## FCC PART 15 SUBPART C TEST REPORT

for

13" Notebook

Model No.: RT9

FCC ID: IR5RT9

of

Applicant: CReTE Systems, Inc. Address: 7F, NO.250, Sec.3, Pei Shen RD. Shen Keng Hsiang, Taipei County Taiwan R.O.C.

Tested and Prepared

by

Worldwide Testing Services (Taiwan) Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1

A2LA Accredited No.: 2732.01





Report No.: W6M21006-10691-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: wts@wts-lab.com

FCC ID: IR5RT9

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#### 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, radio frequency exposure evaluations for each individual configuration performed, for certification by FCC.

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

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

#### **Tester:**

July 14, 2010	I	Danny Sung	Danny
Date	WTS-Lab.	Name	Signature

### Technical responsibility for area of testing:

July 14, 2010 Chang Tse-Ming Chang Tse-Ming

Date WTS Name Signature

FCC ID: IR5RT9

### 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

Worldwide Testing Services(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: 2732.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679A-1





#### Test location, where different from Worldwide Testing Services (Taiwan) Co., Ltd.:

 Name:
 ./.

 Accredited number:
 ./.

 Street:
 ./.

 Town:
 ./.

 Country:
 ./.

 Telephone:
 ./.

 Fax:
 ./.

#### 1.3 Details of approval holder

Name: CReTE Systems, Inc.

Street: 7F, NO.250, Sec.3, Pei Shen RD. City: Shen Keng Hsiang, Taipei County

Country: Taiwan R.O.C.
Telephone: +886 2 2662 6074
Fax: +886 2 2664 2662

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#### 1.4 Application details

Date of receipt of test item: May 13, 2010

Date of test: from May 13, 2010 to July 13, 2010

#### 1.5 General information of Test item

Type of test item: 13" Notebook

Model Number: RT9
Brand Name: CRETE

Multi-listing model number: ./.
Photos: see Appendix

**Technical data** 

Frequency band: 5.745 GHz-5.825 GHz, 2.4 GHz-2.4835 GHz

802.11a

Frequency (ch 149): 5.745 GHz
Frequency (ch 157): 5.785 GHz
Frequency (ch 165): 5.825 GHz

802.11b, 11g, 11n 20MHz

Frequency (ch 1): 2.412 GHz Frequency (ch 6): 2.437 GHz Frequency (ch 11): 2.462 GHz

802.11n 40MHz

Frequency ( ch 1):

2.422 GHz
Frequency ( ch 4):

2.437 GHz
Frequency ( ch 7):

2.452 GHz
Number of Channels:

11a: 5 channels

11b, 11g, 11n 20MHz: 11 channels

11n 40MHz: 7 channels

Operation modes: duplex

Modulation Type: DSSS / OFDM Fixed point-to-point operation:  $\square$  Yes /  $\square$  No Type of Antenna: Patch antenna

Antenna gain: 2.12 dBi (for 2.4 GHz part), -1.55 dBi(for 5 GHz part) Power supply: Adaptor ( I/P: AC 100-240 V / 50-60 Hz / 1.2 A,

> O/P: 19 Vdc / 4.75 A ) Battery (11.1 V, 7.2 AH)

Emission designator: 11a: OFDM: 16M5W7D

11b: DSSS: 14M3G1D 11g: OFDM: 16M4W7D

11n 20MHz: OFDM: 18M1W7D 11n 40MHz: OFDM: 36M1W7D

Host device: none



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Classification

Fixed Device	
Mobile Device (Human Body distance > 20cm)	
Portable Device (Human Body distance < 20cm)	
Modular Radio Device	

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

#### Peak power

### Mode A (802.11a)

Power (ch 149): Conducted: 25.52 dBm Power (ch 157): Conducted: 23.77 dBm Power (ch 165): Conducted: 23.33 dBm

Mode B (802.11b)

Power ( ch 1): Conducted: 22.15 dBm Power ( ch 6): Conducted: 22.58 dBm Power ( ch 11): Conducted: 20.83 dBm

Mode C (802.11g)

Power ( ch 1): Conducted: 22.97 dBm Power ( ch 6): Conducted: 23.78 dBm Power ( ch 11): Conducted: 21.66 dBm

Mode D (802.11n 20 MHz)

Power ( ch 1): Conducted: 22.17 dBm Power ( ch 6): Conducted: 22.79 dBm Power ( ch 11): Conducted: 20.23 dBm

Mode E (802.11n 40 MHz)

Power ( ch 1): Conducted: 23.05 dBm Power ( ch 4): Conducted: 22.67 dBm Power ( ch 7): Conducted: 21.45 dBm

#### Average power

Mode A (802.11a): 15.48 dBm Mode B (802.11b): 14.97 dBm Mode C (802.11g): 15.39 dBm

Mode D (802.11n 20MHz) : 15.07 dBm Mode E (802.11n 40MHz) : 15.42 dBm

#### **Manufacturer:** (if applicable)

 Name:
 ./.

 Street:
 ./.

 Town:
 ./.

 Country:
 ./.

#### 1.6 Test standards

Technical standard: FCC RULES PART 15 SUBPART C § 15.247 (2009-10)

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#### 1.7 Modification Information





Item	Component	Quantity	Model No.	Specification	Manufacturer
1	ferrite core	1	A8RI 17.7*5*9.5	17.7*5*9.5	Urite Corporation
2	ferrite core	1	RH 16*10.5*28	16*10.5*28	MAGIC
3	ferrite core	1	B15 RH-10x10x7	10×10×7	B&F

Ferrite cores are used for EMI testing (FCC part 15B). When performing RF testing, ferrite cores are NOT used.

Any modification made previous to test by CReTE Systems, Inc. will be incorporated in each product sold in United States.

No modification was made by Worldwide Testing Services (Taiwan) Co., Ltd.

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### 2 Technical test

## 2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.	×
or	
The deviations as specified in 2.5 were ascertained in the course of the tests performed.	

### 2.2 Test environment

Temperature: 23 °C

Relative humidity content: 20 ... 75 %

Air pressure: 86 ... 103 kPa

Power supply: Adaptor ( I/P: AC 100-240 V / 50-60 Hz / 1.2 A,

O/P: 19 Vdc / 4.75 A ) Battery (11.1 V, 7.2 AH)

Extreme conditions parameters: ./.

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## 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	2009/9/10	2010/9/9
ETSTW-CE 004	ZWEILEITER-V- NETZNACHBILDUNG TWO- LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2010/3/2	2011/3/1
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	2009/9/9	2010/9/8
ETSTW-CE 006	IMPULSBEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2010/5/8	2011/5/7
ETSTW-CE 007	SPECTRUM ANALYZER 5GHz	FSB	849670/001	R&S	Pre-test 1	Use NCR
ETSTW-CE 008	HF-EICHLEITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function	on Test
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2009/7/21	2010/7/20
ETSTW-CE 015	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T8-02	20307	FCC	2009/9/12	2010/9/11
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2009/9/9	2010/9/8
ETSTW-RE 002	Function Generator	33220A	MY43004982	Agilent	Function	on Test
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2009/10/1	2010/9/30
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2009/9/18	2010/9/17
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2009/9/11	2010/9/10
ETSTW-RE 006	Attenuator 10dB	50HF-010-5N-1	None	STEP	2010/3/5	2011/3/4
ETSTW-RE 010	ABSORBING CLAMP	MDS 21	3469	Schwarzbeck	2009/9/11	2010/9/10
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function	on Test
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function	on Test
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2009/10/1	2010/9/30
ETSTW-RE 020	MICROWAVE HORN ANTENNA	AT4002A	306915	AR	Function	on Test
ETSTW-RE 021	SWEEP GENERATOR	SWM05	835130/010	R&S	2009/8/19	2010/8/18
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	EMCO	2009/8/14	2011/8/13
ETSTW-RE 028	Log-Periodic Dipole Array Antenna	3148	34429	EMCO	2010/4/14	2011/4/13
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	2010/4/14	2011/4/13
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	EMCO	2010/3/2	2011/3/1
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	2009/8/23	2010/8/22
ETSTW-RE 033	WaveRunner 6000A Serise Oscilloscope	WAVERUNNER 6100A	LCRY0604P14508	LeCroy	Function	on Test
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	2009/8/23	2010/8/22
ETSTW-RE 042	Biconical Antenna	HK116	100172	R&S	2010/1/13	2011/1/12



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		-		-		
ETSTW-RE 043	Log-Periodic Dipole Antenna	HL223	100166	R&S	2010/4/29	2011/4/28
ETSTW-RE 044	Log-Periodic Antenna	HL050	100094	R&S	2010/5/11	2011/5/10
ETSTW-RE 047	PSA SERIES SPECTRUM ANALYZER	E4445A	MY46181369	Agilent	Pre-test I	Jse NCR
ETSTW-RE 048	Triple Loop Antenna	HXYZ 9170	HXYZ 9170-134	Schwarzbeck	2009/8/31	2010/8/30
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2010/4/13	2011/4/12
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2010/3/5	2011/3/4
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2010/3/5	2011/3/4
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2010/6/3	2011/6/2
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	Pre-test U	Jse NCR
ETSTW-RE 061	Amplifier Module	CHC 1	None	ETS	2009/11/12	2010/11/11
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2009/11/12	2010/11/11
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function	on Test
ETSTW-RE 065	Amplifier	AMF-6F- 18002650-25-10P	941608	MITEQ	2010/4/13	2011/4/12
ETSTW-RE 066	Highpass Filter	H1G013G1	206015	MICROWAVE CIRCUITS, INC.	2010/3/5	2011/3/4
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	НР	2009/10/2	2010/10/1
ETSTW-RE 073	Power Meter	N1911A	MY45100769	Agilent	2010/1/7	2011/1/6
ETSTW-RE 074	Power Sensor	N1921A	MY45241198	Agilent	2010/1/7	2011/1/6
ETSTW-RE 081	Highpass Filter	H03G13G1	4260-02 DC0428	MICROWAVE CIRCUITS, INC.	2010/3/5	2011/3/4
ETSTW-RE 096	SIGNAL GENERATOR	SMIQ 03B	102274	R&S	2010/5/31	2011/5/30
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2010/3/5	2011/3/4
ETSTW-RE 105	2.4GHz Notch Filter	NO124411	39555	MICROWAVE CIRCUITS, INC.	2010/3/25	2011/3/24
ETSTW-RE 106	Humidity Temperature Meter	TES-1366	091011113	TES	2010/3/25	2011/3/24
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2009/9/22	2010/9/21
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849- 822/851-40 /12+9SS	3	WI	Function	on Test
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748- 1743/1752-32/5SS	1	WI	Function	on Test
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880 .5-1875.5/1884.5- 32/5SS	3	WI	Function Test	
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1- 904.25-50/8SS	1	WI	Function Test	
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2009/9/21	2010/9/20
ETSTW-Cable 002	Microwave Cable	SUCOFLEX 104 (S_Cable 7)	238093	HUBER+SUHNER	2009/9/16	2010/9/15
ETSTW-Cable 003	Microwave Cable	SUCOFLEX 104 (S_Cable 11)	209953	HUBER+SUHNER	2009/9/16	2010/9/15
ETSTW-Cable 006	Microwave Cable	SUCOFLEX 104 (S_Cable 8)	238095	HUBER+SUHNER	2010/3/5	2011/3/4



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ETSTW-Cable 010	BNC Cable	5 M BNC Cable	None	JYE BAO CO.,LTD.	2010/3/5	2011/3/4
ETSTW-Cable 011	BNC Cable	BNC Cable 1	None	JYE BAO CO.,LTD.	2009/8/20	2010/8/19
ETSTW-Cable 012	BNC Cable	BNC Cable 2	None	JYE BAO CO.,LTD.	2009/8/20	2010/8/19
ETSTW-Cable 013	Microwave Cable	SUCOFLEX 104 (S_Cable 5)	232345	HUBER+SUHNER	2010/3/5	2011/3/4
ETSTW-Cable 022	N TYPE Cable	OATS Cable 3	0002	JYE BAO CO.,LTD.	2010/3/5	2011/3/4
ETSTW-Cable 039	Microwave Cable	SUCOFLEX 104 (S_Cable 19)	316739	HUBER+SUHNER	2010/3/5	2011/3/4
WTSTW-SW 001	EMI TEST SOFTWARE	Harmonics-1000	None	EMC PARTNER	HARCS V Firmware V	ersion 4.16 Version 2.18
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMC	None	Farad	Version E	ETS-03A1
WTSTW-SW 003	EMS TEST SOFTWARE	i2	None	AUDIX	Version 3.2007-8-17b	
WTSTW-SW 005	GSM Fading Level Correction	GSMFadLevCor	None	R&S	Versio	on 1.66

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#### 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  $20 \text{ dB}\mu\text{V} + 10.36 \text{ dB} + 6 \text{ dB} = 36.36 \text{ dB}\mu\text{V/m} \text{ @3m}$ 

The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.4-2003 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 Worldwide Testing Services(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.

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.

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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

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## 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 –	15.247(c):	×	×	
Transmitter operating	15.209			
Band Edge Measurement	15.247(c)	×	×	
Minimum 6 dB Bandwidth	15.247(a)(2)	×	×	
Peak Power Spectral Density	15.247(d)	×	×	
Radiated Emission from Digital Part	15.109			
Power Line Conducted Emission	15.207	×	×	

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### 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		
		Channel 149	Channel 157	Channel 165	
T <sub>nom</sub> = 23°C	V - 120 V	[dBm]	[dBm]	[dBm]	
	$V_{nom} = 120 \text{ V}$	25.52	23.77	Channel 165	

#### Mode B

Test condition		Conducted Power		
		Channel 1	Channel 6	Channel 11
T <sub>nom</sub> = 23°C	V 120 V	[dBm]	[dBm]	[dBm]
	$V_{\text{nom}} = 120 \text{ V}$	22.15	22.58	Channel 11

#### Mode C

Test condition		(	Conducted Power	r
		Channel 1	Channel 6	Channel 11
T <sub>nom</sub> = 23°C	V 120 V	[dBm]	[dBm]	[dBm]
	$V_{\text{nom}} = 120 \text{ V}$	[dBm] [dBm] [dBn	21.66	

#### Mode D

Test con	dition	Conducted Power				
rest con	Channel 1	Channel 6 Chann				
T <sub>nom</sub> = 23°C	V 120 V	[dBm]	[dBm]	[dBm]		
	$V_{nom} = 120 V$	22.17	22.79	20.23		



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#### Mode E

Test con-	Conducted Power				
Test com	Channel 1	Channel 4	Channel 7		
T <sub>nom</sub> = 23°C	V - 120 V	[dBm]	[dBm]	[dBm]	
	$V_{\text{nom}} = 120 \text{ V}$	23.05	22.67	21.45	

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

#### 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  $\S15.247$  (b)(4)

Test equipment used: ETSTW-RE 055

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

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### 3.2 Equivalent isotropic radiated power

FCC Rule: 15.247(b)(3)

EIRP = max. conducted output power + antenna gain 802.11a: EIRP = 25.52 dBm + (-1.55 dBi) = 23.97 dBm

 $802.11b/g/n\ 20MHz/n\ 40MHz$ : EIRP =  $23.78\ dBm + 2.12\ dBi = 25.90\ dBm$ 

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

Test equipment used: ETSTW-RE 055

### 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

#### 802.11a:

Item	Unit	Value	Remarks
P	mW	356.45	Peak value
D	dB		
AG	dBi	-1.55	
G		0.70	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.050	Calculated value

### 802.11b/g/n 20 MHz/n 40MHz:

Item	Unit	Value	Remarks
P	mW	238.781	Peak value
D	dB		
AG	dBi	2.12	
G		1.63	Calculated Value
R	cm	20	Assumed value
S	mW/cm <sup>2</sup>	0.077	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: IR5RT9

#### 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: IR5RT9

### 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:

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  $-20 \mathrm{dB}$ 

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)

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028, ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043, ETSTW-RE 044

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

FCC ID: IR5RT9

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 "Correction Factor".

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

Model:	RT9			Date:	2010/5	5/13		
Mode:	802.11a(ch149)			Temperature:	24	°C	Engineer:	Danny
Polarization:	Horizontal			Humidity:	60	%		
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.2867	24.80	peak	11.32	36.12	40.00	-3.88	100	150
612.8257	8.40	peak	23.70	32.10	46.00	-13.90	135	150

Polarization: Horizontal

Frequency	Reading		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dBuV)		(dB)	(dBu	ıV/m) (dBuV		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
1498.9980	45.94		-11.08	34.86		74.00	54.00	-39.14	135	150
3987.9760	44.62		-2.28	42.34		74.00	54.00	-31.66	145	150
11493.4870	35.98		15.25	51.23		74.00	54.00	-22.77	145	150
17235.0000	32.00		12.43	44.43		74.00	54.00	-29.57	140	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	23.32	peak	11.10	34.42	40.00	-5.58	120	150
611.4230	7.51	peak	23.69	31.20	46.00	-14.80	130	150



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FCC ID: IR5RT9

Polarization: Vertical

Frequency	Reading		Factor	Resul	t @3m	Limit @3m		Margin	Table	Ant.
	(dBuV)		(dB)	(dBu	ıV/m)	(dBuV/m)		J	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
1494.9900	48.81		-11.13	37.68		74.00	54.00	-36.32	135	150
3935.8720	44.58		-2.44	42.14		74.00	54.00	-31.86	130	150
11490.0000	31.75		15.24	46.99	-	74.00	54.00	-27.01	140	150
17235.0000	31.44		12.43	43.87	-	74.00	54.00	-30.13	150	150

Mode: 802.11a(ch157) Temperature: 24 °C Engineer: Danny Polarization: Horizontal Humidity: 60 %

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Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	24.29	peak	11.10	35.39	40.00	-4.61	120	150
610.0201	7.59	peak	23.67	31.26	46.00	-14.74	125	150

Polarization: Horizontal

Frequency	Reading		Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dBuV)		(dB)	(dBu	ıV/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
1585.1700	45.16		-11.17	33.99	-	74.00	54.00	-40.01	140	150
3759.5190	44.52		-2.89	41.63	-	74.00	54.00	-32.37	130	150
11570.0000	32.01		15.00	47.01		74.00	54.00	-26.99	140	150
17355.0000	30.55		12.87	43.42		74.00	54.00	-30.58	150	150

Polarization: Vertical

1 Glarizationi	Vortioai							
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	22.85	peak	11.10	33.95	40.00	-6.05	110	150
611.4230	7.70	peak	23.69	31.39	46.00	-14.61	140	150

Polarization: Vertical

1 Oldrization:	Voitioui									
Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dBuV)		(dB)	(dBuV/m)		(dBuV/m)		_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
1492.9860	49.80		-11.16	38.64		74.00	54.00	-35.36	140	150
3811.6230	44.67		-2.68	41.99		74.00	54.00	-32.01	145	150
11570.0000	31.32		15.00	46.32		74.00	54.00	-27.68	140	150
17355.0000	32.75		12.87	45.62		74.00	54.00	-28.38	140	150



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FCC ID: IR5RT9

Mode:	802.11a(ch165)			Temperature:	24	°C	Engineer:	Danny
Polarization:	Horizontal			Humidity:	60	%		
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.8277	22.22 peak 11.21		11.21	33.43	40.00	-6.57	120	150

29.45

46.00

-16.55

23.69

peak

Polarization: Horizontal

611.4230

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	Frequency	Read	ing	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
		(dBuV)		(dB)	(dBu	ıV/m)	(dBu	V/m)	_	Degree	High
	(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
	1559.1180	45.49		-11.14	34.35		74.00	54.00	-39.65	140	150
	3979.9600	43.77		-2.31	41.46		74.00	54.00	-32.54	150	150
	11650.0000	32.39		14.88	47.27		74.00	54.00	-26.73	145	150
	17475.0000	31.37		13.27	44.64		74.00	54.00	-29.36	135	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	21.06	peak	11.10	32.16	40.00	-7.84	115	150
611.4230	7.63	peak	23.69	31.32	46.00	-14.68	125	150

Polarization: Vertical

Frequency	Rea	ding	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
1494.9900	49.32		-11.13	38.19		74.00	54.00	-35.81	140	150
3767.5350	45.17		-2.85	42.32		74.00	54.00	-31.68	135	150
11650.0000	31.28		14.88	46.16		74.00	54.00	-27.84	140	150
17475.0000	31.33		13.27	44.60		74.00	54.00	-29.40	140	150

Mode: 802.11b(ch1) Temperature: °C Engineer: Danny 24 Humidity: Polarization: Horizontal 60 % Ant. Table Frequency Reading Factor Result Limit Margin Detector Degree High (MHz) (dBuV) (dB) (dBuV/m) (dBuV/m) (dB) (Deg.) (cm) 115 73.8277 23.40 peak 11.21 34.61 40.00 -5.39 150 610.0201 5.81 23.67 29.48 46.00 -16.52 125 150 peak



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Polarization: Horizontal

Frequency	Read	ing	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
. ,	(dBuV)		(dB)	(dBu	V/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4824.0000	47.20		-4.94	42.26		74.00	54.00	-31.74	140	150
7236.0000	48.40		-2.37	46.03		74.00	54.00	-27.97	120	150
9648.0000	29.43		12.83	42.26		74.00	54.00	-31.74	135	150
12060.0000	30.01		15.92	45.93		74.00	54.00	-28.07	145	150

Polarization: Vertical

	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	74.3688	24.82	peak	11.10	35.92	40.00	-4.08	120	150
1	611.4230	7.09	peak	23.69	30.78	46.00	-15.22	140	150

Polarization: Vertical

· danzation · fortion											
	Frequency	,		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
		(dBuV)		(dB)	(dBuV/m)		(dBuV/m)		_	Degree	High
	(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
	4824.0000	46.29		-4.94	41.35		74.00	54.00	-32.65	155	150
	7236.0000	48.35		-2.37	45.98		74.00	54.00	-28.02	145	150
	9648.0000	28.8		12.83	41.63		74.00	54.00	-32.37	140	150
	12060.0000	29.44		15.92	45.36		74.00	54.00	-28.64	130	150

Mode:	802	2.11b(ch6)		Temperature:	24	°C	Engineer:	Danny
Polarization:	Horizontal			Humidity:	60	%		
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.8277	24.62	peak	11.21	35.83	40.00	-4.17	105	150
608.6173	5.96	peak	23.65	29.61	46.00	-16.39	120	150

Polarization: Horizontal

1 danzation Tionzontal										
Frequency	Read	Reading F (dBuV)		Result @3m		Limit @3m		Margin	Table	Ant.
	(dBu	(dBuV)		(dBu	ıV/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4874.0000	46.49		-4.86	41.63		74.00	54.00	-32.37	140	150
7311.0000	47.53		-2.76	44.77		74.00	54.00	-29.23	145	150
9748.0000	30.33		12.80	43.13		74.00	54.00	-30.87	150	150
12185.0000	29.69		16.40	46.09		74.00	54.00	-27.91	140	150



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FCC ID: IR5RT9

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	23.02	peak	11.10	34.12	40.00	-5.88	140	150
608.6173	7.12	peak	23.65	30.77	46.00	-15.23	120	150

Polarization: Vertical

Frequency	Read	ding	Factor	tor Result @3m		Limit	@3m	Margin	Table	Ant.
	(dBi	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4874.0000	46.47		-4.86	41.61		74.00	54.00	-32.39	135	150
7311.0000	48.01		-2.76	45.25		74.00	54.00	-28.75	145	150
9748.0000	29.77		12.80	42.57	-	74.00	54.00	-31.43	140	150
12185.0000	30.03		16.40	46.43	-	74.00	54.00	-27.57	150	150

Mode: Polarization:	,				24 60	°C %	Engineer:	Danny
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.2867	22.80	peak	11.32	34.12	40.00	-5.88	110	150
611.4230	6.53	peak	23.69	30.22	46.00	-15.78	130	150

Polarization: Horizontal

Frequency	Read	Reading		Resul	Result @3m		Limit @3m		Table	Ant.
	(dBu	ıV)	(dB)	(dBu	ıV/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4924.0000	45.34		-4.89	40.45		74.00	54.00	-33.55	135	150
7386.0000	48.36		-3.09	45.27		74.00	54.00	-28.73	145	150
9848.0000	30.04		13.02	43.06		74.00	54.00	-30.94	135	150
12310.0000	29.89		16.46	46.35		74.00	54.00	-27.65	140	150

Polarization: Vertical

-									
	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	73.8277	24.04	peak	11.21	35.25	40.00	-4.75	105	150
	612.8257	7.54	peak	23.70	31.24	46.00	-14.76	135	150



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Polarization: Vertical

Frequency	Rea	ding	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4924.0000	46.16		-4.89	41.27		74.00	54.00	-32.73	130	150
7386.0000	47.44		-3.09	44.35		74.00	54.00	-29.65	135	150
9848.0000	30.05		13.02	43.07		74.00	54.00	-30.93	145	150
12310.0000	30.86		16.46	47.32		74.00	54.00	-26.68	155	150

Mode: 802.11g(ch1) Temperature: 24 °C Engineer: Danny Polarization: Horizontal Humidity: 60 %

i dianzation.	Horizontai			riumuity.	00	70		
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.8277	23.21	peak	11.21	34.42	40.00	-5.58	115	150
608.6173	6.98	peak	23.65	30.63	46.00	-15.37	130	150

Polarization: Horizontal

Frequency	Read	ing	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dBu	V)	(dB)	(dBu	ıV/m)	(dBu	V/m)	_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4824.0000	46.58		-4.94	41.64		74.00	54.00	-32.36	140	150
7236.0000	47.90		-2.37	45.53		74.00	54.00	-28.47	130	150
9648.0000	30.84		12.83	43.67		74.00	54.00	-30.33	135	150
12060.0000	29.98		15.92	45.90		74.00	54.00	-28.10	145	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.8277	23.05	peak	11.21	34.26	40.00	-5.74	110	150
611.4230	7.09	peak	23.69	30.78	46.00	-15.22	130	150

Polarization: Vertical

Frequency	Read	ding	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4824.0000	45.50		-4.94	40.56		74.00	54.00	-33.44	140	150
7236.0000	47.45		-2.37	45.08		74.00	54.00	-28.92	130	150
9648.0000	29.29		12.83	42.12		74.00	54.00	-31.88	140	150
12060.0000	29.9		15.92	45.82		74.00	54.00	-28.18	145	150



-15.87

125

150

46.00

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

Mode:	802	2.11g(ch6)		Temperature:	24	°C	Engineer:	Danny
Polarization:	Horizontal			Humidity:	60	%		
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.9100	23.52	peak	10.99	34.51	40.00	-5.49	100	150

30.13

Polarization: Horizontal

6.48

peak

23.65

608.6173

Frequency	Read	ing	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dBu	V)	(dB)	(dBu	ıV/m)	(dBu	V/m)	_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4874.0000	46.37		-4.86	41.51		74.00	54.00	-32.49	150	150
7311.0000	47.20		-2.76	44.44		74.00	54.00	-29.56	160	150
9748.0000	30.5		12.80	43.30		74.00	54.00	-30.70	145	150
12185.0000	30.14		16.40	46.54		74.00	54.00	-27.46	165	150

Polarization: Vertical

- 4									
	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	74.3688	23.91	peak	11.10	35.01	40.00	-4.99	115	150
Ì	612.8257	7.26	peak	23.70	30.96	46.00	-15.04	135	150

Polarization: Vertical

Frequency	Rea	ding	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	ıV/m)	(dBu	V/m)	_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4874.0000	46.19		-4.86	41.33		74.00	54.00	-32.67	140	150
7311.0000	47.56		-2.76	44.80		74.00	54.00	-29.20	150	150
9748.0000	30.04		12.80	42.84		74.00	54.00	-31.16	140	150
12185.0000	29.2		16.40	45.60		74.00	54.00	-28.40	130	150

Mode: 802.11g(ch11) Temperature: 24 °C Engineer: Danny Polarization: Horizontal Humidity: 60 %

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.9100	23.39	peak	10.99	34.38	40.00	-5.62	105	150
612.8257	7.23	peak	23.70	30.93	46.00	-15.07	135	150



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FCC ID: IR5RT9

Polarization: Horizontal

Frequency	Reading		Factor	Result @3m		Limit @3m		Margin	Table	Ant.
	(dBu	(dBuV)		(dBu	V/m)	(dBuV/m)		_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4924.0000	46.48		-4.89	41.59		74.00	54.00	-32.41	145	150
7386.0000	48.06		-3.09	44.97		74.00	54.00	-29.03	150	150
9848.0000	29.74		13.02	42.76		74.00	54.00	-31.24	150	150
12310.0000	29.78		16.46	46.24		74.00	54.00	-27.76	155	150

Polarization: Vertical

	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
ı	73.8277	23.70	peak	11.21	34.91	40.00	-5.09	120	150
	612.8257	8.00	peak	23.70	31.70	46.00	-14.30	125	150

Polarization: Vertical

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Frequency	Rea	ding	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	ıV/m)	(dBu	V/m)	_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4924.0000	46.12		-4.89	41.23		74.00	54.00	-32.77	140	150
7386.0000	48.14		-3.09	45.05		74.00	54.00	-28.95	150	150
9848.0000	29.66		13.02	42.68		74.00	54.00	-31.32	150	150
12310.0000	30.49		16.46	46.95		74.00	54.00	-27.05	140	150

Mode: 802.11n 20 MHz (ch1) Temperature: 24 °C Engineer: Danny Polarization: Horizontal Humidity: 60 %

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Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.9100	24.67	peak	10.99	35.66	40.00	-4.34	100	150
610.0201	6.25	peak	23.67	29.92	46.00	-16.08	120	150

Polarization: Horizontal

Frequency	Read	ing	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dBu	V)	(dB)	(dBu	ıV/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4824.0000	45.95		-4.94	41.01	-	74.00	54.00	-32.99	140	150
7236.0000	47.52		-2.37	45.15		74.00	54.00	-28.85	145	150
9648.0000	31.08		12.83	43.91		74.00	54.00	-30.09	135	150
12060.0000	29.00		15.92	44.92		74.00	54.00	-29.08	145	150



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FCC ID: IR5RT9

Polarization: Vertical

	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
Ī	74.3688	23.21	peak	11.10	34.31	40.00	-5.69	105	150
Ī	608.6173	7.25	peak	23.65	30.90	46.00	-15.10	120	150

Polarization: Vertical

Frequency	Read	ding	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dBi	uV)	(dB)	(dBu	ıV/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4824.0000	46.37		-4.94	41.43		74.00	54.00	-32.57	145	150
7236.0000	46.92		-2.37	44.55		74.00	54.00	-29.45	150	150
9648.0000	29.33		12.83	42.16		74.00	54.00	-31.84	135	150
12060.0000	29.24		15.92	45.16		74.00	54.00	-28.84	150	150

Mode: 802.11n 20 MHz (ch6) Temperature: 24 °C Engineer: Danny

Polarization: Horizontal Humidity: 60 %

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Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
132.8057	14.53	peak	14.68	29.21	43.50	-14.29	120	150
611.4230	6.70	peak	23.69	30.39	46.00	-15.61	130	150

Polarization: Horizontal

Frequency	Read	Reading		Resul	Result @3m		Limit @3m		Table	Ant.
	(dBu	U	(dB)			(dBuV/m)		Margin	Degree	High
(MHz)	Peak	Áve.	Corr.	Peak	Äve.	Peak	Äve.	(dB)	(Deg.)	(cm)
4874.0000	46.44		-4.86	41.58		74.00	54.00	-32.42	140	150
7311.0000	47.66		-2.76	44.90		74.00	54.00	-29.10	150	150
9748.0000	29.89		12.80	42.69		74.00	54.00	-31.31	145	150
12185.0000	28.90		16.40	45.30		74.00	54.00	-28.70	130	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.2867	22.74	peak	11.32	34.06	40.00	-5.94	100	150
612.8257	6.80	peak	23.70	30.50	46.00	-15.50	140	150



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FCC ID: IR5RT9

Polarization: Vertical

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	Frequency	Read	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
		(dBi	uV)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
	(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
	4874.0000	45.86		-4.86	41.00		74.00	54.00	-33.00	145	150
	7311.0000	47.49		-2.76	44.73	-	74.00	54.00	-29.27	150	150
	9748.0000	29.89		12.80	42.69	-	74.00	54.00	-31.31	140	150
	12185.0000	29.15		16.40	45.55		74.00	54.00	-28.45	150	150

Mode: 802.11n 20 MHz (ch11) Temperature: 24 °C Engineer: Danny Polarization: Horizontal Humidity: 60 % Table Ant. Frequency Reading Result Factor Limit Margin Detector Degree High (dBuV) (MHz) (dB) (dBuV/m) (dBuV/m) (dB) (Deg.) (cm) 73.8277 24.02 11.21 35.23 40.00 -4.77 100 150 peak

29.73

46.00

-16.27

135

150

23.67

peak

Polarization: Horizontal

6.06

610.0201

Frequency	Read	Reading		Resul	Result @3m		Limit @3m		Table	Ant.
	(dBu	V)	(dB)	(dBuV/m)		(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4924.0000	46.36		-4.89	41.47		74.00	54.00	-32.53	140	150
7386.0000	47.28		-3.09	44.19		74.00	54.00	-29.81	145	150
9848.0000	29.54		13.02	42.56		74.00	54.00	-31.44	155	150
12310.0000	30.53		16.46	46.99		74.00	54.00	-27.01	150	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.8277	23.36	peak	11.21	34.57	40.00	-5.43	100	150
612.8257	7.50	peak	23.70	31.20	46.00	-14.80	115	150

Polarization: Vertical

Frequency	Read	ding	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBu	(dBuV/m)		(dBuV/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4924.0000	45.50		-4.89	40.61		74.00	54.00	-33.39	140	150
7386.0000	46.89		-3.09	43.80		74.00	54.00	-30.20	145	150
9848.0000	29.5		13.02	42.52		74.00	54.00	-31.48	150	150
12310.0000	30.3		16.46	46.76		74.00	54.00	-27.24	155	150



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FCC ID: IR5RT9

 $^{\circ}\text{C}$ Engineer: Danny Mode: 802.11n 40 MHz (ch1) Temperature: 24

Polarization: Horizontal Humidity: 60

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Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	25.21	peak	11.10	36.31	40.00	-3.69	105	150
611.4230	6.17	peak	23.69	29.86	46.00	-16.14	120	150

Polarization: Horizontal

Frequency	Reading		Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dBuV)		(dB)	(dBu	ıV/m)	(dBuV/m)			Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4844.0000	45.64		-4.91	40.73		74.00	54.00	-33.27	135	150
7266.0000	46.97		-2.53	44.44		74.00	54.00	-29.56	145	150
9688.0000	29.53		12.65	42.18		74.00	54.00	-31.82	140	150
12110.0000	29.55		16.05	45.60		74.00	54.00	-28.40	130	150

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
73.8277	22.77	peak	11.21	33.98	40.00	-6.02	105	150
610.0201	7.51	peak	23.67	31.18	46.00	-14.82	130	150

Polarization: Vertical

Frequency	Rea	ding	Factor	Result @3m		Limit	Limit @3m		Table	Ant.
	(dB	uV)	(dB)	(dBuV/m)		(dBuV/m)		_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4844.0000	46.23		-4.91	41.32		74.00	54.00	-32.68	140	150
7266.0000	47.13		-2.53	44.60		74.00	54.00	-29.40	150	150
9688.0000	31.29		12.65	43.94		74.00	54.00	-30.06	155	150
12110.0000	28.61		16.05	44.66		74.00	54.00	-29.34	145	150

Mode: 802.11n 40 MHz (ch4) Temperature: 24 °C Engineer: Danny Polarization: Horizontal Humidity: % 60

Table Ant. Frequency Limit Margin Reading Factor Result Detector Degree High (MHz) (dBuV) (dB) (dBuV/m) (dBuV/m) (dB) (Deg.) (cm) 73.8277 11.21 <del>-4.4</del>7 150 24.32 35.53 40.00 105 peak 46.00 -15.75

30.25

23.69

peak

6.56

611.4230

150

120



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FCC ID: IR5RT9

Polarization: Horizontal

Frequency	Read	ing	Factor	Resul	Result @3m		Limit @3m		Table	Ant.
	(dBu	V)	(dB) (dBuV/m		ıV/m)	(dBuV/m)		_	Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4874.0000	46.25		-4.86	41.39		74.00	54.00	-32.61	135	150
7311.0000	47.60		-2.76	44.84	-	74.00	54.00	-29.16	145	150
9748.0000	30.63		12.80	43.43		74.00	54.00	-30.57	145	150
12185.0000	30.59		16.40	46.99		74.00	54.00	-27.01	140	150

Polarization: Vertical

	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	74.3688	23.33	peak	11.10	34.43	40.00	-5.57	110	150
1	611.4230	7.28	peak	23.69	30.97	46.00	-15.03	125	150

Polarization: Vertical

Frequency	Rea	ding	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dB	uV)	(dB)	(dBu	ıV/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4874.0000	46.55		-4.86	41.69		74.00	54.00	-32.31	145	150
7311.0000	48.05		-2.76	45.29		74.00	54.00	-28.71	150	150
9748.0000	29.53		12.80	42.33		74.00	54.00	-31.67	150	150
12185.0000	28.6		16.40	45.00		74.00	54.00	-29.00	160	150

Mode:	802.11n 40 MHz (ch7)			Temperature:	24	°C	Engineer:	Danny
Polarization:	Horizontal			Humidity:	60	%		
Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
74.3688	24.46	peak	11.10	35.56	40.00	-4.44	110	150
608 6173	5 81	peak	23 65	29 46	46 00	-16 54	130	150

Polarization: Horizontal

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Frequency	Read	ing	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dBu	V)	(dB)	(dBu	ıV/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4904.0000	46.22		-4.83	41.39	-	74.00	54.00	-32.61	150	150
7356.0000	47.22		-2.96	44.26	-	74.00	54.00	-29.74	145	150
9808.0000	28.52		13.01	41.53	-	74.00	54.00	-32.47	140	150
12260.0000	29.4		16.46	45.86		74.00	54.00	-28.14	135	150



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FCC ID: IR5RT9

Polarization: Vertical

	Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	74.3688	24.02	peak	11.10	35.12	40.00	-4.88	105	150
1	610.0201	7.38	peak	23.67	31.05	46.00	-14.95	120	150

Polarization: Vertical

Frequency	Read	ding	Factor	Resul	t @3m	Limit	@3m	Margin	Table	Ant.
	(dBi	uV)	(dB)	(dBu	ıV/m)	(dBu	V/m)		Degree	High
(MHz)	Peak	Ave.	Corr.	Peak	Ave.	Peak	Ave.	(dB)	(Deg.)	(cm)
4904.0000	46.21		-4.83	41.38		74.00	54.00	-32.62	135	150
7356.0000	47.18		-2.96	44.22		74.00	54.00	-29.78	155	150
9808.0000	28.18		13.01	41.19		74.00	54.00	-32.81	140	150
12260.0000	30.09		16.46	46.55		74.00	54.00	-27.45	145	150

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.
- 5. See the attached diagram as appendix.

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

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028,

ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043,

ETSTW-RE 044

FCC ID: IR5RT9

### 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 conditions		Attenuation at or outside band-edges			
Test co.	nartions	Lower Band-edge	Upper Band-edge		
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{nom} = 120 \text{ V}$	36.88	49.12		

#### Mode B

Test con	nditions	Attenuation at or outside band-edges			
Test co.	narrons	Lower Band-edge	Upper Band-edge		
T <sub>nom</sub> = 23°C	$V_{nom} = 120 \text{ V}$	40.61	50.27		

#### Mode C

Test conditions		Attenuation at or outside band-edges			
		Lower Band-edge	Upper Band-edge		
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	34.43	40.17		

#### Mode D

Test co	nditions	Attenuation at or outside band-edges			
Test co.	aditions	Lower Band-edge	Upper Band-edge		
$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	36.45	39.02		

#### Mode E

Test co	nditions	Attenuation at or	r outside band-edges
Test co.	narions	Lower Band-edge	Upper Band-edge
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	34.52	36.82

FCC ID: IR5RT9

### Limit:

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

Test equipment used: ETSTW-RE 055

Explanation: Please see attached diagram as appendix.

FCC ID: IR5RT9

#### 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			
1050 001		Channel 149 Channel 157 Channel 165			
$T_{nom} = 23^{\circ}C$	$V_{\text{nom}} = 120 \text{ V}$	16.538461538 MHz	16.538461538 MHz	16.538461538 MHz	

#### Mode B

	Test conditions		6 dB Bandwidth		
			Channel 1	Channel 6	Channel 11
	$T_{nom} = 23^{\circ}C$	$V_{nom} = 120 \text{ V}$	11.570512821 MHz	11.634615385 MHz	11.987179487 MHz

#### Mode C

	Test conditions		6 dB Bandwidth		
			Channel 1	Channel 6	Channel 11
	$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{\text{nom}} = 120 \text{ V}$	16.538461538 MHz	16.570512821 MHz	16.570512821 MHz

#### Mode D

	Test conditions		6 dB Bandwidth		
			Channel 1	Channel 6	Channel 11
	$T_{nom} = 23^{\circ}C$	$V_{\text{nom}} = 120 \text{ V}$	17.756410256 MHz	17.724358974 MHz	17.788461538 MHz

### Mode E

Test conditions		6 dB Bandwidth		
		Channel 1	Channel 4	Channel 7
$T_{nom}=23^{\circ}C$	$V_{nom} = 120 \text{ V}$	35.833333333 MHz	35.897435897 MHz	35.641025641 MHz



FCC ID: IR5RT9

### **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 055

Explanation: See attached diagrams in Appendix.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 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 conditions		Channel 149	Channel 149 Channel 157 Channel			
		[dBm]	[dBm]	[dBm]		
$T_{nom} = 23^{\circ}C$	$T_{nom}$ = 23°C $V_{nom}$ = 120 V		-10.03	-11.74		

### Mode B

		Peak Power Spectral Density (3 kHz)				
Test conditions		Channel 1	Channel 6	Channel 11		
		[dBm]	[dBm]	[dBm]		
$T_{nom} = 23^{\circ}C$	$T_{nom}=23^{\circ}C$ $V_{nom}=120$ $V$		-10.42	-12.54		

### Mode C

Mode C						
		Peak Power Spectral Density (3 kHz)				
Test conditions		Channel 1	Channel 1 Channel 6 Cha			
		[dBm]	[dBm]	[dBm]		
T <sub>nom</sub> = 23°C	$T_{nom}$ = 23°C $V_{nom}$ = 120 V		-9.95	-12.27		

### Mode D

		Peak Power Spectral Density (3 kHz)				
Test conditions		Channel 1	Channel 6 Channel			
		[dBm]	Bm] [dBm]			
T <sub>nom</sub> = 23°C	$T_{nom}$ = 23°C $V_{nom}$ = 120 V		-10.55 -10.85			

### Mode E

		Peak Power Spectral Density (3 kHz)				
Test conditions		Channel 1	Channel 1 Channel 4			
		[dBm]	[dBm]	[dBm]		
T <sub>nom</sub> = 23°C	$T_{nom}$ = 23°C $V_{nom}$ = 120 V		-14.17	-13.79		



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

**Limits:** 

Frequency Range MHz	dBm
902-928	8
2400-2483.5	8
5725-5850	8

Test equipment used: ETSTW-RE 055

Explanation: See attached diagrams in Appendix.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 3.9 Radiated Emission from Digital Part

FCC Rule: 15.109

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

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

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 018, ETSTW-RE 028,

ETSTW-RE 029, ETSTW-RE 030, ETSTW-RE 042, ETSTW-RE 043,

ETSTW-RE 044

Explanation: The test results of digital part are listed in test report no.: W6M21006-10691-P-15B.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### 3.10 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.

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

Model: Mode: larization:	RT9 800×60 N	0 Te	ate: :mperature: Humidity:		0/7/8 °C %	Engineer:		Rick
Frequency		ding uV)	Factor (dB)		sult uV)		nit uV)	Margin
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)
0.1932	38.78	34.64	10.77	49.55	45.41	63.90	53.90	-8.49
0.3830	38.70	35.69	10.66	49.36	46.35	58.21	48.21	-1.86
0.4480	34.51	32.23	10.62	45.13	42.85	56.91	46.91	-4.06
0.5750	33.56	32.09	10.63	44.19	42.72	56.00	46.00	-3.28
2.1650	26.51	20.74	10.09	36.60	30.83	56.00	46.00	-15.17
6.0556	20.76	14.87	10.22	30.98	25.09	60.00	50.00	-24.91

Polarization: L1

Frequency	Reading (dBuV)		Factor (dB)	Result (dBuV)		Limit (dBuV)		Margin
(MHz)	QP	Ave.	Corr.	QP	Ave.	QP	Ave.	(dB)
0.1928	39.22	33.50	10.78	50.00	44.28	63.92	53.92	-9.64
0.3188	35.23	30.60	10.72	45.95	41.32	59.74	49.74	-8.42
0.3834	38.46	35.60	10.66	49.12	46.26	58.21	48.21	-1.95
0.4484	35.01	32.05	10.62	45.63	42.67	56.90	46.90	-4.23
2.2960	31.02	26.15	10.10	41.12	36.25	56.00	46.00	-9.75
5.8056	23.20	16.84	10.25	33.45	27.09	60.00	50.00	-22.91



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

Po	Mode: larization:	1024×768 N	Temperature: Humidity:	24 60	°C %	Engineer:	Danny
	Frequency	Reading	Factor	Res		Limit	Margin

Frequency (MHz)	Reading (dBuV) QP Ave.		Factor (dB) Corr.	Result (dBuV) QP Ave.		Limit (dBuV) ve. QP Ave.		Margin (dB)
_ ` '						<u> </u>	_	
0.1624	25.02	10.82	10.75	35.77	21.57	65.34	55.34	-29.57
0.3203	37.29	32.90	10.72	48.01	43.62	59.70	49.70	-6.08
0.3840	36.48	32.71	10.66	47.14	43.37	58.19	48.19	-4.82
0.5100	33.07	25.53	10.66	43.73	36.19	56.00	46.00	-9.81
2.1700	28.44	23.51	10.09	38.53	33.60	56.00	46.00	-12.40
6.0000	18.62	11.52	10.22	28.84	21.74	60.00	50.00	-28.26

Polarization: L1

Frequency (MHz)	Reading (dBuV) QP Ave.		Factor (dB) Corr.		sult uV) Ave.	Lir (dB QP	nit uV) Ave.	Margin (dB)
0.1643	22.68	7.38	10.76	33.44	18.14	65.24	55.24	-31.80
0.2541	35.40	32.79	10.73	46.13	43.52	61.62	51.62	-8.10
0.3183	37.23	33.81	10.72	47.95	44.53	59.75	49.75	-5.22
0.5122	33.11	27.37	10.66	43.77	38.03	56.00	46.00	-7.97
2.1075	28.58	24.51	10.10	38.68	34.61	56.00	46.00	-11.39
5.6667	23.96	16.10	10.25	34.21	26.35	60.00	50.00	-23.65

#### 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, AV = Average
- 4. All not in the table noted test results are more than 20 dB below the relevant limits.
- 5. Measurement uncertainty =  $\pm$  1.77dB; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
- 6. See attached diagrams as appendix.

### 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 004, ETSTW-CE 006

Explanation: See attached diagrams in Appendix.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### **Appendix**

### **Measurement diagrams**

- 1. Peak Output Power
- 2. Spurious Emissions radiated
- 3. Band Edge Measurement
- 4. Minimum 6dB Bandwidth
- 5. Peak Power Spectral Density
- 6. Power Line Conducted Emission

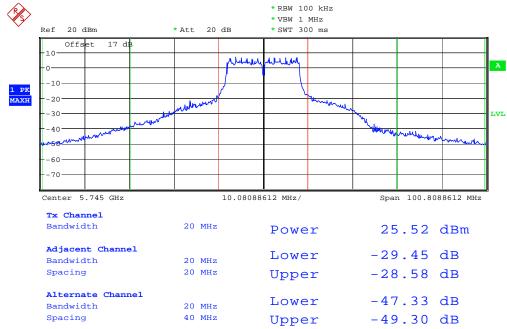


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Peak Output Power

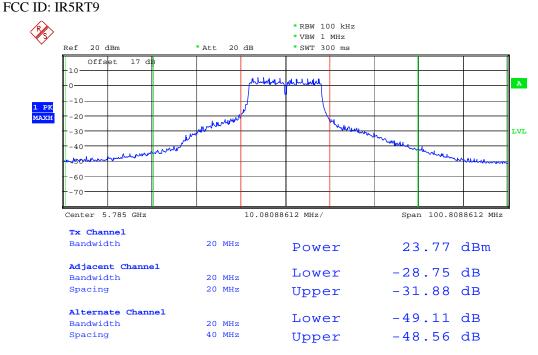
### Mode A



MAX OUTPUT POWER802.11a CH149 Date: 26.MAY.2010 10:01:23



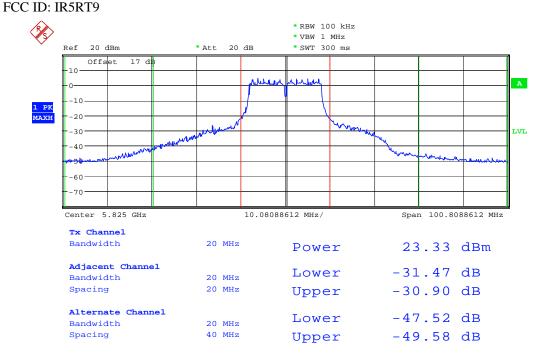
Registration number: W6M21006-10691-C-1



MAX OUTPUT POWER802.11a CH157 Date: 26.MAY.2010 10:01:46



Registration number: W6M21006-10691-C-1



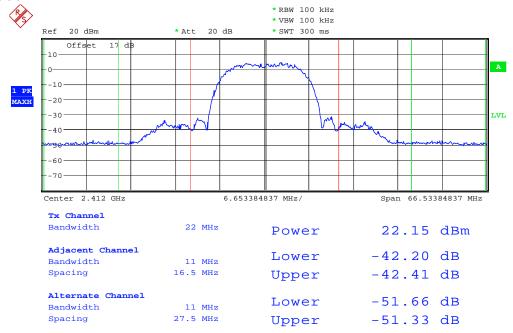
MAX OUTPUT POWER802.11a CH165 Date: 26.MAY.2010 10:02:25



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

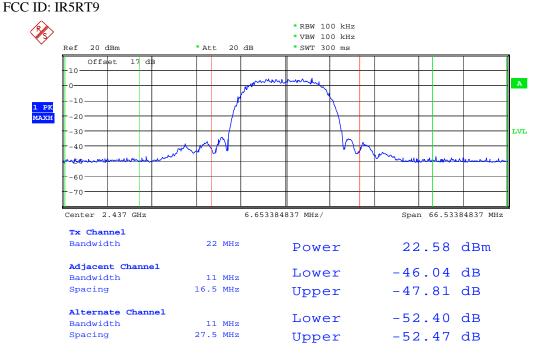
### Mode B



MAX OUTPUT POWER802.11b CH1 Date: 26.MAY.2010 10:03:03



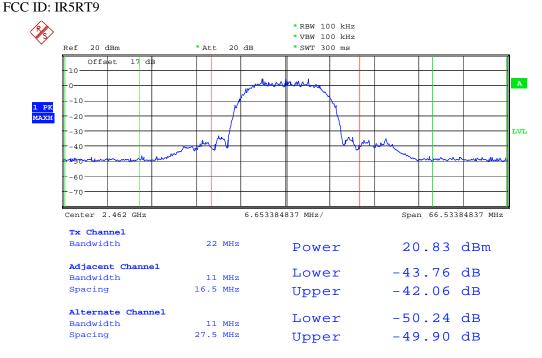
Registration number: W6M21006-10691-C-1



MAX OUTPUT POWER802.11b CH6 Date: 26.MAY.2010 10:03:21



Registration number: W6M21006-10691-C-1



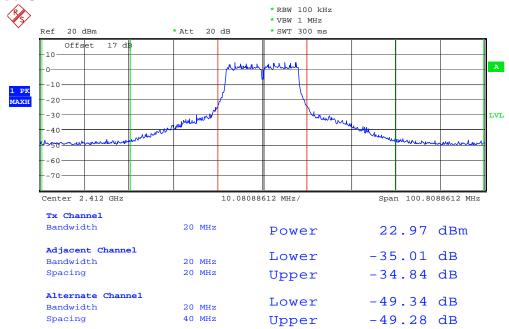
MAX OUTPUT POWER802.11b CH11 Date: 26.MAY.2010 10:03:51



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

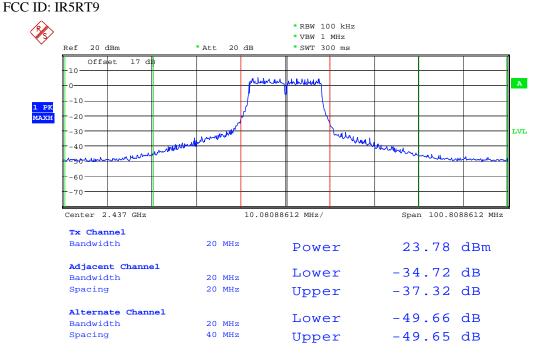
### Mode C



MAX OUTPUT POWER802.11g CH1 Date: 26.MAY.2010 10:04:55



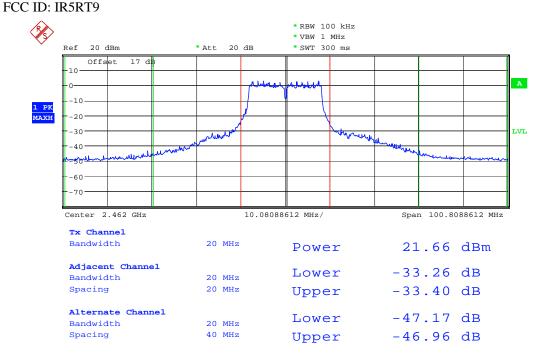
Registration number: W6M21006-10691-C-1



MAX OUTPUT POWER802.11g CH6 Date: 26.MAY.2010 10:04:39



Registration number: W6M21006-10691-C-1



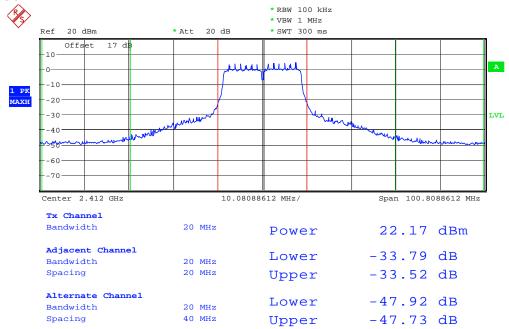
MAX OUTPUT POWER802.11g CH11 Date: 26.MAY.2010 10:04:22



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Mode D

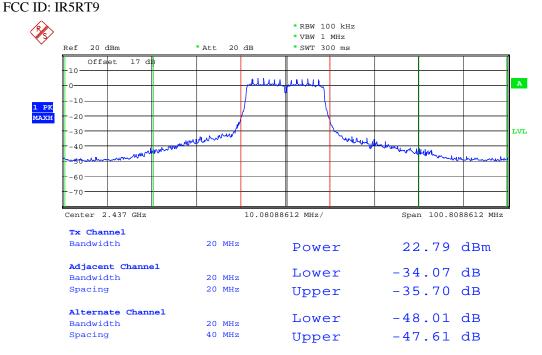


MAX OUTPUT POWER802.11n 20MHz CH1

Date: 26.MAY.2010 10:05:18



Registration number: W6M21006-10691-C-1

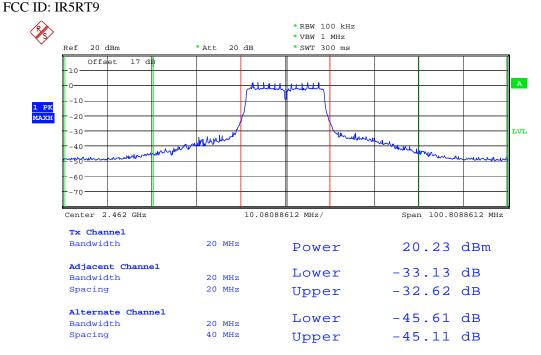


MAX OUTPUT POWER802.11n 20MHz CH6

Date: 26.MAY.2010 10:05:38



Registration number: W6M21006-10691-C-1



MAX OUTPUT POWER802.11n 20MHz CH11

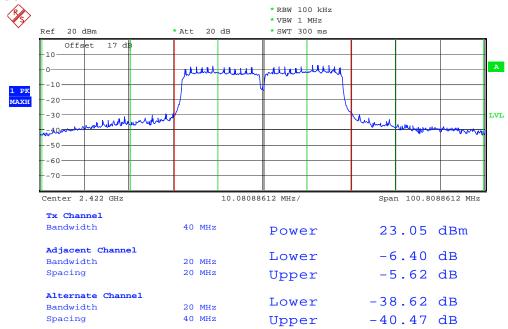
Date: 26.MAY.2010 10:06:01



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Mode E

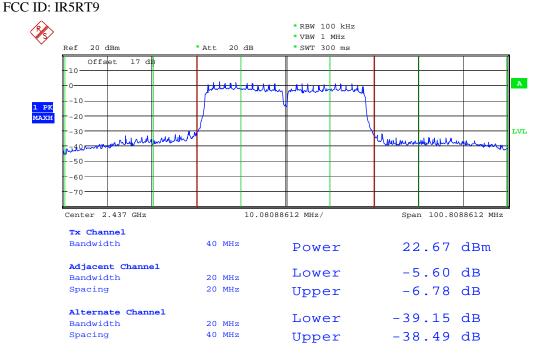


MAX OUTPUT POWER802.11n 40MHz CH1

Date: 26.MAY.2010 10:06:39



Registration number: W6M21006-10691-C-1

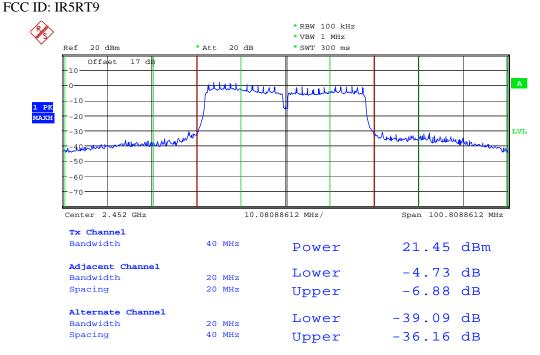


MAX OUTPUT POWER802.11n 40MHz CH4

Date: 26.MAY.2010 10:07:04



Registration number: W6M21006-10691-C-1



MAX OUTPUT POWER802.11n 40MHz CH7

Date: 26.MAY.2010 10:07:21

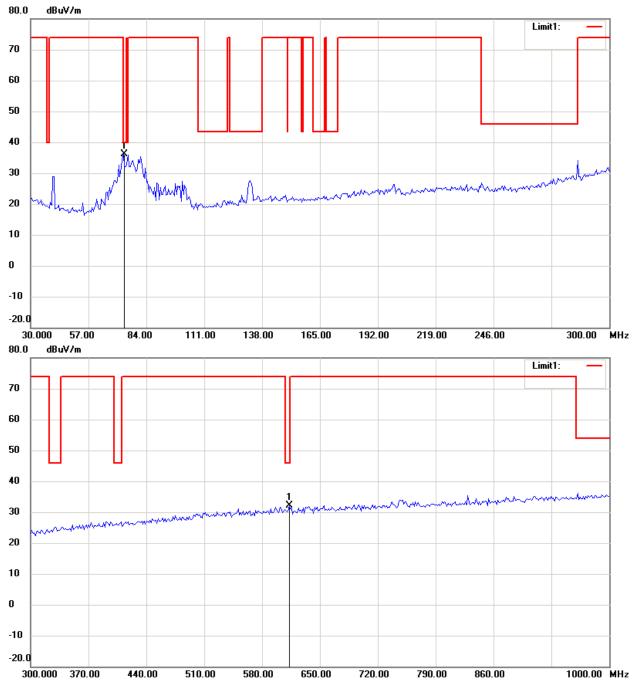


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

# Spurious Emissions radiated 802.11a ch149

### Antenna Polarization H

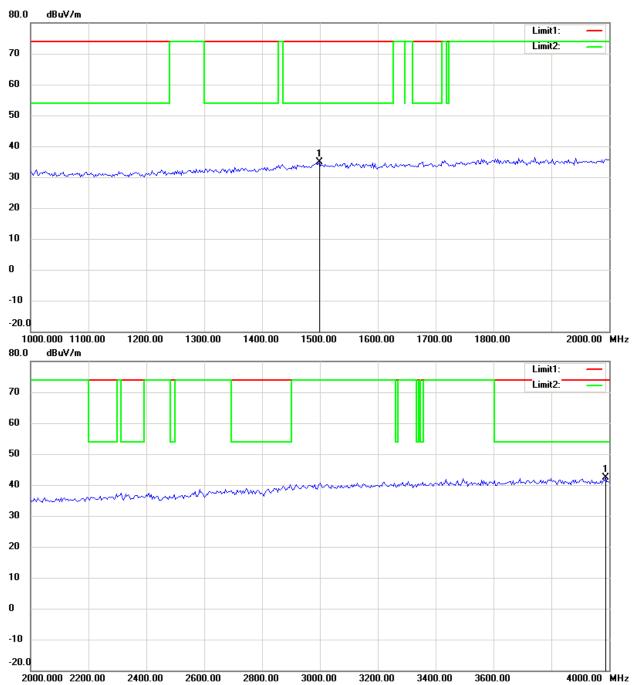


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

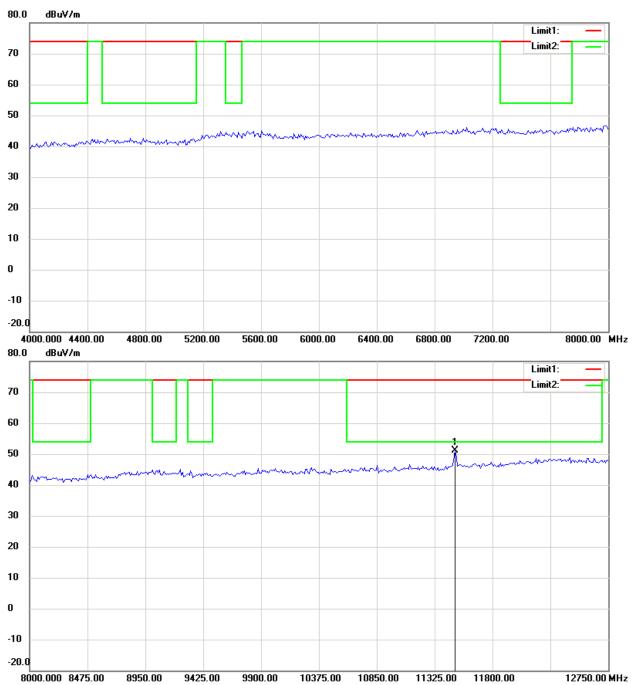


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



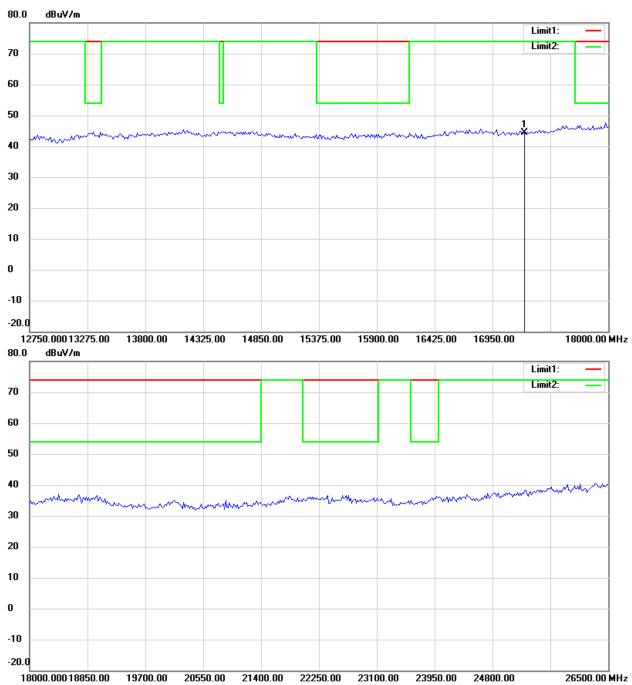
#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

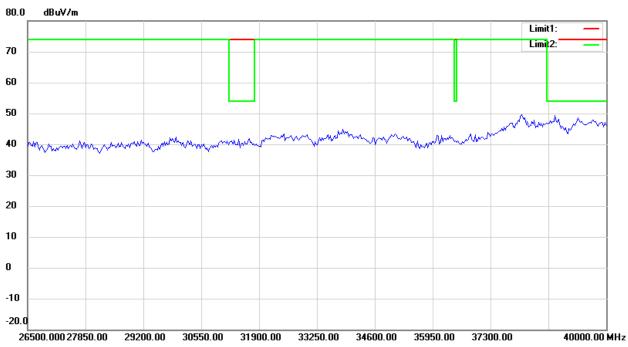


#### Note:

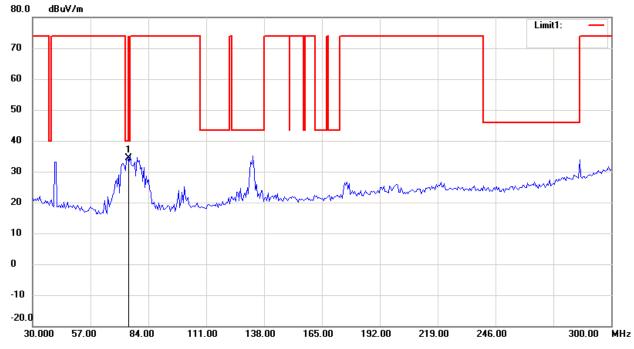
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Antenna Polarization V

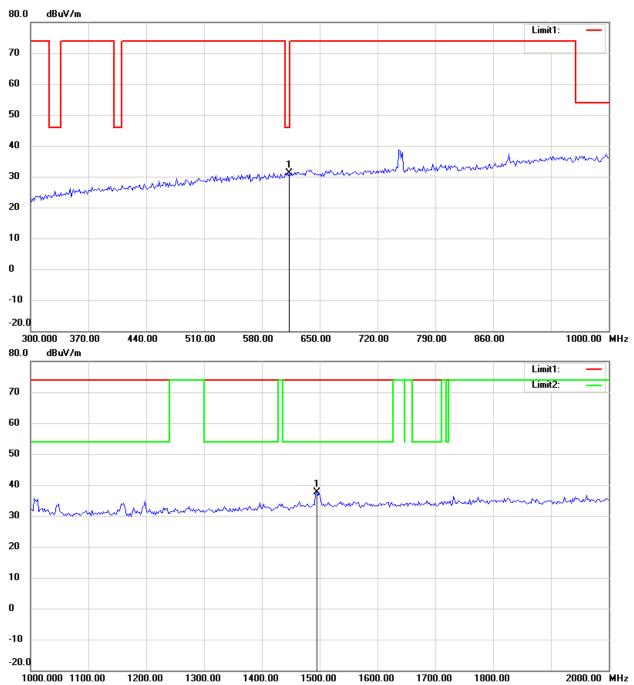


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

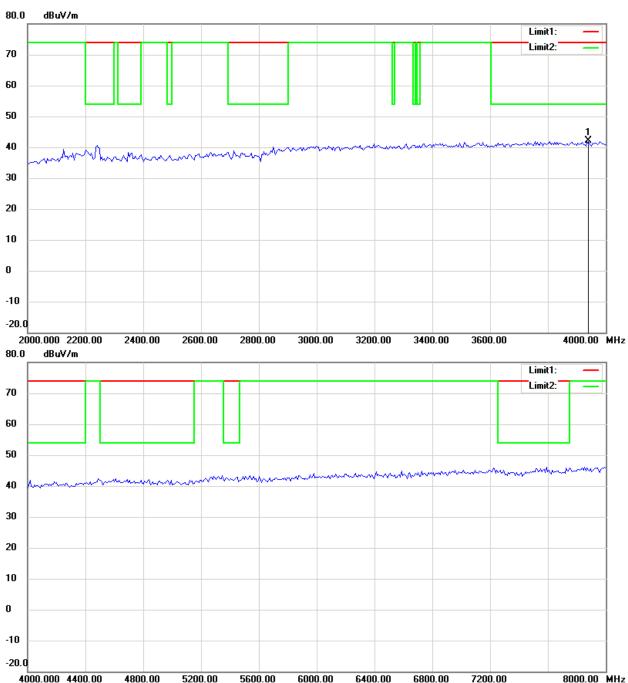


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

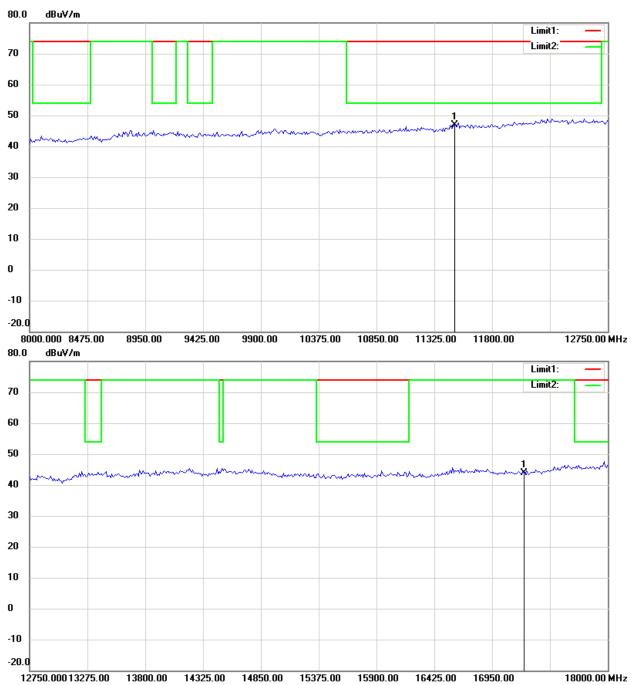


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

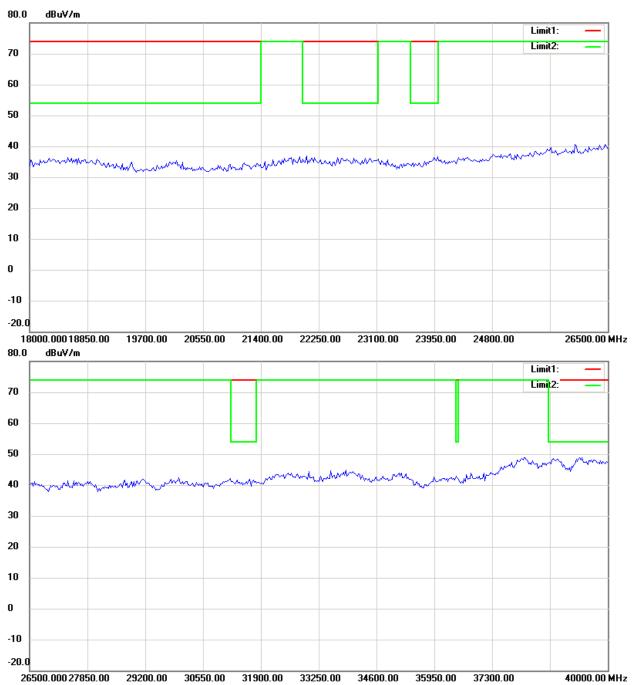


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

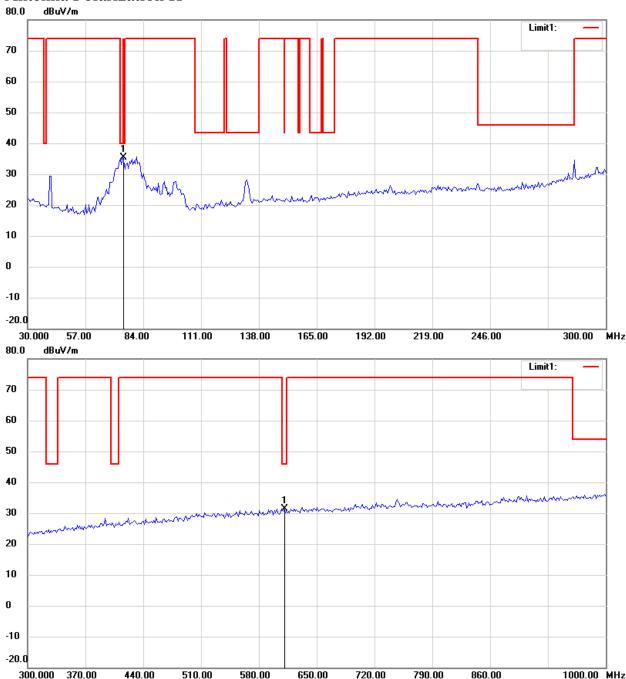


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11a ch157

### Antenna Polarization H

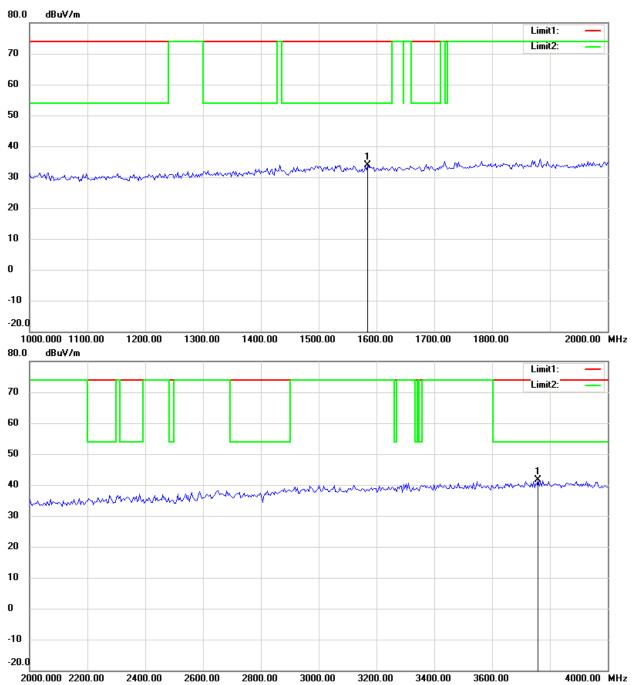


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

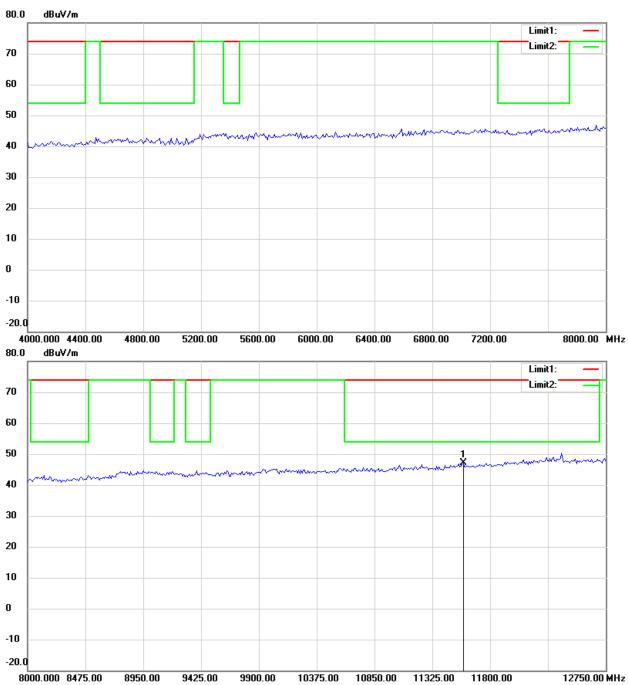


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

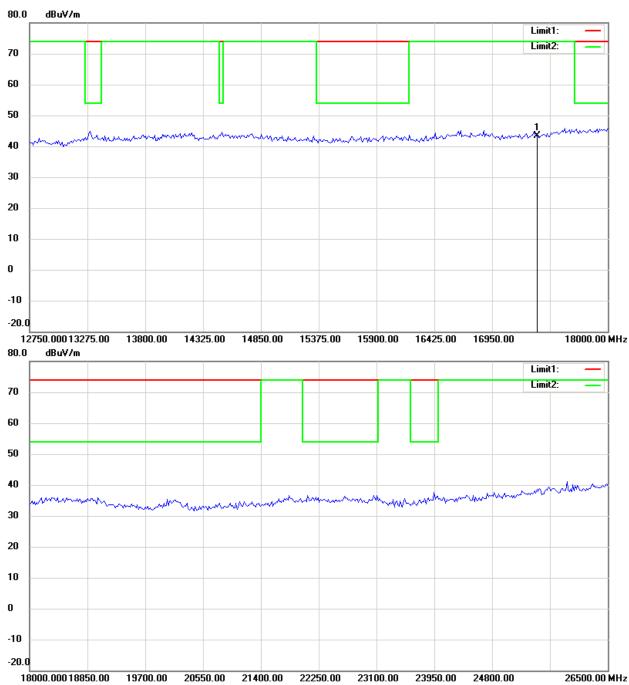


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

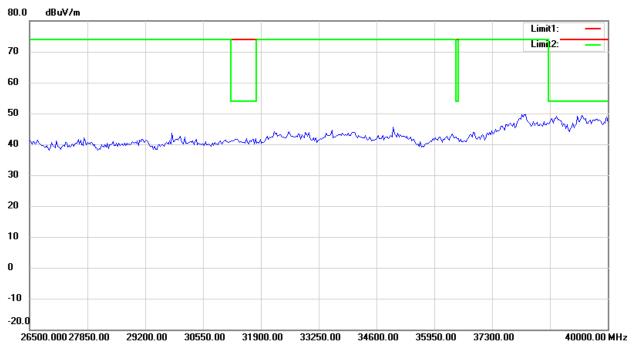


#### Note:

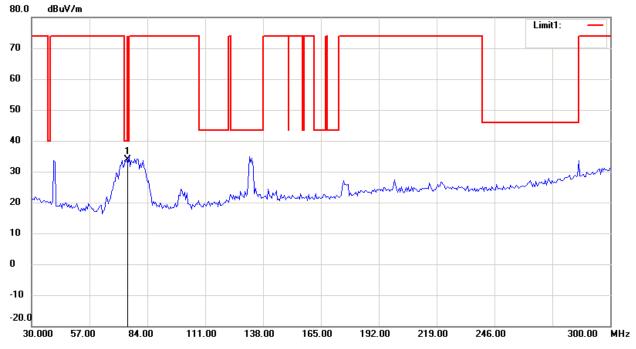
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Antenna Polarization V

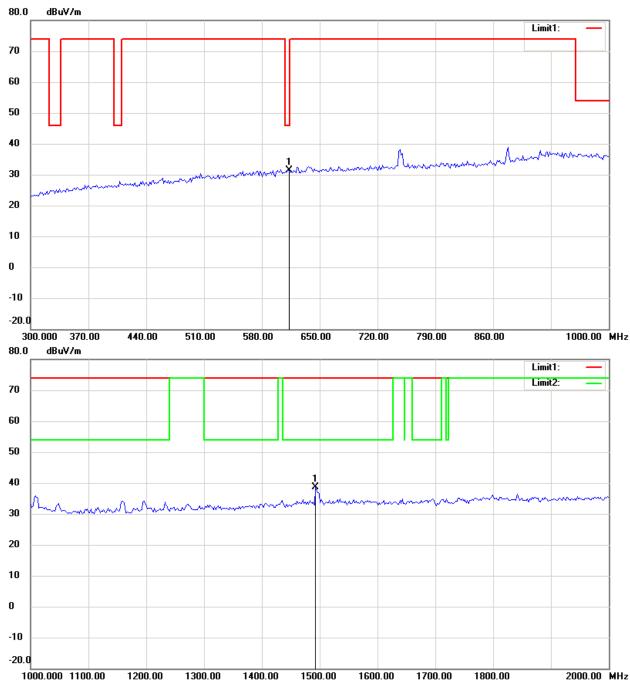


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

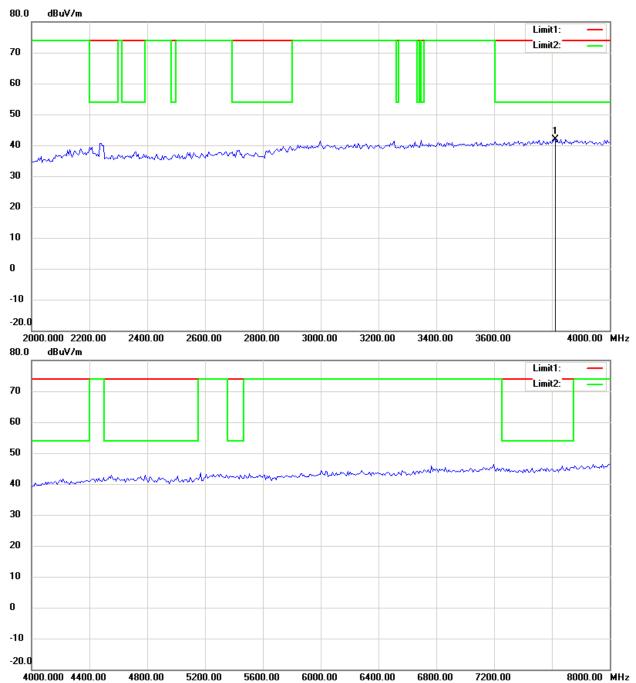


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

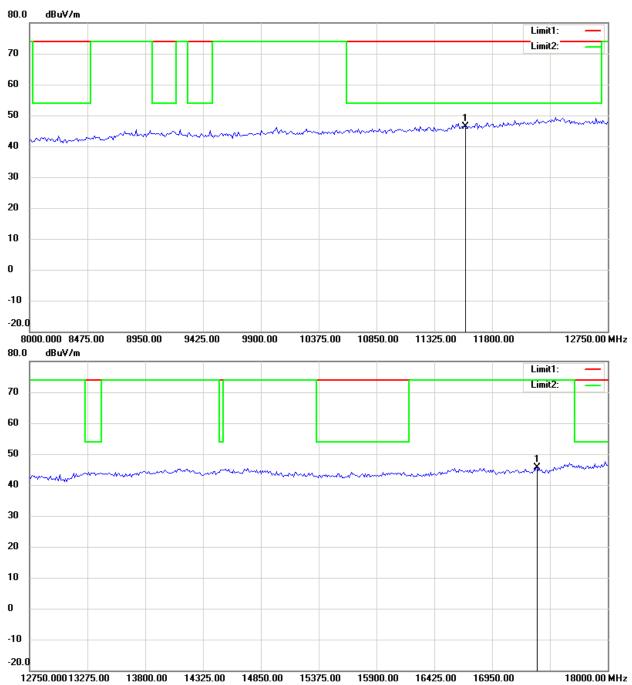


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

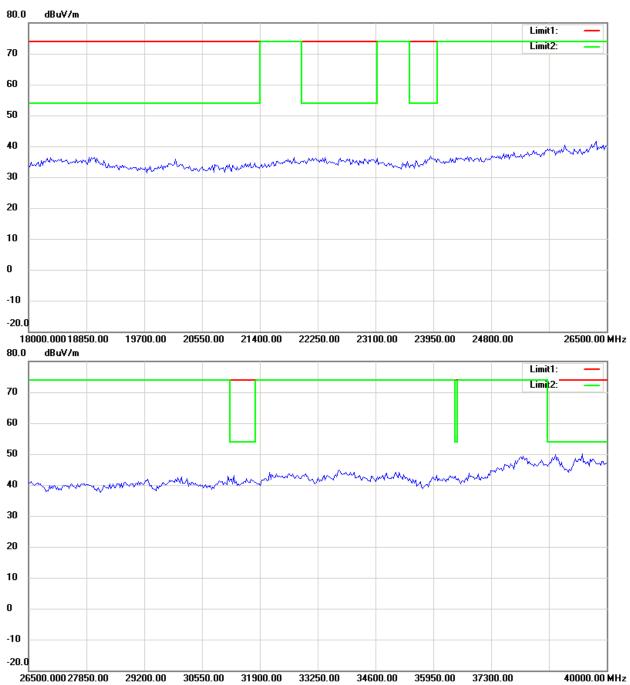


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

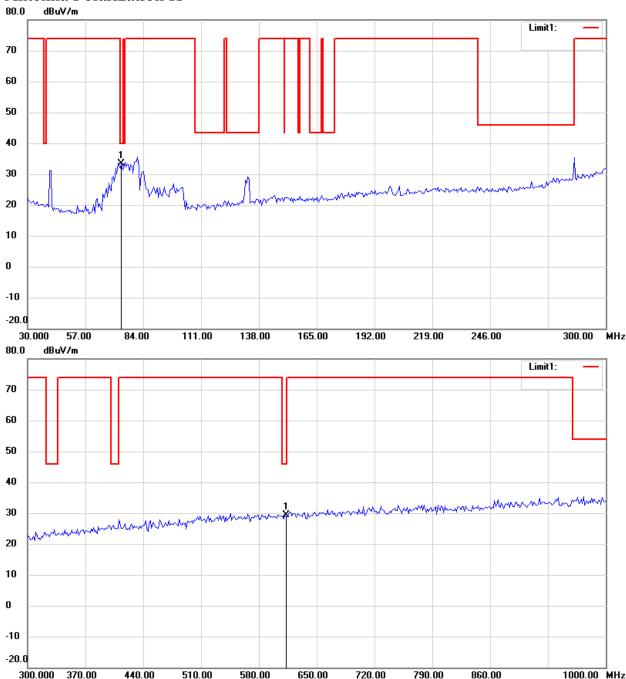


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## 802.11a ch165

## Antenna Polarization H

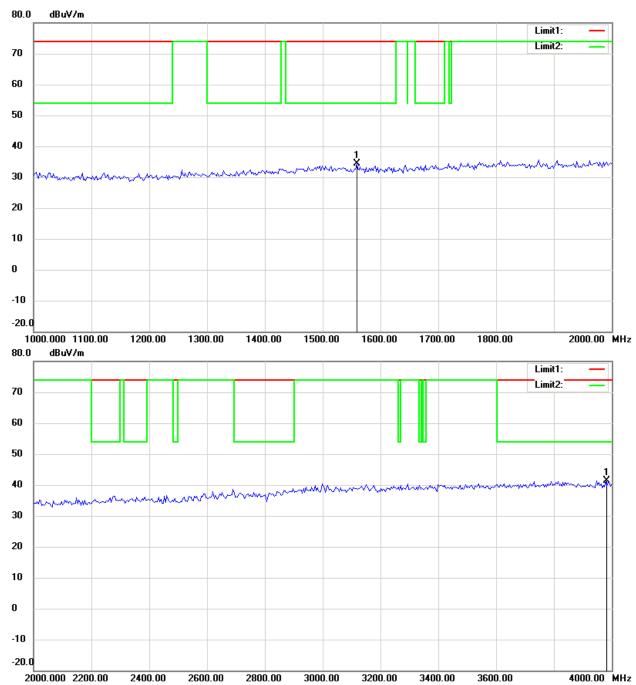


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

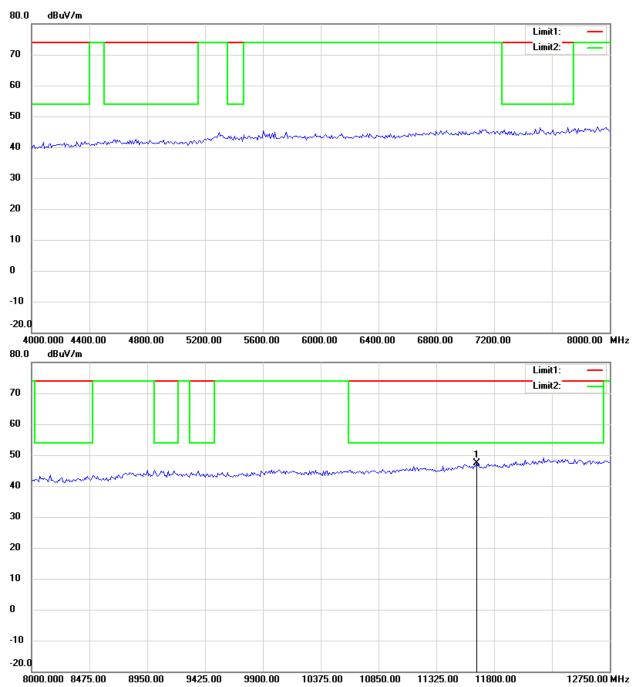


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

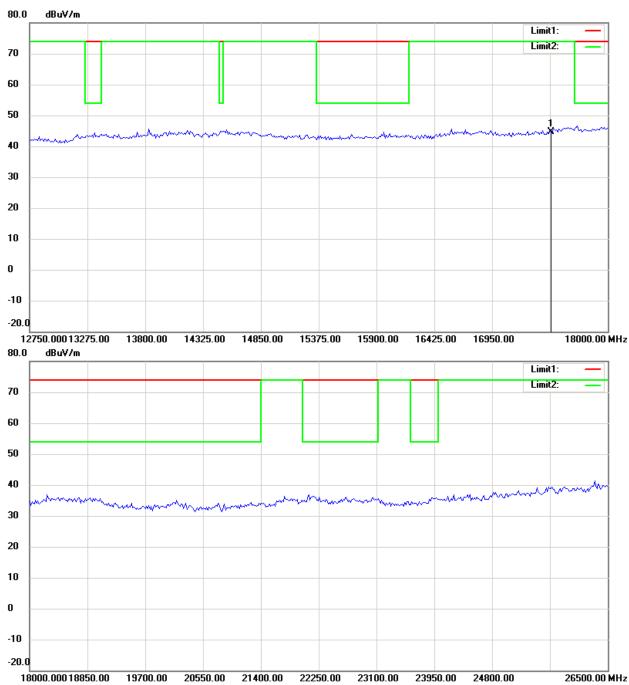


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

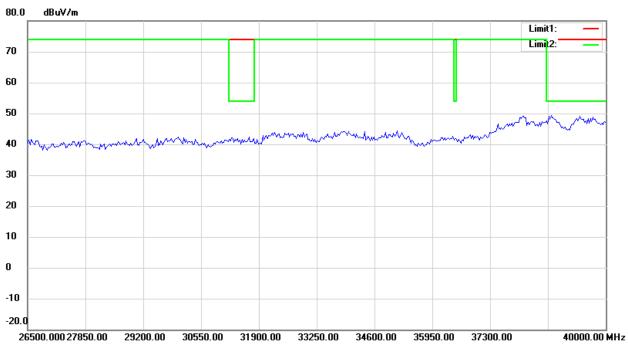


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



## Antenna Polarization V

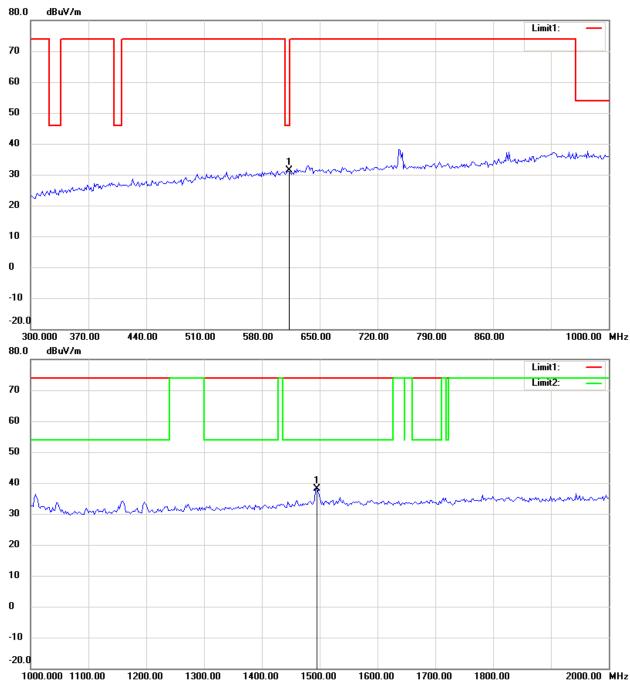


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

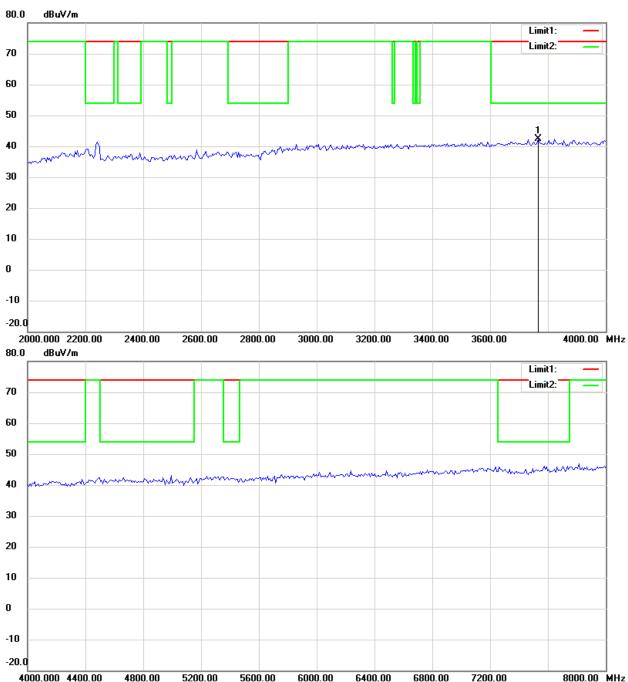


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

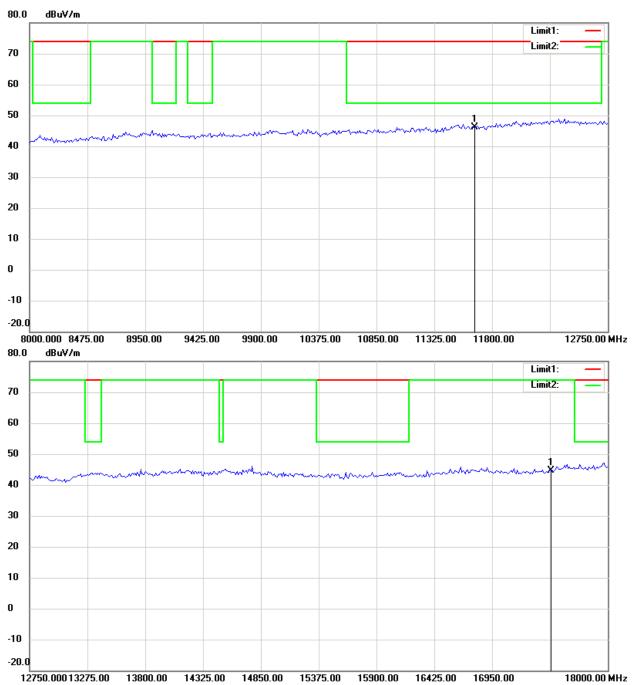


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

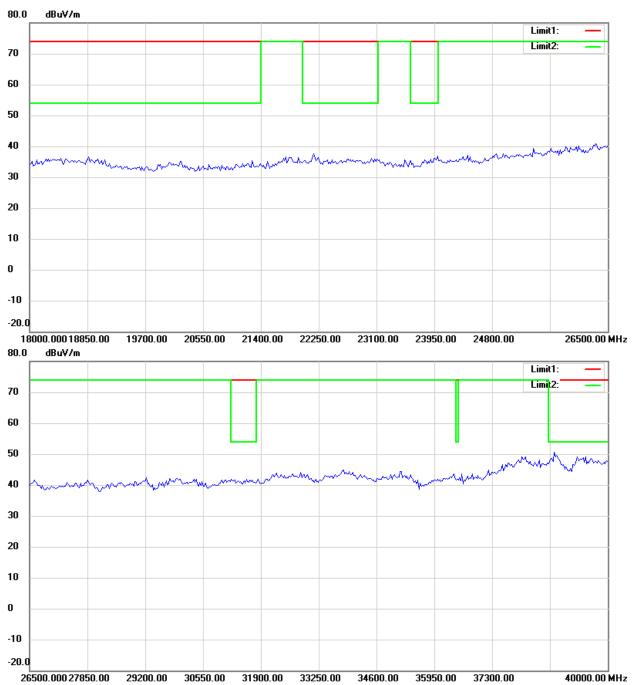


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

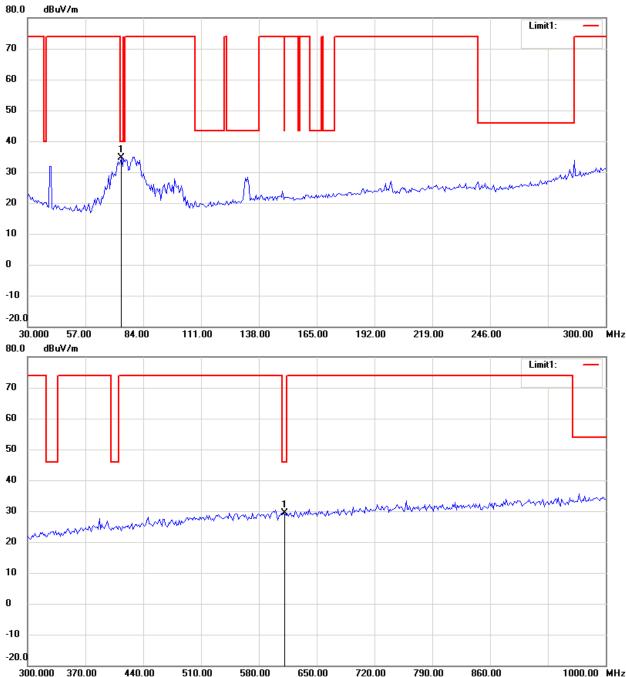


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## 802.11b ch1

## Antenna Polarization H

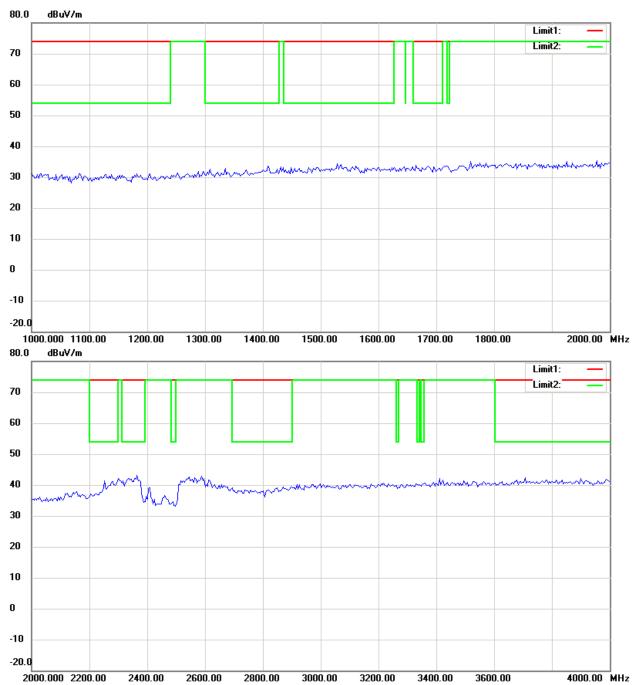


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

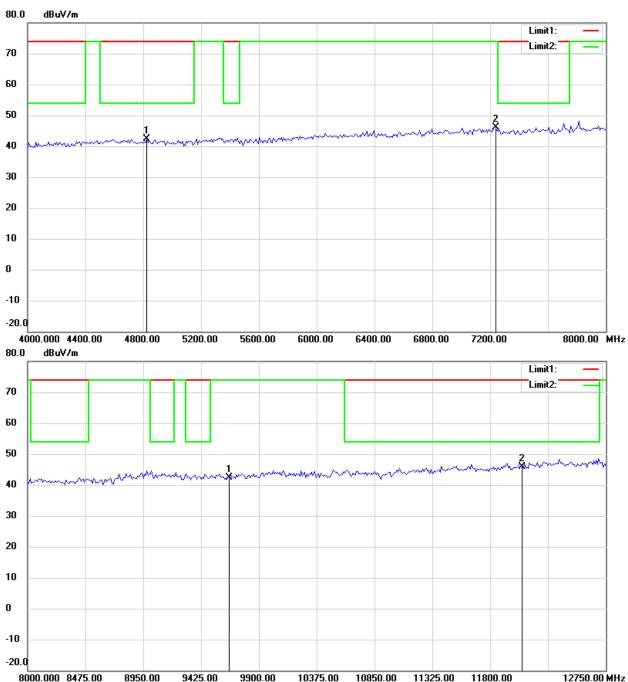


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



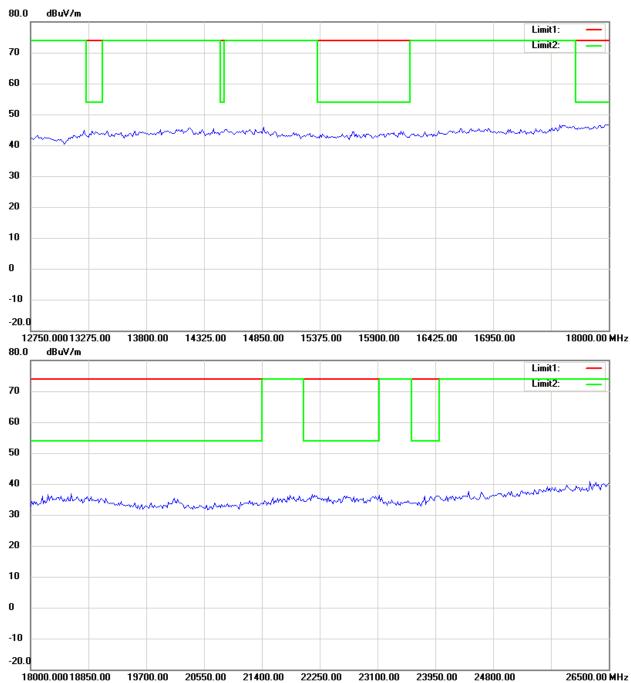
### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

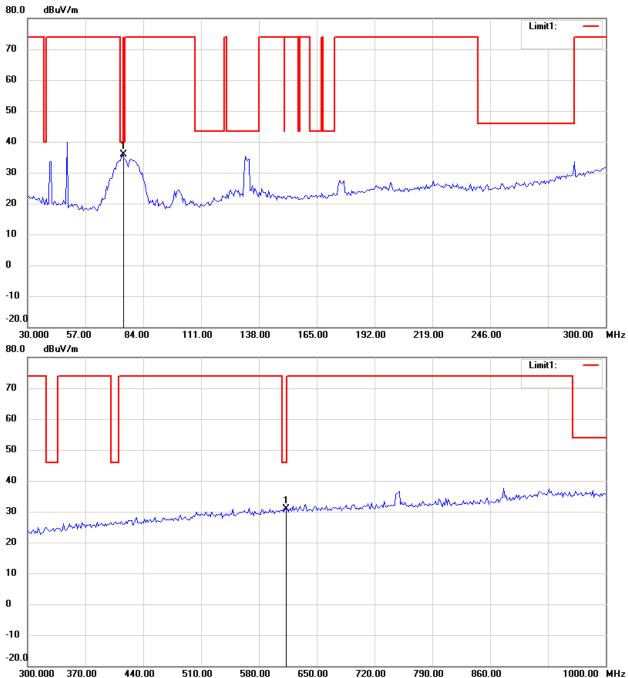
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## Antenna Polarization V

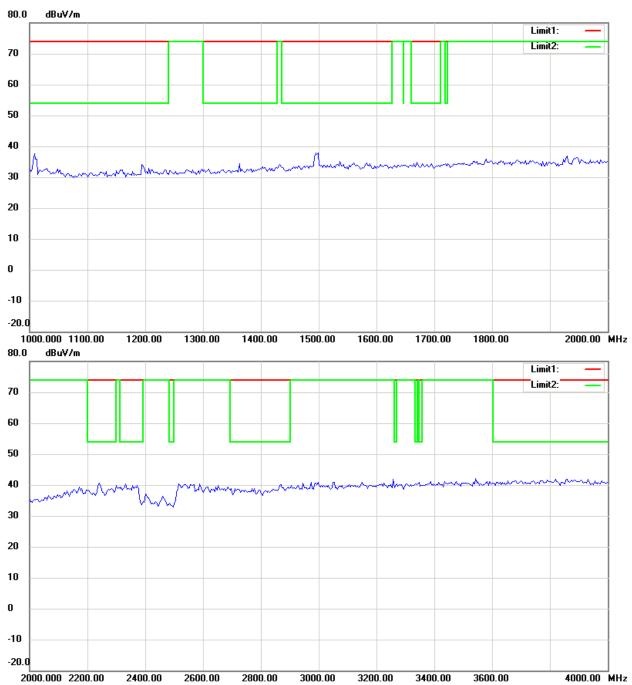


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

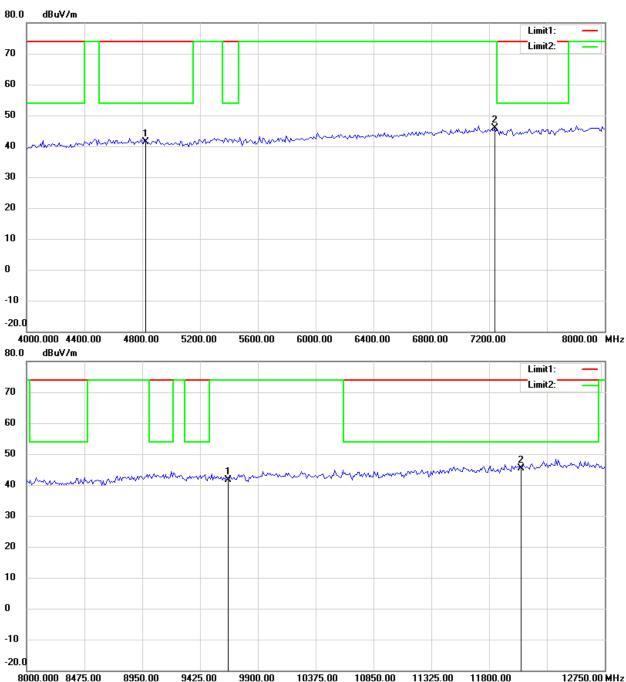


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

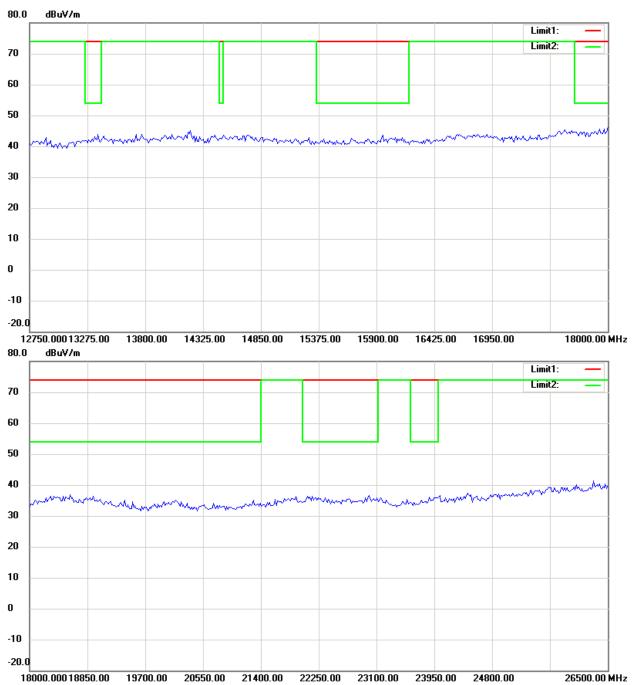


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

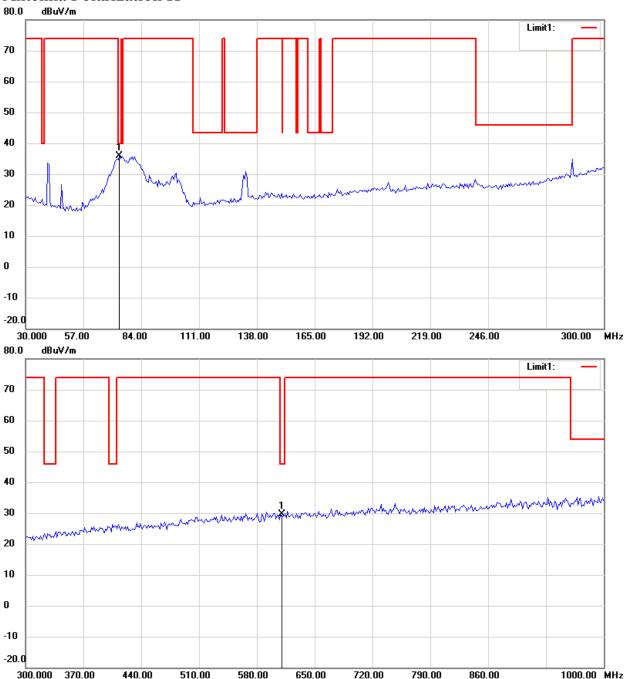


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11b ch6

## Antenna Polarization H

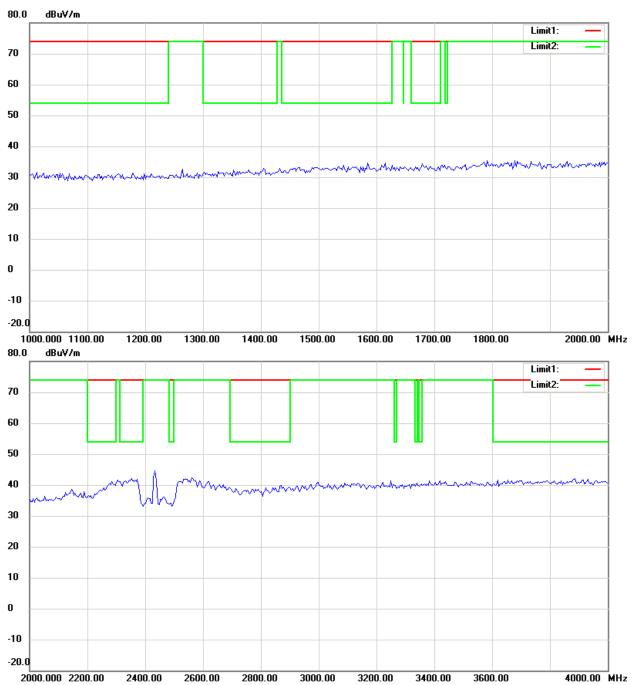


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

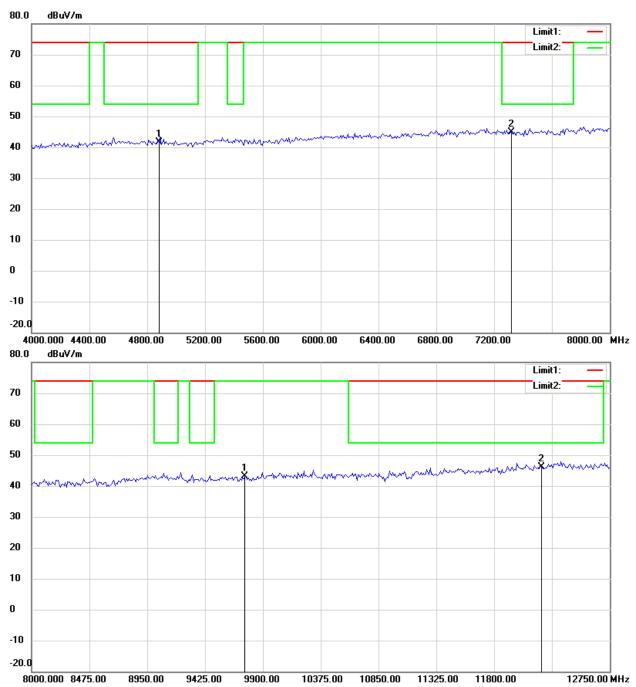


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

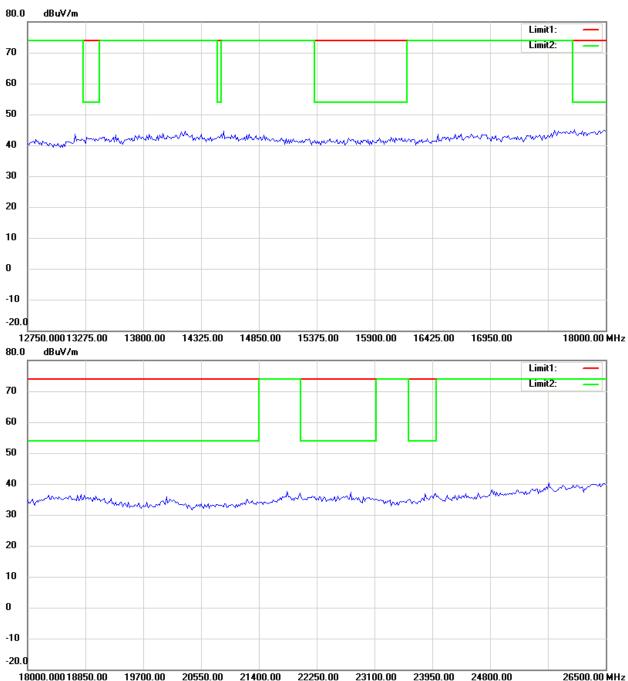


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

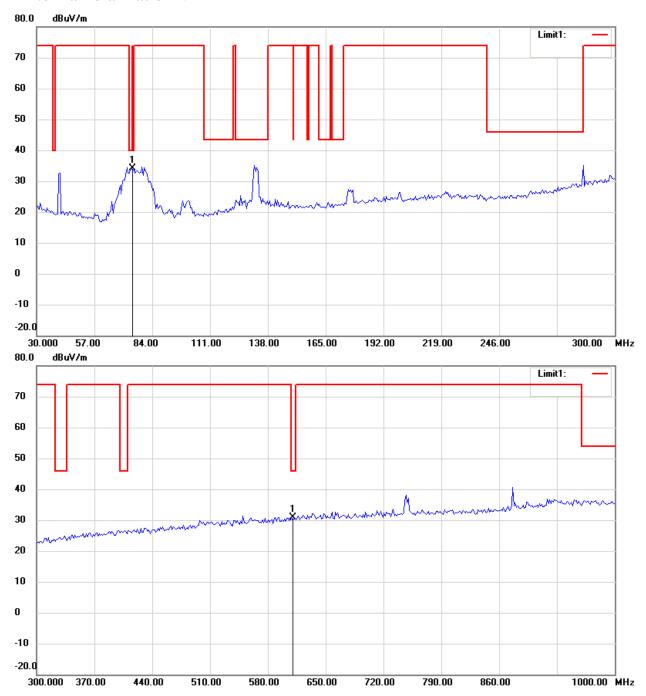
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## Antenna Polarization V

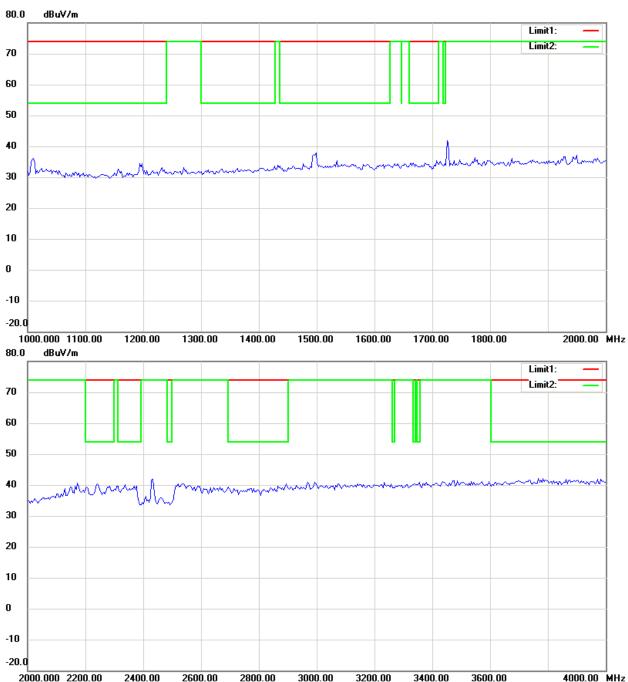


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

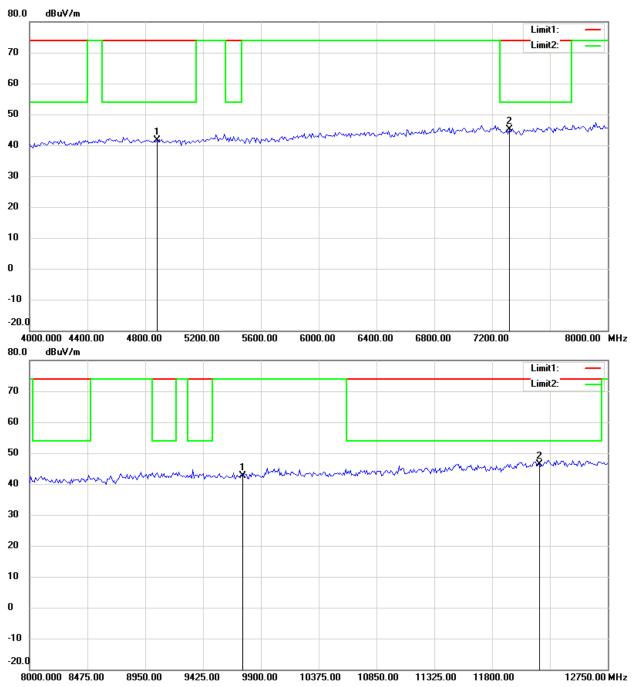


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

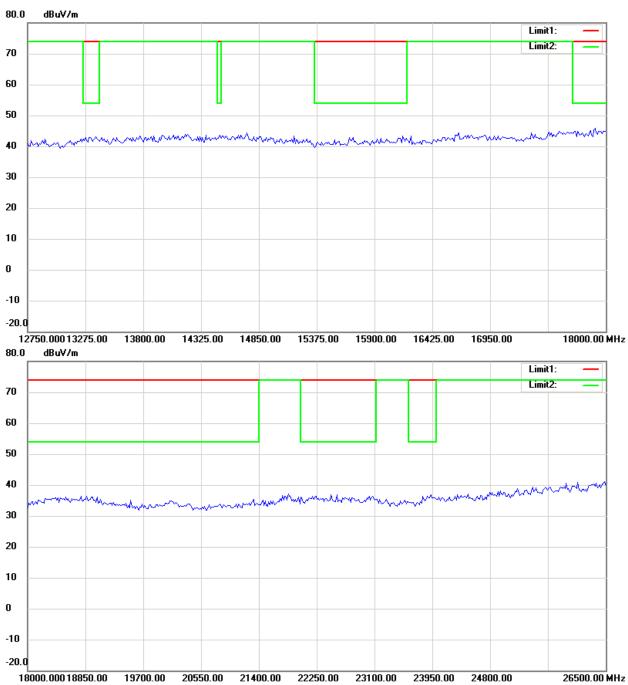


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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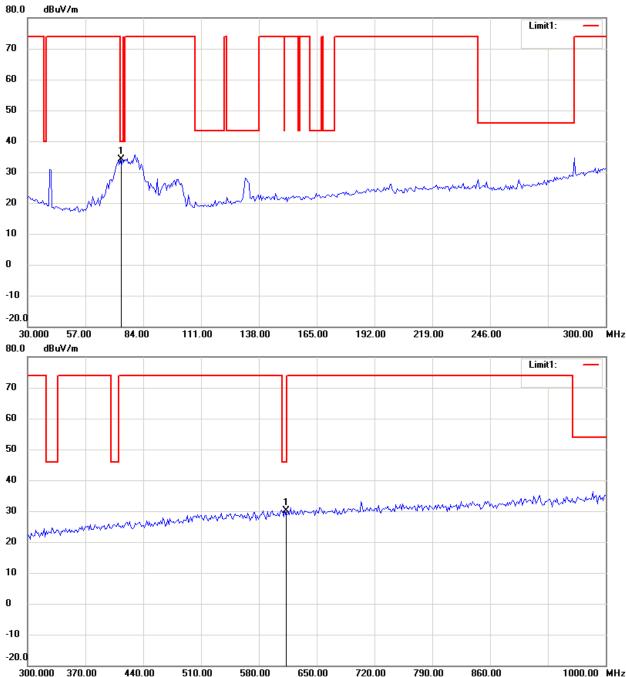


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## 802.11b ch11

## Antenna Polarization H

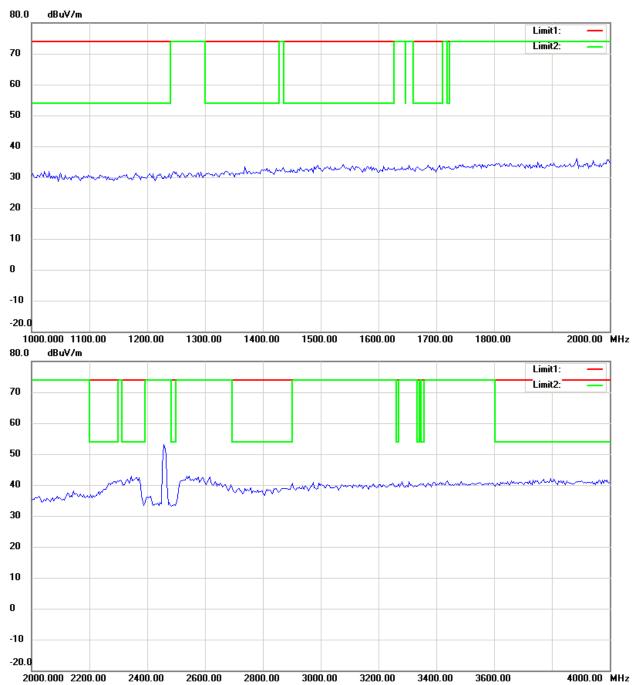


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

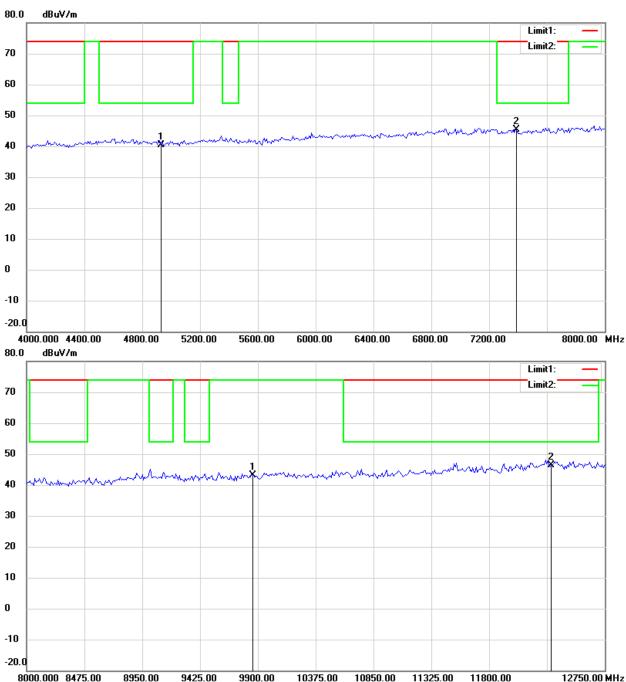


### Note:

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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

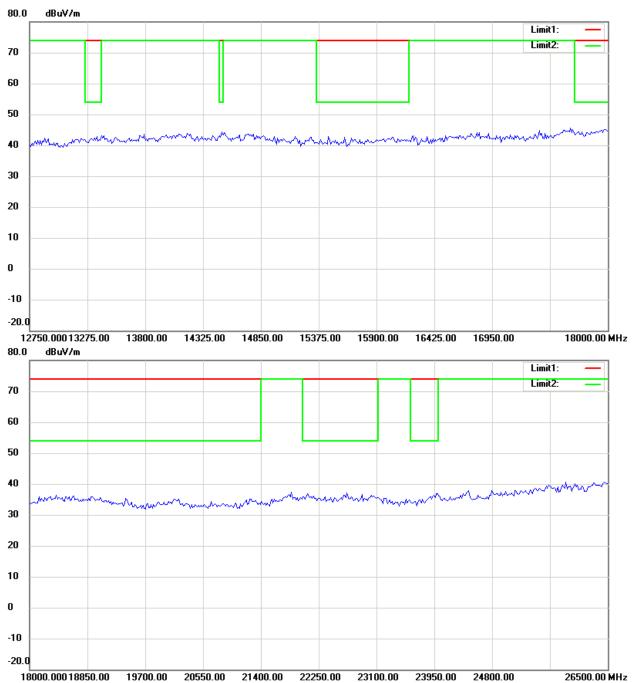


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



### Note:

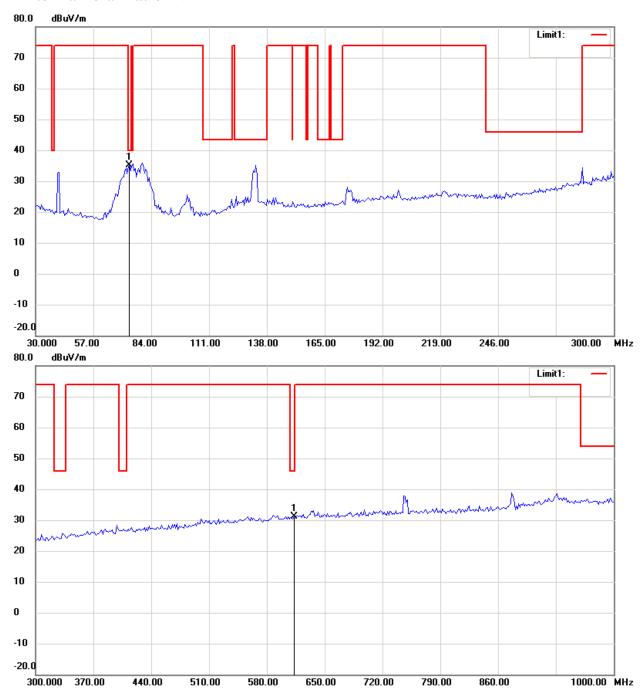
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## Antenna Polarization V

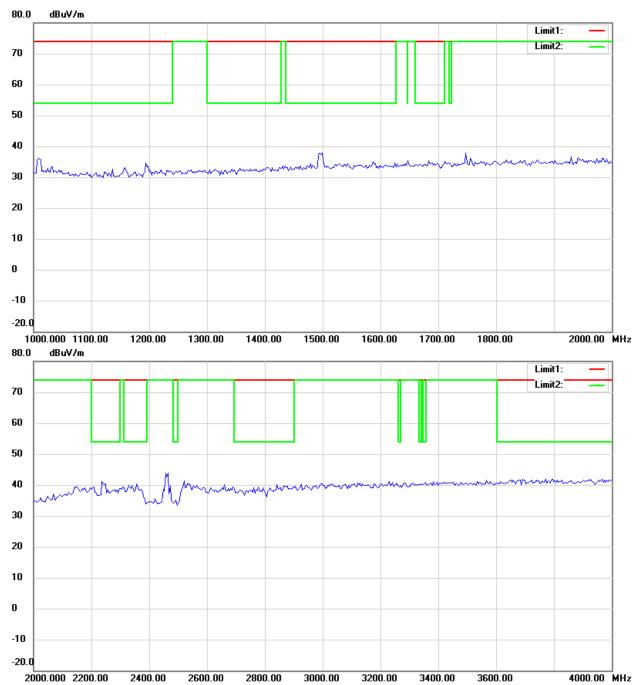


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

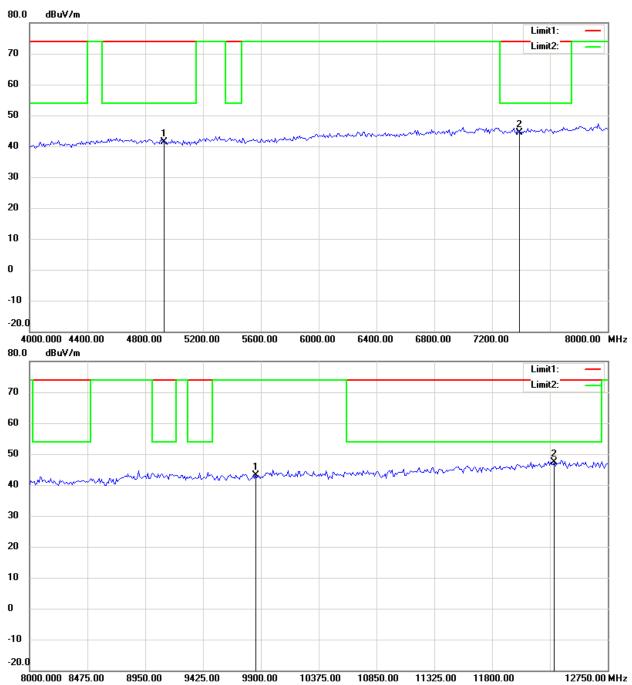


### Note:

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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

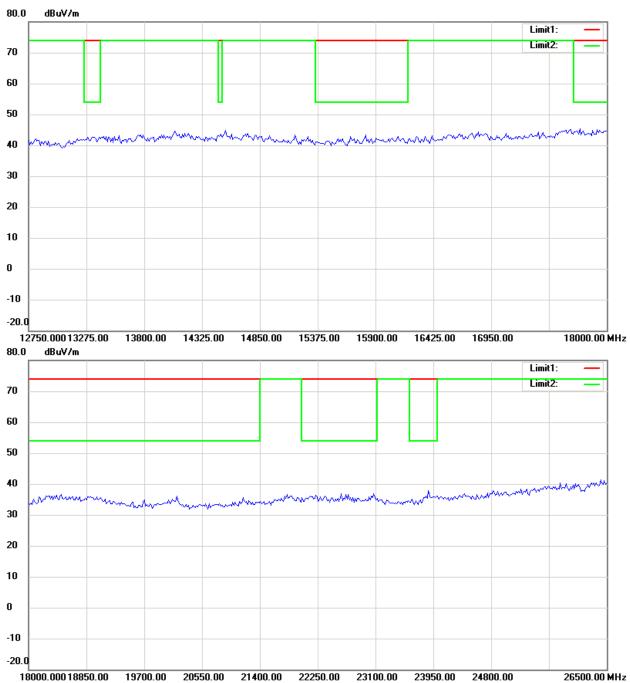


### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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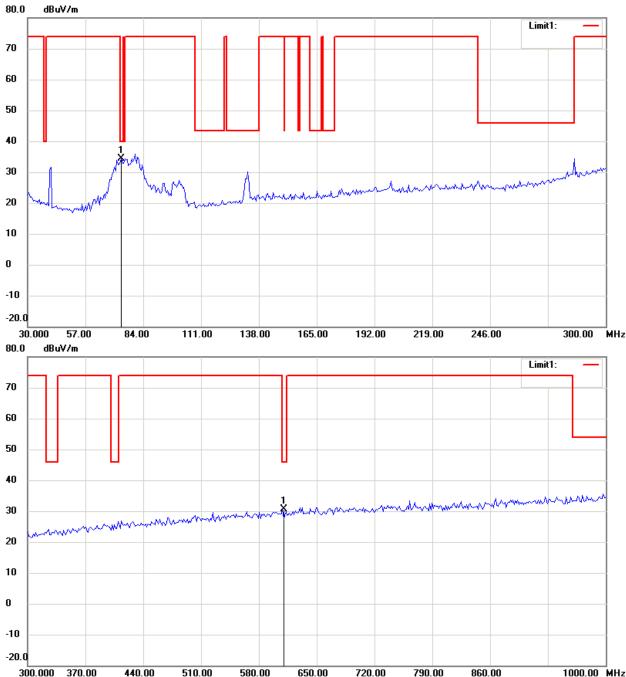


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11g ch1

### Antenna Polarization H

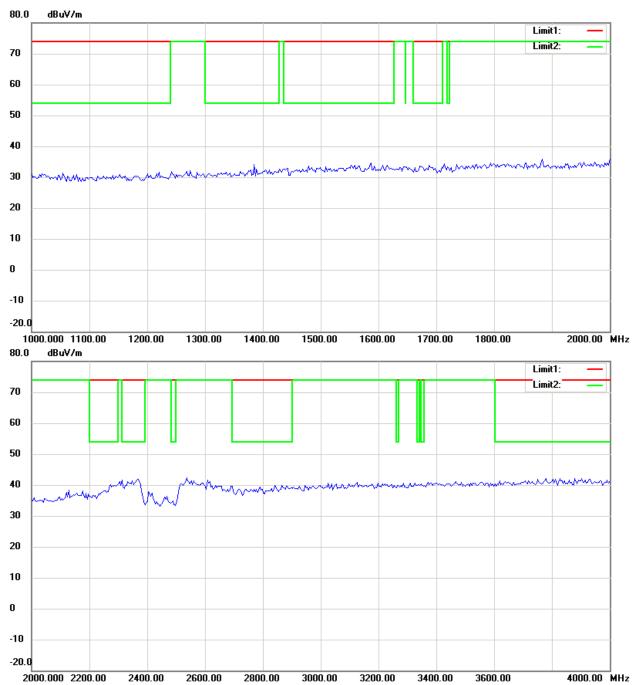


#### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

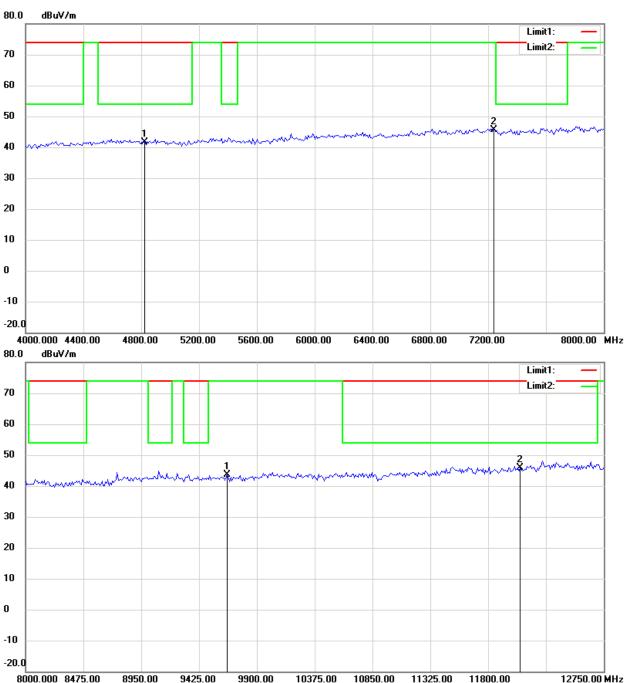


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

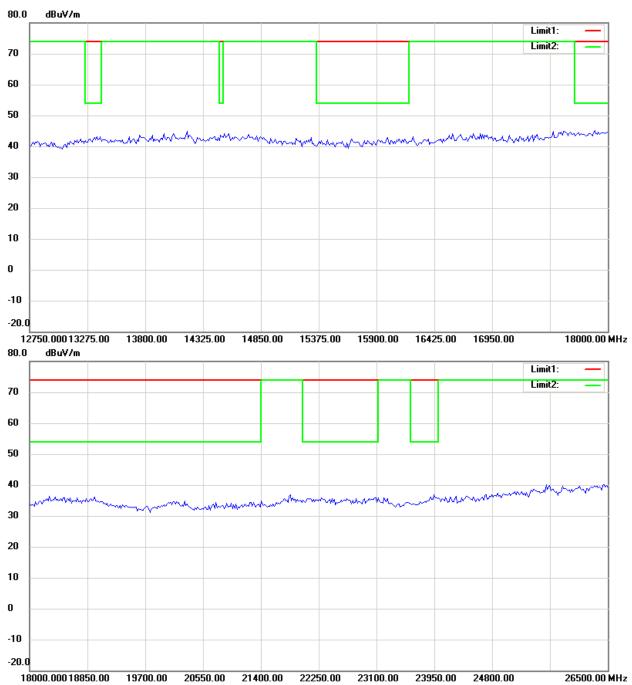


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

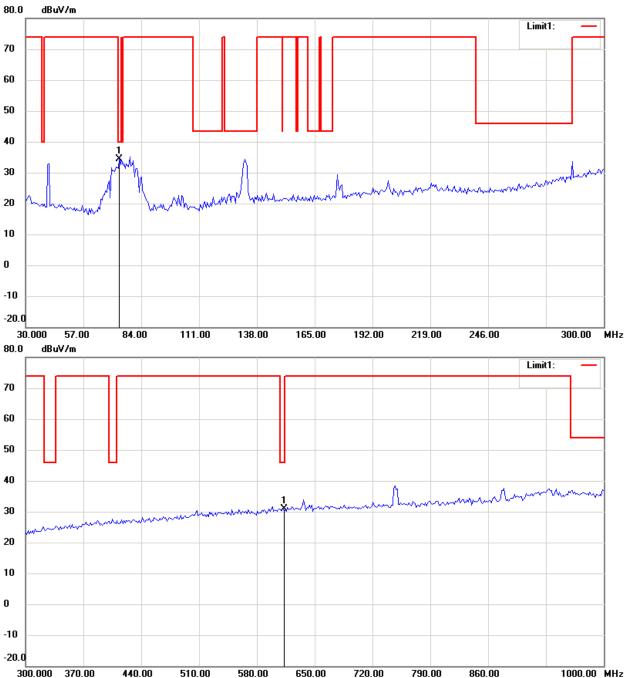
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

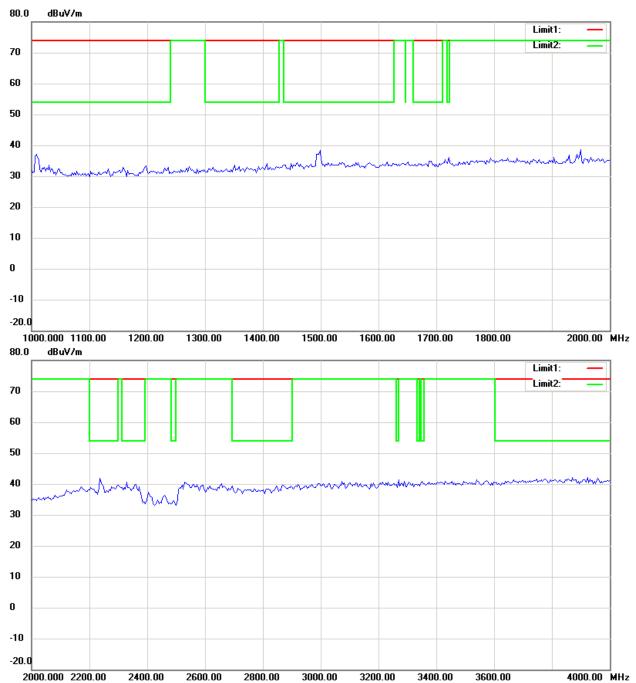


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

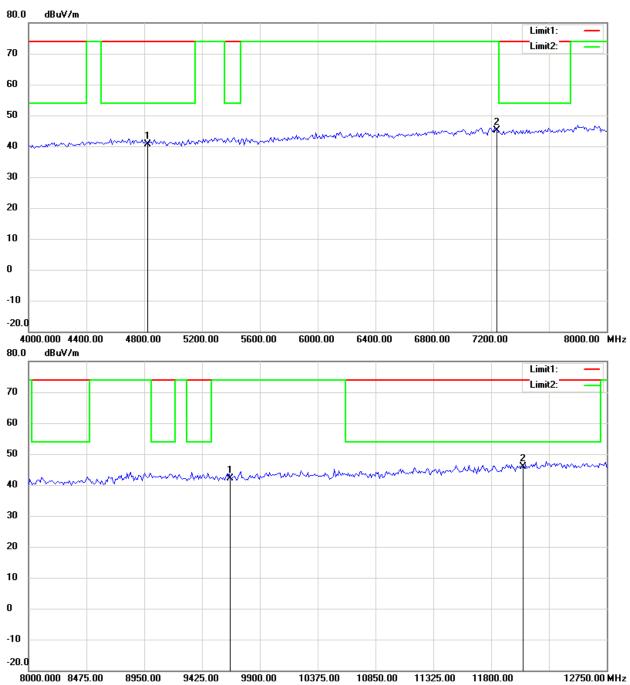


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

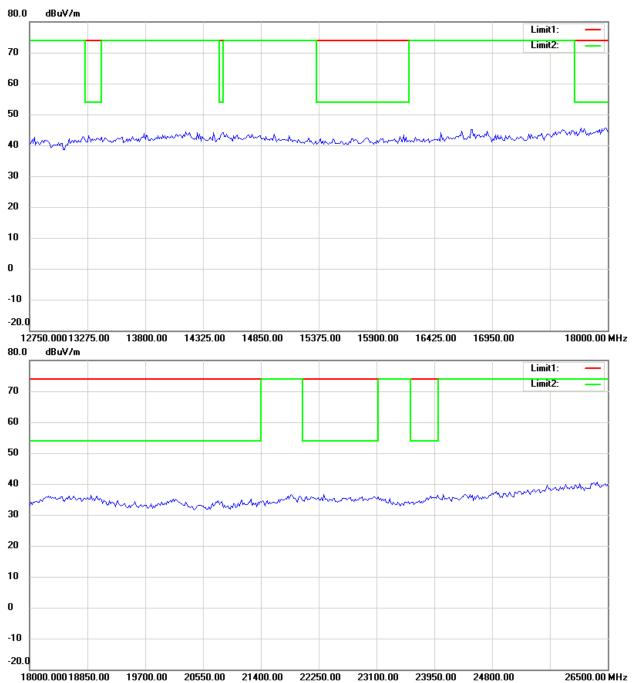


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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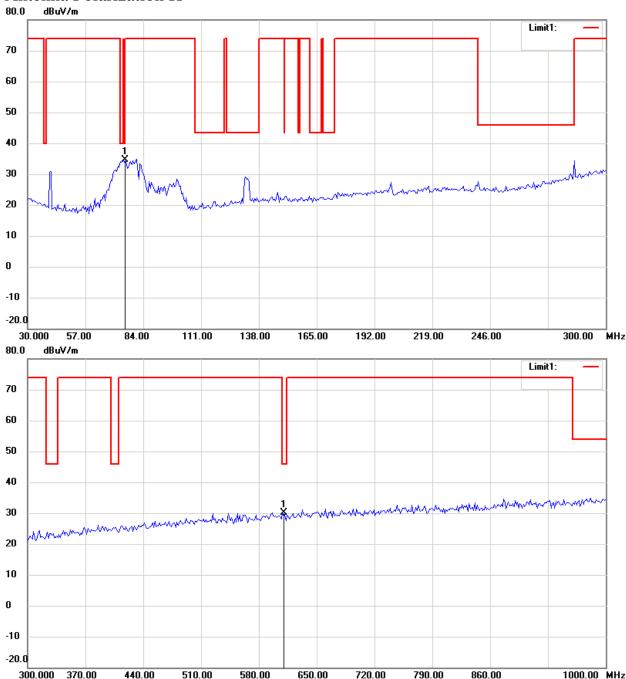


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11g ch6

### Antenna Polarization H

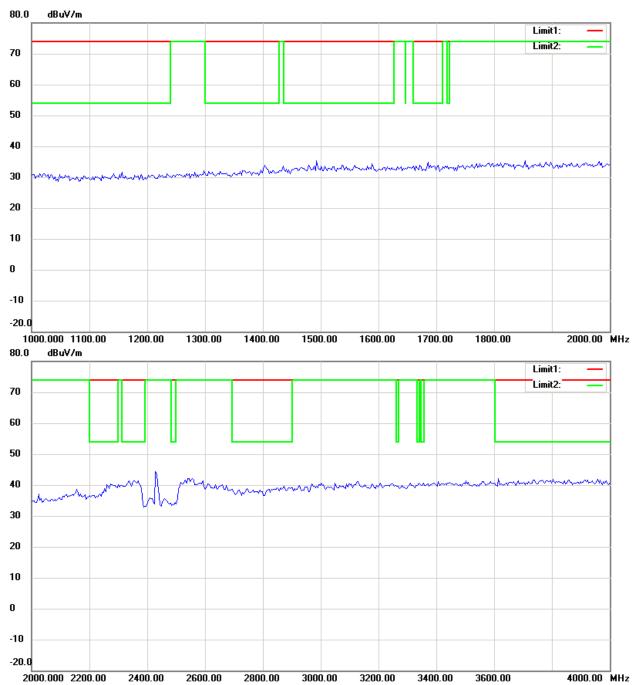


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

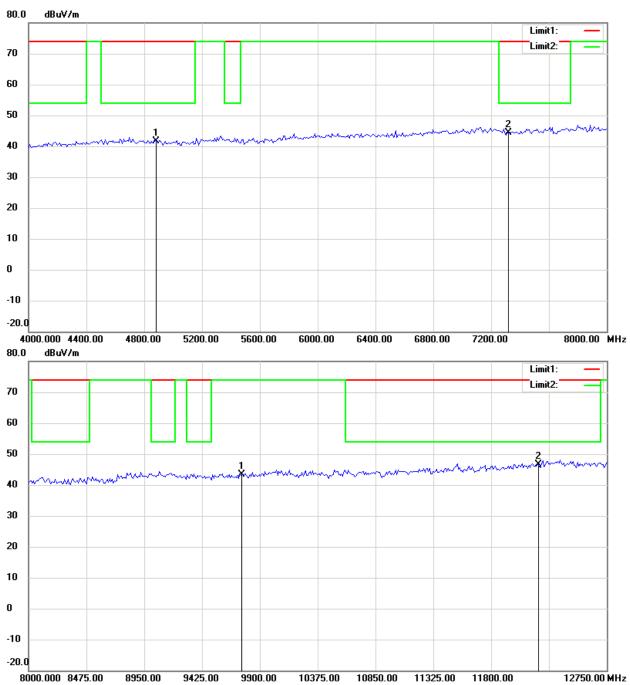


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



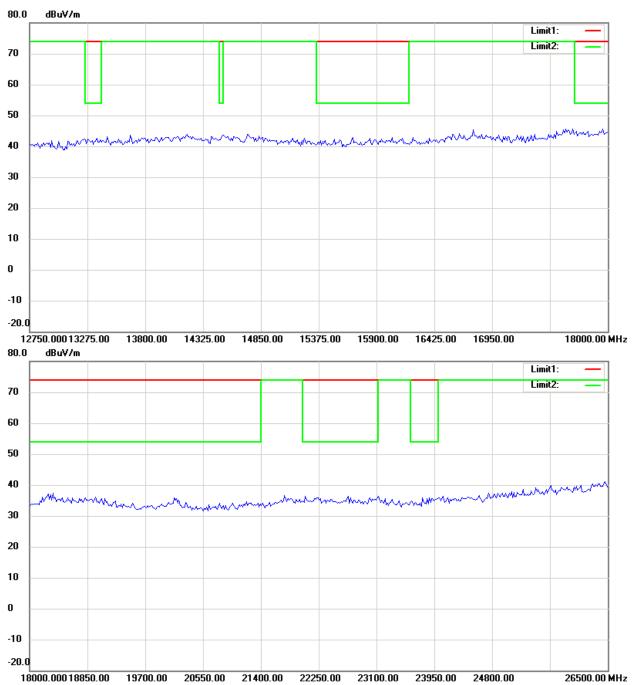
#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

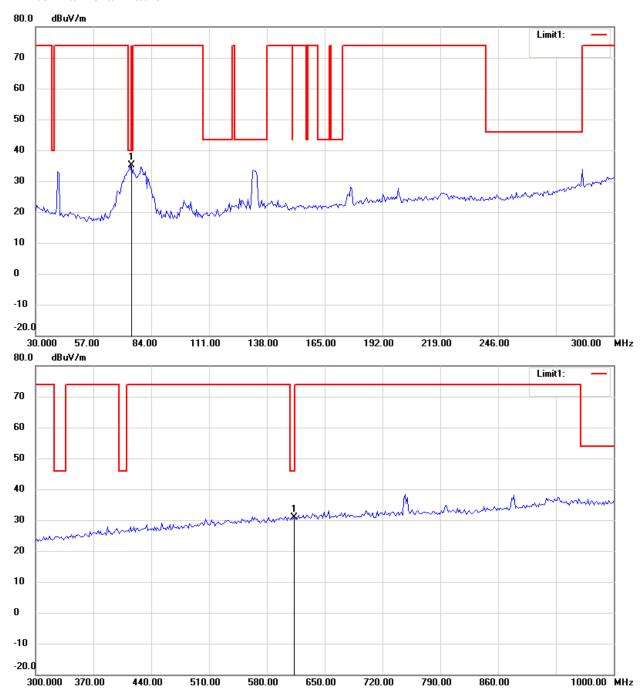
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

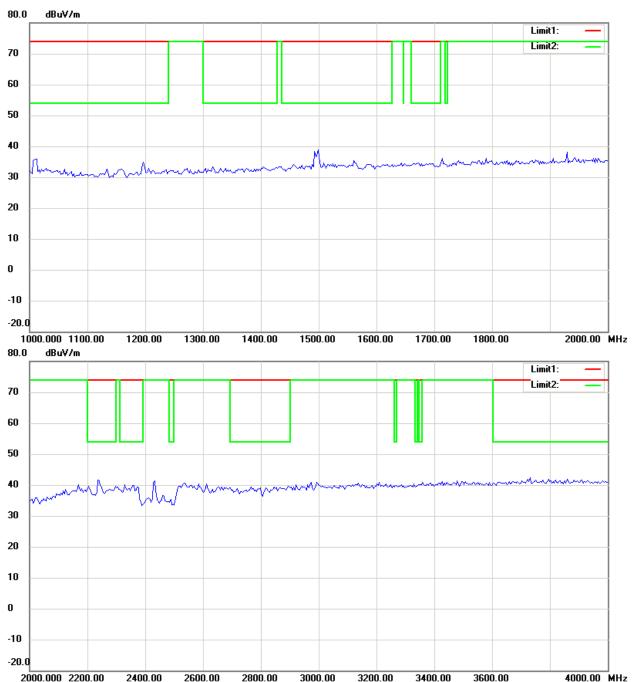


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

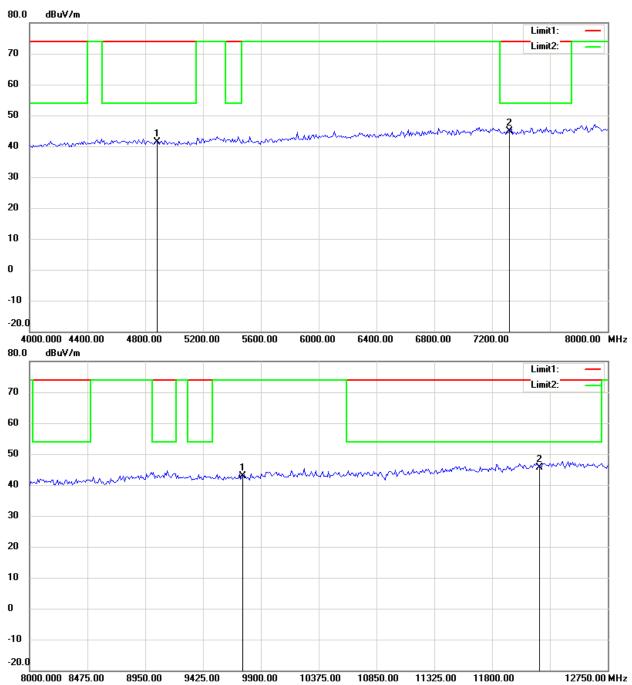


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

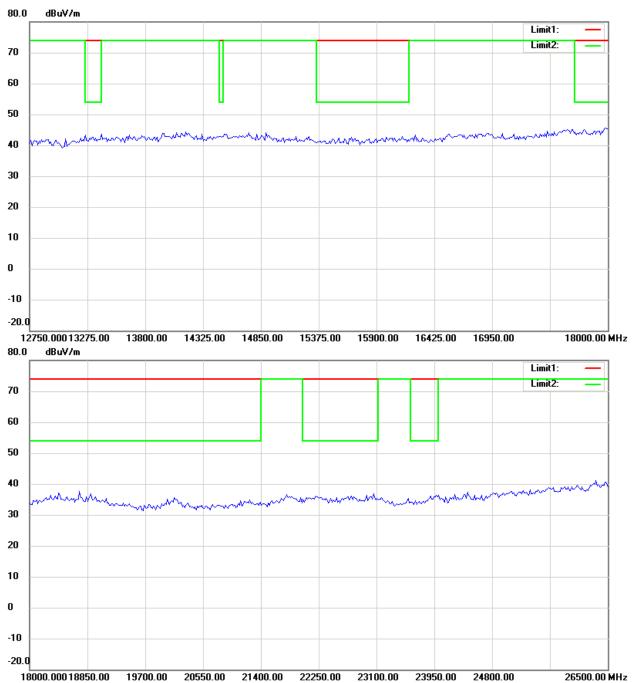


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

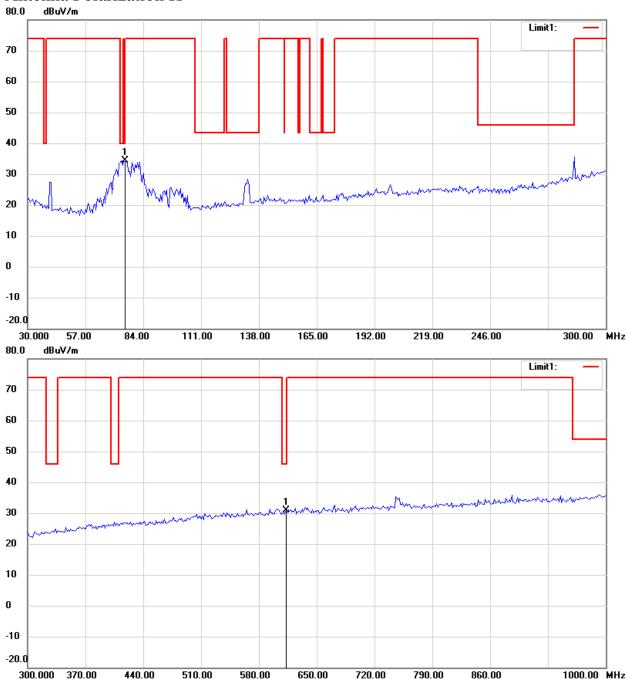


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11g ch11

### Antenna Polarization H

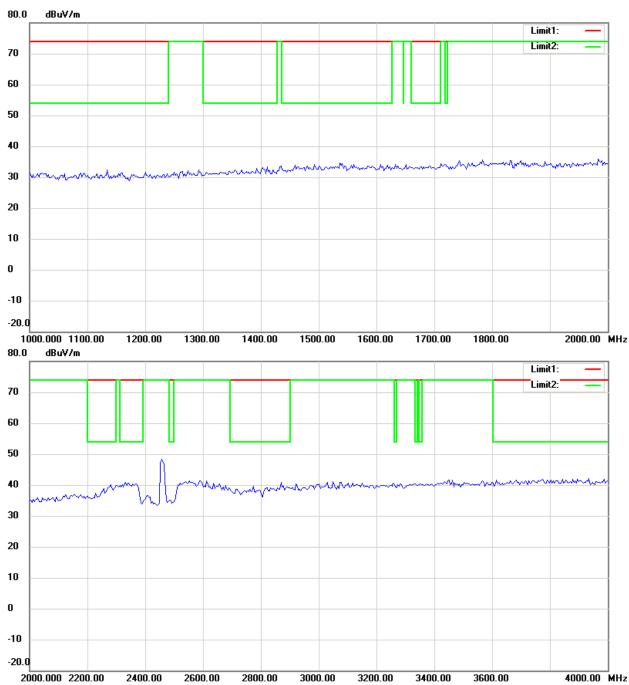


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

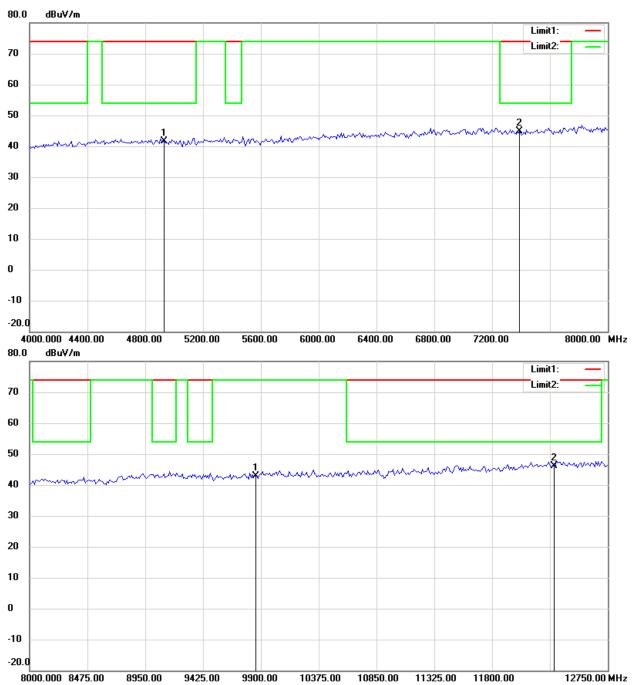


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

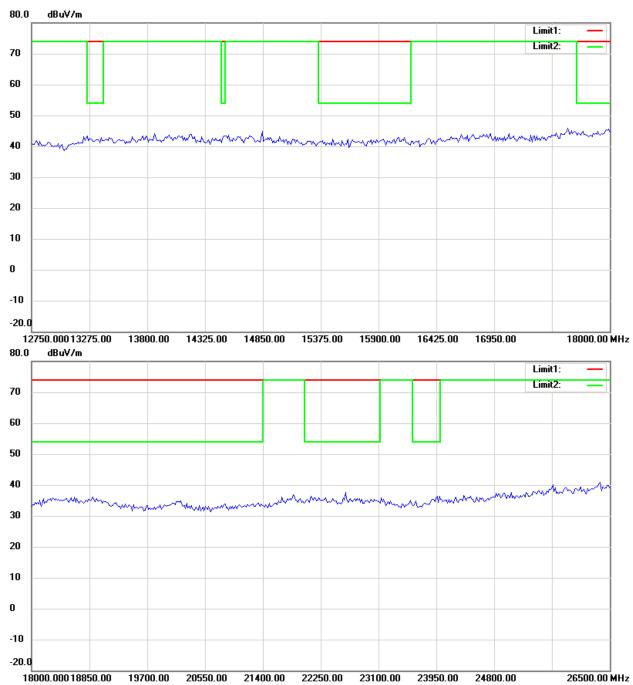


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

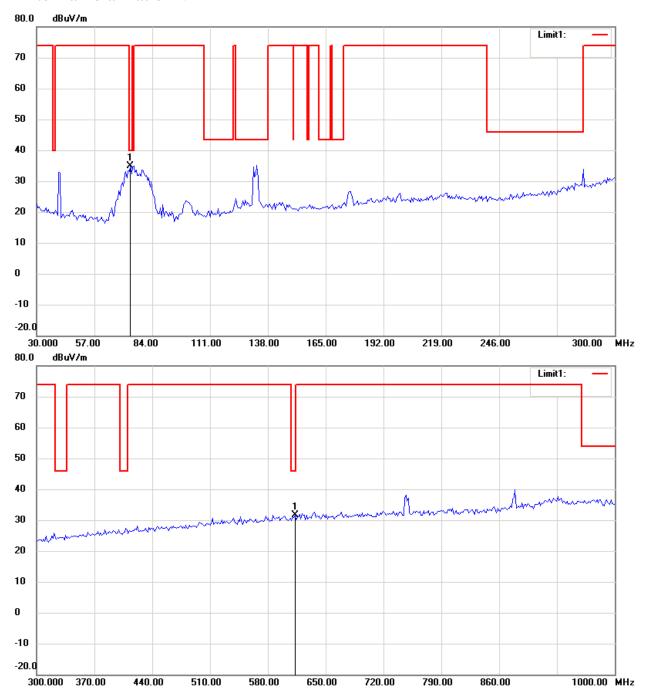
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

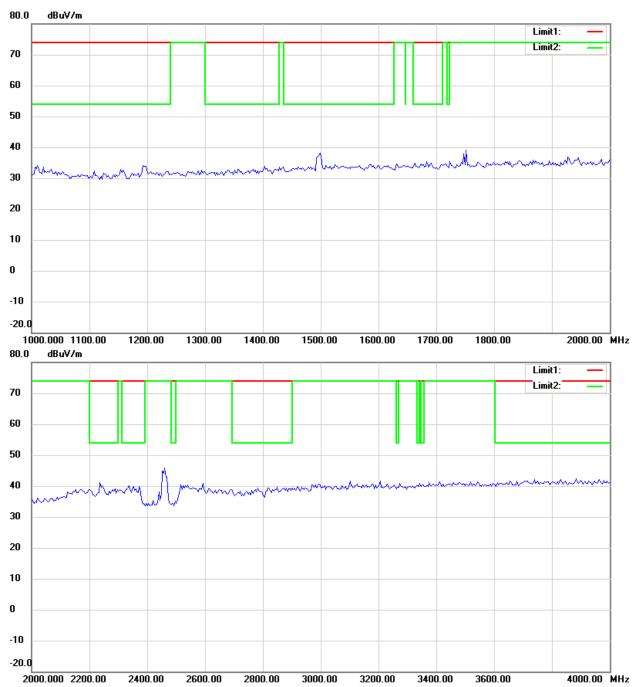


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

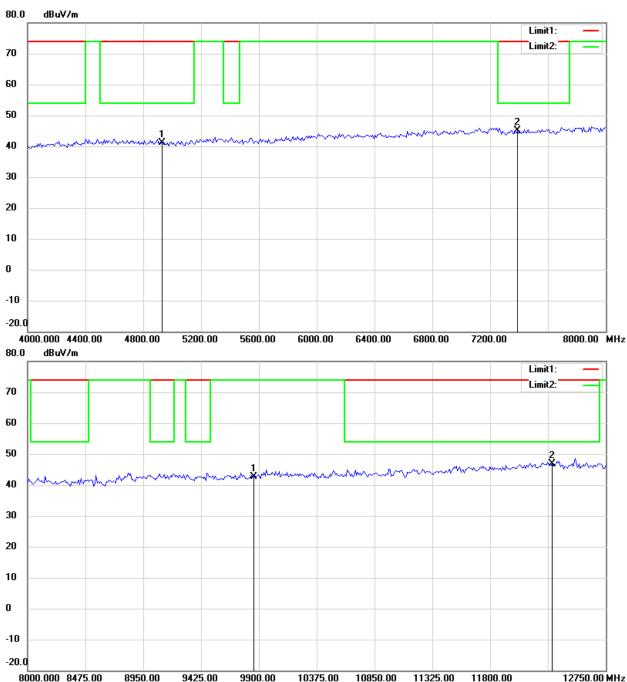


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

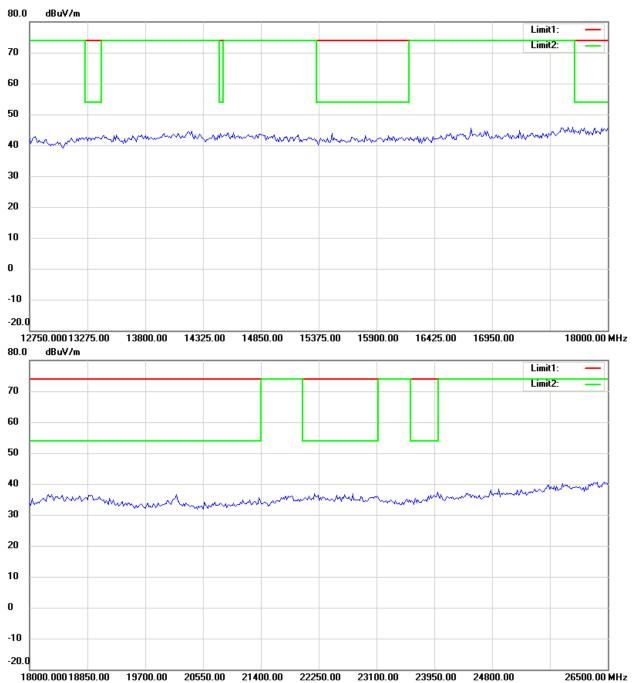


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

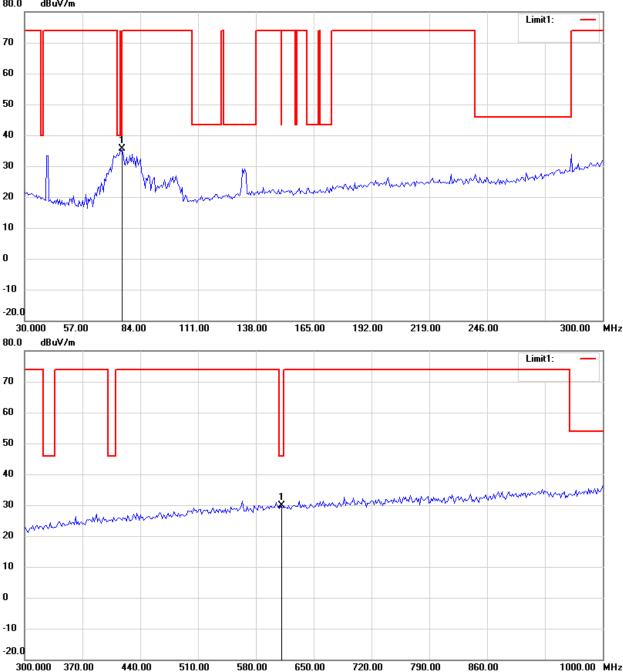


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11n 20MHz ch1

# Antenna Polarization H

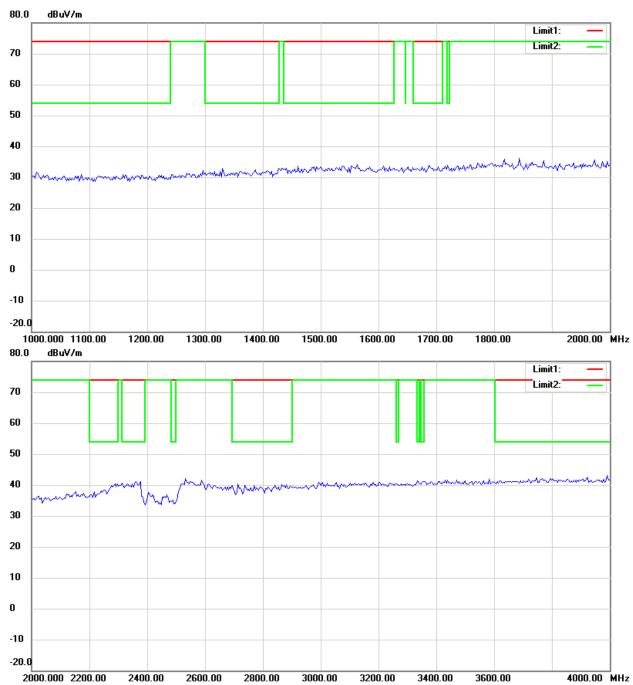


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

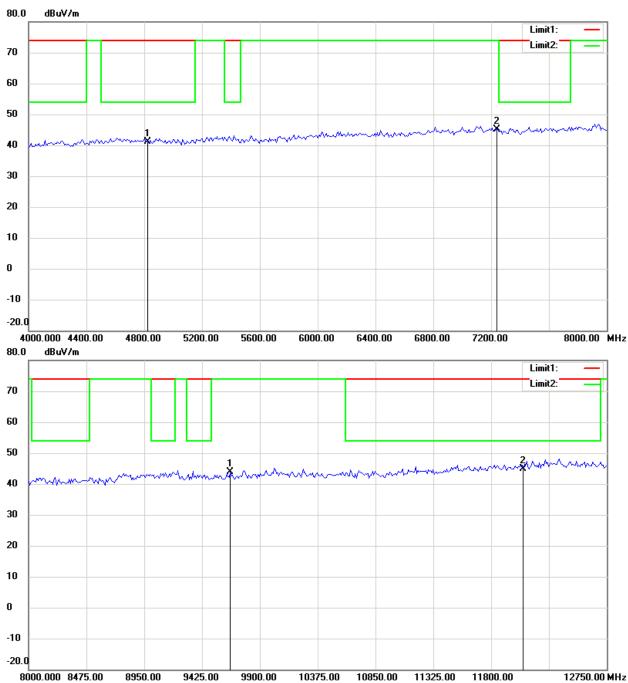


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

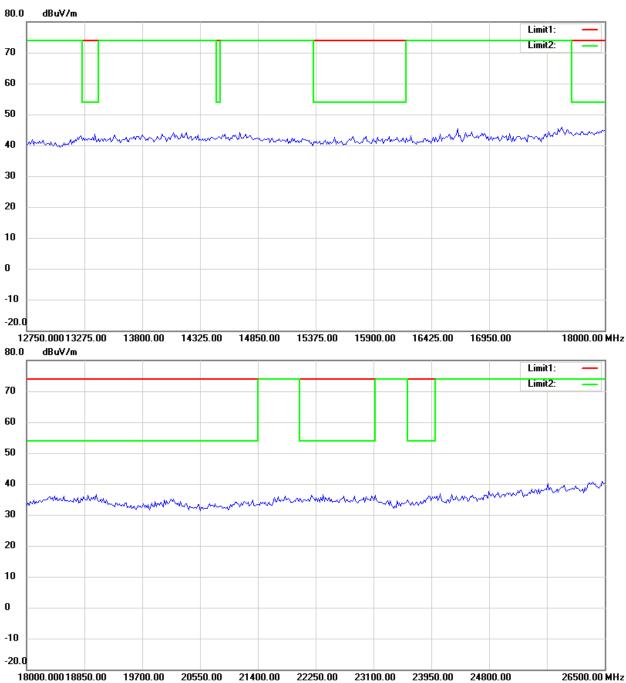


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

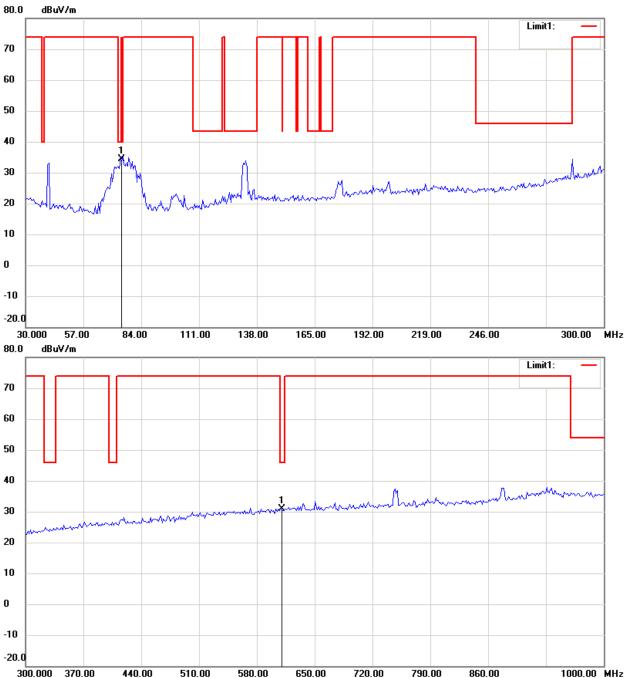
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

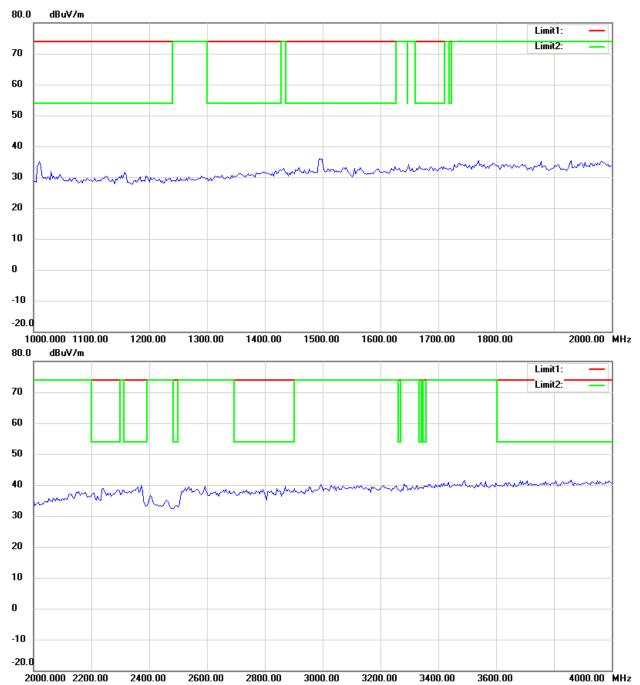


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

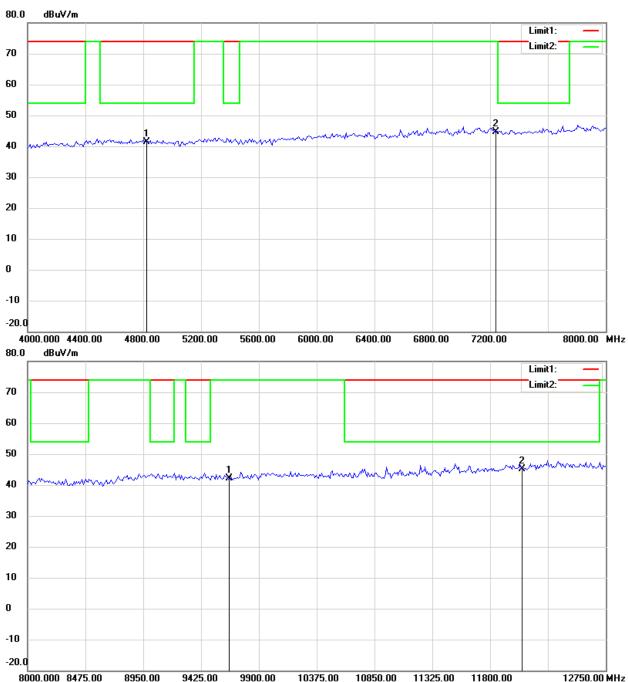


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

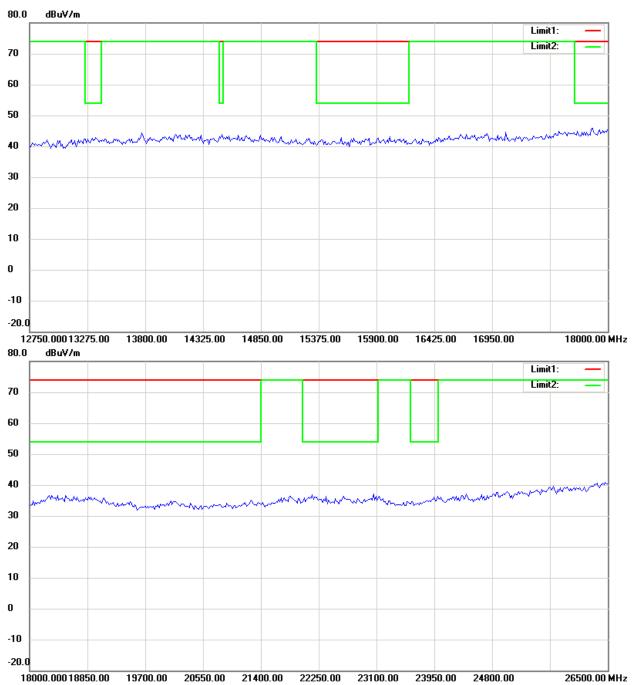


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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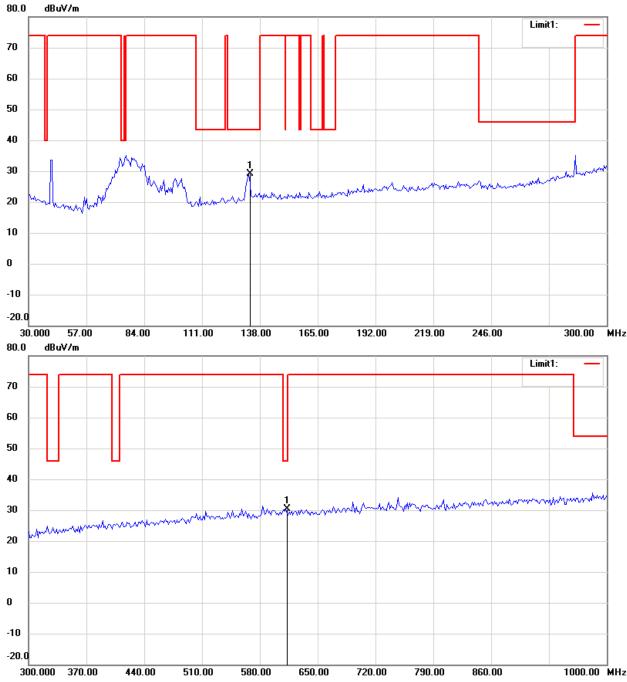


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11n 20MHz ch6

### Antenna Polarization H

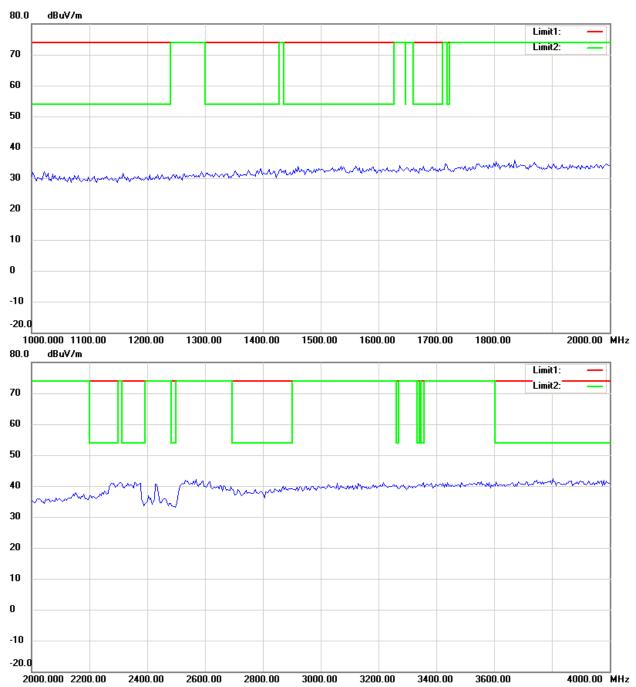


#### Note:

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- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

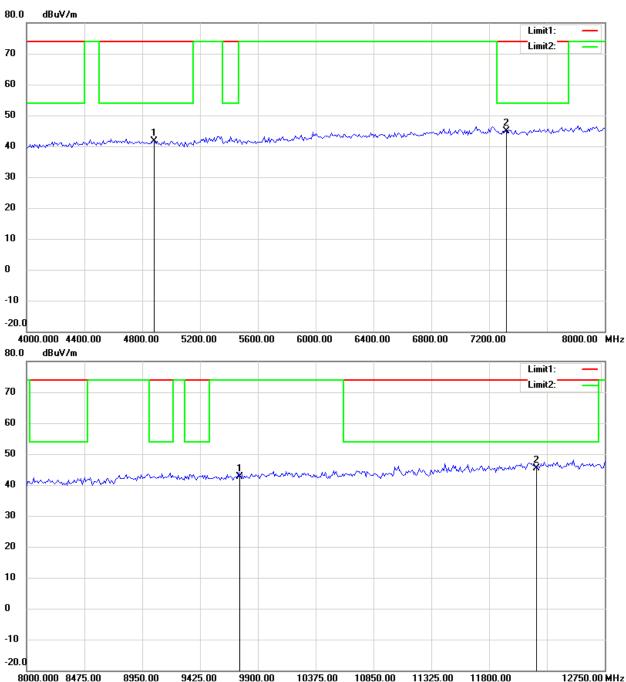


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

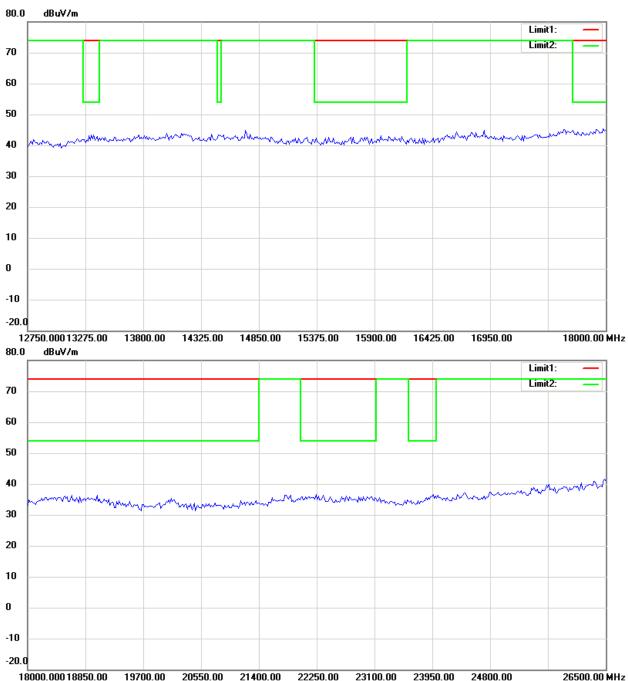


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

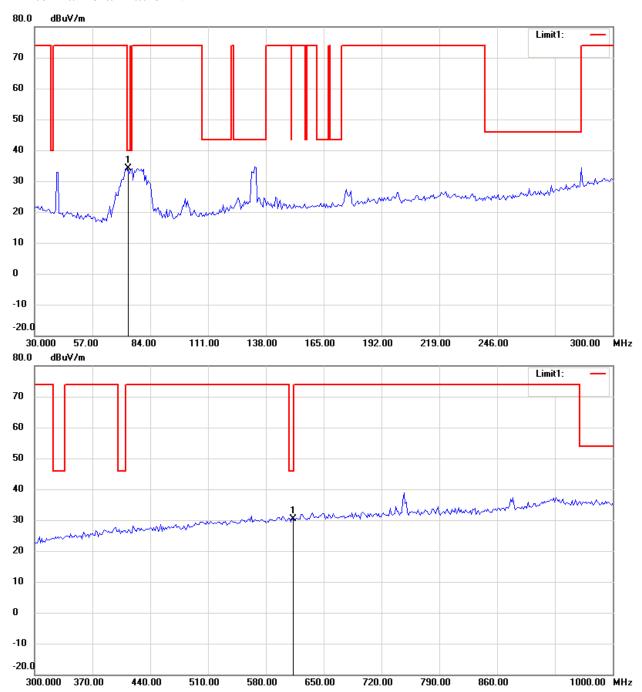
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

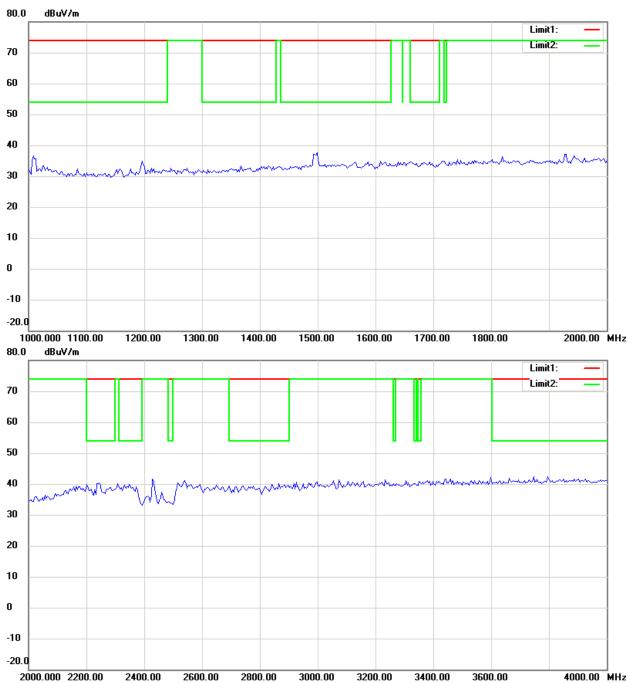


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

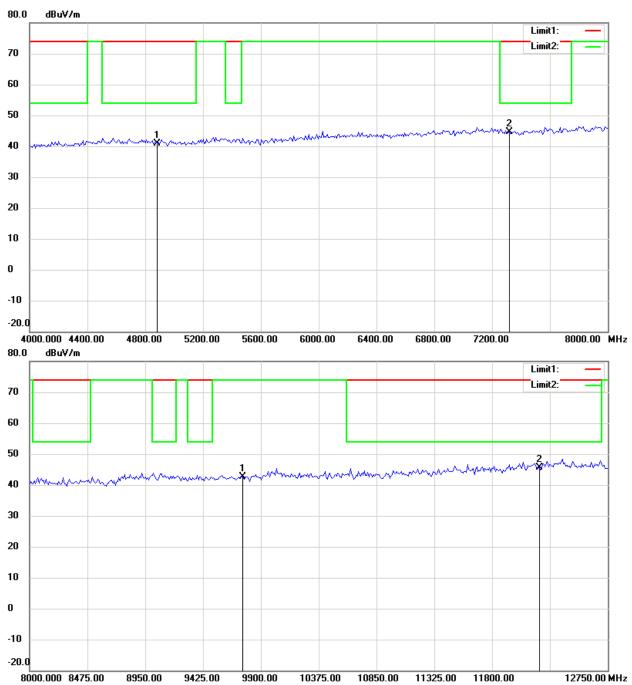


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

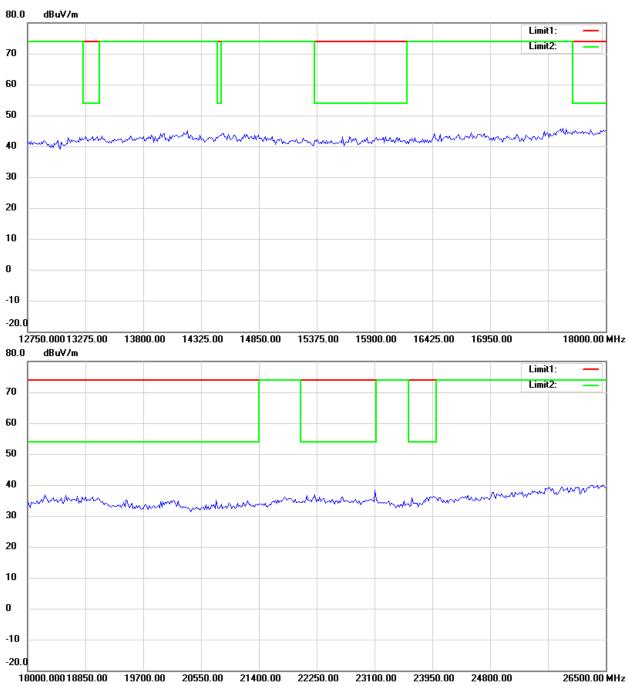


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

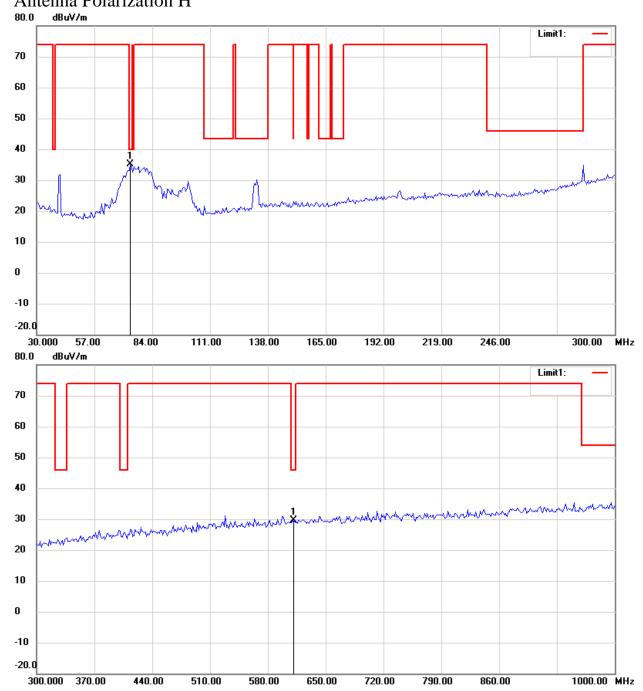
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11n 20MHz ch11 Antenna Polarization H

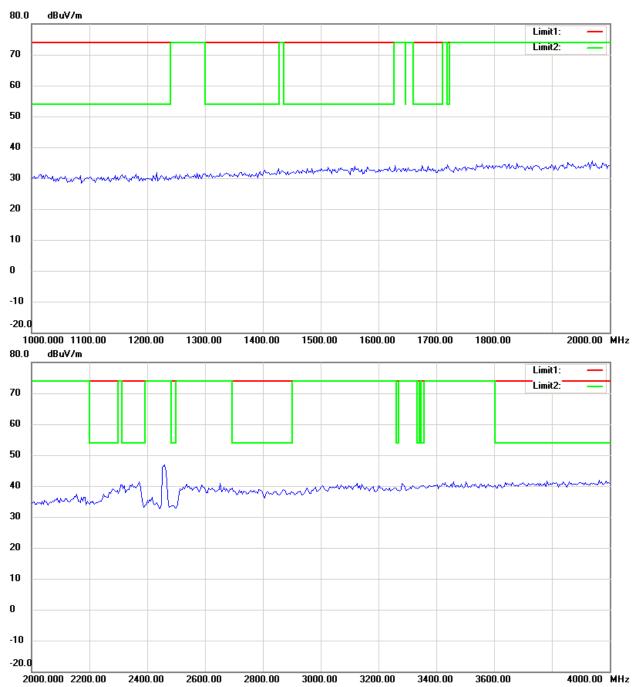


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

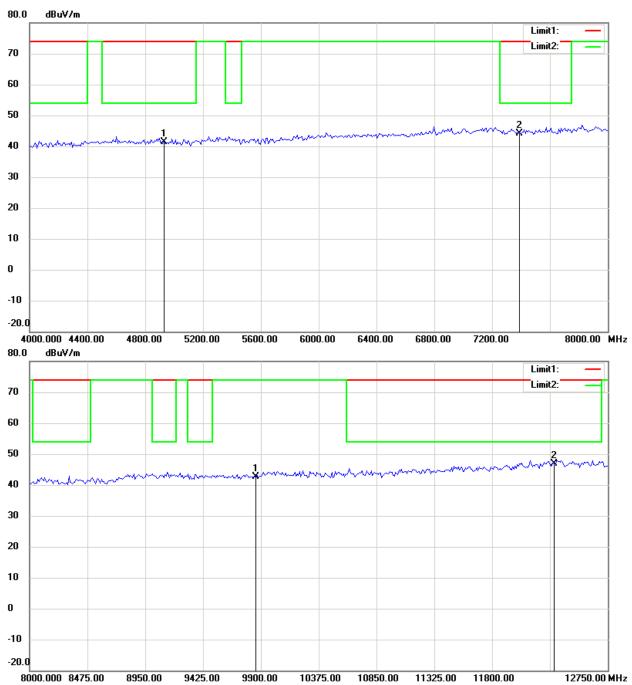


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

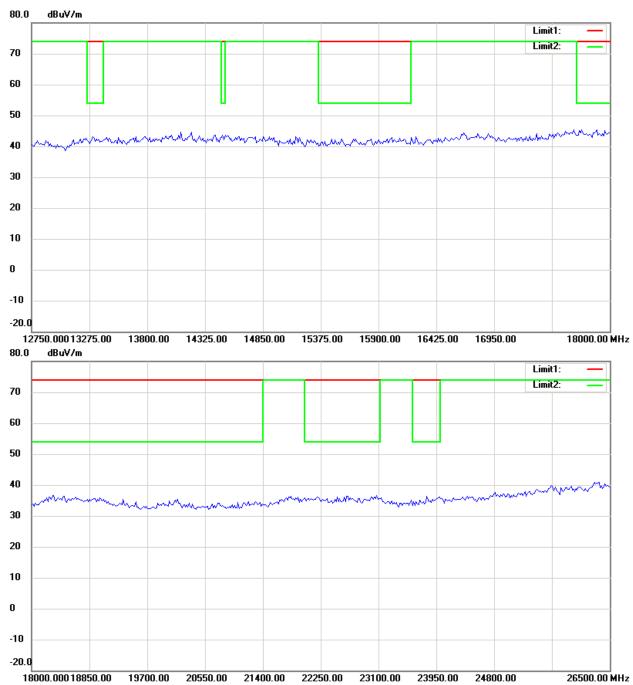


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

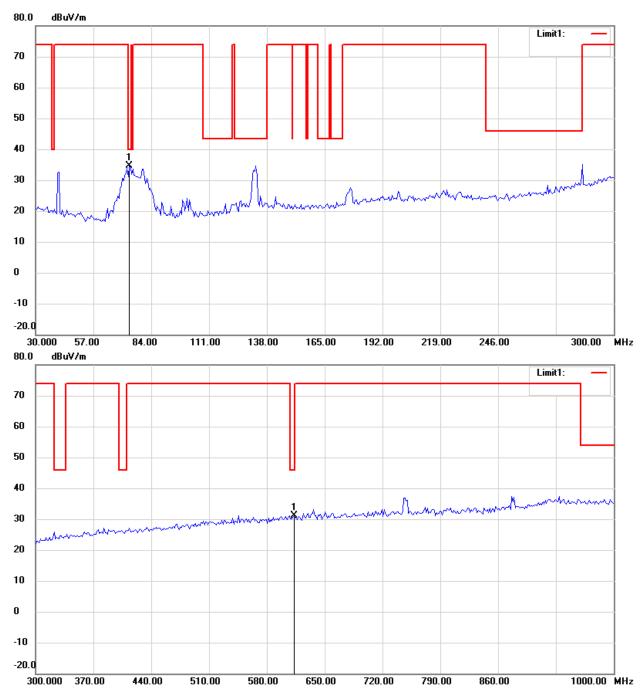
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

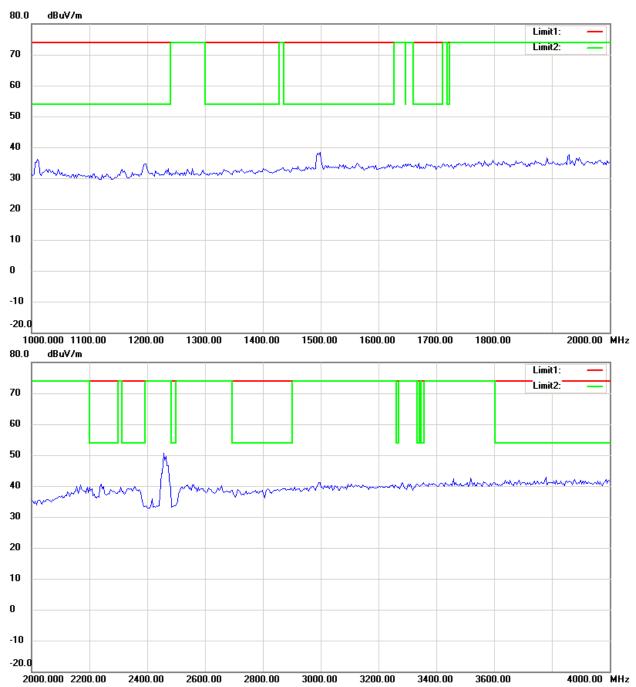


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

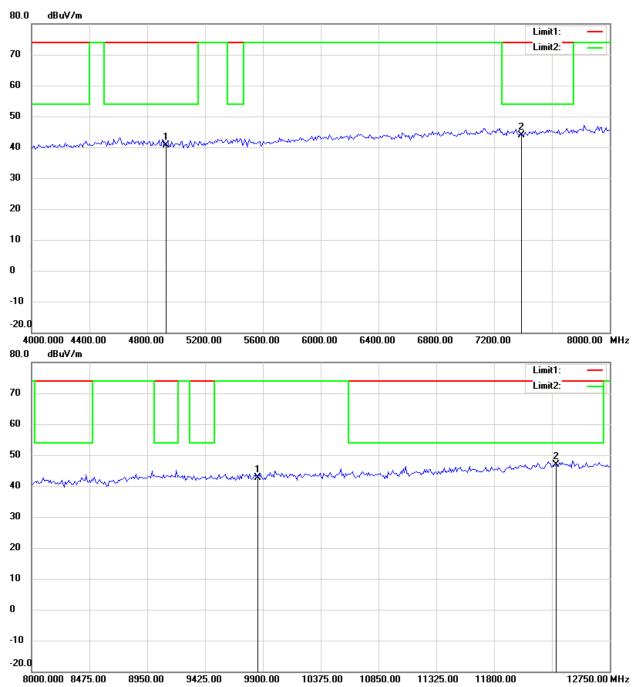


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

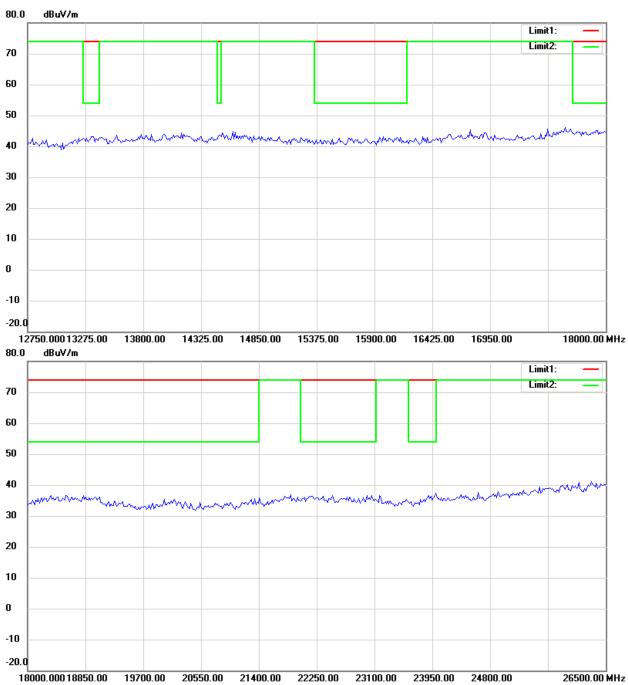


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
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Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

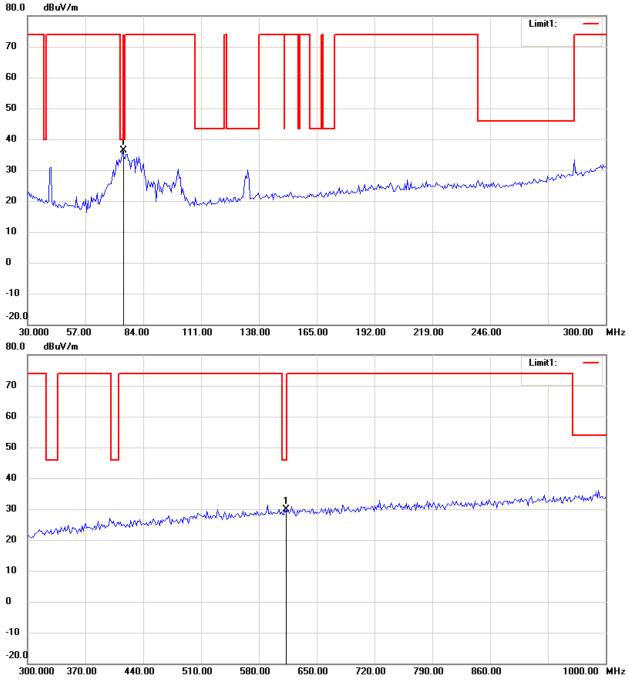


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11n 40MHz ch1

# Antenna Polarization H

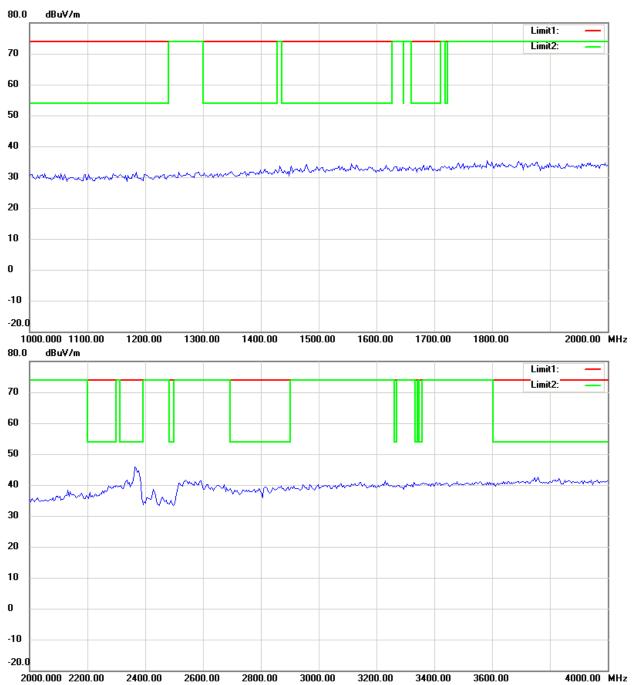


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

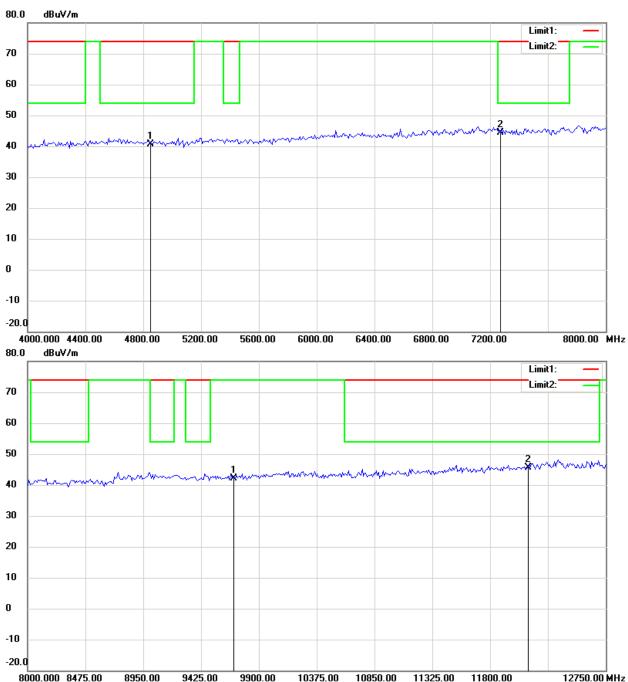


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

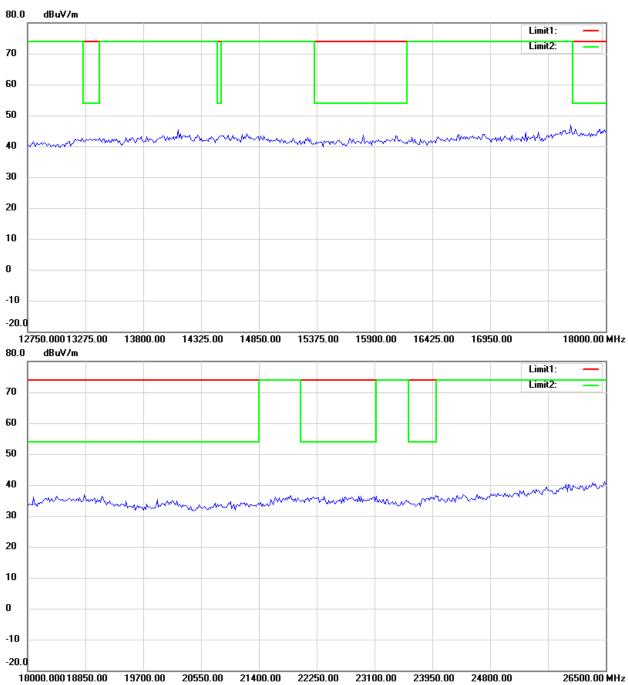


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

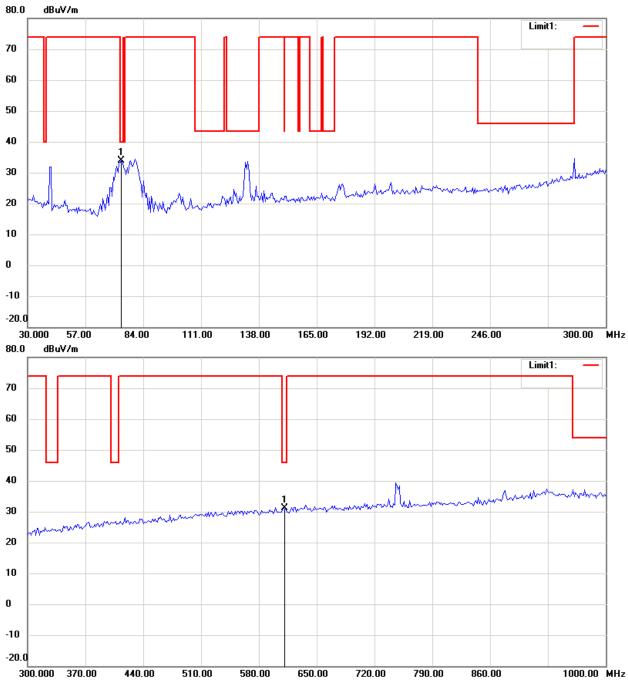
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

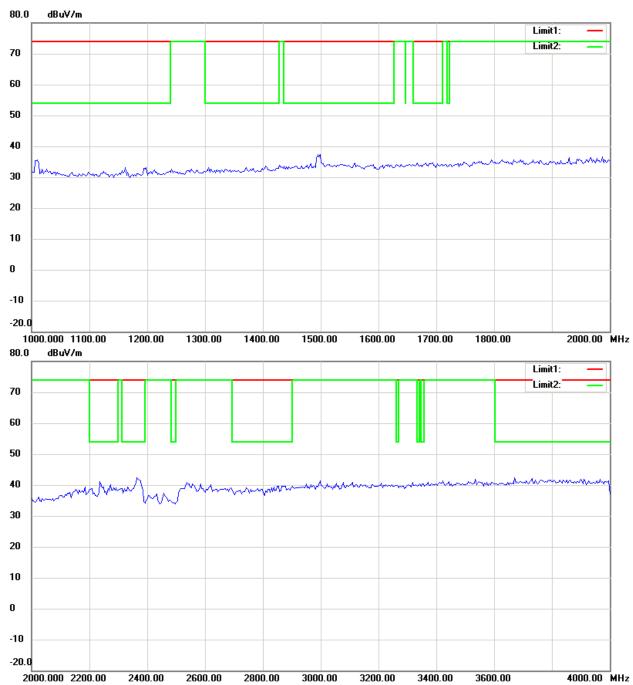


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

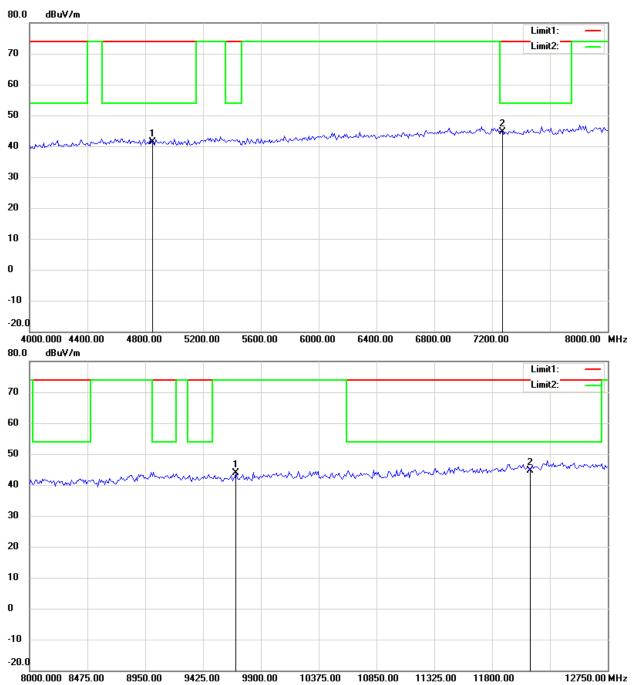


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

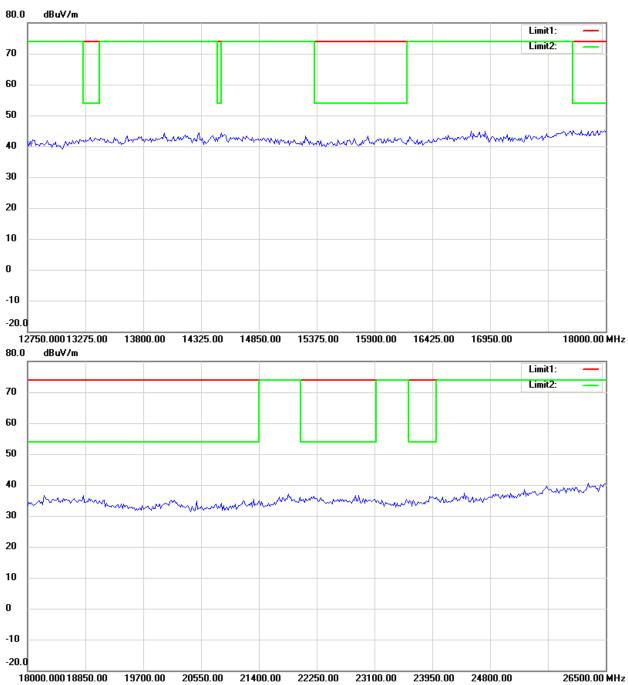


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

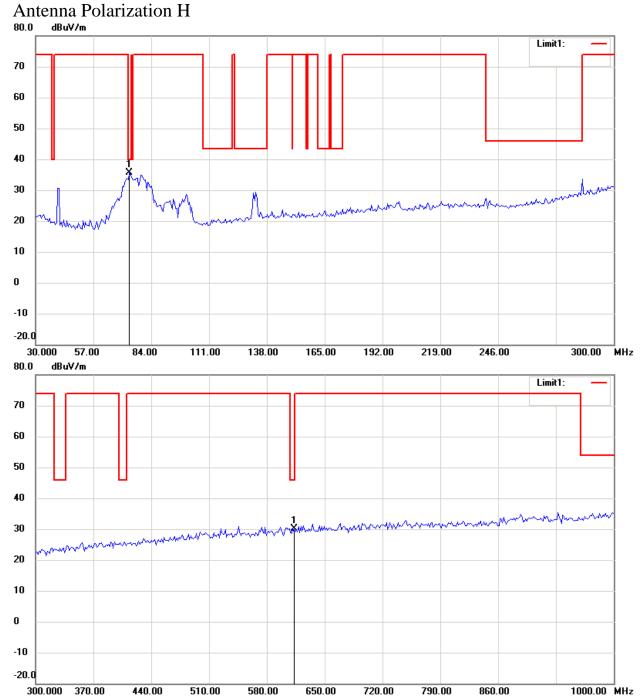
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

## 802.11n 40MHz ch4

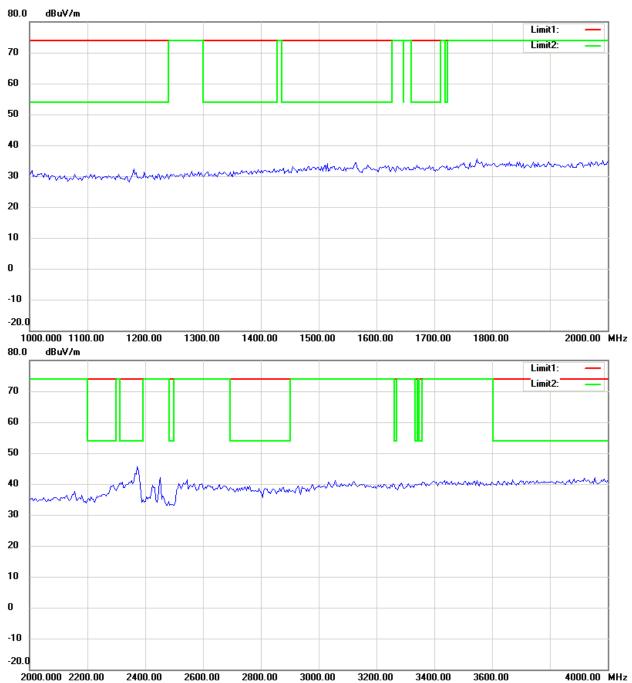


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

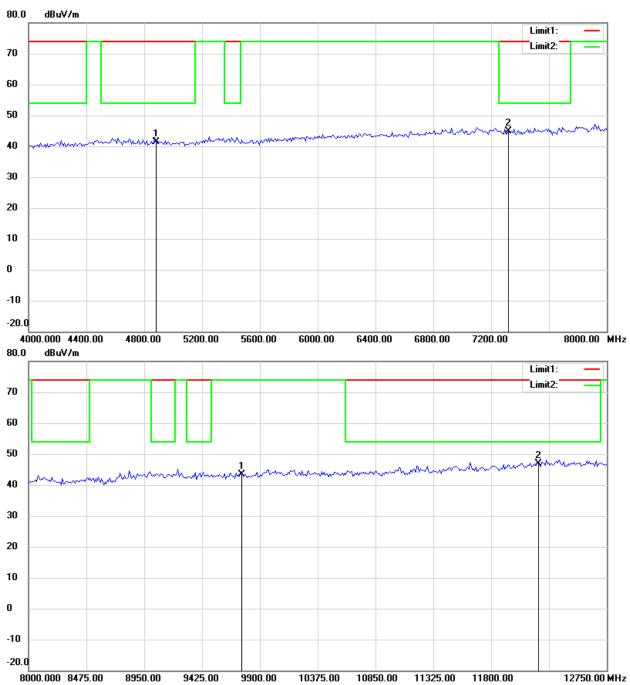


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

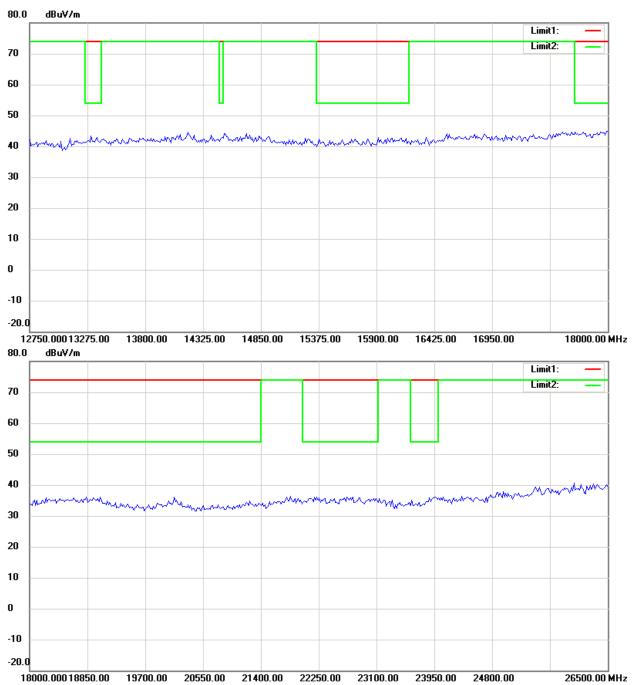


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

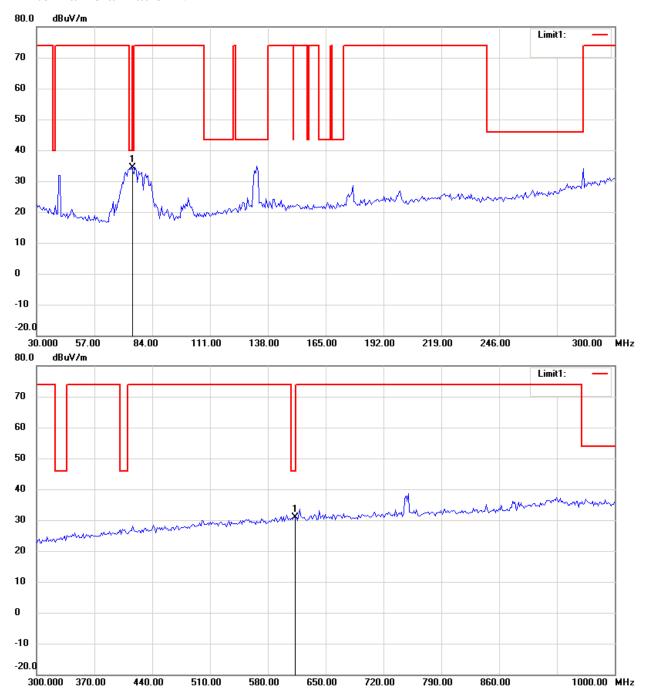
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

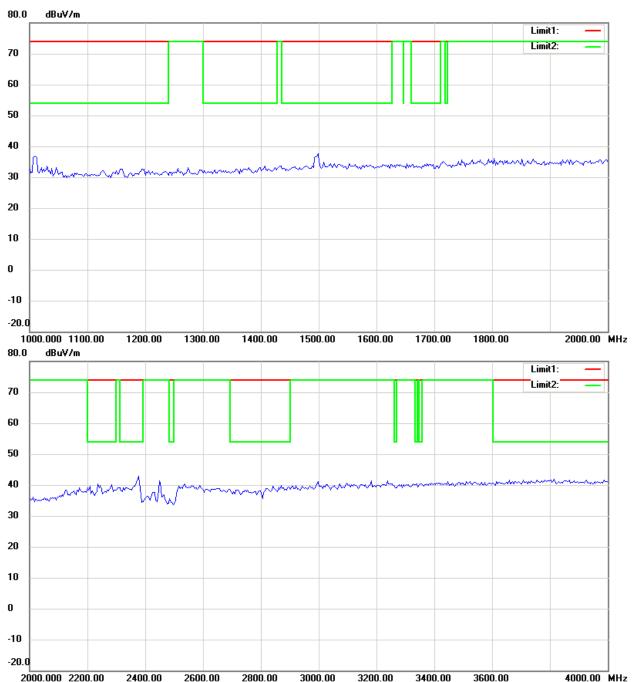


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

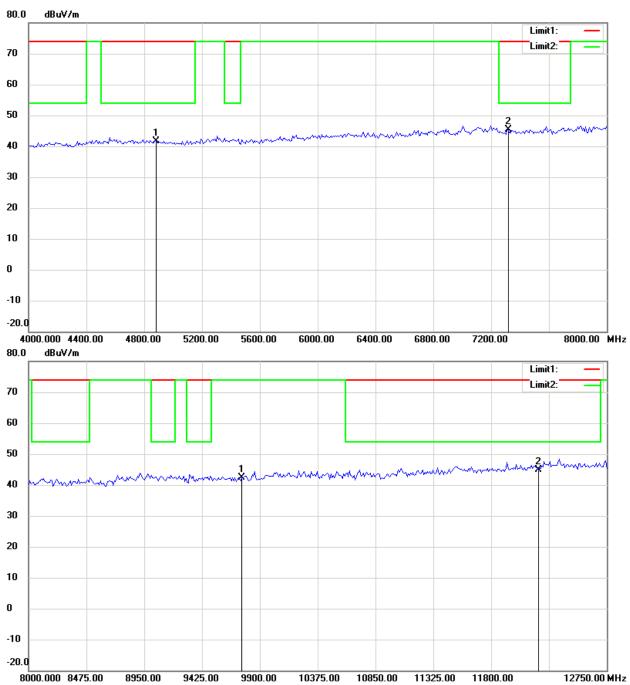


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

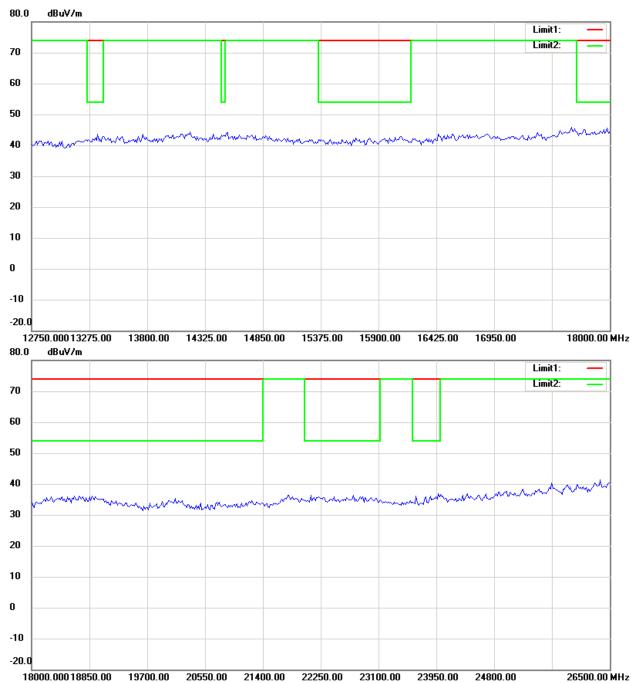


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

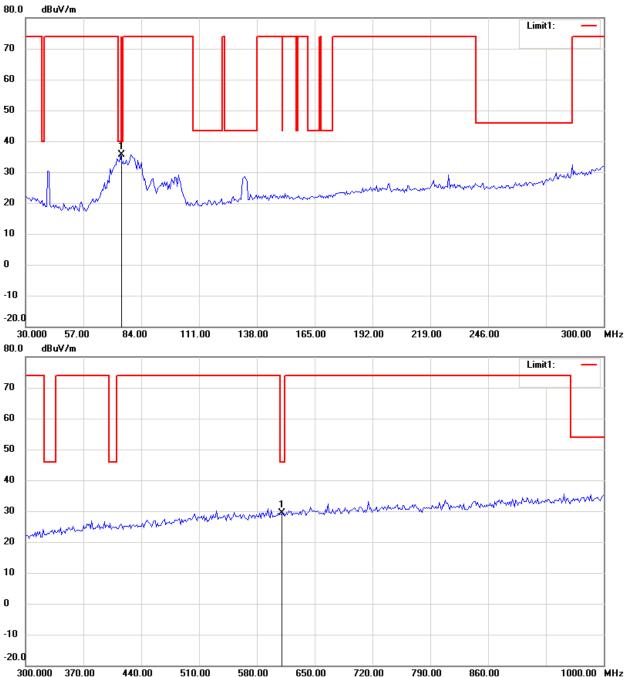


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### 802.11n 40MHz ch7

### Antenna Polarization H

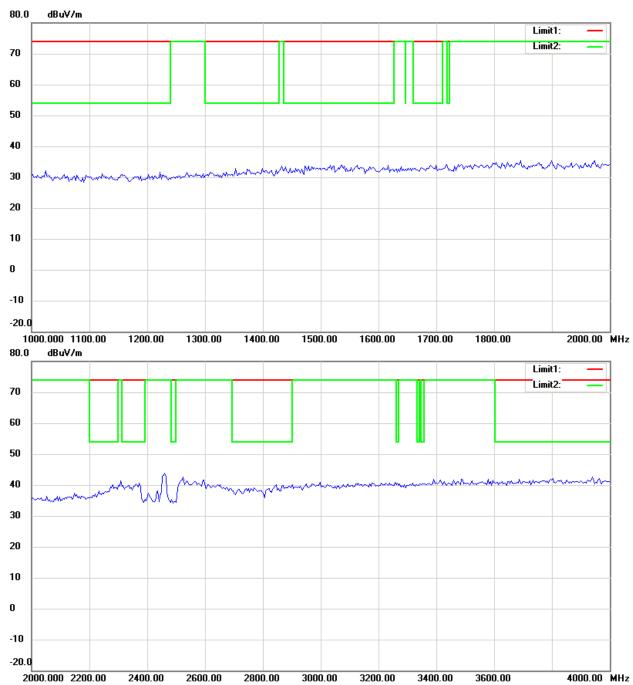


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

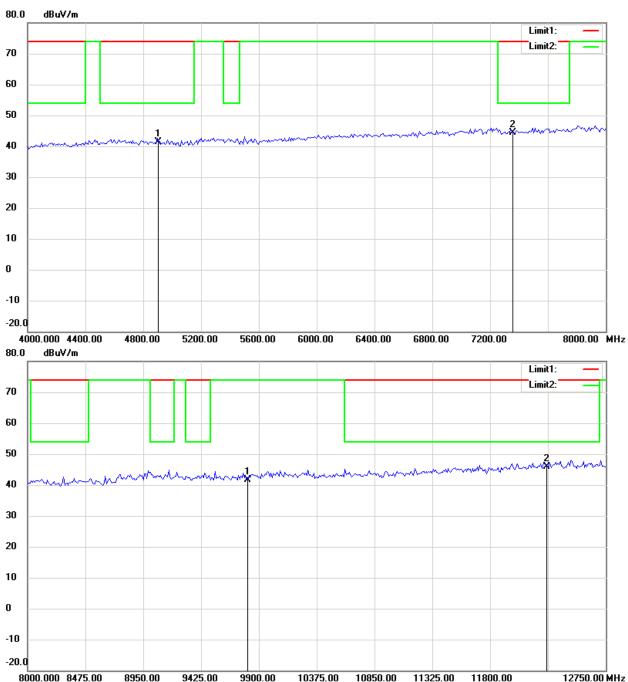


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

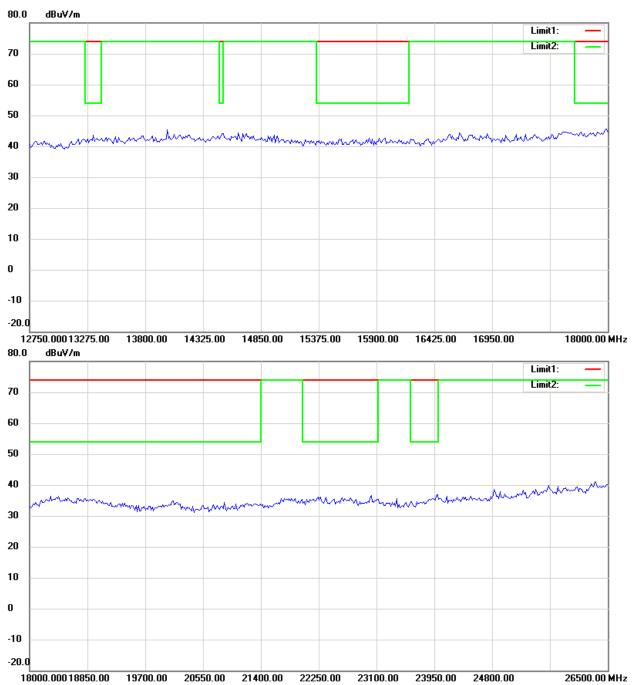


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

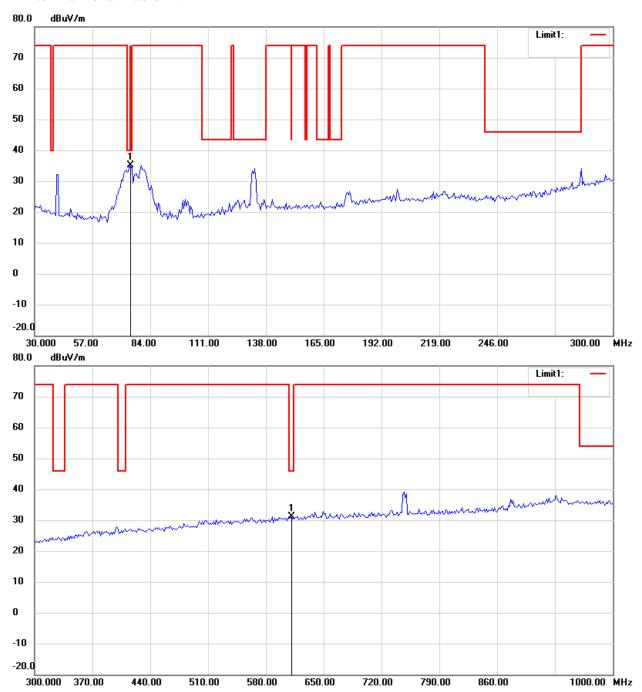
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

### Antenna Polarization V

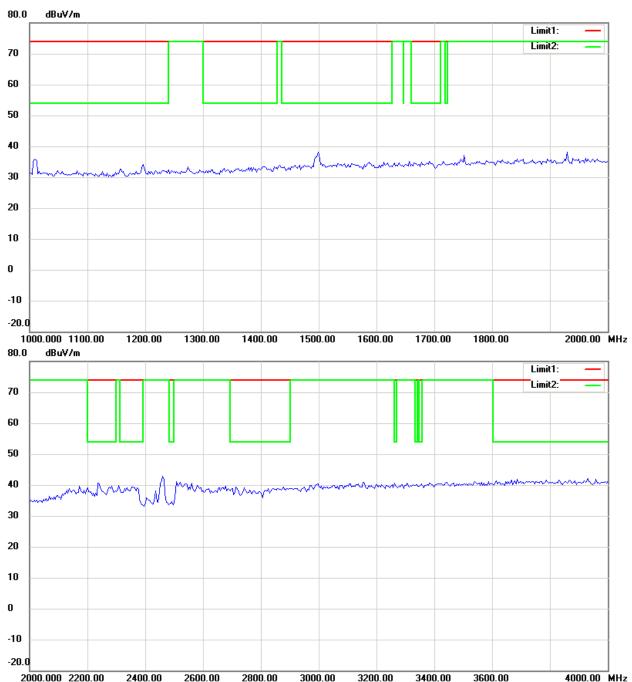


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

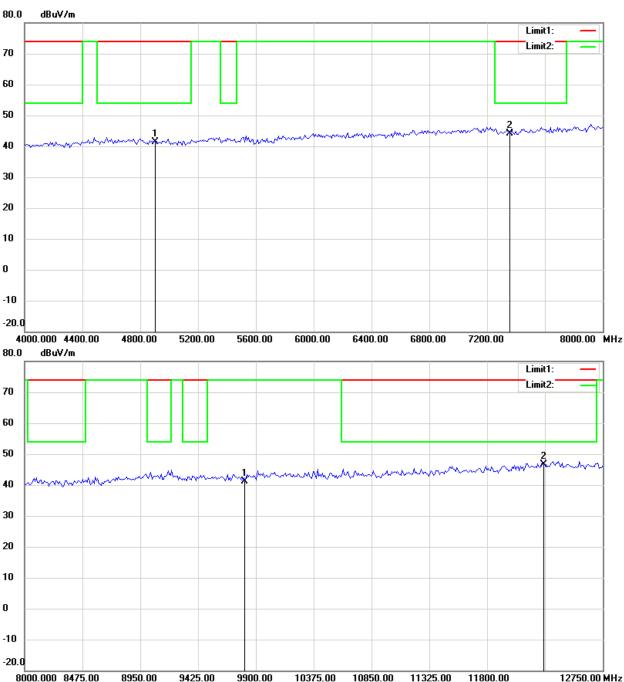


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

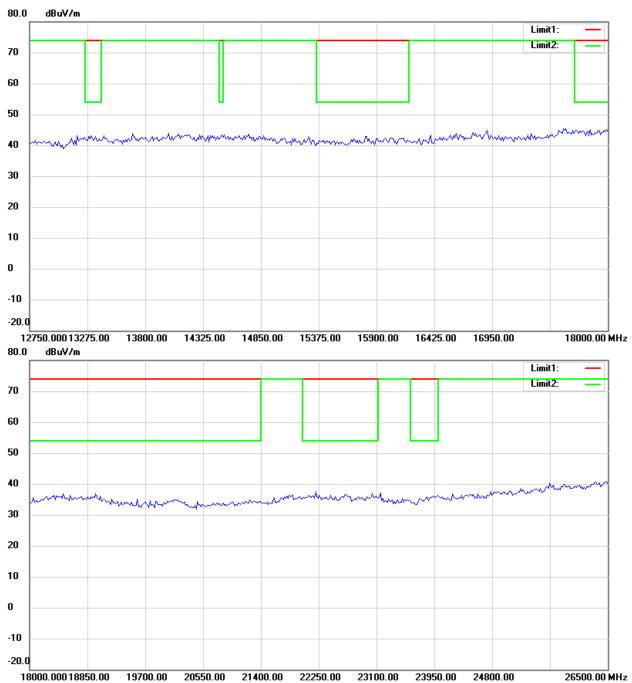


#### Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



#### Note:

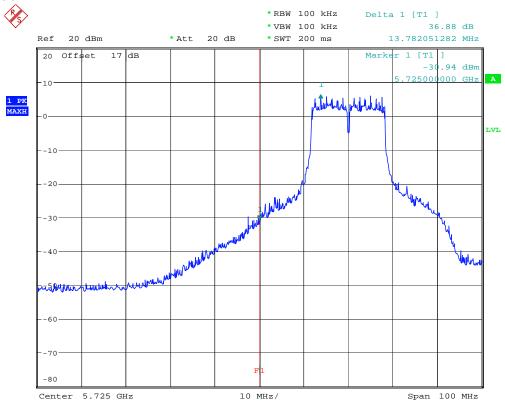
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- 2. The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of radiated test data of this test report.



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

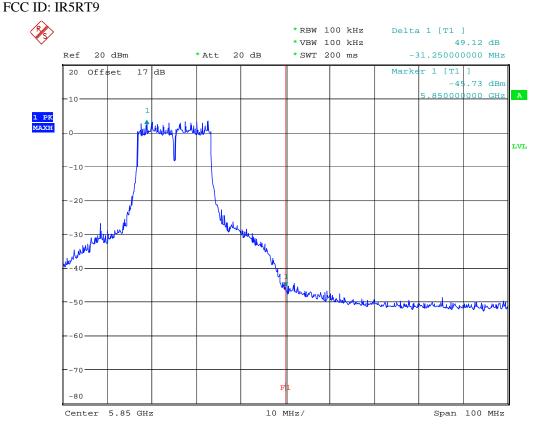
# Band Edge Measurement Mode A



BAND EDGE 802.11a CH149 Date: 26.MAY.2010 10:13:42



Registration number: W6M21006-10691-C-1



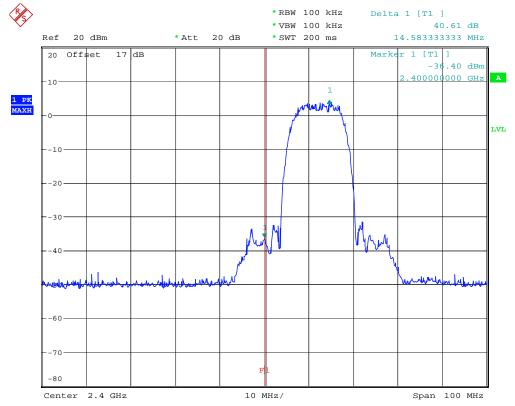
BAND EDGE 802.11a CH165
Date: 26.MAY.2010 10:14:17



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Mode B

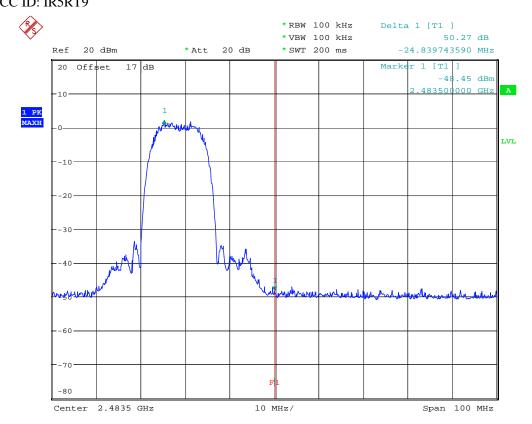


BAND EDGE 802.11b CH1

Date: 26.MAY.2010 10:10:00



Registration number: W6M21006-10691-C-1



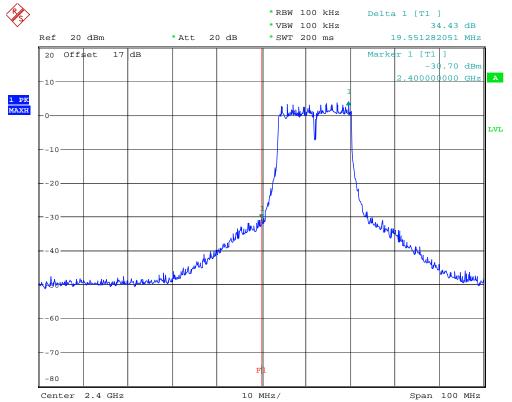
BAND EDGE 802.11b CH11
Date: 26.MAY.2010 10:10:32



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Mode C

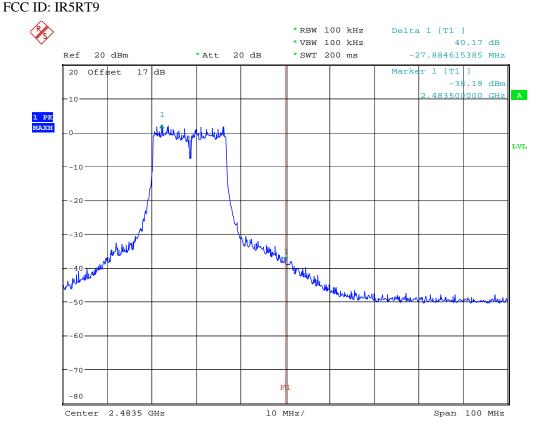


BAND EDGE 802.11g CH1

Date: 26.MAY.2010 10:09:41



Registration number: W6M21006-10691-C-1

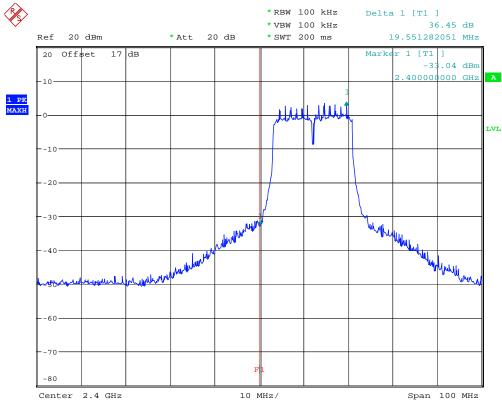


BAND EDGE 802.11g CH11
Date: 26.MAY.2010 10:11:07

Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

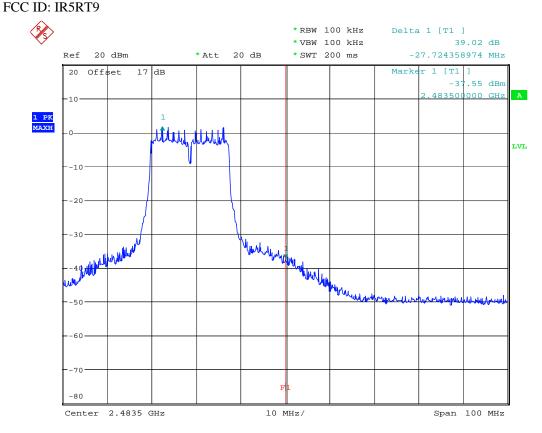
#### Mode D



BAND EDGE 802.11n 20MHz CH1
Date: 26.MAY.2010 10:09:20



Registration number: W6M21006-10691-C-1



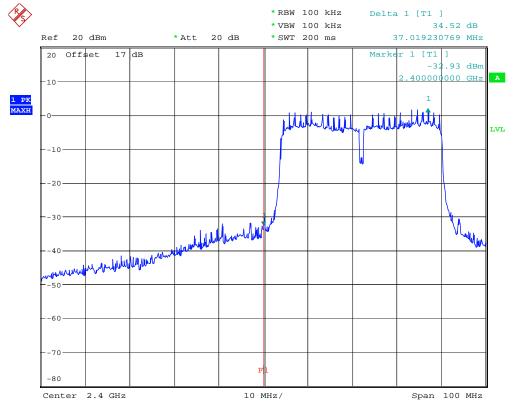
BAND EDGE 802.11n 20MHz CH11 Date: 26.MAY.2010 10:11:26



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

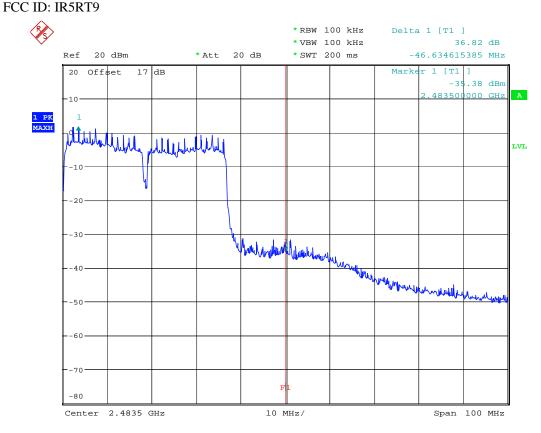
#### Mode E



BAND EDGE 802.11n 40MHz CH1
Date: 26.MAY.2010 10:08:57



Registration number: W6M21006-10691-C-1



BAND EDGE 802.11n 40MHz CH7 Date: 26.MAY.2010 10:11:59

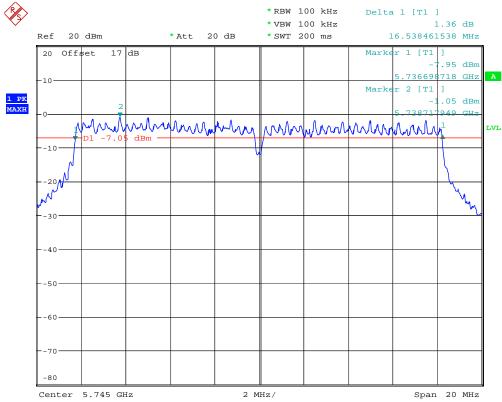


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Minimum 6dB Bandwidth

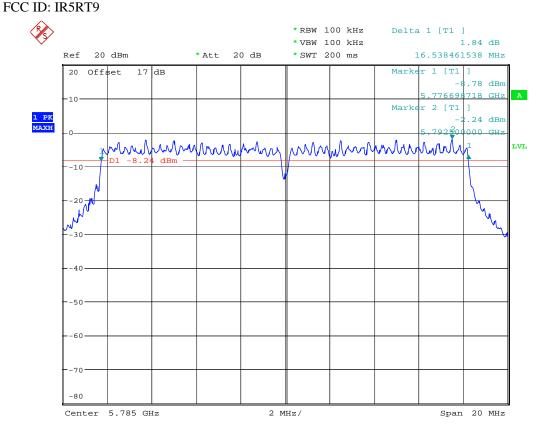
#### Mode A



6DB BANDWIDTH 802.11a CH149 Date: 19.MAY.2010 12:30:29



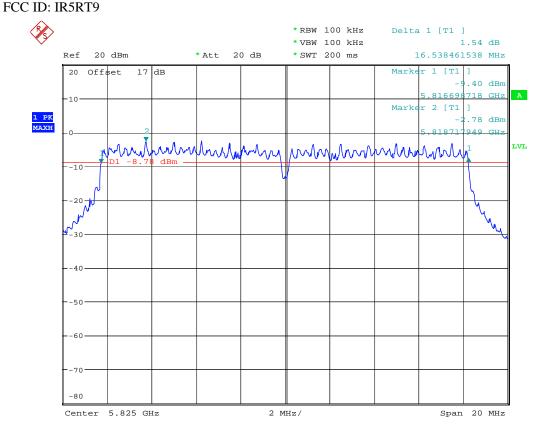
Registration number: W6M21006-10691-C-1



6DB BANDWIDTH 802.11a CH157 Date: 19.MAY.2010 12:29:40



Registration number: W6M21006-10691-C-1



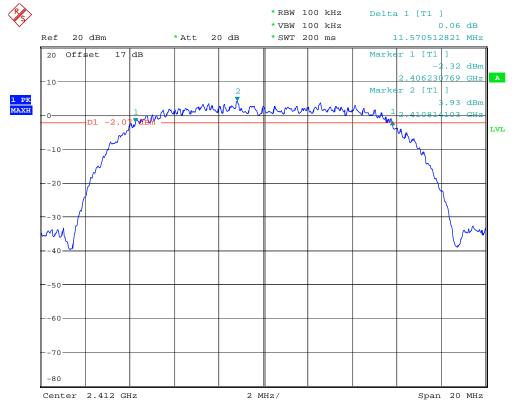
6DB BANDWIDTH 802.11a CH165 Date: 19.MAY.2010 12:28:40



Registration number: W6M21006-10691-C-1

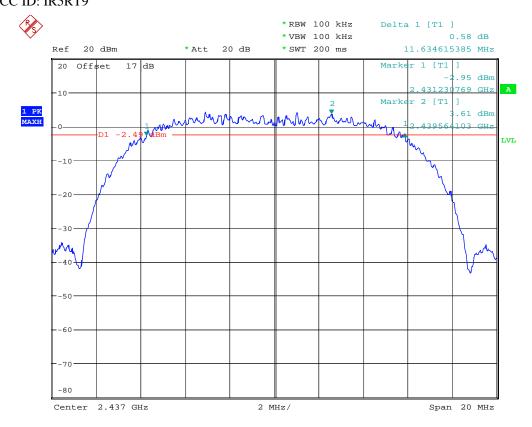
FCC ID: IR5RT9

#### Mode B



6DB BANDWIDTH 802.11b CH1
Date: 19.MAY.2010 12:39:58

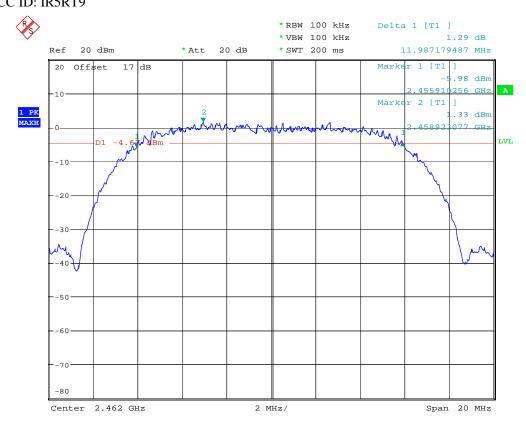
Registration number: W6M21006-10691-C-1



6DB BANDWIDTH 802.11b CH6
Date: 19.MAY.2010 12:44:22



Registration number: W6M21006-10691-C-1



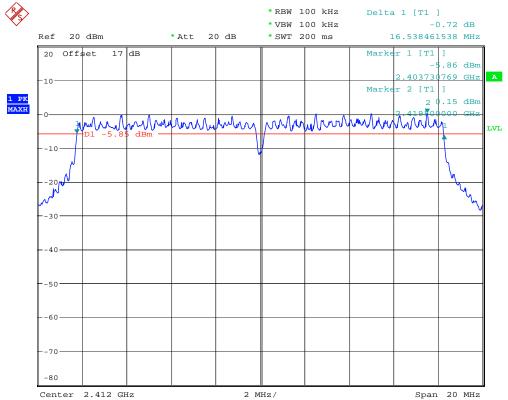
6DB BANDWIDTH 802.11b CH11
Date: 19.MAY.2010 12:46:55



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

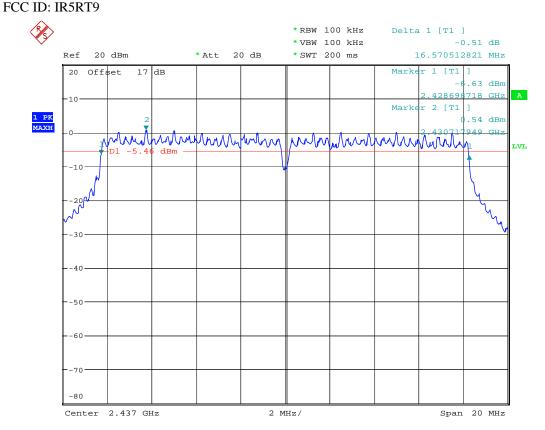
#### Mode C



6DB BANDWIDTH 802.11g CH1
Date: 19.MAY.2010 12:40:48



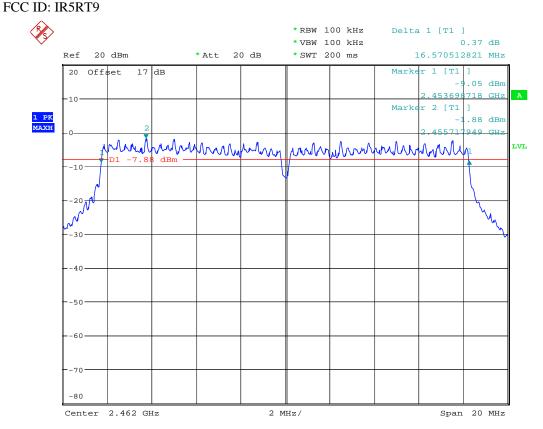
Registration number: W6M21006-10691-C-1



6DB BANDWIDTH 802.11g CH6
Date: 19.MAY.2010 12:43:32



Registration number: W6M21006-10691-C-1



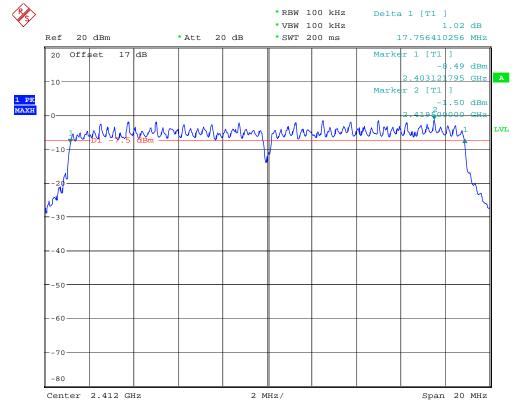
6DB BANDWIDTH 802.11g CH11 Date: 19.MAY.2010 12:49:13



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

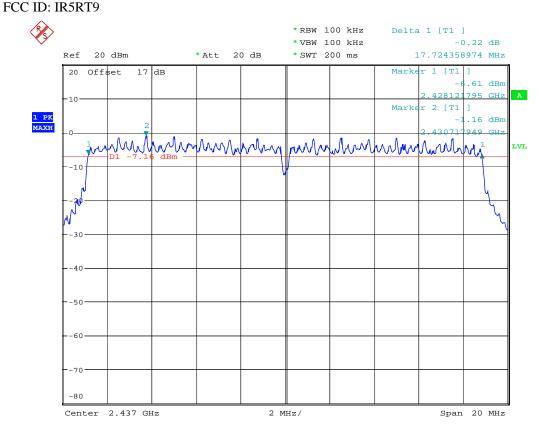
#### Mode D



6DB BANDWIDTH 802.11n 20MHz CH1 Date: 19.MAY.2010 12:41:40



Registration number: W6M21006-10691-C-1

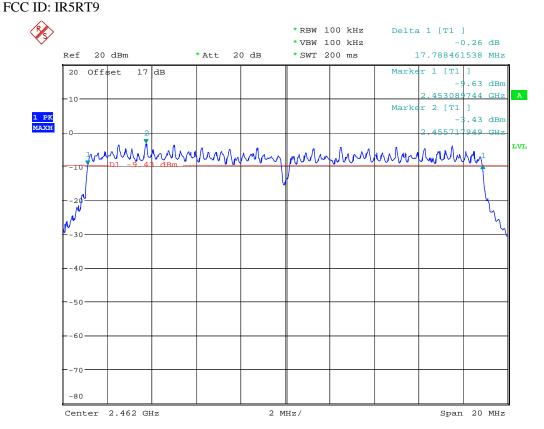


6DB BANDWIDTH 802.11n 20MHz CH6

Date: 19.MAY.2010 12:42:36



Registration number: W6M21006-10691-C-1



6DB BANDWIDTH 802.11n 20MHz CH11

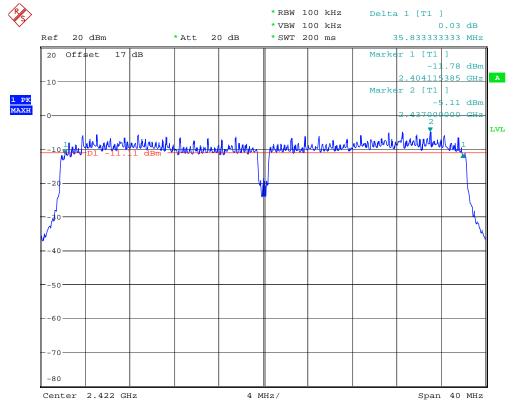
Date: 19.MAY.2010 12:50:02



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

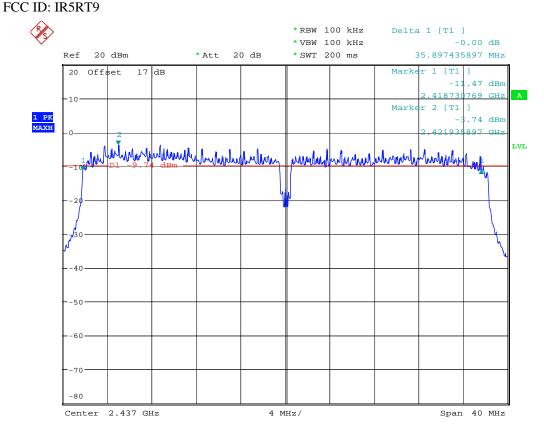
#### Mode E



6DB BANDWIDTH 802.11n 40MHz CH1 Date: 19.MAY.2010 12:51:06



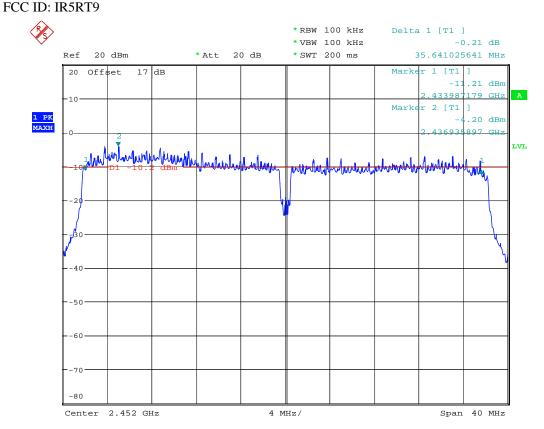
Registration number: W6M21006-10691-C-1



6DB BANDWIDTH 802.11n 40MHz CH4
Date: 19.MAY.2010 12:51:58



Registration number: W6M21006-10691-C-1



6DB BANDWIDTH 802.11n 40MHz CH7

Date: 19.MAY.2010 12:52:46

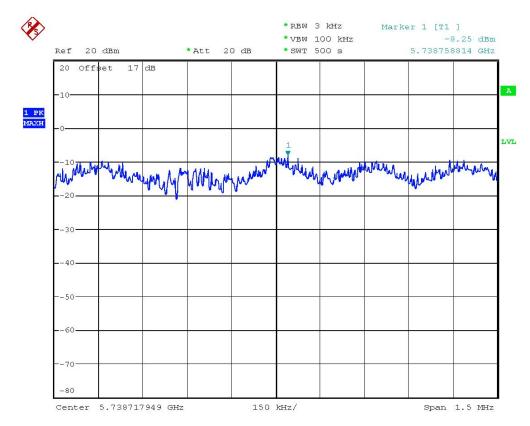


Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

Peak Power Spectral Density

Mode A

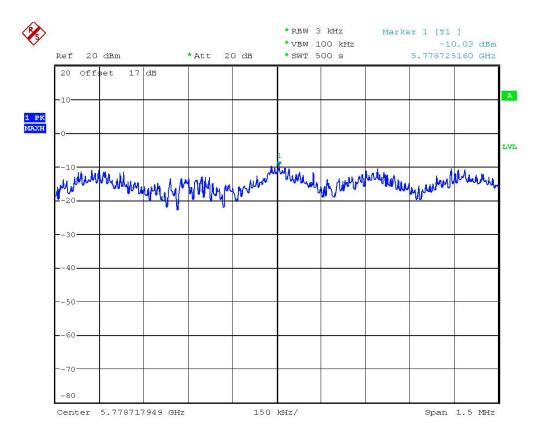


POWER DENSITY 802.11a CH149 Date: 26.MAY.2010 10:15:31



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

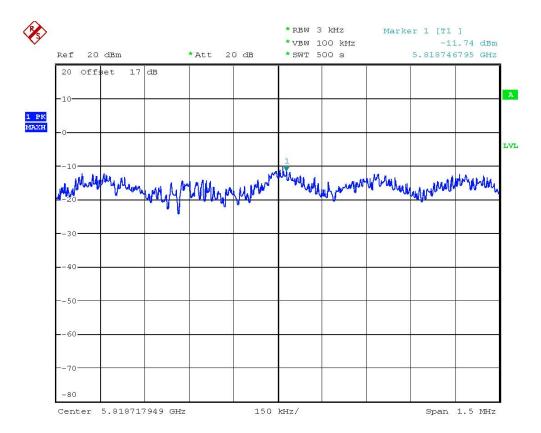


POWER DENSITY 802.11a CH157 Date: 26.MAY.2010 10:16:05



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



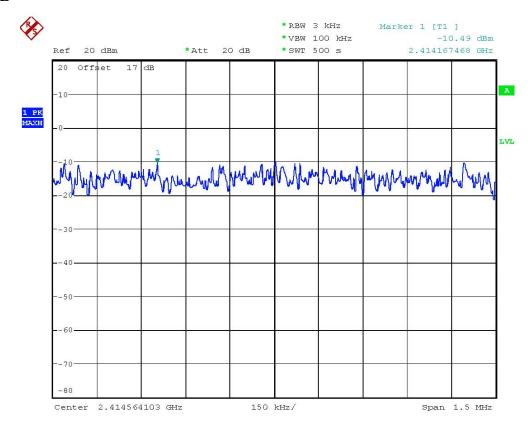
POWER DENSITY 802.11a CH165 Date: 26.MAY.2010 10:16:42



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Mode B

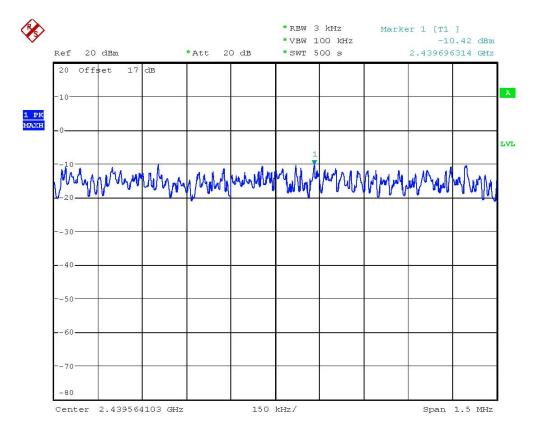


POWER DENSITY 802.11b CH1
Date: 26.MAY.2010 10:17:26



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

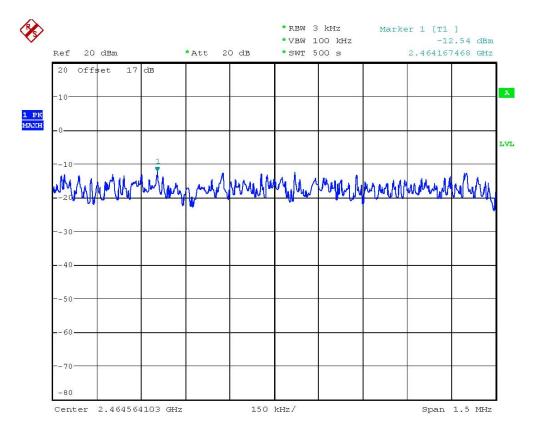


POWER DENSITY 802.11b CH6
Date: 26.MAY.2010 10:17:56



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



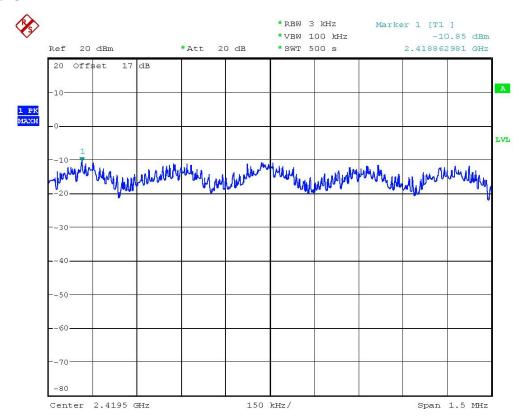
POWER DENSITY 802.11b CH11
Date: 26.MAY.2010 10:18:25



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Mode C

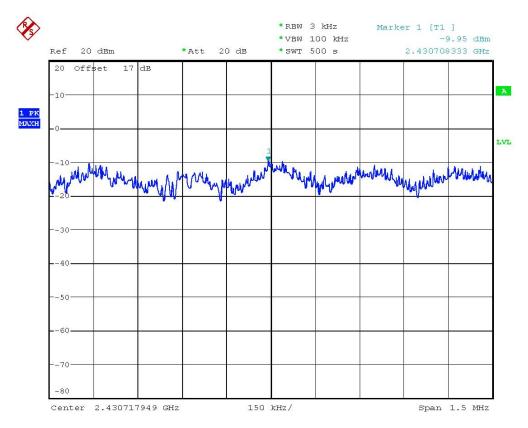


POWER DENSITY 802.11g CH1
Date: 26.MAY.2010 10:20:04



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

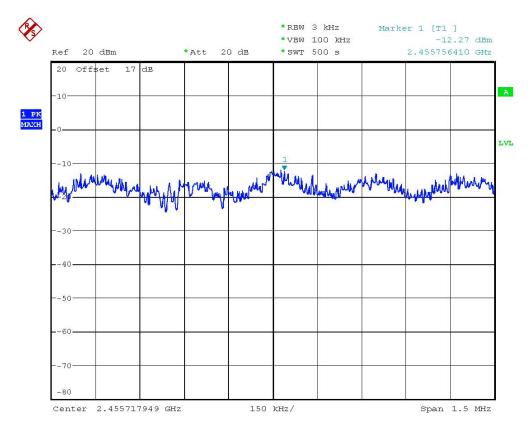


POWER DENSITY 802.11g CH6
Date: 26.MAY.2010 10:19:35



Registration number: W6M21006-10691-C-1





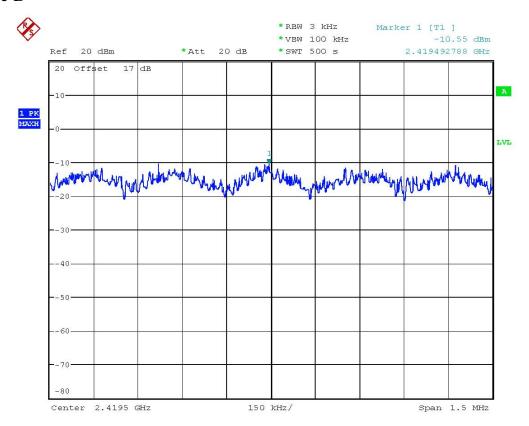
POWER DENSITY 802.11g CH11 Date: 26.MAY.2010 10:19:02



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Mode D

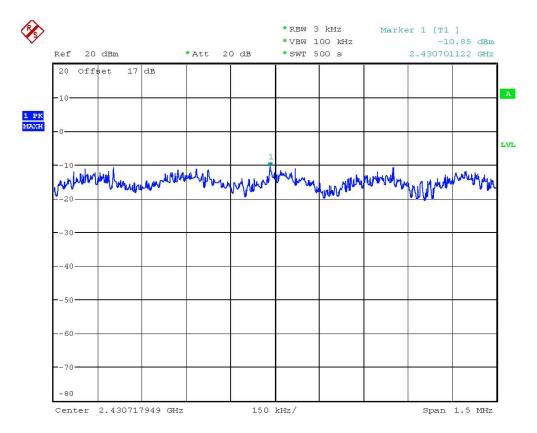


POWER DENSITY 802.11n 20MHz CH1 Date: 26.MAY.2010 10:20:41



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

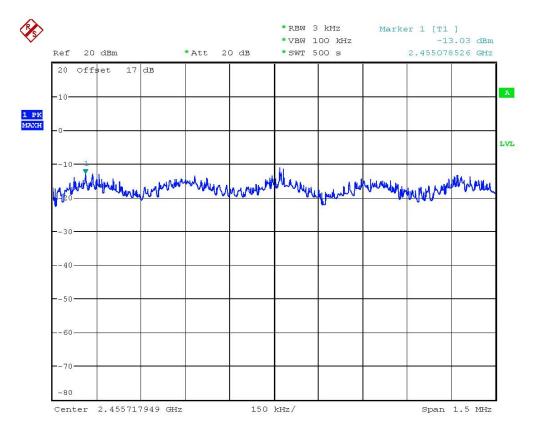


POWER DENSITY 802.11n 20MHz CH6
Date: 26.MAY.2010 10:21:09



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9



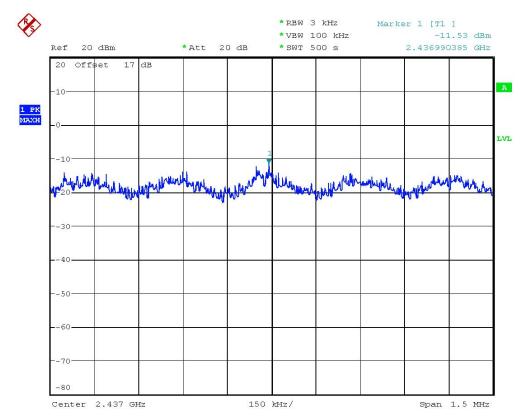
POWER DENSITY 802.11n 20MHz CH11 Date: 26.MAY.2010 10:21:44



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

#### Mode E

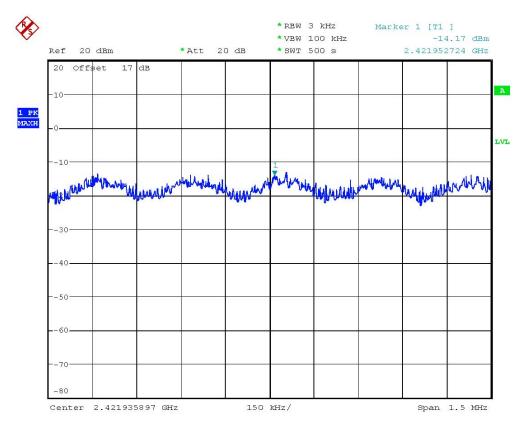


POWER DENSITY 802.11n 40MHz CH1
Date: 26.MAY.2010 10:23:18



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

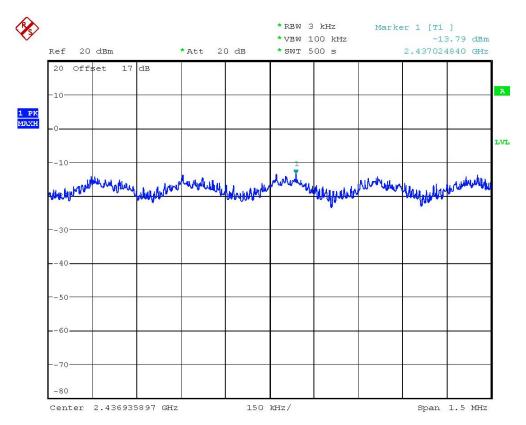


POWER DENSITY 802.11n 40MHz CH4
Date: 26.MAY.2010 10:22:50



Registration number: W6M21006-10691-C-1

FCC ID: IR5RT9

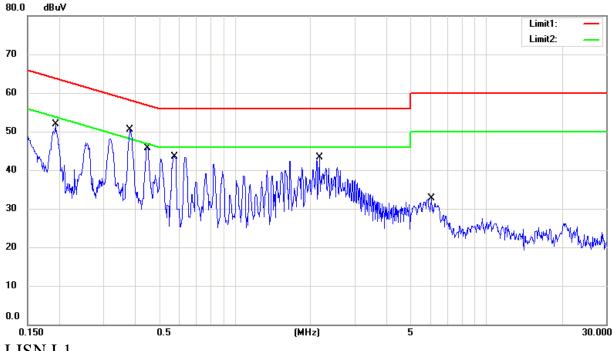


POWER DENSITY 802.11n 40MHz CH7 Date: 26.MAY.2010 10:22:22 Registration number: W6M21006-10691-C-1

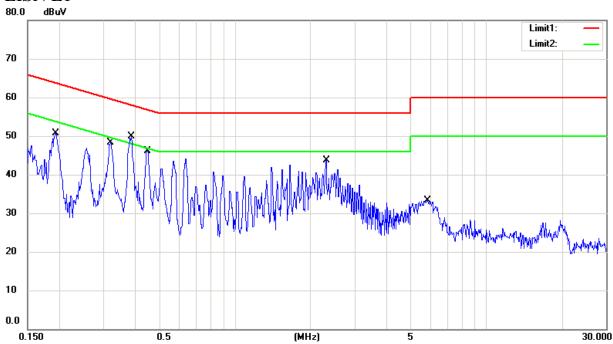
FCC ID: IR5RT9

#### Power Line Conducted Emission 800×600

#### LISN N



#### LISN L1



Up Line: QP Limit Line Down Line: Ave Limit Line Note:

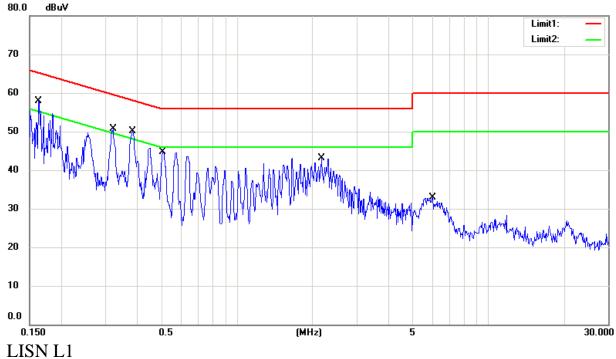
- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of AC conducted test data of this test report.

Registration number: W6M21006-10691-C-1

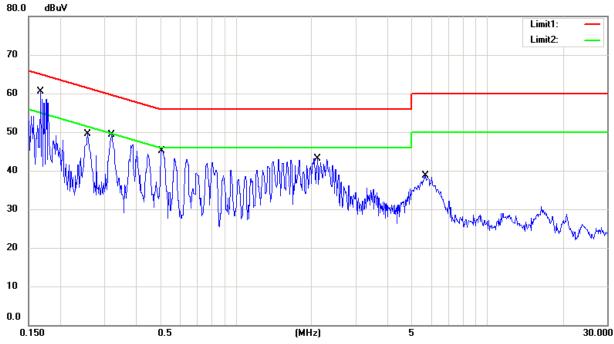
FCC ID: IR5RT9

#### 1024×768

#### LISN N







Up Line: QP Limit Line Down Line: Ave Limit Line Note:

- 1. The attached measurement plots are preliminarily pre-scanned with peak detector for determining the final checking frequencies and are for reference only.
- The some frequencies may exceed the limit line without the specified detectors, but that cannot present the results are failed to the specification of test standard.
- 3. For corrected test results are listed in the relevant table of AC conducted test data of this test report.