TEST REPORT

Reference No.	:	WTD23D05102561W004
FCC ID.....	:	2AEPISILVERC
Applicant	:	COLOMBIANA DE COMERCIO S.A.
Address	:	Car. 43E No 8-71, Medellin, Colombia
Manufacturer	:	Sichuan Koobee Communication Equipment Co., Ltd.
Address	:	3 Floor, Building 2, 69 Gangyuan Road West Section, Lingang Development Zone, Yibin City, Sichuan Province, China
Product Name	:	Smart Phone
Model No.	:	SILVER C
Brand.		Kalley
Standards.....	:	FCC 47CFR Part 15 Section 15.407
Date of Receipt sample.....	:	2023-05-12
Date of Test.....	:	2023-05-12 to 2023-05-24
Date of Issue	:	2023-06-14
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.

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3 Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD23D05102561W004	2023-05-12	2023-05-12 to 2023-05-24	2023-06-14	original	-	Valid

4 General Information

4.1 General Description of E.U.T.

Product:	Smart Phone
Model(s):	SILVER C
GSM Band(s):	GSM 850/900/1800/1900MHz
GPRS/EGPRS Class:	12
WCDMA Band(s):	FDD Band II/IV/V
LTE Band(s):	F FDD Band 2/4/5/7/12/13/66
Wi-Fi Specification:	2.4G-802.11b/g/n HT20/n HT40 5G-802.11a/ n(HT20/40)/ac(HT20/40/80)
Bluetooth Version:	Bluetooth v5.0 with BLE
GPS:	Support
Hardware Version:	E13U_01
Software Version:	Kalley_Silver_C_Claro_Co_V00_20230508
Highest frequency (Exclude Radio):	2.2GHz
Storage Location:	Internal Storage

4.2 Details of E.U.T.

Operation Frequency:	802.11a/n/ac (VHT20): U-NII-1: 5150-5250MHz, U-NII-2A: 5250-5350MHz(DFS), U-NII-2C: 5470-5725MHz(DFS), U-NII-3:5725-5850MHz 802.11n/ac (VHT40): U-NII-1: 5190-5230MHz, U-NII-2A: 5270-5310MHz(DFS), U-NII-2C: 5510-5670MHz(DFS), U-NII-3: 5755-5795MHz 802.11ac (VHT80): U-NII-1: 5210MHz, U-NII-2A: 5290MHz(DFS), U-NII-2C: 5530-5610MHz(DFS), U-NII-3: 5775MHz
Max. RF output power:	U-NII-1: 14.21dBm U-NII-2A: 13.90dBm U-NII-2C: 12.96dBm U-NII-3: 12.16dBm
Type of Modulation:	OFDM
Antenna installation:	internal permanent antenna
Antenna Gain:	U-NII-1: -1.5dBi U-NII-2A: -1.5dBi U-NII-2C: -1.5dBi U-NII-3: -1.5dBi
Ratings:	Battery: DC 3.87V, 4900mAh DC 5V, 1.5A charging from adapter
Adapter:	Model No.: HJ-0501500W2-US Input: 100-240V~, 50/60Hz, 0.3A Output: 5.0V⎓1.5A, 7.5W Manufacturer: Shenzhen Huajin Electronic Co., Ltd.

4.3 Channel List

U-NII-1 (5.15-5.25GHz)			
channel	**Frequency(MHz)**	**channel**	**Frequency(MHz)**
36	5180	38	5190
40	5200	42	5210
44	5220	46	5230
48	5240		

U-NII-2A (5.25-5.35GHz)			
channel	**Frequency(MHz)**	**channel**	**Frequency(MHz)**
52	5260	54	5270
56	5280	58	5290
60	5300	62	5310
64	5320		

U-NII-2C (5.47-5.725GHz)			
channel	**Frequency(MHz)**	**channel**	**Frequency(MHz)**
100	5500	102	5510
104	5520	106	5530
108	5540	110	5550
112	5560	116	5580
118	5590	120	5600
122	5610	124	5620
126	5630	128	5640
132	5660	134	5670
136	5680	140	5700

U-NII-3 (5.725-5.85GHz)			
channel	**Frequency(MHz)**	**channel**	**Frequency(MHz)**
149	5745	151	5755
153	5765	155	5775
157	5785	159	5795
161	5805	165	5825

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11a/n/ac(VHT20):

channel	Frequency(MHz)	channel	Frequency(MHz)
36	5180	40	5200
48	5240		

channel	Frequency(MHz)	channel	Frequency(MHz)
52	5260	56	5280
64	5320		

channel	Frequency(MHz)	channel	Frequency(MHz)
100	5500	120	5600
140	5700		

channel	Frequency(MHz)	channel	Frequency(MHz)
149	5745	157	5785
165	5825		

For 802.11n/ac(VHT40):

channel	Frequency(MHz)	channel	Frequency(MHz)
38	5190	46	5230

channel	Frequency(MHz)	channel	Frequency(MHz)
54	5270	62	5310

channel	Frequency(MHz)	channel	Frequency(MHz)
102	5510	110	5550
134	5670		

channel	Frequency(MHz)	channel	Frequency(MHz)
151	5755	159	5795

For 802.11ac(VHT80):

channel	Frequency(MHz)	channel	Frequency(MHz)
42	5210		

channel	Frequency(MHz)	channel	Frequency(MHz)
58	5290		

channel	Frequency(MHz)	channel	Frequency(MHz)
106	5530	122	5610

channel	Frequency(MHz)	channel	Frequency(MHz)
155	5775		

4.4 Test Mode Description

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.

Transmitting duty cycle is no less 98%.

The software is TermAssist and SecureCRT tool Use together.

Test Items	Mode	Data Rate	TX/RX
Radiated Emissions	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Duty Cycle	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Band Edge	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
6dB Bandwidth	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
26dB Bandwidth and 99% Occupied Bandwidth	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Conducted Output Power	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Power Spectral Density	802.11a (HT20)	6 Mbps	TX
	802.11n/ac(HT20/40/80)	MCS0	TX
Frequency Stability	Un-modulation	/	TX

4.5 Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group 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. Registration number 523476, September 10, 2019.

5 Equipment Used during Test

5.1 Equipments List

Conducted Emissions Test Site 1#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1.	EMI Test Receiver	R&S	ESCI	100947	2022-08-01	2023-07-31
2.	LISN	R&S	ENV216	100115	2022-08-01	2023-07-31
3.	Cable	Top	TYPE16(3.5M)	-	2022-08-01	2023-07-31
3m Semi-anechoic Chamber for Radiation Emissions Test site 1#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1	Spectrum Analyzer	R&S	FSP30	100091	2023-04-24	2024-04-23
2	Amplifier	Agilent	8447D	2944A10178	2022-08-01	2023-07-31
3	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	336	2022-08-01	2023-07-31
4	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	2022-08-07	2023-08-06
5	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	2023-02-02	2024-02-01
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	2023-04-24	2024-04-23
7	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	2022-08-08	2023-08-07
8	Coaxial Cable (above 1GHz)	ZT26-NJ-NJ-8M/FA	1GHz-18GHz	NA	2023-04-24	2024-04-23
3m Semi-anechoic Chamber for Radiation Emissions Test site 2#						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No**	**Last Calibration Date**	**Calibration Due Date**
1	Test Receiver	R&S	ESCI	101296	2023-04-24	2024-04-23
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2022-10-30	2023-10-29
3	Active Loop Antenna	Com-Power Corp.	AL-130R	10160007	2023-04-26	2024-04-25
4	Amplifier	ANRITSU	MH648A	M43381	2023-04-24	2024-04-23
5	Cable	HUBER+SUHNER	CBL2	525178	2023-04-24	2024-04-23
RF Conducted Testing						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1.	Spectrum Analyzer	R&S	FSP40	100501	2022-08-01	2023-07-31
2.	EXA Signal Analyzer	Malaysia Keysight	N9010A	MY50520207	2023-04-24	2024-04-23

5.2 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	± 1 x 10^{-6}
RF Power	± 1.0 dB
RF Power Density	± 2.2 dB
Radiated Spurious Emissions test	± 5.03 dB (30M~1000MHz)
	± 5.47 dB (1000M~25000MHz)
Conducted Spurious Emissions test	± 3.64 dB (AC mains 150KHz~30MHz)

6 Test Summary

Test Items	Test Requirement	Result
Conducted Emissions	15.207(a)	PASS
Radiated Emissions	15.407(a) 15.205(a) 15.209(a)	PASS
Duty Cycle	KDB 789033	PASS
6dB Bandwidth	15.407(a)	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	15.407(a)	PASS
Maximum Conducted Output Power	15.407(a)	PASS
Power Spectral Density	15.407(a)	PASS
Restricted bands around fundamental frequency	15.407(a)	PASS
Antenna Requirement	15.203	PASS
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS

7 Conducted Emission

Test Requirement: FCC 47CFR Part 15 Section 15.207

Test Method: ANSI C63.10:2013

Test Result: PASS

Frequency Range: 150kHz to 30MHz

Limit:

Frequency (MHz)	Limit (dBμV)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56	56 to 46
0.5 to 5	56	46
5 o 30	60	50

7.1 E.U.T. Operation

Operating Environment **:**

Temperature: 25.6 °C

Humidity: 56.9 % RH

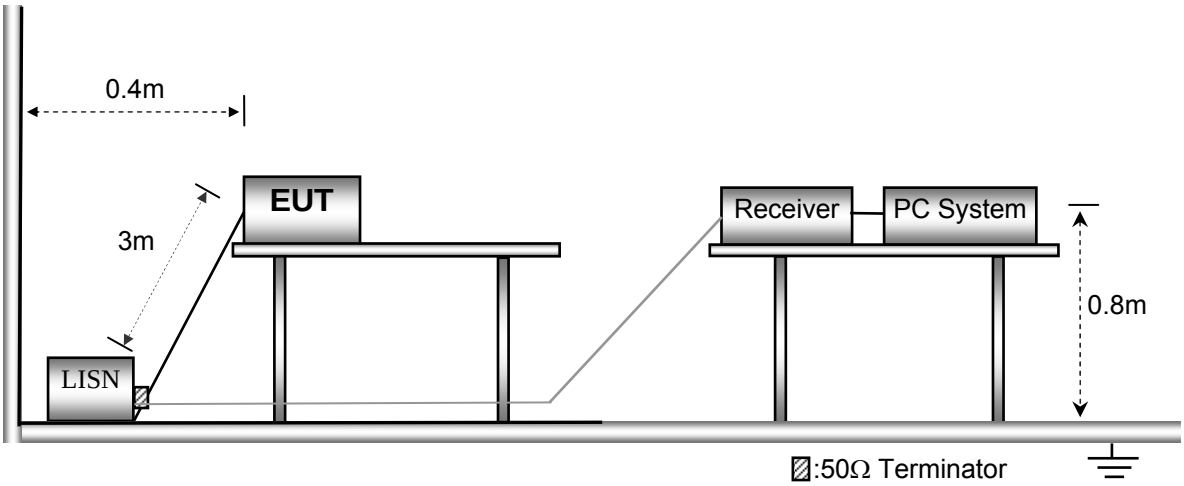
Atmospheric Pressure: 101.2kPa

EUT Operation :

The test was performed in transmitting mode, the test data were shown in the report.

7.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



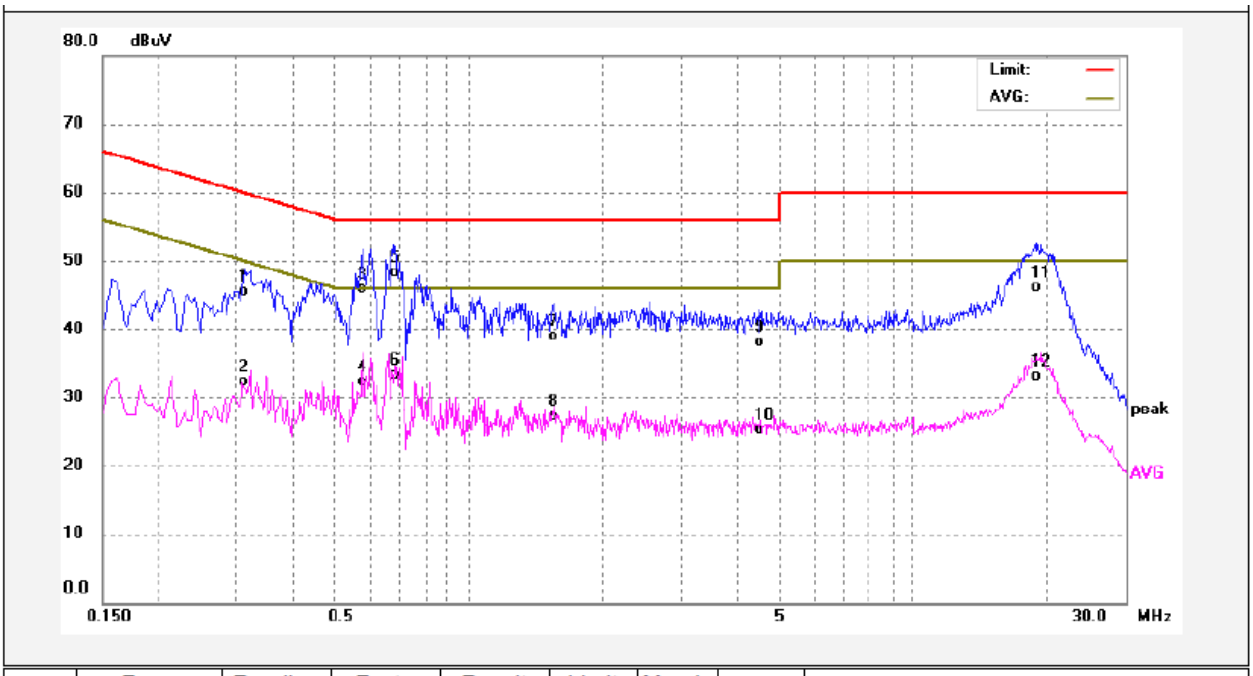
7.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

7.4 Conducted Emission Test Result

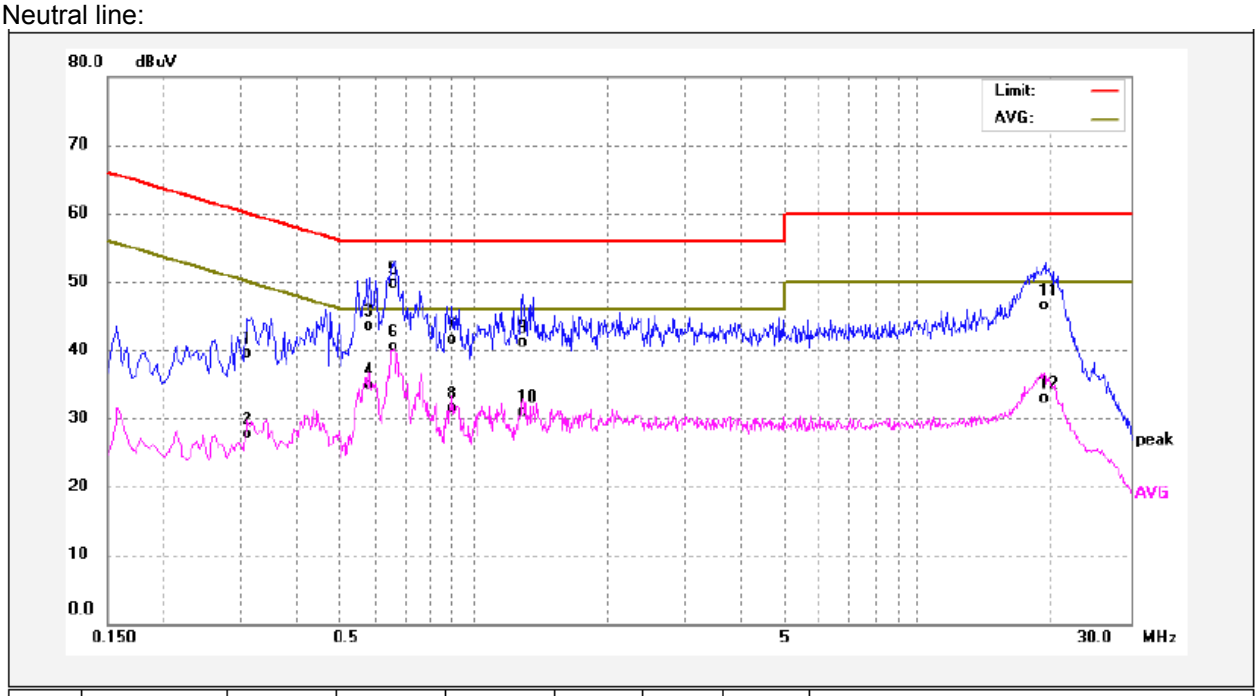
An initial pre-scan was performed on the live and neutral lines.

Live line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.3140	34.62	10.84	45.46	59.86	-14.40	QP	
2	0.3140	21.55	10.84	32.39	49.86	-17.47	AVG	
3	0.5780	35.18	10.71	45.89	56.00	-10.11	QP	
4	0.5780	21.64	10.71	32.35	46.00	-13.65	AVG	
5	0.6780	37.60	10.67	48.27	56.00	-7.73	QP	
6	0.6780	22.58	10.67	33.25	46.00	-12.75	AVG	
7	1.5500	28.33	10.55	38.88	56.00	-17.12	QP	
8	1.5500	16.73	10.55	27.28	46.00	-18.72	AVG	
9	4.5100	27.39	10.71	38.10	56.00	-17.90	QP	
10	4.5100	14.57	10.71	25.28	46.00	-20.72	AVG	
11	18.8660	35.39	10.62	46.01	60.00	-13.99	QP	
12	18.8660	22.56	10.62	33.18	50.00	-16.82	AVG	

Neutral line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.3100	28.74	10.81	39.55	59.97	-20.42	QP	
2	0.3100	16.90	10.81	27.71	49.97	-22.26	AVG	
3	0.5820	32.83	10.68	43.51	56.00	-12.49	QP	
4	0.5820	24.27	10.68	34.95	46.00	-11.05	AVG	
5	0.6580	39.08	10.63	49.71	56.00	-6.29	QP	
6	0.6580	29.93	10.63	40.56	46.00	-5.44	AVG	
7	0.8980	31.00	10.53	41.53	56.00	-14.47	QP	
8	0.8980	20.91	10.53	31.44	46.00	-14.56	AVG	
9	1.2900	30.65	10.48	41.13	56.00	-14.87	QP	
10	1.2900	20.36	10.48	30.84	46.00	-15.16	AVG	
11	19.1500	35.81	10.61	46.42	60.00	-13.58	QP	
12	19.1500	22.27	10.61	32.88	50.00	-17.12	AVG	

8 Radiated Emissions

Test Requirement: FCC 47CFR Part 15 Section 15.209 & 15.407

Test Method: ANSI C63.10:2013

Test Result: PASS

Measurement Distance: 3m

Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Distance	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

8.1 EUT Operation

Operating Environment **:**

Temperature: 23.5 °C

Humidity: 52.1 % RH

Atmospheric Pressure: 101.2kPa

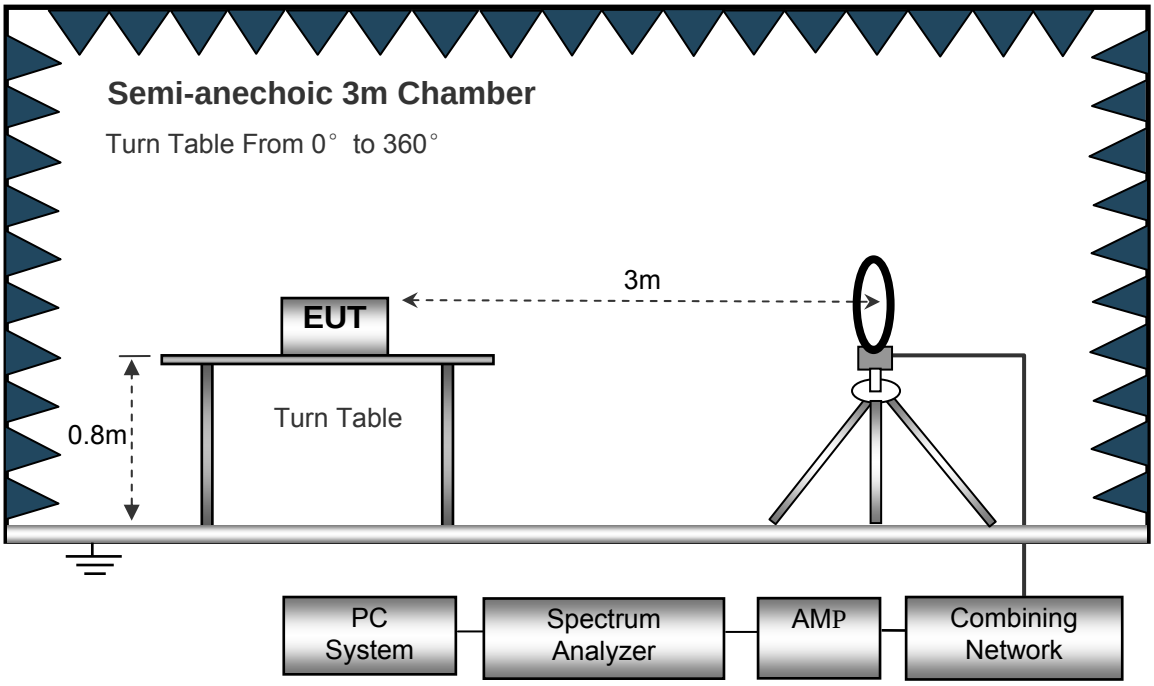
EUT Operation :

The test was performed in transmitting mode, the test data were shown in the report.

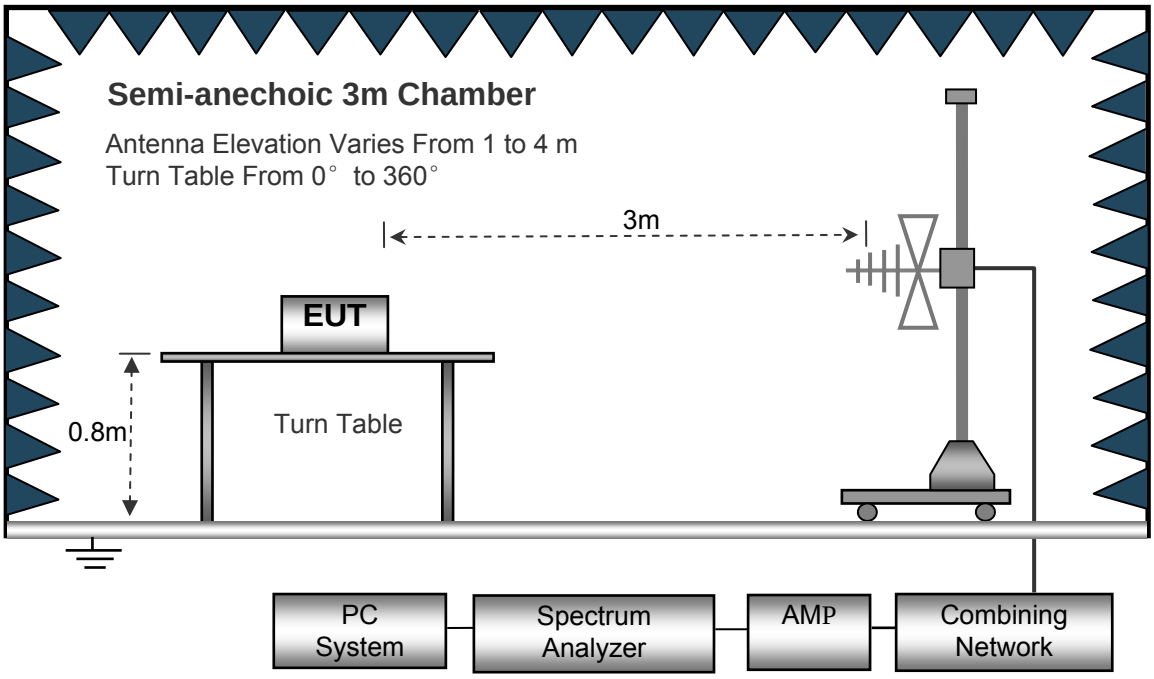
8.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.10: 2013.

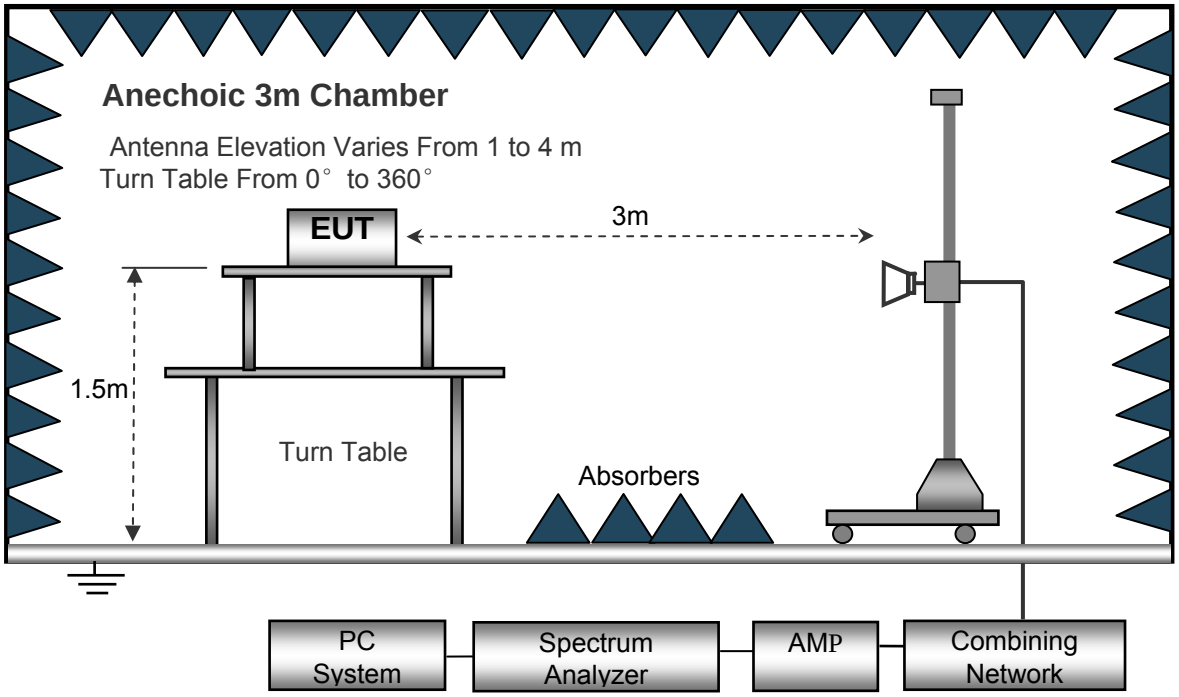
The test setup for emission measurement below 30MHz.



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



The test setup for emission measurement above 1 GHz.



8.3 Spectrum Analyzer Setup

Below 30MHz

Sweep Speed ..... Auto
IF Bandwidth..... 10kHz
Video Bandwidth..... 10kHz
Resolution Bandwidth..... 10kHz

30MHz ~ 1GHz

Sweep Speed ..... Auto
Detector ..... PK
Resolution Bandwidth..... 100kHz
Video Bandwidth..... 300kHz

Above 1GHz

Sweep Speed ..... Auto
Detector ..... PK
Resolution Bandwidth..... 1MHz
Video Bandwidth..... 3MHz
Detector ..... Ave.
Resolution Bandwidth..... 1MHz
Video Bandwidth..... 10Hz

8.4 Test Procedure

1. The EUT is placed on a turntable, which is 0.8m above ground plane for below 1GHz and 1.5m for above 1GHz.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The radiation measurements are performed in X,Y and Z axis positioning(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand),the worst condition was tested putting the eut in X axis,so the worst data were shown as follow.
8. A 2.4GHz high –pass filter is used druing radiated emissions above 1GHz measurement.

8.5 Corrected Amplitude & Margin Calculation

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

Corr. Ampl. = Indicated Reading + Antenna Factor + Cable Factor - Amplifier Gain

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the maximum limit for Class B. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – Limit

8.6 Summary of Test Results

Test Frequency: 9KHz~30MHz

Frequency	Measurement results dBμV @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dBμV/m @30m	Limits dBμV/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-1:802.11a 5180MHz							
7.280	25.60	QP	21.84	40.00	7.44	29.54	-22.10
15.696	25.90	QP	21.35	40.00	7.25	29.54	-22.29
26.430	24.91	QP	20.67	40.00	5.58	29.54	-23.96
U-NII-1:802.11n20 5180MHz							
7.227	25.76	QP	21.84	40.00	7.60	29.54	-21.94
15.757	26.29	QP	21.35	40.00	7.64	29.54	-21.90
26.233	24.48	QP	20.67	40.00	5.15	29.54	-24.39
U-NII-1:802.11ac 20 5180MHz							
7.316	25.72	QP	21.84	40.00	7.56	29.54	-21.98
16.298	26.24	QP	21.35	40.00	7.59	29.54	-21.95
26.549	24.57	QP	20.67	40.00	5.24	29.54	-24.30
U-NII-1:802.11n40 5190MHz							
7.170	26.00	QP	21.84	40.00	7.84	29.54	-21.70
15.977	26.67	QP	21.35	40.00	8.02	29.54	-21.52
26.811	24.85	QP	20.67	40.00	5.52	29.54	-24.02
U-NII-1:802.11ac40 5190MHz							
7.335	26.01	QP	21.84	40.00	7.85	29.54	-21.69
15.851	26.12	QP	21.35	40.00	7.47	29.54	-22.07
26.677	24.54	QP	20.67	40.00	5.21	29.54	-24.33
U-NII-1:802.11ac80 5210MHz							
7.008	25.21	QP	21.84	40.00	7.05	29.54	-22.49
16.582	26.43	QP	21.35	40.00	7.78	29.54	-21.76
26.834	25.04	QP	20.67	40.00	5.71	29.54	-23.83

Frequency	Measurement results dBμV @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dBμV/m @30m	Limits dBμV/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-2A:802.11a 5260MHz							
7.235	25.41	QP	21.84	40.00	7.25	29.54	-22.29
15.725	26.17	QP	21.35	40.00	7.52	29.54	-22.02
26.351	25.21	QP	20.67	40.00	5.88	29.54	-23.66
U-NII-2A:802.11n20 5260MHz							
7.159	25.15	QP	21.84	40.00	6.99	29.54	-22.55
16.337	26.70	QP	21.35	40.00	8.05	29.54	-21.49
26.691	24.49	QP	20.67	40.00	5.16	29.54	-24.38
U-NII-2A:802.11ac 5260MHz							
7.138	25.83	QP	21.84	40.00	7.67	29.54	-21.87
15.669	26.21	QP	21.35	40.00	7.56	29.54	-21.98
26.726	25.25	QP	20.67	40.00	5.92	29.54	-23.62
U-NII-2A:802.11n40 5270MHz							
7.082	25.82	QP	21.84	40.00	7.66	29.54	-21.88
16.577	26.18	QP	21.35	40.00	7.53	29.54	-22.01
26.193	25.40	QP	20.67	40.00	6.07	29.54	-23.47
U-NII-2A:802.11ac40 5270MHz							
7.294	25.67	QP	21.84	40.00	7.51	29.54	-22.03
16.544	26.68	QP	21.35	40.00	8.03	29.54	-21.51
26.094	24.70	QP	20.67	40.00	5.37	29.54	-24.17
U-NII-2A:802.11ac80 5290MHz							
7.239	25.20	QP	21.84	40.00	7.04	29.54	-22.50
15.753	26.69	QP	21.35	40.00	8.04	29.54	-21.50
26.562	24.91	QP	20.67	40.00	5.58	29.54	-23.96

Frequency	Measurement results dBμV @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dBμV/m @30m	Limits dBμV/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-2C:802.11a 5500MHz							
7.202	25.87	QP	21.84	40.00	7.71	29.54	-21.83
16.577	25.70	QP	21.35	40.00	7.05	29.54	-22.49
26.395	25.24	QP	20.67	40.00	5.91	29.54	-23.63
U-NII-2C:802.11n20 5500MHz							
7.126	26.00	QP	21.84	40.00	7.84	29.54	-21.70
15.927	26.53	QP	21.35	40.00	7.88	29.54	-21.66
26.127	25.35	QP	20.67	40.00	6.02	29.54	-23.52
U-NII-2C:802.11ac20 5500MHz							
7.227	25.39	QP	21.84	40.00	7.23	29.54	-22.31
16.365	25.98	QP	21.35	40.00	7.33	29.54	-22.21
26.824	24.85	QP	20.67	40.00	5.52	29.54	-24.02
U-NII-2C:802.11n40 5510MHz							
7.333	25.82	QP	21.84	40.00	7.66	29.54	-21.88
15.998	25.92	QP	21.35	40.00	7.27	29.54	-22.27
26.453	25.20	QP	20.67	40.00	5.87	29.54	-23.67
U-NII-2C:802.11ac40 5510MHz							
7.112	25.16	QP	21.84	40.00	7.00	29.54	-22.54
16.510	26.68	QP	21.35	40.00	8.03	29.54	-21.51
26.789	24.55	QP	20.67	40.00	5.22	29.54	-24.32
U-NII-2C:802.11ac80 5530MHz							
7.314	25.57	QP	21.84	40.00	7.41	29.54	-22.13
15.745	26.01	QP	21.35	40.00	7.36	29.54	-22.18
26.173	24.62	QP	20.67	40.00	5.29	29.54	-24.25

Frequency	Measurement results dBμV @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dBμV/m @30m	Limits dBμV/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-3 802.11a 5745MHz							
7.300	25.97	QP	21.84	40.00	7.81	29.54	-21.73
16.215	26.28	QP	21.35	40.00	7.63	29.54	-21.91
26.312	25.20	QP	20.67	40.00	5.87	29.54	-23.67
U-NII-3 802.11n20 5745MHz							
7.070	25.55	QP	21.84	40.00	7.39	29.54	-22.15
16.091	26.50	QP	21.35	40.00	7.85	29.54	-21.69
26.239	24.52	QP	20.67	40.00	5.19	29.54	-24.35
U-NII-3 802.11ac 5745MHz							
7.057	25.82	QP	21.84	40.00	7.66	29.54	-21.88
16.607	26.04	QP	21.35	40.00	7.39	29.54	-22.15
26.145	24.89	QP	20.67	40.00	5.56	29.54	-23.98
U-NII-3 802.11n40 5755MHz							
7.197	25.90	QP	21.84	40.00	7.74	29.54	-21.80
15.976	26.36	QP	21.35	40.00	7.71	29.54	-21.83
26.152	24.82	QP	20.67	40.00	5.49	29.54	-24.05
U-NII-3 802.11ac40 5755MHz							
7.215	25.28	QP	21.84	40.00	7.12	29.54	-22.42
15.673	25.92	QP	21.35	40.00	7.27	29.54	-22.27
26.605	24.67	QP	20.67	40.00	5.34	29.54	-24.20
U-NII-3 802.11ac80 5775MHz							
7.272	26.00	QP	21.84	40.00	7.84	29.54	-21.70
15.736	25.91	QP	21.35	40.00	7.26	29.54	-22.28
26.668	25.16	QP	20.67	40.00	5.83	29.54	-23.71

Test Frequency : 30MHz ~ 18GHz

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a U-NII-1 Low Channel 5180MHz									
266.99	41.43	QP	320	1.3	H	-11.62	29.81	46.00	-16.19
266.99	38.34	QP	141	1.8	V	-11.62	26.72	46.00	-19.28
4522.33	53.73	PK	33	1.5	H	-2.03	51.70	74.00	-22.30
4522.33	43.55	Ave	33	1.5	H	-2.03	41.52	54.00	-12.48
5123.77	53.07	PK	193	1.9	H	-1.02	52.05	74.00	-21.95
5123.77	44.94	Ave	193	1.9	H	-1.02	43.92	54.00	-10.08
10360.00	41.49	PK	126	1.4	H	5.33	46.82	74.00	-27.18
10360.00	37.97	Ave	126	1.4	H	5.33	43.30	54.00	-10.70
802.11a U-NII-1 Middle channel 5200MHz									
266.99	42.82	QP	312	1.1	H	-11.62	31.20	46.00	-14.80
266.99	36.97	QP	162	1.9	V	-11.62	25.35	46.00	-20.65
4526.09	53.33	PK	218	2.0	H	-1.94	51.39	74.00	-22.61
4526.09	43.82	Ave	218	2.0	H	-1.94	41.88	54.00	-12.12
5142.56	53.29	PK	136	1.3	H	-1.06	52.23	74.00	-21.77
5142.56	45.81	Ave	136	1.3	H	-1.06	44.75	54.00	-9.25
10400.00	42.19	PK	87	1.2	H	5.21	47.40	74.00	-26.60
10400.00	37.24	Ave	87	1.2	H	5.21	42.45	54.00	-11.55

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a U-NII-1 High channel 5240MHz									
266.99	41.34	QP	75	2.0	H	-11.62	29.72	46.00	-16.28
266.99	35.85	QP	51	1.1	V	-11.62	24.23	46.00	-21.77
4534.64	53.30	PK	122	1.5	H	-2.24	51.06	74.00	-22.94
4534.64	44.18	Ave	122	1.5	H	-2.24	41.94	54.00	-12.06
5117.83	52.35	PK	140	1.0	H	-1.09	51.26	74.00	-22.74
5117.83	46.98	Ave	140	1.0	H	-1.09	45.89	54.00	-8.11
10480.00	40.24	PK	307	1.1	H	5.14	45.38	74.00	-28.62
10480.00	36.70	Ave	307	1.1	H	5.14	41.84	54.00	-12.16
802.11a U-NII-2A Low Channel 5260MHz									
223.45	41.23	QP	333	1.1	H	-11.62	29.61	46.00	-16.39
223.45	36.25	QP	49	1.6	V	-11.62	24.63	46.00	-21.37
4532.96	50.54	PK	64	1.9	H	-2.03	48.51	74.00	-25.49
4532.96	42.32	Ave	64	1.9	H	-2.03	40.29	54.00	-13.71
5121.96	52.61	PK	103	1.3	H	-1.02	51.59	74.00	-22.41
5121.96	44.58	Ave	103	1.3	H	-1.02	43.56	54.00	-10.44
10520.00	41.09	PK	174	1.7	H	5.33	46.42	74.00	-27.58
10520.00	35.50	Ave	174	1.7	H	5.33	40.83	54.00	-13.17

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a U-NII-2A middle channel 5280MHz									
223.45	41.06	QP	333	1.7	H	-11.62	29.44	46.00	-16.56
223.45	34.88	QP	313	2.0	V	-11.62	23.26	46.00	-22.74
4518.83	50.18	PK	120	1.6	H	-1.94	48.24	74.00	-25.76
4518.83	43.71	Ave	120	1.6	H	-1.94	41.77	54.00	-12.23
5119.60	52.84	PK	339	1.8	H	-1.06	51.78	74.00	-22.22
5119.60	44.00	Ave	339	1.8	H	-1.06	42.94	54.00	-11.06
10560.00	41.29	PK	238	1.8	H	5.21	46.50	74.00	-27.50
10560.00	36.89	Ave	238	1.8	H	5.21	42.10	54.00	-11.90
802.11a U-NII-2A High channel 5320MHz									
223.45	39.90	QP	181	1.6	H	-11.62	28.28	46.00	-17.72
223.45	36.20	QP	334	1.1	V	-11.62	24.58	46.00	-21.42
4533.17	48.94	PK	263	2.0	H	-2.24	46.70	74.00	-27.30
4533.17	42.31	Ave	263	2.0	H	-2.24	40.07	54.00	-13.93
5111.70	53.84	PK	17	1.6	H	-1.09	52.75	74.00	-21.25
5111.70	44.77	Ave	17	1.6	H	-1.09	43.68	54.00	-10.32
10640.00	39.94	PK	32	1.7	H	5.14	45.08	74.00	-28.92
10640.00	34.88	Ave	32	1.7	H	5.14	40.02	54.00	-13.98

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a U-NII-2C Low Channel 5500MHz									
223.45	42.04	QP	235	1.1	H	-11.62	30.42	46.00	-15.58
223.45	36.48	QP	240	1.7	V	-11.62	24.86	46.00	-21.14
4504.92	50.84	PK	316	1.4	H	-2.03	48.81	74.00	-25.19
4504.92	41.98	Ave	316	1.4	H	-2.03	39.95	54.00	-14.05
5148.90	51.65	PK	2	1.0	H	-1.02	50.63	74.00	-23.37
5148.90	42.02	Ave	2	1.0	H	-1.02	41.00	54.00	-13.00
11000.00	41.58	PK	32	1.7	H	5.33	46.91	74.00	-27.09
11000.00	36.47	Ave	32	1.7	H	5.33	41.80	54.00	-12.20
802.11a U-NII-2C Middle channel 5600MHz									
223.45	40.58	QP	235	1.8	H	-11.62	28.96	46.00	-17.04
223.45	37.55	QP	342	1.9	V	-11.62	25.93	46.00	-20.07
4529.71	51.16	PK	178	1.4	H	-1.94	49.22	74.00	-24.78
4529.71	40.99	Ave	178	1.4	H	-1.94	39.05	54.00	-14.95
5127.96	53.04	PK	321	1.9	H	-1.06	51.98	74.00	-22.02
5127.96	42.54	Ave	321	1.9	H	-1.06	41.48	54.00	-12.52
11200.00	40.82	PK	117	1.4	H	5.21	46.03	74.00	-27.97
11200.00	35.30	Ave	117	1.4	H	5.21	40.51	54.00	-13.49

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a U-NII-2C High channel 5700MHz									
223.45	39.47	QP	277	1.7	H	-11.62	27.85	46.00	-18.15
223.45	36.13	QP	188	1.8	V	-11.62	24.51	46.00	-21.49
4520.89	50.30	PK	4	1.6	H	-2.24	48.06	74.00	-25.94
4520.89	42.31	Ave	4	1.6	H	-2.24	40.07	54.00	-13.93
5121.88	54.82	PK	218	1.3	H	-1.09	53.73	74.00	-20.27
5121.88	42.36	Ave	218	1.3	H	-1.09	41.27	54.00	-12.73
11400.00	41.48	PK	93	1.5	H	5.14	46.62	74.00	-27.38
11400.00	37.88	Ave	93	1.5	H	5.14	43.02	54.00	-10.98
802.11a U-NII-3 Low Channel 5745MHz									
266.99	40.19	QP	203	1.0	H	-11.62	28.57	46.00	-17.43
266.99	38.34	QP	24	1.0	V	-11.62	26.72	46.00	-19.28
4509.06	52.24	PK	186	1.2	H	-2.06	50.18	74.00	-23.82
4509.06	44.91	Ave	186	1.2	H	-2.06	42.85	54.00	-11.15
11490.00	43.24	PK	218	1.8	H	5.93	49.17	74.00	-24.83
11490.00	36.60	Ave	218	1.8	H	5.93	42.53	54.00	-11.47
5358.34	46.03	PK	199	1.1	H	-1.25	44.78	74.00	-29.22
5358.34	39.55	Ave	199	1.1	H	-1.25	38.30	54.00	-15.70

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11a U-NII-3 middle channel 5785MHz									
266.99	40.28	QP	283	1.2	H	-11.62	28.66	46.00	-17.34
266.99	38.15	QP	350	1.7	V	-11.62	26.53	46.00	-19.47
4530.92	50.93	PK	196	1.3	H	-2.03	48.90	74.00	-25.10
4530.92	43.74	Ave	196	1.3	H	-2.03	41.71	54.00	-12.29
11570.00	42.62	PK	88	1.9	H	5.81	48.43	74.00	-25.57
11570.00	36.55	Ave	88	1.9	H	5.81	42.36	54.00	-11.64
5382.43	45.28	PK	212	1.1	H	-1.22	44.06	74.00	-29.94
5382.43	37.57	Ave	212	1.1	H	-1.22	36.35	54.00	-17.65
802.11a U-NII-3 High channel 5825MHz									
266.99	39.90	QP	128	1.6	H	-11.62	28.28	46.00	-17.72
266.99	37.78	QP	182	1.5	V	-11.62	26.16	46.00	-19.84
4537.42	51.38	PK	327	1.2	H	-1.84	49.54	74.00	-24.46
4537.42	43.81	Ave	327	1.2	H	-1.84	41.97	54.00	-12.03
11650.00	42.12	PK	323	1.2	H	5.84	47.96	74.00	-26.04
11650.00	38.96	Ave	323	1.2	H	5.84	44.80	54.00	-9.20
5375.16	45.38	PK	288	1.8	H	-1.30	44.08	74.00	-29.92
5375.16	38.24	Ave	288	1.8	H	-1.30	36.94	54.00	-17.06

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) U-NII-1 Low Channel 5180MHz									
266.99	40.02	QP	332	1.1	H	-11.62	28.40	46.00	-17.60
266.99	38.50	QP	269	1.1	V	-11.62	26.88	46.00	-19.12
4501.19	51.21	PK	208	1.8	H	-2.14	49.07	74.00	-24.93
4501.19	43.37	Ave	208	1.8	H	-2.14	41.23	54.00	-12.77
5120.41	47.72	PK	197	1.5	H	-1.06	46.66	74.00	-27.34
5120.41	39.84	Ave	197	1.5	H	-1.06	38.78	54.00	-15.22
10360.00	42.52	PK	308	1.7	H	5.33	47.85	74.00	-26.15
10360.00	38.84	Ave	308	1.7	H	5.33	44.17	54.00	-9.83
802.11n(HT20) U-NII-1 Middle channel 5200MHz									
266.99	40.40	QP	36	1.8	H	-11.62	28.78	46.00	-17.22
266.99	37.49	QP	195	1.2	V	-11.62	25.87	46.00	-20.13
4503.26	50.25	PK	26	1.5	H	-2.12	48.13	74.00	-25.87
4503.26	42.75	Ave	26	1.5	H	-2.12	40.63	54.00	-13.37
5149.55	47.13	PK	272	1.3	H	-1.06	46.07	74.00	-27.93
5149.55	41.64	Ave	272	1.3	H	-1.06	40.58	54.00	-13.42
10400.00	41.05	PK	138	1.8	H	5.21	46.26	74.00	-27.74
10400.00	38.70	Ave	138	1.8	H	5.21	43.91	54.00	-10.09

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) U-NII-1 High channel 5240MHz									
266.99	39.83	QP	88	1.3	H	-11.62	28.21	46.00	-17.79
266.99	37.43	QP	247	1.8	V	-11.62	25.81	46.00	-20.19
4534.08	50.69	PK	275	1.8	H	-1.96	48.73	74.00	-25.27
4534.08	44.23	Ave	275	1.8	H	-1.96	42.27	54.00	-11.73
5118.02	47.86	PK	322	2.0	H	-1.06	46.80	74.00	-27.20
5118.02	41.30	Ave	322	2.0	H	-1.06	40.24	54.00	-13.76
10480.00	40.62	PK	266	1.7	H	5.14	45.76	74.00	-28.24
10480.00	37.26	Ave	266	1.7	H	5.14	42.40	54.00	-11.60
802.11n(HT20) U-NII-2A Low Channel 5260MHz									
266.99	40.61	QP	284	1.8	H	-11.62	28.99	46.00	-17.01
266.99	40.86	QP	229	1.7	V	-11.62	29.24	46.00	-16.76
4523.05	36.33	PK	55	1.7	H	-2.03	34.30	74.00	-39.70
4523.05	45.93	Ave	55	1.7	H	-2.03	43.90	54.00	-10.10
5128.13	36.45	PK	200	1.2	H	-1.02	35.43	74.00	-38.57
5128.13	1.63	Ave	200	1.2	H	-1.02	0.61	54.00	-53.39
10520.00	40.09	PK	336	1.9	H	5.33	45.42	74.00	-28.58
10520.00	38.10	Ave	336	1.9	H	5.33	43.43	54.00	-10.57

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) U-NII-2A middle channel 5280MHz									
266.99	39.26	QP	192	1.1	H	-11.62	27.64	46.00	-18.36
266.99	41.59	QP	201	1.1	V	-11.62	29.97	46.00	-16.03
4509.92	37.43	PK	126	1.7	H	-1.94	35.49	74.00	-38.51
4509.92	47.36	Ave	126	1.7	H	-1.94	45.42	54.00	-8.58
5148.78	36.38	PK	355	1.9	H	-1.06	35.32	74.00	-38.68
5148.78	1.57	Ave	355	1.9	H	-1.06	0.51	54.00	-53.49
10560.00	39.38	PK	145	2.0	H	5.21	44.59	74.00	-29.41
10560.00	38.78	Ave	145	2.0	H	5.21	43.99	54.00	-10.01
802.11n(HT20) U-NII-2A High channel 5320MHz									
266.99	38.87	QP	290	1.7	H	-11.62	27.25	46.00	-18.75
266.99	41.02	QP	219	1.5	V	-11.62	29.40	46.00	-16.60
4526.75	36.30	PK	264	1.1	H	-2.24	34.06	74.00	-39.94
4526.75	47.40	Ave	264	1.1	H	-2.24	45.16	54.00	-8.84
5132.87	36.84	PK	237	1.1	H	-1.09	35.75	74.00	-38.25
5132.87	2.98	Ave	237	1.1	H	-1.09	1.89	54.00	-52.11
10640.00	40.77	PK	290	1.8	H	5.14	45.91	74.00	-28.09
10640.00	37.65	Ave	290	1.8	H	5.14	42.79	54.00	-11.21

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) U-NII-2C Low Channel 5500MHz									
266.99	37.03	QP	182	1.1	H	-11.62	25.41	46.00	-20.59
266.99	3.58	QP	344	1.7	V	-11.62	-8.04	46.00	-54.04
4500.19	39.35	PK	177	1.8	H	-2.03	37.32	74.00	-36.68
4500.19	38.20	Ave	177	1.8	H	-2.03	36.17	54.00	-17.83
5144.56	46.81	PK	324	1.9	H	-1.02	45.79	74.00	-28.21
5144.56	39.37	Ave	324	1.9	H	-1.02	38.35	54.00	-15.65
11000.00	-1.21	PK	247	1.9	H	5.33	4.12	74.00	-69.88
11000.00	38.47	Ave	247	1.9	H	5.33	43.80	54.00	-10.20
802.11n(HT20) U-NII-2C Middle channel 5600MHz									
266.99	36.36	QP	142	1.7	H	-11.62	24.74	46.00	-21.26
266.99	2.95	QP	145	1.3	V	-11.62	-8.67	46.00	-54.67
4513.47	39.78	PK	130	1.1	H	-1.94	37.84	74.00	-36.16
4513.47	38.19	Ave	130	1.1	H	-1.94	36.25	54.00	-17.75
5122.71	47.83	PK	25	1.9	H	-1.06	46.77	74.00	-27.23
5122.71	40.58	Ave	25	1.9	H	-1.06	39.52	54.00	-14.48
11200.00	-0.03	PK	297	1.9	H	5.21	5.18	74.00	-68.82
11200.00	39.16	Ave	297	1.9	H	5.21	44.37	54.00	-9.63

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) U-NII-2C High channel 5700MHz									
266.99	37.79	QP	284	1.2	H	-11.62	26.17	46.00	-19.83
266.99	2.85	QP	350	1.3	V	-11.62	-8.77	46.00	-54.77
4520.64	39.47	PK	284	1.8	H	-2.24	37.23	74.00	-36.77
4520.64	36.78	Ave	284	1.8	H	-2.24	34.54	54.00	-19.46
5146.85	48.34	PK	83	1.3	H	-1.09	47.25	74.00	-26.75
5146.85	39.72	Ave	83	1.3	H	-1.09	38.63	54.00	-15.37
11400.00	-0.06	PK	36	1.1	H	5.14	5.08	74.00	-68.92
11400.00	39.60	Ave	36	1.1	H	5.14	44.74	54.00	-9.26
802.11n(HT20) U-NII-3 Low Channel 5745MHz									
266.99	41.15	QP	30	2.0	H	-11.62	29.53	46.00	-16.47
266.99	47.76	QP	123	1.4	V	-11.62	36.14	46.00	-9.86
4508.63	42.63	PK	290	1.1	H	-2.06	40.57	74.00	-33.43
4508.63	47.21	Ave	290	1.1	H	-2.06	45.15	54.00	-8.85
11490.00	37.06	PK	209	1.2	H	5.93	42.99	74.00	-31.01
11490.00	38.83	Ave	209	1.2	H	5.93	44.76	54.00	-9.24
5363.70	45.13	PK	46	1.0	H	-1.25	43.88	74.00	-30.12
5363.70	38.49	Ave	46	1.0	H	-1.25	37.24	54.00	-16.76

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT20) U-NII-3 middle channel 5785MHz									
266.99	39.93	QP	254	1.3	H	-11.62	28.31	46.00	-17.69
266.99	42.74	QP	44	1.7	V	-11.62	31.12	46.00	-14.88
4521.38	44.02	PK	183	2.0	H	-2.03	41.99	74.00	-32.01
4521.38	47.40	Ave	183	2.0	H	-2.03	45.37	54.00	-8.63
11570.00	38.42	PK	21	1.1	H	5.81	44.23	74.00	-29.77
11570.00	39.54	Ave	21	1.1	H	5.81	45.35	54.00	-8.65
5355.99	45.35	PK	133	1.4	H	-1.22	44.13	74.00	-29.87
5355.99	37.18	Ave	133	1.4	H	-1.22	35.96	54.00	-18.04
802.11n(HT20) U-NII-3 High channel 5825MHz									
266.99	41.03	QP	180	1.0	H	-11.62	29.41	46.00	-16.59
266.99	43.00	QP	51	1.1	V	-11.62	31.38	46.00	-14.62
4506.42	45.42	PK	301	1.7	H	-1.84	43.58	74.00	-30.42
4506.42	47.73	Ave	301	1.7	H	-1.84	45.89	54.00	-8.11
11650.00	36.57	PK	176	1.2	H	5.84	42.41	74.00	-31.59
11650.00	40.22	Ave	176	1.2	H	5.84	46.06	54.00	-7.94
5373.92	46.24	PK	147	1.6	H	-1.30	44.94	74.00	-29.06
5373.92	38.25	Ave	147	1.6	H	-1.30	36.95	54.00	-17.05

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT20) U-NII-1 Low Channel 5180MHz									
266.99	37.11	QP	25	1.1	H	-11.62	25.49	46.00	-20.51
266.99	38.74	QP	285	1.6	V	-11.62	27.12	46.00	-18.88
4535.08	46.75	PK	352	1.6	H	-1.86	44.89	74.00	-29.11
4535.08	37.95	Ave	352	1.6	H	-1.86	36.09	54.00	-17.91
5129.78	41.39	PK	275	1.6	H	-1.06	40.33	74.00	-33.67
5129.78	39.81	Ave	275	1.6	H	-1.06	38.75	54.00	-15.25
10360.00	45.67	PK	156	1.3	H	5.33	51.00	74.00	-23.00
10360.00	37.89	Ave	156	1.3	H	5.33	43.22	54.00	-10.78
802.11ac(VHT20) U-NII-1 Middle channel 5200MHz									
266.99	36.83	QP	67	1.9	H	-11.62	25.21	46.00	-20.79
266.99	38.38	QP	331	1.7	V	-11.62	26.76	46.00	-19.24
4522.12	45.89	PK	106	1.3	H	-1.82	44.07	74.00	-29.93
4522.12	37.61	Ave	106	1.3	H	-1.82	35.79	54.00	-18.21
5132.89	41.75	PK	127	1.1	H	-1.06	40.69	74.00	-33.31
5132.89	41.66	Ave	127	1.1	H	-1.06	40.60	54.00	-13.40
10400.00	41.68	PK	33	1.5	H	5.21	46.89	74.00	-27.11
10400.00	36.96	Ave	33	1.5	H	5.21	42.17	54.00	-11.83

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT20) U-NII-1 High channel 5240MHz									
266.99	37.31	QP	330	1.8	H	-11.62	25.69	46.00	-20.31
266.99	38.57	QP	64	1.0	V	-11.62	26.95	46.00	-19.05
4516.23	46.72	PK	6	1.8	H	-1.81	44.91	74.00	-29.09
4516.23	37.81	Ave	6	1.8	H	-1.81	36.00	54.00	-18.00
5144.94	43.68	PK	99	2.0	H	-1.06	42.62	74.00	-31.38
5144.94	43.28	Ave	99	2.0	H	-1.06	42.22	54.00	-11.78
10480.00	40.73	PK	146	1.6	H	5.14	45.87	74.00	-28.13
10480.00	37.51	Ave	146	1.6	H	5.14	42.65	54.00	-11.35
802.11ac(VHT20) U-NII-2A Low Channel 5260MHz									
266.99	46.52	QP	101	1.5	H	-11.62	34.90	46.00	-11.10
266.99	39.87	QP	246	1.9	V	-11.62	28.25	46.00	-17.75
4500.52	41.60	PK	56	1.8	H	-2.03	39.57	74.00	-34.43
4500.52	37.67	Ave	56	1.8	H	-2.03	35.64	54.00	-18.36
5140.63	47.18	PK	335	1.4	H	-1.02	46.16	74.00	-27.84
5140.63	38.32	Ave	335	1.4	H	-1.02	37.30	54.00	-16.70
10520.00	42.96	PK	8	1.7	H	5.33	48.29	74.00	-25.71
10520.00	37.02	Ave	8	1.7	H	5.33	42.35	54.00	-11.65

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT20) U-NII-2A middle channel 5280MHz									
266.99	46.19	QP	115	1.8	H	-11.62	34.57	46.00	-11.43
266.99	40.45	QP	90	1.2	V	-11.62	28.83	46.00	-17.17
4525.81	41.39	PK	75	1.2	H	-1.94	39.45	74.00	-34.55
4525.81	38.73	Ave	75	1.2	H	-1.94	36.79	54.00	-17.21
5141.58	46.93	PK	49	1.7	H	-1.06	45.87	74.00	-28.13
5141.58	38.80	Ave	49	1.7	H	-1.06	37.74	54.00	-16.26
10560.00	43.31	PK	310	1.8	H	5.21	48.52	74.00	-25.48
10560.00	35.70	Ave	310	1.8	H	5.21	40.91	54.00	-13.09
802.11ac(VHT20) U-NII-2A High channel 5320MHz									
266.99	47.60	QP	9	1.8	H	-11.62	35.98	46.00	-10.02
266.99	39.66	QP	144	1.8	V	-11.62	28.04	46.00	-17.96
4538.40	41.23	PK	115	1.5	H	-2.24	38.99	74.00	-35.01
4538.40	37.77	Ave	115	1.5	H	-2.24	35.53	54.00	-18.47
5112.47	46.95	PK	276	1.8	H	-1.09	45.86	74.00	-28.14
5112.47	40.78	Ave	276	1.8	H	-1.09	39.69	54.00	-14.31
10640.00	41.49	PK	123	1.3	H	5.14	46.63	74.00	-27.37
10640.00	37.82	Ave	123	1.3	H	5.14	42.96	54.00	-11.04

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT20) U-NII-2C Low Channel 5500MHz									
266.99	47.50	QP	246	1.7	H	-11.62	35.88	46.00	-10.12
266.99	38.08	QP	12	1.4	V	-11.62	26.46	46.00	-19.54
4522.76	37.12	PK	79	1.8	H	-2.03	35.09	74.00	-38.91
4522.76	34.24	Ave	79	1.8	H	-2.03	32.21	54.00	-21.79
5115.66	45.30	PK	230	1.1	H	-1.02	44.28	74.00	-29.72
5115.66	37.41	Ave	230	1.1	H	-1.02	36.39	54.00	-17.61
11000.00	-0.27	PK	330	1.4	H	5.33	5.06	74.00	-68.94
11000.00	37.87	Ave	330	1.4	H	5.33	43.20	54.00	-10.80
802.11ac(VHT20) U-NII-2C Middle channel 5600MHz									
266.99	46.43	QP	7	1.1	H	-11.62	34.81	46.00	-11.19
266.99	37.21	QP	146	1.9	V	-11.62	25.59	46.00	-20.41
4528.08	35.63	PK	188	1.0	H	-1.94	33.69	74.00	-40.31
4528.08	34.69	Ave	188	1.0	H	-1.94	32.75	54.00	-21.25
5121.29	47.21	PK	129	1.1	H	-1.06	46.15	74.00	-27.85
5121.29	36.80	Ave	129	1.1	H	-1.06	35.74	54.00	-18.26
11200.00	-0.64	PK	220	1.9	H	5.21	4.57	74.00	-69.43
11200.00	36.76	Ave	220	1.9	H	5.21	41.97	54.00	-12.03

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT20) U-NII-2C High channel 5700MHz									
266.99	48.67	QP	342	1.0	H	-11.62	37.05	46.00	-8.95
266.99	42.67	QP	185	1.4	V	-11.62	31.05	46.00	-14.95
4508.55	41.48	PK	239	1.9	H	-2.24	39.24	74.00	-34.76
4508.55	41.23	Ave	239	1.9	H	-2.24	38.99	54.00	-15.01
5140.76	49.25	PK	27	1.8	H	-1.09	48.16	74.00	-25.84
5140.76	39.93	Ave	27	1.8	H	-1.09	38.84	54.00	-15.16
11400.00	1.09	PK	163	1.9	H	5.14	6.23	74.00	-67.77
11400.00	38.70	Ave	163	1.9	H	5.14	43.84	54.00	-10.16
802.11ac(VHT20) U-NII-3 Low Channel 5745MHz									
266.99	37.05	QP	274	1.8	H	-11.62	25.43	46.00	-20.57
266.99	42.01	QP	124	1.6	V	-11.62	30.39	46.00	-15.61
4528.36	44.89	PK	158	2.0	H	-1.92	42.97	74.00	-31.03
4528.36	35.85	Ave	158	2.0	H	-1.92	33.93	54.00	-20.07
11490.00	38.28	PK	55	1.1	H	5.93	44.21	74.00	-29.79
11490.00	34.44	Ave	55	1.1	H	5.93	40.37	54.00	-13.63
5380.12	46.04	PK	53	2.0	H	-1.03	45.01	74.00	-28.99
5380.12	37.34	Ave	53	2.0	H	-1.03	36.31	54.00	-17.69

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT20) U-NII-3 middle channel 5785MHz									
266.99	36.86	QP	295	2.0	H	-11.62	25.24	46.00	-20.76
266.99	41.51	QP	322	1.5	V	-11.62	29.89	46.00	-16.11
4530.17	45.37	PK	309	1.8	H	-1.97	43.40	74.00	-30.60
4530.17	35.00	Ave	309	1.8	H	-1.97	33.03	54.00	-20.97
11570.00	40.61	PK	64	1.8	H	5.81	46.42	74.00	-27.58
11570.00	37.49	Ave	64	1.8	H	5.81	43.30	54.00	-10.70
5384.57	46.59	PK	140	1.5	H	-1.05	45.54	74.00	-28.46
5384.57	37.71	Ave	140	1.5	H	-1.05	36.66	54.00	-17.34
802.11ac(VHT20) U-NII-3 High channel 5825MHz									
266.99	37.63	QP	71	1.4	H	-11.62	26.01	46.00	-19.99
266.99	42.44	QP	334	1.0	V	-11.62	30.82	46.00	-15.18
4526.21	44.70	PK	205	1.1	H	-1.88	42.82	74.00	-31.18
4526.21	34.57	Ave	205	1.1	H	-1.88	32.69	54.00	-21.31
11650.00	40.86	PK	184	1.4	H	5.84	46.70	74.00	-27.30
11650.00	37.62	Ave	184	1.4	H	5.84	43.46	54.00	-10.54
5379.55	45.85	PK	242	1.8	H	-1.06	44.79	74.00	-29.21
5379.55	37.36	Ave	242	1.8	H	-1.06	36.30	54.00	-17.70

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT40) U-NII-1 Low Channel 5190MHz									
266.99	37.35	QP	138	1.2	H	-11.62	25.73	46.00	-20.27
266.99	42.68	QP	308	1.3	V	-11.62	31.06	46.00	-14.94
4527.50	42.01	PK	304	1.6	H	-1.89	40.12	74.00	-33.88
4527.50	32.57	Ave	304	1.6	H	-1.89	30.68	54.00	-23.32
5129.19	47.92	PK	304	1.3	H	-1.06	46.86	74.00	-27.14
5129.19	40.61	Ave	304	1.3	H	-1.06	39.55	54.00	-14.45
10380.00	39.31	PK	290	1.9	H	5.26	44.57	74.00	-29.43
10380.00	35.80	Ave	290	1.9	H	5.26	41.06	54.00	-12.94
802.11n(HT40) U-NII-1 High channel 5230MHz									
266.99	36.55	QP	256	1.4	H	-11.62	24.93	46.00	-21.07
266.99	42.99	QP	272	1.5	V	-11.62	31.37	46.00	-14.63
4505.08	42.56	PK	49	1.1	H	-1.94	40.62	74.00	-33.38
4505.08	33.15	Ave	49	1.1	H	-1.94	31.21	54.00	-22.79
5141.85	47.91	PK	35	1.2	H	-1.06	46.85	74.00	-27.15
5141.85	42.18	Ave	35	1.2	H	-1.06	41.12	54.00	-12.88
10460.00	42.03	PK	340	1.6	H	5.28	47.31	74.00	-26.69
10480.00	37.26	Ave	340	1.6	H	5.28	42.54	54.00	-11.46

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT40) U-NII-2A Low Channel 5270MHz									
266.99	47.01	QP	148	1.5	H	-11.62	35.39	46.00	-10.61
266.99	42.66	QP	74	2.0	V	-11.62	31.04	46.00	-14.96
4503.75	41.77	PK	293	1.4	H	-1.89	39.88	74.00	-34.12
4503.75	37.25	Ave	293	1.4	H	-1.89	35.36	54.00	-18.64
5126.36	44.80	PK	336	1.5	H	-1.06	43.74	74.00	-30.26
5126.36	39.07	Ave	336	1.5	H	-1.06	38.01	54.00	-15.99
10540.00	45.29	PK	2	1.3	H	5.26	50.55	74.00	-23.45
10540.00	39.50	Ave	2	1.3	H	5.26	44.76	54.00	-9.24
802.11n(HT40) U-NII-2A High channel 5310MHz									
266.99	46.08	QP	105	1.5	H	-11.62	34.46	46.00	-11.54
266.99	42.10	QP	181	1.4	V	-11.62	30.48	46.00	-15.52
4533.89	41.48	PK	229	1.1	H	-1.94	39.54	74.00	-34.46
4533.89	37.40	Ave	229	1.1	H	-1.94	35.46	54.00	-18.54
5114.01	46.21	PK	82	1.9	H	-1.06	45.15	74.00	-28.85
5114.01	39.27	Ave	82	1.9	H	-1.06	38.21	54.00	-15.79
10620.00	41.65	PK	290	1.1	H	5.28	46.93	74.00	-27.07
10620.00	36.43	Ave	290	1.1	H	5.28	41.71	54.00	-12.29

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT40) U-NII-2C Low Channel 5510MHz									
266.99	45.78	QP	193	1.4	H	-11.62	34.16	46.00	-11.84
266.99	38.34	QP	281	1.1	V	-11.62	26.72	46.00	-19.28
4516.09	41.89	PK	323	1.9	H	-1.89	40.00	74.00	-34.00
4516.09	36.48	Ave	323	1.9	H	-1.89	34.59	54.00	-19.41
5146.85	45.12	PK	83	1.6	H	-1.06	44.06	74.00	-29.94
5146.85	38.41	Ave	83	1.6	H	-1.06	37.35	54.00	-16.65
11020.00	43.85	PK	120	1.3	H	5.26	49.11	74.00	-24.89
11020.00	37.07	Ave	120	1.3	H	5.26	42.33	54.00	-11.67
802.11n(HT40) U-NII-2C Middle channel 5550MHz									
266.99	44.88	QP	253	1.2	H	-11.62	33.26	46.00	-12.74
266.99	37.84	QP	330	1.1	V	-11.62	26.22	46.00	-19.78
4524.10	41.33	PK	20	1.7	H	-1.94	39.39	74.00	-34.61
4524.10	36.21	Ave	20	1.7	H	-1.94	34.27	54.00	-19.73
5128.03	46.57	PK	235	1.8	H	-1.06	45.51	74.00	-28.49
5128.03	38.44	Ave	235	1.8	H	-1.06	37.38	54.00	-16.62
11100.00	46.50	PK	11	1.4	H	5.28	51.78	74.00	-22.22
11100.00	38.24	Ave	11	1.4	H	5.28	43.52	54.00	-10.48
802.11n(HT40) U-NII-2C High channel 5670MHz									
266.99	44.02	QP	194	1.1	H	-11.62	32.40	46.00	-13.60
266.99	36.89	QP	324	2.0	V	-11.62	25.27	46.00	-20.73
4528.00	41.64	PK	212	1.2	H	-1.94	39.70	74.00	-34.30
4528.00	37.01	Ave	212	1.2	H	-1.94	35.07	54.00	-18.93
5130.68	46.13	PK	40	1.5	H	-1.06	45.07	74.00	-28.93
5130.68	39.03	Ave	40	1.5	H	-1.06	37.97	54.00	-16.03
11340.00	40.23	PK	227	2.0	H	5.28	45.51	74.00	-28.49
11340.00	35.52	Ave	227	2.0	H	5.28	40.80	54.00	-13.20

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11n(HT40) U-NII-3 Low Channel 5755MHz									
266.99	37.07	QP	75	2.0	H	-11.62	25.45	46.00	-20.55
266.99	42.77	QP	93	1.7	V	-11.62	31.15	46.00	-14.85
4532.50	40.91	PK	218	1.7	H	-1.96	38.95	74.00	-35.05
4532.50	30.53	Ave	218	1.7	H	-1.96	28.57	54.00	-25.43
11510.00	38.49	PK	74	1.5	H	5.88	44.37	74.00	-29.63
11510.00	35.58	Ave	74	1.5	H	5.88	41.46	54.00	-12.54
5375.33	45.25	PK	50	1.6	H	-1.01	44.24	74.00	-29.76
5375.33	39.24	Ave	50	1.6	H	-1.01	38.23	54.00	-15.77
802.11n(HT40) U-NII-3 High Channel 5795MHz									
266.99	37.43	QP	148	1.3	H	-11.62	25.81	46.00	-20.19
266.99	43.39	QP	260	1.9	V	-11.62	31.77	46.00	-14.23
4511.58	40.90	PK	71	1.4	H	-1.92	38.98	74.00	-35.02
4511.58	31.06	Ave	71	1.4	H	-1.92	29.14	54.00	-24.86
11590.00	40.12	PK	354	1.4	H	5.63	45.75	74.00	-28.25
11590.00	37.54	Ave	354	1.4	H	5.63	43.17	54.00	-10.83
5358.66	46.38	PK	203	1.2	H	-1.04	45.34	74.00	-28.66
5358.66	39.51	Ave	203	1.2	H	-1.04	38.47	54.00	-15.53

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT40) U-NII-1 Low Channel 5190MHz									
266.99	36.80	QP	218	1.3	H	-11.62	25.18	46.00	-20.82
266.99	42.89	QP	26	1.5	V	-11.62	31.27	46.00	-14.73
4504.74	38.58	PK	168	1.2	H	-1.91	36.67	74.00	-37.33
4504.74	29.61	Ave	168	1.2	H	-1.91	27.70	54.00	-26.30
5143.52	47.39	PK	295	1.7	H	-1.06	46.33	74.00	-27.67
5143.52	39.44	Ave	295	1.7	H	-1.06	38.38	54.00	-15.62
10380.00	38.65	PK	46	1.3	H	5.26	43.91	74.00	-30.09
10380.00	35.00	Ave	46	1.3	H	5.26	40.26	54.00	-13.74
802.11ac(VHT40) U-NII-1 High channel 5230MHz									
266.99	36.06	QP	156	1.7	H	-11.62	24.44	46.00	-21.56
266.99	43.30	QP	171	1.8	V	-11.62	31.68	46.00	-14.32
4537.13	37.85	PK	277	1.6	H	-1.93	35.92	74.00	-38.08
4537.13	30.14	Ave	277	1.6	H	-1.93	28.21	54.00	-25.79
5121.40	47.68	PK	89	1.7	H	-1.06	46.62	74.00	-27.38
5121.40	39.61	Ave	89	1.7	H	-1.06	38.55	54.00	-15.45
10460.00	41.54	PK	193	1.7	H	5.28	46.82	74.00	-27.18
10460.00	36.29	Ave	193	1.7	H	5.28	41.57	54.00	-12.43

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT40) U-NII-2A Low Channel 5270MHz									
266.99	47.34	QP	136	1.9	H	-11.62	35.72	46.00	-10.28
266.99	39.25	QP	40	1.1	V	-11.62	27.63	46.00	-18.37
4530.09	41.73	PK	191	1.9	H	-1.89	39.84	74.00	-34.16
4530.09	26.79	Ave	191	1.9	H	-1.89	24.90	54.00	-29.10
5141.23	44.31	PK	11	1.4	H	-1.06	43.25	74.00	-30.75
5141.23	38.75	Ave	11	1.4	H	-1.06	37.69	54.00	-16.31
10540.00	42.90	PK	55	1.4	H	5.26	48.16	74.00	-25.84
10540.00	35.96	Ave	55	1.4	H	5.26	41.22	54.00	-12.78
802.11ac(VHT40) U-NII-2A High channel 5310MHz									
266.99	47.20	QP	129	1.2	H	-11.62	35.58	46.00	-10.42
266.99	39.49	QP	210	1.2	V	-11.62	27.87	46.00	-18.13
4528.74	41.74	PK	99	1.5	H	-1.94	39.80	74.00	-34.20
4528.74	26.25	Ave	99	1.5	H	-1.94	24.31	54.00	-29.69
5111.81	45.86	PK	267	1.2	H	-1.06	44.80	74.00	-29.20
5111.81	39.70	Ave	267	1.2	H	-1.06	38.64	54.00	-15.36
10620.00	-0.70	PK	358	1.5	H	5.28	4.58	74.00	-69.42
10620.00	42.42	Ave	358	1.5	H	5.28	47.70	54.00	-6.30

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT40) U-NII-2C Low Channel 5510MHz									
266.99	46.96	QP	150	1.0	H	-11.62	35.34	46.00	-10.66
266.99	41.54	QP	47	1.6	V	-11.62	29.92	46.00	-16.08
4515.60	-0.47	PK	166	1.6	H	-1.89	-2.36	74.00	-76.36
4515.60	41.35	Ave	166	1.6	H	-1.89	39.46	54.00	-14.54
5121.26	47.67	PK	145	1.7	H	-1.06	46.61	74.00	-27.39
5121.26	38.45	Ave	145	1.7	H	-1.06	37.39	54.00	-16.61
11020.00	40.02	PK	100	1.8	H	5.26	45.28	74.00	-28.72
11020.00	31.80	Ave	100	1.8	H	5.26	37.06	54.00	-16.94
802.11ac(VHT40) U-NII-2C Middle channel 5550MHz									
266.99	47.18	QP	284	1.8	H	-11.62	35.56	46.00	-10.44
266.99	40.58	QP	279	1.0	V	-11.62	28.96	46.00	-17.04
4507.25	-1.30	PK	203	1.1	H	-1.94	-3.24	74.00	-77.24
4507.25	40.54	Ave	203	1.1	H	-1.94	38.60	54.00	-15.40
5131.17	47.64	PK	338	1.0	H	-1.06	46.58	74.00	-27.42
5131.17	40.31	Ave	338	1.0	H	-1.06	39.25	54.00	-14.75
11100.00	39.98	PK	196	1.7	H	5.28	45.26	74.00	-28.74
11100.00	31.93	Ave	196	1.7	H	5.28	37.21	54.00	-16.79
802.11ac(VHT40) U-NII-2C High channel 5670MHz									
266.99	48.03	QP	212	1.4	H	-11.62	36.41	46.00	-9.59
266.99	41.43	QP	200	1.5	V	-11.62	29.81	46.00	-16.19
4503.17	-1.21	PK	186	1.4	H	-1.94	-3.15	74.00	-77.15
4503.17	39.56	Ave	186	1.4	H	-1.94	37.62	54.00	-16.38
5149.83	48.03	PK	56	1.1	H	-1.06	46.97	74.00	-27.03
5149.83	40.77	Ave	56	1.1	H	-1.06	39.71	54.00	-14.29
11340.00	-0.06	PK	98	2.0	H	5.28	5.22	74.00	-68.78
11340.00	41.41	Ave	98	2.0	H	5.28	46.69	54.00	-7.31

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT40) U-NII-3 Low Channel 5755MHz									
266.99	28.84	QP	126	1.4	H	-11.62	17.22	46.00	-28.78
266.99	42.45	QP	272	1.6	V	-11.62	30.83	46.00	-15.17
4520.13	38.17	PK	155	1.1	H	-1.92	36.25	74.00	-37.75
4520.13	32.36	Ave	155	1.1	H	-1.92	30.44	54.00	-23.56
11510.00	40.08	PK	185	1.4	H	5.88	45.96	74.00	-28.04
11510.00	25.91	Ave	185	1.4	H	5.88	31.79	54.00	-22.21
5373.58	46.17	PK	356	1.1	H	-1.07	45.10	74.00	-28.90
5373.58	39.58	Ave	356	1.1	H	-1.07	38.51	54.00	-15.49
802.11ac(VHT40) U-NII-3 High Channel 5795MHz									
266.99	29.62	QP	224	2.0	H	-11.62	18.00	46.00	-28.00
266.99	41.61	QP	83	1.1	V	-11.62	29.99	46.00	-16.01
4518.79	38.03	PK	176	1.4	H	-1.86	36.17	74.00	-37.83
4518.79	33.29	Ave	176	1.4	H	-1.86	31.43	54.00	-22.57
11590.00	41.41	PK	86	1.3	H	5.63	47.04	74.00	-26.96
11590.00	27.49	Ave	86	1.3	H	5.63	33.12	54.00	-20.88
5372.83	46.40	PK	250	1.4	H	-1.03	45.37	74.00	-28.63
5372.83	39.99	Ave	250	1.4	H	-1.03	38.96	54.00	-15.04

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT80) U-NII-1 Low Channel 5210MHz									
266.99	42.57	QP	338	1.1	H	-11.62	30.95	46.00	-15.05
266.99	37.54	QP	46	1.4	V	-11.62	25.92	46.00	-20.08
4506.35	32.50	PK	195	1.2	H	-1.88	30.62	74.00	-43.38
4506.35	42.09	Ave	195	1.2	H	-1.88	40.21	54.00	-13.79
5111.90	28.91	PK	220	1.5	H	-1.06	27.85	74.00	-46.15
5111.90	47.85	Ave	220	1.5	H	-1.06	46.79	54.00	-7.21
10420.00	41.09	PK	173	1.3	H	4.65	45.74	74.00	-28.26
10420.00	27.29	Ave	173	1.3	H	4.65	31.94	54.00	-22.06
802.11ac(VHT80) U-NII-2A Low Channel 5290MHz									
266.99	37.34	QP	129	1.7	H	-11.62	25.72	46.00	-20.28
266.99	32.80	QP	253	1.7	V	-11.62	21.18	46.00	-24.82
4527.73	42.90	PK	110	1.7	H	-1.88	41.02	74.00	-32.98
4527.73	28.40	Ave	110	1.7	H	-1.88	26.52	54.00	-27.48
5128.34	46.96	PK	100	1.7	H	-1.06	45.90	74.00	-28.10
5128.34	42.43	Ave	100	1.7	H	-1.06	41.37	54.00	-12.63
10580.00	26.63	PK	100	1.9	H	4.65	31.28	74.00	-42.72
10580.00	46.12	Ave	100	1.9	H	4.65	50.77	54.00	-3.23

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
802.11ac(VHT80) U-NII-2C Low Channel 5530MHz									
266.99	33.28	QP	61	1.1	H	-11.62	21.66	46.00	-24.34
266.99	43.32	QP	224	1.6	V	-11.62	31.70	46.00	-14.30
4505.95	27.91	PK	43	1.1	H	-1.88	26.03	74.00	-47.97
4505.95	46.69	Ave	43	1.1	H	-1.88	44.81	54.00	-9.19
5143.47	42.85	PK	284	1.7	H	-1.06	41.79	74.00	-32.21
5143.47	27.75	Ave	284	1.7	H	-1.06	26.69	54.00	-27.31
11060.00	45.57	PK	142	1.6	H	4.65	50.22	74.00	-23.78
11060.00	36.85	Ave	142	1.6	H	4.65	41.50	54.00	-12.50
802.11ac(VHT80) U-NII-3 Low channel 5775MHz									
266.99	37.52	QP	55	1.5	H	-11.62	25.90	46.00	-20.10
266.99	31.75	QP	352	1.8	V	-11.62	20.13	46.00	-25.87
4520.44	41.67	PK	63	1.6	H	-1.85	39.82	74.00	-34.18
4520.44	40.71	Ave	63	1.6	H	-1.85	38.86	54.00	-15.14
11550.00	42.56	PK	301	1.9	H	4.83	47.39	74.00	-26.61
11550.00	27.21	Ave	301	1.9	H	4.83	32.04	54.00	-21.96
5356.43	46.01	PK	289	1.1	H	-1.14	44.87	74.00	-29.13
5356.43	38.79	Ave	289	1.1	H	-1.14	37.65	54.00	-16.35

Test Frequency: 18GHz~40GHz

The measurements were more than 20 dB below the limit and not reported.

9 Duty cycle

Test Requirement:	FCC 47CFR Part 15 Section 15.407 KDB789033 D02 General U-NII Test Procedures New Rules v02r01, Section (B)
Test Method:	ANSI C63.10: 2013
Test Limit:	N/A
Test Result:	PASS
Remark:	Through Pre-scan, and found 802.11a at lowest channel is the worst case. Only the worst case is recorded in the report.

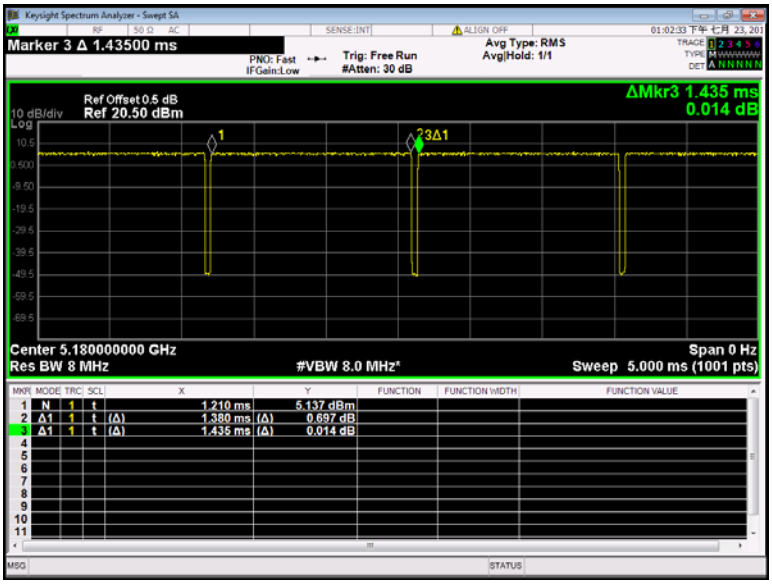
9.1 Summary of Test Results

802.11a(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	1.380	1.435	96.17
52	1.379	1.439	95.83
100	1.385	1.440	96.18
149	1.387	1.438	96.45
802.11n(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	1.290	1.345	95.91
52	1.289	1.349	95.55
100	1.295	1.345	96.28
149	1.297	1.348	96.22
802.11ac(VHT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	1.305	1.355	96.31
52	1.304	1.354	96.31
100	1.305	1.355	96.31
149	1.307	1.363	95.89
802.11n(HT40) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	0.644	0.692	93.06
54	0.645	0.691	93.34
102	0.644	0.692	93.06
151	0.645	0.691	93.34

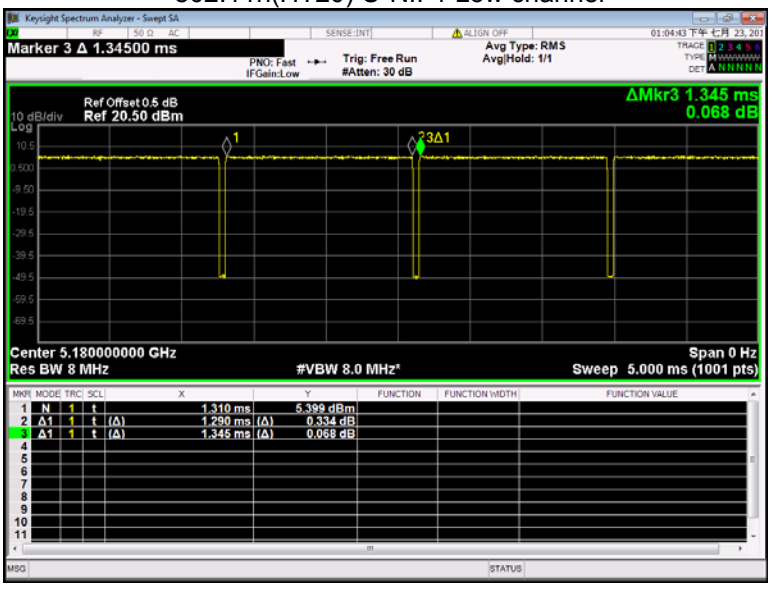
802.11ac(VHT40) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	0.650	0.696	93.39
54	0.649	0.697	93.11
102	0.650	0.696	93.39
151	0.650	0.698	93.12
802.11ac(VHT80) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	0.321	0.368	87.23
54	0.322	0.368	87.23
102	0.323	0.368	87.77
151	0.322	0.368	87.23

Test result plots shown as follows:

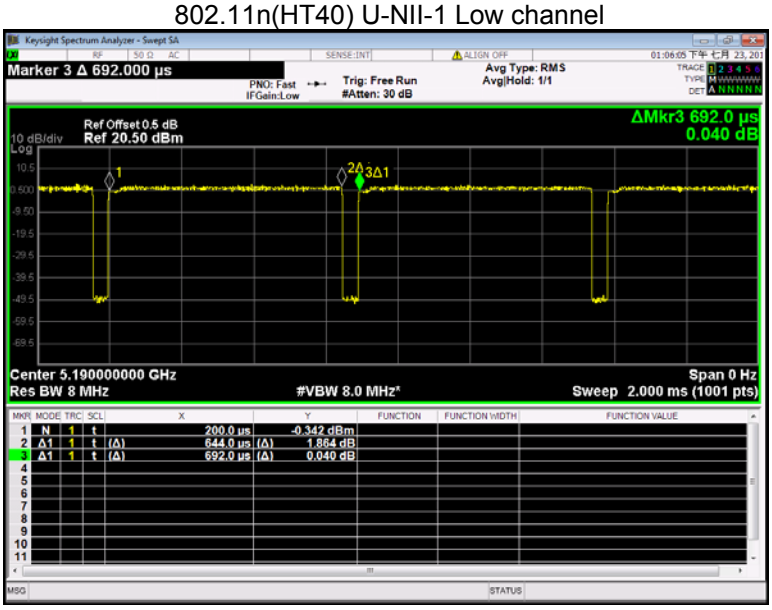
802.11a U-NII-1 Low channel



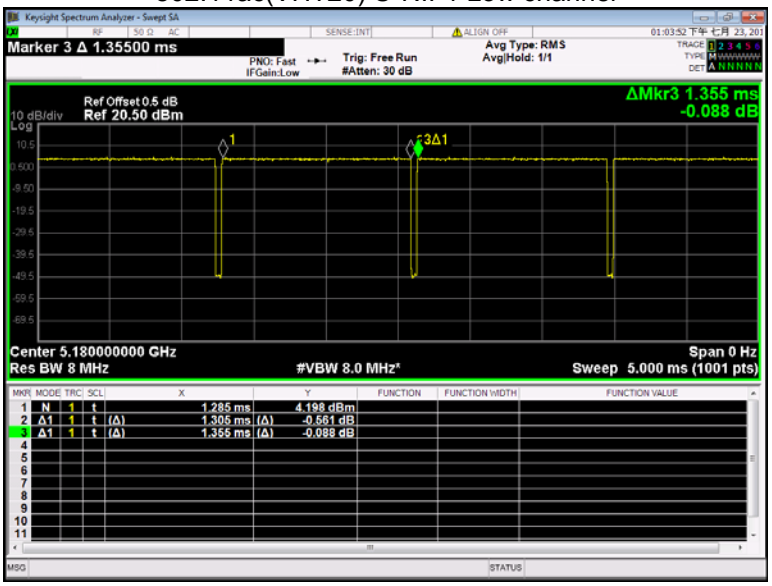
802.11n(HT20) U-NII-1 Low channel



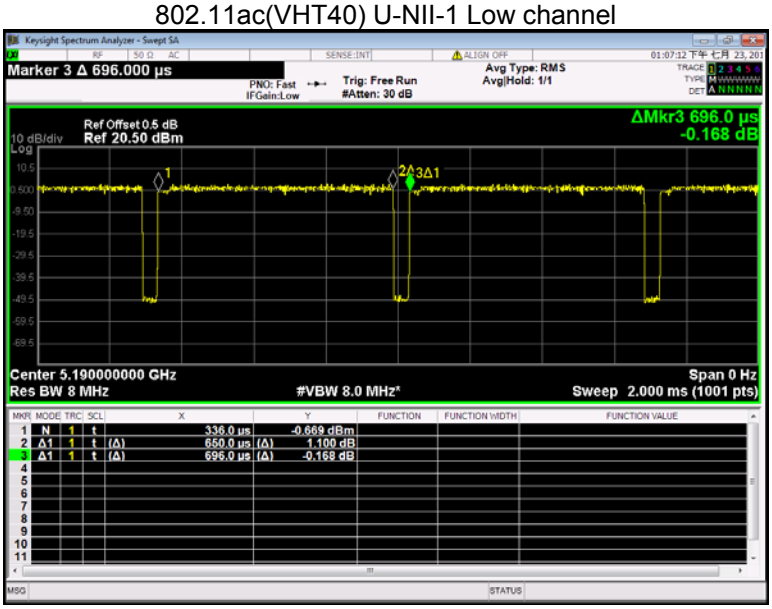
802.11n(HT40) U-NII-1 Low channel



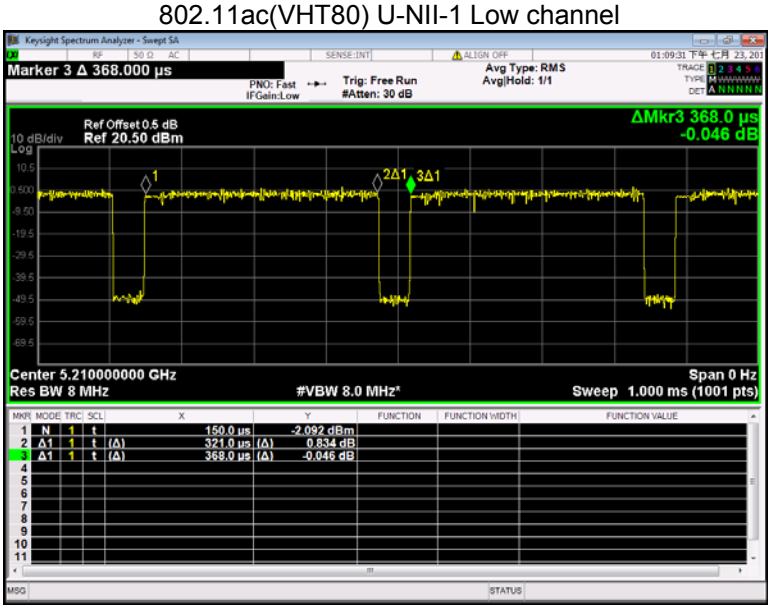
802.11ac(VHT20) U-NII-1 Low channel



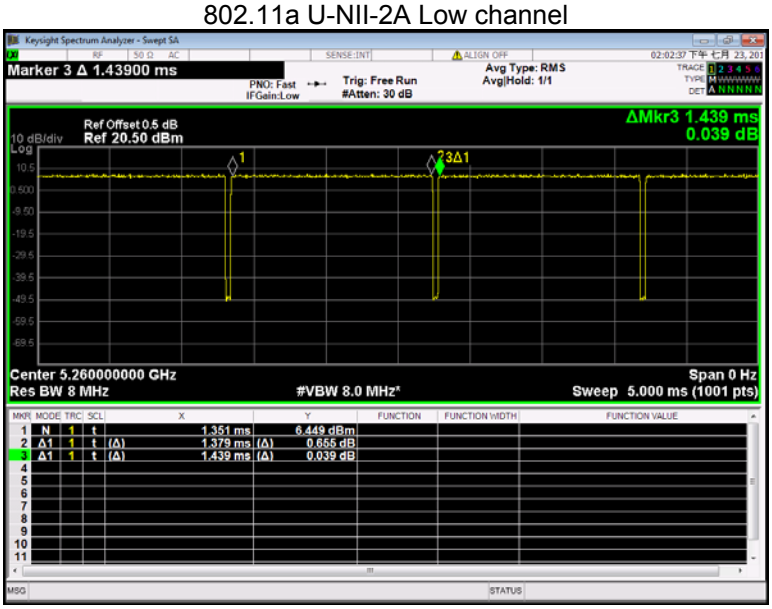
802.11ac(VHT40) U-NII-1 Low channel



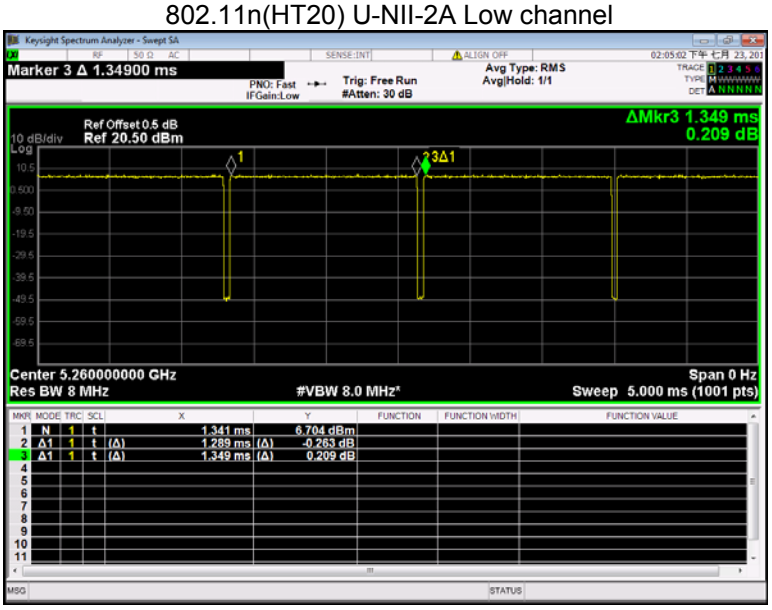
802.11ac(VHT80) U-NII-1 Low channel



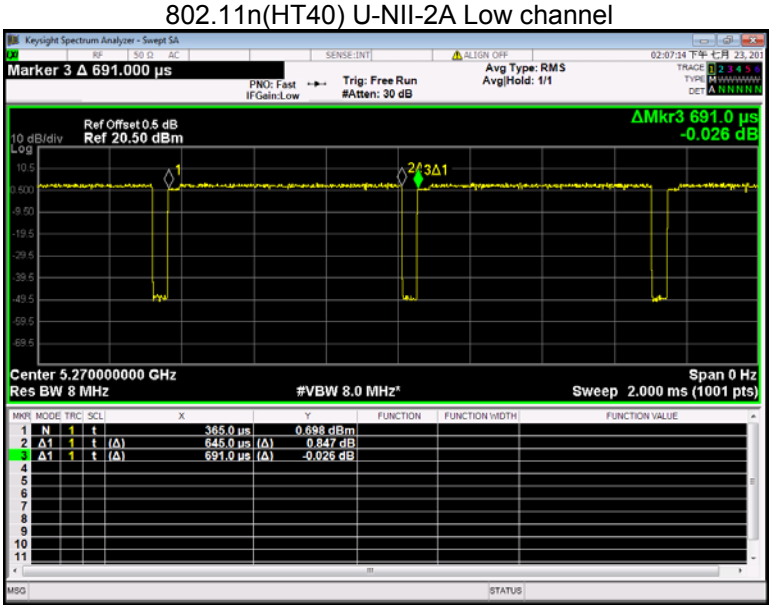
802.11a U-NII-2A Low channel



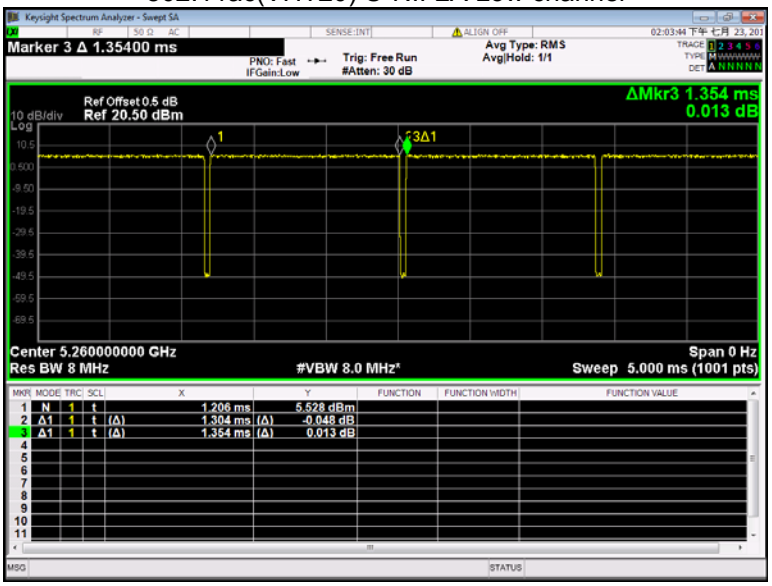
802.11n(HT20) U-NII-2A Low channel



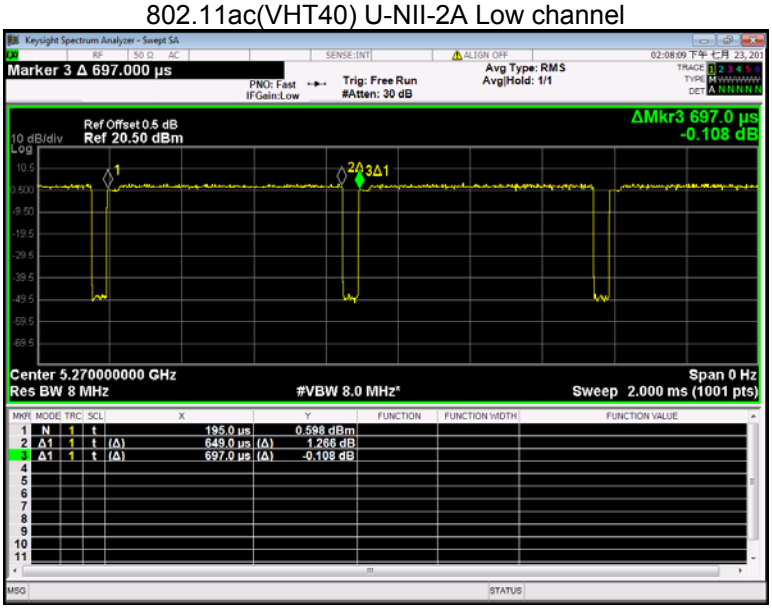
802.11n(HT40) U-NII-2A Low channel



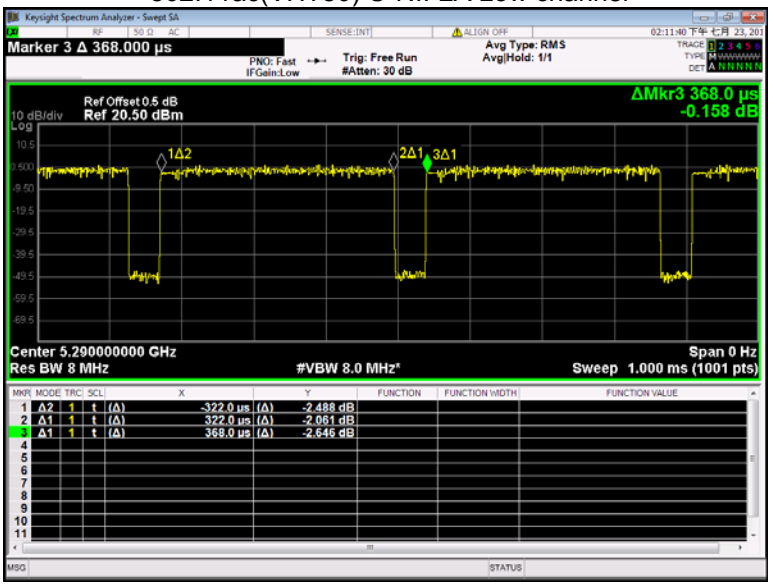
802.11ac(VHT20) U-NII-2A Low channel



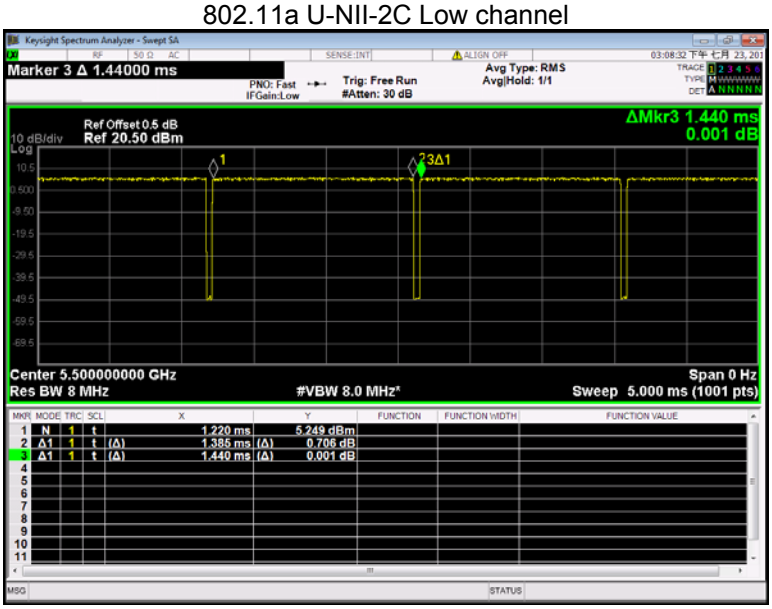
802.11ac(VHT40) U-NII-2A Low channel



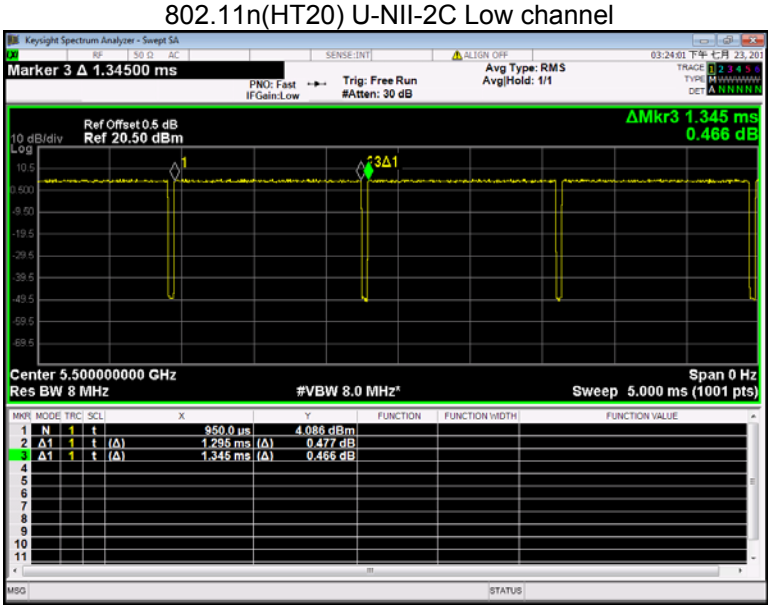
802.11ac(VHT80) U-NII-2A Low channel



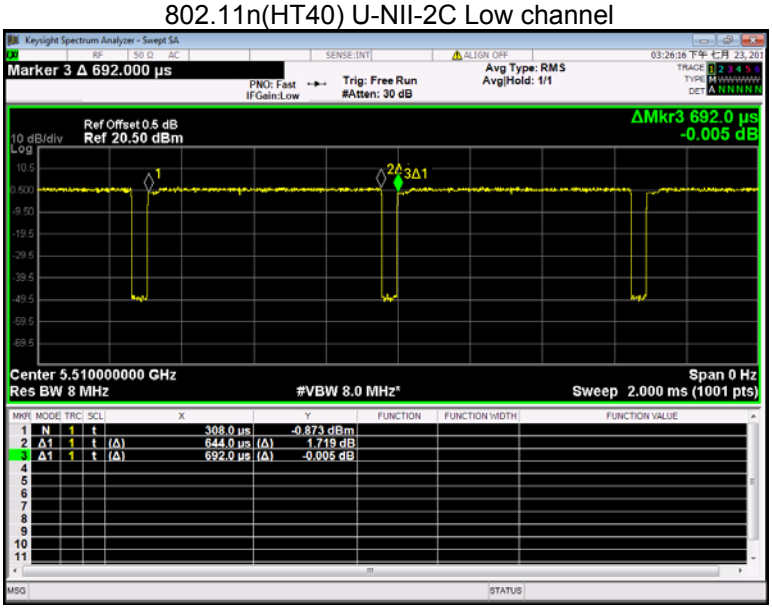
802.11a U-NII-2C Low channel



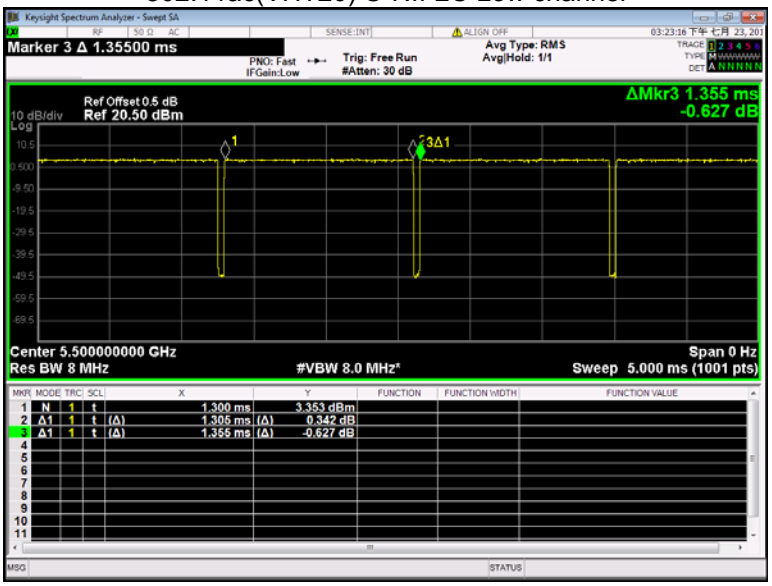
802.11n(HT20) U-NII-2C Low channel



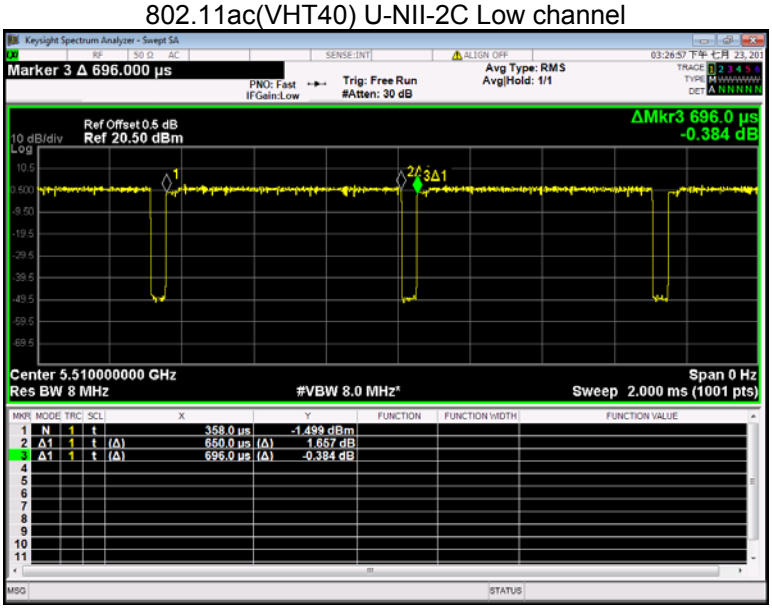
802.11n(HT40) U-NII-2C Low channel



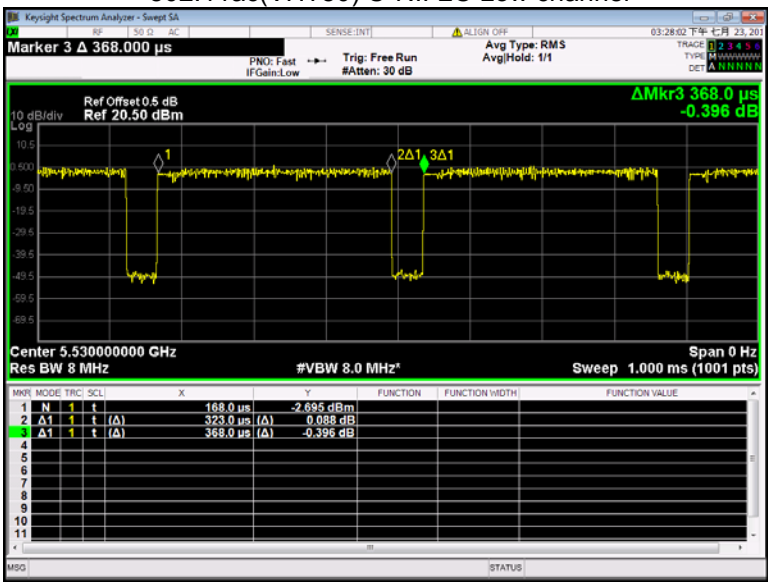
802.11ac(VHT20) U-NII-2C Low channel



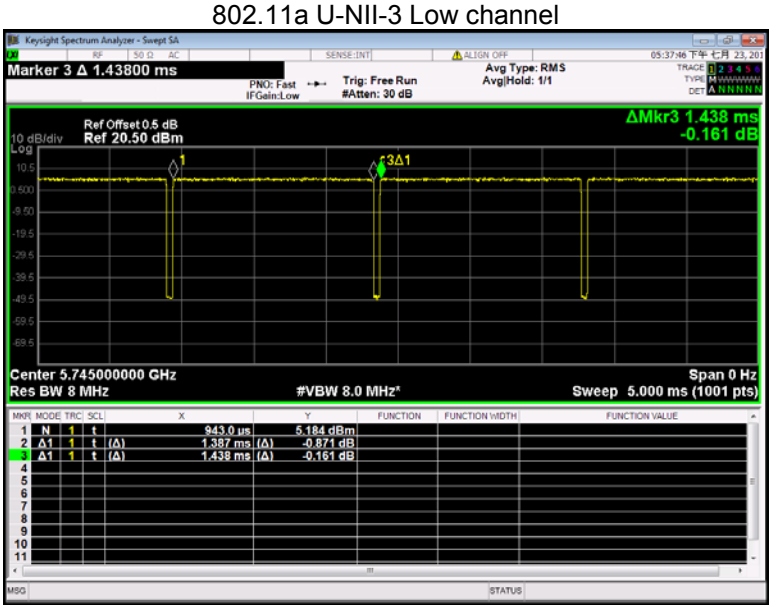
802.11ac(VHT40) U-NII-2C Low channel



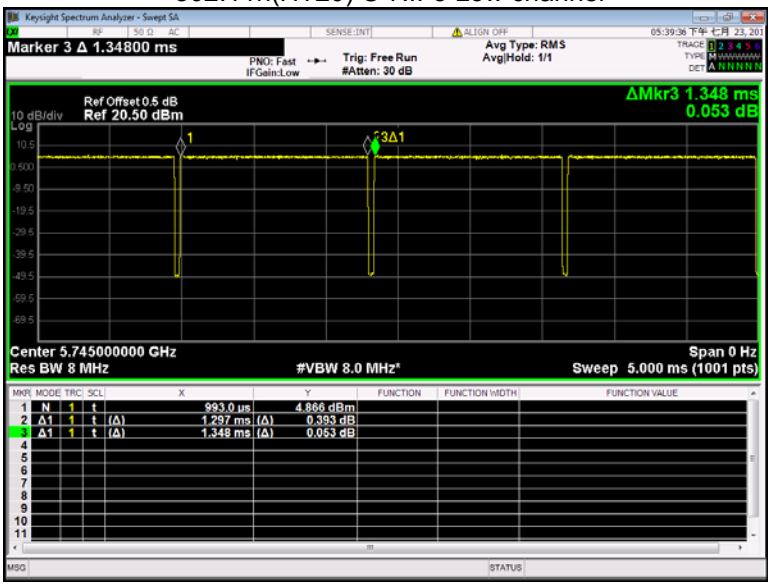
802.11ac(VHT80) U-NII-2C Low channel



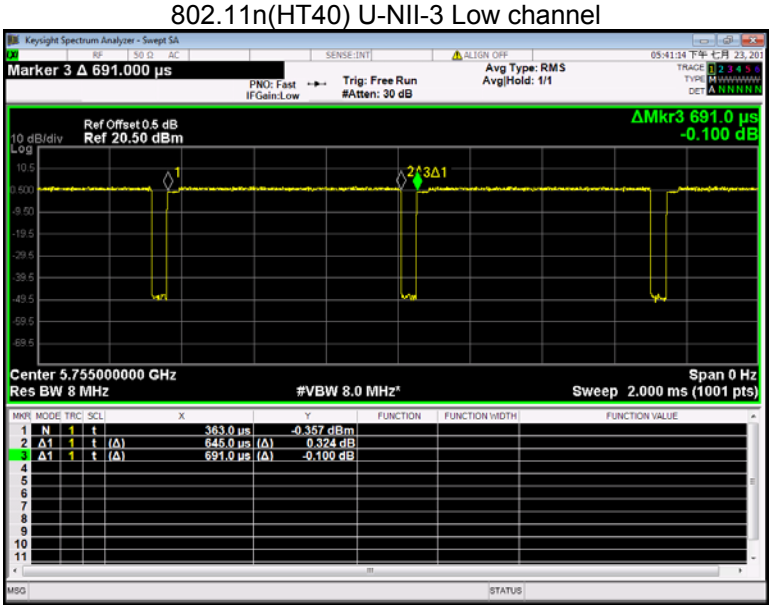
802.11a U-NII-3 Low channel



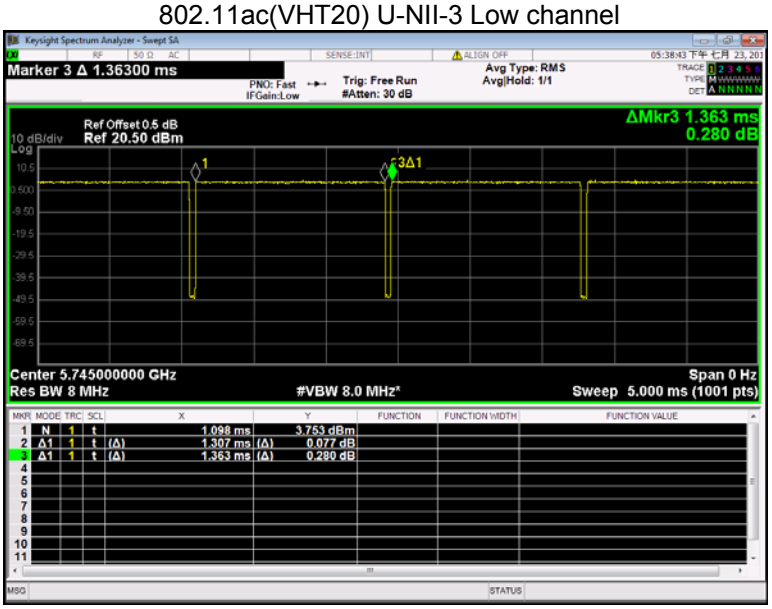
802.11n(HT20) U-NII-3 Low channel



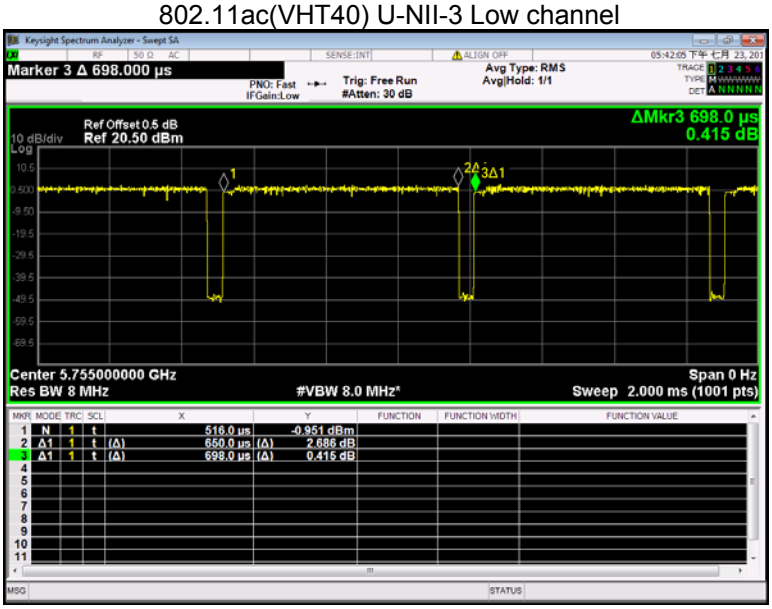
802.11n(HT40) U-NII-3 Low channel



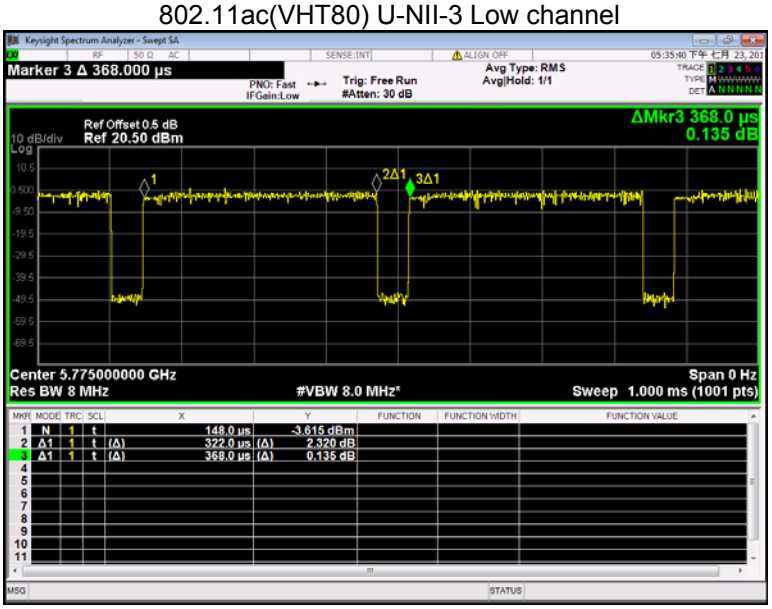
802.11ac(VHT20) U-NII-3 Low channel



802.11ac(VHT40) U-NII-3 Low channel



802.11ac(VHT80) U-NII-3 Low channel



10 Band Edge

Test Requirement:	FCC 47CFR Part 15 Section 15.407
Test Method:	ANSI C63.10 2013
Test Limit:	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 −27dBm/MHz. 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. 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. 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. (ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.
Test Result:	PASS

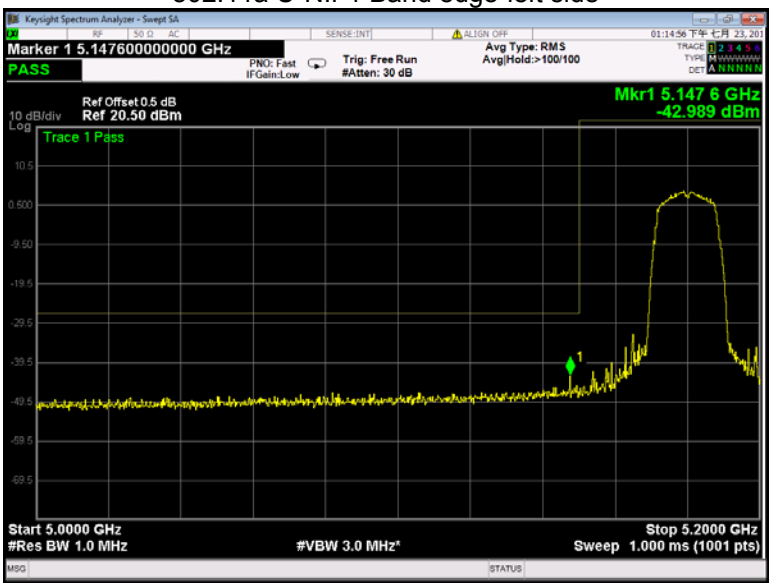
10.1 Test Produce

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

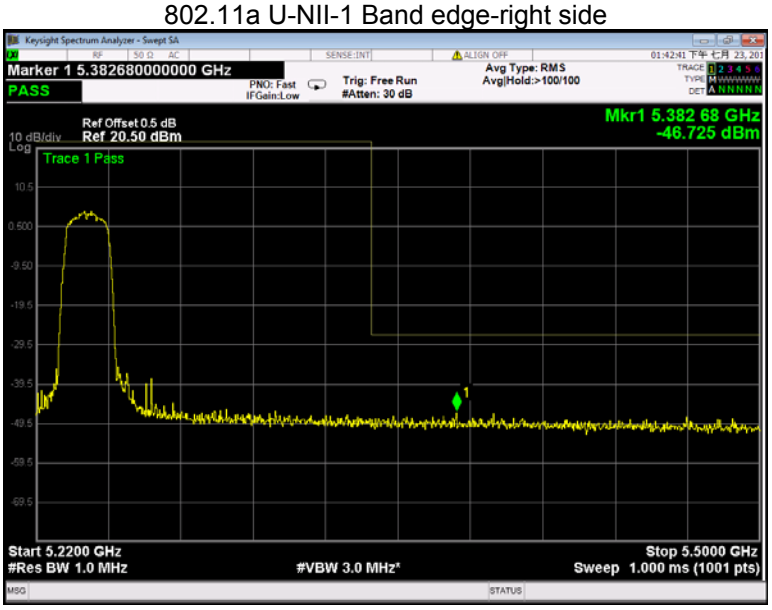
10.2 Test Result

Test result plots shown as follows:

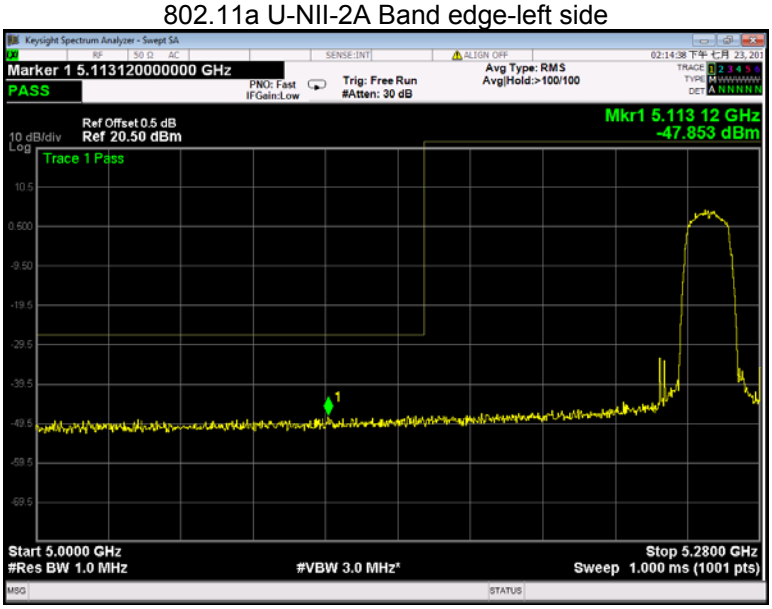
802.11a U-NII-1 Band edge-left side



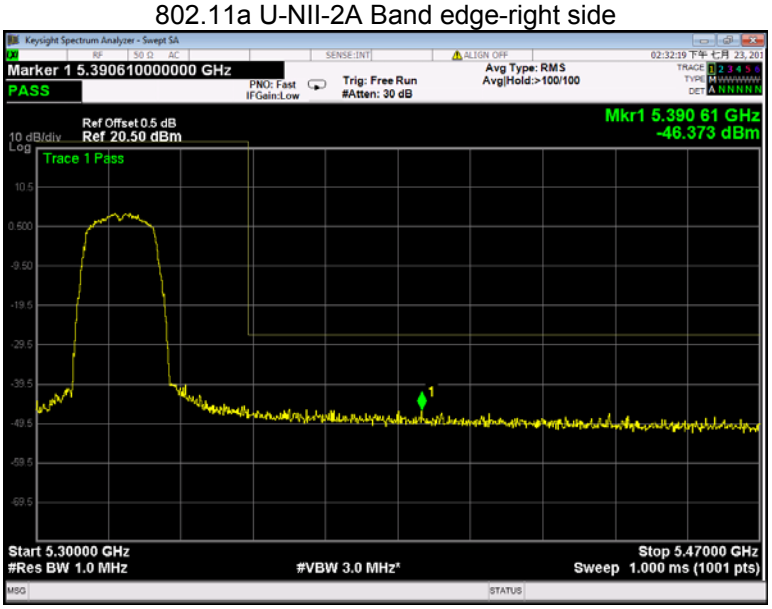
802.11a U-NII-1 Band edge-right side



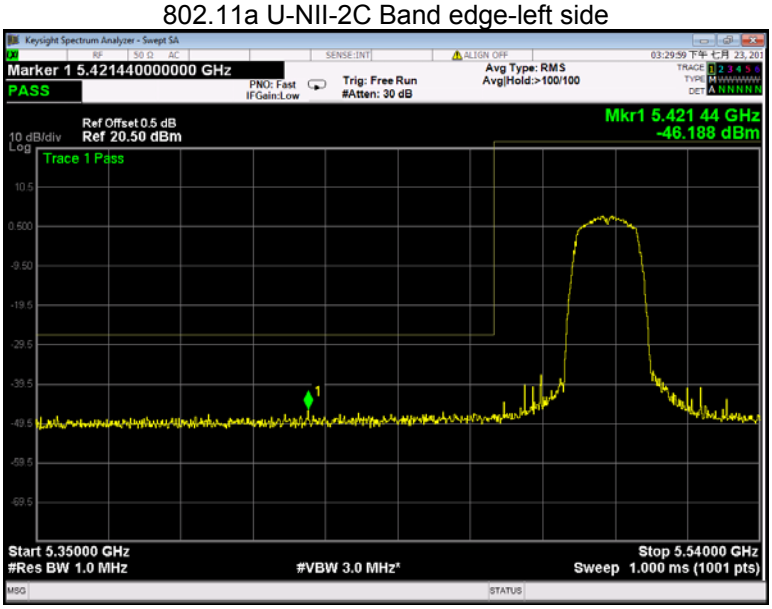
802.11a U-NII-2A Band edge-left side



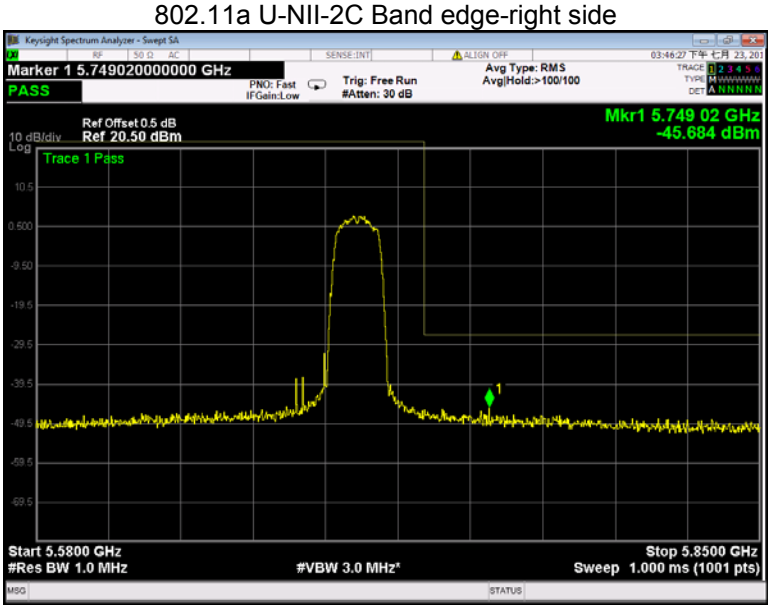
802.11a U-NII-2A Band edge-right side



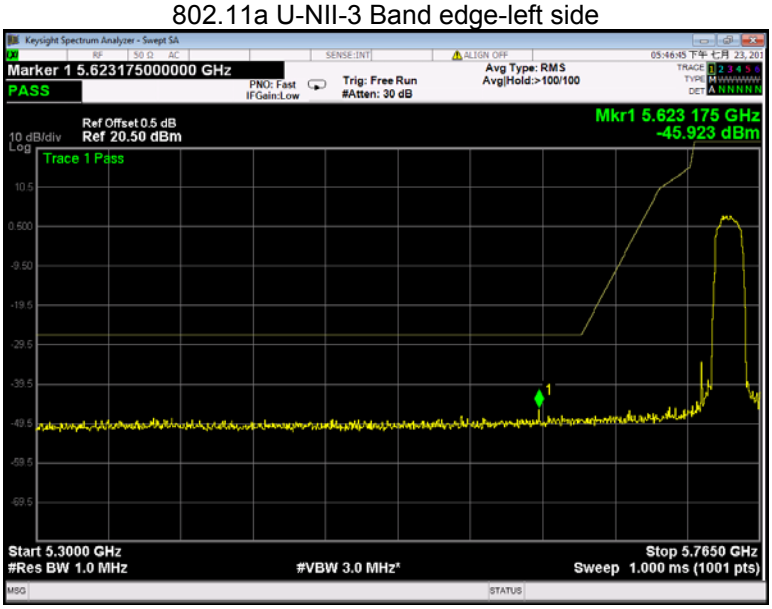
802.11a U-NII-2C Band edge-left side



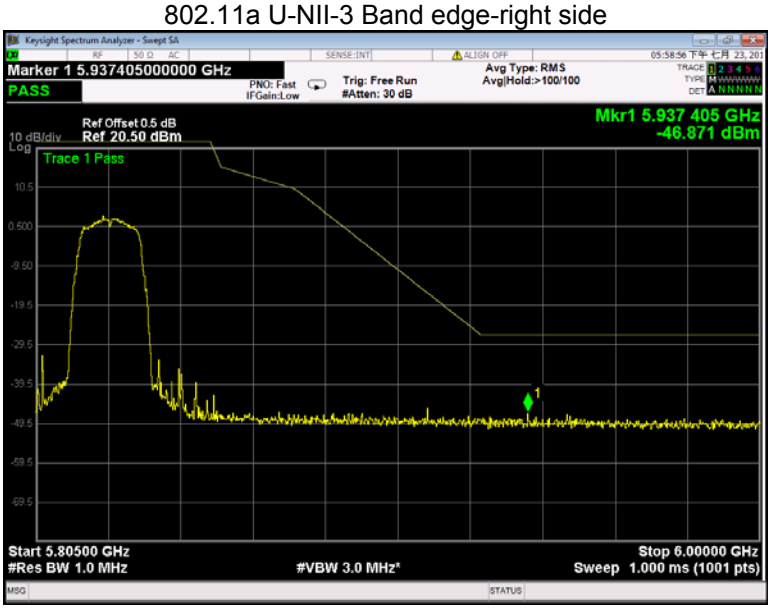
802.11a U-NII-2C Band edge-right side



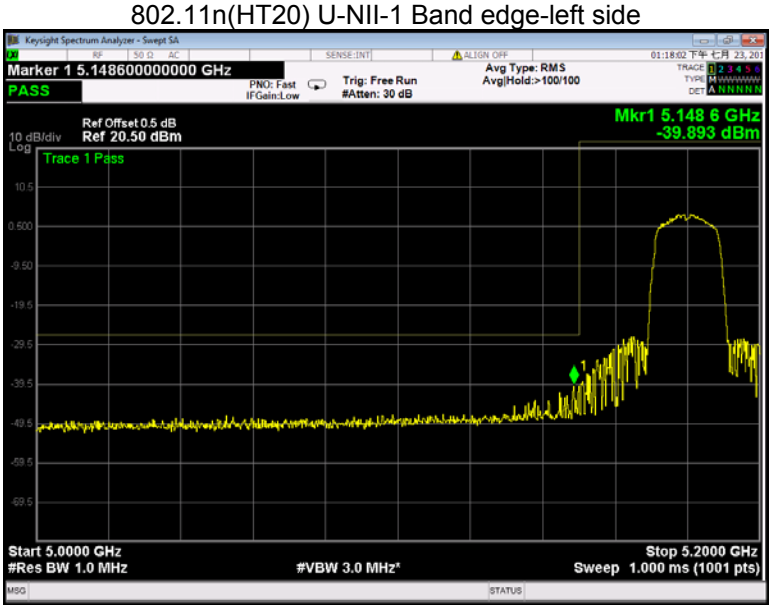
802.11a U-NII-3 Band edge-left side



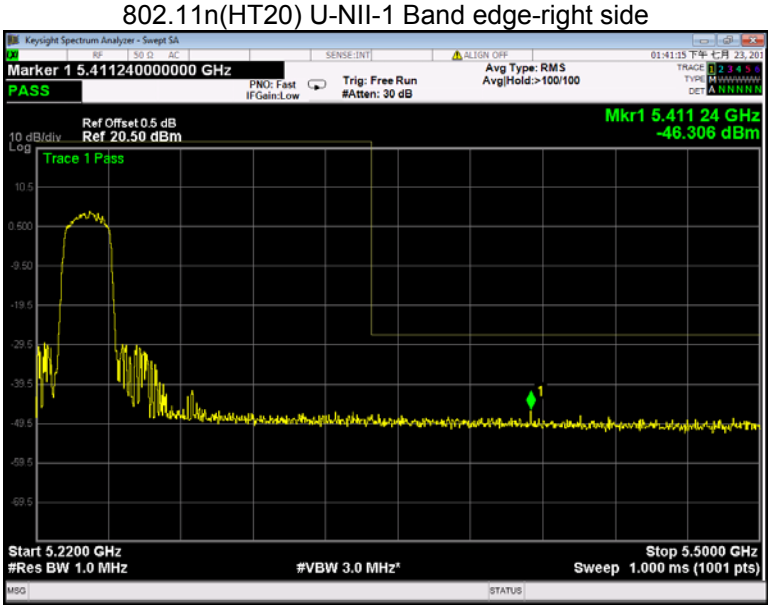
802.11a U-NII-3 Band edge-right side



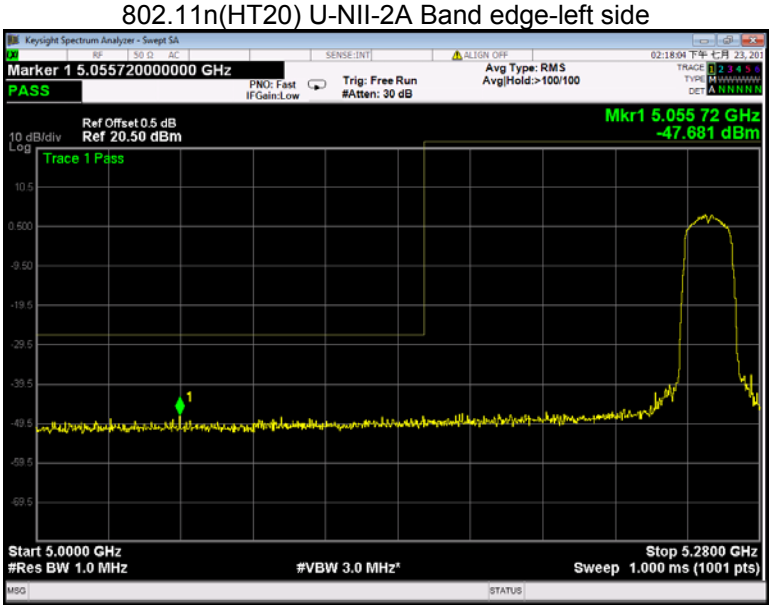
802.11n(HT20) U-NII-1 Band edge-left side



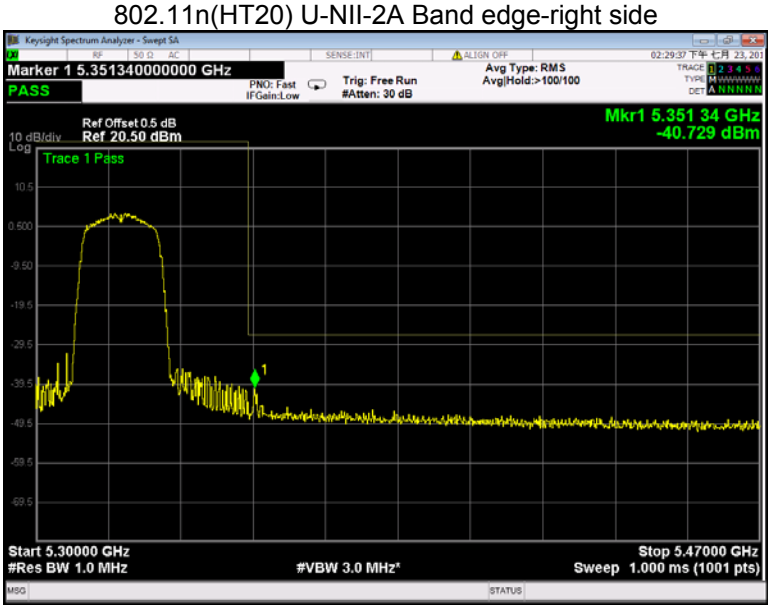
802.11n(HT20) U-NII-1 Band edge-right side



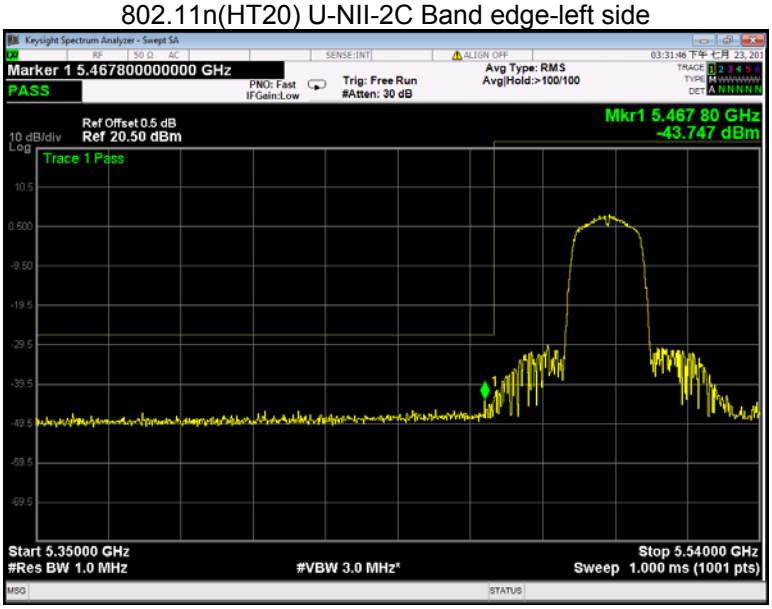
802.11n(HT20) U-NII-2A Band edge-left side



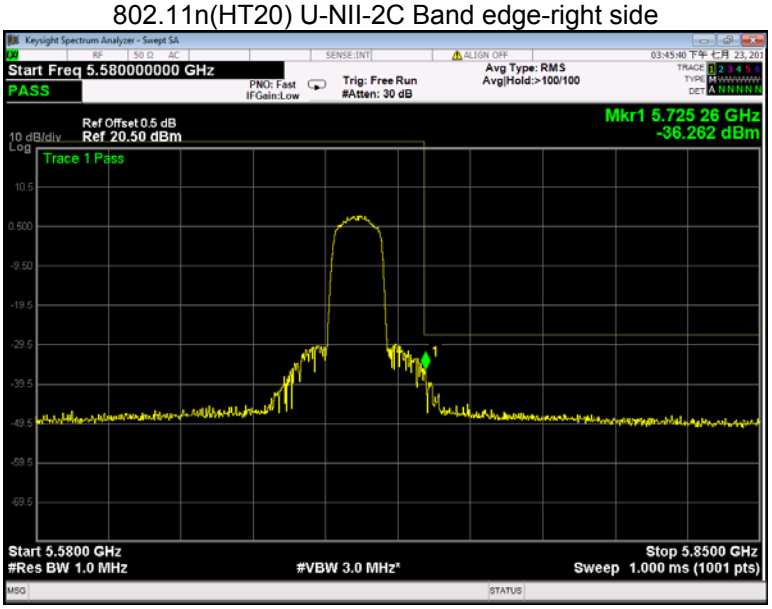
802.11n(HT20) U-NII-2A Band edge-right side



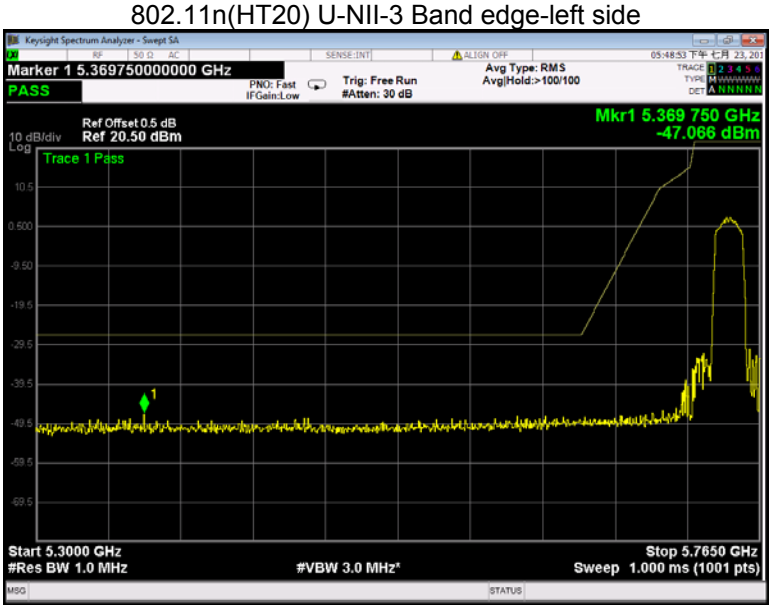
802.11n(HT20) U-NII-2C Band edge-left side



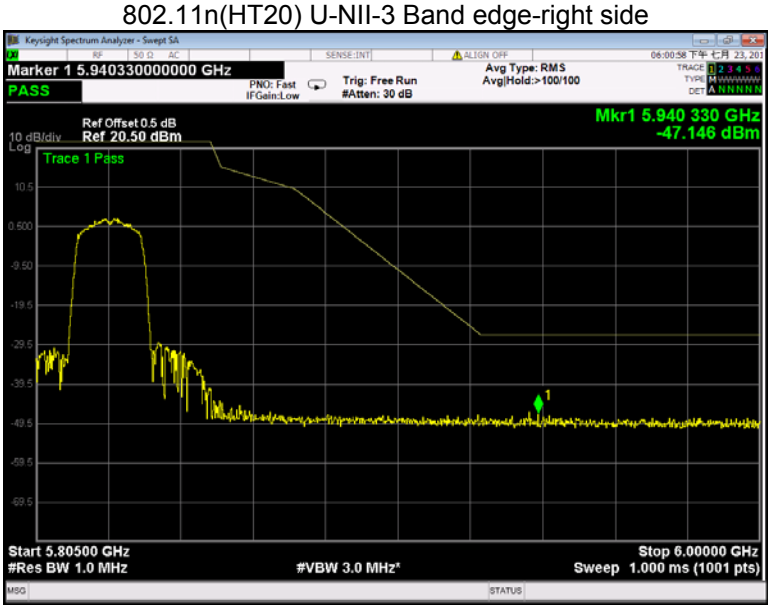
802.11n(HT20) U-NII-2C Band edge-right side



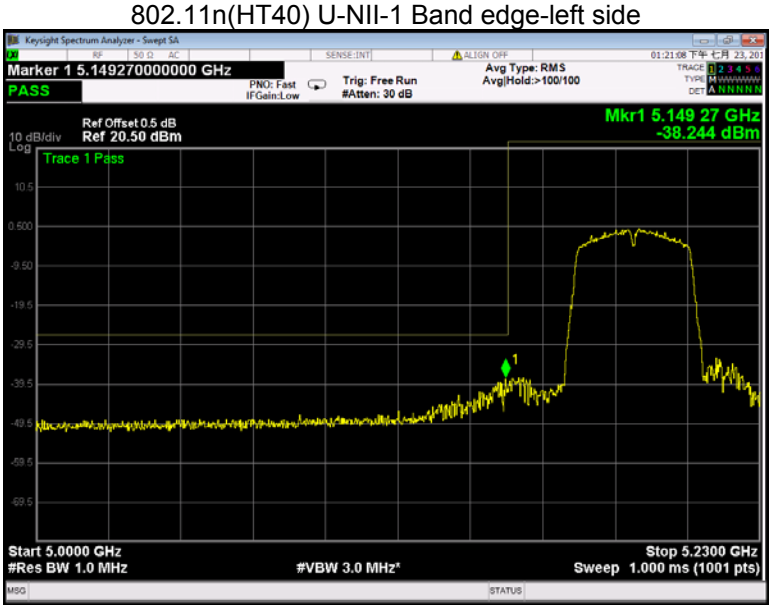
802.11n(HT20) U-NII-3 Band edge-left side



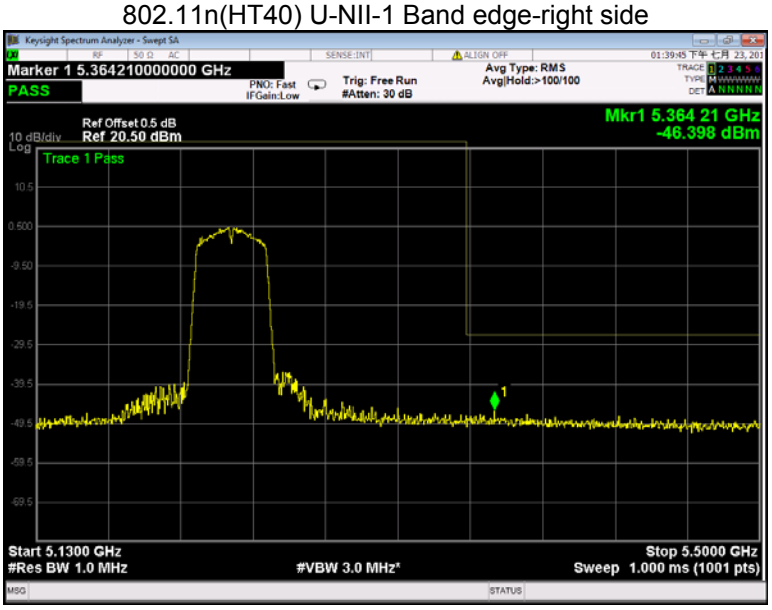
802.11n(HT20) U-NII-3 Band edge-right side



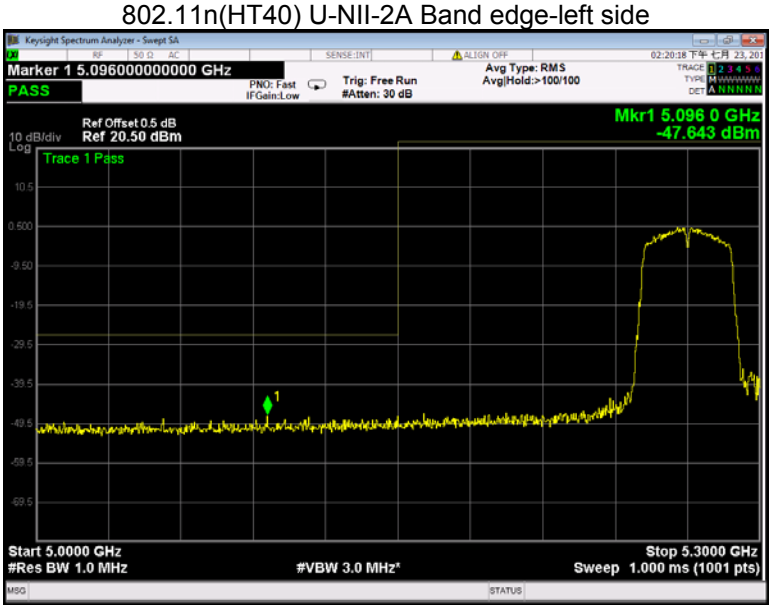
802.11n(HT40) U-NII-1 Band edge-left side



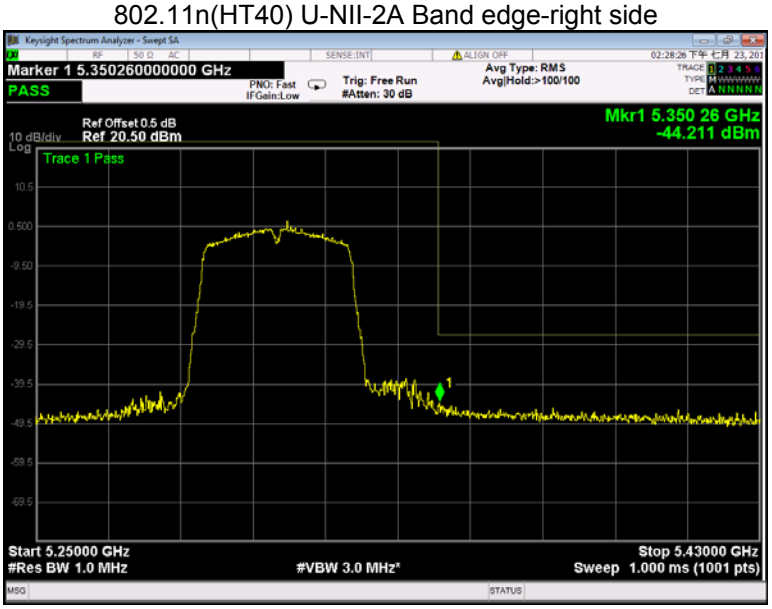
802.11n(HT40) U-NII-1 Band edge-right side



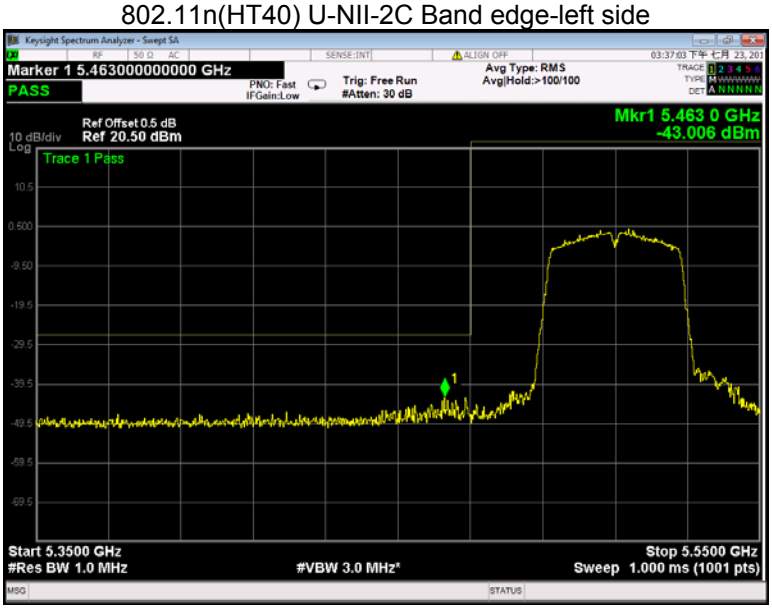
802.11n(HT40) U-NII-2A Band edge-left side



802.11n(HT40) U-NII-2A Band edge-right side

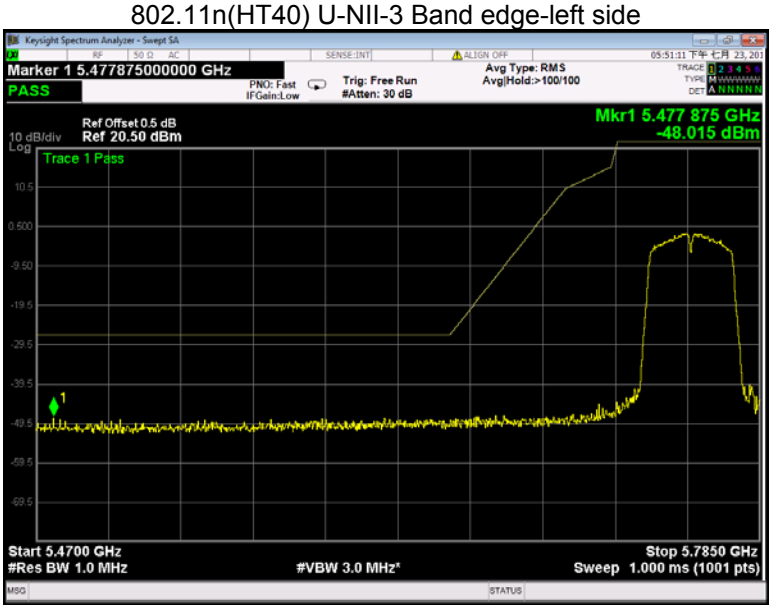


802.11n(HT40) U-NII-2C Band edge-left side

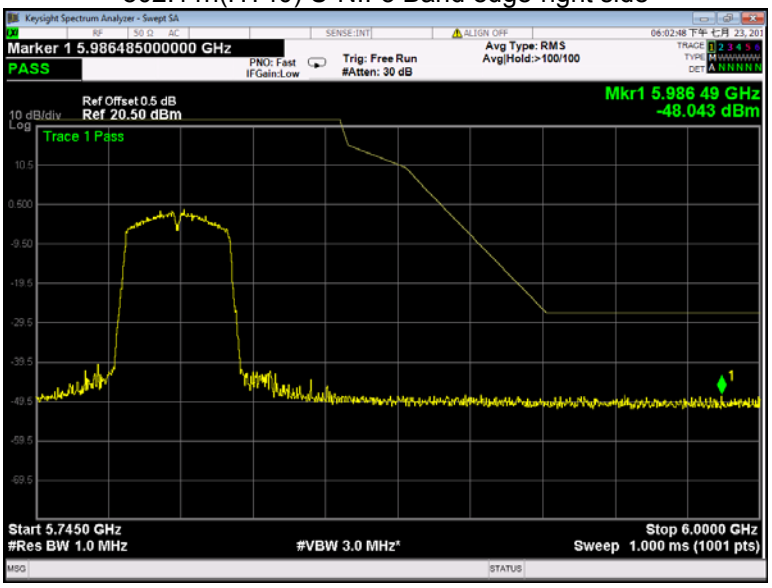


802.11n(HT40) U-NII-2C Band edge-right side

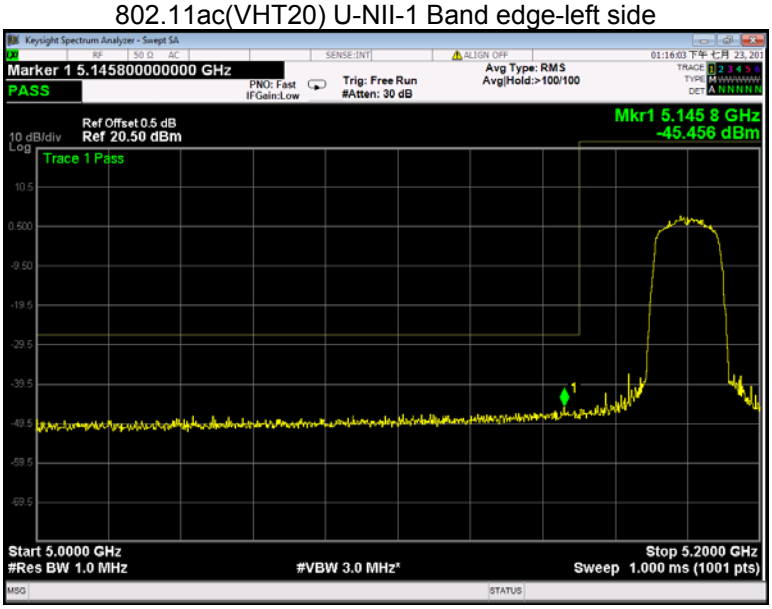
802.11n(HT40) U-NII-3 Band edge-left side



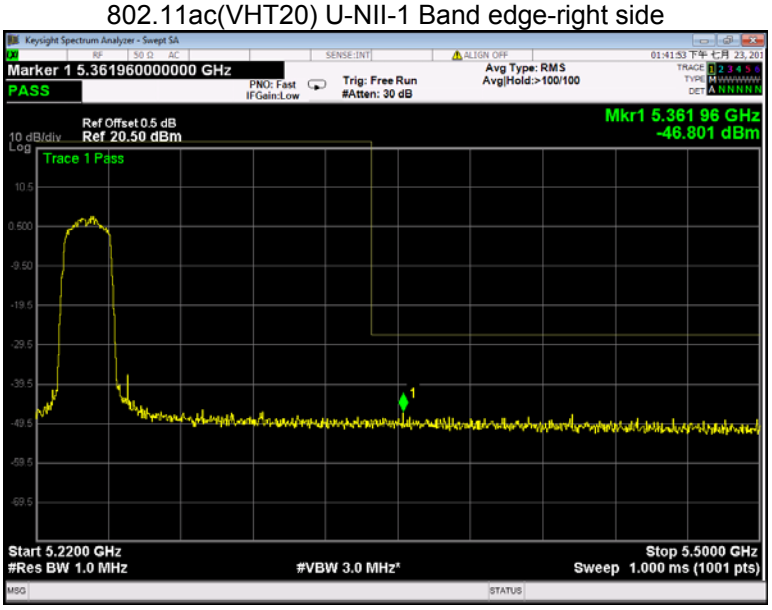
802.11n(HT40) U-NII-3 Band edge-right side



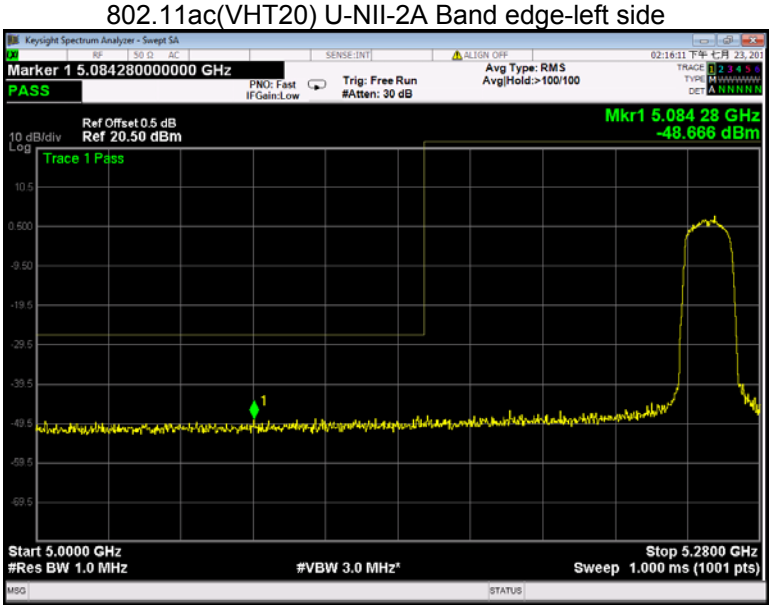
802.11ac(VHT20) U-NII-1 Band edge-left side



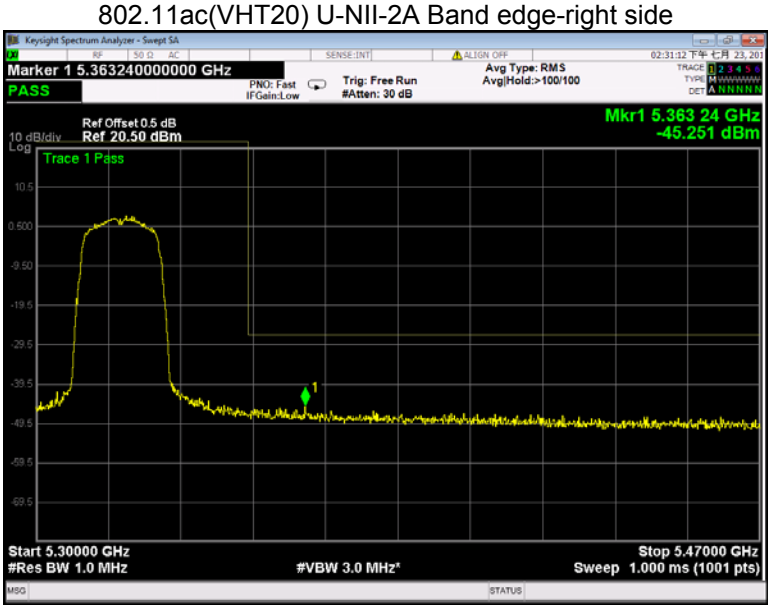
802.11ac(VHT20) U-NII-1 Band edge-right side



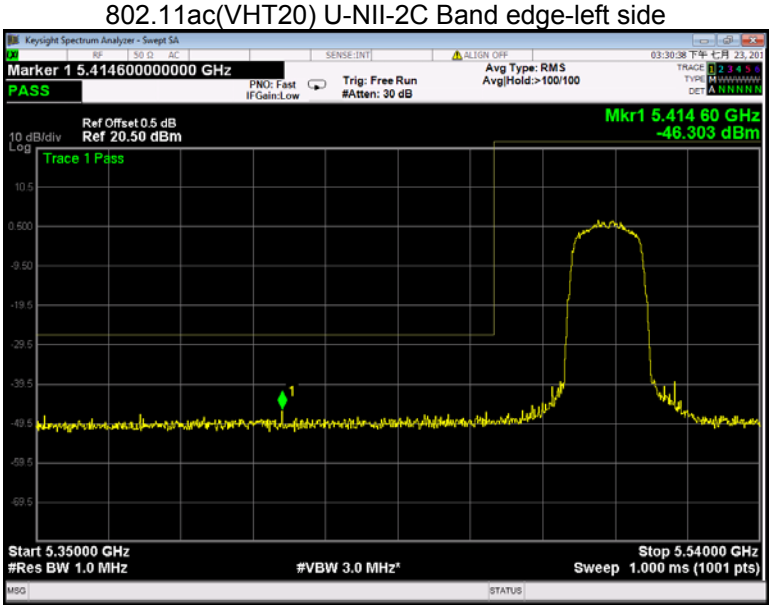
802.11ac(VHT20) U-NII-2A Band edge-left side



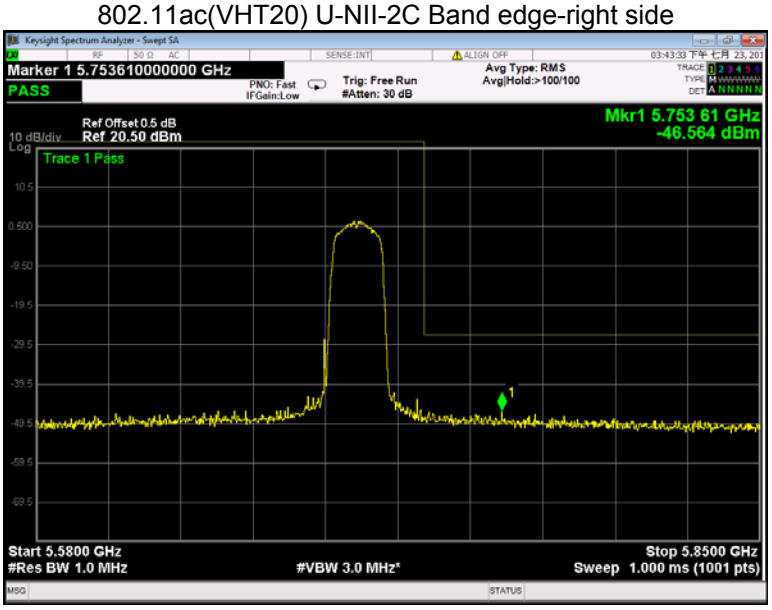
802.11ac(VHT20) U-NII-2A Band edge-right side



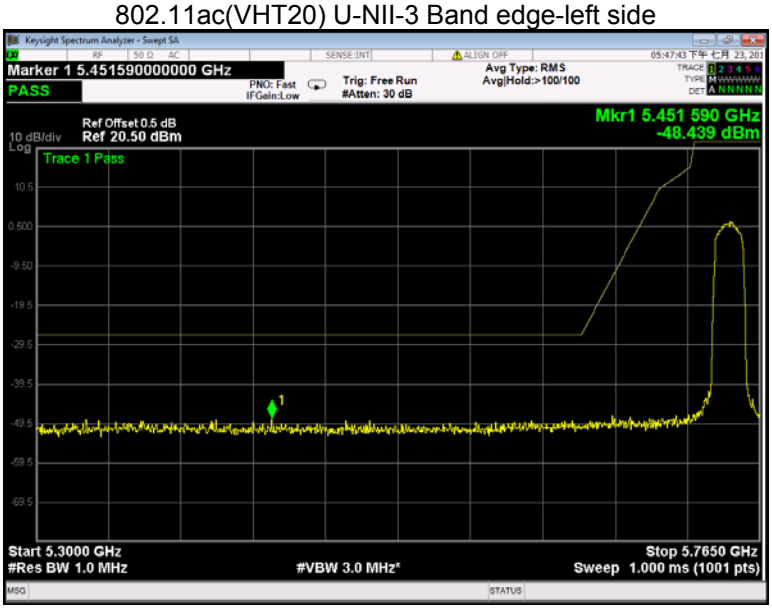
802.11ac(VHT20) U-NII-2C Band edge-left side



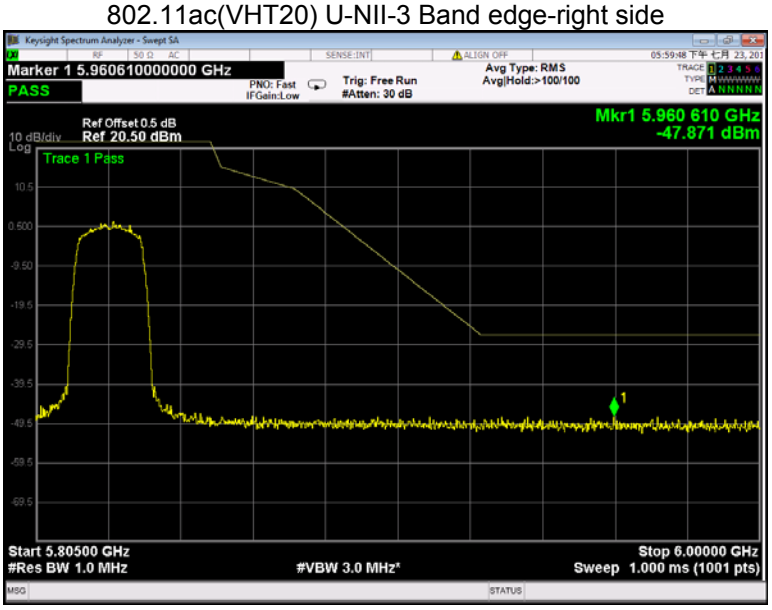
802.11ac(VHT20) U-NII-2C Band edge-right side



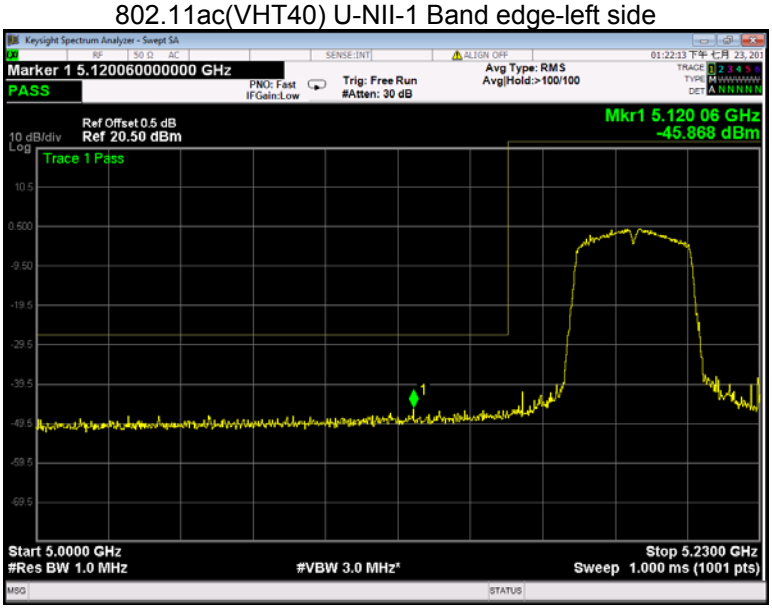
802.11ac(VHT20) U-NII-3 Band edge-left side



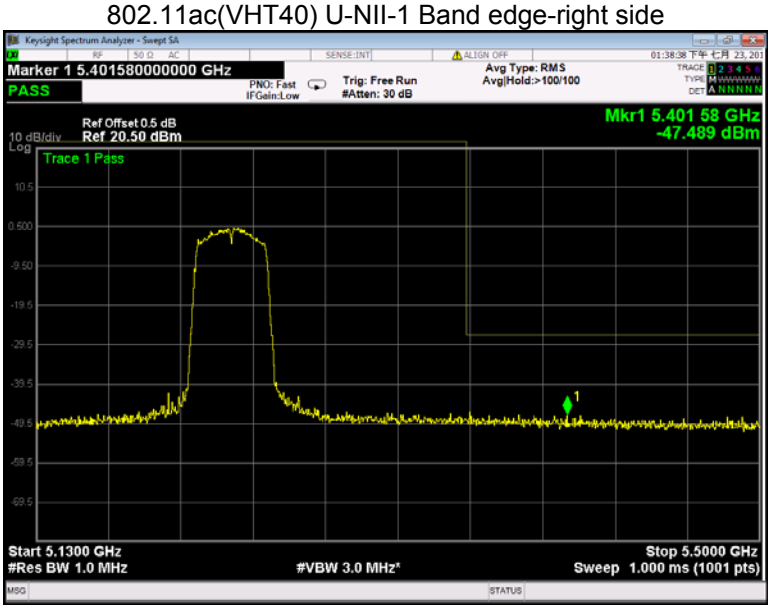
802.11ac(VHT20) U-NII-3 Band edge-right side



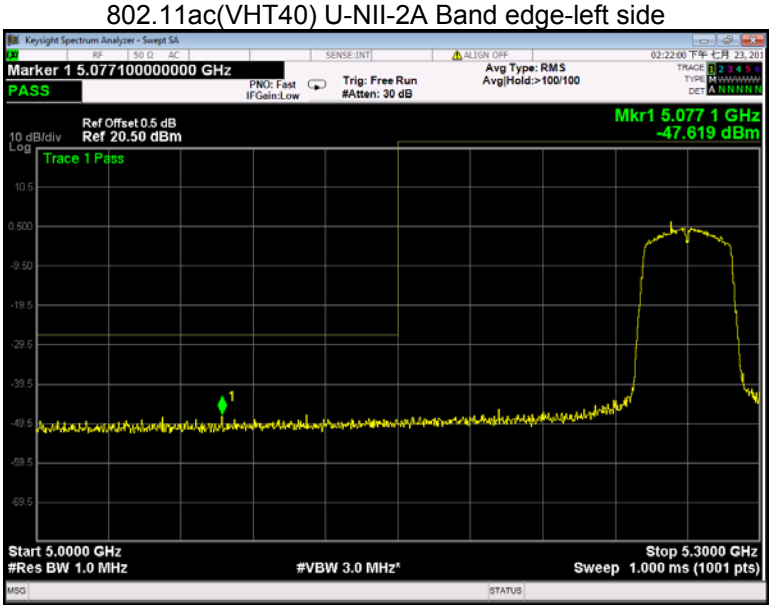
802.11ac(VHT40) U-NII-1 Band edge-left side



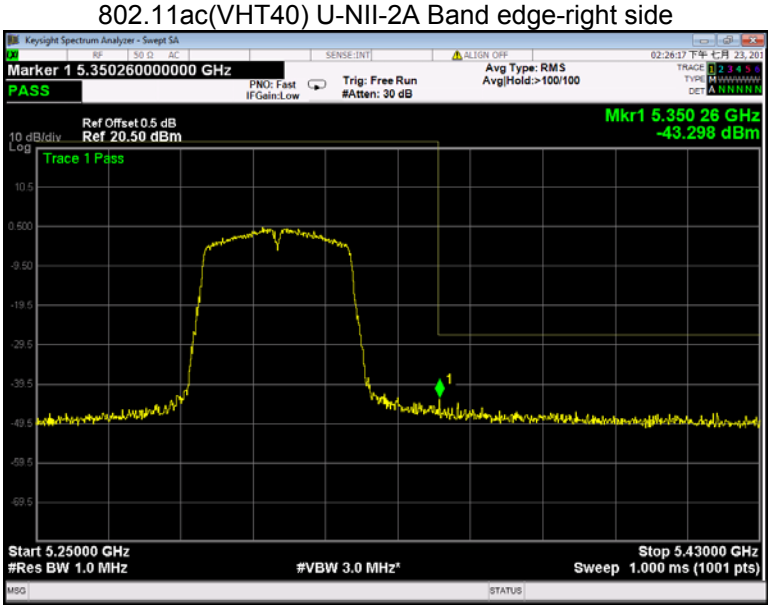
802.11ac(VHT40) U-NII-1 Band edge-right side



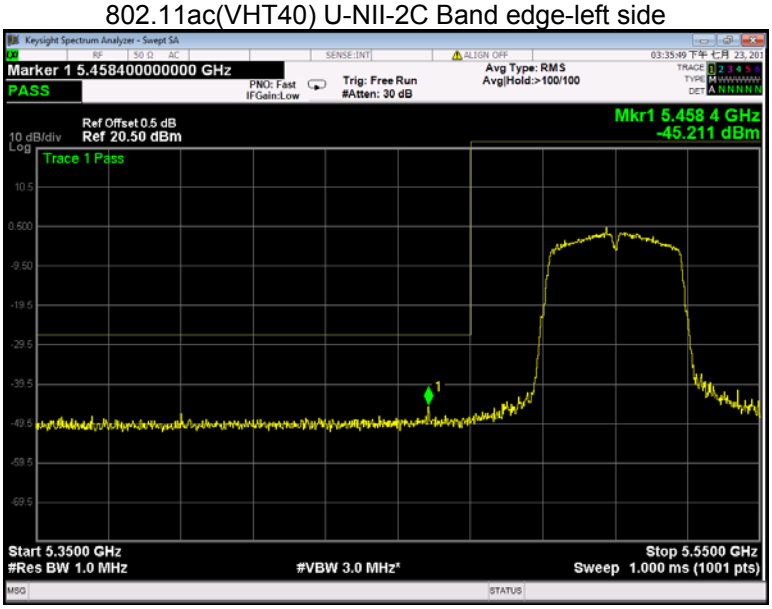
802.11ac(VHT40) U-NII-2A Band edge-left side



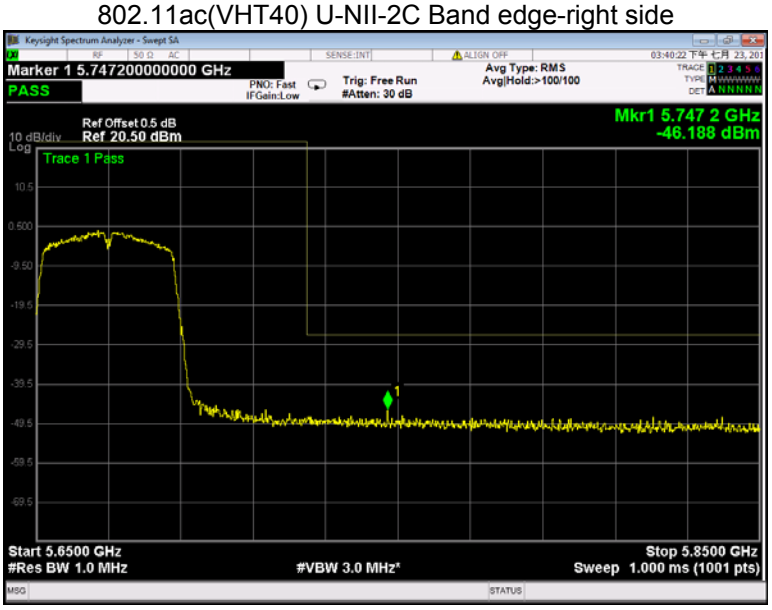
802.11ac(VHT40) U-NII-2A Band edge-right side



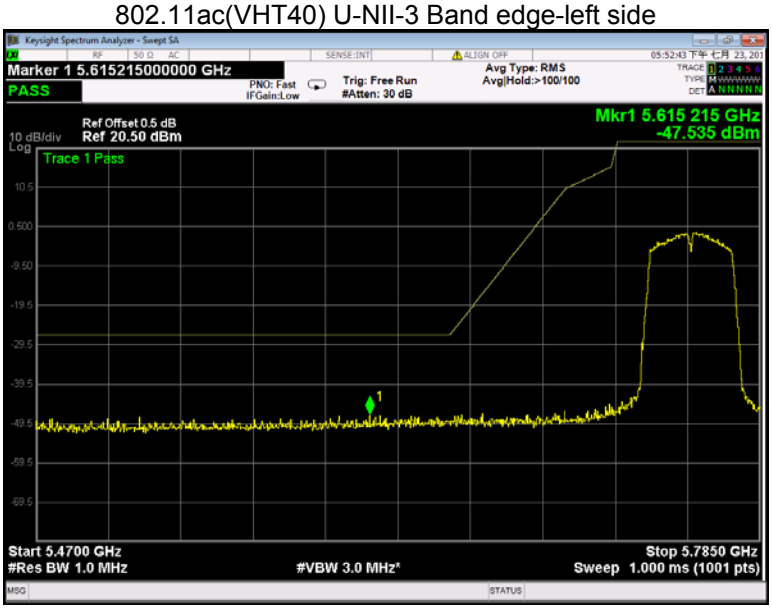
802.11ac(VHT40) U-NII-2C Band edge-left side



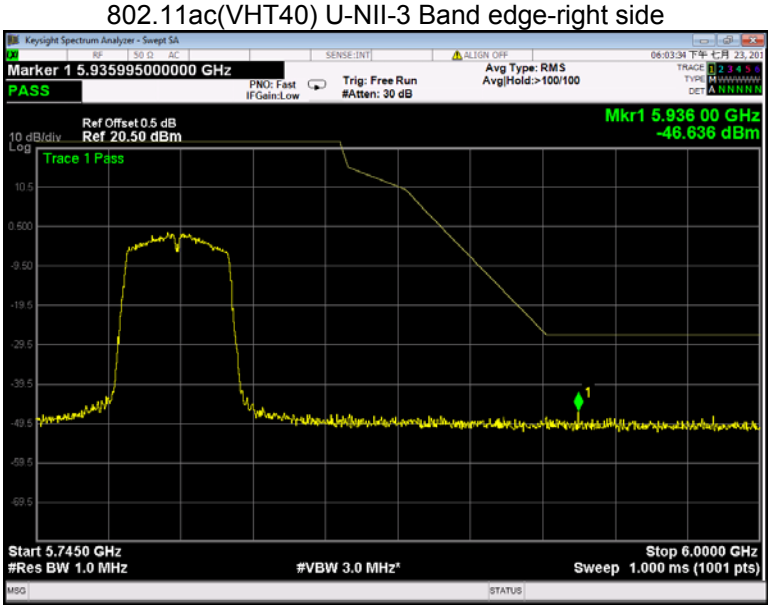
802.11ac(VHT40) U-NII-2C Band edge-right side



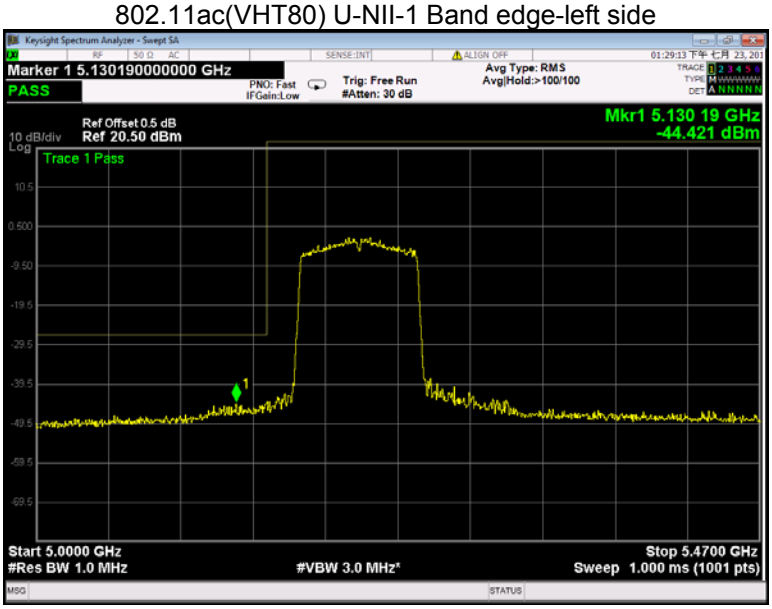
802.11ac(VHT40) U-NII-3 Band edge-left side



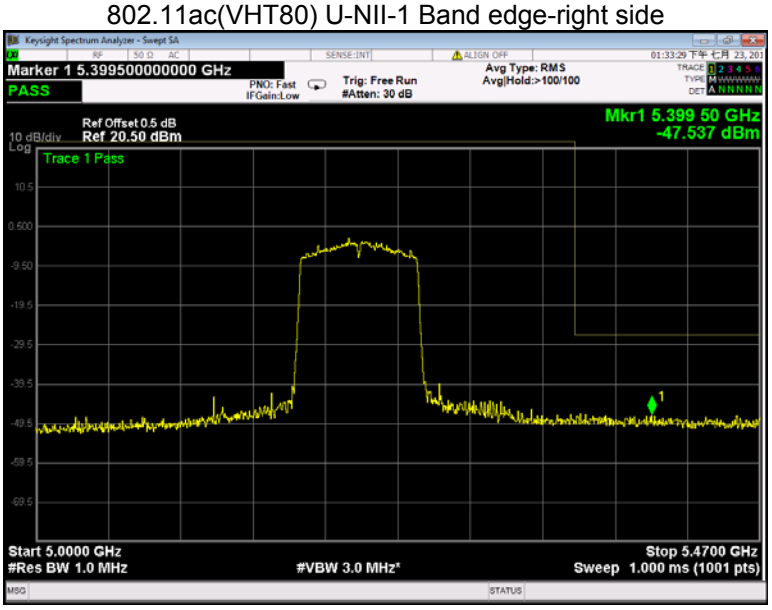
802.11ac(VHT40) U-NII-3 Band edge-right side



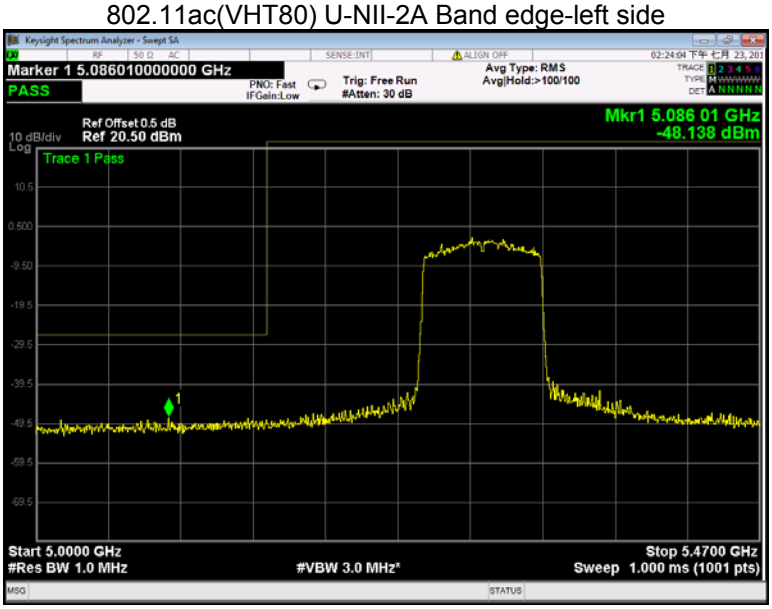
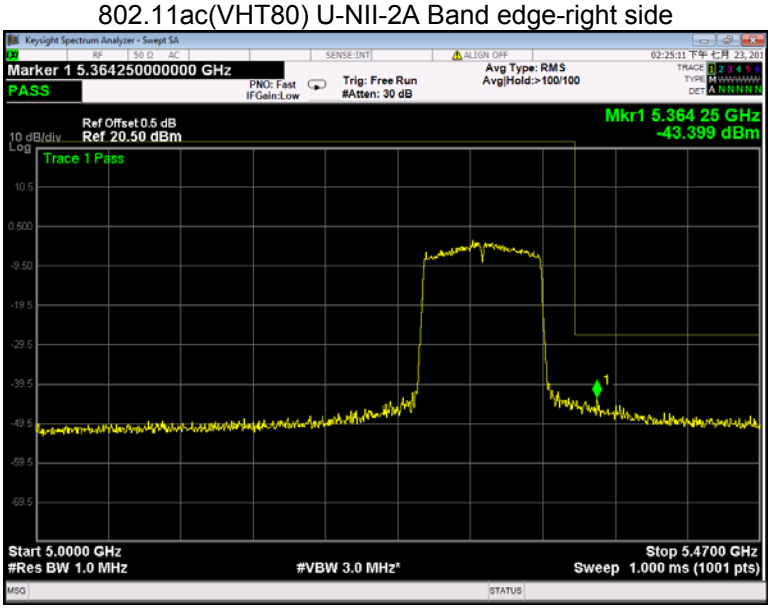
802.11ac(VHT80) U-NII-1 Band edge-left side



802.11ac(VHT80) U-NII-1 Band edge-right side



802.11ac(VHT80) U-NII-2A Band edge-left side



802.11ac(VHT80) U-NII-2A Band edge-right side