

TEST REPORT

Reference No..... : WTX22X03057847W005
FCC ID : YHLBLUN2
Applicant : BLU Products, Inc.
Address : 10814 NW 33rd St # 100 Doral, FL 33172,USA
Manufacturer : The same as Applicant
Address : The same as Applicant
Product Name : Smart Phone
Model No..... : N2
Standards : FCC Part 15.407
Date of Receipt sample : 2022-03-30
Date of Test..... : 2022-03-30 to 2022-05-28
Date of Issue : 2022-05-28
Test Report Form No. : WTX_Part 15_407W
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 approver.


Prepared By:

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Report version

Version No.	Date of issue	Description
Rev.00	2022-05-28	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Smart Phone
Trade Name:	BLU
Model No.:	N2
Adding Model(s):	/
Rated Voltage:	DC3.87V
Battery Capacity:	4100mAh (C806352410P)
Power Adapter:	US-BM-3000 INPUT:AC100-240V, 50/60Hz, 0.8A Output:DC5V3.0A/DC9V3A/DC10V3A
Software Version:	BOLD_N0050UU_V11.0.04.01_GENERIC
Hardware Version:	Kx3U _01
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

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:	15.98dBm (Conducted)
Type of Modulation:	QPSK, 16QAM, 64QAM
Quantity of Channels:	15
Type of Antenna:	Integral Antenna
Antenna Gain:	0.8dBi
<i>Note: The Antenna Gain is provided by the customer and can affect the validity of results.</i>	

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

Enter “3646631+=” into the calculator to enter the engineer mode, 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	18	18	18	18	18	18	18	18	18	18	18	18	18	
802.11n-HT20 MCS0	17	17	17	17	17	17	17	17	17	17	17	17	17	
Mode	NCB: 40MHz													
	5190	5230	5270	5310	5510	5550	5670	5710	5755	5795				
802.11n-HT40 MCS0	15	15	15	15	15	15	15	15	15	15				
Mode	NCB: 80MHz													
	5210	5290	5530	5610	5690	5775								
802.11ac-VH80 MCS0/Nss2	14	14	14	14	14	14								

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,5530MHz,5610MHz,5775MHz
Note: 802.11ac-VHT20, 802.11ac-VHT40 covered by 802.11n-HT20 an802.11n-HT40.		

Test Conditions	
Temperature:	22~25 °C
Relative Humidity:	45~55 %.
ATM Pressure:	1019 mbar

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	1.0	Shielded	Without Ferrite
Headset Cable	1.2	Unshielded	Without Ferrite

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	ASUS	FA5061C	M8NRCX057996349

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-1075	Communication Tester	Rohde & Schwarz	CMW500	148650	2022-03-22	2023-03-21
SEMT-1063	GSM Tester	Rohde & Schwarz	CMU200	114403	2022-03-22	2023-03-21
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2022-03-25	2023-03-24
SEMT-1079	Spectrum Analyzer	Agilent	N9020A	US47140102	2022-03-22	2023-03-21
SEMT-1080	Signal Generator	Agilent	83752A	3610A01453	2022-03-22	2023-03-21
SEMT-1081	Vector Signal Generator	Agilent	N5182A	MY47070202	2022-03-22	2023-03-21
SEMT-1028	Power Divider	Weinschel	1506A	PM204	2022-03-22	2023-03-21
SEMT-C001	Cable	Zheng DI	LL142-07-07-10M(A)	/	/	/
SEMT-C002	Cable	Zheng DI	ZT40-2.92J-2.92J-6M	/	/	/
SEMT-C003	Cable	Zheng DI	ZT40-2.92J-2.92J-2.5M	/	/	/
SEMT-C004	Cable	Zheng DI	2M0RFC	/	/	/
SEMT-C005	Cable	Zheng DI	1M0RFC	/	/	/
SEMT-C006	Cable	Zheng DI	1M0RFC	/	/	/
<input checked="" type="checkbox"/> Chamber A: Below 1GHz						
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-22	2023-03-21
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-22	2023-03-21
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2022-01-07	2023-01-06
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2021-03-20	2023-03-19
SEMT-1068	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2021-03-20	2023-03-19
<input checked="" type="checkbox"/> Chamber A: Above 1GHz						
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2022-03-22	2023-03-21
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2022-03-22	2023-03-21
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2022-03-22	2023-03-21
SEMT-1042	Horn Antenna	ETS	3117	00086197	2021-03-19	2023-03-18
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2021-04-27	2023-04-26
SEMT-1216	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2022-03-25	2023-03-24

SEMT-1163	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2022-03-22	2023-03-21
<input type="checkbox"/> Chamber B: Below 1GHz						
SEMT-1068	Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2021-04-09	2023-04-08
SEMT-1067	Amplifier	Agilent	8447D	2944A10179	2022-03-22	2023-03-21
SEMT-1066	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2022-03-22	2023-03-21
<input type="checkbox"/> Chamber C: Below 1GHz						
SEMT-1319	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2022-01-07	2023-01-06
SEMT-1343	Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2021-05-28	2023-05-27
SEMT-1333	Amplifier	HP	8447F	2944A03869	2022-03-22	2023-03-21
<input checked="" type="checkbox"/> Conducted Room 1#						
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2022-03-21	2023-03-20
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2022-03-25	2023-03-24
SEMT-1003	AC LISN	Schwarz beck	NSLK8126	8126-224	2022-03-22	2023-03-21
<input type="checkbox"/> Conducted Room 2#						
SEMT-1334	EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2022-03-22	2023-03-21
SEMT-1336	LISN	Rohde & Schwarz	ENV 216	100097	2022-03-22	2023-03-21

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 5.15-5.25GHz.

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

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

(3) For the band 5.725-5.85GHz, 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 30dBm in any 500kHz band. If transmitting antennas of directional gain greater than 6dBi 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 6dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6dBi 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 5.15-5.25GHz, 5.25-5.35GHz, and 5.47-5.725GHz, 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 5.725-5.85GHz, the rules specify a measurement bandwidth of 500kHz. Many spectrum analyzers do not have 500kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1MHz, or 500kHz). If

measurements are performed using a reduced resolution bandwidth ($< 1\text{MHz}$, or $< 500\text{kHz}$) and integrated over 1 MHz, or 500kHz bandwidth, the following adjustments to the procedures apply:

- a) Set $\text{RBW} \geq 1/T$, where T is defined in section II.B.1.a).
- b) Set $\text{VBW} \geq 3 \text{RBW}$.
- c) If measurement bandwidth of Maximum PSD is specified in 500kHz, add $10\log(500\text{kHz}/\text{RBW})$ 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 $10\log(1\text{MHz}/\text{RBW})$ 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 100kHz for the sections 5.c) and 5.d) above, since RBW=100kHz 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 5.15-5.25GHz.

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

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

(3) For the band 5.725-5.85GHz, 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 30dBm in any 500kHz band. If transmitting antennas of directional gain greater than 6dBi 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 6dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6dBi 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 5.725-5.85GHz band, the minimum 6dB bandwidth of U-NII devices shall be at least 500kHz.

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 26dB 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 5.725-5.85GHz

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

- a) Set RBW = 100kHz.
- 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 6dB 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.

Reference No.: WTX22X03057847W005

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 5.15-5.25GHz.

(iv) For mobile and portable client devices in the 5.15-5.25GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11dBm 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 6dBi.

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

(3) For the band 5.725-5.85GHz, 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 30dBm in any 500kHz band. If transmitting antennas of directional gain greater than 6dBi 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 6dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6dBi 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 = 1MHz.
- (iii) Set VBW \geq 3MHz.
- (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 1MHz 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 5.15-5.25GHz band: All emissions outside of the 5.15-5.35GHz band shall not exceed an e.i.r.p. of -27dBm/MHz .
- (2) For transmitters operating in the 5.25-5.35GHz band: All emissions outside of the 5.15-5.35GHz band shall not exceed an e.i.r.p. of -27dBm/MHz .
- (3) For transmitters operating in the 5.47-5.725GHz band: All emissions outside of the 5.47-5.725GHz band shall not exceed an e.i.r.p. of -27dBm/MHz .
- (4) For transmitters operating in the 5.725-5.85GHz band:
 - (i) All emissions shall be limited to a level of -27dBm/MHz at 75MHz or more above or below the band edge increasing linearly to 10dBm/MHz at 25MHz above or below the band edge, and from 25MHz above or below the band edge increasing linearly to a level of 15.6dBm/MHz at 5MHz above or below the band edge, and from 5MHz above or below the band edge increasing linearly to a level of 27dBm/MHz at the band edge.

According to §15.407(b)(6), Unwanted emissions below 1GHz 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.

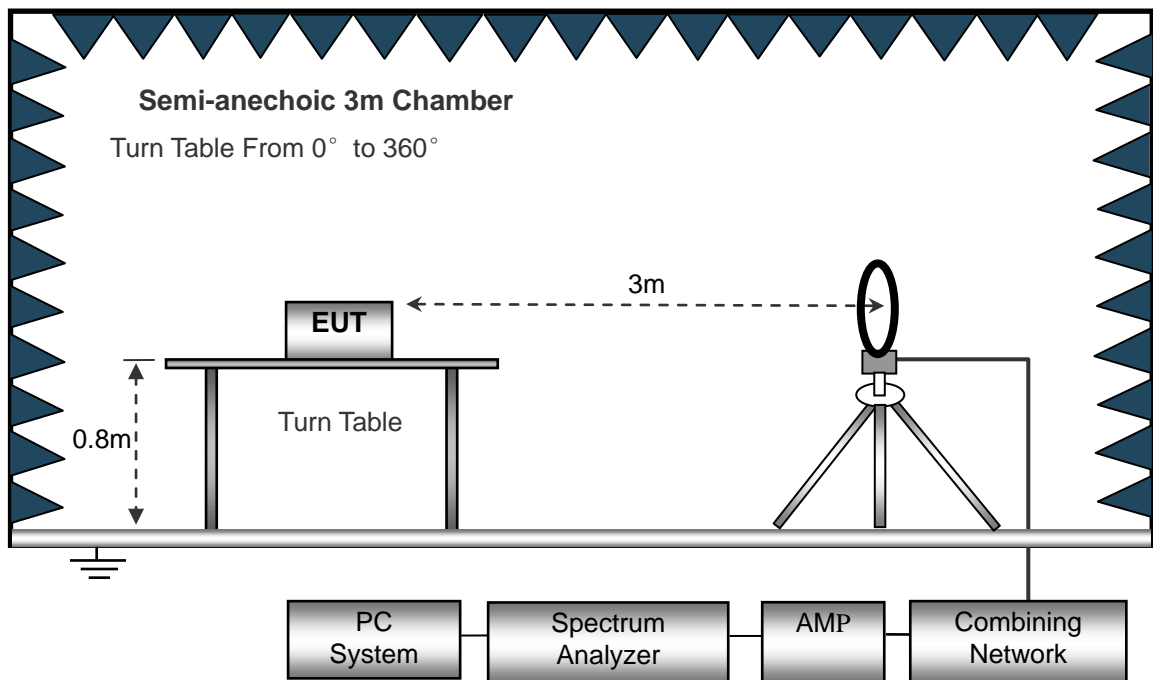
8.2 Test Procedure

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..

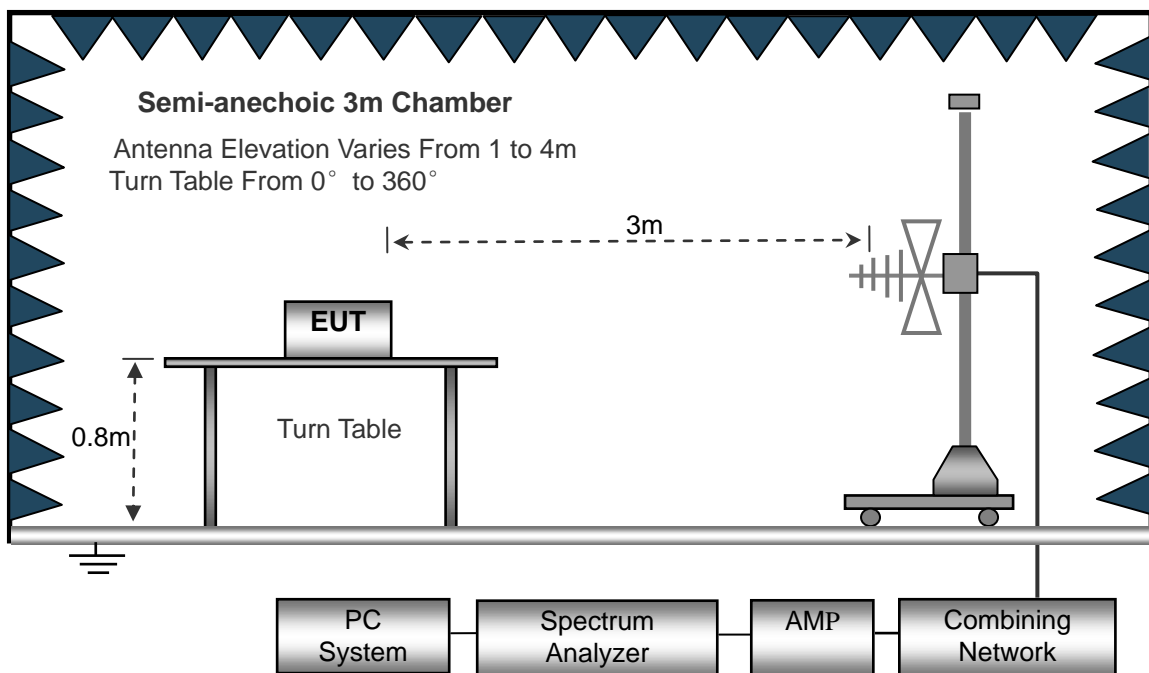
The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

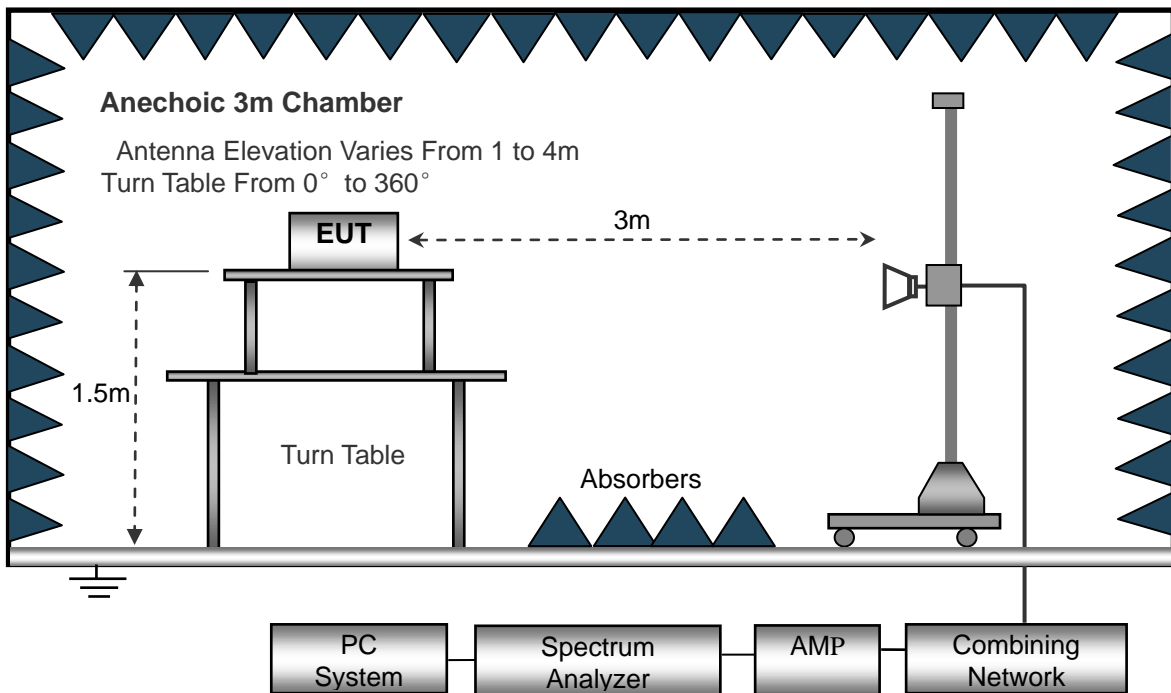
The test setup for emission measurement below 30MHz.



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



The test setup for emission measurement above 1GHz.



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:

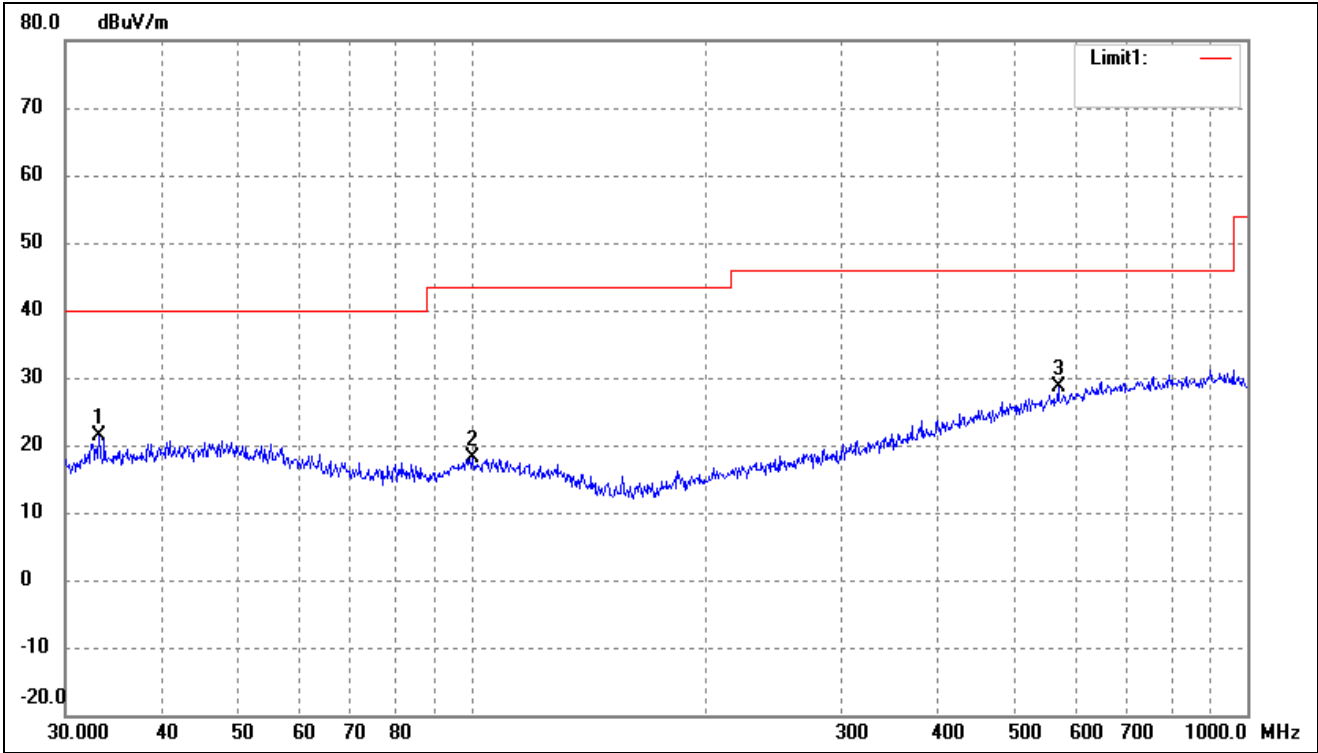
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.5 Summary of Test Results/Plots

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

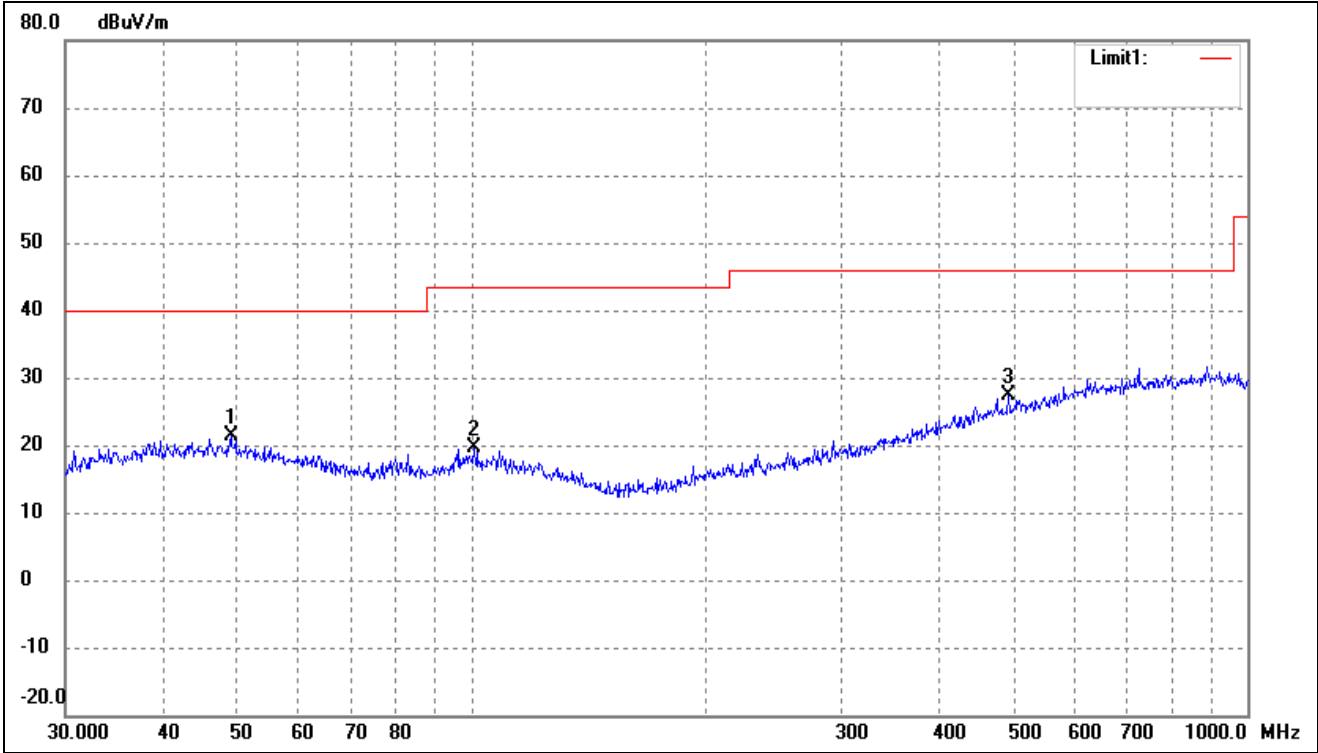
- Spurious Emission From 30MHz to 1GHz
- 5150-5250MHz

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



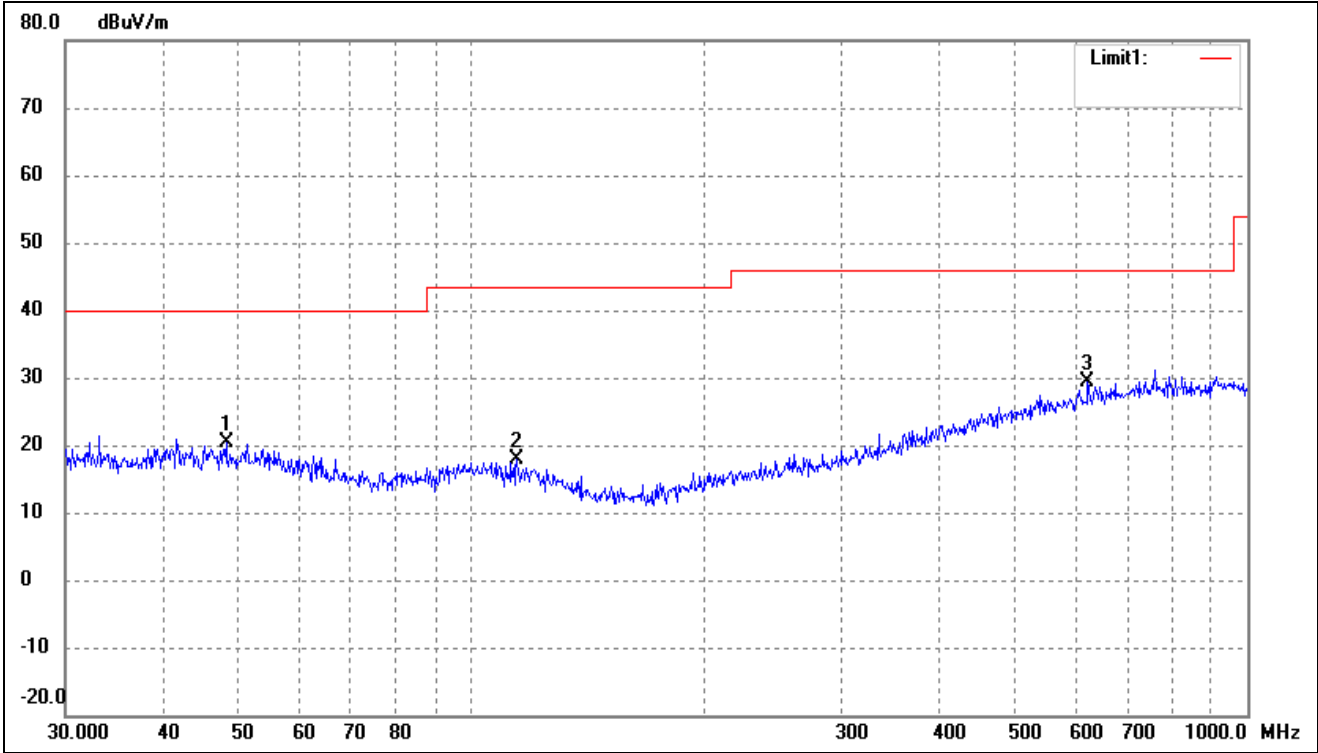
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.0950	29.95	-8.69	21.26	40.00	-18.74	-	-	peak
2	100.2286	26.86	-8.73	18.13	43.50	-25.37	-	-	peak
3	570.6100	28.80	-0.12	28.68	46.00	-17.32	-	-	peak

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



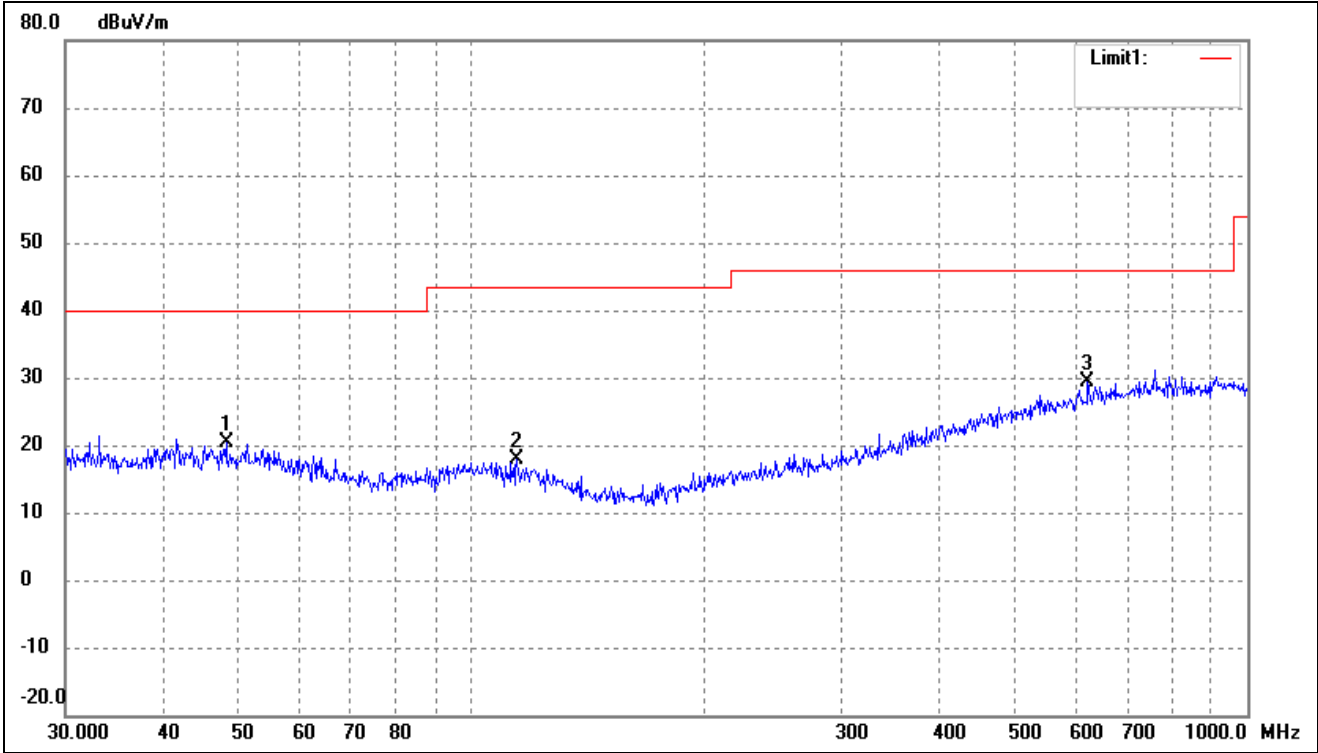
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	49.0145	28.24	-6.96	21.28	40.00	-18.72	-	-	peak
2	100.9340	28.33	-8.74	19.59	43.50	-23.91	-	-	peak
3	492.4685	28.78	-1.49	27.29	46.00	-18.71	-	-	peak

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



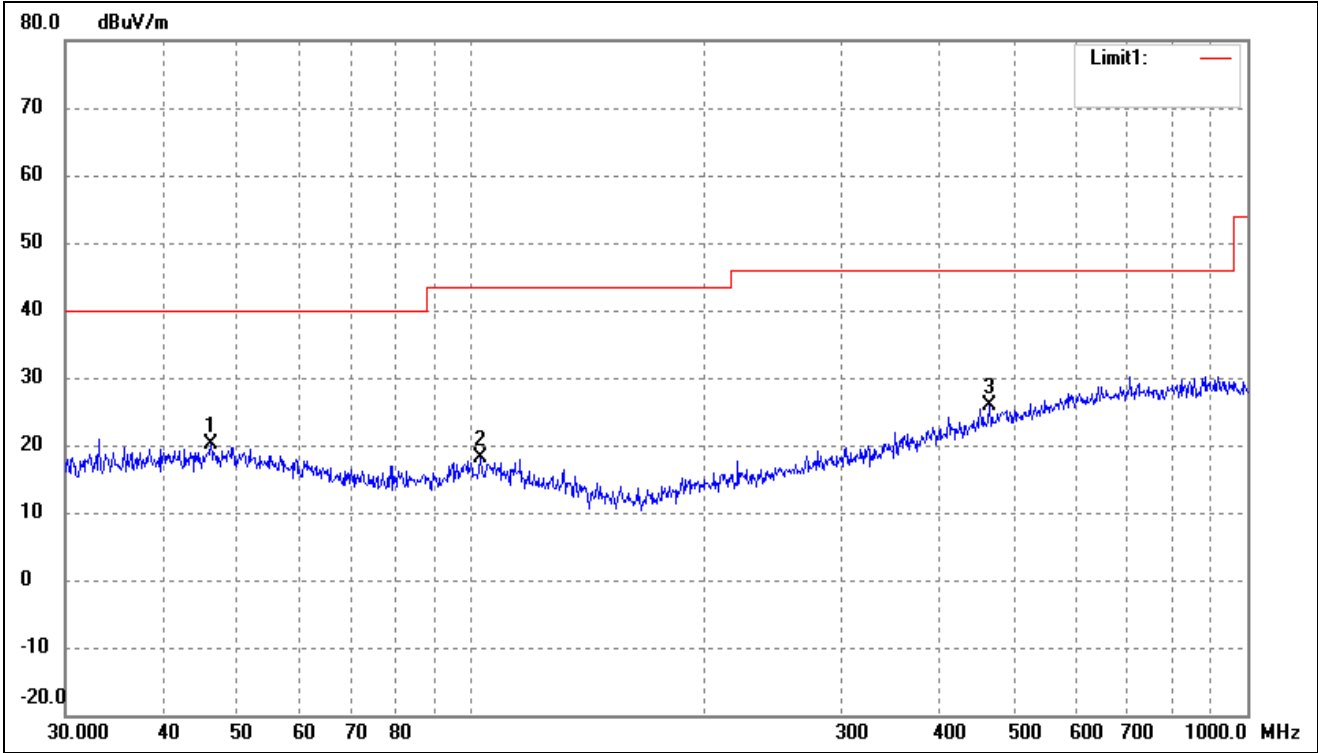
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	48.3318	27.37	-6.96	20.41	40.00	-19.59	-	-	peak
2	114.5146	27.14	-9.20	17.94	43.50	-25.56	-	-	peak
3	622.8900	28.72	0.62	29.34	46.00	-16.66	-	-	peak

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



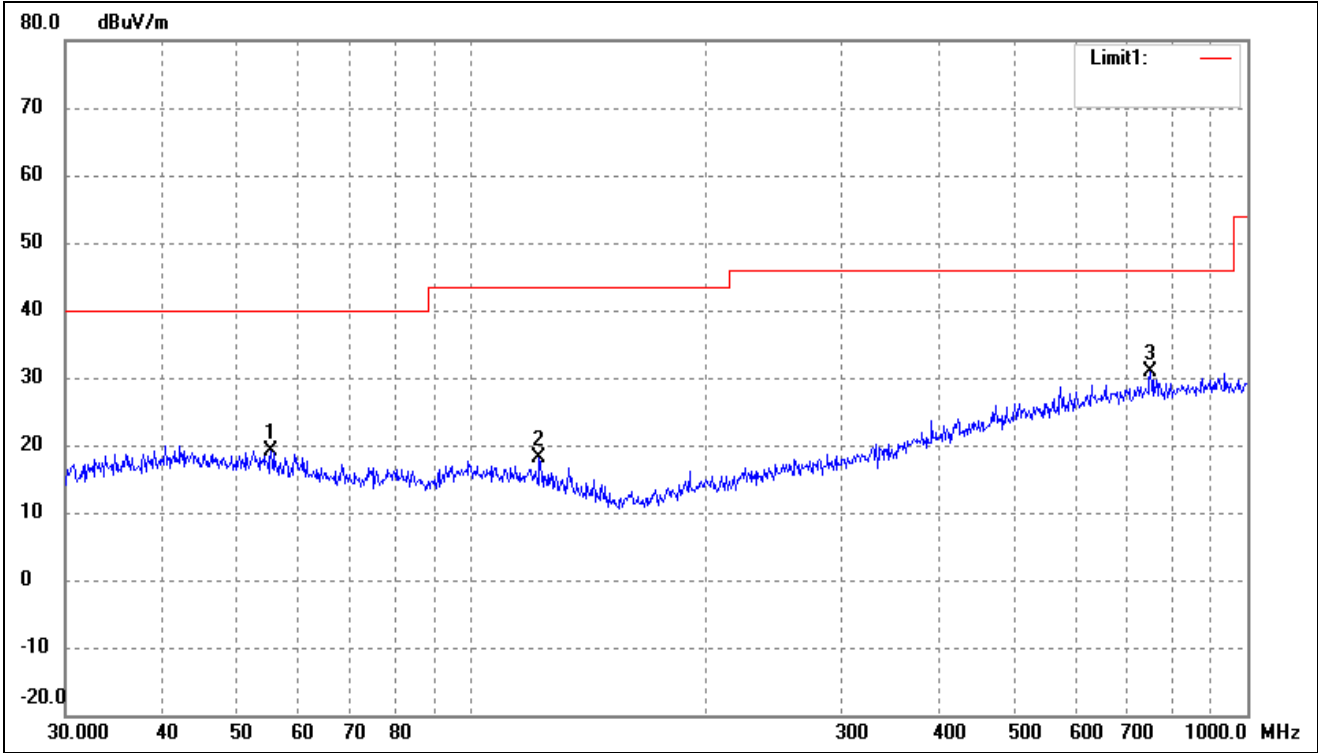
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	48.3318	27.37	-6.96	20.41	40.00	-19.59	-	-	peak
2	114.5146	27.14	-9.20	17.94	43.50	-25.56	-	-	peak
3	622.8900	28.72	0.62	29.34	46.00	-16.66	-	-	peak

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



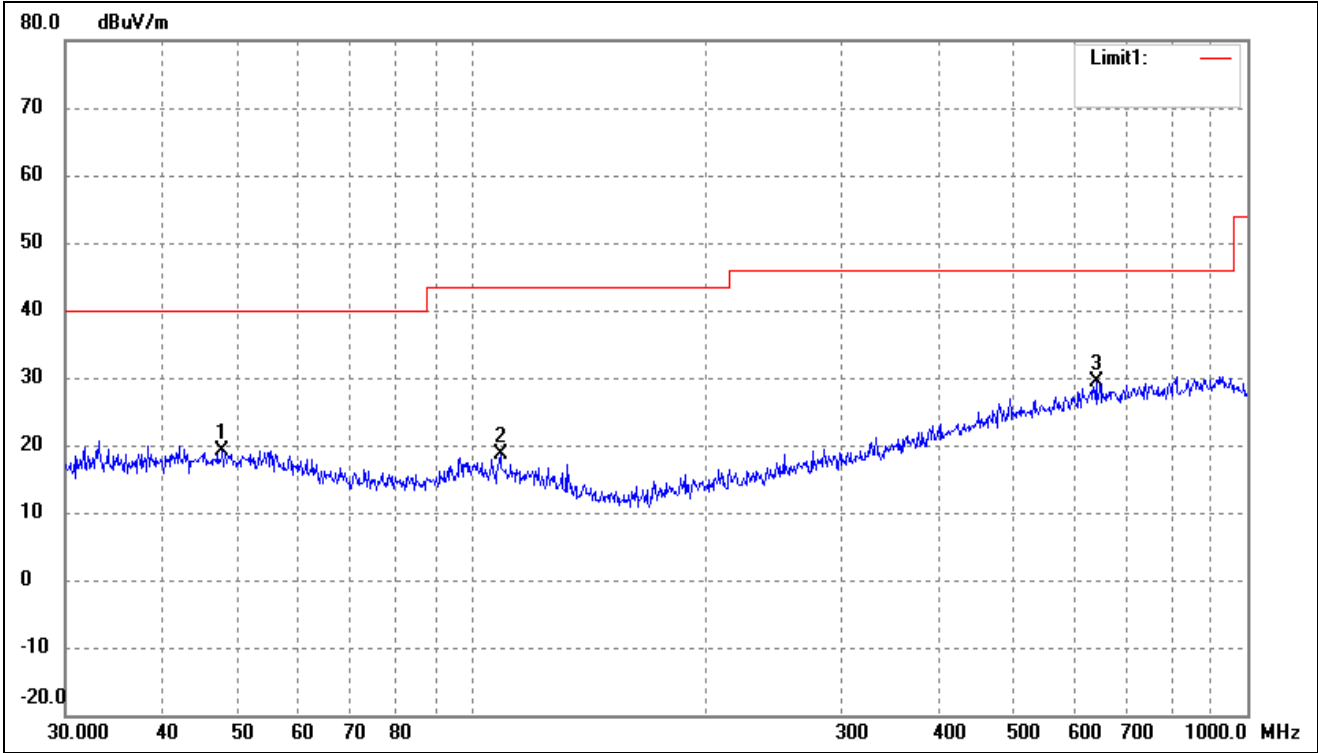
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	46.1780	27.00	-6.98	20.02	40.00	-19.98	-	-	peak
2	102.7192	26.88	-8.77	18.11	43.50	-25.39	-	-	peak
3	465.5994	27.97	-2.17	25.80	46.00	-20.20	-	-	peak

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



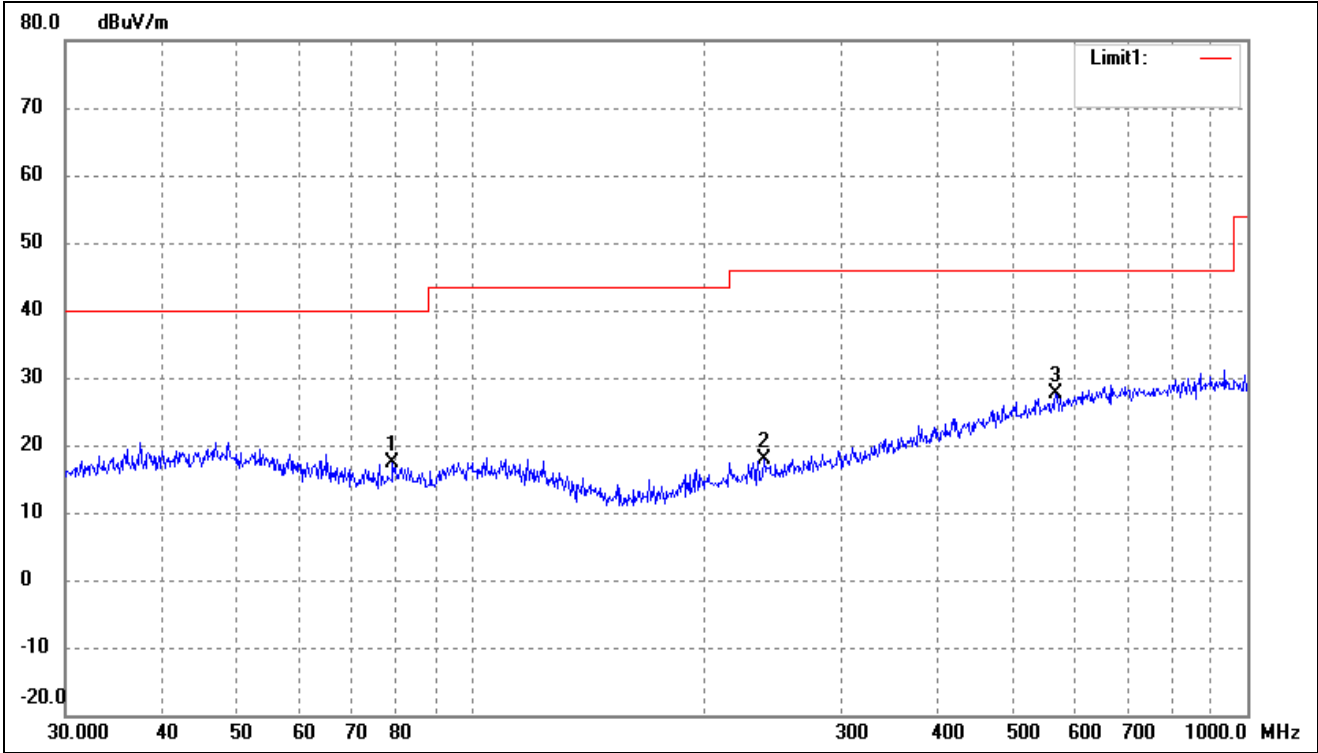
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	55.2207	26.89	-7.73	19.16	40.00	-20.84	-	-	peak
2	122.4040	28.19	-10.05	18.14	43.50	-25.36	-	-	peak
3	750.1083	29.15	1.76	30.91	46.00	-15.09	-	-	peak

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	47.8260	26.12	-6.96	19.16	40.00	-20.84	-	-	peak
2	109.0286	27.37	-8.85	18.52	43.50	-24.98	-	-	peak
3	638.3686	28.68	0.79	29.47	46.00	-16.53	-	-	peak

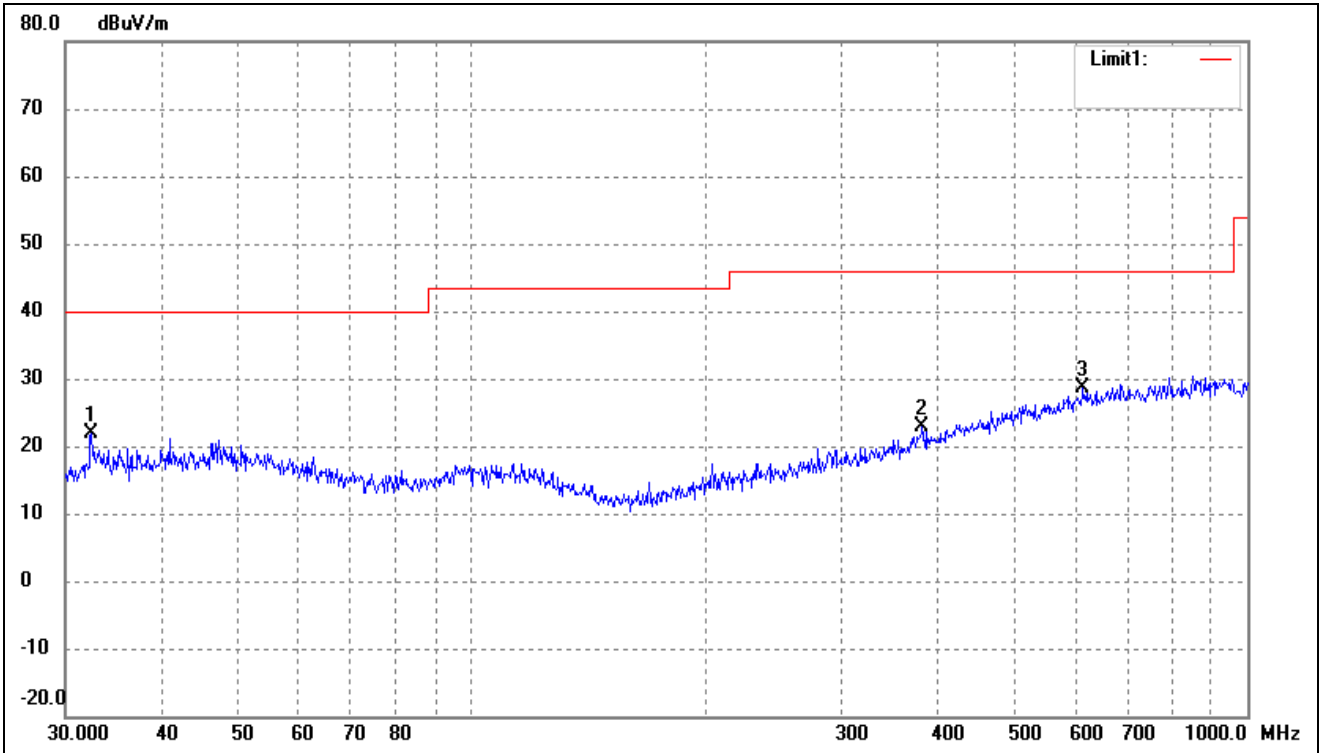
802.11ac-HT80			
Test Channel	5210MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	79.2426	28.07	-10.69	17.38	40.00	-22.62	-	-	peak
2	238.3102	26.62	-8.64	17.98	46.00	-28.02	-	-	peak
3	566.6223	27.86	-0.20	27.66	46.00	-18.34	-	-	peak

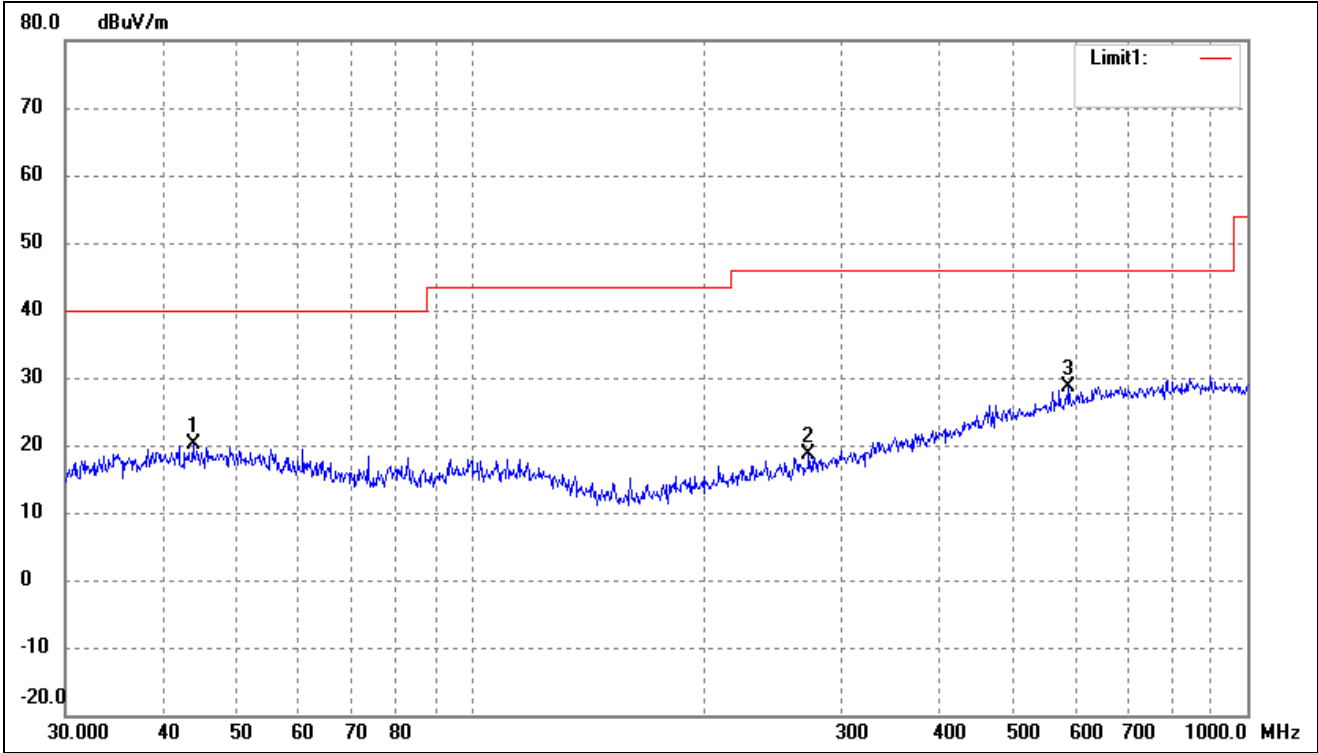
➤ 5250-5350MHz

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



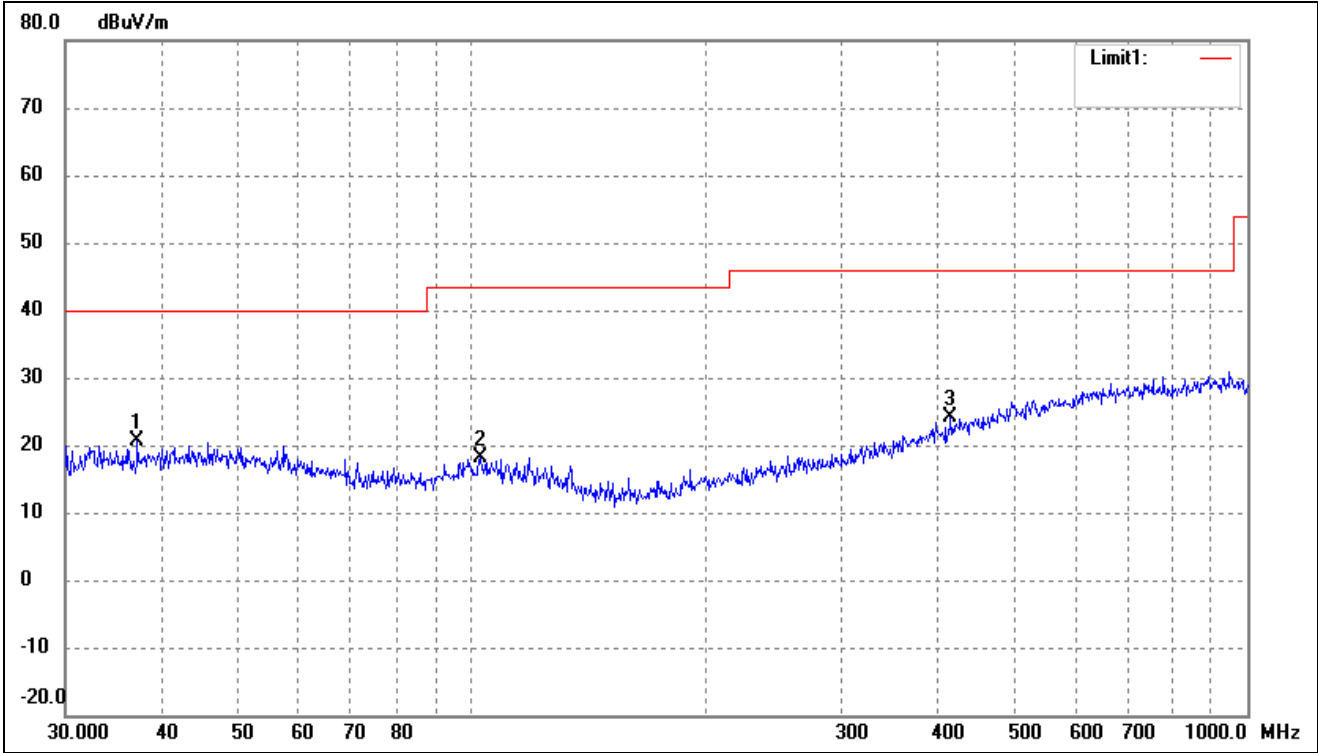
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.4059	30.72	-8.85	21.87	40.00	-18.13	-	-	peak
2	381.2487	27.39	-4.46	22.93	46.00	-23.07	-	-	peak
3	614.2142	28.10	0.53	28.63	46.00	-17.37	-	-	peak

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



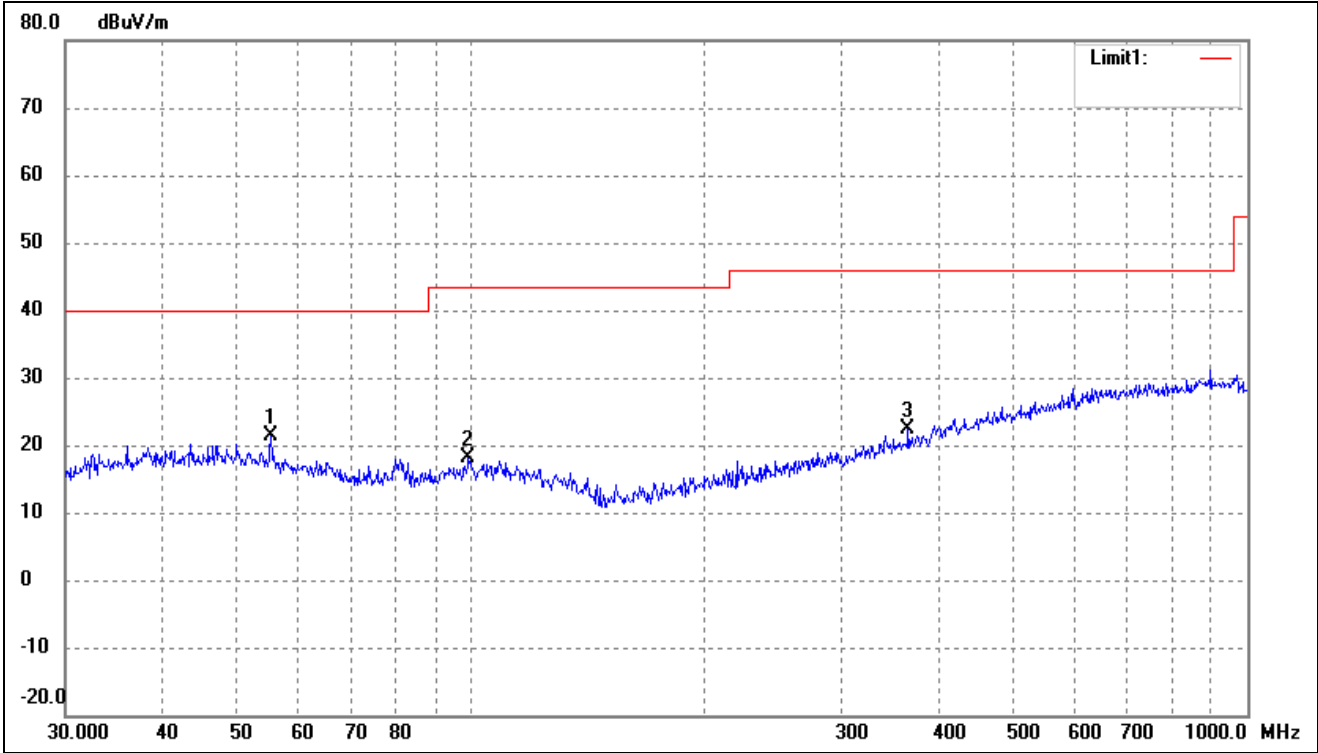
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.8119	27.12	-6.98	20.14	40.00	-19.86	-	-	peak
2	272.2776	26.28	-7.71	18.57	46.00	-27.43	-	-	peak
3	588.9051	28.34	0.18	28.52	46.00	-17.48	-	-	peak

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



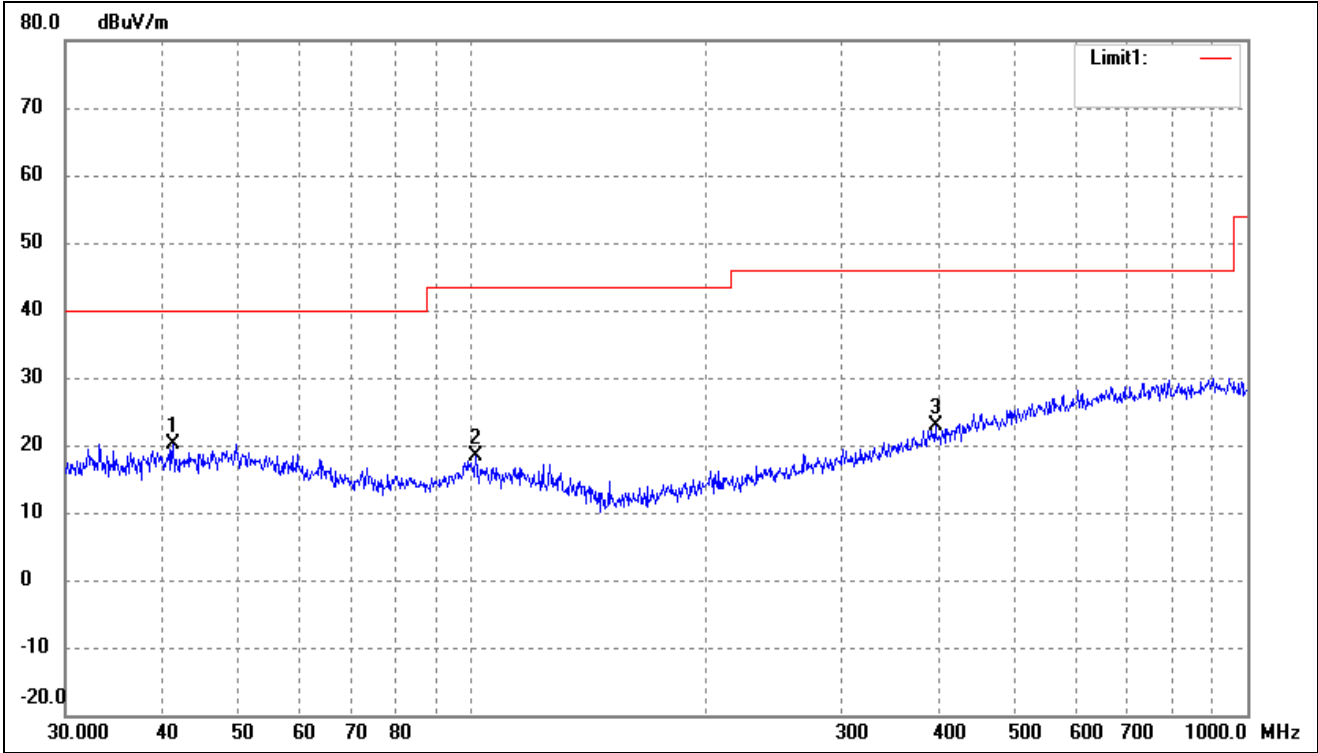
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	37.1550	28.43	-7.70	20.73	40.00	-19.27	-	-	peak
2	102.7192	26.85	-8.77	18.08	43.50	-25.42	-	-	peak
3	414.7223	27.52	-3.50	24.02	46.00	-21.98	-	-	peak

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



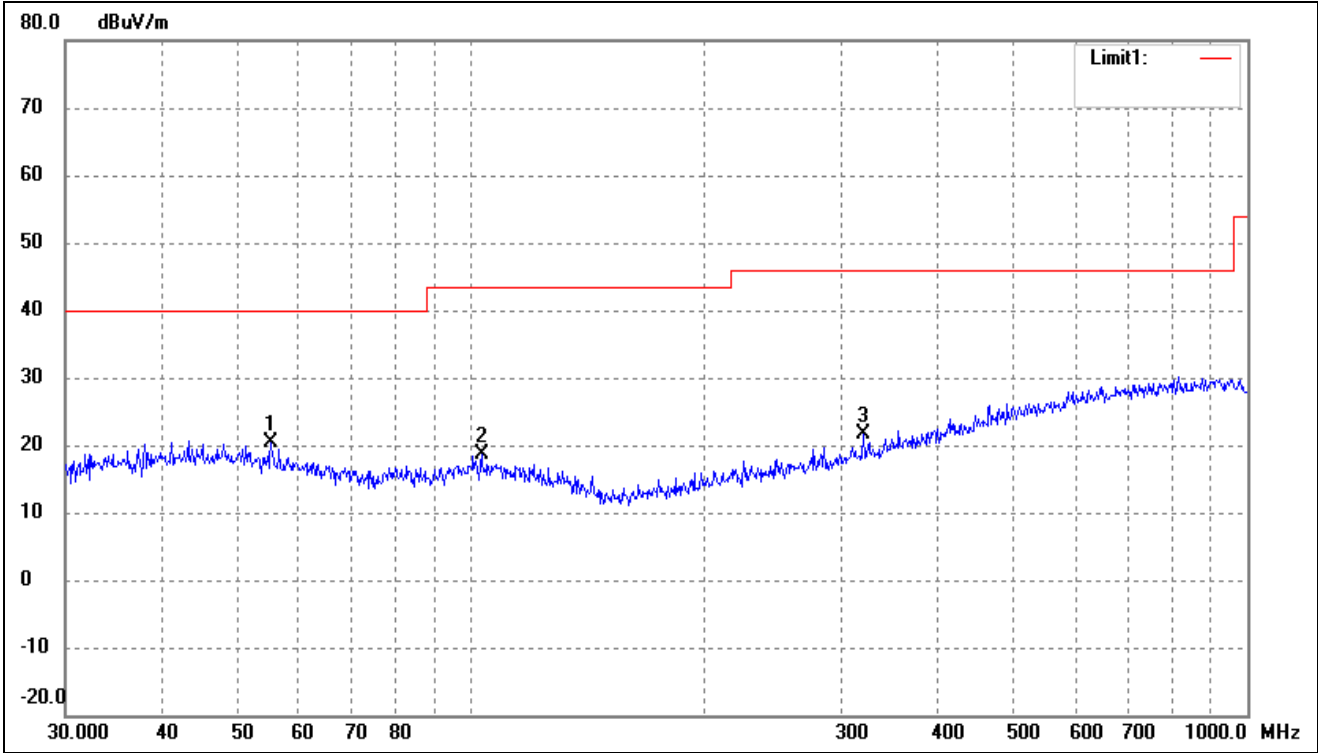
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	55.2207	29.02	-7.73	21.29	40.00	-18.71	-	-	peak
2	99.1797	27.02	-8.88	18.14	43.50	-25.36	-	-	peak
3	365.5391	27.29	-4.93	22.36	46.00	-23.64	-	-	peak

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



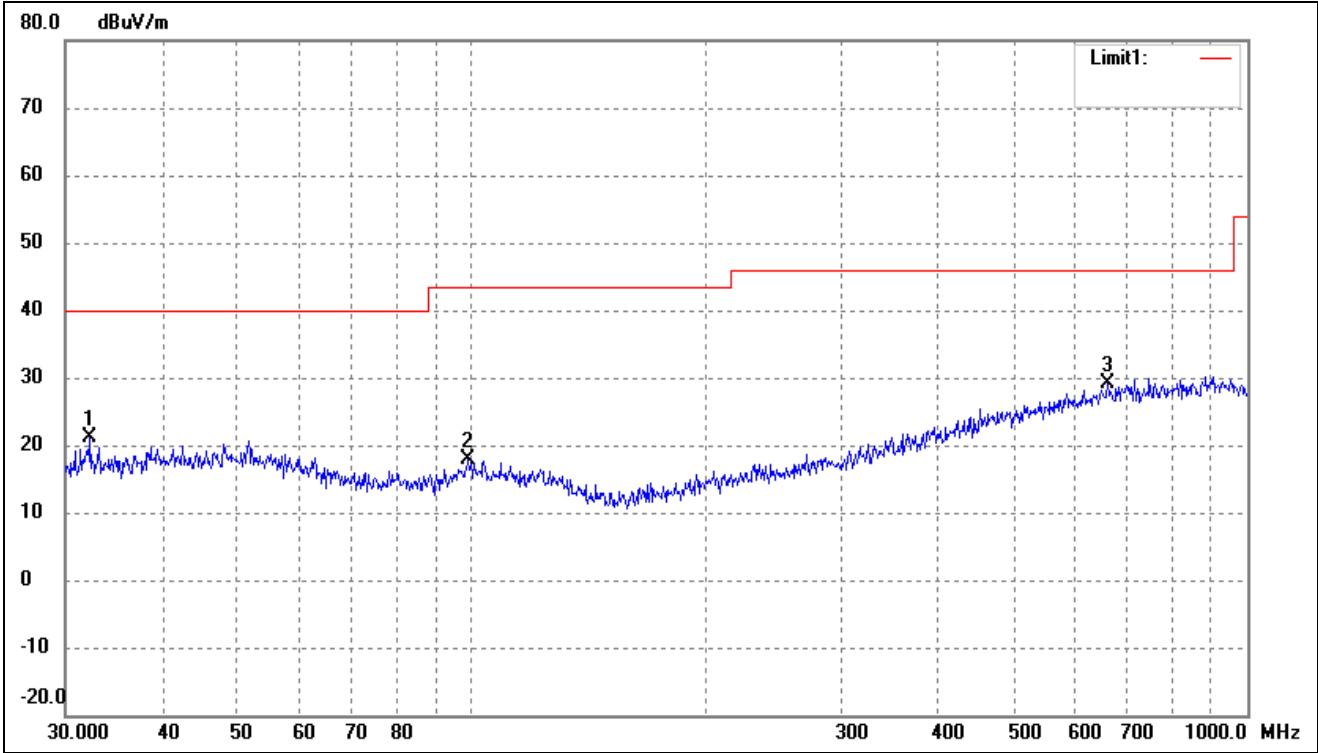
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	41.2765	27.00	-6.99	20.01	40.00	-19.99	-	-	peak
2	101.2885	27.23	-8.75	18.48	43.50	-25.02	-	-	peak
3	396.2415	26.90	-4.01	22.89	46.00	-23.11	-	-	peak

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



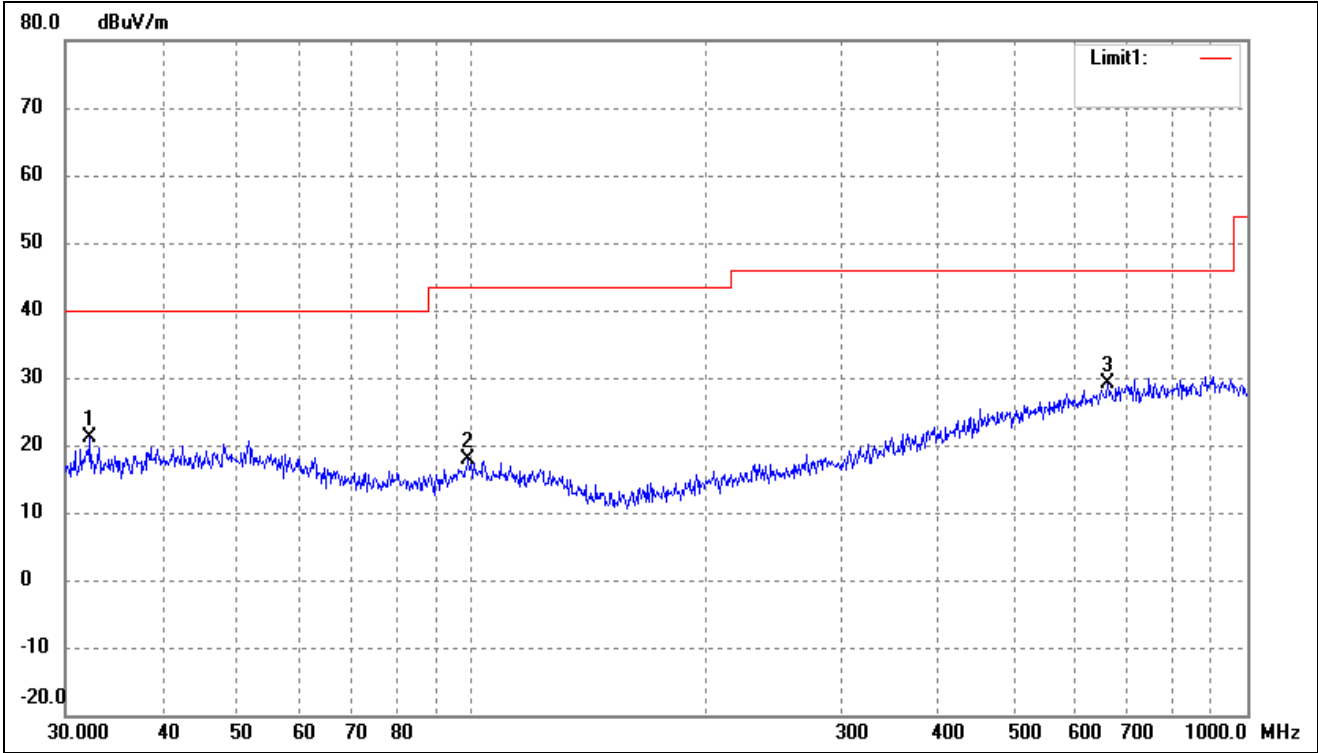
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	55.2207	28.22	-7.73	20.49	40.00	-19.51	-	-	peak
2	103.0800	27.28	-8.77	18.51	43.50	-24.99	-	-	peak
3	319.9370	27.92	-6.34	21.58	46.00	-24.42	-	-	peak

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	32.2925	30.00	-8.89	21.11	40.00	-18.89	-	-	peak
2	99.1797	26.80	-8.88	17.92	43.50	-25.58	-	-	peak
3	661.1505	28.05	1.04	29.09	46.00	-16.91	-	-	peak

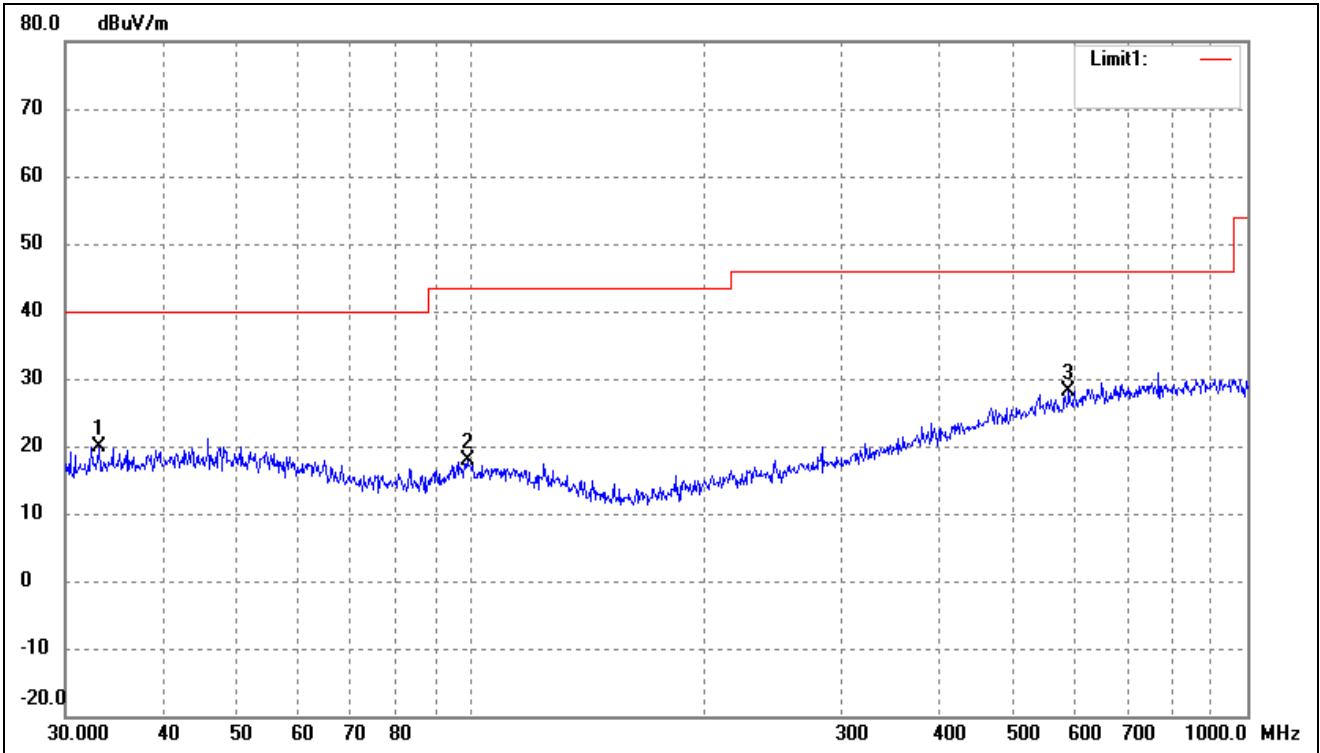
802.11ac-HT80			
Test Channel	5290MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	32.2925	30.00	-8.89	21.11	40.00	-18.89	-	-	peak
2	99.1797	26.80	-8.88	17.92	43.50	-25.58	-	-	peak
3	661.1505	28.05	1.04	29.09	46.00	-16.91	-	-	peak

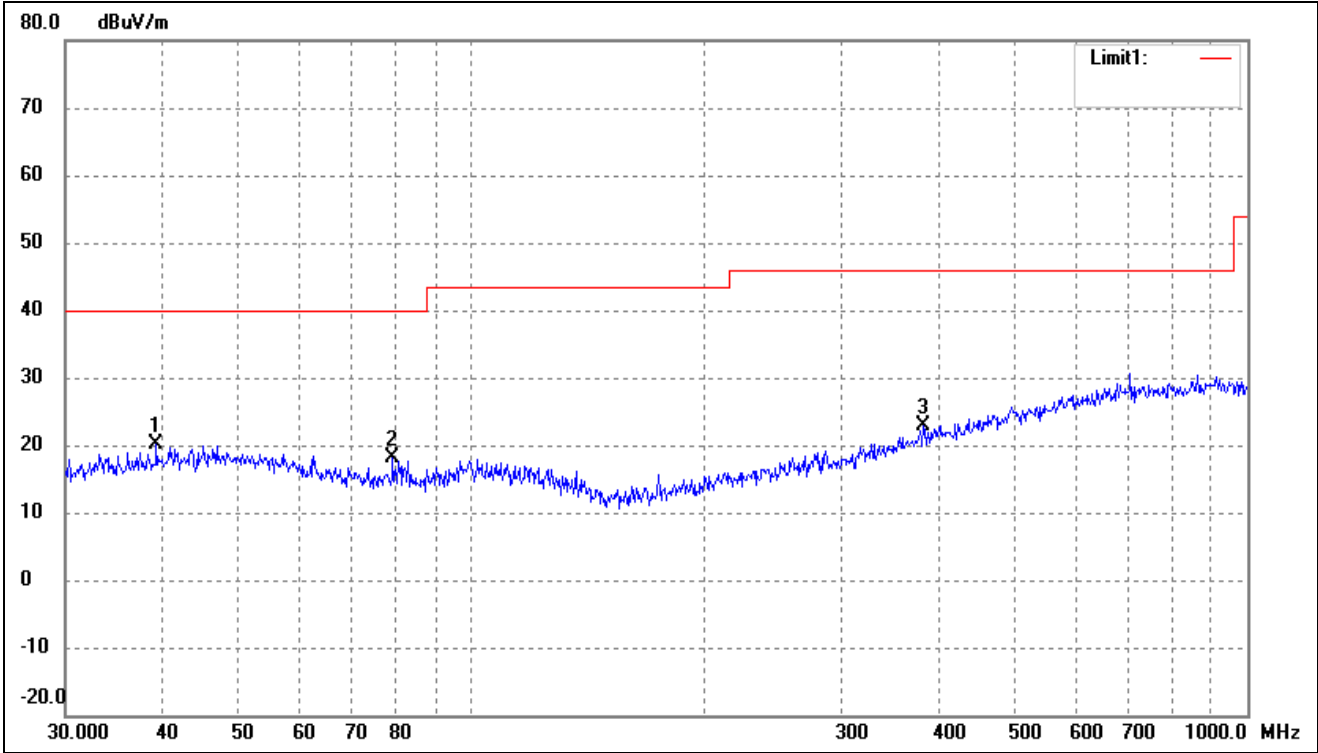
➤ 5470-5725MHz

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



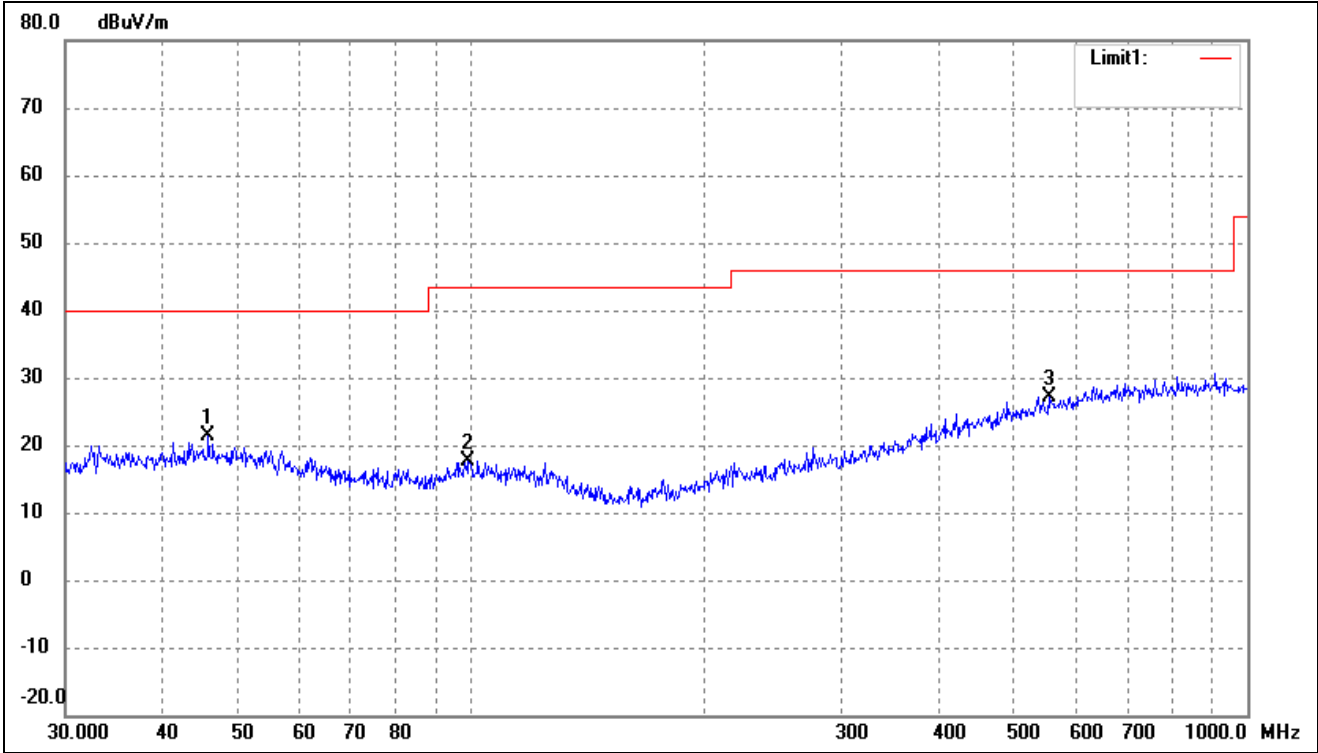
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	33.2112	28.47	-8.67	19.80	40.00	-20.20	-	-	peak
2	98.8326	26.87	-8.94	17.93	43.50	-25.57	-	-	peak
3	588.9051	27.95	0.18	28.13	46.00	-17.87	-	-	peak

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



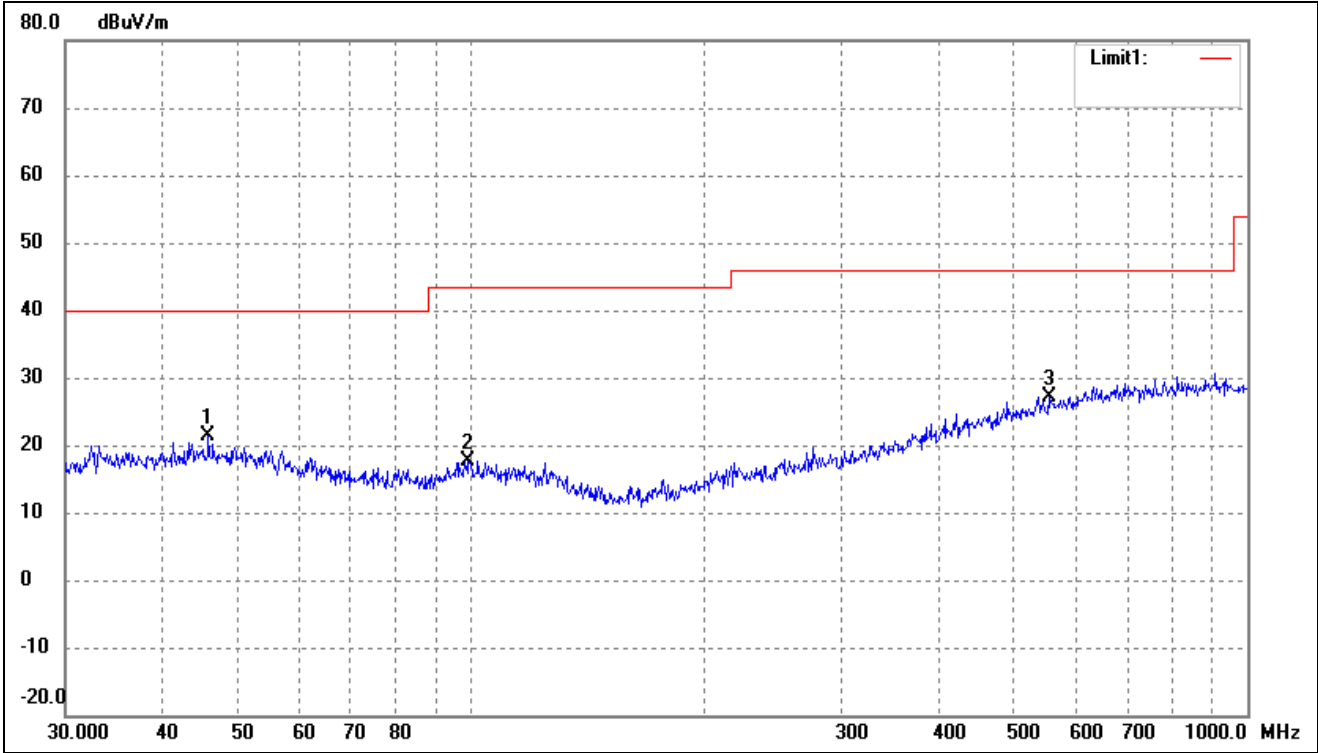
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	39.2991	27.24	-7.17	20.07	40.00	-19.93	-	-	peak
2	79.2426	28.81	-10.69	18.12	40.00	-21.88	-	-	peak
3	382.5879	27.17	-4.41	22.76	46.00	-23.24	-	-	peak

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



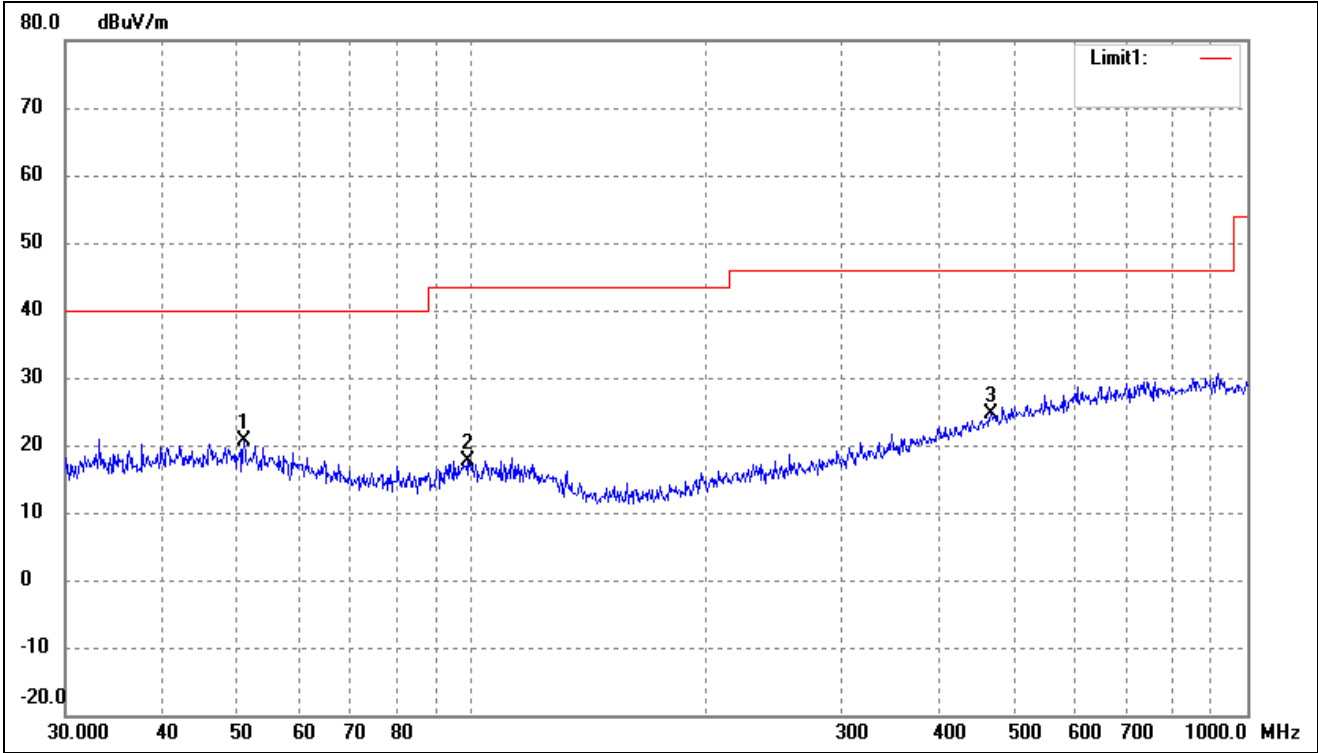
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.8553	28.41	-6.98	21.43	40.00	-18.57	-	-	peak
2	99.1797	26.51	-8.88	17.63	43.50	-25.87	-	-	peak
3	554.8254	27.52	-0.39	27.13	46.00	-18.87	-	-	peak

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



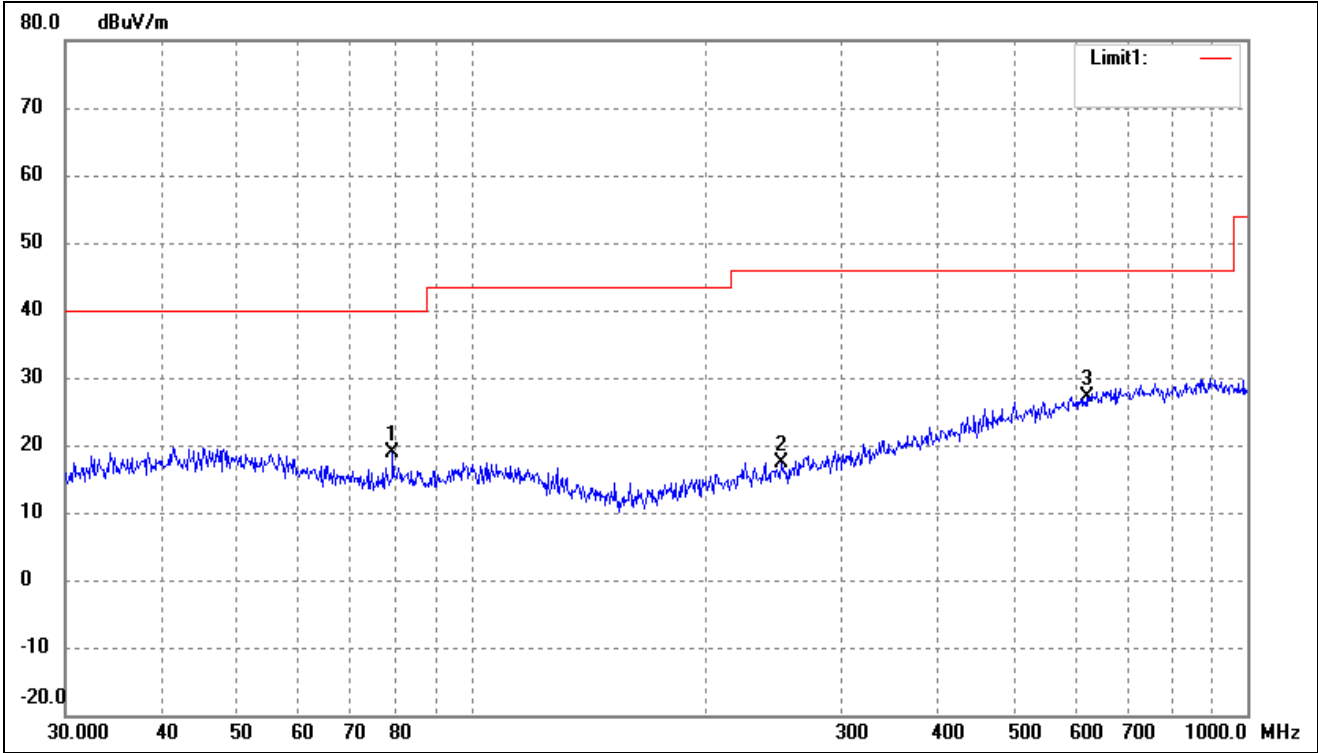
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.8553	28.41	-6.98	21.43	40.00	-18.57	-	-	peak
2	99.1797	26.51	-8.88	17.63	43.50	-25.87	-	-	peak
3	554.8254	27.52	-0.39	27.13	46.00	-18.87	-	-	peak

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



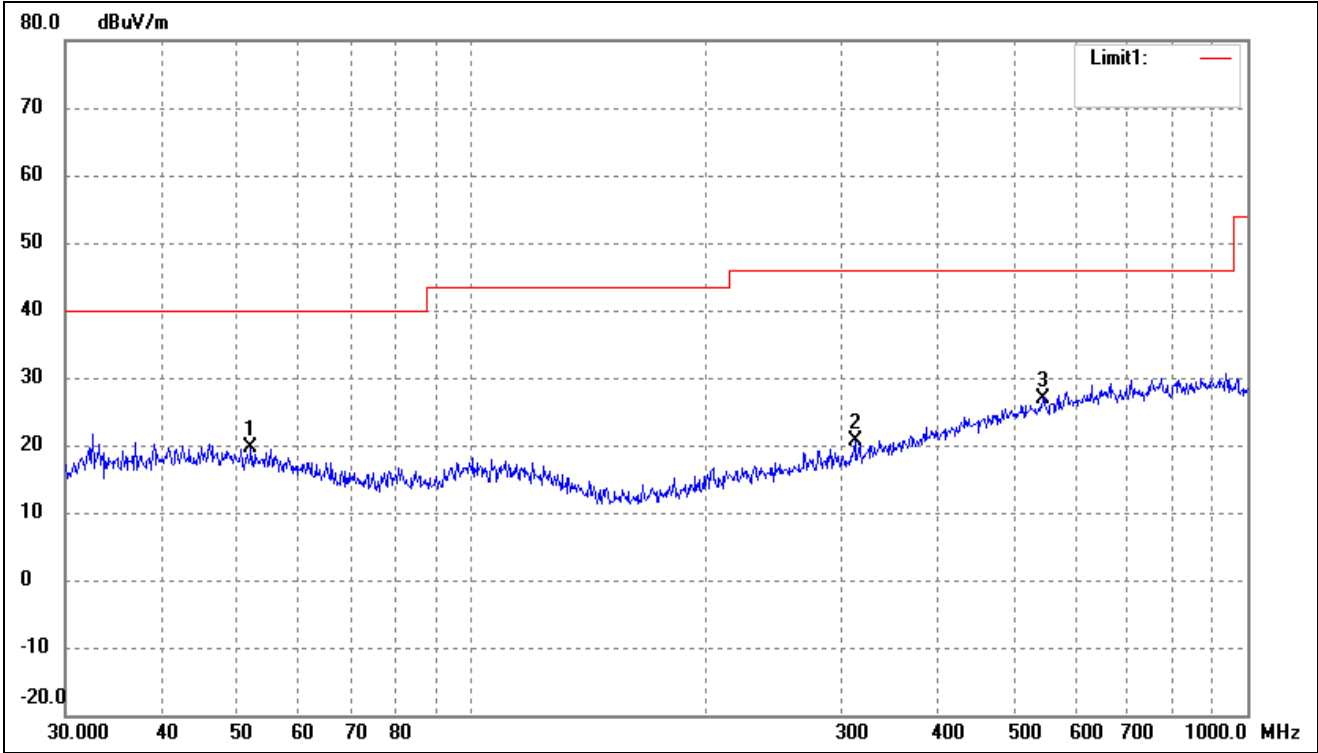
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.9420	27.63	-7.10	20.53	40.00	-19.47	-	-	peak
2	99.1797	26.56	-8.88	17.68	43.50	-25.82	-	-	peak
3	467.2349	26.75	-2.13	24.62	46.00	-21.38	-	-	peak

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



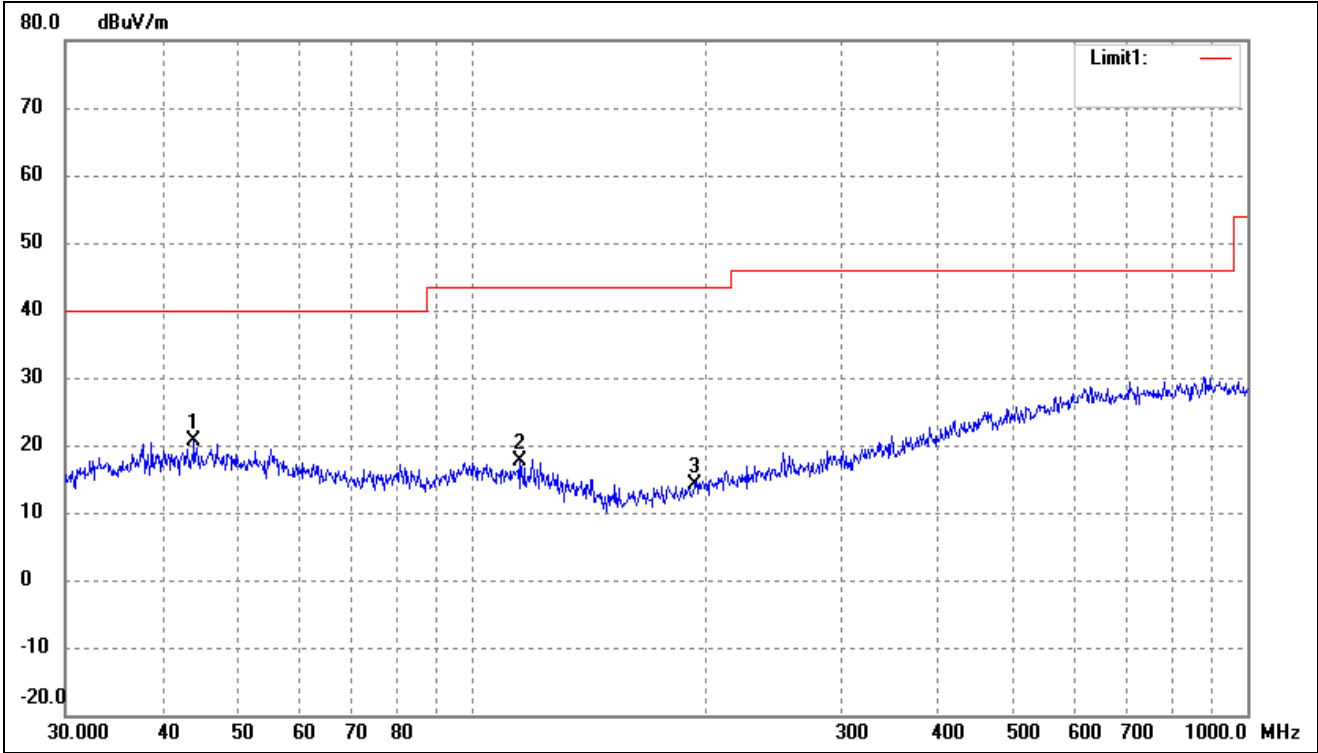
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	79.2426	29.54	-10.69	18.85	40.00	-21.15	-	-	peak
2	251.1804	25.69	-8.28	17.41	46.00	-28.59	-	-	peak
3	620.7096	26.57	0.60	27.17	46.00	-18.83	-	-	peak

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	52.0251	27.00	-7.25	19.75	40.00	-20.25	-	-	peak
2	312.1794	27.21	-6.59	20.62	46.00	-25.38	-	-	peak
3	545.1826	27.38	-0.55	26.83	46.00	-19.17	-	-	peak

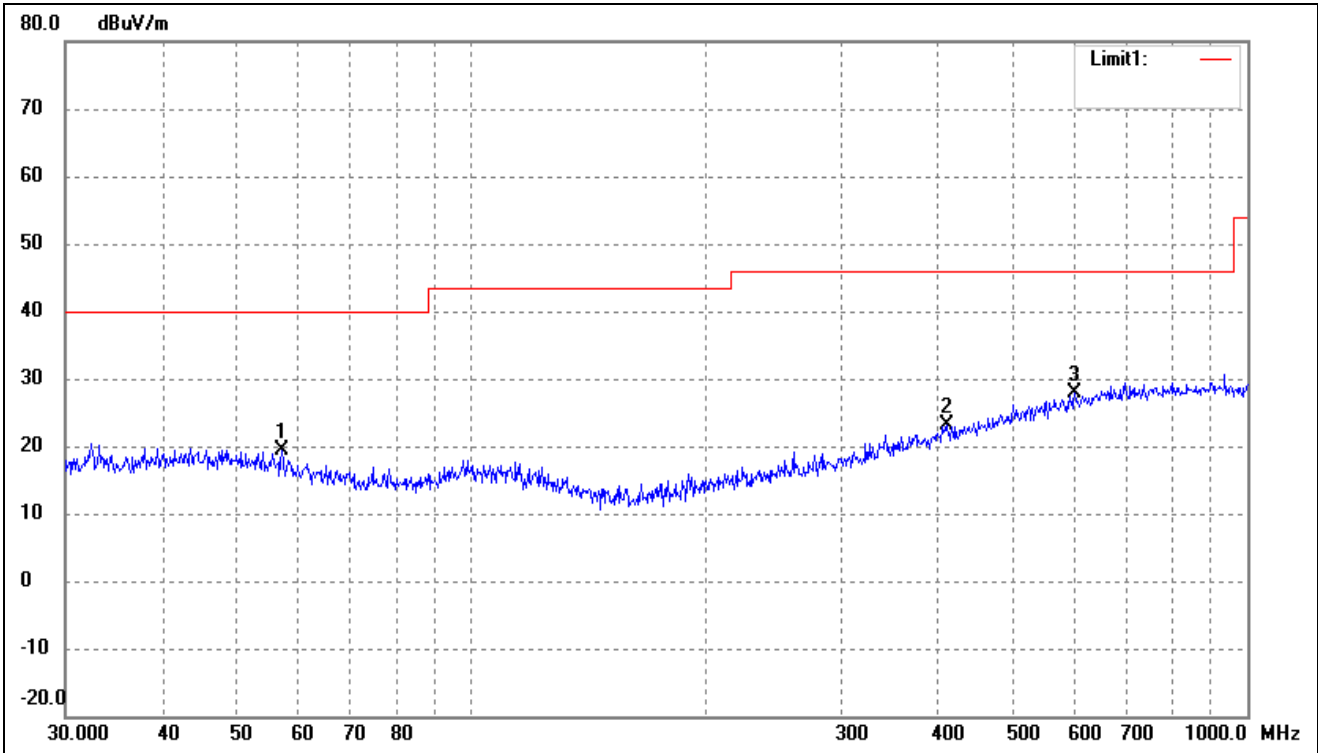
802.11ac-HT80			
Test Channel	5530MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.9658	27.61	-6.98	20.63	40.00	-19.37	-	-	peak
2	115.7256	26.97	-9.29	17.68	43.50	-25.82	-	-	peak
3	194.4534	24.07	-9.90	14.17	43.50	-29.33	-	-	peak

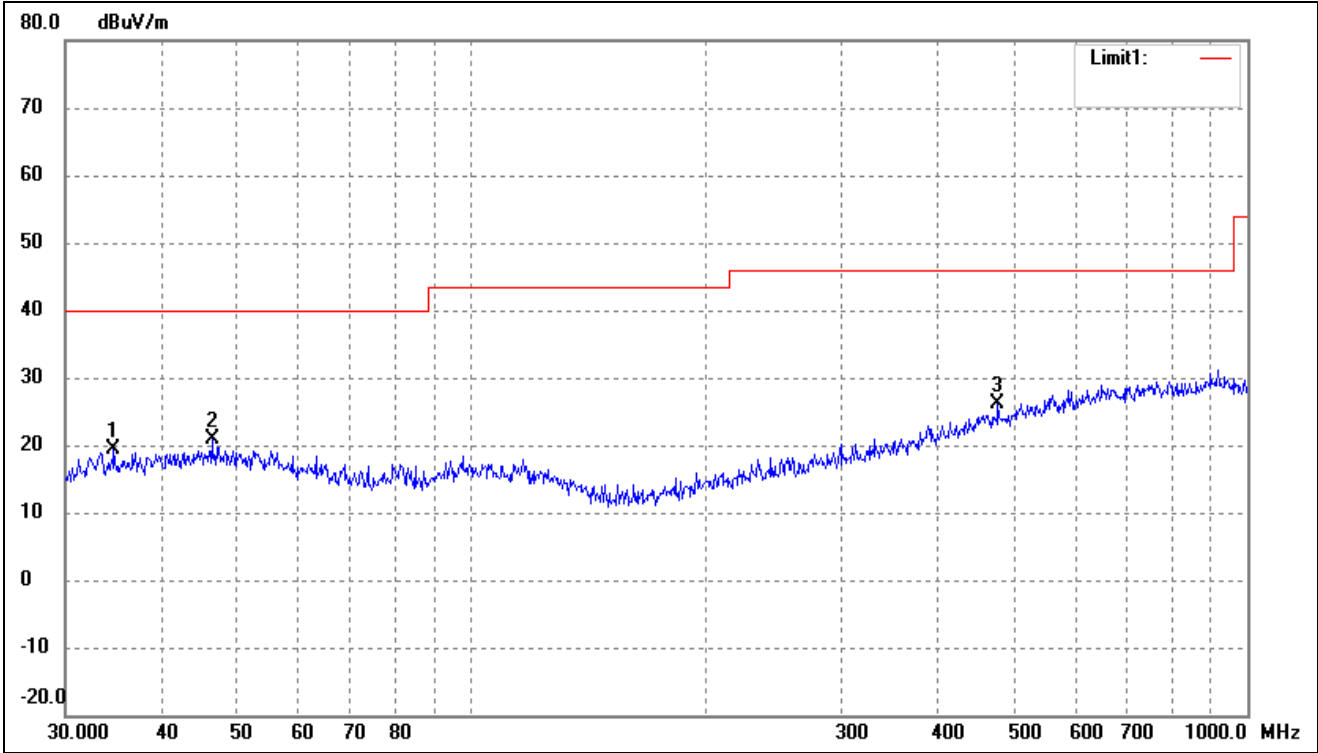
➤ 5725-5850MHz

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



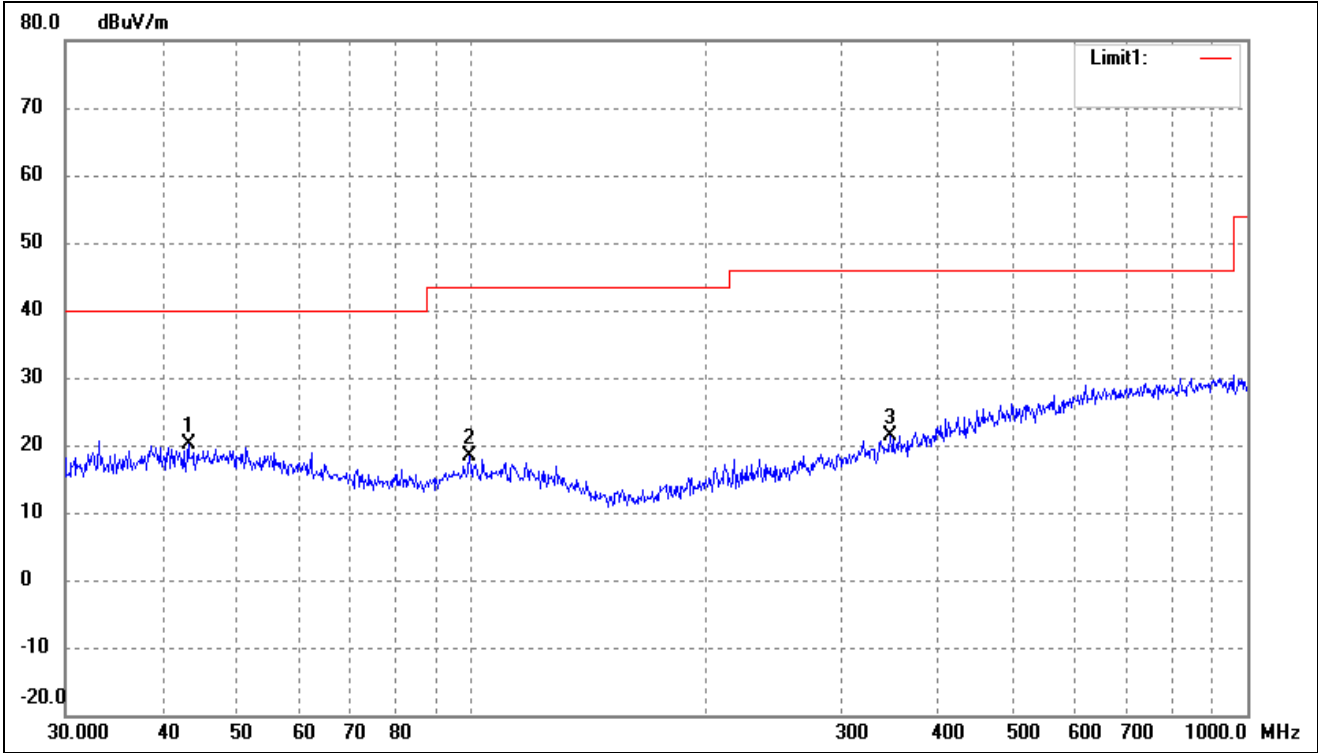
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	56.9911	27.32	-7.99	19.33	40.00	-20.67	-	-	peak
2	410.3824	26.80	-3.61	23.19	46.00	-22.81	-	-	peak
3	599.3212	27.55	0.36	27.91	46.00	-18.09	-	-	peak

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



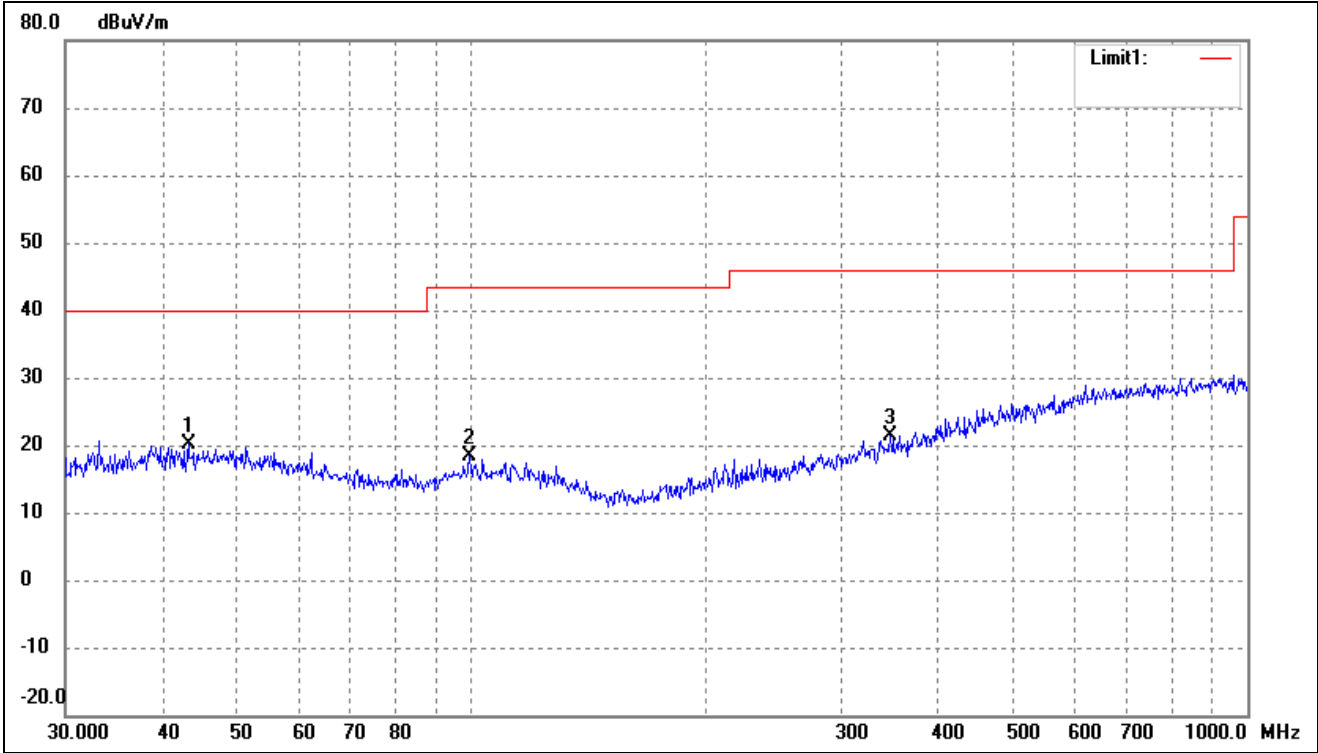
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	34.6385	27.69	-8.32	19.37	40.00	-20.63	-	-	peak
2	46.3402	27.97	-6.97	21.00	40.00	-19.00	-	-	peak
3	477.1694	27.97	-1.88	26.09	46.00	-19.91	-	-	peak

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



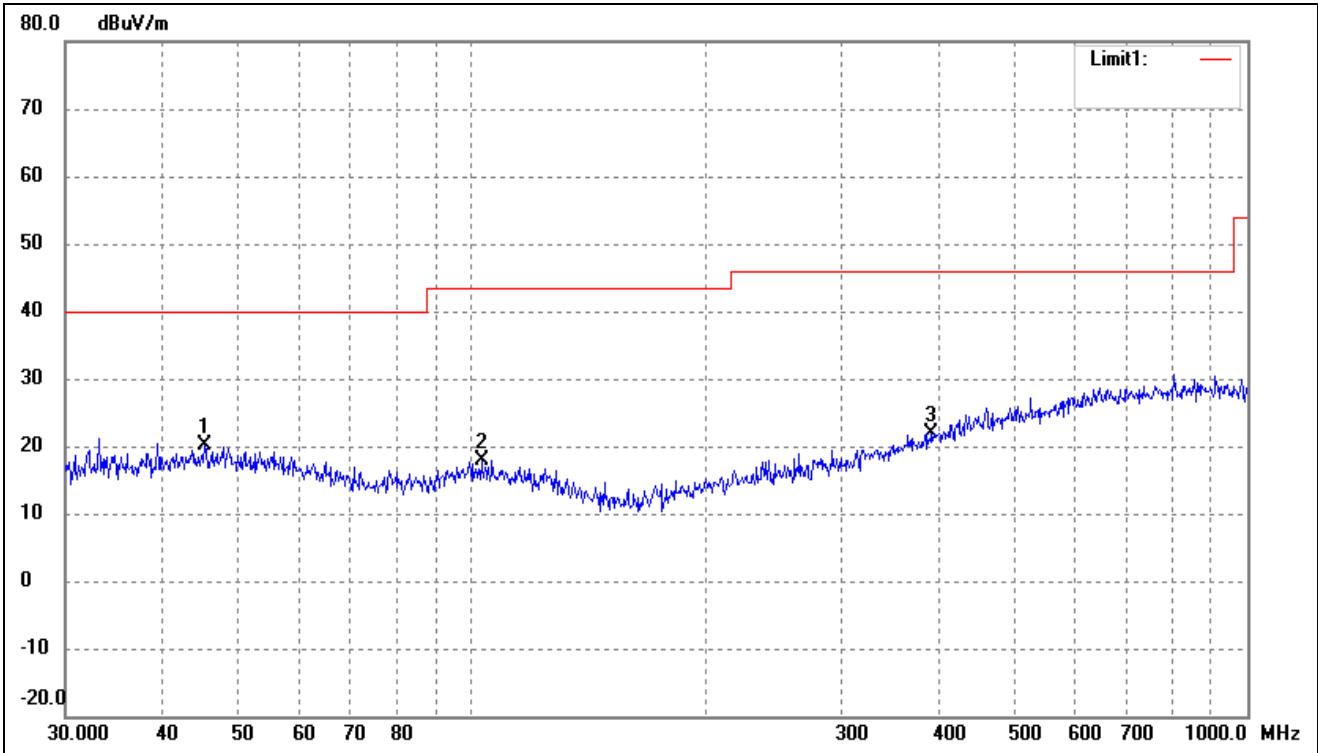
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.2017	27.07	-7.00	20.07	40.00	-19.93	-	-	peak
2	99.5281	27.24	-8.81	18.43	43.50	-25.07	-	-	peak
3	346.8092	26.87	-5.50	21.37	46.00	-24.63	-	-	peak

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



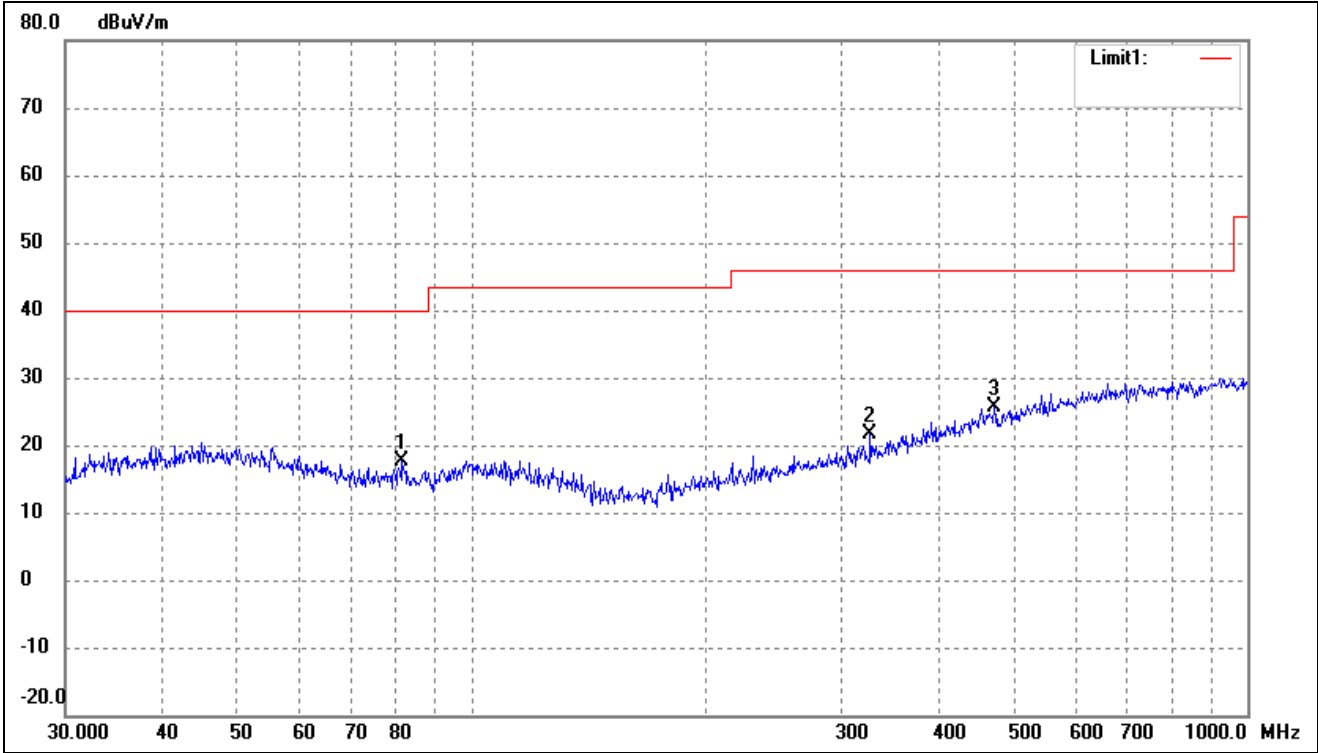
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.2017	27.07	-7.00	20.07	40.00	-19.93	-	-	peak
2	99.5281	27.24	-8.81	18.43	43.50	-25.07	-	-	peak
3	346.8092	26.87	-5.50	21.37	46.00	-24.63	-	-	peak

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



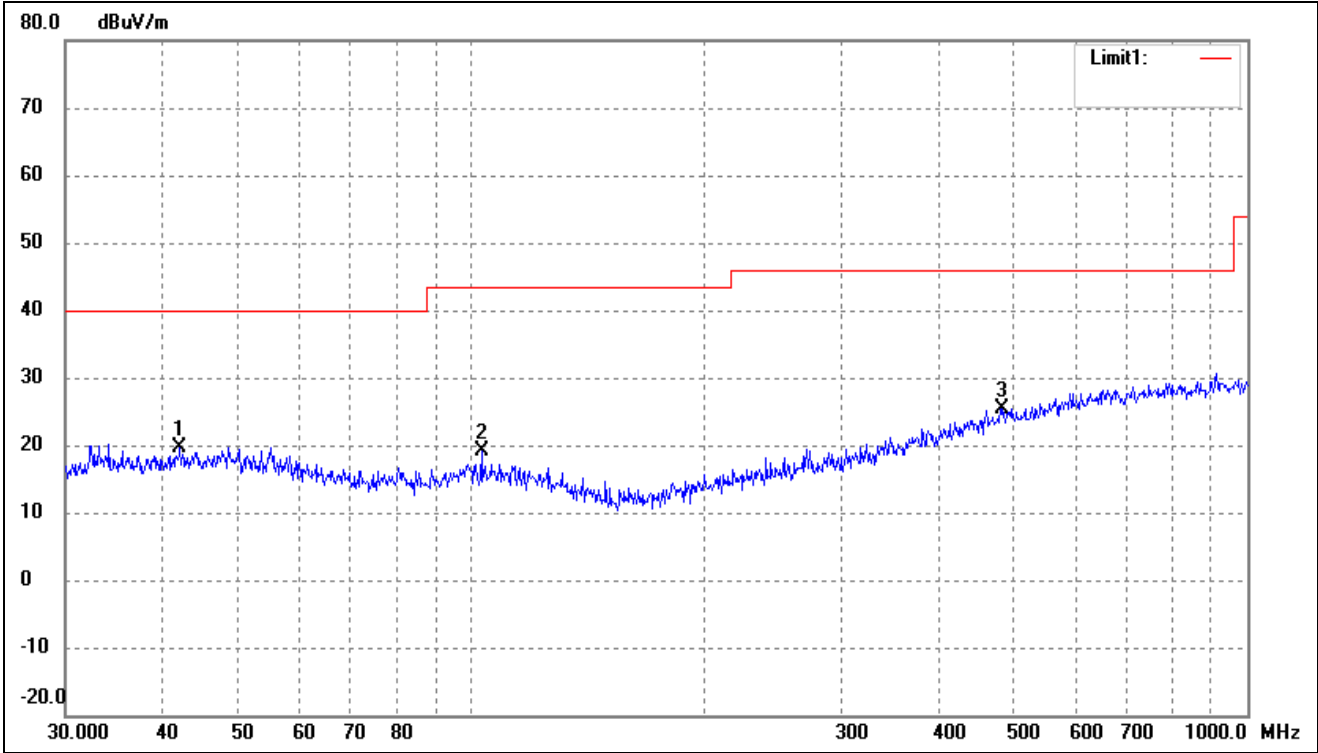
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.3755	27.14	-6.97	20.17	40.00	-19.83	-	-	peak
2	103.0800	26.76	-8.77	17.99	43.50	-25.51	-	-	peak
3	392.0951	26.09	-4.13	21.96	46.00	-24.04	-	-	peak

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



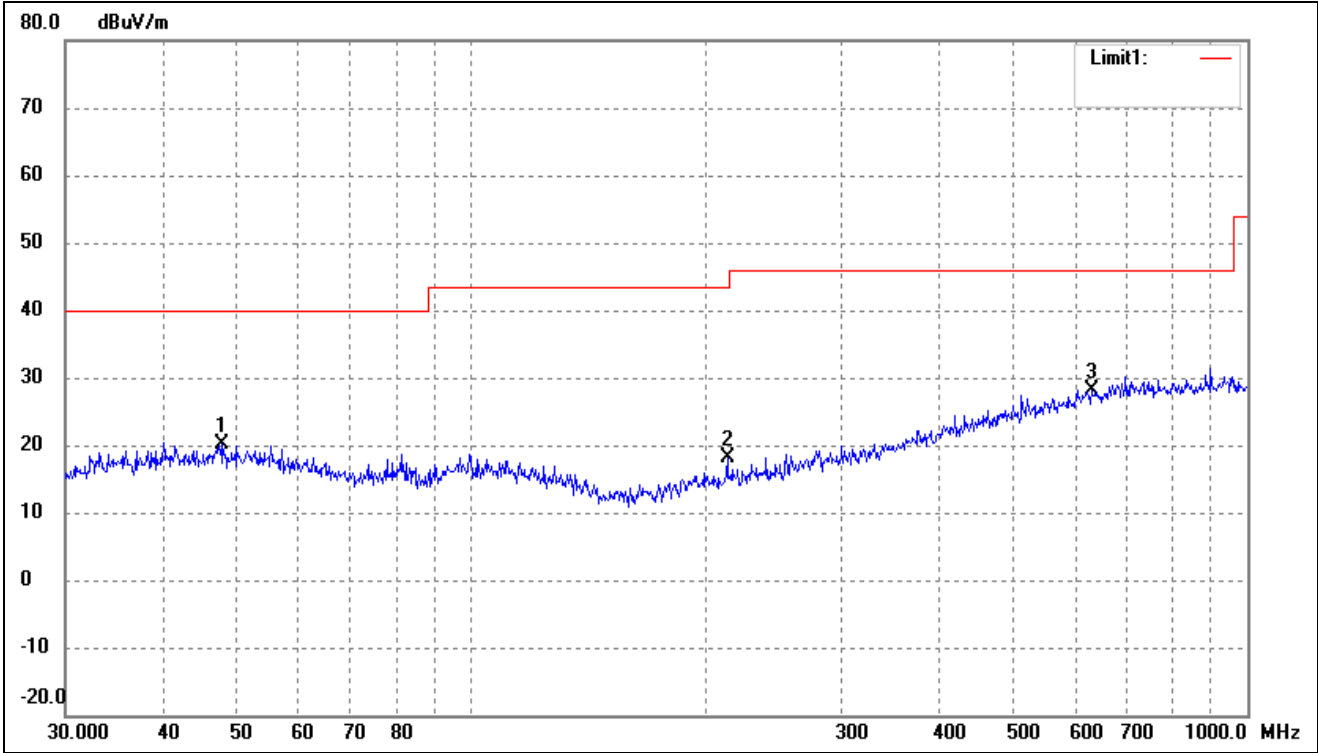
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	81.4970	28.32	-10.72	17.60	40.00	-22.40	-	-	peak
2	326.7395	27.85	-6.13	21.72	46.00	-24.28	-	-	peak
3	472.1760	27.58	-2.01	25.57	46.00	-20.43	-	-	peak

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	42.1542	26.67	-6.99	19.68	40.00	-20.32	-	-	peak
2	103.0800	27.86	-8.77	19.09	43.50	-24.41	-	-	peak
3	483.9094	27.11	-1.71	25.40	46.00	-20.60	-	-	peak

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

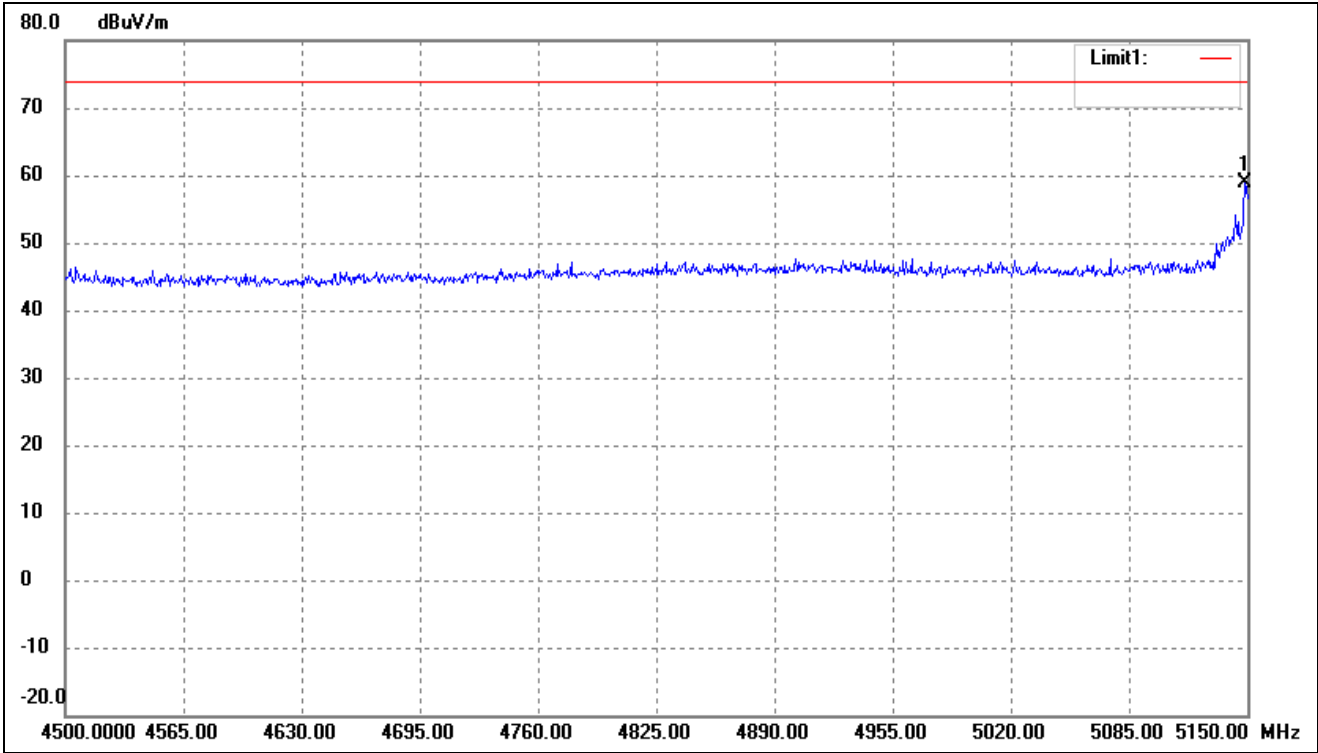


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.6586	27.19	-6.97	20.22	40.00	-19.78	-	-	peak
2	213.7634	27.52	-9.32	18.20	43.50	-25.30	-	-	peak
3	629.4772	27.51	0.69	28.20	46.00	-17.80	-	-	peak

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

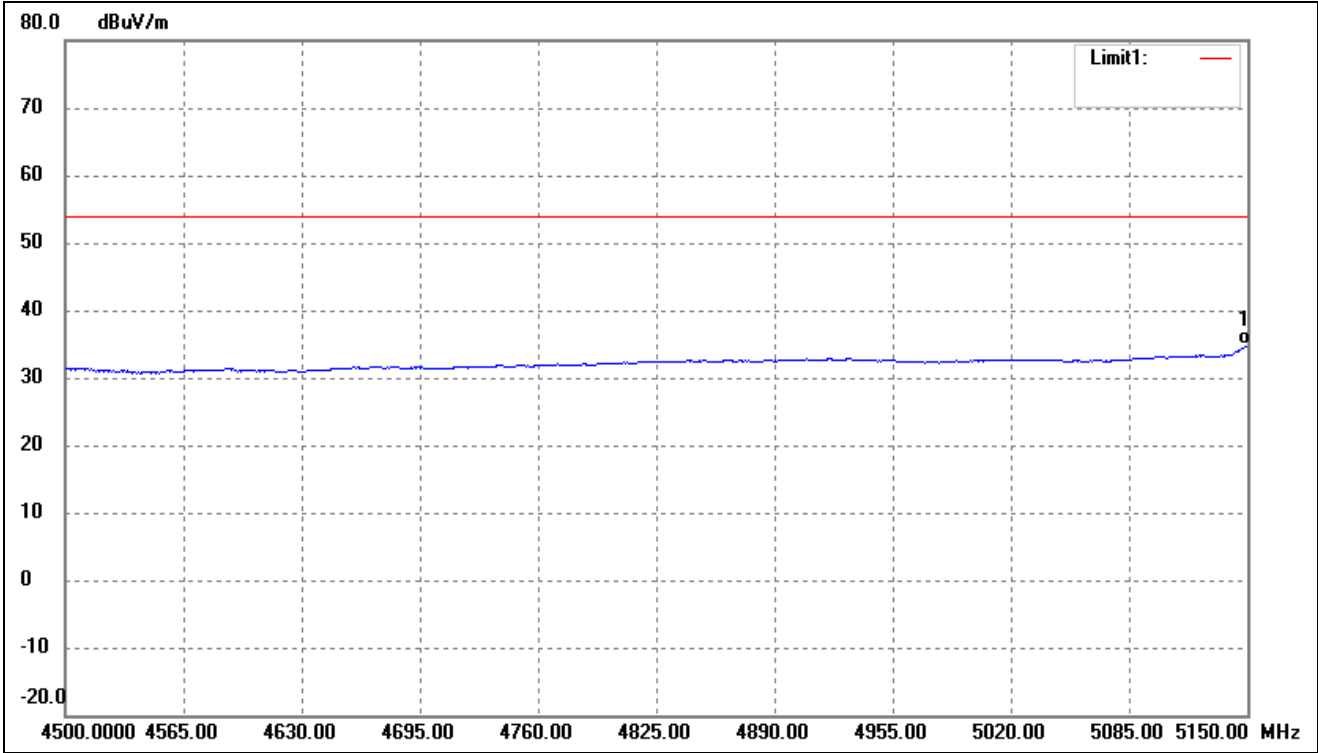
➤ Spurious Emission above 1GHz

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



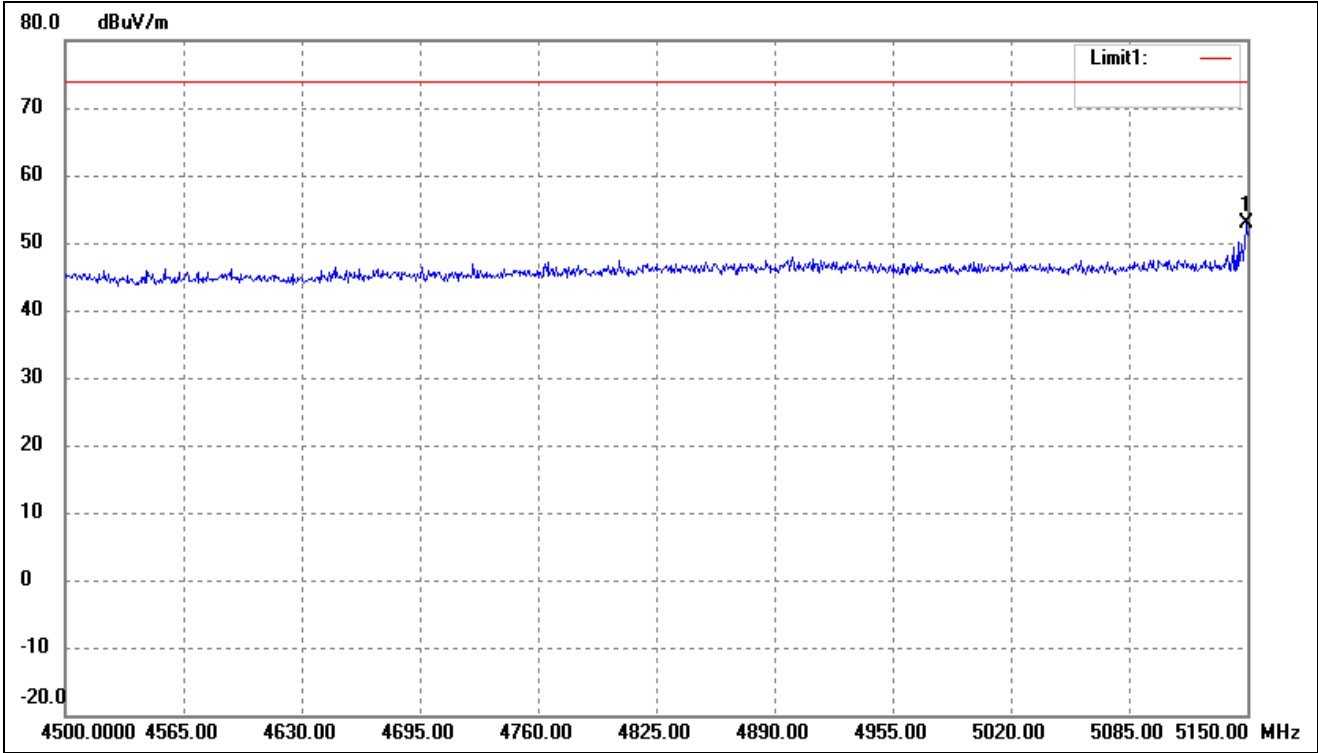
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5148.700	64.23	-5.33	58.90	74.00	-15.10	-	-	peak

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



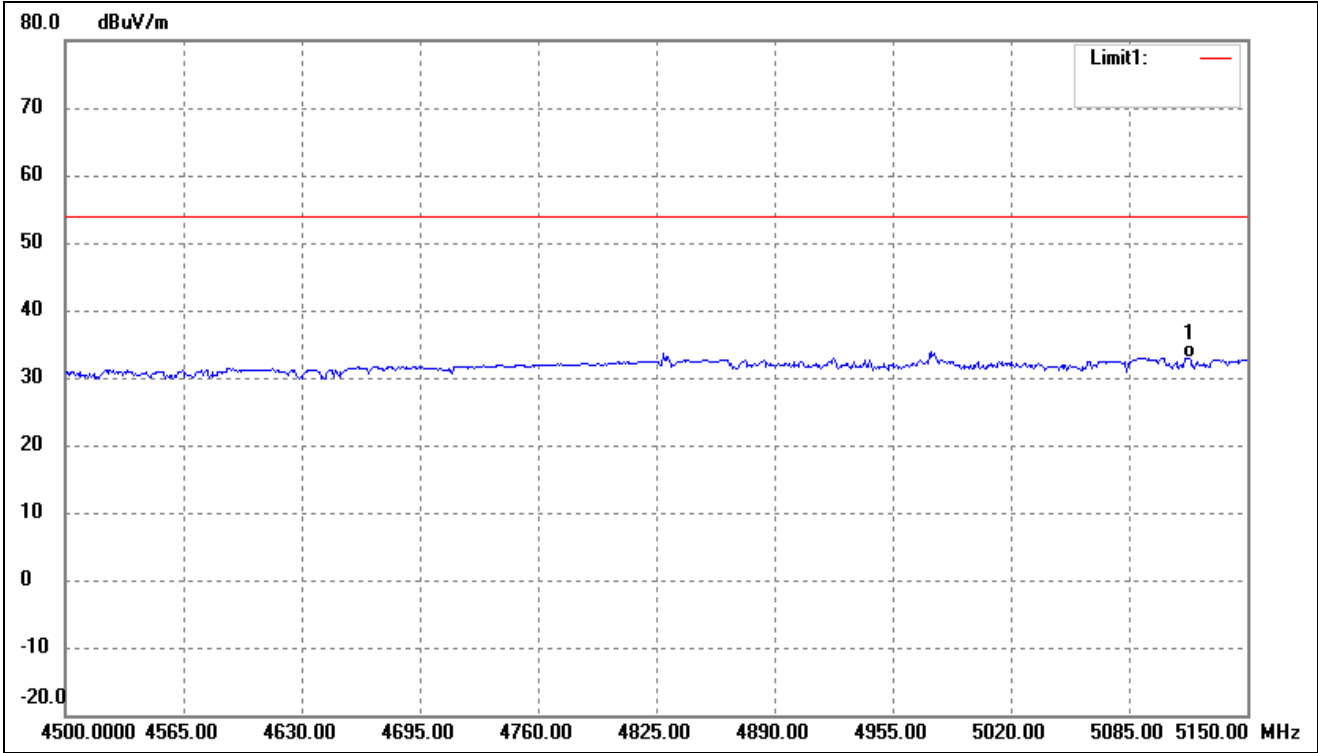
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	40.09	-5.33	34.76	54.00	-19.24	-	-	AVG

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



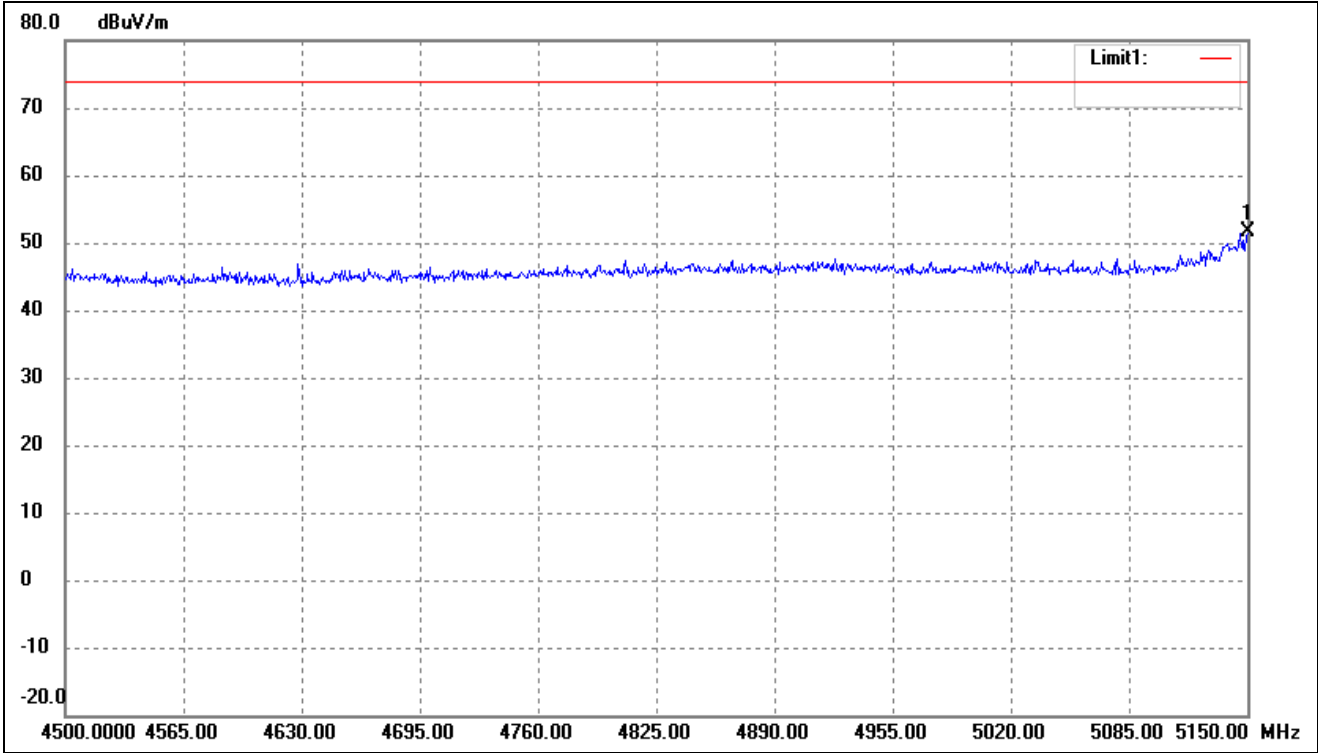
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5149.350	58.28	-5.33	52.95	74.00	-21.05	-	-	peak

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



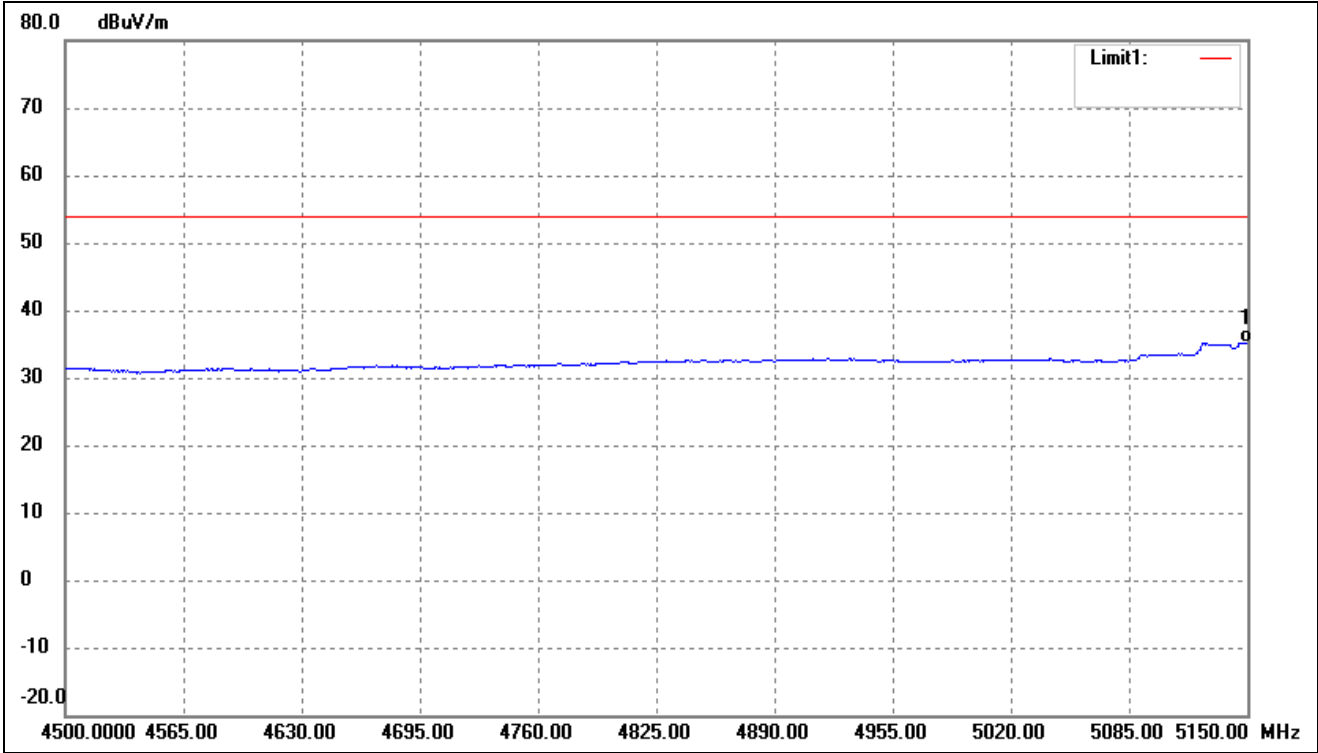
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5118.150	38.31	-5.38	32.93	54.00	-21.07	-	-	AVG

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



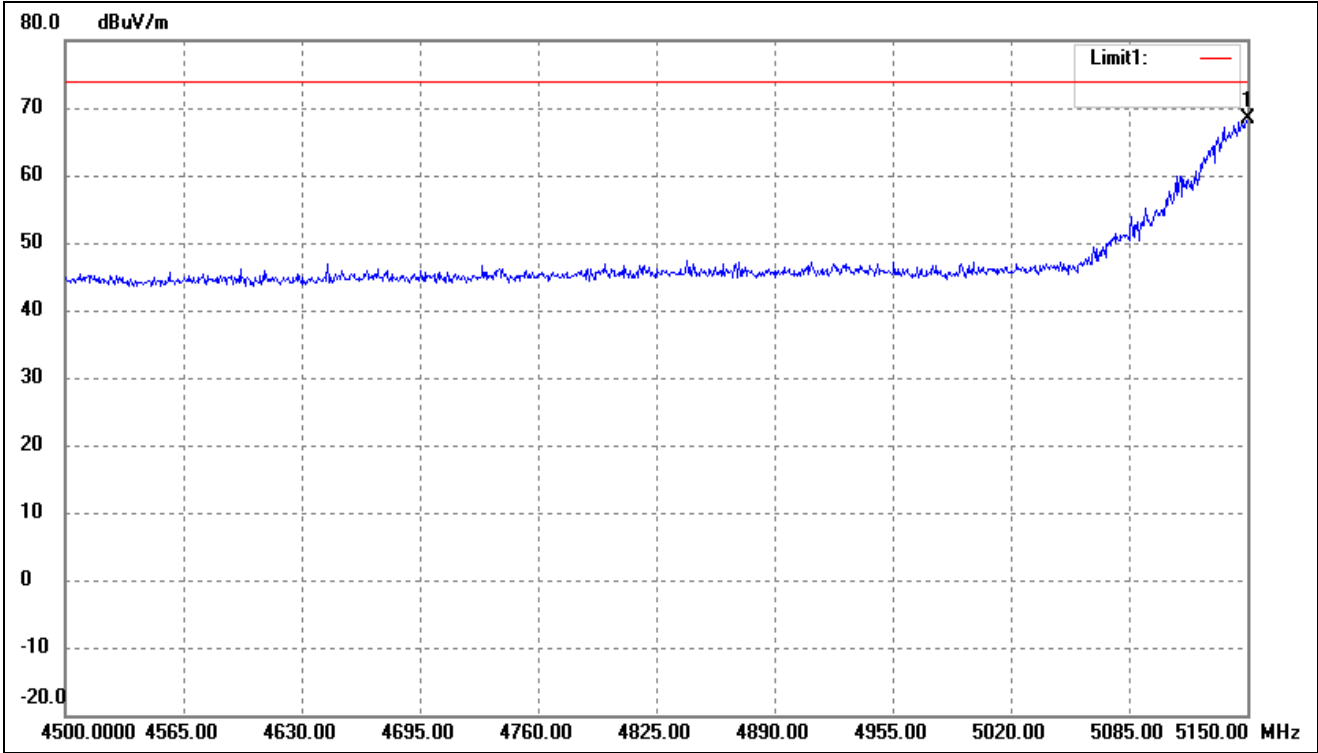
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	56.85	-5.33	51.52	74.00	-22.48	-	-	peak

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



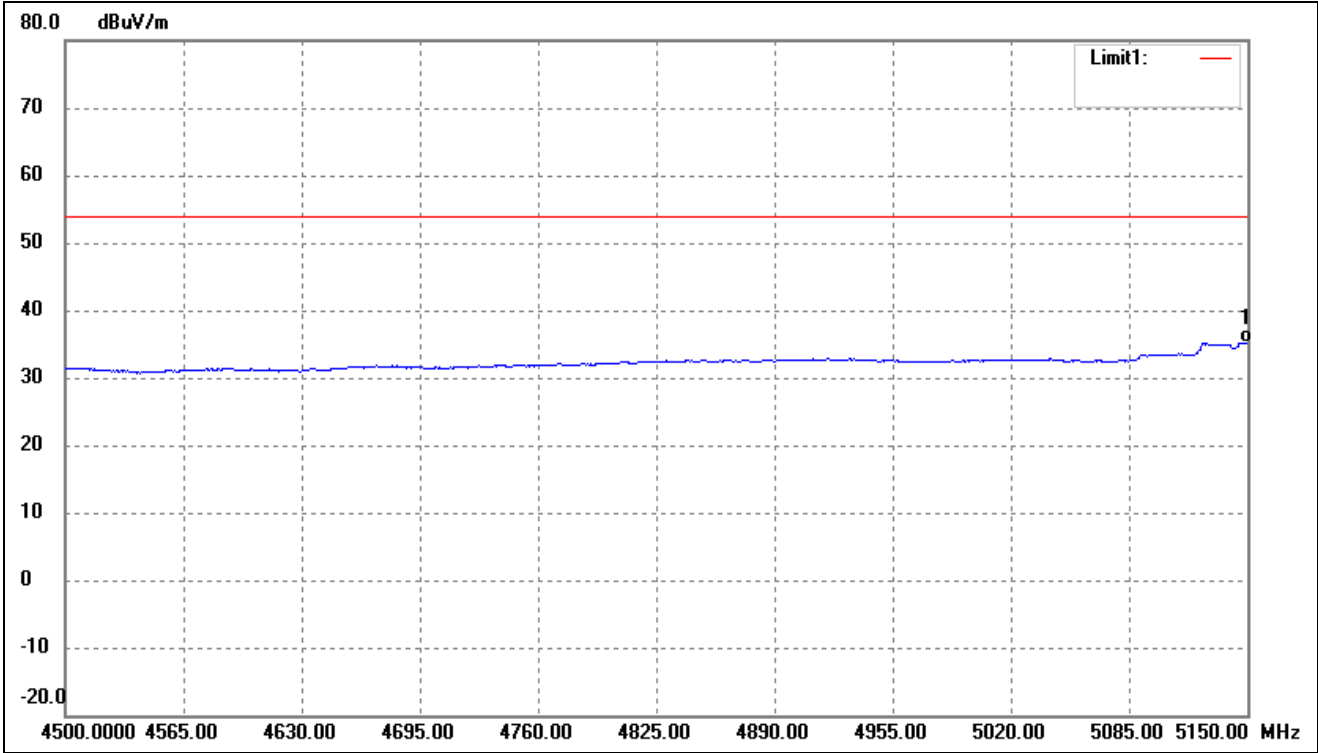
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	40.54	-5.33	35.21	54.00	-18.79	-	-	AVG

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



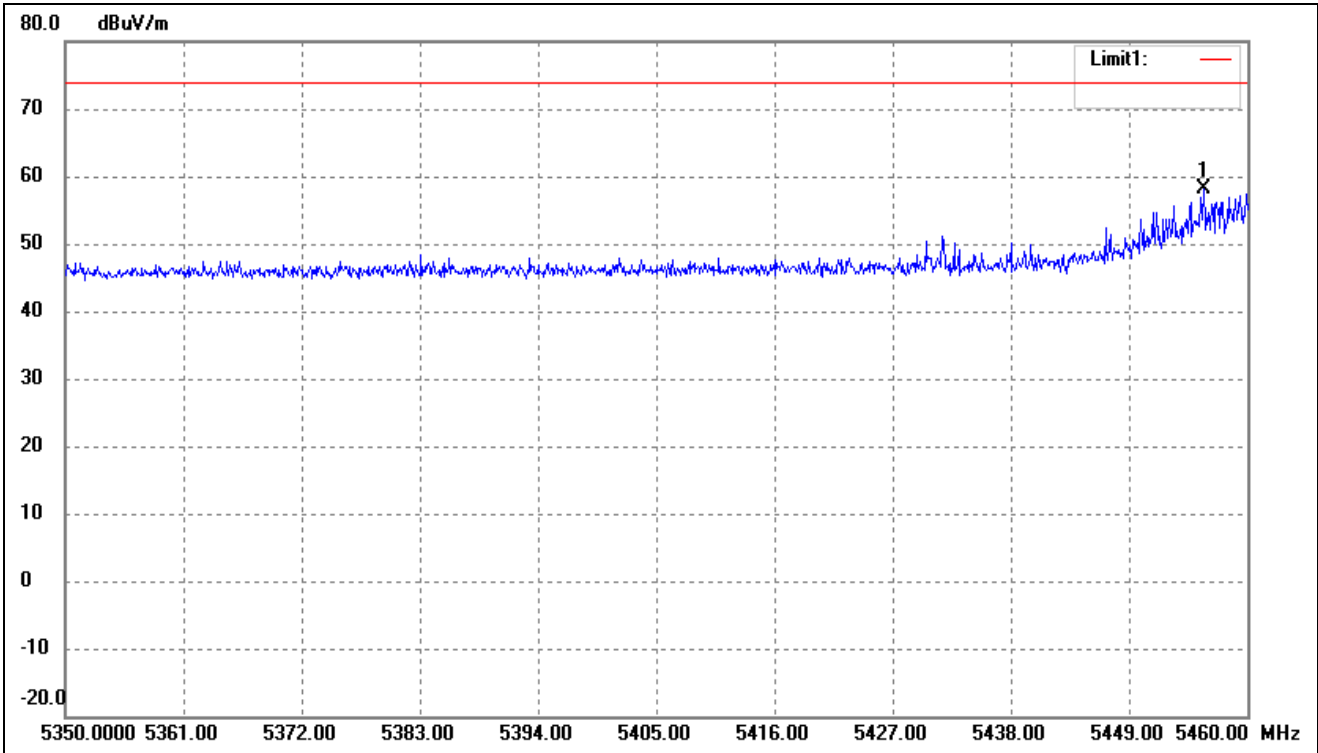
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	73.63	-5.33	68.30	74.00	-5.70	-	-	peak

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



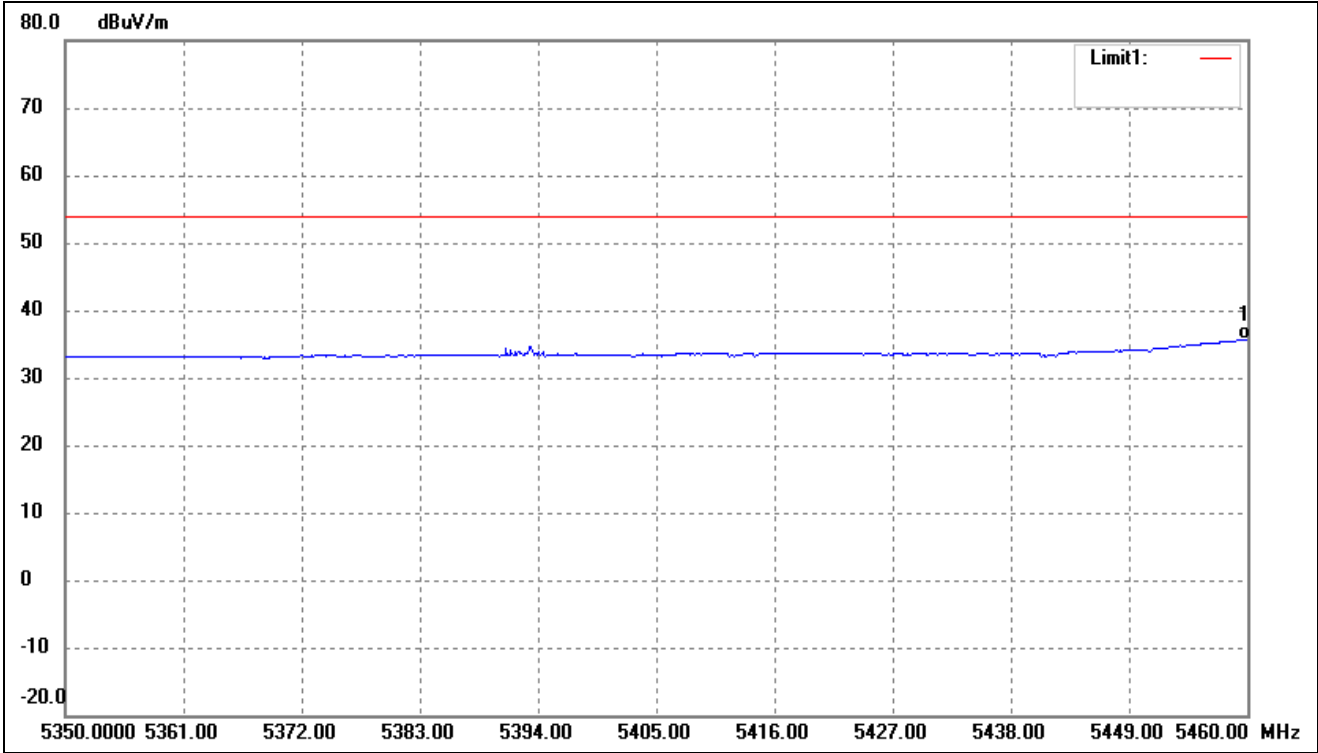
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	40.54	-5.33	35.21	54.00	-18.79	-	-	AVG

802.11a- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	Polarity:	Vertical(worst case)



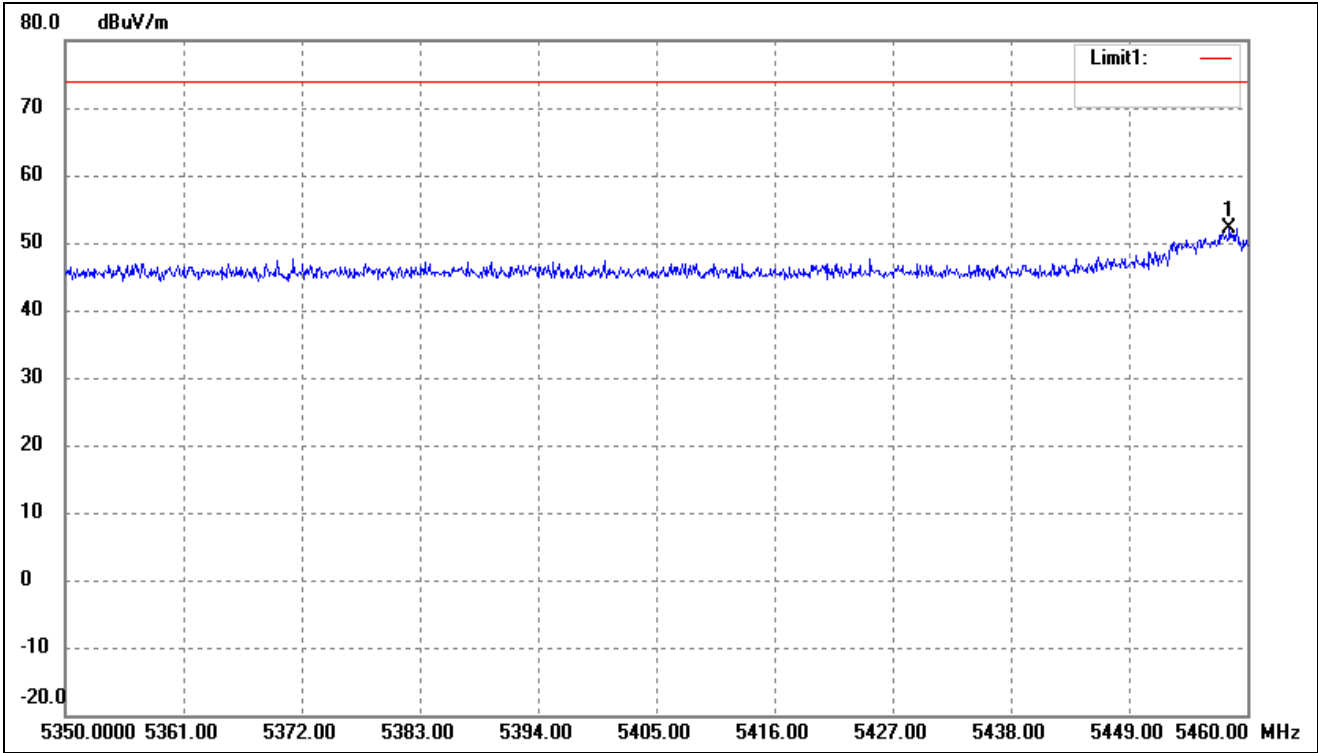
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5455.930	62.91	-4.77	58.14	74.00	-15.86	-	-	peak

802.11a- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	Polarity:	Vertical(worst case)



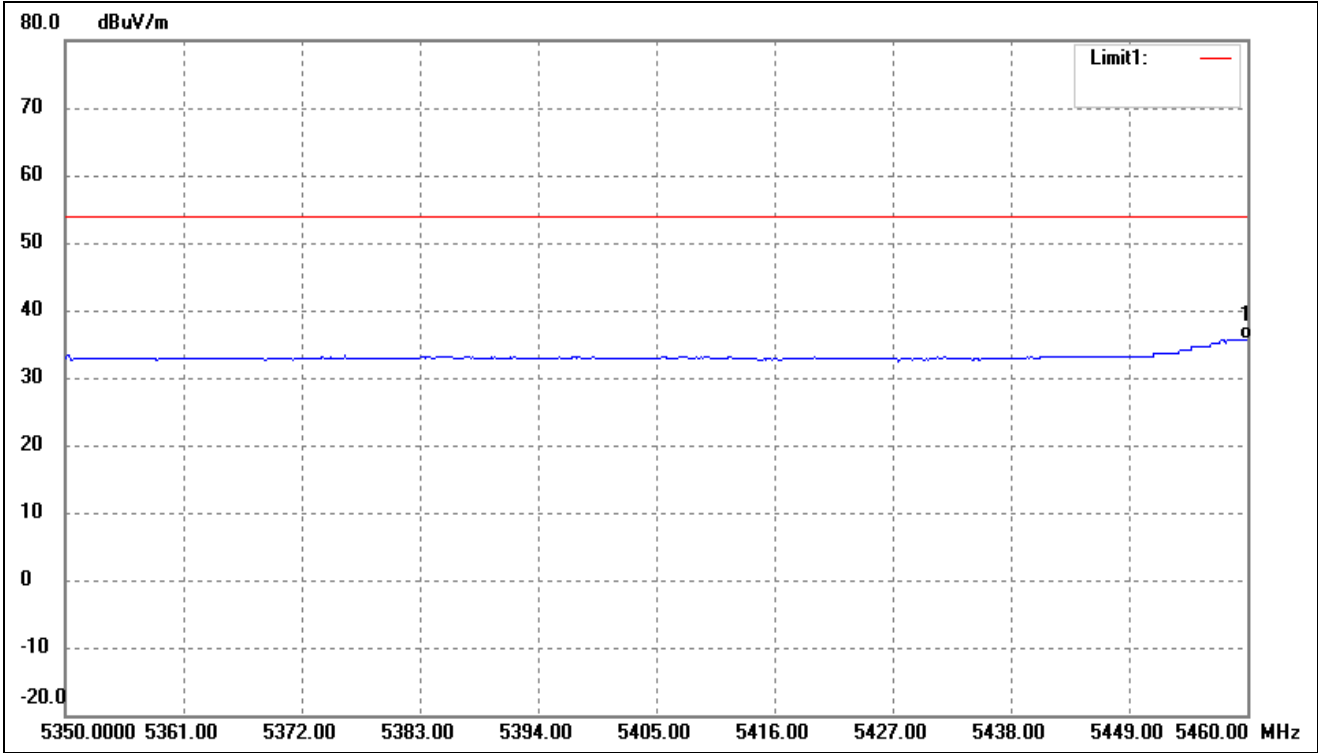
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5459.890	40.49	-4.77	35.72	54.00	-18.28	-	-	AVG

802.11n-HT20- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	Polarity:	Vertical(worst case)



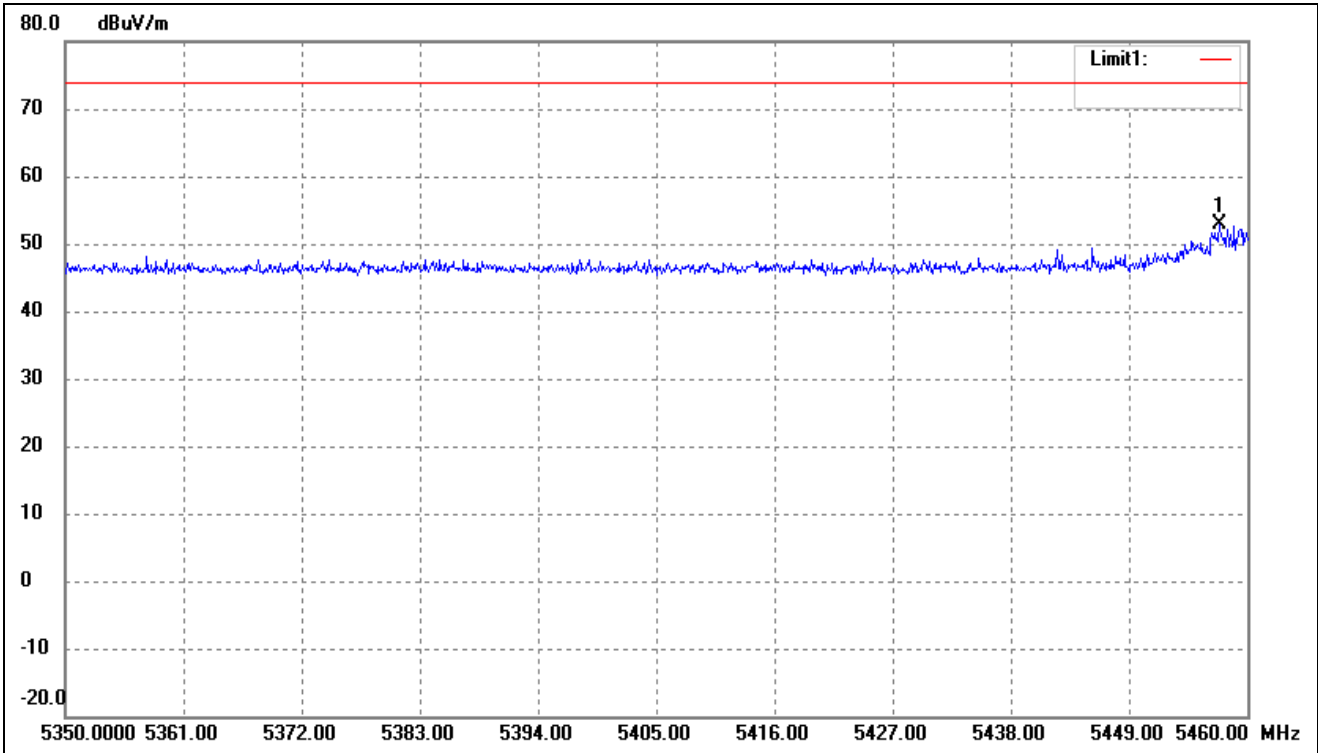
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5458.350	56.93	-4.77	52.16	74.00	-21.84	-	-	peak

802.11n-HT20- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	Polarity:	Vertical(worst case)



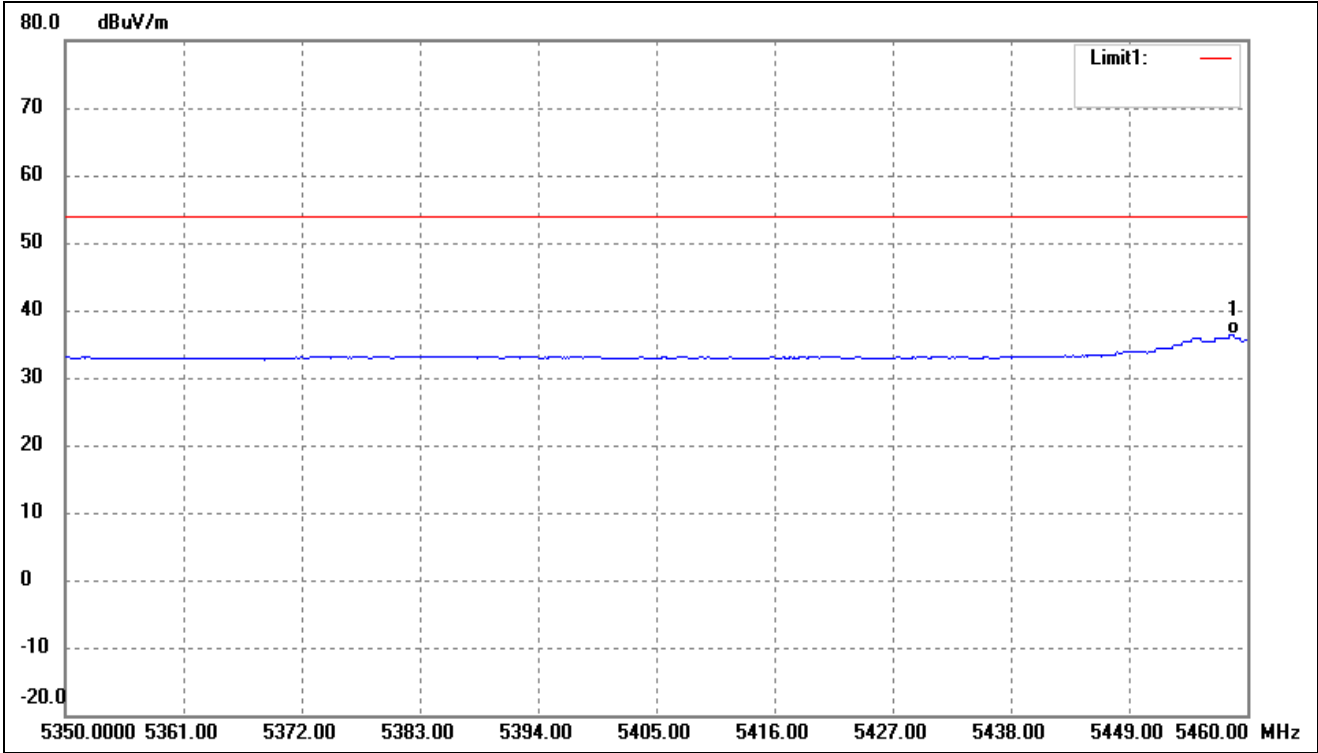
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5459.890	40.47	-4.77	35.70	54.00	-18.30	-	-	AVG

802.11n-HT40- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	Polarity:	Vertical(worst case)



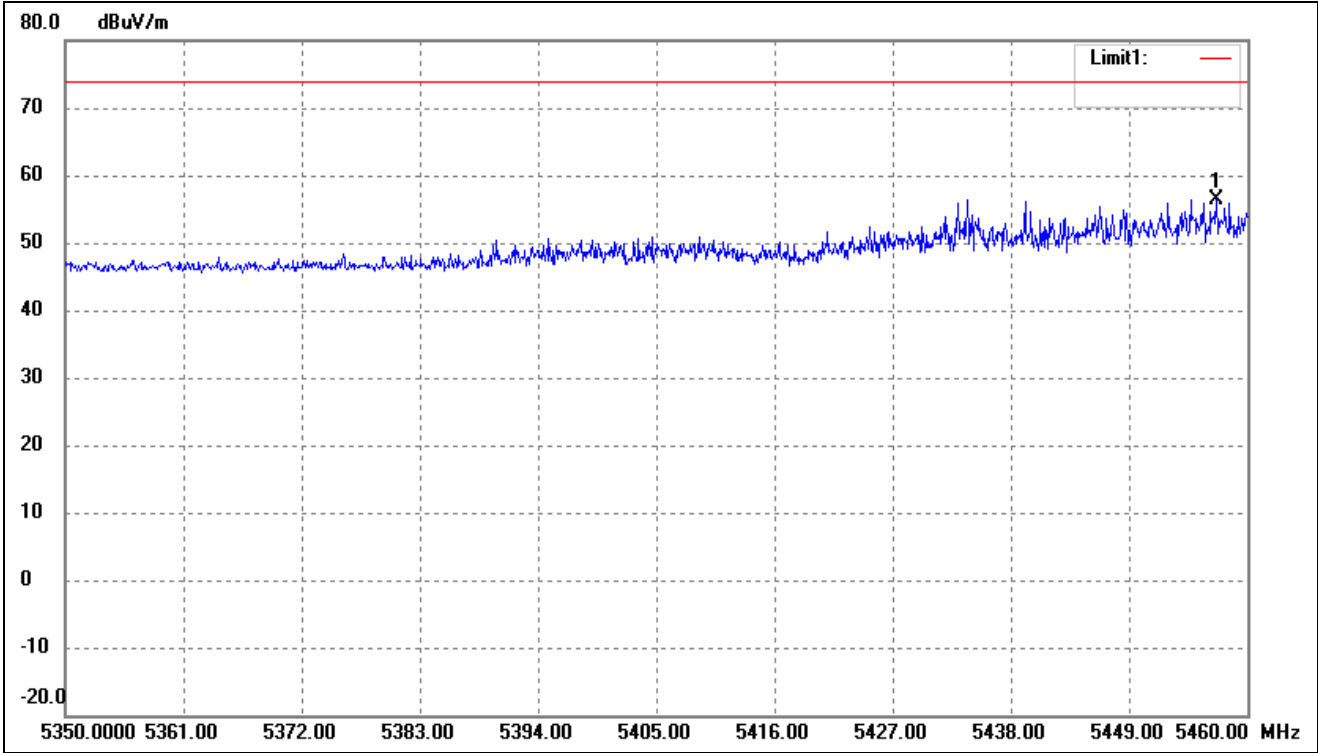
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5457.360	57.58	-4.77	52.81	74.00	-21.19	-	-	peak

802.11n-HT40- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	Polarity:	Vertical(worst case)



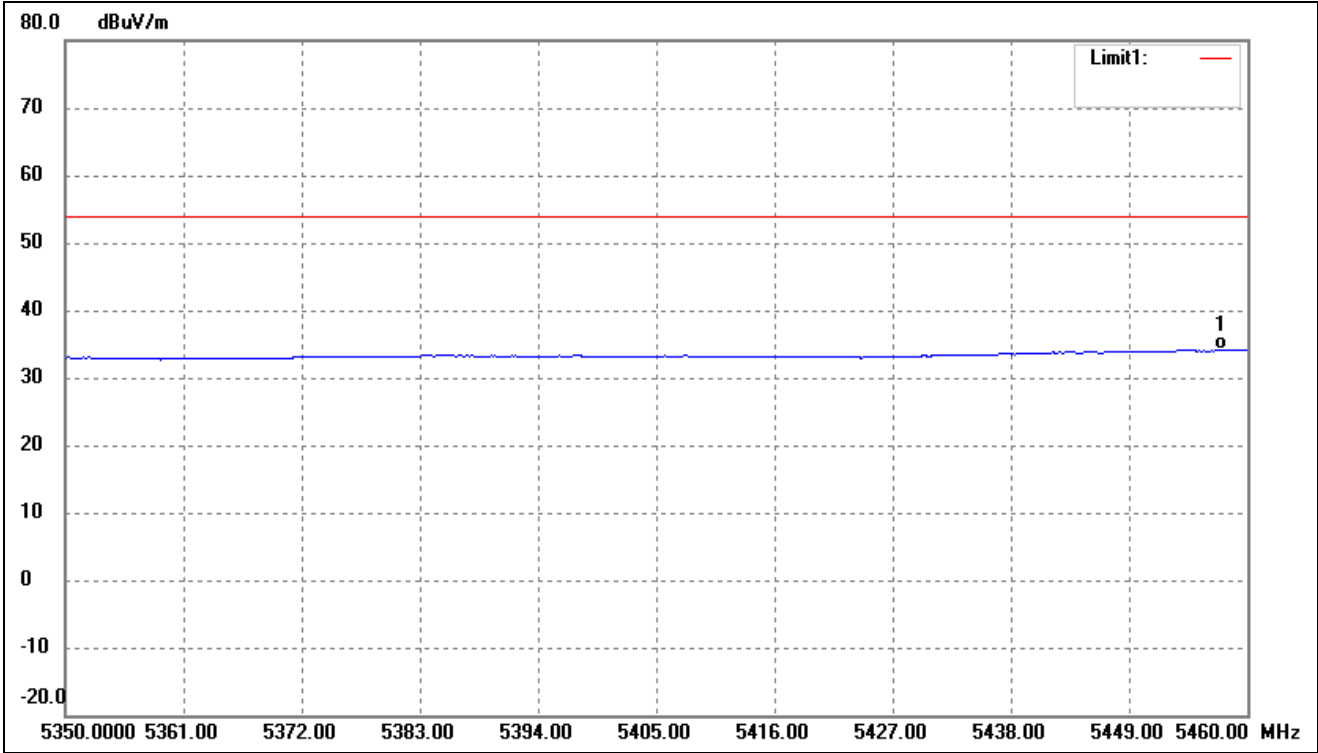
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5458.680	41.16	-4.77	36.39	54.00	-17.61	-	-	AVG

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	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	5457.140	61.03	-4.77	56.26	74.00	-17.74	-	-	peak

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	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	5457.580	39.02	-4.77	34.25	54.00	-19.75	-	-	AVG

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	55.94	7.11	63.05	74	-10.95	H	PK
15540	40.84	7.11	47.95	54	-6.05	H	AV
10360	52.13	7.11	59.24	74	-14.76	V	PK
15540	39.40	7.11	46.51	54	-7.49	V	AV
Middle Channel (5200MHz)							
10400	53.87	7.22	61.09	74	-12.91	H	PK
15600	38.96	7.22	46.18	54	-7.82	H	AV
10400	54.67	7.22	61.89	74	-12.11	V	PK
15600	40.19	7.22	47.41	54	-6.59	V	AV
High Channel (5240MHz)							
10480	53.45	7.69	61.14	74	-12.86	H	PK
15720	37.76	7.69	45.45	54	-8.55	H	AV
10480	54.58	7.69	62.27	74	-11.73	V	PK
15720	38.84	7.69	46.53	54	-7.47	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	52.84	7.96	60.80	74	-13.20	H	PK
15780	37.46	7.96	45.42	54	-8.58	H	AV
10520	53.57	7.96	61.53	74	-12.47	V	PK
15780	39.87	7.96	47.83	54	-6.17	V	AV
Middle Channel (5280MHz)							
10560	55.10	8.02	63.12	74	-10.88	H	PK
15840	38.96	8.02	46.98	54	-7.02	H	AV
10560	54.97	8.02	62.99	74	-11.01	V	PK
15840	37.62	8.02	45.64	54	-8.36	V	AV
High Channel (5320MHz)							
10640	52.78	8.35	61.13	74	-12.87	H	PK
15960	37.55	8.35	45.90	54	-8.10	H	AV
10640	54.46	8.35	62.81	74	-11.19	V	PK
15960	39.39	8.35	47.74	54	-6.26	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	53.52	8.82	62.34	74	-11.66	H	PK
16500	37.10	8.82	45.92	54	-8.08	H	AV
11000	54.53	8.82	63.35	74	-10.65	V	PK
16500	40.58	8.82	49.40	54	-4.60	V	AV
Middle Channel (5600MHz)							
11200	52.86	8.92	61.78	74	-12.22	H	PK
16800	39.31	8.92	48.23	54	-5.77	H	AV
11200	55.37	8.92	64.29	74	-9.71	V	PK
16800	38.53	8.92	47.45	54	-6.55	V	AV
High Channel (5700MHz)							
11400	55.78	9.36	65.14	74	-8.86	H	PK
17100	35.70	9.36	45.06	54	-8.94	H	AV
11400	52.65	9.36	62.01	74	-11.99	V	PK
17100	38.43	9.36	47.79	54	-6.21	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	55.32	9.45	64.77	74	-9.23	H	PK
17235	37.24	9.45	46.69	54	-7.31	H	AV
11490	52.58	9.45	62.03	74	-11.97	V	PK
17235	39.50	9.45	48.95	54	-5.05	V	AV
Middle Channel (5785MHz)							
11570	55.51	9.62	65.13	74	-8.87	H	PK
17355	37.22	9.62	46.84	54	-7.16	H	AV
11570	53.65	9.62	63.27	74	-10.73	V	PK
17355	39.12	9.62	48.74	54	-5.26	V	AV
High Channel (5825MHz)							
11650	52.57	9.84	62.41	74	-11.59	H	PK
17475	36.13	9.84	45.97	54	-8.03	H	AV
11650	55.87	9.84	65.71	74	-8.29	V	PK
17475	38.91	9.84	48.75	54	-5.25	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.52	-27
Highest	Above 5350	-41.02	-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	-41.02	-27
Highest	Above 5350	-38.42	-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	-37.12	-27
Highest	Above 5725	-43.05	-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	-37.12	-27
	5715 to 5725	-43.05	-17
Highest	5850 to 5860	-42.36	-17
	Above 5860	-41.36	-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	55.82	7.11	62.93	74	-11.07	H	PK
10360	38.74	7.11	45.85	54	-8.15	H	AV
10360	55.78	7.11	62.89	74	-11.11	V	PK
10360	40.80	7.11	47.91	54	-6.09	V	AV
Middle Channel (5200MHz)							
10400	55.77	7.22	62.99	74	-11.01	H	PK
10400	38.01	7.22	45.23	54	-8.77	H	AV
10400	53.34	7.22	60.56	74	-13.44	V	PK
10400	38.22	7.22	45.44	54	-8.56	V	AV
High Channel (5240MHz)							
10480	52.61	7.69	60.30	74	-13.70	H	PK
10480	38.36	7.69	46.05	54	-7.95	H	AV
10480	55.37	7.69	63.06	74	-10.94	V	PK
10480	38.88	7.69	46.57	54	-7.43	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	53.08	7.96	61.04	74	-12.96	H	PK
10520	39.75	7.96	47.71	54	-6.29	H	AV
10520	54.04	7.96	62.00	74	-12.00	V	PK
10520	38.91	7.96	46.87	54	-7.13	V	AV
Middle Channel (5280MHz)							
10560	54.83	8.02	62.85	74	-11.15	H	PK
10560	38.60	8.02	46.62	54	-7.38	H	AV
10560	52.52	8.02	60.54	74	-13.46	V	PK
10560	38.55	8.02	46.57	54	-7.43	V	AV
High Channel (5320MHz)							
10640	56.04	8.35	64.39	74	-9.61	H	PK
10640	37.26	8.35	45.61	54	-8.39	H	AV
10640	54.57	8.35	62.92	74	-11.08	V	PK
10640	40.85	8.35	49.20	54	-4.80	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	54.12	8.82	62.94	74	-11.06	H	PK
11000	38.38	8.82	47.20	54	-6.80	H	AV
11000	55.93	8.82	64.75	74	-9.25	V	PK
11000	39.93	8.82	48.75	54	-5.25	V	AV
Middle Channel (5600MHz)							
11200	54.73	8.92	63.65	74	-10.35	H	PK
11200	37.89	8.92	46.81	54	-7.19	H	AV
11200	55.82	8.92	64.74	74	-9.26	V	PK
11200	38.54	8.92	47.46	54	-6.54	V	AV
High Channel (5700MHz)							
11400	53.64	9.84	63.48	74	-10.52	H	PK
11400	37.27	9.84	47.11	54	-6.89	H	AV
11400	52.35	9.84	62.19	74	-11.81	V	PK
11400	35.77	9.84	45.61	54	-8.39	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	54.22	9.45	63.67	74	-10.33	H	PK
11490	40.82	9.45	50.27	54	-3.73	H	AV
11490	52.84	9.45	62.29	74	-11.71	V	PK
11490	39.18	9.45	48.63	54	-5.37	V	AV
Middle Channel (5785MHz)							
11570	53.40	9.62	63.02	74	-10.98	H	PK
11570	38.16	9.62	47.78	54	-6.22	H	AV
11570	54.93	9.62	64.55	74	-9.45	V	PK
11570	41.23	9.62	50.85	54	-3.15	V	AV
High Channel (5825MHz)							
11650	53.54	9.84	63.38	74	-10.62	H	PK
11650	36.04	9.84	45.88	54	-8.12	H	AV
11650	55.81	9.84	65.65	74	-8.35	V	PK
11650	38.82	9.84	48.66	54	-5.34	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-43.94	-27
Highest	Above 5350	-44.18	-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	-45.98	-27
Highest	Above 5350	-43.32	-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	-42.02	-27
Highest	Above 5725	-43.64	-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	-44.71	-27
	5715 to 5725	-35.32	-17
Highest	5850 to 5860	-36.12	-17
	Above 5860	-36.47	-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	53.57	7.89	61.46	74	-12.54	H	PK
10380	39.42	7.89	47.31	54	-6.69	H	AV
10380	55.71	7.89	63.60	74	-10.40	V	PK
10380	39.56	7.89	47.45	54	-6.55	V	AV
High Channel (5230MHz)							
10460	54.93	7.97	62.90	74	-11.10	H	PK
10460	41.52	7.97	49.49	54	-4.51	H	AV
10460	55.05	7.97	63.02	74	-10.98	V	PK
10460	40.44	7.97	48.41	54	-5.59	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	53.57	7.89	61.46	74	-12.54	H	PK
10540	39.42	7.89	47.31	54	-6.69	H	AV
10540	55.71	7.89	63.60	74	-10.40	V	PK
10540	39.56	7.89	47.45	54	-6.55	V	AV
High Channel (5310MHz)							
10620	54.93	7.97	62.90	74	-11.10	H	PK
10620	41.52	7.97	49.49	54	-4.51	H	AV
10620	55.05	7.97	63.02	74	-10.98	V	PK
10620	40.44	7.97	48.41	54	-5.59	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	56.61	9.16	65.77	74	-8.23	H	PK
11020	39.13	9.16	48.29	54	-5.71	H	AV
11020	52.23	9.16	61.39	74	-12.61	V	PK
11020	36.34	9.16	45.50	54	-8.50	V	AV
Middle Channel (5590MHz)							
11180	57.00	9.29	66.29	74	-7.71	H	PK
11180	36.52	9.29	45.81	54	-8.19	H	AV
11180	53.93	9.29	63.22	74	-10.78	V	PK
11180	36.54	9.29	45.83	54	-8.17	V	AV
High Channel (5670MHz)							
11340	56.98	9.43	66.41	74	-7.59	H	PK
11340	38.35	9.43	47.78	54	-6.22	H	AV
11340	53.18	9.43	62.61	74	-11.39	V	PK
11340	38.44	9.43	47.87	54	-6.13	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	56.36	9.45	65.81	74	-8.19	H	PK
11510	38.13	9.45	47.58	54	-6.42	H	AV
11510	53.44	9.45	62.89	74	-11.11	V	PK
11510	39.36	9.45	48.81	54	-5.19	V	AV
High Channel (5795MHz)							
11590	57.07	9.27	66.34	74	-7.66	H	PK
11590	39.82	9.27	49.09	54	-4.91	H	AV
11590	52.78	9.27	62.05	74	-11.95	V	PK
11590	37.23	9.27	46.50	54	-7.50	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-36.12	-27
Highest	Above 5350	-41.25	-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	-41.25	-27
Highest	Above 5350	-39.34	-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	-42.21	-27
Highest	Above 5725	-41.02	-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	-38.12	-27
	5715 to 5725	-35.32	-17
Highest	5850 to 5860	-34.13	-17
	Above 5860	-40.84	-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	55.98	7.53	63.51	74	-10.49	H	PK
10420	36.24	7.53	43.77	54	-10.23	H	AV
10420	54.21	7.53	61.74	74	-12.26	H	PK
10420	37.83	7.53	45.36	54	-8.64	H	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5290MHz							
10580	55.32	7.95	63.27	74	-10.73	H	PK
10580	36.47	7.95	44.42	54	-9.58	H	AV
10580	54.29	7.95	62.24	74	-11.76	V	PK
10580	37.32	7.95	45.27	54	-8.73	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	53.59	9.42	63.01	74	-10.99	H	PK
11060	36.88	9.42	46.30	54	-7.70	H	AV
11060	55.63	9.42	65.05	74	-8.95	V	PK
11060	38.23	9.42	47.65	54	-6.35	V	AV
High Channel (5610MHz)							
11220	54.19	9.69	63.88	74	-10.12	H	PK
11220	36.10	9.69	45.79	54	-8.21	H	AV
11220	55.92	9.69	65.61	74	-8.39	V	PK
11220	36.40	9.69	46.09	54	-7.91	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	54.67	9.93	64.60	74	-9.40	H	PK
11550	38.23	9.93	48.16	54	-5.84	H	AV
11550	53.41	9.93	63.34	74	-10.66	V	PK
11550	39.48	9.93	49.41	54	-4.59	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-41.02	-27
Highest	Above 5350	-38.65	-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	-38.42	-27
Highest	Above 5350	-39.12	-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	-42.05	-27
Highest	Above 5725	-39.35	-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	-39.12	-27
	5715 to 5725	-33.25	-17
Highest	5850 to 5860	-31.21	-17
	Above 5860	-40.21	-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

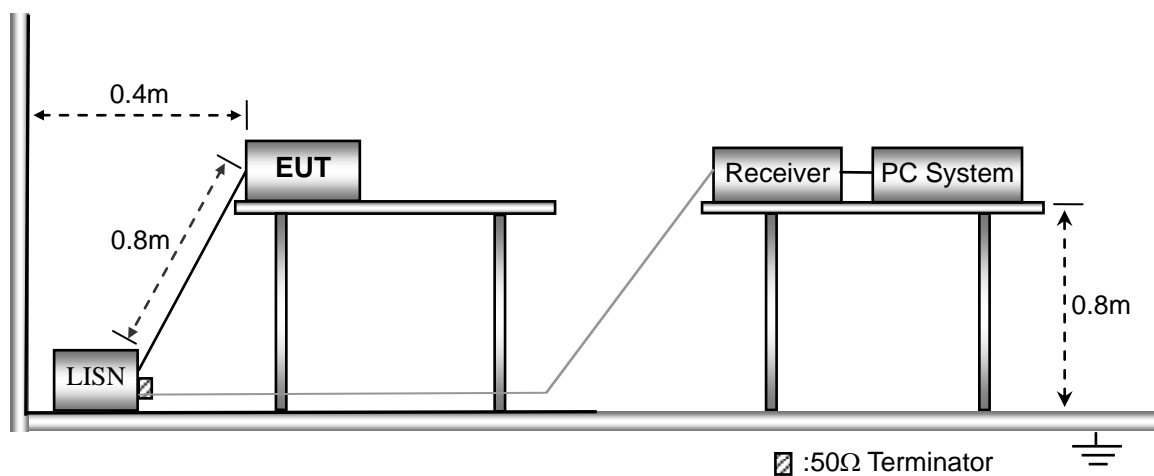
10.1 Test Procedure

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 40cm long in the middle.

The spacing between the peripherals was 10cm.

10.2 Basic Test Setup Block Diagram



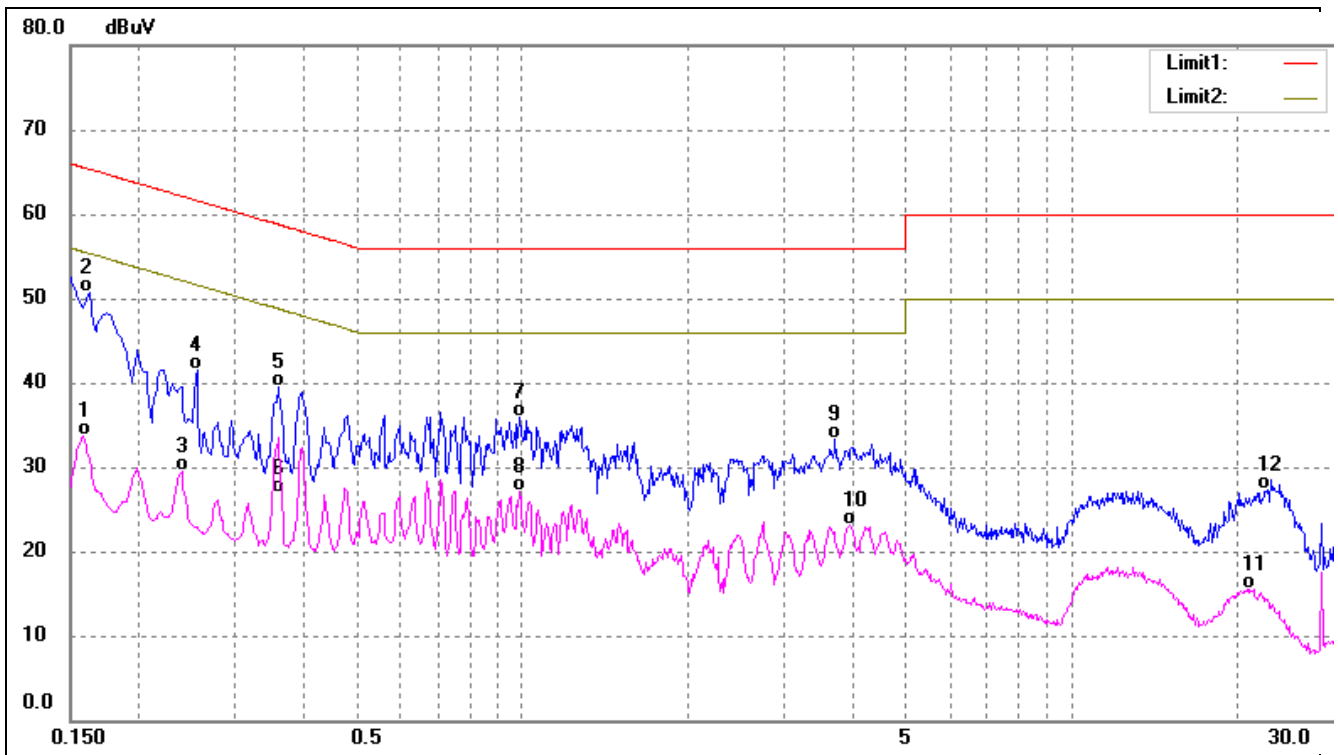
10.3 Test Receiver Setup

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

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

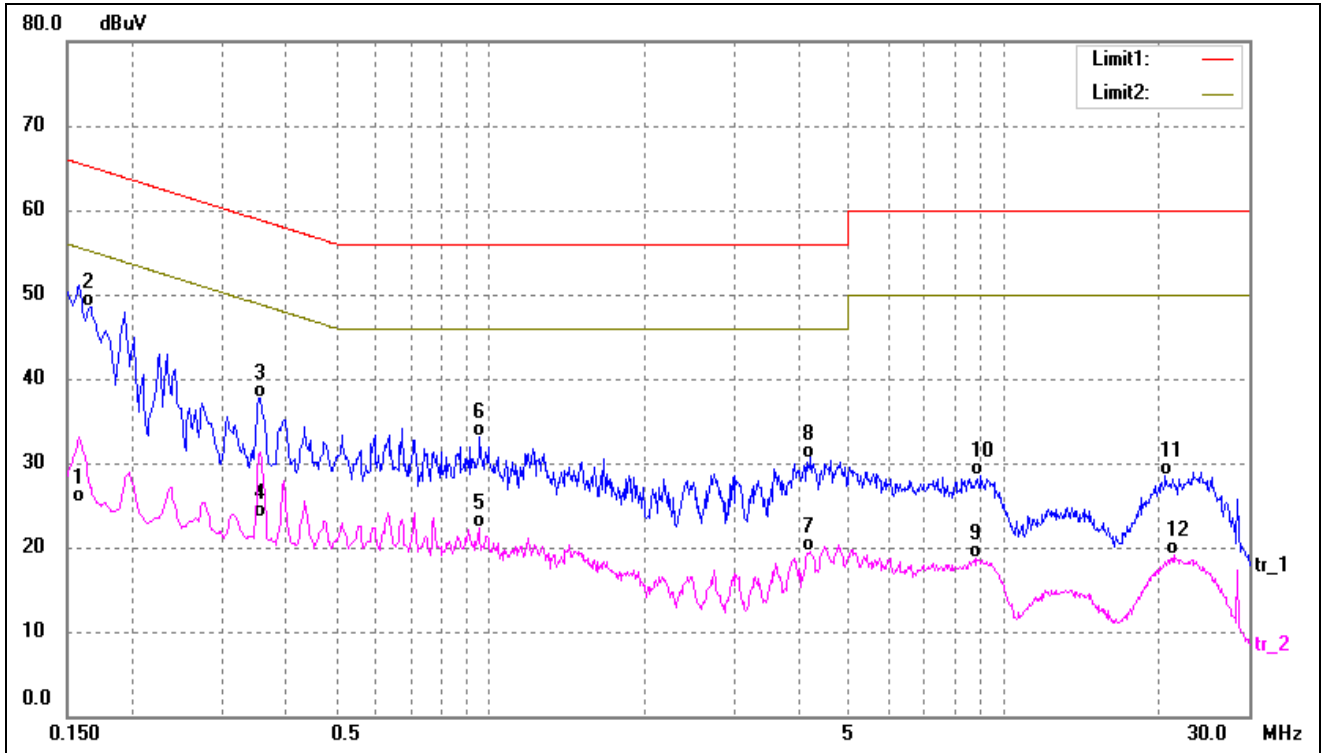
10.4 Summary of Test Results/Plots

Test Mode	Communication	AC120V 60Hz	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	23.27	10.37	33.64	55.56	-21.92	AVG
2*	0.1620	40.26	10.37	50.63	65.36	-14.73	QP
3	0.2380	19.09	10.36	29.45	52.16	-22.71	AVG
4	0.2540	31.13	10.35	41.48	61.62	-20.14	QP
5	0.3580	29.21	10.31	39.52	58.77	-19.25	QP
6	0.3580	16.50	10.31	26.81	48.77	-21.96	AVG
7	0.9860	25.40	10.55	35.95	56.00	-20.05	QP
8	0.9860	16.64	10.55	27.19	46.00	-18.81	AVG
9	3.7180	23.22	10.06	33.28	56.00	-22.72	QP
10	3.9500	13.13	10.05	23.18	46.00	-22.82	AVG
11	21.0780	5.28	10.24	15.52	50.00	-34.48	AVG
12	22.6820	17.09	10.23	27.32	60.00	-32.68	QP

Test Mode	Communication	AC120V 60Hz	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1580	14.95	10.37	25.32	55.57	-30.25	AVG
2*	0.1660	38.15	10.37	48.52	65.16	-16.64	QP
3	0.3540	27.37	10.31	37.68	58.87	-21.19	QP
4	0.3540	13.10	10.31	23.41	48.87	-25.46	AVG
5	0.9500	11.81	10.53	22.34	46.00	-23.66	AVG
6	0.9540	22.64	10.53	33.17	56.00	-22.83	QP
7	4.1820	9.41	10.04	19.45	46.00	-26.55	AVG
8	4.2140	20.57	10.03	30.60	56.00	-25.40	QP
9	8.8420	8.79	9.90	18.69	50.00	-31.31	AVG
10	9.0460	18.52	9.90	28.42	60.00	-31.58	QP
11	20.6260	18.29	10.24	28.53	60.00	-31.47	QP
12	21.4180	8.93	10.24	19.17	50.00	-30.83	AVG

APPENDIX SUMMARY

Project No.	WTX22X03057847W	Test Engineer	Dashan
Start date	2022/04/18	Finish date	2022/04/20
Temperature	24.7°C	Humidity	48%
RF specifications	U-NII		

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

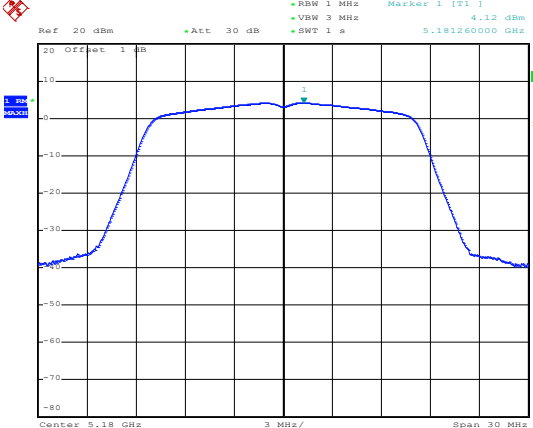
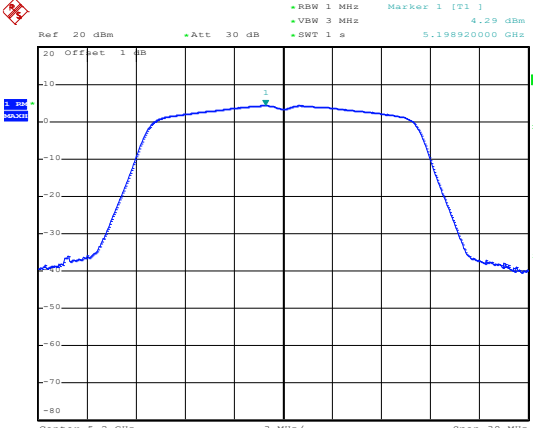
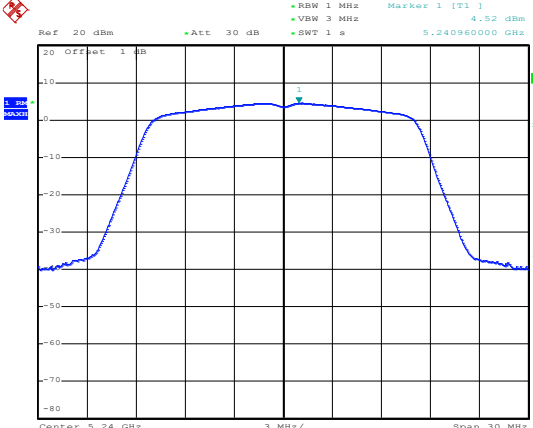
Power Spectral Density			
U-NII-1:5150-5250MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	4.12	11
	5200	4.29	11
	5240	4.52	11
802.11n-HT20	5180	3.28	11
	5200	3.44	11
	5240	3.66	11
802.11n-HT40	5190	-1.65	11
	5230	-1.49	11
802.11ac-HT80	5210	-5.46	11

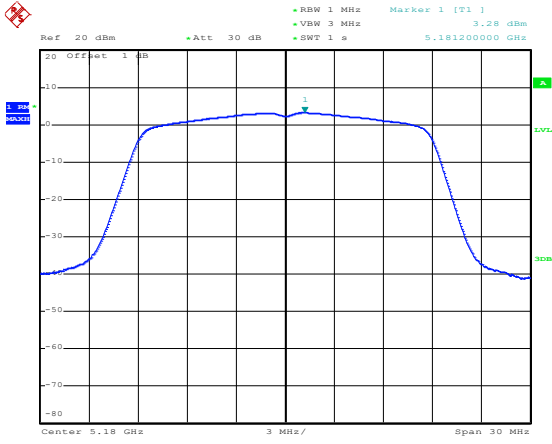
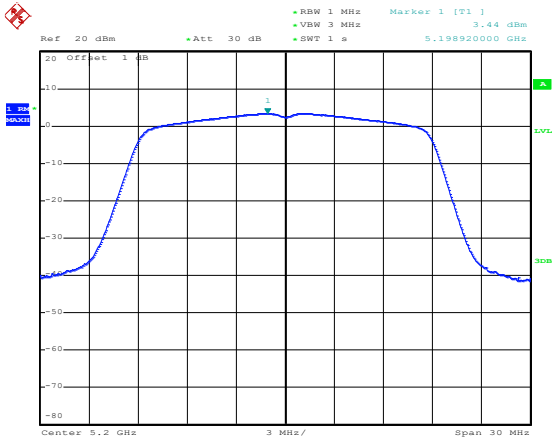
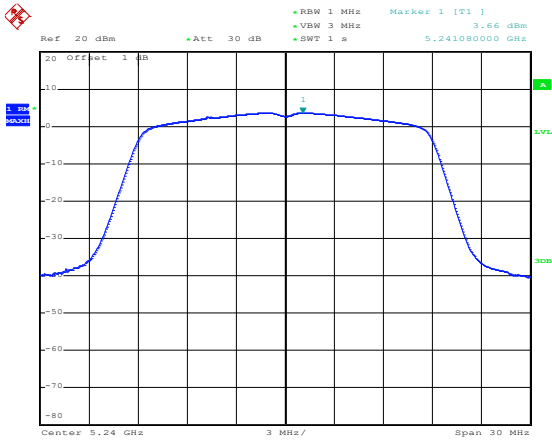
U-NII-2A: 5250-5350MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	4.11	11
	5280	4.06	11
	5320	3.60	11
802.11n-HT20	5260	2.69	11
	5280	2.62	11
	5320	2.21	11
802.11n-HT40	5270	-0.73	11
	5310	-0.76	11
802.11ac-HT80	5290	-4.16	11

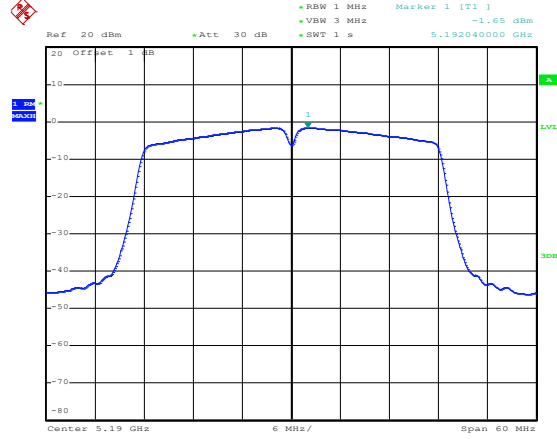
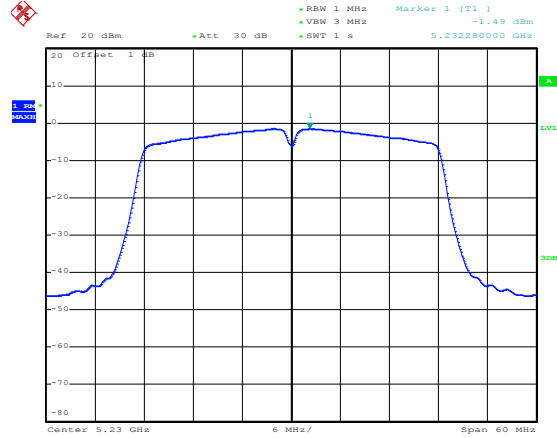
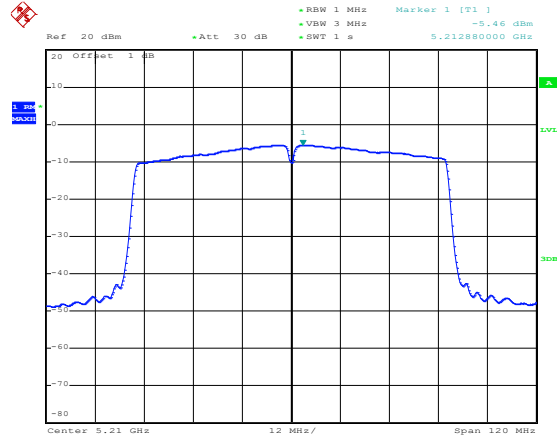
U-NII-2C: 5470-5725MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	3.99	11
	5580	4.14	11
	5700	4.48	11
802.11n-HT20	5500	2.65	11
	5580	2.81	11
	5700	3.12	11
802.11n-HT40	5510	-0.44	11
	5550	-0.14	11
	5670	0.12	11
802.11ac-HT80	5530	-3.96	11
	5610	-3.51	11

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	4.62	2.22	6.84	30
	5785	4.88	2.22	7.10	30
	5825	4.77	2.22	6.99	30
802.11n-HT20	5745	3.34	2.22	5.56	30
	5785	3.45	2.22	5.67	30
	5825	3.57	2.22	5.79	30
802.11n HT40	5755	-0.92	2.22	1.30	30
	5795	-0.69	2.22	1.53	30
802.11ac VH80	5775	-3.99	2.22	-1.77	30
*Note: Factor= $10\log(500\text{kHz}/300\text{kHz})=2.22$					
*Note: Maximum PSD=PSD(dBm/300kHz)+ $10\log(500\text{kHz}/300\text{kHz})$					

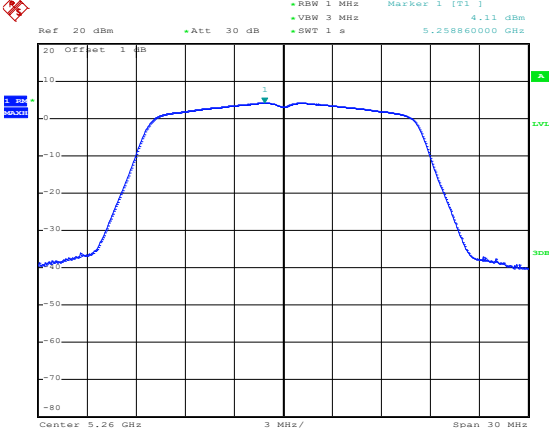
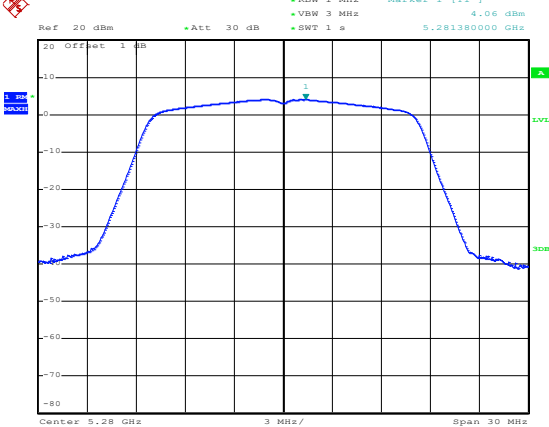
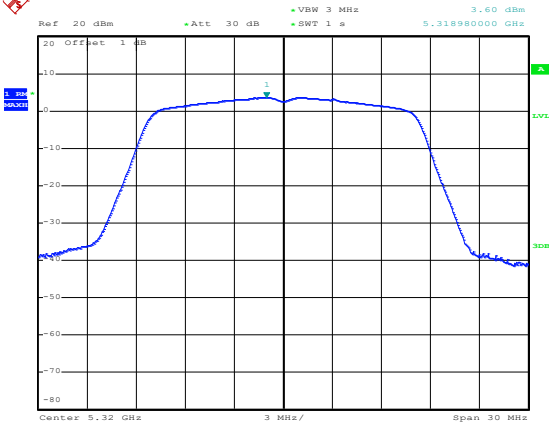
5150-5250MHz

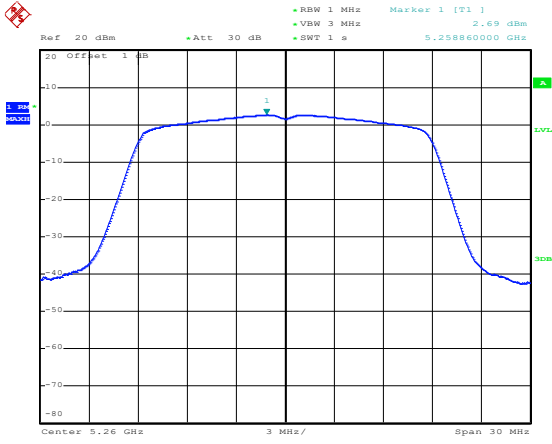
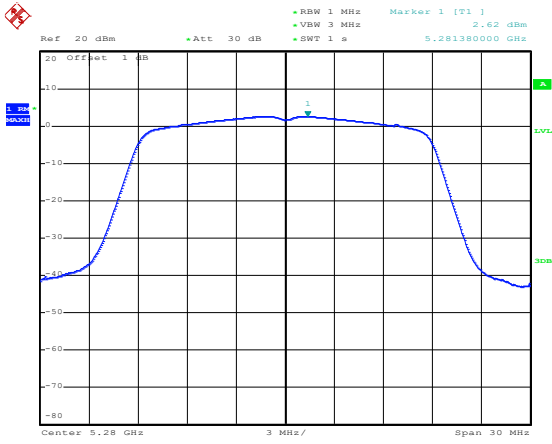
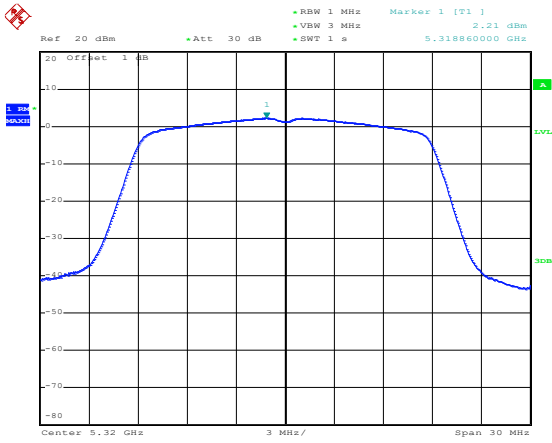
<p>802.11a-Low</p>	 <p>Date: 7.APR.2022 18:40:18</p>
<p>802.11a-Middle</p>	 <p>Date: 7.APR.2022 18:41:21</p>
<p>802.11a-High</p>	 <p>Date: 7.APR.2022 18:41:42</p>

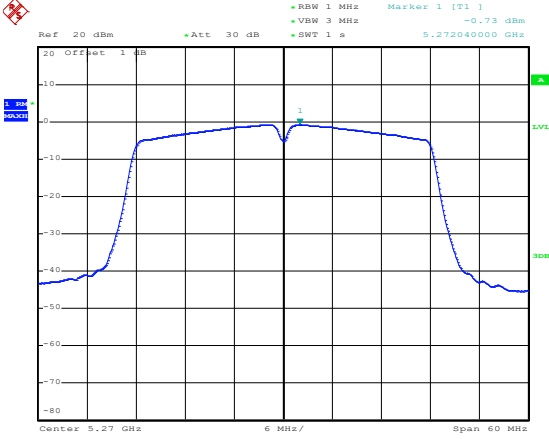
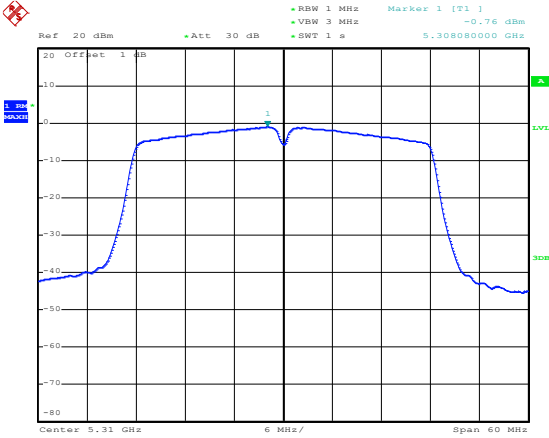
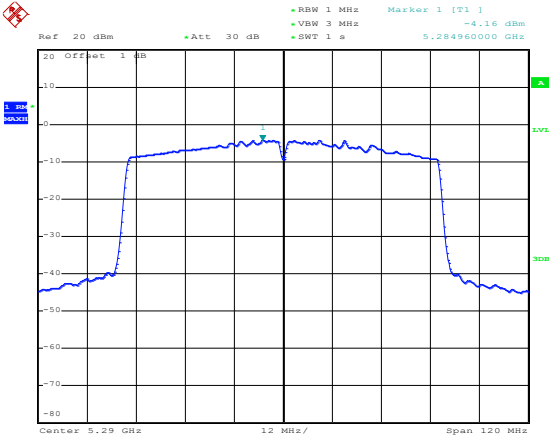
<p>802.11n-HT20-Low</p>	 <p>Date: 7.APR.2022 18:42:37</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 7.APR.2022 18:43:06</p>
<p>802.11n-HT20-High</p>	 <p>Date: 7.APR.2022 18:44:42</p>

<p>802.11n-HT40-Low</p>	 <p>Date: 7.APR.2022 18:45:46</p>
<p>802.11n-HT40-High</p>	 <p>Date: 7.APR.2022 18:46:15</p>
<p>802.11ac-HT80-Low</p>	 <p>Date: 7.APR.2022 18:47:25</p>

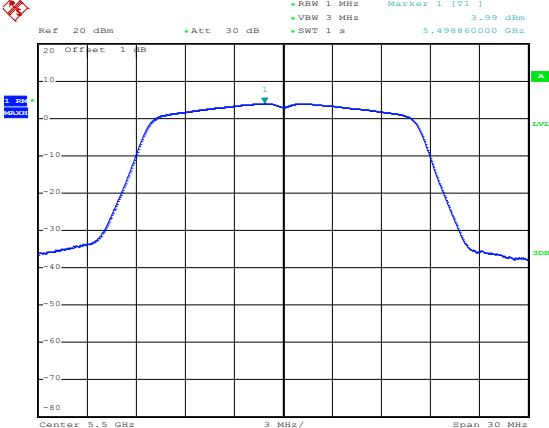
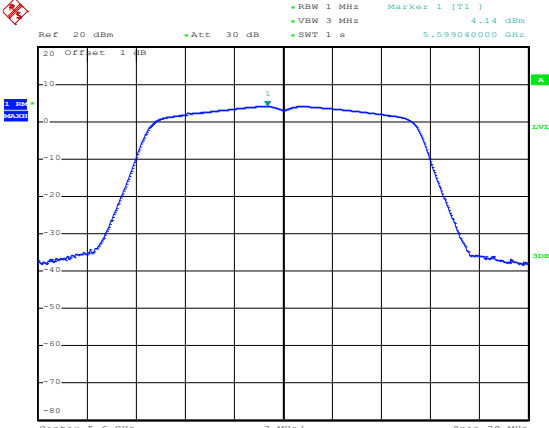
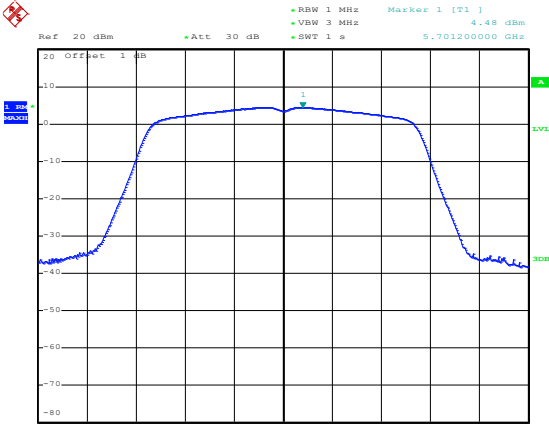
5250-5350MHz

<p>802.11a-Low</p>	 <p>Date: 18.APR.2022 17:45:19</p>
<p>802.11a-Middle</p>	 <p>Date: 18.APR.2022 17:45:40</p>
<p>802.11a-High</p>	 <p>Date: 18.APR.2022 17:46:04</p>

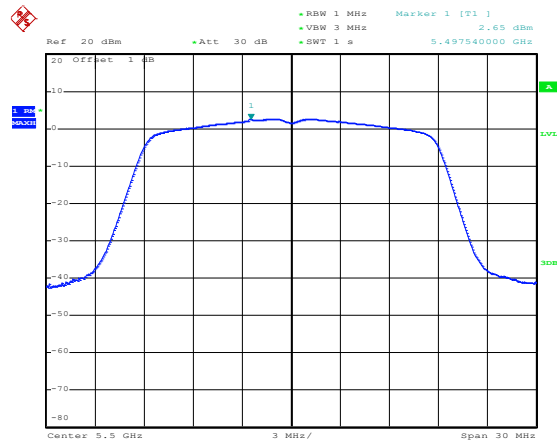
<p>802.11n-HT20-Low</p>	 <p>Date: 18.APR.2022 18:15:09</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 18.APR.2022 18:15:30</p>
<p>802.11n-HT20-High</p>	 <p>Date: 18.APR.2022 18:15:52</p>

<p>802.11n-HT40-Low</p>	 <p>Date: 18.APR.2022 18:17:40</p>
<p>802.11n-HT40-High</p>	 <p>Date: 18.APR.2022 18:18:11</p>
<p>802.11ac-HT80-Low</p>	 <p>Date: 18.APR.2022 18:18:51</p>

5470-5725MHz

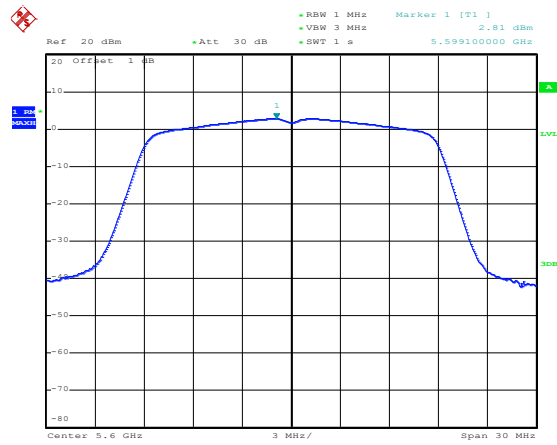
<p>802.11a-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 3.99 dBm VBW 3 MHz 5.498860000 GHz SWT 1 s</p> <p>20 Offset 1 dB</p> <p>100% 100%</p> <p>0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.5 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.APR.2022 18:53:33</p>
<p>802.11a-Middle</p>	 <p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 4.14 dBm VBW 3 MHz 5.599040000 GHz SWT 1 s</p> <p>20 Offset 1 dB</p> <p>100% 100%</p> <p>0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.6 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.APR.2022 18:54:02</p>
<p>802.11a-High</p>	 <p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 4.48 dBm VBW 3 MHz 5.701200000 GHz SWT 1 s</p> <p>20 Offset 1 dB</p> <p>100% 100%</p> <p>0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.7 GHz 3 MHz/ Span 30 MHz</p> <p>Date: 18.APR.2022 18:54:22</p>

802.11n-HT20-Low



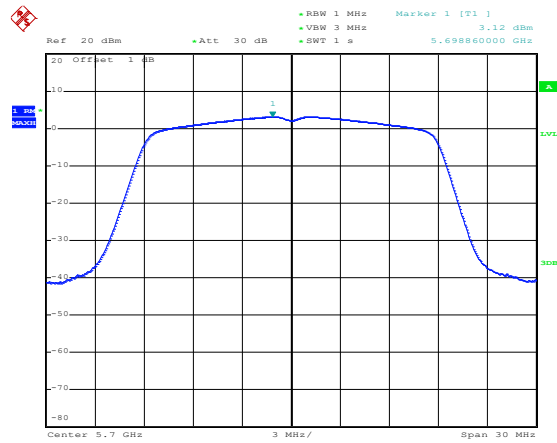
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802.11n-HT20-Middle



Date: 18.APR.2022 18:55:13

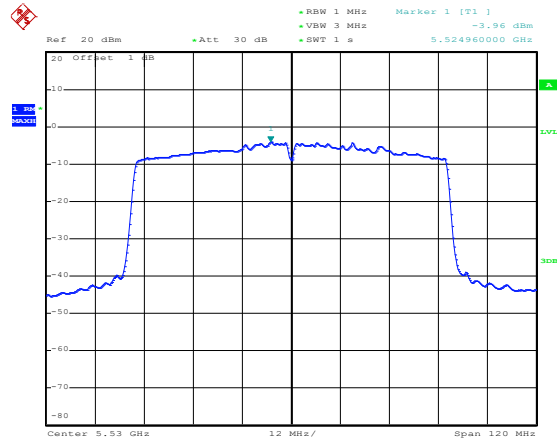
802.11n-HT20-High



Date: 18.APR.2022 18:55:36

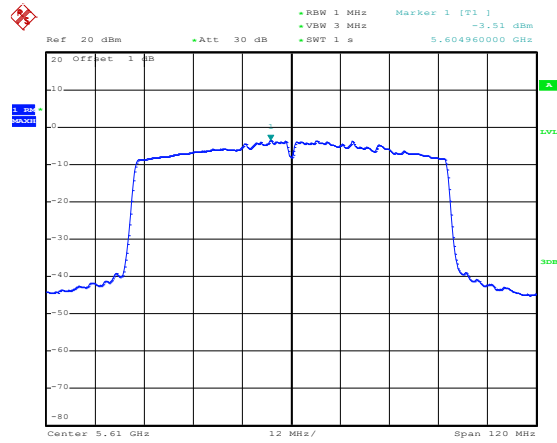
<p>802.11n-HT40-Low</p>	<p>Date: 18.APR.2022 18:56:17</p>
<p>802.11n-HT40- Middle</p>	<p>Date: 18.APR.2022 18:56:59</p>
<p>802.11n-HT40-High</p>	<p>Date: 18.APR.2022 18:57:28</p>

802.11ac-HT80-Low



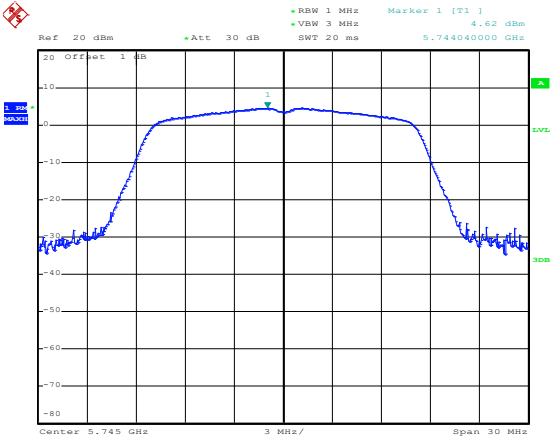
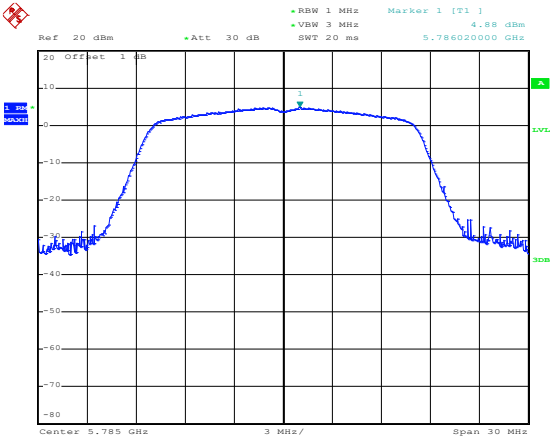
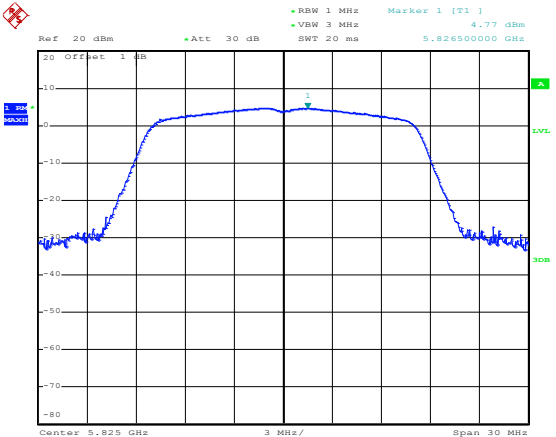
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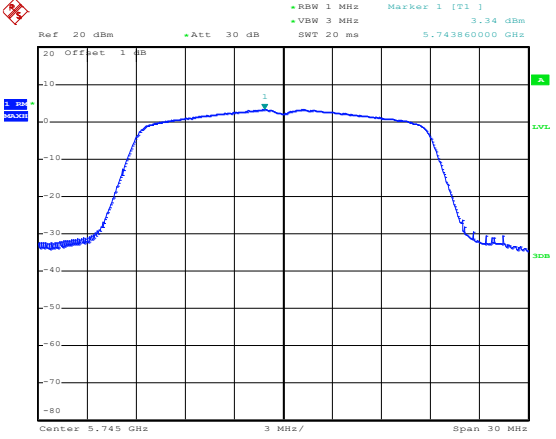
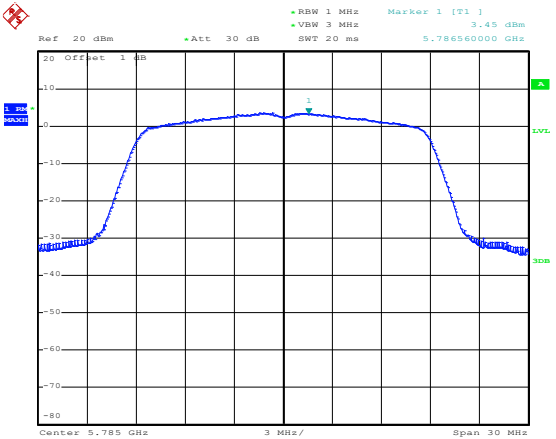
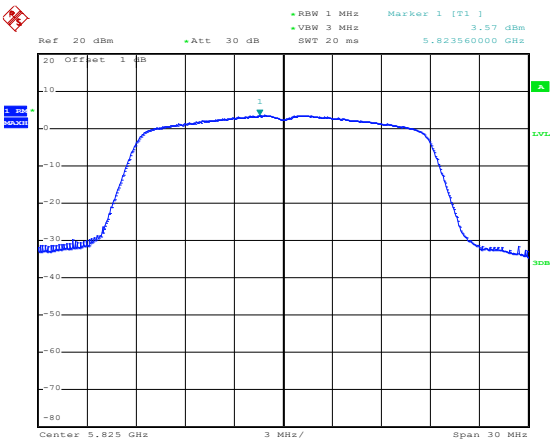
802.11ac-HT80-High



Date: 18.APR.2022 19:01:21

5725-5850MHz

<p>802.11a-Low</p>	 <p>Date: 7.APR.2022 20:38:15</p>
<p>802.11a-Middle</p>	 <p>Date: 7.APR.2022 20:38:46</p>
<p>802.11a-High</p>	 <p>Date: 7.APR.2022 20:39:11</p>

<p>802.11n-HT20-Low</p>	 <p>Date: 7.APR.2022 20:40:03</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 7.APR.2022 20:40:27</p>
<p>802.11n-HT20-High</p>	 <p>Date: 7.APR.2022 20:40:53</p>

<p>802.11n-HT40-Low</p>	<p>Date: 7.APR.2022 20:42:09</p>
<p>802.11n-HT40-High</p>	<p>Date: 7.APR.2022 20:42:57</p>
<p>802.11ac-HT80-Low</p>	<p>Date: 7.APR.2022 20:43:44</p>

APPENDIX B**Emission Bandwidth and Occupied Bandwidth**

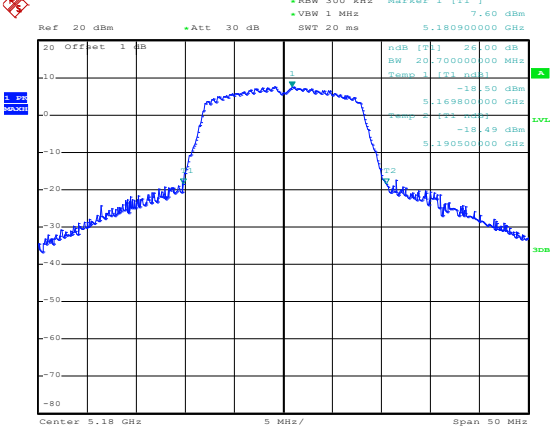
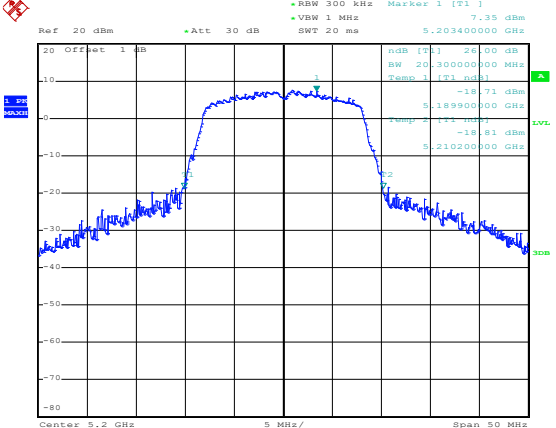
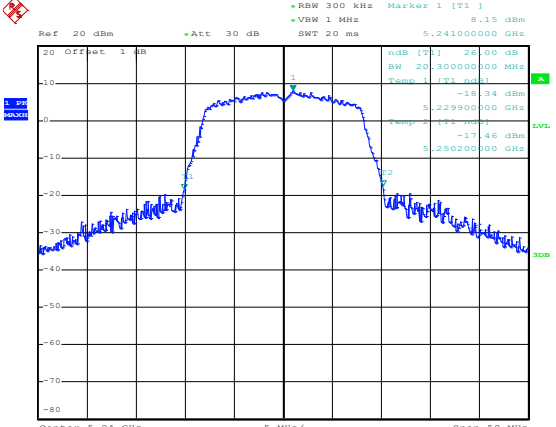
U-NII-1:5150-5250MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5180	20.70	16.96	Pass
	5200	20.30	16.96	Pass
	5240	20.30	16.96	Pass
802.11n-HT20	5180	21.00	17.92	Pass
	5200	20.80	18.00	Pass
	5240	20.60	17.92	Pass
802.11n-HT40	5190	40.20	36.00	Pass
	5230	40.40	36.00	Pass
802.11ac-HT80	5210	81.72	75.20	Pass

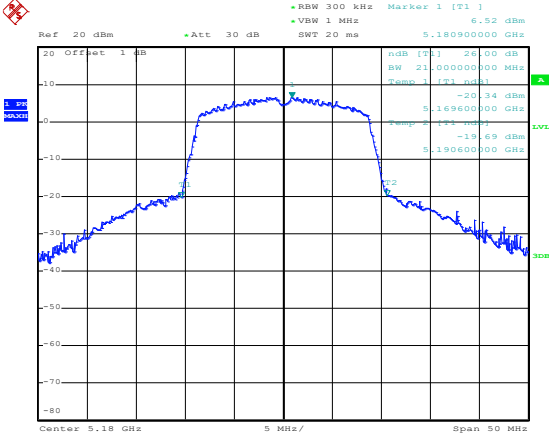
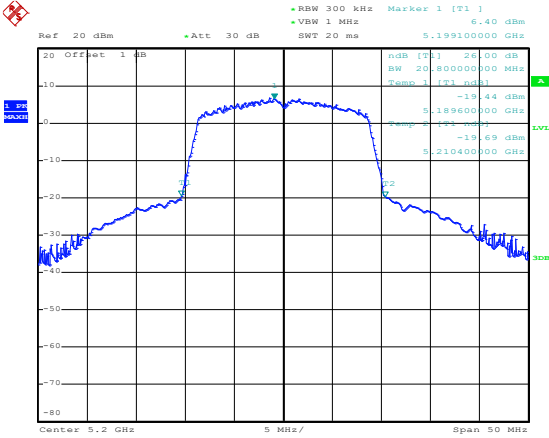
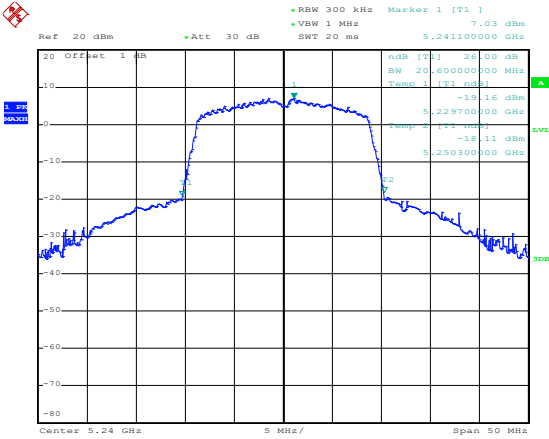
U-NII-2A: 5250-5350MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5260	20.70	17.00	Pass
	5280	21.90	17.00	Pass
	5320	20.70	17.00	Pass
802.11n-HT20	5260	22.00	18.00	Pass
	5280	20.60	18.00	Pass
	5320	20.60	18.00	Pass
802.11n-HT40	5270	42.00	36.80	Pass
	5310	42.20	36.80	Pass
802.11ac-HT80	5290	86.76	76.68	Pass

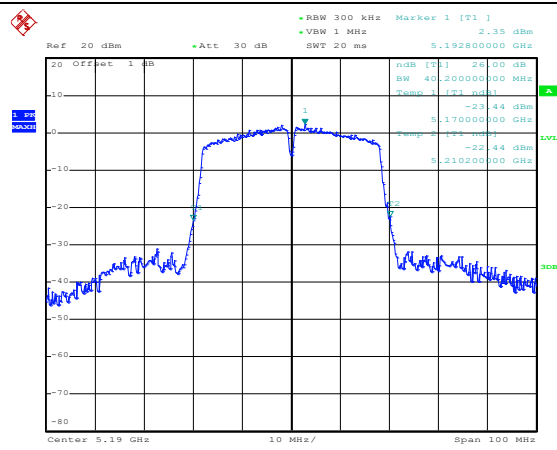
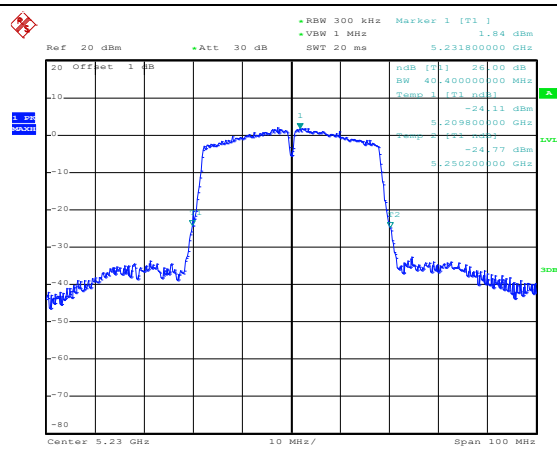
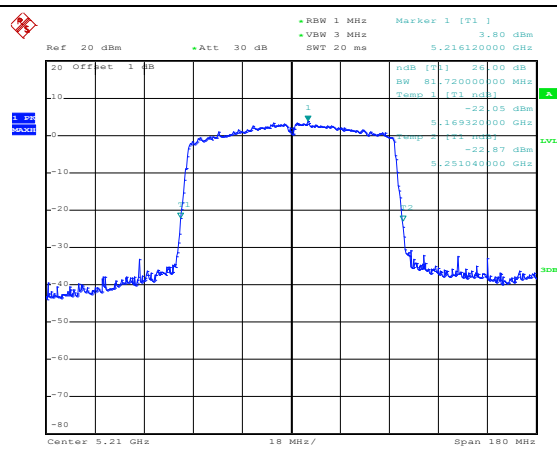
U-NII-2C: 5470-5725MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5500	20.40	17.00	Pass
	5580	20.40	17.00	Pass
	5700	20.60	17.00	Pass
802.11n-HT20	5500	20.80	17.90	Pass
	5580	20.70	18.00	Pass
	5700	20.80	18.00	Pass
802.11n-HT40	5510	41.80	36.80	Pass
	5550	41.80	37.00	Pass
	5670	42.00	37.00	Pass
802.11ac-HT80	5530	82.44	76.68	Pass
	5610	82.08	76.68	Pass

U-NII-3: 5725-5850MHz				
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5745	15.68	17.04	≥500
	5785	15.68	16.96	≥500
	5825	15.52	16.96	≥500
802.11n-HT20	5745	16.10	17.92	≥500
	5785	15.60	17.92	≥500
	5825	15.60	17.92	≥500
802.11n-HT40	5755	35.52	36.80	≥500
	5795	35.52	36.80	≥500
802.11ac VH80	5775	75.84	75.52	≥500

5150-5250MHz
26 dB Bandwidth

<p>802.11a-Low</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 300 kHz Marker 1 [T1] 7.50 dBm Offset: 1 dB VBW: 1 MHz SWT: 20 ms dBm [T1] 26.00 dBm BW 20.30000000 MHz Temp 1 [T1] null -18.50 dBm 5.16980000 GHz -18.49 dBm 5.19050000 GHz</p> <p>Center: 5.18 GHz 5 MHz/ Span: 50 MHz</p> <p>Date: 8.APR.2022 10:09:06</p>
<p>802.11a-Middle</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 300 kHz Marker 1 [T1] 7.35 dBm Offset: 1 dB VBW: 1 MHz SWT: 20 ms dBm [T1] 26.00 dBm BW 20.30000000 MHz Temp 1 [T1] null -18.71 dBm 5.18990000 GHz -18.61 dBm 5.21020000 GHz</p> <p>Center: 5.2 GHz 5 MHz/ Span: 50 MHz</p> <p>Date: 8.APR.2022 10:09:31</p>
<p>802.11a-High</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 300 kHz Marker 1 [T1] 8.15 dBm Offset: 1 dB VBW: 1 MHz SWT: 20 ms dBm [T1] 26.00 dBm BW 20.30000000 MHz Temp 1 [T1] null -18.34 dBm 5.22990000 GHz -17.46 dBm 5.25020000 GHz</p> <p>Center: 5.24 GHz 5 MHz/ Span: 50 MHz</p> <p>Date: 8.APR.2022 10:09:53</p>

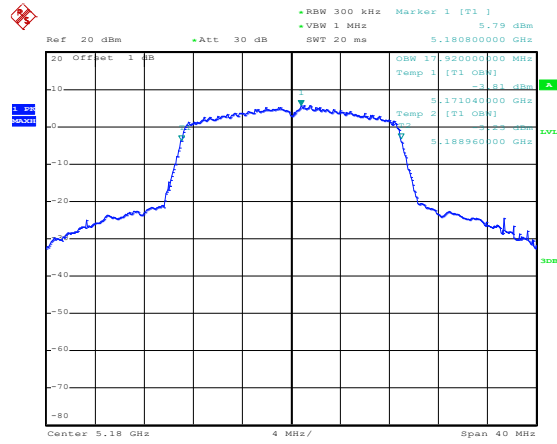
<p>802.11n-HT20-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 26.00 dB VBW 1 MHz 5.180900000 GHz SWT 20 ms</p> <p>ndB [T1] 26.00 dB BW 21.00000000 MHz Temp 1 [T1] ndB -20.34 dBm 5.169600000 GHz -19.69 dBm 5.190600000 GHz</p> <p>Center 5.18 GHz 5 MHz/ Span 50 MHz</p> <p>Date: 8.APR.2022 10:10:52</p>
<p>802.11n-HT20-Middle</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 26.00 dB VBW 1 MHz 5.199100000 GHz SWT 20 ms</p> <p>ndB [T1] 26.00 dB BW 20.80000000 MHz Temp 1 [T1] ndB -19.44 dBm 5.189600000 GHz -19.69 dBm 5.210400000 GHz</p> <p>Center 5.2 GHz 5 MHz/ Span 50 MHz</p> <p>Date: 8.APR.2022 10:11:18</p>
<p>802.11n-HT20-High</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 26.00 dB VBW 1 MHz 5.241100000 GHz SWT 20 ms</p> <p>ndB [T1] 26.00 dB BW 20.60000000 MHz Temp 1 [T1] ndB -19.16 dBm 5.229700000 GHz -18.11 dBm 5.250300000 GHz</p> <p>Center 5.24 GHz 5 MHz/ Span 50 MHz</p> <p>Date: 8.APR.2022 10:11:40</p>

<p>802.11n-HT40-Low</p>	 <p>Ref 20 dBm +Att 30 dB</p> <p>RBW 300 kHz Marker 1 [T1] 2.35 dBm VBW 1 MHz SWT 20 ms 5.192800000 GHz</p> <p>dBm [T1] 26.00 dB BW 40.20000000 MHz Temp 1 [T1] null</p> <p>-23.44 dBm 5.17000000 GHz -22.44 dBm 5.21020000 GHz</p> <p>Center 5.19 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 8.APR.2022 10:12:28</p>
<p>802.11n-HT40-High</p>	 <p>Ref 20 dBm +Att 30 dB</p> <p>RBW 300 kHz Marker 1 [T1] 1.84 dBm VBW 1 MHz SWT 20 ms 5.233800000 GHz</p> <p>dBm [T1] 26.00 dB BW 40.40000000 MHz Temp 1 [T1] null</p> <p>-24.11 dBm 5.20980000 GHz -24.77 dBm 5.25020000 GHz</p> <p>Center 5.23 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 8.APR.2022 10:12:53</p>
<p>802.11ac-HT80-Low</p>	 <p>Ref 20 dBm +Att 30 dB</p> <p>RBW 1 MHz Marker 1 [T1] 3.80 dBm VBW 3 MHz SWT 20 ms 5.216120000 GHz</p> <p>dBm [T1] 26.00 dB BW 81.72000000 MHz Temp 1 [T1] null</p> <p>-22.05 dBm 5.16932000 GHz -22.87 dBm 5.25104000 GHz</p> <p>Center 5.21 GHz 18 MHz/ Span 180 MHz</p> <p>Date: 8.APR.2022 10:18:43</p>

99% Bandwidth

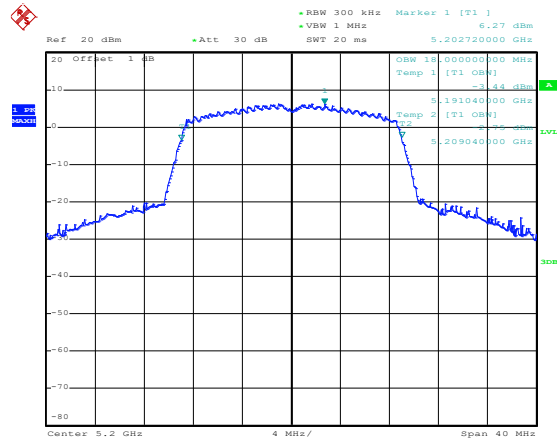
<p>802.11a-Low</p>	<p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.75 dBm VBW 1 MHz SWT 20 ms 5.17760000 GHz</p> <p>OSW 16.96000000 MHz Temp 1 [T1] OBW -3.78 dBm 5.171520000 GHz Temp 2 [T1] OBW -3.78 dBm 5.188480000 GHz</p> <p>Center 5.18 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 8.APR.2022 10:21:08</p>
<p>802.11a-Middle</p>	<p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 7.17 dBm VBW 1 MHz SWT 20 ms 5.20104000 GHz</p> <p>OSW 16.96000000 MHz Temp 1 [T1] OBW -3.11 dBm 5.191520000 GHz Temp 2 [T1] OBW -3.11 dBm 5.208480000 GHz</p> <p>Center 5.2 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 8.APR.2022 10:21:33</p>
<p>802.11a-High</p>	<p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.97 dBm VBW 1 MHz SWT 20 ms 5.24336000 GHz</p> <p>OSW 16.96000000 MHz Temp 1 [T1] OBW -2.89 dBm 5.231520000 GHz Temp 2 [T1] OBW -2.89 dBm 5.248480000 GHz</p> <p>Center 5.24 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 8.APR.2022 10:21:57</p>

802.11n-HT20-Low



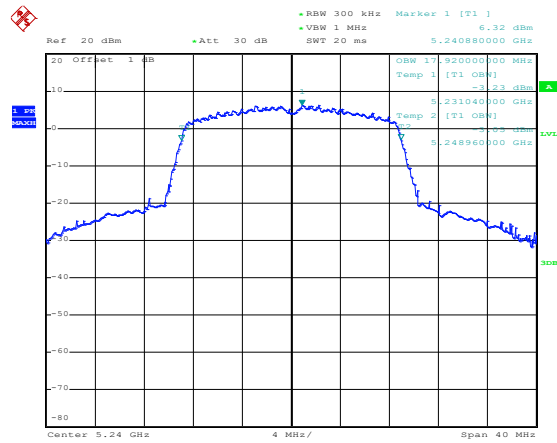
Date: 8.APR.2022 10:22:50

802.11n-HT20-Middle



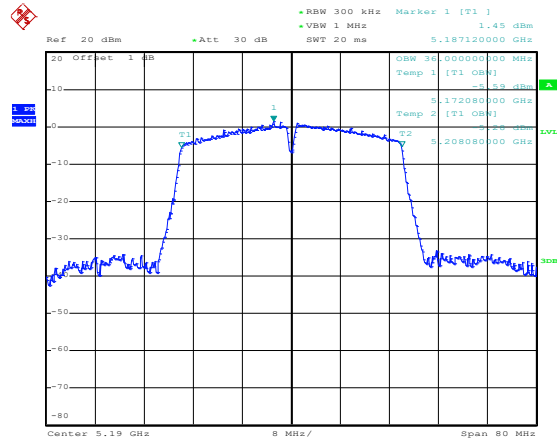
Date: 8.APR.2022 10:24:03

802.11n-HT20-High



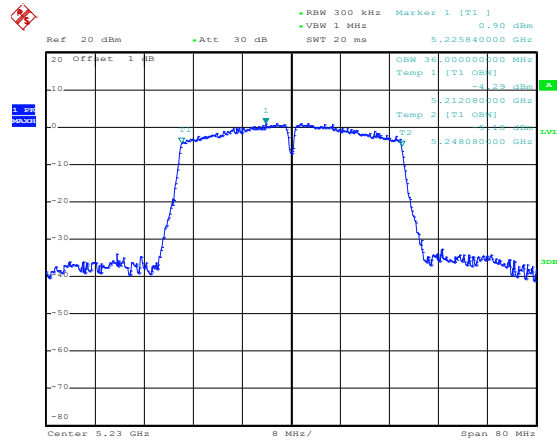
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802.11n-HT40-Low



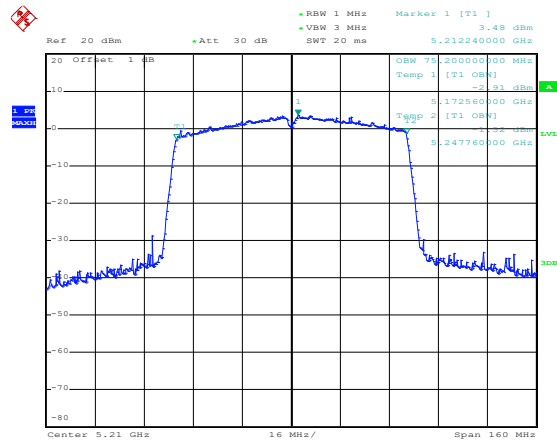
Date: 8.APR.2022 10:25:41

802.11n-HT40-High



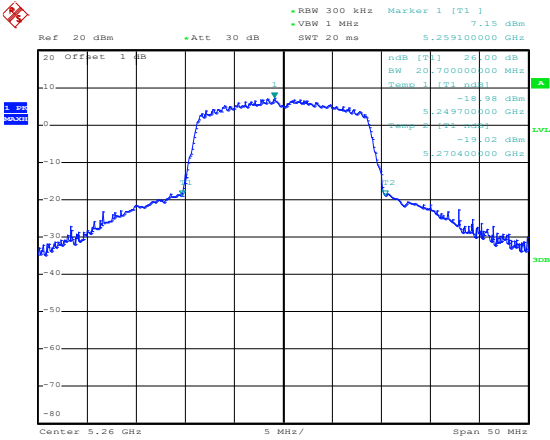
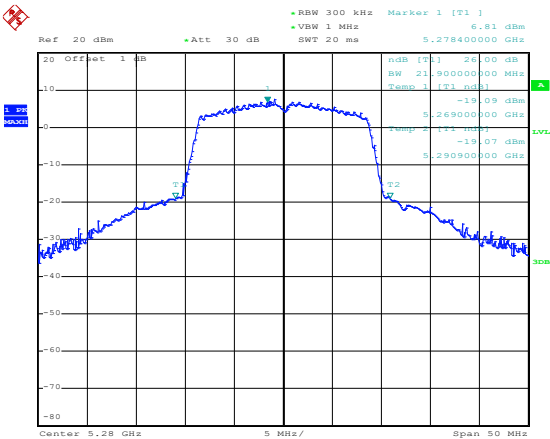
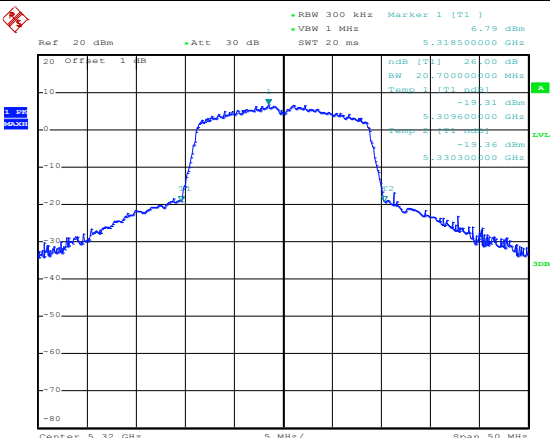
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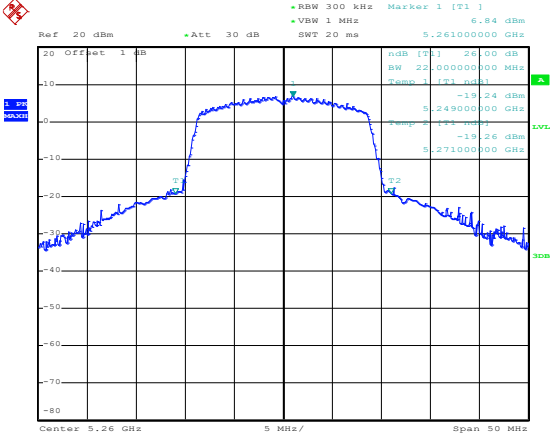
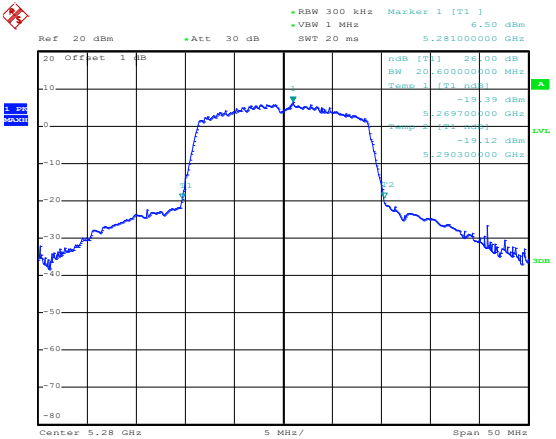
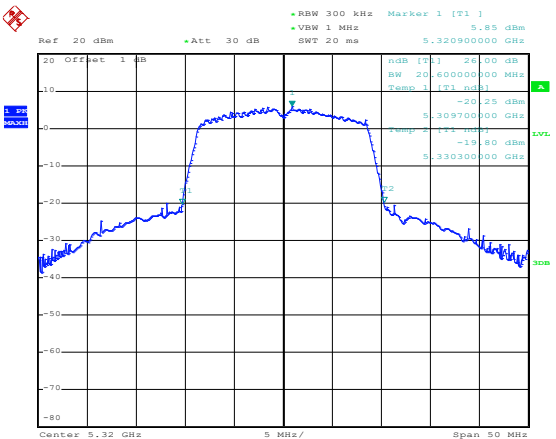
802.11ac-HT80-Low



Date: 8.APR.2022 10:19:46

5250-5350MHz
26 dB Bandwidth

<p>802.11a-Low</p>	 <p>Date: 18.APR.2022 18:34:32</p>
<p>802.11a-Middle</p>	 <p>Date: 18.APR.2022 18:34:59</p>
<p>802.11a-High</p>	 <p>Date: 18.APR.2022 18:35:24</p>

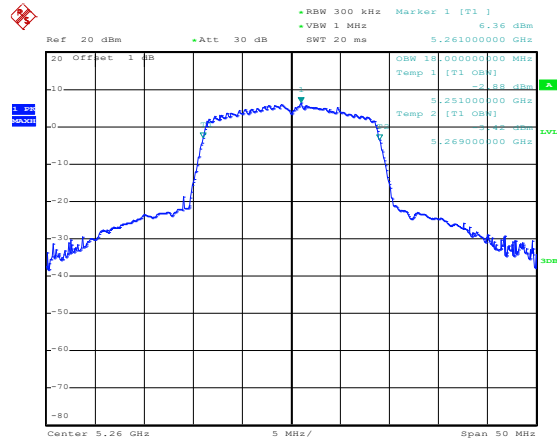
<p>802.11n-HT20-Low</p>	 <p>Date: 18.APR.2022 18:35:54</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 18.APR.2022 18:36:30</p>
<p>802.11n-HT20-High</p>	 <p>Date: 18.APR.2022 18:37:06</p>

<p>802.11n-HT40-Low</p>	<p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 8.73 dBm VBW 3 MHz SWT 20 ms 5.273200000 GHz</p> <p>20 Offset 1 dB -10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.27 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 18:38:01</p>
<p>802.11n-HT40-High</p>	<p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 8.11 dBm VBW 3 MHz SWT 20 ms 5.308600000 GHz</p> <p>20 Offset 1 dB -10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.31 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 18:38:51</p>
<p>802.11ac-HT80-Low</p>	<p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 3.89 dBm VBW 3 MHz SWT 20 ms 5.296480000 GHz</p> <p>20 Offset 1 dB -10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.29 GHz 18 MHz/ Span 180 MHz</p> <p>Date: 18.APR.2022 18:40:24</p>

99% Bandwidth

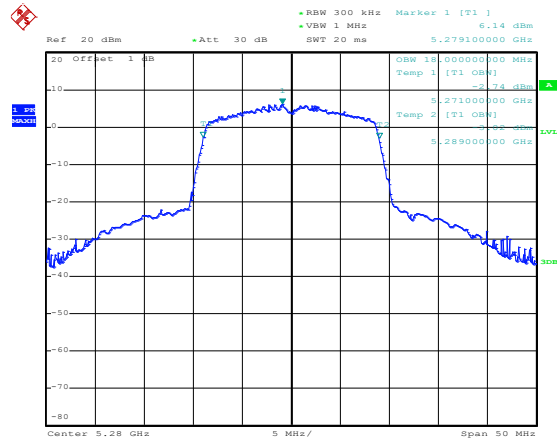
<p>802.11a-Low</p>	<p>Date: 18.APR.2022 18:42:58</p>
<p>802.11a-Middle</p>	<p>Date: 18.APR.2022 18:43:19</p>
<p>802.11a-High</p>	<p>Date: 18.APR.2022 18:43:53</p>

802.11n-HT20-Low



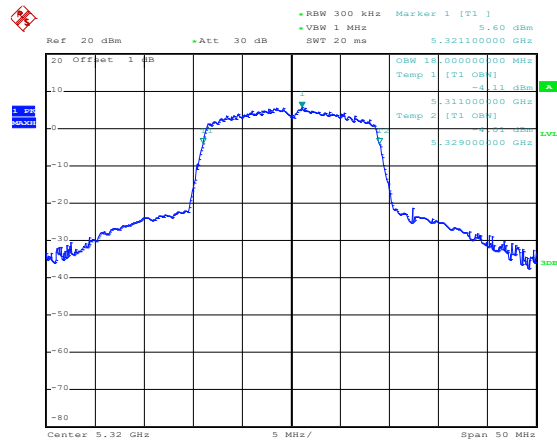
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802.11n-HT20-Middle

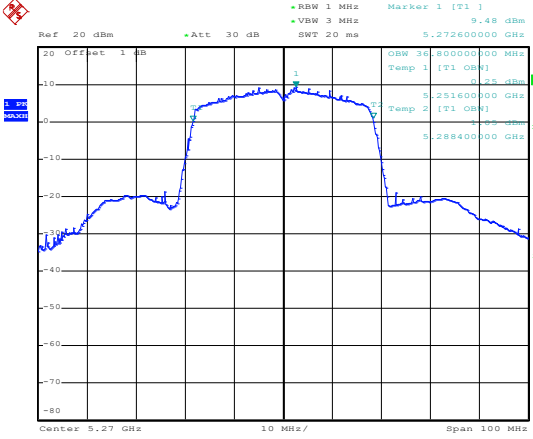
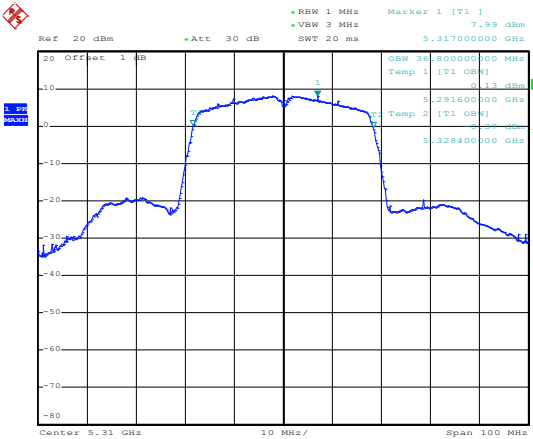
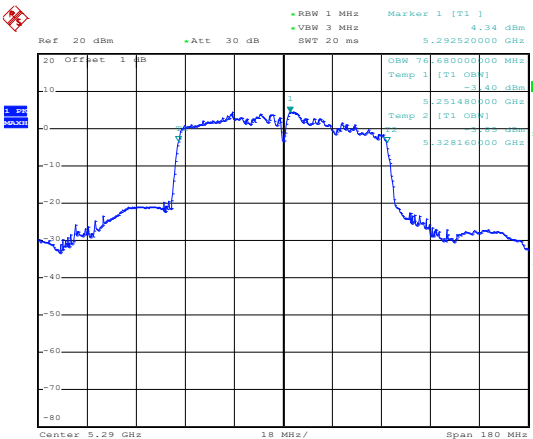


Date: 18.APR.2022 18:45:32

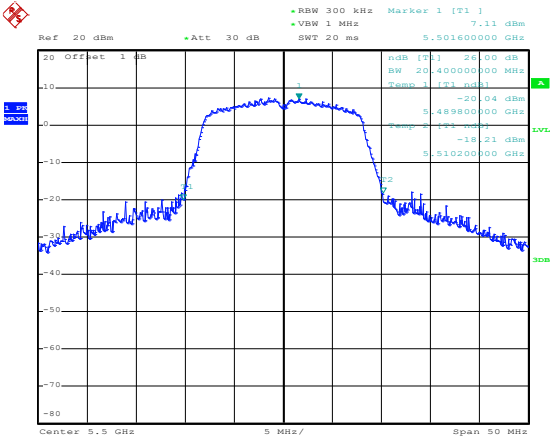
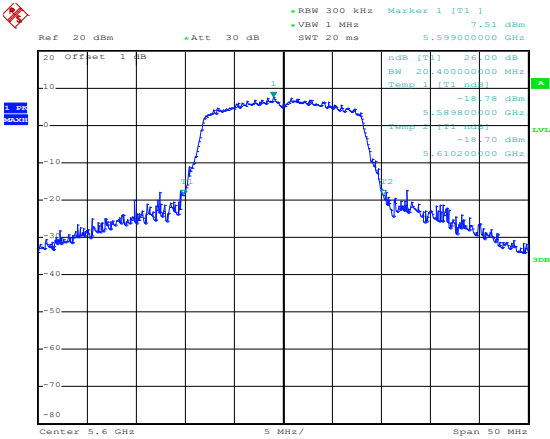
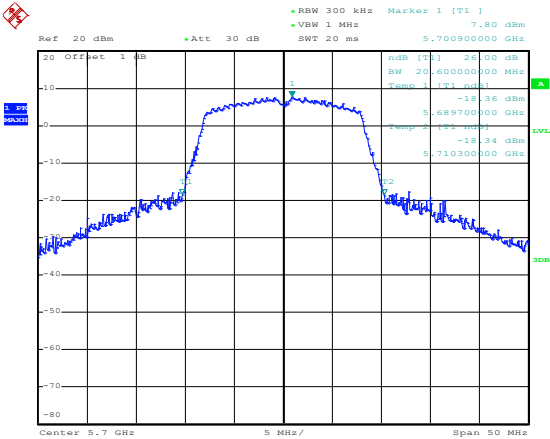
802.11n-HT20-High

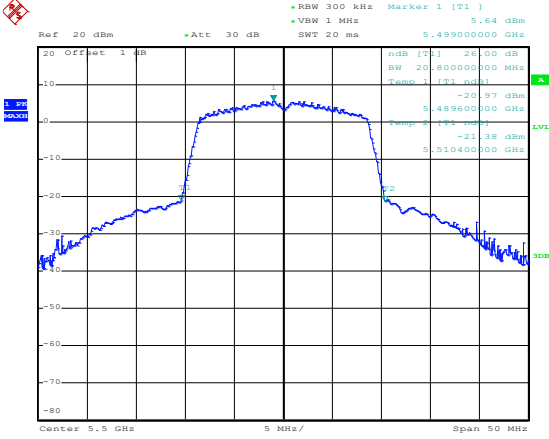
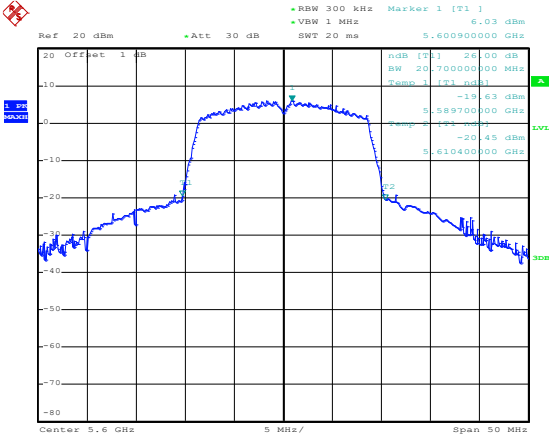
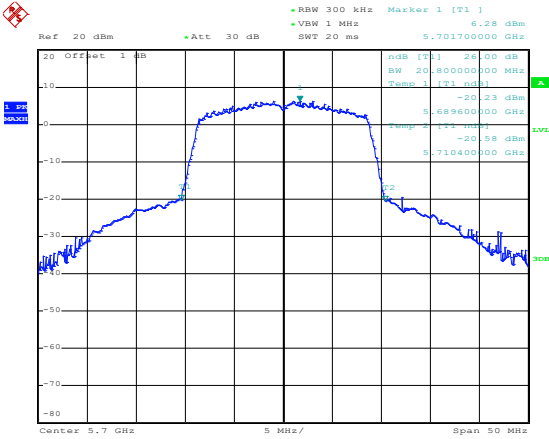


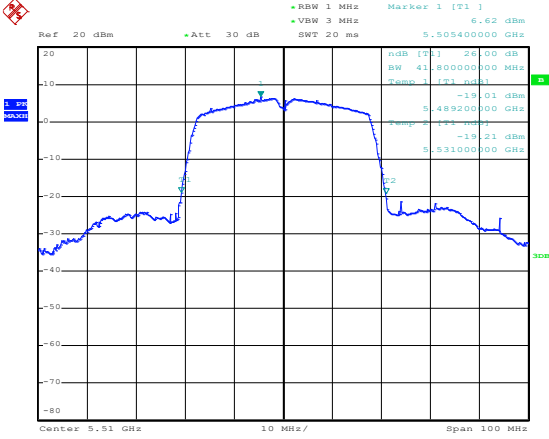
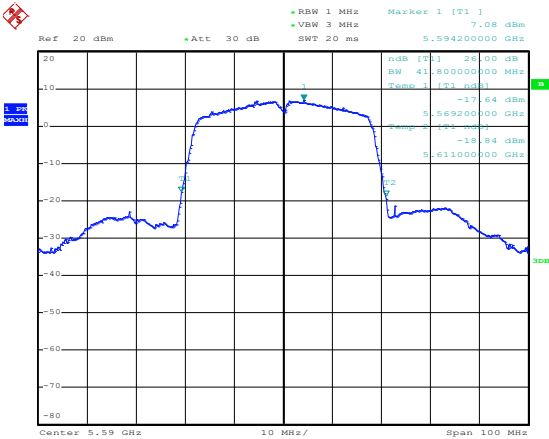
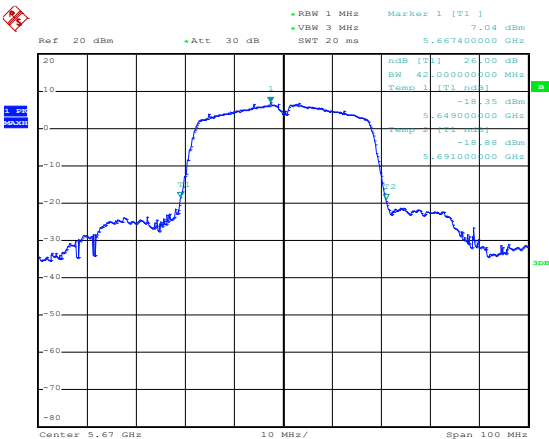
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<p>802.11n-HT40-Low</p>	 <p>Ref 20 dBm +Att 30 dB</p> <p>RBW 1 MHz VBW 3 MHz SWT 20 ms</p> <p>Marker 1 [T1] 9.48 dBm</p> <p>Obs 30.00000000 GHz</p> <p>Temp 1 [T1] 0.25 dBm</p> <p>5.251600000 GHz</p> <p>Temp 2 [T1] 0.25 dBm</p> <p>5.288400000 GHz</p> <p>Center 5.27 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 18:47:54</p>
<p>802.11n-HT40-High</p>	 <p>Ref 20 dBm +Att 30 dB</p> <p>RBW 1 MHz VBW 3 MHz SWT 20 ms</p> <p>Marker 1 [T1] 7.99 dBm</p> <p>Obs 30.00000000 GHz</p> <p>Temp 1 [T1] 0.13 dBm</p> <p>5.291600000 GHz</p> <p>Temp 2 [T1] 0.13 dBm</p> <p>5.328400000 GHz</p> <p>Center 5.31 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 18:49:31</p>
<p>802.11ac-HT80-Low</p>	 <p>Ref 20 dBm +Att 30 dB</p> <p>RBW 1 MHz VBW 3 MHz SWT 20 ms</p> <p>Marker 1 [T1] 4.34 dBm</p> <p>Obs 70.00000000 GHz</p> <p>Temp 1 [T1] -3.80 dBm</p> <p>5.251480000 GHz</p> <p>Temp 2 [T1] -3.80 dBm</p> <p>5.328160000 GHz</p> <p>Center 5.29 GHz 18 MHz/ Span 180 MHz</p> <p>Date: 18.APR.2022 18:50:32</p>

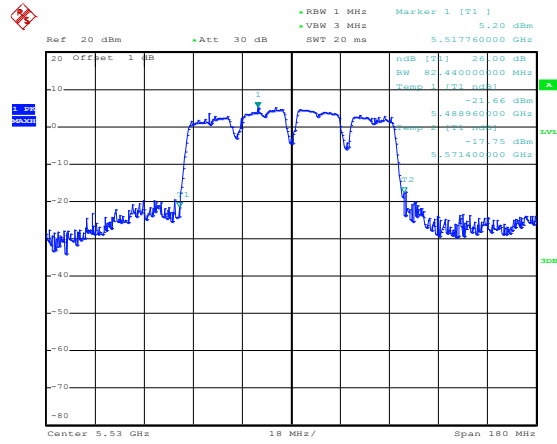
5470-5725MHz
26 dB Bandwidth

<p>802.11a-Low</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 300 kHz VBW: 1 MHz Marker 1 [T1]: 7.11 dBm Offset: 1 dB SWT: 20 ms Center: 5.501600000 GHz</p> <p>dBm [T1]: 26.00 dBm BW: 20.400000000 MHz Temp: 1 [T1] [dBm]: -20.04 dBm 5.489800000 GHz Temp: 2 [T2] [dBm]: -18.21 dBm 5.510200000 GHz</p> <p>Center: 5.5 GHz 5 MHz/ Span: 50 MHz</p> <p>Date: 18.APR.2022 19:17:03</p>
<p>802.11a-Middle</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 300 kHz VBW: 1 MHz Marker 1 [T1]: 7.51 dBm Offset: 1 dB SWT: 20 ms Center: 5.599000000 GHz</p> <p>dBm [T1]: 26.00 dBm BW: 20.400000000 MHz Temp: 1 [T1] [dBm]: -18.78 dBm 5.589800000 GHz Temp: 2 [T2] [dBm]: -18.70 dBm 5.610200000 GHz</p> <p>Center: 5.6 GHz 5 MHz/ Span: 50 MHz</p> <p>Date: 18.APR.2022 19:17:26</p>
<p>802.11a-High</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 300 kHz VBW: 1 MHz Marker 1 [T1]: 7.80 dBm Offset: 1 dB SWT: 20 ms Center: 5.700900000 GHz</p> <p>dBm [T1]: 26.00 dBm BW: 20.600000000 MHz Temp: 1 [T1] [dBm]: -18.36 dBm 5.689700000 GHz Temp: 2 [T2] [dBm]: -18.34 dBm 5.710300000 GHz</p> <p>Center: 5.7 GHz 5 MHz/ Span: 50 MHz</p> <p>Date: 18.APR.2022 19:17:55</p>

<p>802.11n-HT20-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 5.64 dBm VBW 1 MHz SWT 20 ms 5.49900000 GHz</p> <p>20 Offset 1 dB dBm [T1] 26.00 dB BW 20.80000000 MHz Temp 1 [T1] n/a -20.97 dBm 5.48960000 GHz -21.38 dBm 5.51040000 GHz</p> <p>Center 5.5 GHz 5 MHz/ Span 50 MHz</p> <p>Date: 18.APR.2022 19:18:21</p>
<p>802.11n-HT20-Middle</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.03 dBm VBW 1 MHz SWT 20 ms 5.60090000 GHz</p> <p>20 Offset 1 dB dBm [T1] 26.00 dB BW 20.70000000 MHz Temp 1 [T1] n/a -19.63 dBm 5.58970000 GHz -20.45 dBm 5.61040000 GHz</p> <p>Center 5.6 GHz 5 MHz/ Span 50 MHz</p> <p>Date: 18.APR.2022 19:18:40</p>
<p>802.11n-HT20-High</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.28 dBm VBW 1 MHz SWT 20 ms 5.70170000 GHz</p> <p>20 Offset 1 dB dBm [T1] 26.00 dB BW 20.80000000 MHz Temp 1 [T1] n/a -20.23 dBm 5.68960000 GHz -20.58 dBm 5.71040000 GHz</p> <p>Center 5.7 GHz 5 MHz/ Span 50 MHz</p> <p>Date: 18.APR.2022 19:19:02</p>

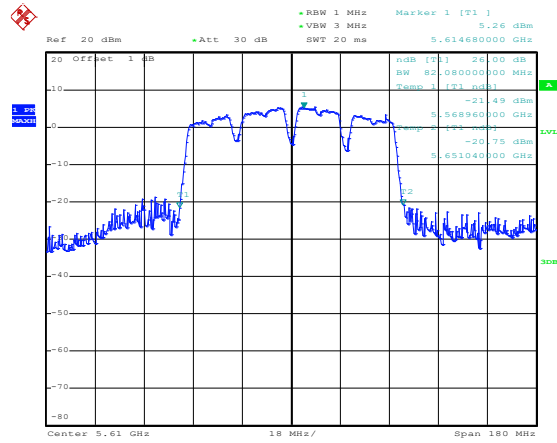
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<p>802.11n-HT40- Middle</p>	 <p>Date: 20.APR.2022 16:59:03</p>
<p>802.11n-HT40-High</p>	 <p>Date: 20.APR.2022 16:57:43</p>

802.11ac-HT80-Low



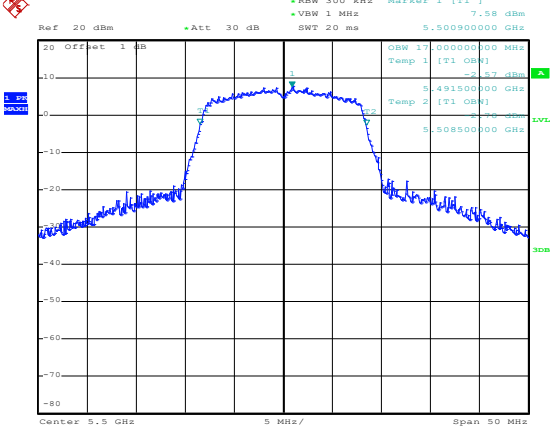
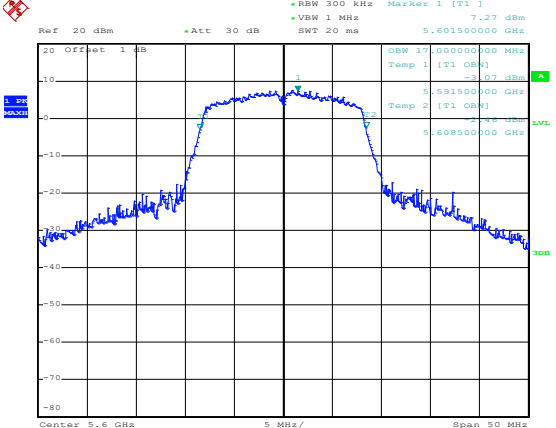
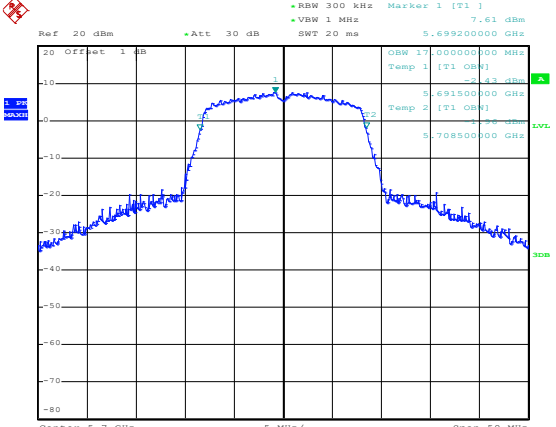
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802.11ac-HT80-High

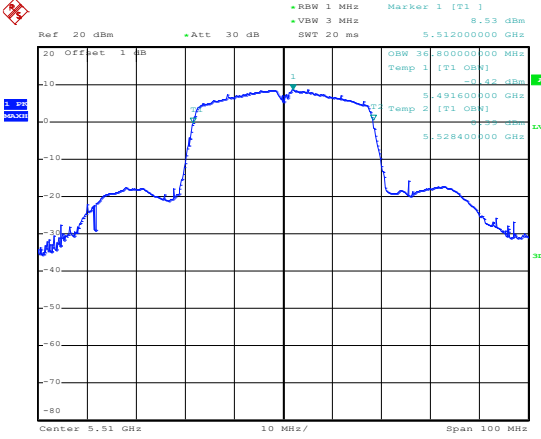
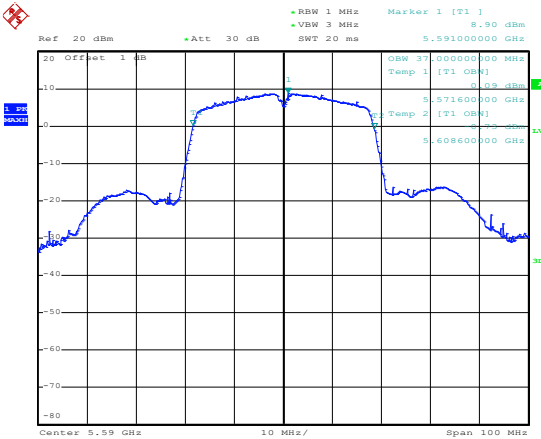
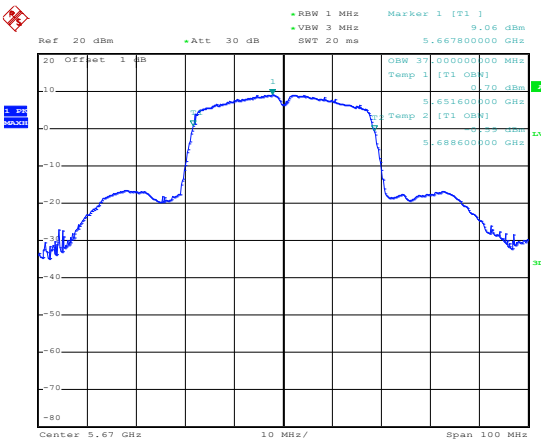


Date: 18.APR.2022 19:14:14

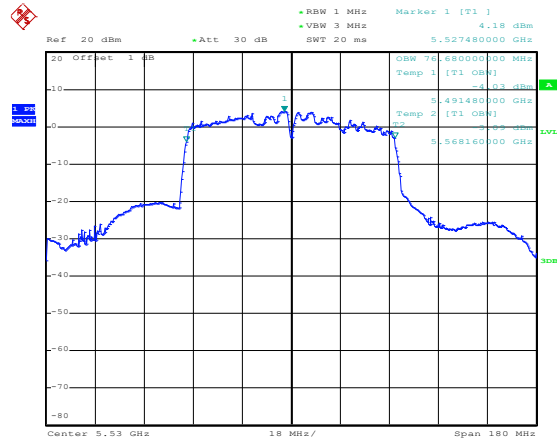
99% Bandwidth

<p>802.11a-Low</p>	 <p>Date: 18.APR.2022 19:20:25</p>
<p>802.11a-Middle</p>	 <p>Date: 18.APR.2022 19:20:42</p>
<p>802.11a-High</p>	 <p>Date: 18.APR.2022 19:21:06</p>

<p>802.11n-HT20-Low</p>	<p>Date: 18.APR.2022 19:21:34</p>
<p>802.11n-HT20-Middle</p>	<p>Date: 18.APR.2022 19:21:57</p>
<p>802.11n-HT20-High</p>	<p>Date: 18.APR.2022 19:22:20</p>

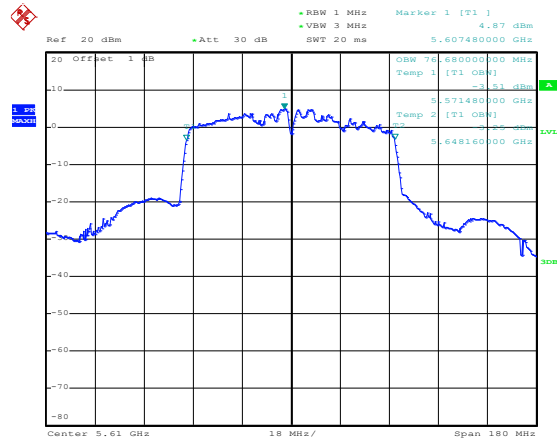
<p>802.11n-HT40-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 8.53 dBm VBW 3 MHz SWT 20 ms 5.51200000 GHz</p> <p>20 Offset 1 dB 10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>OSW 37.00000000 MHz Temp 1 [T1] 0.42 dBm 5.491600000 GHz Temp 2 [T1] 0.35 dBm 5.528400000 GHz</p> <p>Center 5.51 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 19:22:54</p>
<p>802.11n-HT40- Middle</p>	 <p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 8.90 dBm VBW 3 MHz SWT 20 ms 5.59100000 GHz</p> <p>20 Offset 1 dB 10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>OSW 37.00000000 MHz Temp 1 [T1] 0.42 dBm 5.571600000 GHz Temp 2 [T1] 0.35 dBm 5.608600000 GHz</p> <p>Center 5.59 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 19:23:21</p>
<p>802.11n-HT40-High</p>	 <p>Ref 20 dBm +Att 30 dB RBW 1 MHz Marker 1 [T1] 9.06 dBm VBW 3 MHz SWT 20 ms 5.66780000 GHz</p> <p>20 Offset 1 dB 10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>OSW 37.00000000 MHz Temp 1 [T1] 0.70 dBm 5.651600000 GHz Temp 2 [T1] 0.62 dBm 5.688600000 GHz</p> <p>Center 5.67 GHz 10 MHz/ Span 100 MHz</p> <p>Date: 18.APR.2022 19:24:02</p>

802.11ac-HT80-Low



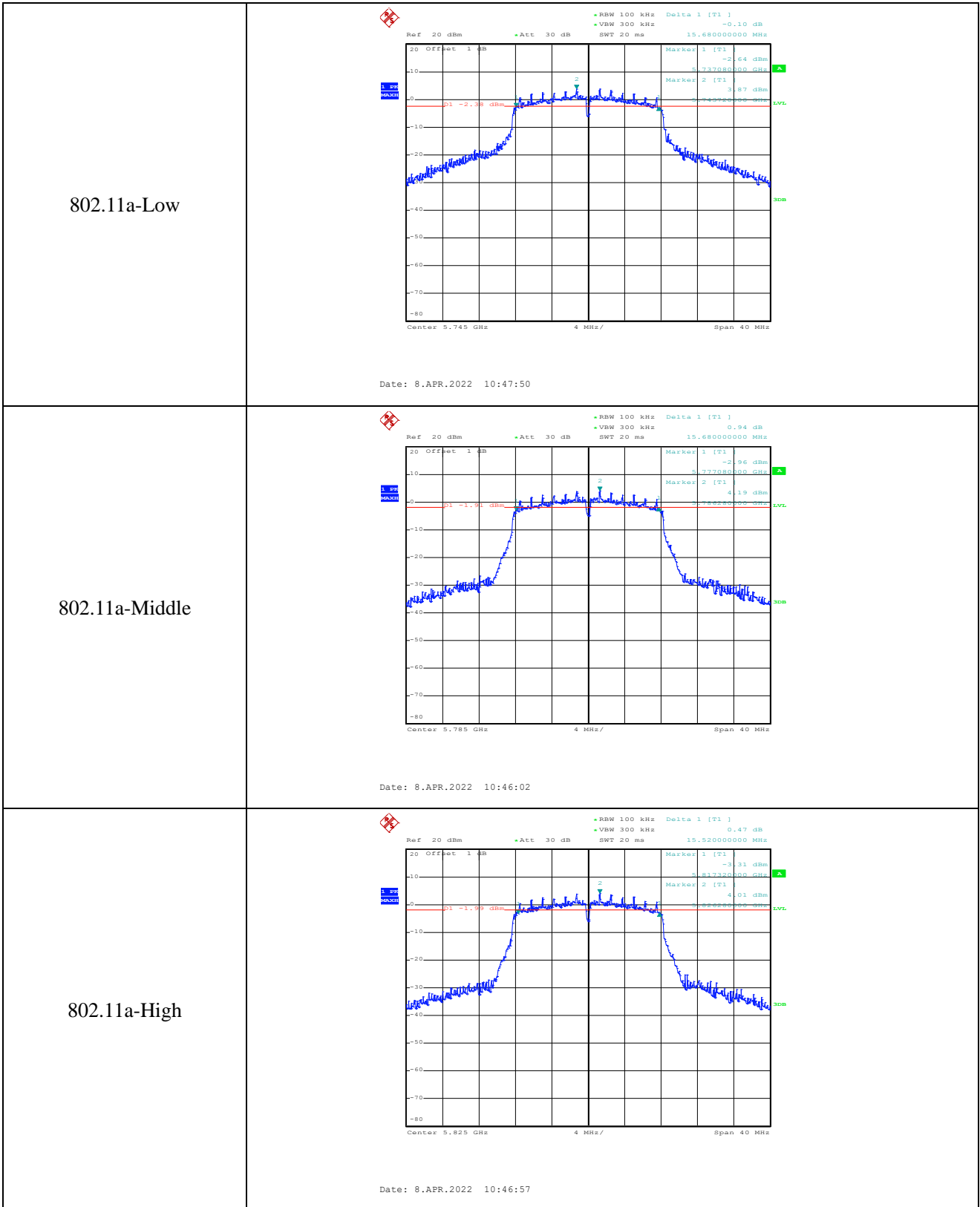
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802.11ac-HT80-High

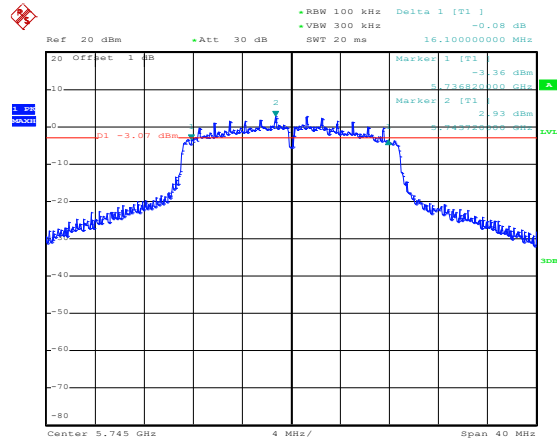


Date: 18.APR.2022 19:25:10

5725-5850MHz
6 dB Bandwidth

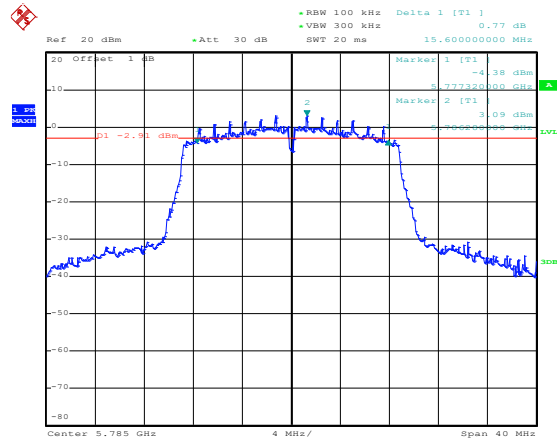


802.11n-HT20-Low



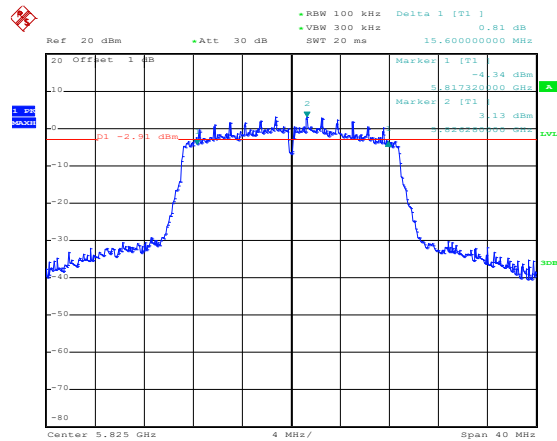
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802.11n-HT20-Middle

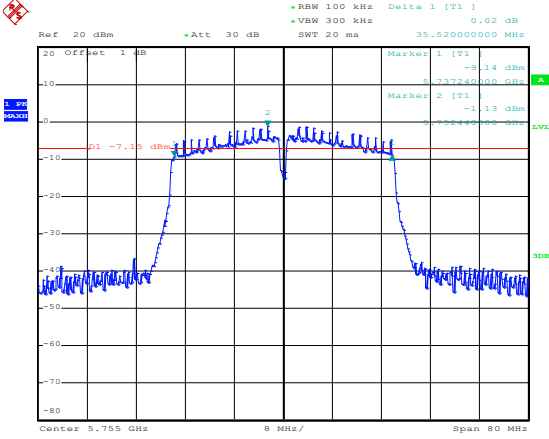
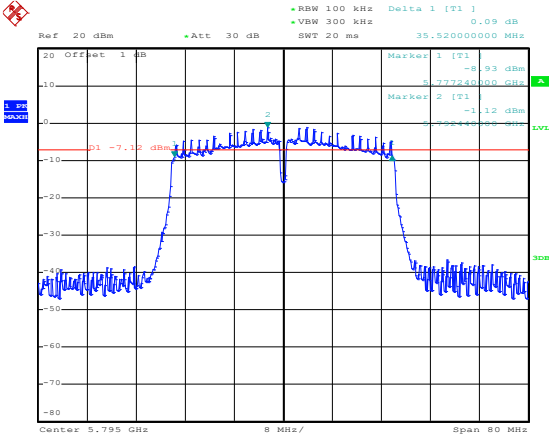
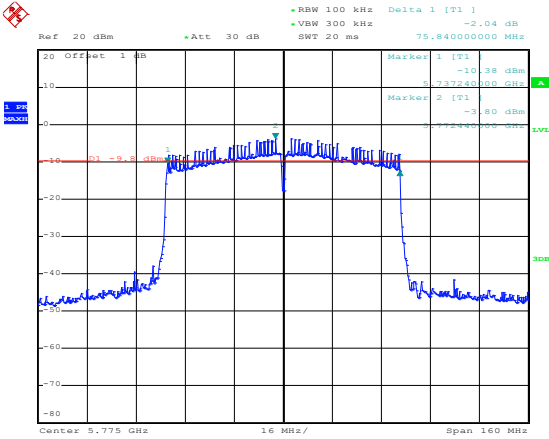


Date: 8.APR.2022 11:19:04

802.11n-HT20-High

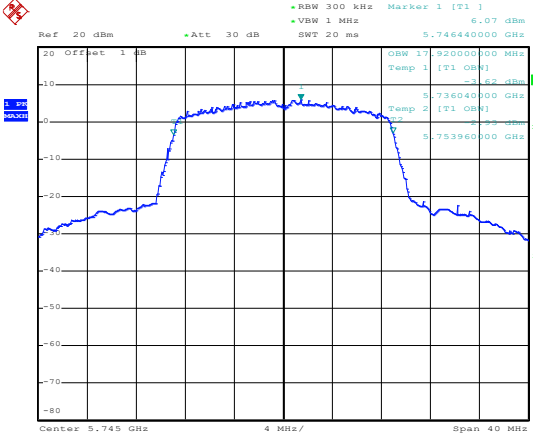
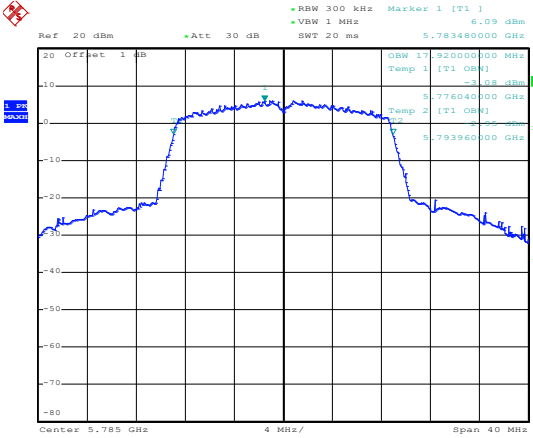
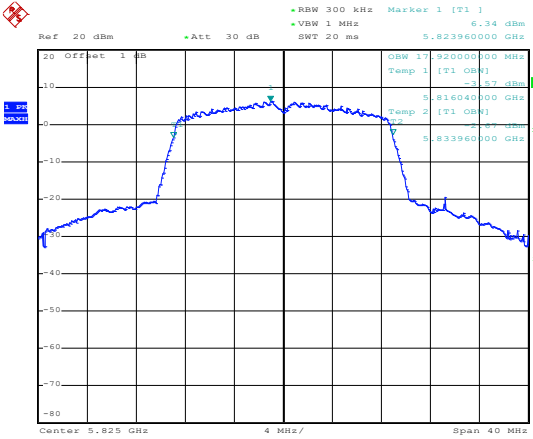


Date: 8.APR.2022 11:23:12

<p>802.11n-HT40-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 100 kHz Delta 1 [T1] 0.02 dB VBW 300 kHz SWT 20 ms 35.52000000 MHz</p> <p>Marker 1 [T1] -9.14 dBm Marker 2 [T1] -1.13 dBm</p> <p>D1 -7.15 dBm</p> <p>Center 5.775 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 8.APR.2022 11:24:29</p>
<p>802.11n-HT40-High</p>	 <p>Ref 20 dBm +Att 30 dB RBW 100 kHz Delta 1 [T1] 0.09 dB VBW 300 kHz SWT 20 ms 35.52000000 MHz</p> <p>Marker 1 [T1] -8.93 dBm Marker 2 [T1] -1.12 dBm</p> <p>D1 -7.12 dBm</p> <p>Center 5.775 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 8.APR.2022 11:25:00</p>
<p>802.11ac-HT80-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 100 kHz Delta 1 [T1] -2.04 dB VBW 300 kHz SWT 20 ms 75.84000000 MHz</p> <p>Marker 1 [T1] -10.38 dBm Marker 2 [T1] -3.80 dBm</p> <p>D1 -9.8 dBm</p> <p>Center 5.775 GHz 16 MHz/ Span 160 MHz</p> <p>Date: 8.APR.2022 11:26:02</p>

99% Bandwidth

<p>802.11a-Low</p>	<p>Date: 7.APR.2022 21:28:50</p>
<p>802.11a-Middle</p>	<p>Date: 7.APR.2022 21:29:18</p>
<p>802.11a-High</p>	<p>Date: 7.APR.2022 21:29:42</p>

<p>802.11n-HT20-Low</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.07 dBm VBW 1 MHz SWT 20 ms 5.746440000 GHz</p> <p>Obs 17 5.750000000 MHz Temp 1 [T1] 0dB -3.62 dBm 5.736040000 GHz Temp 2 [T1] 0dB -3.68 dBm 5.753960000 GHz</p> <p>Center 5.745 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 7.APR.2022 21:31:25</p>
<p>802.11n-HT20-Middle</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.09 dBm VBW 1 MHz SWT 20 ms 5.783480000 GHz</p> <p>Obs 17 5.790000000 MHz Temp 1 [T1] 0dB -3.68 dBm 5.776040000 GHz Temp 2 [T1] 0dB -3.68 dBm 5.793960000 GHz</p> <p>Center 5.785 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 7.APR.2022 21:31:46</p>
<p>802.11n-HT20-High</p>	 <p>Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.34 dBm VBW 1 MHz SWT 20 ms 5.823960000 GHz</p> <p>Obs 17 5.830000000 MHz Temp 1 [T1] 0dB -3.57 dBm 5.816040000 GHz Temp 2 [T1] 0dB -3.57 dBm 5.833960000 GHz</p> <p>Center 5.825 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 7.APR.2022 21:32:10</p>

<p>802.11n-HT40-Low</p>	<p>Ref 20 dBm +Att 30 dB SWT 20 ms</p> <p>RBW 1 MHz VBW 3 MHz SWT 20 ms</p> <p>Marker 1 [T1] 7.48 dBm</p> <p>Obs 30.00000000 MHz Temp 1 [T1] 0.00 dBm</p> <p>5.752440000 GHz -0.81 dBm</p> <p>5.736600000 GHz -0.89 dBm</p> <p>5.773400000 GHz -0.89 dBm</p> <p>Center 5.755 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 7.APR.2022 21:34:41</p>
<p>802.11n-HT40-High</p>	<p>Ref 20 dBm +Att 30 dB SWT 20 ms</p> <p>RBW 1 MHz VBW 3 MHz SWT 20 ms</p> <p>Marker 1 [T1] 7.92 dBm</p> <p>Obs 30.00000000 MHz Temp 1 [T1] 0.00 dBm</p> <p>5.790360000 GHz -1.01 dBm</p> <p>5.776600000 GHz -1.00 dBm</p> <p>5.813400000 GHz -1.00 dBm</p> <p>Center 5.795 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 7.APR.2022 21:35:32</p>
<p>802.11ac-HT80-Low</p>	<p>Ref 20 dBm +Att 30 dB SWT 20 ms</p> <p>RBW 1 MHz VBW 3 MHz SWT 20 ms</p> <p>Marker 1 [T1] 4.22 dBm</p> <p>Obs 70.00000000 MHz Temp 1 [T1] 0.00 dBm</p> <p>5.781400000 GHz -1.00 dBm</p> <p>5.737240000 GHz -1.00 dBm</p> <p>5.812760000 GHz -1.00 dBm</p> <p>Center 5.775 GHz 16 MHz/ Span 160 MHz</p> <p>Date: 7.APR.2022 21:33:55</p>

APPENDIX C**Maximum Conducted Output Power**

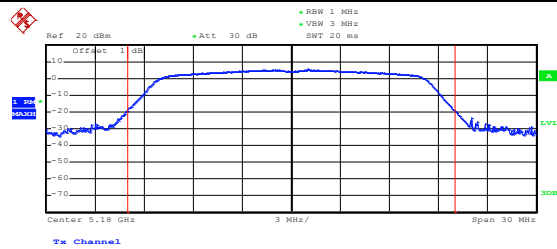
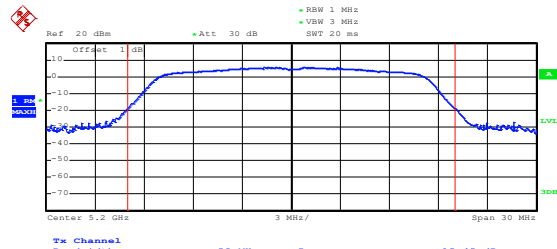
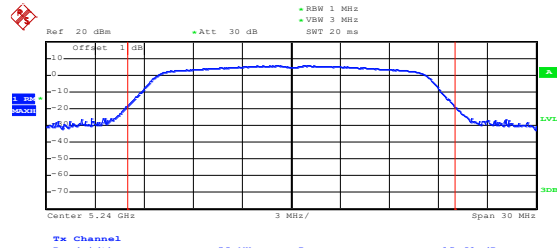
U-NII-1:5150-5250MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5180	15.02	23.98
	5200	15.45	23.98
	5240	15.61	23.98
802.11n-HT20	5180	14.06	23.98
	5200	14.20	23.98
	5240	14.06	23.98
802.11n-HT40	5190	12.32	23.98
	5230	12.22	23.98
802.11ac VH80	5210	11.17	23.98

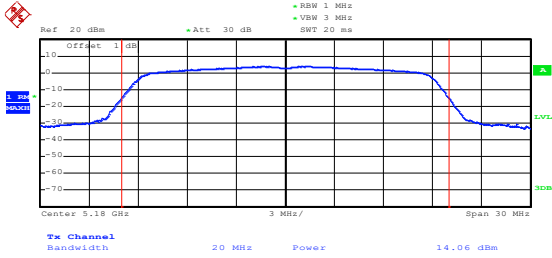
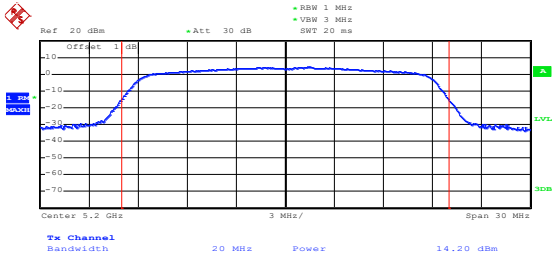
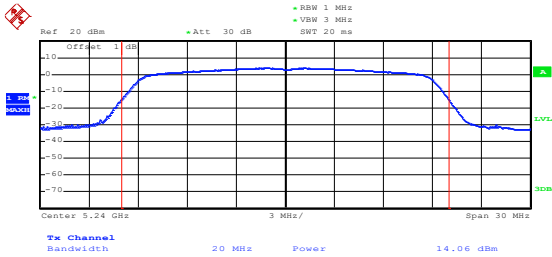
U-NII-2A: 5250-5350MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5260	15.33	23.98
	5280	15.23	23.98
	5320	14.72	23.98
802.11n-HT20	5260	14.02	23.98
	5280	14.01	23.98
	5320	13.48	23.98
802.11n-HT40	5270	13.27	23.98
	5310	12.90	23.98
802.11ac VH80	5290	12.38	23.98

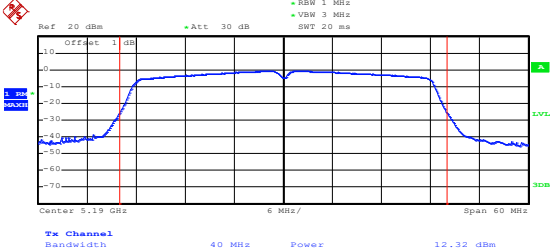
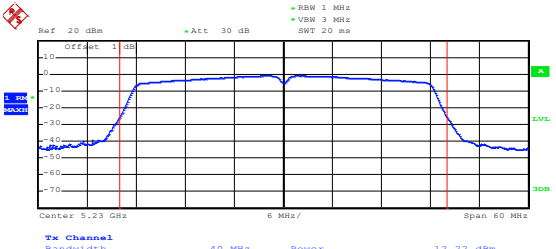
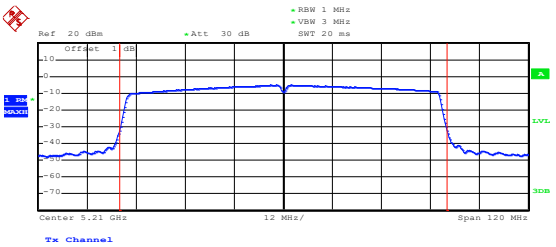
U-NII-2C: 5470-5725MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5500	15.38	23.98
	5580	15.75	23.98
	5700	15.98	23.98
802.11n-HT20	5500	14.11	23.98
	5580	14.55	23.98
	5700	14.80	23.98
802.11n-HT40	5510	13.50	23.98
	5550	13.68	23.98
	5670	14.00	23.98
802.11ac VH80	5530	12.19	23.98
	5610	12.63	23.98

U-NII-3: 5725-5850MHz			
Test mode	Frequency MHz	Output Power DBm	Limit dBm
802.11a	5745	15.50	30.00
	5785	15.47	30.00
	5825	15.62	30.00
802.11n-HT20	5745	14.18	30.00
	5785	14.47	30.00
	5825	14.45	30.00
802.11n-HT40	5755	13.09	30.00
	5795	13.11	30.00
802.11ac VH80	5775	12.17	30.00

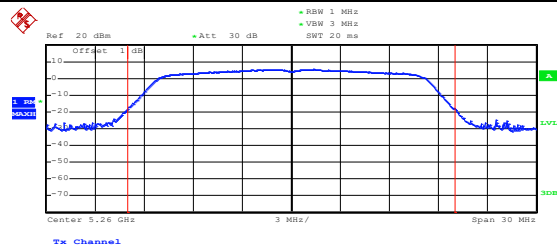
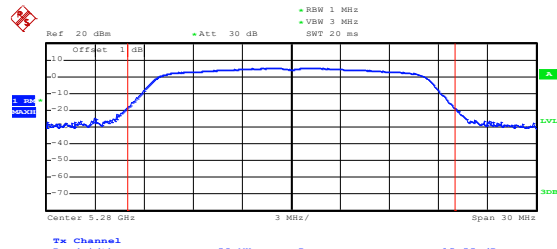
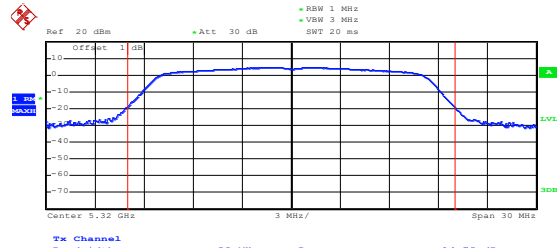
5150-5250MHz

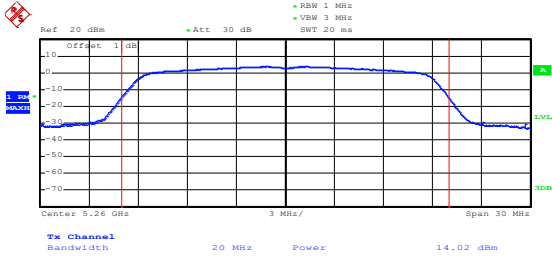
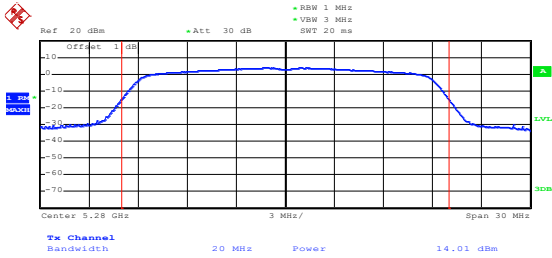
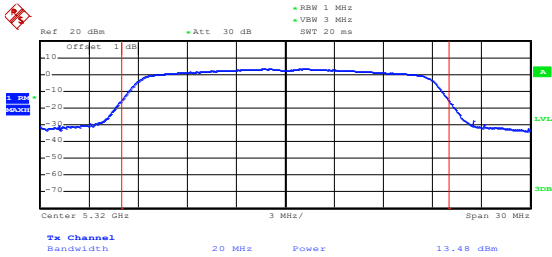
<p>802.11a-Low</p>	 <p>Date: 19.APR.2022 17:41:03</p>
<p>802.11a-Middle</p>	 <p>Date: 19.APR.2022 17:41:31</p>
<p>802.11a-High</p>	 <p>Date: 19.APR.2022 17:42:02</p>

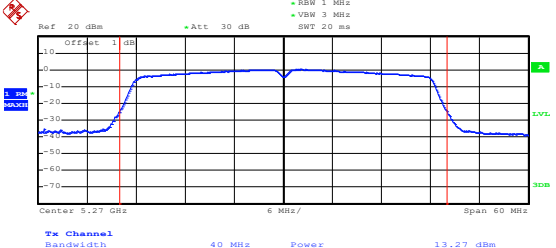
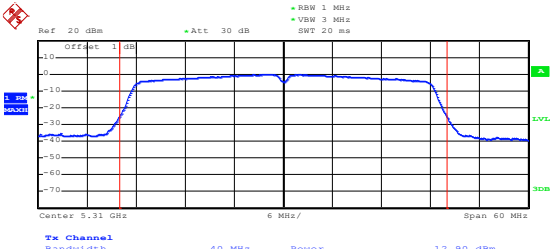
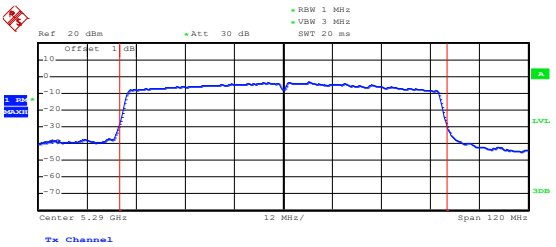
<p>802.11n-HT20-Low</p>	 <p>Center 5.18 GHz</p> <p>Tx Channel Bandwidth 20 MHz Power 14.06 dBm</p> <p>Date: 19.APR.2022 17:42:43</p>
<p>802.11n-HT20-Middle</p>	 <p>Center 5.2 GHz</p> <p>Tx Channel Bandwidth 20 MHz Power 14.20 dBm</p> <p>Date: 19.APR.2022 17:43:09</p>
<p>802.11n-HT20-High</p>	 <p>Center 5.24 GHz</p> <p>Tx Channel Bandwidth 20 MHz Power 14.06 dBm</p> <p>Date: 19.APR.2022 17:43:35</p>

<p>802.11n-HT40-Low</p>	 <p>Date: 31.MAR.2022 15:32:10</p>
<p>802.11n-HT40-High</p>	 <p>Date: 31.MAR.2022 15:33:36</p>
<p>802.11ac-HT80-Low</p>	 <p>Date: 31.MAR.2022 15:34:39</p>

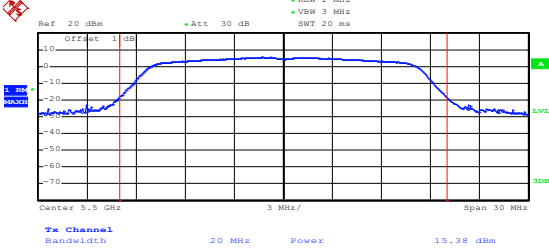
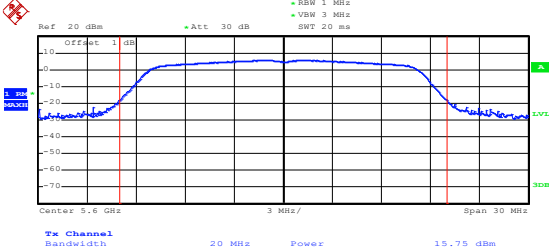
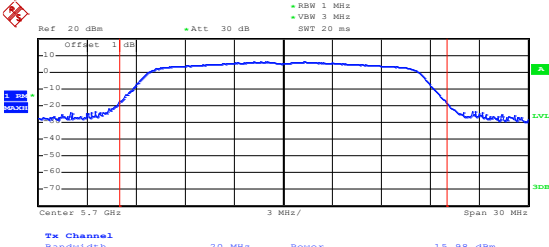
5250-5350MHz

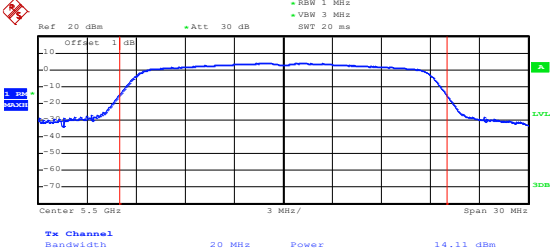
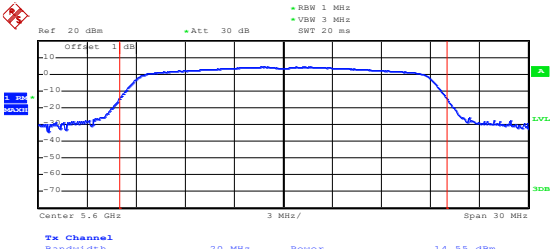
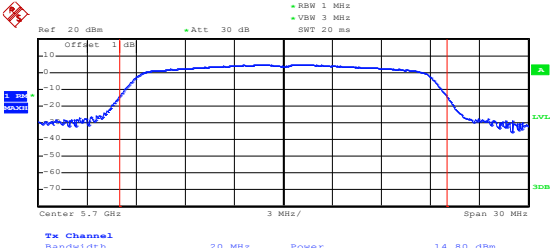
<p>802.11a-Low</p>	 <p>Date: 19.APR.2022 17:45:16</p>
<p>802.11a-Middle</p>	 <p>Date: 19.APR.2022 17:45:59</p>
<p>802.11a-High</p>	 <p>Date: 19.APR.2022 17:46:51</p>

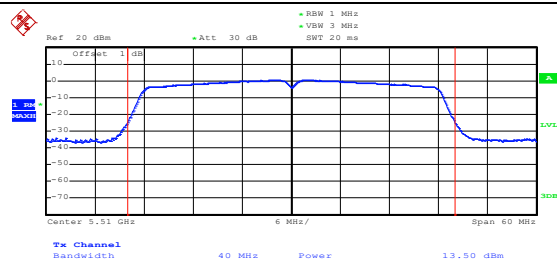
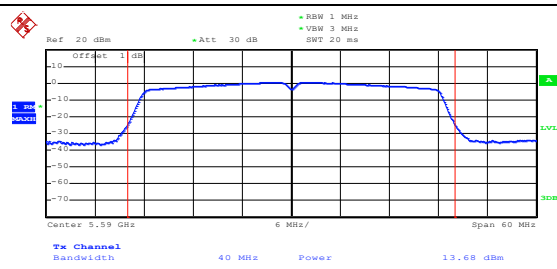
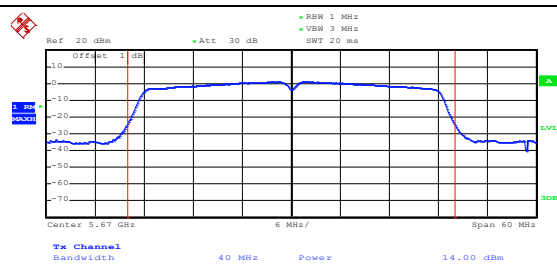
<p>802.11n-HT20-Low</p>	 <p>Ref: 20 dBm, Offset: 1 dB, Att: 30 dB, RBW: 1 MHz, VBW: 3 MHz, SWT: 20 ms</p> <p>Center: 5.26 GHz, Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz, Power: 14.02 dBm</p> <p>Date: 19.APR.2022 17:47:57</p>
<p>802.11n-HT20-Middle</p>	 <p>Ref: 20 dBm, Offset: 1 dB, Att: 30 dB, RBW: 1 MHz, VBW: 3 MHz, SWT: 20 ms</p> <p>Center: 5.28 GHz, Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz, Power: 14.01 dBm</p> <p>Date: 19.APR.2022 17:48:23</p>
<p>802.11n-HT20-High</p>	 <p>Ref: 20 dBm, Offset: 1 dB, Att: 30 dB, RBW: 1 MHz, VBW: 3 MHz, SWT: 20 ms</p> <p>Center: 5.32 GHz, Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz, Power: 13.48 dBm</p> <p>Date: 19.APR.2022 17:48:48</p>

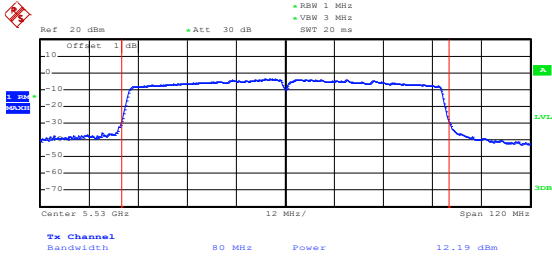
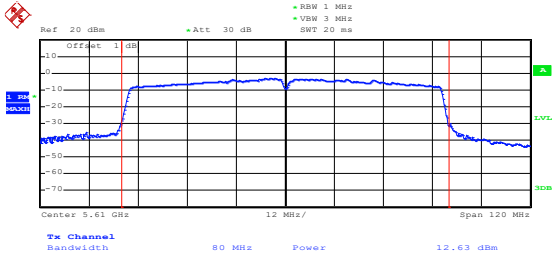
<p>802.11n-HT40-Low</p>	 <p>Date: 18.APR.2022 17:40:30</p>
<p>802.11n-HT40-High</p>	 <p>Date: 18.APR.2022 17:41:22</p>
<p>802.11ac-HT80-Low</p>	 <p>Date: 18.APR.2022 17:42:21</p>

5470-5725MHz

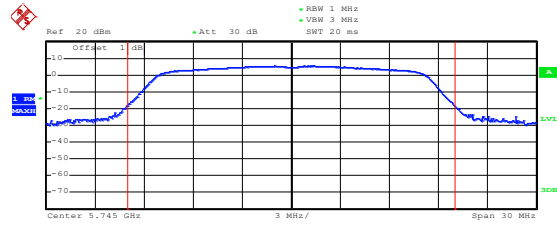
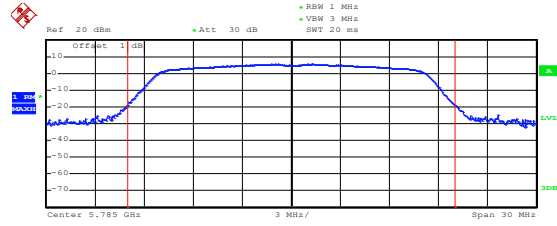
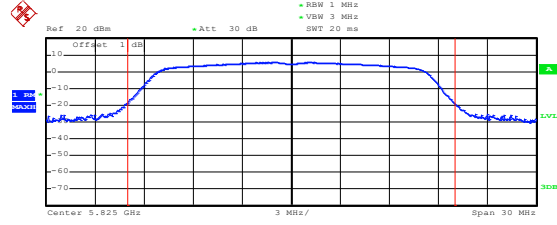
<p>802.11a-Low</p>	 <p>Date: 19.APR.2022 17:50:26</p>
<p>802.11a-Middle</p>	 <p>Date: 19.APR.2022 17:50:45</p>
<p>802.11a-High</p>	 <p>Date: 19.APR.2022 17:51:40</p>

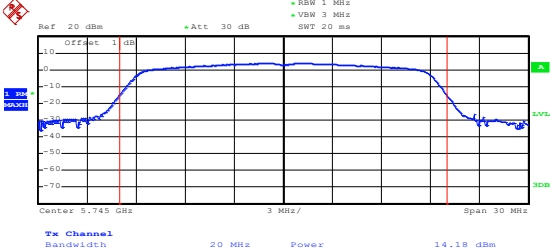
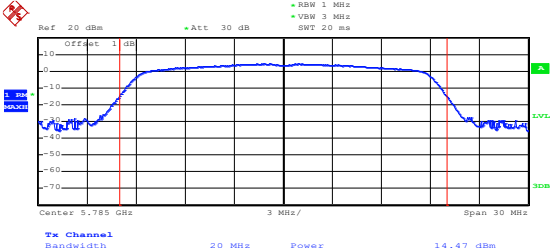
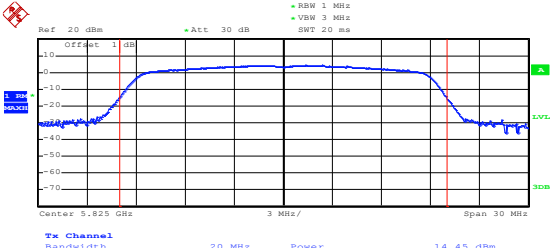
<p>802.11n-HT20-Low</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 1 MHz Offset: 1 dB VBW: 3 MHz SWT: 20 ms</p> <p>Center: 5.5 GHz 3 MHz/ Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz Power: 14.11 dBm</p> <p>Date: 19.APR.2022 17:52:13</p>
<p>802.11n-HT20-Middle</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 1 MHz Offset: 1 dB VBW: 3 MHz SWT: 20 ms</p> <p>Center: 5.6 GHz 3 MHz/ Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz Power: 14.55 dBm</p> <p>Date: 19.APR.2022 17:52:27</p>
<p>802.11n-HT20-High</p>	 <p>Ref: 20 dBm +Att: 30 dB RBW: 1 MHz Offset: 1 dB VBW: 3 MHz SWT: 20 ms</p> <p>Center: 5.7 GHz 3 MHz/ Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz Power: 14.80 dBm</p> <p>Date: 19.APR.2022 17:52:43</p>

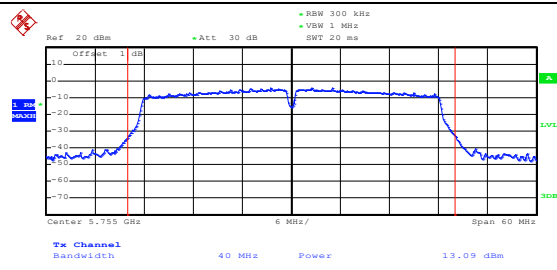
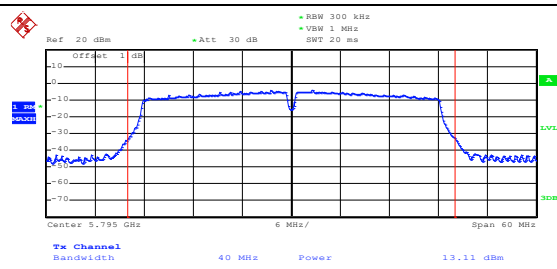
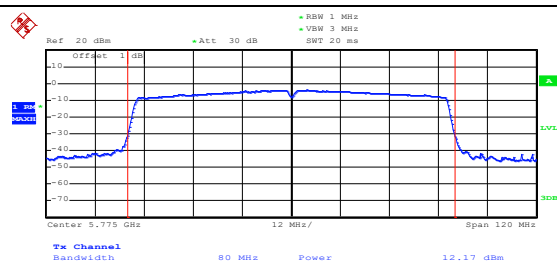
<p>802.11n-HT40-Low</p>	 <p>Date: 18.APR.2022 17:58:37</p>
<p>802.11n-HT40- Middle</p>	 <p>Date: 18.APR.2022 17:58:58</p>
<p>802.11n-HT40-High</p>	 <p>Date: 18.APR.2022 17:59:32</p>

<p>802.11ac-HT80-Low</p>	 <p>Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VSW: 3 MHz SWT: 20 ms</p> <p>Center: 5.53 GHz Span: 120 MHz</p> <p>Tx Channel Bandwidth: 80 MHz Power: 12.19 dBm</p> <p>Date: 18.APR.2022 18:00:35</p>
<p>802.11ac-HT80-High</p>	 <p>Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VSW: 3 MHz SWT: 20 ms</p> <p>Center: 5.61 GHz Span: 120 MHz</p> <p>Tx Channel Bandwidth: 80 MHz Power: 12.63 dBm</p> <p>Date: 18.APR.2022 18:00:55</p>

5725-5850MHz

<p>802.11a-Low</p>	 <p>Ref: 20 dBm, Att: 30 dB, RBW: 1 MHz, VBW: 3 MHz, SWT: 20 ms</p> <p>Offset: 1 dB</p> <p>Center: 5.745 GHz, Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz, Power: 15.50 dBm</p> <p>Date: 19.APR.2022 17:54:15</p>
<p>802.11a-Middle</p>	 <p>Ref: 20 dBm, Att: 30 dB, RBW: 1 MHz, VBW: 3 MHz, SWT: 20 ms</p> <p>Offset: 1 dB</p> <p>Center: 5.785 GHz, Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz, Power: 15.47 dBm</p> <p>Date: 19.APR.2022 17:55:00</p>
<p>802.11a-High</p>	 <p>Ref: 20 dBm, Att: 30 dB, RBW: 1 MHz, VBW: 3 MHz, SWT: 20 ms</p> <p>Offset: 1 dB</p> <p>Center: 5.825 GHz, Span: 30 MHz</p> <p>Tx Channel Bandwidth: 20 MHz, Power: 15.62 dBm</p> <p>Date: 19.APR.2022 17:55:13</p>

<p>802.11n-HT20-Low</p>	 <p>Date: 19.APR.2022 17:55:35</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 19.APR.2022 17:55:45</p>
<p>802.11n-HT20-High</p>	 <p>Date: 19.APR.2022 17:56:00</p>

<p>802.11n-HT40-Low</p>	 <p>Ref: 20 dBm +Att: 30 dB +RBW 300 kHz -Offset: 1 dB +VSW 1 MHz +SWT 20 ms</p> <p>Center: 5.755 GHz 6 MHz/ Span: 60 MHz</p> <p>Tx Channel Bandwidth: 40 MHz Power: 13.09 dBm</p> <p>Date: 7.APR.2022 20:31:16</p>
<p>802.11n-HT40-High</p>	 <p>Ref: 20 dBm +Att: 30 dB +RBW 300 kHz -Offset: 1 dB +VSW 1 MHz +SWT 20 ms</p> <p>Center: 5.795 GHz 6 MHz/ Span: 60 MHz</p> <p>Tx Channel Bandwidth: 40 MHz Power: 13.11 dBm</p> <p>Date: 7.APR.2022 20:31:37</p>
<p>802.11ac-HT80-Low</p>	 <p>Ref: 20 dBm +Att: 30 dB +RBW 1 MHz -Offset: 1 dB +VSW 3 MHz +SWT 20 ms</p> <p>Center: 5.775 GHz 12 MHz/ Span: 120 MHz</p> <p>Tx Channel Bandwidth: 80 MHz Power: 12.17 dBm</p> <p>Date: 7.APR.2022 20:33:12</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%	3.87	-30	162	0.0312
100%		-20	119	0.0229
100%		-10	149	0.0287
100%		0	145	0.0279
100%		+10	117	0.0225
100%		+20	102	0.0196
100%		+30	173	0.0333
100%		+40	138	0.0265
100%		+50	126	0.0242
Low Battery power		3.50	+20	148
High Battery power	4.43	+20	122	0.0235

U-NII-1: 5250-5350MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	3.87	-30	170	0.0321
100%		-20	169	0.0319
100%		-10	125	0.0236
100%		0	109	0.0206
100%		+10	103	0.0194
100%		+20	145	0.0274
100%		+30	156	0.0294
100%		+40	108	0.0204
100%		+50	135	0.0255
Low Battery power		3.50	+20	165
High Battery power	4.43	+20	122	0.0230

U-NII-1: 5470-5725MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	3.87	-30	162	0.0290
100%		-20	172	0.0308
100%		-10	157	0.0281
100%		0	108	0.0194
100%		+10	100	0.0179
100%		+20	176	0.0315
100%		+30	103	0.0185
100%		+40	170	0.0305
100%		+50	151	0.0271
Low Battery power		3.50	+20	109
High Battery power	4.43	+20	162	0.0290

U-NII-1:5725-5850MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	3.87	-30	171	0.0296
100%		-20	169	0.0292
100%		-10	154	0.0266
100%		0	150	0.0259
100%		+10	173	0.0299
100%		+20	140	0.0242
100%		+30	119	0.0206
100%		+40	129	0.0223
100%		+50	178	0.0308
Low Battery power		3.50	+20	152
High Battery power	4.43	+20	104	0.0180

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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