

TEST REPORT

Reference No..... : WTX25X04095969W003
FCC ID : 2BPQF-WILDFIREW7
Applicant : Shenzhen Brands World Technology Co., Ltd.
Address : Room A, 20/F, Building 5, Lehui Science and Technology Innovation Center,
No.489 Jihua Road, B antian, Longgang, Shenzhen, Guangdong, China
Manufacturer : The same as Applicant
Address : The same as Applicant
Product Name : HTC Smartphone
Model No..... : Wildfire E7
Standards : FCC Part 15.407
Date of Receipt sample : 2025-04-16
Date of Test..... : 2025-04-16 to 2025-05-13
Date of Issue : 2025-05-14
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.

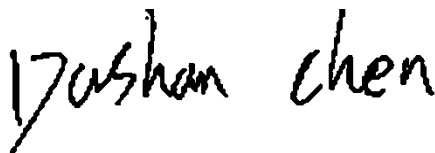
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Report version

Version No.	Date of issue	Description
Rev.00	2025-05-14	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	HTC Smartphone
Trade Name:	HTC
Model No.:	Wildfire E7
Adding Model(s):	/
Rated Voltage:	DC3.85V
Battery:	4920mAh
Adapter Model:	YD2.0AY-003 Input:AC100-240V 50/60Hz 0.5A Output:DC5V2A
<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-VHT20, 802.11ac-VHT40, 802.11ac-VHT80
Frequency Range:	5180-5240MHz, 5745-5825MHz
Max. RF Output Power:	14.89dBm (Conducted)
Type of Modulation:	QPSK, 16QAM, 64QAM, 256QAM
Type of Antenna:	FPC Antenna
Antenna Gain:	0.6dBi
<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 *****3646633***** 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	5745	5785	5825						
802.11a 6Mbps	22	22	20	23	23	22						
802.11n-HT20 MCS0	20	20	19	23	22	21						
802.11ac-VHT20 MCS0	20	20	19	23	22	21						
Mode	NCB: 40MHz											
	5190	5230	5755	5795								
802.11n-HT40 MCS0	19	19	21	21								
802.11ac-VHT40 MCS0	19	19	21	21								

Mode	NCB: 80MHz					
	5210	5775				
802.11ac-VHT80 MCS0	19	21				

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 and the CAB identifier is CN0057.

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,5745MHz, 5785MHz,5825MHz
TM2	802.11n-HT20	5180MHz,5200MHz,5240MHz,5745MHz, 5785MHz,5825MHz
TM3	802.11ac-VHT20	5180MHz,5200MHz,5240MHz,5745MHz, 5785MHz,5825MHz
TM4	802.11n-HT40	5190MHz,5230MHz,5755MHz,5795MHz
TM5	802.11ac-VHT40	5190MHz,5230MHz,5755MHz,5795MHz
TM6	802.11ac-VHT80	5210MHz,5775MHz

Test Conditions	
Temperature:	22~25 °C
Relative Humidity:	45~75 %
ATM Pressure:	1019 mbar

EUT Cable List and Details			
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite
USB Cable	0.95	shielded	Without Ferrite

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	Lenovo	TianYi 100-14IBD	PF0F4ABV

1.8 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	0.57dB
Occupied Bandwidth	Conducted	0.015MHz
Power Spectral Density	Conducted	1.8dB
Conducted Spurious Emission	Conducted	2.17dB
Conducted Emissions	Conducted	9-150kHz, 3.74dB
		0.15-30MHz, 3.34dB
Transmitter Spurious Emissions	Radiated	30-200MHz, 4.52dB
		0.2-1GHz 5.56dB
		1-6GHz, 3.84dB
		6-18GHz, 3.92dB

1.9 Test Equipment List and Details

Fixed asset Number	Description	Manufacturer	Model	Serial No.	Cal Date	Due. Date
WTXE1041A 1001	Communication Tester	Rohde & Schwarz	CMW500	148650	2025-02-23	2026-02-22
WTXE1005A 1005	Spectrum Analyzer	Agilent	N9020A	US471401 02	2025-02-23	2026-02-22
WTXE1084A 1001	Spectrum Analyzer	Agilent	N9020A	MY543205 48	2025-02-23	2026-02-22
WTXE1004A 1-001	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2025-02-23	2026-02-22
WTXE1103A 1003	Attenuator	Pasternack	PE4007-4	/	2025-02-23	2026-02-22
WTXE1003A 1-005	Coaxial Cable	/	0M4RFC	/	2025-02-23	2026-02-22
☐ Chamber A: Below 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2025-02-23	2026-02-22
WTXE1001A 1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2025-02-23	2026-02-22
WTXE1007A 1001	Amplifier	HP	8447F	2805A034 75	2025-02-23	2026-02-22
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2024-02-26	2026-02-25
WTXE1010A 1006	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2025-02-23	2026-02-22
WTXE1104A 1032-1	Coaxial Cable	/	RC_6G-N-M	/	2025-02-23	2026-02-22
WTXE1104A 1032-2	Coaxial Cable	/	RC_6G-N-M	/	2025-02-23	2026-02-22
WTXE1104A 1032-3	Coaxial Cable	/	RC_6G-N-M	/	2025-02-23	2026-02-22
☐ Chamber A: Above 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2025-02-23	2026-02-22
WTXE1001A 1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2025-02-23	2026-02-22
WTXE1065A 1001	Amplifier	C&D	PAP-1G18	2002	2025-02-23	2026-02-22
WTXE1010A 1005	Horn Antenna	ETS	3117	00086197	2025-02-23	2026-02-22

WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2024-03-17	2026-03-16
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2025-02-23	2026-02-22
WTXE1104A 1033-1	Coaxial Cable	/	C16-07-07	/	2025-02-23	2026-02-22
WTXE1104A 1033-2	Coaxial Cable	/	C16-07-07	/	2025-02-23	2026-02-22
WTXE1104A 1033-3	Coaxial Cable	/	C16-07-07	/	2025-02-23	2026-02-22
☐ Chamber B:Below 1GHz						
WTXE1010A 1006	Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2024-03-17	2027-03-16
WTXE1038A 1001	Amplifier	Agilent	8447D	2944A104 57	2025-02-23	2026-02-22
WTXE1001A 1002	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2025-02-23	2026-02-22
WTXE1104A 1031-1	Coaxial Cable	/	1.5MRFC-LWB3	/	2025-02-23	2026-02-22
WTXE1104A 1031-2	Coaxial Cable	/	RG 316	/	2025-02-23	2026-02-22
WTXE1104A 1031-3	Coaxial Cable	/	RG 316	/	2025-02-23	2026-02-22
☒ Chamber C:Below 1GHz						
WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2025-02-23	2026-02-22
WTXE1010A 1013-1	Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2024-04-18	2027-04-17
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2024-02-26	2026-02-25
WTXE1007A 1002	Amplifier	HP	8447F	2944A038 69	2025-02-23	2026-02-22
WTXE1104A 1034-1	Coaxial Cable	/	RC_6G-N-M	/	2025-02-23	2026-02-22
WTXE1104A 1034-2	Coaxial Cable	/	RC_6G-N-M	/	2025-02-23	2026-02-22
WTXE1104A 1034-3	Coaxial Cable	/	RC_6G-N-M	/	2025-02-23	2026-02-22
☒ Chamber C: Above 1GHz						
WTXE1093A	EMI Test	Rohde &	ESIB 26	100401	2025-02-23	2026-02-22

1001	Receiver	Schwarz				
WTXE1103A 1005	Horn Antenna	POAM	RTF-118A	1820	2023-03-10	2026-03-09
WTXE1103A 1006	Amplifier	Tonscend	TAP01018050	AP22E806 235	2025-02-23	2026-02-22
WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2024-03-17	2026-03-16
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2025-02-23	2026-02-22
WTXE1104A 1035-1	Coaxial Cable	/	RC-18G-N-M	/	2025-02-23	2026-02-22
WTXE1104A 1035-2	Coaxial Cable	/	RC-18G-N-M	/	2025-02-23	2026-02-22
WTXE1104A 1035-3	Coaxial Cable	/	RC-18G-N-M	/	2025-02-23	2026-02-22
☐ Conducted Room 1#						
WTXE1104A 1029	EMI Test Receiver	Rohde & Schwarz	ESCI	100525	2024-12-08	2025-12-07
WTXE1002A 1001	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2025-02-23	2026-02-22
WTXE1003A 1001	AC LISN	Schwarz beck	NSLK8126	8126-279	2025-02-23	2026-02-22
WTXE1104A 1036	Coaxial Cable	/	RG 316	/	2025-02-23	2026-02-22
WTXE1104A 1038	Coaxial Cable	/	6MRFC-DP	/	2025-02-23	2026-02-22
☒ Conducted Room 2#						
WTXE1001A 1004	EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2025-02-23	2026-02-22
WTXE1003A 1003	LISN	Rohde & Schwarz	ENV 216	100097	2025-02-23	2026-02-22
WTXE1104A 1037	Coaxial Cable	/	RG 316	/	2025-02-23	2026-02-22

Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission A)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)
EMI Test Software (Radiated Emission B)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)
EMI Test Software (Radiated Emission C)	Farad	EZ-EMC	RA-03A1-2 (1.1.4.2)
EMI Test Software (Conducted Emission Room 1#)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3
EMI Test Software (Conducted Emission Room 2#)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3

*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 FPC 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.I.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 $\text{RBW} (< 500\text{kHz})$ 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 $\text{RBW} (< 1\text{MHz})$ 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 $\text{RBW}=100\text{kHz}$ is available on nearly all spectrum analyzers.

5.3 Summary of Test Results/Plots

Please refer to Appendix A

6. Emission Bandwidth and Occupied Bandwidth

6.1 Standard Applicable

According to 15.407(a) and (e):

(1) For the band 5.15-5.25GHz.

(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 $\geq 3 \times$ 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.

Reference No.: WTX25X04095969W003

The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

6.3 Summary of Test Results/Plots

Please refer to Appendix B

7. Maximum Conducted Output Power

7.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25GHz.

(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:

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

where:

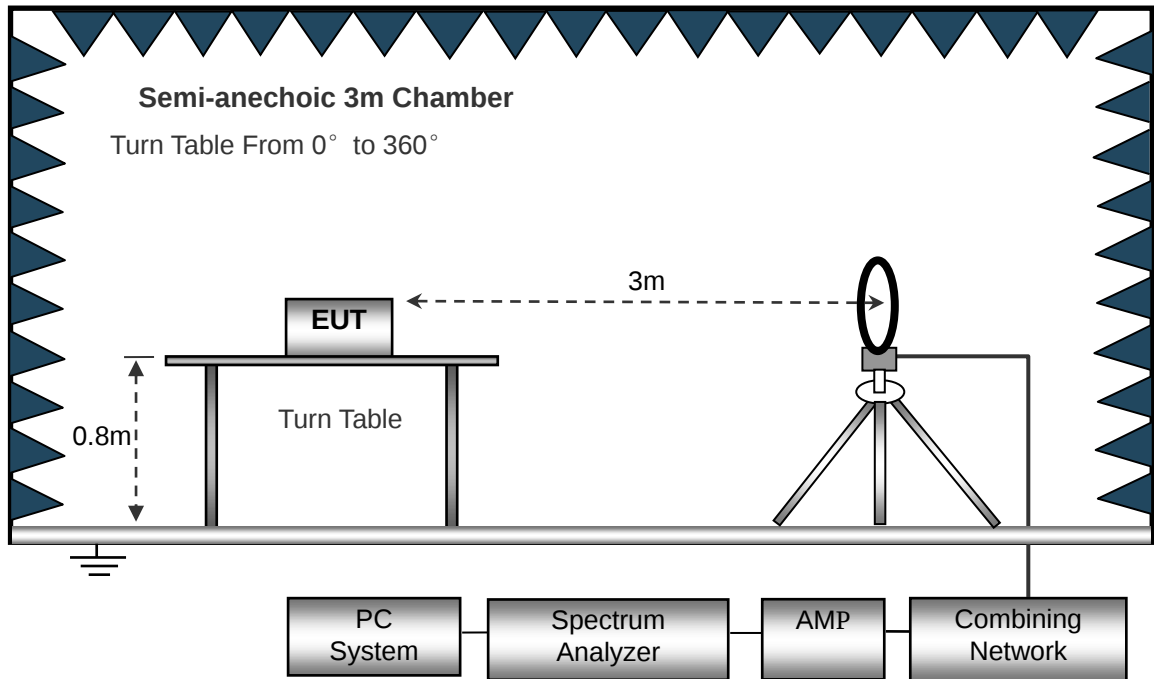
- E is the field strength in V/m;
- d is the measurement distance in meters;
- EIRP is the equivalent isotropically radiated power in watts.

8.2 Test Procedure

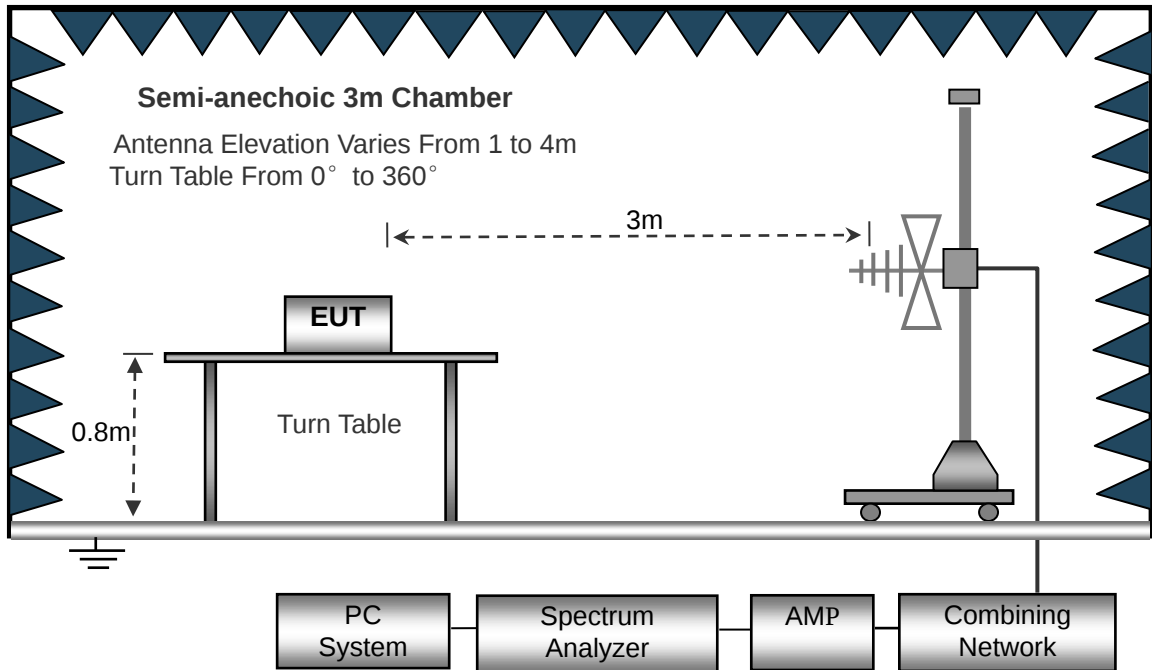
The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.407(b)(6) and FCC Part 15.209 Limit..

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.

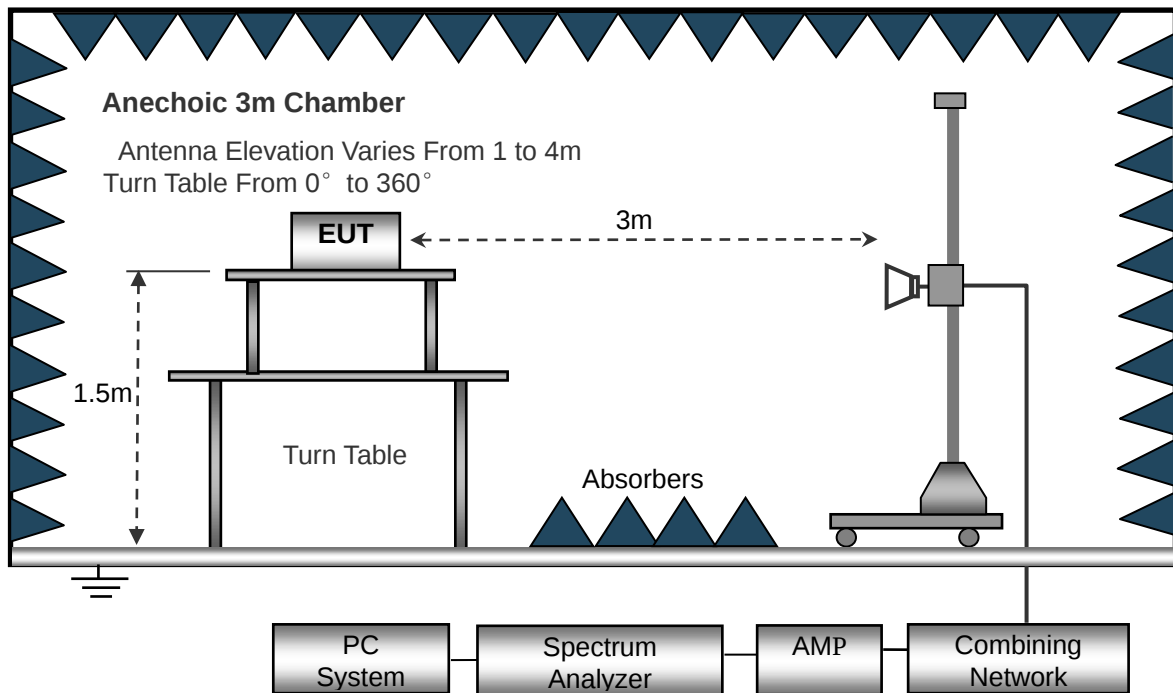
The test setup for emission measurement below 30MHz.



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:

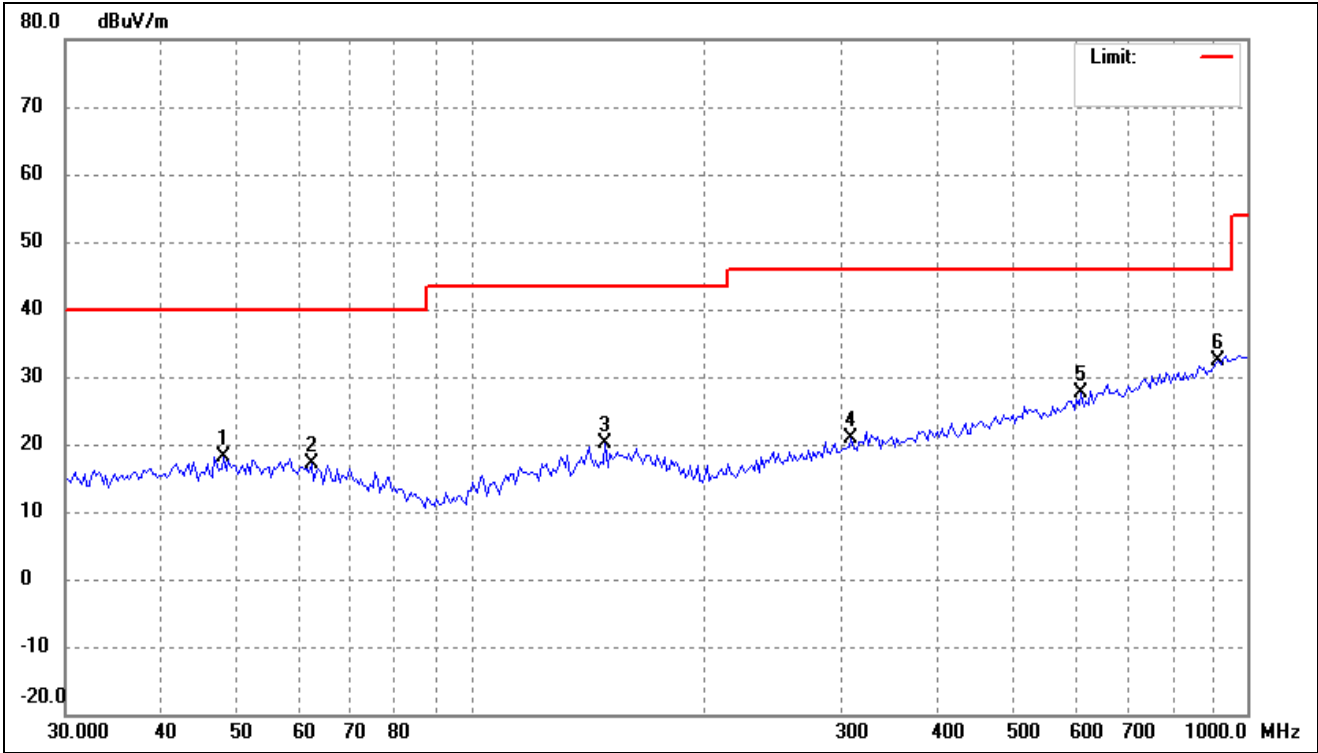
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.5 Summary of Test Results/Plots

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

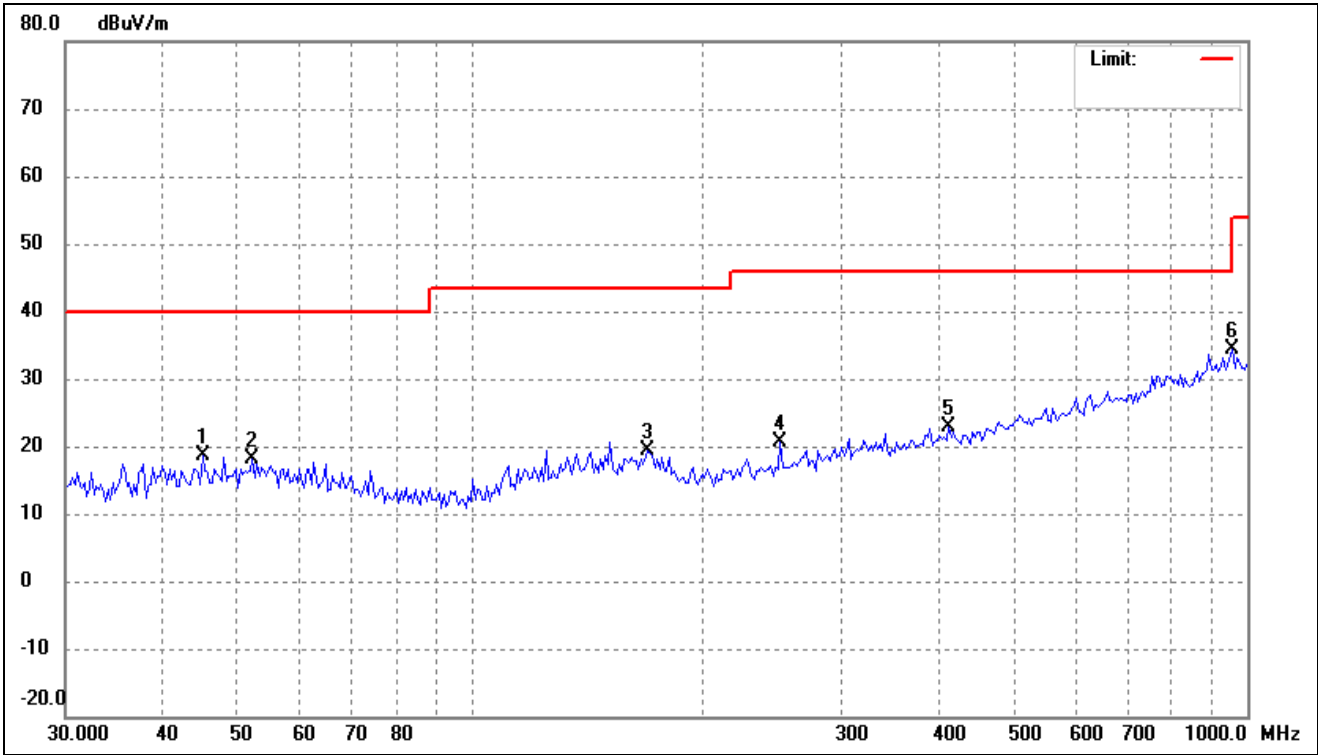
- Spurious Emission From 30MHz to 1GHz
- 5150-5250MHz

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



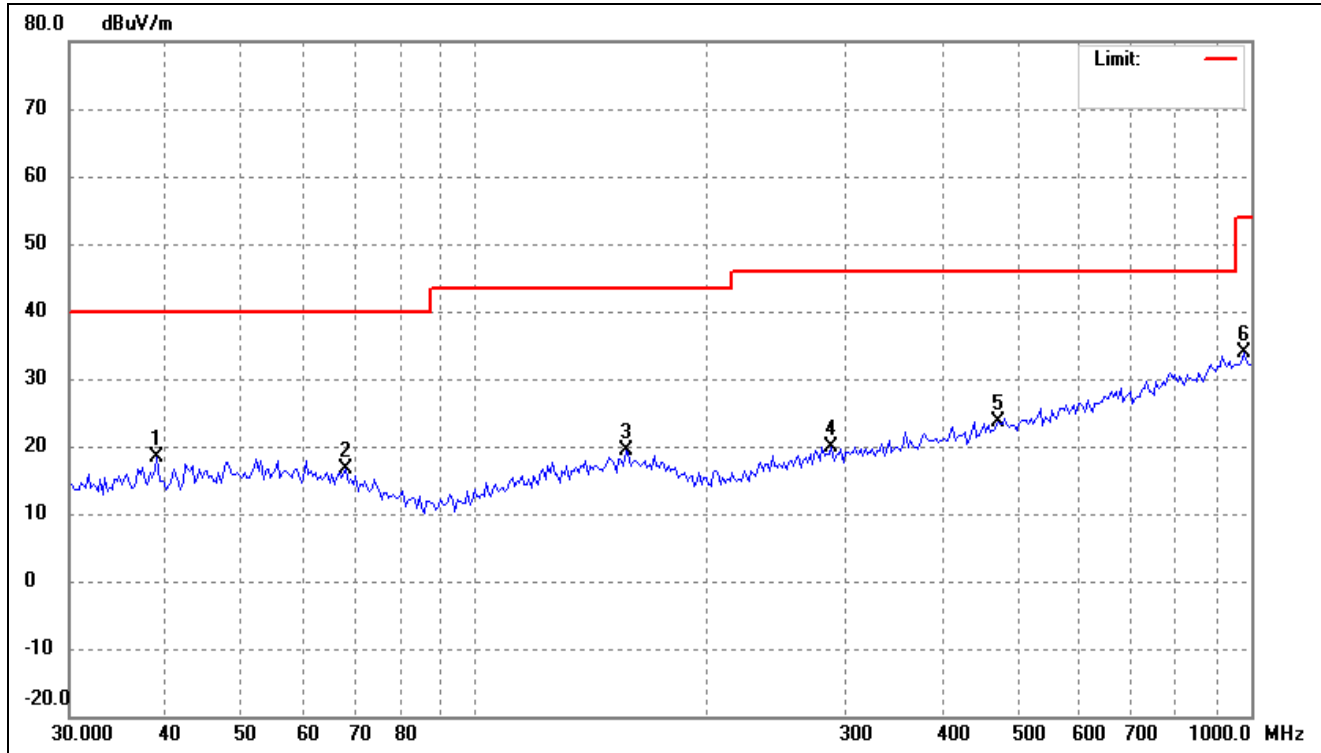
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	48.0392	27.10	-9.02	18.08	40.00	-21.92	-	-	peak
2	62.3038	27.01	-9.86	17.15	40.00	-22.85	-	-	peak
3	148.9175	29.03	-8.91	20.12	43.50	-23.38	-	-	peak
4	309.2710	28.36	-7.55	20.81	46.00	-25.19	-	-	peak
5	611.4623	29.60	-2.09	27.51	46.00	-18.49	-	-	peak
6	919.1315	30.07	2.33	32.40	46.00	-13.60	-	-	peak

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



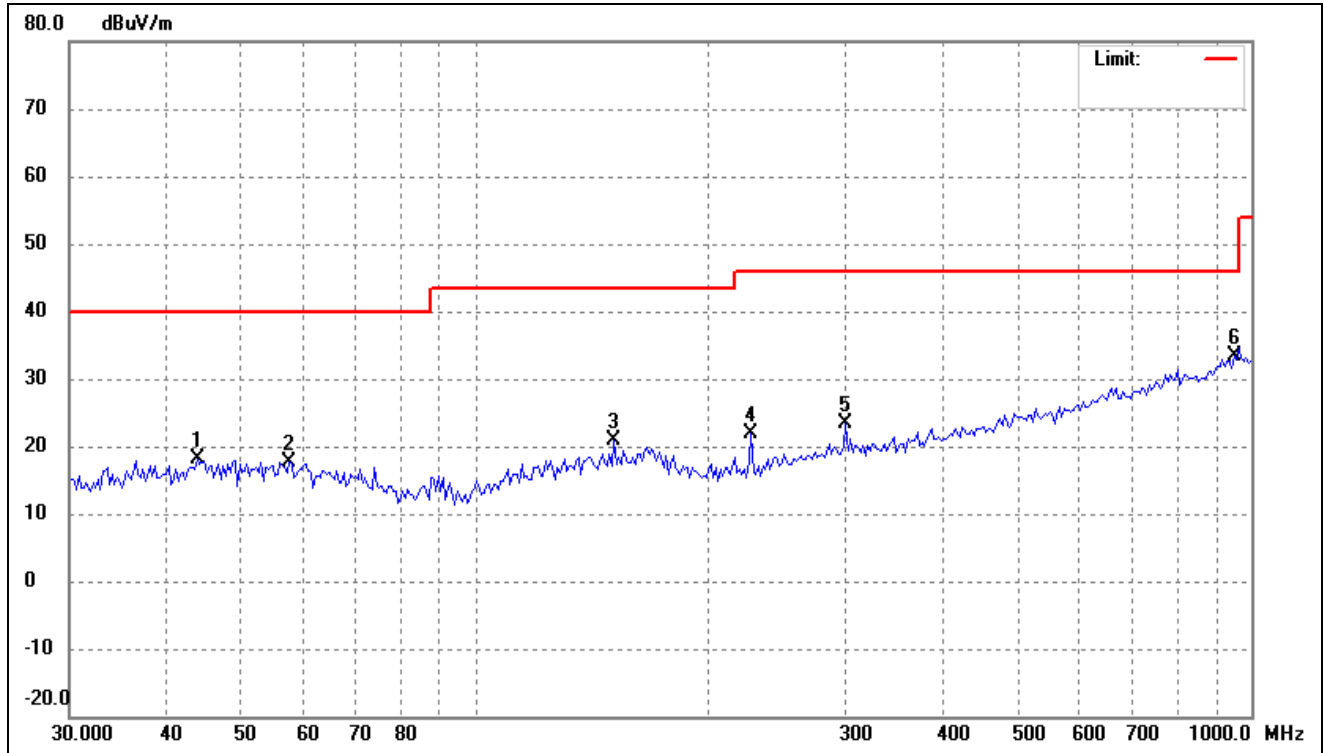
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.0951	27.67	-9.07	18.60	40.00	-21.40	-	-	peak
2	52.2659	27.23	-9.02	18.21	40.00	-21.79	-	-	peak
3	168.9970	28.10	-8.80	19.30	43.50	-24.20	-	-	peak
4	250.4859	30.09	-9.57	20.52	46.00	-25.48	-	-	peak
5	412.5395	28.73	-5.94	22.79	46.00	-23.21	-	-	peak
6	958.7135	31.40	2.97	34.37	46.00	-11.63	-	-	peak

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



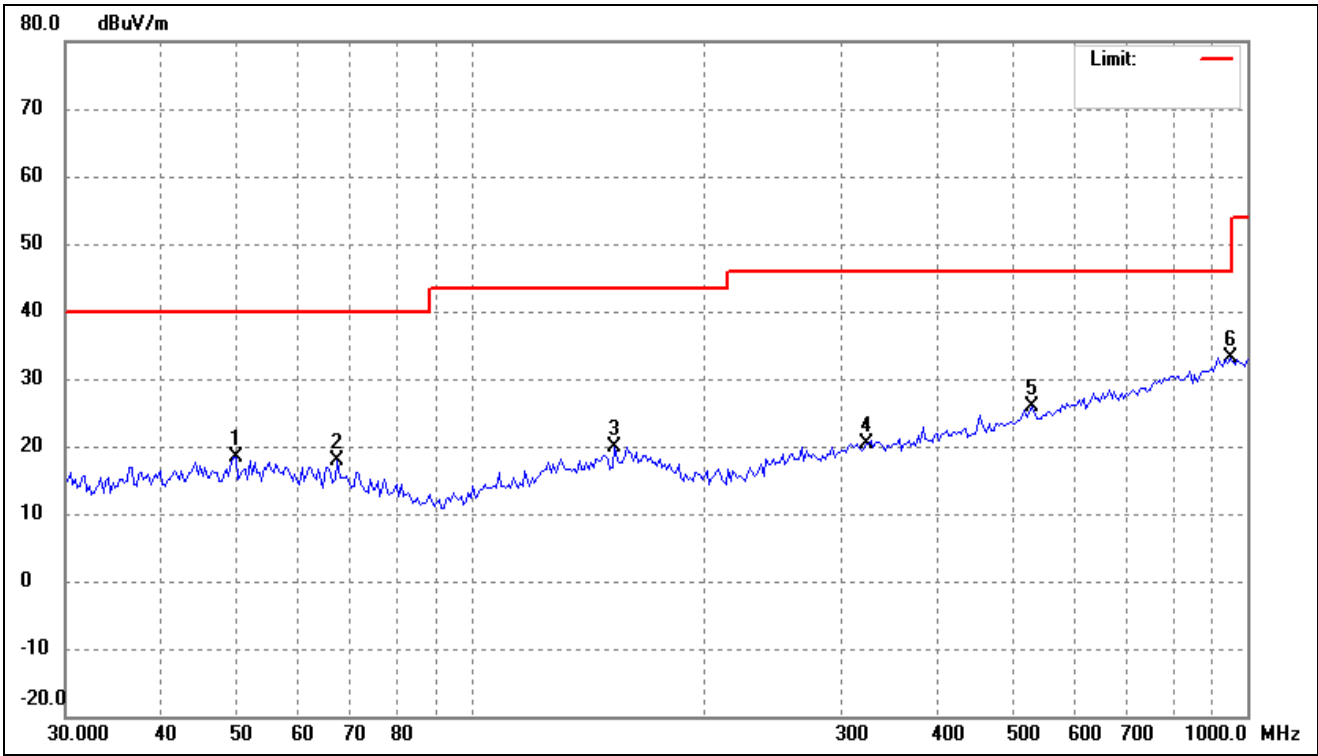
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.9081	27.98	-9.69	18.29	40.00	-21.71	-	-	peak
2	68.2636	27.34	-10.81	16.53	40.00	-23.47	-	-	peak
3	156.4259	28.08	-8.58	19.50	43.50	-24.00	-	-	peak
4	288.2840	27.94	-8.03	19.91	46.00	-26.09	-	-	peak
5	471.4665	28.59	-4.87	23.72	46.00	-22.28	-	-	peak
6	979.1392	30.79	3.00	33.79	54.00	-20.21	-	-	peak

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



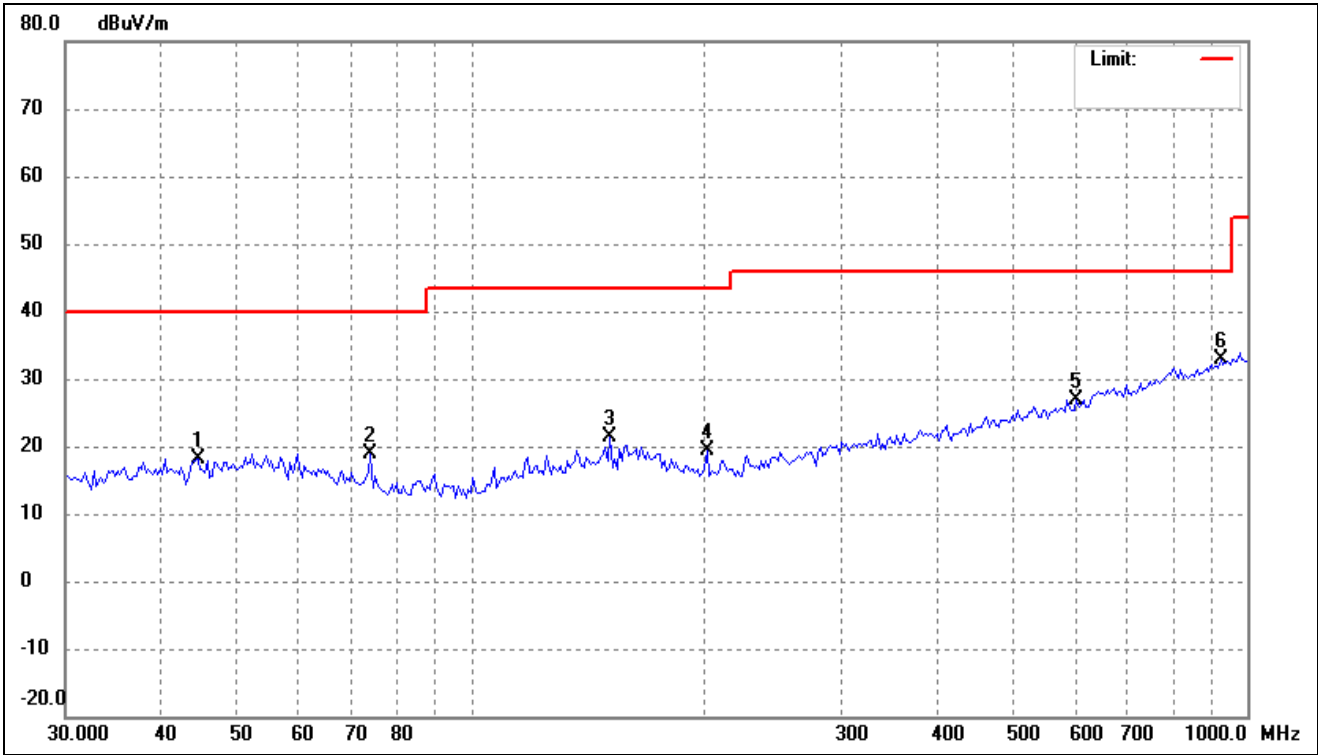
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.8452	27.36	-9.16	18.20	40.00	-21.80	-	-	peak
2	57.6693	26.93	-9.36	17.57	40.00	-22.43	-	-	peak
3	151.0252	29.72	-8.90	20.82	43.50	-22.68	-	-	peak
4	227.0164	33.12	-11.13	21.99	46.00	-24.01	-	-	peak
5	300.6988	31.01	-7.73	23.28	46.00	-22.72	-	-	peak
6	952.0001	30.33	2.95	33.28	46.00	-12.72	-	-	peak

802.11ac-VHT20			
Test Channel	5180MHz(worst case)	Polarity:	Horizontal



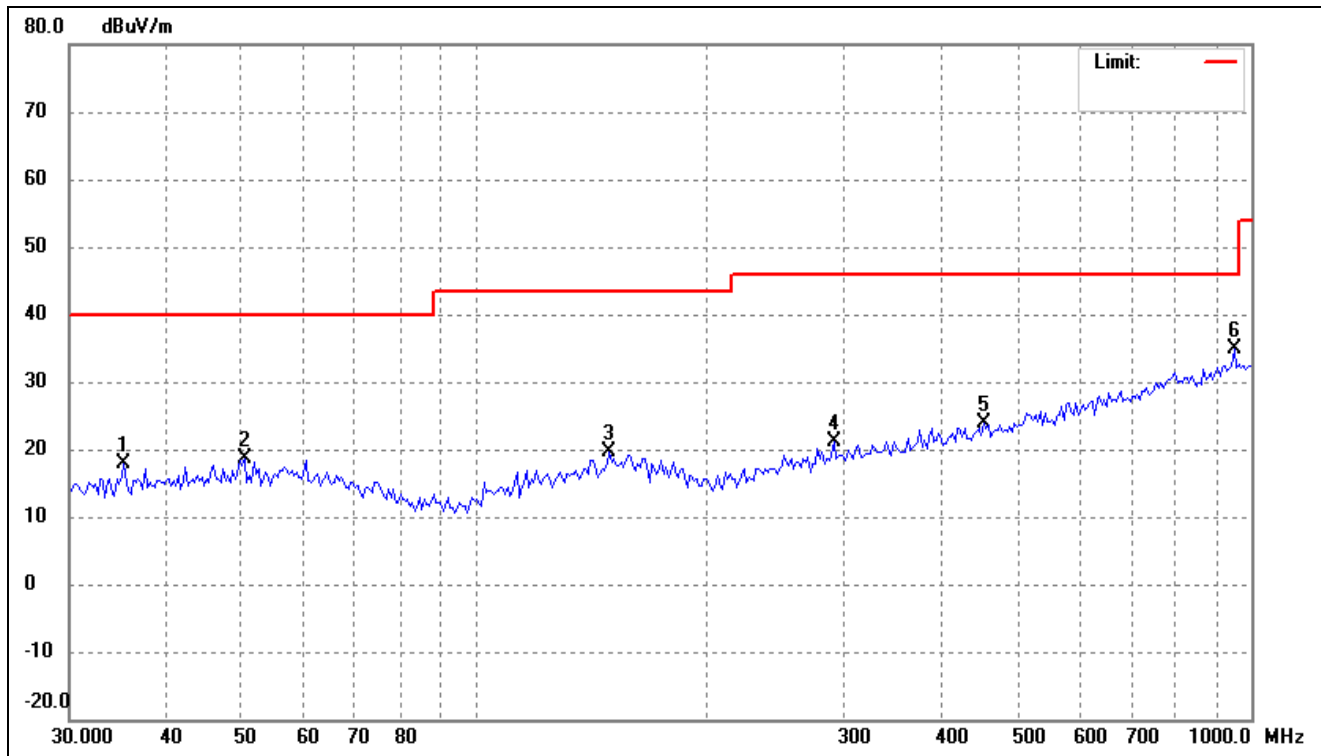
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	49.7571	27.42	-8.98	18.44	40.00	-21.56	-	-	peak
2	67.3109	28.50	-10.61	17.89	40.00	-22.11	-	-	peak
3	153.1627	28.64	-8.77	19.87	43.50	-23.63	-	-	peak
4	322.5896	27.65	-7.26	20.39	46.00	-25.61	-	-	peak
5	527.5707	29.58	-3.81	25.77	46.00	-20.23	-	-	peak
6	952.0001	30.13	2.95	33.08	46.00	-12.92	-	-	peak

802.11ac-VHT20			
Test Channel	5180MHz(worst case)	Polarity:	Vertical



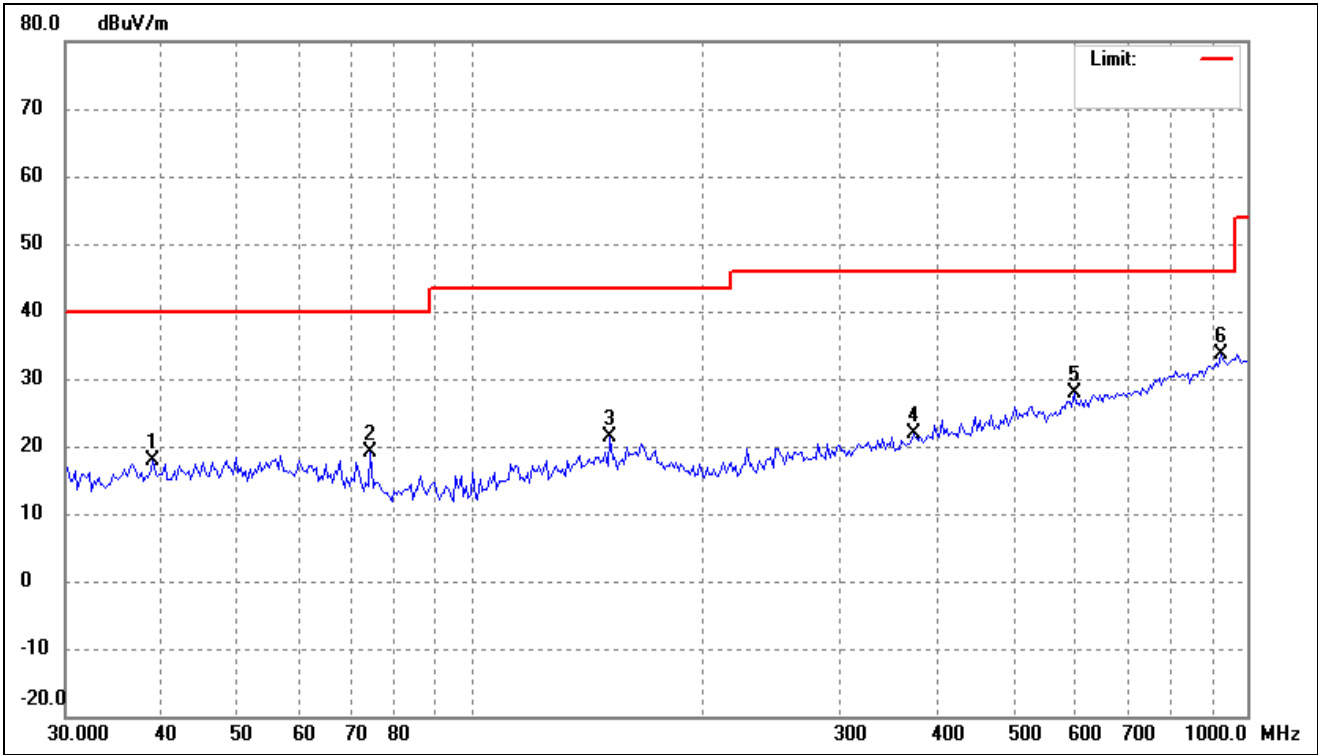
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.4657	27.29	-9.10	18.19	40.00	-21.81	-	-	peak
2	74.2696	30.69	-11.92	18.77	40.00	-21.23	-	-	peak
3	151.0252	30.26	-8.90	21.36	43.50	-22.14	-	-	peak
4	201.4539	30.91	-11.53	19.38	43.50	-24.12	-	-	peak
5	602.9287	29.01	-2.06	26.95	46.00	-19.05	-	-	peak
6	925.6132	30.49	2.46	32.95	46.00	-13.05	-	-	peak

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



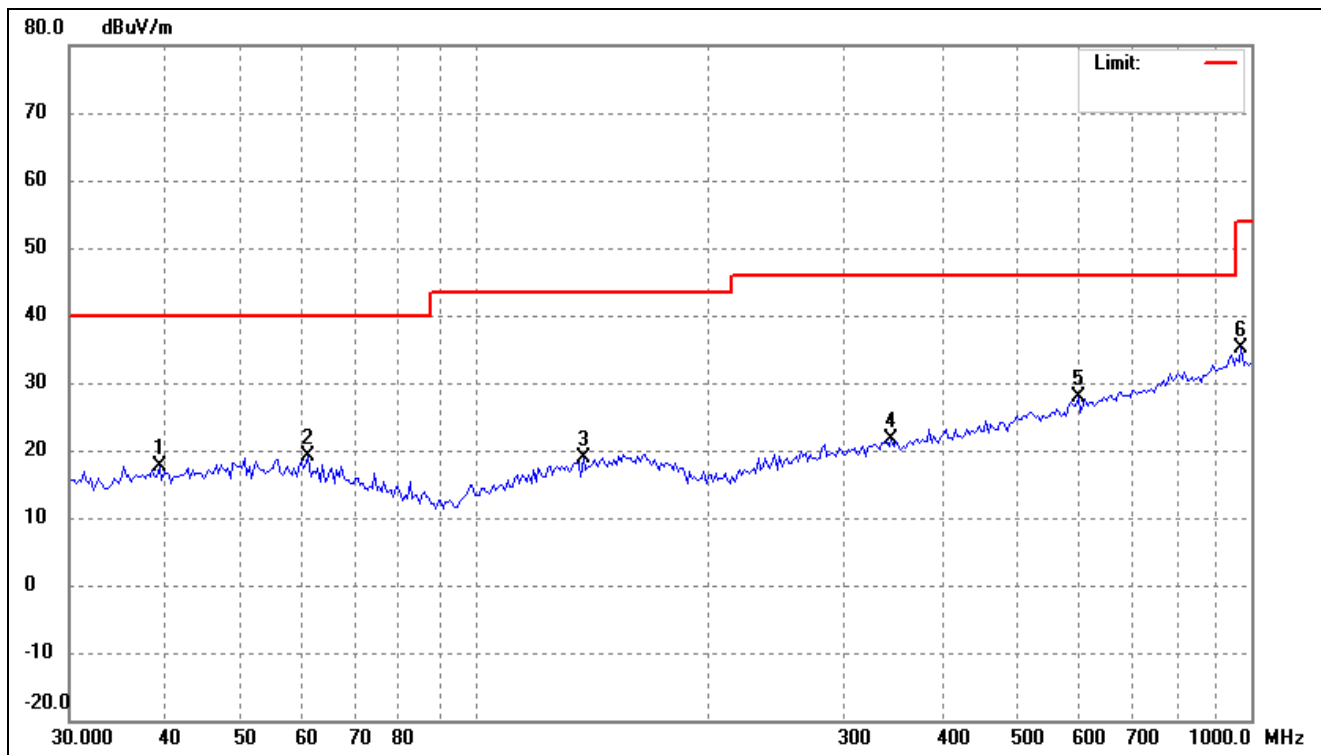
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	35.2626	28.20	-10.21	17.99	40.00	-22.01	-	-	peak
2	50.4614	27.65	-8.98	18.67	40.00	-21.33	-	-	peak
3	148.9175	28.49	-8.91	19.58	43.50	-23.92	-	-	peak
4	290.3170	29.04	-7.98	21.06	46.00	-24.94	-	-	peak
5	452.0013	28.88	-4.96	23.92	46.00	-22.08	-	-	peak
6	952.0001	31.91	2.95	34.86	46.00	-11.14	-	-	peak

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



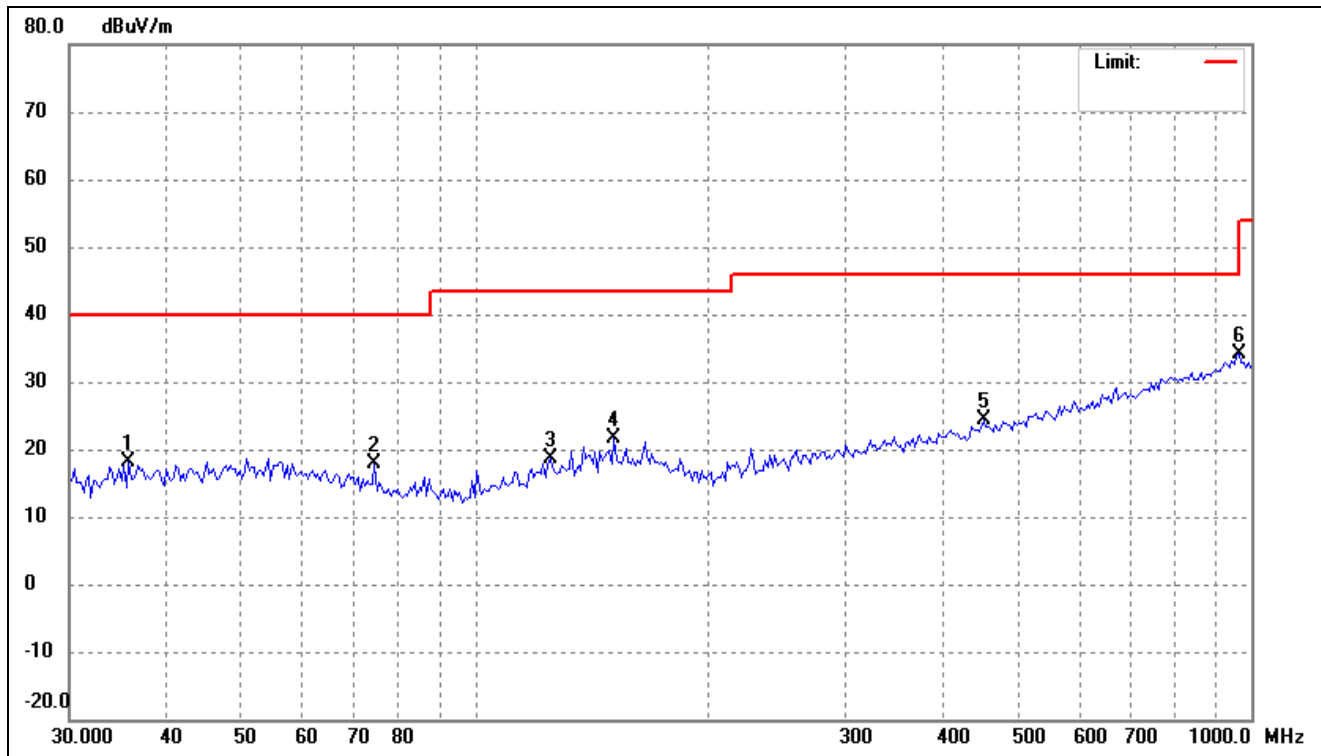
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.9081	27.67	-9.69	17.98	40.00	-22.02	-	-	peak
2	74.2696	30.97	-11.92	19.05	40.00	-20.95	-	-	peak
3	151.0252	30.28	-8.90	21.38	43.50	-22.12	-	-	peak
4	371.2680	28.44	-6.66	21.78	46.00	-24.22	-	-	peak
5	598.7067	30.05	-2.09	27.96	46.00	-18.04	-	-	peak
6	925.6132	31.08	2.46	33.54	46.00	-12.46	-	-	peak

802.11ac-VHT40			
Test Channel	5190MHz(worst case)	Polarity:	Horizontal



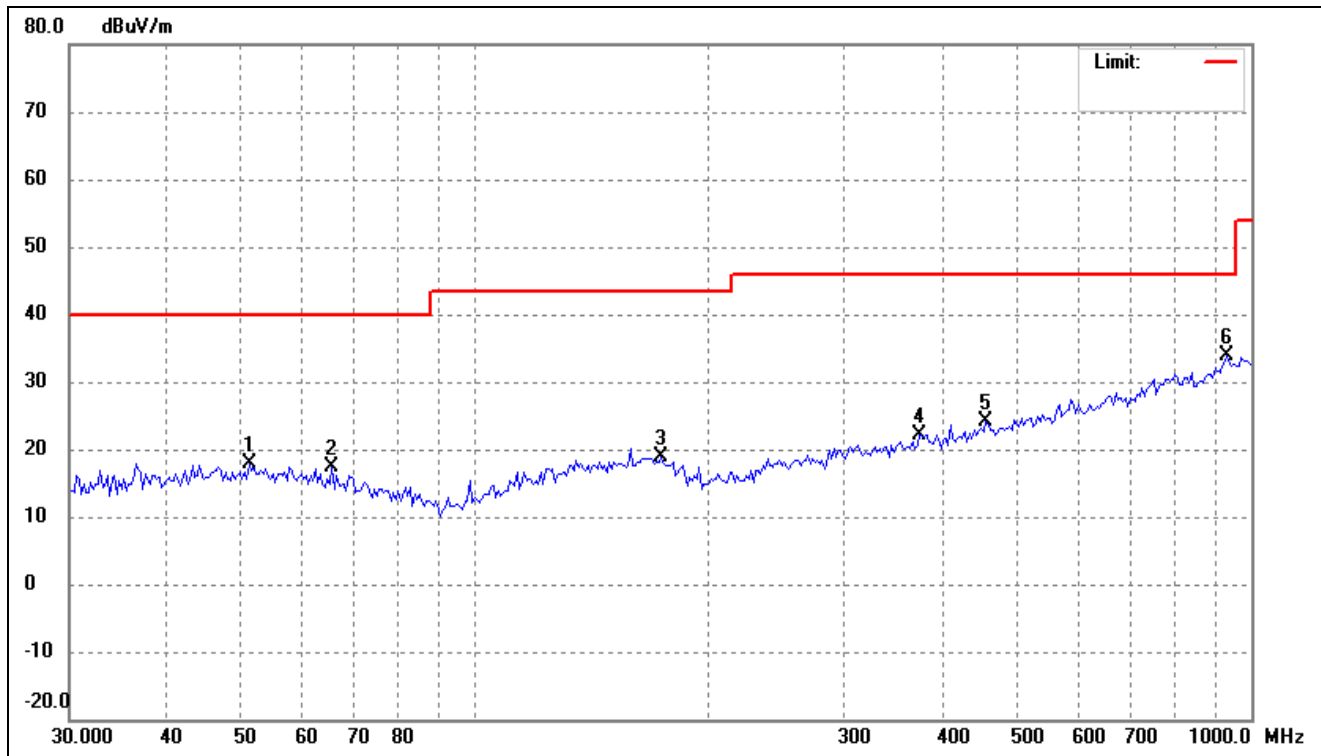
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	39.1825	27.39	-9.66	17.73	40.00	-22.27	-	-	peak
2	61.0041	28.89	-9.69	19.20	40.00	-20.80	-	-	peak
3	137.8400	28.28	-9.52	18.76	43.50	-24.74	-	-	peak
4	343.6506	28.83	-7.09	21.74	46.00	-24.26	-	-	peak
5	598.7067	29.90	-2.09	27.81	46.00	-18.19	-	-	peak
6	972.2827	32.24	2.98	35.22	54.00	-18.78	-	-	peak

802.11ac-VHT40			
Test Channel	5190MHz(worst case)	Polarity:	Vertical



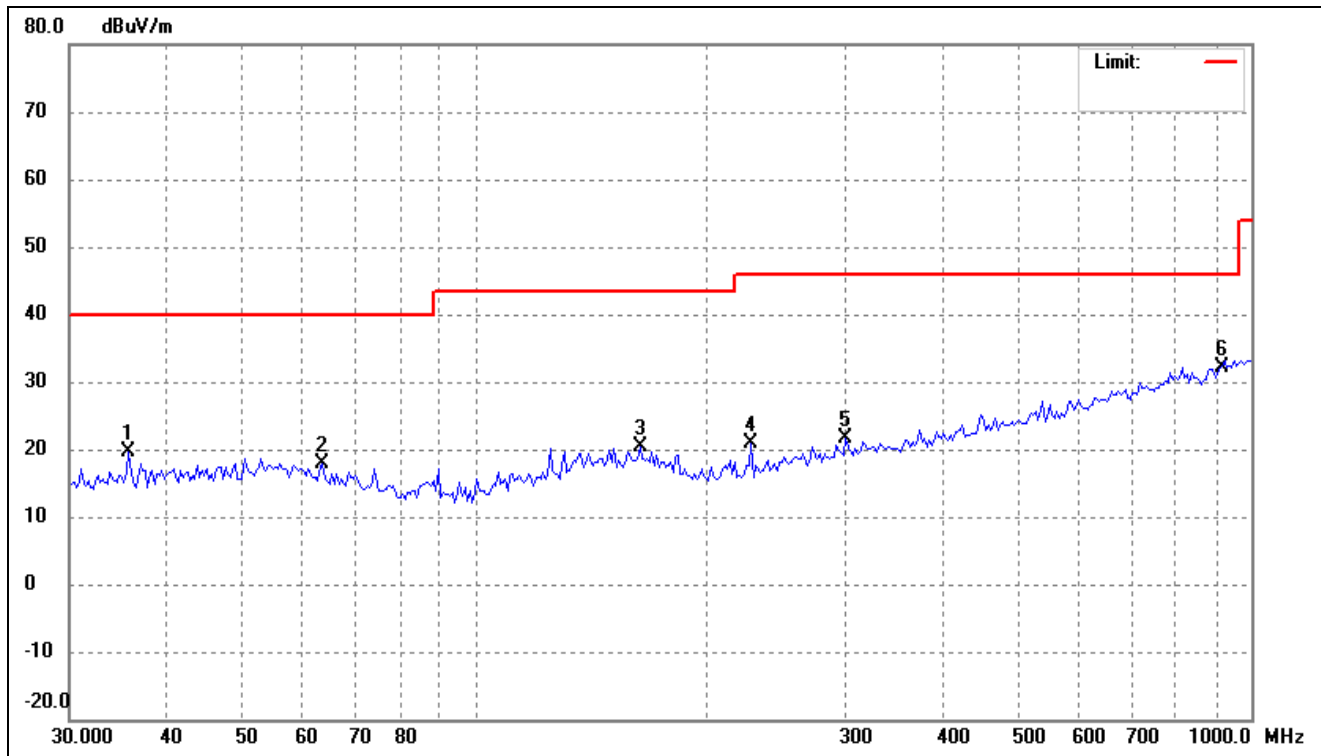
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	35.7617	28.30	-10.13	18.17	40.00	-21.83	-	-	peak
2	74.2696	29.69	-11.92	17.77	40.00	-22.23	-	-	peak
3	124.9249	29.16	-10.50	18.66	43.50	-24.84	-	-	peak
4	151.0252	30.45	-8.90	21.55	43.50	-21.95	-	-	peak
5	452.0013	29.29	-4.96	24.33	46.00	-21.67	-	-	peak
6	965.4742	31.22	2.98	34.20	54.00	-19.80	-	-	peak

802.11ac-VHT80			
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	51.1756	26.86	-8.99	17.87	40.00	-22.13	-	-	peak
2	65.4452	27.54	-10.26	17.28	40.00	-22.72	-	-	peak
3	173.8147	27.94	-9.18	18.76	43.50	-24.74	-	-	peak
4	373.8862	28.76	-6.61	22.15	46.00	-23.85	-	-	peak
5	455.1888	29.03	-4.94	24.09	46.00	-21.91	-	-	peak
6	932.1405	31.23	2.59	33.82	46.00	-12.18	-	-	peak

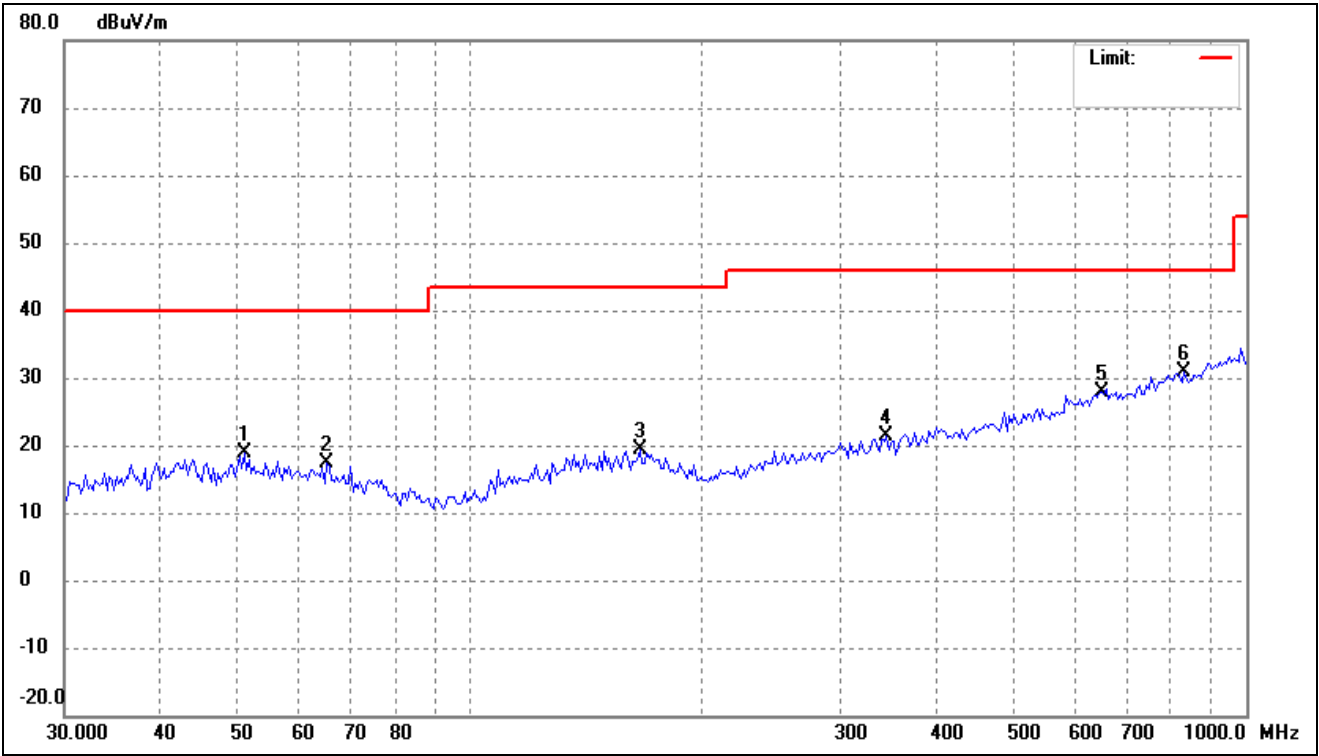
802.11ac-VHT80			
Test Channel	5210MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	35.7617	29.88	-10.13	19.75	40.00	-20.25	-	-	peak
2	63.6312	27.91	-10.03	17.88	40.00	-22.12	-	-	peak
3	163.1623	28.84	-8.58	20.26	43.50	-23.24	-	-	peak
4	227.0164	31.94	-11.13	20.81	46.00	-25.19	-	-	peak
5	300.6988	29.35	-7.73	21.62	46.00	-24.38	-	-	peak
6	912.6953	30.03	2.22	32.25	46.00	-13.75	-	-	peak

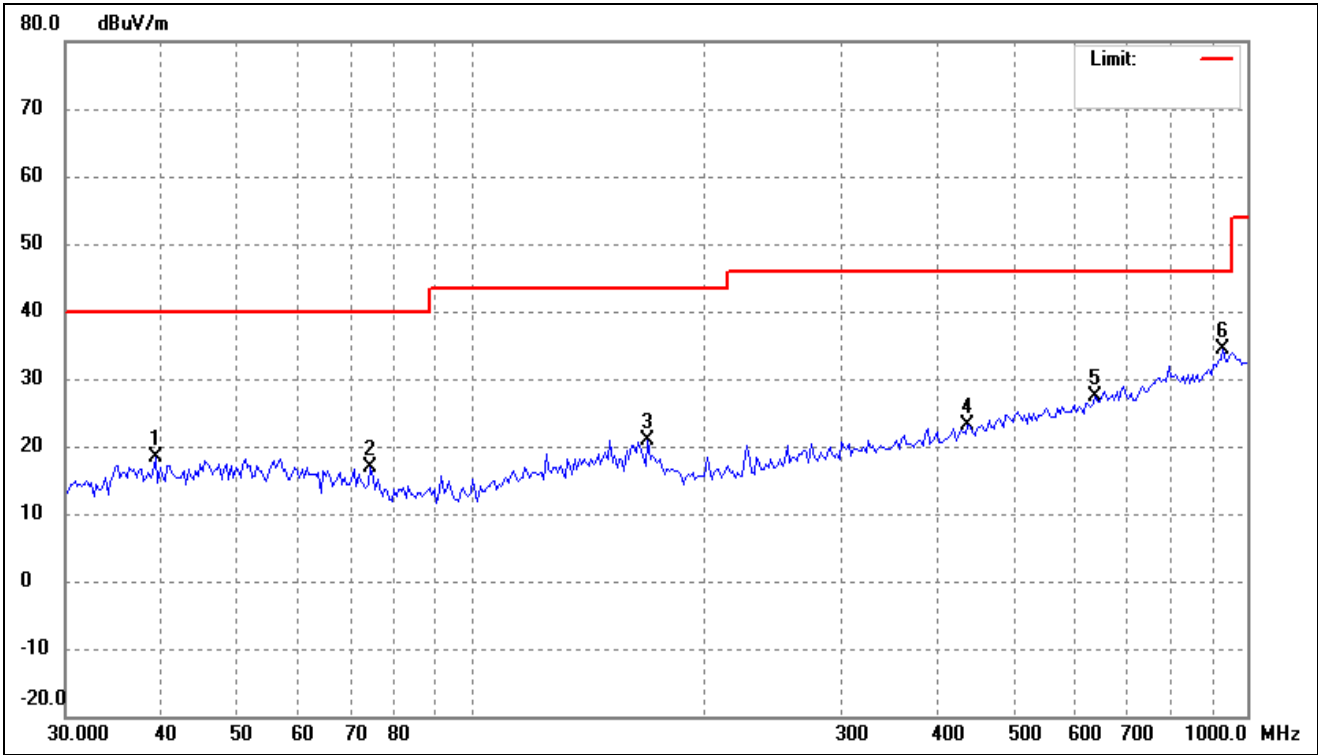
➤ 5725-5850MHz

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



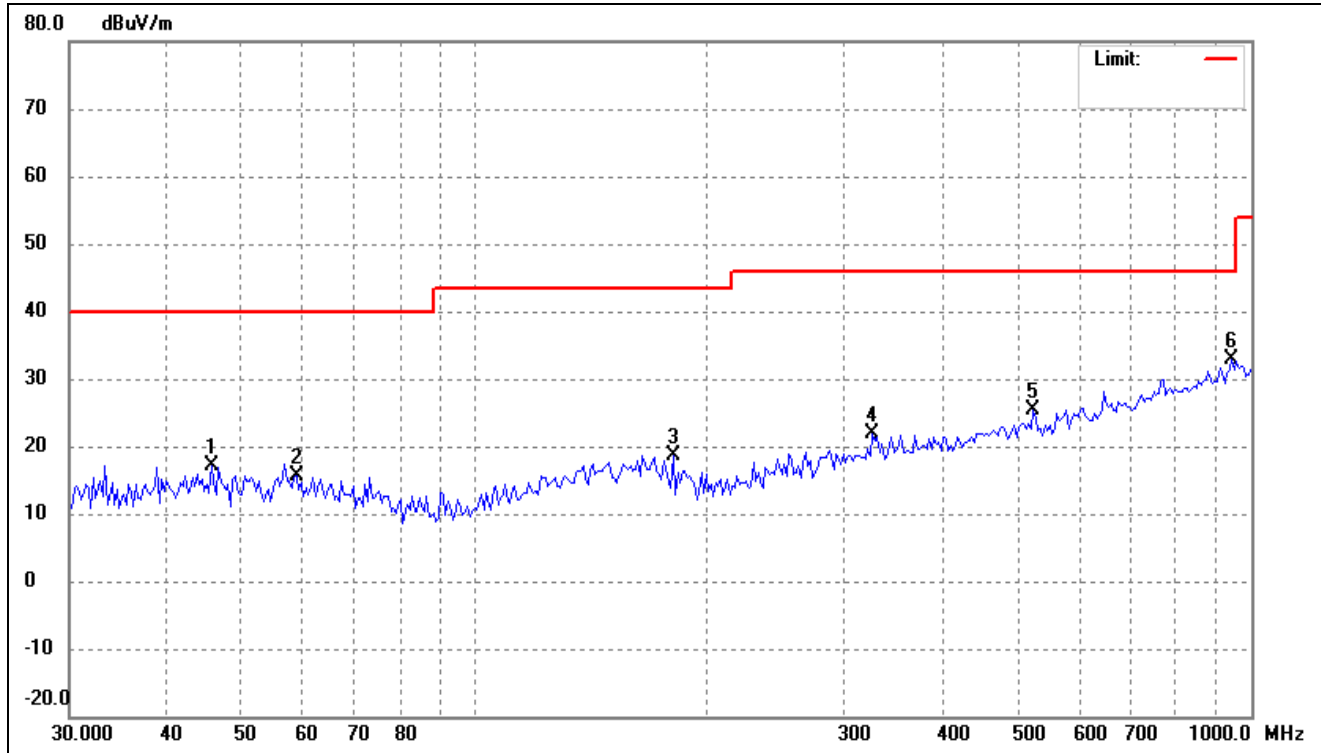
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.1756	27.76	-8.99	18.77	40.00	-21.23	-	-	peak
2	65.4452	27.60	-10.26	17.34	40.00	-22.66	-	-	peak
3	165.4716	28.10	-8.71	19.39	43.50	-24.11	-	-	peak
4	343.6506	28.37	-7.09	21.28	46.00	-24.72	-	-	peak
5	651.3831	29.18	-1.33	27.85	46.00	-18.15	-	-	peak
6	833.0127	29.82	0.98	30.80	46.00	-15.20	-	-	peak

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



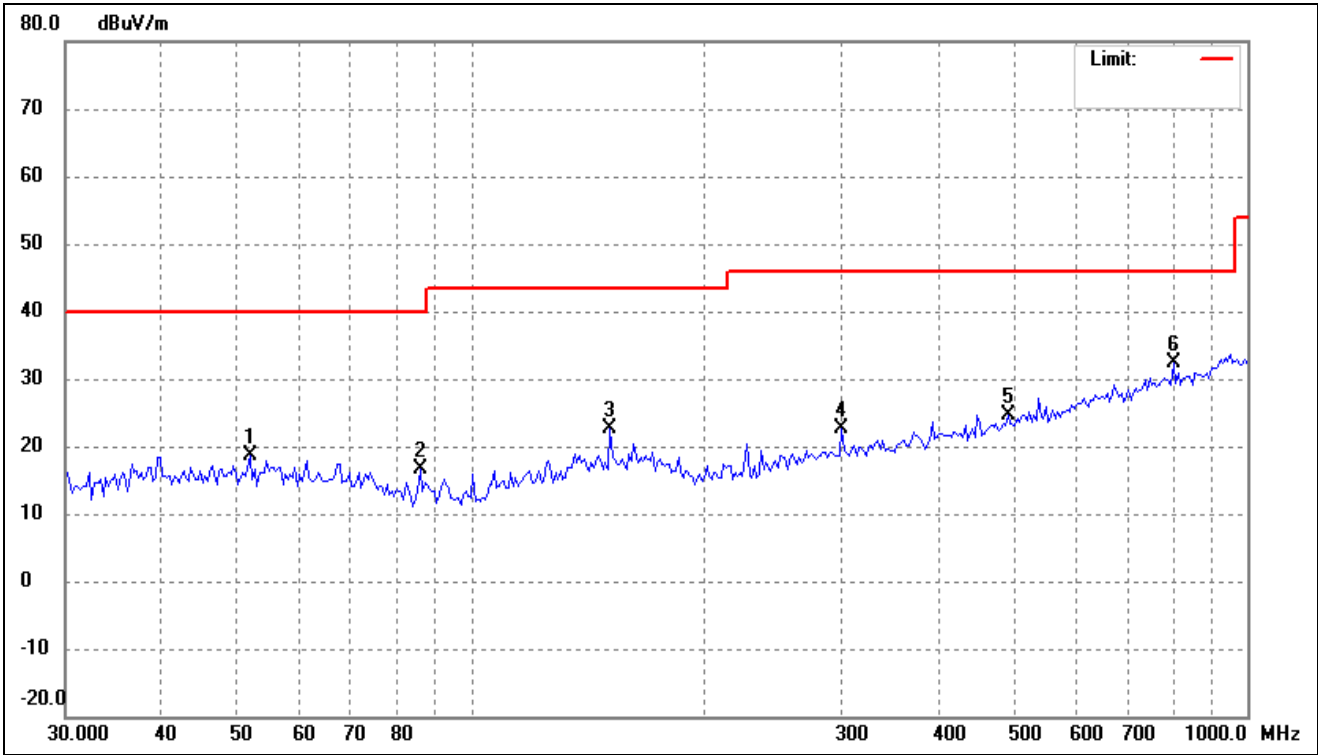
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	39.1825	28.16	-9.66	18.50	40.00	-21.50	-	-	peak
2	74.2696	28.85	-11.92	16.93	40.00	-23.07	-	-	peak
3	168.9970	29.79	-8.80	20.99	43.50	-22.51	-	-	peak
4	436.3956	28.47	-5.41	23.06	46.00	-22.94	-	-	peak
5	637.7947	29.23	-1.74	27.49	46.00	-18.51	-	-	peak
6	932.1405	31.78	2.59	34.37	46.00	-11.63	-	-	peak

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



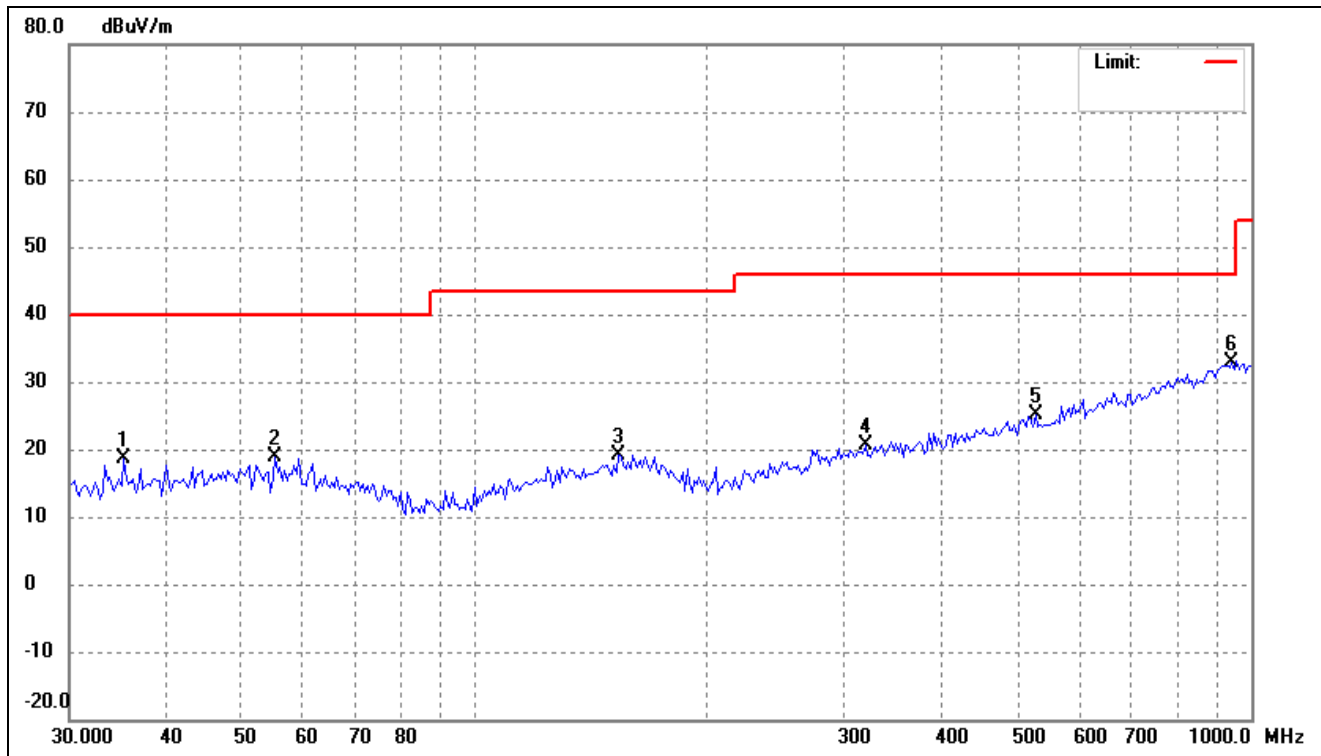
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.7333	26.27	-9.04	17.23	40.00	-22.77	-	-	peak
2	58.8979	25.14	-9.43	15.71	40.00	-24.29	-	-	peak
3	180.0304	28.58	-9.87	18.71	43.50	-24.79	-	-	peak
4	324.8645	29.01	-7.18	21.83	46.00	-24.17	-	-	peak
5	523.8763	29.26	-3.86	25.40	46.00	-20.60	-	-	peak
6	945.3336	29.99	2.85	32.84	46.00	-13.16	-	-	peak

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



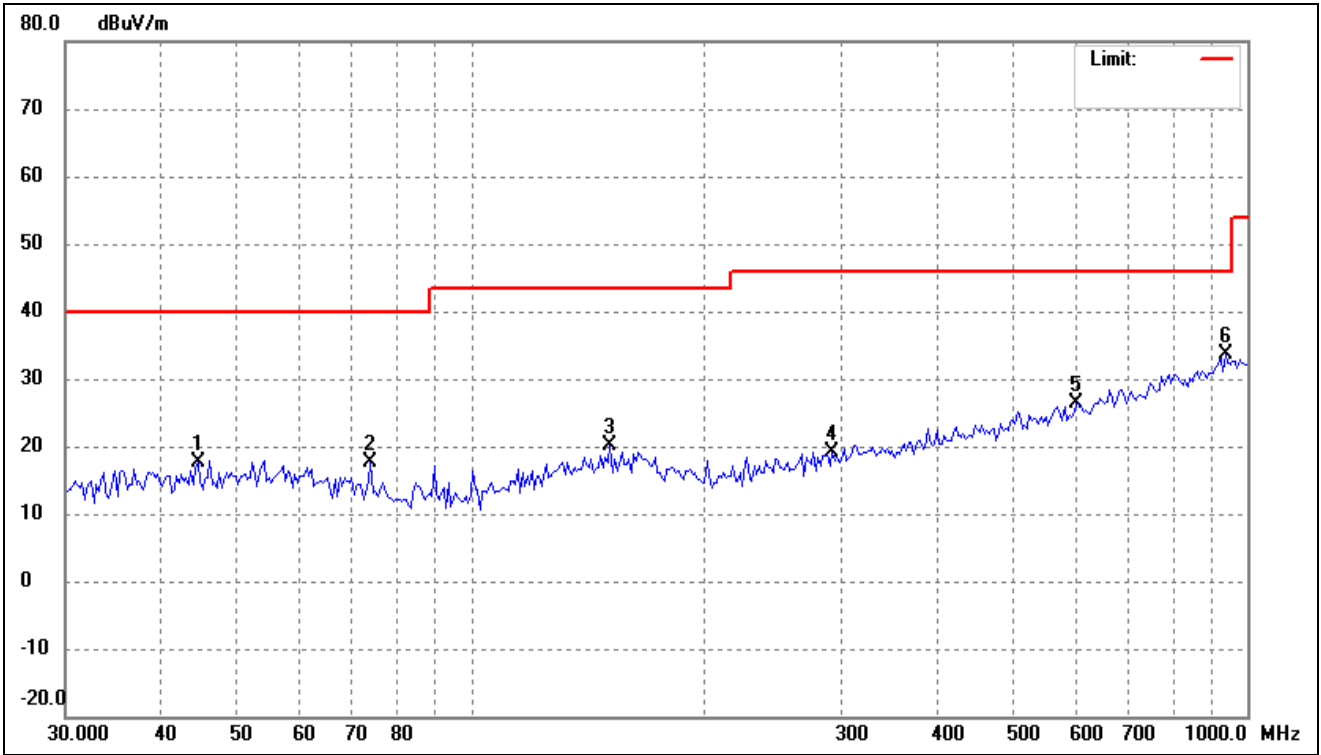
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.8999	27.72	-9.00	18.72	40.00	-21.28	-	-	peak
2	86.0796	30.73	-14.07	16.66	40.00	-23.34	-	-	peak
3	151.0252	31.58	-8.90	22.68	43.50	-20.82	-	-	peak
4	300.6988	30.42	-7.73	22.69	46.00	-23.31	-	-	peak
5	491.7700	29.11	-4.52	24.59	46.00	-21.41	-	-	peak
6	804.2523	31.27	1.01	32.28	46.00	-13.72	-	-	peak

802.11ac-VHT20			
Test Channel	5745MHz(worst case)	Polarity:	Horizontal



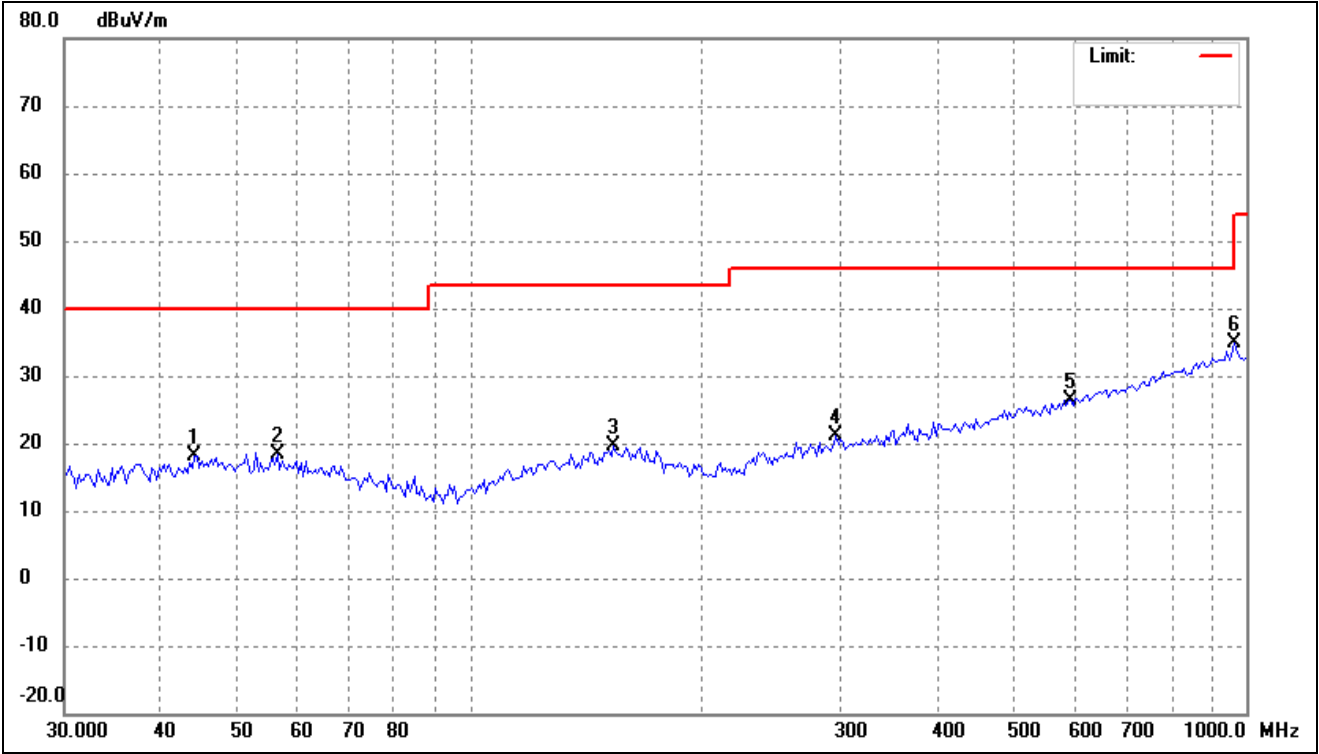
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	35.2626	28.80	-10.21	18.59	40.00	-21.41	-	-	peak
2	55.2883	28.14	-9.22	18.92	40.00	-21.08	-	-	peak
3	153.1627	28.00	-8.77	19.23	43.50	-24.27	-	-	peak
4	318.0875	28.07	-7.32	20.75	46.00	-25.25	-	-	peak
5	527.5707	28.83	-3.81	25.02	46.00	-20.98	-	-	peak
6	945.3336	30.15	2.85	33.00	46.00	-13.00	-	-	peak

802.11ac-VHT20			
Test Channel	5745MHz(worst case)	Polarity:	Vertical



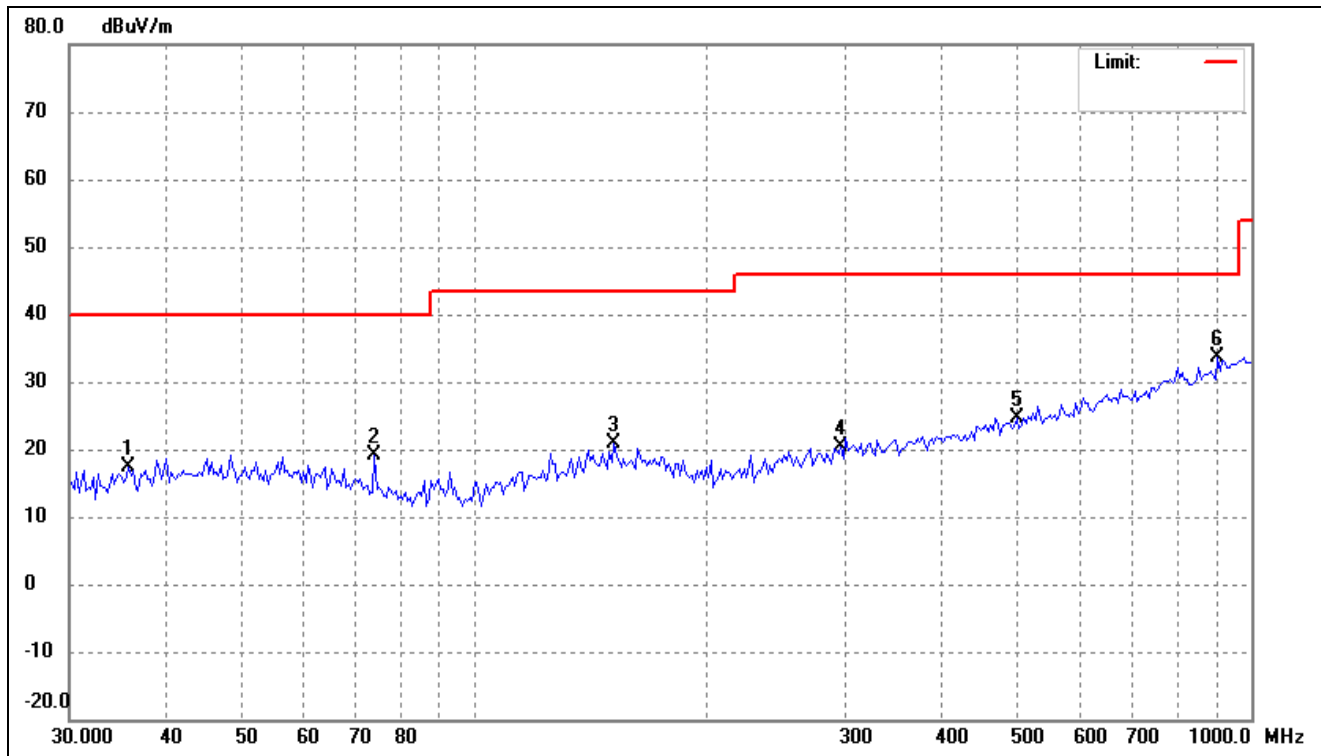
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.4657	26.77	-9.10	17.67	40.00	-22.33	-	-	peak
2	74.2696	29.54	-11.92	17.62	40.00	-22.38	-	-	peak
3	151.0252	28.94	-8.90	20.04	43.50	-23.46	-	-	peak
4	292.3643	27.12	-7.91	19.21	46.00	-26.79	-	-	peak
5	602.9287	28.52	-2.06	26.46	46.00	-19.54	-	-	peak
6	938.7139	30.81	2.72	33.53	46.00	-12.47	-	-	peak

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



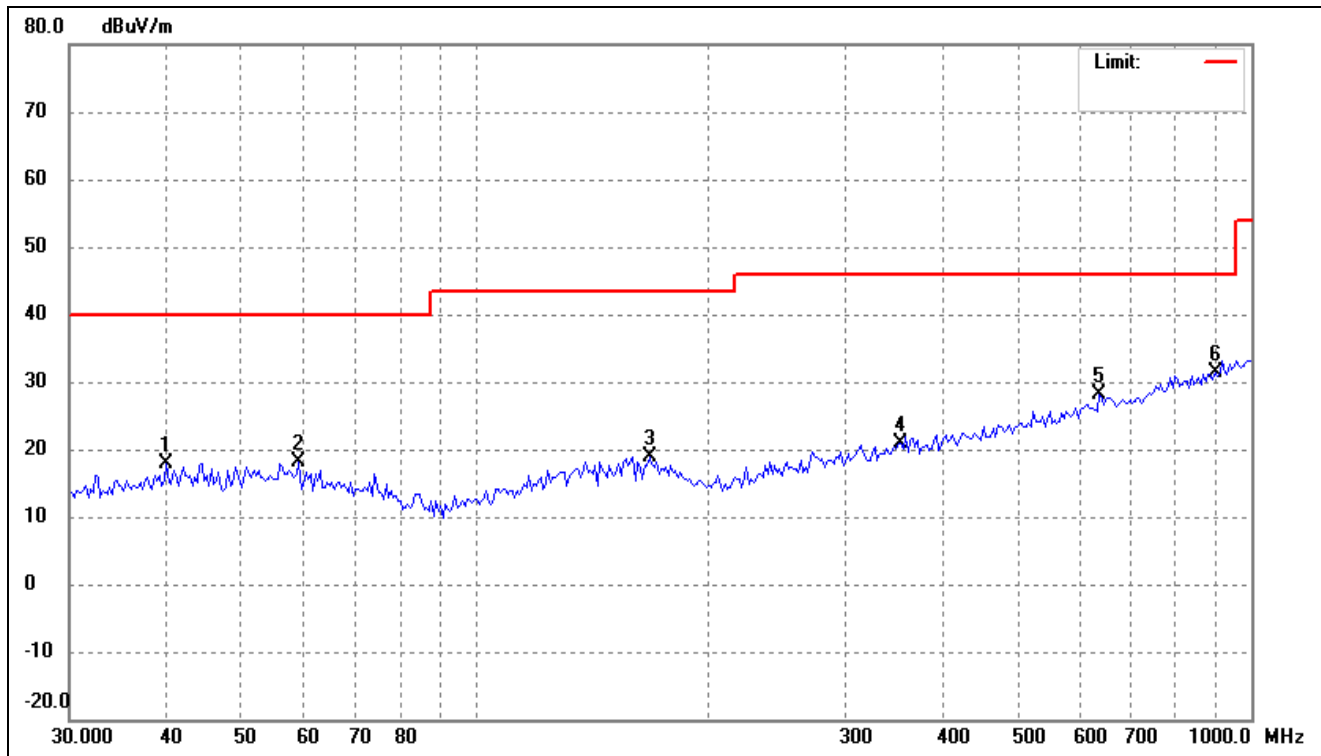
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.1544	27.34	-9.13	18.21	40.00	-21.79	-	-	peak
2	56.4662	27.58	-9.28	18.30	40.00	-21.70	-	-	peak
3	153.1627	28.29	-8.77	19.52	43.50	-23.98	-	-	peak
4	296.5023	29.03	-7.81	21.22	46.00	-24.78	-	-	peak
5	594.5143	28.73	-2.23	26.50	46.00	-19.50	-	-	peak
6	965.4742	31.85	2.98	34.83	54.00	-19.17	-	-	peak

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



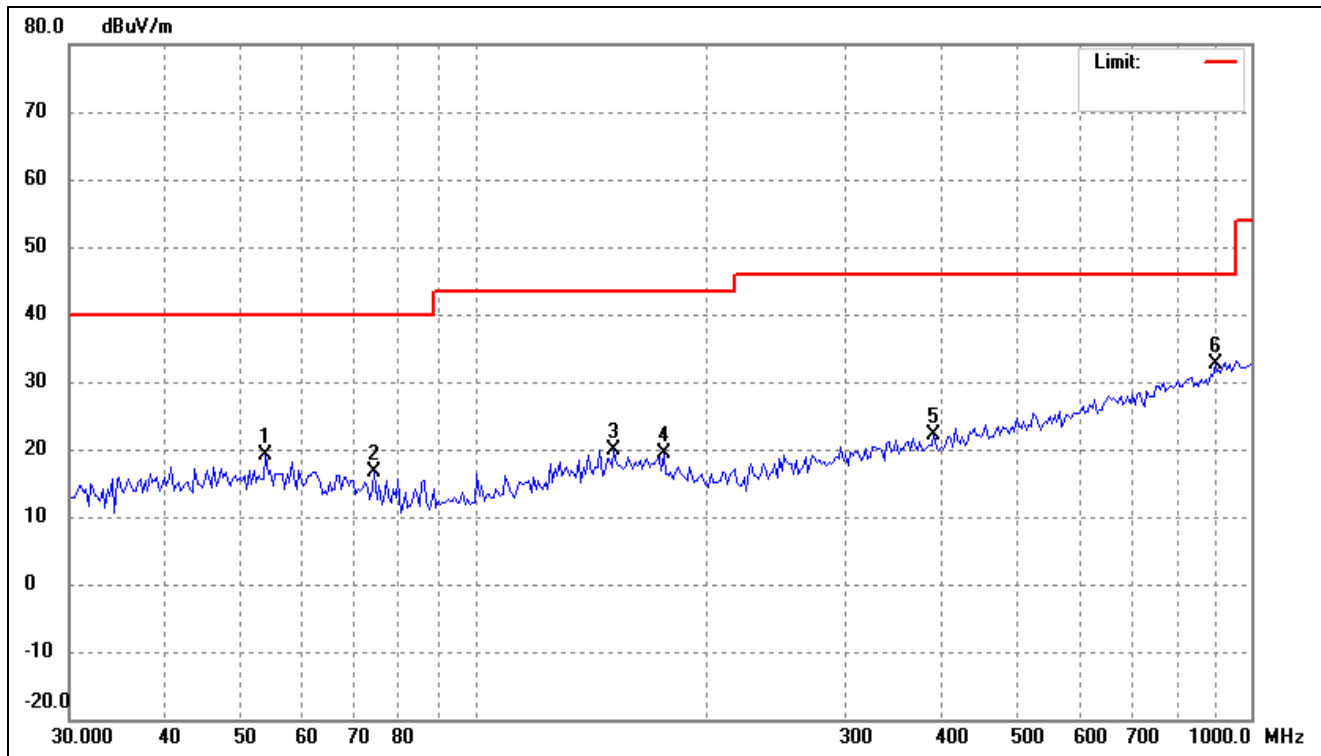
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	35.7617	27.52	-10.13	17.39	40.00	-22.61	-	-	peak
2	74.2696	31.16	-11.92	19.24	40.00	-20.76	-	-	peak
3	151.0252	29.76	-8.90	20.86	43.50	-22.64	-	-	peak
4	296.5023	28.17	-7.81	20.36	46.00	-25.64	-	-	peak
5	498.7303	29.13	-4.38	24.75	46.00	-21.25	-	-	peak
6	906.3041	31.45	2.08	33.53	46.00	-12.47	-	-	peak

802.11ac-VHT40			
Test Channel	5755MHz(worst case)	Polarity:	Horizontal



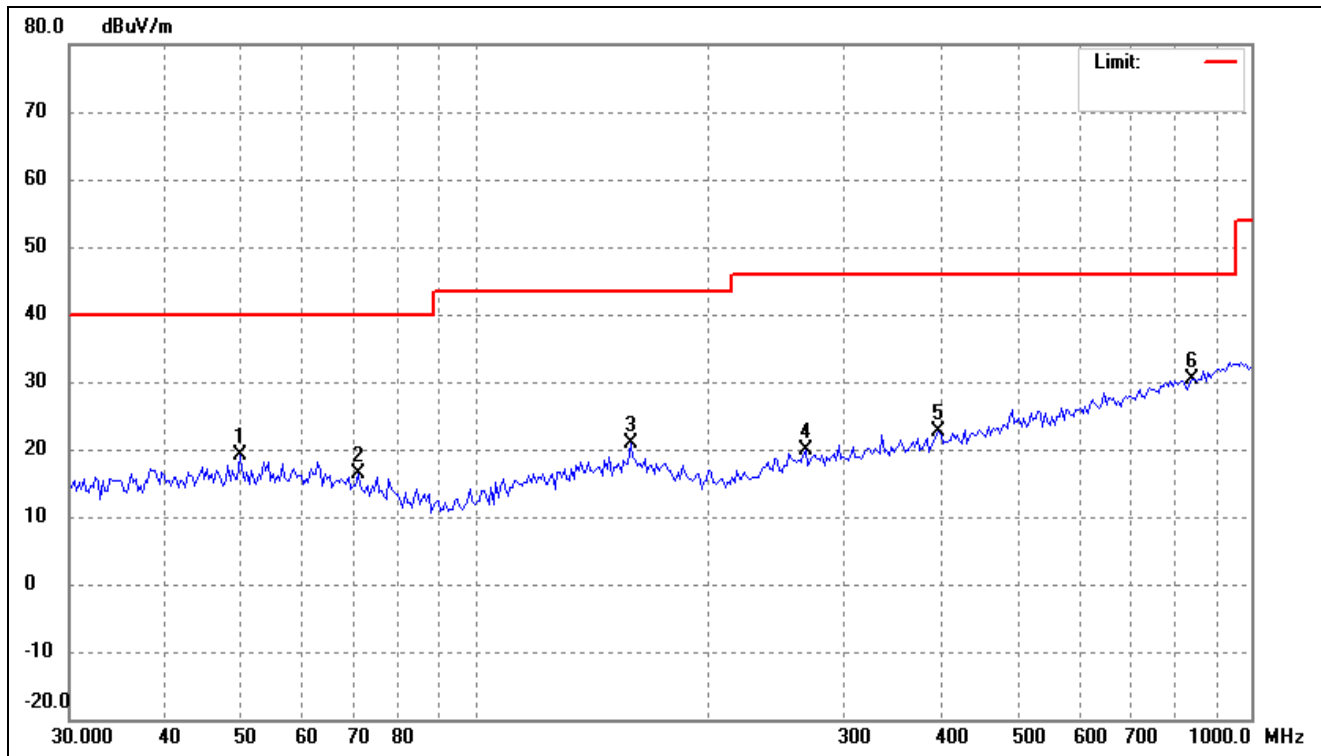
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	40.0173	27.54	-9.57	17.97	40.00	-22.03	-	-	peak
2	59.3133	27.57	-9.48	18.09	40.00	-21.91	-	-	peak
3	167.8136	27.57	-8.76	18.81	43.50	-24.69	-	-	peak
4	353.4472	27.89	-6.97	20.92	46.00	-25.08	-	-	peak
5	637.7947	29.84	-1.74	28.10	46.00	-17.90	-	-	peak
6	899.9577	29.32	1.96	31.28	46.00	-14.72	-	-	peak

802.11ac-VHT40			
Test Channel	5755MHz(worst case)	Polarity:	Vertical



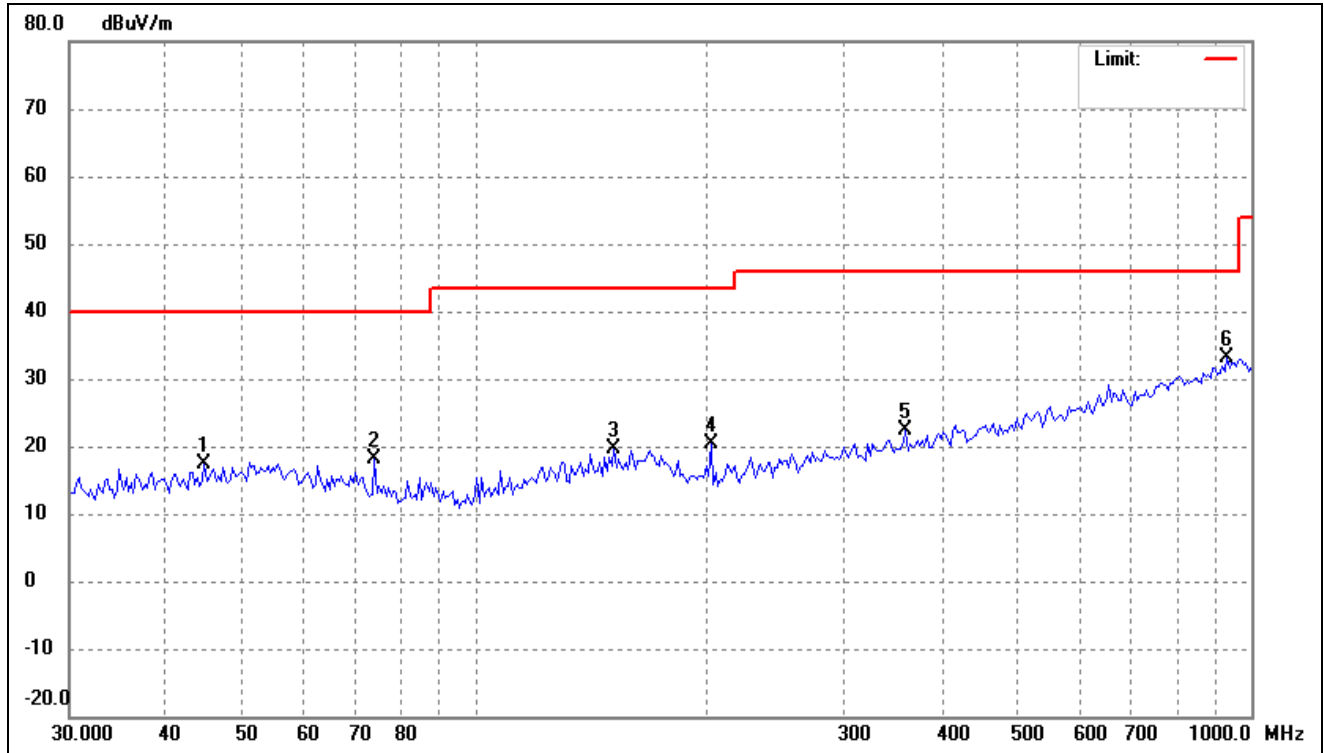
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	53.7559	28.19	-9.11	19.08	40.00	-20.92	-	-	peak
2	74.2696	28.67	-11.92	16.75	40.00	-23.25	-	-	peak
3	151.0252	28.75	-8.90	19.85	43.50	-23.65	-	-	peak
4	175.0404	28.72	-9.27	19.45	43.50	-24.05	-	-	peak
5	389.9874	28.39	-6.29	22.10	46.00	-23.90	-	-	peak
6	899.9577	30.69	1.96	32.65	46.00	-13.35	-	-	peak

802.11ac-VHT80			
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	49.7571	28.14	-8.98	19.16	40.00	-20.84	-	-	peak
2	70.7047	27.56	-11.25	16.31	40.00	-23.69	-	-	peak
3	158.6399	29.52	-8.56	20.96	43.50	-22.54	-	-	peak
4	266.8395	28.95	-8.96	19.99	46.00	-26.01	-	-	peak
5	395.5071	28.74	-6.18	22.56	46.00	-23.44	-	-	peak
6	838.8870	29.43	0.97	30.40	46.00	-15.60	-	-	peak

802.11ac-VHT80			
Test Channel	5775MHz(worst case)	Polarity:	Vertical

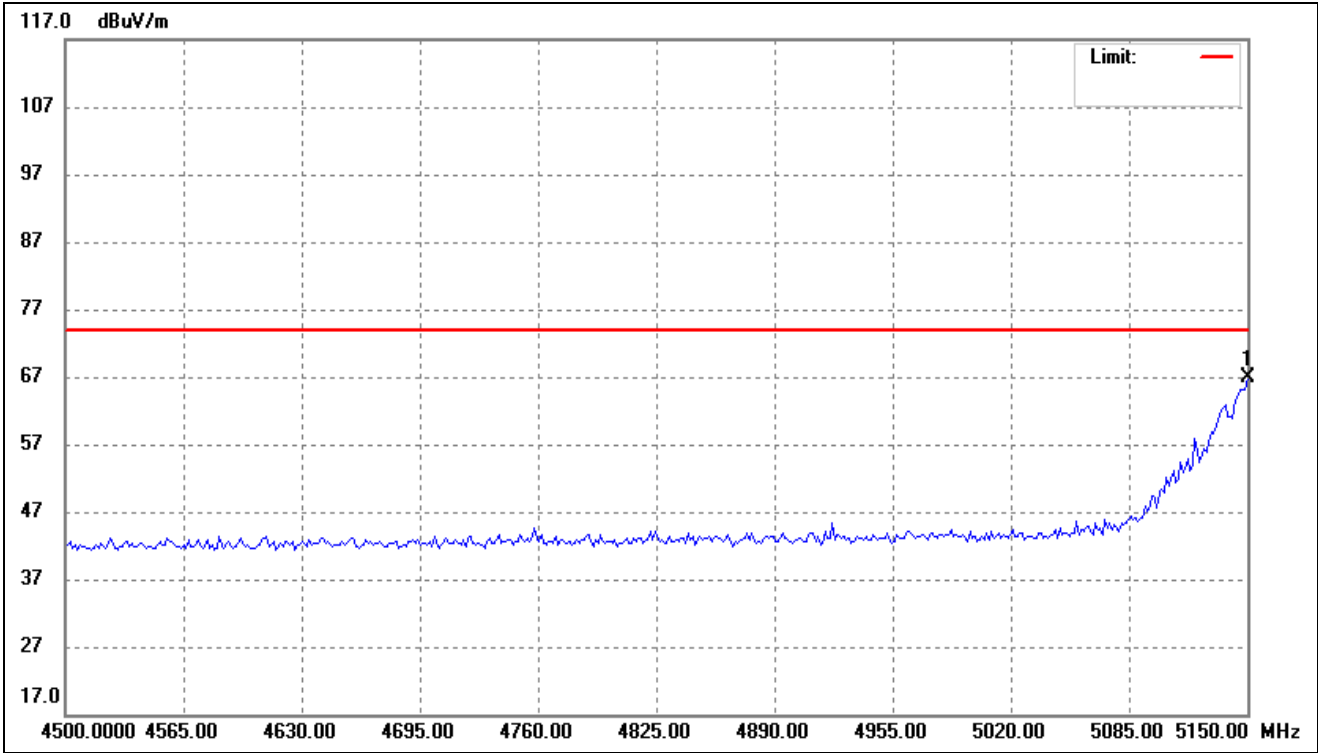


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.7793	26.43	-9.08	17.35	40.00	-22.65	-	-	peak
2	74.2696	29.99	-11.92	18.07	40.00	-21.93	-	-	peak
3	151.0252	28.63	-8.90	19.73	43.50	-23.77	-	-	peak
4	201.4539	31.86	-11.53	20.33	43.50	-23.17	-	-	peak
5	358.4497	29.26	-6.88	22.38	46.00	-23.62	-	-	peak
6	932.1405	30.61	2.59	33.20	46.00	-12.80	-	-	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.

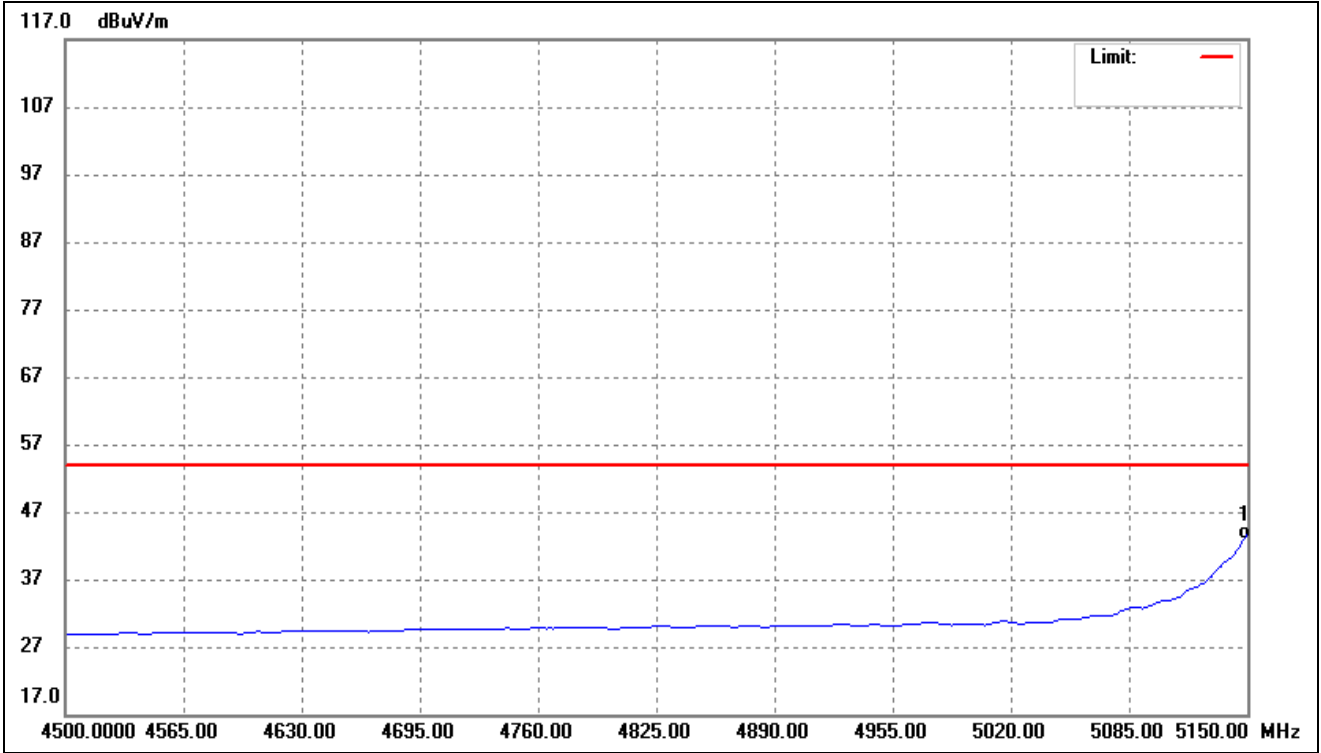
➤ Spurious Emission above 1GHz

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



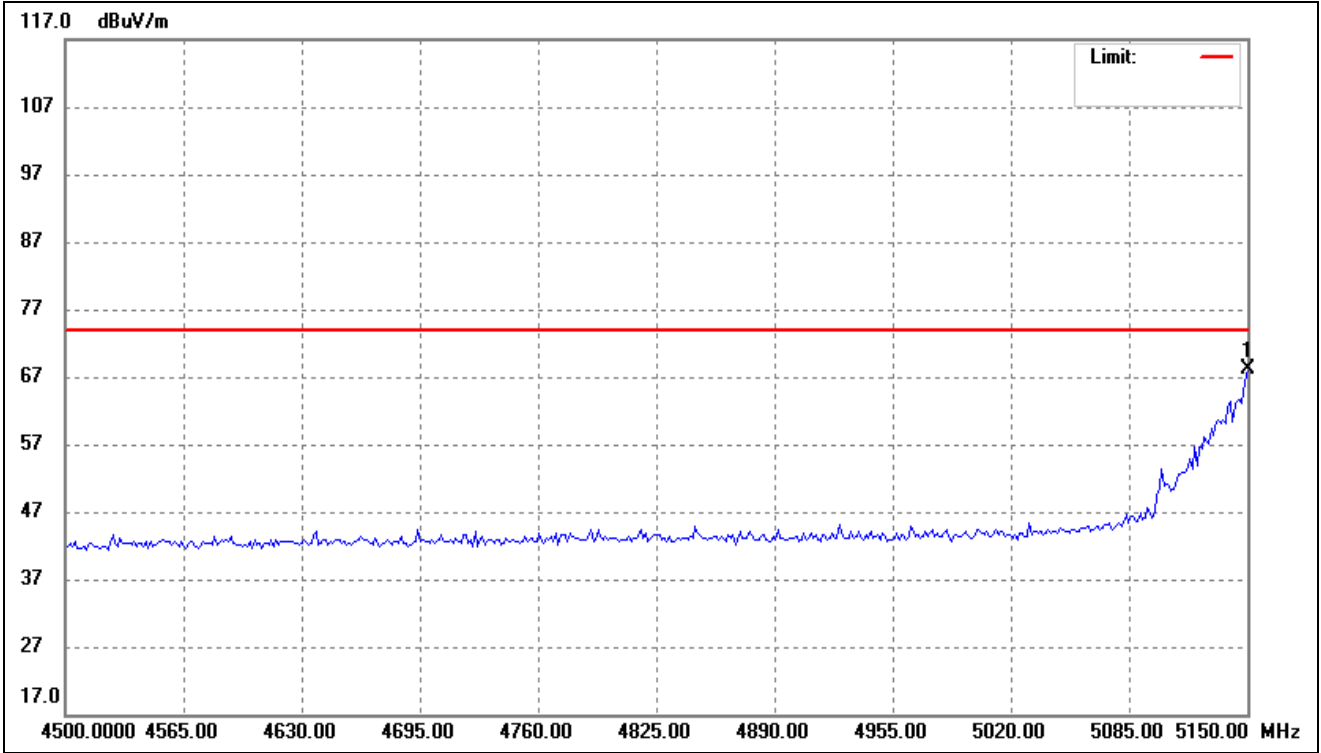
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	78.97	-12.21	66.76	74.00	-7.24	-	-	peak

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



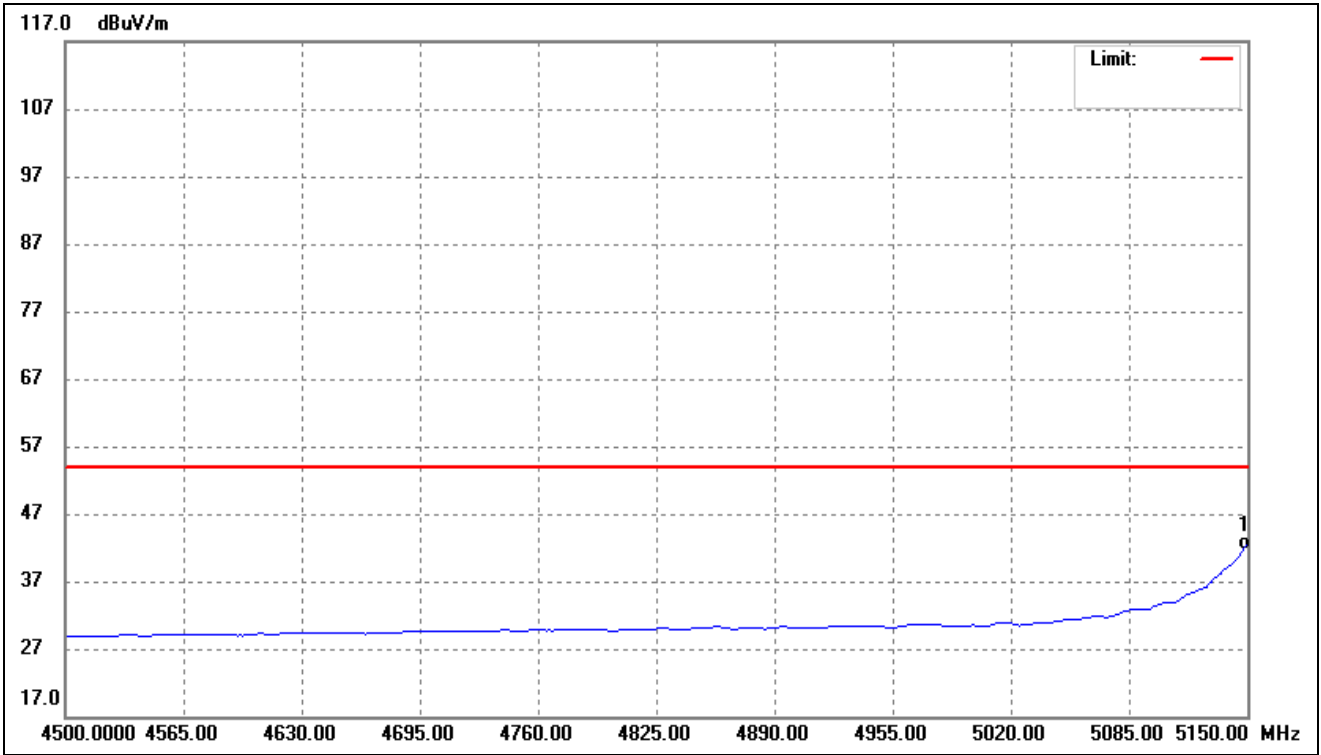
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	56.20	-12.21	43.99	54.00	-10.01	-	-	AVG

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



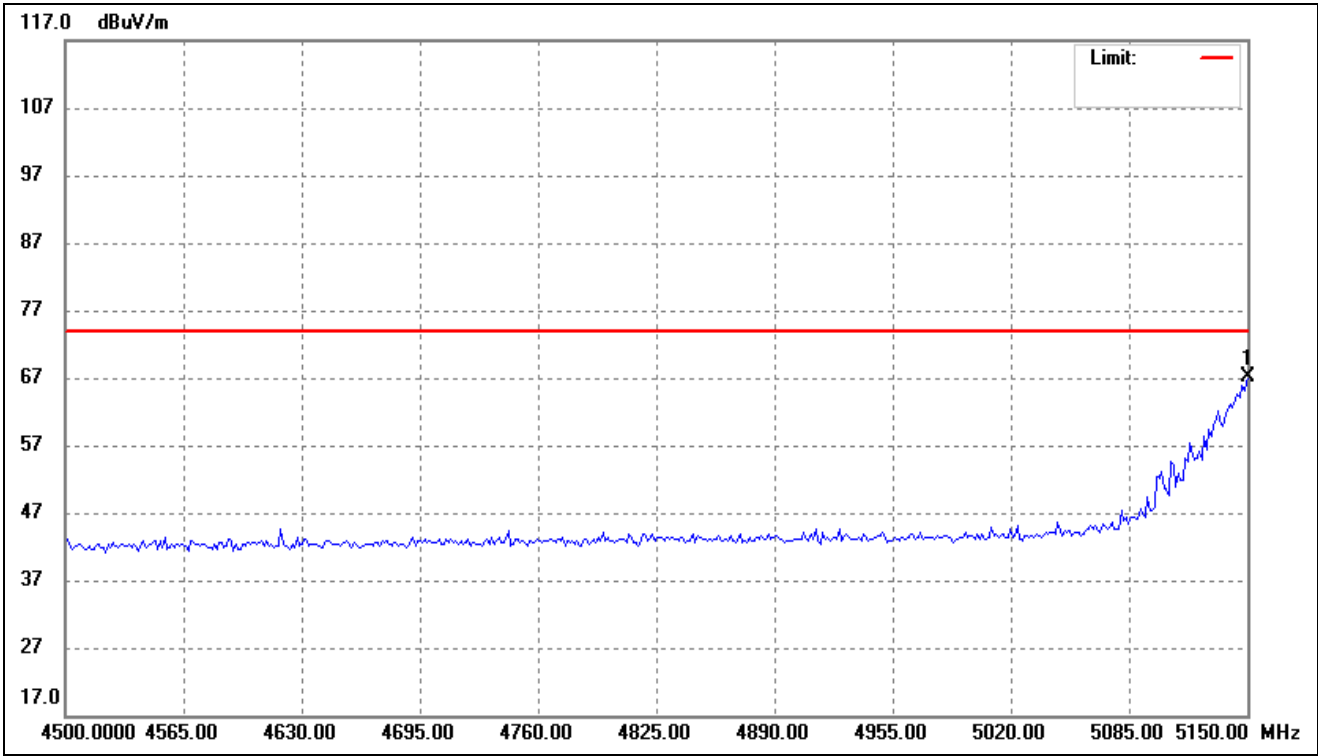
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	80.32	-12.21	68.11	74.00	-5.89	-	-	peak

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



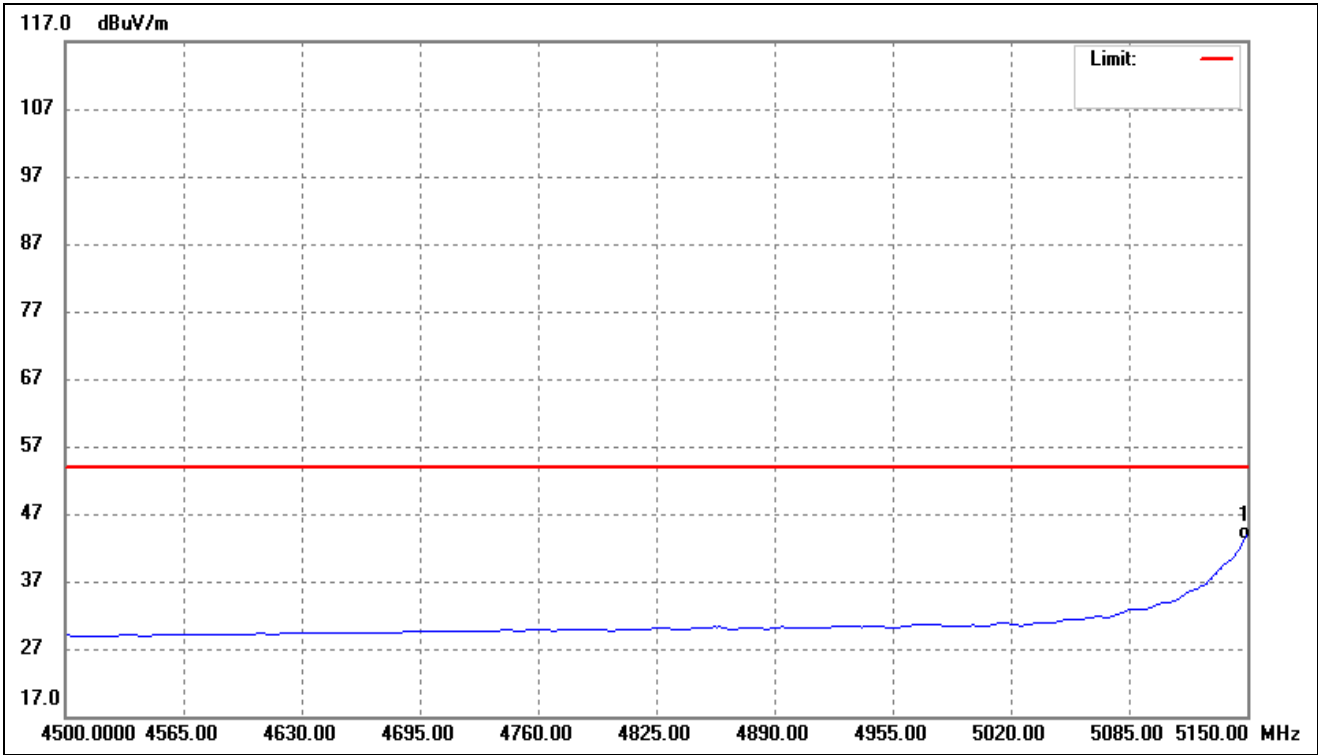
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	54.95	-12.21	42.74	54.00	-11.26	-	-	AVG

802.11ac-VHT20- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(worst case)



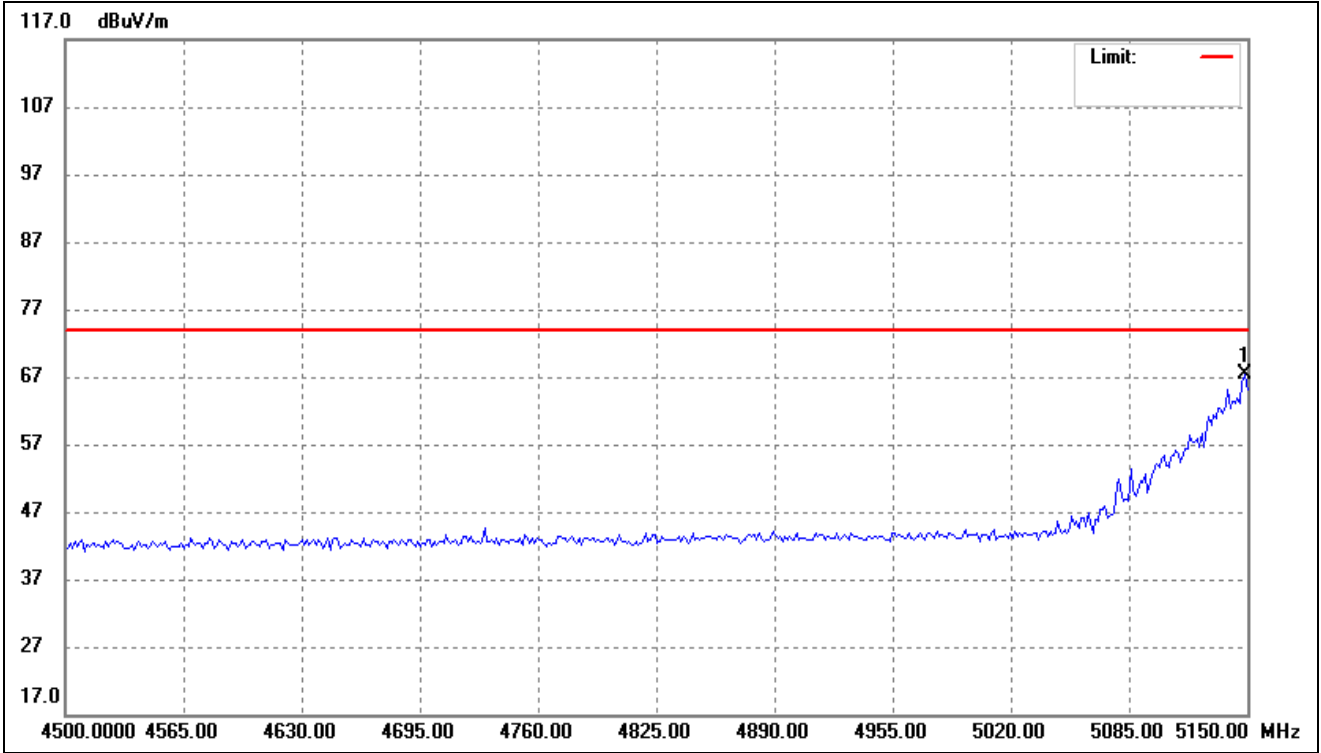
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	79.26	-12.21	67.05	74.00	-6.95	-	-	peak

802.11ac-VHT20- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(worst case)



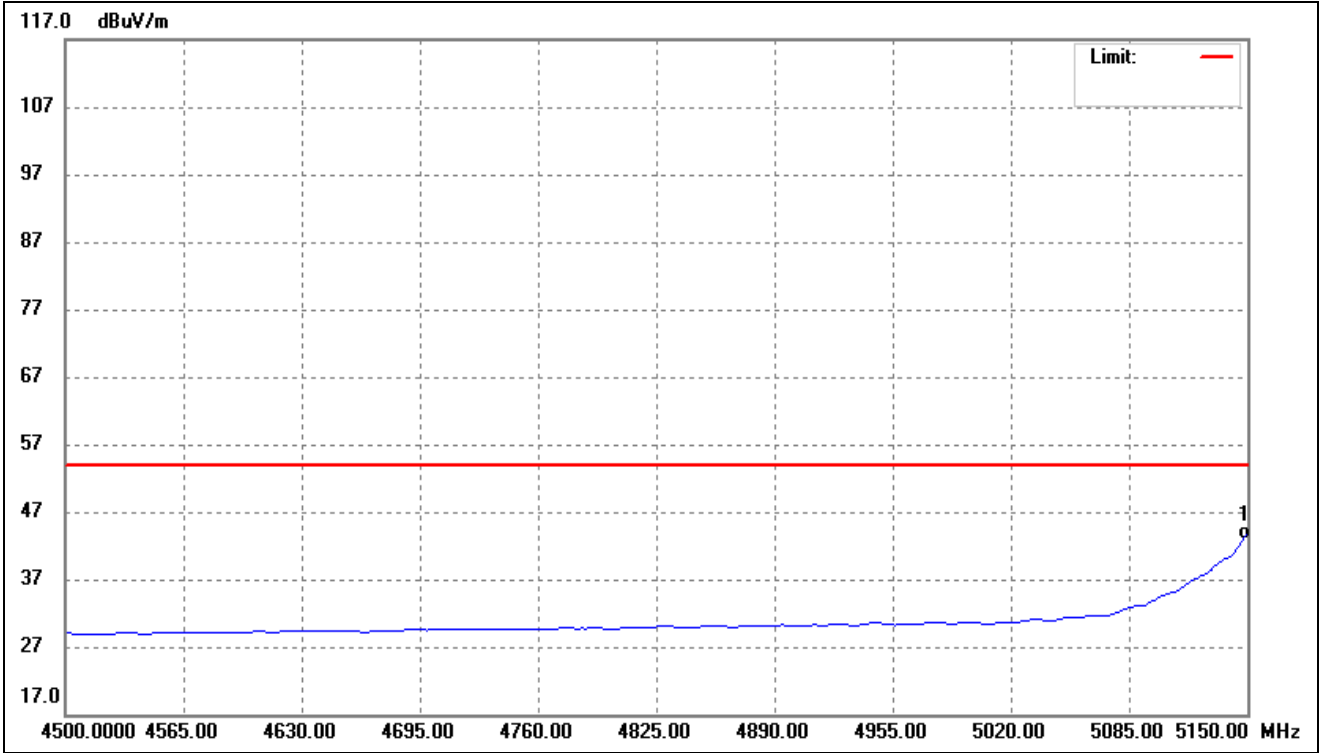
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	56.28	-12.21	44.07	54.00	-9.93	-	-	AVG

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



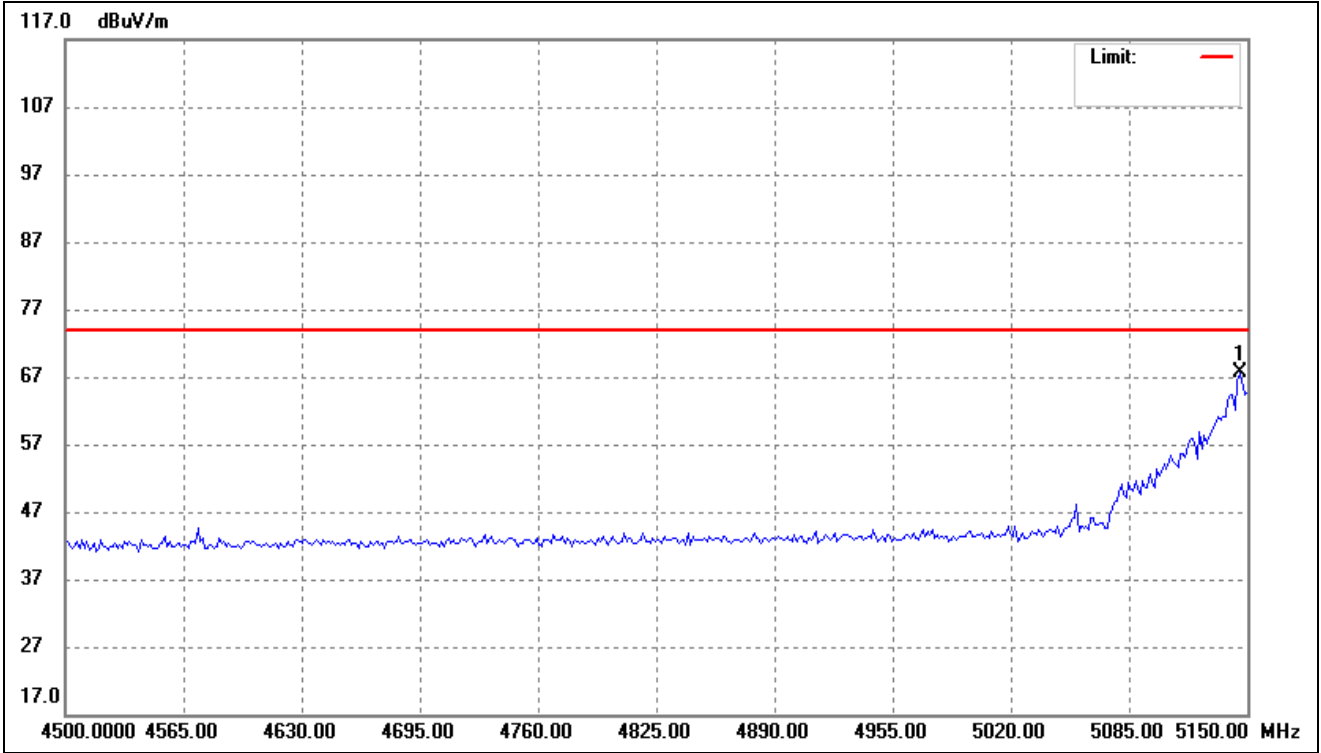
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5148.697	79.69	-12.22	67.47	74.00	-6.53	-	-	peak

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



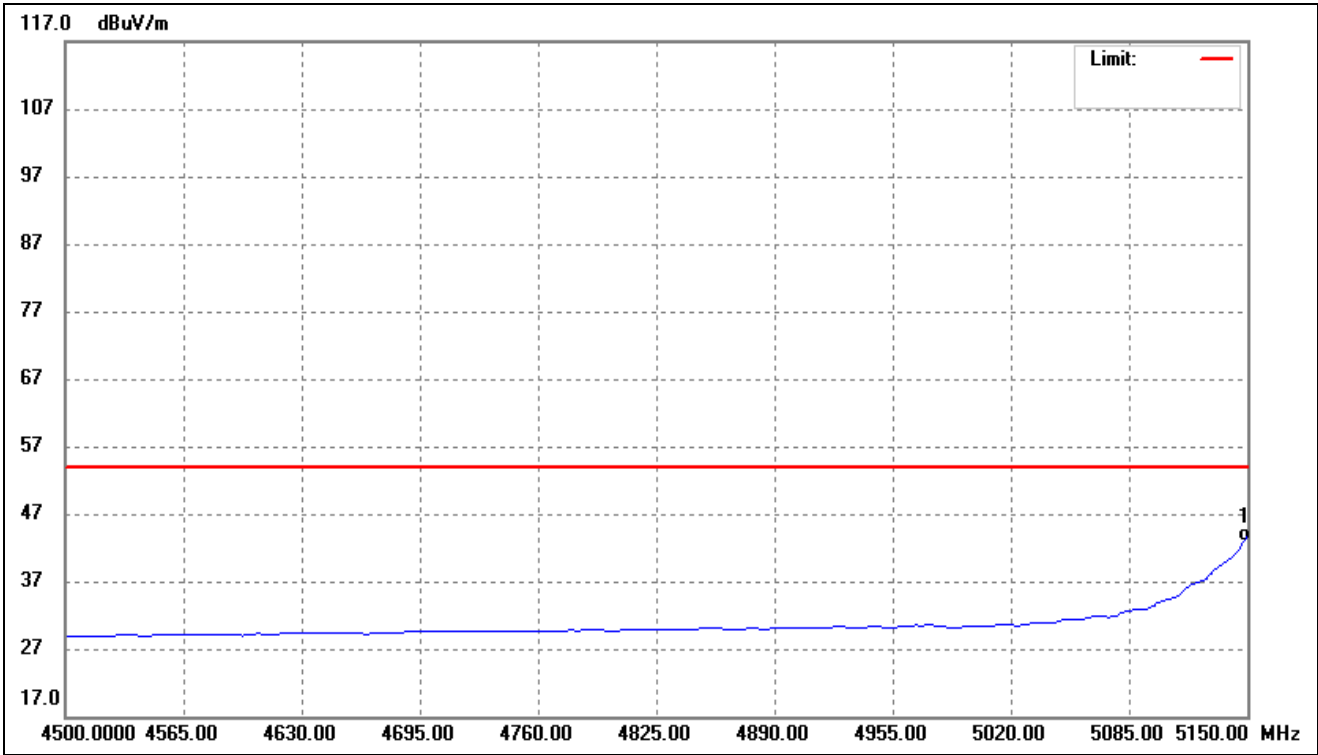
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	56.18	-12.21	43.97	54.00	-10.03	-	-	AVG

802.11ac-VHT40- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(worst case)



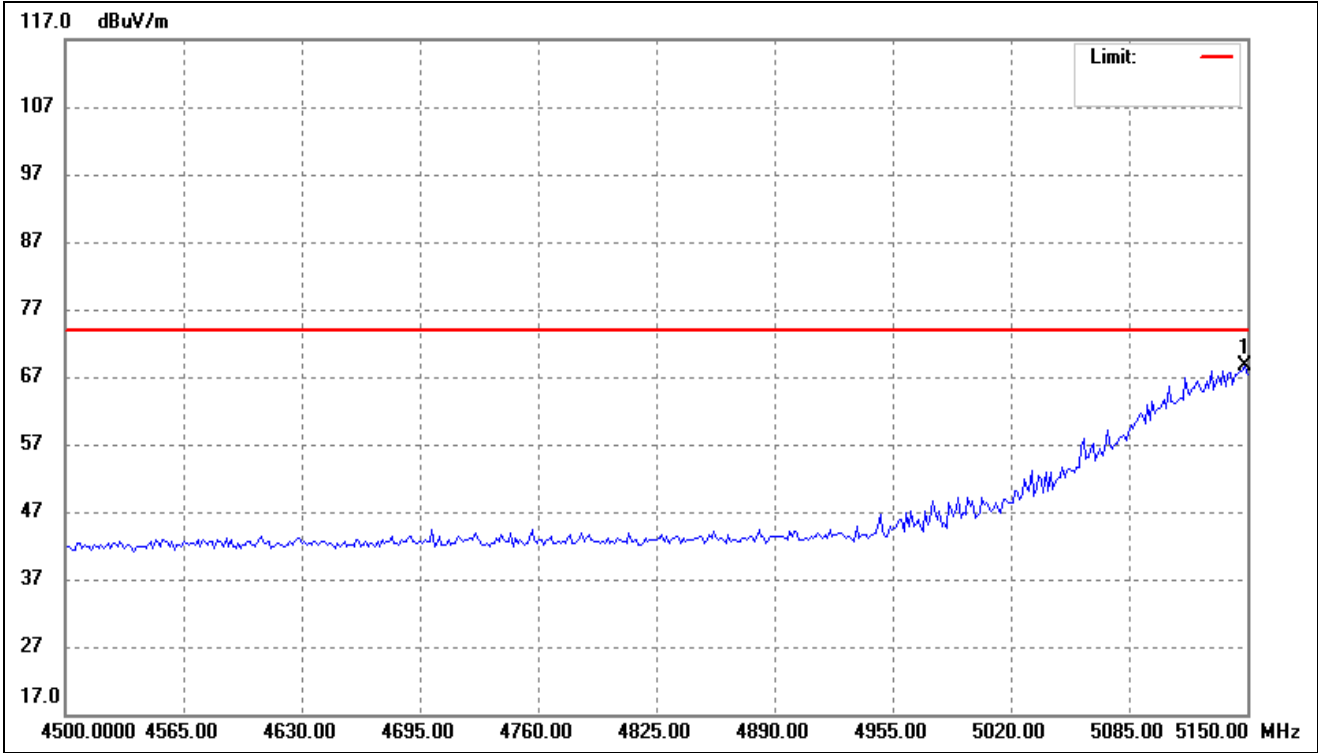
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5146.092	79.80	-12.23	67.57	74.00	-6.43	-	-	peak

802.11ac-VHT40- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(worst case)



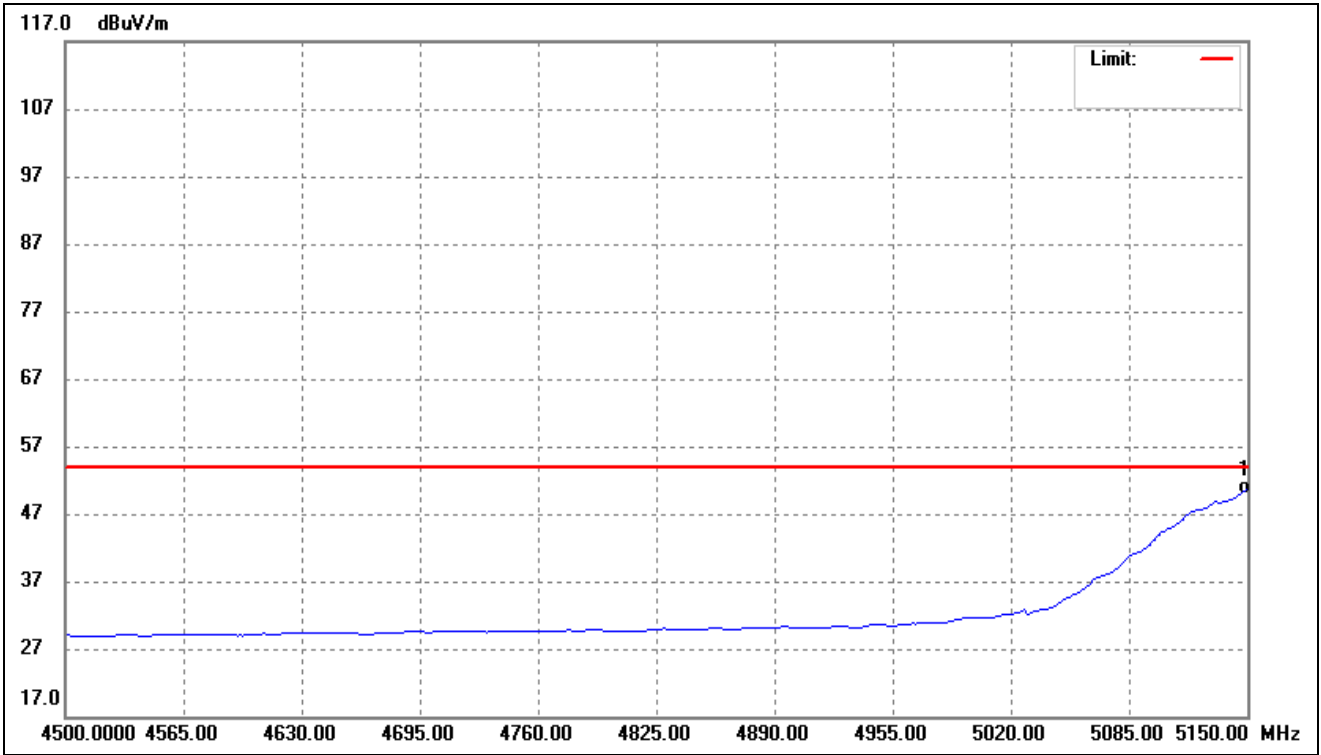
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	56.10	-12.21	43.89	54.00	-10.11	-	-	AVG

802.11ac-VHT80- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5148.697	80.77	-12.22	68.55	74.00	-5.45	-	-	peak

802.11ac-VHT80- Restricted Bandedge			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(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	63.09	-12.21	50.88	54.00	-3.12	-	-	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, 5.725-5.850GHz (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	55.34	7.11	62.45	74	-11.55	H	PK
10360	41.95	7.11	49.06	54	-4.94	H	AV
10360	56.57	7.11	63.68	74	-10.32	V	PK
10360	39.55	7.11	46.66	54	-7.34	V	AV
Middle Channel (5200MHz)							
10400	58.31	7.22	65.53	74	-8.47	H	PK
10400	41.75	7.22	48.97	54	-5.03	H	AV
10400	55.84	7.22	63.06	74	-10.94	V	PK
10400	39.49	7.22	46.71	54	-7.29	V	AV
High Channel (5240MHz)							
10480	57.38	7.69	65.07	74	-8.93	H	PK
10480	41.23	7.69	48.92	54	-5.08	H	AV
10480	58.58	7.69	66.27	74	-7.73	V	PK
10480	38.04	7.69	45.73	54	-8.27	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	55.65	9.45	65.10	74	-8.90	H	PK
11490	40.60	9.45	50.05	54	-3.95	H	AV
11490	55.09	9.45	64.54	74	-9.46	V	PK
11490	38.86	9.45	48.31	54	-5.69	V	AV
Middle Channel (5785MHz)							
11570	56.33	9.62	65.95	74	-8.05	H	PK
11570	39.76	9.62	49.38	54	-4.62	H	AV
11570	56.58	9.62	66.20	74	-7.80	V	PK
11570	38.97	9.62	48.59	54	-5.41	V	AV
High Channel (5825MHz)							
11650	58.26	9.84	68.10	74	-5.90	H	PK
11650	38.55	9.84	48.39	54	-5.61	H	AV
11650	57.64	9.84	67.48	74	-6.52	V	PK
11650	41.08	9.84	50.92	54	-3.08	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-43.85	-27
Highest	Above 5350	-42.36	-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 5650	-46.24	-27
	5650 to 5700	-33.68	-27 to -17
	5700 to 5720	-27.57	-17 to 15.6
	5720 to 5725	-17.16	15.6 to 27
Highest	5850 to 5855	-14.27	27 to 15.6
	5855 to 5875	-21.18	15.6 to -17
	5875 to 5925	-33.25	-17 to -27
	Above 5925	-38.39	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz,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	57.89	7.11	65.00	74	-9.00	H	PK
10360	38.66	7.11	45.77	54	-8.23	H	AV
10360	57.18	7.11	64.29	74	-9.71	V	PK
10360	38.13	7.11	45.24	54	-8.76	V	AV
Middle Channel (5200MHz)							
10400	57.85	7.22	65.07	74	-8.93	H	PK
10400	41.77	7.22	48.99	54	-5.01	H	AV
10400	56.07	7.22	63.29	74	-10.71	V	PK
10400	38.76	7.22	45.98	54	-8.02	V	AV
High Channel (5240MHz)							
10480	57.51	7.69	65.20	74	-8.80	H	PK
10480	40.18	7.69	47.87	54	-6.13	H	AV
10480	58.28	7.69	65.97	74	-8.03	V	PK
10480	41.47	7.69	49.16	54	-4.84	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	57.59	9.45	67.04	74	-6.96	H	PK
11490	39.58	9.45	49.03	54	-4.97	H	AV
11490	57.35	9.45	66.8	74	-7.20	V	PK
11490	38.59	9.45	48.04	54	-5.96	V	AV
Middle Channel (5785MHz)							
11570	56.69	9.62	66.31	74	-7.69	H	PK
11570	39.93	9.62	49.55	54	-4.45	H	AV
11570	56.51	9.62	66.13	74	-7.87	V	PK
11570	40.96	9.62	50.58	54	-3.42	V	AV
High Channel (5825MHz)							
11650	55.04	9.84	64.88	74	-9.12	H	PK
11650	40.37	9.84	50.21	54	-3.79	H	AV
11650	57.31	9.84	67.15	74	-6.85	V	PK
11650	41.55	9.84	51.39	54	-2.61	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-40.82	-27
Highest	Above 5350	-41.67	-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 5650	-46.15	-27
	5650 to 5700	-33.85	-27 to -17
	5700 to 5720	-27.31	-17 to 15.6
	5720 to 5725	-17.09	15.6 to 27
Highest	5850 to 5855	-14.25	27 to 15.6
	5855 to 5875	-21.34	15.6 to -17
	5875 to 5925	-33.67	-17 to -27
	Above 5925	-38.52	-27

Note: the data just list the worst cases

- For the frequency band 5.15-5.25GHz,5.725-5.850GHz (802.11ac-VHT20)
- 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	57.31	7.11	64.42	74	-9.58	H	PK
10360	41.56	7.11	48.67	54	-5.33	H	AV
10360	57.29	7.11	64.40	74	-9.60	V	PK
10360	41.97	7.11	49.08	54	-4.92	V	AV
Middle Channel (5200MHz)							
10400	58.44	7.22	65.66	74	-8.34	H	PK
10400	38.18	7.22	45.40	54	-8.60	H	AV
10400	56.25	7.22	63.47	74	-10.53	V	PK
10400	40.15	7.22	47.37	54	-6.63	V	AV
High Channel (5240MHz)							
10480	58.35	7.69	66.04	74	-7.96	H	PK
10480	38.63	7.69	46.32	54	-7.68	H	AV
10480	57.56	7.69	65.25	74	-8.75	V	PK
10480	39.43	7.69	47.12	54	-6.88	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	56.39	9.45	65.84	74	-8.16	H	PK
11490	40.88	9.45	50.33	54	-3.67	H	AV
11490	56.78	9.45	66.23	74	-7.77	V	PK
11490	39.92	9.45	49.37	54	-4.63	V	AV
Middle Channel (5785MHz)							
11570	58.55	9.62	68.17	74	-5.83	H	PK
11570	40.43	9.62	50.05	54	-3.95	H	AV
11570	55.21	9.62	64.83	74	-9.17	V	PK
11570	39.49	9.62	49.11	54	-4.89	V	AV
High Channel (5825MHz)							
11650	55.25	9.84	65.09	74	-8.91	H	PK
11650	39.11	9.84	48.95	54	-5.05	H	AV
11650	56.54	9.84	66.38	74	-7.62	V	PK
11650	40.78	9.84	50.62	54	-3.38	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-40.51	-27
Highest	Above 5350	-41.69	-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 5650	-46.82	-27
	5650 to 5700	-33.70	-27 to -17
	5700 to 5720	-27.13	-17 to 15.6
	5720 to 5725	-17.45	15.6 to 27
Highest	5850 to 5855	-14.26	27 to 15.6
	5855 to 5875	-21.38	15.6 to -17
	5875 to 5925	-33.49	-17 to -27
	Above 5925	-38.51	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz,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	57.32	7.89	65.21	74	-8.79	H	PK
10380	40.46	7.89	48.35	54	-5.65	H	AV
10380	55.54	7.89	63.43	74	-10.57	V	PK
10380	39.07	7.89	46.96	54	-7.04	V	AV
High Channel (5230MHz)							
10460	56.67	7.97	64.64	74	-9.36	H	PK
10460	40.41	7.97	48.38	54	-5.62	H	AV
10460	57.09	7.97	65.06	74	-8.94	V	PK
10460	39.98	7.97	47.95	54	-6.05	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	56.13	9.45	65.58	74	-8.42	H	PK
11510	38.88	9.45	48.33	54	-5.67	H	AV
11510	56.13	9.45	65.58	74	-8.42	V	PK
11510	40.71	9.45	50.16	54	-3.84	V	AV
High Channel (5795MHz)							
11590	56.35	9.27	65.62	74	-8.38	H	PK
11590	39.07	9.27	48.34	54	-5.66	H	AV
11590	55.92	9.27	65.19	74	-8.81	V	PK
11590	40.31	9.27	49.58	54	-4.42	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.27	-27
Highest	Above 5350	-38.56	-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 5650	-46.28	-27
	5650 to 5700	-33.50	-27 to -17
	5700 to 5720	-27.12	-17 to 15.6
	5720 to 5725	-17.75	15.6 to 27
Highest	5850 to 5855	-14.23	27 to 15.6
	5855 to 5875	-21.86	15.6 to -17
	5875 to 5925	-33.74	-17 to -27
	Above 5925	-38.21	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz,5.725-5.850GHz (802.11ac-VHT40)
- 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	55.28	7.89	63.17	74	-10.83	H	PK
10380	41.22	7.89	49.11	54	-4.89	H	AV
10380	58.45	7.89	66.34	74	-7.66	V	PK
10380	39.70	7.89	47.59	54	-6.41	V	AV
High Channel (5230MHz)							
10460	58.22	7.97	66.19	74	-7.81	H	PK
10460	41.47	7.97	49.44	54	-4.56	H	AV
10460	57.33	7.97	65.30	74	-8.70	V	PK
10460	40.05	7.97	48.02	54	-5.98	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	55.77	9.45	65.22	74	-8.78	H	PK
11510	38.51	9.45	47.96	54	-6.04	H	AV
11510	57.78	9.45	67.23	74	-6.77	V	PK
11510	40.27	9.45	49.72	54	-4.28	V	AV
High Channel (5795MHz)							
11590	57.27	9.27	66.54	74	-7.46	H	PK
11590	40.08	9.27	49.35	54	-4.65	H	AV
11590	56.69	9.27	65.96	74	-8.04	V	PK
11590	38.26	9.27	47.53	54	-6.47	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.82	-27
Highest	Above 5350	-38.76	-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 5650	-46.27	-27
	5650 to 5700	-32.38	-27 to -17
	5700 to 5720	-27.51	-17 to 15.6
	5720 to 5725	-17.59	15.6 to 27
Highest	5850 to 5855	-14.70	27 to 15.6
	5855 to 5875	-21.35	15.6 to -17
	5875 to 5925	-33.41	-17 to -27
	Above 5925	-38.29	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz, 5.725-5.850GHz (802.11ac-VHT80)
- 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	55.73	7.53	63.26	74	-10.74	H	PK
10420	41.62	7.53	49.15	54	-4.85	H	AV
10420	57.18	7.53	64.71	74	-9.29	H	PK
10420	40.38	7.53	47.91	54	-6.09	H	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	57.23	9.93	67.16	74	-6.84	H	PK
11550	40.22	9.93	50.15	54	-3.85	H	AV
11550	58.17	9.93	68.1	74	-5.90	V	PK
11550	38.54	9.93	48.47	54	-5.53	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.17	-27
Highest	Above 5350	-36.29	-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 5650	-46.41	-27
	5650 to 5700	-32.29	-27 to -17
	5700 to 5720	-27.31	-17 to 15.6
	5720 to 5725	-18.53	15.6 to 27
Highest	5850 to 5855	-14.62	27 to 15.6
	5855 to 5875	-22.78	15.6 to -17
	5875 to 5925	-33.11	-17 to -27
	Above 5925	-38.20	-27
Note: the data just list the worst cases			

Note: Testing is carried out with frequency rang 9kHz to 40Ghz, 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

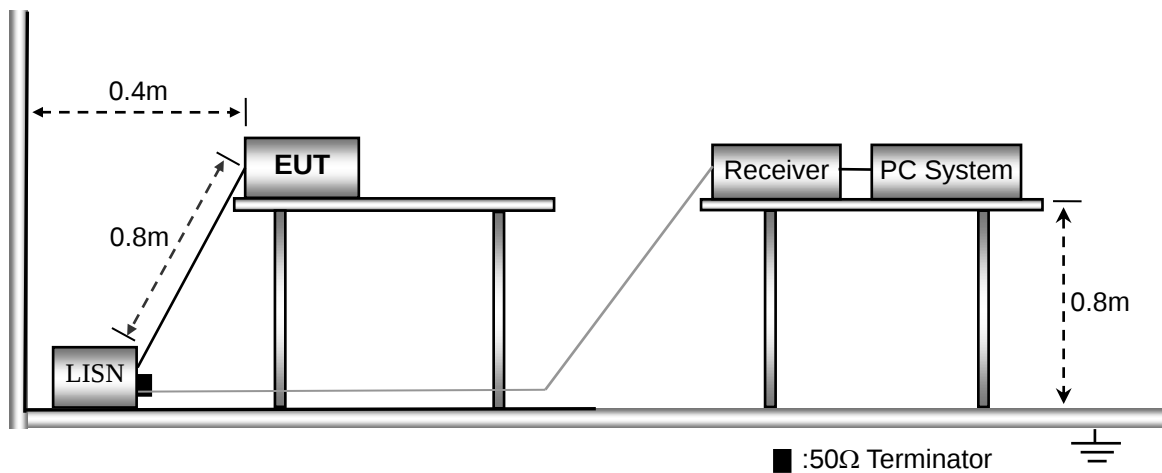
10. Conducted Emissions

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



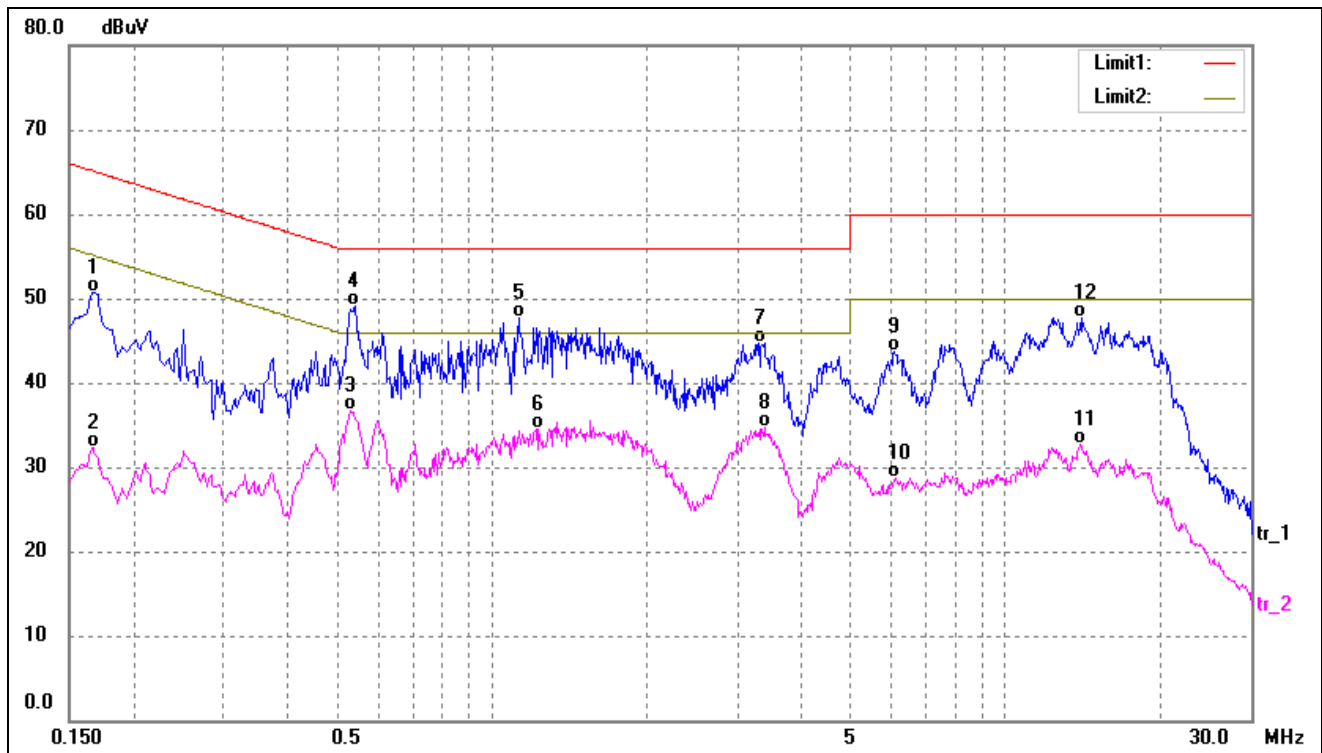
10.3 Test Receiver Setup

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

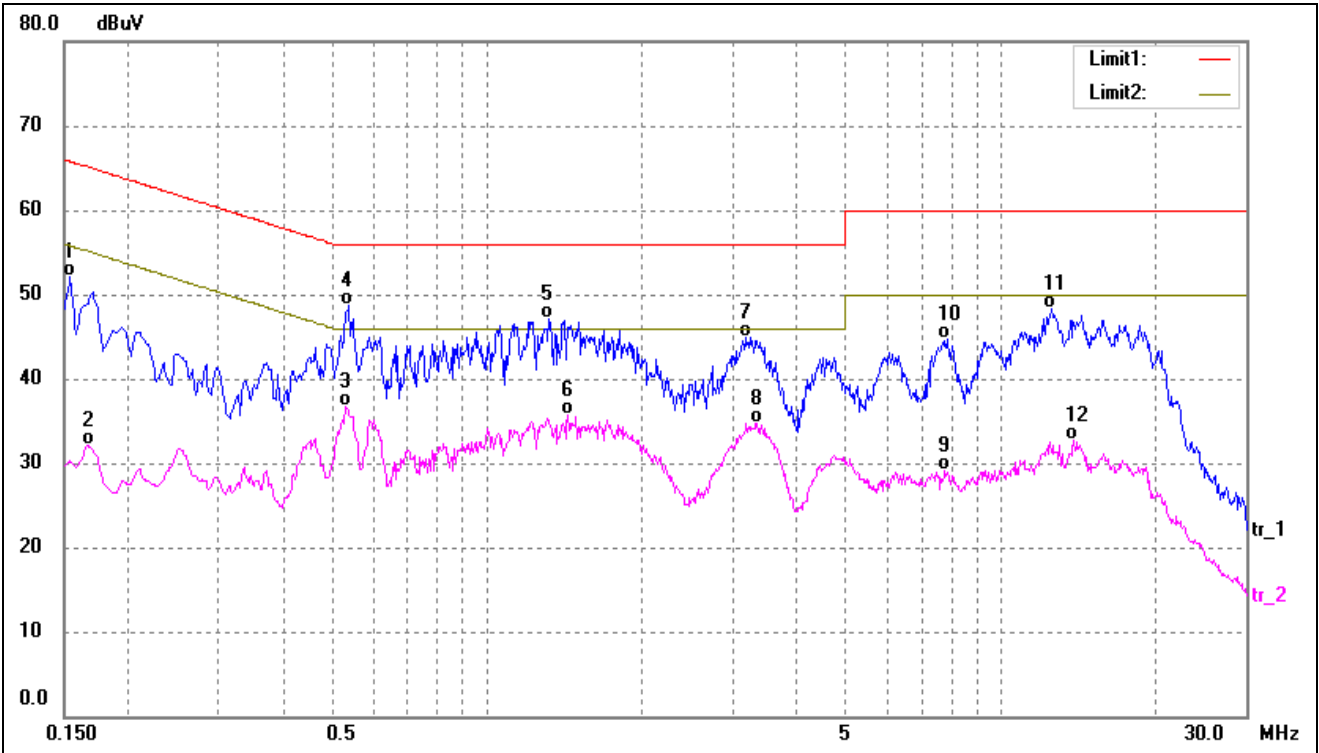
10.4 Summary of Test Results/Plots

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	0.1660	41.19	9.59	50.78	65.15	-14.37	QP
2	0.1660	22.67	9.59	32.26	55.15	-22.89	AVG
3	0.5299	27.22	9.46	36.68	46.00	-9.32	AVG
4*	0.5420	39.69	9.47	49.16	56.00	-6.84	QP
5	1.1260	38.11	9.52	47.63	56.00	-8.37	QP
6	1.2300	24.94	9.58	34.52	46.00	-11.48	AVG
7	3.3060	35.07	9.69	44.76	56.00	-11.24	QP
8	3.3900	25.09	9.67	34.76	46.00	-11.24	AVG
9	6.0580	34.05	9.65	43.70	60.00	-16.30	QP
10	6.1060	19.13	9.65	28.78	50.00	-21.22	AVG
11	13.9580	23.02	9.65	32.67	50.00	-17.33	AVG
12	14.0380	38.05	9.65	47.70	60.00	-12.30	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	0.1539	42.48	9.55	52.03	65.78	-13.75	QP
2	0.1660	22.60	9.59	32.19	55.15	-22.96	AVG
3	0.5299	27.18	9.46	36.64	46.00	-9.36	AVG
4*	0.5380	39.23	9.47	48.70	56.00	-7.30	QP
5	1.3180	37.56	9.62	47.18	56.00	-8.82	QP
6	1.4380	25.99	9.68	35.67	46.00	-10.33	AVG
7	3.1820	35.18	9.71	44.89	56.00	-11.11	QP
8	3.3620	25.11	9.68	34.79	46.00	-11.21	AVG
9	7.7860	19.37	9.73	29.10	50.00	-20.90	AVG
10	7.8820	34.99	9.73	44.72	60.00	-15.28	QP
11	12.5659	38.52	9.71	48.23	60.00	-11.77	QP
12	13.8620	23.08	9.66	32.74	50.00	-17.26	AVG

APPENDIX SUMMARY

Project No.	WTX25X04095969W	Test Engineer	Timi Huang
Start date	2025/4/24	Finish date	2025/4/24
Temperature	24℃	Humidity	66%
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

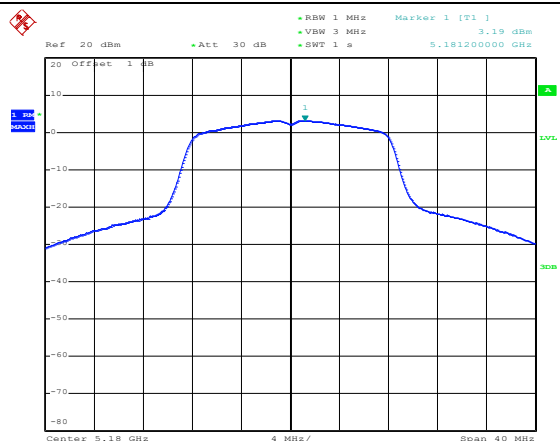
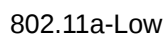
APPENDIX A

Power Spectral Density			
U-NII-1:5150-5250MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	3.19	11
	5200	3.52	11
	5240	3.13	11
802.11n-HT20	5180	1.41	11
	5200	1.74	11
	5240	1.77	11
802.11n-HT40	5190	-1.71	11
	5230	-1.09	11
802.11ac-VHT20	5180	1.47	11
	5200	2.08	11
	5240	1.88	11
802.11ac-VHT40	5190	-0.98	11
	5230	-1.11	11
802.11ac-VHT80	5210	-5.21	11

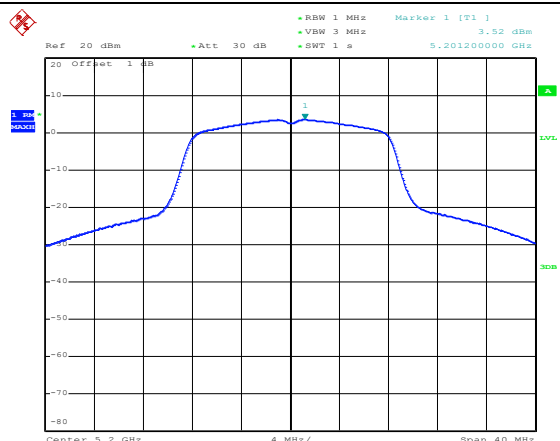
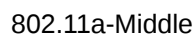
U-NII-3: 5725-5850MHz					
Operating mode	Test Channel	Power Spectral Density dBm/300kHz	Factor	Power Spectral Density* dBm/500kHz	Limit dBm/500kHz
802.11a	5745	-1.98	2.22	0.24	30
	5785	-1.40	2.22	0.82	30
	5825	-1.39	2.22	0.83	30
802.11n-HT20	5745	-2.31	2.22	-0.09	30
	5785	-2.46	2.22	-0.24	30
	5825	-2.33	2.22	-0.11	30
802.11n HT40	5755	-6.65	2.22	-4.43	30
	5795	-6.04	2.22	-3.82	30
802.11ac-VHT20	5745	-2.11	2.22	0.11	30
	5785	-2.43	2.22	-0.21	30
	5825	-2.79	2.22	-0.57	30
802.11ac-VHT40	5755	-6.48	2.22	-4.26	30
	5795	-5.85	2.22	-3.63	30
802.11ac-VHT80	5775	-9.85	2.22	-7.63	30

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

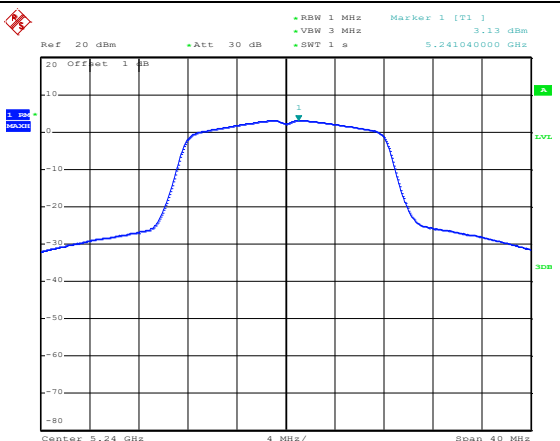
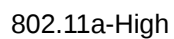
5150-5250MHz



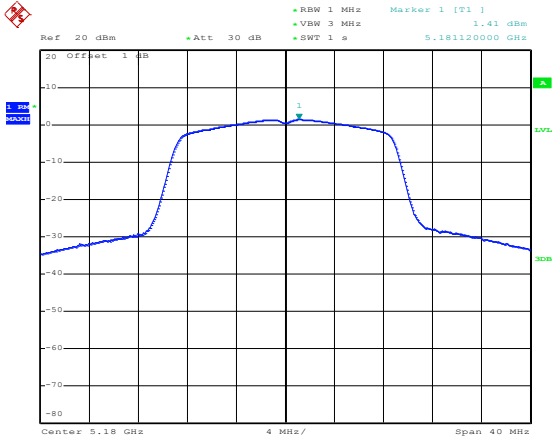
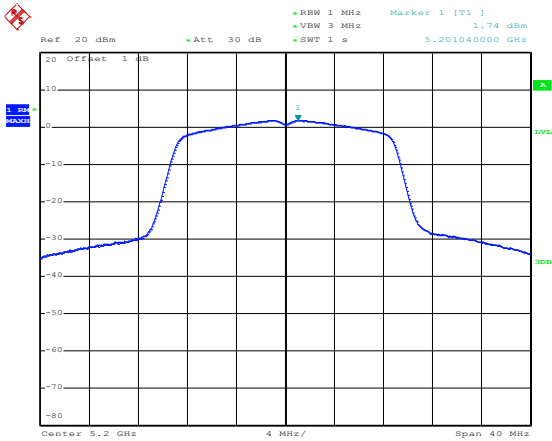
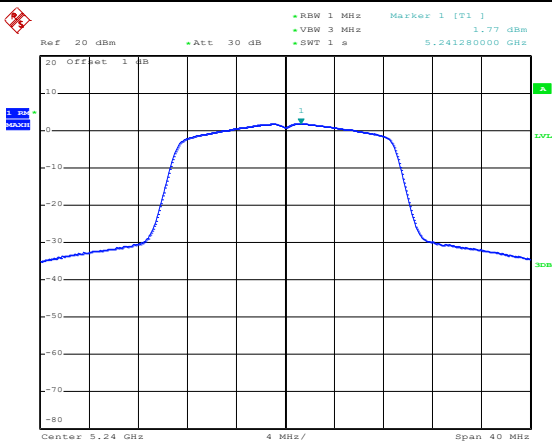
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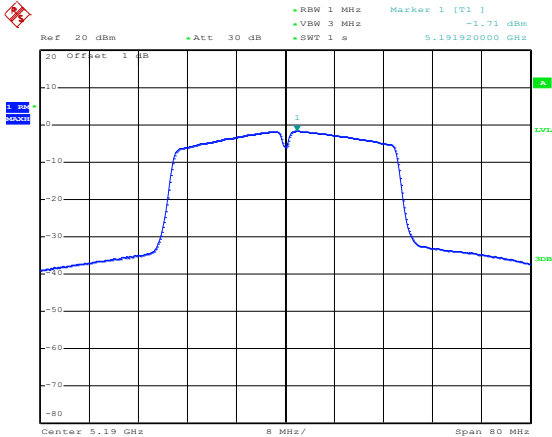
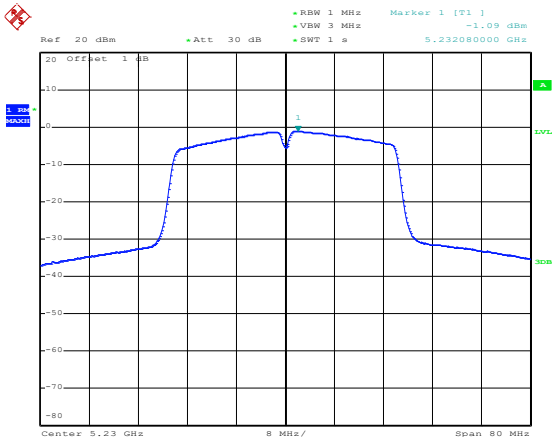
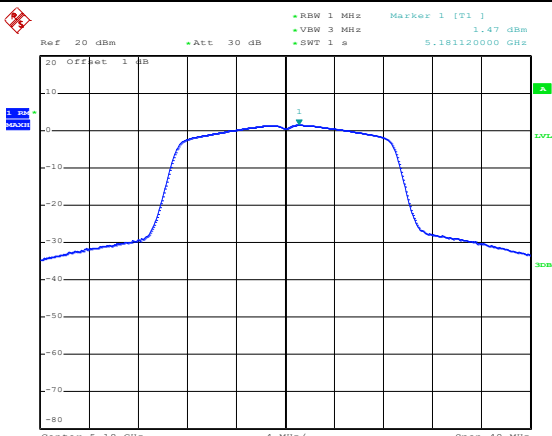


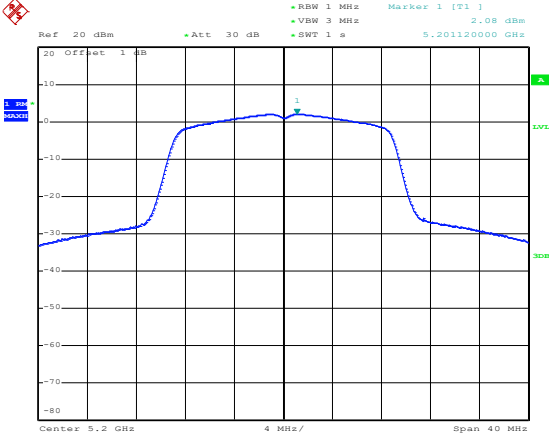
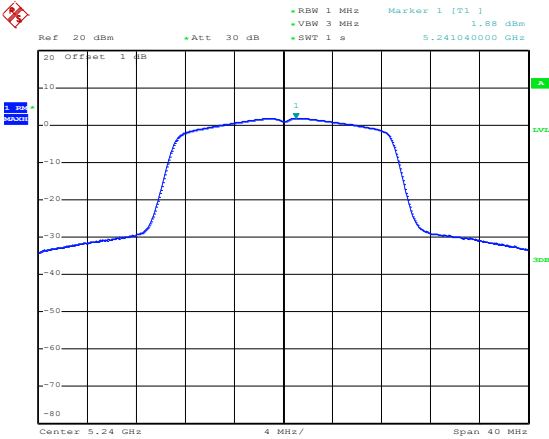
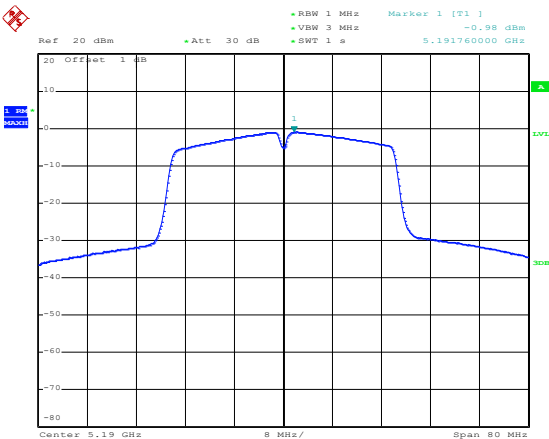
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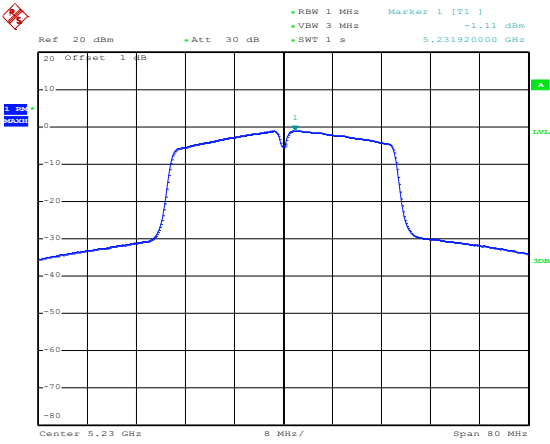
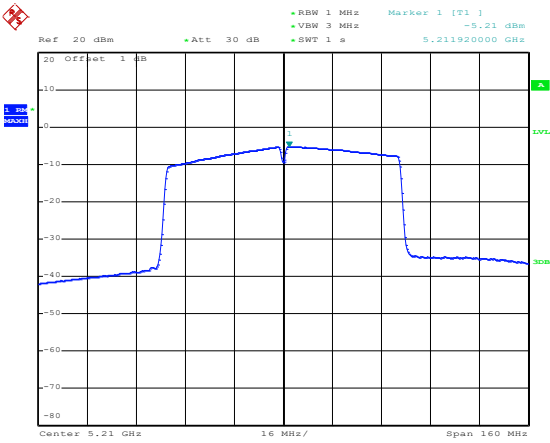


Date: 24.APR.2025 16:48:28

802.11n-HT20-Low	 Date: 24.APR.2025 16:47:06
802.11n-HT20-Middle	 Date: 24.APR.2025 16:47:26
802.11n-HT20-High	 Date: 24.APR.2025 16:47:49

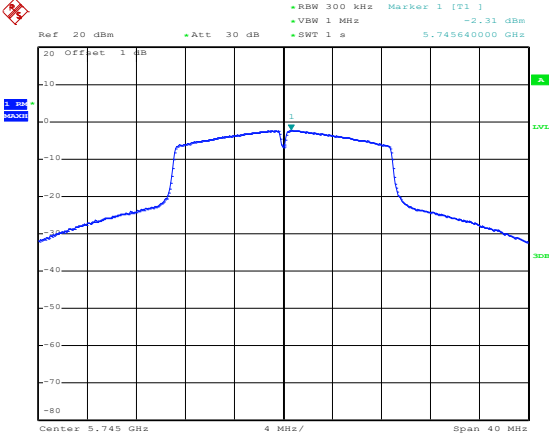
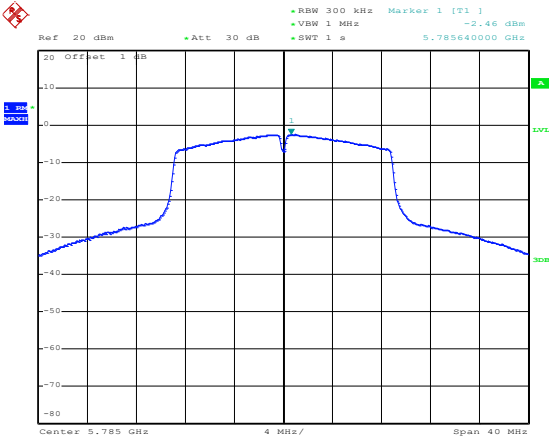
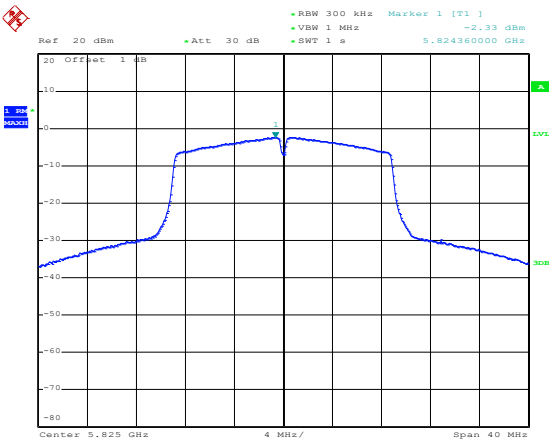
802.11n-HT40-Low	 Ref: 20 dBm Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 1 s Marker 1 [F1] -1.71 dBm 5.191920000 GHz Center: 5.19 GHz Span: 80 MHz Date: 24.APR.2025 16:35:07
802.11n-HT40-High	 Ref: 20 dBm Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 1 s Marker 1 [F1] -1.09 dBm 5.232080000 GHz Center: 5.23 GHz Span: 80 MHz Date: 24.APR.2025 16:35:30
802.11ac-VHT20-Low	 Ref: 20 dBm Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 1 s Marker 1 [F1] 1.47 dBm 5.181120000 GHz Center: 5.18 GHz Span: 40 MHz Date: 24.APR.2025 16:46:49

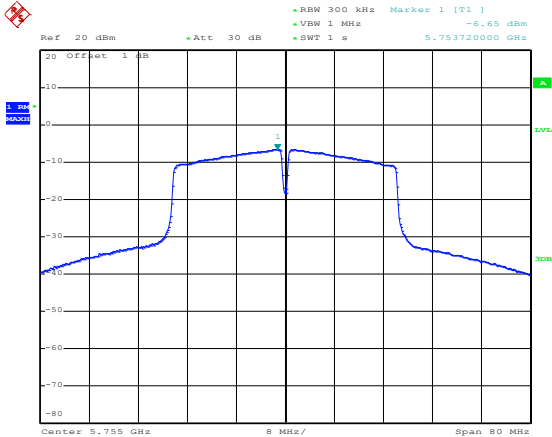
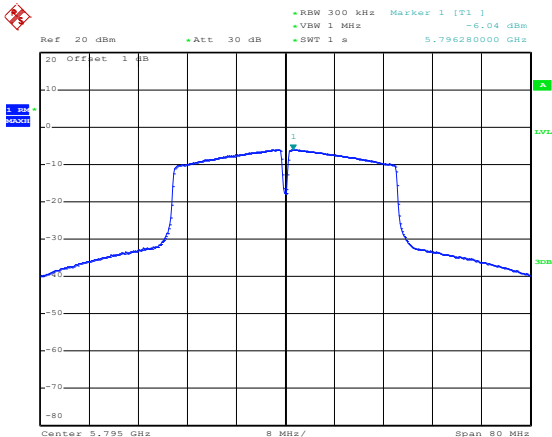
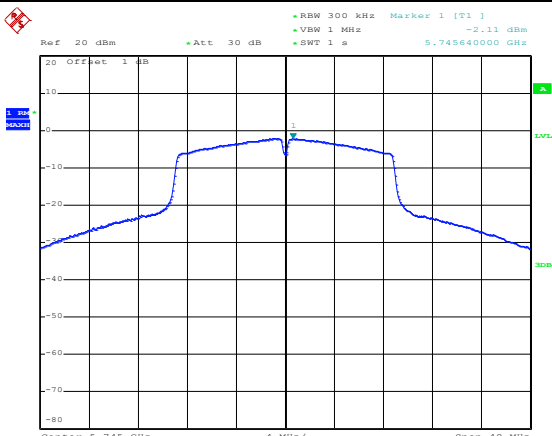
802.11ac-VHT20-Middle	 Date: 24.APR.2025 16:46:07
802.11ac-VHT20-High	 Date: 24.APR.2025 16:45:40
802.11ac-VHT40-Low	 Date: 24.APR.2025 16:34:42

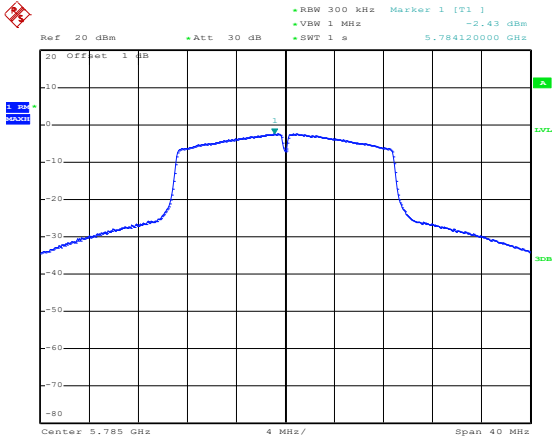
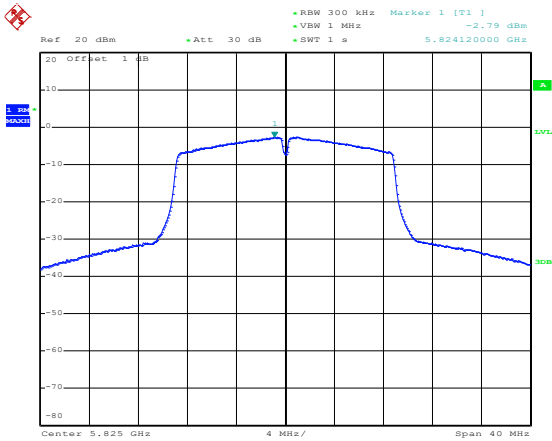
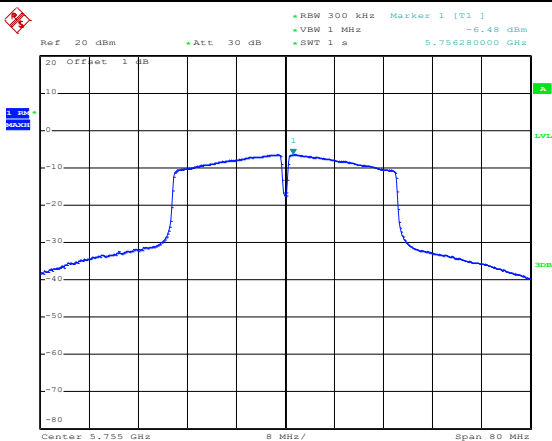
802.11ac-VHT40-High	 Date: 24.APR.2025 16:34:17
802.11ac-VHT80	 Date: 24.APR.2025 16:33:29

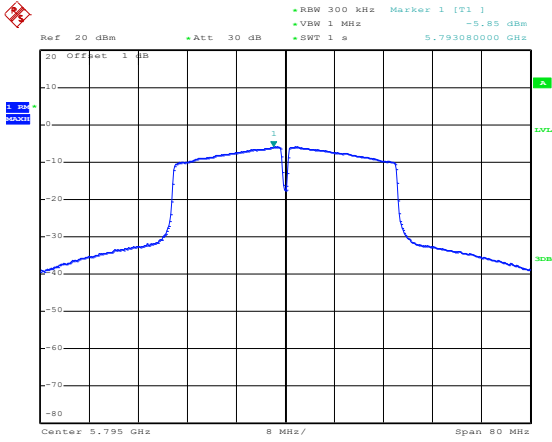
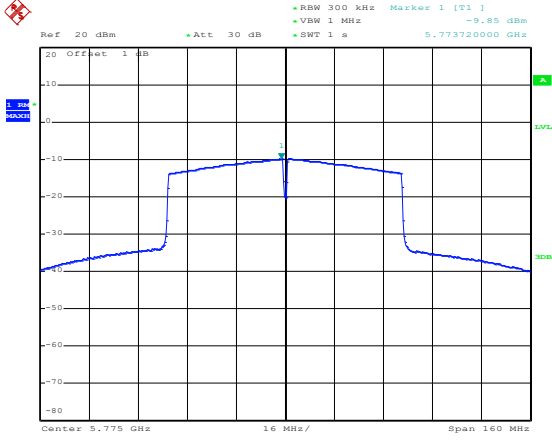
5725-5850MHz

Channel	Plot Description	Center Frequency (GHz)	Span (MHz)	Ref Level (dBm)	Att (dB)	RBW (kHz)	VBW (MHz)	SWT (s)	Marker 1 [T1] (GHz)	Marker 1 [T1] (dBm)	Date	Time
802.11a-Low	Power spectrum plot showing a peak at 5.745 GHz. The plot includes a grid with frequency on the x-axis (Center 5.745 GHz, Span 40 MHz) and power on the y-axis (Ref 20 dBm, Offset 1 dB, Scale 10 dB). The peak is marked with a green dot and labeled '1'.	5.745	40	20	30	300	1	1 s	5.745640000	-1.98	24.APR.2025	18:58:14
802.11a-Middle	Power spectrum plot showing a peak at 5.785 GHz. The plot includes a grid with frequency on the x-axis (Center 5.785 GHz, Span 40 MHz) and power on the y-axis (Ref 20 dBm, Offset 1 dB, Scale 10 dB). The peak is marked with a green dot and labeled '1'.	5.785	40	20	30	300	1	1 s	5.785640000	-1.40	24.APR.2025	18:57:28
802.11a-High	Power spectrum plot showing a peak at 5.825 GHz. The plot includes a grid with frequency on the x-axis (Center 5.825 GHz, Span 40 MHz) and power on the y-axis (Ref 20 dBm, Offset 1 dB, Scale 10 dB). The peak is marked with a green dot and labeled '1'.	5.825	40	20	30	300	1	1 s	5.825560000	-1.39	24.APR.2025	18:57:08

802.11n-HT20-Low	 Date: 24.APR.2025 18:56:09
802.11n-HT20-Middle	 Date: 24.APR.2025 18:56:28
802.11n-HT20-High	 Date: 24.APR.2025 18:56:45

802.11n-HT40-Low	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] -6.65 dBm VSW 1 MHz SWT 1 s 5.753720000 GHz Center 5.755 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 18:52:21
802.11n-HT40-High	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] -6.04 dBm VSW 1 MHz SWT 1 s 5.796280000 GHz Center 5.795 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 18:52:38
802.11ac-VHT20-Low	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] -2.11 dBm VSW 1 MHz SWT 1 s 5.745640000 GHz Center 5.745 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 18:55:51

802.11ac-VHT20-Middle	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] -2.43 dBm VSW 1 MHz SWT 1 s 5.784120000 GHz Center 5.785 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 18:55:28
802.11ac-VHT20-High	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] -2.79 dBm VSW 1 MHz SWT 1 s 5.824120000 GHz Center 5.825 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 18:53:37
802.11ac-VHT40-Low	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] -6.48 dBm VSW 1 MHz SWT 1 s 5.756280000 GHz Center 5.755 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 18:52:02

802.11ac-VHT40-High	 Ref 20 dBm •Att 30 dB •RBW 300 kHz Marker 1 [T1] -5.85 dBm •VSW 1 MHz •SWT 1 s 5.793080000 GHz 20 Offset 1 dB Center 5.795 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 18:51:42
802.11ac-VHT80	 Ref 20 dBm •Att 30 dB •RBW 300 kHz Marker 1 [T1] -9.85 dBm •VSW 1 MHz •SWT 1 s 5.773720000 GHz 20 Offset 1 dB Center 5.775 GHz 16 MHz/ Span 160 MHz Date: 24.APR.2025 18:51:11

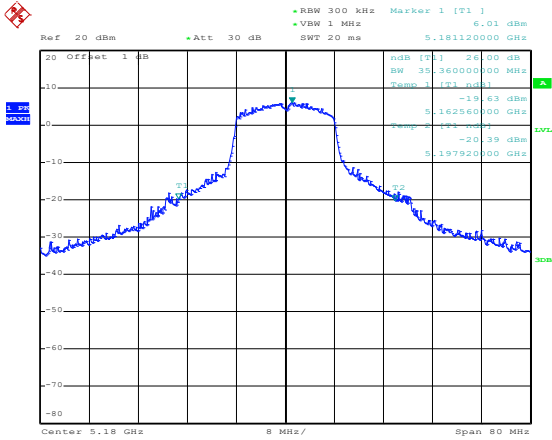
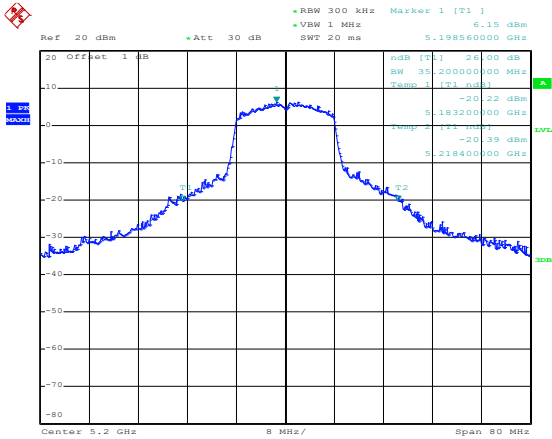
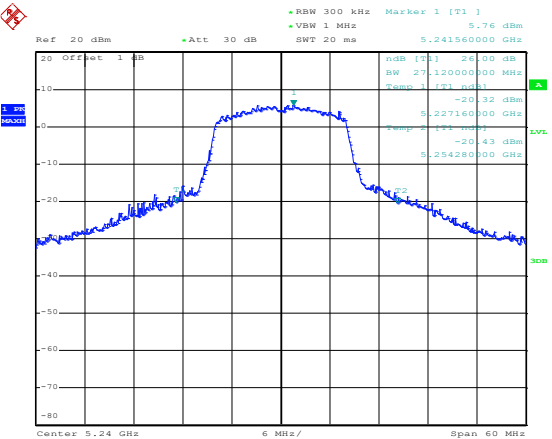
APPENDIX B

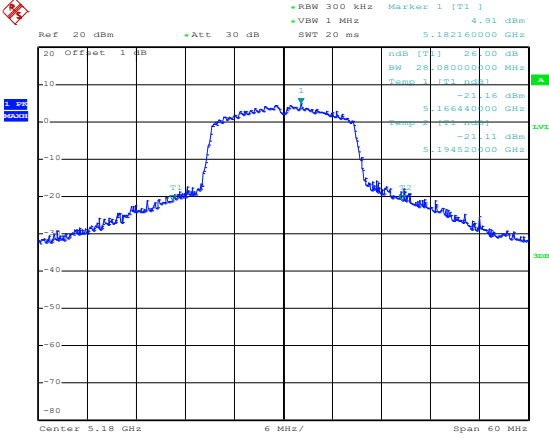
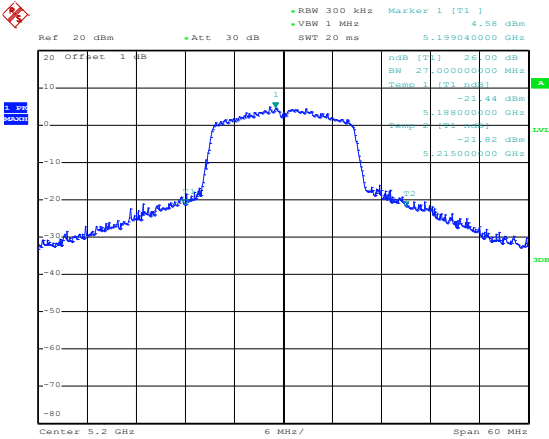
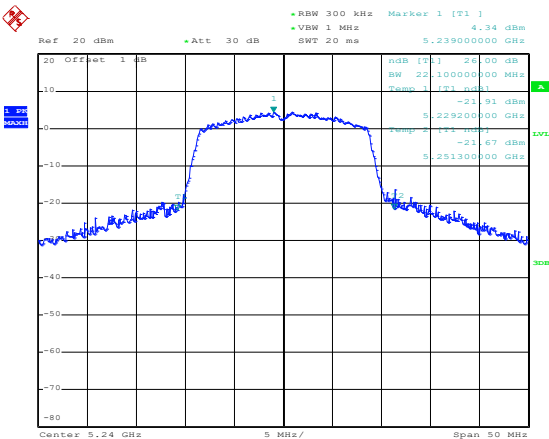
Emission Bandwidth and Occupied Bandwidth

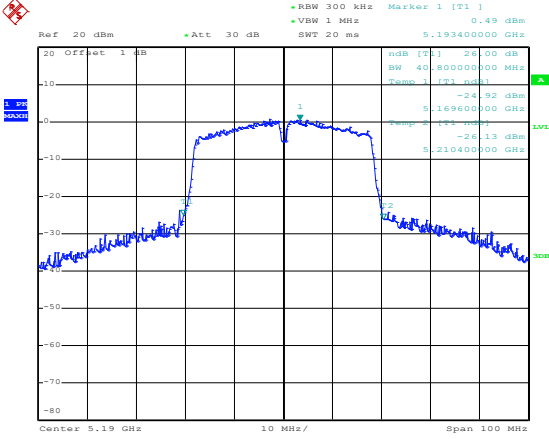
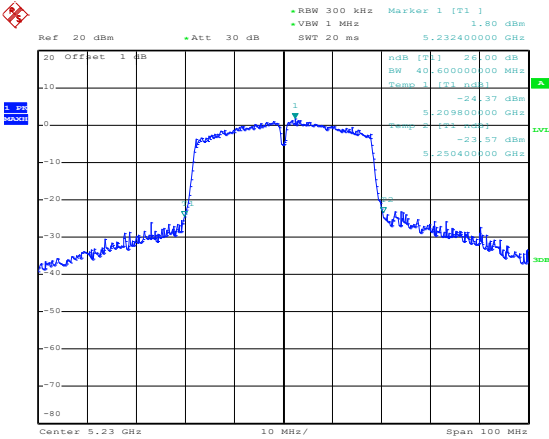
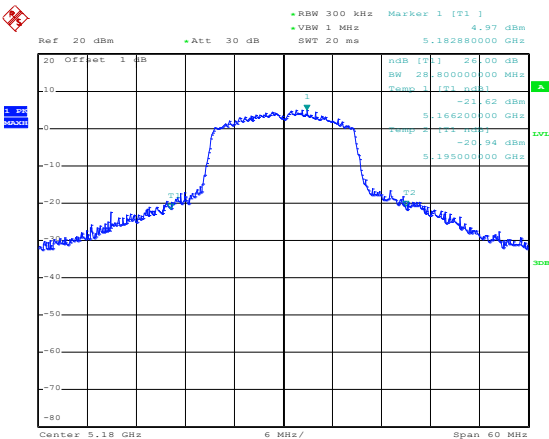
U-NII-1:5150-5250MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5180	35.36	19.76	Pass
	5200	35.20	19.60	Pass
	5240	27.12	17.68	Pass
802.11n-HT20	5180	28.08	18.40	Pass
	5200	27.00	18.40	Pass
	5240	22.10	18.24	Pass
802.11n-HT40	5190	40.80	37.92	Pass
	5230	40.60	37.60	Pass
802.11ac-VHT20	5180	28.80	18.40	Pass
	5200	25.56	18.40	Pass
	5240	24.60	18.08	Pass
802.11ac-VHT40	5190	45.60	37.76	Pass
	5230	42.00	37.60	Pass
802.11ac-VHT80	5210	116.50	76.48	Pass

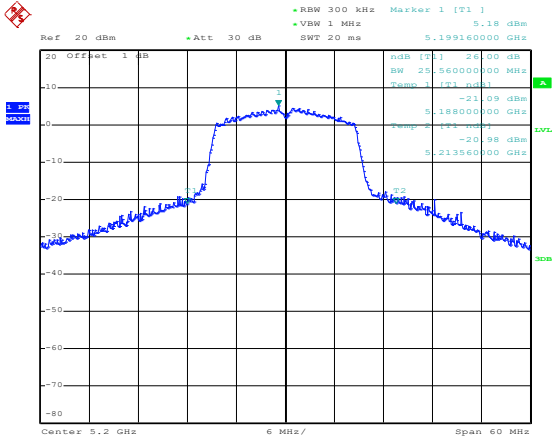
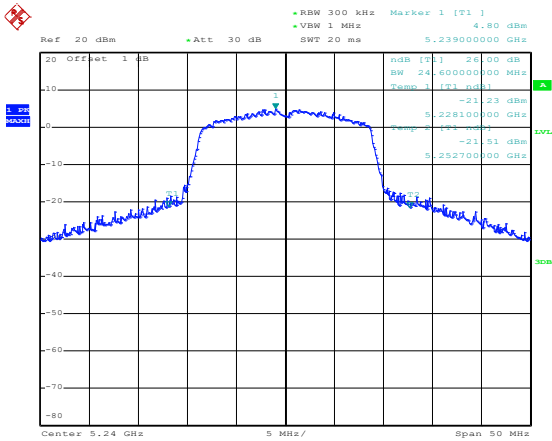
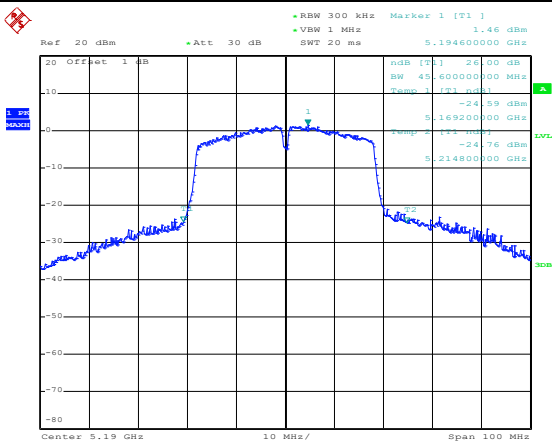
U-NII-3: 5725-5850MHz				
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5745	16.56	23.30	≥500
	5785	16.48	23.50	≥500
	5825	16.48	20.20	≥500
802.11n-HT20	5745	17.76	24.60	≥500
	5785	17.76	21.40	≥500
	5825	17.76	18.80	≥500
802.11n-HT40	5755	36.80	39.36	≥500
	5795	36.80	38.72	≥500
802.11ac-VHT20	5745	17.76	23.70	≥500
	5785	17.76	21.40	≥500
	5825	17.76	18.56	≥500
802.11ac-VHT40	5755	36.80	38.72	≥500
	5795	36.48	38.24	≥500
802.11ac-VHT80	5775	76.80	79.36	≥500

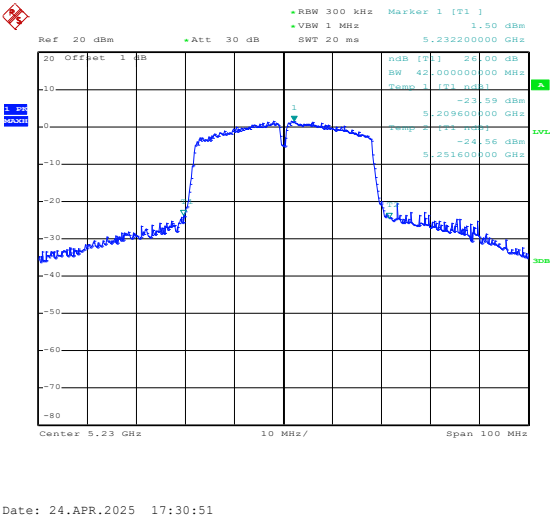
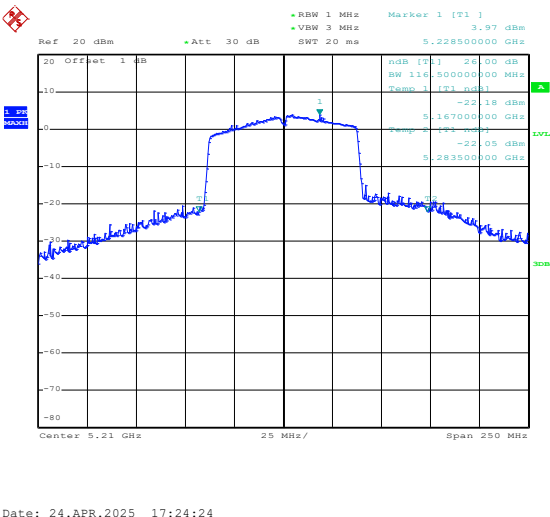
26 dB Bandwidth
5150-5250MHz

802.11a-Low	 Date: 24.APR.2025 17:38:43
802.11a-Middle	 Date: 24.APR.2025 17:38:07
802.11a-High	 Date: 24.APR.2025 17:37:15

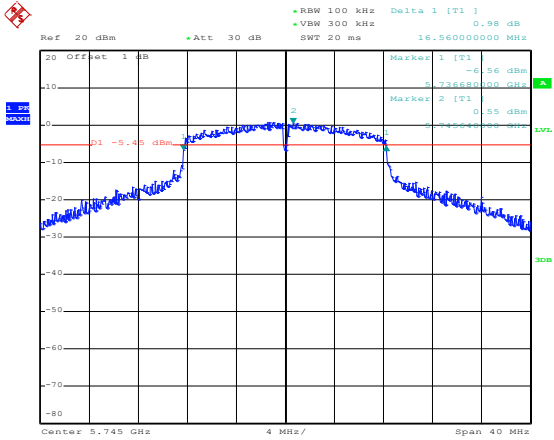
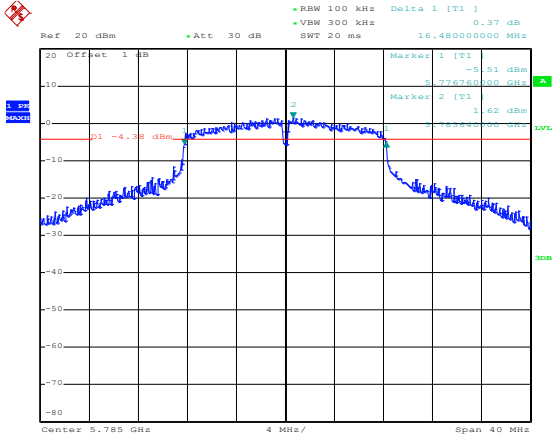
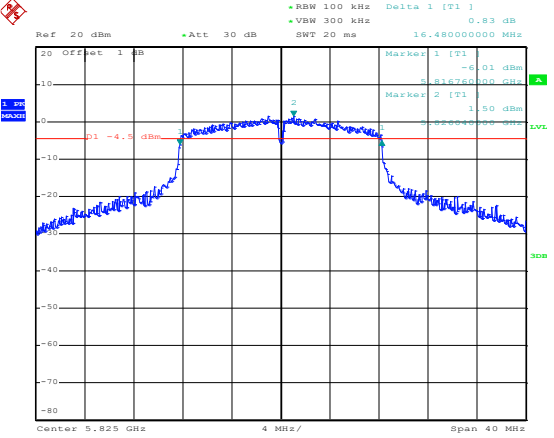
802.11n-HT20-Low	 Ref 20 dBm •Att 30 dB •RBW 300 kHz Marker 1 [T1] 4.91 dBm •VSW 1 MHz SWT 20 ms 5.182160000 GHz ndB [T1] -21.16 dBm BW 28.08000000 MHz Temp 1 [T1] ndB 5.166440000 GHz -21.11 dBm 5.194520000 GHz Center 5.18 GHz 6 MHz/ Span 60 MHz Date: 24.APR.2025 17:35:31
802.11n-HT20-Middle	 Ref 20 dBm •Att 30 dB •RBW 300 kHz Marker 1 [T1] 4.58 dBm •VSW 1 MHz SWT 20 ms 5.199040000 GHz ndB [T1] -21.44 dBm BW 27.00000000 MHz Temp 1 [T1] ndB 5.188000000 GHz -21.82 dBm 5.215000000 GHz Center 5.2 GHz 6 MHz/ Span 60 MHz Date: 24.APR.2025 17:35:55
802.11n-HT20-High	 Ref 20 dBm •Att 30 dB •RBW 300 kHz Marker 1 [T1] 4.34 dBm •VSW 1 MHz SWT 20 ms 5.239000000 GHz ndB [T1] -21.91 dBm BW 22.10000000 MHz Temp 1 [T1] ndB 5.229200000 GHz -21.67 dBm 5.251300000 GHz Center 5.24 GHz 5 MHz/ Span 50 MHz Date: 24.APR.2025 17:36:24

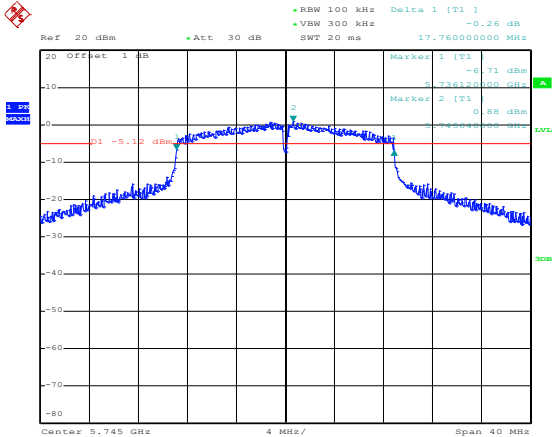
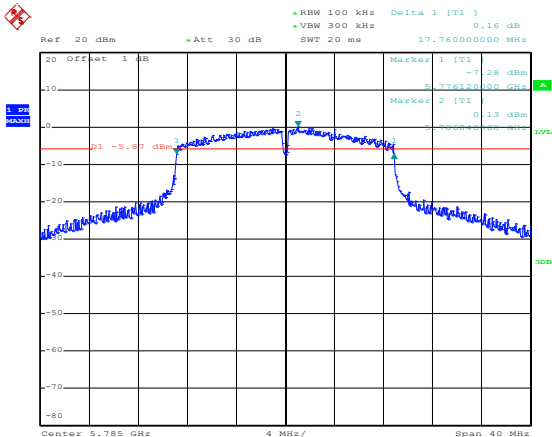
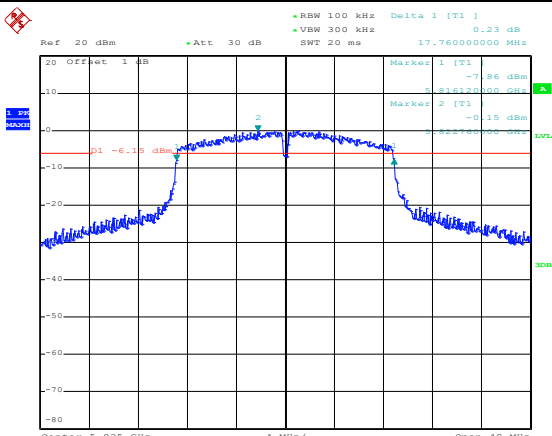
802.11n-HT40-Low	 Date: 24.APR.2025 17:32:34
802.11n-HT40-High	 Date: 24.APR.2025 17:32:59
802.11ac-VHT20-Low	 Date: 24.APR.2025 17:34:55

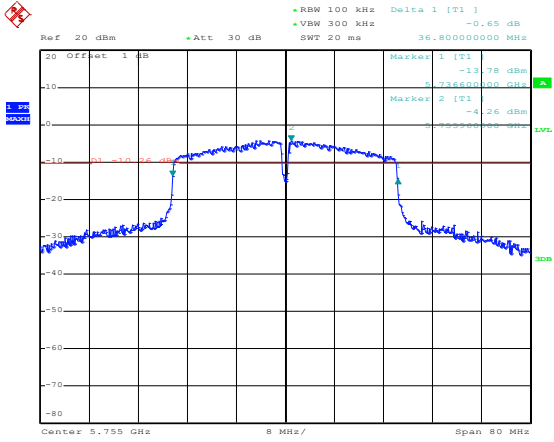
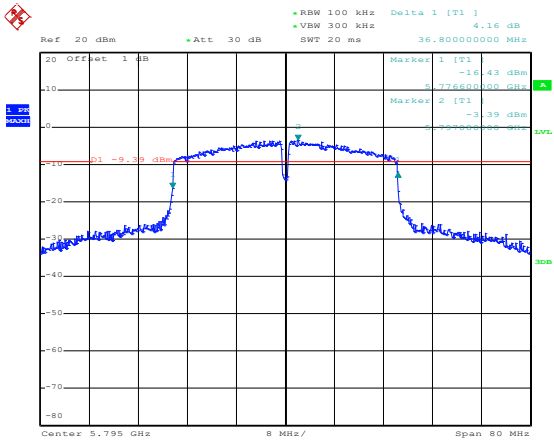
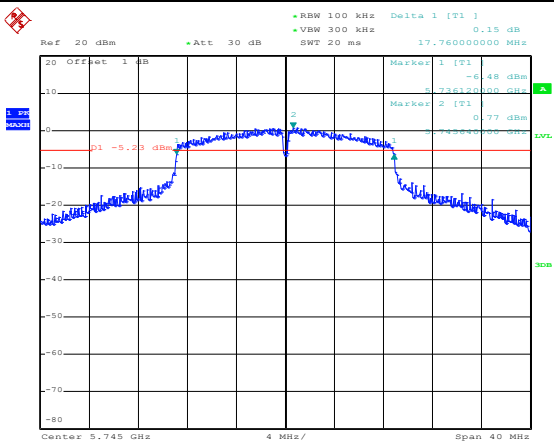
802.11ac-VHT20-Middle	 Ref 20 dBm • Att 30 dB • RBW 300 kHz Marker 1 [T1] 5.18 dBm • VSW 1 MHz • SWT 20 ms 5.199160000 GHz ndB [T1] 26.00 dB BW 25.560000000 MHz Temp 1 [T1] ndB -21.09 dBm 5.188000000 GHz -20.98 dBm 5.213560000 GHz Center 5.2 GHz 6 MHz/ Span 60 MHz Date: 24.APR.2025 17:34:31
802.11ac-VHT20-High	 Ref 20 dBm • Att 30 dB • RBW 300 kHz Marker 1 [T1] 4.80 dBm • VSW 1 MHz • SWT 20 ms 5.239000000 GHz ndB [T1] 26.00 dB BW 24.600000000 MHz Temp 1 [T1] ndB -21.23 dBm 5.228100000 GHz -21.51 dBm 5.252700000 GHz Center 5.24 GHz 5 MHz/ Span 50 MHz Date: 24.APR.2025 17:33:52
802.11ac-VHT40-Low	 Ref 20 dBm • Att 30 dB • RBW 300 kHz Marker 1 [T1] 1.46 dBm • VSW 1 MHz • SWT 20 ms 5.194600000 GHz ndB [T1] 26.00 dB BW 45.600000000 MHz Temp 1 [T1] ndB -24.59 dBm 5.169200000 GHz -24.76 dBm 5.214800000 GHz Center 5.19 GHz 10 MHz/ Span 100 MHz Date: 24.APR.2025 17:32:05

802.11ac-VHT40-High	 Date: 24.APR.2025 17:30:51
802.11ac-VHT80	 Date: 24.APR.2025 17:24:24

6 dB Bandwidth
5725-5850MHz

802.11a-Low	 Ref 20 dBm +Att 30 dB RBW 100 kHz Delta 1 [T1] 0.98 dB VBW 300 kHz SWT 20 ms 16.56000000 MHz Marker 1 [T1] -5.45 dBm Marker 2 [T1] -0.55 dBm Center 5.745 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:23:06
802.11a-Middle	 Ref 20 dBm +Att 30 dB RBW 100 kHz Delta 1 [T1] 0.37 dB VBW 300 kHz SWT 20 ms 16.48000000 MHz Marker 1 [T1] -4.38 dBm Marker 2 [T1] -0.51 dBm Center 5.785 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:22:27
802.11a-High	 Ref 20 dBm +Att 30 dB RBW 100 kHz Delta 1 [T1] 0.83 dB VBW 300 kHz SWT 20 ms 16.48000000 MHz Marker 1 [T1] -4.5 dBm Marker 2 [T1] -0.01 dBm Center 5.825 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:21:41

802.11n-HT20-Low	 Ref 20 dBm Att 30 dB Marker 1 [T1] -6.71 dBm Marker 2 [T1] -6.88 dBm Delta 1 [T1] -0.26 dB Center 5.745 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:19:05
802.11n-HT20-Middle	 Ref 20 dBm Att 30 dB Marker 1 [T1] -7.28 dBm Marker 2 [T1] -6.13 dBm Delta 1 [T1] 0.16 dB Center 5.785 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:19:56
802.11n-HT20-High	 Ref 20 dBm Att 30 dB Marker 1 [T1] -7.86 dBm Marker 2 [T1] -6.15 dBm Delta 1 [T1] 0.23 dB Center 5.825 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:20:48

802.11n-HT40-Low	 Ref 20 dBm Att 30 dB RBW 100 kHz Delta 1 [T1] -0.65 dB VSW 300 kHz SWT 20 ms 36.800000000 MHz Marker 1 [T1] -13.78 dBm 5.755000000 GHz Marker 2 [T1] -4.26 dBm 5.755000000 GHz Center 5.755 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 19:13:47
802.11n-HT40-High	 Ref 20 dBm Att 30 dB RBW 100 kHz Delta 1 [T1] 4.16 dB VSW 300 kHz SWT 20 ms 36.800000000 MHz Marker 1 [T1] -16.43 dBm 5.775000000 GHz Marker 2 [T1] -3.39 dBm 5.775000000 GHz Center 5.795 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 19:15:35
802.11ac-VHT20-Low	 Ref 20 dBm Att 30 dB RBW 100 kHz Delta 1 [T1] 0.15 dB VSW 300 kHz SWT 20 ms 17.760000000 MHz Marker 1 [T1] -6.48 dBm 5.736120000 GHz Marker 2 [T1] 0.77 dBm 5.736120000 GHz Center 5.745 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:18:18

802.11ac-VHT20-Middle

Ref 20 dBm Att 30 dB RBW 100 kHz Delta 1 [T1] -0.11 dB
VSW 300 kHz SWF 20 ms 17.760000000 MHz

Marker 1 [T1] -7.61 dBm
Marker 2 [T1] 0.01 dBm

Center 5.785 GHz 4 MHz/ Span 40 MHz

Date: 24.APR.2025 19:17:17

802.11ac-VHT20-High

Ref 20 dBm Att 30 dB RBW 100 kHz Delta 1 [T1] 0.21 dB
VSW 300 kHz SWF 20 ms 17.760000000 MHz

Marker 1 [T1] -7.89 dBm
Marker 2 [T1] 0.07 dBm

Center 5.825 GHz 4 MHz/ Span 40 MHz

Date: 24.APR.2025 19:16:36

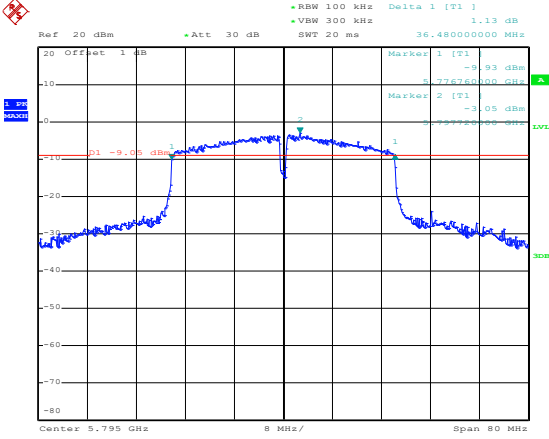
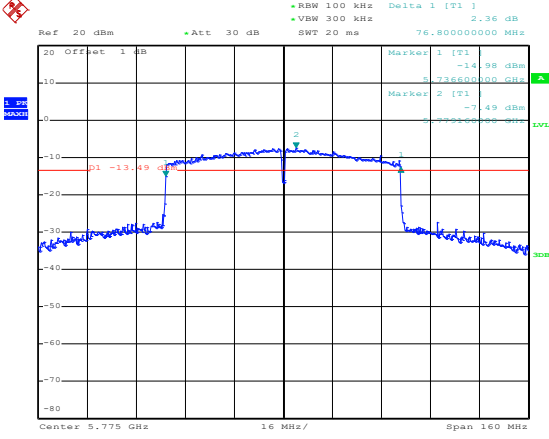
802.11ac-VHT40-Low

Ref 20 dBm Att 30 dB RBW 100 kHz Delta 1 [T1] 0.40 dB
VSW 300 kHz SWF 20 ms 36.800000000 MHz

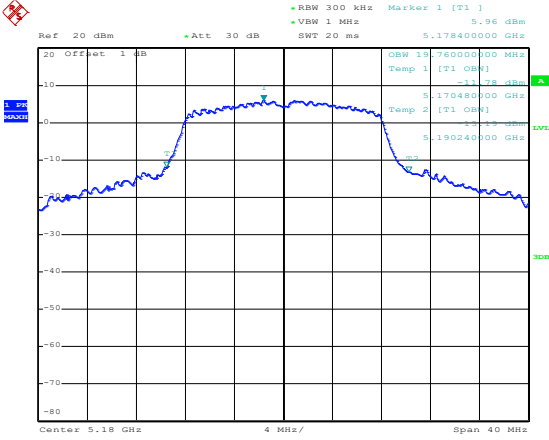
Marker 1 [T1] -14.39 dBm
Marker 2 [T1] -3.82 dBm

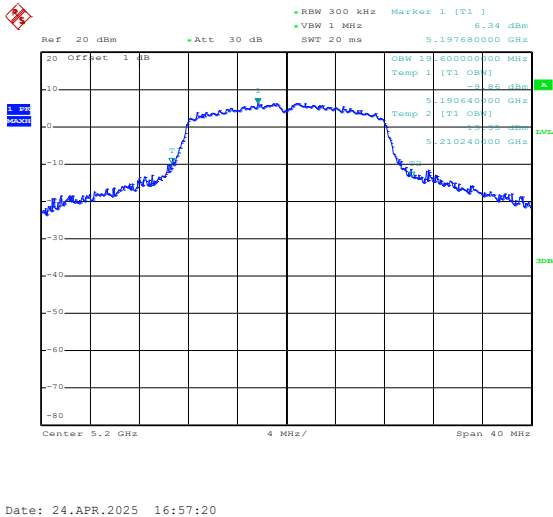
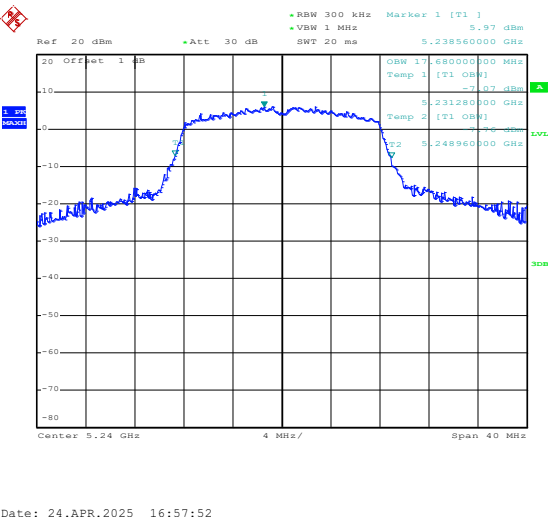
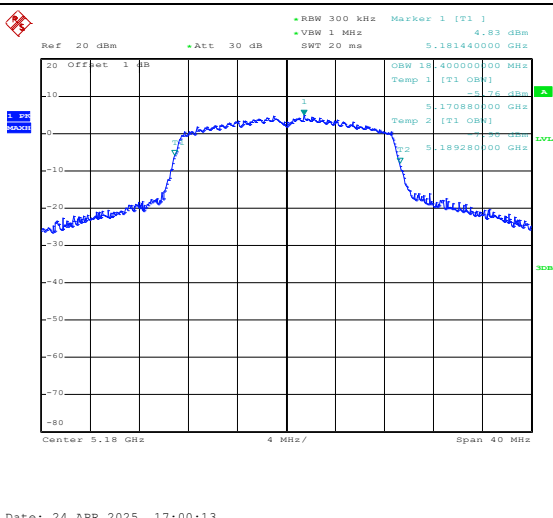
Center 5.755 GHz 8 MHz/ Span 80 MHz

Date: 24.APR.2025 19:13:00

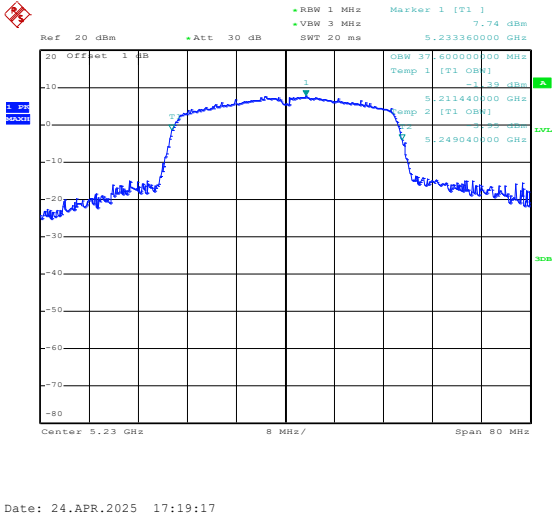
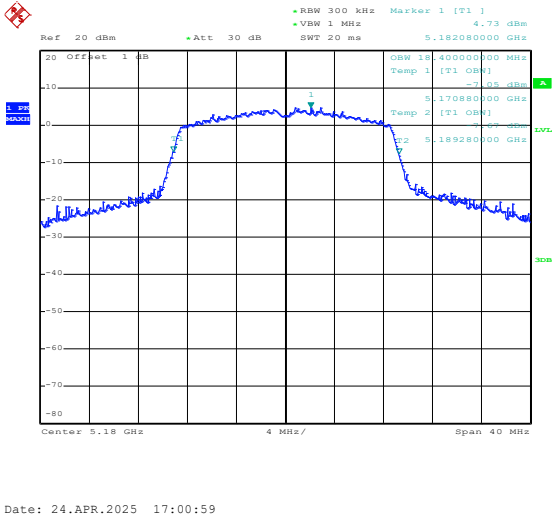
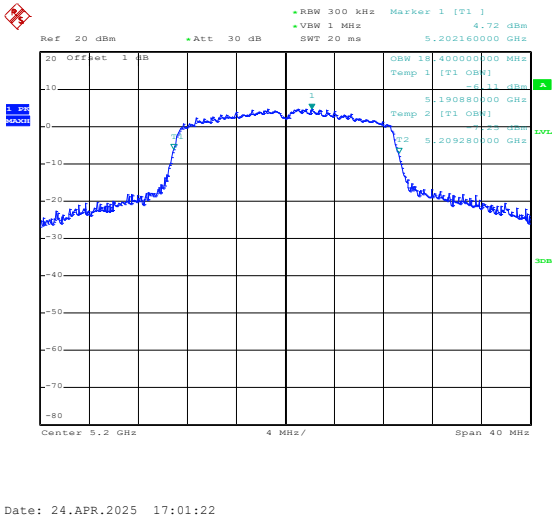
802.11ac-VHT40-High	 Date: 24.APR.2025 19:12:16
802.11ac-VHT80	 Date: 24.APR.2025 19:11:16

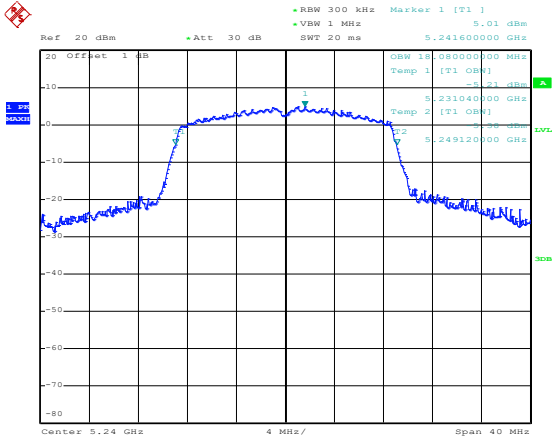
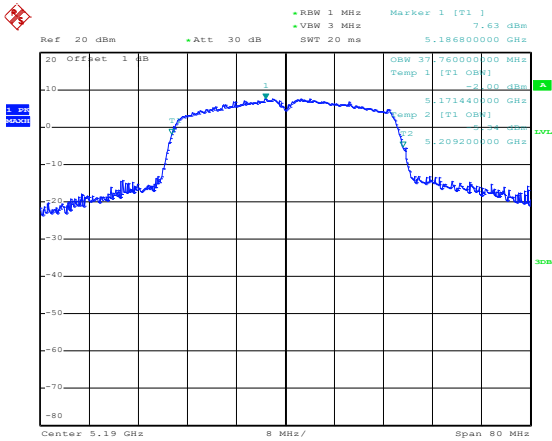
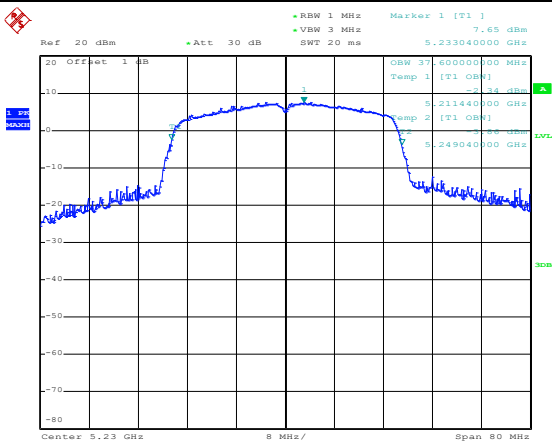
99% Bandwidth
5150-5250MHz

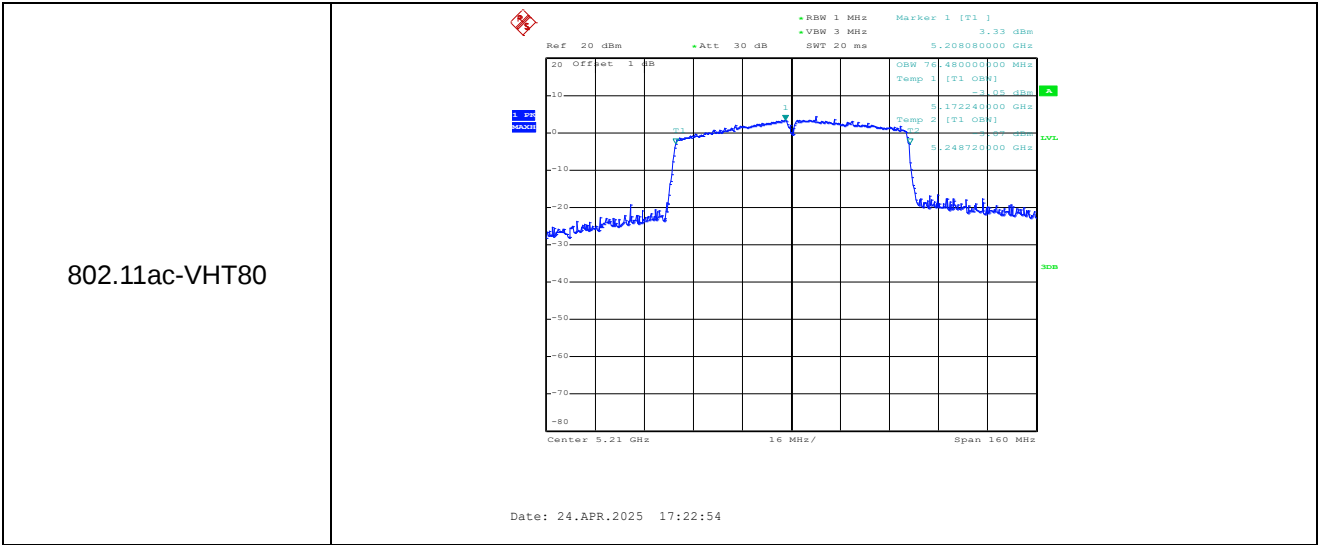
802.11a-Low	 Date: 24.APR.2025 16:55:21
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802.11a-Middle	 Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 6.34 dBm VSW 1 MHz SWT 20 ms 5.197680000 GHz OSW 17.600000000 MHz Temp 1 [T1 OBW] -3.86 dBm 5.190640000 GHz Temp 2 [T1 OBW] -3.86 dBm 5.210240000 GHz Center 5.2 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 16:57:20
802.11a-High	 Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 5.97 dBm VSW 1 MHz SWT 20 ms 5.238560000 GHz OSW 17.600000000 MHz Temp 1 [T1 OBW] -7.67 dBm 5.231280000 GHz Temp 2 [T1 OBW] -7.67 dBm 5.248960000 GHz Center 5.24 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 16:57:52
802.11n-HT20-Low	 Ref 20 dBm +Att 30 dB RBW 300 kHz Marker 1 [T1] 4.83 dBm VSW 1 MHz SWT 20 ms 5.181440000 GHz OSW 18.400000000 MHz Temp 1 [T1 OBW] -5.78 dBm 5.170880000 GHz Temp 2 [T1 OBW] -5.78 dBm 5.189280000 GHz Center 5.18 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 17:00:13

802.11n-HT20-Middle	Ref 20 dBm Att 30 dB RBW 300 kHz VSW 1 MHz SWT 20 ms Marker 1 [T1] 4.98 dBm Center 5.2 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 16:59:21
802.11n-HT20-High	Ref 20 dBm Att 30 dB RBW 300 kHz VSW 1 MHz SWT 20 ms Marker 1 [T1] 5.08 dBm Center 5.24 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 16:58:52
802.11n-HT40-Low	Ref 20 dBm Att 30 dB RBW 1 MHz VSW 3 MHz SWT 20 ms Marker 1 [T1] 7.10 dBm Center 5.19 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 17:18:23

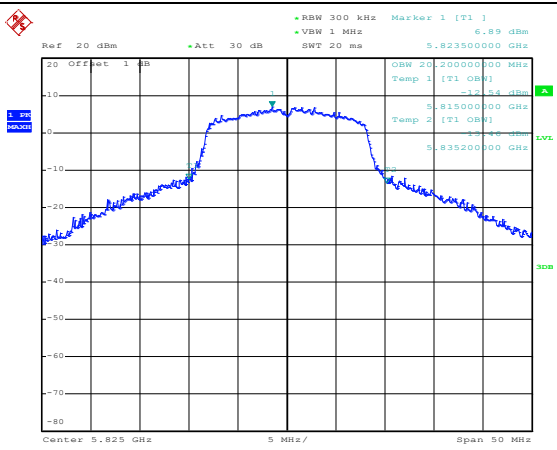
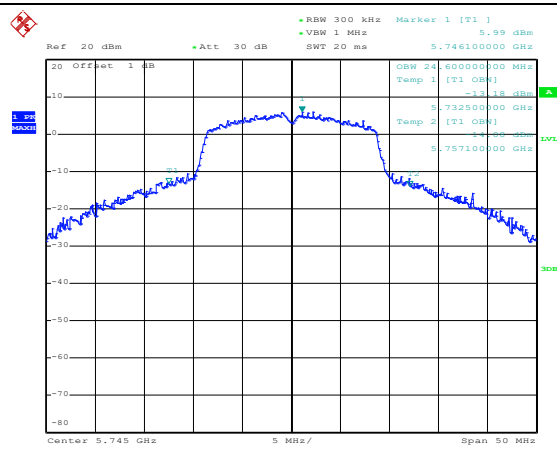
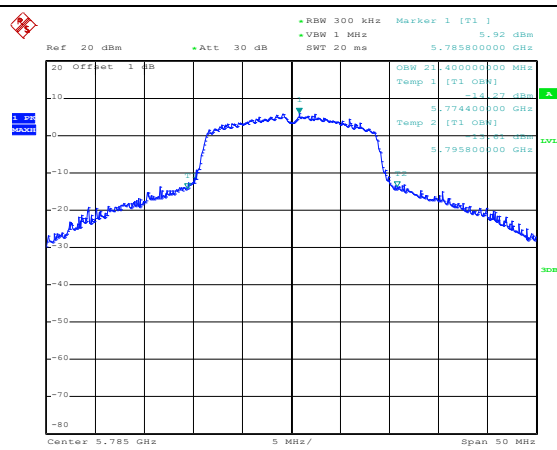
802.11n-HT40-High	 Date: 24.APR.2025 17:19:17
802.11ac-VHT20-Low	 Date: 24.APR.2025 17:00:59
802.11ac-VHT20-Middle	 Date: 24.APR.2025 17:01:22

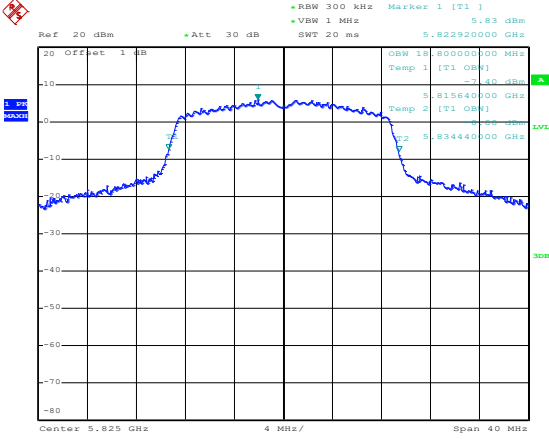
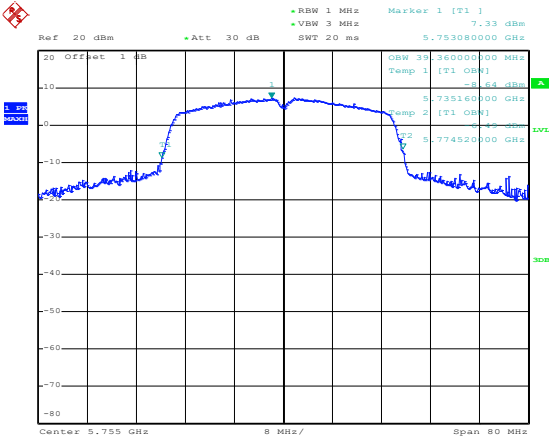
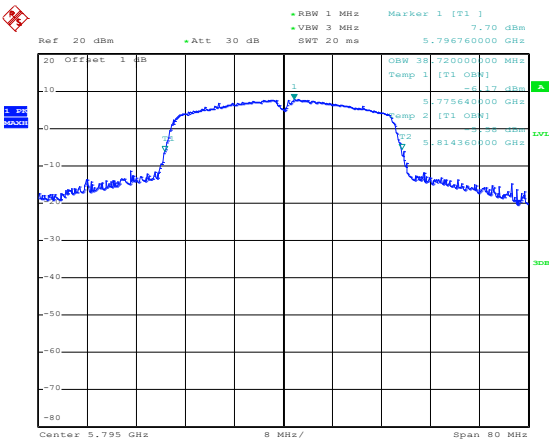
802.11ac-VHT20-High	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] 5.01 dBm VSW 1 MHz SWT 20 ms 5.241600000 GHz 20 Offset 1 dB Obs 18.08000000 MHz Temp 1 [T1] 0.00 dBm 5.231040000 GHz Temp 2 [T1] 0.00 dBm 5.249120000 GHz Center 5.24 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 17:01:51
802.11ac-VHT40-Low	 Ref 20 dBm Att 30 dB RBW 1 MHz Marker 1 [T1] 7.63 dBm VSW 3 MHz SWT 20 ms 5.186800000 GHz 20 Offset 1 dB Obs 37.76000000 MHz Temp 1 [T1] 0.00 dBm 5.171440000 GHz Temp 2 [T1] 0.00 dBm 5.209200000 GHz Center 5.19 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 17:20:26
802.11ac-VHT40-High	 Ref 20 dBm Att 30 dB RBW 1 MHz Marker 1 [T1] 7.65 dBm VSW 3 MHz SWT 20 ms 5.233040000 GHz 20 Offset 1 dB Obs 37.60000000 MHz Temp 1 [T1] 0.00 dBm 5.211440000 GHz Temp 2 [T1] 0.00 dBm 5.249040000 GHz Center 5.23 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 17:19:58

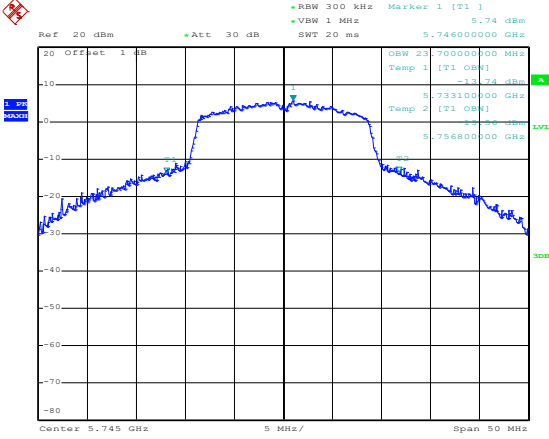
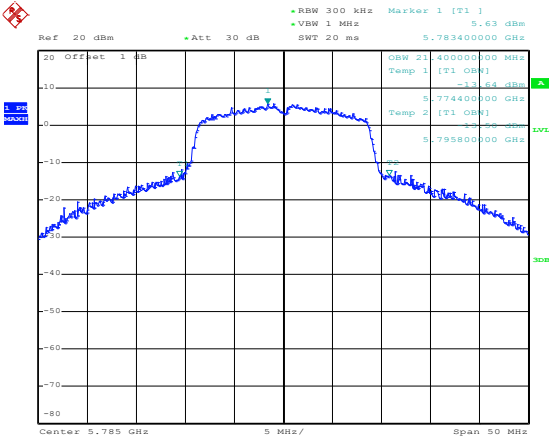
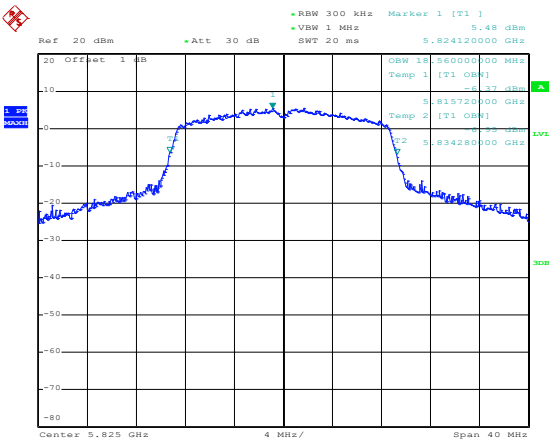


99% dB Bandwidth
5725-5850MHz



802.11a-High	 Ref: 20 dBm, Att: 30 dB, RBW: 300 kHz, VSW: 1 MHz, SWT: 20 ms, Marker 1 [T1]: 5.823500000 GHz, 5.89 dBm OSW: 20.00000000 MHz, Temp 1 [T1 OSW]: -12.54 dBm, 5.815000000 GHz, Temp 2 [T1 OSW]: -12.46 dBm, 5.835200000 GHz Center: 5.825 GHz, 5 MHz/, Span: 50 MHz Date: 24.APR.2025 19:00:29
802.11n-HT20-Low	 Ref: 20 dBm, Att: 30 dB, RBW: 300 kHz, VSW: 1 MHz, SWT: 20 ms, Marker 1 [T1]: 5.746100000 GHz, 5.99 dBm OSW: 20.00000000 MHz, Temp 1 [T1 OSW]: -13.18 dBm, 5.732500000 GHz, Temp 2 [T1 OSW]: -13.00 dBm, 5.757100000 GHz Center: 5.745 GHz, 5 MHz/, Span: 50 MHz Date: 24.APR.2025 19:05:28
802.11n-HT20-Middle	 Ref: 20 dBm, Att: 30 dB, RBW: 300 kHz, VSW: 1 MHz, SWT: 20 ms, Marker 1 [T1]: 5.785800000 GHz, 5.92 dBm OSW: 20.00000000 MHz, Temp 1 [T1 OSW]: -13.27 dBm, 5.774400000 GHz, Temp 2 [T1 OSW]: -13.40 dBm, 5.795800000 GHz Center: 5.785 GHz, 5 MHz/, Span: 50 MHz Date: 24.APR.2025 19:04:50

802.11n-HT20-High	 Ref 20 dBm Att 30 dB RBW 300 kHz Marker 1 [T1] 5.83 dBm VSW 1 MHz SWT 20 ms 5.822920000 GHz OSW 10.800000000 MHz Temp 1 [T1] 0.00 dBm 5.815640000 GHz Temp 2 [T1] 0.00 dBm 5.834440000 GHz Center 5.825 GHz 4 MHz/ Span 40 MHz Date: 24.APR.2025 19:04:04
802.11n-HT40-Low	 Ref 20 dBm Att 30 dB RBW 1 MHz Marker 1 [T1] 7.33 dBm VSW 3 MHz SWT 20 ms 5.753080000 GHz OSW 30.300000000 MHz Temp 1 [T1] 0.00 dBm 5.735160000 GHz Temp 2 [T1] 0.00 dBm 5.774520000 GHz Center 5.755 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 19:08:35
802.11n-HT40-High	 Ref 20 dBm Att 30 dB RBW 1 MHz Marker 1 [T1] 7.70 dBm VSW 3 MHz SWT 20 ms 5.796760000 GHz OSW 30.720000000 MHz Temp 1 [T1] 0.00 dBm 5.775640000 GHz Temp 2 [T1] 0.00 dBm 5.814360000 GHz Center 5.795 GHz 8 MHz/ Span 80 MHz Date: 24.APR.2025 19:09:05

802.11ac-VHT20-Low	 Date: 24.APR.2025 19:06:18
802.11ac-VHT20-Middle	 Date: 24.APR.2025 19:06:45
802.11ac-VHT20-High	 Date: 24.APR.2025 19:07:27

802.11ac-VHT40-Low	Ref: 20 dBm Att: 30 dB SWT: 20 ms Marker 1 [T1] 7.14 dBm OSW: 38.72000000 MHz Temp: 1 [T1] -18.33 dBm OSW: 38.73548000 MHz Temp: 2 [T1] -18.33 dBm OSW: 38.77420000 MHz Temp: 3 [T1] -18.33 dBm Center: 5.755 GHz Span: 80 MHz Date: 24.APR.2025 19:09:48
802.11ac-VHT40-High	Ref: 20 dBm Att: 30 dB SWT: 20 ms Marker 1 [T1] 7.85 dBm OSW: 38.24000000 MHz Temp: 1 [T1] -18.33 dBm OSW: 38.77596000 MHz Temp: 2 [T1] -18.33 dBm OSW: 38.81420000 MHz Temp: 3 [T1] -18.33 dBm Center: 5.795 GHz Span: 80 MHz Date: 24.APR.2025 19:09:25
802.11ac-VHT80	Ref: 20 dBm Att: 30 dB SWT: 20 ms Marker 1 [T1] 4.25 dBm OSW: 79.36000000 MHz Temp: 1 [T1] -18.33 dBm OSW: 79.73468000 MHz Temp: 2 [T1] -18.33 dBm OSW: 79.81404000 MHz Temp: 3 [T1] -18.33 dBm Center: 5.775 GHz Span: 160 MHz Date: 24.APR.2025 19:10:28

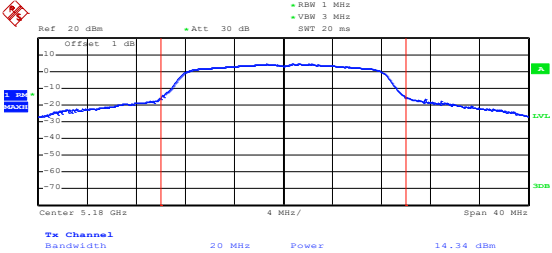
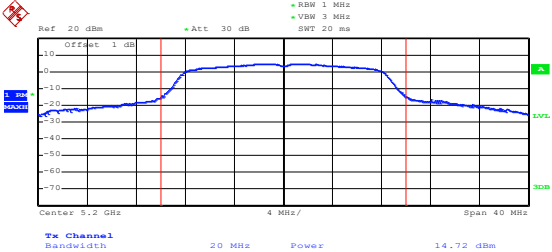
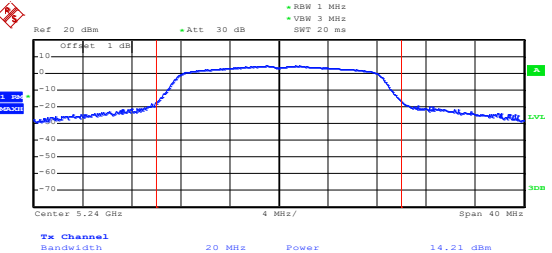
APPENDIX C

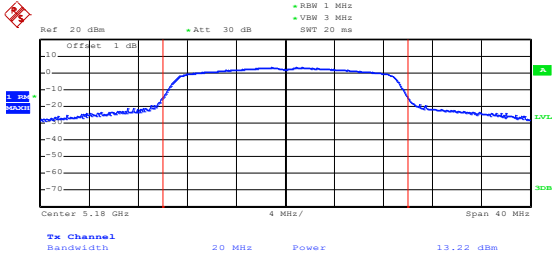
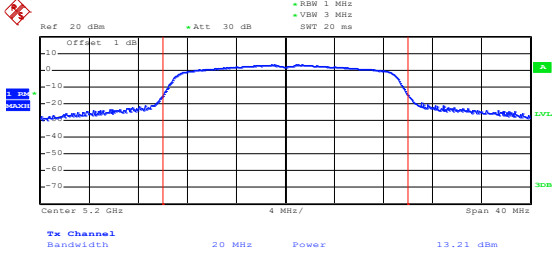
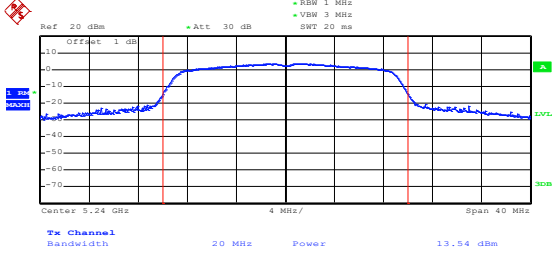
Maximum Conducted Output Power

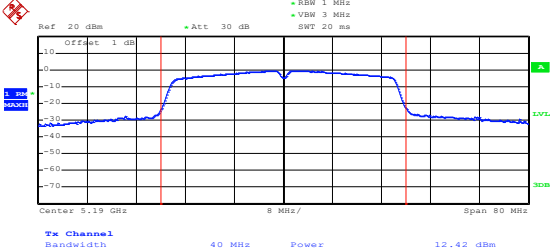
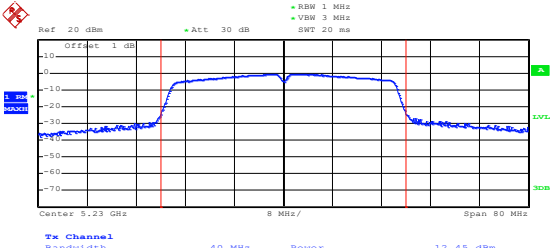
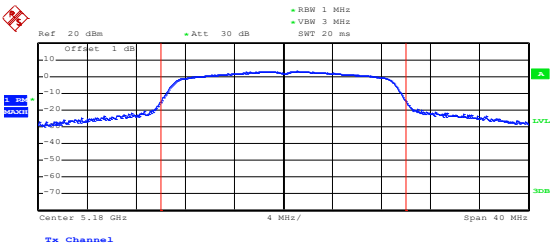
U-NII-1:5150-5250MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5180	14.34	23.98
	5200	14.72	23.98
	5240	14.21	23.98
802.11n-HT20	5180	13.22	23.98
	5200	13.21	23.98
	5240	13.54	23.98
802.11n-HT40	5190	12.42	23.98
	5230	12.45	23.98
802.11ac-VHT20	5180	13.15	23.98
	5200	13.50	23.98
	5240	13.71	23.98
802.11ac-VHT40	5190	12.69	23.98
	5230	12.41	23.98
802.11ac-VHT80	5210	12.10	23.98

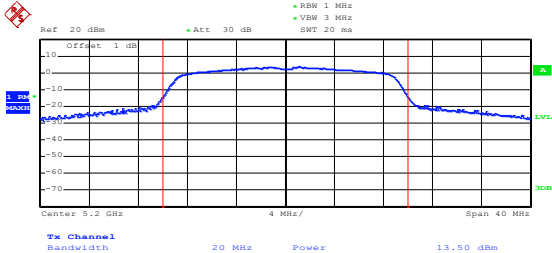
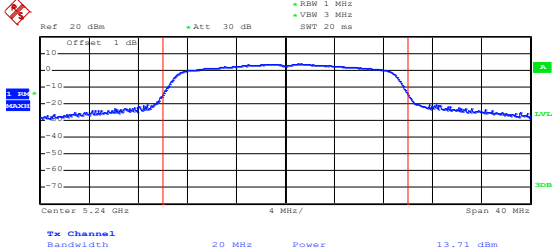
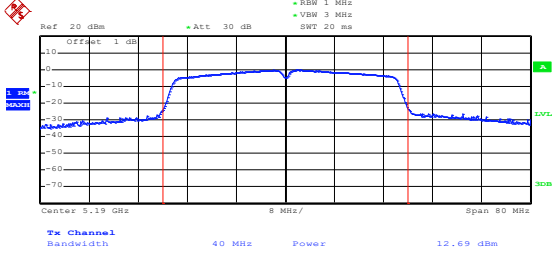
U-NII-3: 5725-5850MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5745	14.20	30.00
	5785	14.89	30.00
	5825	14.19	30.00
802.11n-HT20	5745	13.66	30.00
	5785	13.28	30.00
	5825	13.42	30.00
802.11n-HT40	5755	12.17	30.00
	5795	12.82	30.00
802.11ac-VHT20	5745	13.64	30.00
	5785	13.27	30.00
	5825	13.34	30.00
802.11ac-VHT40	5755	12.20	30.00
	5795	12.83	30.00
802.11ac-VHT80	5775	12.51	30.00

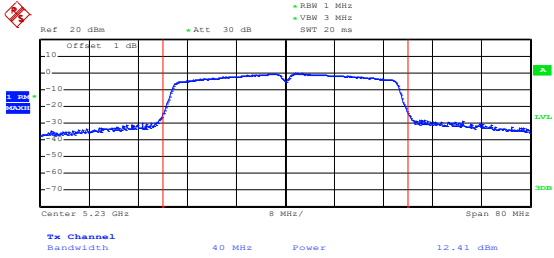
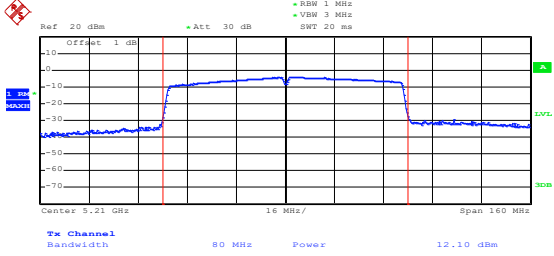
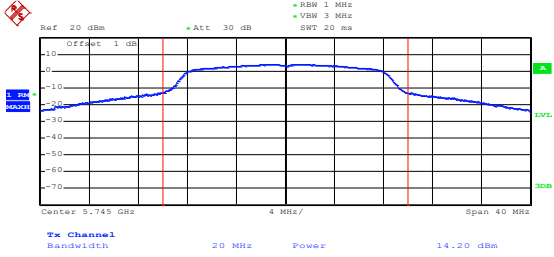
5150-5250MHz

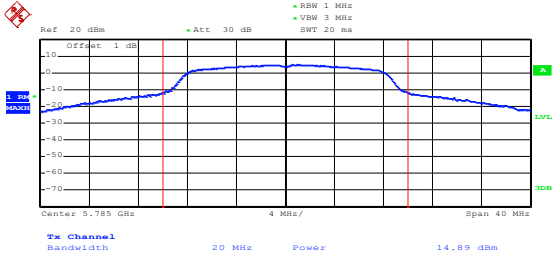
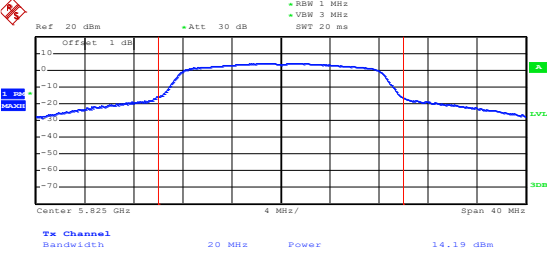
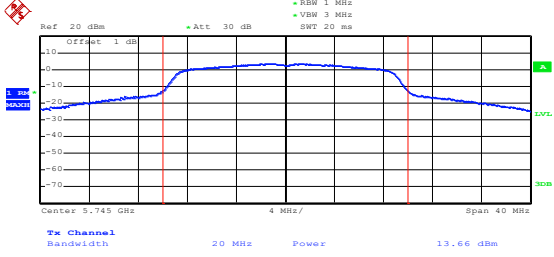
802.11a-Low	 Ref 20 dBm • Att: 30 dB • RBW 1 MHz • VBW 3 MHz • SWT 20 ms Offset 1 dB Center 5.18 GHz 4 MHz/ Span 40 MHz Tx Channel Bandwidth 20 MHz Power 14.34 dBm 1st harmonic 3rd harmonic Date: 24.APR.2025 16:15:18
802.11a-Middle	 Ref 20 dBm • Att: 30 dB • RBW 1 MHz • VBW 3 MHz • SWT 20 ms Offset 1 dB Center 5.2 GHz 4 MHz/ Span 40 MHz Tx Channel Bandwidth 20 MHz Power 14.72 dBm 1st harmonic 3rd harmonic Date: 24.APR.2025 16:18:06
802.11a-High	 Ref 20 dBm • Att: 30 dB • RBW 1 MHz • VBW 3 MHz • SWT 20 ms Offset 1 dB Center 5.24 GHz 4 MHz/ Span 40 MHz Tx Channel Bandwidth 20 MHz Power 14.21 dBm 1st harmonic 3rd harmonic Date: 24.APR.2025 16:19:09

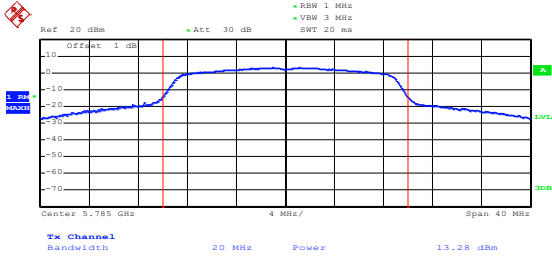
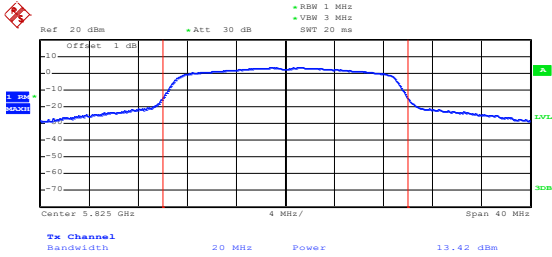
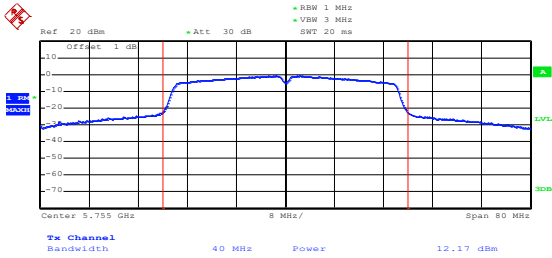
802.11n-HT20-Low	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.18 GHz Span: 40 MHz 4 MHz/ Tx Channel Bandwidth: 20 MHz Power: 13.22 dBm Date: 24.APR.2025 16:23:07
802.11n-HT20-Middle	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.2 GHz Span: 40 MHz 4 MHz/ Tx Channel Bandwidth: 20 MHz Power: 13.21 dBm Date: 24.APR.2025 16:22:35
802.11n-HT20-High	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.24 GHz Span: 40 MHz 4 MHz/ Tx Channel Bandwidth: 20 MHz Power: 13.54 dBm Date: 24.APR.2025 16:21:52

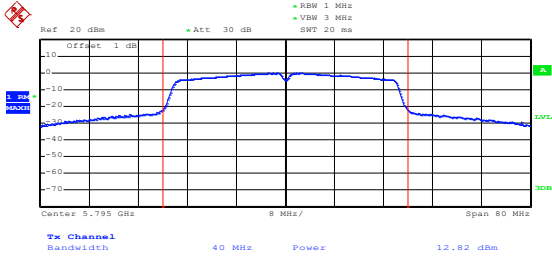
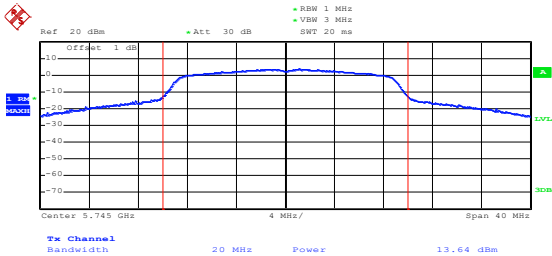
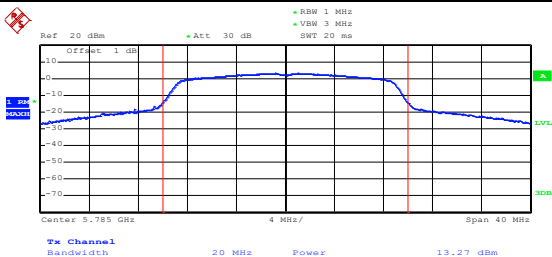
802.11n-HT40-Low	
802.11n-HT40-High	
802.11ac-VHT20-Low	

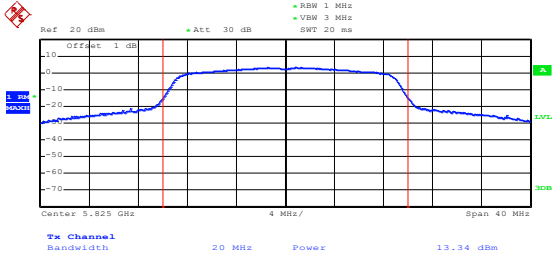
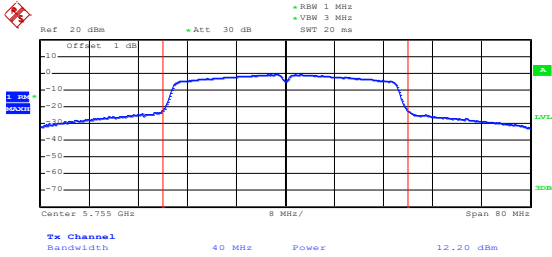
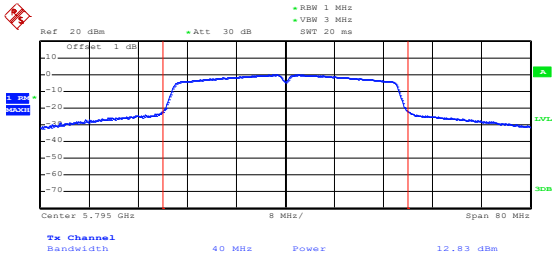
802.11ac-VHT20-Middle	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.2 GHz Span: 40 MHz 4 MHz/div Tx Channel Bandwidth: 20 MHz Power: 13.50 dBm Date: 24.APR.2025 16:24:03
802.11ac-VHT20-High	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.24 GHz Span: 40 MHz 4 MHz/div Tx Channel Bandwidth: 20 MHz Power: 13.71 dBm Date: 24.APR.2025 16:24:31
802.11ac-VHT40-Low	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.19 GHz Span: 80 MHz 8 MHz/div Tx Channel Bandwidth: 40 MHz Power: 12.69 dBm Date: 24.APR.2025 16:31:48

802.11ac-VHT40-High	 Date: 24.APR.2025 16:31:00
802.11ac-VHT80	 Date: 24.APR.2025 16:32:47
5725-5850MHz	
802.11a-Low	 Date: 24.APR.2025 18:43:05

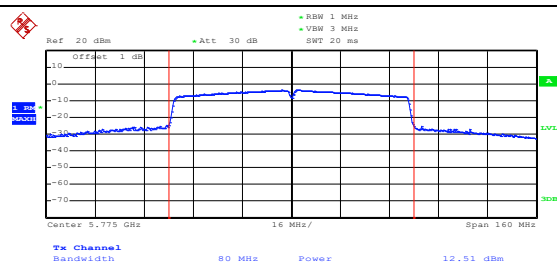
802.11a-Middle	 Date: 24.APR.2025 18:43:26
802.11a-High	 Date: 24.APR.2025 18:44:12
802.11n-HT20-Low	 Date: 24.APR.2025 18:46:24

802.11n-HT20-Middle	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.785 GHz Span: 40 MHz Ts Channel Bandwidth: 20 MHz Power: 13.28 dBm Date: 24.APR.2025 18:45:43
802.11n-HT20-High	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.825 GHz Span: 40 MHz Ts Channel Bandwidth: 20 MHz Power: 13.42 dBm Date: 24.APR.2025 18:45:13
802.11n-HT40-Low	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.755 GHz Span: 80 MHz Ts Channel Bandwidth: 40 MHz Power: 12.17 dBm Date: 24.APR.2025 18:48:30

802.11n-HT40-High	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.795 GHz Span: 80 MHz TS Channel Bandwidth: 40 MHz Power: 12.82 dBm Date: 24.APR.2025 18:48:50
802.11ac-VHT20-Low	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.745 GHz Span: 40 MHz TS Channel Bandwidth: 20 MHz Power: 13.64 dBm Date: 24.APR.2025 18:46:44
802.11ac-VHT20-Middle	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.785 GHz Span: 40 MHz TS Channel Bandwidth: 20 MHz Power: 13.27 dBm Date: 24.APR.2025 18:47:06

802.11ac-VHT20-High	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.825 GHz Span: 40 MHz Tx Channel Bandwidth: 20 MHz Power: 13.34 dBm Date: 24.APR.2025 18:47:24
802.11ac-VHT40-Low	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.755 GHz Span: 80 MHz Tx Channel Bandwidth: 40 MHz Power: 12.20 dBm Date: 24.APR.2025 18:49:21
802.11ac-VHT40-High	 Ref: 20 dBm Offset: 1 dB Att: 30 dB RBW: 1 MHz VBW: 3 MHz SWT: 20 ms Center: 5.795 GHz Span: 80 MHz Tx Channel Bandwidth: 40 MHz Power: 12.83 dBm Date: 24.APR.2025 18:49:05

802.11ac-VHT80



Date: 24.APR.2025 18:50:41

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%	3.85	-30	496	0.095
100%		-20	498	0.096
100%		-10	505	0.097
100%		0	500	0.096
100%		+10	503	0.097
100%		+20	498	0.096
100%		+30	497	0.096
100%		+40	500	0.096
100%		+50	498	0.096
Low Battery power	3.08	+20	504	0.097
High Battery power	4.62	+20	503	0.097

U-NII-1:5725-5850MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	3.85	-30	500	0.086
100%		-20	499	0.086
100%		-10	502	0.087
100%		0	496	0.086
100%		+10	504	0.087
100%		+20	497	0.086
100%		+30	497	0.086
100%		+40	500	0.086
100%		+50	500	0.087
Low Battery power	3.08	+20	501	0.087
High Battery power	4.62	+20	504	0.087

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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