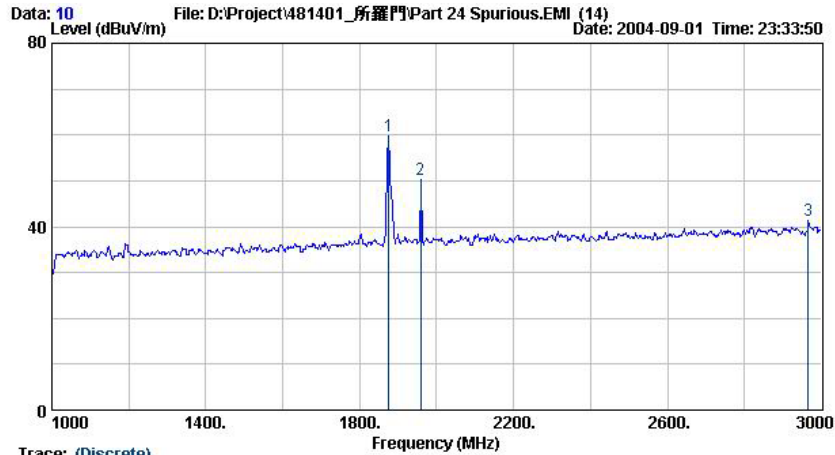
Site : 03CH06-HY  
 Condition : 3m BI LOG 2004 0629 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	54.84	32.59	-----	-----	55.73	8.68	32.45	0.63	114 360
2 @	101.82	32.78	-----	-----	53.64	10.51	32.27	0.89	114 360
3 @	141.78	53.24	-----	-----	73.75	10.74	32.27	1.03	114 360



Site : 03CH06-HY  
 Condition : 3m BI LOG 2004 0629 VERTICAL 213cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	321.00	40.66	-----	-----	57.64	13.72	32.26	1.57	213 360
2 @	634.60	37.34	-----	-----	47.62	18.80	31.48	2.40	213 360
3 @	912.50	39.98	-----	-----	47.32	20.66	30.99	3.00	213 360

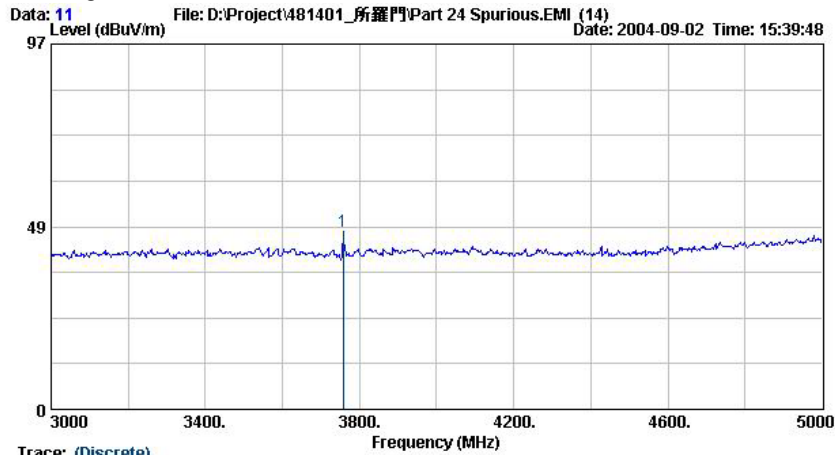


Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCWI375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Factor	Loss	Pos	Pos
					dBuV	dB/m	dB	dB	cm	deg
1 @	1876.00	59.65	-----	-----	73.70	27.42	44.40	2.93	114	360
2 @	1958.00	50.17	-----	-----	63.86	27.75	44.46	3.02	114	360
3 @	2966.00	41.26	-----	-----	52.06	29.90	44.11	3.41	114	360

Remark :

1. #1 : Fundamental Signal
2. #2 : BCCH Signal



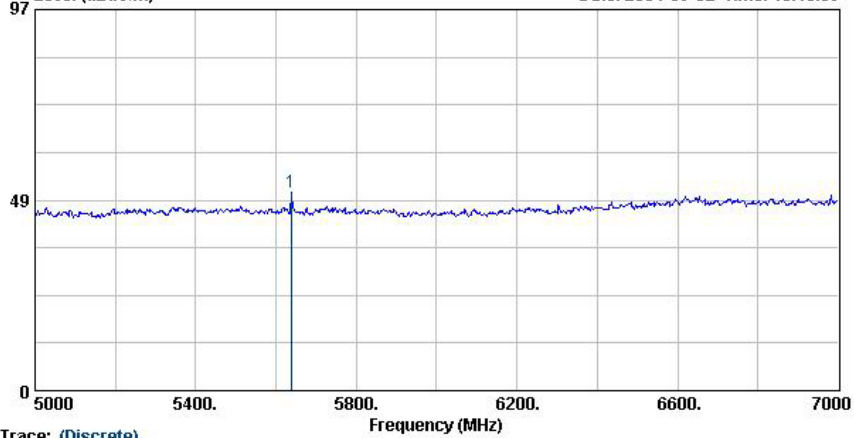
Trace: (Discrete)  
 Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCWI375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over	Limit	Read	Antenna	Preamp	Cable	Ant	Table
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Factor	Loss	Pos	Pos
					dBuV	dB/m	dB	dB	cm	deg
1 @	3758.00	47.18	-----	-----	57.46	30.26	44.75	4.22	114	360

**FCC TEST REPORT**

Report No. : F481401

Data: 12 File: D:\Project\481401\_所羅門\Part 24 Spurious.EMI (14) Date: 2004-09-02 Time: 15:40:39  
 Level (dBuV/m)

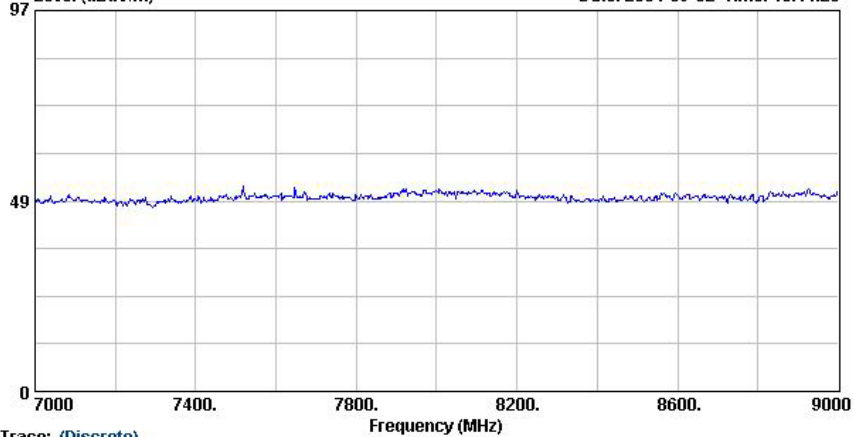


Trace: (Discrete)

Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 0deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW1375u  
 Memo : PCS CH661 Link mode

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Preamp Factor	Cable Loss	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg
1 @	5638.00	50.60	-----	-----	57.79	34.01	46.55	5.35	114 0

Data: 13 File: D:\Project\481401\_所羅門\Part 24 Spurious.EMI (14) Date: 2004-09-02 Time: 15:41:25  
 Level (dBuV/m)



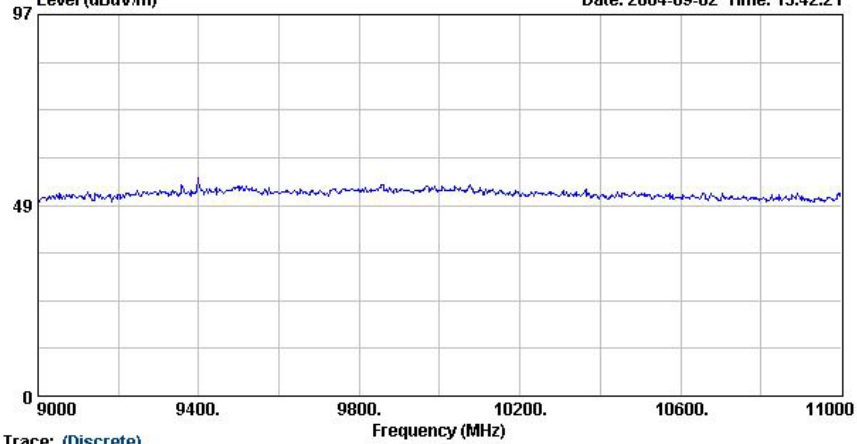
Trace: (Discrete)

Site : 03CH06-HY  
 Condition : 3m HF-HORN AH-118 VERTICAL 114cm 360deg  
 EUT : 802.11b USB WLAN Dongle with GPRS modem  
 Power : AC 120V/60Hz  
 Model : SCW1375u  
 Memo : PCS CH661 Link mode

# FCC TEST REPORT

Report No. : F481401

Data: 14 File: D:\Project\481401\_所羅門\Part 24 Spurious.EMI (14) Date: 2004-09-02 Time: 15:42:21



Trace: (Discrete)

Site : 03CH06-HY  
Condition : 3m HF-HORN AH-118 VERTICAL 114cm 0deg  
EUT : 802.11b USB WLAN Dongle with GPRS modem  
Power : AC 120V/60Hz  
Model : SCWI375u  
Memo : PCS CH661 Link mode

- Mark:  
Frequency from 11GHz to 19GHz, the emission emitted by the EUT is too low to be measured.

**Name of Test:** Frequency Stability (Temperature Variation)

**Specification:** 47 CFR 2.1055(a)(1)

**Test Conditions:** As Indicated

**Test Equipment:** As per previous page

#### **Measurement Procedure**

1. The EUT and test equipment were set up as shown on the following page.
2. With all power removed, the temperature was decreased to  $-30^{\circ}\text{C}$  and permitted to stabilize for three hours. Power was applied and the maximum change in frequency was noted within one minute.
3. With power OFF, the temperature was raised in  $10^{\circ}\text{C}$  steps. The sample was permitted to stabilize at each step for at least one-half hour. Power was applied and the maximum frequency change was noted within one minute.
4. The temperature tests were performed for the worst case.
5. Measurement Results: Attached

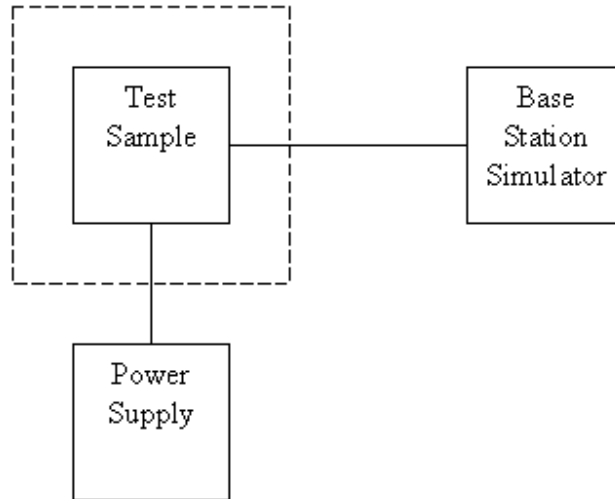


Tested By:

Tim Kao

**Transmitter Test Set-Up**

Frequency Stability: Temperature Variation  
Frequency Stability: Voltage Variation



Asset	Model Name	S/N
Temperature & Humidity Controller	P-9000	612
AC/DC Power Source	HPA-500W	HPA0100024
Base Station Simulator	CMU200	102278
Base Station Simulator	E5515C	GB43460754

**Name of Test:** Frequency Stability (Temperature Variation)**GSM 850 (Channel 189)**

Temperature(°C)	Change, Hz	Change, ppm
-30	-21.2	-0.02
-20	-25.7	-0.03
-10	-24.6	-0.03
0	-31.1	-0.04
10	-33.4	-0.04
20	-34.1	-0.04
30	-31.8	-0.04
40	-37.5	-0.04
50	-42.5	-0.05

**PCS 1900 (Channel 611)**

Temperature(°C)	Change, Hz	Change, ppm
-30	-241	-0.13
-20	-124	-0.07
-10	-89.9	-0.05
0	-61.6	-0.03
10	-48.7	-0.03
20	-45.8	-0.02
30	-51.1	-0.03
40	-57.4	-0.03
50	-61.8	-0.03



**Name of Test:** Frequency Stability (Voltage Variation)**Specification:** 47 CFR 2.1055 (b)(1)**Test Equipment:** As per previous page**Measurement Procedure**

1. The EUT was placed in a temperature chamber at  $25\pm 5^{\circ}\text{C}$  and connected as for "Frequency Stability - Temperature Variation" test.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

**Results:** Frequency Stability (Voltage Variation)

GSM 850 (Channel 189)

Nominal Value (Voltage) = 4.25V

Voltage(Volt)	Change, Hz	Change, ppm
5	-62.1	-0.07
BEP	-243	-0.29
5.75	-87.4	-0.10

PCS 1900 (Channel 611)

Nominal Value (Voltage) = 4.25V

Voltage(Volt)	Change, Hz	Change, ppm
5	-58.2	-0.03
BEP	-98.4	-0.05
5.75	-61.8	-0.03

Limit: Must remain within authorized frequency block.



Tested By:

Tim Kao

**Antenna Factor & Cable Loss**

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)
30	15.35	4.50	1000	24.10	3.92
35	13.63	1.13	2000	27.40	5.66
40	11.11	1.18	3000	30.00	7.20
45	10.59	1.26	4000	32.60	9.36
50	6.47	1.31	5000	33.40	9.16
55	5.83	1.34	6000	34.20	10.70
60	5.18	1.43	7000	35.30	12.16
65	4.81	1.52	8000	36.90	13.12
70	4.43	1.56	9000	38.10	13.81
75	5.10	1.57	10000	39.00	14.83
80	5.91	1.60	11000	38.60	15.83
85	7.33	1.66	12000	39.50	17.11
90	8.74	1.75	13000	39.30	17.62
95	9.05	1.76	14000	41.60	18.37
100	9.36	1.83	15000	40.60	19.10
110	9.65	1.86	16000	37.20	19.72
120	9.97	1.92	17000	40.20	21.98
130	10.51	2.00	18000	48.90	21.22
140	10.32	2.11	19000	37.60	23.90
150	9.42	2.18	20000	37.30	24.07
160	8.09	2.22	21000	37.00	25.49
170	7.43	2.26	22000	38.00	24.92
180	7.60	2.31	23000	38.70	25.60
190	7.43	2.37	24000	38.60	25.70
200	7.26	2.43	25000	24.10	3.92
220	9.11	2.56	14000	27.40	5.66
240	10.88	2.70	15000	30.00	7.20
260	11.75	2.83	16000	32.60	9.36
280	11.55	2.93	17000	33.40	9.16
300	11.36	3.03	18000	34.20	10.70
320	12.03	3.13	19000	35.30	12.16
340	12.69	3.23	20000	36.90	13.12
360	13.33	3.32	21000	38.10	13.81
380	14.00	3.41	22000	39.00	14.83
400	14.63	3.48	23000	38.60	15.83
450	15.33	3.71	24000	39.50	17.11
500	16.03	3.85	25000	39.30	17.62
550	16.65	4.03			
600	17.29	4.32			
650	17.64	4.51			
700	18.00	4.54			
750	18.39	4.90			
800	18.79	5.04			
850	19.10	5.04			
900	19.42	5.20			
950	19.58	5.28			
1000	19.75	5.58			

**List of Measuring Equipments**

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
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)

**Uncertainty of Test Site**

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

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 Measurement (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 Uc(y)</b>	<b>2.36</b>				
<b>Measuring uncertainty for a level of confidence of 95% U=2Uc(y)</b>	<b>4.72</b>				

$U = \sqrt{\{(1/2)^2 + (0.3/2)^2 + (2^2 + 0.5^2 + 2^2 + 0.25^2 + 2^2)/3 + (0.54)^2/2\}} = 2.2$  for 10m test distance

$U = \sqrt{\{(1/2)^2 + (0.3/2)^2 + (2^2 + 3^2 + 2^2 + 0.25^2 + 2^2)/3 + (0.54)^2/2\}} = 2.7$  for 3m test distance

END OF TEST REPORT