FCC 47 CFR PART 15 SUBPART C AND ANSI C63.10:2013
TEST REPORT
(Class II Permissive Change Report)

For

802.11b/g/n WiFi Module

Model : SA9800-A1

Data Applies To : SA9800-C1

Trade Name : SAVITECH

Issued for

Savitech corp.

3F, No.309, Guangming 1st Rd., Zhubei City, Hsinchu County 30259, Taiwan (R.O.C.)

Issued by

Compliance Certification Services Inc.
Hsinchu Lab.
NO. 989-1, Wenshan Rd., Shangshan Village,
Qionglin Township, Hsinchu County 30741, Taiwan (R.O.C.)
TEL: +886-3-5921698
FAX: +886-3-5921108

http://www.ccsrf.com
E-Mail : service@ccsrf.com

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	08/04/2015	Initial Issue	All Page 126	Gloria Chang

TABLE OF CONTENTS

TITLE PAGE NO.

1. TEST REPORT CERTIFICATION

Applicant	：	Savitech corp.
Address	：	3F, No.309, Guangming 1st Rd., Zhubei City, Hsinchu County 30259, Taiwan (R.O.C.)
Equipment Under Test	：	802.11b/g/n WiFi Module
Model	：	SA9800-A1
Data Applies To	：	SA9800-C1
Trade Name	：	SAVITECH
Tested Date	：	January 13 ~ 27, 2014 ; July 07 ~ August 03, 2015

APPLICABLE STANDARD	
Standard	**Test Result**
FCC Part 15 Subpart C AND ANSI C63.10:2013 and ANSI C63.4:2014	PASS

WE HEREBY CERTIFY THAT: The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Sb. Lu
Sr. Engineer

Reviewed by:

Gundam Lin
Sr. Engineer

2. EUT DESCRIPTION

2.1 DESCRIPTION OF EUT & POWER

Product Name	802.11b/g/n WiFi Module
Model Number	SA9800-A1
Data Applies To	SA9800-C1
Identify Number	T150707S03
Received Date	January 13, 2014
Frequency Range	IEEE 802.11b/g, 802.11n HT20 : 2412MHz ~ 2462MHz IEEE 802.11n HT40 : 2422MHz ~ 2452MHz
Transmit Power	IEEE 802.11b : 24.27 dBm (0.2673 W) IEEE 802.11g : 25.42 dBm (0.3483 W) IEEE 802.11n HT20 : 25.13 dBm (0.3258 W) IEEE 802.11n HT40 : 22.83 dBm (0.1919 W)
Channel Spacing	IEEE 802.11b/g, 802.11n HT20/HT40 : 5MHz
Channel Number	IEEE 802.11b/g, 802.11n HT20: 11 Channels IEEE 802.11n HT40 : 7 Channels
Transmit Data Rate	IEEE 802.11b : up to 11 Mbps IEEE 802.11g : up to 54 Mbps IEEE 802.11n (HT20,800ns GI) : up to 65 Mbps IEEE 802.11n (HT20,400ns GI) : up to 72.2 Mbps IEEE 802.11n (HT40,800ns GI) : up to 135 Mbps IEEE 802.11n (HT40,400ns GI) : up to 150 Mbps
Type of Modulation	IEEE 802.11b : DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g : OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20/40 : OFDM (64QAM, 16QAM, QPSK, BPSK)
Antenna Type	**Ant 2(Chain 2)** Dipole Antenna × 1, Antenna Gain : 3.14 dBi **Ant 1(Chain 1)** Dipole Antenna × 1, Antenna Gain : 3.14dBi
Power Rating	3.3Vdc
Test Voltage	120Vac, 60Hz

The difference of the model :

Model Number	Difference
SA9800-A1	SA9800-C1=> Support antenna diversity function.
SA9800-C1	

Remark :

1. *The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.*
2. *For more details, please refer to the User's manual of the EUT.*
3. *This submittal(s) (test report) is intended for FCC ID: 2ABTG-SA9800-A1 filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.*
4. *The model SA9800-A1 ; SA9800-C1 was considered the main model for testing.*
5. *This report is modified from T140113D02-RP1.*

2.2 DESCRIPTION OF CLASS II CHANGE

The major change filed under this application is :

Support antenna diversity function.

The above changes influence the RF characteristics, all testing items data please refer to section 7. The original application document reports (Report Number : T140113D02, FCC ID: 2ABTG-SA9800-A1).

3. DESCRIPTION OF TEST MODES

The EUT is an 802.11n transceiver in 802.11b/g/n WiFi Module form factor.

For IEEE 802.11b/g, 802.11n HT20/HT40 mode (1TX / 1RX diversity):
Ant. 1or Ant. 2 transmitting/receiving.

Conducted Emission / Radiated Emission Test (Below 1 GHz)

1. The following test modes were scanned during the preliminary test:

No.	Pre-Test Mode
1	Normal Operating / SA9800-A1
2	Normal Operating / SA9800-C1

2. After the preliminary scan, the following test mode was found to produce the highest emission level.

Final Test Mode		
Emission	Radiated Emission	Mode 1 Mode 2
	Conducted Emission	Mode 1

Remark : *Then, the above highest emission mode of the configuration of the EUT and cable was chosen for all final test items.*

Conducted / Radiated Emission Test (Above 1 GHz)
IEEE 802.11b, 802.11g, 802.11n HT20 mode

The EUT had been tested under operating condition.

There are three channels have been tested as following :

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode : 1Mbps data rate (worst case) were chosen for full testing.

IEEE 802.11g mode : 6Mbps data rate (worst case) were chosen for full testing.

IEEE 802.11n HT20 mode : 6.5Mbps data rate (worst case) were chosen for full testing.

IEEE 802.11n HT40 mode

The EUT had been tested under operating condition.

There are three channels have been tested as following :

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n HT40 mode : 13.5Mbps data rate (worst case) were chosen for full testing.

4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10: 2013 and ANSI C63.4: 2014 and FCC CFR 47, 15.207, 15.209 and 15.247.

5. FACILITIES AND ACCREDITATION

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No.989-1, Wenshan Rd., Shangshan Village,
Qionglin Township, Hsinchu County 30741, Taiwan (R.O.C.)

The sites are constructed in conformance with the requirements of ANSI C63.10:2013 and ANSI C63.4: 2014 and CISPR 22. All receiving equipment conforms to CISPR 16-1-1, CISPR 16-1-2, CISPR 16-1-3, CISPR 16-1-4, CISPR 16-1-5.

5.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Taiwan	TAF

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	INDUSTRY CANADA
Japan	VCCI
Taiwan	BSMI
USA	FCC MRA

Copies of granted accreditation certificates are available for downloading from our web site, http:///www.ccsrf.com

5.3 MEASUREMENT UNCERTAINTY

The following table is for the measurement uncertainty, which is calculated as per the document CISPR 16-4-2.

PARAMETER	UNCERTAINTY
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 30 to 1000 MHz	+/- 3.97
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 1 to 18GHz	+/- 3.58
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 18 to 26 GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 26 to 40 GHz	+/- 3.81
Semi Anechoic Chamber (966 Chamber_C) / Radiated Emission, 30 to 1000 MHz	+/- 3.97
Semi Anechoic Chamber (966 Chamber_C) / Radiated Emission, 1 to 18GHz	+/- 3.58
Semi Anechoic Chamber (966 Chamber_C) / Radiated Emission, 18 to 26 GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_C) / Radiated Emission, 26 to 40 GHz	+/- 3.81
Conducted Emission (Mains Terminals), 9kHz to 30MHz	+/- 2.48

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Consistent with industry standard (e.g. CISPR 22, clause 11, Measurement Uncertainty) determining compliance with the limits shall be base on the results of the compliance measurement. Consequently the measure emissions being less than the maximum allowed emission result in this be a compliant test or passing test.

The acceptable measurement uncertainty value without requiring revision of the compliance statement is base on conducted and radiated emissions being less than U_{CISPR} which is 3.6dB and 5.2dB respectively. CCS values (called U_{Lab} in CISPR 16-4-2) is less than U_{CISPR} as shown in the table above. Therefore, MU need not be considered for compliance.

6. SETUP OF EQUIPMENT UNDER TEST

SUPPORT EQUIPMENT

No.	Product	Manufacturer	Model No.	Serial No.	FCC ID
1	Notebook PC	HP	ProBook 4421s	CNF03242PJ	DoC
2	Test Fixture	---	---	---	---

Power Adapter :

No.	Manufacturer	Model No.	Power Input	Power Output
1	D-Link	MU05-P050100-A1	100-240Vac, 50/60Hz, 0.15A	5.0Vdc, 1A

No.	Signal Cable Description
1	Non-shielded RJ-45 cable, 12 m × 1

SETUP DIAGRAM FOR TESTS

EUT & peripherals setup diagram is shown in appendix setup photos.

EUT OPERATING CONDITION

RF Mode :

1. Setup all 802.11b/g/n WiFi Modules like the setup diagram.
2. EUT test fixture link Notebook with LAN.
3. Console fixture link between EUT Test fixture and Notebook.
4. Notebook fixed ip192.168.1.10
5. Run HyperTerminal-→Transfer mode：38400
6. In HyperTerminal , EUT power on → Check [ESC] into backup mode
7. Run [put nfjrom.bat] upload test file to MP Mode
8. Upload ok, Run Test software [MP_TEST.exe]
   →IC TYPE: [RTL_8188E] →IP:192.168.1.6→open
9. TX Mode: (select [Infinitely Packet TX] to Continue TX)
   ⇨ Tx Data Rate:1Mbps Bandwidth 20 (IEEE 802.11b mode)
   6Mbps Bandwidth 20 (IEEE 802.11g mode)
   MCS=0 Bandwidth 20 (IEEE 802.11n HT20 mode)
   MCS=0 Bandwidth 40 (IEEE 802.11n HT40 mode)

⇨ Power control mode:

Power Set: IEEE 802.11b

Channel Low (2412MHz) =52

Channel Middle (2437MHz) = 58

Channel High (2462MHz) = 51

Power Set: IEEE 802.11g

Channel Low (2412MHz) =54

Channel Middle (2437MHz) =62

Channel High (2462MHz) = 53

Power Set: IEEE 802.11n HT20

Channel Low (2412MHz) =52

Channel Middle (2437MHz) =60

Channel High (2462MHz) = 52

Power Set: IEEE 802.11n HT40

Channel Low (2422MHz) =52

Channel Middle (2437MHz) =56

Channel High (2452MHz) = 51

10. All of the functions are under run.
11. Start test.

Normal Mode :

1. EUT & peripherals setup diagram is shown in appendix setup photos.
2. Power on all equipments.
3. Notebook link to EUT with WiFi.
4. All of the functions are under run.
5. Start test.

7. FCC PART 15.247 REQUIREMENTS

7.1 6dB BANDWIDTH

LIMITS

§ 15.247(a) (2) For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

1. The transmitter output was connected to a spectrum analyzer.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW) ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

TEST RESULTS

IEEE 802.11b Mode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2412	10.060	500	PASS
Middle	2437	9.115	500	PASS
High	2462	10.055	500	PASS

IEEE 802.11g Mode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2412	16.555	500	PASS
Middle	2437	16.510	500	PASS
High	2462	16.560	500	PASS

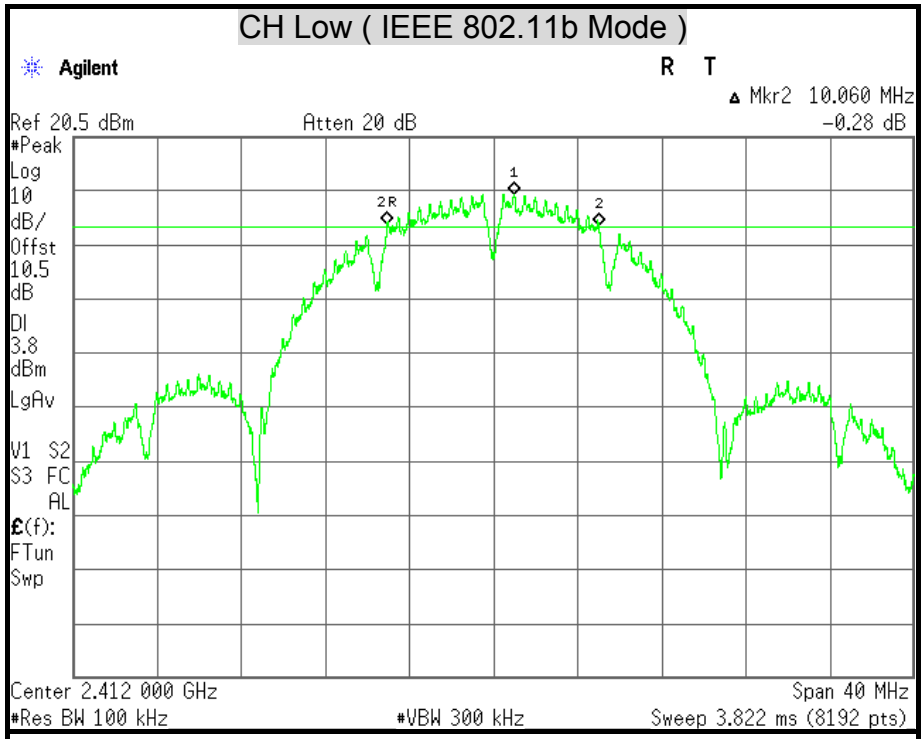
IEEE 802.11n HT20 Mode

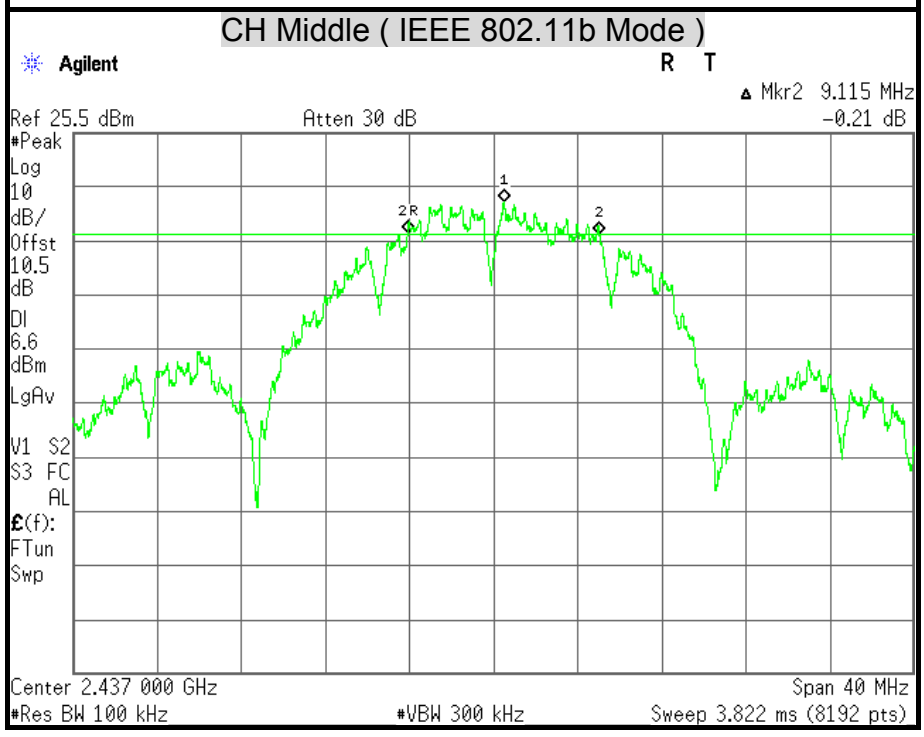
Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2412	17.795	500	PASS
Middle	2437	17.800	500	PASS
High	2462	17.780	500	PASS

IEEE 802.11n HT40 Mode

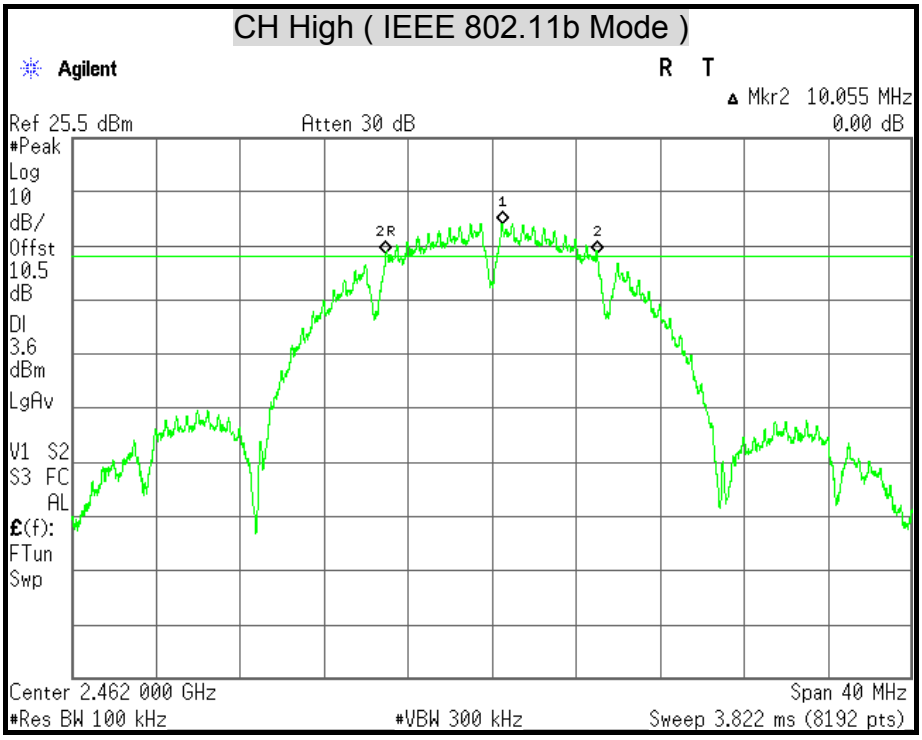
Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (kHz)	Pass / Fail
Low	2422	36.320	500	PASS
Middle	2437	36.370	500	PASS
High	2452	36.360	500	PASS

6dB BANDWIDTH

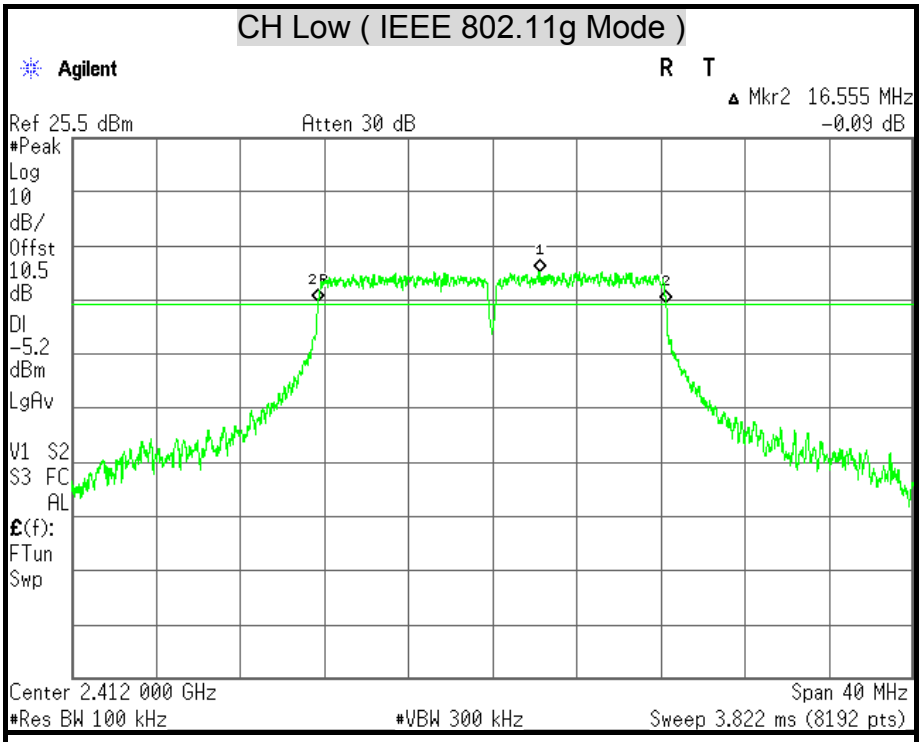




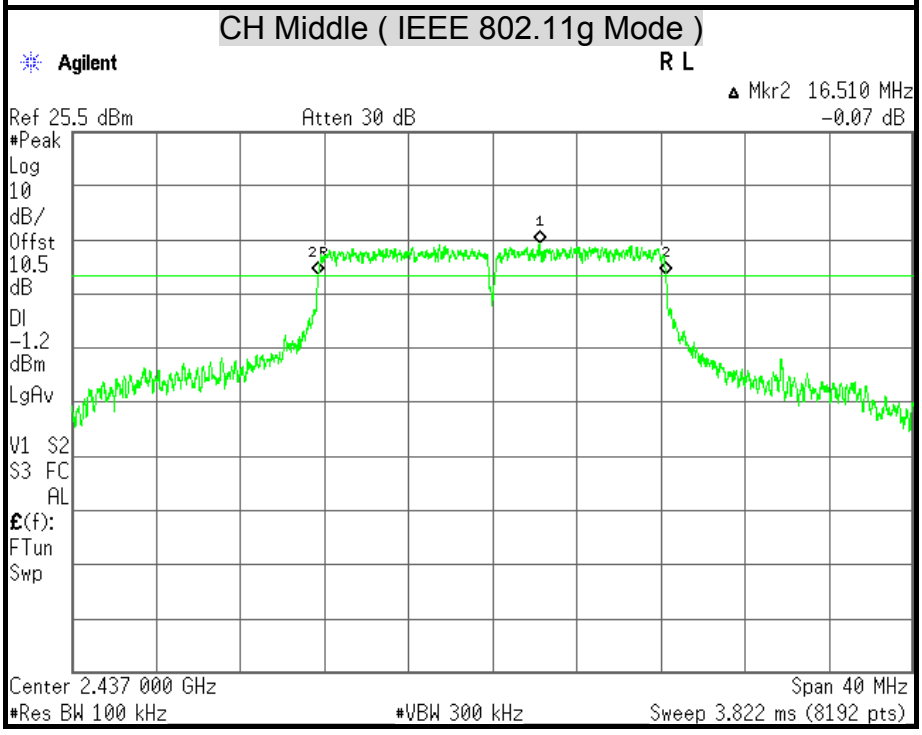
CH High (IEEE 802.11b Mode)



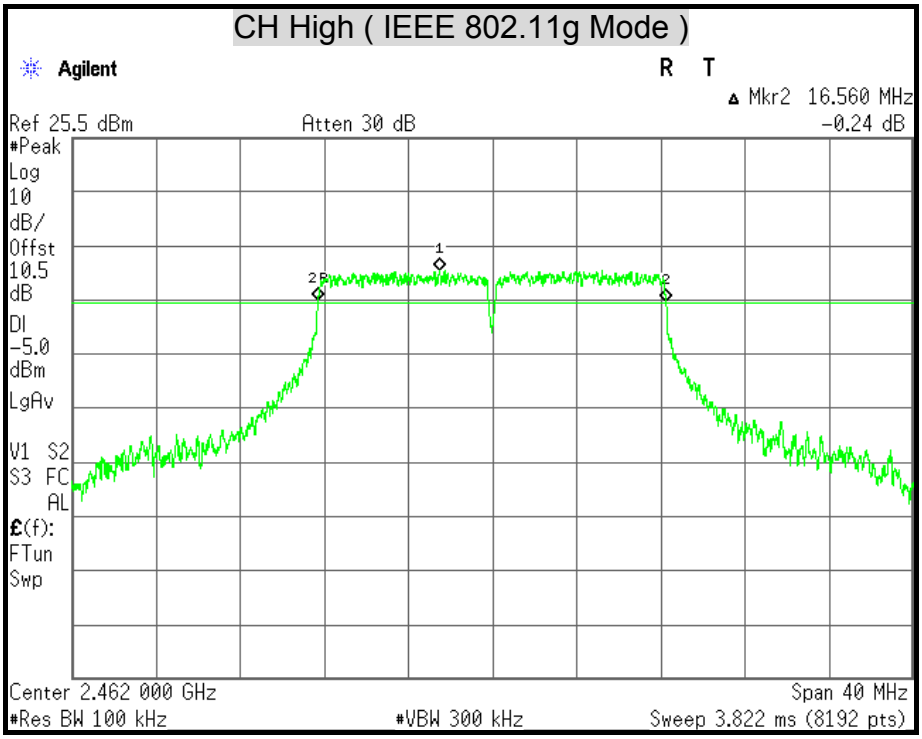
CH Low (IEEE 802.11g Mode)



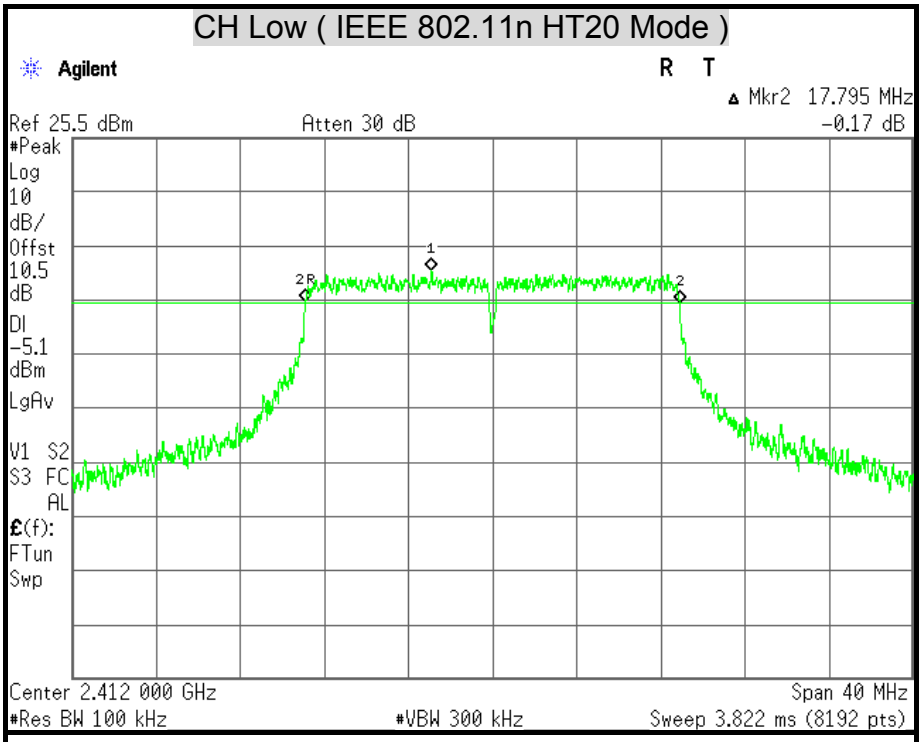
CH Middle (IEEE 802.11g Mode)



CH High (IEEE 802.11g Mode)



CH Low (IEEE 802.11n HT20 Mode)



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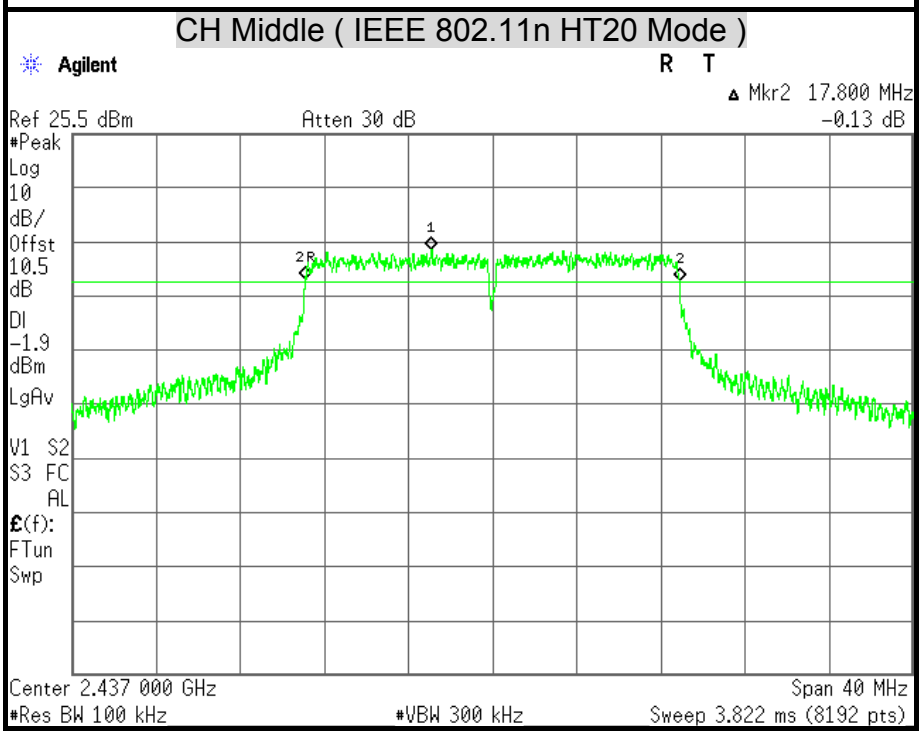

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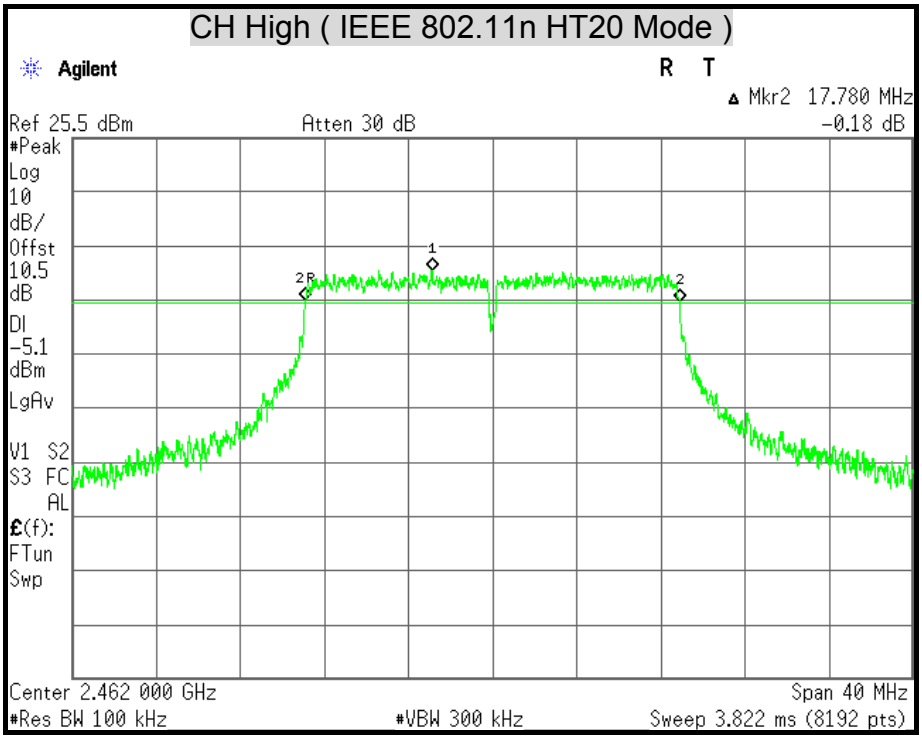
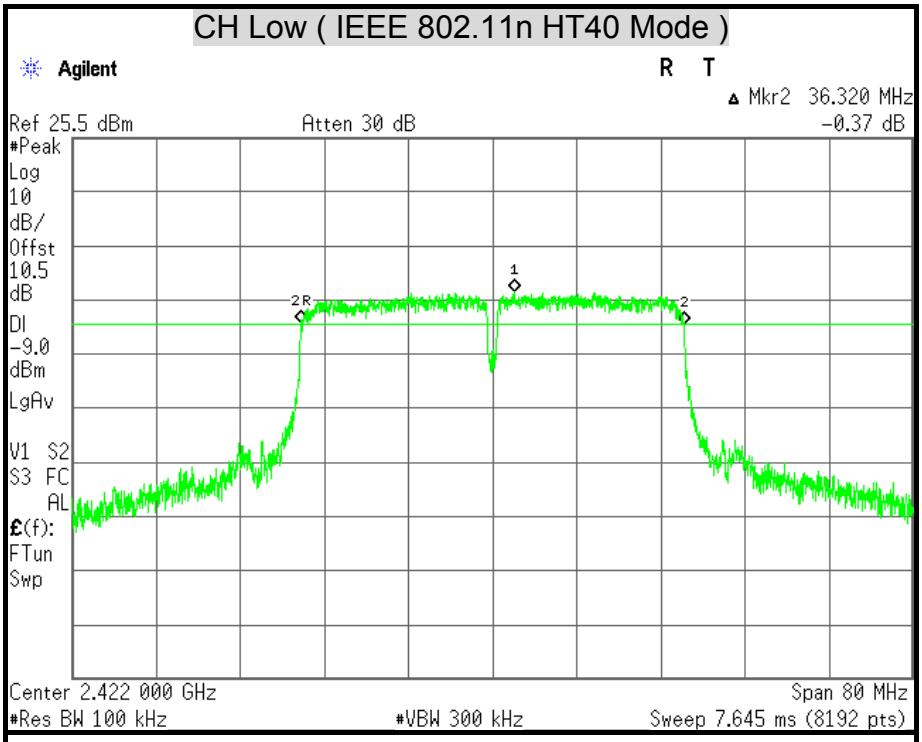


CH Low (IEEE 802.11n HT40 Mode)



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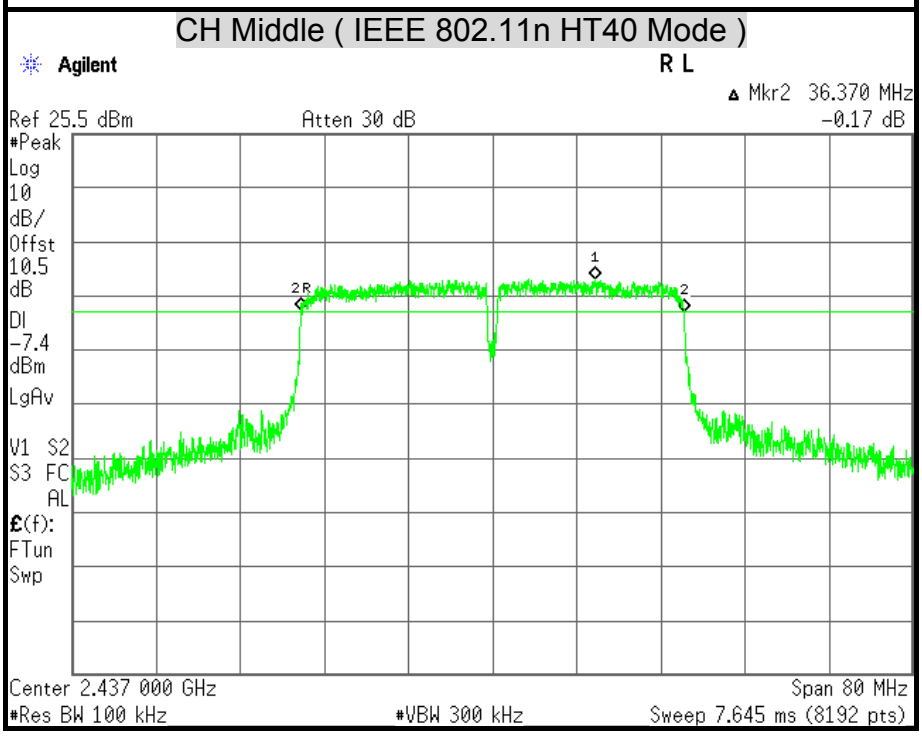
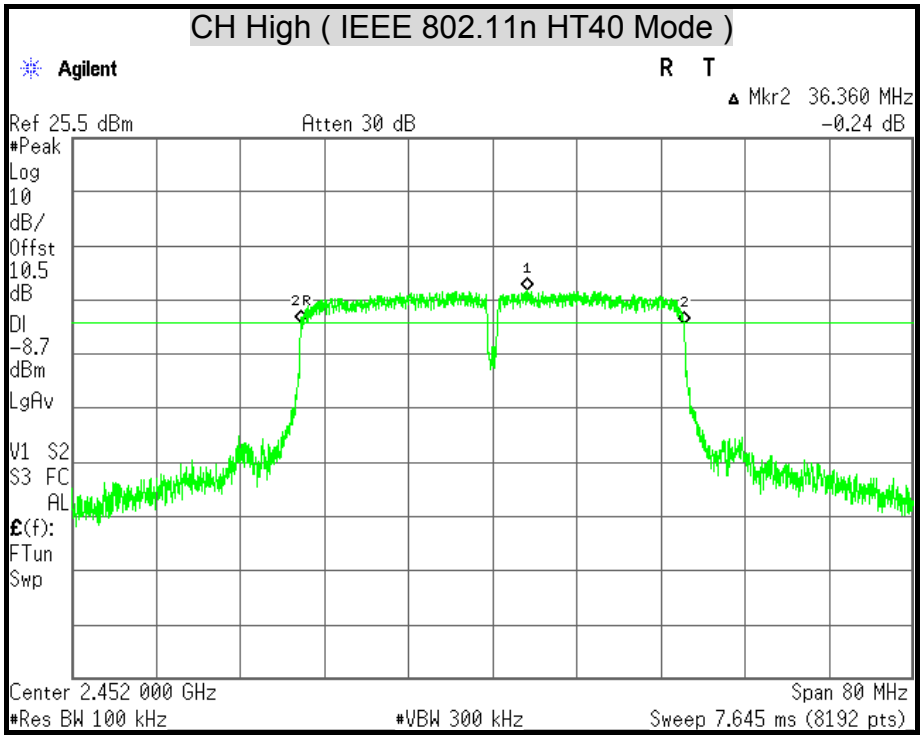


CH High (IEEE 802.11n HT40 Mode)



7.2 MAXIMUM PEAK OUTPUT POWER

LIMITS

§ 15.247(b) The maximum peak output power of the intentional radiator shall not exceed the following :

§ 15.247(b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands : 1 watt.

§ 15.247(b) (4) Except as shown in paragraphs (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used the peak output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1) or (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Power Meter	Anritsu	ML2495A	1149001	12/06/2014
Power Sensor	Anritsu	MA2411B	1126148	12/06/2014

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

The transmitter output is connected to the Power Meter. The Power Meter is set to the peak power detection.

TEST RESULTS

IEEE 802.11b Mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2412	21.94	0.1563	30	1	PASS
Middle	2437	24.27	0.2673	30	1	PASS
High	2462	22.06	0.1607	30	1	PASS

Remark:

1. At finial test to get the worst-case emission at 1Mbps.
2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11g Mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2412	21.90	0.1549	30	1	PASS
Middle	2437	25.42	0.3483	30	1	PASS
High	2462	22.21	0.1663	30	1	PASS

Remark:

1. At finial test to get the worst-case emission at 6Mbps.
2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11n HT20 Mode

Channel	Channel Frequency (MHz)	Peak Power (dBm)		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2412	21.60	0.1445	30	1	PASS
Middle	2437	25.13	0.3258	30	1	PASS
High	2462	22.24	0.1675	30	1	PASS

Remark:

1. At finial test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11n HT40 Mode

Channel	Channel Frequency (MHz)	Peak Power (dBm)		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2422	21.09	0.1285	30	1	PASS
Middle	2437	22.83	0.1919	30	1	PASS
High	2452	21.00	0.1259	30	1	PASS

Remark:

1. At finial test to get the worst-case emission at 13.5Mbps.
2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

7.3 AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Power Meter	ANRITSU	ML2495A	1149001	12/06/2014
Power Sensor	ANRITSU	MA2411B	1126148	12/06/2014

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

The transmitter output is connected to the Power Meter. The Power Meter is set to the average power detection.

TEST RESULTS

IEEE 802.11b Mode

Channel	Channel Frequency (MHz)	Average Power (dBm)
Low	2412	18.96
Middle	2437	21.13
High	2462	19.12

Remark:

1. At finial test to get the worst-case emission at 1Mbps.

2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11g Mode

Channel	Channel Frequency (MHz)	Average Power (dBm)
Low	2412	14.98
Middle	2437	18.47
High	2462	15.27

Remark:

1. At finial test to get the worst-case emission at 6Mbps.

2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11n HT20 Mode

Channel	Channel Frequency (MHz)	Average Power Output (dBm)
Low	2412	14.30
Middle	2437	17.95
High	2462	14.99

Remark:

1. *At finial test to get the worst-case emission at 6.5Mbps.*
2. *The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*

IEEE 802.11n HT40 Mode

Channel	Channel Frequency (MHz)	Average Power (dBm)
Low	2422	14.02
Middle	2437	15.80
High	2452	13.94

Remark:

1. *At finial test to get the worst-case emission at 13.5Mbps.*
2. *The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*

7.4 POWER SPECTRAL DENSITY

LIMITS

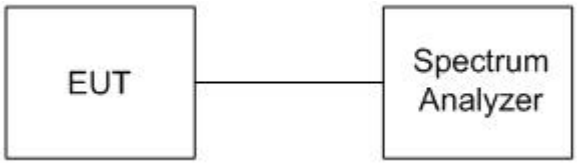
§ 15.247(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP



TEST PROCEDURE

1. The transmitter output was connected to the spectrum analyzer.
2. Set analyzer center frequency to DTS channel center frequency.
3. Set the span to 1.5 times the DTS channel bandwidth.
4. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
5. Set the VBW ≥ 3 x RBW.
6. Detector = peak.
7. Sweep time = auto couple.
8. Trace mode = max hold.
9. Allow trace to fully stabilize.
10. Use the peak marker function to determine the maximum amplitude level within the RBW.
11. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

TEST RESULTS

IEEE 802.11b Mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2412	-10.06	8	PASS
Middle	2437	-6.65	8	PASS
High	2462	-10.12	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 1Mbps.*
2. *The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.*

IEEE 802.11g Mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2412	-13.49	8	PASS
Middle	2437	-9.70	8	PASS
High	2462	-13.21	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 6Mbps.*
2. *The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.*

IEEE 802.11n HT20 Mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2412	-13.58	8	PASS
Middle	2437	-10.06	8	PASS
High	2462	-13.21	8	PASS

Remark:

1. At finial test to get the worst-case emission at 6.5Mbps.

2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

IEEE 802.11n HT40 Mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2422	-14.93	8	PASS
Middle	2437	-14.89	8	PASS
High	2452	-15.18	8	PASS

Remark:

1. At finial test to get the worst-case emission at 13.5Mbps.

2. The cable assembly insertion loss of 10.5 dB (including 10 dB pad and 0.5 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.

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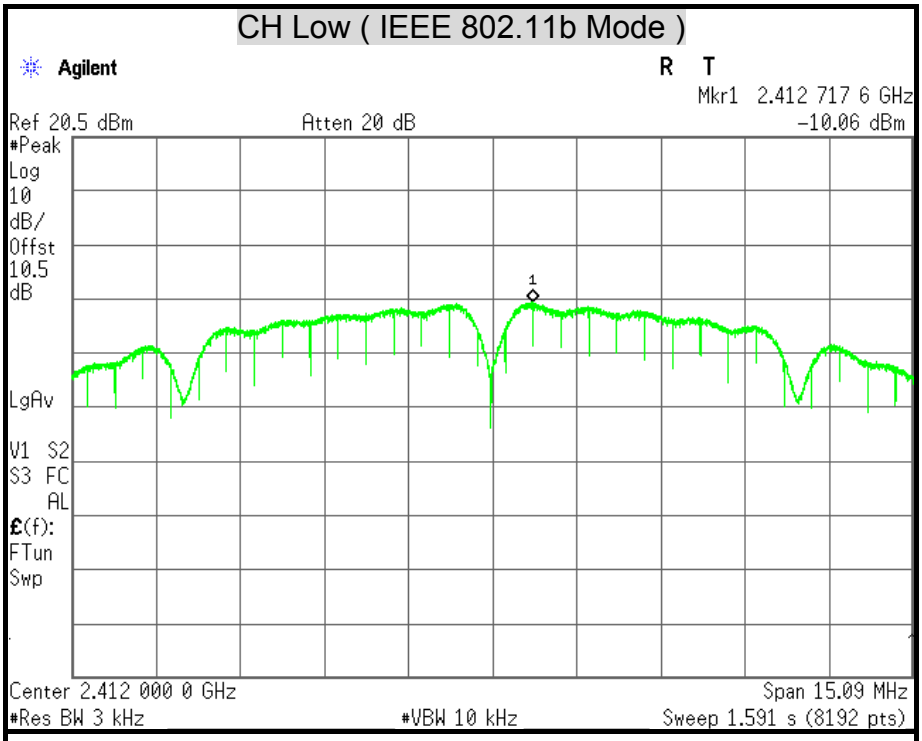
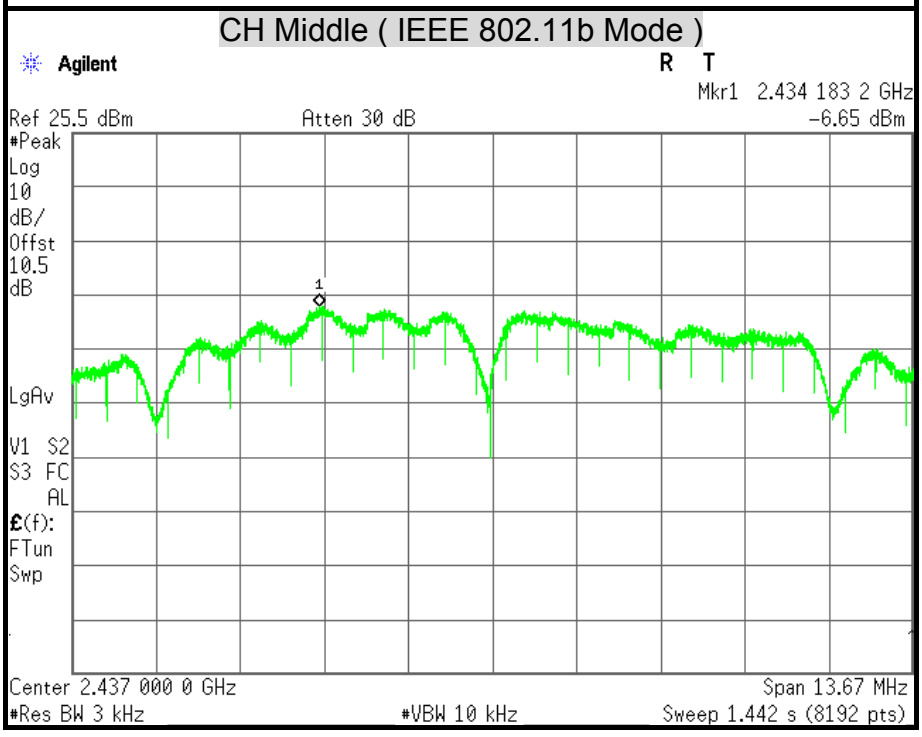
POWER SPECTRAL DENSITY

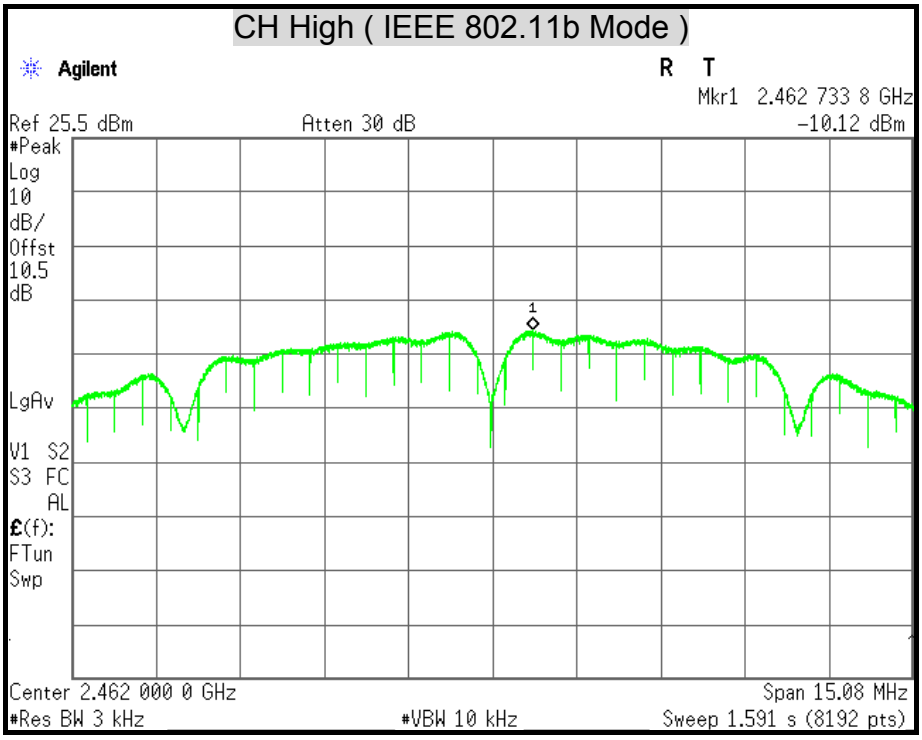
CH Low (IEEE 802.11b Mode)



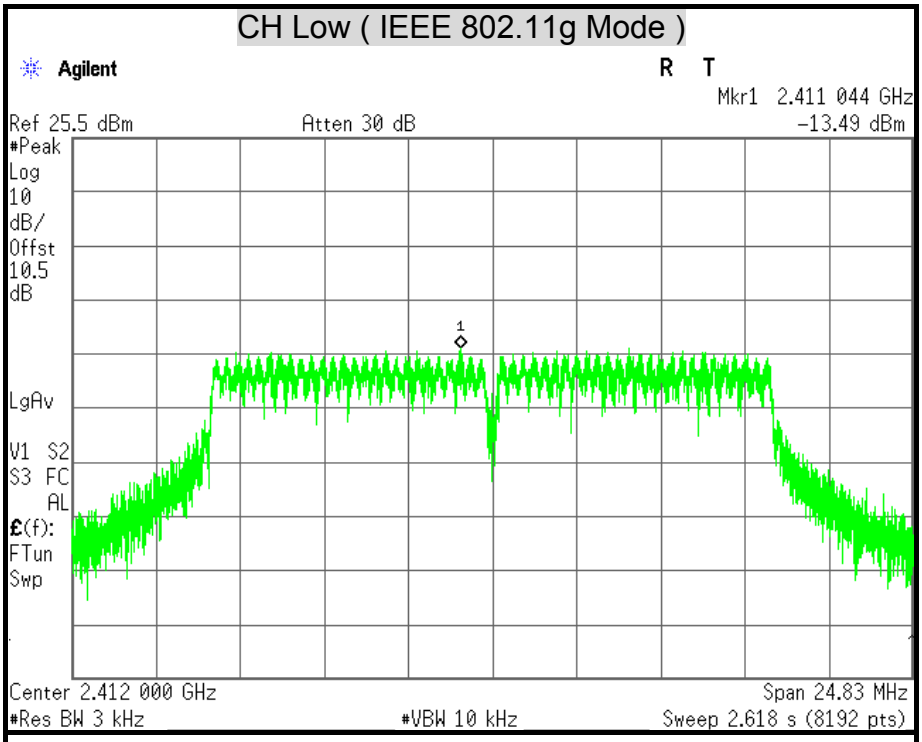
CH Middle (IEEE 802.11b Mode)



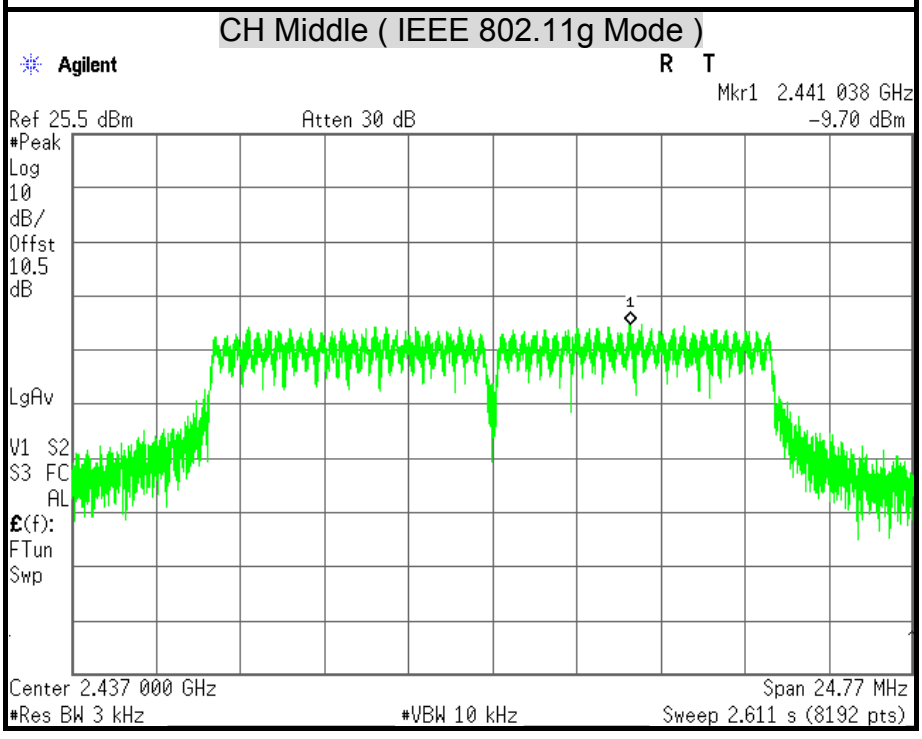
CH High (IEEE 802.11b Mode)



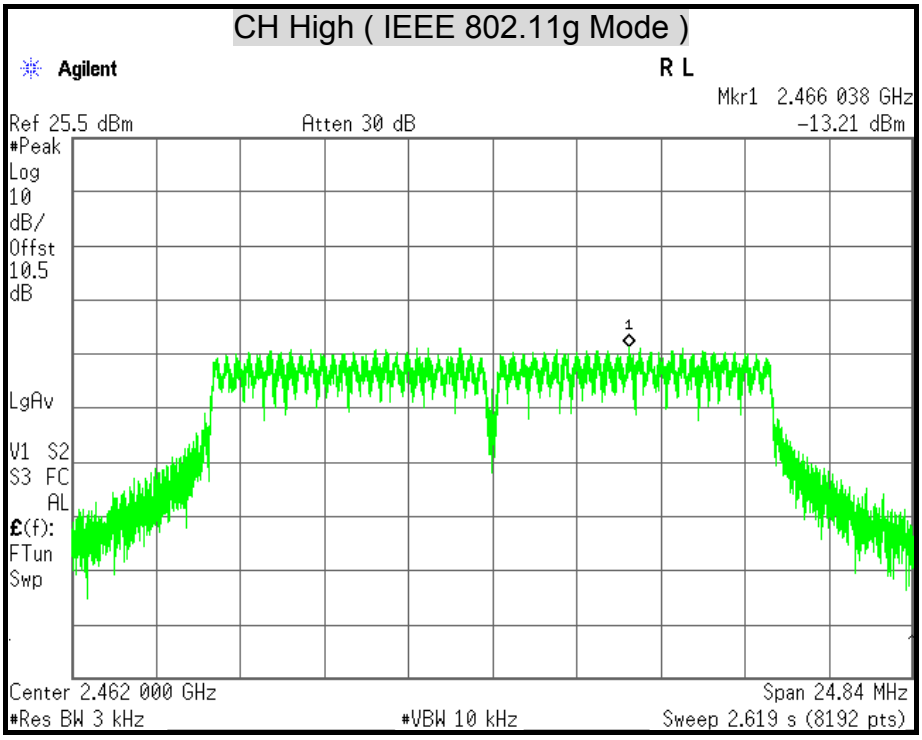
CH Low (IEEE 802.11g Mode)



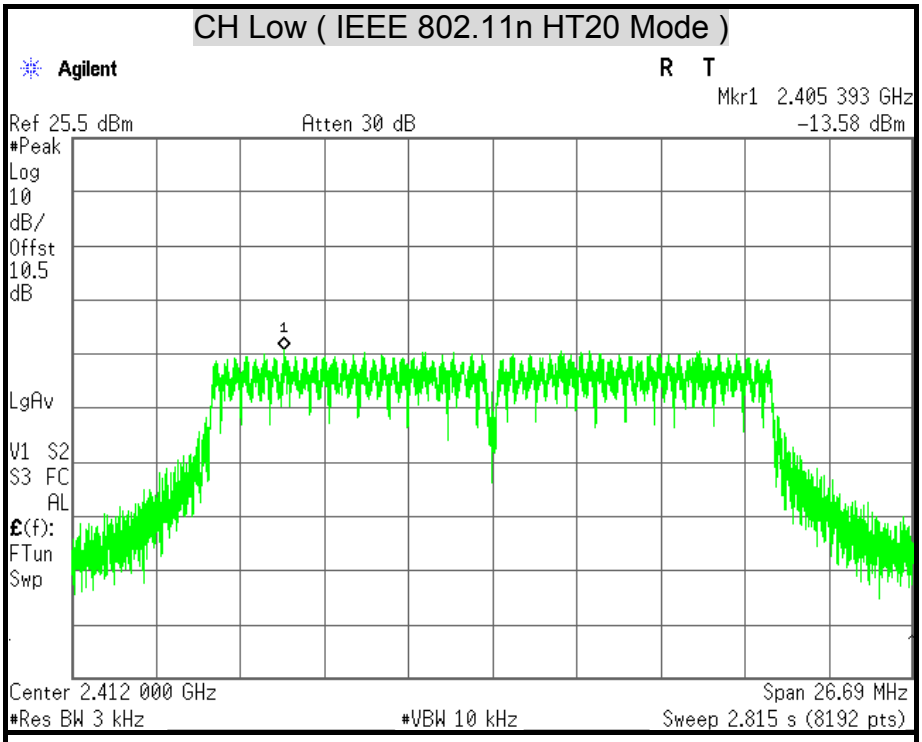
CH Middle (IEEE 802.11g Mode)



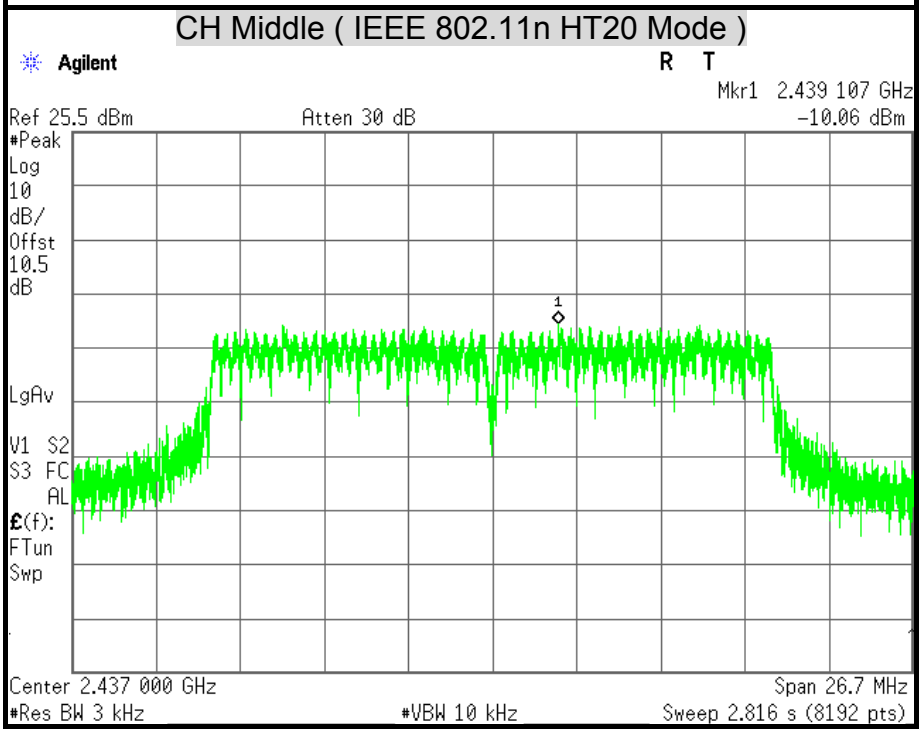
CH High (IEEE 802.11g Mode)



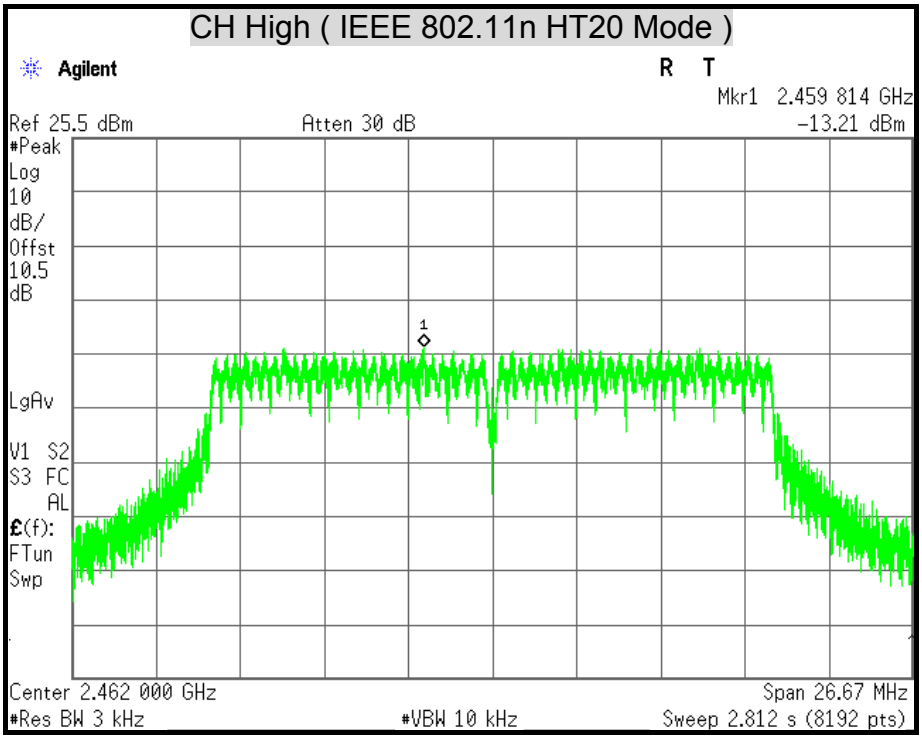
CH Low (IEEE 802.11n HT20 Mode)



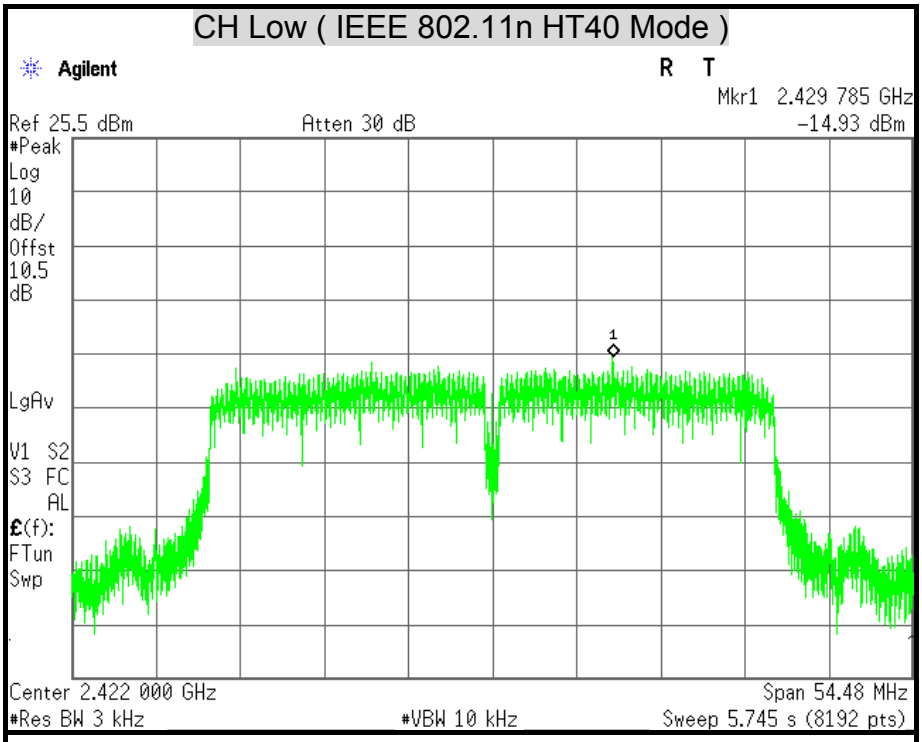
CH Middle (IEEE 802.11n HT20 Mode)



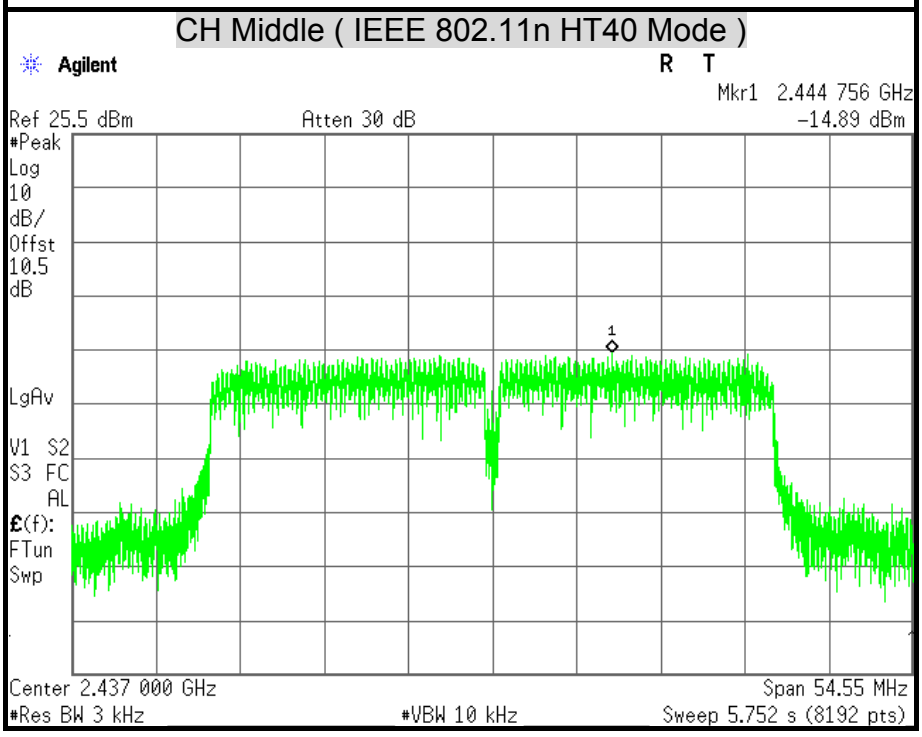
CH High (IEEE 802.11n HT20 Mode)



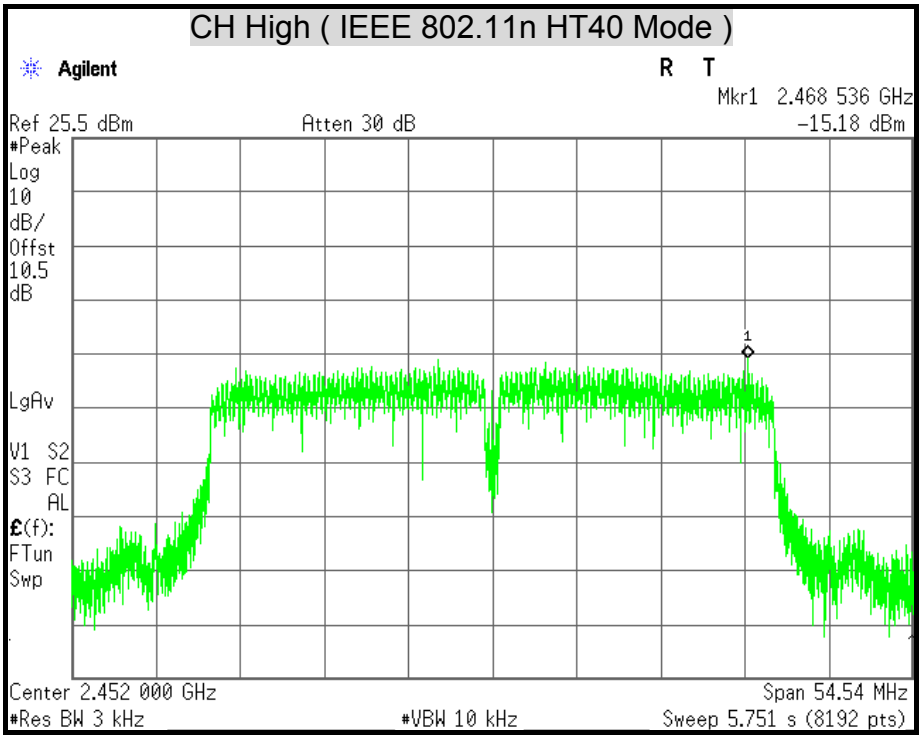
CH Low (IEEE 802.11n HT40 Mode)



CH Middle (IEEE 802.11n HT40 Mode)



CH High (IEEE 802.11n HT40 Mode)



7.5 CONDUCTED SPURIOUS EMISSION

LIMITS

§ 15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the and 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)).

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2014

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP

TEST PROCEDURE

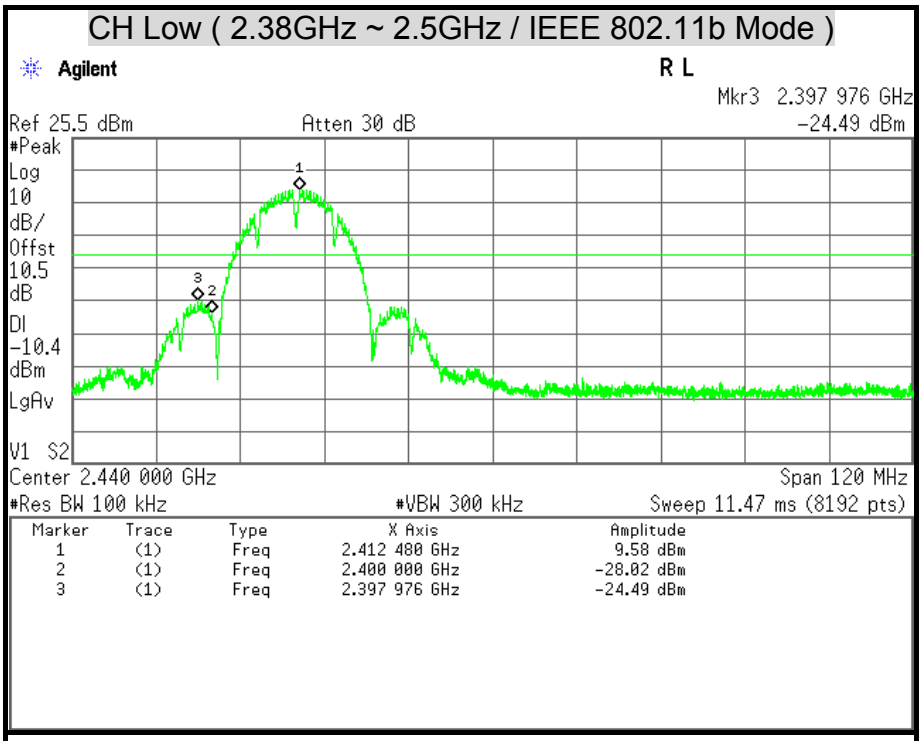
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

The spectrum from 30 MHz to 26.5 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

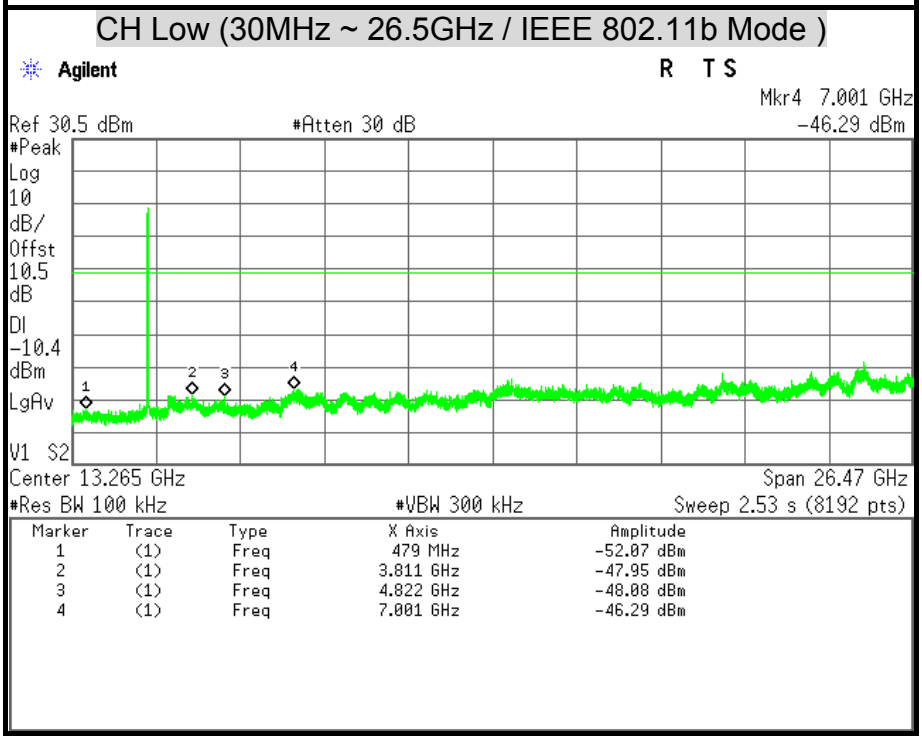
TEST RESULTS

OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

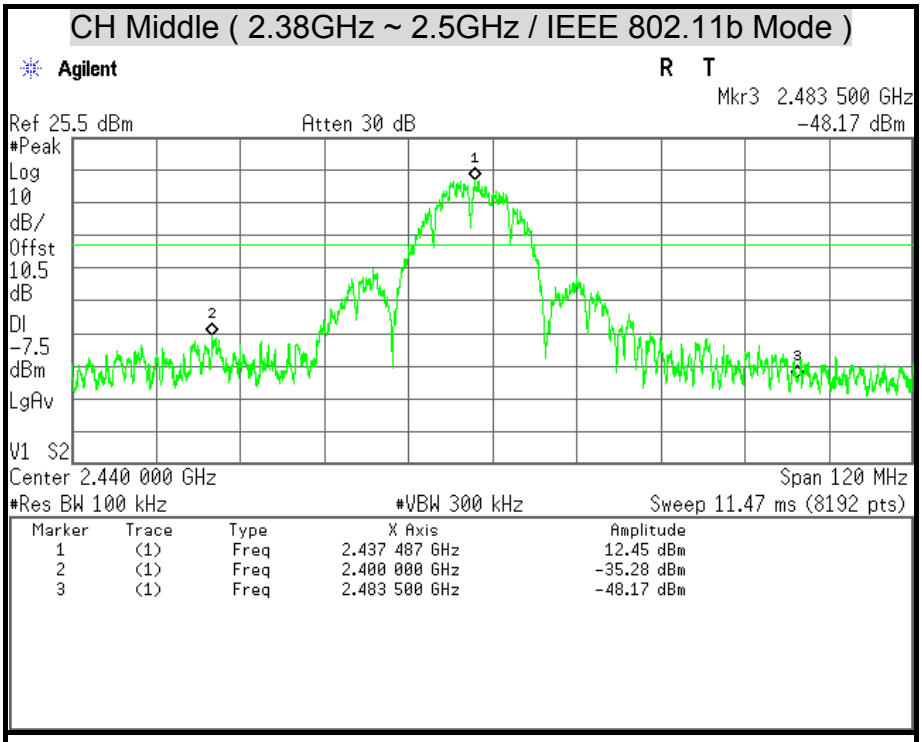
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode)



CH Low (30MHz ~ 26.5GHz / IEEE 802.11b Mode)

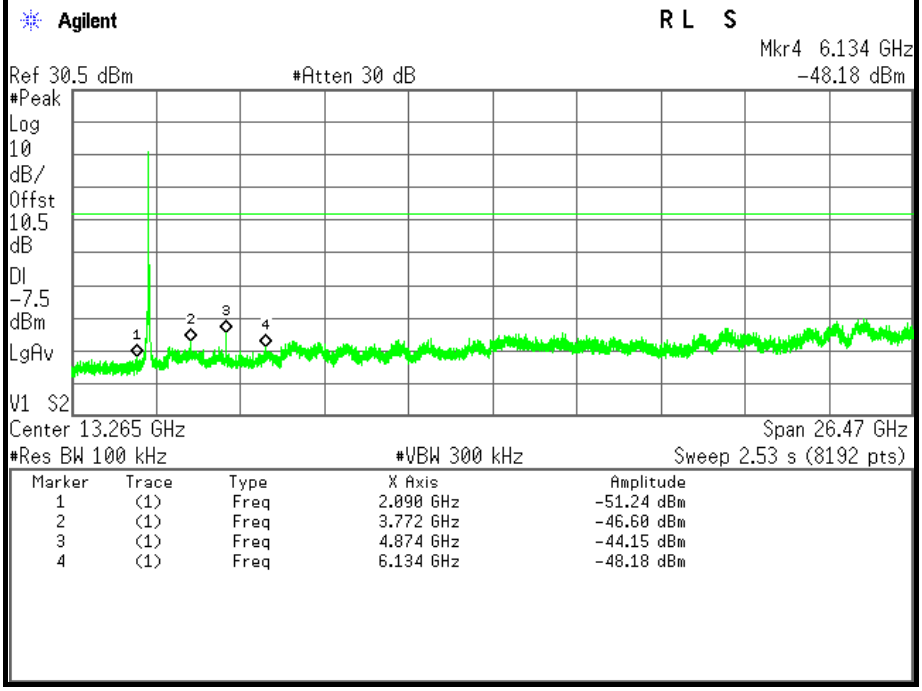


CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode)



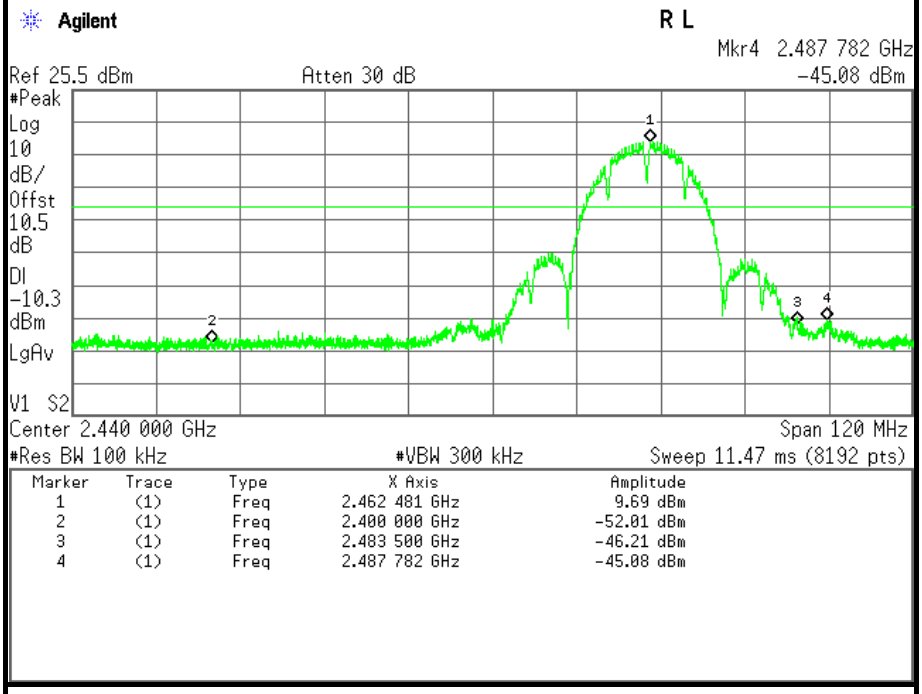
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.437 487 GHz	12.45 dBm
2	(1)	Freq	2.400 000 GHz	-35.28 dBm
3	(1)	Freq	2.483 500 GHz	-48.17 dBm

CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b Mode)



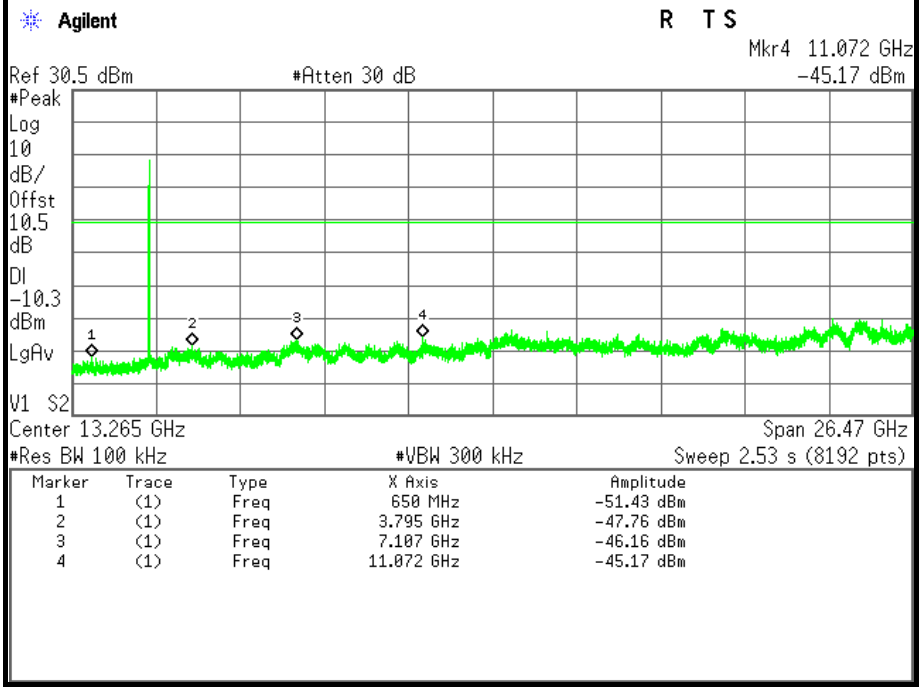
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.090 GHz	-51.24 dBm
2	(1)	Freq	3.772 GHz	-46.60 dBm
3	(1)	Freq	4.874 GHz	-44.15 dBm
4	(1)	Freq	6.134 GHz	-48.18 dBm

CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode)



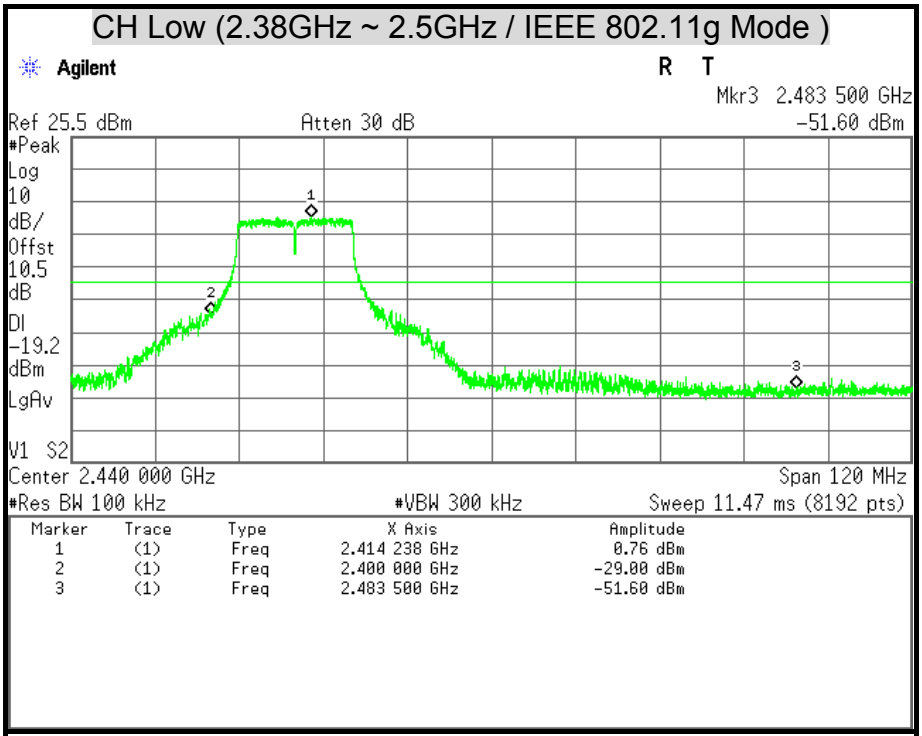
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.462 481 GHz	9.69 dBm
2	(1)	Freq	2.400 000 GHz	-52.01 dBm
3	(1)	Freq	2.483 500 GHz	-46.21 dBm
4	(1)	Freq	2.487 782 GHz	-45.08 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11b Mode)



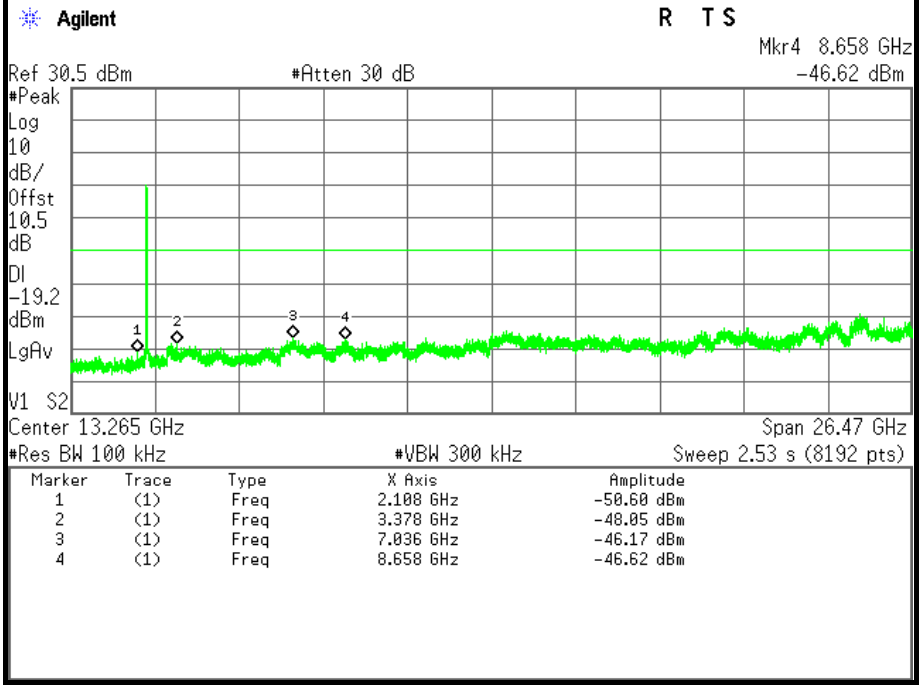
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	650 MHz	-51.43 dBm
2	(1)	Freq	3.795 GHz	-47.76 dBm
3	(1)	Freq	7.107 GHz	-46.16 dBm
4	(1)	Freq	11.072 GHz	-45.17 dBm

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode)



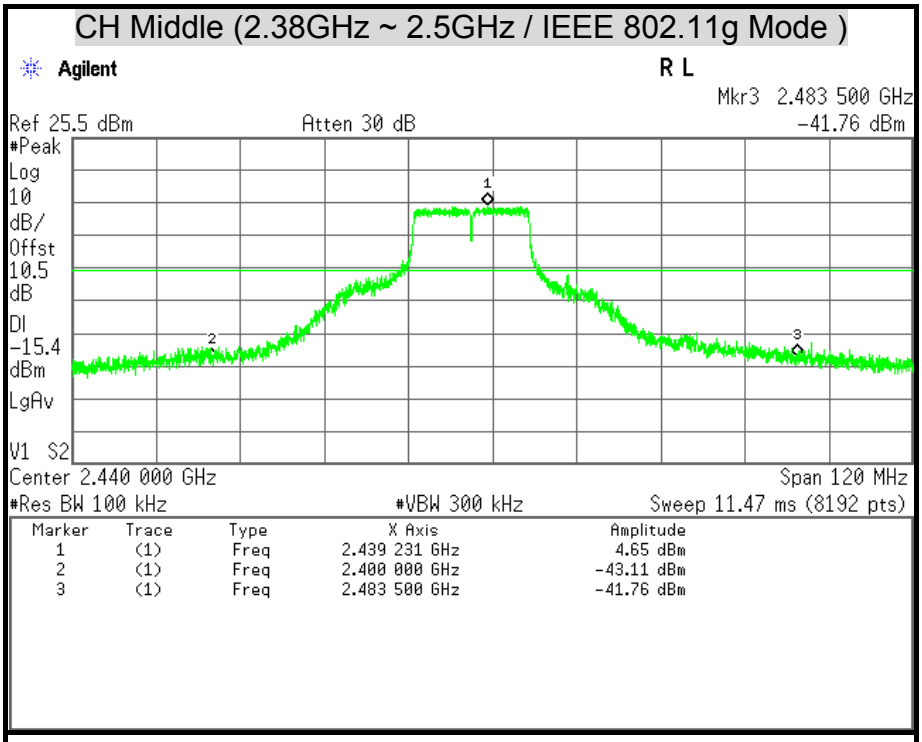
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.414 238 GHz	0.76 dBm
2	(1)	Freq	2.400 000 GHz	-29.00 dBm
3	(1)	Freq	2.483 500 GHz	-51.60 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11g Mode)

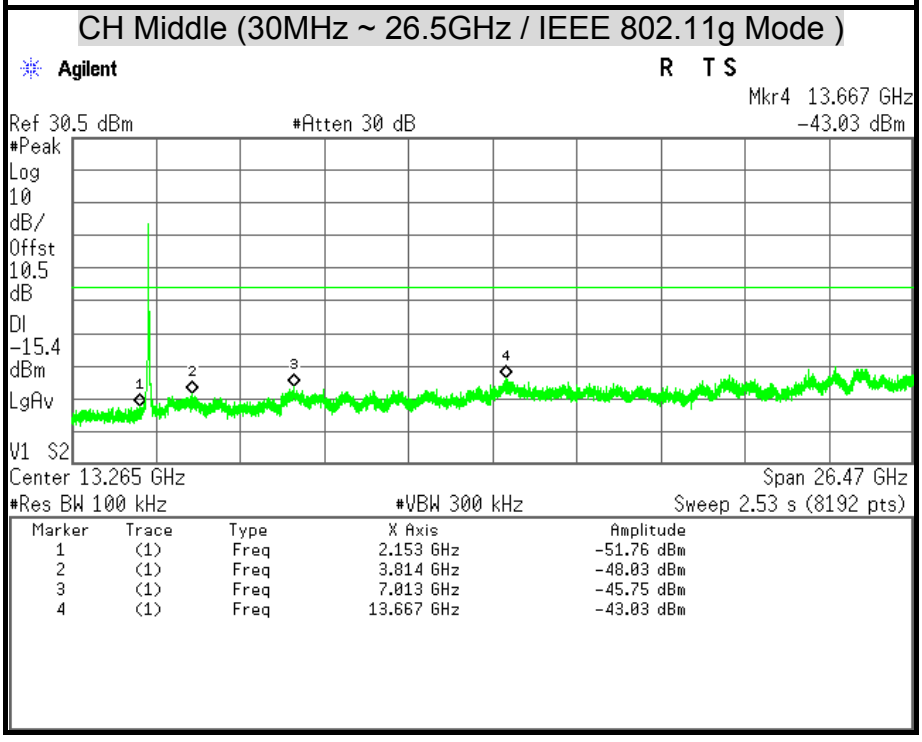


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.108 GHz	-50.60 dBm
2	(1)	Freq	3.378 GHz	-48.05 dBm
3	(1)	Freq	7.036 GHz	-46.17 dBm
4	(1)	Freq	8.658 GHz	-46.62 dBm

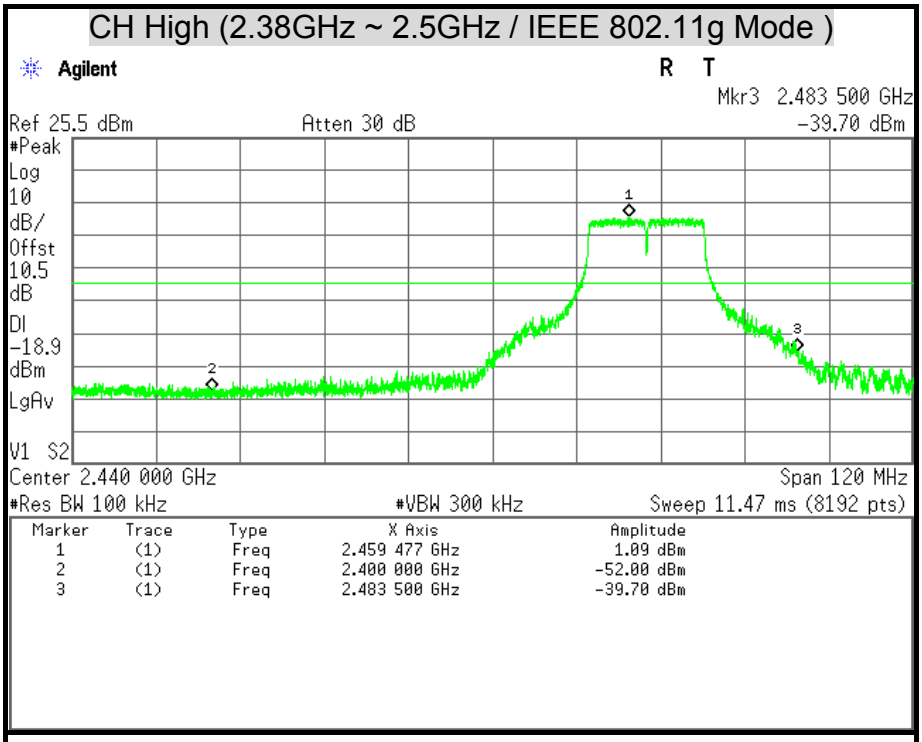
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode)



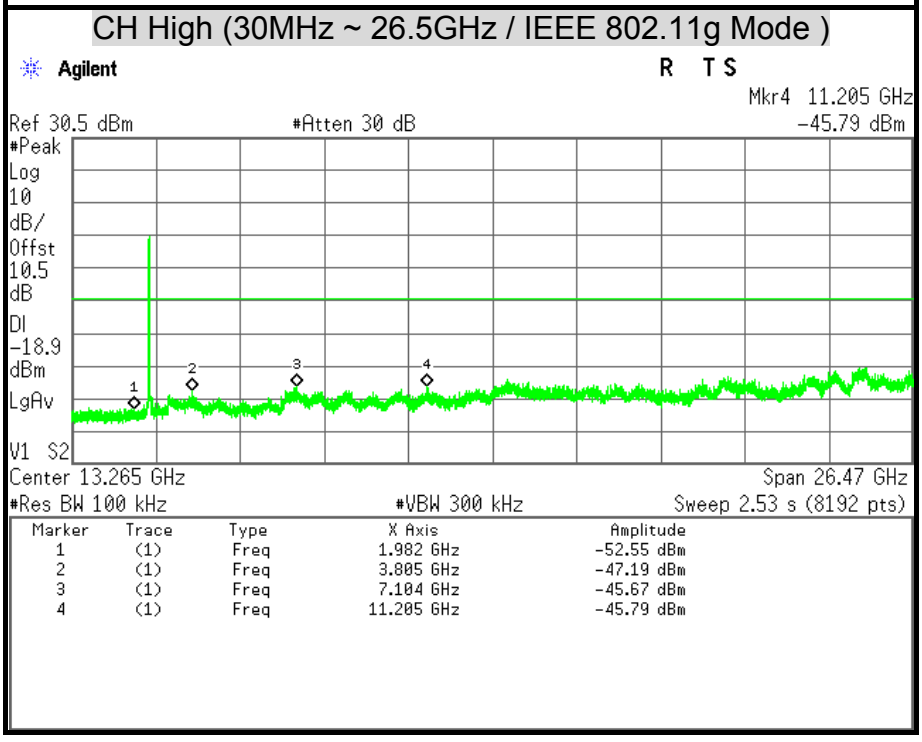
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11g Mode)



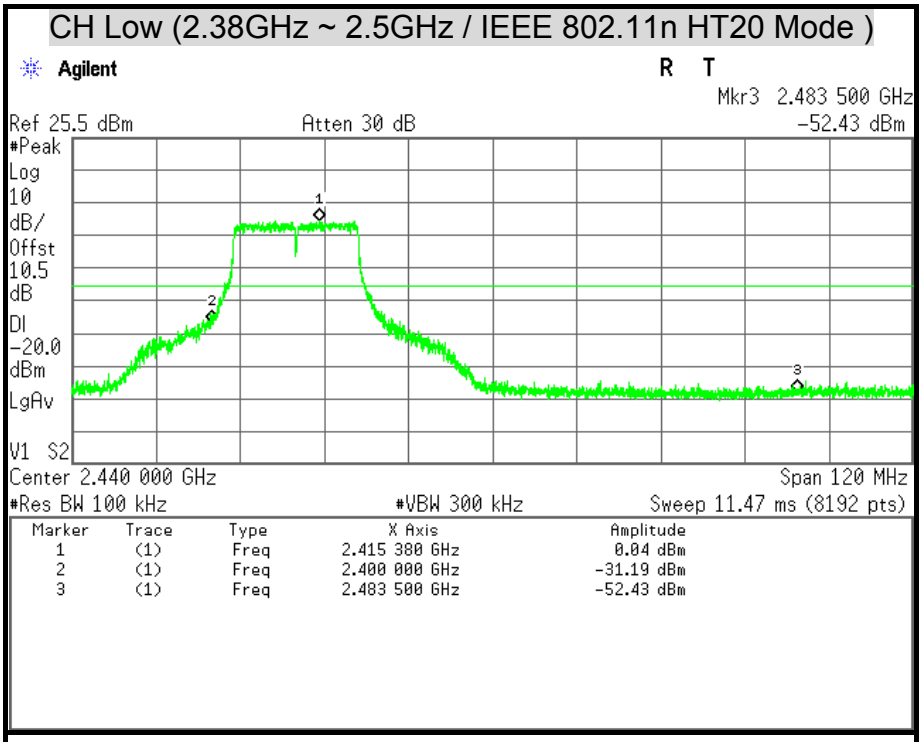
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode)



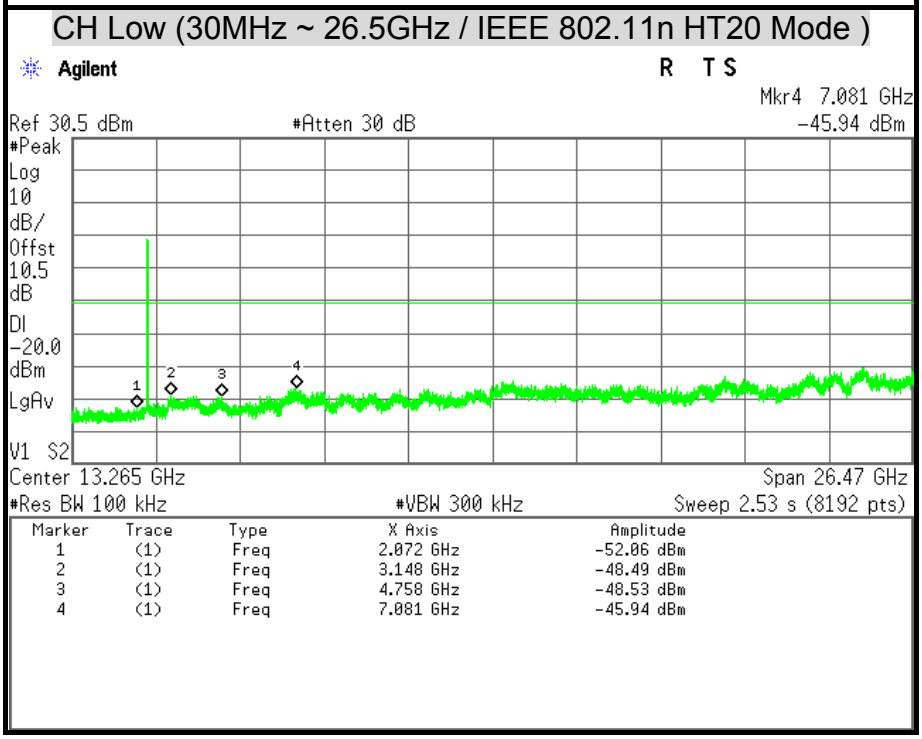
CH High (30MHz ~ 26.5GHz / IEEE 802.11g Mode)



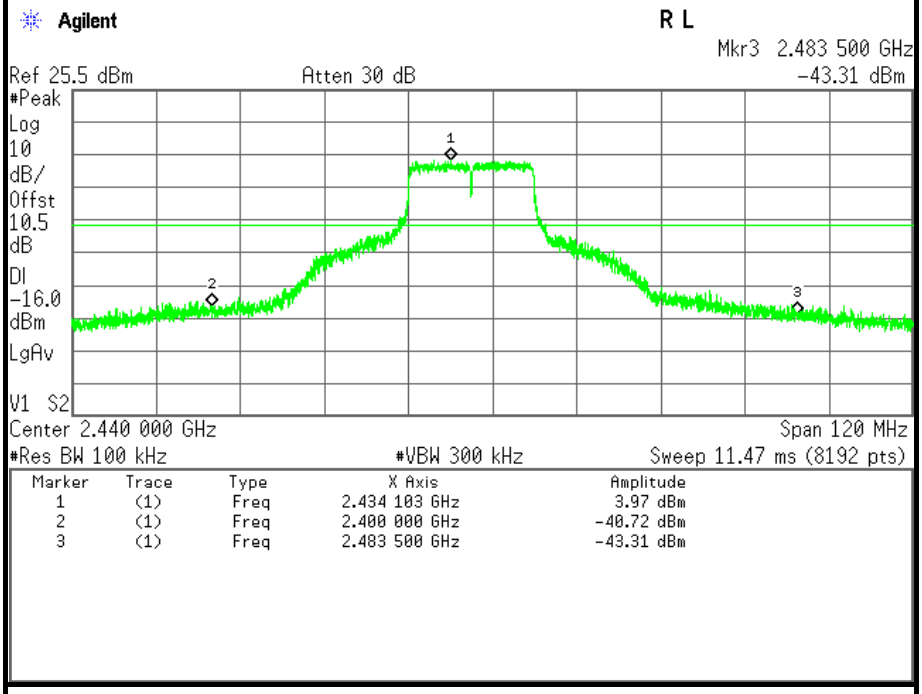
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11n HT20 Mode)



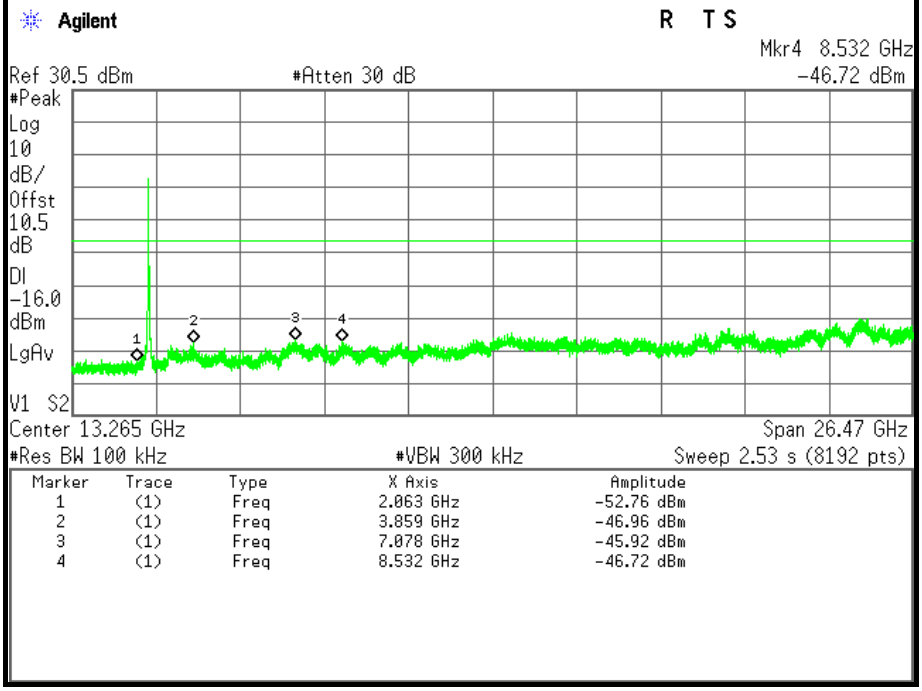
CH Low (30MHz ~ 26.5GHz / IEEE 802.11n HT20 Mode)



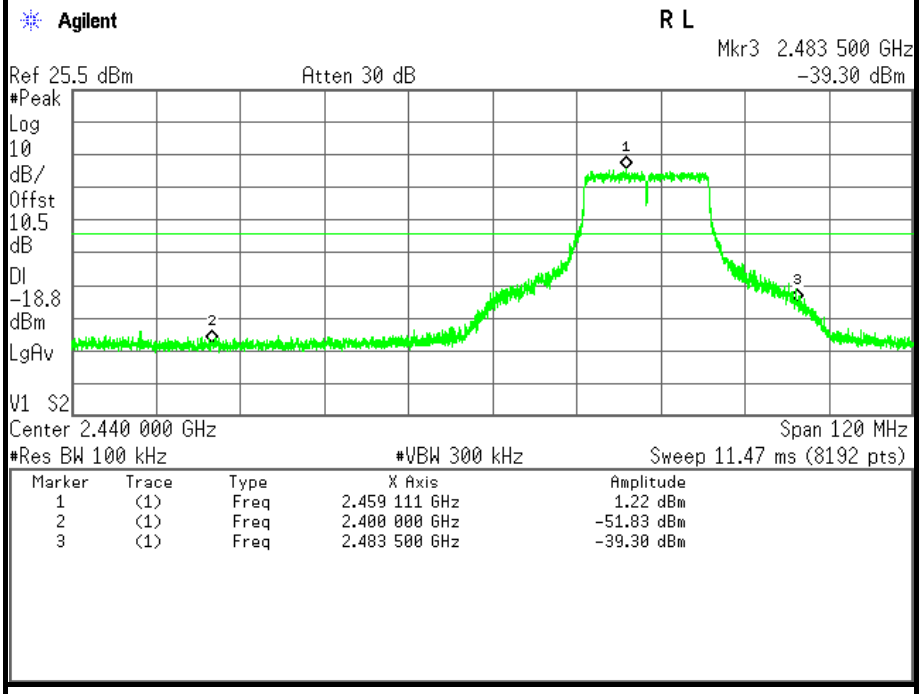
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11n HT20 Mode)



CH Middle (30MHz ~ 26.5GHz / IEEE 802.11n HT20 Mode)

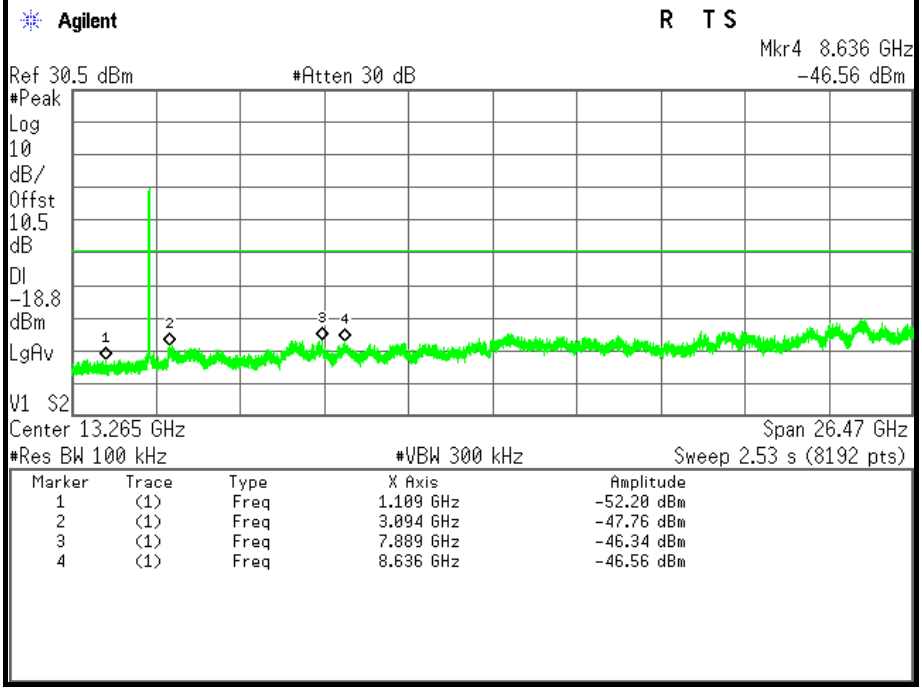


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11n HT20 Mode)



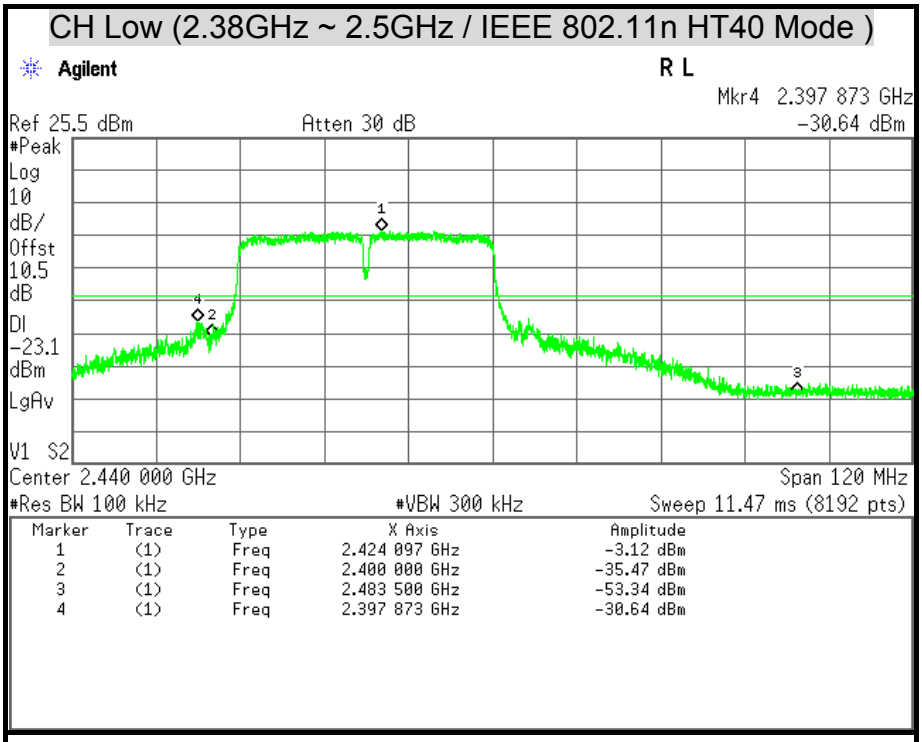
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.459 111 GHz	1.22 dBm
2	(1)	Freq	2.400 000 GHz	-51.83 dBm
3	(1)	Freq	2.483 500 GHz	-39.30 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11n HT20 Mode)

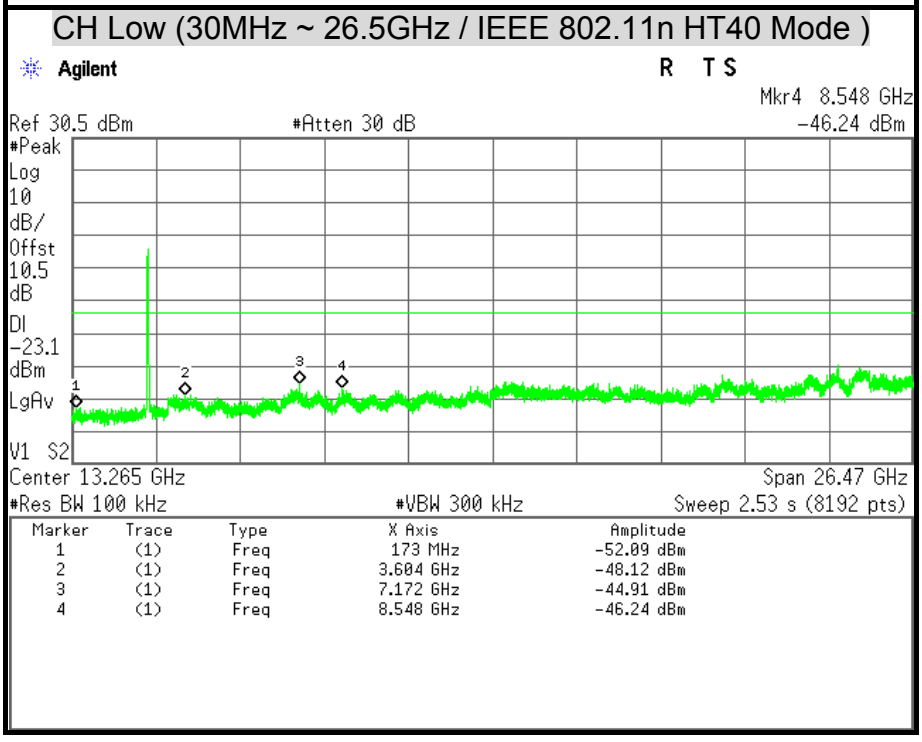


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.109 GHz	-52.20 dBm
2	(1)	Freq	3.094 GHz	-47.76 dBm
3	(1)	Freq	7.889 GHz	-46.34 dBm
4	(1)	Freq	8.636 GHz	-46.56 dBm

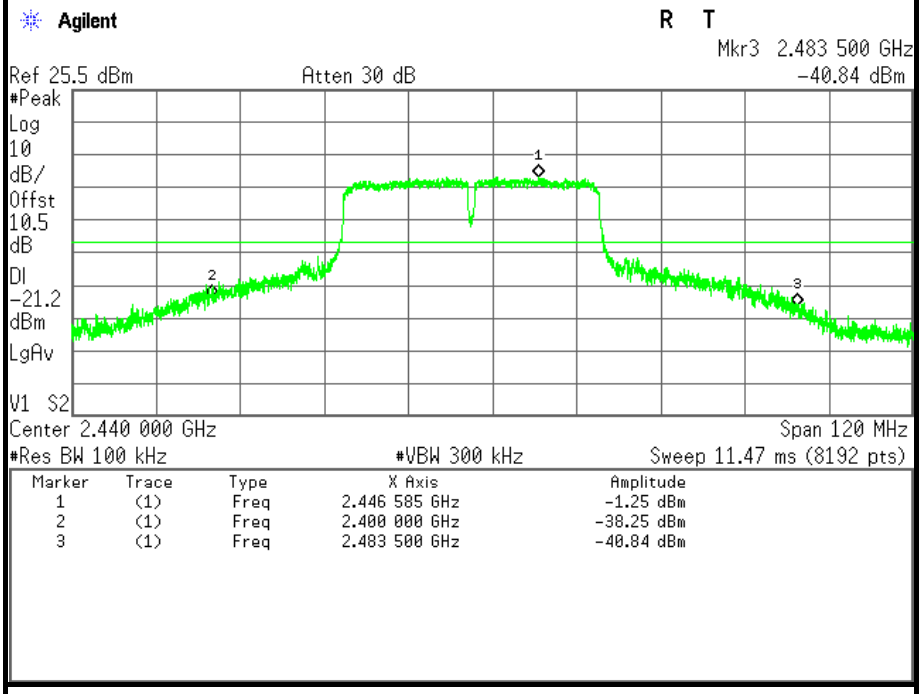
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11n HT40 Mode)



CH Low (30MHz ~ 26.5GHz / IEEE 802.11n HT40 Mode)

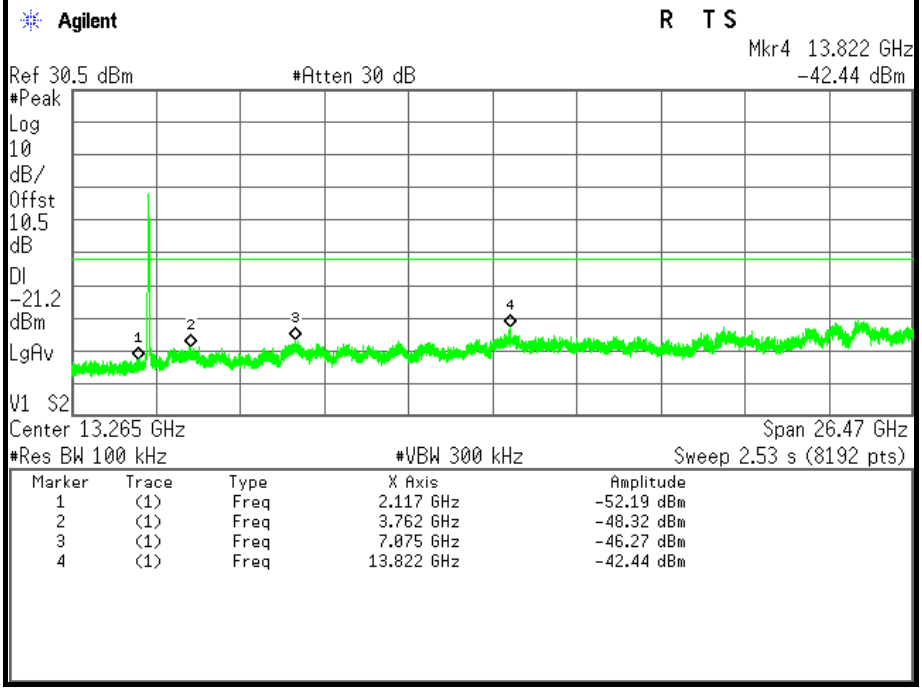


CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11n HT40 Mode)



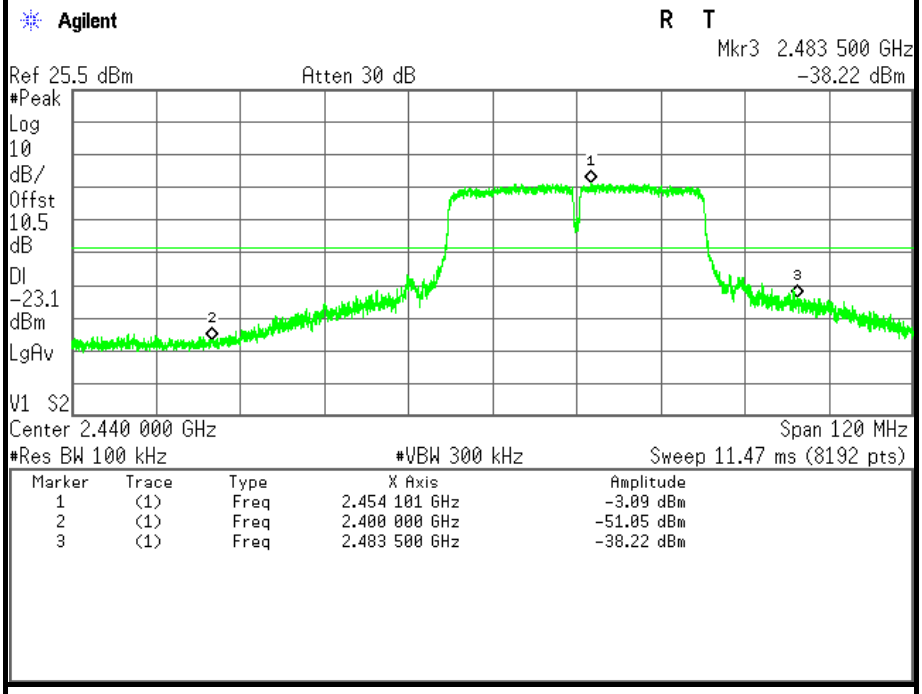
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.446 585 GHz	-1.25 dBm
2	(1)	Freq	2.400 000 GHz	-38.25 dBm
3	(1)	Freq	2.483 500 GHz	-40.84 dBm

CH Middle (30MHz ~ 26.5GHz / IEEE 802.11n HT40 Mode)

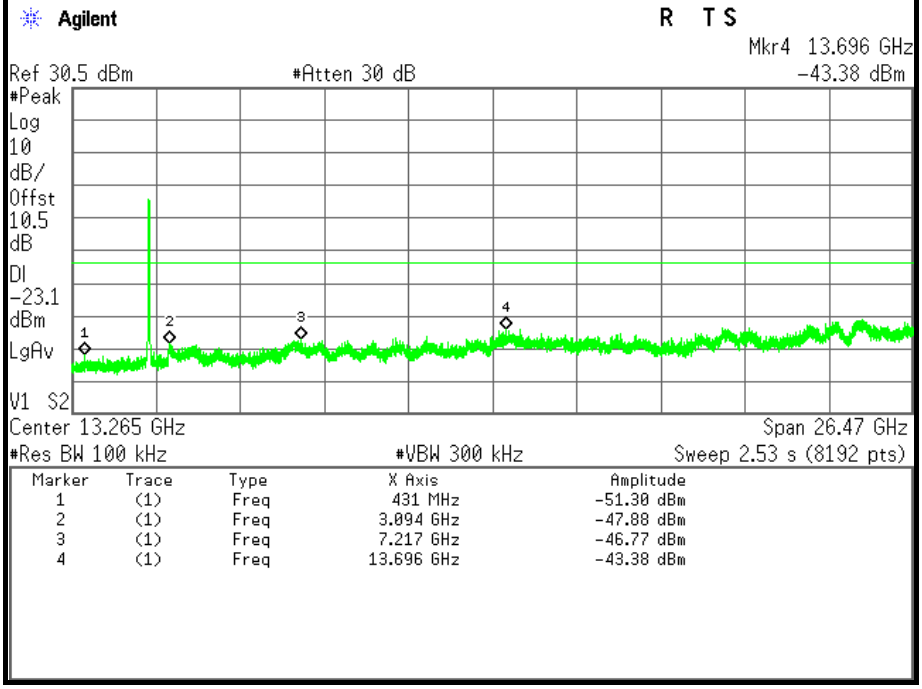


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.117 GHz	-52.19 dBm
2	(1)	Freq	3.762 GHz	-48.32 dBm
3	(1)	Freq	7.075 GHz	-46.27 dBm
4	(1)	Freq	13.822 GHz	-42.44 dBm

CH High (2.38GHz ~ 2.5GHz / IEEE 802.11n HT40 Mode)



CH High (30MHz ~ 26.5GHz / IEEE 802.11n HT40 Mode)



7.7 RADIATED EMISSION

LIMITS

(1) According to § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
[1]0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 -1710	10.6 -12.7
6.26775 - 6.26825	108 -121.94	1718.8 - 1722.2	13.25 -13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 – 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 -16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 -335.4	3600 - 4400	([2])
13.36 - 13.41			

Remark:
1. [1] Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
2. [2] Above 38.6

(2) According to § 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown is Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

(3) According to § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table :

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(KHz)	300
0.490 – 1.705	24000/F(KHz)	30
1.705 – 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

Remark: ***Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.*

(4) According to § 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

TEST EQUIPMENT

Radiated Emission / 966Chamber_B (For Ant 2 Test)

Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/15/2014
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101387	10/09/2014
Bi-log Antenna	SCHWARZBECK	VULB 9168	9168-250	09/12/2014
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-778	09/12/2014
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	12/05/2014
Horn Antenna	COM-POWER	AH-840	03077	12/18/2014
Pre-Amplifier	Agilent	8447D	2944A10052	07/16/2014
Pre-Amplifier	Agilent	8449B	3008A01916	07/16/2014
LOOP Antenna	EMCO	6502	8905-2356	08/20/2014
Notch Filters Band Reject	Micro-Tronics	BRM05702-01	026	N.C.R

Remark: *1. Each piece of equipment is scheduled for calibration once a year.*
2. N.C.R = No Calibration Request.

Radiated Emission / 966Chamber_B (For Ant 1 Test)

Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/14/2016
EMI Test Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/14/2015
Bi-log Antenna	TESEQ	CBL 6112D	35403	02/24/2016
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	12/02/2015
Horn Antenna	COM-POWER	AH-840	03077	12/17/2015
Pre-Amplifier	Agilent	8447D	2944A10052	07/14/2016
Pre-Amplifier	Agilent	8449B	3008A01916	07/14/2016
LOOP Antenna	COM-POWER	AL-130	121060	05/24/2016
Notch Filters Band Reject	Micro-Tronics	BRM05702-01	026	N.C.R.

Remark: *1. Each piece of equipment is scheduled for calibration once a year.*
2. N.C.R = No Calibration Request.

Radiated Emission / 966Chamber_C (For Ant 1 Test)

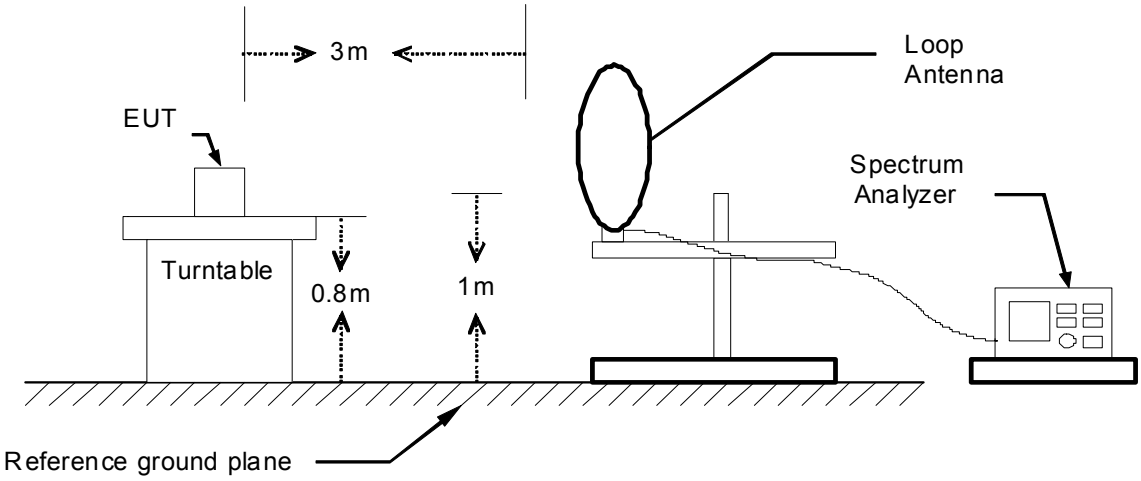
Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY45280064	03/26/2016
EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101387	10/05/2015
Bi-log Antenna	TESEQ	CBL 6112D	35404	02/24/2016
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078732	07/14/2016
Horn Antenna	COM-POWER	AH-840	03077	12/17/2015
Pre-Amplifier	EMCI	EMC001625	980243	04/12/2016
Pre-Amplifier	COM-POWER	PAM-118A	551043	04/12/2016
Notch Filters Band Reject	Micro-Tronics	BRM50702-01	009	N.C.R.

Remark: *1. Each piece of equipment is scheduled for calibration once a year.*
2. N.C.R = No Calibration Request.

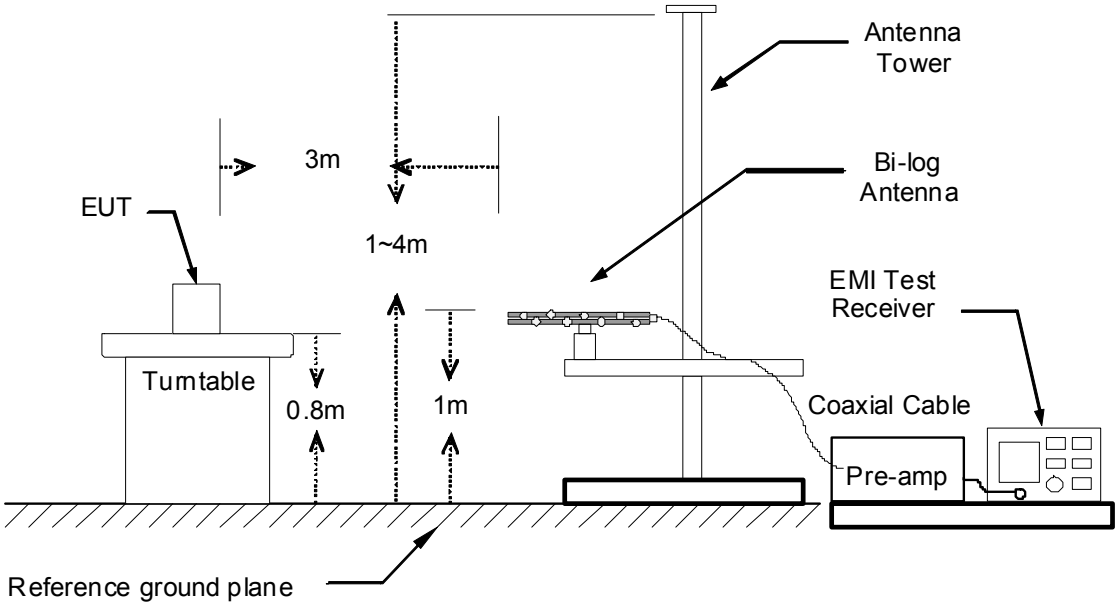
TEST SETUP

The diagram below shows the test setup that is utilized to make the measurements for emission from below 1GHz.

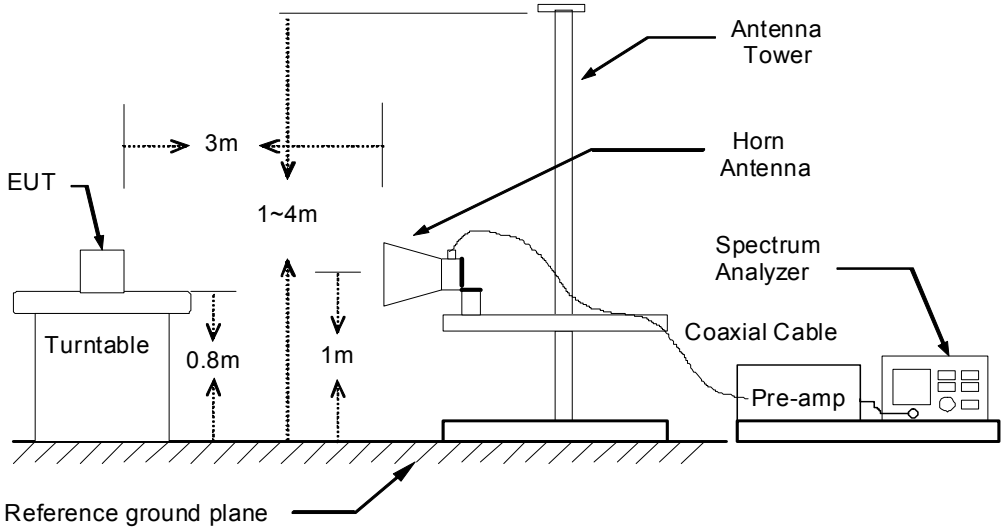
9kHz ~ 30MHz

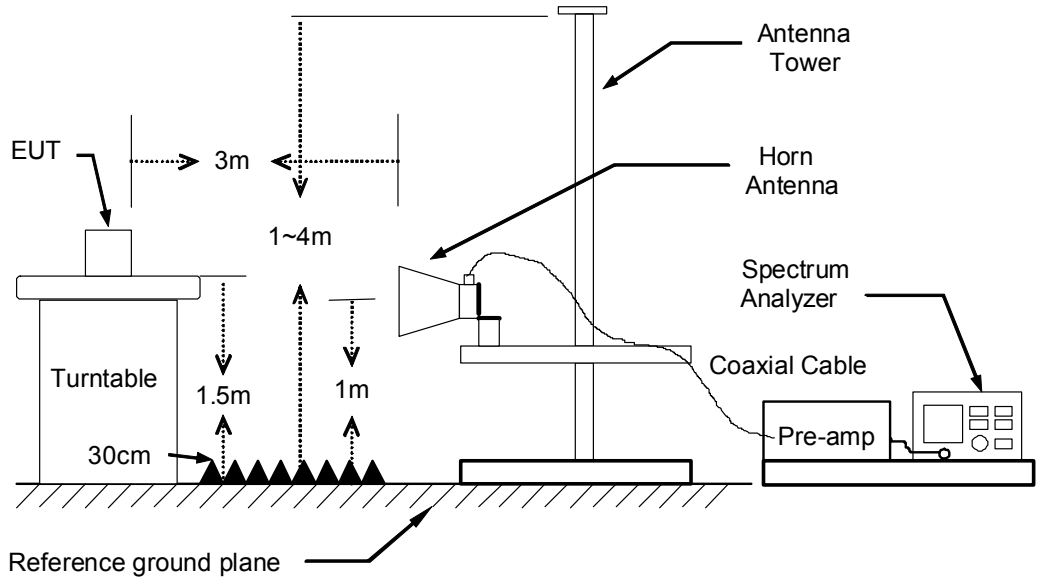


30MHz ~ 1GHz



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.





TEST PROCEDURE

1. The EUT was placed on the top of a rotating table 0.8 and 1.5 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna.
3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Remark：

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

TEST RESULTS

Below 1 GHz (9kHz ~ 30MHz)

No emission found between lowest internal used/generated frequency to 30MHz.

Below 1 GHz (30MHz ~ 1GHz)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-A1	Test Date	2014/01/18
Test Mode	Mode 1	Temp. & Humidity	18°C, 54%

966 Chamber_B at 3Meter / Horizontal						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
86.26	46.88	-19.48	27.40	40.00	-12.60	Peak
96.93	51.70	-19.04	32.66	43.50	-10.84	Peak
106.63	53.74	-17.79	35.94	43.50	-7.56	Peak
250.19	54.12	-13.71	40.40	46.00	-5.60	Peak
362.71	45.52	-10.65	34.88	46.00	-11.12	Peak
500.45	42.95	-8.19	34.76	46.00	-11.24	Peak
749.74	43.17	-3.58	39.59	46.00	-6.41	Peak
874.87	40.21	-1.64	38.58	46.00	-7.42	Peak

966 Chamber_B at 3Meter / Vertical						
Frequency (MHz)	Reading (dBμV)	Correction Factor (dB/m)	Result (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Remark
54.25	47.05	-13.92	33.13	40.00	-6.87	Peak
64.92	48.31	-15.17	33.15	40.00	-6.85	Peak
98.87	47.50	-18.78	28.72	43.50	-14.78	QP
106.63	55.30	-17.79	37.51	43.50	-5.99	QP
250.19	47.01	-13.71	33.30	46.00	-12.70	Peak
362.71	46.12	-10.65	35.48	46.00	-10.52	Peak
500.45	45.33	-8.19	37.14	46.00	-8.86	Peak
874.87	36.82	-1.64	35.18	46.00	-10.82	Peak

Remark:

1. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)*
4. *Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)*
5. *Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).*

Product Name	802.11b/g/n WiFi Module	Test By	Jey Li
Test Model	SA9800-C1	Test Date	2015/07/27
Test Mode	Mode 2	Temp. & Humidity	25°C, 50%

966 Chamber_B at 3Meter / Horizontal

Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
106.63	54.38	-15.94	38.44	43.50	-5.06	21	200	Peak
250.19	50.42	-13.25	37.17	46.00	-8.83	51	100	Peak
329.73	47.20	-11.60	35.60	46.00	-10.40	334	100	Peak
362.71	51.87	-10.83	41.04	46.00	-4.96	201	100	Peak
500.45	44.54	-8.82	35.72	46.00	-10.28	326	200	Peak
749.74	45.54	-5.87	39.67	46.00	-6.33	206	100	Peak

966 Chamber_B at 3Meter / Vertical

Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
42.61	52.43	-15.75	36.68	40.00	-3.32	333	100	Peak
54.25	55.47	-20.06	35.41	40.00	-4.59	347	100	Peak
64.92	55.67	-21.28	34.39	40.00	-5.61	344	200	Peak
106.63	58.60	-15.94	42.66	43.50	-0.84	172	100	QP
250.19	50.74	-13.25	37.49	46.00	-8.51	131	200	Peak
500.45	46.12	-8.82	37.30	46.00	-8.70	174	100	Peak

Remark:

1. *Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.*
2. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
3. *Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)*
4. *Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)*
5. *Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).*

Above 1 GHz

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11b TX / CH Low / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
2282.00	48.04	---	2.38	50.42	---	74.00	54.00	-3.58	Peak
2630.00	46.83	---	3.14	49.97	---	74.00	54.00	-4.03	Peak
2796.00	47.29	---	3.56	50.85	---	74.00	54.00	-3.15	Peak
3300.00	41.40	---	4.33	45.73	---	74.00	54.00	-8.27	Peak
4215.00	40.32	---	6.53	46.85	---	74.00	54.00	-7.15	Peak
4965.00	39.48	---	8.37	47.84	---	74.00	54.00	-6.16	Peak

966 Chamber_B at 3Meter / Vertical									
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1230.00	50.05	---	-2.89	47.16	---	74.00	54.00	-6.84	Peak
1264.00	50.46	---	-2.89	47.57	---	74.00	54.00	-6.43	Peak
2550.00	52.21	37.91	2.94	55.15	40.85	74.00	54.00	-13.15	AVG
3120.00	42.55	---	4.18	46.73	---	74.00	54.00	-7.27	Peak
4125.00	41.44	---	6.25	47.68	---	74.00	54.00	-6.32	Peak
4830.00	39.26	---	8.09	47.35	---	74.00	54.00	-6.65	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11b TX / CH Middle / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1694.00	49.44	---	-1.07	48.37	---	74.00	54.00	-5.63	Peak
2356.00	49.15	---	2.52	51.67	---	74.00	54.00	-2.33	Peak
2484.00	48.92	---	2.78	51.70	---	74.00	54.00	-2.30	Peak
3210.00	41.78	---	4.25	46.03	---	74.00	54.00	-7.97	Peak
4095.00	40.45	---	6.15	46.61	---	74.00	54.00	-7.39	Peak
4875.00	40.39	---	8.18	48.57	---	74.00	54.00	-5.43	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1172.00	50.11	---	-2.89	47.22	---	74.00	54.00	-6.78	Peak
2390.00	58.63	49.06	2.59	61.22	51.65	74.00	54.00	-2.35	AVG
2484.00	58.13	45.78	2.78	60.91	48.56	74.00	54.00	-5.44	AVG
4530.00	40.79	---	7.47	48.27	---	74.00	54.00	-5.73	Peak
4875.00	47.97	43.76	8.18	56.15	51.94	74.00	54.00	-2.06	AVG
7305.00	40.98	32.90	13.08	54.06	45.98	74.00	54.00	-8.02	AVG

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11b TX / CH High / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1616.00	49.01	---	-1.80	47.21	---	74.00	54.00	-6.79	Peak
1756.00	48.50	---	-0.48	48.01	---	74.00	54.00	-5.99	Peak
1942.00	47.86	---	1.27	49.13	---	74.00	54.00	-4.87	Peak
3135.00	42.13	---	4.19	46.32	---	74.00	54.00	-7.68	Peak
4425.00	39.99	---	7.18	47.17	---	74.00	54.00	-6.83	Peak
4935.00	39.32	---	8.31	47.63	---	74.00	54.00	-6.37	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1928.00	47.99	---	1.14	49.13	---	74.00	54.00	-4.87	Peak
2382.00	52.01	44.63	2.58	54.59	47.21	74.00	54.00	-6.79	AVG
2628.00	48.48	---	3.14	51.61	---	74.00	54.00	-2.39	Peak
3270.00	42.41	---	4.30	46.71	---	74.00	54.00	-7.29	Peak
4305.00	40.96	---	6.81	47.76	---	74.00	54.00	-6.24	Peak
4935.00	39.72	---	8.31	48.03	---	74.00	54.00	-5.97	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11g TX / CH Low / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1438.00	49.54	---	-2.90	46.64	---	74.00	54.00	-7.36	Peak
1788.00	48.44	---	-0.18	48.25	---	74.00	54.00	-5.75	Peak
2484.00	47.02	---	2.78	49.80	---	74.00	54.00	-4.20	Peak
3960.00	41.65	---	5.75	47.40	---	74.00	54.00	-6.60	Peak
4365.00	39.80	---	6.99	46.79	---	74.00	54.00	-7.21	Peak
4800.00	37.96	---	8.03	45.99	---	74.00	54.00	-8.01	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1770.00	48.91	---	-0.35	48.56	---	74.00	54.00	-5.44	Peak
2182.00	49.58	---	2.18	51.76	---	74.00	54.00	-2.24	Peak
2484.00	55.94	42.12	2.78	58.72	44.90	74.00	54.00	-9.10	AVG
3765.00	41.58	---	5.22	46.80	---	74.00	54.00	-7.20	Peak
4110.00	41.37	---	6.20	47.57	---	74.00	54.00	-6.43	Peak
4800.00	38.54	---	8.03	46.57	---	74.00	54.00	-7.43	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11g TX / CH Middle / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1692.00	49.13	---	-1.09	48.04	---	74.00	54.00	-5.96	Peak
2390.00	61.31	43.90	2.59	63.90	46.49	74.00	54.00	-7.51	AVG
2488.00	61.46	43.43	2.79	64.25	46.22	74.00	54.00	-7.78	AVG
3855.00	40.53	---	5.46	45.99	---	74.00	54.00	-8.01	Peak
4335.00	39.89	---	6.90	46.79	---	74.00	54.00	-7.21	Peak
4860.00	39.41	---	8.15	47.56	---	74.00	54.00	-6.44	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1688.00	49.10	---	-1.13	47.97	---	74.00	54.00	-6.03	Peak
2390.00	66.33	49.76	2.59	68.92	52.35	74.00	54.00	-1.65	AVG
2484.00	68.31	49.65	2.78	71.09	52.43	74.00	54.00	-1.57	AVG
4260.00	40.61	---	6.67	47.27	---	74.00	54.00	-6.73	Peak
4890.00	39.53	---	8.21	47.75	---	74.00	54.00	-6.25	Peak
5100.00	40.02	---	8.61	48.64	---	74.00	54.00	-5.36	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11g TX / CH High / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1156.00	50.37	---	-2.89	47.49	---	74.00	54.00	-6.51	Peak
1282.00	50.37	---	-2.89	47.48	---	74.00	54.00	-6.52	Peak
2390.00	47.03	---	2.59	49.62	---	74.00	54.00	-4.38	Peak
3690.00	41.21	---	5.01	46.22	---	74.00	54.00	-7.78	Peak
4125.00	40.21	---	6.25	46.46	---	74.00	54.00	-7.54	Peak
4935.00	39.38	---	8.31	47.69	---	74.00	54.00	-6.31	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1302.00	49.26	---	-2.89	46.37	---	74.00	54.00	-7.63	Peak
1914.00	48.26	---	1.01	49.27	---	74.00	54.00	-4.73	Peak
2390.00	53.16	44.18	2.59	55.75	46.77	74.00	54.00	-7.23	AVG
3870.00	41.09	---	5.50	46.59	---	74.00	54.00	-7.41	Peak
4950.00	39.54	---	8.34	47.87	---	74.00	54.00	-6.13	Peak
5820.00	40.25	---	10.26	50.51	---	74.00	54.00	-3.49	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11n HT20 TX / CH Low / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1180.00	50.01	---	-2.89	47.12	---	74.00	54.00	-6.88	Peak
1362.00	49.61	---	-2.89	46.72	---	74.00	54.00	-7.28	Peak
1618.00	49.14	---	-1.79	47.36	---	74.00	54.00	-6.64	Peak
4200.00	40.03	---	6.48	46.51	---	74.00	54.00	-7.49	Peak
4830.00	39.60	---	8.09	47.69	---	74.00	54.00	-6.31	Peak
5865.00	40.24	---	10.40	50.64	---	74.00	54.00	-3.36	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1312.00	49.37	---	-2.89	46.48	---	74.00	54.00	-7.52	Peak
1390.00	50.10	---	-2.90	47.20	---	74.00	54.00	-6.80	Peak
2488.00	52.18	39.63	2.79	54.97	42.42	74.00	54.00	-11.58	AVG
3255.00	42.78	---	4.29	47.07	---	74.00	54.00	-6.93	Peak
4350.00	39.98	---	6.94	46.92	---	74.00	54.00	-7.08	Peak
4815.00	39.51	---	8.06	47.57	---	74.00	54.00	-6.43	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11n HT20 TX / CH Middle / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1632.00	48.90	---	-1.65	47.25	---	74.00	54.00	-6.75	Peak
2390.00	57.79	39.33	2.59	60.38	41.92	74.00	54.00	-12.08	AVG
2484.00	56.01	40.20	2.78	58.79	42.98	74.00	54.00	-11.02	AVG
3165.00	41.73	---	4.22	45.94	---	74.00	54.00	-8.06	Peak
3855.00	40.26	---	5.46	45.72	---	74.00	54.00	-8.28	Peak
5265.00	39.46	---	8.90	48.36	---	74.00	54.00	-5.64	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1886.00	48.53	---	0.74	49.28	---	74.00	54.00	-4.72	Peak
2390.00	67.60	46.32	2.59	70.19	48.91	74.00	54.00	-5.09	AVG
2484.00	69.05	46.80	2.78	71.83	49.58	74.00	54.00	-4.42	AVG
3225.00	42.41	---	4.26	46.67	---	74.00	54.00	-7.33	Peak
4620.00	39.41	---	7.66	47.07	---	74.00	54.00	-6.93	Peak
4980.00	39.75	---	8.40	48.15	---	74.00	54.00	-5.85	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11n HT20 TX / CH High / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1378.00	49.84	---	-2.90	46.94	---	74.00	54.00	-7.06	Peak
1680.00	48.75	---	-1.20	47.55	---	74.00	54.00	-6.45	Peak
2038.00	49.27	---	1.90	51.16	---	74.00	54.00	-2.84	Peak
3165.00	42.68	---	4.22	46.89	---	74.00	54.00	-7.11	Peak
4395.00	39.68	---	7.08	46.77	---	74.00	54.00	-7.23	Peak
4950.00	40.00	---	8.34	48.34	---	74.00	54.00	-5.66	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1356.00	49.74	---	-2.89	46.84	---	74.00	54.00	-7.16	Peak
1766.00	48.76	---	-0.39	48.37	---	74.00	54.00	-5.63	Peak
2378.00	51.98	42.08	2.57	54.55	44.65	74.00	54.00	-9.35	AVG
3165.00	41.47	---	4.22	45.68	---	74.00	54.00	-8.32	Peak
4575.00	40.15	---	7.56	47.71	---	74.00	54.00	-6.29	Peak
4980.00	39.44	---	8.40	47.84	---	74.00	54.00	-6.16	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11n HT40 TX / CH Low / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1172.00	50.12	---	-2.89	47.23	---	74.00	54.00	-6.77	Peak
1452.00	49.23	---	-2.90	46.33	---	74.00	54.00	-7.67	Peak
1898.00	48.27	---	0.86	49.13	---	74.00	54.00	-4.87	Peak
4230.00	40.45	---	6.57	47.02	---	74.00	54.00	-6.98	Peak
4875.00	39.50	---	8.18	47.68	---	74.00	54.00	-6.32	Peak
5175.00	39.39	---	8.74	48.13	---	74.00	54.00	-5.87	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1374.00	49.28	---	-2.89	46.38	---	74.00	54.00	-7.62	Peak
1638.00	48.84	---	-1.60	47.24	---	74.00	54.00	-6.76	Peak
2550.00	52.18	40.98	2.94	55.12	43.92	74.00	54.00	-10.08	AVG
3240.00	41.95	---	4.28	46.23	---	74.00	54.00	-7.77	Peak
4500.00	40.30	---	7.41	47.71	---	74.00	54.00	-6.29	Peak
5115.00	39.44	---	8.64	48.08	---	74.00	54.00	-5.92	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11n HT40 TX / CH Middle / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1186.00	50.30	---	-2.89	47.41	---	74.00	54.00	-6.59	Peak
2390.00	59.56	42.47	2.59	62.15	45.06	74.00	54.00	-8.94	AVG
2484.00	59.05	43.59	2.78	61.83	46.37	74.00	54.00	-7.63	AVG
3105.00	41.75	---	4.17	45.91	---	74.00	54.00	-8.09	Peak
4245.00	40.24	---	6.62	46.86	---	74.00	54.00	-7.14	Peak
4845.00	39.04	---	8.12	47.16	---	74.00	54.00	-6.84	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1028.00	50.93	---	-2.88	48.05	---	74.00	54.00	-5.95	Peak
2390.00	66.13	48.70	2.59	68.72	51.29	74.00	54.00	-2.71	AVG
2484.00	67.69	50.17	2.78	70.47	52.95	74.00	54.00	-1.05	AVG
4230.00	40.01	---	6.57	46.58	---	74.00	54.00	-7.42	Peak
5040.00	39.35	---	8.51	47.86	---	74.00	54.00	-6.14	Peak
5775.00	40.69	---	10.13	50.82	---	74.00	54.00	-3.18	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-C1	Test Date	2014/01/15
Test Mode	IEEE 802.11n HT40 TX / CH High / Ant 2	Temp. & Humidity	22°C, 52%

966 Chamber_B at 3Meter / Horizontal

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1170.00	49.72	---	-2.89	46.84	---	74.00	54.00	-7.16	Peak
1346.00	49.90	---	-2.89	47.01	---	74.00	54.00	-6.99	Peak
1722.00	48.98	---	-0.80	48.17	---	74.00	54.00	-5.83	Peak
4245.00	39.95	---	6.62	46.57	---	74.00	54.00	-7.43	Peak
4485.00	39.73	---	7.36	47.09	---	74.00	54.00	-6.91	Peak
4905.00	39.84	---	8.24	48.09	---	74.00	54.00	-5.91	Peak

966 Chamber_B at 3Meter / Vertical

Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1312.00	49.80	---	-2.89	46.91	---	74.00	54.00	-7.09	Peak
1882.00	48.38	---	0.71	49.09	---	74.00	54.00	-4.91	Peak
2544.00	53.14	40.76	2.92	56.06	43.68	74.00	54.00	-10.32	AVG
3870.00	41.09	---	5.50	46.59	---	74.00	54.00	-7.41	Peak
4545.00	40.40	---	7.50	47.90	---	74.00	54.00	-6.10	Peak
4965.00	40.65	---	8.37	49.01	---	74.00	54.00	-4.99	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.*
4. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
5. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(AV)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11b TX / CH Low / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2030.00	50.33	-2.43	47.90	74.00	-26.10	292	100	Peak
2300.00	50.27	-1.31	48.96	74.00	-25.04	20	100	Peak
2720.00	50.78	0.21	50.99	74.00	-23.01	136	200	Peak
4815.00	44.38	-3.64	40.74	74.00	-33.26	91	100	Peak
5505.00	44.15	-2.12	42.03	74.00	-31.97	302	100	Peak
9315.00	43.28	5.91	49.19	74.00	-24.81	346	100	Peak

966 Chamber_C at 3Meter / Vertical

Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1966.00	49.38	-2.63	46.75	74.00	-27.25	317	100	Peak
2200.00	49.99	-1.72	48.27	74.00	-25.73	279	200	Peak
2546.00	50.52	-0.34	50.18	74.00	-23.82	66	200	Peak
4830.00	45.39	-3.59	41.80	74.00	-32.20	218	200	Peak
6960.00	43.65	2.21	45.86	74.00	-28.14	332	200	Peak
7755.00	44.15	4.01	48.16	74.00	-25.84	56	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11b TX / CH Middle / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2052.00	50.68	-2.33	48.35	74.00	-25.65	180	200	Peak
2190.00	50.82	-1.76	49.06	74.00	-24.94	155	200	Peak
2484.00	50.87	-0.55	50.32	74.00	-23.68	134	200	Peak
4920.00	44.11	-3.29	40.82	74.00	-33.18	214	100	Peak
7800.00	44.36	4.10	48.46	74.00	-25.54	360	200	Peak
10950.00	42.16	9.05	51.21	74.00	-22.79	216	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2212.00	50.16	-1.67	48.49	74.00	-25.51	172	200	Peak
2332.00	50.67	-1.18	49.49	74.00	-24.51	66	200	Peak
2868.00	50.27	0.68	50.95	74.00	-23.05	190	100	Peak
4875.00	48.74	-3.44	45.30	74.00	-28.70	170	200	Peak
7755.00	44.40	4.01	48.41	74.00	-25.59	270	100	Peak
11205.00	42.64	9.06	51.70	74.00	-22.30	360	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11b TX / CH High / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1706.00	50.07	-3.22	46.85	74.00	-27.15	254	200	Peak
2190.00	50.79	-1.76	49.03	74.00	-24.97	58	200	Peak
2666.00	49.78	0.04	49.82	74.00	-24.18	286	200	Peak
5025.00	43.29	-2.98	40.31	74.00	-33.69	14	200	Peak
7755.00	43.71	4.01	47.72	74.00	-26.28	120	100	Peak
10140.00	43.74	7.00	50.74	74.00	-23.26	147	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2064.00	50.40	-2.29	48.11	74.00	-25.89	266	100	Peak
2232.00	50.37	-1.59	48.78	74.00	-25.22	146	100	Peak
2706.00	49.62	0.17	49.79	74.00	-24.21	191	200	Peak
4920.00	45.79	-3.29	42.50	74.00	-31.50	197	200	Peak
7800.00	43.30	4.10	47.40	74.00	-26.60	20	200	Peak
9345.00	44.53	5.95	50.48	74.00	-23.52	317	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11g TX / CH Low / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1916.00	50.11	-2.74	47.37	74.00	-26.63	47	100	Peak
2156.00	50.92	-1.90	49.02	74.00	-24.98	311	100	Peak
2630.00	49.49	-0.07	49.42	74.00	-24.58	268	100	Peak
5595.00	43.50	-1.89	41.61	74.00	-32.39	213	200	Peak
7710.00	44.07	3.93	48.00	74.00	-26.00	246	200	Peak
11340.00	42.52	8.98	51.50	74.00	-22.50	59	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2042.00	50.15	-2.38	47.77	74.00	-26.23	68	200	Peak
2150.00	50.94	-1.93	49.01	74.00	-24.99	2	200	Peak
2490.00	50.75	-0.52	50.23	74.00	-23.77	346	200	Peak
4830.00	44.48	-3.59	40.89	74.00	-33.11	152	200	Peak
7815.00	43.75	4.13	47.88	74.00	-26.12	237	200	Peak
10470.00	42.41	7.90	50.31	74.00	-23.69	157	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11g TX / CH Middle / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2202.00	50.03	-1.71	48.32	74.00	-25.68	236	200	Peak
2388.00	53.11	-0.94	52.17	74.00	-21.83	107	200	Peak
2494.00	50.83	-0.50	50.33	74.00	-23.67	144	100	Peak
4800.00	44.82	-3.69	41.13	74.00	-32.87	268	100	Peak
7770.00	44.20	4.04	48.24	74.00	-25.76	231	200	Peak
10515.00	43.04	8.02	51.06	74.00	-22.94	56	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	43.46	-0.94	42.52	54.00	-11.48	230	209	Average
2390.00	59.33	-0.94	58.39	74.00	-15.61	230	209	Peak
2490.00	40.60	-0.52	40.08	54.00	-13.92	186	100	Average
2490.00	60.54	-0.52	60.02	74.00	-13.98	186	100	Peak
2944.00	51.10	0.91	52.01	74.00	-21.99	18	100	Peak
4875.00	44.00	-3.44	40.56	74.00	-33.44	344	200	Peak
7770.00	43.92	4.04	47.96	74.00	-26.04	304	100	Peak
9345.00	43.74	5.95	49.69	74.00	-24.31	282	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11g TX / CH High / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2186.00	50.08	-1.78	48.30	74.00	-25.70	247	100	Peak
2292.00	50.91	-1.34	49.57	74.00	-24.43	69	200	Peak
2754.00	49.66	0.32	49.98	74.00	-24.02	219	100	Peak
4995.00	43.19	-3.04	40.15	74.00	-33.85	270	100	Peak
7755.00	43.88	4.01	47.89	74.00	-26.11	282	100	Peak
9285.00	43.51	5.87	49.38	74.00	-24.62	272	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2216.00	50.14	-1.66	48.48	74.00	-25.52	83	200	Peak
2384.00	51.27	-0.96	50.31	74.00	-23.69	300	200	Peak
2638.00	50.33	-0.05	50.28	74.00	-23.72	298	200	Peak
4920.00	45.36	-3.29	42.07	74.00	-31.93	153	200	Peak
7755.00	43.90	4.01	47.91	74.00	-26.09	246	200	Peak
10995.00	42.31	9.16	51.47	74.00	-22.53	88	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11n HT20 TX / CH Low / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1962.00	49.99	-2.64	47.35	74.00	-26.65	210	100	Peak
2216.00	50.62	-1.66	48.96	74.00	-25.04	62	200	Peak
2626.00	49.57	-0.08	49.49	74.00	-24.51	68	200	Peak
4830.00	43.84	-3.59	40.25	74.00	-33.75	7	200	Peak
7770.00	43.75	4.04	47.79	74.00	-26.21	244	100	Peak
11415.00	42.31	8.94	51.25	74.00	-22.75	276	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2084.00	50.13	-2.20	47.93	74.00	-26.07	17	200	Peak
2240.00	50.29	-1.56	48.73	74.00	-25.27	338	100	Peak
2546.00	50.77	-0.34	50.43	74.00	-23.57	223	200	Peak
4920.00	43.30	-3.29	40.01	74.00	-33.99	286	200	Peak
7935.00	43.27	4.36	47.63	74.00	-26.37	145	100	Peak
11310.00	42.47	9.00	51.47	74.00	-22.53	149	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11n HT20 TX / CH Middle / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2216.00	50.22	-1.66	48.56	74.00	-25.44	209	200	Peak
2390.00	51.39	-0.94	50.45	74.00	-23.55	105	100	Peak
2524.00	49.80	-0.40	49.40	74.00	-24.60	351	200	Peak
4845.00	43.40	-3.54	39.86	74.00	-34.14	110	100	Peak
7875.00	43.21	4.25	47.46	74.00	-26.54	146	100	Peak
11160.00	42.49	9.08	51.57	74.00	-22.43	119	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1768.00	50.56	-3.08	47.48	74.00	-26.52	22	200	Peak
2388.00	39.52	-0.94	38.58	54.00	-15.42	0	222	Average
2388.00	57.52	-0.94	56.58	74.00	-17.42	0	222	Peak
2484.00	39.28	-0.55	38.73	54.00	-15.27	63	171	Average
2484.00	59.56	-0.55	59.01	74.00	-14.99	63	171	Peak
4875.00	43.75	-3.44	40.31	74.00	-33.69	114	100	Peak
7740.00	43.70	3.99	47.69	74.00	-26.31	56	100	Peak
10920.00	42.52	8.98	51.50	74.00	-22.50	244	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11n HT20 TX / CH High / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2104.00	50.20	-2.12	48.08	74.00	-25.92	69	100	Peak
2266.00	50.54	-1.45	49.09	74.00	-24.91	84	100	Peak
2580.00	50.72	-0.23	50.49	74.00	-23.51	299	100	Peak
4965.00	43.60	-3.14	40.46	74.00	-33.54	1	200	Peak
9240.00	43.94	5.81	49.75	74.00	-24.25	62	200	Peak
11295.00	42.14	9.00	51.14	74.00	-22.86	17	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2184.00	49.99	-1.79	48.20	74.00	-25.80	81	100	Peak
2382.00	51.00	-0.97	50.03	74.00	-23.97	56	200	Peak
2614.00	50.75	-0.12	50.63	74.00	-23.37	139	200	Peak
4965.00	44.06	-3.14	40.92	74.00	-33.08	9	200	Peak
7725.00	44.79	3.96	48.75	74.00	-25.25	199	100	Peak
11025.00	42.04	9.16	51.20	74.00	-22.80	8	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11n HT40 TX / CH Low / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2158.00	49.98	-1.90	48.08	74.00	-25.92	360	200	Peak
2312.00	50.31	-1.26	49.05	74.00	-24.95	298	100	Peak
2636.00	51.03	-0.05	50.98	74.00	-23.02	115	100	Peak
5250.00	43.86	-2.58	41.28	74.00	-32.72	171	100	Peak
7560.00	44.64	3.64	48.28	74.00	-25.72	315	100	Peak
11220.00	42.27	9.05	51.32	74.00	-22.68	232	200	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2184.00	50.60	-1.79	48.81	74.00	-25.19	26	100	Peak
2388.00	50.10	-0.94	49.16	74.00	-24.84	233	200	Peak
2994.00	49.77	1.07	50.84	74.00	-23.16	111	200	Peak
5880.00	43.24	-1.19	42.05	74.00	-31.95	25	100	Peak
7725.00	44.76	3.96	48.72	74.00	-25.28	144	200	Peak
10845.00	42.38	8.80	51.18	74.00	-22.82	201	100	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11n HT40 TX / CH Middle / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2128.00	50.27	-2.02	48.25	74.00	-25.75	27	100	Peak
2258.00	50.43	-1.48	48.95	74.00	-25.05	170	100	Peak
2498.00	50.94	-0.49	50.45	74.00	-23.55	338	100	Peak
5520.00	43.83	-2.08	41.75	74.00	-32.25	11	100	Peak
7770.00	44.33	4.04	48.37	74.00	-25.63	235	200	Peak
10800.00	42.32	8.69	51.01	74.00	-22.99	301	100	Peak

966 Chamber_C at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2086.00	50.13	-2.19	47.94	74.00	-26.06	186	100	Peak
2272.00	50.21	-1.42	48.79	74.00	-25.21	78	100	Peak
2536.00	50.32	-0.37	49.95	74.00	-24.05	150	100	Peak
4875.00	43.96	-3.44	40.52	74.00	-33.48	354	200	Peak
7785.00	43.81	4.07	47.88	74.00	-26.12	206	100	Peak
10800.00	42.68	8.69	51.37	74.00	-22.63	75	200	Peak

Remark:

1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Product Name	802.11b/g/n WiFi Module	Test By	Rex Chiu
Test Model	SA9800-C1	Test Date	2015/07/16
Test Mode	IEEE 802.11n HT40 TX / CH High / Ant 1	Temp. & Humidity	30°C, 60%

966 Chamber_C at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2222.00	51.18	-1.63	49.55	74.00	-24.45	306	100	Peak
2384.00	50.10	-0.96	49.14	74.00	-24.86	225	100	Peak
2600.00	50.23	-0.17	50.06	74.00	-23.94	47	200	Peak
5355.00	44.37	-2.39	41.98	74.00	-32.02	346	100	Peak
7740.00	44.40	3.99	48.39	74.00	-25.61	329	100	Peak
10560.00	43.46	8.12	51.58	74.00	-22.42	163	100	Peak

966 Chamber_C at 3Meter / Vertical

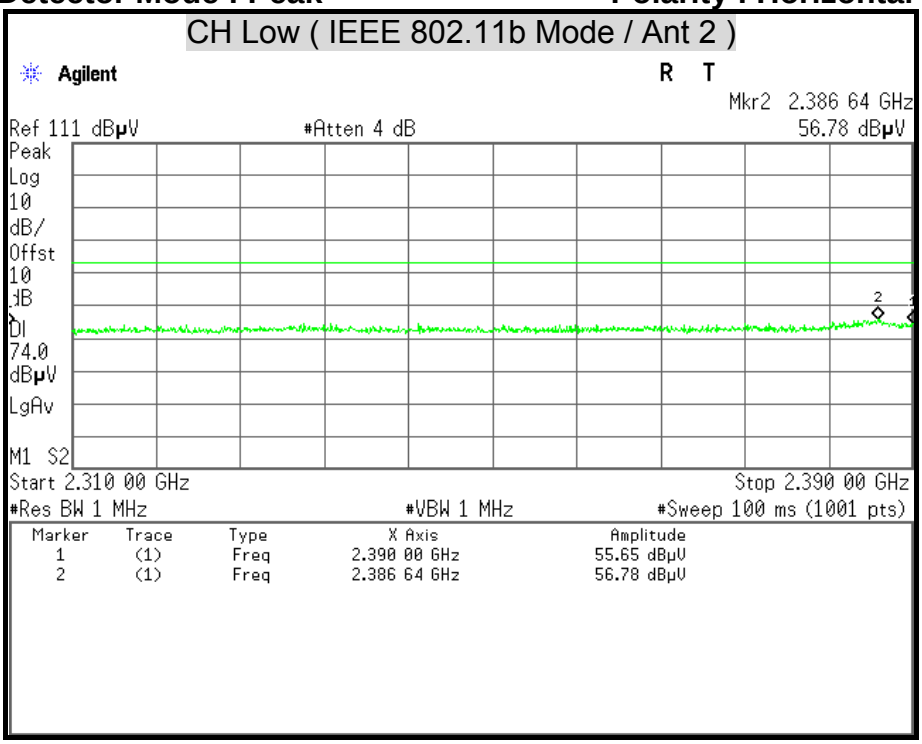
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2164.00	49.57	-1.87	47.70	74.00	-26.30	30	200	Peak
2326.00	50.90	-1.20	49.70	74.00	-24.30	51	200	Peak
2540.00	50.68	-0.35	50.33	74.00	-23.67	325	100	Peak
4905.00	44.25	-3.34	40.91	74.00	-33.09	266	200	Peak
7725.00	43.71	3.96	47.67	74.00	-26.33	130	100	Peak
10080.00	44.22	6.84	51.06	74.00	-22.94	294	200	Peak

Remark:

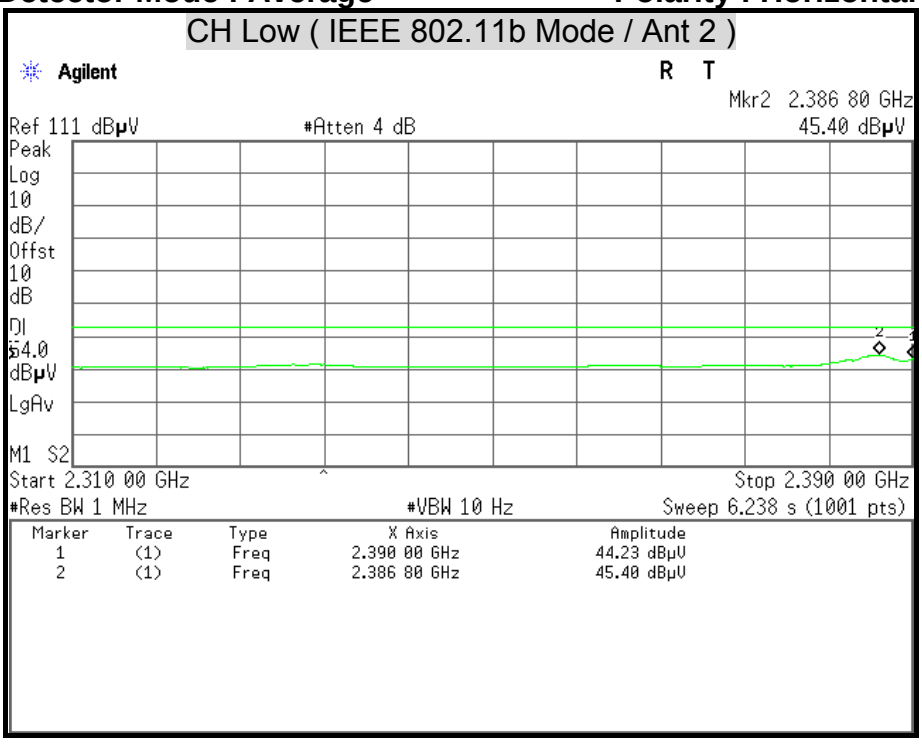
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.*
4. *Result = Reading + Correction Factor*
   Margin = Result – Limit
   Remark Peak = Result(PK) – Limit(PK)
   Remark AVG = Result(AV) – Limit(AV)

Restricted Band Edges

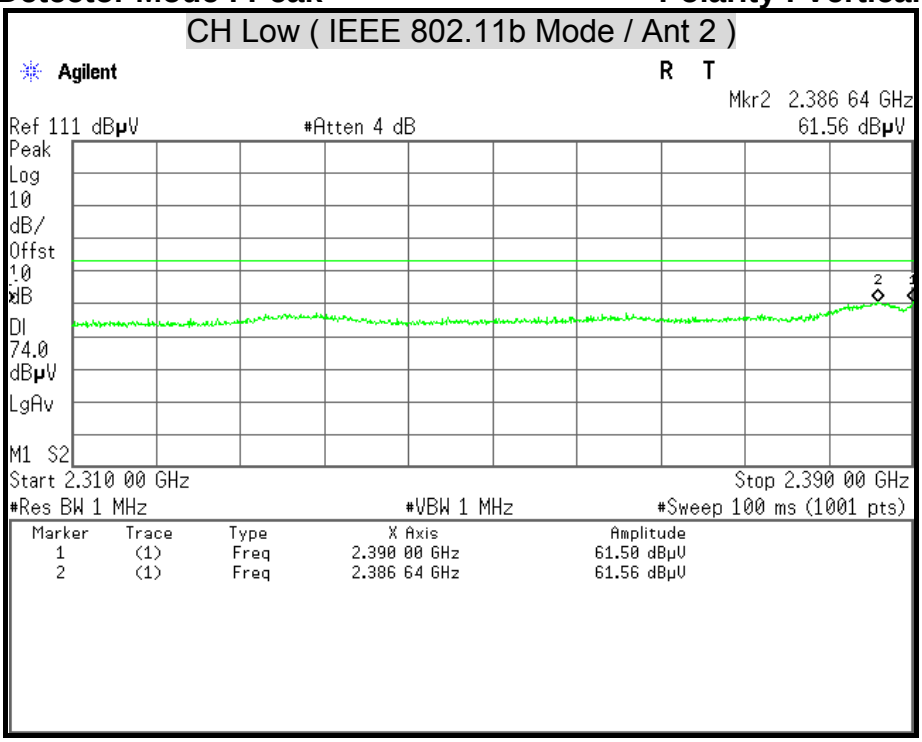
Detector Mode : Peak **Polarity : Horizontal**



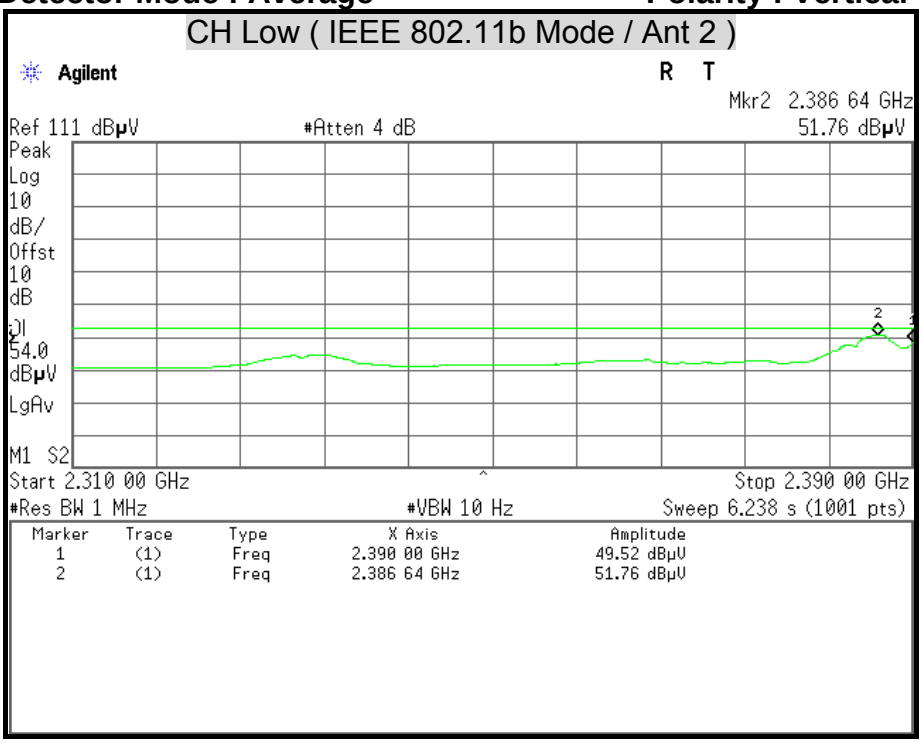
Detector Mode : Average **Polarity : Horizontal**



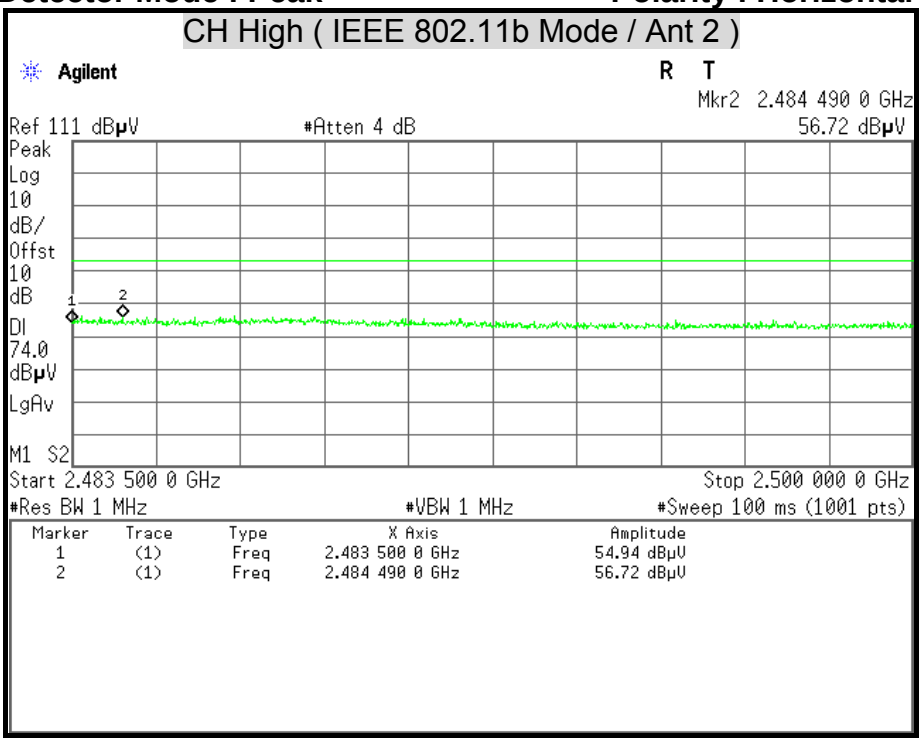
Detector Mode : Peak **Polarity : Vertical**



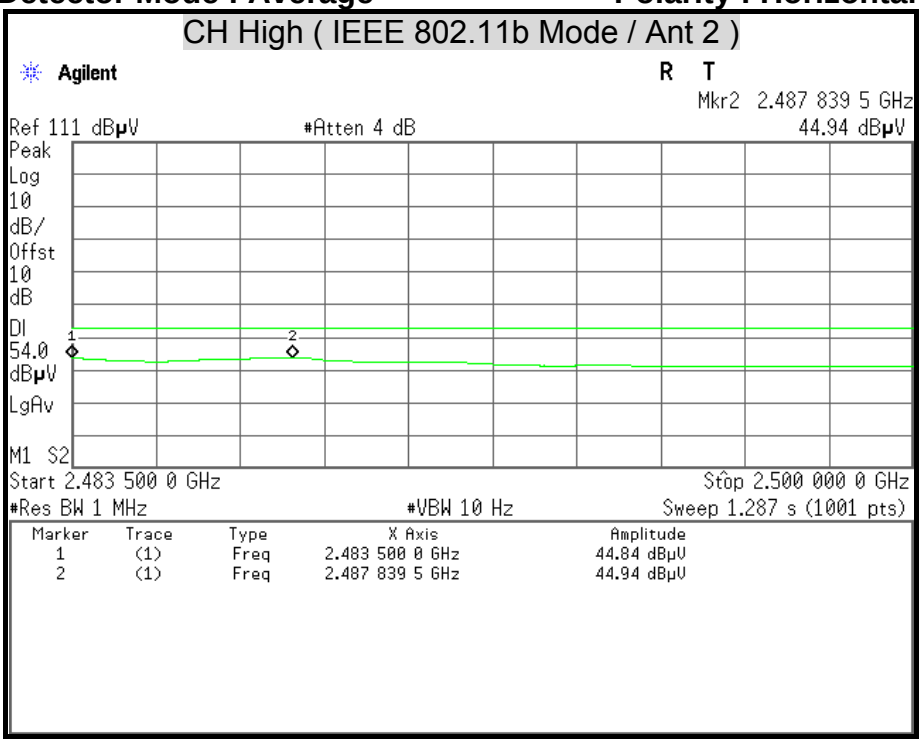
Detector Mode : Average **Polarity : Vertical**



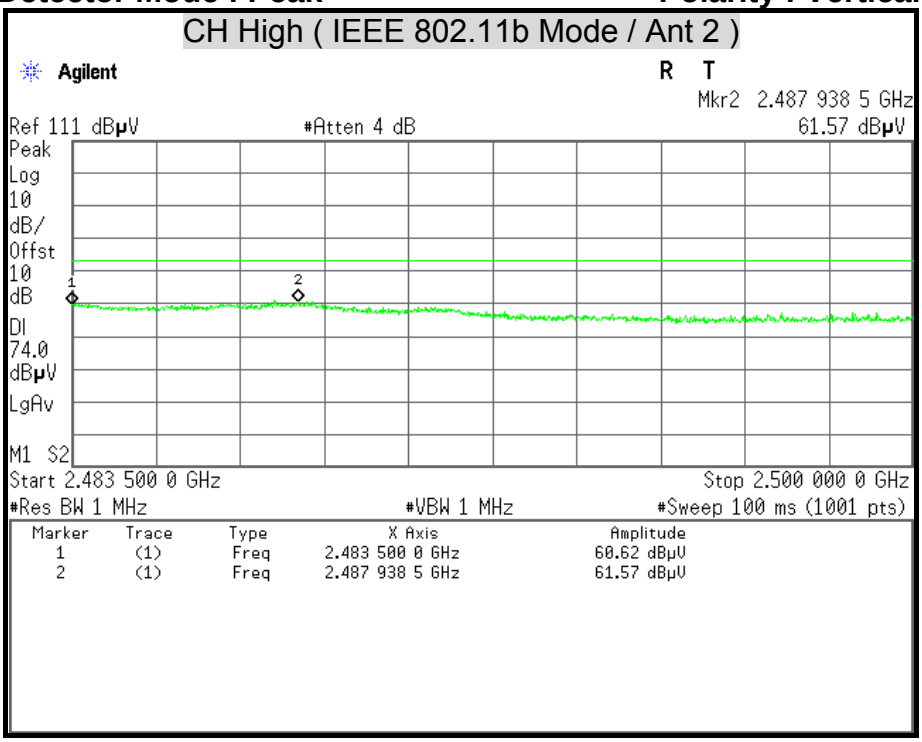
Detector Mode : Peak **Polarity : Horizontal**



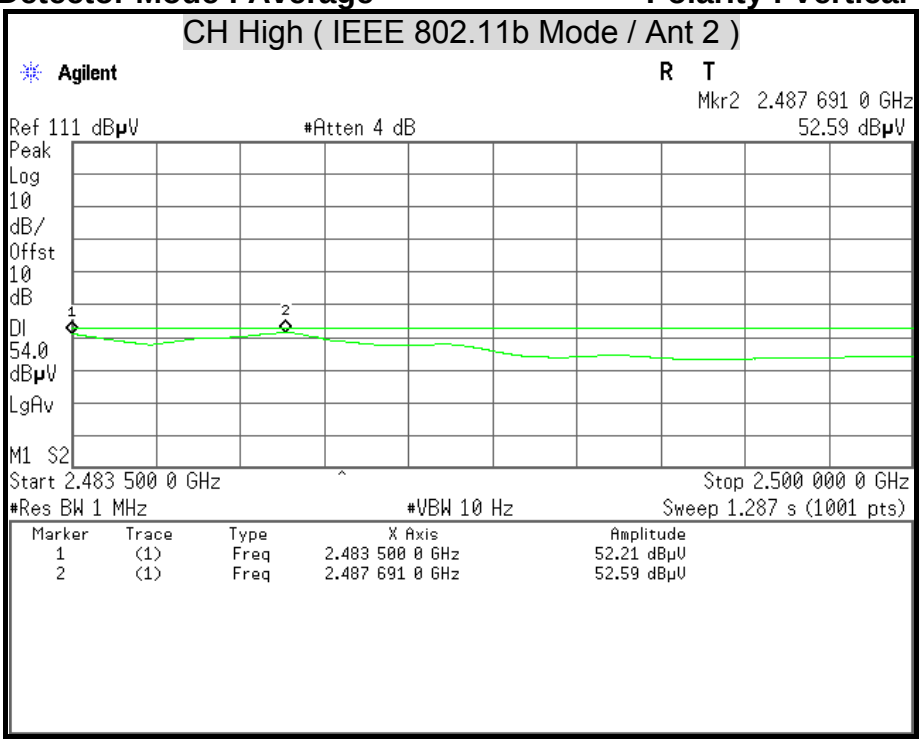
Detector Mode : Average **Polarity : Horizontal**



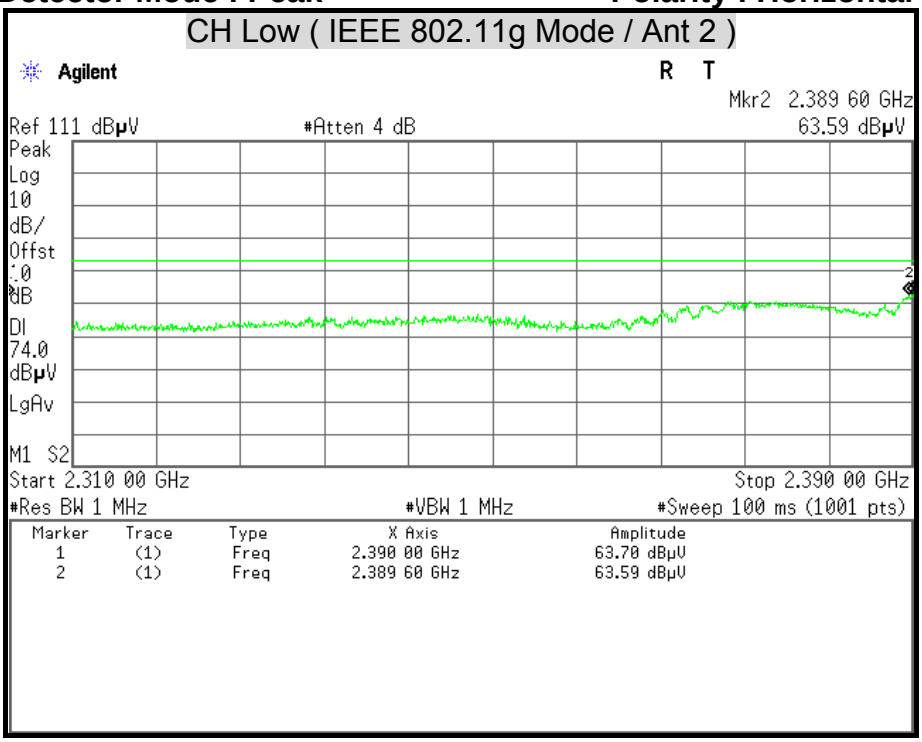
Detector Mode : Peak **Polarity : Vertical**



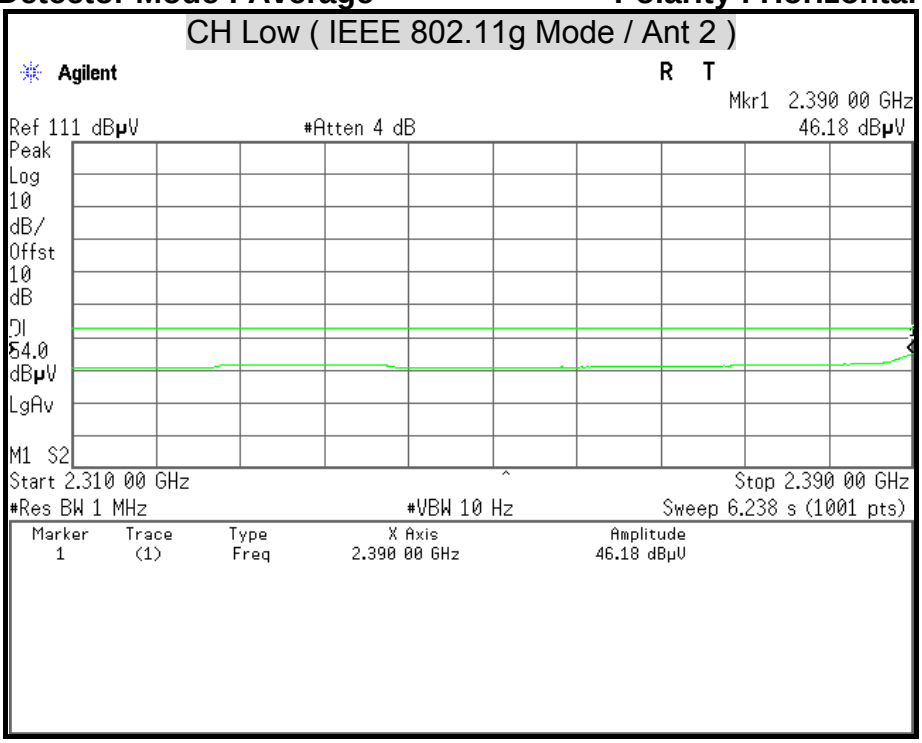
Detector Mode : Average **Polarity : Vertical**



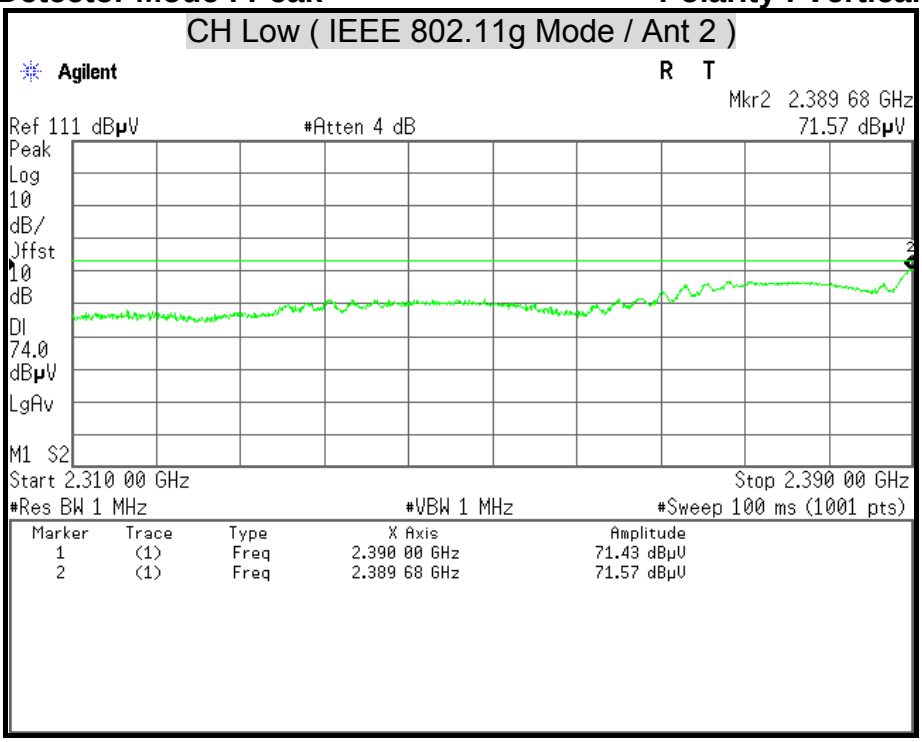
Detector Mode : Peak **Polarity : Horizontal**



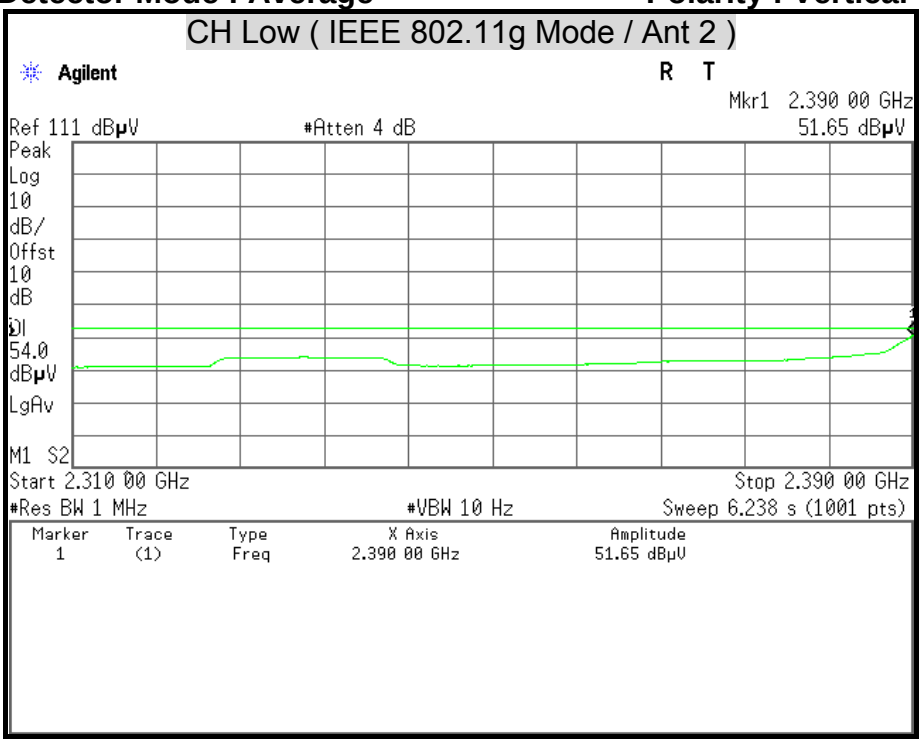
Detector Mode : Average **Polarity : Horizontal**



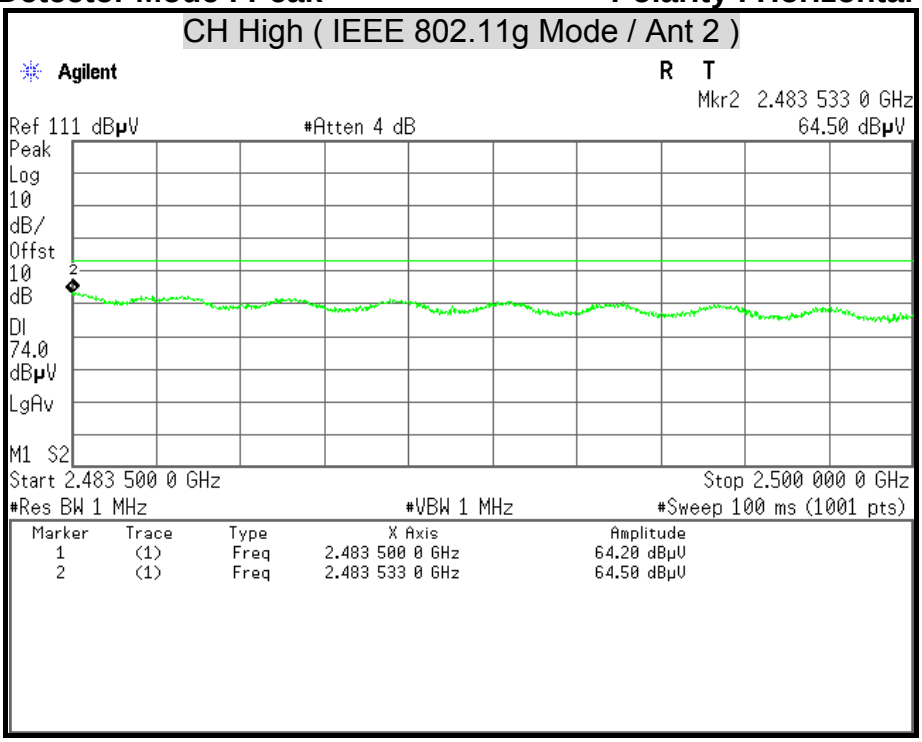
Detector Mode : Peak **Polarity : Vertical**



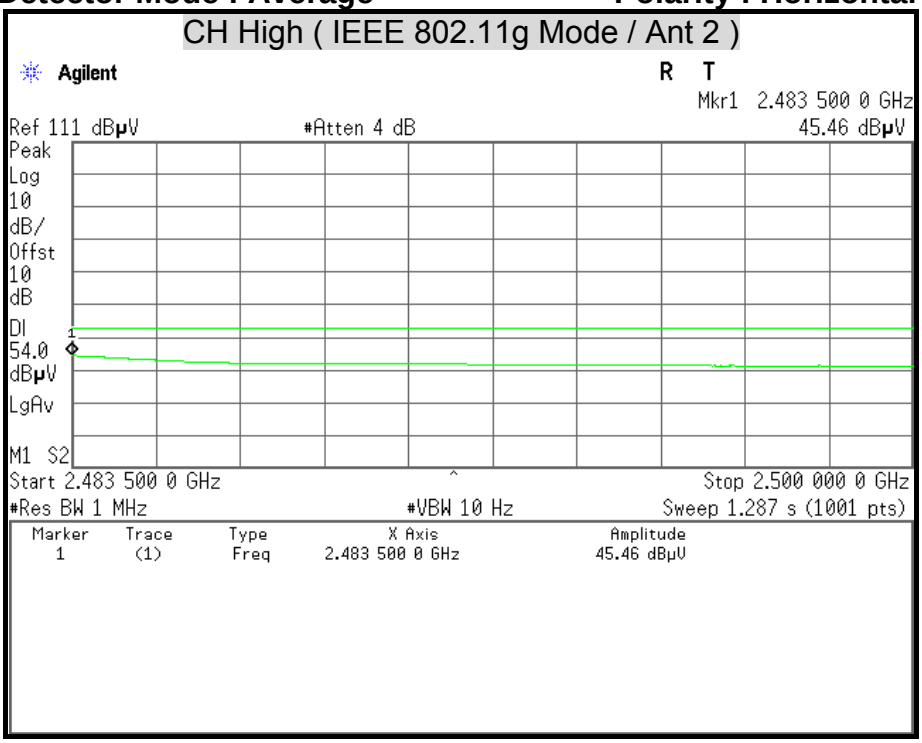
Detector Mode : Average **Polarity : Vertical**



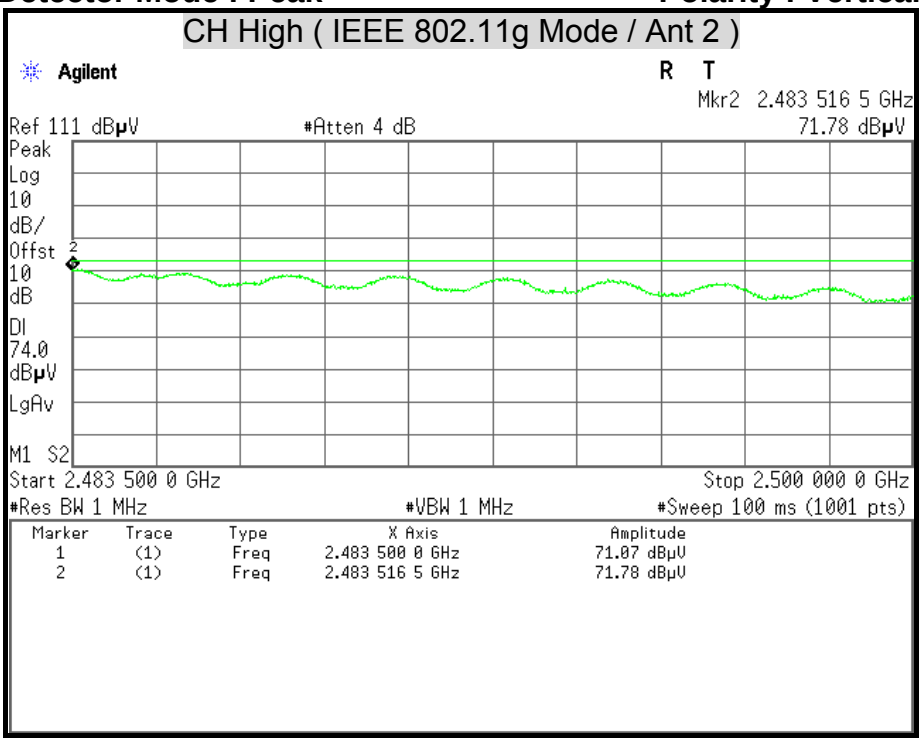
Detector Mode : Peak **Polarity : Horizontal**



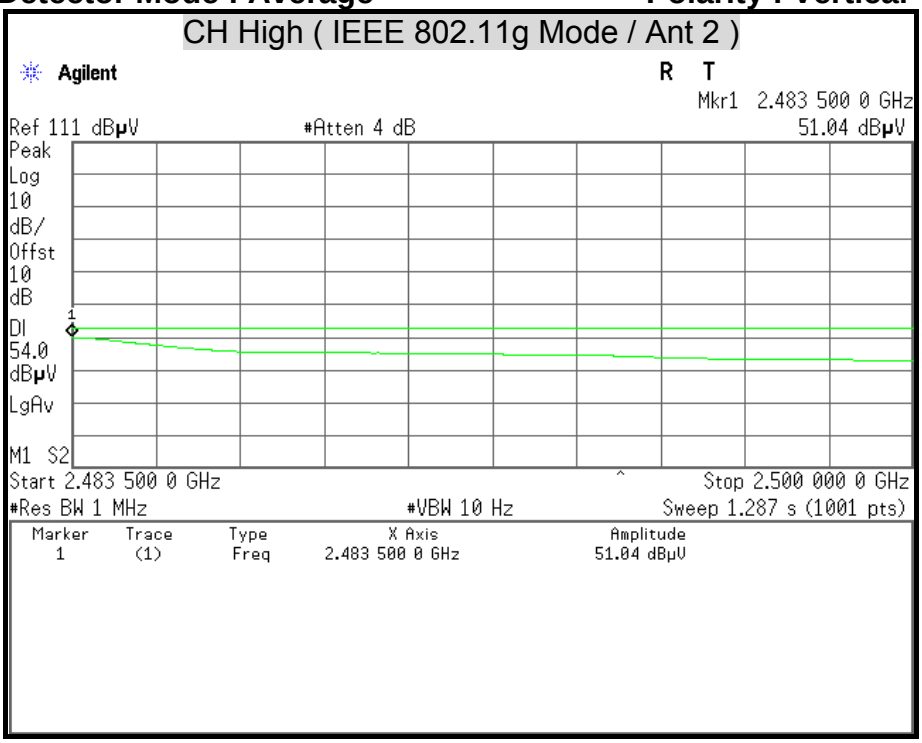
Detector Mode : Average **Polarity : Horizontal**



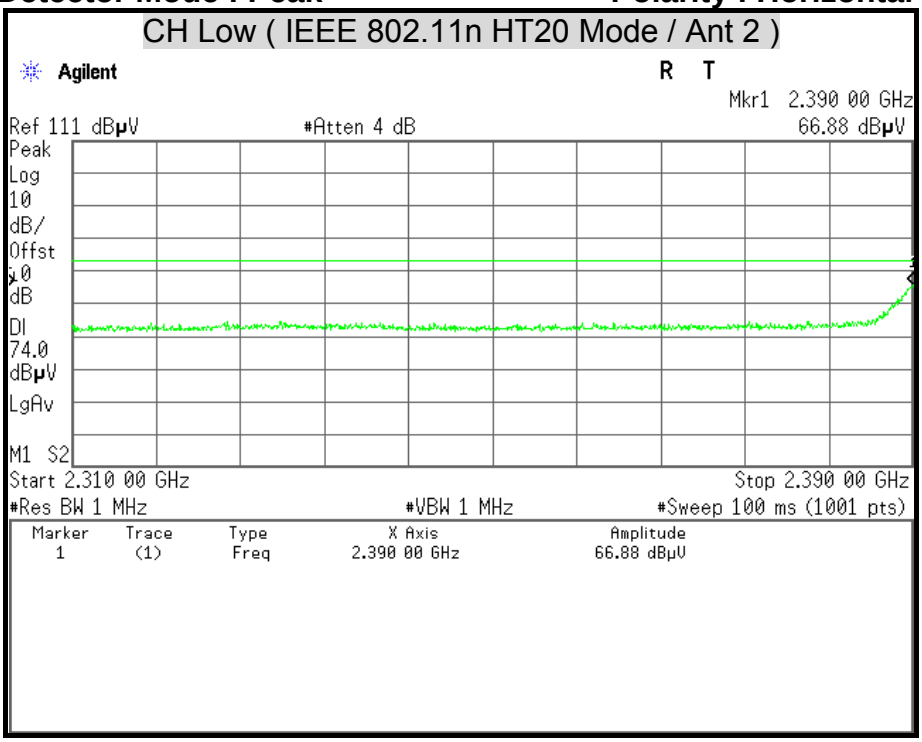
Detector Mode : Peak **Polarity : Vertical**



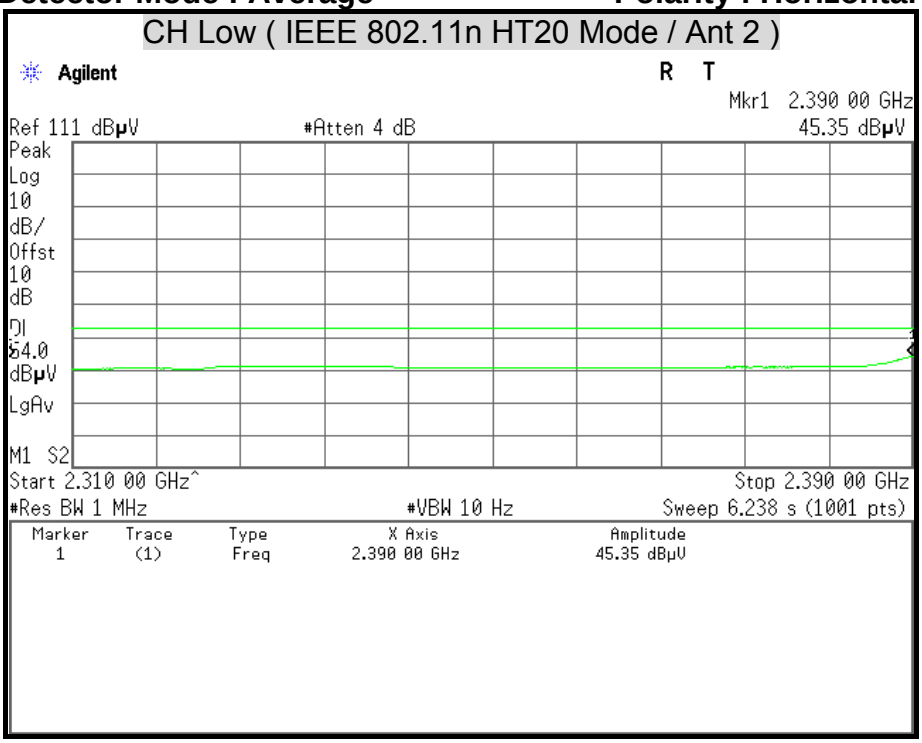
Detector Mode : Average **Polarity : Vertical**



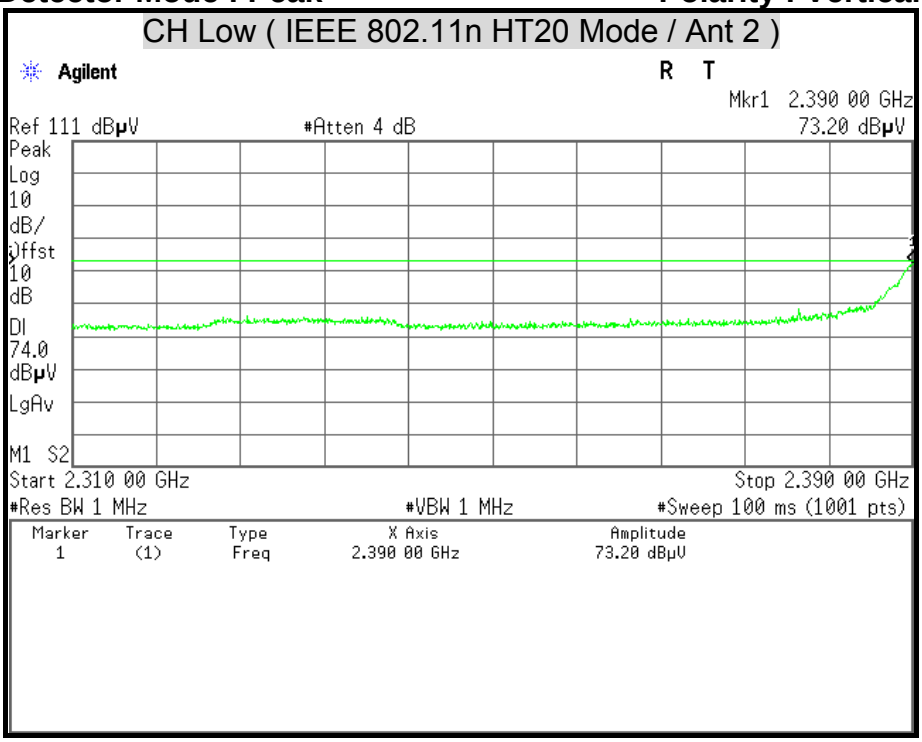
Detector Mode : Peak **Polarity : Horizontal**



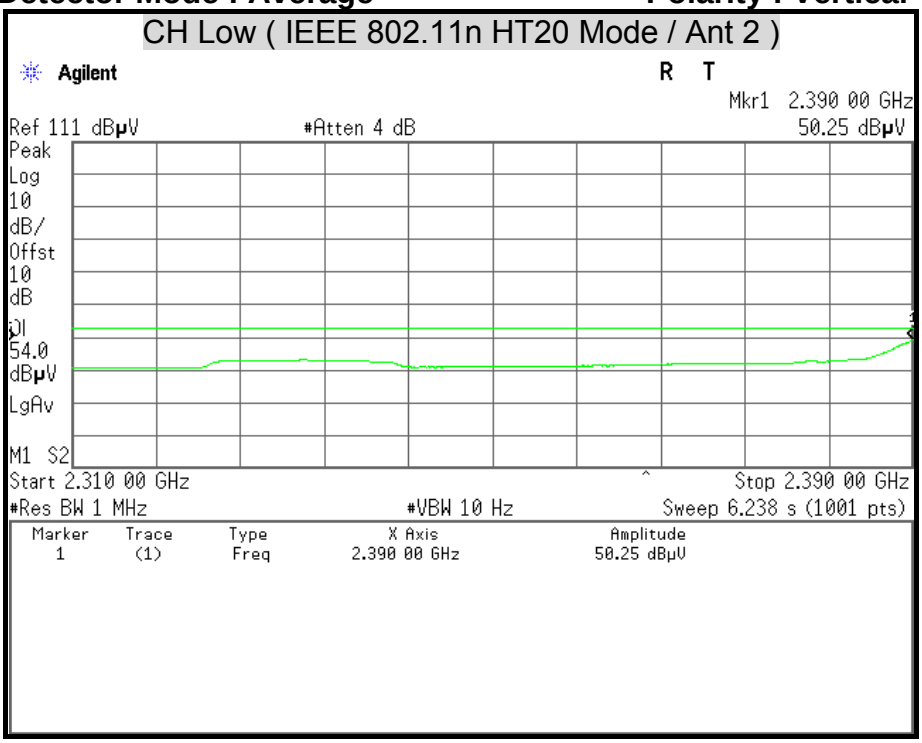
Detector Mode : Average **Polarity : Horizontal**



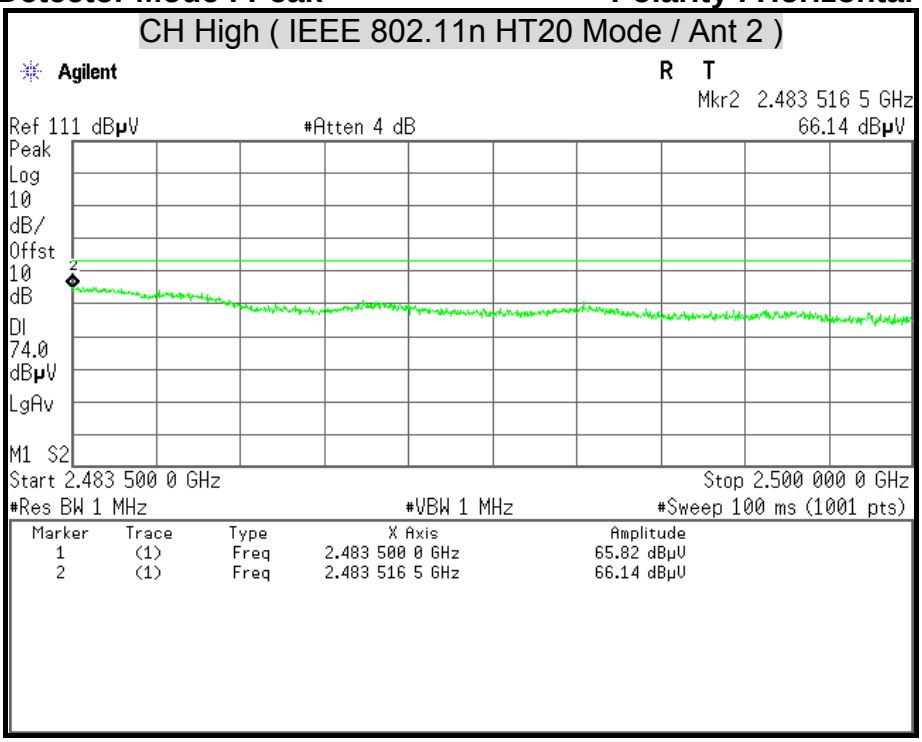
Detector Mode : Peak **Polarity : Vertical**



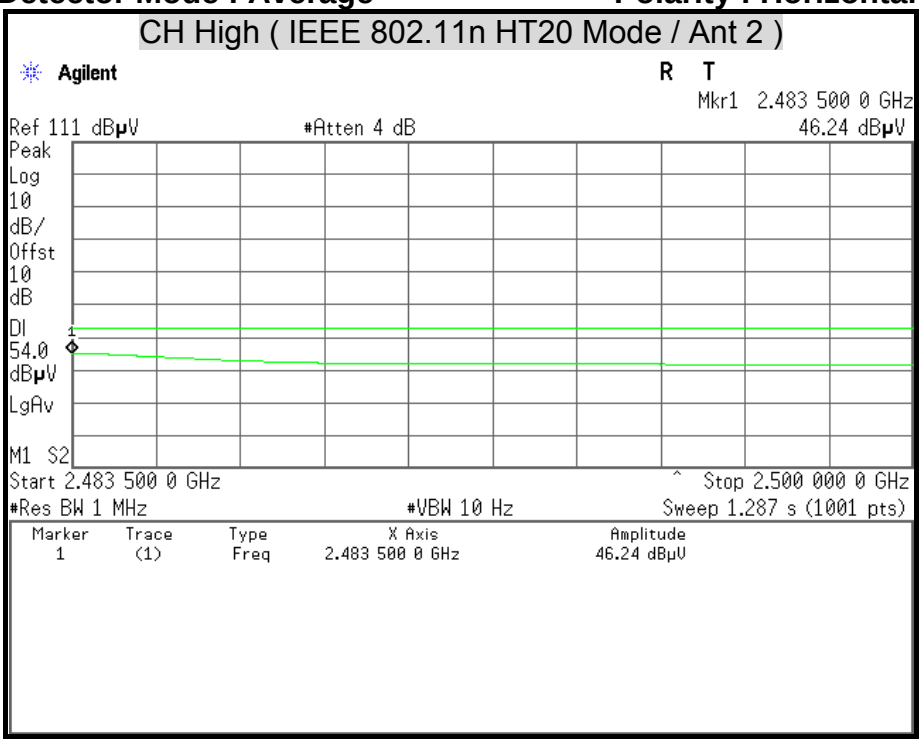
Detector Mode : Average **Polarity : Vertical**



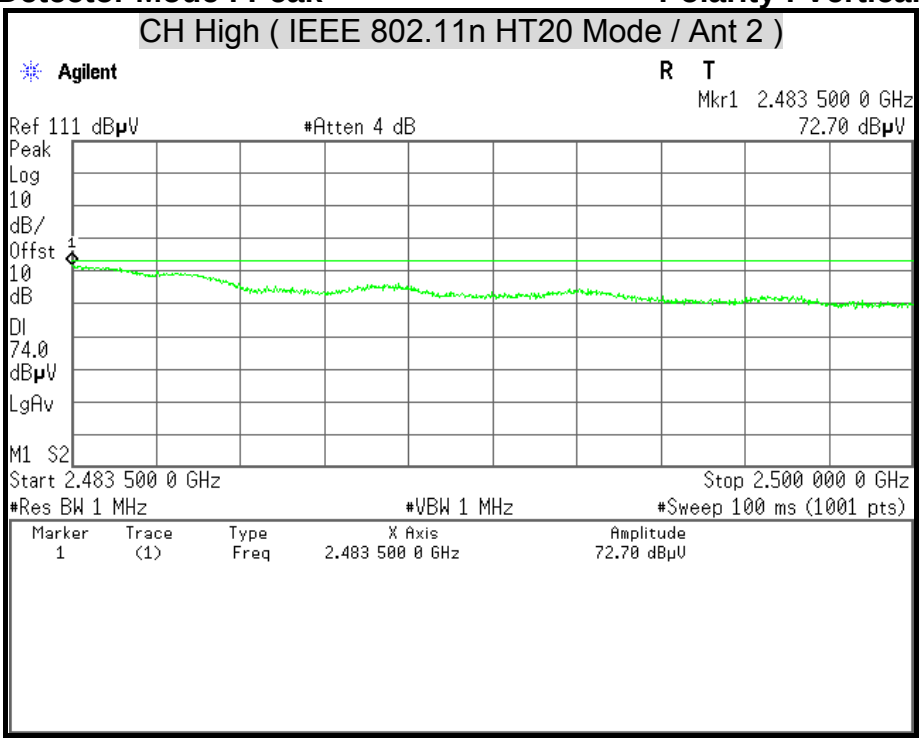
Detector Mode : Peak **Polarity : Horizontal**



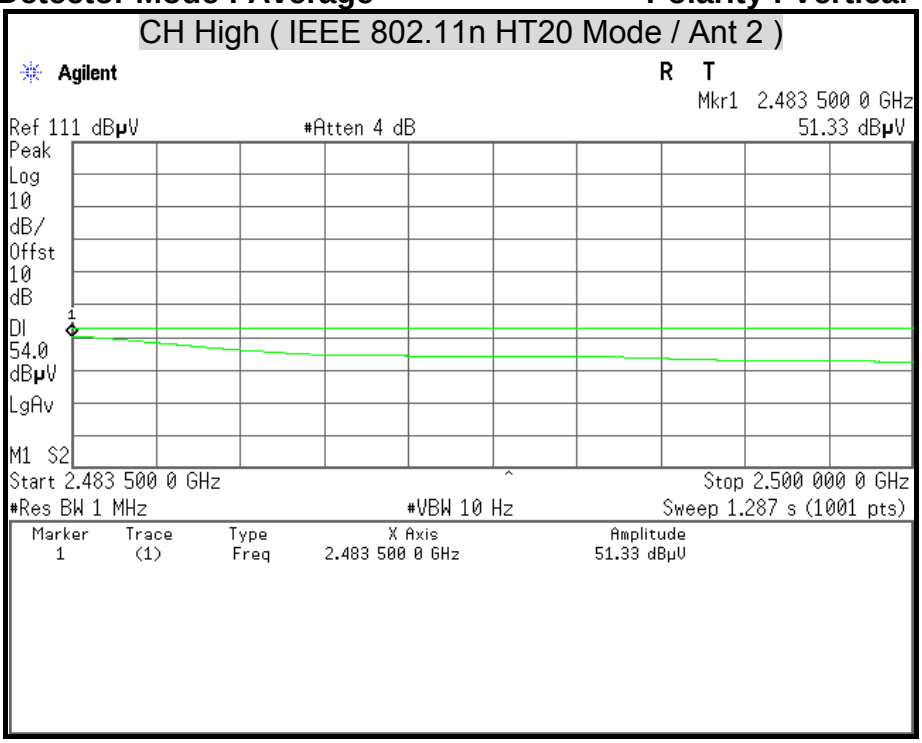
Detector Mode : Average **Polarity : Horizontal**



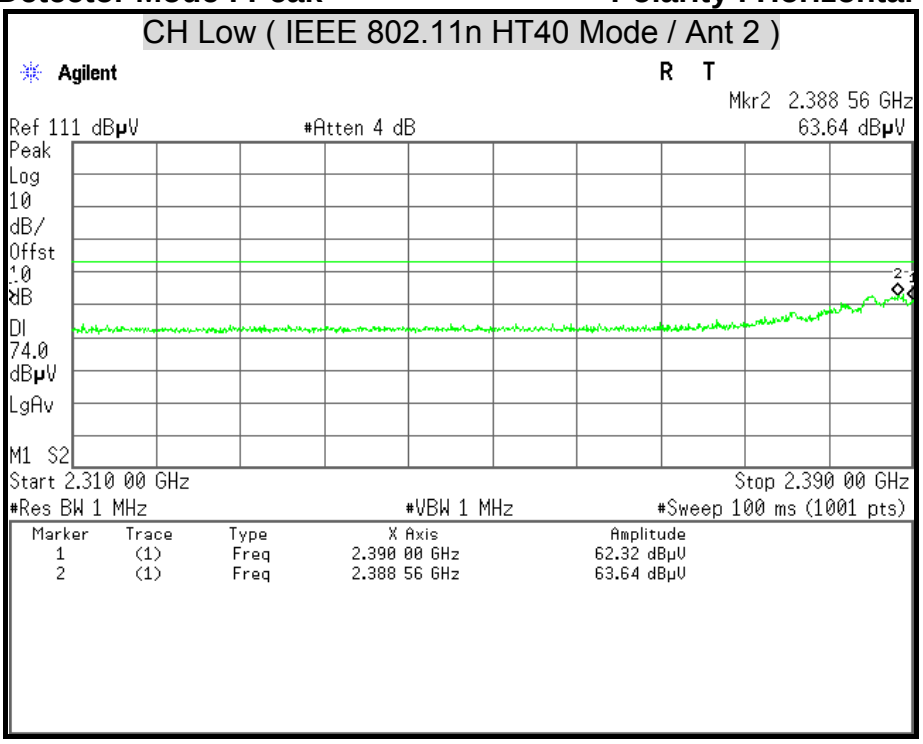
Detector Mode : Peak **Polarity : Vertical**



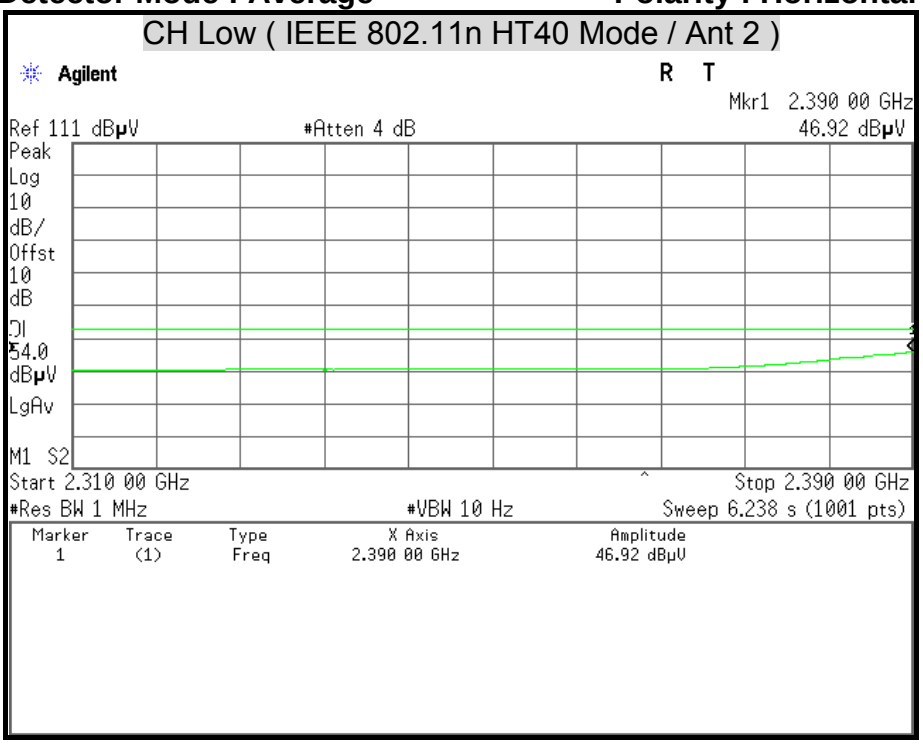
Detector Mode : Average **Polarity : Vertical**



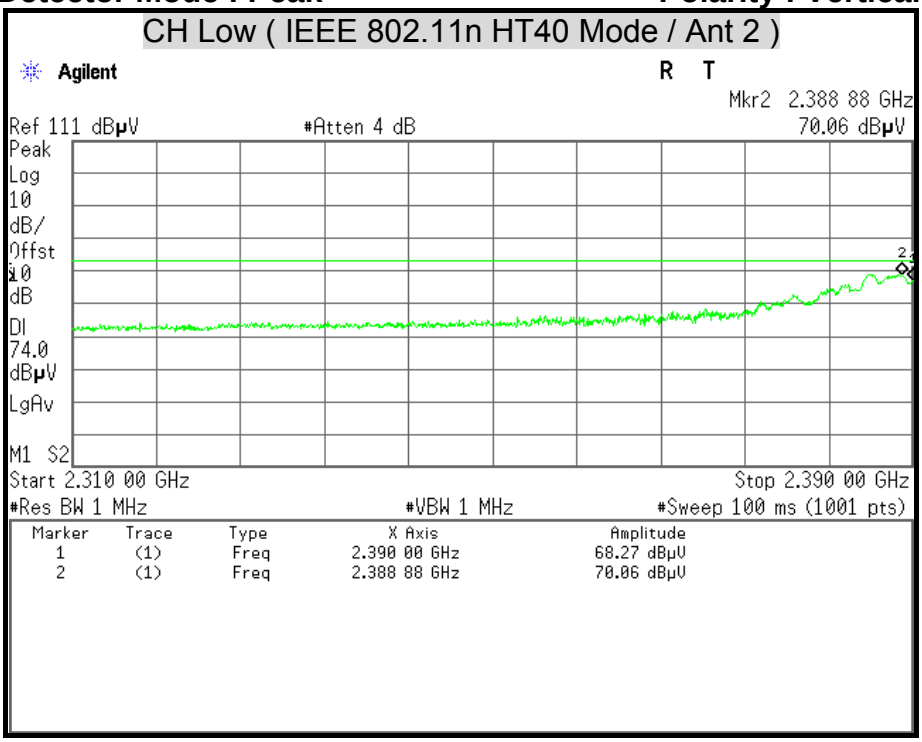
Detector Mode : Peak **Polarity : Horizontal**



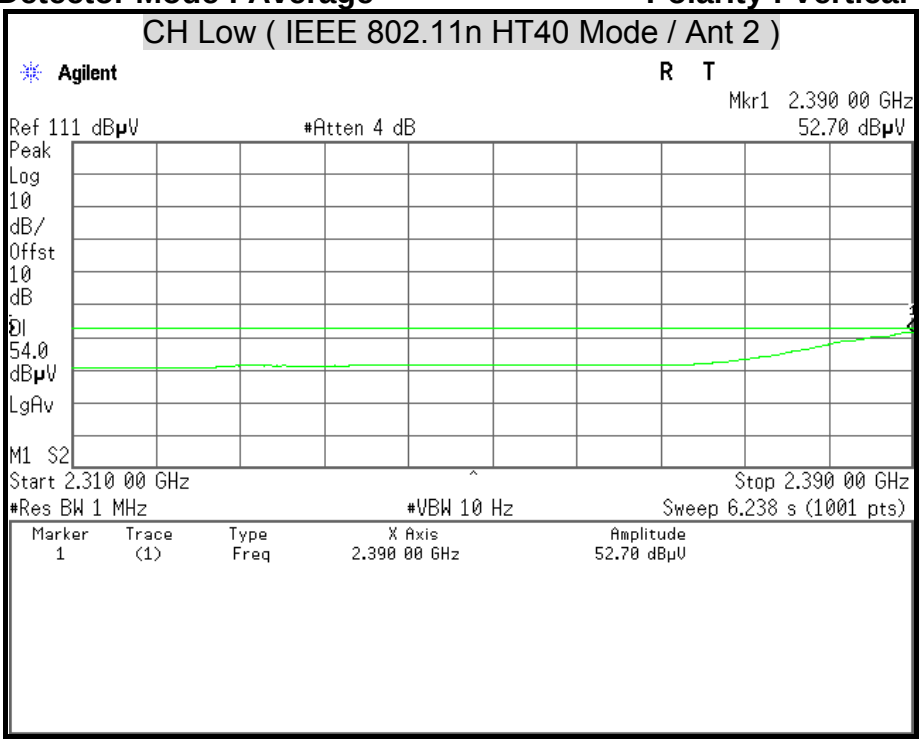
Detector Mode : Average **Polarity : Horizontal**



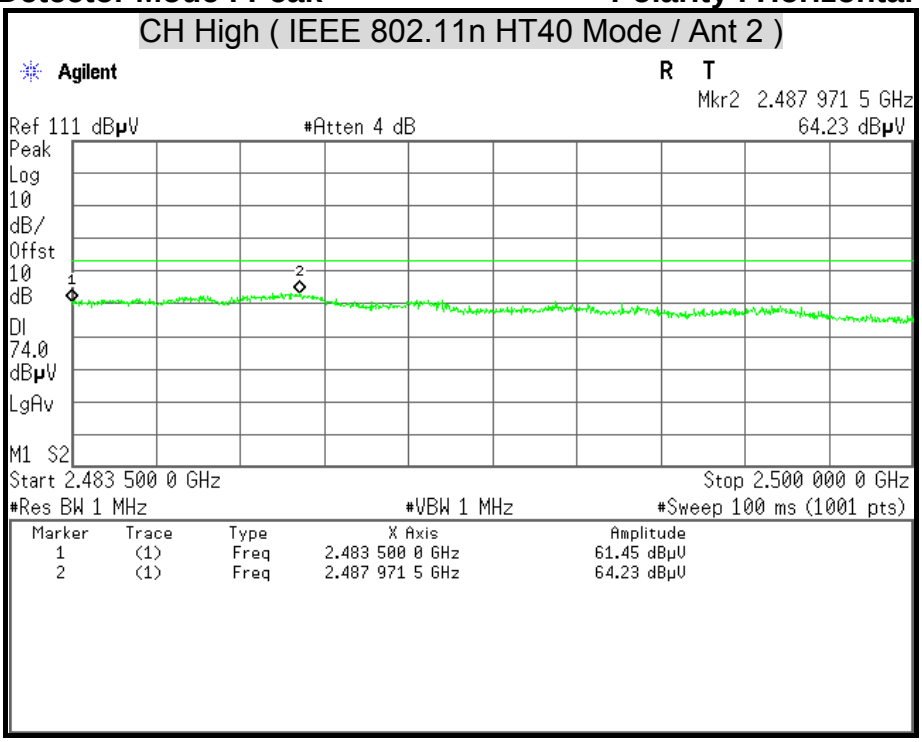
Detector Mode : Peak **Polarity : Vertical**



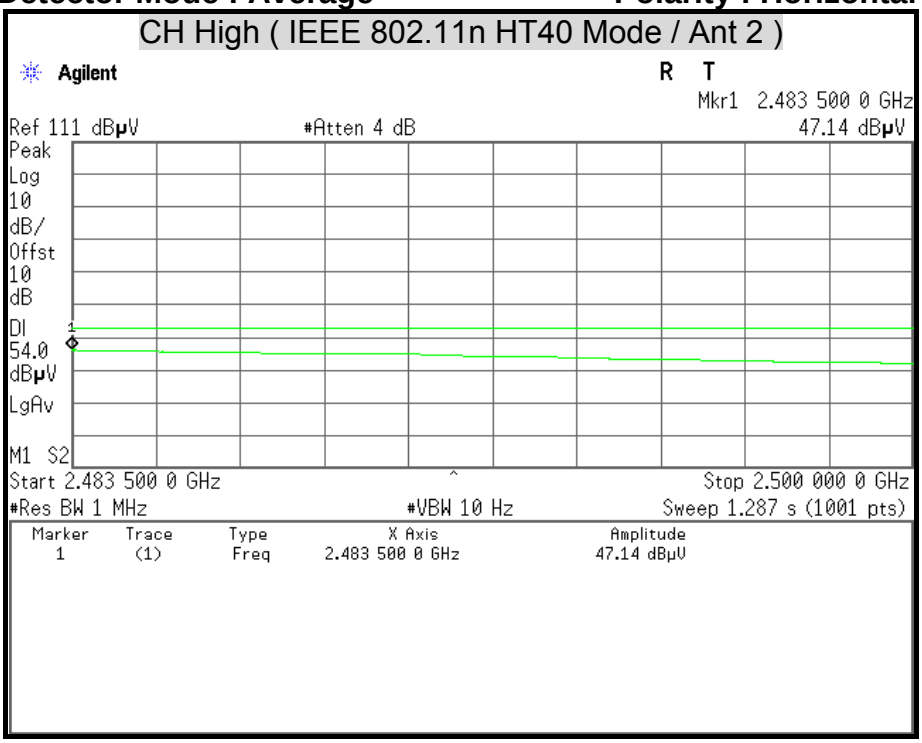
Detector Mode : Average **Polarity : Vertical**



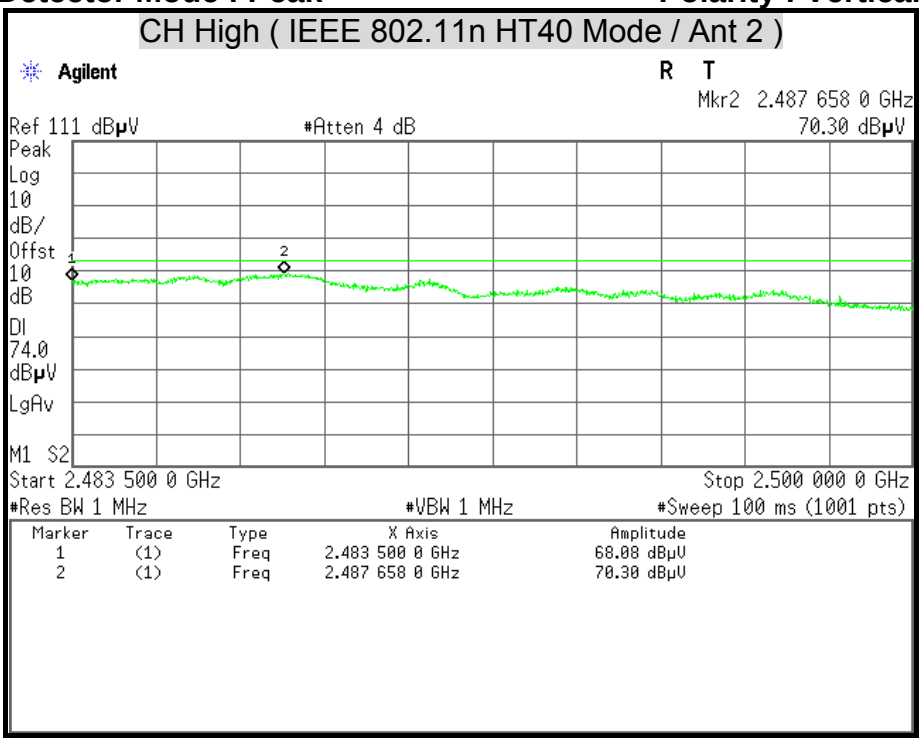
Detector Mode : Peak **Polarity : Horizontal**



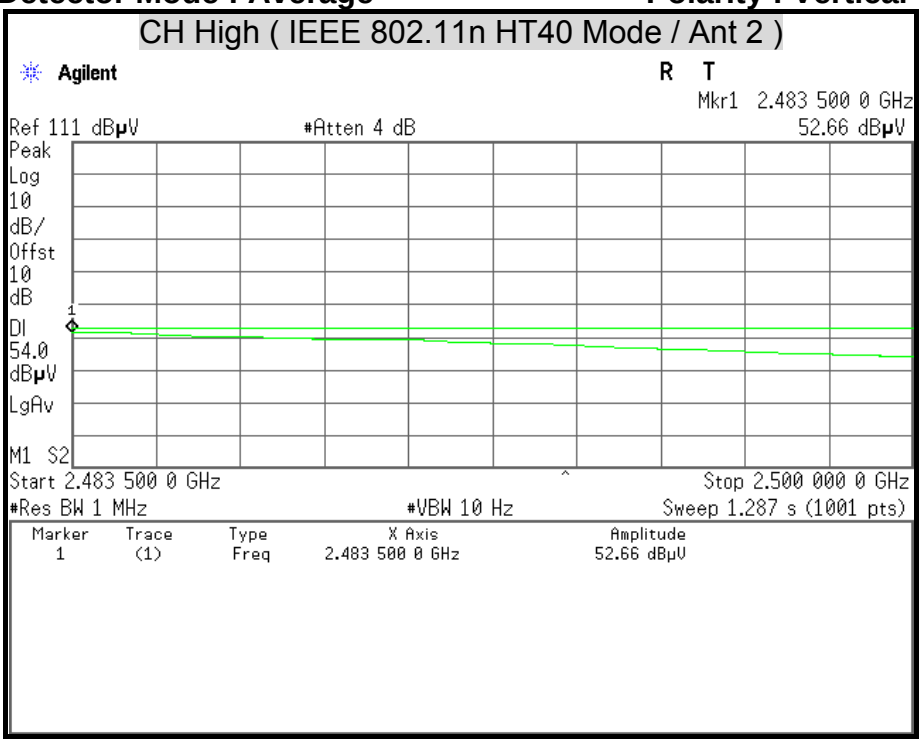
Detector Mode : Average **Polarity : Horizontal**



Detector Mode : Peak **Polarity : Vertical**

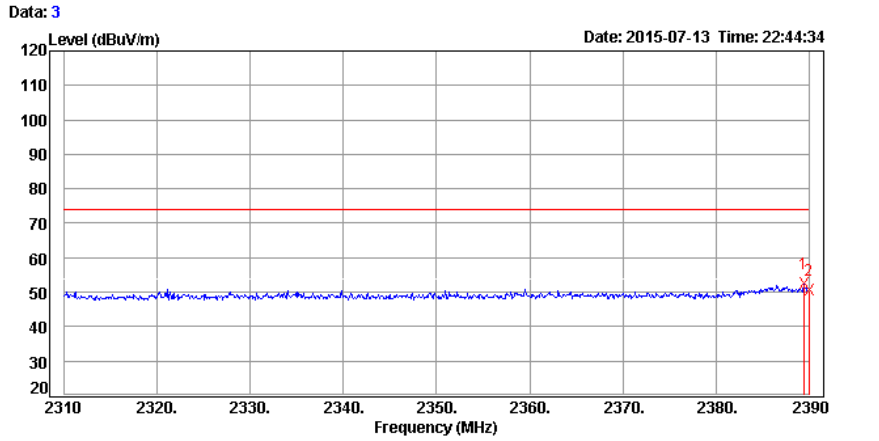


Detector Mode : Average **Polarity : Vertical**



Detector Mode : Peak **Polarity : Horizontal**

CH Low (IEEE 802.11b Mode / Ant 1)

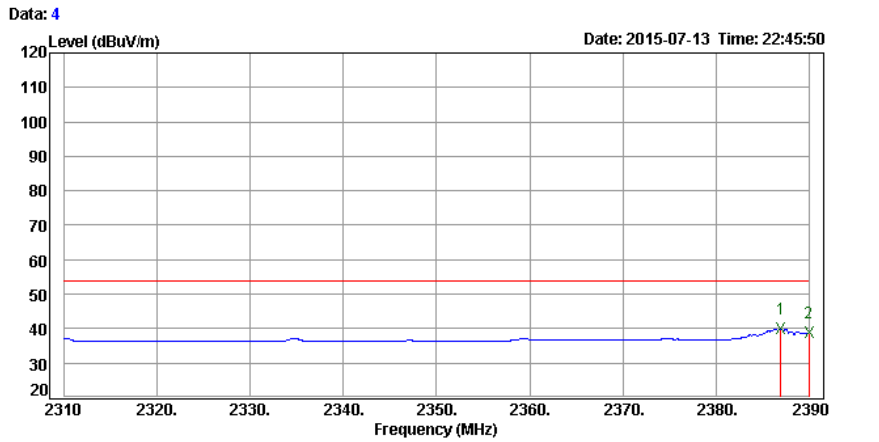


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.44	53.31	-0.94	52.37	74.00	-21.63			Peak
2390.00	51.47	-0.94	50.53	74.00	-23.47			Peak

Detector Mode : Average **Polarity : Horizontal**

CH Low (IEEE 802.11b Mode / Ant 1)

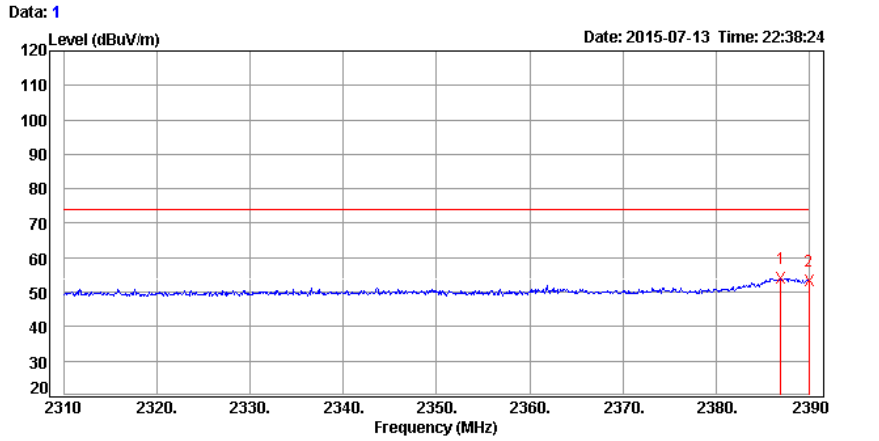


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.96	40.86	-0.95	39.91	54.00	-14.09			Average
2390.00	39.58	-0.94	38.64	54.00	-15.36			Average

Detector Mode : Peak **Polarity : Vertical**

CH Low (IEEE 802.11b Mode / Ant 1)

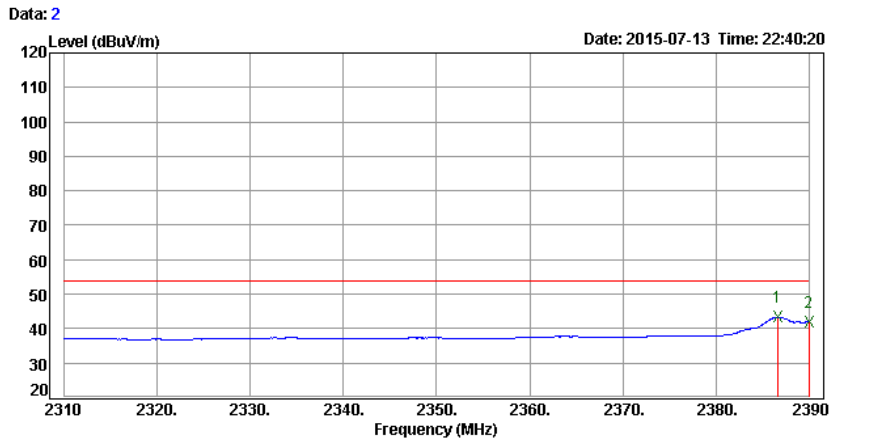


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.96	54.96	-0.95	54.01	74.00	-19.99			Peak
2390.00	54.23	-0.94	53.29	74.00	-20.71			Peak

Detector Mode : Average **Polarity : Vertical**

CH Low (IEEE 802.11b Mode / Ant 1)

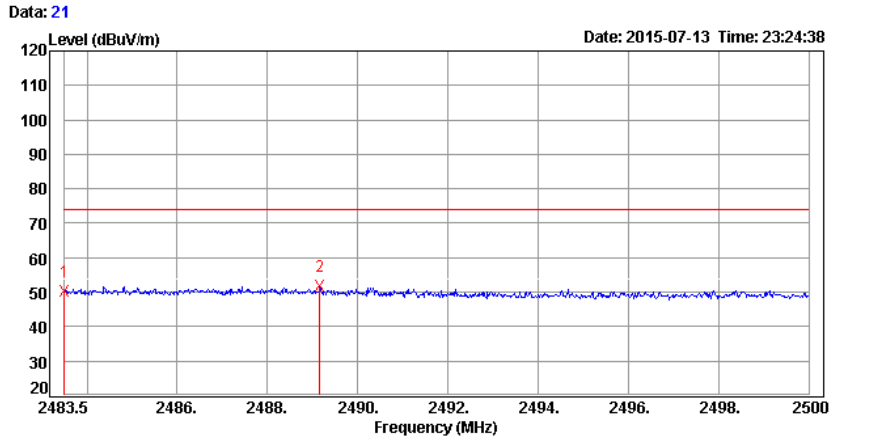


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.64	44.21	-0.95	43.26	54.00	-10.74			Average
2390.00	42.99	-0.94	42.05	54.00	-11.95			Average

Detector Mode : Peak **Polarity : Horizontal**

CH High (IEEE 802.11b Mode / Ant 1)

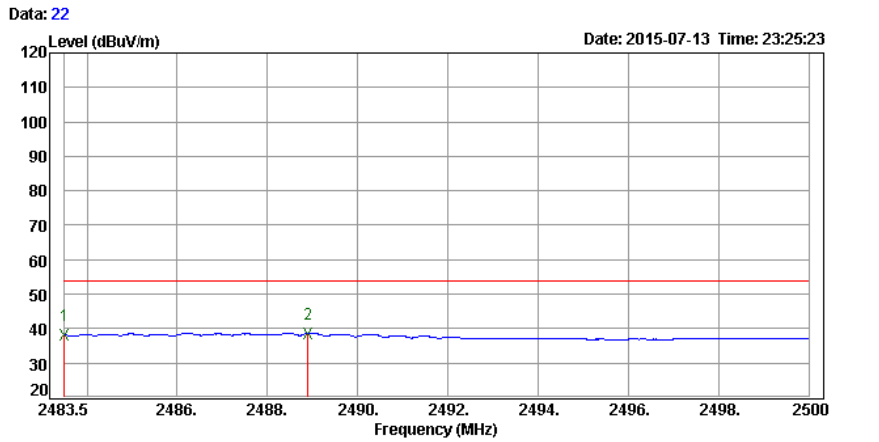


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.93	-0.55	50.38	74.00	-23.62			Peak
2489.16	52.12	-0.52	51.60	74.00	-22.40			Peak

Detector Mode : Average **Polarity : Horizontal**

CH High (IEEE 802.11b Mode / Ant 1)

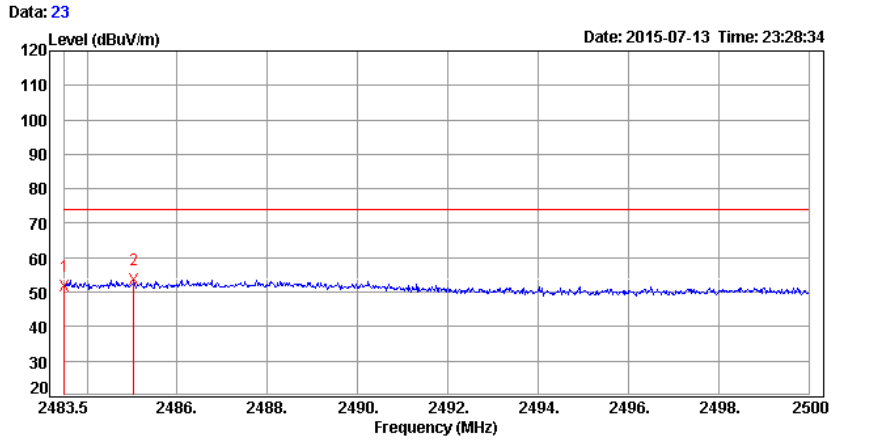


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	38.69	-0.55	38.14	54.00	-15.86			Average
2488.90	39.13	-0.53	38.60	54.00	-15.40			Average

Detector Mode : Peak **Polarity : Vertical**

CH High (IEEE 802.11b Mode / Ant 1)

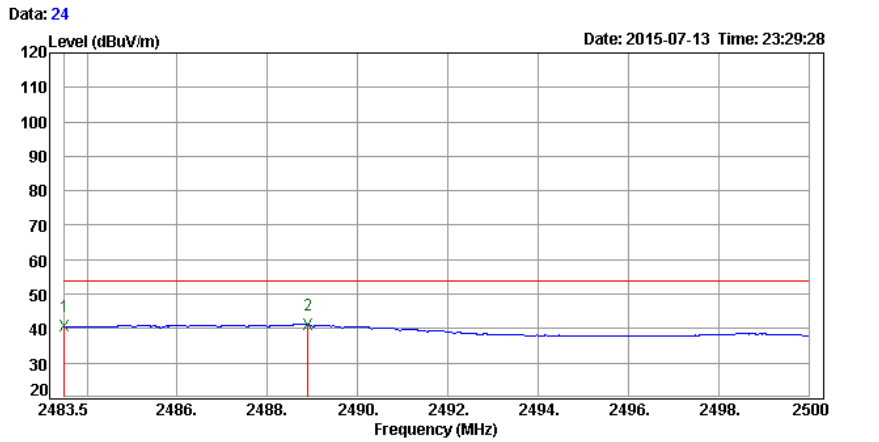


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	52.44	-0.55	51.89	74.00	-22.11			Peak
2485.03	54.01	-0.54	53.47	74.00	-20.53			Peak

Detector Mode : Average **Polarity : Vertical**

CH High (IEEE 802.11b Mode / Ant 1)

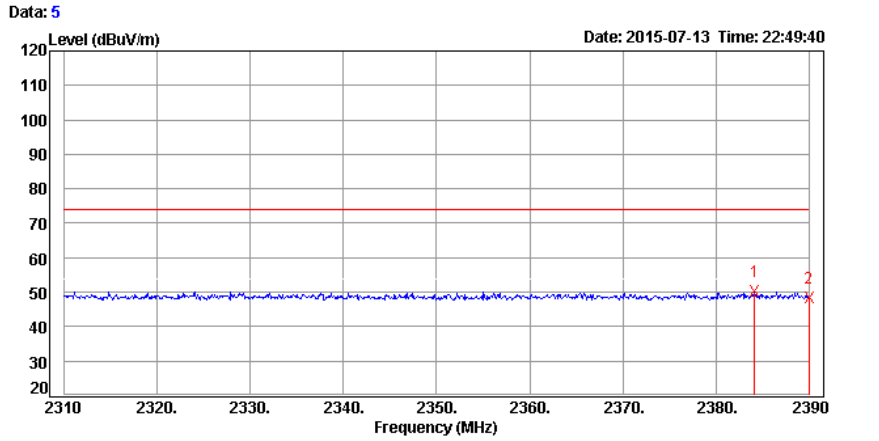


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	41.09	-0.55	40.54	54.00	-13.46			Average
2488.90	41.76	-0.53	41.23	54.00	-12.77			Average

Detector Mode : Peak **Polarity : Horizontal**

CH Low (IEEE 802.11g Mode / Ant 1)

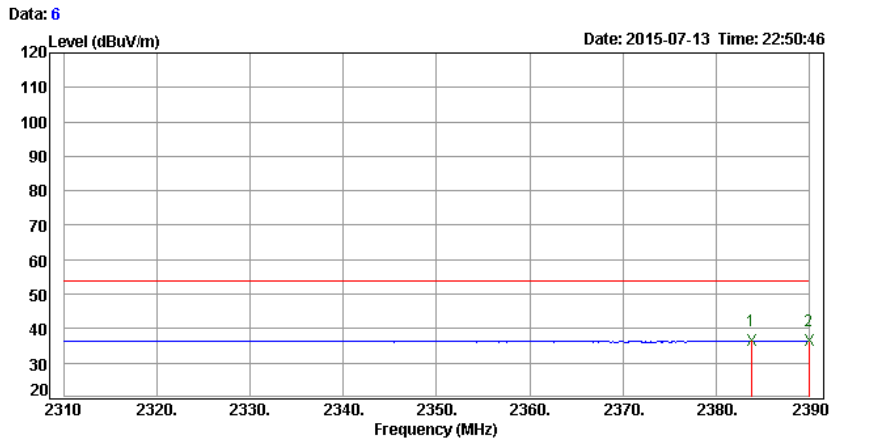


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2384.16	51.18	-0.96	50.22	74.00	-23.78			Peak
2390.00	49.27	-0.94	48.33	74.00	-25.67			Peak

Detector Mode : Average **Polarity : Horizontal**

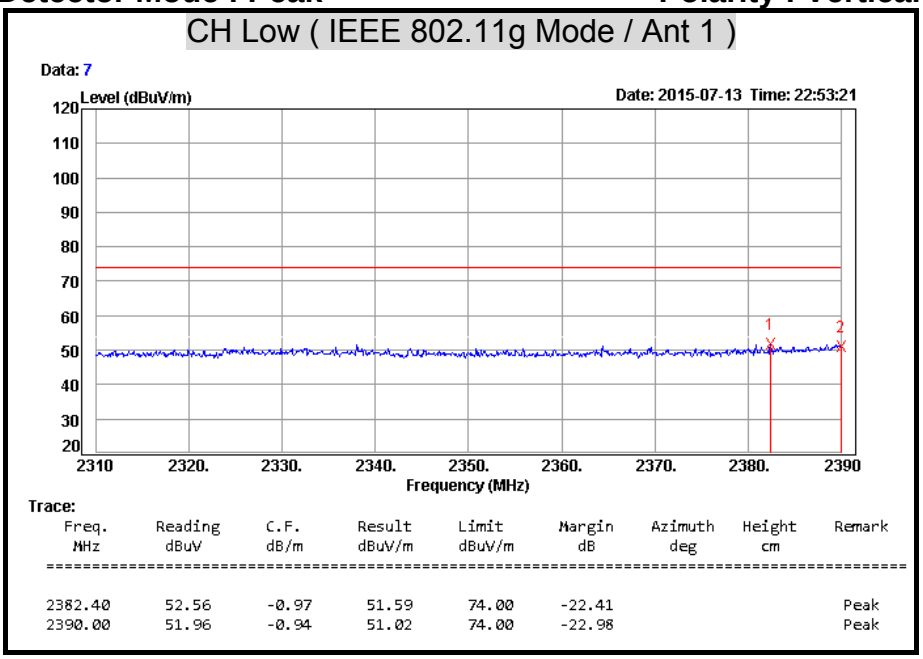
CH Low (IEEE 802.11g Mode / Ant 1)



Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2383.84	37.50	-0.96	36.54	54.00	-17.46			Average
2390.00	37.32	-0.94	36.38	54.00	-17.62			Average

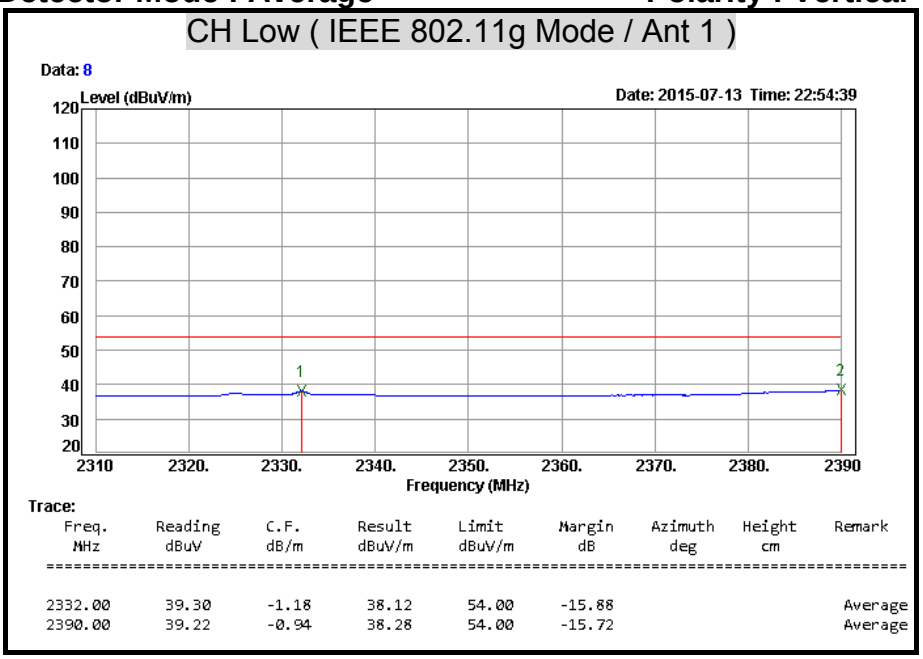
Detector Mode : Peak **Polarity : Vertical**



Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2382.40	52.56	-0.97	51.59	74.00	-22.41			Peak
2390.00	51.96	-0.94	51.02	74.00	-22.98			Peak

Detector Mode : Average **Polarity : Vertical**

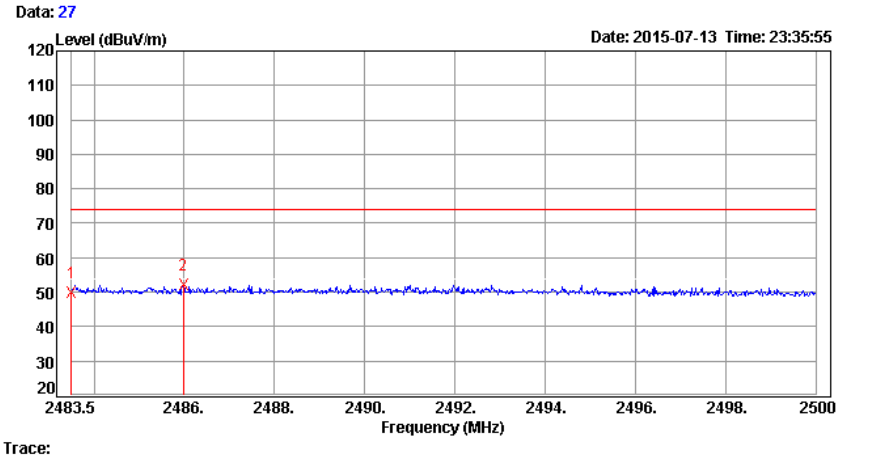


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2332.00	39.30	-1.18	38.12	54.00	-15.88			Average
2390.00	39.22	-0.94	38.28	54.00	-15.72			Average

Detector Mode : Peak **Polarity : Horizontal**

CH High (IEEE 802.11g Mode / Ant 1)

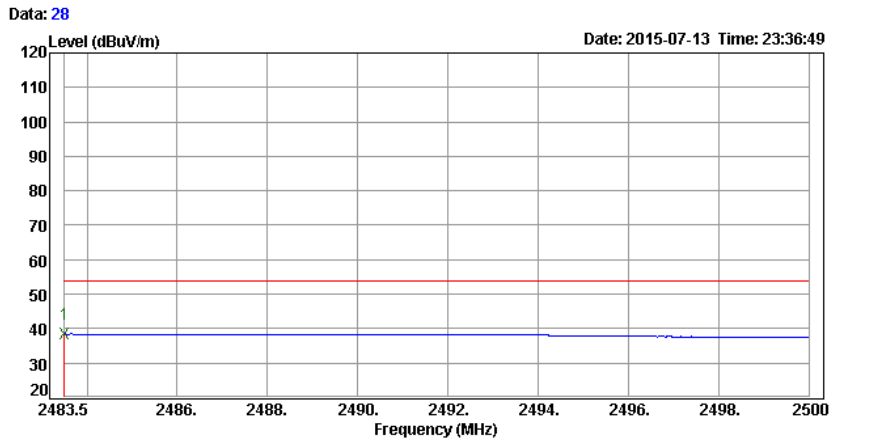


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.51	-0.55	49.96	74.00	-24.04			Peak
2485.98	52.68	-0.54	52.14	74.00	-21.86			Peak

Detector Mode : Average **Polarity : Horizontal**

CH High (IEEE 802.11g Mode / Ant 1)

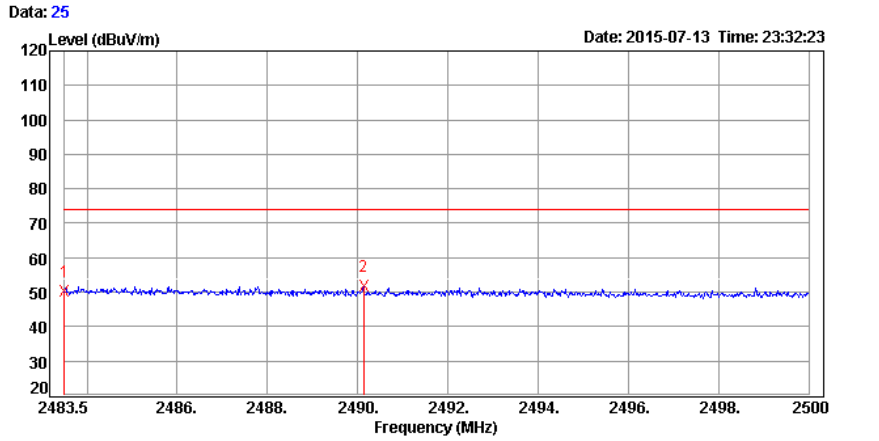


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	39.01	-0.55	38.46	54.00	-15.54			Average

Detector Mode : Peak **Polarity : Vertical**

CH High (IEEE 802.11g Mode / Ant 1)

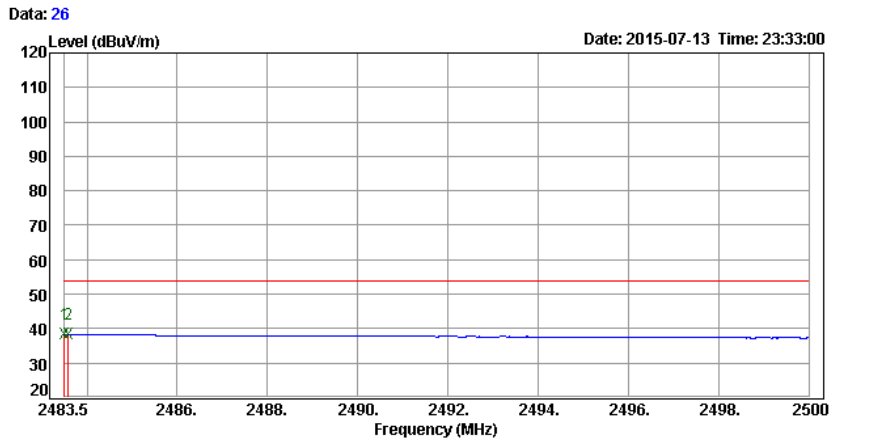


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.78	-0.55	50.23	74.00	-23.77			Peak
2490.13	52.24	-0.52	51.72	74.00	-22.28			Peak

Detector Mode : Average **Polarity : Vertical**

CH High (IEEE 802.11g Mode / Ant 1)

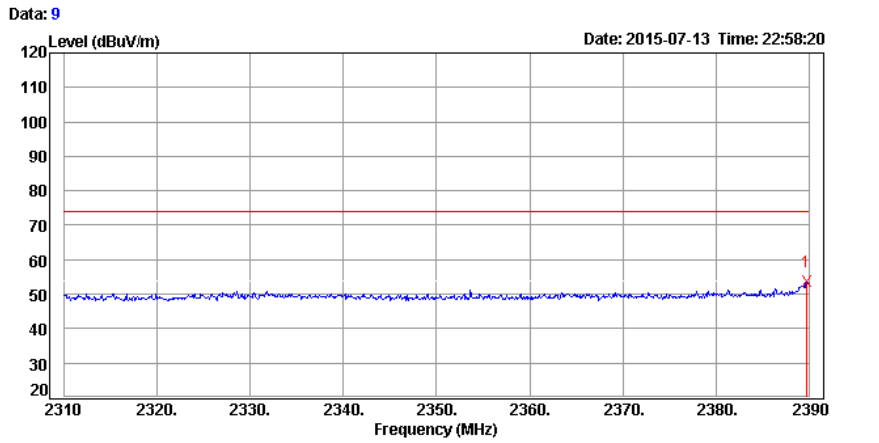


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	38.85	-0.55	38.30	54.00	-15.70			Average
2483.58	38.89	-0.55	38.34	54.00	-15.66			Average

Detector Mode : Peak **Polarity : Horizontal**

CH Low (IEEE 802.11n HT20 Mode / Ant 1)

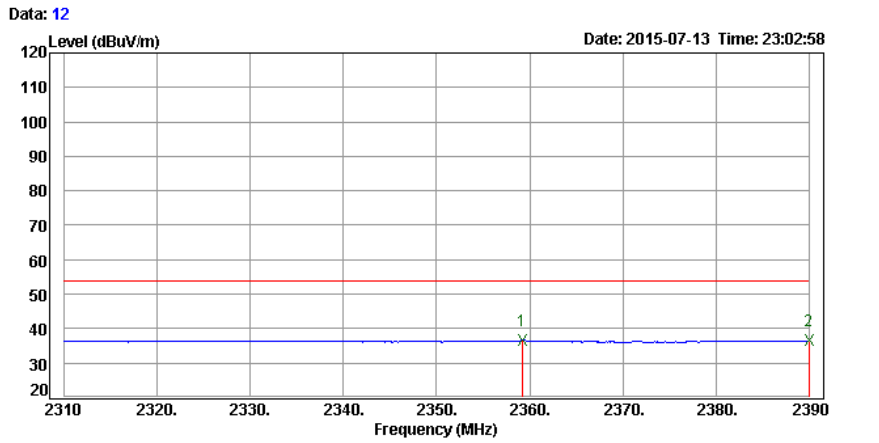


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.76	54.40	-0.94	53.46	74.00	-20.54			Peak

Detector Mode : Average **Polarity : Horizontal**

CH Low (IEEE 802.11n HT20 Mode / Ant 1)

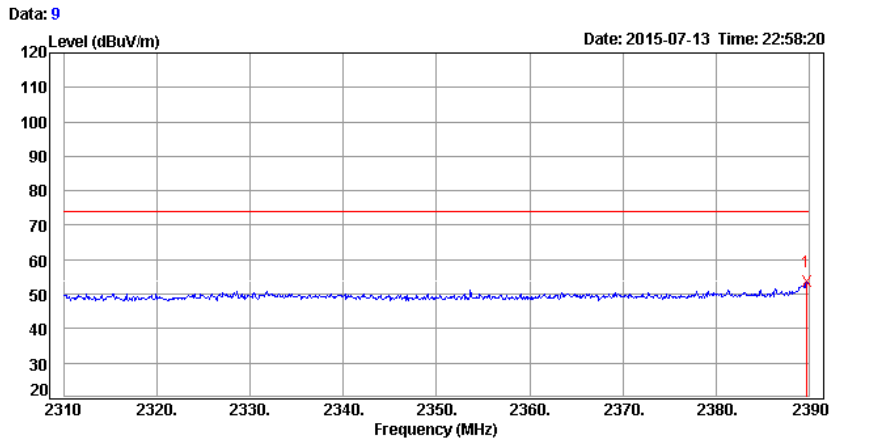


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2359.20	37.64	-1.06	36.58	54.00	-17.42			Average
2390.00	37.33	-0.94	36.39	54.00	-17.61			Average

Detector Mode : Peak **Polarity : Vertical**

CH Low (IEEE 802.11n HT20 Mode / Ant 1)

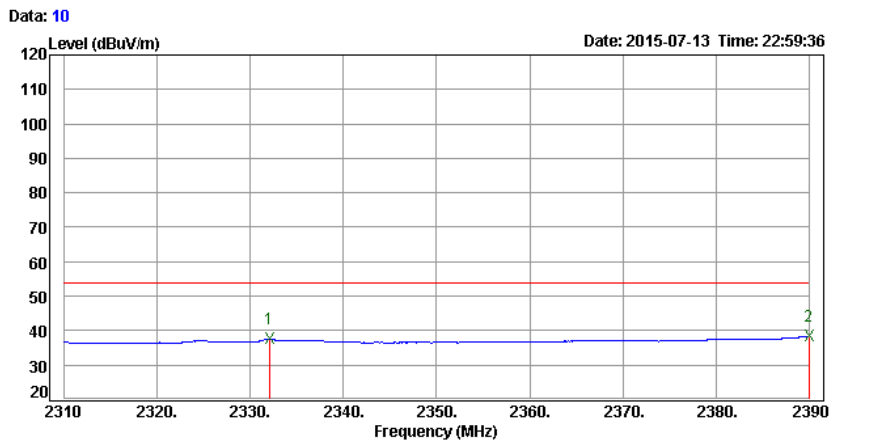


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.76	54.40	-0.94	53.46	74.00	-20.54			Peak

Detector Mode : Average **Polarity : Vertical**

CH Low (IEEE 802.11n HT20 Mode / Ant 1)

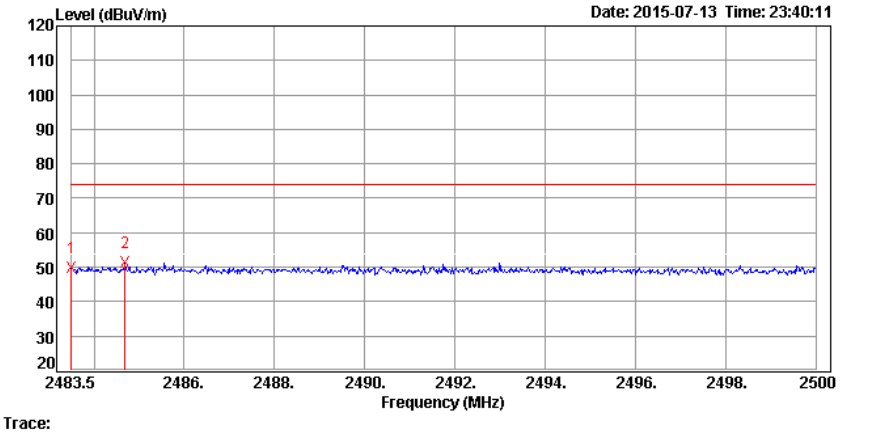


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2332.00	38.84	-1.18	37.66	54.00	-16.34			Average
2390.00	39.25	-0.94	38.31	54.00	-15.69			Average

Detector Mode : Peak **Polarity : Horizontal**

CH High (IEEE 802.11n HT20 Mode / Ant 1)

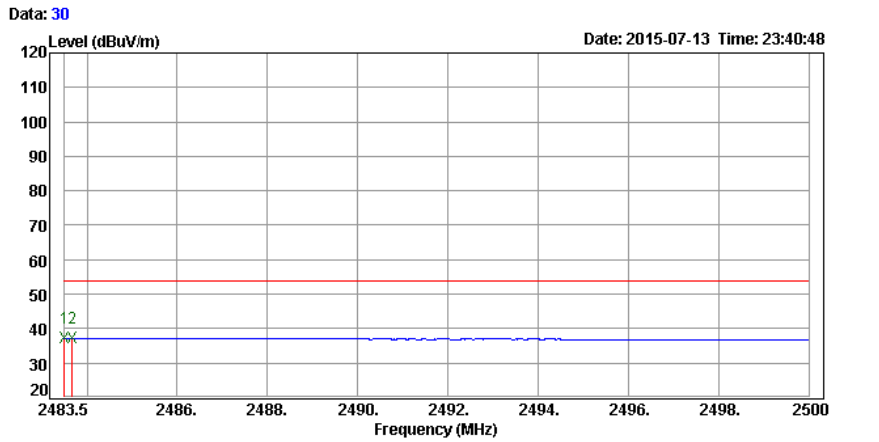


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.34	-0.55	49.79	74.00	-24.21			Peak
2484.69	51.82	-0.54	51.28	74.00	-22.72			Peak

Detector Mode : Average **Polarity : Horizontal**

CH High (IEEE 802.11n HT20 Mode / Ant 1)

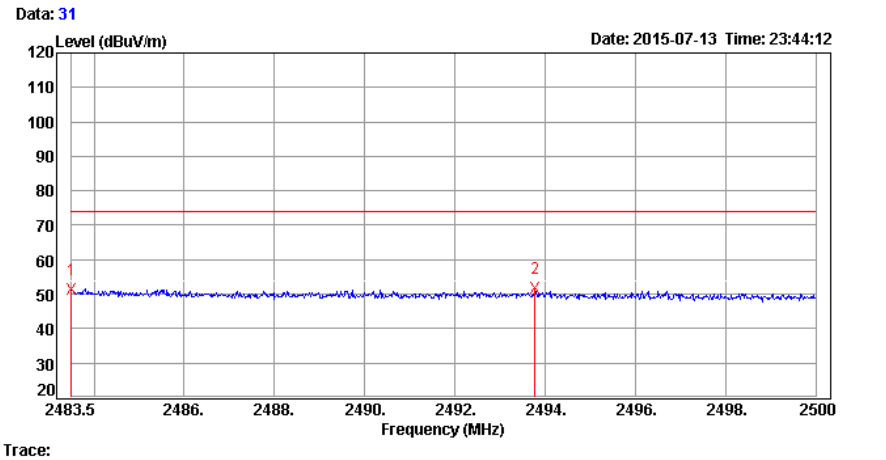


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	37.79	-0.55	37.24	54.00	-16.76			Average
2483.67	37.80	-0.55	37.25	54.00	-16.75			Average

Detector Mode : Peak **Polarity : Vertical**

CH High (IEEE 802.11n HT20 Mode / Ant 1)

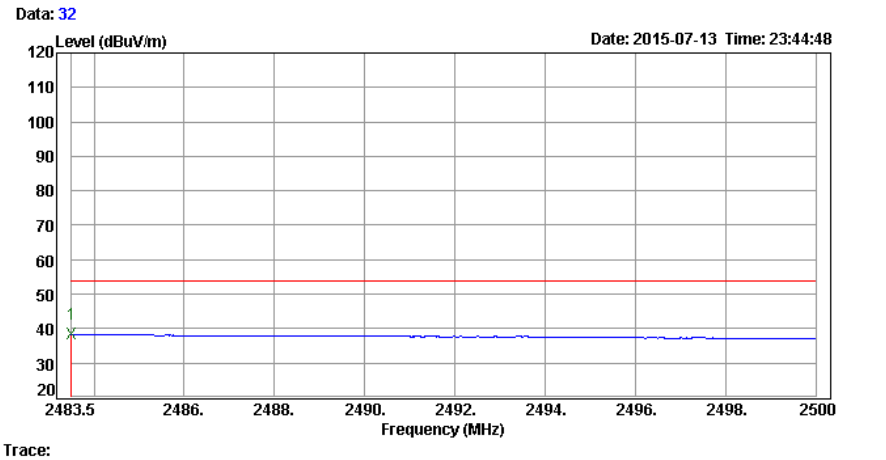


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	51.74	-0.55	51.19	74.00	-22.81			Peak
2493.78	52.29	-0.51	51.78	74.00	-22.22			Peak

Detector Mode : Average **Polarity : Vertical**

CH High (IEEE 802.11n HT20 Mode / Ant 1)

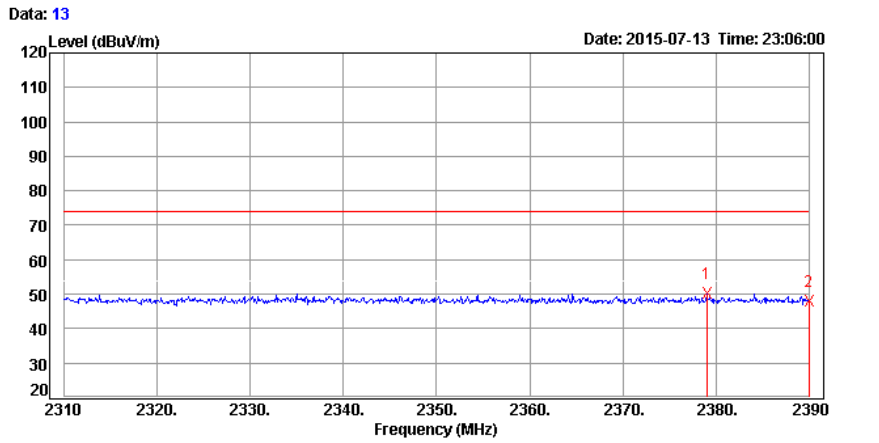


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	38.90	-0.55	38.35	54.00	-15.65			Average

Detector Mode : Peak **Polarity : Horizontal**

CH Low (IEEE 802.11n HT40 Mode / Ant 1)

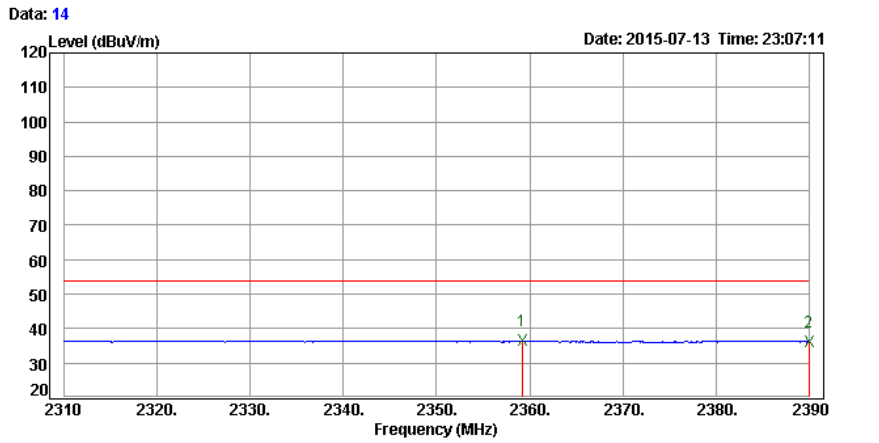


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2379.04	51.04	-0.98	50.06	74.00	-23.94			Peak
2390.00	48.98	-0.94	48.04	74.00	-25.96			Peak

Detector Mode : Average **Polarity : Horizontal**

CH Low (IEEE 802.11n HT40 Mode / Ant 1)

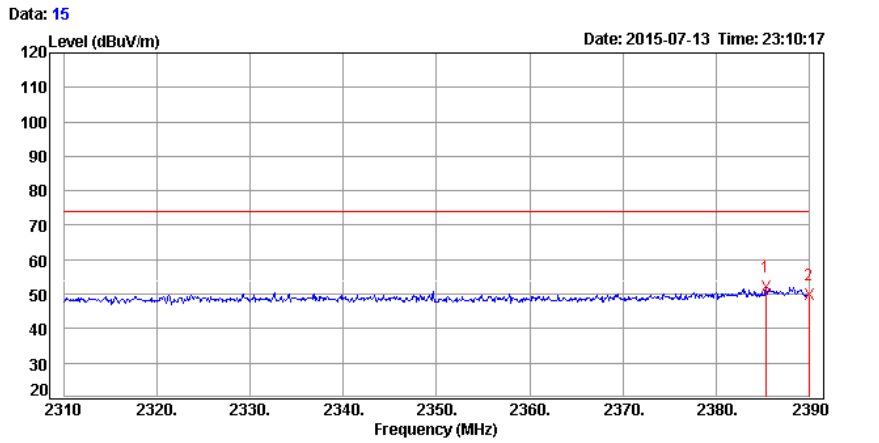


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2359.20	37.56	-1.06	36.50	54.00	-17.50			Average
2390.00	37.11	-0.94	36.17	54.00	-17.83			Average

Detector Mode : Peak **Polarity : Vertical**

CH Low (IEEE 802.11n HT40 Mode / Ant 1)

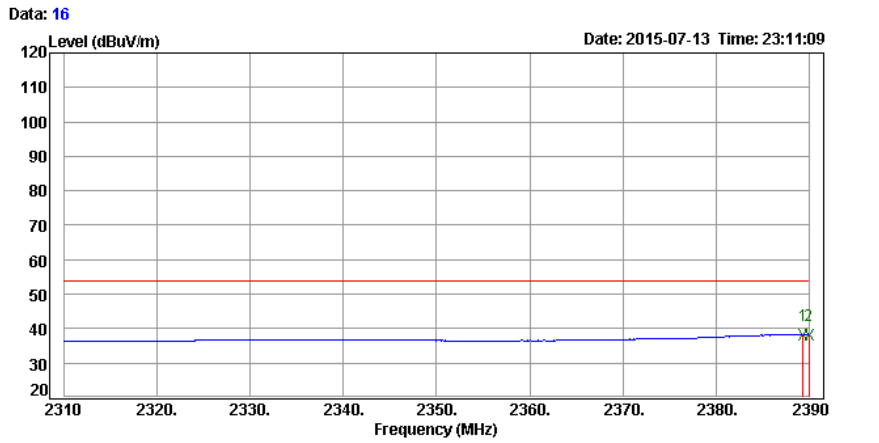


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2385.36	52.90	-0.95	51.95	74.00	-22.05			Peak
2390.00	50.67	-0.94	49.73	74.00	-24.27			Peak

Detector Mode : Average **Polarity : Vertical**

CH Low (IEEE 802.11n HT40 Mode / Ant 1)

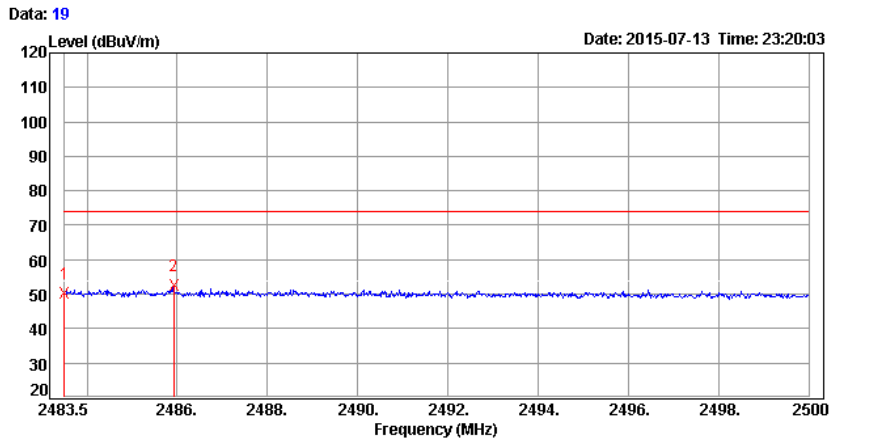


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.36	39.19	-0.94	38.25	54.00	-15.75			Average
2390.00	39.09	-0.94	38.15	54.00	-15.85			Average

Detector Mode : Peak **Polarity : Horizontal**

CH High (IEEE 802.11n HT40 Mode / Ant 1)

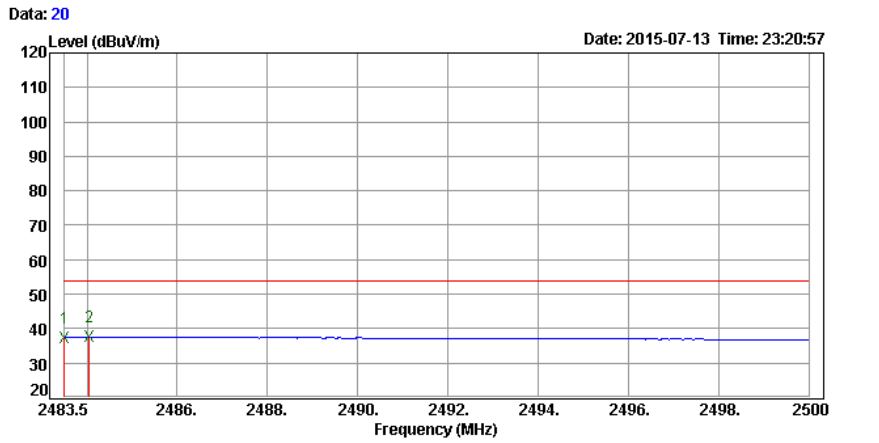


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	50.87	-0.55	50.32	74.00	-23.68			Peak
2485.93	53.08	-0.54	52.54	74.00	-21.46			Peak

Detector Mode : Average **Polarity : Horizontal**

CH High (IEEE 802.11n HT40 Mode / Ant 1)

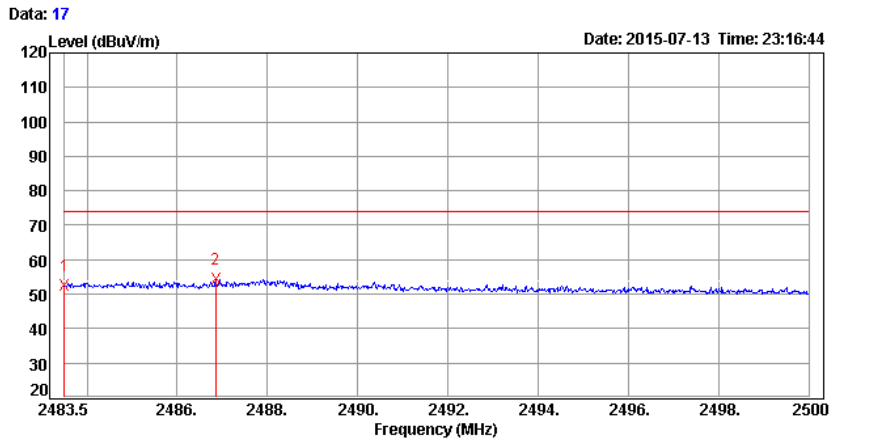


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	37.97	-0.55	37.42	54.00	-16.58			Average
2484.04	38.05	-0.55	37.50	54.00	-16.50			Average

Detector Mode : Peak **Polarity : Vertical**

CH High (IEEE 802.11n HT40 Mode / Ant 1)

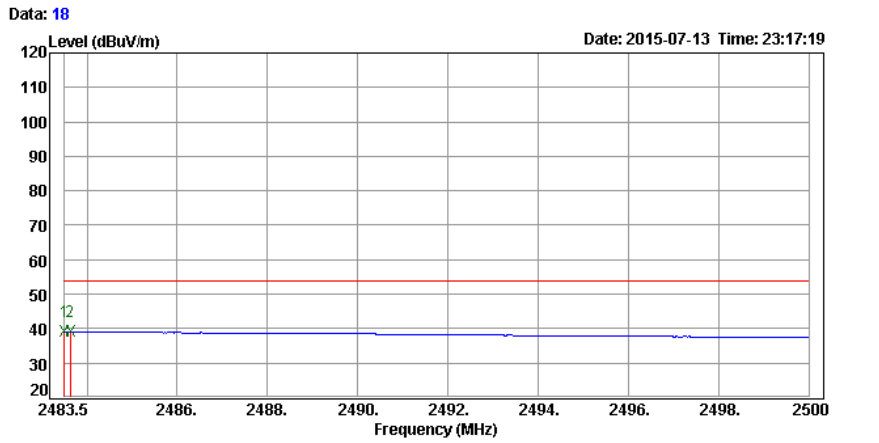


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	53.01	-0.55	52.46	74.00	-21.54			Peak
2486.85	54.90	-0.53	54.37	74.00	-19.63			Peak

Detector Mode : Average **Polarity : Vertical**

CH High (IEEE 802.11n HT40 Mode / Ant 1)



Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	39.59	-0.55	39.04	54.00	-14.96			Average
2483.63	39.63	-0.55	39.08	54.00	-14.92			Average

7.8 CONDUCTED EMISSION

LIMITS

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.

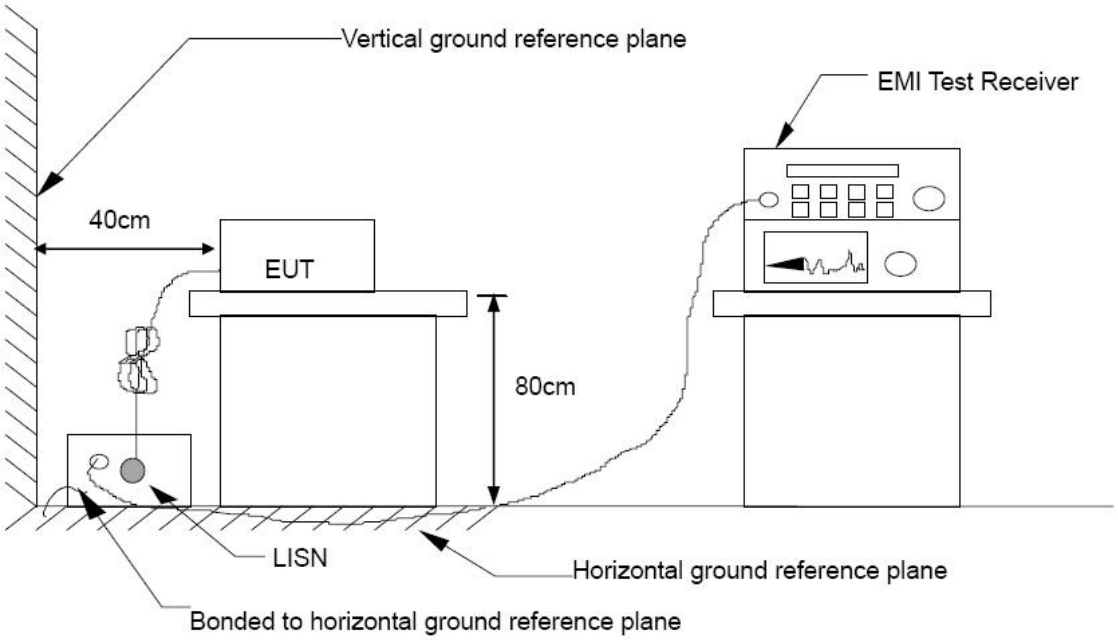
Frequency Range (MHz)	Conducted Limit (dBμv)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5.00	56	46
5.00 - 30.0	60	50

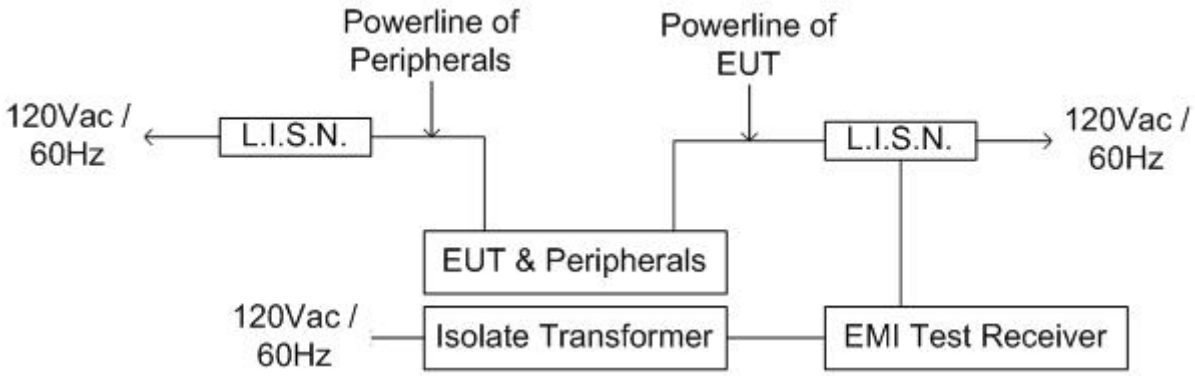
TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-465	08/11/2014
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-473	03/07/2014
EMI Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/16/2014
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	100117	07/01/2014

Remark: *Each piece of equipment is scheduled for calibration once a year.*

TEST SETUP





TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2014.

The test procedure is performed in a 4m × 3m × 2.4m (L×W×H) shielded room.

The EUT along with its peripherals were placed on a 1.0m (W) × 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.

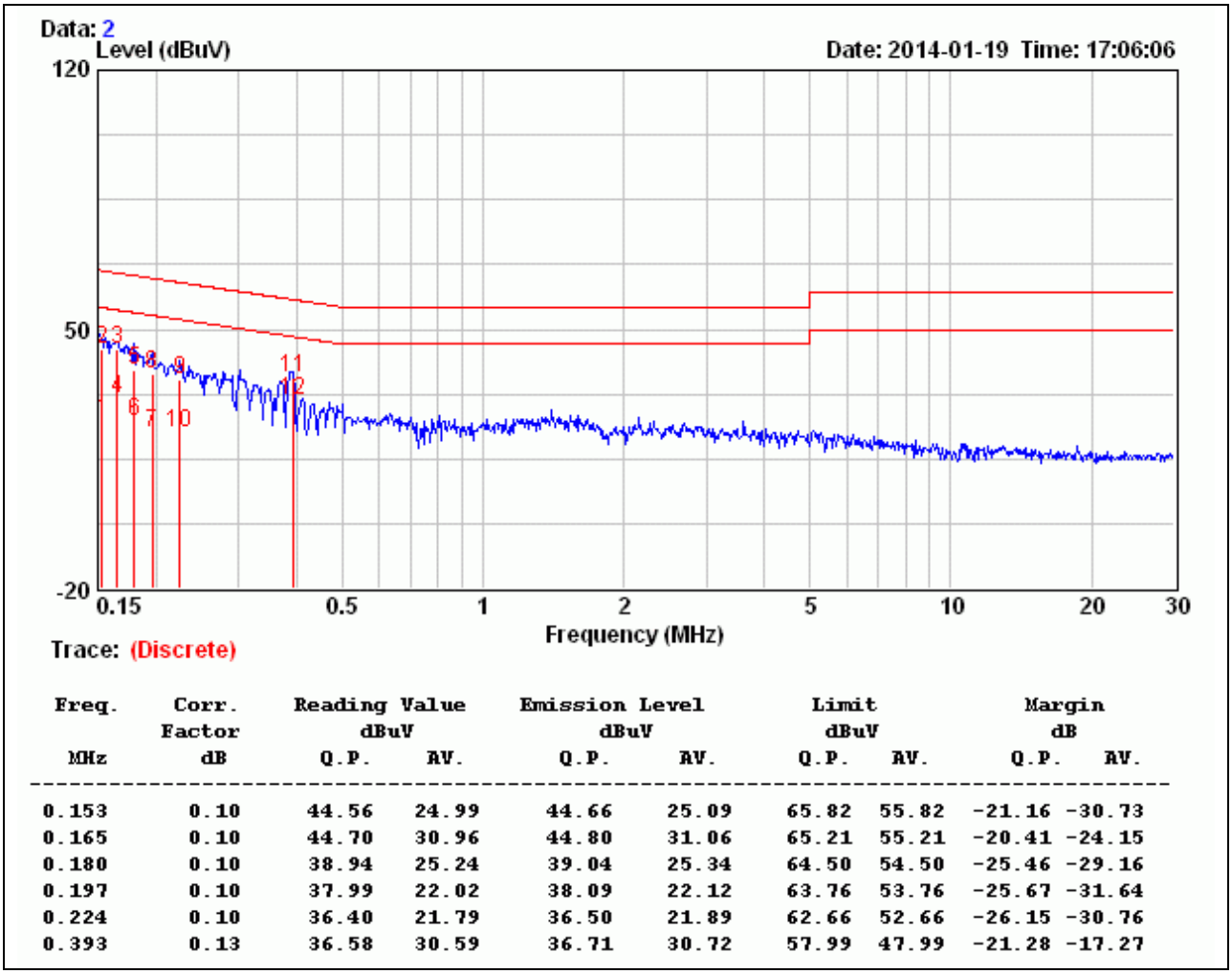
The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.

The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.

TEST RESULTS

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-A1	Test Date	2014/01/19
Test Mode	Mode 1	Temp. & Humidity	18°C, 45%

LINE



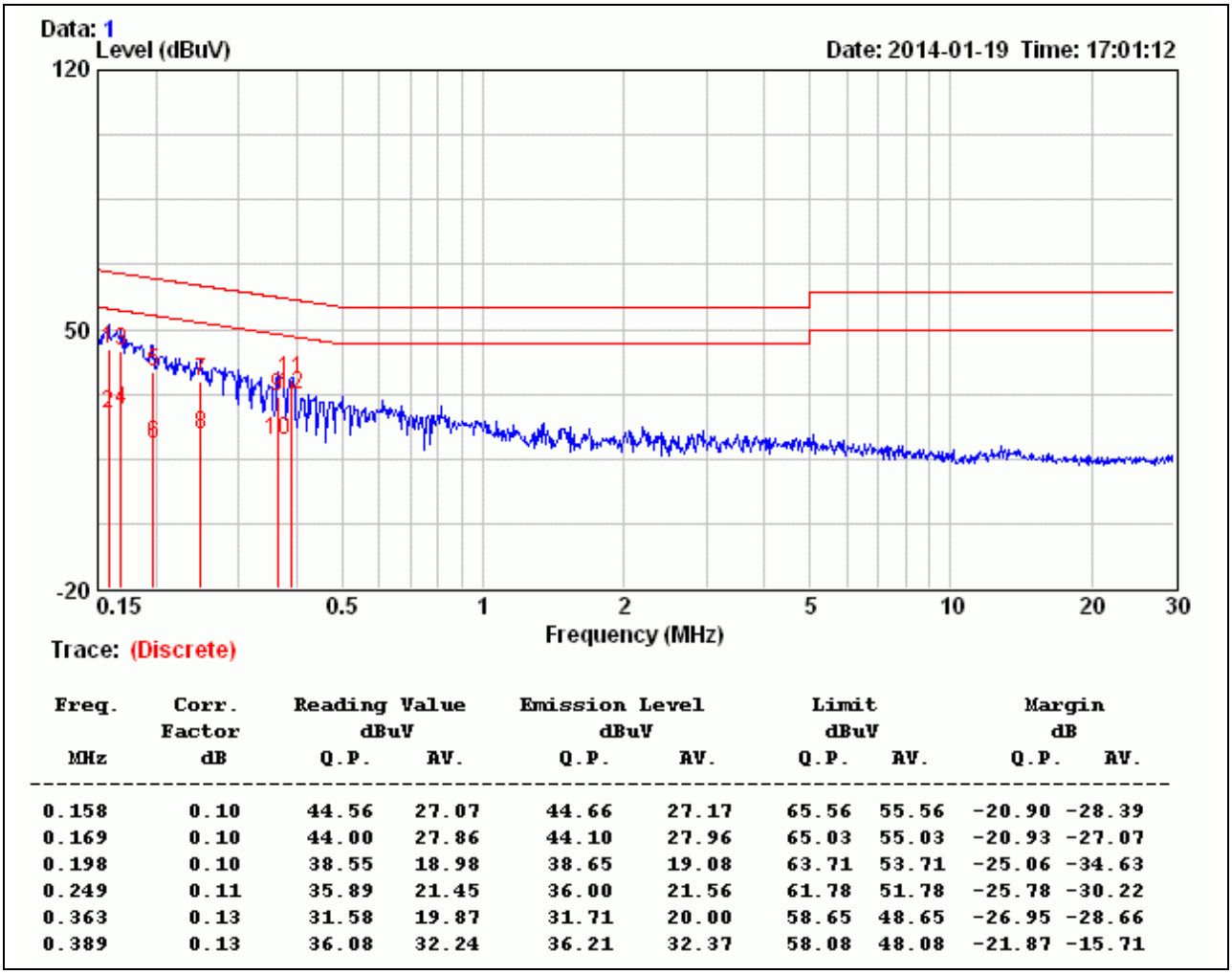
Freq. MHz	Corr. Factor dB	Reading Value dBuV Q.P.	Reading Value dBuV AV.	Emission Level dBuV Q.P.	Emission Level dBuV AV.	Limit dBuV Q.P.	Limit dBuV AV.	Margin dB Q.P.	Margin dB AV.
0.153	0.10	44.56	24.99	44.66	25.09	65.82	55.82	-21.16	-30.73
0.165	0.10	44.70	30.96	44.80	31.06	65.21	55.21	-20.41	-24.15
0.180	0.10	38.94	25.24	39.04	25.34	64.50	54.50	-25.46	-29.16
0.197	0.10	37.99	22.02	38.09	22.12	63.76	53.76	-25.67	-31.64
0.224	0.10	36.40	21.79	36.50	21.89	62.66	52.66	-26.15	-30.76
0.393	0.13	36.58	30.59	36.71	30.72	57.99	47.99	-21.28	-17.27

Remark:

1. Correction Factor = Insertion loss + Cable loss
2. Emission level = Reading Value + Correction factor
3. Margin value = Emission level – Limit value

Product Name	802.11b/g/n WiFi Module	Test By	Waternil Guan
Test Model	SA9800-A1	Test Date	2014/01/19
Test Mode	Mode 1	Temp. & Humidity	18°C, 45%

NEUTRAL



Freq. MHz	Corr. Factor dB	Reading Value dBuV Q.P.	Reading Value dBuV AV.	Emission Level dBuV Q.P.	Emission Level dBuV AV.	Limit dBuV Q.P.	Limit dBuV AV.	Margin dB Q.P.	Margin dB AV.
0.158	0.10	44.56	27.07	44.66	27.17	65.56	55.56	-20.90	-28.39
0.169	0.10	44.00	27.86	44.10	27.96	65.03	55.03	-20.93	-27.07
0.198	0.10	38.55	18.98	38.65	19.08	63.71	53.71	-25.06	-34.63
0.249	0.11	35.89	21.45	36.00	21.56	61.78	51.78	-25.78	-30.22
0.363	0.13	31.58	19.87	31.71	20.00	58.65	48.65	-26.95	-28.66
0.389	0.13	36.08	32.24	36.21	32.37	58.08	48.08	-21.87	-15.71

Remark:

1. Correction Factor = Insertion loss + Cable loss
2. Emission level = Reading Value + Correction factor
3. Margin value = Emission level – Limit value