

TEST REPORT

Reference No..... : WTH24X04096557W001
FCC ID : 2A7HY-DGC3
Applicant : Dragonglass Technology (SHENZHEN) Co., Ltd.
Address : Floor 4, No. 128, Potou Du West Road, Longxi community, Longgang street,
Longgang District, Shenzhen, Guangdong, China
Manufacturer : The same as Applicant
Address : The same as Applicant
Product Name : Wireless Network Card
Model No..... : DGC3
Standards : FCC Part 15.407
Date of Receipt sample : 2024-04-26
Date of Test..... : 2024-04-26 to 2024-05-17
Date of Issue : 2024-05-17
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.

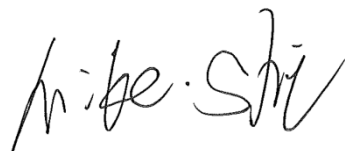
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Report version

Version No.	Date of issue	Description
Rev.00	2024-05-17	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Wireless Network Card
Trade Name:	Dragonglass
Model No.:	DGC3
Adding Model(s):	DGC3P
Rated Voltage:	DC5V
Battery Capacity:	/
Power Adapter:	/
<i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model DGC3, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Support Standards:	802.11a, 802.11n(HT20) , 802.11n-HT40, 802.11ac-VHT20/40/80, 802.11ax-HE20/40/80
Frequency Range:	5180-5240MHz, 5745-5825MHz
Max. RF Output Power:	Antenna 1:15.80dBm (Conducted) Antenna 2:17.20dBm (Conducted)
Type of Modulation:	QPSK, 16QAM, 64QAM,256QAM
Type of Antenna:	External Antenna
Antenna Gain:	5180-5240MHz:1.37dBi 5745-5825MHz:1.68dBi
<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.

KDB662911 D01 Multiple Transmitter Output v02r01: Emissions Testing of Transmitters with Multiple Outputs in the Same Band.

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 “AX Series MP Toolkit” 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	Ant.	Test Frequency (MHz)												
		NCB: 20MHz												
		5180	5200	5240	5260	5300	5320	5500	5580	5700	5720	5745	5785	5825
802.11a 6Mbps	ANT 1	16	16	16	/	/	/	/	/	/	/	16	16	16
	ANT 2	16	16	16	/	/	/	/	/	/	/	16	16	16
802.11n-HT20 MCS0	ANT 1	16	16	16	/	/	/	/	/	/	/	16	16	16
	ANT 2	16	16	16	/	/	/	/	/	/	/	16	16	16
802.11ax-HE20 MCS0	ANT 1	16	16	16	/	/	/	/	/	/	/	16	16	16
	ANT 2	16	16	16	/	/	/	/	/	/	/	16	16	16
Mode	Ant.	NCB: 40MHz												
		5190	5230	5270	5310	5510	5550	5670	5710	5755	5795			
802.11n-HT40 MCS0	ANT 1	16	16	/	/	/	/	/	/	16	16			
	ANT 2	16	16	/	/	/	/	/	/	16	16			
802.11ax-HE40	ANT 1	16	16	/	/	/	/	/	/	16	16			

MCS0	ANT 2	16	16	/	/	/	/	/	/	16	16
Mode	Ant.	NCB: 80MHz									
		5210	5290	5530	5610	5690	5775				
802.11ac-VHT8 0 MCS0	ANT 1	16	/	/	/	/	16				
	ANT 2	16	/	/	/	/	16				
802.11ax-VE80 MCS0	ANT 1	16	/	/	/	/	16				
	ANT 2	16	/	/	/	/	16				

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, Bao'an District, Shenzhen, P.R.C. (518101)

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, duty cycle refer to **Appendix B**, 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	802.11ax-HE20	5180MHz,5200MHz,5240MHz, 5745MHz, 5785MHz,5825MHz
TM5	802.11n-HT40	5190MHz,5230MHz, 5755MHz,5795MHz
TM6	802.11ac-VHT40	5190MHz,5230MHz, 5755MHz,5795MHz
TM7	802.11ax-HE40	5190MHz,5230MHz, 5755MHz,5795MHz
TM8	802.11ac-VHT80	5210MHz, 5775 MHz
TM10	802.11ax-HE80	5210MHz, 5775 MHz
Note1 : All test modes (different data rate and different modulation) are performed, but only the worst case is recorded in this report; 802.11ac-VHT20, 802.11ac-VHT40 covered by 802.11n-HT20 and 802.11n-HT40. Note 2: The 5GHz WIFI has two antennas and support Multiple Outputs for 802.11n/ac mode for this report; For 5150-5250MHz: Antenna 1 Gain is 1.37dBi; Antenna 2 Gain is 1.37dBi; For 5725-5850MHz: Antenna 1 Gain is 1.68dBi; Antenna 2 Gain is 1.68dBi; According to KDB 662911, for same directional gain: For 5150-5250MHz: Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi = 1.37+10log(2) dBi=4.38dBi For 5725-5850MHz: Directional gain = $G_{ANT} + 10 \log(N_{ANT})$ dBi = 1.68+10log(2) dBi=4.69dBi		

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

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

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Computer	Lenovo	L13 Yoga	/

1.8 Measurement Uncertainty

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

1.9 Test Equipment List and Details

Fixed asset Number	Description	Manufacturer	Model	Serial No.	Cal Date	Due. Date
WTXE1005A 1005	Spectrum Analyzer	Agilent	N9020A	US471401 02	2024-03-19	2025-03-18
WTXE1088A 1001-2	Spectrum Analyzer	Agilent	N9010B	MY590704 94	2024-02-24	2025-02-23
WTXE1084A 1001	Spectrum Analyzer	Agilent	N9020A	MY543205 48	2024-02-24	2025-02-23
WTXE1044A 1001	Signal Generator	Agilent	83752A	3610A014 53	2024-02-24	2025-02-23
WTXE1045A 1001	Vector Signal Generator	Agilent	N5182A	MY470702 02	2024-02-24	2025-02-23
☐ Chamber A: Below 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2024-02-24	2025-02-23
WTXE1001A 1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2024-03-19	2025-03-18
WTXE1007A 1001	Amplifier	HP	8447F	2805A034 75	2024-02-24	2025-02-23
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2024-02-26	2025-02-25
WTXE1010A 1006	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2024-02-24	2025-02-23
☐ Chamber A: Above 1GHz						
WTXE1005A 1003	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/03 5	2024-02-24	2025-02-23
WTXE1001A 1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2024-03-19	2025-03-18
WTXE1065A 1001	Amplifier	C&D	PAP-1G18	2002	2024-02-27	2025-02-26
WTXE1010A 1005	Horn Antenna	ETS	3117	00086197	2024-02-26	2025-02-25
WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2024-03-17	2025-03-16
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2024-02-29	2025-02-28
☐ 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	2024-02-24	2025-02-23
WTXE1001A 1002	EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2024-02-24	2025-02-23
☒ Chamber C: Below 1GHz						
WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2024-02-27	2025-02-26
WTXE1010A 1013-1	Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2024-04-18	2027-04-17
WTXE1007A 1002	Amplifier	HP	8447F	2944A038 69	2024-02-24	2025-02-23
WTXE1010A 1007	Loop Antenna	Schwarz beck	FMZB 1516	9773	2024-02-26	2025-02-25
☒ Chamber C: Above 1GHz						
WTXE1093A 1001	EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2024-02-27	2025-02-26
WTXE1103A 1005	Horn Antenna	POAM	RTF-118A	1820	2023-03-10	2026-03-09
WTXE1103A 1006	Amplifier	Tonscend	TAP01018050	AP22E806 235	2024-02-27	2025-02-26
WTXE1010A 1010	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2024-03-17	2025-03-16
WTXE1003A 1001	Pre-amplifier	Schwarzbeck	BBV 9721	9721-031	2024-02-29	2025-02-28
☐ Conducted Room 1#						
WTXE1104A 1029	EMI Test Receiver	Rohde & Schwarz	ESCI	100525	2023-12-12	2024-12-11
WTXE1002A 1001	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2024-02-24	2025-02-23
WTXE1003A 1001	AC LISN	Schwarz beck	NSLK8126	8126-279	2024-02-24	2025-02-23
☐ Conducted Room 2#						
WTXE1001A 1004	EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2024-02-24	2025-02-23
WTXE1003A 1003	LISN	Rohde & Schwarz	ENV 216	100097	2024-02-24	2025-02-23

Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission Room 1#)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission Room 2#)*	SKET	EMC-I	V2.0

*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	N/A
§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)	N/A

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 two External antennas, 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 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.

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 1MHz RBW to satisfy directly the 1MHz 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 1MHz, 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 MHz, or < 500 kHz) and integrated over 1 MHz, or 500kHz bandwidth, the following adjustments to the procedures apply:

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

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

5.3 Summary of Test Results/Plots

Please refer to Appendix D

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 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.

(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 6dB emission bandwidth of at least 500KHz for the band 5.715-5.85GHz. 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 6 dB relative to the maximum level measured in the fundamental emission.

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

D. 99 Percent Occupied Bandwidth

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

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

- 1. Set center frequency to the nominal EUT channel center frequency.
- 2. Set span = 1.5 times to 5.0 times the OBW.
- 3. Set RBW = 1 % to 5 % of the OBW
- 4. Set VBW $\geq 3 \times$ 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.: WTH24X04096557W001

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 A

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 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.

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 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

7.3 Summary of Test Results/Plots

Please refer to Appendix C

8. Radiated Spurious Emissions

8.1 Standard Applicable

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

- (1) For transmitters operating in the 5.15-5.25GHz 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 75 MHz 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.

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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.

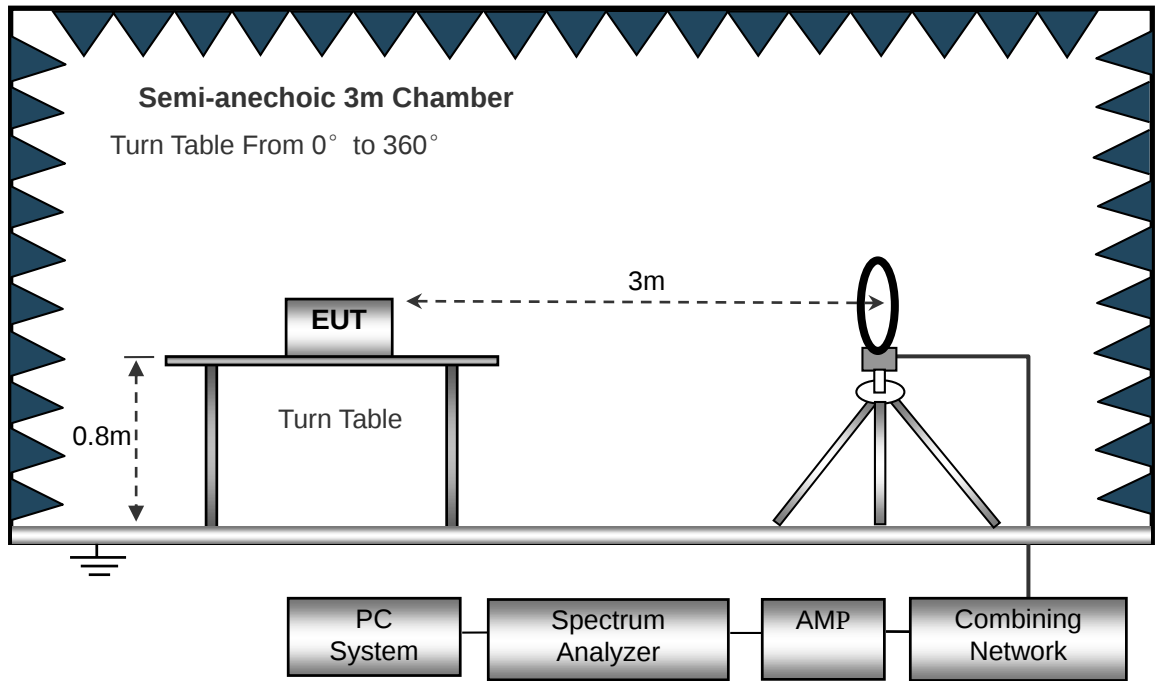
8.2 Test Procedure

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..

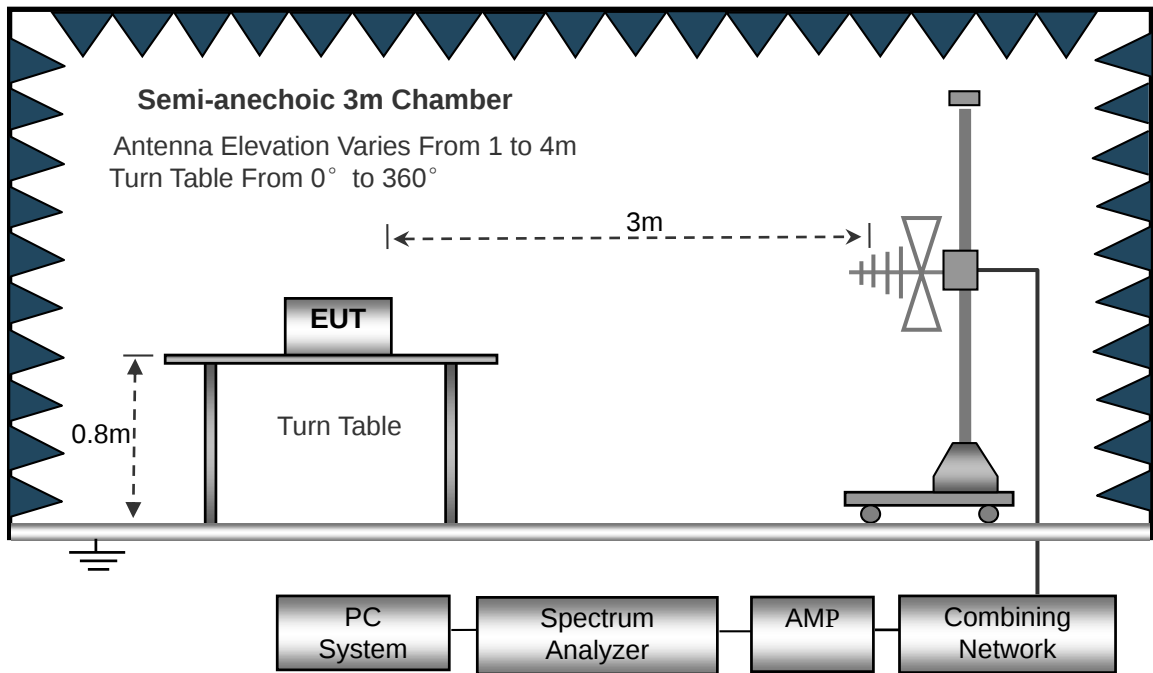
The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle.

The spacing between the peripherals was 10cm.

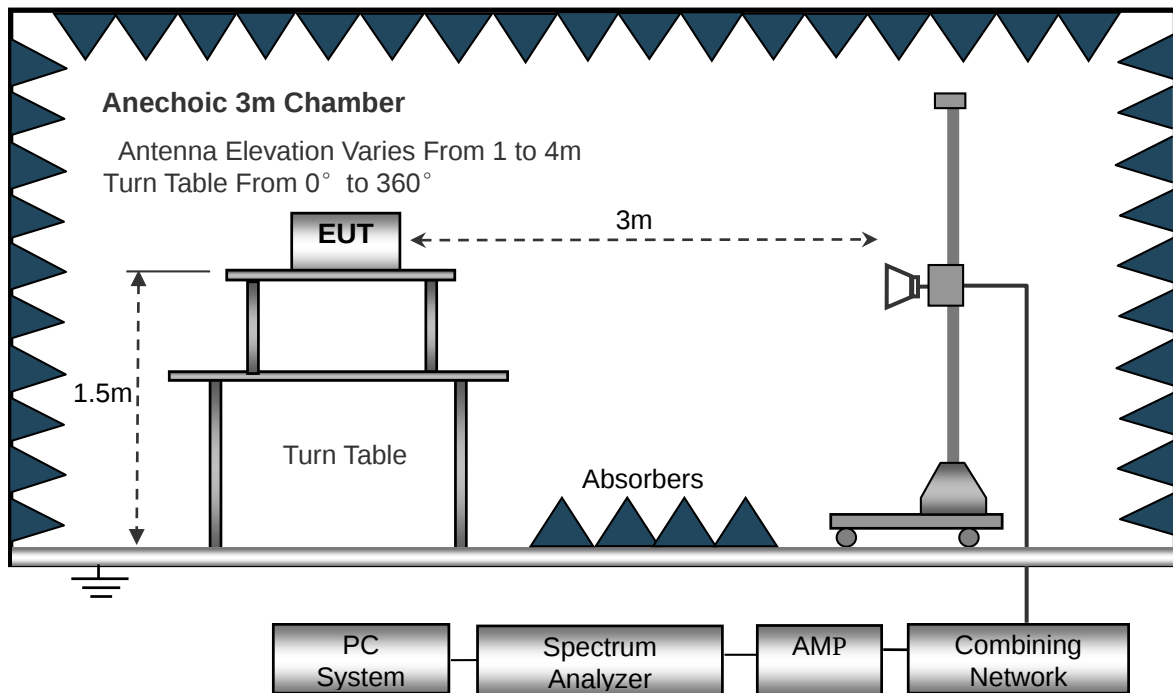
The test setup for emission measurement below 30MHz.



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



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:

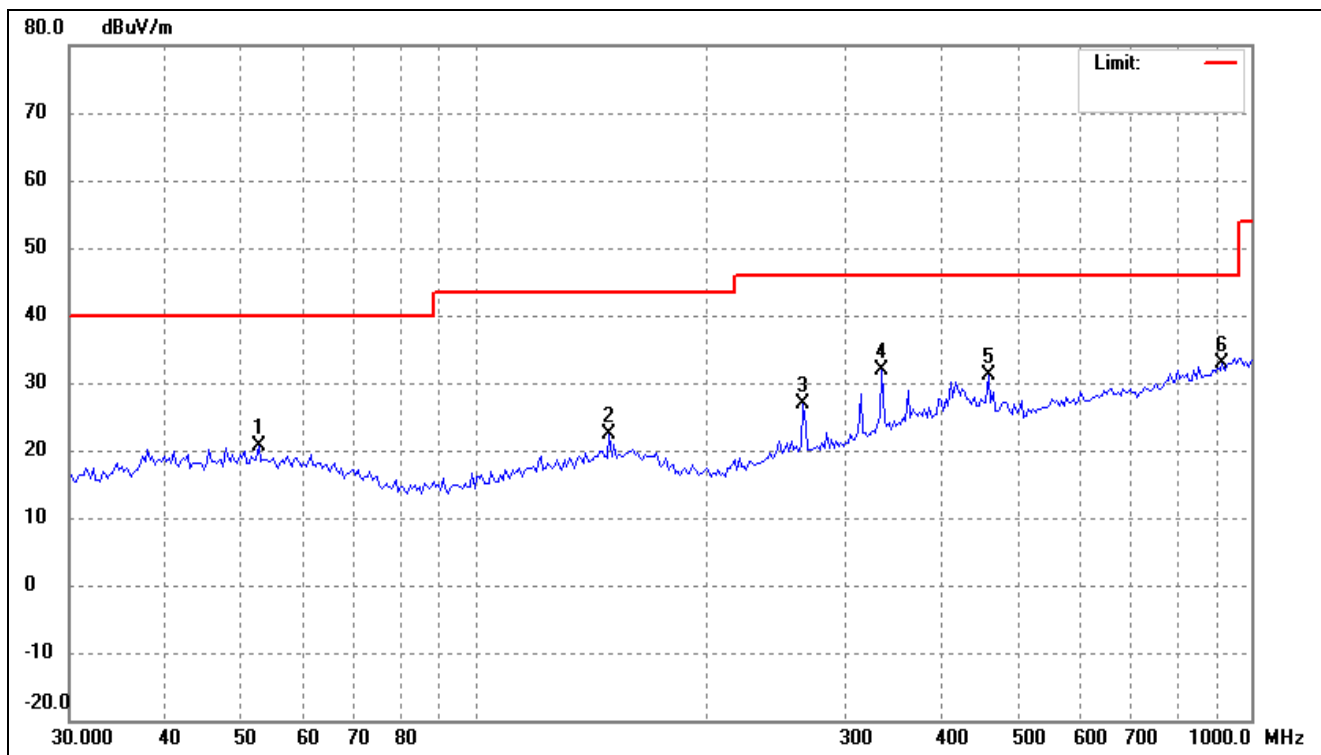
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.5 Summary of Test Results/Plots

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

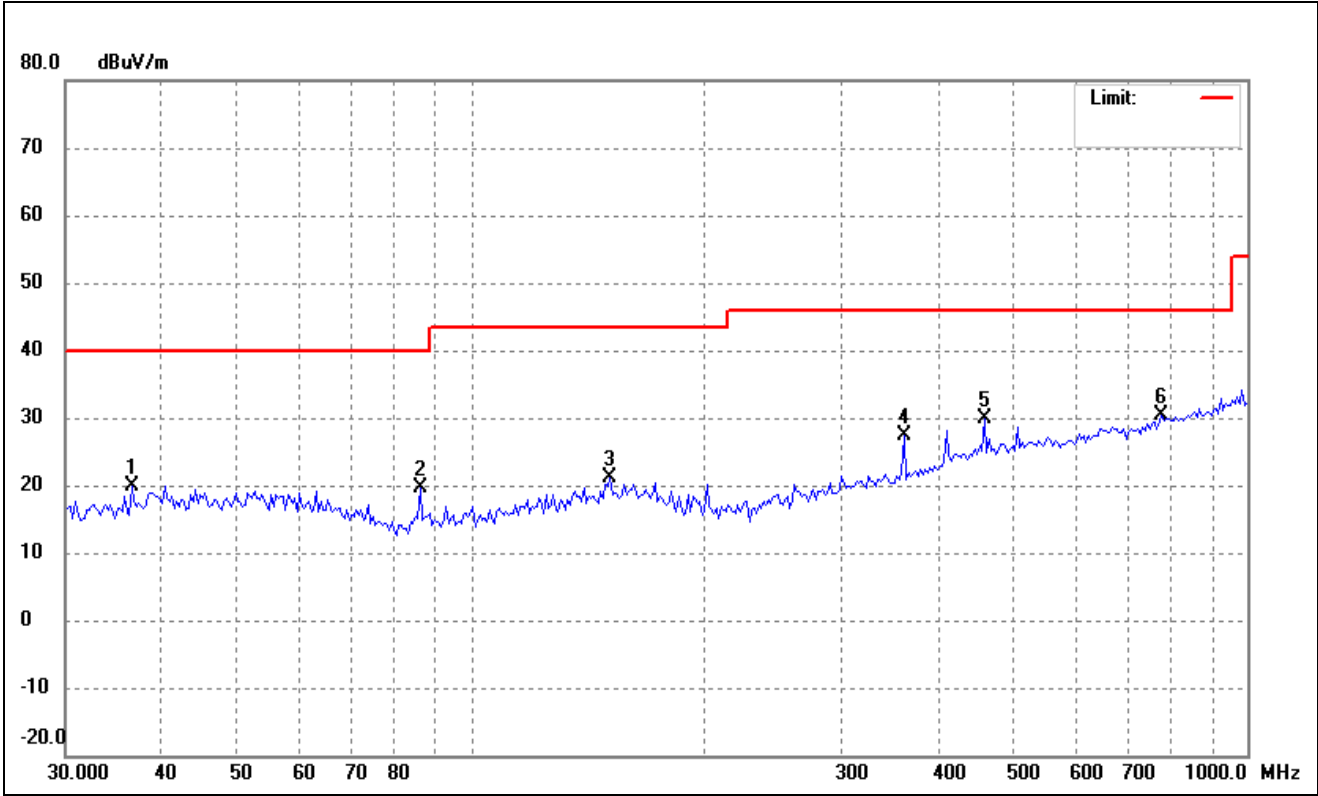
- Spurious Emission From 30MHz to 1GHz
- Antenna 1(Worst case)
- 5150-5250MHz

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



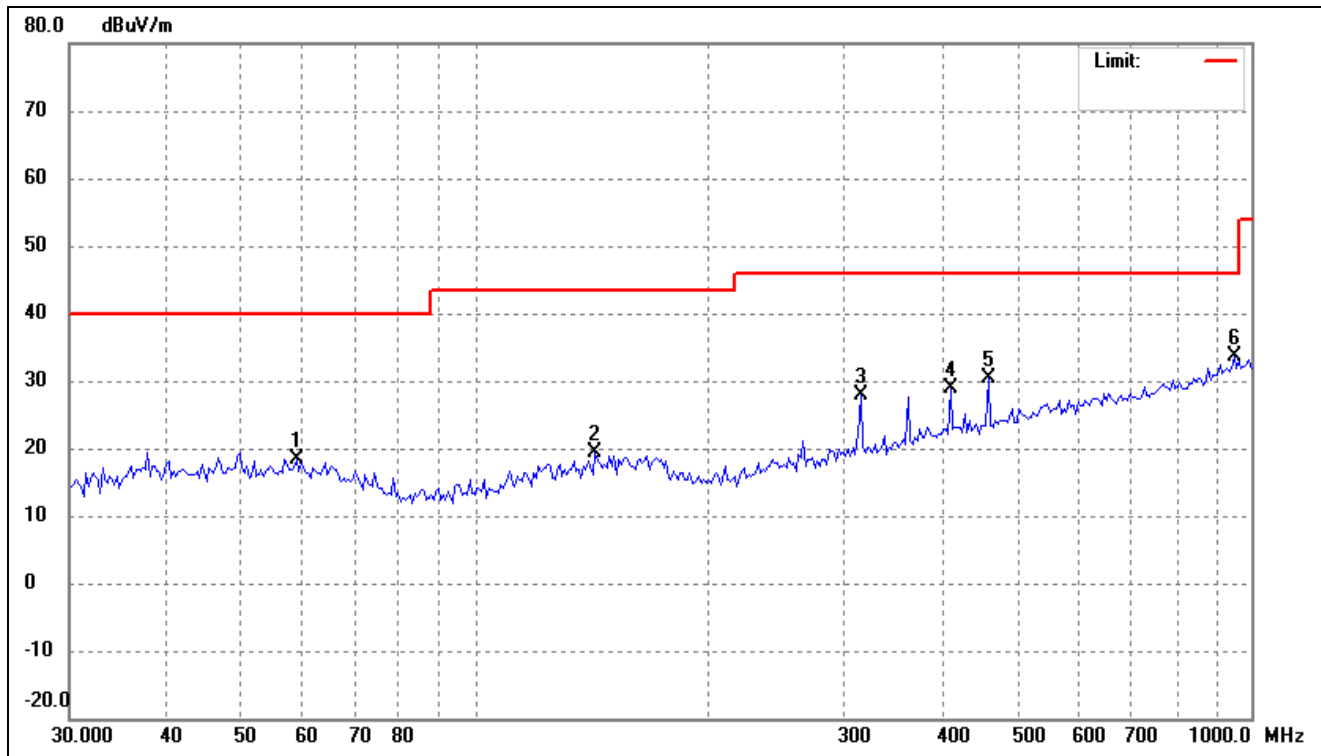
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	52.6345	28.94	-8.37	20.57	40.00	-19.43	-	-	peak
2	148.9175	31.18	-8.68	22.50	43.50	-21.00	-	-	peak
3	264.9709	36.49	-9.55	26.94	46.00	-19.06	-	-	peak
4	334.1255	39.21	-7.39	31.82	46.00	-14.18	-	-	peak
5	458.3987	35.59	-4.47	31.12	46.00	-14.88	-	-	peak
6	919.1315	31.31	1.59	32.90	46.00	-13.10	-	-	peak

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



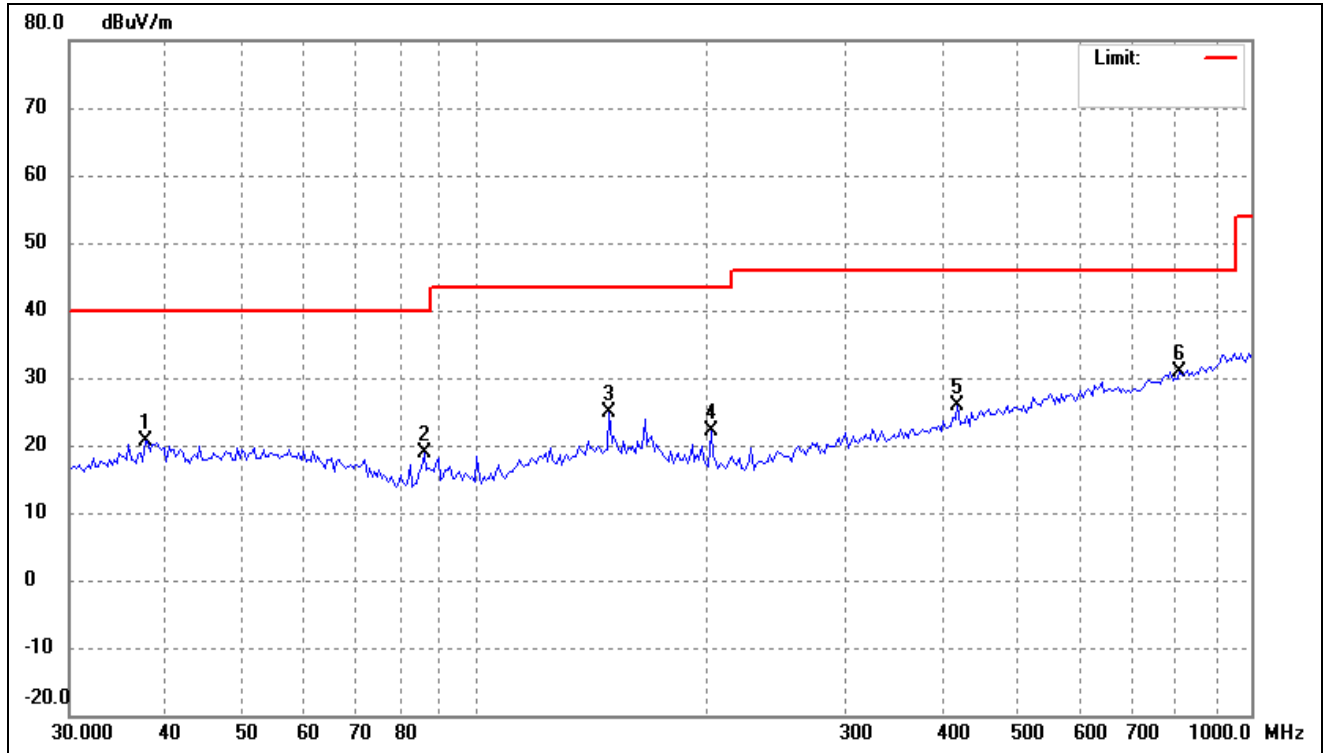
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	36.5236	29.10	-9.22	19.88	40.00	-20.12	-	-	peak
2	86.0796	32.67	-13.04	19.63	40.00	-20.37	-	-	peak
3	151.0252	29.77	-8.61	21.16	43.50	-22.34	-	-	peak
4	360.9775	34.15	-6.83	27.32	46.00	-18.68	-	-	peak
5	458.3987	34.42	-4.47	29.95	46.00	-16.05	-	-	peak
6	776.4849	30.30	0.08	30.38	46.00	-15.62	-	-	peak

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



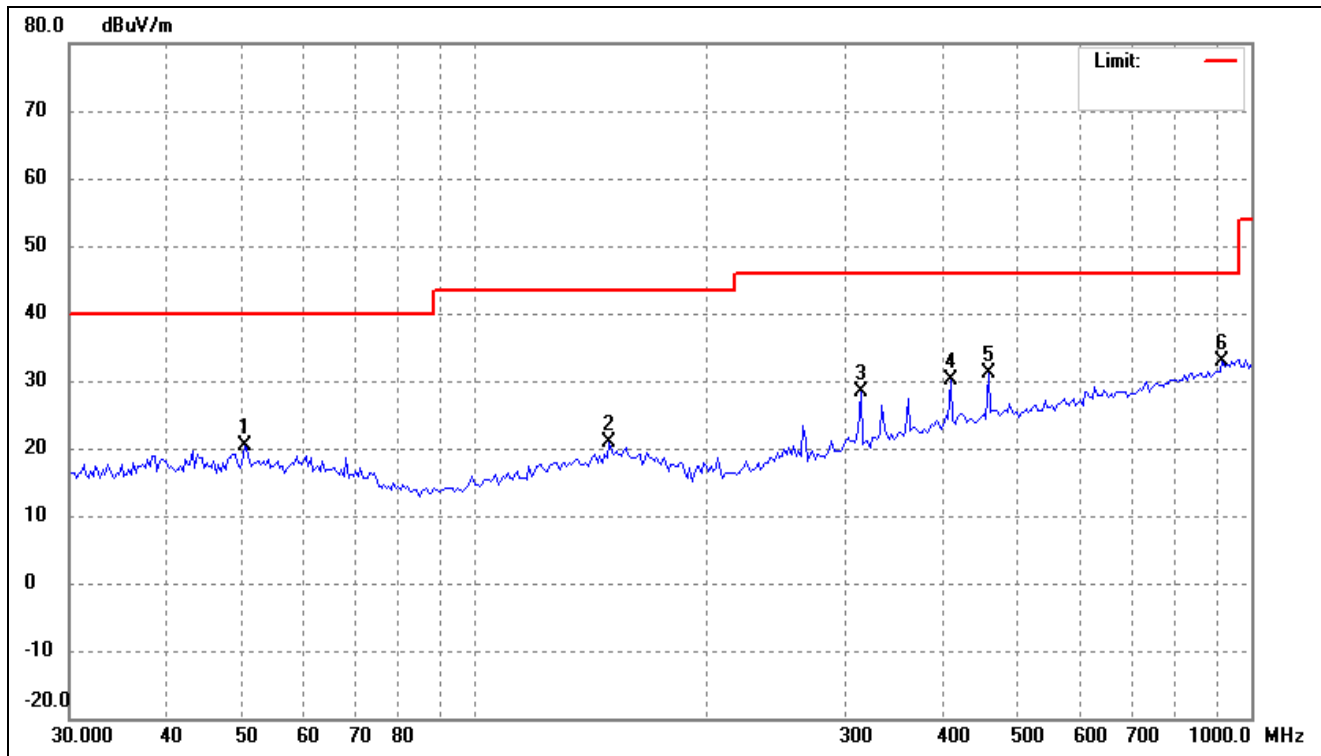
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	58.8979	27.19	-8.87	18.32	40.00	-21.68	-	-	peak
2	142.7692	28.50	-9.20	19.30	43.50	-24.20	-	-	peak
3	313.6483	35.86	-7.87	27.99	46.00	-18.01	-	-	peak
4	409.6506	34.67	-5.70	28.97	46.00	-17.03	-	-	peak
5	458.3987	34.86	-4.47	30.39	46.00	-15.61	-	-	peak
6	952.0001	31.49	2.25	33.74	46.00	-12.26	-	-	peak

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



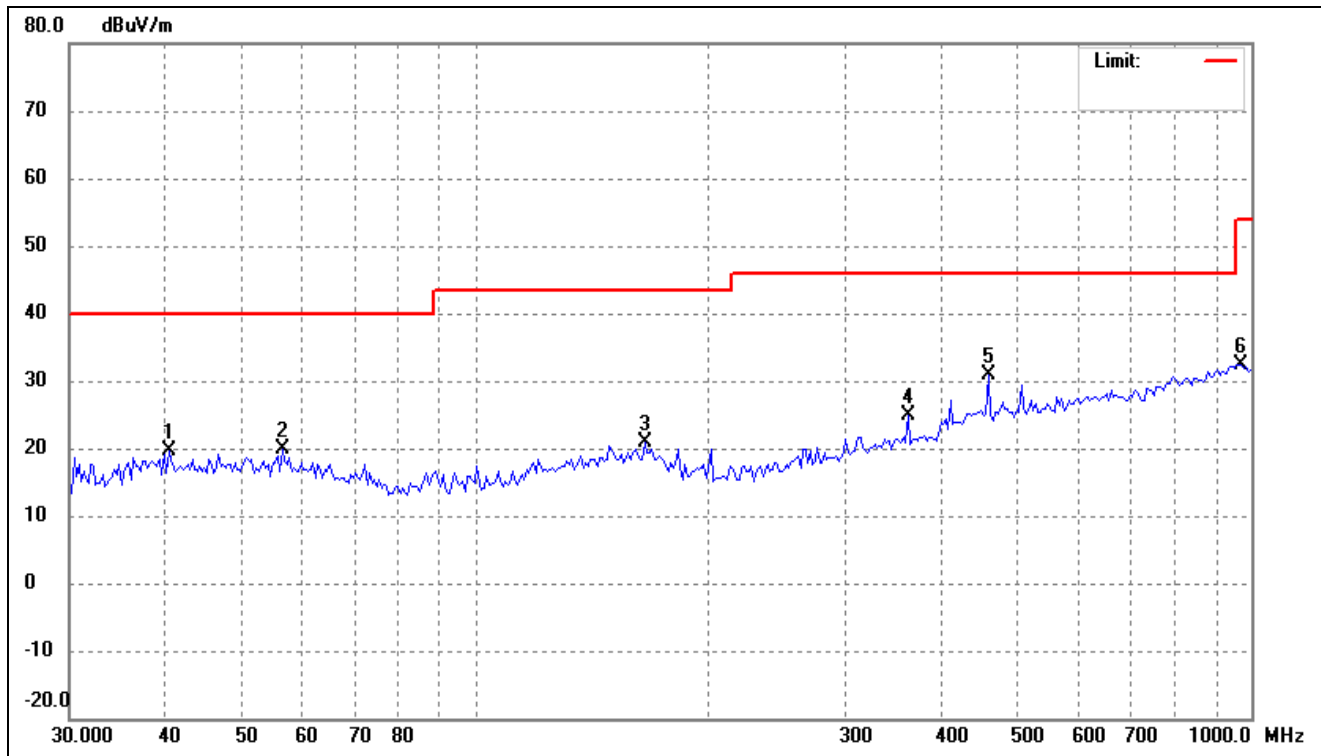
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	37.5648	29.67	-9.00	20.67	40.00	-19.33	-	-	peak
2	86.0796	31.88	-13.04	18.84	40.00	-21.16	-	-	peak
3	148.9175	33.67	-8.68	24.99	43.50	-18.51	-	-	peak
4	201.4539	34.25	-12.01	22.24	43.50	-21.26	-	-	peak
5	418.3784	31.29	-5.47	25.82	46.00	-20.18	-	-	peak
6	809.9238	30.53	0.39	30.92	46.00	-15.08	-	-	peak

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



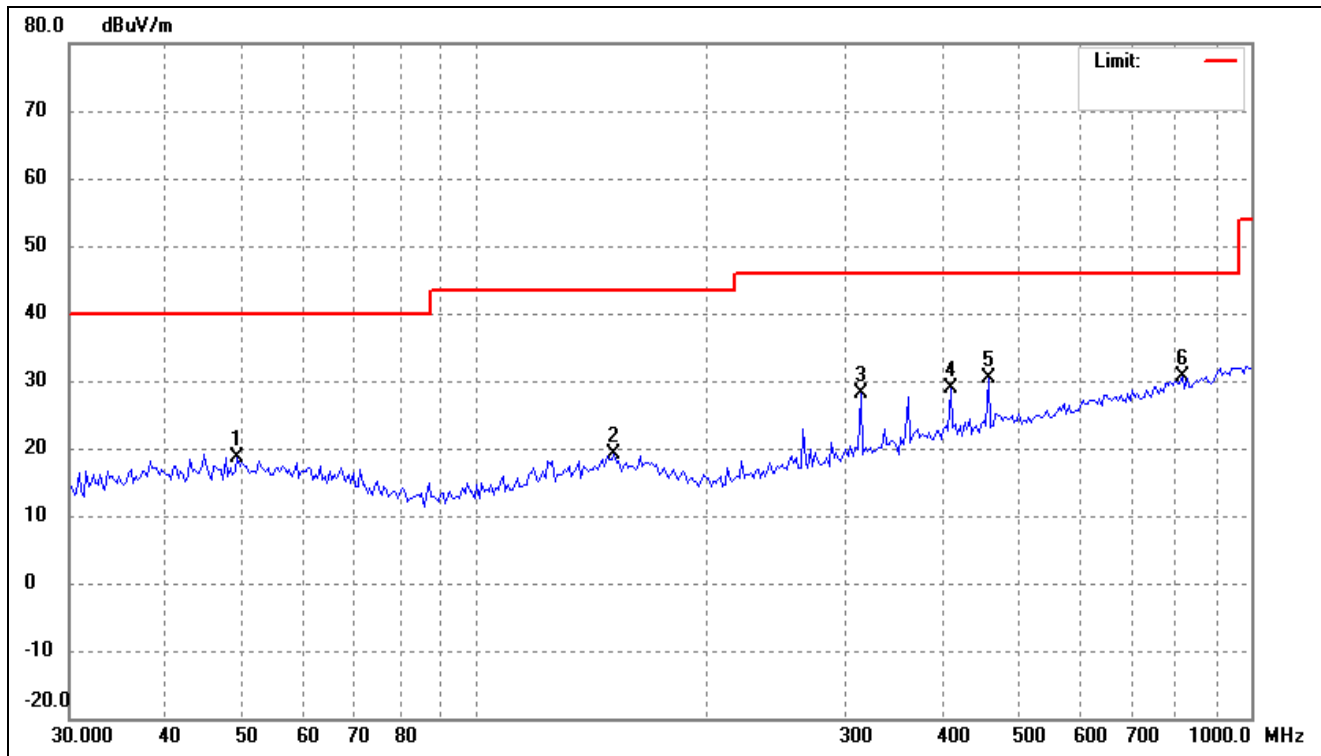
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	50.4614	28.40	-8.14	20.26	40.00	-19.74	-	-	peak
2	148.9175	29.62	-8.68	20.94	43.50	-22.56	-	-	peak
3	313.6483	36.19	-7.87	28.32	46.00	-17.68	-	-	peak
4	409.6506	35.80	-5.70	30.10	46.00	-15.90	-	-	peak
5	458.3987	35.56	-4.47	31.09	46.00	-14.91	-	-	peak
6	919.1315	31.19	1.59	32.78	46.00	-13.22	-	-	peak

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



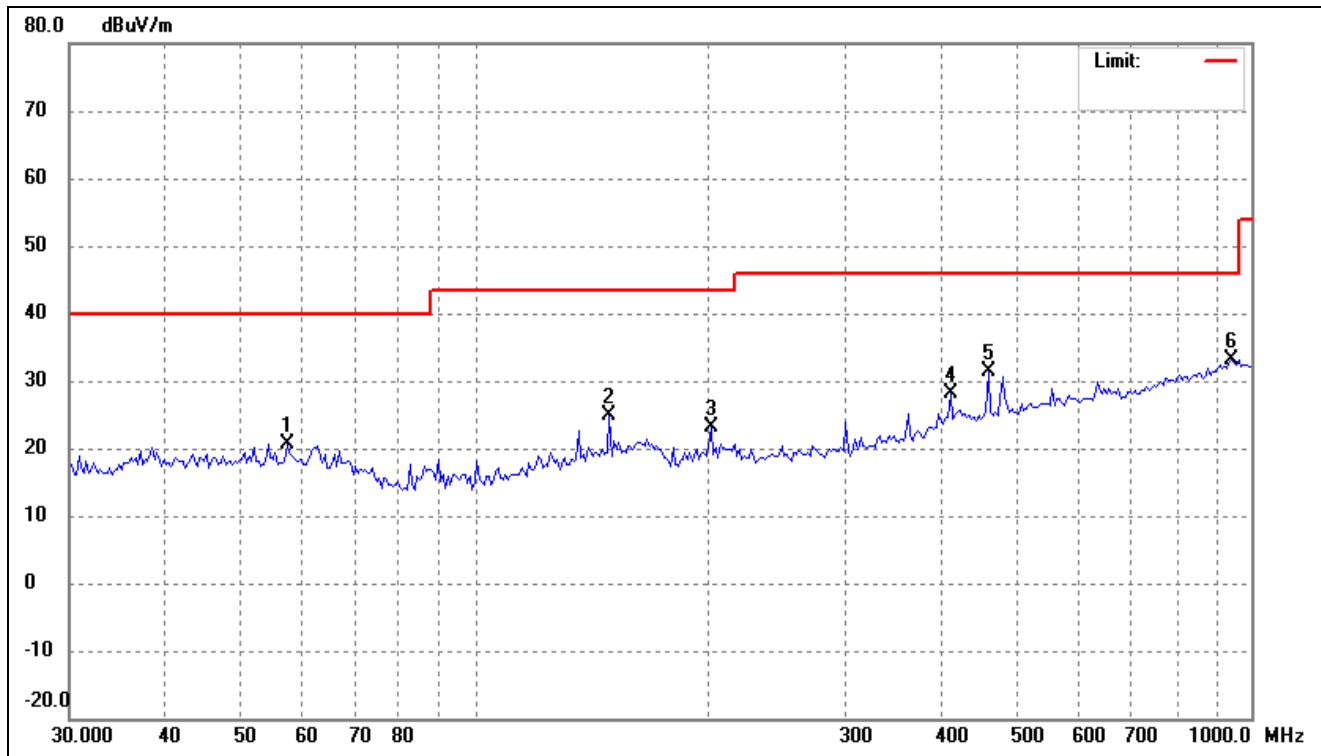
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	40.2995	27.99	-8.48	19.51	40.00	-20.49	-	-	peak
2	56.4662	28.66	-8.72	19.94	40.00	-20.06	-	-	peak
3	165.4716	29.52	-8.76	20.76	43.50	-22.74	-	-	peak
4	360.9775	31.82	-6.83	24.99	46.00	-21.01	-	-	peak
5	458.3987	35.26	-4.47	30.79	46.00	-15.21	-	-	peak
6	972.2827	30.22	2.27	32.49	54.00	-21.51	-	-	peak

802.11ax-HE20			
Test Channel	5180MHz(worst case)	Polarity:	Horizontal



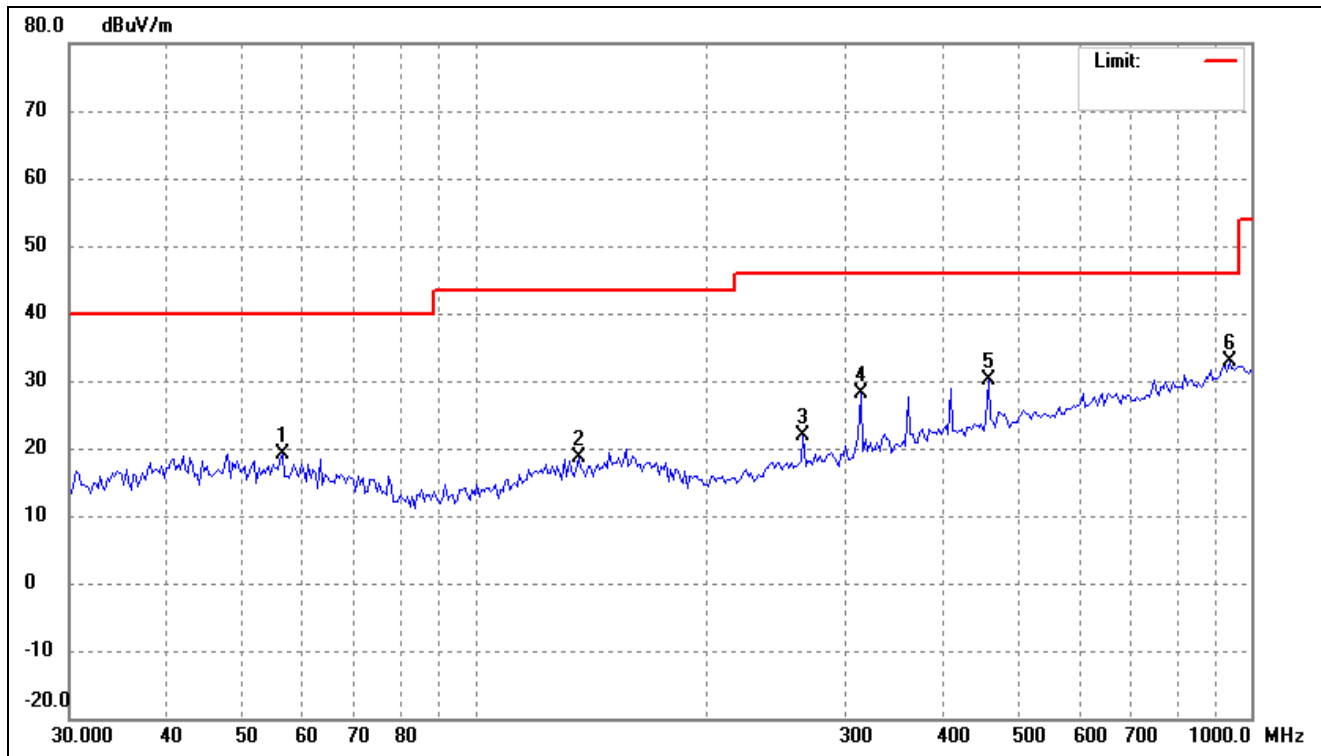
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	49.4087	26.77	-8.13	18.64	40.00	-21.36	-	-	peak
2	151.0252	27.68	-8.61	19.07	43.50	-24.43	-	-	peak
3	313.6483	36.03	-7.87	28.16	46.00	-17.84	-	-	peak
4	409.6506	34.57	-5.70	28.87	46.00	-17.13	-	-	peak
5	458.3987	34.78	-4.47	30.31	46.00	-15.69	-	-	peak
6	815.6353	30.18	0.44	30.62	46.00	-15.38	-	-	peak

802.11ax-HE20			
Test Channel	5180MHz(worst case)	Polarity:	Vertical



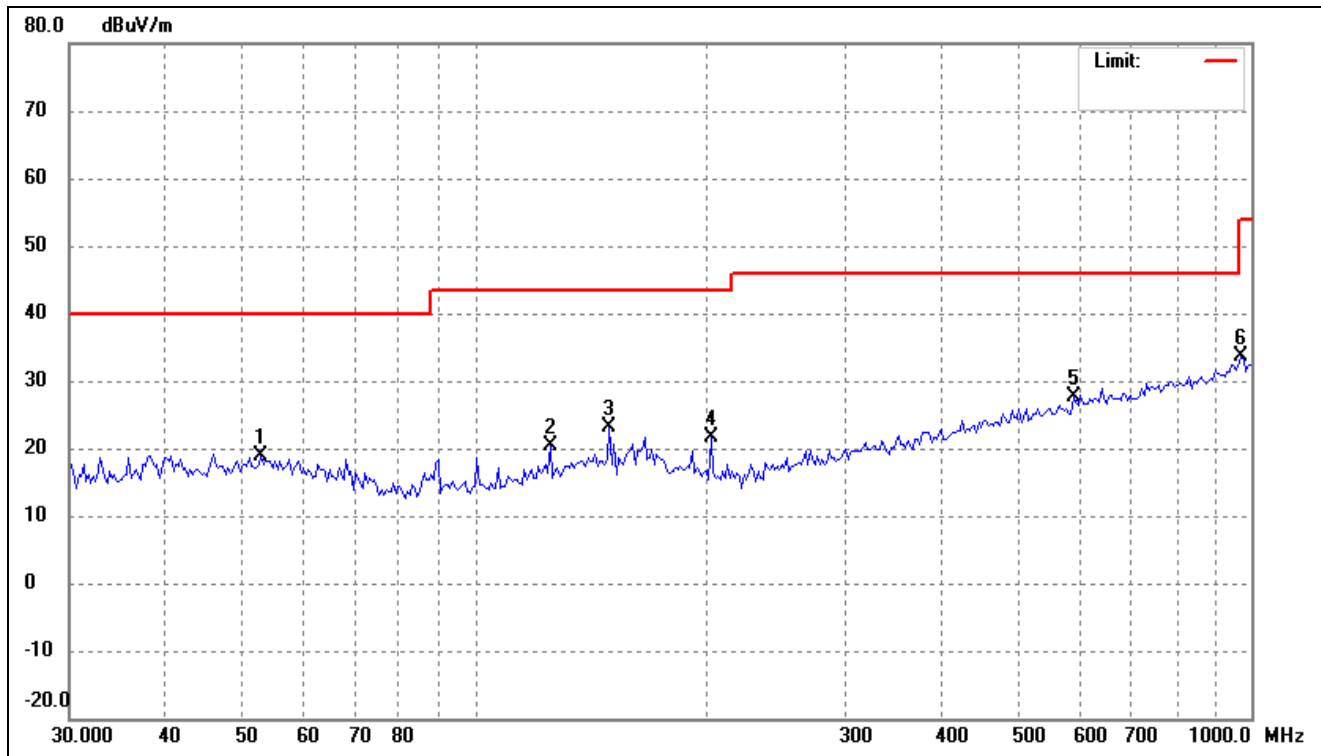
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	57.2654	29.50	-8.77	20.73	40.00	-19.27	-	-	peak
2	148.9175	33.65	-8.68	24.97	43.50	-18.53	-	-	peak
3	201.4539	35.02	-12.01	23.01	43.50	-20.49	-	-	peak
4	409.6506	33.82	-5.70	28.12	46.00	-17.88	-	-	peak
5	458.3987	35.85	-4.47	31.38	46.00	-14.62	-	-	peak
6	945.3336	30.92	2.15	33.07	46.00	-12.93	-	-	peak

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



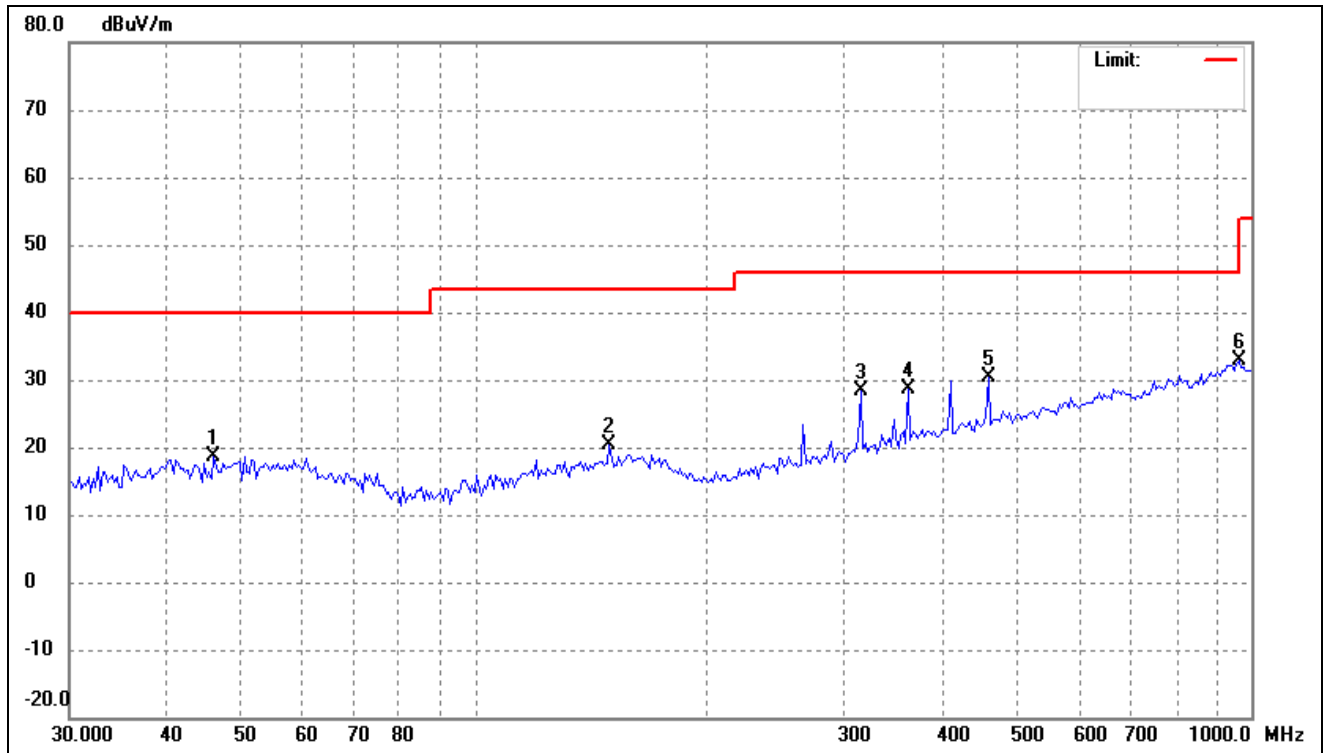
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	56.4662	27.84	-8.72	19.12	40.00	-20.88	-	-	peak
2	135.9163	28.25	-9.61	18.64	43.50	-24.86	-	-	peak
3	264.9709	31.52	-9.55	21.97	46.00	-24.03	-	-	peak
4	313.6483	36.09	-7.87	28.22	46.00	-17.78	-	-	peak
5	458.3987	34.60	-4.47	30.13	46.00	-15.87	-	-	peak
6	938.7139	30.91	2.01	32.92	46.00	-13.08	-	-	peak

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



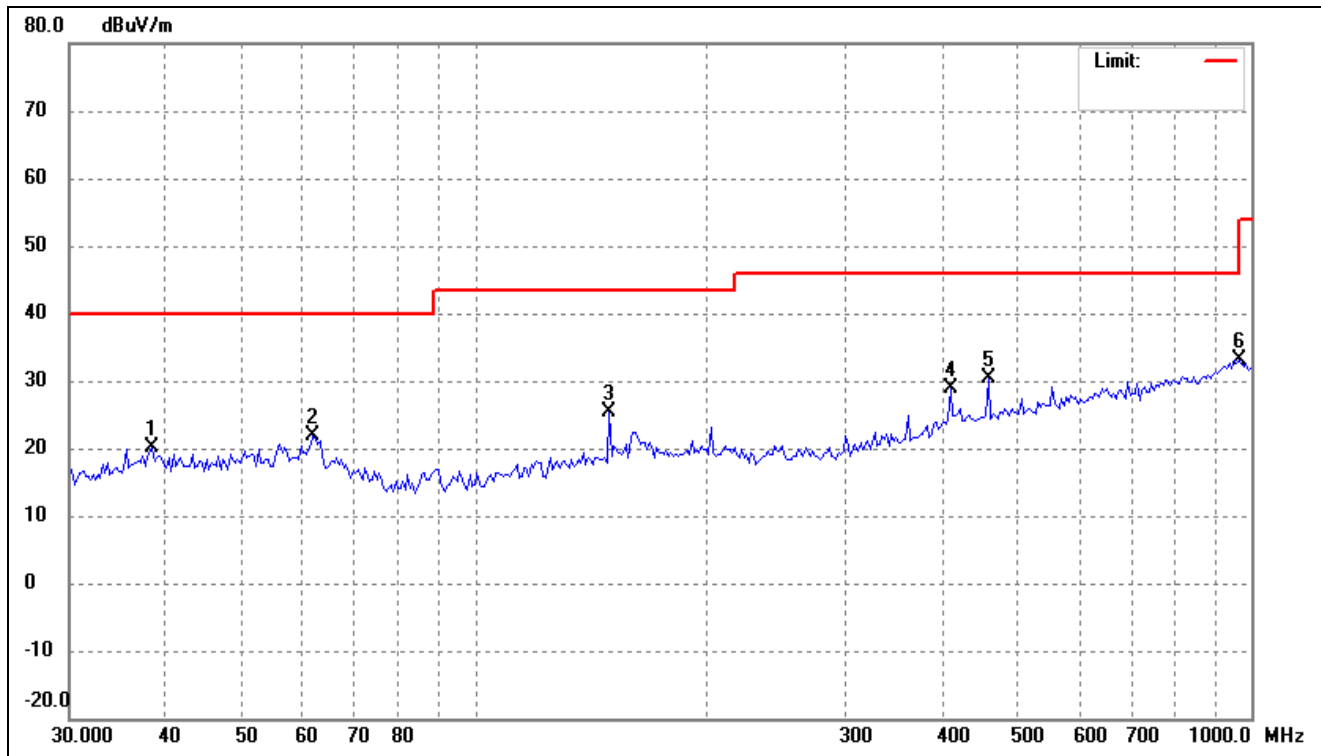
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	53.0056	27.25	-8.41	18.84	40.00	-21.16	-	-	peak
2	124.9249	30.48	-10.19	20.29	43.50	-23.21	-	-	peak
3	148.9175	31.88	-8.68	23.20	43.50	-20.30	-	-	peak
4	201.4539	33.65	-12.01	21.64	43.50	-21.86	-	-	peak
5	590.3511	29.60	-1.94	27.66	46.00	-18.34	-	-	peak
6	972.2827	31.47	2.27	33.74	54.00	-20.26	-	-	peak

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



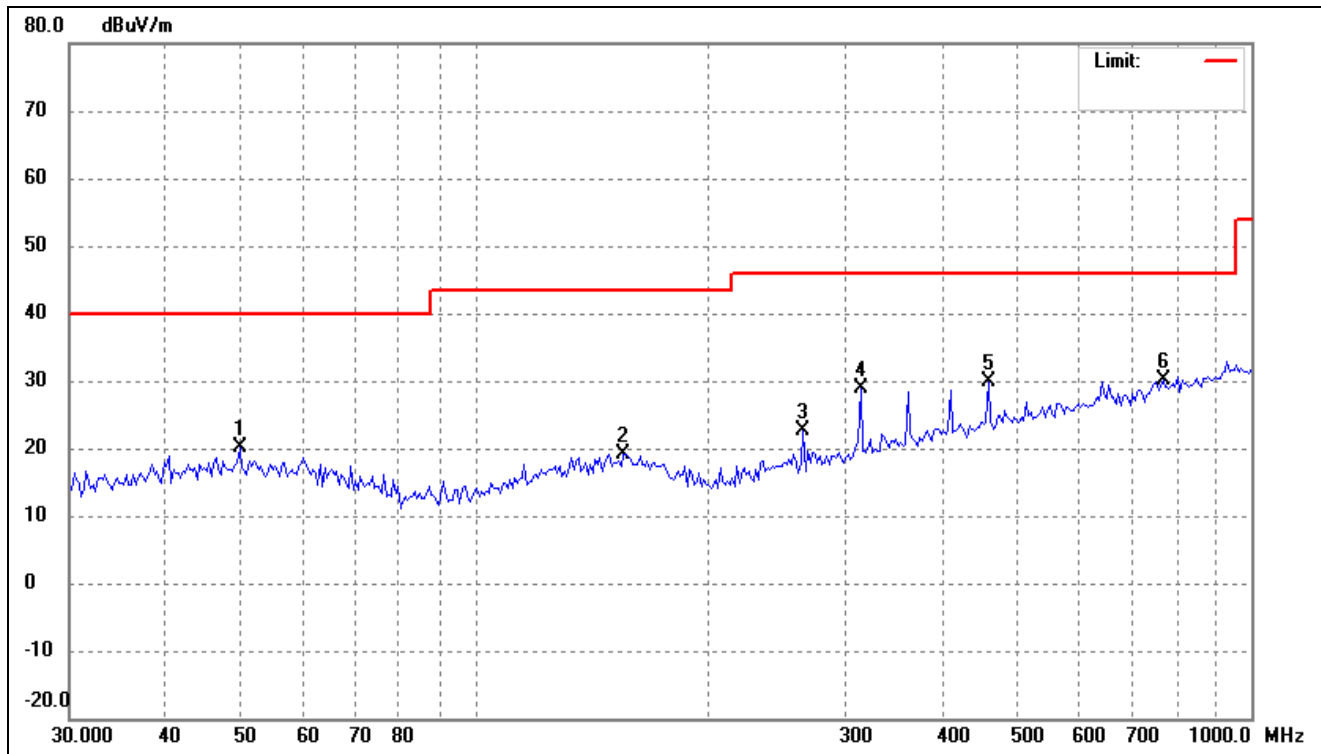
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	46.0558	27.02	-8.38	18.64	40.00	-21.36	-	-	peak
2	148.9175	28.97	-8.68	20.29	43.50	-23.21	-	-	peak
3	313.6483	36.20	-7.87	28.33	46.00	-17.67	-	-	peak
4	360.9775	35.37	-6.83	28.54	46.00	-17.46	-	-	peak
5	458.3987	34.82	-4.47	30.35	46.00	-15.65	-	-	peak
6	965.4742	30.55	2.27	32.82	54.00	-21.18	-	-	peak

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



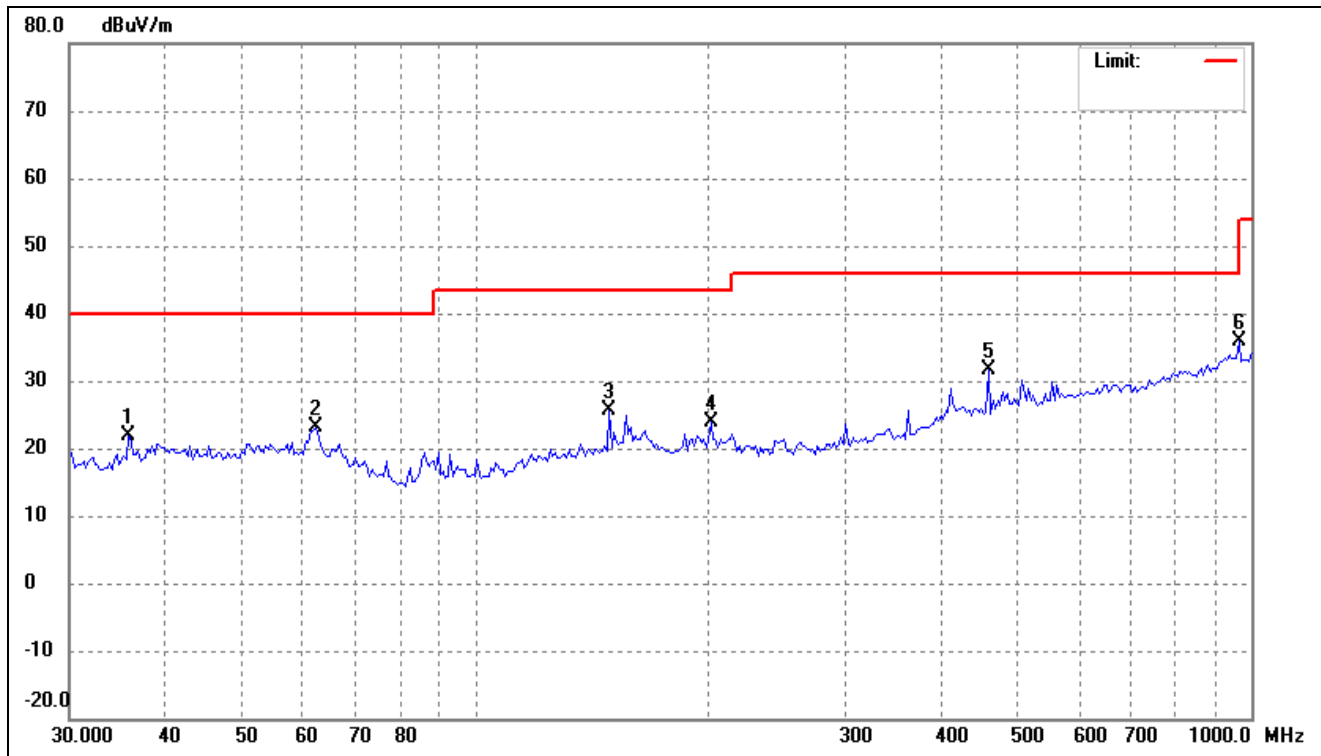
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	38.3651	28.91	-8.83	20.08	40.00	-19.92	-	-	peak
2	61.8676	31.07	-9.28	21.79	40.00	-18.21	-	-	peak
3	148.9175	33.98	-8.68	25.30	43.50	-18.20	-	-	peak
4	409.6506	34.70	-5.70	29.00	46.00	-17.00	-	-	peak
5	458.3987	34.94	-4.47	30.47	46.00	-15.53	-	-	peak
6	965.4742	30.80	2.27	33.07	54.00	-20.93	-	-	peak

802.11ax-HE40			
Test Channel	5190MHz(worst case)	Polarity:	Horizontal



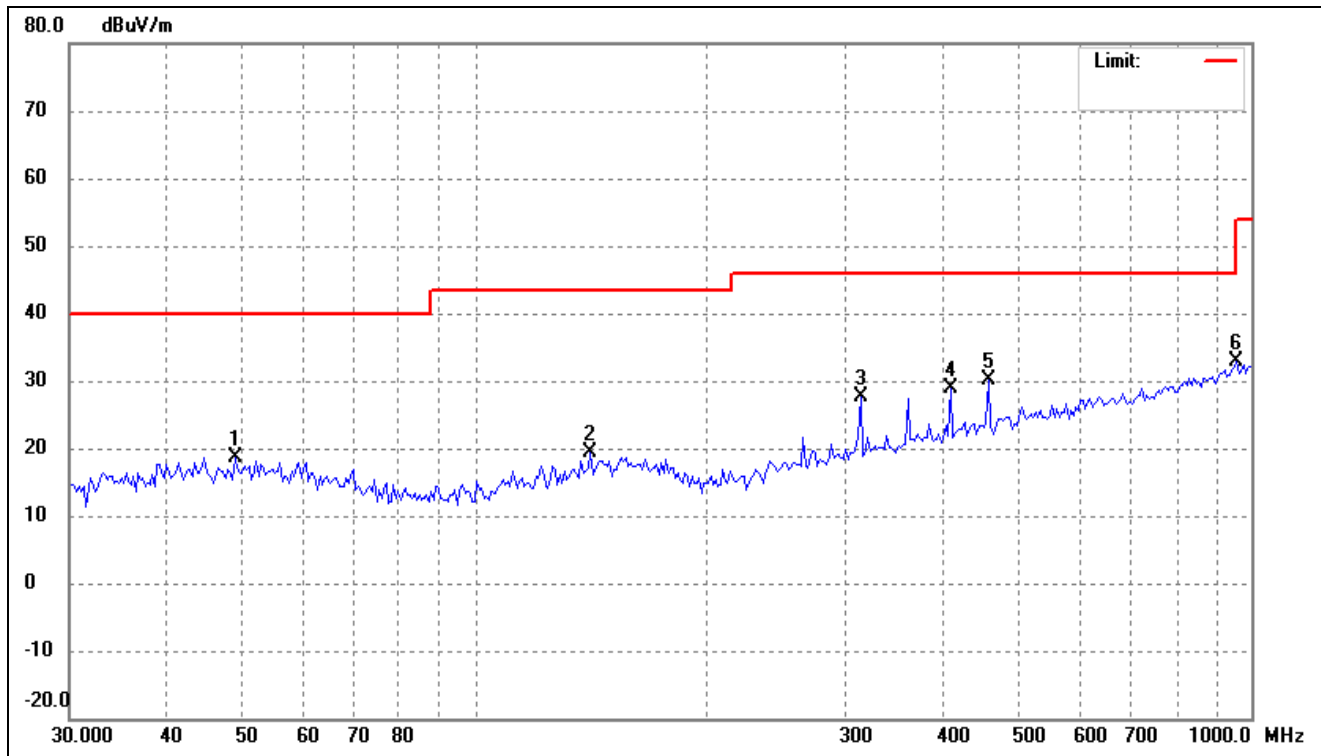
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	49.7571	28.15	-8.09	20.06	40.00	-19.94	-	-	peak
2	155.3305	27.79	-8.61	19.18	43.50	-24.32	-	-	peak
3	264.9709	32.12	-9.55	22.57	46.00	-23.43	-	-	peak
4	313.6483	36.66	-7.87	28.79	46.00	-17.21	-	-	peak
5	458.3987	34.28	-4.47	29.81	46.00	-16.19	-	-	peak
6	771.0475	30.11	0.03	30.14	46.00	-15.86	-	-	peak

802.11ax-HE40			
Test Channel	5190MHz(worst case)	Polarity:	Vertical



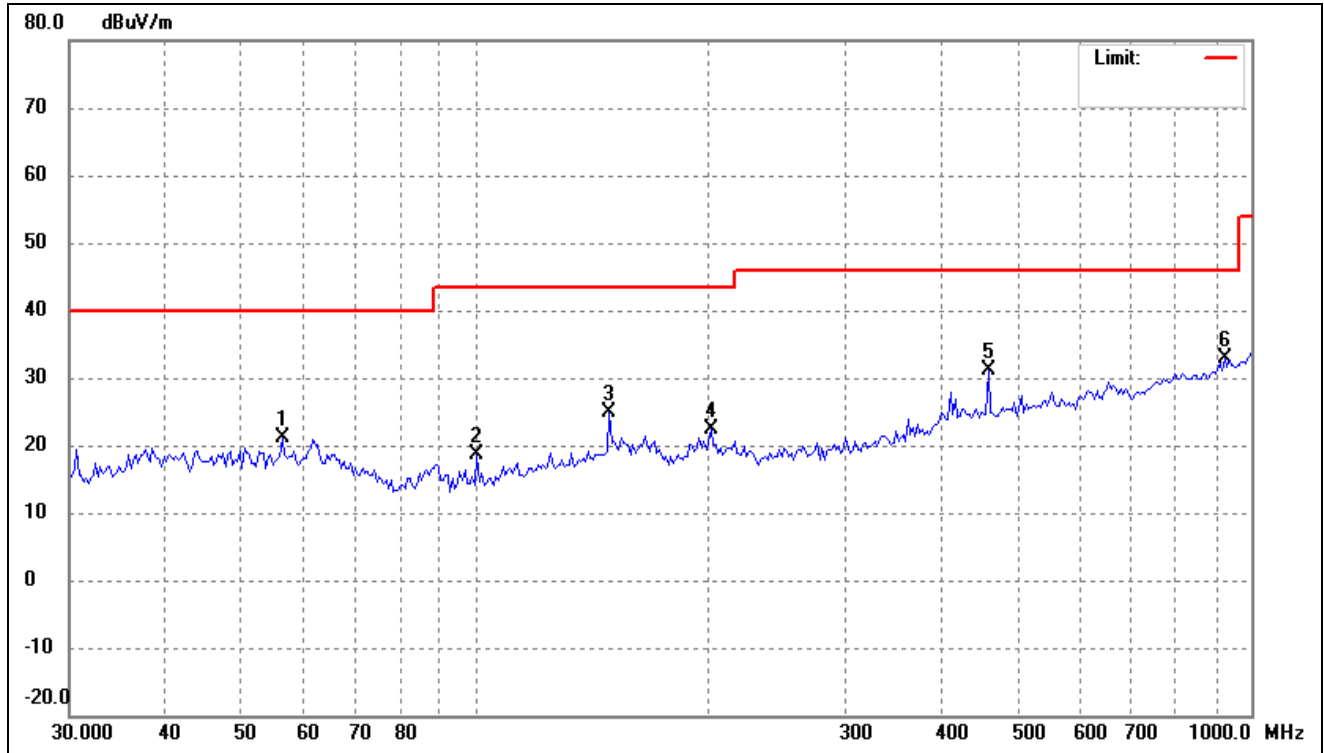
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	35.7617	31.29	-9.39	21.90	40.00	-18.10	-	-	peak
2	62.3038	32.51	-9.35	23.16	40.00	-16.84	-	-	peak
3	148.9175	34.22	-8.68	25.54	43.50	-17.96	-	-	peak
4	201.4539	35.90	-12.01	23.89	43.50	-19.61	-	-	peak
5	458.3987	36.01	-4.47	31.54	46.00	-14.46	-	-	peak
6	965.4742	33.68	2.27	35.95	54.00	-18.05	-	-	peak

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



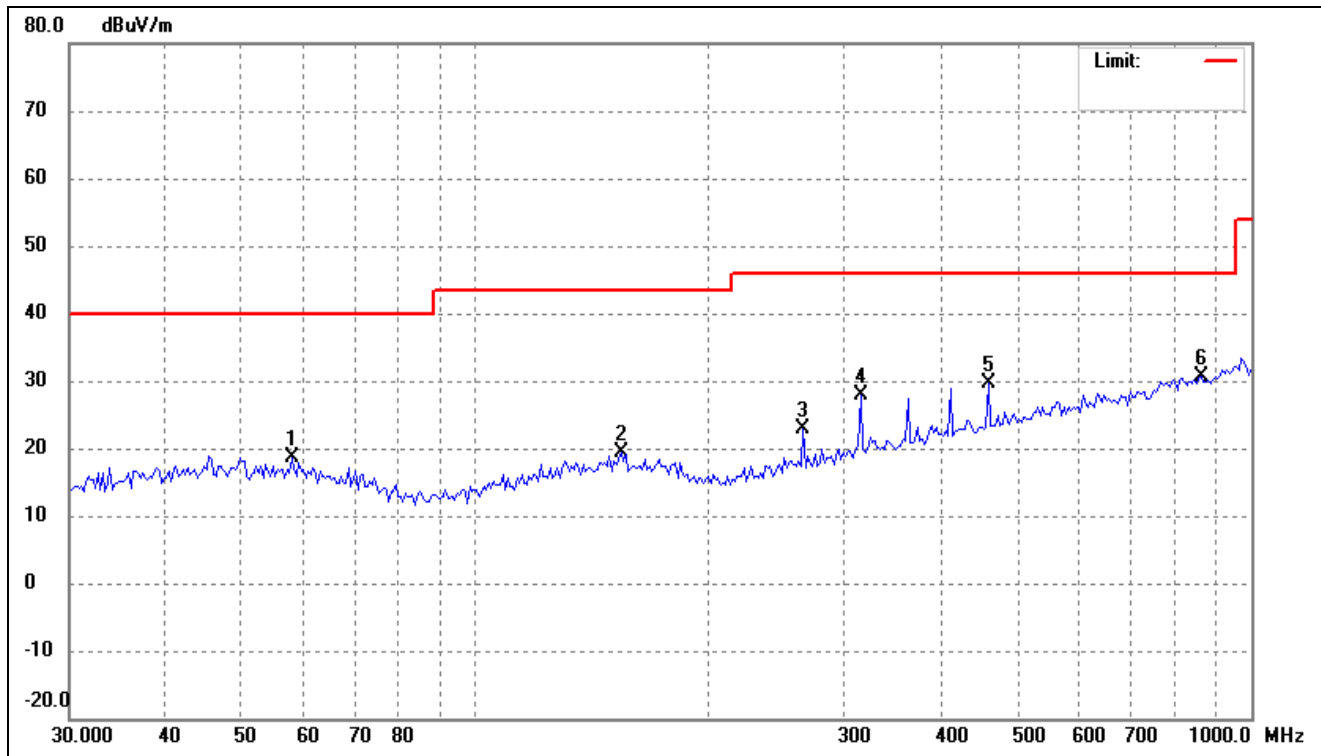
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	49.0627	26.85	-8.15	18.70	40.00	-21.30	-	-	peak
2	140.7767	28.68	-9.37	19.31	43.50	-24.19	-	-	peak
3	313.6483	35.55	-7.87	27.68	46.00	-18.32	-	-	peak
4	409.6506	34.56	-5.70	28.86	46.00	-17.14	-	-	peak
5	458.3987	34.71	-4.47	30.24	46.00	-15.76	-	-	peak
6	958.7135	30.54	2.26	32.80	46.00	-13.20	-	-	peak

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



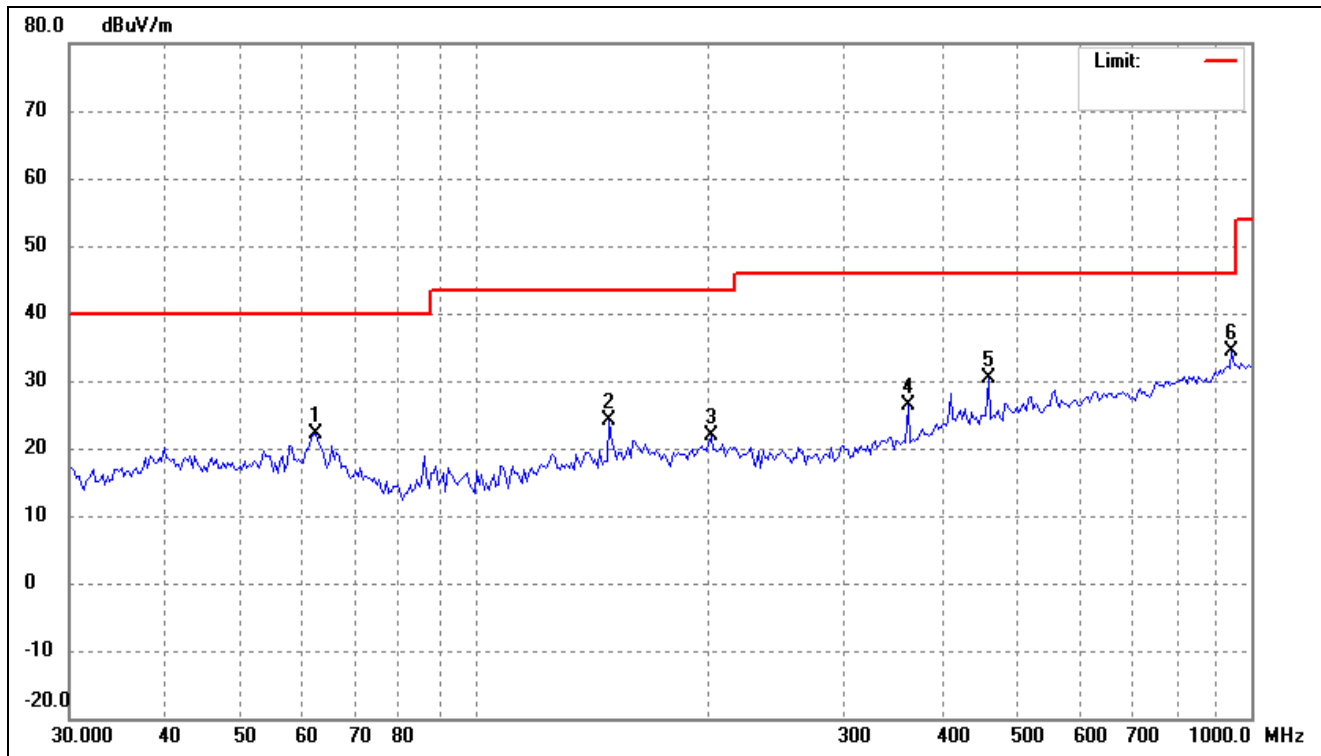
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	56.4662	29.92	-8.72	21.20	40.00	-18.80	-	-	peak
2	100.4712	31.07	-12.45	18.62	43.50	-24.88	-	-	peak
3	148.9175	33.66	-8.68	24.98	43.50	-18.52	-	-	peak
4	201.4539	34.46	-12.01	22.45	43.50	-21.05	-	-	peak
5	458.3987	35.60	-4.47	31.13	46.00	-14.87	-	-	peak
6	925.6132	31.16	1.74	32.90	46.00	-13.10	-	-	peak

802.11ax-HE80			
Test Channel	5210MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	58.0759	27.42	-8.82	18.60	40.00	-21.40	-	-	peak
2	154.2428	27.94	-8.60	19.34	43.50	-24.16	-	-	peak
3	264.9709	32.41	-9.55	22.86	46.00	-23.14	-	-	peak
4	313.6483	35.67	-7.87	27.80	46.00	-18.20	-	-	peak
5	458.3987	34.19	-4.47	29.72	46.00	-16.28	-	-	peak
6	862.8015	29.78	0.85	30.63	46.00	-15.37	-	-	peak

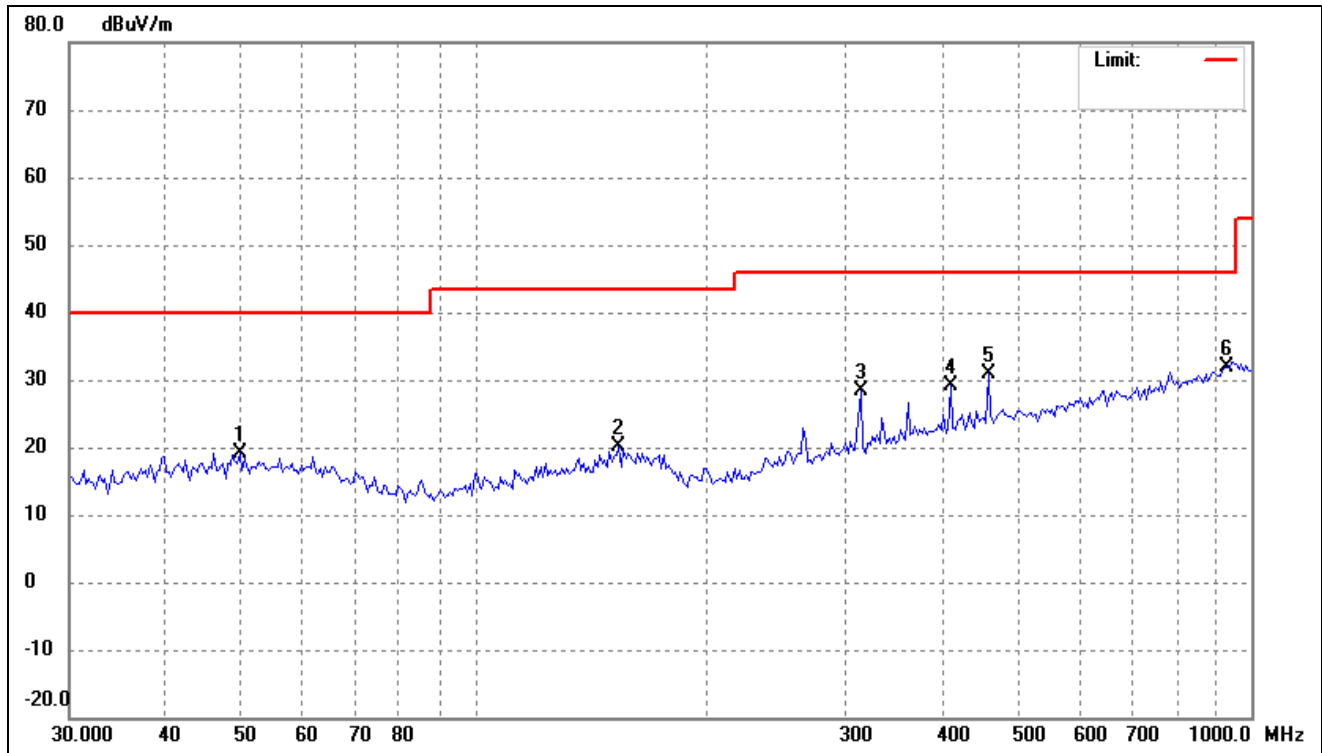
802.11ax-HE80			
Test Channel	5210MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	62.3038	31.44	-9.35	22.09	40.00	-17.91	-	-	peak
2	148.9175	32.70	-8.68	24.02	43.50	-19.48	-	-	peak
3	201.4539	33.94	-12.01	21.93	43.50	-21.57	-	-	peak
4	360.9775	33.18	-6.83	26.35	46.00	-19.65	-	-	peak
5	458.3987	34.88	-4.47	30.41	46.00	-15.59	-	-	peak
6	945.3336	32.23	2.15	34.38	46.00	-11.62	-	-	peak

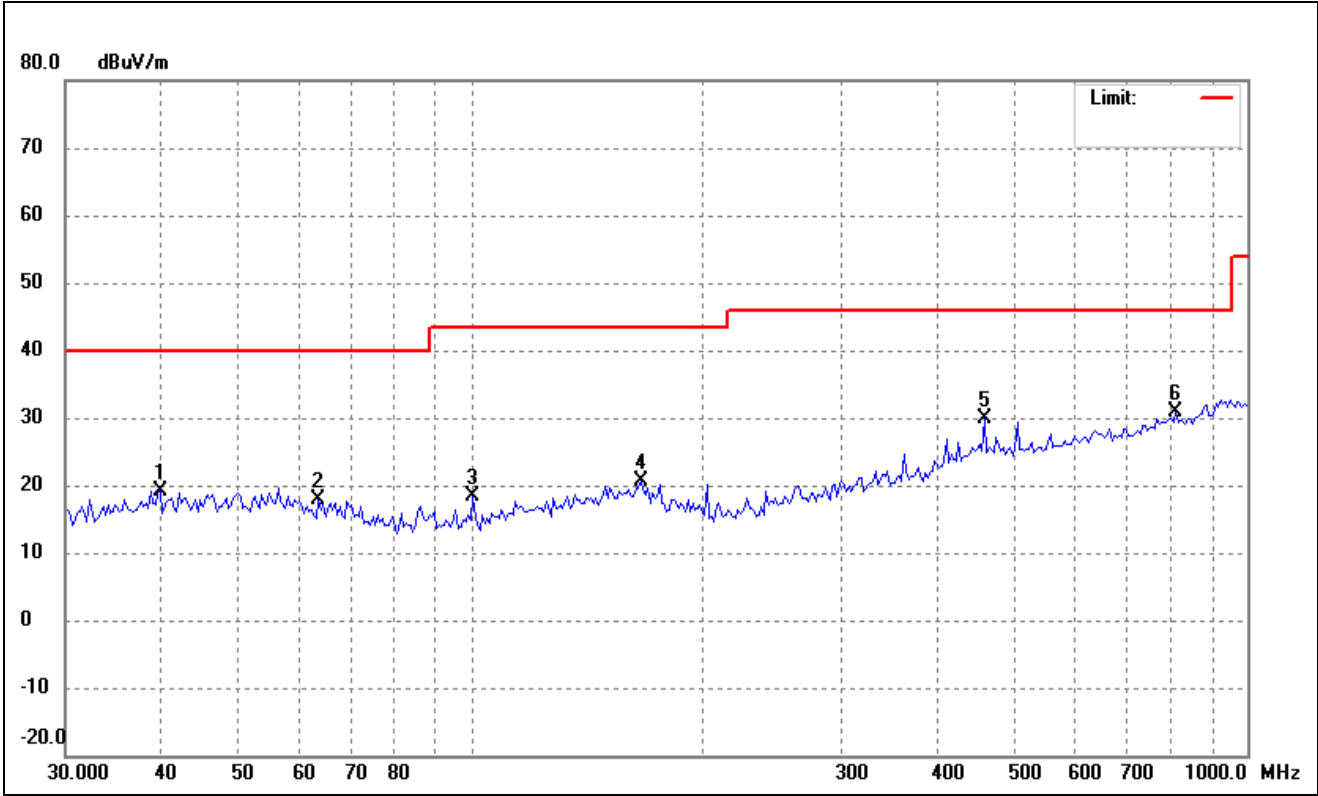
➤ 5725-5850MHz

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



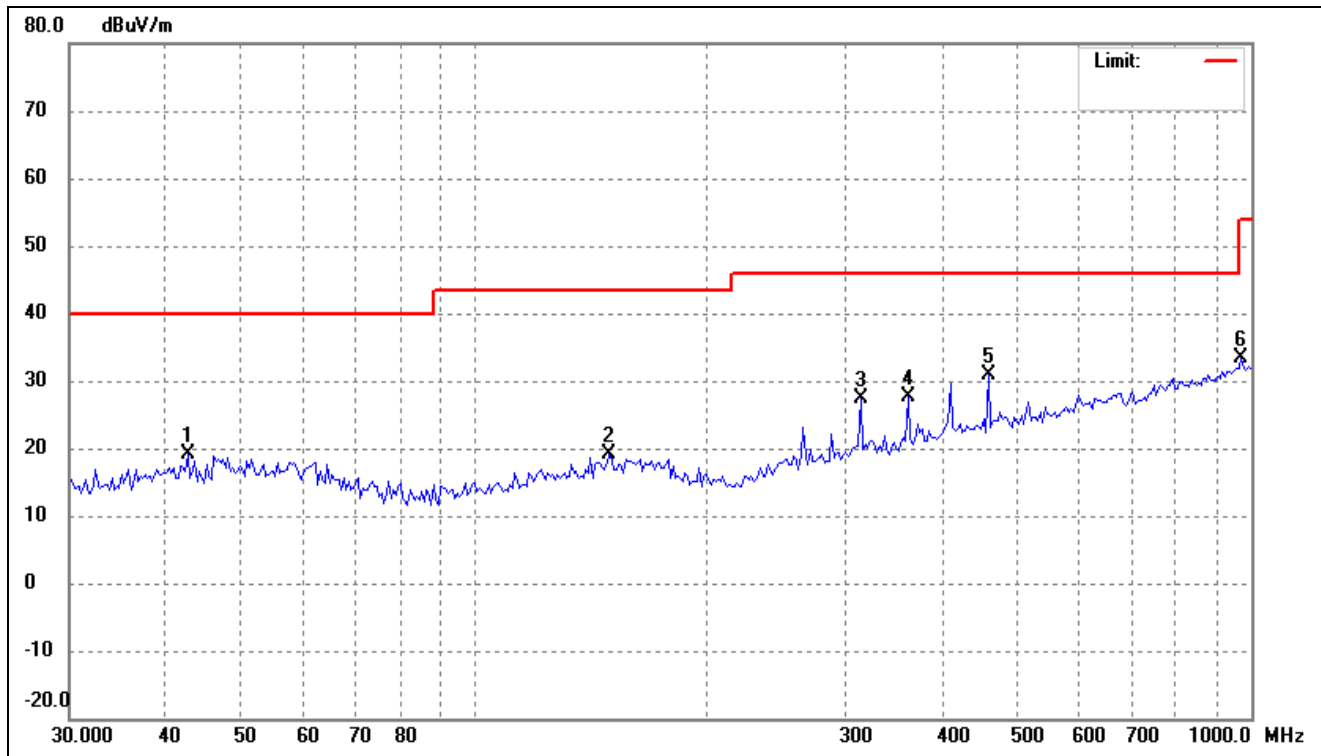
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	49.7571	27.30	-8.09	19.21	40.00	-20.79	-	-	peak
2	153.1627	28.67	-8.61	20.06	43.50	-23.44	-	-	peak
3	313.6483	36.22	-7.87	28.35	46.00	-17.65	-	-	peak
4	409.6506	34.74	-5.70	29.04	46.00	-16.96	-	-	peak
5	458.3987	35.36	-4.47	30.89	46.00	-15.11	-	-	peak
6	932.1405	30.00	1.87	31.87	46.00	-14.13	-	-	peak

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



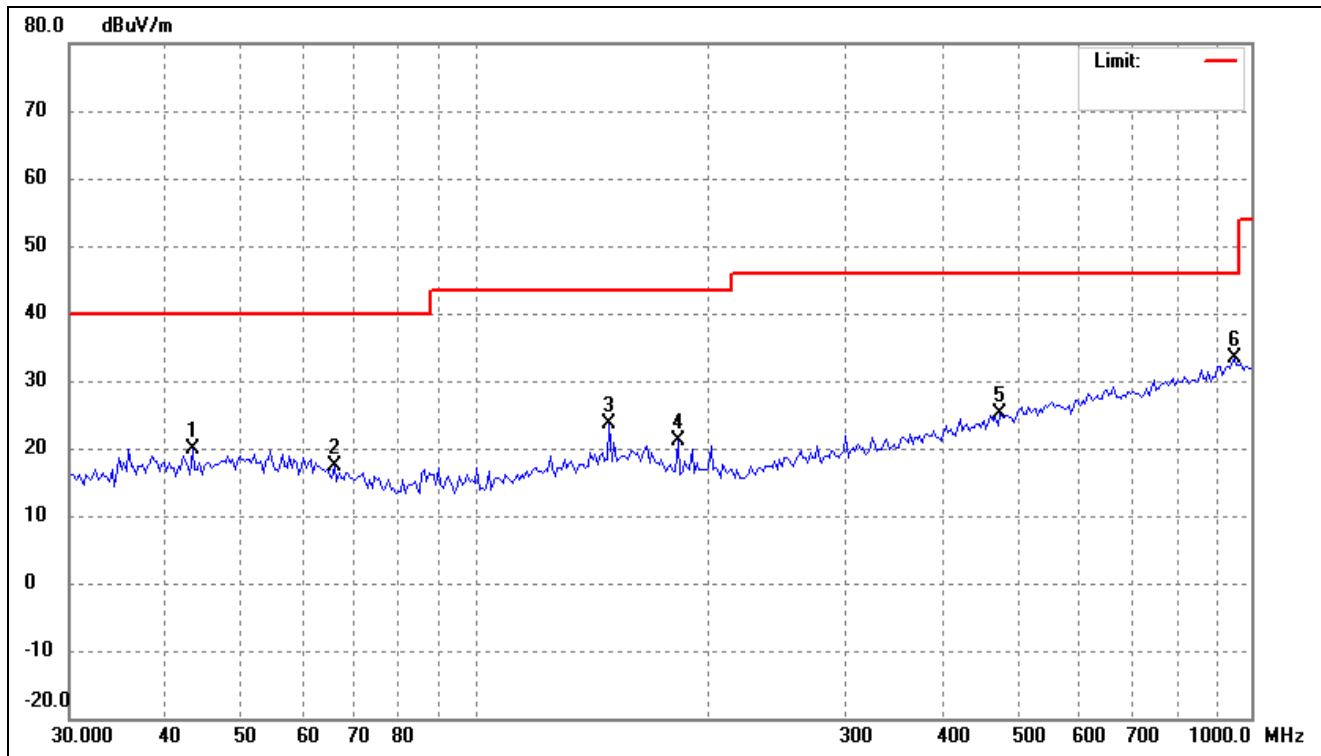
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	39.7371	27.65	-8.54	19.11	40.00	-20.89	-	-	peak
2	63.6312	27.36	-9.59	17.77	40.00	-22.23	-	-	peak
3	100.4712	30.81	-12.45	18.36	43.50	-25.14	-	-	peak
4	165.4716	29.31	-8.76	20.55	43.50	-22.95	-	-	peak
5	458.3987	34.44	-4.47	29.97	46.00	-16.03	-	-	peak
6	809.9238	30.51	0.39	30.90	46.00	-15.10	-	-	peak

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



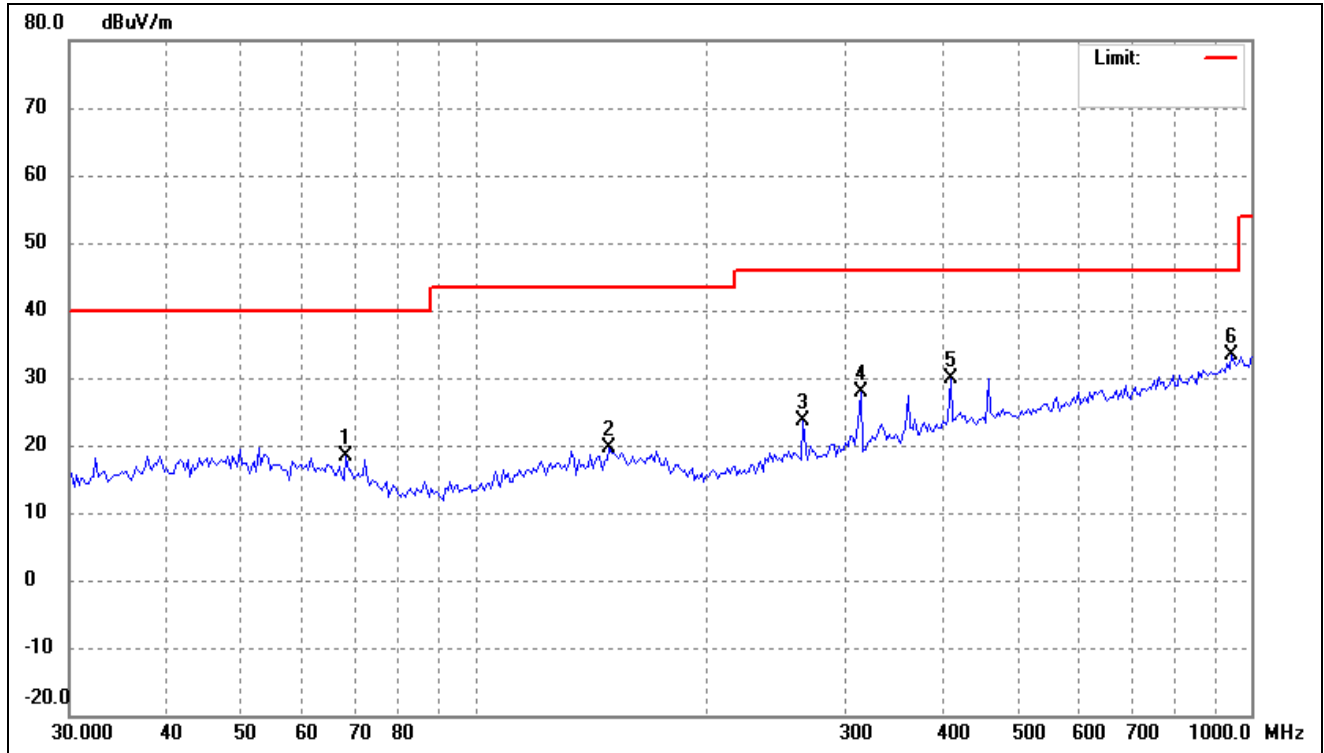
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	42.6299	27.67	-8.48	19.19	40.00	-20.81	-	-	peak
2	148.9175	27.78	-8.68	19.10	43.50	-24.40	-	-	peak
3	313.6483	35.30	-7.87	27.43	46.00	-18.57	-	-	peak
4	360.9775	34.49	-6.83	27.66	46.00	-18.34	-	-	peak
5	458.3987	35.41	-4.47	30.94	46.00	-15.06	-	-	peak
6	972.2827	31.08	2.27	33.35	54.00	-20.65	-	-	peak

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



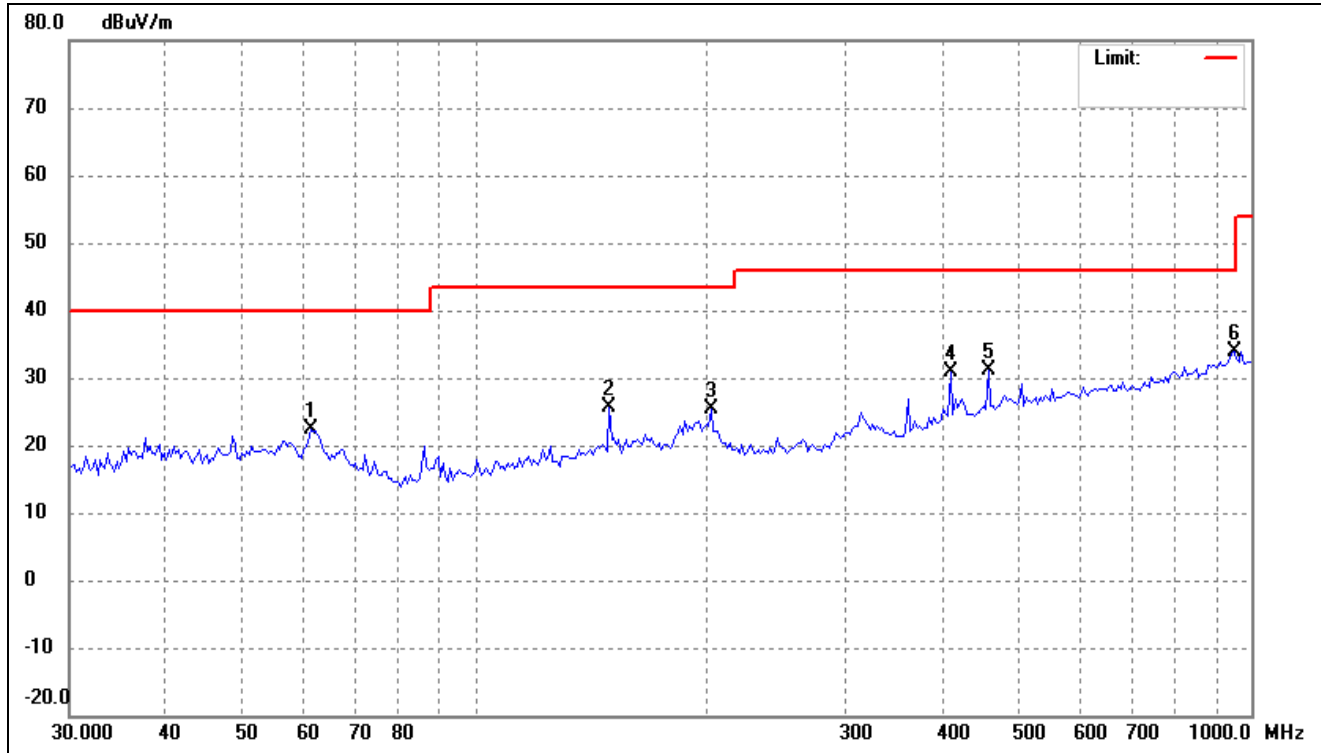
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	43.2333	28.40	-8.47	19.93	40.00	-20.07	-	-	peak
2	65.9067	27.44	-10.02	17.42	40.00	-22.58	-	-	peak
3	148.9175	32.20	-8.68	23.52	43.50	-19.98	-	-	peak
4	182.5785	31.79	-10.60	21.19	43.50	-22.31	-	-	peak
5	474.7913	29.30	-4.24	25.06	46.00	-20.94	-	-	peak
6	952.0001	31.20	2.25	33.45	46.00	-12.55	-	-	peak

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



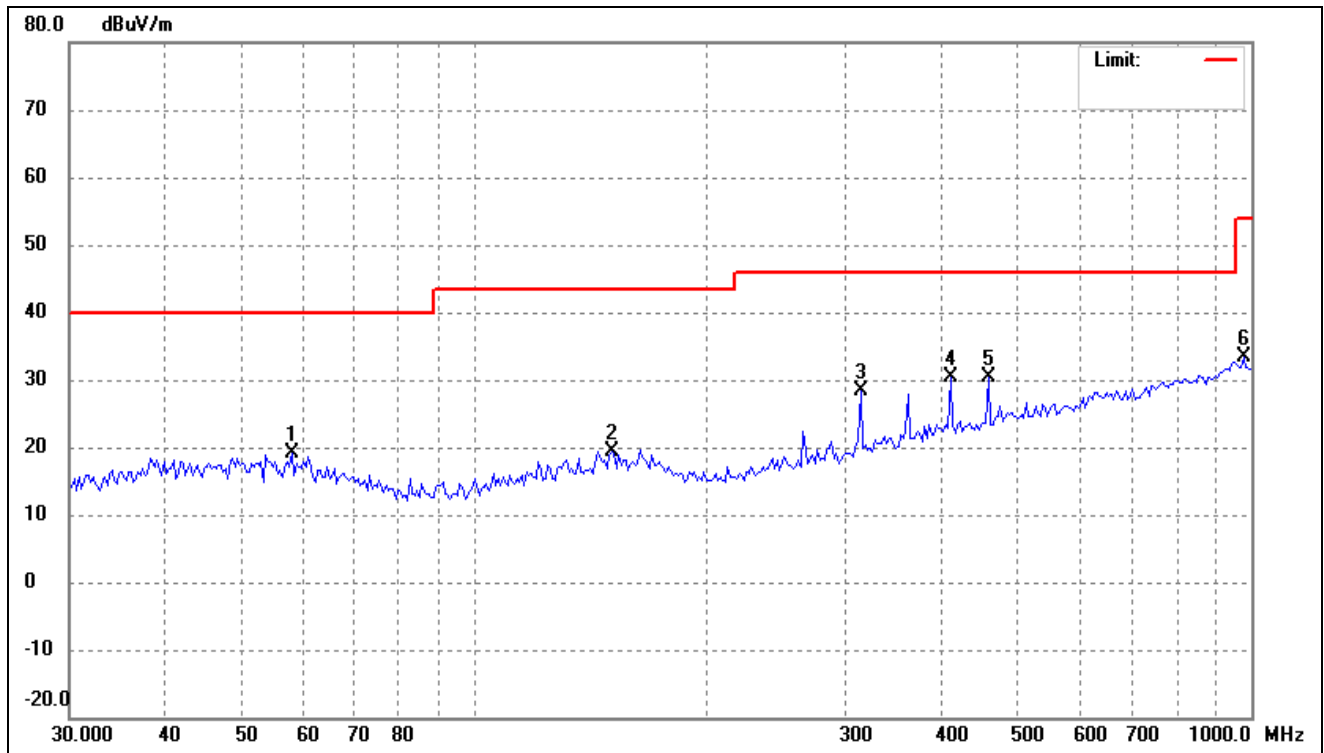
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	68.2636	28.89	-10.45	18.44	40.00	-21.56	-	-	peak
2	148.9175	28.21	-8.68	19.53	43.50	-23.97	-	-	peak
3	264.9709	33.29	-9.55	23.74	46.00	-22.26	-	-	peak
4	313.6483	35.77	-7.87	27.90	46.00	-18.10	-	-	peak
5	409.6506	35.60	-5.70	29.90	46.00	-16.10	-	-	peak
6	945.3336	31.19	2.15	33.34	46.00	-12.66	-	-	peak

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



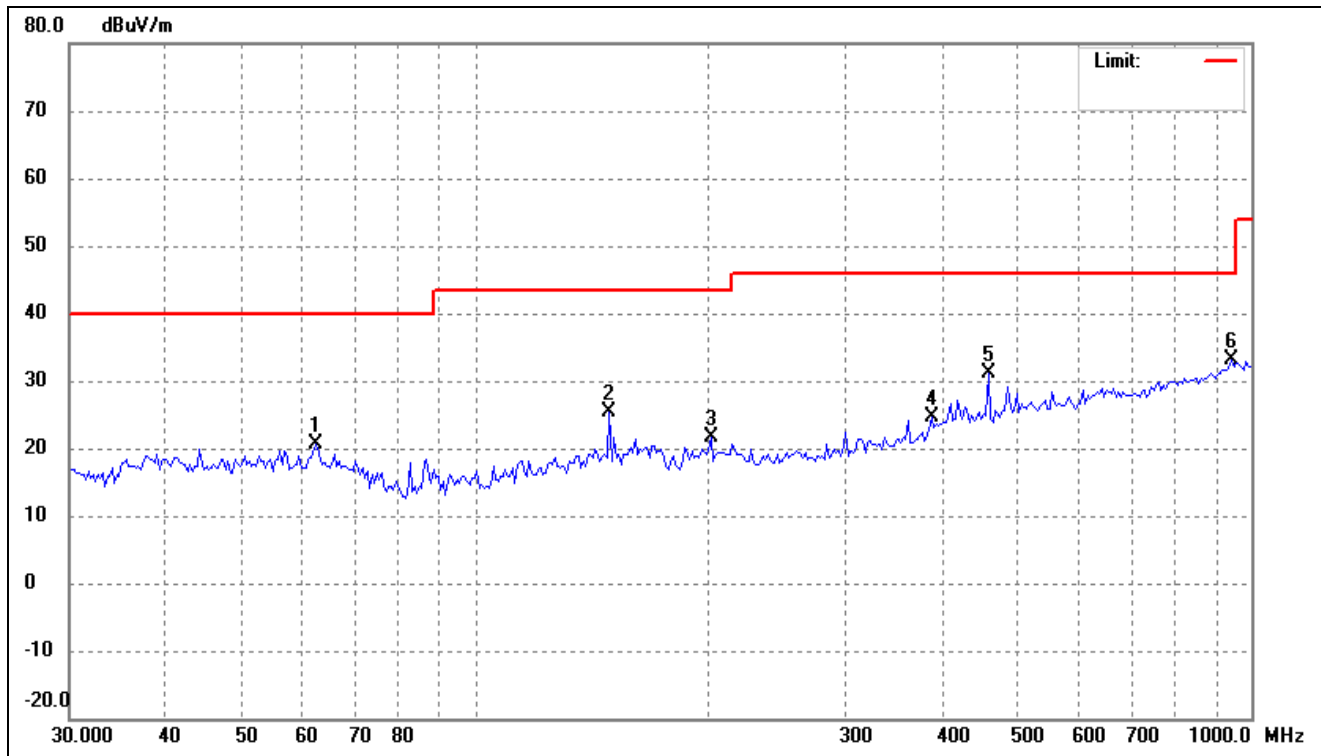
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	61.4343	31.51	-9.20	22.31	40.00	-17.69	-	-	peak
2	148.9174	34.28	-8.68	25.60	43.50	-17.90	-	-	peak
3	201.4538	37.34	-12.01	25.33	43.50	-18.17	-	-	peak
4	409.6506	36.57	-5.70	30.87	46.00	-15.13	-	-	peak
5	458.3987	35.58	-4.47	31.11	46.00	-14.89	-	-	peak
6	952.0000	31.57	2.25	33.82	46.00	-12.18	-	-	peak

802.11ax-HE20			
Test Channel	5745MHz(worst case)	Polarity:	Horizontal



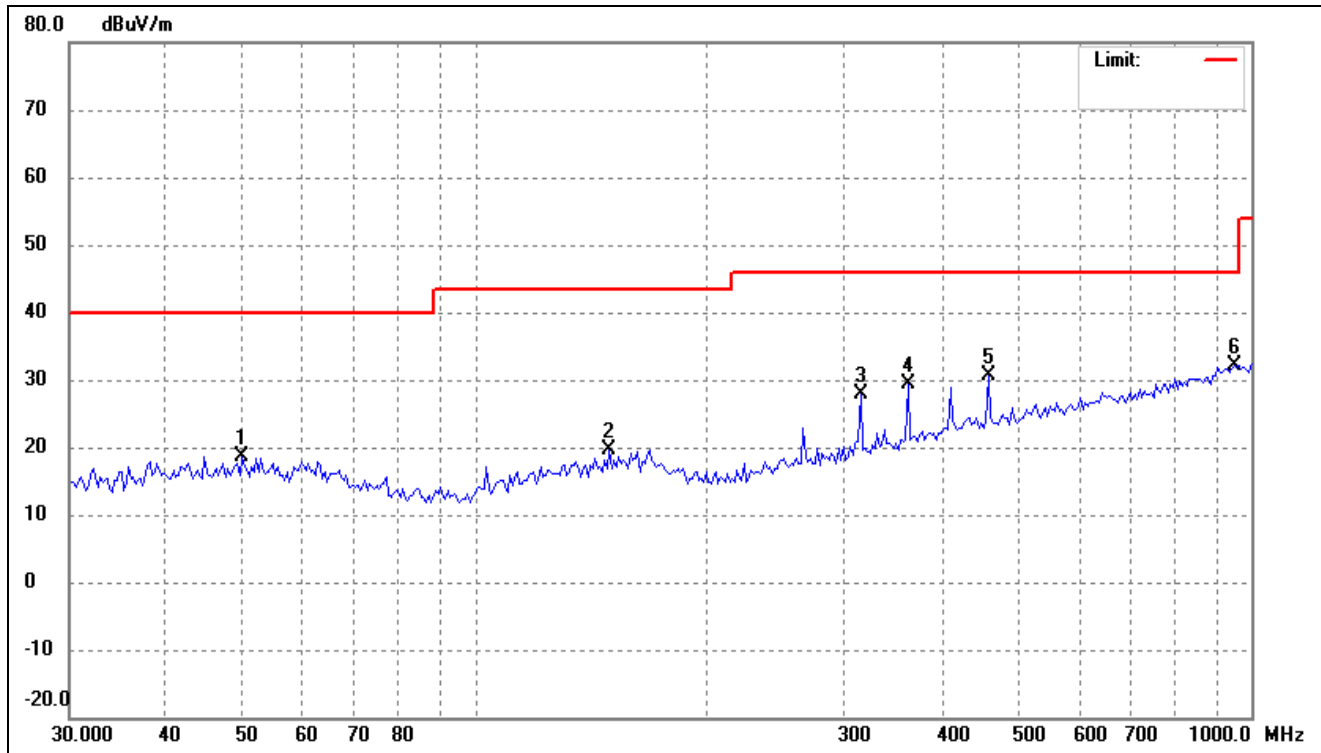
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	58.0759	27.99	-8.82	19.17	40.00	-20.83	-	-	peak
2	149.9676	28.03	-8.59	19.44	43.50	-24.06	-	-	peak
3	313.6483	36.15	-7.87	28.28	46.00	-17.72	-	-	peak
4	409.6506	35.99	-5.70	30.29	46.00	-15.71	-	-	peak
5	458.3987	34.79	-4.47	30.32	46.00	-15.68	-	-	peak
6	979.1392	31.04	2.28	33.32	54.00	-20.68	-	-	peak

802.11ax-HE20			
Test Channel	5745MHz(worst case)	Polarity:	Vertical



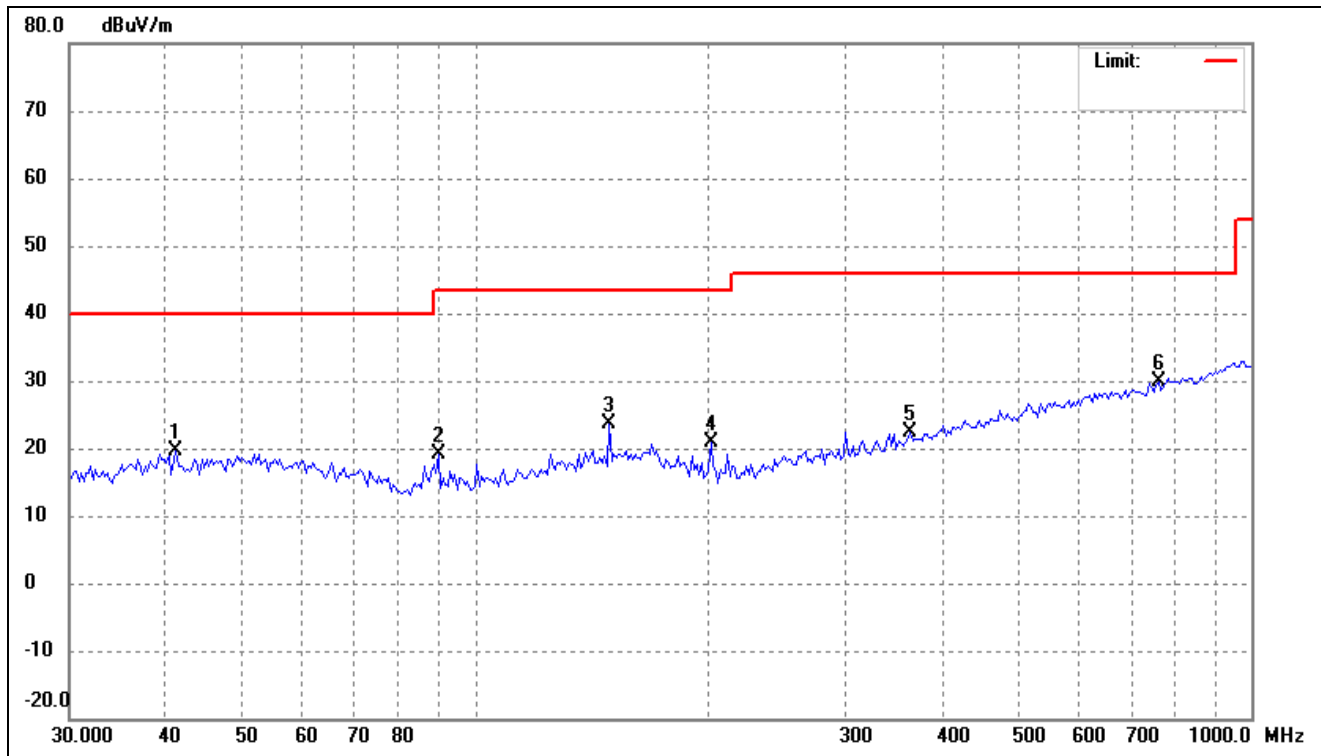
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	62.3038	29.93	-9.35	20.58	40.00	-19.42	-	-	peak
2	148.9175	33.96	-8.68	25.28	43.50	-18.22	-	-	peak
3	201.4539	33.75	-12.01	21.74	43.50	-21.76	-	-	peak
4	387.2565	30.97	-6.22	24.75	46.00	-21.25	-	-	peak
5	458.3987	35.60	-4.47	31.13	46.00	-14.87	-	-	peak
6	945.3336	30.88	2.15	33.03	46.00	-12.97	-	-	peak

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



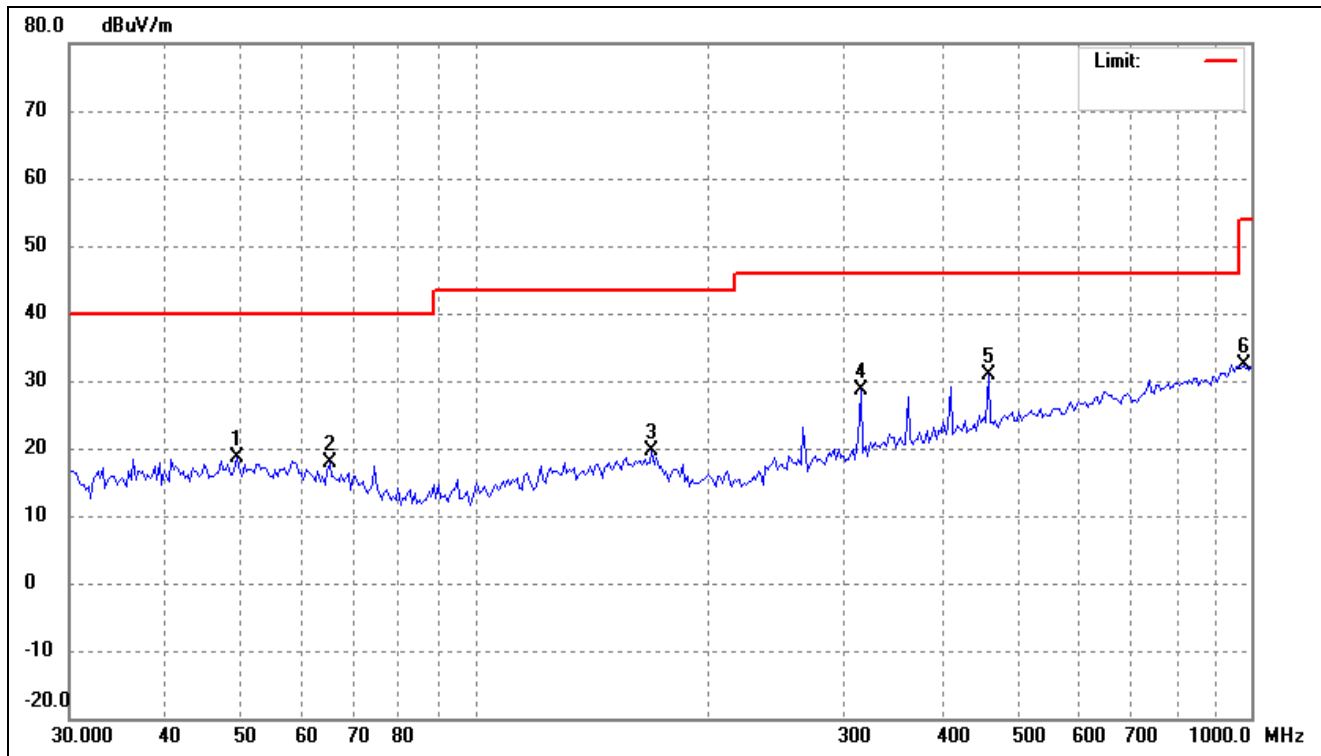
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	50.1080	26.73	-8.09	18.64	40.00	-21.36	-	-	peak
2	148.9175	28.22	-8.68	19.54	43.50	-23.96	-	-	peak
3	313.6483	35.66	-7.87	27.79	46.00	-18.21	-	-	peak
4	360.9775	36.11	-6.83	29.28	46.00	-16.72	-	-	peak
5	458.3987	35.09	-4.47	30.62	46.00	-15.38	-	-	peak
6	952.0001	29.82	2.25	32.07	46.00	-13.93	-	-	peak

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



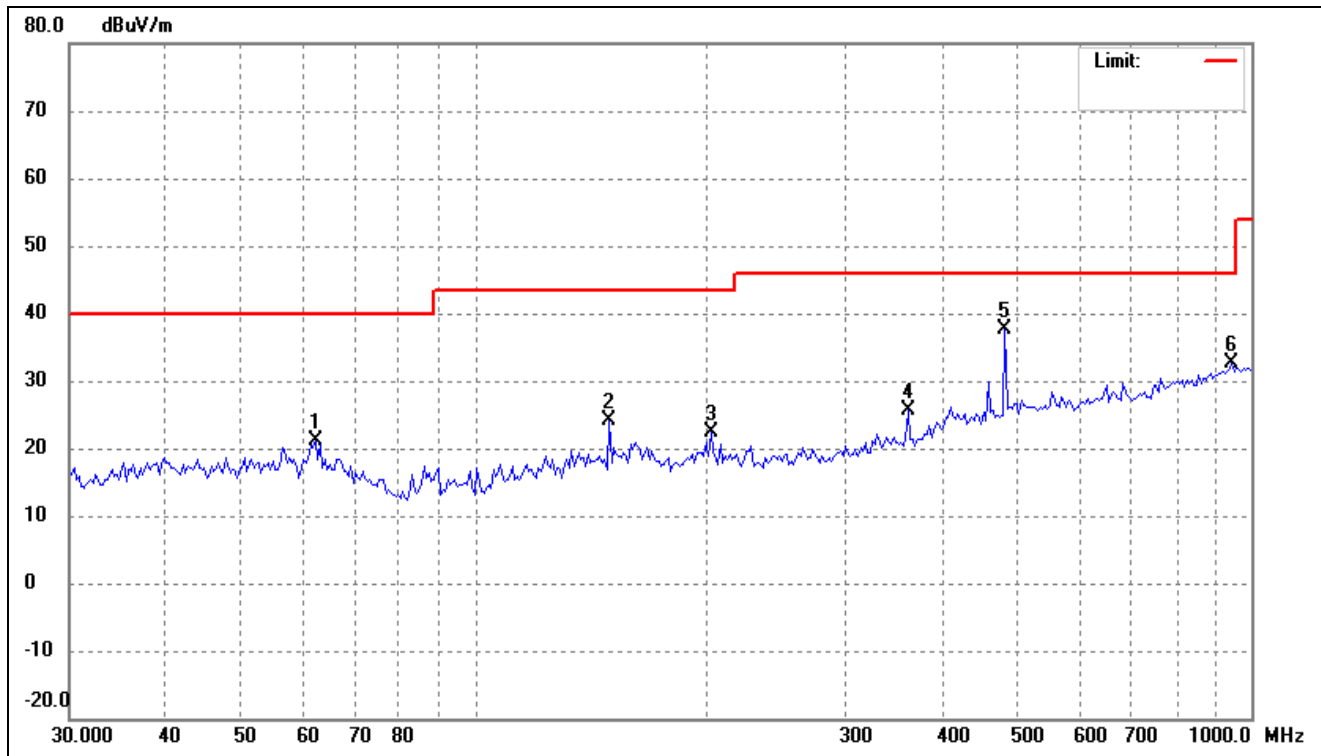
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	41.1581	28.01	-8.48	19.53	40.00	-20.47	-	-	peak
2	89.7866	32.15	-13.10	19.05	43.50	-24.45	-	-	peak
3	148.9175	32.30	-8.68	23.62	43.50	-19.88	-	-	peak
4	201.4539	32.98	-12.01	20.97	43.50	-22.53	-	-	peak
5	363.5231	29.23	-6.76	22.47	46.00	-23.53	-	-	peak
6	760.2867	29.92	-0.07	29.85	46.00	-16.15	-	-	peak

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



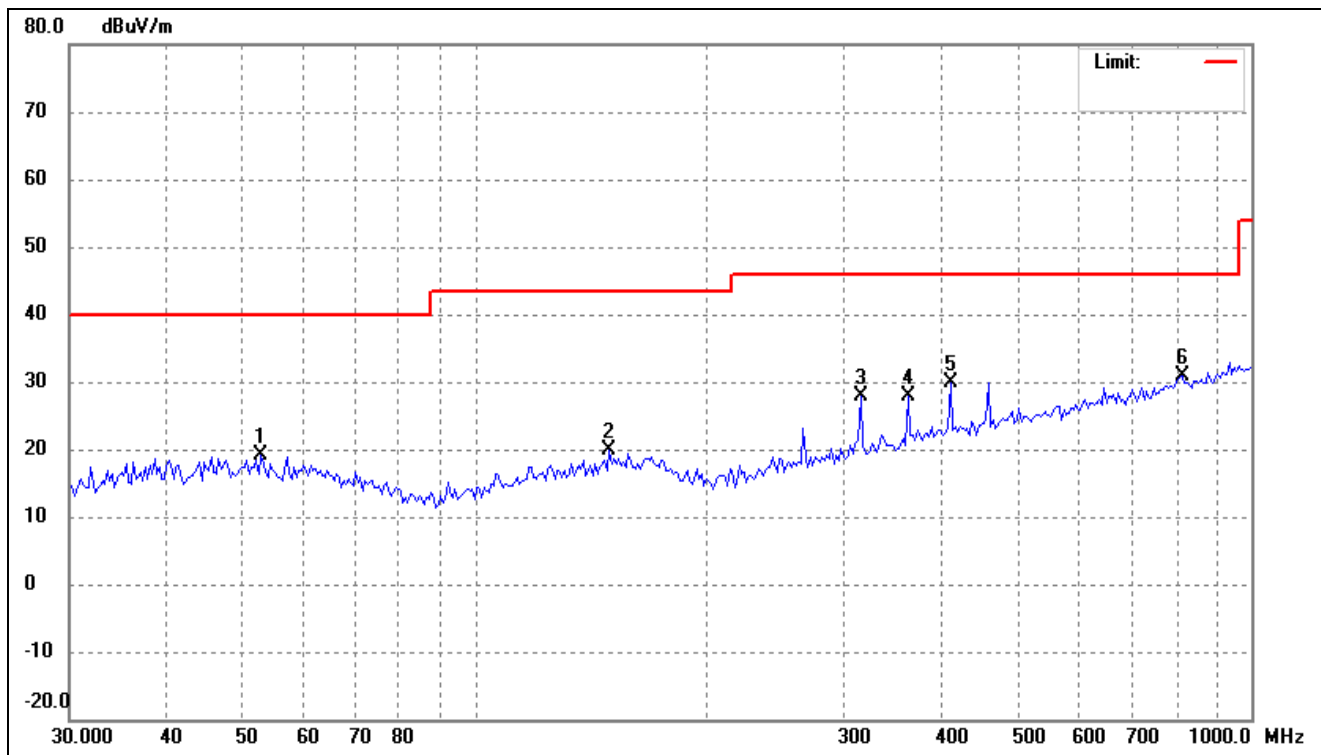
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	49.4087	26.75	-8.13	18.62	40.00	-21.38	-	-	peak
2	64.9869	27.68	-9.84	17.84	40.00	-22.16	-	-	peak
3	168.9970	28.45	-8.85	19.60	43.50	-23.90	-	-	peak
4	313.6483	36.49	-7.87	28.62	46.00	-17.38	-	-	peak
5	458.3987	35.28	-4.47	30.81	46.00	-15.19	-	-	peak
6	979.1392	30.14	2.28	32.42	54.00	-21.58	-	-	peak

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



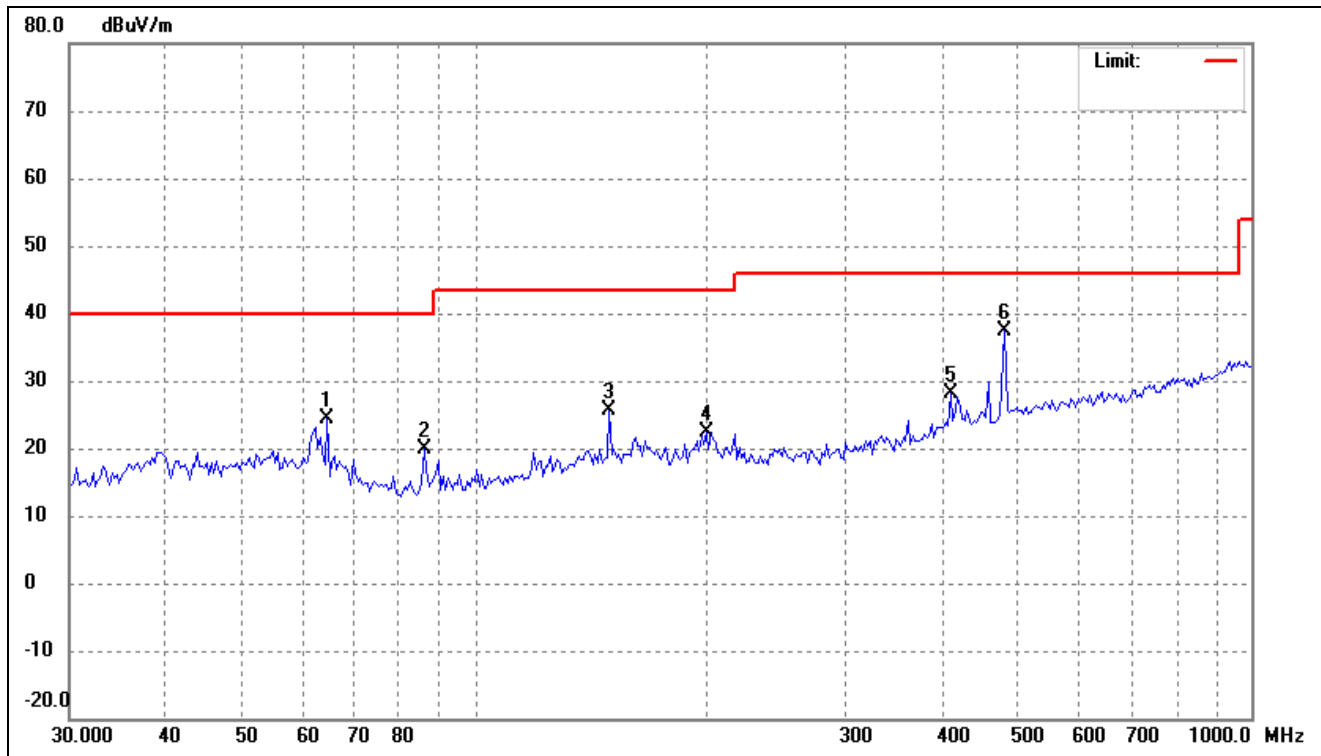
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	62.3038	30.50	-9.35	21.15	40.00	-18.85	-	-	peak
2	148.9175	32.92	-8.68	24.24	43.50	-19.26	-	-	peak
3	201.4539	34.47	-12.01	22.46	43.50	-21.04	-	-	peak
4	360.9775	32.46	-6.83	25.63	46.00	-20.37	-	-	peak
5	481.5112	41.84	-4.15	37.69	46.00	-8.31	-	-	peak
6	945.3336	30.40	2.15	32.55	46.00	-13.45	-	-	peak

802.11ax-HE40			
Test Channel	5755MHz(worst case)	Polarity:	Horizontal



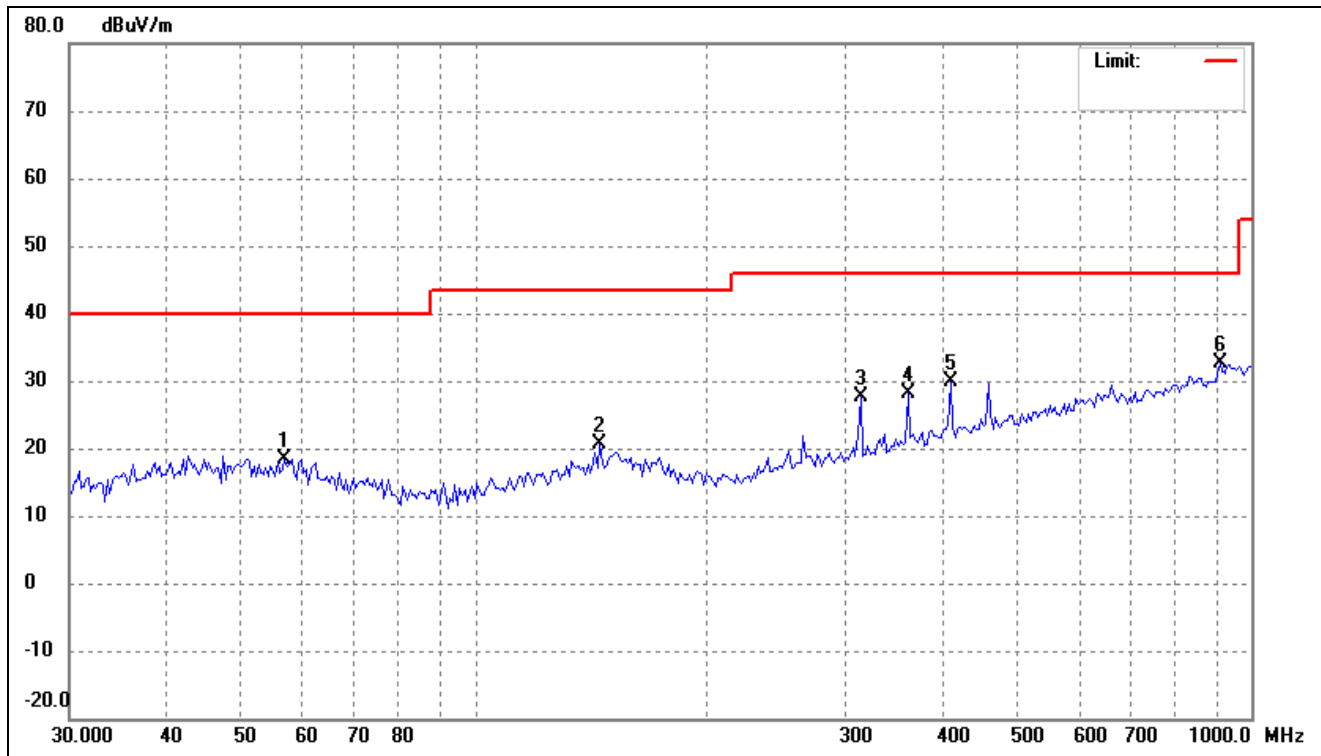
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	53.0056	27.64	-8.41	19.23	40.00	-20.77	-	-	peak
2	148.9175	28.61	-8.68	19.93	43.50	-23.57	-	-	peak
3	313.6483	35.64	-7.87	27.77	46.00	-18.23	-	-	peak
4	360.9775	34.64	-6.83	27.81	46.00	-18.19	-	-	peak
5	409.6506	35.59	-5.70	29.89	46.00	-16.11	-	-	peak
6	815.6353	30.44	0.44	30.88	46.00	-15.12	-	-	peak

802.11ax-HE40			
Test Channel	5755MHz(worst case)	Polarity:	Vertical



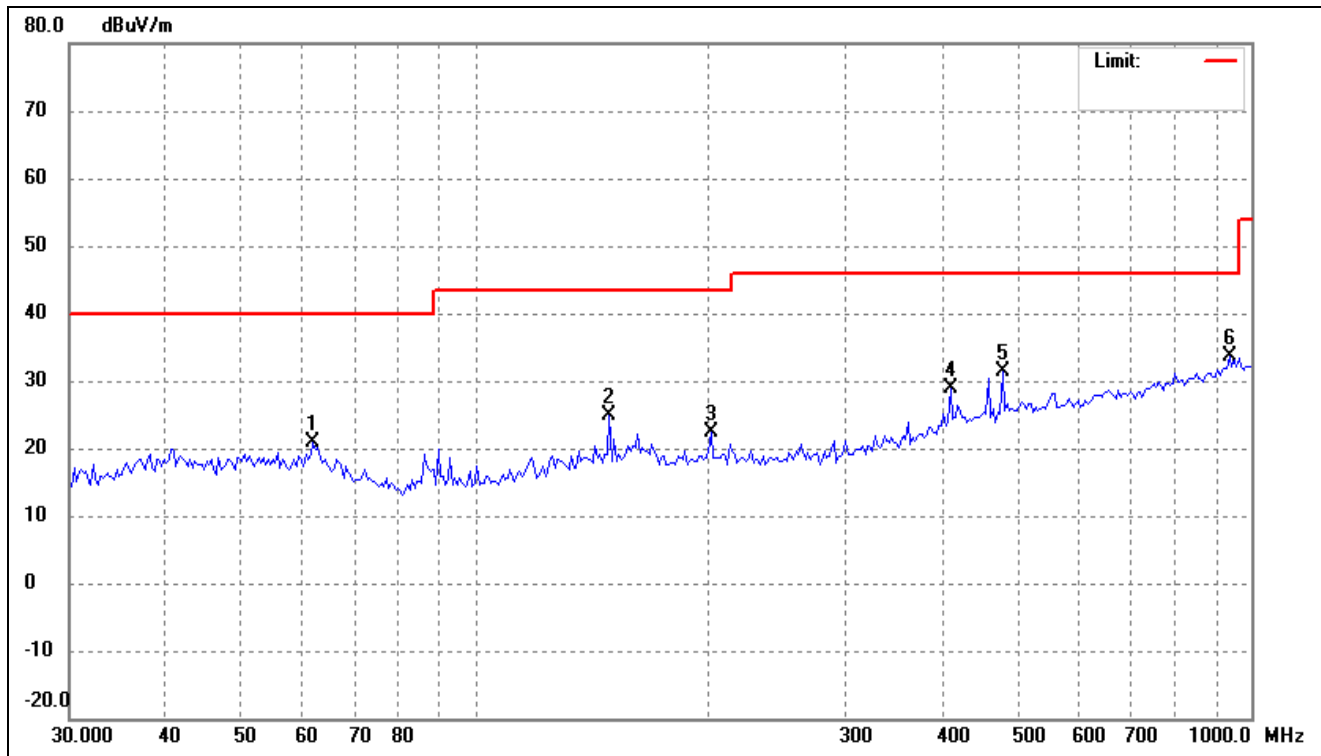
No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	64.5319	34.24	-9.76	24.48	40.00	-15.52	-	-	peak
2	86.0796	32.95	-13.04	19.91	40.00	-20.09	-	-	peak
3	148.9175	34.24	-8.68	25.56	43.50	-17.94	-	-	peak
4	198.6424	34.32	-11.91	22.41	43.50	-21.09	-	-	peak
5	409.6506	33.93	-5.70	28.23	46.00	-17.77	-	-	peak
6	481.5112	41.49	-4.15	37.34	46.00	-8.66	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	56.8644	27.17	-8.75	18.42	40.00	-21.58	-	-	peak
2	144.7899	29.72	-9.03	20.69	43.50	-22.81	-	-	peak
3	313.6483	35.39	-7.87	27.52	46.00	-18.48	-	-	peak
4	360.9775	34.89	-6.83	28.06	46.00	-17.94	-	-	peak
5	409.6506	35.63	-5.70	29.93	46.00	-16.07	-	-	peak
6	912.6953	31.06	1.46	32.52	46.00	-13.48	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	61.8676	30.28	-9.28	21.00	40.00	-19.00	-	-	peak
2	148.9175	33.59	-8.68	24.91	43.50	-18.59	-	-	peak
3	201.4539	34.48	-12.01	22.47	43.50	-21.03	-	-	peak
4	409.6506	34.57	-5.70	28.87	46.00	-17.13	-	-	peak
5	478.1394	35.48	-4.20	31.28	46.00	-14.72	-	-	peak
6	938.7139	31.65	2.01	33.66	46.00	-12.34	-	-	peak

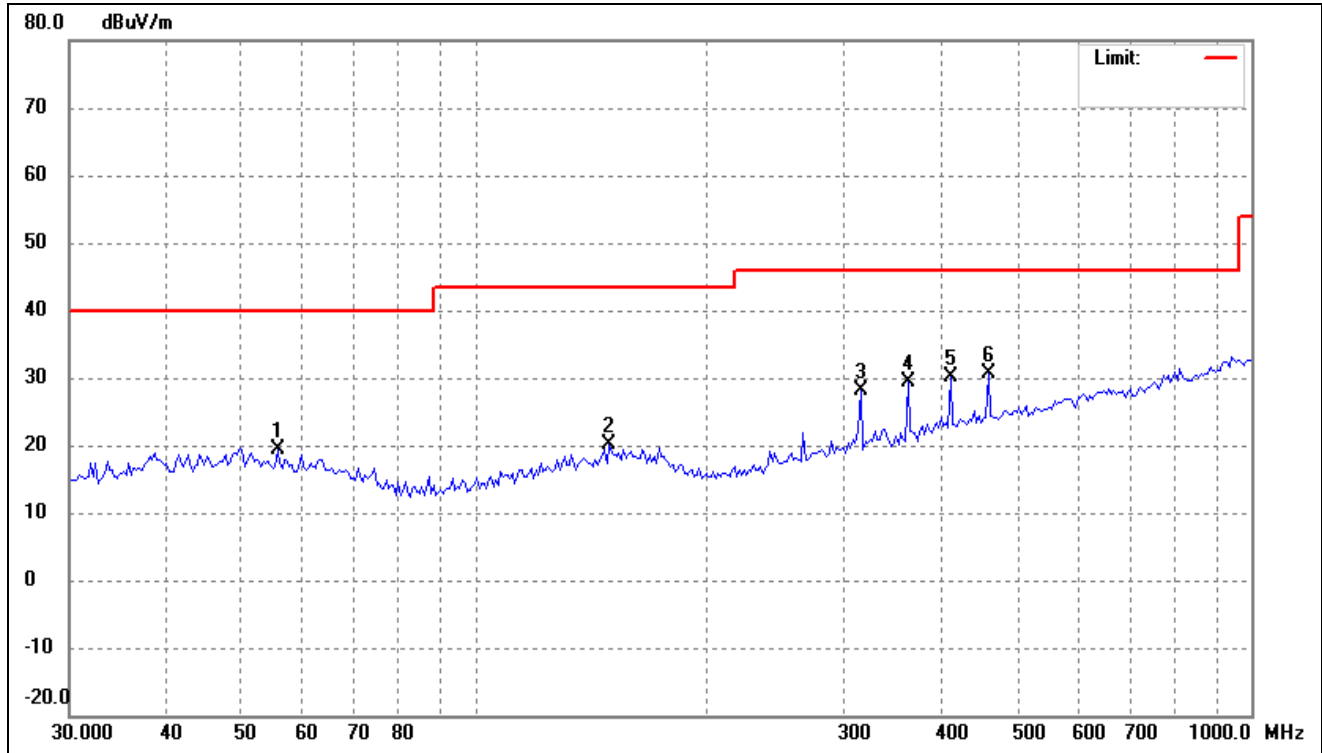
802.11ax-HE80

Test Channel

5775MHz(worst case)

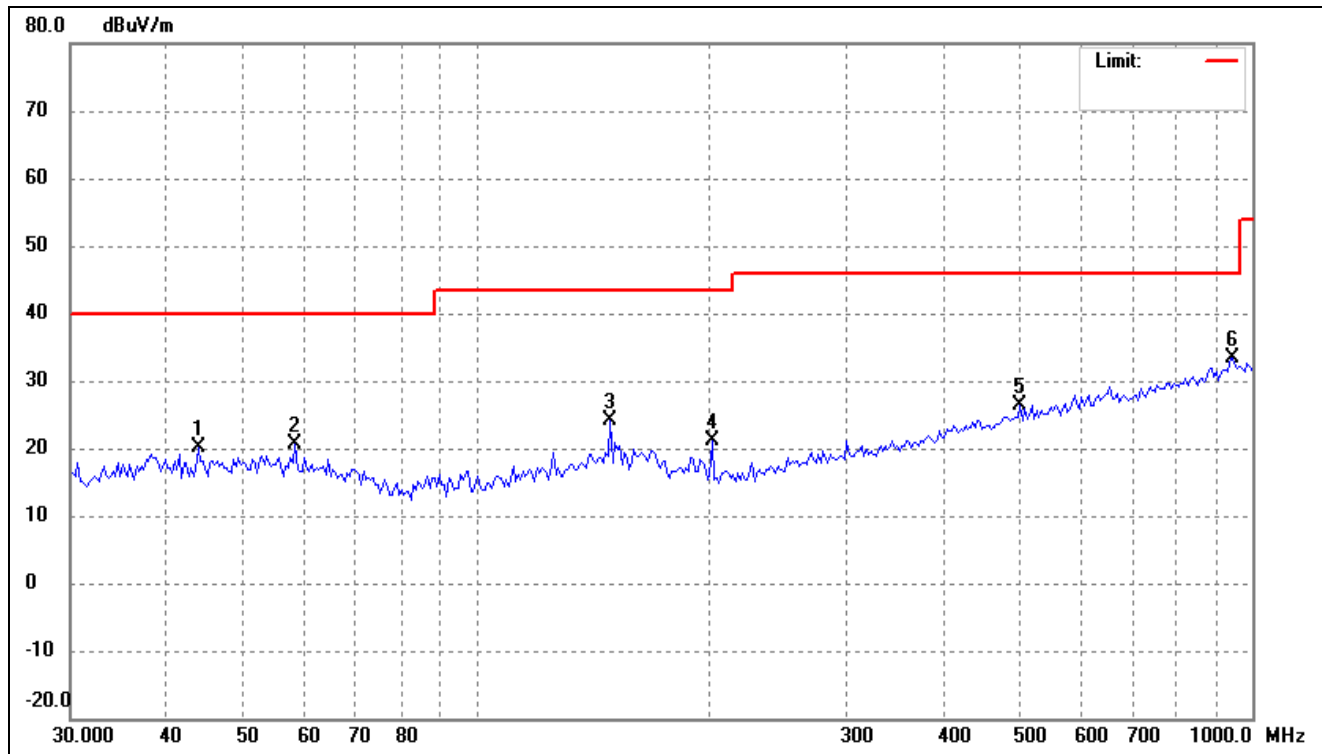
Polarity:

Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	55.6782	28.15	-8.67	19.48	40.00	-20.52	-	-	peak
2	148.9175	28.73	-8.68	20.05	43.50	-23.45	-	-	peak
3	313.6483	36.05	-7.87	28.18	46.00	-17.82	-	-	peak
4	360.9775	36.13	-6.83	29.30	46.00	-16.70	-	-	peak
5	409.6506	35.83	-5.70	30.13	46.00	-15.87	-	-	peak
6	458.3987	35.08	-4.47	30.61	46.00	-15.39	-	-	peak

802.11ax-HE80			
Test Channel	5775MHz(worst case)	Polarity:	Vertical

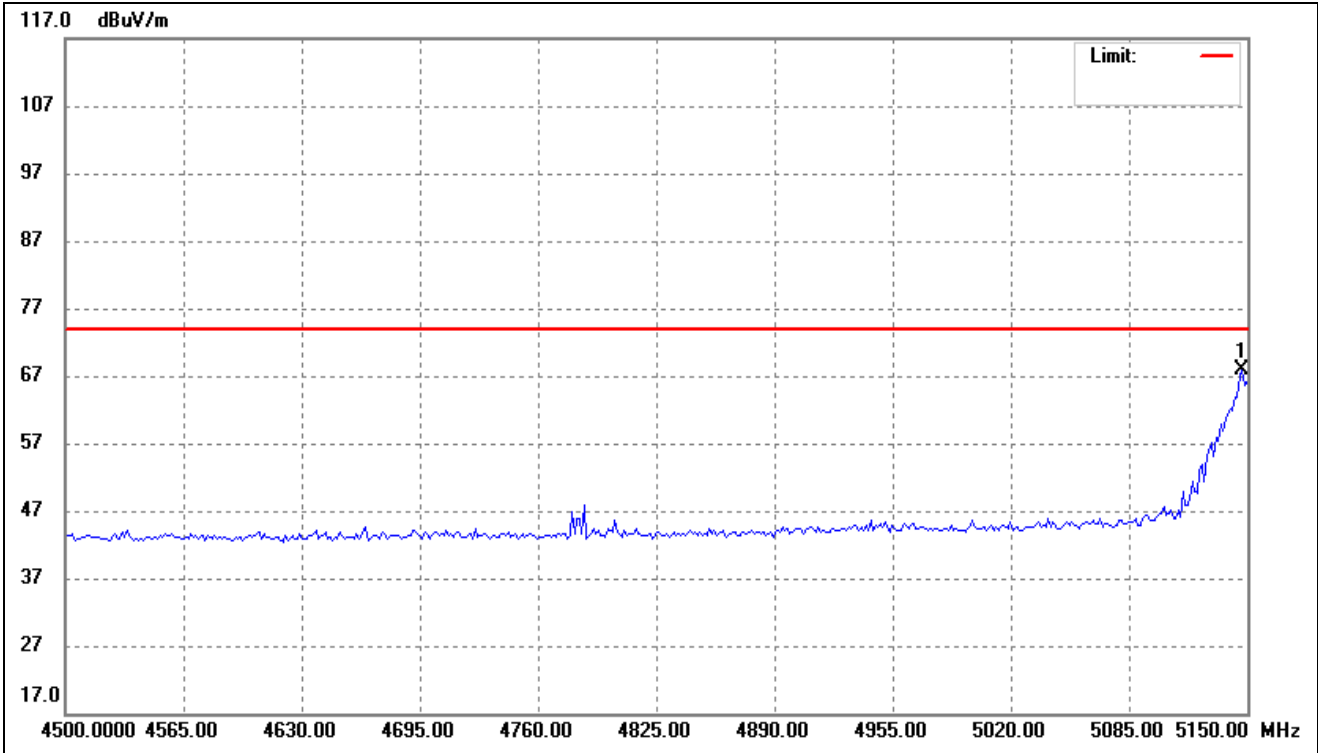


No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	43.8452	28.51	-8.48	20.03	40.00	-19.97	-	-	peak
2	58.4855	29.37	-8.84	20.53	40.00	-19.47	-	-	peak
3	148.9175	32.93	-8.68	24.25	43.50	-19.25	-	-	peak
4	201.4539	33.15	-12.01	21.14	43.50	-22.36	-	-	peak
5	502.2473	30.25	-3.87	26.38	46.00	-19.62	-	-	peak
6	945.3336	31.17	2.15	33.32	46.00	-12.68	-	-	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.

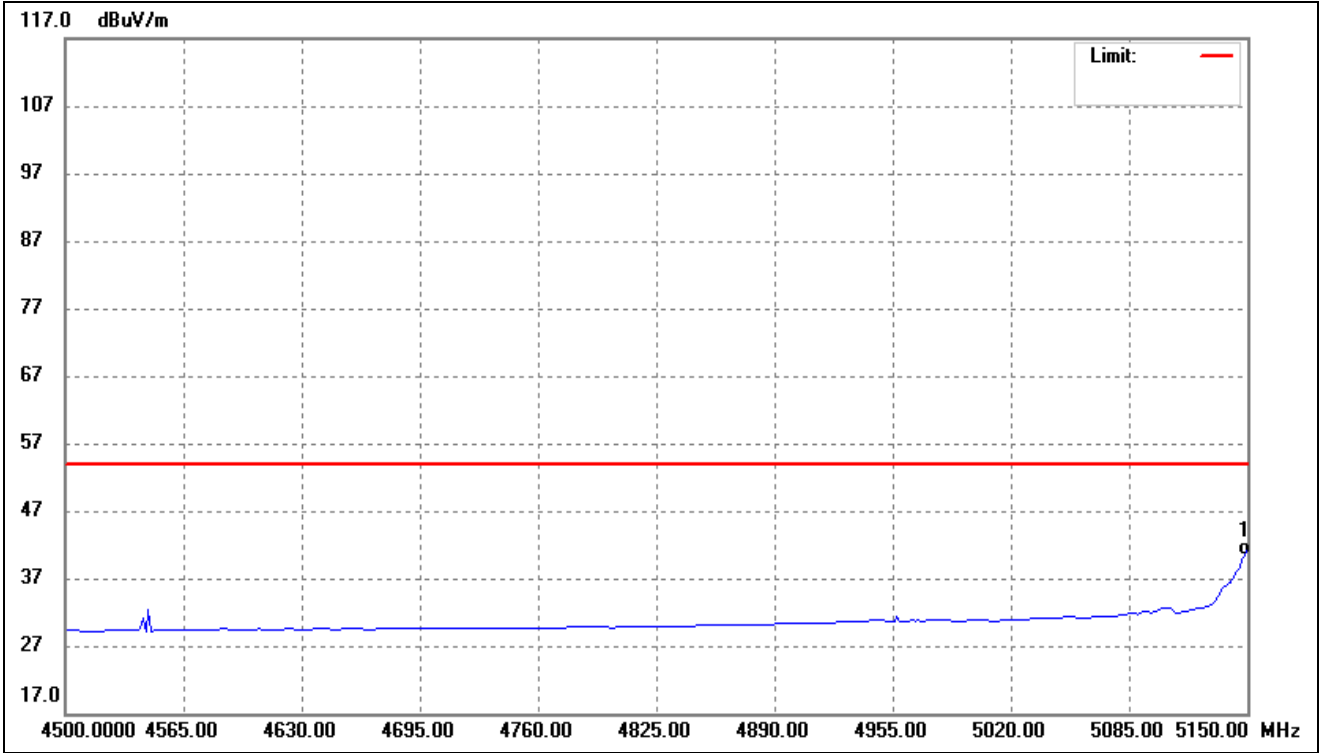
- Spurious Emission above 1GHz
- Antenna 1

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



No.	Frequency (MHz)	Reading (dBuV/m)	Corr. dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Deg. ()	Height (cm)	Remark
1	5147.395	79.64	-11.67	67.97	74.00	-6.03	-	-	peak

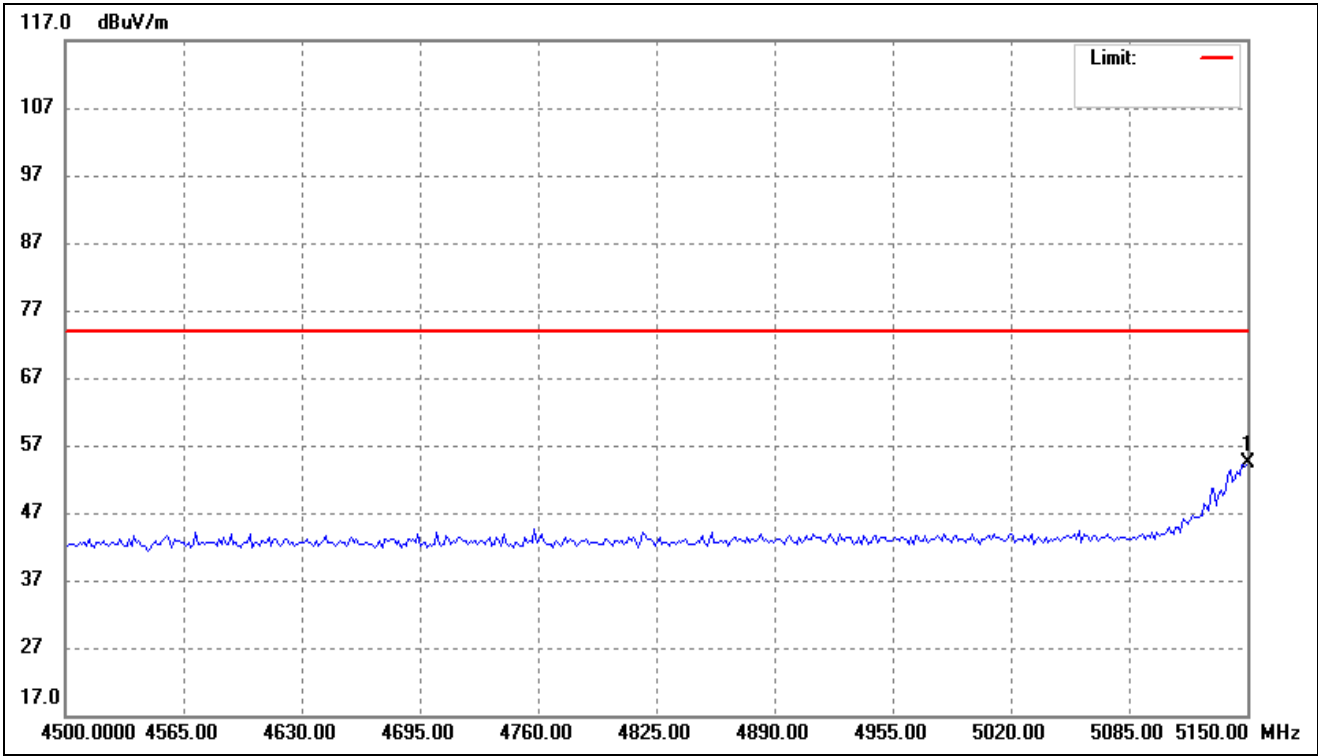
802.11a- Restricted Bandedge (worst case)			
Test Channel	band 5.15-5.25GHz	Polarity:	Horizontal(worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5150.000	53.14	-11.65	41.49	54.00	-12.51	-	-	AVG

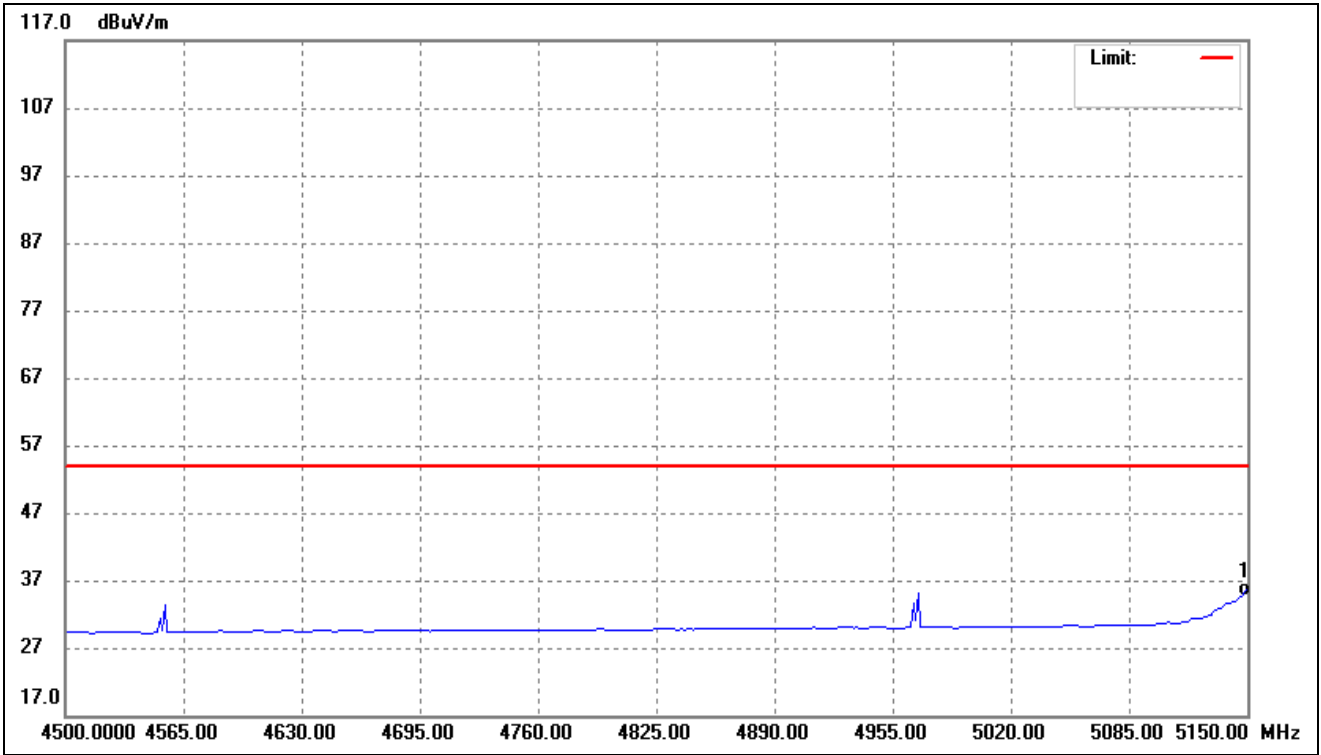
➤ Antenna 2

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



No.	Frequency	Reading	Corr.	Result	Limit	Margin	Deg.	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	()	(cm)	
1	5150.000	66.06	-11.65	54.41	74.00	-19.59	-	-	peak

802.11a- Restricted Bandedge (worst case)			
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	47.30	-11.65	35.65	54.00	-18.35	-	-	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)
- Antenna 1(worst case)
- For the frequency band 5.150-5.250GHz, 5.725-5.850GHz (802.11a)

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	44.58	7.11	51.69	74	-22.31	H	PK
10360	37.12	7.11	44.23	54	-9.77	H	AV
15540	38.33	8.22	46.55	74	-27.45	H	PK
15540	34.12	8.22	42.34	54	-11.66	H	AV
10360	43.36	7.11	50.47	74	-23.53	V	PK
10360	36.15	7.11	43.26	54	-10.74	V	AV
15540	36.26	8.22	44.48	74	-29.52	V	PK
15540	31.74	8.22	39.96	54	-14.04	V	AV
Middle Channel (5200MHz)							
10400	43.81	7.22	51.03	74	-22.97	H	PK
10400	37.23	7.22	44.45	54	-9.55	H	AV
15600	37.69	8.67	46.36	74	-27.64	H	PK
15600	33.59	8.67	42.26	54	-11.74	H	AV
10400	42.83	7.22	50.05	74	-23.95	V	PK
10400	37.72	7.22	44.94	54	-9.06	V	AV
15600	35.44	8.67	44.11	74	-29.89	V	PK
15600	31.36	8.67	40.03	54	-13.97	V	AV
High Channel (5240MHz)							
10480	44.12	7.69	51.81	74	-22.19	H	PK
10480	37.69	7.69	45.38	54	-8.62	H	AV
15720	37.98	8.93	46.91	74	-27.09	H	PK
15720	32.54	8.93	41.47	54	-12.53	H	AV
10480	43.68	7.69	51.37	74	-22.63	V	PK
10480	37.35	7.69	45.04	54	-8.96	V	AV
15720	34.78	8.93	43.71	74	-30.29	V	PK
15720	31.60	8.93	40.53	54	-13.47	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	44.24	9.45	53.69	74	-20.31	H	PK
11490	37.24	9.45	46.69	54	-7.31	H	AV
17235	38.46	10.36	48.82	74	-25.18	H	PK
17235	32.79	10.36	43.15	54	-10.85	H	AV
11490	43.62	9.45	53.07	74	-20.93	V	PK
11490	36.42	9.45	45.87	54	-8.13	V	AV
17235	35.94	10.36	46.30	74	-27.70	V	PK
17235	31.54	10.36	41.90	54	-12.10	V	AV
Middle Channel (5785MHz)							
11570	44.24	9.62	53.86	74	-20.14	H	PK
11570	36.92	9.62	46.54	54	-7.46	H	AV
17355	37.28	10.67	47.95	74	-26.05	H	PK
17355	33.34	10.67	44.01	54	-9.99	H	AV
11570	42.49	9.62	52.11	74	-21.89	V	PK
11570	36.55	9.62	46.17	54	-7.83	V	AV
17355	35.71	10.67	46.38	74	-27.62	V	PK
17355	31.49	10.67	42.16	54	-11.84	V	AV
High Channel (5825MHz)							
11650	42.80	9.84	52.64	74	-21.36	H	PK
11650	36.42	9.84	46.26	54	-7.74	H	AV
17475	35.56	10.95	46.51	74	-27.49	H	PK
17475	29.09	10.95	40.04	54	-13.96	H	AV
11650	40.44	9.84	50.28	74	-23.72	V	PK
11650	33.54	9.84	43.38	54	-10.62	V	AV
17475	33.93	10.95	44.88	74	-29.12	V	PK
17475	27.30	10.95	38.25	54	-15.75	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-35.25	-27
Highest	Above 5350	-43.05	-27
Note: the data just list the worst cases			

➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5650	-46.09	-27
	5650 to 5700	-33.05	-27 to -17
	5700 to 5720	-27.77	-17 to 15.6
	5720 to 5725	-17.64	15.6 to 27
Highest	5850 to 5855	-14.73	27 to 15.6
	5855 to 5875	-21.75	15.6 to -17
	5875 to 5925	-33.26	-17 to -27
	Above 5925	-38.81	-27
Note: the data just list the worst cases			

- For the frequency band 5.150-5.250GHz, 5.725-5.850GHz (802.11n HT20)
- Harmonics And Spurious Emissions

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5180MHz)							
10360	42.37	7.11	49.48	74	-24.52	H	PK
10360	37.75	7.11	44.86	54	-9.14	H	AV
15540	35.60	8.22	43.82	74	-30.18	H	PK
15540	29.97	8.22	38.19	54	-15.81	H	AV
10360	39.81	7.11	46.92	74	-27.08	V	PK
10360	33.88	7.11	40.99	54	-13.01	V	AV
15540	32.99	8.22	41.21	74	-32.79	V	PK
15540	28.62	8.22	36.84	54	-17.16	V	AV
Middle Channel (5200MHz)							
10400	43.90	7.22	51.12	74	-22.88	H	PK
10400	38.04	7.22	45.26	54	-8.74	H	AV
15600	36.50	8.67	45.17	74	-28.83	H	PK
15600	32.54	8.67	41.21	54	-12.79	H	AV
10400	42.92	7.22	50.14	74	-23.86	V	PK
10400	36.27	7.22	43.49	54	-10.51	V	AV
15600	35.23	8.67	43.90	74	-30.10	V	PK
15600	29.81	8.67	38.48	54	-15.52	V	AV
High Channel (5240MHz)							
10480	43.85	7.69	51.54	74	-22.46	H	PK
10480	37.65	7.69	45.34	54	-8.66	H	AV
15720	36.81	8.93	45.74	74	-28.26	H	PK
15720	31.73	8.93	40.66	54	-13.34	H	AV
10480	39.65	7.69	47.34	74	-26.66	V	PK
10480	34.05	7.69	41.74	54	-12.26	V	AV
15720	34.89	8.93	43.82	74	-30.18	V	PK
15720	28.08	8.93	37.01	54	-16.99	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	43.47	9.45	52.92	74	-21.08	H	PK
11490	37.39	9.45	46.84	54	-7.16	H	AV
17235	36.58	10.36	46.94	74	-27.06	H	PK
17235	29.88	10.36	40.24	54	-13.76	H	AV
11490	38.69	9.45	48.14	74	-25.86	V	PK
11490	35.66	9.45	45.11	54	-8.89	V	AV
17235	33.50	10.36	43.86	74	-30.14	V	PK
17235	27.76	10.36	38.12	54	-15.88	V	AV
Middle Channel (5785MHz)							
11570	42.36	9.62	51.98	74	-22.02	H	PK
11570	36.71	9.62	46.33	54	-7.67	H	AV
17355	35.55	10.67	46.22	74	-27.78	H	PK
17355	30.02	10.67	40.69	54	-13.31	H	AV
11570	42.02	9.62	51.64	74	-22.36	V	PK
11570	33.71	9.62	43.33	54	-10.67	V	AV
17355	33.42	10.67	44.09	74	-29.91	V	PK
17355	28.09	10.67	38.76	54	-15.24	V	AV
High Channel (5825MHz)							
11650	41.89	9.84	51.73	74	-22.27	H	PK
11650	35.58	9.84	45.42	54	-8.58	H	AV
17475	37.58	10.95	48.53	74	-25.47	H	PK
17475	30.13	10.95	41.08	54	-12.92	H	AV
11650	40.99	9.84	50.83	74	-23.17	V	PK
11650	34.40	9.84	44.24	54	-9.76	V	AV
17475	35.79	10.95	46.74	74	-27.26	V	PK
17475	28.94	10.95	39.89	54	-14.11	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-30.42	-27
Highest	Above 5350	-40.53	-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	-49.15	-27
	5650 to 5700	-38.34	-27 to -17
	5700 to 5720	-27.07	-17 to 15.6
	5720 to 5725	-18.74	15.6 to 27
Highest	5850 to 5855	-14.35	27 to 15.6
	5855 to 5875	-27.58	15.6 to -17
	5875 to 5925	-34.06	-17 to -27
	Above 5925	-41.51	-27
Note: the data just list the worst cases			

- For the frequency band 5.150-5.250GHz, 5.725-5.850GHz (802.11ac VHT20)
- Harmonics And Spurious Emissions

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5180MHz)							
10360	41.47	7.11	48.58	74	-25.42	H	PK
10360	36.79	7.11	43.90	54	-10.10	H	AV
15540	35.04	8.22	43.26	74	-30.74	H	PK
15540	31.10	8.22	39.32	54	-14.68	H	AV
10360	40.34	7.11	47.45	74	-26.55	V	PK
10360	34.70	7.11	41.81	54	-12.19	V	AV
15540	33.96	8.22	42.18	74	-31.82	V	PK
15540	28.32	8.22	36.54	54	-17.46	V	PK
Middle Channel (5200MHz)							
10400	43.93	7.22	51.15	74	-22.85	H	PK
10400	37.22	7.22	44.44	54	-9.56	H	AV
15600	37.66	8.67	46.33	74	-27.67	H	PK
15600	32.25	8.67	40.92	54	-13.08	H	AV
10400	43.94	7.22	51.16	74	-22.84	V	PK
10400	36.71	7.22	43.93	54	-10.07	V	AV
15600	35.99	8.67	44.66	74	-29.34	V	PK
15600	29.89	8.67	38.56	54	-15.44	V	PK
High Channel (5240MHz)							
10480	41.40	7.69	49.09	74	-24.91	H	PK
10480	36.00	7.69	43.69	54	-10.31	H	AV
15720	36.50	8.93	45.43	74	-28.57	H	PK
15720	30.39	8.93	39.32	54	-14.68	H	AV
10480	40.83	7.69	48.52	74	-25.48	V	PK
10480	35.12	7.69	42.81	54	-11.19	V	AV
15720	34.49	8.93	43.42	74	-30.58	V	PK
15720	28.80	8.93	37.73	54	-16.27	V	PK

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	39.98	9.45	49.43	74	-24.57	H	PK
11490	33.42	9.45	42.87	54	-11.13	H	AV
17235	33.82	10.36	44.18	74	-29.82	H	PK
17235	27.57	10.36	37.93	54	-16.07	H	AV
11490	38.01	9.45	47.46	74	-26.54	V	PK
11490	33.82	9.45	43.27	54	-10.73	V	AV
11490	32.47	9.45	41.92	74	-32.08	V	PK
17235	26.12	10.36	36.48	54	-17.52	V	PK
Middle Channel (5785MHz)							
11570	43.11	9.62	52.73	74	-21.27	H	PK
11570	36.34	9.62	45.96	54	-8.04	H	AV
17355	35.55	10.67	46.22	74	-27.78	H	PK
17355	29.77	10.67	40.44	54	-13.56	H	AV
11570	42.05	9.62	51.67	74	-22.33	V	PK
11570	34.38	9.62	44.00	54	-10.00	V	AV
17355	32.89	10.67	43.56	74	-30.44	V	PK
17355	29.35	10.67	40.02	54	-13.98	V	PK
High Channel (5825MHz)							
11650	42.30	9.84	52.14	74	-21.86	H	PK
11650	35.24	9.84	45.08	54	-8.92	H	AV
17475	35.95	10.95	46.90	74	-27.10	H	PK
17475	30.43	10.95	41.38	54	-12.62	H	AV
11650	39.56	9.84	49.40	74	-24.60	V	PK
11650	33.81	9.84	43.65	54	-10.35	V	AV
17475	34.86	10.95	45.81	74	-28.19	V	PK
17475	28.75	10.95	39.70	54	-14.30	V	PK

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-29.69	-27
Highest	Above 5350	-38.66	-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	-45.84	-27
	5650 to 5700	-40.67	-27 to -17
	5700 to 5720	-24.44	-17 to 15.6
	5720 to 5725	-20.44	15.6 to 27
Highest	5850 to 5855	-13.18	27 to 15.6
	5855 to 5875	-24.05	15.6 to -17
	5875 to 5925	-36.15	-17 to -27
	Above 5925	-38.98	-27
Note: the data just list the worst cases			

- For the frequency band 5.150-5.250GHz, 5.725-5.850GHz (802.11ax HE20)
- Harmonics And Spurious Emissions

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5180MHz)							
10360	41.88	7.11	48.99	74	-25.01	H	PK
10360	35.51	7.11	42.62	54	-11.38	H	AV
15540	35.56	8.22	43.78	74	-30.22	H	PK
15540	30.25	8.22	38.47	54	-15.53	H	AV
10360	40.79	7.11	47.90	74	-26.10	V	PK
10360	35.03	7.11	42.14	54	-11.86	V	AV
15540	32.42	8.22	40.64	74	-33.36	V	PK
15540	26.48	8.22	34.70	54	-19.30	V	PK
Middle Channel (5200MHz)							
10400	43.86	7.22	51.08	74	-22.92	H	PK
10400	38.66	7.22	45.88	54	-8.12	H	AV
15600	37.98	8.67	46.65	74	-27.35	H	PK
15600	32.88	8.67	41.55	54	-12.45	H	AV
10400	43.91	7.22	51.13	74	-22.87	V	PK
10400	36.86	7.22	44.08	54	-9.92	V	AV
15600	35.31	8.67	43.98	74	-30.02	V	PK
15600	30.19	8.67	38.86	54	-15.14	V	PK
High Channel (5240MHz)							
10480	41.65	7.69	49.34	74	-24.66	H	PK
10480	36.38	7.69	44.07	54	-9.93	H	AV
15720	35.48	8.93	44.41	74	-29.59	H	PK
15720	30.83	8.93	39.76	54	-14.24	H	AV
10480	41.14	7.69	48.83	74	-25.17	V	PK
10480	35.70	7.69	43.39	54	-10.61	V	AV
15720	34.34	8.93	43.27	74	-30.73	V	PK
15720	28.47	8.93	37.40	54	-16.60	V	PK

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	42.04	9.45	51.49	74	-22.51	H	PK
11490	35.96	9.45	45.41	54	-8.59	H	AV
17235	37.63	10.36	47.99	74	-26.01	H	PK
17235	31.22	10.36	41.58	54	-12.42	H	AV
11490	41.44	9.45	50.89	74	-23.11	V	PK
11490	40.11	9.45	49.56	74	-24.44	V	AV
11490	34.85	9.45	44.30	54	-9.70	V	PK
17235	35.75	10.36	46.11	74	-27.89	V	PK
Middle Channel (5785MHz)							
11570	43.71	9.62	53.33	74	-20.67	H	PK
11570	35.99	9.62	45.61	54	-8.39	H	AV
17355	35.51	10.67	46.18	74	-27.82	H	PK
17355	28.64	10.67	39.31	54	-14.69	H	AV
11570	41.10	9.62	50.72	74	-23.28	V	PK
11570	35.46	9.62	45.08	54	-8.92	V	AV
17355	34.08	10.67	44.75	74	-29.25	V	PK
17355	28.26	10.67	38.93	54	-15.07	V	PK
High Channel (5825MHz)							
11650	42.21	9.84	52.05	74	-21.95	H	PK
11650	36.15	9.84	45.99	54	-8.01	H	AV
17475	36.53	10.95	47.48	74	-26.52	H	PK
17475	29.84	10.95	40.79	54	-13.21	H	AV
11650	39.63	9.84	49.47	74	-24.53	V	PK
11650	32.92	9.84	42.76	54	-11.24	V	AV
17475	35.56	10.95	46.51	74	-27.49	V	PK
17475	27.03	10.95	37.98	54	-16.02	V	PK

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-30.72	-27
Highest	Above 5350	-39.16	-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	-44.68	-27
	5650 to 5700	-40.54	-27 to -17
	5700 to 5720	-26.08	-17 to 15.6
	5720 to 5725	-20.02	15.6 to 27
Highest	5850 to 5855	-12.03	27 to 15.6
	5855 to 5875	-23.31	15.6 to -17
	5875 to 5925	-37.32	-17 to -27
	Above 5925	-39.72	-27
Note: the data just list the worst cases			

- For the frequency band 5.150-5.250GHz, 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	45.54	7.25	52.79	74	-21.21	H	PK
10380	36.73	7.25	43.98	54	-10.02	H	AV
15570	37.22	8.33	45.55	74	-28.45	H	PK
15570	31.37	8.33	39.70	54	-14.30	H	AV
10380	40.31	7.25	47.56	74	-26.44	V	PK
10380	31.00	7.25	38.25	54	-15.75	V	AV
15570	31.68	8.33	40.01	74	-33.99	V	PK
15570	26.26	8.33	34.59	54	-19.41	V	PK
High Channel (5230MHz)							
10460	44.40	7.54	51.94	74	-22.06	H	PK
10460	39.08	7.54	46.62	54	-7.38	H	AV
15690	37.51	8.86	46.37	74	-27.63	H	PK
15690	31.55	8.86	40.41	54	-13.59	H	AV
10460	39.50	7.54	47.04	74	-26.96	V	PK
10460	32.04	7.54	39.58	54	-14.42	V	AV
15690	31.88	8.86	40.74	74	-33.26	V	PK
15690	26.86	8.86	35.72	54	-18.28	V	PK

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5755MHz)							
11510	44.15	9.65	53.80	74	-20.20	H	PK
11510	37.17	9.65	46.82	54	-7.18	H	AV
17265	36.53	10.87	47.40	74	-26.60	H	PK
17265	32.17	10.87	43.04	54	-10.96	H	AV
11510	39.27	9.65	48.92	74	-25.08	V	PK
11510	32.62	9.65	42.27	54	-11.73	V	AV
17265	33.49	10.87	44.36	74	-29.64	V	PK
17265	27.49	10.87	38.36	54	-15.64	V	AV
High Channel (5795MHz)							
11590	42.53	9.81	52.34	74	-21.66	H	PK
11590	36.65	9.81	46.46	54	-7.54	H	AV
17385	37.92	10.89	48.81	74	-25.19	H	PK
17385	31.79	10.89	42.68	54	-11.32	H	AV
11590	40.41	9.81	50.22	74	-23.78	V	PK
11590	33.57	9.81	43.38	54	-10.62	V	AV
17385	33.72	10.89	44.61	74	-29.39	V	PK
17385	27.39	10.89	38.28	54	-15.72	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-38.12	-27
Highest	Above 5350	-41.17	-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	-49.65	-27
	5650 to 5700	-37.93	-27 to -17
	5700 to 5720	-23.95	-17 to 15.6
	5720 to 5725	-16.23	15.6 to 27
Highest	5850 to 5855	-13.56	27 to 15.6
	5855 to 5875	-26.29	15.6 to -17
	5875 to 5925	-36.92	-17 to -27
	Above 5925	-38.32	-27
Note: the data just list the worst cases			

- For the frequency band 5.150-5.250GHz, 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	42.00	7.25	49.25	74	-24.75	H	PK
10380	36.17	7.25	43.42	54	-10.58	H	AV
15570	34.44	8.33	42.77	74	-31.23	H	PK
15570	30.23	8.33	38.56	54	-15.44	H	AV
10380	38.92	7.25	46.17	74	-27.83	V	PK
10380	32.03	7.25	39.28	54	-14.72	V	AV
15570	31.45	8.33	39.78	74	-34.22	V	PK
15570	25.52	8.33	33.85	54	-20.15	V	AV
High Channel (5230MHz)							
10460	42.75	7.54	50.29	74	-23.71	H	PK
10460	36.11	7.54	43.65	54	-10.35	H	AV
15690	37.04	8.86	45.90	74	-28.10	H	PK
15690	30.31	8.86	39.17	54	-14.83	H	AV
10460	37.75	7.54	45.29	74	-28.71	V	PK
10460	33.35	7.54	40.89	54	-13.11	V	AV
15690	33.64	8.86	42.50	74	-31.50	V	PK
15690	24.42	8.86	33.28	54	-20.72	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	41.96	9.65	51.61	74	-22.39	H	PK
11510	35.81	9.65	45.46	54	-8.54	H	AV
17265	34.69	10.87	45.56	74	-28.44	H	PK
17265	29.67	10.87	40.54	54	-13.46	H	AV
11510	39.21	9.65	48.86	74	-25.14	V	PK
11510	30.29	9.65	39.94	54	-14.06	V	AV
17265	31.60	10.87	42.47	74	-31.53	V	PK
17265	26.24	10.87	37.11	54	-16.89	V	AV
High Channel (5795MHz)							
11590	41.63	9.81	51.44	74	-22.56	H	PK
11590	36.12	9.81	45.93	54	-8.07	H	AV
17385	36.33	10.89	47.22	74	-26.78	H	PK
17385	30.39	10.89	41.28	54	-12.72	H	AV
11590	39.20	9.81	49.01	74	-24.99	V	PK
11590	31.98	9.81	41.79	54	-12.21	V	AV
17385	33.32	10.89	44.21	74	-29.79	V	PK
17385	26.16	10.89	37.05	54	-16.95	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.78	-27
Highest	Above 5350	-42.14	-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	-49.05	-27
	5650 to 5700	-40.23	-27 to -17
	5700 to 5720	-27.66	-17 to 15.6
	5720 to 5725	-15.72	15.6 to 27
Highest	5850 to 5855	-13.25	27 to 15.6
	5855 to 5875	-25.84	15.6 to -17
	5875 to 5925	-35.95	-17 to -27
	Above 5925	-36.69	-27

Note: the data just list the worst cases

- For the frequency band 5.150-5.250GHz, 5.725-5.850GHz (802.11ax HE40)
- 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	43.71	7.25	50.96	74	-23.04	H	PK
10380	35.53	7.25	42.78	54	-11.22	H	AV
15570	36.11	8.33	44.44	74	-29.56	H	PK
15570	30.21	8.33	38.54	54	-15.46	H	AV
10380	40.39	7.25	47.64	74	-26.36	V	PK
10380	31.19	7.25	38.44	54	-15.56	V	AV
15570	31.96	8.33	40.29	74	-33.71	V	PK
15570	26.11	8.33	34.44	54	-19.56	V	AV
High Channel (5230MHz)							
10460	41.91	7.54	49.45	74	-24.55	H	PK
10460	36.57	7.54	44.11	54	-9.89	H	AV
15690	37.38	8.86	46.24	74	-27.76	H	PK
15690	30.13	8.86	38.99	54	-15.01	H	AV
10460	37.94	7.54	45.48	74	-28.52	V	PK
10460	33.29	7.54	40.83	54	-13.17	V	AV
15690	33.62	8.86	42.48	74	-31.52	V	PK
15690	24.40	8.86	33.26	54	-20.74	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	41.97	9.65	51.62	74	-22.38	H	PK
11510	36.90	9.65	46.55	54	-7.45	H	AV
17265	36.34	10.87	47.21	74	-26.79	H	PK
17265	30.82	10.87	41.69	54	-12.31	H	AV
11510	38.67	9.65	48.32	74	-25.68	V	PK
11510	29.99	9.65	39.64	54	-14.36	V	AV
17265	31.73	10.87	42.60	74	-31.40	V	PK
17265	26.38	10.87	37.25	54	-16.75	V	AV
High Channel (5795MHz)							
11590	42.31	9.81	52.12	74	-21.88	H	PK
11590	36.60	9.81	46.41	54	-7.59	H	AV
17385	37.37	10.89	48.26	74	-25.74	H	PK
17385	30.44	10.89	41.33	54	-12.67	H	AV
11590	38.08	9.81	47.89	74	-26.11	V	PK
11590	31.60	9.81	41.41	54	-12.59	V	AV
17385	33.85	10.89	44.74	74	-29.26	V	PK
17385	25.78	10.89	36.67	54	-17.33	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.04	-27
Highest	Above 5350	-41.33	-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	-49.32	-27
	5650 to 5700	-39.99	-27 to -17
	5700 to 5720	-27.75	-17 to 15.6
	5720 to 5725	-15.42	15.6 to 27
Highest	5850 to 5855	-11.99	27 to 15.6
	5855 to 5875	-26.17	15.6 to -17
	5875 to 5925	-34.73	-17 to -27
	Above 5925	-37.29	-27

Note: the data just list the worst cases

- For the frequency band 5.150-5.250GHz, 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	
Middle Channel (5210MHz)							
10380	41.83	7.25	49.08	74	-24.92	H	PK
10380	35.34	7.25	42.59	54	-11.41	H	AV
15570	35.88	8.33	44.21	74	-29.79	H	PK
15570	28.38	8.33	36.71	54	-17.29	H	AV
10380	38.23	7.25	45.48	74	-28.52	V	PK
10380	30.73	7.25	37.98	54	-16.02	V	AV
15570	30.79	8.33	39.12	74	-34.88	V	PK
15570	23.59	8.33	31.92	54	-22.08	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Middle Channel (5775MHz)							
11510	41.19	9.65	50.84	74	-23.16	H	PK
11510	34.40	9.65	44.05	54	-9.95	H	AV
17265	35.91	10.87	46.78	74	-27.22	H	PK
17265	29.51	10.87	40.38	54	-13.62	H	AV
11510	38.96	9.65	48.61	74	-25.39	V	PK
11510	32.26	9.65	41.91	54	-12.09	V	AV
17265	31.85	10.87	42.72	74	-31.28	V	PK
17265	25.98	10.87	36.85	54	-17.15	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.08	-27
Highest	Above 5350	-45.74	-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	-42.44	-27
	5650 to 5700	-37.52	-27 to -17
	5700 to 5720	-31.06	-17 to 15.6
	5720 to 5725	-15.55	15.6 to 27
Highest	5850 to 5855	-15.18	27 to 15.6
	5855 to 5875	-22.88	15.6 to -17
	5875 to 5925	-37.53	-17 to -27
	Above 5925	-35.12	-27
Note: the data just list the worst cases			

- For the frequency band 5.150-5.250GHz, 5.725-5.850GHz (802.11ax HE80)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Middle Channel (5210MHz)							
10380	41.01	7.25	48.26	74	-25.74	H	PK
10380	34.51	7.25	41.76	54	-12.24	H	AV
15570	34.73	8.33	43.06	74	-30.94	H	PK
15570	27.87	8.33	36.20	54	-17.80	H	AV
10380	38.35	7.25	45.60	74	-28.40	V	PK
10380	30.50	7.25	37.75	54	-16.25	V	AV
15570	31.26	8.33	39.59	74	-34.41	V	PK
15570	23.68	8.33	32.01	54	-21.99	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Middle Channel (5775MHz)							
11510	42.14	9.65	51.79	74	-22.21	H	PK
11510	34.71	9.65	44.36	54	-9.64	H	AV
17265	35.16	10.87	46.03	74	-27.97	H	PK
17265	29.64	10.87	40.51	54	-13.49	H	AV
11510	39.78	9.65	49.43	74	-24.57	V	PK
11510	32.30	9.65	41.95	54	-12.05	V	AV
17265	32.04	10.87	42.91	74	-31.09	V	PK
17265	25.85	10.87	36.72	54	-17.28	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.03	-27
Highest	Above 5350	-46.12	-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	-43.74	-27
	5650 to 5700	-37.94	-27 to -17
	5700 to 5720	-31.63	-17 to 15.6
	5720 to 5725	-16.04	15.6 to 27
Highest	5850 to 5855	-15.73	27 to 15.6
	5855 to 5875	-24.20	15.6 to -17
	5875 to 5925	-35.70	-17 to -27
	Above 5925	-36.60	-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 E

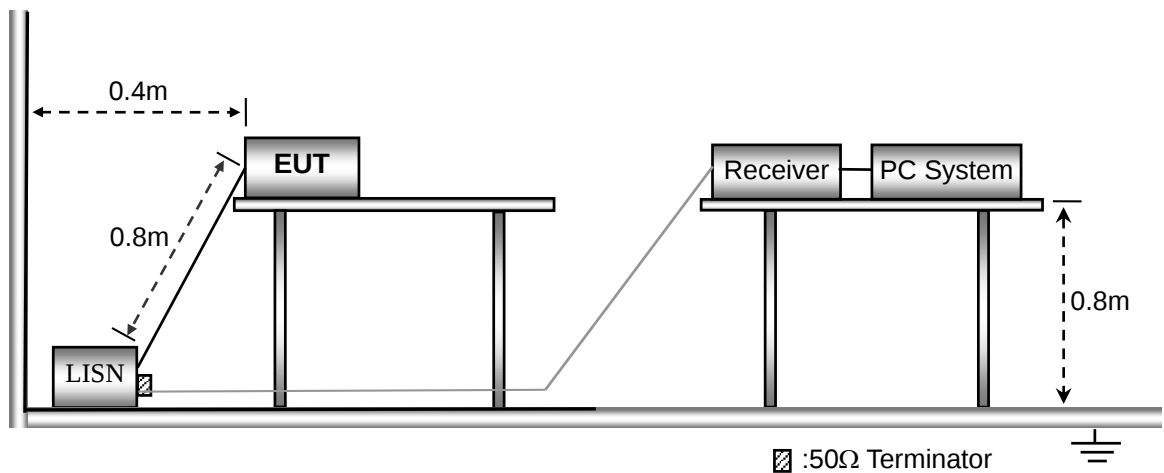
10 Conducted Emissions

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

Not applicable

APPENDIX SUMMARY

Project No.	WTH24X04096557W	Test Engineer	Timi Huang
Start date	2024/5/10	Finish date	2024/5/15
Temperature	23℃	Humidity	56%
RF specifications	U-NII		

APPENDIX	Description of Test Item	Result
A	Emission Bandwidth & Occupied Bandwidth & 6dB Emission Bandwidth	Compliant
B	Duty Cycle	Compliant
C	Maximum conducted output power	Compliant
D	Maximum power spectral density	Compliant
E	Frequency Stability	Compliant

Appendix A: Emission Bandwidth

Test Result

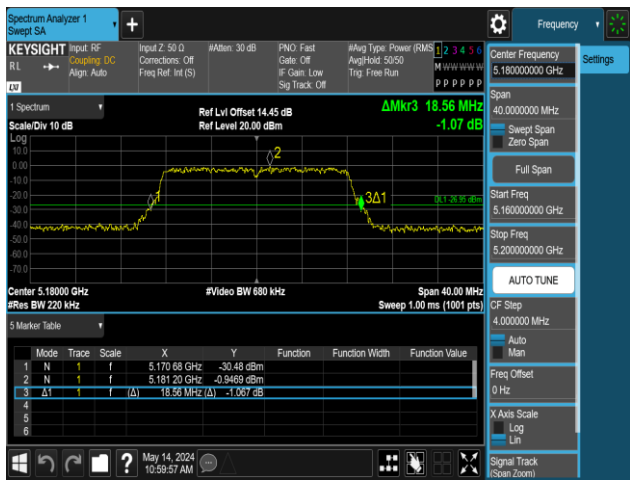
Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.560	---	---
11A	Ant2	5180	18.280	---	---
11A	Ant1	5200	18.160	---	---
11A	Ant2	5200	18.400	---	---
11A	Ant1	5240	18.480	---	---
11A	Ant2	5240	18.360	---	---
11A	Ant1	5745	18.240	---	---
11A	Ant2	5745	18.280	---	---
11A	Ant1	5785	18.120	---	---
11A	Ant2	5785	18.200	---	---
11A	Ant1	5825	18.240	---	---
11A	Ant2	5825	18.240	---	---
11N20MIMO	Ant1	5180	19.240	---	---
11N20MIMO	Ant2	5180	19.280	---	---
11N20MIMO	Ant2	5200	19.280	---	---
11N20MIMO	Ant1	5200	19.240	---	---
11N20MIMO	Ant1	5240	19.240	---	---
11N20MIMO	Ant2	5240	19.480	---	---
11N20MIMO	Ant1	5745	19.360	---	---
11N20MIMO	Ant2	5745	19.280	---	---
11N20MIMO	Ant1	5785	19.200	---	---
11N20MIMO	Ant2	5785	19.360	---	---
11N20MIMO	Ant1	5825	19.200	---	---
11N20MIMO	Ant2	5825	19.320	---	---
11N40MIMO	Ant1	5190	38.720	---	---
11N40MIMO	Ant2	5190	38.560	---	---
11N40MIMO	Ant1	5230	38.640	---	---
11N40MIMO	Ant2	5230	38.800	---	---
11N40MIMO	Ant1	5755	38.320	---	---
11N40MIMO	Ant2	5755	38.560	---	---
11N40MIMO	Ant1	5795	38.480	---	---
11N40MIMO	Ant2	5795	38.720	---	---
11AC20MIMO	Ant1	5180	19.400	---	---
11AC20MIMO	Ant2	5180	19.240	---	---
11AC20MIMO	Ant1	5200	19.200	---	---
11AC20MIMO	Ant2	5200	19.320	---	---
11AC20MIMO	Ant1	5240	19.240	---	---

11AC20MIMO	Ant2	5240	19.240	---	---
11AC20MIMO	Ant1	5745	19.480	---	---
11AC20MIMO	Ant2	5745	19.520	---	---
11AC20MIMO	Ant1	5785	19.280	---	---
11AC20MIMO	Ant2	5785	19.320	---	---
11AC20MIMO	Ant1	5825	19.320	---	---
11AC20MIMO	Ant2	5825	19.480	---	---
11AC40MIMO	Ant1	5190	38.640	---	---
11AC40MIMO	Ant2	5190	38.880	---	---
11AC40MIMO	Ant1	5230	38.560	---	---
11AC40MIMO	Ant2	5230	38.480	---	---
11AC40MIMO	Ant1	5755	38.400	---	---
11AC40MIMO	Ant2	5755	38.640	---	---
11AC40MIMO	Ant1	5795	38.240	---	---
11AC40MIMO	Ant2	5795	38.560	---	---
11AC80MIMO	Ant1	5210	81.760	---	---
11AC80MIMO	Ant2	5210	80.480	---	---
11AC80MIMO	Ant1	5775	83.680	---	---
11AC80MIMO	Ant2	5775	83.200	---	---
11AX20MIMO	Ant1	5180	20.040	---	---
11AX20MIMO	Ant2	5180	20.000	---	---
11AX20MIMO	Ant1	5200	20.040	---	---
11AX20MIMO	Ant2	5200	20.360	---	---
11AX20MIMO	Ant1	5240	20.040	---	---
11AX20MIMO	Ant2	5240	20.120	---	---
11AX20MIMO	Ant1	5745	20.200	---	---
11AX20MIMO	Ant2	5745	20.240	---	---
11AX20MIMO	Ant1	5785	20.160	---	---
11AX20MIMO	Ant2	5785	20.040	---	---
11AX20MIMO	Ant1	5825	20.000	---	---
11AX20MIMO	Ant2	5825	19.840	---	---
11AX40MIMO	Ant1	5190	39.760	---	---
11AX40MIMO	Ant2	5190	40.000	---	---
11AX40MIMO	Ant1	5230	39.120	---	---
11AX40MIMO	Ant2	5230	39.360	---	---
11AX40MIMO	Ant1	5755	39.520	---	---
11AX40MIMO	Ant2	5755	39.280	---	---
11AX40MIMO	Ant1	5795	39.680	---	---
11AX40MIMO	Ant2	5795	39.360	---	---
11AX80MIMO	Ant1	5210	80.640	---	---
11AX80MIMO	Ant2	5210	80.160	---	---

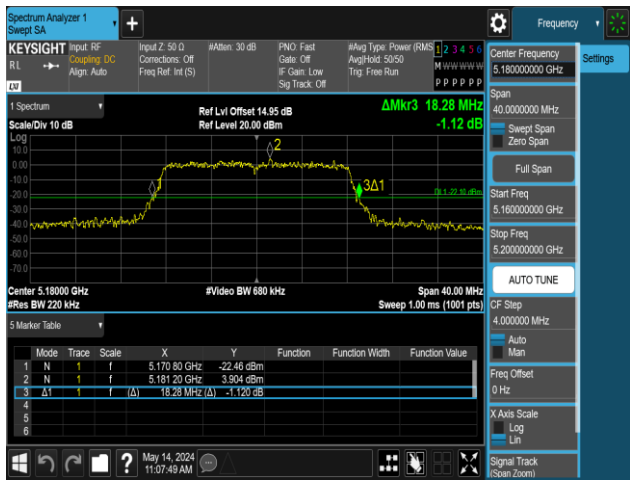
Reference No.: WTH24X04096557W001

11AX80MIMO	Ant1	5775	79.840	---	---
11AX80MIMO	Ant2	5775	80.480	---	---

Test Graphs



11A-Ant1-5180



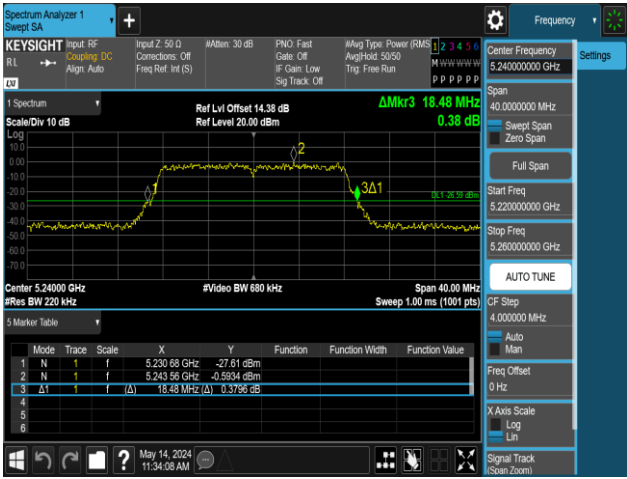
11A-Ant2-5180



11A-Ant1-5200



11A-Ant2-5200



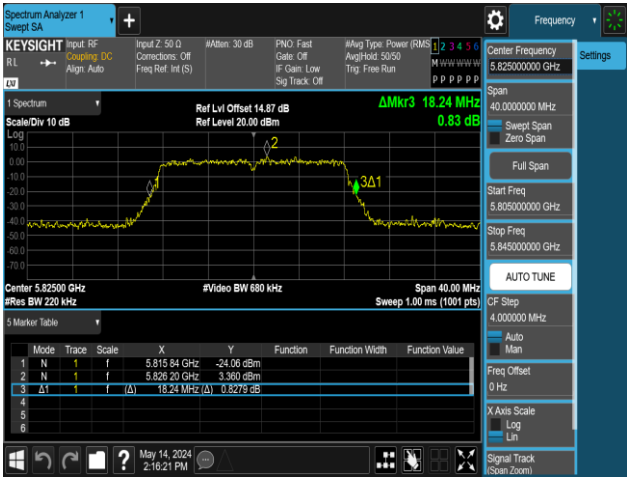
11A-Ant1-5240



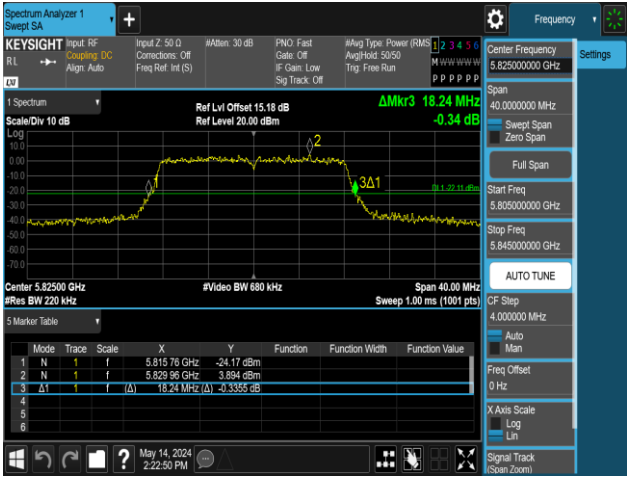
11A-Ant2-5240



11A-Ant2-5785



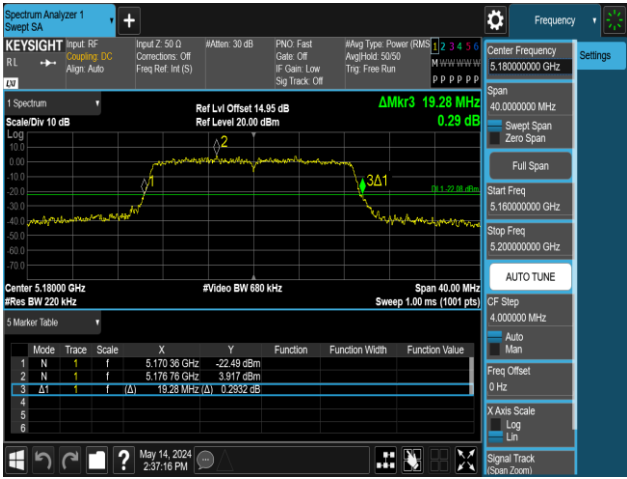
11A-Ant1-5825



11A-Ant2-5825



11N20MIMO-Ant1-5180



11N20MIMO-Ant2-5180



11N20MIMO-Ant2-5200



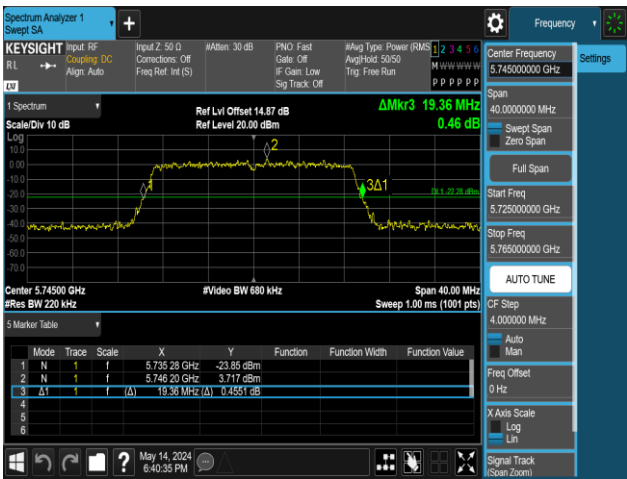
11N20MIMO-Ant1-5200



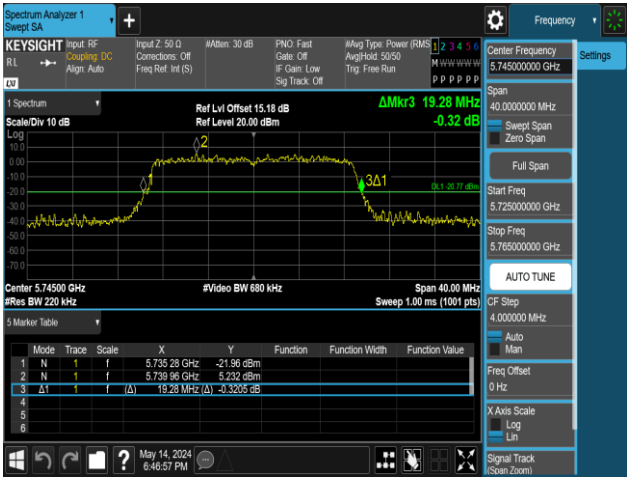
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11N20MIMO-Ant2-5240



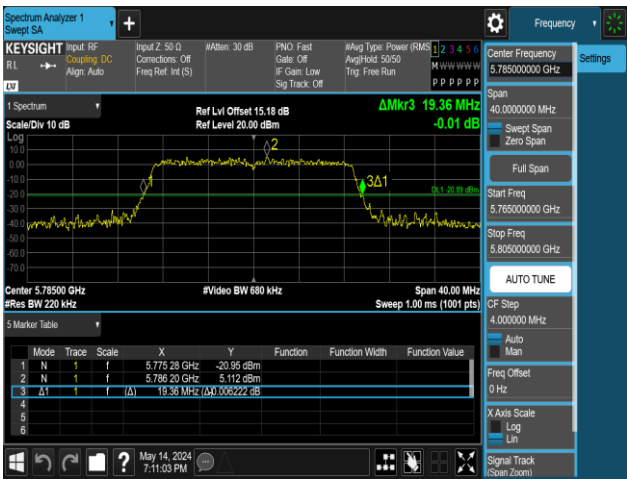
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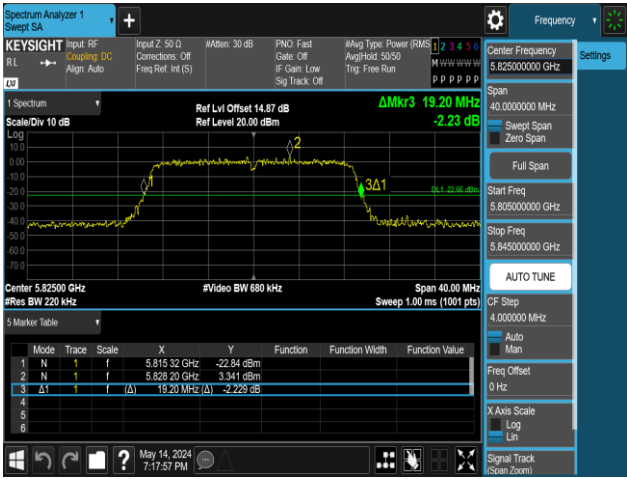
11N20MIMO-Ant2-5745



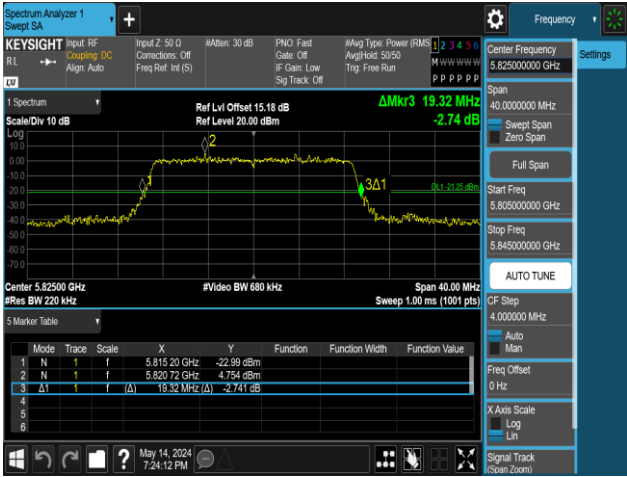
11N20MIMO-Ant1-5785



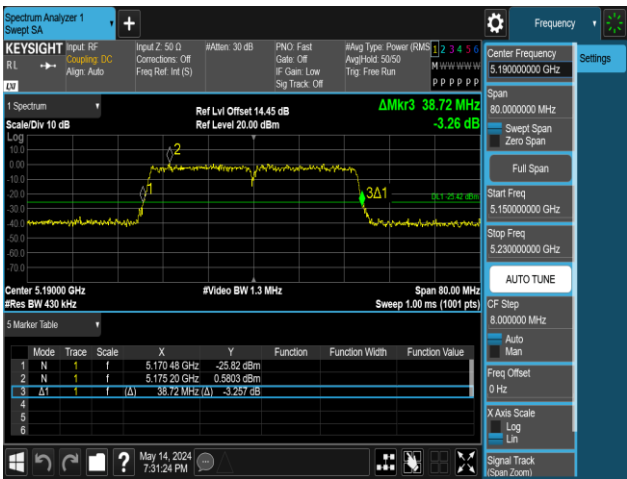
11N20MIMO-Ant2-5785



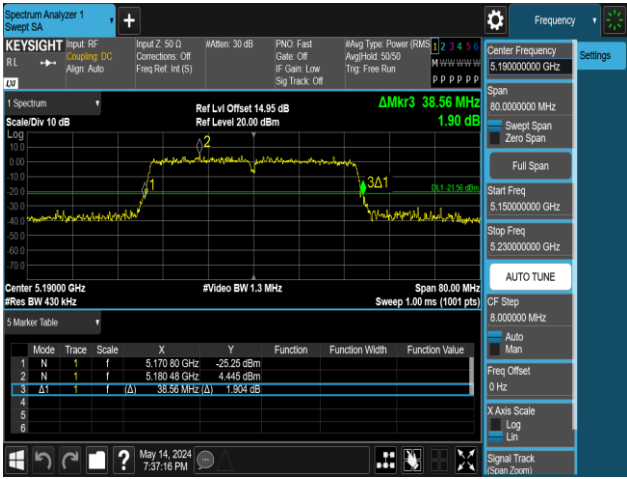
11N20MIMO-Ant1-5825



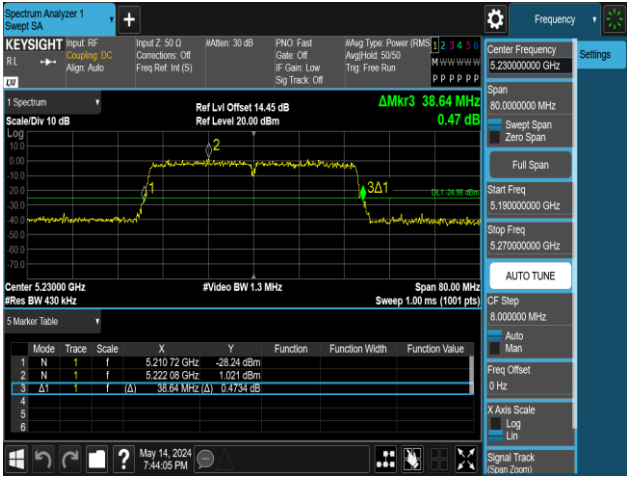
11N20MIMO-Ant2-5825



11N40MIMO-Ant1-5190



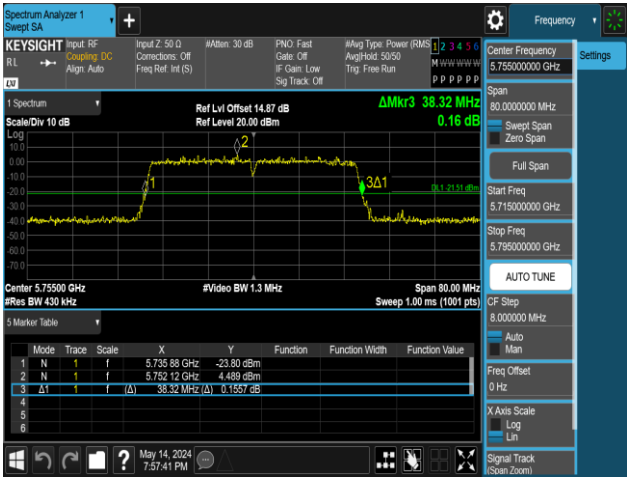
11N40MIMO-Ant2-5190



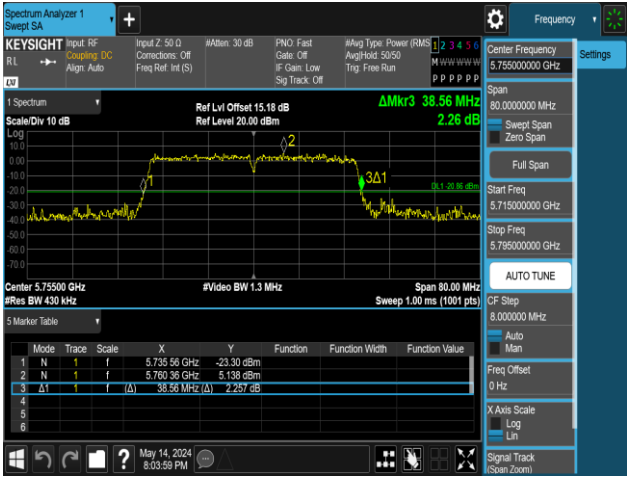
11N40MIMO-Ant1-5230



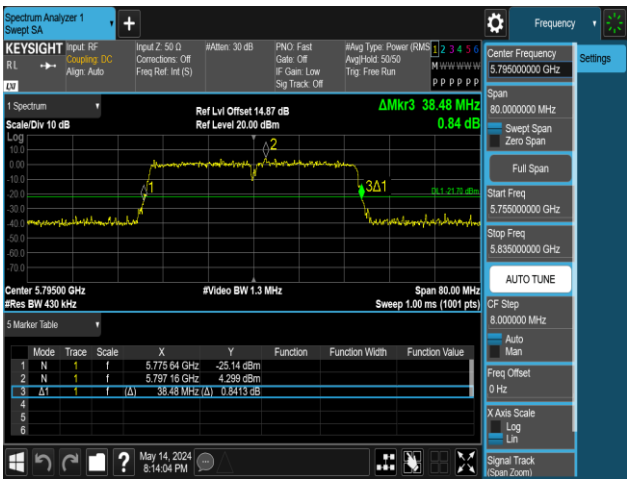
11N40MIMO-Ant2-5230



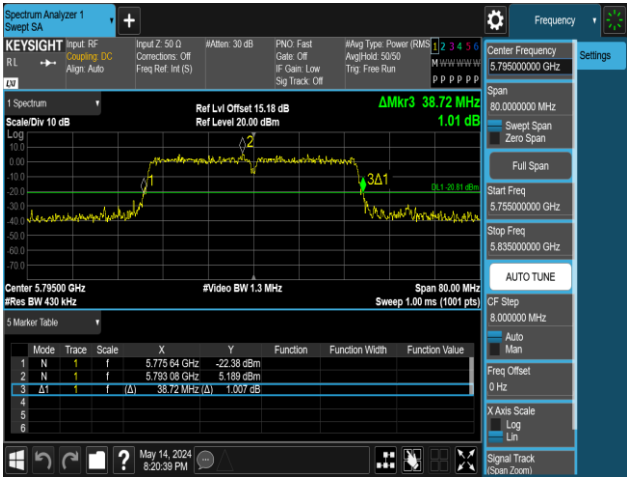
11N40MIMO-Ant1-5755



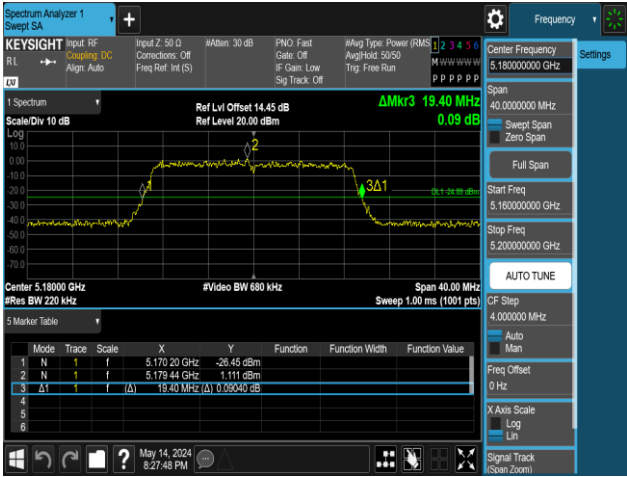
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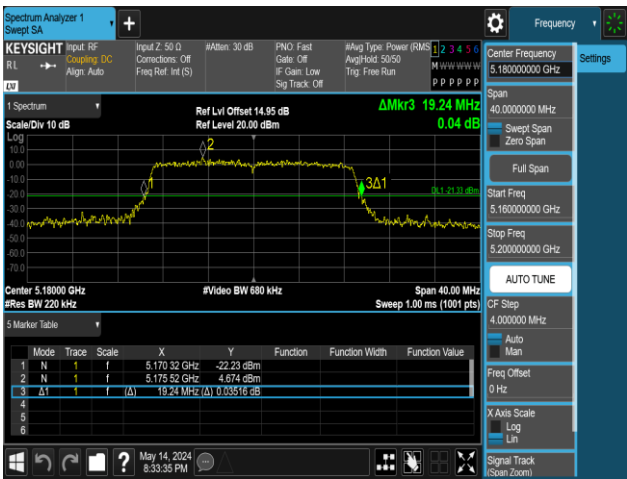
11N40MIMO-Ant1-5795



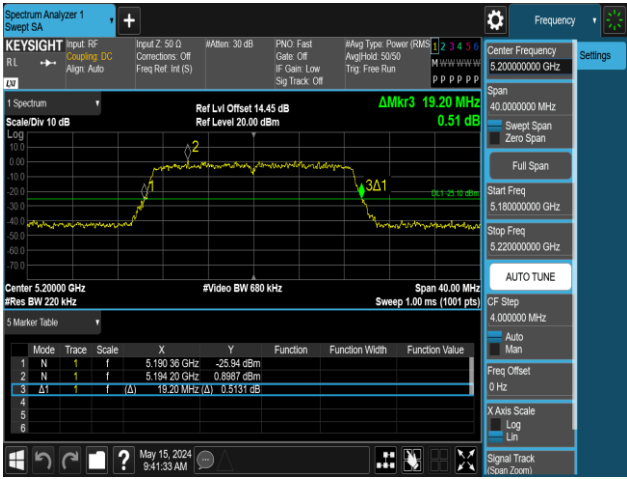
11N40MIMO-Ant2-5795



11AC20MIMO-Ant1-5180



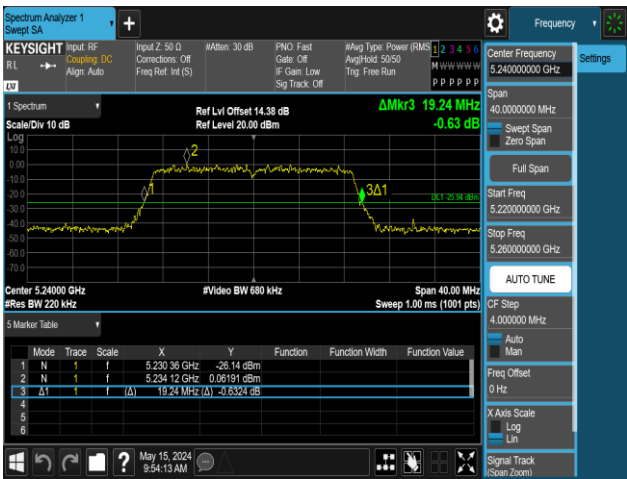
11AC20MIMO-Ant2-5180



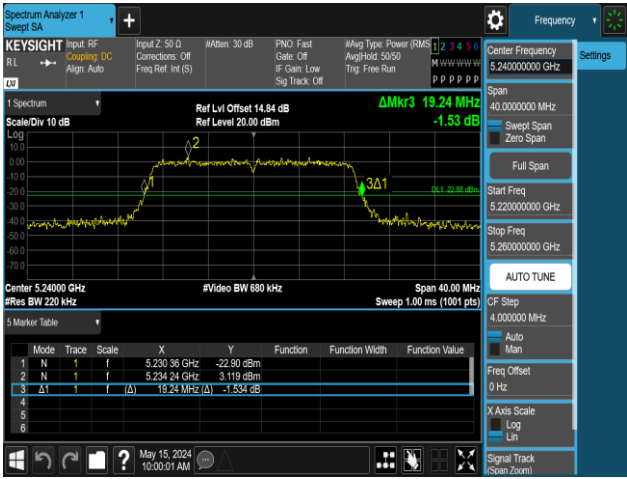
11AC20MIMO-Ant1-5200



11AC20MIMO-Ant2-5200



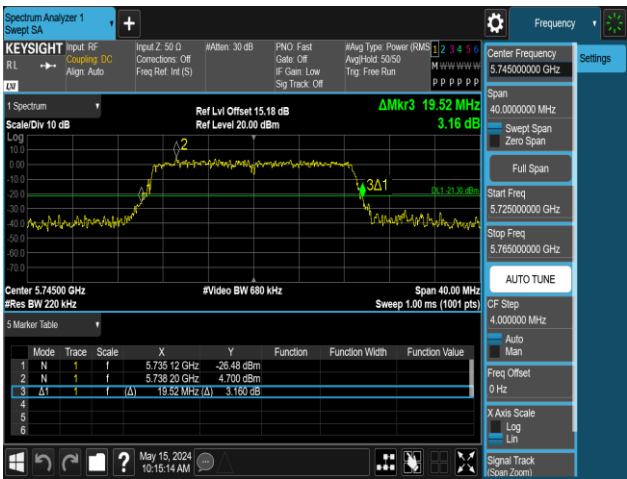
11AC20MIMO-Ant1-5240



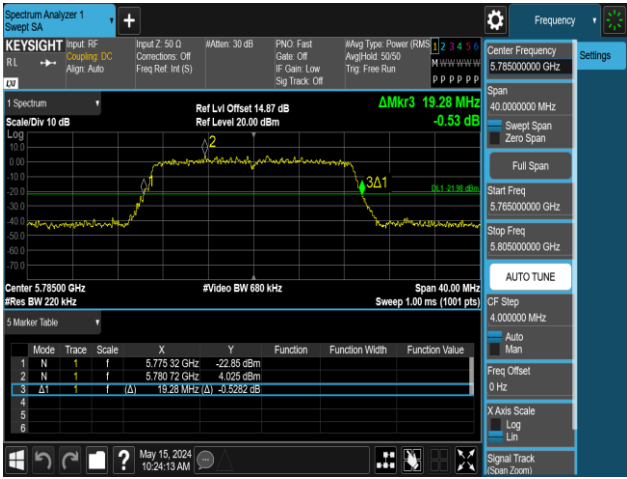
11AC20MIMO-Ant2-5240



11AC20MIMO-Ant1-5745



11AC20MIMO-Ant2-5745



11AC20MIMO-Ant1-5785



11AC20MIMO-Ant2-5785