

TEST REPORT

Reference No..... : WTH20X11091968W-1
FCC ID : 2AUZB-RAX1801
Applicant : SHENZHEN ZK TECHNOLOGY CO., LTD
SHENZHEN CITY LONGGANG DISTRICT STREETS QINGLIN ROAD
Address..... : SHENZHEN CITY STUDENTS (LONGGANG) BUSINESS PA... CHINA
518172
Product Name : Wireless Router
Test Model. : RAX1801
Standards : FCC Part 15.407
Date of Receipt sample : Nov.30, 2020
Date of Test..... : Nov.30, 2020 to Dec.15, 2020
Date of Issue : Dec.16, 2020
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 compiler and approver.

Prepared By:

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

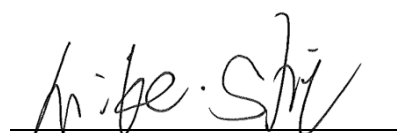
Tel.: +86-755-33663308

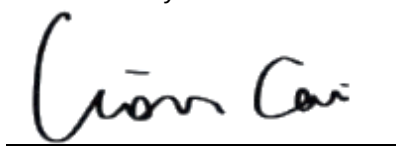
Fax.: +86-755-33663309

Tested by:

Reviewed By:

Approved & Authorized By:


Mike Shi / Project Engineer


Lion Cai / RF Manager


Silin Chen / Manager

TABLE OF CONTENTS

1. GENERAL INFORMATION	4
1.1 PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	4
1.2 TEST STANDARDS	5
1.3 TEST METHODOLOGY	5
1.4 TABLE FOR PARAMETERS OF TEST SOFTWARE SETTING	6
1.5 EUT OPERATING DURING TEST	7
1.6 TEST FACILITY	7
1.7 EUT SETUP AND TEST MODE	8
1.8 MEASUREMENT UNCERTAINTY	9
1.9 TEST EQUIPMENT LIST AND DETAILS	10
2. SUMMARY OF TEST RESULTS	12
3. ANTENNA REQUIREMENT	13
3.1 STANDARD APPLICABLE	13
3.2 EVALUATION INFORMATION	13
4. AUTOMATICALLY DISCONTINUE TRANSMISSION	14
4.1 STANDARD APPLICABLE	14
4.2 SUMMARY OF TEST RESULTS	14
5. POWER SPECTRAL DENSITY	15
5.1 STANDARD APPLICABLE	15
5.2 TEST PROCEDURE	15
5.3 SUMMARY OF TEST RESULTS/PLOTS	16
6. EMISSION BANDWIDTH AND OCCUPIED BANDWIDTH	17
6.1 STANDARD APPLICABLE	17
6.2 TEST PROCEDURE	17
6.3 SUMMARY OF TEST RESULTS/PLOTS	19
7. MAXIMUM CONDUCTED OUTPUT POWER	20
7.1 STANDARD APPLICABLE	20
7.2 TEST PROCEDURE	20
7.3 SUMMARY OF TEST RESULTS/PLOTS	21
8. RADIATED SPURIOUS EMISSIONS	22
8.1 STANDARD APPLICABLE	22
8.2 TEST PROCEDURE	22
8.3 TEST RECEIVER SETUP	24
8.4 CORRECTED AMPLITUDE & MARGIN CALCULATION	24
8.5 SUMMARY OF TEST RESULTS/PLOTS	25
9. FREQUENCY STABILITY	54
9.1 STANDARD APPLICABLE	54
9.2 TEST PROCEDURE	54
9.3 SUMMARY OF TEST RESULTS/PLOTS	54
10 CONDUCTED EMISSIONS	55
10.1 TEST PROCEDURE	55
10.2 BASIC TEST SETUP BLOCK DIAGRAM	55
10.3 TEST RECEIVER SETUP	55
10.4 SUMMARY OF TEST RESULTS/PLOTS	55
APPENDIX SUMMARY	58
APPENDIX A	59
APPENDIX B	81
APPENDIX C	113
APPENDIX D	135

APPENDIX PHOTOGRAPHS.....	137
---------------------------	-----

Report version

Version No.	Date of issue	Description
Rev.00	Dec.16, 2020	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: SHENZHEN ZK TECHNOLOGY CO., LTD
Address of applicant: SHENZHEN CITY LONGGANG DISTRICT STREETS
QINGLIN ROAD SHENZHEN CITY STUDENTS
(LONGGANG) BUSINESS PA... CHINA 518172

Manufacturer: HUIZHOU MTN WEIYE TECHNOLOGY DEVELOPMENT
CO.,LTD.
Address of manufacturer: NO.2 Huitai Road,Huinan High-tech Industrial Park,Huiao
Avenue,Huizhou City,Guangdong Province,China

General Description of EUT	
Product Name:	Wireless Router
Trade Name:	HNK
Model No.:	RAX1801
Adding Model(s):	/
Rated Voltage:	DC12V
Battery Capacity:	/
Power Adapter:	MODEL: RD1201500-C55-153MG INPUT: AC100-240V, 50/60Hz, 0.6A OUTPUT: DC12V,1.5A
Software Version:	/
Hardware Version:	/
<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, 802.11ax-HE20, 802.11ax-HE40, 802.11ac-VH80, 802.11ax-HE80
Frequency Range:	5150-5250MHz, 5725-5850MHz
RF Output Power:	5150-5250MHz: 19.61dBm (Conducted) 5725-5850MHz: 19.48dBm (Conducted)
Type of Modulation:	BPSK, QPSK,16QAM,64QAM, 256QAM, 1024QAM
Data Rate:	6-54Mbps, up to 1201Mbps
Type of Antenna:	External Antenna
Antenna Gain:	5dBi

1.2 Test Standards

The tests were performed according to following standards:

FCC Rules Part 15.407: General technical requirements.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices.

KDB789033 D02 v02r01: GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPARTE.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, KDB789033 D02 v02r01. The equipment under test (EUT) was configured to measure its highest possible emission level. The test modes were adapted accordingly in reference to the Operating Instructions.

1.4 Table for parameters of Test Software setting

Enter “3646631+=” into the calculator to enter the engineer mode, you can start to test. During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

Mode	Ant.	Test Frequency (MHz)												
		NCB: 20MHz												
		5180	5200	5240	5260	5300	5320	5500	5580	5700	5720	5745	5785	5825
802.11a 6Mbps	ANT 1	33	33	33	/	/	/	/	/	/	/	33	33	33
	ANT 2	33	33	33	/	/	/	/	/	/	/	33	33	33
802.11n-HT20 MCS0	ANT 1	33	33	33	/	/	/	/	/	/	/	33	33	33
	ANT 2	33	33	33	/	/	/	/	/	/	/	33	33	33
802.11ax-HE20 MCS0	ANT 1	33	33	33	/	/	/	/	/	/	/	33	33	33
	ANT 2	33	33	33	/	/	/	/	/	/	/	33	33	33
Mode	Ant.	NCB: 40MHz												
		5190	5230	5270	5310	5510	5550	5670	5710	5755	5795			
802.11n-HT40 MCS0	ANT 1	33	33	/	/	/	/	/	/	/	33	33		
	ANT 2	33	33	/	/	/	/	/	/	/	33	33		
802.11ax-HE40 MCS0	ANT 1	33	33	/	/	/	/	/	/	/	33	33		
	ANT 2	33	33	/	/	/	/	/	/	/	33	33		
Mode	Ant.	NCB: 80MHz												
		5210	5290	5530	5610	5690	5775							
802.11ac-VH80 MCS0	ANT 1	35	/	/	/	/	35							
	ANT 2	35	/	/	/	/	35							
802.11ax-VE80 MCS0	ANT 1	35	/	/	/	/	35							
	ANT 2	35	/	/	/	/	35							

1.5 EUT Operating during test

EUT was programmed to be in continuously transmitting mode. During the test, EUT operation to normal function and programs under Android were executed.

1.6 Test Facility

Address of the test laboratory

Laboratory: Waltek Testing Group (Shenzhen) Co., Ltd.

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Bao'an District, Shenzhen, P.R.C. (518101)

FCC – Registration No.: 125990

Waltek Testing Group (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. The Designation Number is CN5010, and Test Firm Registration Number is 125990.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Waltek Testing Group (Shenzhen) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

1.7 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, with a duty cycle equal to 100%, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11a	5180MHz,5200MHz,5240MHz, 5745MHz, 5785MHz,5825MHz
TM2	802.11n-HT20	5180MHz,5200MHz,5240MHz, 5745MHz, 5785MHz,5825MHz
TM3	802.11n-HT40	5190MHz,5230MHz, 5755MHz,5795MHz
TM4	802.11ax-HE20	5180MHz,5200MHz,5240MHz, 5745MHz, 5785MHz,5825MHz
TM5	802.11ax-HE40	5190MHz,5230MHz, 5755MHz,5795MHz
TM6	802.11ac-VH80	5210MHz, 5775 MHz
TM7	802.11ax-HE80	5210MHz, 5775 MHz
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
AC Cable	1.5	Unshielded	Without Ferrite

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

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

1.8 Measurement Uncertainty

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

1.9 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2020-04-28	2021-04-27
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2020-04-28	2021-04-27
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2020-04-28	2021-04-27
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2020-04-28	2021-04-27
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2020-04-28	2021-04-27
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2019-05-05	2021-05-04
SEMT-1042	Horn Antenna	ETS	3117	00086197	2019-05-05	2021-05-04
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2019-05-05	2021-05-04
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2019-05-05	2021-05-04
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2020-04-28	2021-04-27
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2020-04-28	2021-04-27
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2020-04-28	2021-04-27
SEMT-1168	Pre-amplifier	Direction Systems Inc.	PAP-0126	14141-12838	2020-04-28	2021-04-27
SEMT-1169	Pre-amplifier	Direction Systems Inc.	PAP-2640	14145-14153	2020-04-28	2021-04-27
SEMT-1163	Spectrum Analyzer	Rohde & Schwarz	FSP40	100612	2020-04-28	2021-04-27
SEMT-1170	DRG Horn Antenna	A.H. SYSTEMS	SAS-574	571	2019-05-05	2021-05-04
SEMT-1166	Power Limiter	Agilent	N9356B	MY45450376	2020-04-28	2021-04-27
SEMT-1048	RF Limiter	ATTEN	AT-BSF-2400~2500	/	2020-04-28	2021-04-27
SEMT-1076	RF Switcher	Top Precision	RCS03-A2	/	2020-04-28	2021-04-27
SEMT-C001	Cable	Zheng DI	LL142-07-07-10M(A)	/	2020-03-17	2021-03-16
SEMT-C002	Cable	Zheng DI	ZT40-2.92J-2.92J-6M	/	2020-03-17	2021-03-16
SEMT-C003	Cable	Zheng DI	ZT40-2.92J-2.92J-2.5M	/	2020-03-17	2021-03-16
SEMT-C004	Cable	Zheng DI	2M0RFC	/	2020-03-17	2021-03-16
SEMT-C005	Cable	Zheng DI	1M0RFC	/	2020-03-17	2021-03-16
SEMT-C006	Cable	Zheng DI	1M0RFC	/	2020-03-17	2021-03-16

Software List			
Description	Manufacturer	Model	Version
EMI Test Software (Radiated Emission)*	Farad	EZ-EMC	RA-03A1
EMI Test Software (Conducted Emission)*	Farad	EZ-EMC	RA-03A1

*Remark: indicates software version used in the compliance certification testing

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§15.203; §15.405	Antenna Requirement	Compliant
15.407 (c)	Automatically Discontinue Transmission	Compliant
§15.207; §15.407(b)(6)	Conducted Emission	Compliant
§15.407(a)(1),(2)	Power Spectral Density	Compliant
§15.407(e)	Emission Bandwidth and Occupied Bandwidth	Compliant
§15.407(a)(1),(2)	Maximum Conducted Output Power	Compliant
§15.407(b)(1),(2),(3),(4)	Undesirable emission	Compliant
§15.205; §15.407(b)(1),(2),(3)	Radiated Emission	Compliant
§15.407(g)	Frequency Stability	Compliant
§15.407(h)	Dynamic Frequency Selection (DFS)	Compliant

N/A: Not applicable

3. Antenna Requirement

3.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

3.2 Evaluation Information

This product has two External antennas, fulfill the requirement of this section.

4. Automatically Discontinue Transmission

4.1 Standard Applicable

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

4.2 Summary of Test Results

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

5. Power Spectral Density

5.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25 GHz.

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

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

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

kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500kHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.1.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, 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 100 kHz 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

6.1 Standard Applicable

According to 15.407(a) and (e):

(1) For the band 5.15-5.25 GHz.

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

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

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

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 26 dB 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 5.725-5.85 GHz

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

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

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

D. 99 Percent Occupied Bandwidth

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

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

- 1. Set center frequency to the nominal EUT channel center frequency.
- 2. Set span = 1.5 times to 5.0 times the OBW.
- 3. Set RBW = 1 % to 5 % of the OBW
- 4. Set VBW $\geq 3 * \text{RBW}$
- 5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- 6. Use the 99 % power bandwidth function of the instrument (if available).
- 7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

6.3 Summary of Test Results/Plots

Please refer to Appendix B

7. Maximum Conducted Output Power

7.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25 GHz.

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

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

(3) For the band 5.725-5.85 GHz, 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 30 dBm in any 500-kHz 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 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi 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 = 1 MHz.
- (iii) Set VBW $\geq$ 3 MHz.
- (iv) Number of points in sweep $\geq$ 2 Span / RBW. (This ensures that bin-to-bin spacing is $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)

- (v) Sweep time = auto.
- (vi) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- (vii) If transmit duty cycle < 98 percent, use a video trigger with the trigger level set to enable triggering only on full power pulses. Transmitter must operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle $\geq$ 98 percent, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run”.
- (viii) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
- (ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

7.3 Summary of Test Results/Plots

Please refer to Appendix C

8. Radiated Spurious Emissions

8.1 Standard Applicable

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

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

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

According to §15.407(b)(7), The provisions of §15.205 apply to intentional radiators operating under this section.
789033 D02 v02r01 General UNII Test Procedures New Rules v01

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

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

where:

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

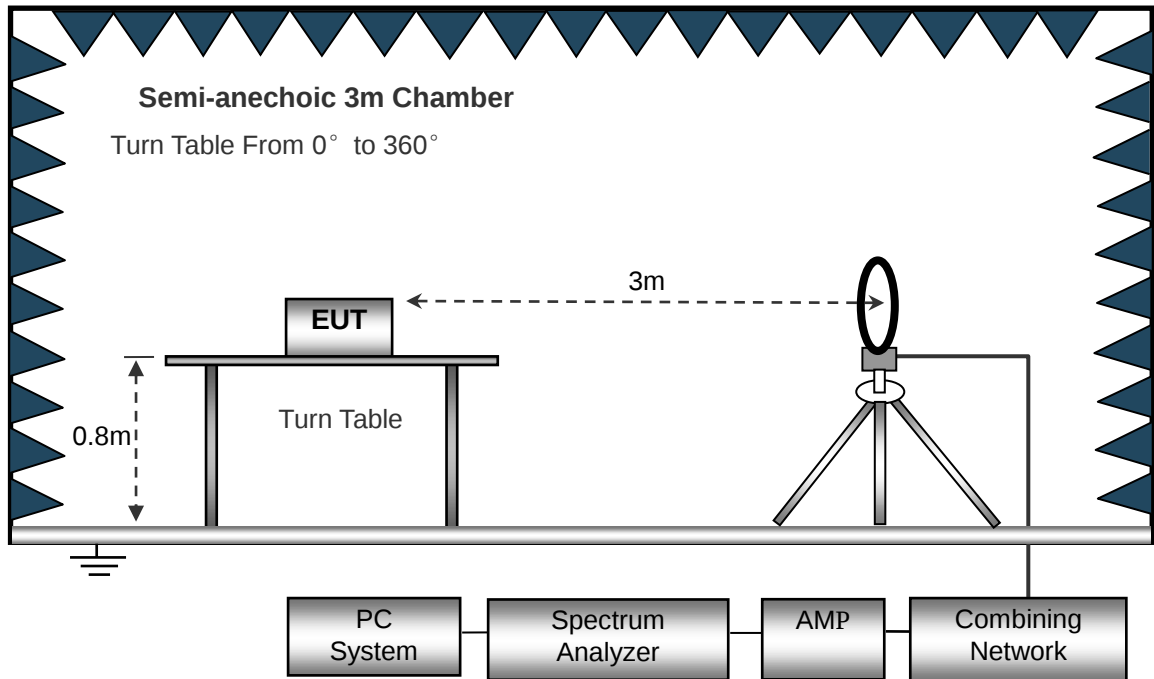
8.2 Test Procedure

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

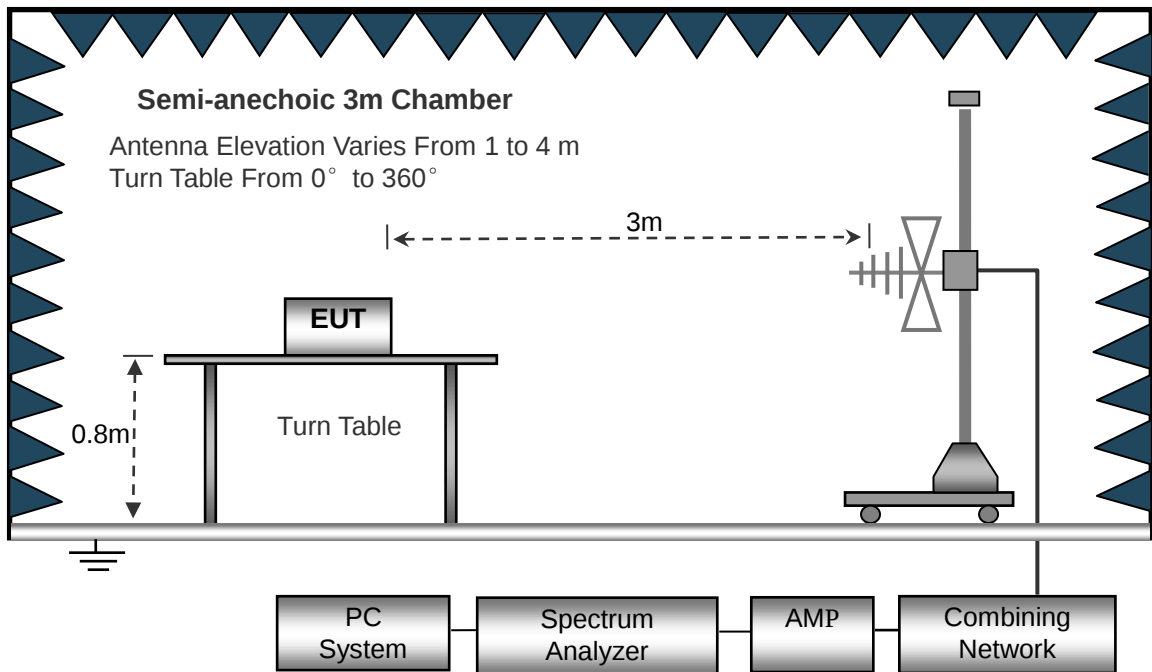
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

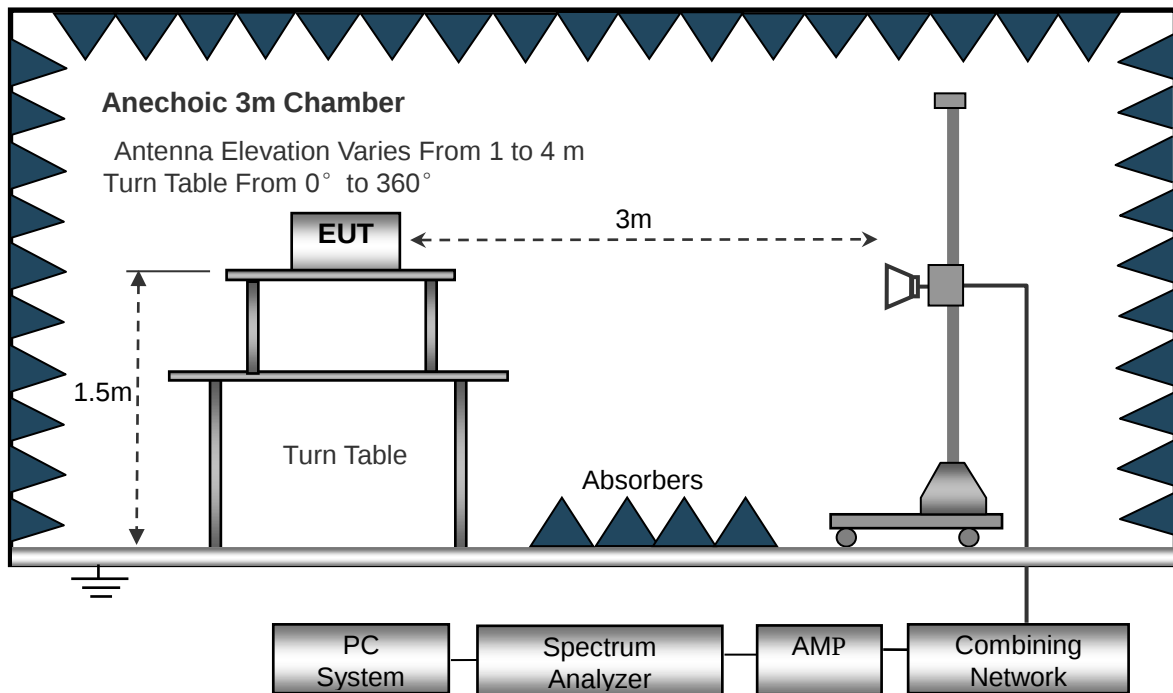
The test setup for emission measurement below 30MHz..



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



The test setup for emission measurement above 1 GHz..



8.3 Test Receiver Setup

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

For peak detector:

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

For average detector:

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

8.4 Corrected Amplitude & Margin Calculation

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

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

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

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

8.5 Summary of Test Results/Plots

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

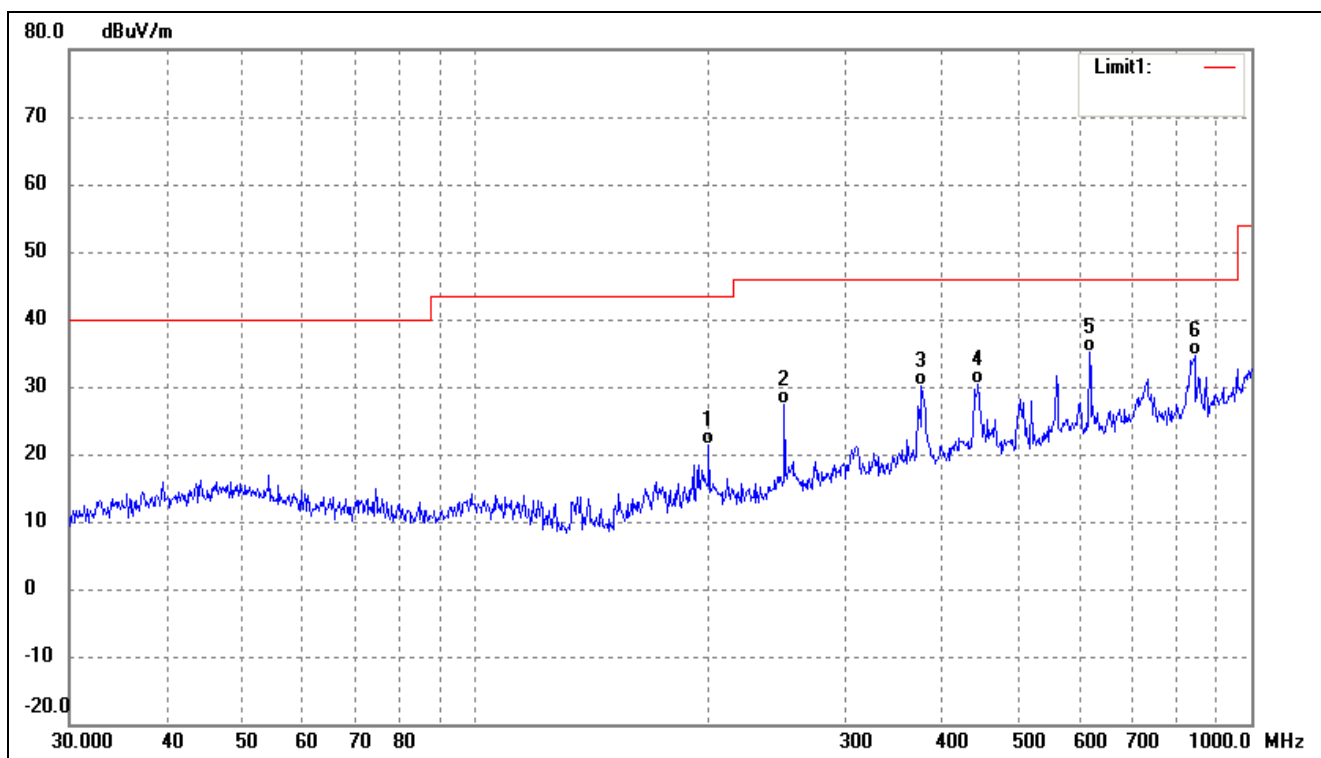
➤ Spurious Emission From 30 MHz to 1 GHz

➤ Antenna 1(Worst case)

➤ 5150-5250MHz

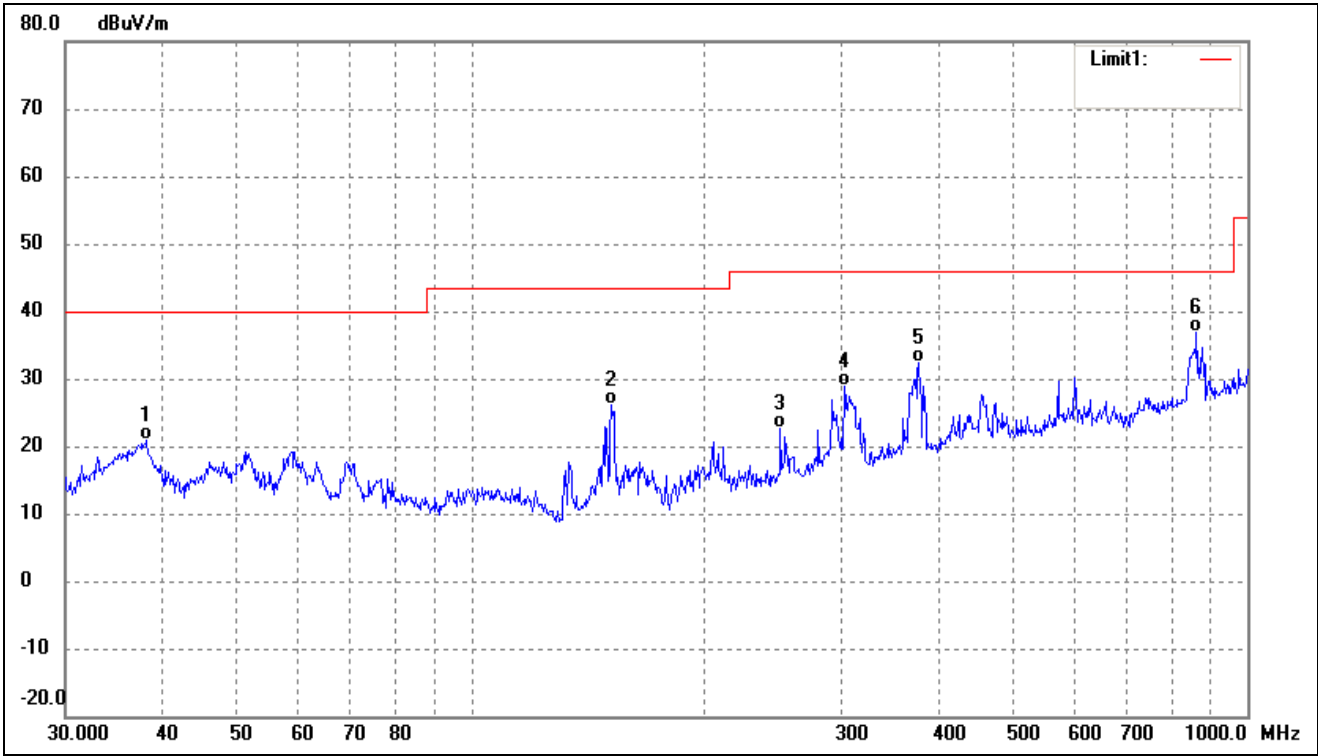
802.11a (Worst case)

Test Channel	5180MHz(Worst case)	Polarity:	Horizontal
--------------	---------------------	-----------	------------



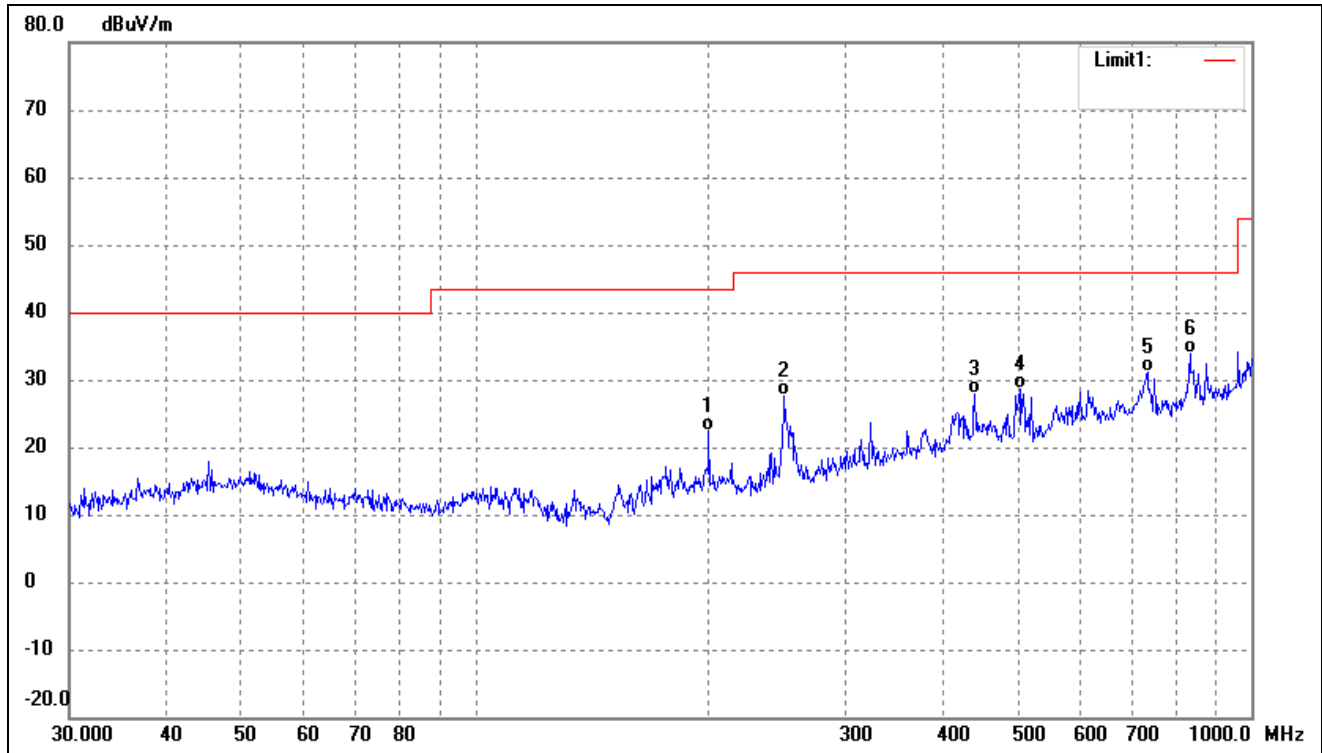
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	199.9856	32.63	-11.30	21.33	43.50	-22.17	-	-	QP
2	250.3012	36.64	-9.29	27.35	46.00	-18.65	-	-	QP
3	375.9385	35.94	-5.69	30.25	46.00	-15.75	-	-	QP
4	444.8514	34.78	-4.49	30.29	46.00	-15.71	-	-	QP
5	618.5369	37.50	-2.36	35.14	46.00	-10.86	-	-	QP
6	845.0878	33.91	0.60	34.51	46.00	-11.49	-	-	QP

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



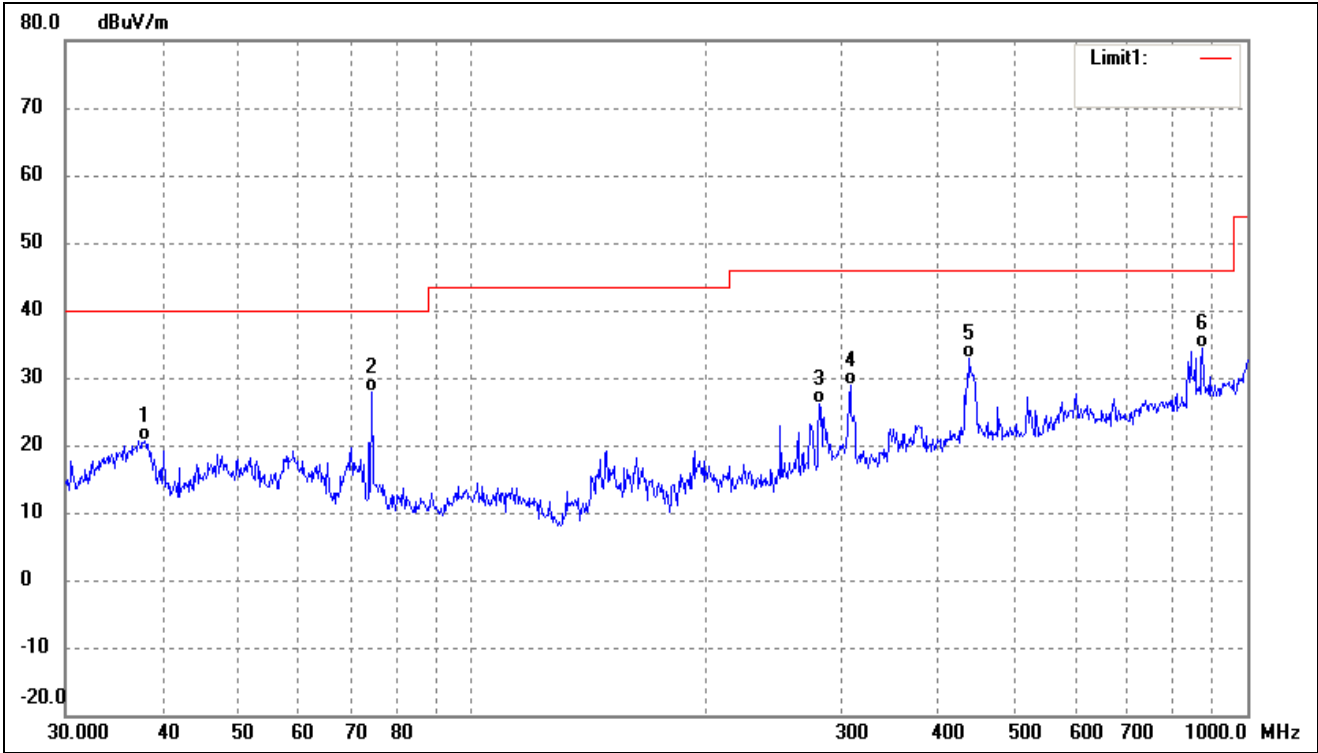
No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	()	(cm)	
1	38.2120	33.02	-12.07	20.95	40.00	-19.05	-	-	QP
2	151.5972	40.82	-14.77	26.05	43.50	-17.45	-	-	QP
3	250.3012	31.83	-9.29	22.54	46.00	-23.46	-	-	QP
4	302.4812	36.08	-7.25	28.83	46.00	-17.17	-	-	QP
5	377.2591	37.97	-5.69	32.28	46.00	-13.72	-	-	QP
6	860.0352	36.06	0.83	36.89	46.00	-9.11	-	-	QP

802.11a (Worst case)			
Test Channel	5200MHz(worst case)	Polarity:	Horizontal



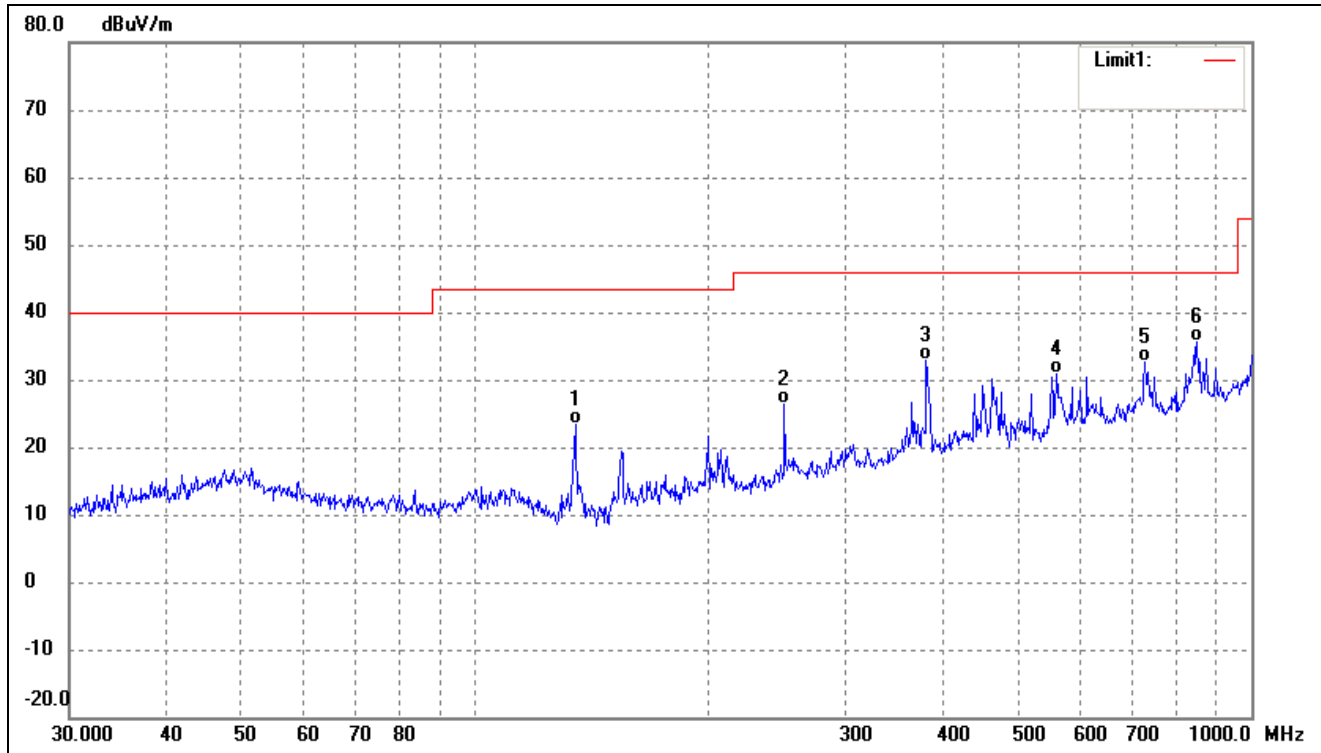
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	199.9856	33.71	-11.30	22.41	43.50	-21.09	-	-	QP
2	250.3012	36.93	-9.29	27.64	46.00	-18.36	-	-	QP
3	440.1963	32.26	-4.41	27.85	46.00	-18.15	-	-	QP
4	502.9395	33.16	-4.48	28.68	46.00	-17.32	-	-	QP
5	734.4913	32.11	-1.08	31.03	46.00	-14.97	-	-	QP
6	833.3171	33.39	0.41	33.80	46.00	-12.20	-	-	QP

802.11a (Worst case)			
Test Channel	5200MHz(worst case)	Polarity:	Vertical



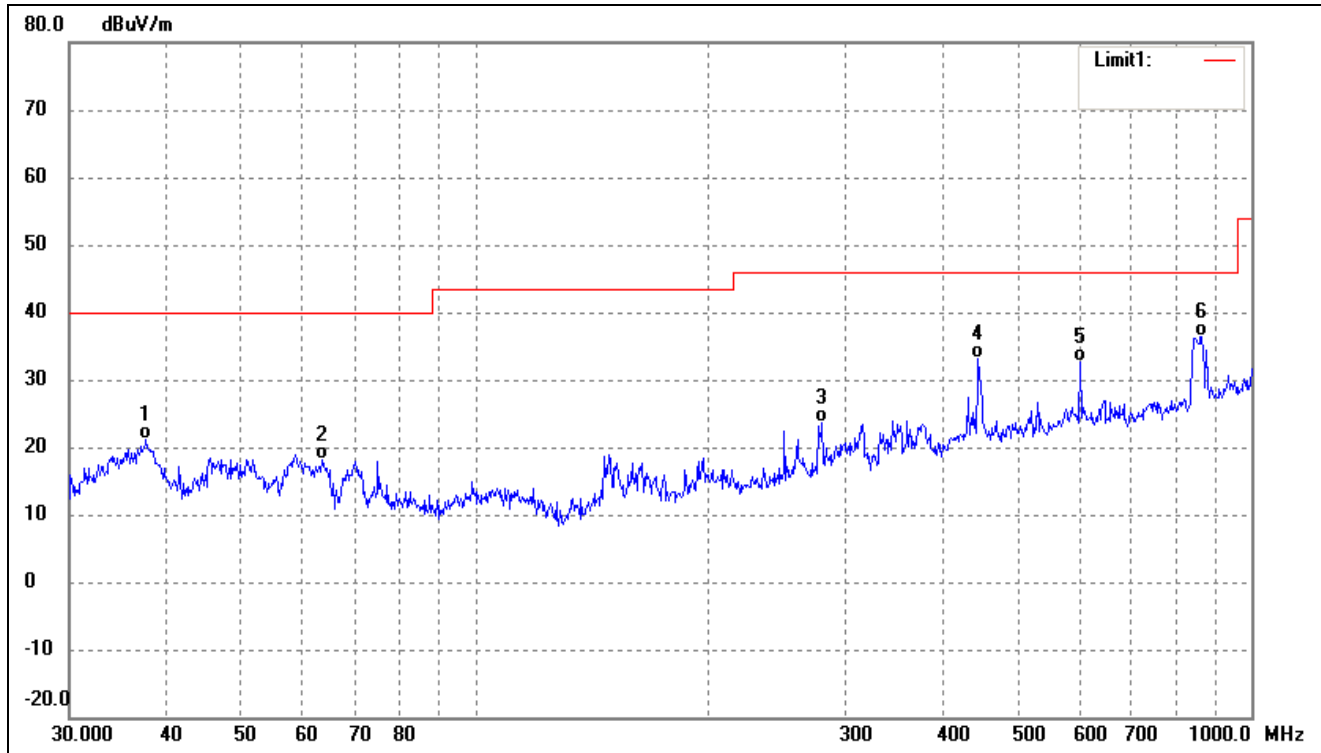
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	37.9450	32.71	-12.11	20.60	40.00	-19.40	-	-	QP
2	74.3955	41.83	-13.94	27.89	40.00	-12.11	-	-	QP
3	281.0075	34.41	-8.35	26.06	46.00	-19.94	-	-	QP
4	307.8313	36.23	-7.28	28.95	46.00	-17.05	-	-	QP
5	438.6554	37.32	-4.41	32.91	46.00	-13.09	-	-	QP
6	875.2470	33.28	1.08	34.36	46.00	-11.64	-	-	QP

802.11a (Worst case)			
Test Channel	5240MHz(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	134.5592	38.58	-15.23	23.35	43.50	-20.15	-	-	QP
2	250.3012	35.67	-9.29	26.38	46.00	-19.62	-	-	QP
3	381.2487	38.64	-5.69	32.95	46.00	-13.05	-	-	QP
4	560.6928	34.26	-3.26	31.00	46.00	-15.00	-	-	QP
5	729.3583	33.75	-1.15	32.60	46.00	-13.40	-	-	QP
6	851.0353	34.98	0.69	35.67	46.00	-10.33	-	-	QP

802.11a (Worst case)			
Test Channel	5240MHz(worst case)	Polarity:	Vertical

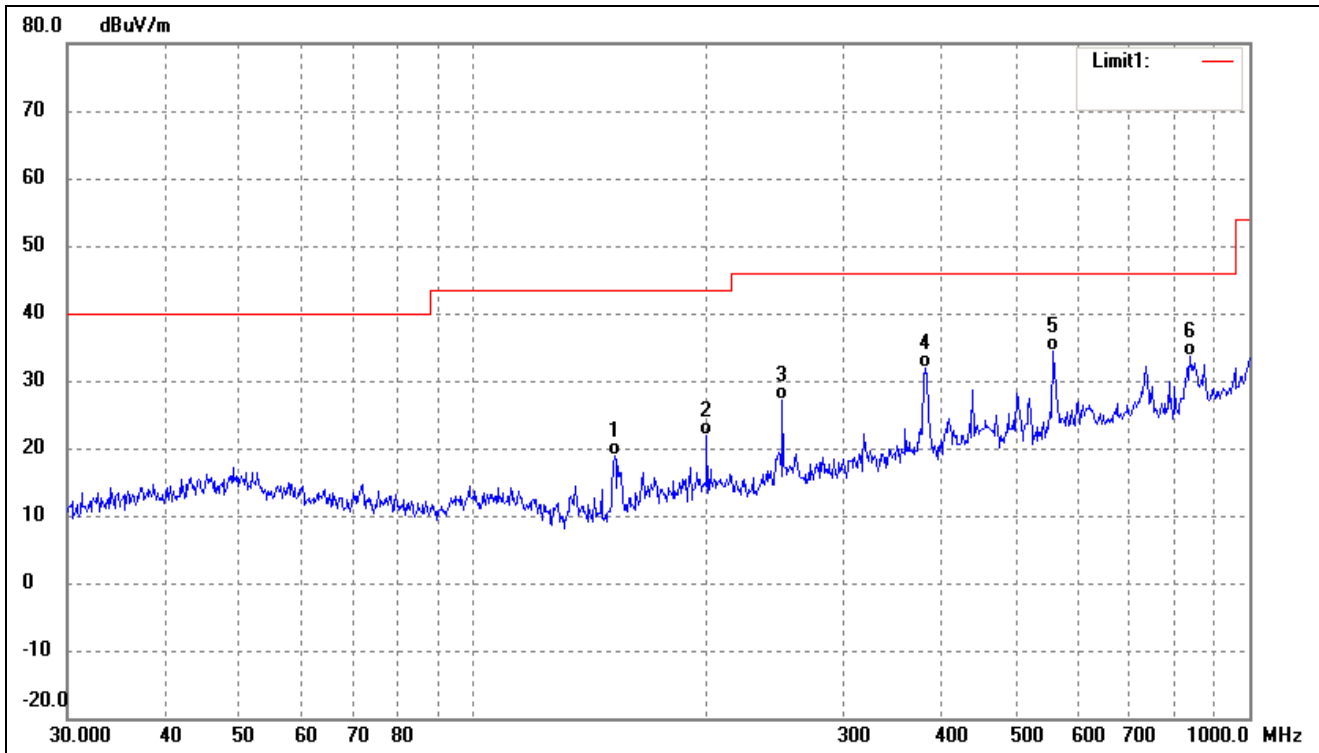


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	37.6798	33.34	-12.15	21.19	40.00	-18.81	-	-	QP
2	63.5356	31.00	-12.83	18.17	40.00	-21.83	-	-	QP
3	280.0238	32.00	-8.41	23.59	46.00	-22.41	-	-	QP
4	444.8514	37.62	-4.49	33.13	46.00	-12.87	-	-	QP
5	601.4265	34.81	-2.29	32.52	46.00	-13.48	-	-	QP
6	863.0562	35.57	0.88	36.45	46.00	-9.55	-	-	QP

➤ 5725-5850MHz

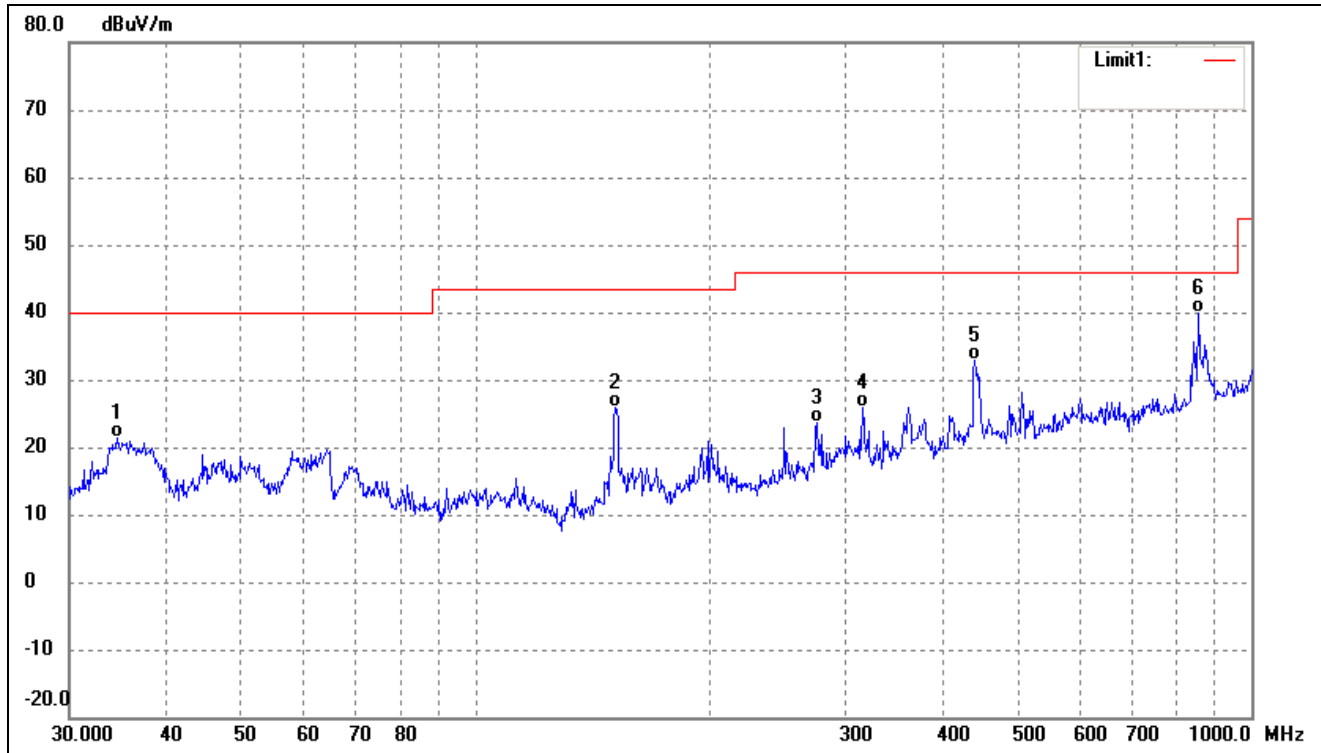
802.11a (Worst case)

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



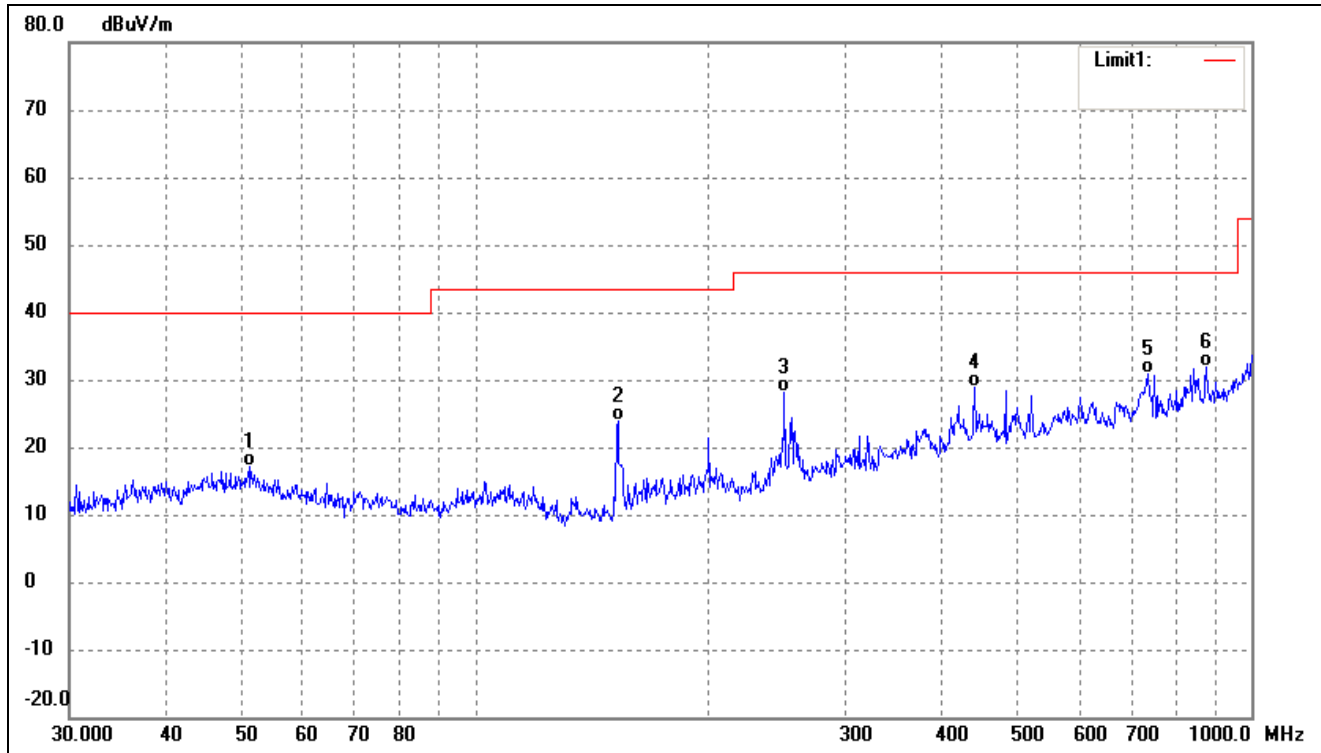
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	152.1297	33.66	-14.73	18.93	43.50	-24.57	-	-	QP
2	199.9856	33.28	-11.30	21.98	43.50	-21.52	-	-	QP
3	250.3012	36.52	-9.29	27.23	46.00	-18.77	-	-	QP
4	382.5879	37.67	-5.70	31.97	46.00	-14.03	-	-	QP
5	558.7302	37.80	-3.35	34.45	46.00	-11.55	-	-	QP
6	839.1818	33.10	0.50	33.60	46.00	-12.40	-	-	QP

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



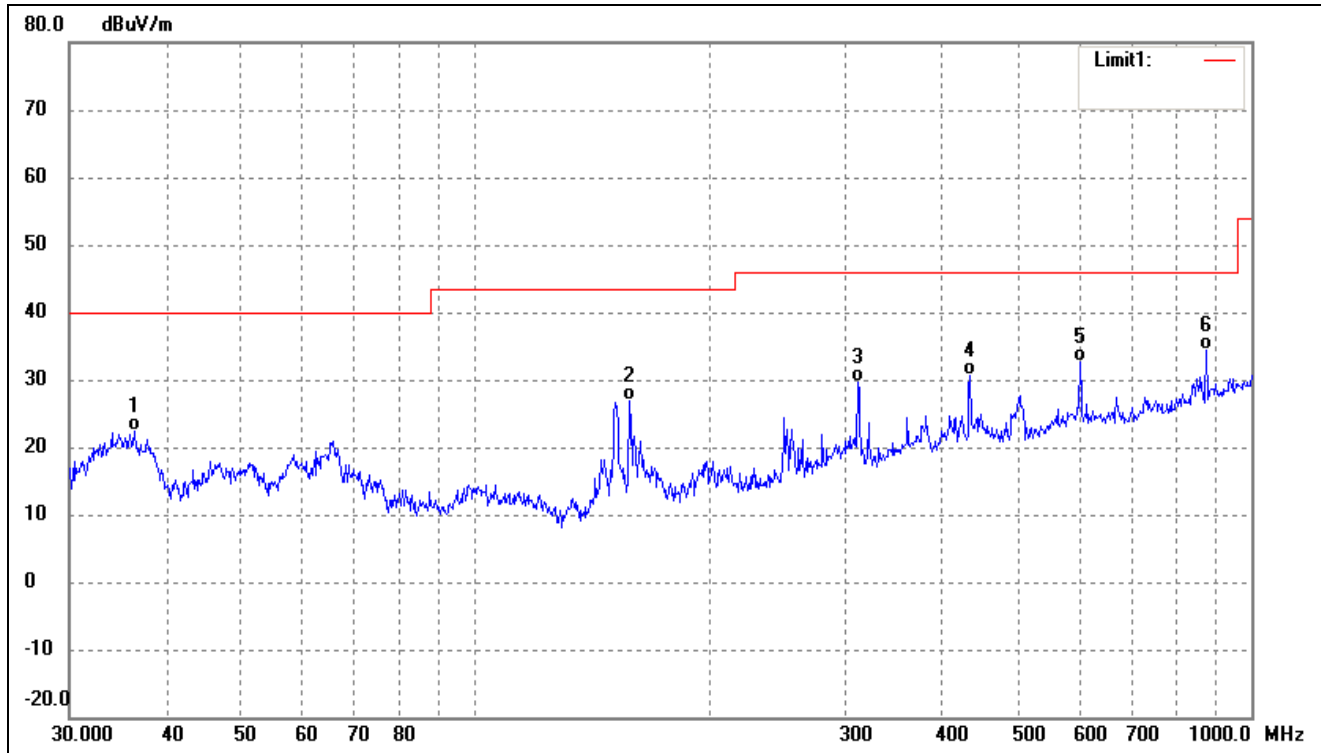
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	34.5173	34.14	-12.74	21.40	40.00	-18.60	-	-	QP
2	151.5972	40.56	-14.77	25.79	43.50	-17.71	-	-	QP
3	276.1236	32.27	-8.64	23.63	46.00	-22.37	-	-	QP
4	315.4808	33.23	-7.34	25.89	46.00	-20.11	-	-	QP
5	440.1963	37.39	-4.41	32.98	46.00	-13.02	-	-	QP
6	854.0247	39.19	0.73	39.92	46.00	-6.08	-	-	QP

802.11a (Worst case)			
Test Channel	5785MHz(worst case)	Polarity:	Horizontal



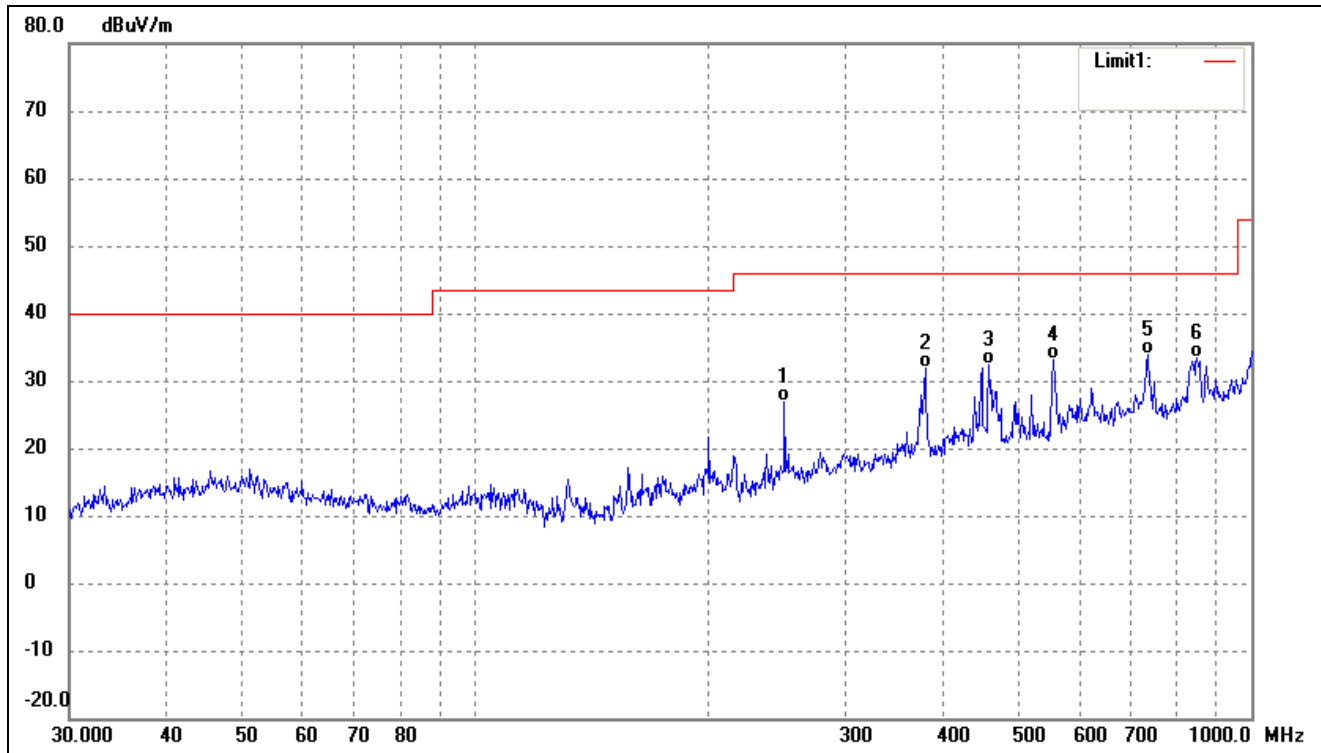
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.1209	27.63	-10.43	17.20	40.00	-22.80	-	-	QP
2	152.6641	38.59	-14.70	23.89	43.50	-19.61	-	-	QP
3	250.3012	37.37	-9.29	28.08	46.00	-17.92	-	-	QP
4	440.1963	33.21	-4.41	28.80	46.00	-17.20	-	-	QP
5	734.4913	31.96	-1.08	30.88	46.00	-15.12	-	-	QP
6	875.2470	30.79	1.08	31.87	46.00	-14.13	-	-	QP

802.11a (Worst case)			
Test Channel	5785MHz(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	36.3814	34.66	-12.38	22.28	40.00	-17.72	-	-	QP
2	158.1123	41.32	-14.42	26.90	43.50	-16.60	-	-	QP
3	311.0867	36.93	-7.31	29.62	46.00	-16.38	-	-	QP
4	434.0651	35.08	-4.40	30.68	46.00	-15.32	-	-	QP
5	601.4265	34.81	-2.29	32.52	46.00	-13.48	-	-	QP
6	875.2470	33.25	1.08	34.33	46.00	-11.67	-	-	QP

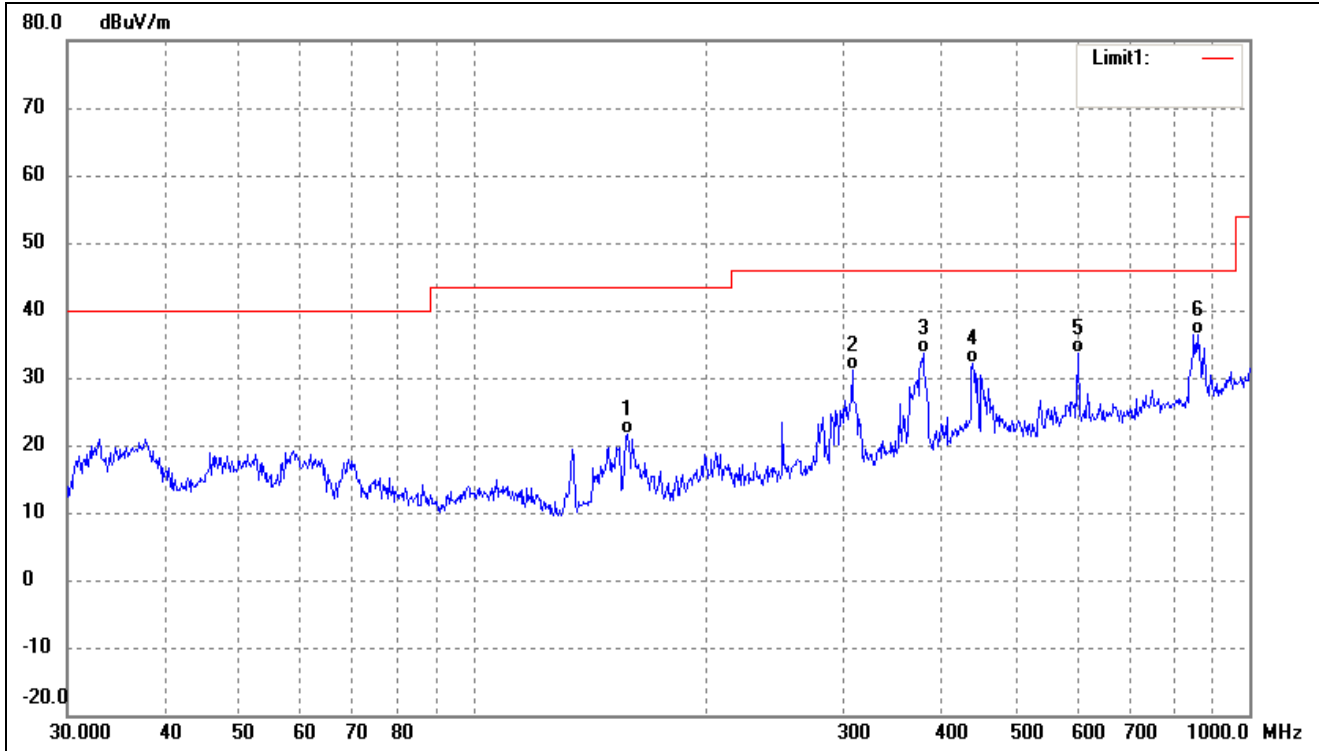
802.11a (Worst case)			
Test Channel	5825MHz(worst case)	Polarity:	Horizontal



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	250.3012	36.24	-9.29	26.95	46.00	-19.05	-	-	QP
2	379.9141	37.64	-5.68	31.96	46.00	-14.04	-	-	QP
3	459.1144	37.07	-4.81	32.26	46.00	-13.74	-	-	QP
4	556.7744	36.62	-3.46	33.16	46.00	-12.84	-	-	QP
5	734.4913	34.90	-1.08	33.82	46.00	-12.18	-	-	QP
6	851.0353	32.80	0.69	33.49	46.00	-12.51	-	-	QP

802.11a (Worst case)

Test Channel	5825MHz(worst case)	Polarity:	Vertical
--------------	---------------------	-----------	----------

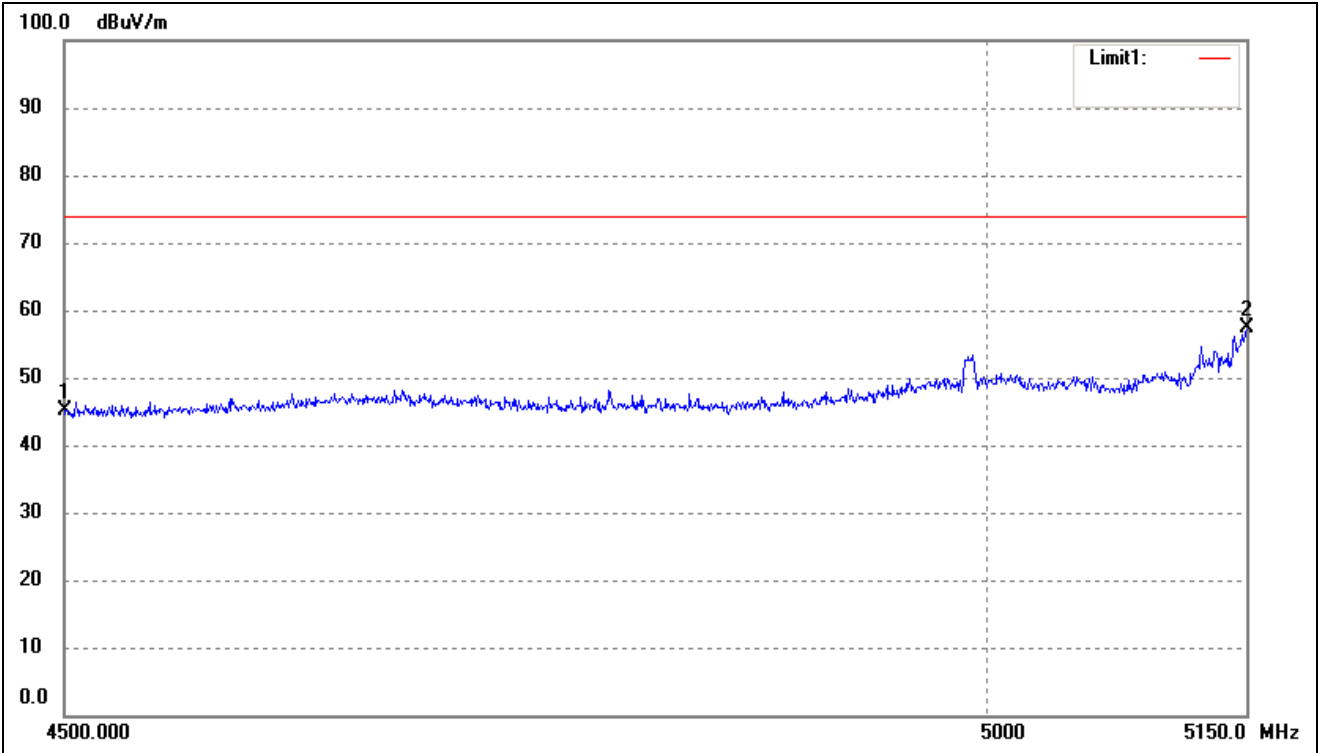


No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	158.1123	35.96	-14.42	21.54	43.50	-21.96	-	-	QP
2	307.8313	38.32	-7.28	31.04	46.00	-14.96	-	-	QP
3	379.9141	39.27	-5.68	33.59	46.00	-12.41	-	-	QP
4	440.1963	36.42	-4.41	32.01	46.00	-13.99	-	-	QP
5	601.4265	35.95	-2.29	33.66	46.00	-12.34	-	-	QP
6	857.0247	35.61	0.79	36.40	46.00	-9.60	-	-	QP

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

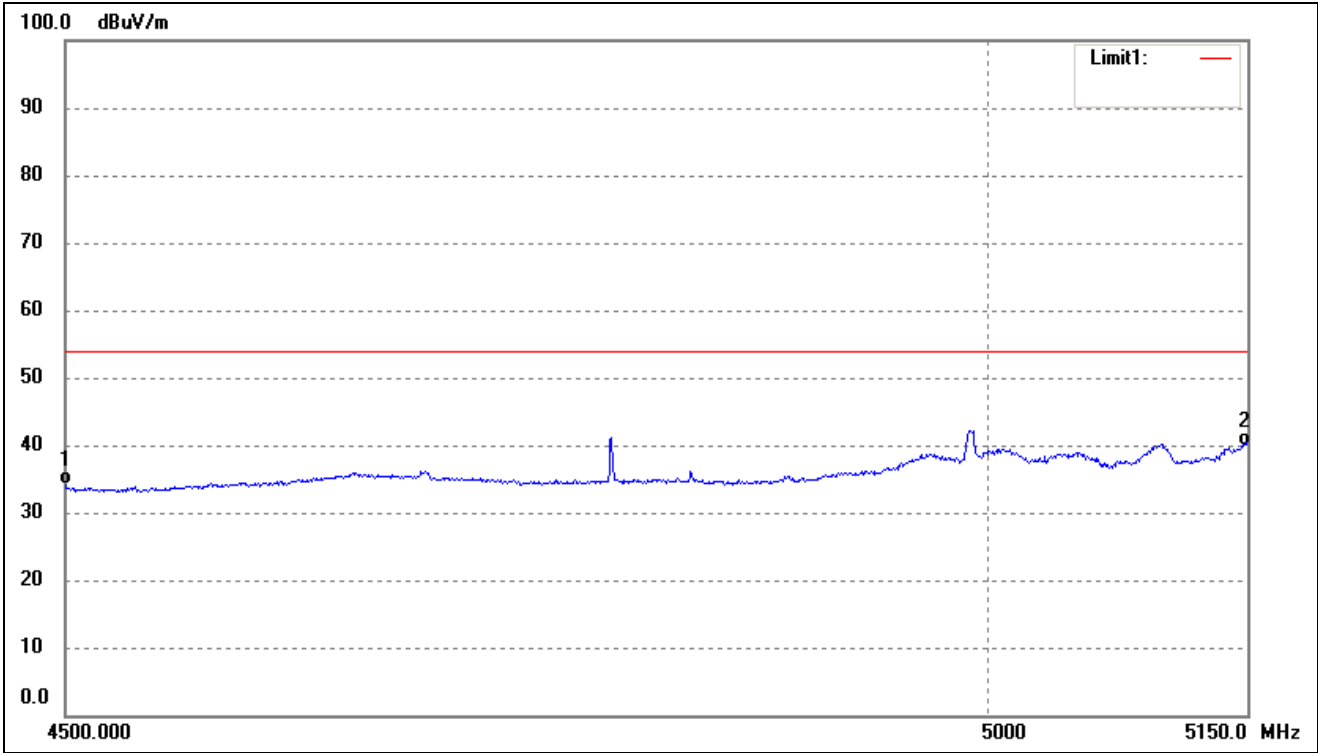
- Spurious Emission above 1GHz
- Antenna 1(worst case)

802.11a- Restricted Bandedge (worst case)			
Test Channel	band 4.5-5.15GHz	Polarity:	Vertical(worst case)



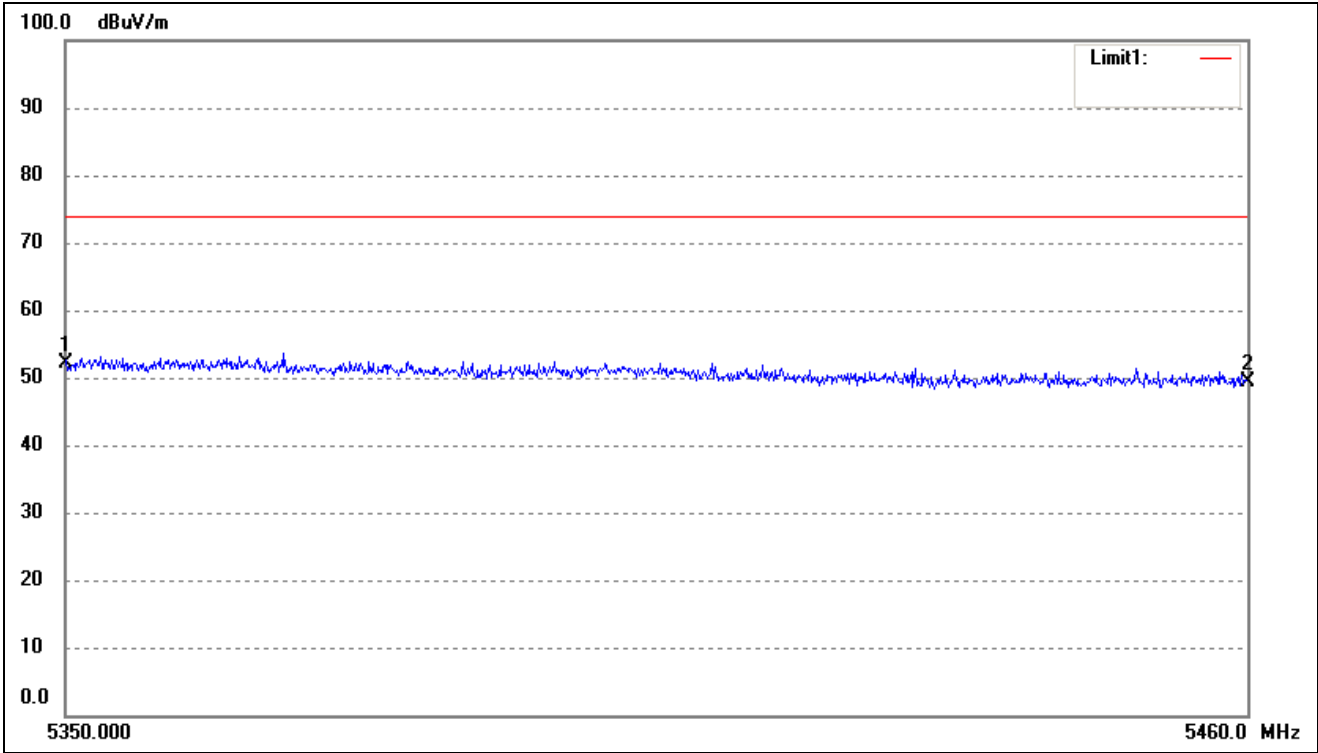
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	4500.000	49.88	-4.71	45.17	74.00	-28.83	-	-	peak
2	5150.000	61.63	-4.32	57.31	74.00	-16.69	-	-	peak

802.11a- Restricted Bandedge (worst case)			
Test Channel	band 4.5-5.15GHz	Polarity:	Vertical(worst case)



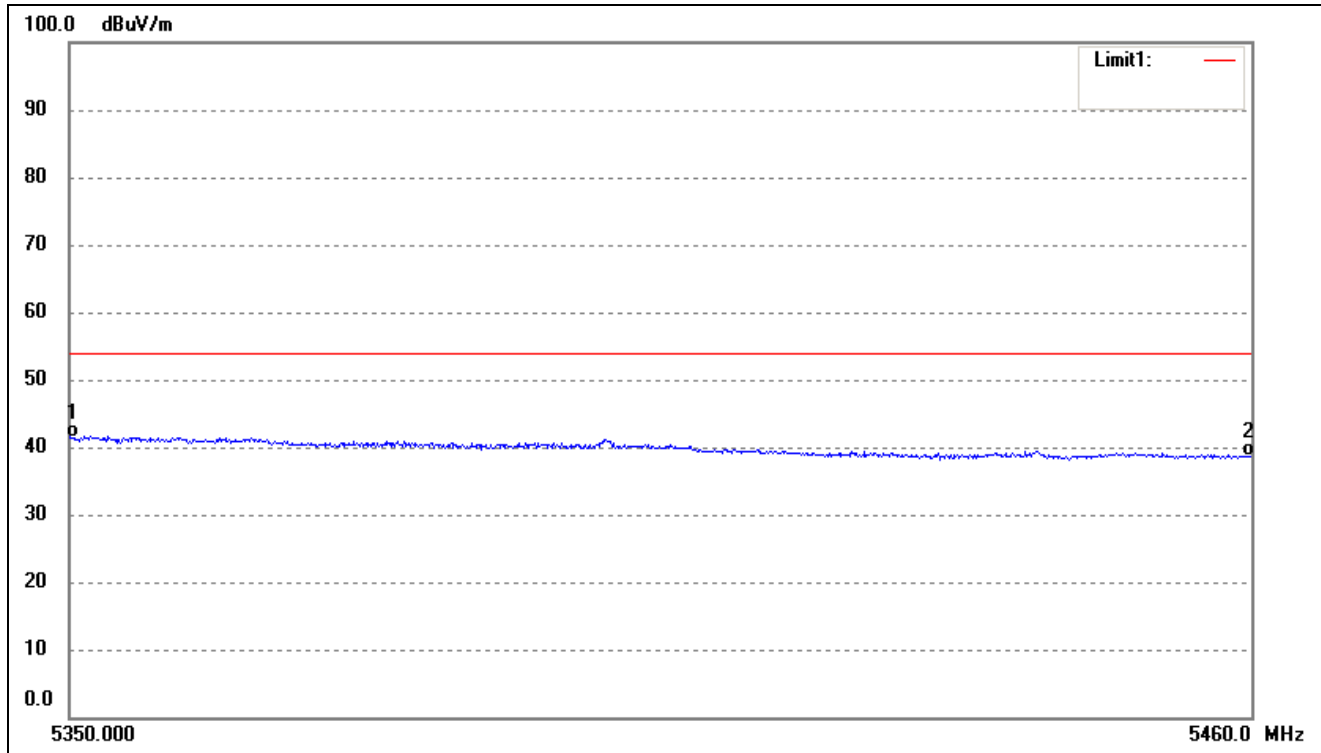
No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	4500.000	38.85	-4.71	34.14	54.00	-19.86	-	-	AVG
2	5150.000	44.12	-4.32	39.80	54.00	-14.20	-	-	AVG

802.11a- Restricted Bandedge (worst case)			
Test Channel	band 5.35-5.46GHz	Polarity:	Vertical(worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5350.000	56.30	-4.21	52.09	74.00	-21.91	-	-	peak
2	5460.000	53.59	-4.16	49.43	74.00	-24.57	-	-	peak

802.11a- Restricted Bandedge (worst case)			
Test Channel	band 5.35-5.46GHz	Polarity:	Vertical(worst case)



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	5350.000	45.66	-4.21	41.45	54.00	-12.55	-	-	AVG
2	5460.000	42.68	-4.16	38.52	54.00	-15.48	-	-	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.

- Antenna 1
- For the frequency band 5.15-5.25GHz, 5.725-5.850GHz (802.11a)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	56.25	7.11	63.36	74.00	-10.64	H	PK
15540	35.02	8.22	43.24	54.00	-10.76	H	AV
10360	58.09	7.11	65.20	74.00	-8.80	V	PK
15540	38.87	8.22	47.09	54.00	-6.91	V	AV
Middle Channel (5200MHz)							
10400	56.87	7.22	64.09	74.00	-9.91	H	PK
15600	35.17	8.67	43.84	54.00	-10.16	H	AV
10400	55.22	7.22	62.44	74.00	-11.56	V	PK
15600	38.57	8.67	47.24	54.00	-6.76	V	AV
High Channel (5240MHz)							
10480	55.56	7.69	63.25	74.00	-10.75	H	PK
15720	38.83	8.93	47.76	54.00	-6.24	H	AV
10480	58.55	7.69	66.24	74.00	-7.76	V	PK
15720	37.46	8.93	46.39	54.00	-7.61	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	56.32	9.45	65.77	74.00	-8.23	H	PK
17235	33.74	10.36	44.10	54.00	-9.90	H	AV
11490	54.80	9.45	64.25	74.00	-9.75	V	PK
17235	36.80	10.36	47.16	54.00	-6.84	V	AV
Middle Channel (5785MHz)							
11570	58.07	9.62	67.69	74.00	-6.31	H	PK
17355	35.81	10.67	46.48	54.00	-7.52	H	AV
11570	57.89	9.62	67.51	74.00	-6.49	V	PK
17355	34.84	10.67	45.51	54.00	-8.49	V	AV
High Channel (5825MHz)							
11650	58.11	9.84	67.95	74.00	-6.05	H	PK
17475	33.47	10.95	44.42	54.00	-9.58	H	AV
11650	53.51	9.84	63.35	74.00	-10.65	V	PK
17475	35.67	10.95	46.62	54.00	-7.38	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-35.33	-27
Highest	Above 5350	-43.09	-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	-38.95	-27
	5715 to 5725	-41.84	-17
Highest	5850 to 5860	-40.81	-17
	Above 5860	-42.59	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz5.725-5.850GHz (802.11n HT20)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	55.54	7.11	62.65	74.00	-11.35	H	PK
15540	37.40	8.22	45.62	54.00	-8.38	H	AV
10360	60.00	7.11	67.11	74.00	-6.89	V	PK
15540	38.76	8.22	46.98	54.00	-7.02	V	AV
Middle Channel (5200MHz)							
10400	56.83	7.22	64.05	74.00	-9.95	H	PK
15600	37.80	8.67	46.47	54.00	-7.53	H	AV
10400	57.62	7.22	64.84	74.00	-9.16	V	PK
15600	35.98	8.67	44.65	54.00	-9.35	V	AV
High Channel (5240MHz)							
10480	55.56	7.69	63.25	74.00	-10.75	H	PK
15720	35.87	8.93	44.80	54.00	-9.20	H	AV
10480	59.16	7.69	66.85	74.00	-7.15	V	PK
15720	38.23	8.93	47.16	54.00	-6.84	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	57.83	9.45	67.28	74.00	-6.72	H	PK
17235	36.28	10.36	46.64	54.00	-7.36	H	AV
11490	56.74	9.45	66.19	74.00	-7.81	V	PK
17235	34.97	10.36	45.33	54.00	-8.67	V	AV
Middle Channel (5785MHz)							
11570	57.90	9.62	67.52	74.00	-6.48	H	PK
17355	36.43	10.67	47.10	54.00	-6.90	H	AV
11570	55.52	9.62	65.14	74.00	-8.86	V	PK
17355	37.32	10.67	47.99	54.00	-6.01	V	AV
High Channel (5825MHz)							
11650	55.14	9.84	64.98	74.00	-9.02	H	PK
17475	35.63	10.95	46.58	54.00	-7.42	H	AV
11650	57.62	9.84	67.46	74.00	-6.54	V	PK
17475	36.95	10.95	47.90	54.00	-6.10	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-29.84	-27
Highest	Above 5350	-38.79	-27
Note: the data just list the worst cases			

➤ Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-44.74	-27
	5715 to 5725	-34.26	-17
Highest	5850 to 5860	-39.38	-17
	Above 5860	-41.43	-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, 5.725-5.850GHz (802.11ax HE20)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	55.04	7.11	62.15	74.00	-11.85	H	PK
15540	37.20	8.22	45.42	54.00	-8.58	H	AV
10360	57.30	7.11	64.41	74.00	-9.59	V	PK
15540	38.44	8.22	46.66	54.00	-7.34	V	AV
Middle Channel (5200MHz)							
10400	57.82	7.22	65.04	74.00	-8.96	H	PK
15600	36.60	8.67	45.27	54.00	-8.73	H	AV
10400	57.73	7.22	64.95	74.00	-9.05	V	PK
15600	36.11	8.67	44.78	54.00	-9.22	V	AV
High Channel (5240MHz)							
10480	54.98	7.69	62.67	74.00	-11.33	H	PK
15720	36.49	8.93	45.42	54.00	-8.58	H	AV
10480	58.99	7.69	66.68	74.00	-7.32	V	PK
15720	37.98	8.93	46.91	54.00	-7.09	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5745MHz)							
11490	57.41	9.45	66.86	74.00	-7.14	H	PK
17235	36.23	10.36	46.59	54.00	-7.41	H	AV
11490	55.05	9.45	64.50	74.00	-9.50	V	PK
17235	34.74	10.36	45.10	54.00	-8.90	V	AV
Middle Channel (5785MHz)							
11570	55.18	9.62	64.80	74.00	-9.20	H	PK
17355	36.13	10.67	46.80	54.00	-7.20	H	AV
11570	55.93	9.62	65.55	74.00	-8.45	V	PK
17355	35.96	10.67	46.63	54.00	-7.37	V	AV
High Channel (5825MHz)							
11650	54.86	9.84	64.70	74.00	-9.30	H	PK
17475	34.57	10.95	45.52	54.00	-8.48	H	AV
11650	57.72	9.84	67.56	74.00	-6.44	V	PK
17475	34.78	10.95	45.73	54.00	-8.27	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-32.88	-27
Highest	Above 5350	-39.43	-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	-46.35	-27
	5715 to 5725	-34.24	-17
Highest	5850 to 5860	-34.71	-17
	Above 5860	-43.90	-27
Note: the data just list the worst cases			

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

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5190MHz)							
10380	57.14	7.25	64.39	74.00	-9.61	H	PK
15570	37.31	8.33	45.64	54.00	-8.36	H	AV
10380	58.79	7.25	66.04	74.00	-7.96	V	PK
15570	38.55	8.33	46.88	54.00	-7.12	V	AV
High Channel (5230MHz)							
10460	57.46	7.54	65.00	74.00	-9.00	H	PK
15690	38.98	8.86	47.84	54.00	-6.16	H	AV
10460	58.13	7.54	65.67	74.00	-8.33	V	PK
15690	38.80	8.86	47.66	54.00	-6.34	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5755MHz)							
11510	56.17	9.65	65.82	74.00	-8.18	H	PK
17265	36.04	10.87	46.91	54.00	-7.09	H	AV
11510	56.36	9.65	66.01	74.00	-7.99	V	PK
17265	35.97	10.87	46.84	54.00	-7.16	V	AV
High Channel (5795MHz)							
11590	55.95	9.81	65.76	74.00	-8.24	H	PK
17385	34.09	10.89	44.98	54.00	-9.02	H	AV
11590	56.83	9.81	66.64	74.00	-7.36	V	PK
17385	36.90	10.89	47.79	54.00	-6.21	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-37.04	-27
Highest	Above 5350	-40.95	-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	-40.42	-27
	5715 to 5725	-39.30	-17
Highest	5850 to 5860	-42.46	-17
	Above 5860	-43.41	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz, 5.725-5.850GHz (802.11ax HT40)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5190MHz)							
10380	57.11	7.25	64.36	74.00	-9.64	H	PK
15570	37.40	8.33	45.73	54.00	-8.27	H	AV
10380	59.49	7.25	66.74	74.00	-7.26	V	PK
15570	37.56	8.33	45.89	54.00	-8.11	V	AV
High Channel (5230MHz)							
10460	57.40	7.54	64.94	74.00	-9.06	H	PK
15690	38.51	8.86	47.37	54.00	-6.63	H	AV
10460	59.83	7.54	67.37	74.00	-6.63	V	PK
15690	37.60	8.86	46.46	54.00	-7.54	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5755MHz)							
11510	55.41	9.65	65.06	74.00	-8.94	H	PK
17265	35.32	10.87	46.19	54.00	-7.81	H	AV
11510	55.71	9.65	65.36	74.00	-8.64	V	PK
17265	36.05	10.87	46.92	54.00	-7.08	V	AV
High Channel (5795MHz)							
11590	55.55	9.81	65.36	74.00	-8.64	H	PK
17385	34.01	10.89	44.90	54.00	-9.10	H	AV
11590	56.81	9.81	66.62	74.00	-7.38	V	PK
17385	36.46	10.89	47.35	54.00	-6.65	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-36.40	-27
Highest	Above 5350	-40.13	-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	-40.40	-27
	5715 to 5725	-38.37	-17
Highest	5850 to 5860	-42.98	-17
	Above 5860	-43.38	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz, 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	58.19	7.33	65.52	74.00	-8.48	H	PK
15630	36.36	8.75	45.11	54.00	-8.89	H	AV
10420	56.18	7.33	63.51	74.00	-10.49	V	PK
15630	37.52	8.75	46.27	54.00	-7.73	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	55.25	9.54	64.79	74.00	-9.21	H	PK
17325	36.18	10.59	46.77	54.00	-7.23	H	AV
11550	57.94	9.54	67.48	74.00	-6.52	V	PK
17325	33.47	10.59	44.06	54.00	-9.94	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-35.86	-27
Highest	Above 5350	-32.62	-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	-45.55	-27
	5715 to 5725	-32.49	-17
Highest	5850 to 5860	-30.69	-17
	Above 5860	-39.01	-27
Note: the data just list the worst cases			

- For the frequency band 5.15-5.25GHz, 5.725-5.850GHz(802.11ax HE80)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5210MHz							
10420	58.22	7.33	65.55	74.00	-8.45	H	PK
15630	35.91	8.75	44.66	54.00	-9.34	H	AV
10420	56.96	7.33	64.29	74.00	-9.71	V	PK
15630	37.51	8.75	46.26	54.00	-7.74	V	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	55.53	9.54	65.07	74.00	-8.93	H	PK
17325	36.92	10.59	47.51	54.00	-6.49	H	AV
11550	57.00	9.54	66.54	74.00	-7.46	V	PK
17325	33.74	10.59	44.33	54.00	-9.67	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-33.04	-27
Highest	Above 5350	-30.81	-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	-41.81	-27
	5715 to 5725	-29.18	-17
Highest	5850 to 5860	-31.65	-17
	Above 5860	-40.00	-27
Note: the data just list the worst cases			

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

9. Frequency Stability

9.1 Standard Applicable

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

9.2 Test Procedure

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

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

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

9.3 Summary of Test Results/Plots

Please refer to Appendix D

10 Conducted Emissions

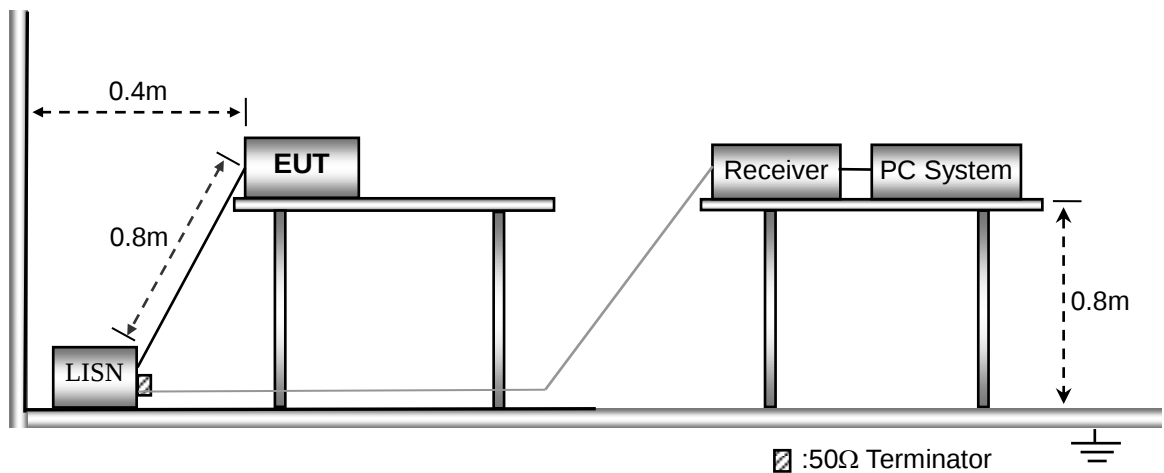
10.1 Test Procedure

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

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

The spacing between the peripherals was 10 cm.

10.2 Basic Test Setup Block Diagram



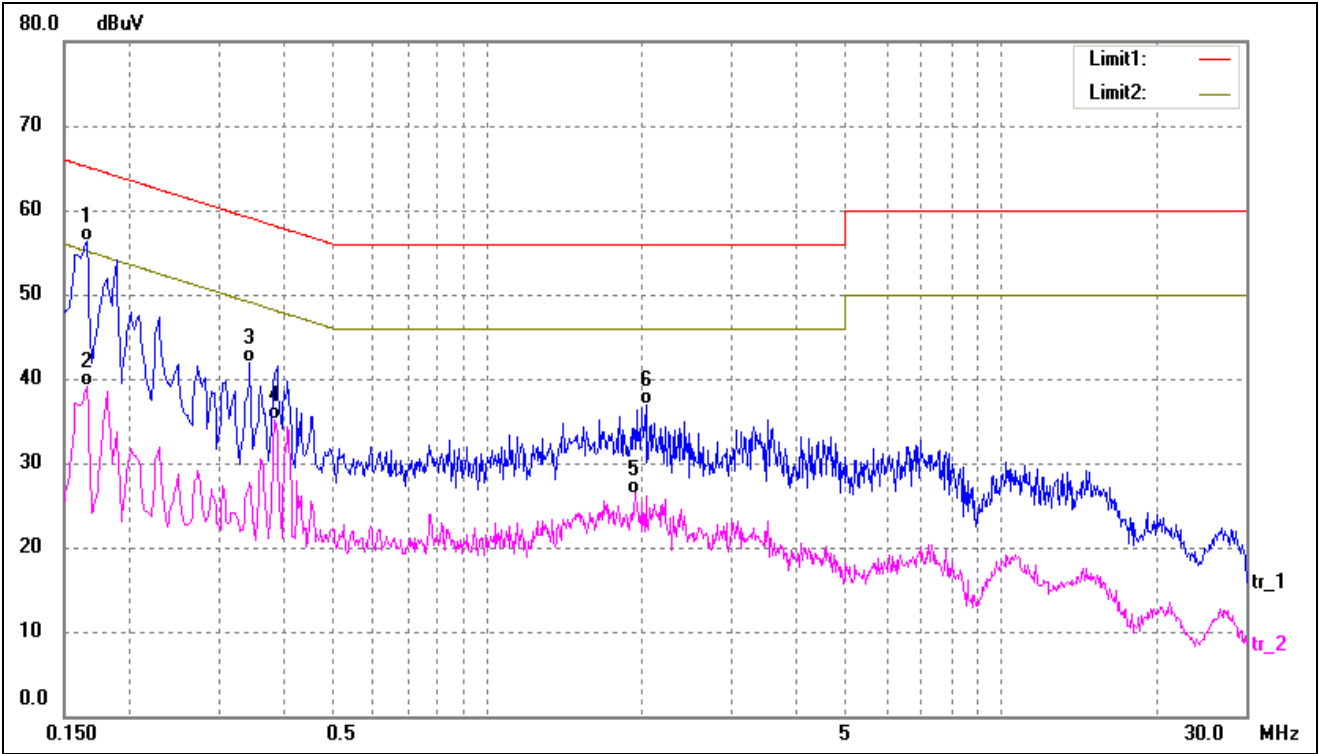
10.3 Test Receiver Setup

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

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

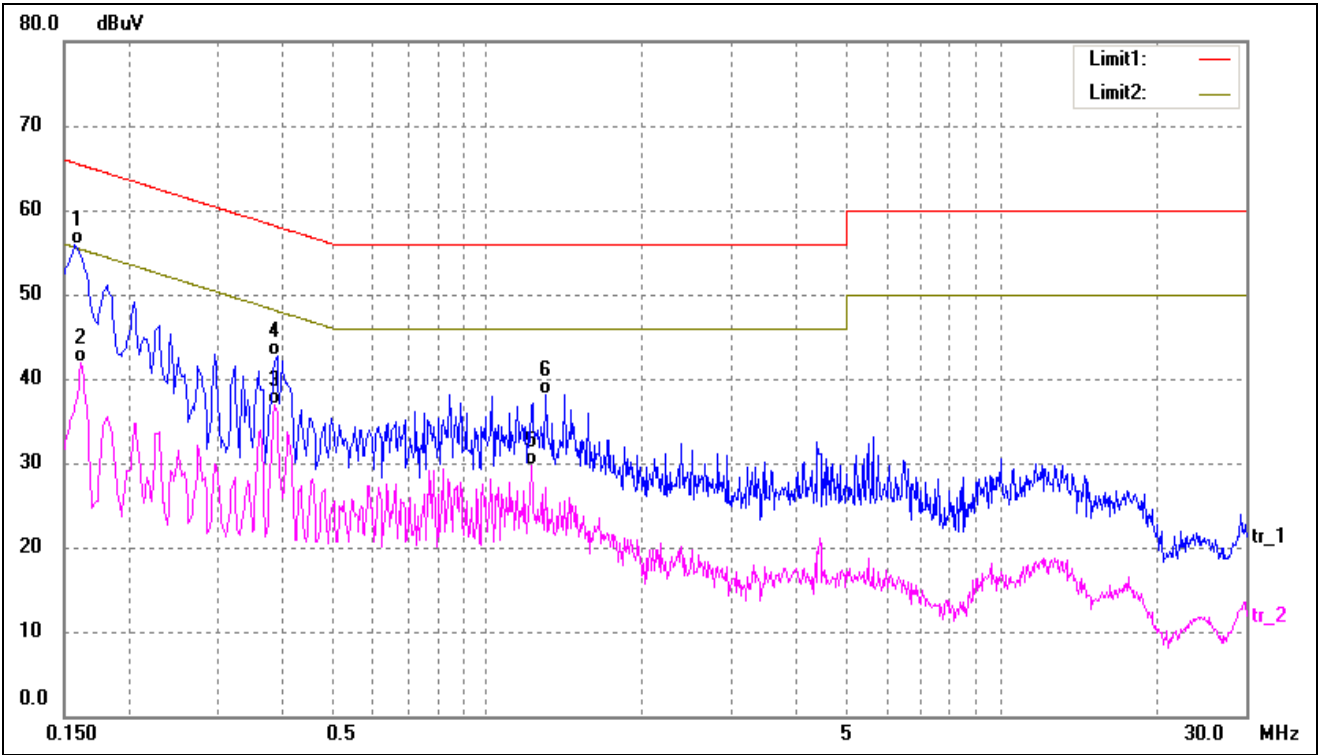
10.4 Summary of Test Results/Plots

Test Mode	Communication	AC120V 60Hz	Polarity:	Neutral
-----------	---------------	-------------	-----------	---------



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1660	46.06	10.26	56.32	65.16	-8.84	QP
2	0.1660	28.90	10.26	39.16	55.16	-16.00	AVG
3	0.3460	31.73	10.26	41.99	59.06	-17.07	QP
4	0.3860	24.85	10.23	35.08	48.15	-13.07	AVG
5	1.9420	16.12	10.28	26.40	46.00	-19.60	AVG
6	2.0380	26.57	10.29	36.86	56.00	-19.14	QP

Test Mode	Communication	AC120V 60Hz	Polarity:	Line
-----------	---------------	-------------	-----------	------



No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1580	45.69	10.25	55.94	65.57	-9.63	QP
2	0.1620	31.62	10.26	41.88	55.36	-13.48	AVG
3	0.3860	26.58	10.23	36.81	48.15	-11.34	AVG
4	0.3900	32.43	10.24	42.67	58.06	-15.39	QP
5	1.2220	19.48	10.22	29.70	46.00	-16.30	AVG
6	1.3020	27.97	10.22	38.19	56.00	-17.81	QP

APPENDIX SUMMARY

Project No.	WTH20X11091968W	Test Engineer	Shaw
Start date	2020/12/13	Finish date	2020/12/13
Temperature	23℃	Humidity	53%
RF specifications	U-NII		

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

APPENDIX A

Power Spectral Density					
U-NII-1:5150-5250MHz					
Operating mode	Test Channel	ANT 1 dBm/MHz	ANT 2 dBm/MHz	Total dBm/MHz	Limit (dBm/MHz)
802.11a	5180	7.69	8.25	/	11
	5200	7.41	8.13	/	11
	5240	7.68	8.02	/	11
802.11n-HT20	5180	6.53	7.14	9.86	11
	5200	6.66	6.80	9.74	11
	5240	6.34	7.36	9.89	11
802.11n-HT40	5190	4.15	3.96	7.07	11
	5230	3.79	4.94	7.41	11
802.11ac-HT80	5210	-2.19	-1.94	0.95	11
802.11ax-HE20	5180	6.23	6.29	9.27	11
	5200	6.92	6.92	9.93	11
	5240	6.31	7.05	9.71	11
802.11ax-HE40	5190	4.26	4.34	7.31	11
	5230	3.75	4.49	7.15	11
802.11ax-HE80	5210	-2.04	-0.36	1.89	11

Power Spectral Density							
U-NII-3: 5725-5850MHz							
Operating mode	Test Channel	ANT 1 dBm/300kHz	ANT 2 dBm/300kHz	Factor	ANT 1 dBm/500kHz*	ANT 2 dBm/500kHz*	Limit dBm/500kHz
802.11a	5745	1.88	3.61	2.22	4.10	5.83	30
	5785	1.97	3.37	2.22	4.19	5.59	30
	5825	2.05	3.13	2.22	4.27	5.35	30
*Note: Maximum PSD=PSD(dBm/300kHz)+10log(500kHz/300kHz)=2.22							

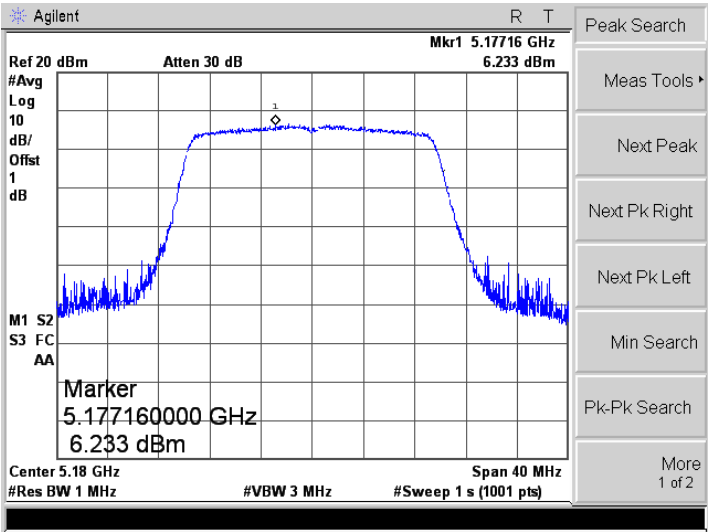
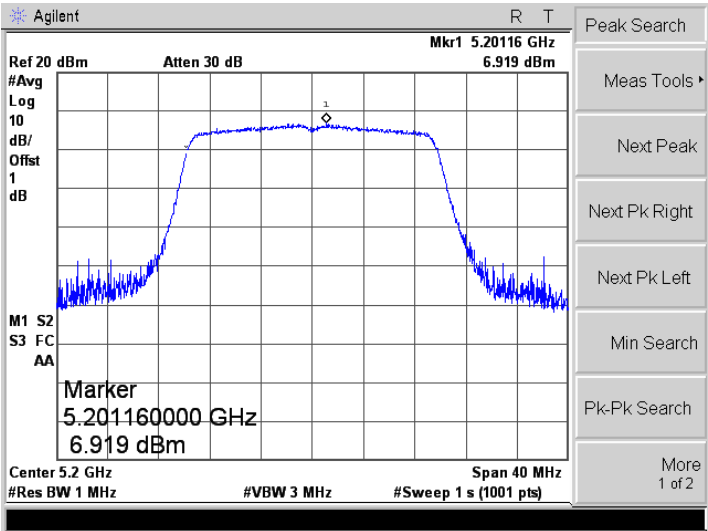
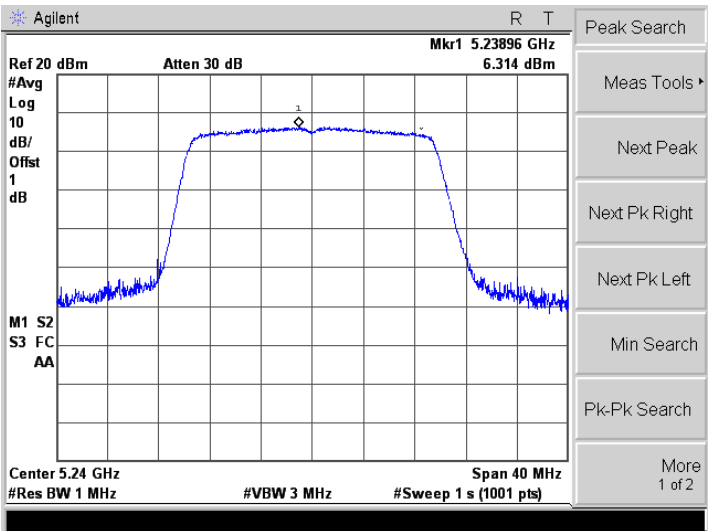
Power Spectral Density						
U-NII-3: 5725-5850MHz						
Operating mode	Test Channel	ANT 1 dBm/300kHz	ANT 2 dBm/300kHz	Factor	Total dBm/500kHz*	Limit dBm/500kHz
802.11n-HT20	5745	1.45	2.28	2.22	7.12	30
	5785	1.13	2.45	2.22	7.07	30
	5825	1.52	2.13	2.22	7.07	30
802.11n HT40	5755	-0.90	0.36	2.22	5.01	30
	5795	-1.12	0.11	2.22	4.77	30
802.11ac VH80	5775	-7.02	-5.90	2.22	-1.19	30
802.11ax-HE20	5745	1.61	2.39	2.22	7.25	30
	5785	1.32	2.42	2.22	7.14	30
	5825	1.62	2.63	2.22	7.38	30
802.11ax-HE40	5755	-1.05	0.07	2.22	4.78	30
	5795	-1.06	-0.14	2.22	4.65	30
802.11ax-HE80	5775	-6.59	-5.30	2.22	-0.67	30
*Note: Maximum PSD=PSD(dBm/300kHz)+10log(500kHz/300kHz)=2.22						

ANT 1
5150-5250MHz

802.11a-Low	
802.11a-Middle	
802.11a-High	

802.11n-HT20-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.17872 GHz 6.532 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-Middle	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.19856 GHz 6.655 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2 Marker 5.198560000 GHz 6.655 dBm
802.11n-HT20-High	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.23888 GHz 6.34 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2 Marker 5.238880000 GHz 6.34 dBm

802.11n-HT40-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.18800 GHz 4.148 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.18800000 GHz 4.148 dBm Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 80 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT40-High	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.22816 GHz 3.786 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.228160000 GHz 3.786 dBm Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 80 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ac-HT80	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.20792 GHz -2.186 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.207920000 GHz -2.186 dBm Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 160 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11ax-HE20-Low	
802.11ax-HE20-Middle	
802.11ax-HE20-High	

802.11ax-HE40-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.18888 GHz 4.264 dBm #Avg 10 Log dB/Offst 1 dB M1 S2 S3 FC AA Marker 5.188880000 GHz 4.264 dBm Center 5.19 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE40-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.23256 GHz 3.748 dBm #Avg 10 Log dB/Offst 1 dB M1 S2 S3 FC AA Marker 5.232560000 GHz 3.748 dBm Center 5.23 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE80	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.20456 GHz -2.043 dBm #Avg 10 Log dB/Offst 1 dB M1 S2 S3 FC AA Marker 5.204560000 GHz -2.043 dBm Center 5.21 GHz Span 160 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

5725-5850MHz

802.11a-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.74264 GHz 1.877 dBm #Avg Log 10 dB/ Offst 1 dB M1 S2 S3 FC AA Center 5.745 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11a-Middle	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.78544 GHz 1.968 dBm #Avg Log 10 dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.785440000 GHz 1.968 dBm Center 5.785 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11a-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.82412 GHz 2.051 dBm #Avg Log 10 dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.824120000 GHz 2.051 dBm Center 5.825 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

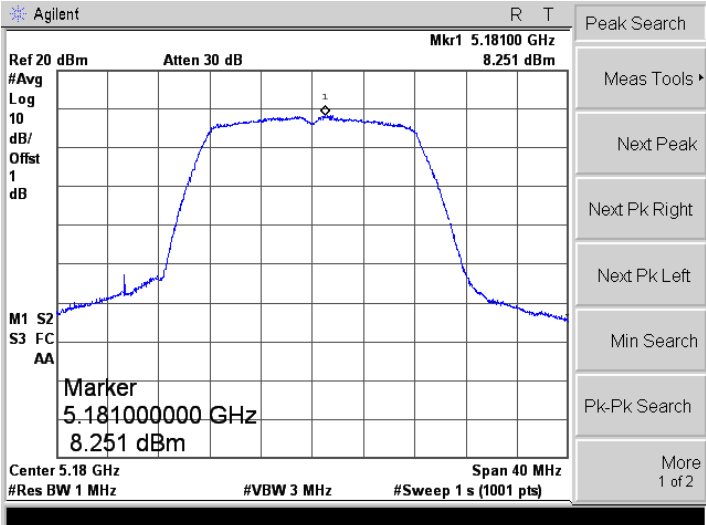
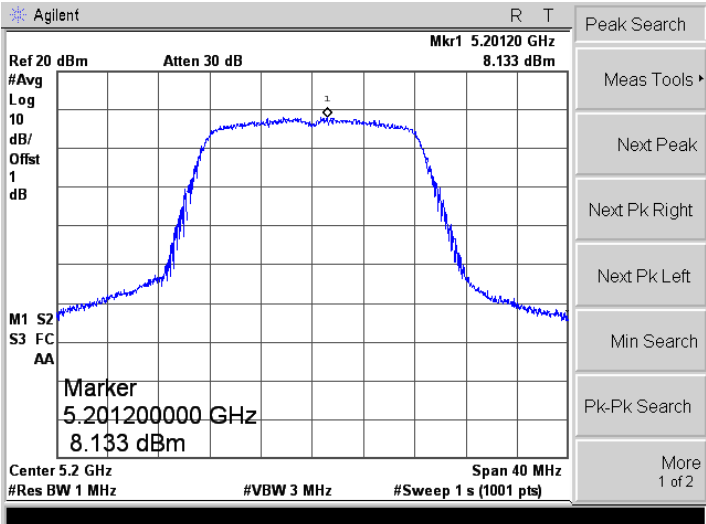
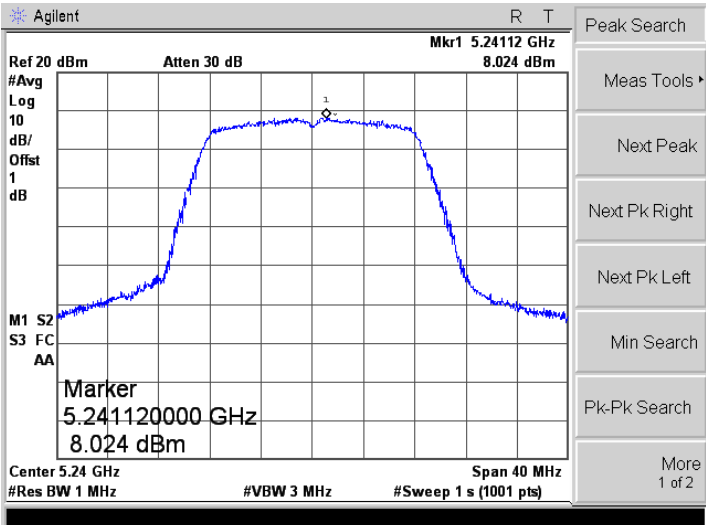
802.11n-HT20-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.74620 GHz 1.448 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.746200000 GHz 1.448 dBm Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-Middle	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.78572 GHz 1.126 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.785720000 GHz 1.126 dBm Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-High	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.82380 GHz 1.523 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.823800000 GHz 1.523 dBm Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11n-HT40-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.75612 GHz -0.903 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.756120000 GHz -0.903 dBm Center 5.755 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT40-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.79252 GHz -1.119 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.792520000 GHz -1.119 dBm Center 5.795 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ac-HT80	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.77260 GHz -7.018 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.772600000 GHz -7.018 dBm Center 5.775 GHz Span 160 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

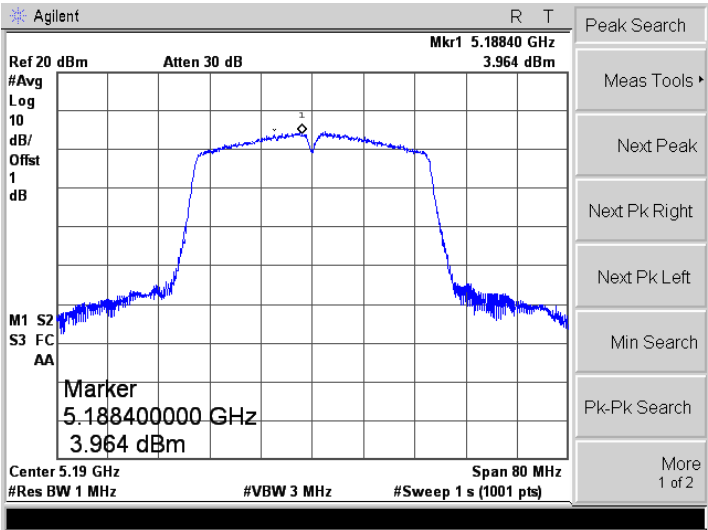
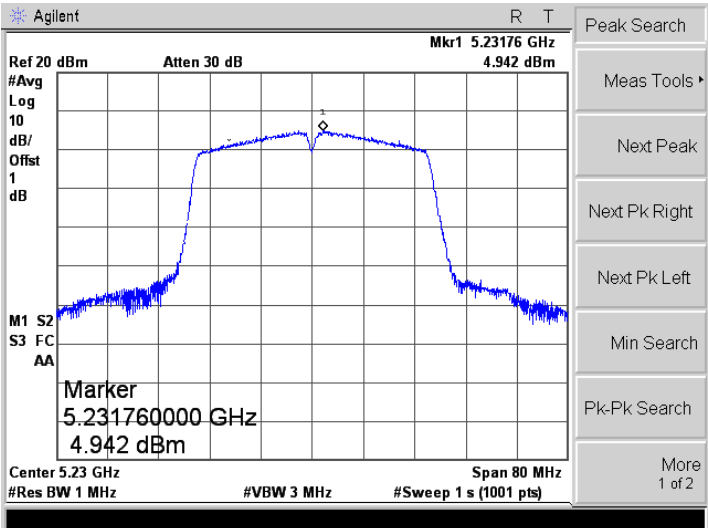
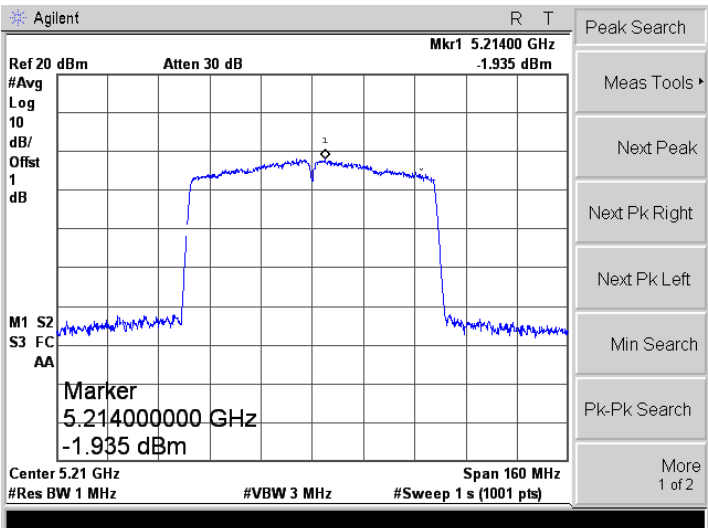
802.11ax-HE20-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.74440 GHz 1.611 dBm #Avg 10 Log dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.744400000 GHz 1.611 dBm Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE20-Middle	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.78404 GHz 1.322 dBm #Avg 10 Log dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.784040000 GHz 1.322 dBm Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE20-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.82360 GHz 1.617 dBm #Avg 10 Log dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.823600000 GHz 1.617 dBm Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11ax-HE40-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.75756 GHz -1.051 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.757560000 GHz -1.051 dBm Center 5.755 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE40-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.79588 GHz -1.063 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.795880000 GHz -1.063 dBm Center 5.795 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE80	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.77244 GHz -6.593 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.772440000 GHz -6.593 dBm Center 5.775 GHz Span 160 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

ANT 2
5150-5250MHz

802.11a-Low	
802.11a-Middle	
802.11a-High	

802.11n-HT20-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.18108 GHz 7.139 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.181080000 GHz 7.139 dBm Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-Middle	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.20132 GHz 6.801 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.201320000 GHz 6.801 dBm Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-High	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.24212 GHz 7.355 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.242120000 GHz 7.355 dBm Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11n-HT40-Low	
802.11n-HT40-High	
802.11ac-HT80	

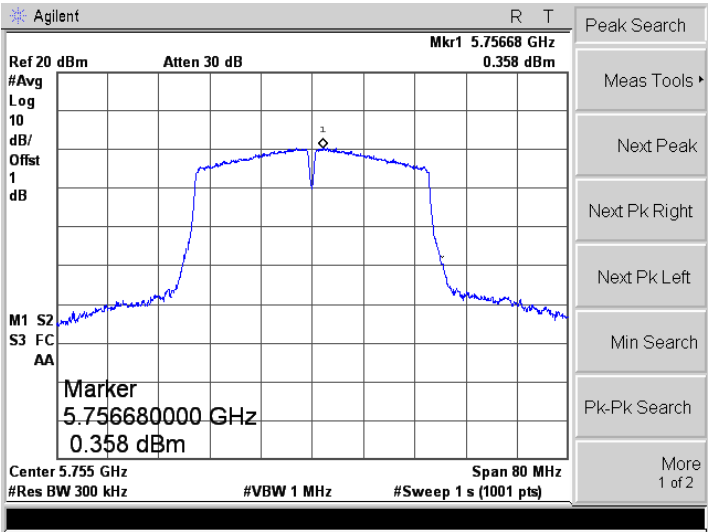
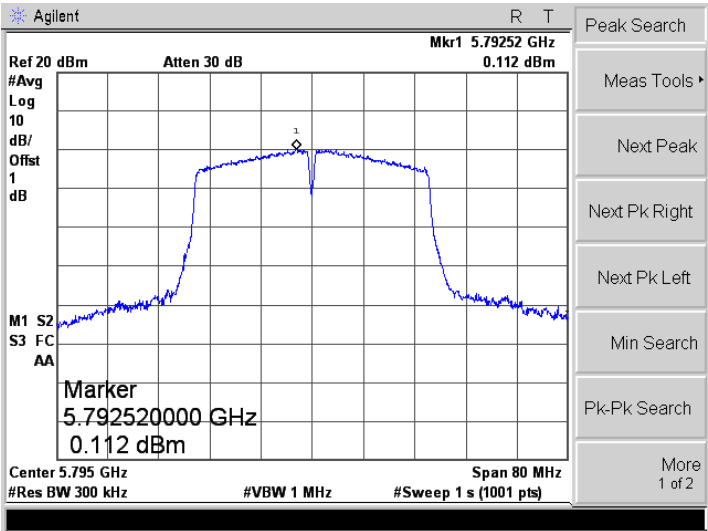
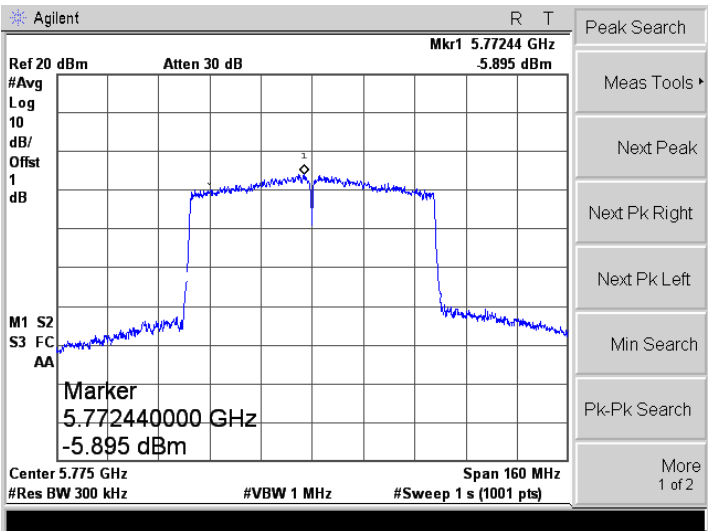
802.11ax-HE20-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.17860 GHz 6.291 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.178600000 GHz 6.291 dBm Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
-------------------	--

802.11ax-HE40-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.19232 GHz 4.344 dBm #Avg 10 Log dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.192320000 GHz 4.344 dBm Center 5.19 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE40-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.22808 GHz 4.491 dBm #Avg 10 Log dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.228080000 GHz 4.491 dBm Center 5.23 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE80	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.21288 GHz -0.364 dBm #Avg 10 Log dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.212880000 GHz -0.364 dBm Center 5.21 GHz Span 160 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

5725-5850MHz

802.11a-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.74616 GHz 3.612 dBm #Avg Log 10 dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.746160000 GHz 3.612 dBm Center 5.745 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11a-Middle	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.78628 GHz 3.368 dBm #Avg Log 10 dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.786280000 GHz 3.368 dBm Center 5.785 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11a-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.82716 GHz 3.132 dBm #Avg Log 10 dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.827160000 GHz 3.132 dBm Center 5.825 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11n-HT20-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.74620 GHz 2.276 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.74620000 GHz 2.276 dBm Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-Middle	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.78408 GHz 2.453 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.78408000 GHz 2.453 dBm Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11n-HT20-High	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.82364 GHz 2.133 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.82364000 GHz 2.133 dBm Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11n-HT40-Low	
802.11n-HT40-High	
802.11ac-HT80	

802.11ax-HE20-Low	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.74848 GHz 2.386 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.748480000 GHz 2.386 dBm Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE20-Middle	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.78660 GHz 2.416 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.786600000 GHz 2.416 dBm Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE20-High	Agilent Ref 20 dBm Atten 30 dB Mkr1 5.82436 GHz 2.629 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.824360000 GHz 2.629 dBm Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Span 40 MHz Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

802.11ax-HE40-Low	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.75252 GHz 0.069 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.752520000 GHz 0.069 dBm Center 5.755 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE40-High	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.79260 GHz -0.135 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.792600000 GHz -0.135 dBm Center 5.795 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2
802.11ax-HE80	Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.77356 GHz -5.301 dBm #Avg Log 10 dB/ Offset 1 dB M1 S2 S3 FC AA Marker 5.773560000 GHz -5.301 dBm Center 5.775 GHz Span 160 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts) Peak Search Meas Tools ▶ Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2

APPENDIX B

Emission Bandwidth and Occupied Bandwidth

U-NII-1:5150-5250MHz						
Test Mode	Test Channel MHz	ANT 1		ANT 2		Result
		26 dB Bandwidth MHz	99% Bandwidth MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	
802.11a	5180	20.317	16.8243	20.331	16.8221	Pass
	5200	20.277	16.7647	20.282	16.8193	Pass
	5240	20.266	16.8106	20.334	16.8181	Pass
802.11n-HT20	5180	20.344	17.7276	20.382	17.7076	Pass
	5200	20.445	17.7171	20.269	17.086	Pass
	5240	20.389	17.7448	20.369	17.6976	Pass
802.11n-HT40	5190	39.484	35.8392	39.896	35.8417	Pass
	5230	39.527	35.7644	39.596	35.8471	Pass
802.11ac-HT80	5210	80.018	74.9993	79.824	75.0566	Pass
802.11ax-HE20	5180	24.538	19.0002	23.603	19.0271	Pass
	5200	23.946	19.0195	24.394	19.0303	Pass
	5240	20.161	18.8564	20.198	18.8851	Pass
802.11ax-HE40	5190	39.422	37.4999	39.448	37.4532	Pass
	5230	39.488	37.4415	39.560	37.4674	Pass
802.11ax-HE80	5210	80.808	76.5347	80.803	76.6376	Pass

U-NII-3: 5725-5850MHz						
Test Mode	Test Channel MHz	ANT 1		ANT 2		Limit kHz
		6 dB Bandwidth MHz	99% Bandwidth MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	
802.11a	5745	15.282	16.8212	15.846	16.8480	≥ 500
	5785	15.172	16.8525	15.651	16.8197	≥ 500
	5825	15.041	16.8250	15.470	16.8486	≥ 500
802.11n-HT20	5745	16.967	17.7778	15.659	17.7869	≥ 500
	5785	15.736	17.7495	15.604	17.7231	≥ 500
	5825	16.218	17.7792	16.805	17.7491	≥ 500
802.11n-HT40	5755	35.113	35.8953	35.163	35.8185	≥ 500
	5795	28.875	35.8802	35.094	35.8674	≥ 500
802.11ac-HT80	5775	75.239	75.1683	75.015	75.1150	≥ 500
802.11ax-HE20	5745	18.742	19.0230	18.728	19.0087	≥ 500
	5785	18.822	19.0269	18.921	19.0028	≥ 500
	5825	18.893	19.0929	18.824	19.0509	≥ 500
802.11ax-HE40	5755	35.176	37.4382	35.599	37.4921	≥ 500
	5795	35.155	37.4995	37.121	37.4892	≥ 500
802.11ax-HE80	5775	75.001	76.7456	73.846	76.5796	≥ 500

ANT 1

5150-5250MHz

802.11a-Low	Agilent Ch Freq 5.18 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 300 kHz #VBW 3 MHz Span 40 MHz Sweep 4 ms (401 pts) Occupied Bandwidth 16.8243 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -97.473 kHz x dB Bandwidth 20.317 MHz Trace/View Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-Middle	Agilent Ch Freq 5.2 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Span 40 MHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.7647 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -96.071 kHz x dB Bandwidth 20.277 MHz Trace/View Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-High	Agilent Ch Freq 5.24 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Span 40 MHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.8106 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -78.560 kHz x dB Bandwidth 20.266 MHz Trace/View Trace Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT20-Low	Agilent Ch Freq 5.18 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7276 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -18.108 kHz x dB Bandwidth 20.344 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-Middle	Agilent Ch Freq 5.2 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7171 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -24.405 kHz x dB Bandwidth 20.445 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent Ch Freq 5.24 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7448 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -28.607 kHz x dB Bandwidth 20.389 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent Ch Freq5.19 GHz TrigFree Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8392 MHz Occ BW % Pwr99.00 % x dB-26.00 dB Transmit Freq Error-30.486 kHz x dB Bandwidth39.484 MHz Trace/View Trace123 Clear Write Max Hold Min Hold View Blank More1 of 2
802.11n-HT40-High	Agilent Ch Freq5.23 GHz TrigFree Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.7644 MHz Occ BW % Pwr99.00 % x dB-26.00 dB Transmit Freq Error-40.428 kHz x dB Bandwidth39.527 MHz Trace/View Trace123 Clear Write Max Hold Min Hold View Blank More1 of 2
802.11ac-HT80	Agilent Ch Freq5.21 GHz TrigFree Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 74.9993 MHz Occ BW % Pwr99.00 % x dB-26.00 dB Transmit Freq Error100.040 kHz x dB Bandwidth80.018 MHz Trace/View Trace123 Clear Write Max Hold Min Hold View Blank More1 of 2

802.11ax-HE20-Low	Agilent R T Ch Freq 5.18 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0002 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -35.545 kHz x dB Bandwidth 24.538 MHz Trace/View 1 2 3 Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent R T Ch Freq 5.2 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0195 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -23.506 kHz x dB Bandwidth 23.946 MHz Trace/View 1 2 3 Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-High	Agilent R T Ch Freq 5.24 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.8564 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -20.133 kHz x dB Bandwidth 20.161 MHz Freq/Channel Center Freq 5.24000000 GHz Start Freq 5.22000000 GHz Stop Freq 5.26000000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin

802.11ax-HE40-Low	Agilent Ch Freq 5.19 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4999 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -40.008 kHz x dB Bandwidth 39.422 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE40-High	Agilent Ch Freq 5.23 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4415 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -47.032 kHz x dB Bandwidth 39.488 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE80	Agilent Ch Freq 5.21 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 76.5347 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -21.609 kHz x dB Bandwidth 80.808 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

5725-5850MHz

6 dB Bandwidth

802.11a-Low	Agilent Ch Freq 5.745 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.4102 MHz Transmit Freq Error -60.298 kHz x dB Bandwidth 15.282 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Freq/Channel Center Freq 5.74500000 GHz Start Freq 5.72500000 GHz Stop Freq 5.76500000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11a-Middle	Agilent Ch Freq 5.785 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.4034 MHz Transmit Freq Error -54.298 kHz x dB Bandwidth 15.172 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-High	Agilent Ch Freq 5.825 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.4074 MHz Transmit Freq Error -45.449 kHz x dB Bandwidth 15.041 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Freq/Channel Center Freq 5.82500000 GHz Start Freq 5.80500000 GHz Stop Freq 5.84500000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin

802.11n-HT20-Low	Agilent Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.5486 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -29.145 kHz x dB Bandwidth 16.967 MHz Freq/Channel Center Freq 5.7450000 GHz Start Freq 5.7250000 GHz Stop Freq 5.7650000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11n-HT20-Middle	Agilent Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.5331 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -38.536 kHz x dB Bandwidth 15.736 MHz Freq/Channel Center Freq 5.7850000 GHz Start Freq 5.7650000 GHz Stop Freq 5.8050000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11n-HT20-High	Agilent Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.5623 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -21.061 kHz x dB Bandwidth 16.218 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent R T Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.7189 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -61.570 kHz x dB Bandwidth 35.113 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent R T Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.6672 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -25.126 kHz x dB Bandwidth 28.875 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ac-HT80	Agilent R T Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 16.58 ms (1001 pts) Span 160 MHz Occupied Bandwidth 75.0044 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -39.522 kHz x dB Bandwidth 75.239 MHz Freq/Channel Center Freq 5.77500000 GHz Start Freq 5.69500000 GHz Stop Freq 5.85500000 GHz CF Step 16.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin

802.11ax-HE20-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.8727 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -39.496 kHz x dB Bandwidth 18.742 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.8958 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -31.250 kHz x dB Bandwidth 18.822 MHz Freq/Channel Center Freq 5.78500000 GHz Start Freq 5.76500000 GHz Stop Freq 5.80500000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE20-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.8966 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -22.125 kHz x dB Bandwidth 18.893 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE40-Low	Agilent R T Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.3767 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -9.607 kHz x dB Bandwidth 35.176 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE40-High	Agilent R T Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4578 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -23.536 kHz x dB Bandwidth 35.155 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE80	Agilent R T Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 16.58 ms (1001 pts) Span 160 MHz Occupied Bandwidth 76.6163 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -44.999 kHz x dB Bandwidth 75.001 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

99% dB Bandwidth

802.11a-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8212 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -86.354 kHz x dB Bandwidth 20.338 MHz Freq/Channel Center Freq 5.74500000 GHz Start Freq 5.72500000 GHz Stop Freq 5.76500000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11a-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8525 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -85.376 kHz x dB Bandwidth 20.221 MHz Freq/Channel Center Freq 5.78500000 GHz Start Freq 5.76500000 GHz Stop Freq 5.80500000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11a-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8250 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -101.194 kHz x dB Bandwidth 20.287 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT20-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7778 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -20.643 kHz x dB Bandwidth 20.442 MHz Freq/Channel Center Freq 5.7450000 GHz Start Freq 5.7250000 GHz Stop Freq 5.7650000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11n-HT20-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7495 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -9.297 kHz x dB Bandwidth 20.387 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7792 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -28.456 kHz x dB Bandwidth 20.482 MHz Freq/Channel Center Freq 5.8250000 GHz Start Freq 5.8050000 GHz Stop Freq 5.8450000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin

802.11n-HT40-Low	Agilent Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8953 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -47.487 kHz x dB Bandwidth 39.687 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8802 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -10.165 kHz x dB Bandwidth 39.961 MHz Freq/Channel Center Freq 5.79500000 GHz Start Freq 5.75500000 GHz Stop Freq 5.83500000 GHz CF Step 8.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11ac-HT80	Agilent Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 75.1683 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error 87.769 kHz x dB Bandwidth 75.275 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE20-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0230 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -33.464 kHz x dB Bandwidth 22.230 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0269 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -11.977 kHz x dB Bandwidth 22.204 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0929 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -41.809 kHz x dB Bandwidth 23.633 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE40-Low	Agilent Ch Freq 5.755 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4382 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -38.647 kHz x dB Bandwidth 39.390 MHz Freq/Channel Center Freq 5.7550000 GHz Start Freq 5.7150000 GHz Stop Freq 5.7950000 GHz CF Step 8.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE40-High	Agilent Ch Freq 5.795 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4995 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -15.173 kHz x dB Bandwidth 39.519 MHz Trace/View 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE80	Agilent Ch Freq 5.775 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 76.7456 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error 53.700 kHz x dB Bandwidth 76.617 MHz Freq/Channel Center Freq 5.7750000 GHz Start Freq 5.6950000 GHz Stop Freq 5.8550000 GHz CF Step 16.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin

ANT 2

5150-5250MHz

802.11a-Low	Agilent R T Ch Freq 5.18 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8221 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -95.263 kHz x dB Bandwidth 20.331 MHz Freq/Channel Center Freq 5.1800000 GHz Start Freq 5.1600000 GHz Stop Freq 5.2000000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11a-Middle	Agilent R T Ch Freq 5.2 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8193 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -68.304 kHz x dB Bandwidth 20.282 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-High	Agilent R T Ch Freq 5.24 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8181 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -44.644 kHz x dB Bandwidth 20.334 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT20-Low	Agilent R T Ch Freq 5.18 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7076 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -34.956 kHz x dB Bandwidth 20.382 MHz Trace/View 1 2 3 Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-Middle	Agilent R T Ch Freq 5.2 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7086 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 1.892 kHz x dB Bandwidth 20.269 MHz Trace/View 1 2 3 Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent R T Ch Freq 5.24 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.6976 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -6.865 kHz x dB Bandwidth 20.369 MHz Trace/View 1 2 3 Trace Clear Write Max Hold Min Hold View Blank More 1 of 2

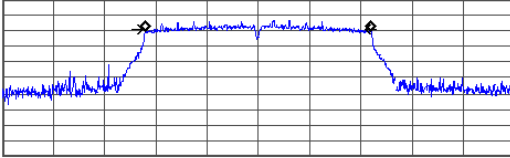
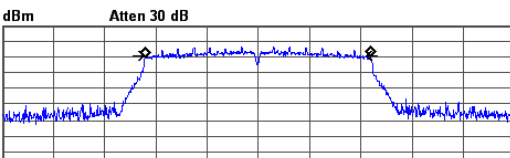
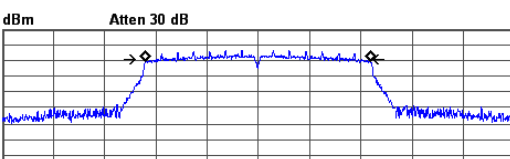
802.11n-HT40-Low	Agilent Ch Freq 5.19 GHz Trig Free Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8417 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -36.181 kHz x dB Bandwidth 39.896 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent Ch Freq 5.23 GHz Trig Free Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8471 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 3.366 kHz x dB Bandwidth 39.596 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ac-HT80	Agilent Ch Freq 5.21 GHz Trig Free Occupied Bandwidth VBW 3.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 75.0566 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 75.844 kHz x dB Bandwidth 79.824 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE20-Low	Agilent R T Ch Freq 5.18 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0271 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -21.899 kHz x dB Bandwidth 23.603 MHz Trace/View 1 2 3 Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent R T Ch Freq 5.2 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0303 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -14.004 kHz x dB Bandwidth 24.394 MHz Freq/Channel Center Freq 5.2000000 GHz Start Freq 5.1800000 GHz Stop Freq 5.2200000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE20-High	Agilent R T Ch Freq 5.24 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.8851 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -12.026 kHz x dB Bandwidth 20.198 MHz Freq/Channel Center Freq 5.2400000 GHz Start Freq 5.2200000 GHz Stop Freq 5.2600000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin

802.11ax-HE40-Low	Agilent Ch Freq 5.19 GHz Trig Free Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4532 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -16.335 kHz x dB Bandwidth 39.448 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE40-High	Agilent Ch Freq 5.23 GHz Trig Free Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4674 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -16.607 kHz x dB Bandwidth 39.560 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE80	Agilent Ch Freq 5.21 GHz Trig Free Occupied Bandwidth VBW 1.000000000 MHz Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 76.6376 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error 70.178 kHz x dB Bandwidth 80.803 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

5725-5850MHz
6 dB Bandwidth

802.11a-Low	Agilent Ch Freq 5.745 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.4024 MHz Transmit Freq Error -63.221 kHz x dB Bandwidth 15.846 MHz Freq/Channel Center Freq 5.74500000 GHz Start Freq 5.72500000 GHz Stop Freq 5.76500000 GHz CF Step 4.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Scale Type Log
802.11a-Middle	Agilent Ch Freq 5.785 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.4222 MHz Transmit Freq Error -56.459 kHz x dB Bandwidth 15.651 MHz Freq/Channel Center Freq 5.78500000 GHz Start Freq 5.76500000 GHz Stop Freq 5.80500000 GHz CF Step 4.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Scale Type Log
802.11a-High	Agilent Ch Freq 5.825 GHz Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Occupied Bandwidth 16.4074 MHz Transmit Freq Error -61.767 kHz x dB Bandwidth 15.470 MHz Freq/Channel Center Freq 5.82500000 GHz Start Freq 5.80500000 GHz Stop Freq 5.84500000 GHz CF Step 4.00000000 MHz Freq Offset 0.00000000 Hz Signal Track On Scale Type Log

802.11n-HT20-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB  Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.5361 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -30.354 kHz x dB Bandwidth 15.659 MHz Freq/Channel Center Freq 5.7450000 GHz Start Freq 5.7250000 GHz Stop Freq 5.7650000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11n-HT20-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB  Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.5308 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -42.241 kHz x dB Bandwidth 15.604 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB  Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.5387 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -33.776 kHz x dB Bandwidth 16.805 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent R T Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.7010 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -49.079 kHz x dB Bandwidth 35.163 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent R T Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.7460 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -39.388 kHz x dB Bandwidth 35.094 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ac-HT80	Agilent R T Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 16.58 ms (1001 pts) Span 160 MHz Occupied Bandwidth 75.0568 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -32.962 kHz x dB Bandwidth 75.015 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE20-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.9064 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -33.018 kHz x dB Bandwidth 18.728 MHz Freq/Channel Center Freq 5.7450000 GHz Start Freq 5.7250000 GHz Stop Freq 5.7650000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE20-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.9146 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -20.085 kHz x dB Bandwidth 18.921 MHz Freq/Channel Center Freq 5.7850000 GHz Start Freq 5.7650000 GHz Stop Freq 5.8050000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE20-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 18.8863 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -41.957 kHz x dB Bandwidth 18.824 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE40-Low	Agilent Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4407 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error 17.652 kHz x dB Bandwidth 36.599 MHz Freq/Channel Center Freq 5.7550000 GHz Start Freq 5.7150000 GHz Stop Freq 5.7950000 GHz CF Step 8.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE40-High	Agilent Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4506 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -32.790 kHz x dB Bandwidth 37.121 MHz Freq/Channel Center Freq 5.7950000 GHz Start Freq 5.7550000 GHz Stop Freq 5.8350000 GHz CF Step 8.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE80	Agilent Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 100 kHz #VBW 300 kHz Sweep 16.58 ms (1001 pts) Span 160 MHz Occupied Bandwidth 76.4112 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error -80.902 kHz x dB Bandwidth 73.846 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

99% dB Bandwidth

802.11a-Low	Agilent Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8480 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -89.103 kHz x dB Bandwidth 20.250 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-Middle	Agilent Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8197 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -101.413 kHz x dB Bandwidth 20.415 MHz Freq/Channel Center Freq 5.78500000 GHz Start Freq 5.76500000 GHz Stop Freq 5.80500000 GHz CF Step 4.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11a-High	Agilent Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 16.8486 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -115.175 kHz x dB Bandwidth 20.247 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT20-Low	Agilent R T Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7869 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -19.133 kHz x dB Bandwidth 20.428 MHz Freq/Channel Center Freq 5.7450000 GHz Start Freq 5.7250000 GHz Stop Freq 5.7650000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11n-HT20-Middle	Agilent R T Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7231 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -25.855 kHz x dB Bandwidth 20.270 MHz Freq/Channel Center Freq 5.7850000 GHz Start Freq 5.7650000 GHz Stop Freq 5.8050000 GHz CF Step 4.0000000 MHz Auto Man Freq Offset 0.0000000 Hz Signal Track On Off Scale Type Log Lin
802.11n-HT20-High	Agilent R T Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 17.7491 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -19.307 kHz x dB Bandwidth 20.468 MHz Trace/View 1 Trace 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8185 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -25.638 kHz x dB Bandwidth 39.664 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 35.8674 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -52.808 kHz x dB Bandwidth 40.072 MHz Freq/Channel Center Freq 5.79500000 GHz Start Freq 5.75500000 GHz Stop Freq 5.83500000 GHz CF Step 8.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11ac-HT80	Agilent Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 75.1150 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error 93.951 kHz x dB Bandwidth 73.629 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE20-Low	Agilent Ch Freq 5.745 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0087 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -17.941 kHz x dB Bandwidth 23.413 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent Ch Freq 5.785 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0028 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -11.965 kHz x dB Bandwidth 22.185 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-High	Agilent Ch Freq 5.825 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 40 MHz Occupied Bandwidth 19.0509 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -20.043 kHz x dB Bandwidth 24.117 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE40-Low	Agilent Ch Freq 5.755 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4921 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -24.898 kHz x dB Bandwidth 39.398 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE40-High	Agilent Ch Freq 5.795 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts) Span 80 MHz Occupied Bandwidth 37.4892 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB Transmit Freq Error -35.880 kHz x dB Bandwidth 39.409 MHz Freq/Channel Center Freq 5.79500000 GHz Start Freq 5.75500000 GHz Stop Freq 5.83500000 GHz CF Step 8.00000000 MHz Auto Man Freq Offset 0.00000000 Hz Signal Track On Off Scale Type Log Lin
802.11ax-HE80	Agilent Ch Freq 5.775 GHz Trig Free Occupied Bandwidth Ref 20 dBm Atten 30 dB #Peak Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts) Span 160 MHz Occupied Bandwidth 76.5796 MHz Occ BW % Pwr 99.00 % x dB -6.00 dB Transmit Freq Error 75.832 kHz x dB Bandwidth 75.577 MHz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

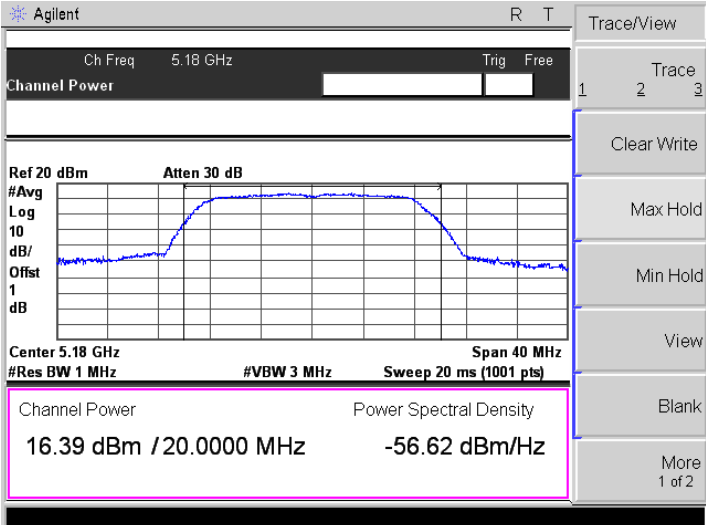
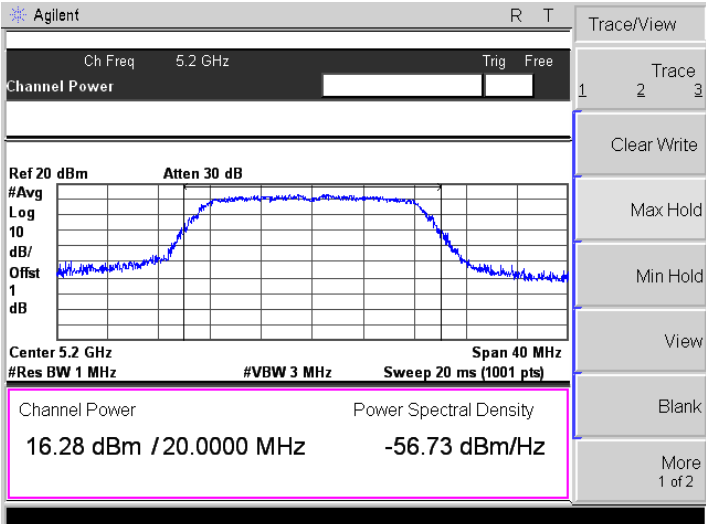
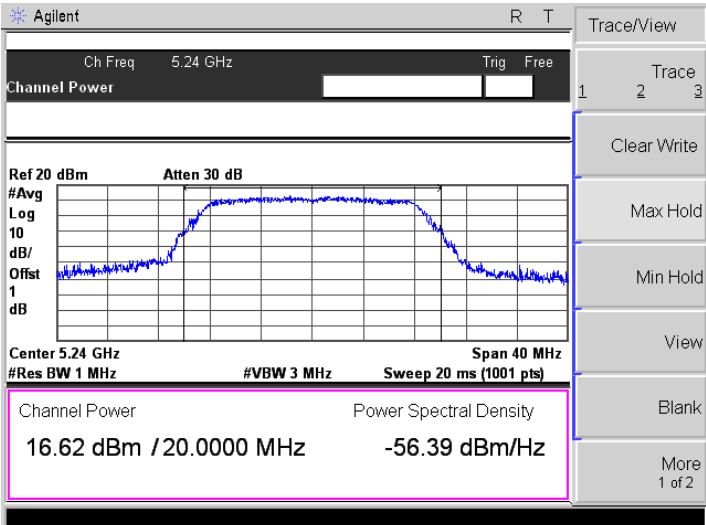
APPENDIX C

Maximum Conducted Output Power

U-NII-1:5150-5250MHz					
Test mode	Frequency MHz	Output Power dBm		Total dBm	Limit dBm
		ANT 1	ANT 2		
802.11a	5180	16.39	16.44	/	23.98
	5200	16.28	17.05	/	23.98
	5240	16.62	16.87	/	23.98
802.11n-HT20	5180	16.11	16.06	19.10	23.98
	5200	16.22	16.25	19.25	23.98
	5240	15.97	16.60	19.31	23.98
802.11n-HT40	5190	15.99	16.01	19.01	23.98
	5230	15.72	16.22	18.99	23.98
802.11ac VH80	5210	12.05	11.54	14.81	23.98
802.11ax-HE20	5180	16.69	16.32	19.52	23.98
	5200	16.31	16.87	19.61	23.98
	5240	16.02	16.92	19.50	23.98
802.11ax-HE40	5190	16.14	16.74	19.46	23.98
	5230	15.74	16.50	19.15	23.98
802.11ax HE80	5210	11.98	12.46	15.24	23.98

U-NII-3: 5725-5850MHz					
Test mode	Frequency MHz	Output Power dBm		Total dBm	Limit dBm
		ANT 1	ANT 2		
802.11a	5745	15.72	17.17	/	30
	5785	15.81	17.26	/	30
	5825	15.92	16.87	/	30
802.11n-HT20	5745	15.22	16.64	19.00	30
	5785	15.29	16.38	18.88	30
	5825	15.48	16.47	19.01	30
802.11n-HT40	5755	14.89	15.91	18.44	30
	5795	14.83	16.40	18.70	30
802.11ac VH80	5775	11.41	12.19	14.83	30
802.11ax-HE20	5745	15.82	17.04	19.48	30
	5785	15.65	16.83	19.29	30
	5825	15.65	16.17	18.93	30
802.11ax-HE40	5755	16.12	16.55	19.35	30
	5795	15.09	16.80	19.04	30
802.11ax HE80	5775	11.74	12.81	15.32	30

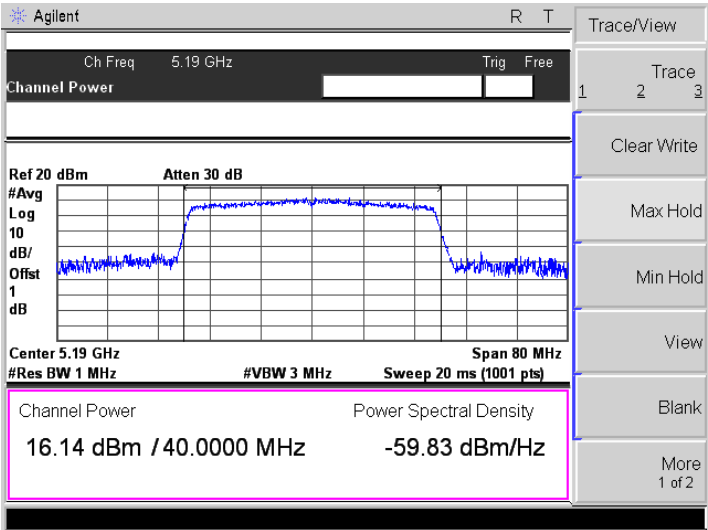
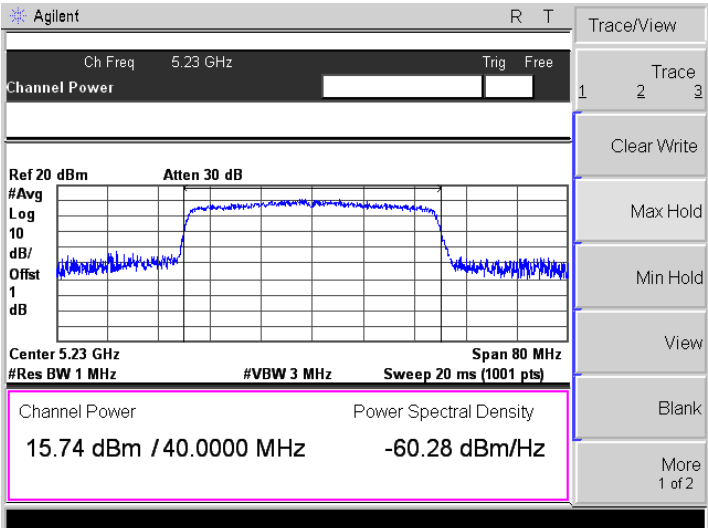
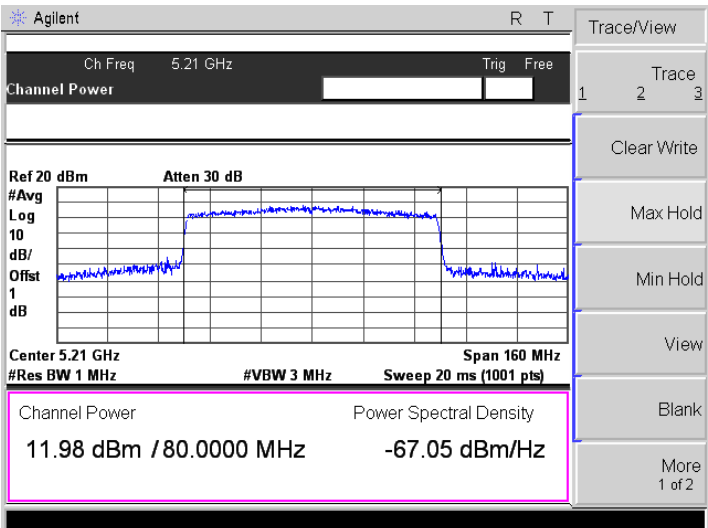
ANT 1
5150-5250MHz

802.11a-Low	
802.11a-Middle	
802.11a-High	

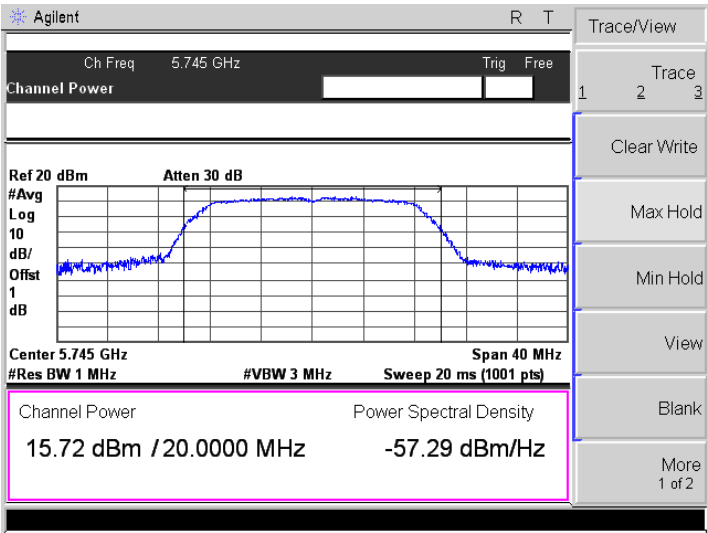
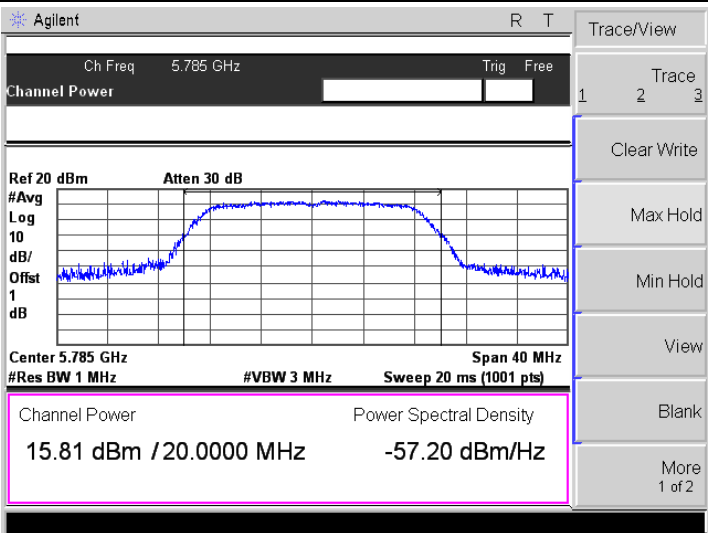
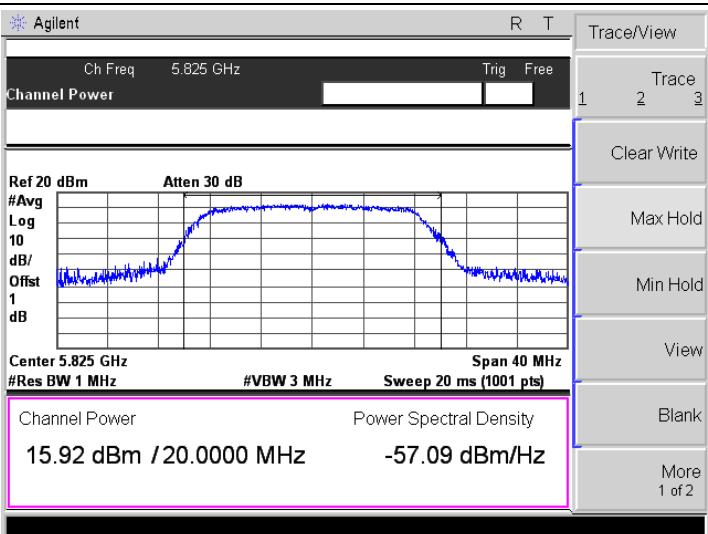
802.11n-HT20-Low	Agilent Ch Freq 5.18 GHz Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/Offset 1 dB Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power 16.11 dBm / 20.0000 MHz Power Spectral Density -56.54 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-Middle	Agilent Ch Freq 5.2 GHz Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/Offset 1 dB Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power 16.22 dBm / 20.0000 MHz Power Spectral Density -56.79 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent Ch Freq 5.24 GHz Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/Offset 1 dB Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power 15.97 dBm / 20.0000 MHz Power Spectral Density -57.04 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent Ch Freq 5.19 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 15.99 dBm / 40.0000 MHz -60.03 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent Ch Freq 5.23 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 15.72 dBm / 40.0000 MHz -60.30 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ac-HT80	Agilent Ch Freq 5.21 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 160 MHz Channel Power Power Spectral Density 12.05 dBm / 80.0000 MHz -66.99 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

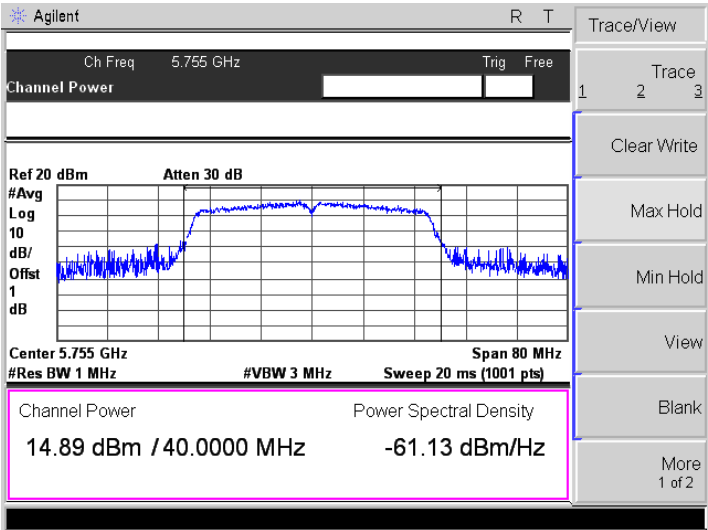
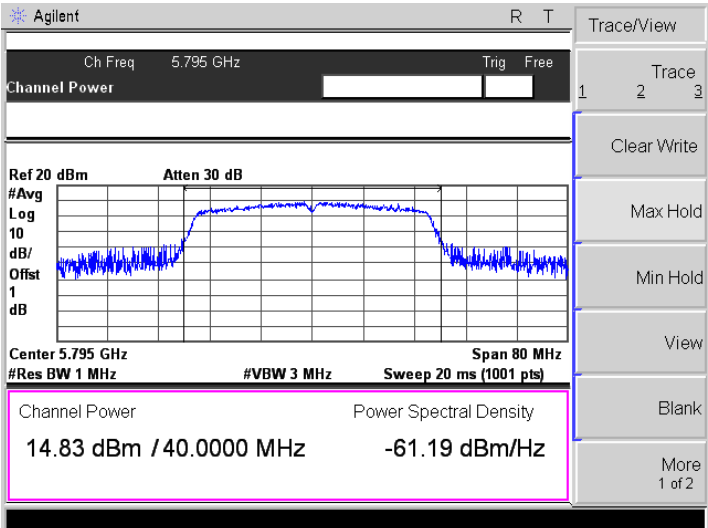
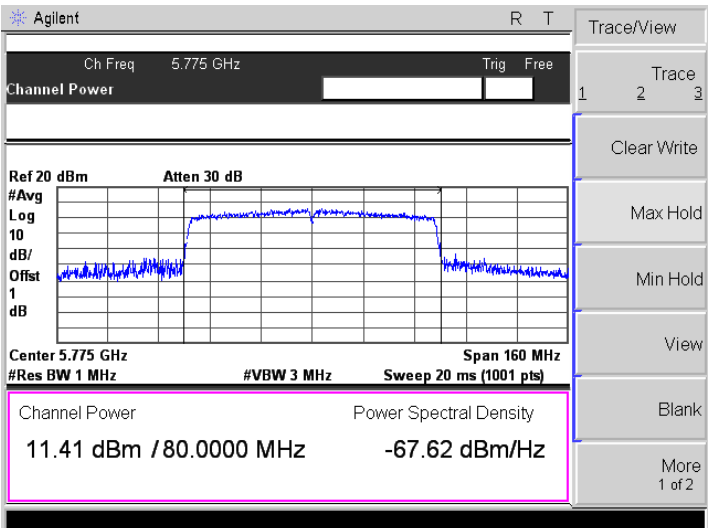
802.11ax-HE20-Low	Agilent Ch Freq 5.18 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.69 dBm / 20.0000 MHz -56.32 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent Ch Freq 5.2 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.31 dBm / 20.0000 MHz -56.70 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-High	Agilent Ch Freq 5.24 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.02 dBm / 20.0000 MHz -56.99 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

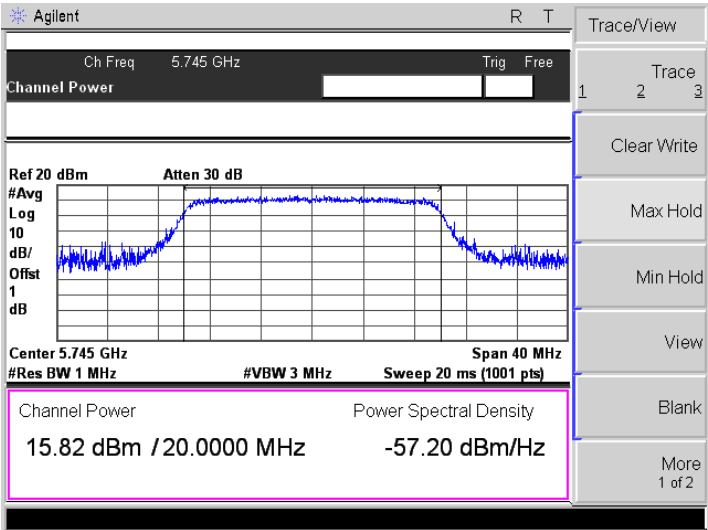
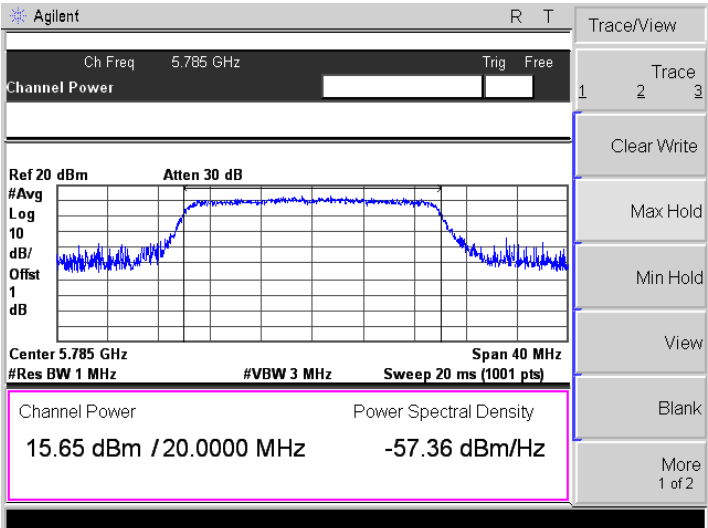
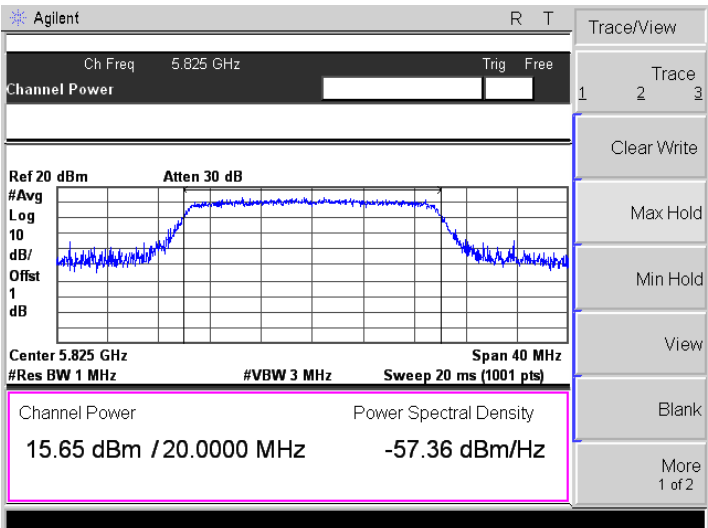
802.11ax-HE40-Low	
802.11ax-HE40-High	
802.11ax-HE80	

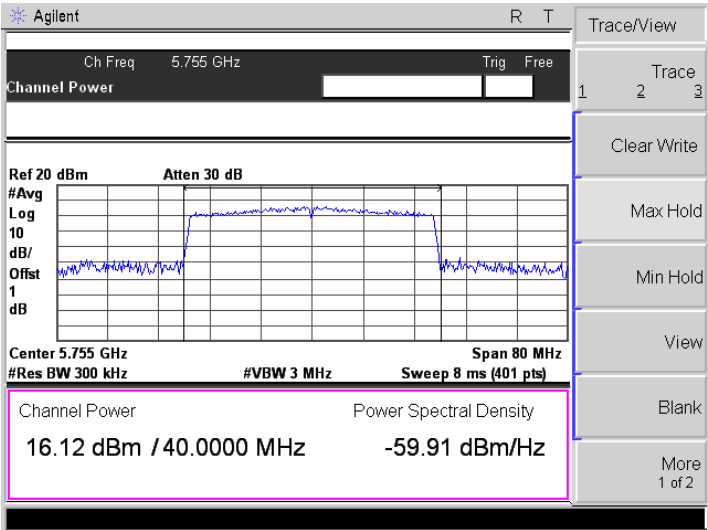
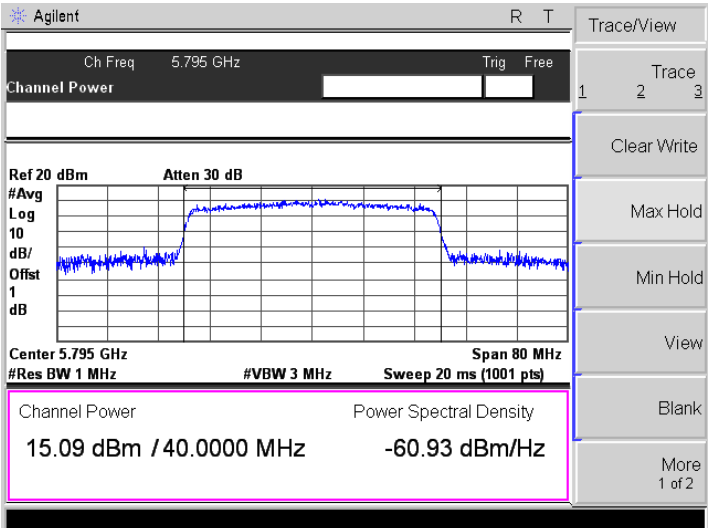
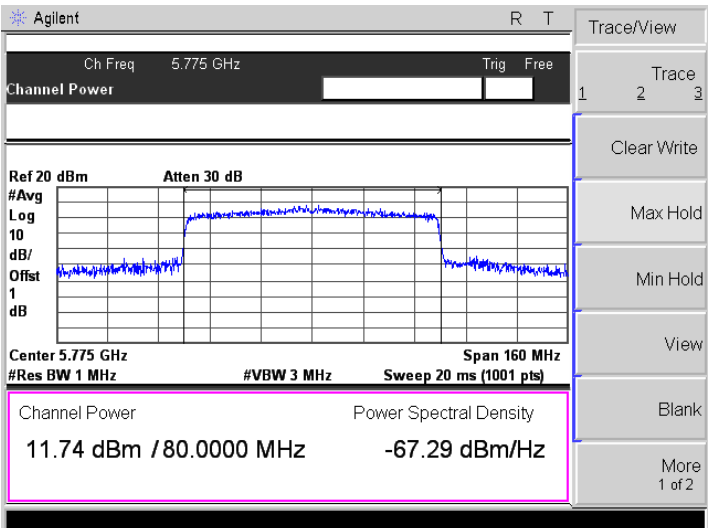
5725-5850MHz

802.11a-Low	
802.11a-Middle	
802.11a-High	

802.11n-HT20-Low	Agilent Ch Freq 5.745 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 15.22 dBm / 20.0000 MHz -57.79 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-Middle	Agilent Ch Freq 5.785 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 15.29 dBm / 20.0000 MHz -57.72 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent Ch Freq 5.825 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 15.48 dBm / 20.0000 MHz -57.53 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	
802.11n-HT40-High	
802.11ac-HT80	

802.11ax-HE20-Low	
802.11ax-HE20-Middle	
802.11ax-HE20-High	

802.11ax-HE40-Low	
802.11ax-HE40-High	
802.11ax-HE80	

ANT 2
5150-5250MHz

802.11a-Low	Agilent Ch Freq 5.18 GHz Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power 16.44 dBm / 20.0000 MHz Power Spectral Density -56.57 dBm/Hz Trace/View Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-Middle	Agilent Ch Freq 5.2 GHz Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power 17.05 dBm / 20.0000 MHz Power Spectral Density -55.96 dBm/Hz Trace/View Trace Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11a-High	Agilent Ch Freq 5.24 GHz Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power 16.87 dBm / 20.0000 MHz Power Spectral Density -56.14 dBm/Hz Trace/View Trace Clear Write Max Hold Min Hold View Blank More 1 of 2

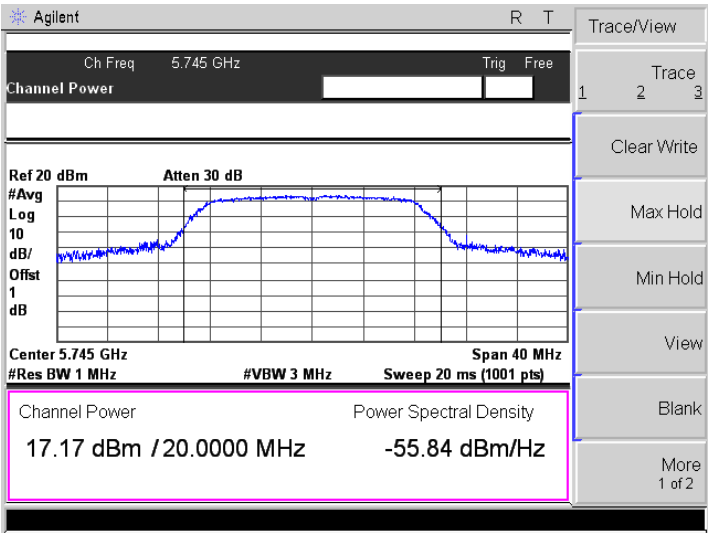
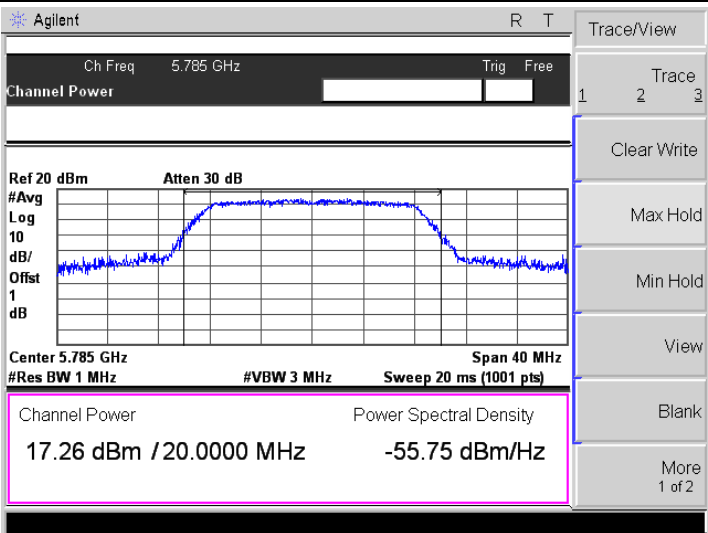
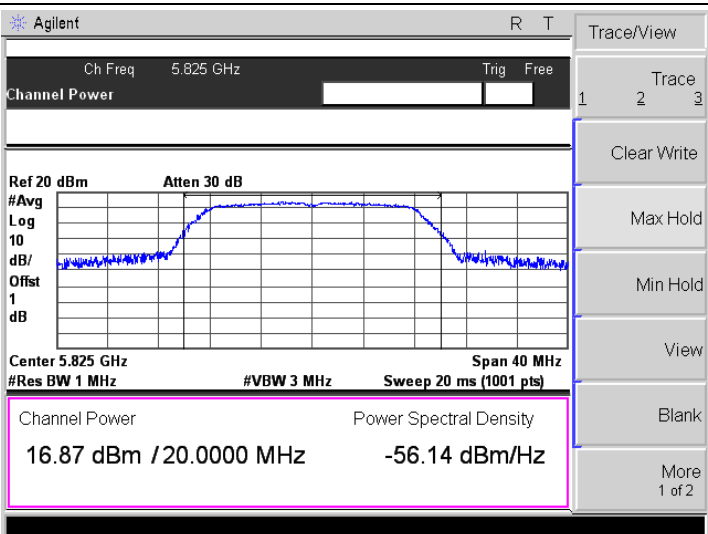
802.11n-HT20-Low	Agilent Ch Freq 5.18 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.06 dBm / 20.0000 MHz -56.96 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-Middle	Agilent Ch Freq 5.2 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.25 dBm / 20.0000 MHz -56.98 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent Ch Freq 5.24 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.60 dBm / 20.0000 MHz -56.41 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent Ch Freq 5.19 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.01 dBm / 40.0000 MHz -60.01 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent Ch Freq 5.23 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.22 dBm / 40.0000 MHz -59.80 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ac-HT80	Agilent Ch Freq 5.21 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 160 MHz Channel Power Power Spectral Density 11.54 dBm / 80.0000 MHz -67.49 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE20-Low	Agilent Ch Freq 5.18 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.18 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.32 dBm / 20.0000 MHz -56.69 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-Middle	Agilent Ch Freq 5.2 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.2 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.87 dBm / 20.0000 MHz -56.14 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE20-High	Agilent Ch Freq 5.24 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.24 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.92 dBm / 20.0000 MHz -56.10 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

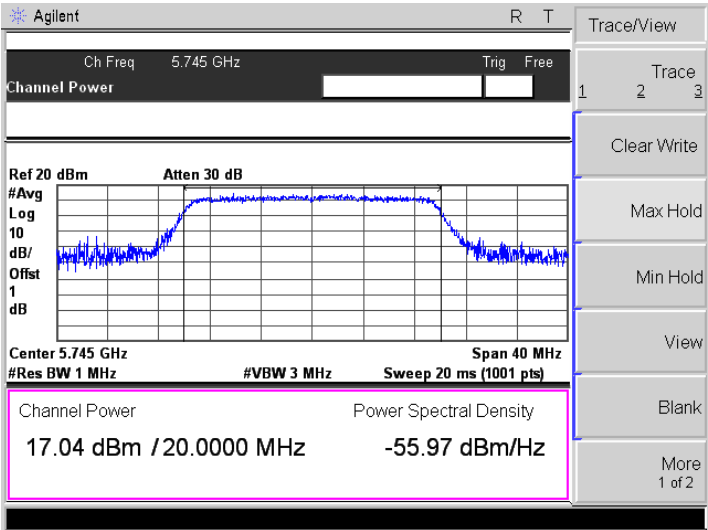
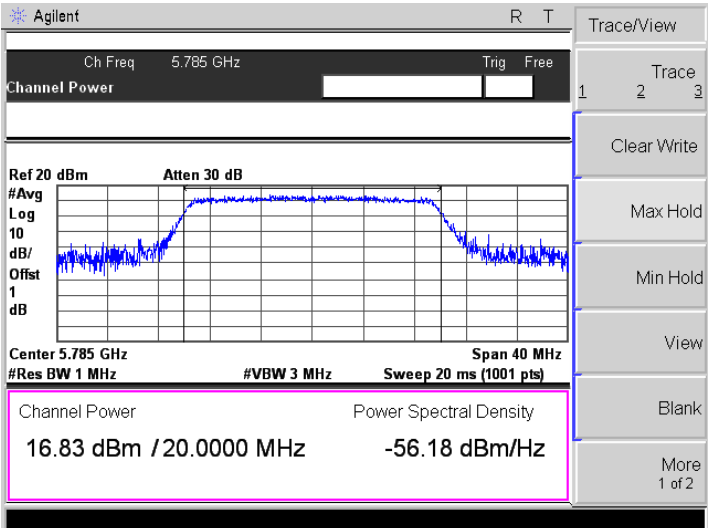
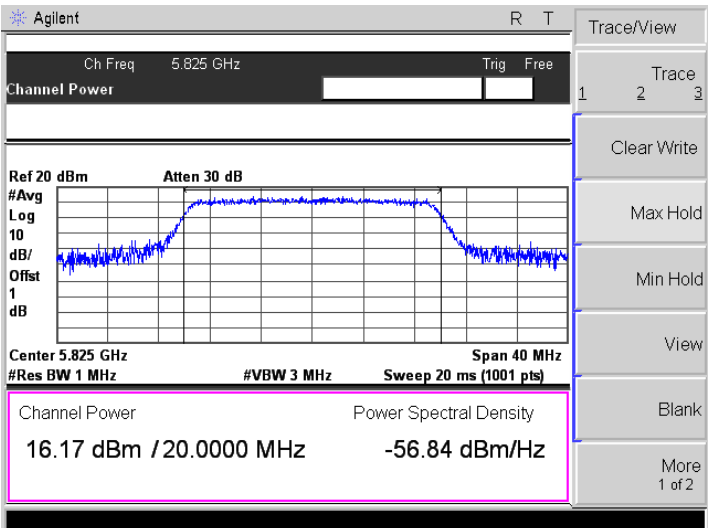
802.11ax-HE40-Low	Agilent Ch Freq 5.19 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.19 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.74 dBm / 40.0000 MHz -59.28 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE40-High	Agilent Ch Freq 5.23 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.23 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.50 dBm / 40.0000 MHz -59.52 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE80	Agilent Ch Freq 5.21 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.21 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 160 MHz Channel Power Power Spectral Density 12.46 dBm / 80.0000 MHz -66.57 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

5725-5850MHz

802.11a-Low	
802.11a-Middle	
802.11a-High	

802.11n-HT20-Low	Agilent Ch Freq 5.745 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.745 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.64 dBm / 20.0000 MHz -56.37 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-Middle	Agilent Ch Freq 5.785 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.785 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.38 dBm / 20.0000 MHz -56.64 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT20-High	Agilent Ch Freq 5.825 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.825 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 40 MHz Channel Power Power Spectral Density 16.47 dBm / 20.0000 MHz -56.54 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11n-HT40-Low	Agilent Ch Freq 5.755 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 15.91 dBm / 40.0000 MHz -60.11 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11n-HT40-High	Agilent Ch Freq 5.795 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.40 dBm / 40.0000 MHz -59.62 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ac-HT80	Agilent Ch Freq 5.775 GHz Channel Power Trig Free Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 160 MHz Channel Power Power Spectral Density 12.19 dBm / 80.0000 MHz -66.85 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

802.11ax-HE20-Low	
802.11ax-HE20-Middle	
802.11ax-HE20-High	

802.11ax-HE40-Low	Agilent R T Ch Freq 5.755 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.755 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.55 dBm / 40.0000 MHz -59.47 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE40-High	Agilent R T Ch Freq 5.795 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.795 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 80 MHz Channel Power Power Spectral Density 16.80 dBm / 40.0000 MHz -59.22 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2
802.11ax-HE80	Agilent R T Ch Freq 5.775 GHz Trig Free Channel Power Ref 20 dBm Atten 30 dB #Avg Log 10 dB/ Offset 1 dB Center 5.775 GHz #Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts) Span 160 MHz Channel Power Power Spectral Density 12.81 dBm / 80.0000 MHz -66.23 dBm/Hz Trace/View Trace 1 2 3 Clear Write Max Hold Min Hold View Blank More 1 of 2

APPENDIX D

Frequency Stability

Antenna 1

U-NII-1:5150-5250MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	12	-30	1495	0.2875
100%		-20	1280	0.2462
100%		-10	1443	0.2775
100%		0	1343	0.2582
100%		+10	1217	0.2340
100%		+20	1509	0.2902
100%		+30	1030	0.1981
100%		+40	1562	0.3004
100%		+50	1327	0.2553
Low Battery power	13.8	+20	1556	0.2992
High Battery power	10.2	+20	1495	0.2875

U-NII-1:5725-5850MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	12	-30	1489	0.2574
100%		-20	1288	0.2227
100%		-10	1441	0.2491
100%		0	1335	0.2307
100%		+10	1217	0.2103
100%		+20	1505	0.2602
100%		+30	1032	0.1783
100%		+40	1559	0.2695
100%		+50	1325	0.2291
Low Battery power	13.8	+20	1552	0.2683
High Battery power	10.2	+20	1493	0.2582

Antenna 2

U-NII-1:5150-5250MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	12	-30	1490	0.2866
100%		-20	1283	0.2467
100%		-10	1439	0.2768
100%		0	1340	0.2578
100%		+10	1213	0.2333
100%		+20	1511	0.2906
100%		+30	1037	0.1994
100%		+40	1555	0.2991
100%		+50	1327	0.2551
Low Battery power	13.8	+20	1557	0.2995
High Battery power	10.2	+20	1491	0.2868

U-NII-1:5725-5850MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	12	-30	1495	0.2584
100%		-20	1284	0.2220
100%		-10	1443	0.2494
100%		0	1340	0.2316
100%		+10	1208	0.2089
100%		+20	1506	0.2604
100%		+30	1033	0.1785
100%		+40	1557	0.2692
100%		+50	1321	0.2284
Low Battery power	13.8	+20	1552	0.2683
High Battery power	10.2	+20	1493	0.2581

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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