

**ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
INTENTIONAL RADIATOR CERTIFICATION TO
FCC PART 15 SUBPART C REQUIREMENT
OF**

Media Remote Control Mouse

**MODEL No.: PW718,
PW718-SV, PW718-BK, PW718-GR,
PW718-GD, PW718-WH, PW718-TI,
PW718-MG, PW718-SB, PW718-XX**

BRAND NAME: N/A

FCC ID: RNY-11293

REPORT NO: ER/2003/B0019

ISSUE DATE: December 01, 2003

Prepared for

**MODY Co., Ltd.
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Tam-Shui Town, Taipei Hsien, Taiwan**

Prepared by

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VERIFICATION OF COMPLIANCE

Applicant:	MODY Co., Ltd. 22F, No.29, sec. 2, Chung Cheng East Road, Tam-Shui Town, Taipei Hsien, Taiwan
Product Description:	Media Remote Control Mouse
Brand Name:	N/A
FCC ID Number:	RNY-11293
Model No.:	PW718, PW718-SV, PW718-BK, PW718-GR, PW718-GD, PW718-WH, PW718-TI, PW718-MG, PW718-SB, PW718-XX
Model Difference:	The all models are same except the color of exterior.
File Number:	ER/2003/B0019
Date of test:	Nov. 21 ~ Nov. 26, 2003

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (1992) and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rules Part 15.249.

The test results of this report relate only to the tested sample identified in this report.

Test By:

Willis Chen

Date

Dec. 01, 2003

Willis Chen

Approved By

Vincent Su

Date

Dec. 01, 2003

Vincent Su

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1. GENERAL INFORMATION

1.1 Product Description

The MODY Co., Ltd. Model: PW718 (referred to as the EUT in this report) The EUT is an 2.4GHz wireless mouse. It is designed by way of FSK modulation achieves the system operating.

A major technical descriptions of EUT is described as following:

- A). Operation Frequency: 2416 ~ 2474 MHz, 30 channel, Channel Space: 2MHz, overlapping
- B). Modulation: FSK (Frequency-shift keying)
- C). Antenna Designation: Non-User Replaceable (Fixed)
- D). Power Supply: 3V DC by AAA Battery*2

1.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **RNY-11293** filing to comply with Section 15.249 of the FCC Part 15, Subpart C Rules. The composite system (receiver) is compliance with Subpart B is authorized under a DoC procedure.

1.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 (1992). Radiated testing was performed at an antenna to EUT distance 3 meters.

1.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data is located on the address of SGS Taiwan Ltd. No. 134, Wu Kung Rd., Wuku Industrial Zone, Taipei Country, Taiwan. The Open Area Test Sites and the Line Conducted labs are constructed and calibrated to meet the FCC requirements in documents ANSI C63.4: 1992 and CISPR 22/EN 55022 requirements. Site No. 1(3 &10 meters) Registration Number: 94644, Anechoic chamber (3 meters) Registration Number: 573967

1.5 Special Accessories

Not available for this EUT intended for grant.

1.6 Equipment Modifications

Not available for this EUT intended for grant.

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2. System Test Configuration

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

The Transmitter was operated in the normal operating mode. the Tx frequency was fixed which was for the purpose of the measurements.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on a table which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4-1992. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak detector mode.

2.3.2 Radiated Emissions

The EUT is a placed on a turn table which is 0.8 m above ground plane. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, according to the requirements in Section 13.1.4.1 of ANSI C63.4-1992.

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2.4 Limitation

(1) Conducted Emission

According to section 15.207(a) Conducted Emission Limits is as following.

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 – 0.5	66 - 56	56 - 46
0.5 – 5	56	46
5 - 30	60	50

(2) Radiated Emission 15.249(a)

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following.

Frequency (MHz)	Field strength of Fundamental	Field strength of Harmonics	Distance (m)
902 - 928	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
2400 – 2483.5	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
5725 – 5875	50 mV/m (94dBuV/m)	500 uV/m (54dBuV/m)	3
24.0 – 24.25 GHz	250 mV/m (107.95dBuV/m)	2500 uV/m (67.95dBuV/m)	3

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(3) Radiated Emission 15.249 (d)

Emission Radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50dB below the level of the fundamental or to the general radiated emission limits in Section 15.209 as below, whichever is the lesser attenuation.

Frequency (MHz)	Field strength $\mu\text{V/m}$	Distance (m)	Field strength at 3m $\text{dB}\mu\text{V/m}$
1.705-30	30	30	69.54
30-88	100	3	40
88-216	150	3	43.5
216-960	200	3	46
Above 960	500	3	54

(4) Radiated Emission 15.249(e)

For frequencies above 1000MHz, the above field strength limits are based on average limits. The peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation.

Remark: 1. Emission level in $\text{dB}\mu\text{V/m} = 20 \log (\mu\text{V/m})$

- Measurement was performed at an antenna to the closed point of EUT distance of meters.
- Only spurious frequency is permitted to locate within the Restricted Bands specified in provision of ξ 15.205
- Emission spurious frequency which appearing within the Restricted Bands specified in provision of ξ 15.205, then the general radiated emission limits in ξ 15.209 apply.

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2.5 Configuration of Tested System

Fig. 2-1 Configuration of TX



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Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/ Type No.	FCC ID	Series No.	Data Cable	Power Cord
1	N/A						

Note: All the above equipment/cables were placed in worse case positions to maximize emission signals during emission test.

Grounding: Grounding was in accordance with the manufacturer's requirements and conditions for the intended use.

3. Summary Of Test Results

FCC Rules	Description Of Test	Result
§ 15.207	Conducted Emission	N/A
§ 15.249(a)(e)	Radiated Emission	Compliant
§ 15.249(d)	26dB band width Measurement	Compliant

Description of test modes

The EUT has been tested under continuous operating condition. The Frequency 2416MHz (low), 2452MHz(Mid) and 2474MHz(High) are chosen for full testing.

The Radiated Emission was measured as EUT stand-up position (X mode), lie down position (Y and Z mode), three modes. The worst case X and Y mode are report.

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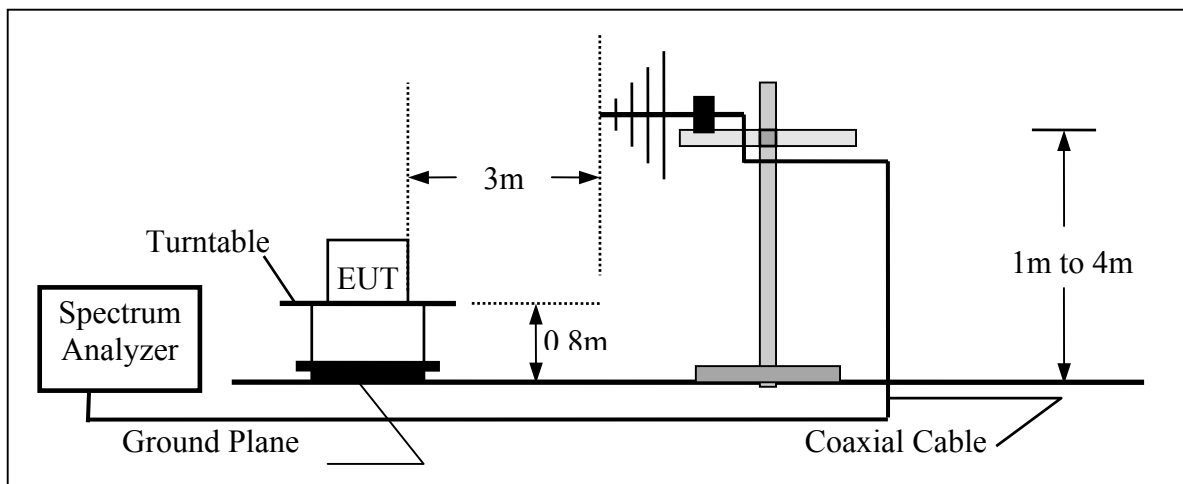
5. Radiated Emission Test

5.1 Measurement Procedure

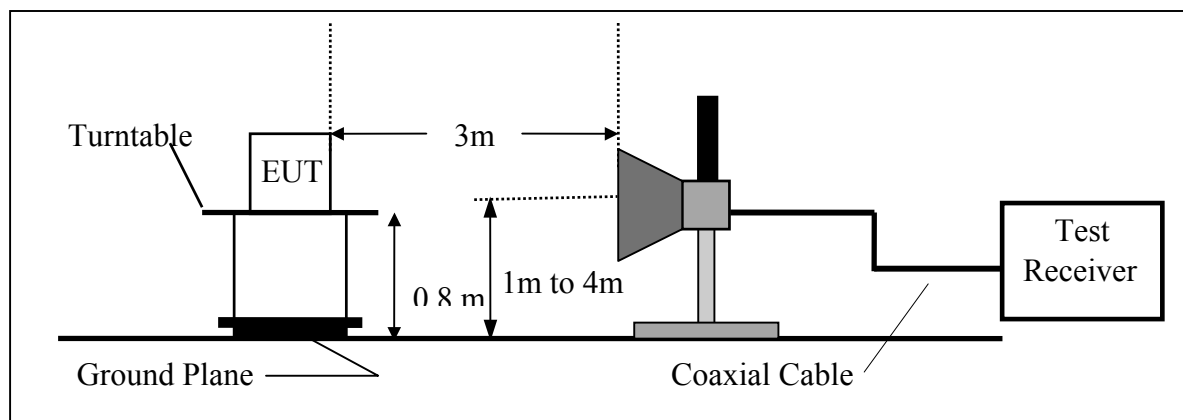
1. The EUT was placed on a turntable that is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measured were complete.

5.2 Test SET-UP (Block Diagram of Configuration)

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-UP Frequency Over 1 GHz



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5.3 Measurement Equipment Used:

966 Chamber					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Spectrum Analyzer	R&S	FSP 40	100034	05/27/2003	05/26/2004
Spectrum Analyzer	Agilent	E7405A	US41160416	08/27/2003	08/26/2004
Bilog Antenna	SCHWAZBECK	VULB9163	152	06/03/2003	06/02/2004
Horn antenna	Schwarzbeck	BBHA 9120D	309/320	08/16/2003	08/15/2004
Horn antenna	Schwarzbeck	BBHA 9170	184/185	07/04/2003	07/03/2004
Pre-Amplifier	HP	8447D	2944A09469	07/19/2003	07/18/2004
Pre-Amplifier	HP	8494B	3008A00578	02/26/2003	02/25/2004
Turn Table	HD	DT420	N/A	N.C.R	N.C.R
Antenna Tower	HD	MA240-N	240/657	N.C.R	N.C.R
Controller	HD	HD100	N/A	N.C.R	N.C.R
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-10M	10m	10/09/2003	10/08/2004
Low Loss Cable	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	10/09/2003	10/08/2004
Site NSA	SGS	966 chamber	N/A	11/17/2003	11/16/2004

5.4 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor(if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

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5.5 Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Low X Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2416.0	V	84.04	--	-6.79	77.25	--	114.00	94.00	-16.75	F
4832.0	V	--	--			0.00	74.00	54.00		H
7256.0	V	47.53	--	-0.70	46.83	0.00	74.00	54.00	-7.17	H
9664.0	V	--	--			0.00	74.00	54.00		H
12080.0	V	--	--			0.00	74.00	54.00		H
14496.0	V	--	--			0.00	74.00	54.00		H
16912.0	V	--	--			0.00	74.00	54.00		H
19328.0	V	--	--			0.00	74.00	54.00		H
21744.0	V	--	--			0.00	74.00	54.00		H
24160.0	V	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
 The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Low X Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2416.0	H	84.01	--	-6.79	77.22	--	114.00	94.00	-16.78	F
4832.0	H	--	--			0.00	74.00	54.00		H
7248.0	H	--	--			0.00	74.00	54.00		H
9664.0	H	--	--			0.00	74.00	54.00		H
12080.0	H	--	--			0.00	74.00	54.00		H
14496.0	H	--	--			0.00	74.00	54.00		H
16912.0	H	--	--			0.00	74.00	54.00		H
19328.0	H	--	--			0.00	74.00	54.00		H
21744.0	H	--	--			0.00	74.00	54.00		H
24160.0	H	--	--			0.00	74.00	54.00		H
5088.0	H	46.34		-3.42	42.92	--	74.00	54.00	-11.08	S
5344.0	H	46.79		-3.53	43.26	--	74.00	54.00	-10.74	S

Remark :

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- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
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- (5) The RBW,VBW of SPA for frequency
 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
 The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Low Y Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2416.0	V	84.04	--	-6.79	77.25	--	114.00	94.00	-16.75	F
4832.0	V	46.48	--	-3.68	42.80	0.00	74.00	54.00	-11.20	H
7256.0	V	48.92	--	-0.70	48.22	0.00	74.00	54.00	-5.78	H
9664.0	V	--	--			0.00	74.00	54.00		H
12080.0	V	--	--			0.00	74.00	54.00		H
14496.0	V	--	--			0.00	74.00	54.00		H
16912.0	V	--	--			0.00	74.00	54.00		H
19328.0	V	--	--			0.00	74.00	54.00		H
21744.0	V	--	--			0.00	74.00	54.00		H
24160.0	V	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
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 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
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- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Low Y Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Horizontal

Freq. (MHz)	Ant. Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2416.0	H	77.04	--	-6.79	70.25	--	114.00	94.00	-23.75	F
4832.0	H	--	--			0.00	74.00	54.00		H
7256.0	H	47.18	--	-0.70	46.48	0.00	74.00	54.00	-7.52	H
9664.0	H	--	--			0.00	74.00	54.00		H
12080.0	H	--	--			0.00	74.00	54.00		H
14496.0	H	--	--			0.00	74.00	54.00		H
16912.0	H	--	--			0.00	74.00	54.00		H
19328.0	H	--	--			0.00	74.00	54.00		H
21744.0	H	--	--			0.00	74.00	54.00		H
24160.0	H	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
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- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Mid X Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2452.0	V	84.00	--	-6.52	77.48	--	114.00	94.00	-16.52	F
4904.0	V	--	--			0.00	74.00	54.00		H
7360.0	V	49.52	--	-0.57	48.95	0.00	74.00	54.00	-5.05	H
9808.0	V	--	--			0.00	74.00	54.00		H
12260.0	V	--	--			0.00	74.00	54.00		H
14712.0	V	--	--			0.00	74.00	54.00		H
17164.0	V	--	--			0.00	74.00	54.00		H
19616.0	V	--	--			0.00	74.00	54.00		H
22068.0	V	--	--			0.00	74.00	54.00		H
24520.0	V	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
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 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
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Operation Mode: TX Mode
Fundamental Frequency: Ch Mid X Mode
Temperature : 25 °C
Humidity : 65 %

Test Date : Nov. 26, 2003
Test By: Willis
Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2452.0	H	84.01	--	-6.52	77.49	--	114.00	94.00	-16.51	F
4904.0	H	--	--			0.00	74.00	54.00		H
7356.0	H	--	--			0.00	74.00	54.00		H
9808.0	H	--	--			0.00	74.00	54.00		H
12260.0	H	--	--			0.00	74.00	54.00		H
14712.0	H	--	--			0.00	74.00	54.00		H
17164.0	H	--	--			0.00	74.00	54.00		H
19616.0	H	--	--			0.00	74.00	54.00		H
22068.0	H	--	--			0.00	74.00	54.00		H
24520.0	H	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Mid Y Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2452.0	V	84.01	--	-6.52	77.49	--	114.00	94.00	-16.51	F
4904.0	V	--	--			0.00	74.00	54.00		H
7360.0	V	53.77	--	-0.57	53.20	0.00	74.00	54.00	-0.80	H
9808.0	V	--	--			0.00	74.00	54.00		H
12260.0	V	--	--			0.00	74.00	54.00		H
14712.0	V	--	--			0.00	74.00	54.00		H
17164.0	V	--	--			0.00	74.00	54.00		H
19616.0	V	--	--			0.00	74.00	54.00		H
22068.0	V	--	--			0.00	74.00	54.00		H
24520.0	V	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
 The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch Mid Y Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2452.0	H	75.91	--	-6.52	69.39	--	114.00	94.00	-24.61	F
4904.0	H	--	--			0.00	74.00	54.00		H
7360.0	H	47.48	--	-0.57	46.91	0.00	74.00	54.00	-7.09	H
9808.0	H	--	--			0.00	74.00	54.00		H
12260.0	H	--	--			0.00	74.00	54.00		H
14712.0	H	--	--			0.00	74.00	54.00		H
17164.0	H	--	--			0.00	74.00	54.00		H
19616.0	H	--	--			0.00	74.00	54.00		H
22068.0	H	--	--			0.00	74.00	54.00		H
24520.0	H	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
 The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch High X Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Reading (dBuV)	Reading (dBuV)	Factor (dB)	Peak FS (dBuV/m)	AV FS (dBuV/m)	at 3m (dBuV/m)	at 3m (dBuV/m)	Margin (dB)	
2474.0	V	83.59	--	-6.52	77.07	--	114.00	94.00	-16.93	F
4948.0	V	--	--			0.00	74.00	54.00		H
7424.0	V	50.07	--	-0.49	49.58	0.00	74.00	54.00	-4.42	H
9896.0	V	--	--			0.00	74.00	54.00		H
12370.0	V	--	--			0.00	74.00	54.00		H
14844.0	V	--	--			0.00	74.00	54.00		H
17318.0	V	--	--			0.00	74.00	54.00		H
19792.0	V	--	--			0.00	74.00	54.00		H
22266.0	V	--	--			0.00	74.00	54.00		H
24740.0	V	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
 The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
Fundamental Frequency: Ch High X Mode
Temperature : 25 °C
Humidity : 65 %

Test Date : Nov. 26, 2003
Test By: Willis
Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2474.0	H	84.05	--	-6.52	77.53	--	114.00	94.00	-16.47	F
4948.0	H	--	--			0.00	74.00	54.00		H
7422.0	H	--	--			0.00	74.00	54.00		H
9896.0	H	--	--			0.00	74.00	54.00		H
12370.0	H	--	--			0.00	74.00	54.00		H
14844.0	H	--	--			0.00	74.00	54.00		H
17318.0	H	--	--			0.00	74.00	54.00		H
19792.0	H	--	--			0.00	74.00	54.00		H
22266.0	H	--	--			0.00	74.00	54.00		H
24740.0	H	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
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- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
 Fundamental Frequency: Ch High Y Mode
 Temperature : 25 °C
 Humidity : 65 %

Test Date : Nov. 26, 2003
 Test By: Willis
 Pol: Vertical

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2474.0	V	84.04	--	-6.52	77.52	--	114.00	94.00	-16.48	F
4948.0	V	--	--			0.00	74.00	54.00		H
7424.0	V	53.57	--	-0.49	53.08	0.00	74.00	54.00	-0.92	H
9896.0	V	--	--			0.00	74.00	54.00		H
12370.0	V	--	--			0.00	74.00	54.00		H
14844.0	V	--	--			0.00	74.00	54.00		H
17318.0	V	--	--			0.00	74.00	54.00		H
19792.0	V	--	--			0.00	74.00	54.00		H
22266.0	V	--	--			0.00	74.00	54.00		H
24740.0	V	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
 Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
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- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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Measurement Result

Operation Mode: TX Mode
Fundamental Frequency: Ch High Y Mode
Temperature : 25 °C
Humidity : 65 %

Test Date : Nov. 26, 2003
Test By: Willis
Pol: Horizontal

Freq. (MHz)	Ant.Pol. H/V	Peak Reading (dBuV)	AV Reading (dBuV)	Factor (dB)	Actual Peak FS (dBuV/m)	Actual AV FS (dBuV/m)	Peak Limit at 3m (dBuV/m)	AV Limit at 3m (dBuV/m)	Margin (dB)	
2474.0	H	76.22	--	-6.52	69.70	--	114.00	94.00	-24.30	F
4948.0	H	--	--			0.00	74.00	54.00		H
7422.0	H	--	--			0.00	74.00	54.00		H
9896.0	H	--	--			0.00	74.00	54.00		H
12370.0	H	--	--			0.00	74.00	54.00		H
14844.0	H	--	--			0.00	74.00	54.00		H
17318.0	H	--	--			0.00	74.00	54.00		H
19792.0	H	--	--			0.00	74.00	54.00		H
22266.0	H	--	--			0.00	74.00	54.00		H
24740.0	H	--	--			0.00	74.00	54.00		H

Remark :

- (1) Measuring frequencies from 30MHz to the 10th of fundamental frequency .
- (2) Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB
- (3) "F" denotes fundamental frequency; "H" denotes harmonics frequency. "S" denotes spurious frequency.
- (4) Datas of measurement within this frequency range shown " - " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The RBW,VBW of SPA for frequency
Below 1GHz was RBW=VBW=100KHz, above 1GHz was 1MHz for Peak Mode
The RBW= 1MHz, ,VBW= 10Hz of SPA for frequency above 1GHz for Average Mode.
- (6) X Mode means the EUT in stand-up position; Y,Z Mode means the EUT in lie-on position

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6. 26 dB Band Width Measurement

6.1 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set ETU normal operating mode.
3. Set SPA Center Frequency = fundamental frequency, RBW, VBW = 100KHz, Span = 1MHz.
4. Set SPA Max hold. Mark peak, -26dB.

6.2 Test SET-UP (Block Diagram of Configuration)

Same as 4.2 Radiated Emission Measurement.

6.3 Measurement Equipment Used:

Same as 4.2 Radiated Emission Measurement.

6.4 Measurement Results:

CH Low: 26dB Bandwidth = 654.7 kHz

CH Mid: 26dB Bandwidth = 670.6 kHz

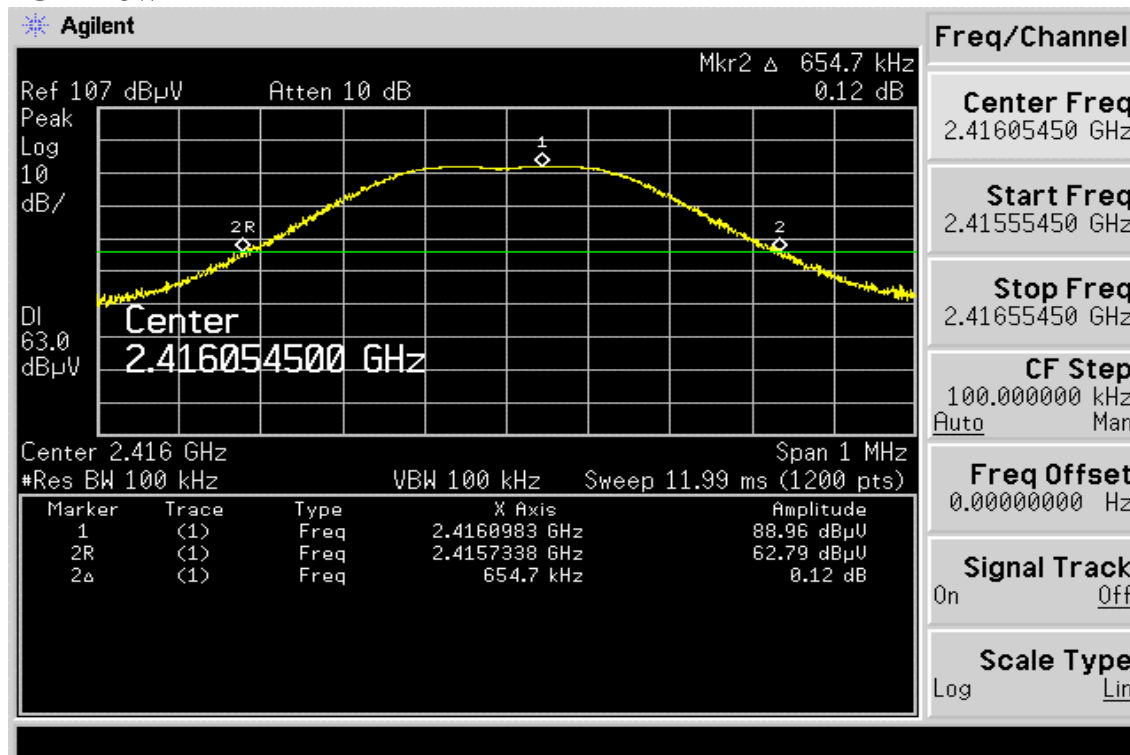
CH High: 26dB Bandwidth = 637.4 kHz

Refer to attached data chart.

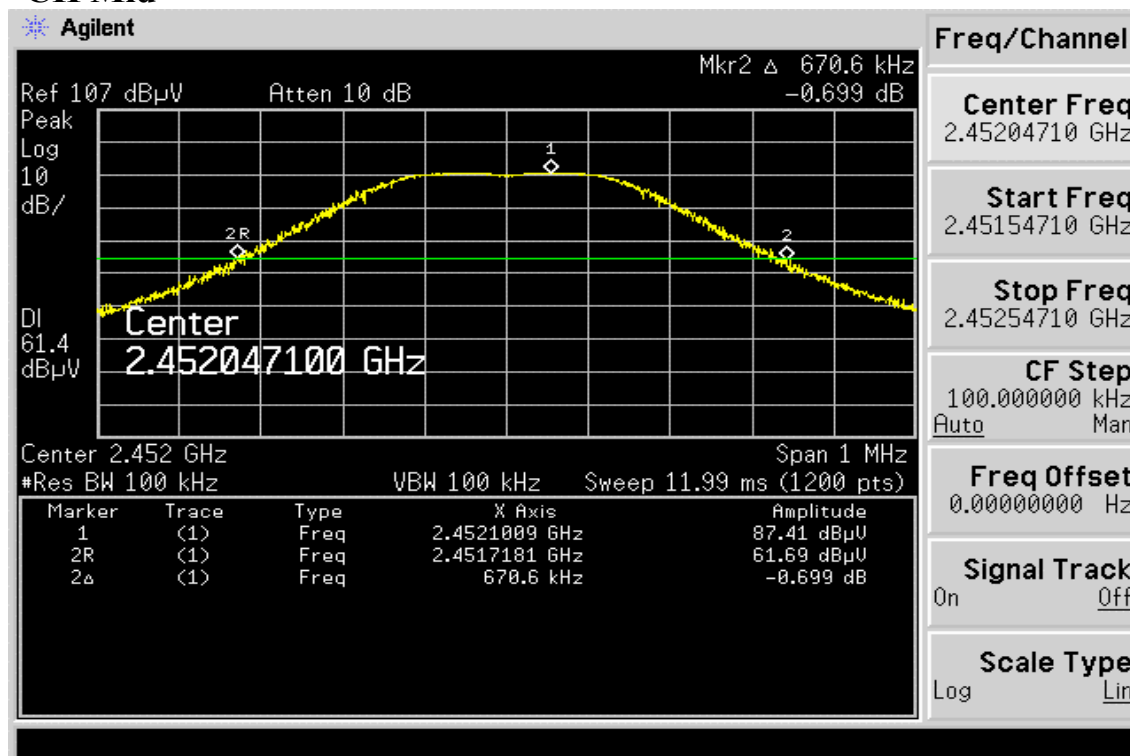
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26 dB Band Width test Plot

CH Low

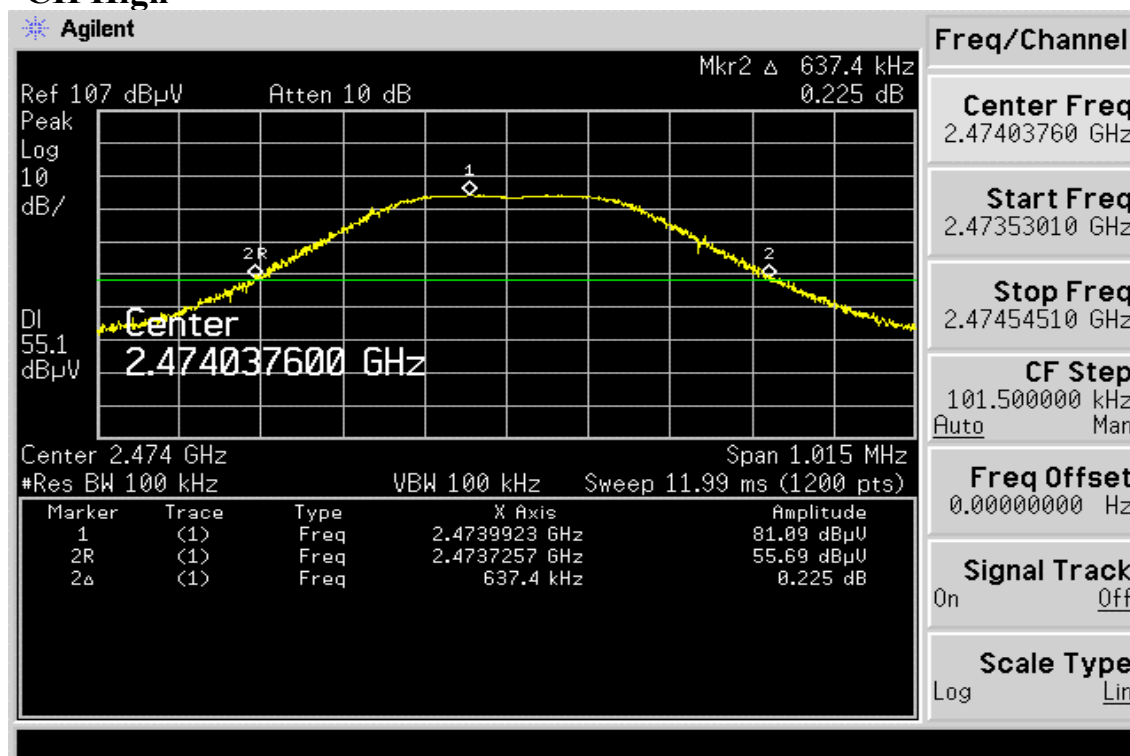


CH Mid



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CH High



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