

# TEST REPORT

**Reference No.**..... : WTX24X04087264W004  
**FCC ID**..... : YHLBLUK50K  
**Applicant**..... : BLU Products, Inc.  
**Address**..... : 8600 NW 36th Street, Suite #300 | Miami, FL 33166, USA  
**Manufacturer**..... : The same as Applicant  
**Address**..... : The same as Applicant  
**Product Name**..... : Smart Phone  
**Model No.**..... : K50  
**Standards**..... : FCC Part 15.407  
**Date of Receipt sample**..... : 2024-04-18  
**Date of Test**..... : 2024-04-18 to 2024-06-04  
**Date of Issue**..... : 2024-06-04  
**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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**TABLE OF CONTENTS**

**1. GENERAL INFORMATION .....5**

1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....5

1.2 TEST STANDARDS .....6

1.3 TEST METHODOLOGY .....6

1.4 TABLE FOR PARAMETERS OF TEST SOFTWARE SETTING .....6

1.5 EUT OPERATING DURING TEST .....8

1.6 TEST FACILITY .....8

1.7 EUT SETUP AND TEST MODE .....9

1.8 MEASUREMENT UNCERTAINTY .....10

1.9 TEST EQUIPMENT LIST AND DETAILS .....11

**2. SUMMARY OF TEST RESULTS .....14**

**3. ANTENNA REQUIREMENT .....15**

3.1 STANDARD APPLICABLE .....15

3.2 EVALUATION INFORMATION .....15

**4. AUTOMATICALLY DISCONTINUE TRANSMISSION .....16**

4.1 STANDARD APPLICABLE .....16

4.2 SUMMARY OF TEST RESULTS .....16

**5. POWER SPECTRAL DENSITY .....17**

5.1 STANDARD APPLICABLE .....17

5.2 TEST PROCEDURE .....17

5.3 SUMMARY OF TEST RESULTS/PLOTS .....18

**6. EMISSION BANDWIDTH AND OCCUPIED BANDWIDTH .....19**

6.1 STANDARD APPLICABLE .....19

6.2 TEST PROCEDURE .....19

6.3 SUMMARY OF TEST RESULTS/PLOTS .....21

**7. MAXIMUM CONDUCTED OUTPUT POWER .....22**

7.1 STANDARD APPLICABLE .....22

7.2 TEST PROCEDURE .....22

7.3 SUMMARY OF TEST RESULTS/PLOTS .....23

**8. RADIATED SPURIOUS EMISSIONS .....24**

8.1 STANDARD APPLICABLE .....24

8.2 TEST PROCEDURE .....24

8.3 TEST RECEIVER SETUP .....26

8.4 CORRECTED AMPLITUDE & MARGIN CALCULATION .....26

8.5 SUMMARY OF TEST RESULTS/PLOTS .....26

**9. FREQUENCY STABILITY .....116**

9.1 STANDARD APPLICABLE .....116

9.2 TEST PROCEDURE .....116

9.3 SUMMARY OF TEST RESULTS/PLOTS .....116

**10. CONDUCTED EMISSIONS .....117**

10.1 TEST PROCEDURE .....117

10.2 BASIC TEST SETUP BLOCK DIAGRAM .....117

10.3 TEST RECEIVER SETUP .....117

10.4 SUMMARY OF TEST RESULTS/PLOTS .....117

**APPENDIX SUMMARY .....120**

**APPENDIX A .....121**

**APPENDIX B .....144**

**APPENDIX C .....188**

**APPENDIX D .....234**

**APPENDIX PHOTOGRAPHS ..... 236**

**Report version**

Version No.	Date of issue	Description
Rev.00	2024-06-04	Original
/	/	/

## 1. GENERAL INFORMATION

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### 1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Smart Phone
Trade Name:	BOLD
Model No.:	K50
Adding Model(s):	/
Rated Voltage:	DC3.87V
Battery Capacity:	5000mAh (C886351500P)
Power Adapter:	US-HJ-3024Q Input:AC100-240v~50/60Hz 0.8A Output:DC5V3000mA; OR DC9V3000mA; OR DC12V2750mA
<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:	Normal:14.80dBm (Conducted) Receiver on: 13.93dBm (Conducted)
Type of Modulation:	QPSK, 16QAM, 64QAM;256QAM; 1024QAM
Type of Antenna:	Integral Antenna
Antenna Gain:	-1.2dBi
<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	17	17	17	17	17	17	17	17	17	17	17	17	17
802.11n-HT20 MCS0	16	16	16	16	16	16	16	16	16	16	16	16	16
802.11ac-HT20 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	16		
802.11ax-HT40 MCS0	16	16	16	16	16	16	16	16	16	16	16		

Reference No.: WTX24X04087264W004

Mode	NCB: 80MHz					
	5210	5290	5530	5610	5690	5775
802.11ac-HT80 MCS0/Nss2	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-HT20	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-HT40	5190MHz,5230MHz,5270MHz,5310MHz,5510MHz,5590MHz,5670MHz,5755MHz,5795MHz
TM6	802.11ac-HT80	5210MHz,5290MHz,5530MHz,5610MHz,5775MHz

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

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

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

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

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
Notebook	ASUS	MT7921	/

## 1.8 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	±0.42dB
Occupied Bandwidth	Conducted	±1.5%
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	2024-02-24	2025-02-23
WTXE1022A 1002	GSM Tester	Rohde & Schwarz	CMU200	114403	2024-02-27	2025-02-26
WTXE1005A 1005	Spectrum Analyzer	Agilent	N9020A	US471401 02	2024-03-19	2025-03-18
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
WTXE1018A 1001	Power Divider	Weinschel	1506A	PM204	2024-02-29	2025-02-28
<input type="checkbox"/> 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
<input type="checkbox"/> 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

<input type="checkbox"/> 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
<input checked="" type="checkbox"/> 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
<input checked="" type="checkbox"/> 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
<input type="checkbox"/> 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
<input checked="" type="checkbox"/> 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

<b>Software List</b>			
<b>Description</b>	<b>Manufacturer</b>	<b>Model</b>	<b>Version</b>
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

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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**

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#### **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**

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### **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

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### 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 (< 1MHz, or < 500kHz) 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 1 MHz, add  $10\log(1\text{MHz}/RBW)$  to the measured result, whereas  $RBW (< 1\text{MHz})$  is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 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 A**

## 6. Emission Bandwidth and Occupied Bandwidth

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### 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.: WTX24X04087264W004

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

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### 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

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### 8.1 Standard Applicable

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

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

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

According to §15.407(b)(7), The provisions of §15.205 apply to intentional radiators operating under this section.

789033 D02 v02r01 General UNII Test Procedures New Rules v01

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

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

where:

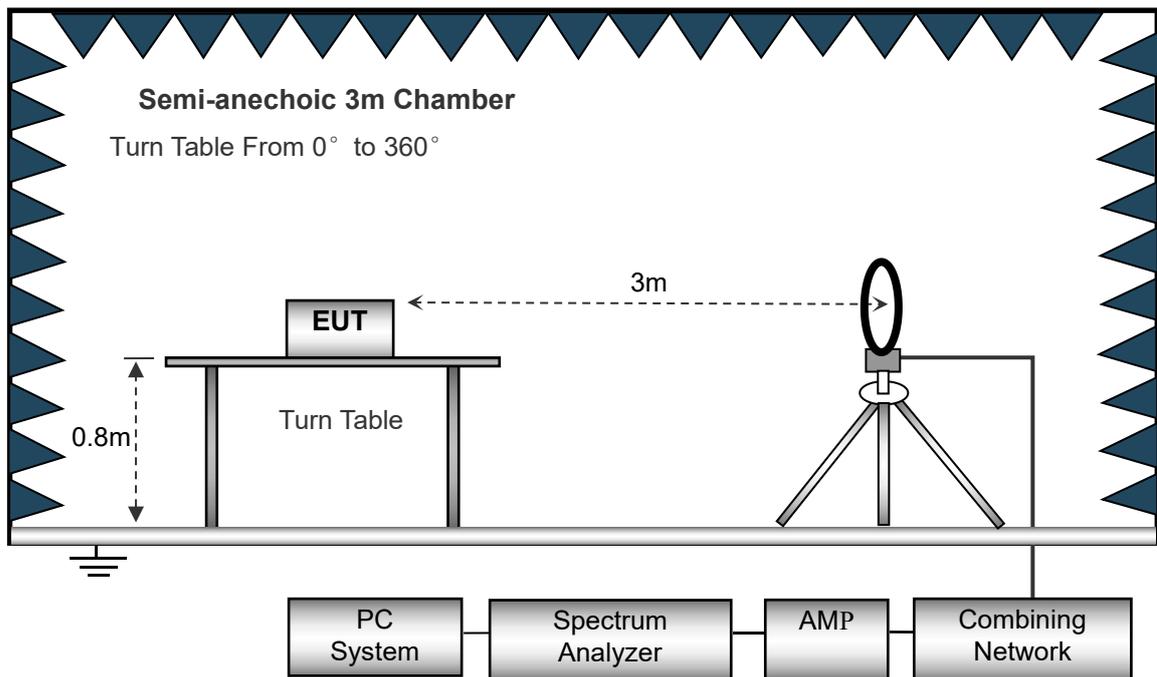
- E is the field strength in V/m;
- d is the measurement distance in meters;
- EIRP is the equivalent isotropically radiated power in watts.

### 8.2 Test Procedure

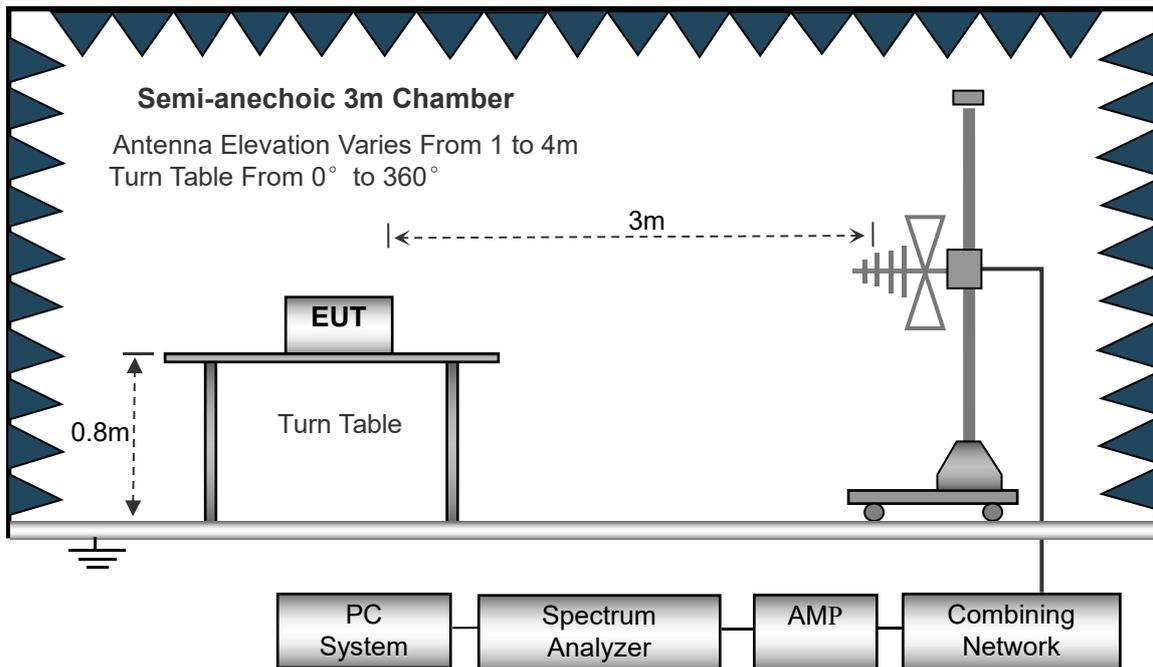
The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.205 15.407(b)(6) and FCC Part 15.209 Limit..

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle. The spacing between the peripherals was 10cm.

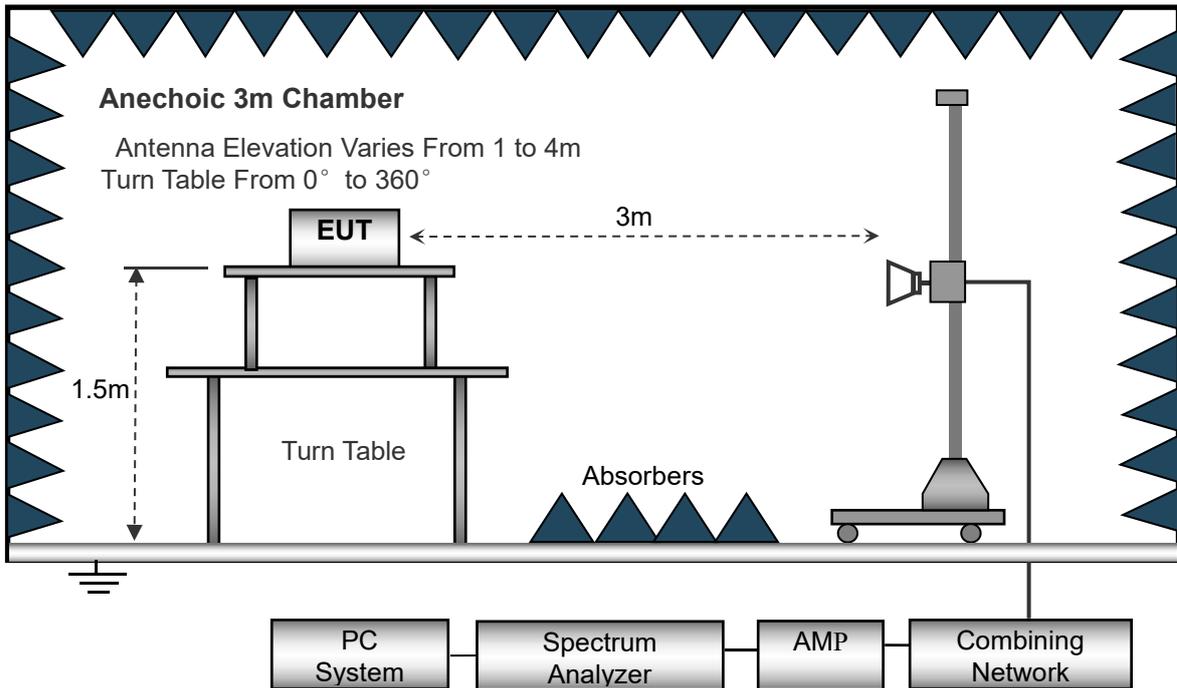
The test setup for emission measurement below 30MHz.



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



The test setup for emission measurement above 1GHz.



### 8.3 Test Receiver Setup

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

For peak detector:

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

For average detector:

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

### 8.4 Corrected Amplitude & Margin Calculation

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

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

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

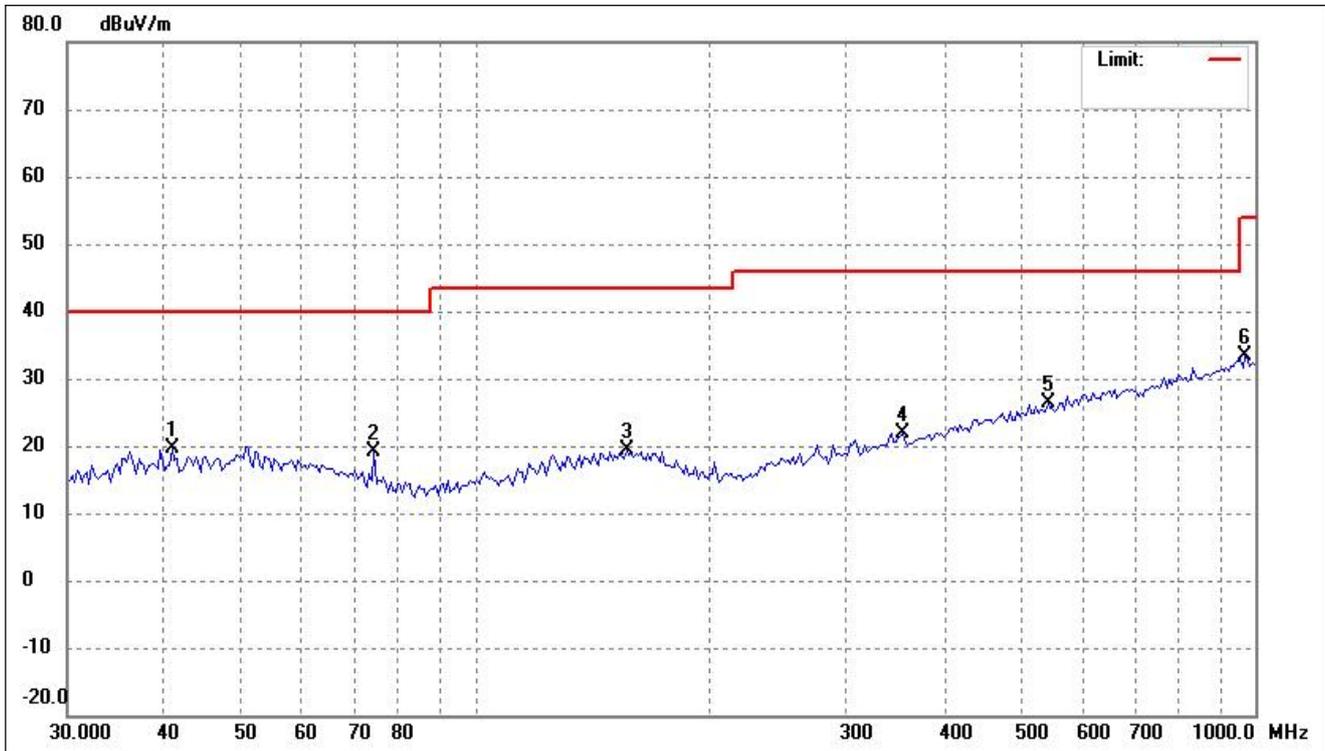
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

### 8.5 Summary of Test Results/Plots

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

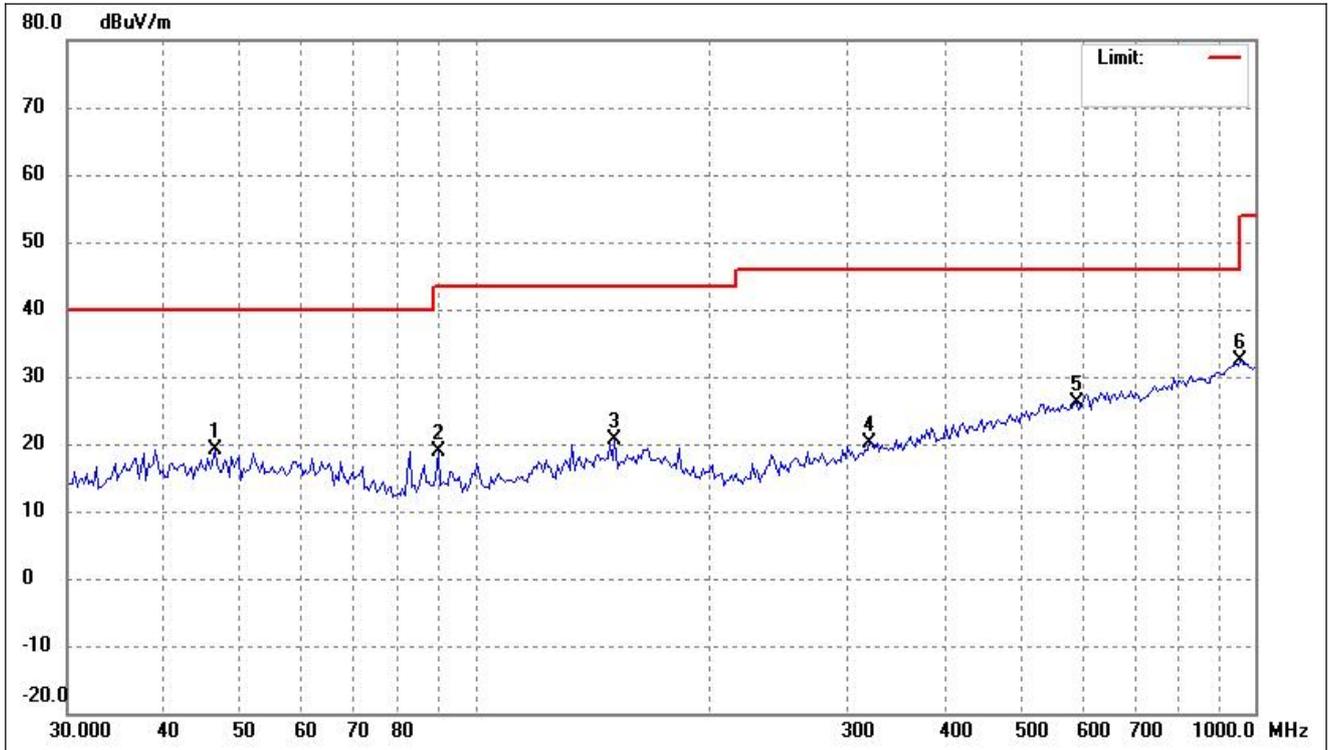
- Spurious Emission From 30MHz to 1GHz
- 5150-5250MHz

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



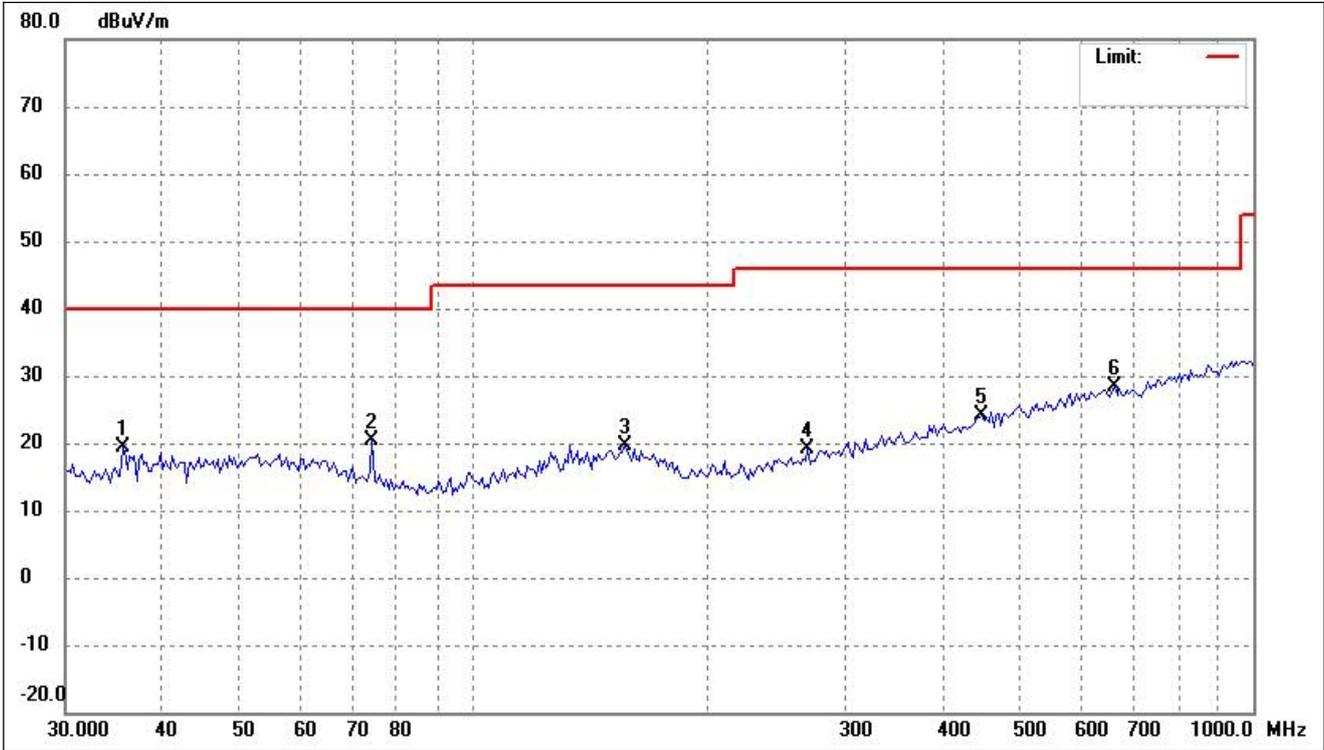
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	40.8699	28.16	-8.47	19.69	40.00	-20.31	-	-	peak
2	74.2696	30.71	-11.70	19.01	40.00	-20.99	-	-	peak
3	156.4259	28.04	-8.60	19.44	43.50	-24.06	-	-	peak
4	353.4472	28.85	-7.02	21.83	46.00	-24.17	-	-	peak
5	542.6104	29.38	-3.05	26.33	46.00	-19.67	-	-	peak
6	972.2827	31.02	2.27	33.29	54.00	-20.71	-	-	peak

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



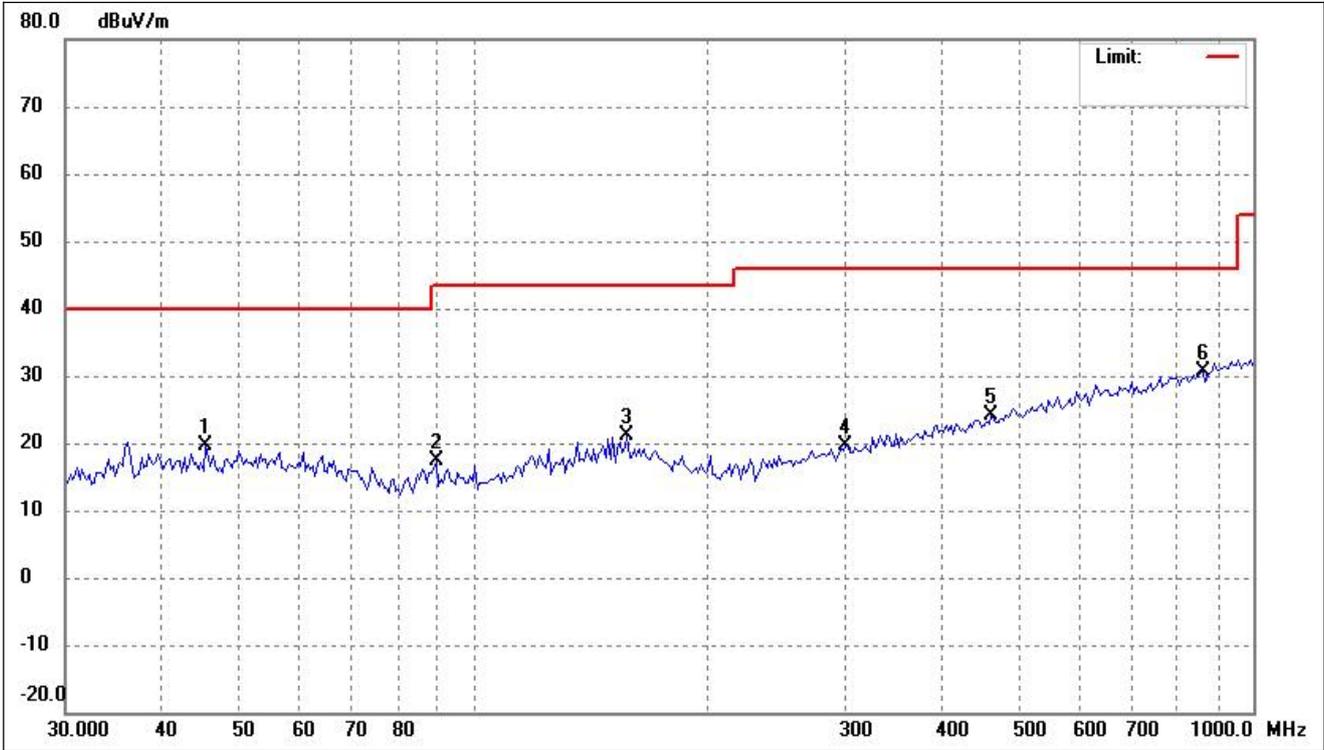
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	46.3806	27.56	-8.37	19.19	40.00	-20.81	-	-	peak
2	89.7866	32.08	-13.10	18.98	43.50	-24.52	-	-	peak
3	151.0252	29.22	-8.61	20.61	43.50	-22.89	-	-	peak
4	320.3306	27.89	-7.68	20.21	46.00	-25.79	-	-	peak
5	590.3511	28.19	-1.94	26.25	46.00	-19.75	-	-	peak
6	958.7135	30.08	2.26	32.34	46.00	-13.66	-	-	peak

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



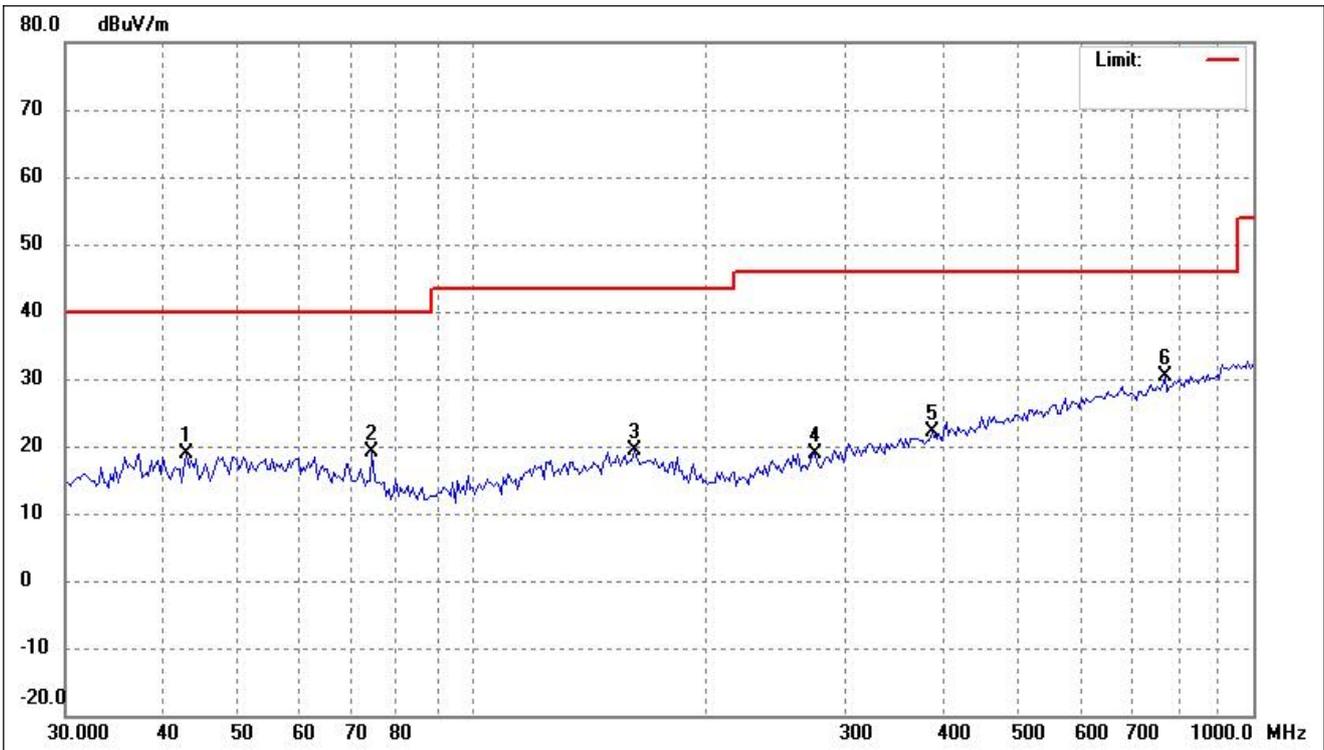
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.5112	28.72	-9.44	19.28	40.00	-20.72	-	-	peak
2	74.2696	32.11	-11.70	20.41	40.00	-19.59	-	-	peak
3	156.4259	28.26	-8.60	19.66	43.50	-23.84	-	-	peak
4	268.7212	28.64	-9.39	19.25	46.00	-26.75	-	-	peak
5	448.8361	28.78	-4.61	24.17	46.00	-21.83	-	-	peak
6	665.2610	29.55	-1.27	28.28	46.00	-17.72	-	-	peak

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



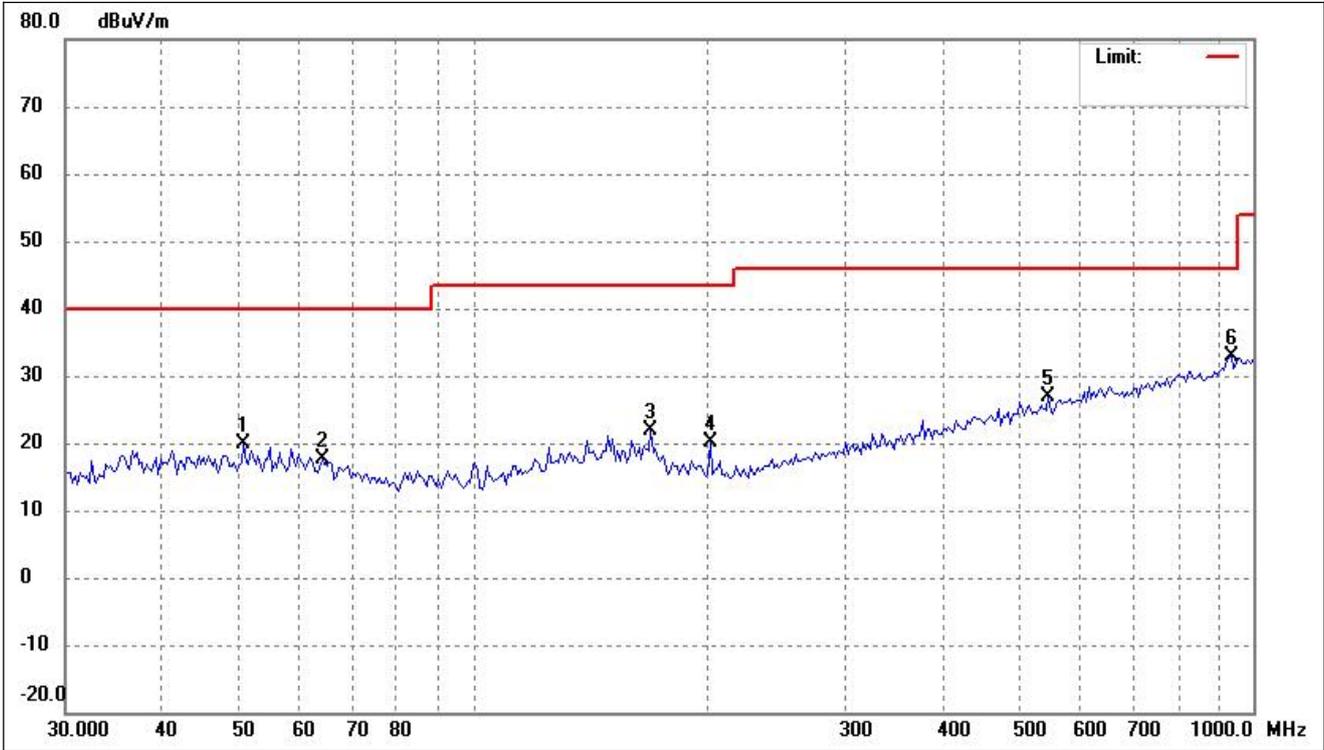
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	45.4131	28.01	-8.43	19.58	40.00	-20.42	-	-	peak
2	89.7866	30.54	-13.10	17.44	43.50	-26.06	-	-	peak
3	157.5290	29.68	-8.61	21.07	43.50	-22.43	-	-	peak
4	300.6988	27.79	-8.24	19.55	46.00	-26.45	-	-	peak
5	461.6313	28.67	-4.42	24.25	46.00	-21.75	-	-	peak
6	862.8015	29.67	0.85	30.52	46.00	-15.48	-	-	peak

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



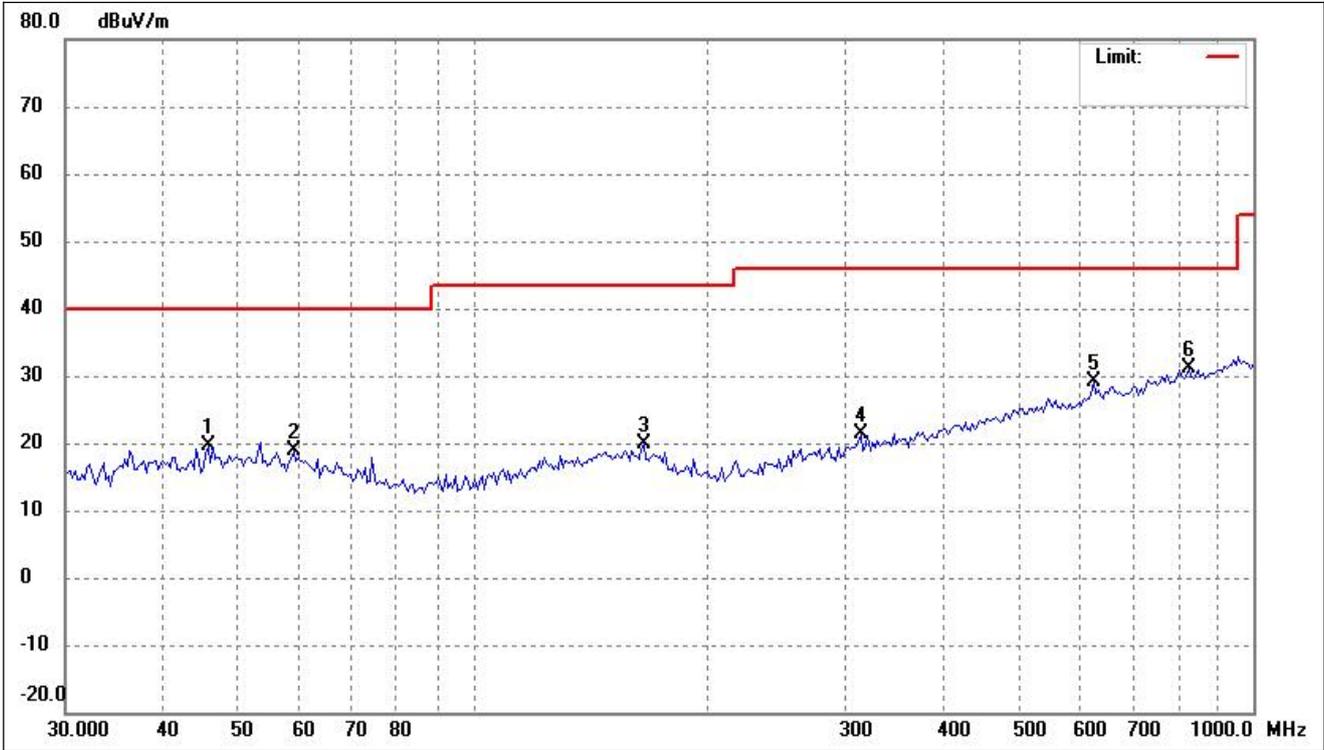
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	42.9305	27.30	-8.48	18.82	40.00	-21.18	-	-	peak
2	74.2696	30.84	-11.70	19.14	40.00	-20.86	-	-	peak
3	160.8852	27.93	-8.64	19.29	43.50	-24.21	-	-	peak
4	274.4464	28.03	-9.13	18.90	46.00	-27.10	-	-	peak
5	387.2565	28.42	-6.22	22.20	46.00	-23.80	-	-	peak
6	771.0475	30.45	0.03	30.48	46.00	-15.52	-	-	peak

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



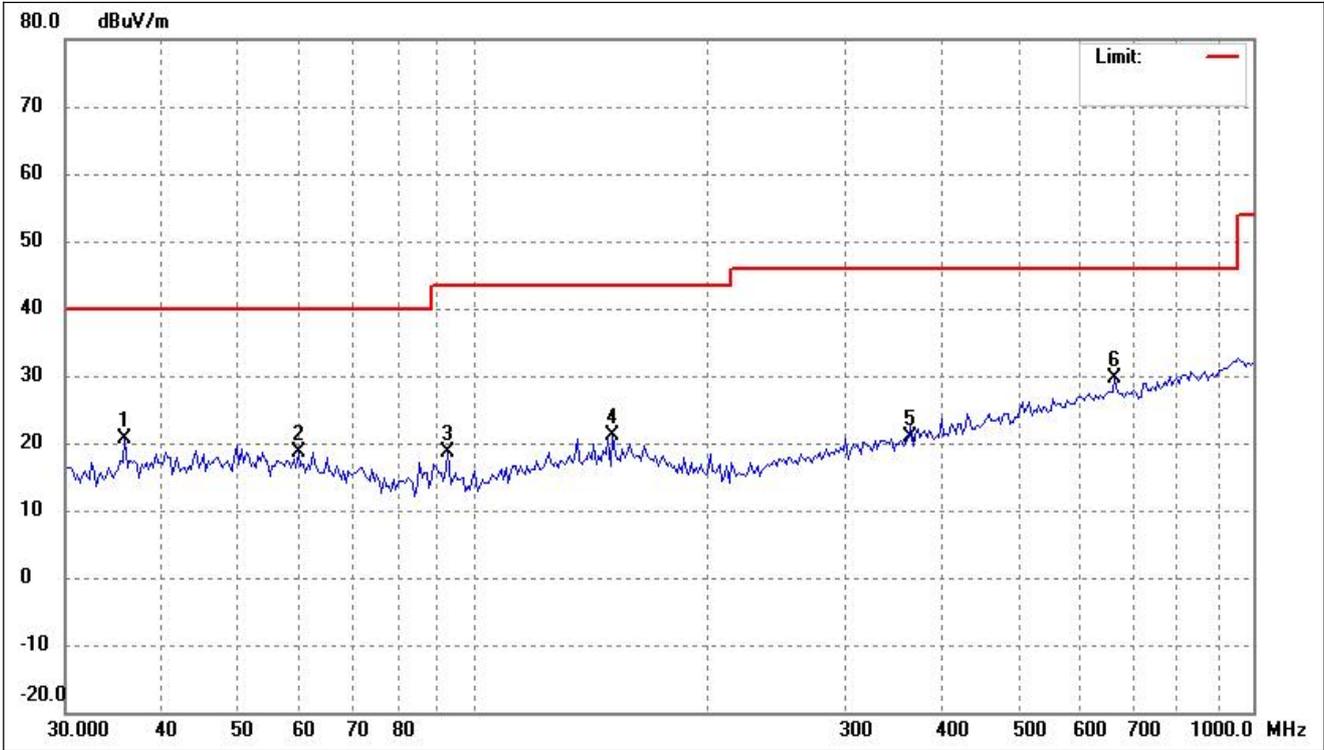
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	50.8172	27.95	-8.17	19.78	40.00	-20.22	-	-	peak
2	64.0800	27.26	-9.68	17.58	40.00	-22.42	-	-	peak
3	168.9970	30.85	-8.85	22.00	43.50	-21.50	-	-	peak
4	201.4539	32.17	-12.01	20.16	43.50	-23.34	-	-	peak
5	546.4368	29.86	-2.94	26.92	46.00	-19.08	-	-	peak
6	938.7139	30.76	2.01	32.77	46.00	-13.23	-	-	peak

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



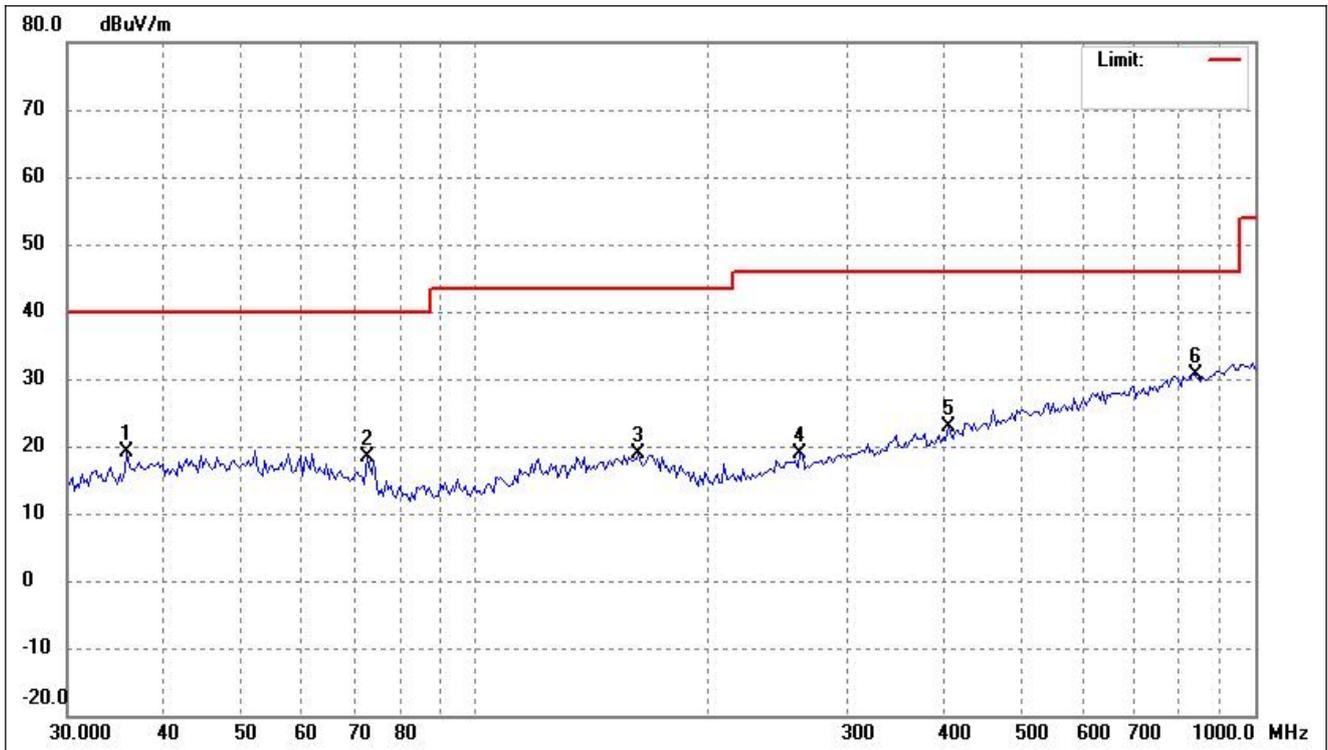
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	45.7333	28.10	-8.41	19.69	40.00	-20.31	-	-	peak
2	58.8979	27.76	-8.87	18.89	40.00	-21.11	-	-	peak
3	165.4716	28.52	-8.76	19.76	43.50	-23.74	-	-	peak
4	313.6483	29.18	-7.87	21.31	46.00	-24.69	-	-	peak
5	624.4897	30.66	-1.41	29.25	46.00	-16.75	-	-	peak
6	827.1795	30.48	0.54	31.02	46.00	-14.98	-	-	peak

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



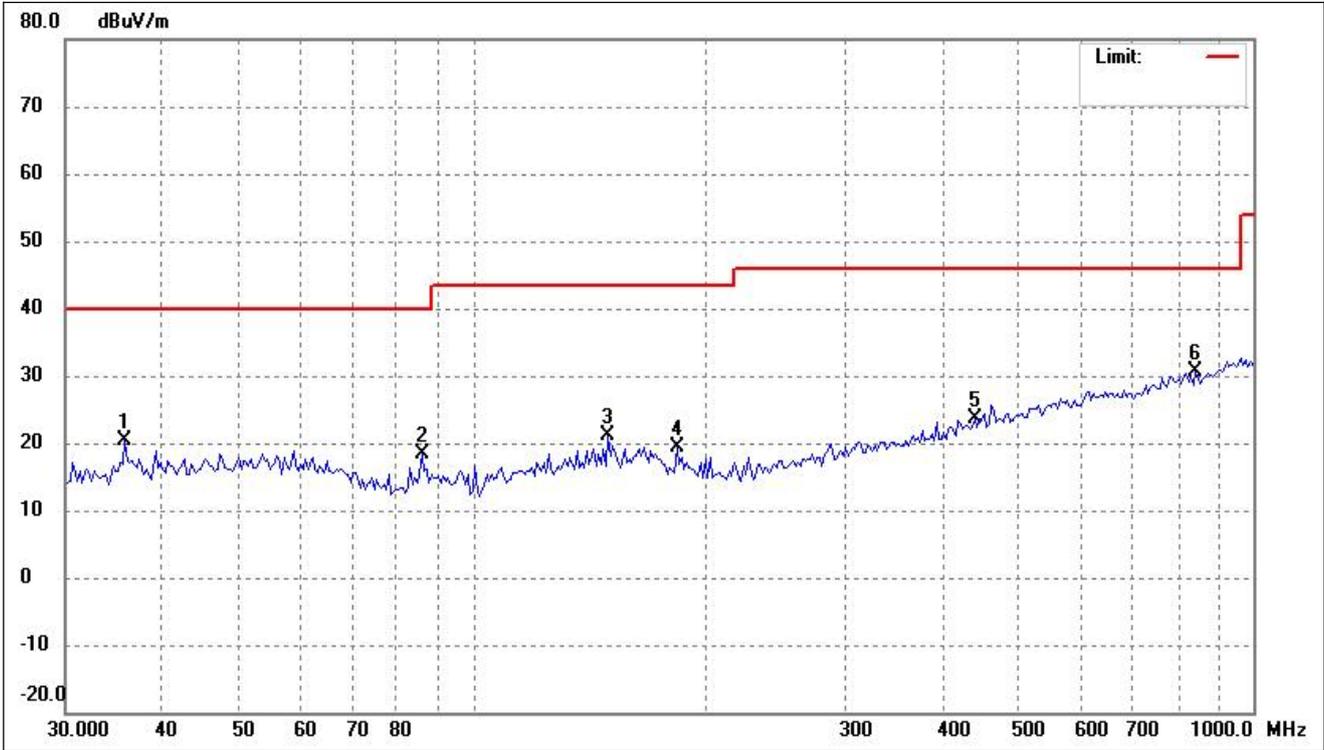
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	30.00	-9.39	20.61	40.00	-19.39	-	-	peak
2	59.7315	27.45	-8.92	18.53	40.00	-21.47	-	-	peak
3	92.9974	31.45	-12.93	18.52	43.50	-24.98	-	-	peak
4	151.0252	29.80	-8.61	21.19	43.50	-22.31	-	-	peak
5	360.9775	27.76	-6.83	20.93	46.00	-25.07	-	-	peak
6	665.2610	30.91	-1.27	29.64	46.00	-16.36	-	-	peak

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



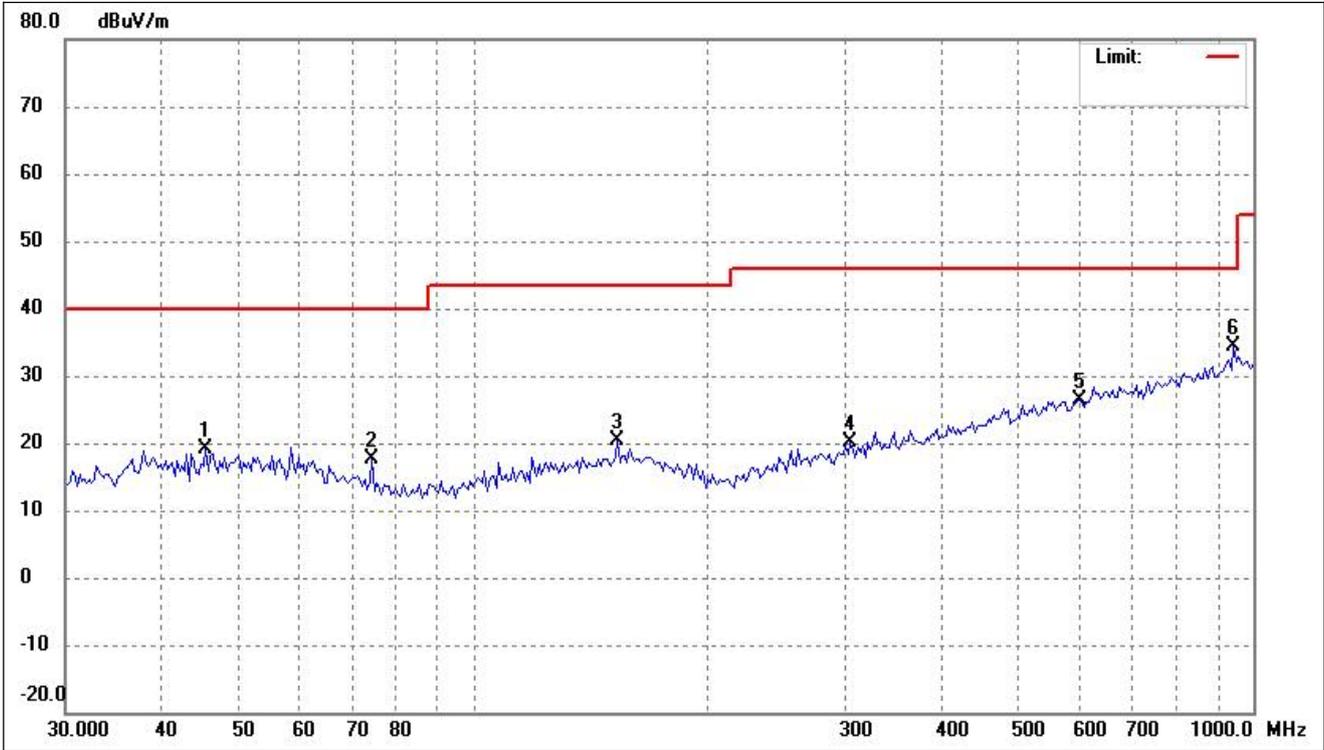
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	28.42	-9.39	19.03	40.00	-20.97	-	-	peak
2	72.7203	29.67	-11.36	18.31	40.00	-21.69	-	-	peak
3	162.0197	27.52	-8.66	18.86	43.50	-24.64	-	-	peak
4	261.2730	28.64	-9.71	18.93	46.00	-27.07	-	-	peak
5	403.9335	28.68	-5.85	22.83	46.00	-23.17	-	-	peak
6	838.8870	29.94	0.64	30.58	46.00	-15.42	-	-	peak

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



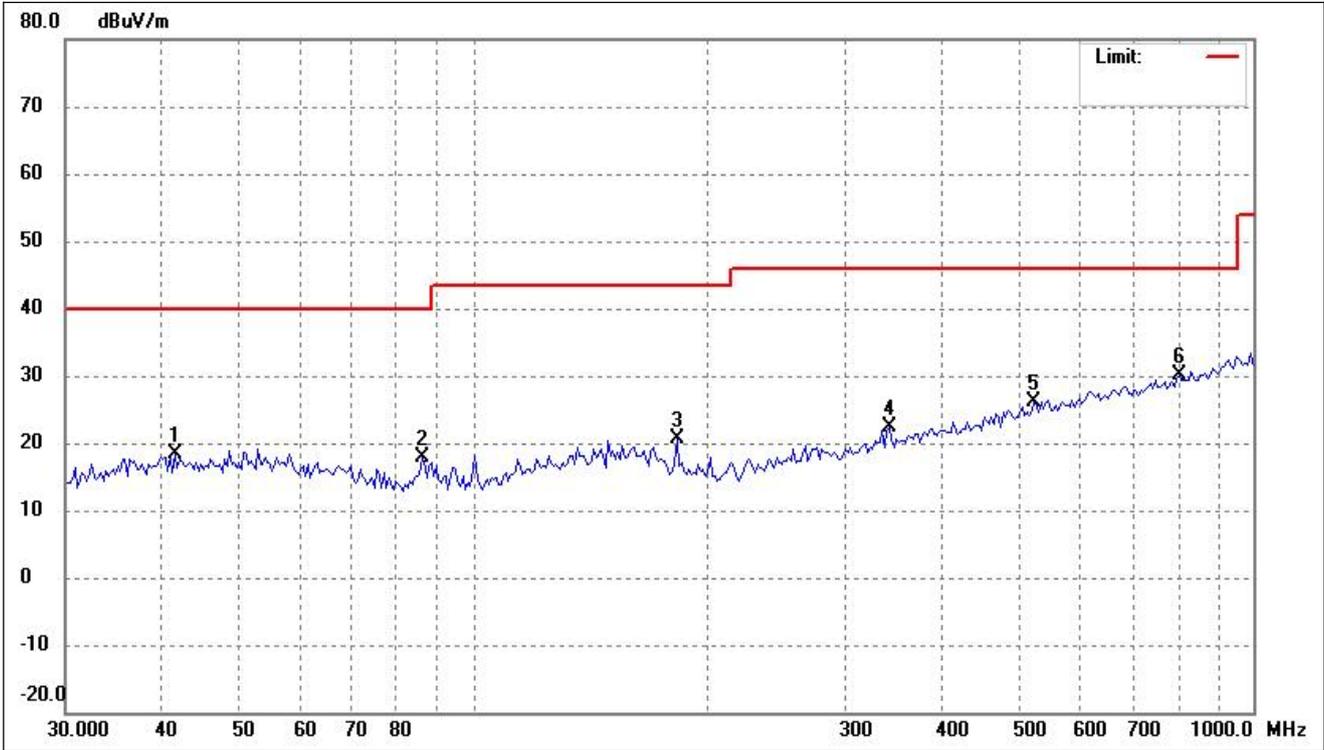
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	29.70	-9.39	20.31	40.00	-19.69	-	-	peak
2	86.0796	31.33	-13.04	18.29	40.00	-21.71	-	-	peak
3	148.9175	29.87	-8.68	21.19	43.50	-22.31	-	-	peak
4	182.5785	30.00	-10.60	19.40	43.50	-24.10	-	-	peak
5	439.4730	28.40	-4.88	23.52	46.00	-22.48	-	-	peak
6	844.8028	29.87	0.69	30.56	46.00	-15.44	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	45.4131	27.66	-8.43	19.23	40.00	-20.77	-	-	peak
2	74.2696	29.39	-11.70	17.69	40.00	-22.31	-	-	peak
3	153.1627	28.87	-8.61	20.26	43.50	-23.24	-	-	peak
4	304.9548	28.17	-8.12	20.05	46.00	-25.95	-	-	peak
5	598.7067	28.07	-1.77	26.30	46.00	-19.70	-	-	peak
6	945.3336	32.19	2.15	34.34	46.00	-11.66	-	-	peak

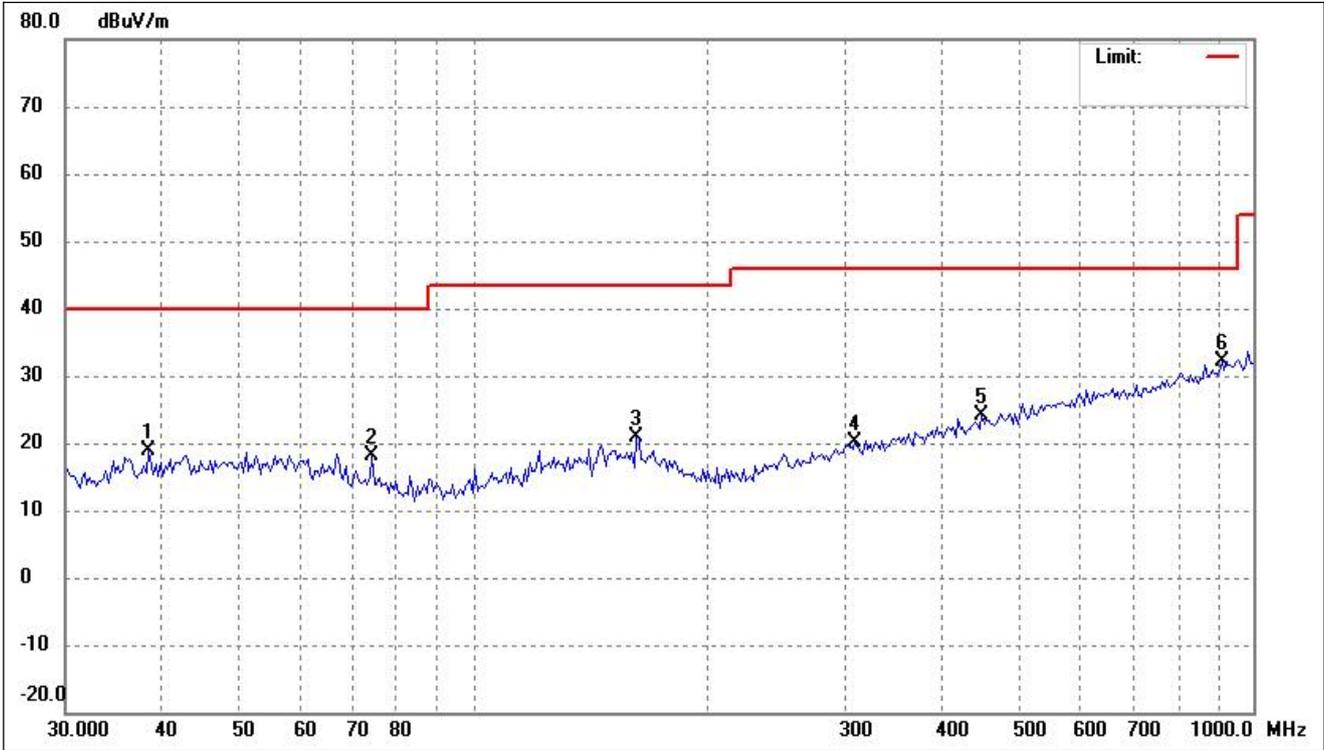
802.11ac-HT80			
Test Channel	5210MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	41.4483	26.80	-8.48	18.32	40.00	-21.68	-	-	peak
2	86.0796	31.04	-13.04	18.00	40.00	-22.00	-	-	peak
3	182.5785	31.34	-10.60	20.74	43.50	-22.76	-	-	peak
4	341.2442	29.56	-7.26	22.30	46.00	-23.70	-	-	peak
5	523.8763	29.71	-3.53	26.18	46.00	-19.82	-	-	peak
6	804.2523	29.68	0.34	30.02	46.00	-15.98	-	-	peak

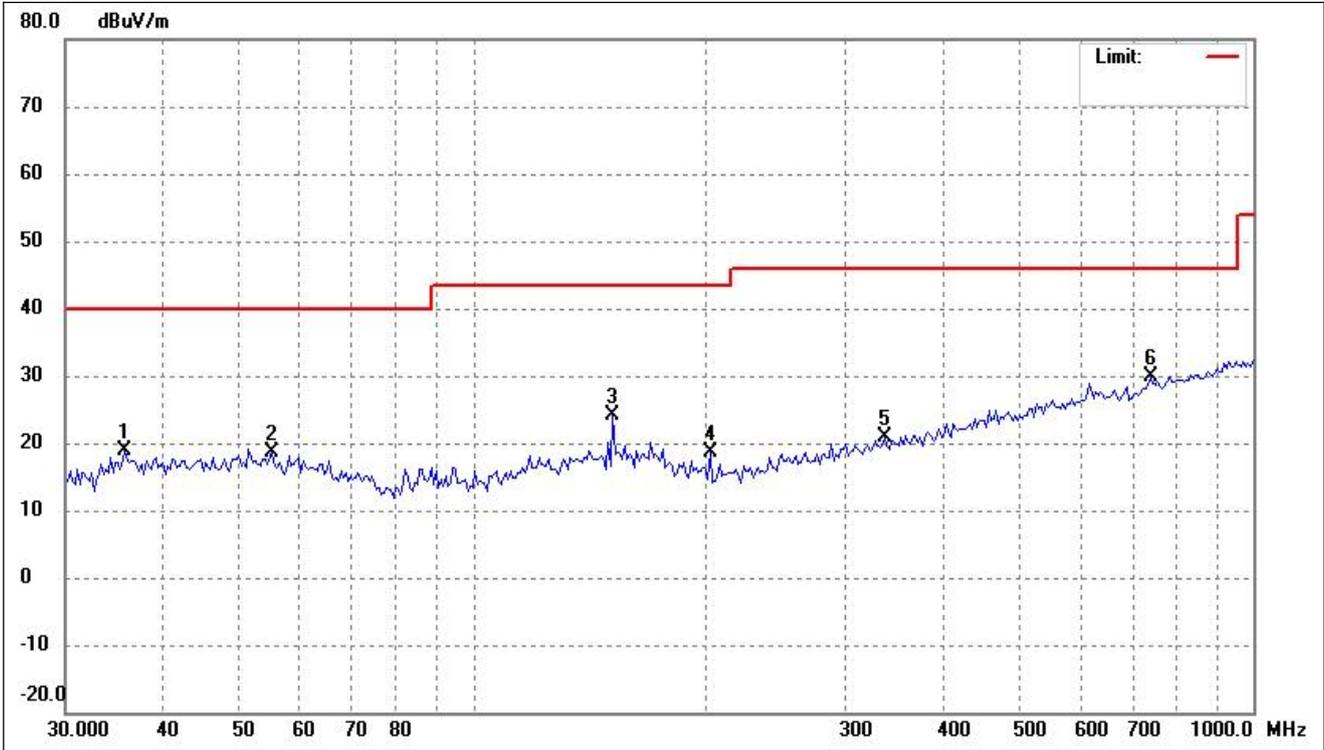
➤ 5250-5350MHz

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



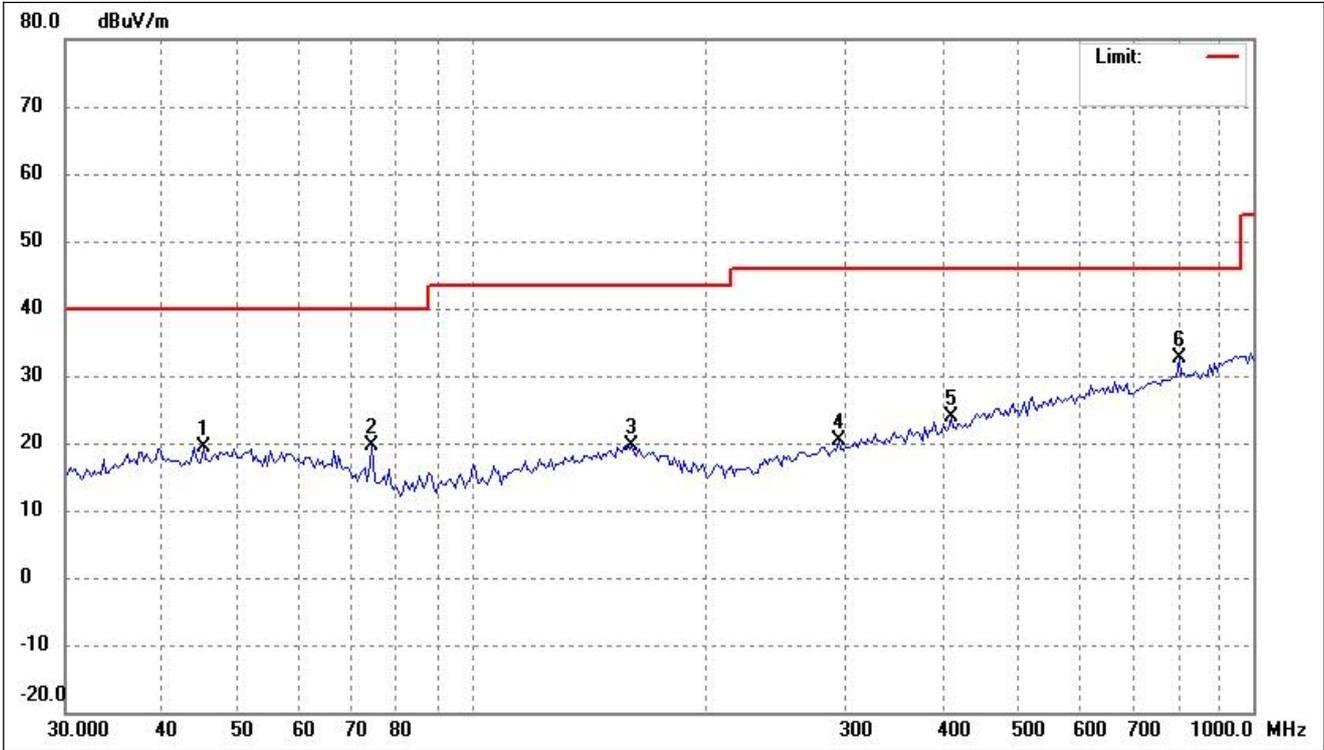
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	38.3651	27.61	-8.83	18.78	40.00	-21.22	-	-	peak
2	74.2696	29.74	-11.70	18.04	40.00	-21.96	-	-	peak
3	162.0197	29.43	-8.66	20.77	43.50	-22.73	-	-	peak
4	309.2710	28.11	-8.00	20.11	46.00	-25.89	-	-	peak
5	448.8361	28.82	-4.61	24.21	46.00	-21.79	-	-	peak
6	912.6953	30.58	1.46	32.04	46.00	-13.96	-	-	peak

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



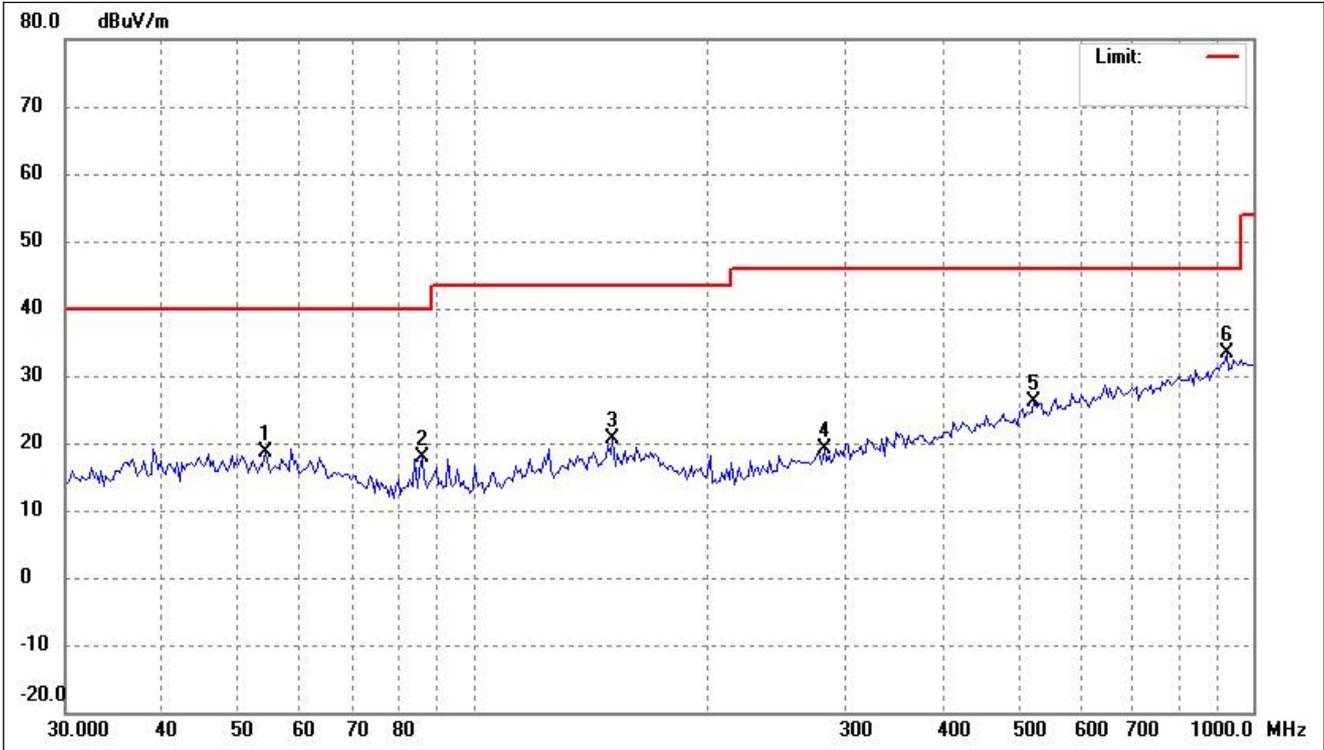
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	28.38	-9.39	18.99	40.00	-21.01	-	-	peak
2	55.2883	27.15	-8.64	18.51	40.00	-21.49	-	-	peak
3	151.0252	32.71	-8.61	24.10	43.50	-19.40	-	-	peak
4	201.4539	30.72	-12.01	18.71	43.50	-24.79	-	-	peak
5	336.4817	28.12	-7.35	20.77	46.00	-25.23	-	-	peak
6	739.2136	30.34	-0.37	29.97	46.00	-16.03	-	-	peak

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



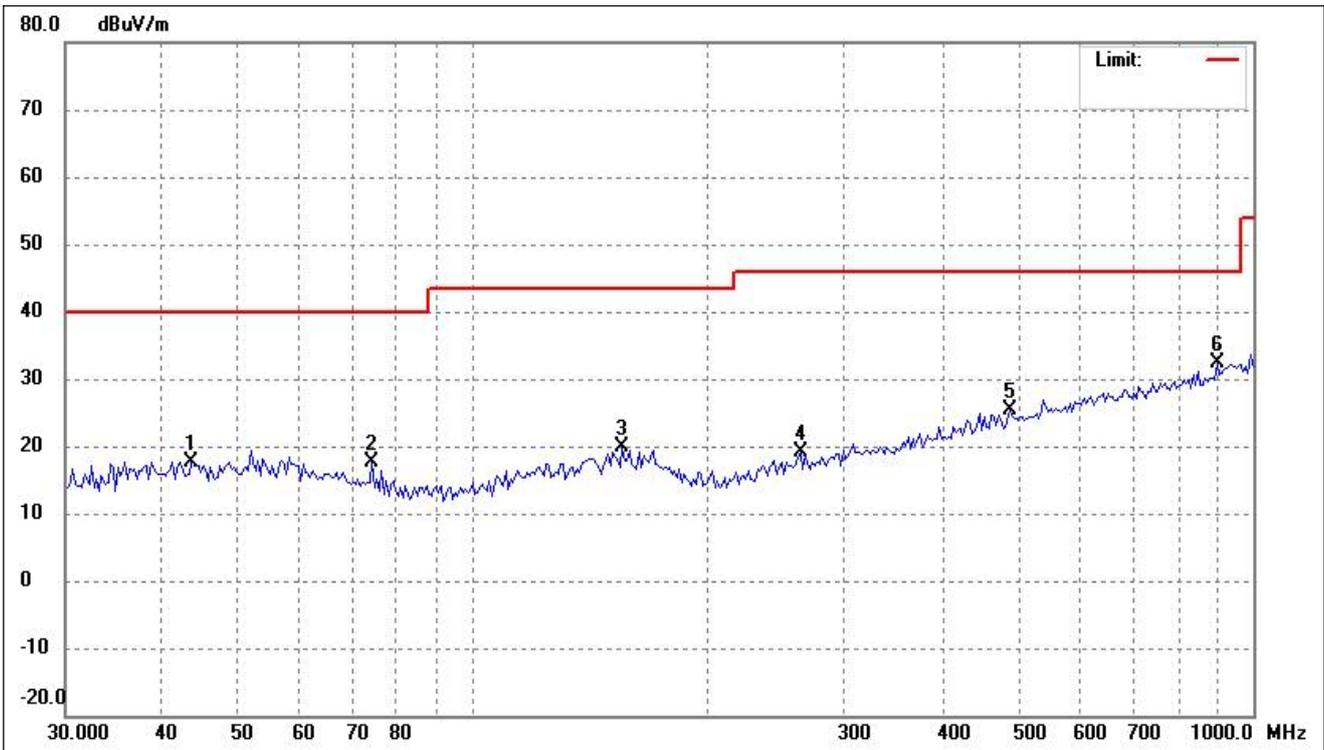
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	45.0951	27.96	-8.46	19.50	40.00	-20.50	-	-	peak
2	74.2696	31.33	-11.70	19.63	40.00	-20.37	-	-	peak
3	159.7586	28.28	-8.61	19.67	43.50	-23.83	-	-	peak
4	294.4260	28.82	-8.45	20.37	46.00	-25.63	-	-	peak
5	409.6506	29.69	-5.70	23.99	46.00	-22.01	-	-	peak
6	804.2523	32.26	0.34	32.60	46.00	-13.40	-	-	peak

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



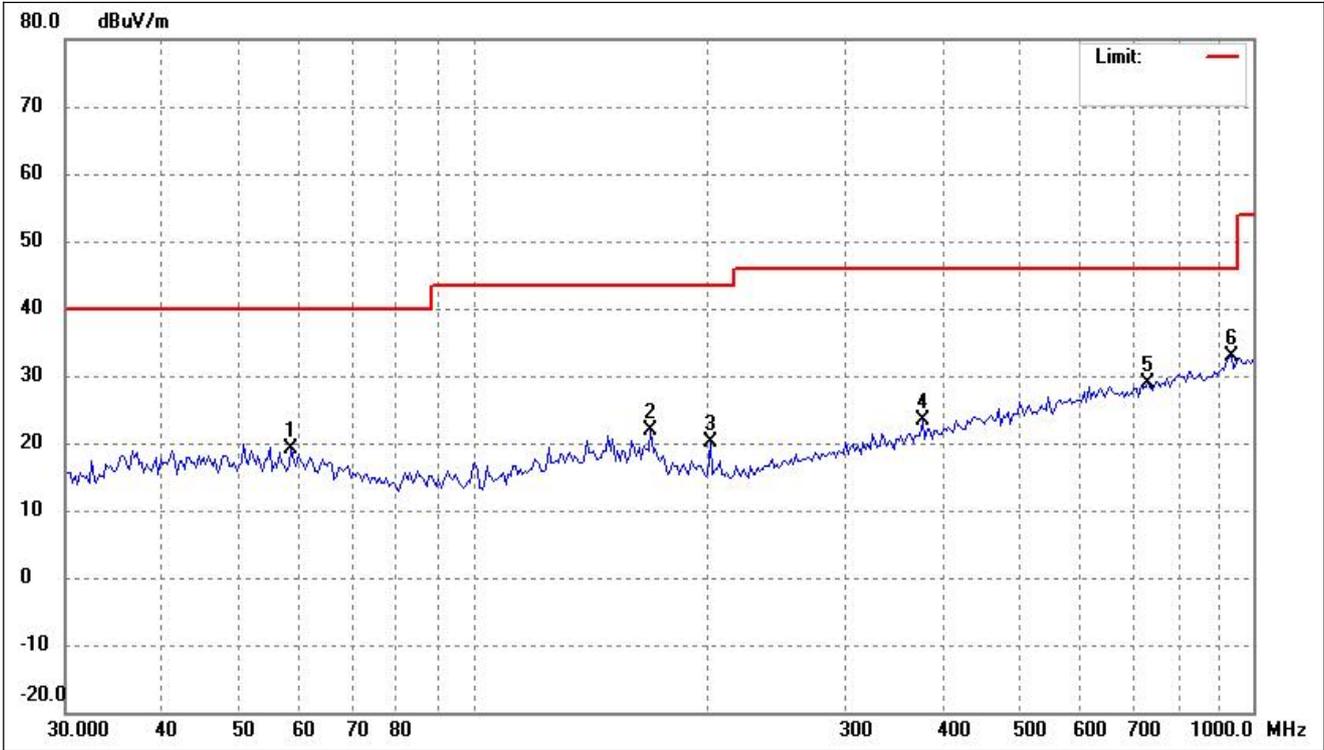
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	54.1349	27.14	-8.54	18.60	40.00	-21.40	-	-	peak
2	86.0796	30.82	-13.04	17.78	40.00	-22.22	-	-	peak
3	151.0252	29.27	-8.61	20.66	43.50	-22.84	-	-	peak
4	282.2702	28.03	-8.86	19.17	46.00	-26.83	-	-	peak
5	523.8763	29.64	-3.53	26.11	46.00	-19.89	-	-	peak
6	925.6132	31.57	1.74	33.31	46.00	-12.69	-	-	peak

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



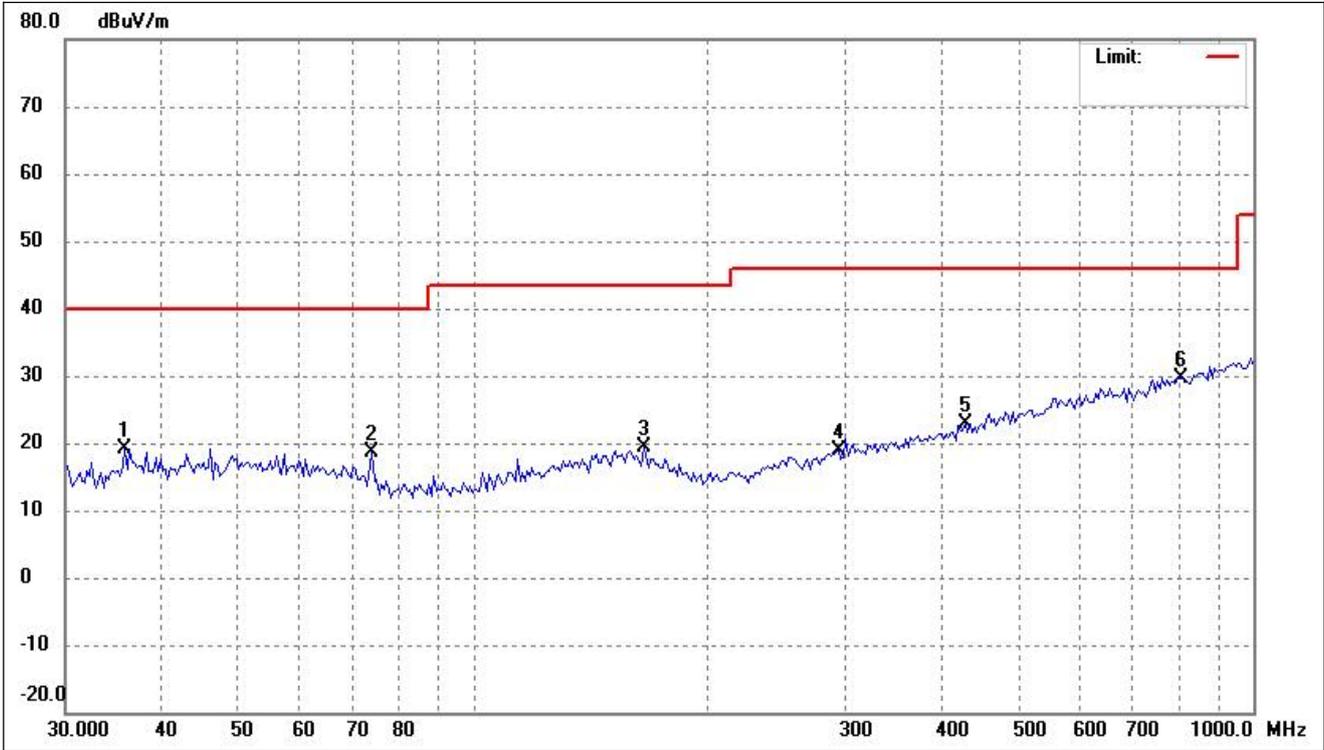
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	43.5381	26.13	-8.47	17.66	40.00	-22.34	-	-	peak
2	74.2696	29.35	-11.70	17.65	40.00	-22.35	-	-	peak
3	155.3305	28.37	-8.61	19.76	43.50	-23.74	-	-	peak
4	263.1155	28.74	-9.64	19.10	46.00	-26.90	-	-	peak
5	488.3263	29.33	-4.06	25.27	46.00	-20.73	-	-	peak
6	899.9577	31.12	1.19	32.31	46.00	-13.69	-	-	peak

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



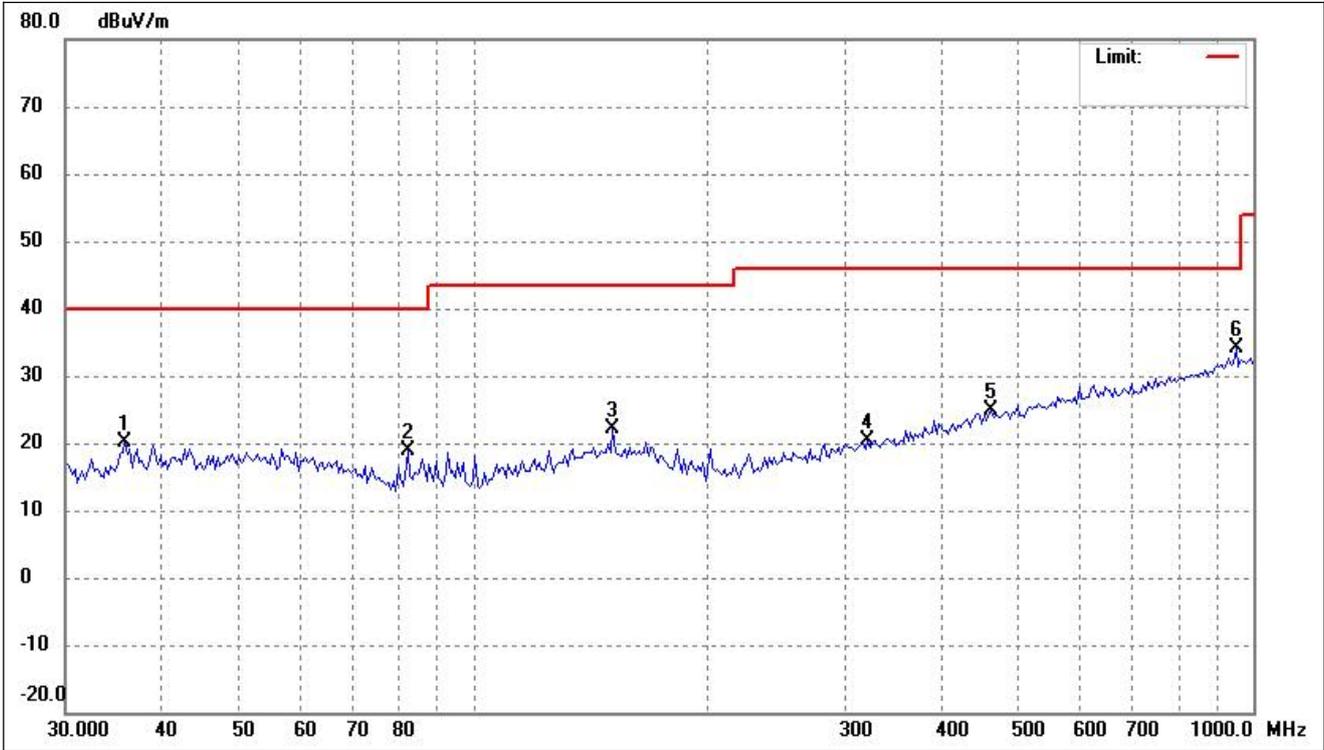
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	58.4855	27.99	-8.84	19.15	40.00	-20.85	-	-	peak
2	168.9970	30.85	-8.85	22.00	43.50	-21.50	-	-	peak
3	201.4539	32.17	-12.01	20.16	43.50	-23.34	-	-	peak
4	376.5228	29.81	-6.44	23.37	46.00	-22.63	-	-	peak
5	734.0373	29.30	-0.46	28.84	46.00	-17.16	-	-	peak
6	938.7139	30.76	2.01	32.77	46.00	-13.23	-	-	peak

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



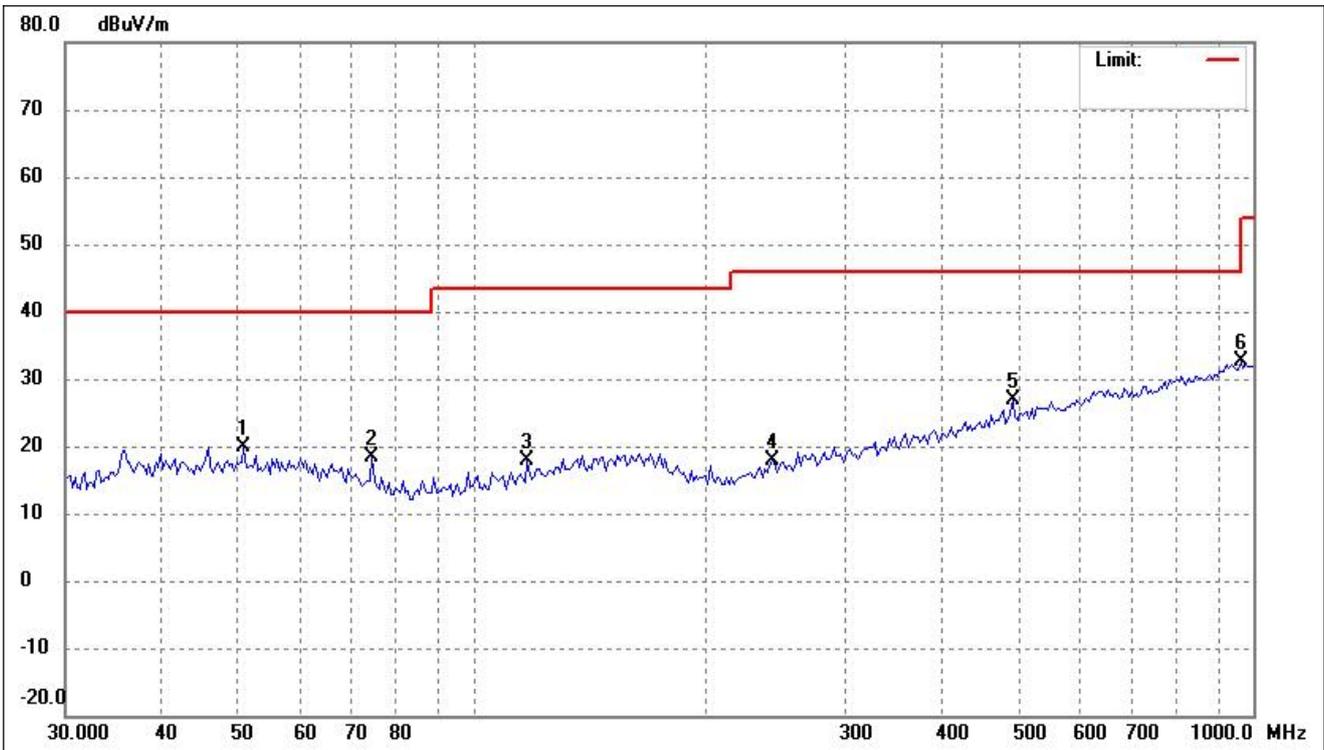
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	28.62	-9.39	19.23	40.00	-20.77	-	-	peak
2	74.2696	30.45	-11.70	18.75	40.00	-21.25	-	-	peak
3	165.4716	28.19	-8.76	19.43	43.50	-24.07	-	-	peak
4	294.4260	27.34	-8.45	18.89	46.00	-27.11	-	-	peak
5	427.2920	28.20	-5.22	22.98	46.00	-23.02	-	-	peak
6	804.2523	29.32	0.34	29.66	46.00	-16.34	-	-	peak

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



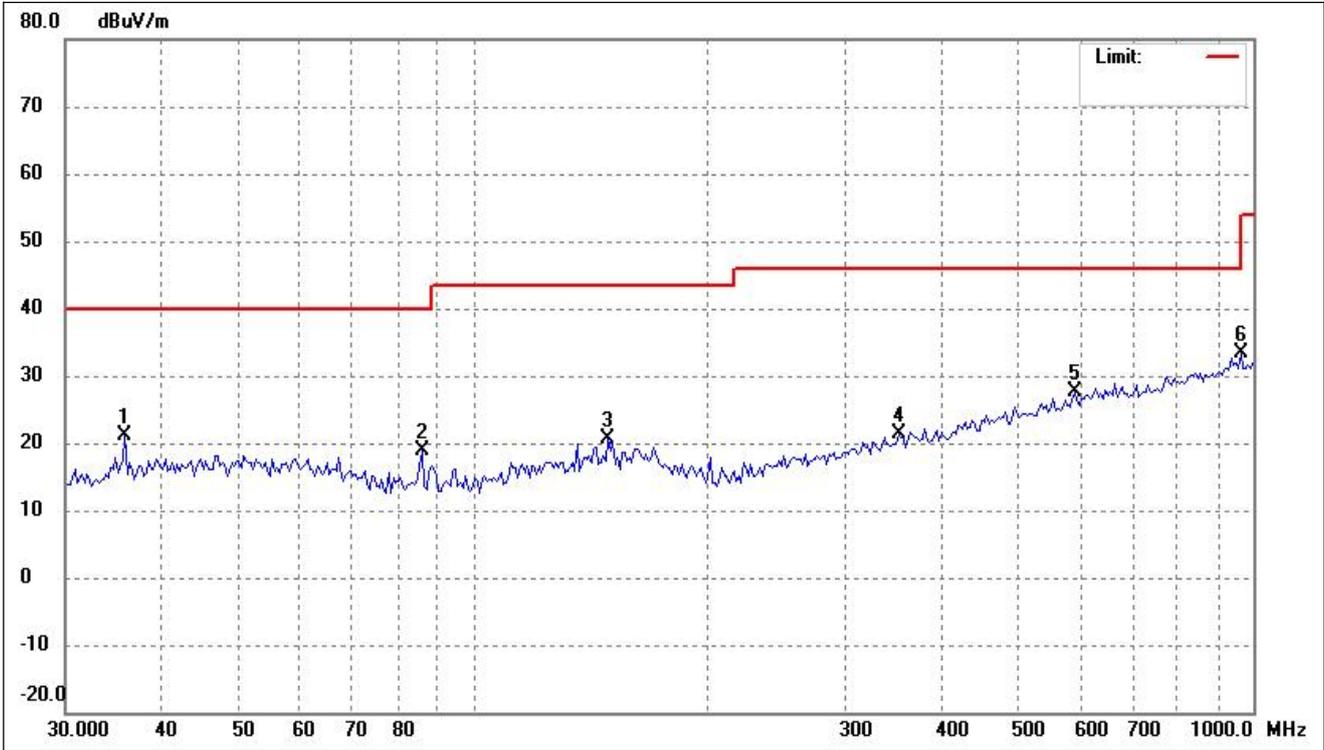
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	29.51	-9.39	20.12	40.00	-19.88	-	-	peak
2	82.5257	31.94	-13.00	18.94	40.00	-21.06	-	-	peak
3	151.0252	30.81	-8.61	22.20	43.50	-21.30	-	-	peak
4	320.3306	28.06	-7.68	20.38	46.00	-25.62	-	-	peak
5	461.6313	29.19	-4.42	24.77	46.00	-21.23	-	-	peak
6	952.0001	31.78	2.25	34.03	46.00	-11.97	-	-	peak

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



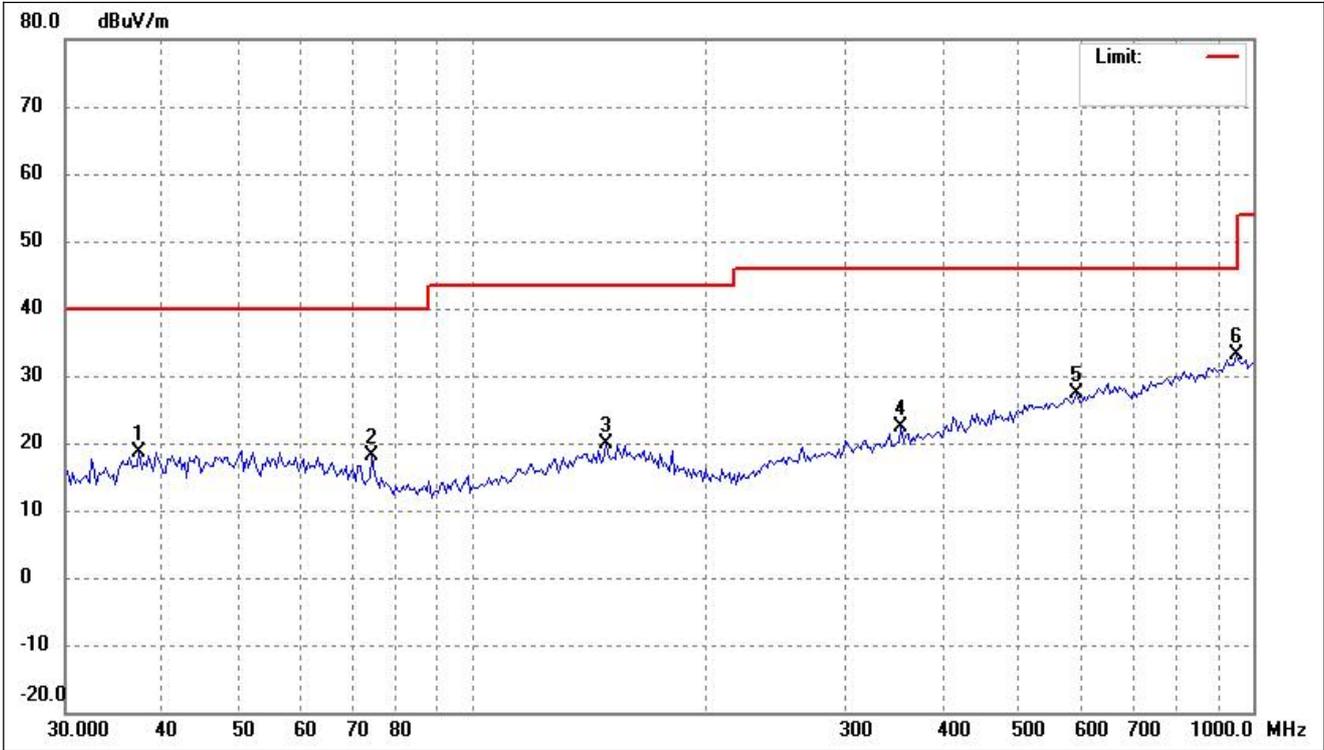
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	50.8172	27.98	-8.17	19.81	40.00	-20.19	-	-	peak
2	74.2696	29.97	-11.70	18.27	40.00	-21.73	-	-	peak
3	117.2688	28.58	-10.82	17.76	43.50	-25.74	-	-	peak
4	241.8377	28.29	-10.48	17.81	46.00	-28.19	-	-	peak
5	491.7700	30.88	-4.01	26.87	46.00	-19.13	-	-	peak
6	965.4742	30.38	2.27	32.65	54.00	-21.35	-	-	peak

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



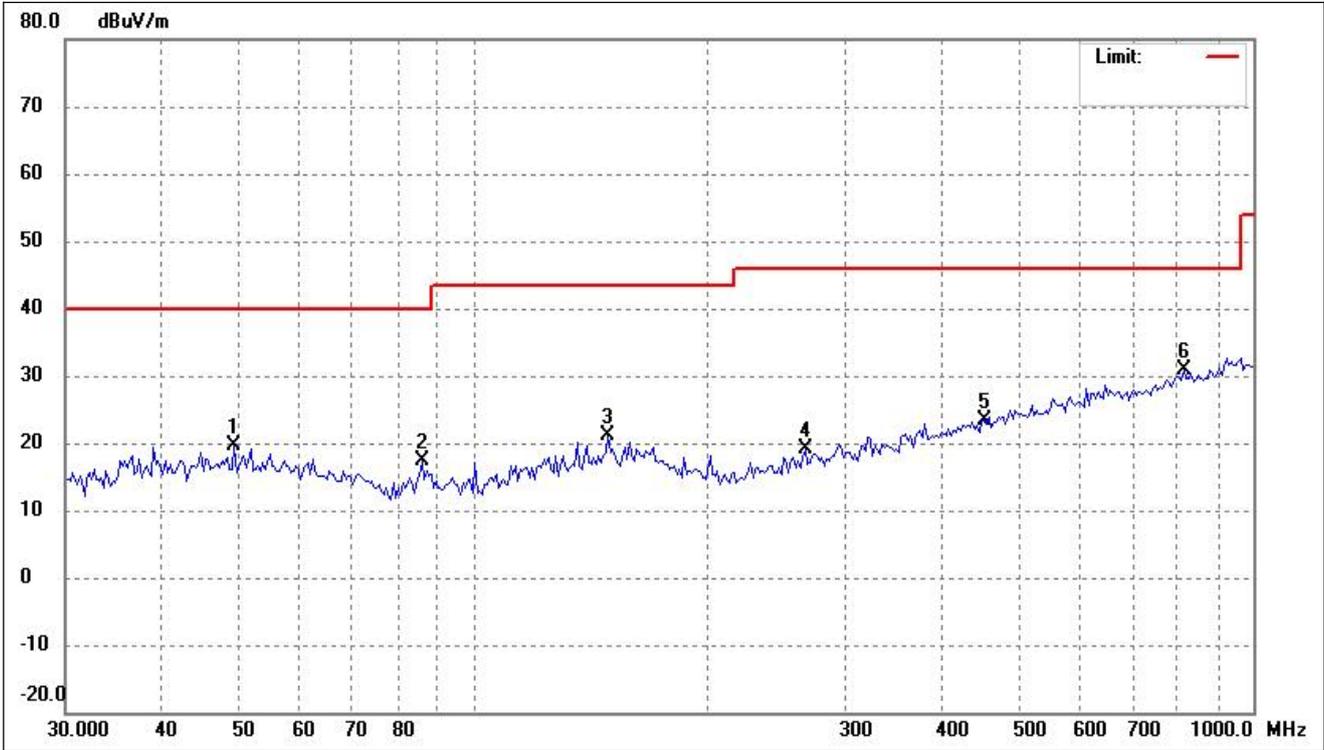
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	30.61	-9.39	21.22	40.00	-18.78	-	-	peak
2	86.0796	31.86	-13.04	18.82	40.00	-21.18	-	-	peak
3	148.9175	29.38	-8.68	20.70	43.50	-22.80	-	-	peak
4	350.9722	28.37	-7.09	21.28	46.00	-24.72	-	-	peak
5	590.3511	29.67	-1.94	27.73	46.00	-18.27	-	-	peak
6	965.4742	31.13	2.27	33.40	54.00	-20.60	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	37.3017	27.73	-9.06	18.67	40.00	-21.33	-	-	peak
2	74.2696	29.76	-11.70	18.06	40.00	-21.94	-	-	peak
3	147.8747	28.57	-8.77	19.80	43.50	-23.70	-	-	peak
4	353.4472	29.49	-7.02	22.47	46.00	-23.53	-	-	peak
5	594.5143	29.36	-1.86	27.50	46.00	-18.50	-	-	peak
6	952.0001	30.77	2.25	33.02	46.00	-12.98	-	-	peak

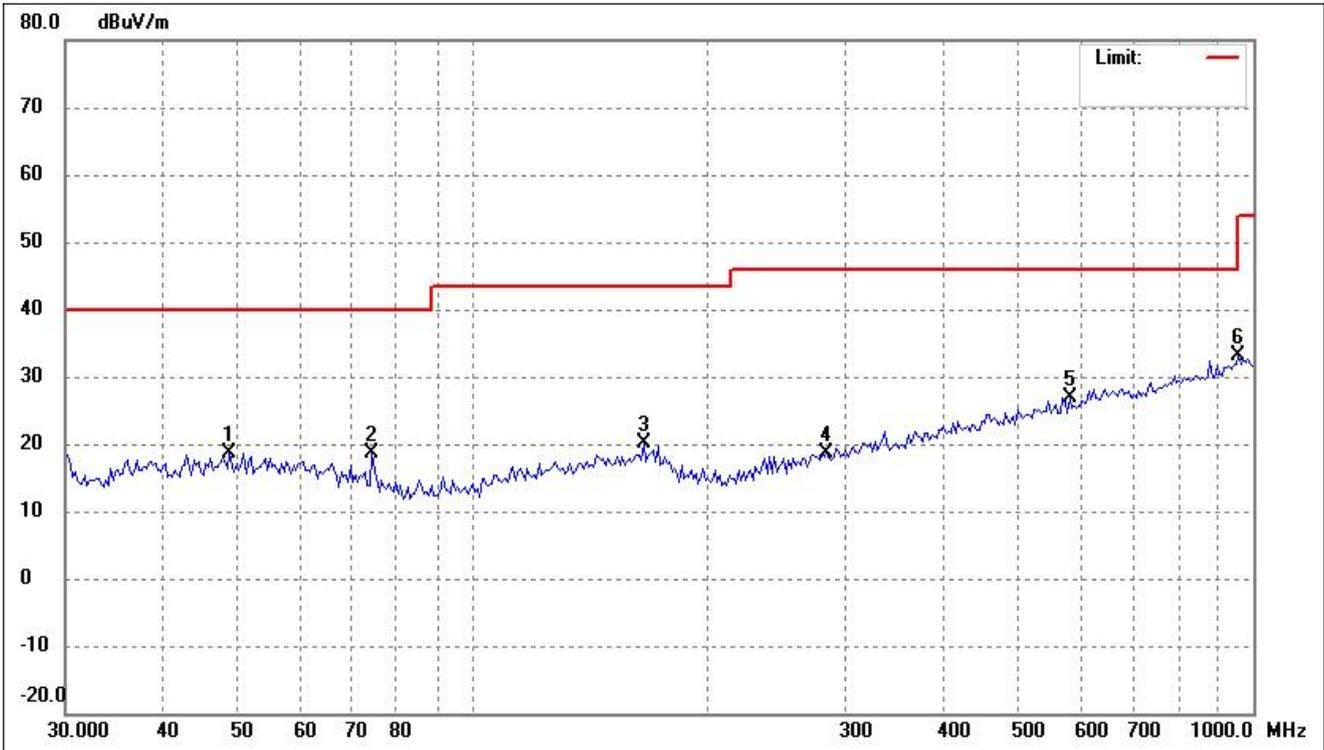
802.11ac-HT80			
Test Channel	5290MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	49.4087	27.76	-8.13	19.63	40.00	-20.37	-	-	peak
2	86.0796	30.34	-13.04	17.30	40.00	-22.70	-	-	peak
3	148.9175	29.80	-8.68	21.12	43.50	-22.38	-	-	peak
4	266.8395	28.68	-9.46	19.22	46.00	-26.78	-	-	peak
5	452.0013	27.83	-4.56	23.27	46.00	-22.73	-	-	peak
6	815.6353	30.47	0.44	30.91	46.00	-15.09	-	-	peak

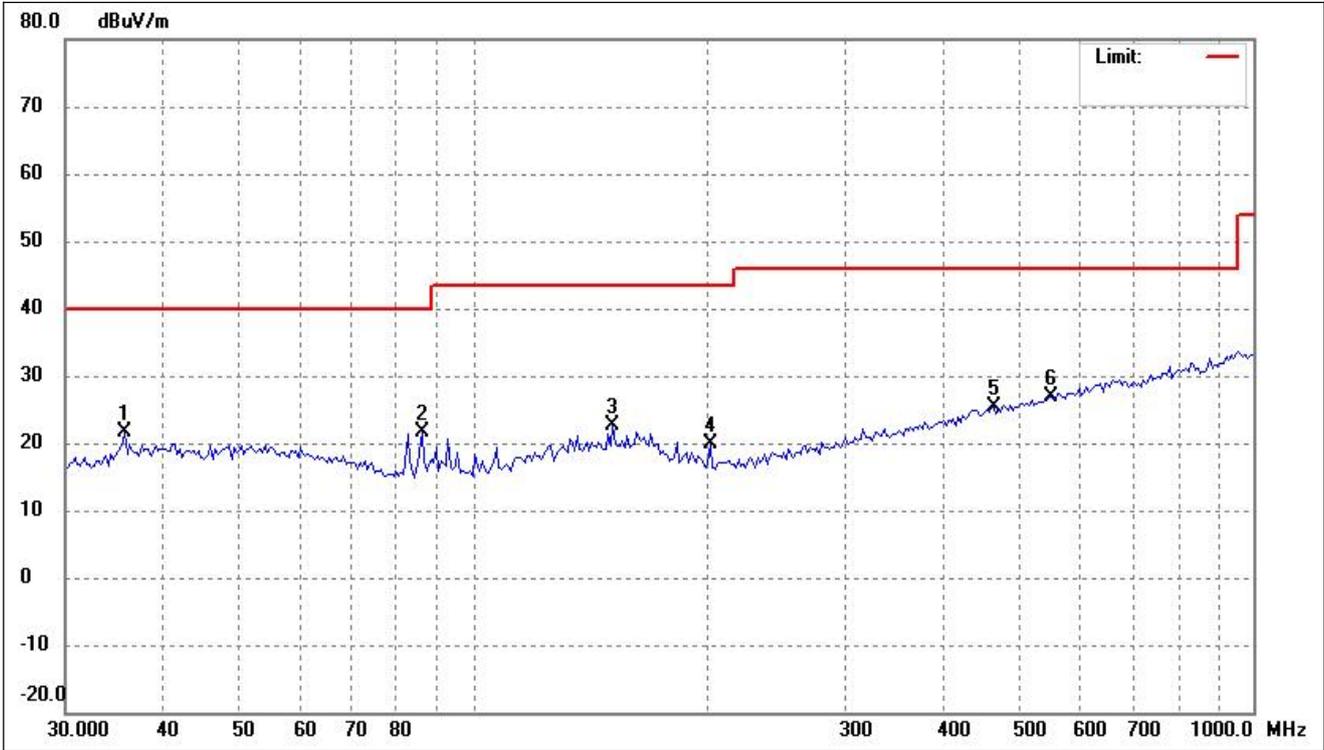
➤ 5470-5725MHz

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



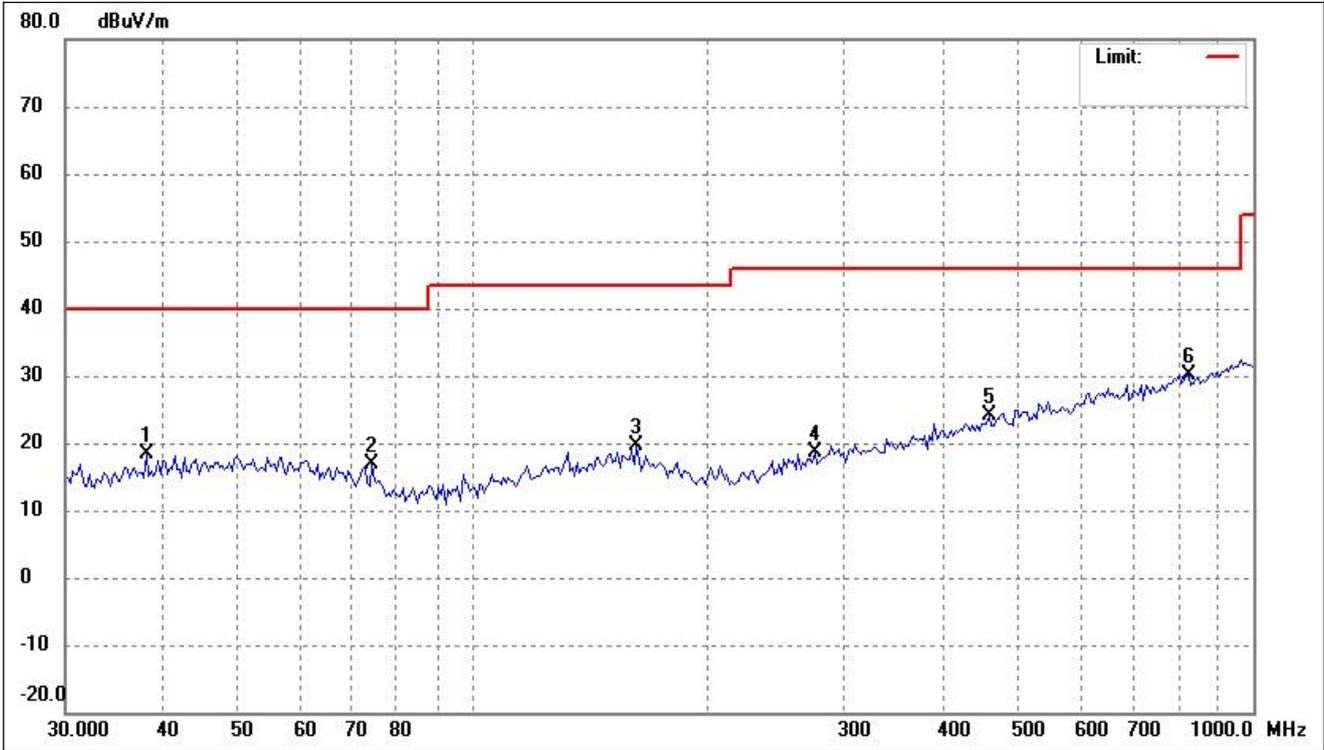
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	48.7191	26.70	-8.18	18.52	40.00	-21.48	-	-	peak
2	74.2696	30.44	-11.70	18.74	40.00	-21.26	-	-	peak
3	165.4716	28.90	-8.76	20.14	43.50	-23.36	-	-	peak
4	284.2607	27.47	-8.79	18.68	46.00	-27.32	-	-	peak
5	582.1122	29.03	-2.11	26.92	46.00	-19.08	-	-	peak
6	958.7135	30.77	2.26	33.03	46.00	-12.97	-	-	peak

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



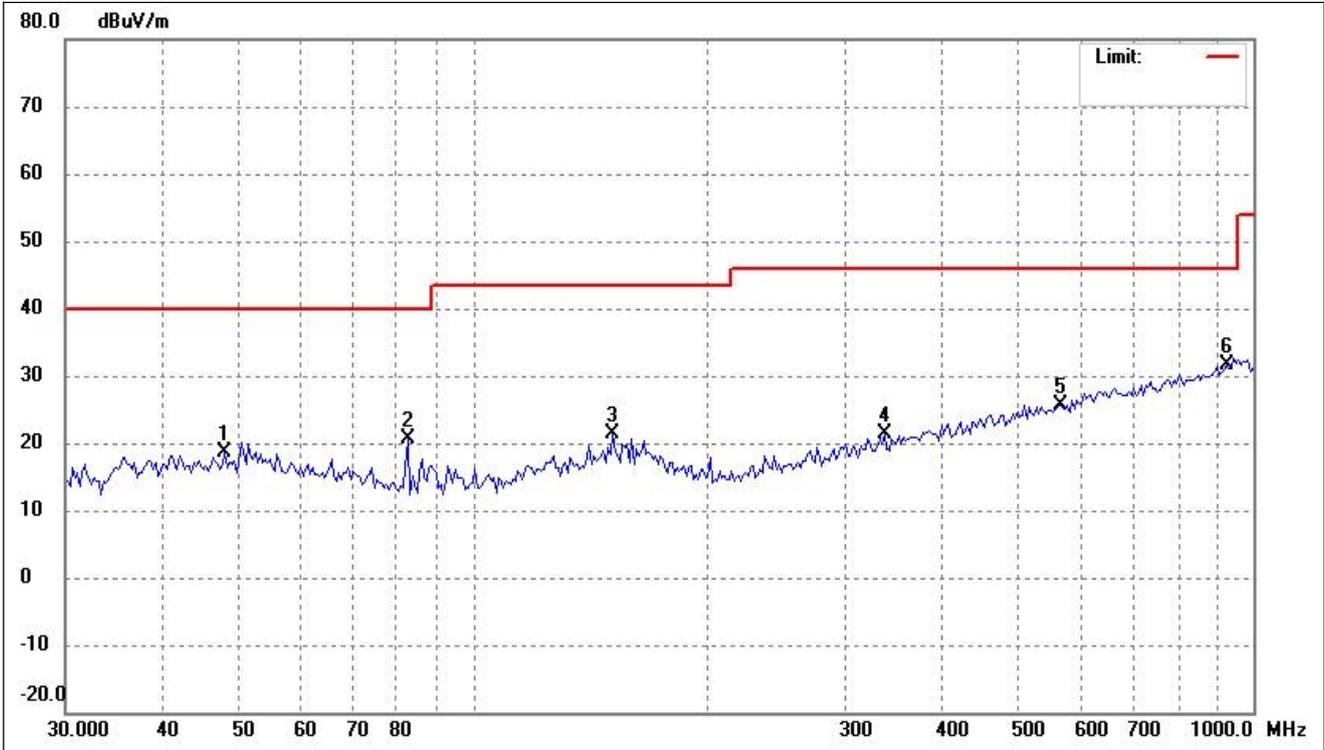
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	31.09	-9.39	21.70	40.00	-18.30	-	-	peak
2	86.0796	34.67	-13.04	21.63	40.00	-18.37	-	-	peak
3	151.0252	31.14	-8.61	22.53	43.50	-20.97	-	-	peak
4	201.4539	31.83	-12.01	19.82	43.50	-23.68	-	-	peak
5	464.8867	29.67	-4.37	25.30	46.00	-20.70	-	-	peak
6	550.2902	29.70	-2.84	26.86	46.00	-19.14	-	-	peak

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



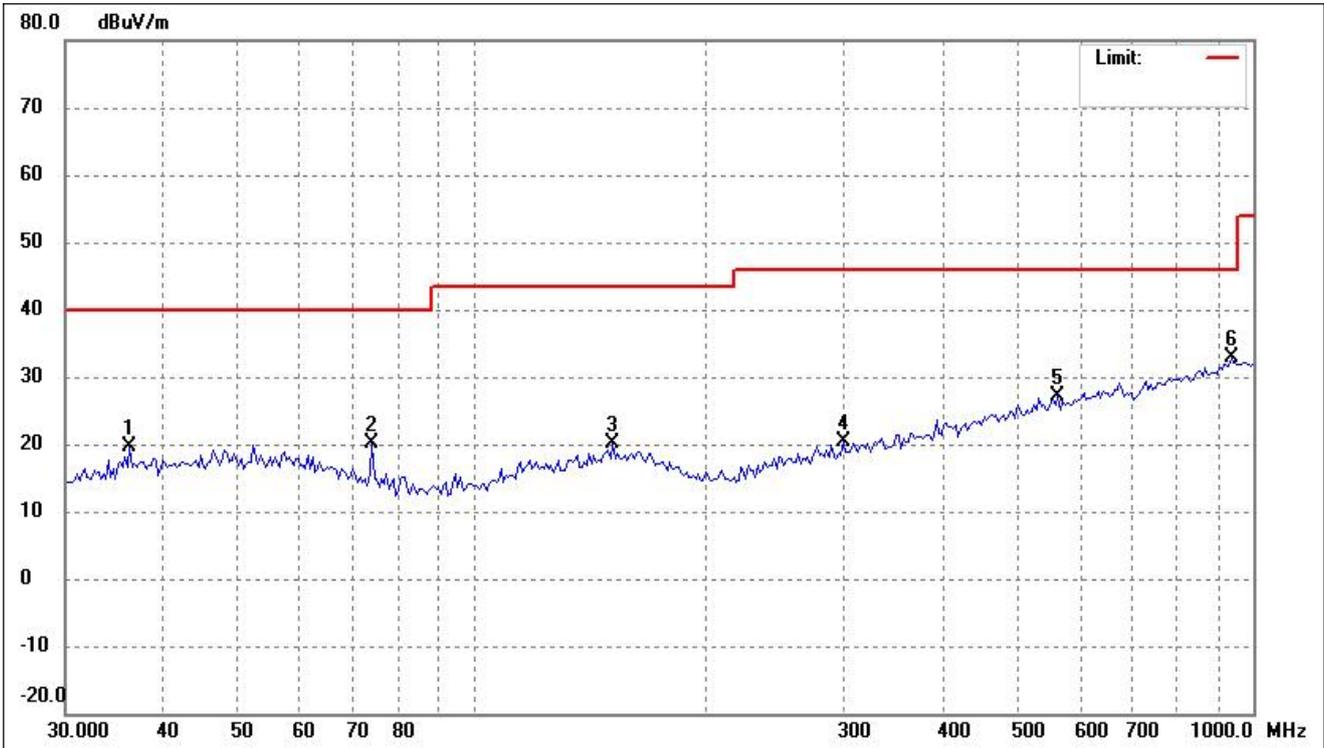
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	38.0965	27.15	-8.89	18.26	40.00	-21.74	-	-	peak
2	74.2696	28.50	-11.70	16.80	40.00	-23.20	-	-	peak
3	162.0197	28.18	-8.66	19.52	43.50	-23.98	-	-	peak
4	274.4464	27.71	-9.13	18.58	46.00	-27.42	-	-	peak
5	458.3987	28.51	-4.47	24.04	46.00	-21.96	-	-	peak
6	827.1795	29.65	0.54	30.19	46.00	-15.81	-	-	peak

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



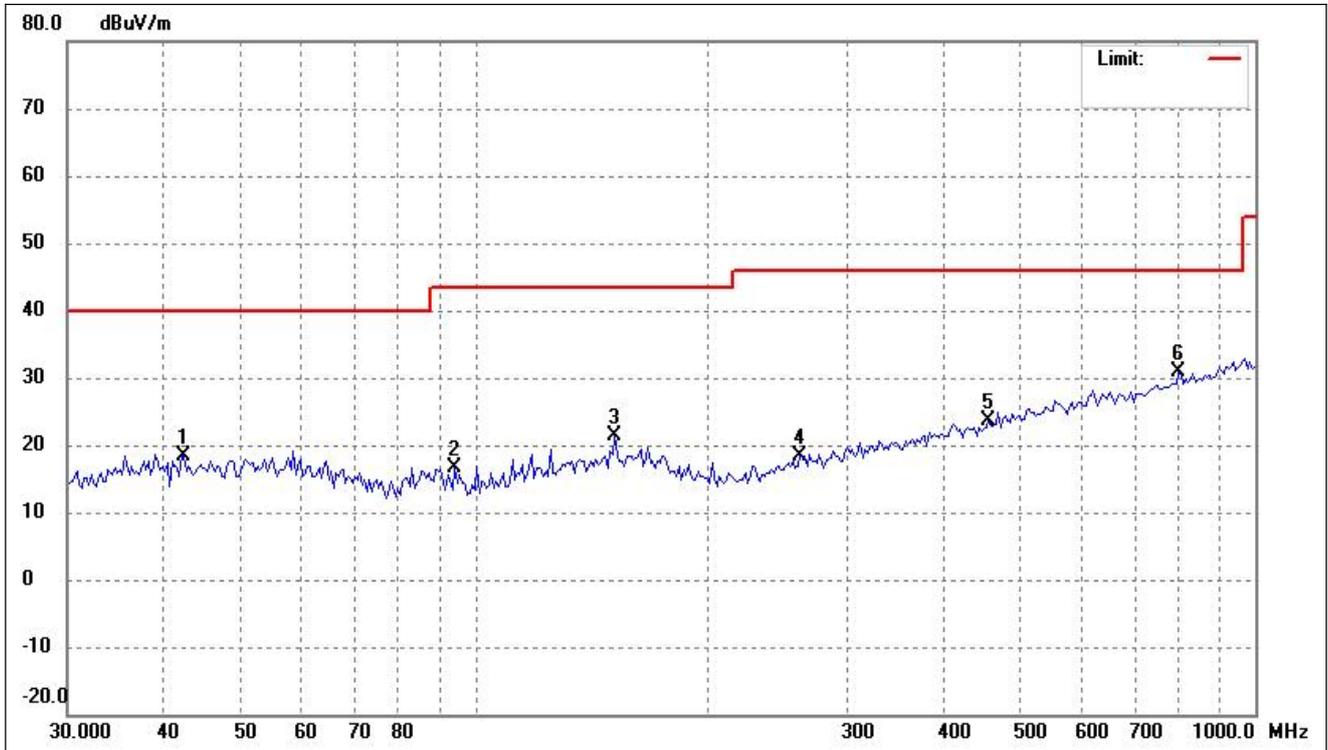
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	48.0392	26.90	-8.23	18.67	40.00	-21.33	-	-	peak
2	82.5257	33.71	-13.00	20.71	40.00	-19.29	-	-	peak
3	151.0252	30.09	-8.61	21.48	43.50	-22.02	-	-	peak
4	336.4817	28.65	-7.35	21.30	46.00	-24.70	-	-	peak
5	565.9776	28.21	-2.47	25.74	46.00	-20.26	-	-	peak
6	925.6132	29.96	1.74	31.70	46.00	-14.30	-	-	peak

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



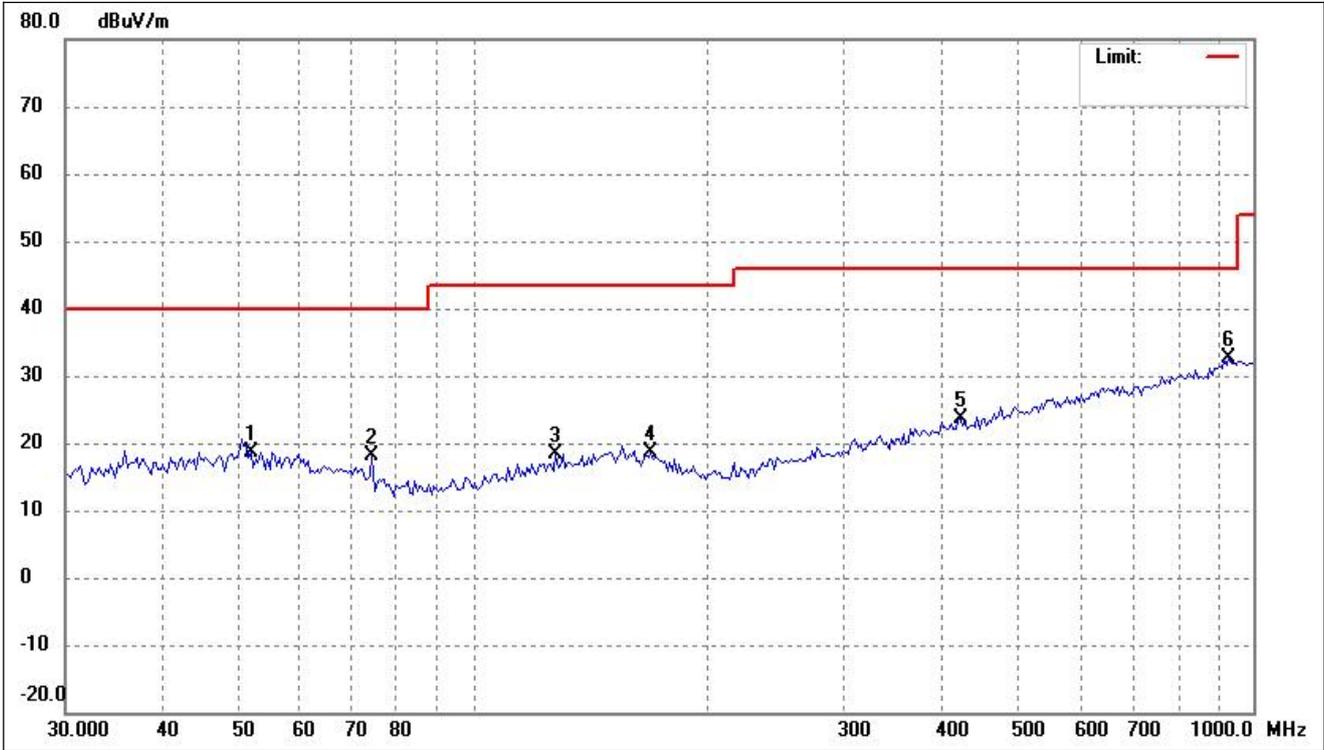
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	36.2678	29.02	-9.28	19.74	40.00	-20.26	-	-	peak
2	74.2696	31.91	-11.70	20.21	40.00	-19.79	-	-	peak
3	151.0252	28.63	-8.61	20.02	43.50	-23.48	-	-	peak
4	298.5932	28.57	-8.31	20.26	46.00	-25.74	-	-	peak
5	562.0143	29.75	-2.55	27.20	46.00	-18.80	-	-	peak
6	938.7139	30.77	2.01	32.78	46.00	-13.22	-	-	peak

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



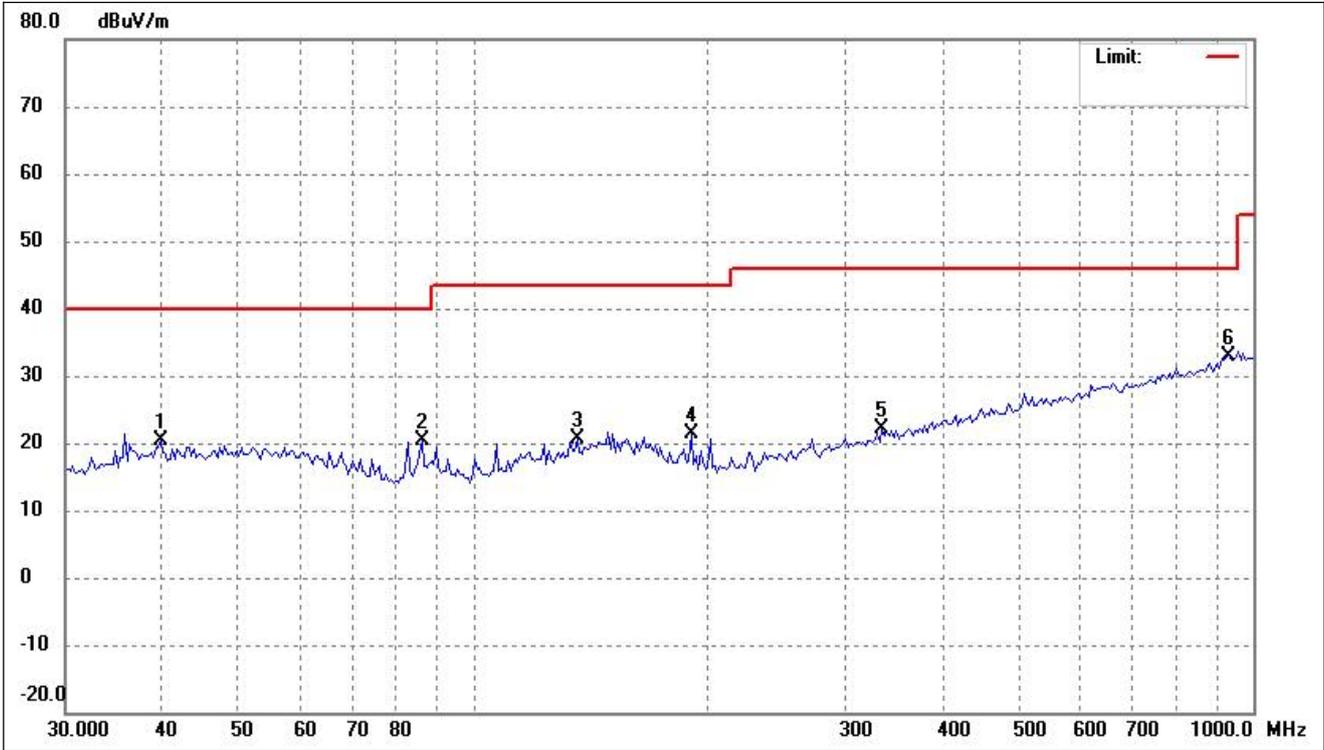
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	42.3314	26.80	-8.48	18.32	40.00	-21.68	-	-	peak
2	94.3137	29.52	-12.84	16.68	43.50	-26.82	-	-	peak
3	151.0252	29.90	-8.61	21.29	43.50	-22.21	-	-	peak
4	261.2730	28.21	-9.71	18.50	46.00	-27.50	-	-	peak
5	455.1888	28.09	-4.52	23.57	46.00	-22.43	-	-	peak
6	798.6205	30.66	0.29	30.95	46.00	-15.05	-	-	peak

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



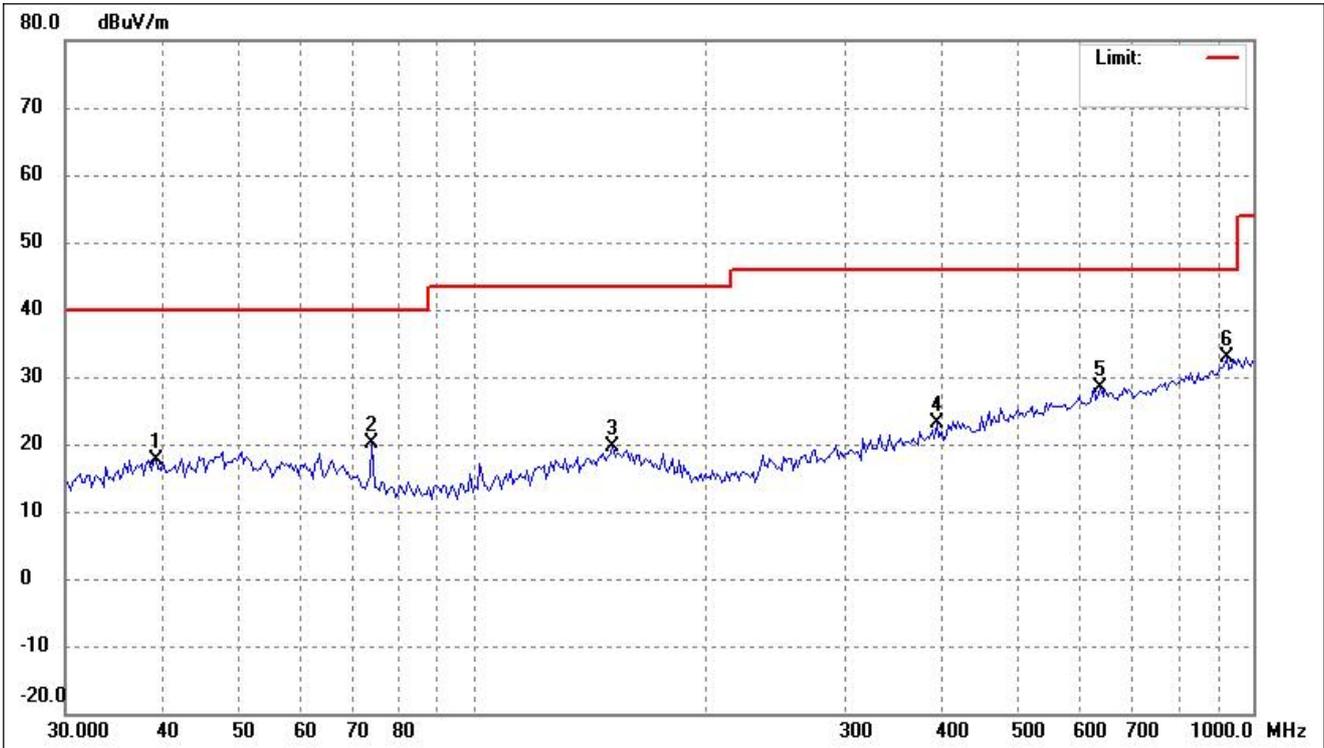
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	51.8999	27.02	-8.29	18.73	40.00	-21.27	-	-	peak
2	74.2696	29.73	-11.70	18.03	40.00	-21.97	-	-	peak
3	127.5865	28.28	-10.01	18.27	43.50	-25.23	-	-	peak
4	168.9970	27.58	-8.85	18.73	43.50	-24.77	-	-	peak
5	421.3287	29.13	-5.38	23.75	46.00	-22.25	-	-	peak
6	932.1405	30.70	1.87	32.57	46.00	-13.43	-	-	peak

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



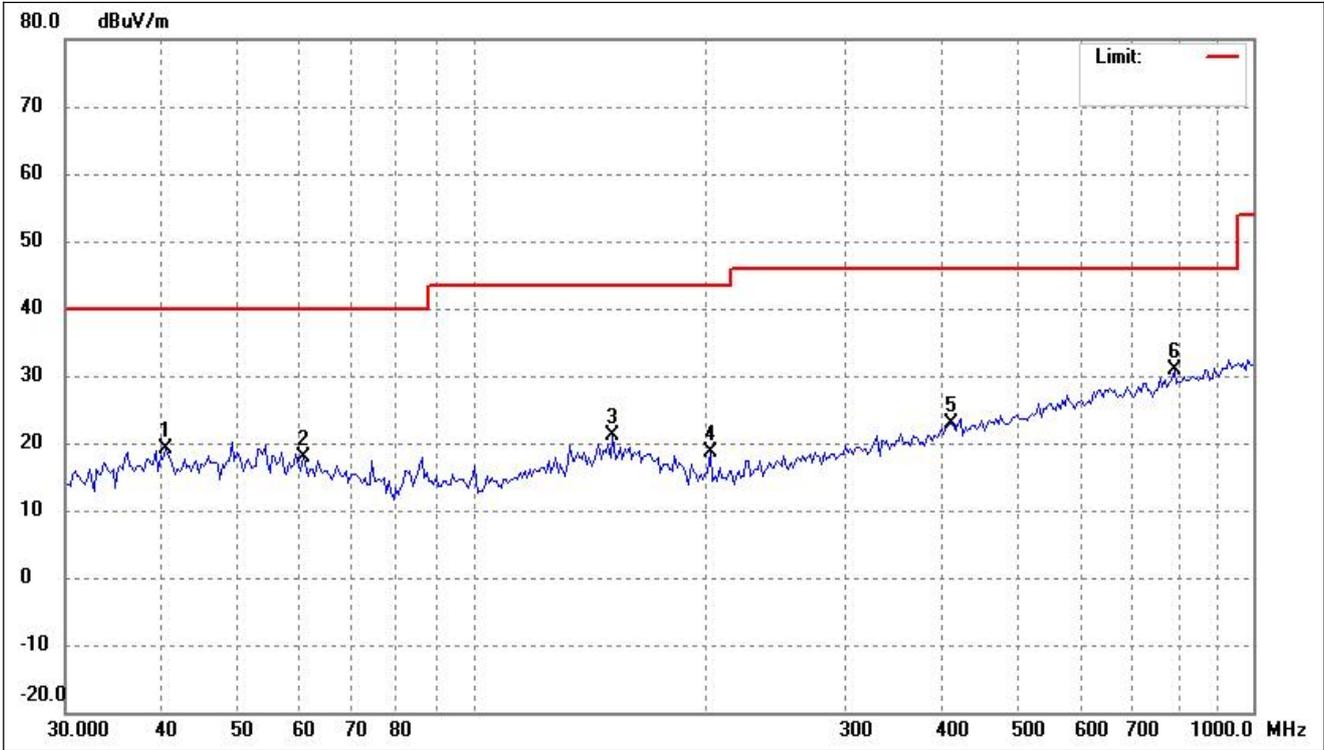
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	39.7371	28.95	-8.54	20.41	40.00	-19.59	-	-	peak
2	86.0795	33.37	-13.04	20.33	40.00	-19.67	-	-	peak
3	135.9163	30.15	-9.61	20.54	43.50	-22.96	-	-	peak
4	190.4411	32.72	-11.45	21.27	43.50	-22.23	-	-	peak
5	334.1255	29.57	-7.39	22.18	46.00	-23.82	-	-	peak
6	925.6132	31.08	1.74	32.82	46.00	-13.18	-	-	peak

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



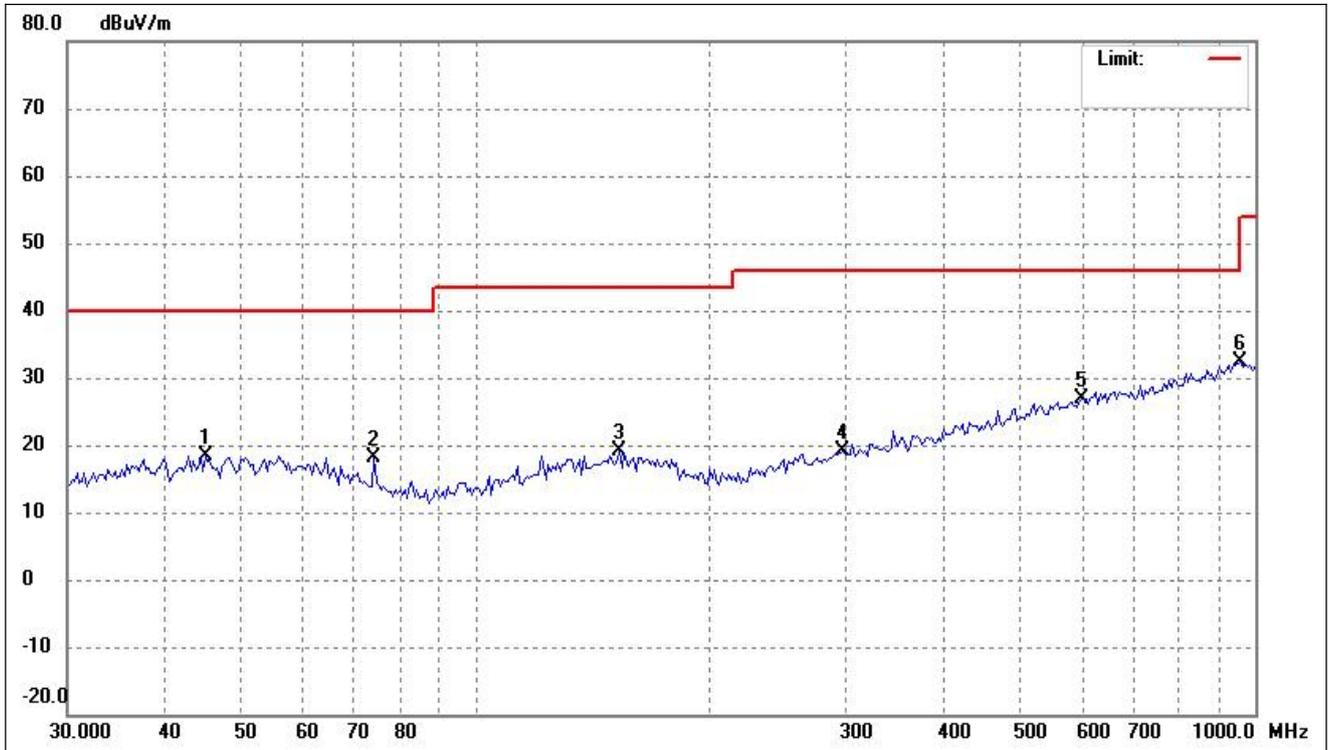
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	39.1825	26.39	-8.65	17.74	40.00	-22.26	-	-	peak
2	74.2696	31.81	-11.70	20.11	40.00	-19.89	-	-	peak
3	151.0252	28.35	-8.61	19.74	43.50	-23.76	-	-	peak
4	392.7376	29.36	-6.11	23.25	46.00	-22.75	-	-	peak
5	637.7947	29.85	-1.36	28.49	46.00	-17.51	-	-	peak
6	925.6132	31.08	1.74	32.82	46.00	-13.18	-	-	peak

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



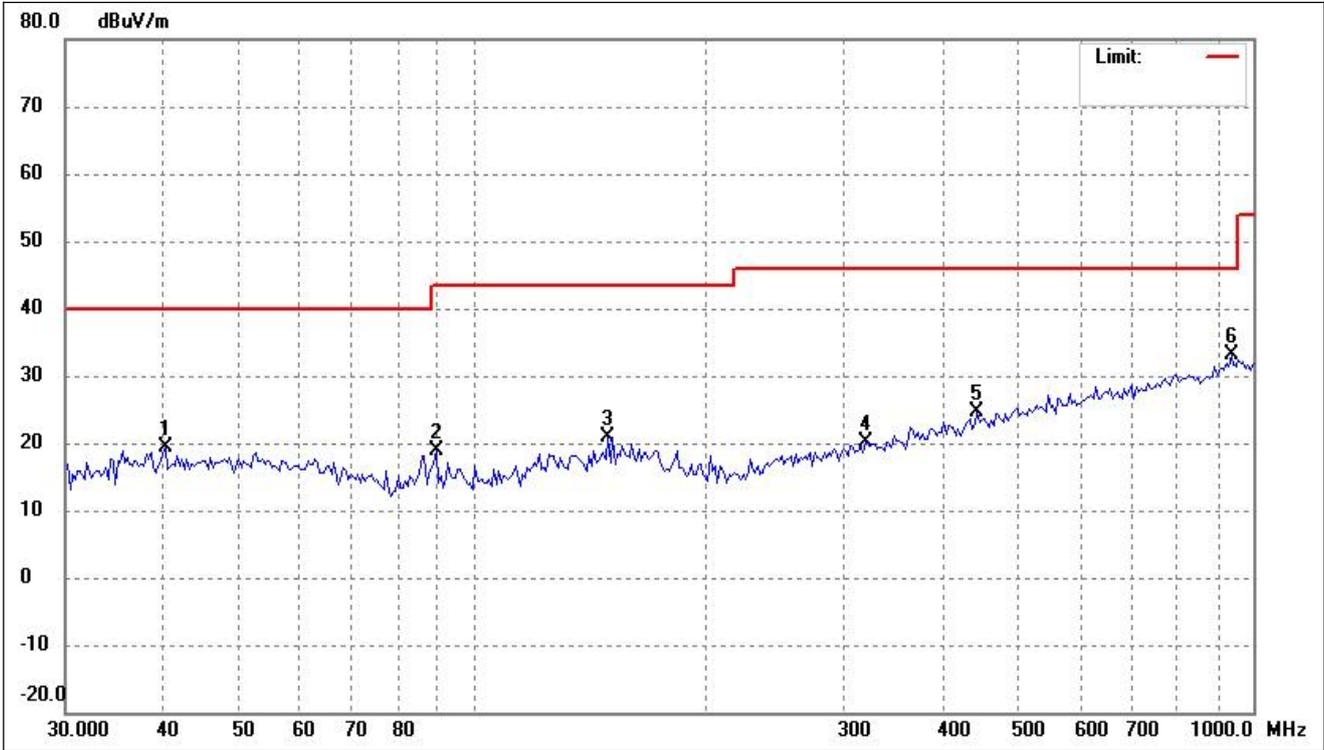
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	40.2995	27.73	-8.48	19.25	40.00	-20.75	-	-	peak
2	60.5769	26.98	-9.04	17.94	40.00	-22.06	-	-	peak
3	151.0252	29.80	-8.61	21.19	43.50	-22.31	-	-	peak
4	201.4539	30.58	-12.01	18.57	43.50	-24.93	-	-	peak
5	409.6506	28.56	-5.70	22.86	46.00	-23.14	-	-	peak
6	793.0281	30.71	0.23	30.94	46.00	-15.06	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	45.0951	26.89	-8.46	18.43	40.00	-21.57	-	-	peak
2	74.2696	29.83	-11.70	18.13	40.00	-21.87	-	-	peak
3	153.1627	27.66	-8.61	19.05	43.50	-24.45	-	-	peak
4	296.5023	27.47	-8.38	19.09	46.00	-26.91	-	-	peak
5	598.7067	28.56	-1.77	26.79	46.00	-19.21	-	-	peak
6	958.7135	30.00	2.26	32.26	46.00	-13.74	-	-	peak

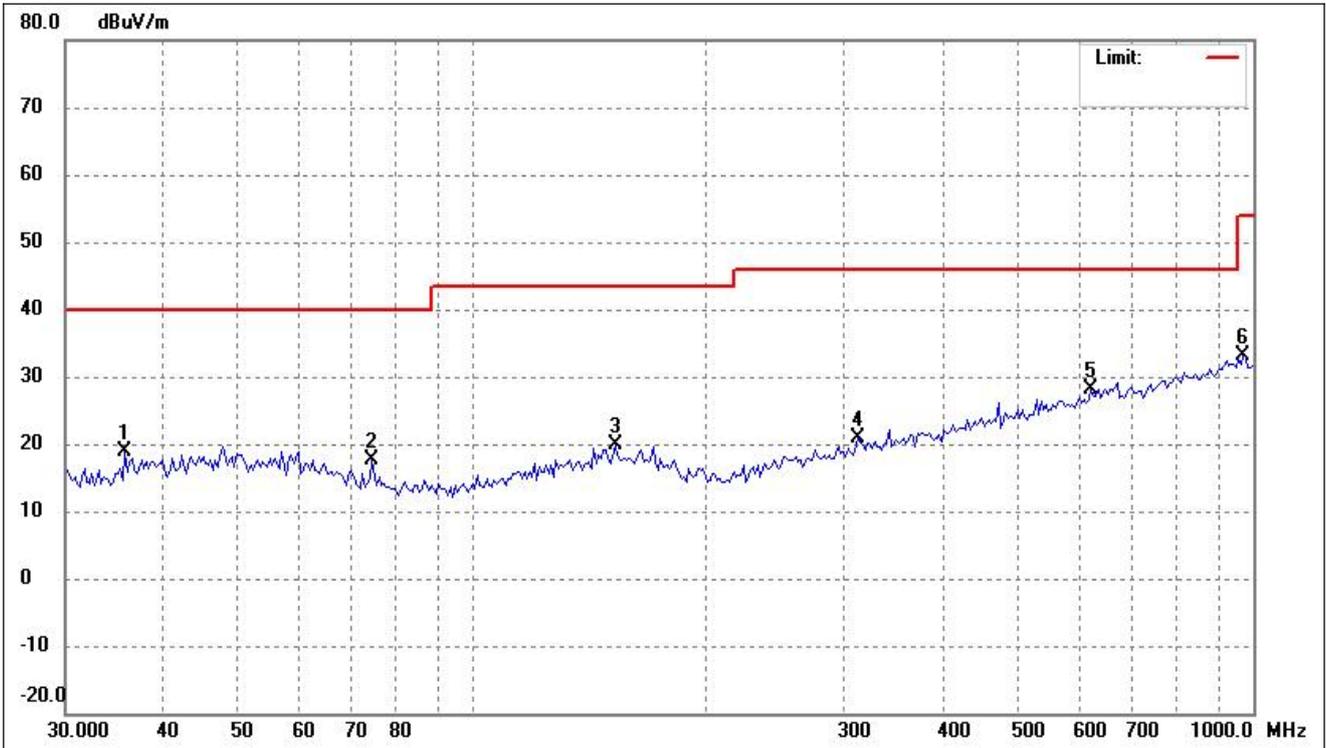
802.11ac-HT80			
Test Channel	5530MHz(worst case)	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	40.2995	27.97	-8.48	19.49	40.00	-20.51	-	-	peak
2	89.7866	31.86	-13.10	18.76	43.50	-24.74	-	-	peak
3	148.9175	29.58	-8.68	20.90	43.50	-22.60	-	-	peak
4	318.0875	27.90	-7.75	20.15	46.00	-25.85	-	-	peak
5	442.5722	29.34	-4.79	24.55	46.00	-21.45	-	-	peak
6	938.7139	31.01	2.01	33.02	46.00	-12.98	-	-	peak

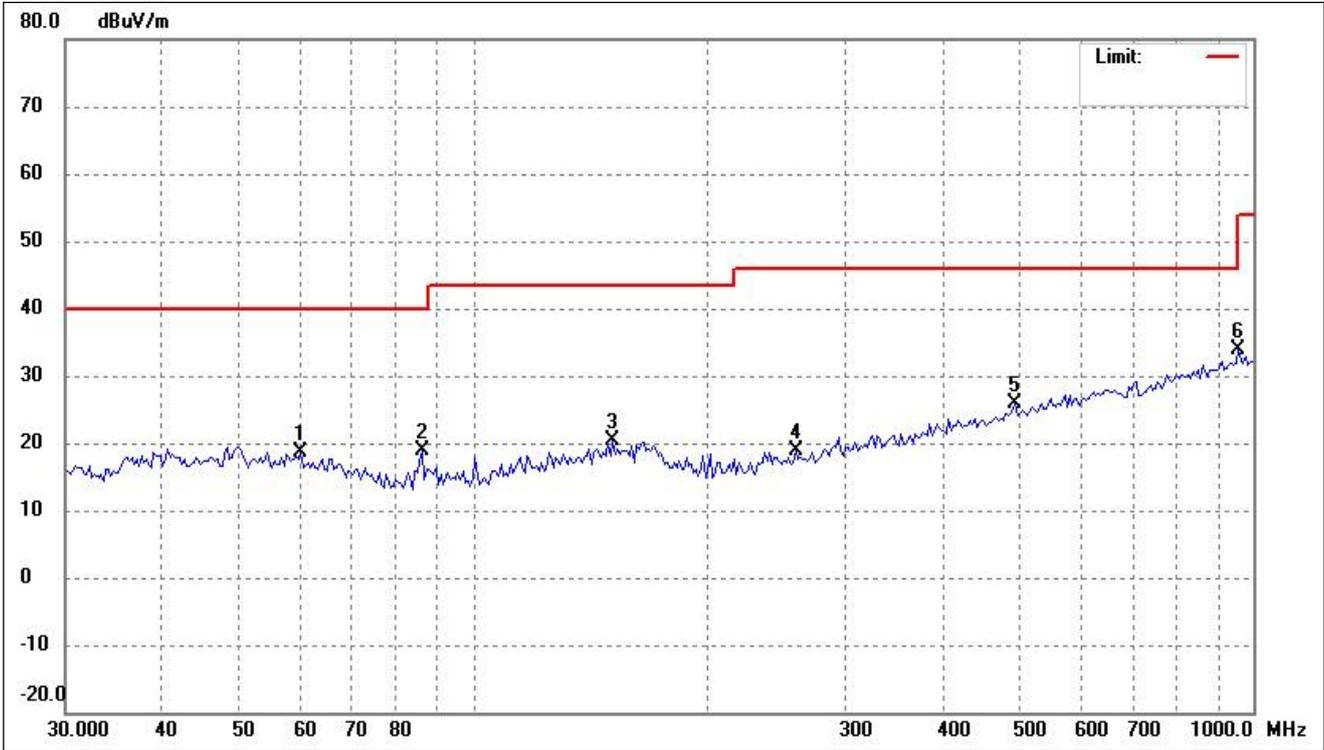
➤ 5725-5850MHz

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



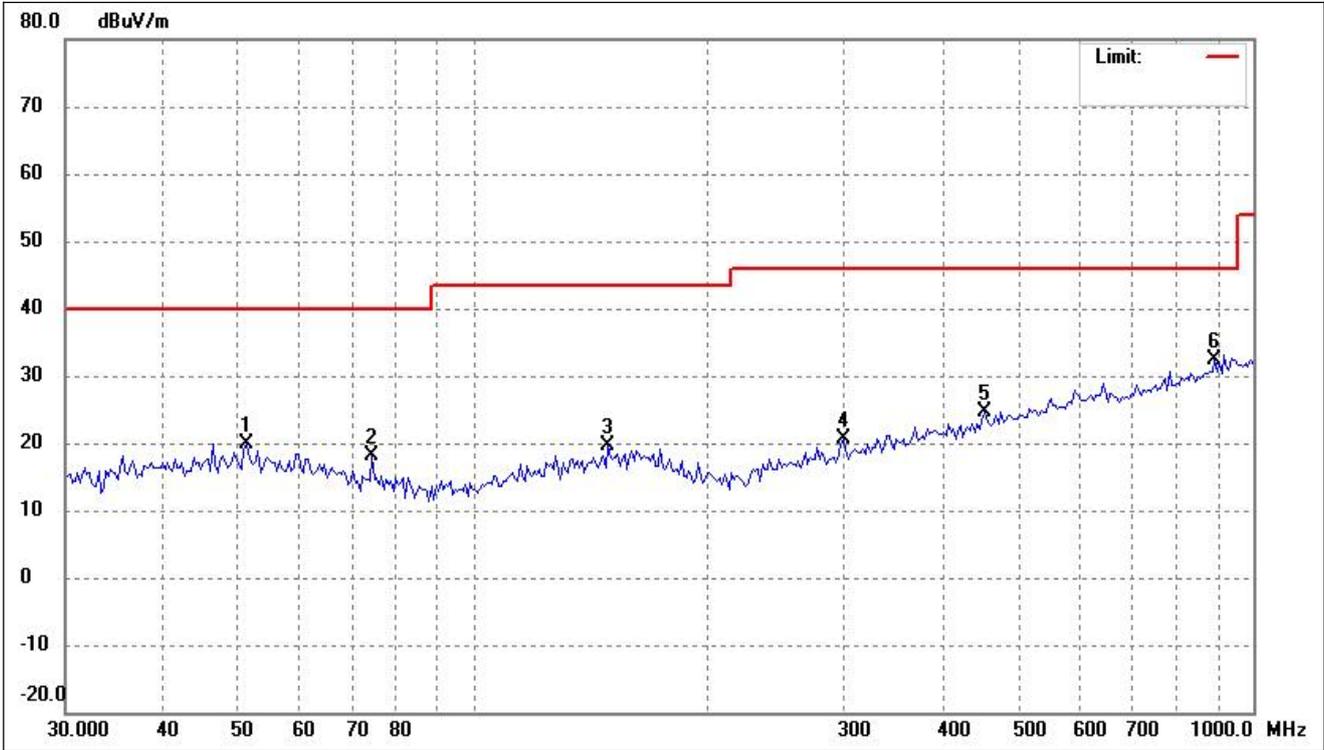
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	28.23	-9.39	18.84	40.00	-21.16	-	-	peak
2	74.2696	29.34	-11.70	17.64	40.00	-22.36	-	-	peak
3	152.0902	28.39	-8.60	19.79	43.50	-23.71	-	-	peak
4	311.4519	28.74	-7.93	20.81	46.00	-25.19	-	-	peak
5	620.1167	29.60	-1.46	28.14	46.00	-17.86	-	-	peak
6	972.2827	30.76	2.27	33.03	54.00	-20.97	-	-	peak

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



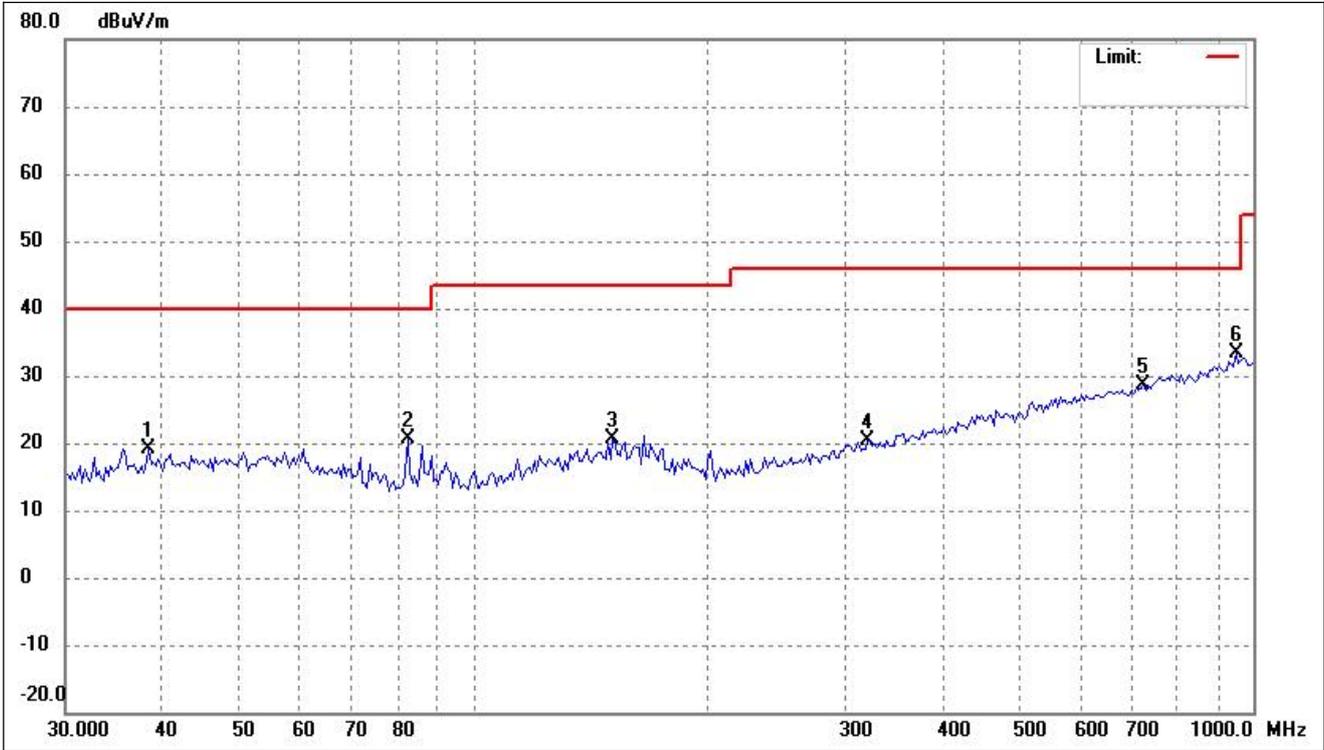
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	60.1528	27.53	-8.97	18.56	40.00	-21.44	-	-	peak
2	86.0796	31.87	-13.04	18.83	40.00	-21.17	-	-	peak
3	151.0252	28.91	-8.61	20.30	43.50	-23.20	-	-	peak
4	259.4434	28.65	-9.79	18.86	46.00	-27.14	-	-	peak
5	495.2379	29.80	-3.97	25.83	46.00	-20.17	-	-	peak
6	958.7135	31.57	2.26	33.83	46.00	-12.17	-	-	peak

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



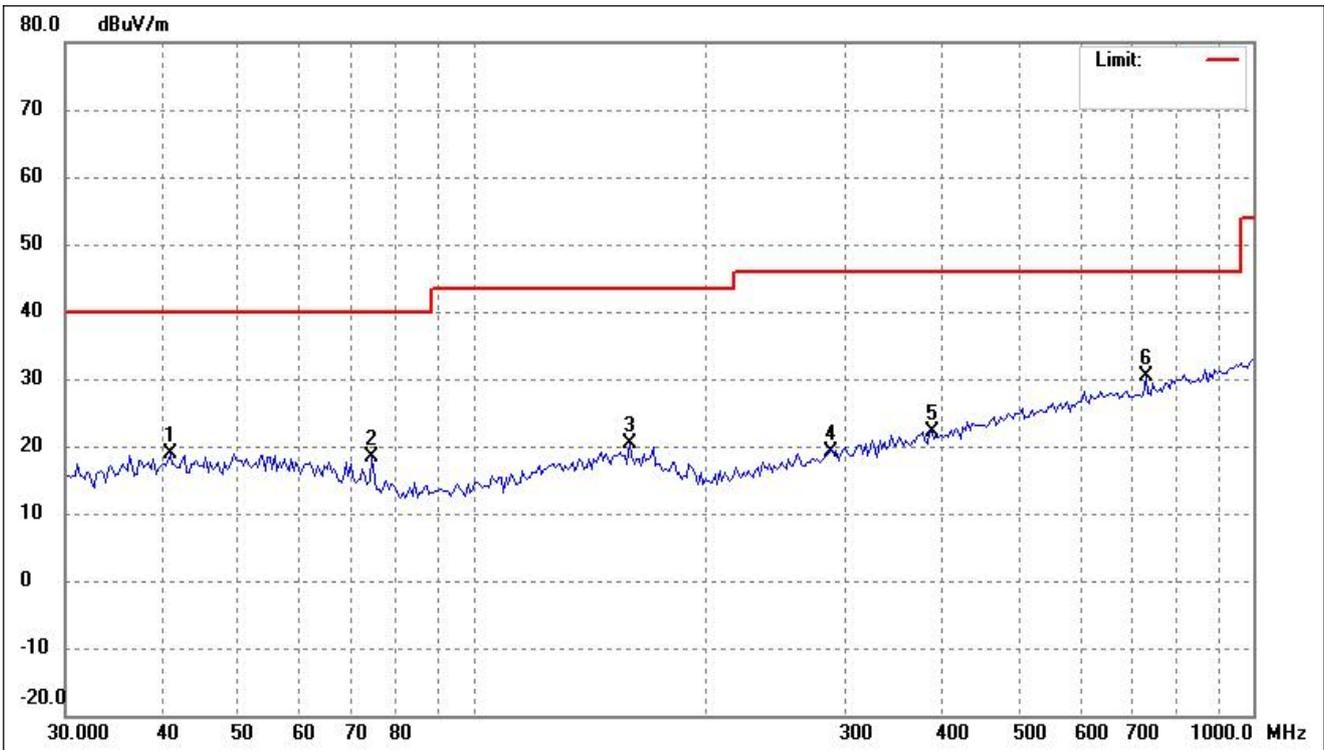
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	51.1756	28.22	-8.22	20.00	40.00	-20.00	-	-	peak
2	74.2696	29.72	-11.70	18.02	40.00	-21.98	-	-	peak
3	148.9175	28.22	-8.68	19.54	43.50	-23.96	-	-	peak
4	298.5932	28.99	-8.31	20.68	46.00	-25.32	-	-	peak
5	452.0013	29.25	-4.56	24.69	46.00	-21.31	-	-	peak
6	893.6557	31.23	1.13	32.36	46.00	-13.64	-	-	peak

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



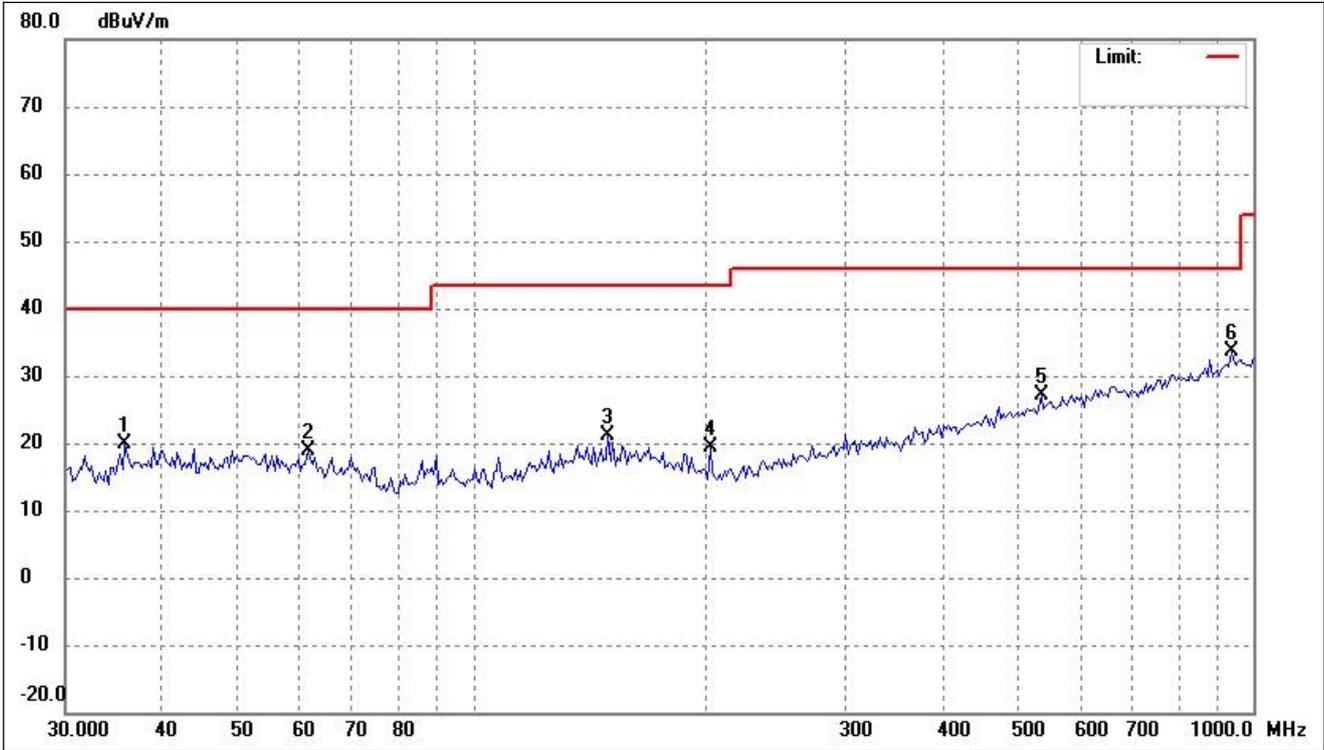
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	38.3651	28.01	-8.83	19.18	40.00	-20.82	-	-	peak
2	82.5257	33.58	-13.00	20.58	40.00	-19.42	-	-	peak
3	151.0252	29.29	-8.61	20.68	43.50	-22.82	-	-	peak
4	320.3306	28.07	-7.68	20.39	46.00	-25.61	-	-	peak
5	723.7930	29.29	-0.65	28.64	46.00	-17.36	-	-	peak
6	952.0001	31.01	2.25	33.26	46.00	-12.74	-	-	peak

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



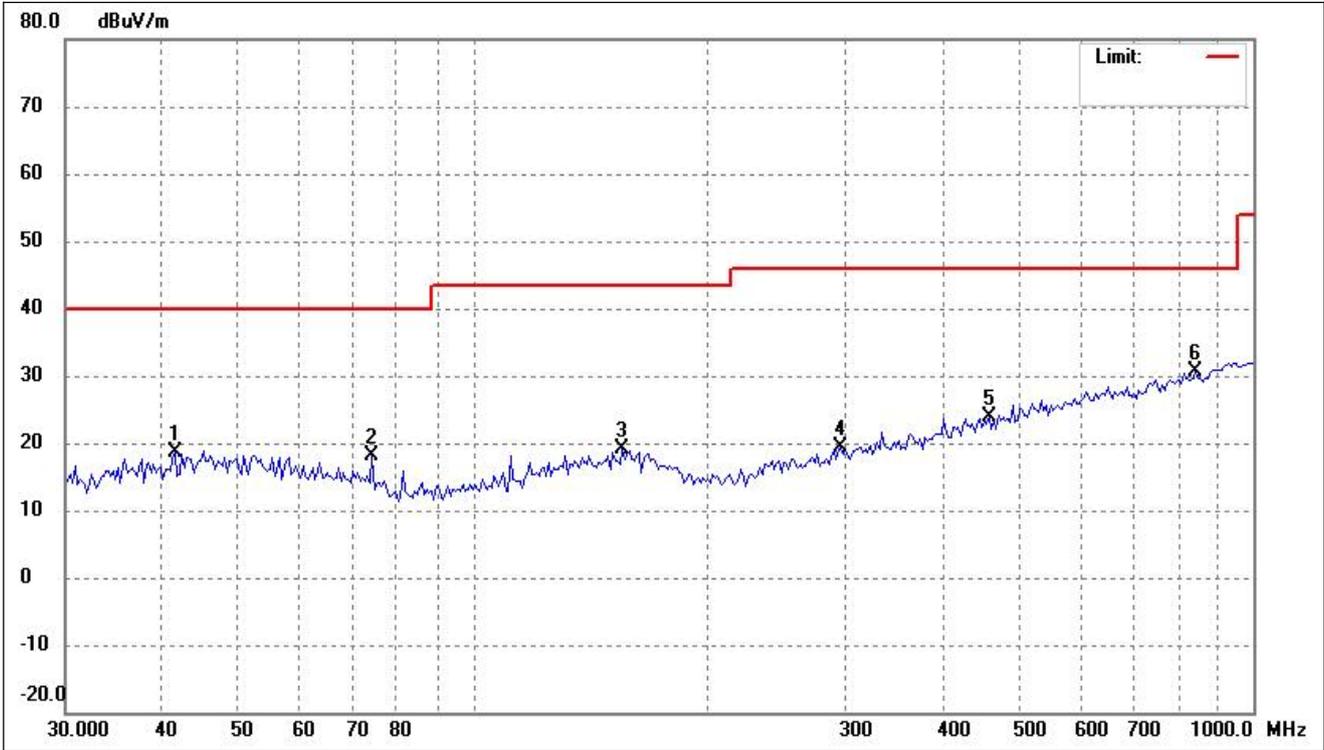
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	40.8699	27.41	-8.47	18.94	40.00	-21.06	-	-	peak
2	74.2696	30.19	-11.70	18.49	40.00	-21.51	-	-	peak
3	158.6399	28.91	-8.61	20.30	43.50	-23.20	-	-	peak
4	286.2653	27.83	-8.72	19.11	46.00	-26.89	-	-	peak
5	387.2565	28.47	-6.22	22.25	46.00	-23.75	-	-	peak
6	728.8971	30.92	-0.56	30.36	46.00	-15.64	-	-	peak

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



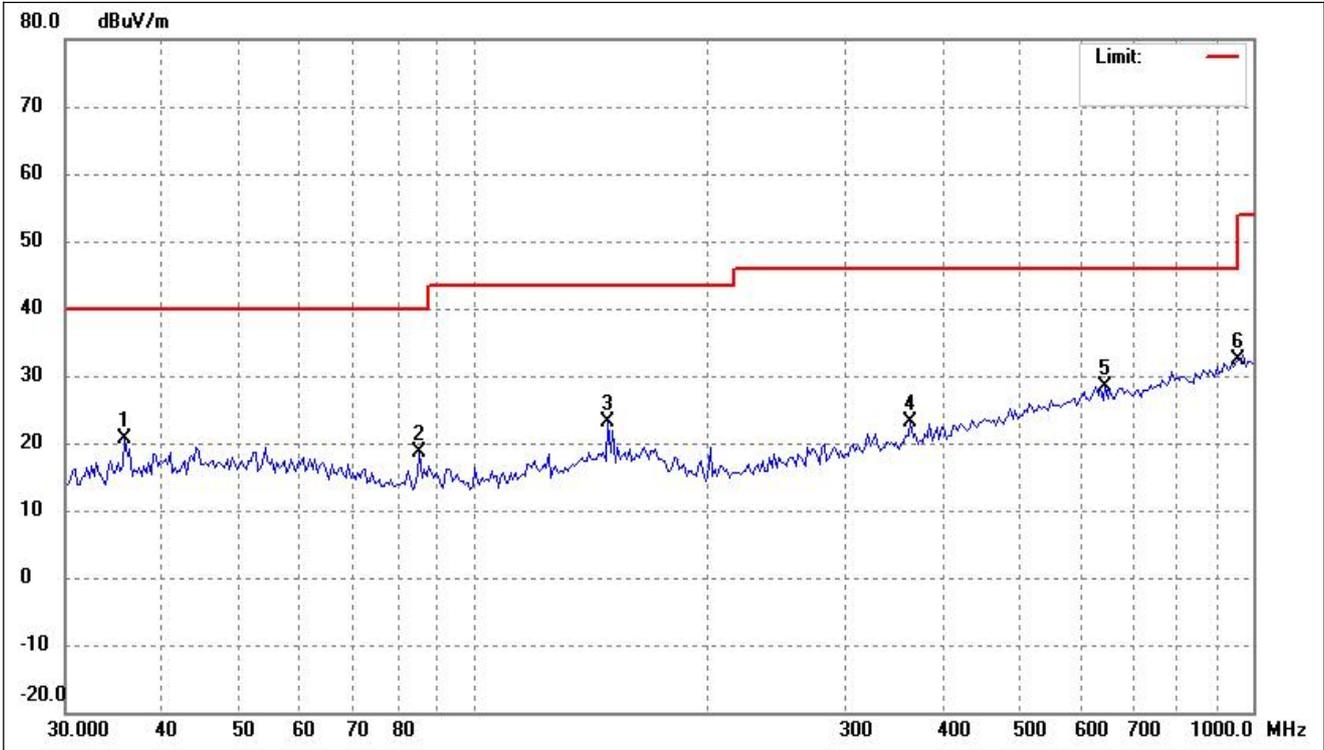
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7617	29.25	-9.39	19.86	40.00	-20.14	-	-	peak
2	61.4343	28.17	-9.20	18.97	40.00	-21.03	-	-	peak
3	148.9175	29.91	-8.68	21.23	43.50	-22.27	-	-	peak
4	201.4539	31.45	-12.01	19.44	43.50	-24.06	-	-	peak
5	535.0377	30.27	-3.25	27.02	46.00	-18.98	-	-	peak
6	938.7139	31.74	2.01	33.75	46.00	-12.25	-	-	peak

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



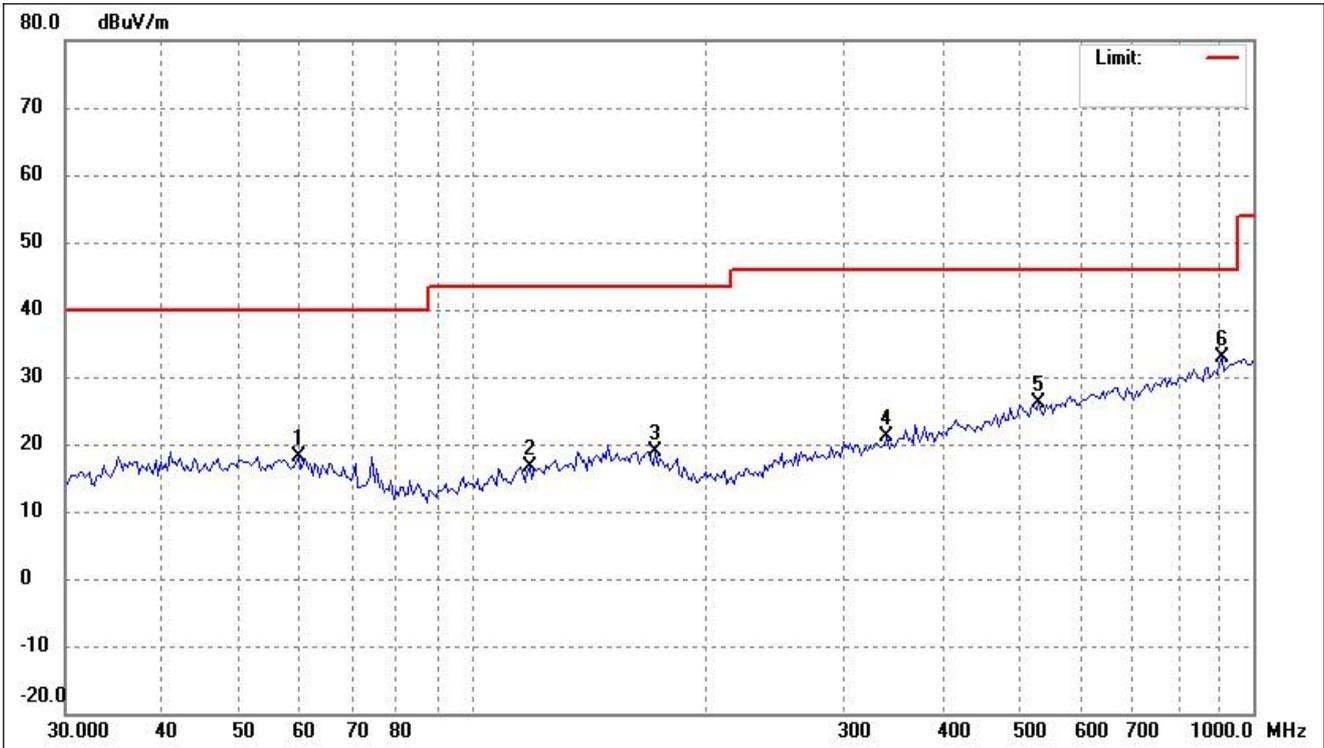
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	41.4483	27.12	-8.48	18.64	40.00	-21.36	-	-	peak
2	74.2696	29.79	-11.70	18.09	40.00	-21.91	-	-	peak
3	155.3305	27.67	-8.61	19.06	43.50	-24.44	-	-	peak
4	296.5023	27.82	-8.38	19.44	46.00	-26.56	-	-	peak
5	458.3987	28.29	-4.47	23.82	46.00	-22.18	-	-	peak
6	844.8028	29.90	0.69	30.59	46.00	-15.41	-	-	peak

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



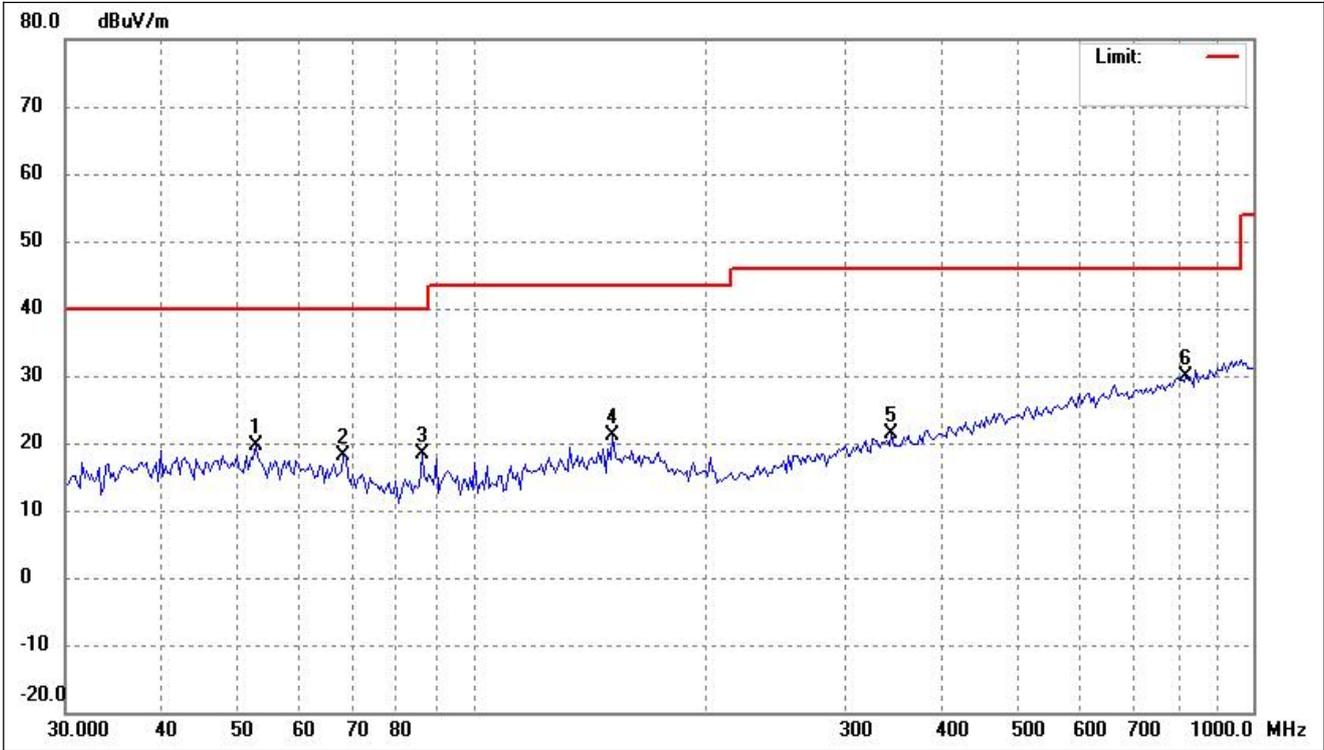
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.7616	30.04	-9.39	20.65	40.00	-19.35	-	-	peak
2	85.4768	31.76	-13.04	18.72	40.00	-21.28	-	-	peak
3	148.9174	31.81	-8.68	23.13	43.50	-20.37	-	-	peak
4	363.5230	29.84	-6.76	23.08	46.00	-22.92	-	-	peak
5	646.8217	29.60	-1.32	28.28	46.00	-17.72	-	-	peak
6	958.7134	30.17	2.26	32.43	46.00	-13.57	-	-	peak

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



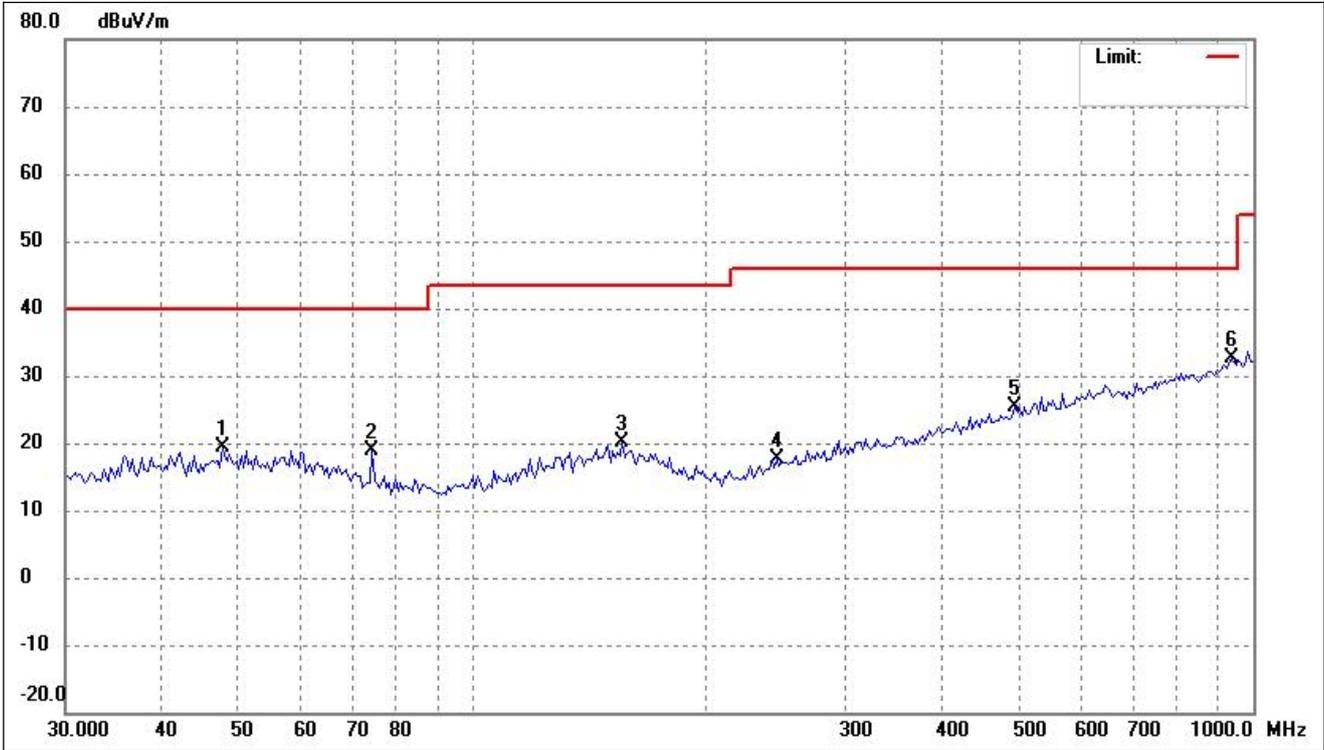
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	59.7315	27.12	-8.92	18.20	40.00	-21.80	-	-	peak
2	118.0957	27.34	-10.73	16.61	43.50	-26.89	-	-	peak
3	171.3890	28.02	-9.08	18.94	43.50	-24.56	-	-	peak
4	338.8546	28.44	-7.31	21.13	46.00	-24.87	-	-	peak
5	531.2910	29.54	-3.35	26.19	46.00	-19.81	-	-	peak
6	912.6953	31.30	1.46	32.76	46.00	-13.24	-	-	peak

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



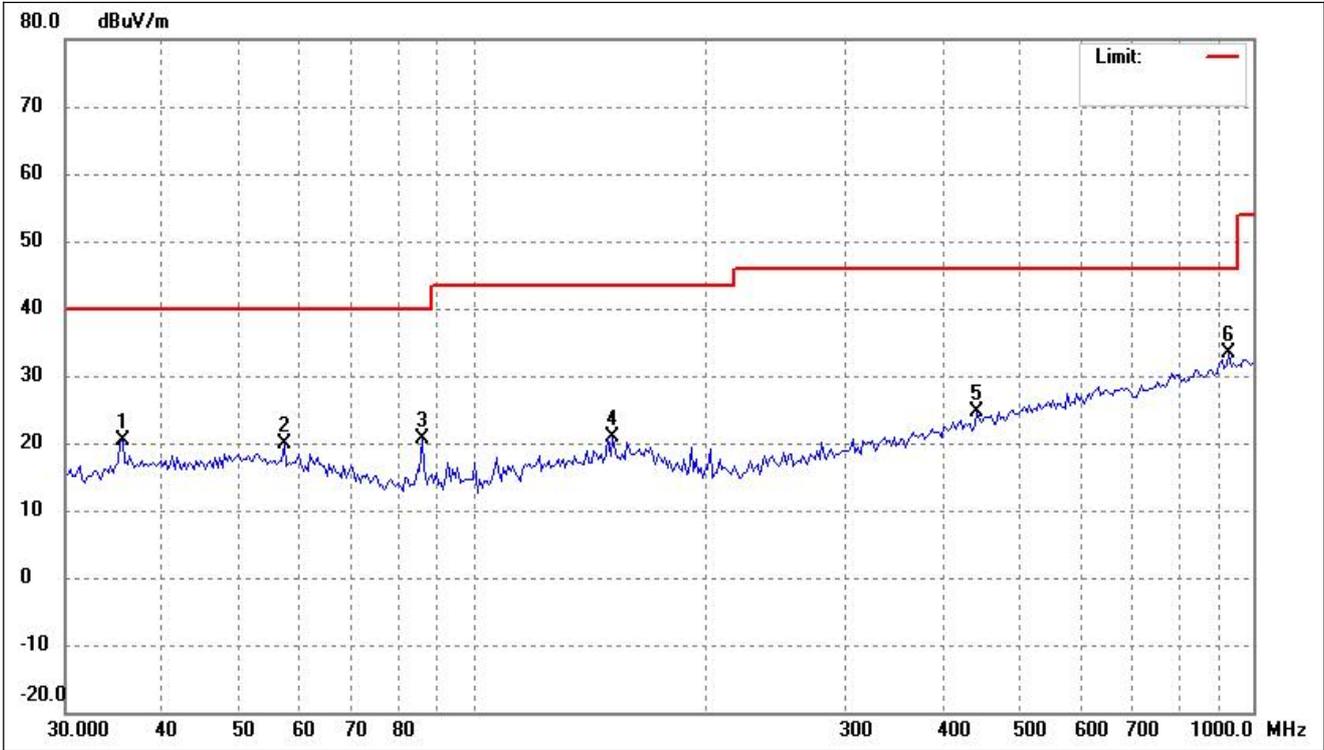
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	52.6345	28.06	-8.37	19.69	40.00	-20.31	-	-	peak
2	68.2636	28.54	-10.45	18.09	40.00	-21.91	-	-	peak
3	86.0796	31.46	-13.04	18.42	40.00	-21.58	-	-	peak
4	151.0252	29.84	-8.61	21.23	43.50	-22.27	-	-	peak
5	343.6506	28.60	-7.22	21.38	46.00	-24.62	-	-	peak
6	821.3871	29.32	0.49	29.81	46.00	-16.19	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	47.7028	27.70	-8.27	19.43	40.00	-20.57	-	-	peak
2	74.2696	30.53	-11.70	18.83	40.00	-21.17	-	-	peak
3	155.3305	28.62	-8.61	20.01	43.50	-23.49	-	-	peak
4	245.2606	27.92	-10.36	17.56	46.00	-28.44	-	-	peak
5	495.2379	29.43	-3.97	25.46	46.00	-20.54	-	-	peak
6	938.7139	30.58	2.01	32.59	46.00	-13.41	-	-	peak

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

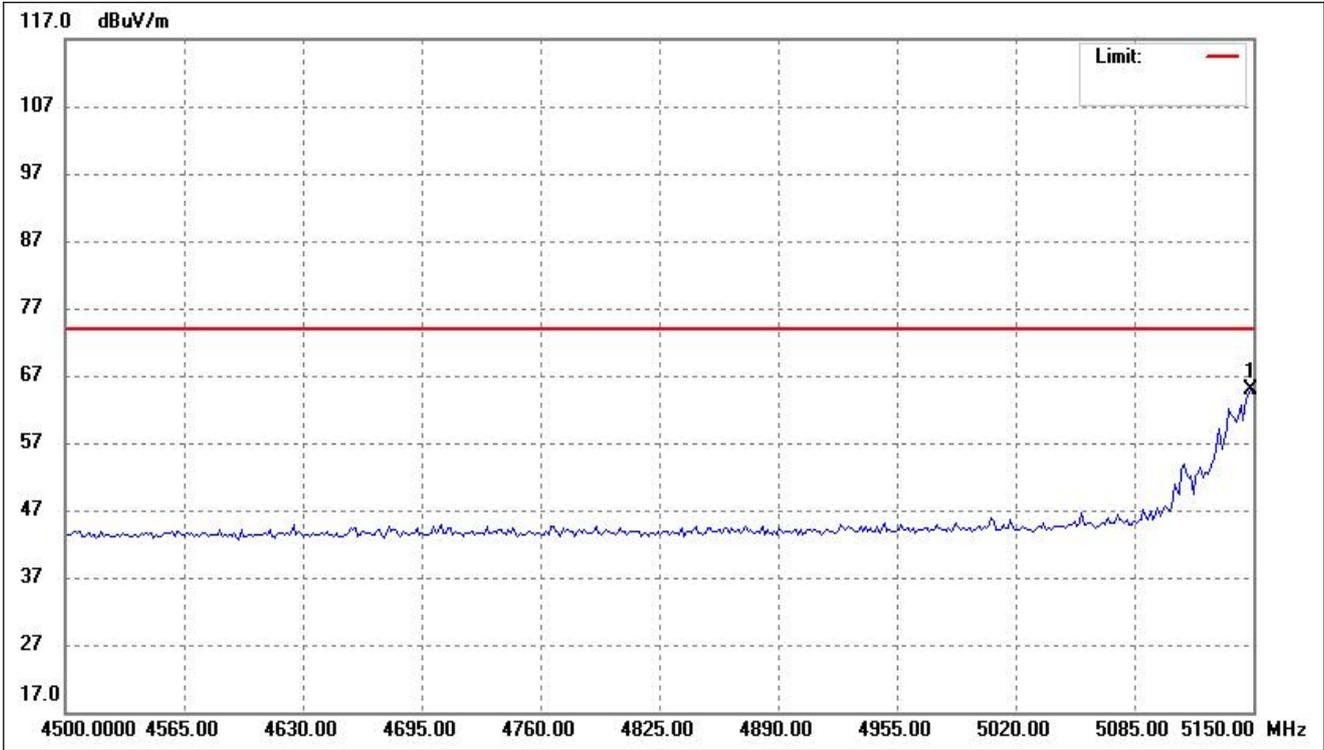


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	35.5112	29.74	-9.44	20.30	40.00	-19.70	-	-	peak
2	57.2654	28.72	-8.77	19.95	40.00	-20.05	-	-	peak
3	86.0796	33.60	-13.04	20.56	40.00	-19.44	-	-	peak
4	151.0252	29.55	-8.61	20.94	43.50	-22.56	-	-	peak
5	442.5722	29.46	-4.79	24.67	46.00	-21.33	-	-	peak
6	932.1405	31.53	1.87	33.40	46.00	-12.60	-	-	peak

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

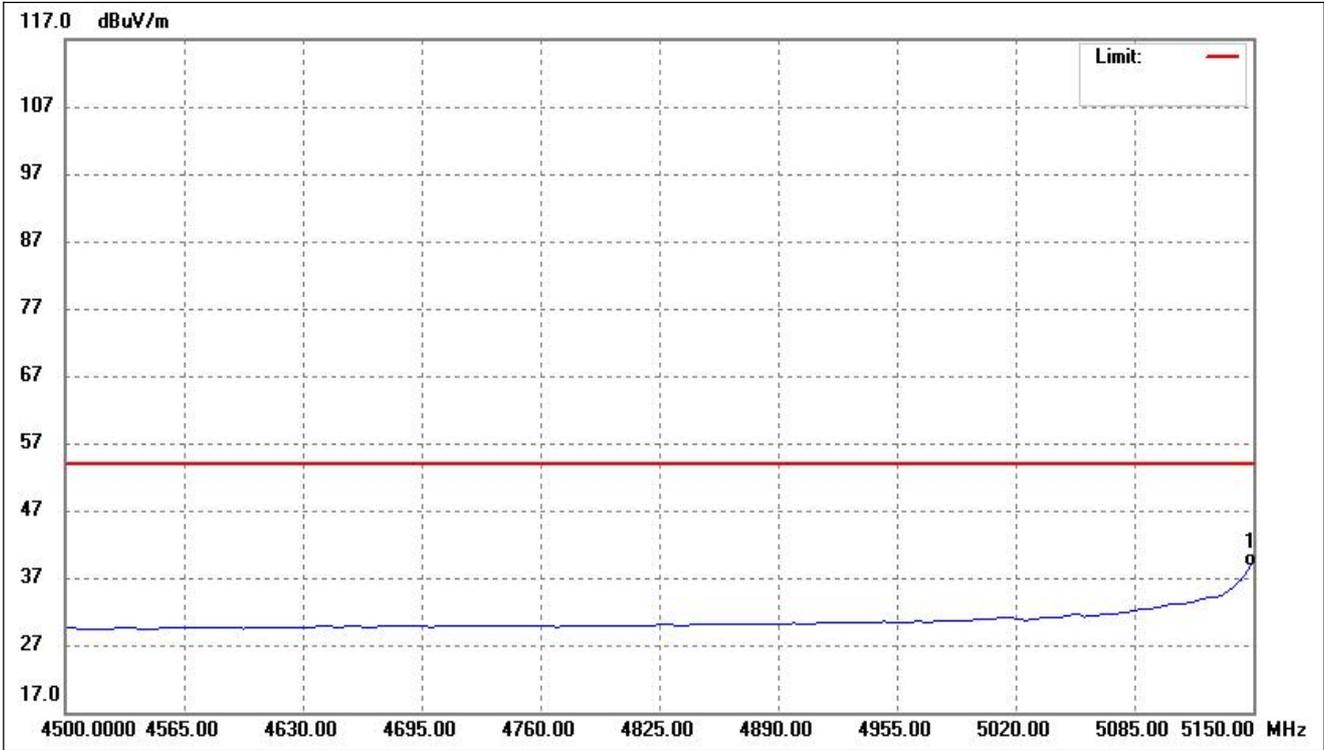
➤ Spurious Emission above 1GHz

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



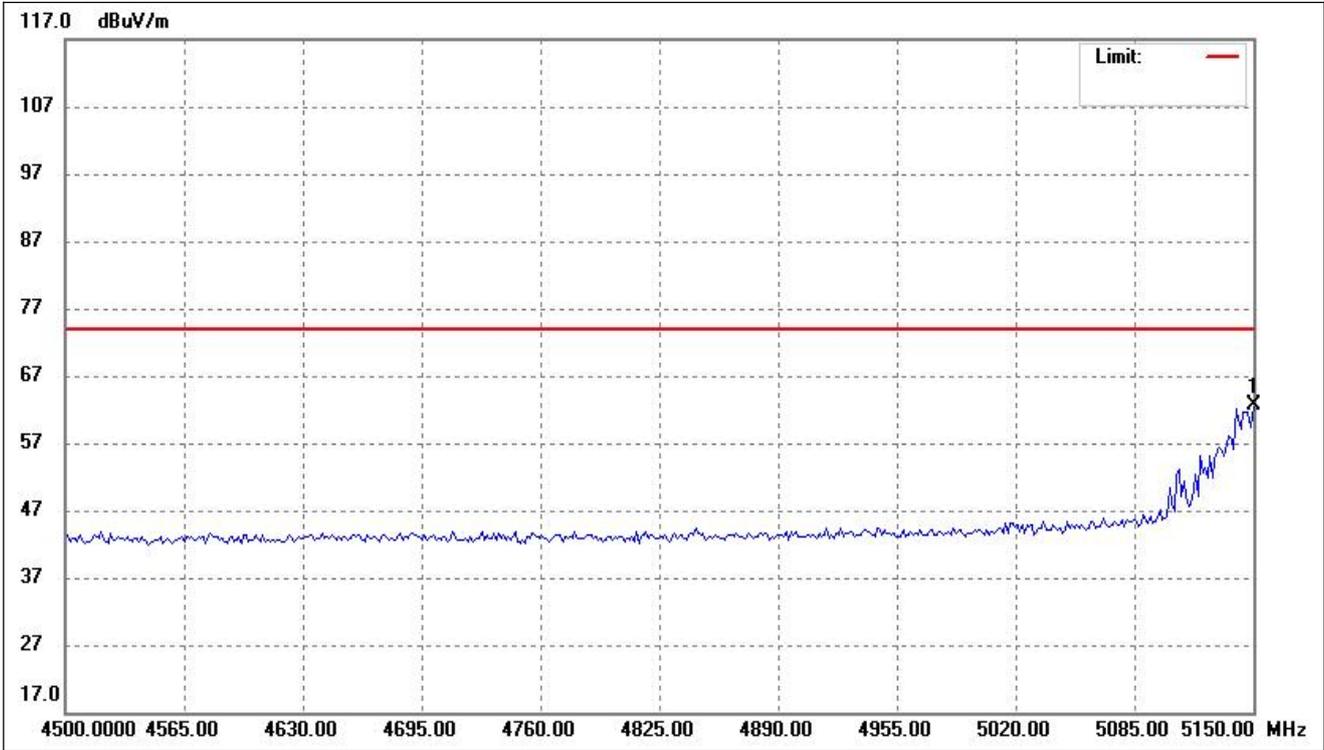
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5148.697	76.57	-11.66	64.91	74.00	-9.09	-	-	peak

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



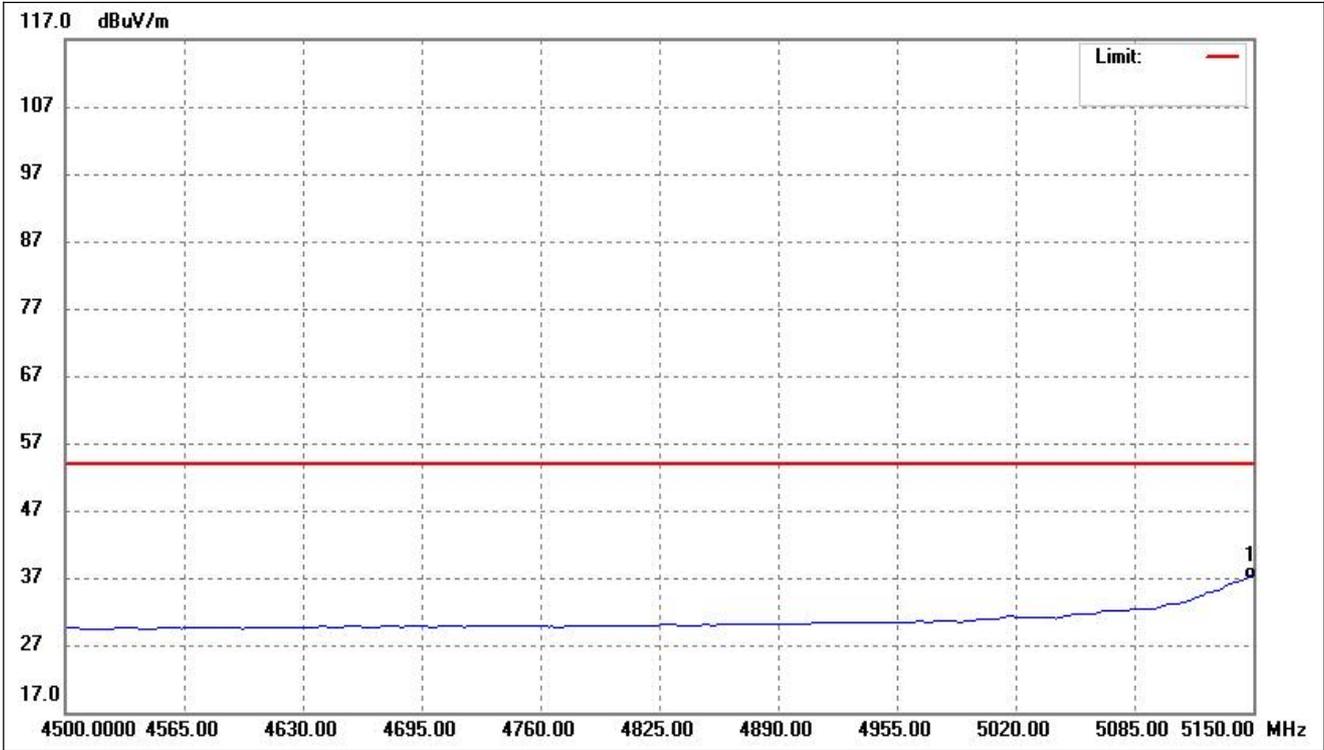
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	51.31	-11.66	39.65	54.00	-14.35	-	-	AVG

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



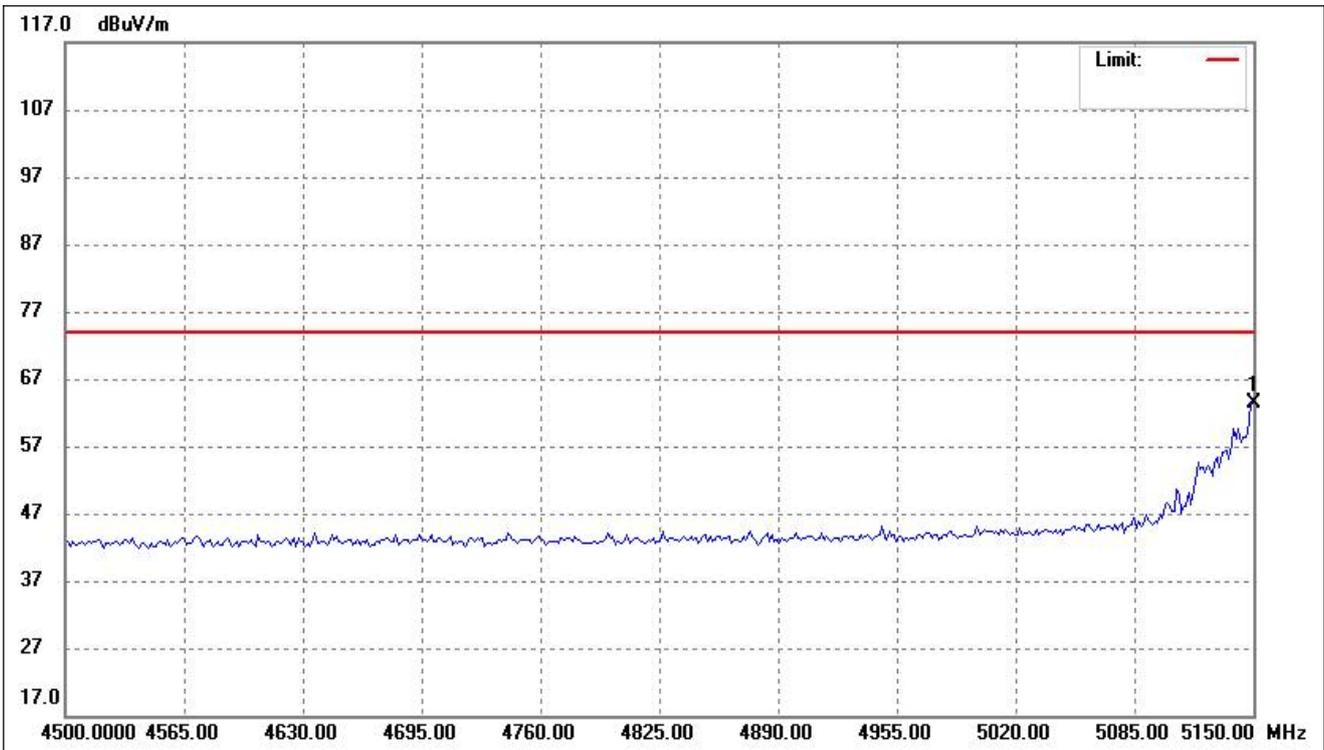
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	74.36	-11.66	62.70	74.00	-11.30	-	-	peak

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



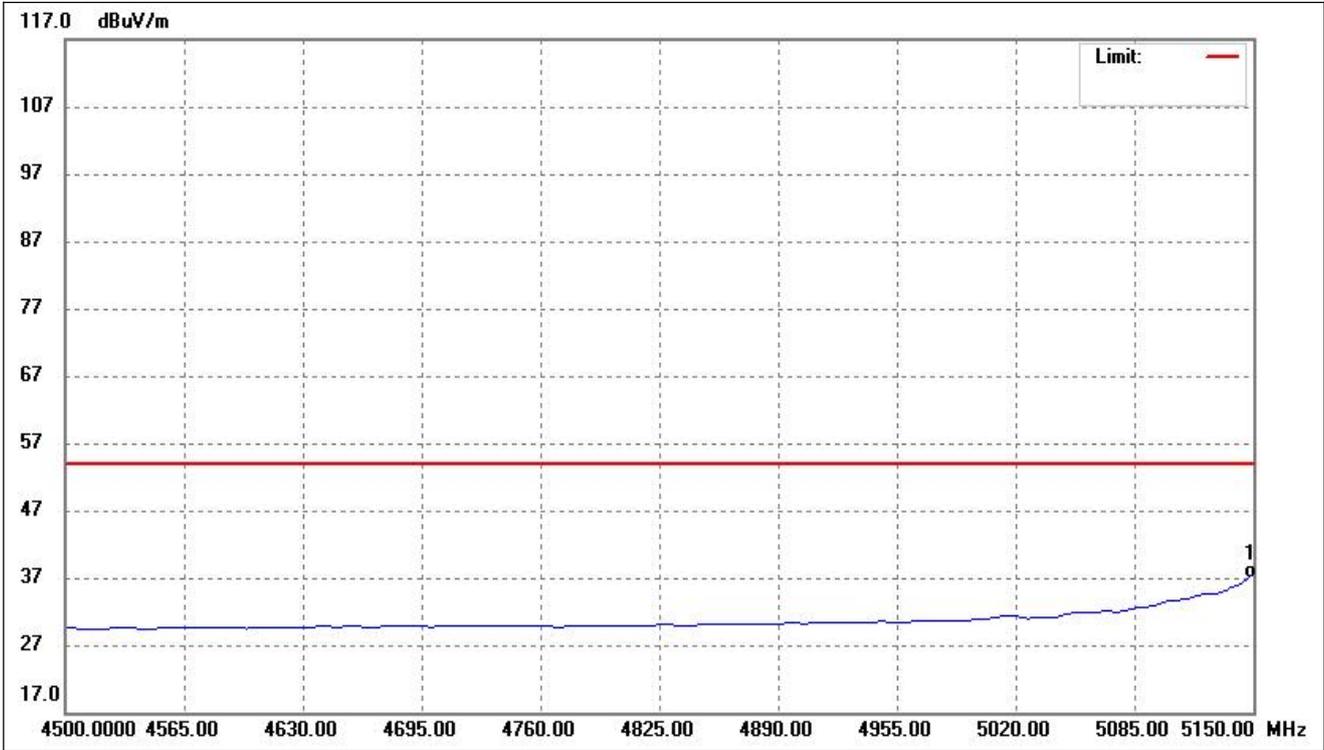
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	49.41	-11.66	37.75	54.00	-16.25	-	-	AVG

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



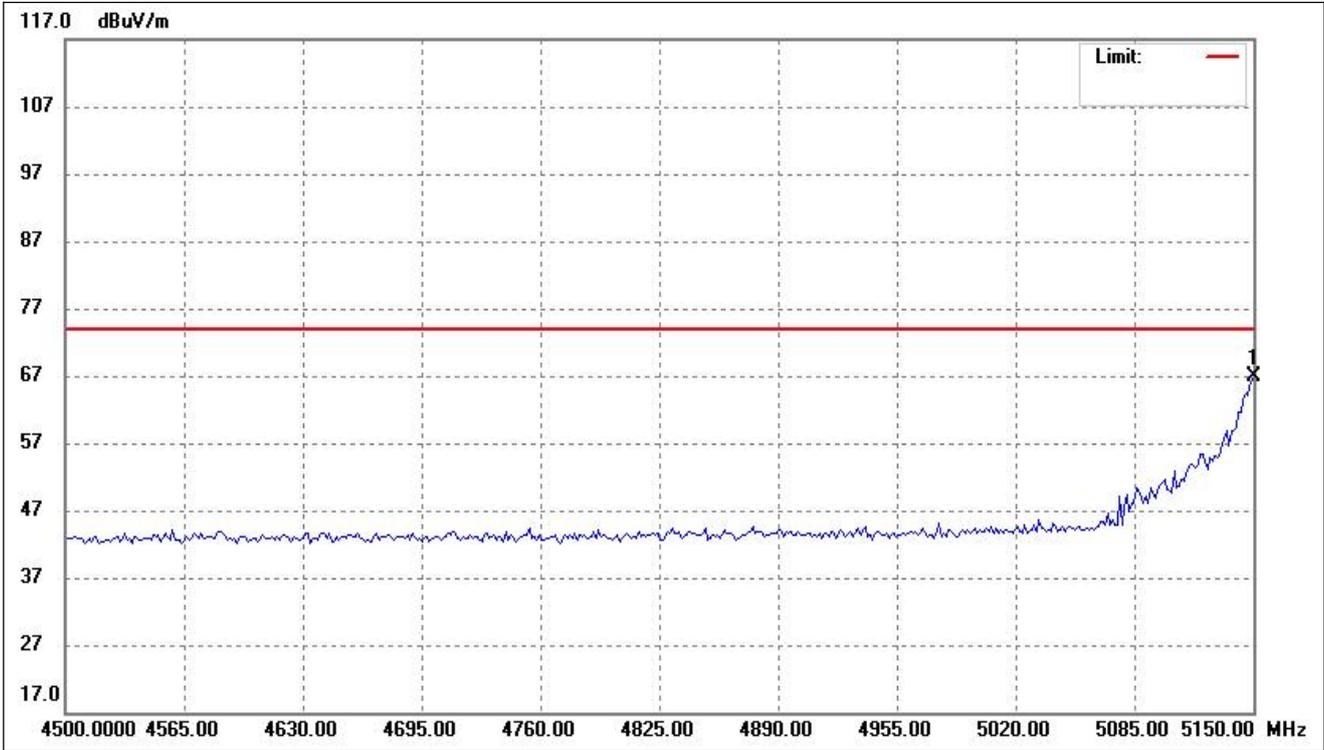
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	75.01	-11.66	63.35	74.00	-10.65	-	-	peak

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



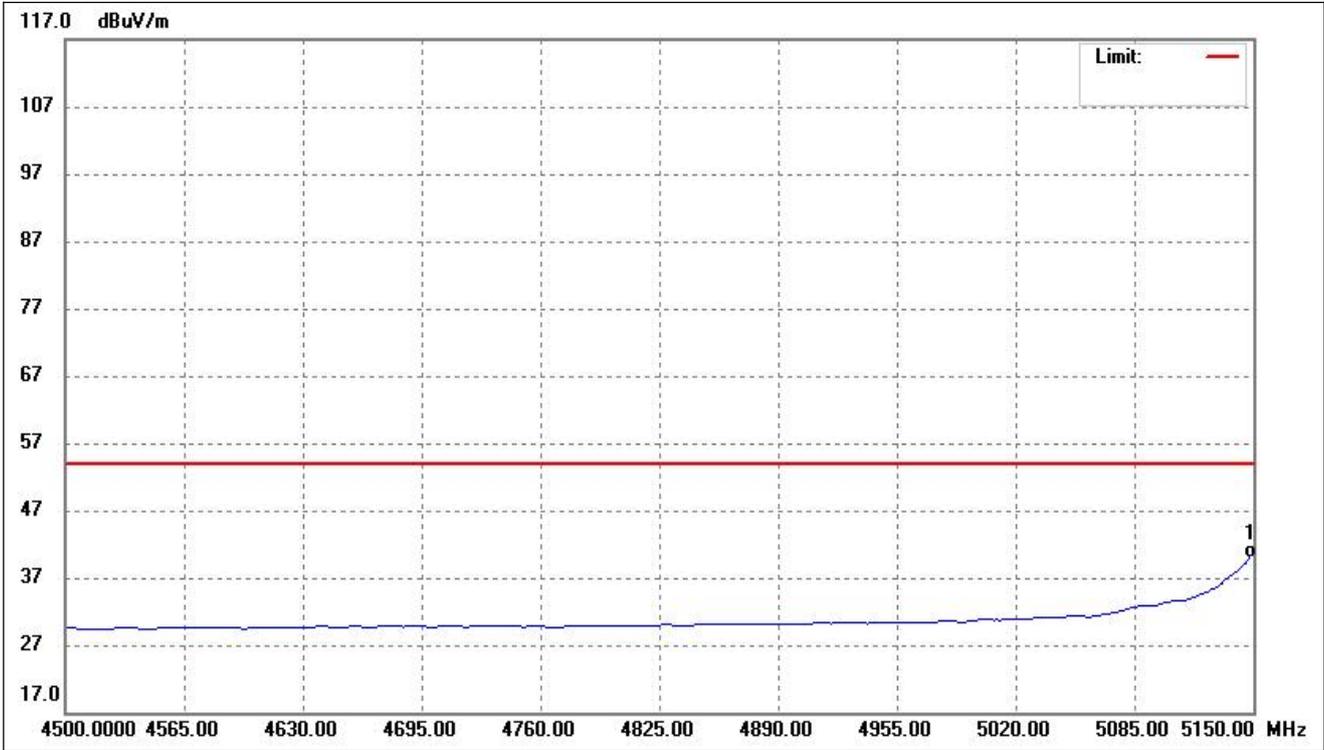
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	49.48	-11.66	37.82	54.00	-16.18	-	-	AVG

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



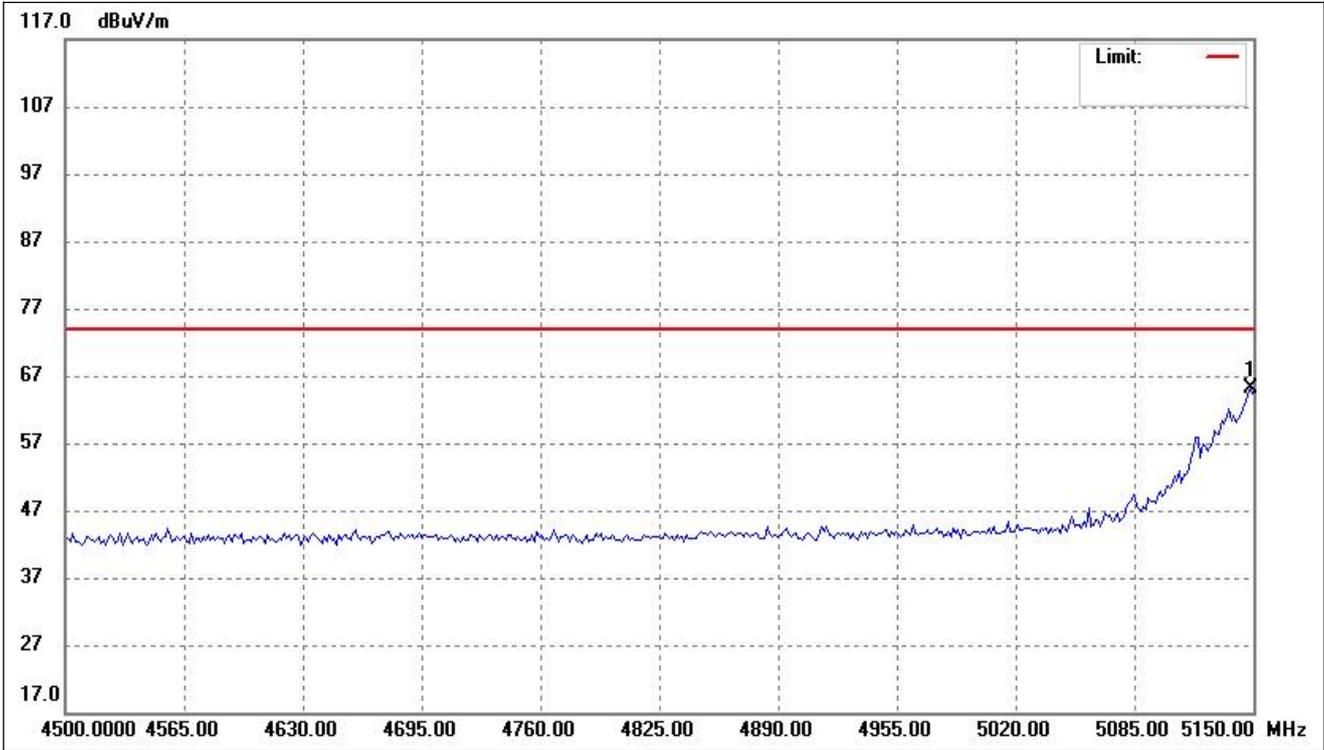
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	78.53	-11.66	66.87	74.00	-7.13	-	-	peak

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



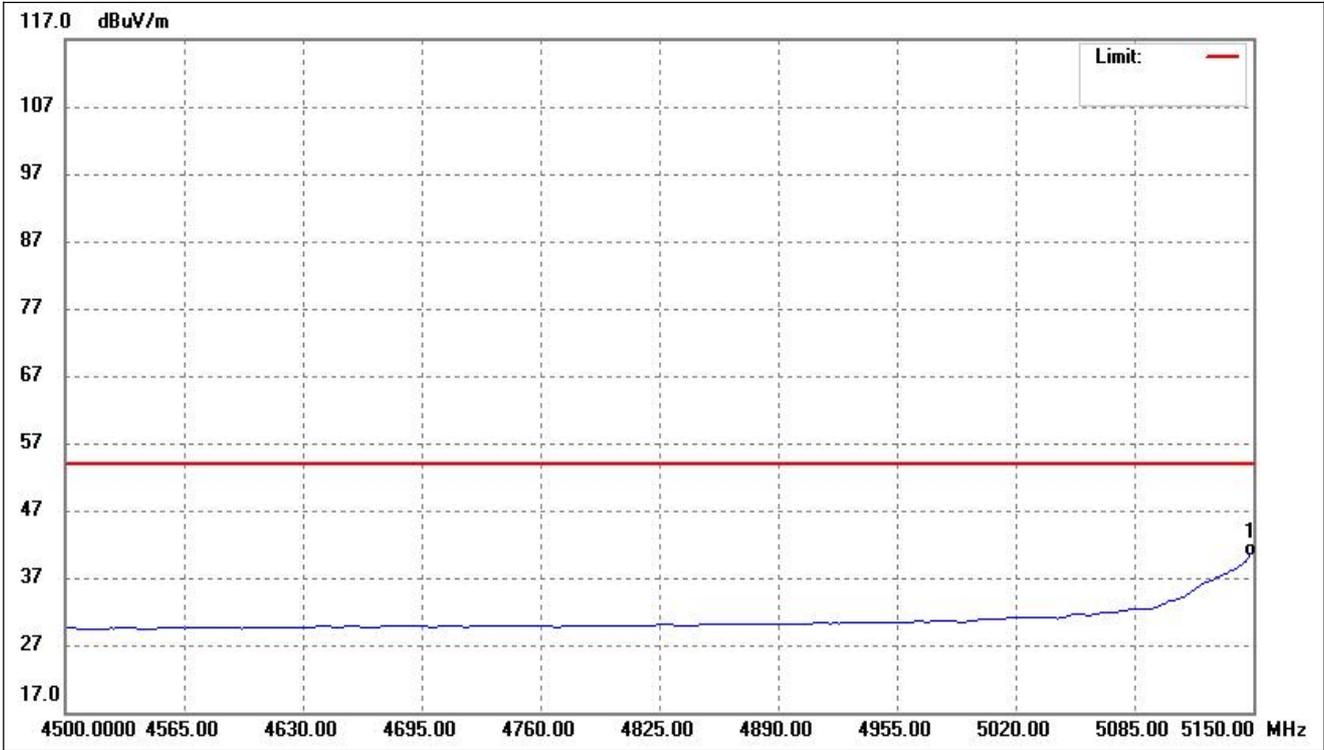
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	52.61	-11.66	40.95	54.00	-13.05	-	-	AVG

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



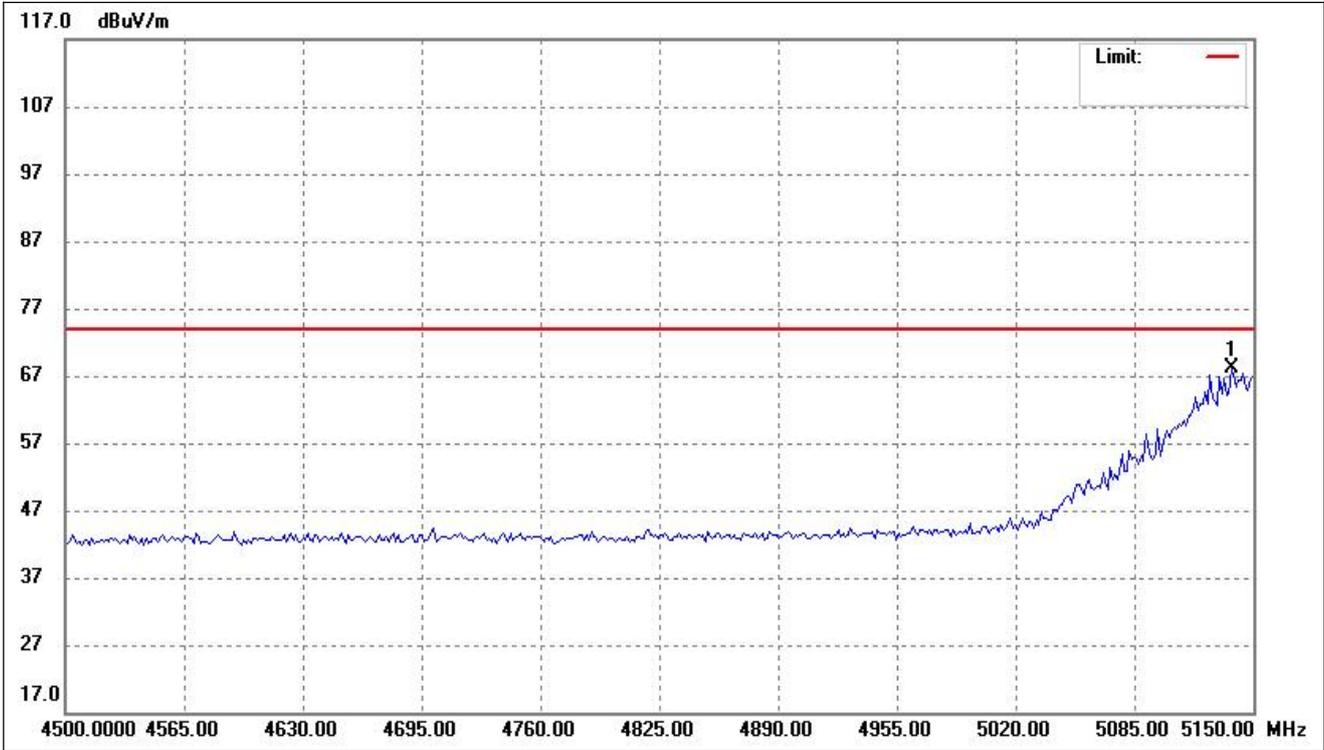
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5148.697	76.70	-11.66	65.04	74.00	-8.96	-	-	peak

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



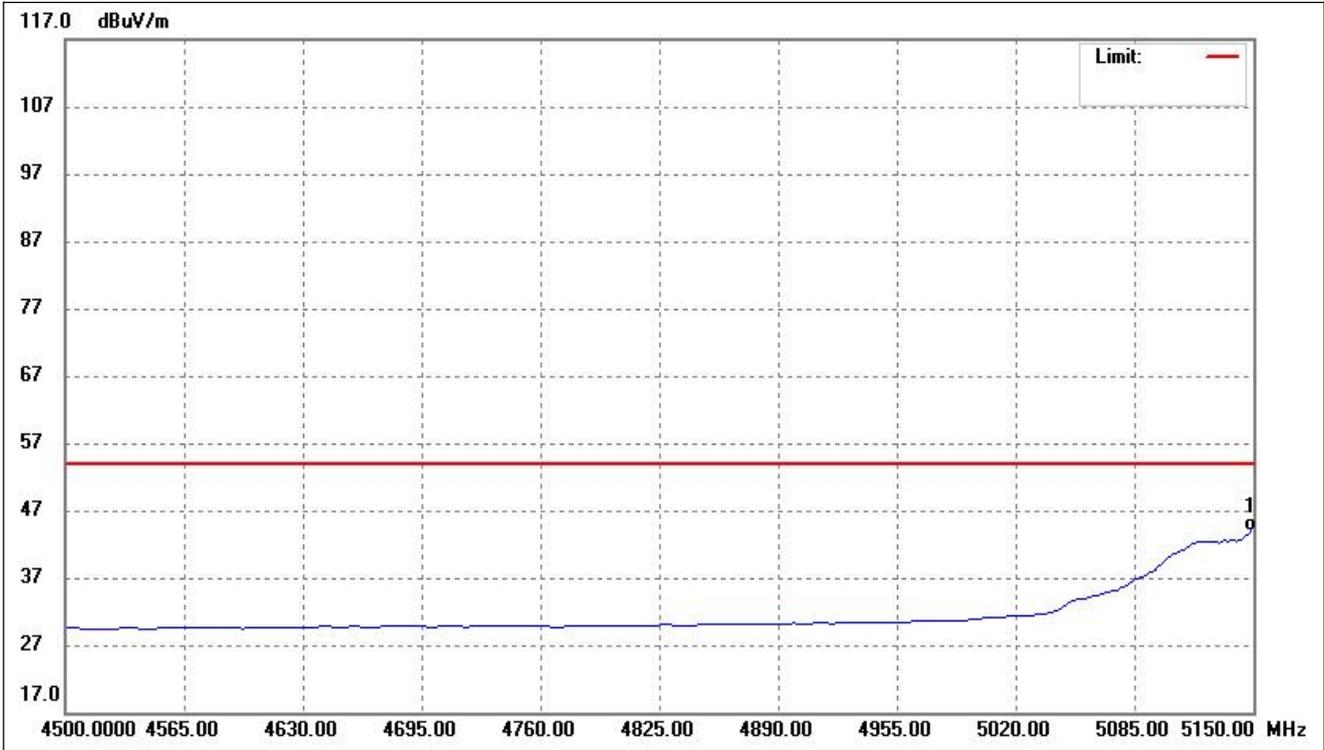
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	52.83	-11.66	41.17	54.00	-12.83	-	-	AVG

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



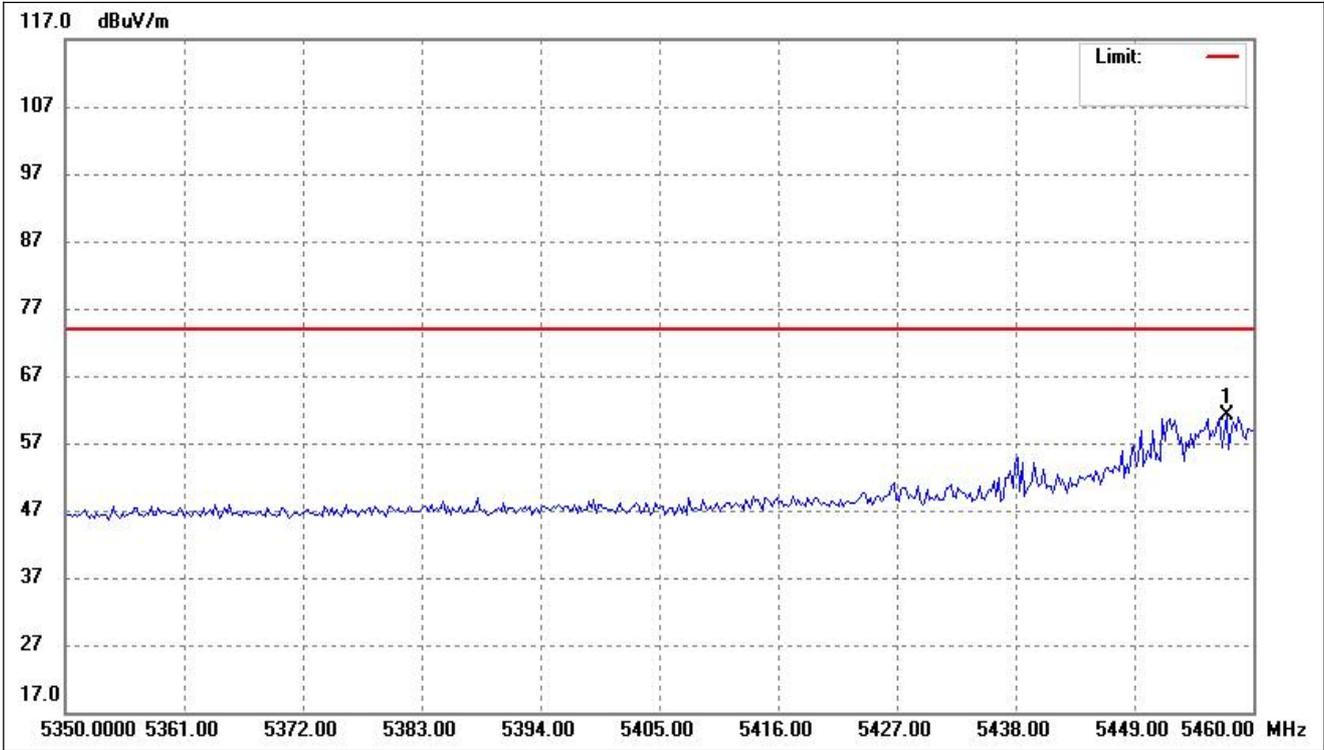
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5138.277	79.78	-11.71	68.07	74.00	-5.93	-	-	peak

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



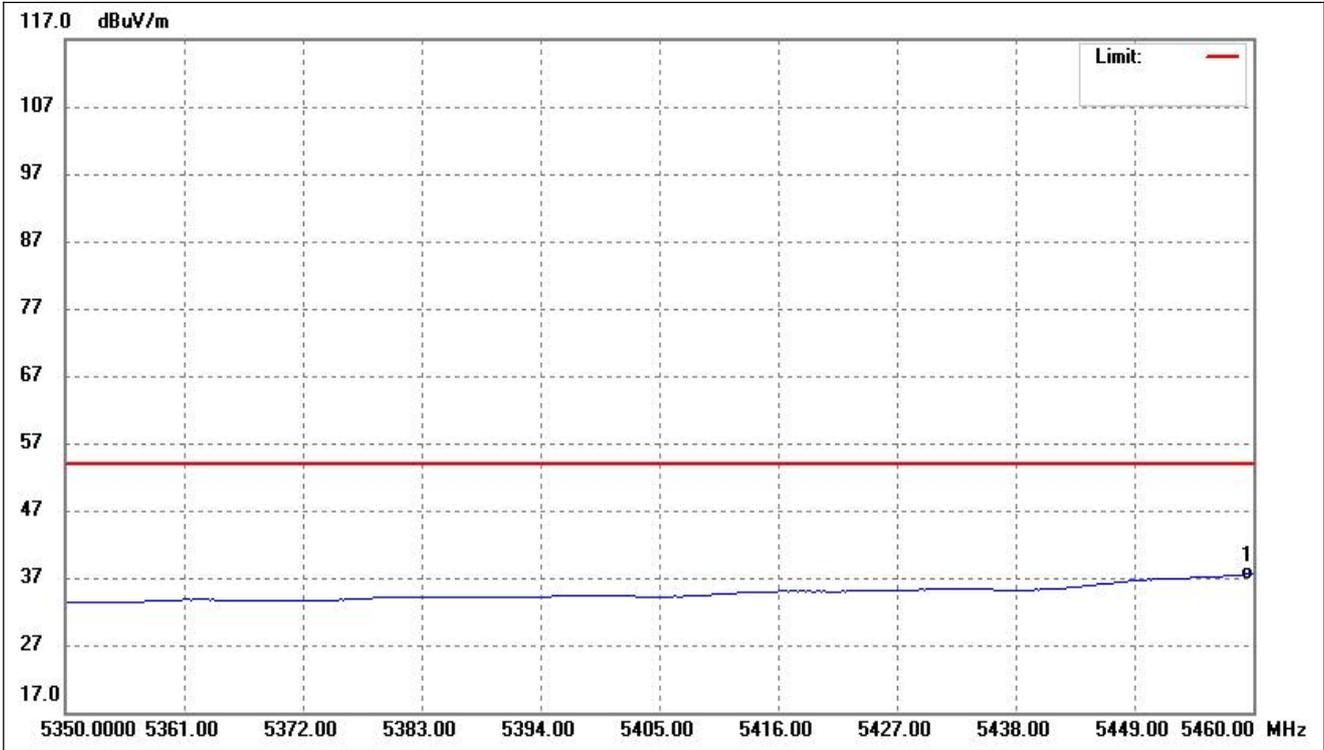
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5150.000	56.52	-11.66	44.86	54.00	-9.14	-	-	AVG

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



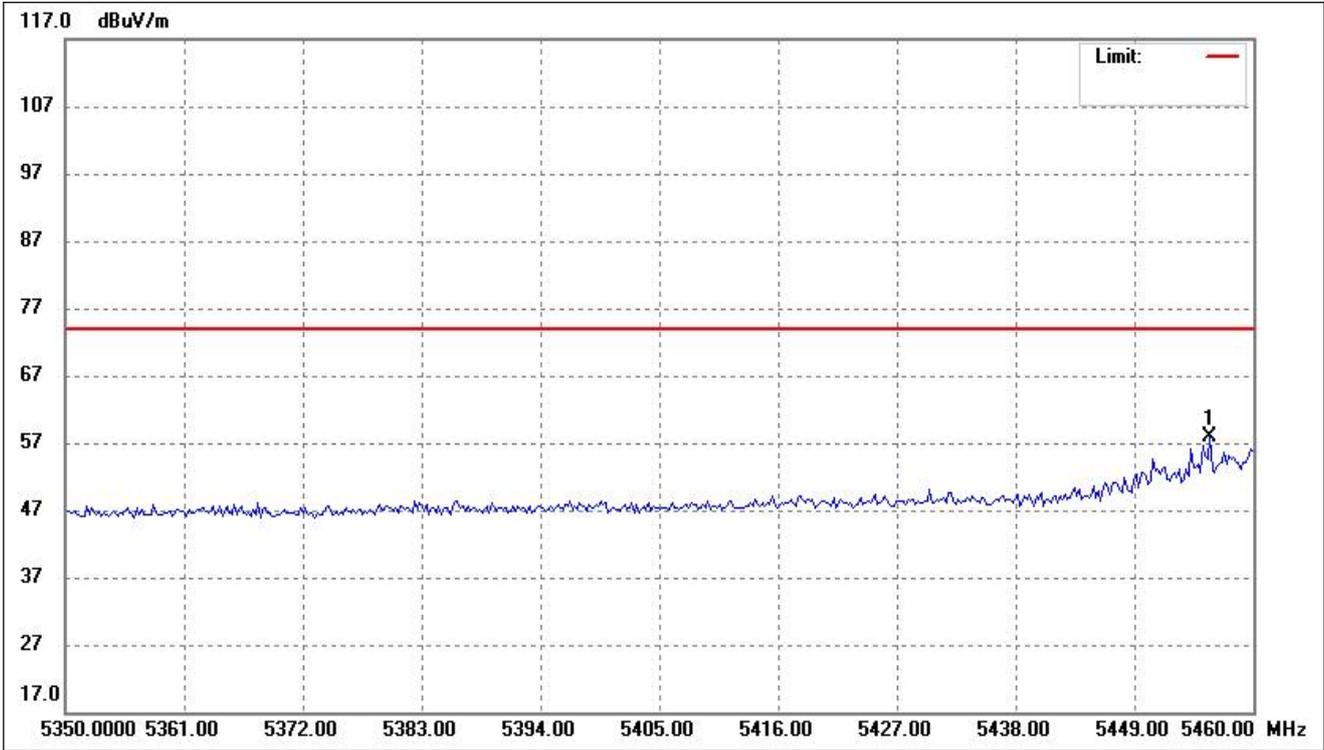
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5457.575	71.17	-10.14	61.03	74.00	-12.97	-	-	peak

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



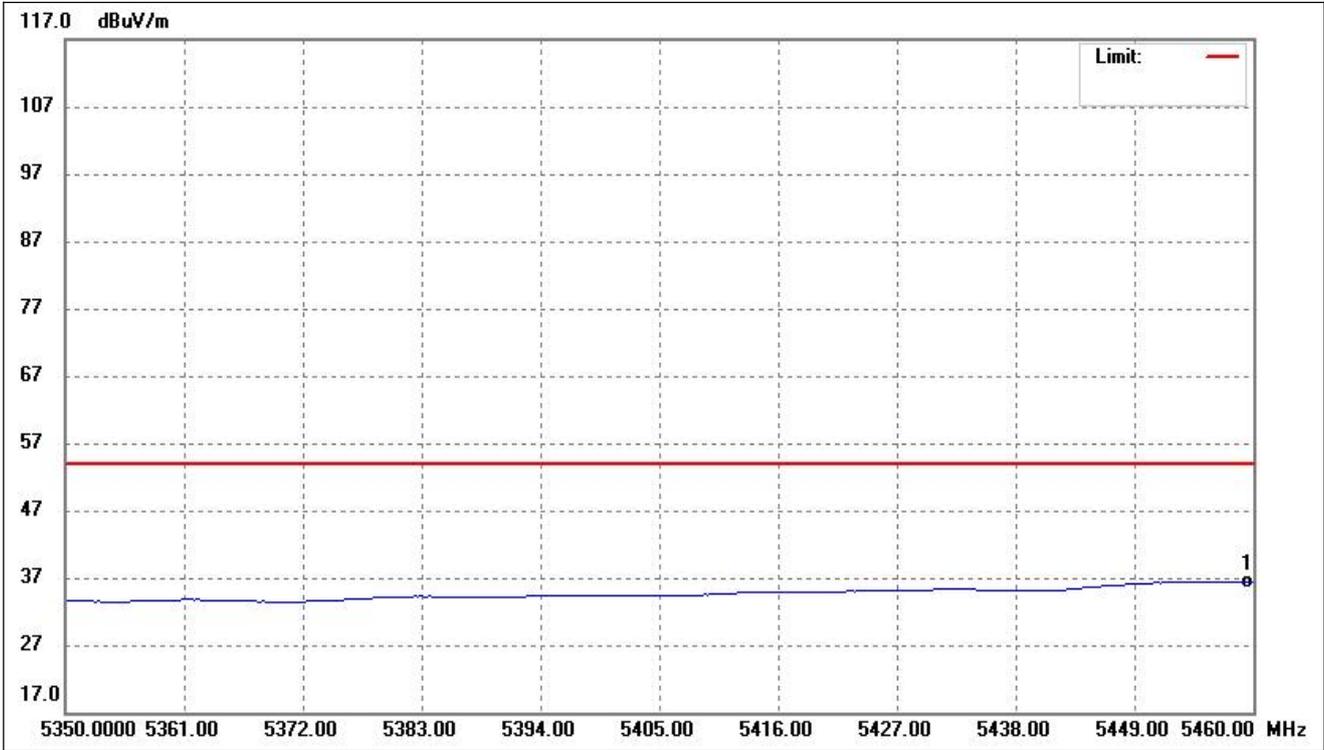
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5460.000	47.75	-10.13	37.62	54.00	-16.38	-	-	AVG

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



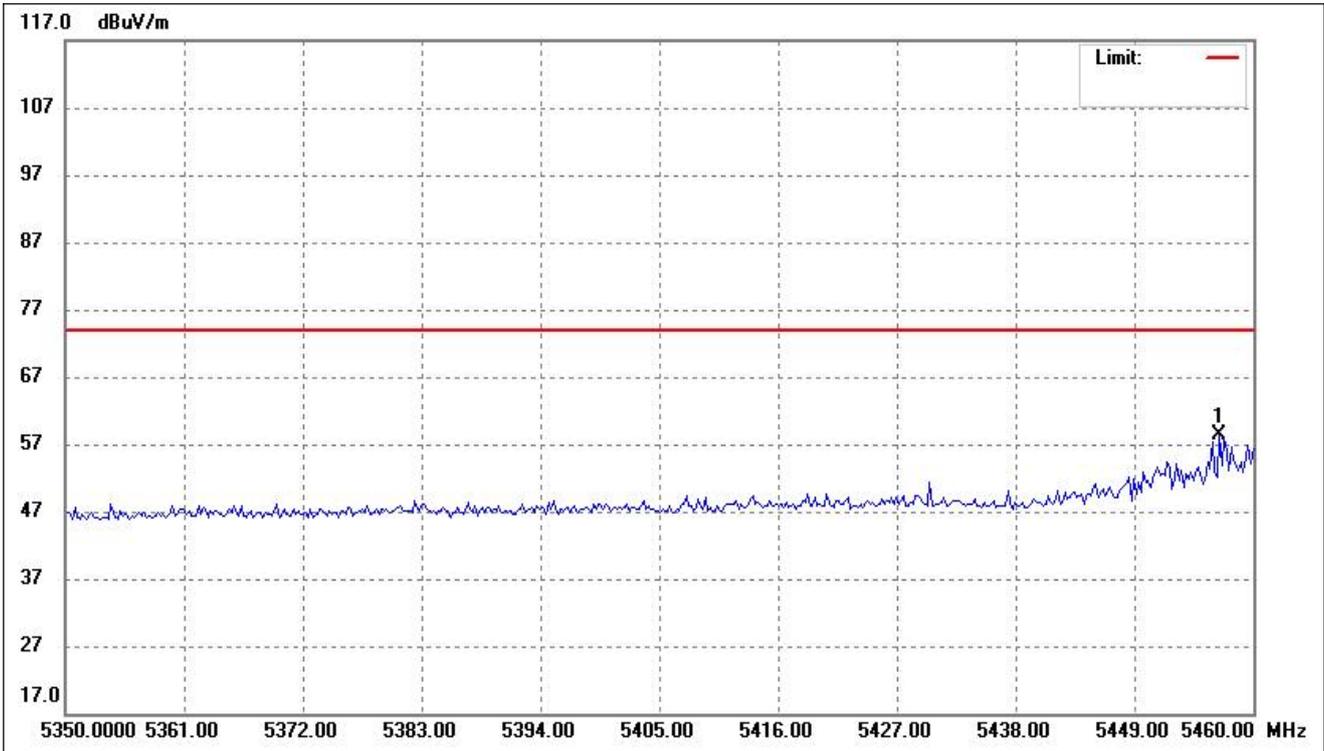
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5456.032	67.97	-10.14	57.83	74.00	-16.17	-	-	peak

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



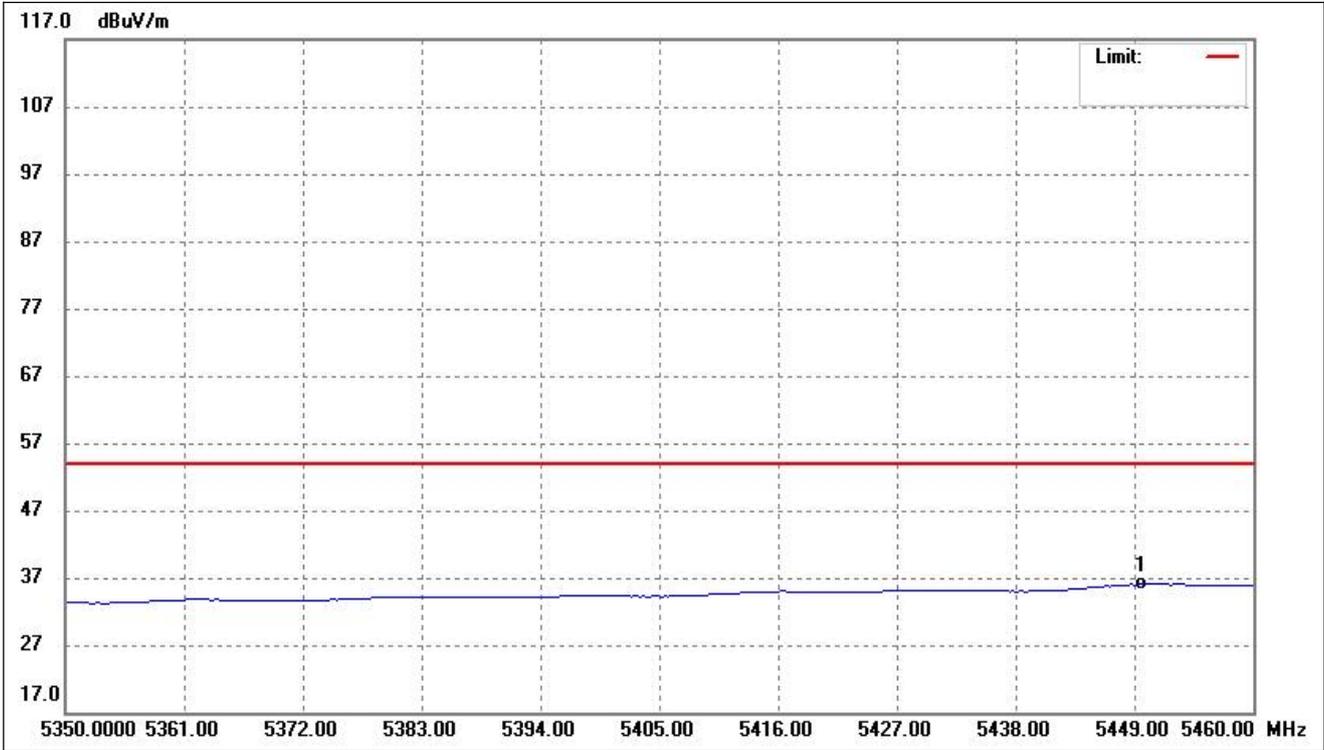
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5459.559	46.59	-10.13	36.46	54.00	-17.54	-	-	AVG

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



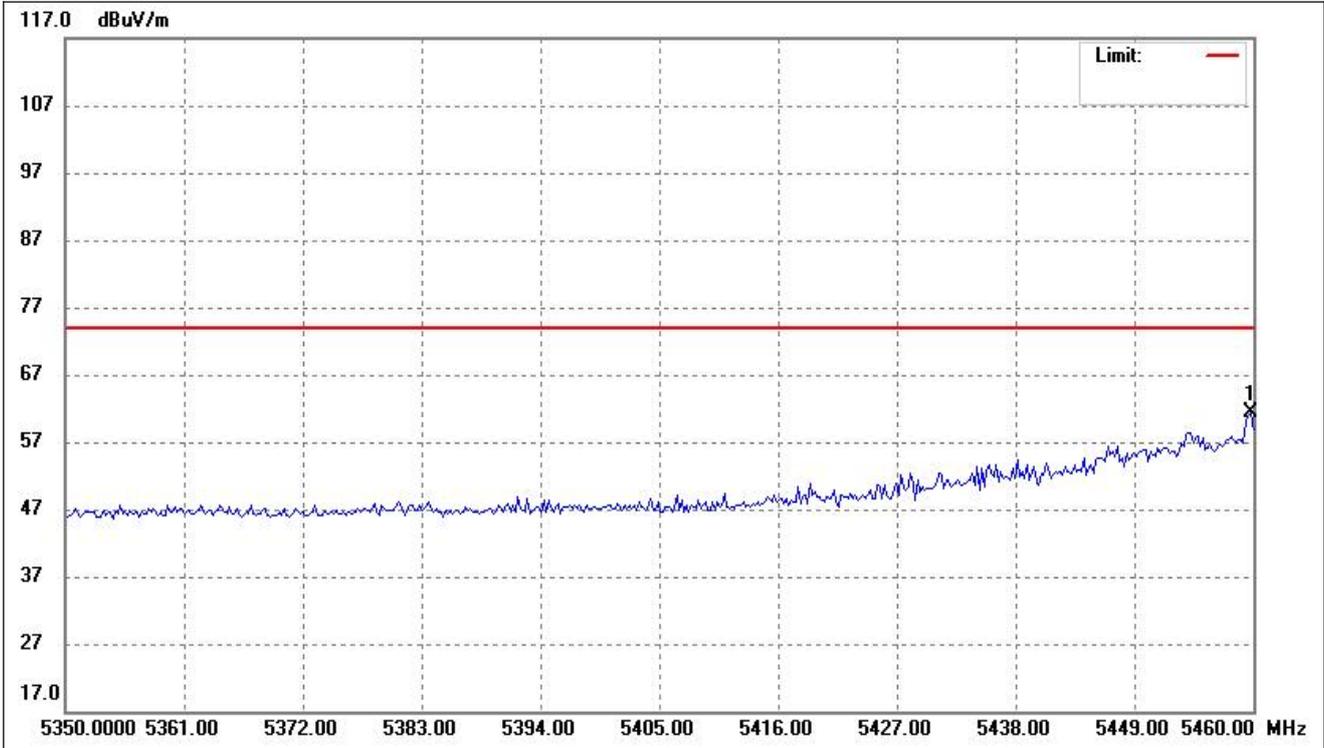
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5456.914	68.42	-10.14	58.28	74.00	-15.72	-	-	peak

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



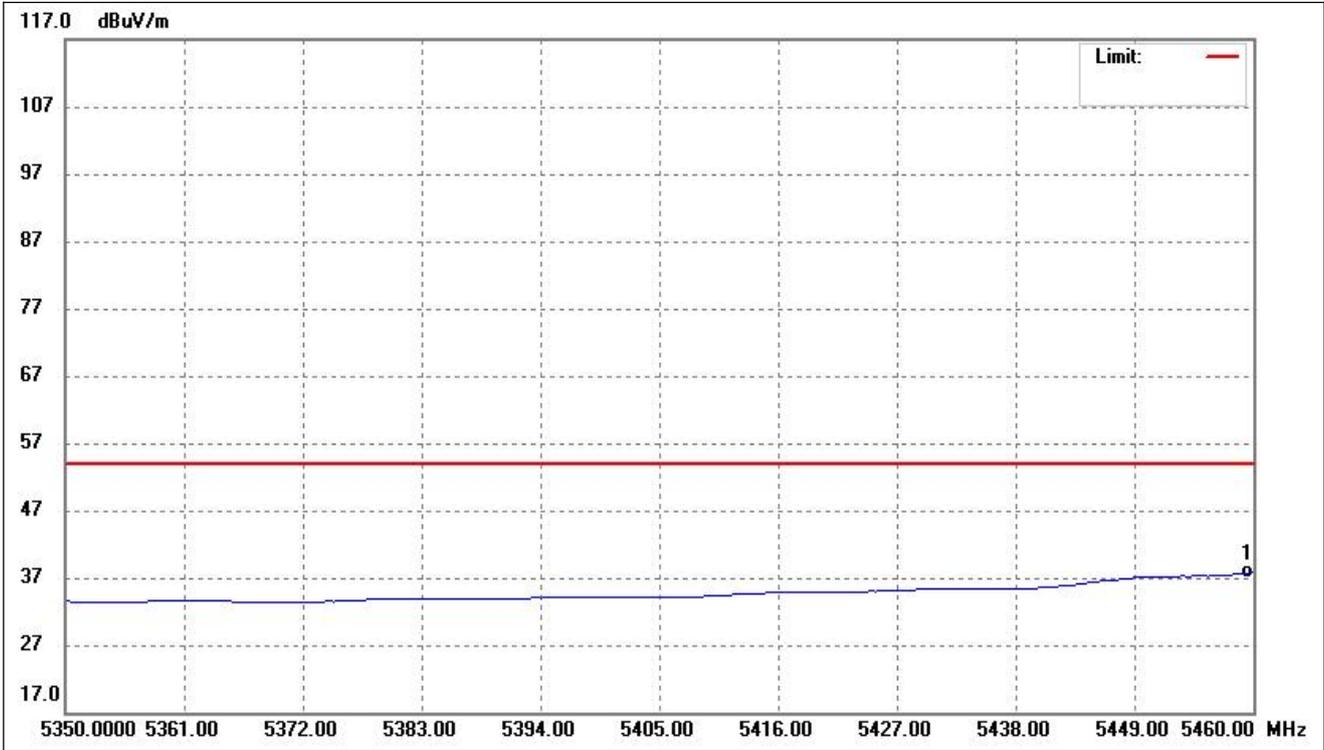
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5449.639	46.25	-10.19	36.06	54.00	-17.94	-	-	AVG

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



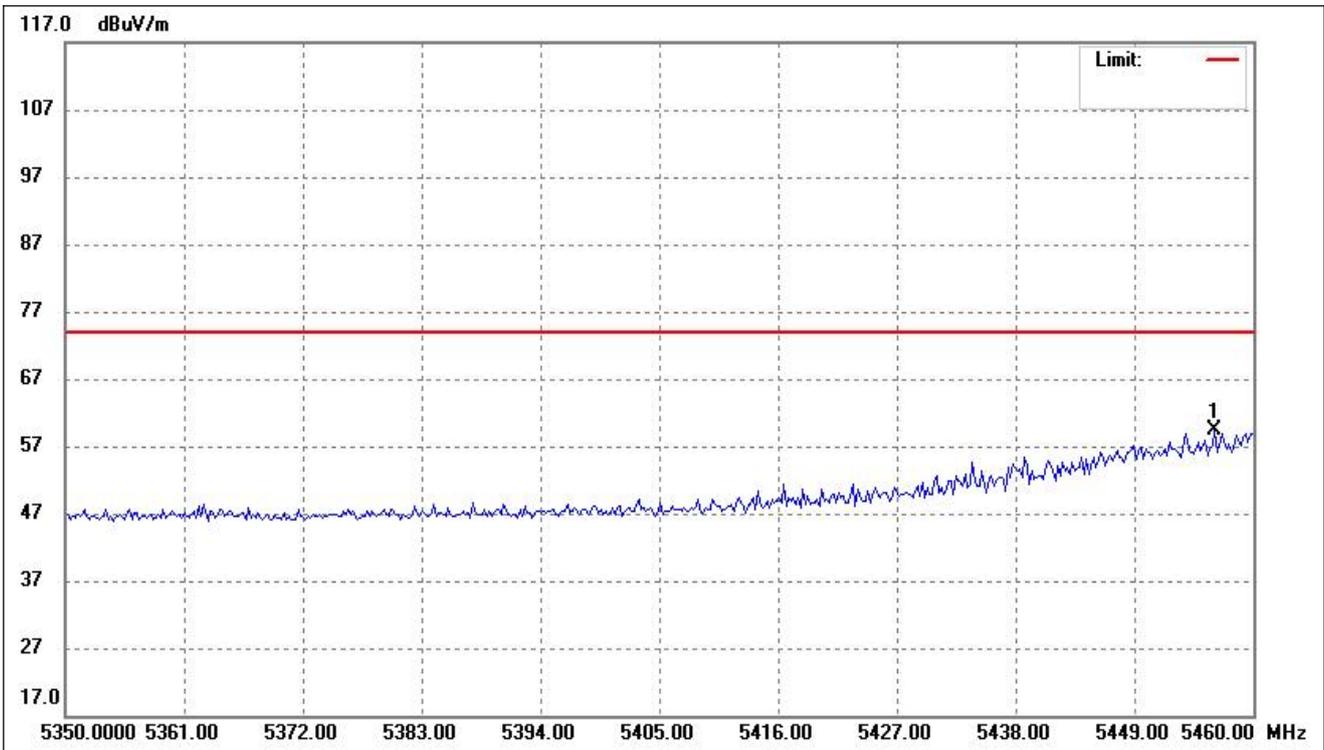
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5459.780	71.45	-10.13	61.32	74.00	-12.68	-	-	peak

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



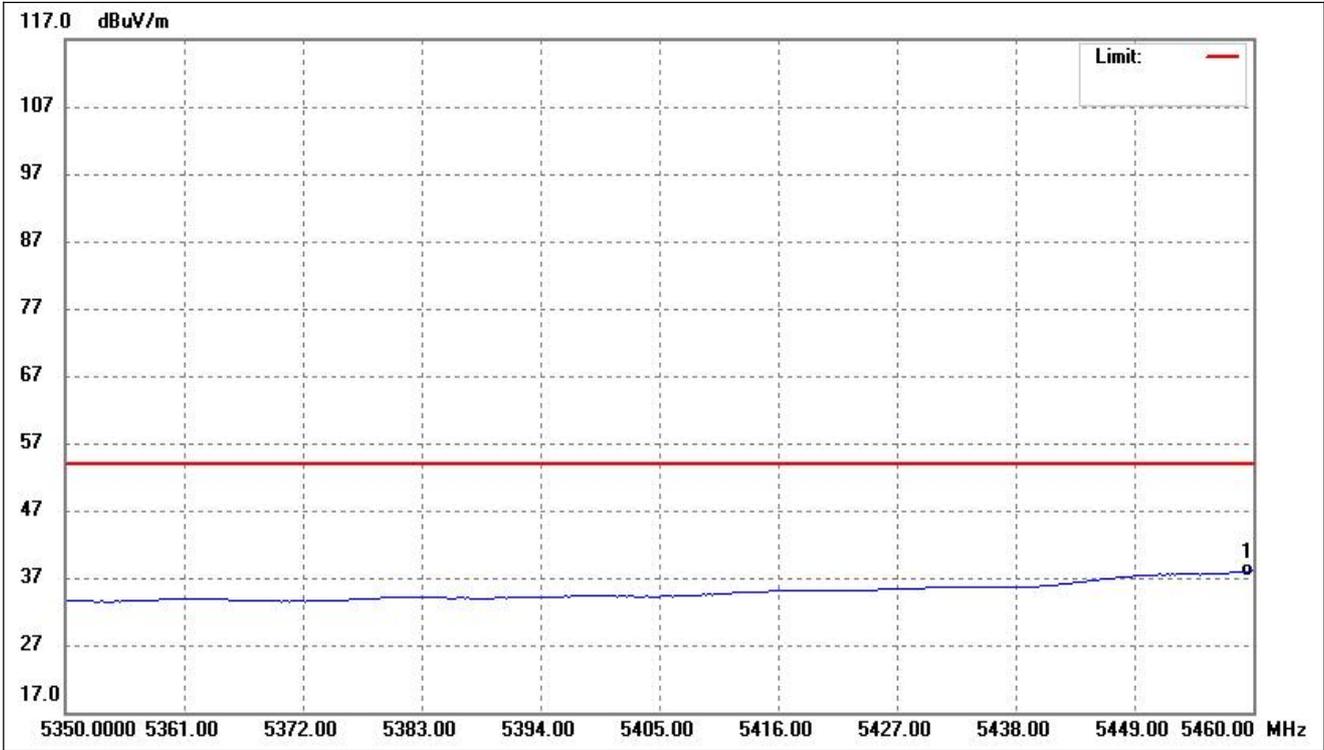
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5460.000	47.97	-10.13	37.84	54.00	-16.16	-	-	AVG

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



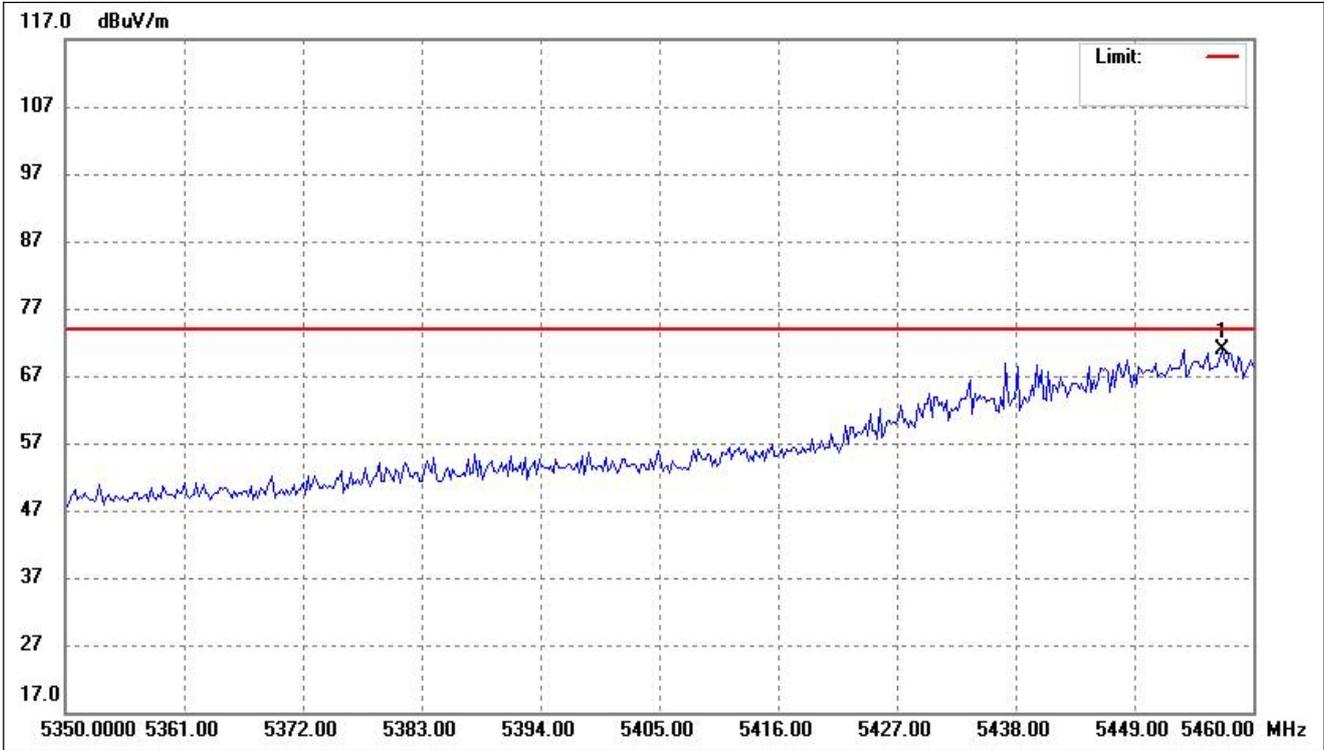
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ( )	Height (cm)	Remark
1	5456.473	69.40	-10.14	59.26	74.00	-14.74	-	-	peak

802.11ac-HT40- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	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	5460.000	48.27	-10.13	38.14	54.00	-15.86	-	-	AVG

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	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	5457.134	81.11	-10.14	70.97	74.00	-3.03	-	-	peak

802.11ac-HT80- Restricted Bandedge			
Test Channel	band 5.35-5.47GHz	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	5458.016	57.62	-10.14	47.48	54.00	-6.52	-	-	AVG

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

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

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

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5180MHz)							
10360	53.76	7.11	60.87	74	-13.13	H	PK
10360	39.68	7.11	46.79	54	-7.21	H	AV
10360	57.38	7.11	64.49	74	-9.51	V	PK
10360	38.07	7.11	45.18	54	-8.82	V	AV
Middle Channel (5200MHz)							
10400	54.48	7.22	61.70	74	-12.30	H	PK
10400	38.00	7.22	45.22	54	-8.78	H	AV
10400	56.25	7.22	63.47	74	-10.53	V	PK
10400	36.51	7.22	43.73	54	-10.27	V	AV
High Channel (5240MHz)							
10480	55.15	7.69	62.84	74	-11.16	H	PK
10480	36.73	7.69	44.42	54	-9.58	H	AV
10480	53.80	7.69	61.49	74	-12.51	V	PK
10480	39.20	7.69	46.89	54	-7.11	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5260MHz)							
10520	56.87	7.96	64.83	74	-9.17	H	PK
10520	39.61	7.96	47.57	54	-6.43	H	AV
10520	54.31	7.96	62.27	74	-11.73	V	PK
10520	40.36	7.96	48.32	54	-5.68	V	AV
Middle Channel (5280MHz)							
10560	56.20	8.02	64.22	74	-9.78	H	PK
10560	37.21	8.02	45.23	54	-8.77	H	AV
10560	55.72	8.02	63.74	74	-10.26	V	PK
10560	36.95	8.02	44.97	54	-9.03	V	AV
High Channel (5320MHz)							
10640	56.54	8.35	64.89	74	-9.11	H	PK
10640	38.24	8.35	46.59	54	-7.41	H	AV
10640	54.34	8.35	62.69	74	-11.31	V	PK
10640	37.15	8.35	45.50	54	-8.50	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5500MHz)							
11000	53.71	8.82	62.53	74	-11.47	H	PK
11000	38.82	8.82	47.64	54	-6.36	H	AV
11000	54.82	8.82	63.64	74	-10.36	V	PK
11000	39.25	8.82	48.07	54	-5.93	V	AV
Middle Channel (5600MHz)							
11200	54.70	8.92	63.62	74	-10.38	H	PK
11200	39.37	8.92	48.29	54	-5.71	H	AV
11200	56.89	8.92	65.81	74	-8.19	V	PK
11200	40.13	8.92	49.05	54	-4.95	V	AV
High Channel (5700MHz)							
11400	56.87	9.36	66.23	74	-7.77	H	PK
11400	37.97	9.36	47.33	54	-6.67	H	AV
11400	53.85	9.36	63.21	74	-10.79	V	PK
11400	38.92	9.36	48.28	54	-5.72	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	56.56	9.45	66.01	74	-7.99	H	PK
11490	39.24	9.45	48.69	54	-5.31	H	AV
11490	56.80	9.45	66.25	74	-7.75	V	PK
11490	37.87	9.45	47.32	54	-6.68	V	AV
Middle Channel (5785MHz)							
11570	54.91	9.62	64.53	74	-9.47	H	PK
11570	36.91	9.62	46.53	54	-7.47	H	AV
11570	54.53	9.62	64.15	74	-9.85	V	PK
11570	39.02	9.62	48.64	54	-5.36	V	AV
High Channel (5825MHz)							
11650	55.97	9.84	65.81	74	-8.19	H	PK
11650	39.30	9.84	49.14	54	-4.86	H	AV
11650	55.92	9.84	65.76	74	-8.24	V	PK
11650	39.08	9.84	48.92	54	-5.08	V	AV

## ➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-35.64	-27
Highest	Above 5350	-39.31	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-40.28	-27
Highest	Above 5350	-38.45	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-38.42	-27
Highest	Above 5725	-39.12	-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 5715	-39.21	-27
	5715 to 5725	-32.04	-17
Highest	5850 to 5860	-31.17	-17
	Above 5860	-38.47	-27

Note: the data just list the worst cases

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

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5180MHz)							
10360	53.97	7.11	61.08	74	-12.92	H	PK
10360	37.96	7.11	45.07	54	-8.93	H	AV
10360	54.31	7.11	61.42	74	-12.58	V	PK
10360	40.18	7.11	47.29	54	-6.71	V	AV
Middle Channel (5200MHz)							
10400	56.01	7.22	63.23	74	-10.77	H	PK
10400	39.33	7.22	46.55	54	-7.45	H	AV
10400	55.19	7.22	62.41	74	-11.59	V	PK
10400	37.63	7.22	44.85	54	-9.15	V	AV
High Channel (5240MHz)							
10480	55.01	7.69	62.70	74	-11.30	H	PK
10480	38.95	7.69	46.64	54	-7.36	H	AV
10480	54.31	7.69	62.00	74	-12.00	V	PK
10480	36.60	7.69	44.29	54	-9.71	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5260MHz)							
10520	55.51	7.96	63.47	74	-10.53	H	PK
10520	38.78	7.96	46.74	54	-7.26	H	AV
10520	56.44	7.96	64.40	74	-9.60	V	PK
10520	39.67	7.96	47.63	54	-6.37	V	AV
Middle Channel (5280MHz)							
10560	56.34	8.02	64.36	74	-9.64	H	PK
10560	39.82	8.02	47.84	54	-6.16	H	AV
10560	57.21	8.02	65.23	74	-8.77	V	PK
10560	38.59	8.02	46.61	54	-7.39	V	AV
High Channel (5320MHz)							
10640	56.90	8.35	65.25	74	-8.75	H	PK
10640	39.58	8.35	47.93	54	-6.07	H	AV
10640	56.34	8.35	64.69	74	-9.31	V	PK
10640	36.63	8.35	44.98	54	-9.02	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5500MHz)							
11000	57.36	8.82	66.18	74	-7.82	H	PK
11000	37.92	8.82	46.74	54	-7.26	H	AV
11000	55.09	8.82	63.91	74	-10.09	V	PK
11000	40.08	8.82	48.90	54	-5.10	V	AV
Middle Channel (5600MHz)							
11200	53.61	8.92	62.53	74	-11.47	H	PK
11200	37.68	8.92	46.60	54	-7.40	H	AV
11200	55.88	8.92	64.80	74	-9.20	V	PK
11200	36.58	8.92	45.50	54	-8.50	V	AV
High Channel (5700MHz)							
11400	54.92	9.36	64.28	74	-9.72	H	PK
11400	39.56	9.36	48.92	54	-5.08	H	AV
11400	55.66	9.36	65.02	74	-8.98	V	PK
11400	39.84	9.36	49.20	54	-4.80	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	56.25	9.45	65.70	74	-8.30	H	PK
11490	39.60	9.45	49.05	54	-4.95	H	AV
11490	54.95	9.45	64.40	74	-9.60	V	PK
11490	37.55	9.45	47.00	54	-7.00	V	AV
Middle Channel (5785MHz)							
11570	53.54	9.62	63.16	74	-10.84	H	PK
11570	40.28	9.62	49.90	54	-4.10	H	AV
11570	55.41	9.62	65.03	74	-8.97	V	PK
11570	38.77	9.62	48.39	54	-5.61	V	AV
High Channel (5825MHz)							
11650	55.32	9.84	65.16	74	-8.84	H	PK
11650	38.62	9.84	48.46	54	-5.54	H	AV
11650	54.38	9.84	64.22	74	-9.78	V	PK
11650	37.40	9.84	47.24	54	-6.76	V	AV

## ➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-38.14	-27
Highest	Above 5350	-36.69	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.54	-27
Highest	Above 5350	-39.65	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-38.41	-27
Highest	Above 5725	-36.57	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-36.14	-27
	5715 to 5725	-31.42	-17
Highest	5850 to 5860	-29.46	-17
	Above 5860	-37.31	-27

Note: the data just list the worst cases

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

- For the frequency band 5.15-5.25GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz (802.11ac 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	55.88	7.11	62.99	74	-11.01	H	PK
10360	36.86	7.11	43.97	54	-10.03	H	AV
10360	55.15	7.11	62.26	74	-11.74	V	PK
10360	38.67	7.11	45.78	54	-8.22	V	AV
Middle Channel (5200MHz)							
10400	57.04	7.22	64.26	74	-9.74	H	PK
10400	36.85	7.22	44.07	54	-9.93	H	AV
10400	54.18	7.22	61.40	74	-12.60	V	PK
10400	38.60	7.22	45.82	54	-8.18	V	AV
High Channel (5240MHz)							
10480	55.66	7.69	63.35	74	-10.65	H	PK
10480	38.43	7.69	46.12	54	-7.88	H	AV
10480	54.06	7.69	61.75	74	-12.25	V	PK
10480	37.55	7.69	45.24	54	-8.76	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5260MHz)							
10520	55.47	7.96	63.43	74	-10.57	H	PK
10520	38.91	7.96	46.87	54	-7.13	H	AV
10520	56.71	7.96	64.67	74	-9.33	V	PK
10520	37.40	7.96	45.36	54	-8.64	V	AV
Middle Channel (5280MHz)							
10560	56.92	8.02	64.94	74	-9.06	H	PK
10560	37.14	8.02	45.16	54	-8.84	H	AV
10560	57.27	8.02	65.29	74	-8.71	V	PK
10560	40.11	8.02	48.13	54	-5.87	V	AV
High Channel (5320MHz)							
10640	56.17	8.35	64.52	74	-9.48	H	PK
10640	39.75	8.35	48.10	54	-5.90	H	AV
10640	54.27	8.35	62.62	74	-11.38	V	PK
10640	37.12	8.35	45.47	54	-8.53	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5500MHz)							
11000	54.53	8.82	63.35	74	-10.65	H	PK
11000	37.17	8.82	45.99	54	-8.01	H	AV
11000	56.88	8.82	65.70	74	-8.30	V	PK
11000	39.10	8.82	47.92	54	-6.08	V	AV
Middle Channel (5600MHz)							
11200	53.53	8.92	62.45	74	-11.55	H	PK
11200	36.83	8.92	45.75	54	-8.25	H	AV
11200	57.12	8.92	66.04	74	-7.96	V	PK
11200	38.42	8.92	47.34	54	-6.66	V	AV
High Channel (5700MHz)							
11400	54.24	9.36	63.60	74	-10.40	H	PK
11400	37.89	9.36	47.25	54	-6.75	H	AV
11400	57.07	9.36	66.43	74	-7.57	V	PK
11400	39.47	9.36	48.83	54	-5.17	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	56.62	9.45	66.07	74	-7.93	H	PK
11490	39.33	9.45	48.78	54	-5.22	H	AV
11490	54.31	9.45	63.76	74	-10.24	V	PK
11490	39.06	9.45	48.51	54	-5.49	V	AV
Middle Channel (5785MHz)							
11570	57.36	9.62	66.98	74	-7.02	H	PK
11570	39.62	9.62	49.24	54	-4.76	H	AV
11570	55.97	9.62	65.59	74	-8.41	V	PK
11570	40.03	9.62	49.65	54	-4.35	V	AV
High Channel (5825MHz)							
11650	55.28	9.84	65.12	74	-8.88	H	PK
11650	38.49	9.84	48.33	54	-5.67	H	AV
11650	57.50	9.84	67.34	74	-6.66	V	PK
11650	39.74	9.84	49.58	54	-4.42	V	AV

## ➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-34.56	-27
Highest	Above 5350	-38.43	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-36.12	-27
Highest	Above 5350	-35.69	-27

Note: the data just list the worst cases

## ➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-35.31	-27
Highest	Above 5725	-36.17	-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 5715	-39.45	-27
	5715 to 5725	-26.87	-17
Highest	5850 to 5860	-29.41	-17
	Above 5860	-34.57	-27

Note: the data just list the worst cases

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

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

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5190MHz)							
10380	56.77	7.89	64.66	74	-9.34	H	PK
10380	38.01	7.89	45.90	54	-8.10	H	AV
10380	57.45	7.89	65.34	74	-8.66	V	PK
10380	40.11	7.89	48.00	54	-6.00	V	AV
High Channel (5230MHz)							
10460	55.98	7.97	63.95	74	-10.05	H	PK
10460	38.12	7.97	46.09	54	-7.91	H	AV
10460	55.71	7.97	63.68	74	-10.32	V	PK
10460	37.38	7.97	45.35	54	-8.65	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5270MHz)							
10540	54.16	8.16	62.32	74	-11.68	H	PK
10540	37.24	8.16	45.40	54	-8.60	H	AV
10540	53.52	8.16	61.68	74	-12.32	V	PK
10540	39.95	8.16	48.11	54	-5.89	V	AV
High Channel (5310MHz)							
10620	57.38	8.57	65.95	74	-8.05	H	PK
10620	39.93	8.57	48.50	54	-5.50	H	AV
10620	54.13	8.57	62.70	74	-11.30	V	PK
10620	37.94	8.57	46.51	54	-7.49	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5510MHz)							
11020	56.57	9.16	65.73	74	-8.27	H	PK
11020	36.78	9.16	45.94	54	-8.06	H	AV
11020	55.33	9.16	64.49	74	-9.51	V	PK
11020	39.36	9.16	48.52	54	-5.48	V	AV
Middle Channel (5590MHz)							
11180	56.82	9.29	66.11	74	-7.89	H	PK
11180	37.54	9.29	46.83	54	-7.17	H	AV
11180	53.49	9.29	62.78	74	-11.22	V	PK
11180	36.53	9.29	45.82	54	-8.18	V	AV
High Channel (5670MHz)							
11340	57.00	9.43	66.43	74	-7.57	H	PK
11340	38.70	9.43	48.13	54	-5.87	H	AV
11340	55.03	9.43	64.46	74	-9.54	V	PK
11340	36.57	9.43	46.00	54	-8.00	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5755MHz)							
11510	55.07	9.45	64.52	74	-9.48	H	PK
11510	37.31	9.45	46.76	54	-7.24	H	AV
11510	54.88	9.45	64.33	74	-9.67	V	PK
11510	36.80	9.45	46.25	54	-7.75	V	AV
High Channel (5795MHz)							
11590	54.82	9.27	64.09	74	-9.91	H	PK
11590	38.58	9.27	47.85	54	-6.15	H	AV
11590	54.02	9.27	63.29	74	-10.71	V	PK
11590	36.41	9.27	45.68	54	-8.32	V	AV

## ➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.15	-27
Highest	Above 5350	-40.25	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.45	-27
Highest	Above 5350	-37.42	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-37.52	-27
Highest	Above 5725	-39.31	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-38.12	-27
	5715 to 5725	-26.65	-17
Highest	5850 to 5860	-27.12	-17
	Above 5860	-37.45	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz, 5.250-5.350GHz, 5.470-5.725GHz, 5.725-5.850GHz (802.11ac HT40)
- 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 (5190MHz)							
10380	56.16	7.89	64.05	74	-9.95	H	PK
10380	37.88	7.89	45.77	54	-8.23	H	AV
10380	56.49	7.89	64.38	74	-9.62	V	PK
10380	36.72	7.89	44.61	54	-9.39	V	AV
High Channel (5230MHz)							
10460	55.24	7.97	63.21	74	-10.79	H	PK
10460	37.71	7.97	45.68	54	-8.32	H	AV
10460	56.79	7.97	64.76	74	-9.24	V	PK
10460	39.86	7.97	47.83	54	-6.17	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5270MHz)							
10540	57.13	8.16	65.29	74	-8.71	H	PK
10540	37.07	8.16	45.23	54	-8.77	H	AV
10540	55.45	8.16	63.61	74	-10.39	V	PK
10540	36.89	8.16	45.05	54	-8.95	V	AV
High Channel (5310MHz)							
10620	56.07	8.57	64.64	74	-9.36	H	PK
10620	37.97	8.57	46.54	54	-7.46	H	AV
10620	53.66	8.57	62.23	74	-11.77	V	PK
10620	36.90	8.57	45.47	54	-8.53	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5510MHz)							
11020	56.12	9.16	65.28	74	-8.72	H	PK
11020	37.46	9.16	46.62	54	-7.38	H	AV
11020	54.14	9.16	63.30	74	-10.70	V	PK
11020	38.50	9.16	47.66	54	-6.34	V	AV
Middle Channel (5590MHz)							
11180	56.22	9.29	65.51	74	-8.49	H	PK
11180	36.74	9.29	46.03	54	-7.97	H	AV
11180	54.94	9.29	64.23	74	-9.77	V	PK
11180	38.64	9.29	47.93	54	-6.07	V	AV
High Channel (5670MHz)							
11340	55.71	9.43	65.14	74	-8.86	H	PK
11340	36.26	9.43	45.69	54	-8.31	H	AV
11340	52.40	9.43	61.83	74	-12.17	V	PK
11340	36.72	9.43	46.15	54	-7.85	V	AV

Frequency (MHz)	Reading (dBuV/m)	Correct dB	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel (5755MHz)							
11510	54.02	9.45	63.47	74	-10.53	H	PK
11510	38.27	9.45	47.72	54	-6.28	H	AV
11510	55.72	9.45	65.17	74	-8.83	V	PK
11510	39.86	9.45	49.31	54	-4.69	V	AV
High Channel (5795MHz)							
11590	53.53	9.27	62.80	74	-11.20	H	PK
11590	38.71	9.27	47.98	54	-6.02	H	AV
11590	53.85	9.27	63.12	74	-10.88	V	PK
11590	36.20	9.27	45.47	54	-8.53	V	AV

## ➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.86	-27
Highest	Above 5350	-38.53	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-38.47	-27
Highest	Above 5350	-39.64	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-37.15	-27
Highest	Above 5725	-38.08	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-35.62	-27
	5715 to 5725	-31.49	-17
Highest	5850 to 5860	-39.67	-17
	Above 5860	-32.41	-27
Note: the data just list the worst cases			

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

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5210MHz							
10420	56.61	7.53	64.14	74	-9.86	H	PK
10420	37.89	7.53	45.42	54	-8.58	H	AV
10420	55.25	7.53	62.78	74	-11.22	H	PK
10420	38.73	7.53	46.26	54	-7.74	H	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5290MHz							
10580	53.76	7.95	61.71	74	-12.29	H	PK
10580	38.98	7.95	46.93	54	-7.07	H	AV
10580	54.18	7.95	62.13	74	-11.87	V	PK
10580	37.04	7.95	44.99	54	-9.01	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5530MHz)							
11060	53.83	9.42	63.25	74	-10.75	H	PK
11060	38.72	9.42	48.14	54	-5.86	H	AV
11060	54.57	9.42	63.99	74	-10.01	V	PK
11060	38.33	9.42	47.75	54	-6.25	V	AV
High Channel (5610MHz)							
11220	57.50	9.69	67.19	74	-6.81	H	PK
11220	39.17	9.69	48.86	54	-5.14	H	AV
11220	55.91	9.69	65.60	74	-8.40	V	PK
11220	39.30	9.69	48.99	54	-5.01	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	55.63	9.93	65.56	74	-8.44	H	PK
11550	38.77	9.93	48.70	54	-5.30	H	AV
11550	54.59	9.93	64.52	74	-9.48	V	PK
11550	36.17	9.93	46.10	54	-7.90	V	AV

## ➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.75	-27
Highest	Above 5350	-37.25	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5250-5350MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-39.45	-27
Highest	Above 5350	-39.16	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5470-5725MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5470	-40.42	-27
Highest	Above 5725	-38.36	-27
Note: the data just list the worst cases			

## ➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-39.15	-27
	5715 to 5725	-37.26	-17
Highest	5850 to 5860	-39.31	-17
	Above 5860	-38.28	-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**

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### **9.1 Standard Applicable**

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

### **9.2 Test Procedure**

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

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

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

### **9.3 Summary of Test Results/Plots**

**Please refer to Appendix D**

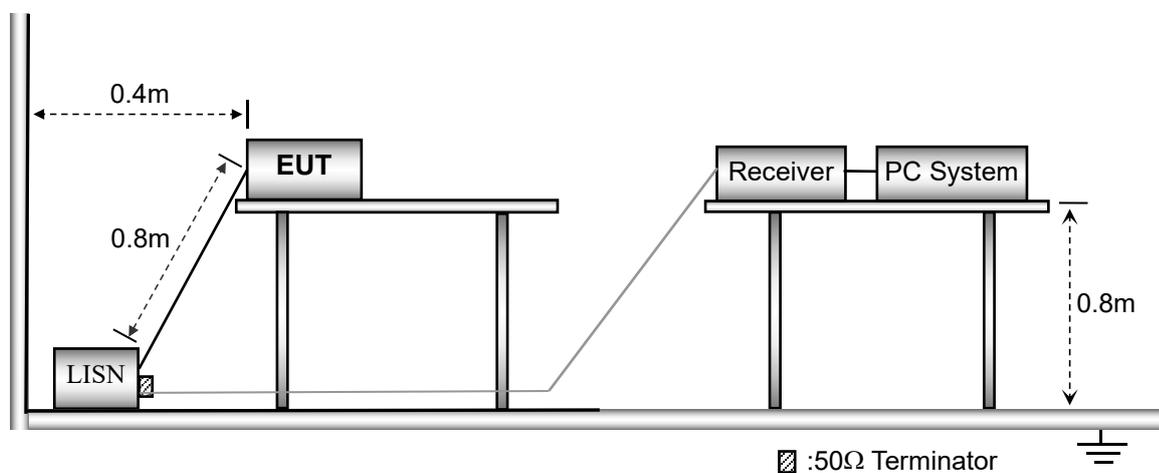
## 10. Conducted Emissions

### 10.1 Test Procedure

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

The external I/O cables were draped along the test table and formed a bundle 30 to 40cm long in the middle. The spacing between the peripherals was 10cm.

### 10.2 Basic Test Setup Block Diagram



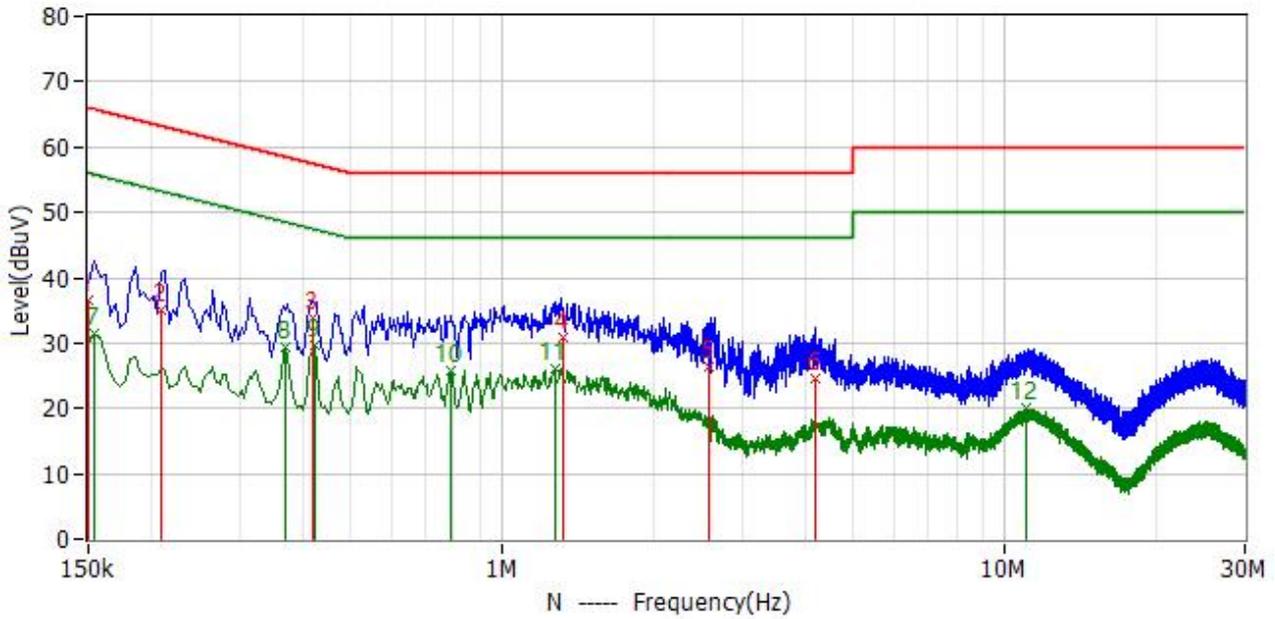
### 10.3 Test Receiver Setup

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

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

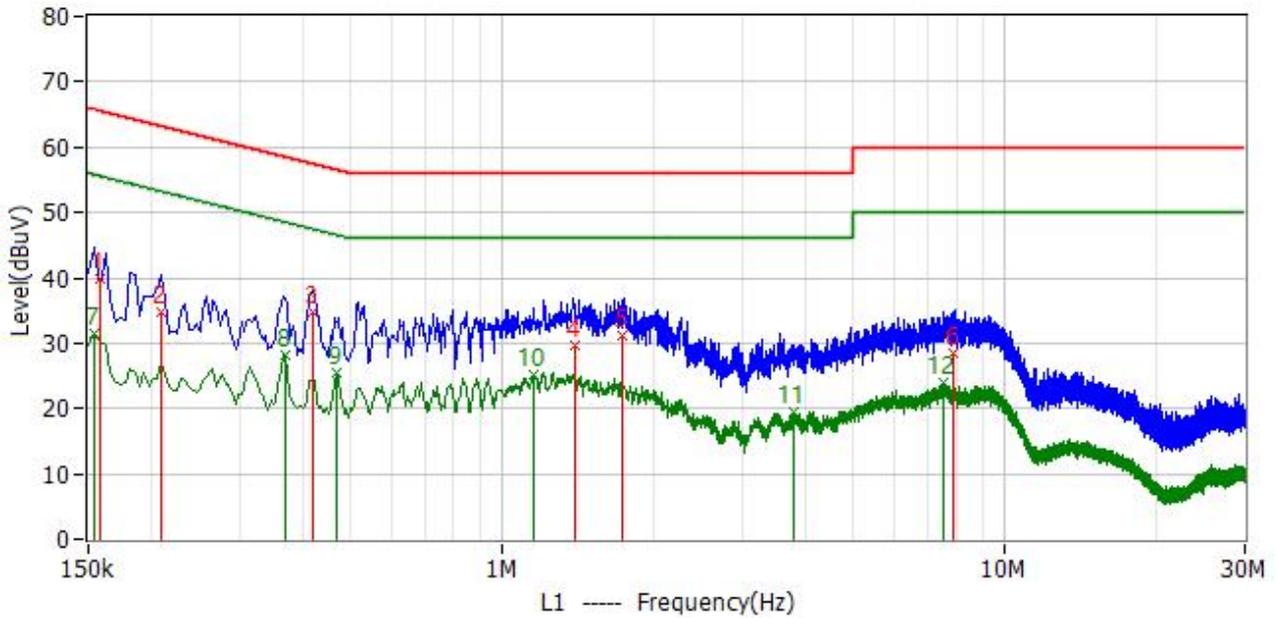
### 10.4 Summary of Test Results/Plots

Test Mode	Communication	AC120V 60Hz	Polarity:	Neutral
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No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Delta dB	Detector
1	150.000kHz	26.8	9.7	36.5	66.0	-29.5	QP
2	210.000kHz	25.3	9.7	35.0	63.2	-28.2	QP
3	418.000kHz	24.1	9.9	34.0	57.5	-23.5	QP
4	1.322MHz	21.1	9.7	30.8	56.0	-25.2	QP
5	2.574MHz	16.7	9.7	26.4	56.0	-29.6	QP
6	4.206MHz	14.9	9.8	24.7	56.0	-31.3	QP
7*	154.000kHz	21.7	9.7	31.4	55.8	-24.4	AV
8*	370.000kHz	19.5	9.9	29.4	48.5	-19.1	AV
9*	422.000kHz	19.9	9.8	29.7	47.4	-17.7	AV
10*	786.000kHz	16.2	9.7	25.9	46.0	-20.1	AV
11*	1.270MHz	16.4	9.7	26.1	46.0	-19.9	AV
12*	11.022MHz	10.2	9.8	20.0	50.0	-30.0	AV

Test Mode	Communication	AC120V 60Hz	Polarity:	Line
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No.	Frequency	Reading dBuV	Factor dB	Level dBuV	Limit dBuV	Delta dB	Detector
1	158.000kHz	30.0	9.9	39.9	65.6	-25.7	QP
2	210.000kHz	25.1	9.7	34.8	63.2	-28.4	QP
3	418.000kHz	24.9	9.8	34.7	57.5	-22.8	QP
4	1.390MHz	19.9	9.8	29.7	56.0	-26.3	QP
5	1.734MHz	21.3	9.8	31.1	56.0	-24.9	QP
6	7.890MHz	18.7	9.7	28.4	60.0	-31.6	QP
7*	154.000kHz	21.5	9.9	31.4	55.8	-24.4	AV
8*	370.000kHz	18.3	10.0	28.3	48.5	-20.2	AV
9*	466.000kHz	15.7	9.8	25.5	46.6	-21.1	AV
10*	1.158MHz	15.5	9.8	25.3	46.0	-20.7	AV
11*	3.802MHz	9.7	9.9	19.6	46.0	-26.4	AV
12*	7.542MHz	14.3	9.7	24.0	50.0	-26.0	AV

## APPENDIX SUMMARY

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Project No.	WTX24X04087264W	Test Engineer	Timi Huang
Start date	2024/4/28	Finish date	2024/4/29
Temperature	24°C	Humidity	56%
RF specifications	U-NII		

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

**APPENDIX A**

<b>Power Spectral Density</b>			
<b>U-NII-1:5150-5250MHz</b>			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	3.27	11
	5200	3.24	11
	5240	3.59	11
802.11n-HT20	5180	2.45	11
	5200	2.38	11
	5240	2.63	11
802.11n-HT40	5190	-0.44	11
	5230	-0.23	11
802.11ac-VHT20	5180	2.41	11
	5200	2.41	11
	5240	2.71	11
802.11ac-VHT40	5190	-0.41	11
	5230	-0.36	11
802.11ac-VHT80	5210	-3.82	11

<b>U-NII-2A: 5250-5350MHz</b>			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5260	4.00	11
	5280	3.92	11
	5320	4.28	11
802.11n-HT20	5260	2.82	11
	5280	3.09	11
	5320	2.91	11
802.11n-HT40	5270	0.00	11
	5310	0.26	11
802.11ac-VHT20	5260	2.83	11
	5280	3.07	11
	5320	3.01	11
802.11ac-VHT40	5270	0.11	11
	5310	0.20	11
802.11ac-VHT80	5290	-3.29	11

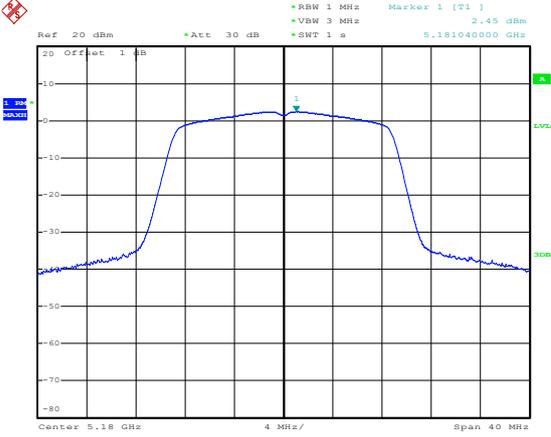
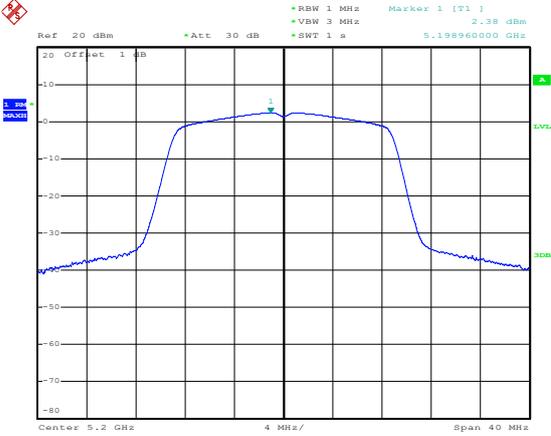
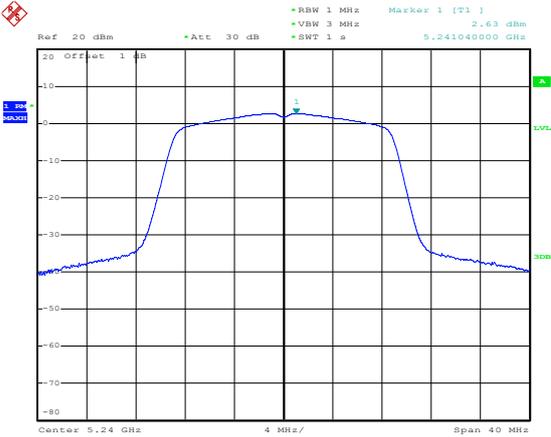
<b>U-NII-2C: 5470-5725MHz</b>			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5500	3.62	11
	5600	3.60	11
	5700	3.93	11
802.11n-HT20	5500	2.49	11
	5600	2.67	11
	5700	2.59	11
802.11n-HT40	5510	-0.50	11
	5590	-0.30	11
	5670	-0.16	11
802.11ac-VHT20	5500	2.46	11
	5600	2.66	11
	5700	2.70	11
802.11ac-VHT40	5510	-0.49	11
	5590	-0.36	11
	5670	-0.10	11
802.11ac-VHT80	5530	-4.10	11
	5610	-3.53	11

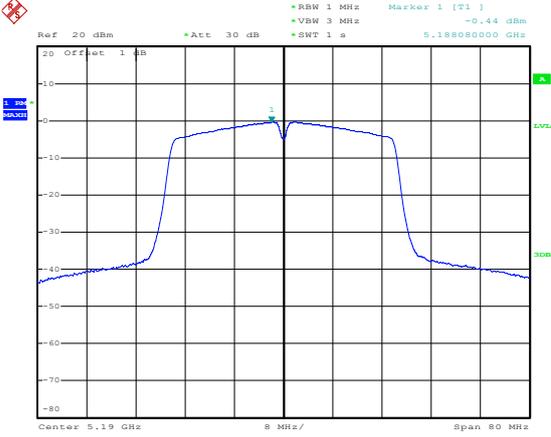
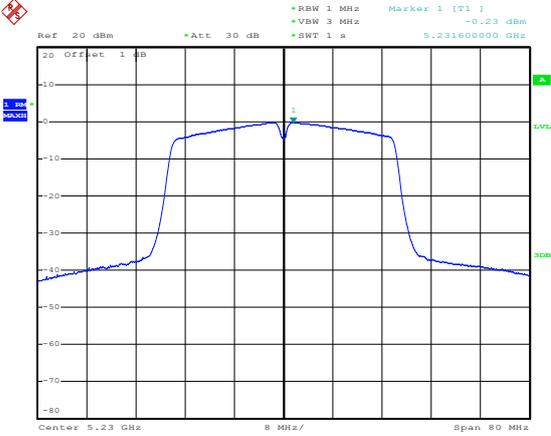
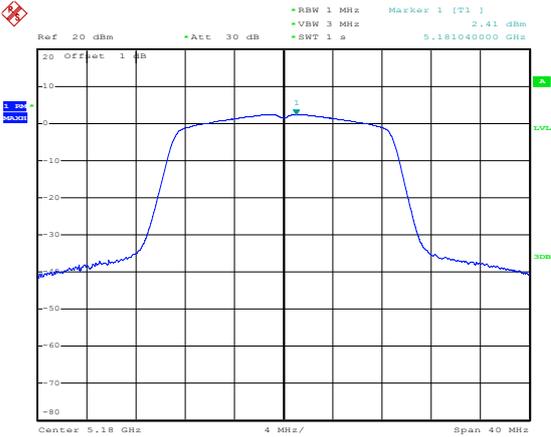
<b>U-NII-3: 5725-5850MHz</b>					
Operating mode	Test Channel	Power Spectral Density dBm/300kHz	Factor	Power Spectral Density* dBm/500kHz	Limit dBm/500kHz
802.11a	5745	-1.35	2.22	0.87	30
	5785	-0.74	2.22	1.48	30
	5825	-0.46	2.22	1.76	30
802.11n-HT20	5745	-2.05	2.22	0.17	30
	5785	-2.11	2.22	0.11	30
	5825	-1.98	2.22	0.24	30
802.11n HT40	5755	-5.53	2.22	-3.31	30
	5795	-5.67	2.22	-3.45	30
802.11ac VHT20	5745	-2.21	2.22	0.01	30
	5785	-2.08	2.22	0.14	30
	5825	-1.78	2.22	0.44	30
802.11ac VHT40	5755	-5.18	2.22	-2.96	30
	5795	-5.53	2.22	-3.31	30
802.11ac VHT80	5775	-9.17	2.22	-6.95	30

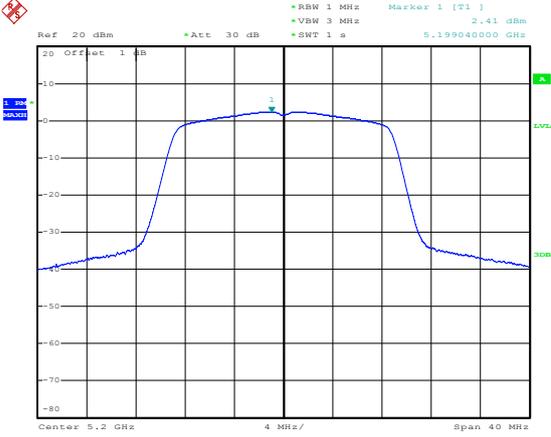
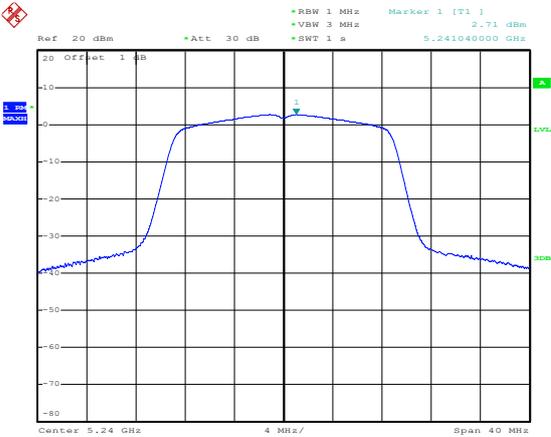
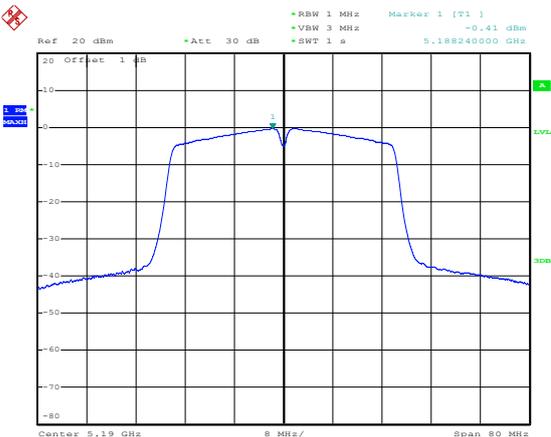
\*Note: Maximum PSD=PSD(dBm/300kHz)+10log(500kHz/300kHz)=2.22

5150-5250MHz

<p>802.11a-Low</p>	<p>Ref 20 dBm    *Att 30 dB    *RBW 1 MHz    Marker 1 [T1]    3.27 dBm *VBW 3 MHz    *SWT 1 s    5.179040000 GHz</p> <p>20 Offset 1 dB</p> <p>1.00 dBm</p> <p>10V</p> <p>30dB</p> <p>Center 5.18 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 28.APR.2024 15:55:54</p>
<p>802.11a-Middle</p>	<p>Ref 20 dBm    *Att 30 dB    *RBW 1 MHz    Marker 1 [T1]    3.24 dBm *VBW 3 MHz    *SWT 1 s    5.201040000 GHz</p> <p>20 Offset 1 dB</p> <p>1.00 dBm</p> <p>10V</p> <p>30dB</p> <p>Center 5.2 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 28.APR.2024 15:56:21</p>
<p>802.11a-High</p>	<p>Ref 20 dBm    *Att 30 dB    *RBW 1 MHz    Marker 1 [T1]    3.59 dBm *VBW 3 MHz    *SWT 1 s    5.241040000 GHz</p> <p>20 Offset 1 dB</p> <p>1.00 dBm</p> <p>10V</p> <p>30dB</p> <p>Center 5.24 GHz    4 MHz/    Span 40 MHz</p> <p>Date: 28.APR.2024 15:56:46</p>

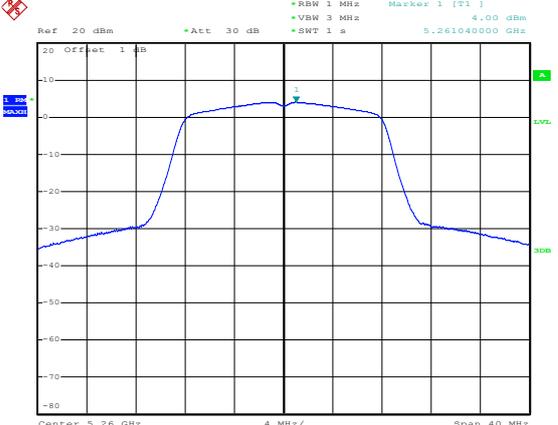
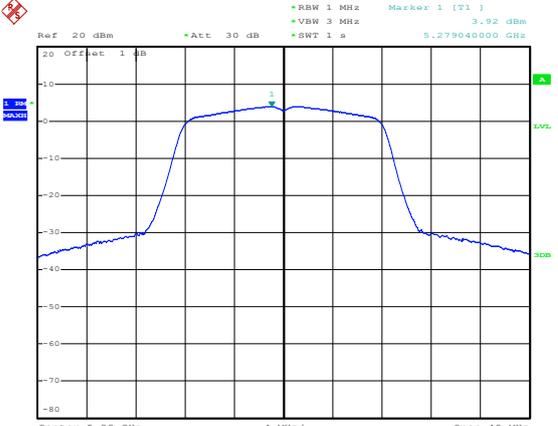
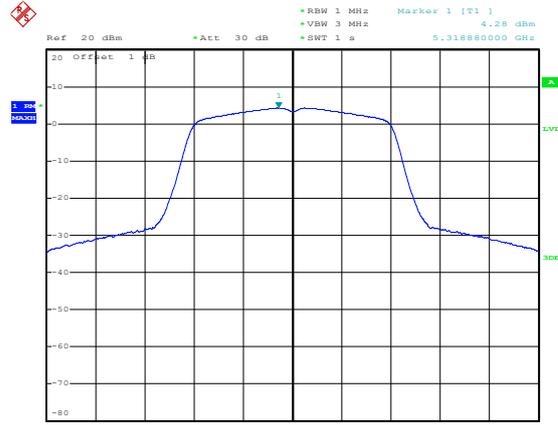
<p>802.11n-HT20-Low</p>	 <p>Date: 28.APR.2024 15:58:04</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 28.APR.2024 15:57:45</p>
<p>802.11n-HT20-High</p>	 <p>Date: 28.APR.2024 15:57:21</p>

<p>802.11n-HT40-Low</p>	 <p>Date: 28.APR.2024 15:59:36</p>
<p>802.11n-HT40-High</p>	 <p>Date: 28.APR.2024 15:59:59</p>
<p>802.11ac-VHT20-Low</p>	 <p>Date: 28.APR.2024 15:58:20</p>

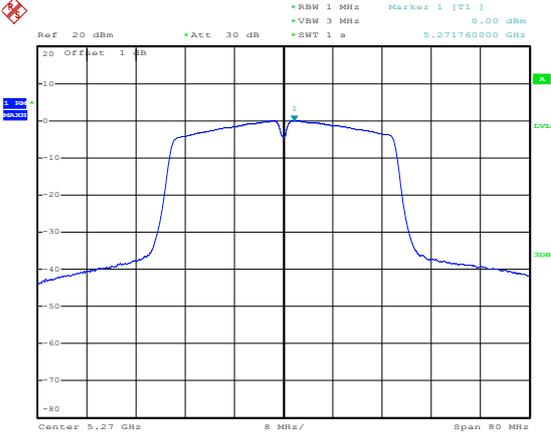
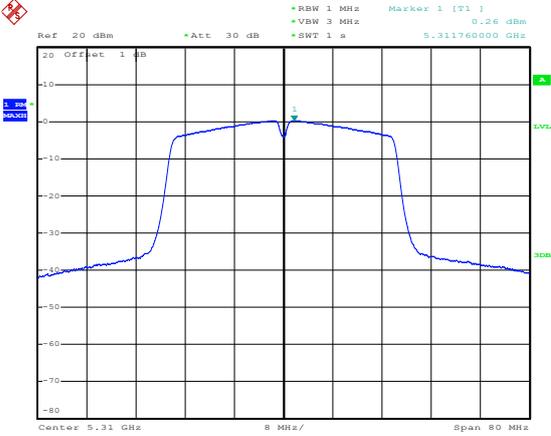
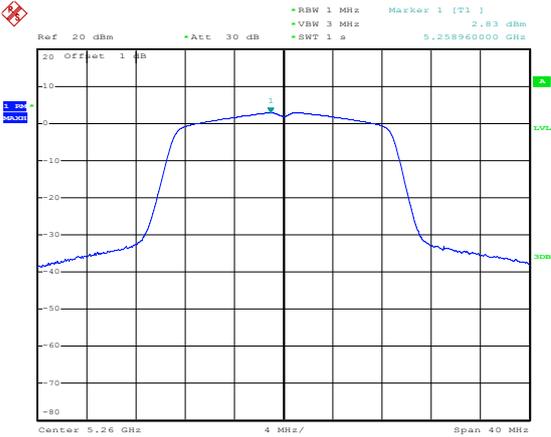
<p>802.11ac-VHT20-Middle</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 1 MHz Marker 1 [T1] 2.41 dBm          VBW 3 MHz          SWT 1 s 5.199040000 GHz</p> <p>20 Offset 1 dB          -10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.2 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 28.APR.2024 15:58:43</p>
<p>802.11ac-VHT20-High</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 1 MHz Marker 1 [T1] 2.71 dBm          VBW 3 MHz          SWT 1 s 5.241040000 GHz</p> <p>20 Offset 1 dB          -10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.24 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 28.APR.2024 15:59:03</p>
<p>802.11ac-VHT40-Low</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 1 MHz Marker 1 [T1] -0.41 dBm          VBW 3 MHz          SWT 1 s 5.188240000 GHz</p> <p>20 Offset 1 dB          -10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.19 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 28.APR.2024 16:00:39</p>

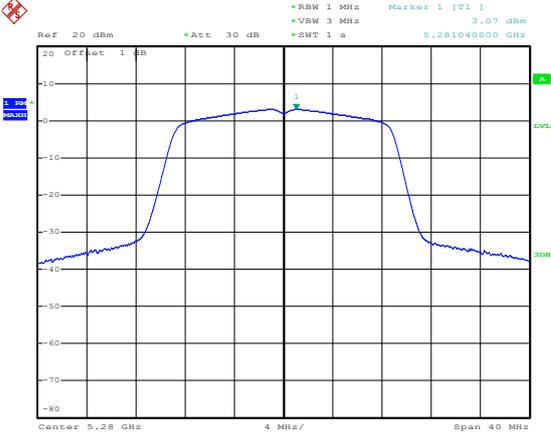
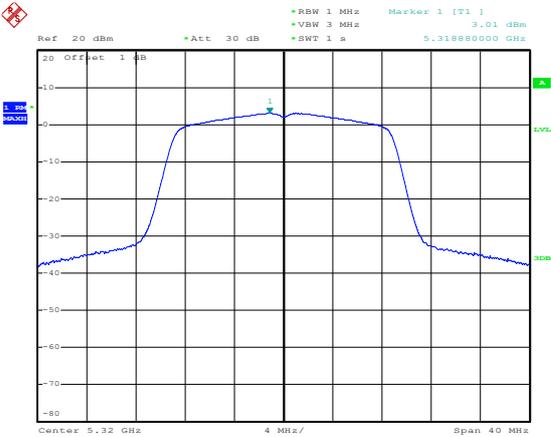
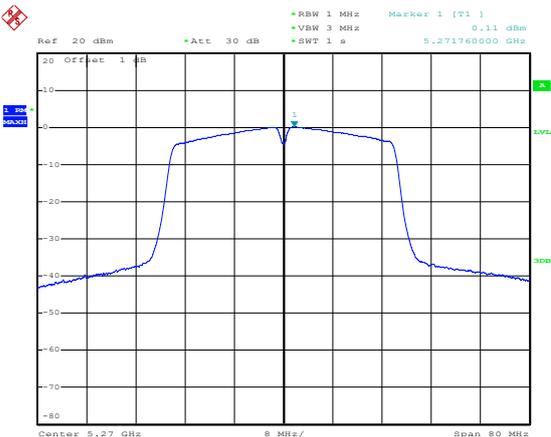
<p>802.11ac-VHT40-High</p>	<p>Date: 28.APR.2024 16:00:16</p>
<p>802.11ac-VHT80-Low</p>	<p>Date: 28.APR.2024 16:01:08</p>

5250-5350MHz

<p>802.11a-Low</p>	 <p>Date: 28.APR.2024 16:51:29</p>
<p>802.11a-Middle</p>	 <p>Date: 28.APR.2024 16:52:27</p>
<p>802.11a-High</p>	 <p>Date: 28.APR.2024 16:52:45</p>

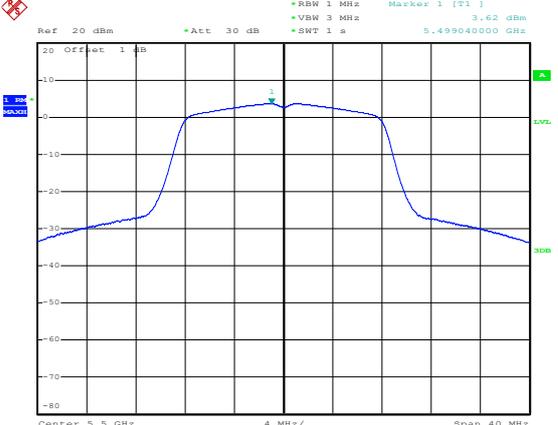
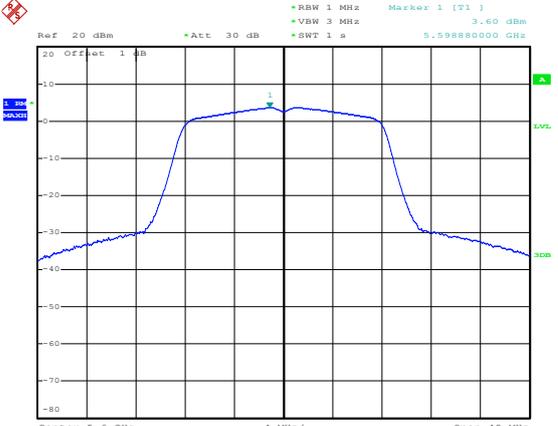
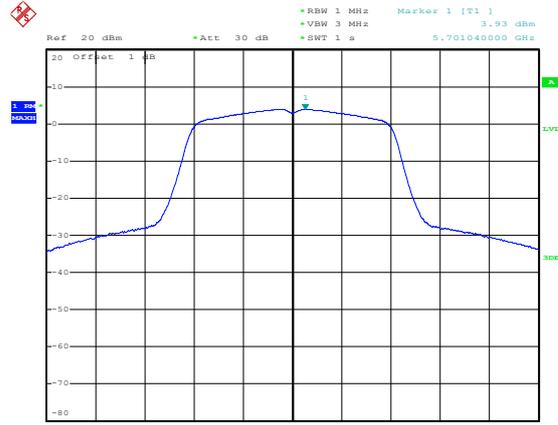
<p>802.11n-HT20-Low</p>	<p>Date: 28.APR.2024 16:53:59</p>
<p>802.11n-HT20-Middle</p>	<p>Date: 28.APR.2024 16:53:38</p>
<p>802.11n-HT20-High</p>	<p>Date: 28.APR.2024 16:53:06</p>

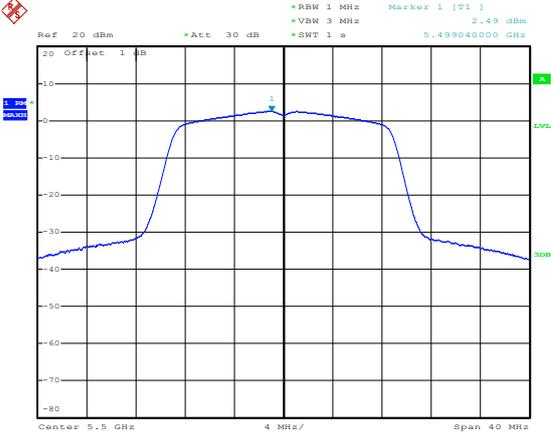
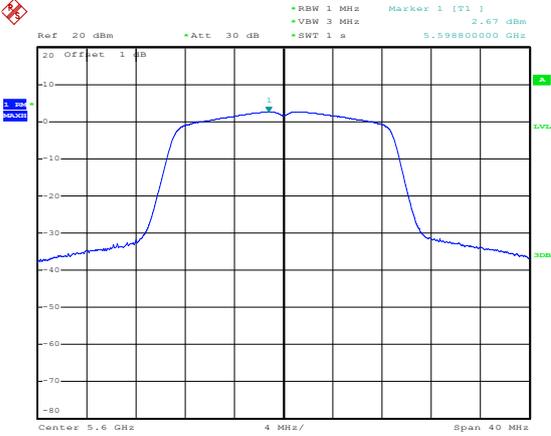
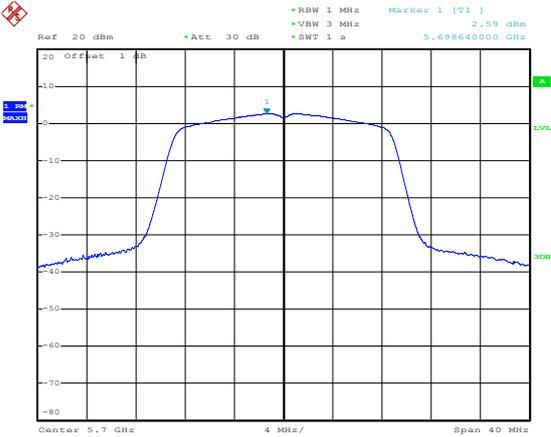
<p>802.11n-HT40-Low</p>	 <p>Date: 28.APR.2024 16:55:49</p>
<p>802.11n-HT40-High</p>	 <p>Date: 28.APR.2024 16:56:09</p>
<p>802.11ac-VHT20-Low</p>	 <p>Date: 28.APR.2024 16:54:18</p>

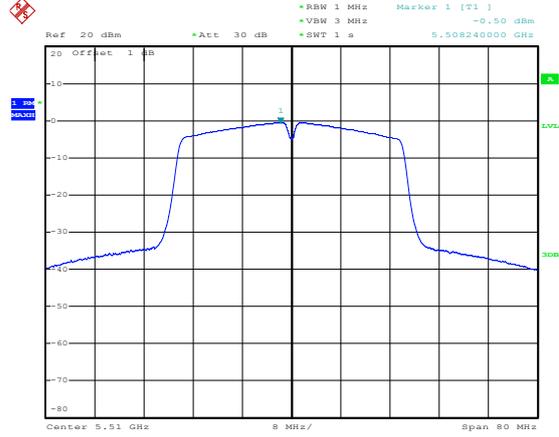
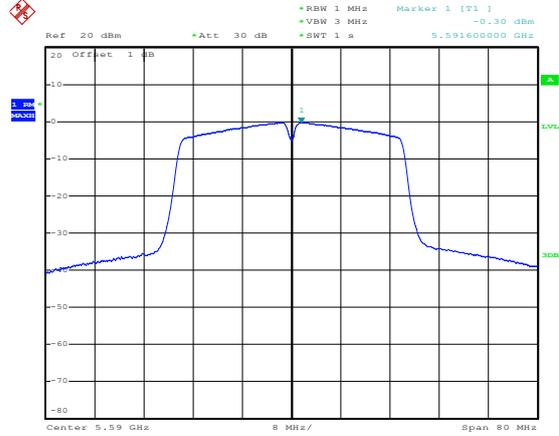
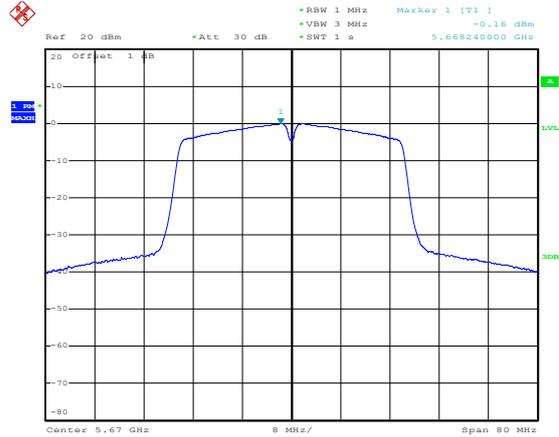
<p>802.11ac-VHT20-Middle</p>	 <p>Ref: 20 dBm    *Att: 30 dB    *RBW 1 MHz    Marker 1 [T1]    3.07 dBm      *VBW 3 MHz    *SWT 1 s    5.281040000 GHz</p> <p>Center: 5.28 GHz    4 MHz/    Span: 40 MHz</p> <p>Date: 28.APR.2024 16:54:37</p>
<p>802.11ac-VHT20-High</p>	 <p>Ref: 20 dBm    *Att: 30 dB    *RBW 1 MHz    Marker 1 [T1]    3.01 dBm      *VBW 3 MHz    *SWT 1 s    5.318880000 GHz</p> <p>Center: 5.32 GHz    4 MHz/    Span: 40 MHz</p> <p>Date: 28.APR.2024 16:54:56</p>
<p>802.11ac-VHT40-Low</p>	 <p>Ref: 20 dBm    *Att: 30 dB    *RBW 1 MHz    Marker 1 [T1]    0.11 dBm      *VBW 3 MHz    *SWT 1 s    5.271760000 GHz</p> <p>Center: 5.27 GHz    8 MHz/    Span: 80 MHz</p> <p>Date: 28.APR.2024 16:56:41</p>

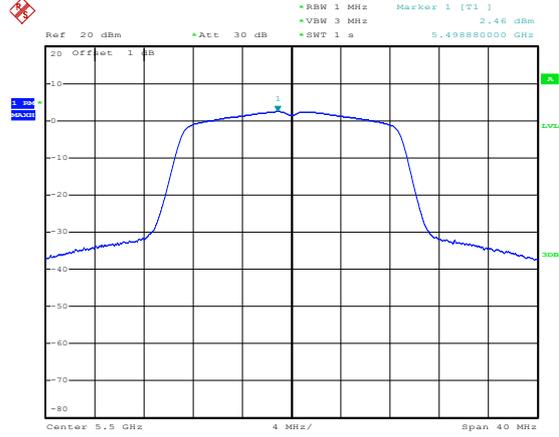
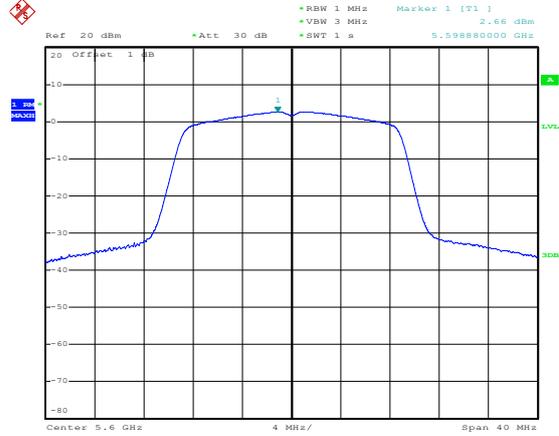
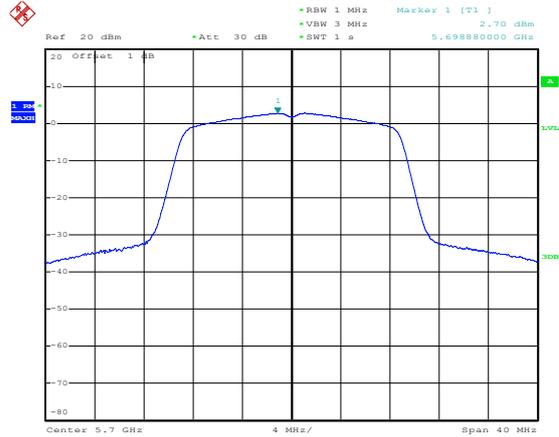
<p>802.11ac-VHT40-High</p>	<p>Date: 28.APR.2024 16:56:23</p>
<p>802.11ac-VHT80-Low</p>	<p>Date: 28.APR.2024 16:57:14</p>

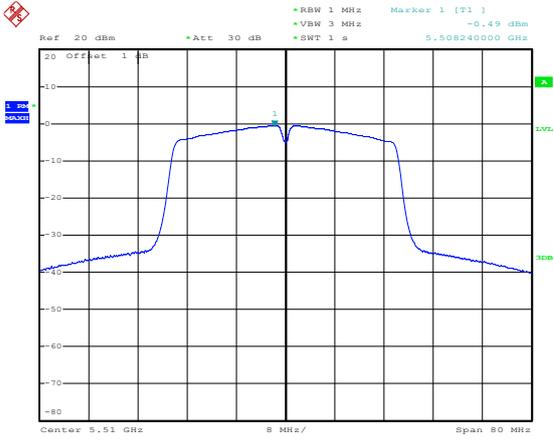
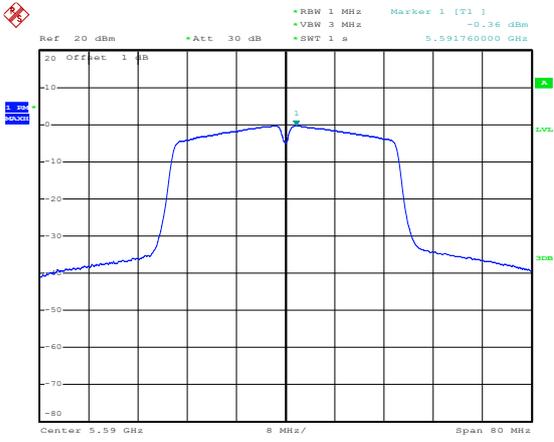
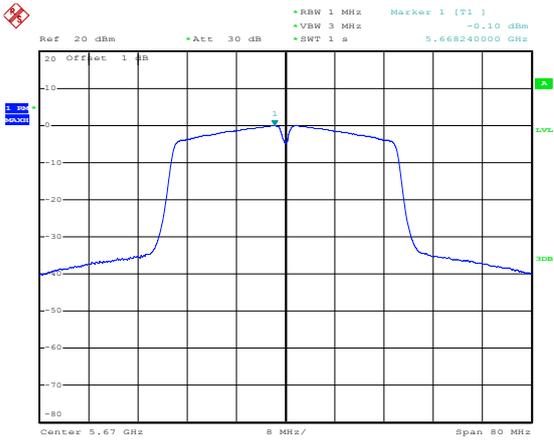
5470-5725MHz

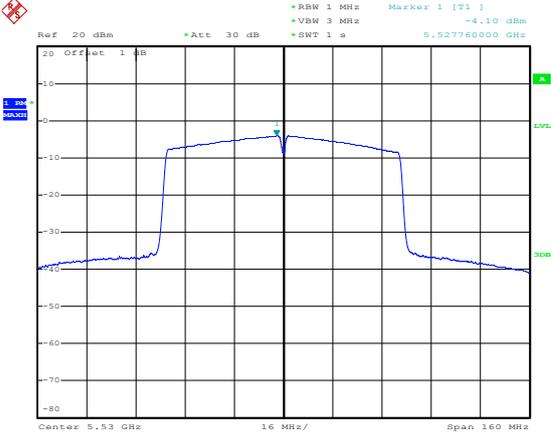
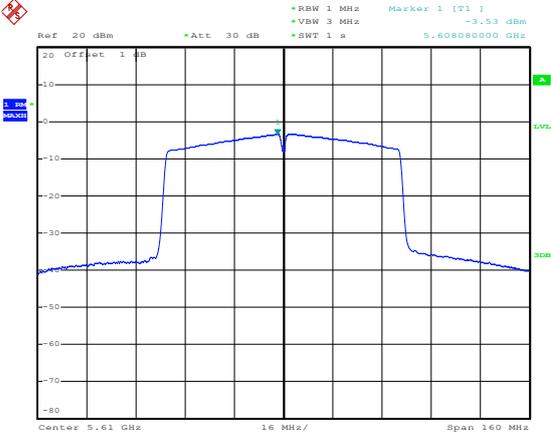
<p>802.11a-Low</p>	 <p>Ref: 20 dBm    *Att: 30 dB    *RBW: 1 MHz    *VBW: 3 MHz    *SWT: 1 s    Marker 1 [T1] 3.62 dBm 5.49904000 GHz</p> <p>Center: 5.5 GHz    4 MHz/    Span: 40 MHz</p> <p>Date: 28.APR.2024 17:48:05</p>
<p>802.11a-Middle</p>	 <p>Ref: 20 dBm    *Att: 30 dB    *RBW: 1 MHz    *VBW: 3 MHz    *SWT: 1 s    Marker 1 [T1] 3.60 dBm 5.59888000 GHz</p> <p>Center: 5.6 GHz    4 MHz/    Span: 40 MHz</p> <p>Date: 28.APR.2024 17:48:32</p>
<p>802.11a-High</p>	 <p>Ref: 20 dBm    *Att: 30 dB    *RBW: 1 MHz    *VBW: 3 MHz    *SWT: 1 s    Marker 1 [T1] 3.93 dBm 5.70104000 GHz</p> <p>Center: 5.7 GHz    4 MHz/    Span: 40 MHz</p> <p>Date: 28.APR.2024 17:48:48</p>

<p>802.11n-HT20-Low</p>	 <p>Date: 28.APR.2024 17:49:36</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 28.APR.2024 17:49:19</p>
<p>802.11n-HT20-High</p>	 <p>Date: 28.APR.2024 17:49:01</p>

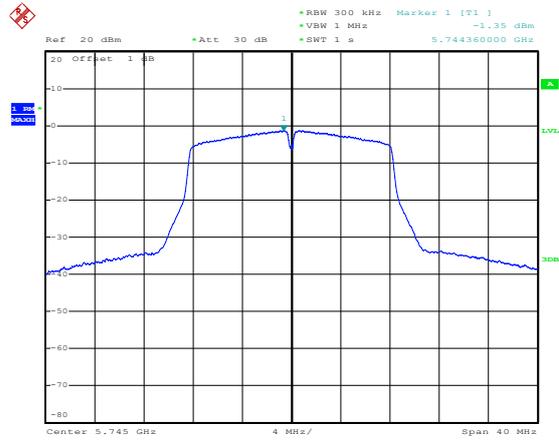
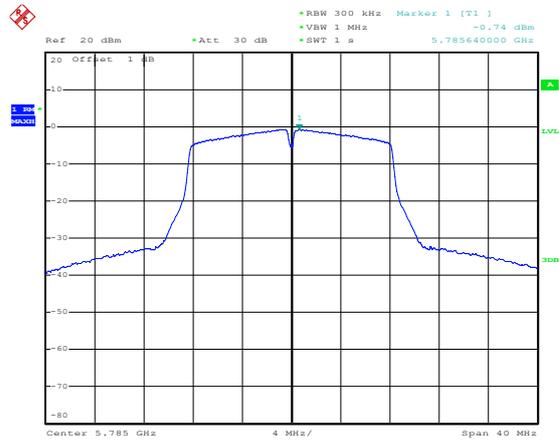
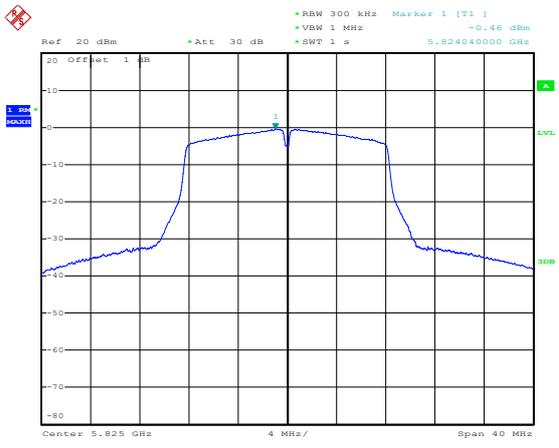
<p>802.11n-HT40-Low</p>	 <p>Date: 28.APR.2024 17:50:51</p>
<p>802.11n-HT40-Middle</p>	 <p>Date: 28.APR.2024 17:51:10</p>
<p>802.11n-HT40-High</p>	 <p>Date: 28.APR.2024 17:51:26</p>

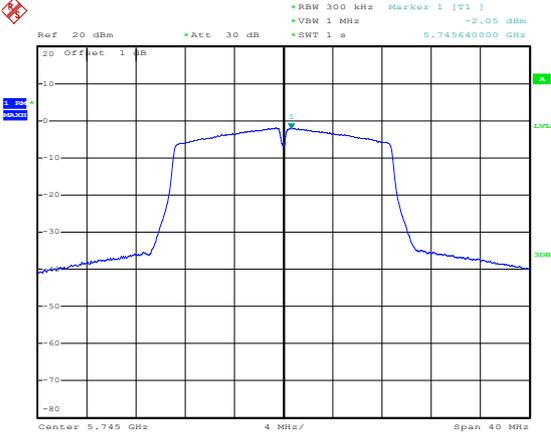
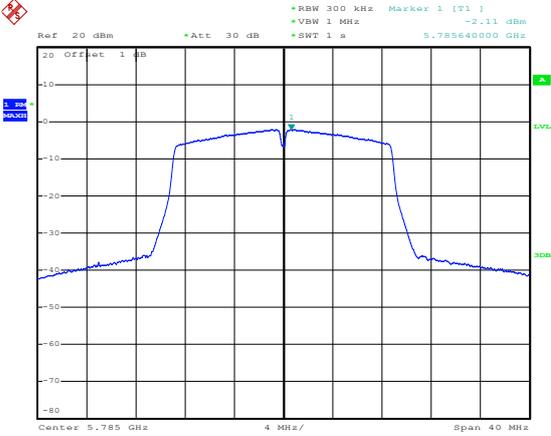
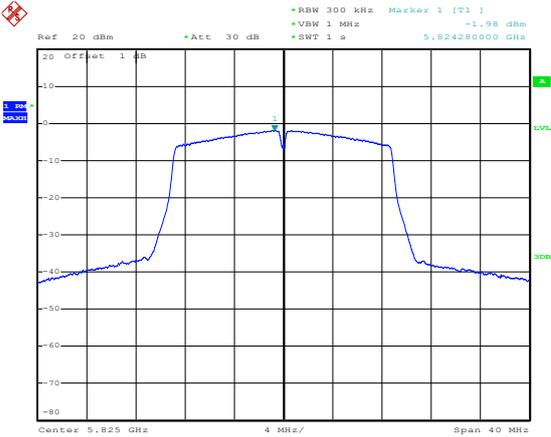
<p>802.11ac-VHT20-Low</p>	 <p>Date: 28.APR.2024 17:49:49</p>
<p>802.11ac-VHT20-Middle</p>	 <p>Date: 28.APR.2024 17:50:07</p>
<p>802.11ac-VHT20-High</p>	 <p>Date: 28.APR.2024 17:50:25</p>

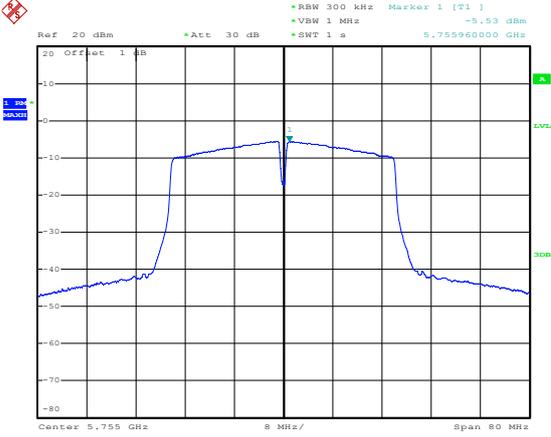
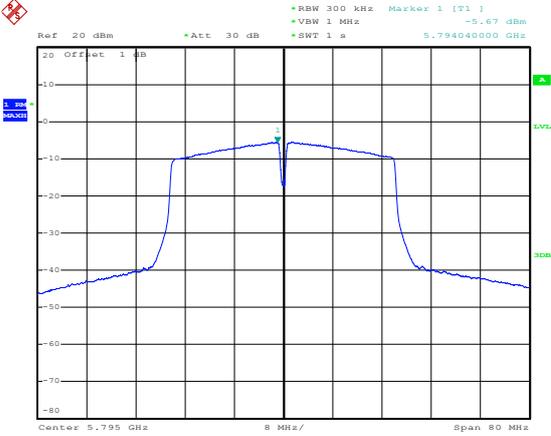
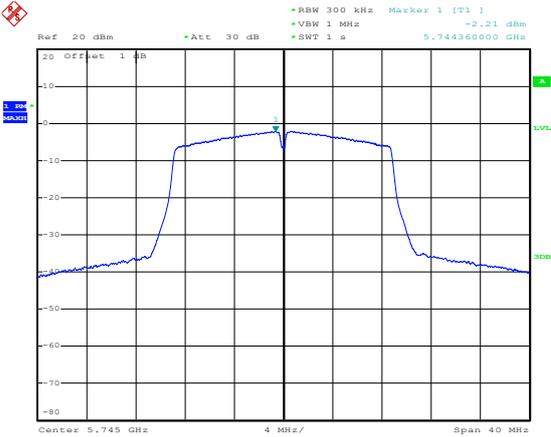
<p>802.11ac-VHT40-Low</p>	 <p>Date: 28.APR.2024 17:52:15</p>
<p>802.11ac-VHT40-Middle</p>	 <p>Date: 28.APR.2024 17:51:58</p>
<p>802.11ac-VHT40-High</p>	 <p>Date: 28.APR.2024 17:51:41</p>

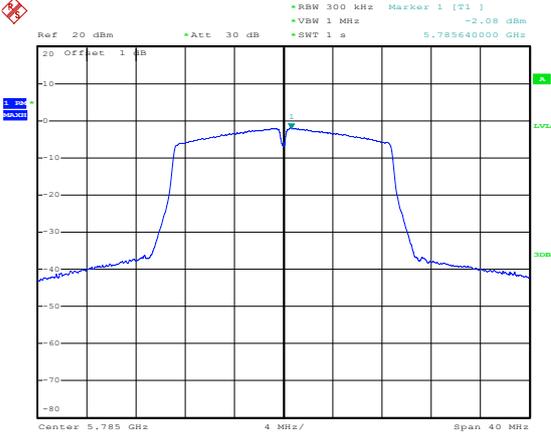
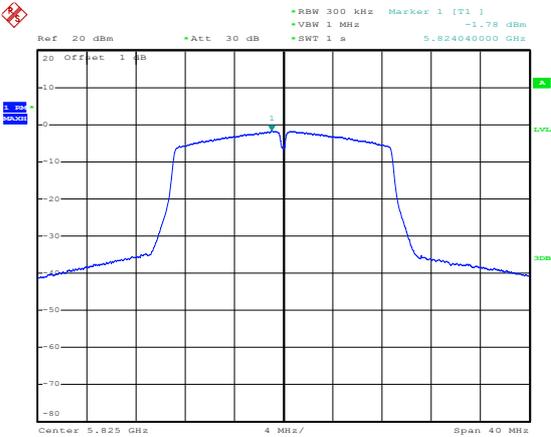
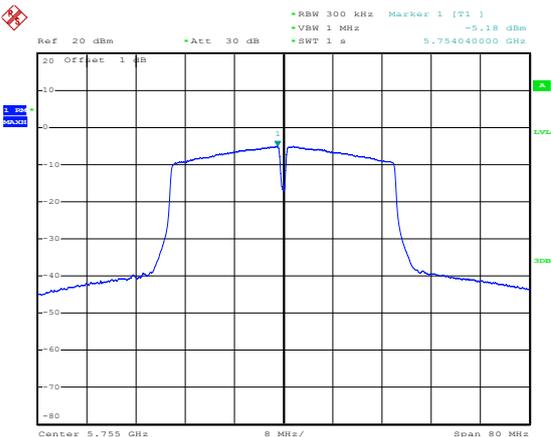
<p>802.11ac-VHT80-Low</p>	 <p>Ref 20 dBm *Att 30 dB RBW 1 MHz Marker 1 [T1] -4.10 dBm VBW 3 MHz SWT 1 s 5.52760000 GHz</p> <p>20 Offset 1 dB -10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.53 GHz 16 MHz/ Span 160 MHz</p> <p>Date: 28.APR.2024 17:52:40</p>
<p>802.11ac-VHT80- High</p>	 <p>Ref 20 dBm *Att 30 dB RBW 1 MHz Marker 1 [T1] -3.53 dBm VBW 3 MHz SWT 1 s 5.60800000 GHz</p> <p>20 Offset 1 dB -10 0 -10 -20 -30 -40 -50 -60 -70 -80</p> <p>Center 5.61 GHz 16 MHz/ Span 160 MHz</p> <p>Date: 28.APR.2024 17:53:00</p>

5725-5850MHz

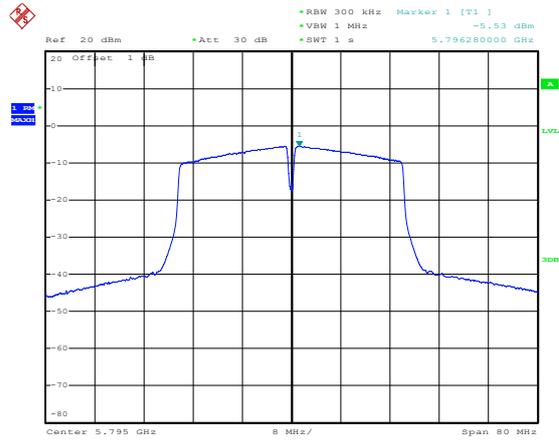
<p>802.11a-Low</p>	 <p>Date: 29.APR.2024 11:28:17</p>
<p>802.11a-Middle</p>	 <p>Date: 29.APR.2024 11:32:26</p>
<p>802.11a-High</p>	 <p>Date: 29.APR.2024 11:32:44</p>

<p>802.11n-HT20-Low</p>	 <p>Date: 29.APR.2024 11:34:57</p>
<p>802.11n-HT20-Middle</p>	 <p>Date: 29.APR.2024 11:34:39</p>
<p>802.11n-HT20-High</p>	 <p>Date: 29.APR.2024 11:32:58</p>

<p>802.11n-HT40-Low</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 300 kHz Marker 1 [T1]          VSW 1 MHz -5.53 dBm          SWT 1 s 5.755960000 GHz</p> <p>20 Offset 1 dB          10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.755 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 29.APR.2024 11:36:31</p>
<p>802.11n-HT40-High</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 300 kHz Marker 1 [T1]          VSW 1 MHz -5.67 dBm          SWT 1 s 5.794040000 GHz</p> <p>20 Offset 1 dB          10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.795 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 29.APR.2024 11:45:46</p>
<p>802.11ac-VHT20-Low</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 300 kHz Marker 1 [T1]          VSW 1 MHz -2.21 dBm          SWT 1 s 5.744360000 GHz</p> <p>20 Offset 1 dB          10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.745 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 29.APR.2024 11:35:13</p>

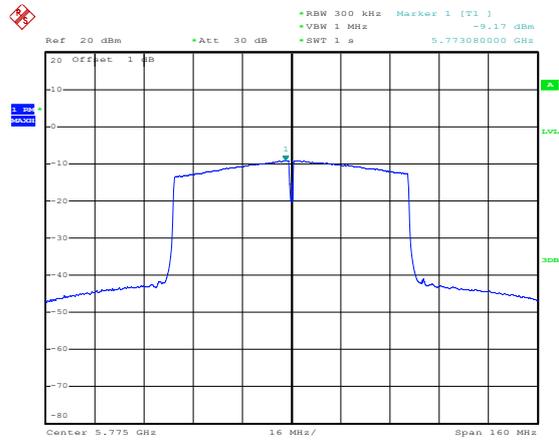
<p>802.11ac-VHT20-Middle</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 300 kHz Marker 1 [T1] -2.08 dBm          VBW 1 MHz          SWT 1 s 5.785640000 GHz</p> <p>20 Offset 1 dB          10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.785 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 29.APR.2024 11:35:31</p>
<p>802.11ac-VHT20-High</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 300 kHz Marker 1 [T1] -1.78 dBm          VBW 1 MHz          SWT 1 s 5.824040000 GHz</p> <p>20 Offset 1 dB          10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.825 GHz 4 MHz/ Span 40 MHz</p> <p>Date: 29.APR.2024 11:35:50</p>
<p>802.11ac-VHT40-Low</p>	 <p>Ref 20 dBm *Att 30 dB          RBW 300 kHz Marker 1 [T1] -5.18 dBm          VBW 1 MHz          SWT 1 s 5.754040000 GHz</p> <p>20 Offset 1 dB          10          0          -10          -20          -30          -40          -50          -60          -70          -80</p> <p>Center 5.755 GHz 8 MHz/ Span 80 MHz</p> <p>Date: 29.APR.2024 11:46:39</p>

802.11ac-VHT40-High



Date: 29.APR.2024 11:46:00

802.11ac-VHT80-Low



Date: 29.APR.2024 11:48:22

## APPENDIX B

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### Emission Bandwidth and Occupied Bandwidth

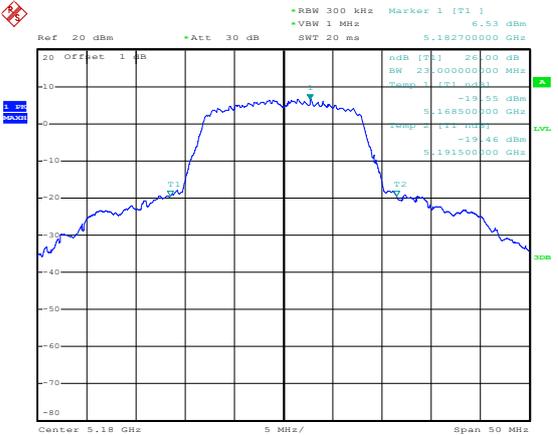
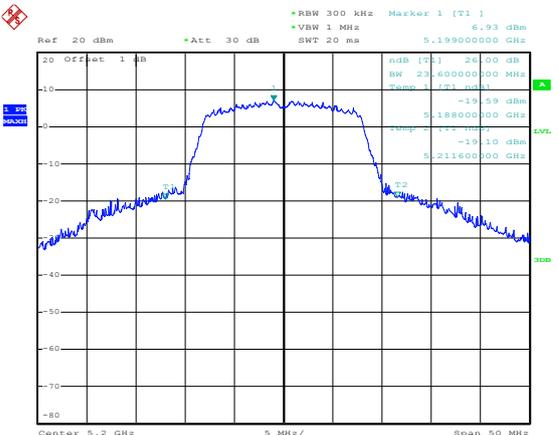
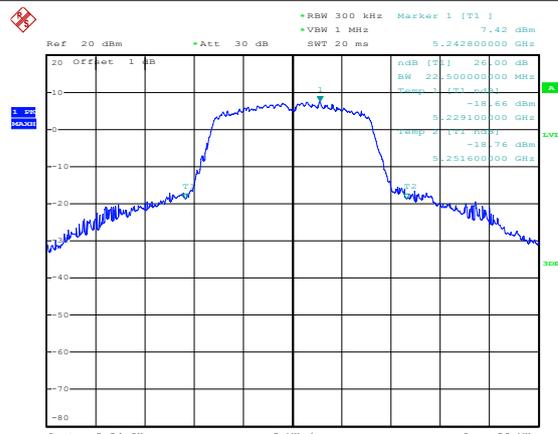
U-NII-1:5150-5250MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5180	23.00	17.28	Pass
	5200	23.60	17.36	Pass
	5240	22.50	17.20	Pass
802.11n-HT20	5180	20.80	18.00	Pass
	5200	20.80	18.08	Pass
	5240	21.40	18.08	Pass
802.11n-HT40	5190	40.80	37.28	Pass
	5230	40.60	37.28	Pass
802.11ac-VHT20	5180	21.00	18.08	Pass
	5200	21.20	18.00	Pass
	5240	21.30	18.08	Pass
802.11ac-VHT40	5190	41.00	37.12	Pass
	5230	40.80	37.28	Pass
802.11ac-VHT80	5210	82.00	75.84	Pass

U-NII-2A: 5250-5350MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5260	23.50	17.52	Pass
	5280	21.70	17.28	Pass
	5320	20.70	17.36	Pass
802.11n-HT20	5260	21.30	18.00	Pass
	5280	21.30	18.08	Pass
	5320	20.90	18.08	Pass
802.11n-HT40	5270	40.80	37.28	Pass
	5310	40.40	37.12	Pass
802.11ac-VHT20	5260	21.50	18.08	Pass
	5280	21.90	18.00	Pass
	5320	21.10	18.08	Pass
802.11ac-VHT40	5270	40.80	37.12	Pass
	5310	40.80	37.28	Pass
802.11ac-VHT80	5290	81.60	75.84	Pass

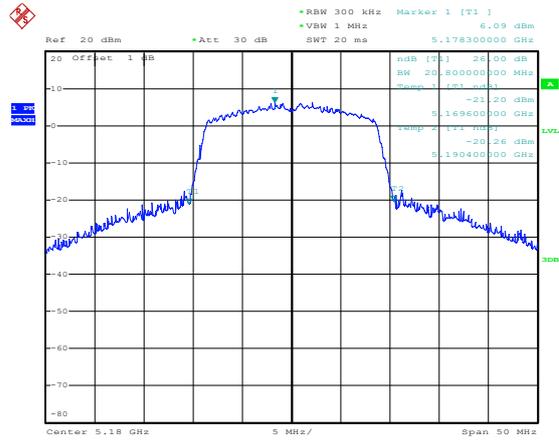
<b>U-NII-2C: 5470-5725MHz</b>				
<b>Test Mode</b>	<b>Test Channel MHz</b>	<b>26 dB Bandwidth MHz</b>	<b>99% Bandwidth MHz</b>	<b>Limit MHz</b>
802.11a	5500	23.50	17.52	Pass
	5600	24.30	17.60	Pass
	5700	24.80	17.36	Pass
802.11n-HT20	5500	21.20	18.08	Pass
	5600	21.00	18.08	Pass
	5700	21.50	18.08	Pass
802.11n-HT40	5510	41.20	37.28	Pass
	5590	40.60	37.12	Pass
	5670	40.80	37.28	Pass
802.11ac-VHT20	5500	22.20	18.16	Pass
	5600	21.90	18.08	Pass
	5700	24.70	18.16	Pass
802.11ac-VHT40	5510	40.80	37.28	Pass
	5590	40.80	37.12	Pass
	5670	40.80	37.28	Pass
802.11ac-VHT80	5530	82.80	75.84	Pass
	5610	82.80	75.84	Pass

<b>U-NII-3: 5725-5850MHz</b>				
<b>Test Mode</b>	<b>Test Channel MHz</b>	<b>6 dB Bandwidth MHz</b>	<b>99% Bandwidth MHz</b>	<b>Limit MHz</b>
802.11a	5745	16.48	17.52	≥500
	5785	16.48	17.44	≥500
	5825	16.48	17.44	≥500
802.11n-HT20	5745	17.76	18.08	≥500
	5785	17.76	18.08	≥500
	5825	17.76	18.08	≥500
802.11n-HT40	5755	36.48	37.12	≥500
	5795	36.48	37.44	≥500
802.11ac VHT20	5745	17.76	18.08	≥500
	5785	17.76	18.08	≥500
	5825	17.76	18.08	≥500
802.11ac VHT40	5755	36.64	37.28	≥500
	5795	36.48	37.28	≥500
802.11ac VHT80	5775	76.80	76.16	≥500

**26 dB Bandwidth**  
**5150-5250MHz**

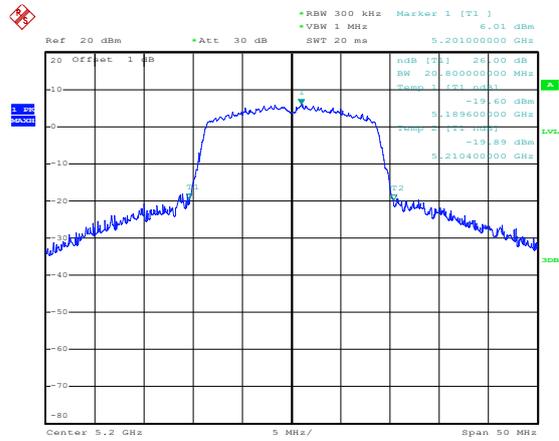
<p>802.11a-Low</p>	 <p>Ref: 20 dBm    *Att: 30 dB    RBW 300 kHz    Marker 1 [T1]    6.53 dBm          VBW 1 MHz    SWT 20 ms    5.182700000 GHz</p> <p>20 Offset 1 dB    hdB [T1]    26.00 dB          BW 23.00000000 MHz          Sweep 1 [T1] 0.001 s          -13.55 dBm          5.168500000 GHz          Temp 1 [T1] 0.001 s          -19.46 dBm          5.191500000 GHz</p> <p>Center 5.18 GHz    5 MHz/    Span 50 MHz</p> <p>Date: 28.APR.2024 16:23:16</p>
<p>802.11a-Middle</p>	 <p>Ref: 20 dBm    *Att: 30 dB    RBW 300 kHz    Marker 1 [T1]    6.93 dBm          VBW 1 MHz    SWT 20 ms    5.199000000 GHz</p> <p>20 Offset 1 dB    hdB [T1]    26.00 dB          BW 23.60000000 MHz          Sweep 1 [T1] 0.001 s          -19.59 dBm          5.188000000 GHz          Temp 1 [T1] 0.001 s          -19.10 dBm          5.216000000 GHz</p> <p>Center 5.2 GHz    5 MHz/    Span 50 MHz</p> <p>Date: 28.APR.2024 16:27:01</p>
<p>802.11a-High</p>	 <p>Ref: 20 dBm    *Att: 30 dB    RBW 300 kHz    Marker 1 [T1]    7.42 dBm          VBW 1 MHz    SWT 20 ms    5.242800000 GHz</p> <p>20 Offset 1 dB    hdB [T1]    26.00 dB          BW 22.50000000 MHz          Sweep 1 [T1] 0.001 s          -18.66 dBm          5.229100000 GHz          Temp 2 [T2] 0.001 s          -18.76 dBm          5.251600000 GHz</p> <p>Center 5.24 GHz    5 MHz/    Span 50 MHz</p> <p>Date: 28.APR.2024 16:26:24</p>

802.11n-HT20-Low



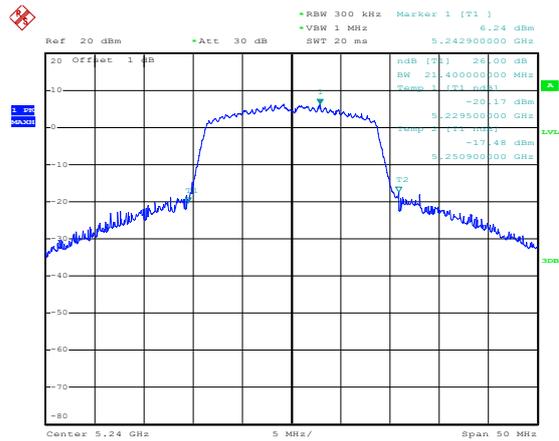
Date: 28.APR.2024 16:29:01

802.11n-HT20-Middle



Date: 28.APR.2024 16:28:31

802.11n-HT20-High



Date: 28.APR.2024 16:28:05