

TEST REPORT

Reference No...... : WTX25X09245774W003
FCC ID..... : 2AEPIBLACKG4
Applicant..... : COLOMBIANA DE COMERCIO S.A.
Address..... : Car. 43E No 8-71, Medellin, Colombia
Manufacturer..... : Sichuan Koobee Communication Equipment Co., Ltd.
Address..... : 3 Floor, Building 2, 69 Gangyuan Road West Section, Lingang Development Zone, Yibin City, Sichuan Province, China
Product Name..... : Smart Phone
Model No...... : Black G4
Standards..... : FCC Part 15.407
Date of Receipt sample.... : 2025-08-06
Date of Test..... : 2025-08-06 to 2025-09-17
Date of Issue..... : 2025-09-17
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.

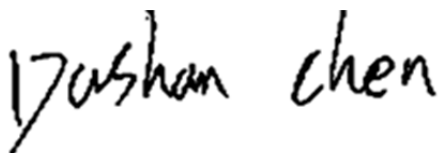
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Report version

Version No.	Date of issue	Description
Rev.00	2025-09-17	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Smart Phone
Trade Name:	Kalley
Model No.:	Black G4
Adding Model(s):	/
Rated Voltage:	Battery: DC 3.89V DC 5.0V=== 2.0A charging from adapter
Battery:	5900mAh
Adapter Model:	Model No.: ES166F-US-0500200 Input: 100-240V~, 50/60Hz, 0.5A Output: 5.0V===2.0A Manufacturer: SHENZHEN EAST SUN ELECTRONICS CO., LTD.
Software Version:	Kalley_Black_G4_V01_20250718
Hardware Version:	KC26NQ_01
<i>Note: The test data is gathered from a production sample, provided by the manufacturer.</i>	

Technical Characteristics of EUT	
Support Standards:	802.11a, 802.11n-HT20, 802.11n-HT40, 802.11ac-VHT20, 802.11ac-VHT40, 802.11ac-VHT80
Frequency Range:	5180-5240MHz, 5260-5320MHz 5500-5700MHz, 5745-5825MHz
Max. RF Output Power:	18.67dBm (Conducted)
Type of Modulation:	OFDM
Type of Antenna:	Internal antenna
Antenna Gain:	1.16dBi
<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	5260	5300	5320	5500	5580	5700	5720	5745	5785	5825
802.11a 6Mbps	16	16	16	16	16	16	16	16	16	16	16	16	16
802.11n-HT20 MCS0	16	16	16	16	16	16	16	16	16	16	16	16	16
802.11ac-VHT20 MCS0	16	16	16	16	16	16	16	16	16	16	16	16	16
Mode	NCB: 40MHz												
	5190	5230	5270	5310	5510	5550	5670	5710	5755	5795			
802.11n-HT40 MCS0	16	16	16	16	16	16	16	16	16	16			
802.11ac-VHT40 MCS0	16	16	16	16	16	16	16	16	16	16			

Mode	NCB: 80MHz					
	5210	5290	5530	5610	5690	5775
802.11ac-VHT80 MCS0	16	16	16	16	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, 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,5260MHz,5280MHz,5320MHz,5500MHz,5600MHz,5700MHz,5745MHz, 5785MHz,5825MHz
TM2	802.11n-HT20	5180MHz,5200MHz,5240MHz,5260MHz,5280MHz,5320MHz,5500MHz,5600MHz,5700MHz,5745MHz, 5785MHz,5825MHz
TM3	802.11ac-VHT20	5180MHz,5200MHz,5240MHz,5260MHz,5280MHz,5320MHz,5500MHz,5600MHz,5700MHz,5745MHz, 5785MHz,5825MHz
TM4	802.11n-HT40	5190MHz,5230MHz,5270MHz,5310MHz,5510MHz,5590MHz,5670MHz,5755MHz,5795MHz
TM5	802.11ac-VHT40	5190MHz,5230MHz,5270MHz,5310MHz,5510MHz,5590MHz,5670MHz,5755MHz,5795MHz
TM6	802.11ac-VHT80	5210MHz,5290MHz,5530MHz,5610MHz,5775MHz
Note: 802.11ac-VHT20, 802.11ac-VHT40 covered by 802.11n-HT20 and 802.11n-HT40.		

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	1.0	Unshielded	Without Ferrite
Earphone Cable	1.2	Unshielded	Without Ferrite

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

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 Integral antenna, fulfill the requirement of this section.

4. Automatically Discontinue Transmission

4.1 Standard Applicable

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

4.2 Summary of Test Results

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

5. Power Spectral Density

5.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25GHz.

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

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

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

5.2 Test Procedure

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

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

reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1MHz, or 500kHz). If measurements are performed using a reduced resolution bandwidth ($< 1\text{MHz}$, or $< 500\text{kHz}$) and integrated over 1 MHz, or 500kHz bandwidth, the following adjustments to the procedures apply:

- a) Set $\text{RBW} \geq 1/T$, where T is defined in section II.B.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.: WTX25X09245774W003

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:

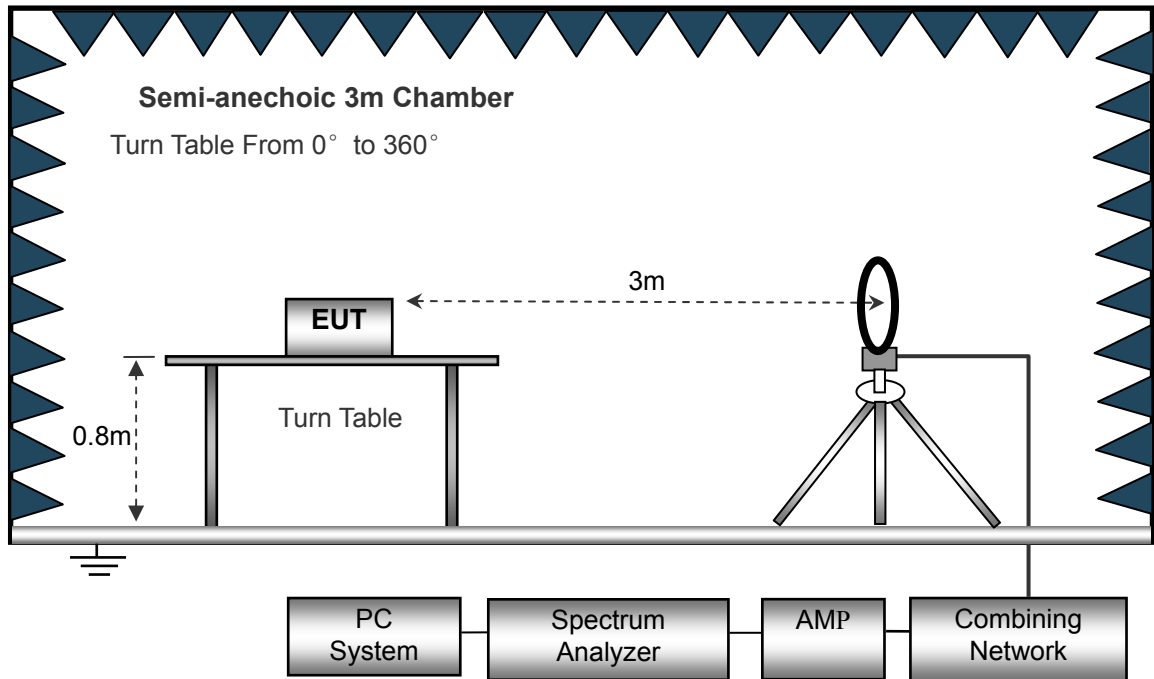
- E is the field strength in V/m;
- d is the measurement distance in meters;
- EIRP is the equivalent isotropically radiated power in watts.

8.2 Test Procedure

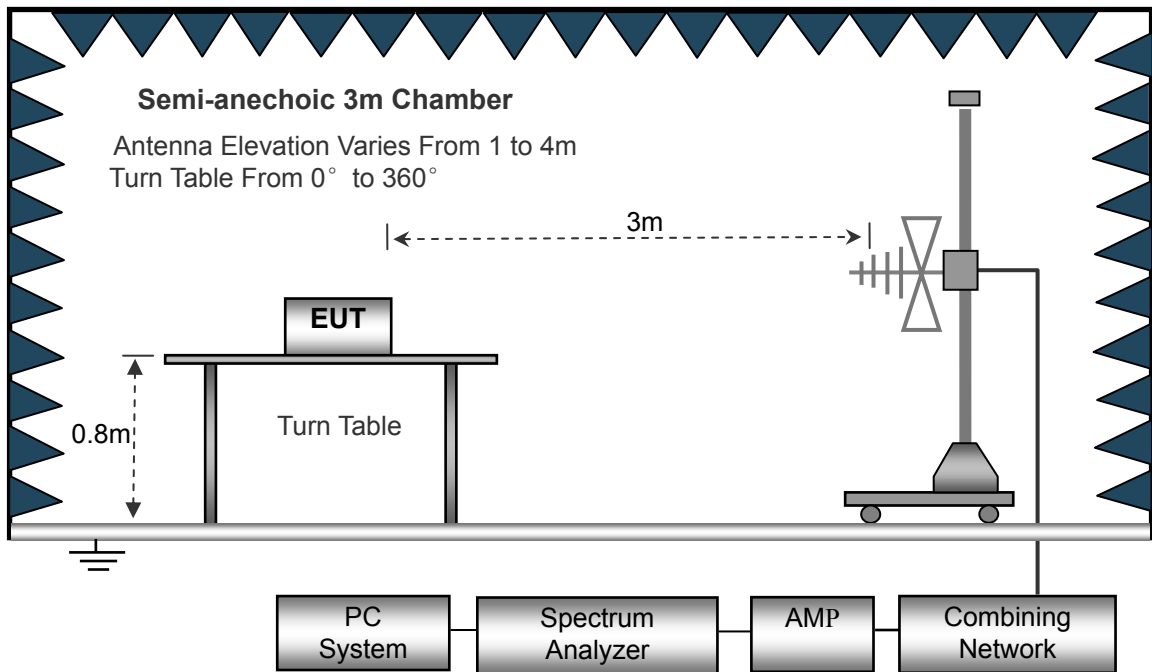
The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.407(b)(6) and FCC Part 15.209 Limit..

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.

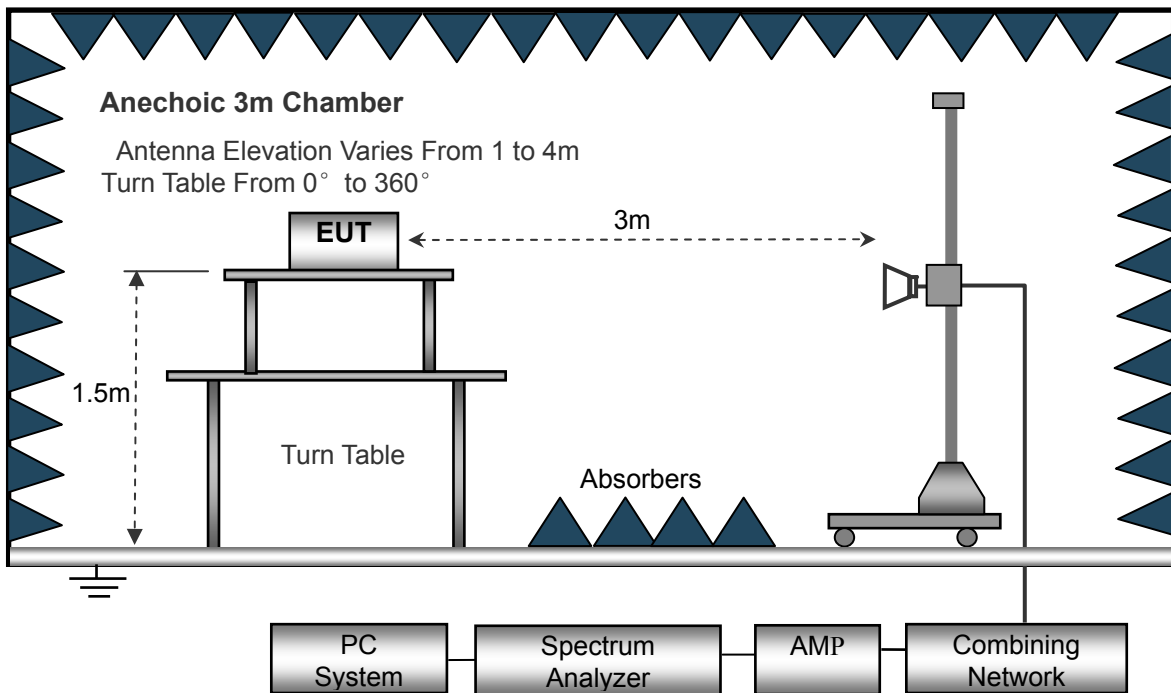
The test setup for emission measurement below 30MHz.



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:

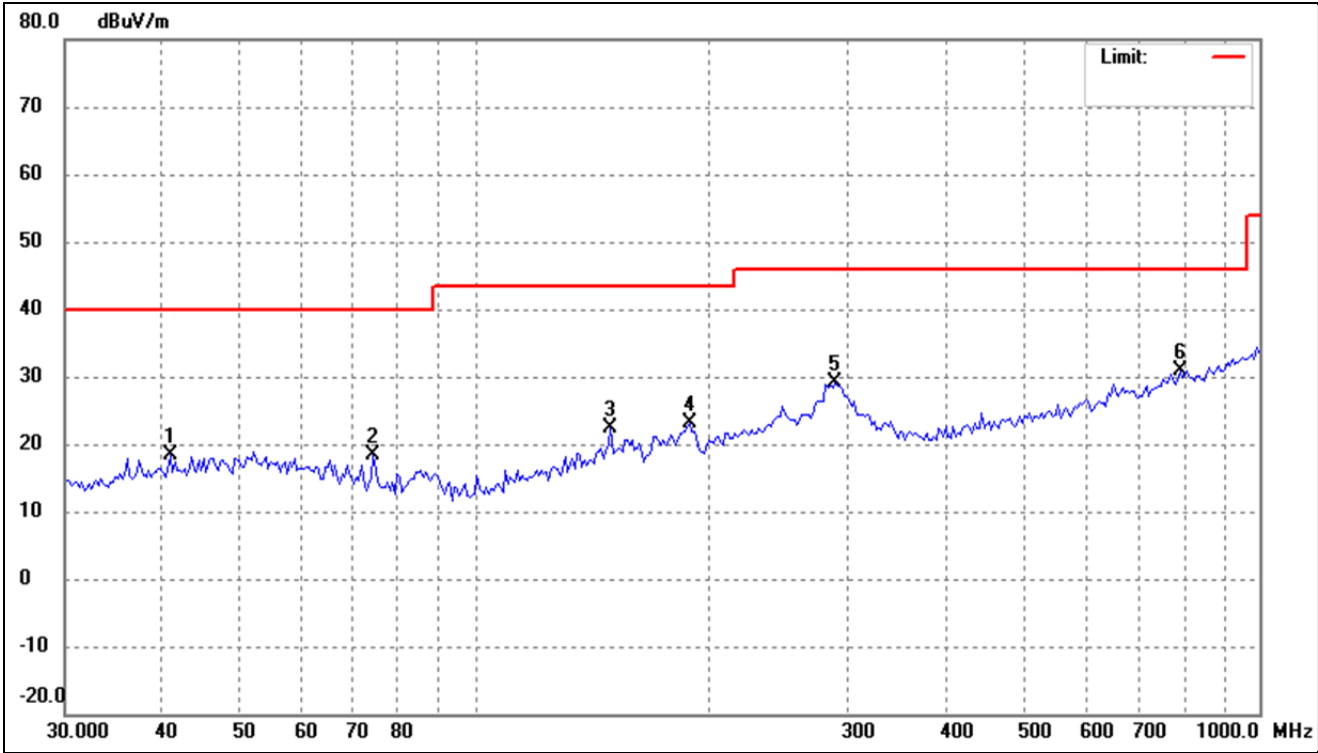
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.5 Summary of Test Results/Plots

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

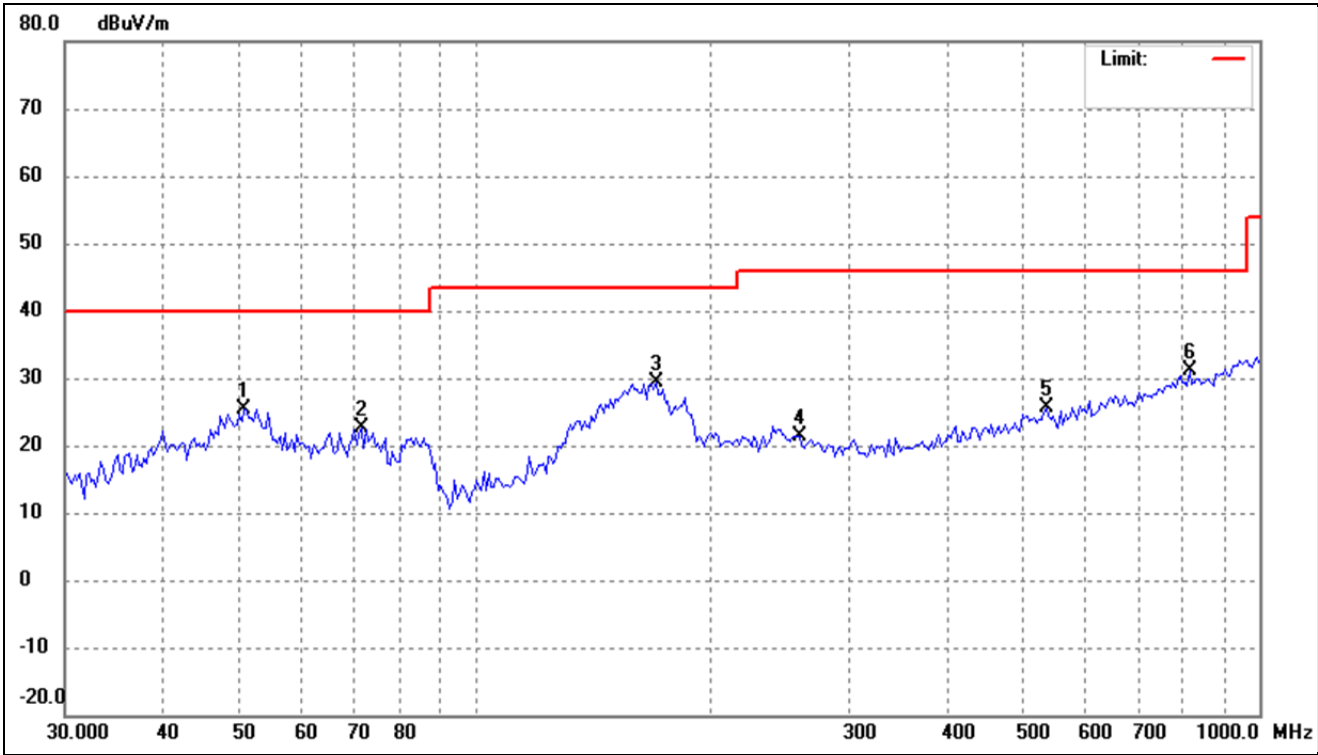
- Spurious Emission From 30MHz to 1GHz
- 5150-5250MHz

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



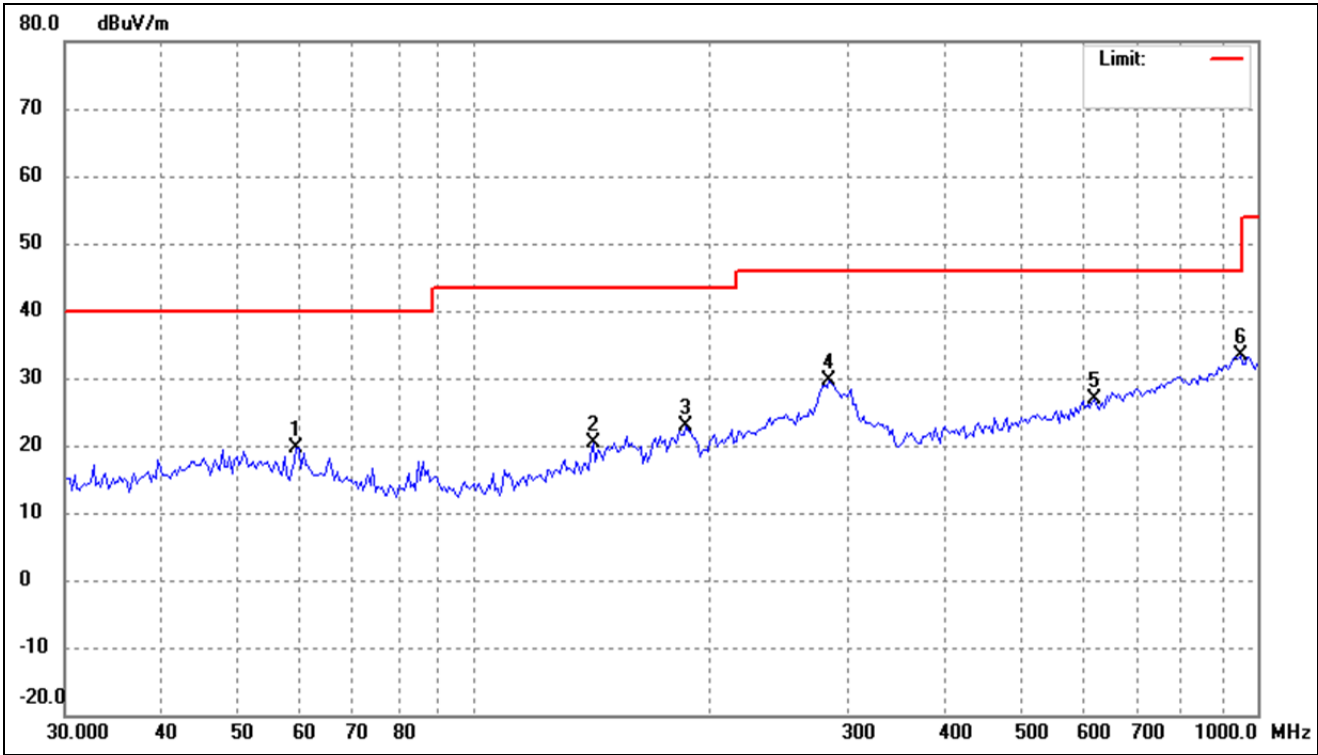
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	()	(cm)	
1	40.8699	27.88	-9.51	18.37	40.00	-21.63	-	-	QP
2	74.2696	30.33	-11.92	18.41	40.00	-21.59	-	-	QP
3	148.9175	31.26	-8.91	22.35	43.50	-21.15	-	-	QP
4	187.7833	33.98	-10.82	23.16	43.50	-20.34	-	-	QP
5	288.2840	37.27	-8.03	29.24	46.00	-16.76	-	-	QP
6	793.0281	29.93	0.89	30.82	46.00	-15.18	-	-	QP

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



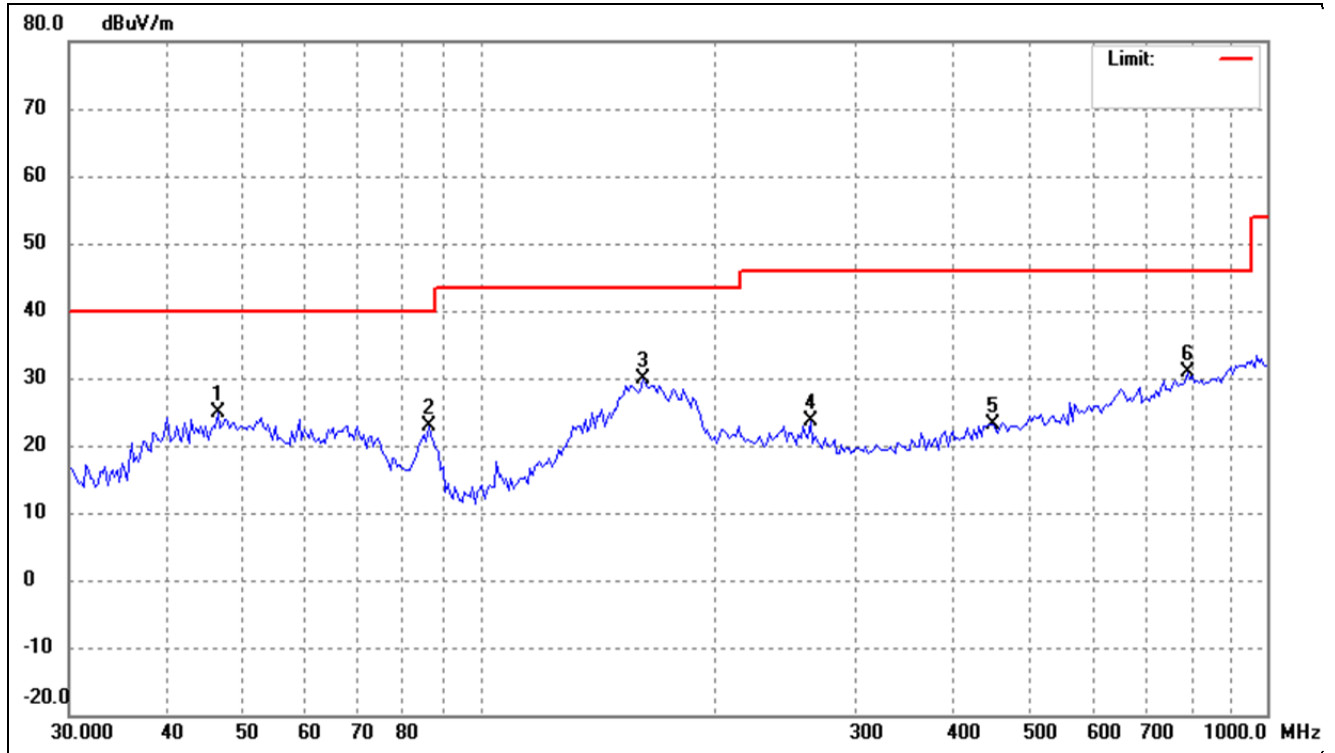
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.8172	34.35	-8.98	25.37	40.00	-14.63	-	-	QP
2	71.7054	34.08	-11.42	22.66	40.00	-17.34	-	-	QP
3	170.1888	38.31	-8.87	29.44	43.50	-14.06	-	-	QP
4	259.4433	30.77	-9.30	21.47	46.00	-24.53	-	-	QP
5	535.0377	29.41	-3.80	25.61	46.00	-20.39	-	-	QP
6	815.6352	30.16	0.99	31.15	46.00	-14.85	-	-	QP

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



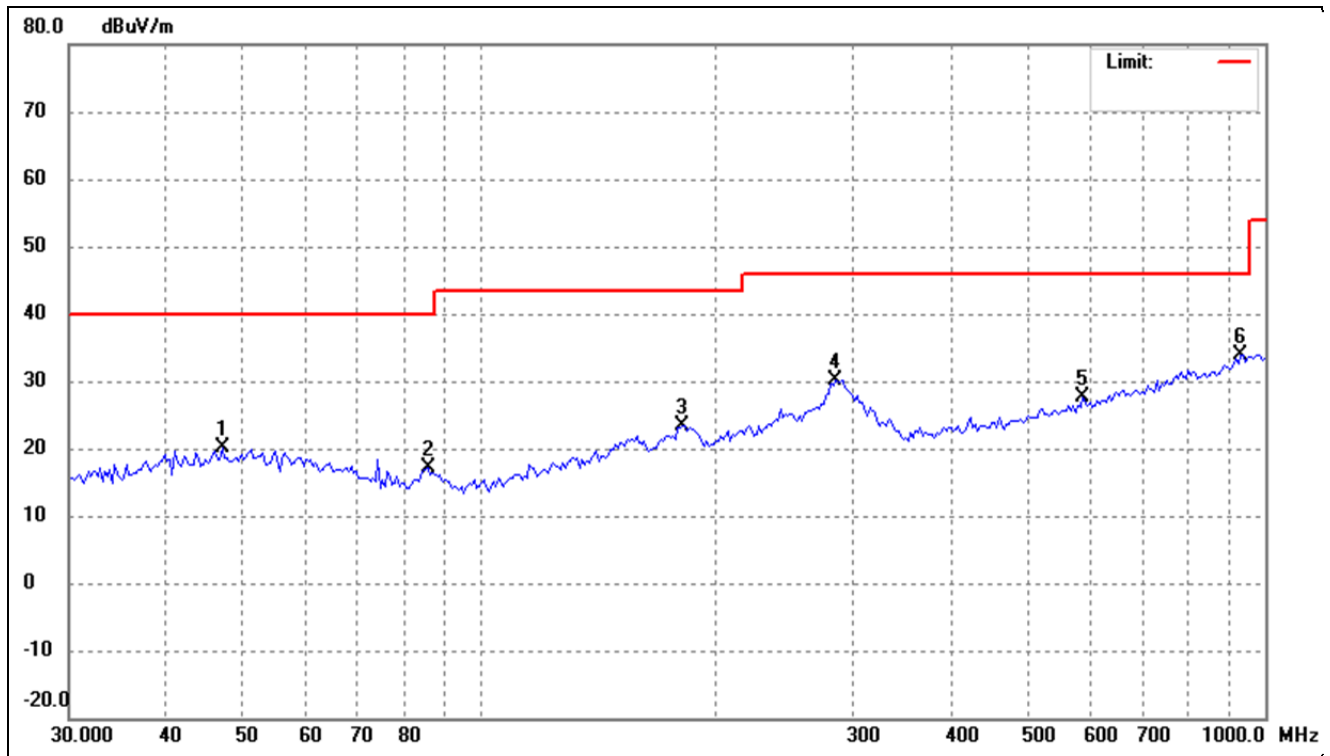
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	59.3133	29.18	-9.48	19.70	40.00	-20.30	-	-	QP
2	141.7694	29.55	-9.23	20.32	43.50	-23.18	-	-	QP
3	186.4684	33.61	-10.66	22.95	43.50	-20.55	-	-	QP
4	284.2606	37.89	-8.17	29.72	46.00	-16.28	-	-	QP
5	620.1167	28.90	-2.12	26.78	46.00	-19.22	-	-	QP
6	952.0001	30.31	2.95	33.26	46.00	-12.74	-	-	QP

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



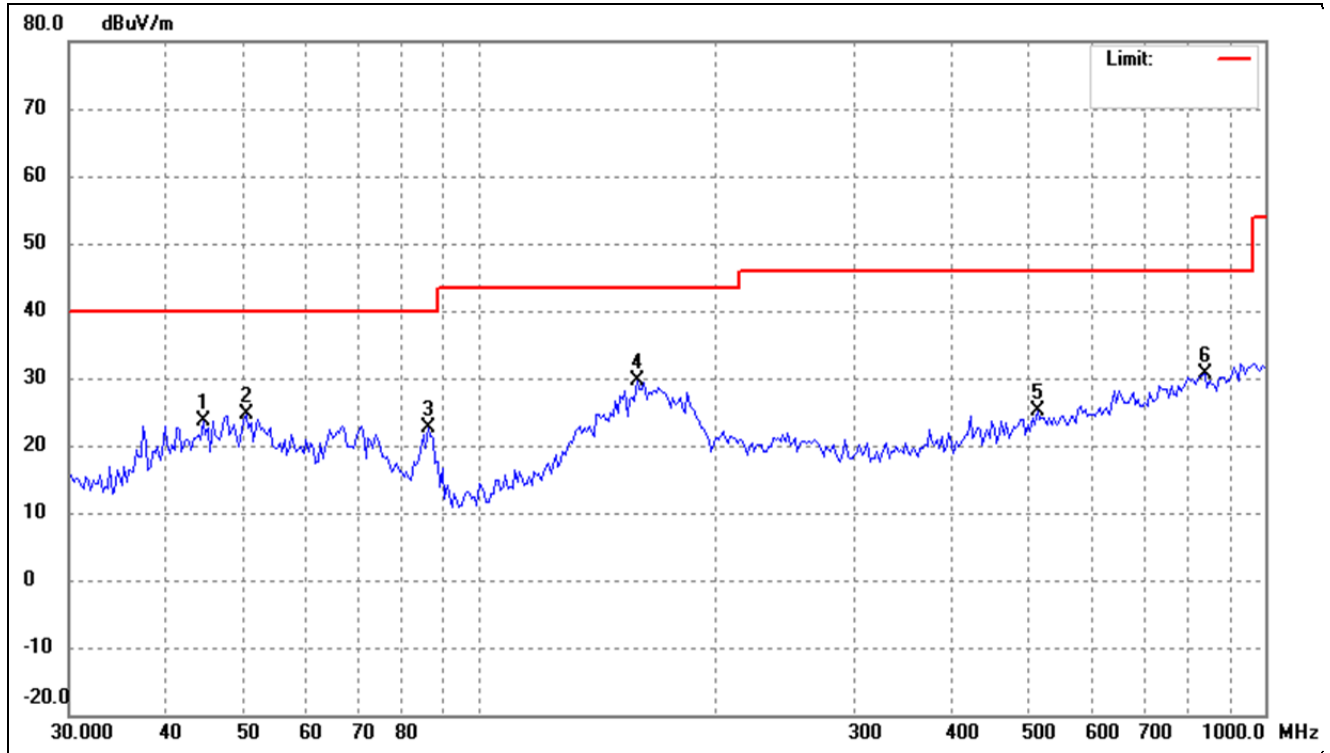
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	46.3806	33.96	-9.02	24.94	40.00	-15.06	-	-	QP
2	86.0795	36.99	-14.07	22.92	40.00	-17.08	-	-	QP
3	160.8852	38.34	-8.51	29.83	43.50	-13.67	-	-	QP
4	263.1155	32.90	-9.16	23.74	46.00	-22.26	-	-	QP
5	445.6932	28.19	-5.11	23.08	46.00	-22.92	-	-	QP
6	793.0281	29.88	0.89	30.77	46.00	-15.23	-	-	QP

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



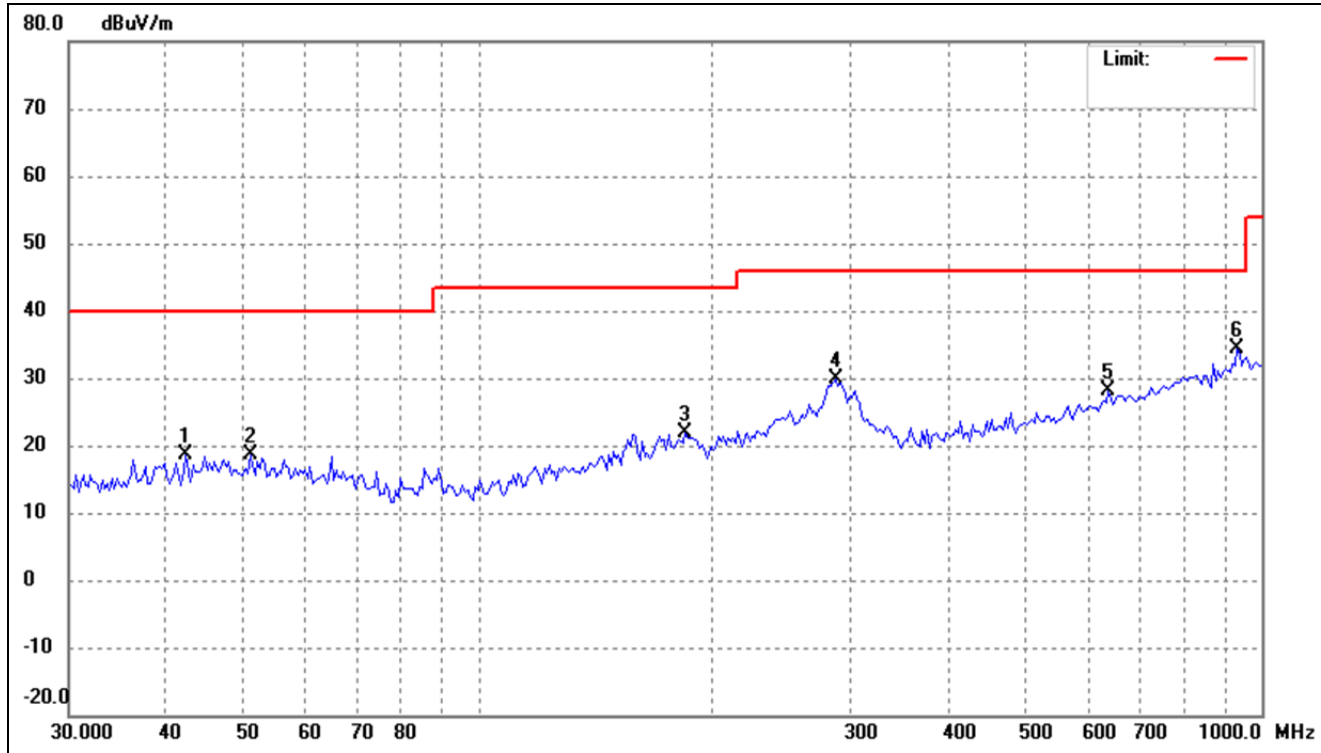
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.0371	29.09	-9.01	20.08	40.00	-19.92	-	-	QP
2	86.0795	31.21	-14.07	17.14	40.00	-22.86	-	-	QP
3	181.3000	33.48	-10.00	23.48	43.50	-20.02	-	-	QP
4	284.2606	38.22	-8.17	30.05	46.00	-15.95	-	-	QP
5	586.2172	30.22	-2.49	27.73	46.00	-18.27	-	-	QP
6	932.1405	31.34	2.59	33.93	46.00	-12.07	-	-	QP

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



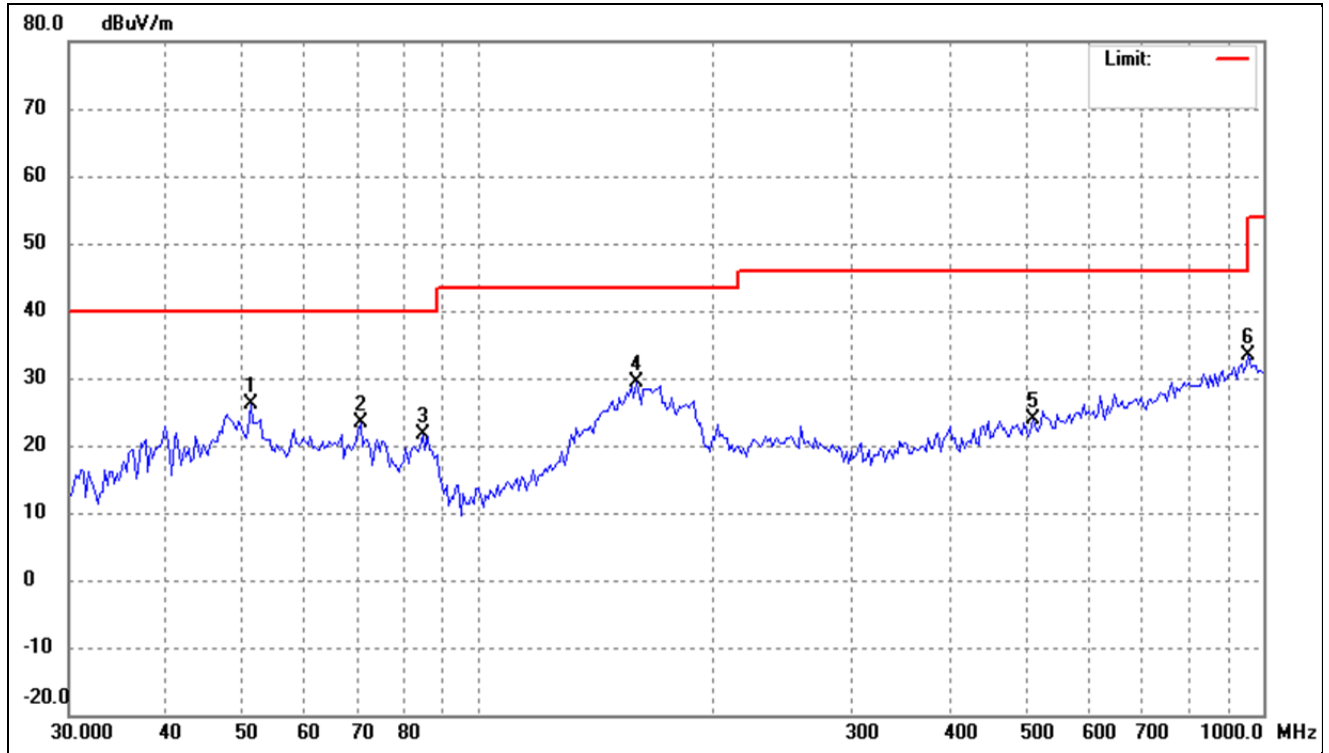
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.4657	32.79	-9.10	23.69	40.00	-16.31	-	-	QP
2	50.4614	33.66	-8.98	24.68	40.00	-15.32	-	-	QP
3	86.0795	36.66	-14.07	22.59	40.00	-17.41	-	-	QP
4	158.6399	38.25	-8.56	29.69	43.50	-13.81	-	-	QP
5	512.9477	29.32	-4.09	25.23	46.00	-20.77	-	-	QP
6	838.8870	29.69	0.97	30.66	46.00	-15.34	-	-	QP

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



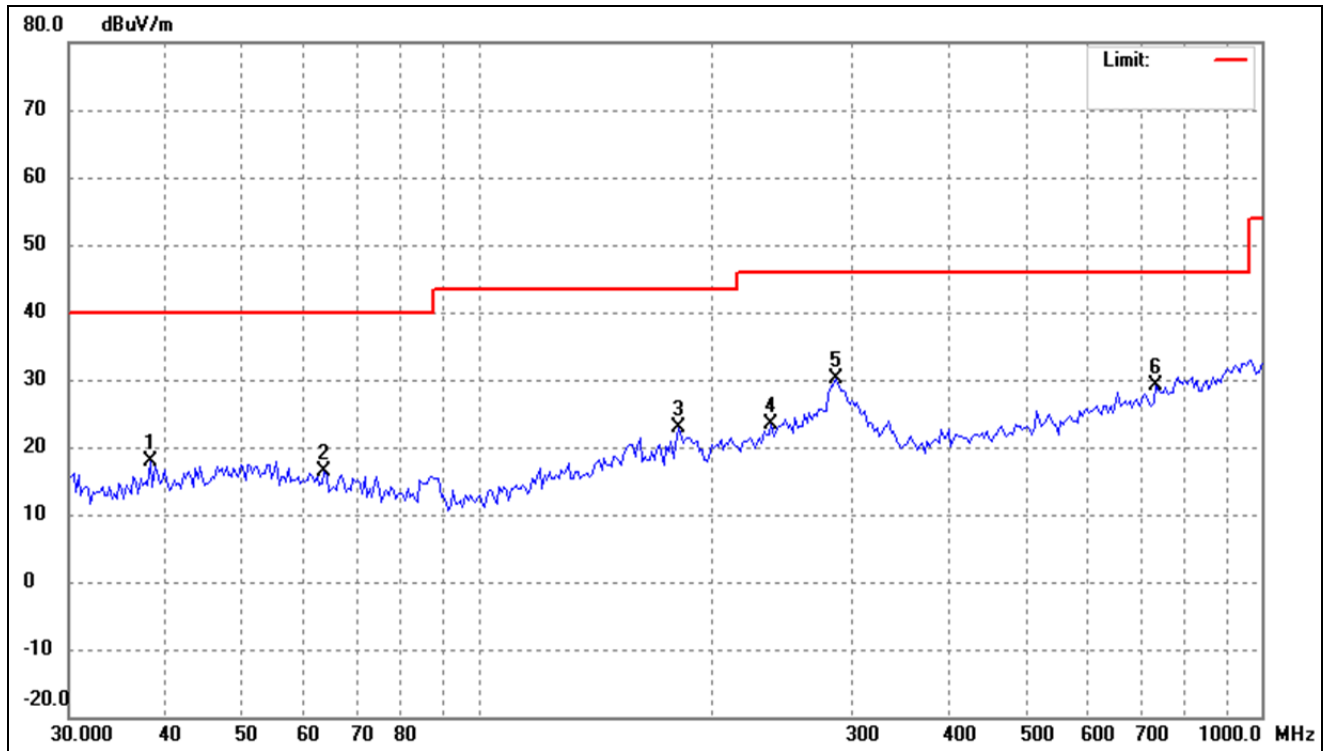
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	42.3314	27.92	-9.34	18.58	40.00	-21.42	-	-	QP
2	51.1756	27.72	-8.99	18.73	40.00	-21.27	-	-	QP
3	183.8660	32.09	-10.31	21.78	43.50	-21.72	-	-	QP
4	286.2653	37.93	-8.09	29.84	46.00	-16.16	-	-	QP
5	637.7947	29.93	-1.74	28.19	46.00	-17.81	-	-	QP
6	932.1405	31.77	2.59	34.36	46.00	-11.64	-	-	QP

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



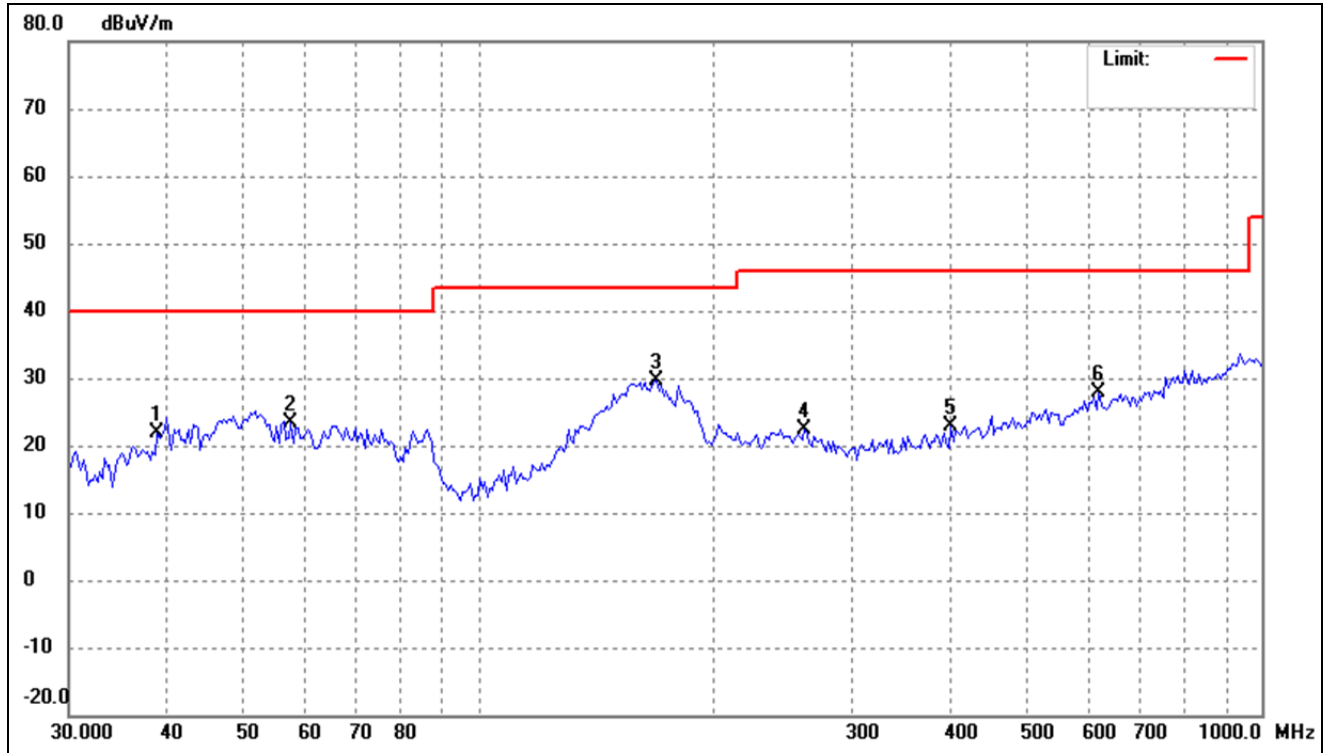
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.1756	35.02	-8.99	26.03	40.00	-13.97	-	-	QP
2	70.7047	34.53	-11.25	23.28	40.00	-16.72	-	-	QP
3	84.8783	35.54	-13.90	21.64	40.00	-18.36	-	-	QP
4	158.6399	37.97	-8.56	29.41	43.50	-14.09	-	-	QP
5	509.3559	28.02	-4.16	23.86	46.00	-22.14	-	-	QP
6	958.7135	30.50	2.97	33.47	46.00	-12.53	-	-	QP

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



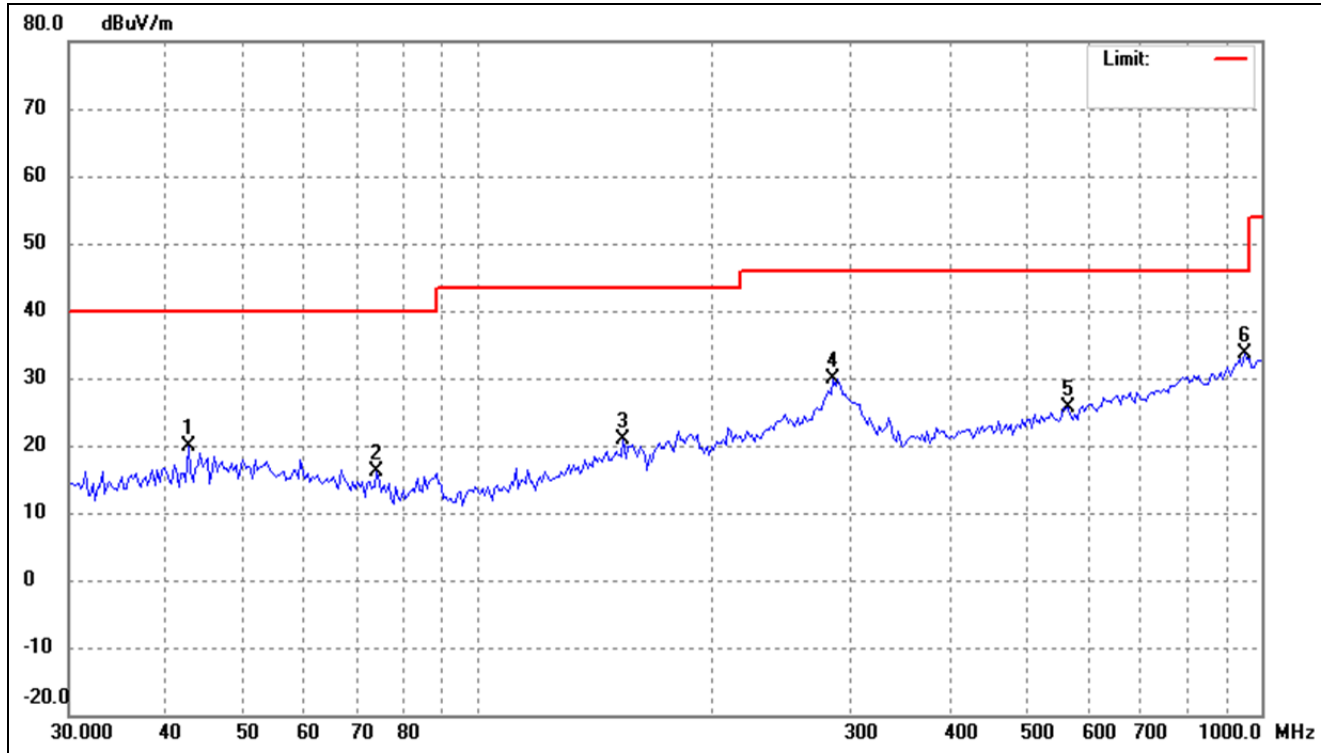
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.0965	27.69	-9.79	17.90	40.00	-22.10	-	-	QP
2	63.6312	26.49	-10.03	16.46	40.00	-23.54	-	-	QP
3	180.0304	32.83	-9.87	22.96	43.50	-20.54	-	-	QP
4	236.7928	33.47	-10.18	23.29	46.00	-22.71	-	-	QP
5	286.2653	38.14	-8.09	30.05	46.00	-15.95	-	-	QP
6	734.0373	29.29	-0.18	29.11	46.00	-16.89	-	-	QP

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



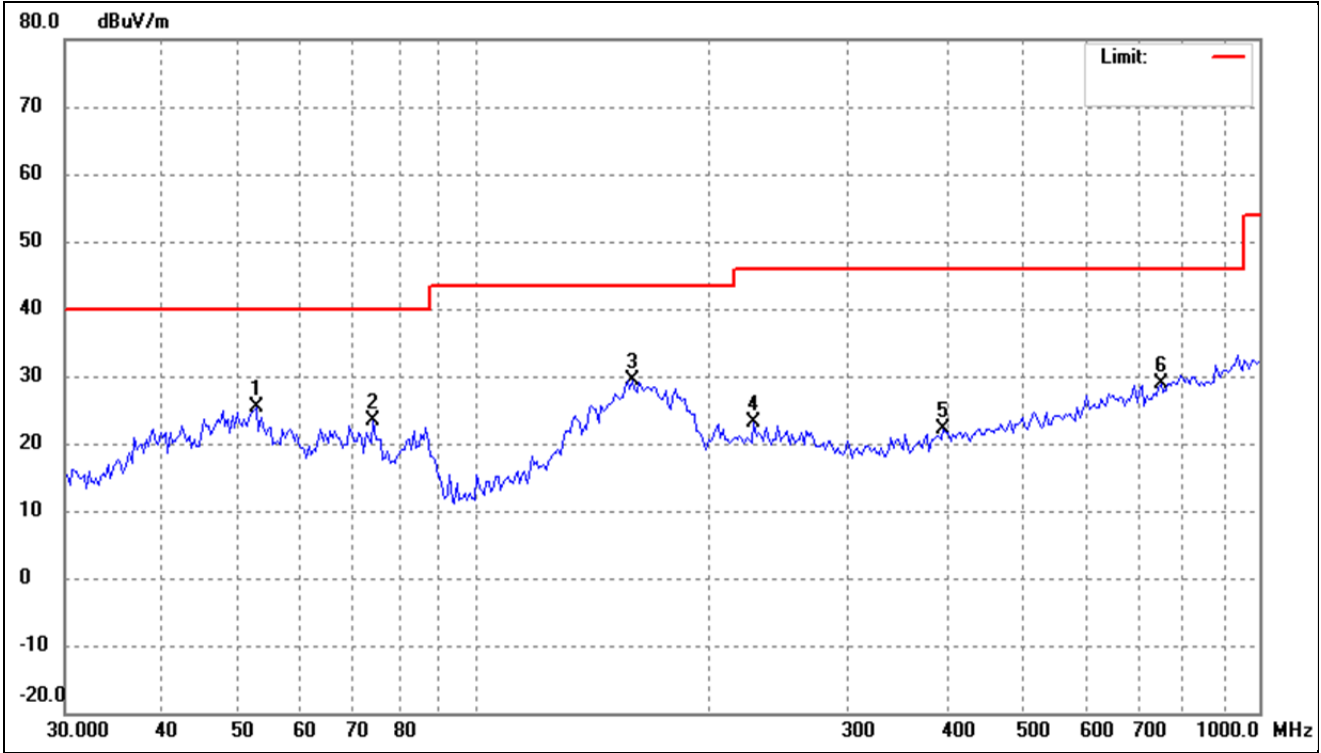
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.9081	31.69	-9.69	22.00	40.00	-18.00	-	-	QP
2	57.6693	32.67	-9.36	23.31	40.00	-16.69	-	-	QP
3	168.9970	38.48	-8.80	29.68	43.50	-13.82	-	-	QP
4	261.2730	31.61	-9.24	22.37	46.00	-23.63	-	-	QP
5	401.1050	28.94	-6.08	22.86	46.00	-23.14	-	-	QP
6	620.1167	30.07	-2.12	27.95	46.00	-18.05	-	-	QP

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	42.6299	29.08	-9.30	19.78	40.00	-20.22	-	-	QP
2	74.2696	28.13	-11.92	16.21	40.00	-23.79	-	-	QP
3	153.1627	29.75	-8.77	20.98	43.50	-22.52	-	-	QP
4	284.2606	38.07	-8.17	29.90	46.00	-16.10	-	-	QP
5	565.9776	28.93	-3.20	25.73	46.00	-20.27	-	-	QP
6	952.0001	30.75	2.95	33.70	46.00	-12.30	-	-	QP

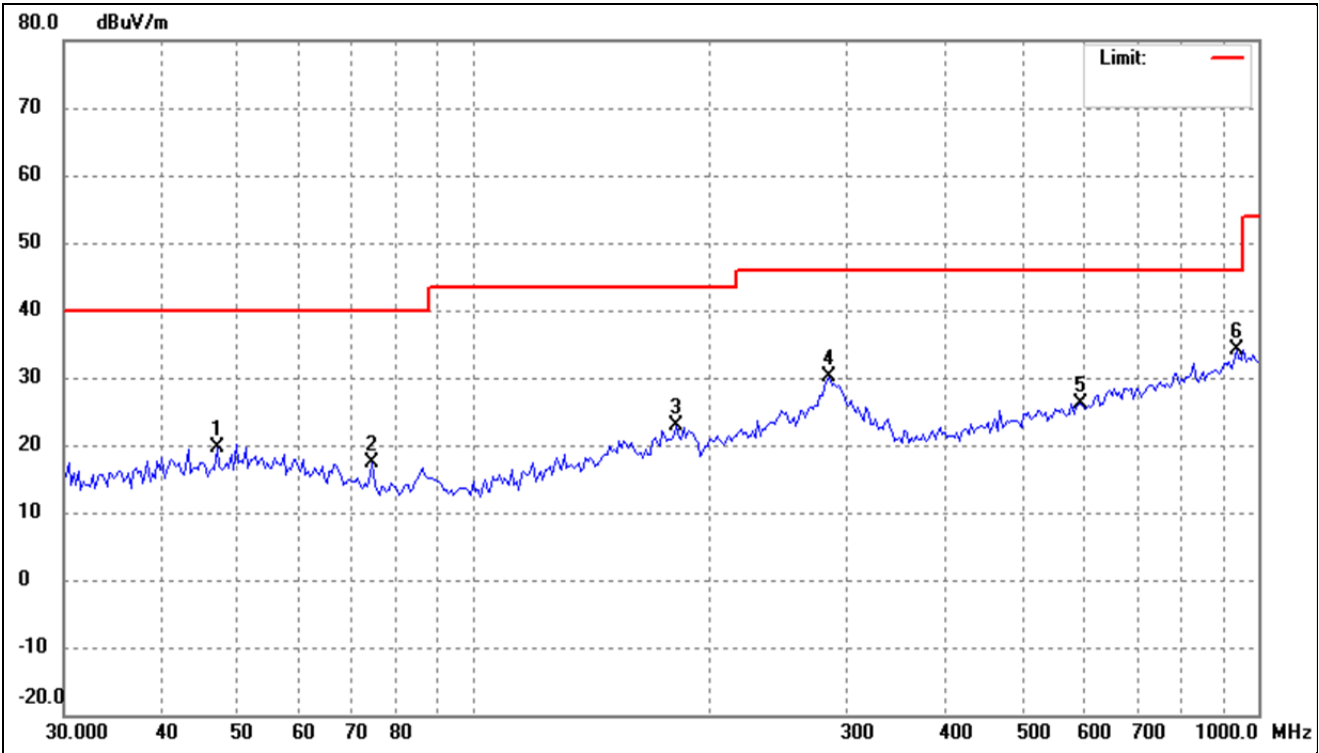
802.11ac-VHT80			
Test Channel	5210MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	52.6345	34.51	-9.04	25.47	40.00	-14.53	-	-	QP
2	74.2696	35.29	-11.92	23.37	40.00	-16.63	-	-	QP
3	158.6399	38.02	-8.56	29.46	43.50	-14.04	-	-	QP
4	227.0164	34.25	-11.13	23.12	46.00	-22.88	-	-	QP
5	395.5071	28.31	-6.18	22.13	46.00	-23.87	-	-	QP
6	749.6761	28.72	0.18	28.90	46.00	-17.10	-	-	QP

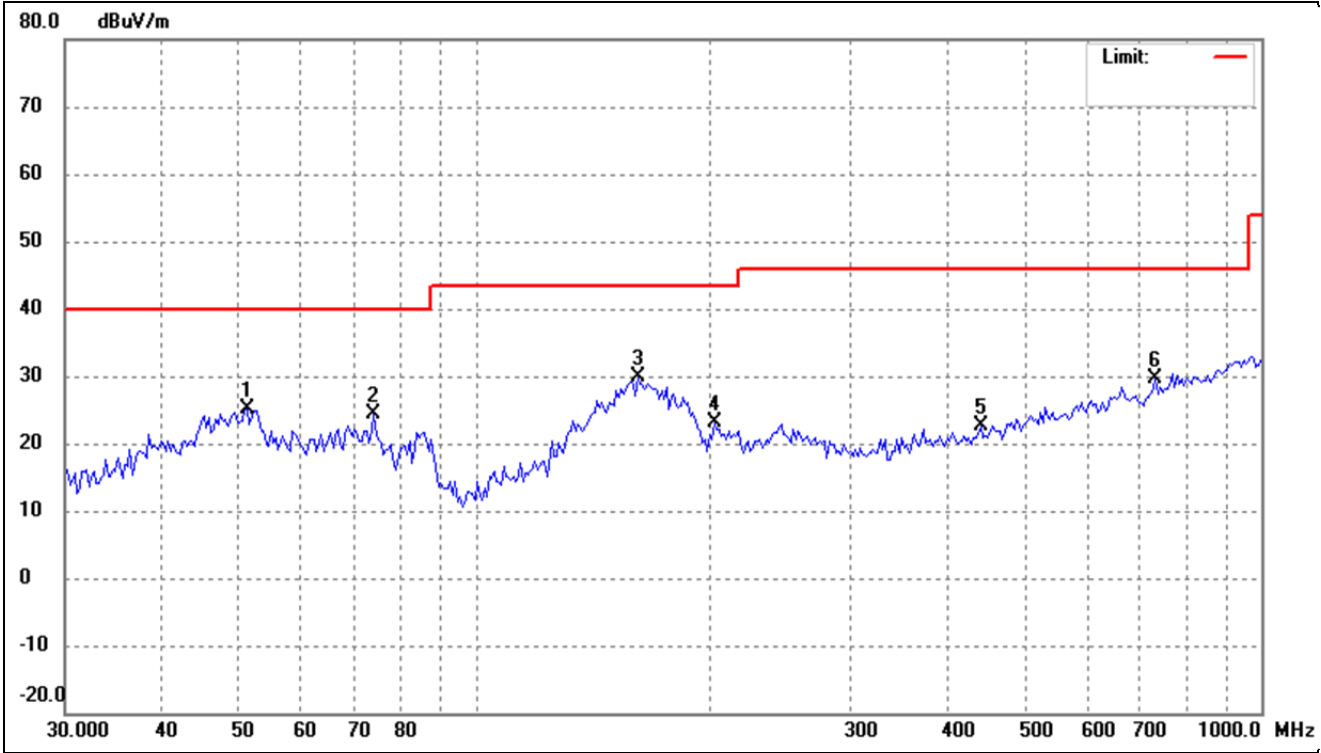
➤ 5250-5350MHz

802.11a			
Test Channel	5260MHz	Polarity:	Horizontal



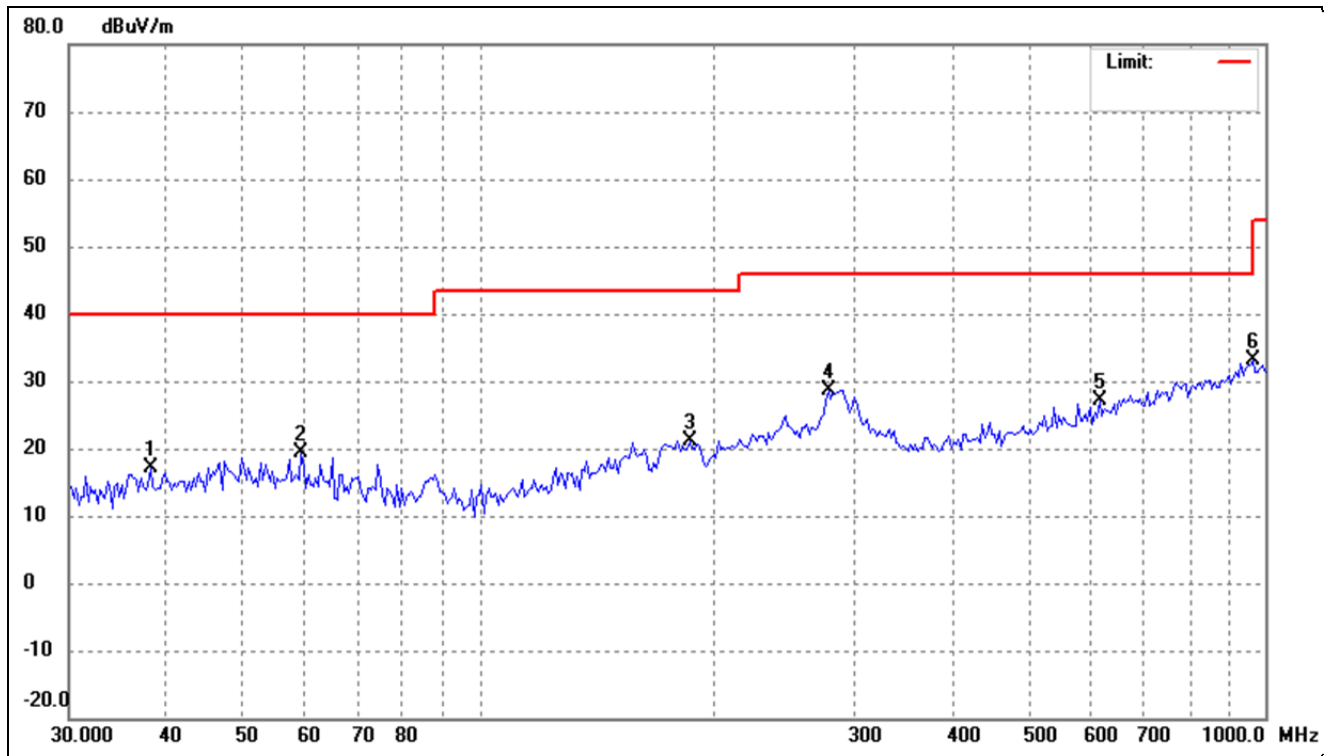
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.0371	28.74	-9.01	19.73	40.00	-20.27	-	-	QP
2	74.2696	29.24	-11.92	17.32	40.00	-22.68	-	-	QP
3	181.3000	32.83	-10.00	22.83	43.50	-20.67	-	-	QP
4	284.2606	38.23	-8.17	30.06	46.00	-15.94	-	-	QP
5	594.5143	28.45	-2.23	26.22	46.00	-19.78	-	-	QP
6	938.7139	31.48	2.72	34.20	46.00	-11.80	-	-	QP

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



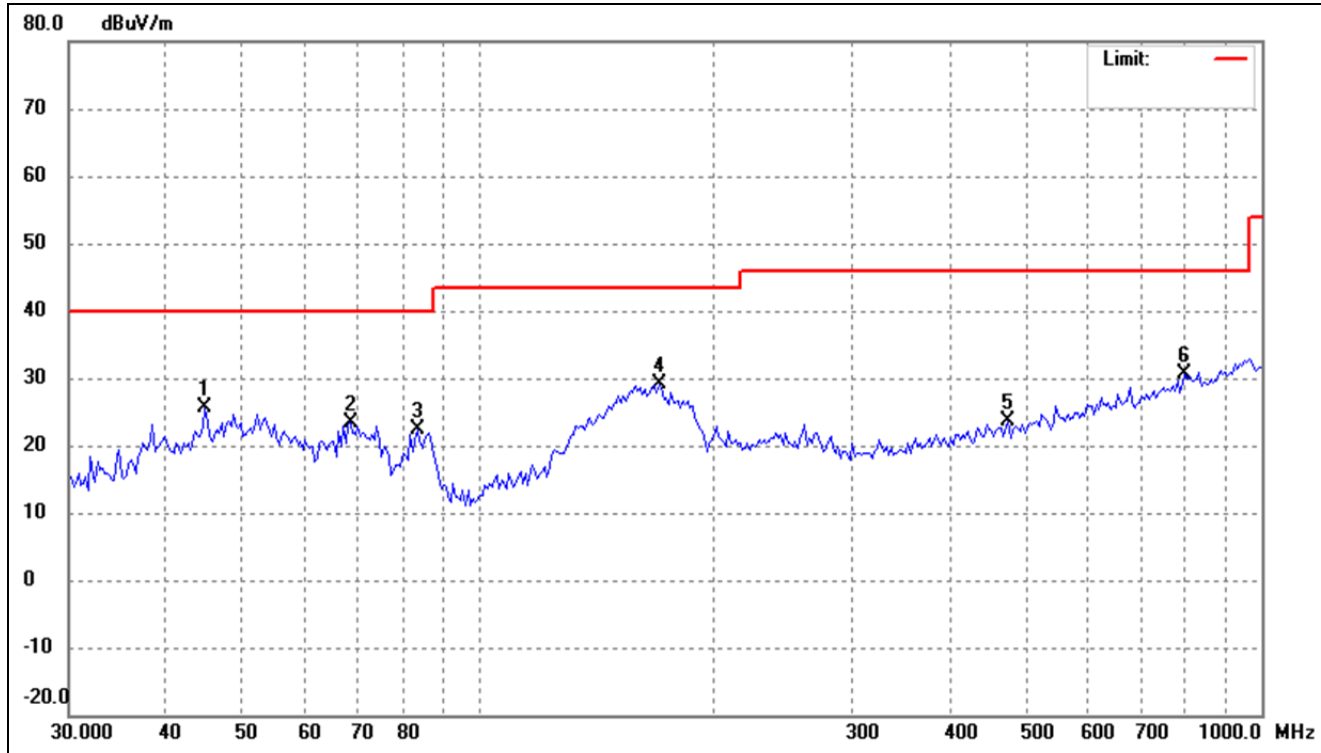
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.1756	34.02	-8.99	25.03	40.00	-14.97	-	-	QP
2	74.2696	36.25	-11.92	24.33	40.00	-15.67	-	-	QP
3	160.8852	38.46	-8.51	29.95	43.50	-13.55	-	-	QP
4	201.4539	34.55	-11.53	23.02	43.50	-20.48	-	-	QP
5	439.4730	27.86	-5.31	22.55	46.00	-23.45	-	-	QP
6	734.0373	29.72	-0.18	29.54	46.00	-16.46	-	-	QP

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



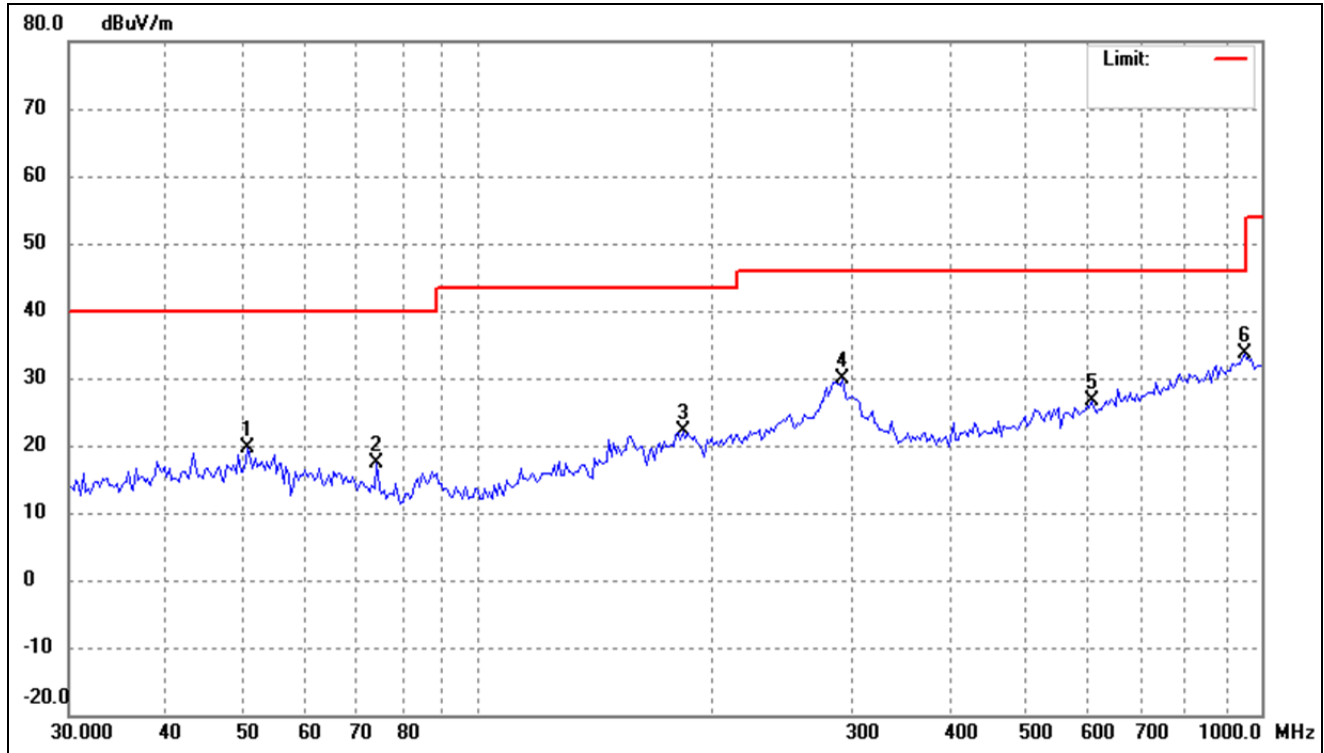
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.0965	26.90	-9.79	17.11	40.00	-22.89	-	-	QP
2	59.3133	28.95	-9.48	19.47	40.00	-20.53	-	-	QP
3	185.1626	31.72	-10.47	21.25	43.50	-22.25	-	-	QP
4	278.3308	36.97	-8.39	28.58	46.00	-17.42	-	-	QP
5	615.7743	29.18	-2.11	27.07	46.00	-18.93	-	-	QP
6	965.4742	30.17	2.98	33.15	54.00	-20.85	-	-	QP

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



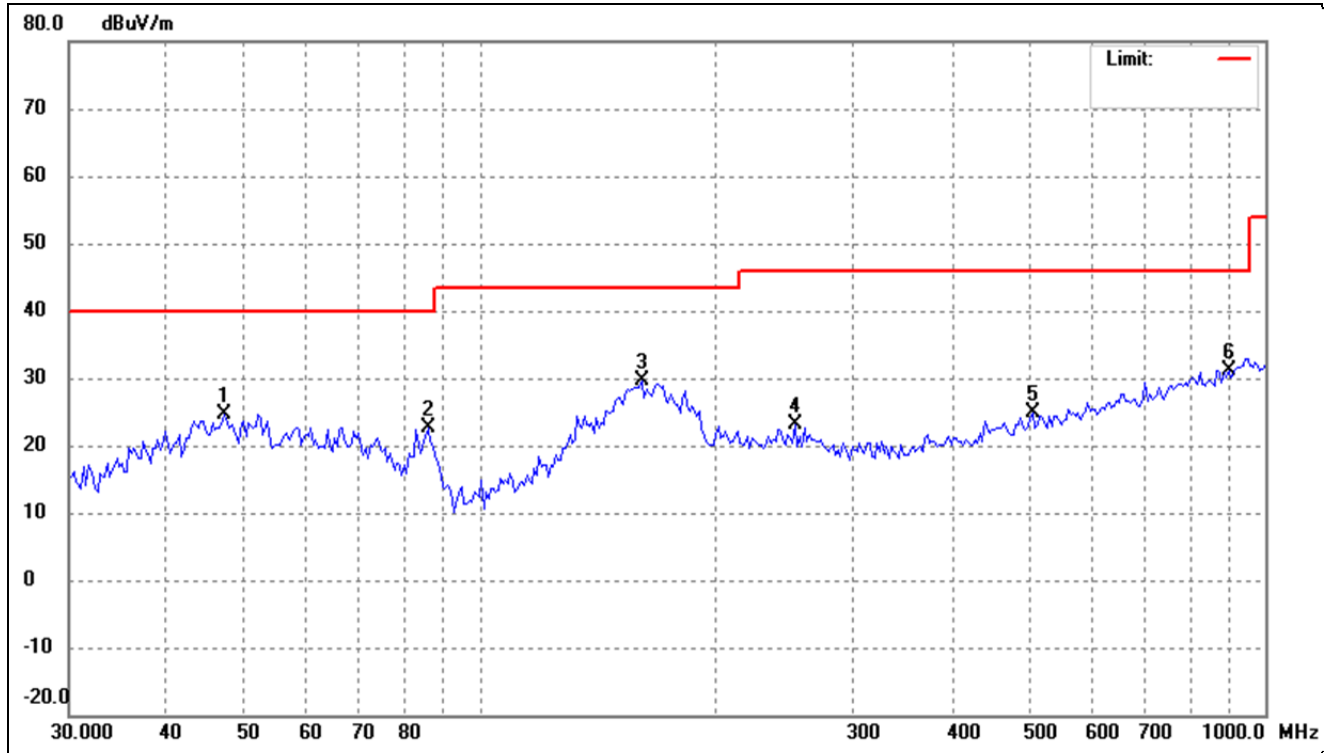
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.7793	34.65	-9.08	25.57	40.00	-14.43	-	-	QP
2	68.7450	34.17	-10.90	23.27	40.00	-16.73	-	-	QP
3	83.6937	36.09	-13.72	22.37	40.00	-17.63	-	-	QP
4	170.1888	38.06	-8.87	29.19	43.50	-14.31	-	-	QP
5	474.7913	28.37	-4.86	23.51	46.00	-22.49	-	-	QP
6	798.6205	29.58	0.99	30.57	46.00	-15.43	-	-	QP

802.11ac-VHT20			
Test Channel	5260MHz(worst case)	Polarity:	Horizontal



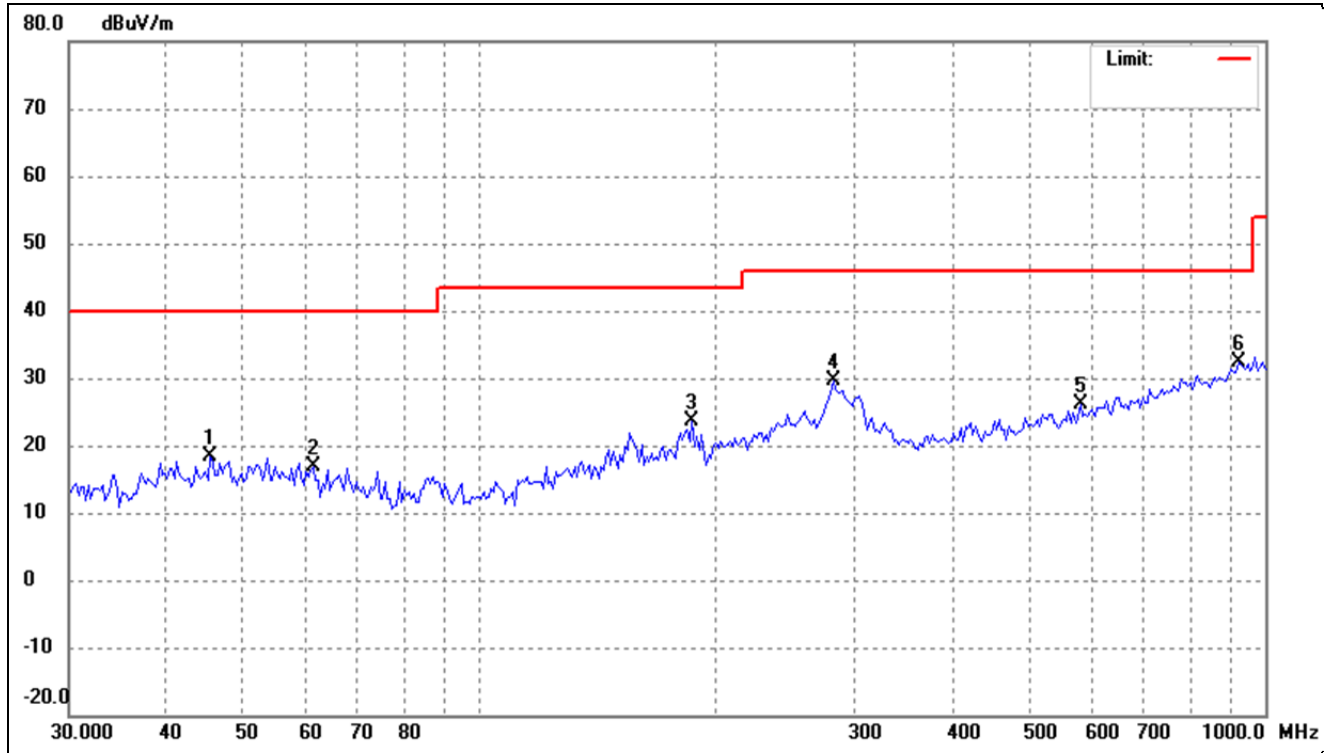
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.8172	28.65	-8.98	19.67	40.00	-20.33	-	-	QP
2	74.2696	29.29	-11.92	17.37	40.00	-22.63	-	-	QP
3	182.5784	32.35	-10.14	22.21	43.50	-21.29	-	-	QP
4	292.3642	37.78	-7.91	29.87	46.00	-16.13	-	-	QP
5	607.1805	28.80	-2.07	26.73	46.00	-19.27	-	-	QP
6	952.0000	30.80	2.95	33.75	46.00	-12.25	-	-	QP

802.11ac-VHT20			
Test Channel	5260MHz(worst case)	Polarity:	Vertical



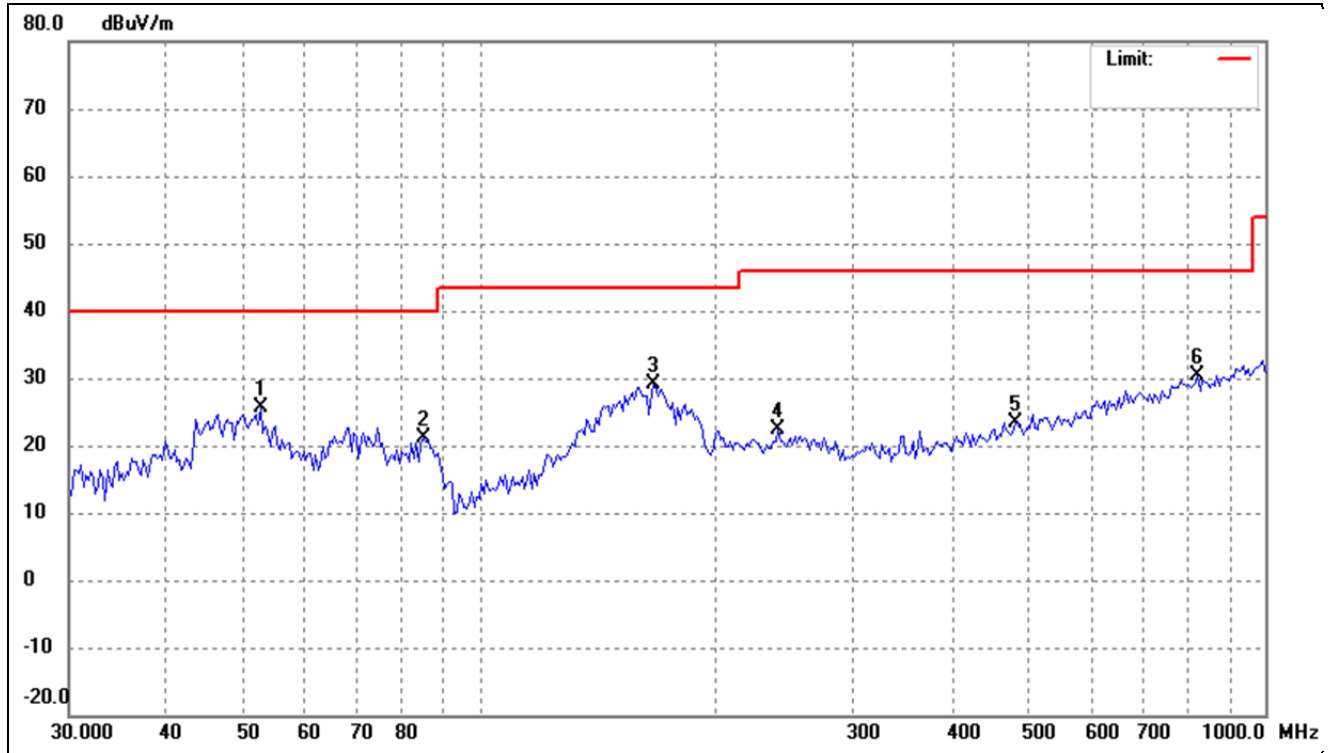
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.3688	33.68	-9.01	24.67	40.00	-15.33	-	-	QP
2	86.0795	36.76	-14.07	22.69	40.00	-17.31	-	-	QP
3	160.8852	38.02	-8.51	29.51	43.50	-13.99	-	-	QP
4	252.2523	32.58	-9.50	23.08	46.00	-22.92	-	-	QP
5	505.7891	29.18	-4.23	24.95	46.00	-21.05	-	-	QP
6	899.9577	29.25	1.96	31.21	46.00	-14.79	-	-	QP

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



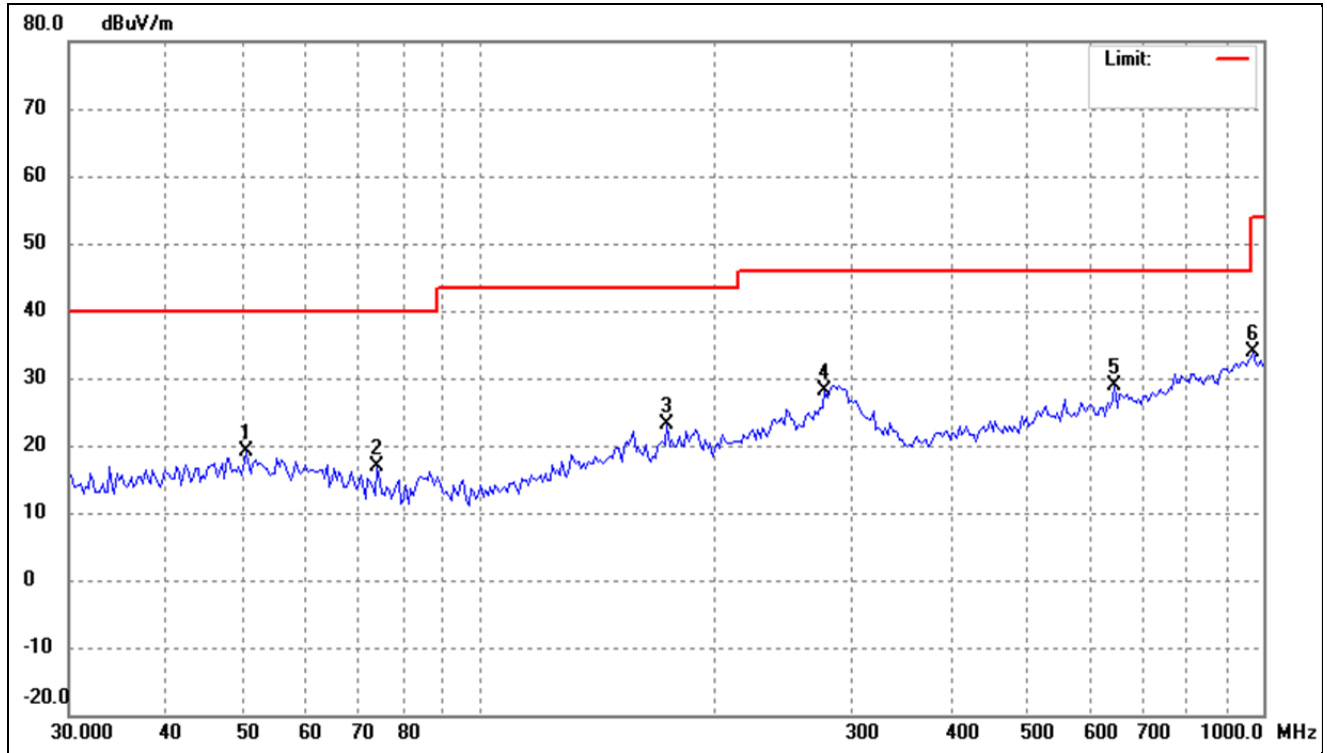
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.4130	27.39	-9.05	18.34	40.00	-21.66	-	-	QP
2	61.4343	26.65	-9.74	16.91	40.00	-23.09	-	-	QP
3	186.4684	34.26	-10.66	23.60	43.50	-19.90	-	-	QP
4	282.2702	37.92	-8.22	29.70	46.00	-16.30	-	-	QP
5	582.1122	28.84	-2.62	26.22	46.00	-19.78	-	-	QP
6	925.6132	29.96	2.46	32.42	46.00	-13.58	-	-	QP

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



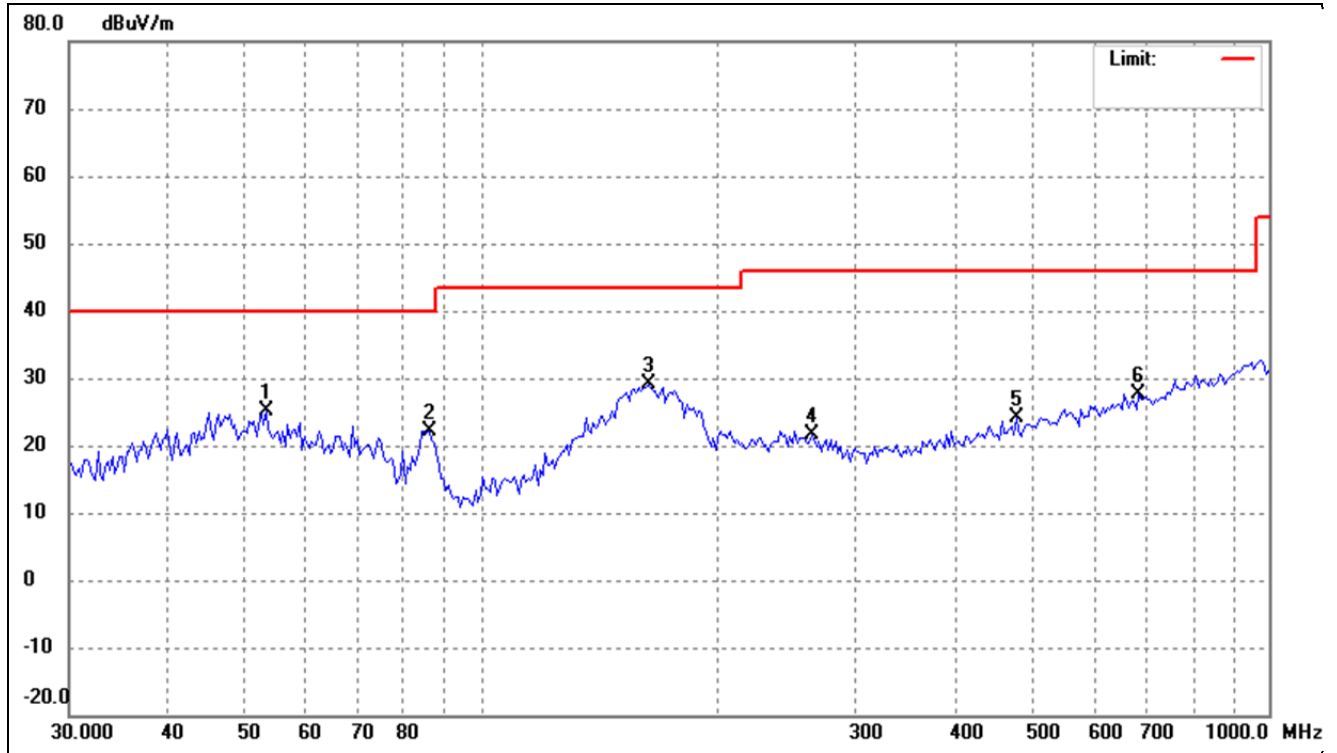
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	52.6345	34.61	-9.04	25.57	40.00	-14.43	-	-	QP
2	84.8783	34.94	-13.90	21.04	40.00	-18.96	-	-	QP
3	166.6385	37.88	-8.75	29.13	43.50	-14.37	-	-	QP
4	240.1442	32.27	-9.98	22.29	46.00	-23.71	-	-	QP
5	481.5112	28.05	-4.72	23.33	46.00	-22.67	-	-	QP
6	821.3871	29.46	0.98	30.44	46.00	-15.56	-	-	QP

802.11ac-VHT40			
Test Channel	5270MHz(worst case)	Polarity:	Horizontal



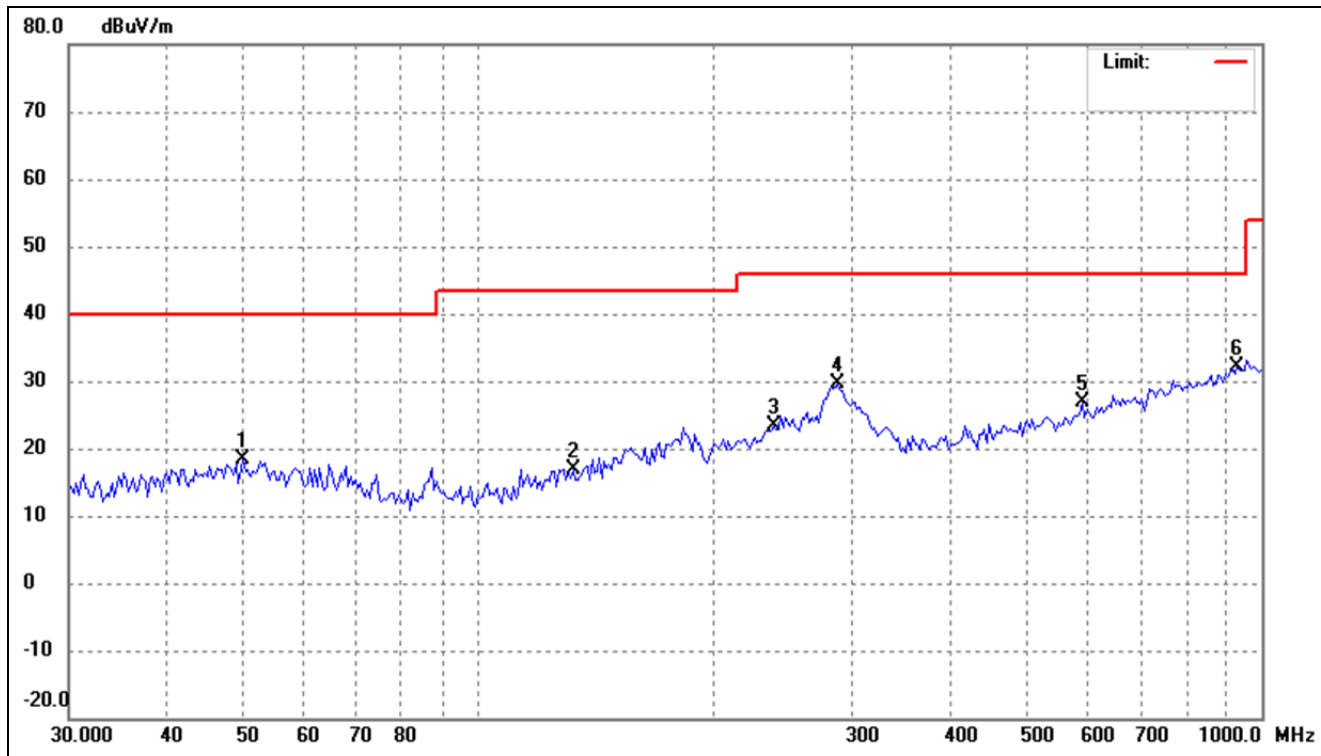
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.4614	28.14	-8.98	19.16	40.00	-20.84	-	-	QP
2	74.2696	28.91	-11.92	16.99	40.00	-23.01	-	-	QP
3	173.8146	32.30	-9.18	23.12	43.50	-20.38	-	-	QP
4	276.3818	36.55	-8.46	28.09	46.00	-17.91	-	-	QP
5	646.8217	30.38	-1.45	28.93	46.00	-17.07	-	-	QP
6	972.2827	30.79	2.98	33.77	54.00	-20.23	-	-	QP

802.11ac-VHT40			
Test Channel	5270MHz(worst case)	Polarity:	Vertical



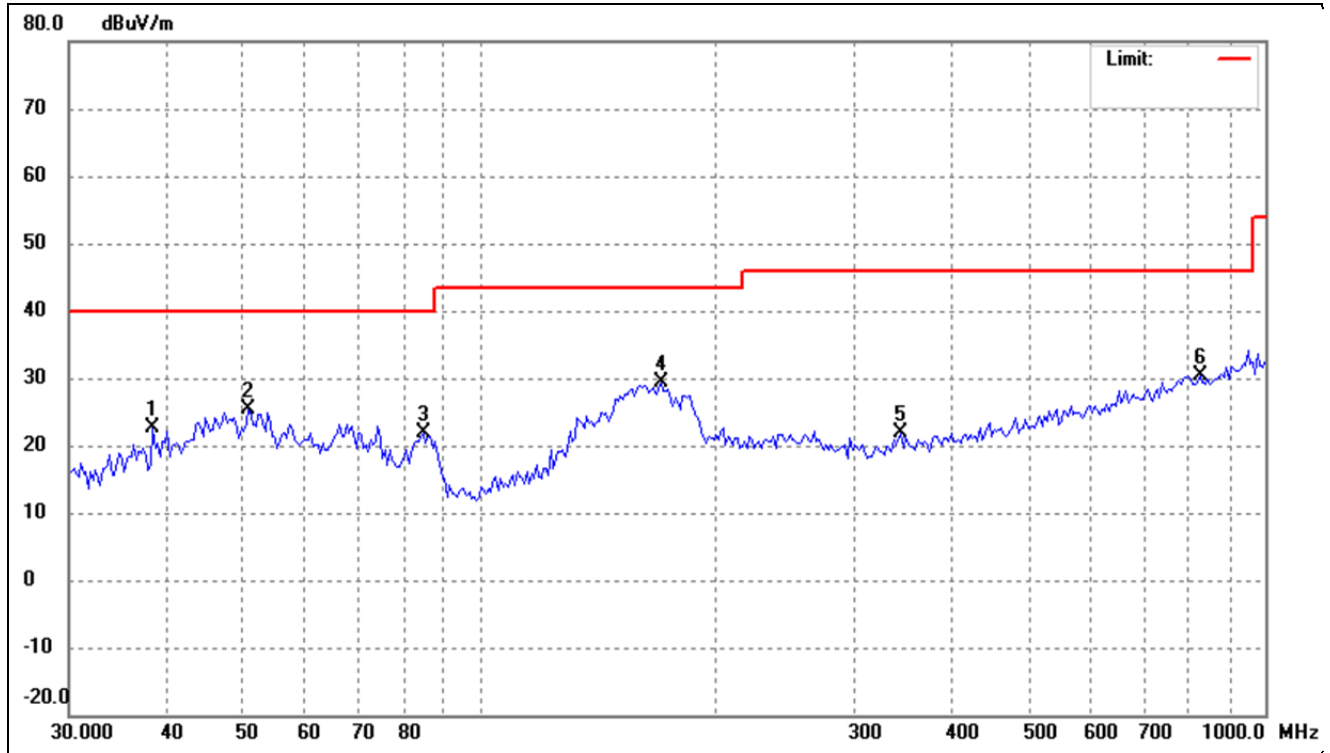
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	53.3794	34.12	-9.09	25.03	40.00	-14.97	-	-	QP
2	86.0795	36.13	-14.07	22.06	40.00	-17.94	-	-	QP
3	163.1623	37.61	-8.58	29.03	43.50	-14.47	-	-	QP
4	263.1155	30.89	-9.16	21.73	46.00	-24.27	-	-	QP
5	478.1394	28.94	-4.79	24.15	46.00	-21.85	-	-	QP
6	684.2259	28.80	-1.07	27.73	46.00	-18.27	-	-	QP

802.11ac-VHT80			
Test Channel	5290MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.1080	27.31	-8.98	18.33	40.00	-21.67	-	-	QP
2	132.1489	26.94	-9.95	16.99	43.50	-26.51	-	-	QP
3	238.4626	33.40	-10.08	23.32	46.00	-22.68	-	-	QP
4	288.2840	37.55	-8.03	29.52	46.00	-16.48	-	-	QP
5	590.3511	29.32	-2.36	26.96	46.00	-19.04	-	-	QP
6	932.1405	29.44	2.59	32.03	46.00	-13.97	-	-	QP

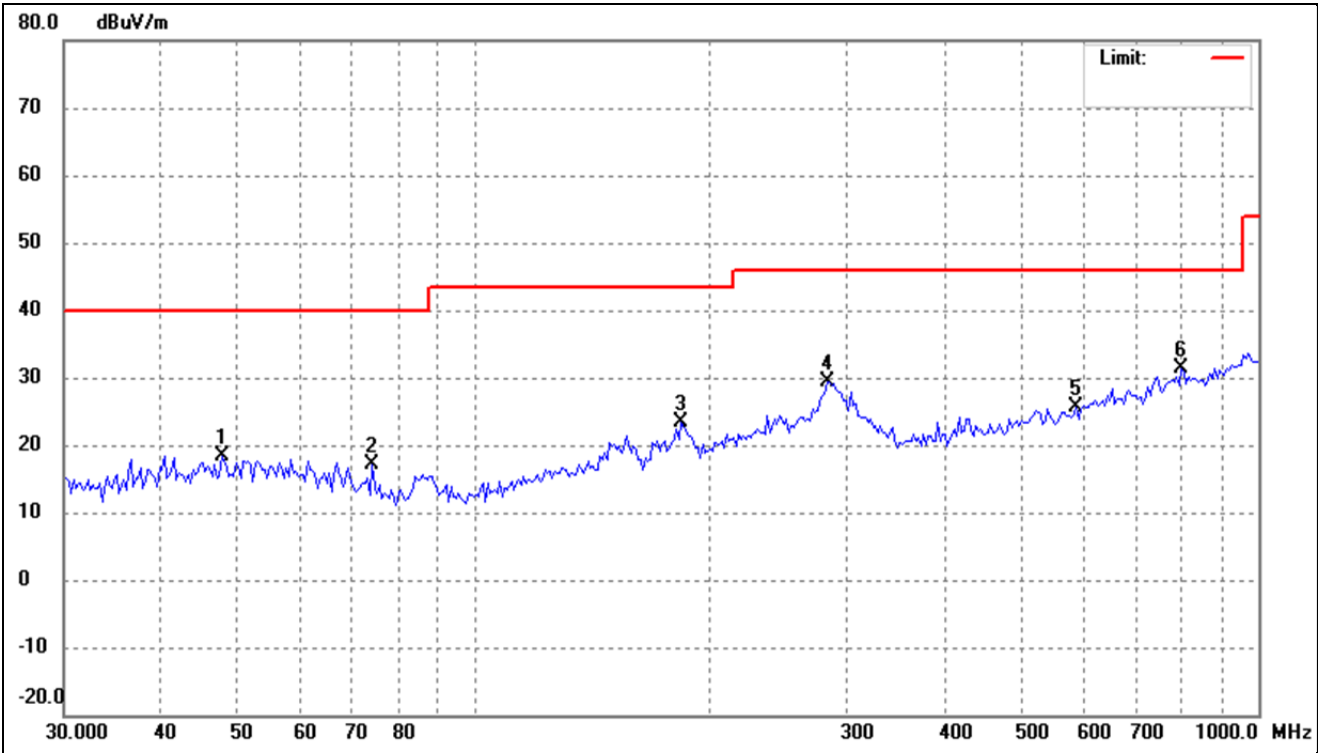
802.11ac-VHT80			
Test Channel	5290MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.3651	32.38	-9.76	22.62	40.00	-17.38	-	-	QP
2	50.8172	34.25	-8.98	25.27	40.00	-14.73	-	-	QP
3	84.8783	35.80	-13.90	21.90	40.00	-18.10	-	-	QP
4	170.1888	38.29	-8.87	29.42	43.50	-14.08	-	-	QP
5	343.6506	28.97	-7.09	21.88	46.00	-24.12	-	-	QP
6	827.1795	29.37	0.98	30.35	46.00	-15.65	-	-	QP

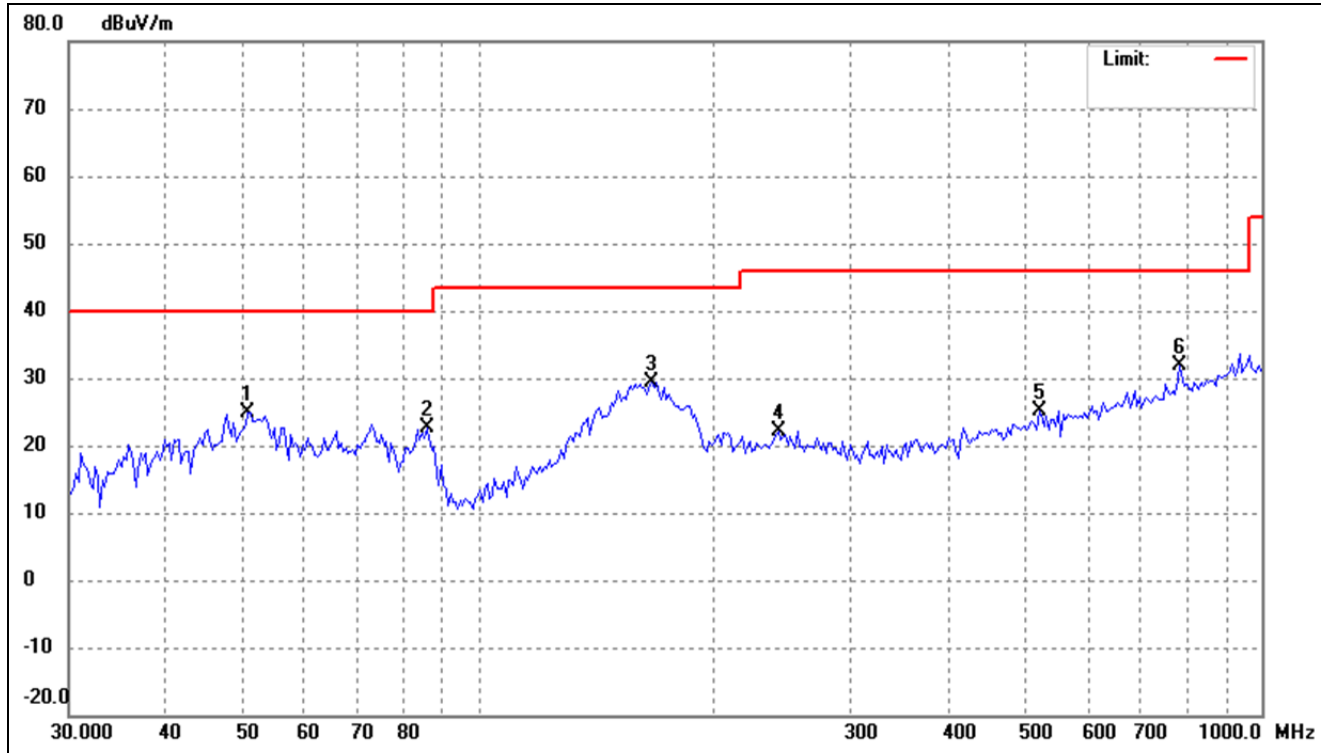
➤ 5470-5725MHz

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



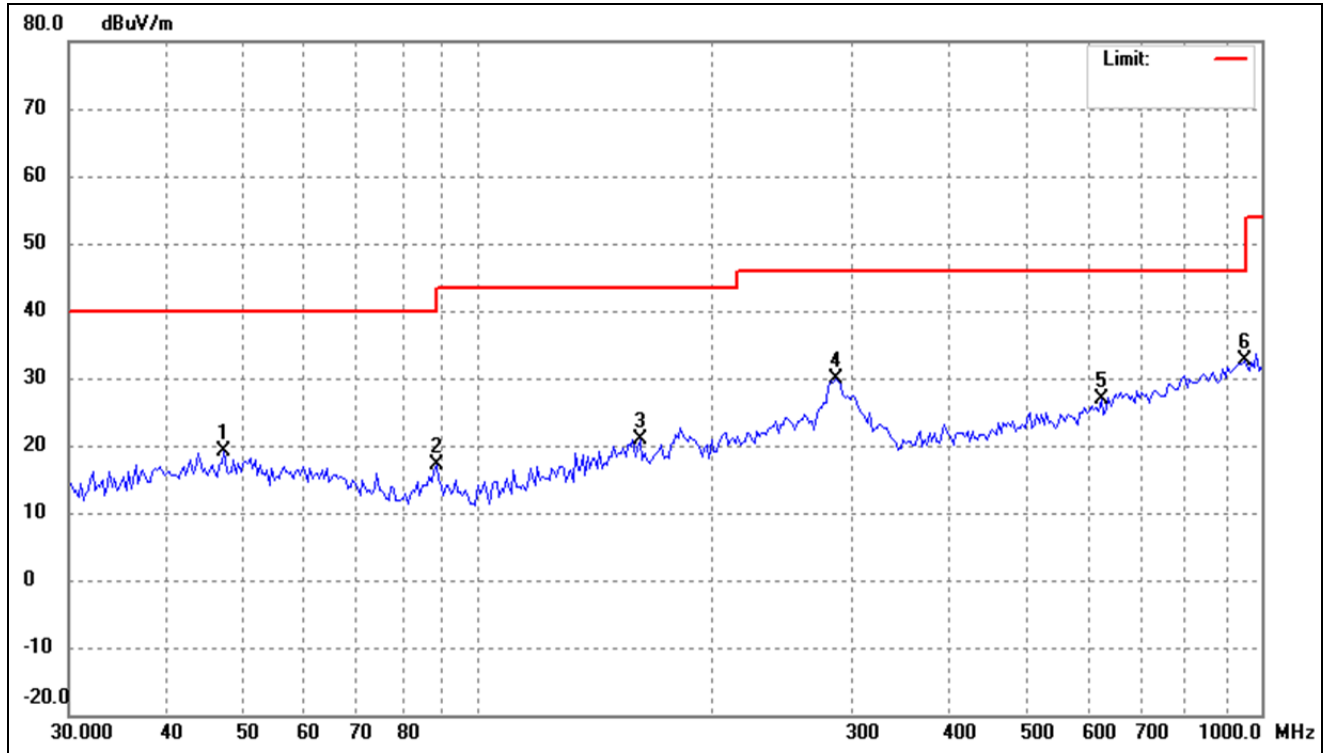
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.7028	27.39	-9.02	18.37	40.00	-21.63	-	-	QP
2	74.2696	28.98	-11.92	17.06	40.00	-22.94	-	-	QP
3	183.8660	33.68	-10.31	23.37	43.50	-20.13	-	-	QP
4	282.2702	37.66	-8.22	29.44	46.00	-16.56	-	-	QP
5	586.2172	28.08	-2.49	25.59	46.00	-20.41	-	-	QP
6	798.6205	30.36	0.99	31.35	46.00	-14.65	-	-	QP

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



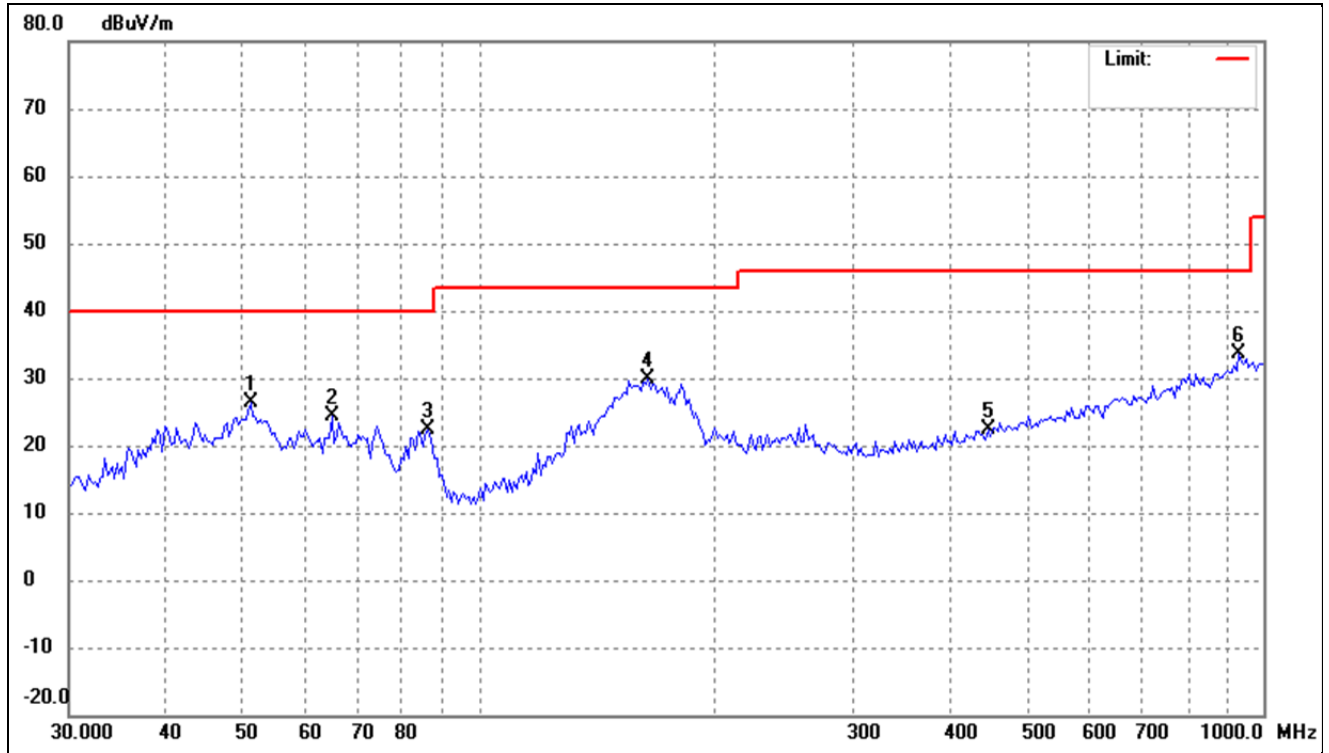
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.8172	33.92	-8.98	24.94	40.00	-15.06	-	-	QP
2	86.0795	36.75	-14.07	22.68	40.00	-17.32	-	-	QP
3	166.6385	38.06	-8.75	29.31	43.50	-14.19	-	-	QP
4	241.8377	32.08	-9.91	22.17	46.00	-23.83	-	-	QP
5	520.2078	29.09	-3.94	25.15	46.00	-20.85	-	-	QP
6	787.4749	31.09	0.80	31.89	46.00	-14.11	-	-	QP

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



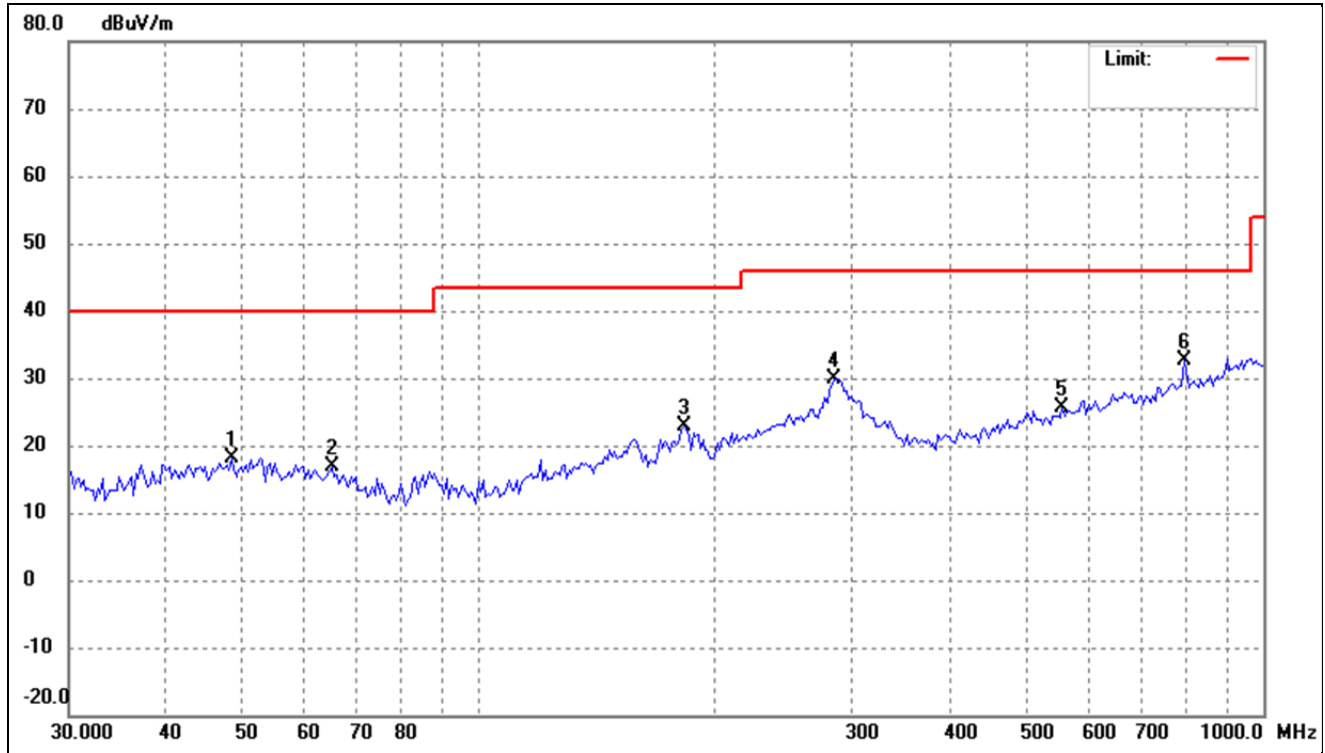
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.3688	28.26	-9.01	19.25	40.00	-20.75	-	-	QP
2	88.5336	31.44	-14.31	17.13	43.50	-26.37	-	-	QP
3	160.8852	29.34	-8.51	20.83	43.50	-22.67	-	-	QP
4	286.2653	37.89	-8.09	29.80	46.00	-16.20	-	-	QP
5	624.4897	29.09	-2.14	26.95	46.00	-19.05	-	-	QP
6	952.0001	29.62	2.95	32.57	46.00	-13.43	-	-	QP

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



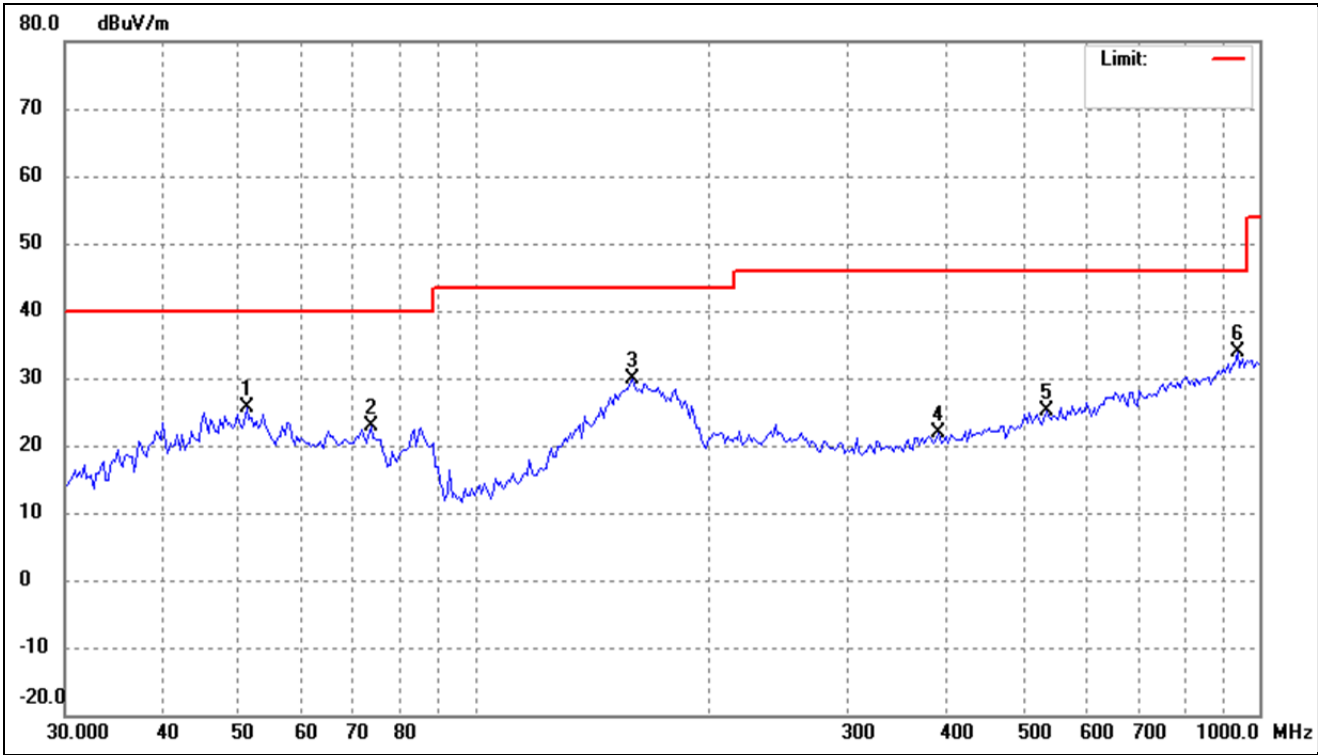
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.1756	35.47	-8.99	26.48	40.00	-13.52	-	-	QP
2	64.9869	34.65	-10.20	24.45	40.00	-15.55	-	-	QP
3	86.0795	36.42	-14.07	22.35	40.00	-17.65	-	-	QP
4	164.3129	38.42	-8.65	29.77	43.50	-13.73	-	-	QP
5	445.6932	27.45	-5.11	22.34	46.00	-23.66	-	-	QP
6	932.1405	30.93	2.59	33.52	46.00	-12.48	-	-	QP

802.11ac-VHT20			
Test Channel	5500MHz(worst case)	Polarity:	Horizontal



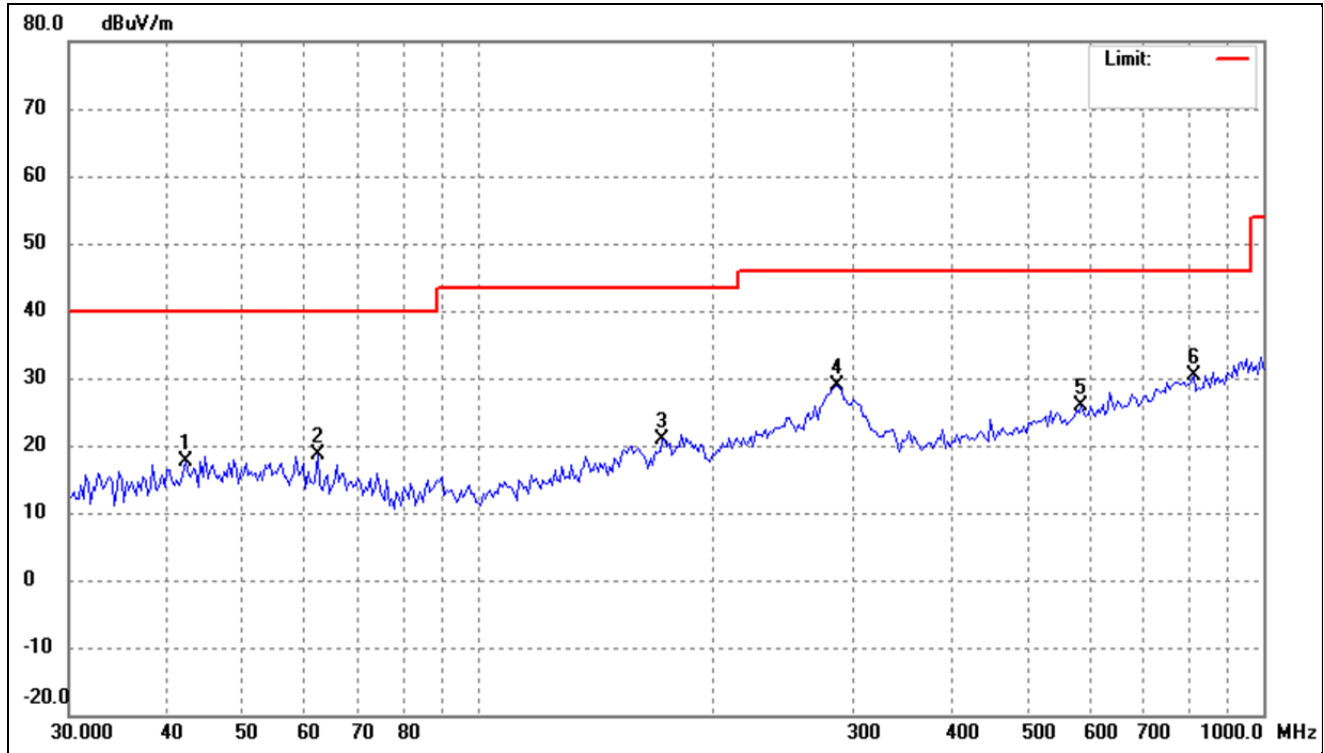
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	48.3780	27.05	-9.02	18.03	40.00	-21.97	-	-	QP
2	64.9869	27.18	-10.20	16.98	40.00	-23.02	-	-	QP
3	182.5785	33.08	-10.14	22.94	43.50	-20.56	-	-	QP
4	284.2606	38.09	-8.17	29.92	46.00	-16.08	-	-	QP
5	554.1708	29.24	-3.64	25.60	46.00	-20.40	-	-	QP
6	793.0281	31.62	0.89	32.51	46.00	-13.49	-	-	QP

802.11ac-VHT20			
Test Channel	5500MHz(worst case)	Polarity:	Vertical



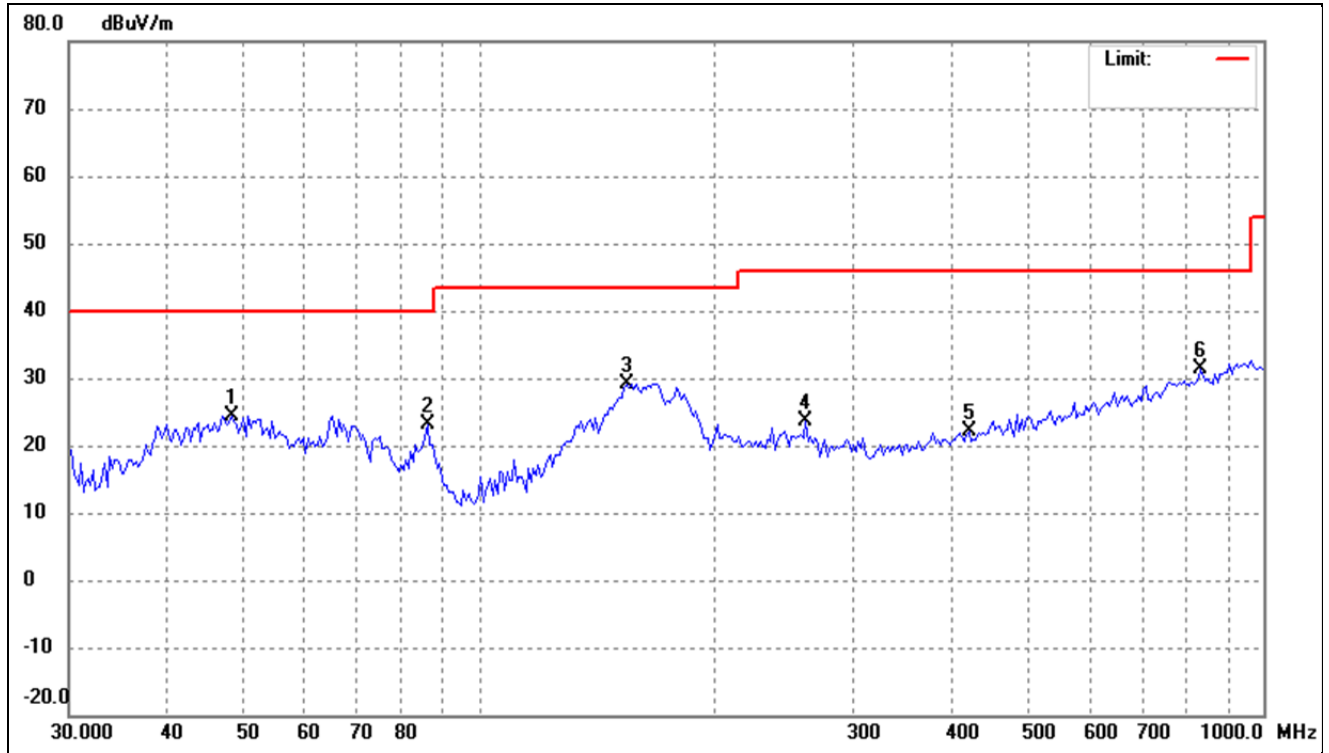
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.1755	34.62	-8.99	25.63	40.00	-14.37	-	-	QP
2	73.7495	34.65	-11.81	22.84	40.00	-17.16	-	-	QP
3	158.6397	38.49	-8.56	29.93	43.50	-13.57	-	-	QP
4	389.9874	28.25	-6.29	21.96	46.00	-24.04	-	-	QP
5	535.0376	28.98	-3.80	25.18	46.00	-20.82	-	-	QP
6	938.7139	31.18	2.72	33.90	46.00	-12.10	-	-	QP

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



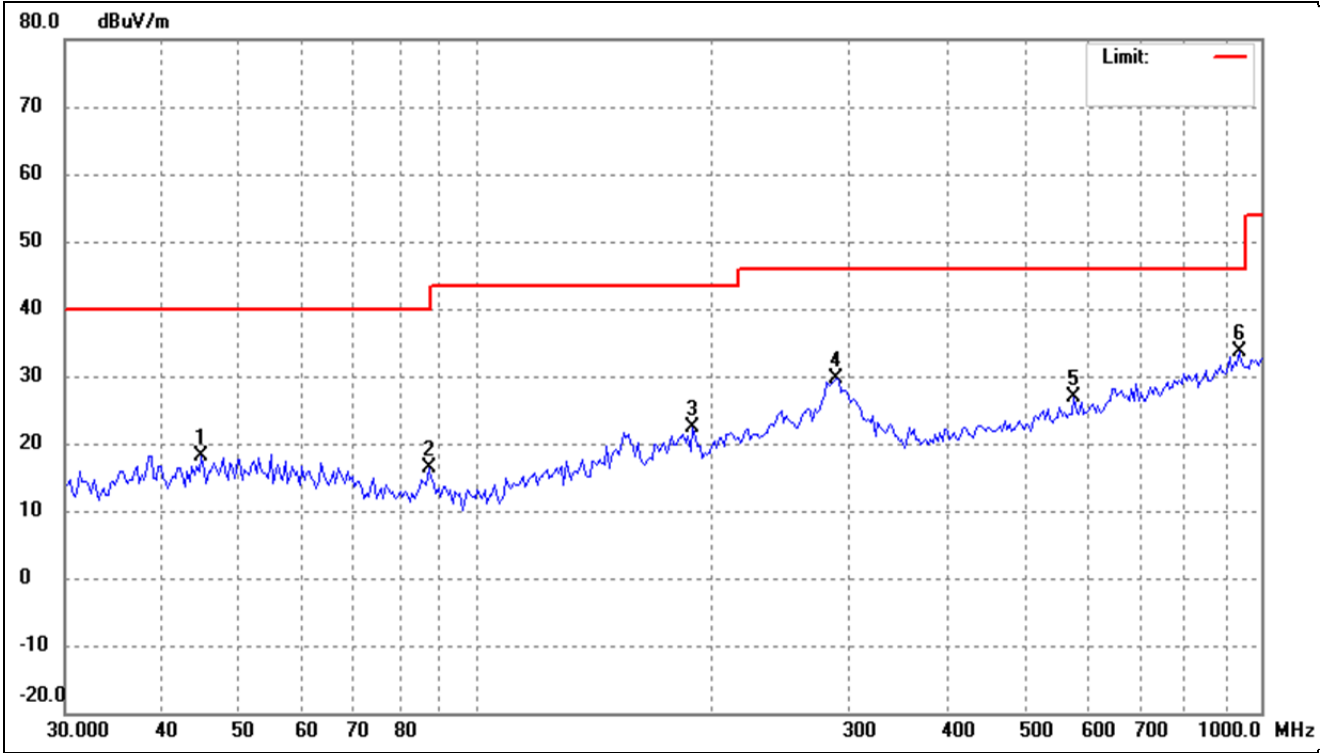
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	42.3314	26.89	-9.34	17.55	40.00	-22.45	-	-	QP
2	62.3038	28.37	-9.86	18.51	40.00	-21.49	-	-	QP
3	171.3890	29.84	-8.98	20.86	43.50	-22.64	-	-	QP
4	286.2653	37.09	-8.09	29.00	46.00	-17.00	-	-	QP
5	586.2172	28.29	-2.49	25.80	46.00	-20.20	-	-	QP
6	815.6352	29.36	0.99	30.35	46.00	-15.65	-	-	QP

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



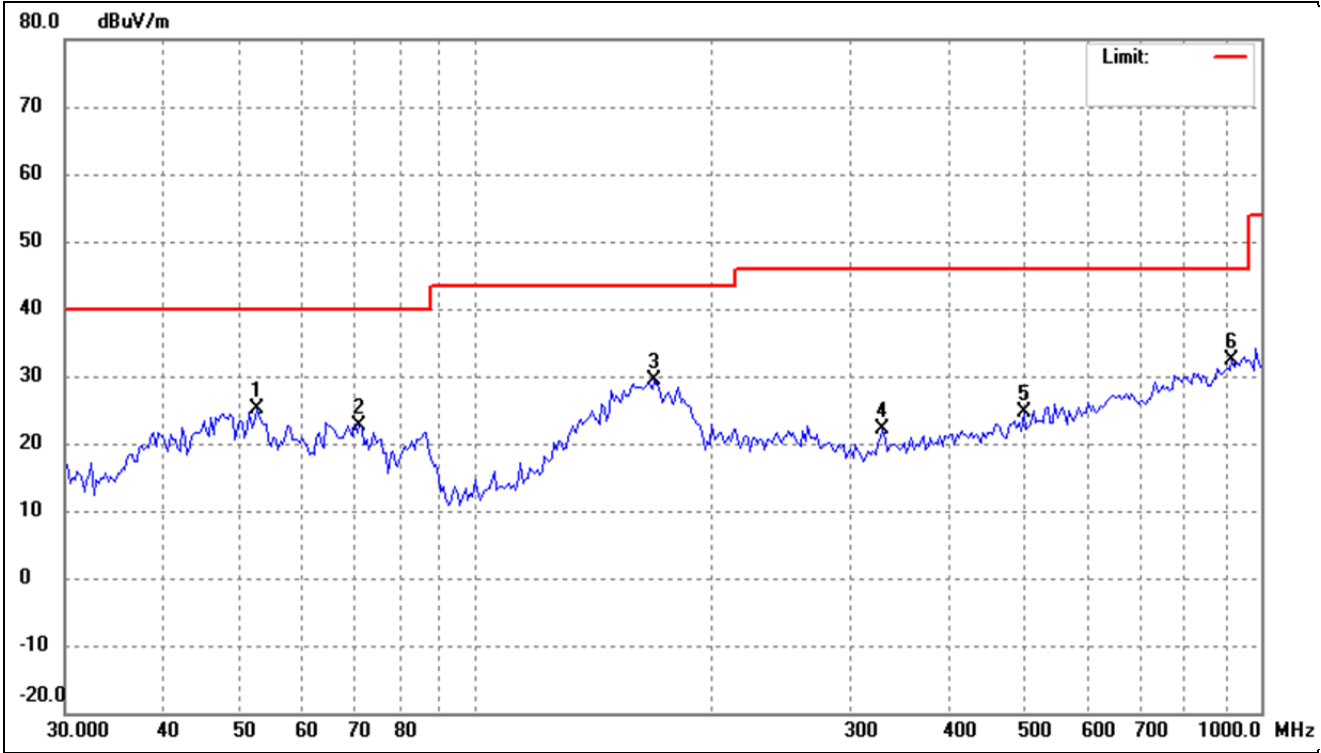
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	48.3780	33.49	-9.02	24.47	40.00	-15.53	-	-	QP
2	86.0795	37.30	-14.07	23.23	40.00	-16.77	-	-	QP
3	154.2428	37.85	-8.68	29.17	43.50	-14.33	-	-	QP
4	261.2730	32.89	-9.24	23.65	46.00	-22.35	-	-	QP
5	421.3287	27.97	-5.82	22.15	46.00	-23.85	-	-	QP
6	833.0127	30.41	0.98	31.39	46.00	-14.61	-	-	QP

802.11ac-VHT40			
Test Channel	5510MHz(worst case)	Polarity:	Horizontal



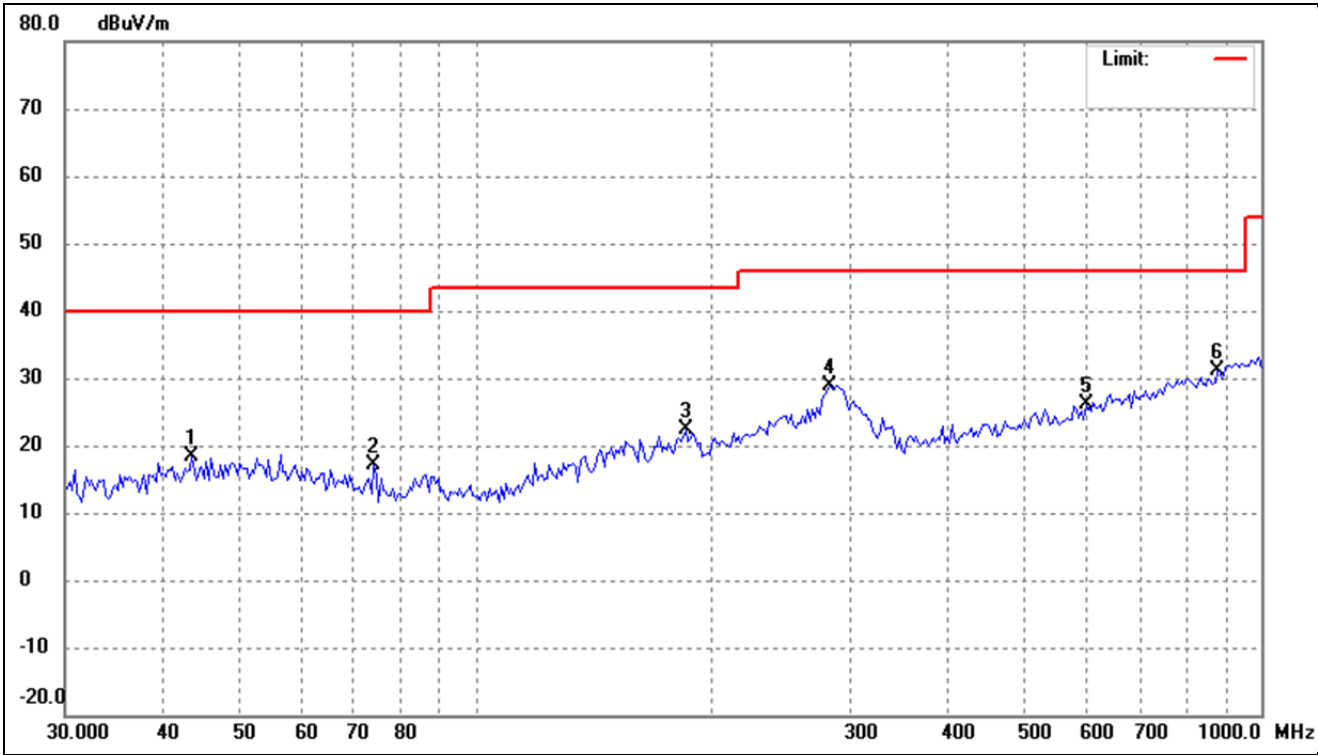
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	44.7793	27.30	-9.08	18.22	40.00	-21.78	-	-	QP
2	87.2980	30.70	-14.22	16.48	40.00	-23.52	-	-	QP
3	189.1076	33.28	-10.97	22.31	43.50	-21.19	-	-	QP
4	288.2840	37.61	-8.03	29.58	46.00	-16.42	-	-	QP
5	578.0359	29.62	-2.76	26.86	46.00	-19.14	-	-	QP
6	938.7139	30.80	2.72	33.52	46.00	-12.48	-	-	QP

802.11ac-VHT40			
Test Channel	5510MHz(worst case)	Polarity:	Vertical



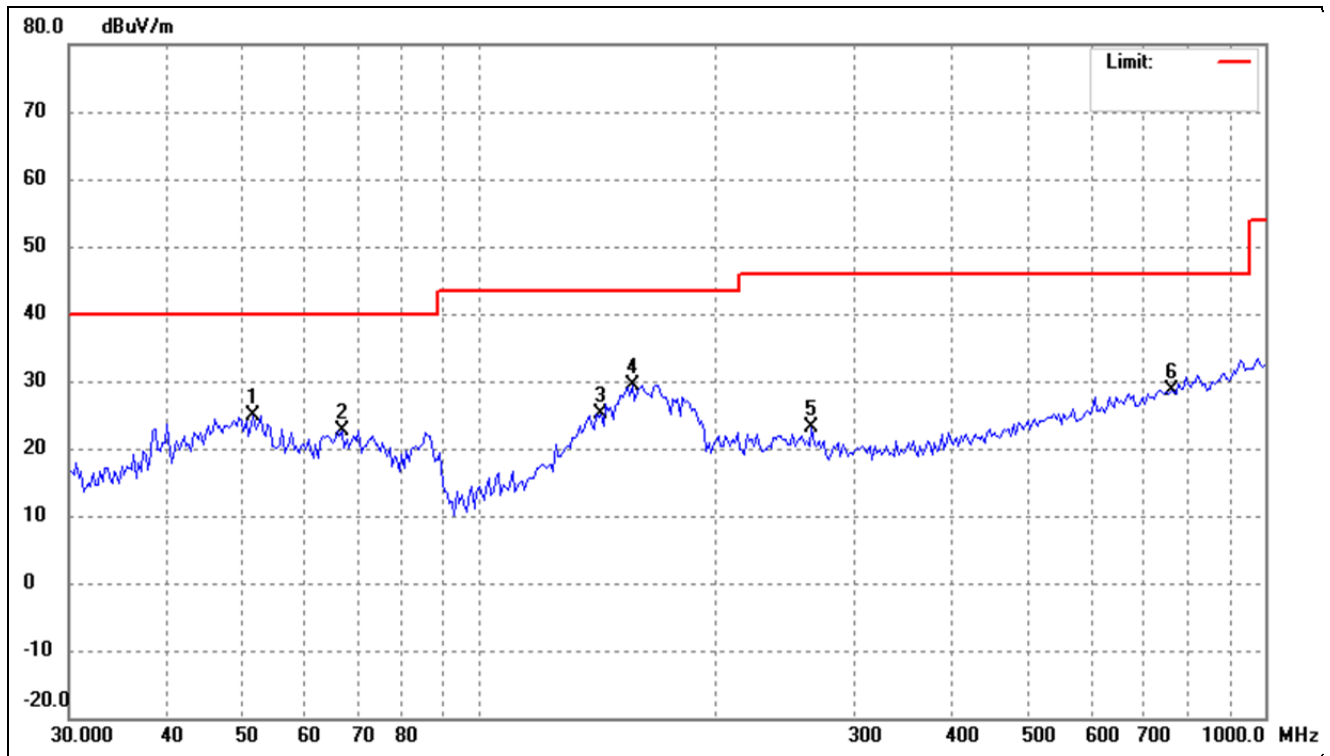
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	52.6345	34.27	-9.04	25.23	40.00	-14.77	-	-	QP
2	71.2033	34.00	-11.34	22.66	40.00	-17.34	-	-	QP
3	168.9970	38.06	-8.80	29.26	43.50	-14.24	-	-	QP
4	329.4625	29.13	-7.12	22.01	46.00	-23.99	-	-	QP
5	498.7303	28.99	-4.38	24.61	46.00	-21.39	-	-	QP
6	919.1315	29.93	2.33	32.26	46.00	-13.74	-	-	QP

802.11ac-VHT80			
Test Channel	5530MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.5380	27.60	-9.20	18.40	40.00	-21.60	-	-	QP
2	74.2696	28.95	-11.92	17.03	40.00	-22.97	-	-	QP
3	185.1626	32.76	-10.47	22.29	43.50	-21.21	-	-	QP
4	282.2702	37.17	-8.22	28.95	46.00	-17.05	-	-	QP
5	598.7067	28.18	-2.09	26.09	46.00	-19.91	-	-	QP
6	881.1838	29.52	1.58	31.10	46.00	-14.90	-	-	QP

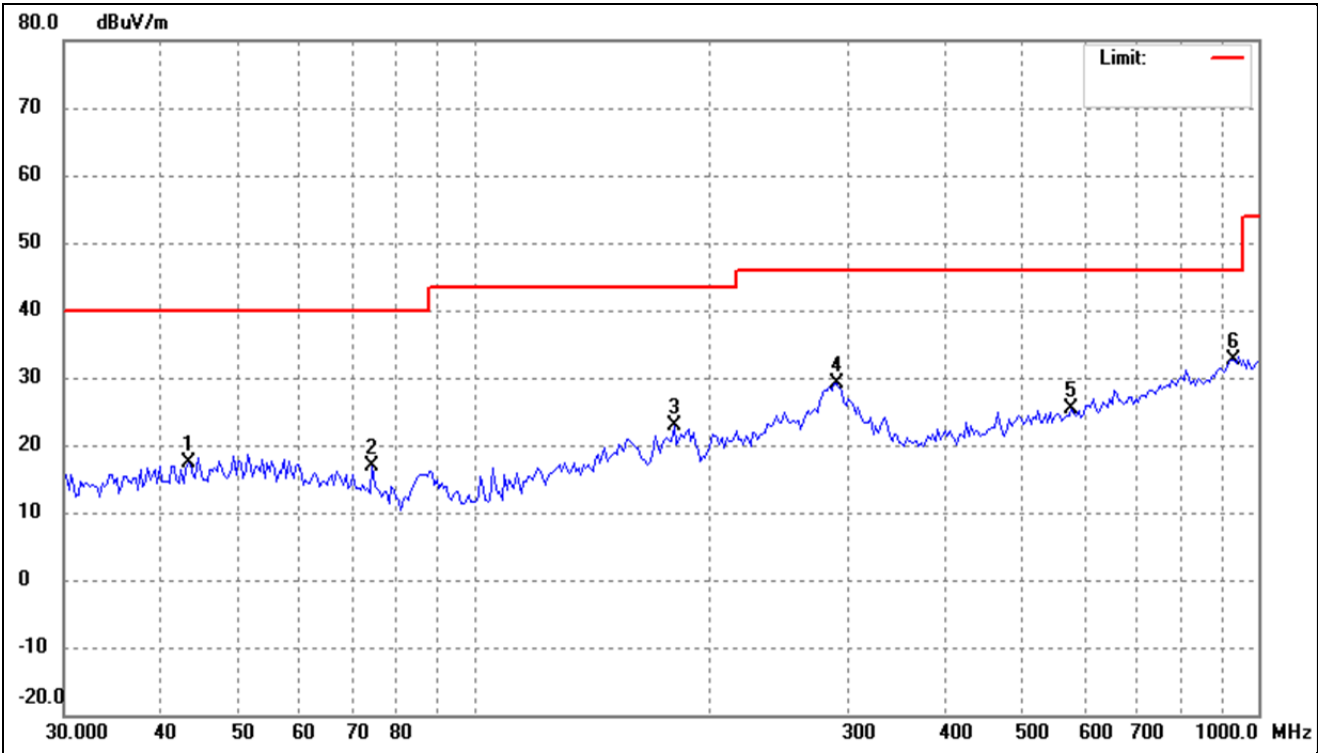
802.11ac-VHT80			
Test Channel	5530MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.5365	33.94	-8.99	24.95	40.00	-15.05	-	-	QP
2	66.8395	33.23	-10.51	22.72	40.00	-17.28	-	-	QP
3	142.7692	34.38	-9.19	25.19	43.50	-18.31	-	-	QP
4	156.4259	38.04	-8.58	29.46	43.50	-14.04	-	-	QP
5	264.9709	32.12	-9.07	23.05	46.00	-22.95	-	-	QP
6	760.2867	28.27	0.35	28.62	46.00	-17.38	-	-	QP

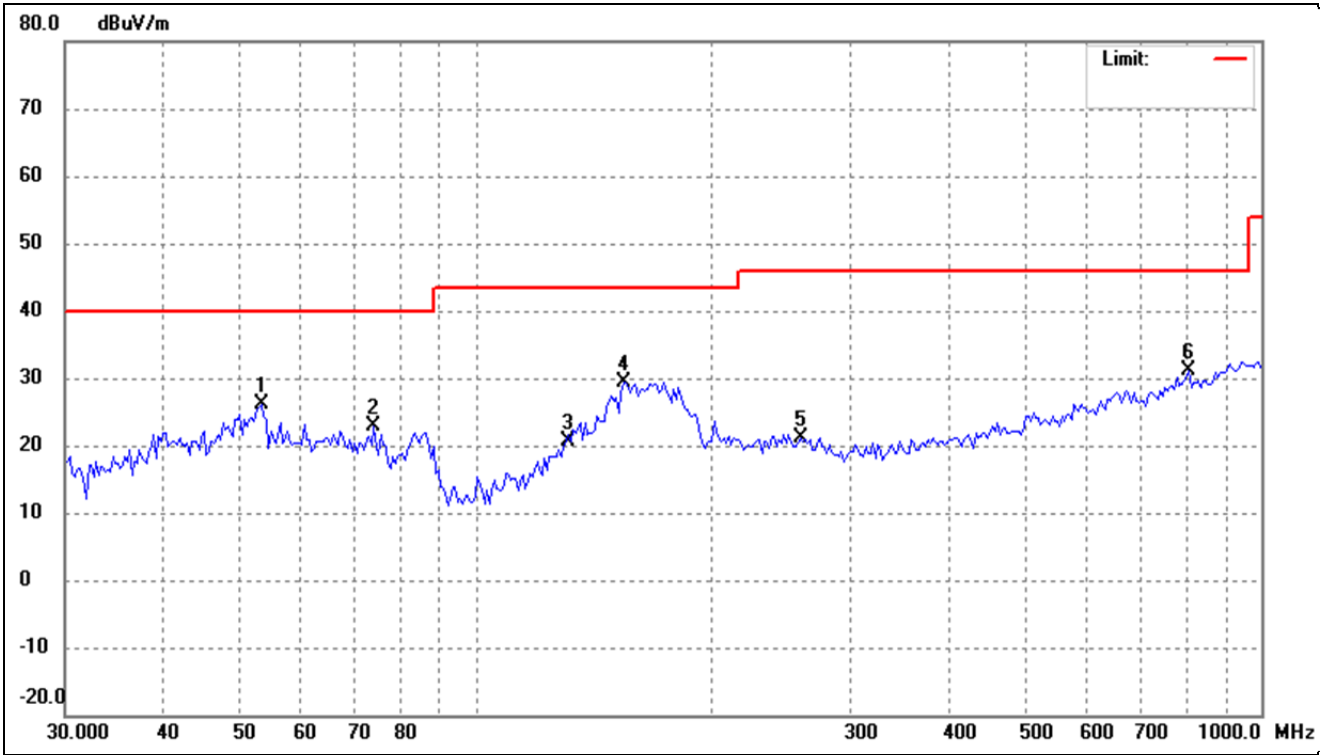
➤ 5725-5850MHz

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



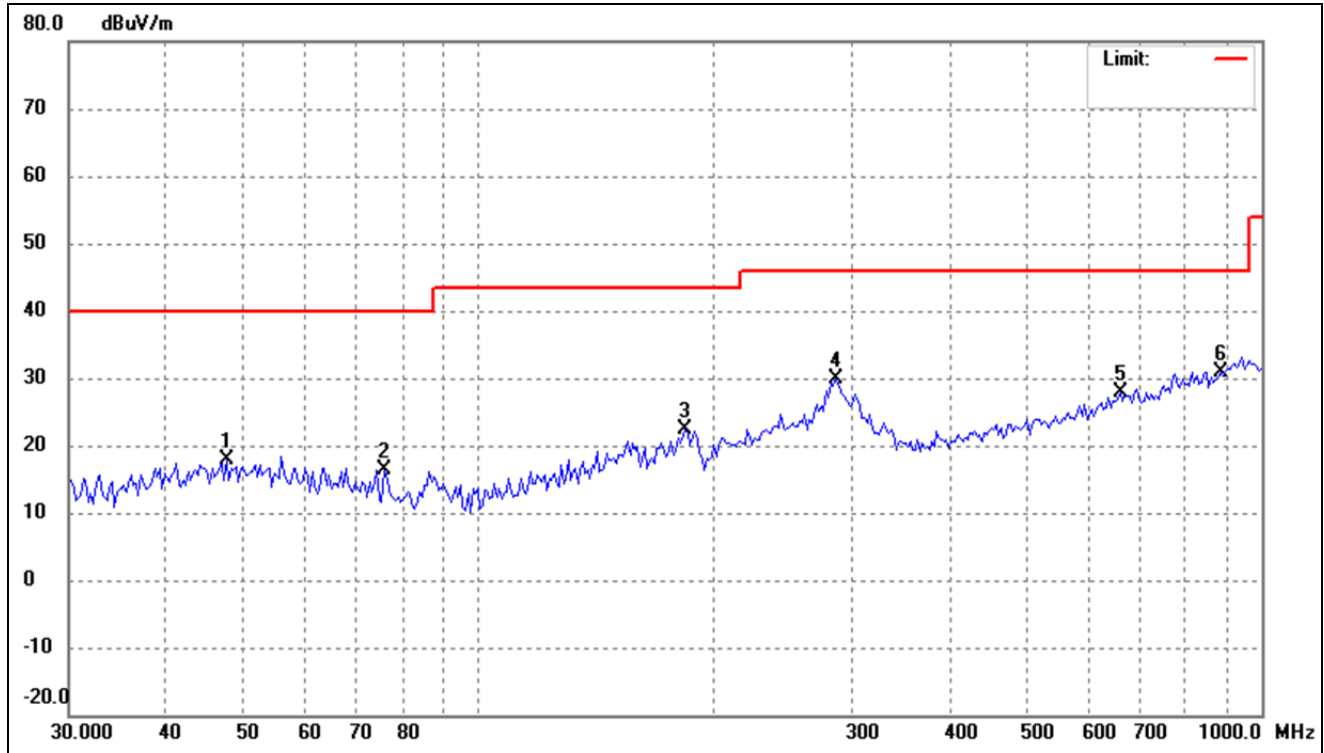
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	43.2333	26.68	-9.23	17.45	40.00	-22.55	-	-	QP
2	74.2696	28.68	-11.92	16.76	40.00	-23.24	-	-	QP
3	180.0304	32.68	-9.87	22.81	43.50	-20.69	-	-	QP
4	290.3170	37.06	-7.98	29.08	46.00	-16.92	-	-	QP
5	578.0359	28.14	-2.76	25.38	46.00	-20.62	-	-	QP
6	932.1405	30.13	2.59	32.72	46.00	-13.28	-	-	QP

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	53.3794	35.26	-9.09	26.17	40.00	-13.83	-	-	QP
2	74.2696	34.91	-11.92	22.99	40.00	-17.01	-	-	QP
3	130.3048	30.70	-10.07	20.63	43.50	-22.87	-	-	QP
4	154.2428	38.03	-8.68	29.35	43.50	-14.15	-	-	QP
5	259.4433	30.53	-9.30	21.23	46.00	-24.77	-	-	QP
6	809.9238	30.06	1.00	31.06	46.00	-14.94	-	-	QP

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	47.7028	26.84	-9.02	17.82	40.00	-22.18	-	-	QP
2	75.8520	28.71	-12.25	16.46	40.00	-23.54	-	-	QP
3	183.8660	32.81	-10.31	22.50	43.50	-21.00	-	-	QP
4	286.2653	38.04	-8.09	29.95	46.00	-16.05	-	-	QP
5	660.6025	29.02	-1.26	27.76	46.00	-18.24	-	-	QP
6	887.3978	29.15	1.70	30.85	46.00	-15.15	-	-	QP