FCC 47 CFR PART 15 SUBPART C AND ANSI C63.10:2009 TEST REPORT

For

Computer

Model : TREK-674 ; TREK-674XXXXXXXXXXXXXXX
(where "X" may be any alphanumeric character , "-" or blank)

Trade Name : ADVANTECH

Issued for

Advantech Co. Ltd.

No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.

Issued by

Compliance Certification Services Inc.
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NO. 989-1 Wen Shan Rd., Shang Shan Village,
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C
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Issued Date: January 15, 2015

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	10/22/2014	Initial Issue	All Page 136	Michelle Chiu
01	01/15/2015	Revised	Page 133	Gloria Chang

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TITLE PAGE NO.

1. TEST REPORT CERTIFICATION

Applicant	:	Advantech Co. Ltd.
Address	:	No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
Equipment Under Test	:	Computer
Model	:	TREK-674 ; TREK-674XXXXXXXXXXXXXXX (where "X" may be any alphanumeric character , "-" or blank)
Trade Name	:	ADVANTECH
Tested Date	:	August 07 ~ October 22, 2014

APPLICABLE STANDARD	
Standard	**Test Result**
FCC Part 15 Subpart C AND ANSI C63.10:2009	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

Product Name	Computer
Model Number	TREK-674 ; TREK-674XXXXXXXXXXXXXXX (where "X" may be any alphanumeric character , "-" or blank)
Identify Number	T140807L10
Received Date	August 07, 2014
Frequency Range	IEEE 802.11b/g, 802.11gn HT20 : 2412MHz ~ 2462MHz IEEE 802.11gn HT40 : 2422MHz ~ 2452MHz Bluetooth 4.0 : 2402MHz ~ 2480MHz
Transmit Power	IEEE 802.11b : 23.65 dBm (0.2315 W) IEEE 802.11g : 27.92 dBm (0.6189 W) IEEE 802.11gn HT20 : 26.74 dBm (0.4726 W) IEEE 802.11gn HT40 : 25.73 dBm (0.3743 W) Bluetooth 4.0 : 4.05 dBm (0.0025W)
Channel Spacing	IEEE 802.11b/g, 802.11gn HT20/HT40 : 5MHz Bluetooth 4.0: 2MHz
Channel Number	IEEE 802.11b/g, 802.11gn HT20 : 11 Channels IEEE 802.11gn HT40 : 7 Channels Bluetooth 4.0 : 40 Channels
Transmit Data Rate	IEEE 802.11b : 11, 5.5, 2, 1 Mbps IEEE 802.11g : 54, 48, 36, 24, 18, 12, 9, 6 Mbps IEEE 802.11gn HT20 : 144.44, 130, 117, 115.56, 104, 86.67, 78, 72.2, 65, 58.5, 57.78, 52, 43.33, 39, 28.89, 26, 21.7, 19.5, 14.44, 13, 7.2, 6.5 Mbps IEEE 802.11gn HT40 : 300 ,270, 243, 240, 216, 180, 162, 150, 135, 121.5, 120, 108, 90, 81, 60, 54, 45, 40.5, 30, 27, 15, 13.5Mbps Bluetooth 4.0 : Additional GFSK
Type of Modulation	IEEE 802.11b : DSSS (CCK, DQPSK, DBPSK) IEEE 802.11g : OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11gn HT20/40 : OFDM (64QAM, 16QAM, QPSK, BPSK) Bluetooth 4.0 : DSSS
Antenna Type	Dipole Antenna × 2, Antenna Gain : -0.79 dBi
Power Rating	9-32Vdc
Test Voltage	120Vac, 60Hz
DC Power Cable Type	Non-shielded cable, 2.3m × 1 (Detachable)

I/O Port	EUT : RJ-45 Port × 2, USB Port × 2, Power Port × 1, RS232 Port × 2, VGA Port × 2, DVI Port × 1, Signal Port × 2 Panel : Signal Port × 1, USB Port × 1
Signal Cable	Shielded signal cable 2m × 1 (Detachable), with two ferrite core Shielded signal cable 2.1m × 1 (Detachable) Shielded DVI cable 0.3m × 1 (Detachable) Shielded VGA to RS232 cable 0.4m × 1 (Detachable)

The difference of the series model

Model Number	Difference
TREK-674	1. For marketing purpose only. 2. where "X" may be any alphanumeric character , " - " or blank
TREK-674XXXXXXXXXXXXXXX	

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. The model TREK-674 was considered the main model for testing.

4 This submittal(s) (test report) is intended for FCC ID: M82-TREK674 filing to comply with Section 15.207, 15.209 and 15.247 of the FCC Part 15, Subpart C Rules.

3. DESCRIPTION OF TEST MODES

The EUT is an 802.11n transceiver in Computer form factor.

For IEEE 802.11b/g, 802.11gn HT20/HT40 mode (2TX / 2RX) :

Chain 0 & Chain 1 transmit/receive.

For Bluetooth : Chain 0 transmit/receive.

Conducted Emission / Radiated Emission Test (Below 1 GHz)

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

No.	Pre-Test Mode
1	TX Mode

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

Final Test Mode		
Emission	Radiated Emission	TX Mode
	Conducted Emission	N/A

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

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

Bluetooth 4.0 mode

The EUT had been tested under operating condition.

There are three channels have been tested as following :

Channel	Frequency (MHz)
Low	2402
Middle	2440
High	2480

4. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10: 2009 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 Wen Shan Rd., Shang Shan Village,
Qionglin Shiang Hsinchu County 30741, Taiwan, R.O.C

The sites are constructed in conformance with the requirements of ANSI C63.10:2009 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

Remark: *FCC Designation Number TW1027.*

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
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.
1	Notebook PC	HP	ProBook 4421s	CNF03242PJ
2	DC Power Supply	Rohde & Schwarz	NGSM 32/10	100232

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

SETUP DIAGRAM FOR TESTS

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

EUT OPERATING CONDITION

WiFi

1. EUT & peripherals setup diagram is shown in appendix setup photos.
2. TX Mode:
   - ⇨ **Tx Data Rate:** MCS=0; 1Mbps Bandwidth 20 (IEEE 802.11b mode)
     MCS=0; 6Mbps Bandwidth 20 (IEEE 802.11g mode)
     MCS=0; 6.5Mbps Bandwidth 20 (IEEE 802.11gn HT20 mode)
     MCS=0; 13.5Mbps Bandwidth 40 (IEEE 802.11gn HT40 mode)
   - ⇨ **Power control**

     IEEE 802.11b Channel Low (2412MHz) Chain0/Chain1 Power set 18
     IEEE 802.11b Channel Mid (2437MHz) Chain0/Chain1 Power set 19
     IEEE 802.11b Channel High (2462MHz) Chain0/Chain1 Power set 17.5
     IEEE 802.11g Channel Low (2412MHz) Chain0/Chain1 Power set 15
     IEEE 802.11g Channel Mid (2437MHz) Chain0/Chain1 Power set 17
     IEEE 802.11g Channel High (2462MHz) Chain0/Chain1 Power set 13.5
     IEEE 802.11gn HT20 Channel Low (2412MHz) Chain0/Chain1 Power set 14
     IEEE 802.11gn HT20 Channel Mid (2437MHz) Chain0/Chain1 Power set 17
     IEEE 802.11gn HT20 Channel High (2462MHz) Chain0/Chain1 Power set 13
     IEEE 802.11gn HT40 Channel Low (2422MHz) Chain0/Chain1 Power set 11
     IEEE 802.11gn HT40 Channel Mid (2437MHz) Chain0/Chain1 Power set 15
     IEEE 802.11gn HT40 Channel High (2452MHz) Chain0/Chain1 Power set 12
3. All of the functions are under run.
4. Start test.

Bluetooth 4.0

1. EUT & peripherals setup diagram is shown in appendix setup photos.
2. BLE TX mode
   LO Freq: 2402, 2440, 2480
3. All of the functions are under run.
4. Start test

7. FCC PART 15.247 REQUIREMENTS

7.1 6dB BANDWIDTH

LIMITS

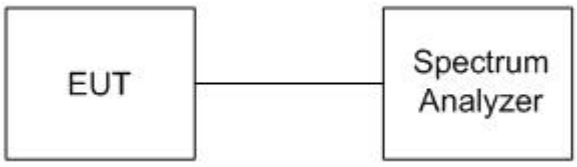
§ 15.247(a) (2) For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz.

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY43360132	06/10/2015

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 (Two TX)

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (kHz)	Pass / Fail
		Chain 0	Chain 1		
Low	2412	10.060	10.075	500	PASS
Middle	2437	10.050	10.070	500	PASS
High	2462	10.085	10.075	500	PASS

IEEE 802.11g Mode (Two TX)

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (kHz)	Pass / Fail
		Chain 0	Chain 1		
Low	2412	16.365	16.360	500	PASS
Middle	2437	16.335	16.325	500	PASS
High	2462	16.345	16.350	500	PASS

IEEE 802.11gn HT20 Mode (Two TX)

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (kHz)	Pass / Fail
		Chain 0	Chain 1		
Low	2412	17.555	17.530	500	PASS
Middle	2437	17.295	17.575	500	PASS
High	2462	17.310	17.565	500	PASS

IEEE 802.11gn HT40 Mode (Two TX)

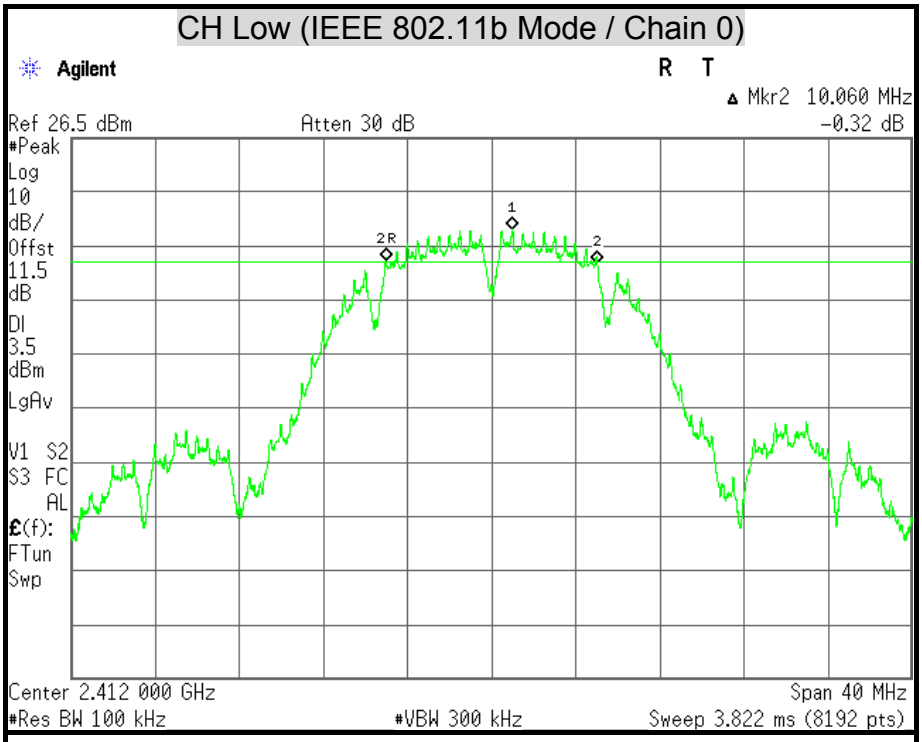
Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (kHz)	Pass / Fail
		Chain 0	Chain 1		
Low	2422	36.085	36.340	500	PASS
Middle	2437	36.330	36.300	500	PASS
High	2452	36.340	36.360	500	PASS

Bluetooth 4.0 Mode

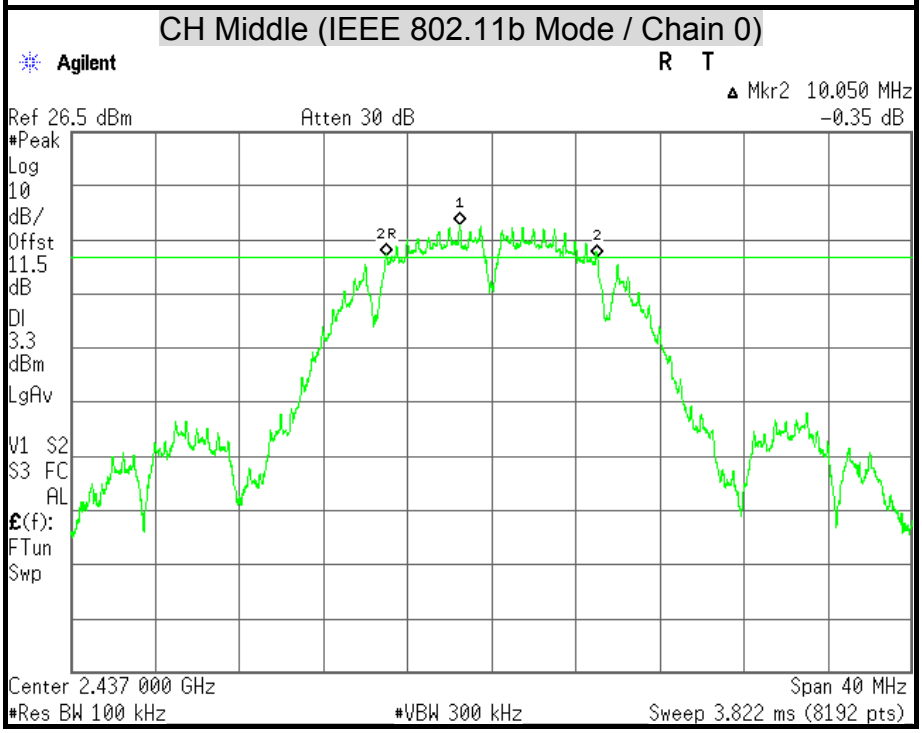
Channel	Channel Frequency (MHz)	6dB Bandwidth (kHz)	Minimum Limit (kHz)	Pass / Fail
Low	2402	659.1	500	PASS
Middle	2440	669.3	500	PASS
High	2480	659.1	500	PASS

6dB BANDWIDTH

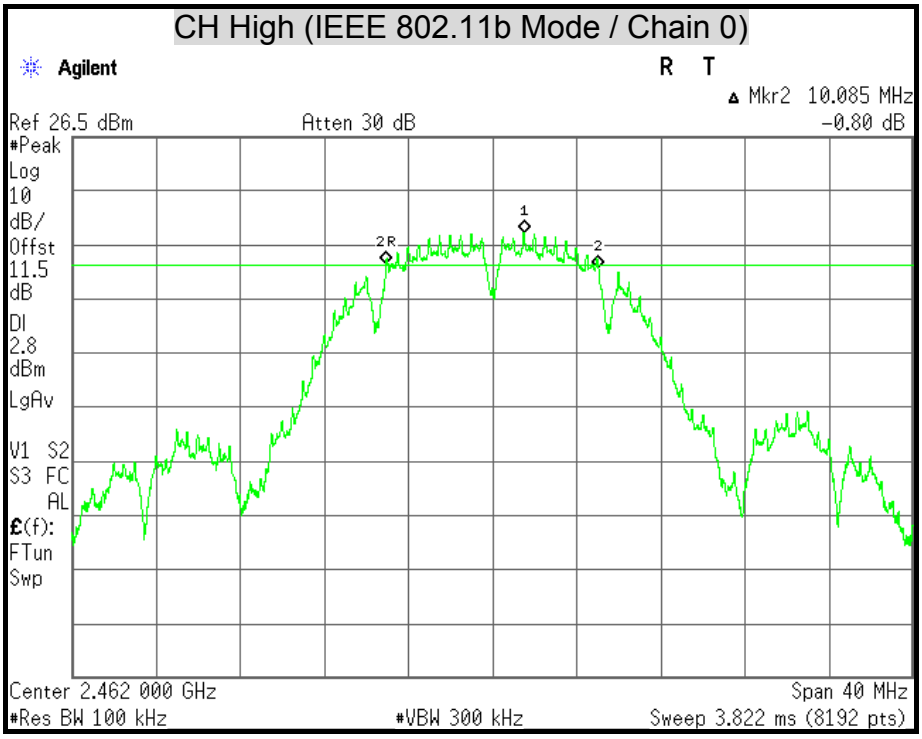
CH Low (IEEE 802.11b Mode / Chain 0)



CH Middle (IEEE 802.11b Mode / Chain 0)



CH High (IEEE 802.11b Mode / Chain 0)



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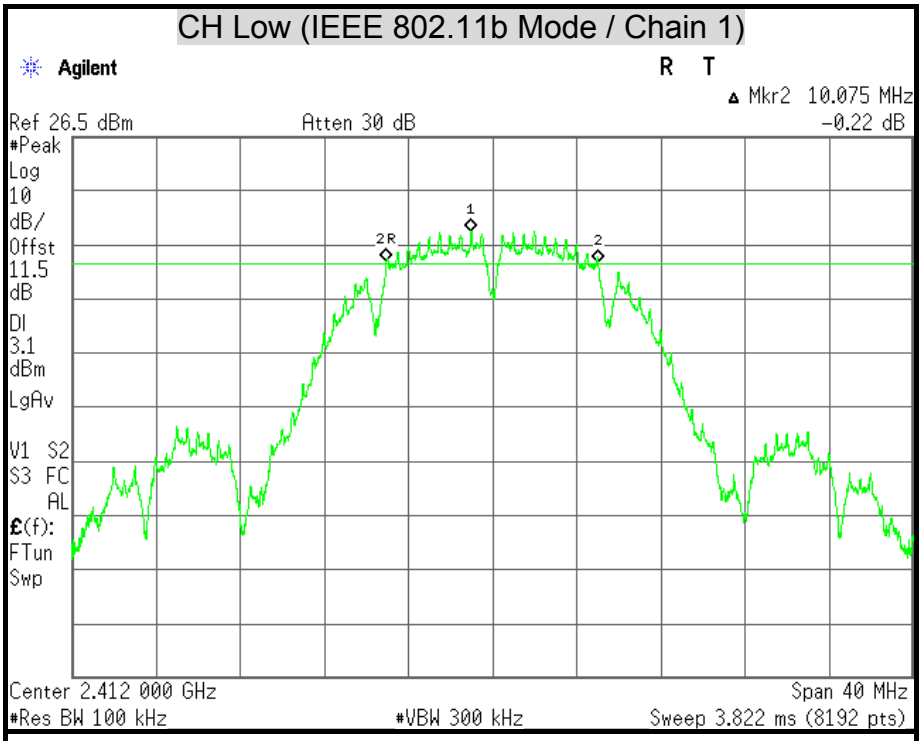

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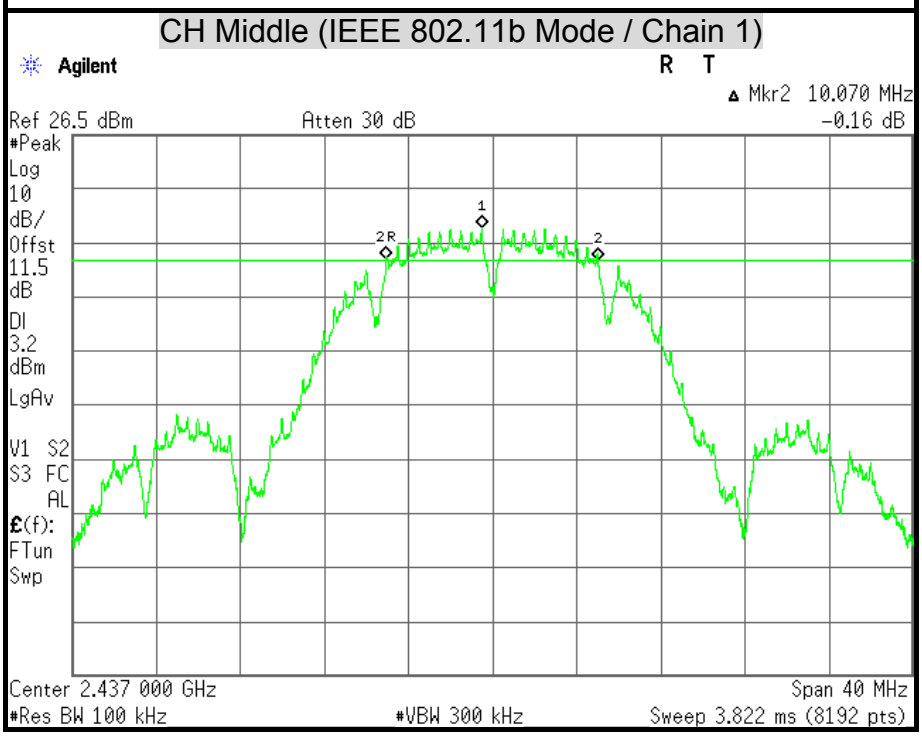

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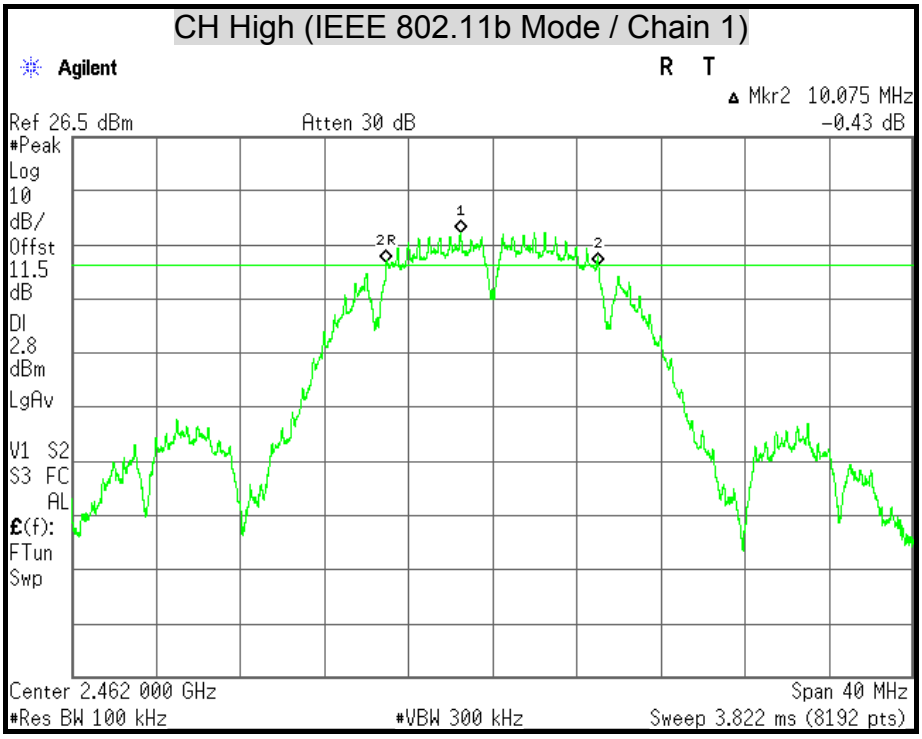

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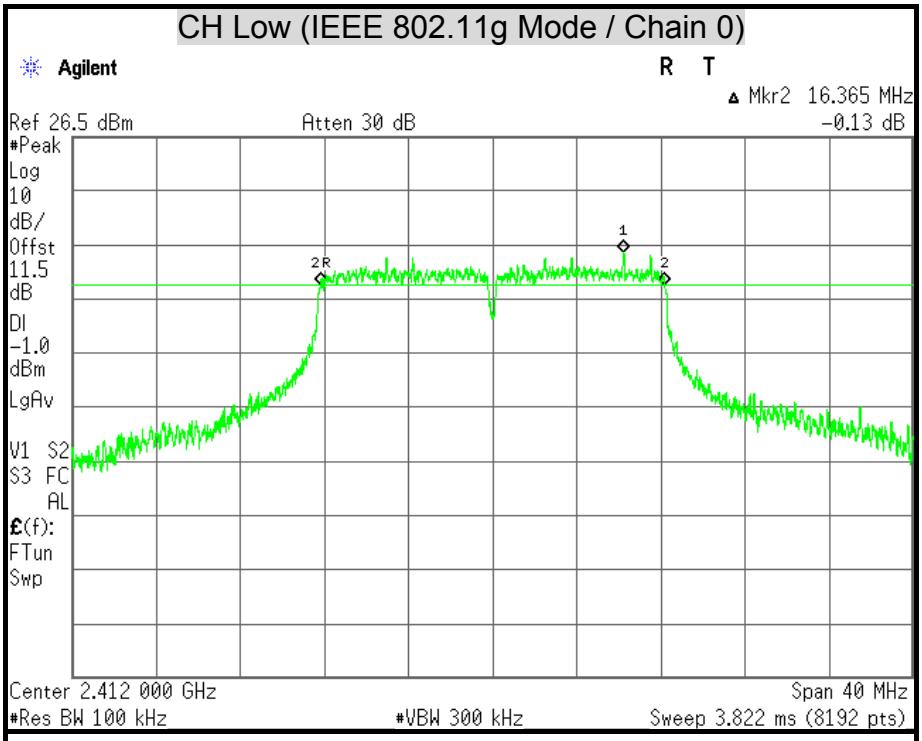

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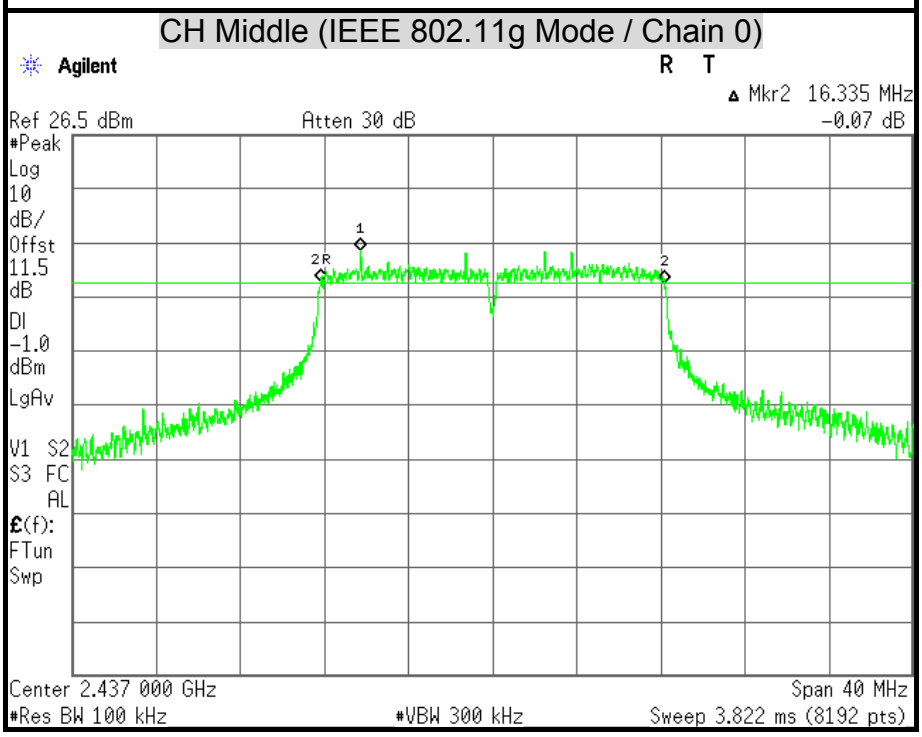

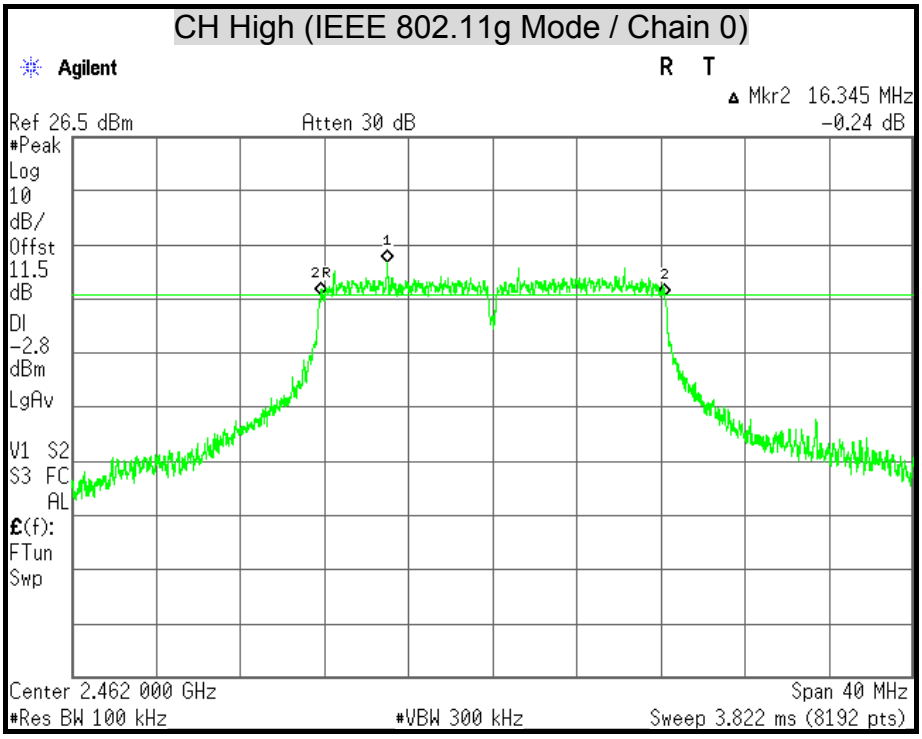

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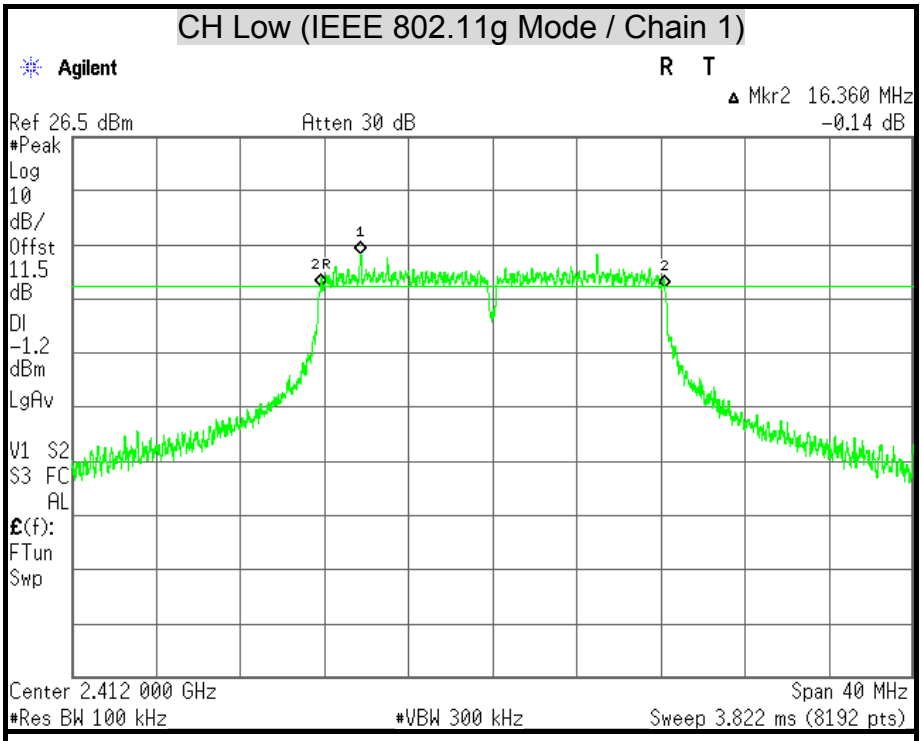

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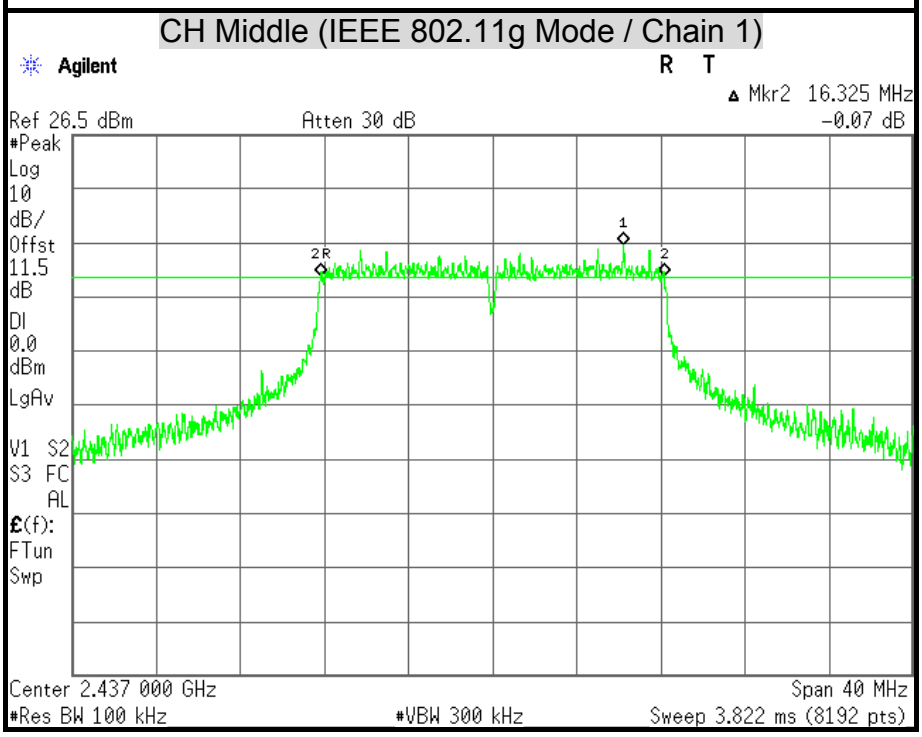

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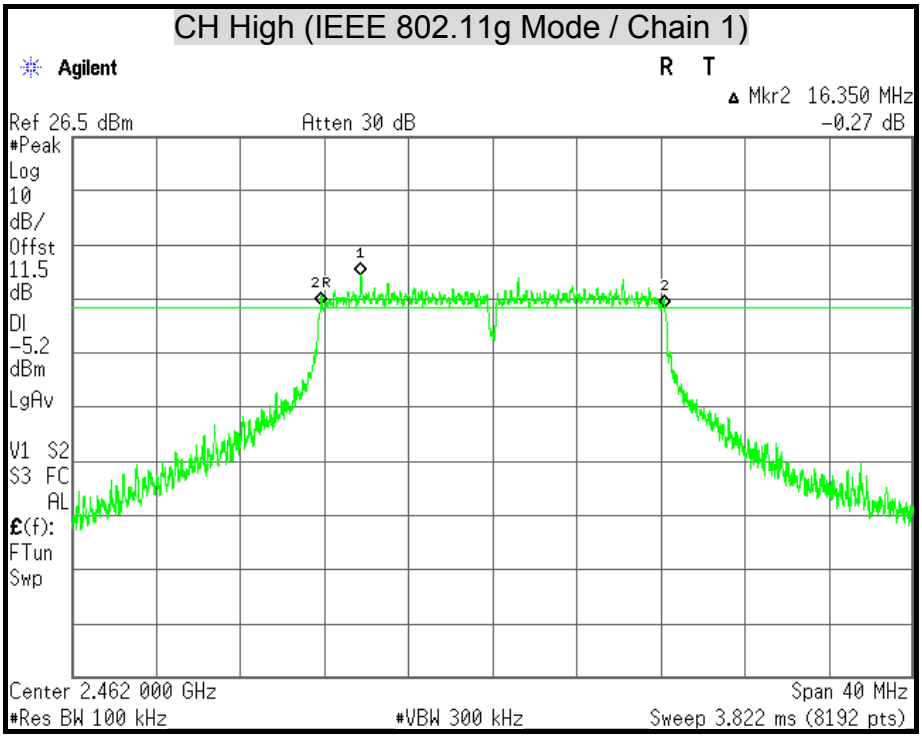

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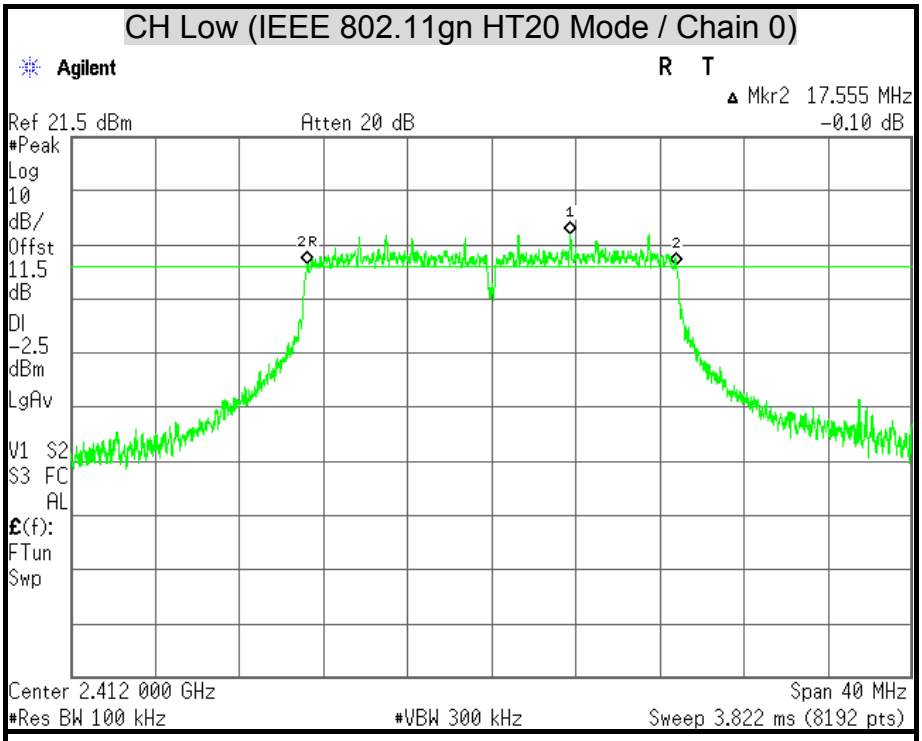

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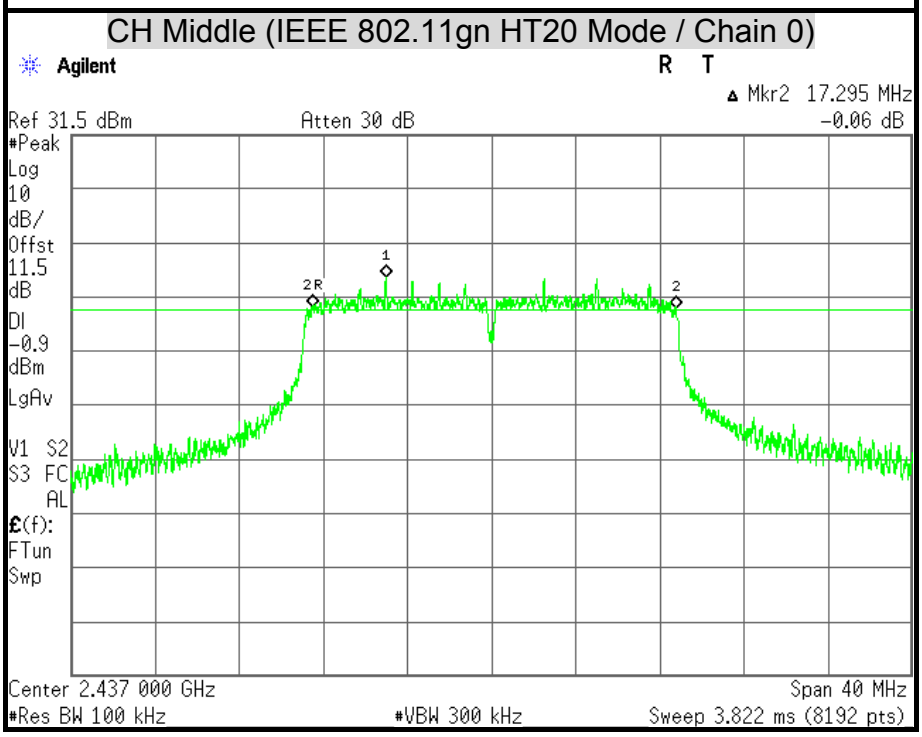

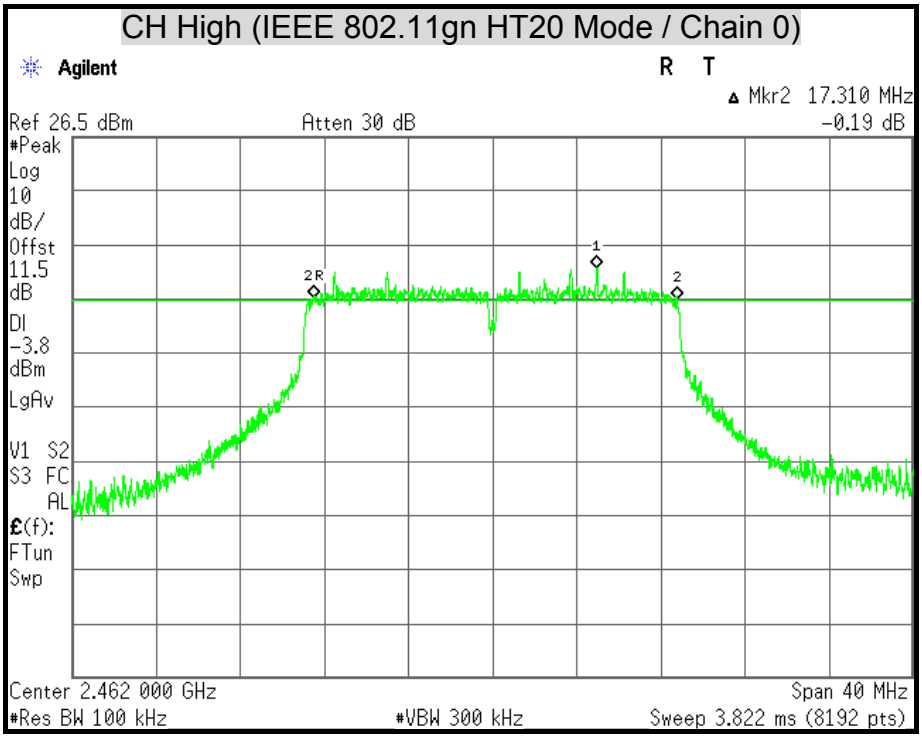

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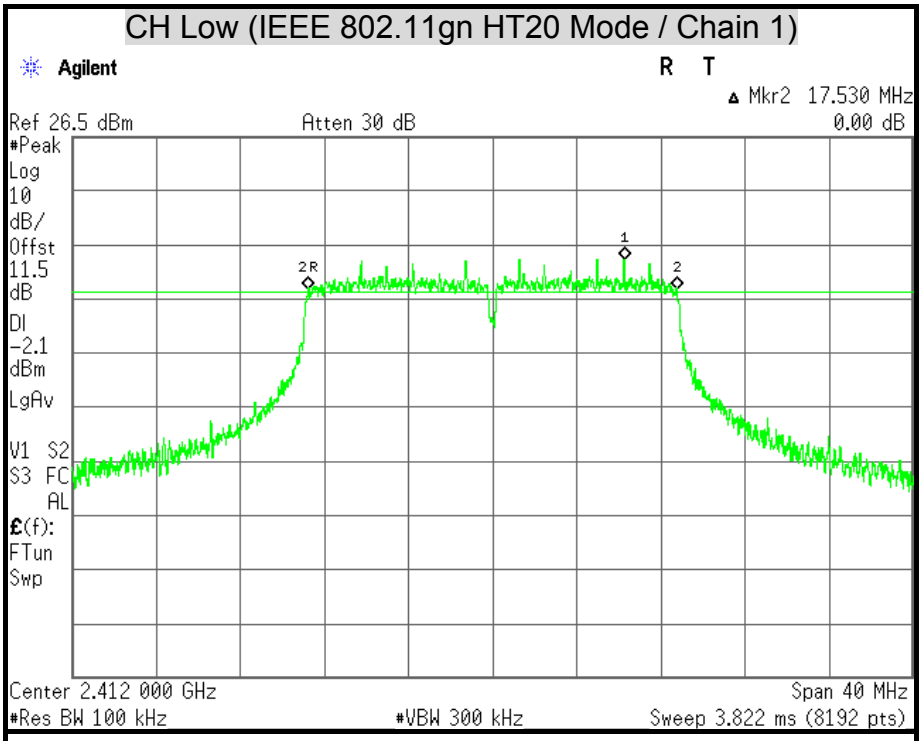

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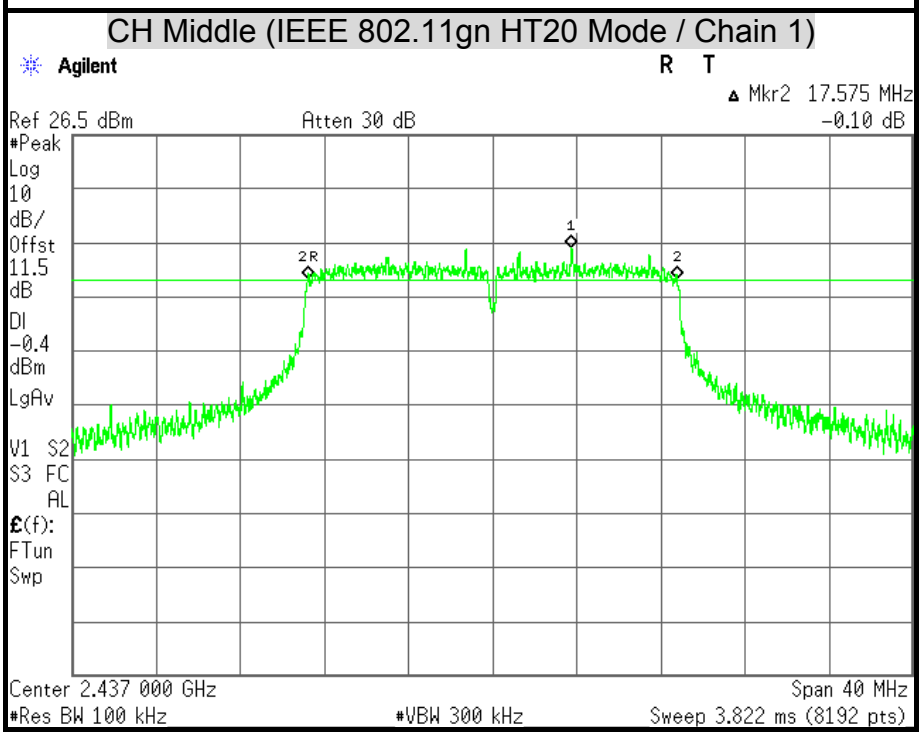

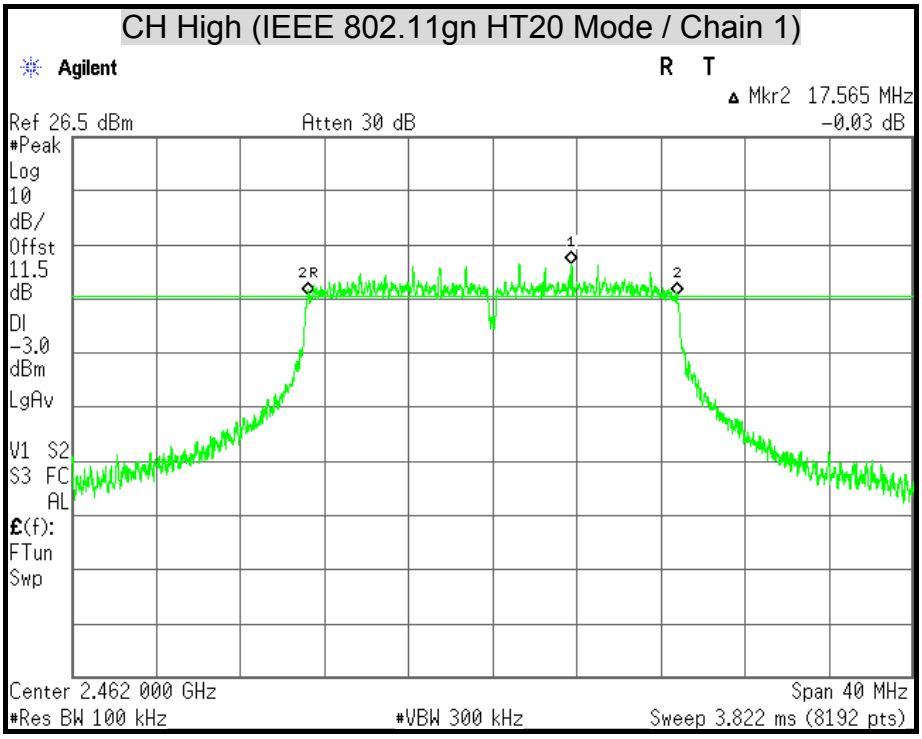

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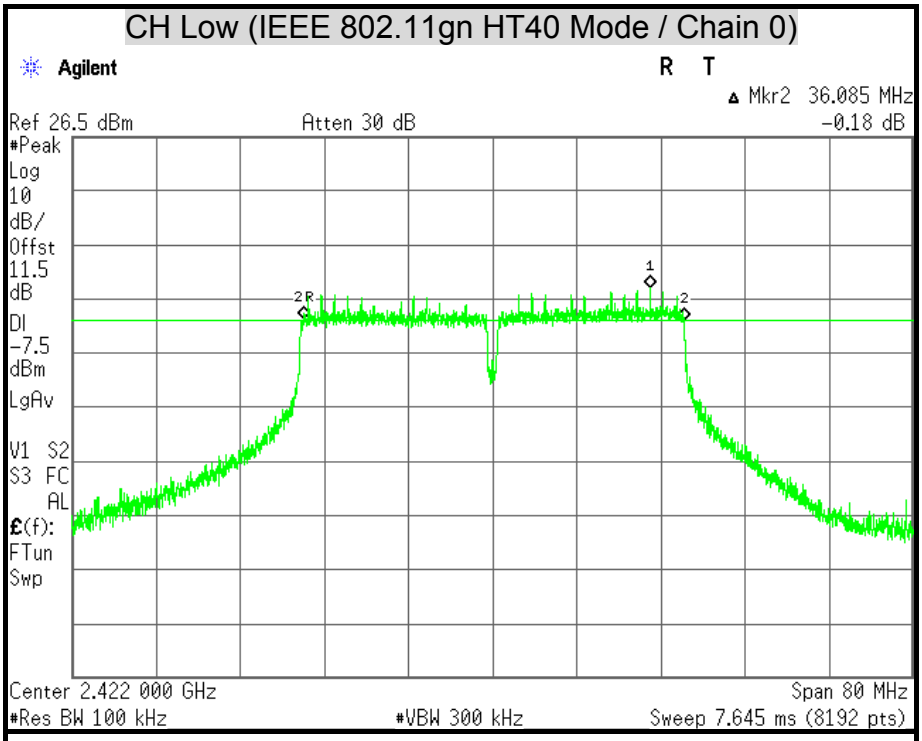

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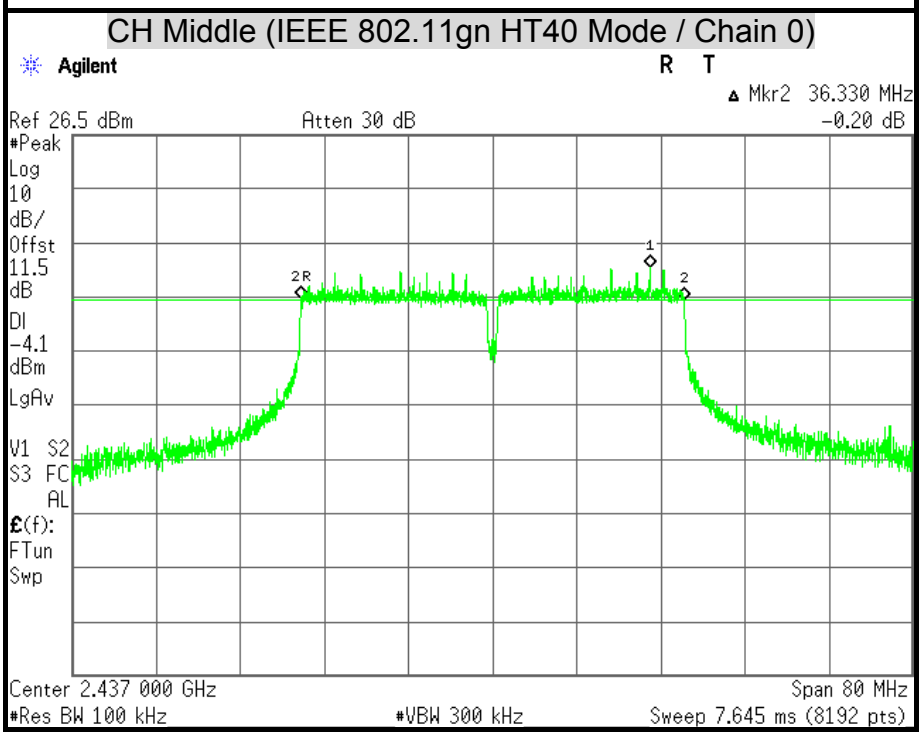

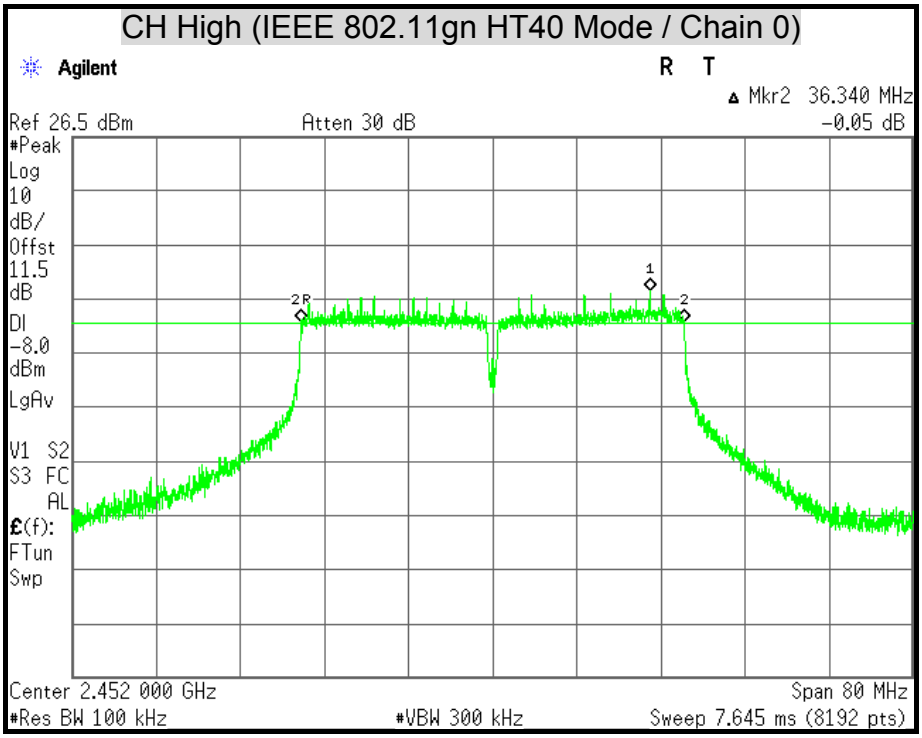

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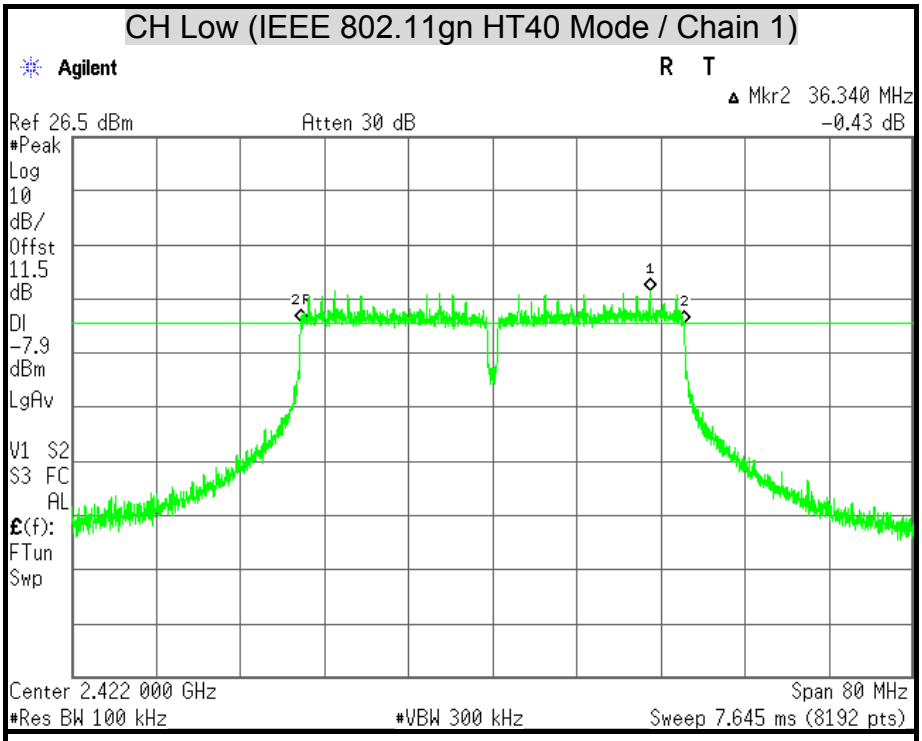

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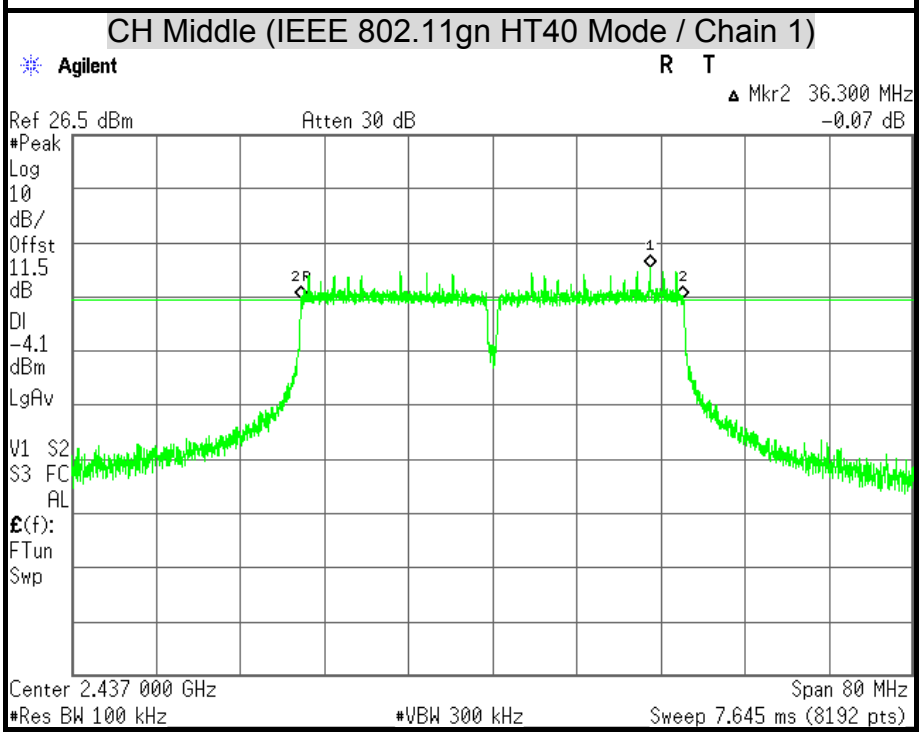
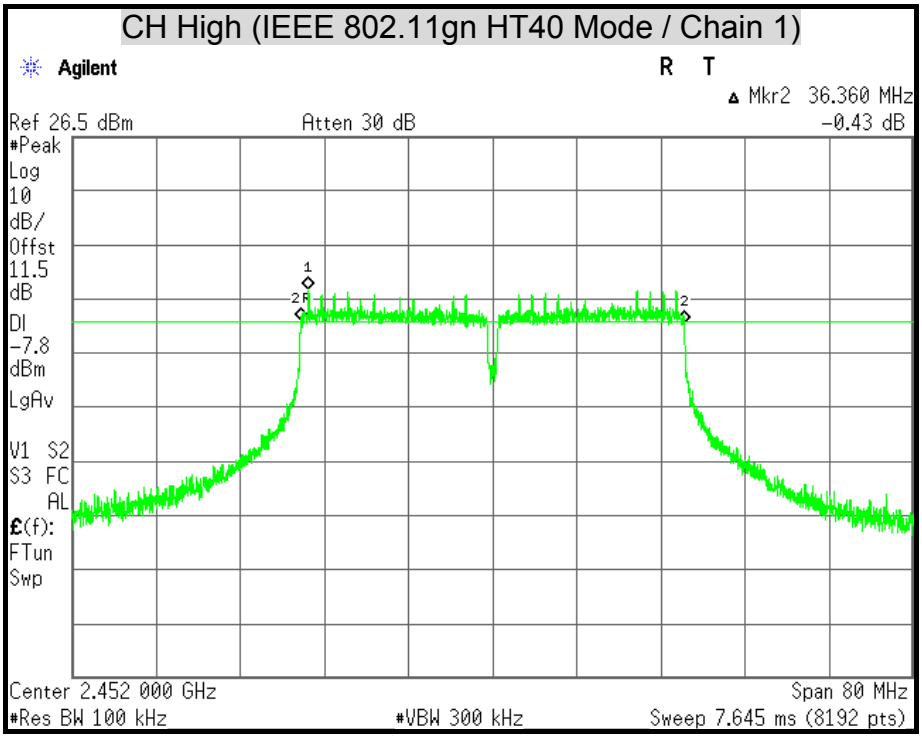
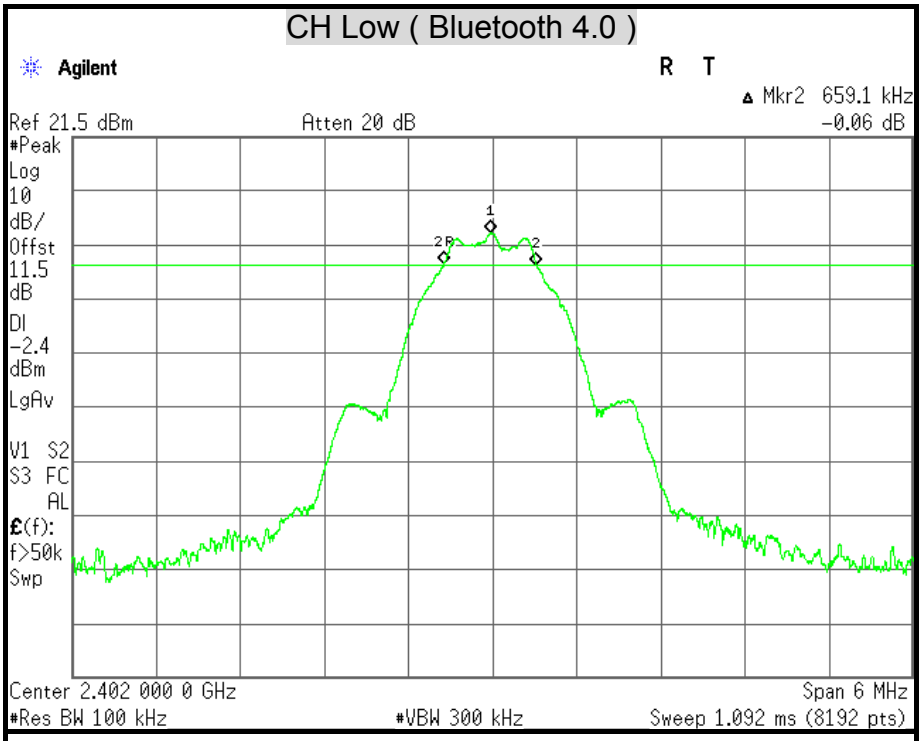
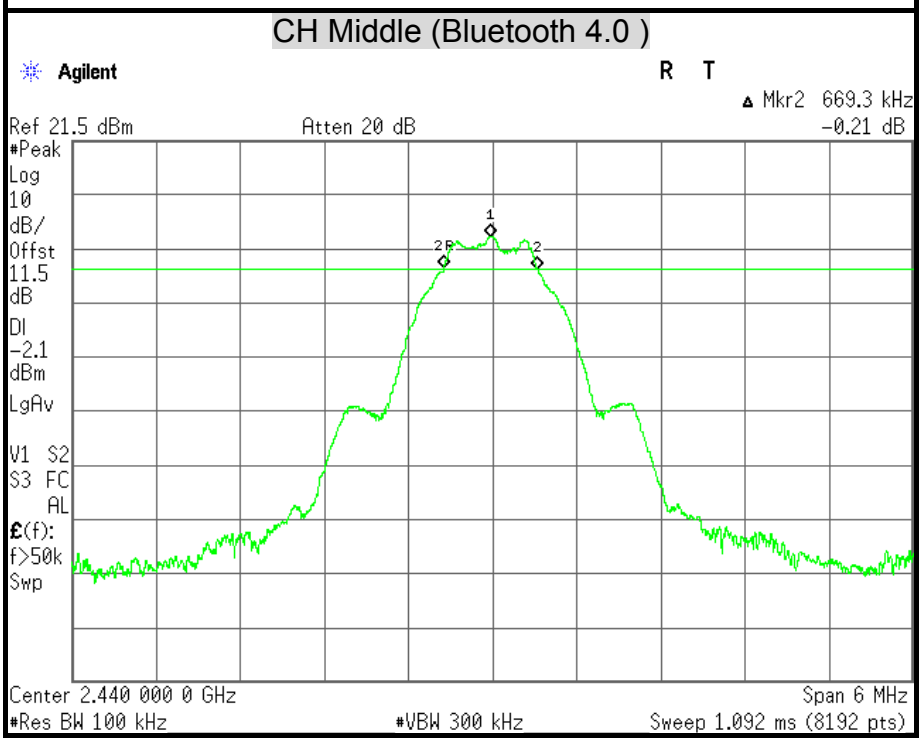




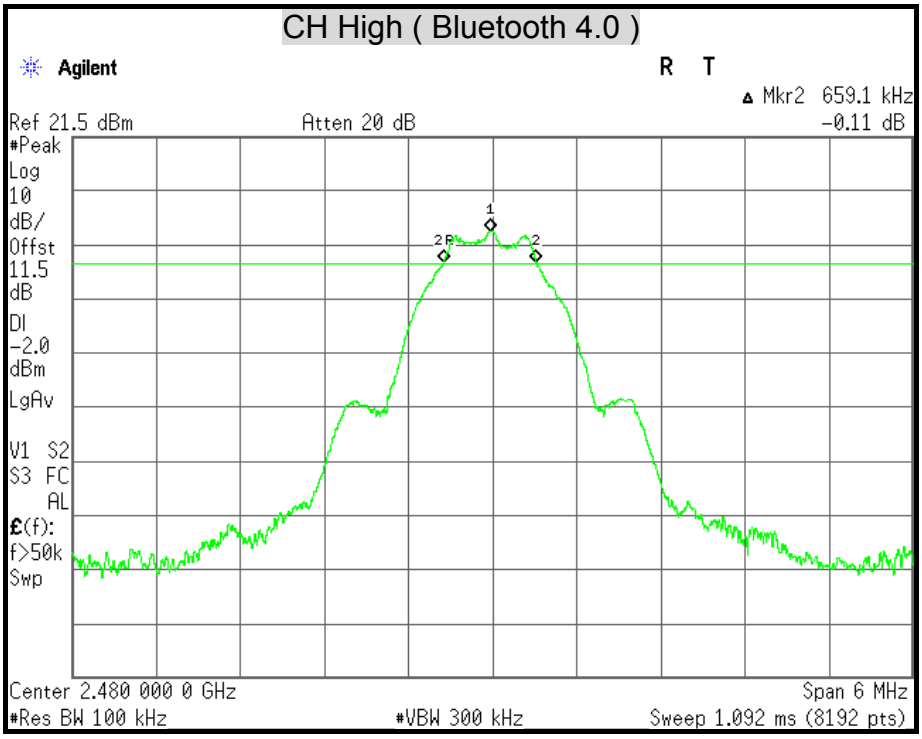
CH Low (Bluetooth 4.0)



CH Middle (Bluetooth 4.0)



CH High (Bluetooth 4.0)



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 (Two TX)

Channel	Channel Frequency (MHz)	Peak Power (dBm)		Peak Power Total		Peak Power Limit		Pass / Fail
		Chain 0	Chain 1	(dBm)	(W)	(dBm)	(W)	
Low	2412	20.84	20.42	23.65	0.2315	30	1	PASS
Middle	2437	20.45	20.49	23.48	0.2229	30	1	PASS
High	2462	20.06	20.13	23.11	0.2044	30	1	PASS

Remark:

1. *At finial test to get the worst-case emission at 1Mbps.*
2. *The cable assembly insertion loss of 11.5dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*
3. *The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 1W.*
4. *Total peak power = Chain 0 + Chain 1.*

IEEE 802.11g Mode (Two TX)

Channel	Channel Frequency (MHz)	Peak Power (dBm)		Peak Power Total		Peak Power Limit		Pass / Fail
		Chain 0	Chain 1	(dBm)	(W)	(dBm)	(W)	
Low	2412	24.95	23.48	27.29	0.5355	30	1	PASS
Middle	2437	25.43	24.31	27.92	0.6189	30	1	PASS
High	2462	21.88	24.67	26.51	0.4473	30	1	PASS

Remark:

1. *At finial test to get the worst-case emission at 6Mbps.*
2. *The cable assembly insertion loss of 11.5dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*
3. *The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 1W.*
4. *Total peak power = Chain 0 + Chain 1.*

IEEE 802.11gn HT20 Mode (Two TX)

Channel	Channel Frequency (MHz)	Peak Power (dBm)		Peak Power Total		Peak Power Limit		Pass / Fail
		Chain 0	Chain 1	(dBm)	(W)	(dBm)	(W)	
Low	2412	24.42	22.92	26.74	0.4726	30	1	PASS
Middle	2437	23.38	23.74	26.57	0.4544	30	1	PASS
High	2462	23.05	22.07	25.60	0.3629	30	1	PASS

Remark:

1. *At finial test to get the worst-case emission at 6.5Mbps.*
2. *The cable assembly insertion loss of 11.5dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*
3. *The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 1W.*
4. *Total peak power = Chain 0 + Chain 1.*

IEEE 802.11gn HT40 Mode (Two TX)

Channel	Channel Frequency (MHz)	Peak Power (dBm)		Peak Power Total		Peak Power Limit		Pass / Fail
		Chain 0	Chain 1	(dBm)	(W)	(dBm)	(W)	
Low	2422	20.89	19.83	23.40	0.2189	30	1	PASS
Middle	2437	22.96	22.47	25.73	0.3743	30	1	PASS
High	2452	19.62	20.30	22.98	0.1988	30	1	PASS

Remark:

1. *At finial test to get the worst-case emission at 13.5Mbps.*
2. *The cable assembly insertion loss of 11.5dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*
3. *The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 1W.*
4. *Total peak power = Chain 0 + Chain 1.*

Bluetooth 4.0 Mode

Channel	Channel Frequency (MHz)	Peak Power		Peak Power Limit		Pass / Fail
		(dBm)	(W)	(dBm)	(W)	
Low	2402	3.67	0.0023	30	1	PASS
Middle	2440	3.97	0.0025	30	1	PASS
High	2480	4.05	0.0025	30	1	PASS

Remark: *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.*

7.3 AVERAGE POWER

LIMITS

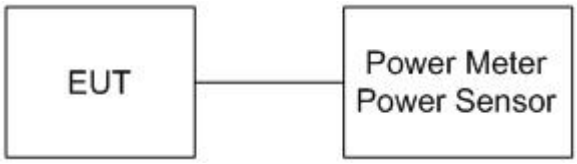
None; for reporting purposes only.

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 (Two TX)

Channel	Channel Frequency (MHz)	Average Power (dBm)	
		Chain 0	Chain 1
Low	2412	18.74	18.35
Middle	2437	18.36	18.44
High	2462	17.97	18.03

Remark:

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

2. The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11g Mode (Two TX)

Channel	Channel Frequency (MHz)	Average Power (dBm)	
		Chain 0	Chain 1
Low	2412	18.29	15.82
Middle	2437	24.37	17.29
High	2462	14.28	16.63

Remark:

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

2. The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11gn HT20 Mode (Two TX)

Channel	Channel Frequency (MHz)	Average Power (dBm)	
		Chain 0	Chain 1
Low	2412	16.07	15.01
Middle	2437	16.41	16.64
High	2462	15.07	14.11

Remark:
1. At finial test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

IEEE 802.11gn HT40 Mode (Two TX)

Channel	Channel Frequency (MHz)	Average Power (dBm)	
		Chain 0	Chain 1
Low	2422	12.49	12.05
Middle	2437	15.81	15.43
High	2452	11.94	12.25

Remark:
1. At finial test to get the worst-case emission at 13.5Mbps.
2. The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the power meter to allow for direct reading of power.

Bluetooth 4.0 Mode

Channel	Channel Frequency (MHz)	Average Power (dBm)
Low	2402	3.46
Middle	2440	3.77
High	2480	3.84

Remark: *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 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	06/10/2015

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 (Two TX)

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)		PSD Total (dBm)	Minimum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
Low	2412	-3.60	-5.44	-1.41	8	PASS
Middle	2437	-3.90	-4.54	-1.20	8	PASS
High	2462	-6.50	-5.19	-2.79	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 1Mbps.*
2. *The cable assembly insertion loss of 10.5dB (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.*
3. *The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 8 dBm.*
4. *Total power spectral density = Chain 0 + Chain 1.*

IEEE 802.11g Mode (Two TX)

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)		PSD Total (dBm)	Minimum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
Low	2412	-8.78	-8.20	-5.47	8	PASS
Middle	2437	-8.72	-6.97	-4.75	8	PASS
High	2462	-9.80	-12.49	-7.93	8	PASS

Remark:

1. *At finial test to get the worst-case emission at 6Mbps.*
2. *The cable assembly insertion loss of 10.5dB (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.*
3. *The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 8 dBm.*
4. *Total power spectral density = Chain 0 + Chain 1.*

IEEE 802.11gn HT20 Mode (Two TX)

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)		PSD Total (dBm)	Minimum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
Low	2412	-10.85	-10.75	-7.79	8	PASS
Middle	2437	-9.41	-7.48	-5.33	8	PASS
High	2462	-12.29	-10.64	-8.38	8	PASS

Remark:

1. At finial test to get the worst-case emission at 6.5Mbps.
2. The cable assembly insertion loss of 10.5dB (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.
3. The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 8 dBm.
4. Total power spectral density = Chain 0 + Chain 1.

IEEE 802.11gn HT40 Mode (Two TX)

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)		PSD Total (dBm)	Minimum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
Low	2422	-16.16	-16.51	-13.32	8	PASS
Middle	2437	-10.45	-11.11	-7.76	8	PASS
High	2452	-16.67	-15.05	-12.77	8	PASS

Remark:

1. At finial test to get the worst-case emission at 13.5Mbps.
2. The cable assembly insertion loss of 10.5dB (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.
3. The maximum antenna gain for the MIMO mode is 2.22dBi which is less than 6dBi, the limit should be 8 dBm.
4. Total power spectral density = Chain 0 + Chain 1.

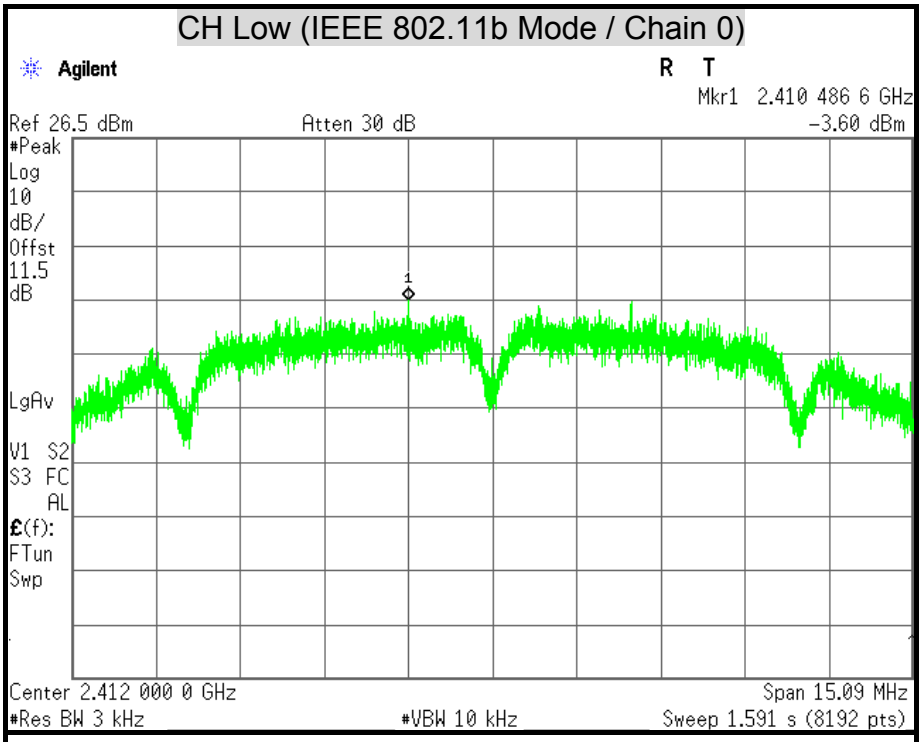
Bluetooth 4.0 Mode

Channel	Channel Frequency (MHz)	Final RF Power Level in 3KHz BW (dBm)	Minimum Limit (dBm)	Pass / Fail
Low	2402	-5.97	8	PASS
Middle	2440	-5.78	8	PASS
High	2480	-5.72	8	PASS

Remark: *The cable assembly insertion loss of 11.5 dB (including 10 dB pad and 1.5 dB cable) was Entered as an offset in the spectrum analyzer to allow for direct reading of power.*

POWER SPECTRAL DENSITY

CH Low (IEEE 802.11b Mode / Chain 0)



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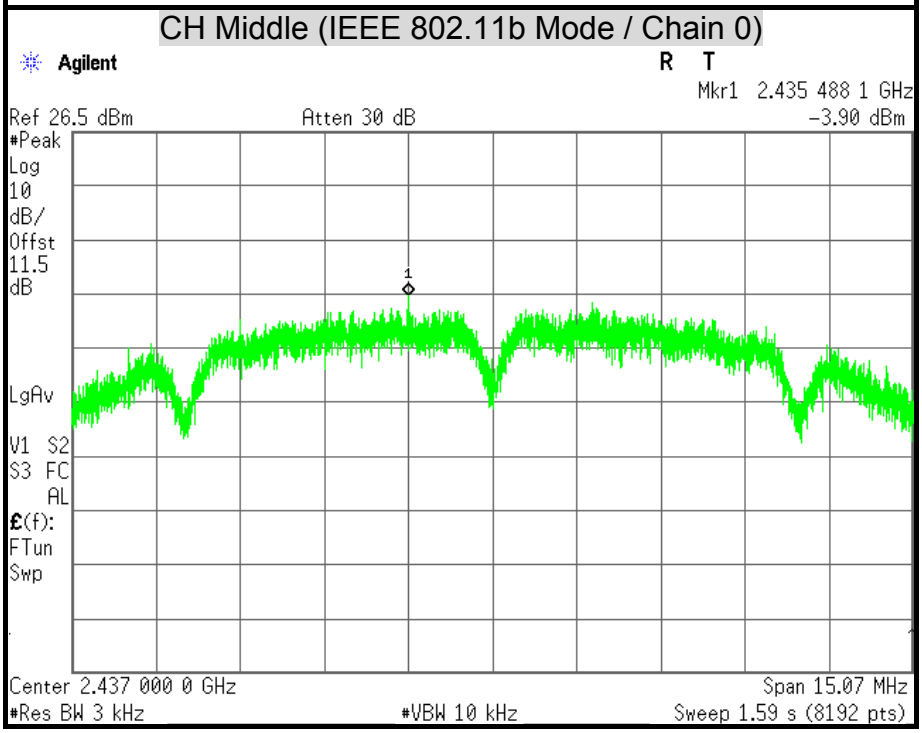

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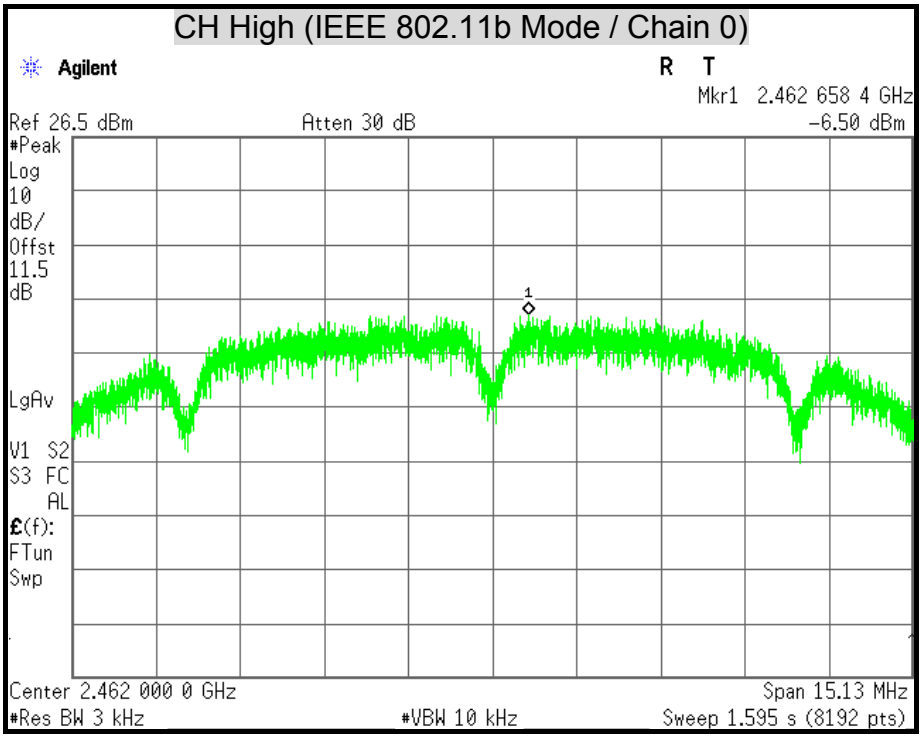

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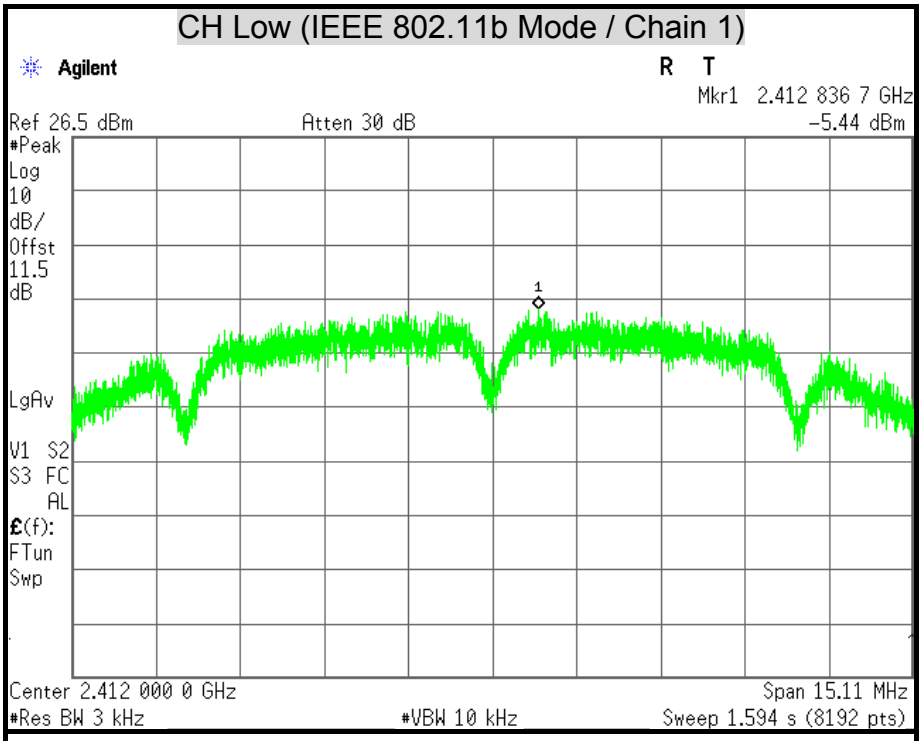

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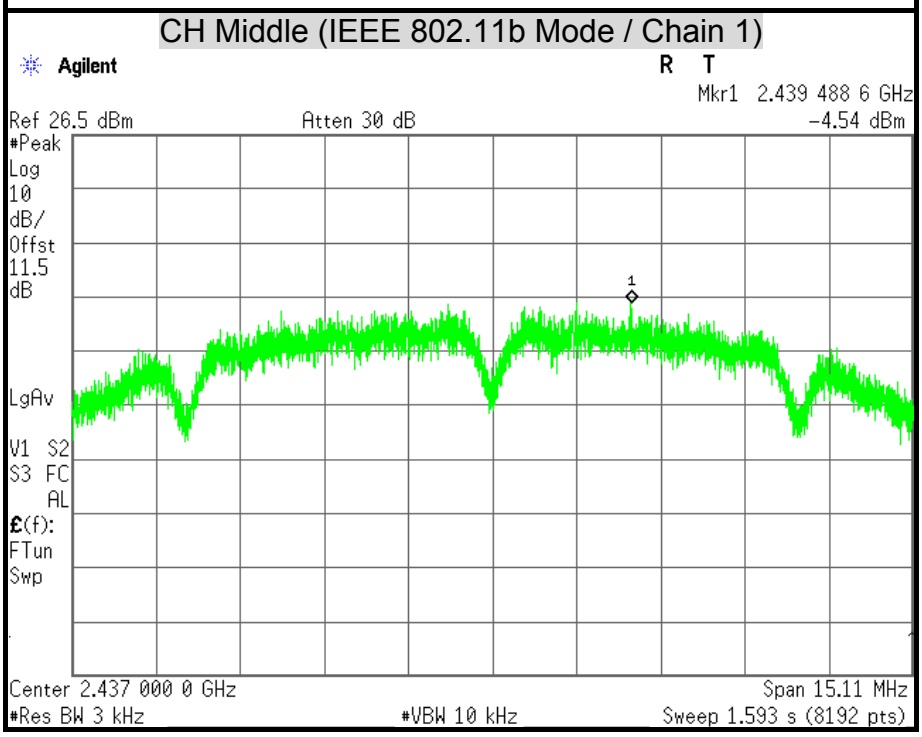

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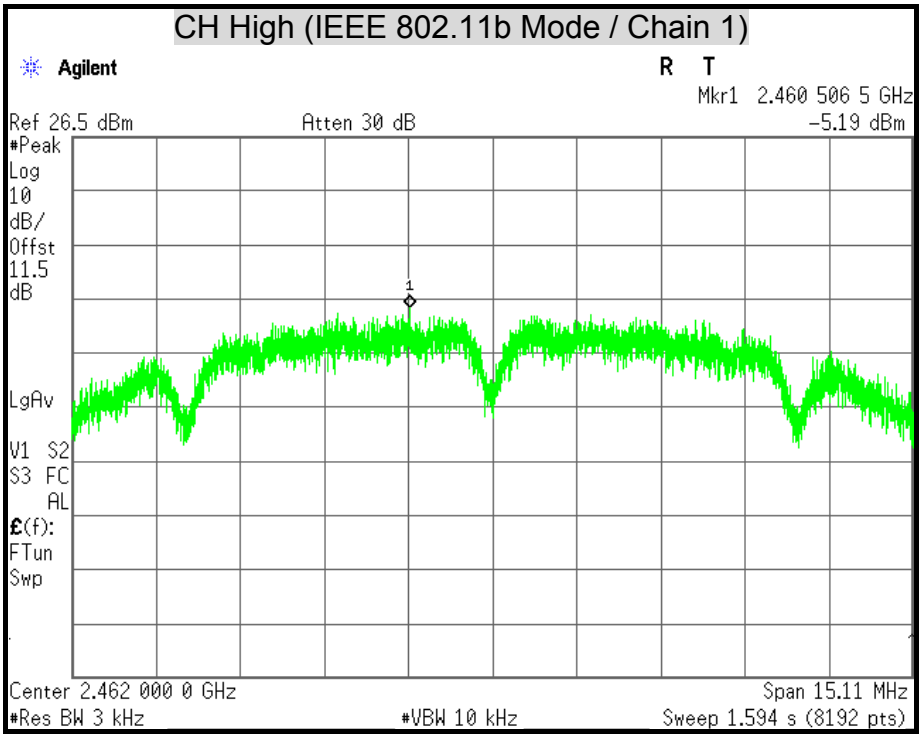

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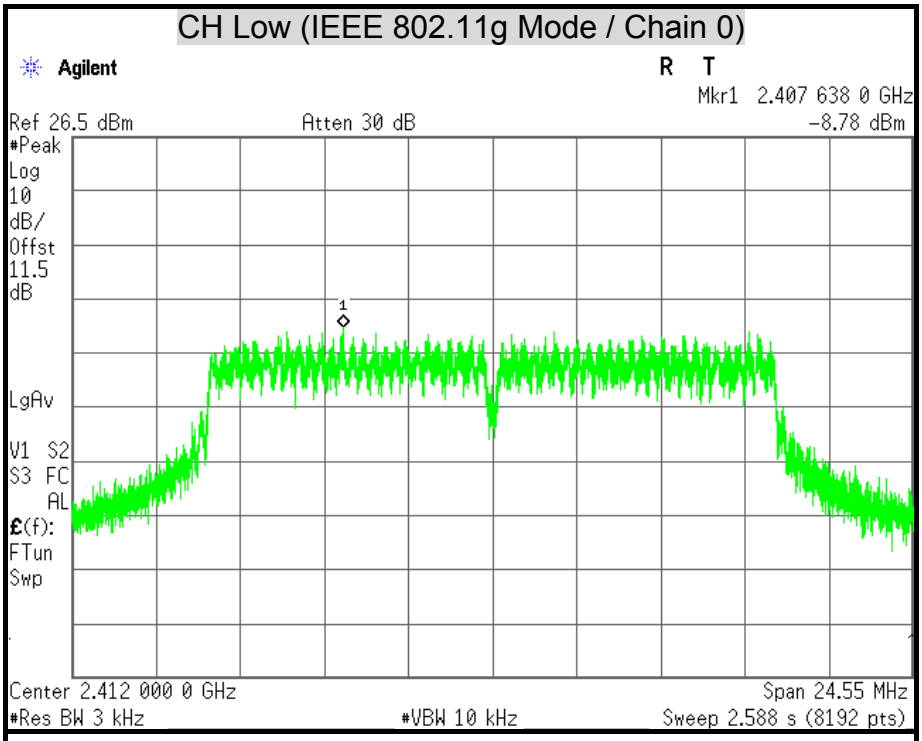

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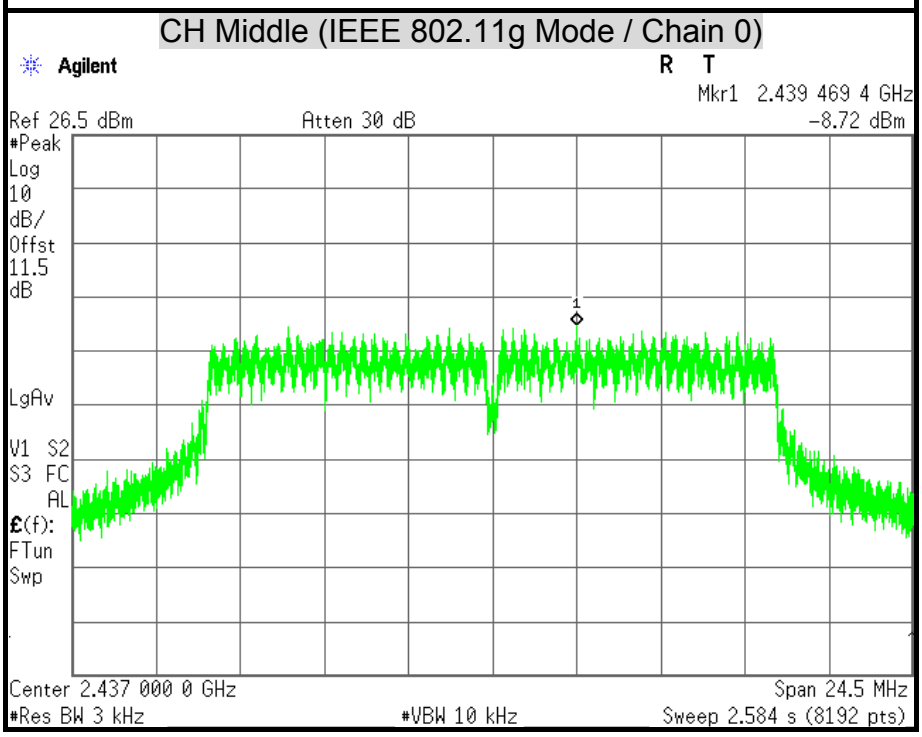

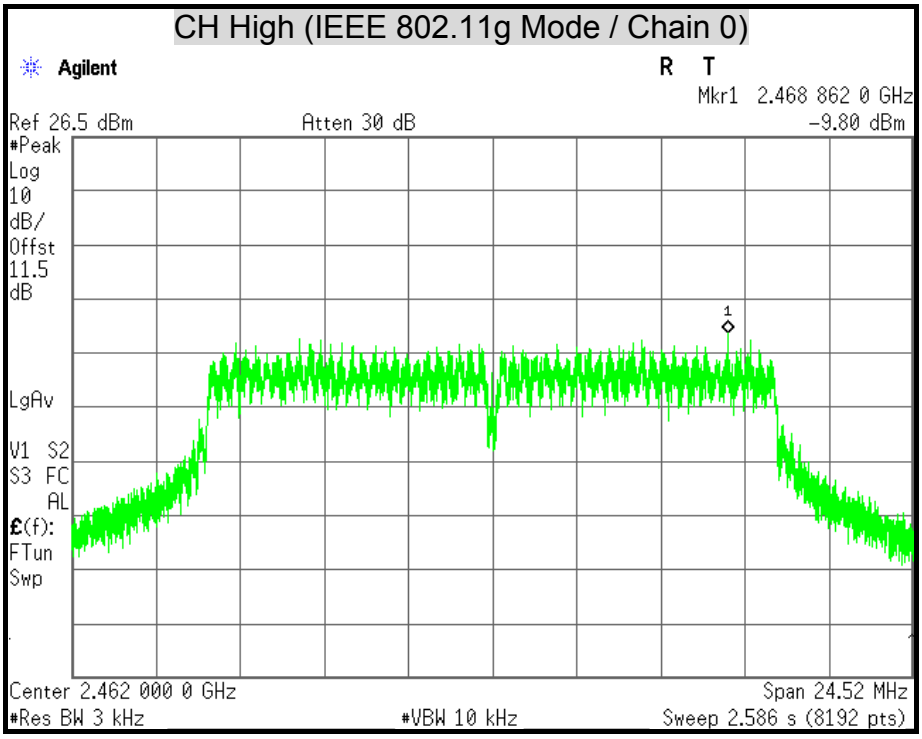

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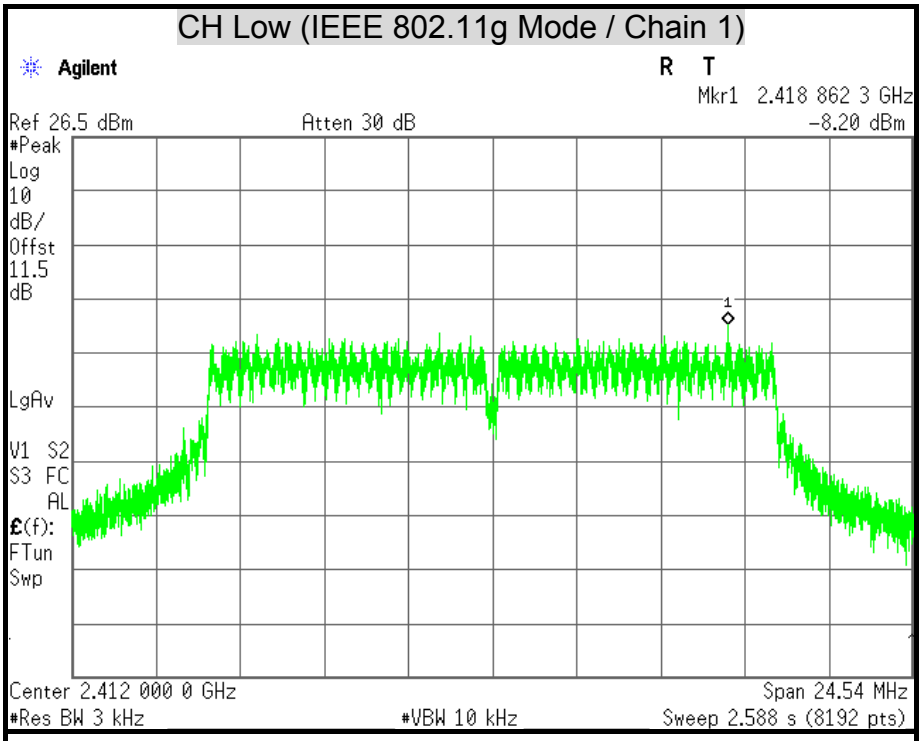

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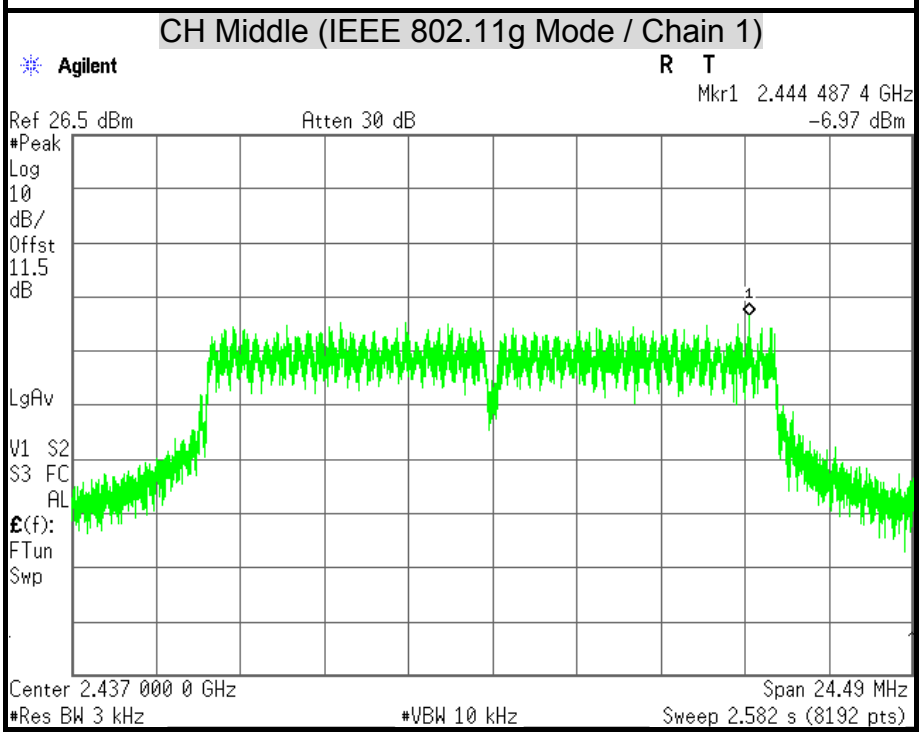

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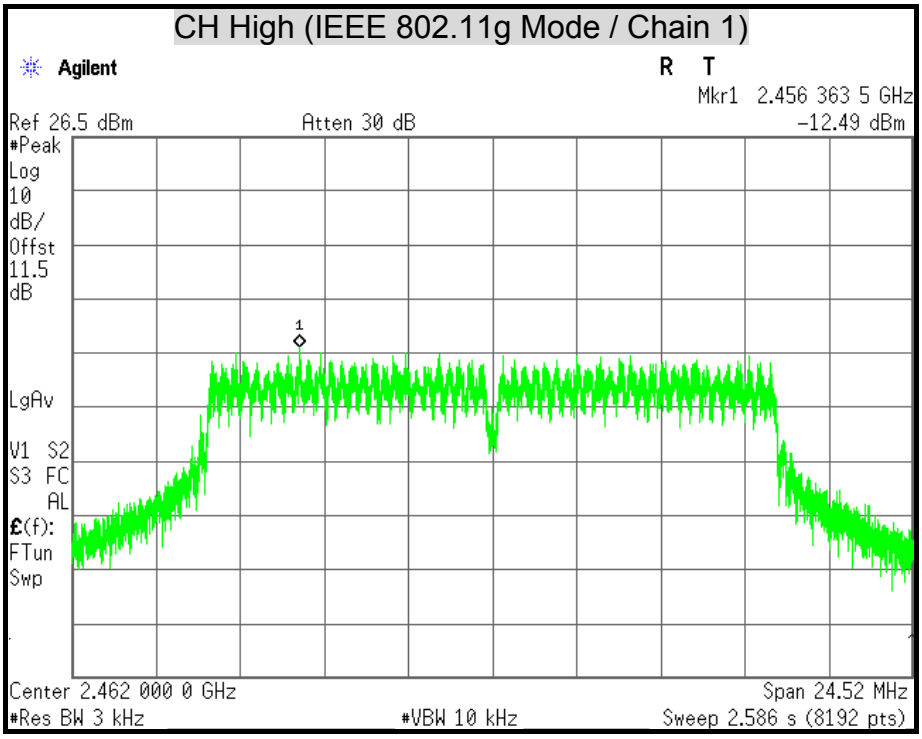

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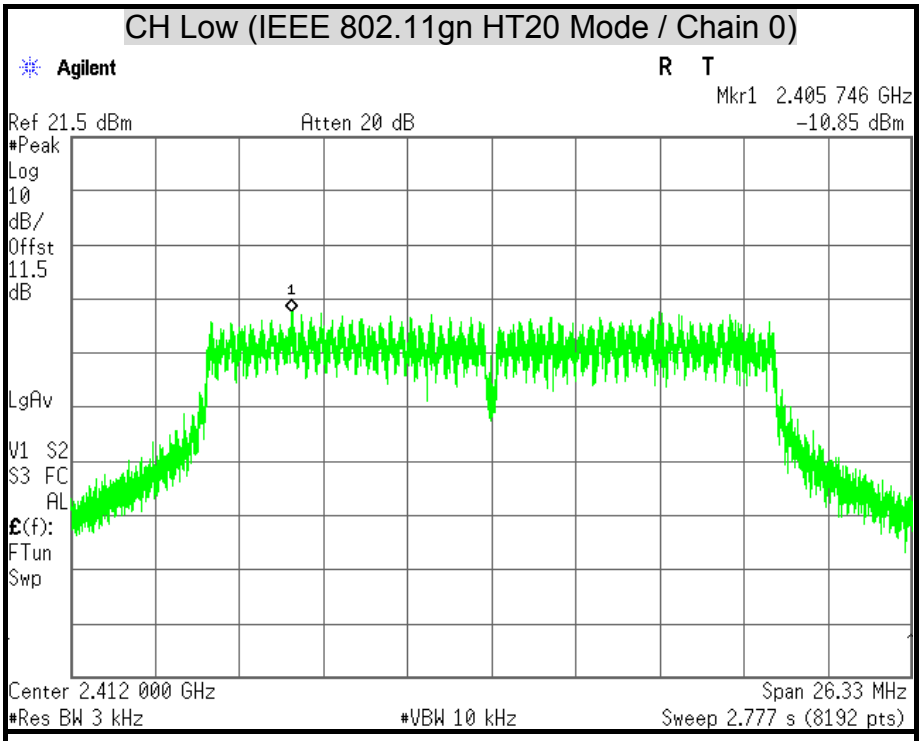

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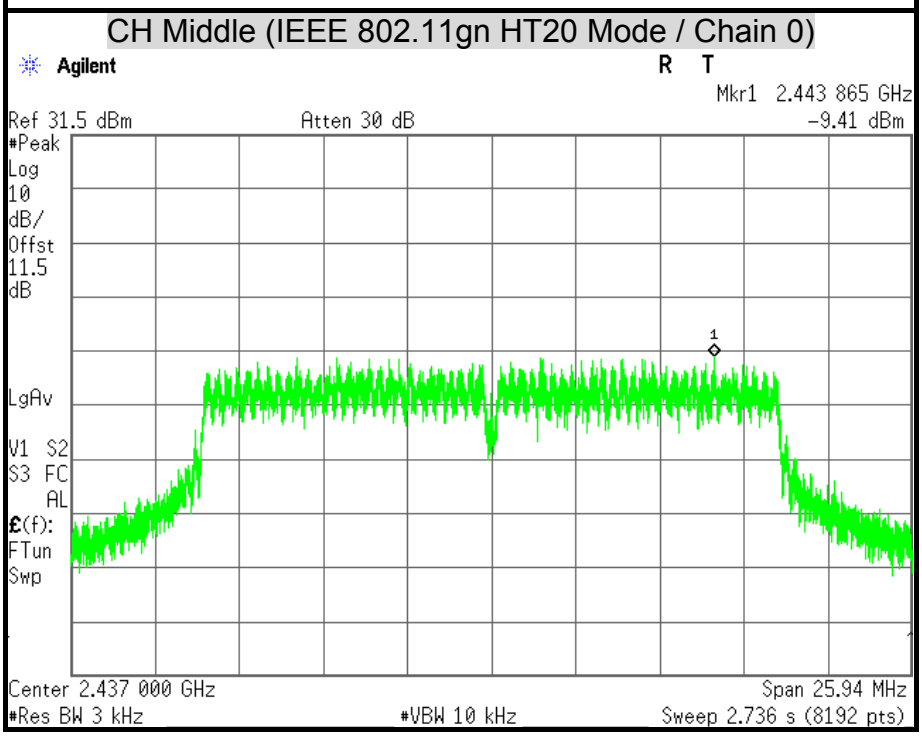
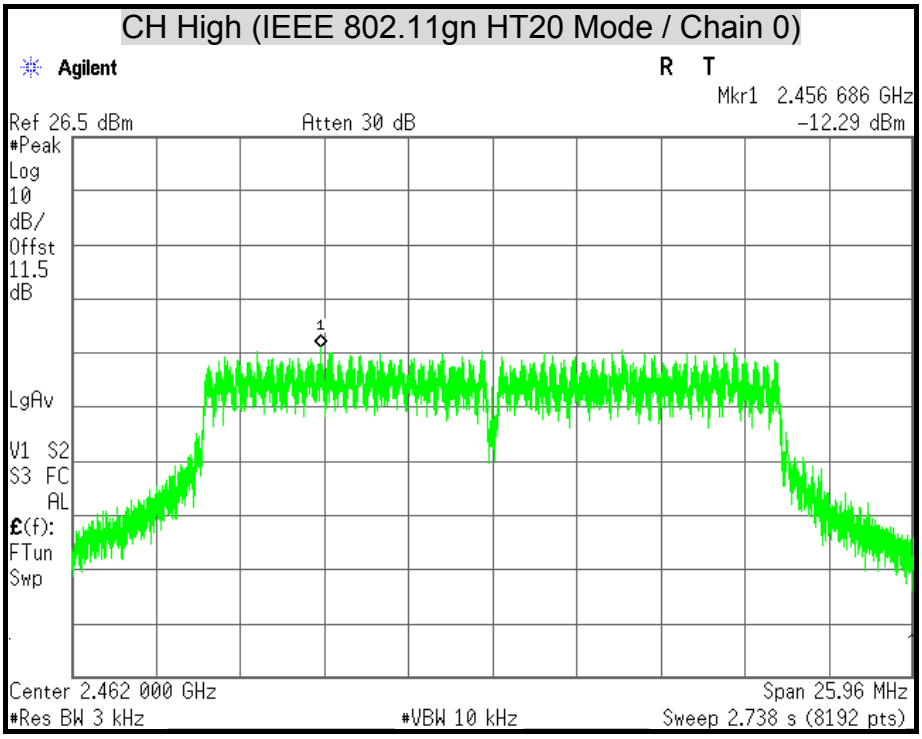
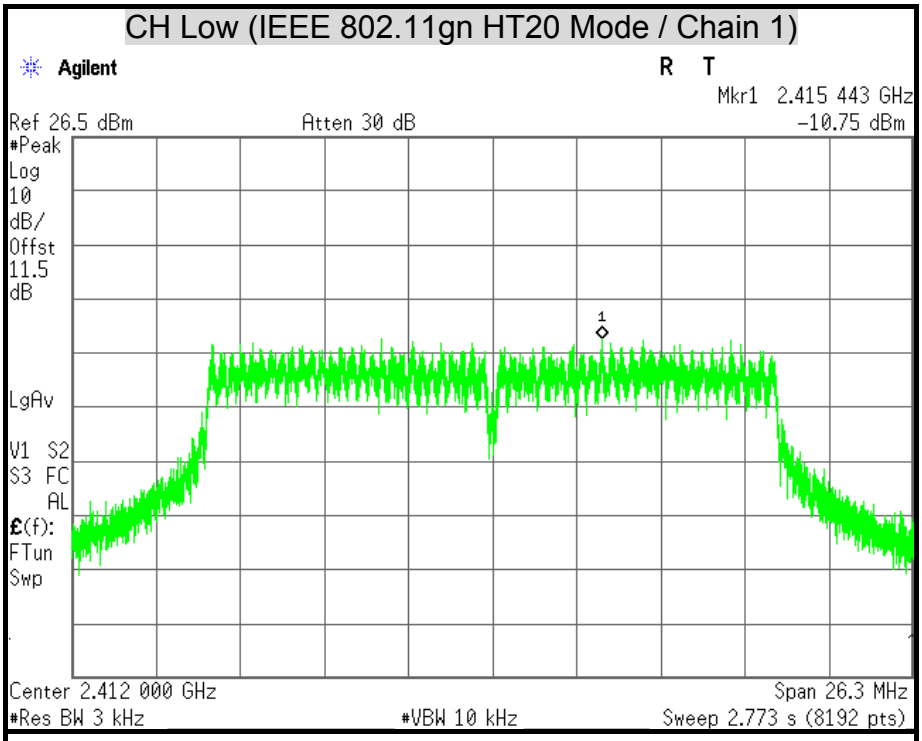
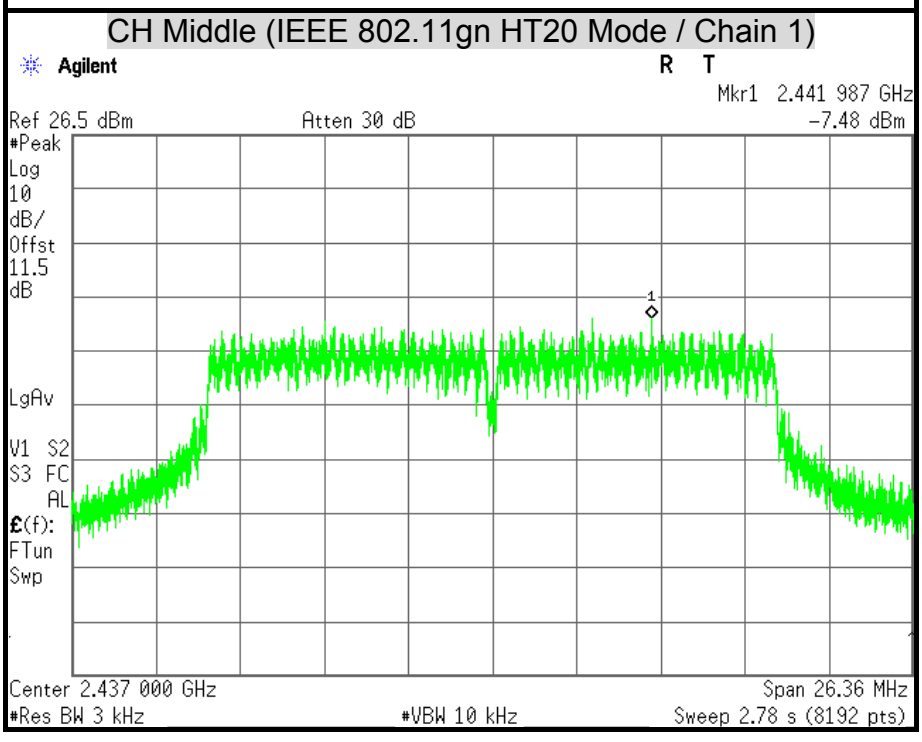




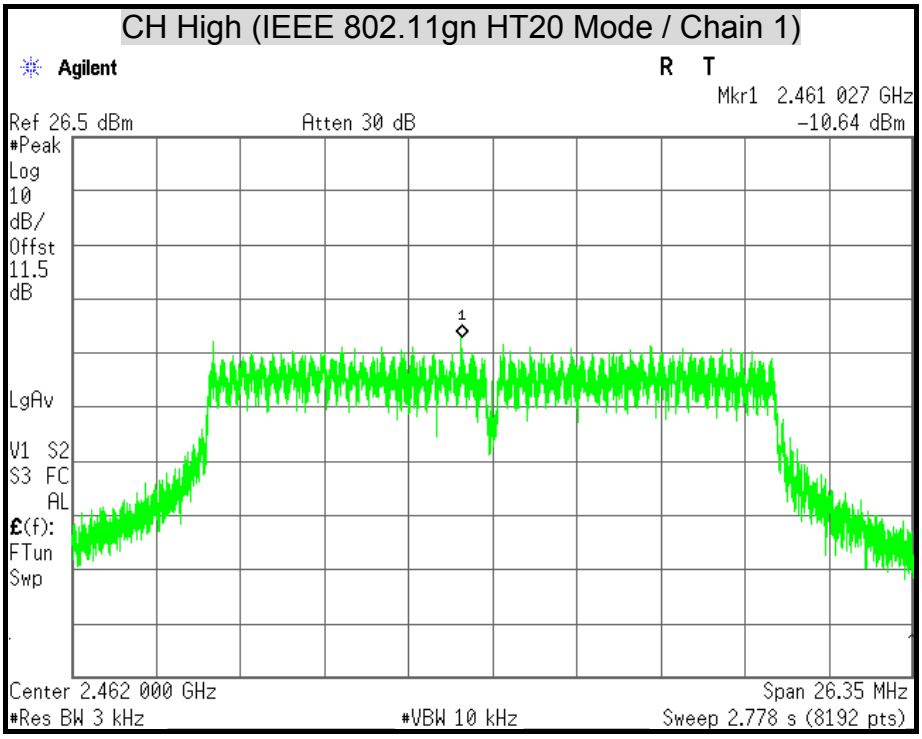
CH Low (IEEE 802.11gn HT20 Mode / Chain 1)



CH Middle (IEEE 802.11gn HT20 Mode / Chain 1)



CH High (IEEE 802.11gn HT20 Mode / Chain 1)



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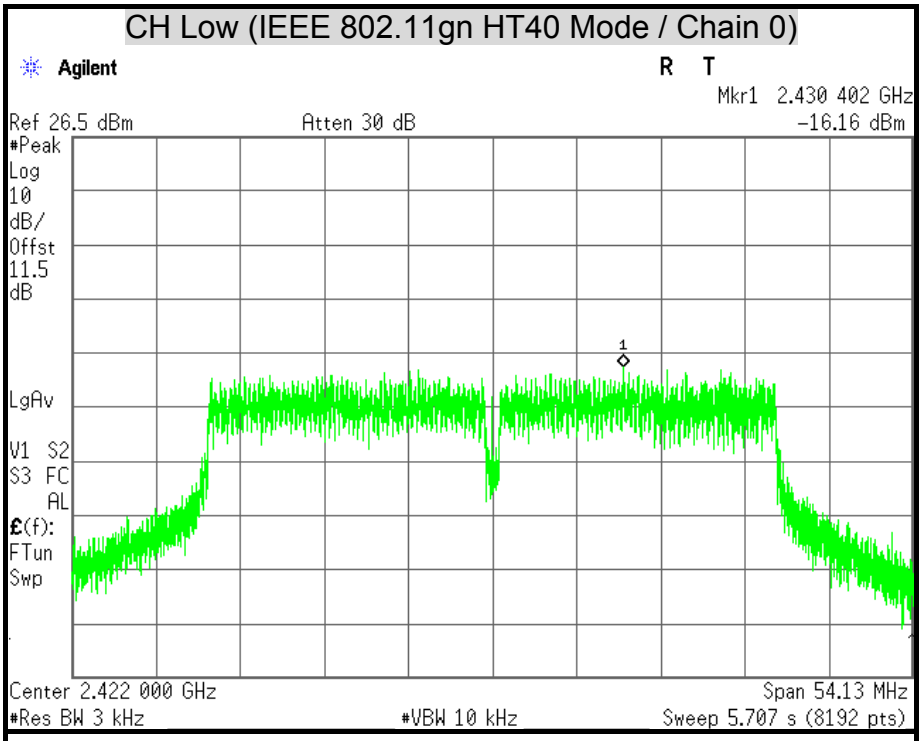

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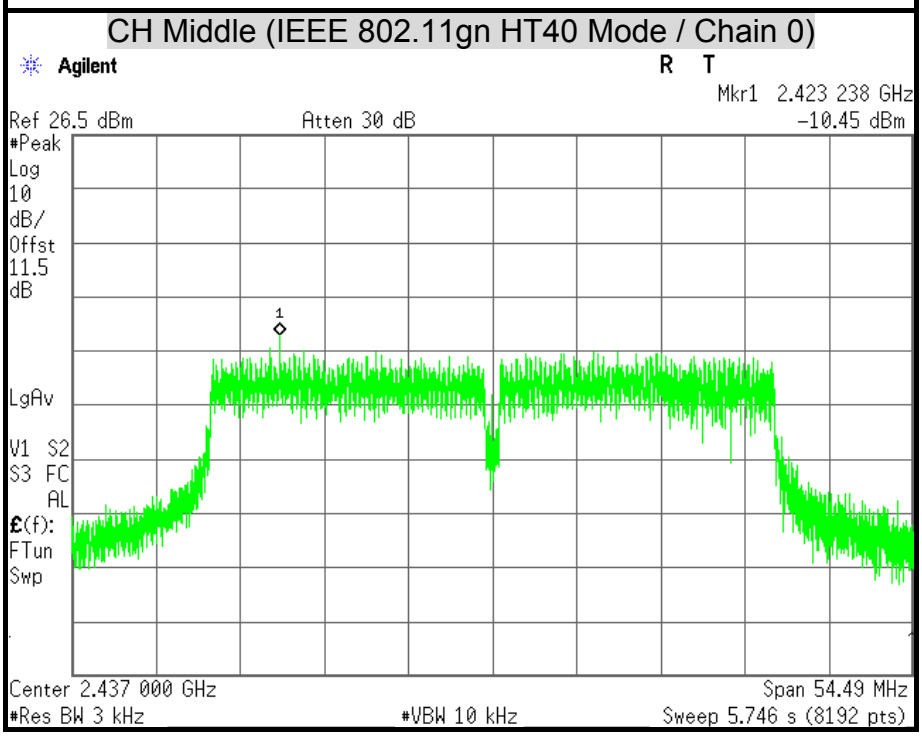

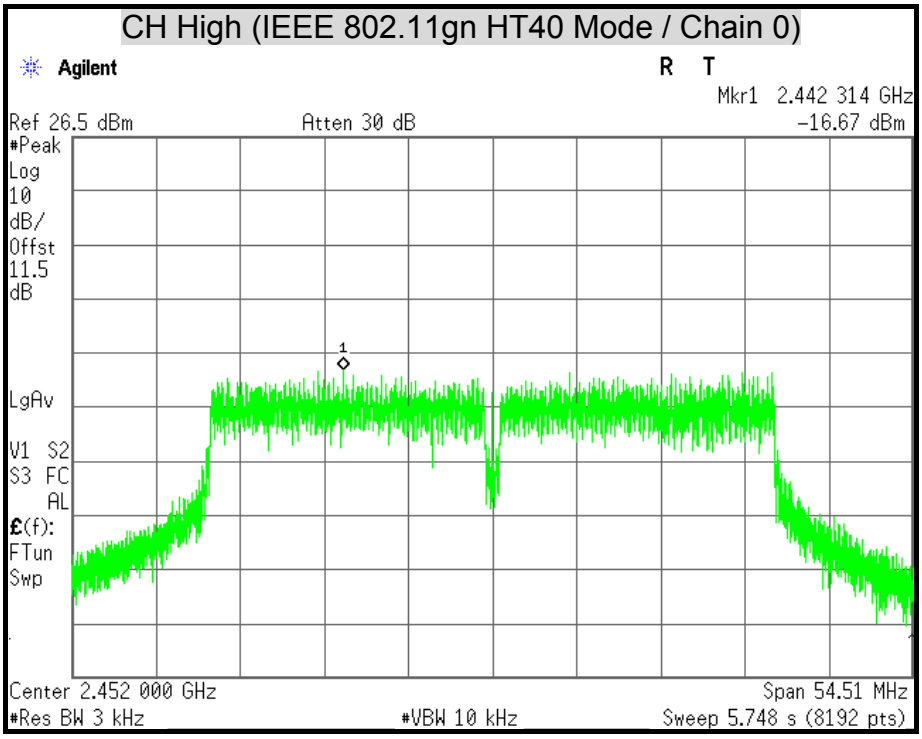

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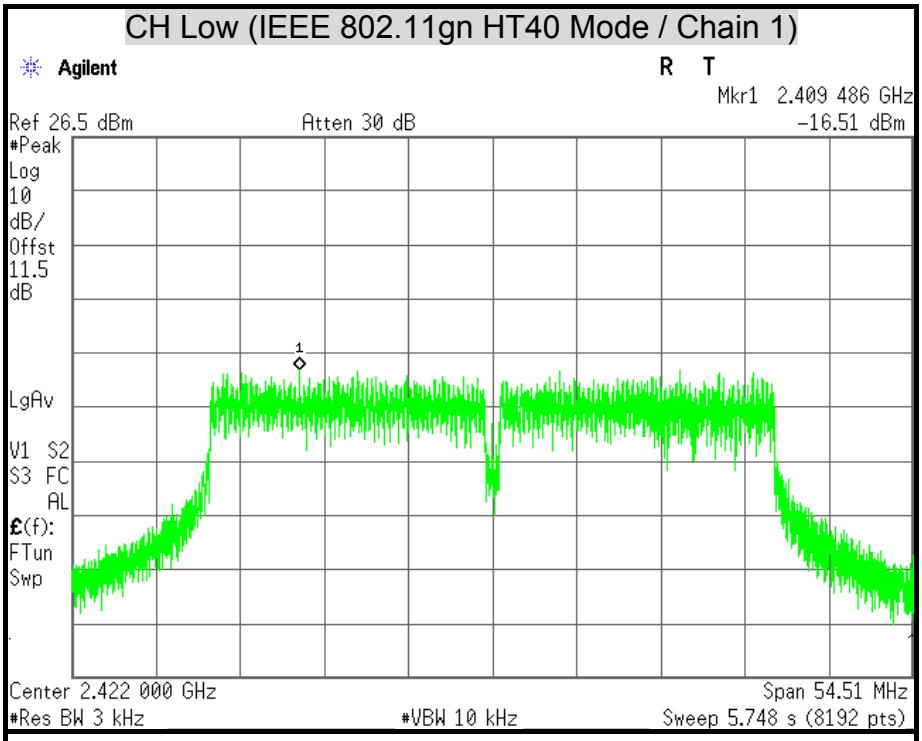
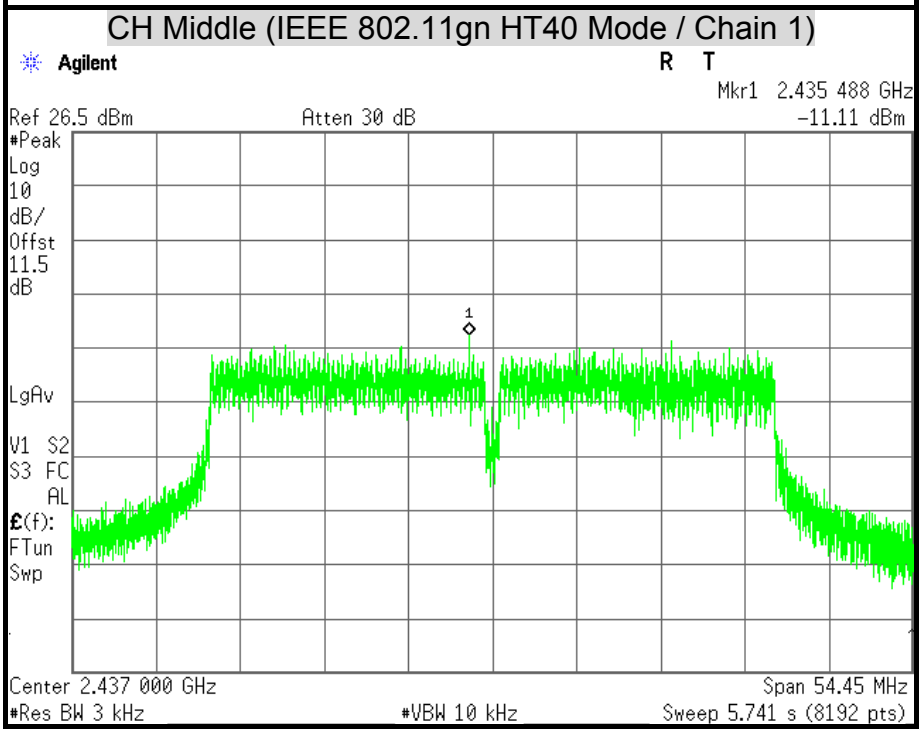
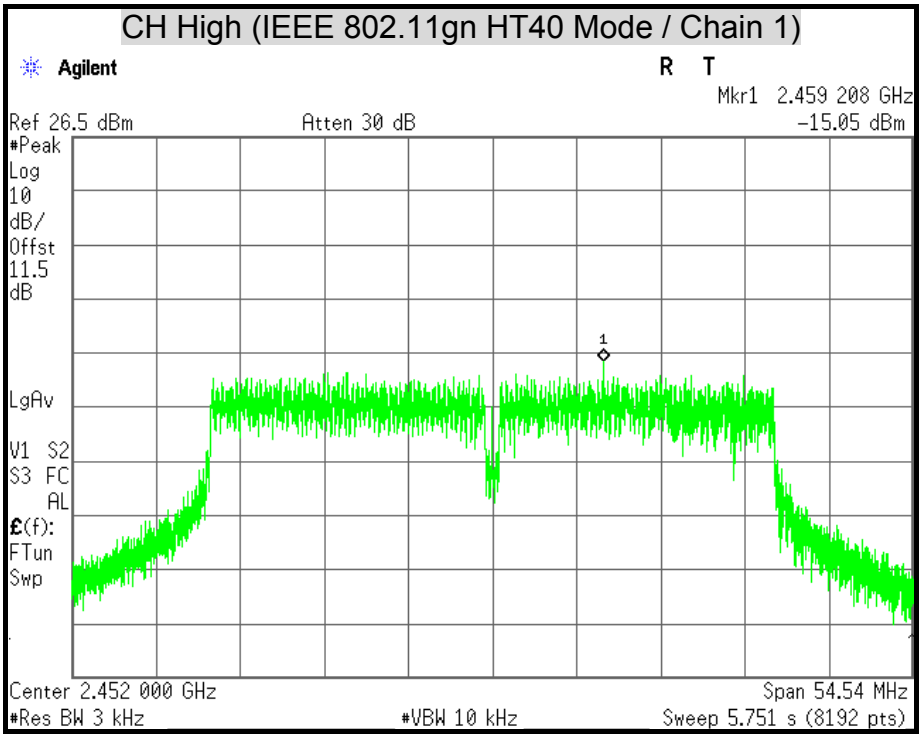
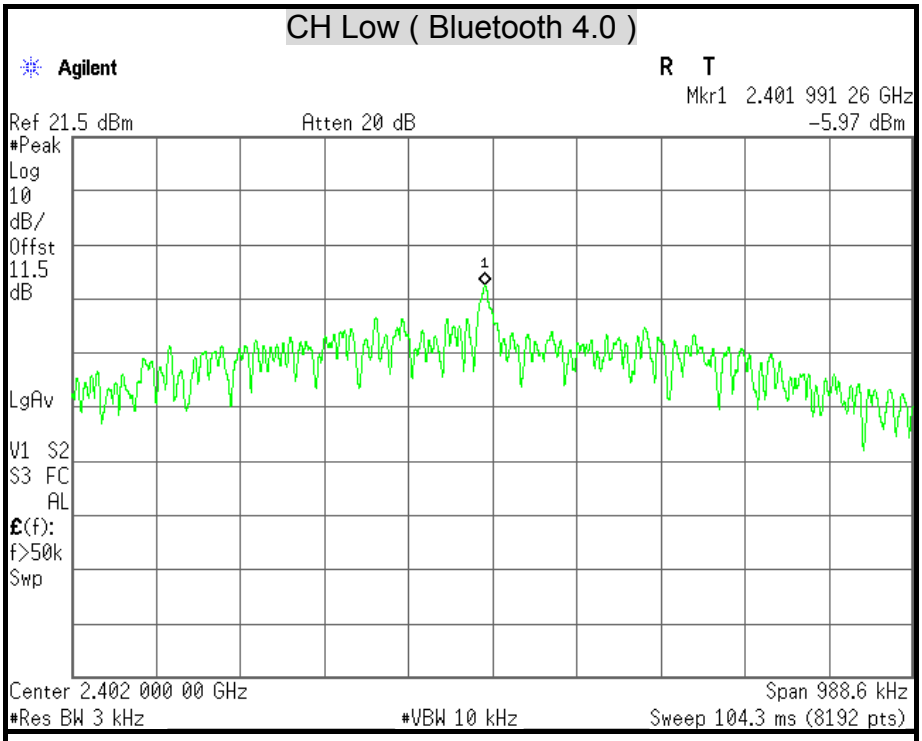


CH Middle (IEEE 802.11gn HT40 Mode / Chain 1)

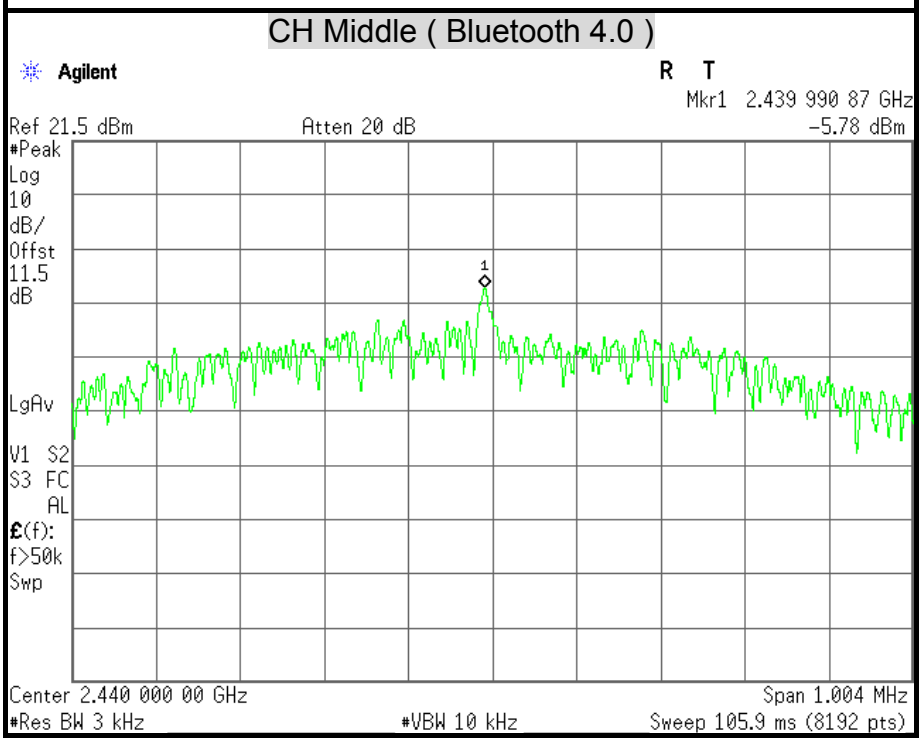




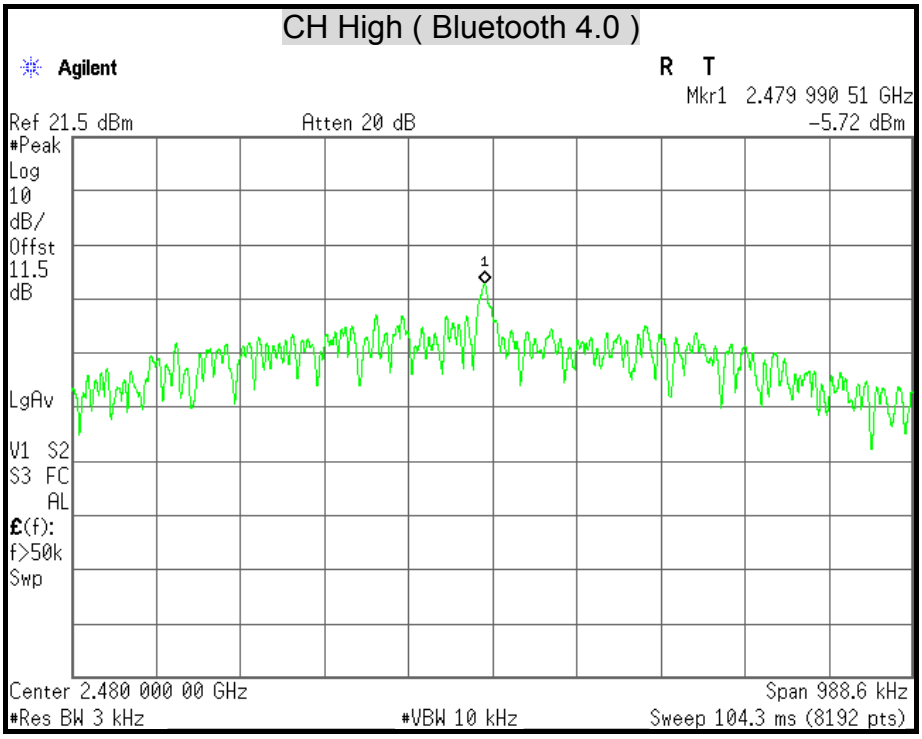
CH Low (Bluetooth 4.0)



CH Middle (Bluetooth 4.0)



CH High (Bluetooth 4.0)



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	06/10/2015

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

TEST SETUP

TEST PROCEDURE

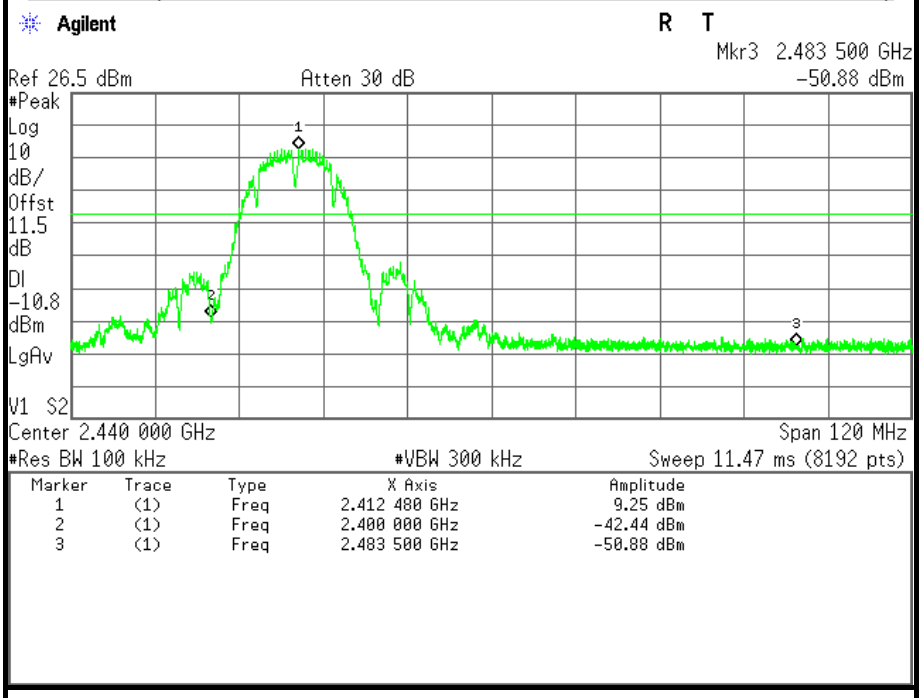
The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

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

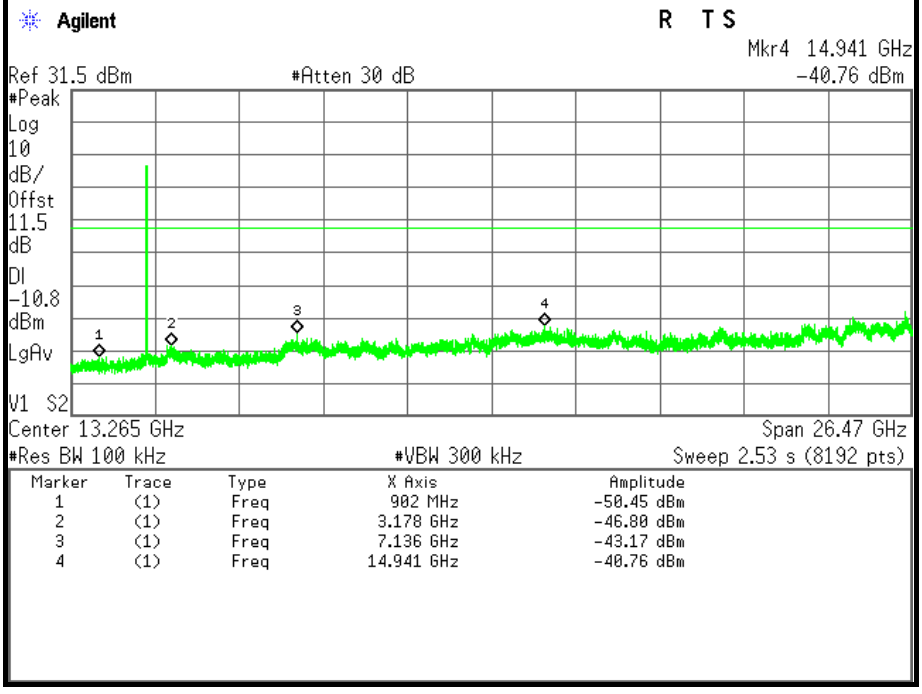
OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 0)



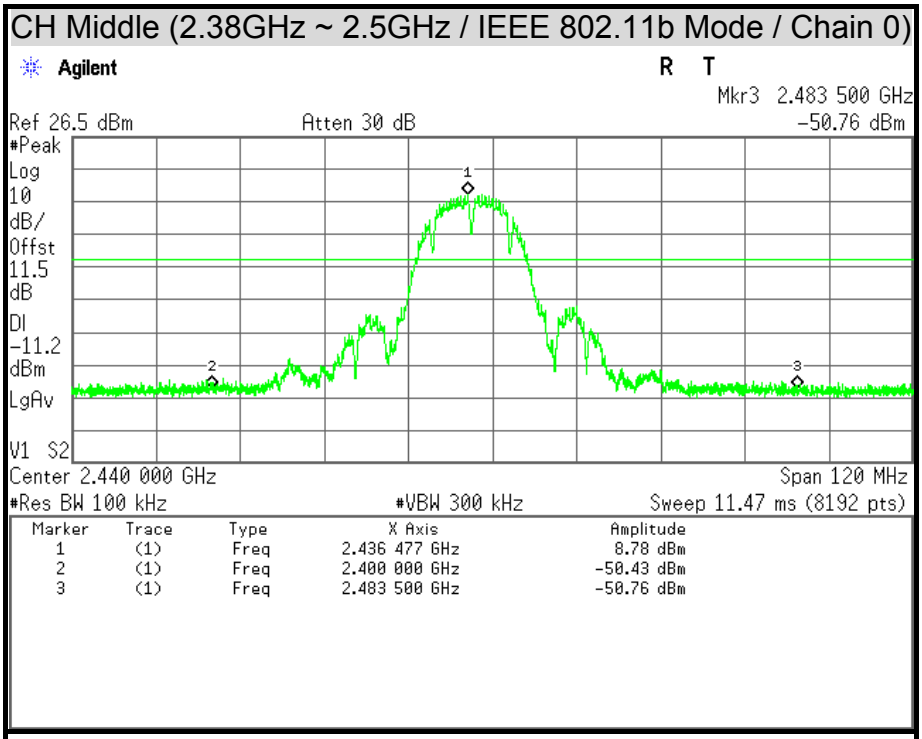
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.412 480 GHz	9.25 dBm
2	(1)	Freq	2.400 000 GHz	-42.44 dBm
3	(1)	Freq	2.483 500 GHz	-50.88 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 0)

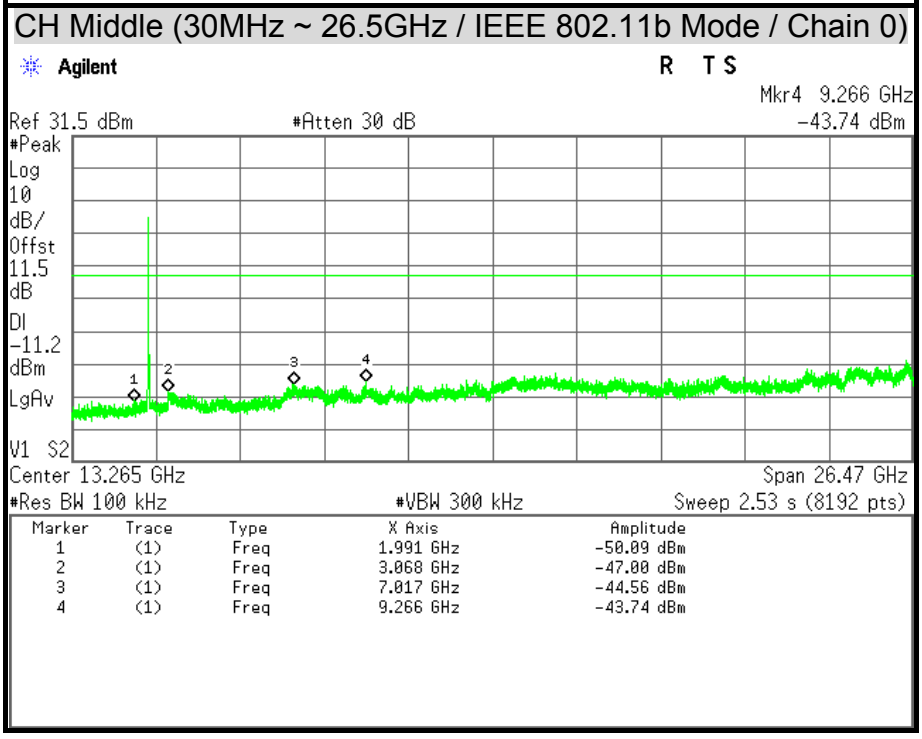


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	902 MHz	-50.45 dBm
2	(1)	Freq	3.178 GHz	-46.80 dBm
3	(1)	Freq	7.136 GHz	-43.17 dBm
4	(1)	Freq	14.941 GHz	-40.76 dBm

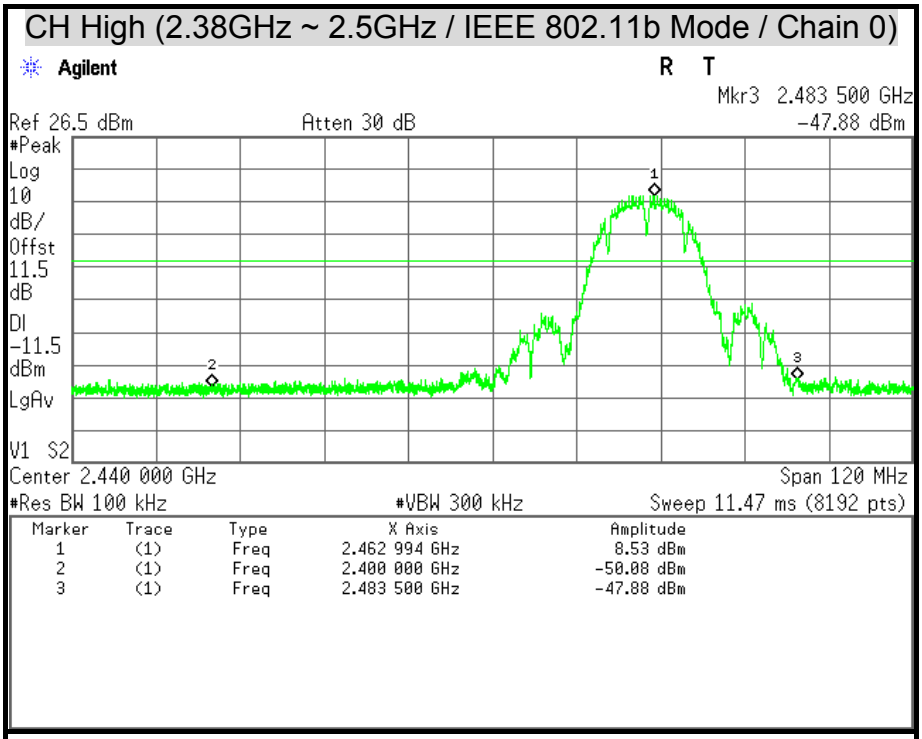
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 0)



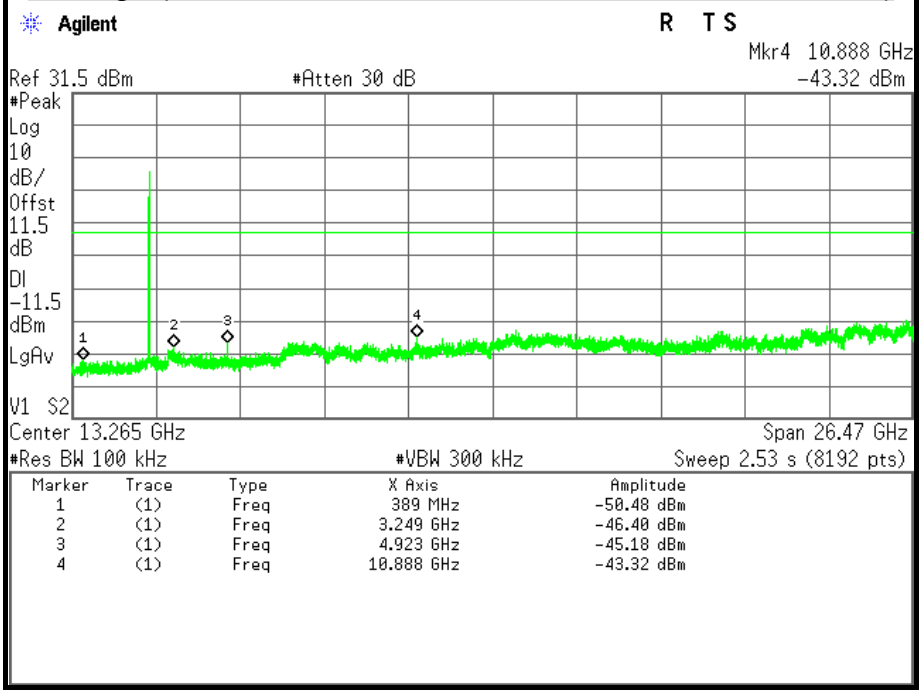
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 0)



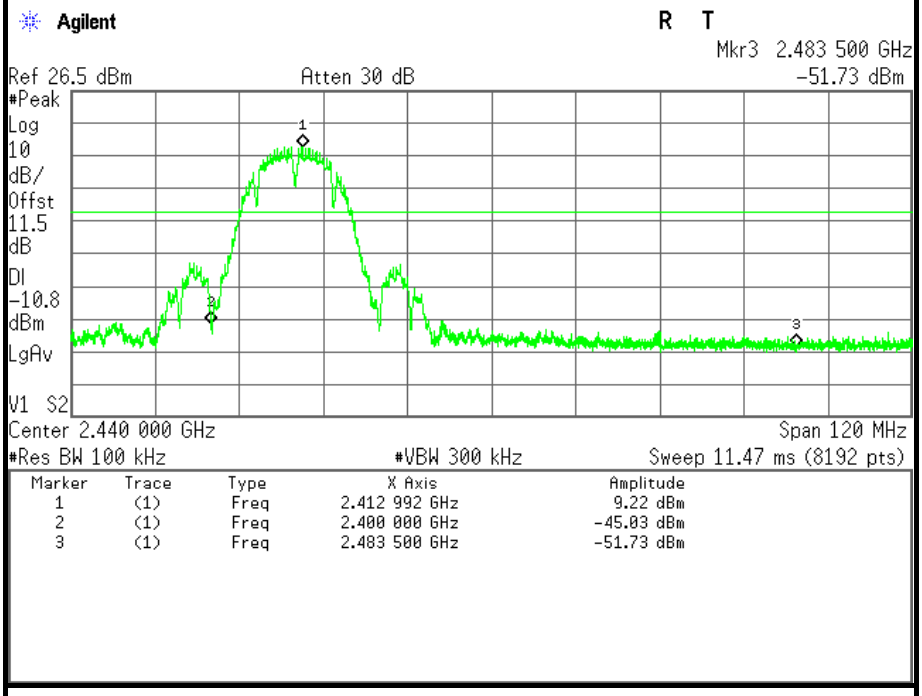
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 0)



CH High (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 0)

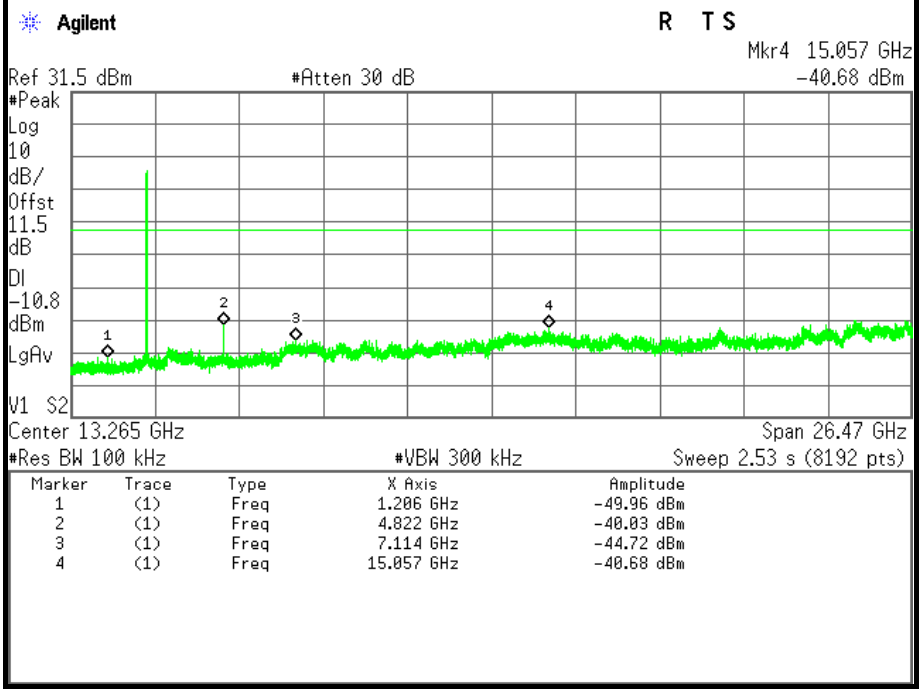


CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 1)



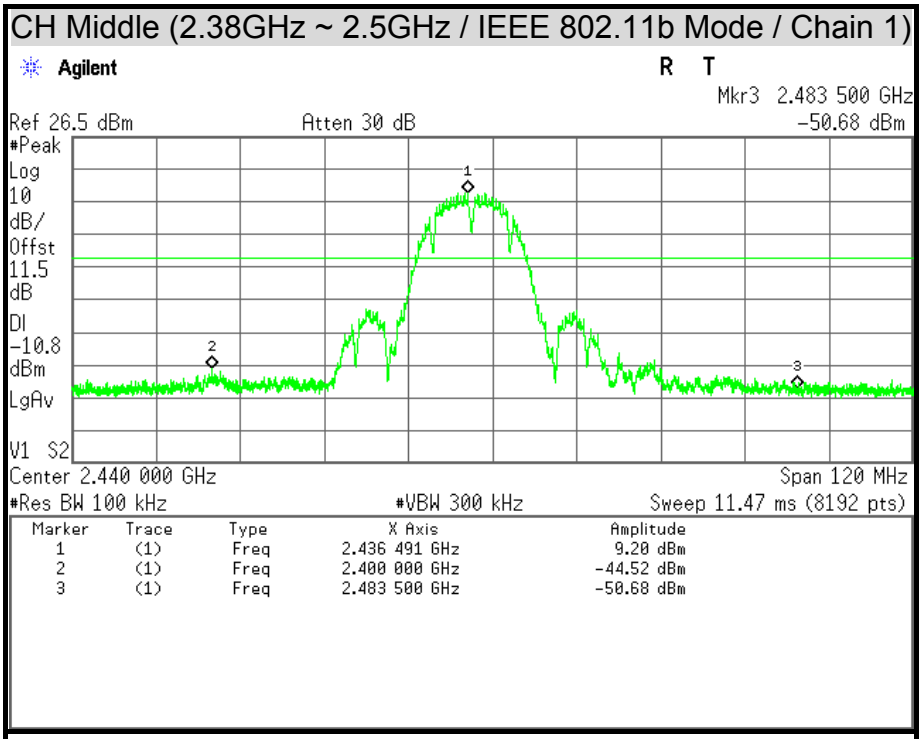
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.412 992 GHz	9.22 dBm
2	(1)	Freq	2.400 000 GHz	-45.03 dBm
3	(1)	Freq	2.483 500 GHz	-51.73 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 1)

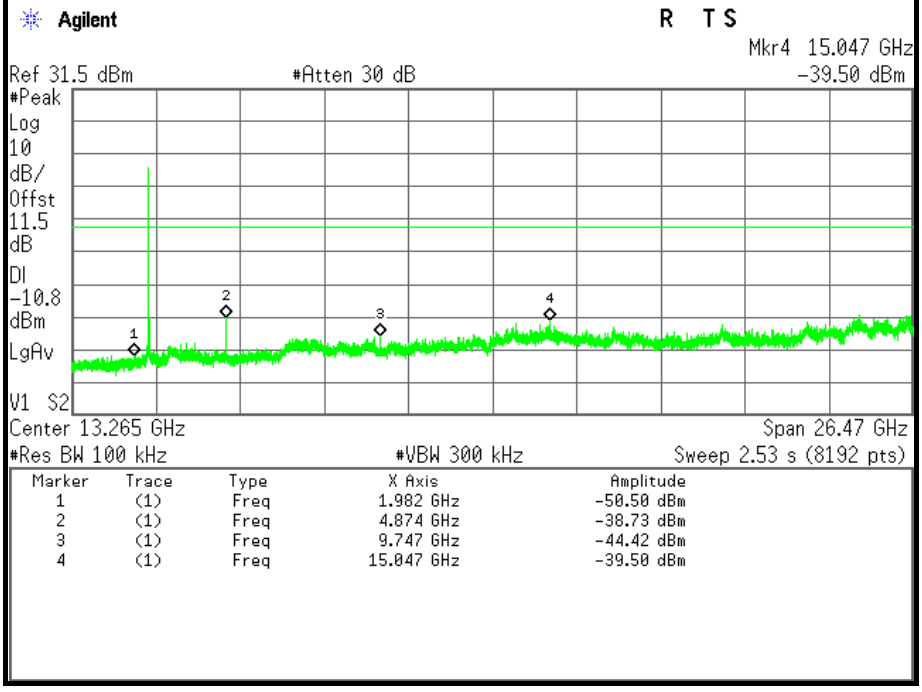


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.206 GHz	-49.96 dBm
2	(1)	Freq	4.822 GHz	-40.03 dBm
3	(1)	Freq	7.114 GHz	-44.72 dBm
4	(1)	Freq	15.057 GHz	-40.68 dBm

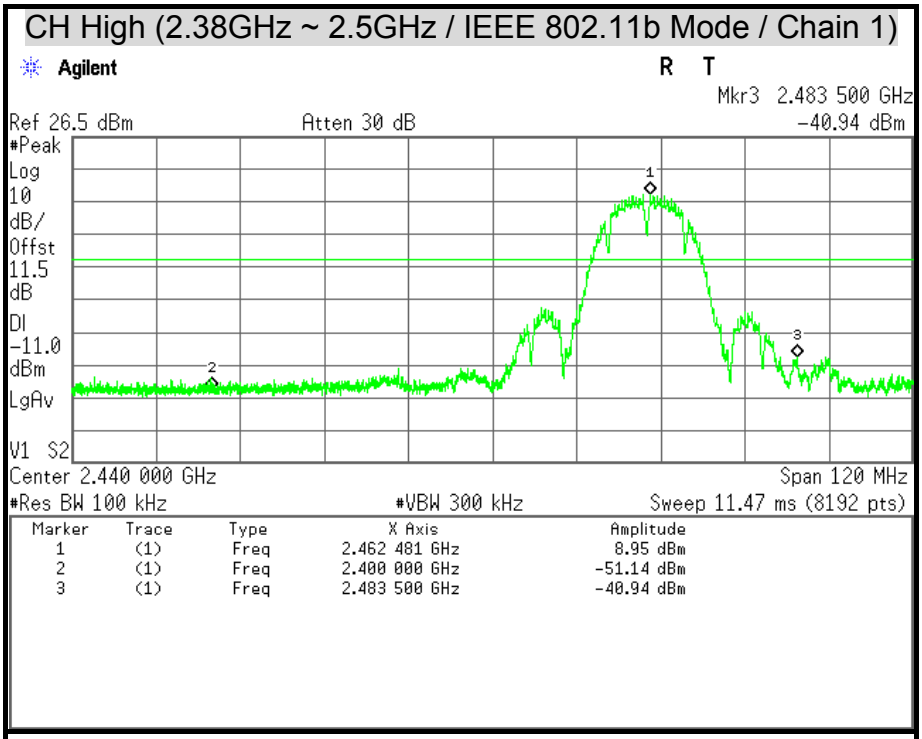
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 1)



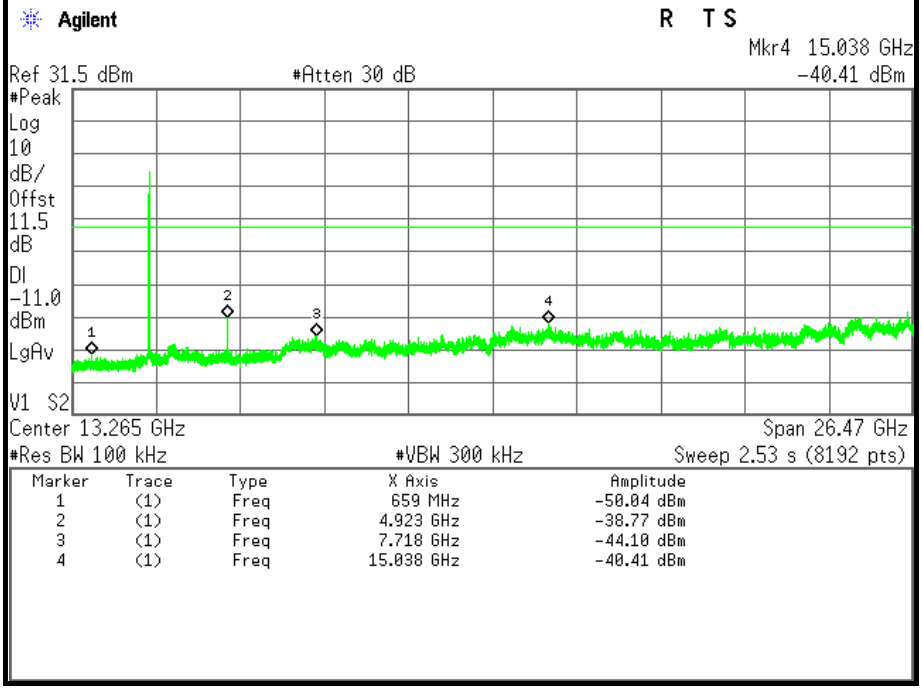
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 1)



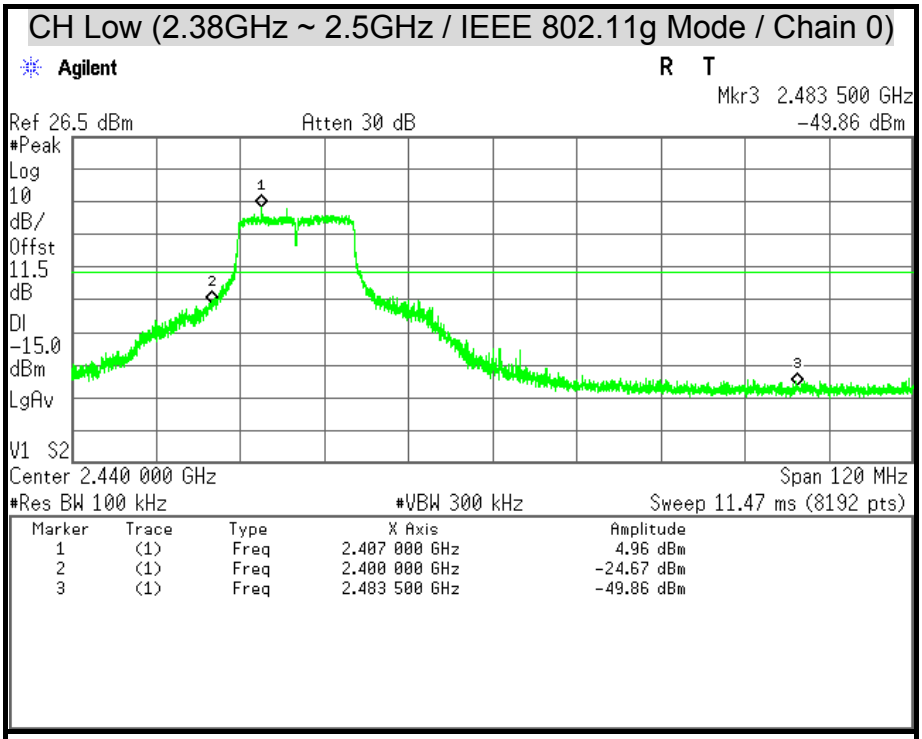
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 1)



CH High (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 1)

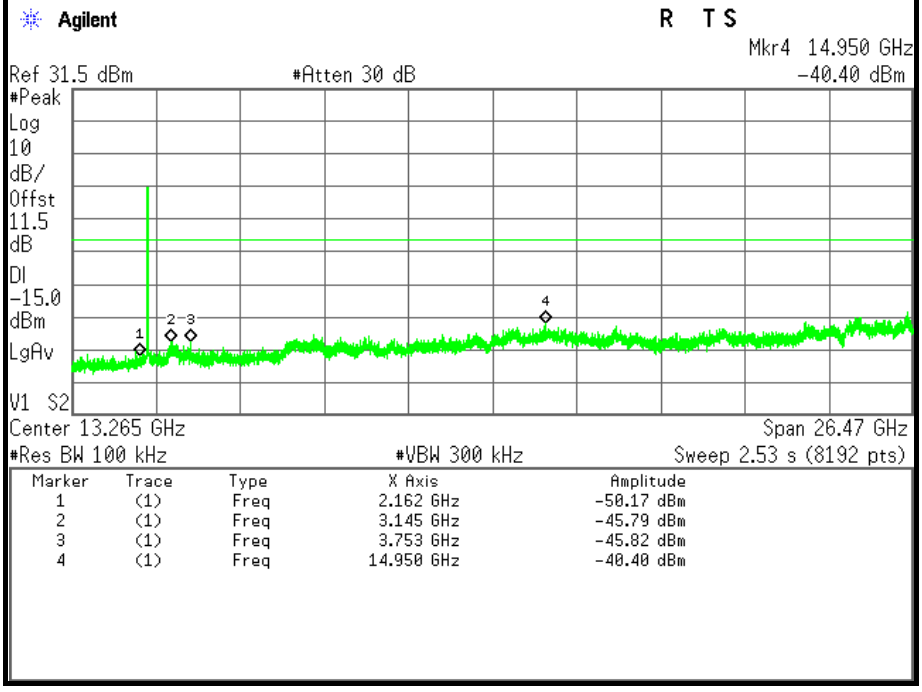


CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 0)



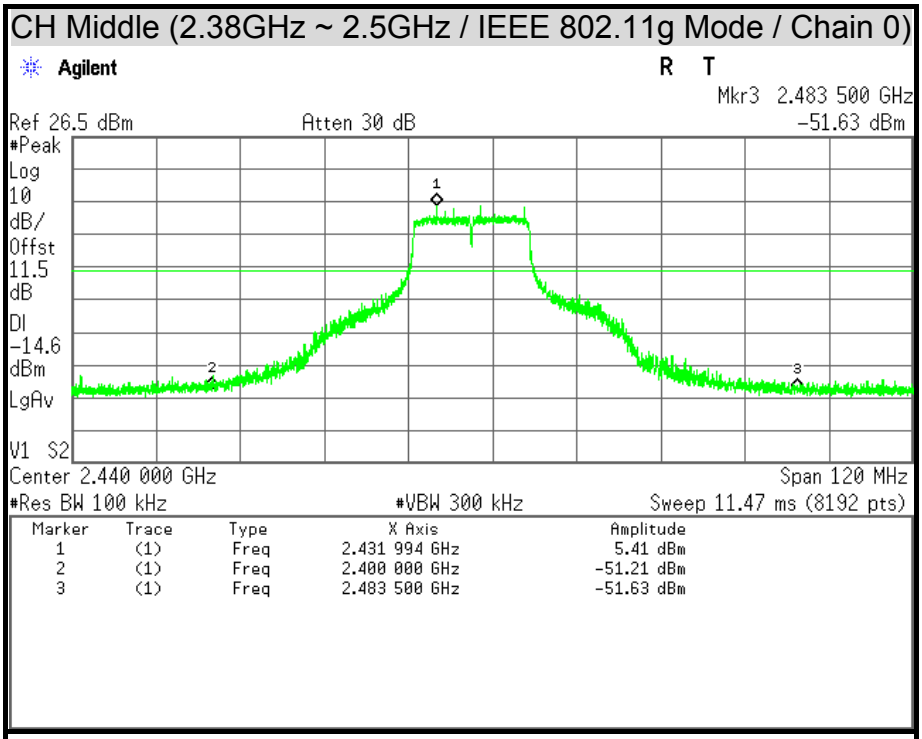
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.407 000 GHz	4.96 dBm
2	(1)	Freq	2.400 000 GHz	-24.67 dBm
3	(1)	Freq	2.483 500 GHz	-49.86 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 0)

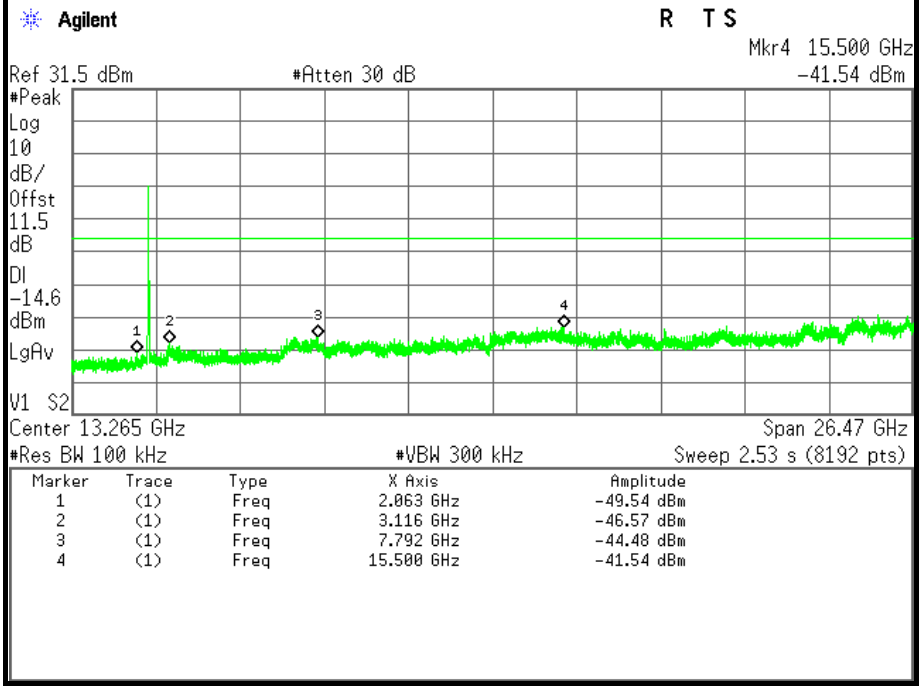


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.162 GHz	-58.17 dBm
2	(1)	Freq	3.145 GHz	-45.79 dBm
3	(1)	Freq	3.753 GHz	-45.82 dBm
4	(1)	Freq	14.950 GHz	-40.40 dBm

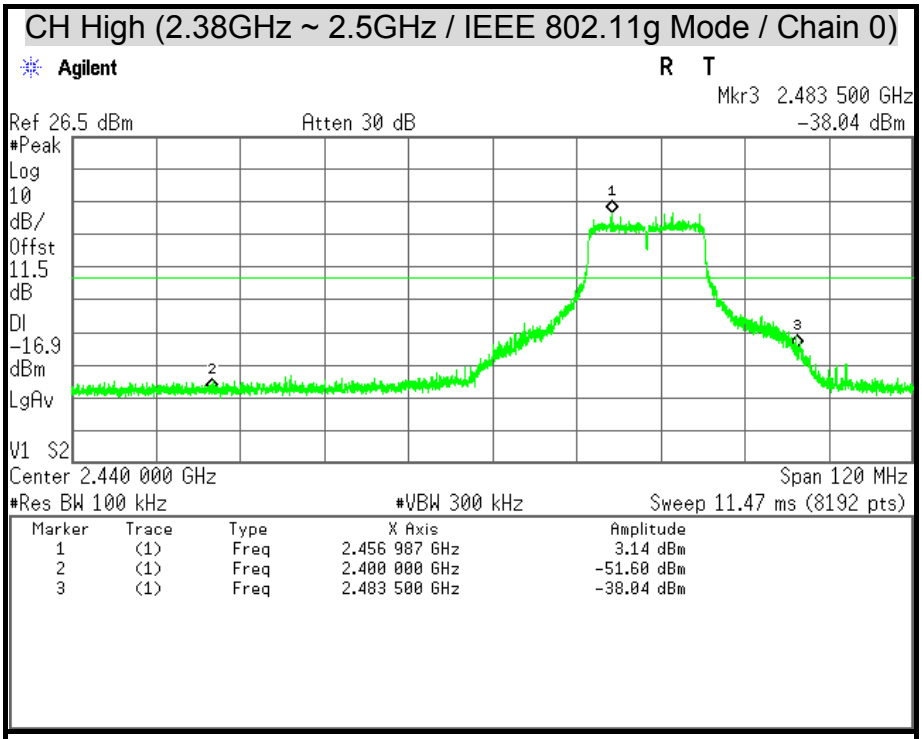
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 0)



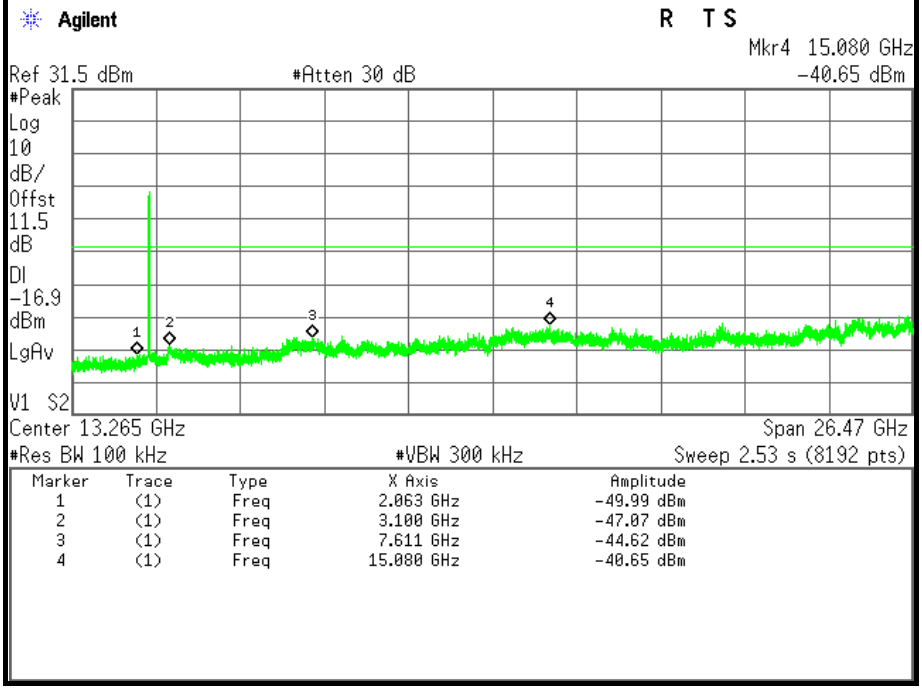
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 0)



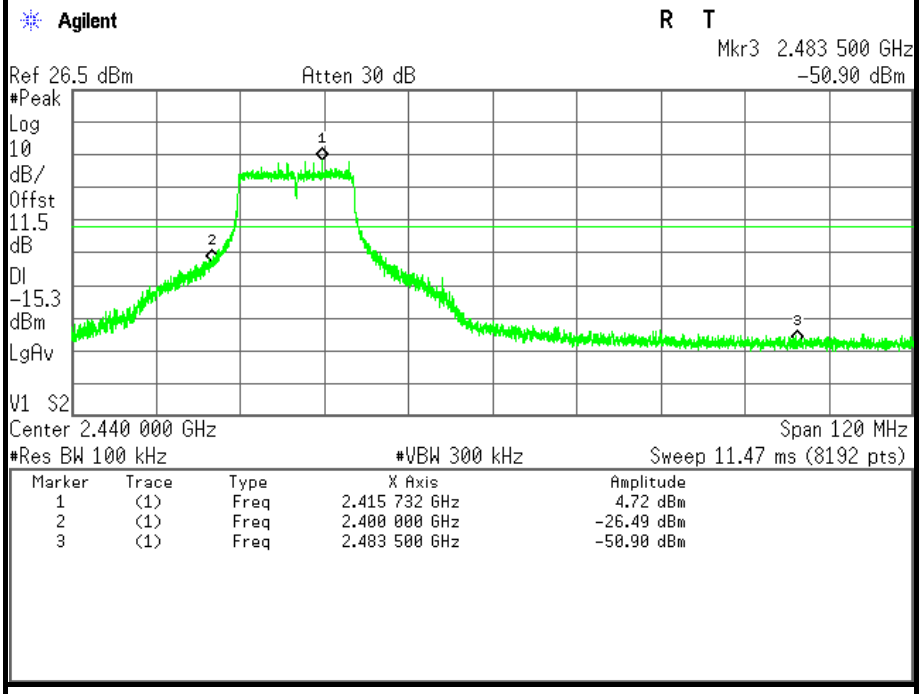
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 0)



CH High (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 0)

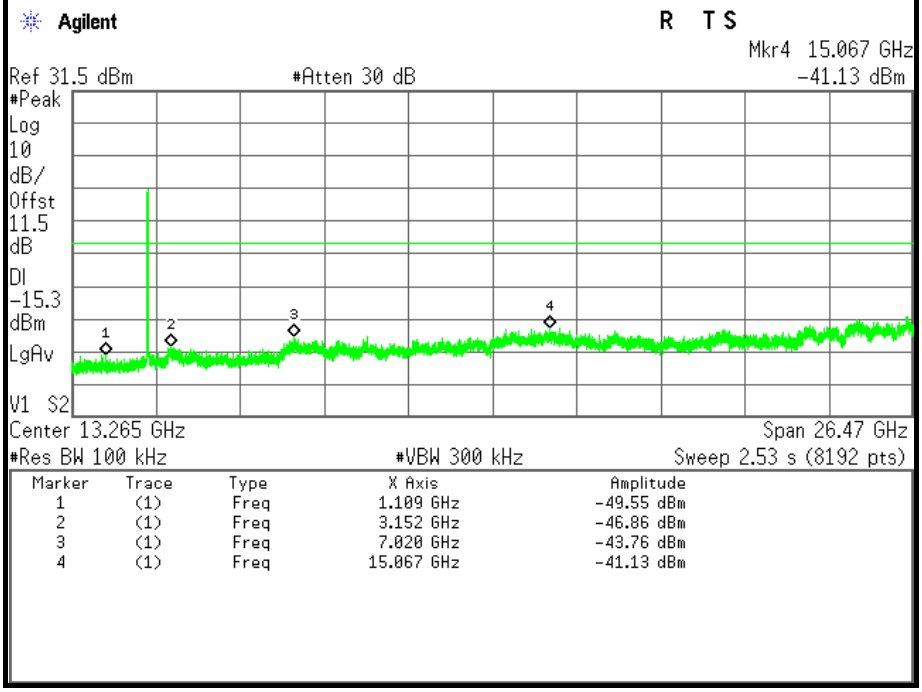


CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 1)



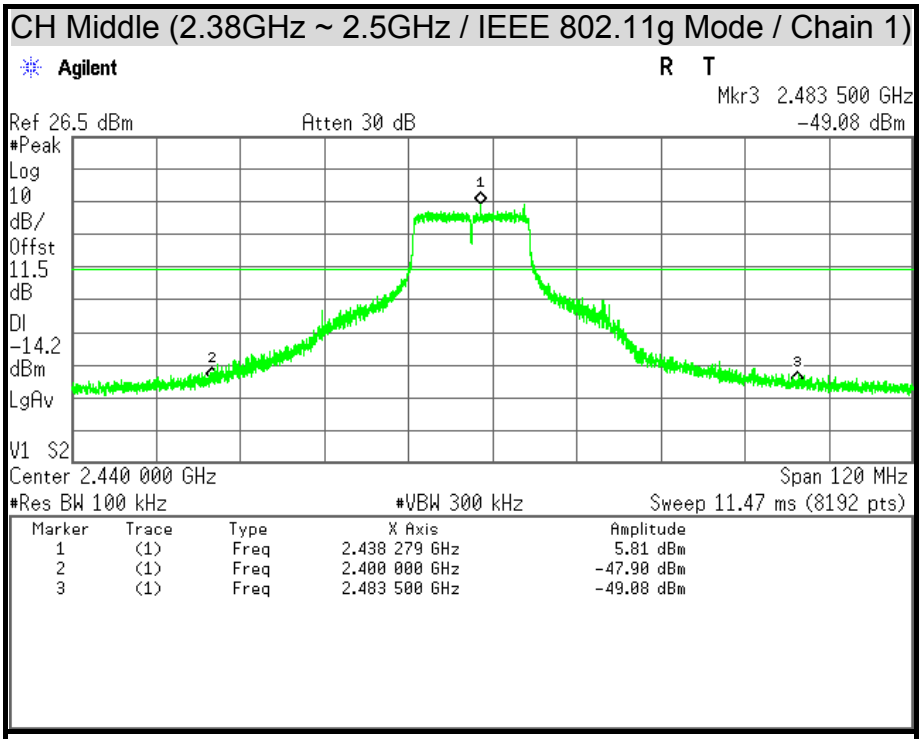
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.415 732 GHz	4.72 dBm
2	(1)	Freq	2.400 000 GHz	-26.49 dBm
3	(1)	Freq	2.483 500 GHz	-50.90 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 1)

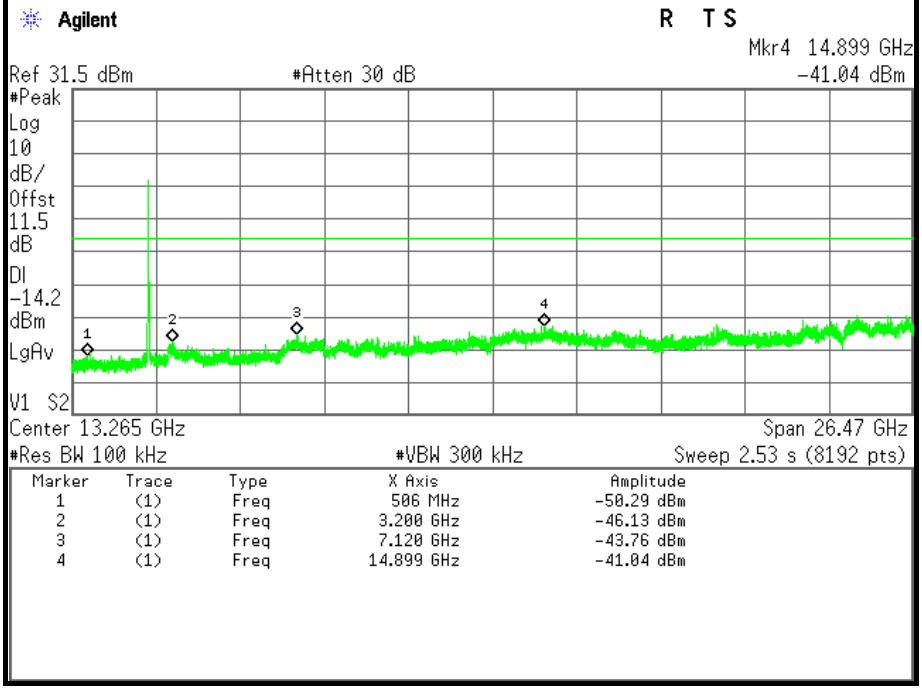


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.109 GHz	-49.55 dBm
2	(1)	Freq	3.152 GHz	-46.86 dBm
3	(1)	Freq	7.020 GHz	-43.76 dBm
4	(1)	Freq	15.067 GHz	-41.13 dBm

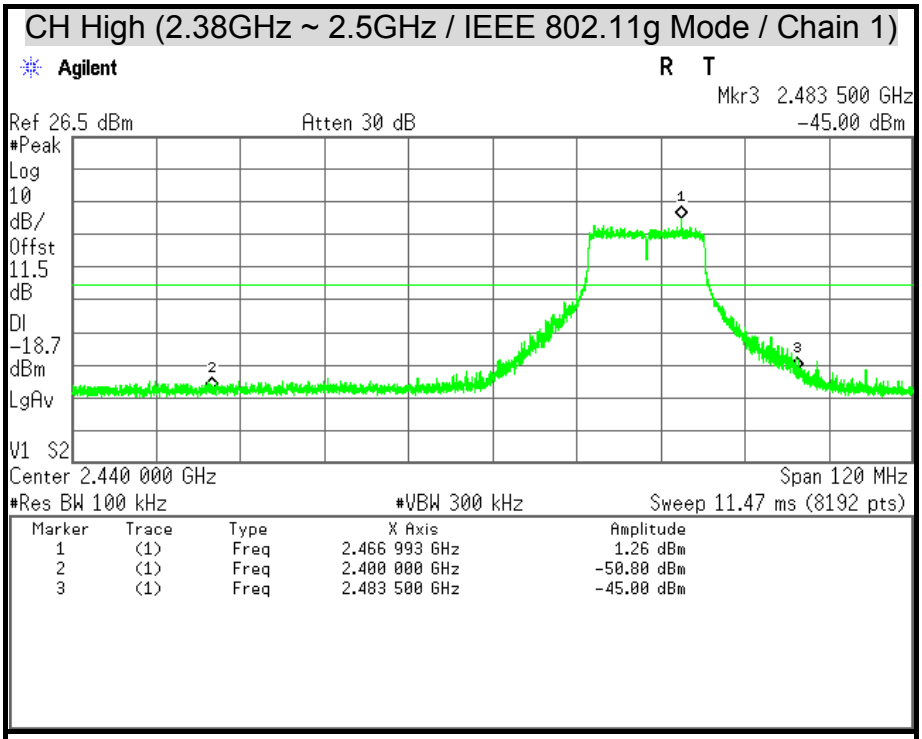
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 1)



CH Middle (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 1)

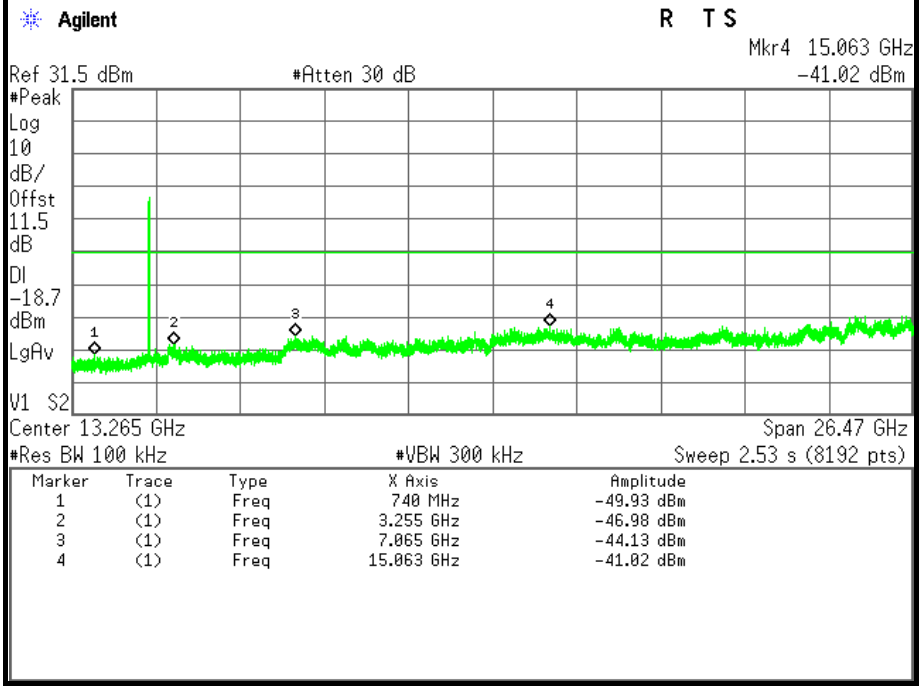


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 1)



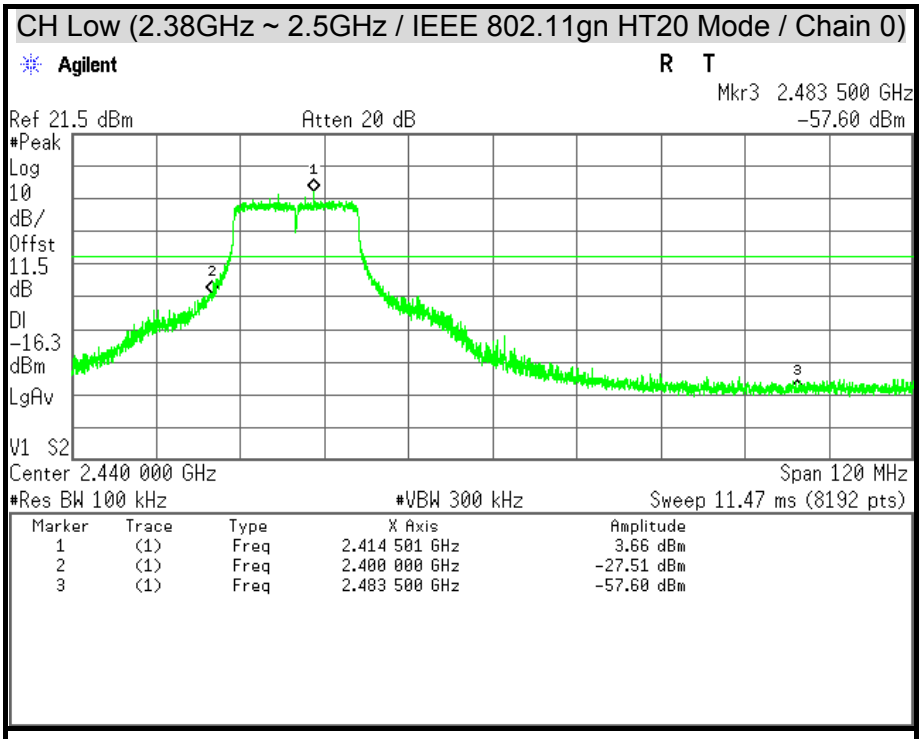
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.466 993 GHz	1.26 dBm
2	(1)	Freq	2.400 000 GHz	-50.80 dBm
3	(1)	Freq	2.483 500 GHz	-45.00 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 1)



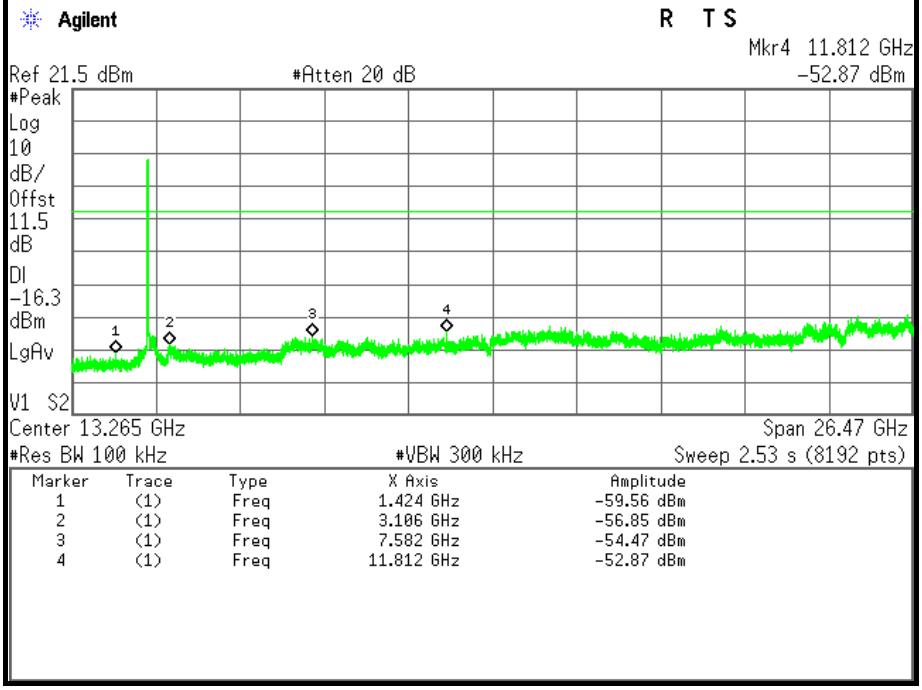
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	740 MHz	-49.93 dBm
2	(1)	Freq	3.255 GHz	-46.98 dBm
3	(1)	Freq	7.065 GHz	-44.13 dBm
4	(1)	Freq	15.063 GHz	-41.02 dBm

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



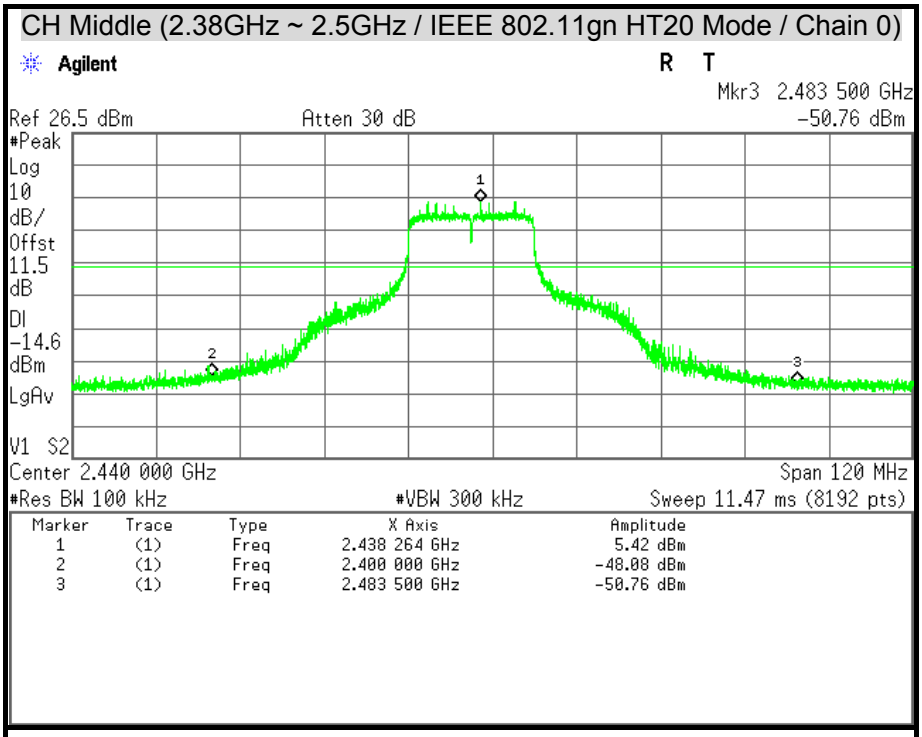
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.414 501 GHz	3.66 dBm
2	(1)	Freq	2.400 000 GHz	-27.51 dBm
3	(1)	Freq	2.483 500 GHz	-57.60 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



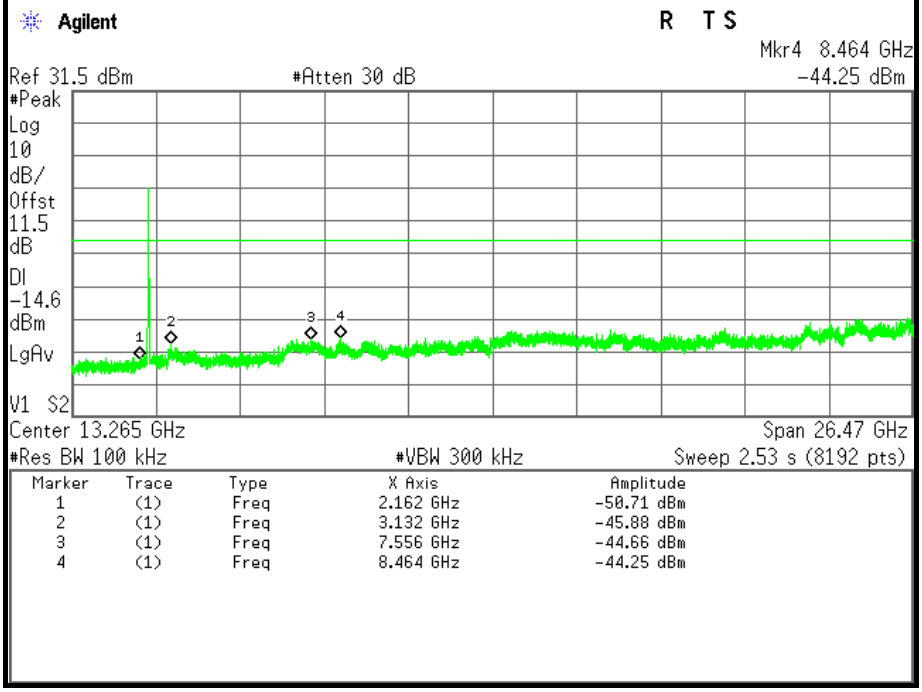
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.424 GHz	-59.56 dBm
2	(1)	Freq	3.106 GHz	-56.85 dBm
3	(1)	Freq	7.582 GHz	-54.47 dBm
4	(1)	Freq	11.812 GHz	-52.87 dBm

CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



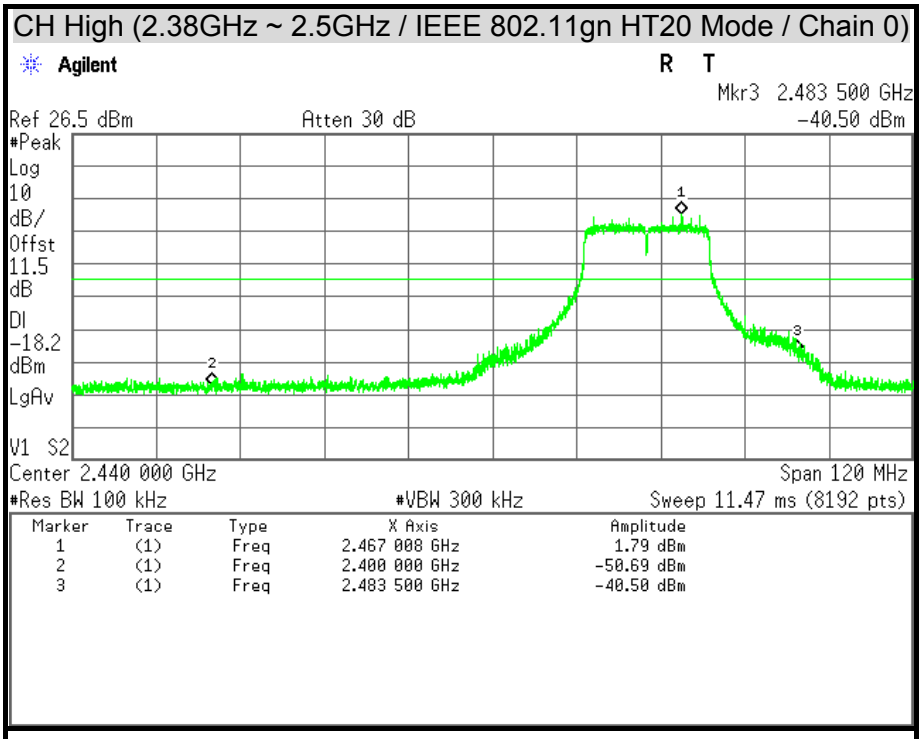
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.438 264 GHz	5.42 dBm
2	(1)	Freq	2.400 000 GHz	-48.88 dBm
3	(1)	Freq	2.483 500 GHz	-50.76 dBm

CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



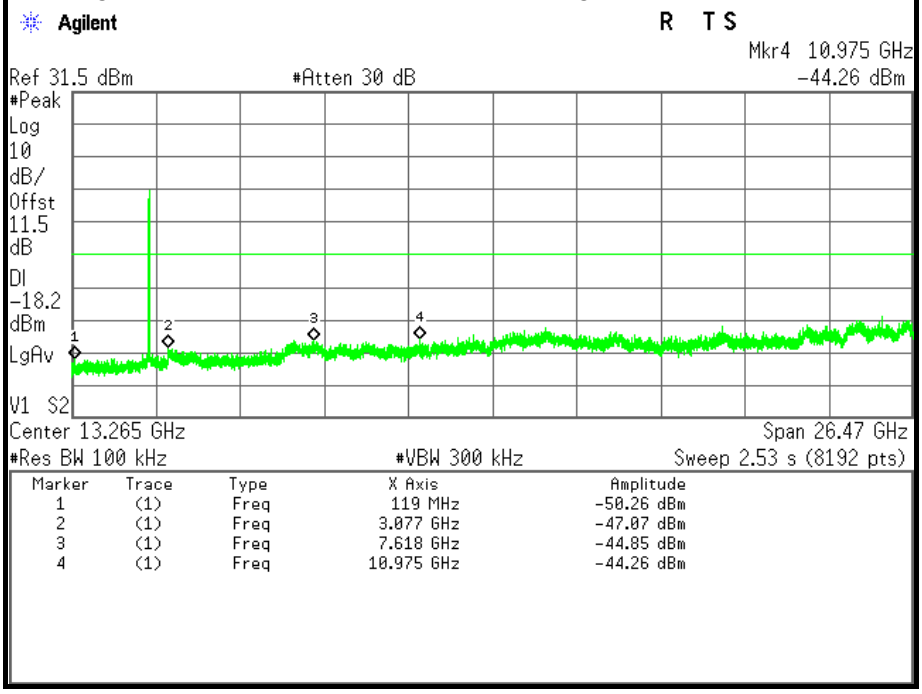
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.162 GHz	-50.71 dBm
2	(1)	Freq	3.132 GHz	-45.88 dBm
3	(1)	Freq	7.556 GHz	-44.66 dBm
4	(1)	Freq	8.464 GHz	-44.25 dBm

CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



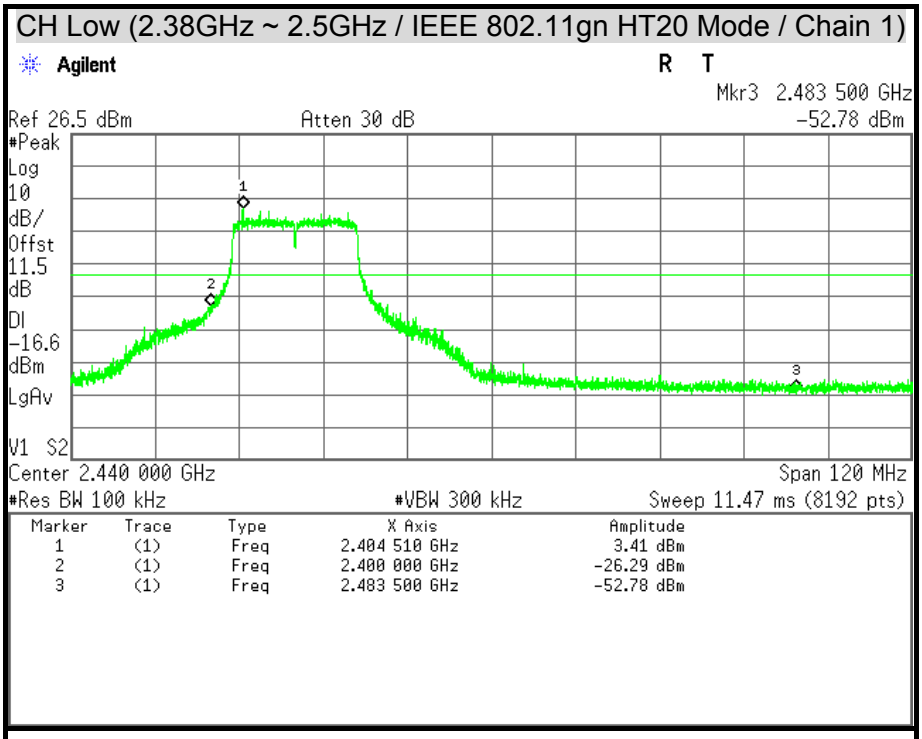
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.467 008 GHz	1.79 dBm
2	(1)	Freq	2.400 000 GHz	-50.69 dBm
3	(1)	Freq	2.483 500 GHz	-40.50 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



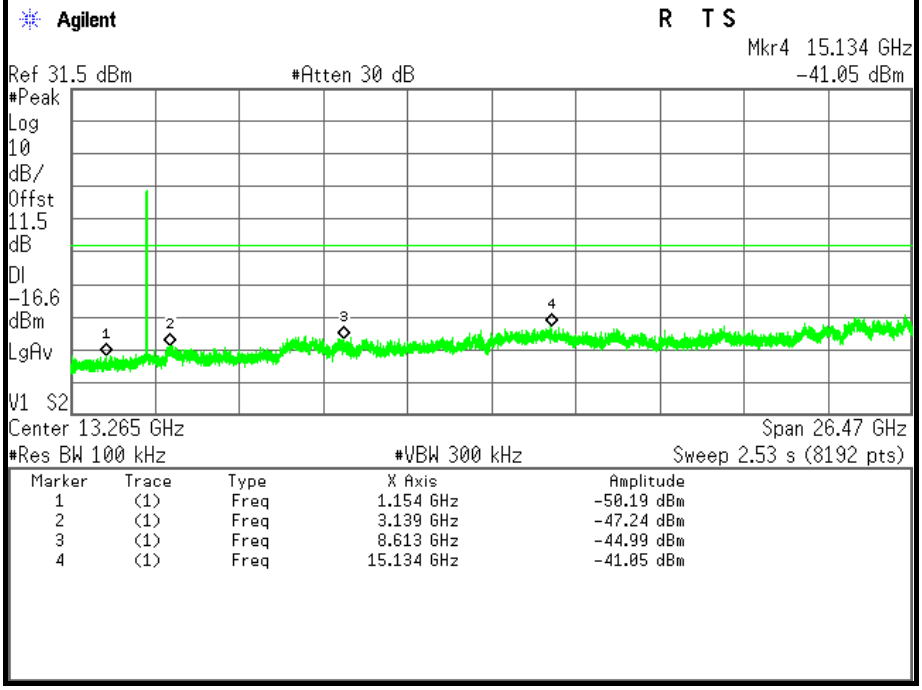
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	119 MHz	-50.26 dBm
2	(1)	Freq	3.077 GHz	-47.07 dBm
3	(1)	Freq	7.618 GHz	-44.85 dBm
4	(1)	Freq	10.975 GHz	-44.26 dBm

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



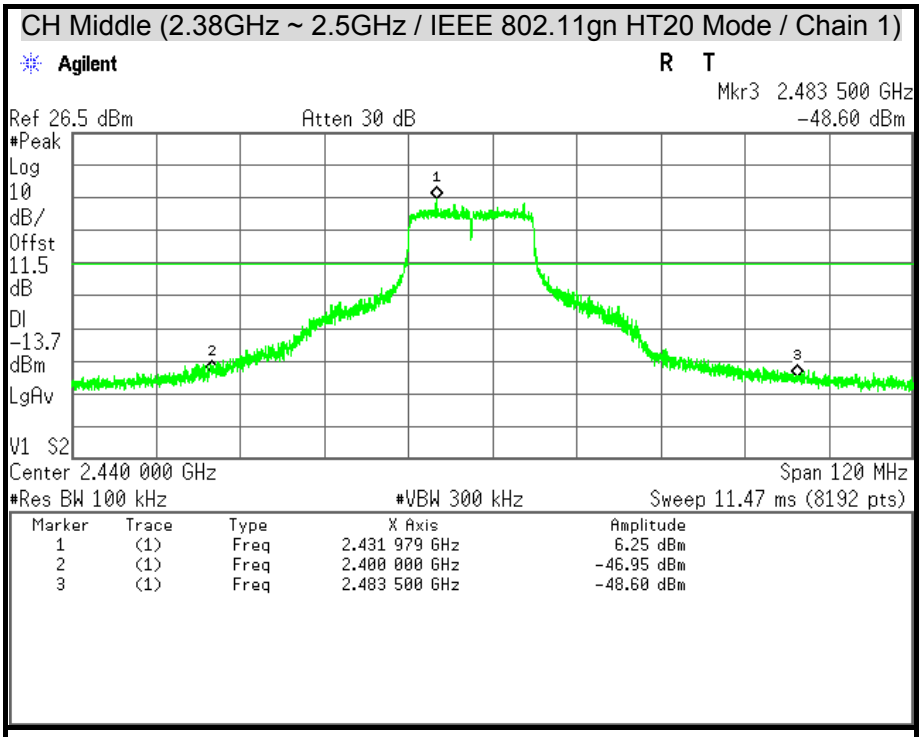
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.404 510 GHz	3.41 dBm
2	(1)	Freq	2.400 000 GHz	-26.29 dBm
3	(1)	Freq	2.483 500 GHz	-52.78 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



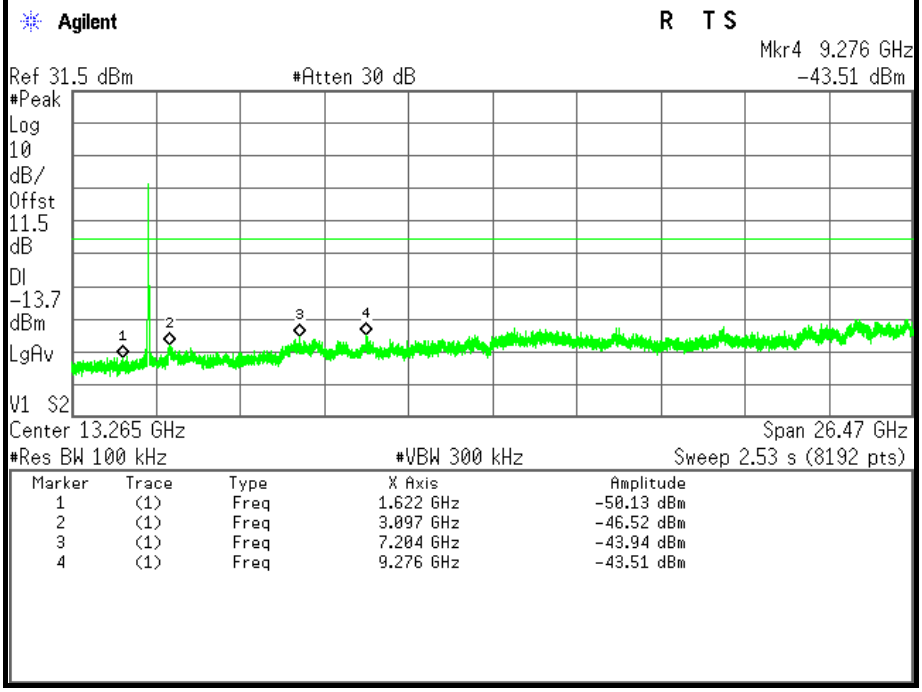
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.154 GHz	-50.19 dBm
2	(1)	Freq	3.139 GHz	-47.24 dBm
3	(1)	Freq	8.613 GHz	-44.99 dBm
4	(1)	Freq	15.134 GHz	-41.05 dBm

CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



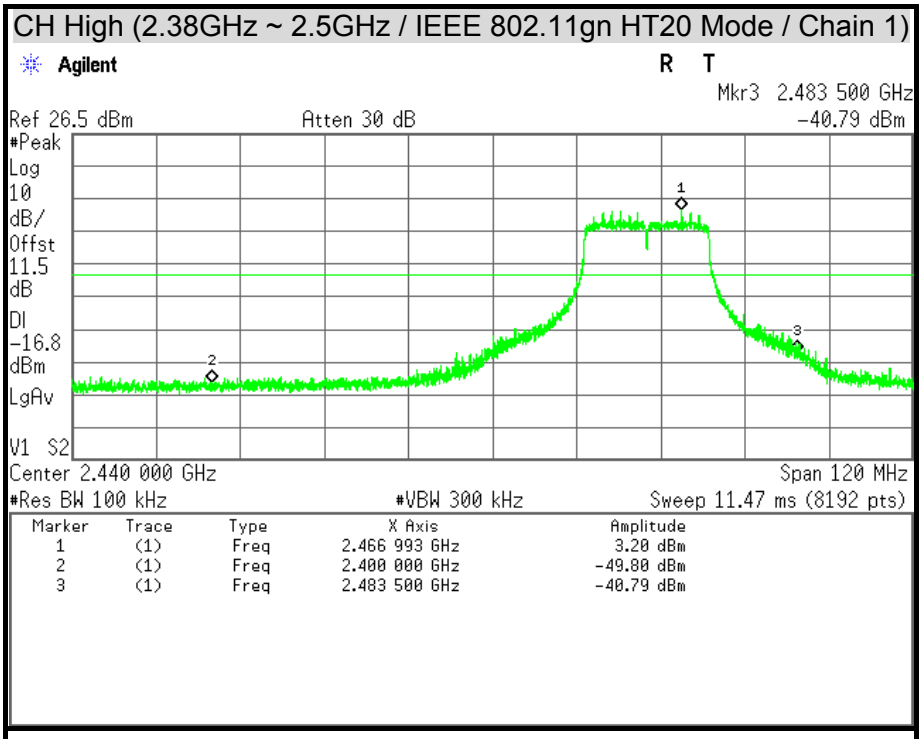
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.431 979 GHz	6.25 dBm
2	(1)	Freq	2.400 000 GHz	-46.95 dBm
3	(1)	Freq	2.483 500 GHz	-48.60 dBm

CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



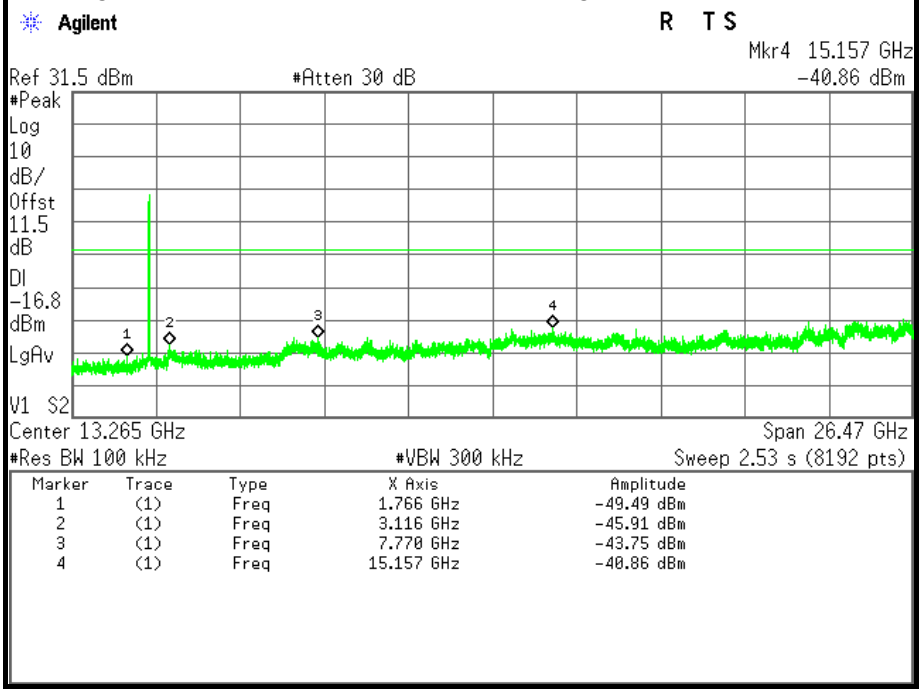
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.622 GHz	-50.13 dBm
2	(1)	Freq	3.097 GHz	-46.52 dBm
3	(1)	Freq	7.284 GHz	-43.94 dBm
4	(1)	Freq	9.276 GHz	-43.51 dBm

CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



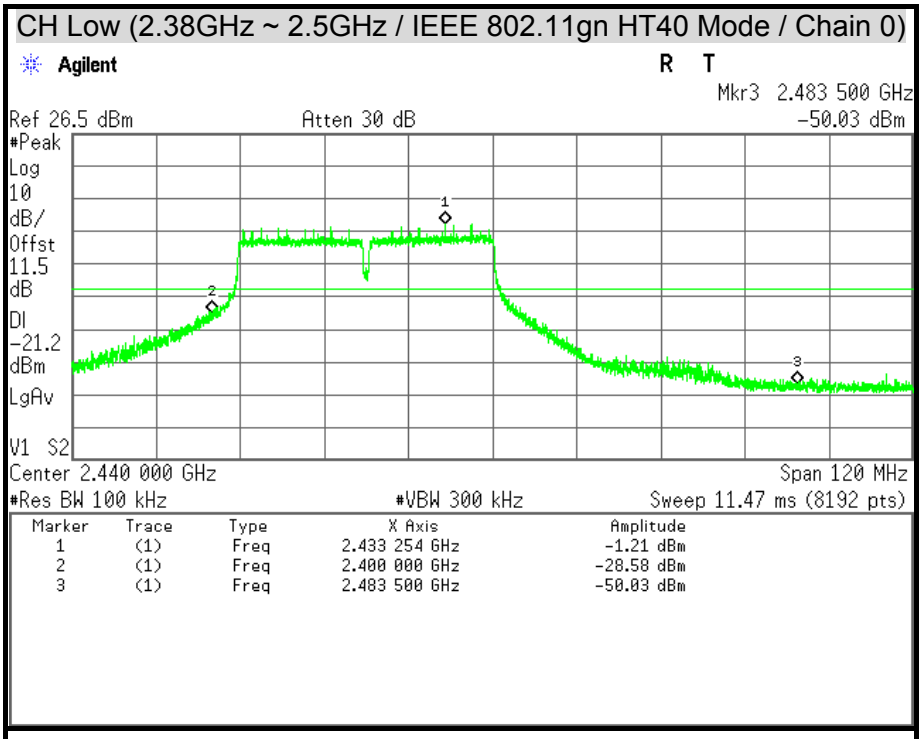
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.466 993 GHz	3.20 dBm
2	(1)	Freq	2.400 000 GHz	-49.80 dBm
3	(1)	Freq	2.483 500 GHz	-40.79 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



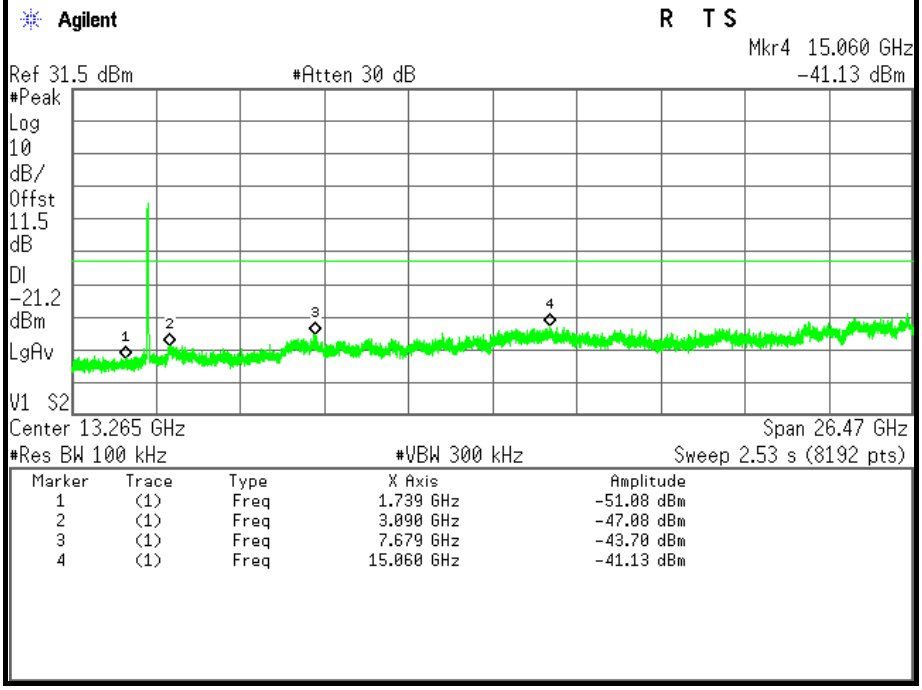
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.766 GHz	-49.49 dBm
2	(1)	Freq	3.116 GHz	-45.91 dBm
3	(1)	Freq	7.770 GHz	-43.75 dBm
4	(1)	Freq	15.157 GHz	-40.86 dBm

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



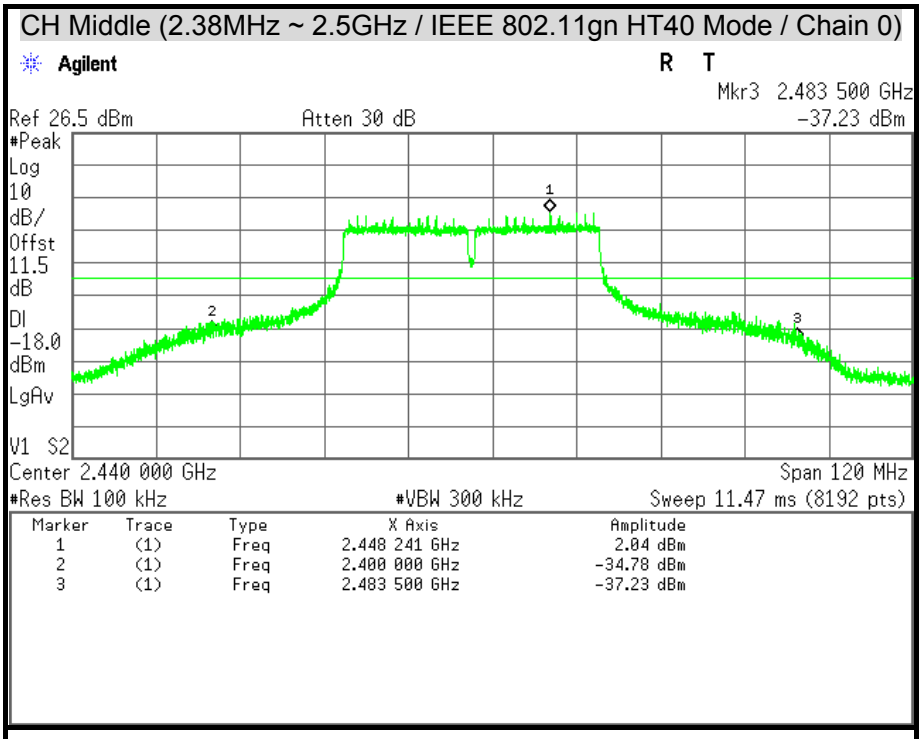
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.433 254 GHz	-1.21 dBm
2	(1)	Freq	2.400 000 GHz	-28.58 dBm
3	(1)	Freq	2.483 500 GHz	-50.03 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)

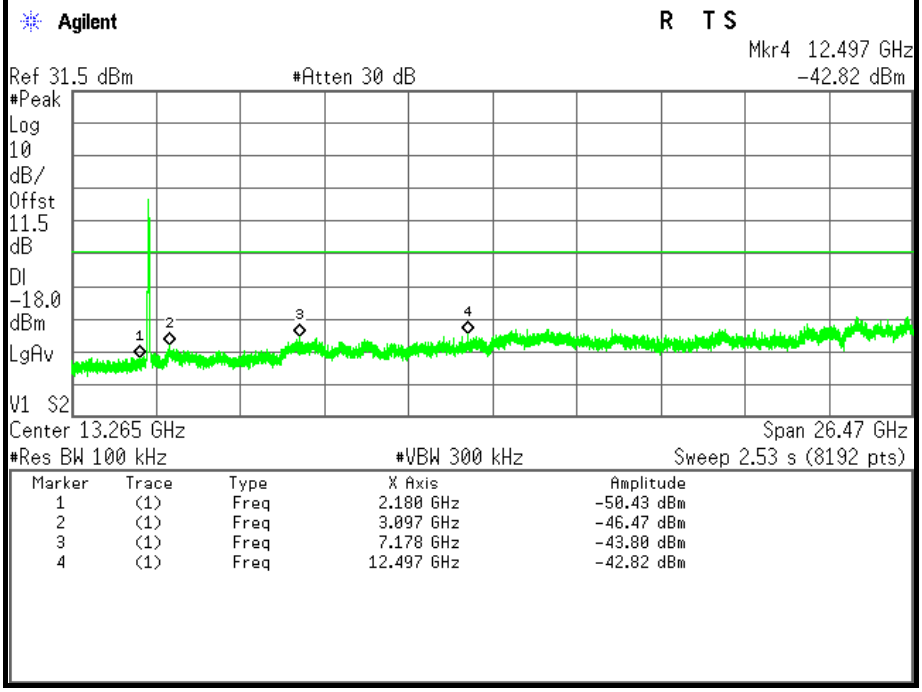


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.739 GHz	-51.08 dBm
2	(1)	Freq	3.090 GHz	-47.08 dBm
3	(1)	Freq	7.679 GHz	-43.70 dBm
4	(1)	Freq	15.060 GHz	-41.13 dBm

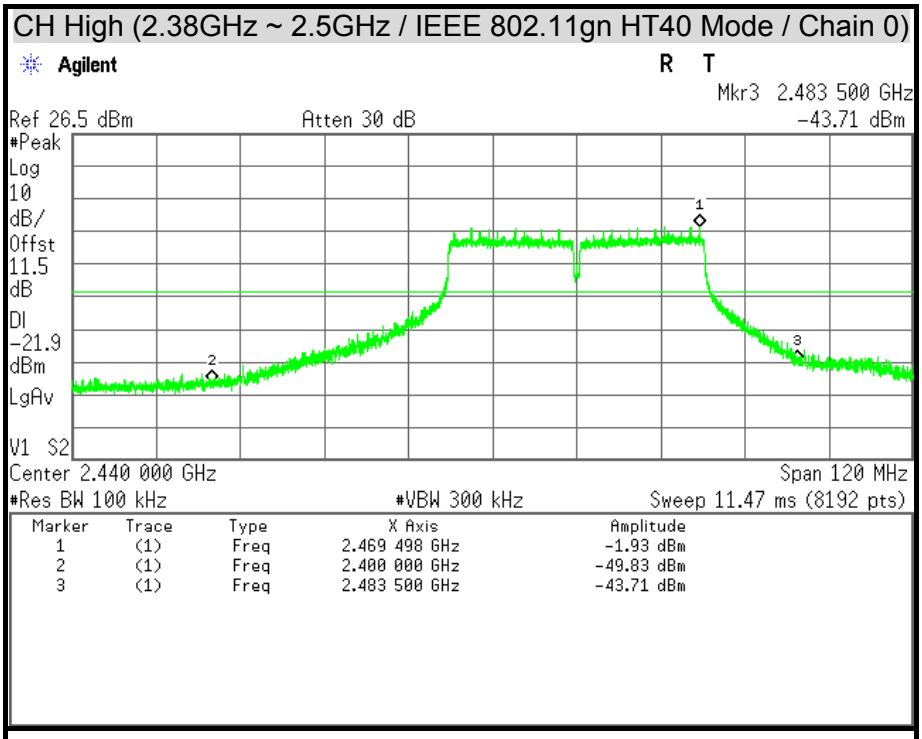
CH Middle (2.38MHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)

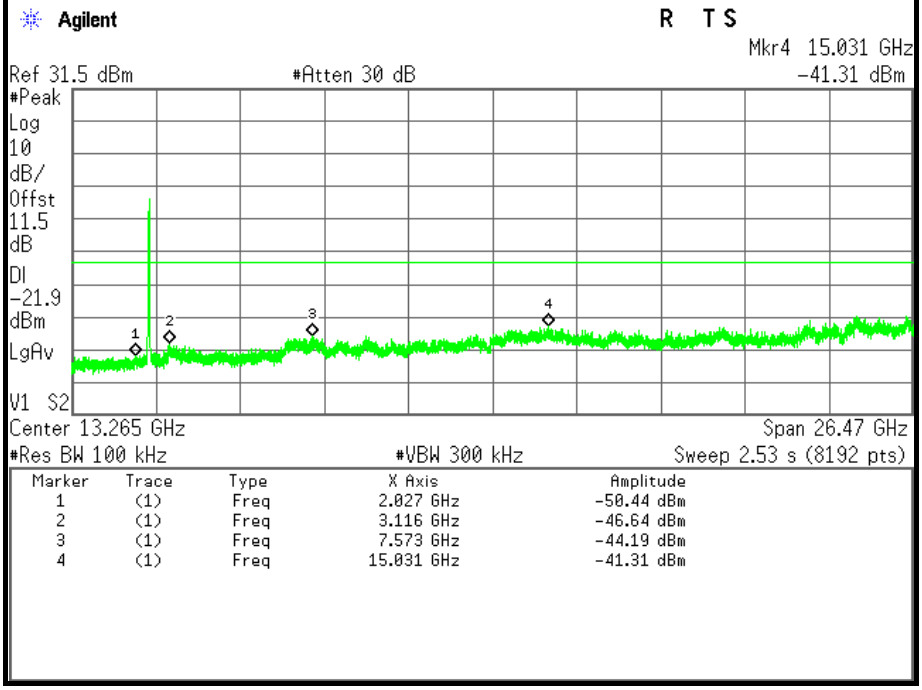


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



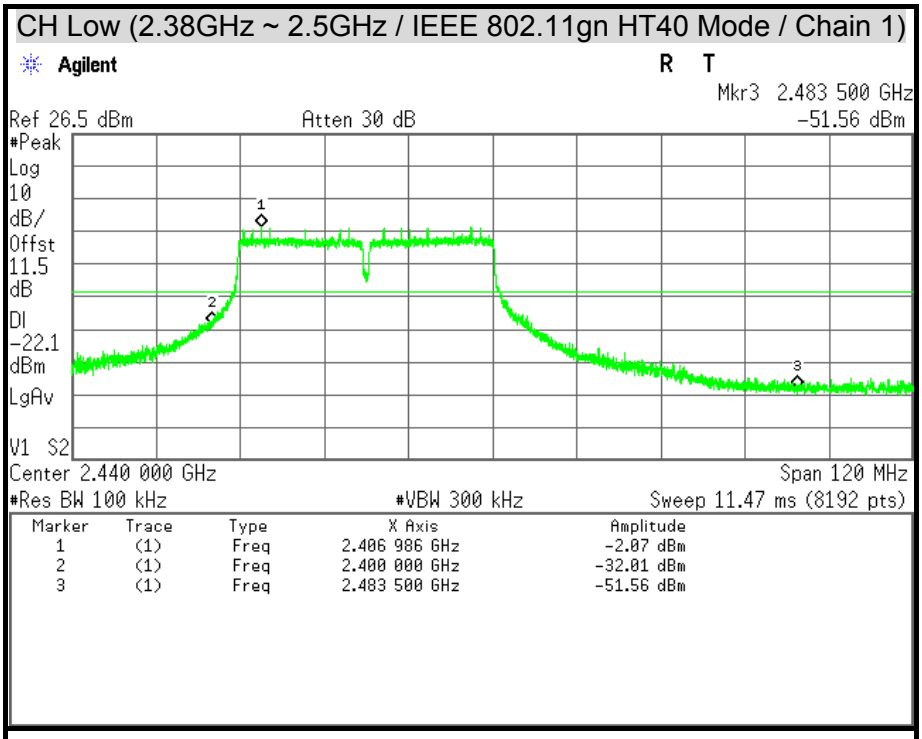
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.469 498 GHz	-1.93 dBm
2	(1)	Freq	2.400 000 GHz	-49.83 dBm
3	(1)	Freq	2.483 500 GHz	-43.71 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode /Chain 0)



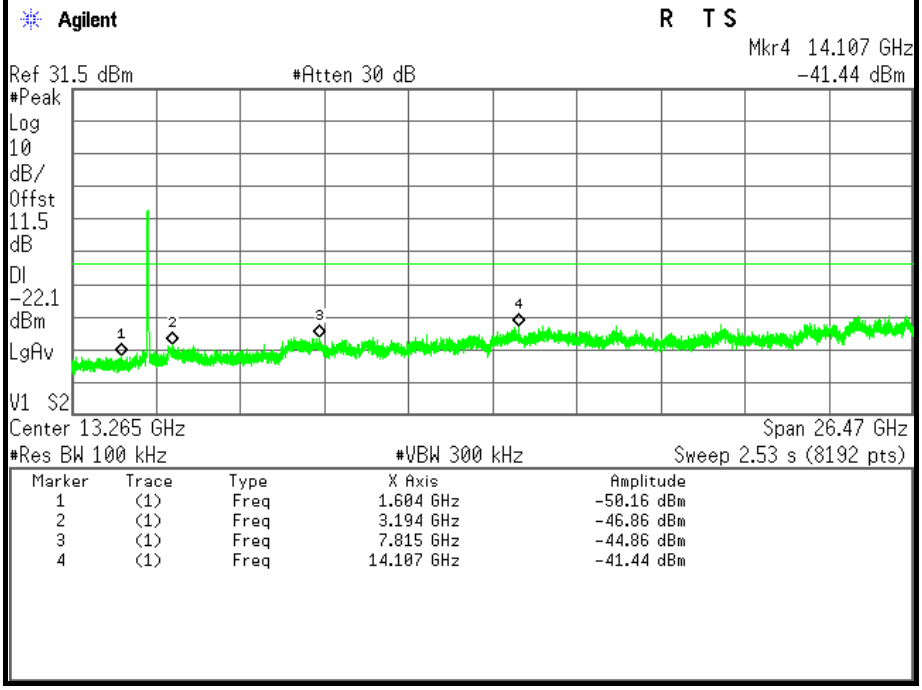
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.027 GHz	-50.44 dBm
2	(1)	Freq	3.116 GHz	-46.64 dBm
3	(1)	Freq	7.573 GHz	-44.19 dBm
4	(1)	Freq	15.031 GHz	-41.31 dBm

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



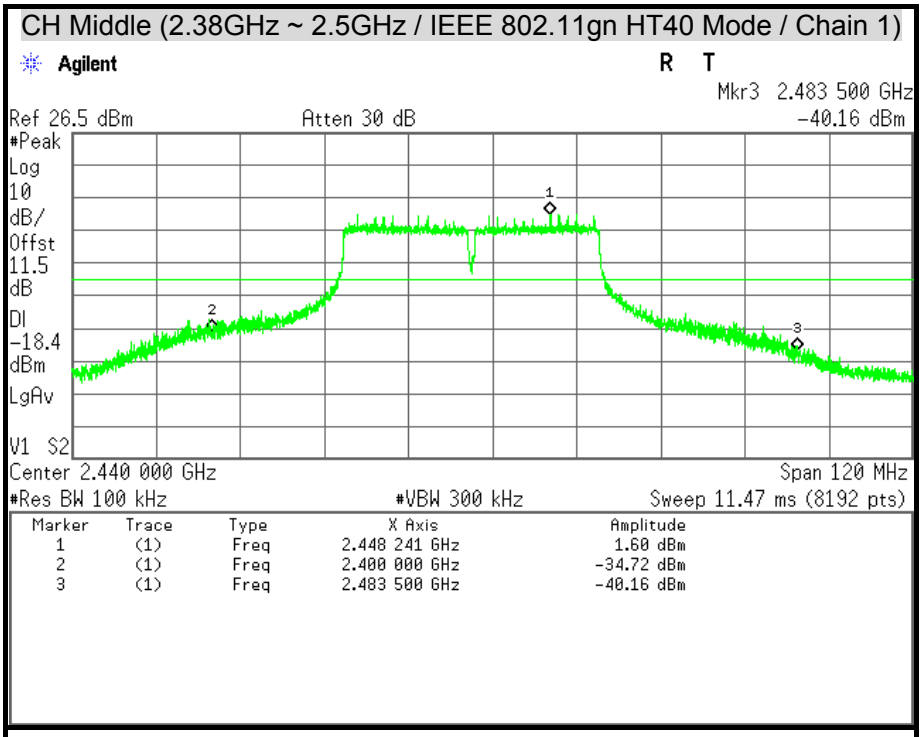
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.406 986 GHz	-2.07 dBm
2	(1)	Freq	2.400 000 GHz	-32.01 dBm
3	(1)	Freq	2.483 500 GHz	-51.56 dBm

CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



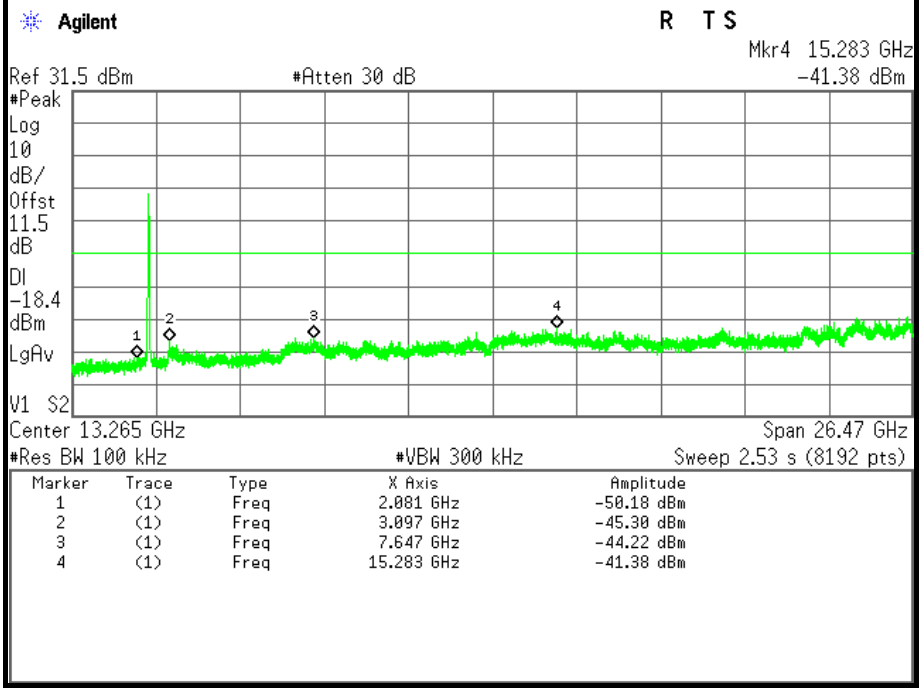
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.604 GHz	-50.16 dBm
2	(1)	Freq	3.194 GHz	-46.86 dBm
3	(1)	Freq	7.815 GHz	-44.86 dBm
4	(1)	Freq	14.107 GHz	-41.44 dBm

CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



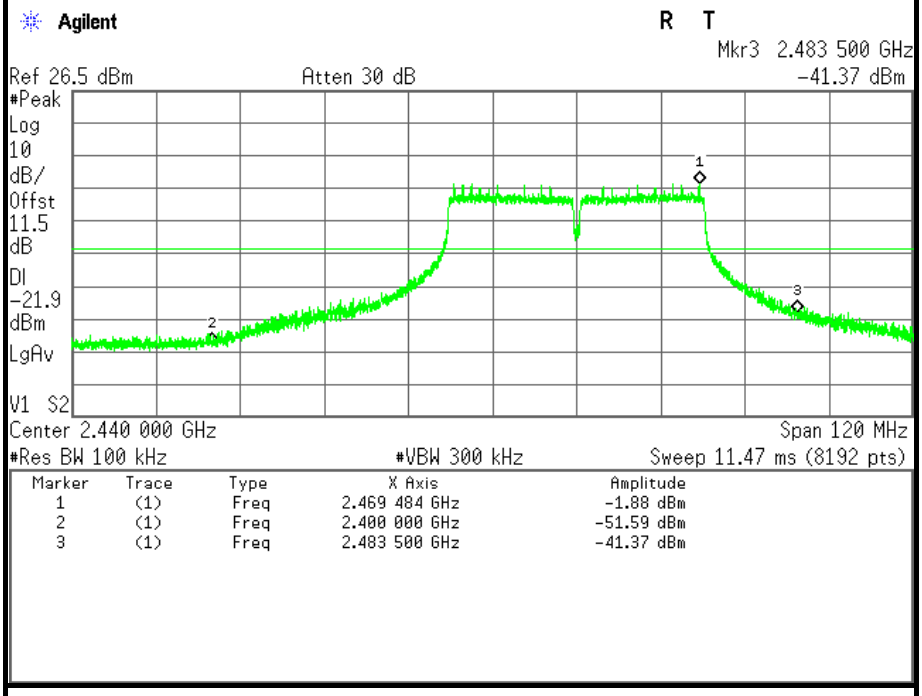
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.448 241 GHz	1.60 dBm
2	(1)	Freq	2.400 000 GHz	-34.72 dBm
3	(1)	Freq	2.483 500 GHz	-40.16 dBm

CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



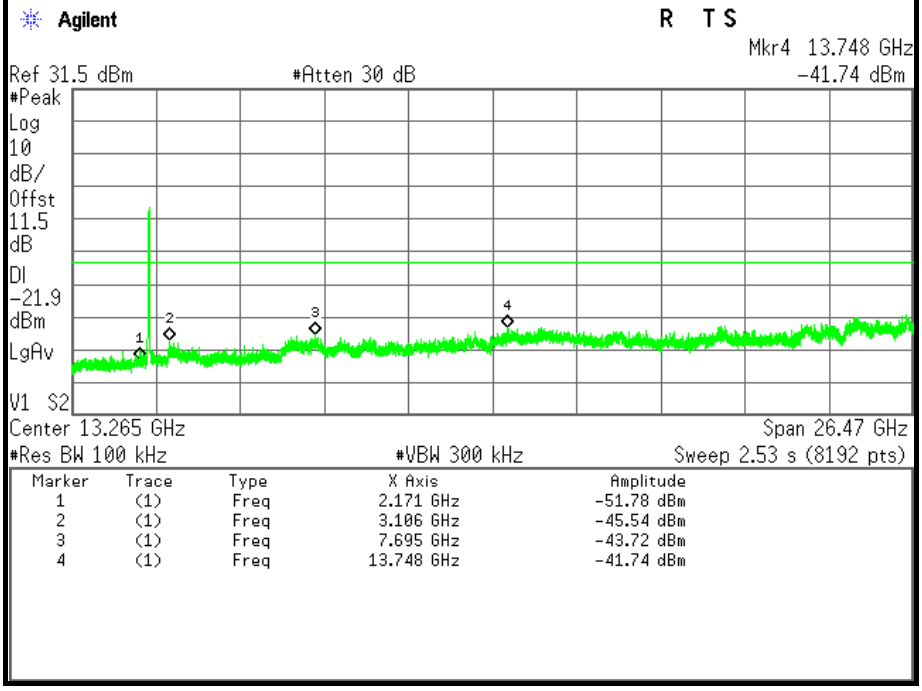
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.081 GHz	-50.18 dBm
2	(1)	Freq	3.097 GHz	-45.30 dBm
3	(1)	Freq	7.647 GHz	-44.22 dBm
4	(1)	Freq	15.283 GHz	-41.38 dBm

CH High (2.38Hz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



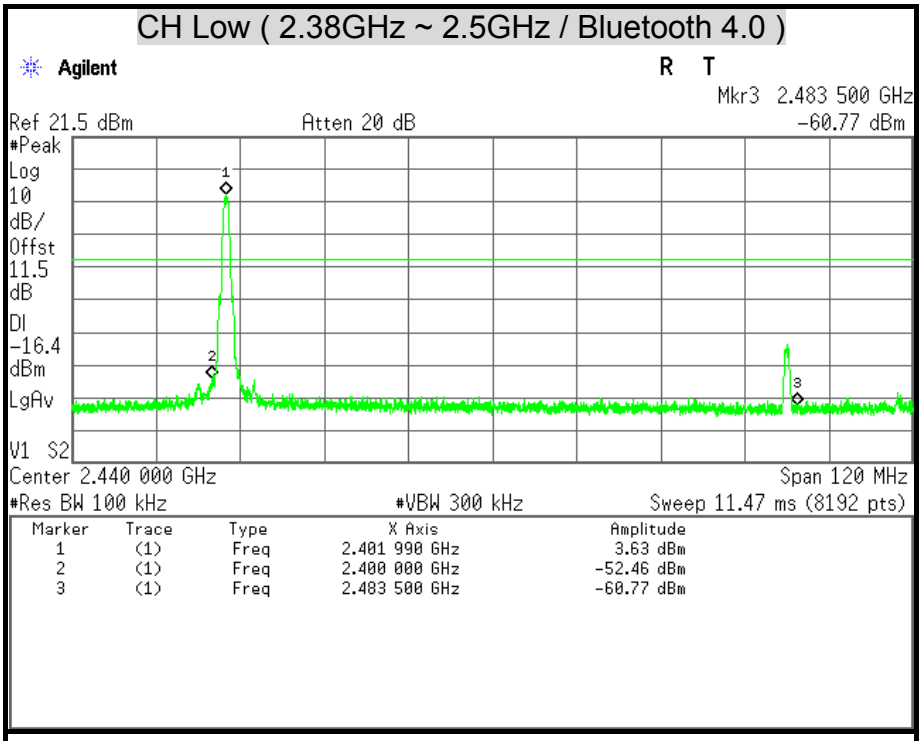
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.469 484 GHz	-1.88 dBm
2	(1)	Freq	2.400 000 GHz	-51.59 dBm
3	(1)	Freq	2.483 500 GHz	-41.37 dBm

CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



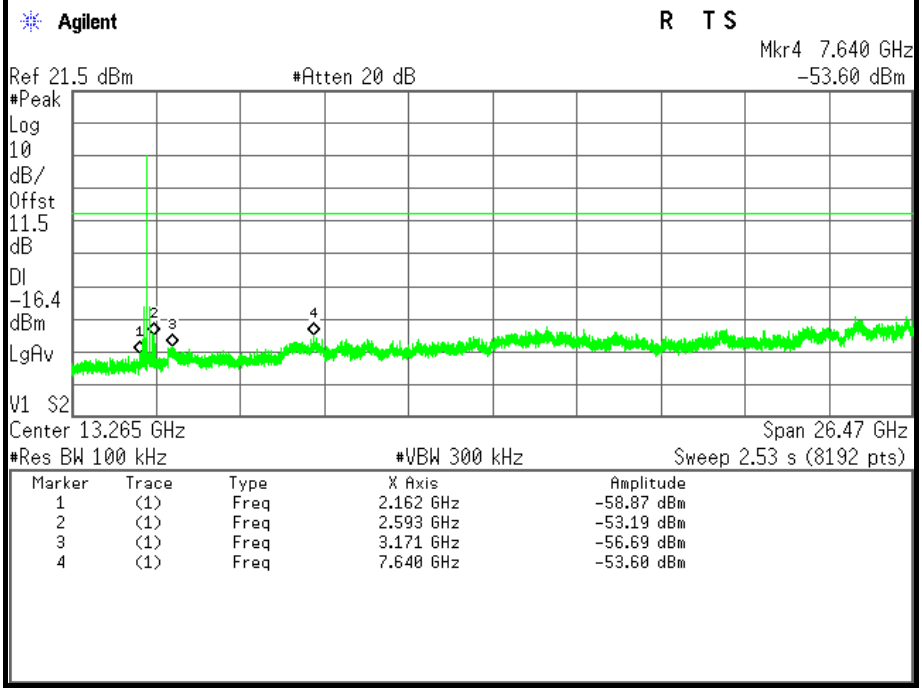
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.171 GHz	-51.78 dBm
2	(1)	Freq	3.106 GHz	-45.54 dBm
3	(1)	Freq	7.695 GHz	-43.72 dBm
4	(1)	Freq	13.748 GHz	-41.74 dBm

CH Low (2.38GHz ~ 2.5GHz / Bluetooth 4.0)



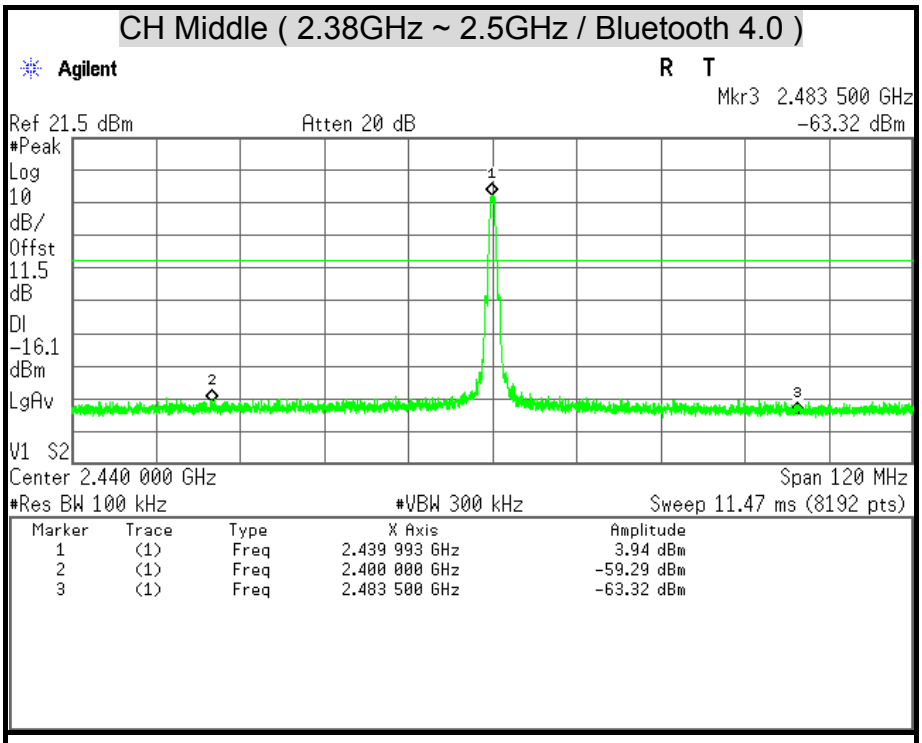
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.401 990 GHz	3.63 dBm
2	(1)	Freq	2.400 000 GHz	-52.46 dBm
3	(1)	Freq	2.483 500 GHz	-60.77 dBm

CH Low (30MHz ~ 26.5GHz / Bluetooth 4.0)



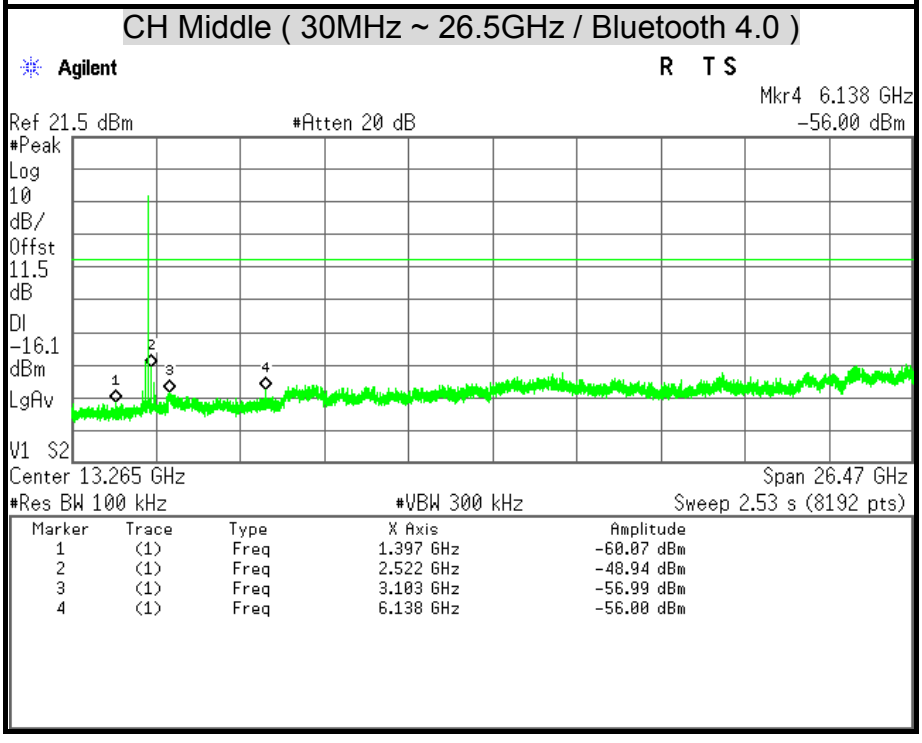
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.162 GHz	-58.87 dBm
2	(1)	Freq	2.593 GHz	-53.19 dBm
3	(1)	Freq	3.171 GHz	-56.69 dBm
4	(1)	Freq	7.640 GHz	-53.60 dBm

CH Middle (2.38GHz ~ 2.5GHz / Bluetooth 4.0)



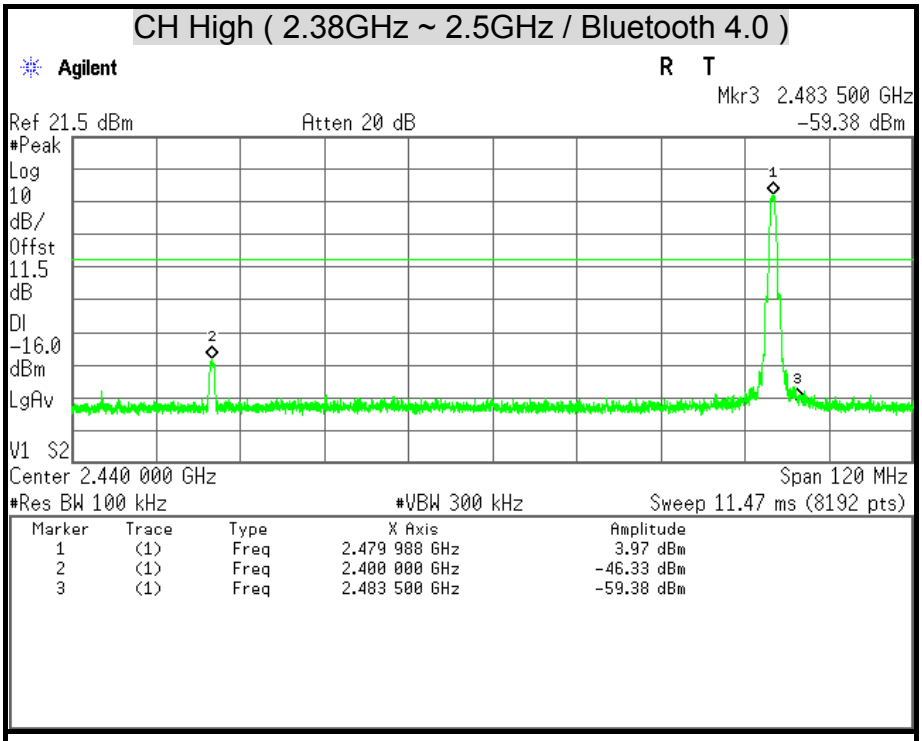
Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	2.439 993 GHz	3.94 dBm
2	(1)	Freq	2.400 000 GHz	-59.29 dBm
3	(1)	Freq	2.483 500 GHz	-63.32 dBm

CH Middle (30MHz ~ 26.5GHz / Bluetooth 4.0)

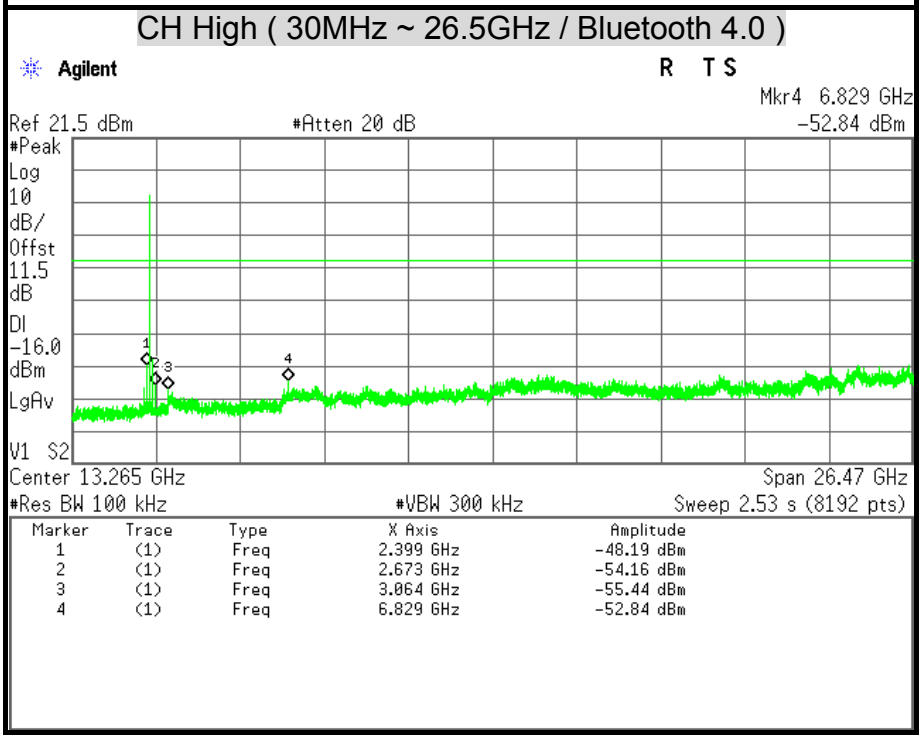


Marker	Trace	Type	X Axis	Amplitude
1	(1)	Freq	1.397 GHz	-60.07 dBm
2	(1)	Freq	2.522 GHz	-48.94 dBm
3	(1)	Freq	3.103 GHz	-56.99 dBm
4	(1)	Freq	6.138 GHz	-56.00 dBm

CH High (2.38GHz ~ 2.5GHz / Bluetooth 4.0)



CH High (30MHz ~ 26.5GHz / Bluetooth 4.0)



7.6 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

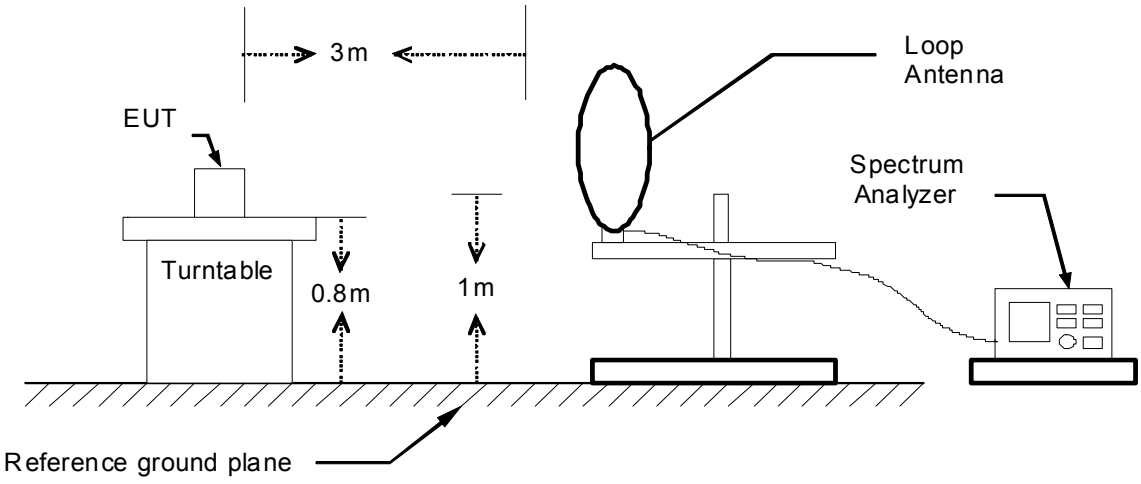
Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/15/2015
EMI Test Receiver	ROHDE & SCHWARZ	ESCS 30	835418/008	10/14/2015
Bi-log Antenna	SCHWARZBECK	VULB 9168	9168-250	08/21/2015
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-778	08/19/2015
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	07/15/2015
Pre-Amplifier	Agilent	8449B	3008A01916	07/15/2015
LOOP Antenna	COM-POWER	AL-130	121051	01/12/2015
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.

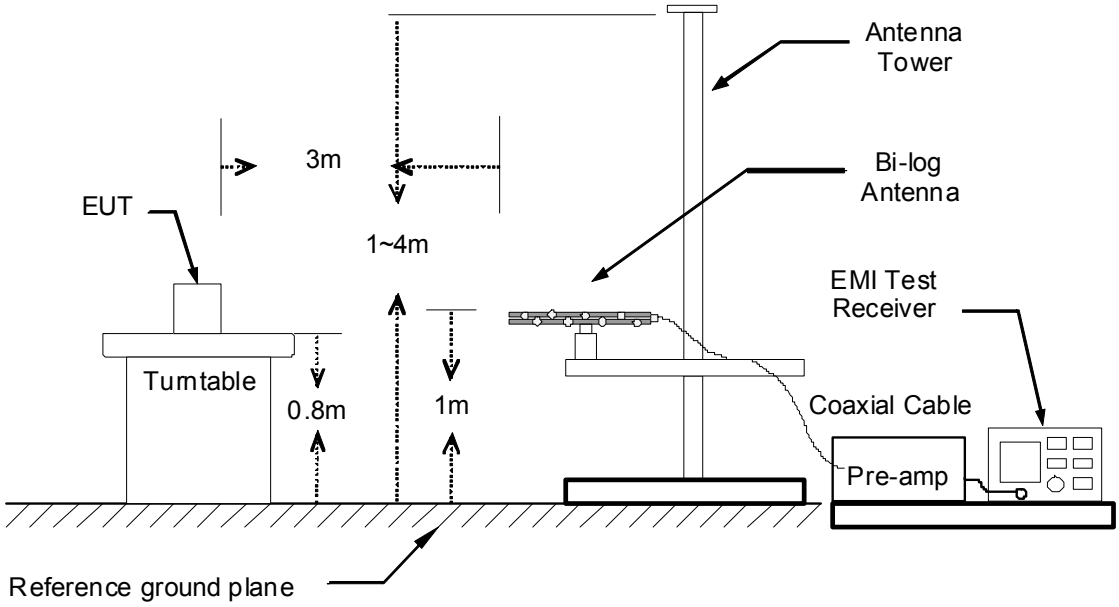
TEST SETUP

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

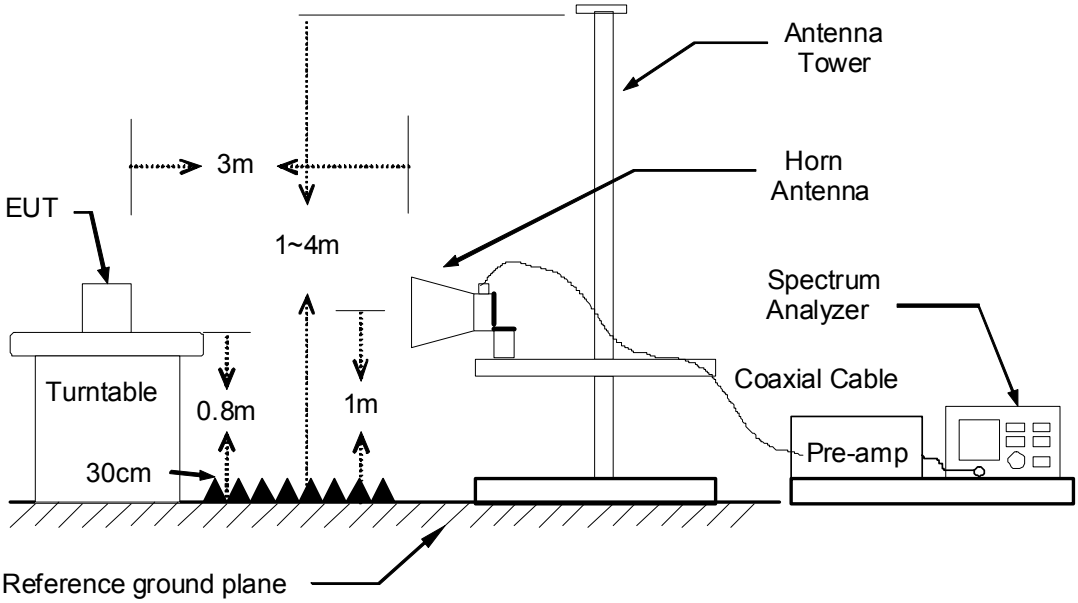
9kHz ~ 30MHz



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 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	Computer	Test By	Rex Chiu
Test Model	TREK-674	Test Date	2014/10/21
Test Mode	TX Mode	Temp. & Humidity	28°C, 52%

966 Chamber_B at 3Meter / Horizontal						
Frequency (MHz)	Reading (dBµV)	Correction Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Remark
132.82	40.22	-14.71	25.50	43.50	-18.00	Peak
351.07	44.79	-10.87	33.92	46.00	-12.08	Peak
405.39	51.30	-9.81	41.49	46.00	-4.51	Peak
431.58	51.18	-9.25	41.93	46.00	-4.07	Peak
485.90	46.62	-8.38	38.23	46.00	-7.77	Peak
623.64	44.93	-5.81	39.12	46.00	-6.88	Peak

966 Chamber_B at 3Meter / Vertical						
Frequency (MHz)	Reading (dBµV)	Correction Factor (dB/m)	Result (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Remark
60.07	42.44	-14.03	28.41	40.00	-11.59	Peak
324.88	46.91	-11.40	35.51	46.00	-10.49	Peak
405.39	47.98	-9.81	38.17	46.00	-7.83	Peak
431.58	46.63	-9.25	37.38	46.00	-8.62	Peak
485.90	46.59	-8.38	38.21	46.00	-7.79	Peak
623.64	48.11	-5.81	42.30	46.00	-3.70	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11b TX / CH Low	Temp. & Humidity	25°C, 50%

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
1138.00	57.75	40.81	-2.89	54.86	37.92	74.00	54.00	-16.08	AVG
1516.00	57.37	39.83	-2.75	54.62	37.08	74.00	54.00	-16.92	AVG
1982.00	54.16	38.87	1.65	55.81	40.52	74.00	54.00	-13.48	AVG
3210.00	42.25	---	4.25	46.50	---	74.00	54.00	-7.50	Peak
4830.00	39.73	---	8.09	47.82	---	74.00	54.00	-6.18	Peak
6360.00	38.62	---	11.86	50.48	---	74.00	54.00	-3.52	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
1240.00	57.16	40.97	-2.89	54.27	38.08	74.00	54.00	-15.92	AVG
1652.00	55.57	40.61	-1.47	54.10	39.14	74.00	54.00	-14.86	AVG
2068.00	54.02	39.14	1.95	55.97	41.09	74.00	54.00	-12.91	AVG
3210.00	43.23	---	4.25	47.48	---	74.00	54.00	-6.52	Peak
4830.00	49.53	44.98	8.09	57.62	53.07	74.00	54.00	-0.93	AVG
6510.00	38.45	---	12.27	50.72	---	74.00	54.00	-3.28	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11b TX / CH Middle	Temp. & Humidity	25°C, 50%

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
1456.00	57.65	40.53	-2.90	54.75	37.63	74.00	54.00	-16.37	AVG
2390.00	52.04	38.97	2.59	54.63	41.56	74.00	54.00	-12.44	AVG
2482.00	51.64	39.02	2.77	54.41	41.79	74.00	54.00	-12.21	AVG
3315.00	41.74	---	4.34	46.08	---	74.00	54.00	-7.92	Peak
6210.00	38.96	---	11.42	50.38	---	74.00	54.00	-3.62	Peak
6465.00	38.53	---	12.17	50.69	---	74.00	54.00	-3.31	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
1192.00	57.15	41.13	-2.89	54.26	38.24	74.00	54.00	-15.76	AVG
2390.00	51.68	39.39	2.59	54.27	41.98	74.00	54.00	-12.02	AVG
2484.00	51.99	38.72	2.78	54.77	41.50	74.00	54.00	-12.50	AVG
3150.00	42.36	---	4.20	46.56	---	74.00	54.00	-7.44	Peak
4875.00	48.69	45.33	8.18	56.87	53.51	74.00	54.00	-0.49	AVG
6465.00	38.49	---	12.17	50.65	---	74.00	54.00	-3.35	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11b TX / CH High	Temp. & Humidity	25°C, 50%

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
1078.00	57.14	41.65	-2.88	54.26	38.77	74.00	54.00	-15.23	AVG
1316.00	57.66	40.82	-2.89	54.77	37.93	74.00	54.00	-16.07	AVG
2378.00	52.43	38.94	2.57	55.00	41.51	74.00	54.00	-12.49	AVG
3990.00	41.34	---	5.83	47.18	---	74.00	54.00	-6.82	Peak
4920.00	38.65	---	8.28	46.93	---	74.00	54.00	-7.07	Peak
6390.00	39.18	---	11.95	51.13	---	74.00	54.00	-2.87	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
1270.00	57.82	40.87	-2.89	54.93	37.98	74.00	54.00	-16.02	AVG
1548.00	56.46	40.33	-2.45	54.01	37.88	74.00	54.00	-16.12	AVG
2390.00	51.91	39.02	2.59	54.50	41.61	74.00	54.00	-12.39	AVG
3615.00	42.02	---	4.81	46.83	---	74.00	54.00	-7.17	Peak
4920.00	47.96	44.55	8.28	56.24	52.83	74.00	54.00	-1.17	AVG
6225.00	39.37	---	11.46	50.84	---	74.00	54.00	-3.16	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11g TX / CH Low	Temp. & Humidity	25°C, 50%

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
3255.00	41.58	---	4.29	45.87	---	74.00	54.00	-8.13	Peak
4320.00	40.15	---	6.85	47.00	---	74.00	54.00	-7.00	Peak
5430.00	39.24	---	9.19	48.43	---	74.00	54.00	-5.57	Peak
1774.00	55.18	39.99	-0.31	54.87	39.68	74.00	54.00	-14.32	AVG
2102.00	52.50	39.36	2.02	54.52	41.38	74.00	54.00	-12.62	AVG
2482.00	51.38	39.11	2.77	54.15	41.88	74.00	54.00	-12.12	AVG

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	56.96	41.23	-2.89	54.07	38.34	74.00	54.00	-15.66	AVG
1614.00	56.13	40.21	-1.82	54.31	38.39	74.00	54.00	-15.61	AVG
2482.00	52.04	40.00	2.77	54.81	42.77	74.00	54.00	-11.23	AVG
3240.00	42.37	---	4.28	46.64	---	74.00	54.00	-7.36	Peak
4020.00	40.37	---	5.92	46.29	---	74.00	54.00	-7.71	Peak
4815.00	40.94	---	8.06	49.00	---	74.00	54.00	-5.00	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11g TX / CH Middle	Temp. & Humidity	25°C, 50%

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
1832.00	54.55	39.70	0.23	54.78	39.93	74.00	54.00	-14.07	AVG
2330.00	52.72	39.14	2.47	55.19	41.61	74.00	54.00	-12.39	AVG
2482.00	52.43	39.13	2.77	55.20	41.90	74.00	54.00	-12.10	AVG
3210.00	42.35	---	4.25	46.61	---	74.00	54.00	-7.39	Peak
4470.00	40.31	---	7.32	47.63	---	74.00	54.00	-6.37	Peak
5550.00	39.34	---	9.46	48.80	---	74.00	54.00	-5.20	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
1896.00	53.54	39.64	0.84	54.38	40.48	74.00	54.00	-13.52	AVG
2390.00	53.88	40.73	2.59	56.47	43.32	74.00	54.00	-10.68	AVG
2484.00	54.66	41.39	2.78	57.44	44.17	74.00	54.00	-9.83	AVG
3240.00	41.69	---	4.28	45.96	---	74.00	54.00	-8.04	Peak
3840.00	40.98	---	5.42	46.40	---	74.00	54.00	-7.60	Peak
4875.00	40.12	---	8.18	48.30	---	74.00	54.00	-5.70	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11g TX / CH High	Temp. & Humidity	25°C, 50%

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
1984.00	52.39	39.41	1.67	54.06	41.08	74.00	54.00	-12.92	AVG
2172.00	51.86	39.20	2.16	54.02	41.36	74.00	54.00	-12.64	AVG
2390.00	51.42	39.04	2.59	54.01	41.63	74.00	54.00	-12.37	AVG
3345.00	41.54	---	4.36	45.91	---	74.00	54.00	-8.09	Peak
4575.00	40.13	---	7.56	47.69	---	74.00	54.00	-6.31	Peak
4965.00	39.32	---	8.37	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
1364.00	57.06	40.79	-2.89	54.17	37.90	74.00	54.00	-16.10	AVG
1988.00	53.19	39.35	1.71	54.90	41.06	74.00	54.00	-12.94	AVG
2390.00	52.15	39.54	2.59	54.74	42.13	74.00	54.00	-11.87	AVG
3195.00	41.88	---	4.24	46.12	---	74.00	54.00	-7.88	Peak
3990.00	40.53	---	5.83	46.36	---	74.00	54.00	-7.64	Peak
4920.00	39.36	---	8.28	47.63	---	74.00	54.00	-6.37	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11gn HT20 TX / CH Low	Temp. & Humidity	25°C, 50%

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
2236.00	52.44	39.11	2.29	54.73	41.40	74.00	54.00	-12.60	AVG
2390.00	57.66	40.73	2.59	60.25	43.32	74.00	54.00	-10.68	AVG
2482.00	51.49	39.05	2.77	54.26	41.82	74.00	54.00	-12.18	AVG
3150.00	41.73	---	4.20	45.93	---	74.00	54.00	-8.07	Peak
4230.00	40.04	---	6.57	46.61	---	74.00	54.00	-7.39	Peak
4830.00	39.75	---	8.09	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
1972.00	53.42	39.47	1.56	54.98	41.03	74.00	54.00	-12.97	AVG
2390.00	70.95	48.15	2.59	73.54	50.74	74.00	54.00	-3.26	AVG
2484.00	51.51	39.39	2.78	54.29	42.17	74.00	54.00	-11.83	AVG
3060.00	42.71	---	4.13	46.84	---	74.00	54.00	-7.16	Peak
3885.00	41.09	---	5.54	46.63	---	74.00	54.00	-7.37	Peak
4800.00	40.57	---	8.03	48.60	---	74.00	54.00	-5.40	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11gn HT20 TX / CH Middle	Temp. & Humidity	25°C, 50%

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
1982.00	52.52	39.35	1.65	54.17	41.00	74.00	54.00	-13.00	AVG
2354.00	52.07	38.93	2.52	54.59	41.45	74.00	54.00	-12.55	AVG
2488.00	51.99	38.96	2.79	54.78	41.75	74.00	54.00	-12.25	AVG
3150.00	41.87	---	4.20	46.08	---	74.00	54.00	-7.92	Peak
4035.00	41.11	---	5.97	47.08	---	74.00	54.00	-6.92	Peak
4845.00	39.79	---	8.12	47.92	---	74.00	54.00	-6.08	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
1890.00	53.76	39.54	0.78	54.54	40.32	74.00	54.00	-13.68	AVG
2390.00	58.05	41.03	2.59	60.64	43.62	74.00	54.00	-10.38	AVG
2482.00	51.83	40.00	2.77	54.60	42.77	74.00	54.00	-11.23	AVG
3180.00	42.39	---	4.23	46.62	---	74.00	54.00	-7.38	Peak
4455.00	39.74	---	7.27	47.01	---	74.00	54.00	-6.99	Peak
4860.00	39.57	---	8.15	47.72	---	74.00	54.00	-6.28	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11gn HT20 TX / CH High	Temp. & Humidity	25°C, 50%

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
1266.00	57.09	40.81	-2.89	54.20	37.92	74.00	54.00	-16.08	AVG
1870.00	53.67	39.58	0.59	54.26	40.17	74.00	54.00	-13.83	AVG
2390.00	52.24	38.94	2.59	54.83	41.53	74.00	54.00	-12.47	AVG
3120.00	42.10	---	4.18	46.28	---	74.00	54.00	-7.72	Peak
4005.00	40.54	---	5.88	46.42	---	74.00	54.00	-7.58	Peak
5040.00	39.81	---	8.51	48.32	---	74.00	54.00	-5.68	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
1084.00	57.26	41.38	-2.88	54.38	38.50	74.00	54.00	-15.50	AVG
1882.00	53.54	39.60	0.71	54.25	40.31	74.00	54.00	-13.69	AVG
2390.00	51.77	39.56	2.59	54.36	42.15	74.00	54.00	-11.85	AVG
3225.00	41.64	---	4.26	45.91	---	74.00	54.00	-8.09	Peak
4095.00	41.06	---	6.15	47.22	---	74.00	54.00	-6.78	Peak
4980.00	38.92	---	8.40	47.32	---	74.00	54.00	-6.68	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11gn HT40 TX / CH Low	Temp. & Humidity	25°C, 50%

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
1930.00	53.05	39.41	1.16	54.21	40.57	74.00	54.00	-13.43	AVG
2070.00	52.97	39.20	1.96	54.93	41.16	74.00	54.00	-12.84	AVG
2482.00	51.95	38.98	2.77	54.72	41.75	74.00	54.00	-12.25	AVG
3195.00	42.20	---	4.24	46.44	---	74.00	54.00	-7.56	Peak
3930.00	41.02	---	5.67	46.69	---	74.00	54.00	-7.31	Peak
4995.00	40.00	---	8.43	48.43	---	74.00	54.00	-5.57	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
1944.00	52.72	39.43	1.29	54.01	40.72	74.00	54.00	-13.28	AVG
2100.00	52.68	39.19	2.02	54.70	41.21	74.00	54.00	-12.79	AVG
2482.00	53.92	39.91	2.77	56.69	42.68	74.00	54.00	-11.32	AVG
4020.00	40.98	---	5.92	46.90	---	74.00	54.00	-7.10	Peak
4590.00	40.81	---	7.60	48.40	---	74.00	54.00	-5.60	Peak
5070.00	40.03	---	8.56	48.59	---	74.00	54.00	-5.41	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11gn HT40 TX / CH Middle	Temp. & Humidity	25°C, 50%

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
1950.00	52.67	39.45	1.35	54.02	40.80	74.00	54.00	-13.20	AVG
2390.00	55.39	39.78	2.59	57.98	42.37	74.00	54.00	-11.63	AVG
2482.00	63.31	42.31	2.77	66.08	45.08	74.00	54.00	-8.92	AVG
3240.00	41.75	---	4.28	46.03	---	74.00	54.00	-7.97	Peak
4260.00	40.40	---	6.67	47.06	---	74.00	54.00	-6.94	Peak
5070.00	39.28	---	8.56	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
1284.00	57.26	40.89	-2.89	54.37	38.00	74.00	54.00	-16.00	AVG
2390.00	69.09	49.98	2.59	71.68	52.57	74.00	54.00	-1.43	AVG
2482.00	72.82	49.96	2.77	75.59	52.73	74.00	54.00	-1.27	AVG
3255.00	42.58	---	4.29	46.87	---	74.00	54.00	-7.13	Peak
3825.00	40.98	---	5.38	46.36	---	74.00	54.00	-7.64	Peak
4950.00	39.81	---	8.34	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	IEEE 802.11gn HT40 TX / CH High	Temp. & Humidity	25°C, 50%

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
1478.00	57.50	40.44	-2.90	54.60	37.54	74.00	54.00	-16.46	AVG
2010.00	52.92	39.44	1.84	54.76	41.28	74.00	54.00	-12.72	AVG
2482.00	55.22	39.47	2.77	57.99	42.24	74.00	54.00	-11.76	AVG
3255.00	41.57	---	4.29	45.86	---	74.00	54.00	-8.14	Peak
4740.00	40.20	---	7.90	48.11	---	74.00	54.00	-5.89	Peak
5610.00	38.65	---	9.64	48.29	---	74.00	54.00	-5.71	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
2036.00	52.63	39.32	1.89	54.52	41.21	74.00	54.00	-12.79	AVG
2164.00	52.01	39.21	2.14	54.15	41.35	74.00	54.00	-12.65	AVG
2390.00	51.78	39.13	2.59	54.37	41.72	74.00	54.00	-12.28	AVG
3270.00	41.65	---	4.30	45.96	---	74.00	54.00	-8.04	Peak
4950.00	39.68	---	8.34	48.02	---	74.00	54.00	-5.98	Peak
6000.00	39.05	---	10.80	49.85	---	74.00	54.00	-4.15	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	Bluetooth 4.0 / TX Mode / CH Low	Temp. & Humidity	25°C, 50%

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
1334.00	46.36	---	-2.89	43.47	---	74.00	54.00	-10.53	Peak
1748.00	44.12	---	-0.56	43.56	---	74.00	54.00	-10.44	Peak
1960.00	43.80	---	1.44	45.25	---	74.00	54.00	-8.75	Peak
3210.00	41.42	---	4.25	45.67	---	74.00	54.00	-8.33	Peak
4035.00	40.20	---	5.97	46.17	---	74.00	54.00	-7.83	Peak
5070.00	39.00	---	8.56	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
1844.00	46.41	---	0.35	46.76	---	74.00	54.00	-7.24	Peak
2322.00	47.25	---	2.46	49.71	---	74.00	54.00	-4.29	Peak
2482.00	47.50	---	2.77	50.28	---	74.00	54.00	-3.72	Peak
3180.00	42.19	---	4.23	46.41	---	74.00	54.00	-7.59	Peak
3525.00	42.24	---	4.56	46.79	---	74.00	54.00	-7.21	Peak
4710.00	39.56	---	7.84	47.40	---	74.00	54.00	-6.60	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	Bluetooth 4.0 / TX Mode / CH Middle	Temp. & Humidity	25°C, 50%

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
1348.00	45.07	---	-2.89	42.18	---	74.00	54.00	-11.82	Peak
1796.00	43.50	---	-0.11	43.39	---	74.00	54.00	-10.61	Peak
1980.00	43.02	---	1.63	44.66	---	74.00	54.00	-9.34	Peak
3045.00	42.06	---	4.12	46.18	---	74.00	54.00	-7.82	Peak
3945.00	40.60	---	5.71	46.31	---	74.00	54.00	-7.69	Peak
4875.00	38.98	---	8.18	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
1840.00	46.50	---	0.31	46.81	---	74.00	54.00	-7.19	Peak
2360.00	45.15	---	2.53	47.69	---	74.00	54.00	-6.31	Peak
2520.00	45.13	---	2.86	47.99	---	74.00	54.00	-6.01	Peak
3225.00	41.48	---	4.26	45.75	---	74.00	54.00	-8.25	Peak
3930.00	40.75	---	5.67	46.42	---	74.00	54.00	-7.58	Peak
4680.00	40.04	---	7.78	47.82	---	74.00	54.00	-6.18	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	Computer	Test By	Audi Chang
Test Model	TREK-674	Test Date	2014/10/19
Test Mode	Bluetooth 4.0 / TX Mode / CH High	Temp. & Humidity	25°C, 50%

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
1194.00	45.49	---	-2.89	42.60	---	74.00	54.00	-11.40	Peak
1592.00	43.33	---	-2.03	41.30	---	74.00	54.00	-12.70	Peak
1844.00	44.09	---	0.35	44.44	---	74.00	54.00	-9.56	Peak
3120.00	42.58	---	4.18	46.76	---	74.00	54.00	-7.24	Peak
4185.00	40.60	---	6.43	47.04	---	74.00	54.00	-6.96	Peak
6465.00	43.00	38.00	12.17	55.17	50.17	74.00	54.00	-3.83	AVG

966 Chamber_B at 3Meter / Vertical

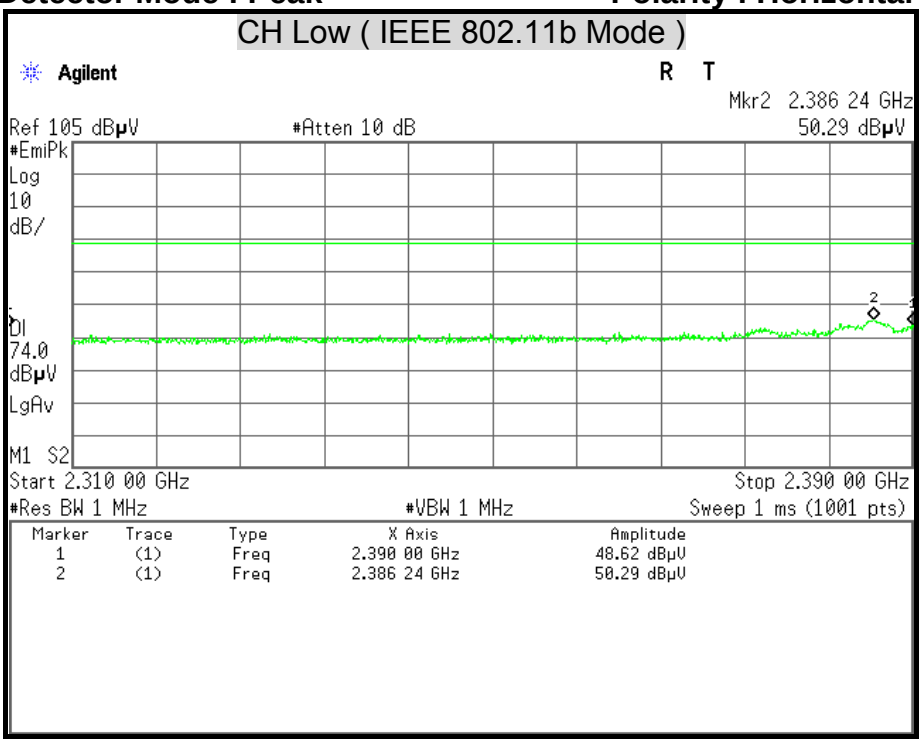
Frequency (MHz)	Reading-PK (dBuV)	Reading-AV (dBuV)	Correction Factor (dB/m)	Result-PK (dBuV/m)	Result-AV (dBuV/m)	Limit-PK (dBuV/m)	Limit-AV (dBuV/m)	Margin (dB)	Remark
1844.00	46.37	---	0.35	46.72	---	74.00	54.00	-7.28	Peak
2400.00	45.91	---	2.61	48.52	---	74.00	54.00	-5.48	Peak
2560.00	44.50	---	2.96	47.46	---	74.00	54.00	-6.54	Peak
3315.00	41.81	---	4.34	46.15	---	74.00	54.00	-7.85	Peak
3840.00	40.68	---	5.42	46.10	---	74.00	54.00	-7.90	Peak
4890.00	39.53	---	8.21	47.74	---	74.00	54.00	-6.26	Peak

Remark:

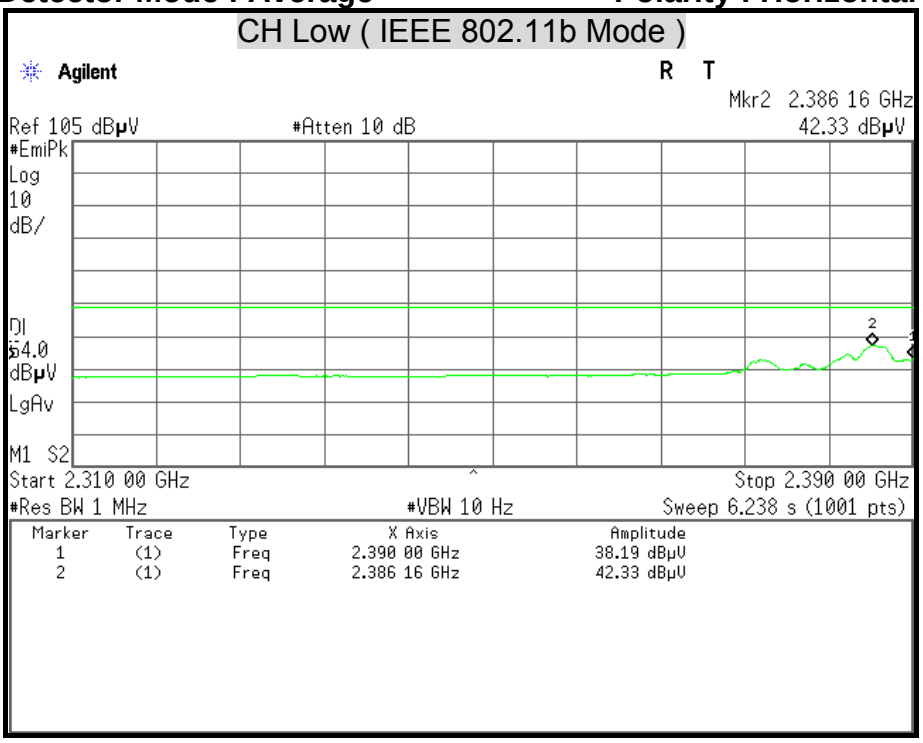
1. *Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.*
2. *Average test would be performed if the peak result were greater than the average limit.*
3. *Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions 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)

Restricted Band Edges

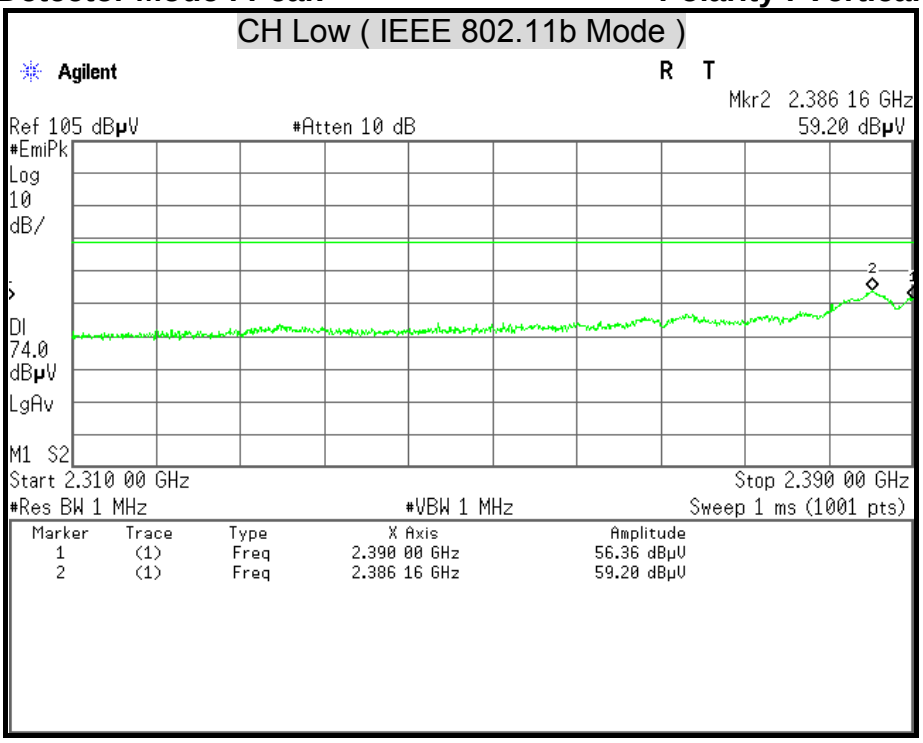
Detector Mode : Peak **Polarity : Horizontal**



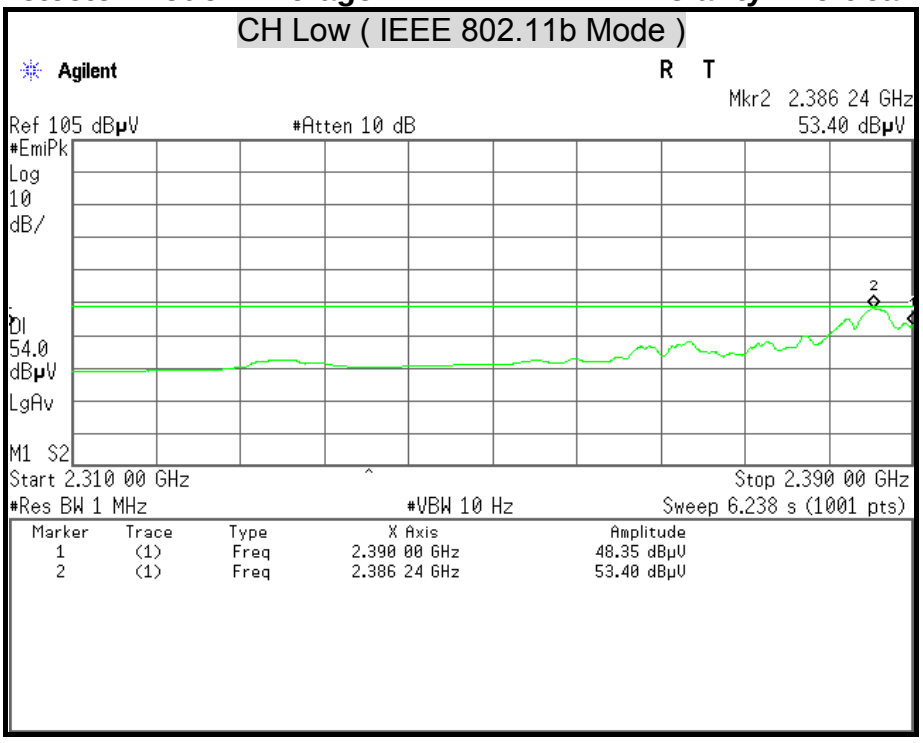
Detector Mode : Average **Polarity : Horizontal**



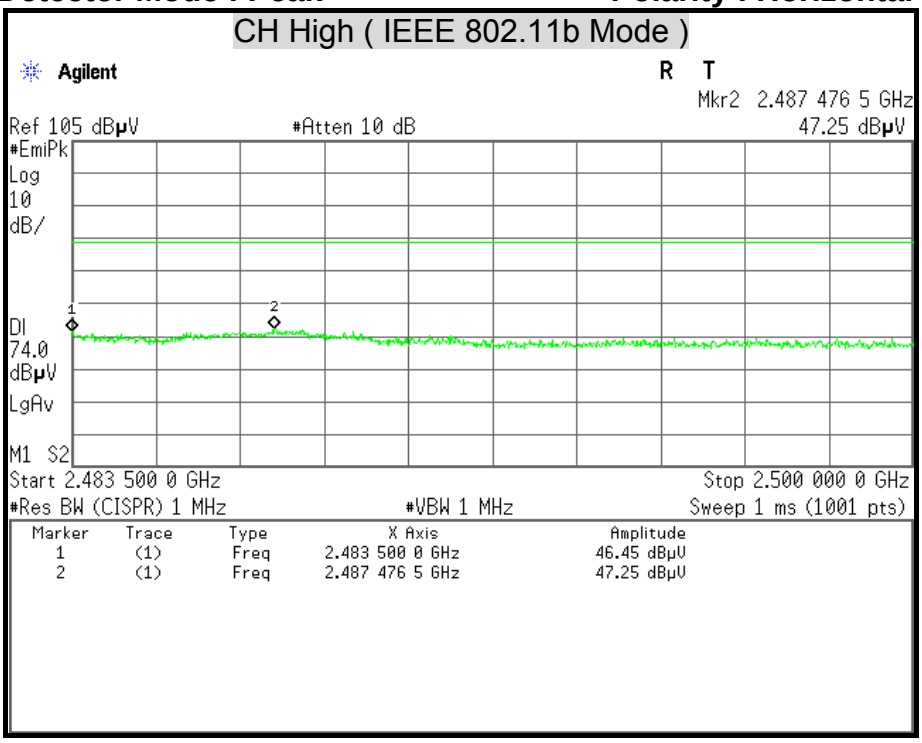
Detector Mode : Peak **Polarity : Vertical**



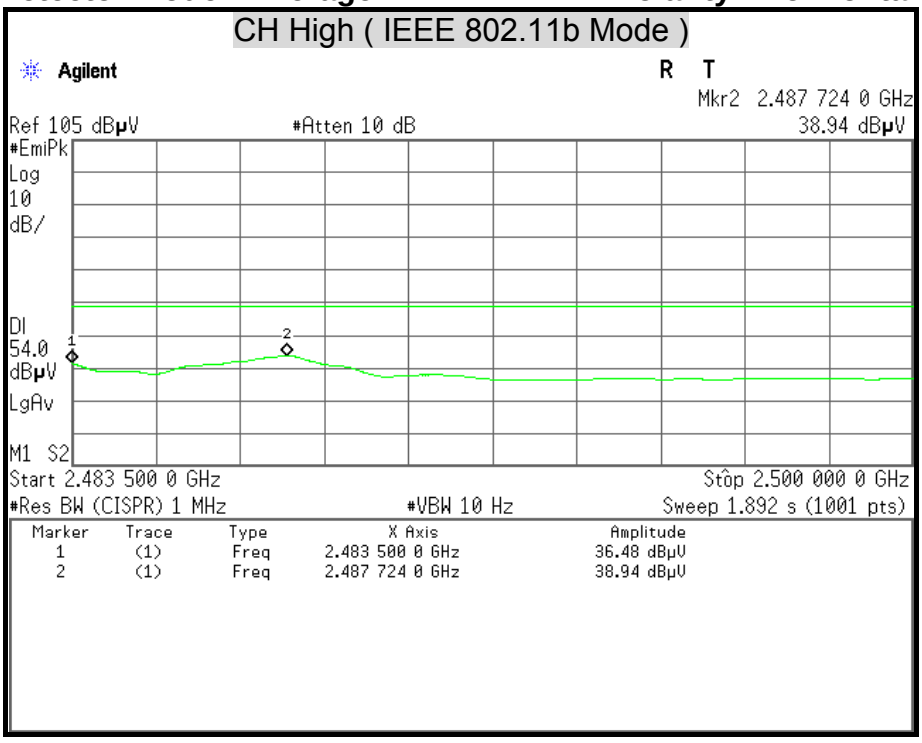
Detector Mode : Average **Polarity : Vertical**



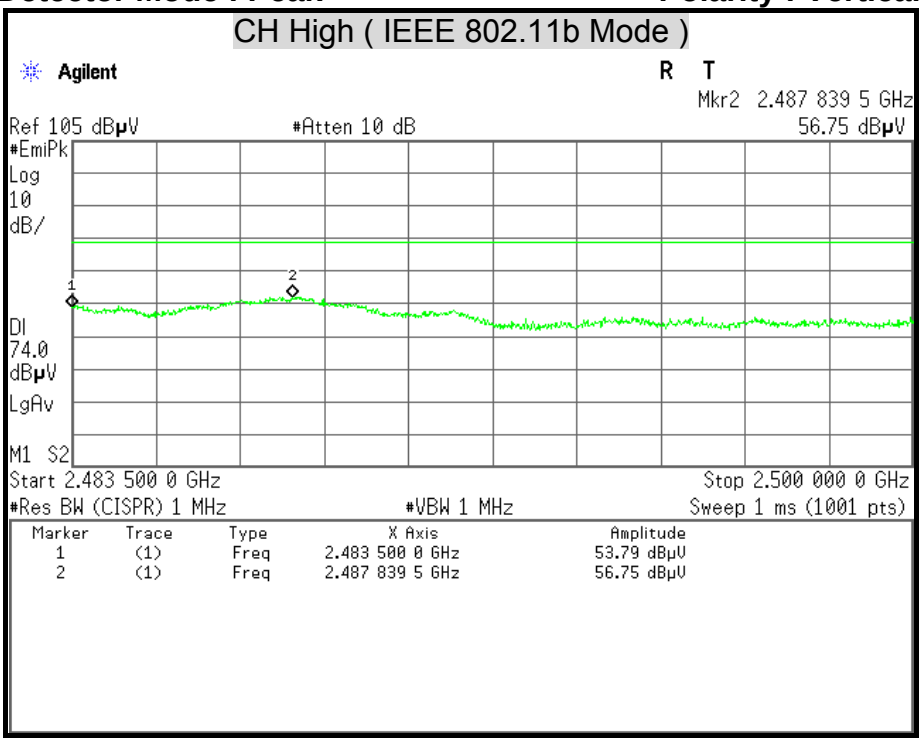
Detector Mode : Peak **Polarity : Horizontal**



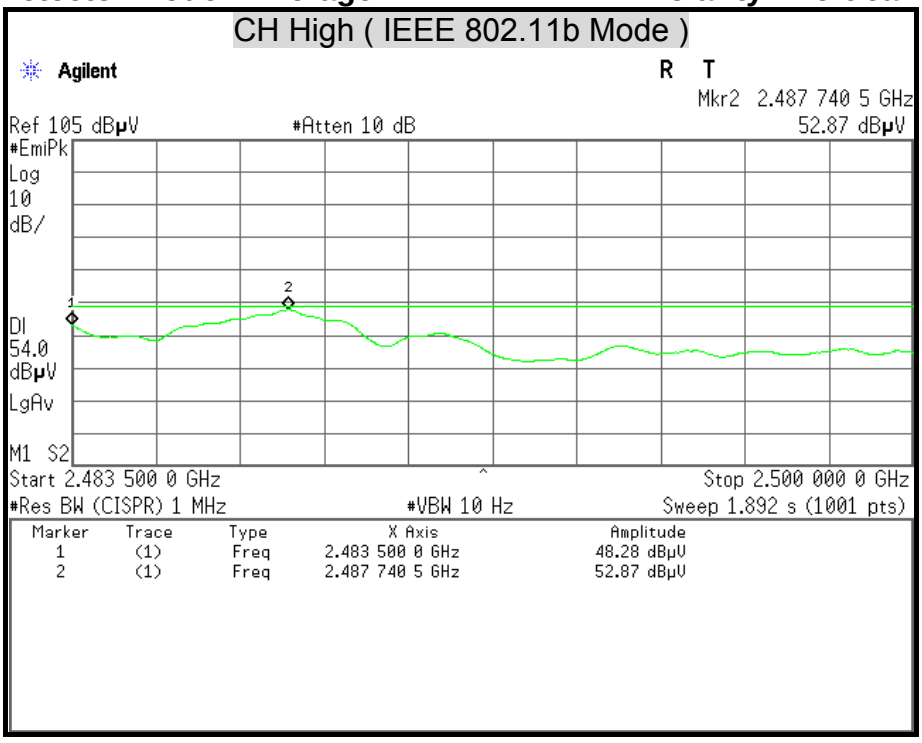
Detector Mode : Average **Polarity : Horizontal**



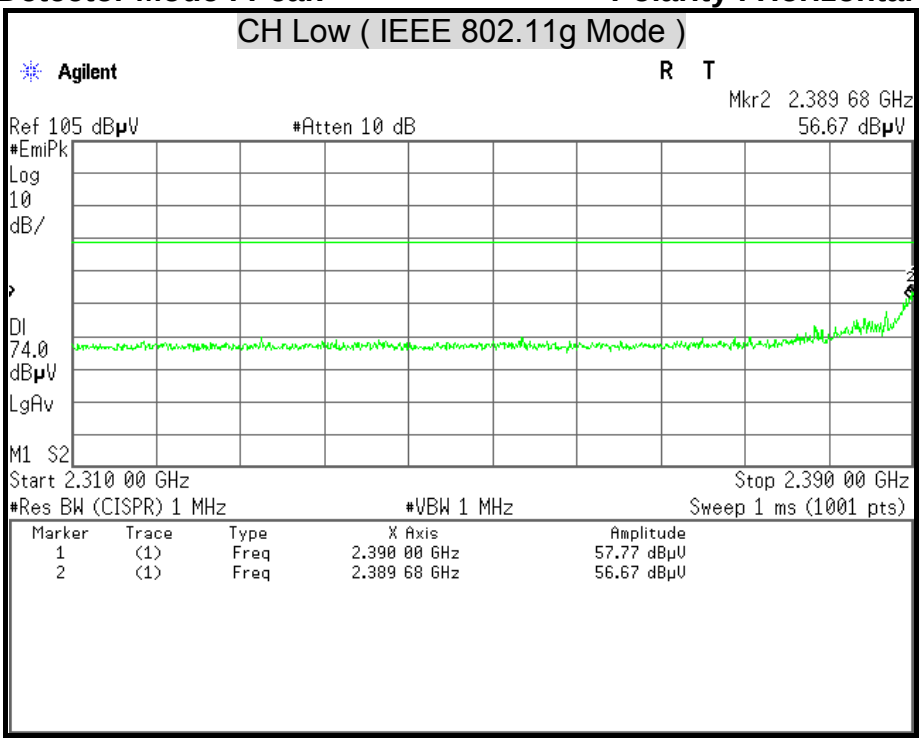
Detector Mode : Peak **Polarity : Vertical**



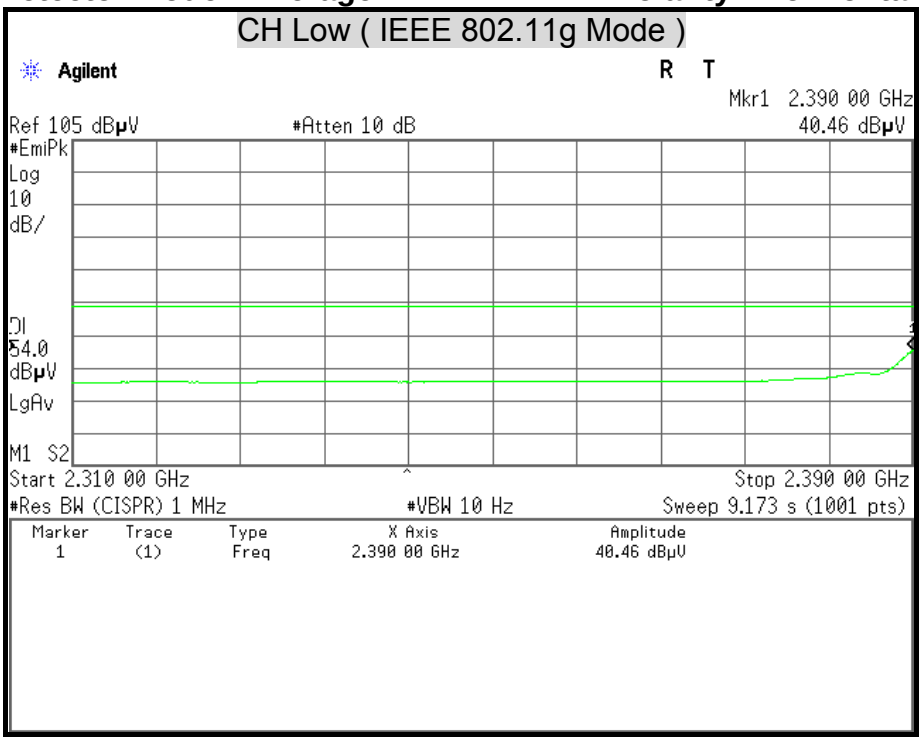
Detector Mode : Average **Polarity : Vertical**



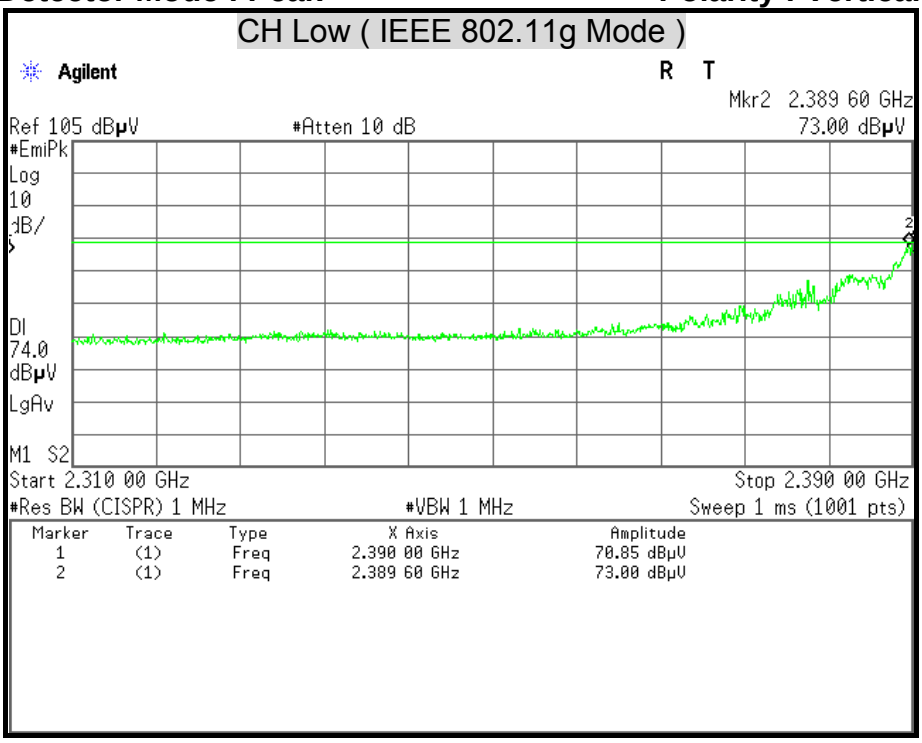
Detector Mode : Peak **Polarity : Horizontal**



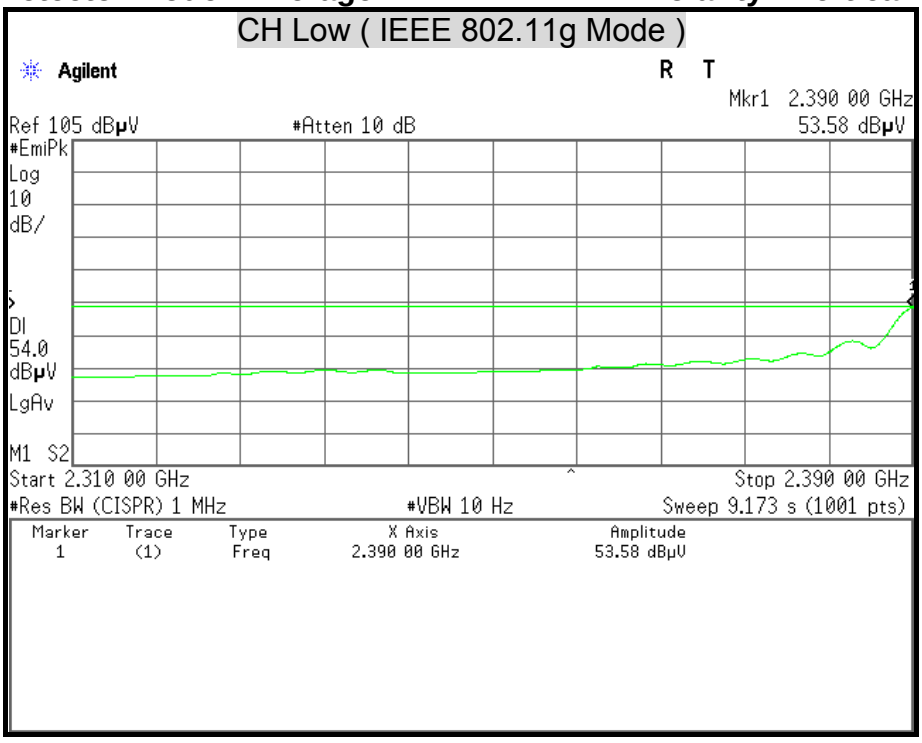
Detector Mode : Average **Polarity : Horizontal**



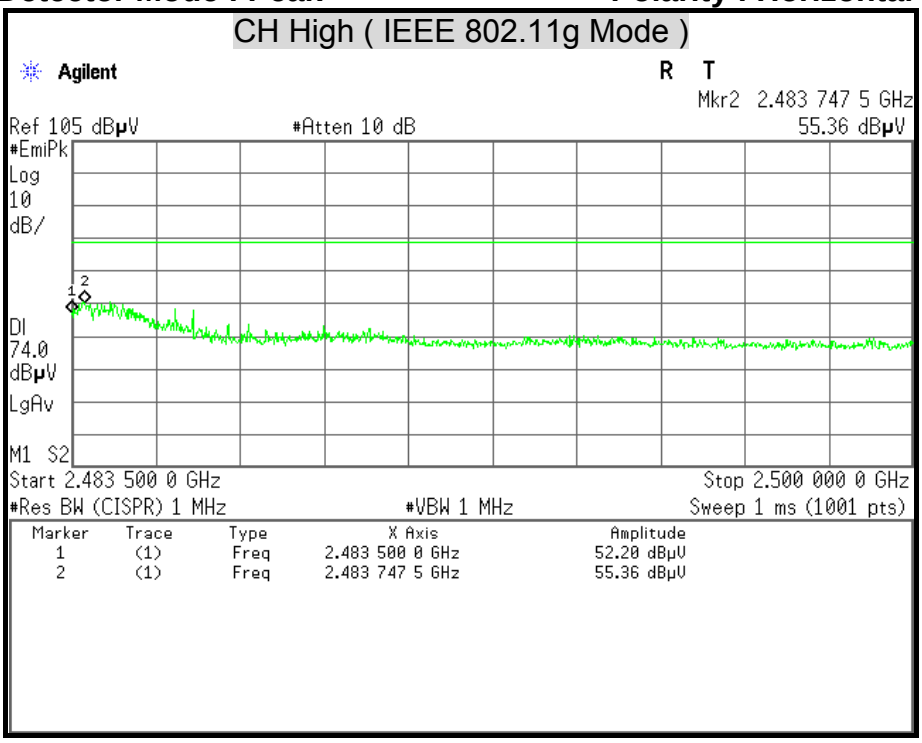
Detector Mode : Peak **Polarity : Vertical**



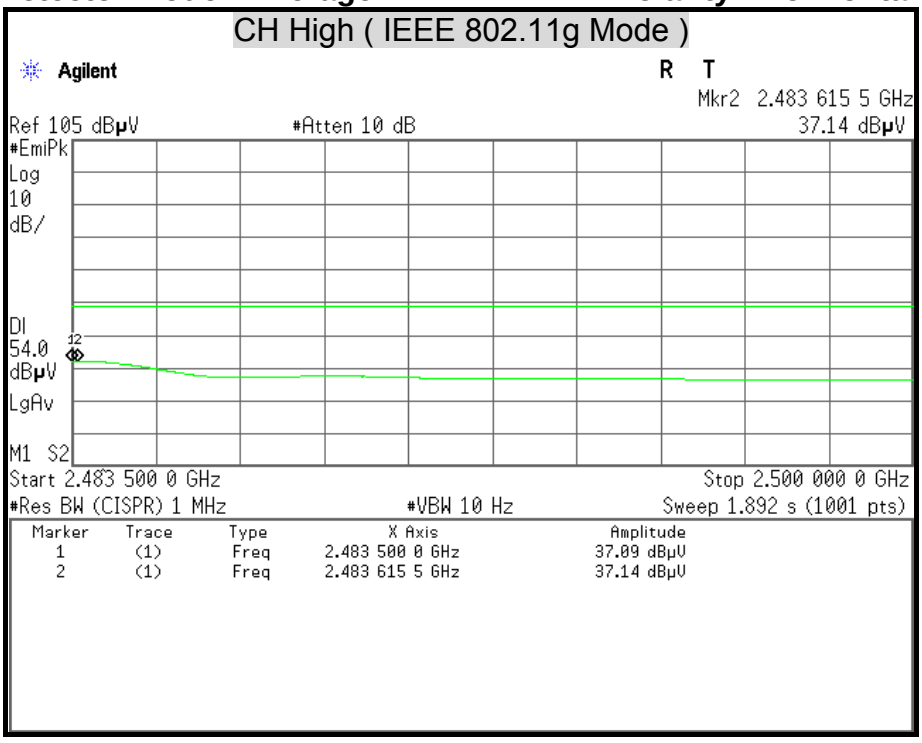
Detector Mode : Average **Polarity : Vertical**



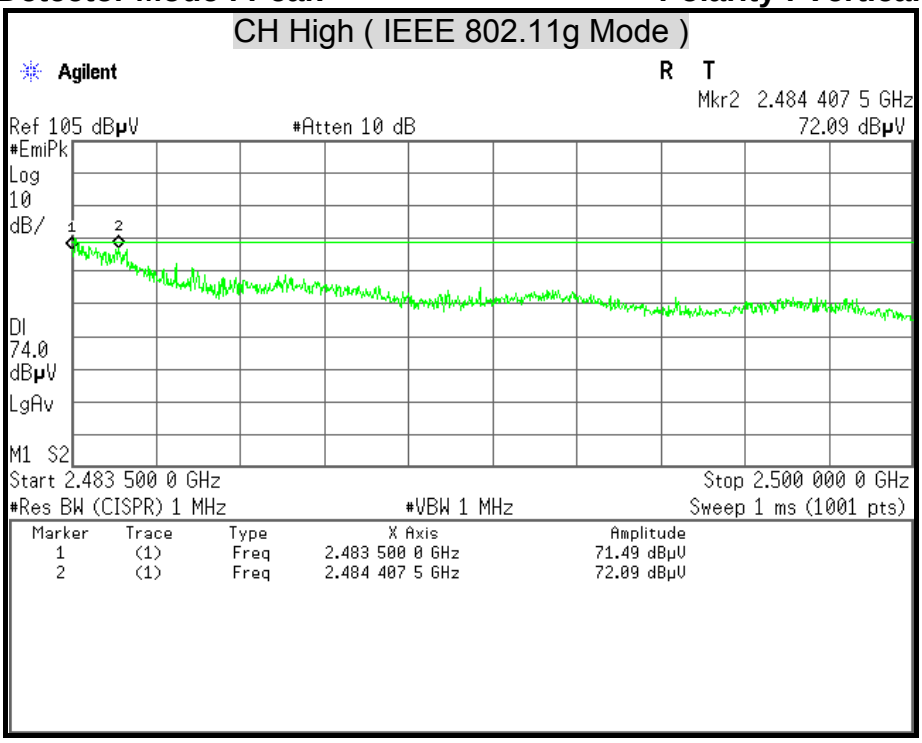
Detector Mode : Peak **Polarity : Horizontal**



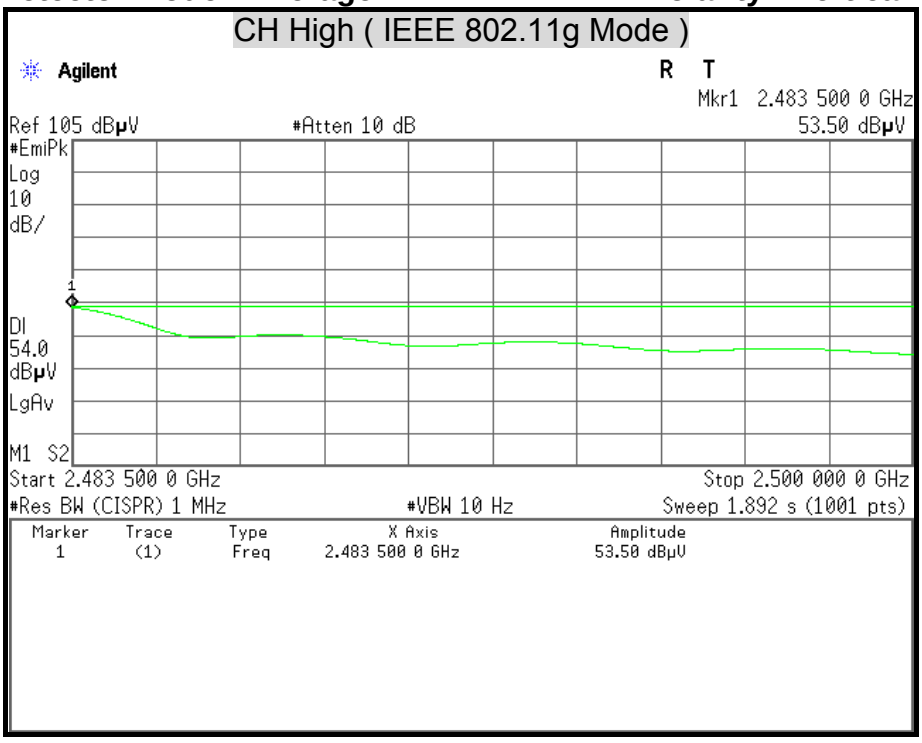
Detector Mode : Average **Polarity : Horizontal**



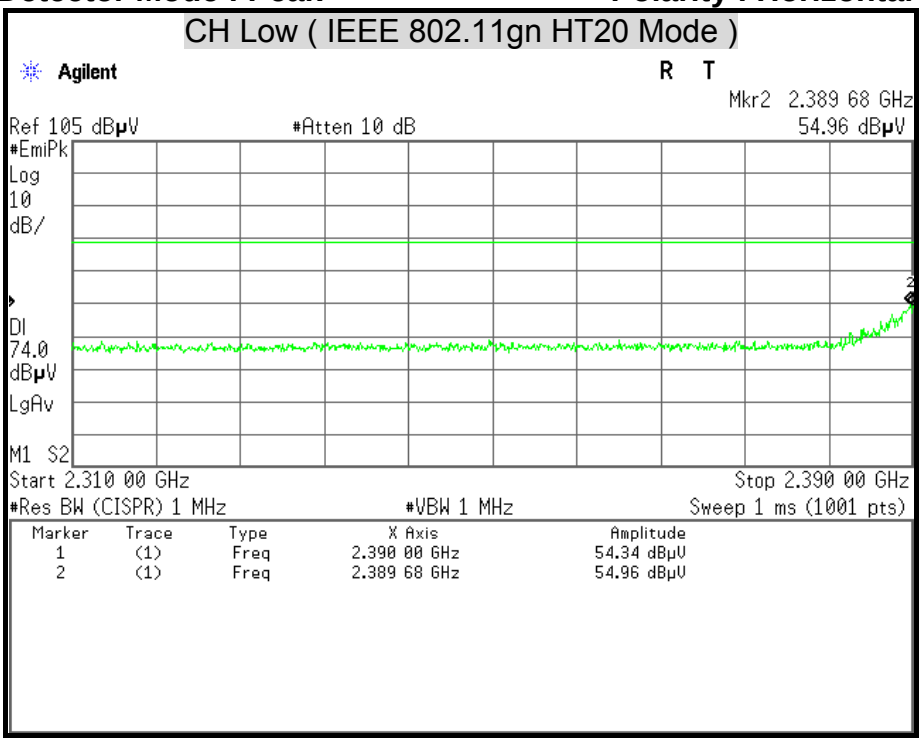
Detector Mode : Peak **Polarity : Vertical**



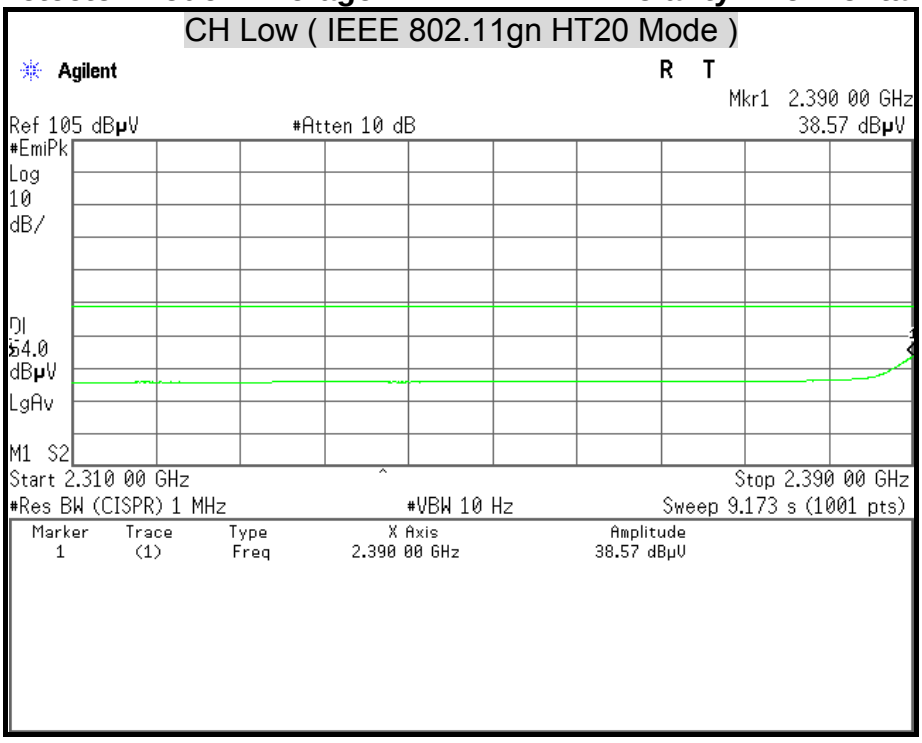
Detector Mode : Average **Polarity : Vertical**



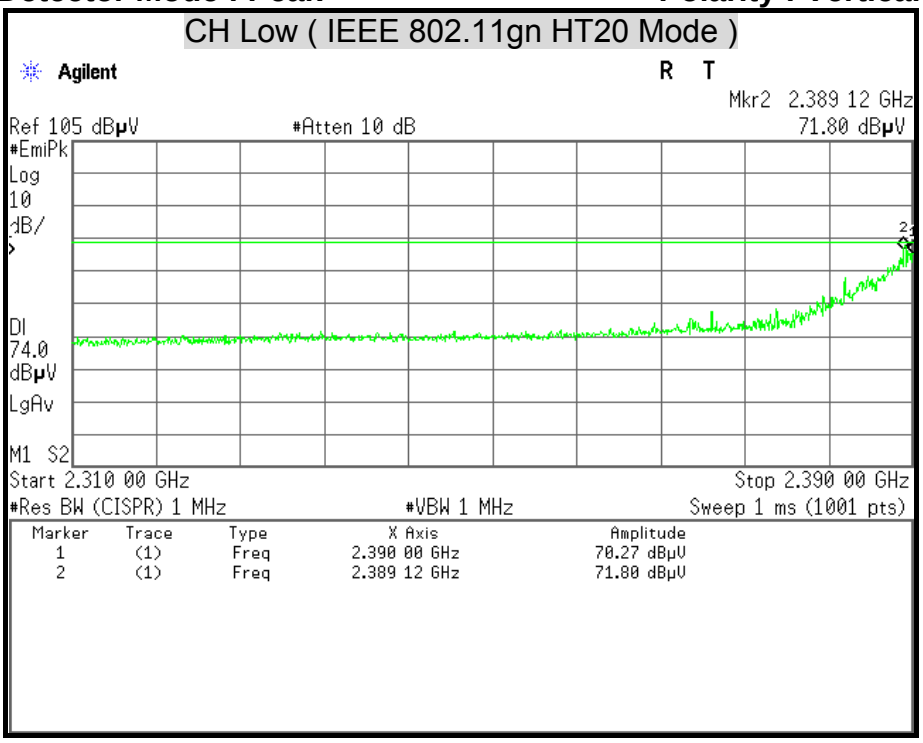
Detector Mode : Peak **Polarity : Horizontal**



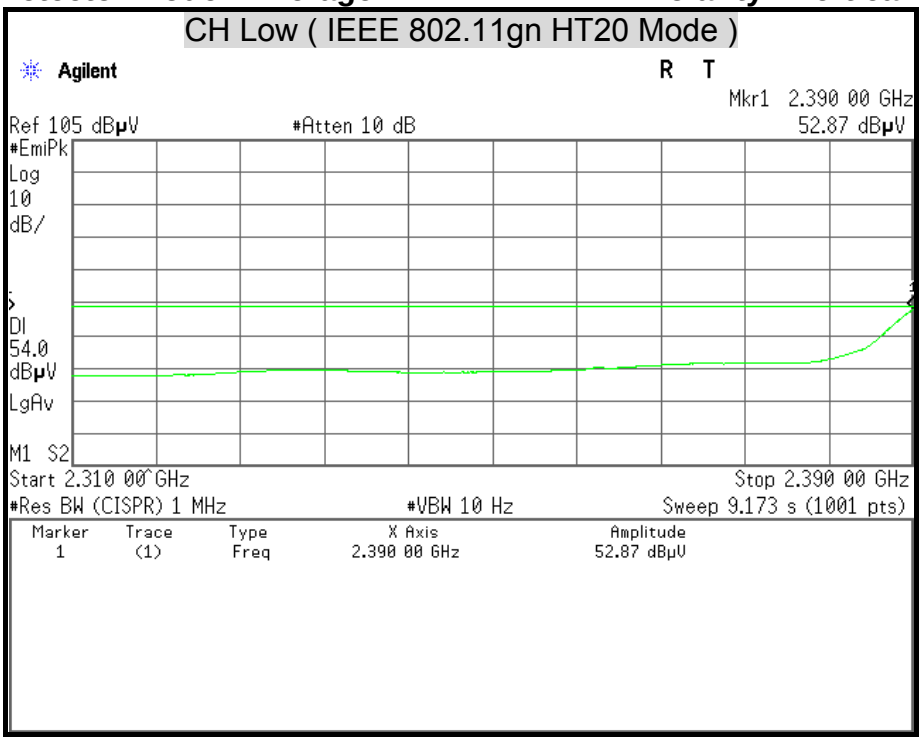
Detector Mode : Average **Polarity : Horizontal**



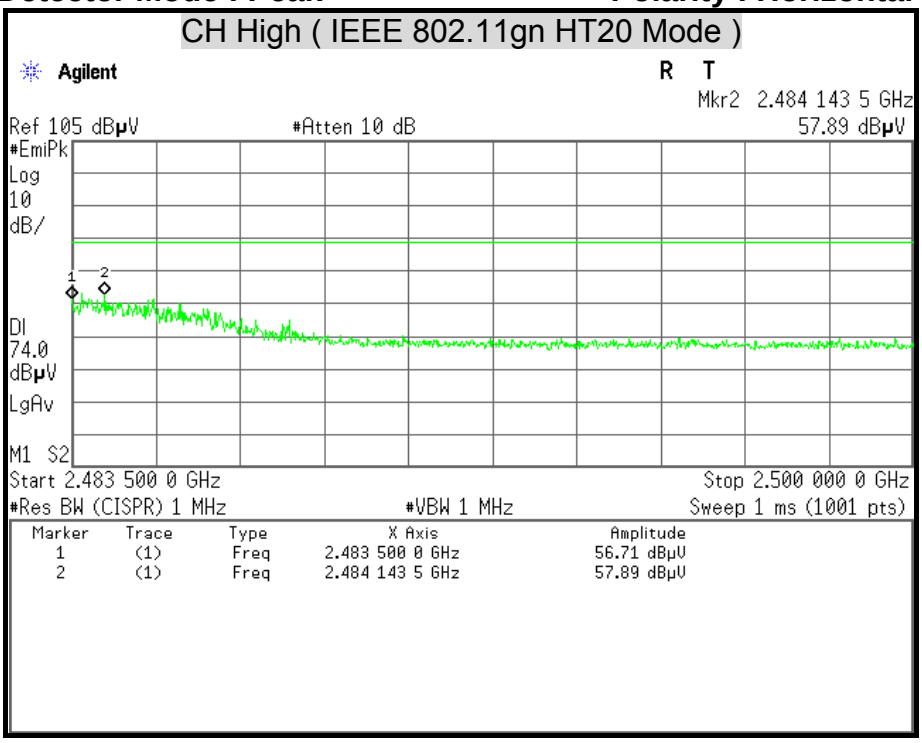
Detector Mode : Peak **Polarity : Vertical**



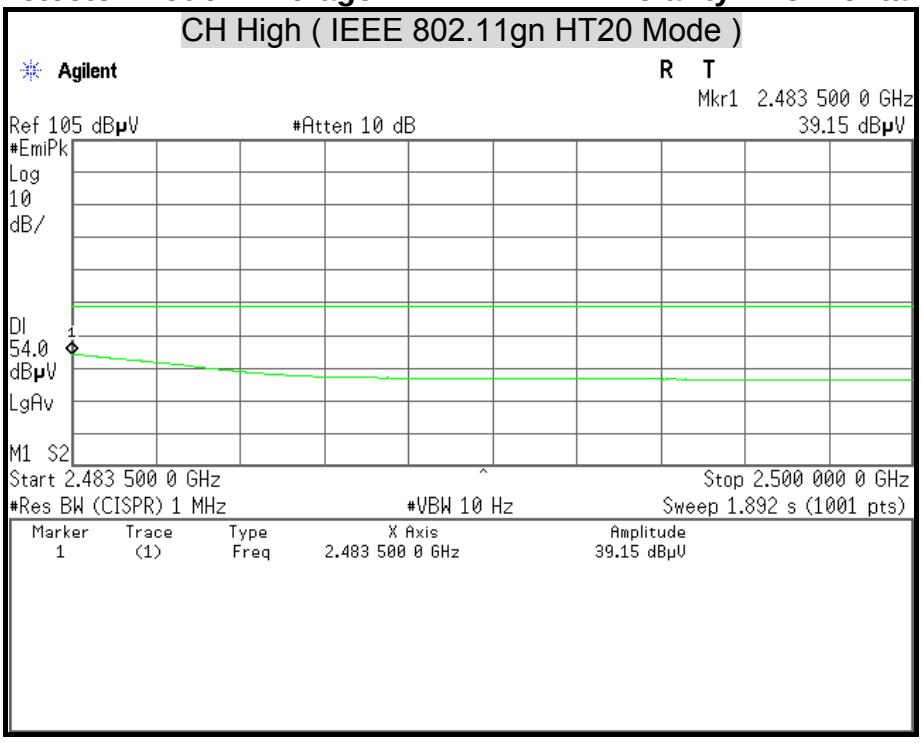
Detector Mode : Average **Polarity : Vertical**



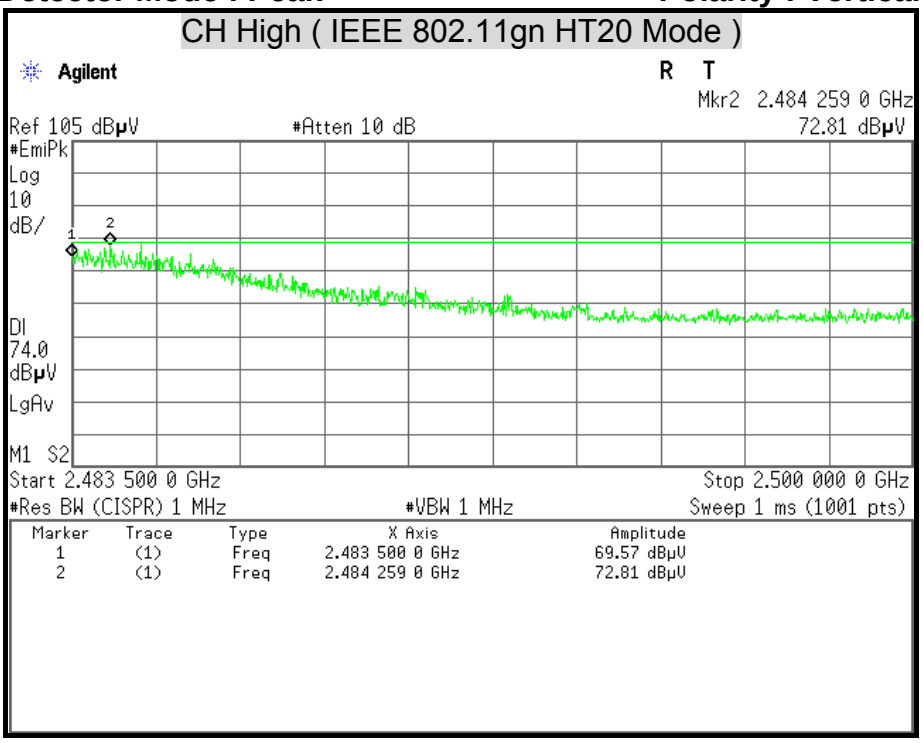
Detector Mode : Peak **Polarity : Horizontal**



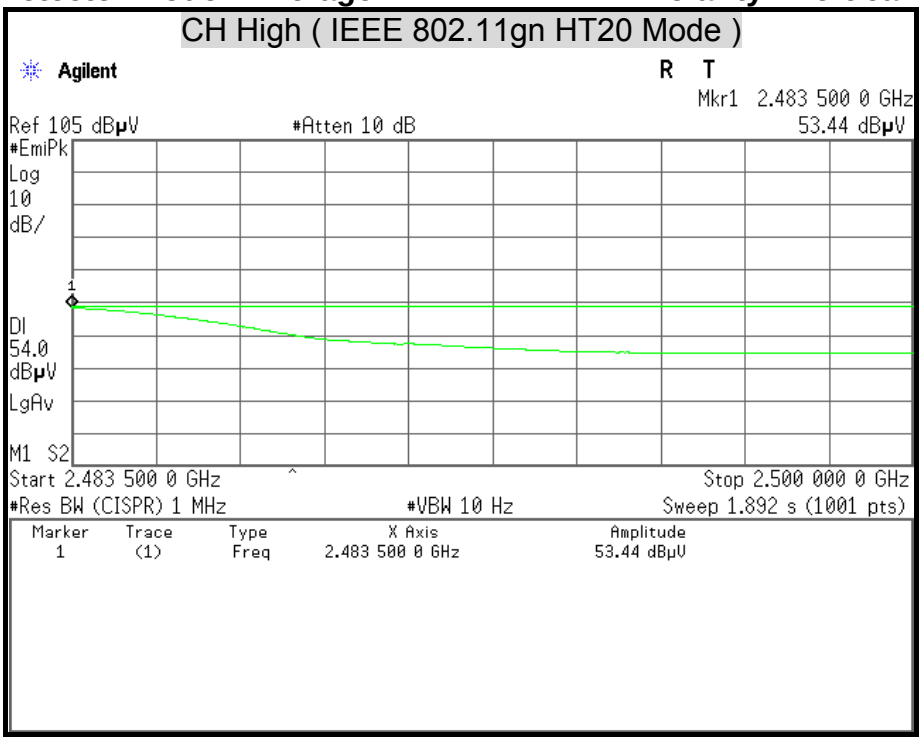
Detector Mode : Average **Polarity : Horizontal**



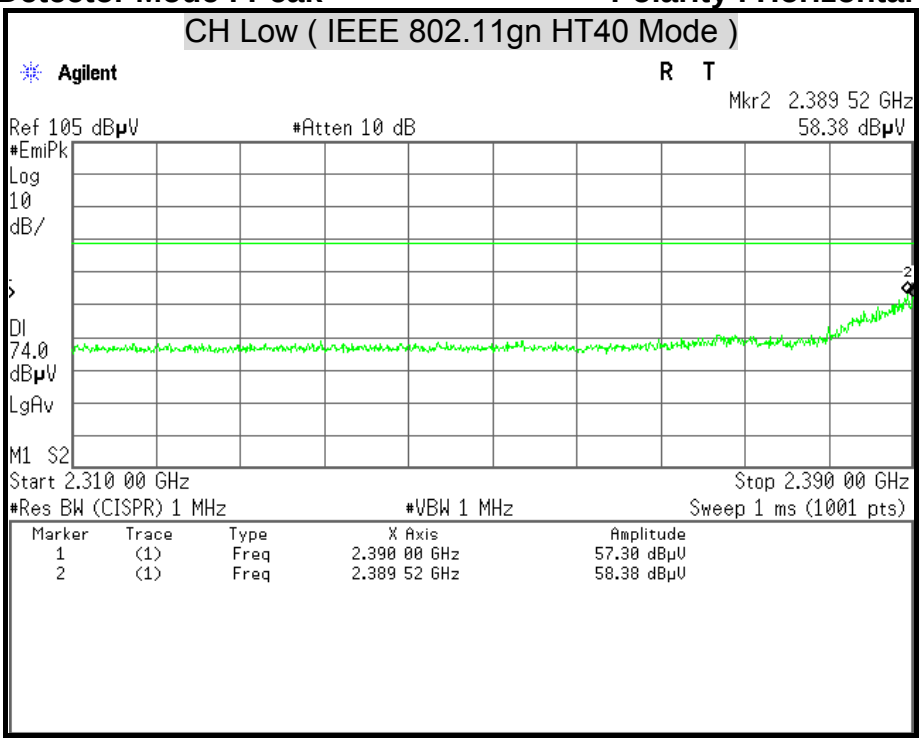
Detector Mode : Peak **Polarity : Vertical**



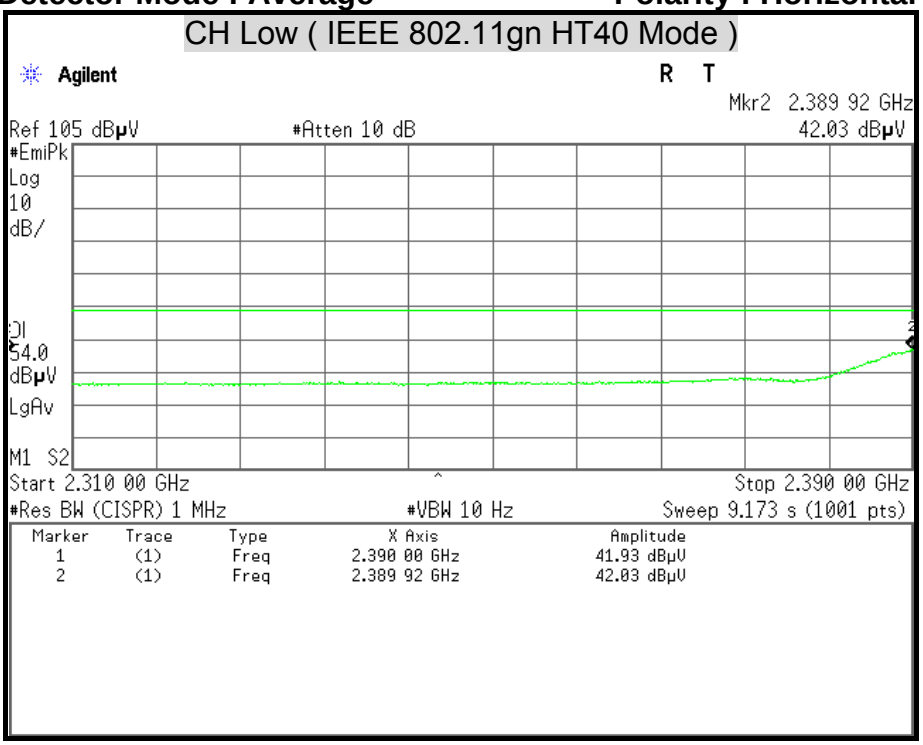
Detector Mode : Average **Polarity : Vertical**



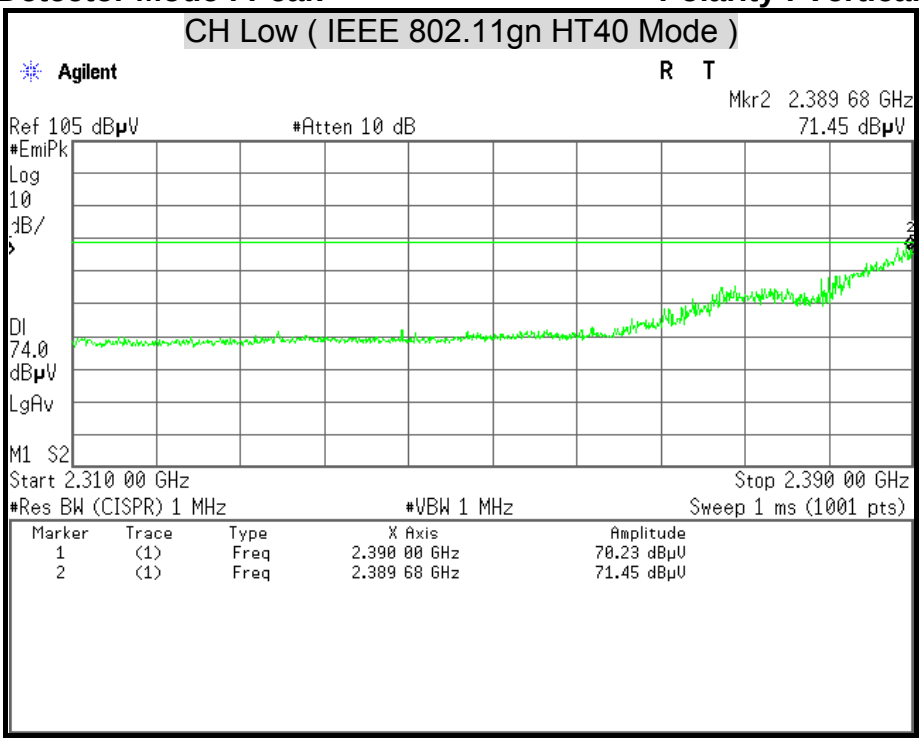
Detector Mode : Peak **Polarity : Horizontal**



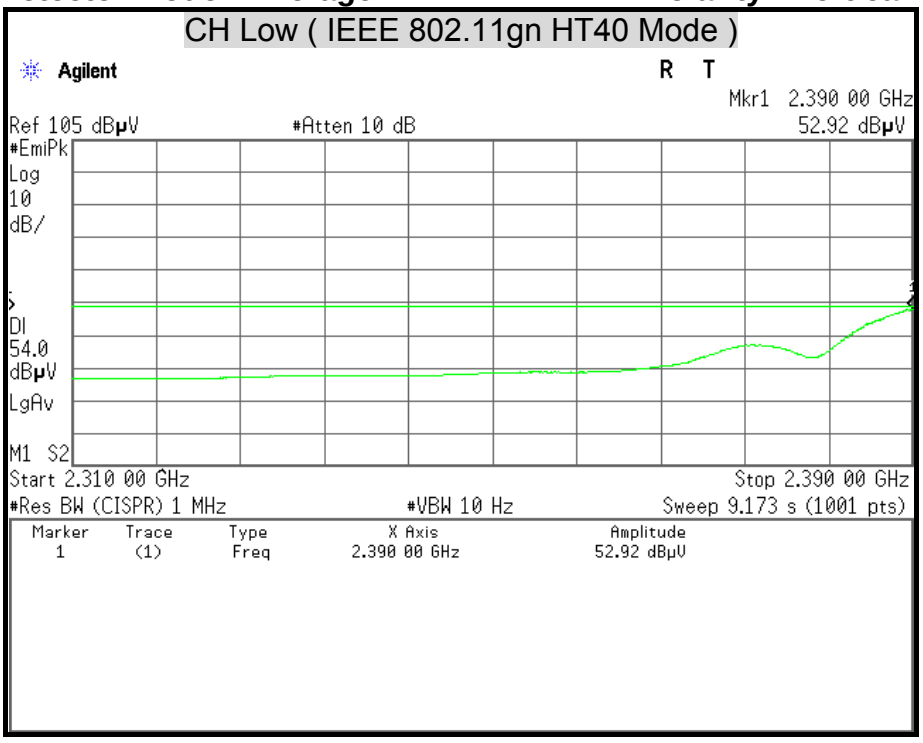
Detector Mode : Average **Polarity : Horizontal**



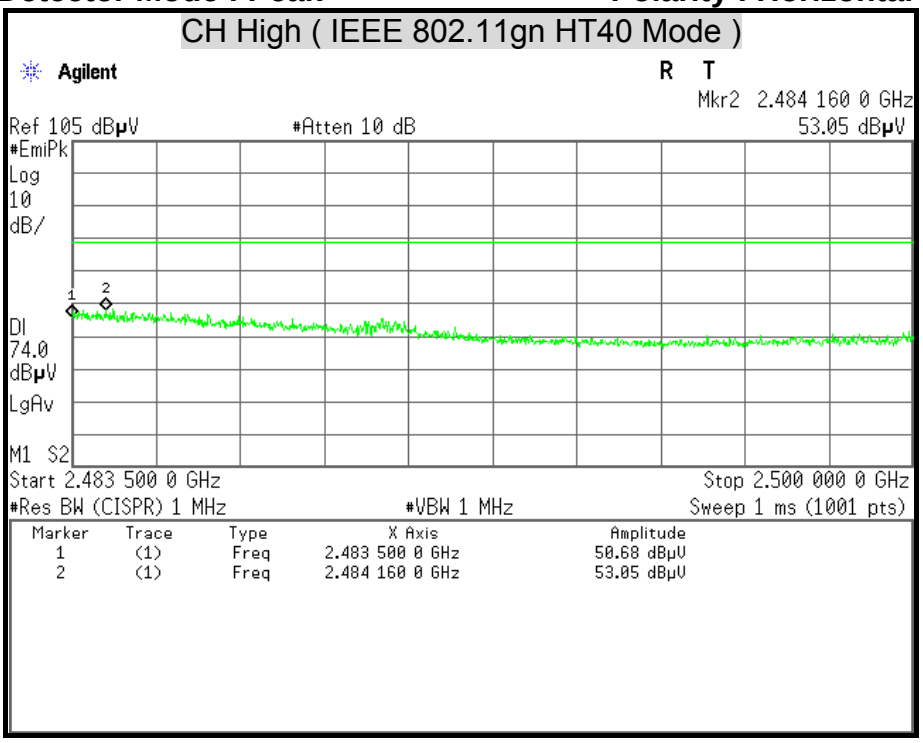
Detector Mode : Peak **Polarity : Vertical**



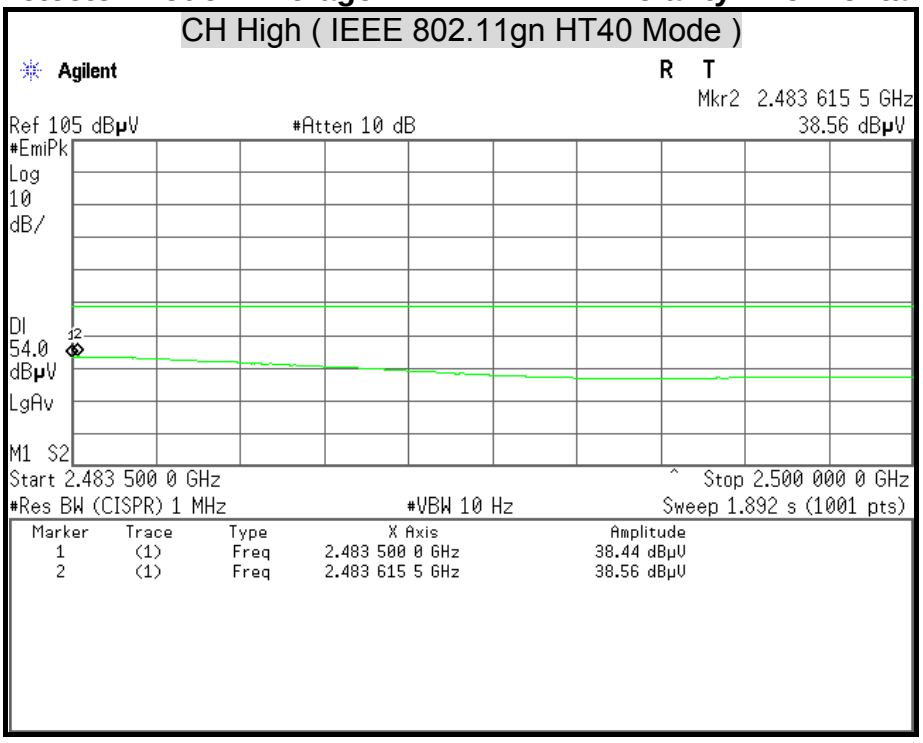
Detector Mode : Average **Polarity : Vertical**



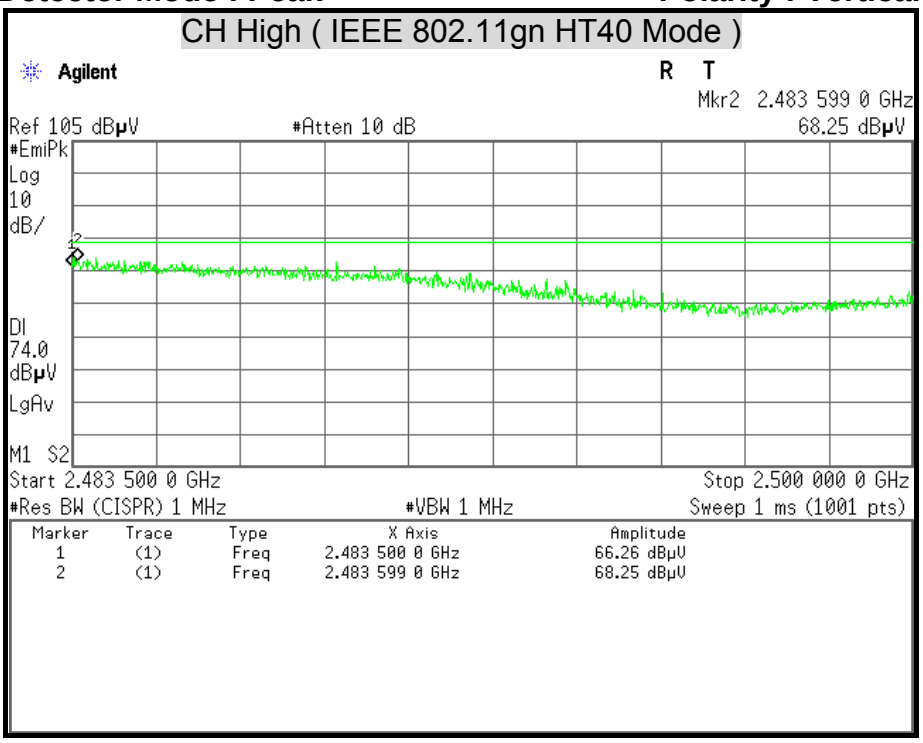
Detector Mode : Peak **Polarity : Horizontal**



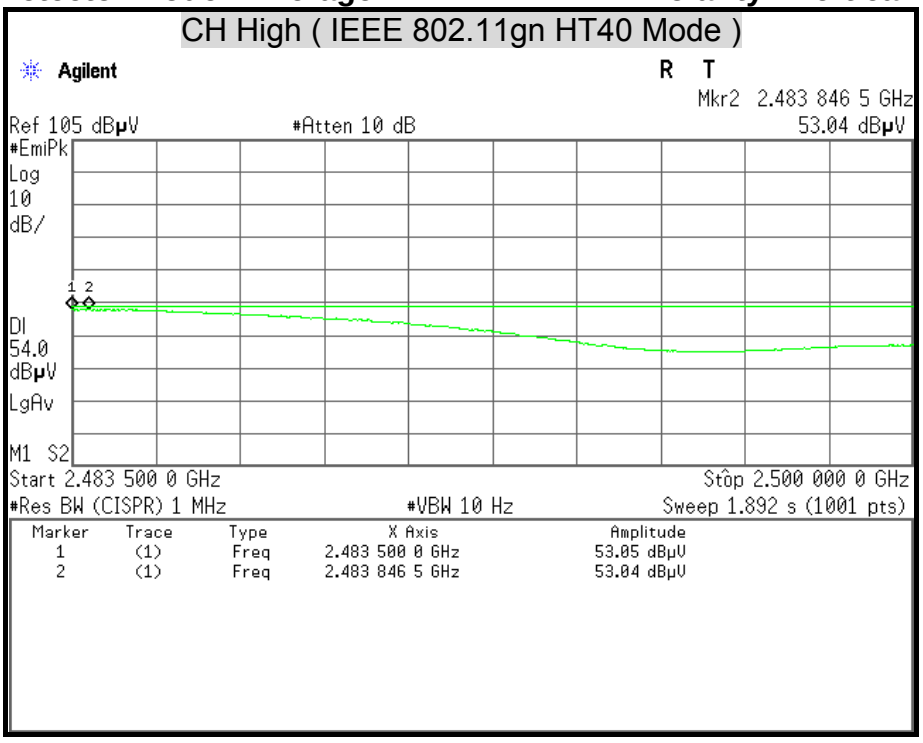
Detector Mode : Average **Polarity : Horizontal**



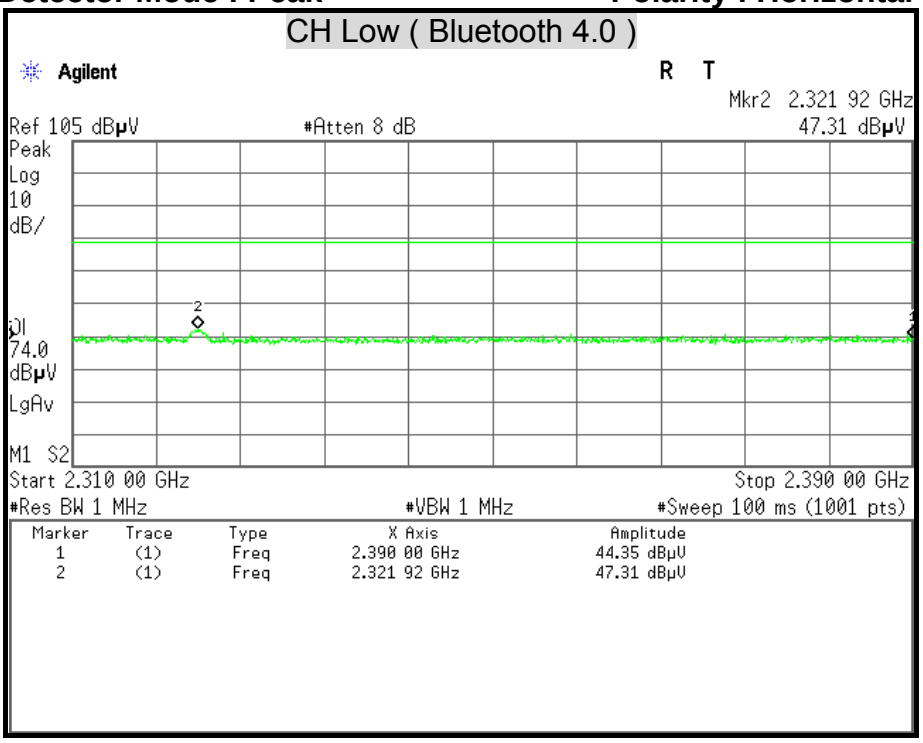
Detector Mode : Peak **Polarity : Vertical**



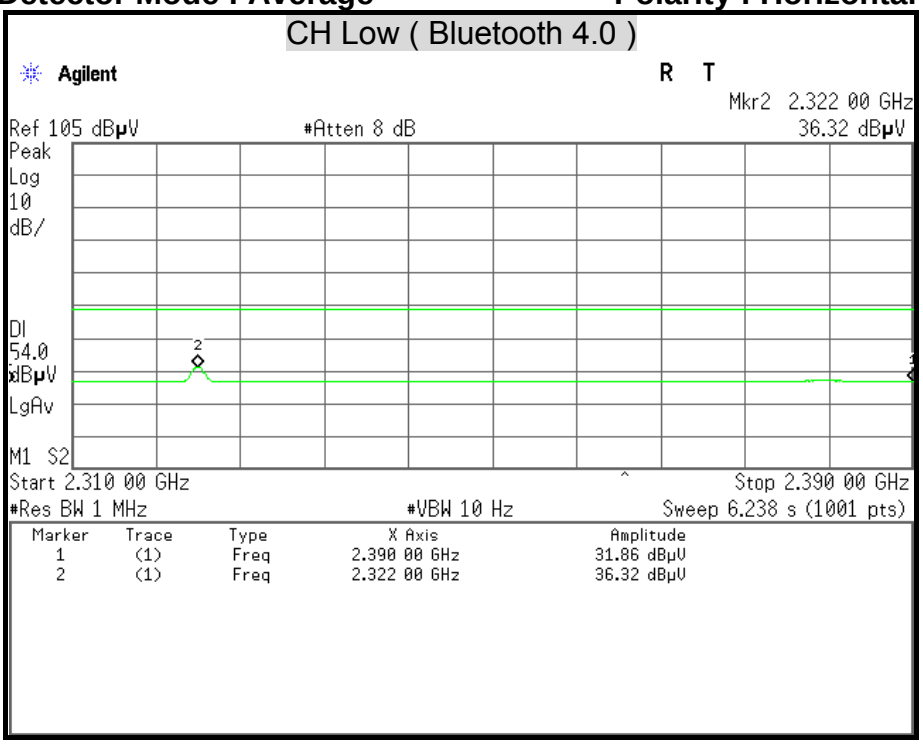
Detector Mode : Average **Polarity : Vertical**



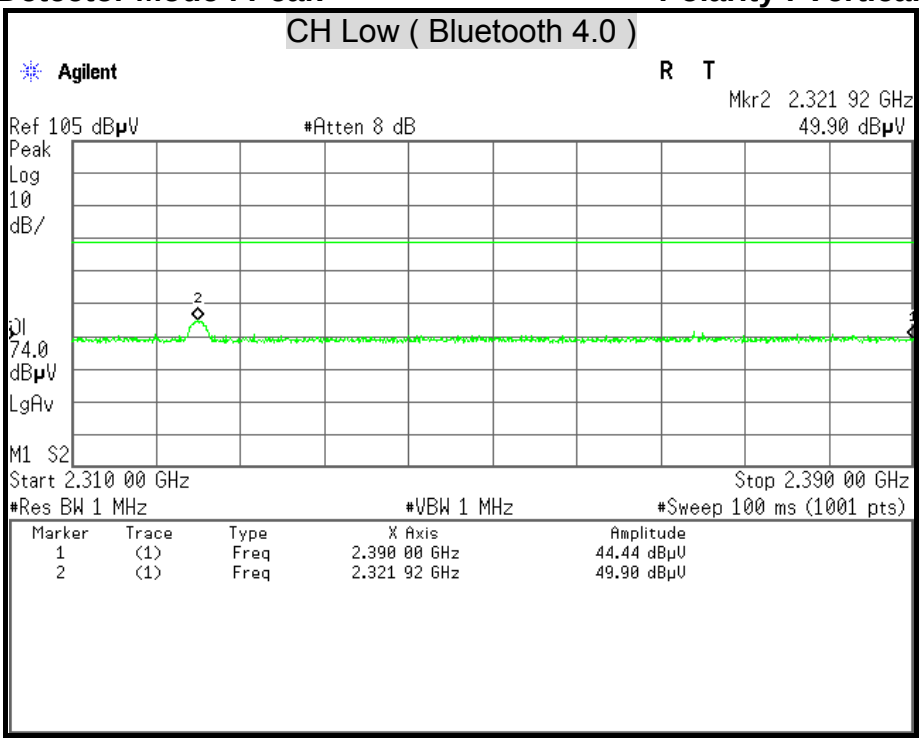
Detector Mode : Peak **Polarity : Horizontal**



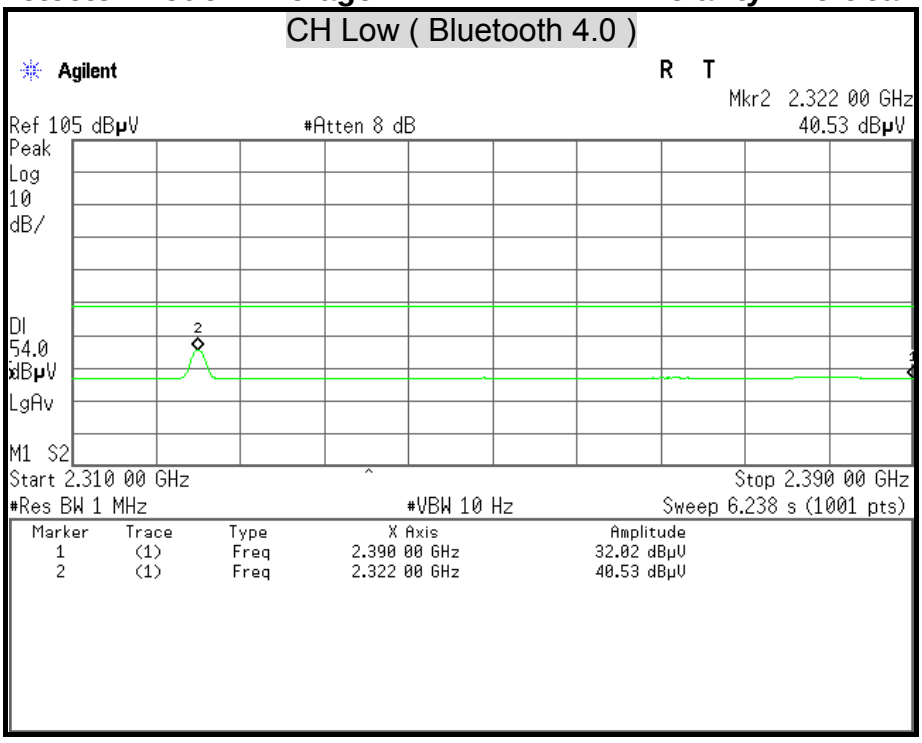
Detector Mode : Average **Polarity : Horizontal**



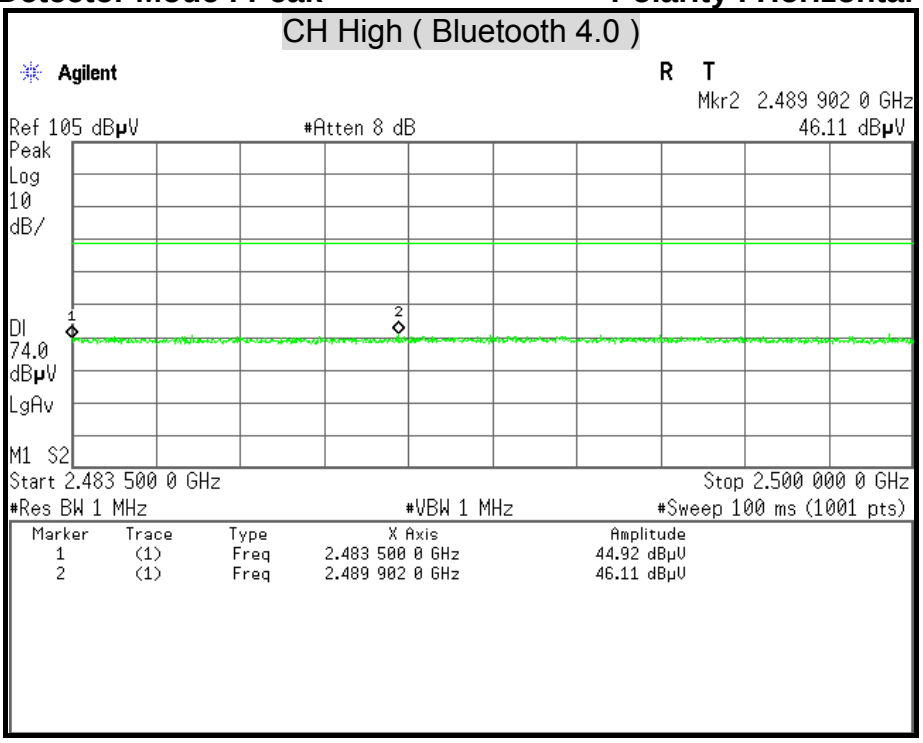
Detector Mode : Peak **Polarity : Vertical**



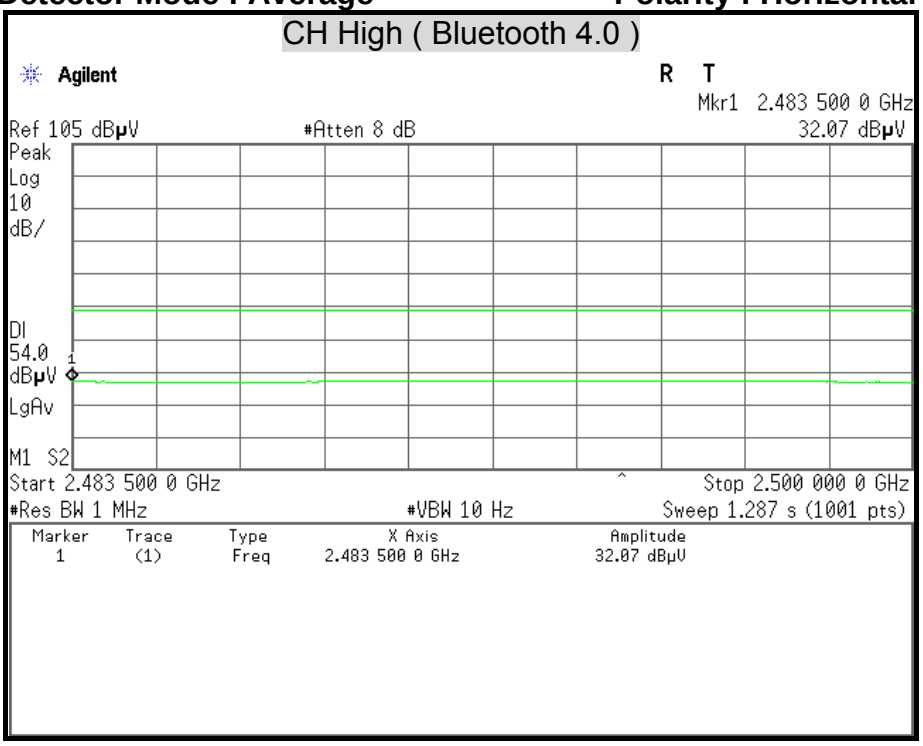
Detector Mode : Average **Polarity : Vertical**



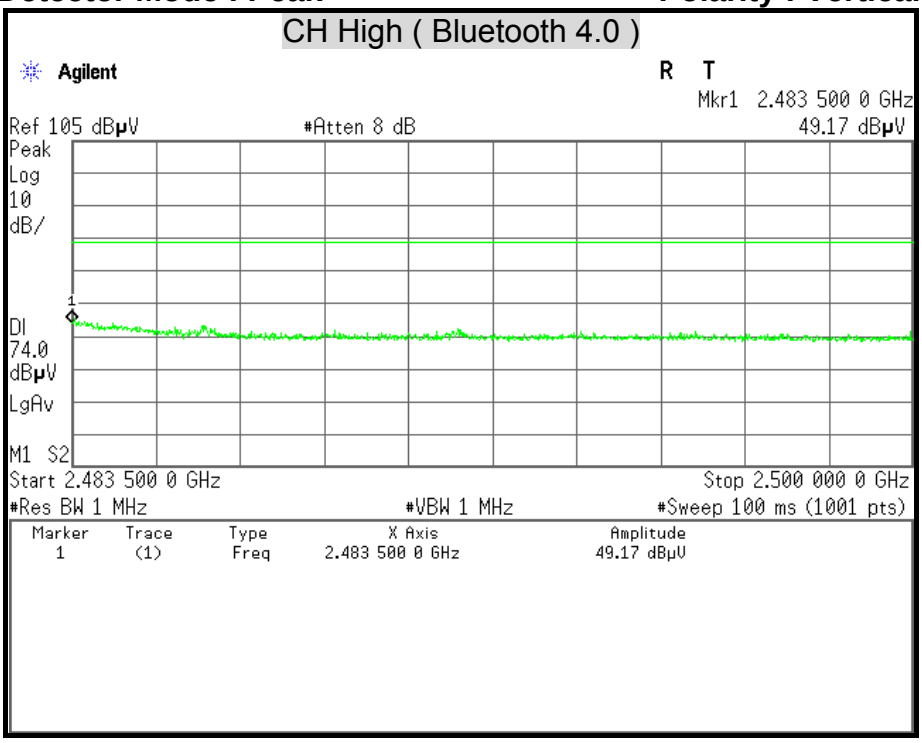
Detector Mode : Peak **Polarity : Horizontal**



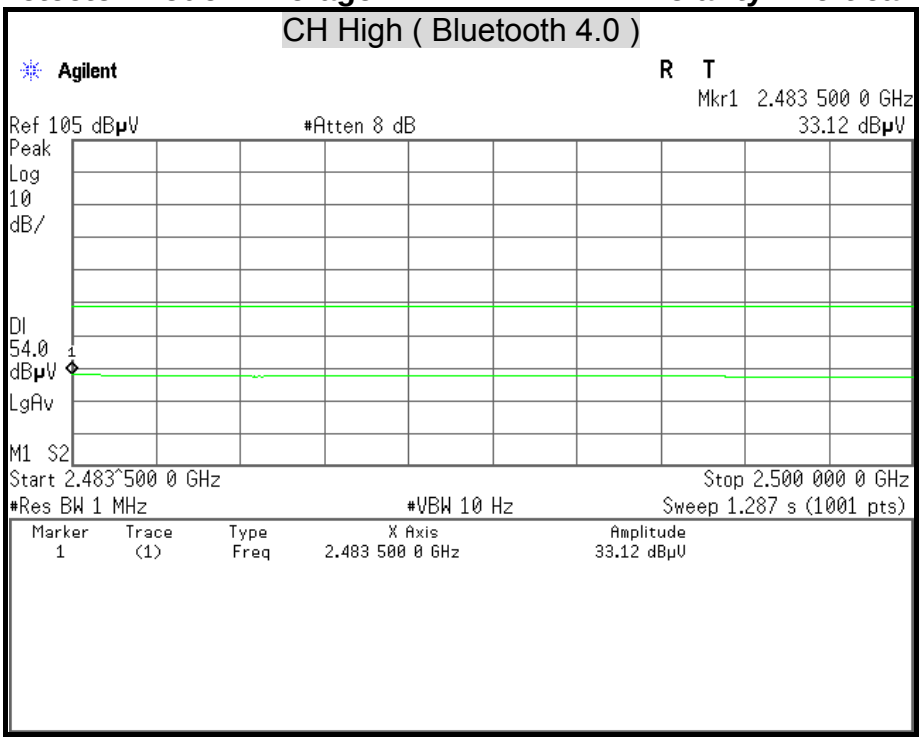
Detector Mode : Average **Polarity : Horizontal**



Detector Mode : Peak **Polarity : Vertical**



Detector Mode : Average **Polarity : Vertical**



7.7 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.

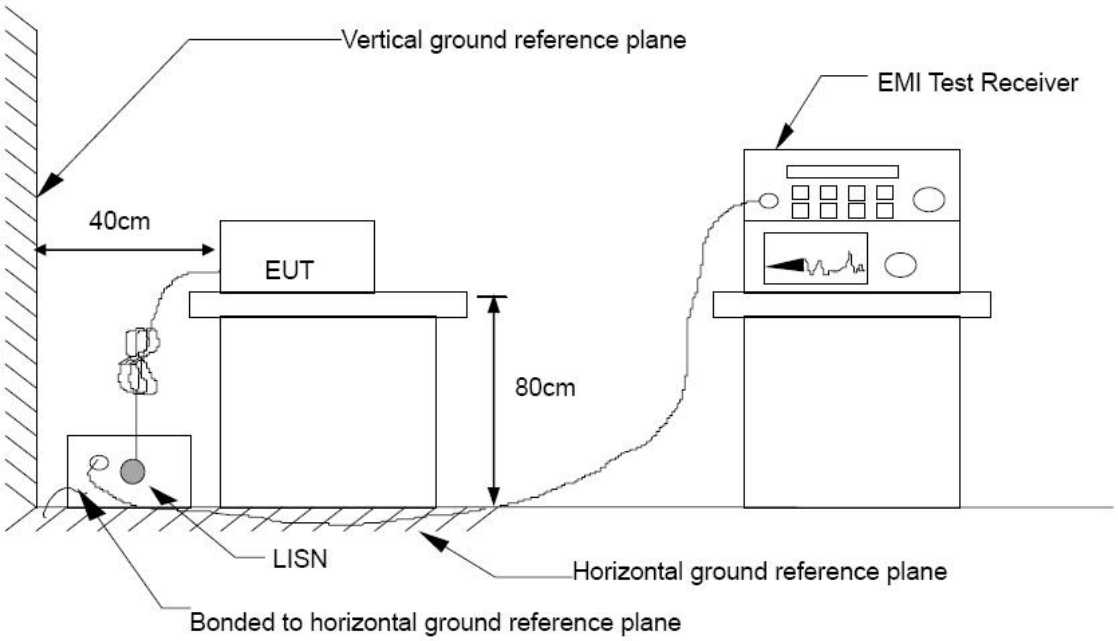
Frequency Range (MHz)	Conducted Limit (dBμv)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5.00	56	46
5.00 - 30.0	60	50

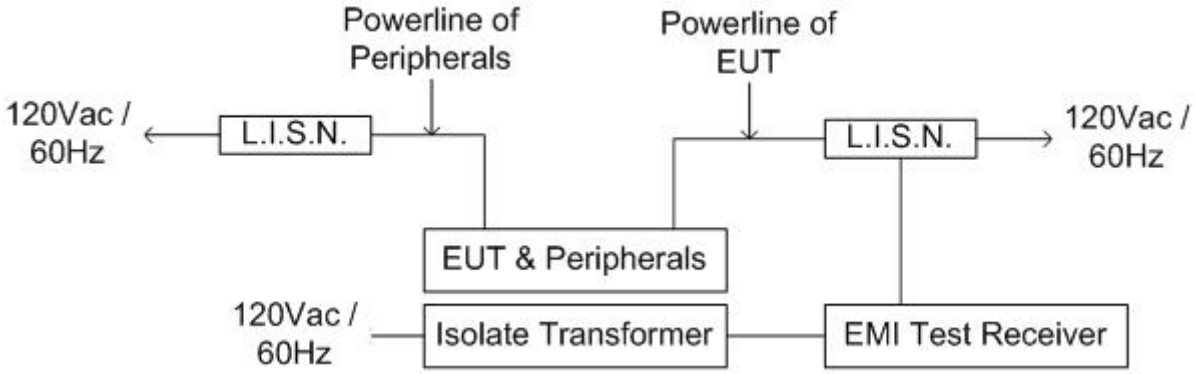
TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-465	08/06/2015
L.I.S.N	SCHWARZBECK	NSLK 8127	8127-473	03/10/2015
EMI Receiver	ROHDE & SCHWARZ	ESHS 30	838550/003	11/07/2014
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	100111	06/30/2015

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 C63.10:2009.

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

Since the EUT is powered by Car Battery Powered, this test item is not applicable.