

TEST REPORT

Reference No..... : WTX21X01008787W-1
FCC ID : 2ARKS-4DKANKANPRO
Applicant : Zhuhai 4Dage Technology Co., Ltd
Address..... : 2-101-2,Building 2,Tech Bay,NO.1 Jintang Road,Tangjiawan,High-Tech
Zone,Zhuhai,China
Product Name : 3D Capture System
Test Model. : 4DKanKan Pro
Standards : FCC Part 15.407
Date of Receipt sample : Jan.27, 2021
Date of Test..... : Jan.27, 2021 to Mar.05, 2021
Date of Issue : Mar.05, 2021
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

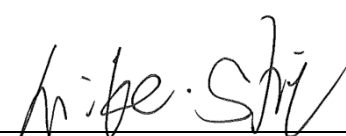
Tel.: +86-755-33663308

Fax.: +86-755-33663309

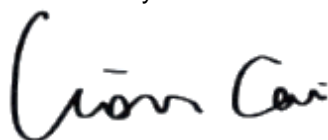
Tested by:

Reviewed By:

Approved & Authorized By:



Mike Shi / Project Engineer



Lion Cai / RF Manager



Silin Chen / Manager

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Report version

Version No.	Date of issue	Description
Rev.00	Mar.05, 2021	Original
/	/	/

1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant: Zhuhai 4Dage Technology Co., Ltd
 Address of applicant: 2-101-2,Building 2,Tech Bay,NO.1 Jintang Road,
 Tangjiawan,High-Tech Zone,Zhuhai,China

Manufacturer: Zhuhai 4Dage Technology Co., Ltd
 Address of manufacturer: 2-101-2,Building 2,Tech Bay,NO.1 Jintang Road,
 Tangjiawan,High-Tech Zone,Zhuhai,China

General Description of EUT	
Product Name:	3D Capture System
Trade Name:	4DKanKan
Model No.:	4DKanKan Pro
Adding Model(s):	/
Rated Voltage:	DC7.26V
Battery Capacity:	4400mAh
Power Adapter:	MODEL: PN453U INPUT: AC100-240V, 50/60Hz, 1.2A OUTPUT: DC5V, 3A ; DC9V, 3A; DC12V, 3A; DC15V, 3A; DC20V, 2.25A Max
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, 802.11ac-HT80,
Frequency Range:	5150-5250MHz, 5725-5850MHz
RF Output Power:	11.47dBm (Conducted)
Type of Modulation:	BPSK, QPSK,16QAM,64QAM, 256QAM
Quantity of Channels:	15
Type of Antenna:	FPC Antenna
Antenna Gain:	5.47dBi

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

Mode	Test Frequency (MHz)												
	NCB: 20MHz												
	5180	5200	5240	5260	5300	5320	5500	5580	5700	5720	5745	5785	5825
802.11a 6Mbps	47	47	47	/	/	/	/	/	/	/	43	43	43
802.11n-HT20 MCS0	46	46	46	/	/	/	/	/	/	/	43	43	43
Mode	NCB: 40MHz												
	5190	5230	5270	5310	5510	5550	5670	5710	5755	5795			
802.11n-HT40 MCS0	50	50	/	/	/	/	/	/	47	47			
Mode	NCB: 80MHz												
	5210	5290	5530	5610	5690	5775							
802.11ac-VH80 MCS0/Nss2	50	/	/	/	/	48							

1.5 EUT Operating during test

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

1.6 Test Facility

Address of the test laboratory

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

Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

FCC – Registration No.: 125990

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

Industry Canada (IC) Registration No.: 11464A

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

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	802.11ac- HT80	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
USB Cable	1.05	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 an FPC antenna, fulfill the requirement of this section.

4. Automatically Discontinue Transmission

4.1 Standard Applicable

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

4.2 Summary of Test Results

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

5. Power Spectral Density

5.1 Standard Applicable

Section 15.407(a) Power limits:

(1) For the band 5.15-5.25 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 ≥ 3 RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result, whereas RBW (< 500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/\text{RBW})$ to the measured result, whereas RBW (< 1 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 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) $\geq 3 \times$ 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 $\geq 3 * RBW$
- 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:

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

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.

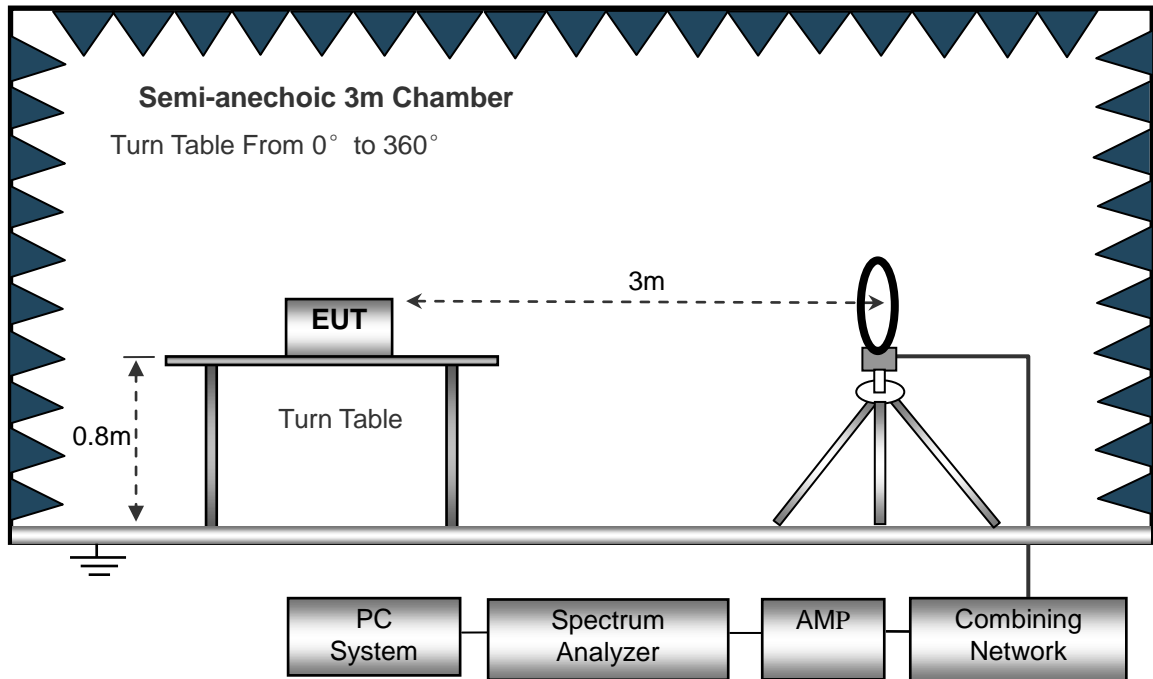
8.2 Test Procedure

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..

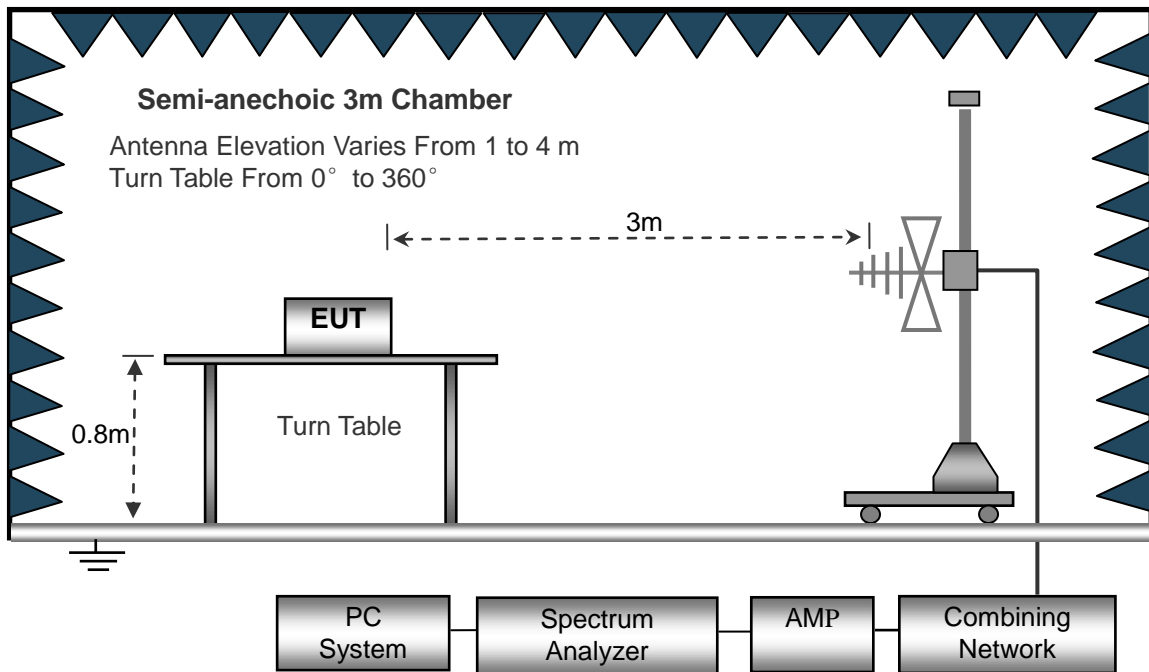
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

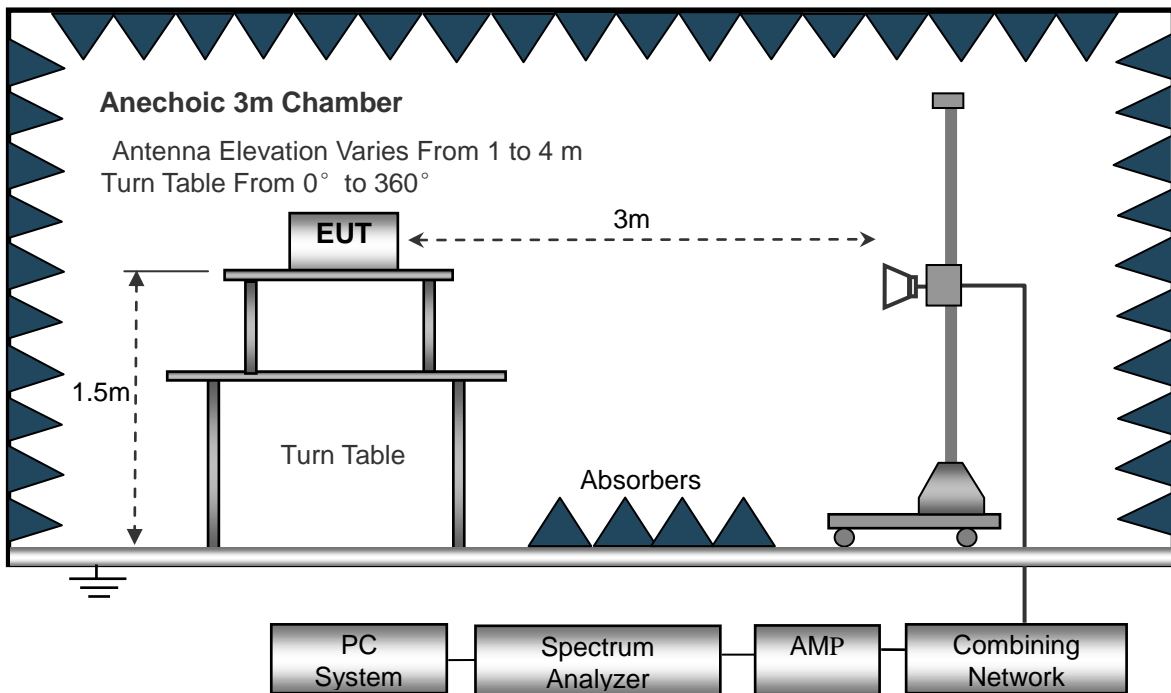
The test setup for emission measurement below 30MHz..



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:

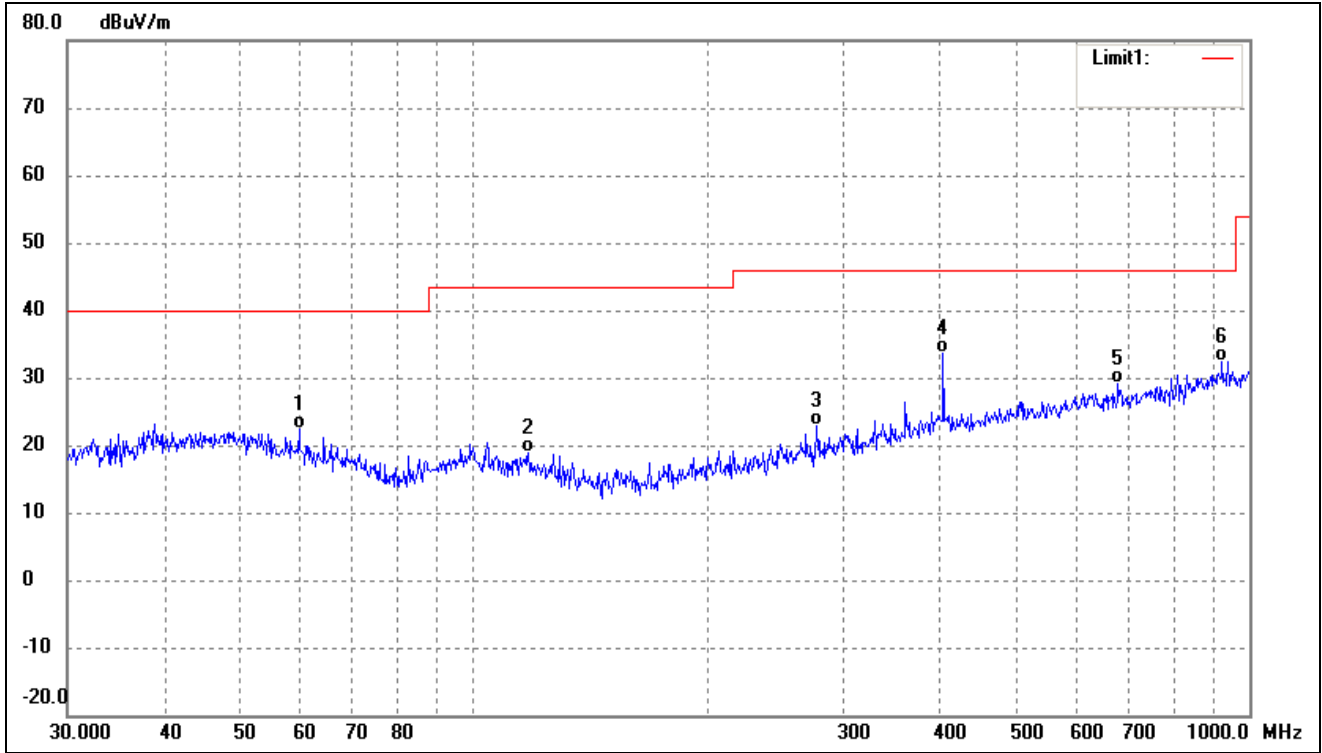
$$\text{Margin} = \text{Corr. Ampl.} - \text{FCC Part 15 Limit}$$

8.5 Summary of Test Results/Plots

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

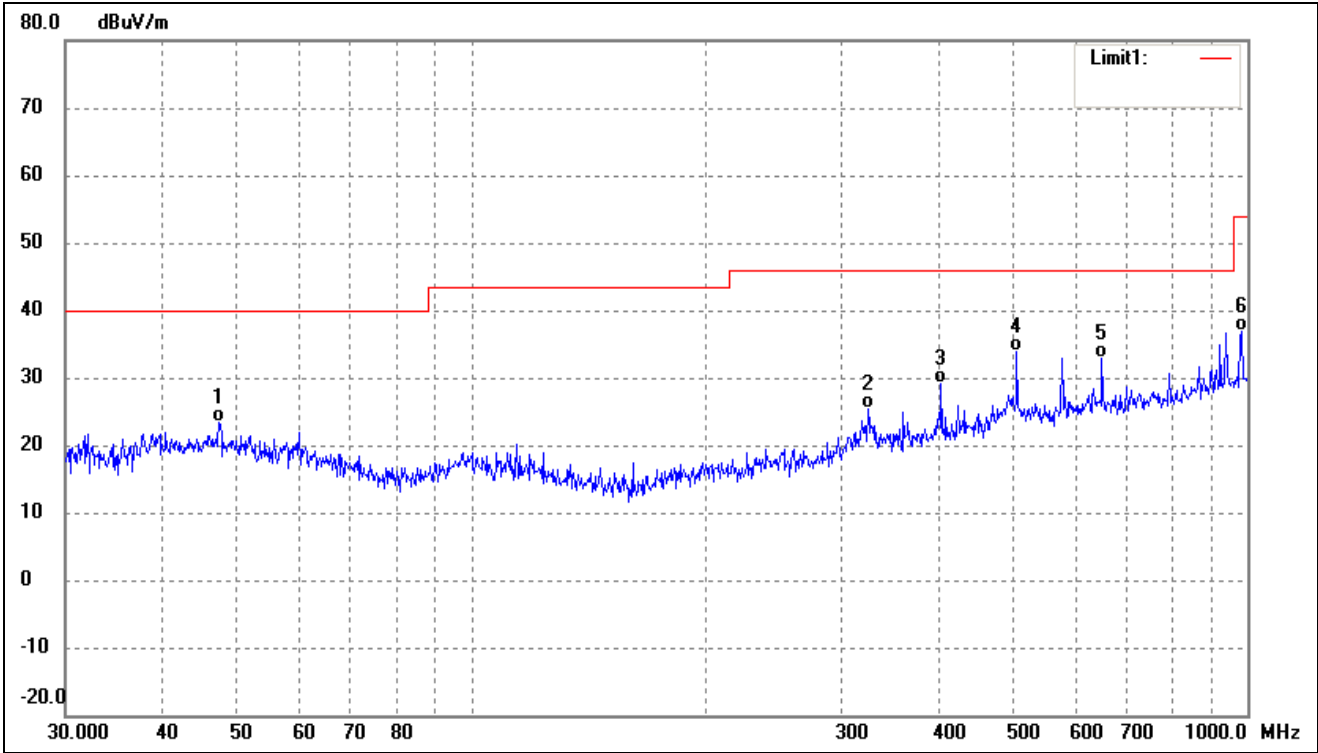
- Spurious Emission From 30 MHz to 1 GHz
- 5150-5250MHz

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



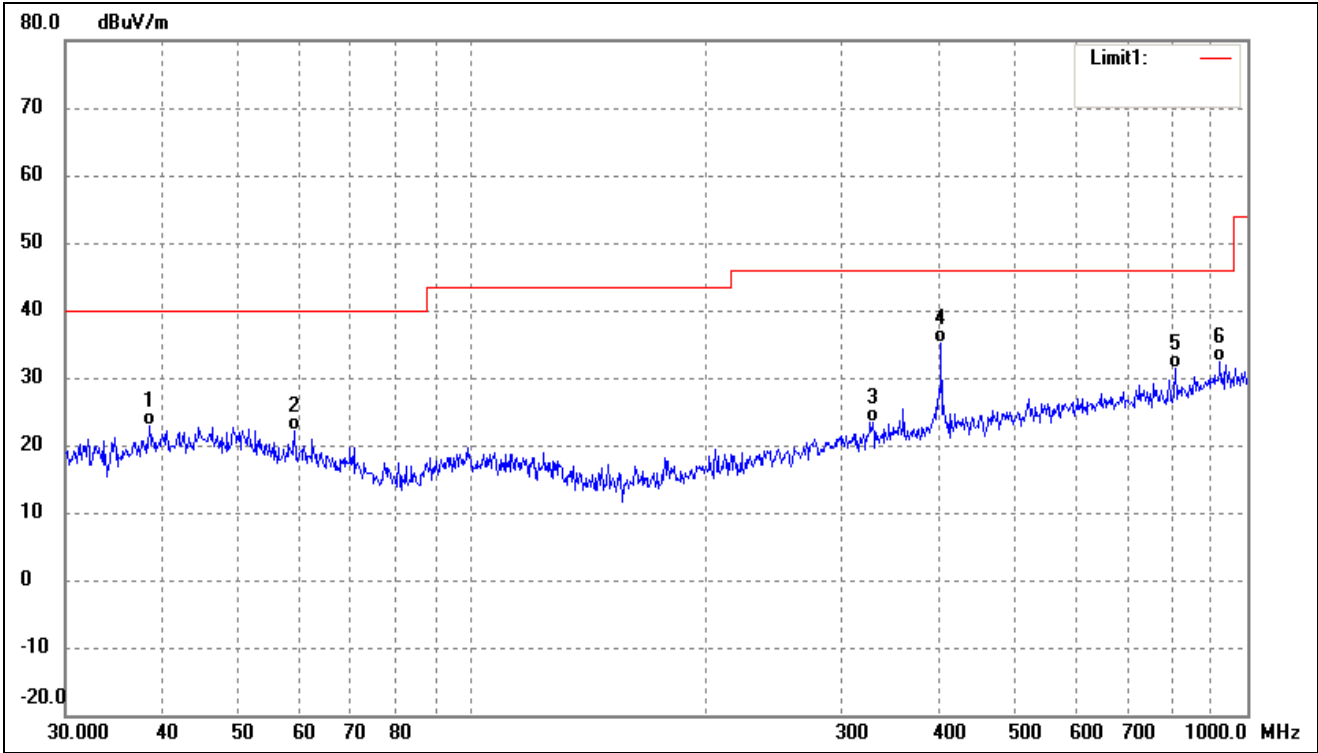
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	59.6493	35.38	-12.98	22.40	40.00	-17.60	-	-	QP
2	117.7725	33.06	-14.07	18.99	43.50	-24.51	-	-	QP
3	277.0935	33.55	-10.61	22.94	46.00	-23.06	-	-	QP
4	403.2500	40.11	-6.39	33.72	46.00	-12.28	-	-	QP
5	677.5798	30.95	-1.86	29.09	46.00	-16.91	-	-	QP
6	922.5157	30.61	1.83	32.44	46.00	-13.56	-	-	QP

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



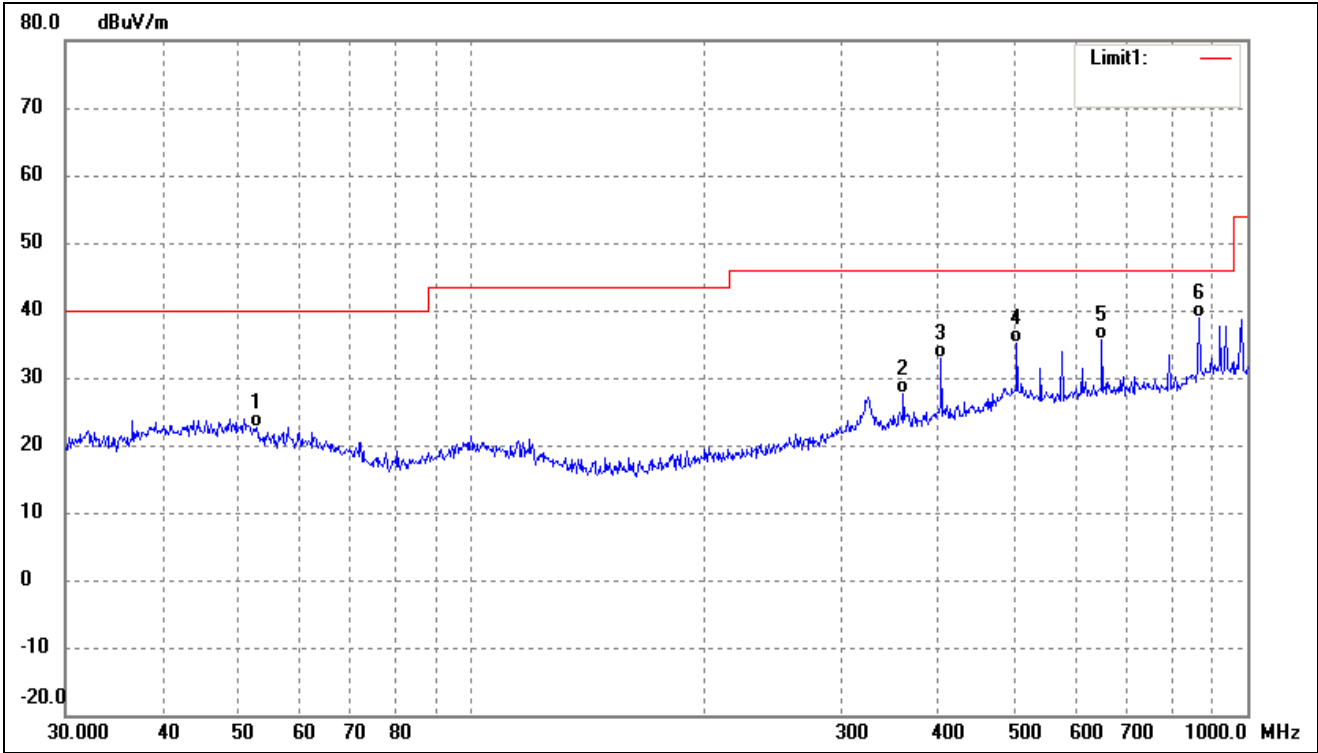
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	47.3255	34.96	-11.67	23.29	40.00	-16.71	-	-	QP
2	324.4561	34.34	-8.95	25.39	46.00	-20.61	-	-	QP
3	403.2500	35.49	-6.39	29.10	46.00	-16.90	-	-	QP
4	504.7062	37.88	-4.07	33.81	46.00	-12.19	-	-	QP
5	649.6597	35.34	-2.37	32.97	46.00	-13.03	-	-	QP
6	982.6200	35.38	1.60	36.98	54.00	-17.02	-	-	QP

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



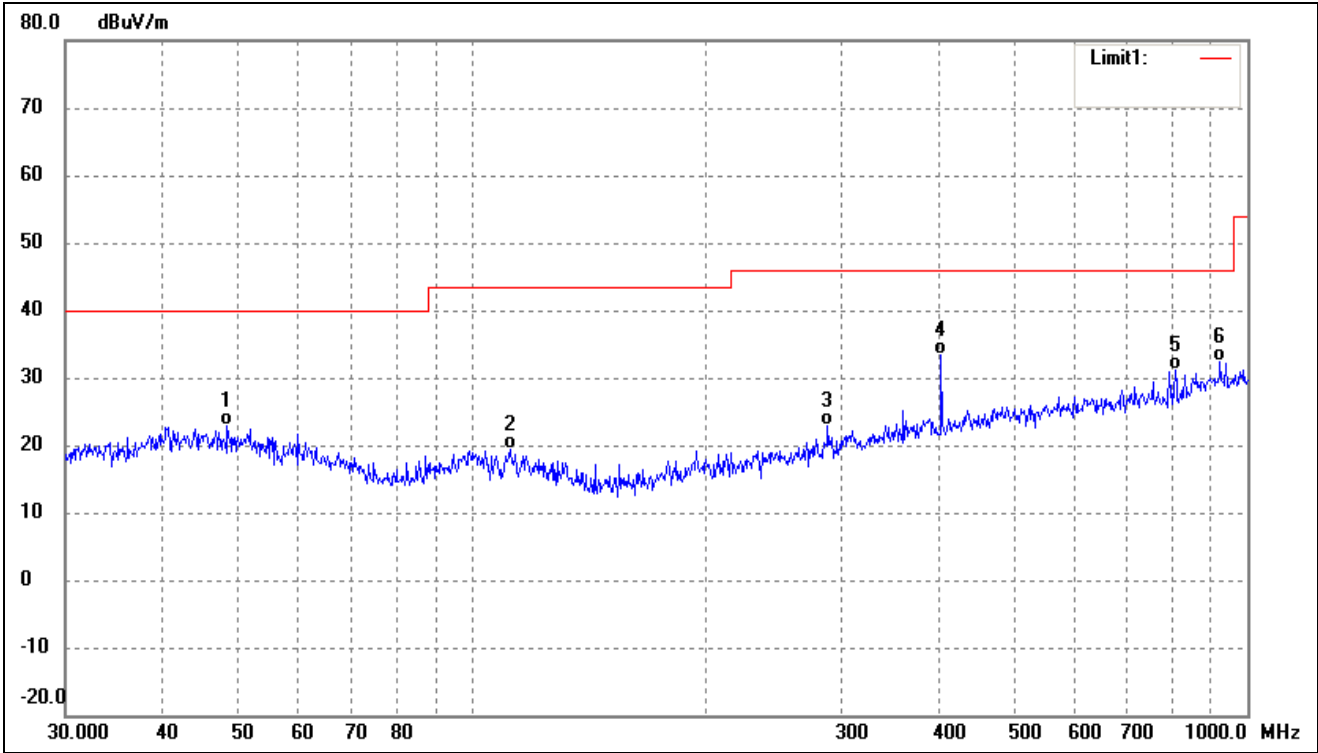
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	38.4809	35.32	-12.56	22.76	40.00	-17.24	-	-	QP
2	59.2325	35.10	-12.98	22.12	40.00	-17.88	-	-	QP
3	329.0390	32.20	-8.72	23.48	46.00	-22.52	-	-	QP
4	403.2500	41.49	-6.39	35.10	46.00	-10.90	-	-	QP
5	807.4291	32.33	-0.90	31.43	46.00	-14.57	-	-	QP
6	922.5157	30.49	1.83	32.32	46.00	-13.68	-	-	QP

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



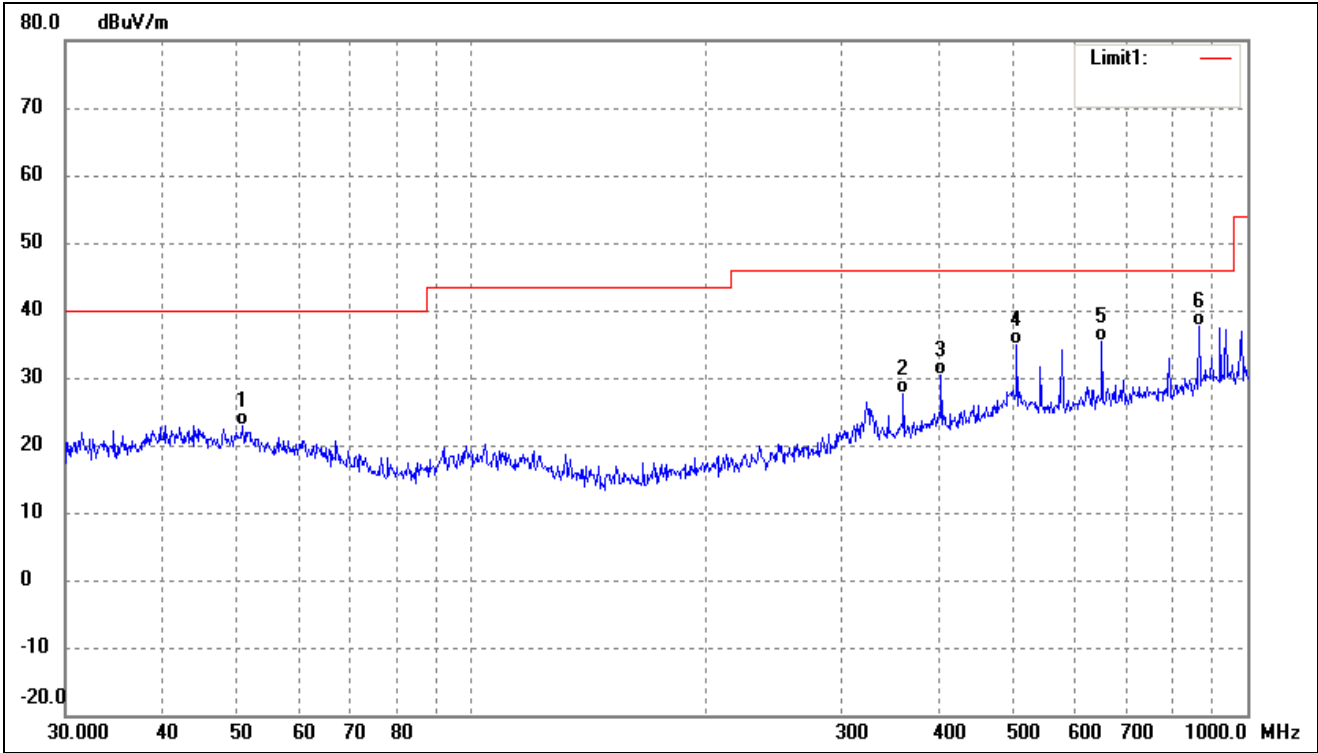
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	52.9453	35.11	-12.36	22.75	40.00	-17.25	-	-	QP
2	360.4477	35.05	-7.34	27.71	46.00	-18.29	-	-	QP
3	403.2500	39.25	-6.39	32.86	46.00	-13.14	-	-	QP
4	504.7062	39.15	-4.07	35.08	46.00	-10.92	-	-	QP
5	649.6597	37.99	-2.37	35.62	46.00	-10.38	-	-	QP
6	866.0879	38.44	0.45	38.89	46.00	-7.11	-	-	QP

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	48.5016	34.47	-11.61	22.86	40.00	-17.14	-	-	QP
2	112.1305	32.89	-13.52	19.37	43.50	-24.13	-	-	QP
3	287.9904	32.69	-9.81	22.88	46.00	-23.12	-	-	QP
4	403.2500	39.79	-6.39	33.40	46.00	-12.60	-	-	QP
5	807.4291	32.06	-0.90	31.16	46.00	-14.84	-	-	QP
6	922.5157	30.56	1.83	32.39	46.00	-13.61	-	-	QP

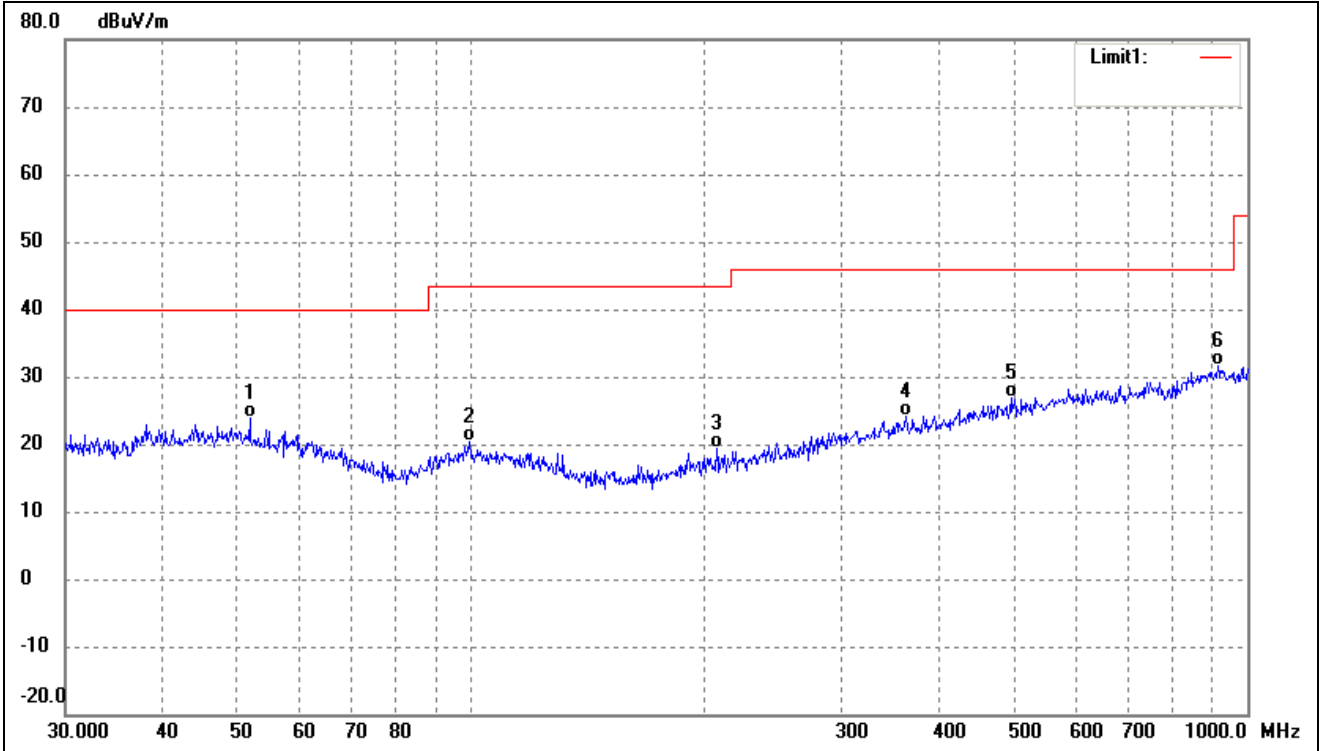
802.11a(Worst case)			
Test Channel	5240MHz	Polarity:	Vertical



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	50.7637	34.67	-11.75	22.92	40.00	-17.08	-	-	QP
2	360.4477	34.99	-7.34	27.65	46.00	-18.35	-	-	QP
3	403.2500	36.88	-6.39	30.49	46.00	-15.51	-	-	QP
4	504.7062	38.97	-4.07	34.90	46.00	-11.10	-	-	QP
5	649.6597	37.67	-2.37	35.30	46.00	-10.70	-	-	QP
6	866.0879	37.19	0.45	37.64	46.00	-8.36	-	-	QP

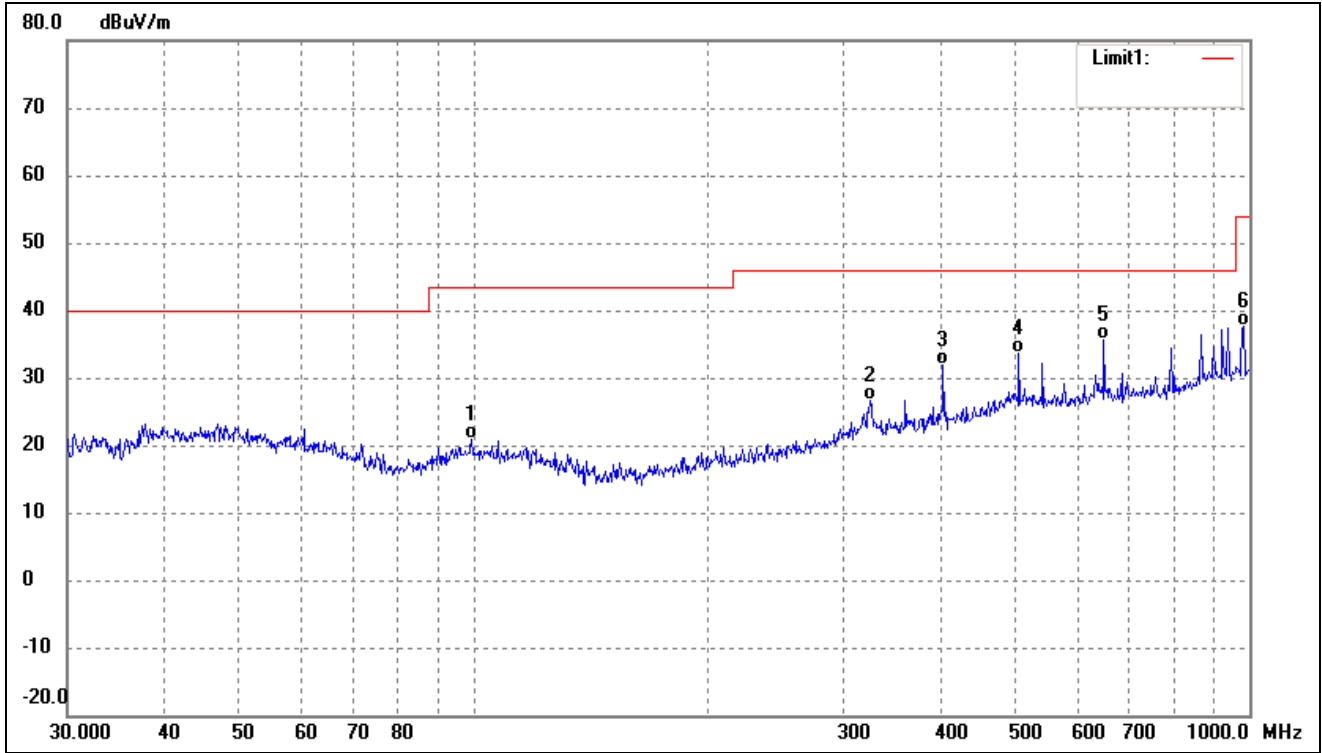
➤ 5725-5850MHz

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



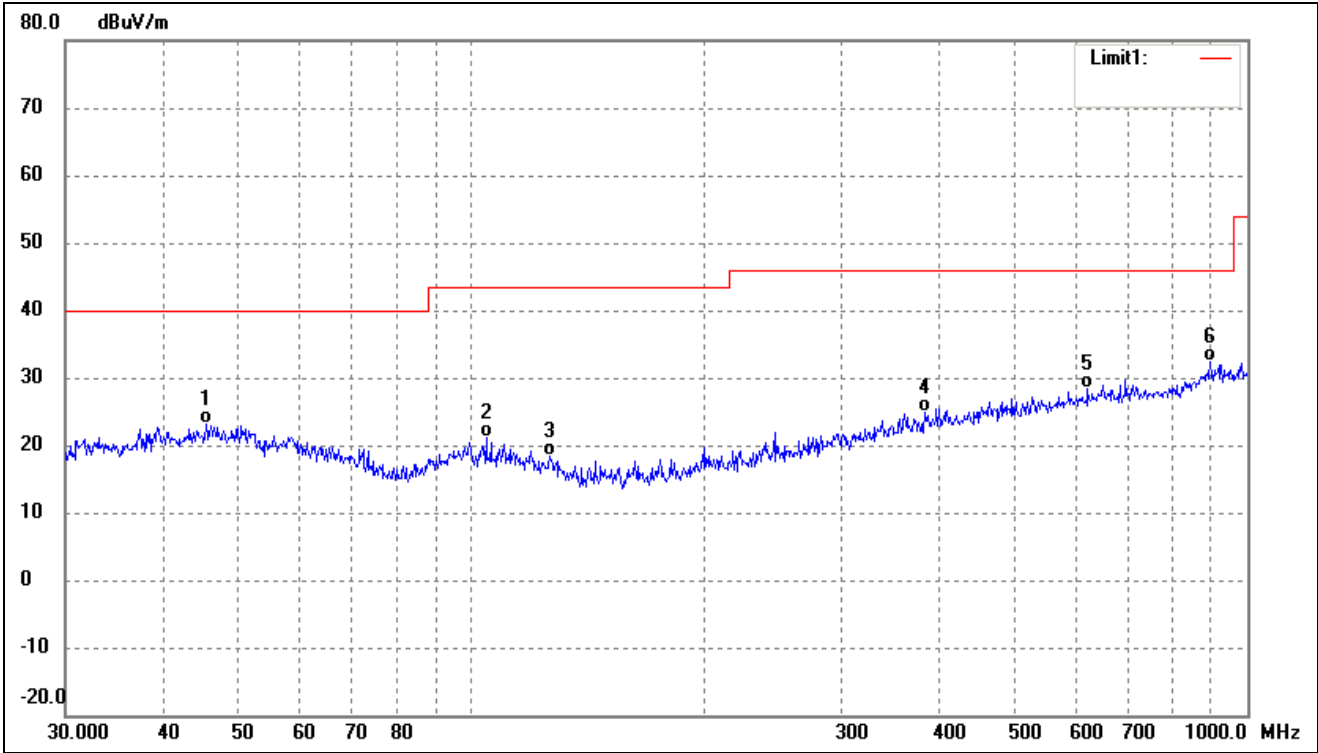
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	51.8430	35.81	-12.04	23.77	40.00	-16.23	-	-	QP
2	99.5281	33.69	-13.39	20.30	43.50	-23.20	-	-	QP
3	207.1226	31.72	-12.33	19.39	43.50	-24.11	-	-	QP
4	362.9845	31.40	-7.31	24.09	46.00	-21.91	-	-	QP
5	495.9344	31.15	-4.17	26.98	46.00	-19.02	-	-	QP
6	916.0687	29.90	1.75	31.65	46.00	-14.35	-	-	QP

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



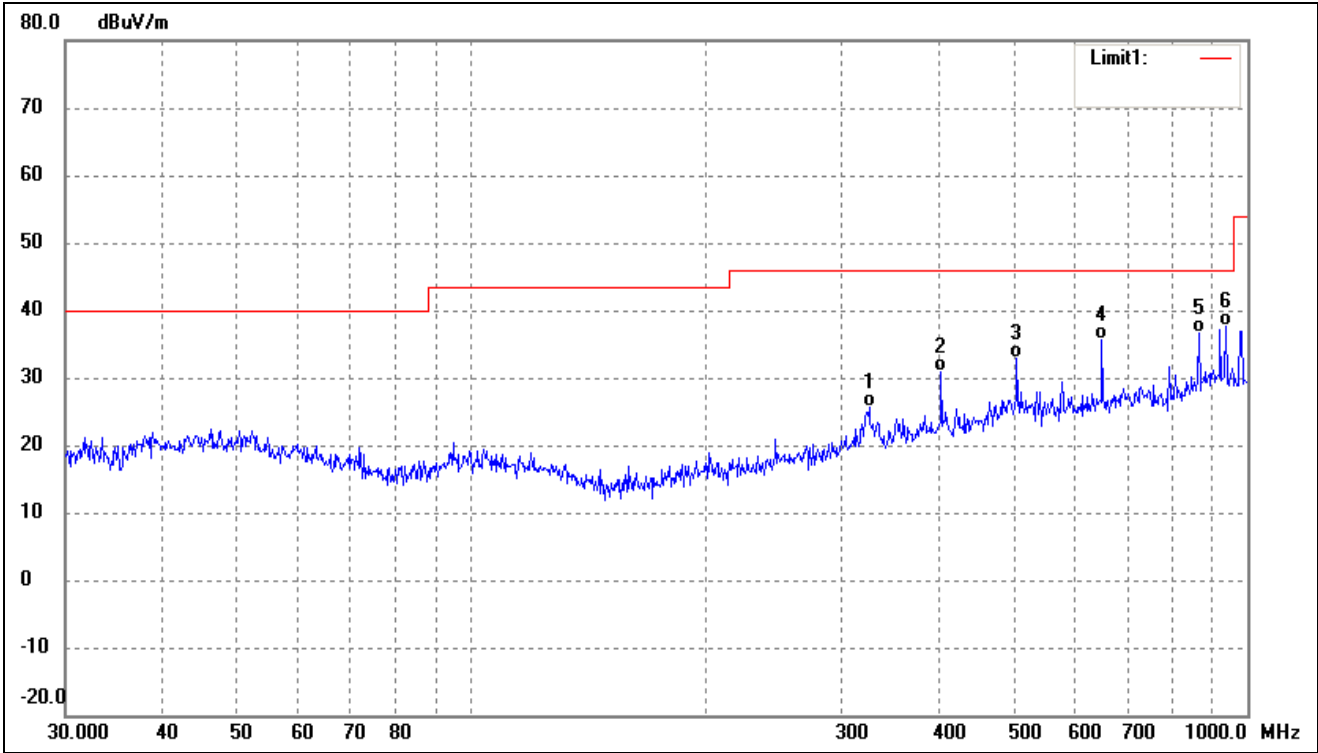
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	99.5281	34.27	-13.39	20.88	43.50	-22.62	-	-	QP
2	324.4561	35.69	-8.95	26.74	46.00	-19.26	-	-	QP
3	403.2500	38.23	-6.39	31.84	46.00	-14.16	-	-	QP
4	504.7062	37.64	-4.07	33.57	46.00	-12.43	-	-	QP
5	649.6597	38.01	-2.37	35.64	46.00	-10.36	-	-	QP
6	982.6200	35.99	1.60	37.59	54.00	-16.41	-	-	QP

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



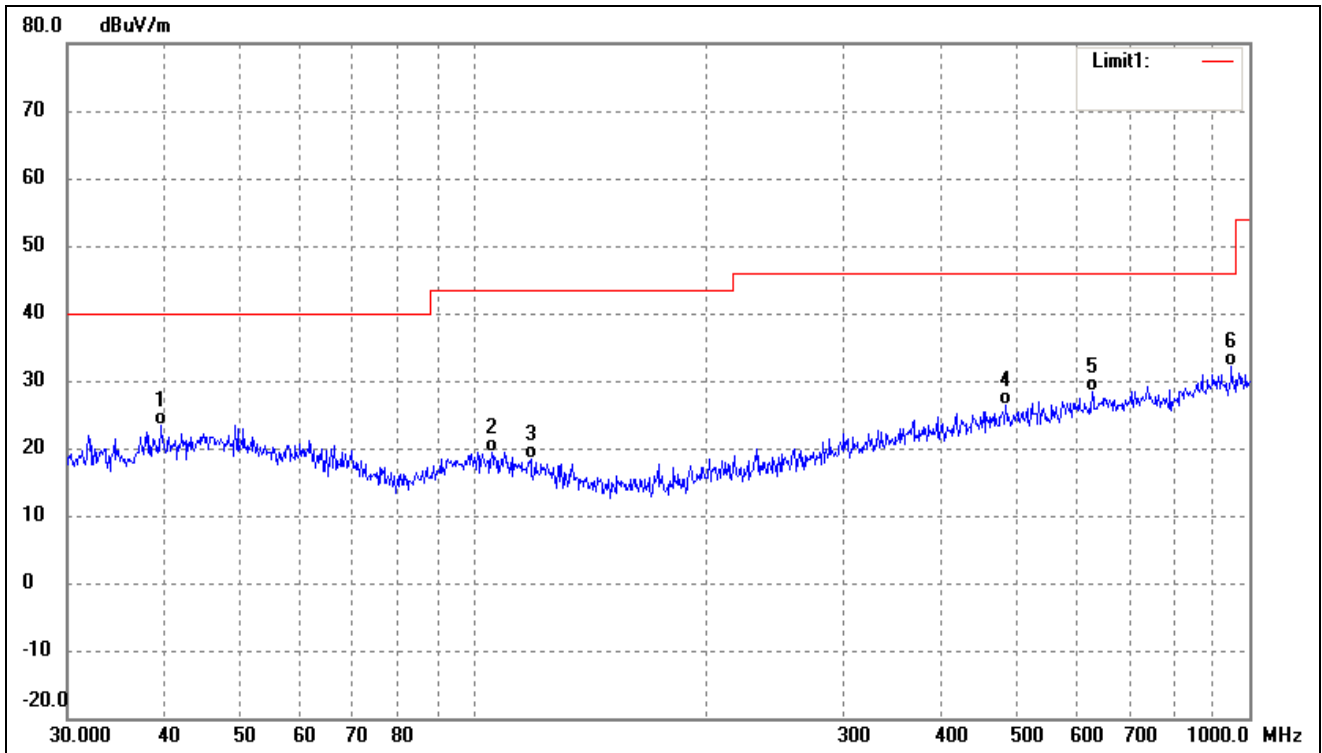
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	45.5348	34.81	-11.77	23.04	40.00	-16.96	-	-	QP
2	104.5361	34.50	-13.32	21.18	43.50	-22.32	-	-	QP
3	126.3286	34.43	-15.99	18.44	43.50	-25.06	-	-	QP
4	383.9318	31.88	-6.93	24.95	46.00	-21.05	-	-	QP
5	622.8900	30.60	-2.14	28.46	46.00	-17.54	-	-	QP
6	896.9965	30.95	1.42	32.37	46.00	-13.63	-	-	QP

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



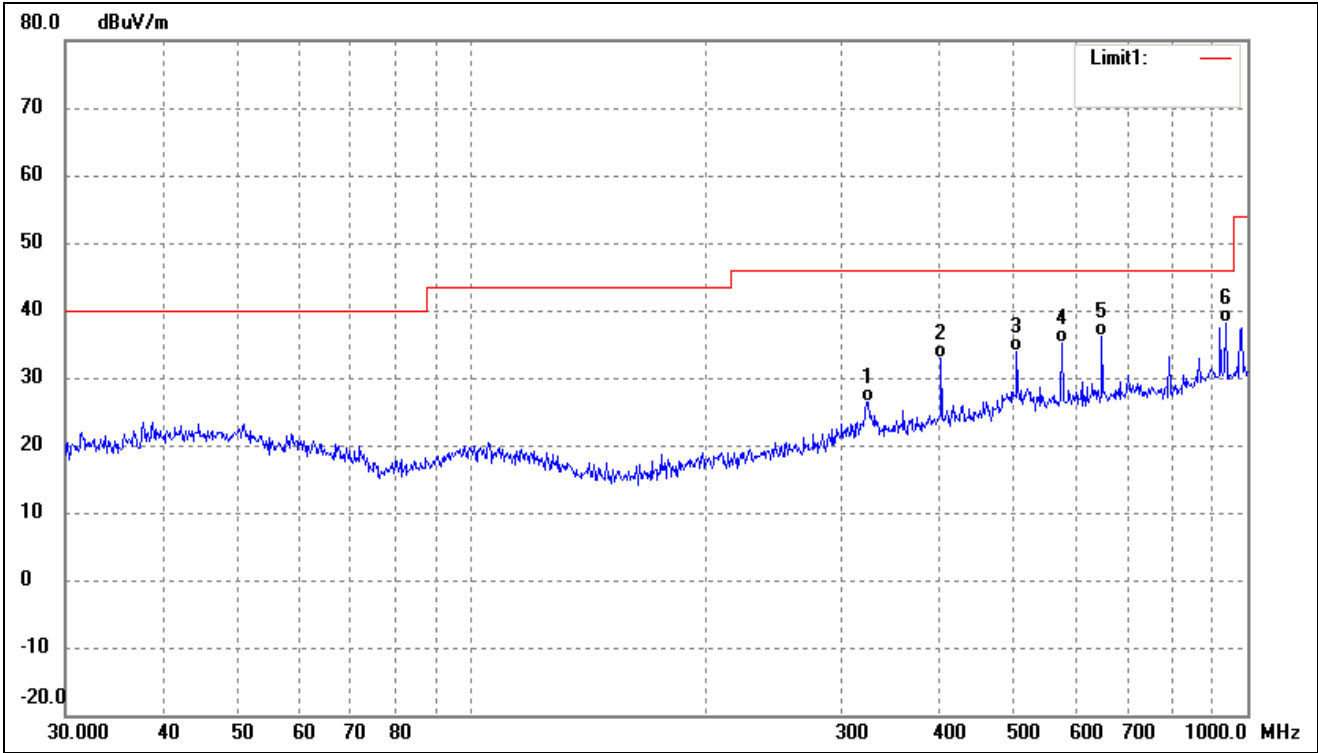
No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	325.5958	34.46	-8.93	25.53	46.00	-20.47	-	-	QP
2	403.2500	37.32	-6.39	30.93	46.00	-15.07	-	-	QP
3	504.7062	36.93	-4.07	32.86	46.00	-13.14	-	-	QP
4	649.6597	38.11	-2.37	35.74	46.00	-10.26	-	-	QP
5	866.0879	36.21	0.45	36.66	46.00	-9.34	-	-	QP
6	938.8326	36.04	1.59	37.63	46.00	-8.37	-	-	QP

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	39.5757	35.55	-12.14	23.41	40.00	-16.59	-	-	QP
2	105.6415	32.72	-13.31	19.41	43.50	-24.09	-	-	QP
3	118.6014	32.55	-14.17	18.38	43.50	-25.12	-	-	QP
4	485.6093	30.77	-4.49	26.28	46.00	-19.72	-	-	QP
5	627.2738	30.46	-2.17	28.29	46.00	-17.71	-	-	QP
6	948.7610	30.83	1.39	32.22	46.00	-13.78	-	-	QP

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

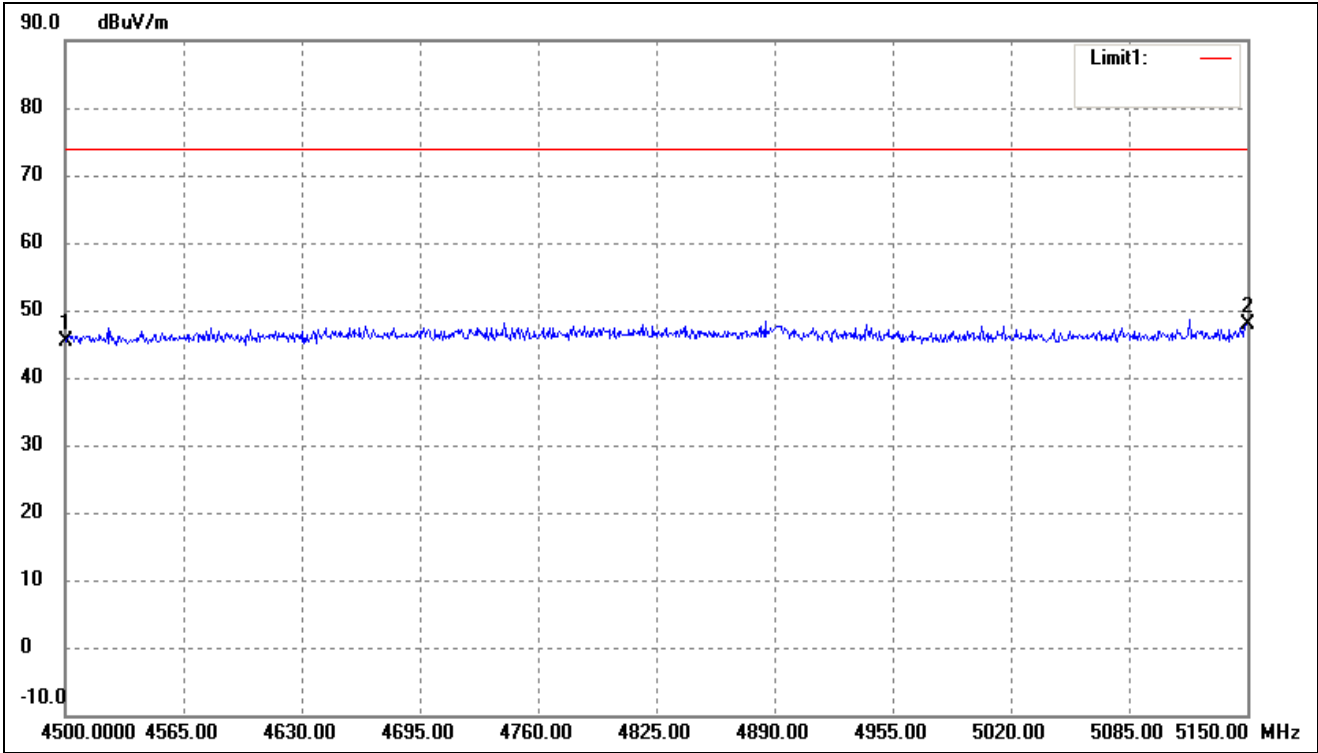


No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	324.4561	35.29	-8.95	26.34	46.00	-19.66	-	-	QP
2	403.2500	39.22	-6.39	32.83	46.00	-13.17	-	-	QP
3	504.7062	37.87	-4.07	33.80	46.00	-12.20	-	-	QP
4	576.6443	37.75	-2.52	35.23	46.00	-10.77	-	-	QP
5	649.6597	38.61	-2.37	36.24	46.00	-9.76	-	-	QP
6	938.8326	36.49	1.59	38.08	46.00	-7.92	-	-	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.

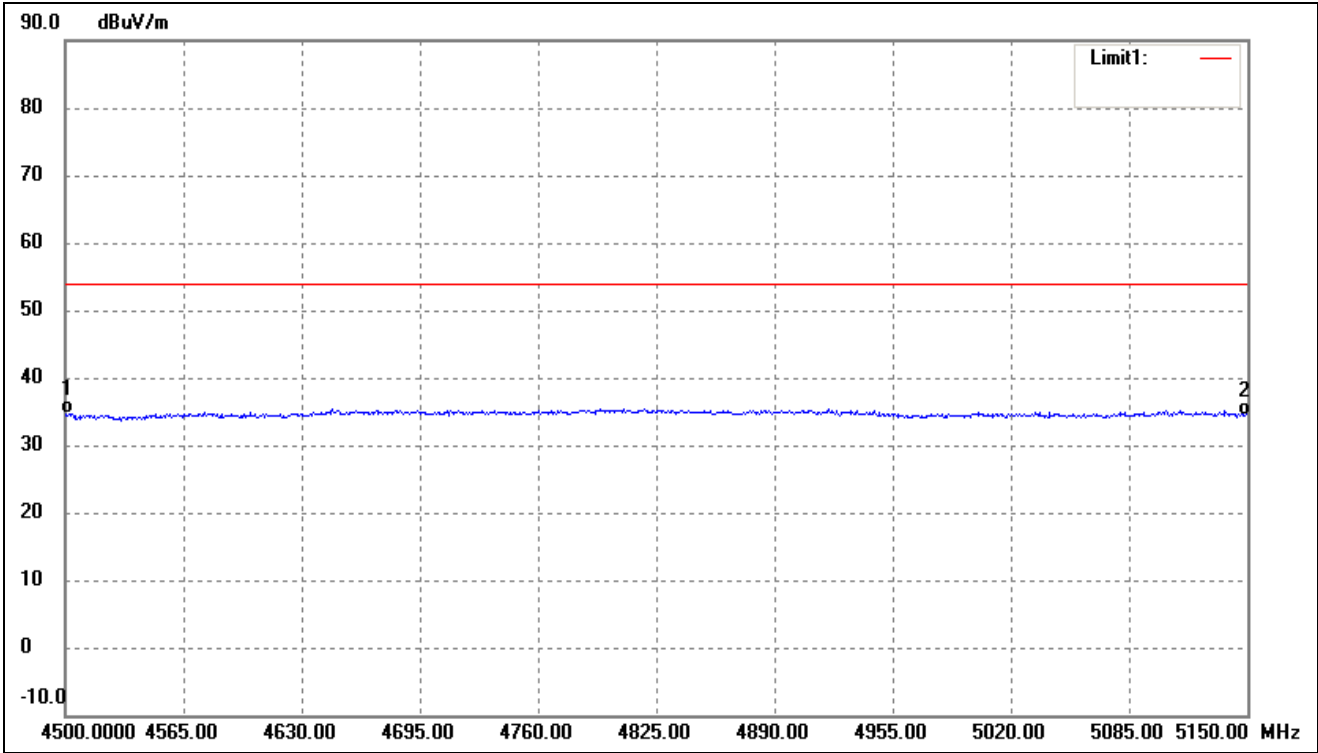
➤ Spurious Emission above 1GHz

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	4500.000	50.17	-4.71	45.46	74.00	-28.54	-	-	peak
2	5150.000	52.26	-4.32	47.94	74.00	-26.06	-	-	peak

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



No.	Frequency (MHz)	Reading (dBuV/m)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree ()	Height (cm)	Remark
1	4500.000	39.38	-4.71	34.67	54.00	-19.33	-	-	AVG
2	5150.000	38.80	-4.32	34.48	54.00	-19.52	-	-	AVG

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

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

- For the frequency band 5.15-5.25GHz, 5.725-5.850GHz (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	57.73	7.11	64.84	74	-9.16	H	PK
15540	36.42	8.22	44.64	54	-9.36	H	AV
10360	56.86	7.11	63.97	74	-10.03	V	PK
15540	37.85	8.22	46.07	54	-7.93	V	AV
Middle Channel (5200MHz)							
10400	56.54	7.22	63.76	74	-10.24	H	PK
15600	35.47	8.67	44.14	54	-9.86	H	AV
10400	55.32	7.22	62.54	74	-11.46	V	PK
15600	38.31	8.67	46.98	54	-7.02	V	AV
High Channel (5240MHz)							
10480	55.66	7.69	63.35	74	-10.65	H	PK
15720	38.67	8.93	47.60	54	-6.40	H	AV
10480	59.24	7.69	66.93	74	-7.07	V	PK
15720	38.16	8.93	47.09	54	-6.91	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	56.44	9.45	65.89	74	-8.11	H	PK
17235	32.94	10.36	43.30	54	-10.70	H	AV
11490	53.59	9.45	63.04	74	-10.96	V	PK
17235	36.54	10.36	46.90	54	-7.10	V	AV
Middle Channel (5785MHz)							
11570	56.77	9.62	66.39	74	-7.61	H	PK
17355	36.39	10.67	47.06	54	-6.94	H	AV
11570	58.12	9.62	67.74	74	-6.26	V	PK
17355	35.58	10.67	46.25	54	-7.75	V	AV
High Channel (5825MHz)							
11650	57.03	9.84	66.87	74	-7.13	H	PK
17475	32.16	10.95	43.11	54	-10.89	H	AV
11650	53.11	9.84	62.95	74	-11.05	V	PK
17475	36.77	10.95	47.72	54	-6.28	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-34.65	-27
Highest	Above 5350	-42.41	-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	-38.23	-27
	5715 to 5725	-40.85	-17
Highest	5850 to 5860	-40.70	-17
	Above 5860	-43.53	-27
Note: the data just list the worst cases			

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

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5180MHz)							
10360	56.39	7.11	63.50	74	-10.50	H	PK
15540	37.68	8.22	45.90	54	-8.10	H	AV
10360	58.85	7.11	65.96	74	-8.04	V	PK
15540	40.15	8.22	48.37	54	-5.63	V	AV
Middle Channel (5200MHz)							
10400	56.70	7.22	63.92	74	-10.08	H	PK
15600	39.03	8.67	47.70	54	-6.30	H	AV
10400	57.07	7.22	64.29	74	-9.71	V	PK
15600	37.31	8.67	45.98	54	-8.02	V	AV
High Channel (5240MHz)							
10480	54.37	7.69	62.06	74	-11.94	H	PK
15720	36.63	8.93	45.56	54	-8.44	H	AV
10480	58.96	7.69	66.65	74	-7.35	V	PK
15720	38.98	8.93	47.91	54	-6.09	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	58.52	9.45	67.97	74	-6.03	H	PK
17235	36.67	10.36	47.03	54	-6.97	H	AV
11490	57.71	9.45	67.16	74	-6.84	V	PK
17235	35.24	10.36	45.60	54	-8.40	V	AV
Middle Channel (5785MHz)							
11570	59.01	9.62	68.63	74	-5.37	H	PK
17355	36.33	10.67	47.00	54	-7.00	H	AV
11570	54.25	9.62	63.87	74	-10.13	V	PK
17355	38.56	10.67	49.23	54	-4.77	V	AV
High Channel (5825MHz)							
11650	55.55	9.84	65.39	74	-8.61	H	PK
17475	34.29	10.95	45.24	54	-8.76	H	AV
11650	56.65	9.84	66.49	74	-7.51	V	PK
17475	35.84	10.95	46.79	54	-7.21	V	AV

➤ Out of Band edge 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-30.48	-27
Highest	Above 5350	-39.10	-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	-43.90	-27
	5715 to 5725	-33.27	-17
Highest	5850 to 5860	-39.39	-17
	Above 5860	-41.93	-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 (802.11n HT40)
- Harmonics And Spurious Emissions

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel (5190MHz)							
10380	56.05	7.25	63.30	74	-10.70	H	PK
15570	36.67	8.33	45.00	54	-9.00	H	AV
10380	58.83	7.25	66.08	74	-7.92	V	PK
15570	37.96	8.33	46.29	54	-7.71	V	AV
High Channel (5230MHz)							
10460	56.75	7.54	64.29	74	-9.71	H	PK
15690	39.51	8.86	48.37	54	-5.63	H	AV
10460	57.36	7.54	64.90	74	-9.10	V	PK
15690	38.56	8.86	47.42	54	-6.58	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	54.81	9.65	64.46	74	-9.54	H	PK
17265	36.75	10.87	47.62	54	-6.38	H	AV
11510	57.78	9.65	67.43	74	-6.57	V	PK
17265	36.90	10.87	47.77	54	-6.23	V	AV
High Channel (5795MHz)							
11590	56.17	9.81	65.98	74	-8.02	H	PK
17385	34.56	10.89	45.45	54	-8.55	H	AV
11590	56.10	9.81	65.91	74	-8.09	V	PK
17385	35.82	10.89	46.71	54	-7.29	V	AV

➤ Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-36.07	-27
Highest	Above 5350	-40.02	-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	-40.25	-27
	5715 to 5725	-40.05	-17
Highest	5850 to 5860	-42.07	-17
	Above 5860	-43.31	-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	59.53	7.33	66.86	74	-7.14	H	PK
15630	35.53	8.75	44.28	54	-9.72	H	AV
10420	56.36	7.33	63.69	74	-10.31	H	PK
15630	37.57	8.75	46.32	54	-7.68	H	AV

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
5775MHz							
11550	56.08	9.54	65.62	74	-8.38	H	PK
17325	35.70	10.59	46.29	54	-7.71	H	AV
11550	58.75	9.54	68.29	74	-5.71	V	PK
17325	33.56	10.59	44.15	54	-9.85	V	AV

- Out of Band edge for 5150-5250MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5150	-34.87	-27
Highest	Above 5350	-33.56	-27

Note: the data just list the worst cases

- Out of Band edge for 5725-5850MHz

Test CH.	Test Segment	Result	Limit
	MHz	dBm/MHz	dBm/MHz
Lowest	Below 5715	-44.63	-27
	5715 to 5725	-31.70	-17
Highest	5850 to 5860	-31.07	-17
	Above 5860	-39.52	-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

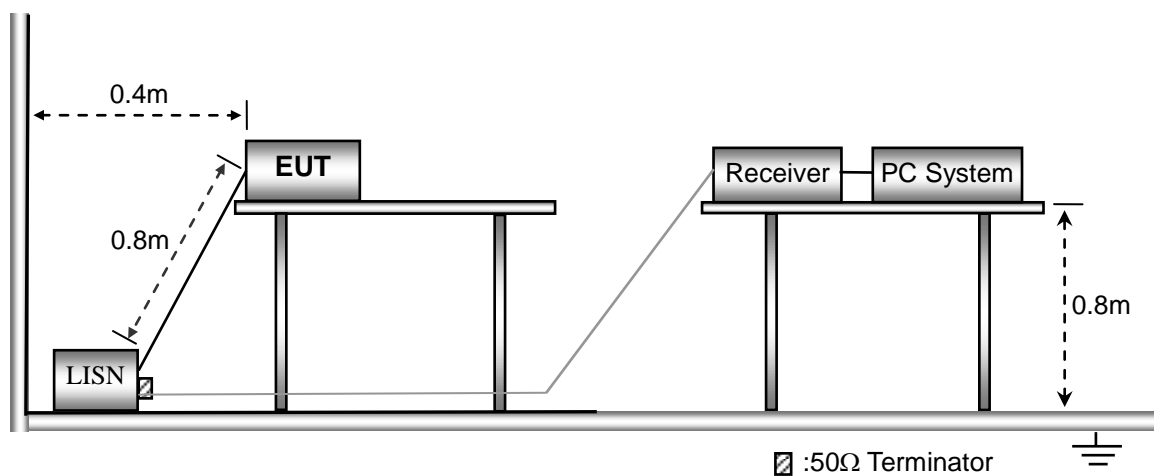
10.1 Test Procedure

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



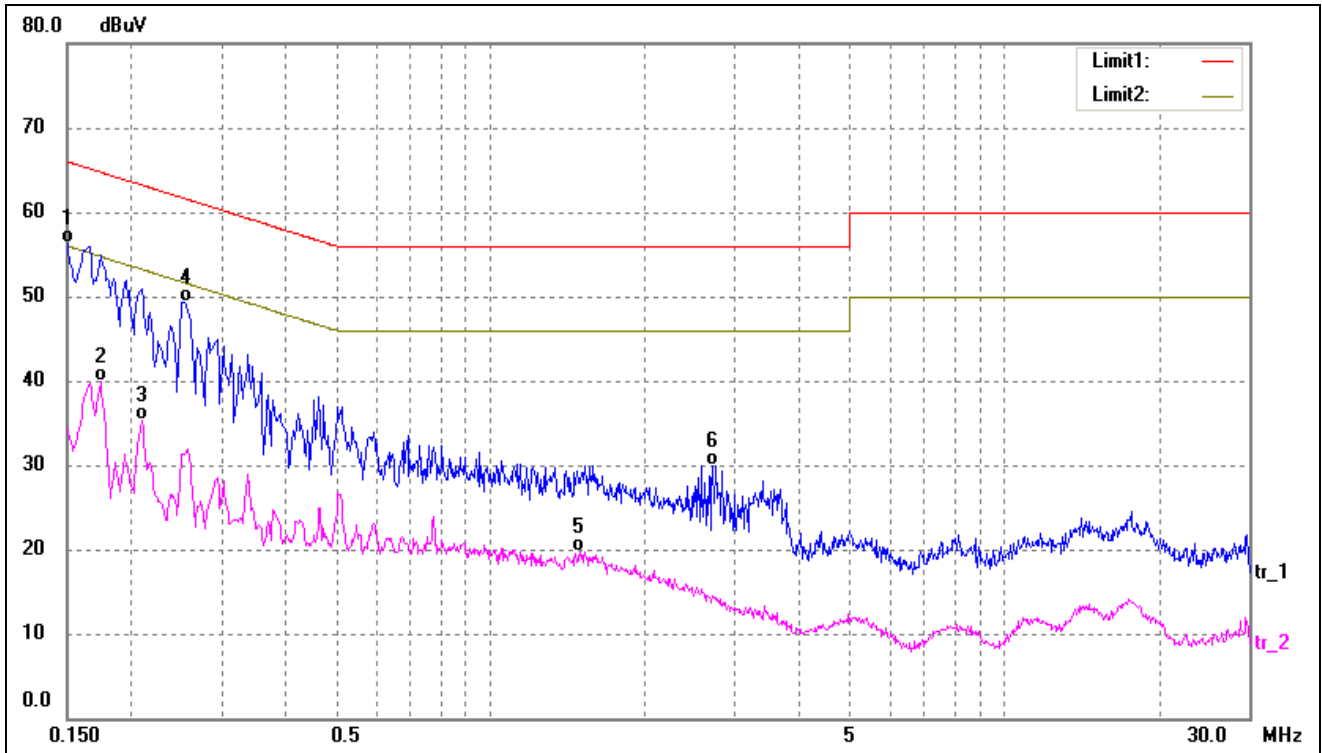
10.3 Test Receiver Setup

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

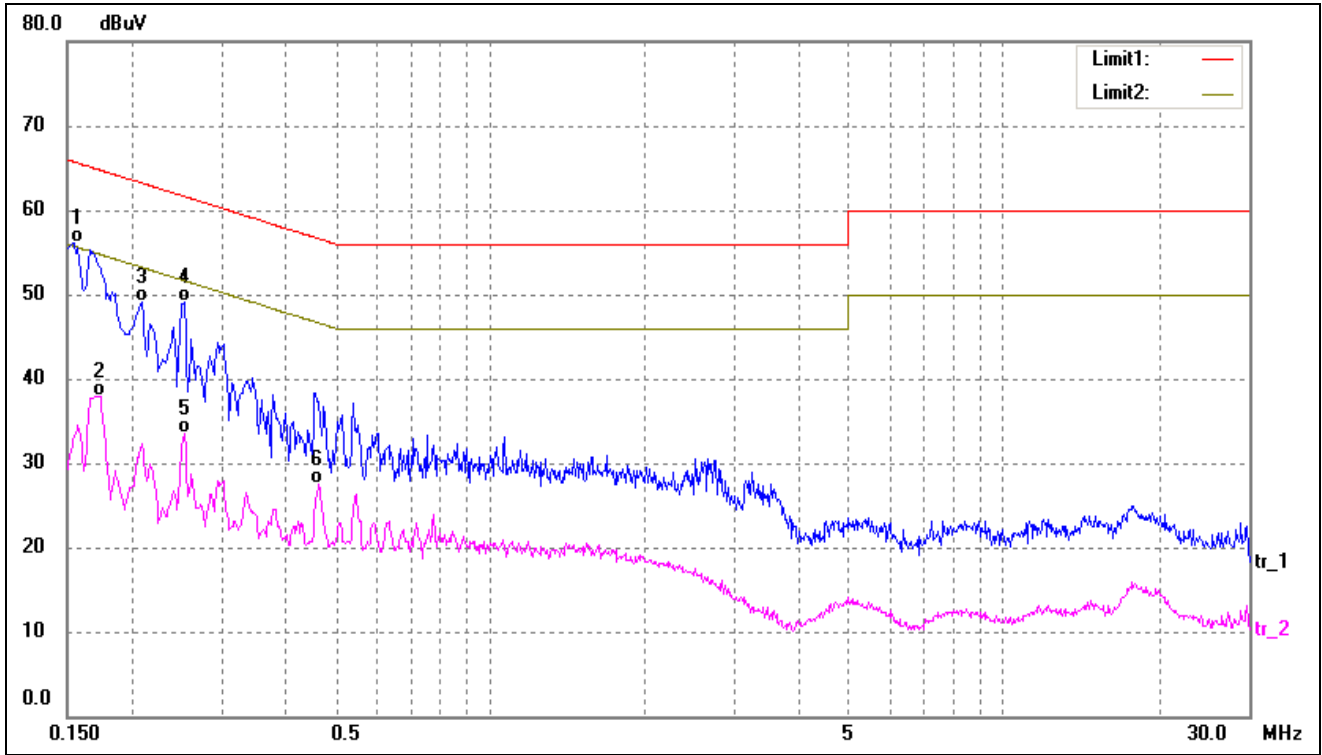
10.4 Summary of Test Results/Plots

Test Mode	Communication	AC120V 60Hz	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1500	45.98	10.25	56.23	66.00	-9.77	QP
2	0.1740	29.57	10.25	39.82	54.77	-14.95	AVG
3	0.2100	24.95	10.27	35.22	53.21	-17.99	AVG
4	0.2540	39.02	10.26	49.28	61.63	-12.35	QP
5	1.5020	9.44	10.23	19.67	46.00	-26.33	AVG
6	2.7100	19.59	10.28	29.87	56.00	-26.13	QP

Test Mode	Communication	AC120V 60Hz	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1540	45.94	10.25	56.19	65.78	-9.59	QP
2	0.1740	27.69	10.25	37.94	54.77	-16.83	AVG
3	0.2100	38.89	10.27	49.16	63.21	-14.05	QP
4	0.2540	38.76	10.26	49.02	61.63	-12.61	QP
5	0.2540	23.16	10.26	33.42	51.63	-18.21	AVG
6	0.4620	17.22	10.22	27.44	46.66	-19.22	AVG

APPENDIX SUMMARY

Project No.	WTX21X01008787W	Test Engineer	Shaw
Start date	2021/2/3	Finish date	2021/2/3
Temperature	24°C	Humidity	49%
RF specifications	U-NII		

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

APPENDIX A

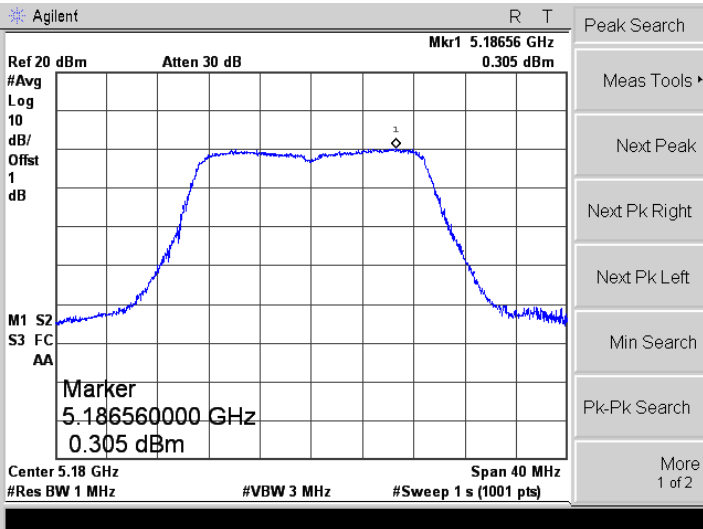
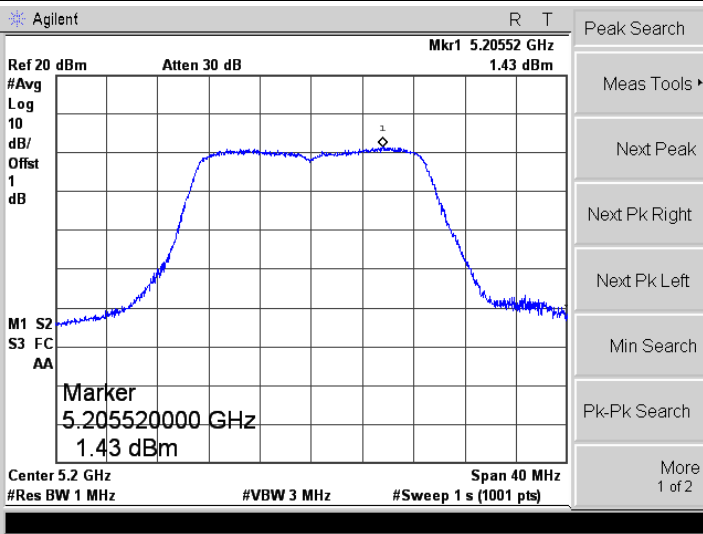
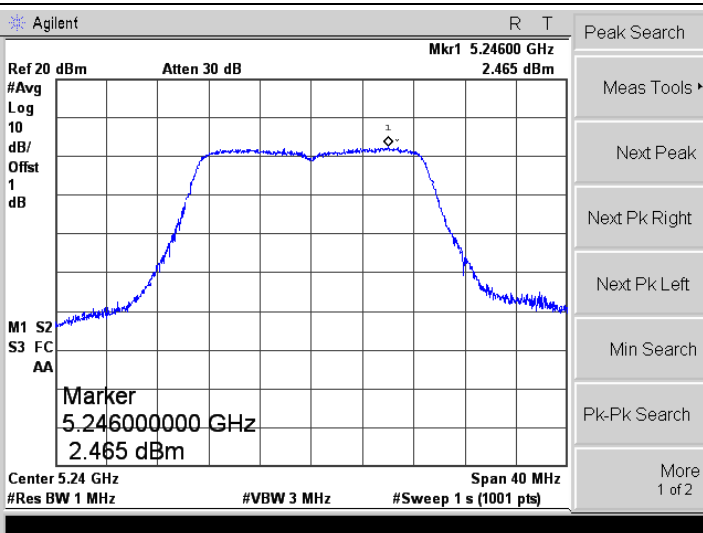
Power Spectral Density			
U-NII-1:5150-5250MHz			
Operating mode	Test Channel	Power Spectral Density dBm/MHz	Limit (dBm/MHz)
802.11a	5180	0.817	11
	5200	1.864	11
	5240	3.269	11
802.11n-HT20	5180	0.305	11
	5200	1.430	11
	5240	2.465	11
802.11n-HT40	5190	-0.291	11
	5230	1.612	11
802.11ac-HT80	5210	-0.806	11

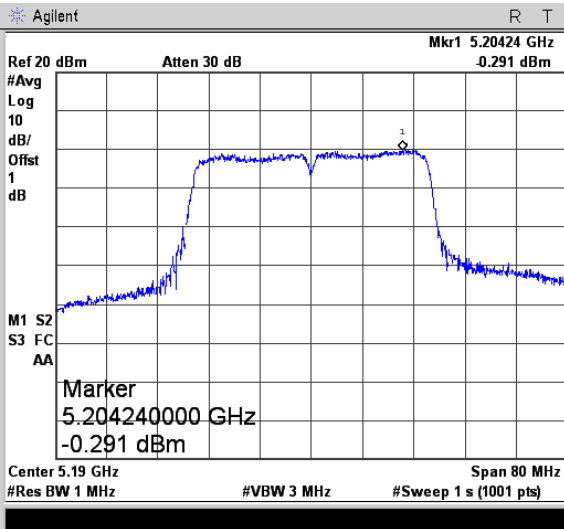
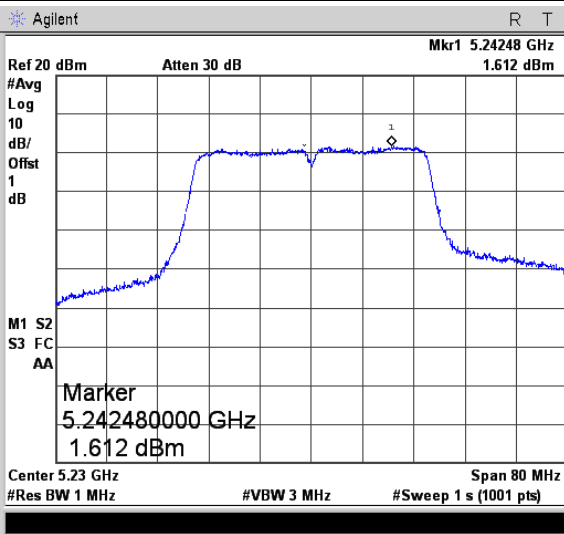
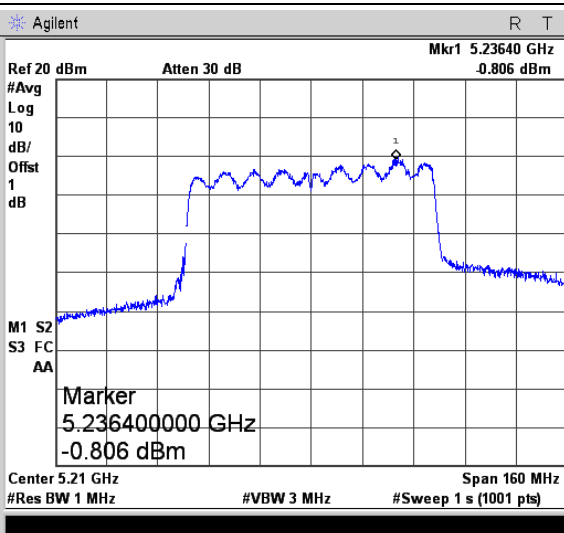
U-NII-3: 5725-5850MHz					
Operating mode	Test Channel	Power Spectral Density dBm/300kHz	Factor	Power Spectral Density* dBm/500kHz	Limit dBm/500kHz
802.11a	5745	-3.560	2.22	-1.34	30
	5785	-3.152	2.22	-0.932	30
	5825	-3.337	2.22	-1.117	30
802.11n-HT20	5745	-3.534	2.22	-1.314	30
	5785	-3.608	2.22	-1.388	30
	5825	-4.078	2.22	-1.858	30
802.11n HT40	5755	-4.755	2.22	-2.535	30
	5795	-3.581	2.22	-1.361	30
802.11ac VH80	5775	-5.465	2.22	-3.245	30

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

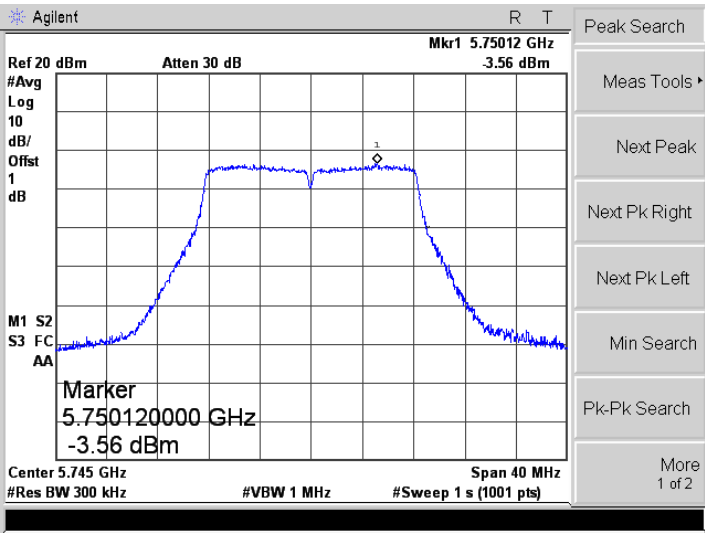
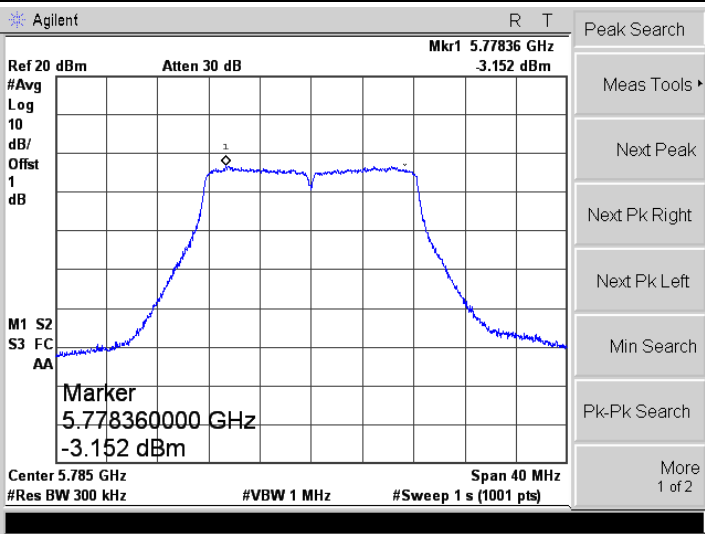
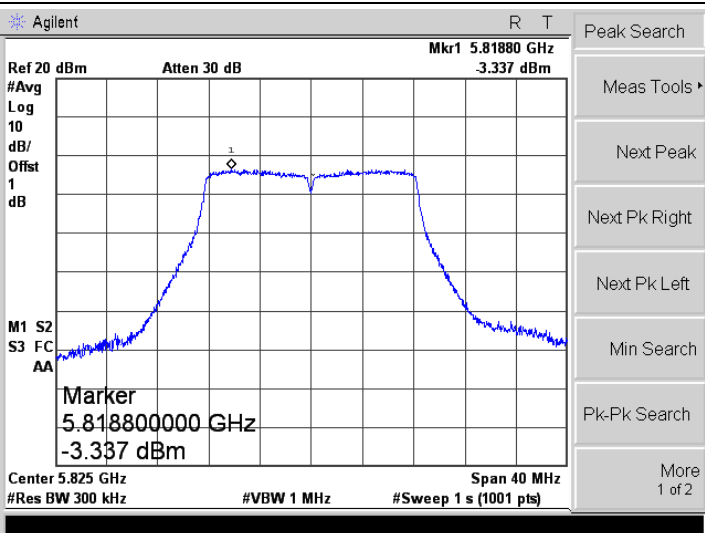
5150-5250MHz

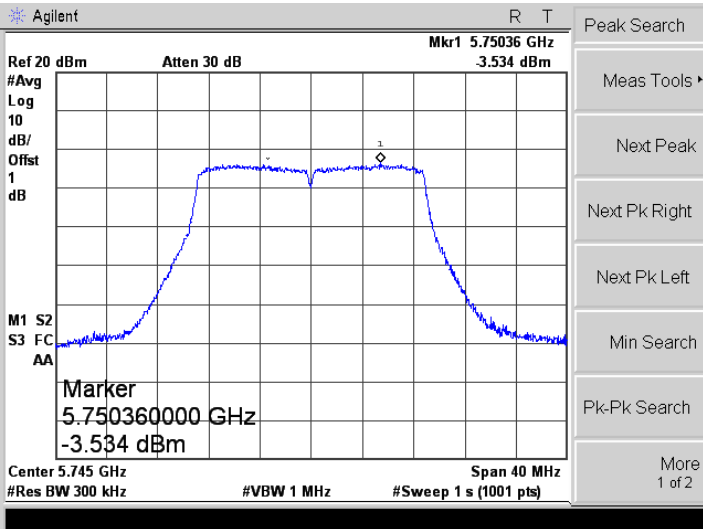
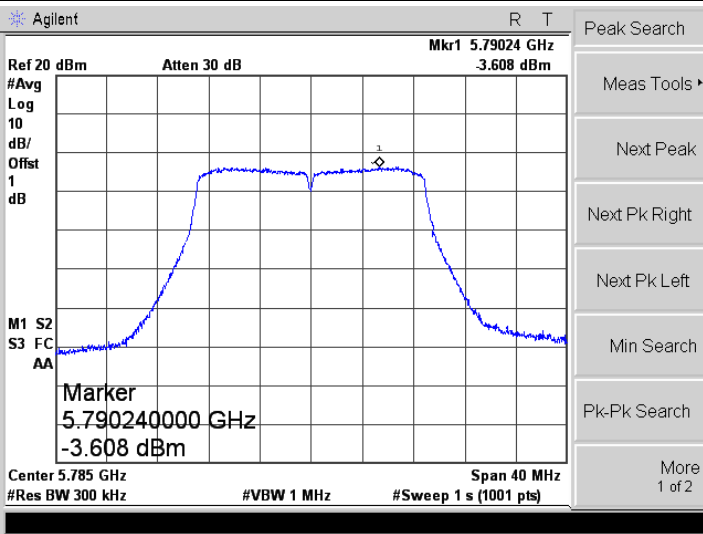
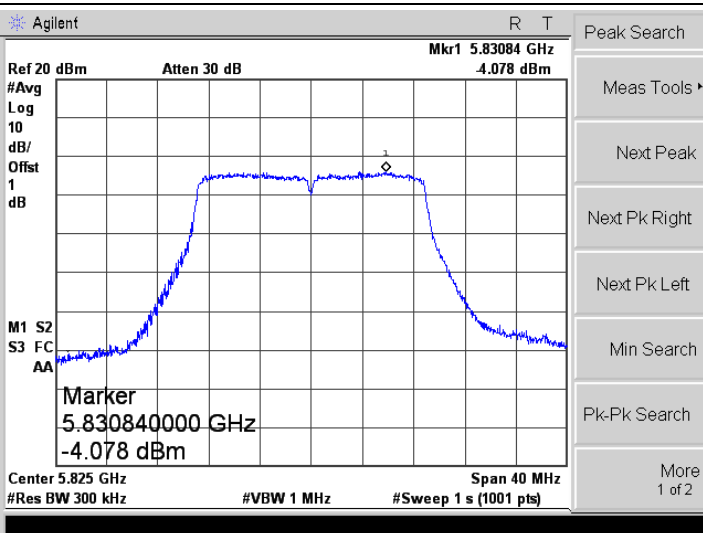
<p>802.11a-Low</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 30 dB Mkr1 5.18600 GHz 0.817 dBm</p> <p>#Avg Log 10 dB/Offst 1 dB</p> <p>M1 S2 S3 FC AA</p> <p>Marker 5.18600000 GHz 0.817 dBm</p> <p>Center 5.18 GHz Span 40 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts)</p> <p>Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2</p>
<p>802.11a-Middle</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 30 dB Mkr1 5.20592 GHz 1.864 dBm</p> <p>#Avg Log 10 dB/Offst 1 dB</p> <p>M1 S2 S3 FC AA</p> <p>Marker 5.205920000 GHz 1.864 dBm</p> <p>Center 5.2 GHz Span 40 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts)</p> <p>Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2</p>
<p>802.11a-High</p>	<p>Agilent R T</p> <p>Ref 20 dBm Atten 30 dB Mkr1 5.24604 GHz 3.269 dBm</p> <p>#Avg Log 10 dB/Offst 1 dB</p> <p>M1 S2 S3 FC AA</p> <p>Marker 5.246040000 GHz 3.269 dBm</p> <p>Center 5.24 GHz Span 40 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts)</p> <p>Peak Search Meas Tools Next Peak Next Pk Right Next Pk Left Min Search Pk-Pk Search More 1 of 2</p>

<p>802.11n-HT20-Low</p>	
<p>802.11n-HT20-Middle</p>	
<p>802.11n-HT20-High</p>	

<p>802.11n-HT40-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.20424 GHz -0.291 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.204240000 GHz -0.291 dBm Center 5.19 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts)</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.24248 GHz 1.612 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.242480000 GHz 1.612 dBm Center 5.23 GHz Span 80 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts)</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.23640 GHz -0.806 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.236400000 GHz -0.806 dBm Center 5.21 GHz Span 160 MHz #Res BW 1 MHz #VBW 3 MHz #Sweep 1 s (1001 pts)</p>

5725-5850MHz

<p>802.11a-Low</p>	
<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

<p>802.11n-HT20-Low</p>	
<p>802.11n-HT20-Middle</p>	
<p>802.11n-HT20-High</p>	

<p>802.11n-HT40-Low</p>	<p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.76804 GHz 4.755 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.768040000 GHz -4.755 dBm Center 5.755 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts)</p>
<p>802.11n-HT40-High</p>	<p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.81020 GHz -3.581 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.810200000 GHz -3.581 dBm Center 5.795 GHz Span 80 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts)</p>
<p>802.11ac-HT80-Low</p>	<p>Agilent R T Ref 20 dBm Atten 30 dB Mkr1 5.80140 GHz -5.465 dBm #Avg 10 Log dB/ Offst 1 dB M1 S2 S3 FC AA Marker 5.801400000 GHz -5.465 dBm Center 5.775 GHz Span 160 MHz #Res BW 300 kHz #VBW 1 MHz #Sweep 1 s (1001 pts)</p>

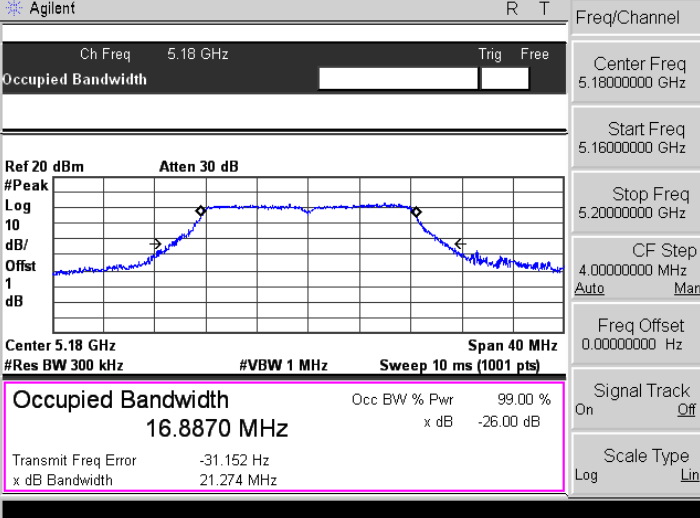
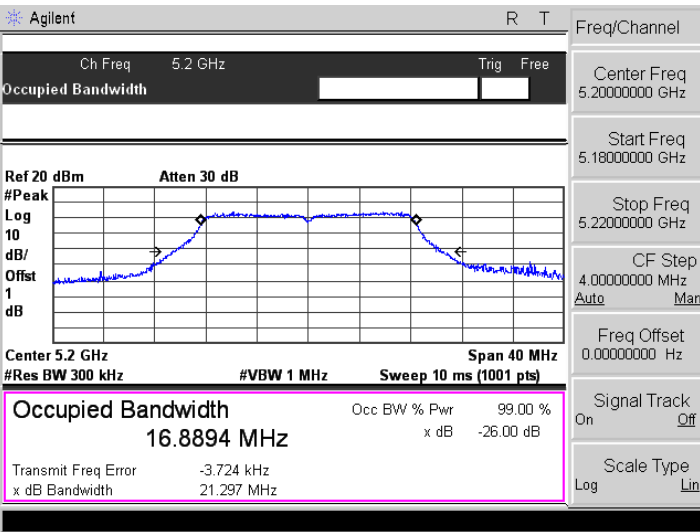
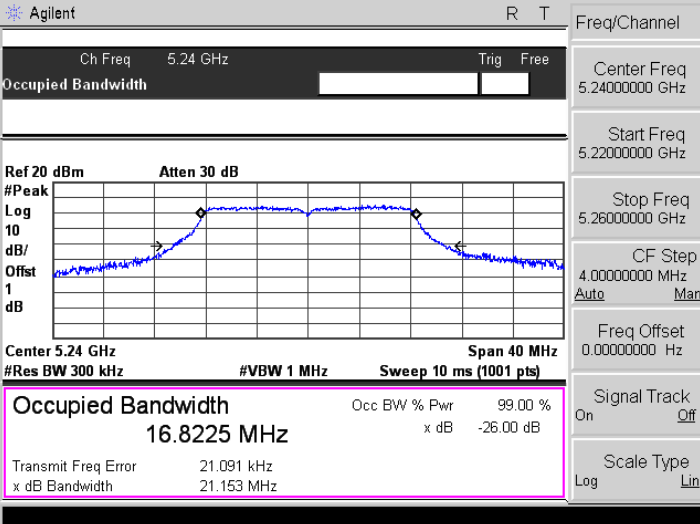
APPENDIX B

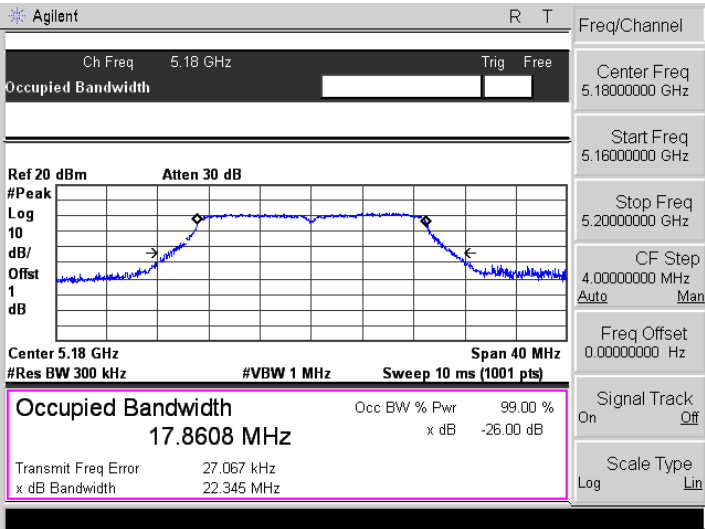
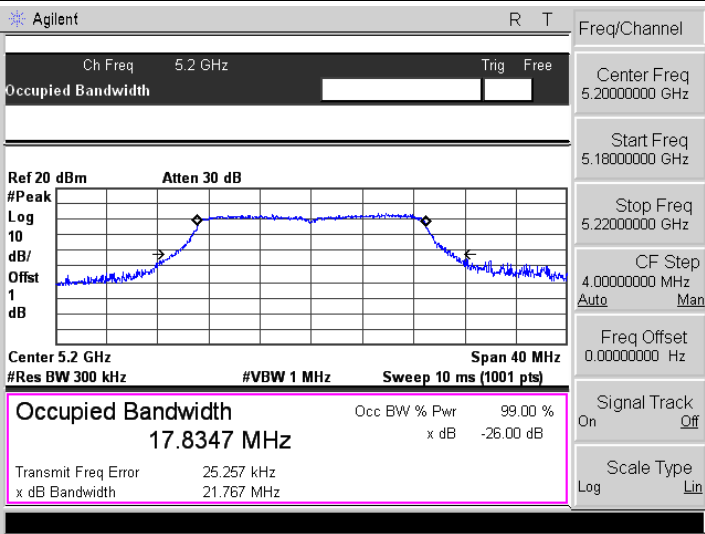
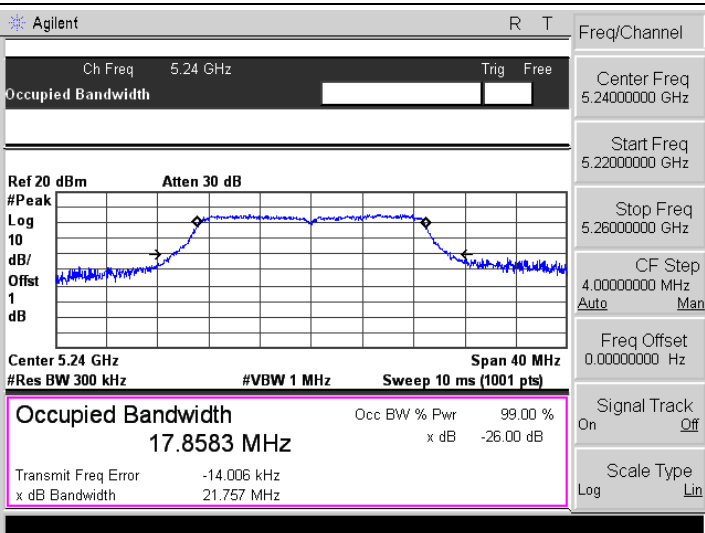
Emission Bandwidth and Occupied Bandwidth

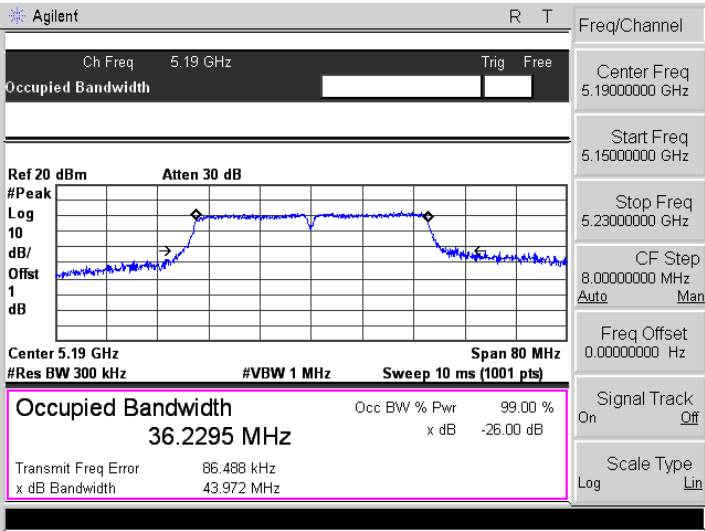
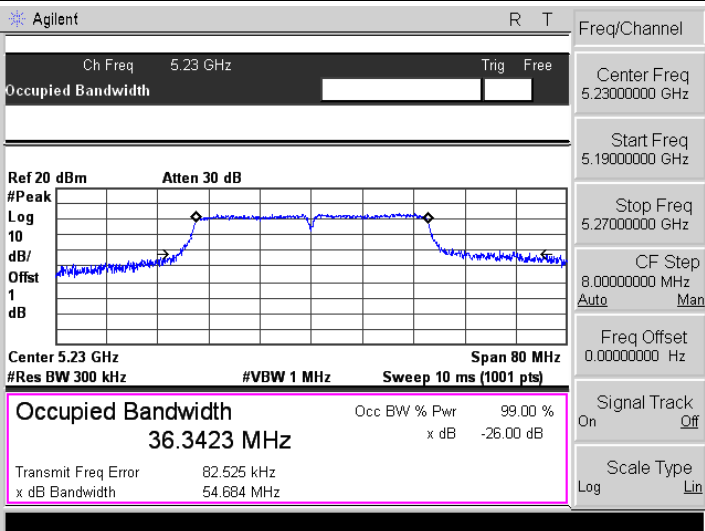
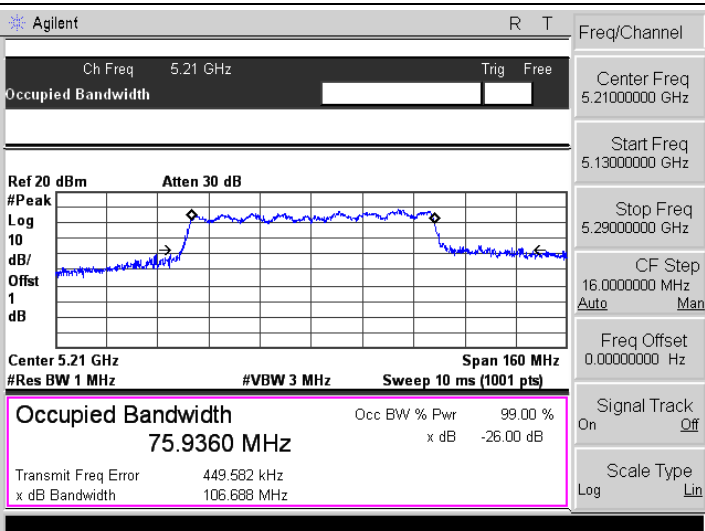
U-NII-1:5150-5250MHz				
Test Mode	Test Channel MHz	26 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5180	21.274	16.8870	Pass
	5200	21.297	16.8894	Pass
	5240	21.153	16.8225	Pass
802.11n-HT20	5180	22.345	17.8608	Pass
	5200	21.67	17.8347	Pass
	5240	21.757	17.8583	Pass
802.11n-HT40	5190	43.972	36.2295	Pass
	5230	54.684	36.3423	Pass
802.11ac-HT80	5210	106.688	75.9360	Pass

U-NII-3: 5725-5850MHz				
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit MHz
802.11a	5745	16.355	16.8796	≥500
	5785	16.338	16.8333	≥500
	5825	16.370	16.9206	≥500
802.11n-HT20	5745	17.542	17.8420	≥500
	5785	17.300	17.9583	≥500
	5825	17.531	17.8537	≥500
802.11n-HT40	5755	35.864	36.1881	≥500
	5795	35.099	36.2561	≥500
802.11ac VH80	5775	75.266	76.0105	≥500

5150-5250MHz

<p>802.11a-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.18 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Offst 1 dB</p> <p>Center 5.18 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 16.8870 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -31.152 Hz x dB Bandwidth 21.274 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.18000000 GHz</p> <p>Start Freq 5.16000000 GHz</p> <p>Stop Freq 5.20000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.2 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Offst 1 dB</p> <p>Center 5.2 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 16.8894 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -3.724 kHz x dB Bandwidth 21.297 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.20000000 GHz</p> <p>Start Freq 5.18000000 GHz</p> <p>Stop Freq 5.22000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.24 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Offst 1 dB</p> <p>Center 5.24 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 16.8225 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 21.091 kHz x dB Bandwidth 21.153 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.24000000 GHz</p> <p>Start Freq 5.22000000 GHz</p> <p>Stop Freq 5.26000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

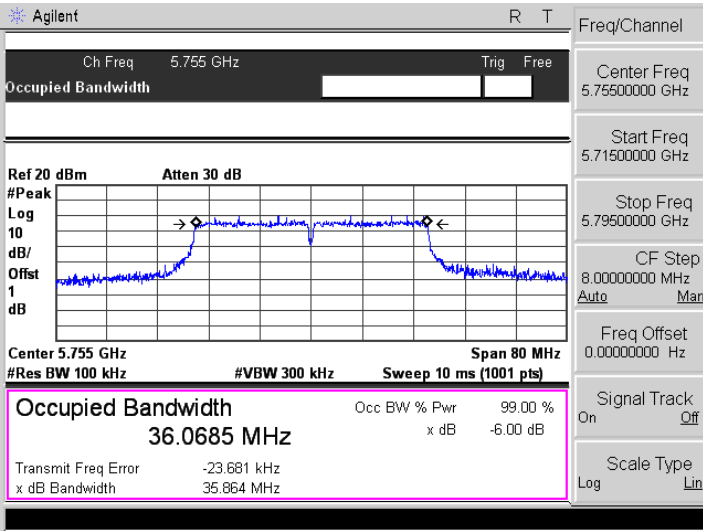
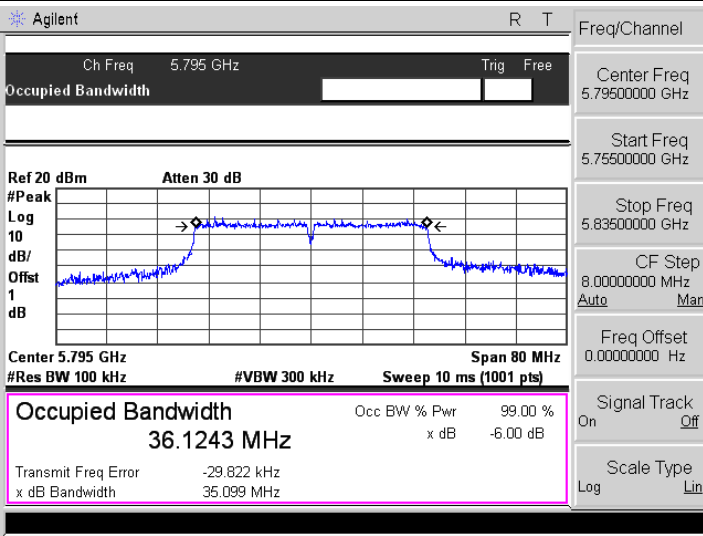
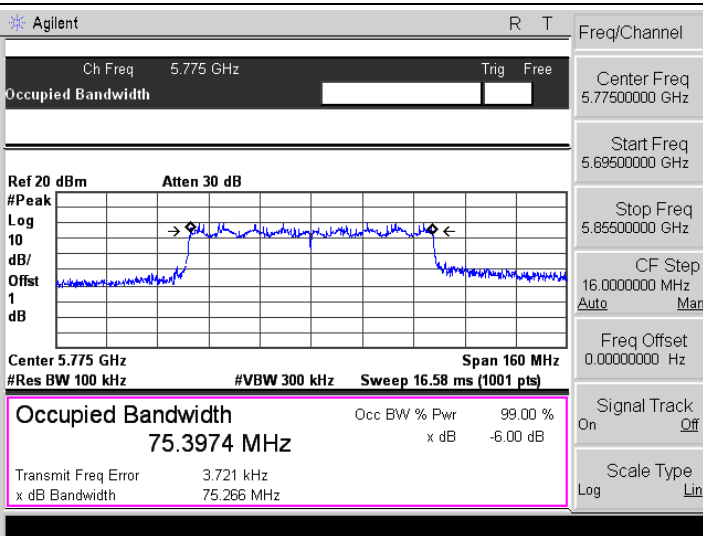
<p>802.11n-HT20-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.18 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.18 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8608 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 27.067 kHz x dB Bandwidth 22.345 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.18000000 GHz</p> <p>Start Freq 5.16000000 GHz</p> <p>Stop Freq 5.20000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.2 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.2 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8347 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 25.257 kHz x dB Bandwidth 21.767 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.20000000 GHz</p> <p>Start Freq 5.18000000 GHz</p> <p>Stop Freq 5.22000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.24 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.24 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8583 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -14.006 kHz x dB Bandwidth 21.757 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.24000000 GHz</p> <p>Start Freq 5.22000000 GHz</p> <p>Stop Freq 5.26000000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.19 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.19 GHz Span 80 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 36.2295 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 86.488 kHz</p> <p>x dB Bandwidth 43.972 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.19000000 GHz</p> <p>Start Freq 5.15000000 GHz</p> <p>Stop Freq 5.23000000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.23 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.23 GHz Span 80 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 36.3423 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 82.525 kHz</p> <p>x dB Bandwidth 54.684 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.23000000 GHz</p> <p>Start Freq 5.19000000 GHz</p> <p>Stop Freq 5.27000000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.21 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.21 GHz Span 160 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 75.9360 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error 449.582 kHz</p> <p>x dB Bandwidth 106.688 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.21000000 GHz</p> <p>Start Freq 5.13000000 GHz</p> <p>Stop Freq 5.29000000 GHz</p> <p>CF Step 16.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

5725-5850MHz
6 dB Bandwidth

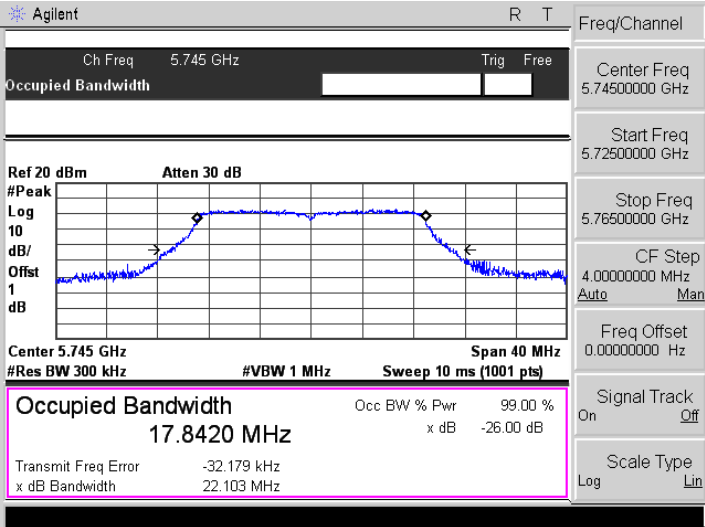
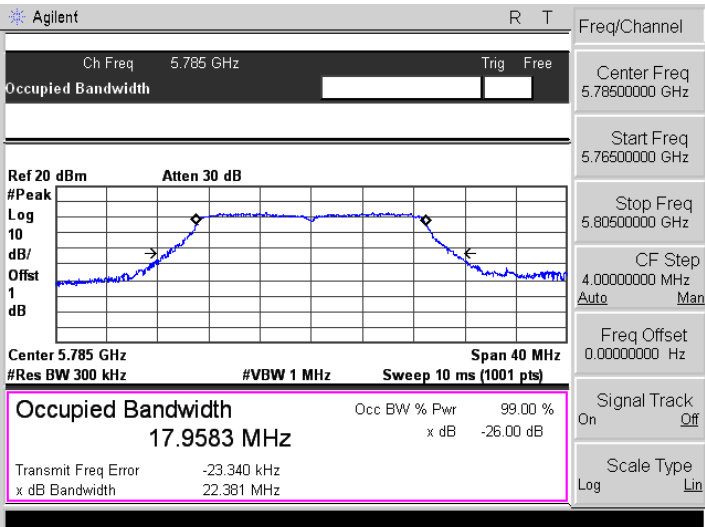
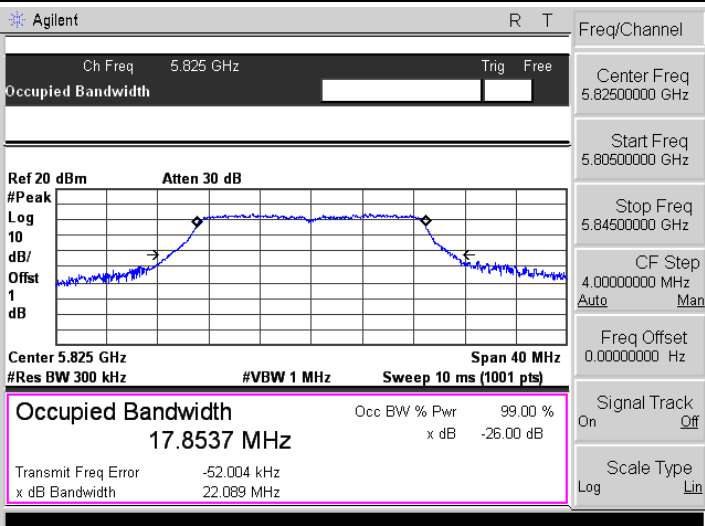
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<p>802.11a-Middle</p>	
<p>802.11a-High</p>	

<p>802.11n-HT20-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.6114 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -37.761 kHz x dB Bandwidth 17.542 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.74500000 GHz</p> <p>Start Freq 5.72500000 GHz</p> <p>Stop Freq 5.76500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.6045 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -33.746 kHz x dB Bandwidth 17.300 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/ Offst 1 dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.6136 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -59.021 kHz x dB Bandwidth 17.531 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.82500000 GHz</p> <p>Start Freq 5.80500000 GHz</p> <p>Stop Freq 5.84500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.755 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.755 GHz Span 80 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 36.0685 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -23.681 kHz x dB Bandwidth 35.864 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.75500000 GHz</p> <p>Start Freq 5.71500000 GHz</p> <p>Stop Freq 5.79500000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.795 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.795 GHz Span 80 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 36.1243 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error -29.822 kHz x dB Bandwidth 35.099 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.79500000 GHz</p> <p>Start Freq 5.75500000 GHz</p> <p>Stop Freq 5.83500000 GHz</p> <p>CF Step 8.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.775 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.775 GHz Span 160 MHz</p> <p>#Res BW 100 kHz #VBW 300 kHz Sweep 16.58 ms (1001 pts)</p> <p>Occupied Bandwidth 75.3974 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -6.00 dB</p> <p>Transmit Freq Error 3.721 kHz x dB Bandwidth 75.266 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.77500000 GHz</p> <p>Start Freq 5.69500000 GHz</p> <p>Stop Freq 5.85500000 GHz</p> <p>CF Step 16.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

99% Bandwidth

<p>802.11a-Low</p>	<p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Offst 1 dB</p> <p>Center 5.745 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 16.8796 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -28.885 kHz x dB Bandwidth 21.787 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.74500000 GHz</p> <p>Start Freq 5.72500000 GHz</p> <p>Stop Freq 5.76500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-Middle</p>	<p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Offst 1 dB</p> <p>Center 5.785 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 16.8333 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -14.100 kHz x dB Bandwidth 21.489 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11a-High</p>	<p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Offst 1 dB</p> <p>Center 5.825 GHz Span 40 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 16.9206 MHz Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -16.899 kHz x dB Bandwidth 21.324 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.82500000 GHz</p> <p>Start Freq 5.80500000 GHz</p> <p>Stop Freq 5.84500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT20-Low</p>	 <p>Agilent R T</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8420 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -32.179 kHz x dB Bandwidth 22.103 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.74500000 GHz</p> <p>Start Freq 5.72500000 GHz</p> <p>Stop Freq 5.76500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.9583 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -23.340 kHz x dB Bandwidth 22.381 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.78500000 GHz</p> <p>Start Freq 5.76500000 GHz</p> <p>Stop Freq 5.80500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Occupied Bandwidth</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Peak Log 10 dB/Ofst 1 dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 300 kHz #VBW 1 MHz Sweep 10 ms (1001 pts)</p> <p>Occupied Bandwidth 17.8537 MHz</p> <p>Occ BW % Pwr 99.00 % x dB -26.00 dB</p> <p>Transmit Freq Error -52.004 kHz x dB Bandwidth 22.089 MHz</p> <p>Freq/Channel</p> <p>Center Freq 5.82500000 GHz</p> <p>Start Freq 5.80500000 GHz</p> <p>Stop Freq 5.84500000 GHz</p> <p>CF Step 4.00000000 MHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p> <p>Scale Type Log Lin</p>

<p>802.11n-HT40-Low</p>	
<p>802.11n-HT40-High</p>	
<p>802.11ac-HT80-Low</p>	

APPENDIX C

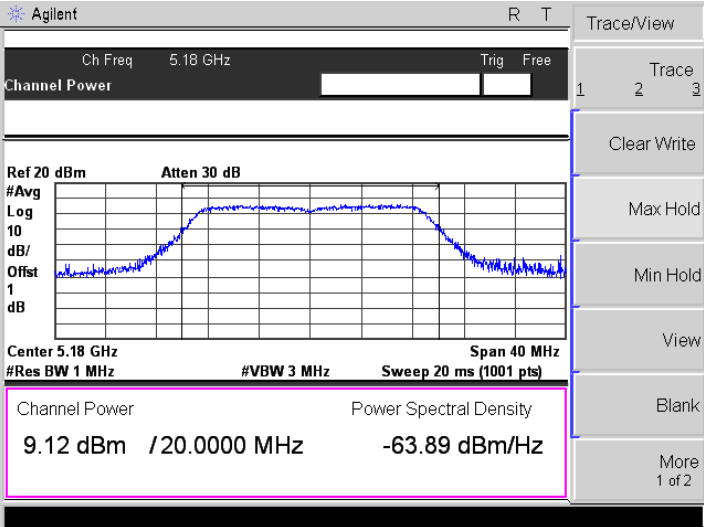
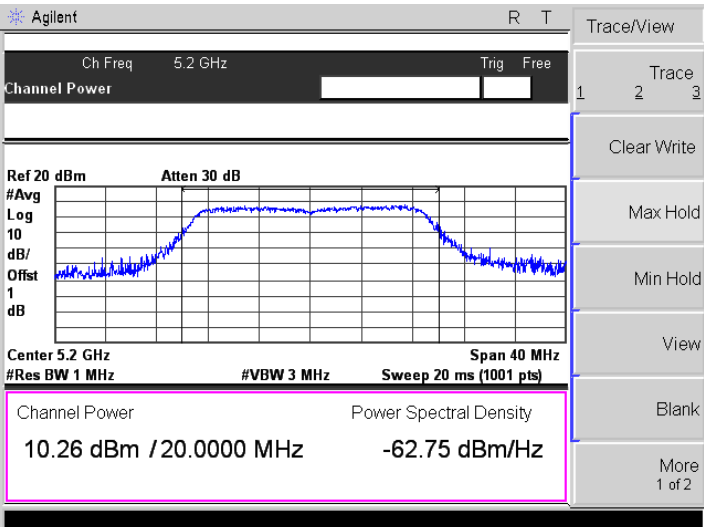
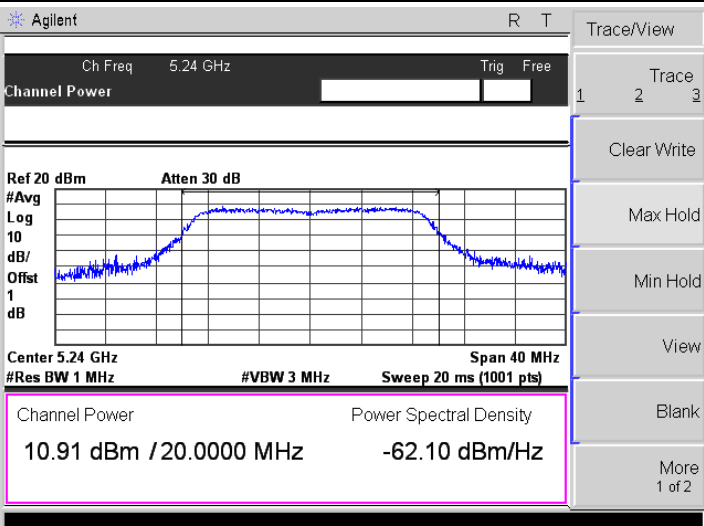
Maximum Conducted Output Power

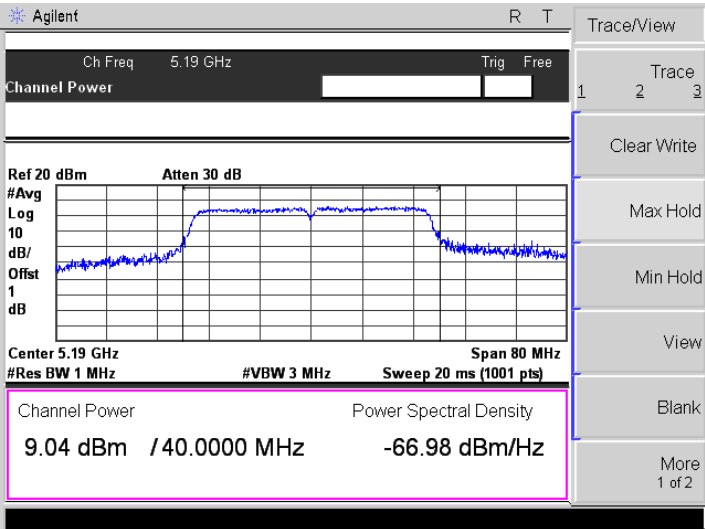
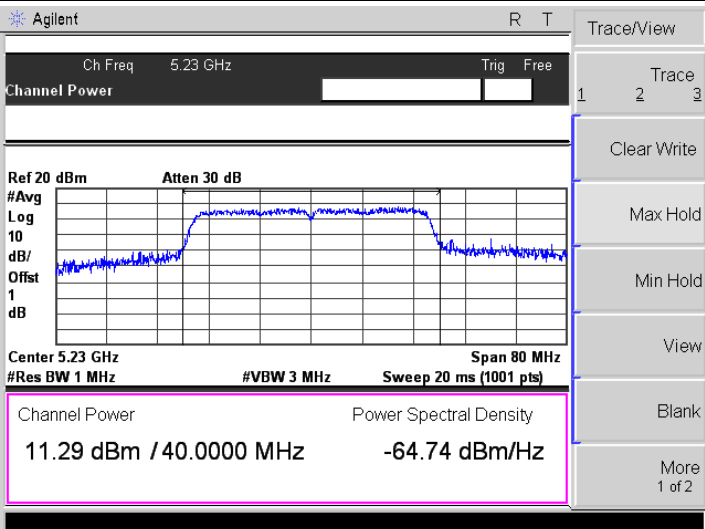
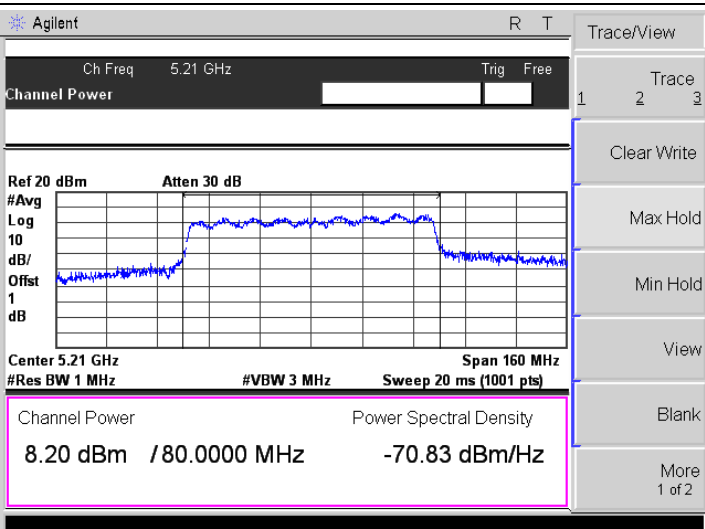
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	5200	10.60	23.98
	5240	11.47	23.98
802.11n-HT20	5180	9.12	23.98
	5200	10.26	23.98
	5240	10.91	23.98
802.11n-HT40	5190	9.04	23.98
	5230	11.29	23.98
802.11ac VH80	5210	8.20	23.98

U-NII-3: 5725-5850MHz			
Test mode	Frequency MHz	Output Power dBm	Limit dBm
802.11a	5745	10.30	30.00
	5785	10.24	30.00
	5825	10.12	30.00
802.11n-HT20	5745	10.00	30.00
	5785	9.71	30.00
	5825	9.63	30.00
802.11n-HT40	5755	9.54	30.00
	5795	10.77	30.00
802.11ac VH80	5775	8.05	30.00

5150-5250MHz

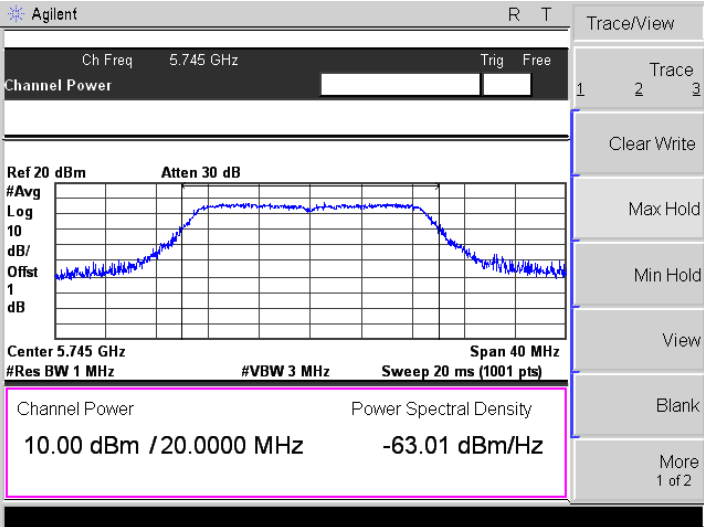
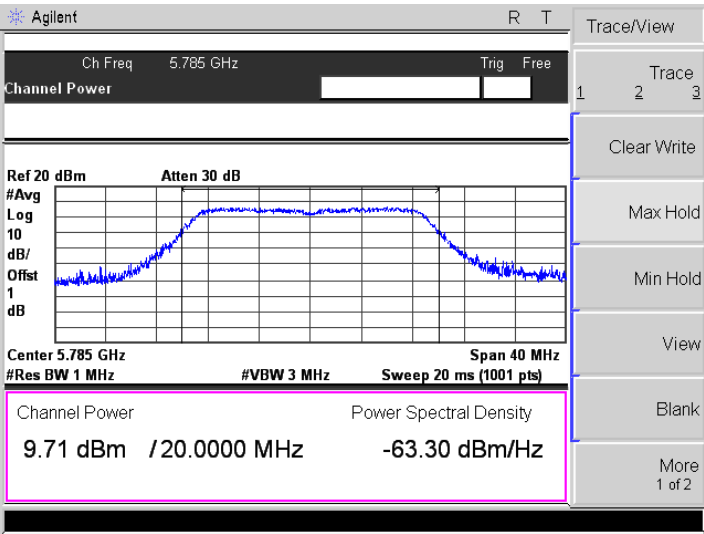
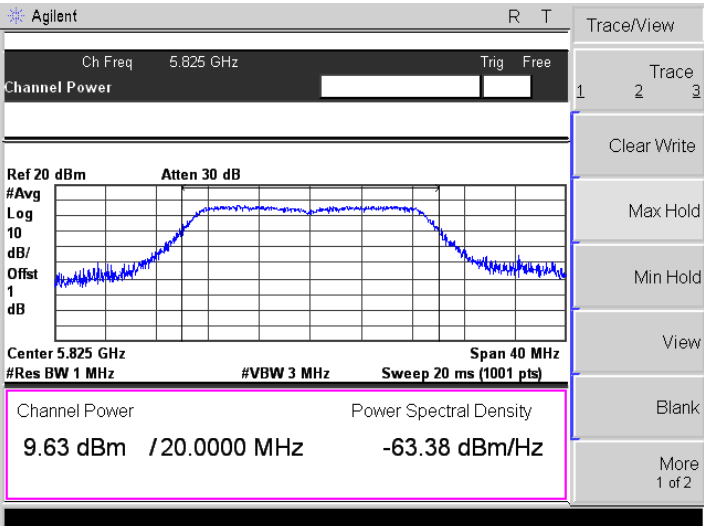
<p>802.11a-Low</p>	<p>Agilent R T Trace/View</p> <p>Ch Freq 5.18 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.18 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>9.28 dBm / 20.0000 MHz -63.73 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-Middle</p>	<p>Agilent R T Trace/View</p> <p>Ch Freq 5.2 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.2 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.60 dBm / 20.0000 MHz -62.41 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-High</p>	<p>Agilent R T Trace/View</p> <p>Ch Freq 5.24 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.24 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>11.47 dBm / 20.0000 MHz -61.54 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

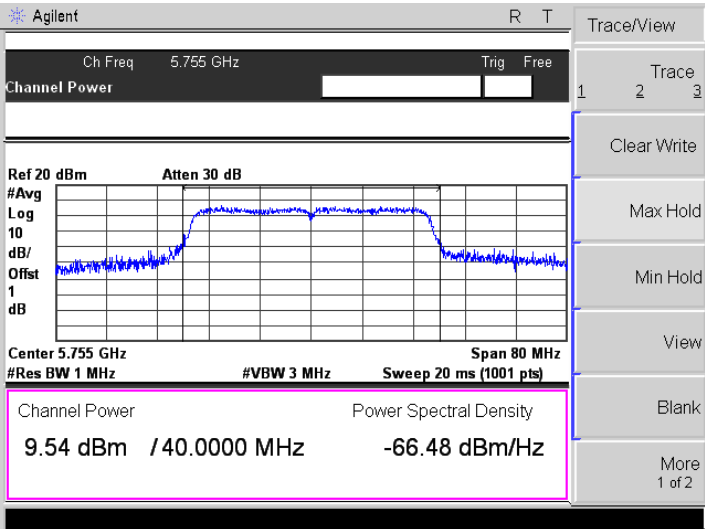
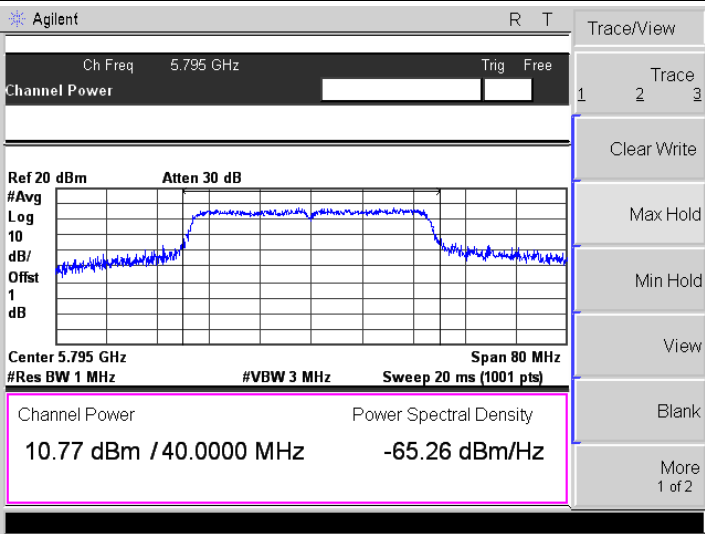
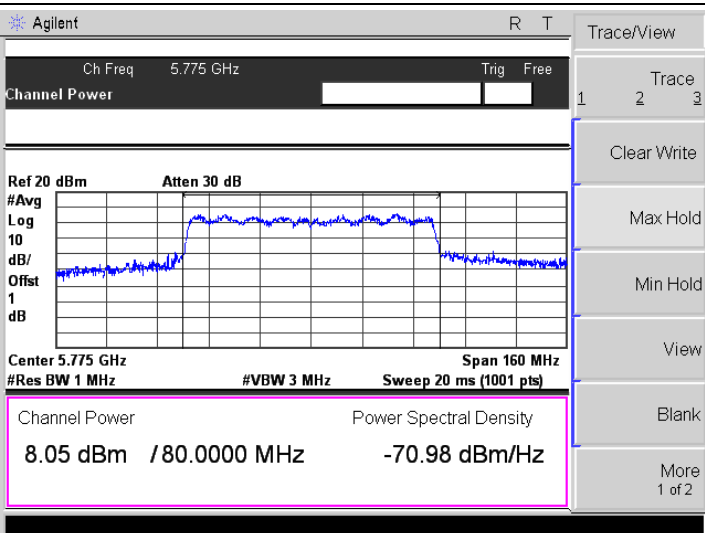
<p>802.11n-HT20-Low</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.18 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.18 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>9.12 dBm / 20.0000 MHz -63.89 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.2 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.2 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.26 dBm / 20.0000 MHz -62.75 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11n-HT20-High</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.24 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.24 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.91 dBm / 20.0000 MHz -62.10 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.19 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.19 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>9.04 dBm / 40.0000 MHz -66.98 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.23 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.23 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>11.29 dBm / 40.0000 MHz -64.74 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.21 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/ Offst 1 dB</p> <p>Center 5.21 GHz Span 160 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>8.20 dBm / 80.0000 MHz -70.83 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

5725-5850MHz

<p>802.11a-Low</p>	<p>Agilent R T Trace/View</p> <p>Ch Freq 5.745 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.745 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.30 dBm / 20.0000 MHz -62.71 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-Middle</p>	<p>Agilent R T Trace/View</p> <p>Ch Freq 5.785 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.785 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.24 dBm / 20.0000 MHz -62.77 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11a-High</p>	<p>Agilent R T Trace/View</p> <p>Ch Freq 5.825 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.825 GHz Span 40 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.12 dBm / 20.0000 MHz -62.89 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

<p>802.11n-HT20-Low</p>	 <p>Agilent Channel Power measurement for 802.11n-HT20-Low. The screenshot displays a power spectral density plot with a channel power of 10.00 dBm / 20.0000 MHz and a power spectral density of -63.01 dBm/Hz. The center frequency is 5.745 GHz, span is 40 MHz, and resolution bandwidth is 1 MHz.</p>
<p>802.11n-HT20-Middle</p>	 <p>Agilent Channel Power measurement for 802.11n-HT20-Middle. The screenshot displays a power spectral density plot with a channel power of 9.71 dBm / 20.0000 MHz and a power spectral density of -63.30 dBm/Hz. The center frequency is 5.785 GHz, span is 40 MHz, and resolution bandwidth is 1 MHz.</p>
<p>802.11n-HT20-High</p>	 <p>Agilent Channel Power measurement for 802.11n-HT20-High. The screenshot displays a power spectral density plot with a channel power of 9.63 dBm / 20.0000 MHz and a power spectral density of -63.38 dBm/Hz. The center frequency is 5.825 GHz, span is 40 MHz, and resolution bandwidth is 1 MHz.</p>

<p>802.11n-HT40-Low</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.755 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.755 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>9.54 dBm / 40.0000 MHz -66.48 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11n-HT40-High</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.795 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.795 GHz Span 80 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>10.77 dBm / 40.0000 MHz -65.26 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>
<p>802.11ac-HT80-Low</p>	 <p>Agilent R T Trace/View</p> <p>Ch Freq 5.775 GHz Trig Free</p> <p>Channel Power</p> <p>Ref 20 dBm Atten 30 dB</p> <p>#Avg Log 10 dB/Offset 1 dB</p> <p>Center 5.775 GHz Span 160 MHz</p> <p>#Res BW 1 MHz #VBW 3 MHz Sweep 20 ms (1001 pts)</p> <p>Channel Power Power Spectral Density</p> <p>8.05 dBm / 80.0000 MHz -70.98 dBm/Hz</p> <p>Trace 1 2 3</p> <p>Clear Write</p> <p>Max Hold</p> <p>Min Hold</p> <p>View</p> <p>Blank</p> <p>More 1 of 2</p>

APPENDIX D

Frequency Stability

U-NII-1:5150-5250MHz worst case at 802.11a middle channel				
Voltage(%)	Power(VDC)	TEMP(°C)	Freq.Dev(Hz)	Deviation
100%	7.4	-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		8.14	+20	1556
High Battery power	6.66	+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%	7.4	-30	1497	0.2587
100%		-20	1297	0.2243
100%		-10	1441	0.2492
100%		0	1336	0.2310
100%		+10	1223	0.2114
100%		+20	1507	0.2606
100%		+30	1034	0.1787
100%		+40	1563	0.2702
100%		+50	1326	0.2292
Low Battery power		8.14	+20	1558
High Battery power	6.66	+20	1497	0.2587

APPENDIX PHOTOGRAPHS

Please refer to “ANNEX”

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