# **FCC TEST REPORT**

for

85M HomePlug Wireless Ethernet MFP Server Router

Model No.: PR626g

of

Applicant: E-Top Network Technology Inc. Address: No.82, Gongye 2nd Rd., Tainan City 70095, Taiwan, R.O.C.

Tested and Prepared by



ETS Product Service (Taiwan) Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679

A2LA Accredited No.: 2300.01

**PTCRB** Accredited Type Certification Test House

FCC ID: U6APR626G

Report No.: W6M20707-8289-C-1

6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU TAIPEI 114, TAIWAN, R.O.C. TEL: 886-2-66068877 FAX: 886-2-66068879 E-mail: ets@ets-bzt.com.tw



FCC ID: U6APR626G

# TABLE OF CONTENTS

12
13 15 15 27ED BANDS 16 17 23



FCC ID: U6APR626G

#### 1 General Information

## 1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has Passed all the relevant tests conforms to a specification.

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.

The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

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## Specific Conditions:

Usage of the hereunder tested device in combination with other integrated or external antennas requires at least additional output power measurements, spurious emission measurements, conducted emission measurements (AC supply lines) and radio frequency exposure evaluations for each individual configuration performed, for certification by FCC.

The test sample is able to work according IEEE 802.11 b/g.

This report is related to FCC Part 15 C (DSSS and OFDM device).

#### **Tester:**

Aug 07, 2007 Jay Chaing

Date ETS-Lab. Name Signature

## Technical responsibility for area of testing:

Aug 07, 2007 Steven Chuang

Date ETS Name Signature



FCC ID: U6APR626G

## 1.2 Testing laboratory

#### 1.2.1 Location

**OATS** 

No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township, Taipei County 207, Taiwan (R.O.C.)

Company

ETS Product Service (Taiwan) Co., Ltd. 6F, NO. 58, LANE 188, RUEY-KUANG RD. NEIHU, TAIPEI 114, TAIWAN R.O.C.

Tel : 886-2-66068877 Fax : 886-2-66068879

#### 1.2.2 Details of accreditation status

**Accredited testing laboratory** 

A2LA accredited number: 2300.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679

PTCRB Accredited Type Certification Test House

## 1.3 Details of approval holder

Name : E-Top Network Technology Inc.

Street : No.82, Gongye 2nd Rd.,
Town : Tainan City 70095,
Country : Taiwan R.O.C.
Telephone :+886-6-384-0077

Fax : +886-6-384-1808



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

## 1.4 Application details

Date of receipt of test item : July 09, 2007

Date of test : from July 11, 2007 to Aug 06, 2007

#### 1.5 General information of Test item

Type of test item : 85M HomePlug Wireless Ethernet MFP Server Router

Model Number : PR626g

Brand Name : ETOP, Amigo

Multi-listing model number

/ Band Name : CHR-804(A) / CNet

: PR-1508 / Sapido

Hardware : V10 Software : QA2561 Photos : See Appendix

#### Technical data

Frequency band : 2.4 GHz - 2.4835 GHz

Frequency (ch 1 or A) : 2.412 GHz Frequency (ch 6 or B) : 2.437 GHZ Frequency (ch 11 or C) : 2.462 GHz

Number of Channels : 11 Operation modes : duplex

Modulation Type : DSSS / OFDM

Fixed point-to-point operation:  $\square$  Yes  $/ \square$  No Type of Antenna : PCB antenna

Antenna gain : 2 dBi

Power supply : 120 VAC, 60Hz

Emission designator : DSSS: 16M5G1D

OFDM: 16M6W7D



FCC ID: U6APR626G

Host device: none Classification :

Fixed Device	$\boxtimes$
Mobile Device (Human Body distance > 20cm)	
Portable Device (Human Body distance < 20cm)	

## <u>Transmitter</u> <u>Unom</u>

Mode A (DSSS)

Power (ch 1 or A) : Conducted: 21.35 dBm Power (ch 6 or B) : Conducted: 21.17 dBm Power (ch 11 or C) : Conducted: 20.32 dBm

Mode B (OFDM)

Power ( ch 1 or A) : Conducted: 21.16 dBm Power ( ch 6 or B) : Conducted: 21.03 dBm Power ( ch 11 or C) : Conducted: 20.24 dBm

#### **Manufacturer:**

(if applicable)

Name : ./.
Street : ./.
Town : ./.
Country : ./.

Additional information: The sample is using WLAN technology according IEEE 802.11 b/g.

There are two testing modes in the test report.

Mode A: IEEE 802.11b Mode B: IEEE 802.11g

The scheme for frequency generation, spectrum spreading,

receiver parameters, synchronization procedure, and other parameters

are determined by the mentioned standard above.

#### 1.6 Test standards

Technical standard: FCC RULES PART 15 SUBPART B / SUBPART C § 15.247 (2007-05)

ETS Product Service (Taiwan) Co., Ltd.



Summary of test results

FCC ID: U6APR626G

# 2 Technical test

No deviations from the technical specification(s) were ascertained in the course of the tests performed.

or

2.1

The deviations as specified in 2.5 were ascertained in the course of the tests  $\Box$  performed.

#### 2.2 Test environment

Temperature :23 °C

Relative humidity content : 20 ... 75 %

Air pressure :86 ... 103 kPa

Power supply : 120 VAC, 60Hz

Extreme conditions parameters : --



FCC ID: U6APR626G

# 2.3 Test Equipment List

No.	Test equipment	Туре	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2006/10/16	2007/10/15
ETSTW-CE 002	PREREULATOR MODE DC POWER SUPPLY	None	None		Functi	on Test
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Functi	on Test
ETSTW-CE 004	ZWEILEITER-V- NETZNACHBILDUNG TWO- LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2006/10/16	2007/10/15
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	2006/10/16	2007/10/15
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	In House	Certificate
ETSTW-CE 008	ABSORBING CLAMP	MDS 21	3469	Schwarzbeck	2005/10/24	2007/10/23
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2006/8/17	2007/8/16
ETSTW-CE 013	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T4-02	20242	FCC	2005/12/8	2007/12/7
ETSTW-CE 014	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T2-02	20241	FCC	2005/12/7	2007/12/6
ETSTW-CE 015	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T8-02	20307	FCC	2006/11/7	2008/11/6
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2006/11/21	2007/11/20
ETSTW-RE 002	Function Generator	33220A	MY43004982	Agilent	2005/10/14	2007/10/13
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2006/10/20	2007/10/19
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2006/10/30	2007/10/29
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2006/10/12	2007/10/11
ETSTW-RE 010	PROGRAMMABLE LINEAR POWER SUPPLY	LPS-305	30503070181	МОТЕСН	Functi	on Test
ETSTW-RE 011	PROGRAMMABLE LINEAR POWER SUPPLY	LPS-305	30503070165	МОТЕСН	Functi	on Test
ETSTW-RE 017	Log-Periodic Antenna	HL025	352886/001	R&S	2006/5/4	2008/5/3
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2004/11/8	2007/11/7
ETSTW-RE 020	MICROWAVE HORN ANTENNA	AT4002A	306915	AR	Functi	on Test
ETSTW-RE 021	SWEEP GENERATOR	SWM05	835130/010	R&S	2006/10/11	2007/10/10
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	EMCO	In House	Certificate
ETSTW-RE 028	Log-Periodic DipoleArray Antenna	3148	34429	EMCO	2006/5/26	2008/5/25
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	2006/5/26	2008/5/25
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	EMCO	2006/5/3	2008/5/2
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	2006/10/11	2007/10/10
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	2005/10/17	2007/10/16
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2007/1/11	2009/1/10
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2006/5/8	2008/5/7



Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G

ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2006/5/29	2008/5/28
ETSTW-RE 048	Triple Loop Antenna	HXYZ 9170	HXYZ 9170-134	Schwarzbeck	2005/3/22	2008/3/21
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2007/5/2	2009/5/1
ETSTW-RE 055	SPECTRUM ANALYZER	FSU-26	200074	R&S	2007/7/16	2008/7/15
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Functi	on Test
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2007/7/2	2009/7/1



FCC ID: U6APR626G

#### 2.4 General Test Procedure

**POWER LINE CONDUCTED INTERFERENCE:** The procedure used was ANSI STANDARD C63.4-2003 using a 50µH LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

**RADIATION INTERFERENCE:** The test procedure used was according to ANSI STANDARD C63.4-2003 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna.

**FORMULA OF CONVERSION FACTORS:** The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of  $dB\mu V$ ) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz) METER READING + ACF + CABLE LOSS(to the receiver) = FS

33  $20 dB\mu V + 10.36 dB + 6 dB = 36.36 dB\mu V/m @3m$ 

The UUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.4-2000 Section 13.1.2. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1)-(a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this Section, whichever is the higher frequency range of investigation.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

Measurements were made by ETS Product Service (Taiwan) Co., Ltd. at the registered open field test site located at No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township, Taipei County 207, Taiwan (R.O.C.) The Registration Number: 930600.



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows: Average = Peak + Duty Factor Duty Factor = 20 log (dwell time/T)

T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

Modified Limits for peak according to 15.35 (b) = Max Permitted average Limits + 20dB



FCC ID: U6APR626G

# 3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)(3)	×	×	
Equivalent radiated Power	15.247(b)(3)	×	×	
Spurious Emissions radiated – Transmitter operating	15.247(c)	×	×	
Band Edge Measurement	15.247(c)	×	×	
Minimum 6 dB Bandwidth	15.247(a)(2)	×	×	
Peak Power Spectral Density	15.247(d)	×	×	
Power Line Conducted Emission	15.207	×	×	

The follows is intended to leave blank.



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

# 3.1 Peak Output Power (transmitter)

FCC Rule: 15.247(b)(3)

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant.

The power was measured with modulation (declared by the applicant).

#### Mode A

Test condition		(	Conducted Power	r
		Channel A	Channel B	Channel C
T. 222C V 120 V		[dBm]	[dBm]	[dBm]
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	21.35	21.17	20.32

#### Mode B

Test condition		(	Conducted Power	r
		Channel A	Channel B	Channel C
T. 220G V. 120 V.		[dBm]	[dBm]	[dBm]
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{nom} = 120 \text{ V}$	21.16	21.03	20.24

#### Mode A

$ \begin{array}{c} \text{Test condition} \\ T_{\text{nom}} = 23 ^{\circ}\text{C}, \ V_{\text{nom}} = \ 120 \ \ V \end{array} $	Signal Field strength TX highest power mode dB $\mu$ V/m
Frequency [MHz]	

## Mode B

Test condition $T_{nom}=23^{\circ}C, \ V_{nom}=120 \ V$	Signal Field strength TX highest power mode dB $\mu$ V/m
Frequency [MHz]	



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

Limits:

Frequency	Power
MHz	dBm
902 - 928	30
2400 – 2483.5	30
5725 – 5850	30

In case of employing transmitter antennas having antenna gain > 6 dBi and using fixed point-to point operation consider \$15.247 (b)(4)

Test equipment used: ETSTW-RE 003 ETSTW-RE 004 ETSTW-RE 055

Explanation: The diagrams for the peak output power measurements are included in Appendix.



FCC ID: U6APR626G

## 3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain

EIRP = 21.35 dBm + 2 dBi

 $= 23.35 \, \mathrm{dBm}$ 

Limit: EIRP = +36 dBm for Antenna gain < 6dBi

Test equipment used: ETSTW-RE 003 ETSTW-RE 004 ETSTW-RE 017 ETSTW-RE 021

ETSTW-RE 028 ETSTW-RE 030 ETSTW-RE 043 ETSTW-RE 044

## 3.3 RF Exposure Compliance Requirements

FCC OET Bulletin 65 Edition 97.01 determines the equations for predicting RF fields and applicable limits.

The prediction for power density in the far-field but will over-predict power density in the near field, where it could be used for walking a "worst case" or conservative prediction.

S – Power Density

P – Output power ERP

R – Distance

D – Cable Loss

AG – Antenna Gain G = AG-D

Item	Unit	Value	Remarks
P	mW	136.4583	Peak value
D	dB		
AG	dBi	2	
G		1.6	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.04343	Calculated value

#### Limits:

Limit for General Population / Uncontrolled Exposure		
Frequency (MHz)	Power Density (mW/cm <sup>2</sup> )	
1500 – 100.000	1,0	



FCC ID: U6APR626G

#### 3.4 Transmitter Radiated Emissions in Restricted Bands

FCC Rules: 15.247 (c), 15.205, 15.209, 15.35

Radiated emission measurements were performed from 30 MHz to 26500 MHz.

For radiated emission tests, the analyzer setting was as followings:

Frequency  $\leq$  1 GHz, RBW:100 kHz, VBW: 100 kHz (Peak measurements) Frequency > 1 GHz, RBW: 1 MHz, VBW: 1 MHz (Peak measurements) Frequency > 1 GHz, RBW:1 MHz, VBW: 10 Hz (Average measurements)

Limits.

For frequencies below 1GHz:

Frequency of Emission	Field strength	Field Strength
(MHz)	(microvolts/meter)	(dB microvolts/meter)
30 - 88	100	40.0
88 - 216	150	43.5
216 - 960	200	46.0
Above	500	54.0

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of Digit Transmission Systems:

"If the emission is pulsed, modify the unit for continuous operation, use the setting shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation."

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty cycle correction = 20 log (dwell time/ 100ms)

Note: No duty cycle correction was added to the reading of this EUT.

Explanation: See attached diagrams in Appendix.



FCC ID: U6APR626G

## 3.5 Spurious Emissions (tx)

Spurious emission was measured with modulation (declared by manufacturer).

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

FCC Rule: 15.247(c), 15.35

For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement. Limits:

Max. reading – 20 dB

Guidance on Measurement of Digit Transmission Systems:

"If the emission is pulsed, modify the unit for continuous operation, use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation."

The correction factor, based on the total channel dwell time in a 100 ms period, may be mathematically applied to a measurement made with an average detector, to further reduce the value.

Duty Cycle correction = 20 log (dwell time/100ms)

For frequencies above 1GHz (Peak measurements).

Modified Limit for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

For frequencies above 1GHz (Average measurements). Max. reading – 20dB

Note: No duty cycle correction was added to the reading of EUT.

Test equipment used: ETSTW-RE 003 ETSTW-RE 004 ETSTW-RE 017 ETSTW-RE 028 ETSTW-RE 029 ETSTW-RE 030 ETSTW-RE 042 ETSTW-RE 043

ETSTW-RE 044



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

SAMPLE CALCULATION OF LIMIT. All results will be updated by an automatic measuring system in accordance with point 2.3.

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits. In the Table being listed the critical peak and average value and exhibit the compliance with the above calculated Limits.

If in the column's correction factor states a value then the max. Field strength in the same row is corrected by a value gained from the "Duty-Cycle Correction Factor".

# Summary table with radiated data of the test plots Mode A

Model: Mode: Polarization:	802.1 Horizontal	PR626g 1b ch1 Tx N	lode	Date: Temperature: Humidity:	2007/7 26 60	°C	Engineer:	De	erek
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.894	15.79	peak	15.12	30.91	43.5	-12.59	245	303	
275.651	12.17	peak	14.67	26.84	46	-19.16	160	315	
611.423	4.60 peak		22.23	26.83	46	-19.17	260	145	
995,792	3.18	peak	27.37	30.55	54	-23.45	100	108	

Polarization: Vertical Table Ant. Frequency Reading Factor Result Limit Margin Detector Degree High Note (MHz) (dBuV) (dB) (dBuV/m) (dBuV/m) (dB) (Deg.) (m) -7.3 109 166.894 21.08 15.12 36.2 43.5 300 peak 13.67 -18.83 126 243.727 13.50 27.17 46 250 peak 10.67 -17.52 401.002 peak 17.81 28.48 46 105 356 963.527 4.76 27.24 32 54 -22 210 332 peak

Polarization:	Horizontal										
Frequency	Readin (dBuV		Factor (dB)		t @3m ıV/m)		@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak A	ve.	Corr.	Peak	Äve.	Peak	Äve.	(dB)	(Deg.)	(m)	
7591.182	41.36		2.70	44.06		74	54	-29.94	200	134	
11855.21	35.83		11.46	41.29		74	54	-32.71	145	126	

Polarization:	Vertical										
Frequency	Readin (dBuV		Factor (dB)		t @3m ıV/m)	-	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak <i>F</i>	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7527.054	41.5		2.70	44.2		74	54	-29.8	190	110	
9646.794	40.51		4.96	39.47		74	200	-34.53	125	125	



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

Model: PR626g Date: 2007/7/17

Mode: 802.11b ch6 Tx Mode Temperature: 26 °C Engineer: Derek

Polarization: Horizontal Humidity: 60 %

i dianzation.	Horizontai			riaimaity.	00	70			
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.894	16.17	peak	15.12	31.29	43.5	-12.21	245	305	
278.898	10.83	peak	14.80	25.63	46	-20.37	155	313	
611.423	1.95	peak	22.23	24.18	46	-21.82	260	140	
981.764	3.10	peak	27.28	30.38	54	-23.62	105	107	

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
167.435	21.45	peak	15.10	36.55	200	-163.5	300	110	
275.110	11.55	peak	14.65	26.2	46	-19.8	245	125	
401.002	9.62	peak	17.81	27.43	46	-18.57	105	350	
977.555	5.88	peak	27.25	33.13	54	-20.87	210	330	

Polarization: Horizontal

- 4											
	Frequency	Reading (dBuV)	Factor (dB)		t @3m ıV/m)	-	@3m V/m)	Margin	Table Degree	Ant. High	Note
	(MHz)	Peak Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
	7543.086	40.93	 2.70	43.63		74	54	-30.37	205	130	·
	11512.525	35.73	 11.11	40.84		74	54	-33.16	150	125	

Polarization: Vertical

Frequency	Rea (dB		Factor (dB)		t @3m ıV/m)	Limit (dBu	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7535.07	40.96		2.70	43.66		74	54	-30.34	190	115	
9741.984	39.14		5.32	38.46		74	200	-35.54	125	125	

Model: PR626g Date: 2007/7/17

Mode: 802.11b ch11 Tx Mode Temperature: 26 °C Engineer: Derek

Polarization: Horizontal Humidity: 60 %

 olarization.	TIONZONIA			riaimaity.	00	7.0			
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.353	15.58	peak	15.15	30.73	43.5	-12.77	245	305	
282.685	10.32	peak	14.89	25.21	46	-20.79	160	315	
608.617	3.75	peak	22.22	25.97	46	-20.03	255	140	
988.778	3.10	peak	27.32	30.42	54	-23.58	105	110	



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.353	22.26	peak	15.15	37.41	43.5	-6.09	295	106	
282.685	13.07	peak	14.89	27.96	46	-18.04	250	125	
611.423	4.12	peak	22.23	26.35	46	-19.65	110	351	
1000.000	5.85	peak	27.40	33.25	54	-20.75	205	330	

Polarization: Horizontal

Frequency	Rea (dB	U	Factor (dB)		t @3m ıV/m)	Limit (dBu	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7583.166	41.01		2.70	43.71		74	54	-30.29	195	130	
11997.996	34.51		11.60	40.11		74	54	-33.89	140	123	

Polarization: Vertical

Frequency	Rea (dB	ding uV)	Factor (dB)		: @3m V/m)	Limit (dBu)	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7535.07	40.95		2.70	43.65		74	54	-30.35	185	115	
11274.549	35.49		10.38	39.87		74	54	-34.13	120	120	

Mode B

Model: PR626g Date: 2007/7/17

Mode: 802.11g ch1 Tx Mode Temperature: 26 °C Engineer: Derek

Polarization: Horizontal Humidity: 60 %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
167.435	15.73	peak	15.10	30.83	200	-169.2	250	300	
276.733	10.74	peak	14.72	25.46	46	-20.54	160	310	
332.264	8.62	peak	16.16	24.78	46	-21.22	265	140	
998.597	4.32	peak	27.39	31.71	54	-22.29	105	113	

Polarization: Vertical

i dianzation.	Vertical								
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.894	21.56	peak	15.12	36.68	43.5	-6.82	300	111	
279.980	10.87	peak	14.84	25.71	46	-20.29	250	125	
610.020	3.92	peak	22.22	26.14	46	-19.86	105	350	
983.166	5.41	peak	27.29	32.7	54	-21.3	205	330	



Registration number: W6M20707-8289-C-1

FCC ID: U6APR626G

Polarization: Horizontal

Frequency	Rea (dB	U	Factor (dB)		t @3m ıV/m)	-	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7406.814	41.27		2.48	43.75		74	54	-30.25	205	132	
11046.092	36.84		9.65	40.49		74	54	-33.51	135	124	

Polarization: Vertical

Frequency		ding uV)	Factor (dB)		t @3m ıV/m)	Limit (dBu	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7494.99	41.39		2.69	44.08		74	54	-29.92	195	115	
11769.539	35.07		11.37	40.44		74	54	-33.56	125	130	

Model: PR626g Date: 2007/7/17

Mode: 802.11g ch6 Tx Mode Temperature: 26 °C Engineer: Derek

Polarization: Horizontal Humidity: 60 %

Polarization:	Horizontai			Humidity:	60	%			
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.353	16.49	peak	15.15	31.64	43.5	-11.86	250	305	
275.651	11.23	peak	14.67	25.9	46	-20.1	160	310	
608.617	3.26	peak	22.22	25.48	46	-20.52	255	140	
998.597	2.29	peak	27.39	29.68	54	-24.32	100	108	

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.894	22.05	peak	15.12	37.17	43.5	-6.33	295	112	
279.980	11.40	peak	14.84	26.24	46	-19.76	255	126	
608.617	4.86	peak	22.22	27.08	46	-18.92	110	347	
977.555	5.59	peak	27.25	32.84	54	-21.16	215	333	

Polarization: Horizontal

Frequency	Rea (dB		Factor (dB)		t @3m ıV/m)	Limit (dBu	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7543.086	40.61		2.70	43.31		74	54	-30.69	200	130	
11541.082	35.77		11.14	40.91		74	54	-33.09	150	125	

Polarization: Vertical

Frequency	Rea (dB	•	Factor (dB)		t @3m ıV/m)	Limit (dBu)	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7494.99	40.73		2.69	43.42		74	54	-30.58	185	113	
11274.549	36.03		10.38	40.41		74	54	-33.59	125	126	



FCC ID: U6APR626G

Model: PR626g Date: 2007/7/17

Mode: 802.11g ch11 Tx Mode Temperature: 26 °C Engineer: Derek

Polarization: Horizontal Humidity: 60 % Table Ant. Frequency Reading Factor Result Limit Margin Detector Degree High Note (MHz) (dBuV) (dB) (dBuV/m) (dBuV/m) (dB) (Deg.) (m) 16.49 15.10 31.59 200 -168.4 240 300 167.435 peak 278.898 11.60 14.80 26.4 46 -19.6 155 310 peak 612.826 3.55 peak 22.24 25.79 46 -20.21 255 140 977.555 3.68 27.25 30.93 54 -23.07 100 108 peak

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (m)	Note
166.894	21.01	peak	15.12	36.13	43.5	-7.37	295	114	
282.685	11.73	peak	14.89	26.62	46	-19.38	255	126	
608.617	4.00	peak	22.22	26.22	46	-19.78	100	350	
977.555	5.94	peak	27.25	33.19	54	-20.81	200	330	

Polarization: Horizontal

Frequency	Rea (dB	U	Factor (dB)		t @3m ıV/m)	Limit (dBu	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7535.07	40.9		2.70	43.6		74	54	-30.4	200	130	
11845.691	34.42		11.45	39.87		74	54	-34.13	145	126	

Polarization: Vertical

Frequency	Rea (dB	ding uV)	Factor (dB)		t @3m ıV/m)	Limit (dBu	@3m V/m)	Margin	Table Degree	Ant. High	Note
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(m)	
7535.07	40.78		2.70	43.48		74	54	-30.52	185	110	
11760.02	34.82		11.36	40.18		74	54	-33.82	125	120	

**Note** 1. Correction Factor = Antenna factor + Cable loss - Preamplifier

- 2. The formula of measured value as: Test Result = Reading + Correction Factor
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.

**TEST RESULT** (**Transmitter**): The unit DOES meet the FCC requirements.

Test equipment used: ETSTW-RE003 ETSTW-RE 004 ETSTW-RE 017 ETSTW-RE 028

ETSTW-RE029 ETSTW-RE 030 ETSTW-RE 042 ETSTW-RE 043

ETSTW-RE 044



FCC ID: U6APR626G

## 3.6 Radiated Emission on the band edge

According to FCC rules part 15 subpart C §15.247(c) in any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required.

In addition radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also with the radiated emission limits.

#### Mode A

Test co	nditions	Attenuation at or	r outside band-edges
		Lower Band-edge	Upper Band-edge
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	38.13 dB	51.71 dB

#### Mode B

Test conditions		Attenuation at or outside band-edges				
		Lower Band-edge	Upper Band-edge			
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	36.24 dB	50.16 dB			

#### Limit:

Frequency Range / MHz	Limit		
902 –928			
2400 – 2483.5	- 20 dB		
5725 - 5850			

Test equipment used: ETSTW-RE 003 ETSTW-RE 004 ETSTW-RE 017 ETSTW-RE 028 ETSTW-RE 030 ETSTW-RE 043 ETSTW-RE 044

Explanation: Please see attached diagram as appendix.



FCC ID: U6APR626G

#### 3.7 Minimum 6 dB Bandwidth

The analyzer ResBW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK reading was taken, two markers were set 6 dB below the maximum level on the right and the left side of the emission.

The 6 dB bandwidth is the frequency difference between the two markers.

#### Mode A

Test conditions		6 dB Bandwidth			
1 CSt CO	nations	Channel 1	Channel 6	Channel 11	
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	10.512820513 MHz	10.512820513 MHz	10.512820513 MHz	

#### Mode B

Test conditions		nditions	6 dB Bandwidth				
	1031 001	aditions	Channel 1 Channel 6		Channel 11		
	$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	16.570512821 MHz	16.570512821 MHz	16.570512821 MHz		

#### **Limits:**

Frequency Range MHz	Limits		
902-928	min 500 kHz		
2400-2483.5	min 500 kHz		
5725-5850	min 500 kHz		

Test equipment used: ETSTW-RE 003 ETSTW-RE 004 ETSTW-RE 055

Explanation: See attached diagrams in Appendix.



FCC ID: U6APR626G

## 3.8 Peak Power Spectral Density

Peak Power Spectral density is a measured at low, middle and high channel.

The peak output power is measured with a measurement bandwidth of 10 MHz and displayed on diagram together with Peak Power Spectral Density result which was measured with a bandwidth of 3 kHz, appreciate frequency span and sweep time.

#### Mode A

		Peak Power Spectral Density (3 kHz)					
Test co	nditions	Channel 1	Channel 11				
		[dBm]	[dBm] [dBm]				
T <sub>nom</sub> = 23°C	$T_{nom}$ = 23°C $V_{nom}$ = 120 V		-11.00 -11.14				

#### Mode B

		Peak Power Spectral Density (3 kHz)				
Test co	nditions	Channel 1	Channel 6	Channel 11		
		[dBm]		[dBm]		
$T_{nom}= 23^{\circ}C$ $V_{nom}= 120$ V		C $V_{\text{nom}} = 120 \text{ V}$ -12.50		-13.57		

#### **Limits:**

Frequency Range MHz	dBm
902-928	8
2400-2483,5	8
5725-5850	8

Test equipment used: ETSTW-RE 003 ETSTW-RE 004 ETSTW-RE 055

Explanation: See attached diagrams in Appendix.



FCC ID: U6APR626G

## 3.9 Power Line Conducted Emission

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the table bellows with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transact first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

Fraguanay	Level (dBµV)				
Frequency	quasi-peak	average			
150 kHz	lower limit line	Lower limit line			

2007/7/27

Model:	PR6	26g	Date:	2007/7/27					
Mode:	Home	eplug	Tempertu	ıre:	26 °C			Engineer:	
Polarization:	N		Humidity:		60	%			
Frequency	Reading (dBuV)		, I		Limit (dBuV)		Margin	Note	
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)	
0.6064	35.58	18.3	10.10	45.68	28.4	56	46	-10.32	
0.7716	24.38	6.2	10.10	34.48	16.3	56	46	-21.52	
0.9223	35.29	11.61	10.10	45.39	21.71	56	46	-10.61	
1.0381	34.6	12.89	10.10	44.7	22.99	56	46	-11.3	
1.3526	18.76	6.16	10.10	28.86	16.26	56	46	-27.14	
1.6569	22.59	9.9	10.10	32.69	20	56	46	-23.31	

Polarization: L1									
Frequency	Reading (dBuV)		. ,		Limit (dBuV)		Margin	Note	
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)	
0.6546	31.52	12.47	10.10	41.62	22.57	56	46	-14.38	
0.7495	29.97	11.28	10.10	40.07	21.38	56	46	-15.93	
0.8509	31.9	9.69	10.10	42	19.79	56	46	-14	
1.0615	40.78	16.22	10.10	50.88	26.32	56	46	-5.12	
1.3891	26.05	5.52	10.10	36.15	15.62	56	46	-19.85	
1.5971	17.61	4.19	10.10	27.71	14.29	56	46	-28.29	



FCC ID: U6APR626G

Model: Mode: Polarization:	Wireless	526g s Router	Date: Temperto Humidity:				Engineer:		
Frequency (MHz)		ding uV) Ave.	Factor (dB) Corr.		esult BuV) Ave.		mit uV) Ave.	Margin (dB)	Note
0.6145	34.58	19.3	10.10	44.68	29.4	56	46	-11.32	
0.791	24.98	9.66	10.10	35.08	19.76	56	46	-20.92	
0.9789	35.9	12.61	10.10	46	22.71	56	46	-10	

43.7

29.86

32.36

23.99

18.74

20.33

56

56

46

46

-12.3

-26.14

-23.64

10.10

10.10

10.10

Polarization: 11

1.0981

1.3525

1.6781

33.6

19.76

22.26

13.89

8.64

10.23

Foldrization. LT									
Frequency	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)		Margin	Note
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)	
0.6515	30.52	11.47	10.10	40.62	21.57	56	46	-15.38	
0.7501	29.17	11.76	10.10	39.27	21.86	56	46	-16.73	
0.8516	31.09	10.11	10.10	41.19	20.21	56	46	-14.81	
1.1615	40.28	16.92	10.10	50.38	27.02	56	46	-5.62	
1.3902	26.15	7.99	10.10	36.25	18.09	56	46	-19.75	
1.6226	18.61	8.26	10.10	28.71	18.36	56	46	-27.29	

Note: 1. The formula of measured value as: Test Result = Reading + Correction Factor

- 2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss
- 3. Detector function in the form: PK = Peak, QP = Quasi Peak, AVG = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.

#### **Limits:**

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

Test equipment used: ETSTW-CE 001 ETSTW-CE 003 ETSTW-CE 004 ETSTW-CE 006 ETSTW-CE 011



FCC ID: U6APR626G

# **Appendix**

# **Measurement diagrams**

- 1. Peak Output Power
- 2. Spurious Emissions

(The measurement diagrams plots attached below are preliminary wideband scan with a peak detector for reference only. The final test results are listed on section 3.5)

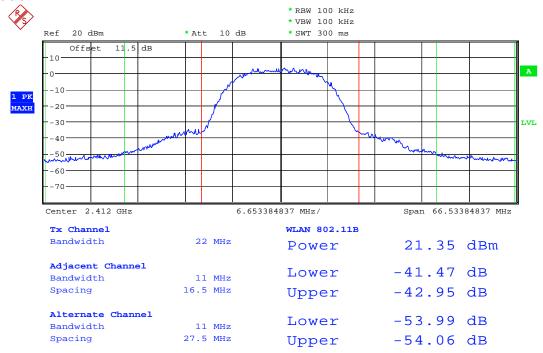
- 3. Band Edge Measurement
- 4. Minimum 6dB Bandwidth
- 5. Peak Power Spectral Density
- 6. Power Line Conducted Emission

(The measurement diagrams plots attached below are preliminary wideband scan with a peak and average detector for reference only. The final test results are listed on section 3.9)



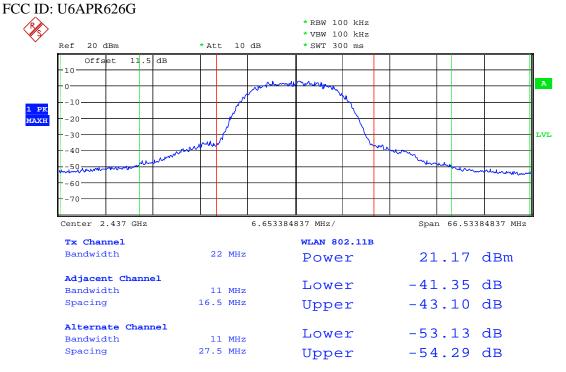
# FCC ID: U6APR626G Peak Output Power

# Mode A



MAX OUTPUT POWER 802.11b CH1 Date: 20.JUL.2007 15:39:33

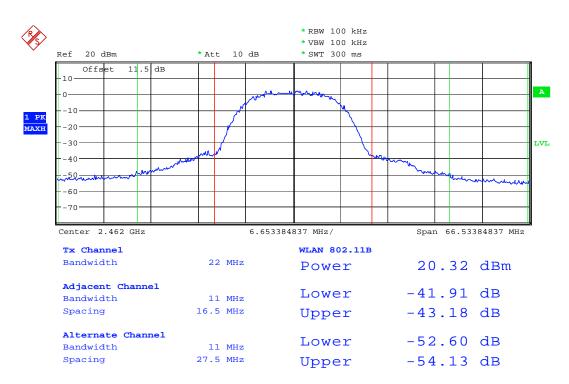




MAX OUTPUT POWER 802.11b CH6 Date: 20.JUL.2007 15:40:04



FCC ID: U6APR626G

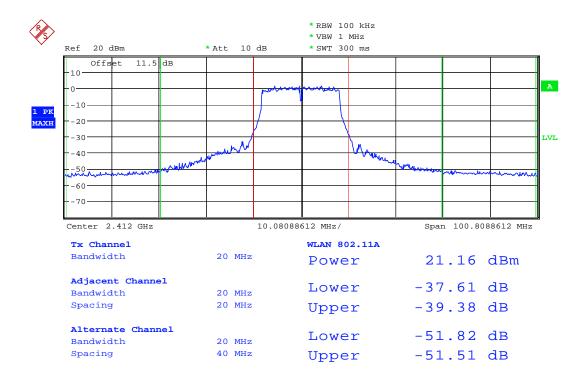


MAX OUTPUT POWER 802.11b CH11 Date: 20.JUL.2007 15:40:28



FCC ID: U6APR626G

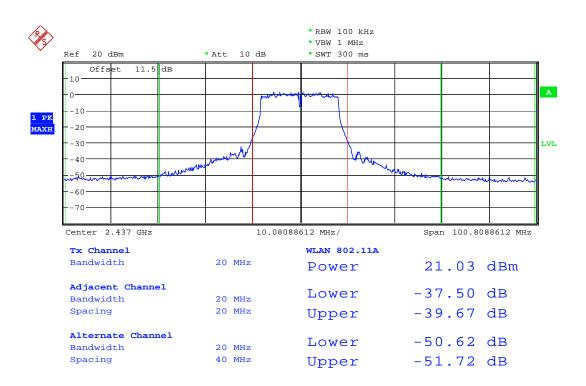
## Mode B



MAX OUTPUT POWER 802.11g CH1 Date: 20.JUL.2007 15:43:22



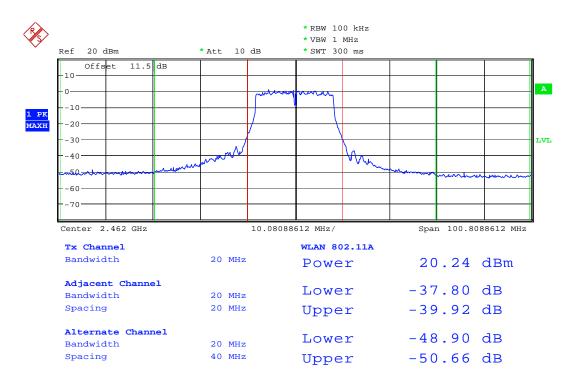
FCC ID: U6APR626G



MAX OUTPUT POWER 802.11g CH6 Date: 20.JUL.2007 15:43:02



FCC ID: U6APR626G



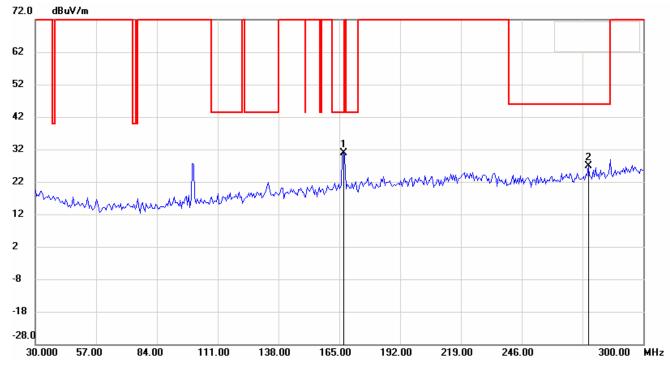
MAX OUTPUT POWER 802.11g CH11 Date: 20.JUL.2007 15:42:32

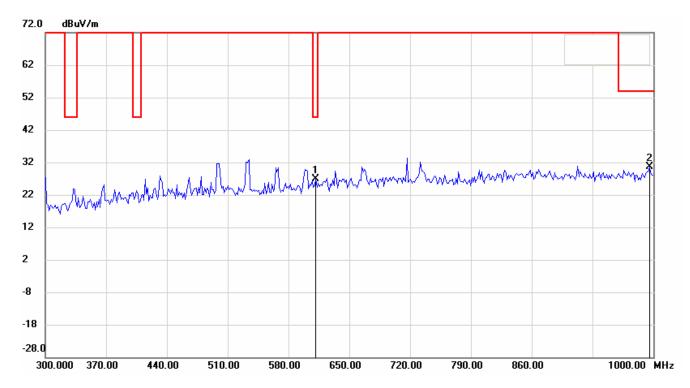


FCC ID: U6APR626G Spurious Emissions

# Mode A CH 1

## Antenna Polarization H

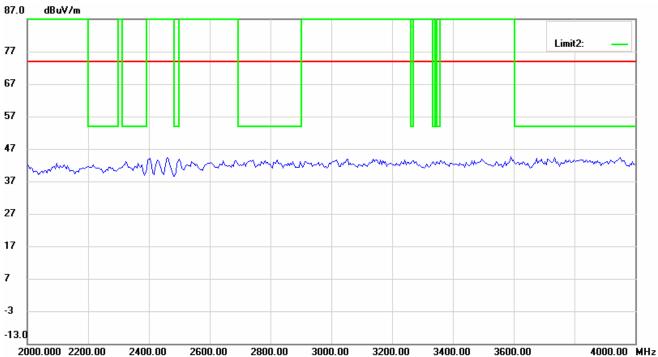




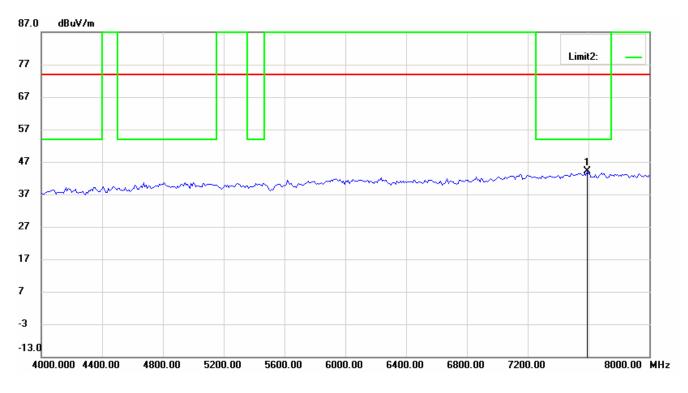


FCC ID: U6APR626G



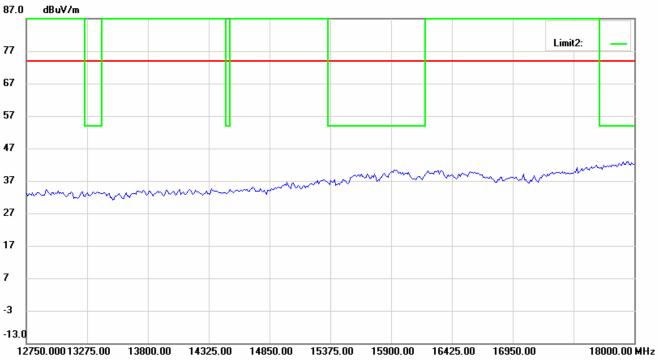


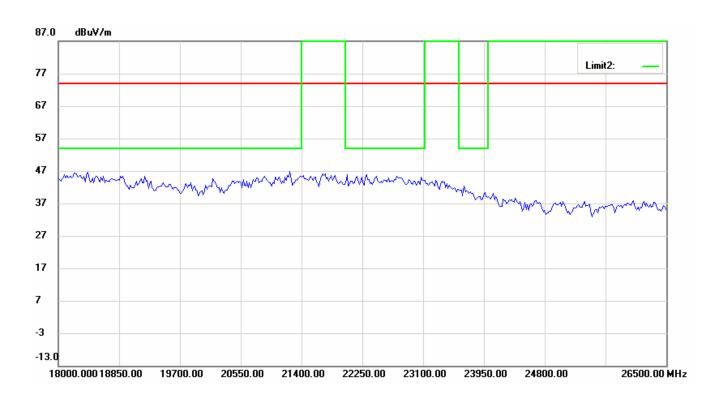








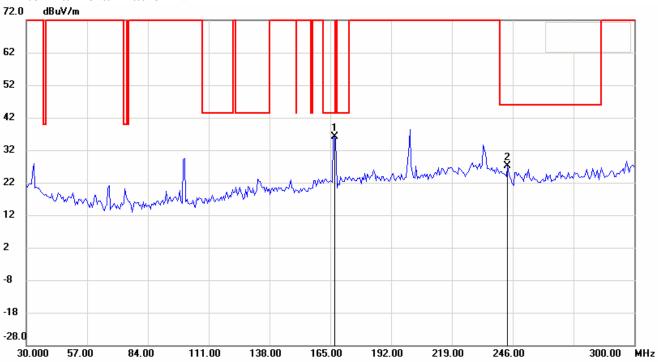


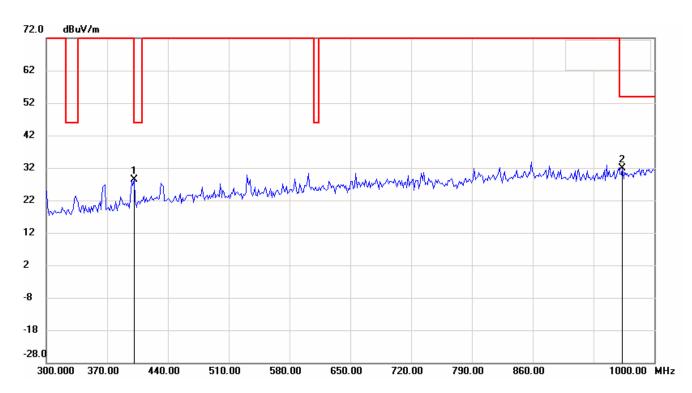




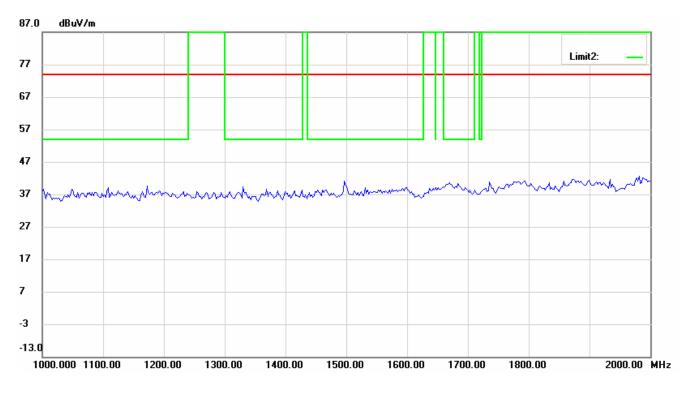
FCC ID: U6APR626G

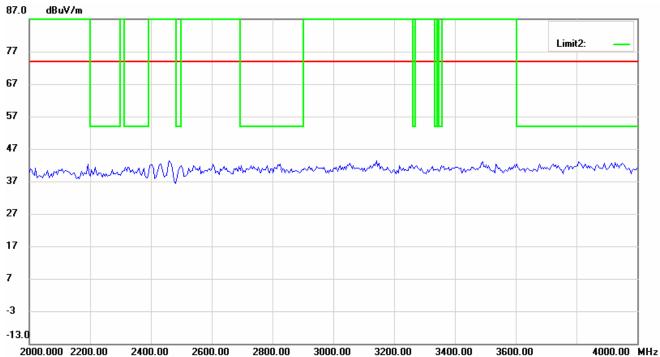
# Antenna Polarization V



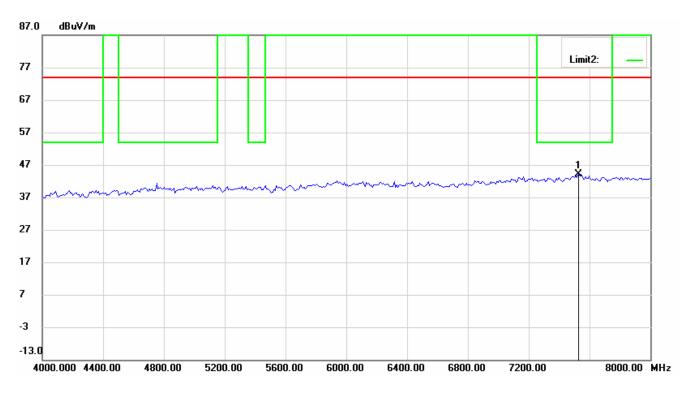


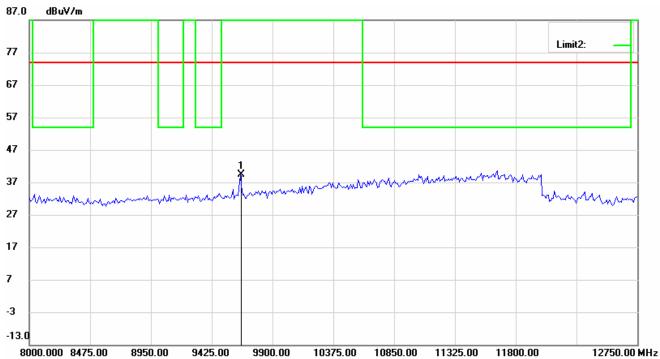




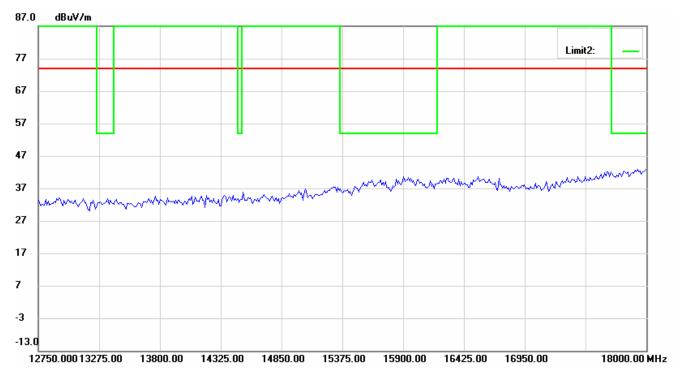


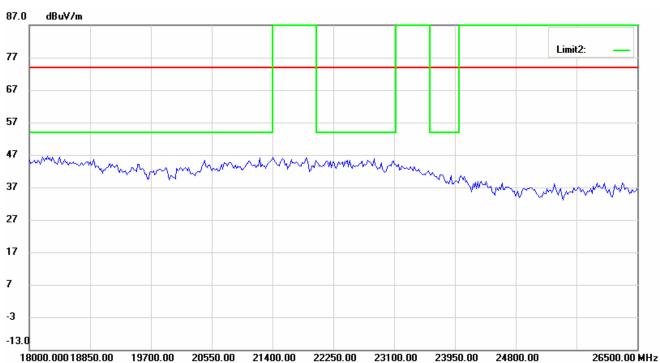










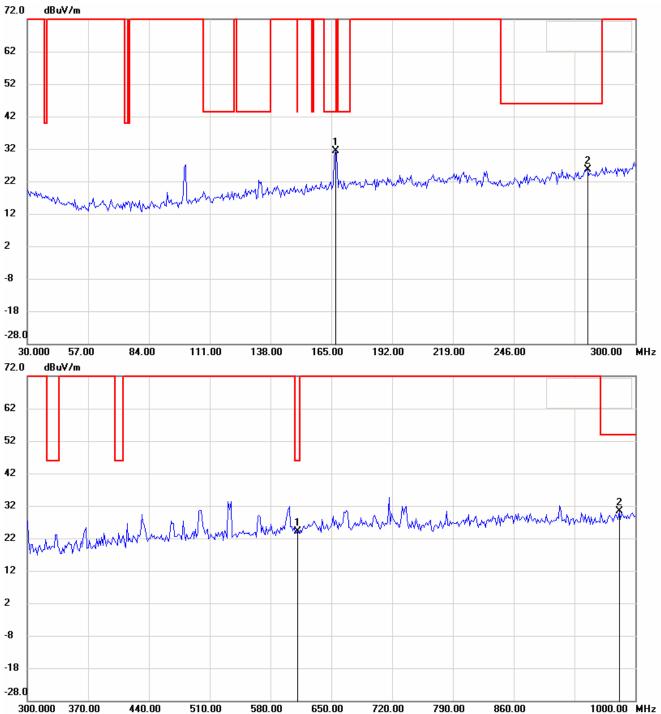




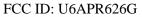
FCC ID: U6APR626G

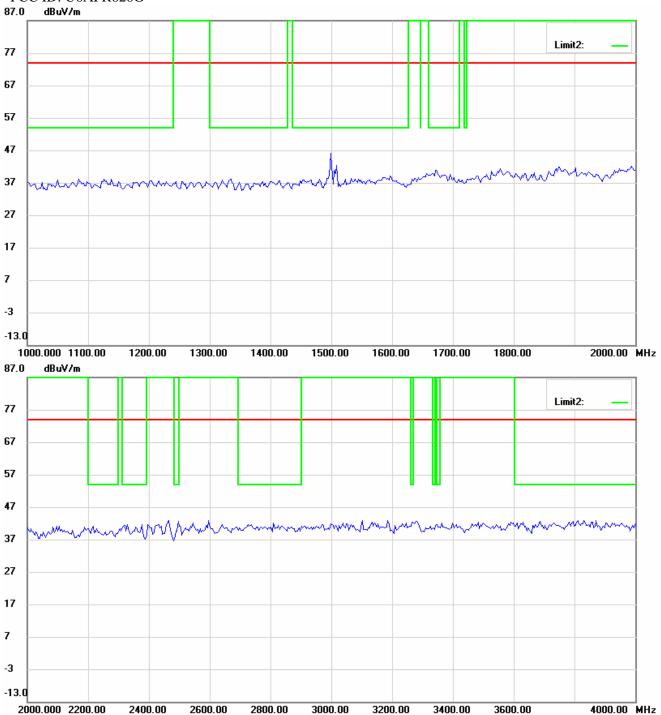
#### CH 6

# Antenna Polarization H



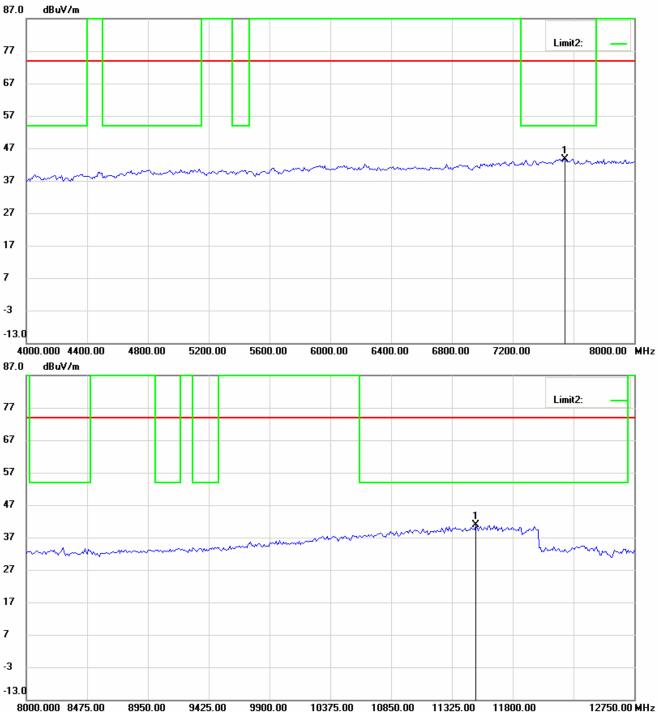




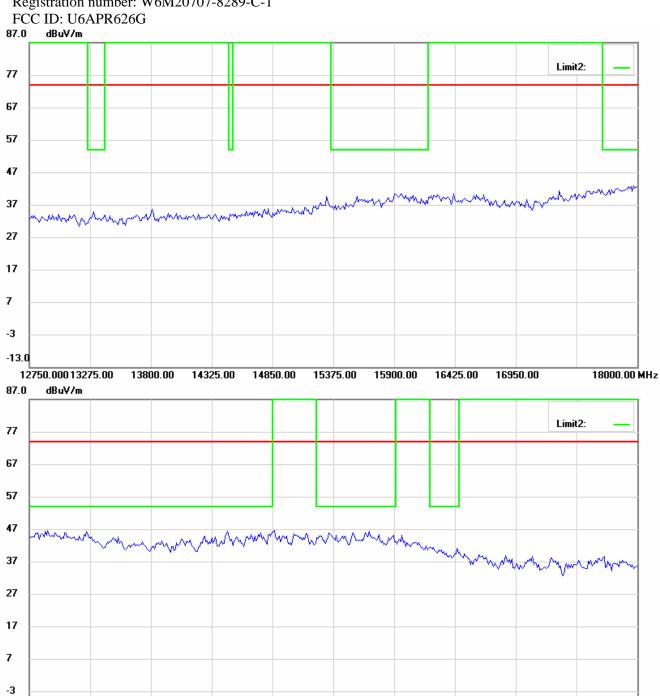




Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G







19700.00

20550.00

21400.00

22250.00

23100.00

23950.00

24800.00

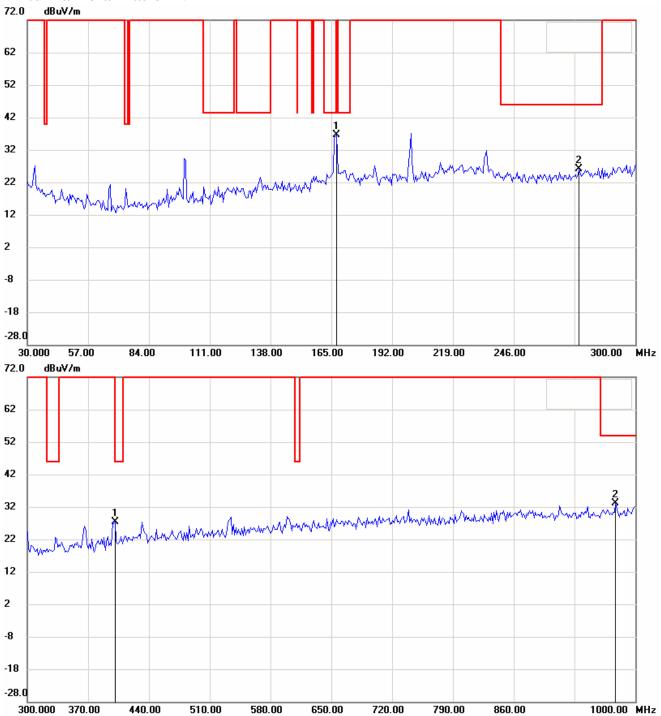
-13.0

18000.00018850.00



FCC ID: U6APR626G

# Antenna Polarization V

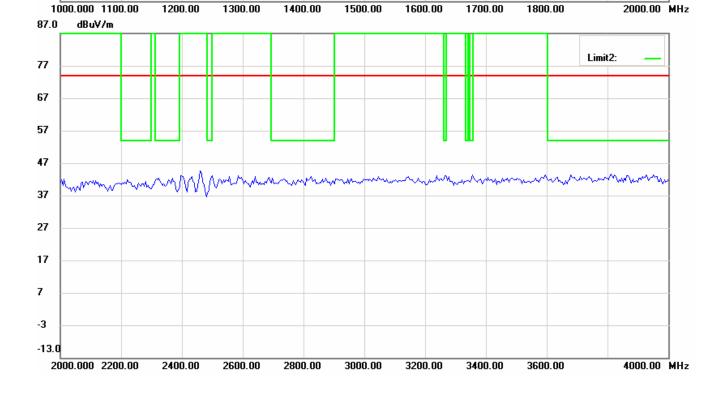


-13.0

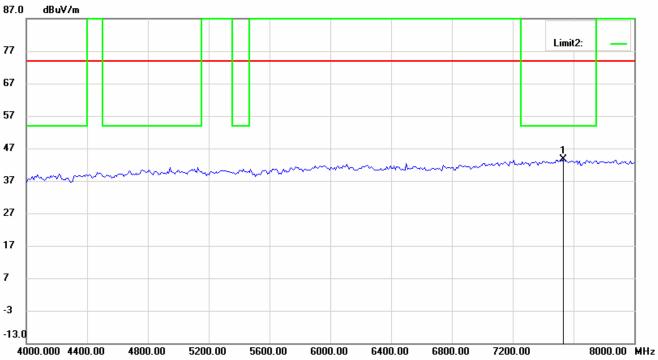


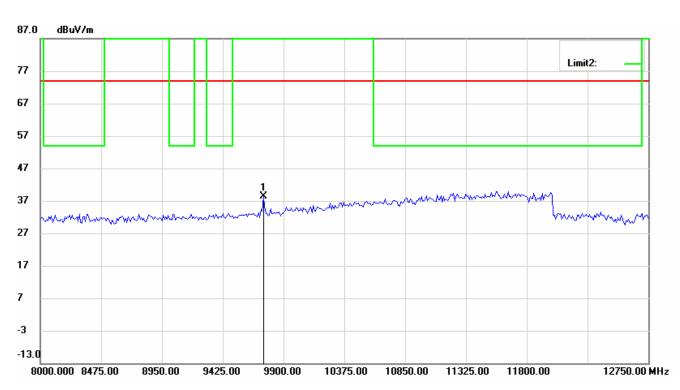
FCC ID: U6APR626G
87.0 dBuV/m

77
67
57
47
77
7











Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 12750.00013275.00 13800.00 14325.00 14850.00 15375.00 15900.00 16425.00 16950.00 18000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17 7 -3

19700.00

20550.00

21400.00

22250.00

23100.00

23950.00

24800.00

-13.0

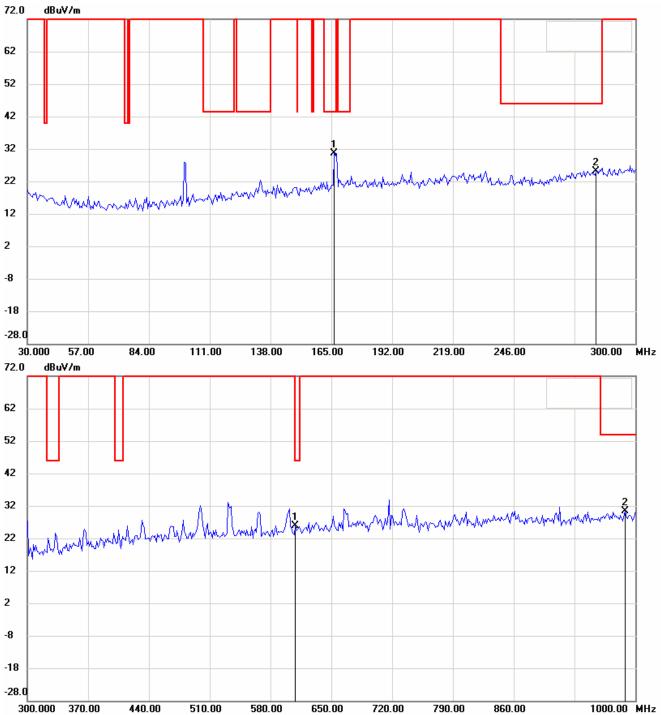
18000.00018850.00



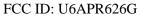
FCC ID: U6APR626G

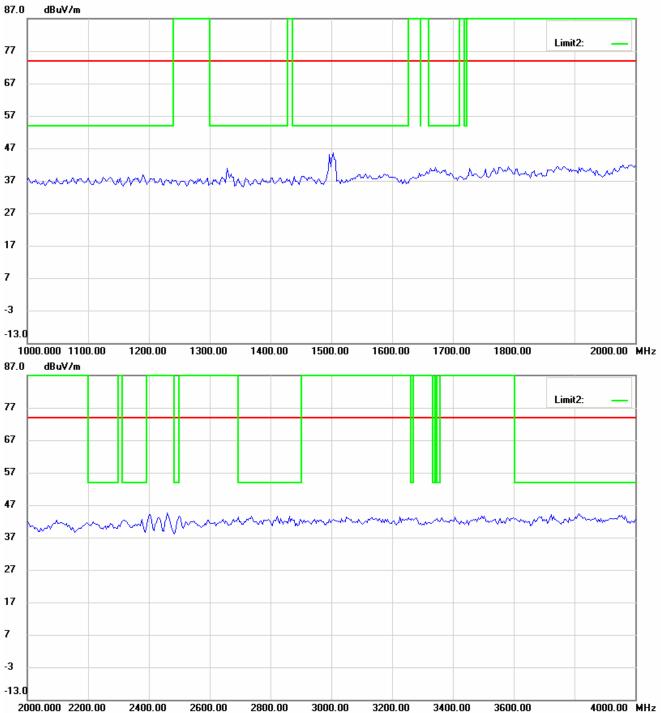
#### CH 11

# Antenna Polarization H

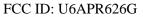


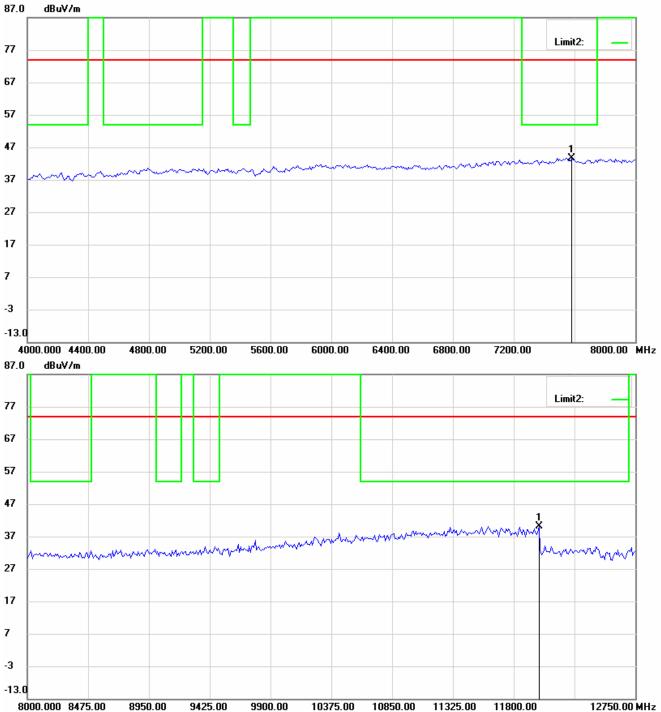














Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 12750.00013275.00 13800.00 14325.00 14850.00 15375.00 15900.00 16425.00 16950.00 18000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17 7 -3

19700.00

20550.00

21400.00

22250.00

23100.00

23950.00

24800.00

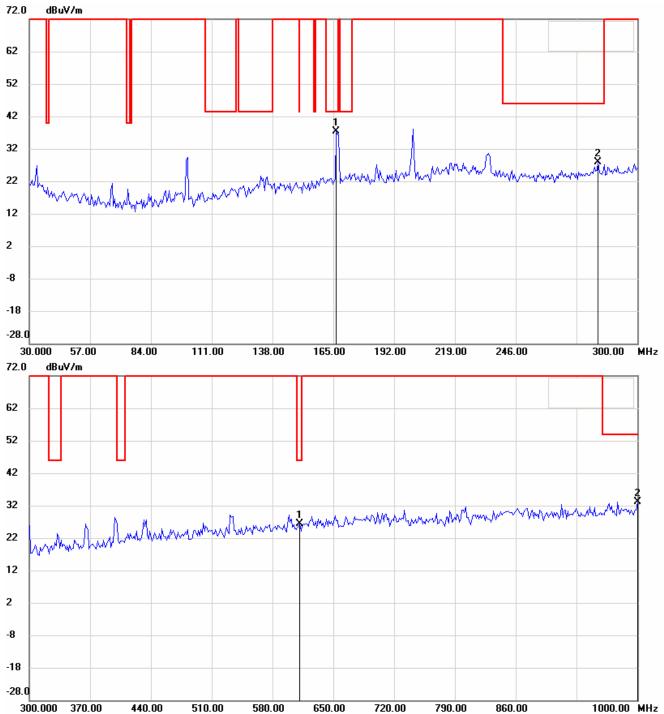
-13.0

18000.00018850.00

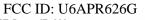


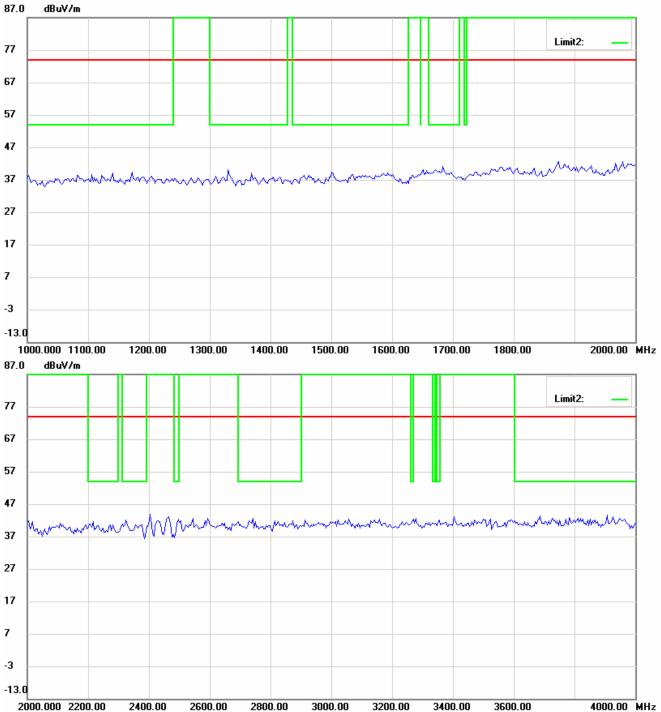
FCC ID: U6APR626G

## Antenna Polarization V











Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 4000.000 4400.00 4800.00 5200.00 5600.00 6000.00 6400.00 6800.00 7200.00 8000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17

8950.00

9425.00

9900.00

10375.00

10850.00

11325.00

11800.00

7

-3 -13.0

8000.000 8475.00



Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 12750.00013275.00 13800.00 14325.00 14850.00 15375.00 15900.00 16425.00 16950.00 18000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17 7

19700.00

20550.00

21400.00

22250.00

23100.00

23950.00

24800.00

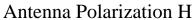
-3 -13.0

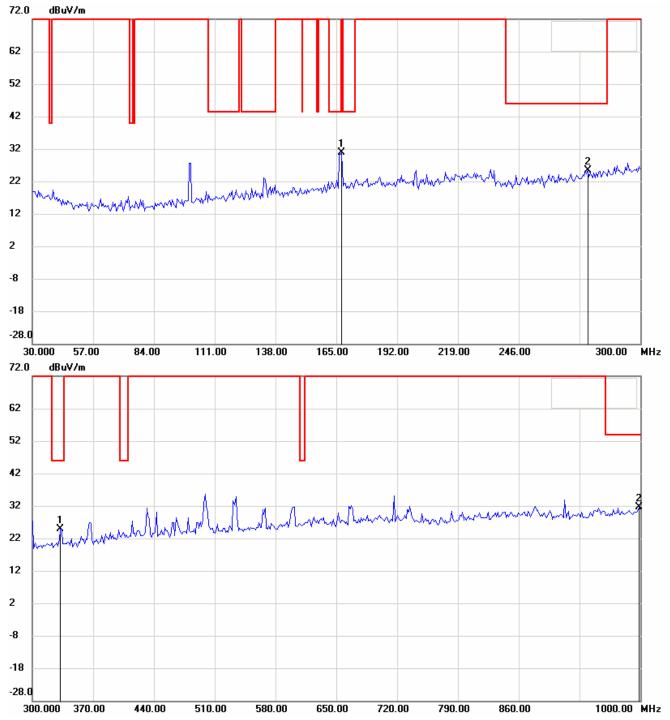
18000.00018850.00



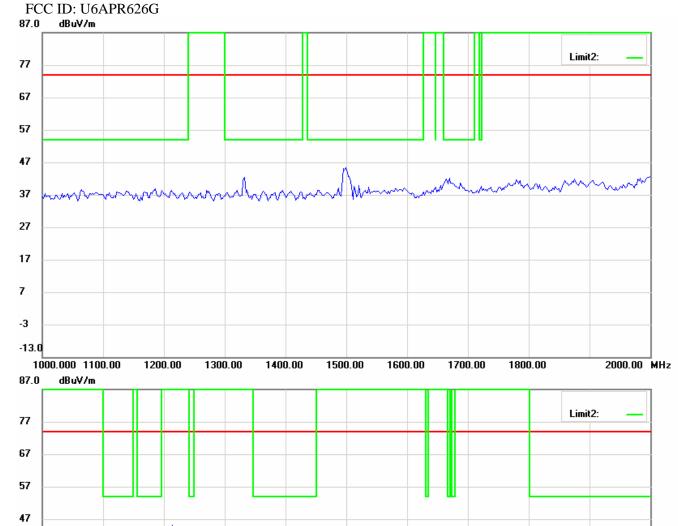
FCC ID: U6APR626G

# Mode B CH 1









2400.00

2600.00

2800.00

3000.00

3200.00

3400.00

3600.00

37

27

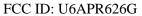
17

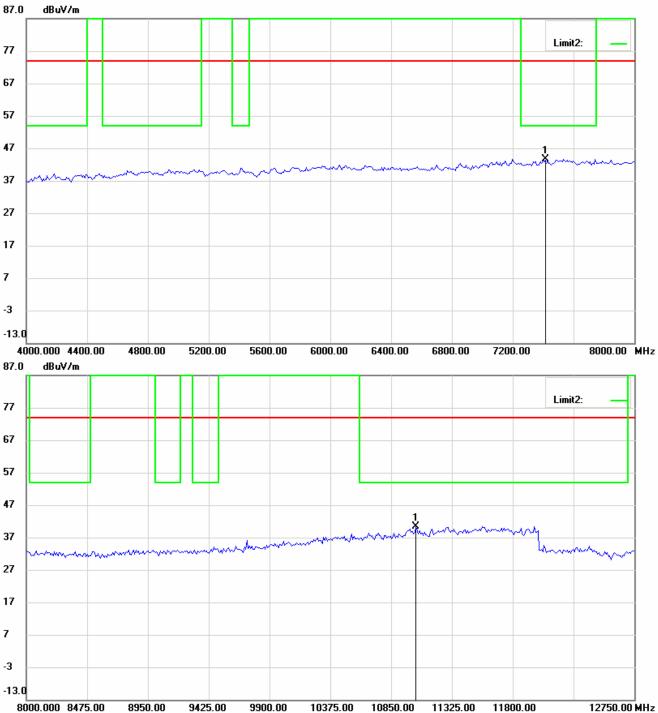
7

-3 -13.0

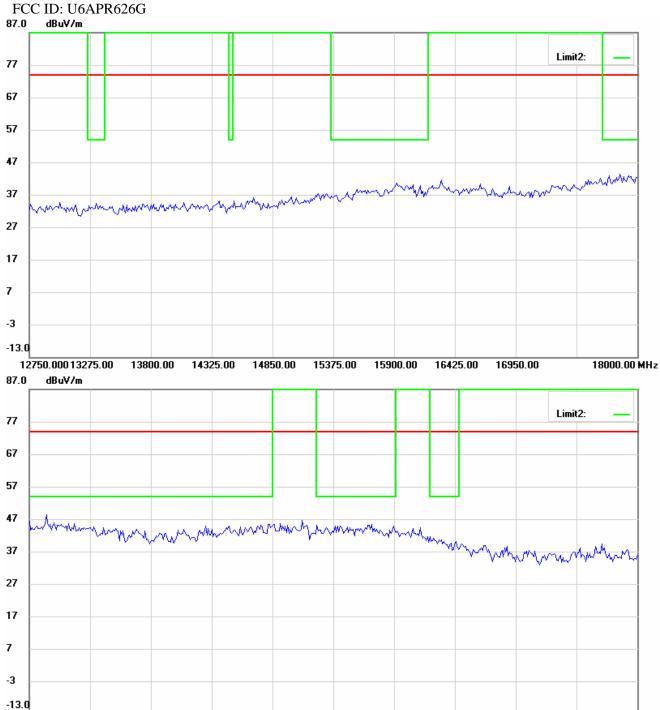
2000.000 2200.00











19700.00

20550.00

21400.00

22250.00

23100.00

23950.00

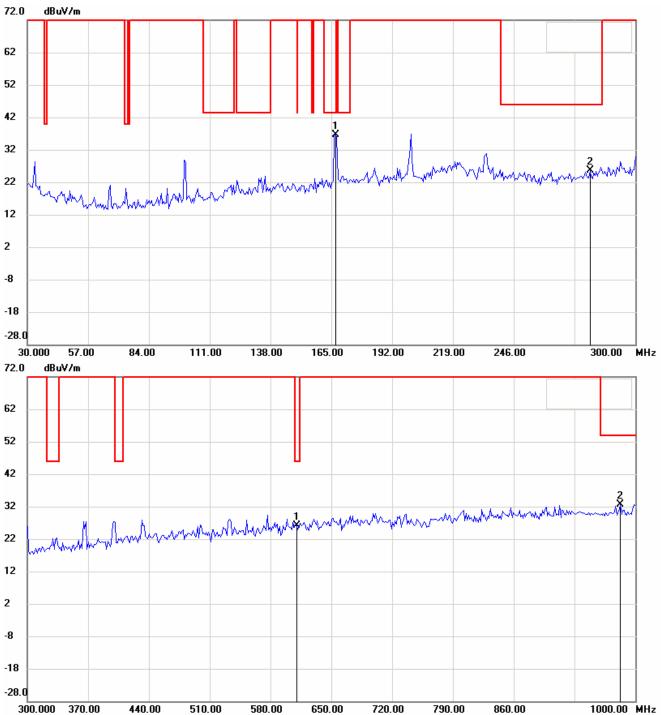
24800.00

18000.00018850.00

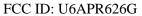


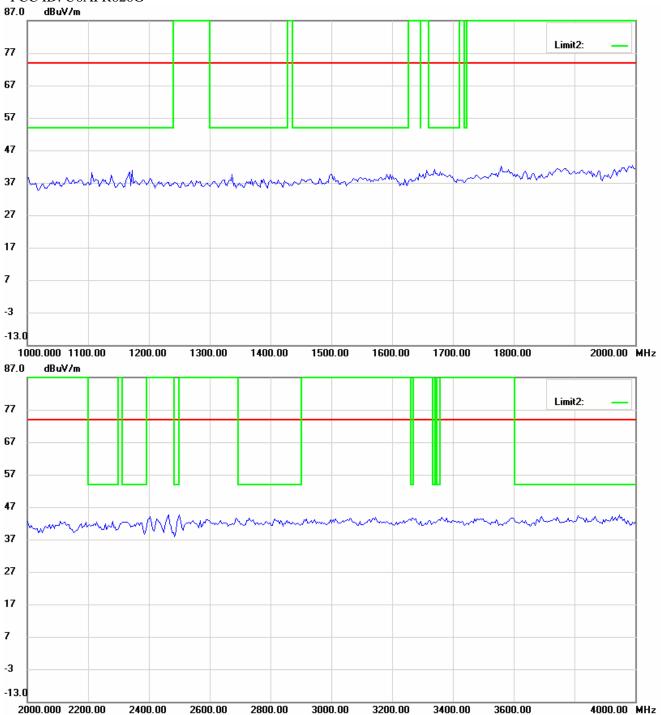
FCC ID: U6APR626G

## Antenna Polarization V

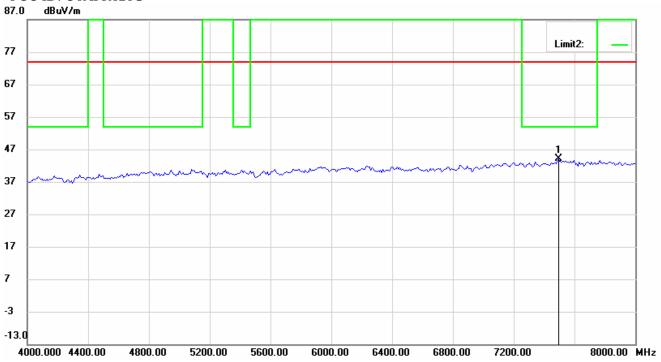


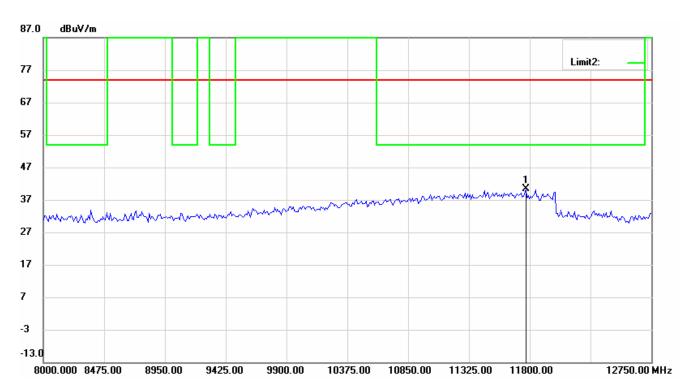




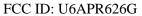


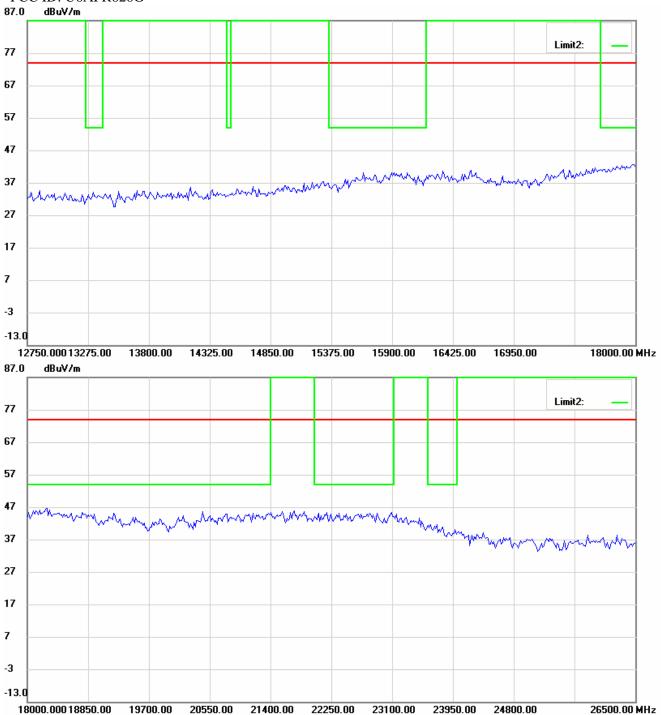










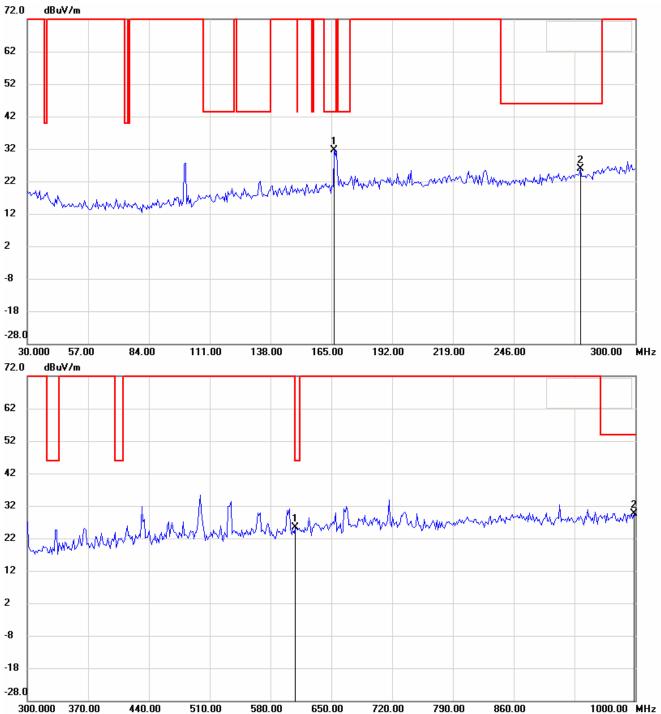




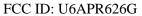
FCC ID: U6APR626G

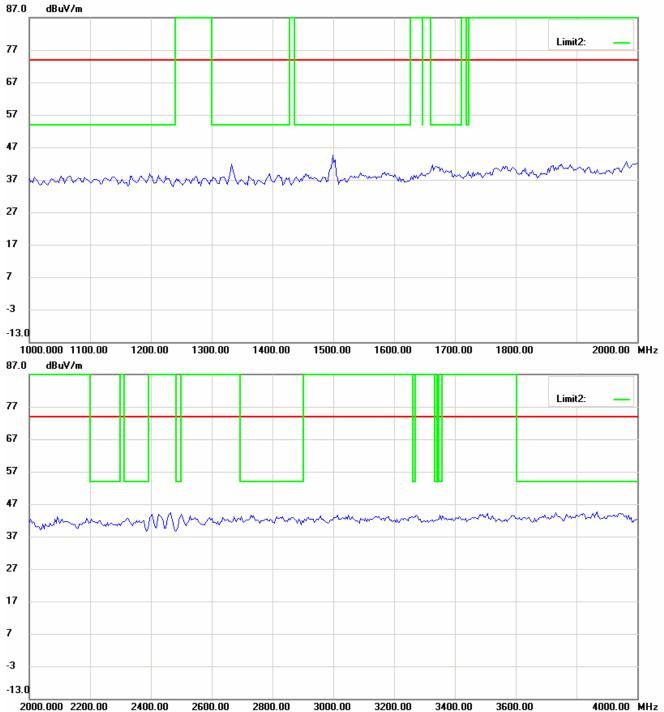
## CH 6

# Antenna Polarization H

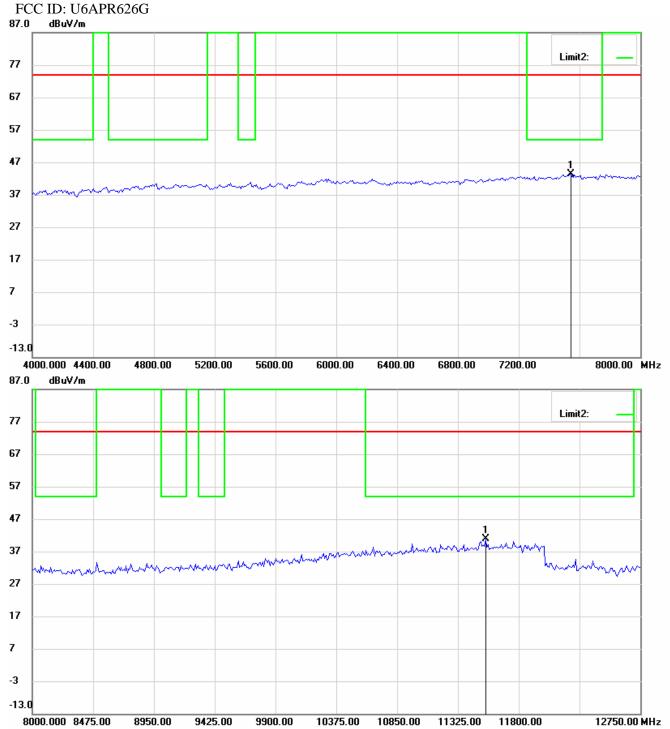














Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 12750.00013275.00 13800.00 14325.00 14850.00 15375.00 15900.00 16425.00 16950.00 18000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17 7 -3

19700.00

20550.00

21400.00

22250.00

23100.00

23950.00

24800.00

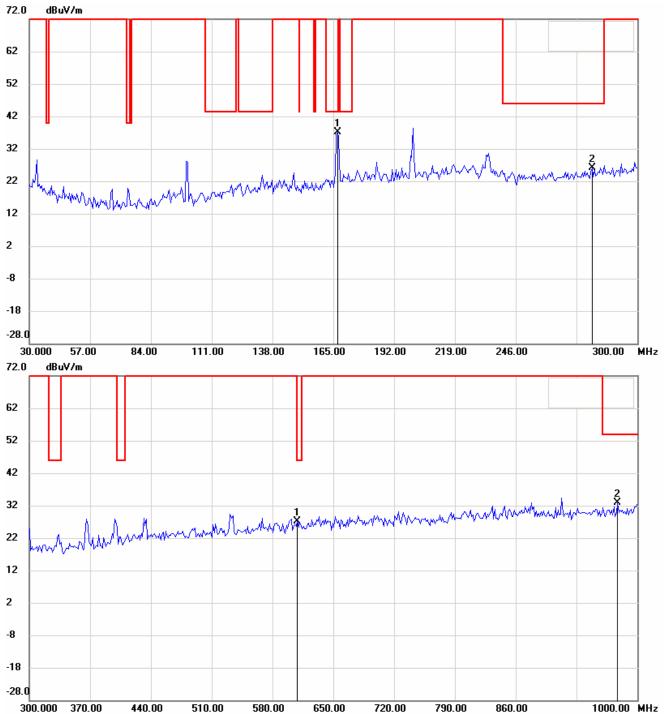
-13.0

18000.00018850.00

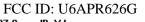


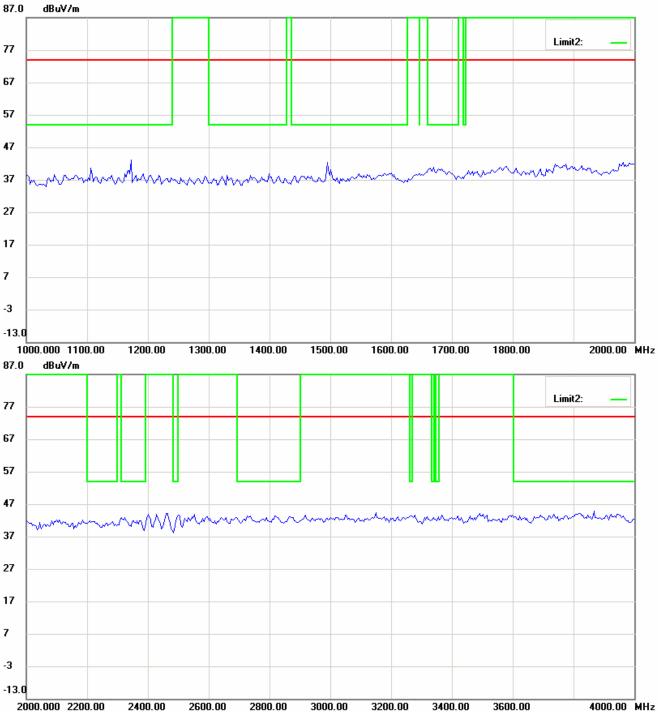
FCC ID: U6APR626G

## Antenna Polarization V

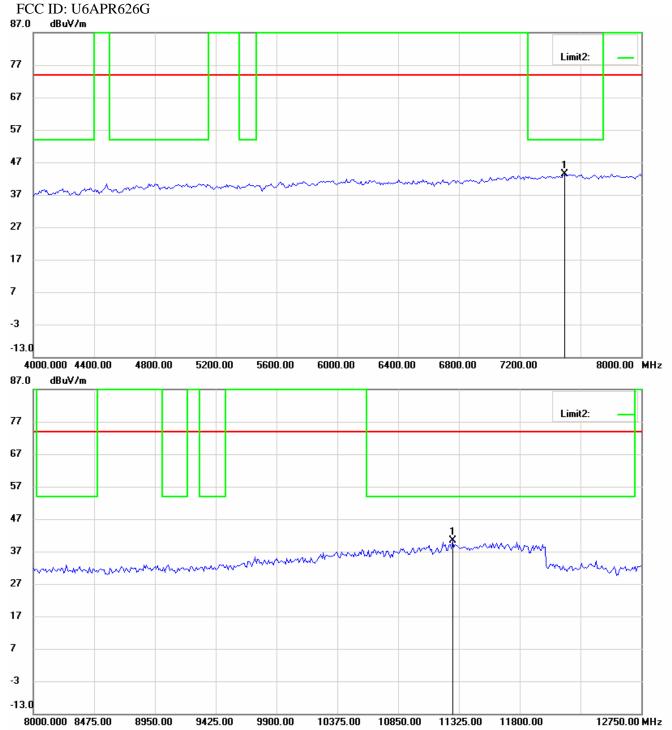




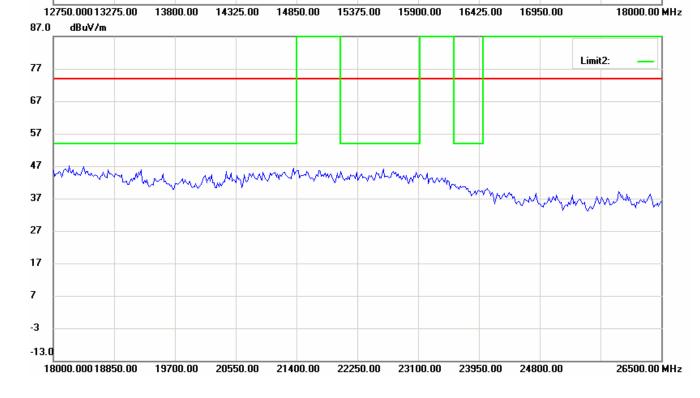










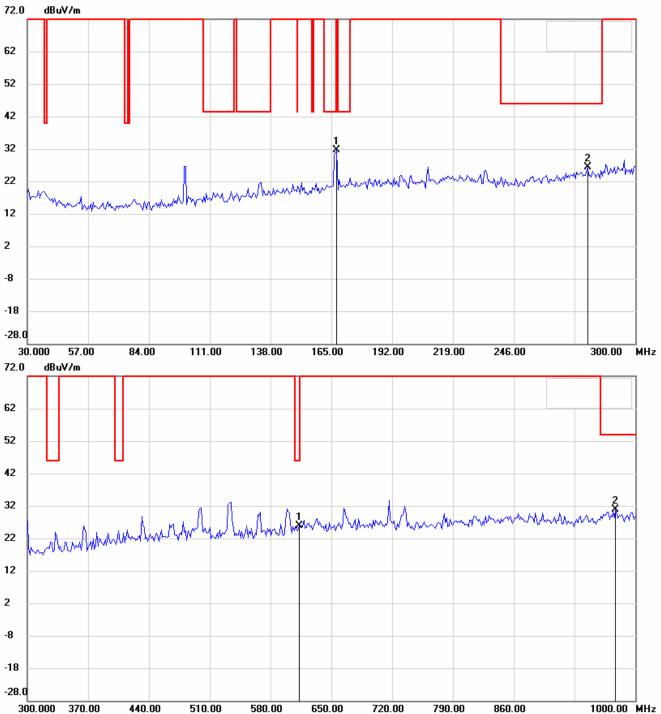




FCC ID: U6APR626G

#### CH 11

#### Antenna Polarization H





Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 1000.000 1100.00 1200.00 1300.00 1400.00 1500.00 1600.00 1700.00 1800.00 2000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17 7 -3

2400.00

2600.00

2800.00

3000.00

3200.00

3400.00

3600.00

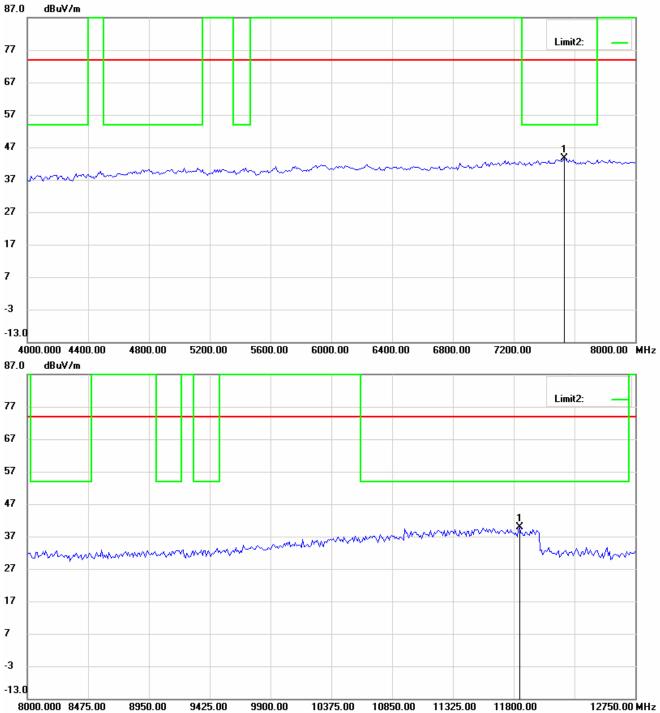
-13.0

2000.000 2200.00

4000.00 MHz



Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G



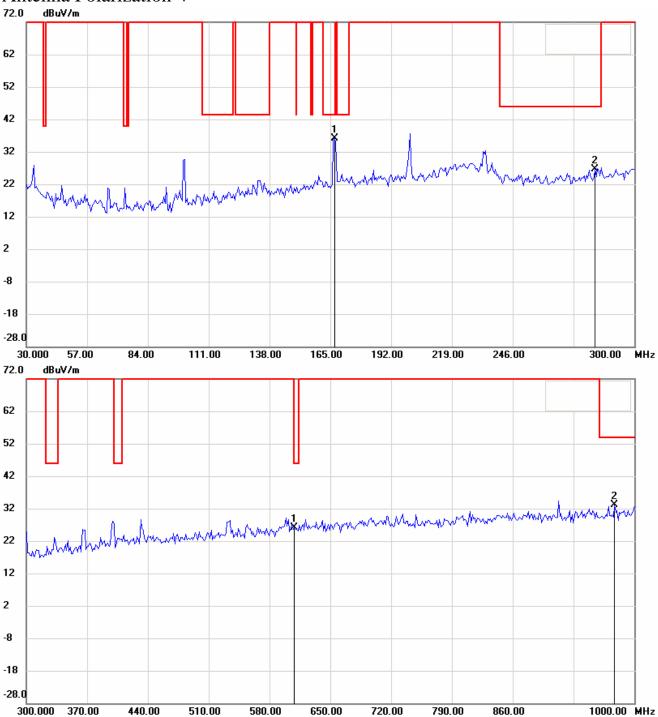


Registration number: W6M20707-8289-C-1 FCC ID: U6APR626G 87.0 dBuV/m Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 12750.00013275.00 13800.00 14325.00 14850.00 15375.00 15900.00 16425.00 16950.00 18000.00 MHz dBuV/m 87.0 Limit2: 77 67 57 47 37 27 17 7 -3 -13.0 18000.00018850.00 19700.00 20550.00 21400.00 22250.00 23100.00 23950.00 24800.00 26500.00 MHz

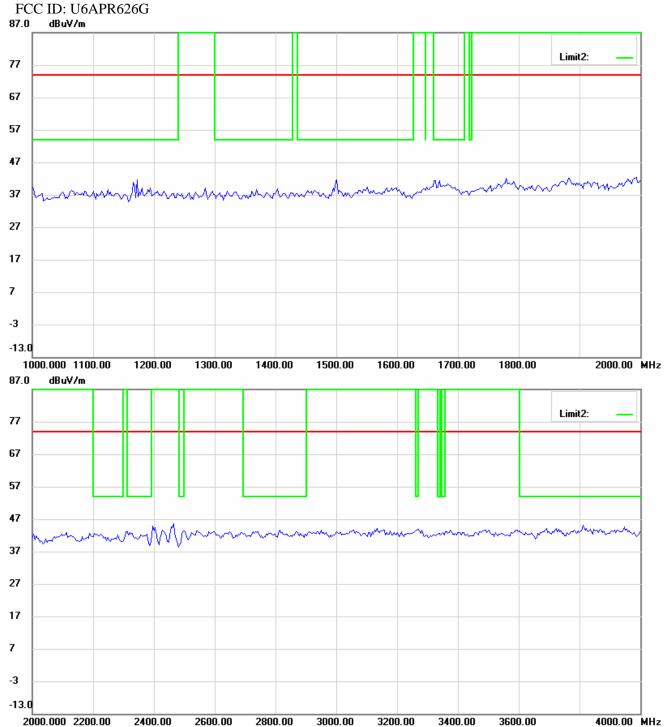


FCC ID: U6APR626G

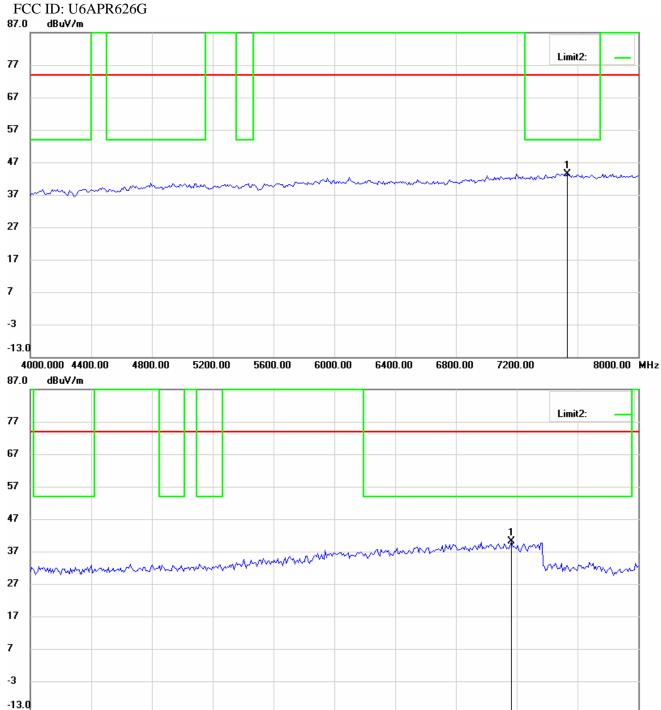
#### Antenna Polarization V











8950.00

9425.00

9900.00

10375.00

10850.00

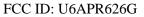
11325.00

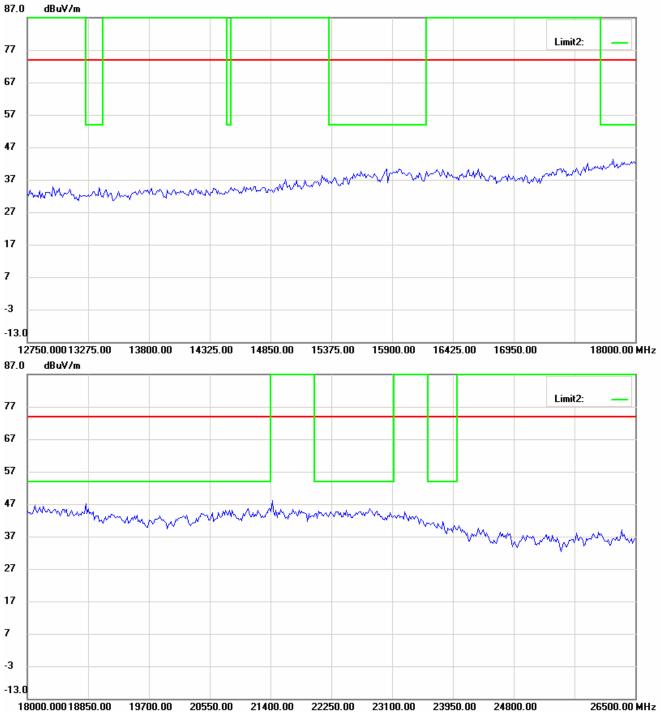
11800.00

8000.000 8475.00

12750.00 MHz





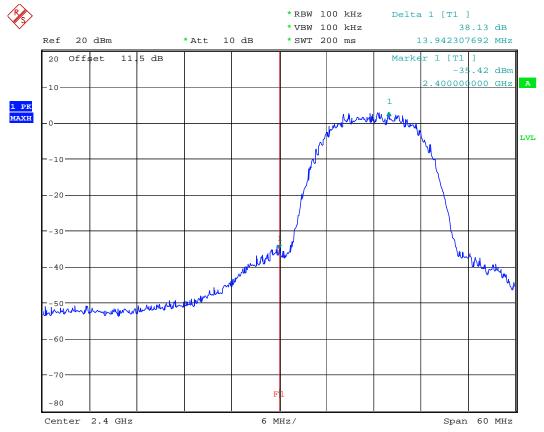




FCC ID: U6APR626G

# Band Edge Measurement

## Mode A

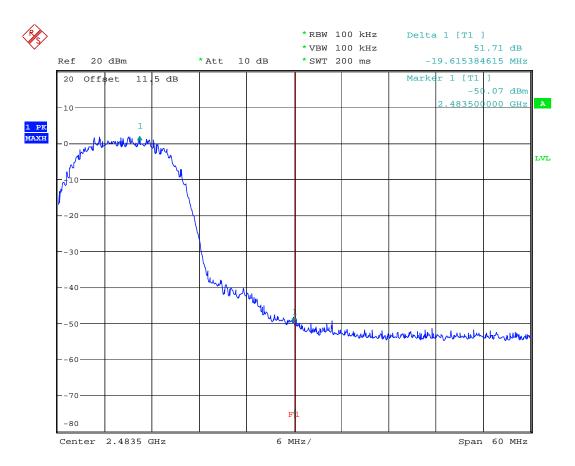


BANDEDGE 802.11b CH1

Date: 20.JUL.2007 15:49:40



FCC ID: U6APR626G



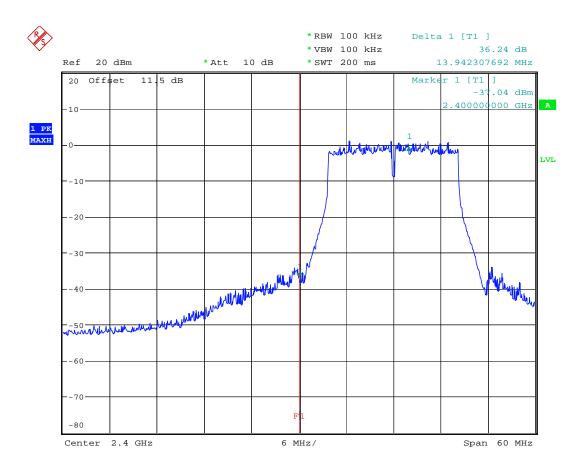
BANDEDGE 802.11b CH11

Date: 20.JUL.2007 15:53:21



FCC ID: U6APR626G

#### Mode B

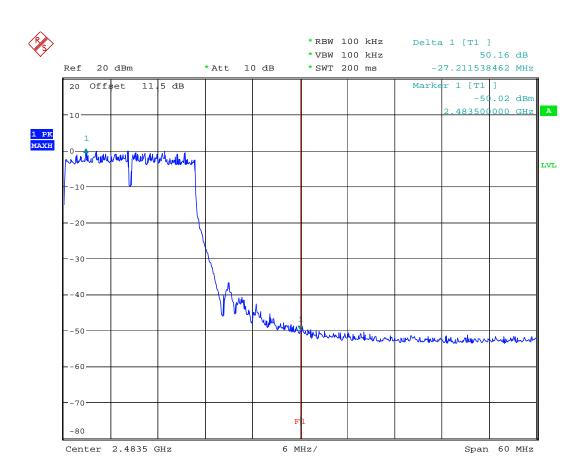


BANDEDGE 802.11g CH1

Date: 20.JUL.2007 15:51:16



FCC ID: U6APR626G



BANDEDGE 802.11g CH11

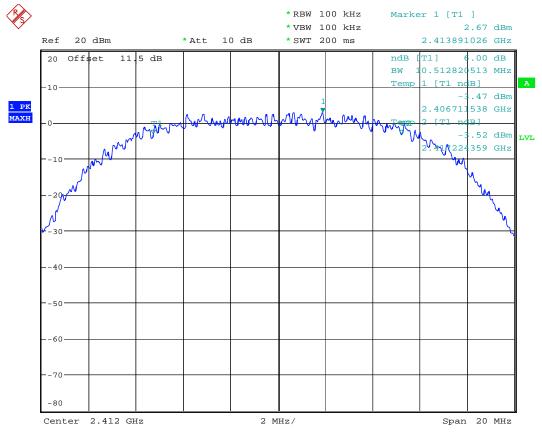
Date: 20.JUL.2007 15:52:29



FCC ID: U6APR626G

#### Minimum 6dB Bandwidth

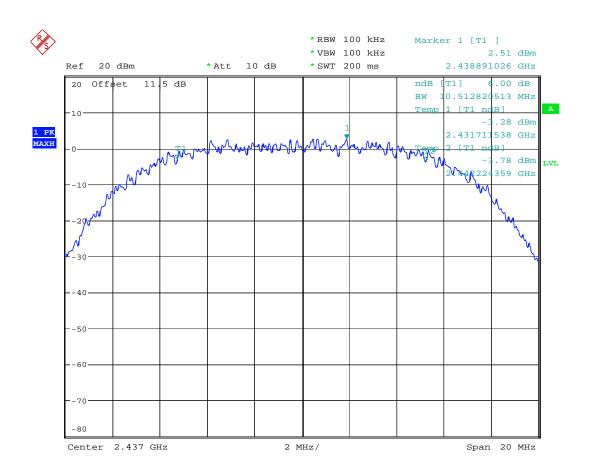
#### Mode A



6dB BANDWIDTH 802.11b CH1
Date: 20.JUL.2007 16:01:56



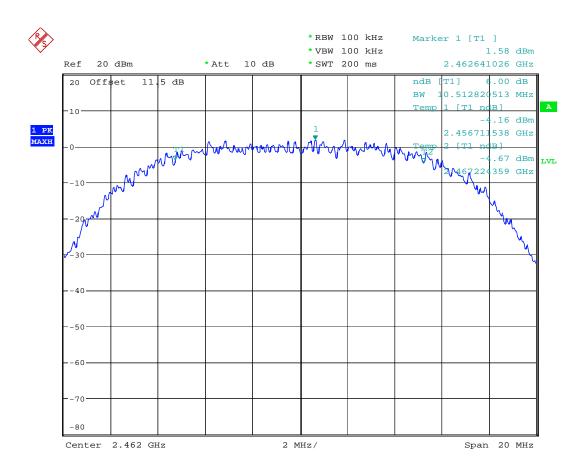
FCC ID: U6APR626G



6dB BANDWIDTH 802.11b CH6
Date: 20.JUL.2007 16:01:00



FCC ID: U6APR626G

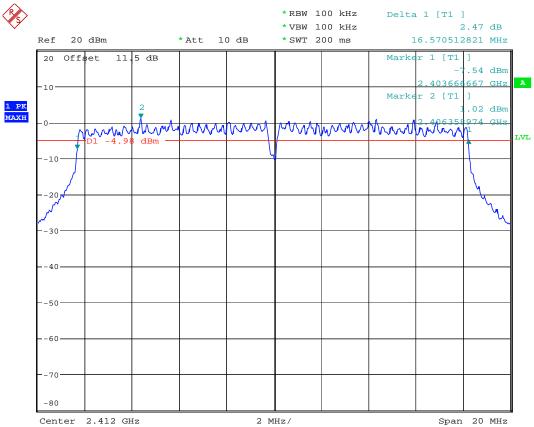


6dB BANDWIDTH 802.11b CH11 Date: 20.JUL.2007 16:01:28



FCC ID: U6APR626G

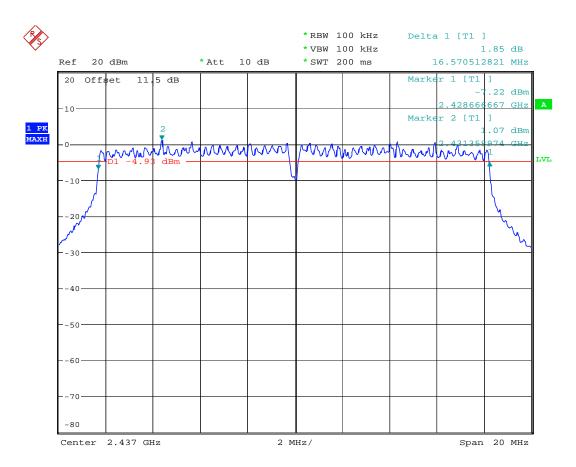
## Mode B



6dB BANDWIDTH 802.11g CH1 Date: 20.JUL.2007 16:06:15



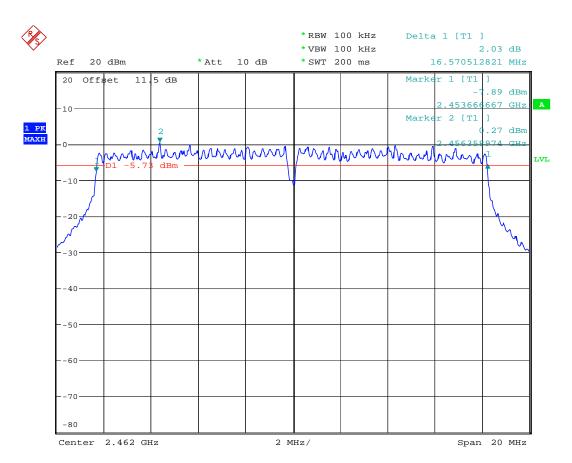
FCC ID: U6APR626G



6dB BANDWIDTH 802.11g CH6
Date: 20.JUL.2007 16:05:03



FCC ID: U6APR626G



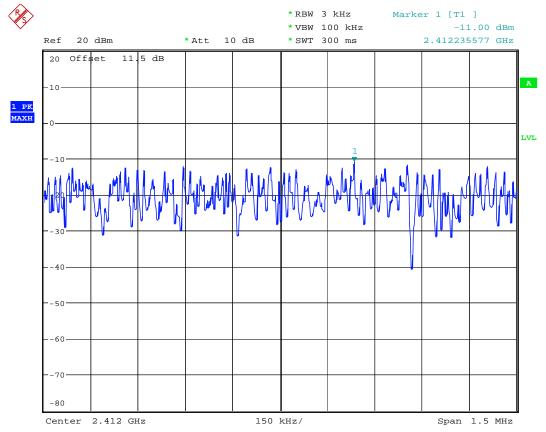
6dB BANDWIDTH 802.11g CH11
Date: 20.JUL.2007 16:07:45



FCC ID: U6APR626G

# Peak Power Spectral Density

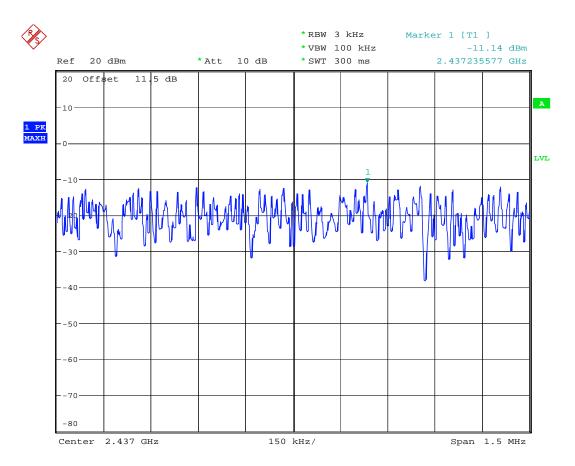
## Mode A



POWER DENSIITY 802.11b CH1
Date: 20.JUL.2007 15:48:33



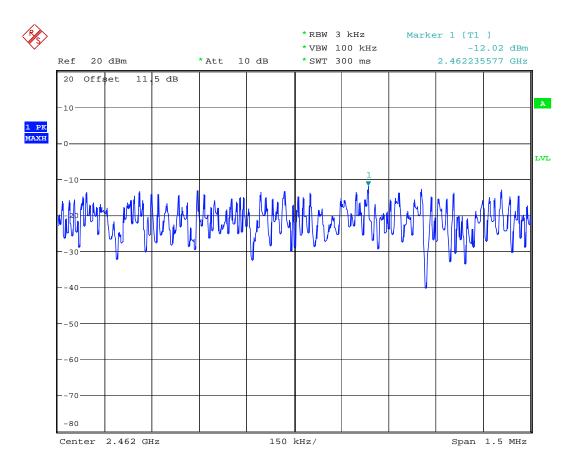
FCC ID: U6APR626G



POWER DENSIITY 802.11b CH6
Date: 20.JUL.2007 15:48:13



FCC ID: U6APR626G

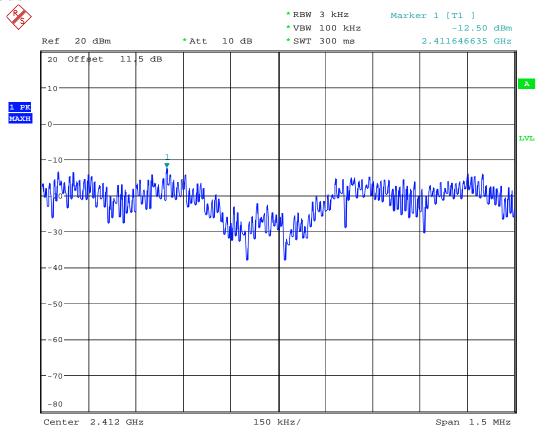


POWER DENSIITY 802.11b CH11
Date: 20.JUL.2007 15:47:50



FCC ID: U6APR626G

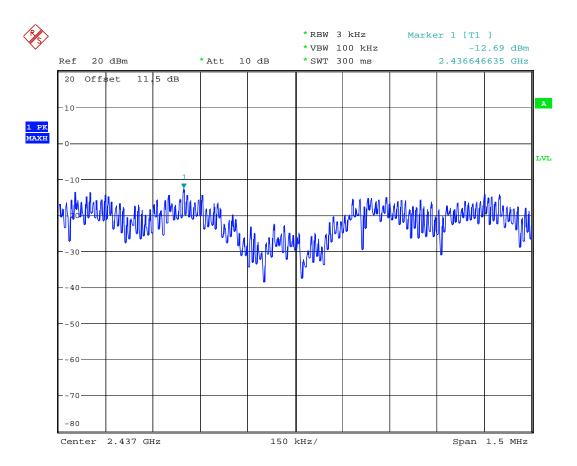
## Mode B



POWER DENSIITY 802.11g CH1
Date: 20.JUL.2007 15:45:06



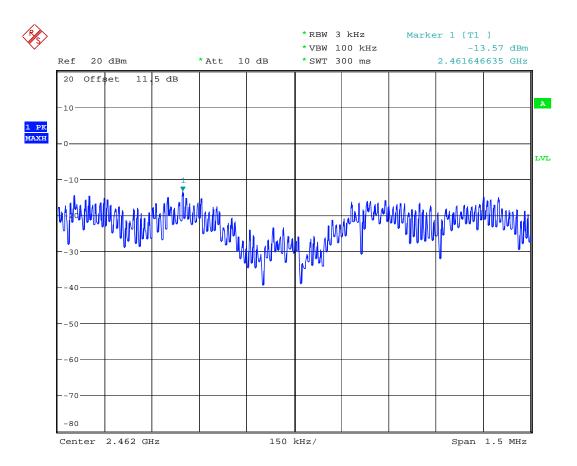
FCC ID: U6APR626G



POWER DENSIITY 802.11g CH6
Date: 20.JUL.2007 15:45:38



FCC ID: U6APR626G

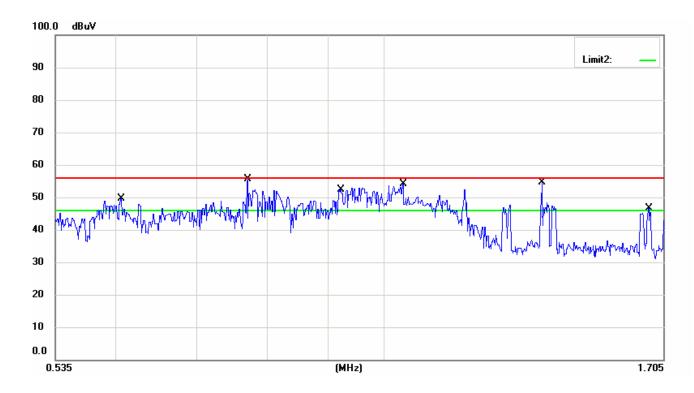


POWER DENSIITY 802.11g CH11 Date: 20.JUL.2007 15:46:08

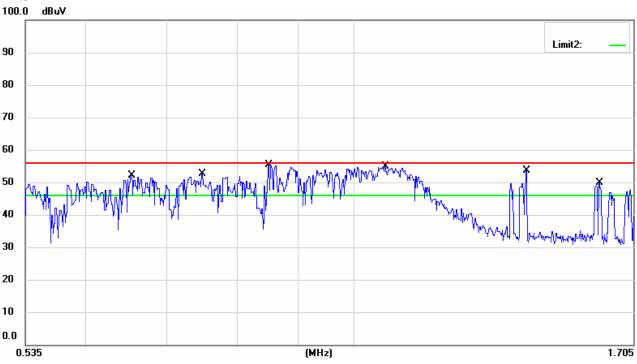


FCC ID: U6APR626G

# Power Line Conducted Emission Home plug LISN N



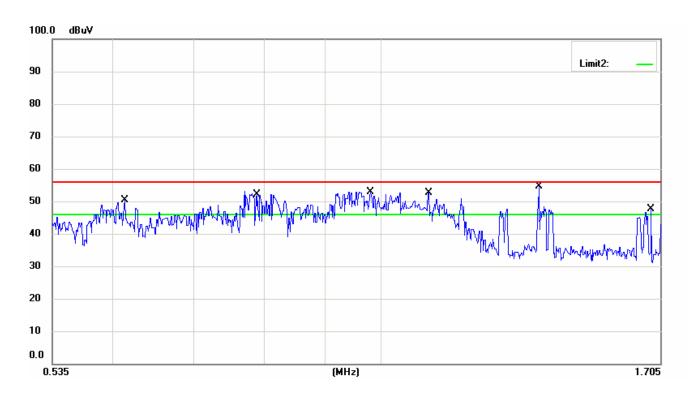
#### LISN L1





FCC ID: U6APR626G

# Wireless Router LISN N



#### LISN L1

