

TEST REPORT

Reference No..... : WTX20X10072823W-1
FCC ID : 2AABK-SKYLIGHT03
Applicant : Shenzhen Chuangwei Electronic Appliance Tech Co.,Ltd.
Address..... : 4F & 6F, Overseas plant south, Skyworth Industrial Park, Shiyan Street,
Bao'an District, Shenzhen,China
Product Name : 10 inch WIFI Digital Photo Frame
Test Model. : SKY-V3
Standards : FCC Part 15.407
Date of Receipt sample : Oct.10, 2020
Date of Test..... : Oct.10, 2020 to Nov.03, 2020
Date of Issue : Nov.03, 2020
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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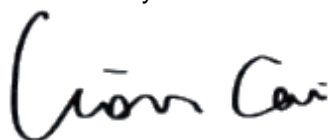
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Version No.	Date of issue	Description
Rev.00	Nov.03, 2020	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Shenzhen Chuangwei Electronic Appliance Tech Co.,Ltd.
 Address of applicant: 4F & 6F, Overseas plant south, Skyworth Industrial Park,
 Shiyuan Street, Bao'an District, Shenzhen,China

Manufacturer: Shenzhen Chuangwei Electronic Appliance Tech Co.,Ltd.
 Address of manufacturer: 4F & 6F, Overseas plant south, Skyworth Industrial Park,
 Shiyuan Street, Bao'an District, Shenzhen,China

General Description of EUT	
Product Name:	10 inch WIFI Digital Photo Frame
Trade Name:	Skylight
Model No.:	SKY-V3
Adding Model(s):	D106, Skylight 3
Rated Voltage:	DC 5V
Battery Capacity:	/
Power Adapter:	S85A02 INPUT: AC100-240V, 50/60Hz, 0.5A; Output: DC5V, 2A
Software Version:	/
Hardware Version:	/
<p><i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model SKY-V3, but the circuit and the electronic construction do not change, declared by the manufacturer.</i></p>	

Technical Characteristics of EUT	
Support Standards:	802.11a, 802.11n(HT20) , 802.11n-HT40, 802.11ac-VHT80
Frequency Range:	5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz
RF Output Power:	14.64dBm (Conducted)
Type of Modulation:	BPSK, QPSK,16QAM,64QAM
Data Rate:	6-54Mbps, up to 200Mbps
Type of Antenna:	Integral Antenna
Antenna Gain:	3.58dBi

1.2 Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.407: General technical requirements.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

KDB789033 D02 v02r01: GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPARTE.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, KDB789033 D02 v02r01. The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Table for parameters of Test Software setting

Connect the USB to the computer ADB, double-click the “ap6255 bat” file, and prompt adb root to prompt success, Open rfctest software, configure save, you can start to test. During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Mode	Test Frequency (MHz)												
	NCB: 20MHz												
	5180	5200	5240	5260	5300	5320	5500	5580	5700	5720	5745	5785	5825
802.11a 6Mbps	72	72	72	72	72	72	75	75	75	75	76	76	76
802.11n-HT20 MCS0	72	72	72	72	72	72	75	75	75	75	76	76	76
Mode	NCB: 40MHz												
	5190	5230	5270	5310	5510	5550	5670	5710	5755	5795			
802.11n-HT40 MCS0	72	72	72	72	75	75	75	75	76	76			
Mode	NCB: 80MHz												
	5210		5290		5530		5610		5690		5775		
802.11ac-VH80 MCS0/Nss2	72		72		75		75		75		76		

1.5 EUT Operating during test

EUT was programmed to be in continuously transmitting mode. During the test, EUT operation to normal function and programs under Android were executed.

1.6 Test Facility

Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

1.7 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, with a duty cycle equal to 100%, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11a	5180MHz,5200MHz,5240MHz,5260MHz,5280MHz,5320MHz,5500MHz, 5600MHz,5700MHz,5745MHz, 5785MHz,5825MHz
TM2	802.11n-HT20	5180MHz,5200MHz,5240MHz,5260MHz,5280MHz,5320MHz,5500MHz, 5600MHz, 5700MHz,5745MHz, 5785MHz,5825MHz
TM3	802.11n-HT40	5190MHz,5230MHz,5270MHz,5310MHz,5510MHz,5590MHz,5670MHz, 5755MHz,5795MHz
TM4	802.11ac-VH80	5210MHz,5290MHz,5530 MHz,5610 MHz,5775 MHz

Note: All test modes (different data rate and different modulation) are performed, but only the worst case is recorded in this report.

Test Conditions	
Temperature:	22~25 °C
Relative Humidity:	47~55 %.
ATM Pressure:	1019 mbar

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
DC Cable	1.8	Unshielded	Without Ferrite

Special Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	1.0	Shielded	Without Ferrite

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	Lenovo	TianYi310-14ISK	/

1.8 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	$\pm 0.42\text{dB}$
Occupied Bandwidth	Conducted	$\pm 1.5\%$
Power Spectral Density	Conducted	$\pm 1.8\text{dB}$
Conducted Spurious Emission	Conducted	$\pm 2.17\text{dB}$
Conducted Emissions	Conducted	9-150kHz $\pm 3.74\text{dB}$
		0.15-30MHz $\pm 3.34\text{dB}$
Transmitter Spurious Emissions	Radiated	30-200MHz $\pm 4.52\text{dB}$
		0.2-1GHz $\pm 5.56\text{dB}$
		1-6GHz $\pm 3.84\text{dB}$
		6-18GHz $\pm 3.92\text{dB}$

1.9 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2020-04-28	2021-04-27
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2020-04-28	2021-04-27
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2020-04-28	2021-04-27
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2020-04-28	2021-04-27
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2020-04-28	2021-04-27
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2019-05-05	2021-05-04
SEMT-1042	Horn Antenna	ETS	3117	00086197	2019-05-05	2021-05-04
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2019-05-05	2021-05-04
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2019-05-05	2021-05-04
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2020-04-28	2021-04-27
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2020-04-28	2021-04-27
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2020-04-28	2021-04-27
SEMT-1168	Pre-amplifier	Direction Systems Inc.	PAP-0126	14141-12838	2020-04-28	2021-04-27
SEMT-1169	Pre-amplifier	Direction Systems Inc.	PAP-2640	14145-14153	2020-04-28	2021-04-27
SEMT-1163	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2020-04-28	2021-04-27
SEMT-1170	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2019-05-05	2021-05-04
SEMT-1166	Power Limiter	Agilent	N9356B	MY45450376	2020-04-28	2021-04-27
SEMT-1048	RF Limiter	ATTEN	AT-BSF-2400~2500	/	2020-04-28	2021-04-27
SEMT-1076	RF Switcher	Top Precision	RCS03-A2	/	2020-04-28	2021-04-27
SEMT-C001	Cable	Zheng DI	LL142-07-07-10M(A)	/	2020-03-17	2021-03-16
SEMT-C002	Cable	Zheng DI	ZT40-2.92J-2.92J-6M	/	2020-03-17	2021-03-16
SEMT-C003	Cable	Zheng DI	ZT40-2.92J-2.92J-2.5M	/	2020-03-17	2021-03-16
SEMT-C004	Cable	Zheng DI	2M0RFC	/	2020-03-17	2021-03-16
SEMT-C005	Cable	Zheng DI	1M0RFC	/	2020-03-17	2021-03-16
SEMT-C006	Cable	Zheng DI	1M0RFC	/	2020-03-17	2021-03-16

Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission)*	Farad	EZ-EMC	RA-03A1

*Remark: indicates software version used in the compliance certification testing

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§15.203; §15.405	Antenna Requirement	Compliant
15.407 (c)	Automatically Discontinue Transmission	Compliant
§15.207; §15.407(b)(6)	Conducted Emission	Compliant
§15.407(a)(1),(2)	Power Spectral Density	Compliant
§15.407(e)	Emission Bandwidth and Occupied Bandwidth	Compliant
§15.407(a)(1),(2)	Maximum Conducted Output Power	Compliant
§15.407(b)(1),(2),(3),(4)	Undesirable emission	Compliant
§15.205; §15.407(b)(1),(2),(3)	Radiated Emission	Compliant
§15.407(g)	Frequency Stability	Compliant
§15.407(h)	Dynamic Frequency Selection (DFS)	Compliant

N/A: Not applicable

3. Antenna Requirement

3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Evaluation Information

This product has an integral antenna, fulfill the requirement of this section.

4. Automatically Discontinue Transmission

4.1 Standard Applicable

According to FCC Part 15.407(c), the device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

4.2 Summary of Test Results

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

5. Power Spectral Density

5.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

5.2 Test Procedure

According to 789033 D02 v02r01 General UNII Test Procedures New Rules v02, the following is the measurement procedure.

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500

kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500kHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.1.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ kHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 kHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ kHz}$ is available on nearly all spectrum analyzers.

5.3 Summary of Test Results/Plots

Please refer to Appendix A

6. Emission Bandwidth and Occupied Bandwidth

6.1 Standard Applicable

According to 15.407(a) and (e):

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

6.2 Test Procedure

According to 789033 D02 v02r0r section C&D, the following is the measurement procedure.

1. Emission Bandwidth (EBW)

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.

- d) Trace mode = max hold.
- e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

D. 99 Percent Occupied Bandwidth

The 99-percent occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99-percent occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in section II.G.3.d). Measurements of 99-percent occupied bandwidth may also optionally be used in lieu of the EBW to 789033 D02 v02r01 General UNII Test Procedures New Rules v01 define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in section II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 * RBW$
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

6.3 Summary of Test Results/Plots

Please refer to Appendix B

7. Maximum Conducted Output Power

7.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25 GHz.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2) For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3) For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

7.2 Test Procedure

According to KDB789033 D02 v02r01 section E, the following is the measurement procedure.

- (i) Set span to encompass the entire emission bandwidth (EBW) (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- (ii) Set RBW = 1 MHz.
- (iii) Set VBW \geq 3 MHz.
- (iv) Number of points in sweep \geq 2 Span / RBW. (This ensures that bin-to-bin spacing is \leq RBW/2, so that narrowband signals are not lost between frequency bins.)

- (v) Sweep time = auto.
- (vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- (vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle \geq 98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run”.
- (viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- (ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

7.3 Summary of Test Results/Plots

Please refer to Appendix C

8. Radiated Spurious Emissions

8.1 Standard Applicable

According to §15.407(b), undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

According to §15.407(b)(6), Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

According to §15.407(b)(7), The provisions of §15.205 apply to intentional radiators operating under this section. 789033 D02 v02r01 General UNII Test Procedures New Rules v01

If radiated measurements are performed, field strength is then converted to EIRP as follows:

$$\text{EIRP} = ((E*d)^2) / 30$$

where:

- E is the field strength in V/m;
- d is the measurement distance in meters;
- EIRP is the equivalent isotropically radiated power in watts.

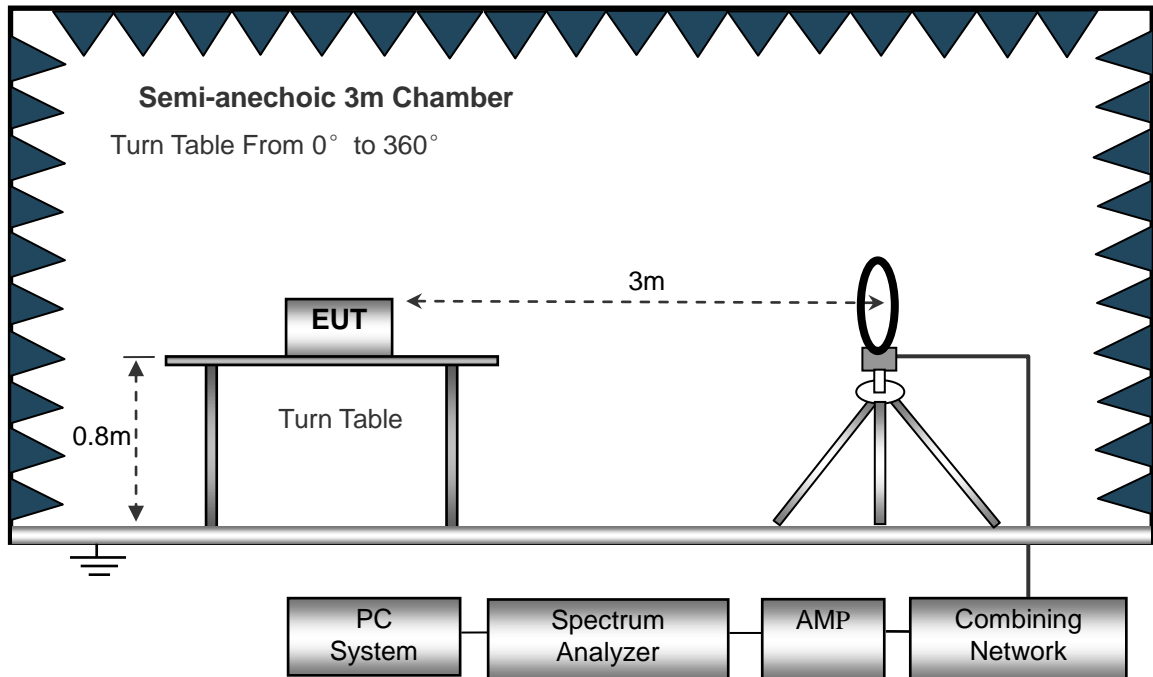
8.2 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.407(b)(6) and FCC Part 15.209 Limit..

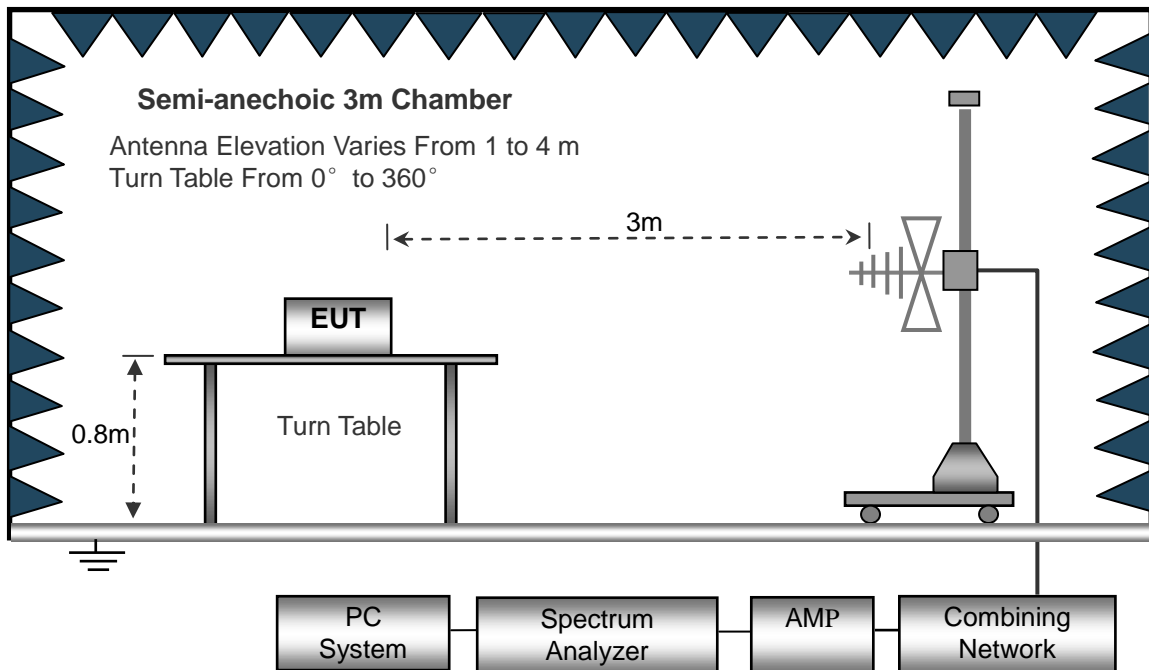
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

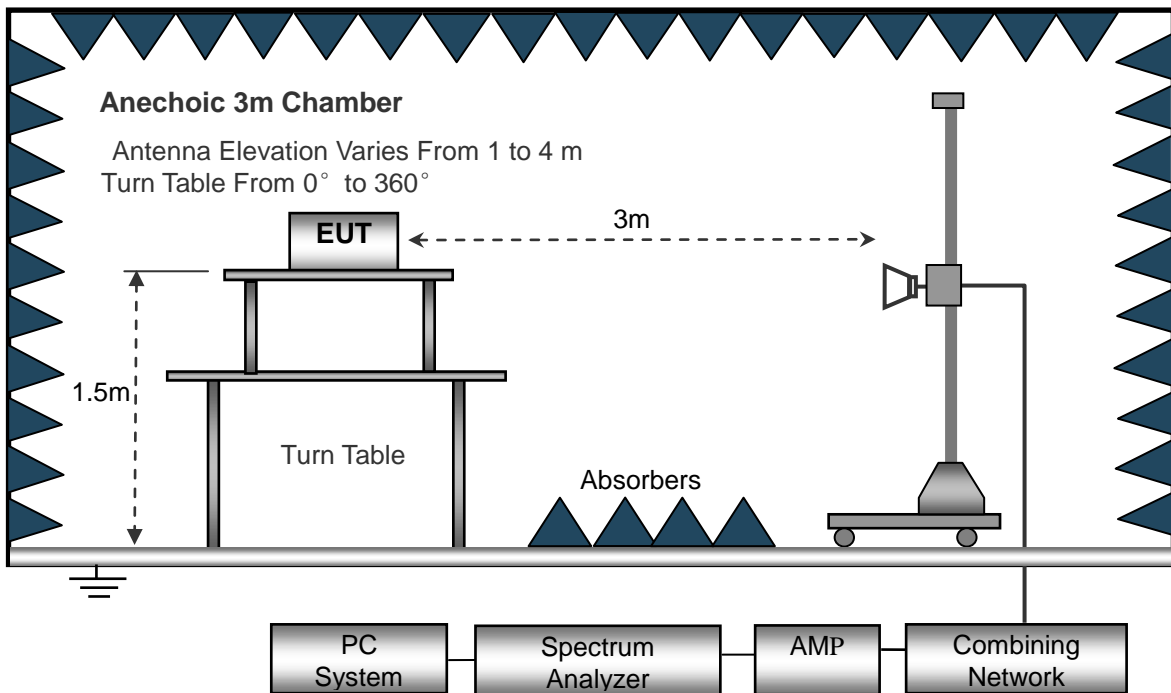
The test setup for emission measurement below 30MHz..



The test setup for emission measurement from 30 MHz to 1 GHz..



The test setup for emission measurement above 1 GHz..



8.3 Test Receiver Setup

During the radiated emission test for above 1GHz, the test receiver was set with the following configurations:

For peak detector:

RBW = 1000kHz, VBW = 3000kHz, Sweep Time = Auto

For average detector:

RBW = 1000kHz, VBW = 10Hz, Sweep Time = Auto

8.4 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Indicated Reading} + \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for Class B. The equation for margin calculation is as follows:

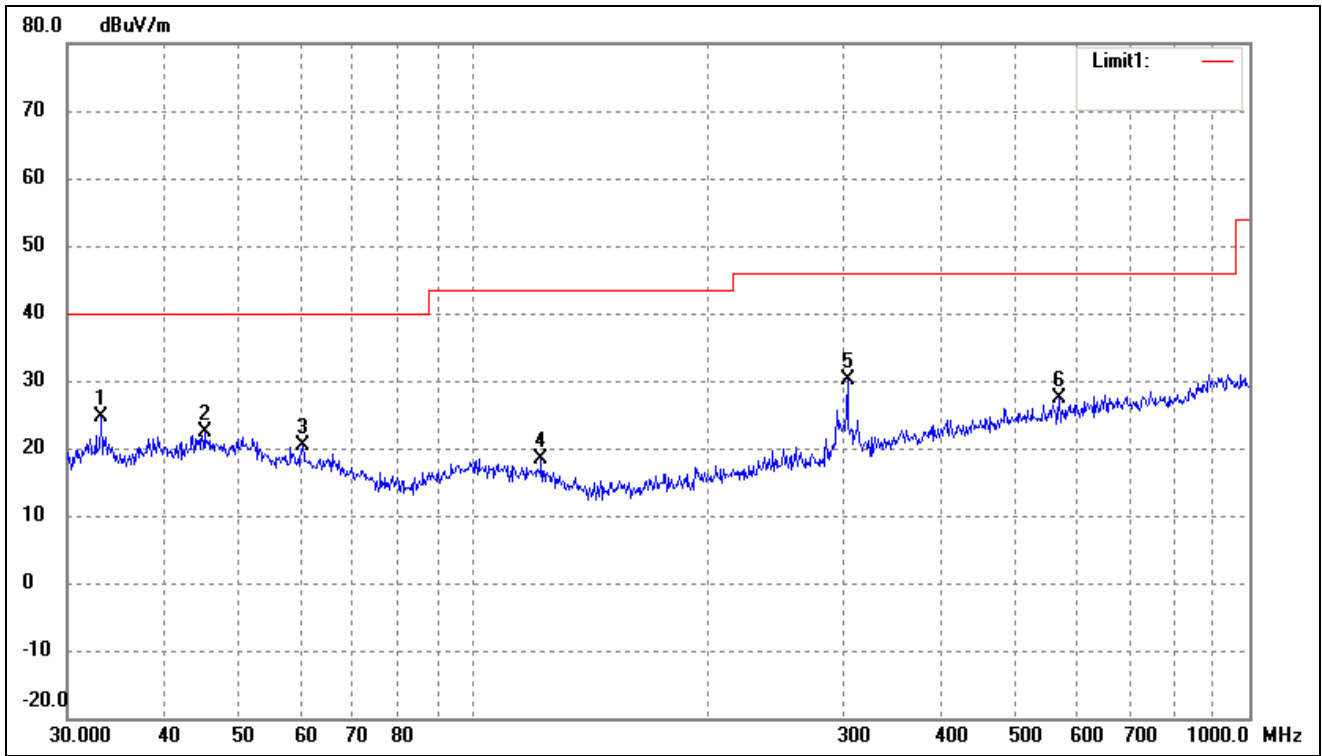
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.5 Summary of Test Results/Plots

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

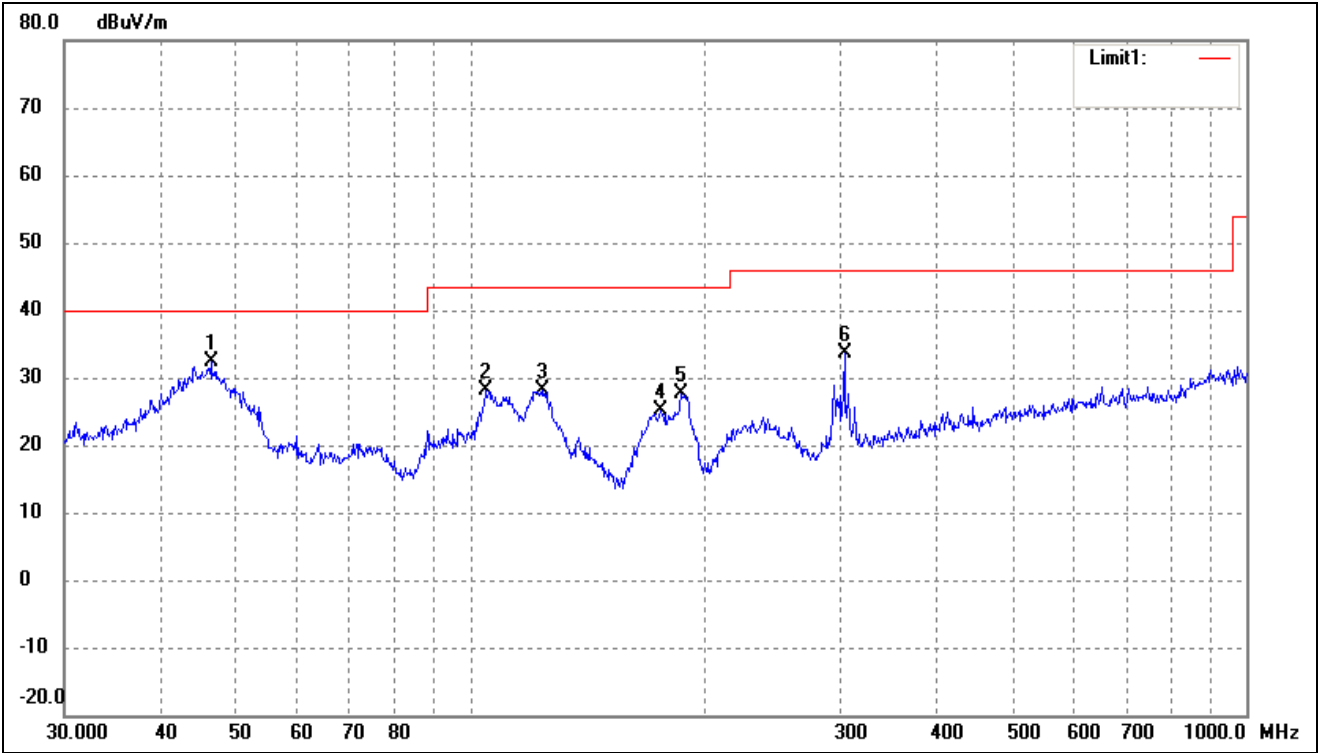
- Spurious Emission From 30 MHz to 1 GHz
- 5150-5250MHz

802.11a			
Test Channel	5180MHz(Worst case)	Polarity:	Horizontal



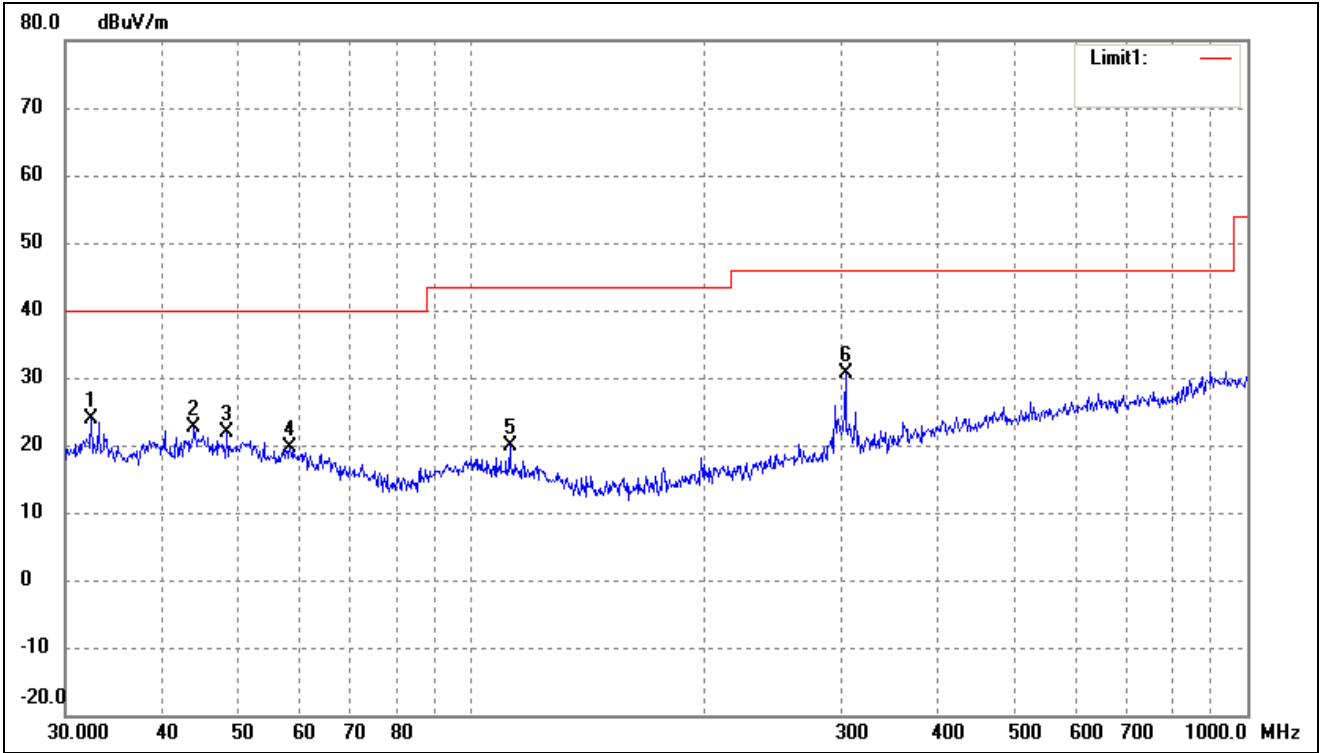
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.2112	38.62	-13.97	24.65	40.00	-15.35	-	-	peak
2	45.0583	34.27	-11.80	22.47	40.00	-17.53	-	-	peak
3	60.2801	33.30	-13.04	20.26	40.00	-19.74	-	-	peak
4	122.4040	33.40	-14.93	18.47	43.50	-25.03	-	-	peak
5	303.5437	39.16	-8.92	30.24	46.00	-15.76	-	-	peak
6	568.6127	30.18	-2.88	27.30	46.00	-18.70	-	-	peak

802.11a			
Test Channel	5180MHz(Worst case)	Polarity:	Vertical



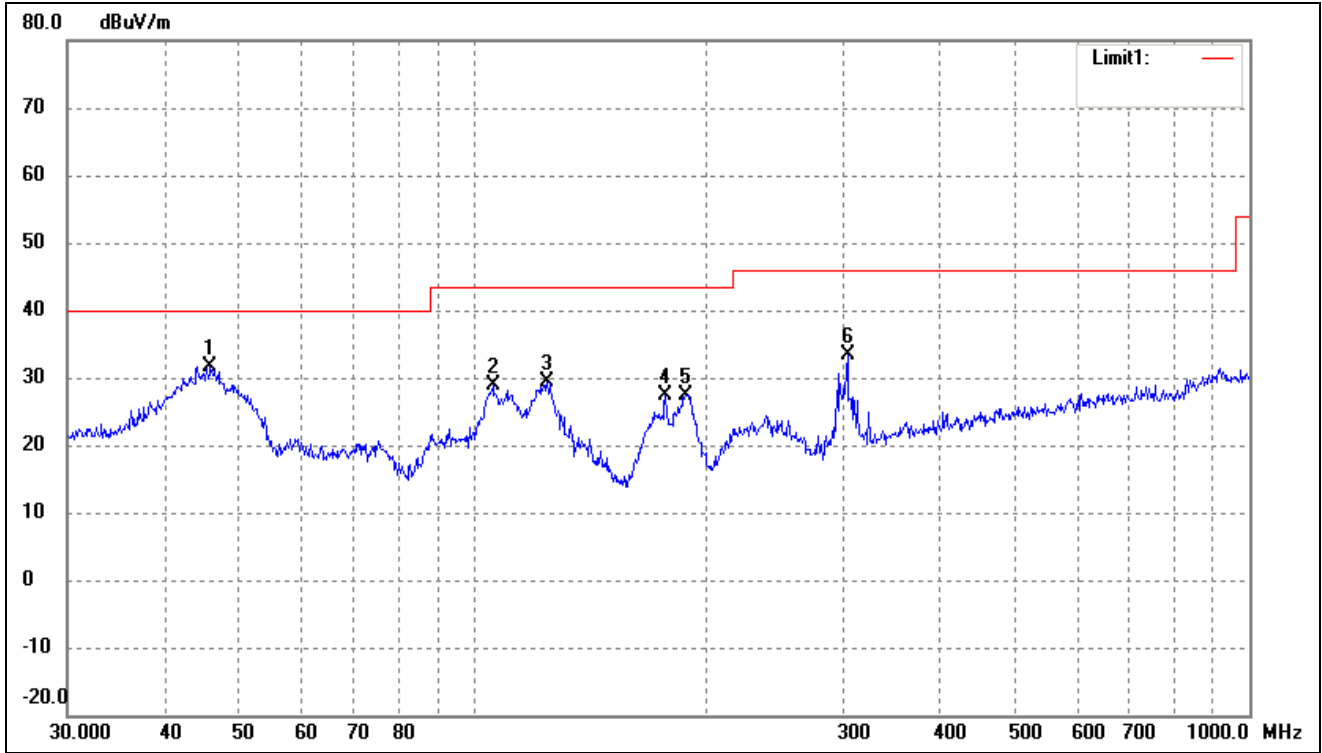
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	46.3402	43.99	-11.73	32.26	40.00	-7.74	-	-	peak
2	104.9033	41.55	-13.32	28.23	43.50	-15.27	-	-	peak
3	124.1330	43.53	-15.40	28.13	43.50	-15.37	-	-	peak
4	176.2686	39.65	-14.57	25.08	43.50	-18.42	-	-	peak
5	187.0958	41.01	-13.46	27.55	43.50	-15.95	-	-	peak
6	303.5437	42.66	-8.92	33.74	46.00	-12.26	-	-	peak

802.11n-HT20			
Test Channel	5180MHz(worst case)	Polarity:	Horizontal



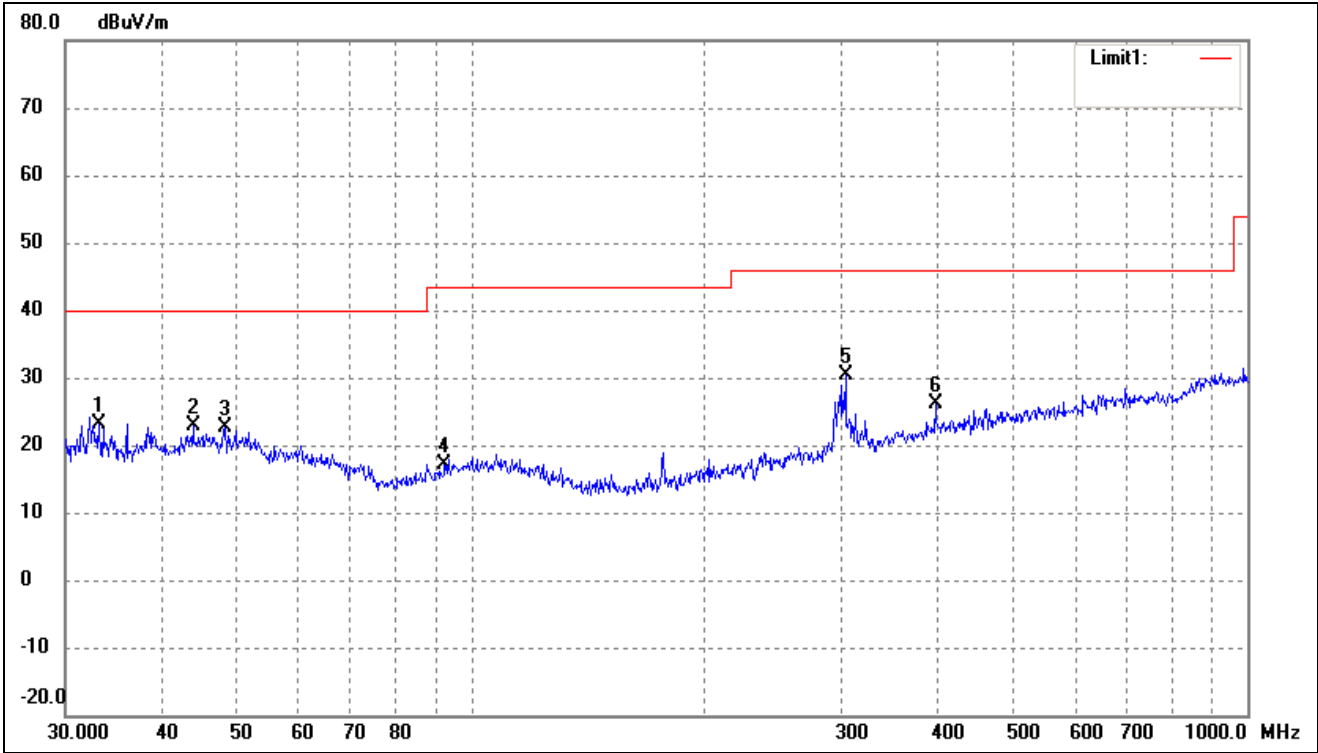
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.4059	37.86	-14.02	23.84	40.00	-16.16	-	-	peak
2	43.9658	34.54	-11.83	22.71	40.00	-17.29	-	-	peak
3	48.5016	33.48	-11.61	21.87	40.00	-18.13	-	-	peak
4	58.4074	32.51	-12.98	19.53	40.00	-20.47	-	-	peak
5	112.1305	33.41	-13.52	19.89	43.50	-23.61	-	-	peak
6	303.5437	39.44	-8.92	30.52	46.00	-15.48	-	-	peak

802.11n-HT20			
Test Channel	5180MHz(worst case)	Polarity:	Vertical



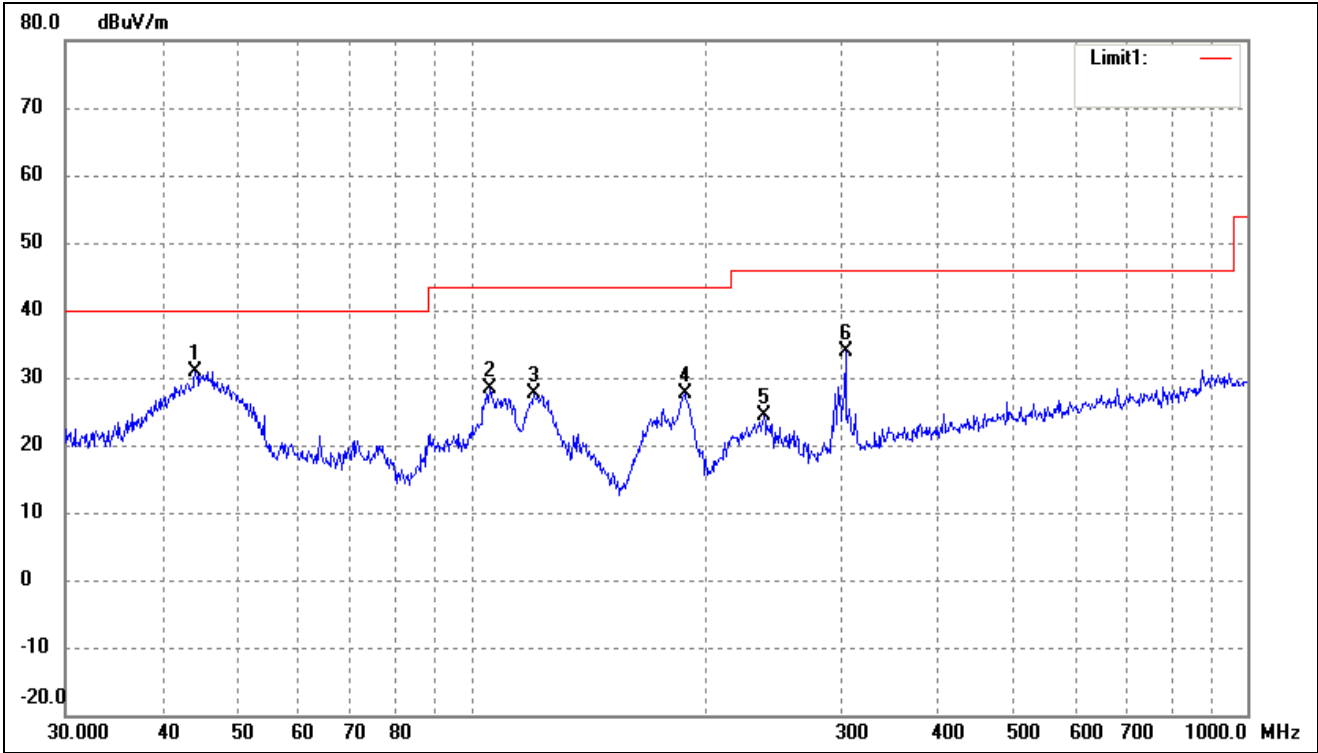
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.8553	43.42	-11.75	31.67	40.00	-8.33	-	-	peak
2	106.0126	42.26	-13.31	28.95	43.50	-14.55	-	-	peak
3	124.5690	44.89	-15.52	29.37	43.50	-14.13	-	-	peak
4	176.8878	41.92	-14.54	27.38	43.50	-16.12	-	-	peak
5	187.7530	40.86	-13.39	27.47	43.50	-16.03	-	-	peak
6	303.5437	42.28	-8.92	33.36	46.00	-12.64	-	-	peak

802.11n-HT40			
Test Channel	5190MHz(worst case)	Polarity:	Horizontal



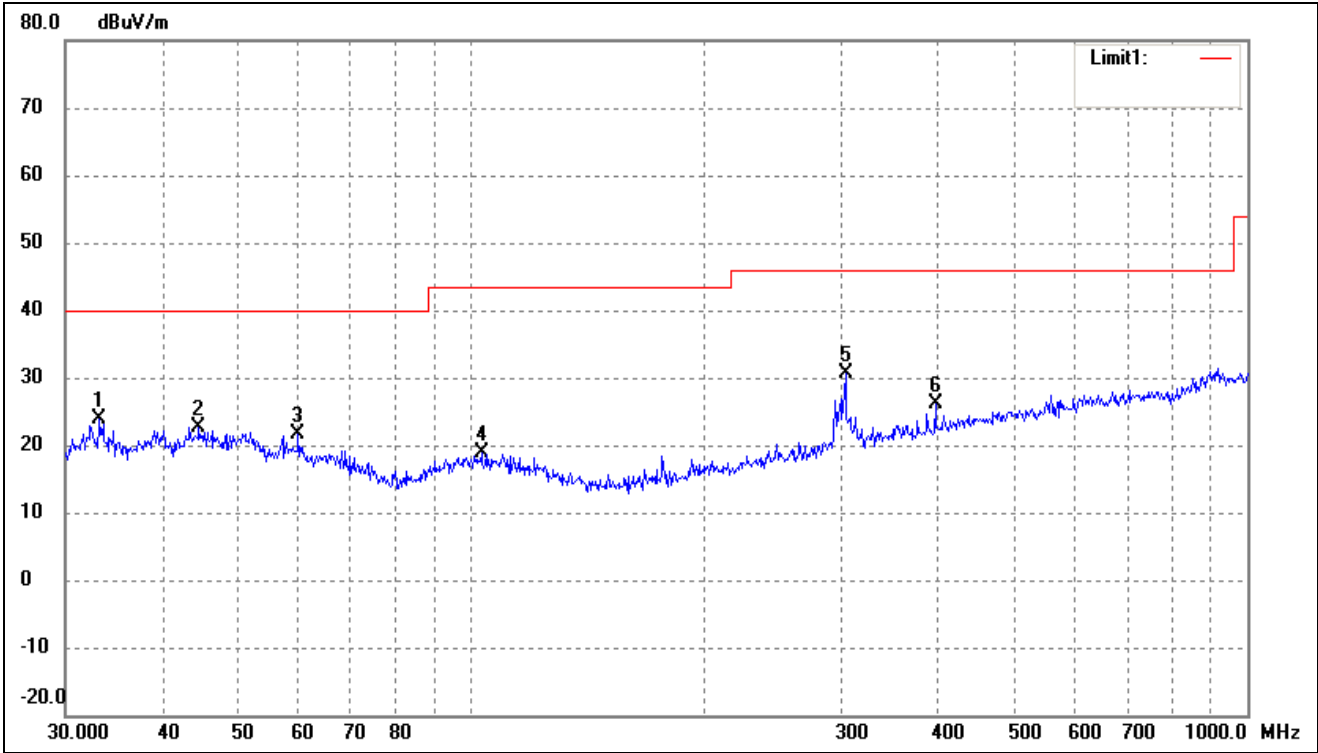
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.0950	37.15	-13.98	23.17	40.00	-16.83	-	-	peak
2	43.8119	34.69	-11.84	22.85	40.00	-17.15	-	-	peak
3	48.1626	34.19	-11.63	22.56	40.00	-17.44	-	-	peak
4	92.4624	31.59	-14.56	17.03	43.50	-26.47	-	-	peak
5	303.5437	39.35	-8.92	30.43	46.00	-15.57	-	-	peak
6	396.2415	32.75	-6.57	26.18	46.00	-19.82	-	-	peak

802.11n-HT40			
Test Channel	5190MHz(worst case)	Polarity:	Vertical



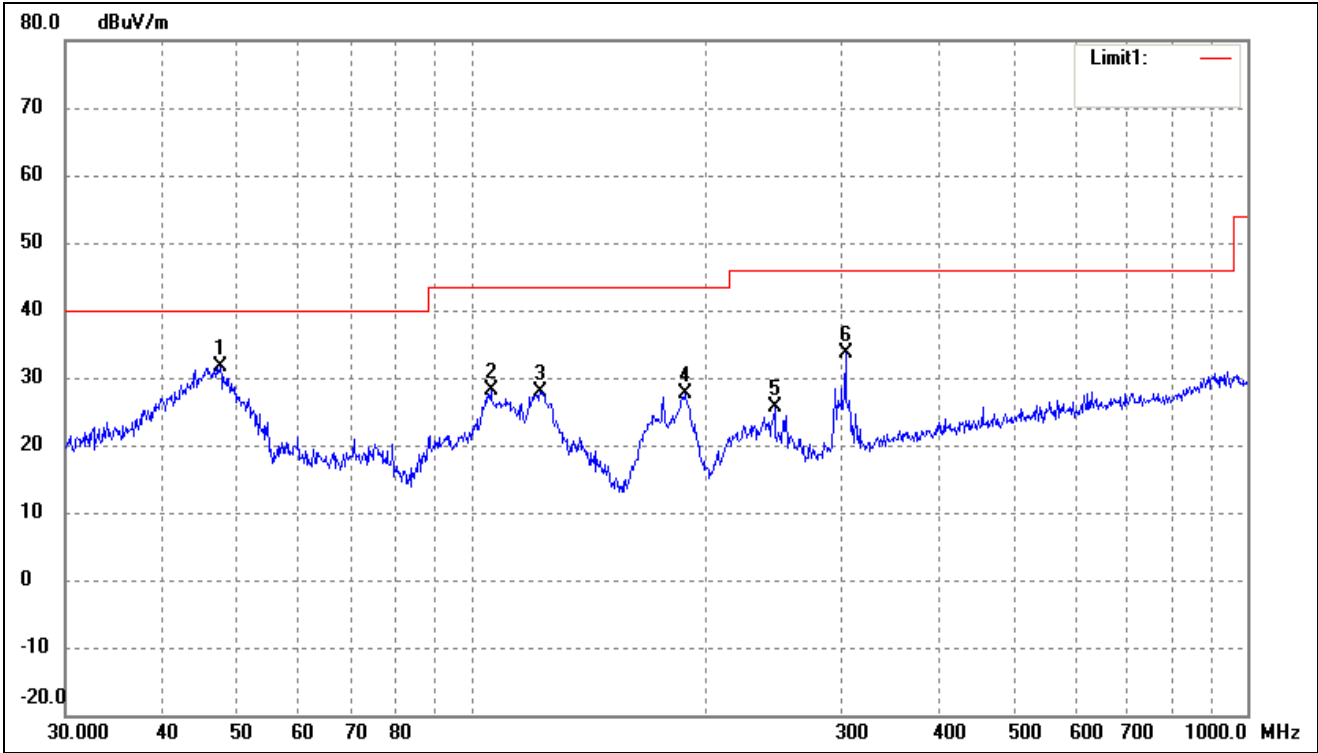
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	42.74	-11.84	30.90	40.00	-9.10	-	-	peak
2	105.6415	41.76	-13.31	28.45	43.50	-15.05	-	-	peak
3	120.2766	42.09	-14.38	27.71	43.50	-15.79	-	-	peak
4	188.4125	40.90	-13.30	27.60	43.50	-15.90	-	-	peak
5	238.3102	35.96	-11.50	24.46	46.00	-21.54	-	-	peak
6	303.5437	42.87	-8.92	33.95	46.00	-12.05	-	-	peak

802.11ac-HT80			
Test Channel	5210MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.2112	37.92	-13.97	23.95	40.00	-16.05	-	-	peak
2	44.5868	34.39	-11.82	22.57	40.00	-17.43	-	-	peak
3	59.8588	34.72	-12.99	21.73	40.00	-18.27	-	-	peak
4	103.0800	32.17	-13.32	18.85	43.50	-24.65	-	-	peak
5	303.5437	39.54	-8.92	30.62	46.00	-15.38	-	-	peak
6	396.2415	32.63	-6.57	26.06	46.00	-19.94	-	-	peak

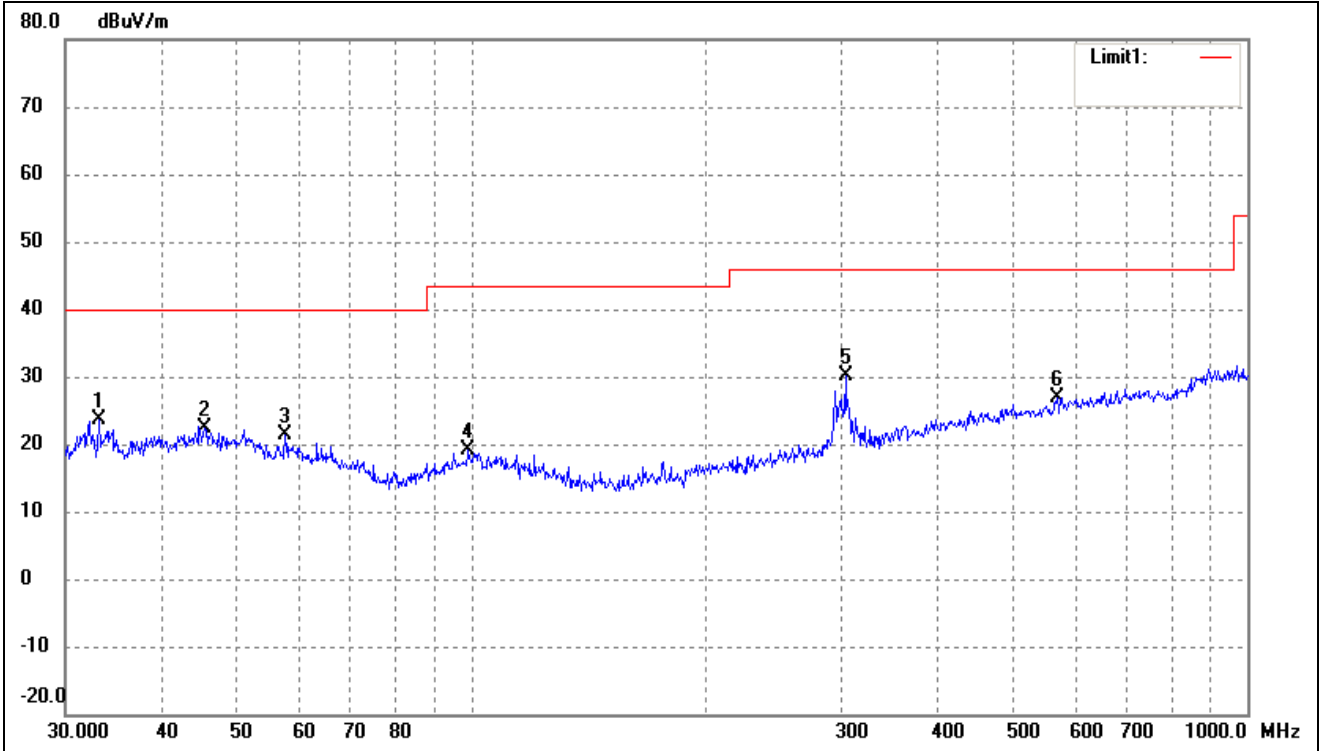
802.11ac-HT80			
Test Channel	5210MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.4918	43.34	-11.66	31.68	40.00	-8.32	-	-	peak
2	106.0126	41.50	-13.31	28.19	43.50	-15.31	-	-	peak
3	122.8340	42.98	-15.05	27.93	43.50	-15.57	-	-	peak
4	188.4125	40.86	-13.30	27.56	43.50	-15.94	-	-	peak
5	245.9509	36.67	-11.13	25.54	46.00	-20.46	-	-	peak
6	303.5437	42.45	-8.92	33.53	46.00	-12.47	-	-	peak

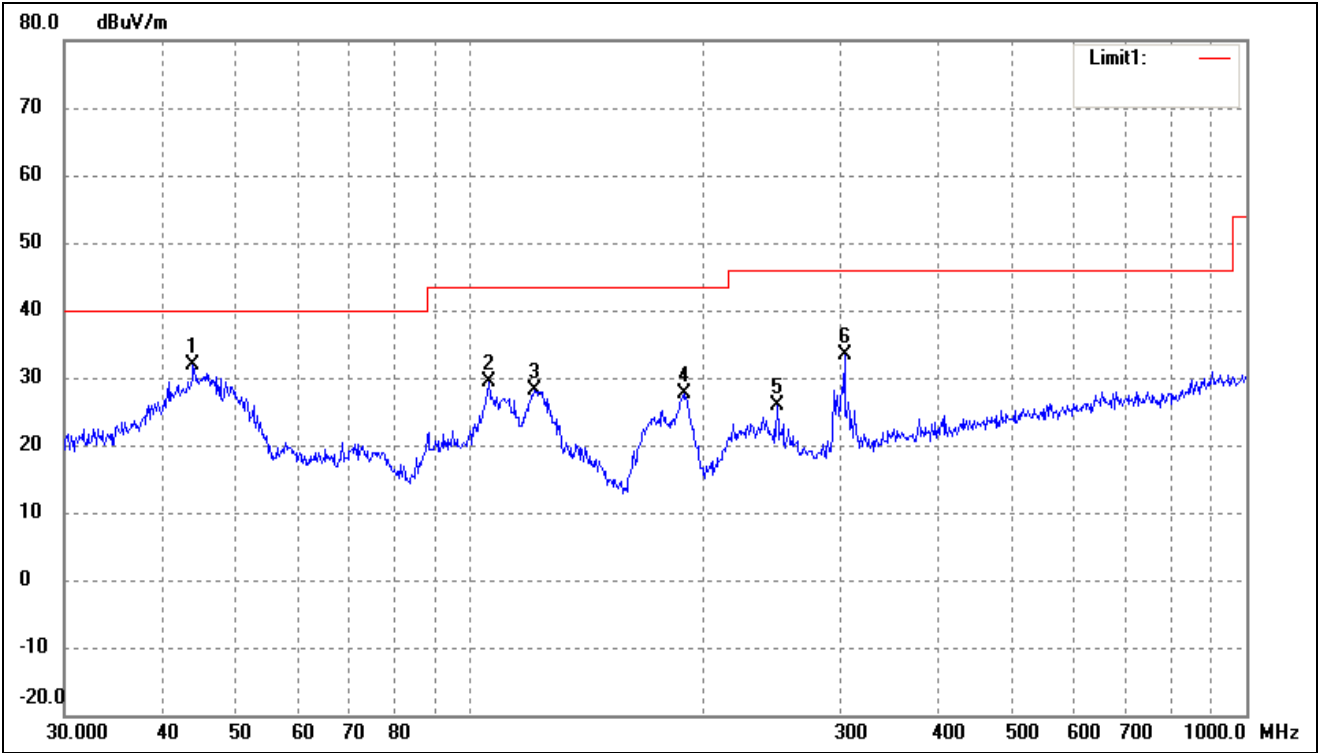
➤ 5250-5350MHz

802.11a			
Test Channel	5260MHz	Polarity:	Horizontal



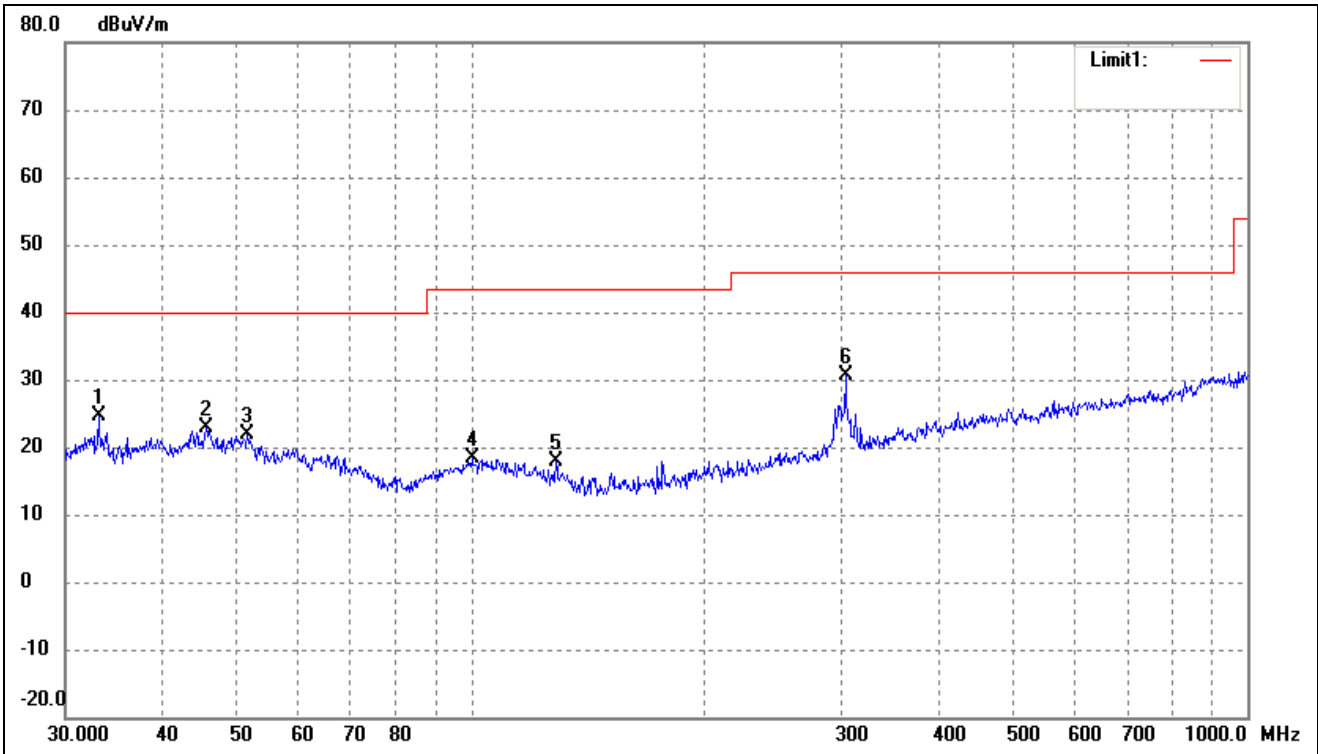
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.2112	37.50	-13.97	23.53	40.00	-16.47	-	-	peak
2	45.3755	34.23	-11.78	22.45	40.00	-17.55	-	-	peak
3	57.5939	34.45	-12.97	21.48	40.00	-18.52	-	-	peak
4	99.1797	32.49	-13.45	19.04	43.50	-24.46	-	-	peak
5	303.5437	38.99	-8.92	30.07	46.00	-15.93	-	-	peak
6	568.6127	29.84	-2.88	26.96	46.00	-19.04	-	-	peak

802.11a			
Test Channel	5260MHz(worst case)	Polarity:	Vertical



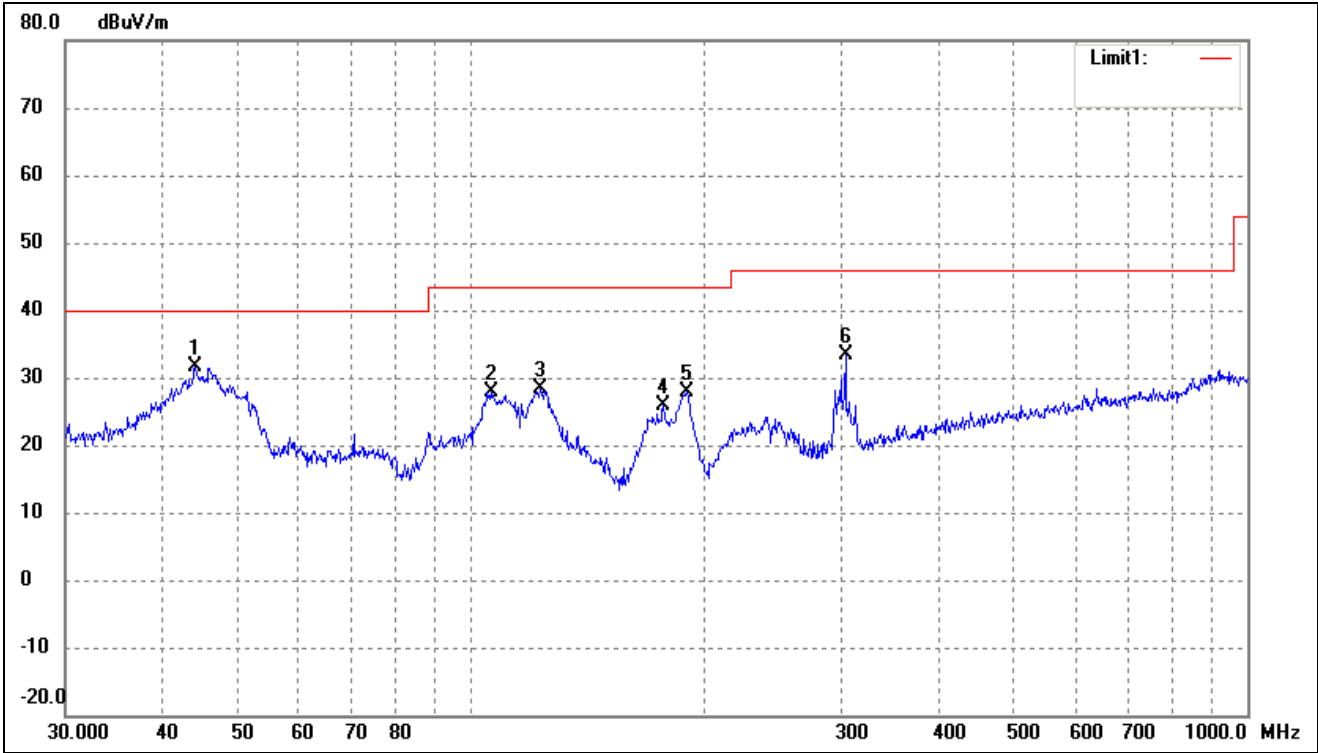
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.9658	43.67	-11.83	31.84	40.00	-8.16	-	-	peak
2	105.6415	42.70	-13.31	29.39	43.50	-14.11	-	-	peak
3	121.1231	42.77	-14.59	28.18	43.50	-15.32	-	-	peak
4	188.4125	40.87	-13.30	27.57	43.50	-15.93	-	-	peak
5	248.5519	36.98	-10.99	25.99	46.00	-20.01	-	-	peak
6	303.5437	42.26	-8.92	33.34	46.00	-12.66	-	-	peak

802.11a			
Test Channel	5260MHz(worst case)	Polarity:	Horizontal



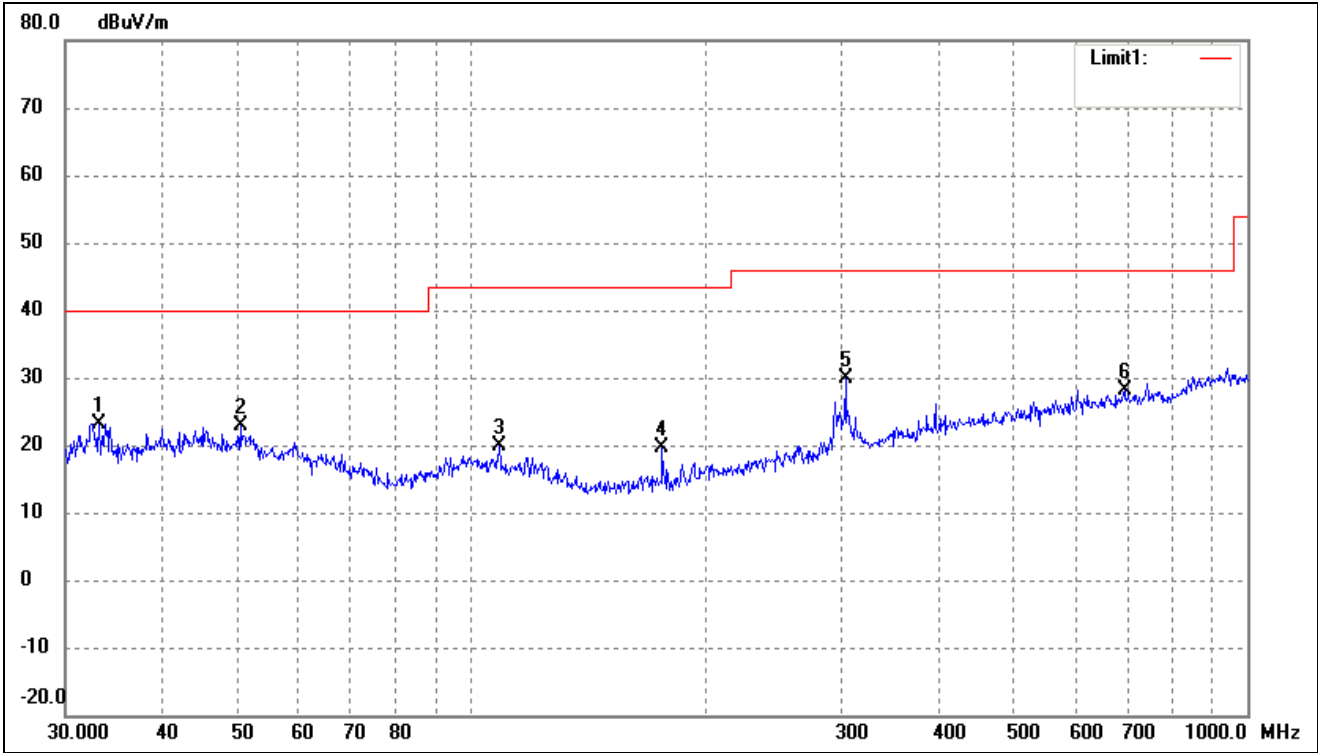
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.0950	38.67	-13.98	24.69	40.00	-15.31	-	-	peak
2	45.5348	34.75	-11.77	22.98	40.00	-17.02	-	-	peak
3	51.4807	33.81	-11.96	21.85	40.00	-18.15	-	-	peak
4	100.2286	31.67	-13.32	18.35	43.50	-25.15	-	-	peak
5	128.5630	34.34	-16.58	17.76	43.50	-25.74	-	-	peak
6	303.5437	39.58	-8.92	30.66	46.00	-15.34	-	-	peak

802.11n-HT20			
Test Channel	5260MHz(worst case)	Polarity:	Horizontal



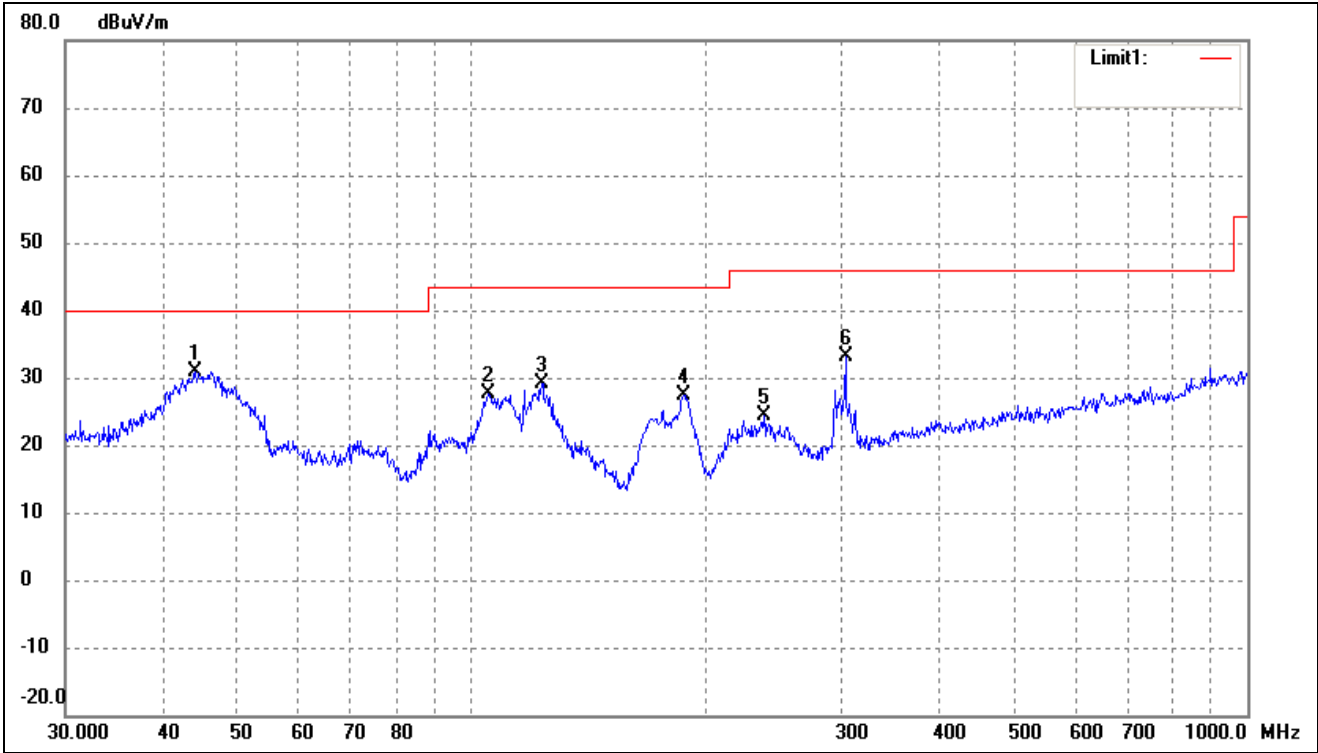
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	43.49	-11.84	31.65	40.00	-8.35	-	-	peak
2	106.0126	41.11	-13.31	27.80	43.50	-15.70	-	-	peak
3	122.8340	43.51	-15.05	28.46	43.50	-15.04	-	-	peak
4	176.8878	40.50	-14.54	25.96	43.50	-17.54	-	-	peak
5	189.7385	40.93	-13.15	27.78	43.50	-15.72	-	-	peak
6	303.5437	42.19	-8.92	33.27	46.00	-12.73	-	-	peak

802.11n-HT40			
Test Channel	5270MHz(worst case)	Polarity:	Horizontal



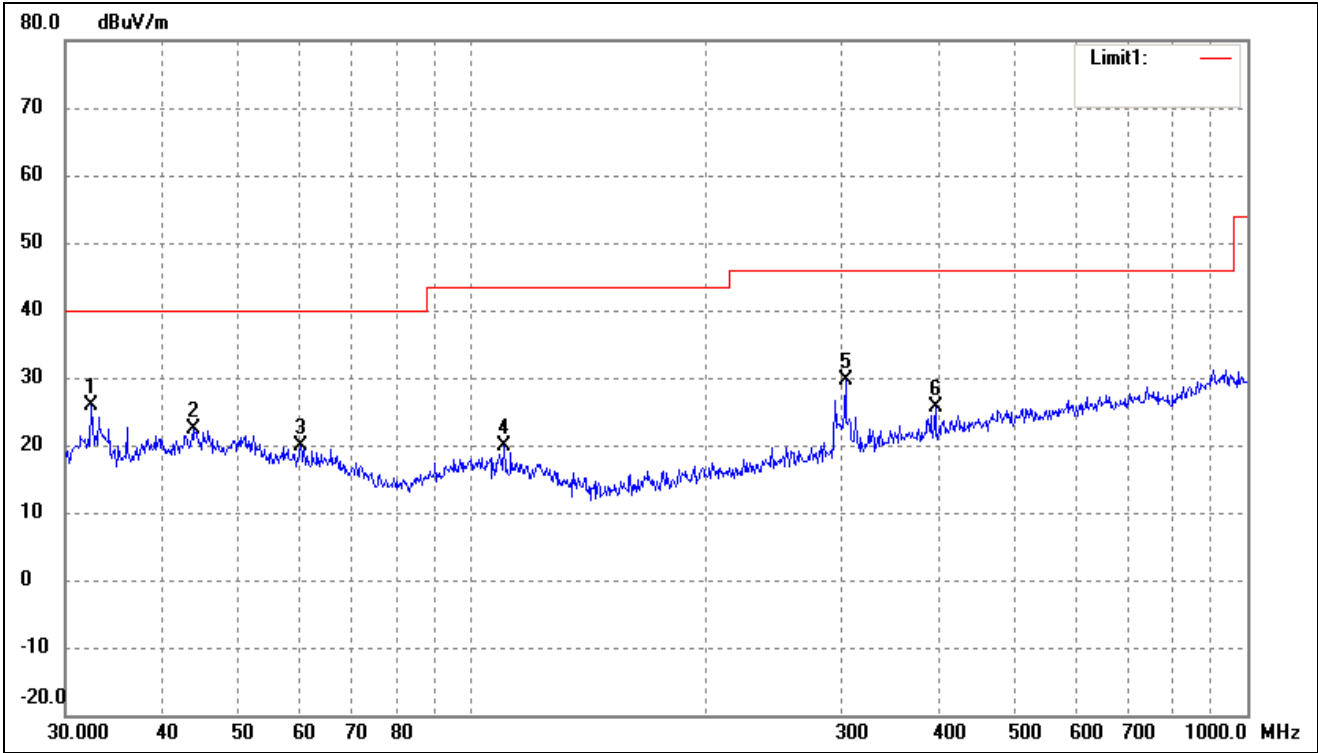
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.0950	37.21	-13.98	23.23	40.00	-16.77	-	-	peak
2	50.4089	34.49	-11.65	22.84	40.00	-17.16	-	-	peak
3	108.6470	33.16	-13.31	19.85	43.50	-23.65	-	-	peak
4	176.2686	34.22	-14.57	19.65	43.50	-23.85	-	-	peak
5	303.5437	38.84	-8.92	29.92	46.00	-16.08	-	-	peak
6	694.4174	30.09	-1.87	28.22	46.00	-17.78	-	-	peak

802.11n-HT40			
Test Channel	5270MHz(worst case)	Polarity:	Vertical



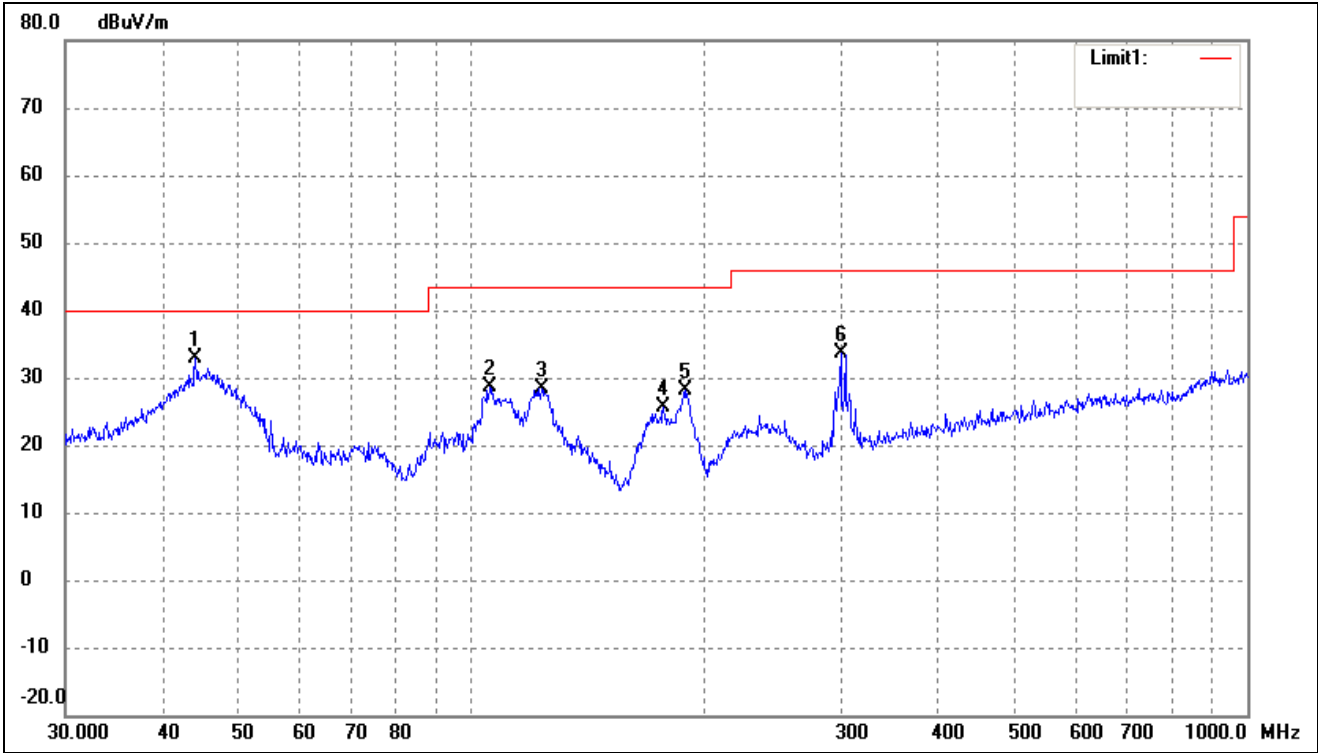
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	42.68	-11.84	30.84	40.00	-9.16	-	-	peak
2	105.2718	40.91	-13.32	27.59	43.50	-15.91	-	-	peak
3	123.2655	44.19	-15.17	29.02	43.50	-14.48	-	-	peak
4	187.7530	40.71	-13.39	27.32	43.50	-16.18	-	-	peak
5	238.3102	35.83	-11.50	24.33	46.00	-21.67	-	-	peak
6	303.5437	41.94	-8.92	33.02	46.00	-12.98	-	-	peak

802.11ac-HT80			
Test Channel	5290MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.4059	39.82	-14.02	25.80	40.00	-14.20	-	-	peak
2	43.9658	34.14	-11.83	22.31	40.00	-17.69	-	-	peak
3	60.2801	32.80	-13.04	19.76	40.00	-20.24	-	-	peak
4	110.1816	33.26	-13.32	19.94	43.50	-23.56	-	-	peak
5	303.5437	38.65	-8.92	29.73	46.00	-16.27	-	-	peak
6	396.2415	32.17	-6.57	25.60	46.00	-20.40	-	-	peak

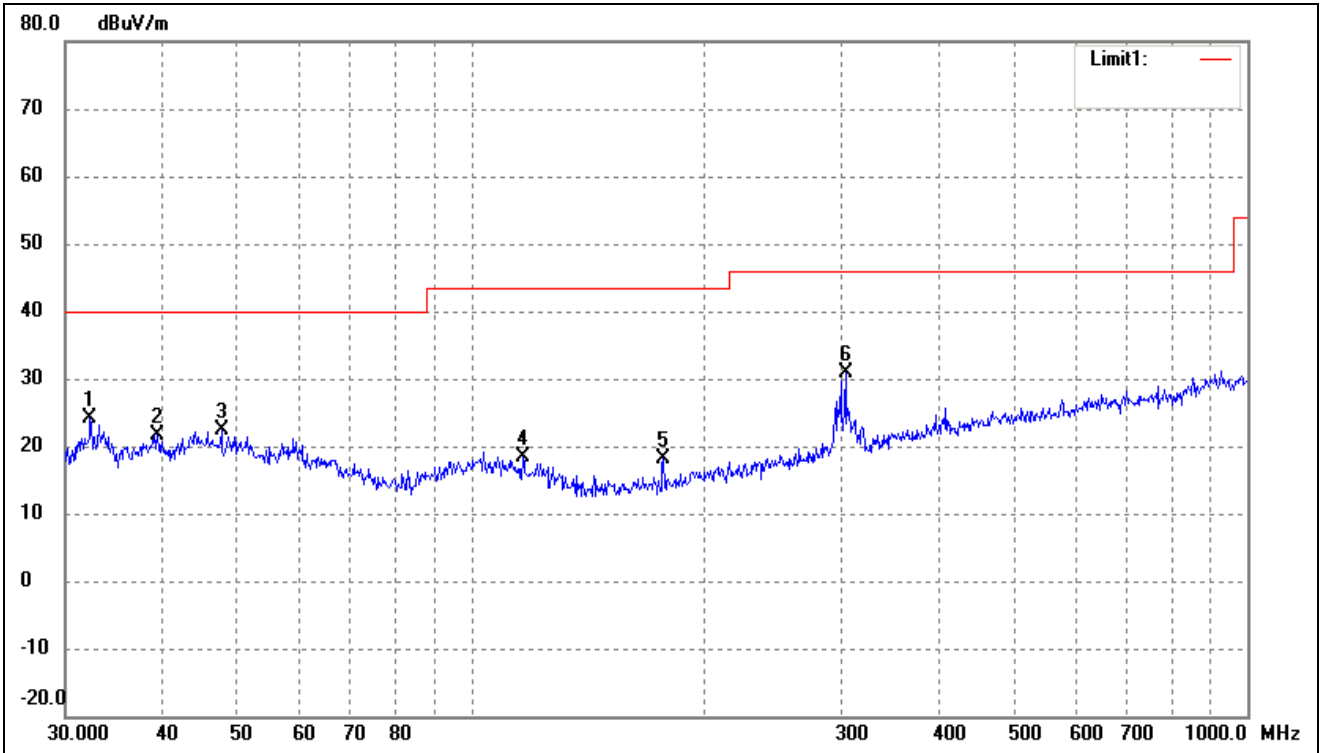
802.11ac-HT80			
Test Channel	5290MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	44.62	-11.84	32.78	40.00	-7.22	-	-	peak
2	105.6415	41.82	-13.31	28.51	43.50	-14.99	-	-	peak
3	123.2655	43.59	-15.17	28.42	43.50	-15.08	-	-	peak
4	176.8878	40.06	-14.54	25.52	43.50	-17.98	-	-	peak
5	189.0743	41.41	-13.22	28.19	43.50	-15.31	-	-	peak
6	299.3158	42.67	-8.96	33.71	46.00	-12.29	-	-	peak

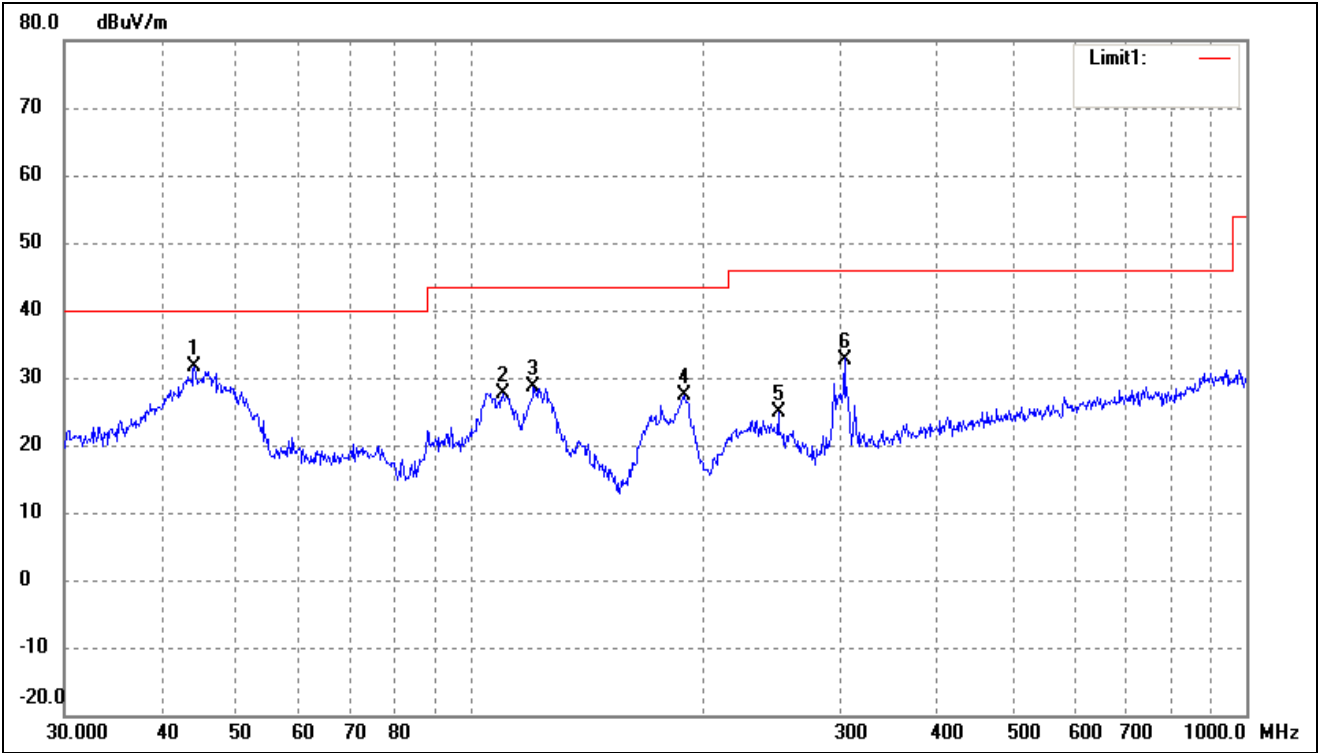
➤ 5470-5725MHz

802.11a			
Test Channel	5500MHz(worst case)	Polarity:	Horizontal



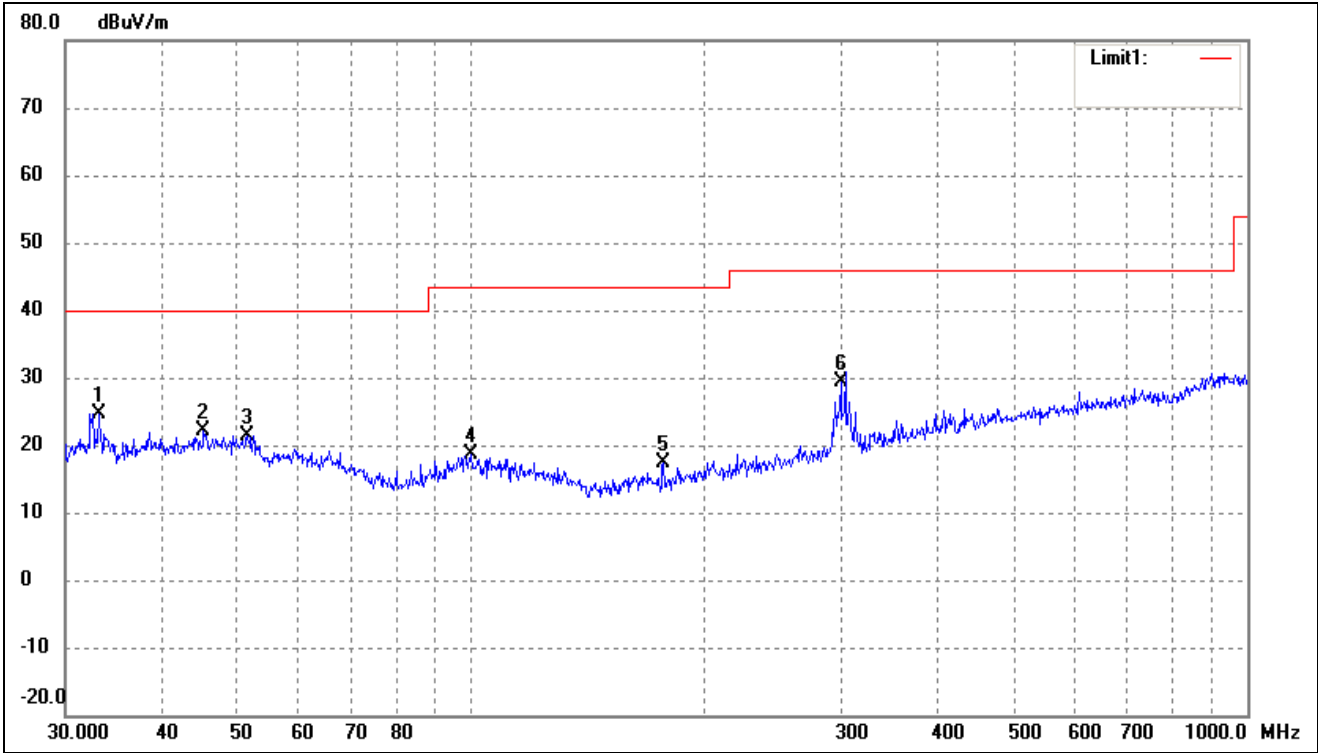
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.2925	38.14	-14.03	24.11	40.00	-15.89	-	-	peak
2	39.4372	33.78	-12.19	21.59	40.00	-18.41	-	-	peak
3	47.6586	34.08	-11.65	22.43	40.00	-17.57	-	-	peak
4	116.5401	32.44	-13.96	18.48	43.50	-25.02	-	-	peak
5	176.8878	32.62	-14.54	18.08	43.50	-25.42	-	-	peak
6	303.5437	39.87	-8.92	30.95	46.00	-15.05	-	-	peak

802.11a			
Test Channel	5500MHz(worst case)	Polarity:	Vertical



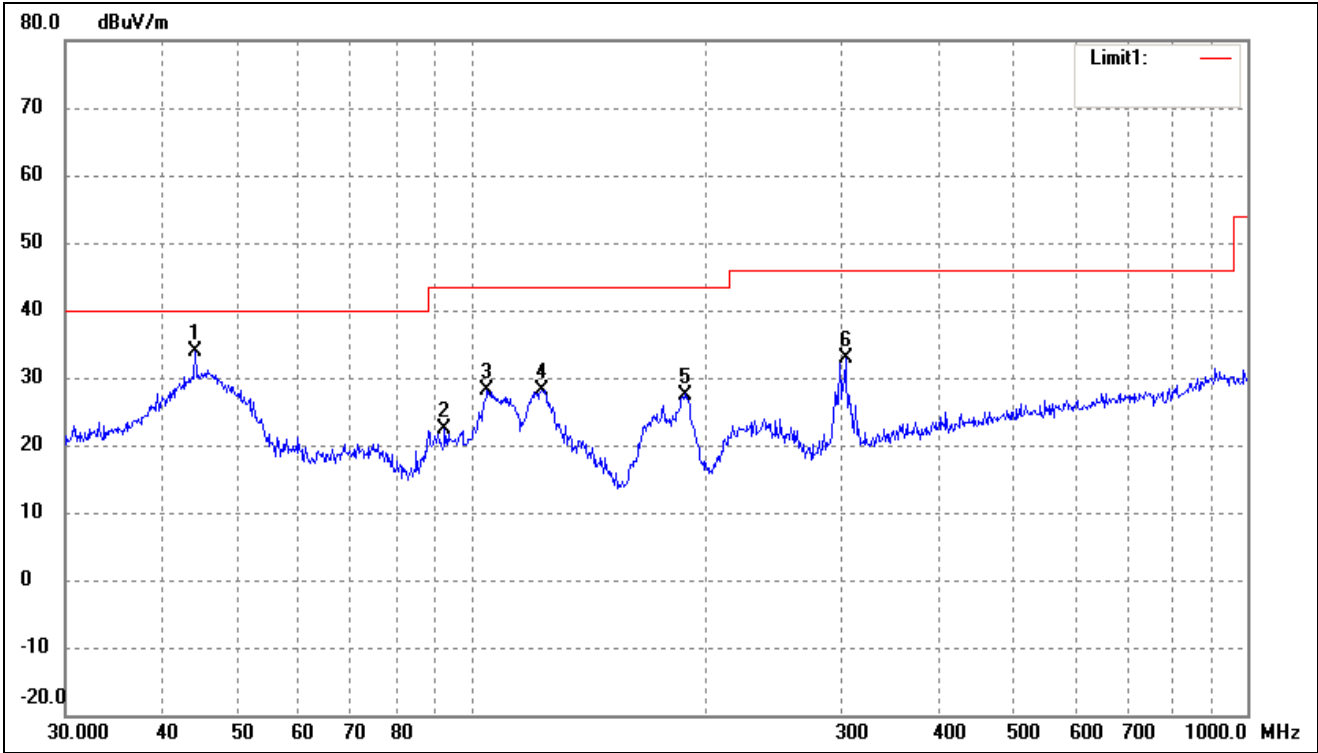
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	43.37	-11.84	31.53	40.00	-8.47	-	-	peak
2	110.1816	41.05	-13.32	27.73	43.50	-15.77	-	-	peak
3	120.6991	43.11	-14.50	28.61	43.50	-14.89	-	-	peak
4	189.0743	40.72	-13.22	27.50	43.50	-16.00	-	-	peak
5	249.4250	35.94	-10.96	24.98	46.00	-21.02	-	-	peak
6	303.5437	41.67	-8.92	32.75	46.00	-13.25	-	-	peak

802.11n-HT20			
Test Channel	5500MHz(worst case)	Polarity:	Horizontal



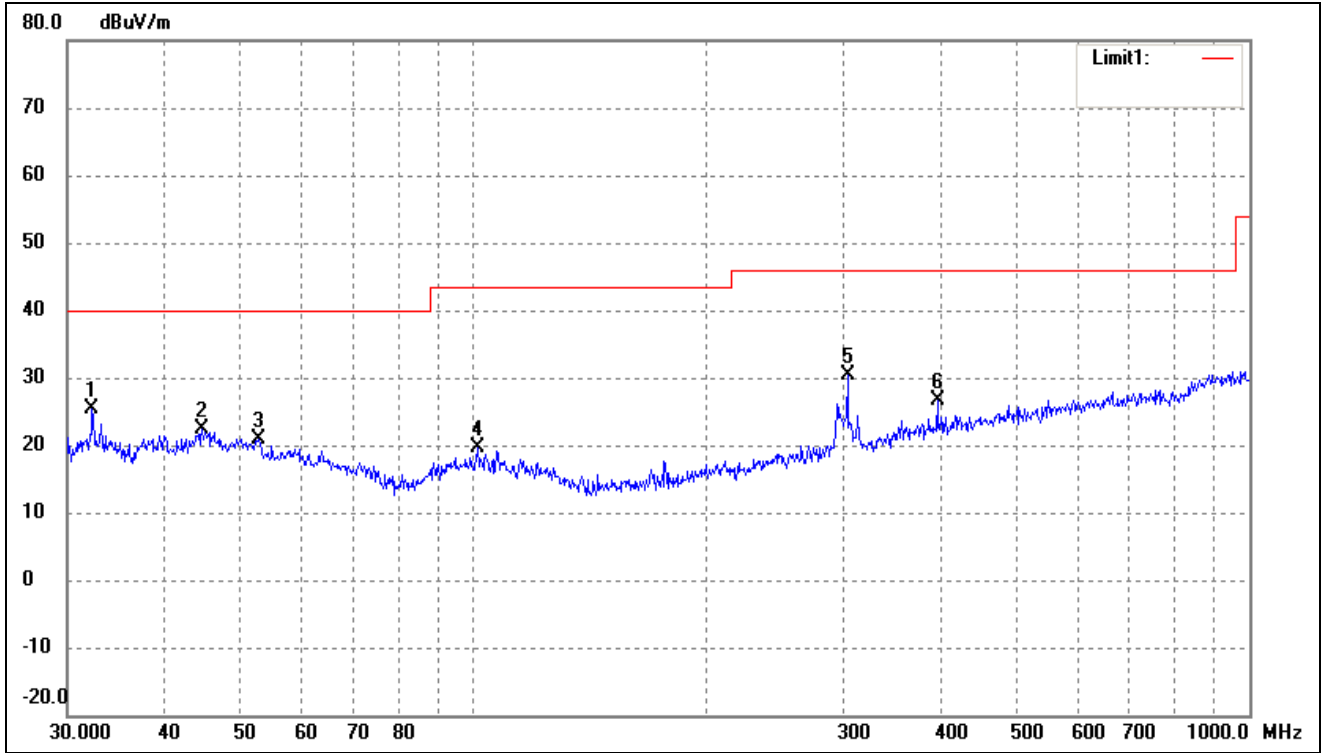
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.0950	38.69	-13.98	24.71	40.00	-15.29	-	-	peak
2	45.2166	34.03	-11.79	22.24	40.00	-17.76	-	-	peak
3	51.4807	33.39	-11.96	21.43	40.00	-18.57	-	-	peak
4	99.8777	31.93	-13.34	18.59	43.50	-24.91	-	-	peak
5	176.8878	31.98	-14.54	17.44	43.50	-26.06	-	-	peak
6	299.3158	38.27	-8.96	29.31	46.00	-16.69	-	-	peak

802.11n-HT20			
Test Channel	5500MHz(worst case)	Polarity:	Vertical



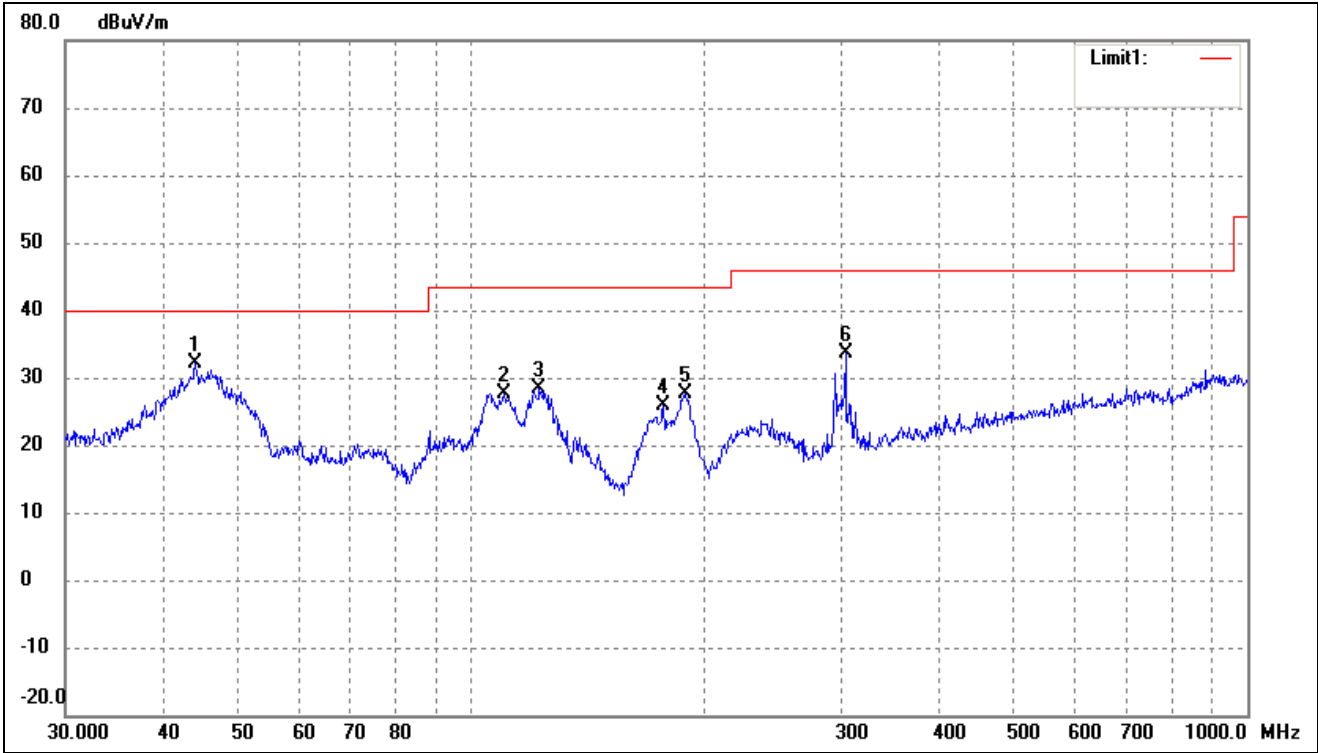
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	45.62	-11.84	33.78	40.00	-6.22	-	-	peak
2	92.4624	36.84	-14.56	22.28	43.50	-21.22	-	-	peak
3	104.9033	41.48	-13.32	28.16	43.50	-15.34	-	-	peak
4	123.2655	43.39	-15.17	28.22	43.50	-15.28	-	-	peak
5	188.4125	40.80	-13.30	27.50	43.50	-16.00	-	-	peak
6	303.5437	41.79	-8.92	32.87	46.00	-13.13	-	-	peak

802.11n-HT40			
Test Channel	5510MHz(worst case)	Polarity:	Horizontal



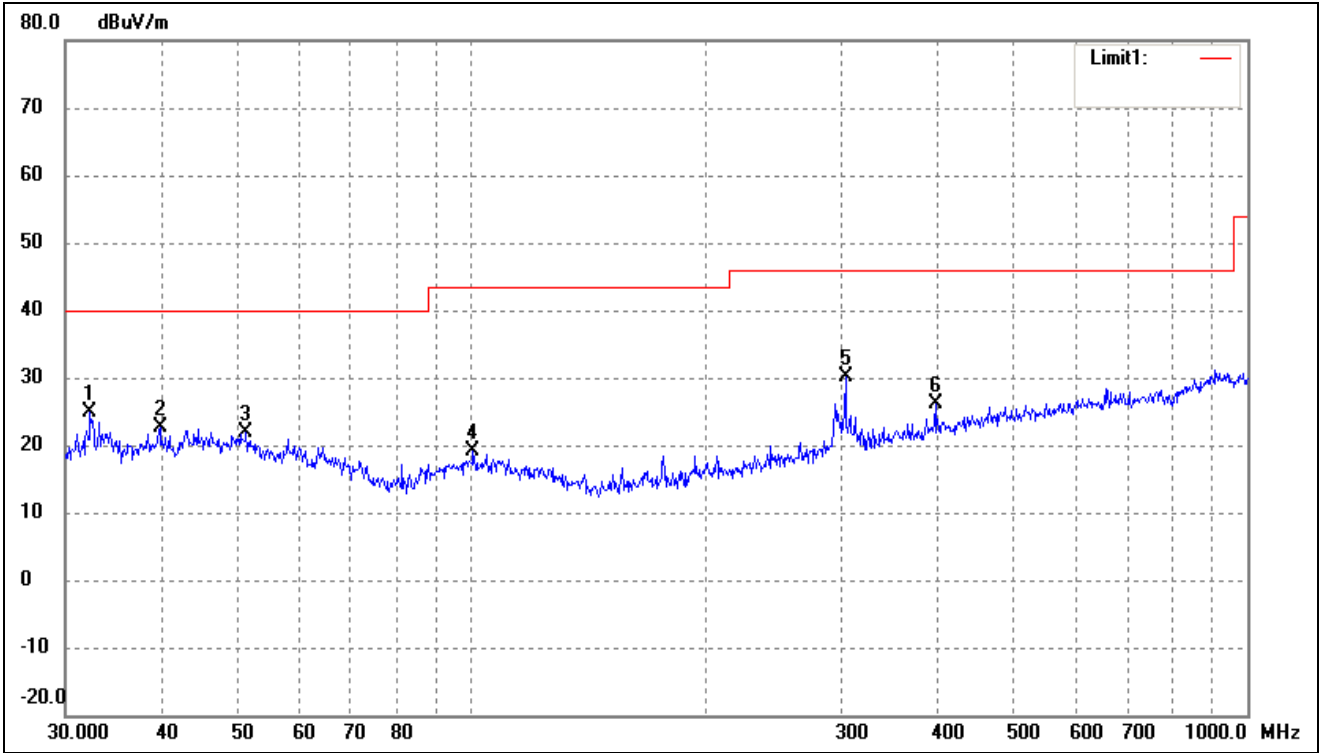
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.2925	39.33	-14.03	25.30	40.00	-14.70	-	-	peak
2	44.7434	34.08	-11.81	22.27	40.00	-17.73	-	-	peak
3	52.9453	33.24	-12.36	20.88	40.00	-19.12	-	-	peak
4	101.2885	32.96	-13.31	19.65	43.50	-23.85	-	-	peak
5	303.5437	39.26	-8.92	30.34	46.00	-15.66	-	-	peak
6	396.2415	33.20	-6.57	26.63	46.00	-19.37	-	-	peak

802.11n-HT40			
Test Channel	5510MHz(worst case)	Polarity:	Vertical



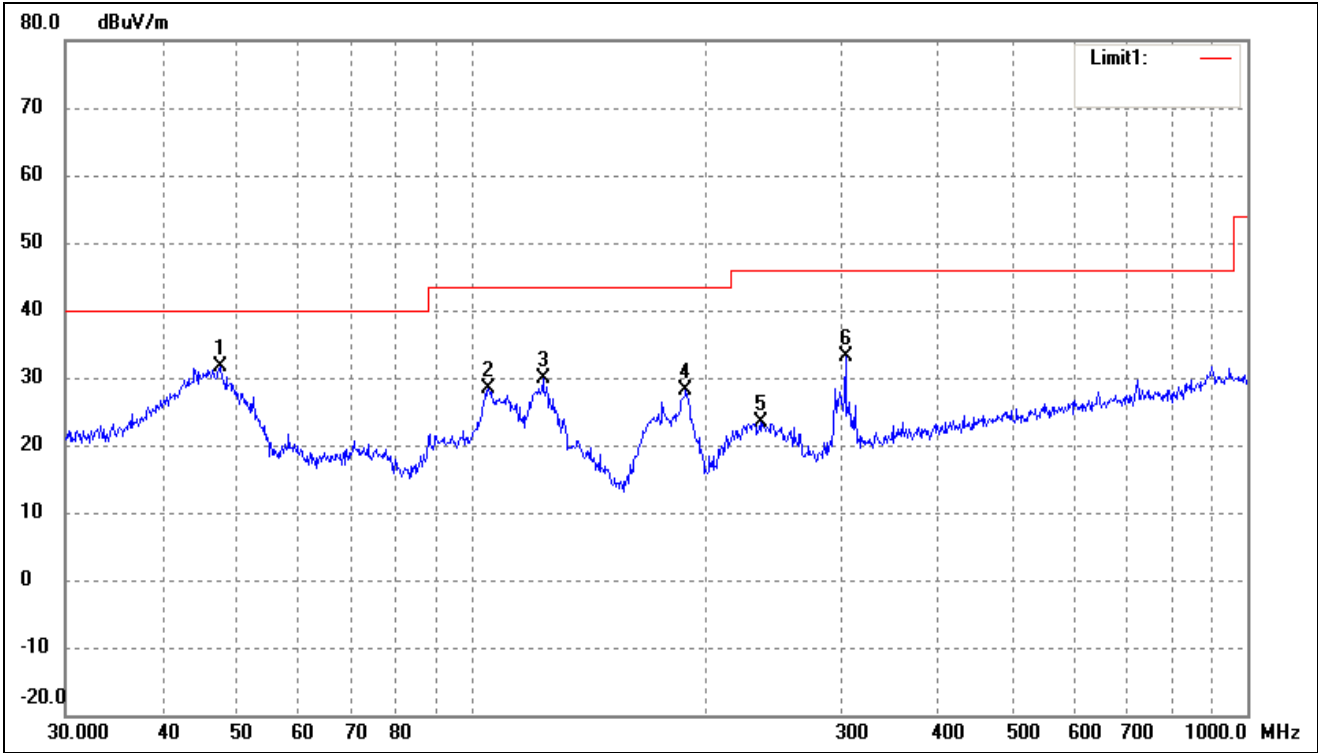
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	44.00	-11.84	32.16	40.00	-7.84	-	-	peak
2	110.1816	41.06	-13.32	27.74	43.50	-15.76	-	-	peak
3	122.4040	43.23	-14.93	28.30	43.50	-15.20	-	-	peak
4	176.8878	40.46	-14.54	25.92	43.50	-17.58	-	-	peak
5	189.0743	40.78	-13.22	27.56	43.50	-15.94	-	-	peak
6	303.5437	42.60	-8.92	33.68	46.00	-12.32	-	-	peak

802.11ac-HT80			
Test Channel	5530MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.2925	38.95	-14.03	24.92	40.00	-15.08	-	-	peak
2	39.7147	34.60	-12.09	22.51	40.00	-17.49	-	-	peak
3	51.3005	33.84	-11.90	21.94	40.00	-18.06	-	-	peak
4	100.5806	32.38	-13.33	19.05	43.50	-24.45	-	-	peak
5	303.5437	39.08	-8.92	30.16	46.00	-15.84	-	-	peak
6	396.2415	32.67	-6.57	26.10	46.00	-19.90	-	-	peak

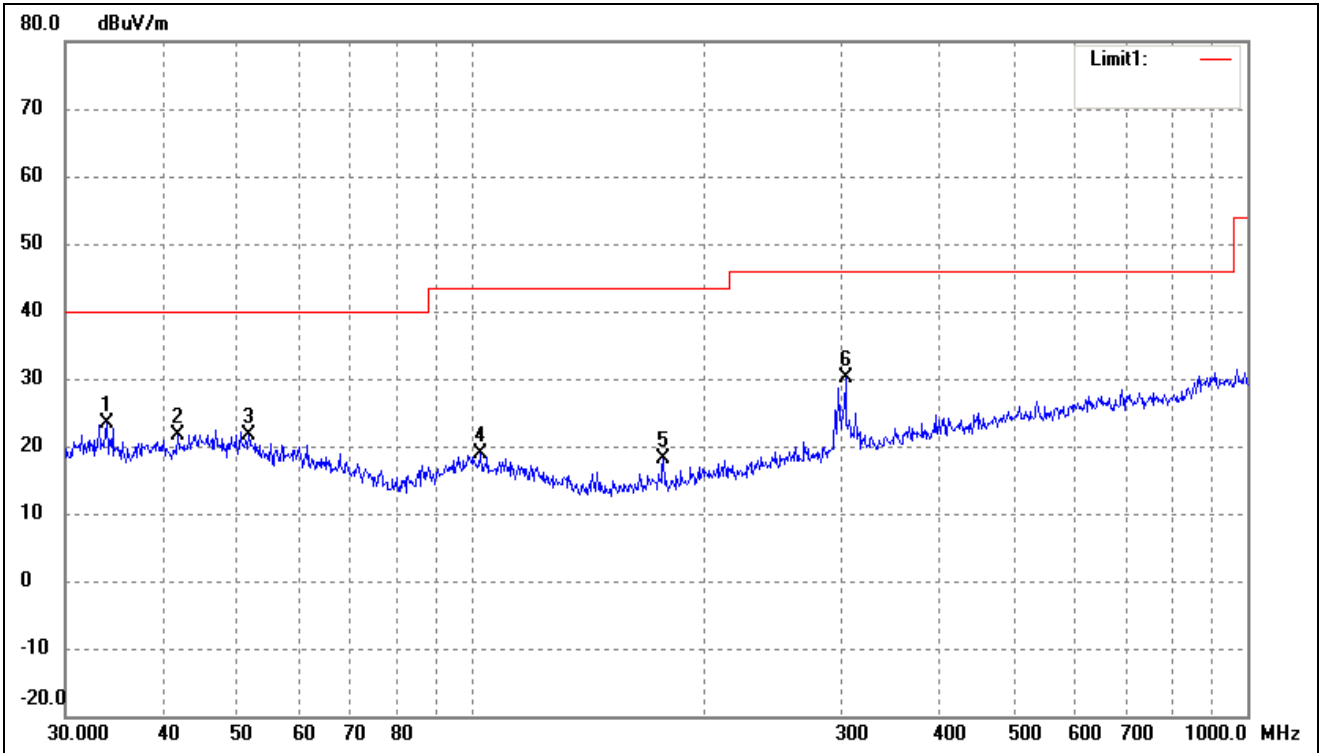
802.11ac-HT80			
Test Channel	5530MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.4918	43.26	-11.66	31.60	40.00	-8.40	-	-	peak
2	105.2718	41.64	-13.32	28.32	43.50	-15.18	-	-	peak
3	123.6985	45.27	-15.30	29.97	43.50	-13.53	-	-	peak
4	189.0743	41.45	-13.22	28.23	43.50	-15.27	-	-	peak
5	235.8164	34.98	-11.62	23.36	46.00	-22.64	-	-	peak
6	303.5437	42.06	-8.92	33.14	46.00	-12.86	-	-	peak

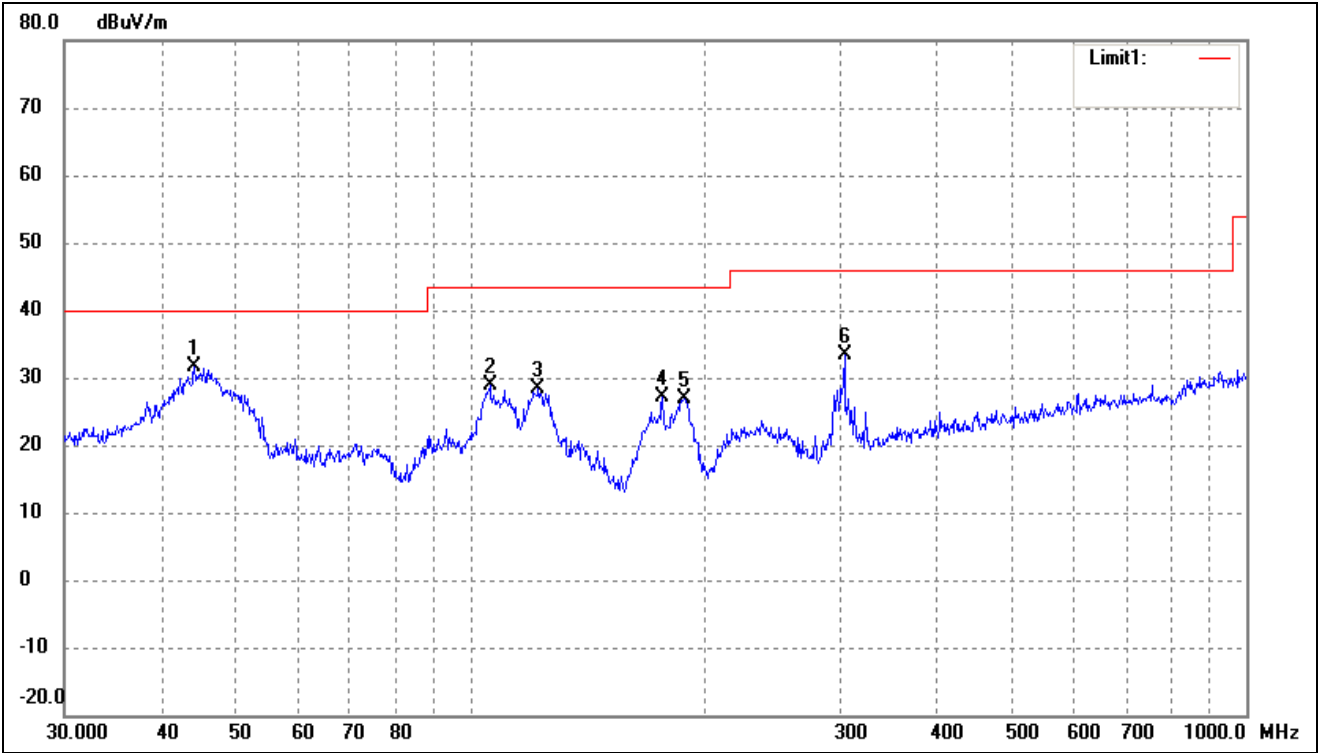
➤ 5725-5850MHz

802.11a			
Test Channel	5745MHz(worst case)	Polarity:	Horizontal



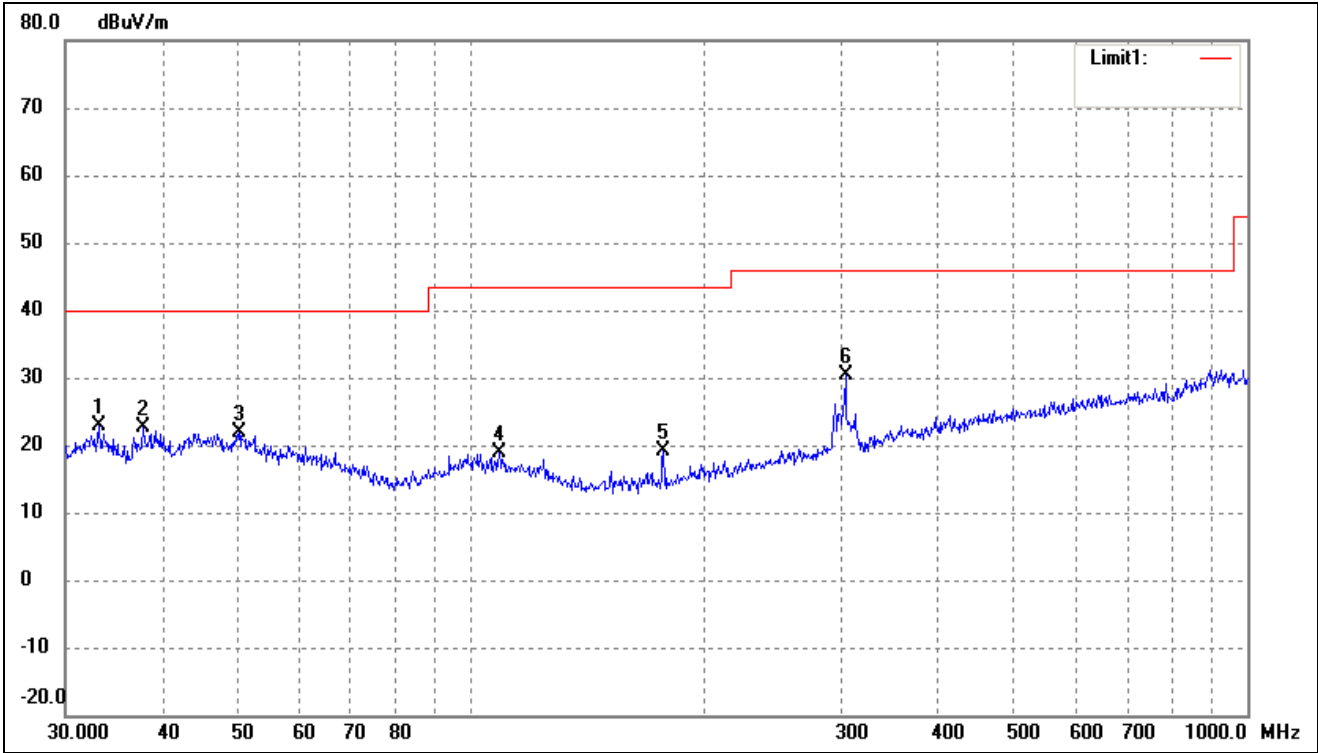
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.9174	37.19	-13.93	23.26	40.00	-16.74	-	-	peak
2	41.8596	33.63	-11.92	21.71	40.00	-18.29	-	-	peak
3	51.6616	33.51	-12.00	21.51	40.00	-18.49	-	-	peak
4	102.7192	32.17	-13.32	18.85	43.50	-24.65	-	-	peak
5	176.8878	32.57	-14.54	18.03	43.50	-25.47	-	-	peak
6	303.5437	38.97	-8.92	30.05	46.00	-15.95	-	-	peak

802.11a			
Test Channel	5745MHz(worst case)	Polarity:	Vertical



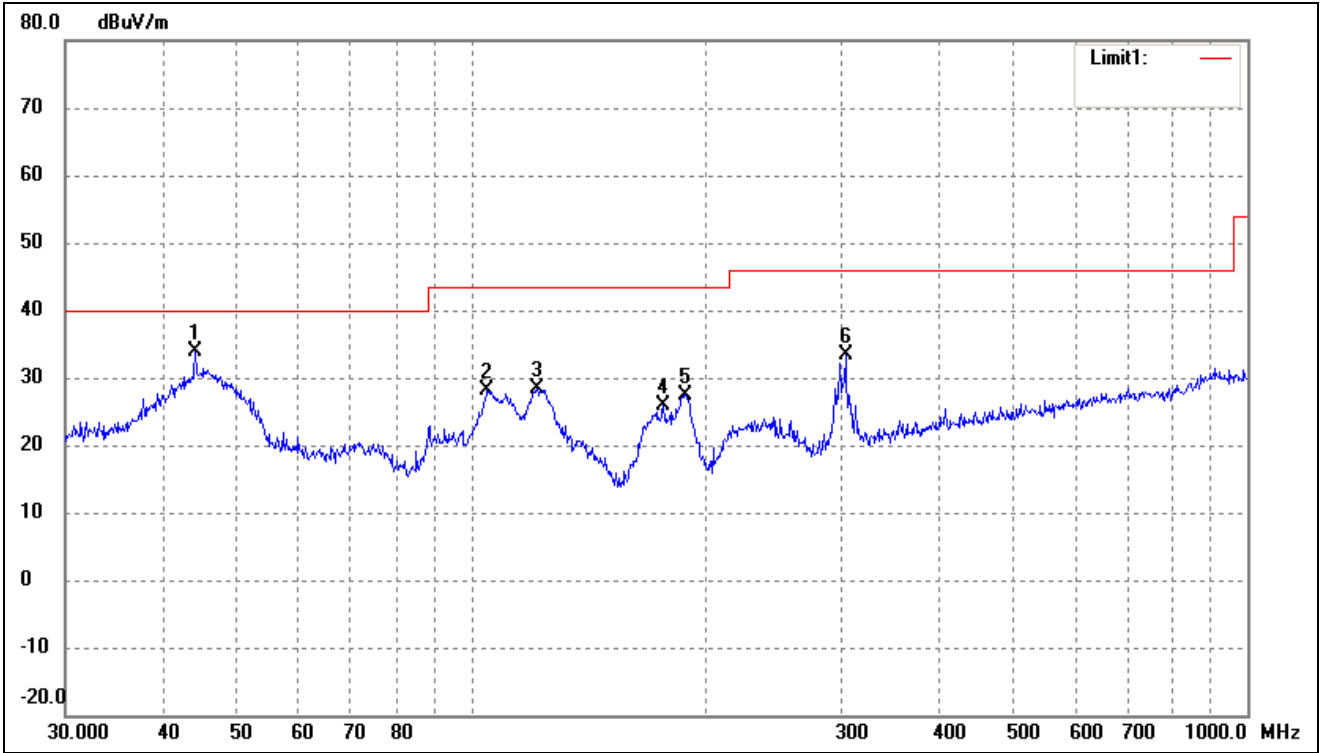
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	43.57	-11.84	31.73	40.00	-8.27	-	-	peak
2	106.0126	42.26	-13.31	28.95	43.50	-14.55	-	-	peak
3	122.4040	43.30	-14.93	28.37	43.50	-15.13	-	-	peak
4	176.8878	41.60	-14.54	27.06	43.50	-16.44	-	-	peak
5	188.4125	40.19	-13.30	26.89	43.50	-16.61	-	-	peak
6	303.5437	42.28	-8.92	33.36	46.00	-12.64	-	-	peak

802.11n-HT20			
Test Channel	5745MHz(worst case)	Polarity:	Horizontal



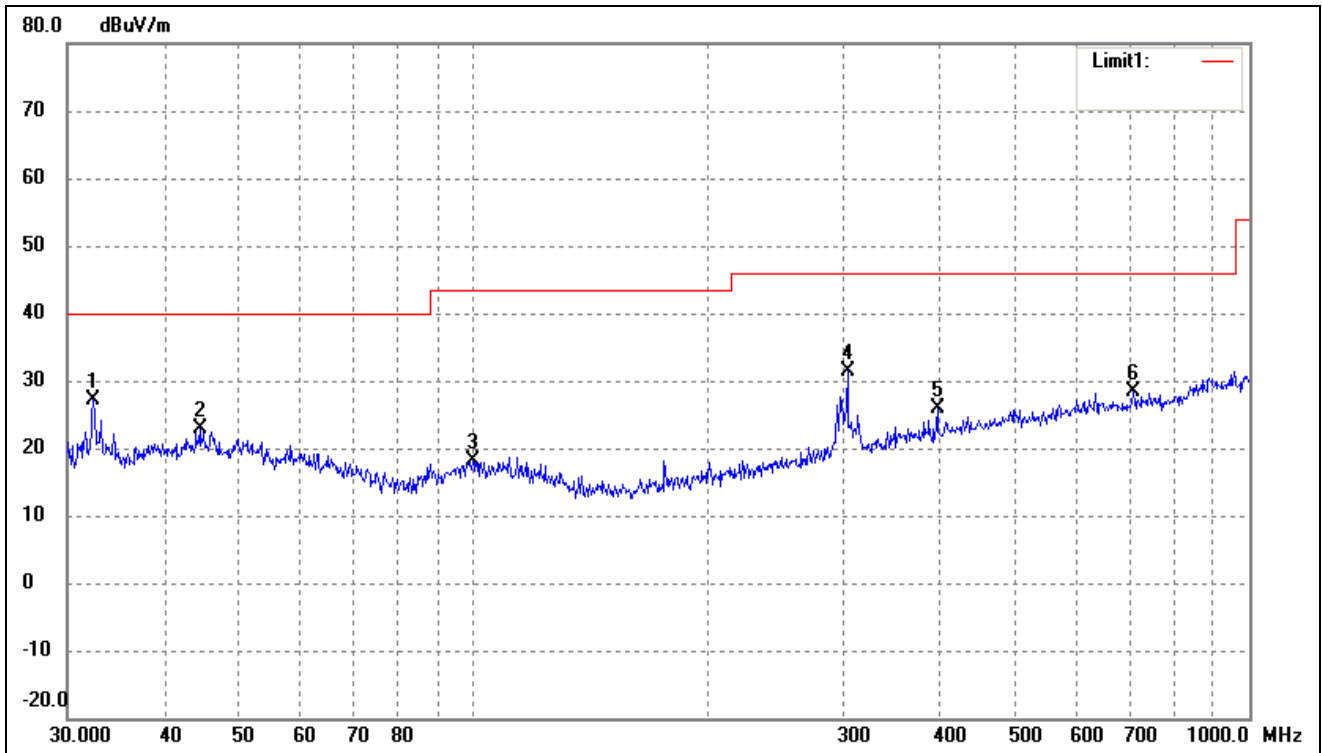
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.0950	36.97	-13.98	22.99	40.00	-17.01	-	-	peak
2	37.8121	35.49	-12.81	22.68	40.00	-17.32	-	-	peak
3	50.2325	33.53	-11.60	21.93	40.00	-18.07	-	-	peak
4	108.6470	32.09	-13.31	18.78	43.50	-24.72	-	-	peak
5	176.8878	33.69	-14.54	19.15	43.50	-24.35	-	-	peak
6	303.5437	39.26	-8.92	30.34	46.00	-15.66	-	-	peak

802.11n-HT20			
Test Channel	5745MHz(worst case)	Polarity:	Vertical



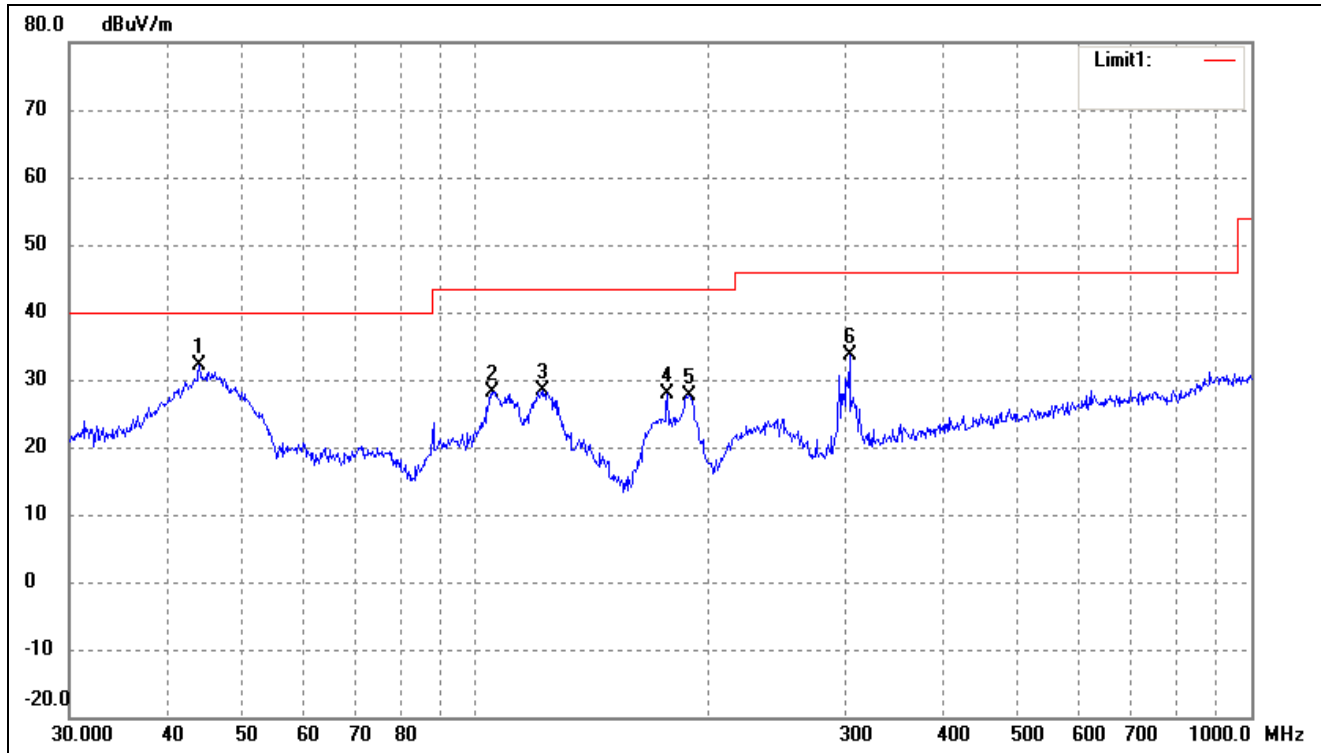
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	45.62	-11.84	33.78	40.00	-6.22	-	-	peak
2	104.9033	41.48	-13.32	28.16	43.50	-15.34	-	-	peak
3	121.5486	43.19	-14.71	28.48	43.50	-15.02	-	-	peak
4	176.8878	40.31	-14.54	25.77	43.50	-17.73	-	-	peak
5	188.4125	40.80	-13.30	27.50	43.50	-16.00	-	-	peak
6	303.5437	42.27	-8.92	33.35	46.00	-12.65	-	-	peak

802.11n-HT40			
Test Channel	5755MHz(worst case)	Polarity:	Horizontal



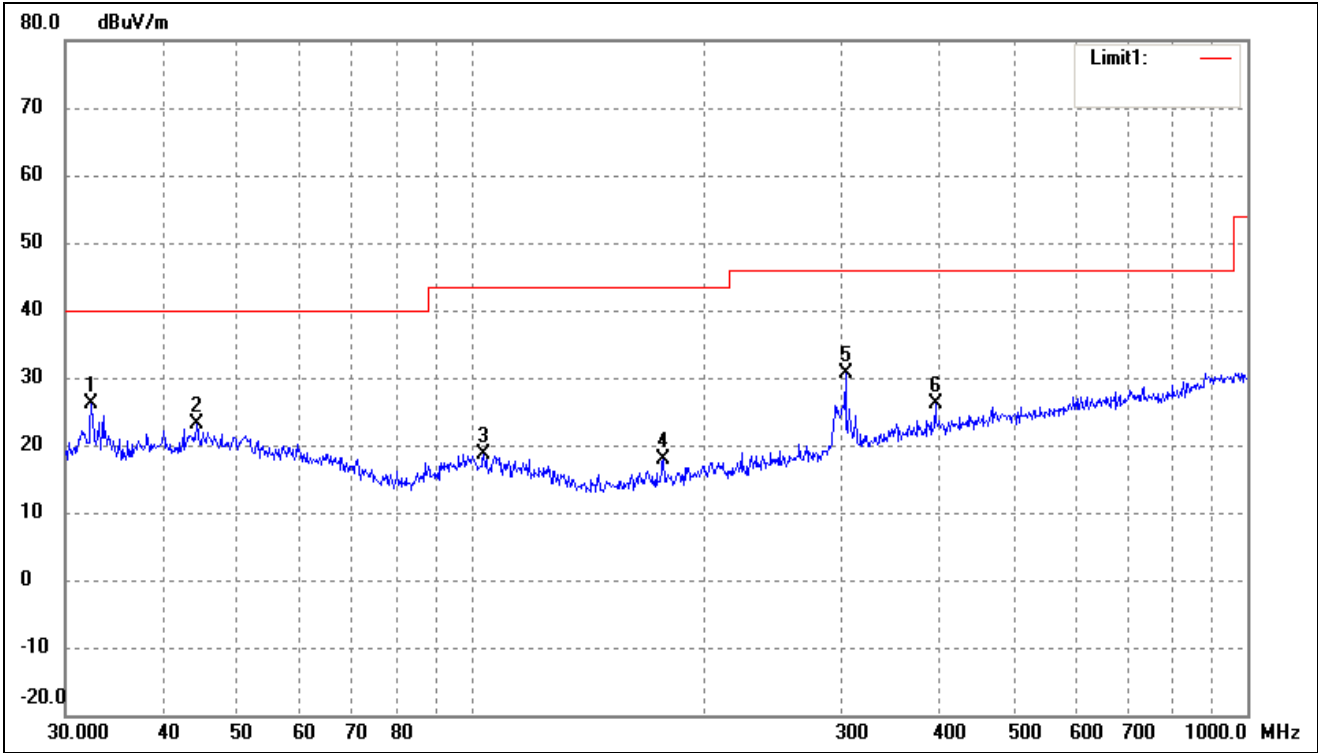
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.4059	41.16	-14.02	27.14	40.00	-12.86	-	-	peak
2	44.4308	34.73	-11.82	22.91	40.00	-17.09	-	-	peak
3	99.8777	31.44	-13.34	18.10	43.50	-25.40	-	-	peak
4	303.5437	40.27	-8.92	31.35	46.00	-14.65	-	-	peak
5	396.2415	32.39	-6.57	25.82	46.00	-20.18	-	-	peak
6	709.1823	29.90	-1.54	28.36	46.00	-17.64	-	-	peak

802.11n-HT40			
Test Channel	5755MHz(worst case)	Polarity:	Vertical



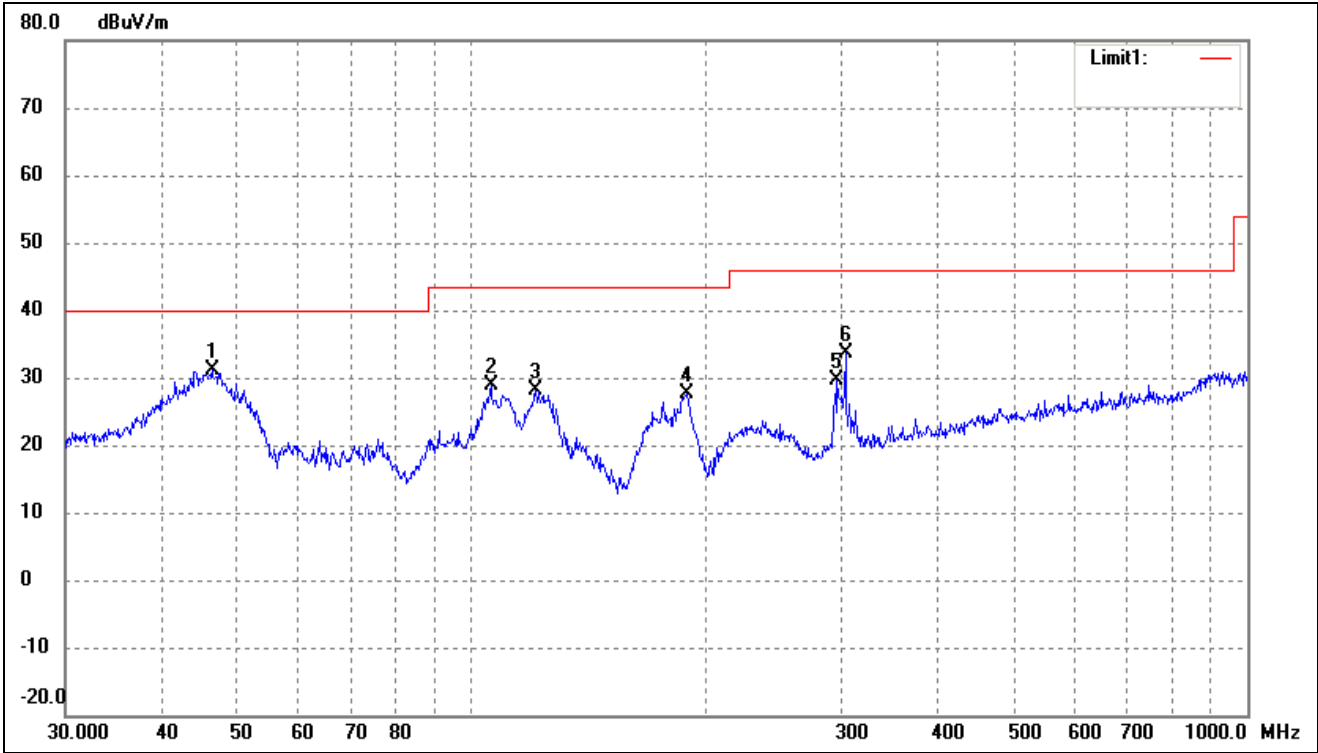
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1202	44.00	-11.84	32.16	40.00	-7.84	-	-	peak
2	105.2718	41.52	-13.32	28.20	43.50	-15.30	-	-	peak
3	122.4040	43.23	-14.93	28.30	43.50	-15.20	-	-	peak
4	176.8878	42.48	-14.54	27.94	43.50	-15.56	-	-	peak
5	189.0743	40.78	-13.22	27.56	43.50	-15.94	-	-	peak
6	303.5437	42.60	-8.92	33.68	46.00	-12.32	-	-	peak

802.11ac-HT80			
Test Channel	5775MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.4059	40.16	-14.02	26.14	40.00	-13.86	-	-	peak
2	44.2752	34.93	-11.83	23.10	40.00	-16.90	-	-	peak
3	103.8055	31.90	-13.32	18.58	43.50	-24.92	-	-	peak
4	176.8878	32.36	-14.54	17.82	43.50	-25.68	-	-	peak
5	303.5437	39.47	-8.92	30.55	46.00	-15.45	-	-	peak
6	396.2415	32.75	-6.57	26.18	46.00	-19.82	-	-	peak

802.11ac-HT80			
Test Channel	5775MHz(worst case)	Polarity:	Vertical

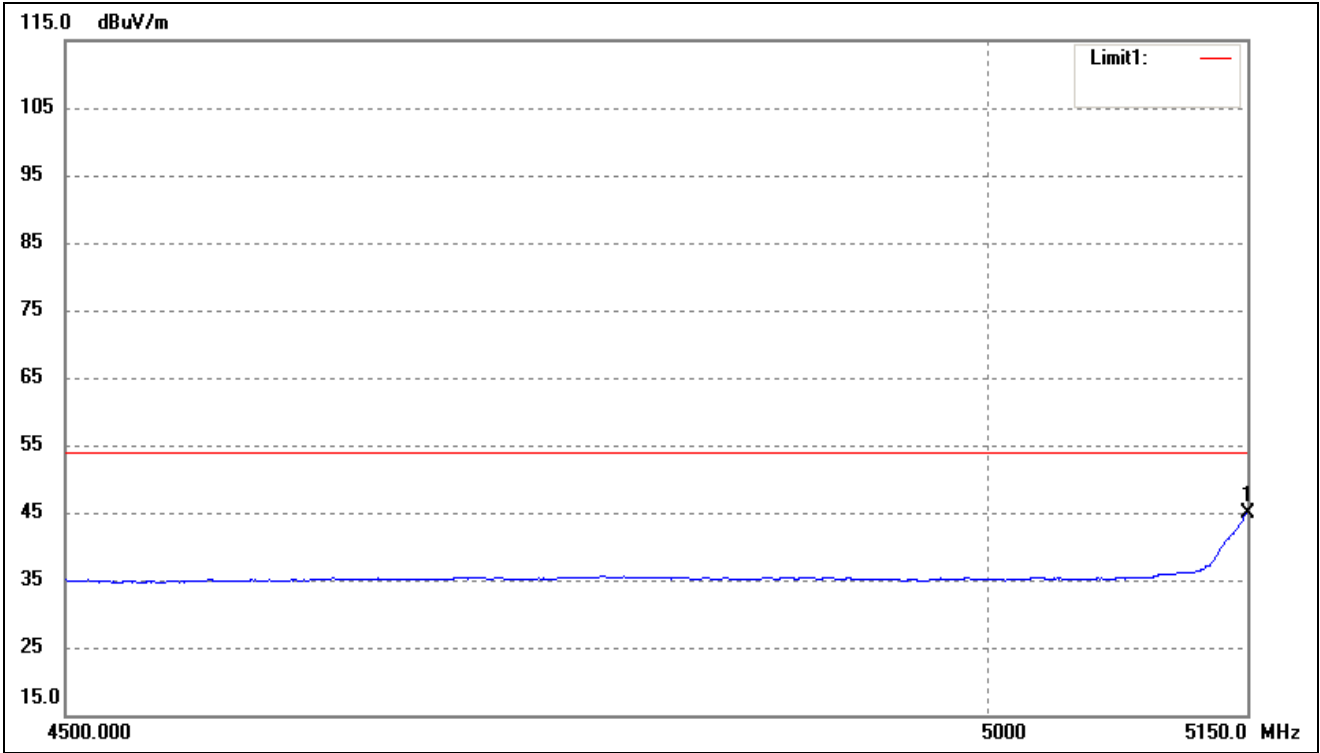


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	46.3402	42.77	-11.73	31.04	40.00	-8.96	-	-	peak
2	106.0126	42.16	-13.31	28.85	43.50	-14.65	-	-	peak
3	121.1231	42.80	-14.59	28.21	43.50	-15.29	-	-	peak
4	189.7385	40.87	-13.15	27.72	43.50	-15.78	-	-	peak
5	296.1836	38.76	-9.19	29.57	46.00	-16.43	-	-	peak
6	303.5437	42.59	-8.92	33.67	46.00	-12.33	-	-	peak

Remark: ‘-’Means’ the test Degree and Height are not recorded by the test software and only show the worst case in the test report.

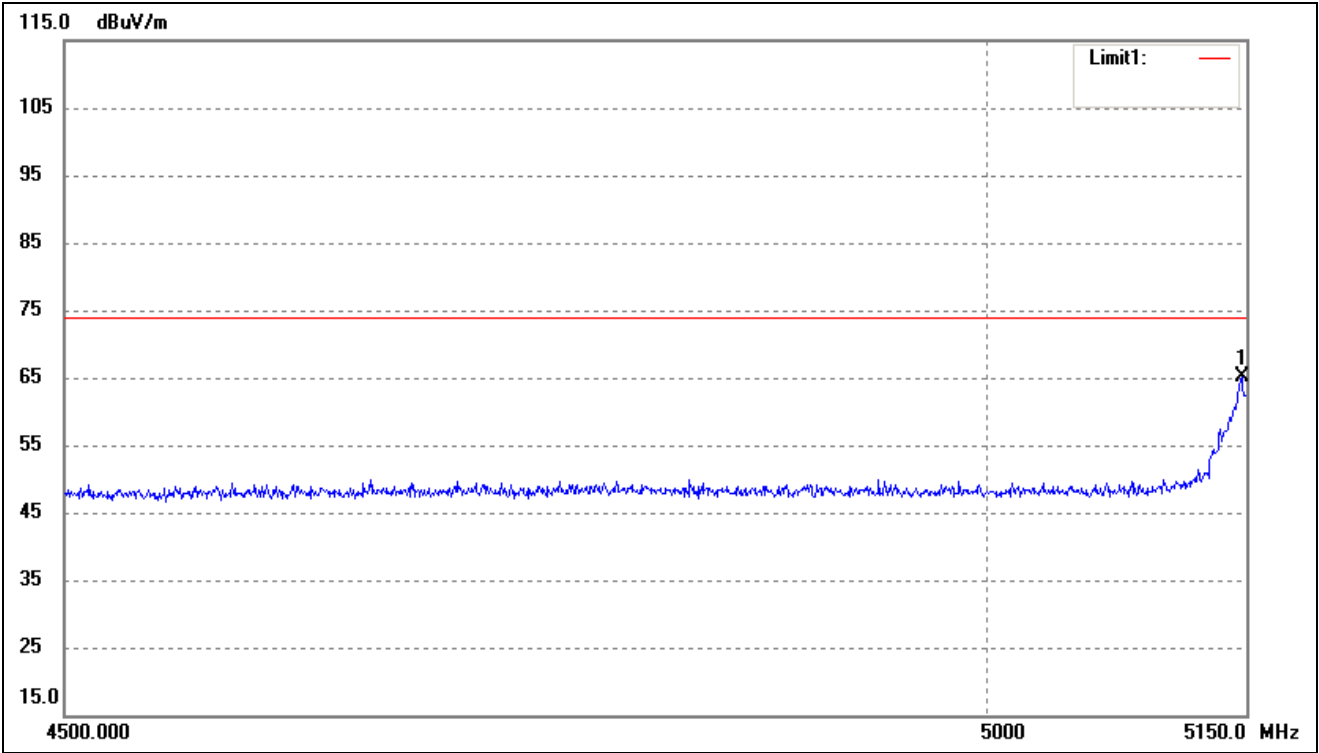
➤ Spurious Emission above 1GHz

802.11a- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



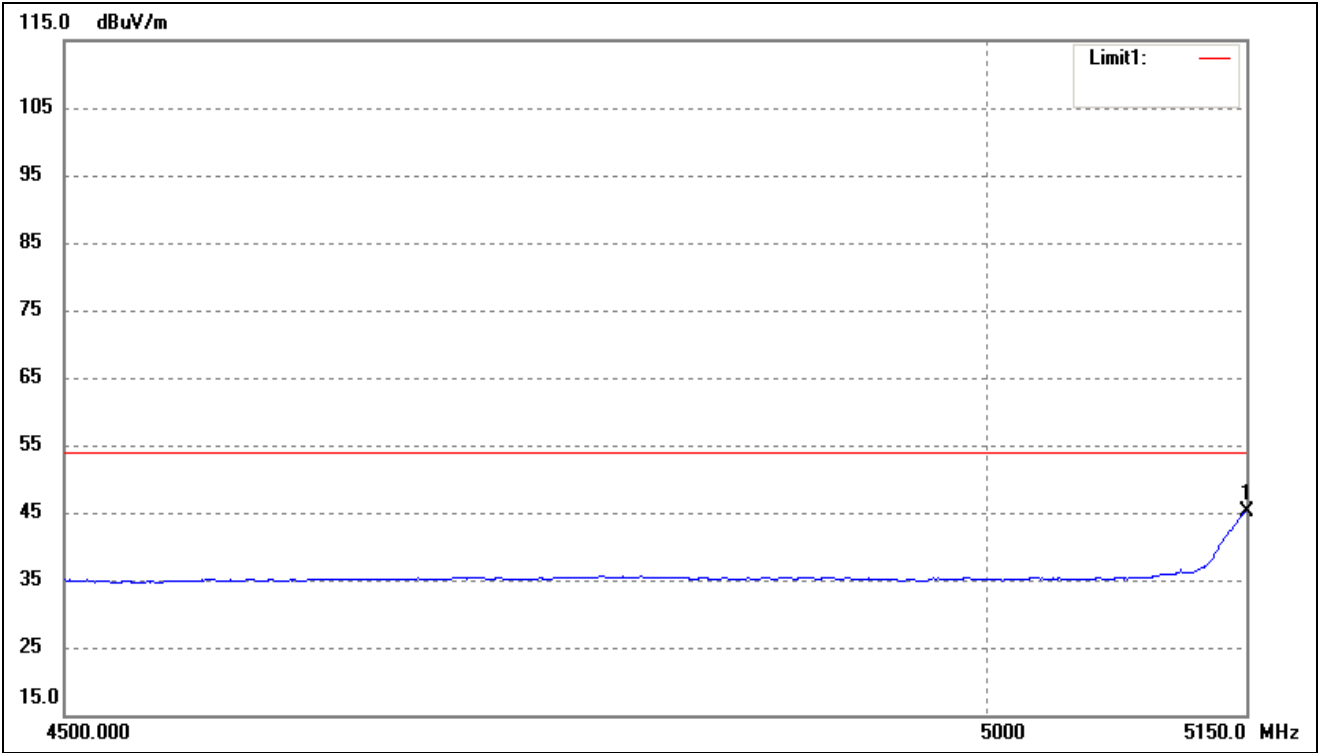
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	49.31	-4.32	44.99	54.00	-9.01	-	-	peak

802.11a- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



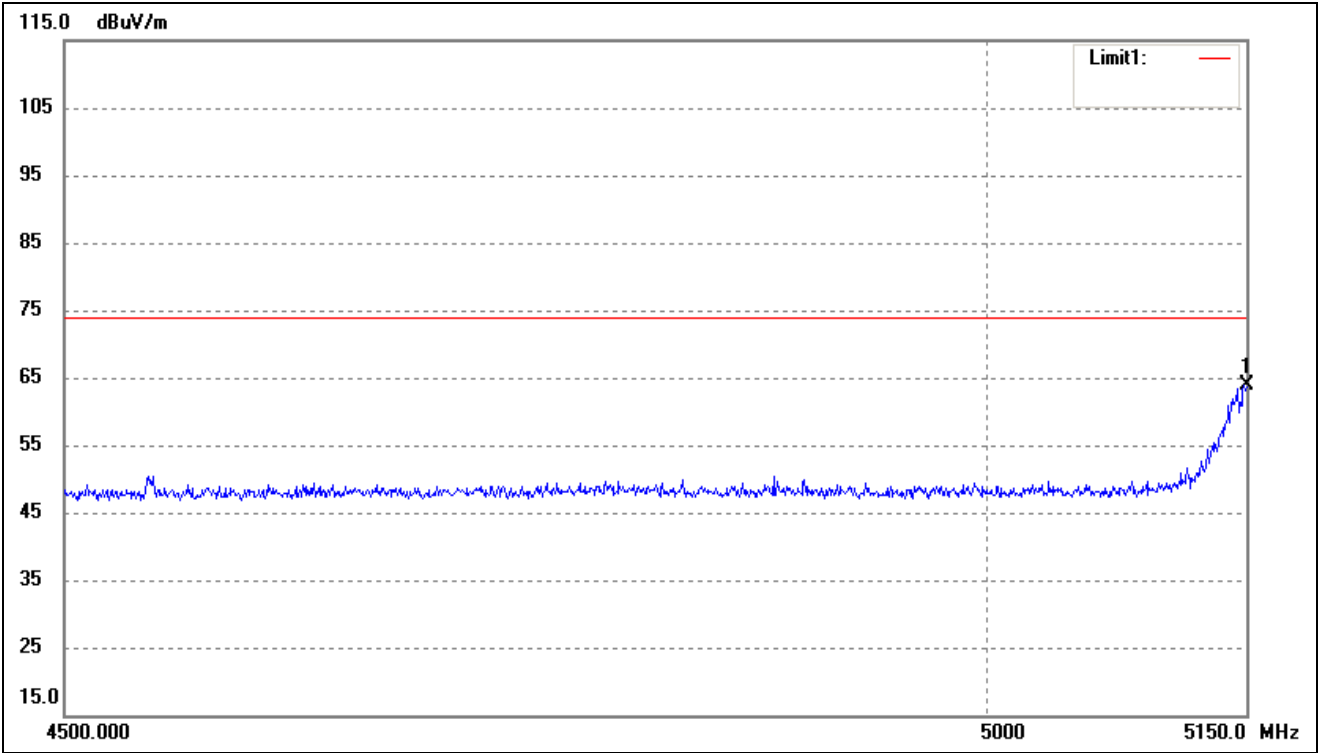
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5147.221	69.47	-4.32	65.15	74.00	-8.85	-	-	peak

802.11n-HT20- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



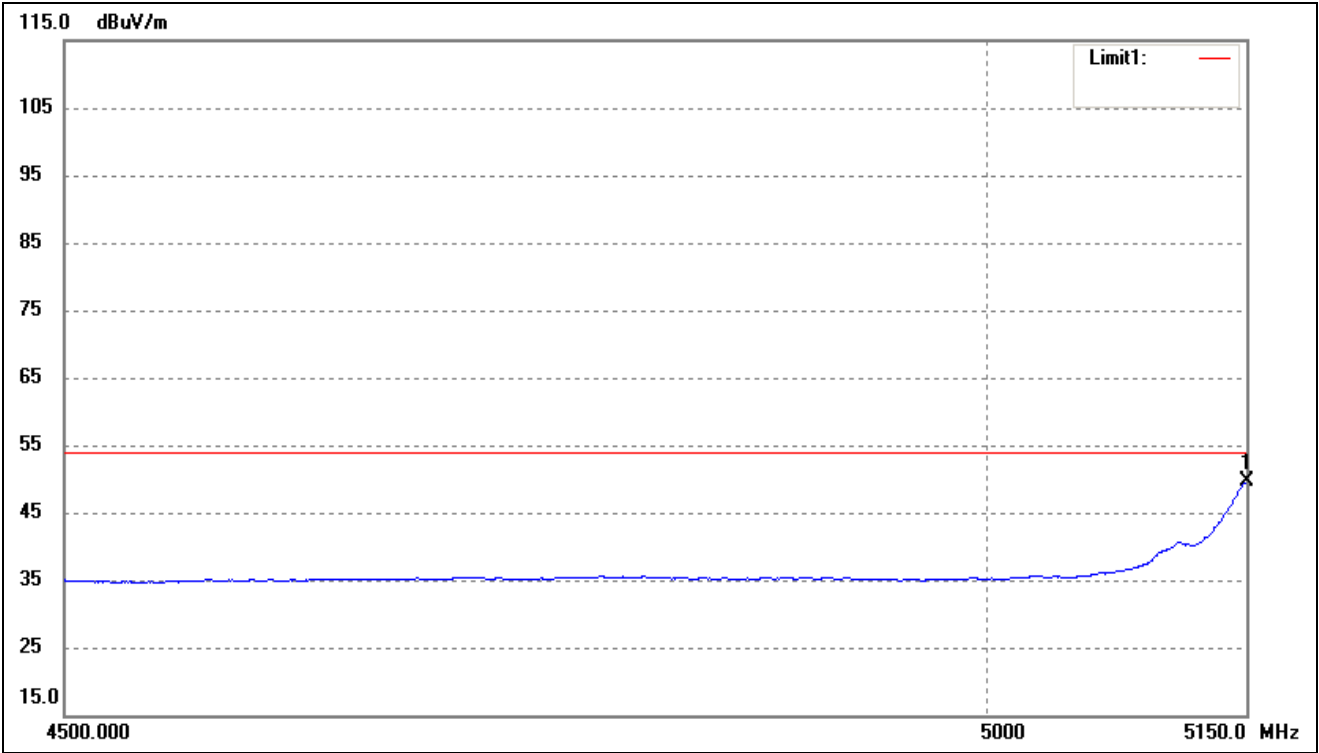
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	49.51	-4.32	45.19	54.00	-8.81	-	-	peak

802.11n-HT20- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



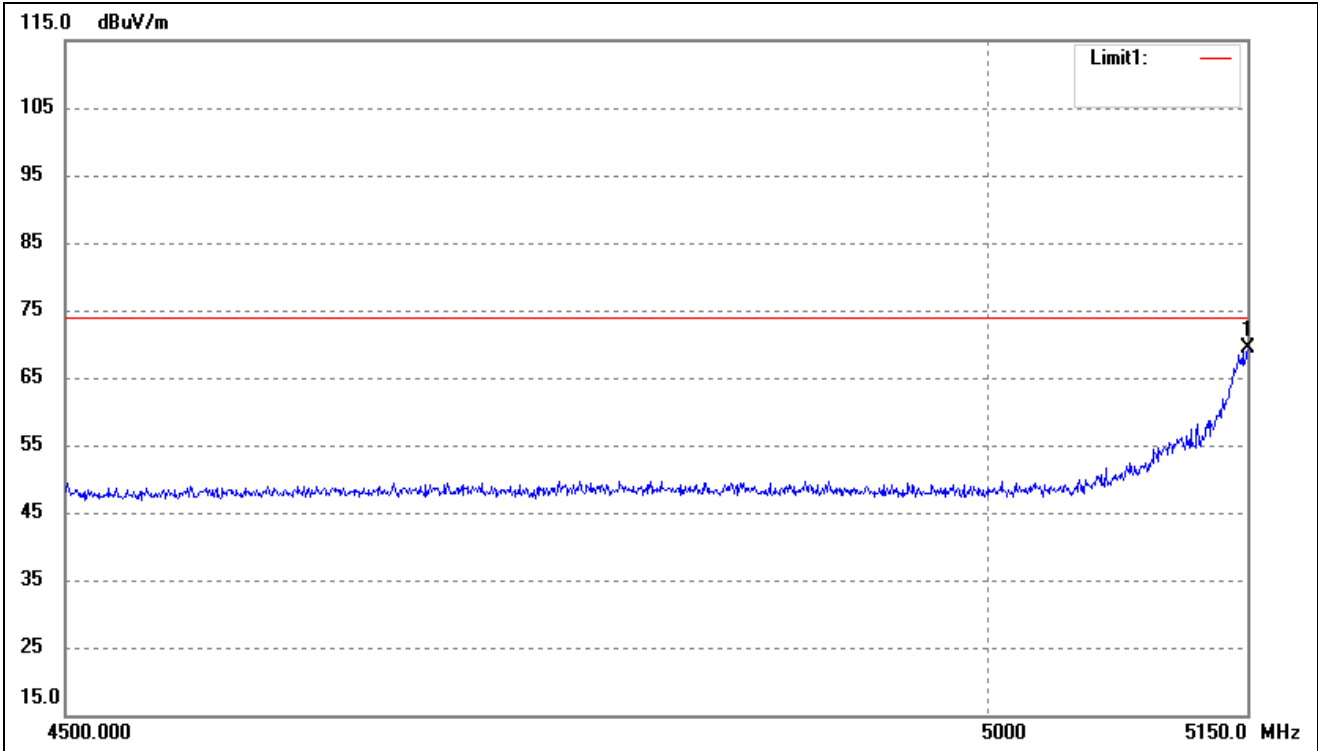
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	68.20	-4.32	63.88	74.00	-10.12	-	-	peak

802.11n-HT40- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



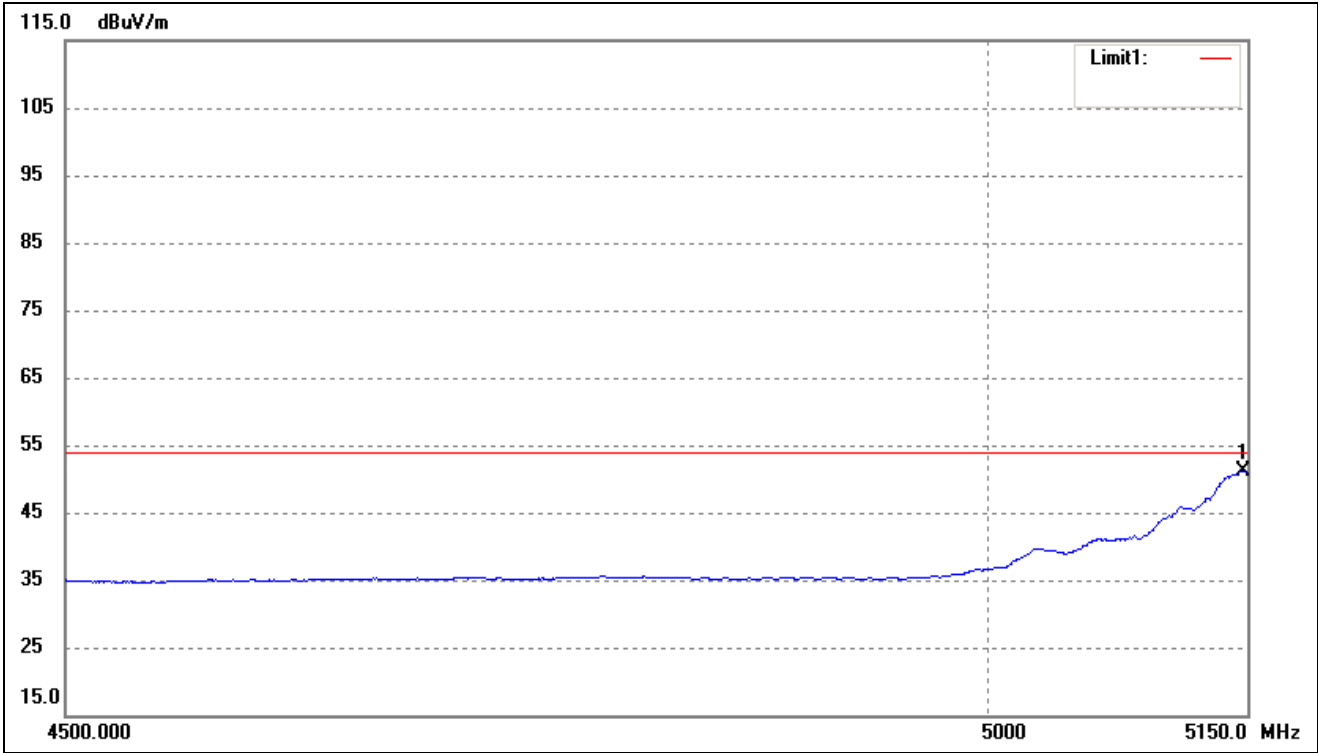
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	53.91	-4.32	49.59	54.00	-4.41	-	-	peak

802.11n-HT40- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



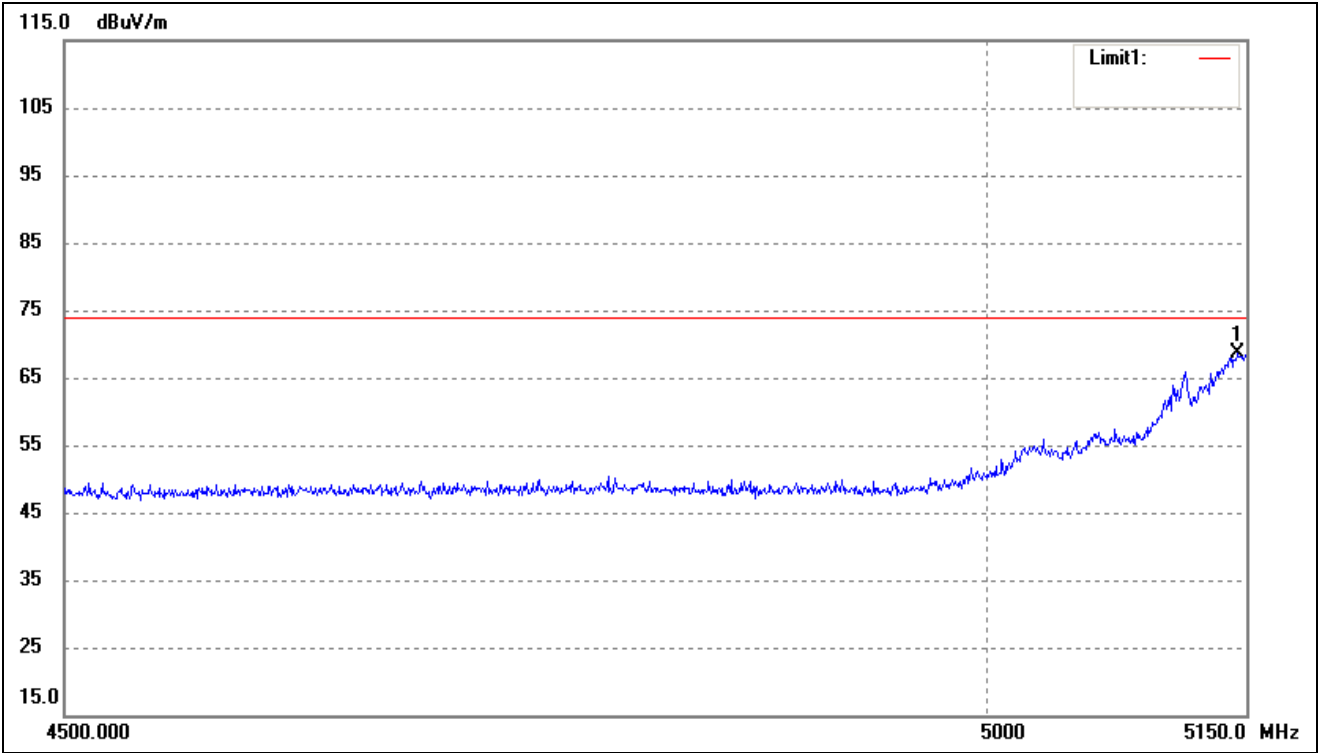
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	73.73	-4.32	69.41	74.00	-4.59	-	-	peak

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



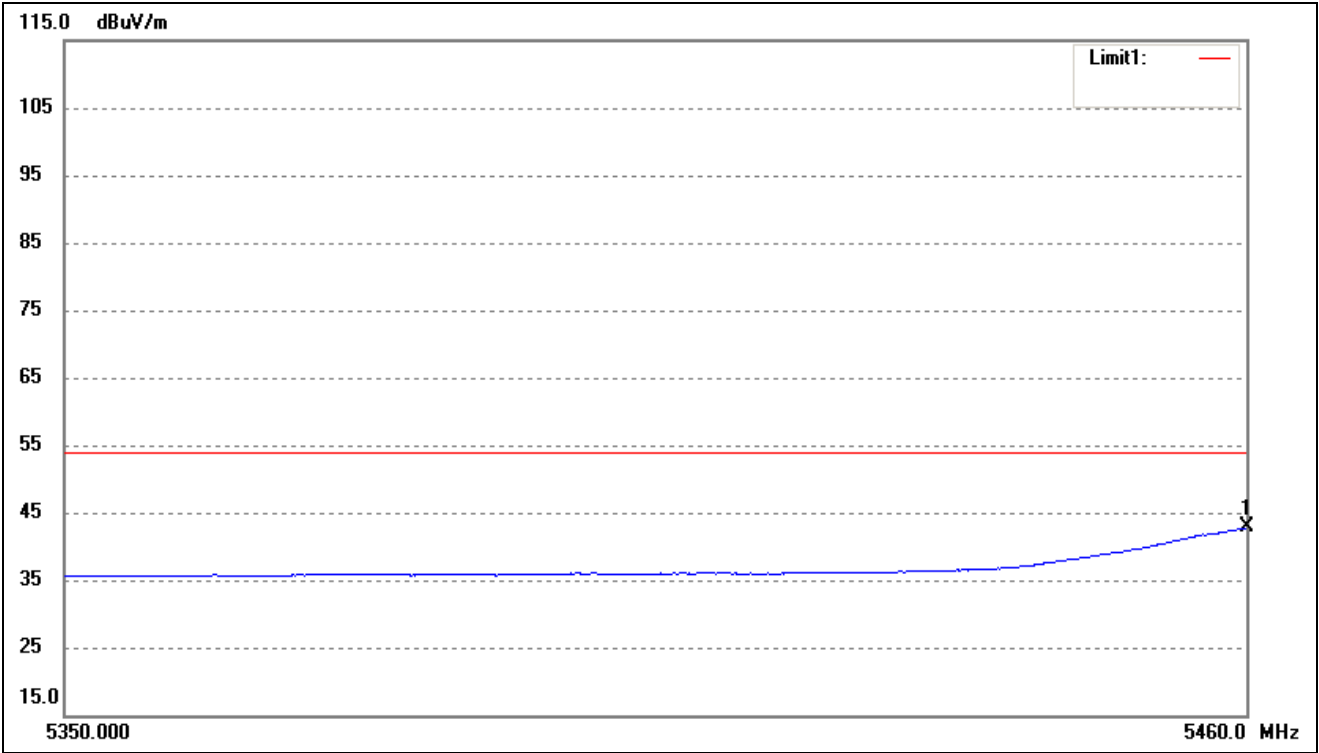
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5147.916	55.45	-4.32	51.13	54.00	-2.87	-	-	peak

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Vertical(worst case)



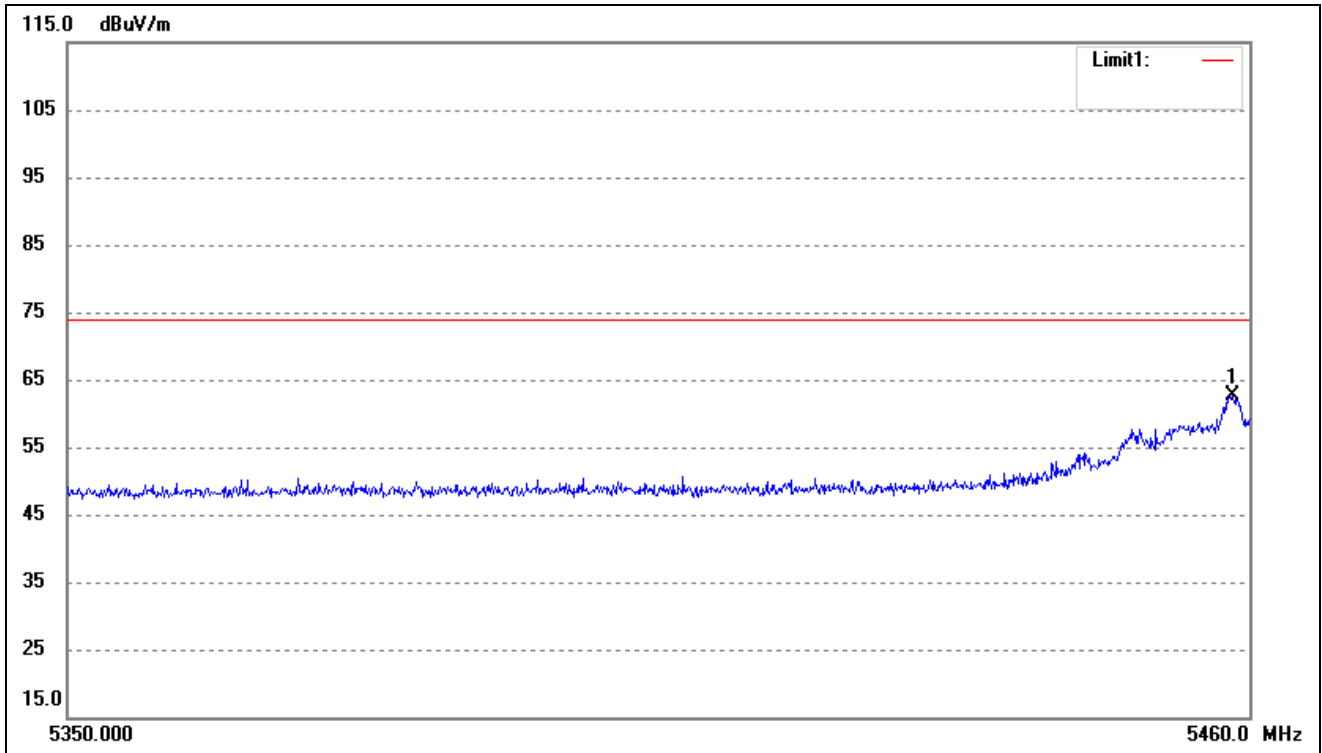
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5145.139	73.00	-4.32	68.68	74.00	-5.32	-	-	peak

802.11a- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



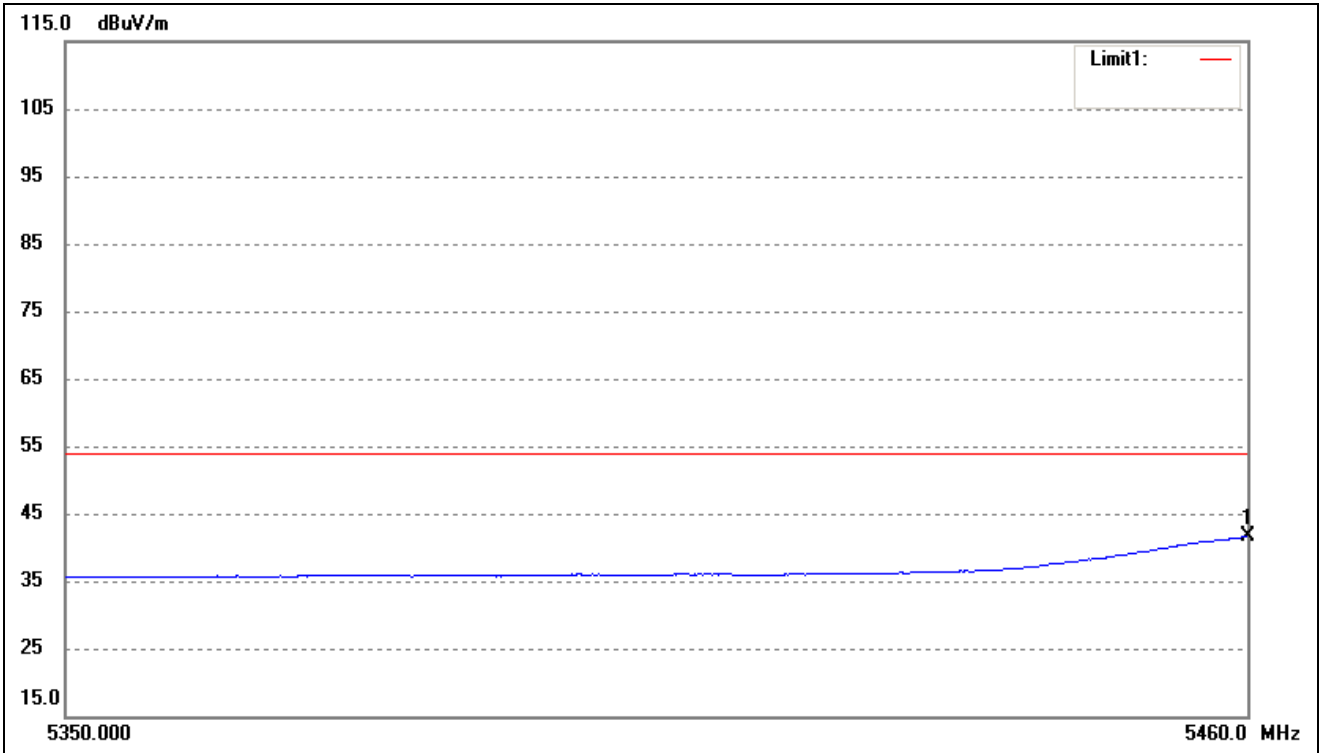
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5460.000	46.96	-4.16	42.80	54.00	-11.20	-	-	peak

802.11a- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



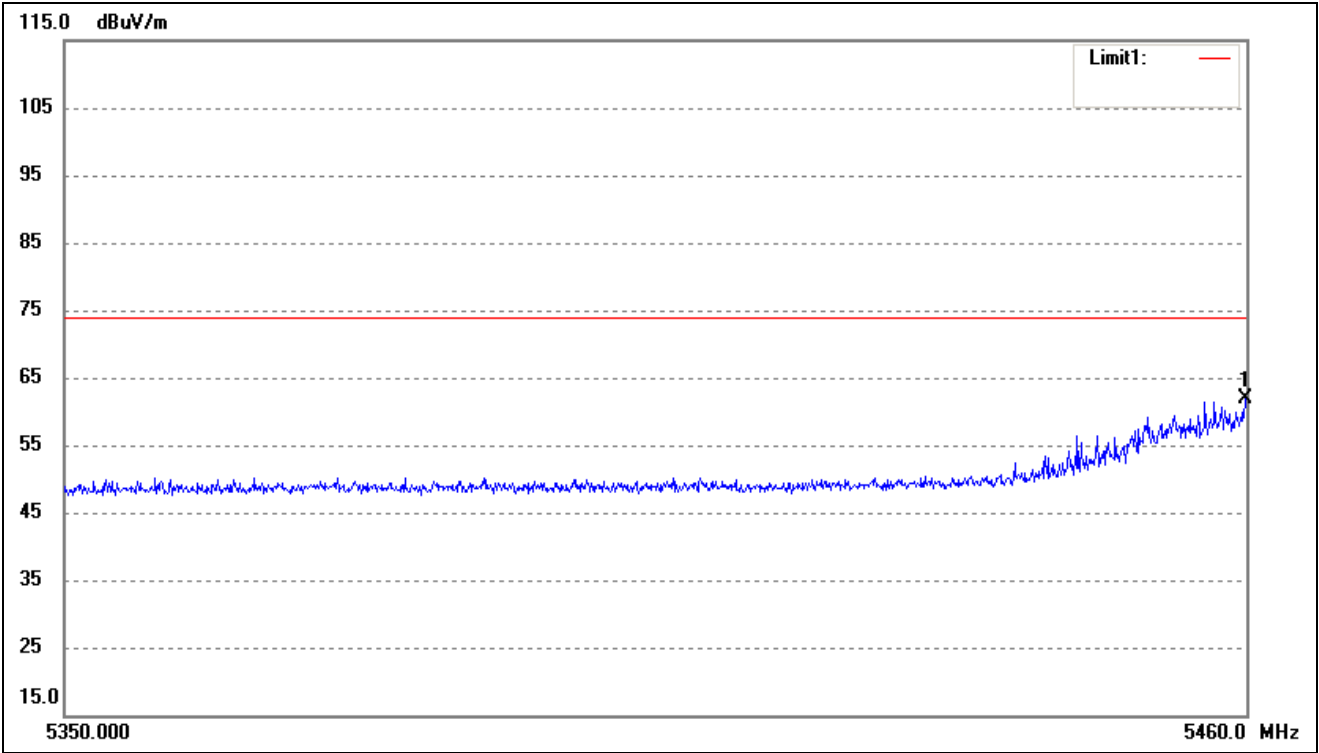
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5458.444	66.81	-4.16	62.65	74.00	-11.35	-	-	peak

802.11n-HT20- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



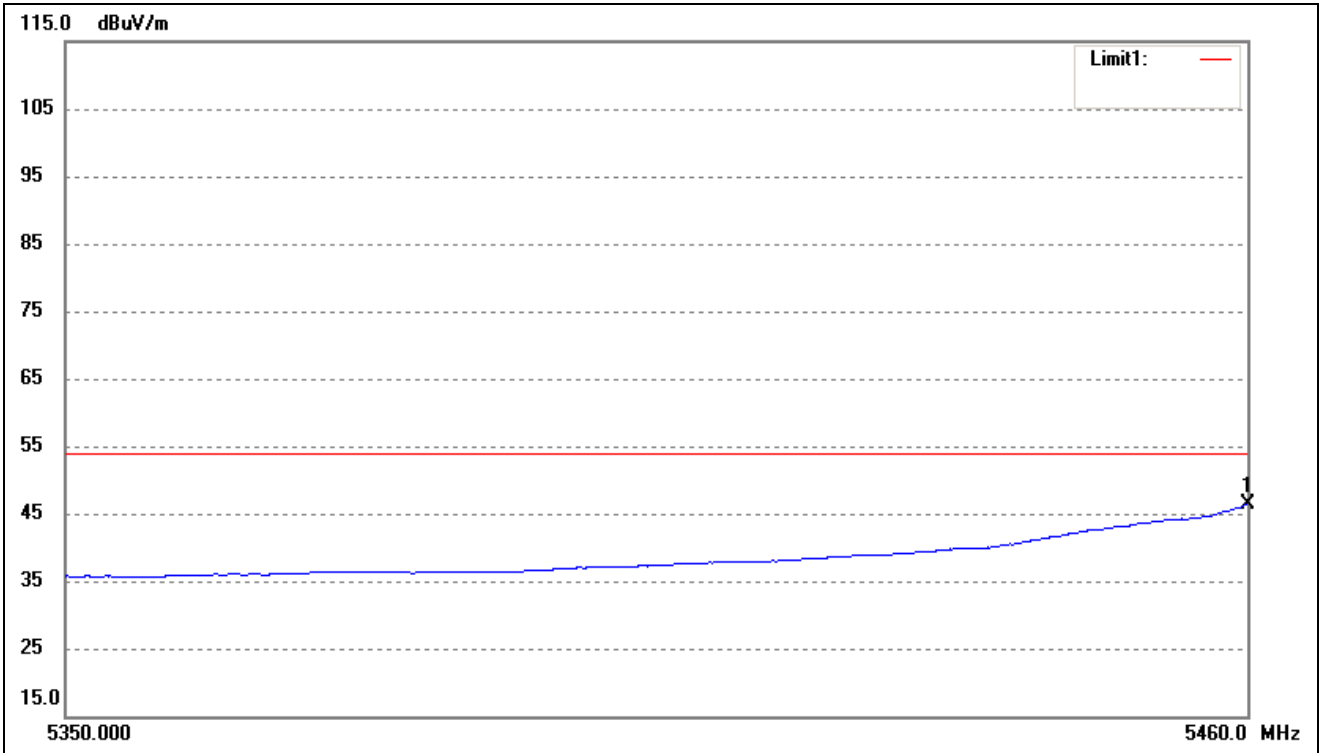
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5460.000	45.84	-4.16	41.68	54.00	-12.32	-	-	peak

802.11n-HT20- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



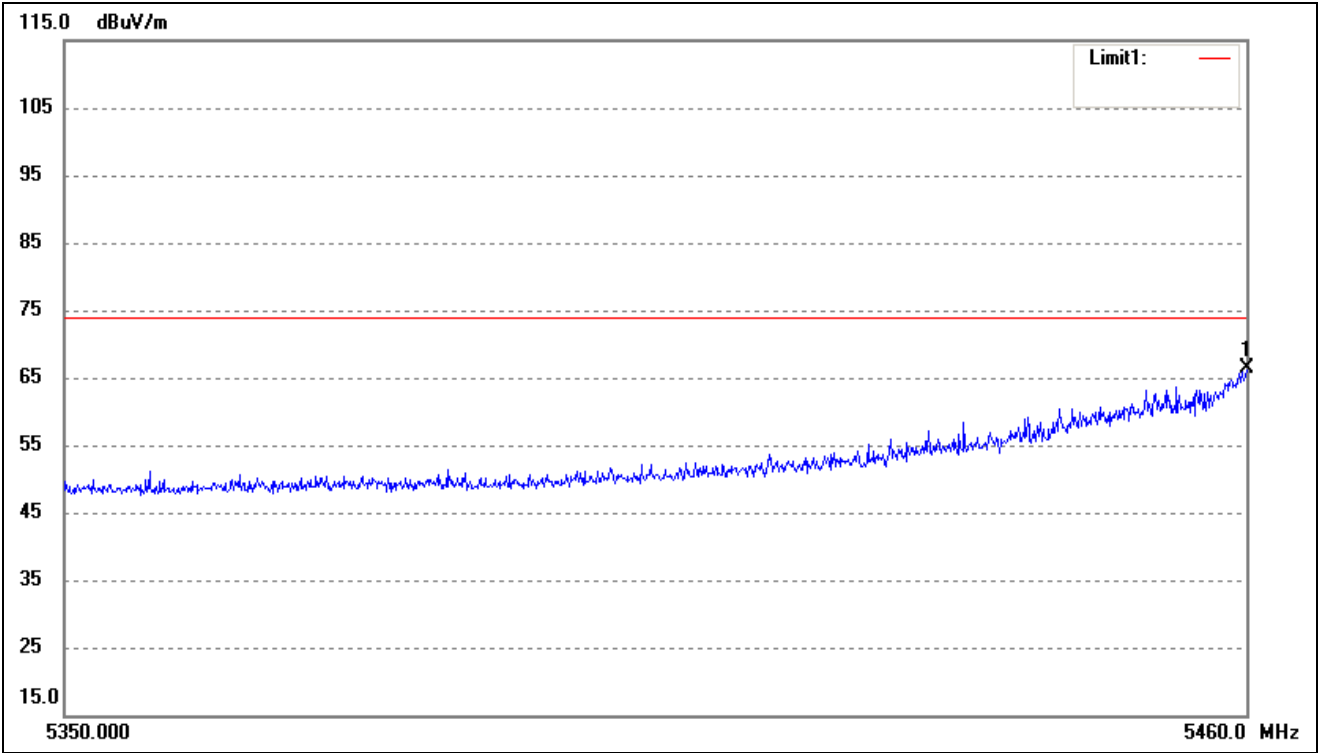
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5459.889	66.16	-4.16	62.00	74.00	-12.00	-	-	peak

802.11n-HT40- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



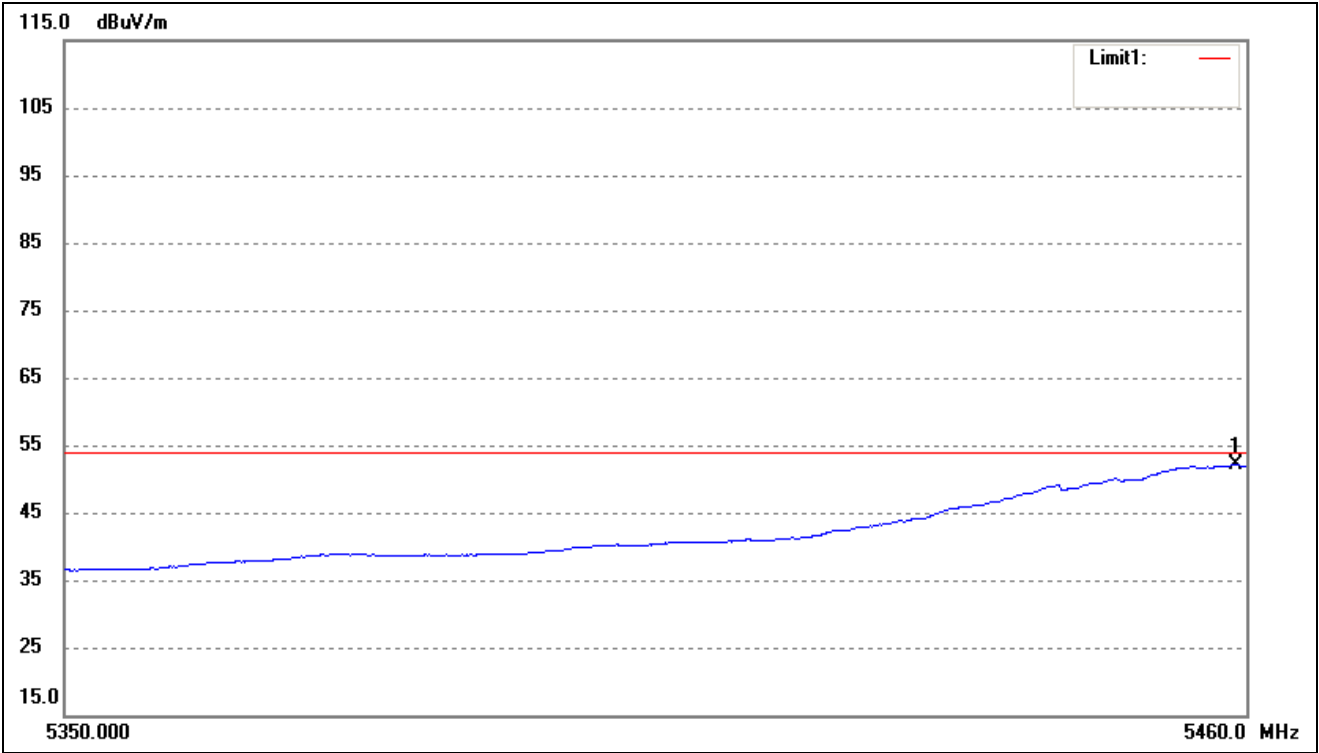
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5460.000	50.64	-4.16	46.48	54.00	-7.52	-	-	peak

802.11n-HT40- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



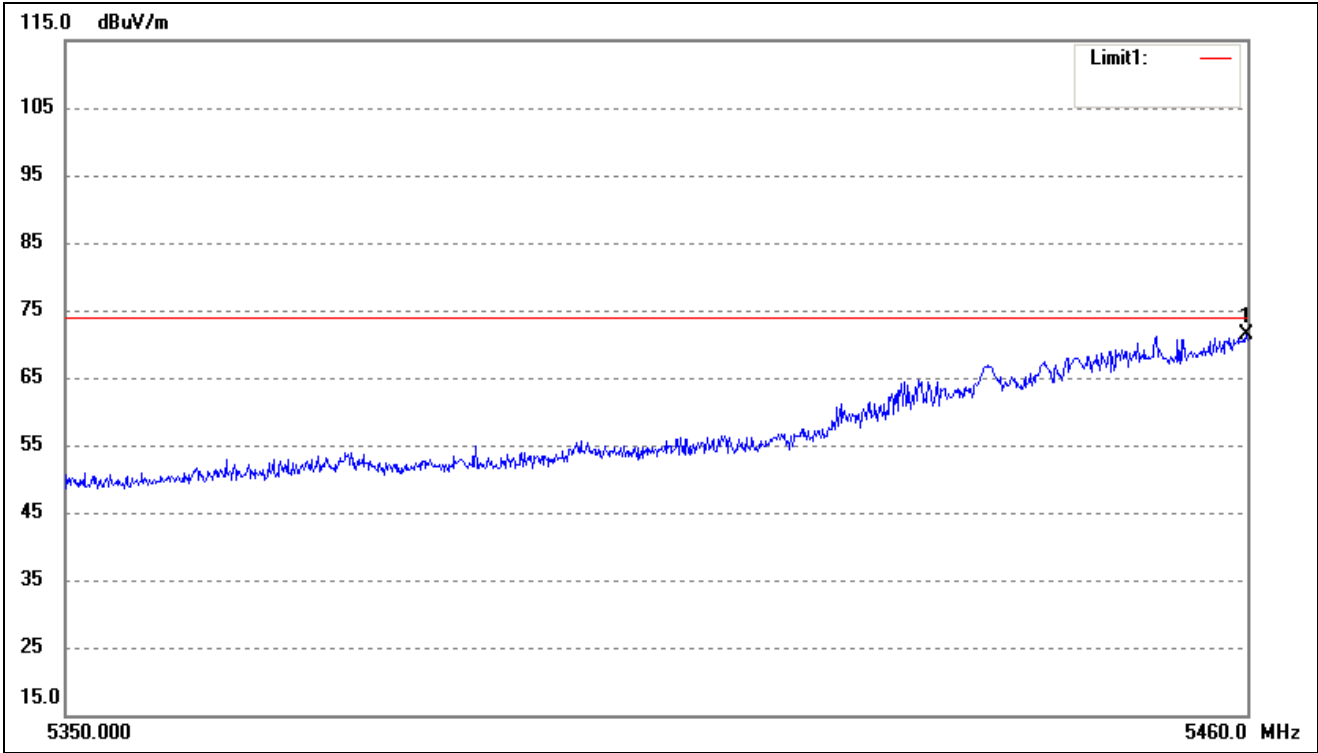
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5460.000	70.50	-4.16	66.34	74.00	-7.66	-	-	peak

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5459.000	56.29	-4.16	52.13	54.00	-1.87	-	-	peak

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.50-5.51GHz	Polarity:	Vertical(worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5459.889	75.45	-4.16	71.29	74.00	-2.71	-	-	peak

Note: The Restricted Bandedge was tested in Horizontal /Vertical and the worst case position data was reported.

Remark: '-' Means' the test Degree and Height is not recorded by the test software and only show the worst case in the test report.

- For the frequency band 5.15-5.25GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz (802.11a)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	56.68	7.11	63.79	74	-10.21	H	PK
10360	39.45	7.11	46.56	54	-7.44	H	AV
10360	55.97	7.11	63.08	74	-10.92	V	PK
10360	41.02	7.11	48.13	54	-5.87	V	AV
Middle Channel (5200MHz)							
10400	55.97	7.22	63.19	74	-10.81	H	PK
10400	40.15	7.22	47.37	54	-6.63	H	AV
10400	56.25	7.22	63.47	74	-10.53	V	PK
10400	38.73	7.22	45.95	54	-8.05	V	AV
High Channel (5240MHz)							
10480	56.92	7.69	64.61	74	-9.39	H	PK
10480	40.47	7.69	48.16	54	-5.84	H	AV
10480	55.12	7.69	62.81	74	-11.19	V	PK
10480	39.36	7.69	47.05	54	-6.95	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5260MHz)							
10520	57.56	7.96	65.52	74	-8.48	H	PK
10520	38.97	7.96	46.93	54	-7.07	H	AV
10520	56.10	7.96	64.06	74	-9.94	V	PK
10520	39.82	7.96	47.78	54	-6.22	V	AV
Middle Channel (5280MHz)							
10560	55.97	8.02	63.99	74	-10.01	H	PK
10560	40.02	8.02	48.04	54	-5.96	H	AV
10560	56.32	8.02	64.34	74	-9.66	V	PK
10560	37.12	8.02	45.14	54	-8.86	V	AV
High Channel (5320MHz)							
10640	56.87	8.35	65.22	74	-8.78	H	PK
10640	41.11	8.35	49.46	54	-4.54	H	AV
10640	56.53	8.35	64.88	74	-9.12	V	PK
10640	39.72	8.35	48.07	54	-5.93	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5500MHz)							
11000	55.72	8.82	64.54	74	-9.46	H	PK
11000	39.32	8.82	48.14	54	-5.86	H	AV
11000	54.12	8.82	62.94	74	-11.06	V	PK
11000	36.79	8.82	45.61	54	-8.39	V	AV
Middle Channel (5600MHz)							
11200	59.62	8.92	68.54	74	-5.46	H	PK
11200	41.24	8.92	50.16	54	-3.84	H	AV
11200	58.35	8.92	67.27	74	-6.73	V	PK
11200	37.92	8.92	46.84	54	-7.16	V	AV
High Channel (5700MHz)							
11400	55.74	9.36	65.1	74	-8.9	H	PK
11400	37.15	9.36	46.51	54	-7.49	H	AV
11400	56.31	9.36	65.67	74	-8.33	V	PK
11400	37.01	9.36	46.37	54	-7.63	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	56.87	9.45	66.32	74	-7.68	H	PK
11490	36.31	9.45	45.76	54	-8.24	H	AV
11490	57.11	9.45	66.56	74	-7.44	V	PK
11490	37.49	9.45	46.94	54	-7.06	V	AV
Middle Channel (5785MHz)							
11570	57.39	9.62	67.01	74	-6.99	H	PK
11570	38.12	9.62	47.74	54	-6.26	H	AV
11570	56.35	9.62	65.97	74	-8.03	V	PK
11570	39.79	9.62	49.41	54	-4.59	V	AV
High Channel (5825MHz)							
11650	57.53	9.84	67.37	74	-6.63	H	PK
11650	37.12	9.84	46.96	54	-7.04	H	AV
11650	56.62	9.84	66.46	74	-7.54	V	PK
11650	40.12	9.84	49.96	54	-4.04	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.41	-27
Highest	Above 5350	-37.32	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-40.72	-27
Highest	Above 5350	-39.35	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-41.02	-27
Highest	Above 5725	-36.47	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-39.52	-27
	5715 to 5725	-28.41	-17
Highest	5850 to 5860	-30.49	-17
	Above 5860	-36.78	-27

Note: the data just list the worst cases

- For the frequency band 5.15-5.25GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz (802.11n HT20)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	56.85	7.11	63.96	74	-10.04	H	PK
10360	36.97	7.11	44.08	54	-9.92	H	AV
10360	57.31	7.11	64.42	74	-9.58	V	PK
10360	37.32	7.11	44.43	54	-9.57	V	AV
Middle Channel (5200MHz)							
10400	57.39	7.22	64.61	74	-9.39	H	PK
10400	39.41	7.22	46.63	54	-7.37	H	AV
10400	56.42	7.22	63.64	74	-10.36	V	PK
10400	39.45	7.22	46.67	54	-7.33	V	AV
High Channel (5240MHz)							
10480	59.42	7.69	67.11	74	-6.89	H	PK
10480	40.35	7.69	48.04	54	-5.96	H	AV
10480	57.45	7.69	65.14	74	-8.86	V	PK
10480	39.31	7.69	47.00	54	-7.00	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5260MHz)							
10520	60.10	7.96	68.06	74	-5.94	H	PK
10520	41.36	7.96	49.32	54	-4.68	H	AV
10520	60.47	7.96	68.43	74	-5.57	V	PK
10520	42.35	7.96	50.31	54	-3.69	V	AV
Middle Channel (5280MHz)							
10560	59.75	8.02	67.77	74	-6.23	H	PK
10560	42.25	8.02	50.27	54	-3.73	H	AV
10560	58.63	8.02	66.65	74	-7.35	V	PK
10560	41.11	8.02	49.13	54	-4.87	V	AV
High Channel (5320MHz)							
10640	56.38	8.35	64.73	74	-9.27	H	PK
10640	40.17	8.35	48.52	54	-5.48	H	AV
10640	57.69	8.35	66.04	74	-7.96	V	PK
10640	39.79	8.35	48.14	54	-5.86	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5500MHz)							
11000	57.58	8.82	66.40	74	-7.60	H	PK
11000	37.31	8.82	46.13	54	-7.87	H	AV
11000	58.98	8.82	67.80	74	-6.20	V	PK
11000	36.12	8.82	44.94	54	-9.06	V	AV
Middle Channel (5600MHz)							
11200	59.47	8.92	68.39	74	-5.61	H	PK
11200	38.65	8.92	47.57	54	-6.43	H	AV
11200	57.35	8.92	66.27	74	-7.73	V	PK
11200	36.97	8.92	45.89	54	-8.11	V	AV
High Channel (5700MHz)							
11400	58.43	9.36	67.79	74	-6.21	H	PK
11400	39.46	9.36	48.82	54	-5.18	H	AV
11400	57.31	9.36	66.67	74	-7.33	V	PK
11400	36.02	9.36	45.38	54	-8.62	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	59.01	9.45	68.46	74	-5.54	H	PK
11490	40.12	9.45	49.57	54	-4.43	H	AV
11490	58.46	9.45	67.91	74	-6.09	V	PK
11490	37.68	9.45	47.13	54	-6.87	V	AV
Middle Channel (5785MHz)							
11570	58.73	9.62	68.35	74	-5.65	H	PK
11570	39.43	9.62	49.05	54	-4.95	H	AV
11570	56.11	9.62	65.73	74	-8.27	V	PK
11570	37.36	9.62	46.98	54	-7.02	V	AV
High Channel (5825MHz)							
11650	59.32	9.84	69.16	74	-4.84	H	PK
11650	38.47	9.84	48.31	54	-5.69	H	AV
11650	58.11	9.84	67.95	74	-6.05	V	PK
11650	36.38	9.84	46.22	54	-7.78	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-41.51	-27
Highest	Above 5350	-38.27	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.42	-27
Highest	Above 5350	-42.31	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-41.72	-27
Highest	Above 5725	-38.61	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-39.85	-27
	5715 to 5725	-28.42	-17
Highest	5850 to 5860	-29.11	-17
	Above 5860	-41.64	-27

Note: the data just list the worst cases

Note: this EUT was tested in the low, high channel and the worst case position data was reported.

- For the frequency band 5.15-5.25GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz (802.11n HT40)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5190MHz)							
10380	56.87	7.89	64.76	74	-9.24	H	PK
10380	34.53	7.89	42.42	54	-11.58	H	AV
10380	57.52	7.89	65.41	74	-8.59	V	PK
10380	35.74	7.89	43.63	54	-10.37	V	AV
High Channel (5230MHz)							
10460	57.33	7.97	65.30	74	-8.70	H	PK
10460	35.25	7.97	43.22	54	-10.78	H	AV
10460	56.38	7.97	64.35	74	-9.65	V	PK
10460	34.11	7.97	42.08	54	-11.92	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5270MHz)							
10540	56.21	8.16	64.37	74	-9.63	H	PK
10540	32.45	8.16	40.61	54	-13.39	H	AV
10540	58.68	8.16	66.84	74	-7.16	V	PK
10540	35.31	8.16	43.47	54	-10.53	V	AV
High Channel (5310MHz)							
10620	59.31	8.57	67.88	74	-6.12	H	PK
10620	35.51	8.57	44.08	54	-9.92	H	AV
10620	57.42	8.57	65.99	74	-8.01	V	PK
10620	38.92	8.57	47.49	54	-6.51	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5510MHz)							
11020	55.37	9.16	64.53	74	-9.47	H	PK
11020	34.01	9.16	43.17	54	-10.83	H	AV
11020	56.57	9.16	65.73	74	-8.27	V	PK
11020	34.87	9.16	44.03	54	-9.97	V	AV
Middle Channel (5590MHz)							
11180	55.97	9.08	65.05	74	-8.95	H	PK
11180	34.53	9.08	43.61	54	-10.39	H	AV
11180	56.75	9.08	65.83	74	-8.17	V	PK
11180	35.31	9.08	44.39	54	-9.61	V	AV
High Channel (5670MHz)							
11340	54.25	9.43	63.68	74	-10.32	H	PK
11340	34.14	9.43	43.57	54	-10.43	H	AV
11340	55.97	9.43	65.4	74	-8.60	V	PK
11340	34.53	9.43	43.96	54	-10.04	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5755MHz)							
11510	58.32	9.45	67.77	74	-6.23	H	PK
11510	36.41	9.45	45.86	54	-8.14	H	AV
11510	57.35	9.45	66.80	74	-7.20	V	PK
11510	35.31	9.45	44.76	54	-9.24	V	AV
High Channel (5795MHz)							
11590	56.98	9.27	66.25	74	-7.75	H	PK
11590	35.41	9.27	44.68	54	-9.32	H	AV
11590	57.05	9.27	66.32	74	-7.68	V	PK
11590	36.11	9.27	45.38	54	-8.62	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.41	-27
Highest	Above 5350	-36.32	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-38.43	-27
Highest	Above 5350	-37.87	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-37.53	-27
Highest	Above 5725	-36.87	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-37.52	-27
	5715 to 5725	-26.57	-17
Highest	5850 to 5860	-25.35	-17
	Above 5860	-36.12	-27

Note: the data just list the worst cases

- For the frequency band 5.15-5.25GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz (802.11ac VH80)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5210MHz							
10420	58.61	7.11	65.72	74	-8.28	H	PK
10420	36.47	7.11	43.58	54	-10.42	H	AV
10420	56.87	7.11	63.98	74	-10.02	V	PK
10420	35.44	7.11	42.55	54	-11.45	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5290MHz							
10580	57.39	7.8	65.19	74	-8.81	H	PK
10580	34.54	7.8	42.34	54	-11.66	H	AV
10580	58.63	7.8	66.43	74	-7.57	V	PK
10580	35.89	7.8	43.69	54	-10.31	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5530MHz)							
11060	56.51	8.97	65.48	74	-8.52	H	PK
11060	35.39	8.97	44.36	54	-9.64	H	AV
11060	57.15	8.97	66.12	74	-7.88	V	PK
11060	36.39	8.97	45.36	54	-8.64	V	AV
High Channel (5610MHz)							
11220	57.41	9.41	66.82	74	-7.18	H	PK
11220	36.32	9.41	45.73	54	-8.27	H	AV
11220	54.02	9.41	63.43	74	-10.57	V	PK
11220	33.97	9.41	43.38	54	-10.62	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	54.53	9.01	63.54	74	-10.46	H	PK
11550	32.89	9.01	41.90	54	-12.10	H	AV
11550	56.18	9.01	65.19	74	-8.81	V	PK
11550	33.72	9.01	42.73	54	-11.27	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.15	-27
Highest	Above 5350	-39.35	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.56	-27
Highest	Above 5350	-40.15	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-40.35	-27
Highest	Above 5725	-39.47	-27

Note: the data just list the worst cases

➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-42.25	-27
	5715 to 5725	-30.56	-17
Highest	5850 to 5860	-41.21	-17
	Above 5860	-29.39	-27

Note: the data just list the worst cases

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

9. Frequency Stability

9.1 Standard Applicable

According to §15.407(g), manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

9.2 Test Procedure

According to §2.1055, the following test procedure was performed.

The Frequency Stability is measured directly with a Frequency Domain Analyzer. Frequency Deviation in ppm is calculated from the measured peak to peak value.

The Carrier Frequency Stability over Power Supply Voltage and over Temperature is measured with a Frequency Domain Analyzer in histogram mode.

9.3 Summary of Test Results/Plots

Please refer to Appendix D

10. Conducted Emissions

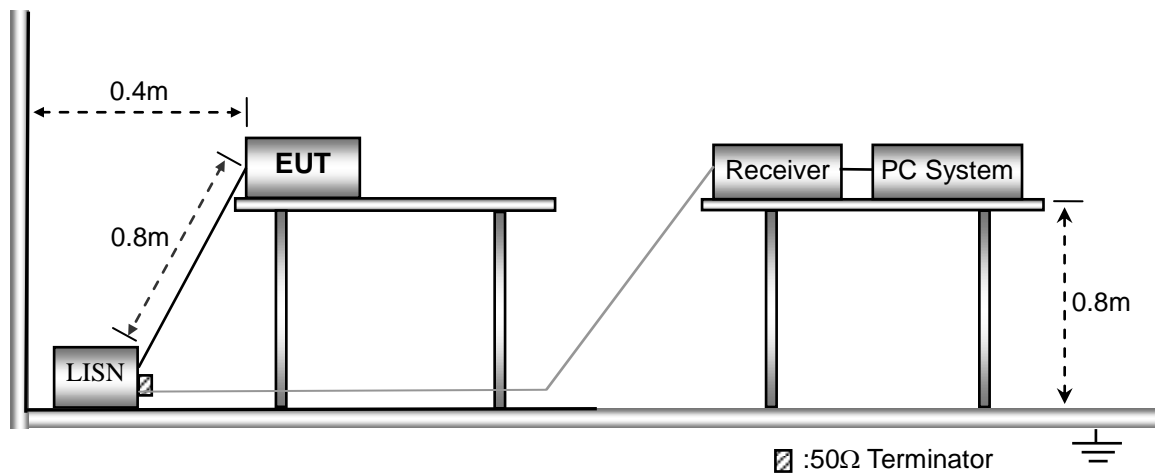
10.1 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 Limit.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

10.2 Basic Test Setup Block Diagram



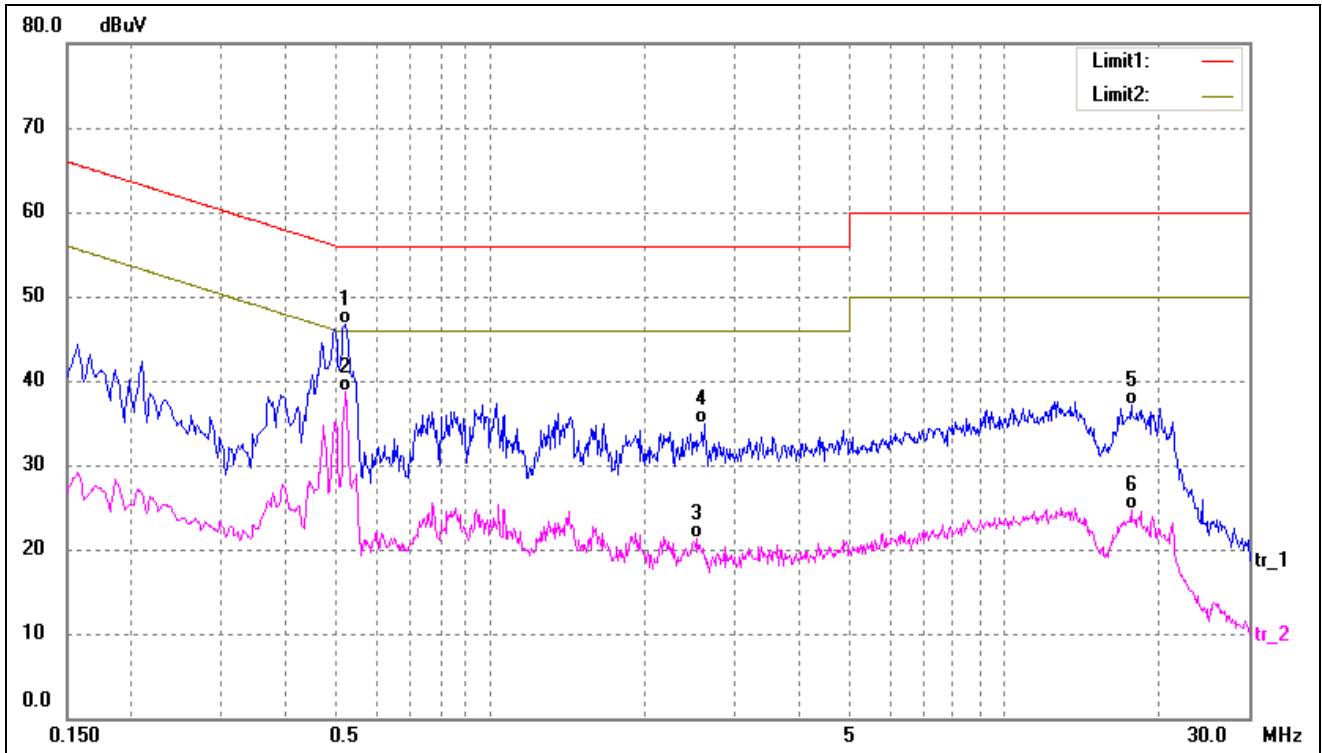
10.3 Test Receiver Setup

During the conducted emission test, the test receiver was set with the following configurations:

Start Frequency	150 kHz
Stop Frequency	30 MHz
Sweep Speed	Auto
IF Bandwidth.....	10 kHz
Quasi-Peak Adapter Bandwidth	9 kHz
Quasi-Peak Adapter Mode	Normal

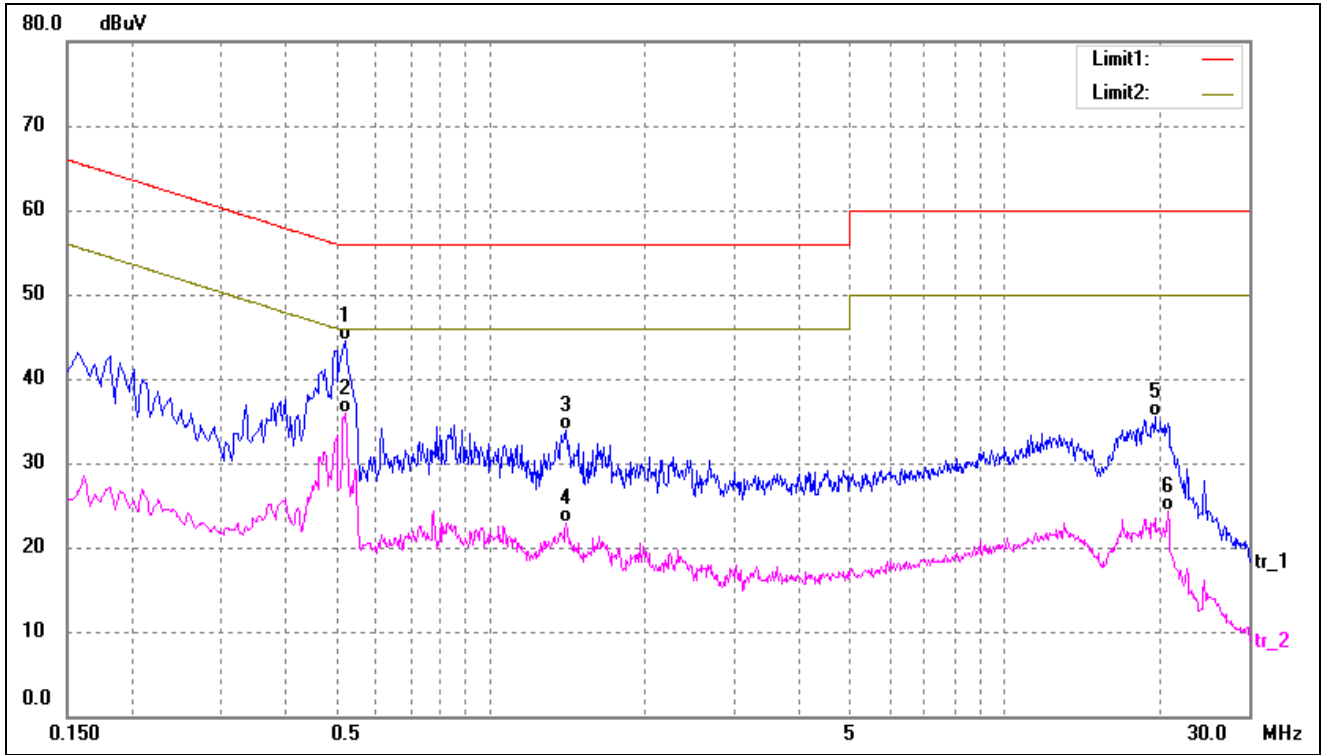
10.4 Summary of Test Results/Plots

Test Mode	Communication	AC120V 60Hz	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.5220	36.53	10.22	46.75	56.00	-9.25	QP
2*	0.5220	28.55	10.22	38.77	46.00	-7.23	AVG
3	2.5300	10.92	10.29	21.21	46.00	-24.79	AVG
4	2.6140	24.64	10.29	34.93	56.00	-21.07	QP
5	17.7060	26.50	10.58	37.08	60.00	-22.92	QP
6	17.7060	14.20	10.58	24.78	50.00	-25.22	AVG

Test Mode	Communication	AC120V 60Hz	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.5220	34.23	10.22	44.45	56.00	-11.55	QP
2*	0.5220	25.76	10.22	35.98	46.00	-10.02	AVG
3	1.4060	23.59	10.22	33.81	56.00	-22.19	QP
4	1.4060	12.66	10.22	22.88	46.00	-23.12	AVG
5	19.6980	24.87	10.59	35.46	60.00	-24.54	QP
6	20.9140	13.63	10.59	24.22	50.00	-25.78	AVG

APPENDIX SUMMARY

Project No.	WTX20X10072823W	Test Engineer	Combat
Start date	2020/10/20	Finish date	2020/10/23
Temperature	24°C	Humidity	47%
RF specifications	/		

APPENDIX	Description of Test Item	Result
A	Power Spectral Density	Compliant
B	Emission Bandwidth and Occupied Bandwidth	Compliant
C	Maximum Conducted Output Power	Compliant
D	Frequency Stability	Compliant

APPENDIX A

Power Spectral Density			
U-NII-1:5150-5250MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	9.703	11
	5200	9.961	11
	5240	9.854	11
802.11n-HT20	5180	9.529	11
	5200	9.049	11
	5240	9.397	11
802.11n-HT40	5190	6.103	11
	5230	7.077	11
802.11ac-HT80	5210	3.258	11

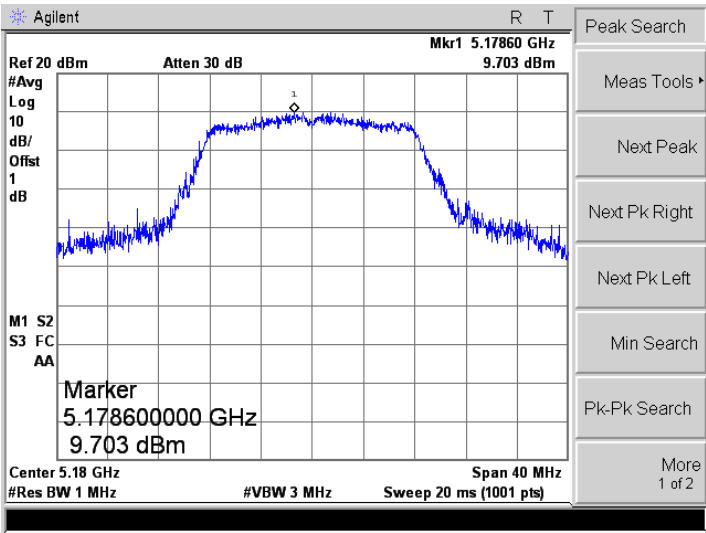
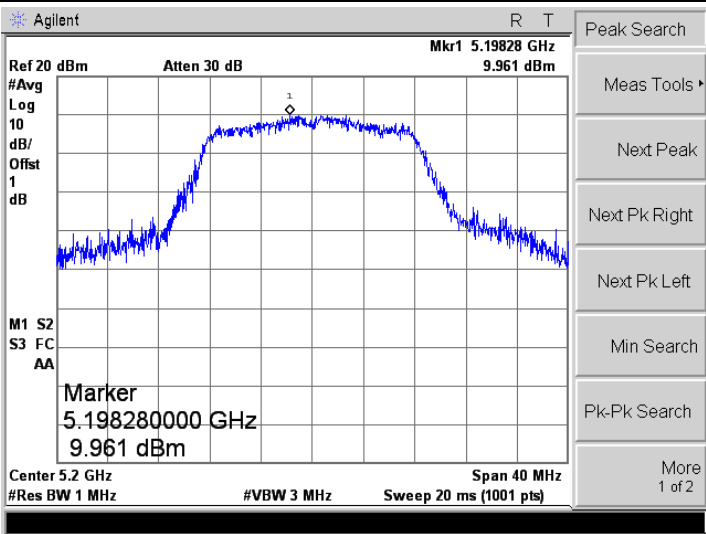
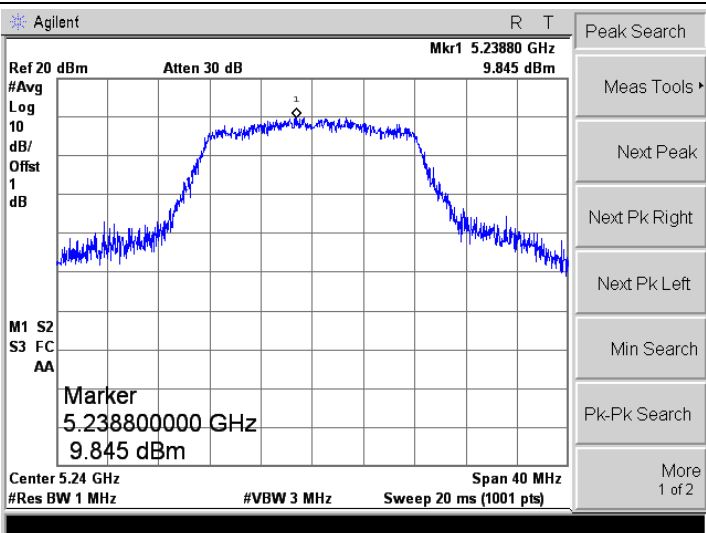
U-NII-2A: 5250-5350MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	10.570	11
	5280	10.400	11
	5320	10.770	11
802.11n-HT20	5260	10.770	11
	5280	9.721	11
	5320	9.785	11
802.11n-HT40	5270	7.310	11
	5310	8.781	11
802.11ac-HT80	5290	3.879	11

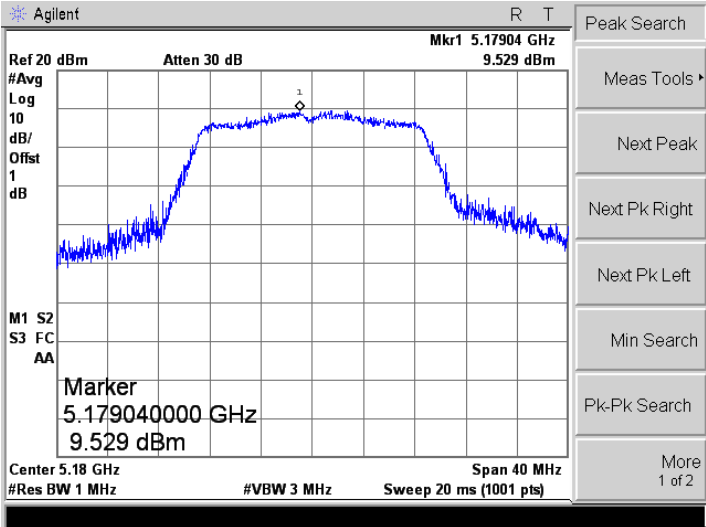
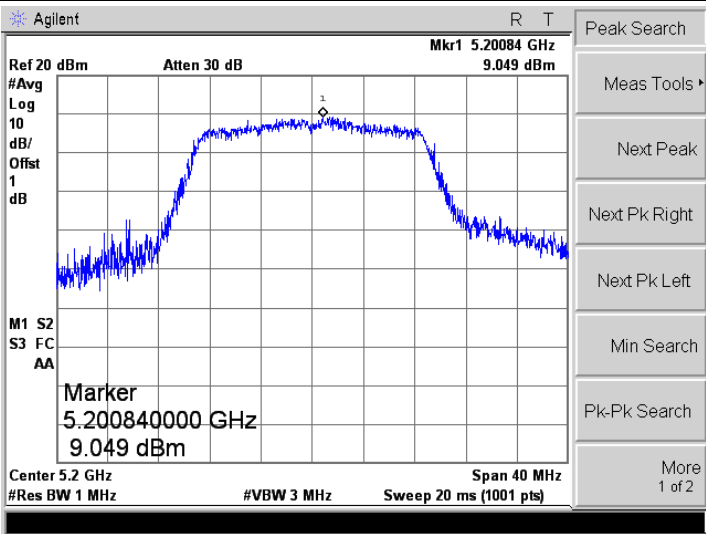
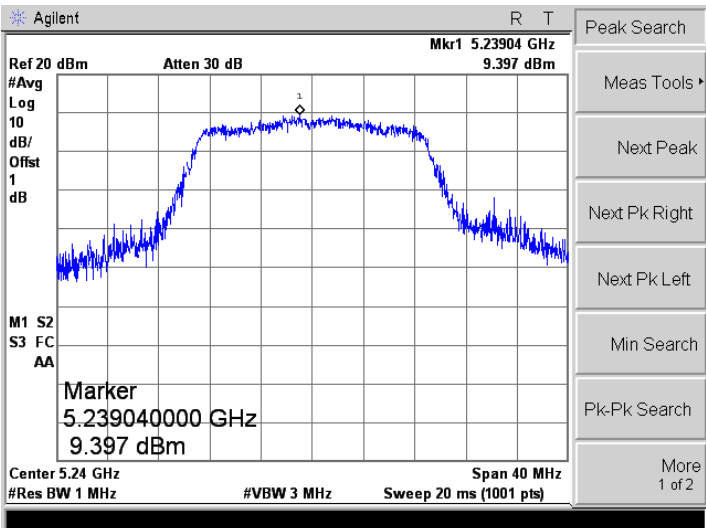
U-NII-2C: 5470-5725MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	10.360	11
	5600	8.700	11
	5700	8.643	11
802.11n-HT20	5500	9.067	11
	5600	7.708	11
	5700	8.352	11
802.11n-HT40	5510	5.916	11
	5590	5.724	11
	5670	5.827	11
802.11ac-HT80	5530	2.705	11
	5610	2.215	

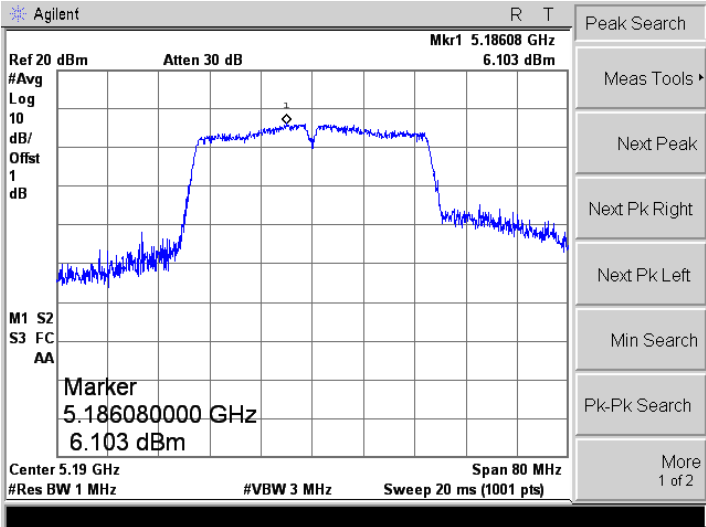
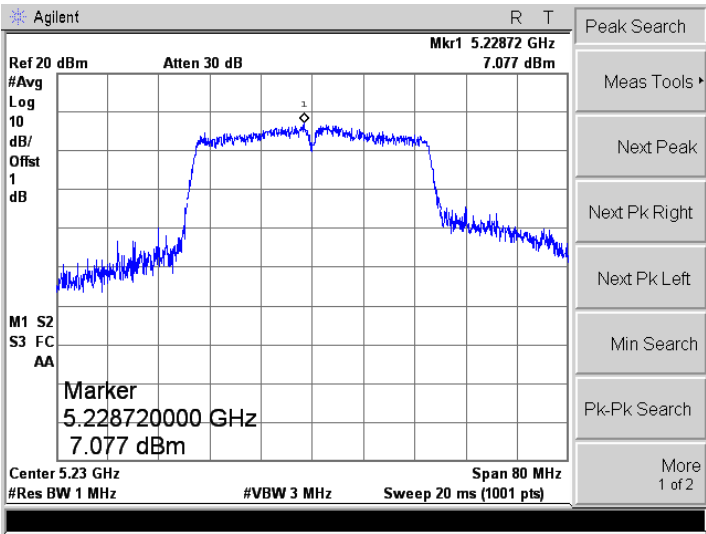
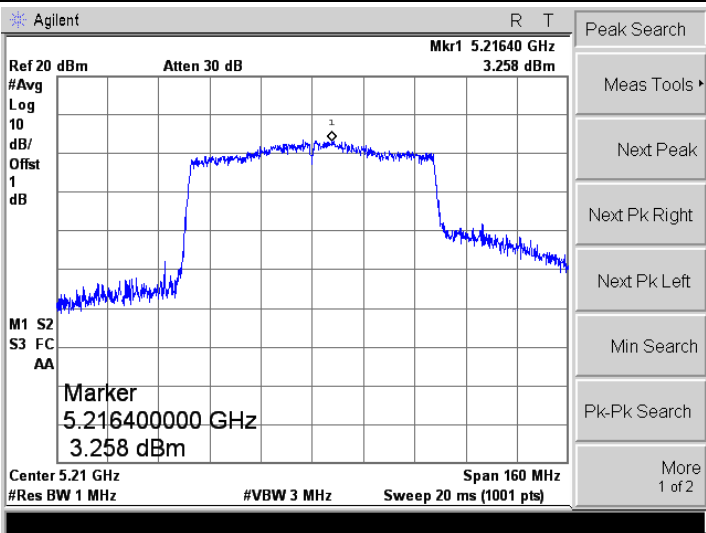
U-NII-3: 5725-5850MHz					
Operating mode	Test Channel	Power Spectral Density dBm/300kHz	Factor	Power Spectral Density* dBm/500kHz	Limit dBm/500kHz
802.11a	5745	4.408	2.22	6.628	30
	5785	4.566	2.22	6.786	30
	5825	4.952	2.22	7.172	30
802.11n-HT20	5745	4.350	2.22	6.570	30
	5785	4.079	2.22	6.299	30
	5825	5.086	2.22	7.306	30
802.11n HT40	5755	1.137	2.22	3.357	30
	5795	1.459	2.22	3.679	30
802.11ac VH80	5775	-1.763	2.22	0.457	30

*Note: Maximum PSD=PSD(dBm/300kHz)+10log(500kHz/300kHz)=2.22

5150-5250MHz

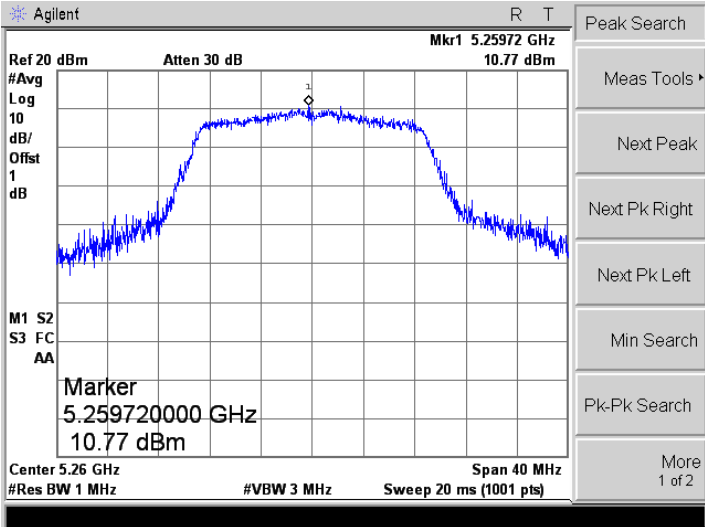
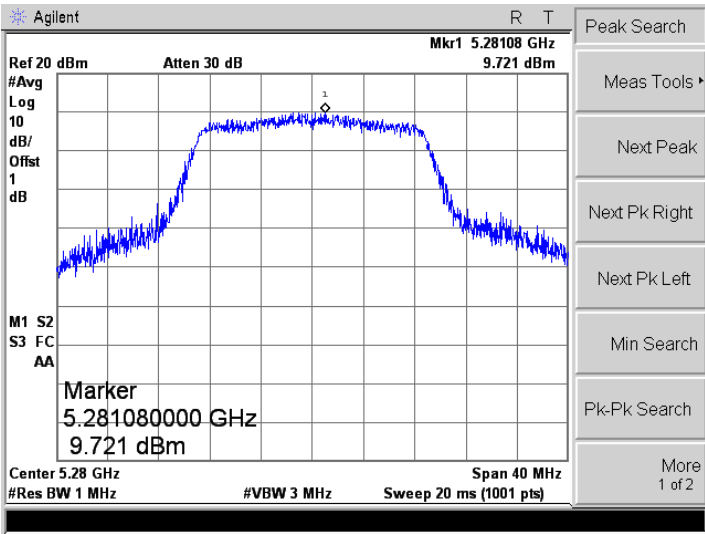
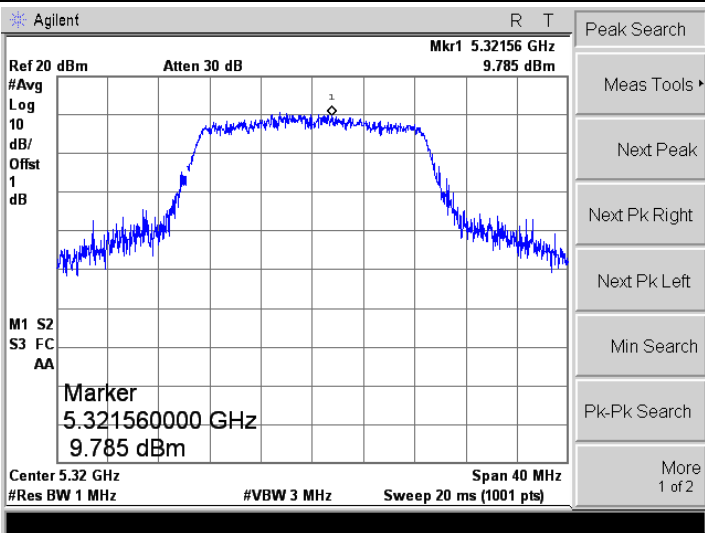
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<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

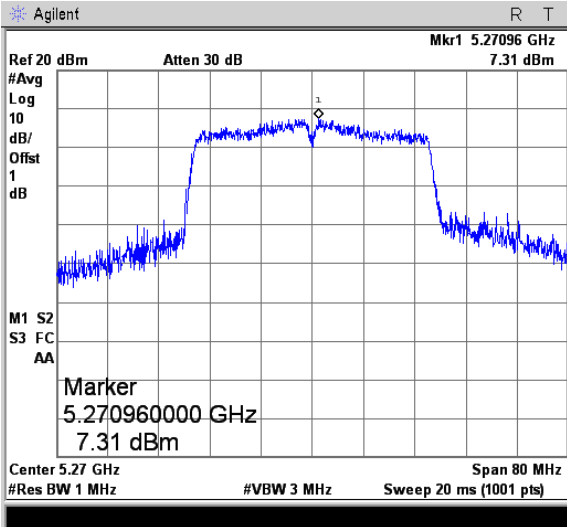
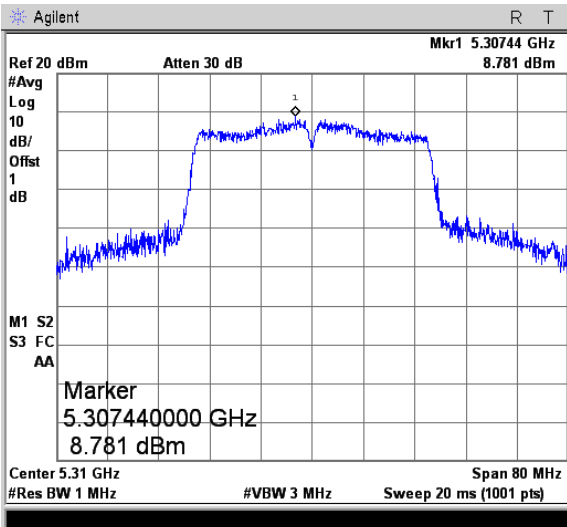
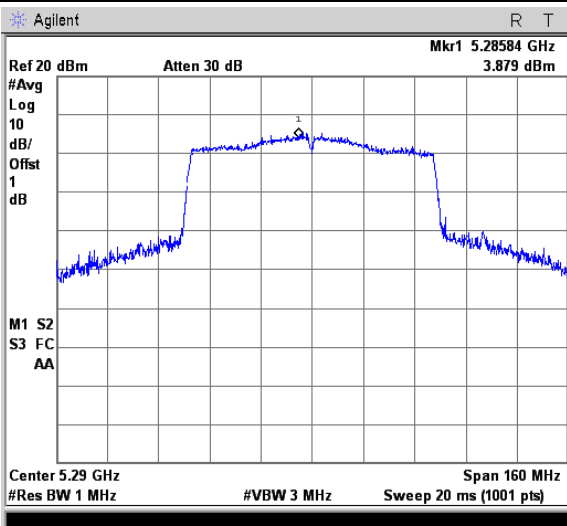
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<p>802.11n-HT20-Middle</p>	
<p>802.11n-HT20-High</p>	

<p>802.11n-HT40-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.18608 GHz 6.103 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.186080000 GHz 6.103 dBm Center 5.19 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.22872 GHz 7.077 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.228720000 GHz 7.077 dBm Center 5.23 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.21640 GHz 3.258 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.216400000 GHz 3.258 dBm Center 5.21 GHz Span 160 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>

5250-5350MHz

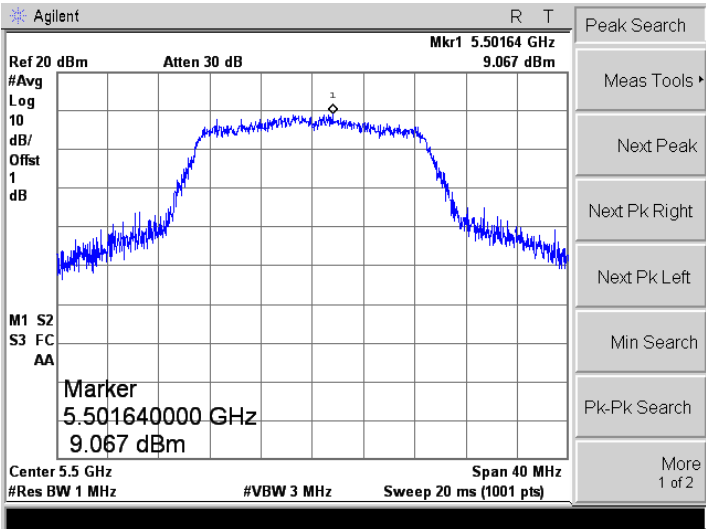
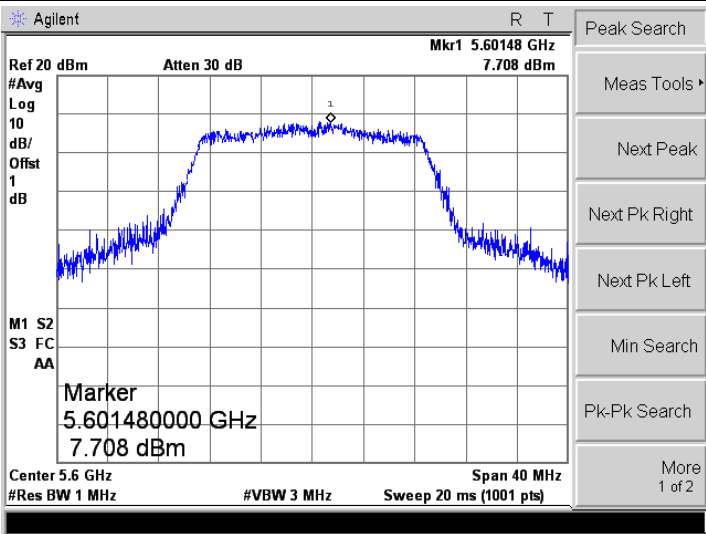
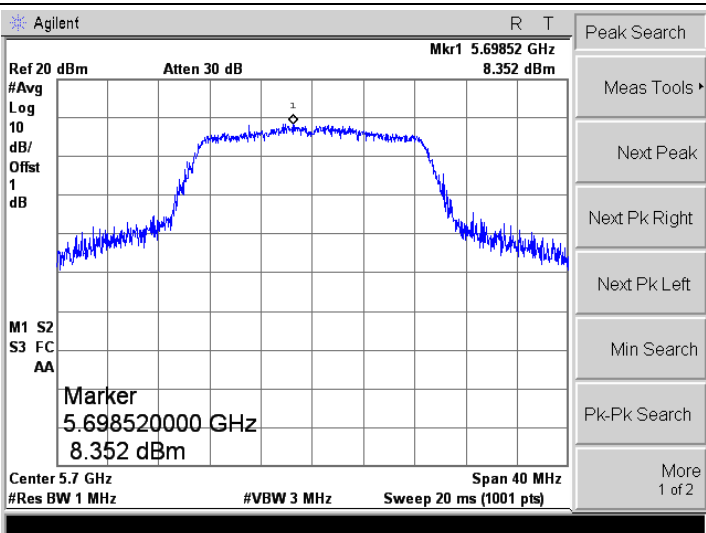
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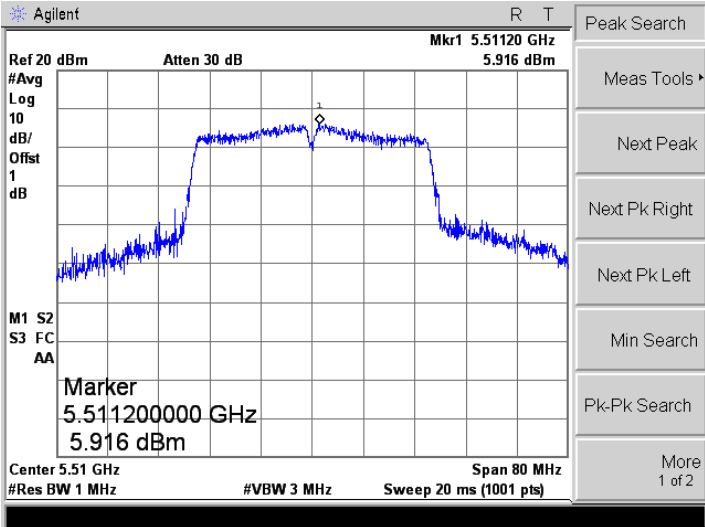
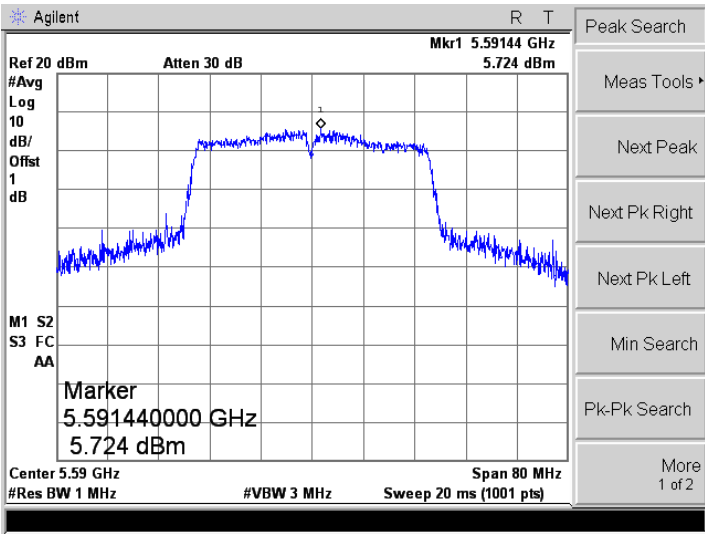
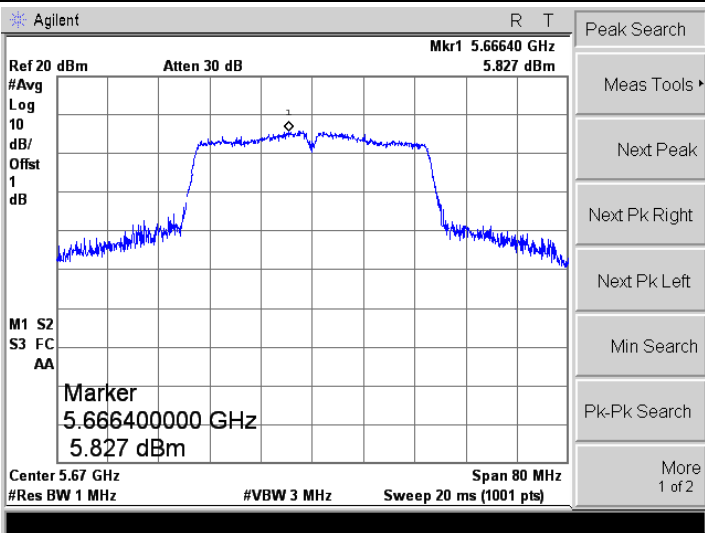
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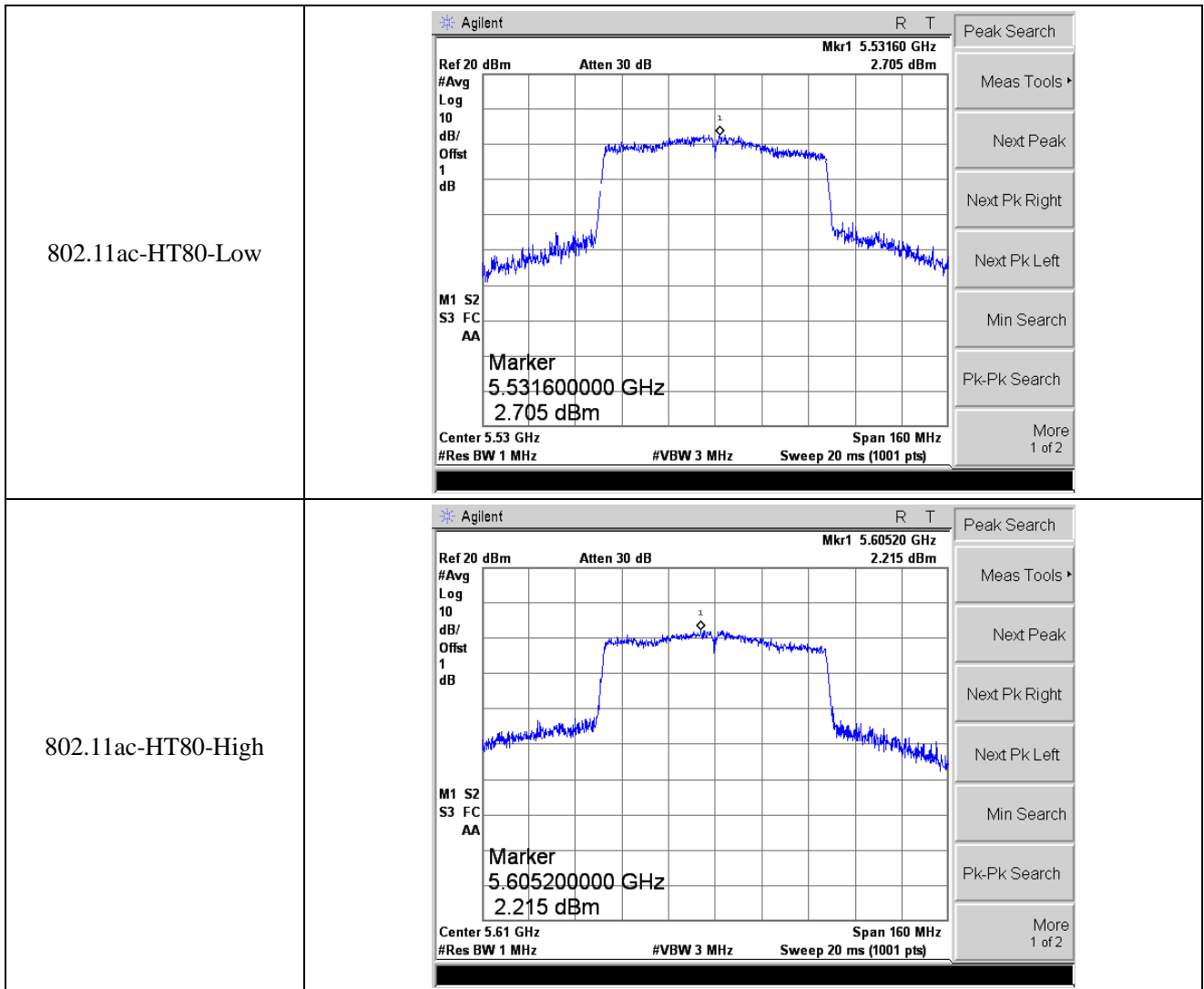
<p>802.11n-HT40-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.27096 GHz 7.31 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.270960000 GHz 7.31 dBm Center 5.27 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.30744 GHz 8.781 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.307440000 GHz 8.781 dBm Center 5.31 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.28584 GHz 3.879 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Center 5.29 GHz Span 160 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Freq/Channel Center Freq 5.29000000 GHz Start Freq 5.21000000 GHz Stop Freq 5.37000000 GHz CF Step 16.0000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin</p>

5470-5725MHz

<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

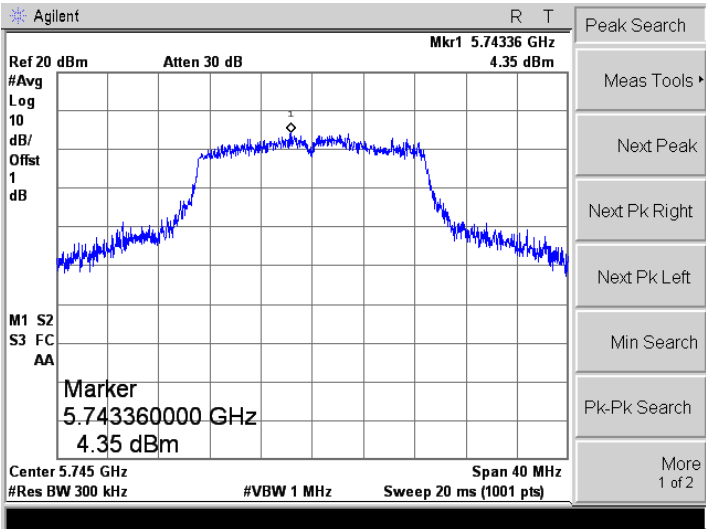
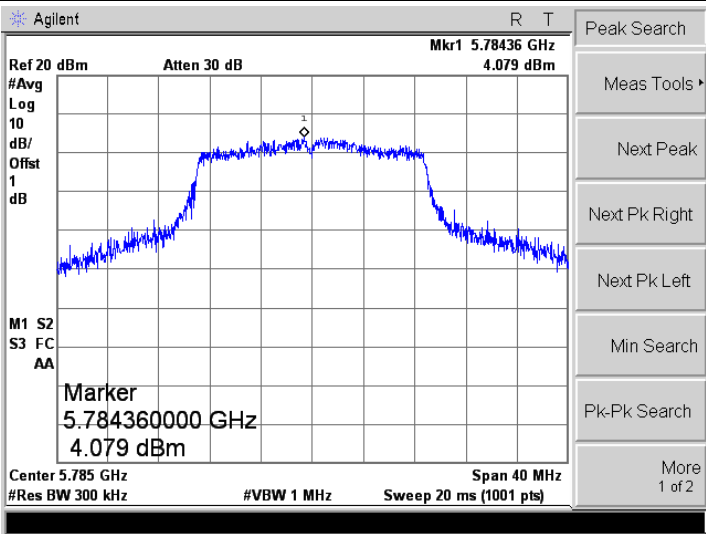
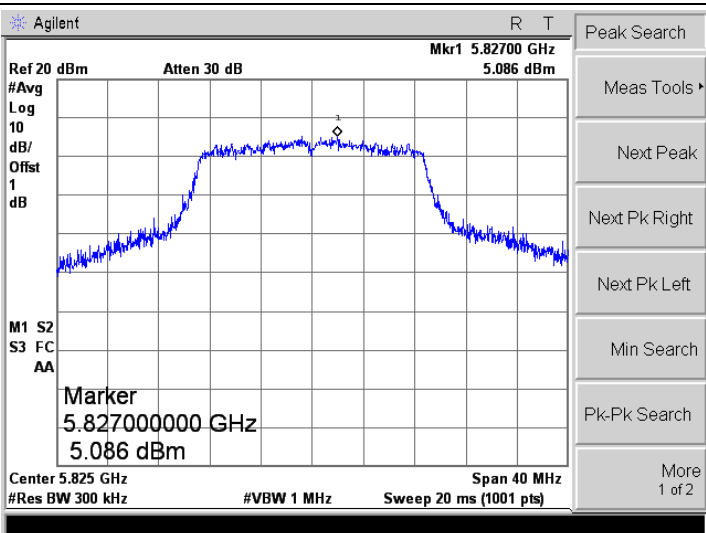
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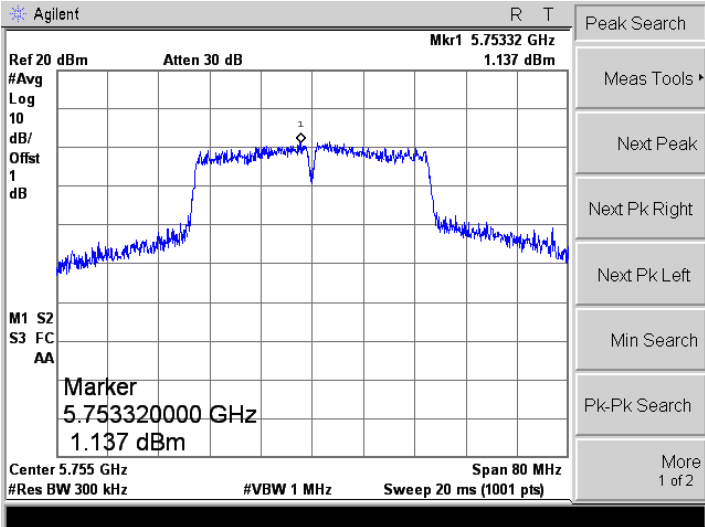
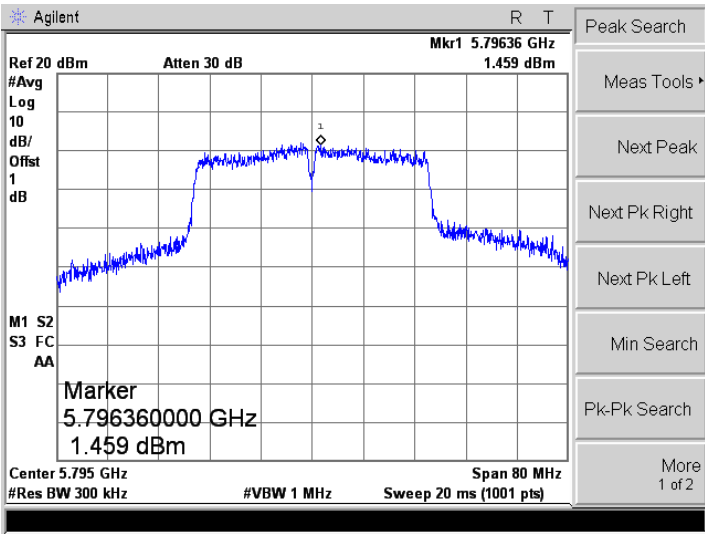
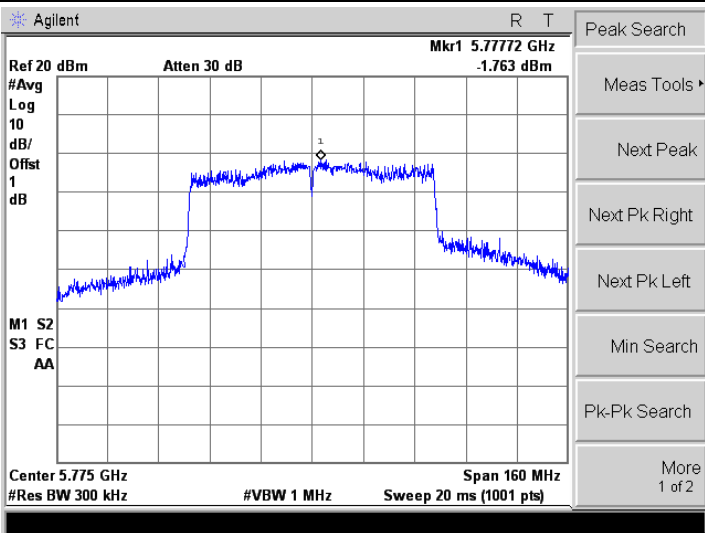
<p>802.11n-HT40-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.51120 GHz 5.916 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.51120000 GHz 5.916 dBm Center 5.51 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11n-HT40- Middle</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.59144 GHz 5.724 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.59144000 GHz 5.724 dBm Center 5.59 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.66640 GHz 5.827 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.66640000 GHz 5.827 dBm Center 5.67 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p>



5725-5850MHz

<p>802.11a-Low</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 30 dB Mkr1 5.74412 GHz 4.408 dBm</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>M1 S2 S3 FC AA</p> <p>Marker 5.744120000 GHz 4.408 dBm</p> <p>Center 5.745 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 20 ms (1001 pts)</p> <p>Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2</p>
<p>802.11a-Middle</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 30 dB Mkr1 5.78284 GHz 4.566 dBm</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>M1 S2 S3 FC AA</p> <p>Marker 5.782840000 GHz 4.566 dBm</p> <p>Center 5.785 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 20 ms (1001 pts)</p> <p>Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2</p>
<p>802.11a-High</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 30 dB Mkr1 5.82592 GHz 4.952 dBm</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>M1 S2 S3 FC AA</p> <p>Marker 5.825920000 GHz 4.952 dBm</p> <p>Center 5.825 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 20 ms (1001 pts)</p> <p>Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2</p>

<p>802.11n-HT20-Low</p>	
<p>802.11n-HT20-Middle</p>	
<p>802.11n-HT20-High</p>	

<p>802.11n-HT40-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.75332 GHz 1.137 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.753320000 GHz 1.137 dBm Center 5.755 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.79636 GHz 1.459 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.796360000 GHz 1.459 dBm Center 5.795 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 20 ms (1001 pts)</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.77772 GHz -1.763 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.777720000 GHz -1.763 dBm Center 5.775 GHz Span 160 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 20 ms (1001 pts)</p>

APPENDIX B

Emission Bandwidth and Occupied Bandwidth

U-NII-1:5150-5250MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5180	24.552	17.3100	Pass
	5200	23.129	17.1260	Pass
	5240	26.057	17.2799	Pass
802.11n-HT20	5180	27.804	18.1410	Pass
	5200	24.931	18.1219	Pass
	5240	25.632	18.1495	Pass
802.11n-HT40	5190	59.374	36.8163	Pass
	5230	54.668	36.8868	Pass
802.11ac-HT80	5210	107.975	75.8823	Pass

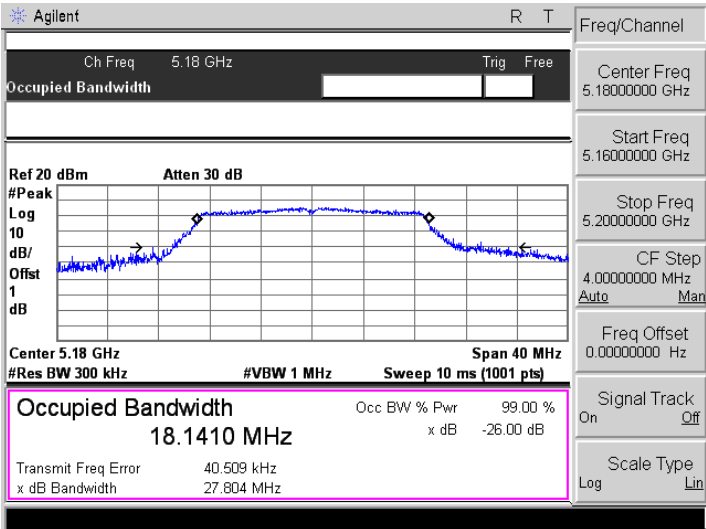
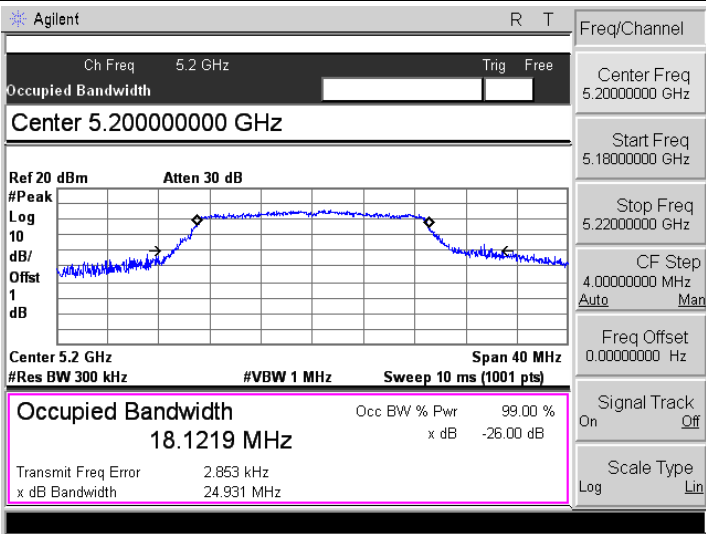
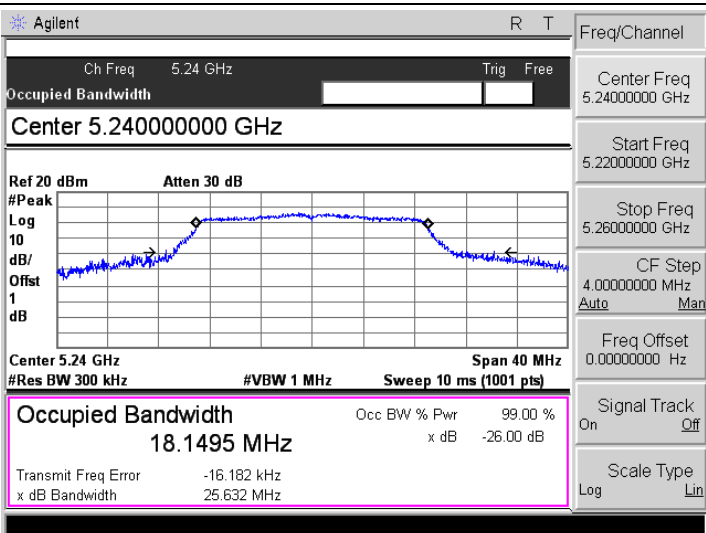
U-NII-2A: 5250-5350MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5260	25.979	17.2767	Pass
	5280	25.929	17.2751	Pass
	5320	24.685	17.1784	Pass
802.11n-HT20	5260	26.504	18.1938	Pass
	5280	26.882	18.1843	Pass
	5320	25.285	18.1030	Pass
802.11n-HT40	5270	58.892	37.1368	Pass
	5310	54.129	36.7570	Pass
802.11ac-HT80	5290	82.831	75.5066	Pass

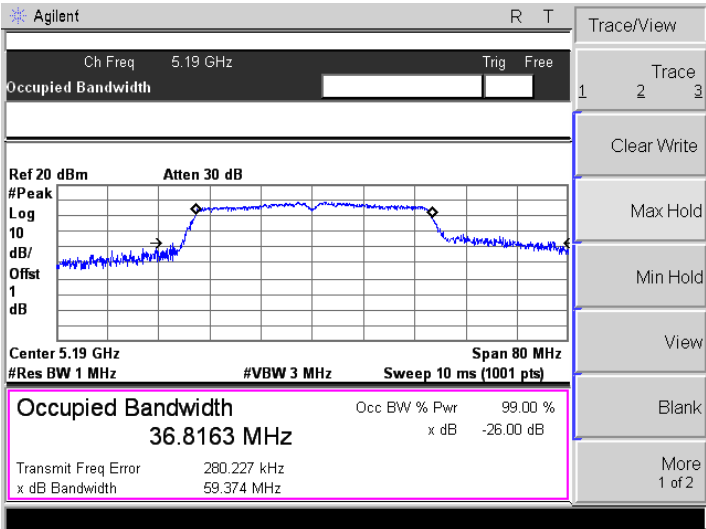
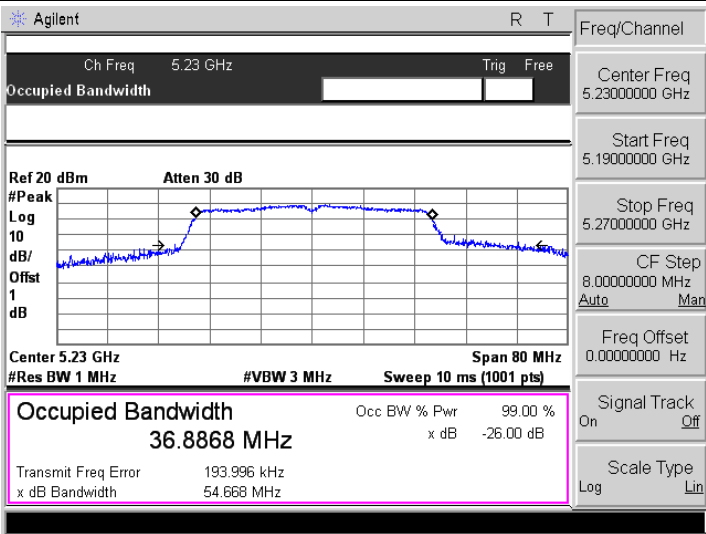
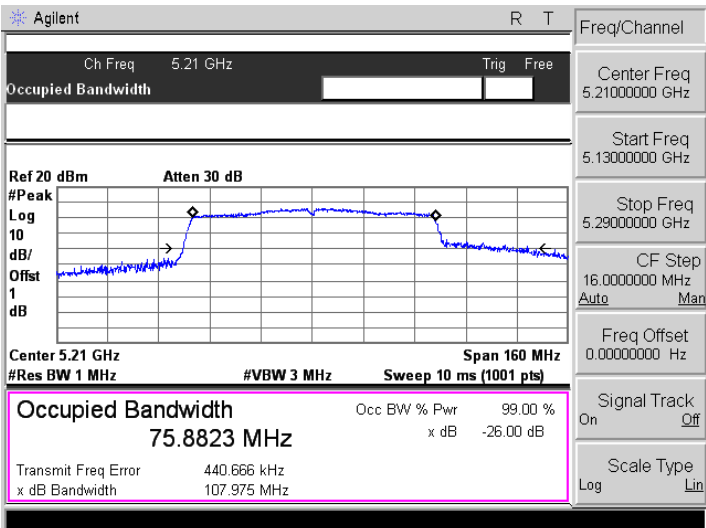
U-NII-2C: 5470-5725MHz				
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5500	16.254	17.1612	Pass
	5580	16.287	17.2766	Pass
	5700	16.313	17.3847	Pass
802.11n-HT20	5500	17.373	18.2643	Pass
	5580	17.478	18.2377	Pass
	5700	17.414	18.3002	Pass
802.11n-HT40	5510	59.465	36.9181	Pass
	5590	66.470	37.0493	Pass
	5670	68.749	37.2218	Pass
802.11ac-HT80	5530	80.993	75.4577	Pass
	5610	90.550	75.6102	Pass

U-NII-3: 5725-5850MHz				
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5745	15.739	18.7569	≥500
	5785	16.304	18.1205	≥500
	5825	16.331	17.7909	≥500
802.11n-HT20	5745	17.062	18.7774	≥500
	5785	17.076	18.3536	≥500
	5825	17.309	18.3294	≥500
802.11n-HT40	5755	35.480	39.3733	≥500
	5795	35.651	41.2437	≥500
802.11ac VH80	5775	75.624	77.8879	≥500

5150-5250MHz

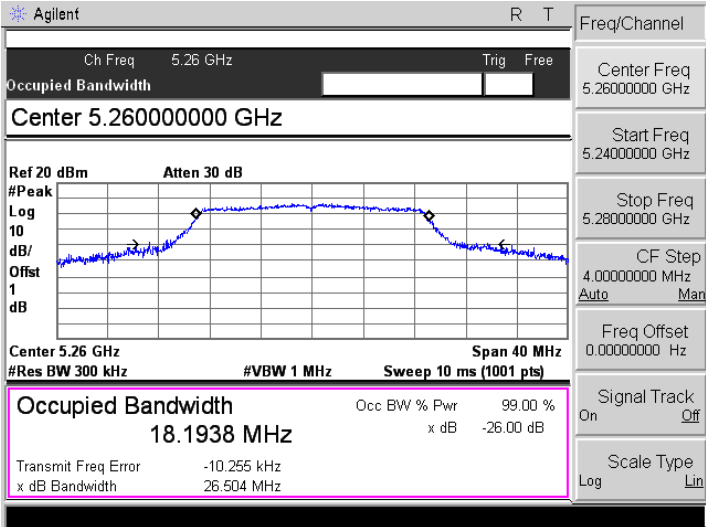
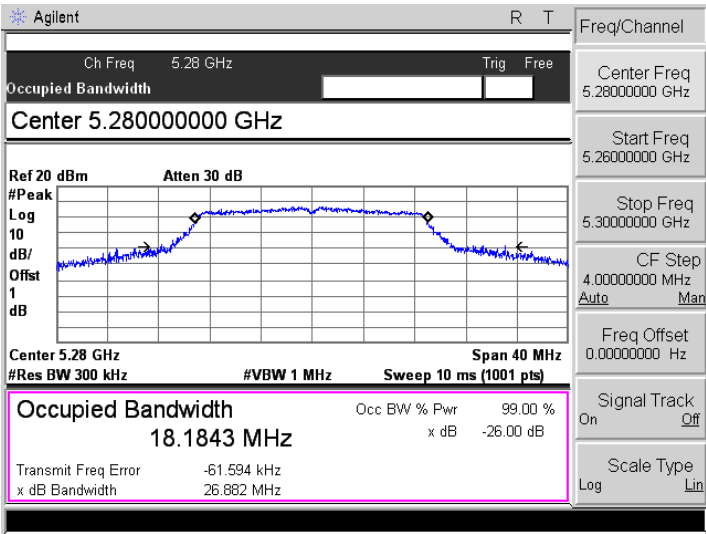
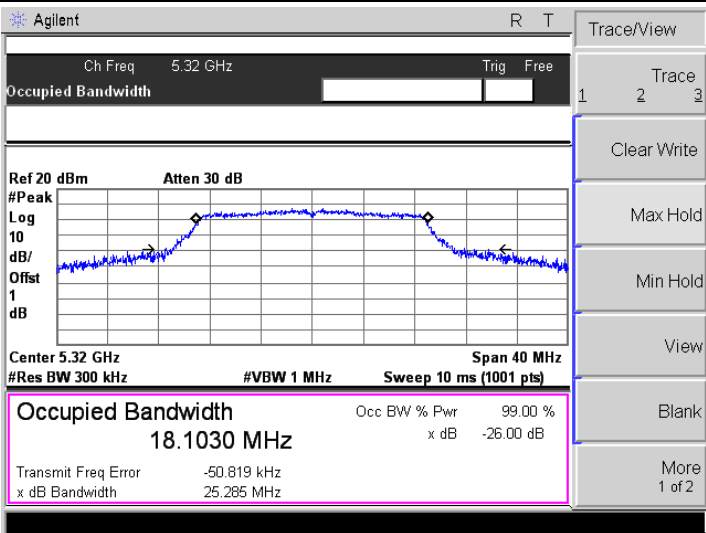
<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

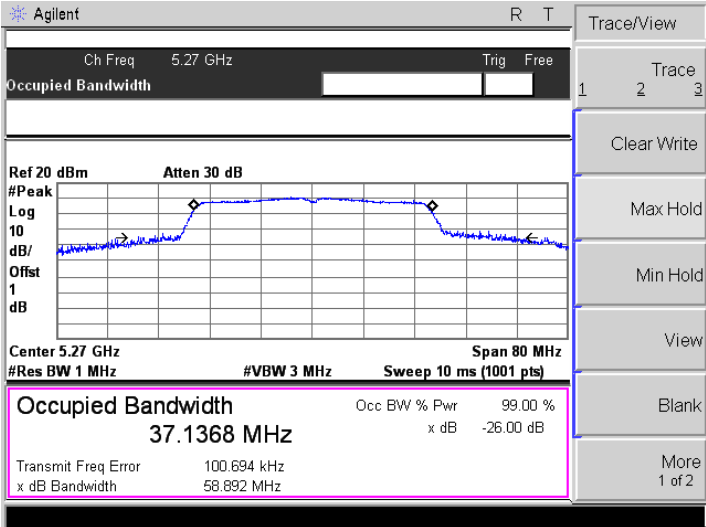
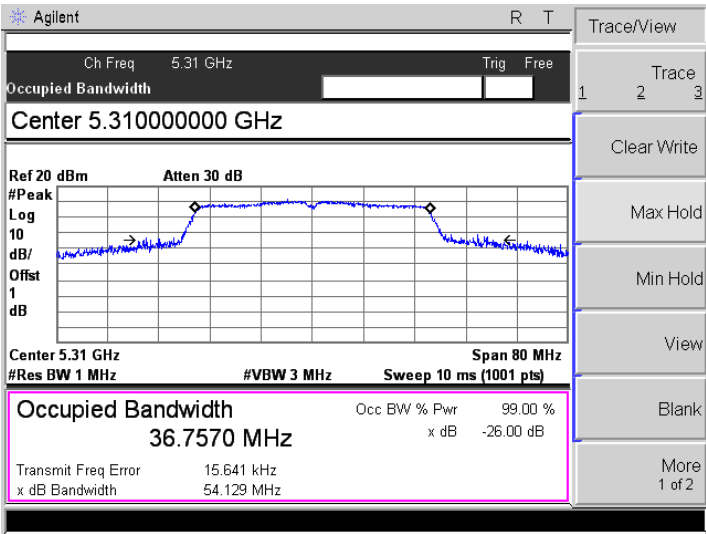
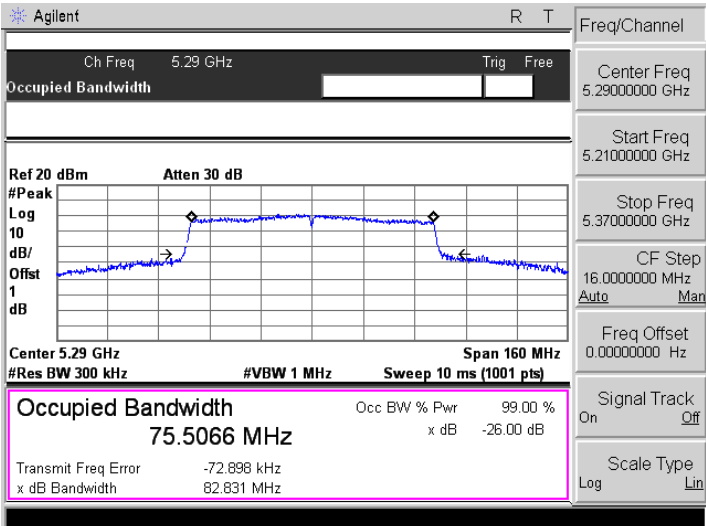
<p>802.11n-HT20-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.18 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>dB/</p> <p>Offst</p> <p>1</p> <p>dB</p> <p>Center 5.18 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1410 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error 40.509 kHz</p> <p>x dB Bandwidth 27.804 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.18000000 GHz</p> <p>Start Freq 5.16000000 GHz</p> <p>Stop Freq 5.20000000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.2 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.20000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>dB/</p> <p>Offst</p> <p>1</p> <p>dB</p> <p>Center 5.2 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1219 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error 2.853 kHz</p> <p>x dB Bandwidth 24.931 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.20000000 GHz</p> <p>Start Freq 5.18000000 GHz</p> <p>Stop Freq 5.22000000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.24 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.24000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>dB/</p> <p>Offst</p> <p>1</p> <p>dB</p> <p>Center 5.24 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1495 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error -16.182 kHz</p> <p>x dB Bandwidth 25.632 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.24000000 GHz</p> <p>Start Freq 5.22000000 GHz</p> <p>Stop Freq 5.26000000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

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<p>802.11n-HT40-High</p>	
<p>802.11ac-HT80-Low</p>	

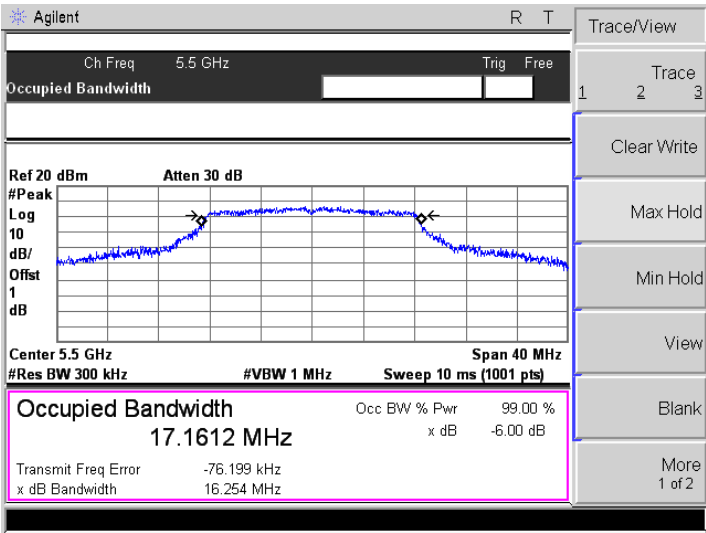
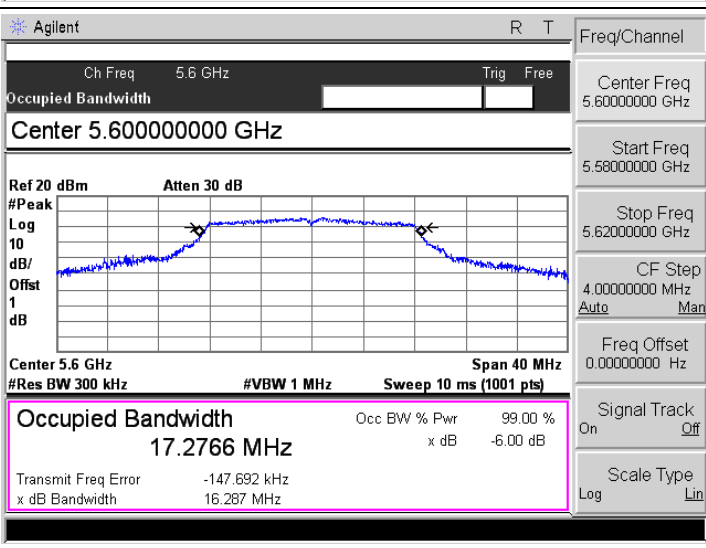
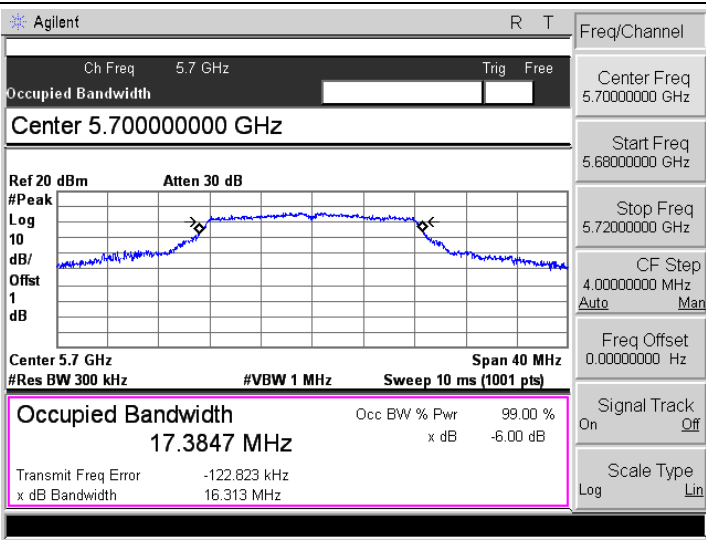
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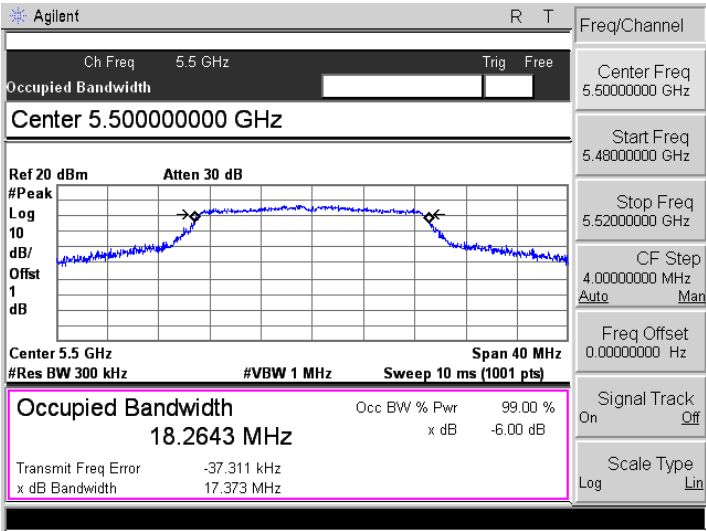
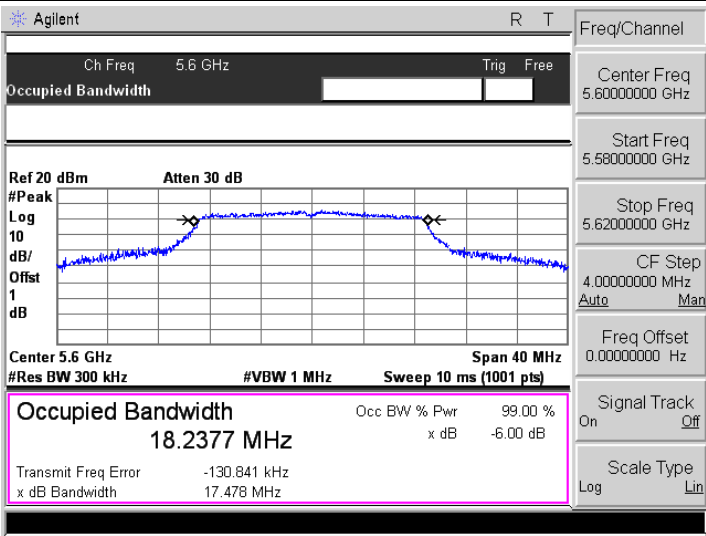
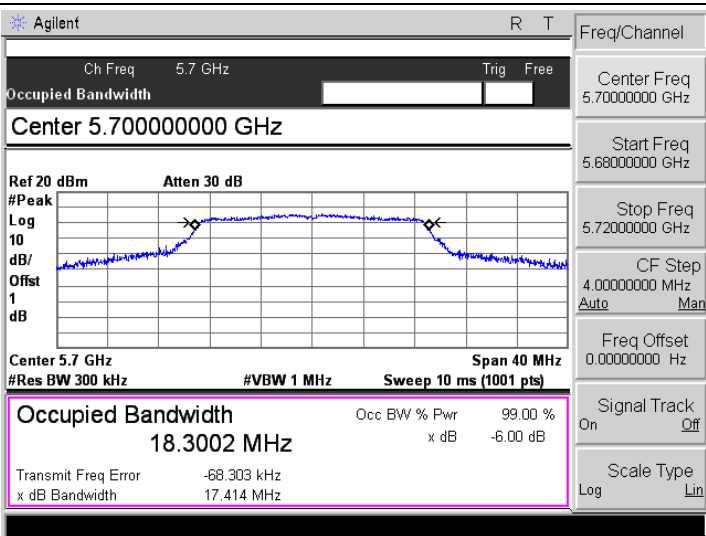
<p>802.11a-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.26 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.26 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.2767 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -81.758 kHz x dB Bandwidth 25.979 MHz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.28 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.28000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.28 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.2751 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -87.990 kHz x dB Bandwidth 25.929 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.28000000 GHz</p> <p>Start Freq 5.26000000 GHz</p> <p>Stop Freq 5.30000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.32 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.32000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.32 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.1784 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -63.682 kHz x dB Bandwidth 24.685 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.32000000 GHz</p> <p>Start Freq 5.30000000 GHz</p> <p>Stop Freq 5.34000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT20-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.26 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.26000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>10 dB/</p> <p>Offst</p> <p>1 dB</p> <p>Center 5.26 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1938 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -10.255 kHz x dB Bandwidth 26.504 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.26000000 GHz</p> <p>Start Freq 5.24000000 GHz</p> <p>Stop Freq 5.28000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.28 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.28000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>10 dB/</p> <p>Offst</p> <p>1 dB</p> <p>Center 5.28 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1843 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -61.594 kHz x dB Bandwidth 26.882 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.28000000 GHz</p> <p>Start Freq 5.26000000 GHz</p> <p>Stop Freq 5.30000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.32 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.32000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>10 dB/</p> <p>Offst</p> <p>1 dB</p> <p>Center 5.32 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1030 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -50.819 kHz x dB Bandwidth 25.285 MHz</p> <p>Trace/View</p> <p>1 Trace 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.27 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.27 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts)</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> </tr> <tr> <td>37.1368 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> <tr> <td>Transmit Freq Error</td> <td>100.694 kHz</td> <td></td> </tr> <tr> <td>x dB Bandwidth</td> <td>58.892 MHz</td> <td></td> </tr> </table> <p>Trace/View</p> <p>1 2 3</p> <p>Trace</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>	Occupied Bandwidth	Occ BW % Pwr	99.00 %	37.1368 MHz	x dB	-26.00 dB	Transmit Freq Error	100.694 kHz		x dB Bandwidth	58.892 MHz	
Occupied Bandwidth	Occ BW % Pwr	99.00 %											
37.1368 MHz	x dB	-26.00 dB											
Transmit Freq Error	100.694 kHz												
x dB Bandwidth	58.892 MHz												
<p>802.11n-HT40-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.31 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.31000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.31 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts)</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> </tr> <tr> <td>36.7570 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> <tr> <td>Transmit Freq Error</td> <td>15.641 kHz</td> <td></td> </tr> <tr> <td>x dB Bandwidth</td> <td>54.129 MHz</td> <td></td> </tr> </table> <p>Trace/View</p> <p>1 2 3</p> <p>Trace</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>	Occupied Bandwidth	Occ BW % Pwr	99.00 %	36.7570 MHz	x dB	-26.00 dB	Transmit Freq Error	15.641 kHz		x dB Bandwidth	54.129 MHz	
Occupied Bandwidth	Occ BW % Pwr	99.00 %											
36.7570 MHz	x dB	-26.00 dB											
Transmit Freq Error	15.641 kHz												
x dB Bandwidth	54.129 MHz												
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.29 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.29 GHz Span 160 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <table border="1"> <tr> <td>Occupied Bandwidth</td> <td>Occ BW % Pwr</td> <td>99.00 %</td> </tr> <tr> <td>75.5066 MHz</td> <td>x dB</td> <td>-26.00 dB</td> </tr> <tr> <td>Transmit Freq Error</td> <td>-72.898 kHz</td> <td></td> </tr> <tr> <td>x dB Bandwidth</td> <td>82.831 MHz</td> <td></td> </tr> </table> <p>Freq/Channel</p> <p>Center Freq 5.29000000 GHz</p> <p>Start Freq 5.21000000 GHz</p> <p>Stop Freq 5.37000000 GHz</p> <p>CF Step 16.000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>	Occupied Bandwidth	Occ BW % Pwr	99.00 %	75.5066 MHz	x dB	-26.00 dB	Transmit Freq Error	-72.898 kHz		x dB Bandwidth	82.831 MHz	
Occupied Bandwidth	Occ BW % Pwr	99.00 %											
75.5066 MHz	x dB	-26.00 dB											
Transmit Freq Error	-72.898 kHz												
x dB Bandwidth	82.831 MHz												

5470-5725MHz

<p>802.11a-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.5 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.5 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.1612 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -76.199 kHz x dB Bandwidth 16.254 MHz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.6 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.60000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.6 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.2766 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -147.692 kHz x dB Bandwidth 16.267 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.60000000 GHz</p> <p>Start Freq 5.58000000 GHz</p> <p>Stop Freq 5.62000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.7 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.70000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.7 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.3847 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -122.823 kHz x dB Bandwidth 16.313 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.70000000 GHz</p> <p>Start Freq 5.68000000 GHz</p> <p>Stop Freq 5.72000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT20-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.5 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.50000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.5 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.2643 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error -37.311 kHz</p> <p>x dB Bandwidth 17.373 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.50000000 GHz</p> <p>Start Freq 5.48000000 GHz</p> <p>Stop Freq 5.52000000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.6 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.6 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.6 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.2377 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error -130.841 kHz</p> <p>x dB Bandwidth 17.478 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.60000000 GHz</p> <p>Start Freq 5.58000000 GHz</p> <p>Stop Freq 5.62000000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.7 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.70000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.7 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.3002 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error -68.303 kHz</p> <p>x dB Bandwidth 17.414 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.70000000 GHz</p> <p>Start Freq 5.68000000 GHz</p> <p>Stop Freq 5.72000000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT40-Low</p>	
<p>802.11n-HT40- Middle</p>	
<p>802.11n-HT40-High</p>	

<p>802.11ac-HT80-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.53 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.53000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.53 GHz Span 160 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 75.4577 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error -125.989 kHz</p> <p>x dB Bandwidth 80.993 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.53000000 GHz</p> <p>Start Freq 5.45000000 GHz</p> <p>Stop Freq 5.61000000 GHz</p> <p>CF Step 16.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11ac-HT80-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.61 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.61000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.61 GHz Span 160 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 75.6102 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error -182.632 kHz</p> <p>x dB Bandwidth 90.550 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.61000000 GHz</p> <p>Start Freq 5.53000000 GHz</p> <p>Stop Freq 5.69000000 GHz</p> <p>CF Step 16.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

5725-5850MHz(99% Bandwidth)

<p>802.11a-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>x dB -26.00 dB</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offset 1</p> <p>dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.7569 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -31.710 kHz x dB Bandwidth 33.247 MHz</p> <p>Meas Setup</p> <p>Avg Number 10 On Off</p> <p>Avg Mode Repeat Exp</p> <p>Max Hold Off On</p> <p>Occ BW % Pwr 99.00 %</p> <p>OBW Span 40.0000000 MHz</p> <p>x dB -26.00 dB</p> <p>Optimize Ref Level</p>
<p>802.11a-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.78500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offset 1</p> <p>dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.1205 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 4.849 kHz x dB Bandwidth 32.814 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track Off On</p> <p>Scale Type Lin Log</p>
<p>802.11a-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offset 1</p> <p>dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.7909 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 5.126 kHz x dB Bandwidth 31.497 MHz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

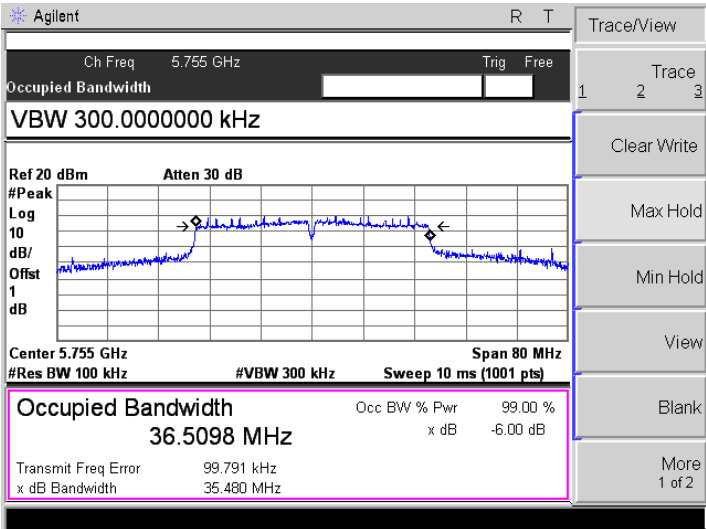
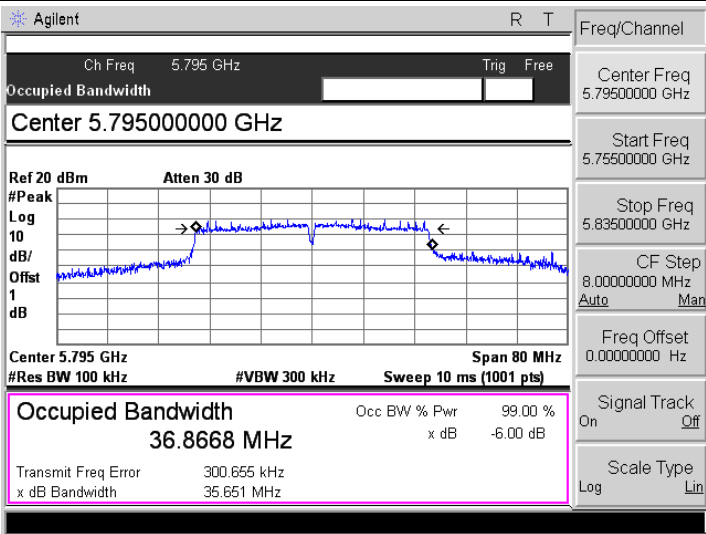
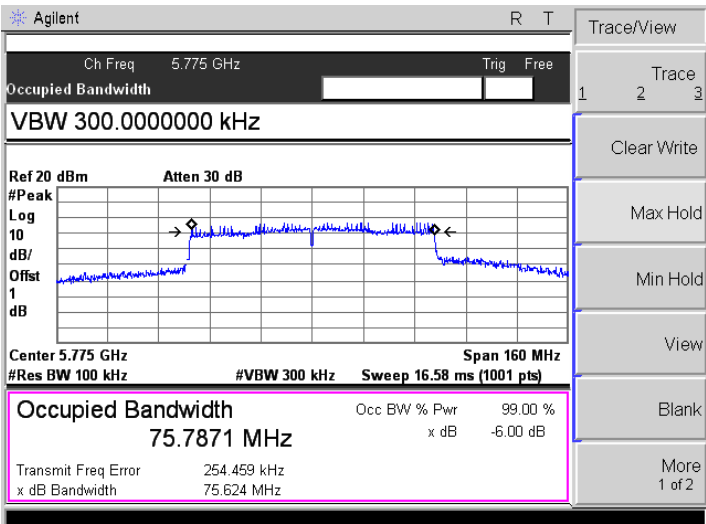
<p>802.11n-HT20-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>dB/</p> <p>Offst</p> <p>1</p> <p>dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.7774 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error -31.401 kHz</p> <p>x dB Bandwidth 33.248 MHz</p> <p>Meas Setup</p> <p>Avg Number 10</p> <p>On Off</p> <p>Avg Mode Repeat</p> <p>Exp</p> <p>Max Hold On</p> <p>Off</p> <p>Occ BW % Pwr 99.00 %</p> <p>OBW Spar 40.0000000 MHz</p> <p>x dB -26.00 dB</p> <p>Optimize Ref Level</p>
<p>802.11n-HT20-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.78500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>dB/</p> <p>Offst</p> <p>1</p> <p>dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.3536 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error -6.938 kHz</p> <p>x dB Bandwidth 27.870 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> <p>Off</p> <p>Scale Type Log</p> <p>Lin</p>
<p>802.11n-HT20-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.82500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log</p> <p>dB/</p> <p>Offst</p> <p>1</p> <p>dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 18.3294 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -26.00 dB</p> <p>Transmit Freq Error 9.583 kHz</p> <p>x dB Bandwidth 29.002 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.82500000 GHz</p> <p>Start Freq 5.80500000 GHz</p> <p>Stop Freq 5.84500000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On</p> <p>Off</p> <p>Scale Type Log</p> <p>Lin</p>

<p>802.11n-HT40-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.755 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>x dB -26.00 dB</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.755 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 39.3733 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 1.018 MHz</p> <p>x dB Bandwidth 76.728 MHz</p>
<p>802.11n-HT40-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.795 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>RBW 1.000000000 MHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.795 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 41.2437 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 1.987 MHz</p> <p>x dB Bandwidth 36.272 MHz</p>
<p>802.11ac-HT80-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.775 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>x dB -26.00 dB</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.775 GHz Span 160 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 77.8879 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 1.192 MHz</p> <p>x dB Bandwidth 129.448 MHz</p>

5725-5850MHz(6dbm Bandwidth)

<p>802.11a-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>VBW 300.000000 kHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10 dB/</p> <p>Offst 1 dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.0743 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error -88.536 kHz</p> <p>x dB Bandwidth 15.739 MHz</p> <p>Trace/View</p> <p>1 2 3</p> <p>Trace</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.78500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10 dB/</p> <p>Offst 1 dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.0267 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error 36.013 kHz</p> <p>x dB Bandwidth 16.304 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.82500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10 dB/</p> <p>Offst 1 dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.0251 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error 46.644 kHz</p> <p>x dB Bandwidth 16.331 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.82500000 GHz</p> <p>Start Freq 5.80500000 GHz</p> <p>Stop Freq 5.84500000 GHz</p> <p>CF Step 4.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT20-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8902 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error -24.591 kHz</p> <p>x dB Bandwidth 17.062 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.7450000 GHz</p> <p>Start Freq 5.7250000 GHz</p> <p>Stop Freq 5.7650000 GHz</p> <p>CF Step 4.0000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.0000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.78500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8752 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error 1.714 kHz</p> <p>x dB Bandwidth 17.076 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.7850000 GHz</p> <p>Start Freq 5.7650000 GHz</p> <p>Stop Freq 5.8050000 GHz</p> <p>CF Step 4.0000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.0000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10</p> <p>dB/</p> <p>Offst 1</p> <p>dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8520 MHz</p> <p>Occ BW % Pwr 99.00 %</p> <p>x dB -6.00 dB</p> <p>Transmit Freq Error -4.582 kHz</p> <p>x dB Bandwidth 17.309 MHz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.755 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>VBW 300.000000 kHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10 dB/</p> <p>Offst 1 dB</p> <p>Center 5.755 GHz Span 80 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 36.5098 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 99.791 kHz</p> <p>x dB Bandwidth 35.480 MHz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.795 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Center 5.79500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10 dB/</p> <p>Offst 1 dB</p> <p>Center 5.795 GHz Span 80 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 36.8668 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 300.655 kHz</p> <p>x dB Bandwidth 35.651 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.79500000 GHz</p> <p>Start Freq 5.75500000 GHz</p> <p>Stop Freq 5.83500000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.775 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>VBW 300.000000 kHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak</p> <p>Log 10 dB/</p> <p>Offst 1 dB</p> <p>Center 5.775 GHz Span 160 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 16.58 ms (1001 pts)</p> <p>Occupied Bandwidth 75.7871 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 254.459 kHz</p> <p>x dB Bandwidth 75.624 MHz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

APPENDIX C

Maximum Conducted Output Power

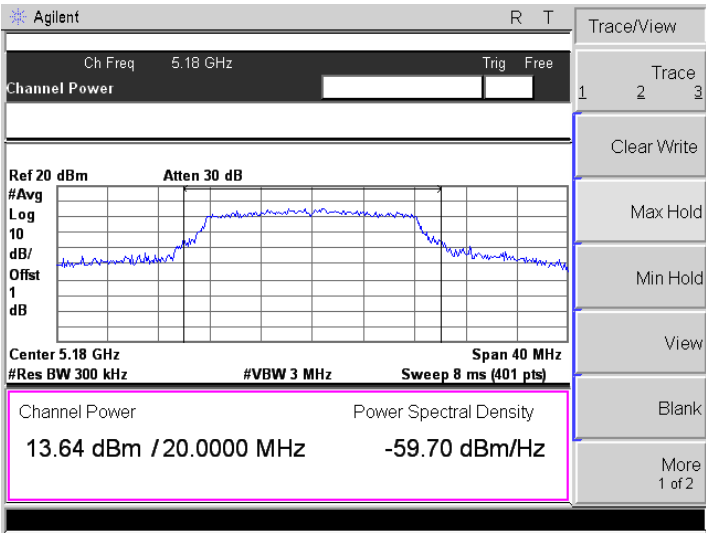
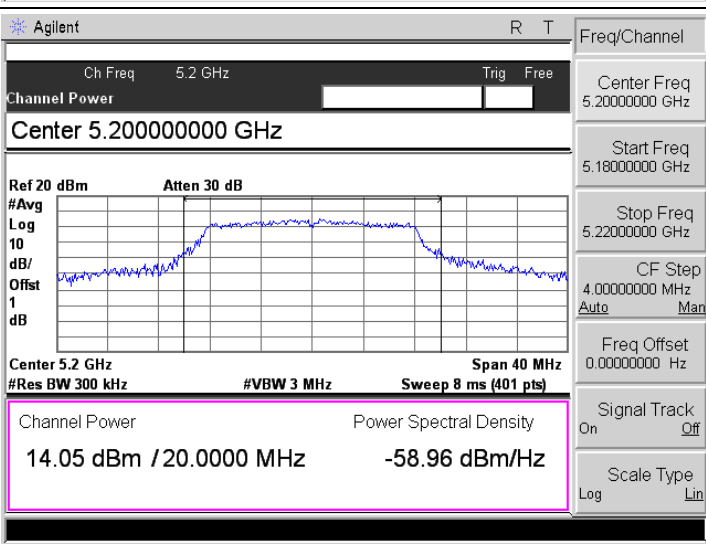
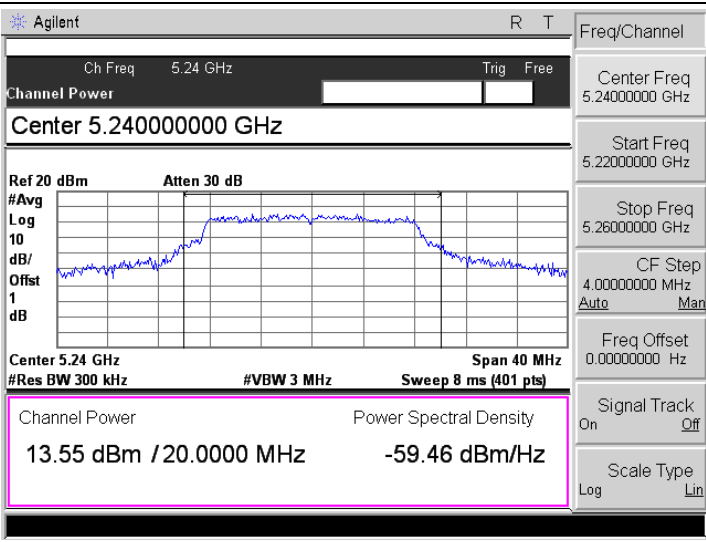
U-NII-1:5150-5250MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5180	13.64	23.98
	5200	14.05	23.98
	5240	13.55	23.98
802.11n-HT20	5180	12.90	23.98
	5200	13.47	23.98
	5240	13.88	23.98
802.11n-HT40	5190	12.71	23.98
	5230	12.94	23.98
802.11ac VH80	5210	12.56	23.98

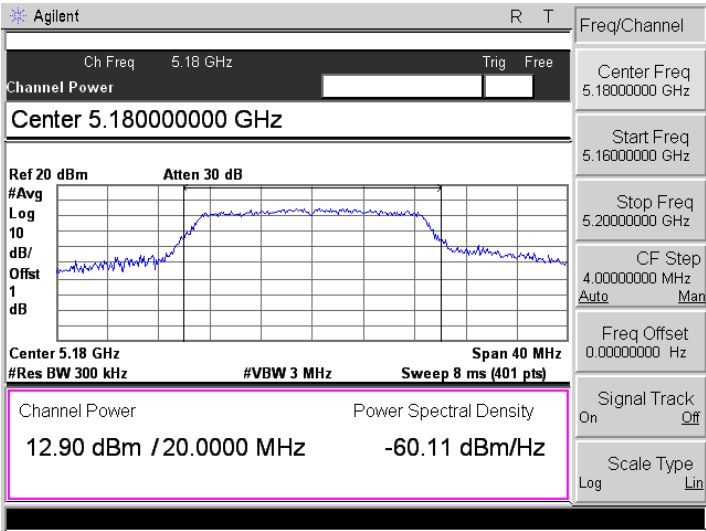
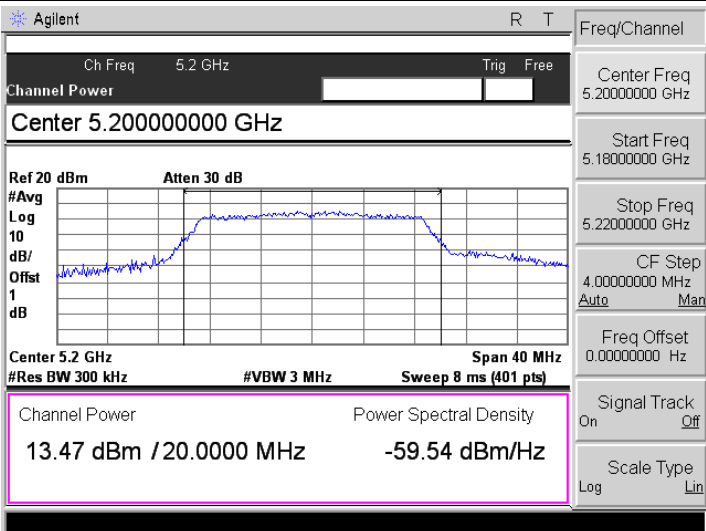
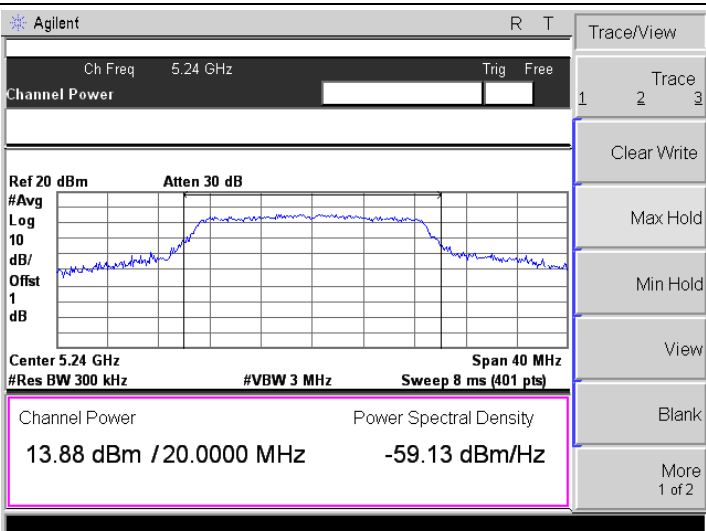
U-NII-2A: 5250-5350MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5260	13.89	23.98
	5280	14.18	23.98
	5320	14.64	23.98
802.11n-HT20	5260	13.55	23.98
	5280	13.82	23.98
	5320	14.22	23.98
802.11n-HT40	5270	13.57	23.98
	5310	14.13	23.98
802.11ac VH80	5290	13.18	23.98

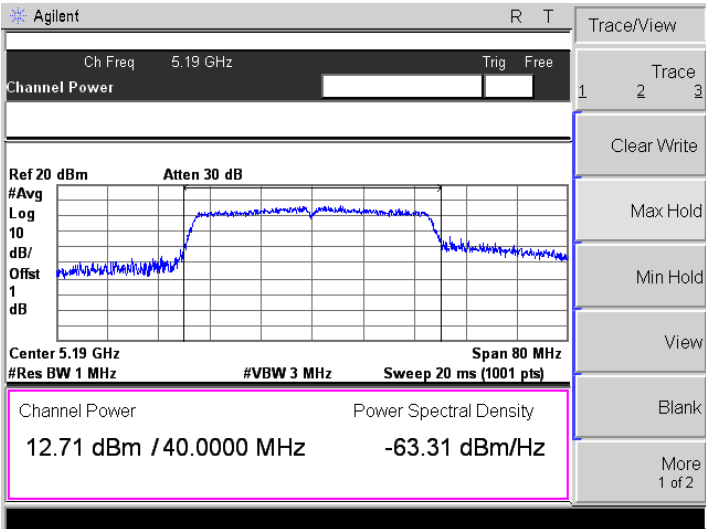
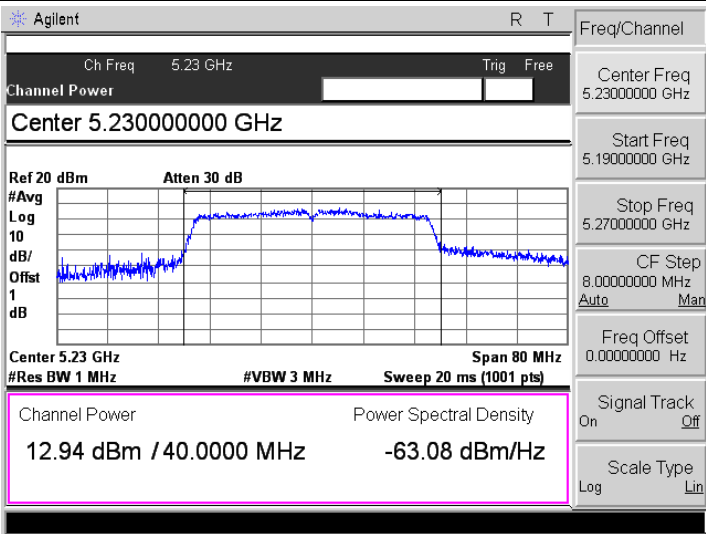
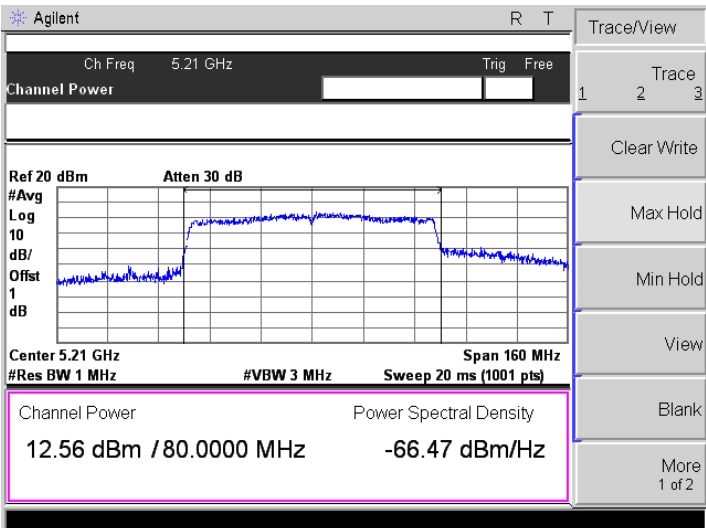
U-NII-2C: 5470-5725MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5500	13.45	23.98
	5580	12.77	23.98
	5700	12.58	23.98
802.11n-HT20	5500	13.07	23.98
	5580	12.17	23.98
	5700	12.42	23.98
802.11n-HT40	5510	13.48	23.98
	5550	12.72	23.98
	5670	12.87	23.98
802.11ac VH80	5530	11.53	23.98
	5610	11.04	23.98

U-NII-3: 5725-5850MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5745	12.95	30.00
	5785	13.14	30.00
	5825	13.23	30.00
802.11n-HT20	5745	12.65	30.00
	5785	12.33	30.00
	5825	13.33	30.00
802.11n-HT40	5755	12.14	30.00
	5795	12.47	30.00
802.11ac VH80	5775	11.43	30.00

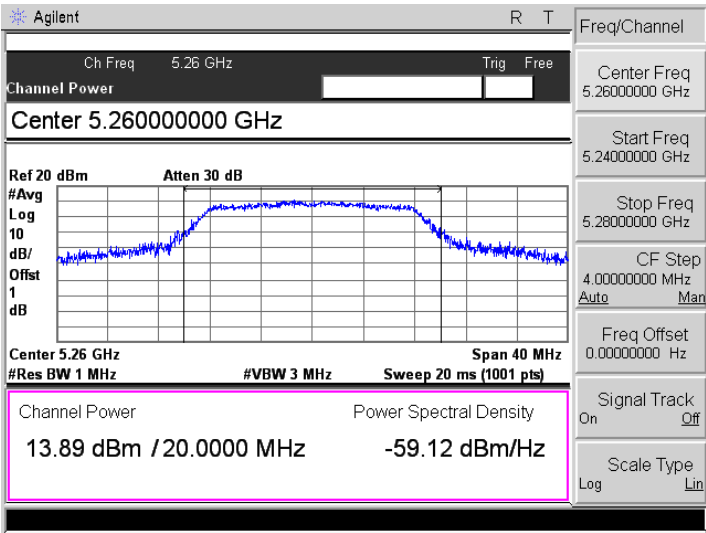
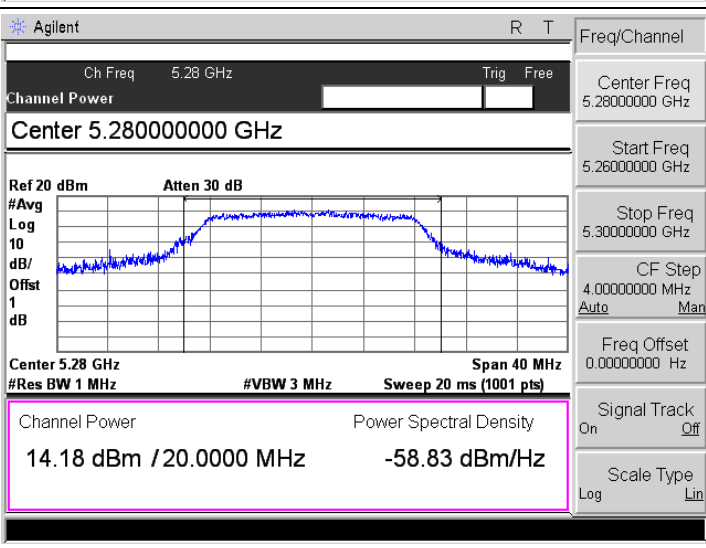
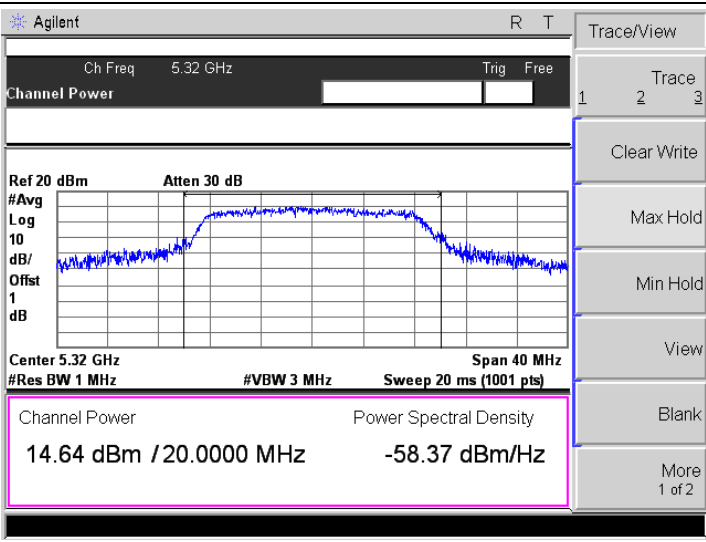
5150-5250MHz

<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

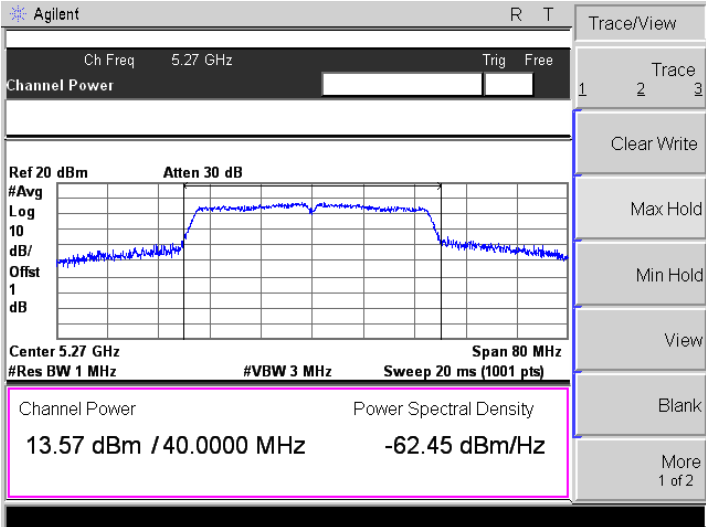
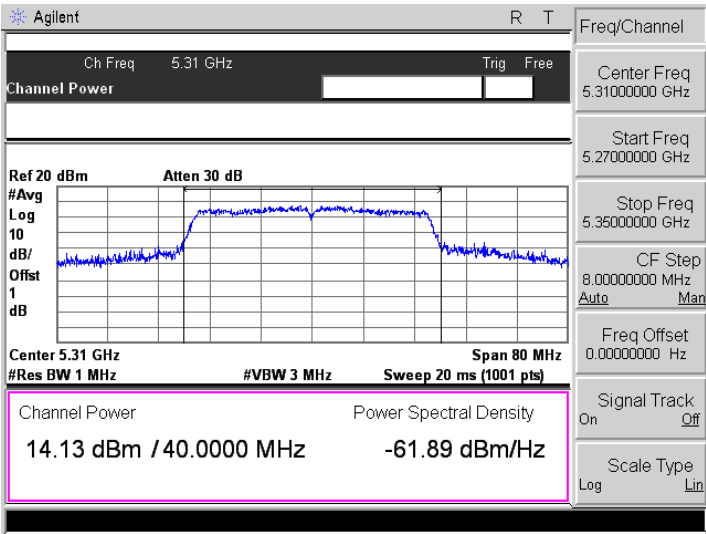
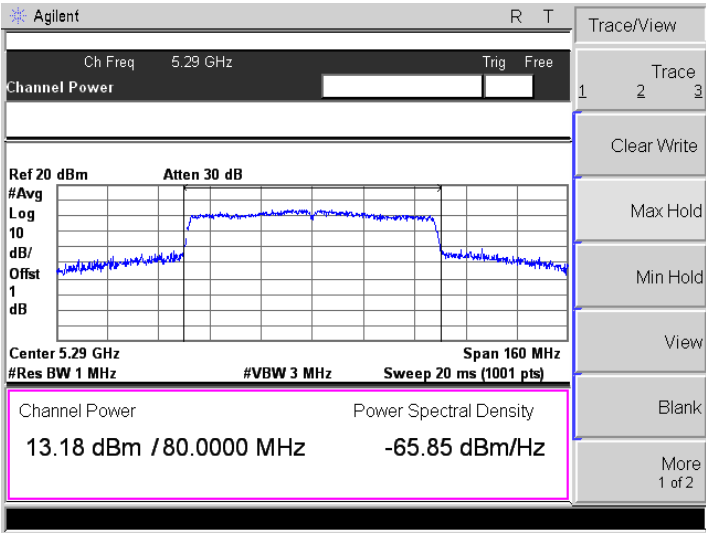
<p>802.11n-HT20-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.18 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.18000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.18 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 3 MHz Sweep 8 ms (401 pts)</p> <p>Channel Power Power Spectral Density</p> <p>12.90 dBm / 20.0000 MHz -60.11 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.18000000 GHz</p> <p>Start Freq 5.16000000 GHz</p> <p>Stop Freq 5.20000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.2 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.20000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.2 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 3 MHz Sweep 8 ms (401 pts)</p> <p>Channel Power Power Spectral Density</p> <p>13.47 dBm / 20.0000 MHz -59.54 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.20000000 GHz</p> <p>Start Freq 5.18000000 GHz</p> <p>Stop Freq 5.22000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.24 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.24 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.24 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 3 MHz Sweep 8 ms (401 pts)</p> <p>Channel Power Power Spectral Density</p> <p>13.88 dBm / 20.0000 MHz -59.13 dBm/Hz</p> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11n-HT40-Low</p>	
<p>802.11n-HT40-High</p>	
<p>802.11ac-HT80-Low</p>	

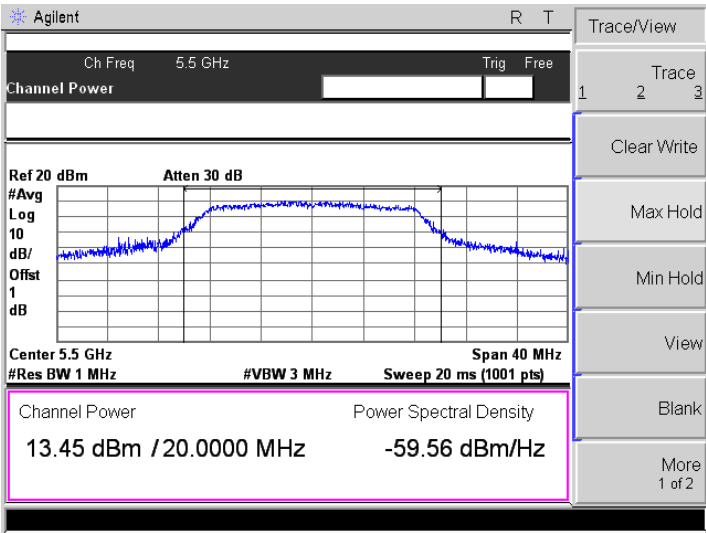
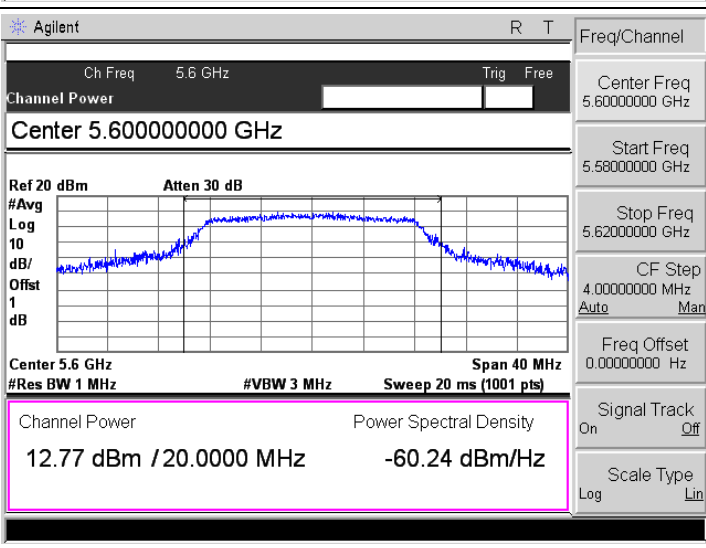
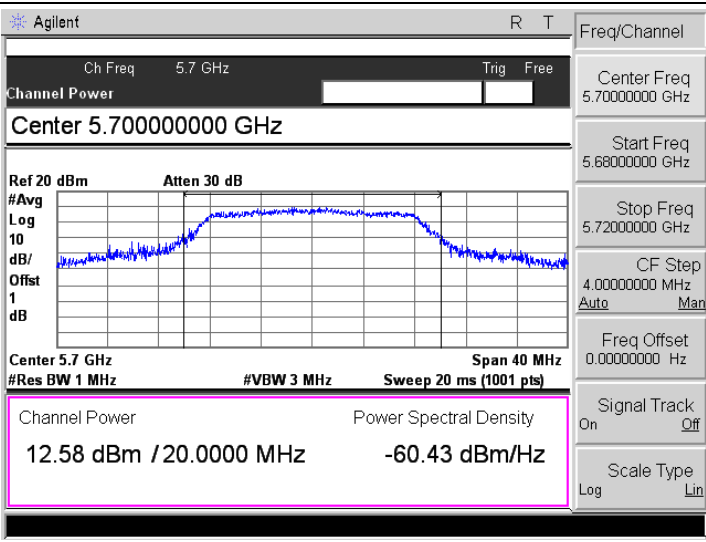
5250-5350MHz

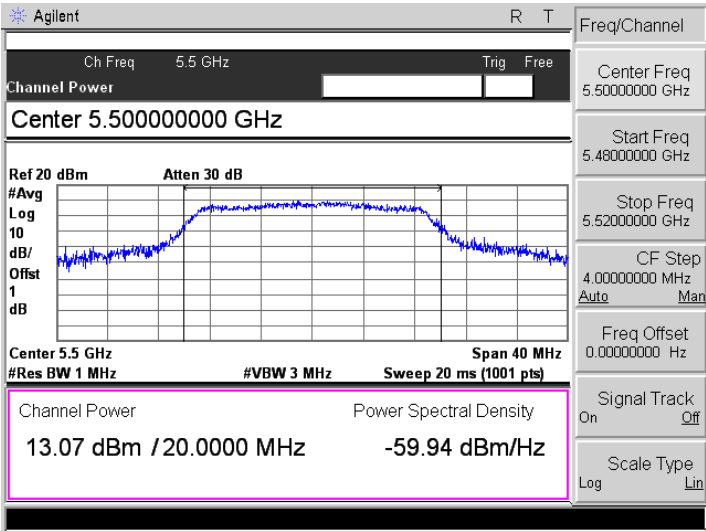
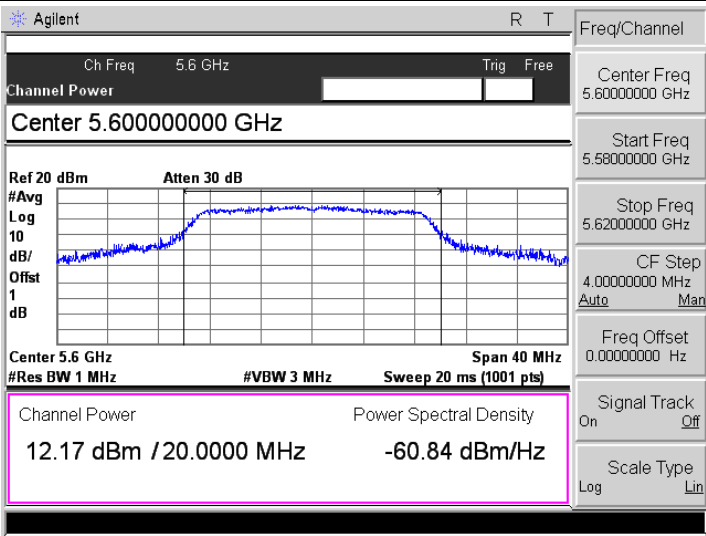
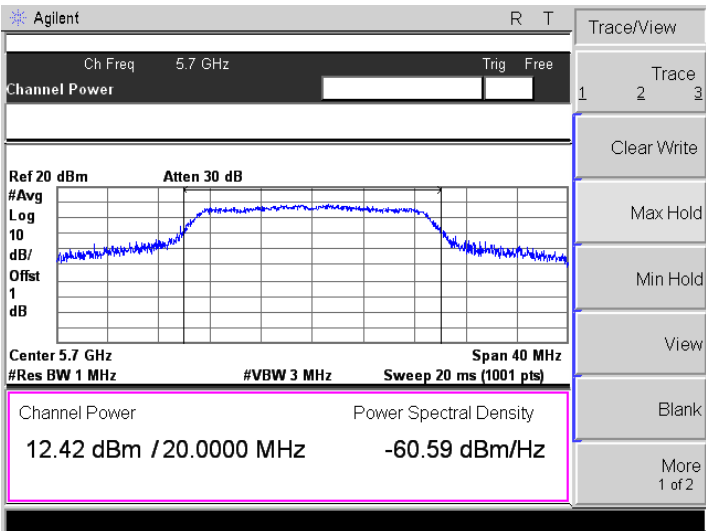
<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

<p>802.11n-HT20-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.26 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.26000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log dB/Offst 1 dB</p> <p>Center 5.26 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>13.55 dBm / 20.0000 MHz -59.47 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.26000000 GHz</p> <p>Start Freq 5.24000000 GHz</p> <p>Stop Freq 5.28000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.28 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.28000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log dB/Offst 1 dB</p> <p>Center 5.28 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>13.82 dBm / 20.0000 MHz -59.19 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.28000000 GHz</p> <p>Start Freq 5.26000000 GHz</p> <p>Stop Freq 5.30000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.32 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.32000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log dB/Offst 1 dB</p> <p>Center 5.32 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>14.22 dBm / 20.0000 MHz -58.79 dBm/Hz</p> <p>Trace/View</p> <p>1 Trace 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.27 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.27 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <table border="1"> <tr> <td>Channel Power</td> <td>Power Spectral Density</td> </tr> <tr> <td>13.57 dBm / 40.0000 MHz</td> <td>-62.45 dBm/Hz</td> </tr> </table> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>	Channel Power	Power Spectral Density	13.57 dBm / 40.0000 MHz	-62.45 dBm/Hz
Channel Power	Power Spectral Density				
13.57 dBm / 40.0000 MHz	-62.45 dBm/Hz				
<p>802.11n-HT40-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.31 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.31 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <table border="1"> <tr> <td>Channel Power</td> <td>Power Spectral Density</td> </tr> <tr> <td>14.13 dBm / 40.0000 MHz</td> <td>-61.89 dBm/Hz</td> </tr> </table> <p>Freq/Channel</p> <p>Center Freq 5.31000000 GHz</p> <p>Start Freq 5.27000000 GHz</p> <p>Stop Freq 5.35000000 GHz</p> <p>CF Step 8.00000000 MHz</p> <p>Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>	Channel Power	Power Spectral Density	14.13 dBm / 40.0000 MHz	-61.89 dBm/Hz
Channel Power	Power Spectral Density				
14.13 dBm / 40.0000 MHz	-61.89 dBm/Hz				
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.29 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.29 GHz Span 160 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <table border="1"> <tr> <td>Channel Power</td> <td>Power Spectral Density</td> </tr> <tr> <td>13.18 dBm / 80.0000 MHz</td> <td>-65.85 dBm/Hz</td> </tr> </table> <p>Trace/View</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>	Channel Power	Power Spectral Density	13.18 dBm / 80.0000 MHz	-65.85 dBm/Hz
Channel Power	Power Spectral Density				
13.18 dBm / 80.0000 MHz	-65.85 dBm/Hz				

5470-5725MHz

<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

<p>802.11n-HT20-Low</p>	 <p>Agilent Channel Power measurement at 5.5 GHz. The plot shows a signal with a peak power of 13.07 dBm and a power spectral density of -59.94 dBm/Hz. The center frequency is 5.50000000 GHz. The span is 40 MHz, resolution bandwidth is 1 MHz, and video bandwidth is 3 MHz.</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent Channel Power measurement at 5.6 GHz. The plot shows a signal with a peak power of 12.17 dBm and a power spectral density of -60.84 dBm/Hz. The center frequency is 5.60000000 GHz. The span is 40 MHz, resolution bandwidth is 1 MHz, and video bandwidth is 3 MHz.</p>
<p>802.11n-HT20-High</p>	 <p>Agilent Channel Power measurement at 5.7 GHz. The plot shows a signal with a peak power of 12.42 dBm and a power spectral density of -60.59 dBm/Hz. The center frequency is 5.7 GHz. The span is 40 MHz, resolution bandwidth is 1 MHz, and video bandwidth is 3 MHz.</p>

<p>802.11n-HT40-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.51 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.51000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.51 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>13.48 dBm / 40.0000 MHz -62.54 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.51000000 GHz</p> <p>Start Freq 5.47000000 GHz</p> <p>Stop Freq 5.55000000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT40- Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.59 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.59000000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.59 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>12.72 dBm / 40.0000 MHz -63.30 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.59000000 GHz</p> <p>Start Freq 5.55000000 GHz</p> <p>Stop Freq 5.63000000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT40-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.67 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.67 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.67 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>12.87 dBm / 40.0000 MHz -63.15 dBm/Hz</p> <p>Trace/View</p> <p>1 Trace 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11ac-HT80-Low</p>	
<p>802.11ac-HT80- High</p>	

5725-5850MHz

<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

<p>802.11n-HT20-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.74500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log dB/Offst 1 dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>12.65 dBm / 20.0000 MHz -60.36 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.74500000 GHz</p> <p>Start Freq 5.72500000 GHz</p> <p>Stop Freq 5.76500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.78500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log dB/Offst 1 dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>12.33 dBm / 20.0000 MHz -60.68 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Channel Power</p> <p>Center 5.82500000 GHz</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log dB/Offst 1 dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>13.33 dBm / 20.0000 MHz -59.69 dBm/Hz</p> <p>Freq/Channel</p> <p>Center Freq 5.82500000 GHz</p> <p>Start Freq 5.80500000 GHz</p> <p>Stop Freq 5.84500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT40-Low</p>	<p>Agilent Channel Power measurement for 802.11n-HT40-Low. The display shows a channel power of 12.14 dBm / 40.0000 MHz and a power spectral density of -63.88 dBm/Hz. The center frequency is 5.755 GHz. The plot shows a signal with a 30 dB attenuation. The span is 80 MHz, resolution bandwidth is 1 MHz, and sweep time is 20 ms.</p>
<p>802.11n-HT40-High</p>	<p>Agilent Channel Power measurement for 802.11n-HT40-High. The display shows a channel power of 12.47 dBm / 40.0000 MHz and a power spectral density of -63.55 dBm/Hz. The center frequency is 5.795 GHz. The plot shows a signal with a 30 dB attenuation. The span is 80 MHz, resolution bandwidth is 1 MHz, and sweep time is 20 ms.</p>
<p>802.11ac-HT80-Low</p>	<p>Agilent Channel Power measurement for 802.11ac-HT80-Low. The display shows a channel power of 11.43 dBm / 80.0000 MHz and a power spectral density of -67.60 dBm/Hz. The center frequency is 5.775 GHz. The plot shows a signal with a 30 dB attenuation. The span is 160 MHz, resolution bandwidth is 1 MHz, and sweep time is 20 ms.</p>

APPENDIX D

Frequency Stability

U-NII-1:5150-5250MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	5.0	-30	165	0.0317
100%		-20	120	0.0231
100%		-10	136	0.0262
100%		0	170	0.0327
100%		+10	133	0.0256
100%		+20	101	0.0194
100%		+30	119	0.0229
100%		+40	132	0.0254
100%		+50	100	0.0192
Low Battery power		5.50	+20	115
High Battery power	4.50	+20	155	0.0298

U-NII-2A: 5250-5350MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	5.0	-30	158	0.0299
100%		-20	149	0.0282
100%		-10	121	0.0229
100%		0	113	0.0214
100%		+10	162	0.0307
100%		+20	104	0.0197
100%		+30	180	0.0341
100%		+40	167	0.0316
100%		+50	175	0.0331
Low Battery power		5.50	+20	115
High Battery power	4.50	+20	159	0.0301

U-NII-2C: 5470-5725MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	5.0	-30	129	0.0230
100%		-20	180	0.0321
100%		-10	139	0.0248
100%		0	126	0.0225
100%		+10	137	0.0245
100%		+20	169	0.0302
100%		+30	140	0.0250
100%		+40	177	0.0316
100%		+50	147	0.0263
Low Battery power		5.50	+20	165
High Battery power	4.50	+20	122	0.0218

U-NII-3:5725-5850MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	5.0	-30	137	0.0237
100%		-20	109	0.0188
100%		-10	137	0.0237
100%		0	141	0.0244
100%		+10	128	0.0221
100%		+20	130	0.0225
100%		+30	128	0.0221
100%		+40	130	0.0225
100%		+50	156	0.0270
Low Battery power		5.50	+20	177
High Battery power	4.50	+20	128	0.0221

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

******* END OF REPORT *******