

FCC PART 15 SUBPART C TEST REPORT

For

Notebook Computer

Model No.: RV11

FCC ID: IR5RV11

of

Applicant: MilDef Crete Inc.

Address: 7F, No.250, Sec.3, Pei Shen Rd., Shen Keng District,
New Taipei City 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, IC 5107A

A2LA Accredited No.: 2732.01



Report No.: W6M21403-13993-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



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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 its 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.

The test report may only be reproduced or published in full.

Reproduction or publication of extracts from the report requires the prior written approval of the Worldwide Testing Services(Taiwan) Co., Ltd.

Specific Conditions:

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

Tester:

August 26, 2014 Rick Chen *Rick Chen.*

Date WTS-Lab. Name Signature

Technical responsibility for area of testing:

August 26, 2014 Kevin Wang *Kevin Wang*

Date WTS Name Signature



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1.2 Testing laboratory

1.2.1 Location

OATS

No.5-1, Lishui, Shuang Sing Village,
Wanli Dist., New Taipei City 207,
Taiwan (R.O.C.)

3 meter semi-anechoic chamber

No.35, Aly. 21, Ln. 228, Ankang Rd., Neihu Dist., Taipei City 114, Taiwan (R.O.C.)

TEL:886-2-6613-0228

FAX:886-2-2791-5046

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, IC 5107A



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: MilDef Crete Inc.

Street: 7F, No.250, Sec.3, Pei Shen Rd.,

Town: Shen Keng District, New Taipei City

Country: Taiwan R.O.C.

Telephone: +886-2-2662-6074

Fax: +886-2-2662-6079



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1.4 Application details

Date of receipt of test item: March 10, 2014
Date of test: from March 11, 2014 to August 26, 2014

1.5 General information of Test item

Type of test item: Notebook Computer
Model Number: RV11
Brand Name: ./.
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

11n 20MHz

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

11n 40MHz

Frequency (ch 151): 5.755 GHz
Frequency (ch 159): 5.795 GHz

802.11b, g, n 20MHz

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

11n 40MHz

Frequency (ch 1 or A): 2.422 GHz
Frequency (ch 4 or B): 2.437 GHz
Frequency (ch 7 or C): 2.452 GHz



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Bluetooth Normal, EDR

Frequency (ch 0): 2.402 GHz
Frequency (ch 39): 2.441 GHz
Frequency (ch 78): 2.480 GHz

Bluetooth 4.0

Frequency (ch 0): 2.402 GHz
Frequency (ch 19): 2.440 GHz
Frequency (ch 39): 2.480 GHz

Number of Channels: 11a, 11n 20MHz : 5 channels
11n 40MHz: 2 channels
11b, 11g, 11n 20MHz: 11 channels
11n 40MHz: 7 channels
Bluetooth 2.1: 79 channels
Bluetooth 4.0: 40 channels

Operation modes: duplex

Modulation Type: DSSS/OFDM、GFSK、 $\pi/4$ DQPSK、8DPSK

Fixed point-to-point operation: Yes / No

Type of Antenna: ANT A / ANT B: PIFA Antenna

Antenna gain: ANT A: 802.11a/n(20MH/40MHz): 2.92 dBi
80211b/g/n(20MH/40MHz): 3.39 dBi
ANT B: 802.11a/n(20MH/40MHz): 3.5 dBi
80211b/g/n(20MH/40MHz)/ Bluetooth 2.1&4.0: 1.24 dBi

Directional gain: 5.39 dBi (for 2.4GHz) / 6.23 dBi (for 5.8GHz)

Power supply: Adaptor (I/P: 100-240Vac, 47-63MHz, 1.2A MAX
O/P: 19Vdc, 4.74A)
Battery: 11.1Vdc, 6040mAH 67Wh
DC 12~32V, 8A

Emission designator: **5.8G**
802.11a: OFDM: 18M8D1D
802.11n 20MHz: OFDM: 20M0D1D
802.11n 40MHz: OFDM: 37M6D1D
2.4G
802.11b: DSSS: 15M0G1D
802.11g: OFDM: 17M0D1D
802.11n 20MHz: OFDM: 18M2D1D
802.11n 40MHz: OFDM: 36M8D1D
Bluetooth (Normal): 962KF1D
Bluetooth (EDR): 1M30G1D
Bluetooth (4.0): 721KG1D

Host device: none



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Classification :

Fixed Device	<input type="checkbox"/>
Mobile Device (Human Body distance > 20cm)	<input checked="" type="checkbox"/>
Portable Device (Human Body distance < 20cm)	<input type="checkbox"/>
Modular Radio Device	<input type="checkbox"/>

Transmitter

Unom

ANT A

Mode A (802.11a)

Power (ch 149 or A):	Conducted: 14.81 dBm
Power (ch 157 or B):	Conducted: 14.27 dBm
Power (ch 165 or C):	Conducted: 12.98 dBm

Mode B (802.11n 20MHz)

Frequency (ch 149 or A):	Conducted: 14.00 dBm
Frequency (ch 157 or B):	Conducted: 14.04 dBm
Frequency (ch 165 or C):	Conducted: 12.67 dBm

Mode C (802.11n 40MHz)

Frequency (ch 151 or A):	Conducted: 13.62 dBm
Frequency (ch 159 or B):	Conducted: 13.90 dBm

Mode D (802.11b)

Power (ch 1 or A):	Conducted: 11.66 dBm
Power (ch 6 or B):	Conducted: 12.61 dBm
Power (ch 11 or C):	Conducted: 12.20 dBm

Mode E (802.11g)

Power (ch 1 or A):	Conducted: 13.50 dBm
Power (ch 6 or B):	Conducted: 14.34 dBm
Power (ch 11 or C):	Conducted: 14.73 dBm

Mode F (802.11n 20 MHz)

Power (ch 1 or A):	Conducted: 13.12 dBm
Power (ch 6 or B):	Conducted: 13.93 dBm
Power (ch 11 or C):	Conducted: 14.26 dBm

Mode G (802.11n 40 MHz)

Power (ch 1 or A):	Conducted: 10.96 dBm
Power (ch 4 or B):	Conducted: 11.95 dBm
Power (ch 7 or C):	Conducted: 12.91 dBm

ANT B

Mode A (802.11a)

Power (ch 149 or A):	Conducted: 15.06 dBm
Power (ch 157 or B):	Conducted: 14.47 dBm
Power (ch 165 or C):	Conducted: 13.48 dBm



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Mode B (802.11n 20MHz)

Frequency (ch 149 or A): Conducted: 14.69 dBm

Frequency (ch 157 or B): Conducted: 14.06 dBm

Frequency (ch 165 or C): Conducted: 13.43 dBm

Mode C (802.11n 40MHz)

Frequency (ch 151 or A): Conducted: 14.19 dBm

Frequency (ch 159 or B): Conducted: 13.70 dBm

Mode D (802.11b)

Power (ch 1 or A): Conducted: 12.44 dBm

Power (ch 6 or B): Conducted: 12.36 dBm

Power (ch 11 or C): Conducted: 12.18 dBm

Mode E (802.11g)

Power (ch 1 or A): Conducted: 13.79 dBm

Power (ch 6 or B): Conducted: 14.71 dBm

Power (ch 11 or C): Conducted: 15.64 dBm

Mode F (802.11n 20 MHz)

Power (ch 1 or A): Conducted: 13.48 dBm

Power (ch 6 or B): Conducted: 14.38 dBm

Power (ch 11 or C): Conducted: 15.34 dBm

Mode G (802.11n 40 MHz)

Power (ch 1 or A): Conducted: 13.29 dBm

Power (ch 4 or B): Conducted: 13.28 dBm

Power (ch 7 or C): Conducted: 14.07 dBm

Mode H (Bluetooth Normal mode)

Power (ch 0 or A): Conducted: 3.15 dBm

Power (ch 39 or B): Conducted: 3.62 dBm

Power (ch 78 or C): Conducted: 4.97 dBm

Mode I (Bluetooth EDR mode)

Power (ch 0 or A): Conducted: 1.18 dBm

Power (ch 39 or B): Conducted: 2.30 dBm

Power (ch 78 or C): Conducted: 4.05 dBm

Mode J (Bluetooth 4.0 mode)

Power (ch 0 or A): Conducted: 2.94 dBm

Power (ch 19 or B): Conducted: 3.40 dBm

Power (ch 39 or C): Conducted: 4.88 dBm



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Combine	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz(5.8GHz)	54.56	50.82	40.52	17.37	17.06	16.08
802.11n 40MHz	49.25	--	47.99	16.92	--	16.81
802.11n 20MHz(2.4GHz)	42.79	52.14	60.87	16.31	17.17	17.84
802.11n 40MHz	33.80	36.95	45.07	15.29	15.68	16.54

Manufacturer: (if applicable)

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

1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART C § 15.247 (2013-10)



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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: 100-240Vac, 47-63MHz, 1.2A MAX
O/P: 19Vdc, 4.74A)
Battery: 11.1Vdc, 6040mAH 67Wh
DC 12~32V, 8A

Extreme conditions parameters: ./.



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2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2014/9/3	2015/9/2
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 008	HF-EICHLITUNG RF STEP ATTENUATOR 139dB DPSP	334.6010.02	844581/024	R&S	Function Test	
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2014/7/8	2015/7/7
ETSTW-CE 016	TWO-LINE V-NETWORK	ENV216	100050	R&S	2013/10/28	2014/10/27
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2014/9/3	2015/9/2
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2014/9/3	2015/9/2
ETSTW-RE 012	TUNABLE BANDREJECT FILTER	D.C 0309	146	K&L	Function Test	
ETSTW-RE 013	TUNABLE BANDREJECT FILTER	D.C 0336	397	K&L	Function Test	
ETSTW-RE 018	MICROWAVE HORN ANTENNA	AT4560	27212	AR	2013/10/15	2014/10/14
ETSTW-RE 027	Passive Loop Antenna	6512	00034563	ETS-Lindgren	2014/7/01	2015/6/30
ETSTW-RE 030	Double-Ridged Guide Horn Antenna	3117	00035224	EMCO	2014/2/25	2015/2/24
ETSTW-RE 045	ESA-E SERIES SPECTRUM ANALYZER	E4404B	MY45111242	Agilent	Pre-test Use	
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2014/2/18	2015/2/17
ETSTW-RE 050	Attenuator 10dB	50HF-010-1	None	JFW	2014/3/3	2015/3/2
ETSTW-RE 051	Attenuator 6dB	50HF-006-1	None	JFW	2014/3/3	2015/3/2
ETSTW-RE 053	Attenuator 3dB	50HF-003-1	None	JFW	2014/3/3	2015/3/2
ETSTW-RE 055	SPECTRUM ANALYZER	FSU 26	200074	R&S	2014/6/05	2015/6/04
ETSTW-RE 060	Attenuator 30dB	5015-30	F651012z-01	ATM	2014/3/3	2015/3/2
ETSTW-RE 062	Amplifier Module	CHC 2	None	KMIC	2013/11/27	2014/11/26
ETSTW-RE 064	Bluetooth Test Set	MT8852B-042	6K00005709	Anritsu	Function Test	
ETSTW-RE 069	Double-Ridged Guide Horn Antenna	3117	00069377	EMCO	Function Test	
ETSTW-RE 072	CELL SITE TEST SET	8921A	3339A00375	HP	2013/10/7	2014/10/6
ETSTW-RE 088	SOLID STATE AMPLIFIER	KMA180265A01	99057	KMIC	2013/10/11	2014/10/10
ETSTW-RE 099	DC Block	50DB-007-1	None	JFW	2014/3/3	2015/3/2
ETSTW-RE 106	Humidity Temperature Meter	TES-1366	091011113	TES	2013/12/04	2014/12/03
ETSTW-RE 111	TRILOG Super Broadband test Antenna	VULB 9160	9160-3309	Schwarz beck	2013/12/27	2014/12/26
ETSTW-RE 112	AC POWER SOURCE	TFC-1005	None	T-Power	Function test	
ETSTW-RE 115	2.4GHz Notch Filter	N0124411	473874	MICROWAVE CIRCUITS	2014/1/10	2015/1/09
ETSTW-RE 120	RF Player	MP9200	MP9210-111022	ADIVIC	Function test	
ETSTW-RE 122	SIGNAL GENERATOR	SMF100A	102149	R&S	2014/6/11	2015/6/10
ETSTW-RE 125	5GHz Notch filter	5NSL11-5200/E221.3-O/O	1	K&L Microwave	2014/8/12	2015/8/11



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ETSTW-RE 126	5GHz Notch filter	5NSL11-5800/E221.3-O/O	1	K&L Microwave	2014/8/12	2015/8/11
ETSTW-RE 127	RF Switch Box	RFS-01	None	WTS	2014/3/3	2015/3/2
ETSTW-RE 128	5.3GHz Notch filter	N0153001	SN487233	Microwave Circuits	2014/8/12	2015/8/11
ETSTW-RE 129	5.5GHz Notch filter	N0555984	SN487234	Microwave Circuits	2014/8/12	2015/8/11
ETSTW-RE 130	Handheld RF Spectrum Analyzer	N9340A	CN0147000204	Agilent	Pre-test Use	
ETSTW-GSM 002	Universal Radio Communication Tester	CMU 200	109439	R&S	2013/10/7	2014/10/6
ETSTW-GSM 019	Band Reject Filter	WRCTF824/849-822/851-40 /12+9SS	3	WI	2014/1/10	2015/1/09
ETSTW-GSM 020	Band Reject Filter	WRCD1747/1748-1743/1752-32/5SS	1	WI	2014/1/10	2015/1/09
ETSTW-GSM 021	Band Reject Filter	WRCD1879.5/1880.5-1875.5/1884.5-32/5SS	3	WI	2014/1/10	2015/1/09
ETSTW-GSM 022	Band Reject Filter	WRCT901.9/903.1-904.25-50/8SS	1	WI	2014/1/10	2015/1/09
ETSTW-GSM 023	Power Divider	4901.19.A	None	SUHNER	2014/9/3	2015/9/2
ETSTW-Cable 010	BNC Cable	5 M BNC Cable	None	JYE BAO CO.,LTD.	2014/2/27	2015/2/26
ETSTW-Cable 011	BNC Cable	BNC Cable 1	None	JYE BAO CO.,LTD.	Pre-test Use NCR	
ETSTW-Cable 012	N TYPE To SMA Cable	Cable 012	None	JYE BAO CO.,LTD.	2014/2/27	2015/2/26
ETSTW-Cable 016	BNC Cable	Switch Box	B Cable 1	Schwarz beck	2014/2/27	2015/2/26
ETSTW-Cable 017	BNC Cable	X Cable	B Cable 2	Schwarz beck	2014/2/27	2015/2/26
ETSTW-Cable 018	BNC Cable	Y Cable	B Cable 3	Schwarz beck	2014/2/27	2015/2/26
ETSTW-Cable 019	BNC Cable	Z Cable	B Cable 4	Schwarz beck	2014/2/27	2015/2/26
ETSTW-Cable 022	N TYPE Cable	5006	0002	JYE BAO CO.,LTD.	2014/2/19	2015/2/18
ETSTW-Cable 026	Microwave Cable	SUCOFLEX 104	279075	HUBER+SUHNER	2014/3/3	2015/3/2
ETSTW-Cable 027	Microwave Cable	SUCOFLEX 104	279083	HUBER+SUHNER	2014/3/3	2015/3/2
ETSTW-Cable 028	Microwave Cable	FA147A0015M2020	30064-2	UTIFLEX	2013/10/11	2014/10/10
ETSTW-Cable 029	Microwave Cable	FA147A0015M2020	30064-3	UTIFLEX	2013/10/11	2014/10/10
ETSTW-Cable 030	Microwave Cable	SUCOFLEX 104 (S Cable 9)	279067	HUBER+SUHNER	2014/3/3	2015/3/2
ETSTW-Cable 031	Microwave Cable	SUCOFLEX 104 (S Cable 10)	238092	HUBER+SUHNER	2013/11/27	2014/11/26
ETSTW-Cable 043	Microwave Cable	SUCOFLEX 104	317576	HUBER+SUHNER	2013/11/27	2014/11/26
ETSTW-Cable 047	Microwave Cable	SUCOFLEX 104	325518	HUBER+SUHNER	2013/11/27	2014/11/26
ETSTW-Cable 053	N TYPE To SMA Cable	RG142	None	JYE BAO CO.,LTD.	2014/2/19	2015/2/18
ETSTW-Cable 058	Microwave Cable	SUCOFLEX 104	none	HUBER+SUHNER	2014/2/19	2015/2/18
WTSTW-SW 002	EMI TEST SOFTWARE	EZ_EMG	None	Farad	Version ETS-03A1	



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2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2009 5.2 using a 50 μ H 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 C63.4-2009 6.4 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 μ V) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz) METER READING + ACF + CABLE LOSS (to the receiver) = FS
33 20 dB μ V + 10.36 dB + 6 dB = 36.36 dB μ V/m @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 C63.4-2009 6.3.1. 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, Lishui, Shuang Sing Village, Wanli Dist., New Taipei City 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 = $20 \log(\text{dwell time}/T)$

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

ANSI STANDARD C63.4-2009 10.2.7: Any measurements that utilize special test software shall be indicated and referenced in the test report. During testing, test software 'EZ EMC' was used for setting up different operation modes.



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3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equivalent isotropically radiated Power	15.247(b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions radiated – Transmitter operating	15.247(c)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions conducted – Transmitter operating	15.247	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carrier Frequency Separation	15.247(a) (1)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Number of Hopping Frequencies	15.247(a) (1)(i)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Time of Occupancy (Dwell Time)	15.247(a) (1)(i)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
20 dB Bandwidth	15.247(a) (1)(i)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minimum 6 dB Bandwidth	15.247(a)(2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Band-edge Compliance of RF Emission	15.247(d)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Peak Power Spectral Density	15.247(e)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Radiated Emission from Digital Part	15.109	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power Line Conducted Emission	15.207(a)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Note:

1. This EUT incorporates a MIMO function with IEEE 802.11a, 802.11b, 802.11g, and 802.11n. Physically, this EUT includes two transmitters and two receivers with two incoherent streams. This device uses multiplexing and also employ cyclic delay diversity to improve range and throughput, and this device simultaneously operates on two adjacent channels.
2. This EUT is 2*2 spatial MIMO (2Tx&2Rx) without beam forming function. That operates dual chain configuration. The Pre-test was performed to determine the worst case mode from all possible combinations between all available modulations, data rates, bandwidths, and spatial stream modes.



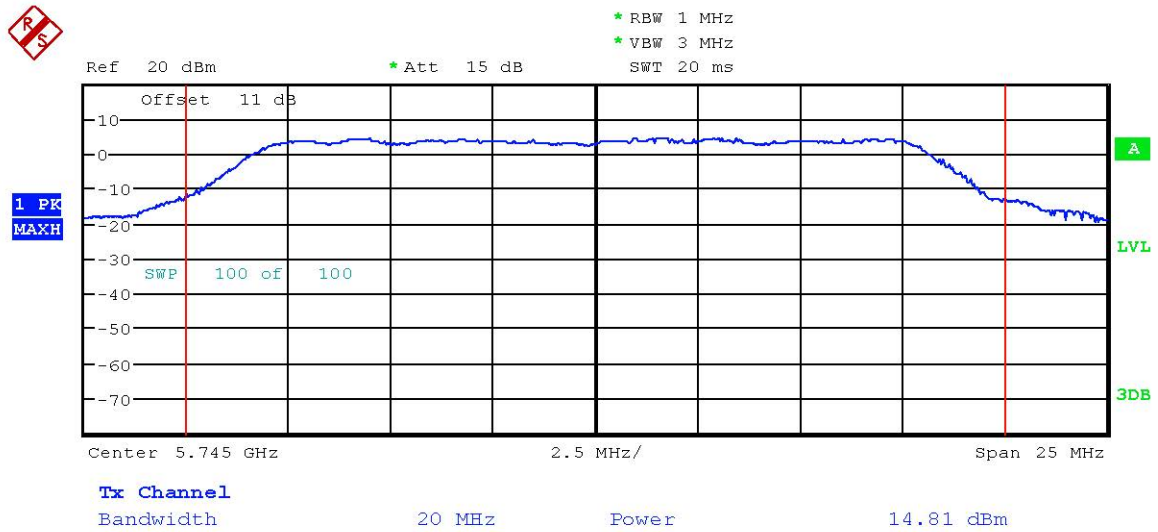
Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

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).

ANT A
Mode A

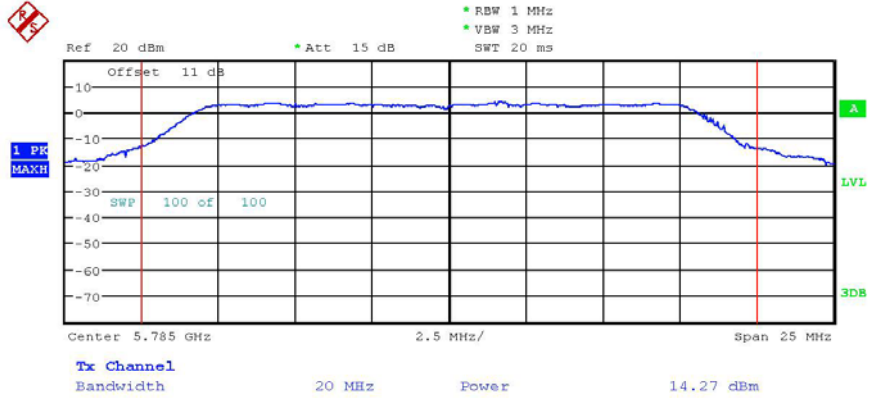


MAX OUTPUT POWER 802.11A CH149
Date: 10.JUL.2014 16:27:37

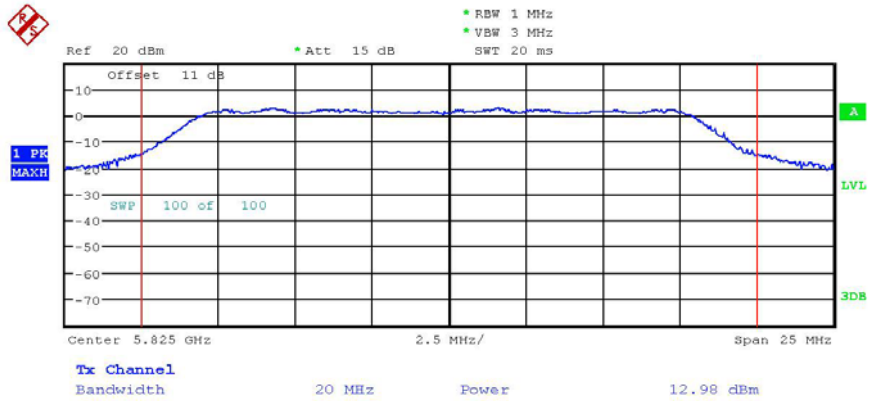


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11A CH157
Date: 10.JUL.2014 16:28:49



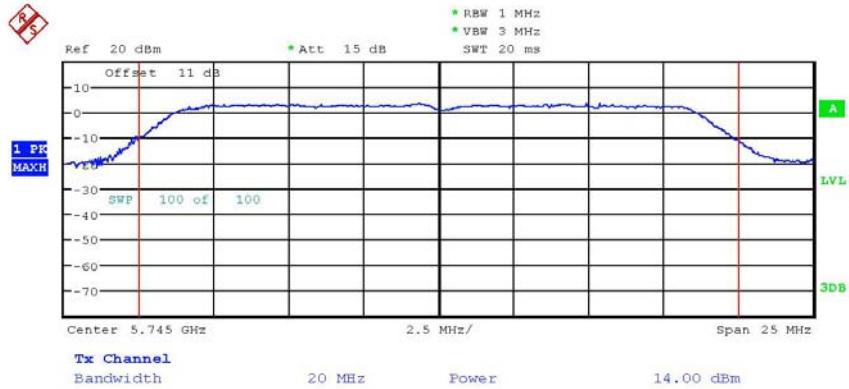
MAX OUTPUT POWER 802.11A CH165
Date: 10.JUL.2014 16:29:36



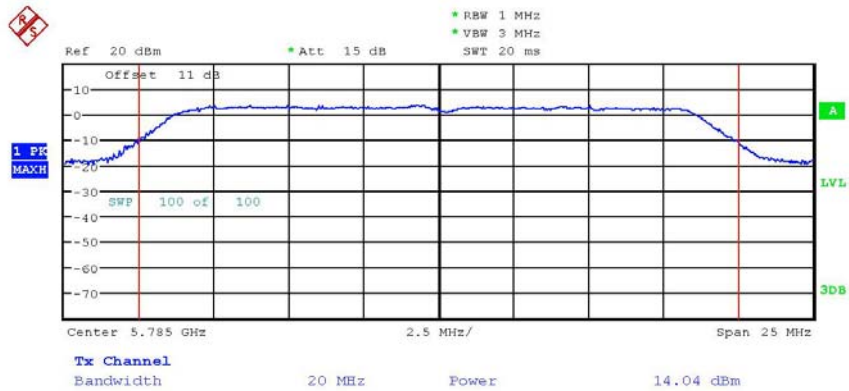
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode B



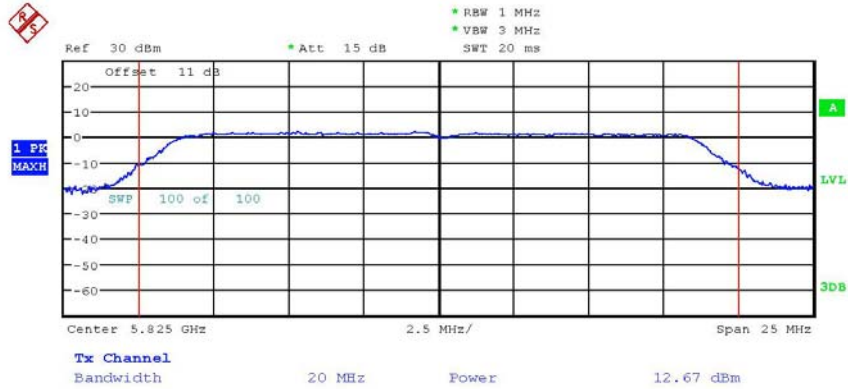
MAX OUTPUT POWER 802.11N 20MHZ CH149
Date: 10.JUL.2014 16:30:28



MAX OUTPUT POWER 802.11N 20MHZ CH157
Date: 10.JUL.2014 16:31:19

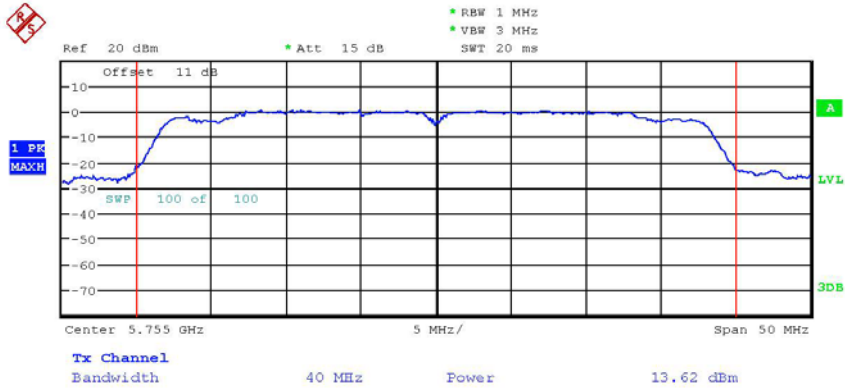


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 20MHZ CH165
Date: 10.JUL.2014 16:31:54

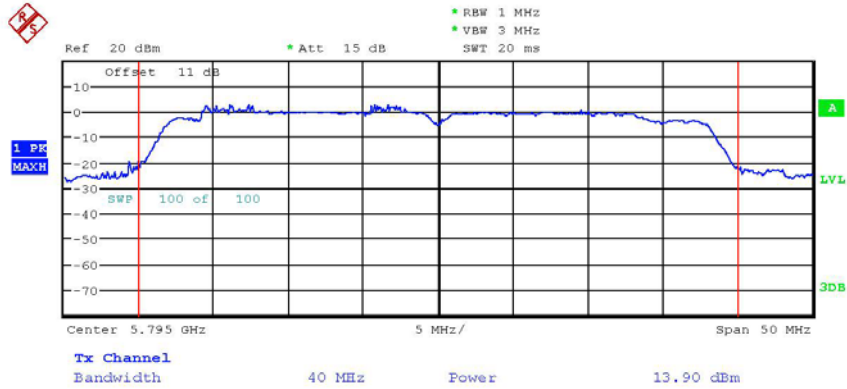
Mode C



MAX OUTPUT POWER 802.11N 40MHZ CH151
Date: 10.JUL.2014 16:32:39

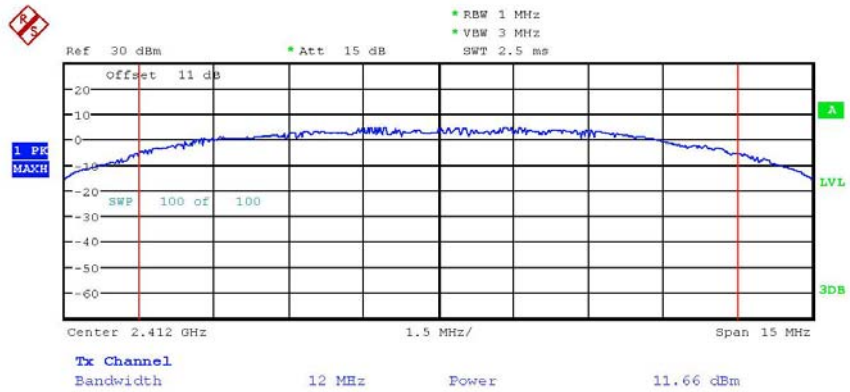


Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 40MHZ CH159
 Date: 10.JUL.2014 16:33:32

Mode D

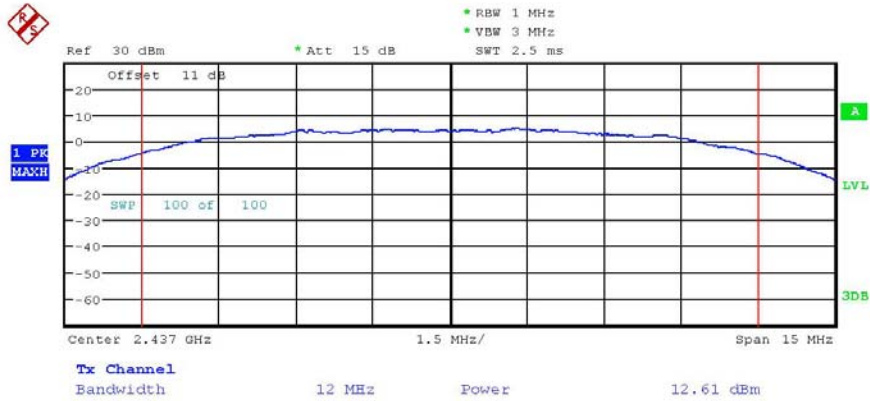


MAX OUTPUT POWER 802.11B CH01
 Date: 10.JUL.2014 16:10:00

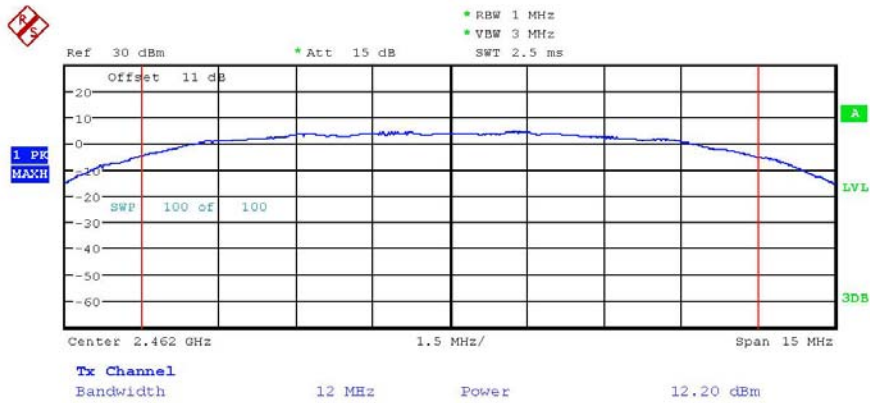


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11B CH06
Date: 10.JUL.2014 16:10:39



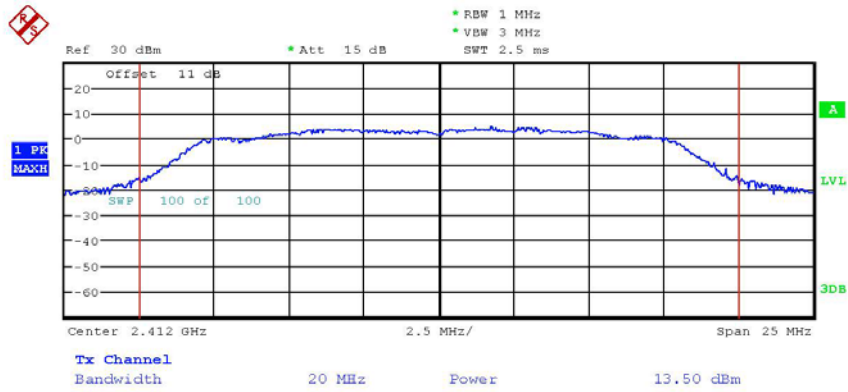
MAX OUTPUT POWER 802.11B CH11
Date: 10.JUL.2014 16:11:37



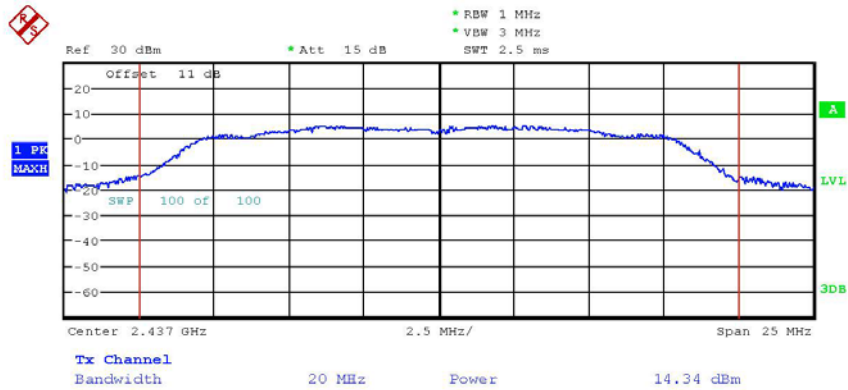
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode E



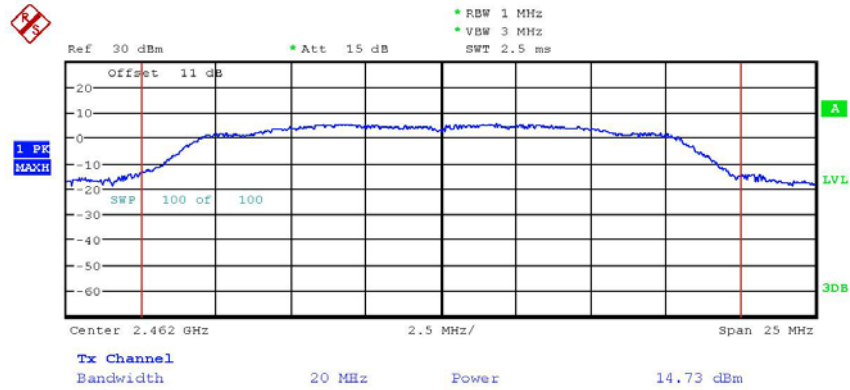
MAX OUTPUT POWER 802.11G CH01
Date: 10.JUL.2014 16:12:58



MAX OUTPUT POWER 802.11G CH06
Date: 10.JUL.2014 16:13:35

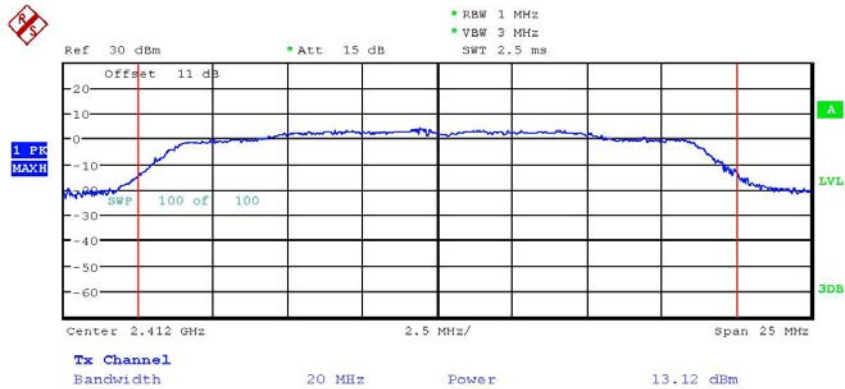


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11G CH11
Date: 10.JUL.2014 16:14:31

Mode F

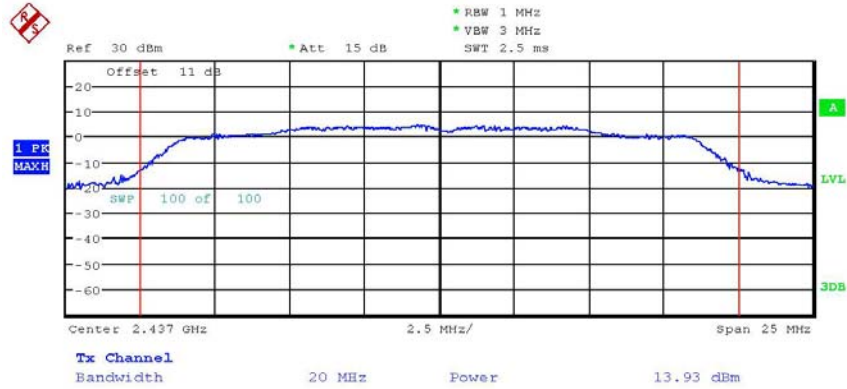


MAX OUTPUT POWER 802.11N 20MHZ CH01
Date: 10.JUL.2014 16:15:40

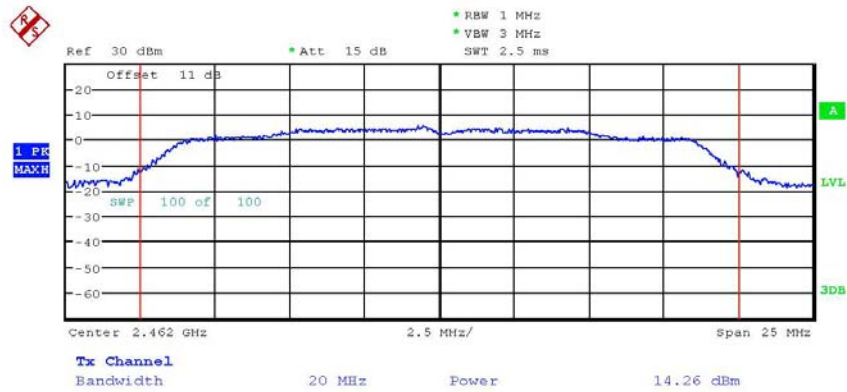


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 20MHZ CH06
Date: 10.JUL.2014 16:16:23



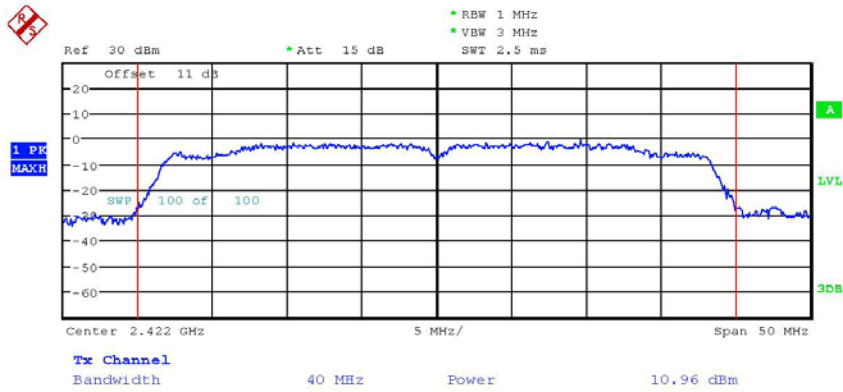
MAX OUTPUT POWER 802.11N 20MHZ CH11
Date: 10.JUL.2014 16:22:04



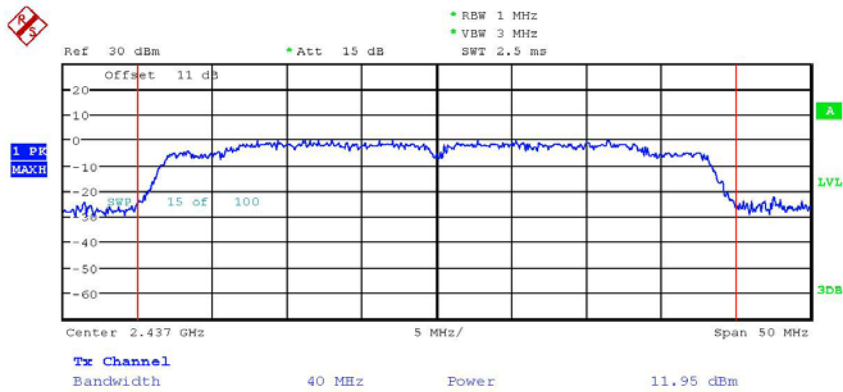
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode G



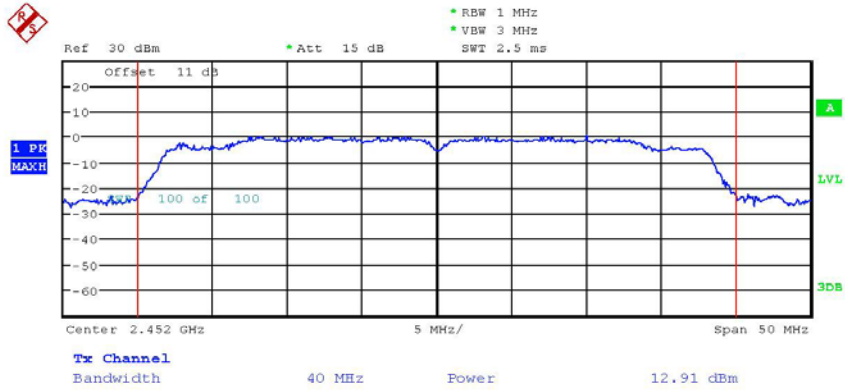
MAX OUTPUT POWER 802.11N 40MHZ CH01
Date: 10.JUL.2014 16:22:45



MAX OUTPUT POWER 802.11N 40MHZ CH04
Date: 10.JUL.2014 16:23:18

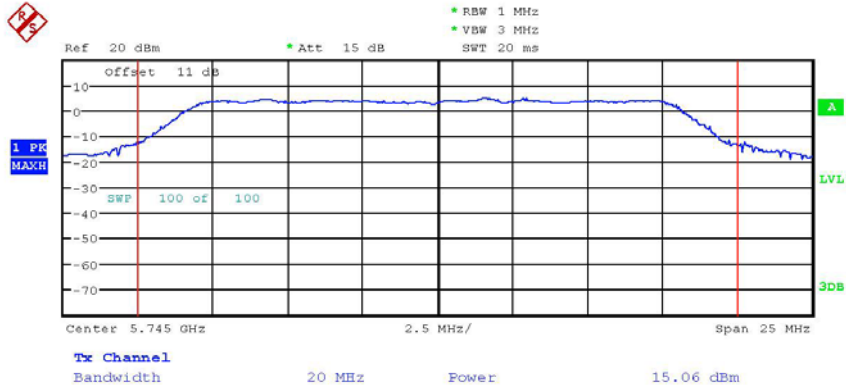


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 40MHZ CH07
Date: 10.JUL.2014 16:23:55

ANT B Mode A

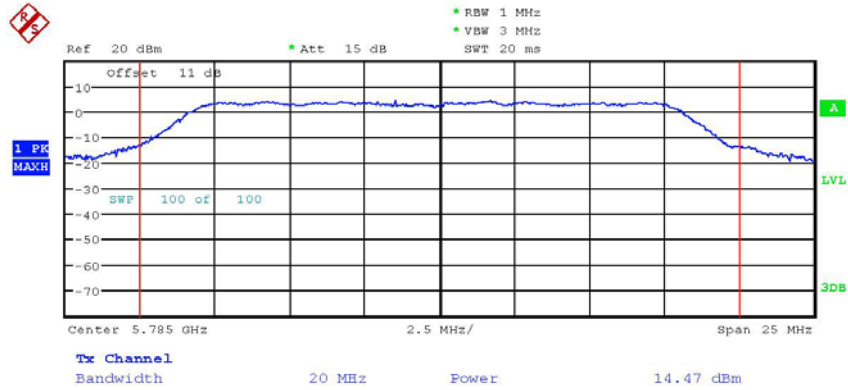


MAX OUTPUT POWER 802.11A CH149
Date: 10.JUL.2014 15:32:30

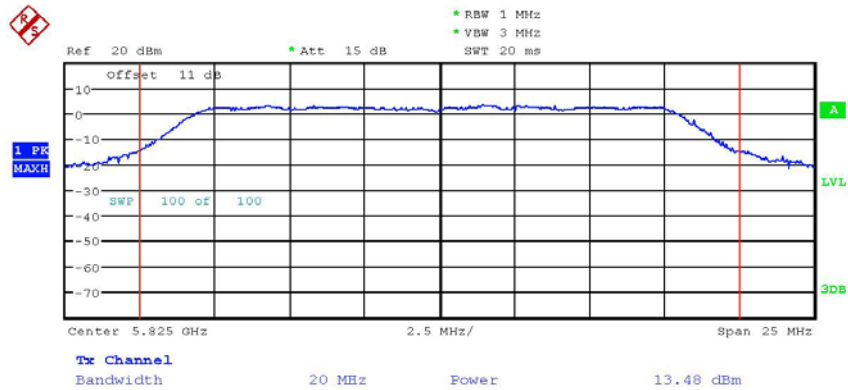


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11A CH157
Date: 10.JUL.2014 15:33:20



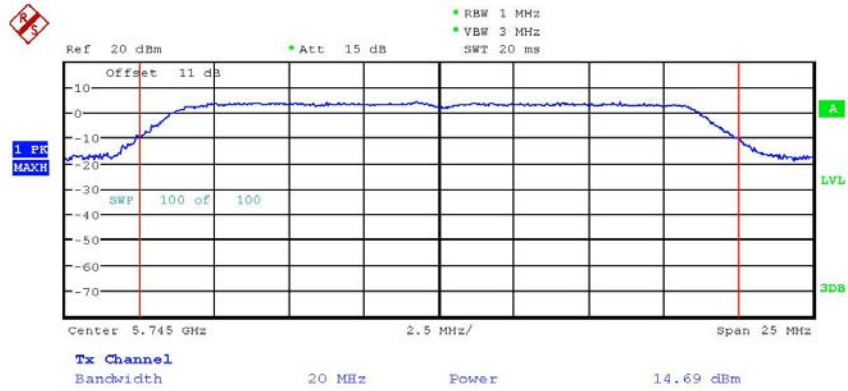
MAX OUTPUT POWER 802.11A CH165
Date: 10.JUL.2014 15:34:01



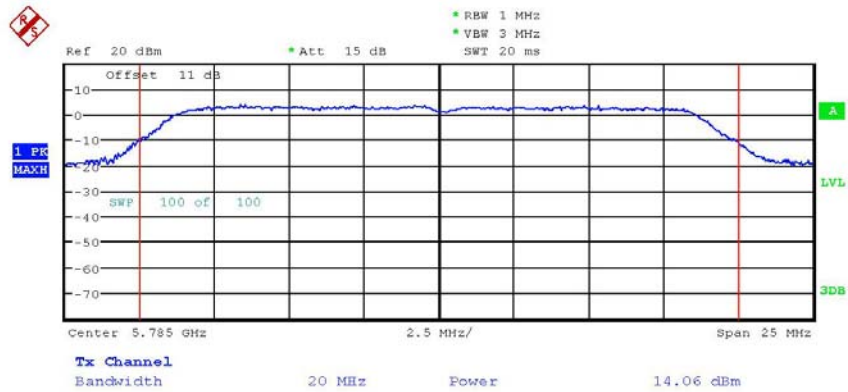
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode B



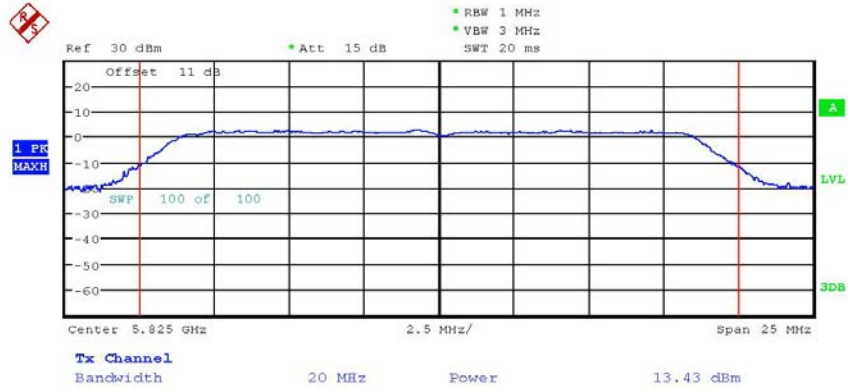
MAX OUTPUT POWER 802.11N 20MHZ CH149
Date: 10.JUL.2014 15:37:13



MAX OUTPUT POWER 802.11N 20MHZ CH157
Date: 10.JUL.2014 15:38:04

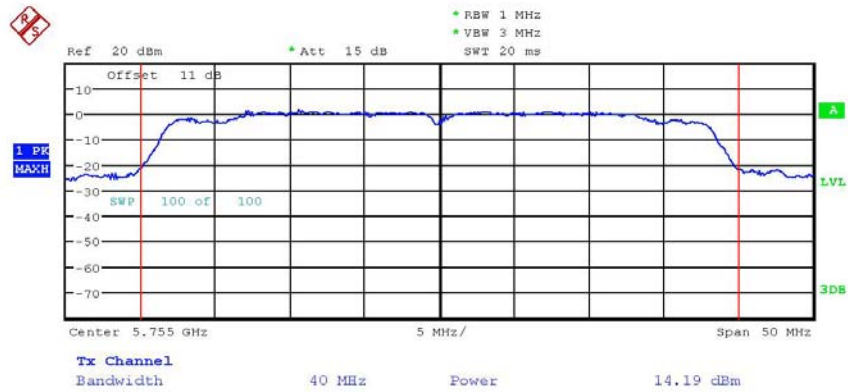


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 20MHZ CH165
Date: 10.JUL.2014 15:38:44

Mode C



MAX OUTPUT POWER 802.11N 40MHZ CH151
Date: 10.JUL.2014 15:39:46

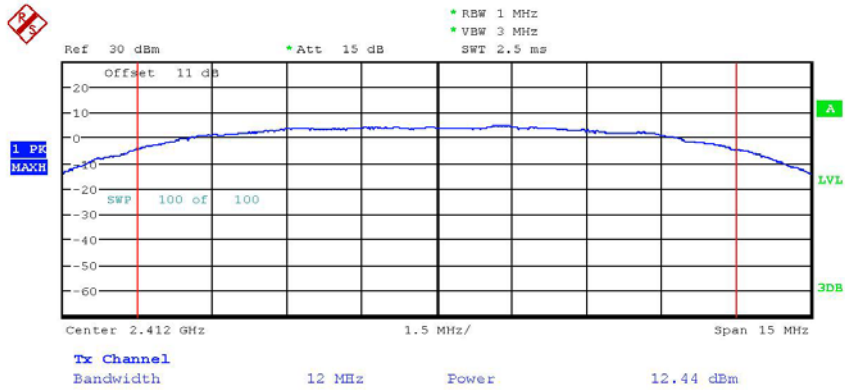


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 40MHZ CH159
Date: 10.JUL.2014 15:40:51

Mode D

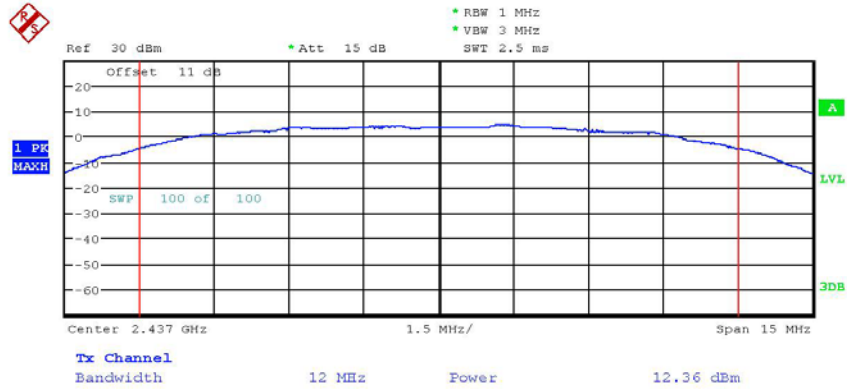


MAX OUTPUT POWER 802.11B CH01
Date: 10.JUL.2014 15:56:53

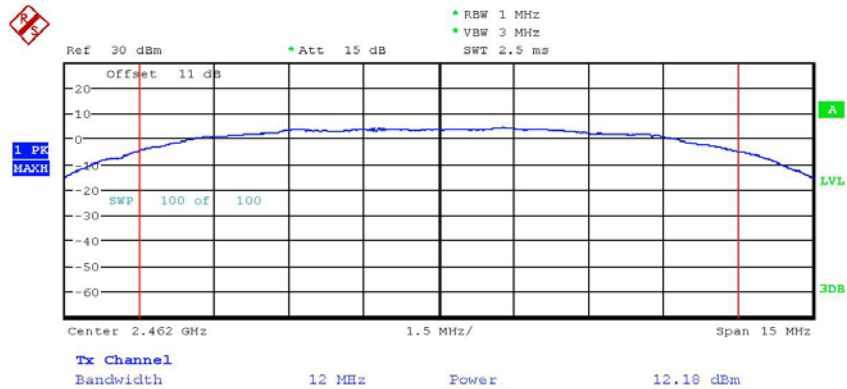


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11B CH06
Date: 10.JUL.2014 15:57:28

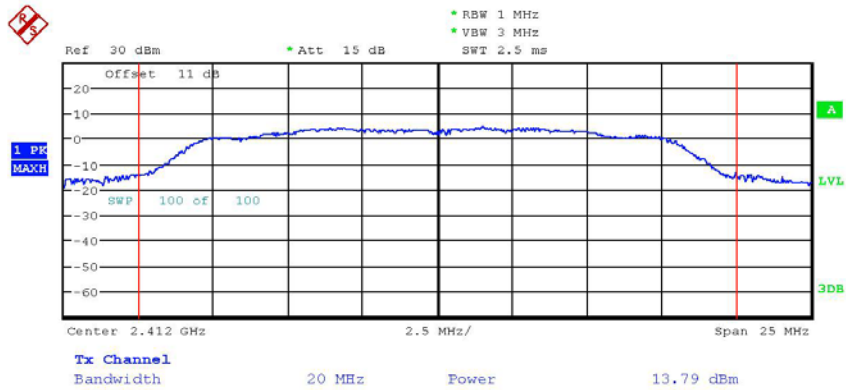


MAX OUTPUT POWER 802.11B CH11
Date: 10.JUL.2014 15:58:03

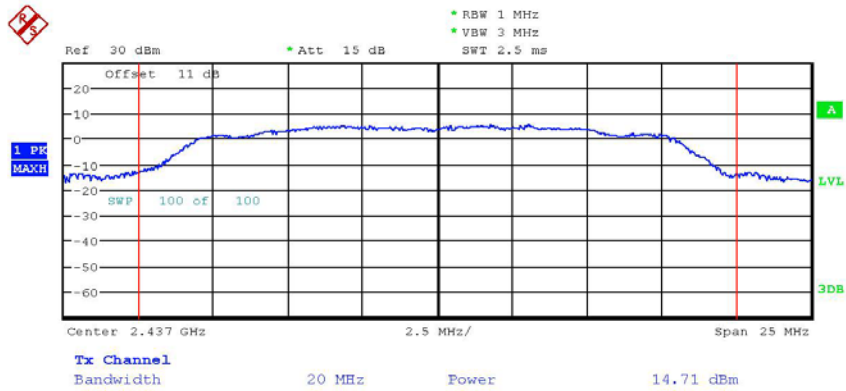


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode E



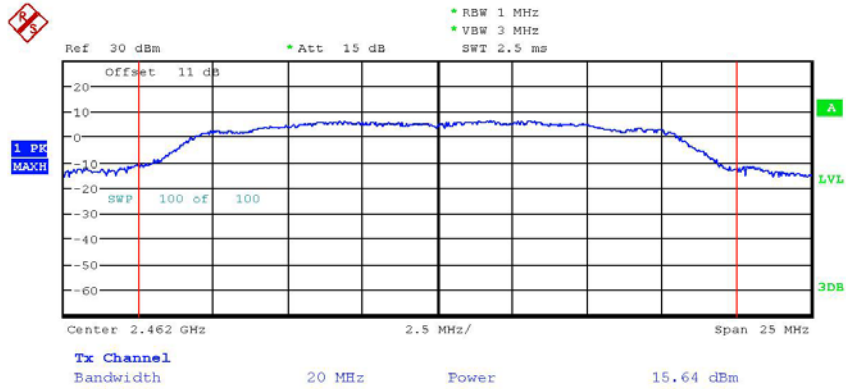
MAX OUTPUT POWER 802.11G CH01
Date: 10.JUL.2014 15:58:58



MAX OUTPUT POWER 802.11G CH06
Date: 10.JUL.2014 15:59:49

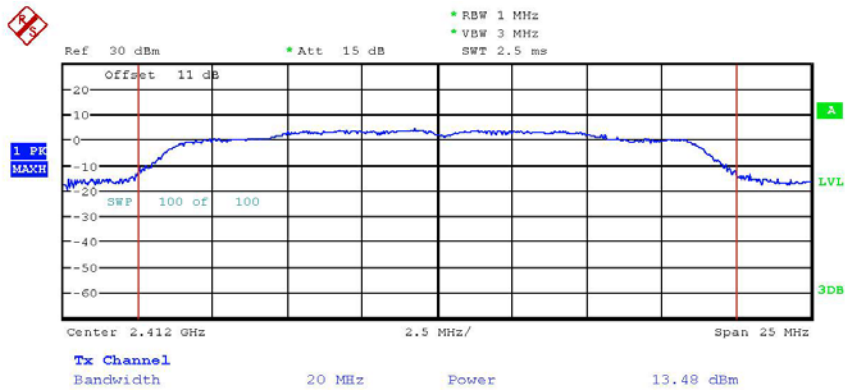


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11G CH11
Date: 10.JUL.2014 16:00:26

Mode F

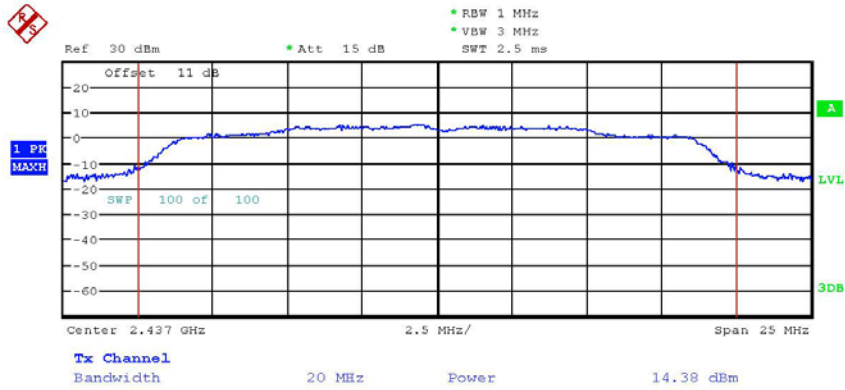


MAX OUTPUT POWER 802.11N 20MHZ CH01
Date: 10.JUL.2014 16:01:15

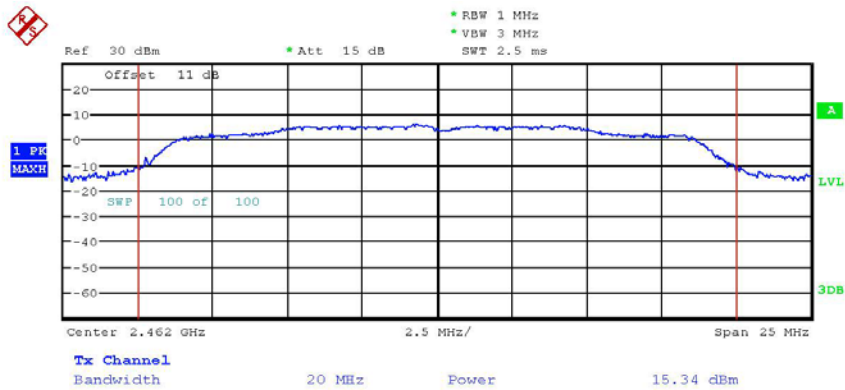


Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 20MHZ CH06
Date: 10.JUL.2014 16:01:50



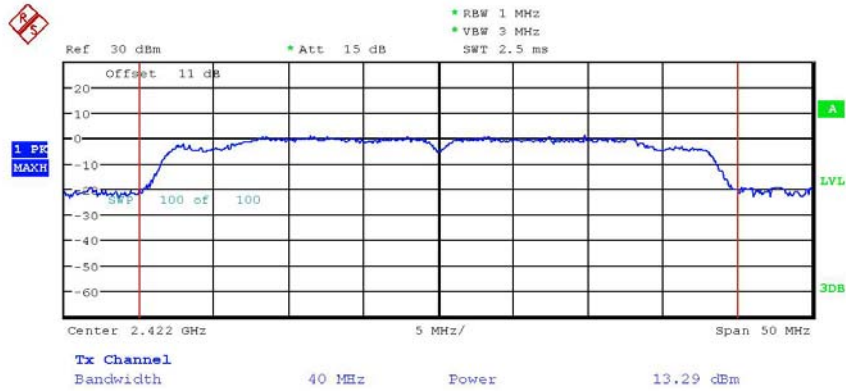
MAX OUTPUT POWER 802.11N 20MHZ CH11
Date: 10.JUL.2014 16:02:18



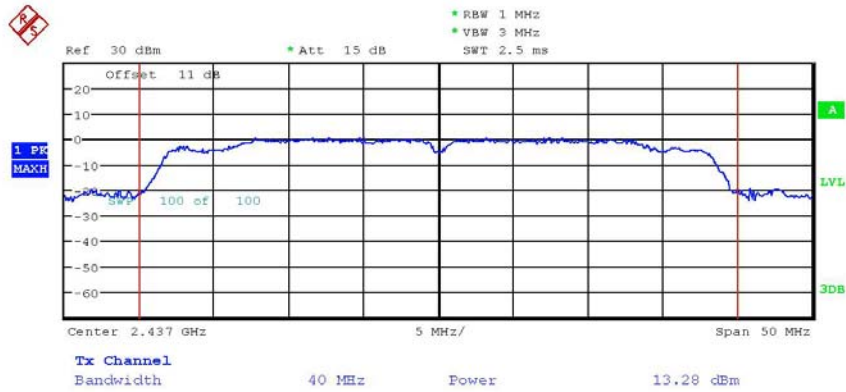
Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode G



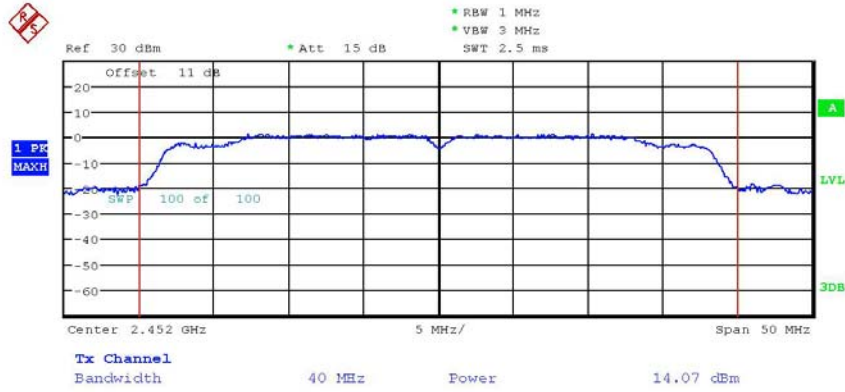
MAX OUTPUT POWER 802.11N 40MHZ CH01
Date: 10.JUL.2014 16:02:59



MAX OUTPUT POWER 802.11N 40MHZ CH04
Date: 10.JUL.2014 16:03:35

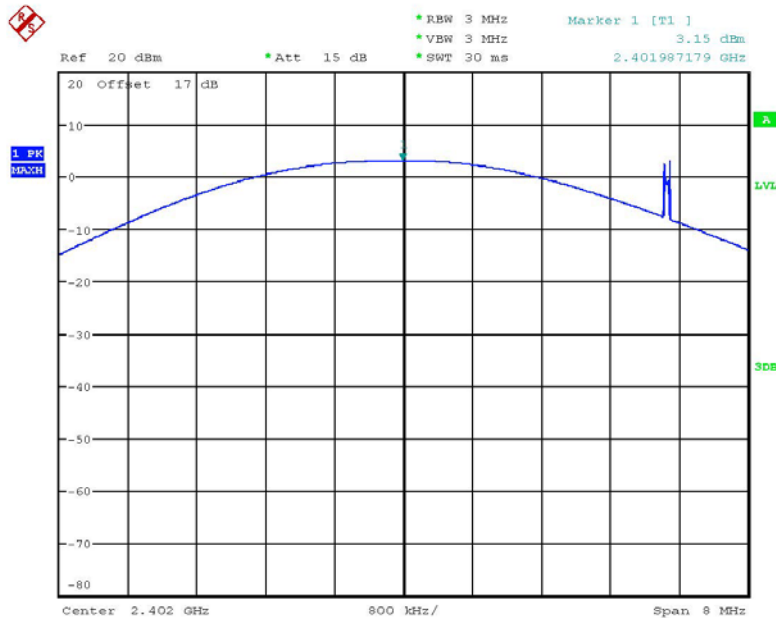


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER 802.11N 40MHZ CH07
Date: 10.JUL.2014 16:04:10

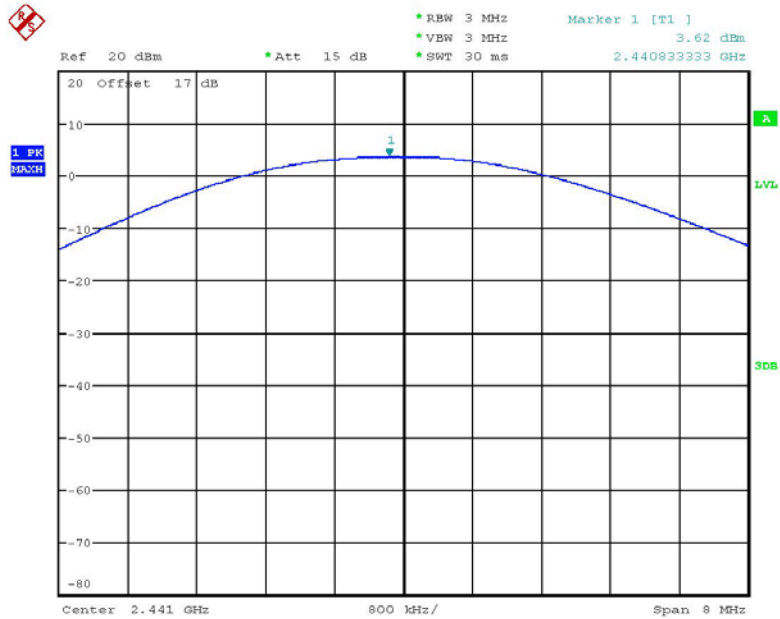
Mode H



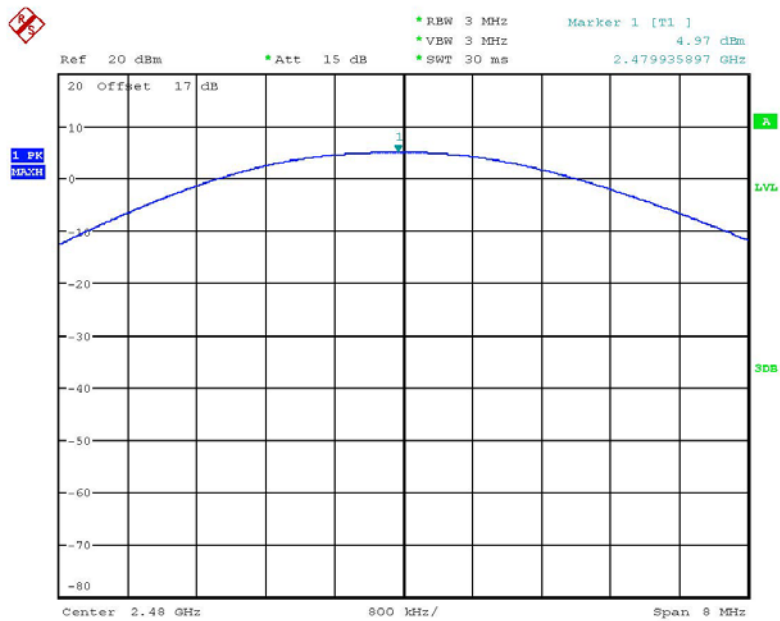
MAX OUTPUT POWER CH0
Date: 22.JUL.2014 14:55:34



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER CH39
Date: 22.JUL.2014 14:56:42

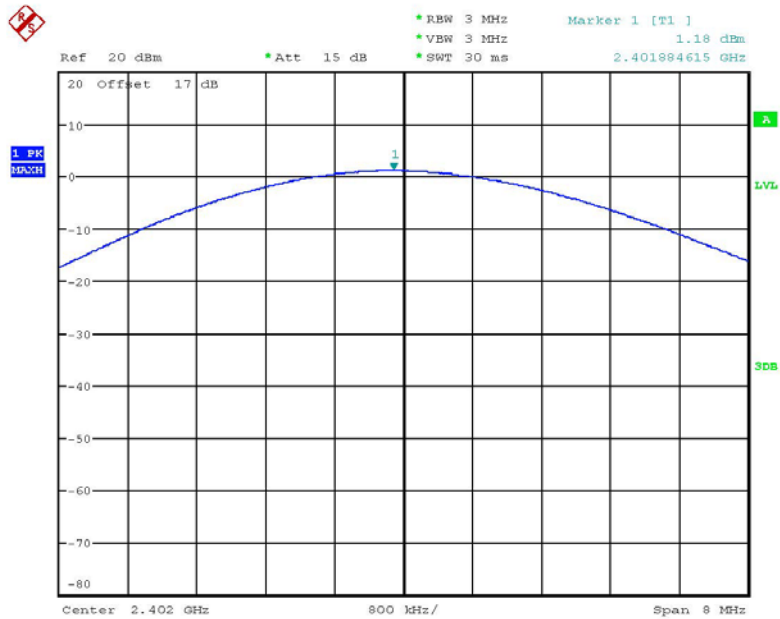


MAX OUTPUT POWER CH78
Date: 22.JUL.2014 14:57:34

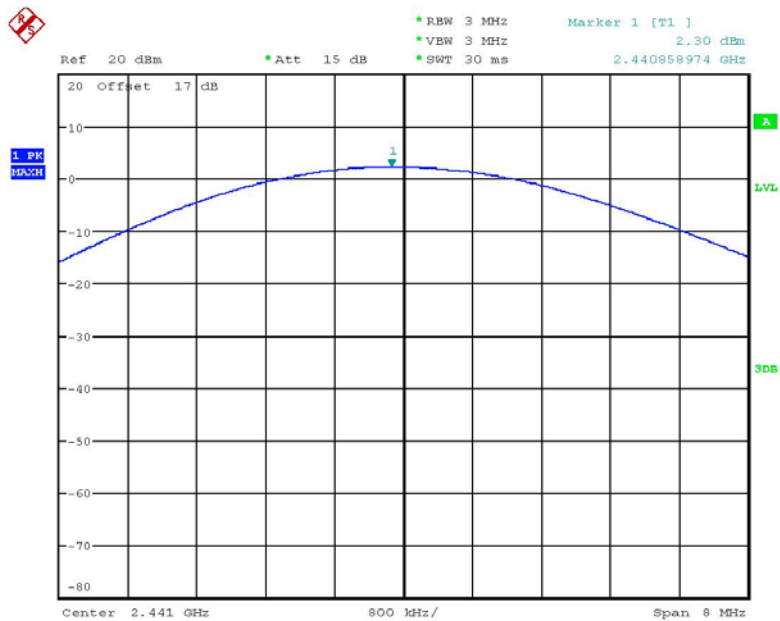


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode I



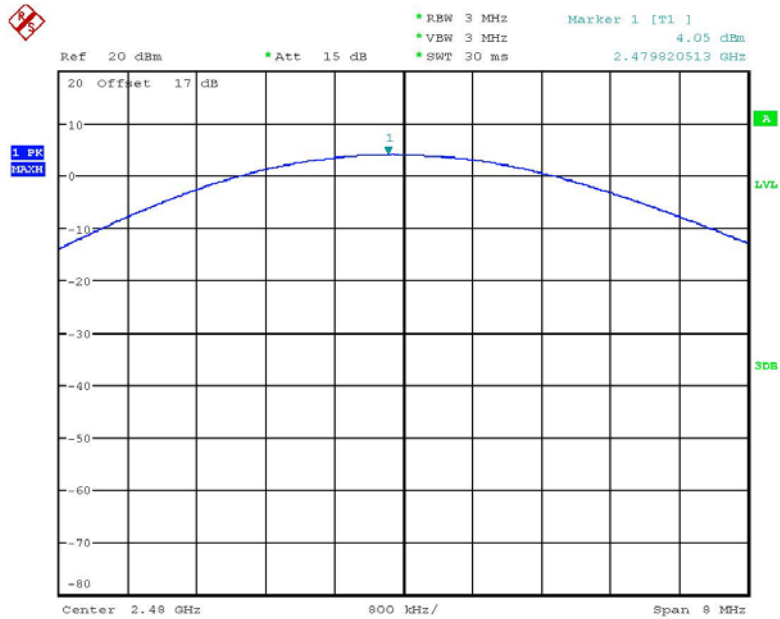
MAX OUTPUT POWER CH0 EDR MODE
Date: 22.JUL.2014 15:04:02



MAX OUTPUT POWER CH39 EDR MODE
Date: 22.JUL.2014 15:05:14

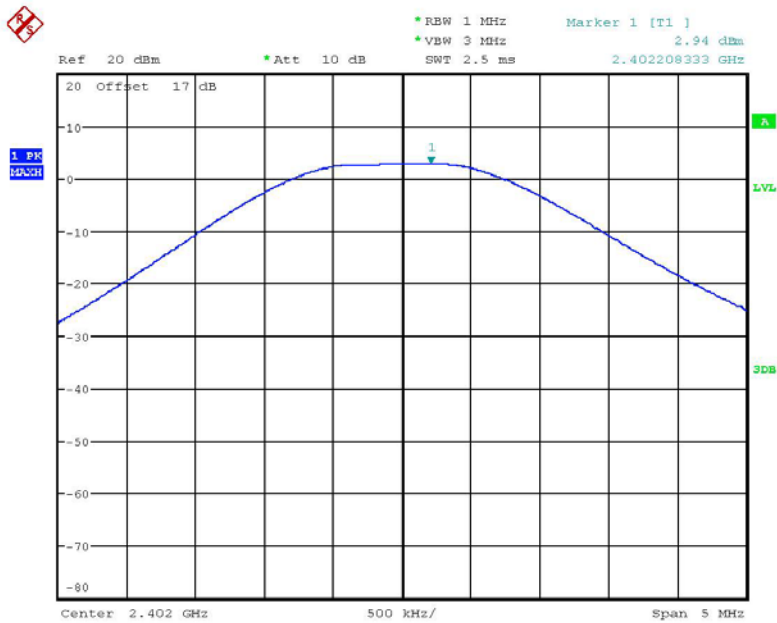


Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER CH78 EDR MODE
Date: 22.JUL.2014 15:06:58

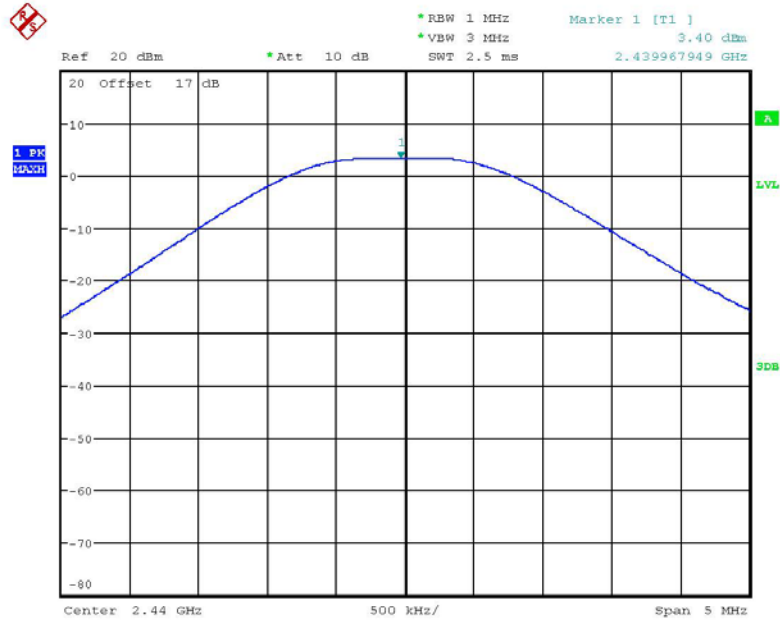
Mode J



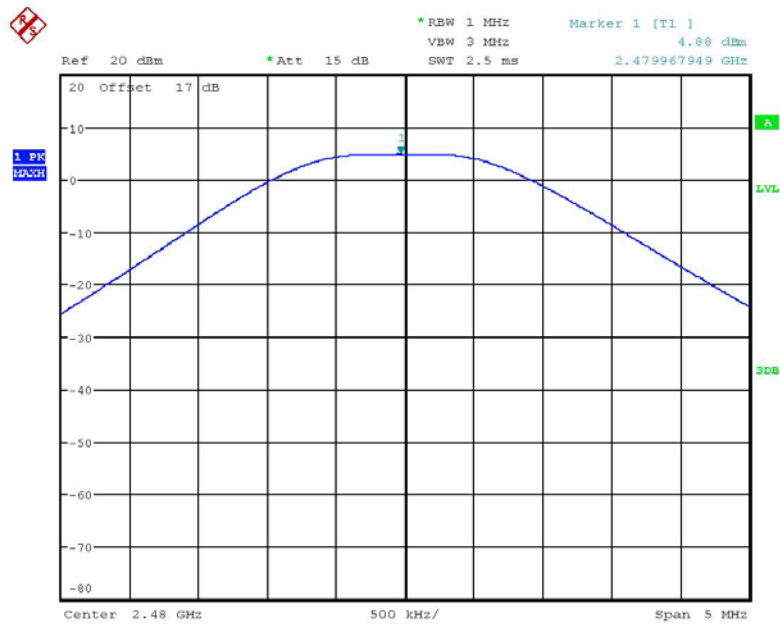
MAX OUTPUT POWER BT4.0 CH00
Date: 22.JUL.2014 10:04:48



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



MAX OUTPUT POWER BT4.0 CH19
Date: 22.JUL.2014 10:05:46



MAX OUTPUT POWER BT4.0 CH39
Date: 22.JUL.2014 10:10:34



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

ANT A	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz(5.8GHz)	25.12	25.35	18.49	14.00	14.04	12.67
802.11n 40MHz	23.01	--	24.55	13.62	--	13.90
802.11n 20MHz(2.4GHz)	20.51	24.72	26.67	13.12	13.93	14.26
802.11n 40MHz	12.47	15.67	19.54	10.96	11.95	12.91
ANT B	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz(5.8GHz)	29.44	25.47	22.03	14.69	14.06	13.43
802.11n 40MHz	26.24	--	23.44	14.19	--	13.70
802.11n 20MHz(2.4GHz)	22.28	27.42	34.20	13.48	14.38	15.34
802.11n 40MHz	21.33	21.28	25.53	13.29	13.28	14.07
Combine	mW			dBm		
	Ch Low	Ch Mid	Ch High	Ch Low	Ch Mid	Ch High
802.11n 20MHz(5.8GHz)	54.56	50.82	40.52	17.37	17.06	16.08
802.11n 40MHz	49.25	--	47.99	16.92	--	16.81
802.11n 20MHz(2.4GHz)	42.79	52.14	60.87	16.31	17.17	17.84
802.11n 40MHz	33.80	36.95	45.07	15.29	15.68	16.54

Limits:

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

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

Test equipment used: ETSTW-RE 055, ETSTW-RE 050, ETSTW-RE 073, ETSTW-RE 074,
 ETSTW-RE 064



Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

3.2 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.

$$S = \frac{PG}{4\pi R^2}$$

- S – Power Density
- P – Output power ERP
- R – Distance
- D – Cable Loss
- AG – Antenna Gain

5.8GHz

Item	Unit	Value	Remarks
P	mW	54.56	Peak value
D	dB	--	--
AG	dBi	6.23	--
G	--	4.20	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.046	Calculated value

2.4GHz

Item	Unit	Value	Remarks
P	mW	60.87	Peak value
D	dB	--	--
AG	dBi	5.39	--
G	--	3.46	Calculated Value
R	cm	20	Assumed value
S	mW/cm ²	0.042	Calculated value

Limits:

Limit for General Population / Uncontrolled Exposure	
Frequency (MHz)	Power Density (mW/cm ²)
1500 – 100.000	1.0



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3.3 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 (MHz)	Field strength (microvolts/meter)	Field Strength (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 = $20 \log (\text{dwell time}/ 100\text{ms})$

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

Explanation: See attached diagrams in Appendix.



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3.4 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 – 20dB

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 = $20 \log (\text{dwell time}/100\text{ms})$

Test equipment used: ETSTW-RE 003, ETSTW-RE 030, ETSTW-RE 111,
ETSTW-RE 088, ETSTW-RE 018, ETSTW-RE 064

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



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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

ANT A

Model: RV11 Date: 2014/8/11
Mode: WLAN 802.11a 5745MHz Temperature: 24 °C Engineer: Leon
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)
193.2865	17.76	peak	12.20	29.96	43.50	-13.54	110	100
323.5271	15.61	peak	16.59	32.20	46.00	-13.80	75	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6661.3230	39.89	---	4.00	43.89	---	74.00	54.00	-30.11	30	100
9799.0980	35.94	---	8.60	44.54	---	74.00	54.00	-29.46	20	100
11490.0000	34.35	---	12.09	46.44	---	74.00	54.00	-27.56	210	100
17235.0000	28.65	---	20.23	48.88	---	74.00	54.00	-25.12	200	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.56	peak	13.63	30.19	46.00	-15.81	205	100
582.0641	11.85	peak	22.98	34.83	46.00	-11.17	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
7006.0120	40.97	---	3.85	44.82	---	74.00	54.00	-29.18	50	100
9856.2120	36.10	---	8.57	44.67	---	74.00	54.00	-29.33	300	100
11490.0000	33.44	---	12.09	45.53	---	74.00	54.00	-28.47	280	100
17235.0000	27.32	---	20.23	47.55	---	74.00	54.00	-26.45	40	100



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Mode: WLAN 802.11a 5785MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.41	peak	14.59	34.00	46.00	-12.00	210	100
323.5271	14.46	peak	16.59	31.05	46.00	-14.95	165	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
7014.0280	40.45	---	3.87	44.32	---	74.00	54.00	-29.68	200	100
9799.0980	36.28	---	8.60	44.88	---	74.00	54.00	-29.12	50	100
11530.0000	33.66	---	12.32	45.98	---	74.00	54.00	-28.02	180	100
17295.0000	27.98	---	21.03	49.01	---	74.00	54.00	-24.99	300	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	15.38	peak	13.63	29.01	46.00	-16.99	140	100
582.0641	12.97	peak	22.98	35.95	46.00	-10.05	15	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6893.7880	39.55	---	3.89	43.44	---	74.00	54.00	-30.56	300	100
10303.6070	35.87	---	9.77	45.64	---	74.00	54.00	-28.36	30	100
11530.0000	33.37	---	12.32	45.69	---	74.00	54.00	-28.31	250	100
17295.0000	28.99	---	21.03	50.02	---	74.00	54.00	-23.98	40	100

Mode: WLAN 802.11a 5825MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.70	peak	14.59	33.29	46.00	-12.71	25	100
323.5271	15.86	peak	16.59	32.45	46.00	-13.55	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6565.1300	40.13	---	3.96	44.09	---	74.00	54.00	-29.91	200	100
10256.0120	36.11	---	9.53	45.64	---	74.00	54.00	-28.36	30	100
11650.0000	34.17	---	12.38	46.55	---	74.00	54.00	-27.45	250	100
17475.0000	27.53	---	20.21	47.74	---	74.00	54.00	-26.26	230	100



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	11.69	peak	22.98	34.67	46.00	-11.33	60	100
747.2945	8.94	peak	25.33	34.27	46.00	-11.73	140	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
7342.6850	41.44	---	3.72	45.16	---	74.00	54.00	-28.84	260	100
9532.5650	37.92	---	7.66	45.58	---	74.00	54.00	-28.42	70	100
11650.0000	35.36	---	12.38	47.74	---	74.00	54.00	-26.26	230	100
17475.0000	27.54	---	20.21	47.75	---	74.00	54.00	-26.25	230	100

Mode: WLAN 802.11b 2412MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.17	peak	14.59	33.76	46.00	-12.24	95	100
323.5271	15.19	peak	16.59	31.78	46.00	-14.22	120	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.71	---	0.33	42.04	---	74.00	54.00	-31.96	210	100
7236.0000	40.71	---	3.77	44.48	---	74.00	54.00	-29.52	50	100
9648.0000	35.13	---	7.88	43.01	---	74.00	54.00	-30.99	80	100
12060.0000	34.27	---	13.12	47.39	---	74.00	54.00	-26.61	110	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.63	peak	13.63	30.26	46.00	-15.74	165	100
582.0641	12.11	peak	22.98	35.09	46.00	-10.91	120	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.60	---	0.33	41.93	---	74.00	54.00	-32.07	230	100
7236.0000	40.29	---	3.77	44.06	---	74.00	54.00	-29.94	60	100
9648.0000	35.00	---	7.88	42.88	---	74.00	54.00	-31.12	60	100
12060.0000	33.56	---	13.12	46.68	---	74.00	54.00	-27.32	130	100



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Mode: WLAN 802.11b 2437MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.81	peak	14.59	33.40	46.00	-12.60	175	100
323.5271	15.92	peak	16.59	32.51	46.00	-13.49	140	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.88	---	0.46	42.34	---	74.00	54.00	-31.66	200	100
7311.0000	40.44	---	3.62	44.06	---	74.00	54.00	-29.94	250	100
9748.0000	34.80	---	8.20	43.00	---	74.00	54.00	-31.00	170	100
12185.0000	32.60	---	13.69	46.29	---	74.00	54.00	-27.71	60	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	15.97	peak	13.63	29.60	46.00	-16.40	130	100
582.0641	12.77	peak	22.98	35.75	46.00	-10.25	155	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.92	---	0.46	42.38	---	74.00	54.00	-31.62	30	100
7311.0000	40.19	---	3.62	43.81	---	74.00	54.00	-30.19	210	100
9748.0000	35.56	---	8.20	43.76	---	74.00	54.00	-30.24	260	100
12185.0000	32.32	---	13.69	46.01	---	74.00	54.00	-27.99	50	100

Mode: WLAN 802.11b 2462MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.09	peak	14.59	33.68	46.00	-12.32	110	100
323.5271	14.67	peak	16.59	31.26	46.00	-14.74	75	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	40.98	---	0.66	41.64	---	74.00	54.00	-32.36	230	100
7386.0000	39.55	---	3.85	43.40	---	74.00	54.00	-30.60	60	100
9848.0000	34.84	---	8.57	43.41	---	74.00	54.00	-30.59	250	100
12310.0000	34.72	---	14.42	49.14	---	74.00	54.00	-24.86	310	100



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.21	peak	13.63	29.84	46.00	-16.16	55	100
582.0641	12.32	peak	22.98	35.30	46.00	-10.70	160	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	40.96	---	0.66	41.62	---	74.00	54.00	-32.38	250	100
7386.0000	39.63	---	3.85	43.48	---	74.00	54.00	-30.52	310	100
9848.0000	34.50	---	8.57	43.07	---	74.00	54.00	-30.93	200	100
12310.0000	34.11	---	14.42	48.53	---	74.00	54.00	-25.47	280	100

Mode: WLAN 802.11g 2412MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	18.77	peak	12.20	30.97	43.50	-12.53	60	100
257.4350	17.65	peak	14.59	32.24	46.00	-13.76	235	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.49	---	0.33	41.82	---	74.00	54.00	-32.18	210	100
7236.0000	40.44	---	3.77	44.21	---	74.00	54.00	-29.79	50	100
9648.0000	34.57	---	7.88	42.45	---	74.00	54.00	-31.55	130	100
12060.0000	33.63	---	13.12	46.75	---	74.00	54.00	-27.25	40	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	15.20	peak	13.63	28.83	46.00	-17.17	75	100
582.0641	11.99	peak	22.98	34.97	46.00	-11.03	110	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.16	---	0.33	41.49	---	74.00	54.00	-32.51	280	100
7236.0000	40.51	---	3.77	44.28	---	74.00	54.00	-29.72	110	100
9648.0000	35.01	---	7.88	42.89	---	74.00	54.00	-31.11	310	100
12060.0000	33.16	---	13.12	46.28	---	74.00	54.00	-27.72	200	100



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Mode: WLAN 802.11g 2437MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.19	peak	14.59	32.78	46.00	-13.22	90	100
323.5271	15.07	peak	16.59	31.66	46.00	-14.34	170	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.28	---	0.46	41.74	---	74.00	54.00	-32.26	250	100
7311.0000	39.94	---	3.62	43.56	---	74.00	54.00	-30.44	80	100
9748.0000	35.00	---	8.20	43.20	---	74.00	54.00	-30.80	60	100
12185.0000	32.29	---	13.69	45.98	---	74.00	54.00	-28.02	130	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.12	peak	13.63	29.75	46.00	-16.25	135	100
582.0641	11.69	peak	22.98	34.67	46.00	-11.33	50	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.25	---	0.46	41.71	---	74.00	54.00	-32.29	70	100
7311.0000	40.26	---	3.62	43.88	---	74.00	54.00	-30.12	230	100
9748.0000	34.85	---	8.20	43.05	---	74.00	54.00	-30.95	140	100
12185.0000	33.07	---	13.69	46.76	---	74.00	54.00	-27.24	200	100

Mode: WLAN 802.11g 2462MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3326	16.96	peak	13.63	30.59	46.00	-15.41	170	100
257.4350	18.04	peak	14.59	32.63	46.00	-13.37	215	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	40.85	---	0.66	41.51	---	74.00	54.00	-32.49	240	100
7386.0000	39.83	---	3.85	43.68	---	74.00	54.00	-30.32	100	100
9848.0000	35.03	---	8.57	43.60	---	74.00	54.00	-30.40	50	100
12310.0000	33.27	---	14.42	47.69	---	74.00	54.00	-26.31	110	100



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Registration number: W6M21403-13993-C-1
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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.43	peak	13.63	30.06	46.00	-15.94	175	100
582.0641	13.01	peak	22.98	35.99	46.00	-10.01	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	40.59	---	0.66	41.25	---	74.00	54.00	-32.75	260	100
7386.0000	39.95	---	3.85	43.80	---	74.00	54.00	-30.20	300	100
9848.0000	34.41	---	8.57	42.98	---	74.00	54.00	-31.02	70	100
12310.0000	33.69	---	14.42	48.11	---	74.00	54.00	-25.89	120	100

ANT B

Mode: WLAN 802.11a 5745MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.30	peak	14.59	33.89	46.00	-12.11	90	100
323.5271	15.73	peak	16.59	32.32	46.00	-13.68	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6837.6750	40.32	---	3.76	44.08	---	74.00	54.00	-29.92	245	100
9285.0700	37.02	---	6.99	44.01	---	74.00	54.00	-29.99	35	100
11490.0000	33.75	---	12.09	45.84	---	74.00	54.00	-28.16	170	100
17235.0000	27.75	---	20.23	47.98	---	74.00	54.00	-26.02	305	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.26	peak	13.63	29.89	46.00	-16.11	160	100
582.0641	12.04	peak	22.98	35.02	46.00	-10.98	125	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6909.8190	40.18	---	3.89	44.07	---	74.00	54.00	-29.93	205	100
9808.6170	35.99	---	8.60	44.59	---	74.00	54.00	-29.41	50	100
11490.0000	33.72	---	12.09	45.81	---	74.00	54.00	-28.19	160	100
17235.0000	27.17	---	20.23	47.40	---	74.00	54.00	-26.60	110	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode: WLAN 802.11a 5785MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.17	peak	14.59	32.76	46.00	-13.24	75	100
323.5271	13.98	peak	16.59	30.57	46.00	-15.43	110	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6893.7880	39.82	---	3.89	43.71	---	74.00	54.00	-30.29	145	100
9941.8840	36.46	---	8.46	44.92	---	74.00	54.00	-29.08	70	100
11530.0000	34.16	---	12.32	46.48	---	74.00	54.00	-27.52	260	100
17295.0000	27.37	---	21.03	48.40	---	74.00	54.00	-25.60	280	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.71	peak	13.63	30.34	46.00	-15.66	120	100
582.0641	11.87	peak	22.98	34.85	46.00	-11.15	145	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6893.7880	40.21	---	3.89	44.10	---	74.00	54.00	-29.90	330	100
9970.4410	36.45	---	8.41	44.86	---	74.00	54.00	-29.14	120	100
11530.0000	34.92	---	12.32	47.24	---	74.00	54.00	-26.76	230	100
17295.0000	27.52	---	21.03	48.55	---	74.00	54.00	-25.45	310	100

Mode: WLAN 802.11a 5825MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	17.80	peak	12.20	30.00	43.50	-13.50	135	100
257.4350	18.74	peak	14.59	33.33	46.00	-12.67	210	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6909.8190	39.77	---	5.41	45.18	---	74.00	54.00	-28.82	150	100
9970.4410	36.21	---	9.59	45.80	---	74.00	54.00	-28.20	170	100
11650.0000	34.01	---	13.34	47.35	---	74.00	54.00	-26.65	235	100
17475.0000	27.26	---	21.63	48.89	---	74.00	54.00	-25.11	320	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.37	peak	13.63	30.00	46.00	-16.00	175	100
582.0641	11.67	peak	22.98	34.65	46.00	-11.35	80	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6901.8040	40.23	---	5.50	45.73	---	74.00	54.00	-28.27	30	100
9922.8460	36.11	---	9.64	45.75	---	74.00	54.00	-28.25	135	100
11650.0000	33.97	---	13.34	47.31	---	74.00	54.00	-26.69	285	100
17475.0000	26.87	---	21.63	48.50	---	74.00	54.00	-25.50	340	100

Mode: WLAN 802.11b 2412MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	17.79	peak	14.59	32.38	46.00	-13.62	90	100
323.5271	14.49	peak	16.59	31.08	46.00	-14.92	135	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.58	---	0.33	41.91	---	74.00	54.00	-32.09	155	100
7236.0000	39.88	---	3.77	43.65	---	74.00	54.00	-30.35	120	100
9648.0000	35.07	---	7.88	42.95	---	74.00	54.00	-31.05	235	100
12060.0000	32.92	---	13.12	46.04	---	74.00	54.00	-27.96	170	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.36	peak	13.63	29.99	46.00	-16.01	75	100
582.0641	11.22	peak	22.98	34.20	46.00	-11.80	120	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.06	---	0.33	41.39	---	74.00	54.00	-32.61	175	100
7236.0000	40.28	---	3.77	44.05	---	74.00	54.00	-29.95	160	100
9648.0000	34.49	---	7.88	42.37	---	74.00	54.00	-31.63	210	100
12060.0000	33.65	---	13.12	46.77	---	74.00	54.00	-27.23	195	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode: WLAN 802.11b 2437MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3326	17.59	peak	13.63	31.22	46.00	-14.78	175	100
257.4350	18.67	peak	14.59	33.26	46.00	-12.74	210	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.66	---	0.46	42.12	---	74.00	54.00	-31.88	130	100
7311.0000	40.28	---	3.62	43.90	---	74.00	54.00	-30.10	240	100
9748.0000	34.91	---	8.20	43.11	---	74.00	54.00	-30.89	175	100
12185.0000	31.73	---	13.69	45.42	---	74.00	54.00	-28.58	140	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.55	peak	13.63	30.18	46.00	-15.82	160	100
582.0641	12.38	peak	22.98	35.36	46.00	-10.64	145	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.58	---	0.46	42.04	---	74.00	54.00	-31.96	125	100
7311.0000	40.44	---	3.62	44.06	---	74.00	54.00	-29.94	80	100
9748.0000	34.22	---	8.20	42.42	---	74.00	54.00	-31.58	235	100
12185.0000	31.84	---	13.69	45.53	---	74.00	54.00	-28.47	190	100

Mode: WLAN 802.11b 2462MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.73	peak	14.59	34.32	46.00	-11.68	35	100
323.5271	15.80	peak	16.59	32.39	46.00	-13.61	110	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4921.8440	44.02	---	0.65	44.67	---	74.00	54.00	-29.33	90	100
7386.0000	40.18	---	3.85	44.03	---	74.00	54.00	-29.97	175	100
9848.0000	34.70	---	8.57	43.27	---	74.00	54.00	-30.73	155	100
12310.0000	33.99	---	14.42	48.41	---	74.00	54.00	-25.59	120	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.41	peak	13.63	30.04	46.00	-15.96	125	100
582.0641	12.39	peak	22.98	35.37	46.00	-10.63	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4921.8440	43.55	---	0.65	44.20	---	74.00	54.00	-29.80	210	100
7386.0000	39.53	---	3.85	43.38	---	74.00	54.00	-30.62	135	100
9848.0000	34.00	---	8.57	42.57	---	74.00	54.00	-31.43	175	100
12310.0000	33.10	---	14.42	47.52	---	74.00	54.00	-26.48	140	100

Mode: WLAN 802.11g 2412MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.25	peak	14.59	33.84	46.00	-12.16	135	100
323.5271	14.40	peak	16.59	30.99	46.00	-15.01	90	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	40.96	---	0.33	41.29	---	74.00	54.00	-32.71	155	100
7236.0000	40.36	---	3.77	44.13	---	74.00	54.00	-29.87	170	100
9648.0000	34.43	---	7.88	42.31	---	74.00	54.00	-31.69	155	100
12060.0000	33.43	---	13.12	46.55	---	74.00	54.00	-27.45	240	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	15.80	peak	13.63	29.43	46.00	-16.57	250	100
582.0641	11.93	peak	22.98	34.91	46.00	-11.09	170	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.26	---	0.33	41.59	---	74.00	54.00	-32.41	80	100
7236.0000	39.75	---	3.77	43.52	---	74.00	54.00	-30.48	135	100
9648.0000	34.74	---	7.88	42.62	---	74.00	54.00	-31.38	175	100
12060.0000	32.99	---	13.12	46.11	---	74.00	54.00	-27.89	140	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

Mode: WLAN 802.11g 2437MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	18.10	peak	12.20	30.30	43.50	-13.20	60	100
257.4350	18.64	peak	14.59	33.23	46.00	-12.77	195	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.78	---	0.46	42.24	---	74.00	54.00	-31.76	175	100
7311.0000	40.15	---	3.62	43.77	---	74.00	54.00	-30.23	140	100
9748.0000	34.10	---	8.20	42.30	---	74.00	54.00	-31.70	205	100
12185.0000	32.27	---	13.69	45.96	---	74.00	54.00	-28.04	130	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.25	peak	13.63	29.88	46.00	-16.12	205	100
582.0641	12.11	peak	22.98	35.09	46.00	-10.91	180	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.88	---	0.46	42.34	---	74.00	54.00	-31.66	175	100
7311.0000	40.50	---	3.62	44.12	---	74.00	54.00	-29.88	140	100
9748.0000	34.03	---	8.20	42.23	---	74.00	54.00	-31.77	220	100
12185.0000	32.11	---	13.69	45.80	---	74.00	54.00	-28.20	165	100

Mode: WLAN 802.11g 2462MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	17.86	peak	12.20	30.06	43.50	-13.44	210	100
257.4350	17.84	peak	14.59	32.43	46.00	-13.57	115	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	41.49	---	0.66	42.15	---	74.00	54.00	-31.85	105	100
7386.0000	40.06	---	3.85	43.91	---	74.00	54.00	-30.09	170	100
9848.0000	33.86	---	8.57	42.43	---	74.00	54.00	-31.57	220	100
12310.0000	33.85	---	14.42	48.27	---	74.00	54.00	-25.73	195	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.40	peak	13.63	30.03	46.00	-15.97	25	100
582.0641	12.12	peak	22.98	35.10	46.00	-10.90	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	42.09	---	0.66	42.75	---	74.00	54.00	-31.25	135	100
7386.0000	39.59	---	3.85	43.44	---	74.00	54.00	-30.56	120	100
9848.0000	34.54	---	8.57	43.11	---	74.00	54.00	-30.89	90	100
12310.0000	32.74	---	14.42	47.16	---	74.00	54.00	-26.84	115	100

ANT A+B

Mode: WLAN 802.11n 20MHz 5745MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.04	peak	14.59	33.63	46.00	-12.37	115	100
323.5271	15.10	peak	16.59	31.69	46.00	-14.31	230	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6557.1140	41.15	---	3.92	45.07	---	74.00	54.00	-28.93	275	100
9589.6790	36.00	---	7.90	43.90	---	74.00	54.00	-30.10	320	100
11490.0000	33.44	---	12.09	45.53	---	74.00	54.00	-28.47	170	100
17235.0000	27.86	---	20.23	48.09	---	74.00	54.00	-25.91	255	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.14	peak	13.63	29.77	46.00	-16.23	75	100
582.0641	12.19	peak	22.98	35.17	46.00	-10.83	40	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6901.8040	40.13	---	3.90	44.03	---	74.00	54.00	-29.97	185	100
9637.2740	36.15	---	7.90	44.05	---	74.00	54.00	-29.95	305	100
11490.0000	34.25	---	12.09	46.34	---	74.00	54.00	-27.66	230	100
17235.0000	27.76	---	20.23	47.99	---	74.00	54.00	-26.01	140	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode: WLAN 802.11n 20MHz 5785MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	17.78	peak	12.20	29.98	43.50	-13.52	70	100
257.4350	18.54	peak	14.59	33.13	46.00	-12.87	135	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6901.8040	40.22	---	3.90	44.12	---	74.00	54.00	-29.88	255	100
10046.5930	36.14	---	8.38	44.52	---	74.00	54.00	-29.48	80	100
11530.0000	34.24	---	12.32	46.56	---	74.00	54.00	-27.44	345	100
17295.0000	27.15	---	21.03	48.18	---	74.00	54.00	-25.82	50	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.52	peak	13.63	30.15	46.00	-15.85	160	100
582.0641	11.87	peak	22.98	34.85	46.00	-11.15	95	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6893.7880	40.46	---	3.89	44.35	---	74.00	54.00	-29.65	280	100
9618.2370	35.53	---	7.92	43.45	---	74.00	54.00	-30.55	105	100
11530.0000	34.73	---	12.32	47.05	---	74.00	54.00	-26.95	260	100
17295.0000	27.22	---	21.03	48.25	---	74.00	54.00	-25.75	290	100

Mode: WLAN 802.11n 20MHz 5825MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.23	peak	14.59	33.82	46.00	-12.18	165	100
323.5271	14.91	peak	16.59	31.50	46.00	-14.50	30	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6909.8190	40.16	---	3.89	44.05	---	74.00	54.00	-29.95	220	100
10018.0360	36.37	---	8.37	44.74	---	74.00	54.00	-29.26	105	100
11650.0000	33.83	---	12.38	46.21	---	74.00	54.00	-27.79	170	100
17475.0000	27.44	---	20.21	47.65	---	74.00	54v	-26.35	250	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.72	peak	13.63	30.35	46.00	-15.65	255	100
582.0641	12.11	peak	22.98	35.09	46.00	-10.91	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
7110.2200	40.72	---	4.06	44.78	---	74.00	54.00	-29.22	210	100
9913.3270	35.95	---	8.51	44.46	---	74.00	54.00	-29.54	315	100
11650.0000	33.89	---	12.38	46.27	---	74.00	54.00	-27.73	40	100
17475.0000	26.97	---	20.21	47.18	---	74.00	54.00	-26.82	130	100

Mode: WLAN 802.11n 40MHz 5755MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.48	peak	14.59	34.07	46.00	-11.93	145	100
323.5271	15.80	peak	16.59	32.39	46.00	-13.61	70	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6869.7390	39.95	---	3.83	43.78	---	74.00	54.00	-30.22	150	100
9808.6170	35.98	---	8.60	44.58	---	74.00	54.00	-29.42	335	100
11510.0000	35.03	---	12.24	47.27	---	74.00	54.00	-26.73	220	100
17265.0000	28.44	---	20.63	49.07	---	74.00	54.00	-24.93	45	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	17.06	peak	13.63	30.69	46.00	-15.31	155	100
582.0641	11.59	peak	22.98	34.57	46.00	-11.43	120	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6877.7560	40.11	---	3.85	43.96	---	74.00	54.00	-30.04	280	100
9656.3130	35.52	---	7.87	43.39	---	74.00	54.00	-30.61	30	100
11530.0000	34.84	---	12.32	47.16	---	74.00	54.00	-26.84	145	100
17265.0000	28.19	---	20.63	48.82	---	74.00	54.00	-25.18	200	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

Mode: WLAN 802.11n 40MHz 5795MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.54	peak	14.59	34.13	46.00	-11.87	155	100
323.5271	14.77	peak	16.59	31.36	46.00	-14.64	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6893.7880	40.21	---	3.89	44.10	---	74.00	54.00	-29.90	105	100
9989.4790	35.68	---	8.38	44.06	---	74.00	54.00	-29.94	160	100
11590.0000	34.46	---	12.57	47.03	---	74.00	54.00	-26.97	325	100
17385.0000	26.51	---	19.78	46.29	---	74.00	54.00	-27.71	205	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.86	peak	13.63	30.49	46.00	-15.51	210	100
582.0641	12.94	peak	22.98	35.92	46.00	-10.08	165	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
6901.8040	40.10	---	3.90	44.00	---	74.00	54.00	-30.00	120	100
9932.3650	36.32	---	8.47	44.79	---	74.00	54.00	-29.21	30	100
11590.0000	34.30	---	12.57	46.87	---	74.00	54.00	-27.13	255	100
17385.0000	26.88	---	19.78	46.66	---	74.00	54.00	-27.34	175	100

Mode: WLAN 802.11n 20 MHz 2412MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.58	peak	14.59	34.17	46.00	-11.83	240	100
323.5271	15.04	peak	16.59	31.63	46.00	-14.37	100	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	41.10	---	0.33	41.43	---	74.00	54.00	-32.57	60	100
7236.0000	40.18	---	3.77	43.95	---	74.00	54.00	-30.05	320	100
9648.0000	34.94	---	7.88	42.82	---	74.00	54.00	-31.18	260	100
12060.0000	33.77	---	13.12	46.89	---	74.00	54.00	-27.11	135	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	12.30	peak	22.98	35.28	46.00	-10.72	130	100
747.2945	9.10	peak	25.33	34.43	46.00	-11.57	70	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4824.0000	40.88	---	0.33	41.21	---	74.00	54.00	-32.79	205	100
7236.0000	40.35	---	3.77	44.12	---	74.00	54.00	-29.88	110	100
9648.0000	34.77	---	7.88	42.65	---	74.00	54.00	-31.35	255	100
12060.0000	33.53	---	13.12	46.65	---	74.00	54.00	-27.35	40	100

Mode: WLAN 802.11n 20 MHz 2437MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	19.45	peak	14.59	34.04	46.00	-11.96	110	100
323.5271	15.59	peak	16.59	32.18	46.00	-13.82	60	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.94	---	0.46	42.40	---	74.00	54.00	-31.60	290	100
7311.0000	39.91	---	3.62	43.53	---	74.00	54.00	-30.47	35	100
9748.0000	34.26	---	8.20	42.46	---	74.00	54.00	-31.54	245	100
12185.0000	31.80	---	13.69	45.49	---	74.00	54.00	-28.51	50	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	12.03	peak	22.98	35.01	46.00	-10.99	185	100
747.2945	8.95	peak	25.33	34.28	46.00	-11.72	120	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.76	---	0.46	42.22	---	74.00	54.00	-31.78	200	100
7311.0000	40.17	---	3.62	43.79	---	74.00	54.00	-30.21	70	100
9748.0000	33.87	---	8.20	42.07	---	74.00	54.00	-31.93	230	100
12185.0000	31.59	---	13.69	45.28	---	74.00	54.00	-28.72	185	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

Mode: WLAN 802.11n 20 MHz 2462MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.55	peak	14.59	33.14	46.00	-12.86	220	100
323.5271	14.64	peak	16.59	31.23	46.00	-14.77	155	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	40.98	---	0.66	41.64	---	74.00	54.00	-32.36	330	100
7386.0000	39.59	---	3.85	43.44	---	74.00	54.00	-30.56	170	100
9848.0000	33.66	---	8.57	42.23	---	74.00	54.00	-31.77	185	100
12310.0000	33.39	---	14.42	47.81	---	74.00	54.00	-26.19	50	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	12.03	peak	22.98	35.01	46.00	-10.99	55	100
747.2945	9.18	peak	25.33	34.51	46.00	-11.49	140	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4924.0000	41.61	---	0.66	42.27	---	74.00	54.00	-31.73	260	100
7386.0000	40.09	---	3.85	43.94	---	74.00	54.00	-30.06	105	100
9848.0000	34.73	---	8.57	43.30	---	74.00	54.00	-30.70	230	100
12310.0000	34.42	---	14.42	48.84	---	74.00	54.00	-25.16	345	100

Mode: WLAN 802.11n 40 MHz 2422MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	18.82	peak	12.20	31.02	43.50	-12.48	135	100
257.4350	18.85	peak	14.59	33.44	46.00	-12.56	90	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4844.0000	41.20	---	0.38	41.58	---	74.00	54.00	-32.42	270	100
7266.0000	40.07	---	3.69	43.76	---	74.00	54.00	-30.24	140	100
9688.0000	33.97	---	7.83	41.80	---	74.00	54.00	-32.20	30	100
12110.0000	33.09	---	13.52	46.61	---	74.00	54.00	-27.39	305	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
 FCC ID: IR5RV11

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3326	15.94	peak	13.63	29.57	46.00	-16.43	155	100
582.0641	12.14	peak	22.98	35.12	46.00	-10.88	70	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4844.0000	40.97	---	0.38	41.35	---	74.00	54.00	-32.65	230	100
7266.0000	40.28	---	3.69	43.97	---	74.00	54.00	-30.03	170	100
9688.0000	34.12	---	7.83	41.95	---	74.00	54.00	-32.05	255	100
12110.0000	32.48	---	13.52	46.00	---	74.00	54.00	-28.00	75	100

Mode: WLAN 802.11n 40 MHz 2437MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
193.2865	18.44	peak	12.20	30.64	43.50	-12.86	190	100
257.4350	18.38	peak	14.59	32.97	46.00	-13.03	135	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.40	---	0.46	41.86	---	74.00	54.00	-32.14	265	100
7311.0000	40.47	---	3.62	44.09	---	74.00	54.00	-29.91	40	100
9748.0000	34.84	---	8.20	43.04	---	74.00	54.00	-30.96	220	100
12185.0000	31.16	---	13.69	44.85	---	74.00	54.00	-29.15	305	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	15.23	peak	13.63	28.86	46.00	-17.14	45	100
582.0641	11.65	peak	22.98	34.63	46.00	-11.37	110	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4874.0000	41.35	---	0.46	41.81	---	74.00	54.00	-32.19	160	100
7311.0000	40.27	---	3.62	43.89	---	74.00	54.00	-30.11	55	100
9748.0000	33.87	---	8.20	42.07	---	74.00	54.00	-31.93	245	100
12185.0000	32.50	---	13.69	46.19	---	74.00	54.00	-27.81	30	100



Worldwide Testing Services(Taiwan) Co., Ltd.

Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Mode: WLAN 802.11n 40 MHz 2452MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3326	17.18	peak	13.63	30.81	46.00	-15.19	105	100
257.4350	18.08	peak	14.59	32.67	46.00	-13.33	130	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4904.0000	41.04	---	0.54	41.58	---	74.00	54.00	-32.42	175	100
7356.0000	40.97	---	3.76	44.73	---	74.00	54.00	-29.27	50	100
9808.0000	34.52	---	8.60	43.12	---	74.00	54.00	-30.88	280	100
12260.0000	32.33	---	14.13	46.46	---	74.00	54.00	-27.54	60	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	15.07	peak	13.63	28.70	46.00	-17.30	55	100
582.0641	12.48	peak	22.98	35.46	46.00	-10.54	160	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4904.0000	41.25	---	0.54	41.79	---	74.00	54.00	-32.21	45	100
7356.0000	40.61	---	3.76	44.37	---	74.00	54.00	-29.63	190	100
9808.0000	34.09	---	8.60	42.69	---	74.00	54.00	-31.31	230	100
12260.0000	32.26	---	14.13	46.39	---	74.00	54.00	-27.61	140	100

Mode: BT 2.0 Normal + EDR 2402MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3326	17.89	peak	13.63	31.52	46.00	-14.48	200	100
257.4350	19.08	peak	14.59	33.67	46.00	-12.33	85	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4804.0000	41.65	---	0.28	41.93	---	74.00	54.00	-32.07	70	100
7206.0000	40.52	---	3.85	44.37	---	74.00	54.00	-29.63	180	100
9608.0000	33.90	---	7.93	41.83	---	74.00	54.00	-32.17	65	100
12010.0000	32.02	---	12.65	44.67	---	74.00	54.00	-29.33	140	100



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	11.71	peak	22.98	34.69	46.00	-11.31	35	100
747.2945	9.23	peak	25.33	34.56	46.00	-11.44	140	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4804.0000	41.60	---	0.28	41.88	---	74.00	54.00	-32.12	110	100
7206.0000	40.33	---	3.85	44.18	---	74.00	54.00	-29.82	40	100
9608.0000	33.79	---	7.93	41.72	---	74.00	54.00	-32.28	35	100
12010.0000	32.59	---	12.65	45.24	---	74.00	54.00	-28.76	160	100

Mode: BT 2.1 Normal + EDR 2441MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.04	peak	14.59	32.63	46.00	-13.37	175	100
323.5271	13.96	peak	16.59	30.55	46.00	-15.45	100	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4882.0000	41.65	---	0.48	42.13	---	74.00	54.00	-31.87	200	100
7323.0000	39.89	---	3.66	43.55	---	74.00	54.00	-30.45	75	100
9764.0000	34.18	---	8.33	42.51	---	74.00	54.00	-31.49	125	100
12205.0000	33.73	---	13.75	47.48	---	74.00	54.00	-26.52	50	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.67	peak	13.63	30.30	46.00	-15.70	60	100
582.0641	11.66	peak	22.98	34.64	46.00	-11.36	215	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4882.0000	40.99	---	0.48	41.47	---	74.00	54.00	-32.53	105	100
7323.0000	39.68	---	3.66	43.34	---	74.00	54.00	-30.66	30	100
9764.0000	34.58	---	8.33	42.91	---	74.00	54.00	-31.09	240	100
12205.0000	31.79	---	13.75	45.54	---	74.00	54.00	-28.46	155	100



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Mode: BT 2.0 Normal + EDR 2480MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	17.92	peak	14.59	32.51	46.00	-13.49	205	100
323.5271	14.78	peak	16.59	31.37	46.00	-14.63	80	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4960.0000	40.06	---	0.88	40.94	---	74.00	54.00	-33.06	220	100
7440.0000	40.12	---	3.93	44.05	---	74.00	54.00	-29.95	75	100
9920.0000	34.80	---	8.50	43.30	---	74.00	54.00	-30.70	135	100
12400.0000	31.45	---	14.46	45.91	---	74.00	54.00	-28.09	40	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	11.86	peak	22.98	34.84	46.00	-11.16	220	100
747.2945	9.05	peak	25.33	34.38	46.00	-11.62	135	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4960.0000	39.89	---	0.88	40.77	---	74.00	54.00	-33.23	120	100
7440.0000	40.59	---	3.93	44.52	---	74.00	54.00	-29.48	35	100
9920.0000	33.38	---	8.50	41.88	---	74.00	54.00	-32.12	225	100
12400.0000	30.99	---	14.46	45.45	---	74.00	54.00	-28.55	80	100

Mode: BT 4.0 2402MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.89	peak	14.59	33.48	46.00	-12.52	275	100
323.5271	14.71	peak	16.59	31.30	46.00	-14.70	220	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4804.0000	41.42	---	0.28	41.70	---	74.00	54.00	-32.30	260	100
7206.0000	40.49	---	3.85	44.34	---	74.00	54.00	-29.66	320	100
9618.2370	36.35	---	7.92	44.27	---	74.00	54.00	-29.73	305	100
12010.0000	33.05	---	12.65	45.70	---	74.00	54.00	-28.30	140	100



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Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.21	peak	13.63	29.84	46.00	-16.16	40	100
582.0641	12.10	peak	22.98	35.08	46.00	-10.92	175	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4804.0000	41.50	---	0.28	41.78	---	74.00	54.00	-32.22	330	100
7206.0000	40.64	---	3.85	44.49	---	74.00	54.00	-29.51	160	100
9608.0000	34.27	---	7.93	42.20	---	74.00	54.00	-31.80	285	100
12010.0000	32.80	---	12.65	45.45	---	74.00	54.00	-28.55	200	100

Mode: BT4.0 2440MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.65	peak	14.59	33.24	46.00	-12.76	190	100
323.5271	14.21	peak	16.59	30.80	46.00	-15.20	85	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4880.0000	40.89	---	0.47	41.36	---	74.00	54.00	-32.64	295	100
7320.0000	40.14	---	3.65	43.79	---	74.00	54.00	-30.21	115	100
9760.0000	33.52	---	8.29	41.81	---	74.00	54.00	-32.19	280	100
12200.0000	31.87	---	13.72	45.59	---	74.00	54.00	-28.41	170	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
582.0641	11.77	peak	22.98	34.75	46.00	-11.25	110	100
747.2945	8.88	peak	25.33	34.21	46.00	-11.79	25	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4880.0000	41.08	---	0.47	41.55	---	74.00	54.00	-32.45	260	100
7320.0000	39.94	---	3.65	43.59	---	74.00	54.00	-30.41	125	100
9760.0000	33.96	---	8.29	42.25	---	74.00	54.00	-31.75	205	100
12200.0000	32.90	---	13.72	46.62	---	74.00	54.00	-27.38	85	100



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Mode: BT4.0 2480MHz

Polarization: Horizontal

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
257.4350	18.68	peak	14.59	33.27	46.00	-12.73	160	100
323.5271	15.15	peak	16.59	31.74	46.00	-14.26	75	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4960.0000	40.13	---	0.88	41.01	---	74.00	54.00	-32.99	195	100
7440.0000	40.32	---	3.93	44.25	---	74.00	54.00	-29.75	75	100
9920.0000	35.11	---	8.50	43.61	---	74.00	54.00	-30.39	185	100
12400.0000	32.97	---	14.46	47.43	---	74.00	54.00	-26.57	100	100

Polarization: Vertical

Frequency (MHz)	Reading (dBuV)	Detector	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
226.3327	16.61	peak	13.63	30.24	46.00	-15.76	80	100
582.0641	11.66	peak	22.98	34.64	46.00	-11.36	145	100

Frequency (MHz)	Reading (dBuV)		Factor (dB) Corr.	Result @3m (dBuV/m)		Limit @3m (dBuV/m)		Margin (dB)	Table Degree (Deg.)	Ant. High (cm)
	Peak	Ave.		Peak	Ave.	Peak	Ave.			
4960.0000	40.01	---	0.88	40.89	---	74.00	54.00	-33.11	95	100
7440.0000	40.41	---	3.93	44.34	---	74.00	54.00	-29.66	230	100
9920.0000	33.08	---	8.50	41.58	---	74.00	54.00	-32.42	145	100
12400.0000	32.71	---	14.46	47.17	---	74.00	54.00	-26.83	55	100

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. Measurement uncertainty for 3m measurement: 30-1000 MHz = ± 3.72 dB, 1-18 GHz = ± 5.33 dB, 18-40 GHz = ± 3.43 dB ; Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.
6. See attached diagrams in appendix.

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

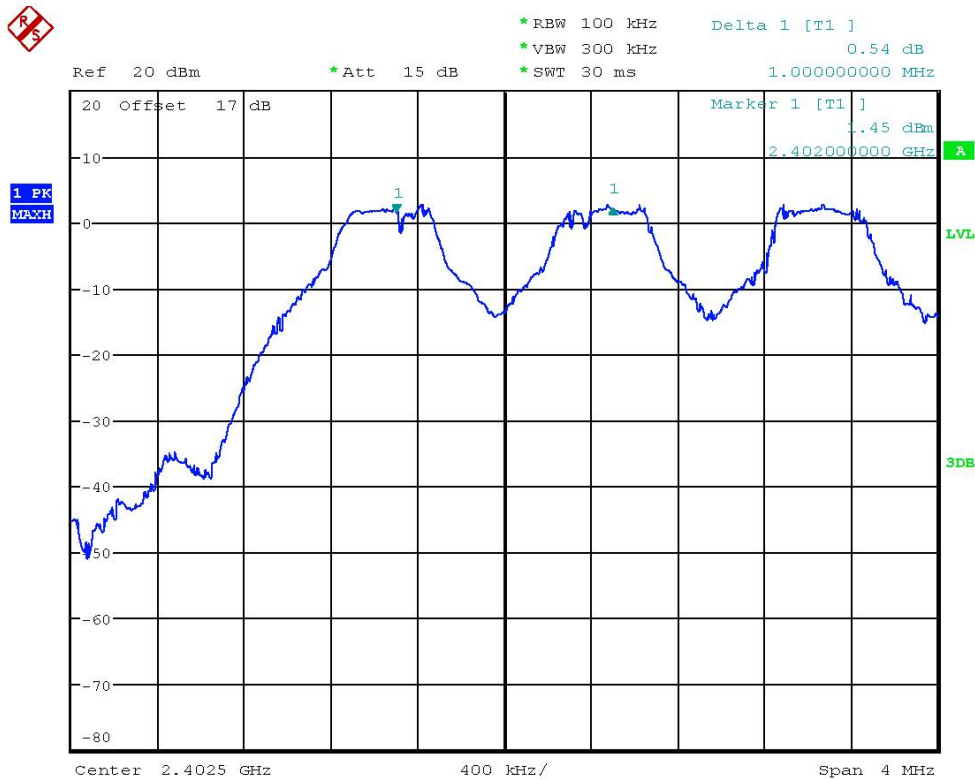
Test equipment used: ETSTW-RE 003, ETSTW-RE 030, ETSTW-RE 111, ETSTW-RE 088, ETSTW-RE 018, ETSTW-RE 064



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3.5 Carrier Frequency Separation

Carrier Frequency Separation was measured with modulation (declared by manufacturer). According to FCC rules part 15 subpart C §15.247 frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or 20 dB bandwidth of the hopping channel, whichever is greater.

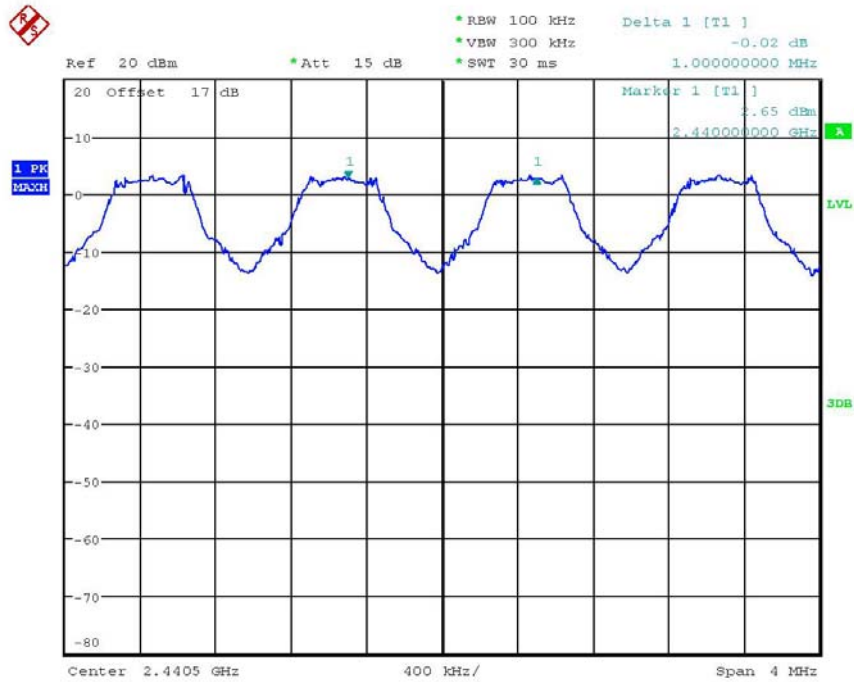


FREQUENCY SEPARATION CH0
Date: 22.JUL.2014 15:01:46

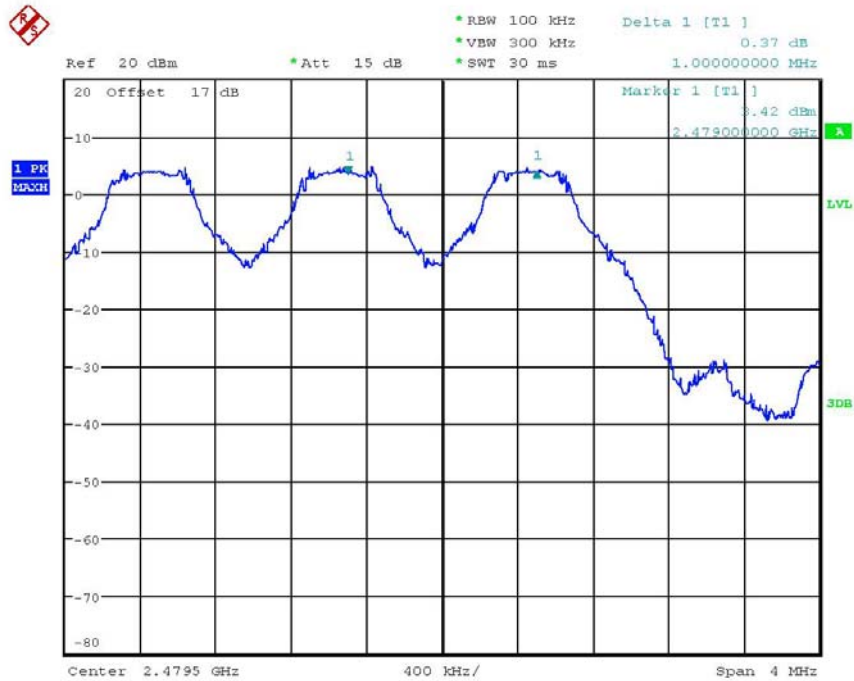


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FREQUENCY SEPARATION CH39
Date: 22.JUL.2014 15:02:30



FREQUENCY SEPARATION CH78
Date: 22.JUL.2014 15:03:18



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FCC ID: IR5RV11

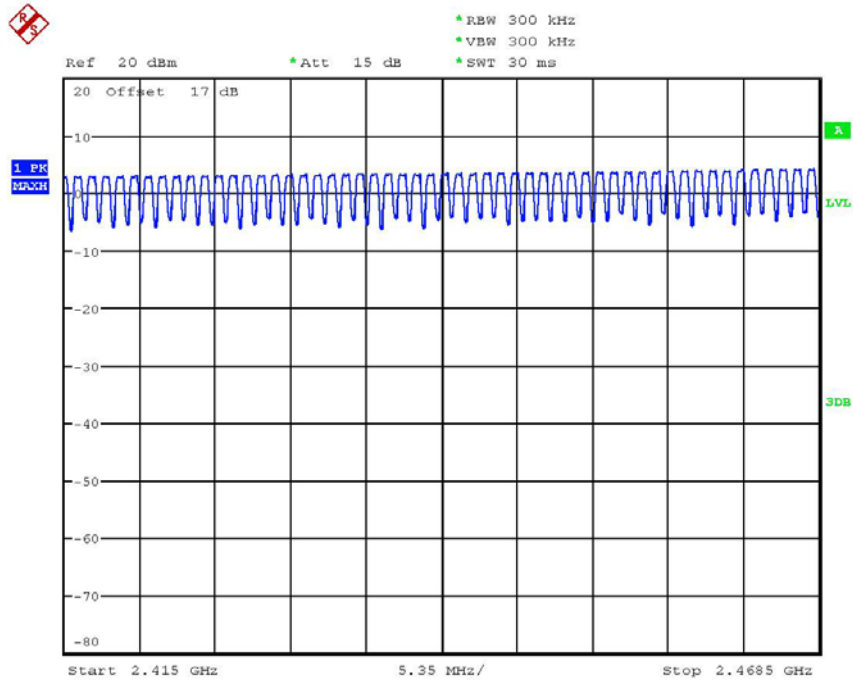
Limits:

Frequency Range MHz	Limits	
	20 dB bandwidth < 25 kHz	20 dB bandwidth > 25 kHz
902-928	25 kHz	20 dB bandwidth
2400-2483.5 5725-5850.0	25 kHz	20 dB bandwidth

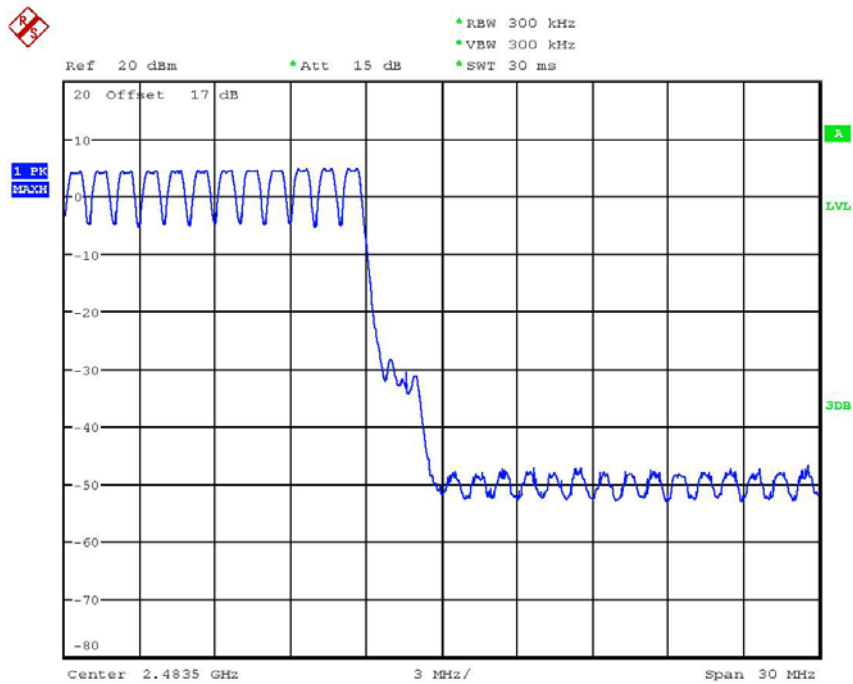
Test equipment used: ETSTW-RE 055, ETSTW-RE 064



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



NUMBER OF HOPPING CH14-66
Date: 22.JUL.2014 15:00:54



NUMBER OF HOPPING CH67-78
Date: 22.JUL.2014 14:59:42



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Limits:

Frequency Range MHz	Limit	
	20dB Bandwidth	Number of Channels
902-928 MHz	Bandwidth < 250 kHz	≥ 50
	Bandwidth ≥ 250 kHz	≥ 25
2400-2483.5	not defined	15
5725-5850.0 MHz	1 MHz	75

Test equipment used: ETSTW-RE 055, ETSTW-RE 064

3.6.1 Pseudorandom Frequency Hopping Sequence

The generation of the hopping sequence is determined by the Bluetooth cord specification and complies with the FCC requirements.

3.6.2 Coordination of hopping sequences to other transmitters

According to the Bluetooth core specification such a coordination is not possible. During scatternet function only one of the two hopping sequences will be used at a definite moment.

3.6.3 System Receiver Hopping Capability

According to the Bluetooth core specification. The system receivers shift frequencies in synchronization with the transmitted signals.



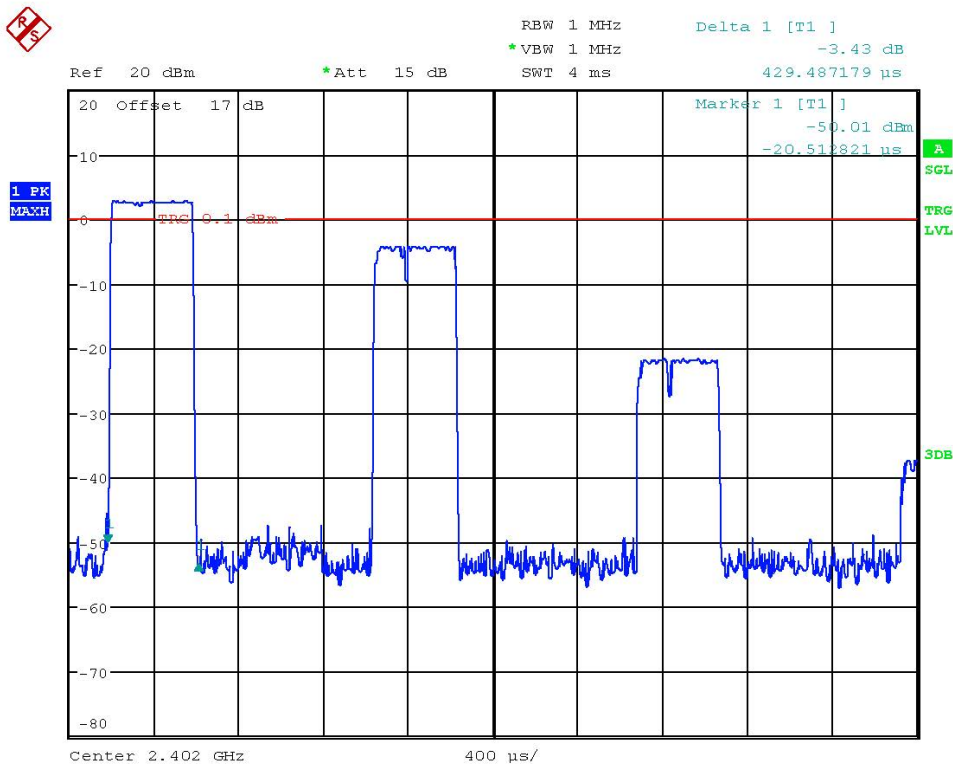
Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

3.7 Time of Occupancy (Dwell Time)

Frequency hopping systems operating in the 5725-5850 MHz band shall use an average time of occupancy on any frequency not greater than 0.4 seconds within a 30 second period.

In 2400-2483.5 MHz band the average time of occupancy on any channel shall not be greater than 0.4 seconds multiplied by the number of hopping channels employed.

For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not greater than 0.4 seconds within a 20 second period; if the 20dB bandwidth of the hopping channel is 250 kHz or greater, the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

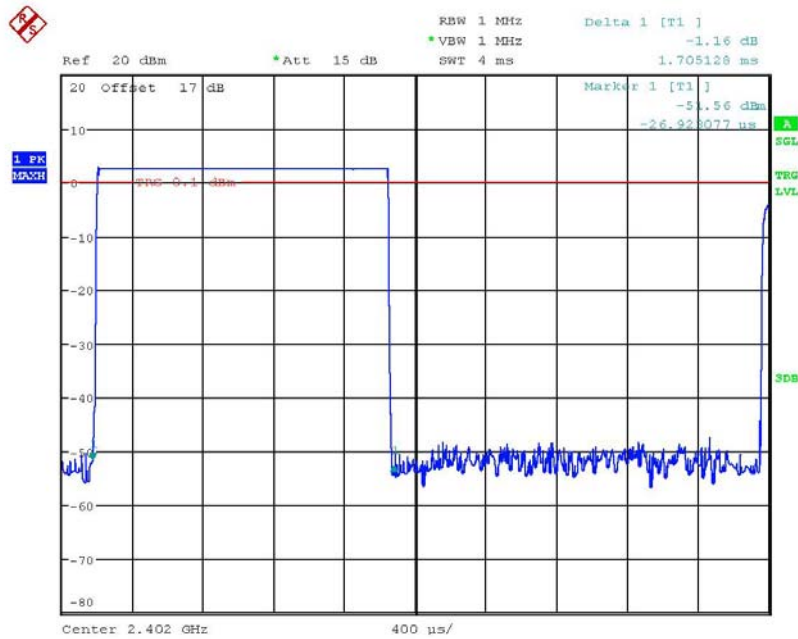


DWELL TIME CH0 DH1 (0.429ms * 320events = 137.28ms)

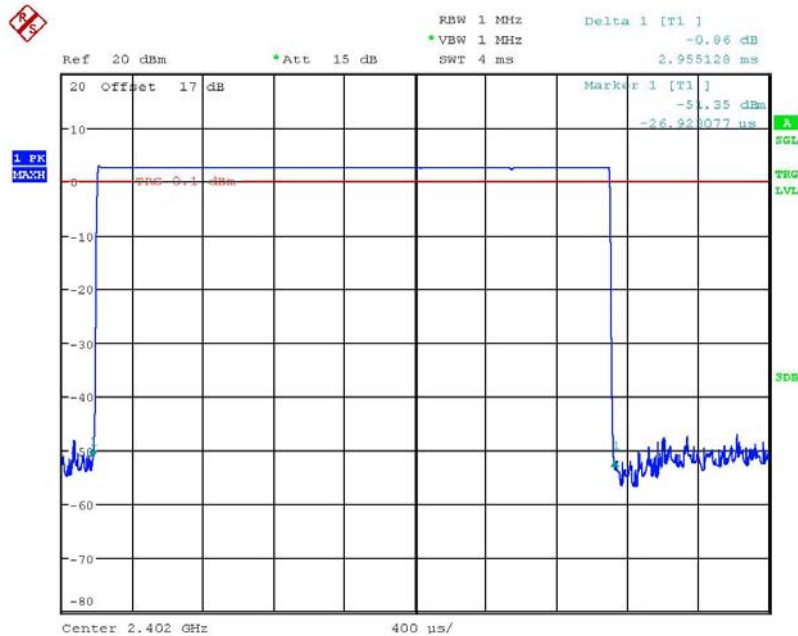
Date: 22.JUL.2014 15:16:52



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



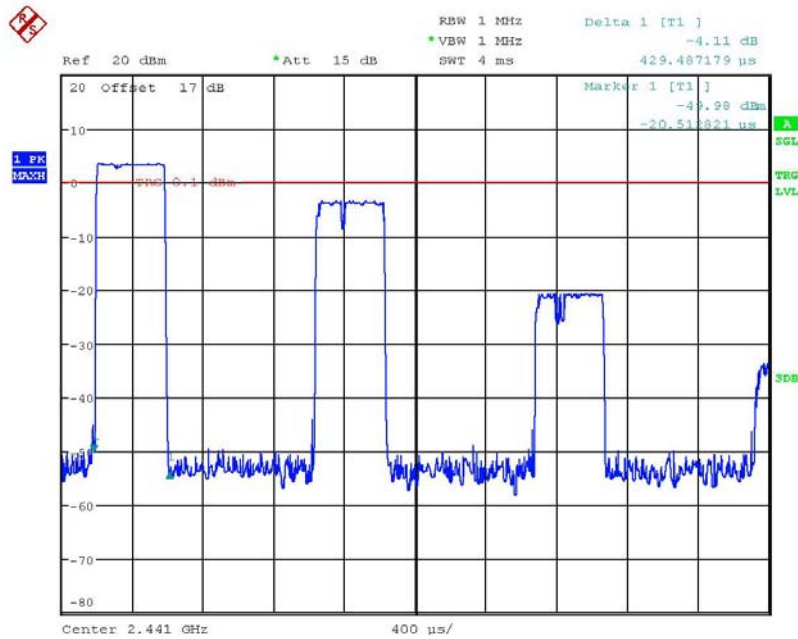
DWELL TIME CH0 DH3 (1.705ms * 160events = 272.8ms)
Date: 22.JUL.2014 15:20:51



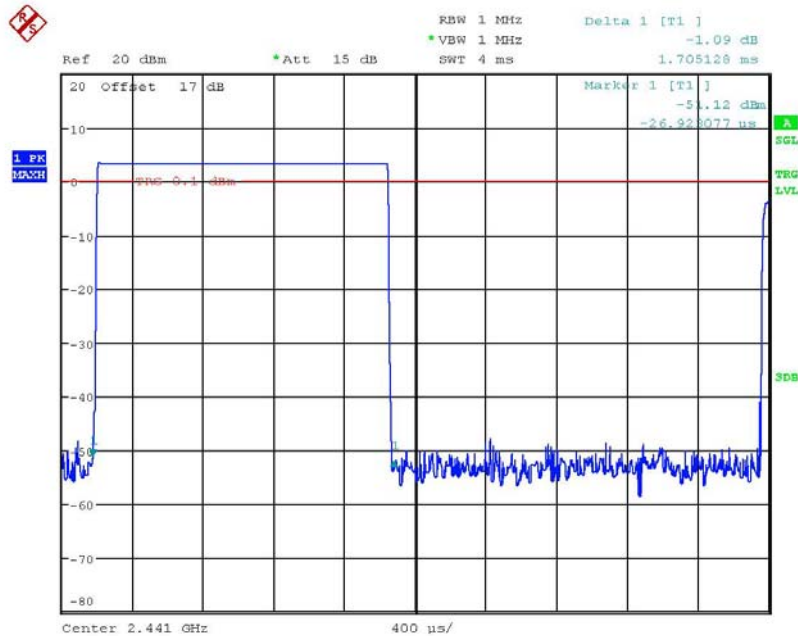
DWELL TIME CH0 DH5 (2.955ms * 110events = 325.05ms)
Date: 22.JUL.2014 15:22:10



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



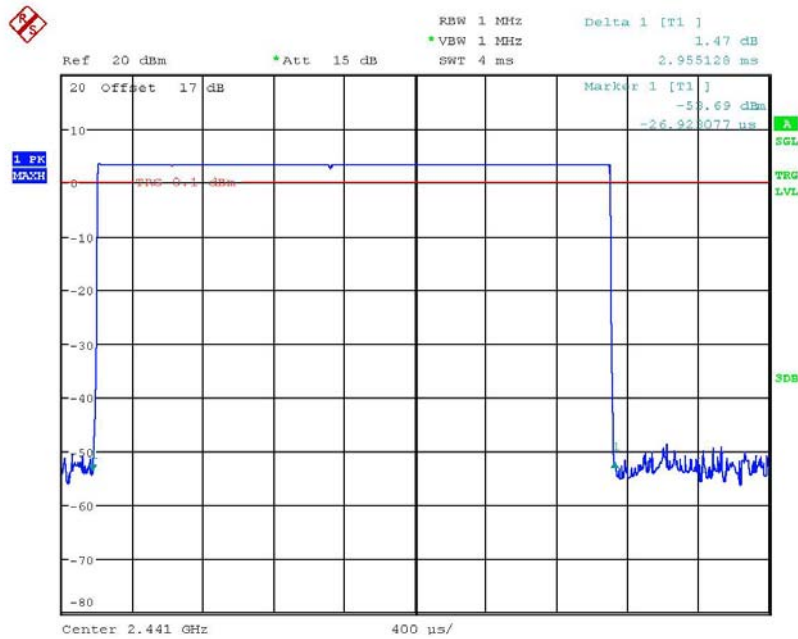
DWELL TIME CH39 DH1 (0.429ms * 320events = 137.28ms)
Date: 22.JUL.2014 15:17:19



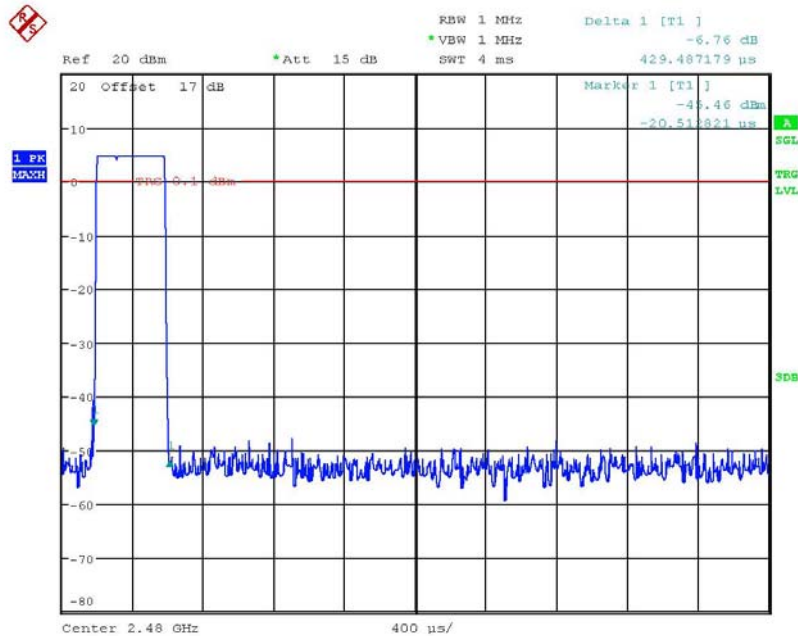
DWELL TIME CH39 DH3 (1.705ms * 160events = 272.8ms)
Date: 22.JUL.2014 15:20:21



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



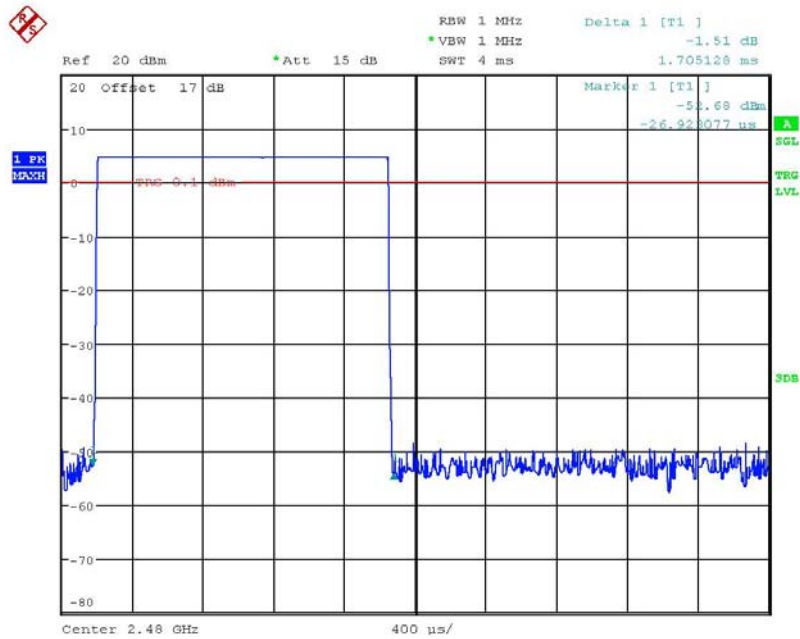
DWELL TIME CH39 DH5 (2.955ms * 110events = 325.05ms)
Date: 22.JUL.2014 15:22:38



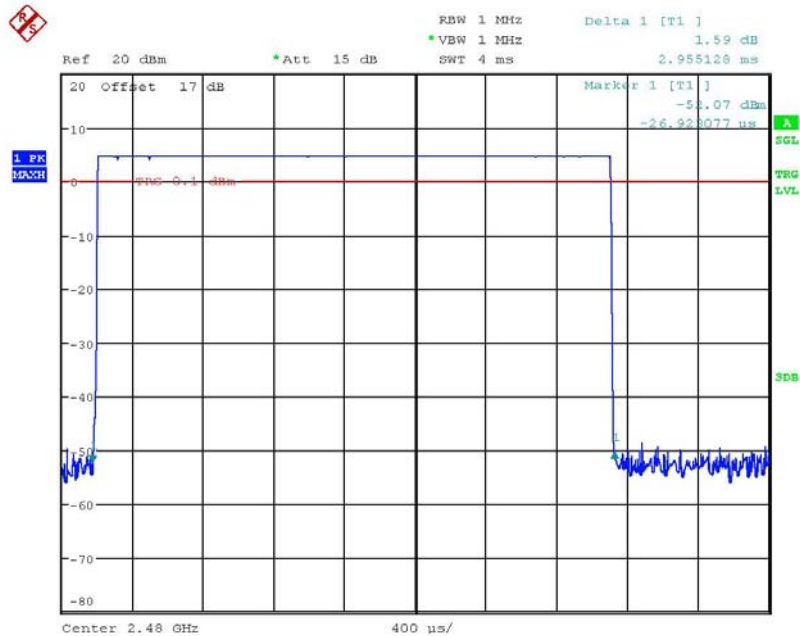
DWELL TIME CH78 DH1 (0.429ms * 320events = 137.28ms)
Date: 22.JUL.2014 15:18:27



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11



DWELL TIME CH78 DH3 (1.705ms * 160events = 272.8ms)
Date: 22.JUL.2014 15:19:57



DWELL TIME CH78 DH5 (2.955ms * 110events = 325.05ms)
Date: 22.JUL.2014 15:22:58



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

Limits and measurement periods:

Frequency MHz	Number of channels	Measurement Periode	Limit
902 – 928	≥ 50	20 s	0.4 s
	$49 \geq 25$	10 s	0.4 s
2400 – 2483.5	≥ 15	0.4 s * number of used channels	0.4 s
5725- 5850	≥ 75	30 s	0.4s

Test equipment used: ETSTW-RE 055, ETSTW-RE 064



Registration number: W6M21403-13993-C-1
FCC ID: IR5RV11

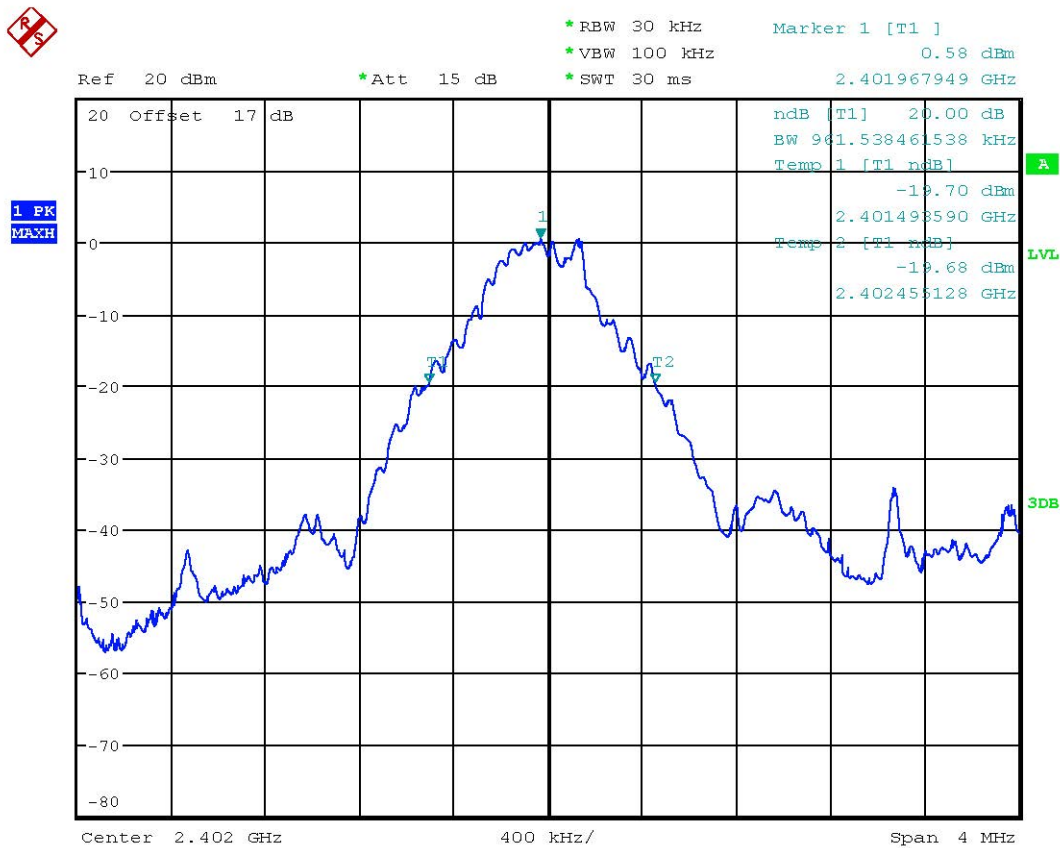
3.8 20dB Bandwidth

Frequency hopping systems operating in the 5725-5850 MHz bands shall use a maximum 20dB bandwidth of 1 MHz.

The 20dB bandwidth is measured on the lowest, middle and highest hopping channel.

For frequency hopping systems operating in the 902-928 MHz band the maximum 20dB bandwidth of the hopping channel is 500 kHz.

Mode H (Bluetooth Normal mode)



20DB BANDWIDTH CHO

Date: 22.AUG.2014 14:55:42