

TEST REPORT

Reference No. : WTD23D03064332W004
FCC ID..... : 2AEPIBLACKC
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..... : Smart Phone
Model(s)..... : BLACK C
Brand Name : Kalley
Standards : FCC 47CFR Part 15 Section 15.407
Date of Receipt sample..... : 2023-03-30
Date of Test..... : 2023-03-30 to 2023-04-24
Date of Issue : 2023-04-24
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:

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3 Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD23D03064332W004	2023-03-30	2023-03-30 to 2023-04-24	2023-04-24	original	-	Valid

4 General Information

4.1 General Description of E.U.T.

Product:	Smart Phone
Model(s):	BLACK C
GSM Band(s):	GSM 850/1900MHz
GPRS/EGPRS Class:	12
WCDMA Band(s):	FDD Band II/IV/V
LTE Band(s):	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(VHT20/40/80)
Bluetooth Version:	Bluetooth v5.0 with BLE
GPS:	Support
Hardware Version:	KS7U_01
Software Version:	K6522U2KL.FHD.T.RLRBRH.0310_1349.V1.01
Highest frequency (Exclude Radio):	1.3GHz
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: 10.48dBm U-NII-2A: 10.71dBm U-NII-2C: 8.59dBm U-NII-3: 9.37dBm
Type of Modulation:	OFDM
Antenna installation:	internal permanent antenna
Antenna Gain:	-1.5dBi
Ratings:	Battery DC 3.87V, 4900mAh DC 5V, 2.0A charging from adapter

Adapter:

Model No.: UT-592A-5200ZY

Input: 100-240V~, 50/60Hz, 0.35A

Output: 5V $\overline{=}$ 2.0A, 10.0W

Manufacturer: Shenzhen Baijunda 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	2022-04-28	2023-04-27
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	2022-04-28	2023-04-27
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	2022-04-28	2023-04-27
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	2022-04-28	2023-04-27
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	2022-04-28	2023-04-27
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	2022-10-30	2023-10-29
3	Active Loop Antenna	Com-Power Corp.	AL-130R	10160007	2022-05-02	2023-05-01
4	Amplifier	ANRITSU	MH648A	M43381	2022-04-28	2023-04-27
5	Cable	HUBER+SUHNER	CBL2	525178	2022-04-28	2023-04-27
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	2022-04-28	2023-04-27

5.2 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-6}$
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

2 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 (dB μ V)	
	Quasi-peak	Average
0.15 to 0.5	66 to 56*	56 to 46
0.5 to 5	56	46
5 to 30	60	50

2.1 E.U.T. Operation

Operating Environment:

Temperature: 25.6 °C

Humidity: 56.9 % RH

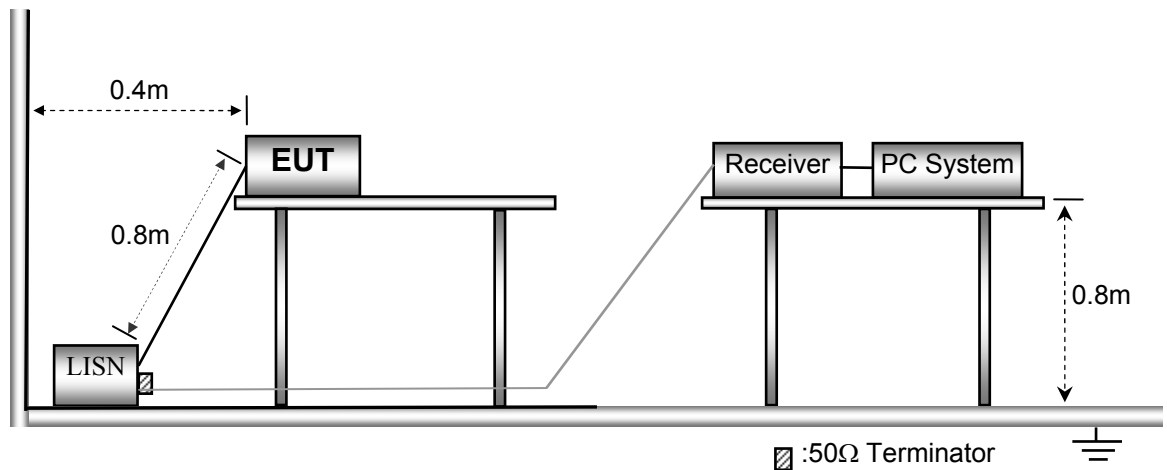
Atmospheric Pressure: 101.2kPa

EUT Operation:

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

2.2 EUT Setup

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



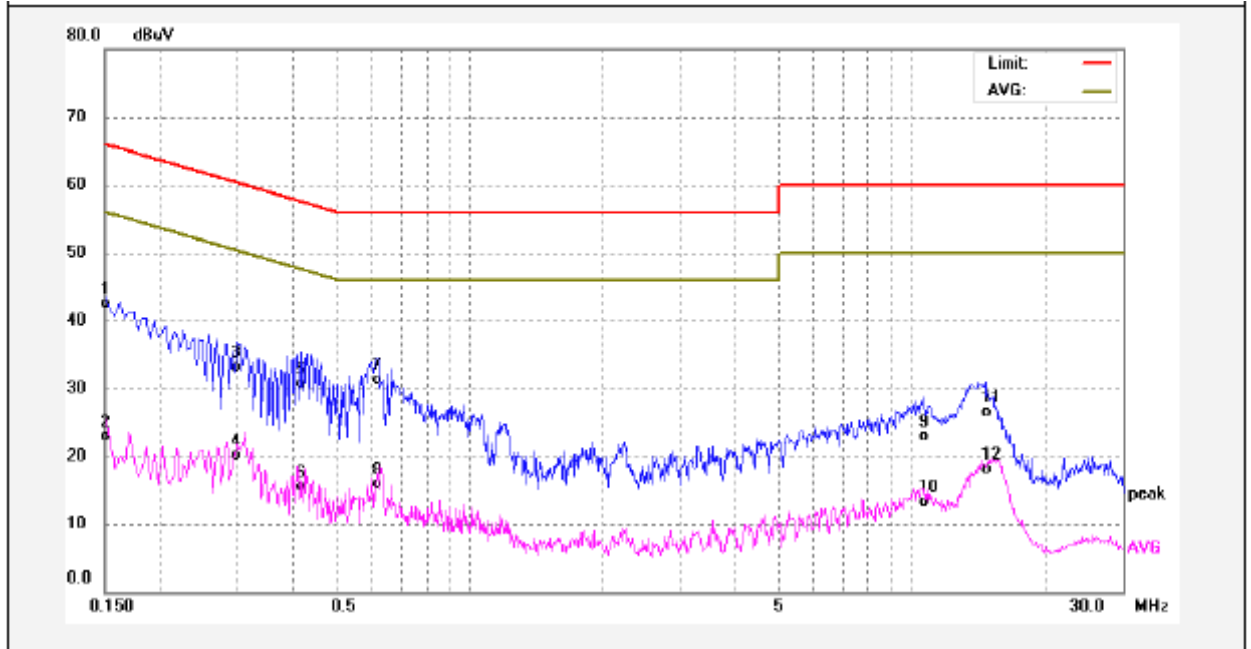
2.3 Measurement Description

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.

2.4 Conducted Emission Test Result

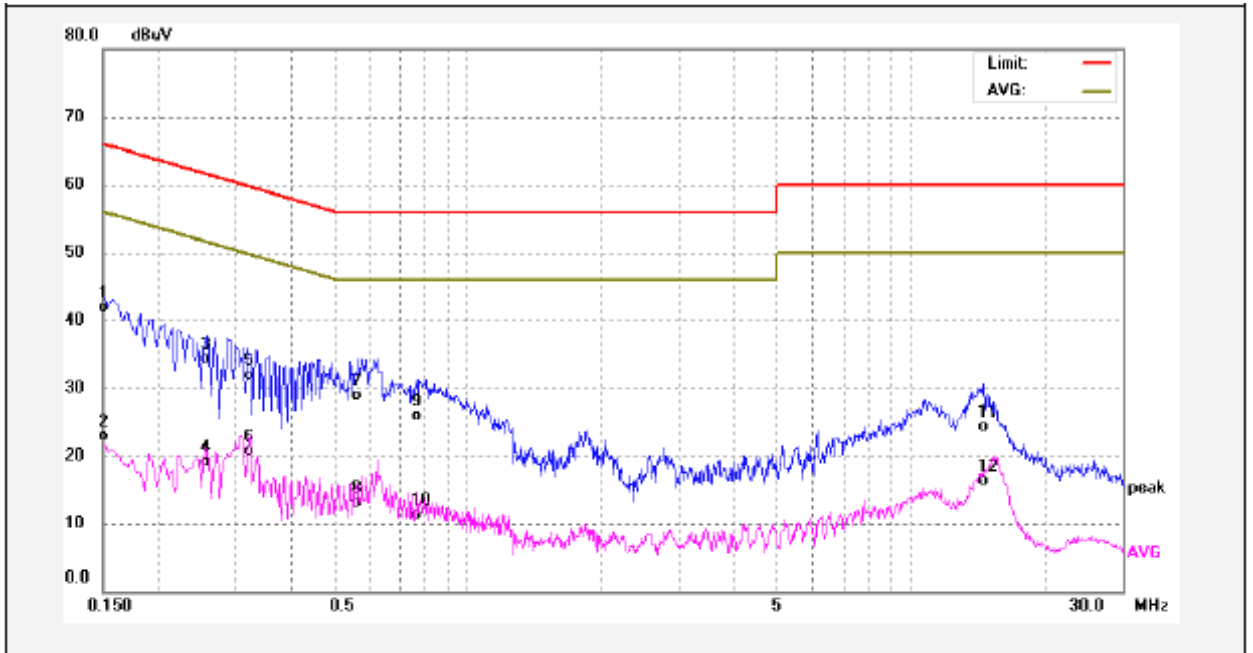
Remark: only the worst data (GFSK modulation Low channel mode) were reported

Live line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	32.88	9.62	42.50	65.99	-23.49	QP	
2	0.1500	13.32	9.62	22.94	55.99	-33.05	AVG	
3	0.2980	23.51	9.65	33.16	60.30	-27.14	QP	
4	0.2980	10.49	9.65	20.14	50.30	-30.16	AVG	
5	0.4180	21.03	9.66	30.69	57.49	-26.80	QP	
6	0.4180	5.82	9.66	15.48	47.49	-32.01	AVG	
7	0.6180	21.68	9.67	31.35	56.00	-24.65	QP	
8	0.6180	6.19	9.67	15.86	46.00	-30.14	AVG	
9	10.5700	12.91	9.98	22.89	60.00	-37.11	QP	
10	10.5700	3.34	9.98	13.32	50.00	-36.68	AVG	
11	14.6060	16.48	10.03	26.51	60.00	-33.49	QP	
12	14.6060	8.07	10.03	18.10	50.00	-31.90	AVG	

Neutral line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1500	32.17	9.65	41.82	65.99	-24.17	QP	
2	0.1500	13.17	9.65	22.82	55.99	-33.17	AVG	
3	0.2580	24.66	9.66	34.32	61.49	-27.17	QP	
4	0.2580	9.50	9.66	19.16	51.49	-32.33	AVG	
5	0.3220	22.19	9.66	31.85	59.65	-27.80	QP	
6	0.3220	11.12	9.66	20.78	49.65	-28.87	AVG	
7	0.5660	19.28	9.67	28.95	56.00	-27.05	QP	
8	0.5660	3.44	9.67	13.11	46.00	-32.89	AVG	
9	0.7740	16.22	9.74	25.96	56.00	-30.04	QP	
10	0.7740	1.62	9.74	11.36	46.00	-34.64	AVG	
11	14.5580	14.20	10.05	24.25	60.00	-35.75	QP	
12	14.5580	6.31	10.05	16.36	50.00	-33.64	AVG	

7 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	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
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	$20\log^{(500)}$

7.1 EUT Operation

Operating Environment :

Temperature: 23.5 °C

Humidity: 52.1 % RH

Atmospheric Pressure: 101.2kPa

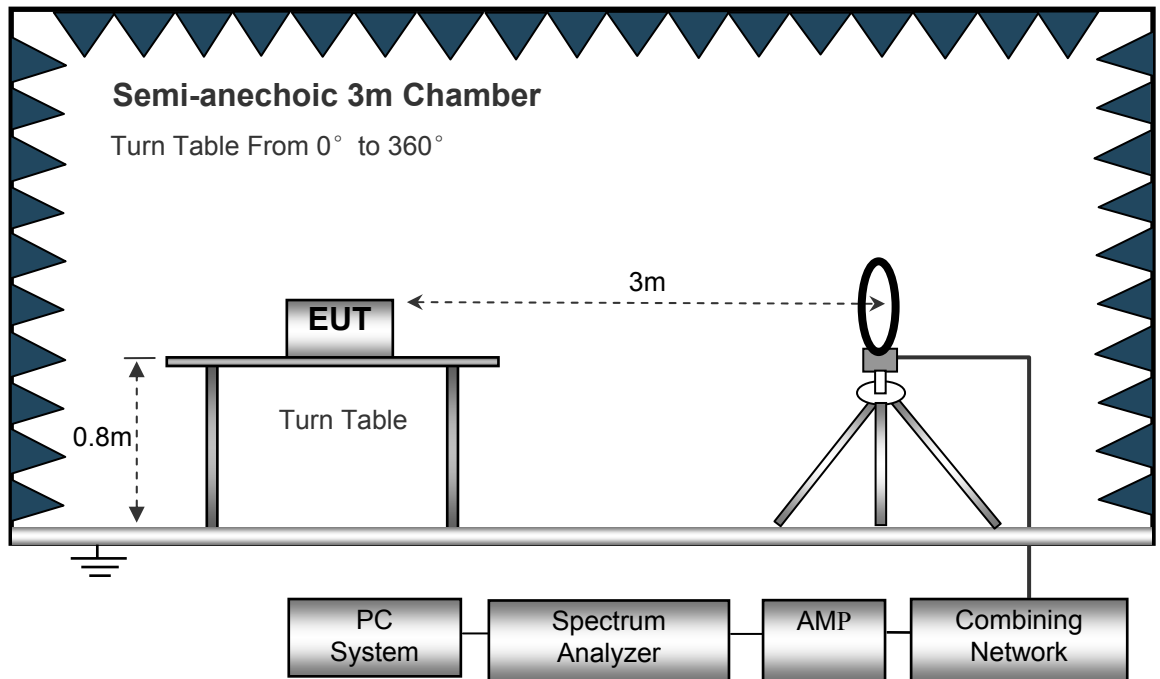
EUT Operation :

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

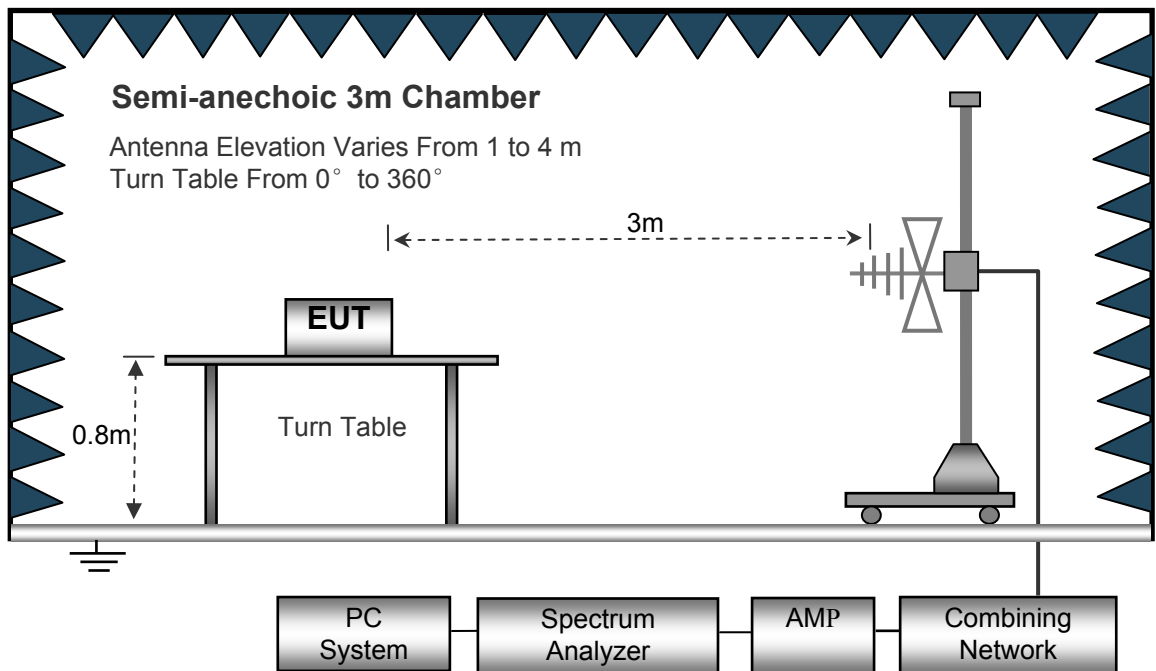
7.2 Test Setup

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

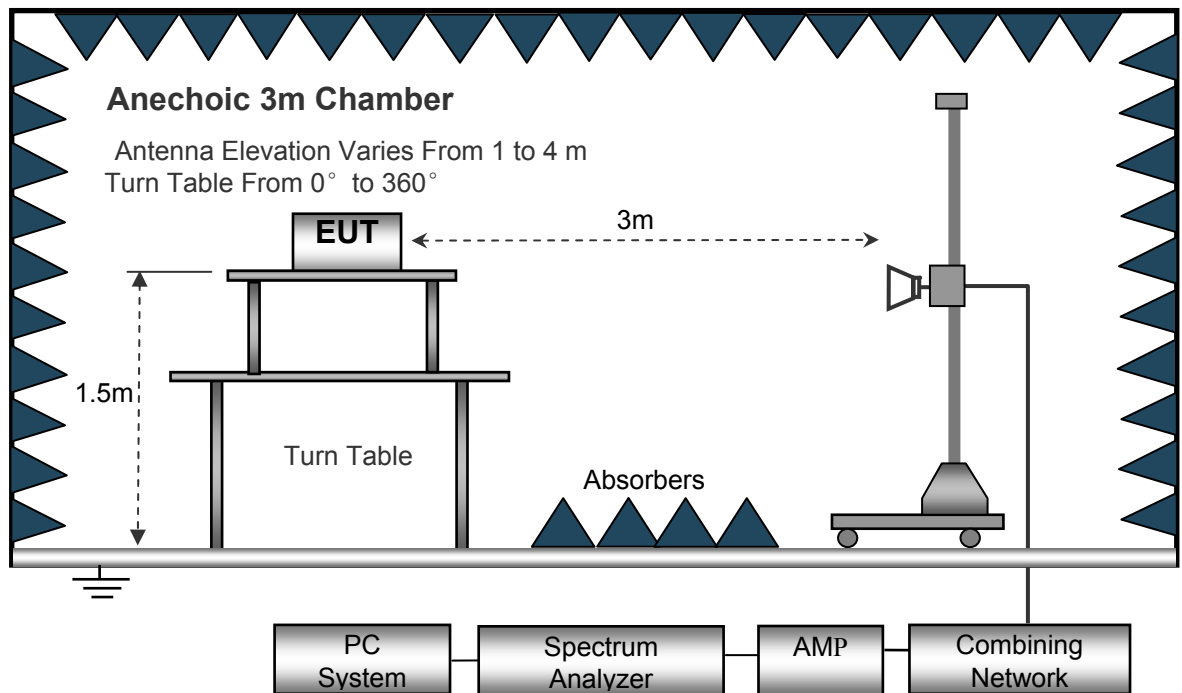
The test setup for emission measurement below 30MHz.



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



The test setup for emission measurement above 1 GHz.



7.3 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

7.4 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 during radiated emissions above 1GHz measurement.

7.5 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:

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

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:

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

7.6 Summary of Test Results

Test Frequency: 9KHz~30MHz

Frequency	Measurement results dB μ V @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dB μ V/m @30m	Limits dB μ V/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-1:802.11a 5180MHz							
6.326	25.76	QP	21.84	40.00	7.60	29.54	-21.94
16.586	26.28	QP	21.35	40.00	7.63	29.54	-21.91
26.342	24.47	QP	20.67	40.00	5.14	29.54	-24.40
U-NII-1:802.11n20 5180MHz							
6.995	25.51	QP	21.84	40.00	7.35	29.54	-22.19
16.162	26.56	QP	21.35	40.00	7.91	29.54	-21.63
26.473	24.49	QP	20.67	40.00	5.16	29.54	-24.38
U-NII-1:802.11ac 20 5180MHz							
6.933	25.41	QP	21.84	40.00	7.25	29.54	-22.29
16.461	26.40	QP	21.35	40.00	7.75	29.54	-21.79
26.596	25.26	QP	20.67	40.00	5.93	29.54	-23.61
U-NII-1:802.11n40 5190MHz							
6.495	25.62	QP	21.84	40.00	7.46	29.54	-22.08
15.913	25.71	QP	21.35	40.00	7.06	29.54	-22.48
26.071	24.37	QP	20.67	40.00	5.04	29.54	-24.50
U-NII-1:802.11ac40 5190MHz							
6.607	25.64	QP	21.84	40.00	7.48	29.54	-22.06
16.409	26.20	QP	21.35	40.00	7.55	29.54	-21.99
26.307	25.10	QP	20.67	40.00	5.77	29.54	-23.77
U-NII-1:802.11ac80 5210MHz							
6.439	25.36	QP	21.84	40.00	7.20	29.54	-22.34
16.056	25.93	QP	21.35	40.00	7.28	29.54	-22.26
26.562	24.91	QP	20.67	40.00	5.58	29.54	-23.96

Frequency	Measurement results dB μ V @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dB μ V/m @30m	Limits dB μ V/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-2A:802.11a 5260MHz							
6.021	24.10	QP	21.84	40.00	5.94	29.54	-23.60
15.730	25.14	QP	21.35	40.00	6.49	29.54	-23.05
25.680	24.33	QP	20.67	40.00	5.00	29.54	-24.54
U-NII-2A:802.11n20 5260MHz							
6.021	25.33	QP	21.84	40.00	7.17	29.54	-22.37
15.730	24.61	QP	21.35	40.00	5.96	29.54	-23.58
25.680	23.74	QP	20.67	40.00	4.41	29.54	-25.13
U-NII-2A:802.11ac 5260MHz							
6.021	24.31	QP	21.84	40.00	6.15	29.54	-23.39
15.730	23.75	QP	21.35	40.00	5.10	29.54	-24.44
25.680	24.92	QP	20.67	40.00	5.59	29.54	-23.95
U-NII-2A:802.11n40 5270MHz							
6.021	25.01	QP	21.84	40.00	6.85	29.54	-22.69
15.730	24.15	QP	21.35	40.00	5.50	29.54	-24.04
25.680	25.30	QP	20.67	40.00	5.97	29.54	-23.57
U-NII-2A:802.11ac40 5270MHz							
6.021	25.33	QP	21.84	40.00	7.17	29.54	-22.37
15.730	25.74	QP	21.35	40.00	7.09	29.54	-22.45
25.680	25.06	QP	20.67	40.00	5.73	29.54	-23.81
U-NII-2A:802.11ac80 5290MHz							
6.021	25.09	QP	21.84	40.00	6.93	29.54	-22.61
15.730	24.55	QP	21.35	40.00	5.90	29.54	-23.64
25.680	24.63	QP	20.67	40.00	5.30	29.54	-24.24

Frequency	Measurement results dB μ V @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dB μ V/m @30m	Limits dB μ V/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-2C:802.11a 5500MHz							
6.691	26.00	QP	21.84	40.00	7.84	29.54	-21.70
16.358	26.68	QP	21.35	40.00	8.03	29.54	-21.51
26.778	25.40	QP	20.67	40.00	6.07	29.54	-23.47
U-NII-2C:802.11n20 5500MHz							
6.700	25.89	QP	21.84	40.00	7.73	29.54	-21.81
16.288	26.17	QP	21.35	40.00	7.52	29.54	-22.02
26.221	24.44	QP	20.67	40.00	5.11	29.54	-24.43
U-NII-2C:802.11ac20 5500MHz							
7.230	25.42	QP	21.84	40.00	7.26	29.54	-22.28
16.181	26.57	QP	21.35	40.00	7.92	29.54	-21.62
26.043	24.53	QP	20.67	40.00	5.20	29.54	-24.34
U-NII-2C:802.11n40 5510MHz							
6.503	25.35	QP	21.84	40.00	7.19	29.54	-22.35
16.427	26.30	QP	21.35	40.00	7.65	29.54	-21.89
26.499	25.17	QP	20.67	40.00	5.84	29.54	-23.70
U-NII-2C:802.11ac40 5510MHz							
7.171	25.81	QP	21.84	40.00	7.65	29.54	-21.89
16.407	26.39	QP	21.35	40.00	7.74	29.54	-21.80
26.282	25.35	QP	20.67	40.00	6.02	29.54	-23.52
U-NII-2C:802.11ac80 5530MHz							
6.634	25.90	QP	21.84	40.00	7.74	29.54	-21.80
15.883	25.69	QP	21.35	40.00	7.04	29.54	-22.50
26.571	24.45	QP	20.67	40.00	5.12	29.54	-24.42

Frequency	Measurement results dB μ V @3m	Detector PK/QP	Correct factor dB/m	Extrapolation factor dB	Measurement results (calculated) dB μ V/m @30m	Limits dB μ V/m @30m	Margin dB
(MHz)	Measurement results	Detector	Correct factor	Extrapolation factor	Measurement results (calculated)	Limits	Margin
U-NII-3 802.11a 5745MHz							
7.162	25.30	QP	21.84	40.00	7.14	29.54	-22.40
16.457	26.29	QP	21.35	40.00	7.64	29.54	-21.90
26.416	25.32	QP	20.67	40.00	5.99	29.54	-23.55
U-NII-3 802.11n20 5745MHz							
6.876	26.07	QP	21.84	40.00	7.91	29.54	-21.63
16.432	26.28	QP	21.35	40.00	7.63	29.54	-21.91
26.262	25.24	QP	20.67	40.00	5.91	29.54	-23.63
U-NII-3 802.11ac 5745MHz							
6.324	26.10	QP	21.84	40.00	7.94	29.54	-21.60
15.876	26.13	QP	21.35	40.00	7.48	29.54	-22.06
26.657	24.60	QP	20.67	40.00	5.27	29.54	-24.27
U-NII-3 802.11n40 5755MHz							
7.278	25.60	QP	21.84	40.00	7.44	29.54	-22.10
15.819	26.27	QP	21.35	40.00	7.62	29.54	-21.92
26.841	24.74	QP	20.67	40.00	5.41	29.54	-24.13
U-NII-3 802.11ac40 5755MHz							
6.909	25.59	QP	21.84	40.00	7.43	29.54	-22.11
15.654	26.65	QP	21.35	40.00	8.00	29.54	-21.54
26.569	24.49	QP	20.67	40.00	5.16	29.54	-24.38
U-NII-3 802.11ac80 5775MHz							
6.584	26.10	QP	21.84	40.00	7.94	29.54	-21.60
16.004	26.12	QP	21.35	40.00	7.47	29.54	-22.07
26.679	25.00	QP	20.67	40.00	5.67	29.54	-23.87

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)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11a U-NII-1 Low Channel 5180MHz									
285.49	41.87	QP	278	1.2	H	-11.62	30.25	46.00	-15.75
285.49	38.41	QP	358	1.9	V	-11.62	26.79	46.00	-19.21
4504.16	53.69	PK	31	1.7	H	-2.03	51.66	74.00	-22.34
4504.16	44.06	Ave	31	1.7	H	-2.03	42.03	54.00	-11.97
5127.19	53.14	PK	226	1.6	H	-1.02	52.12	74.00	-21.88
5127.19	44.59	Ave	226	1.6	H	-1.02	43.57	54.00	-10.43
10360.00	41.15	PK	61	1.8	H	5.33	46.48	74.00	-27.52
10360.00	37.83	Ave	61	1.8	H	5.33	43.16	54.00	-10.84
802.11a U-NII-1 Middle channel 5200MHz									
285.49	42.39	QP	263	1.0	H	-11.62	30.77	46.00	-15.23
285.49	37.67	QP	303	1.4	V	-11.62	26.05	46.00	-19.95
4532.28	55.01	PK	114	1.5	H	-1.94	53.07	74.00	-20.93
4532.28	43.86	Ave	114	1.5	H	-1.94	41.92	54.00	-12.08
5118.60	54.21	PK	315	1.4	H	-1.06	53.15	74.00	-20.85
5118.60	46.41	Ave	315	1.4	H	-1.06	45.35	54.00	-8.65
10400.00	42.57	PK	41	1.3	H	5.21	47.78	74.00	-26.22
10400.00	38.94	Ave	41	1.3	H	5.21	44.15	54.00	-9.85

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11a U-NII-1 High channel 5240MHz									
285.49	42.38	QP	332	1.8	H	-11.62	30.76	46.00	-15.24
285.49	37.93	QP	63	1.9	V	-11.62	26.31	46.00	-19.69
4502.77	55.74	PK	153	1.7	H	-2.24	53.50	74.00	-20.50
4502.77	43.31	Ave	153	1.7	H	-2.24	41.07	54.00	-12.93
5133.40	54.92	PK	275	1.3	H	-1.09	53.83	74.00	-20.17
5133.40	45.55	Ave	275	1.3	H	-1.09	44.46	54.00	-9.54
10480.00	42.10	PK	147	1.4	H	5.14	47.24	74.00	-26.76
10480.00	39.12	Ave	147	1.4	H	5.14	44.26	54.00	-9.74
802.11a U-NII-2A Low Channel 5260MHz									
223.45	41.05	QP	287	1.1	H	-11.62	29.43	46.00	-16.57
223.45	36.26	QP	297	1.2	V	-11.62	24.64	46.00	-21.36
4504.91	50.44	PK	92	1.2	H	-2.03	48.41	74.00	-25.59
4504.91	42.32	Ave	92	1.2	H	-2.03	40.29	54.00	-13.71
5135.71	52.53	PK	159	1.9	H	-1.02	51.51	74.00	-22.49
5135.71	41.18	Ave	159	1.9	H	-1.02	40.16	54.00	-13.84
10520.00	41.08	PK	157	2.0	H	5.33	46.41	74.00	-27.59
10520.00	36.85	Ave	157	2.0	H	5.33	42.18	54.00	-11.82

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11a U-NII-2A middle channel 5280MHz									
223.45	42.55	QP	277	1.1	H	-11.62	30.93	46.00	-15.07
223.45	37.38	QP	19	1.0	V	-11.62	25.76	46.00	-20.24
4532.90	49.08	PK	77	1.2	H	-1.94	47.14	74.00	-26.86
4532.90	42.03	Ave	77	1.2	H	-1.94	40.09	54.00	-13.91
5140.53	52.23	PK	7	1.2	H	-1.06	51.17	74.00	-22.83
5140.53	42.02	Ave	7	1.2	H	-1.06	40.96	54.00	-13.04
10560.00	40.17	PK	137	1.6	H	5.21	45.38	74.00	-28.62
10560.00	35.50	Ave	137	1.6	H	5.21	40.71	54.00	-13.29
802.11a U-NII-2A High channel 5320MHz									
223.45	43.28	QP	353	1.1	H	-11.62	31.66	46.00	-14.34
223.45	38.72	QP	212	1.3	V	-11.62	27.10	46.00	-18.90
4526.64	48.71	PK	121	1.6	H	-2.24	46.47	74.00	-27.53
4526.64	40.53	Ave	121	1.6	H	-2.24	38.29	54.00	-15.71
5122.22	52.22	PK	170	1.5	H	-1.09	51.13	74.00	-22.87
5122.22	43.29	Ave	170	1.5	H	-1.09	42.20	54.00	-11.80
10640.00	40.59	PK	143	1.1	H	5.14	45.73	74.00	-28.27
10640.00	38.03	Ave	143	1.1	H	5.14	43.17	54.00	-10.83

Frequency (MHz)	Receiver Reading (dB μ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB μ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB μ V/m)	Margin (dB)
802.11a U-NII-2C Low Channel 5500MHz									
223.45	41.08	QP	269	1.5	H	-11.62	29.46	46.00	-16.54
223.45	36.45	QP	272	1.1	V	-11.62	24.83	46.00	-21.17
4535.17	50.54	PK	178	1.8	H	-2.03	48.51	74.00	-25.49
4535.17	42.38	Ave	178	1.8	H	-2.03	40.35	54.00	-13.65
5122.17	52.43	PK	150	1.9	H	-1.02	51.41	74.00	-22.59
5122.17	40.38	Ave	150	1.9	H	-1.02	39.36	54.00	-14.64
11000.00	41.18	PK	116	1.8	H	5.33	46.51	74.00	-27.49
11000.00	36.53	Ave	116	1.8	H	5.33	41.86	54.00	-12.14
802.11a U-NII-2C Middle channel 5600MHz									
223.45	41.00	QP	308	1.8	H	-11.62	29.38	46.00	-16.62
223.45	35.57	QP	60	1.3	V	-11.62	23.95	46.00	-22.05
4508.03	49.53	PK	15	1.1	H	-1.94	47.59	74.00	-26.41
4508.03	41.96	Ave	15	1.1	H	-1.94	40.02	54.00	-13.98
5144.40	51.80	PK	166	1.2	H	-1.06	50.74	74.00	-23.26
5144.40	40.22	Ave	166	1.2	H	-1.06	39.16	54.00	-14.84
11200.00	41.14	PK	264	1.9	H	5.21	46.35	74.00	-27.65
11200.00	37.77	Ave	264	1.9	H	5.21	42.98	54.00	-11.02

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11a U-NII-2C High channel 5700MHz									
223.45	41.52	QP	6	1.4	H	-11.62	29.90	46.00	-16.10
223.45	35.10	QP	318	1.3	V	-11.62	23.48	46.00	-22.52
4519.85	50.66	PK	359	2.0	H	-2.24	48.42	74.00	-25.58
4519.85	40.91	Ave	359	2.0	H	-2.24	38.67	54.00	-15.33
5143.66	51.67	PK	5	1.5	H	-1.09	50.58	74.00	-23.42
5143.66	40.09	Ave	5	1.5	H	-1.09	39.00	54.00	-15.00
11400.00	41.02	PK	96	1.5	H	5.14	46.16	74.00	-27.84
11400.00	37.16	Ave	96	1.5	H	5.14	42.30	54.00	-11.70
802.11a U-NII-3 Low Channel 5745MHz									
285.49	42.81	QP	163	1.1	H	-11.62	31.19	46.00	-14.81
285.49	38.89	QP	133	1.1	V	-11.62	27.27	46.00	-18.73
4510.94	55.36	PK	241	1.9	H	-2.06	53.30	74.00	-20.70
4510.94	43.72	Ave	241	1.9	H	-2.06	41.66	54.00	-12.34
11490.00	41.91	PK	199	1.1	H	5.93	47.84	74.00	-26.16
11490.00	38.11	Ave	199	1.1	H	5.93	44.04	54.00	-9.96
5353.68	46.75	PK	304	1.3	H	-1.25	45.50	74.00	-28.50
5353.68	38.82	Ave	304	1.3	H	-1.25	37.57	54.00	-16.43

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11a U-NII-3 middle channel 5785MHz									
285.49	43.70	QP	243	1.8	H	-11.62	32.08	46.00	-13.92
285.49	39.94	QP	177	1.1	V	-11.62	28.32	46.00	-17.68
4514.08	53.91	PK	75	1.2	H	-2.03	51.88	74.00	-22.12
4514.08	43.08	Ave	75	1.2	H	-2.03	41.05	54.00	-12.95
11570.00	41.45	PK	184	1.7	H	5.81	47.26	74.00	-26.74
11570.00	36.52	Ave	184	1.7	H	5.81	42.33	54.00	-11.67
5364.08	46.08	PK	10	1.2	H	-1.22	44.86	74.00	-29.14
5364.08	39.84	Ave	10	1.2	H	-1.22	38.62	54.00	-15.38
802.11a U-NII-3 High channel 5825MHz									
285.49	45.12	QP	39	1.5	H	-11.62	33.50	46.00	-12.50
285.49	39.40	QP	263	1.2	V	-11.62	27.78	46.00	-18.22
4531.47	54.39	PK	118	1.5	H	-1.84	52.55	74.00	-21.45
4531.47	43.79	Ave	118	1.5	H	-1.84	41.95	54.00	-12.05
11650.00	41.09	PK	154	1.5	H	5.84	46.93	74.00	-27.07
11650.00	36.81	Ave	154	1.5	H	5.84	42.65	54.00	-11.35
5351.11	45.60	PK	105	1.5	H	-1.30	44.30	74.00	-29.70
5351.11	37.09	Ave	105	1.5	H	-1.30	35.79	54.00	-18.21

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT20) U-NII-1 Low Channel 5180MHz									
285.49	43.85	QP	69	1.8	H	-11.62	32.23	46.00	-13.77
285.49	39.42	QP	123	1.5	V	-11.62	27.80	46.00	-18.20
4505.63	53.65	PK	312	1.1	H	-2.14	51.51	74.00	-22.49
4505.63	42.30	Ave	312	1.1	H	-2.14	40.16	54.00	-13.84
5148.55	47.02	PK	20	1.6	H	-1.06	45.96	74.00	-28.04
5148.55	38.06	Ave	20	1.6	H	-1.06	37.00	54.00	-17.00
10360.00	42.52	PK	204	1.5	H	5.33	47.85	74.00	-26.15
10360.00	38.30	Ave	204	1.5	H	5.33	43.63	54.00	-10.37
802.11n(HT20) U-NII-1 Middle channel 5200MHz									
285.49	43.35	QP	50	1.3	H	-11.62	31.73	46.00	-14.27
285.49	40.40	QP	104	1.3	V	-11.62	28.78	46.00	-17.22
4524.28	52.75	PK	237	1.1	H	-2.12	50.63	74.00	-23.37
4524.28	41.19	Ave	237	1.1	H	-2.12	39.07	54.00	-14.93
5145.57	48.30	PK	25	1.3	H	-1.06	47.24	74.00	-26.76
5145.57	37.96	Ave	25	1.3	H	-1.06	36.90	54.00	-17.10
10400.00	40.76	PK	191	1.0	H	5.21	45.97	74.00	-28.03
10400.00	36.39	Ave	191	1.0	H	5.21	41.60	54.00	-12.40

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT20) U-NII-1 High channel 5240MHz									
285.49	42.93	QP	77	1.5	H	-11.62	31.31	46.00	-14.69
285.49	39.34	QP	274	1.8	V	-11.62	27.72	46.00	-18.28
4517.15	52.90	PK	42	2.0	H	-1.96	50.94	74.00	-23.06
4517.15	42.30	Ave	42	2.0	H	-1.96	40.34	54.00	-13.66
5118.24	50.00	PK	101	1.0	H	-1.06	48.94	74.00	-25.06
5118.24	38.95	Ave	101	1.0	H	-1.06	37.89	54.00	-16.11
10480.00	41.36	PK	56	1.9	H	5.14	46.50	74.00	-27.50
10480.00	39.32	Ave	56	1.9	H	5.14	44.46	54.00	-9.54
802.11n(HT20) U-NII-2A Low Channel 5260MHz									
285.49	40.29	QP	288	1.1	H	-11.62	28.67	46.00	-17.33
285.49	40.28	QP	19	1.7	V	-11.62	28.66	46.00	-17.34
4512.48	38.18	PK	196	1.4	H	-2.03	36.15	74.00	-37.85
4512.48	46.13	Ave	196	1.4	H	-2.03	44.10	54.00	-9.90
5145.35	41.26	PK	160	1.0	H	-1.02	40.24	74.00	-33.76
5145.35	1.39	Ave	160	1.0	H	-1.02	0.37	54.00	-53.63
10520.00	41.87	PK	220	1.7	H	5.33	47.20	74.00	-26.80
10520.00	38.13	Ave	220	1.7	H	5.33	43.46	54.00	-10.54

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT20) U-NII-2A middle channel 5280MHz									
285.49	38.97	QP	302	2.0	H	-11.62	27.35	46.00	-18.65
285.49	39.01	QP	280	1.9	V	-11.62	27.39	46.00	-18.61
4529.51	38.92	PK	229	1.9	H	-1.94	36.98	74.00	-37.02
4529.51	46.81	Ave	229	1.9	H	-1.94	44.87	54.00	-9.13
5142.24	42.51	PK	51	1.4	H	-1.06	41.45	74.00	-32.55
5142.24	2.03	Ave	51	1.4	H	-1.06	0.97	54.00	-53.03
10560.00	41.30	PK	344	1.3	H	5.21	46.51	74.00	-27.49
10560.00	37.78	Ave	344	1.3	H	5.21	42.99	54.00	-11.01
802.11n(HT20) U-NII-2A High channel 5320MHz									
285.49	37.71	QP	320	1.7	H	-11.62	26.09	46.00	-19.91
285.49	38.37	QP	310	1.6	V	-11.62	26.75	46.00	-19.25
4501.95	37.91	PK	227	1.8	H	-2.24	35.67	74.00	-38.33
4501.95	47.83	Ave	227	1.8	H	-2.24	45.59	54.00	-8.41
5121.45	43.23	PK	242	1.9	H	-1.09	42.14	74.00	-31.86
5121.45	3.50	Ave	242	1.9	H	-1.09	2.41	54.00	-51.59
10640.00	41.82	PK	110	1.9	H	5.14	46.96	74.00	-27.04
10640.00	39.63	Ave	110	1.9	H	5.14	44.77	54.00	-9.23

Frequency (MHz)	Receiver Reading (dB μ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB μ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB μ V/m)	Margin (dB)
802.11n(HT20) U-NII-2C Low Channel 5500MHz									
285.49	44.20	QP	305	1.2	H	-11.62	32.58	46.00	-13.42
285.49	3.83	QP	111	1.8	V	-11.62	-7.79	46.00	-53.79
4525.98	42.95	PK	27	1.2	H	-2.03	40.92	74.00	-33.08
4525.98	38.63	Ave	27	1.2	H	-2.03	36.60	54.00	-17.40
5141.05	45.50	PK	197	1.5	H	-1.02	44.48	74.00	-29.52
5141.05	39.72	Ave	197	1.5	H	-1.02	38.70	54.00	-15.30
11000.00	-1.30	PK	79	1.1	H	5.33	4.03	74.00	-69.97
11000.00	36.21	Ave	79	1.1	H	5.33	41.54	54.00	-12.46
802.11n(HT20) U-NII-2C Middle channel 5600MHz									
285.49	43.75	QP	18	1.9	H	-11.62	32.13	46.00	-13.87
285.49	3.35	QP	120	1.9	V	-11.62	-8.27	46.00	-54.27
4536.93	44.08	PK	242	1.3	H	-1.94	42.14	74.00	-31.86
4536.93	37.19	Ave	242	1.3	H	-1.94	35.25	54.00	-18.75
5141.75	46.00	PK	33	2.0	H	-1.06	44.94	74.00	-29.06
5141.75	39.38	Ave	33	2.0	H	-1.06	38.32	54.00	-15.68
11200.00	-1.82	PK	324	1.2	H	5.21	3.39	74.00	-70.61
11200.00	37.02	Ave	324	1.2	H	5.21	42.23	54.00	-11.77

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT20) U-NII-2C High channel 5700MHz									
285.49	44.51	QP	242	1.9	H	-11.62	32.89	46.00	-13.11
285.49	3.10	QP	299	1.8	V	-11.62	-8.52	46.00	-54.52
4512.46	42.78	PK	236	1.3	H	-2.24	40.54	74.00	-33.46
4512.46	37.58	Ave	236	1.3	H	-2.24	35.34	54.00	-18.66
5116.65	47.81	PK	161	1.3	H	-1.09	46.72	74.00	-27.28
5116.65	39.75	Ave	161	1.3	H	-1.09	38.66	54.00	-15.34
11400.00	-0.43	PK	101	1.3	H	5.14	4.71	74.00	-69.29
11400.00	35.57	Ave	101	1.3	H	5.14	40.71	54.00	-13.29
802.11n(HT20) U-NII-3 Low Channel 5745MHz									
285.49	38.14	QP	312	2.0	H	-11.62	26.52	46.00	-19.48
285.49	50.32	QP	271	1.2	V	-11.62	38.70	46.00	-7.30
4525.02	41.85	PK	359	1.4	H	-2.06	39.79	74.00	-34.21
4525.02	48.65	Ave	359	1.4	H	-2.06	46.59	54.00	-7.41
11490.00	37.61	PK	56	1.8	H	5.93	43.54	74.00	-30.46
11490.00	40.39	Ave	56	1.8	H	5.93	46.32	54.00	-7.68
5361.47	45.65	PK	343	1.7	H	-1.25	44.40	74.00	-29.60
5361.47	38.37	Ave	343	1.7	H	-1.25	37.12	54.00	-16.88

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT20) U-NII-3 middle channel 5785MHz									
285.49	38.00	QP	57	1.6	H	-11.62	26.38	46.00	-19.62
285.49	46.25	QP	284	1.1	V	-11.62	34.63	46.00	-11.37
4538.39	42.81	PK	108	1.6	H	-2.03	40.78	74.00	-33.22
4538.39	47.44	Ave	108	1.6	H	-2.03	45.41	54.00	-8.59
11570.00	39.05	PK	104	1.4	H	5.81	44.86	74.00	-29.14
11570.00	39.03	Ave	104	1.4	H	5.81	44.84	54.00	-9.16
5354.20	46.77	PK	50	1.6	H	-1.22	45.55	74.00	-28.45
5354.20	37.51	Ave	50	1.6	H	-1.22	36.29	54.00	-17.71
802.11n(HT20) U-NII-3 High channel 5825MHz									
285.49	38.44	QP	279	2.0	H	-11.62	26.82	46.00	-19.18
285.49	47.24	QP	357	1.1	V	-11.62	35.62	46.00	-10.38
4506.12	42.11	PK	26	1.4	H	-1.84	40.27	74.00	-33.73
4506.12	48.58	Ave	26	1.4	H	-1.84	46.74	54.00	-7.26
11650.00	37.58	PK	352	1.3	H	5.84	43.42	74.00	-30.58
11650.00	40.29	Ave	352	1.3	H	5.84	46.13	54.00	-7.87
5369.24	45.07	PK	293	1.5	H	-1.30	43.77	74.00	-30.23
5369.24	37.00	Ave	293	1.5	H	-1.30	35.70	54.00	-18.30

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT20) U-NII-1 Low Channel 5180MHz									
285.49	36.68	QP	241	1.3	H	-11.62	25.06	46.00	-20.94
285.49	39.68	QP	147	1.9	V	-11.62	28.06	46.00	-17.94
4520.16	43.87	PK	237	1.7	H	-1.86	42.01	74.00	-31.99
4520.16	35.95	Ave	237	1.7	H	-1.86	34.09	54.00	-19.91
5126.35	42.82	PK	224	1.2	H	-1.06	41.76	74.00	-32.24
5126.35	39.37	Ave	224	1.2	H	-1.06	38.31	54.00	-15.69
10360.00	46.63	PK	104	1.5	H	5.33	51.96	74.00	-22.04
10360.00	37.31	Ave	104	1.5	H	5.33	42.64	54.00	-11.36
802.11ac(VHT20) U-NII-1 Middle channel 5200MHz									
285.49	36.32	QP	352	1.4	H	-11.62	24.70	46.00	-21.30
285.49	39.66	QP	114	1.5	V	-11.62	28.04	46.00	-17.96
4515.64	44.13	PK	345	1.0	H	-1.82	42.31	74.00	-31.69
4515.64	36.58	Ave	345	1.0	H	-1.82	34.76	54.00	-19.24
5120.03	44.19	PK	178	1.6	H	-1.06	43.13	74.00	-30.87
5120.03	39.35	Ave	178	1.6	H	-1.06	38.29	54.00	-15.71
10400.00	41.75	PK	248	1.3	H	5.21	46.96	74.00	-27.04
10400.00	37.74	Ave	248	1.3	H	5.21	42.95	54.00	-11.05

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT20) U-NII-1 High channel 5240MHz									
285.49	36.74	QP	94	1.6	H	-11.62	25.12	46.00	-20.88
285.49	40.53	QP	103	1.4	V	-11.62	28.91	46.00	-17.09
4515.01	44.74	PK	250	1.6	H	-1.81	42.93	74.00	-31.07
4515.01	35.78	Ave	250	1.6	H	-1.81	33.97	54.00	-20.03
5129.92	44.88	PK	42	1.2	H	-1.06	43.82	74.00	-30.18
5129.92	38.75	Ave	42	1.2	H	-1.06	37.69	54.00	-16.31
10480.00	40.41	PK	62	1.6	H	5.14	45.55	74.00	-28.45
10480.00	38.10	Ave	62	1.6	H	5.14	43.24	54.00	-10.76
802.11ac(VHT20) U-NII-2A Low Channel 5260MHz									
285.49	45.63	QP	265	1.8	H	-11.62	34.01	46.00	-11.99
285.49	37.38	QP	337	1.7	V	-11.62	25.76	46.00	-20.24
4507.41	41.87	PK	157	2.0	H	-2.03	39.84	74.00	-34.16
4507.41	38.88	Ave	157	2.0	H	-2.03	36.85	54.00	-17.15
5118.73	48.57	PK	289	1.3	H	-1.02	47.55	74.00	-26.45
5118.73	38.97	Ave	289	1.3	H	-1.02	37.95	54.00	-16.05
10520.00	41.88	PK	218	1.4	H	5.33	47.21	74.00	-26.79
10520.00	37.96	Ave	218	1.4	H	5.33	43.29	54.00	-10.71

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									
285.49	46.94	QP	66	1.1	H	-11.62	35.32	46.00	-10.68
285.49	38.02	QP	53	1.6	V	-11.62	26.40	46.00	-19.60
4533.77	42.83	PK	171	1.2	H	-1.94	40.89	74.00	-33.11
4533.77	38.51	Ave	171	1.2	H	-1.94	36.57	54.00	-17.43
5120.69	47.99	PK	39	2.0	H	-1.06	46.93	74.00	-27.07
5120.69	38.60	Ave	39	2.0	H	-1.06	37.54	54.00	-16.46
10560.00	40.80	PK	205	1.6	H	5.21	46.01	74.00	-27.99
10560.00	39.43	Ave	205	1.6	H	5.21	44.64	54.00	-9.36
802.11ac(VHT20) U-NII-2A High channel 5320MHz									
285.49	48.26	QP	51	1.0	H	-11.62	36.64	46.00	-9.36
285.49	37.07	QP	325	1.6	V	-11.62	25.45	46.00	-20.55
4534.72	43.86	PK	174	1.4	H	-2.24	41.62	74.00	-32.38
4534.72	37.56	Ave	174	1.4	H	-2.24	35.32	54.00	-18.68
5115.55	48.92	PK	187	1.2	H	-1.09	47.83	74.00	-26.17
5115.55	37.79	Ave	187	1.2	H	-1.09	36.70	54.00	-17.30
10640.00	42.32	PK	358	1.7	H	5.14	47.46	74.00	-26.54
10640.00	37.75	Ave	358	1.7	H	5.14	42.89	54.00	-11.11

Frequency (MHz)	Receiver Reading (dB μ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB μ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB μ V/m)	Margin (dB)
802.11ac(VHT20) U-NII-2C Low Channel 5500MHz									
285.49	51.47	QP	331	1.5	H	-11.62	39.85	46.00	-6.15
285.49	39.66	QP	321	1.2	V	-11.62	28.04	46.00	-17.96
4510.58	41.92	PK	246	1.8	H	-2.03	39.89	74.00	-34.11
4510.58	35.29	Ave	246	1.8	H	-2.03	33.26	54.00	-20.74
5149.93	46.32	PK	28	1.9	H	-1.02	45.30	74.00	-28.70
5149.93	38.86	Ave	28	1.9	H	-1.02	37.84	54.00	-16.16
11000.00	-0.06	PK	221	1.4	H	5.33	5.27	74.00	-68.73
11000.00	38.60	Ave	221	1.4	H	5.33	43.93	54.00	-10.07
802.11ac(VHT20) U-NII-2C Middle channel 5600MHz									
285.49	51.09	QP	136	1.6	H	-11.62	39.47	46.00	-6.53
285.49	38.59	QP	352	2.0	V	-11.62	26.97	46.00	-19.03
4530.61	40.56	PK	218	1.7	H	-1.94	38.62	74.00	-35.38
4530.61	33.96	Ave	218	1.7	H	-1.94	32.02	54.00	-21.98
5120.45	47.52	PK	215	1.3	H	-1.06	46.46	74.00	-27.54
5120.45	40.40	Ave	215	1.3	H	-1.06	39.34	54.00	-14.66
11200.00	1.18	PK	9	1.1	H	5.21	6.39	74.00	-67.61
11200.00	39.19	Ave	9	1.1	H	5.21	44.40	54.00	-9.60

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT20) U-NII-2C High channel 5700MHz									
285.49	51.19	QP	57	1.8	H	-11.62	39.57	46.00	-6.43
285.49	37.29	QP	188	1.3	V	-11.62	25.67	46.00	-20.33
4511.40	39.43	PK	265	1.2	H	-2.24	37.19	74.00	-36.81
4511.40	34.10	Ave	265	1.2	H	-2.24	31.86	54.00	-22.14
5134.53	48.56	PK	217	1.7	H	-1.09	47.47	74.00	-26.53
5134.53	42.27	Ave	217	1.7	H	-1.09	41.18	54.00	-12.82
11400.00	0.94	PK	164	1.9	H	5.14	6.08	74.00	-67.92
11400.00	37.71	Ave	164	1.9	H	5.14	42.85	54.00	-11.15
802.11ac(VHT20) U-NII-3 Low Channel 5745MHz									
285.49	37.81	QP	77	1.3	H	-11.62	26.19	46.00	-19.81
285.49	36.99	QP	93	1.8	V	-11.62	25.37	46.00	-20.63
4504.58	44.45	PK	154	1.1	H	-1.92	42.53	74.00	-31.47
4504.58	35.95	Ave	154	1.1	H	-1.92	34.03	54.00	-19.97
11490.00	40.21	PK	133	1.7	H	5.93	46.14	74.00	-27.86
11490.00	36.13	Ave	133	1.7	H	5.93	42.06	54.00	-11.94
5367.69	46.25	PK	119	2.0	H	-1.03	45.22	74.00	-28.78
5367.69	39.27	Ave	119	2.0	H	-1.03	38.24	54.00	-15.76

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT20) U-NII-3 middle channel 5785MHz									
285.49	36.87	QP	315	1.3	H	-11.62	25.25	46.00	-20.75
285.49	36.78	QP	314	1.8	V	-11.62	25.16	46.00	-20.84
4507.98	44.93	PK	157	1.8	H	-1.97	42.96	74.00	-31.04
4507.98	36.57	Ave	157	1.8	H	-1.97	34.60	54.00	-19.40
11570.00	42.44	PK	145	2.0	H	5.81	48.25	74.00	-25.75
11570.00	36.60	Ave	145	2.0	H	5.81	42.41	54.00	-11.59
5372.91	45.62	PK	357	1.7	H	-1.05	44.57	74.00	-29.43
5372.91	38.03	Ave	357	1.7	H	-1.05	36.98	54.00	-17.02
802.11ac(VHT20) U-NII-3 High channel 5825MHz									
285.49	36.49	QP	70	1.8	H	-11.62	24.87	46.00	-21.13
285.49	36.09	QP	126	1.4	V	-11.62	24.47	46.00	-21.53
4506.24	45.35	PK	286	1.4	H	-1.88	43.47	74.00	-30.53
4506.24	37.42	Ave	286	1.4	H	-1.88	35.54	54.00	-18.46
11650.00	42.81	PK	185	1.3	H	5.84	48.65	74.00	-25.35
11650.00	37.53	Ave	185	1.3	H	5.84	43.37	54.00	-10.63
5362.38	45.34	PK	27	1.8	H	-1.06	44.28	74.00	-29.72
5362.38	39.83	Ave	27	1.8	H	-1.06	38.77	54.00	-15.23

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT40) U-NII-1 Low Channel 5190MHz									
285.49	35.62	QP	106	1.9	H	-11.62	24.00	46.00	-22.00
285.49	36.06	QP	15	1.5	V	-11.62	24.44	46.00	-21.56
4530.23	42.58	PK	76	1.3	H	-1.89	40.69	74.00	-33.31
4530.23	34.86	Ave	76	1.3	H	-1.89	32.97	54.00	-21.03
5141.19	46.35	PK	316	1.0	H	-1.06	45.29	74.00	-28.71
5141.19	37.21	Ave	316	1.0	H	-1.06	36.15	54.00	-17.85
10380.00	39.31	PK	303	1.9	H	5.26	44.57	74.00	-29.43
10380.00	36.00	Ave	303	1.9	H	5.26	41.26	54.00	-12.74
802.11n(HT40) U-NII-1 High channel 5230MHz									
285.49	36.24	QP	227	1.7	H	-11.62	24.62	46.00	-21.38
285.49	36.81	QP	213	1.9	V	-11.62	25.19	46.00	-20.81
4517.90	42.94	PK	84	1.7	H	-1.94	41.00	74.00	-33.00
4517.90	34.93	Ave	84	1.7	H	-1.94	32.99	54.00	-21.01
5117.49	45.65	PK	348	1.7	H	-1.06	44.59	74.00	-29.41
5117.49	38.29	Ave	348	1.7	H	-1.06	37.23	54.00	-16.77
10460.00	42.35	PK	186	1.7	H	5.28	47.63	74.00	-26.37
10480.00	37.30	Ave	186	1.7	H	5.28	42.58	54.00	-11.42

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT40) U-NII-2A Low Channel 5270MHz									
285.49	46.50	QP	79	1.9	H	-11.62	34.88	46.00	-11.12
285.49	37.51	QP	320	1.1	V	-11.62	25.89	46.00	-20.11
4501.99	41.82	PK	74	1.3	H	-1.89	39.93	74.00	-34.07
4501.99	36.42	Ave	74	1.3	H	-1.89	34.53	54.00	-19.47
5111.83	47.69	PK	96	1.8	H	-1.06	46.63	74.00	-27.37
5111.83	38.84	Ave	96	1.8	H	-1.06	37.78	54.00	-16.22
10540.00	45.83	PK	324	1.8	H	5.26	51.09	74.00	-22.91
10540.00	39.41	Ave	324	1.8	H	5.26	44.67	54.00	-9.33
802.11n(HT40) U-NII-2A High channel 5310MHz									
285.49	46.02	QP	125	1.1	H	-11.62	34.40	46.00	-11.60
285.49	37.36	QP	220	2.0	V	-11.62	25.74	46.00	-20.26
4535.26	41.95	PK	106	1.1	H	-1.94	40.01	74.00	-33.99
4535.26	36.32	Ave	106	1.1	H	-1.94	34.38	54.00	-19.62
5120.58	47.36	PK	282	1.3	H	-1.06	46.30	74.00	-27.70
5120.58	37.96	Ave	282	1.3	H	-1.06	36.90	54.00	-17.10
10620.00	42.11	PK	31	1.2	H	5.28	47.39	74.00	-26.61
10620.00	36.48	Ave	31	1.2	H	5.28	41.76	54.00	-12.24

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT40) U-NII-2C Low Channel 5510MHz									
285.49	47.57	QP	75	1.3	H	-11.62	35.95	46.00	-10.05
285.49	38.43	QP	329	1.6	V	-11.62	26.81	46.00	-19.19
4507.12	41.58	PK	311	2.0	H	-1.89	39.69	74.00	-34.31
4507.12	36.47	Ave	311	2.0	H	-1.89	34.58	54.00	-19.42
5129.45	46.15	PK	21	2.0	H	-1.06	45.09	74.00	-28.91
5129.45	39.48	Ave	21	2.0	H	-1.06	38.42	54.00	-15.58
11020.00	43.49	PK	37	1.6	H	5.26	48.75	74.00	-25.25
11020.00	37.77	Ave	37	1.6	H	5.26	43.03	54.00	-10.97
802.11n(HT40) U-NII-2C Middle channel 5550MHz									
285.49	46.63	QP	264	1.3	H	-11.62	35.01	46.00	-10.99
285.49	38.82	QP	200	1.2	V	-11.62	27.20	46.00	-18.80
4520.29	42.29	PK	353	1.8	H	-1.94	40.35	74.00	-33.65
4520.29	36.76	Ave	353	1.8	H	-1.94	34.82	54.00	-19.18
5147.57	45.75	PK	57	1.3	H	-1.06	44.69	74.00	-29.31
5147.57	40.76	Ave	57	1.3	H	-1.06	39.70	54.00	-14.30
11100.00	46.76	PK	277	1.2	H	5.28	52.04	74.00	-21.96
11100.00	39.86	Ave	277	1.2	H	5.28	45.14	54.00	-8.86
802.11n(HT40) U-NII-2C High channel 5670MHz									
285.49	45.90	QP	10	1.0	H	-11.62	34.28	46.00	-11.72
285.49	38.50	QP	170	1.8	V	-11.62	26.88	46.00	-19.12
4525.10	43.08	PK	308	1.3	H	-1.94	41.14	74.00	-32.86
4525.10	35.85	Ave	308	1.3	H	-1.94	33.91	54.00	-20.09
5134.43	46.00	PK	245	2.0	H	-1.06	44.94	74.00	-29.06
5134.43	40.71	Ave	245	2.0	H	-1.06	39.65	54.00	-14.35
11340.00	40.41	PK	317	1.4	H	5.28	45.69	74.00	-28.31
11340.00	37.29	Ave	317	1.4	H	5.28	42.57	54.00	-11.43

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11n(HT40) U-NII-3 Low Channel 5755MHz									
285.49	37.60	QP	334	1.7	H	-11.62	25.98	46.00	-20.02
285.49	37.29	QP	45	1.4	V	-11.62	25.67	46.00	-20.33
4524.42	41.46	PK	355	1.3	H	-1.96	39.50	74.00	-34.50
4524.42	32.80	Ave	355	1.3	H	-1.96	30.84	54.00	-23.16
11510.00	39.04	PK	294	1.5	H	5.88	44.92	74.00	-29.08
11510.00	35.07	Ave	294	1.5	H	5.88	40.95	54.00	-13.05
5385.11	46.38	PK	284	1.7	H	-1.01	45.37	74.00	-28.63
5385.11	39.04	Ave	284	1.7	H	-1.01	38.03	54.00	-15.97
802.11n(HT40) U-NII-3 High Channel 5795MHz									
285.49	37.38	QP	55	1.8	H	-11.62	25.76	46.00	-20.24
285.49	36.64	QP	194	1.1	V	-11.62	25.02	46.00	-20.98
4500.56	41.98	PK	359	1.2	H	-1.92	40.06	74.00	-33.94
4500.56	33.60	Ave	359	1.2	H	-1.92	31.68	54.00	-22.32
11590.00	41.04	PK	61	1.6	H	5.63	46.67	74.00	-27.33
11590.00	36.96	Ave	61	1.6	H	5.63	42.59	54.00	-11.41
5355.68	45.85	PK	160	1.9	H	-1.04	44.81	74.00	-29.19
5355.68	37.93	Ave	160	1.9	H	-1.04	36.89	54.00	-17.11

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT40) U-NII-1 Low Channel 5190MHz									
285.49	36.78	QP	259	1.1	H	-11.62	25.16	46.00	-20.84
285.49	35.43	QP	260	1.3	V	-11.62	23.81	46.00	-22.19
4526.00	39.12	PK	280	1.6	H	-1.91	37.21	74.00	-36.79
4526.00	31.57	Ave	280	1.6	H	-1.91	29.66	54.00	-24.34
5148.75	48.68	PK	199	1.2	H	-1.06	47.62	74.00	-26.38
5148.75	37.69	Ave	199	1.2	H	-1.06	36.63	54.00	-17.37
10380.00	39.51	PK	278	1.1	H	5.26	44.77	74.00	-29.23
10380.00	35.71	Ave	278	1.1	H	5.26	40.97	54.00	-13.03
802.11ac(VHT40) U-NII-1 High channel 5230MHz									
285.49	36.30	QP	157	1.4	H	-11.62	24.68	46.00	-21.32
285.49	34.60	QP	38	1.3	V	-11.62	22.98	46.00	-23.02
4518.55	38.41	PK	281	1.1	H	-1.93	36.48	74.00	-37.52
4518.55	31.86	Ave	281	1.1	H	-1.93	29.93	54.00	-24.07
5145.91	48.65	PK	255	1.4	H	-1.06	47.59	74.00	-26.41
5145.91	38.10	Ave	255	1.4	H	-1.06	37.04	54.00	-16.96
10460.00	41.28	PK	305	1.8	H	5.28	46.56	74.00	-27.44
10460.00	36.60	Ave	305	1.8	H	5.28	41.88	54.00	-12.12

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT40) U-NII-2A Low Channel 5270MHz									
285.49	45.16	QP	3	1.3	H	-11.62	33.54	46.00	-12.46
285.49	38.91	QP	327	1.7	V	-11.62	27.29	46.00	-18.71
4514.99	40.14	PK	209	1.1	H	-1.89	38.25	74.00	-35.75
4514.99	38.87	Ave	209	1.1	H	-1.89	36.98	54.00	-17.02
5131.72	47.70	PK	177	1.6	H	-1.06	46.64	74.00	-27.36
5131.72	41.30	Ave	177	1.6	H	-1.06	40.24	54.00	-13.76
10540.00	56.77	PK	350	1.3	H	5.26	62.03	74.00	-11.97
10540.00	45.98	Ave	350	1.3	H	5.26	51.24	54.00	-2.76
802.11ac(VHT40) U-NII-2A High channel 5310MHz									
285.49	48.02	QP	43	1.2	H	-11.62	36.40	46.00	-9.60
285.49	39.62	QP	89	1.4	V	-11.62	28.00	46.00	-18.00
4513.11	42.31	PK	119	1.8	H	-1.94	40.37	74.00	-33.63
4513.11	36.65	Ave	119	1.8	H	-1.94	34.71	54.00	-19.29
5110.71	45.97	PK	158	1.5	H	-1.06	44.91	74.00	-29.09
5110.71	39.18	Ave	158	1.5	H	-1.06	38.12	54.00	-15.88
10620.00	0.16	PK	79	1.6	H	5.28	5.44	74.00	-68.56
10620.00	41.77	Ave	79	1.6	H	5.28	47.05	54.00	-6.95

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT40) U-NII-2C Low Channel 5510MHz									
285.49	47.10	QP	323	1.8	H	-11.62	35.48	46.00	-10.52
285.49	41.51	QP	359	1.4	V	-11.62	29.89	46.00	-16.11
4513.61	41.27	PK	256	1.9	H	-1.89	39.38	74.00	-34.62
4513.61	37.93	Ave	256	1.9	H	-1.89	36.04	54.00	-17.96
5133.29	47.62	PK	344	1.5	H	-1.06	46.56	74.00	-27.44
5133.29	39.50	Ave	344	1.5	H	-1.06	38.44	54.00	-15.56
11020.00	42.79	PK	163	1.3	H	5.26	48.05	74.00	-25.95
11020.00	35.82	Ave	163	1.3	H	5.26	41.08	54.00	-12.92
802.11ac(VHT40) U-NII-2C Middle channel 5550MHz									
285.49	46.49	QP	151	1.5	H	-11.62	34.87	46.00	-11.13
285.49	41.13	QP	157	1.6	V	-11.62	29.51	46.00	-16.49
4511.92	40.54	PK	77	1.9	H	-1.94	38.60	74.00	-35.40
4511.92	37.53	Ave	77	1.9	H	-1.94	35.59	54.00	-18.41
5114.33	46.67	PK	25	1.5	H	-1.06	45.61	74.00	-28.39
5114.33	41.14	Ave	25	1.5	H	-1.06	40.08	54.00	-13.92
11100.00	45.53	PK	204	1.1	H	5.28	50.81	74.00	-23.19
11100.00	38.34	Ave	204	1.1	H	5.28	43.62	54.00	-10.38
802.11ac(VHT40) U-NII-2C High channel 5670MHz									
285.49	46.85	QP	189	1.9	H	-11.62	35.23	46.00	-10.77
285.49	40.94	QP	64	1.2	V	-11.62	29.32	46.00	-16.68
4520.57	41.43	PK	172	1.3	H	-1.94	39.49	74.00	-34.51
4520.57	38.37	Ave	172	1.3	H	-1.94	36.43	54.00	-17.57
5118.06	48.27	PK	42	1.2	H	-1.06	47.21	74.00	-26.79
5118.06	41.57	Ave	42	1.2	H	-1.06	40.51	54.00	-13.49
11340.00	41.98	PK	305	1.5	H	5.28	47.26	74.00	-26.74
11340.00	37.42	Ave	305	1.5	H	5.28	42.70	54.00	-11.30

Frequency (MHz)	Receiver Reading (dB μ V)	Detector (PK/QP/Ave)	Turn table Angle Degree	RX Antenna		Corrected Factor (dB)	Corrected Amplitude (dB μ V/m)	FCC Part 15.407/209/205	
				Height (m)	Polar (H/V)			Limit (dB μ V/m)	Margin (dB)
802.11ac(VHT40) U-NII-3 Low Channel 5755MHz									
285.49	37.38	QP	357	1.9	H	-11.62	25.76	46.00	-20.24
285.49	37.26	QP	202	1.6	V	-11.62	25.64	46.00	-20.36
4512.62	33.74	PK	144	1.7	H	-1.96	31.78	74.00	-42.22
4512.62	31.33	Ave	144	1.7	H	-1.96	29.37	54.00	-24.63
11510.00	38.71	PK	333	1.3	H	5.88	44.59	74.00	-29.41
11510.00	35.31	Ave	333	1.3	H	5.88	41.19	54.00	-12.81
5385.95	45.56	PK	220	1.3	H	-1.01	44.55	74.00	-29.45
5385.95	37.97	Ave	220	1.3	H	-1.01	36.96	54.00	-17.04
802.11ac(VHT40) U-NII-3 High Channel 5795MHz									
285.49	37.08	QP	63	1.6	H	-11.62	25.46	46.00	-20.54
285.49	38.19	QP	31	1.1	V	-11.62	26.57	46.00	-19.43
4500.86	32.99	PK	215	1.5	H	-1.92	31.07	74.00	-42.93
4500.86	32.24	Ave	215	1.5	H	-1.92	30.32	54.00	-23.68
11590.00	40.63	PK	352	1.4	H	5.63	46.26	74.00	-27.74
11590.00	37.61	Ave	352	1.4	H	5.63	43.24	54.00	-10.76
5372.65	46.14	PK	43	1.3	H	-1.04	45.10	74.00	-28.90
5372.65	38.04	Ave	43	1.3	H	-1.04	37.00	54.00	-17.00

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT80) U-NII-1 Low Channel 5210MHz									
285.49	36.62	QP	213	1.9	H	-11.62	25.00	46.00	-21.00
285.49	29.62	QP	312	1.3	V	-11.62	18.00	46.00	-28.00
4539.57	28.90	PK	12	1.8	H	-1.88	27.02	74.00	-46.98
4539.57	41.81	Ave	12	1.8	H	-1.88	39.93	54.00	-14.07
5112.29	38.38	PK	186	1.6	H	-1.06	37.32	74.00	-36.68
5112.29	46.21	Ave	186	1.6	H	-1.06	45.15	54.00	-8.85
10420.00	41.54	PK	350	1.6	H	4.65	46.19	74.00	-27.81
10420.00	37.21	Ave	248	1.7	H	4.65	41.86	54.00	-12.14
802.11ac(VHT80) U-NII-2A Low Channel 5290MHz									
285.49	29.04	QP	321	1.3	H	-11.62	17.42	46.00	-28.58
285.49	28.88	QP	306	1.3	V	-11.62	17.26	46.00	-28.74
4519.02	42.29	PK	106	1.6	H	-1.88	40.41	74.00	-33.59
4519.02	38.67	Ave	106	1.6	H	-1.88	36.79	54.00	-17.21
5133.66	47.29	PK	23	1.2	H	-1.06	46.23	74.00	-27.77
5133.66	41.35	Ave	23	1.2	H	-1.06	40.29	54.00	-13.71
10580.00	35.88	PK	124	1.7	H	4.65	40.53	74.00	-33.47
10580.00	46.31	Ave	124	1.7	H	4.65	50.96	54.00	-3.04

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	FCC Part 15.407/209/205	
				Height	Polar			Limit	Margin
(MHz)	(dB μ V)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dB μ V/m)	(dB μ V/m)	(dB)
802.11ac(VHT80) U-NII-2C Low Channel 5530MHz									
285.49	28.11	QP	32	1.1	H	-11.62	16.49	46.00	-29.51
285.49	43.07	QP	345	1.5	V	-11.62	31.45	46.00	-14.55
4534.32	38.10	PK	99	1.6	H	-1.88	36.22	74.00	-37.78
4534.32	46.58	Ave	99	1.6	H	-1.88	44.70	54.00	-9.30
5114.20	40.46	PK	268	1.6	H	-1.06	39.40	74.00	-34.60
5114.20	36.21	Ave	268	1.6	H	-1.06	35.15	54.00	-18.85
11060.00	45.09	PK	145	1.9	H	4.65	49.74	74.00	-24.26
11060.00	38.44	Ave	145	1.9	H	4.65	43.09	54.00	-10.91
802.11ac(VHT80) U-NII-3 Low channel 5775MHz									
285.49	28.73	QP	313	1.4	H	-11.62	17.11	46.00	-28.89
285.49	28.15	QP	102	1.6	V	-11.62	16.53	46.00	-29.47
4514.79	41.09	PK	226	1.4	H	-1.85	39.24	74.00	-34.76
4514.79	41.34	Ave	226	1.4	H	-1.85	39.49	54.00	-14.51
11550.00	41.47	PK	278	1.5	H	4.83	46.30	74.00	-27.70
11550.00	37.02	Ave	278	1.5	H	4.83	41.85	54.00	-12.15
5369.70	45.92	PK	111	1.3	H	-1.14	44.78	74.00	-29.22
5369.70	38.13	Ave	111	1.3	H	-1.14	36.99	54.00	-17.01

Test Frequency: 18GHz~40GHz

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

8 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.

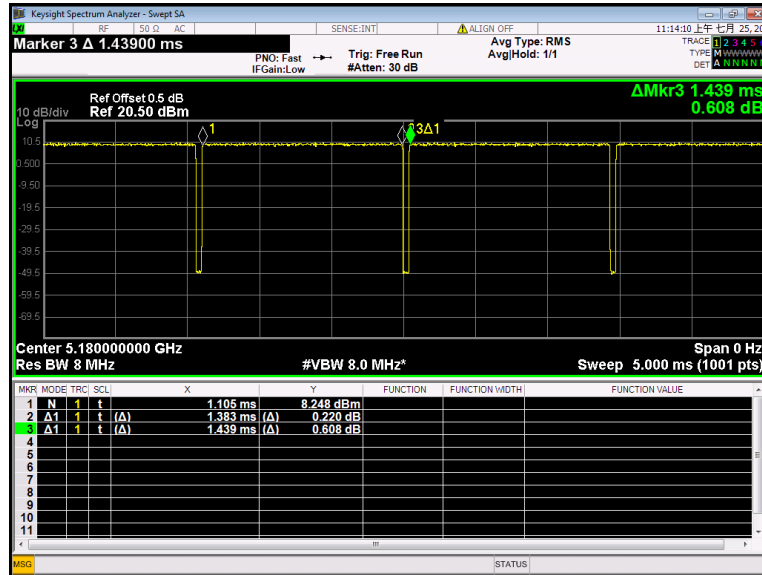
8.1 Summary of Test Results

802.11a(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	1.383	1.439	96
52	1.384	1.441	96
100	1.385	1.440	96
149	1.385	1.435	96
802.11n(HT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	1.293	1.344	96
52	1.289	1.346	96
100	1.295	1.345	96
149	1.280	1.340	96
802.11ac(VHT20) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
36	1.303	1.354	96
52	1.299	1.351	96
100	1.305	1.355	96
149	1.305	1.355	96
802.11n(HT40) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	0.642	0.690	93
54	0.646	0.692	93
102	0.644	0.692	93
151	0.646	0.692	93

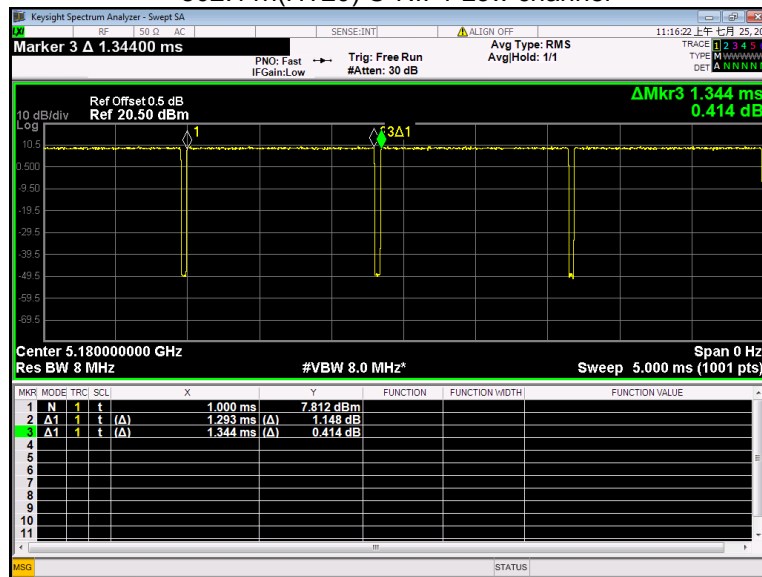
802.11ac(VHT40) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	0.648	0.696	93
54	0.648	0.696	93
102	0.648	0.696	93
151	0.648	0.696	93
802.11ac(VHT80) mode			
channel	On time(ms)	Period(ms)	Duty Cycle(%)
38	0.322	0.368	88
54	0.322	0.369	87
102	0.323	0.370	87
151	0.322	0.368	88

Test result plots shown as follows:

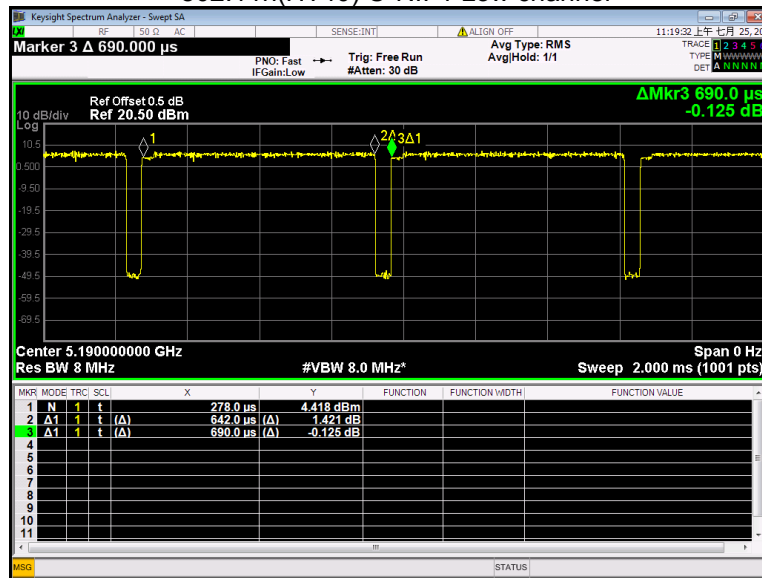
802.11a U-NII-1 Low channel



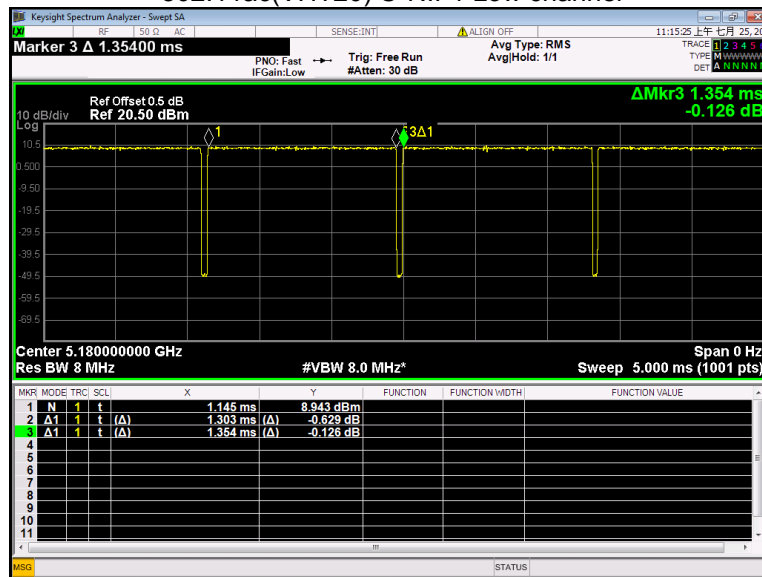
802.11n(HT20) U-NII-1 Low channel



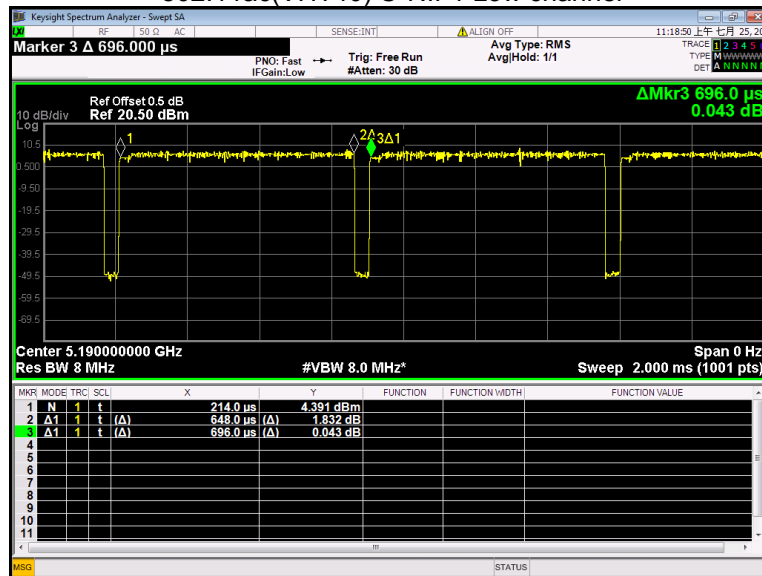
802.11n(HT40) U-NII-1 Low channel



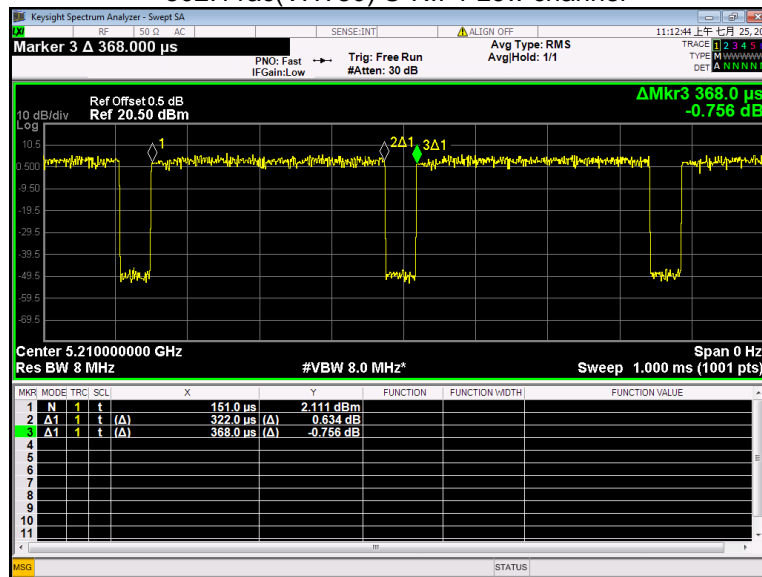
802.11ac(VHT20) U-NII-1 Low channel



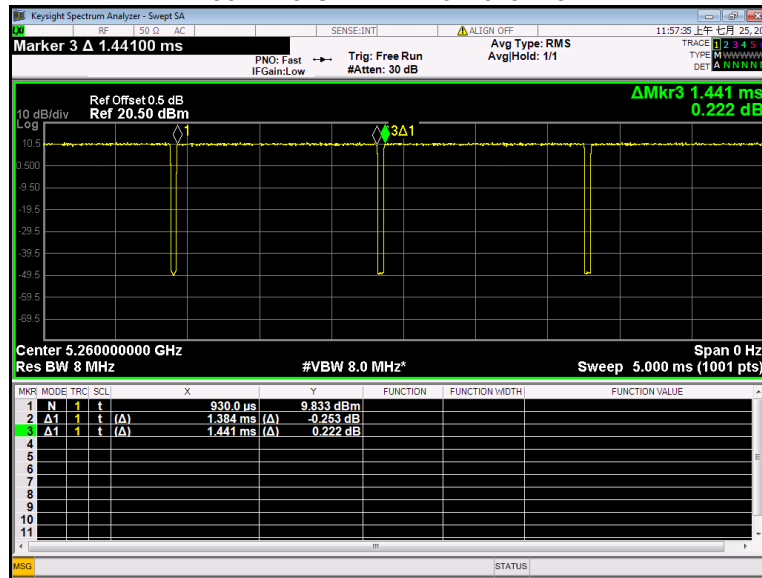
802.11ac(VHT40) U-NII-1 Low channel



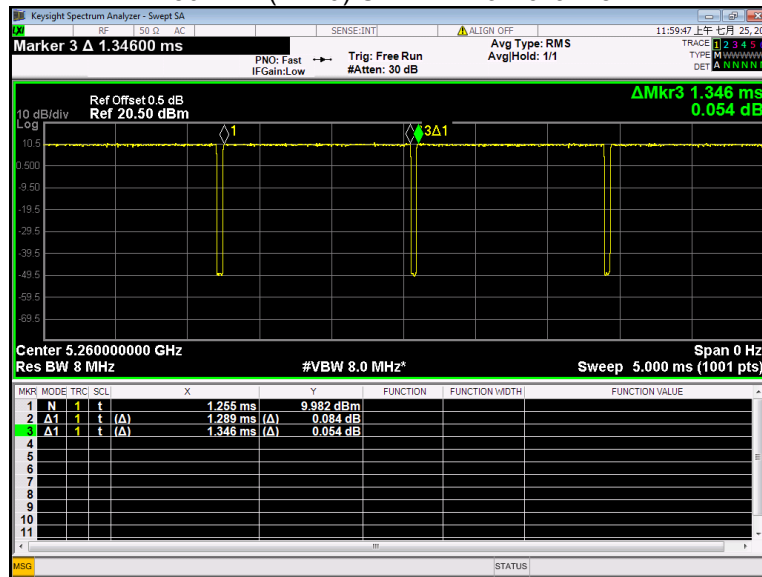
802.11ac(VHT80) U-NII-1 Low channel



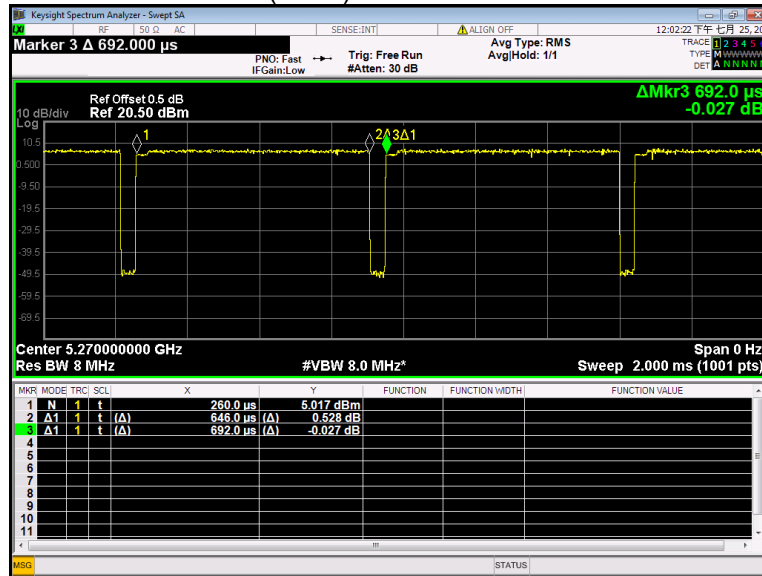
802.11a U-NII-2A Low channel



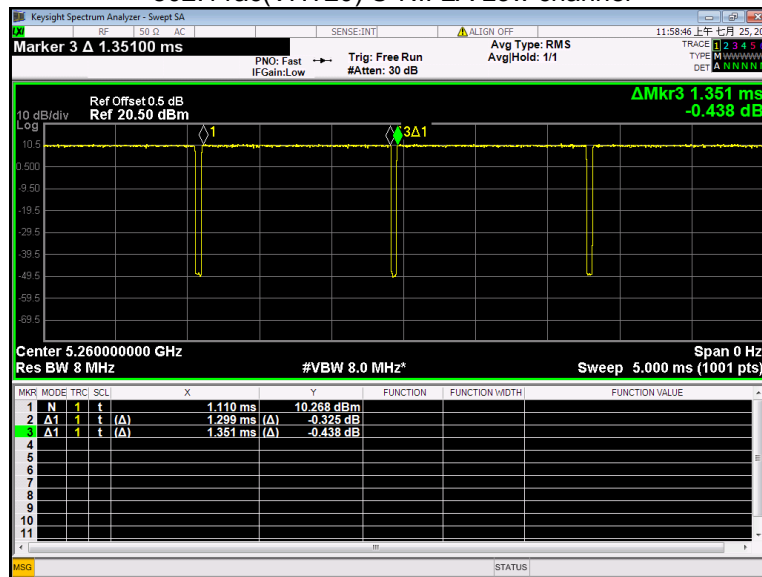
802.11n(HT20) U-NII-2A Low channel



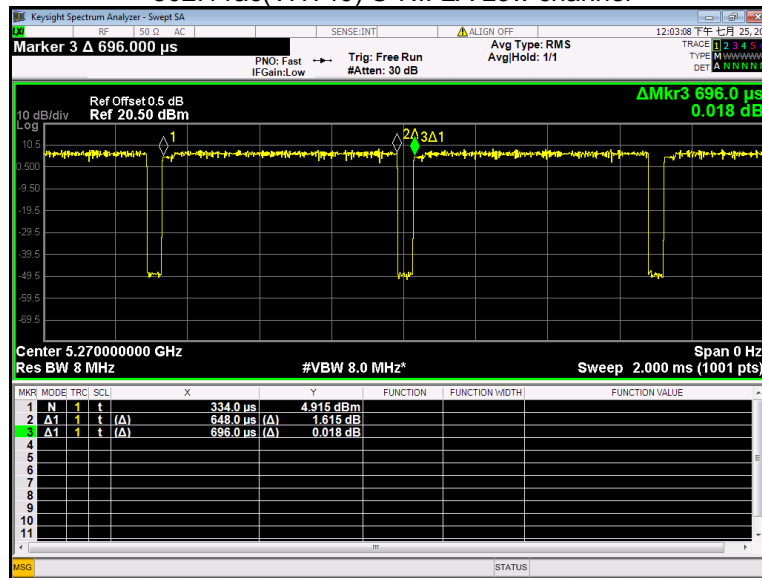
802.11n(HT40) U-NII-2A Low channel



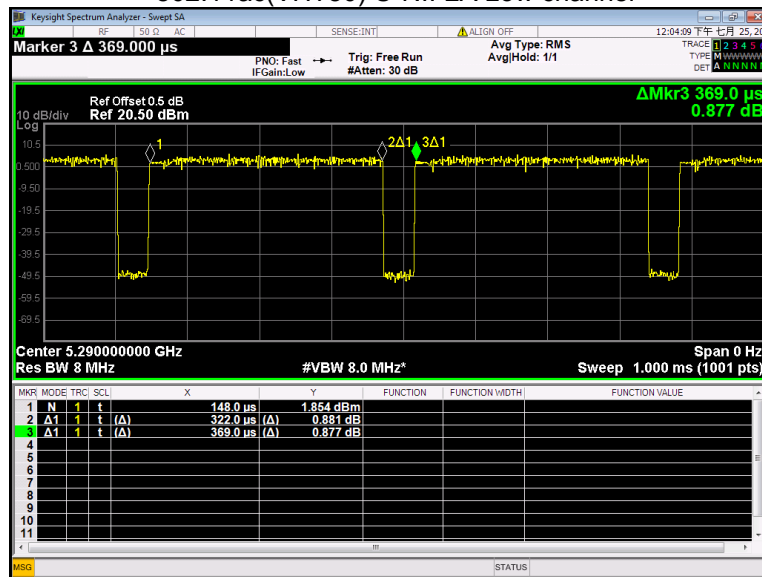
802.11ac(VHT20) U-NII-2A Low channel



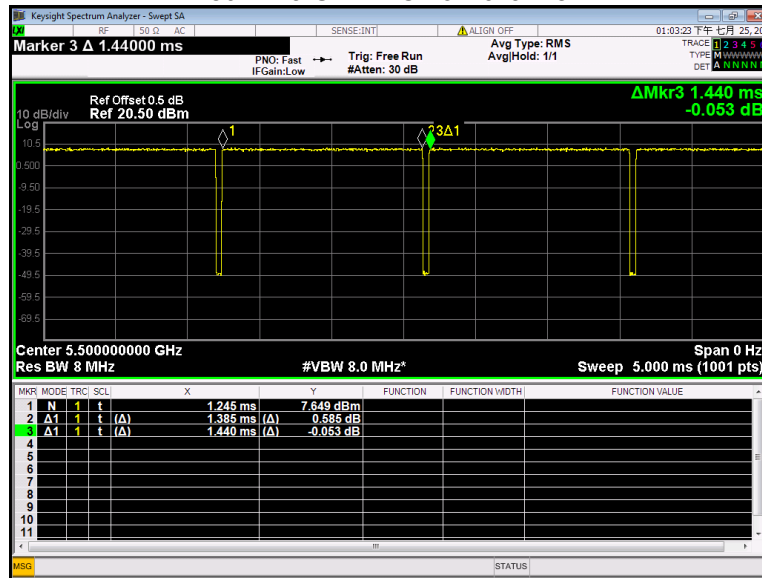
802.11ac(VHT40) U-NII-2A Low channel



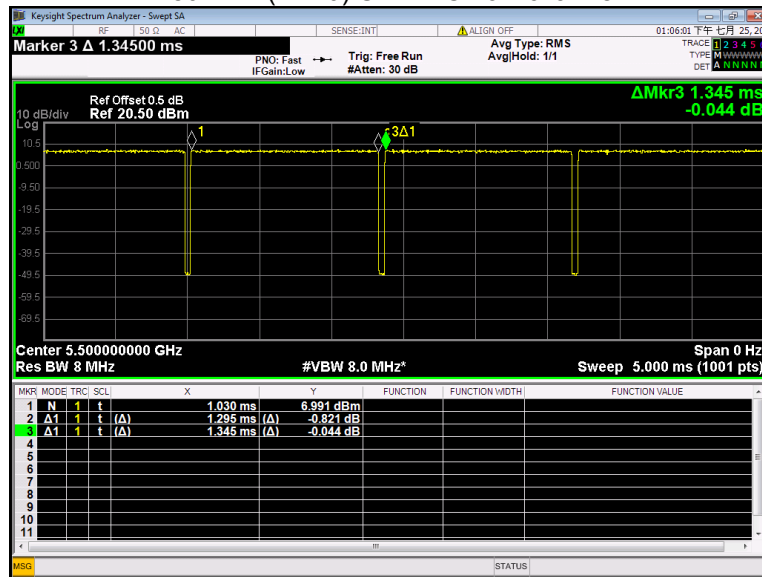
802.11ac(VHT80) U-NII-2A Low channel



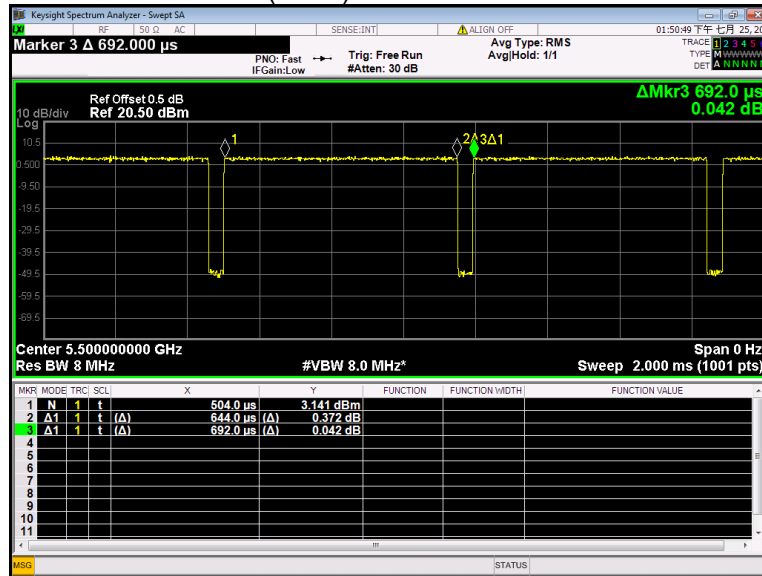
802.11a U-NII-2C Low channel



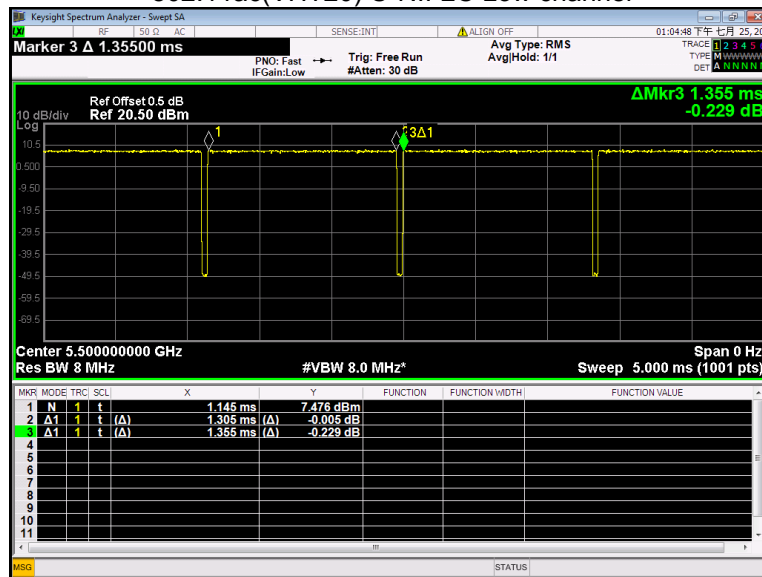
802.11n(HT20) U-NII-2C Low channel



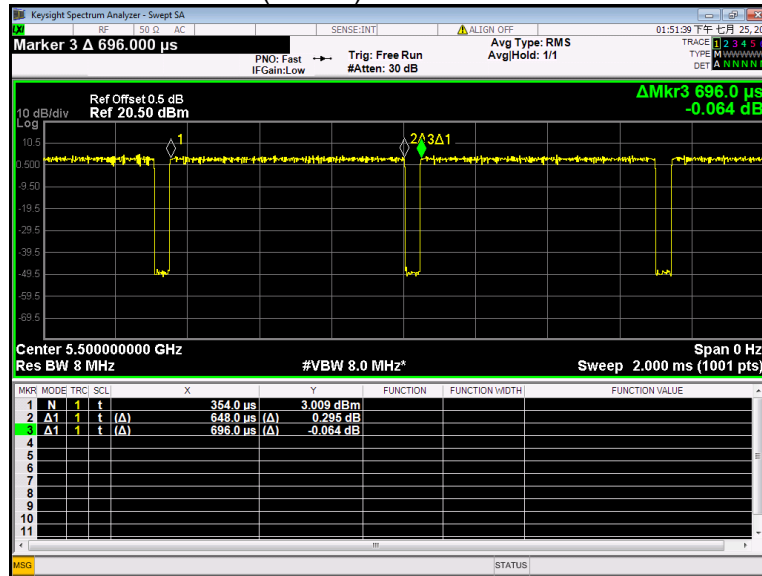
802.11n(HT40) U-NII-2C Low channel



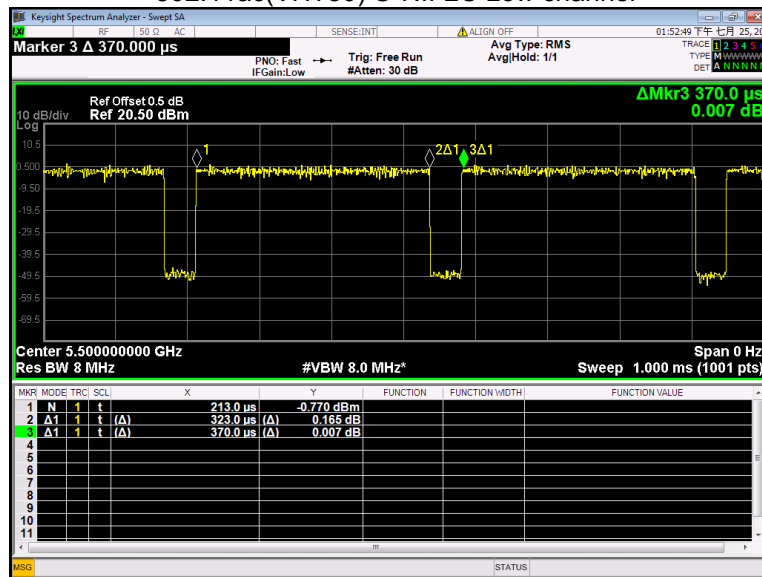
802.11ac(VHT20) U-NII-2C Low channel



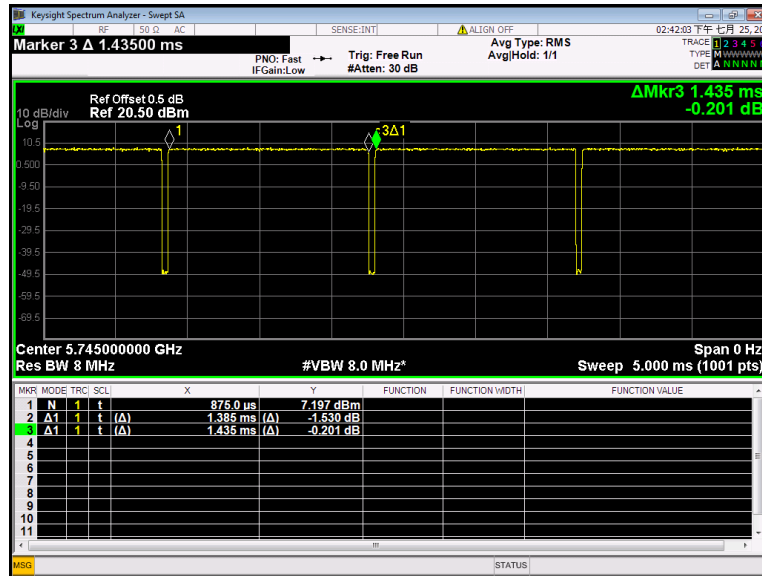
802.11ac(VHT40) U-NII-2C Low channel



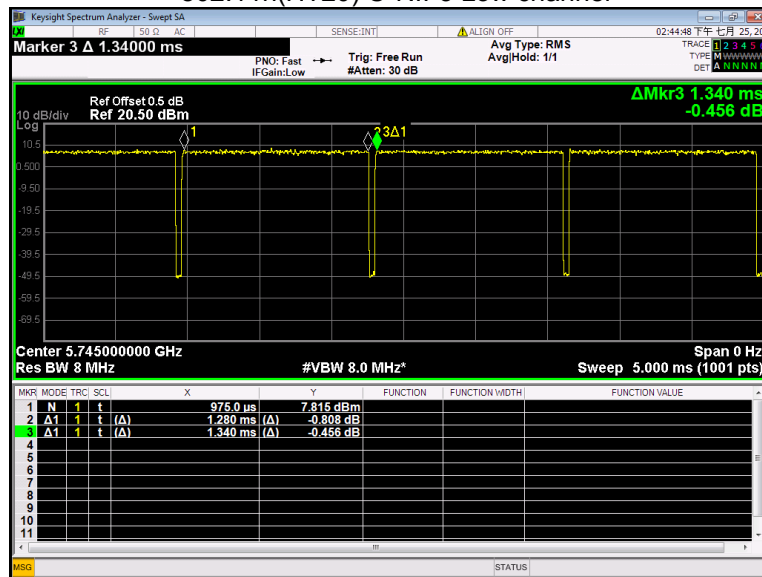
802.11ac(VHT80) U-NII-2C Low channel



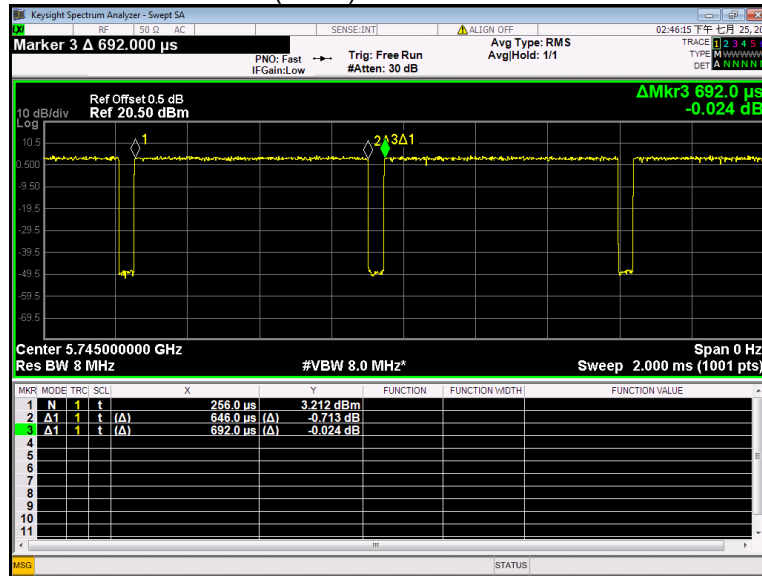
802.11a U-NII-3 Low channel



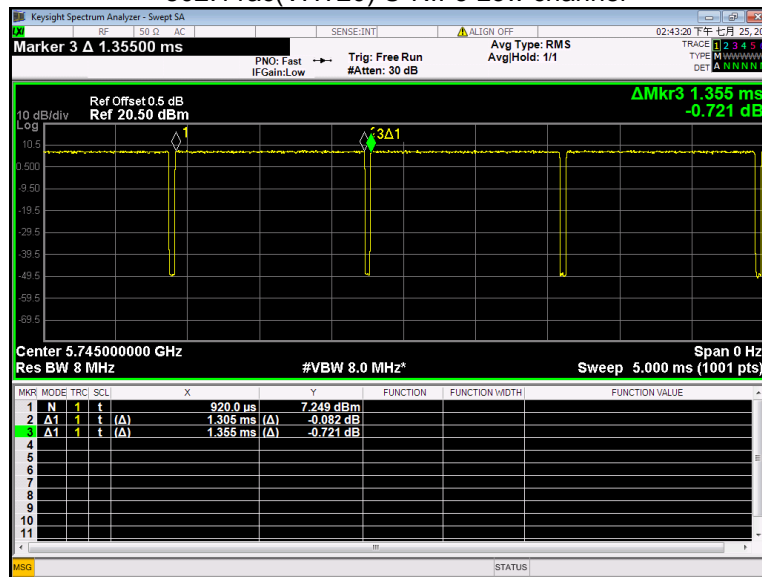
802.11n(HT20) U-NII-3 Low channel



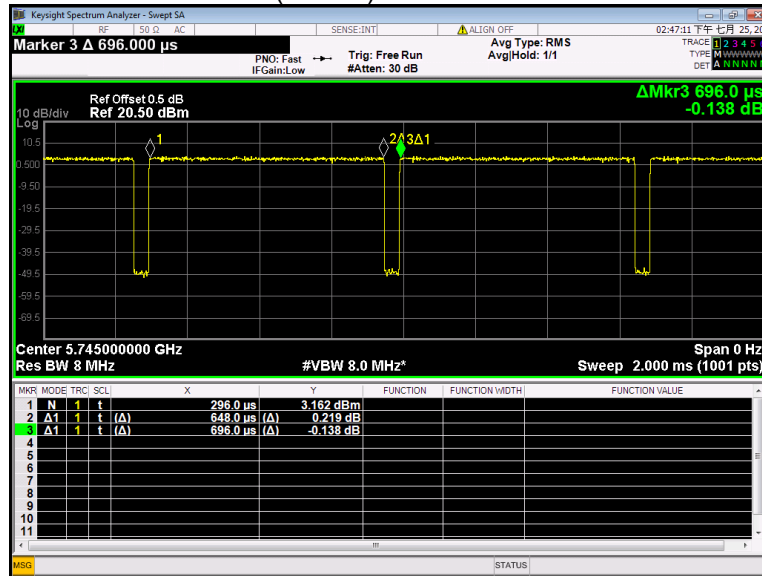
802.11n(HT40) U-NII-3 Low channel



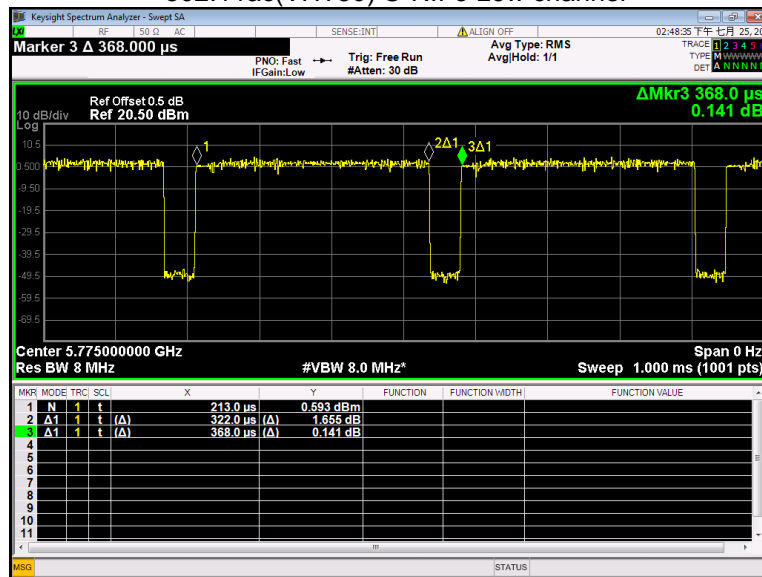
802.11ac(VHT20) U-NII-3 Low channel



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



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



9 Band Edge

Test Requirement:	FCC 47CFR Part 15 Section 15.407
Test Method:	ANSI C63.10 2013
Test Limit:	<p>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.</p> <p>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.</p> <p>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.</p> <p>For transmitters operating in the 5.725-5.85 GHz band:</p> <p>(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.</p> <p>(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.</p>
Test Result:	PASS

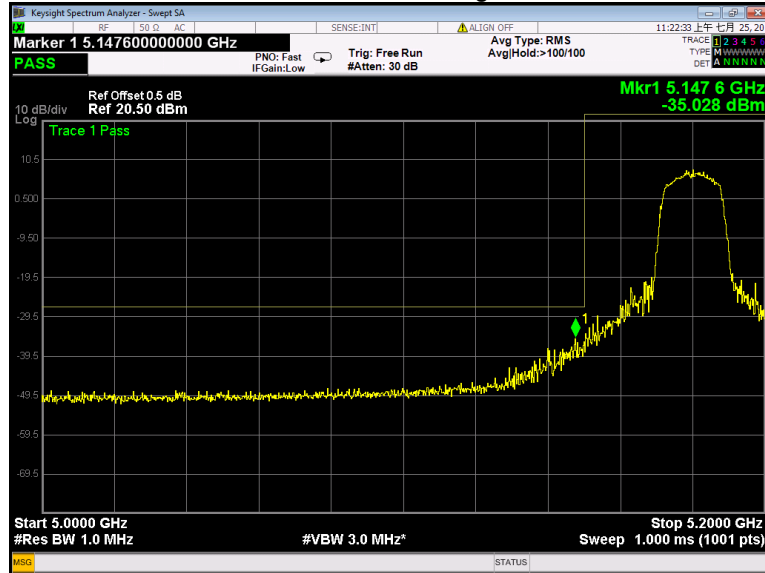
9.1 Test Produce

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.

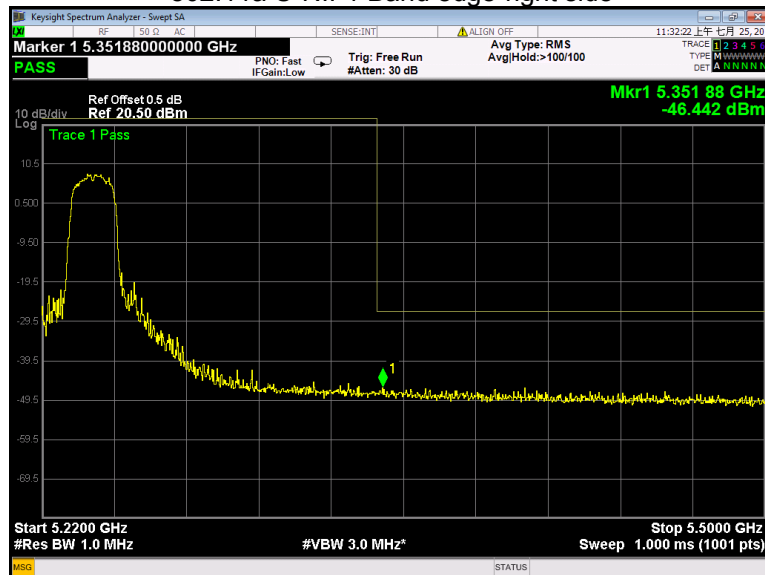
9.2 Test Result

Test result plots shown as follows:

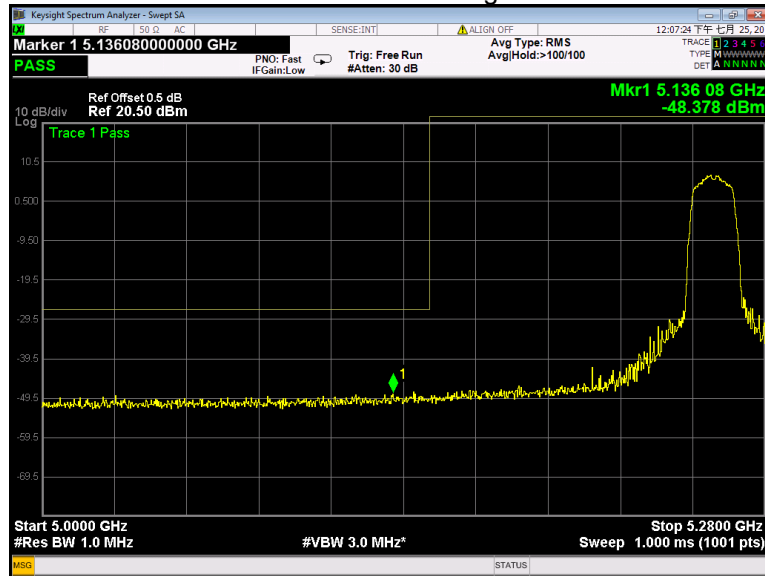
802.11a U-NII-1 Band edge-left side



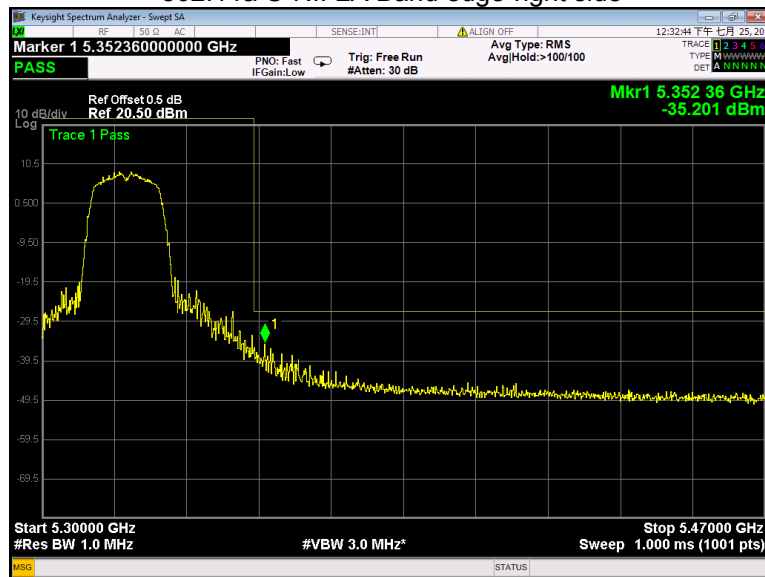
802.11a U-NII-1 Band edge-right side



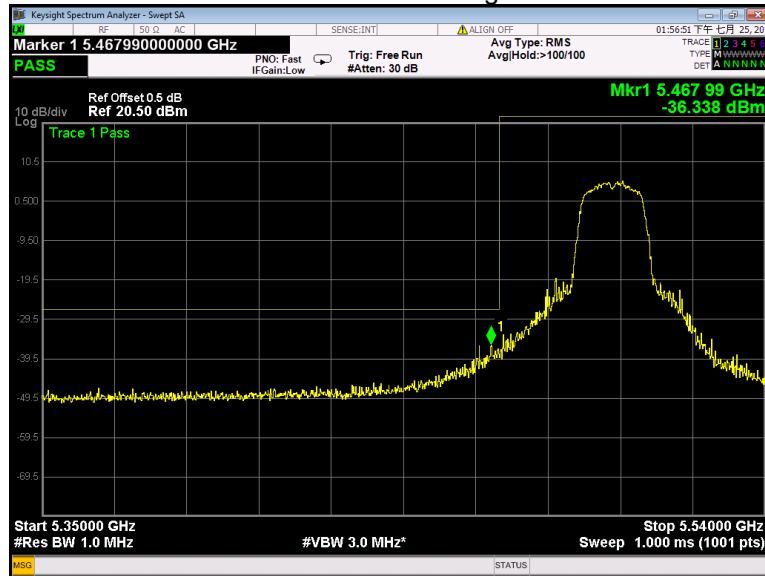
802.11a U-NII-2A Band edge-left side



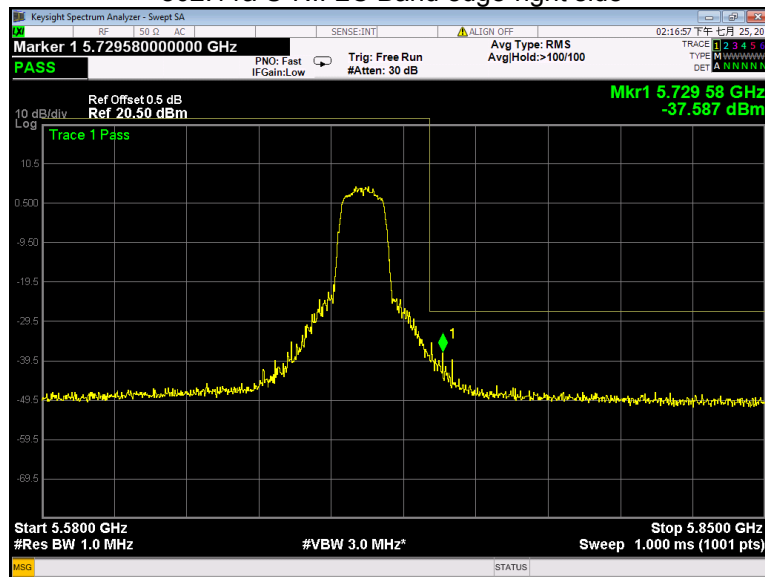
802.11a U-NII-2A Band edge-right side



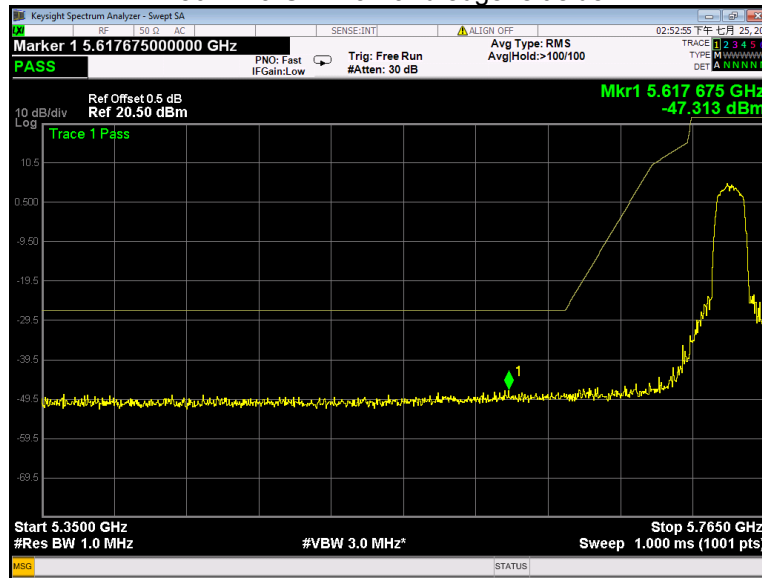
802.11a U-NII-2C Band edge-left side



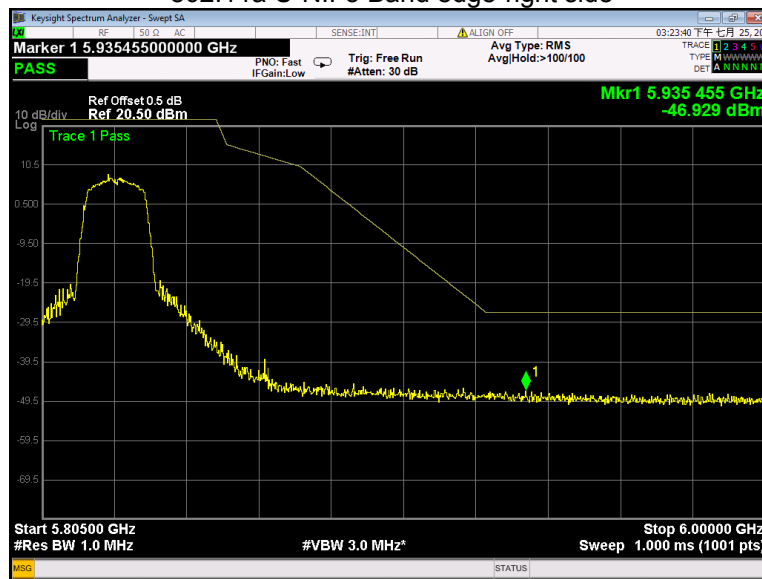
802.11a U-NII-2C Band edge-right side



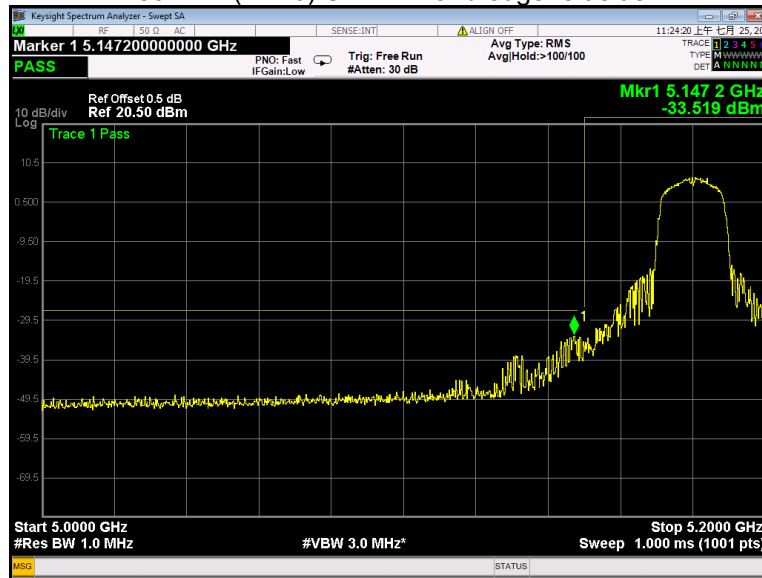
802.11a U-NII-3 Band edge-left side



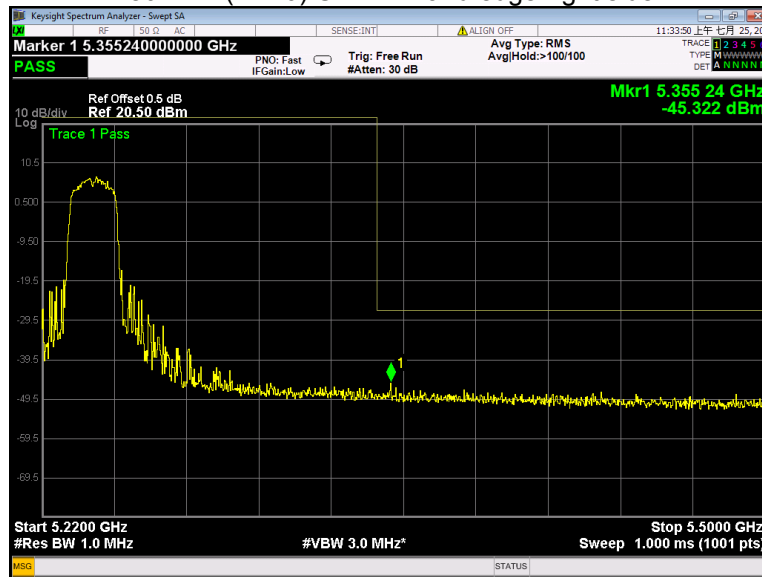
802.11a U-NII-3 Band edge-right side



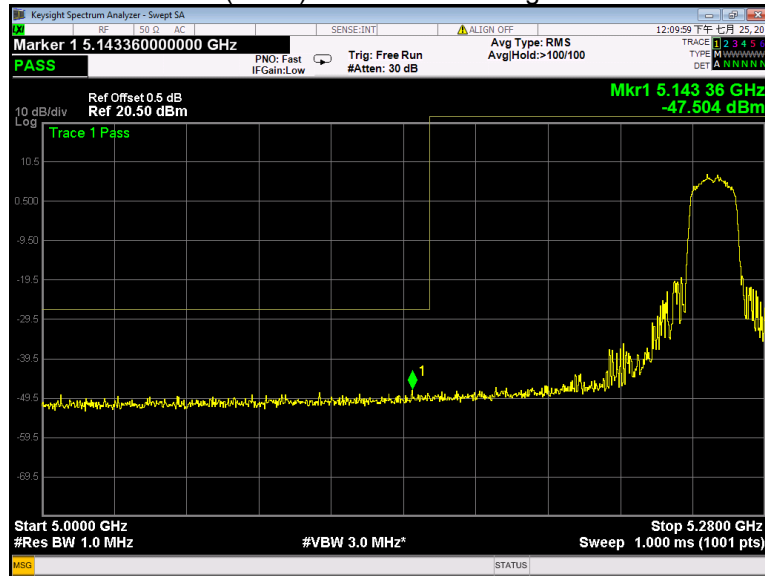
802.11n(HT20) U-NII-1 Band edge-left side



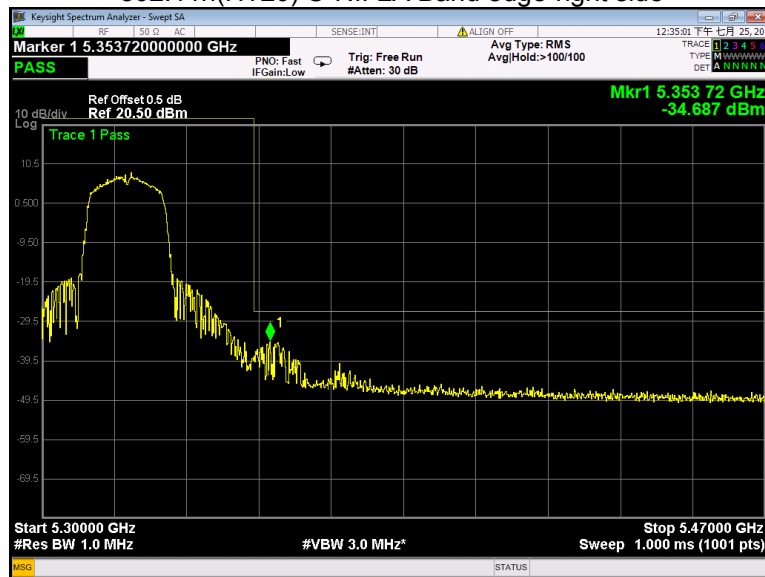
802.11n(HT20) U-NII-1 Band edge-right side



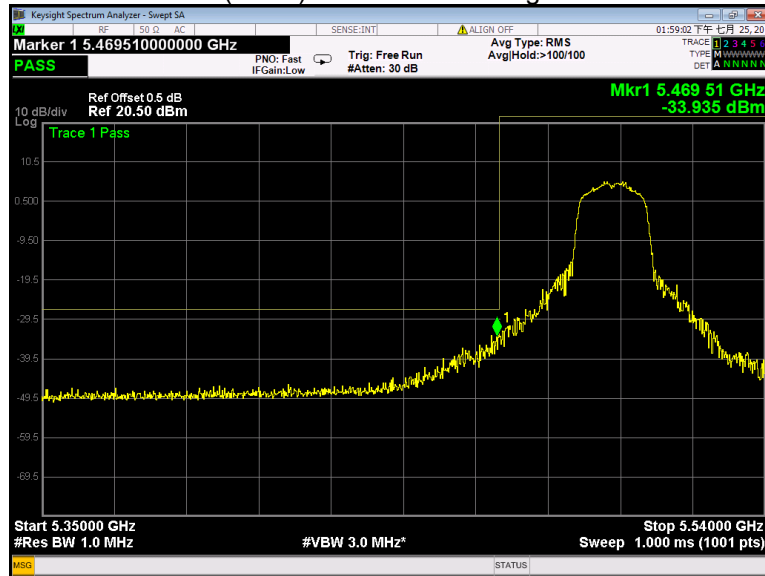
802.11n(HT20) U-NII-2A Band edge-left side



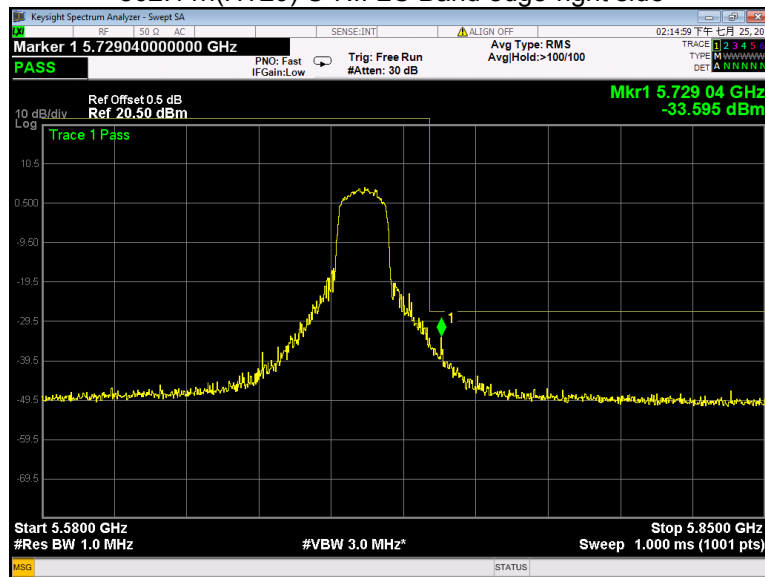
802.11n(HT20) U-NII-2A Band edge-right side



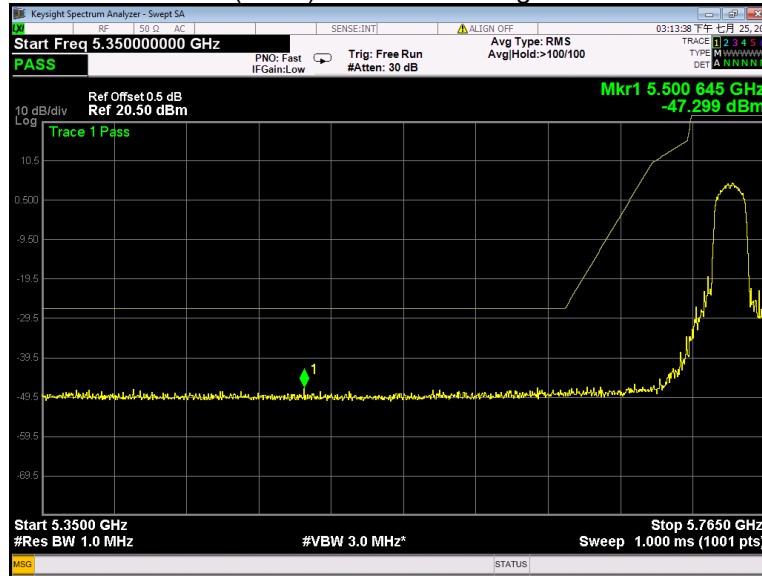
802.11n(HT20) U-NII-2C Band edge-left side



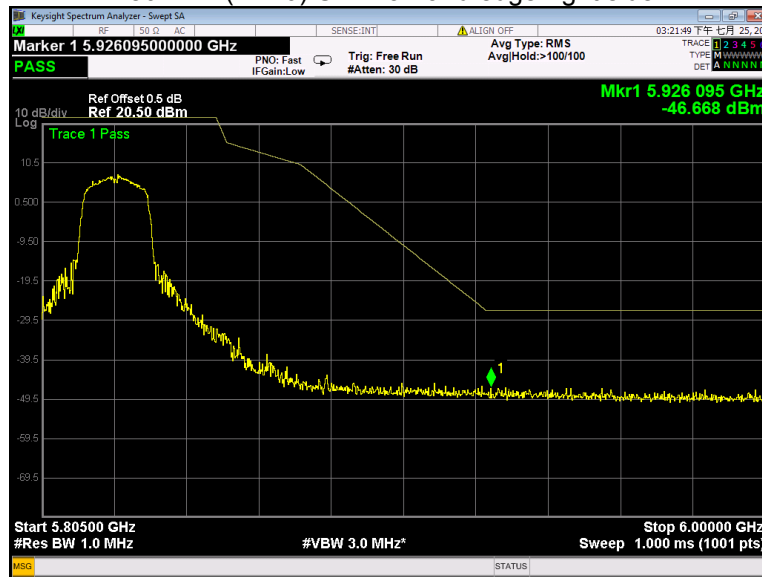
802.11n(HT20) U-NII-2C Band edge-right side



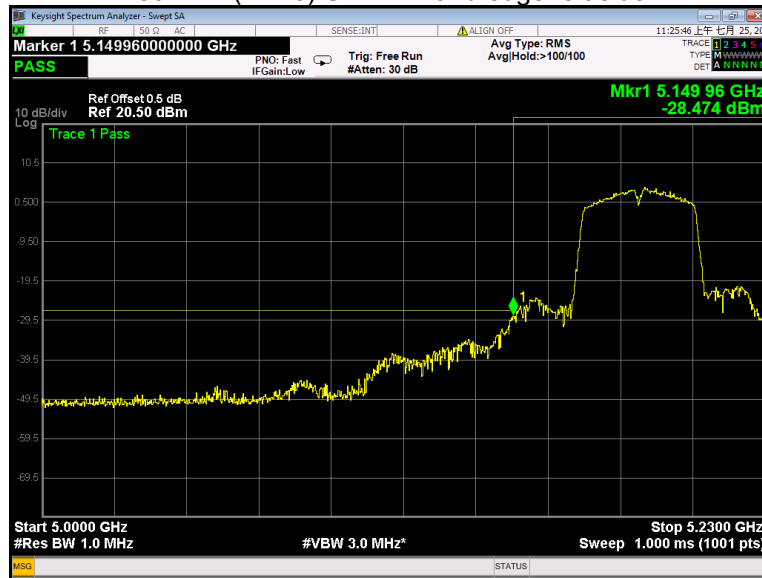
802.11n(HT20) U-NII-3 Band edge-left side



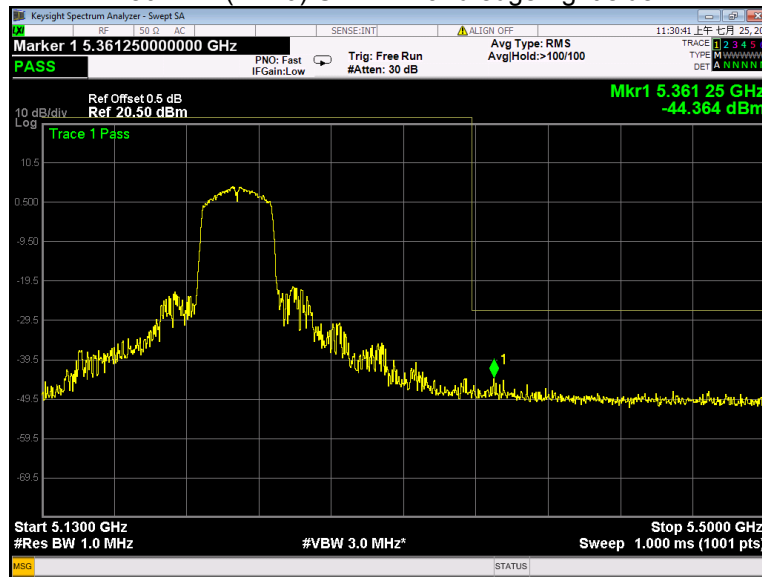
802.11n(HT20) U-NII-3 Band edge-right side



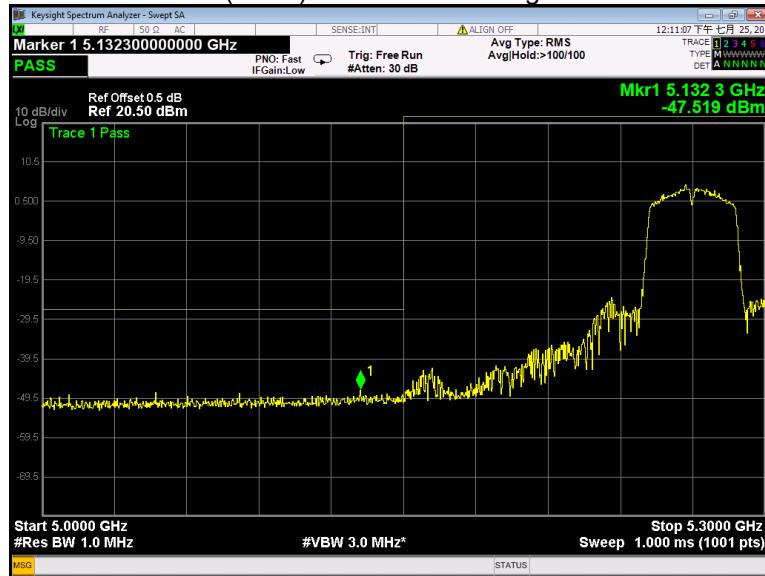
802.11n(HT40) U-NII-1 Band edge-left side



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



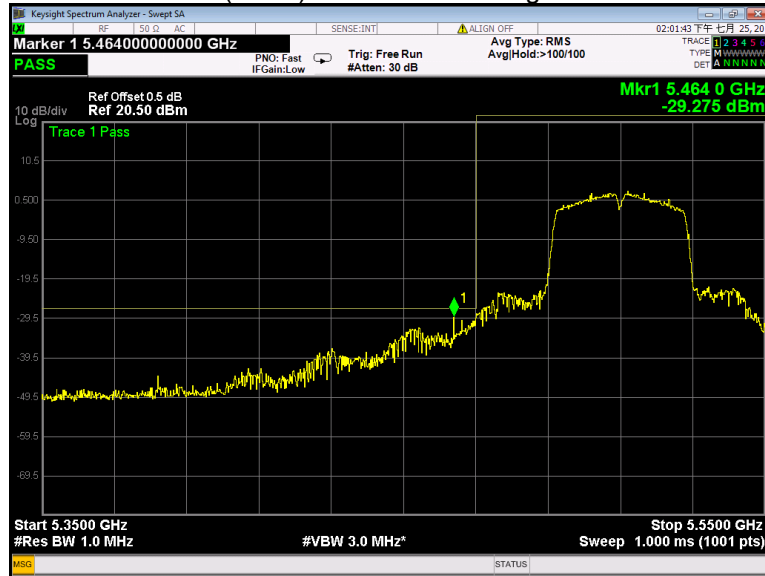
802.11n(HT40) U-NII-2A Band edge-left side



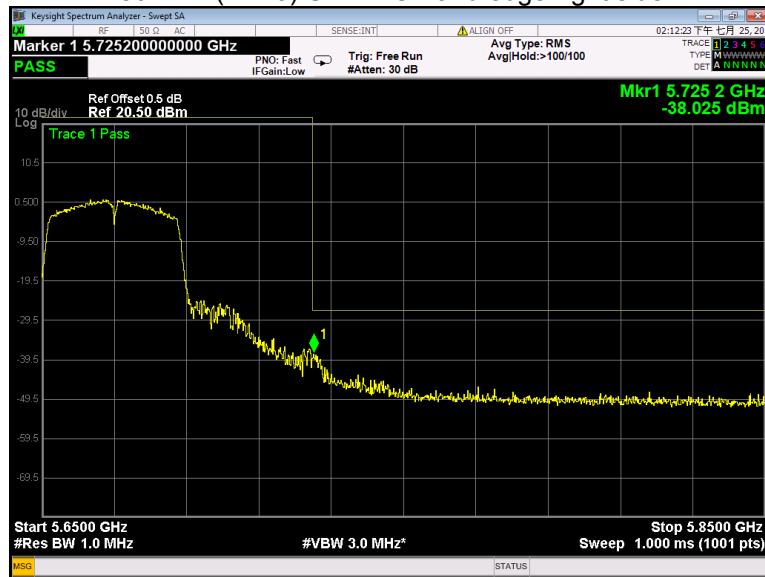
802.11n(HT40) U-NII-2A Band edge-right side



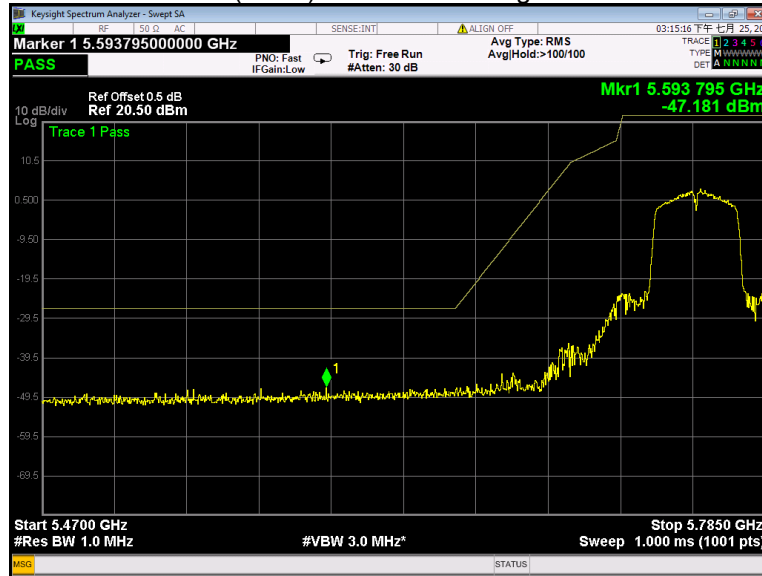
802.11n(HT40) U-NII-2C Band edge-left side



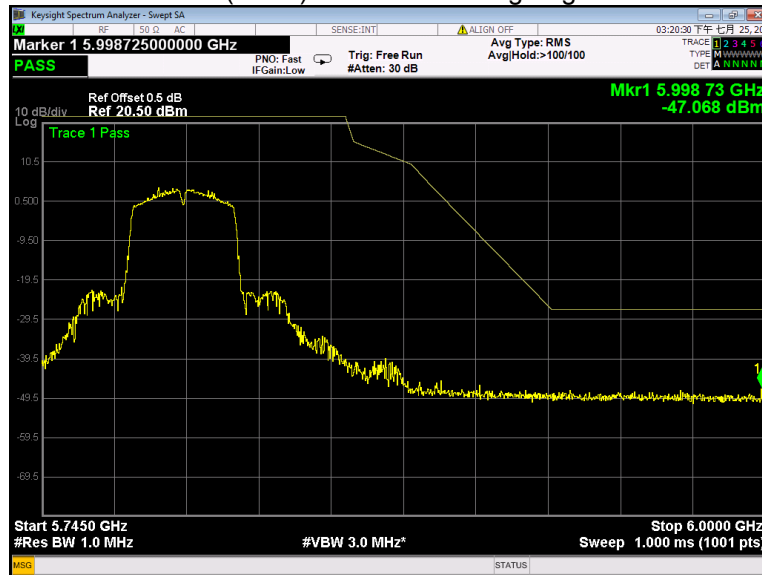
802.11n(HT40) U-NII-2C Band edge-right side



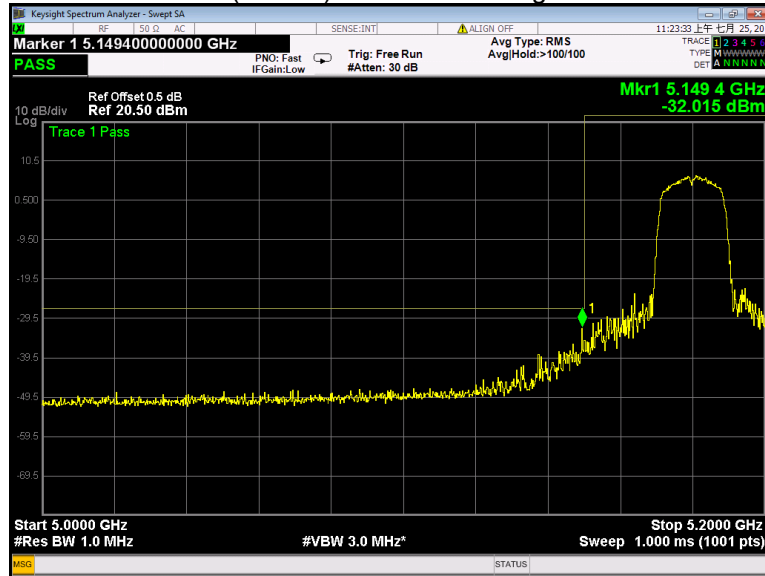
802.11n(HT40) U-NII-3 Band edge-left side



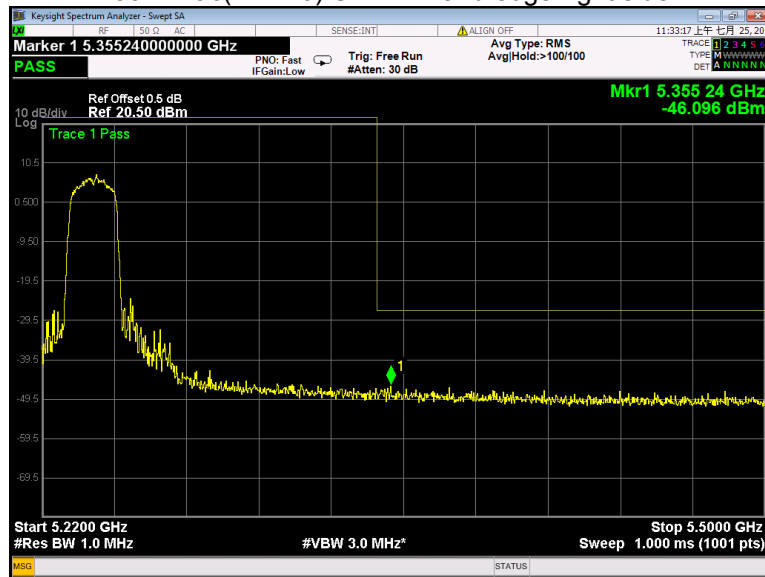
802.11n(HT40) U-NII-3 Band edge-right side



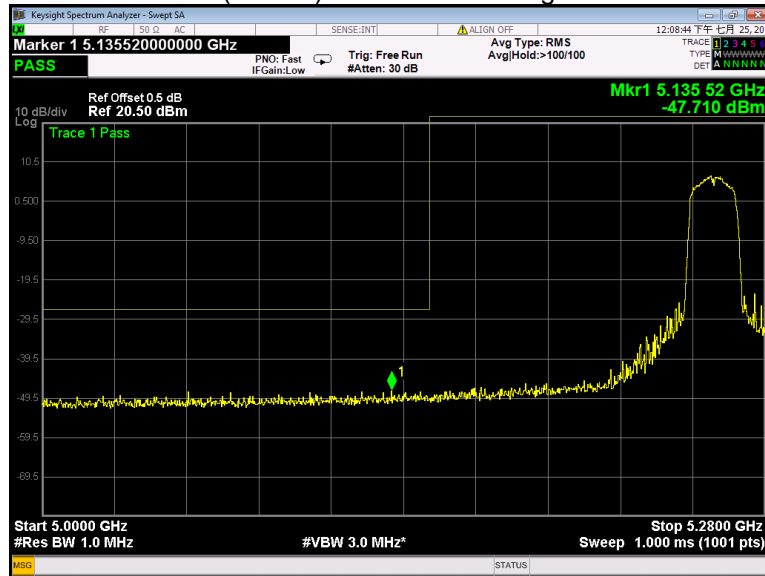
802.11ac(VHT20) U-NII-1 Band edge-left side



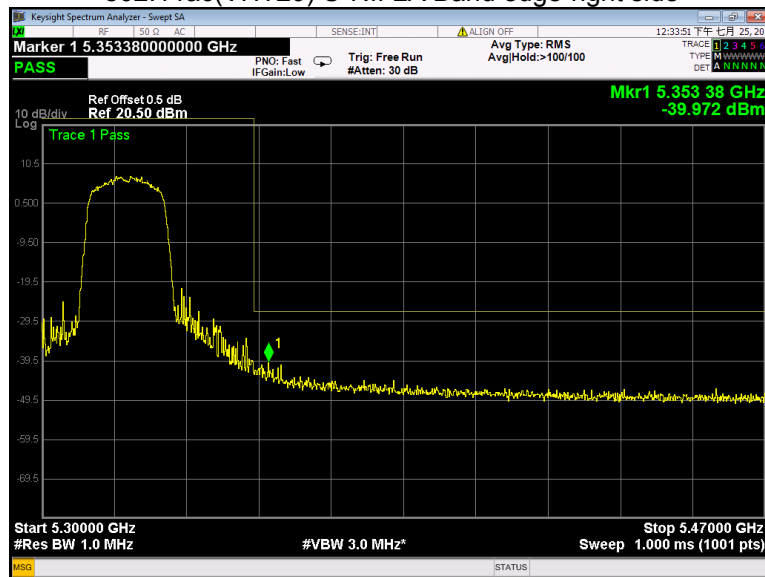
802.11ac(VHT20) U-NII-1 Band edge-right side



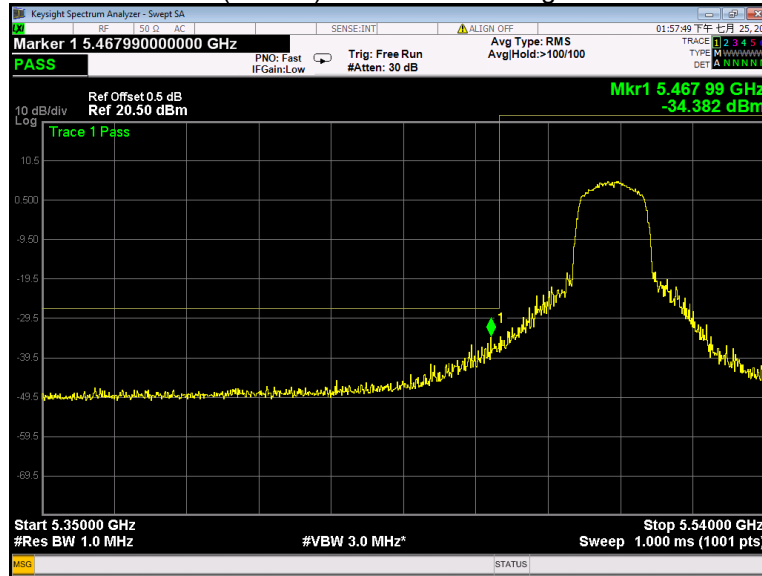
802.11ac(VHT20) U-NII-2A Band edge-left side



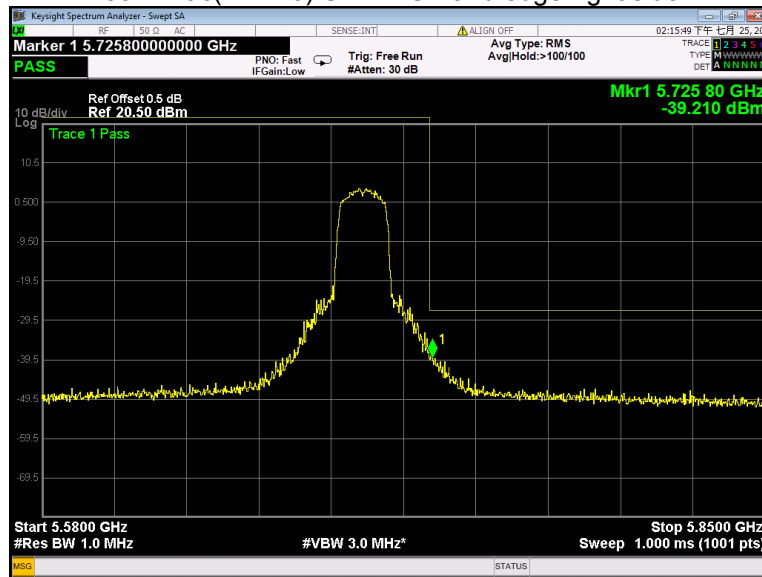
802.11ac(VHT20) U-NII-2A Band edge-right side



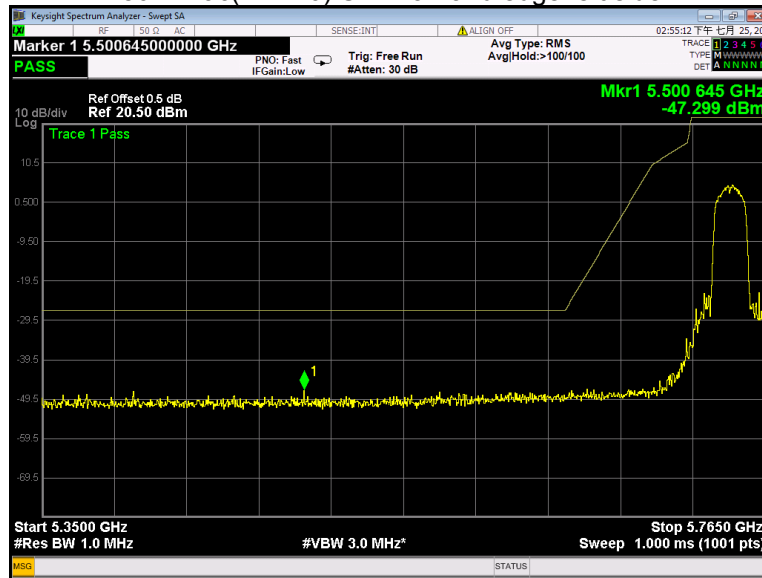
802.11ac(VHT20) U-NII-2C Band edge-left side



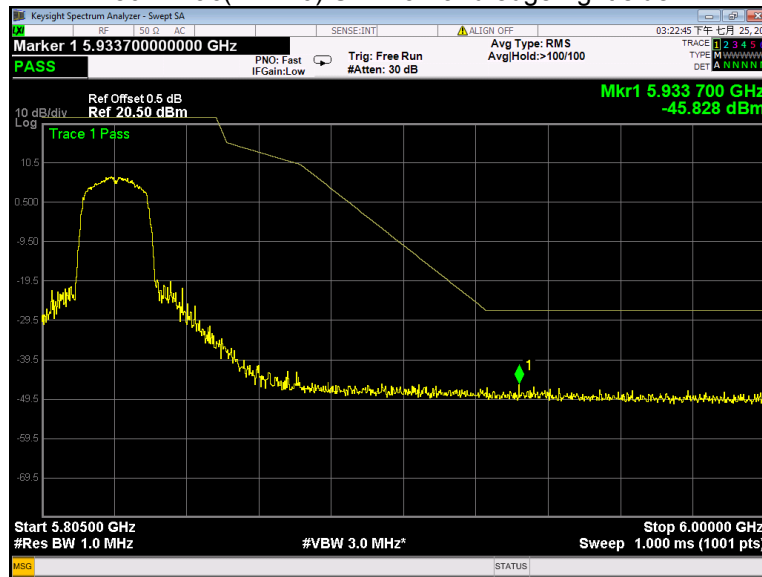
802.11ac(VHT20) U-NII-2C Band edge-right side



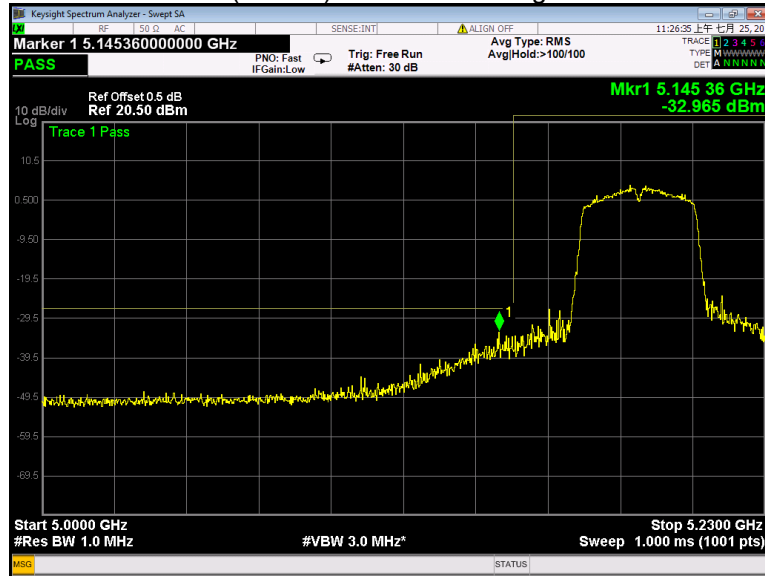
802.11ac(VHT20) U-NII-3 Band edge-left side



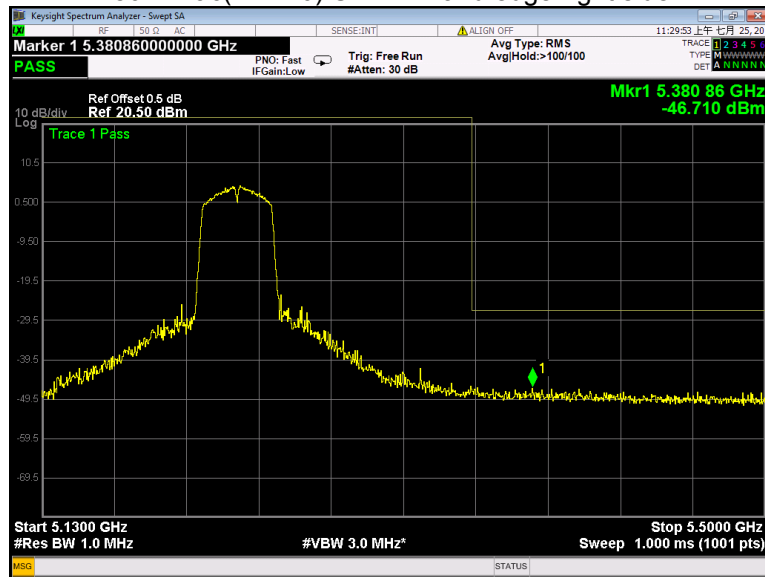
802.11ac(VHT20) U-NII-3 Band edge-right side



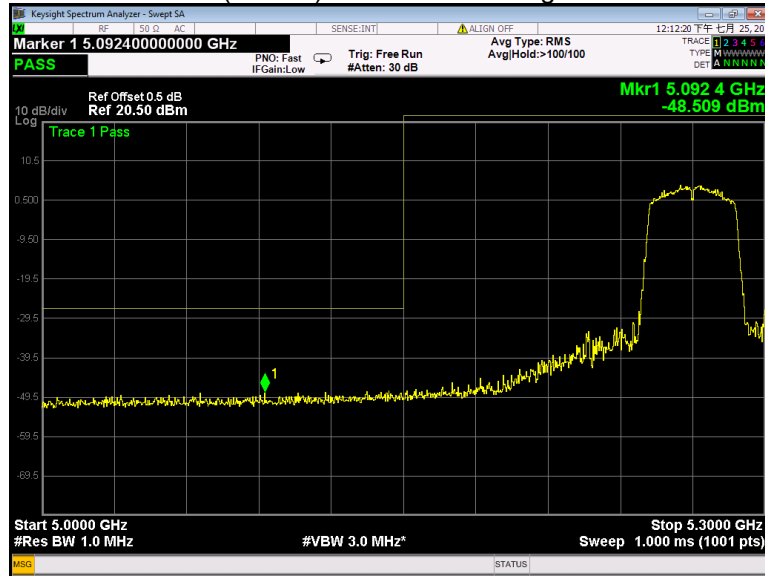
802.11ac(VHT40) U-NII-1 Band edge-left side



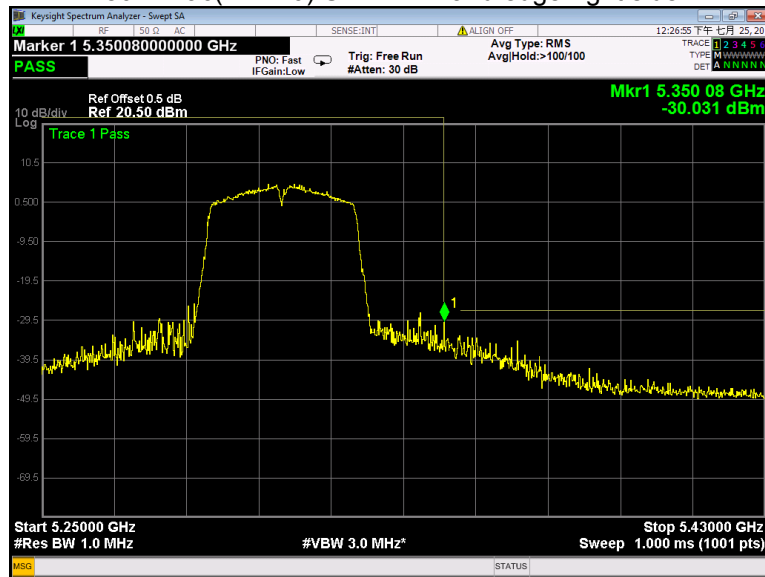
802.11ac(VHT40) U-NII-1 Band edge-right side



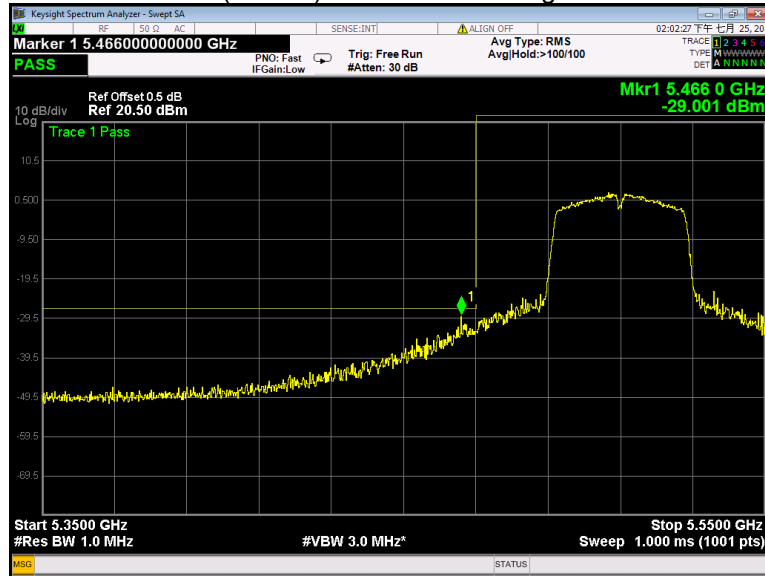
802.11ac(VHT40) U-NII-2A Band edge-left side



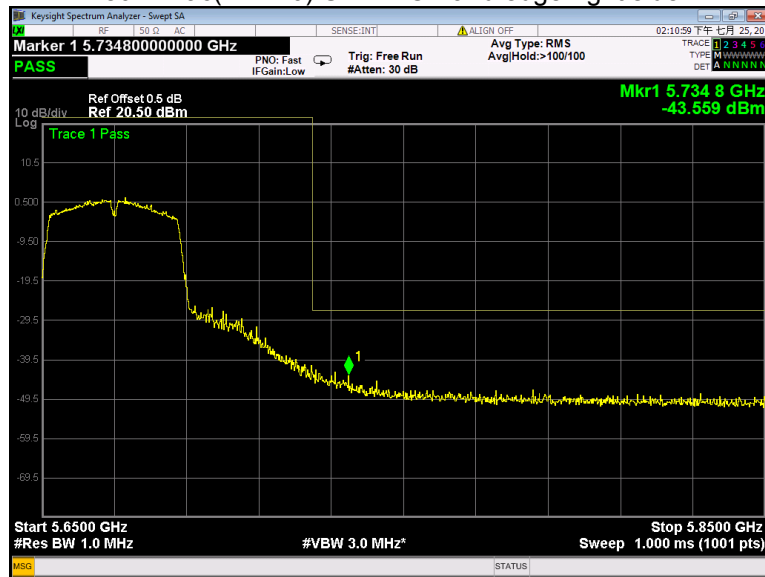
802.11ac(VHT40) U-NII-2A Band edge-right side



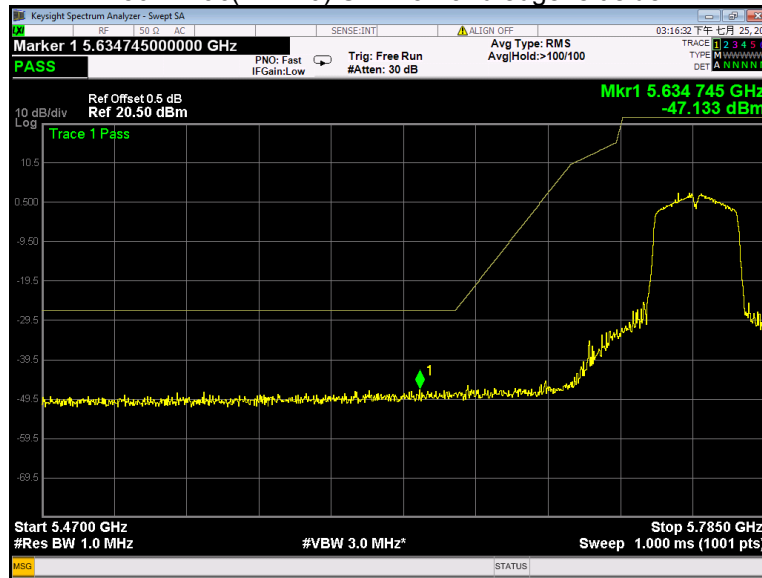
802.11ac(VHT40) U-NII-2C Band edge-left side



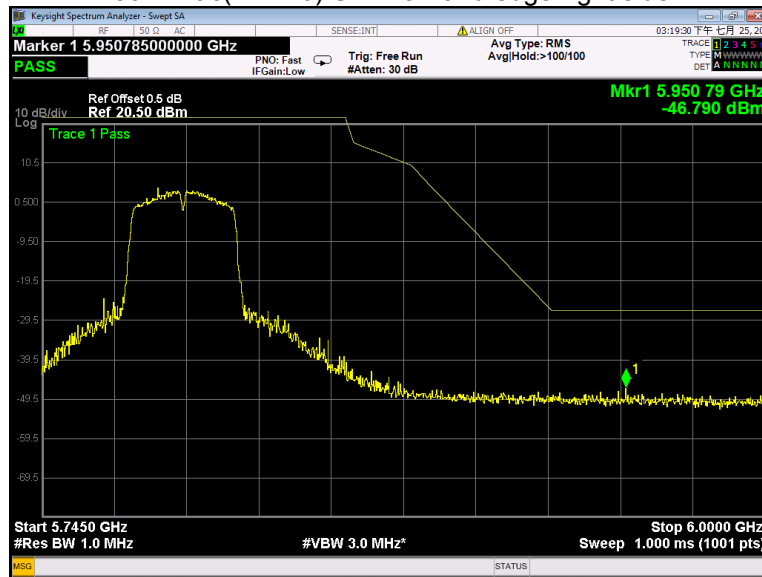
802.11ac(VHT40) U-NII-2C Band edge-right side



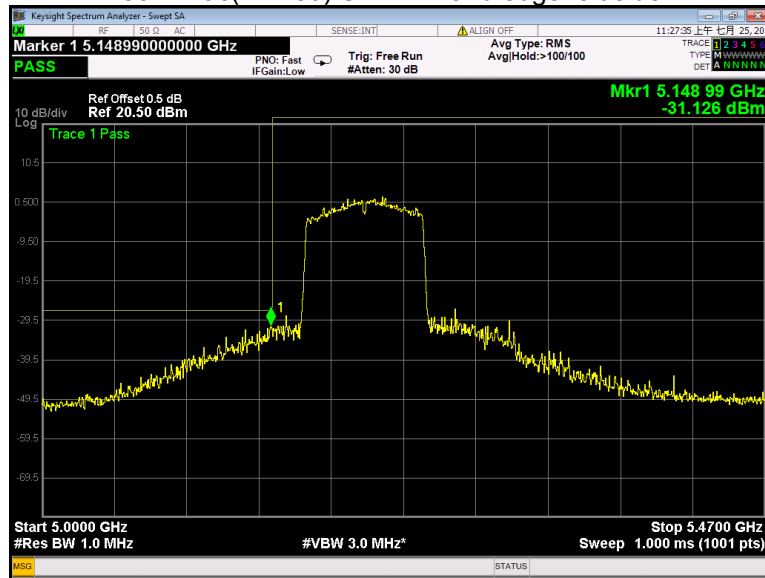
802.11ac(VHT40) U-NII-3 Band edge-left side



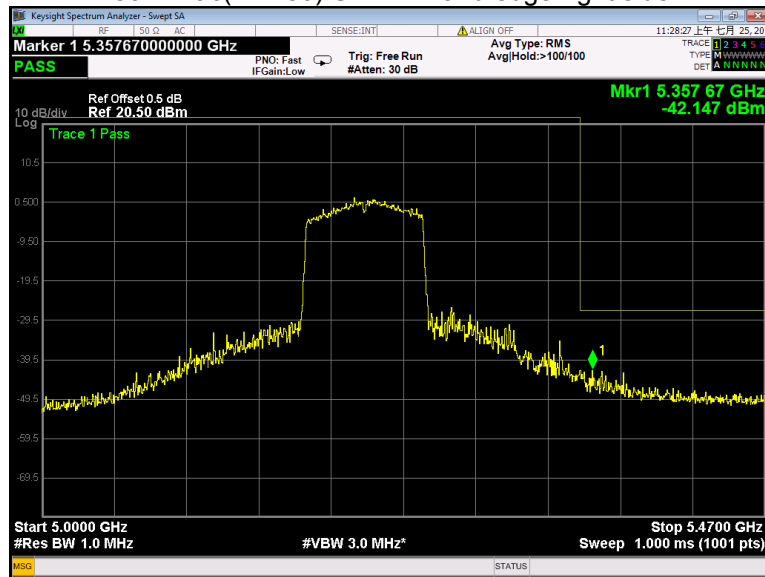
802.11ac(VHT40) U-NII-3 Band edge-right side



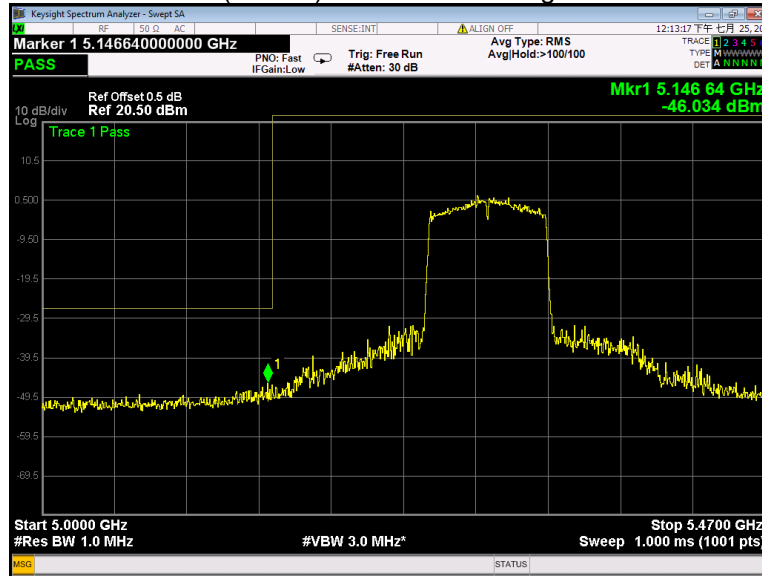
802.11ac(VHT80) U-NII-1 Band edge-left side



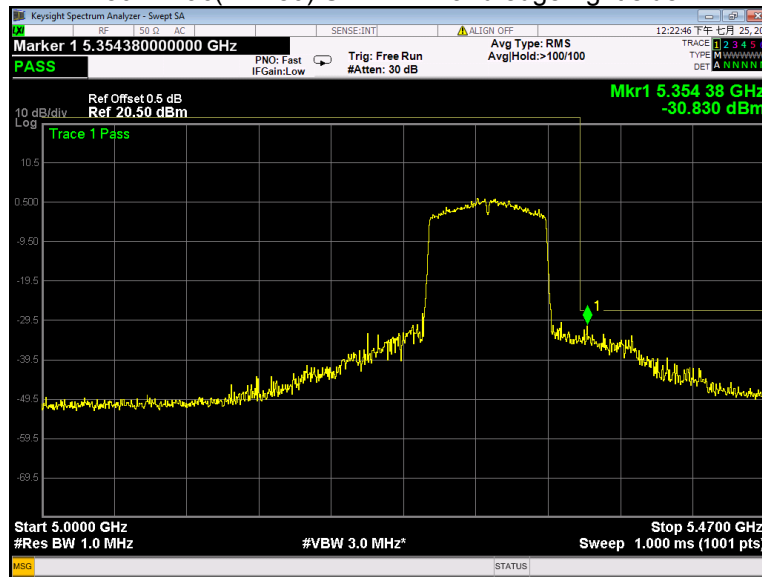
802.11ac(VHT80) U-NII-1 Band edge-right side



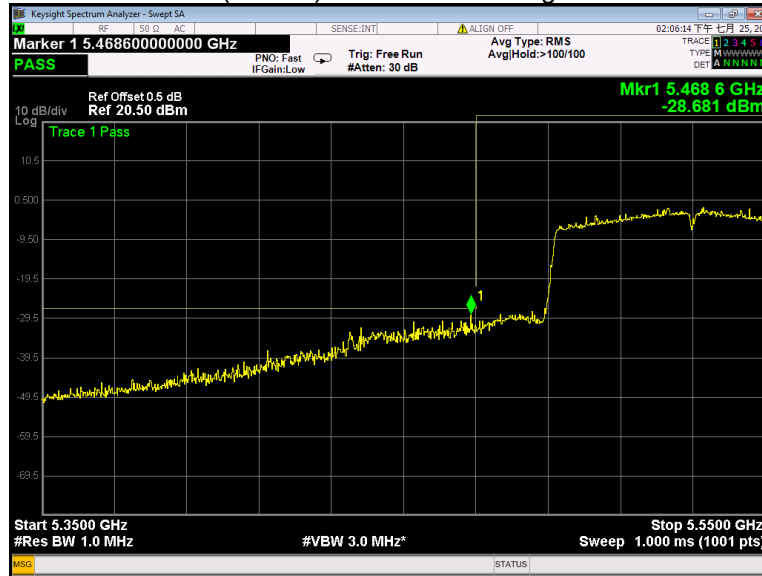
802.11ac(VHT80) U-NII-2A Band edge-left side



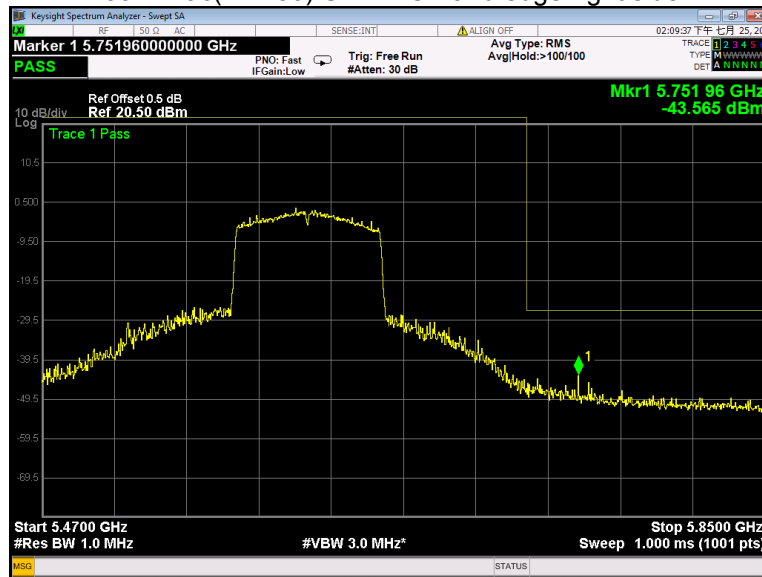
802.11ac(VHT80) U-NII-2A Band edge-right side



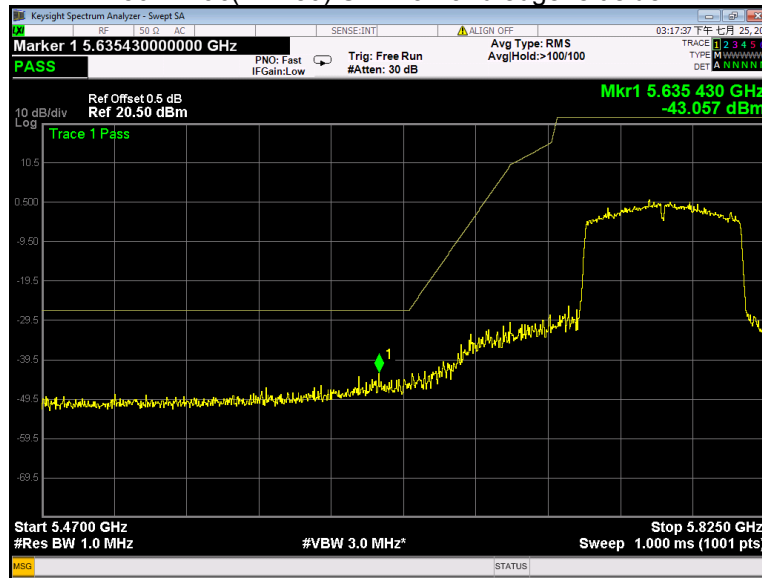
802.11ac(VHT80) U-NII-2C Band edge-left side



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



802.11ac(VHT80) U-NII-3 Band edge-left side



802.11ac(VHT80) U-NII-3 Band edge-right side



10 6 dB Bandwidth

Test Requirement:	FCC 47CFR Part 15 Section 15.407(e) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section C
Test Limit:	≥ 500 kHz
Test Result:	PASS

10.1 Test Procedure

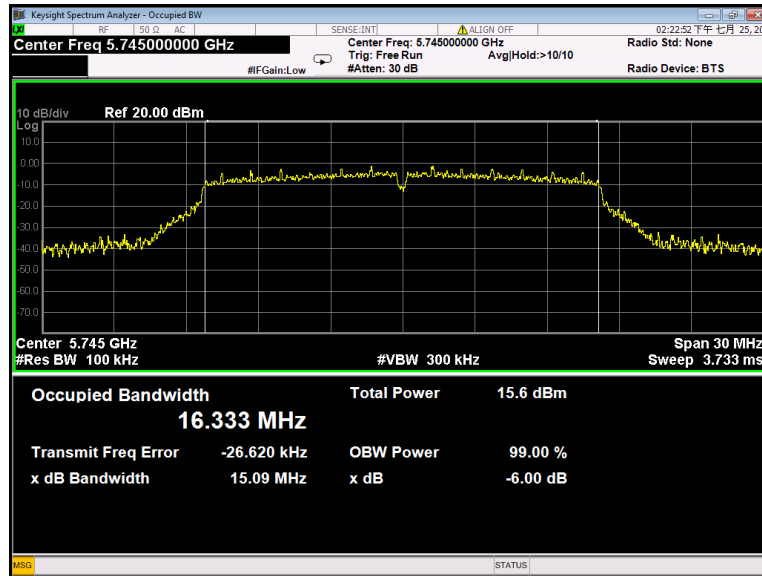
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 100kHz, VBW = 300kHz

10.2 Test Result

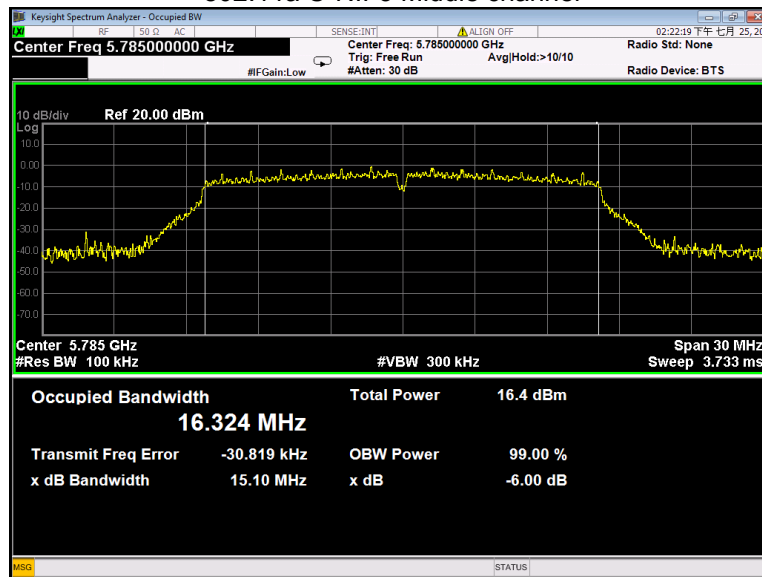
Band	Operation mode	6 dB Bandwidth (MHz)		
		Low	Middle	High
U-NII-3	802.11a	16.333	16.324	16.314
	802.11n(HT20)	17.536	17.527	17.530
	802.11n(HT40)	35.831	/	35.813
	802.11ac(VHT20)	17.521	17.527	17.524
	802.11ac(VHT40)	35.830	/	35.813
	802.11ac(VHT80)	/	75.207	/

Test result plots shown as follows:

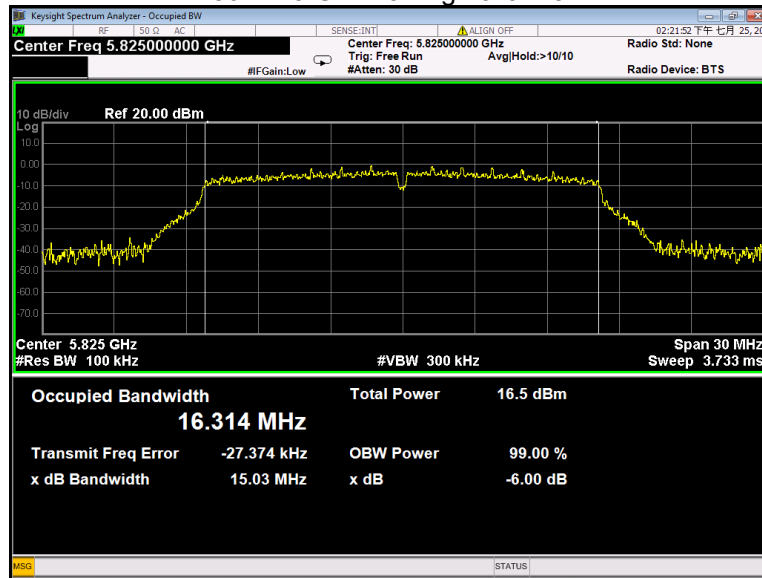
802.11a U-NII-3 Low channel



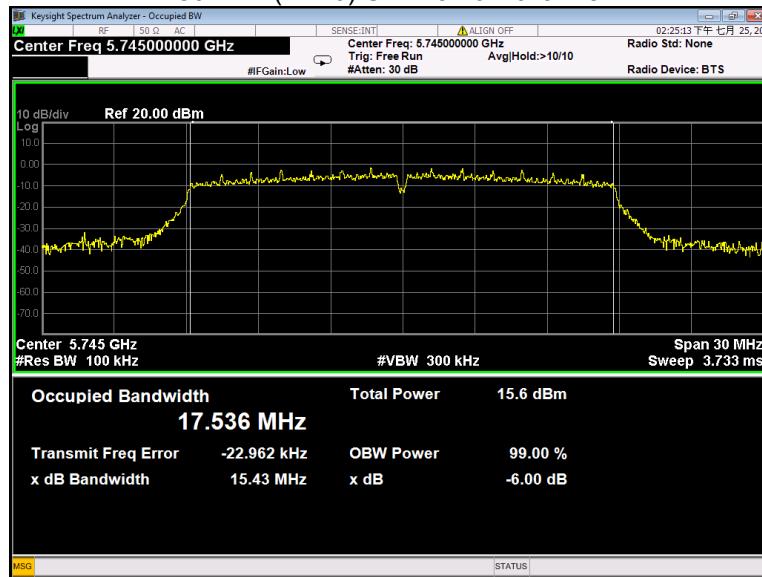
802.11a U-NII-3 Middle channel



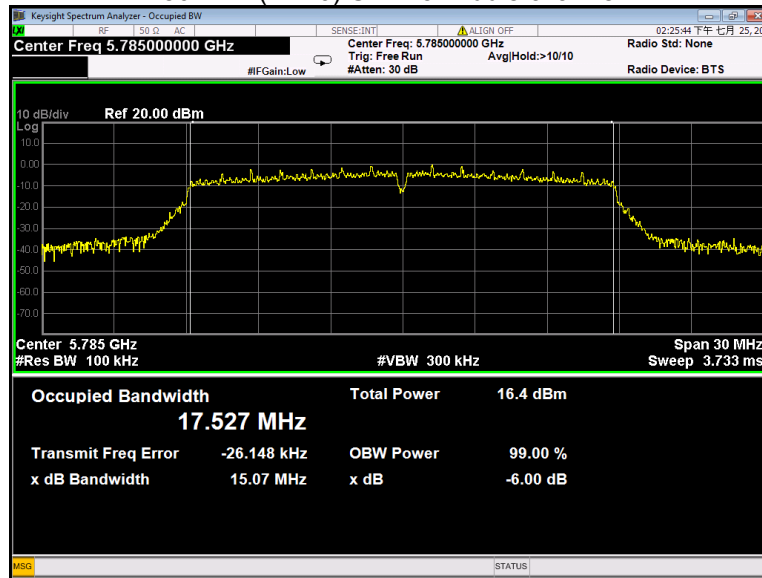
802.11a U-NII-3 High channel



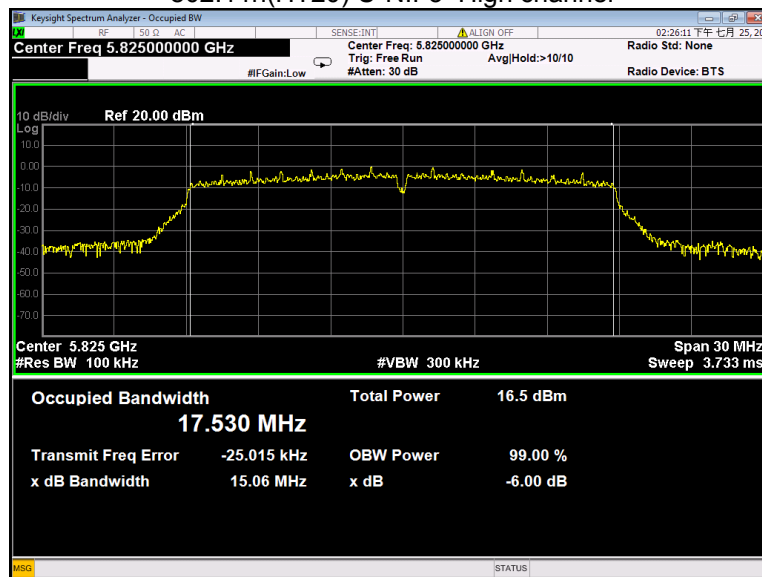
802.11n(HT20) U-NII-3 Low channel



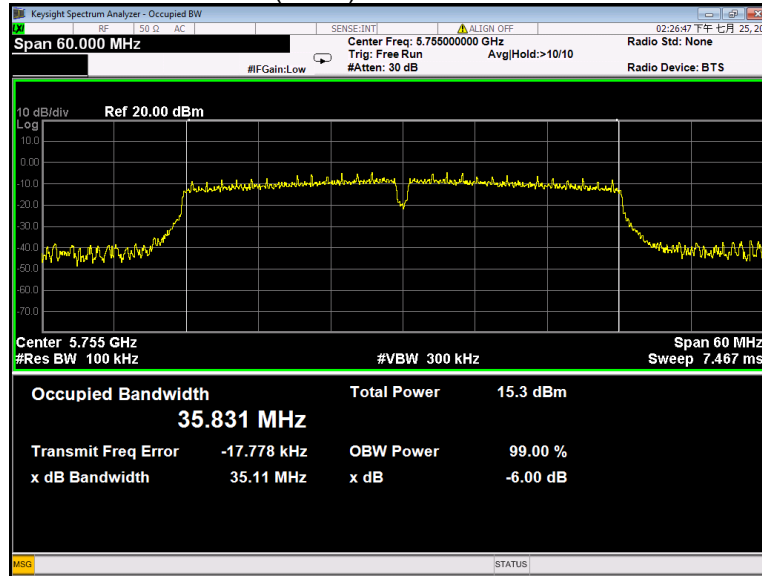
802.11n(HT20) U-NII-3 Middle channel



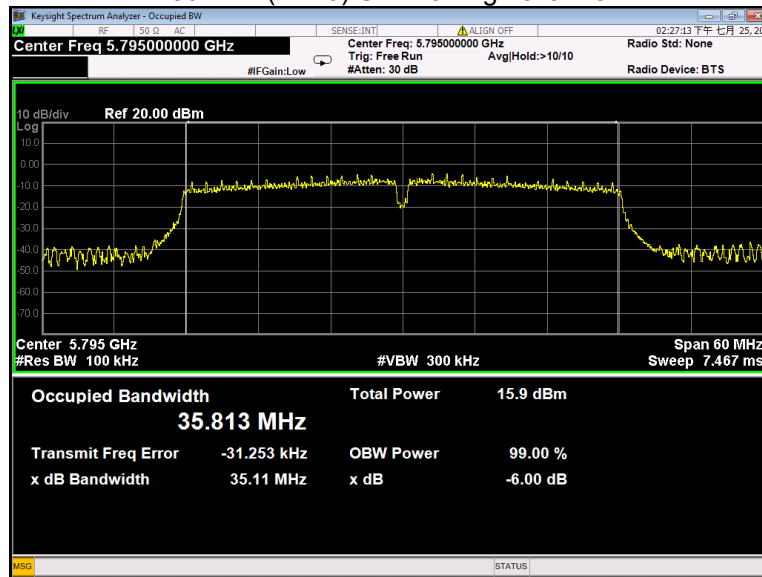
802.11n(HT20) U-NII-3 High channel



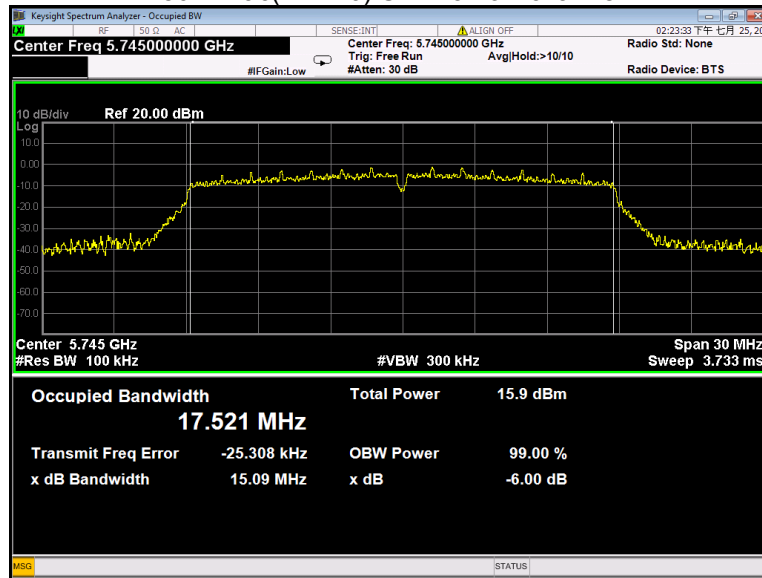
802.11n(HT40) U-NII-3 Low channel



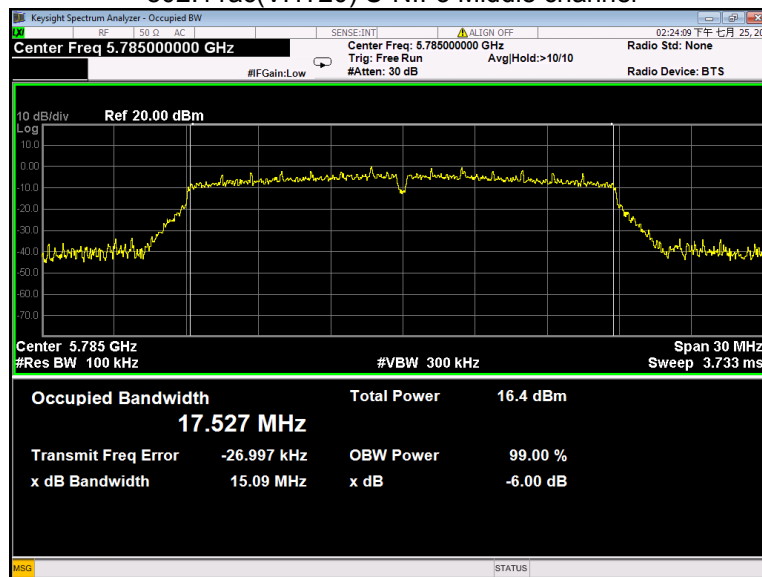
802.11n(HT40) U-NII-3 High channel



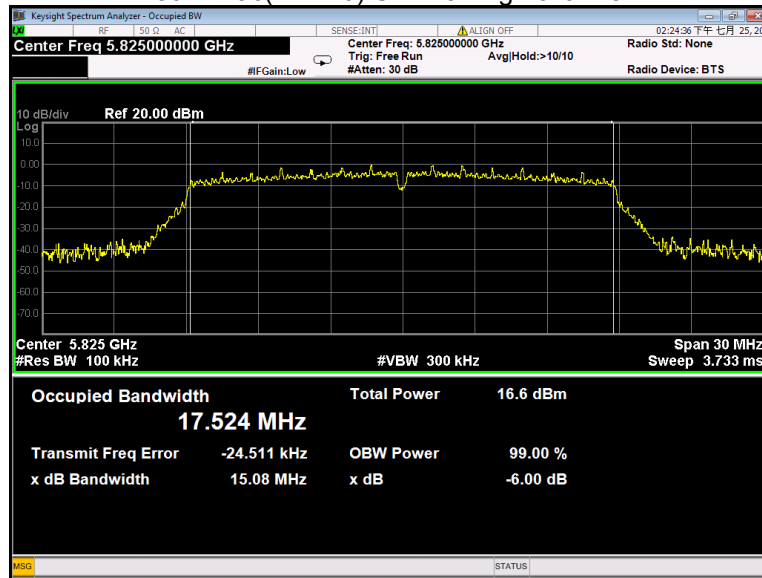
802.11ac(VHT20) U-NII-3 Low channel



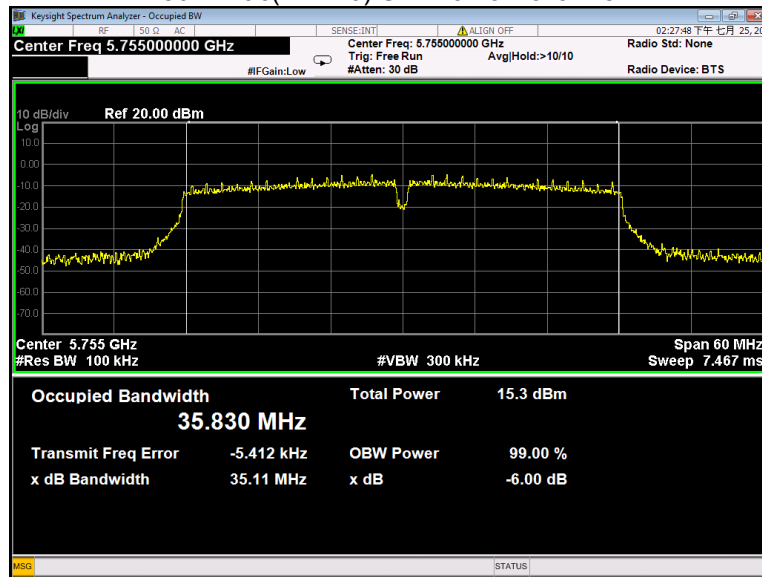
802.11ac(VHT20) U-NII-3 Middle channel



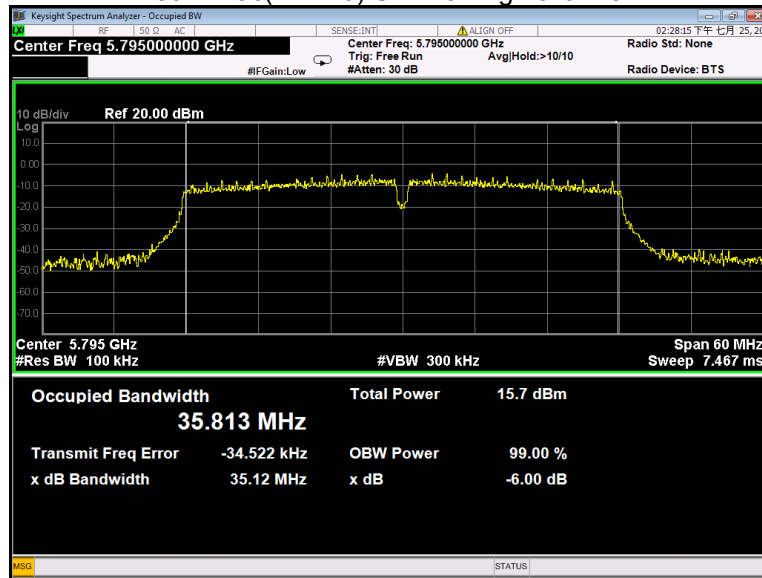
802.11ac(VHT20) U-NII-3 High channel



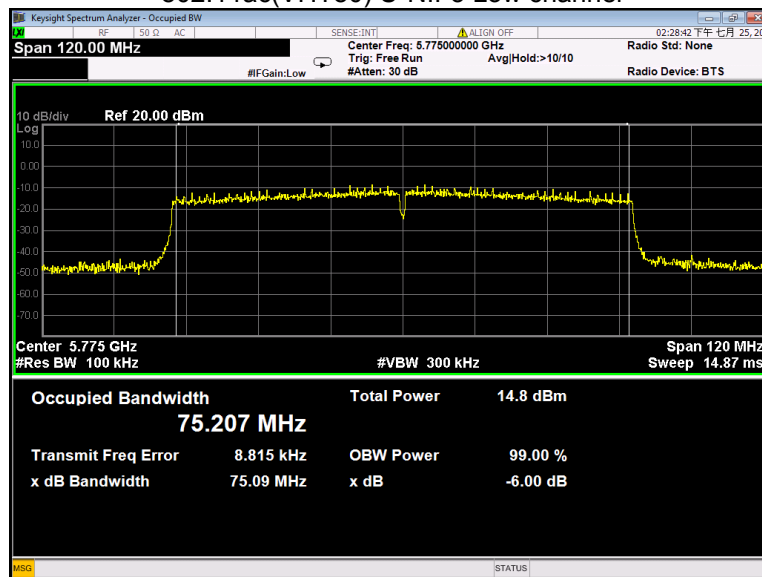
802.11ac(VHT40) U-NII-3 Low channel



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



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



11 26 dB Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC 47CFR Part 15 Section 15.407 (a) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section D
Test Limit:	No restriction limits
Test Result:	PASS

11.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 1% to 5% of the OBW, VBW = 3x RBW

11.2 Test Result

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-1	802.11a	19.56	19.86	19.92	16.440	16.440	16.440
	802.11n(HT20)	19.92	20.10	19.98	17.580	17.640	17.640
	802.11n(HT40)	40.20	/	40.32	36.120	/	36.240
	802.11ac(VHT20)	19.86	20.04	20.16	17.580	17.640	17.640
	802.11ac(VHT40)	40.08	/	40.32	36.120	/	36.240
	802.11ac(VHT80)	/	79.44	/	/	75.360	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2A	802.11a	19.74	19.74	19.68	16.440	16.500	16.500
	802.11n(HT20)	19.98	19.98	20.04	17.640	17.640	17.640
	802.11n(HT40)	40.32	/	40.56	36.240	/	36.240
	802.11ac(VHT20)	20.04	20.04	20.04	17.640	17.640	17.640
	802.11ac(VHT40)	40.32	/	40.44	36.240	/	36.240
	802.11ac(VHT80)	/	79.92	/	/	75.36	/

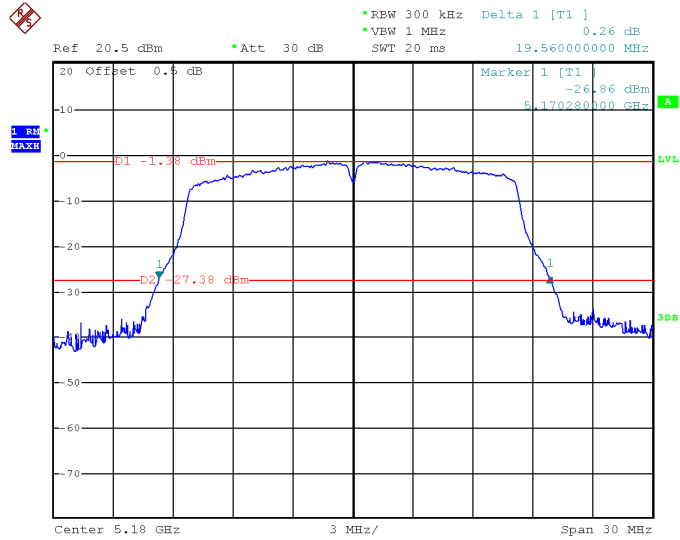
Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-2C	802.11a	19.86	20.10	19.80	16.440	16.500	16.500
	802.11n(HT20)	19.98	20.34	20.16	17.640	17.700	17.700
	802.11n(HT40)	40.68	41.04	40.56	36.240	36.360	36.360
	802.11ac(VHT20)	20.10	20.34	20.16	17.640	17.700	17.640
	802.11ac(VHT40)	40.68	41.16	40.56	36.240	36.360	36.360
	802.11ac(VHT80)	80.88	41.16	/	75.360	75.600	/

Band	Operation mode	26 dB Bandwidth (MHz)			99% Bandwidth (MHz)		
		Low	Middle	High	Low	Middle	High
U-NII-3	802.11a	19.80	19.89	19.74	16.500	16.500	16.500
	802.11n(HT20)	20.04	20.22	20.10	17.700	17.700	17.640
	802.11n(HT40)	40.56	/	40.56	36.240	/	36.360
	802.11ac(VHT20)	20.04	20.04	19.98	17.640	17.700	17.640
	802.11ac(VHT40)	40.44	/	40.44	36.240	/	36.360
	802.11ac(VHT80)	/	80.16	/	/	75.600	/

Test result plots shown as follows:

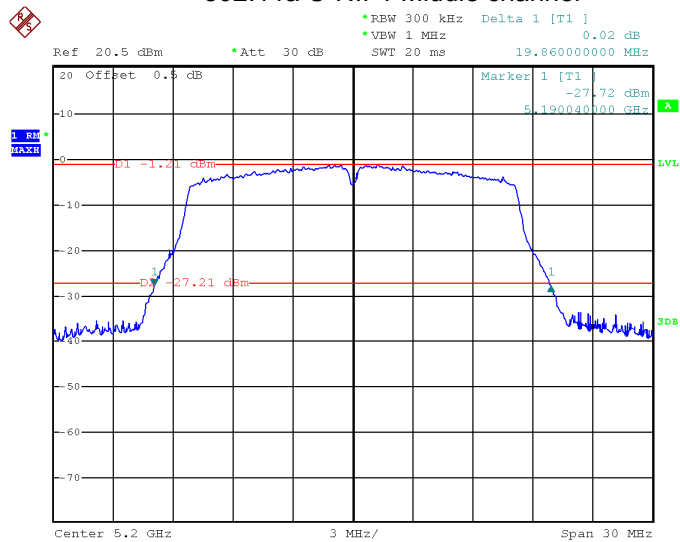
26 dB Bandwidth

802.11a U-NII-1 Low channel



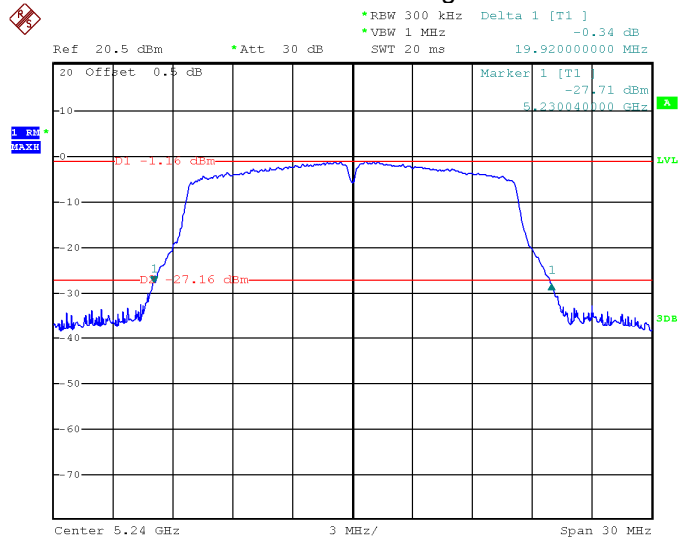
Date: 25.APR.2023 16:03:32

802.11a U-NII-1 Middle channel



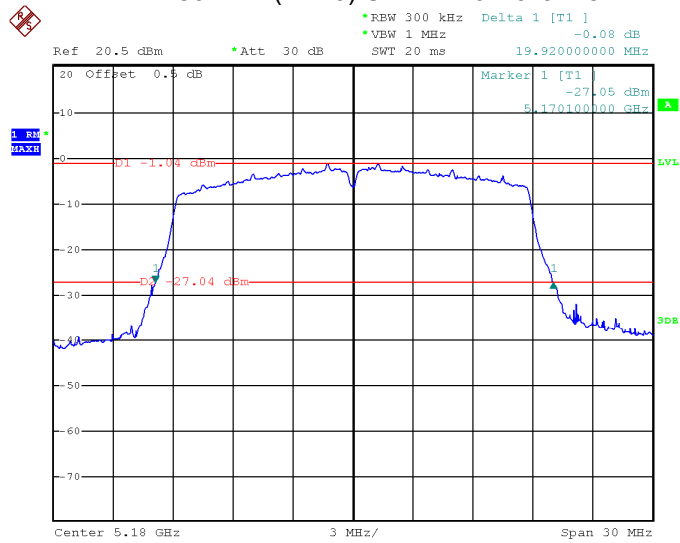
Date: 25.APR.2023 16:04:54

802.11a U-NII-1 High channel

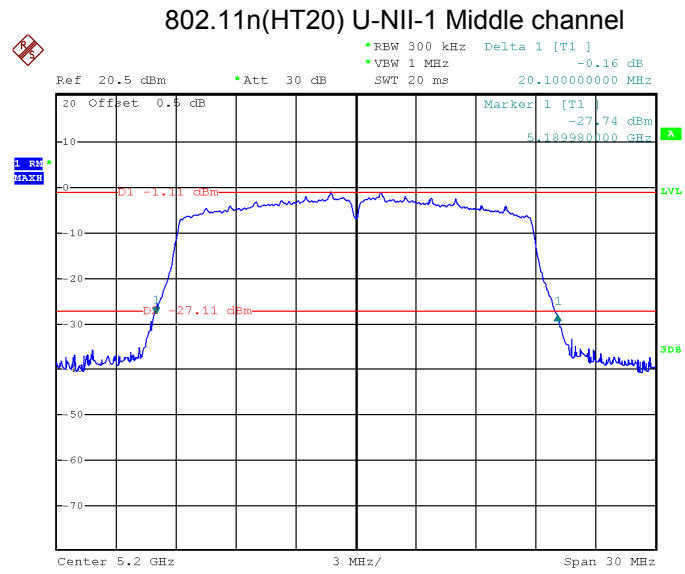


Date: 25.APR.2023 16:06:15

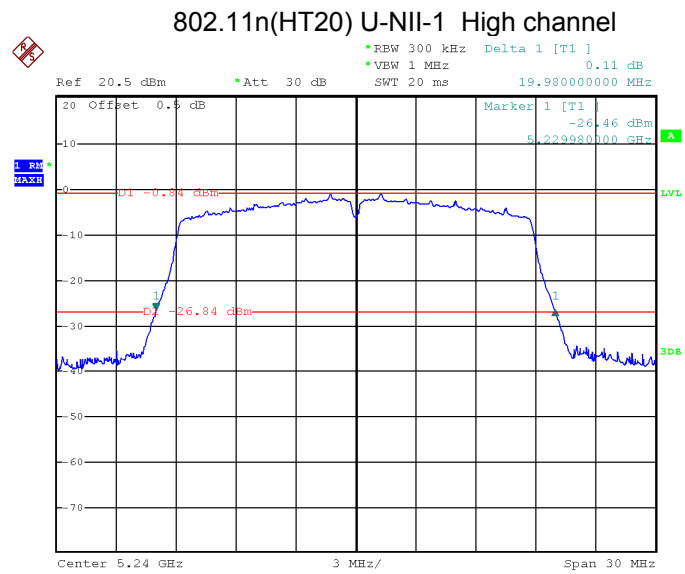
802.11n(HT20) U-NII-1 Low channel



Date: 25.APR.2023 16:12:42

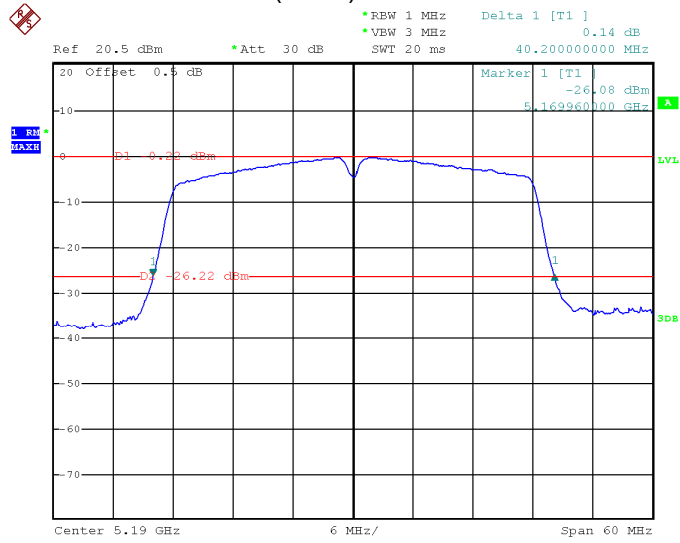


Date: 25.APR.2023 16:14:18



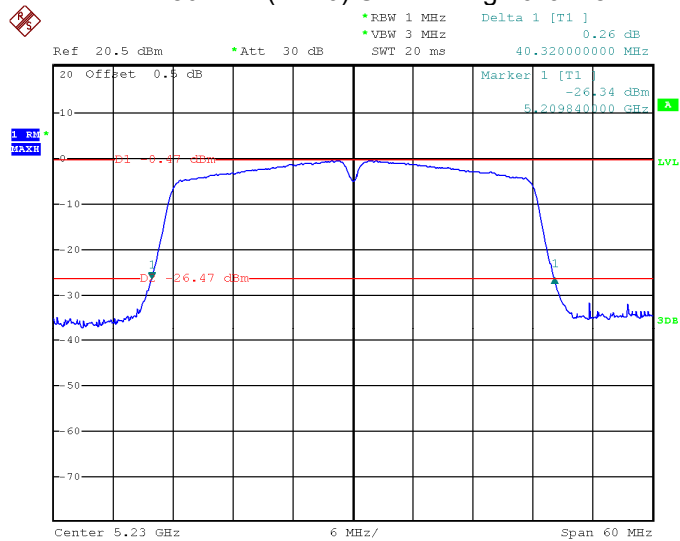
Date: 25.APR.2023 16:19:30

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

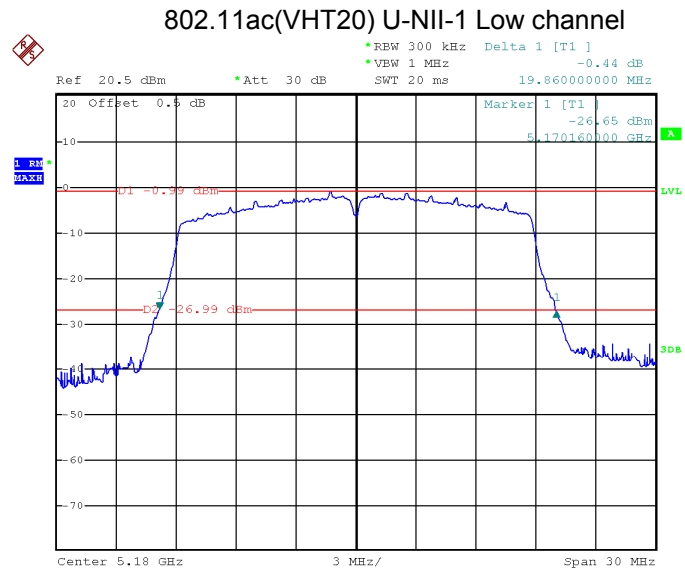


Date: 25.APR.2023 16:22:07

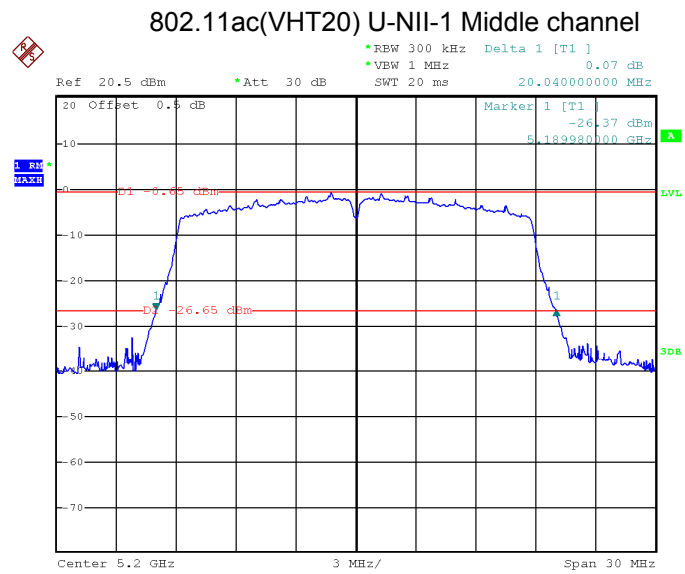
802.11n(HT40) U-NII-1 High channel



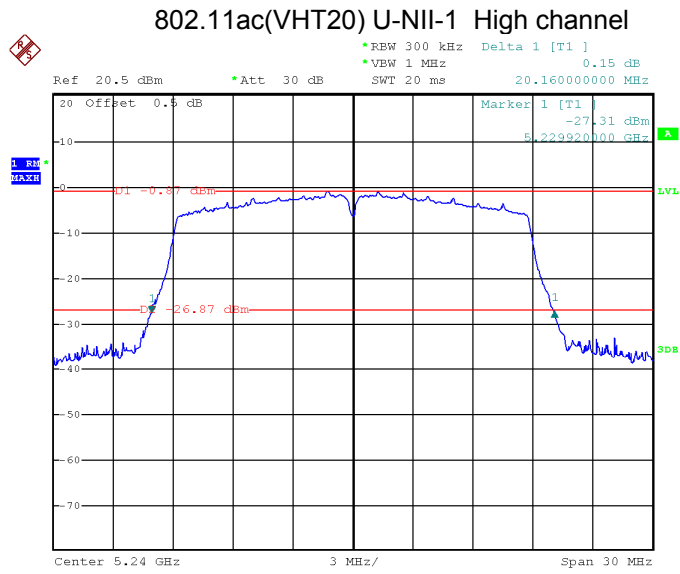
Date: 25.APR.2023 16:23:17



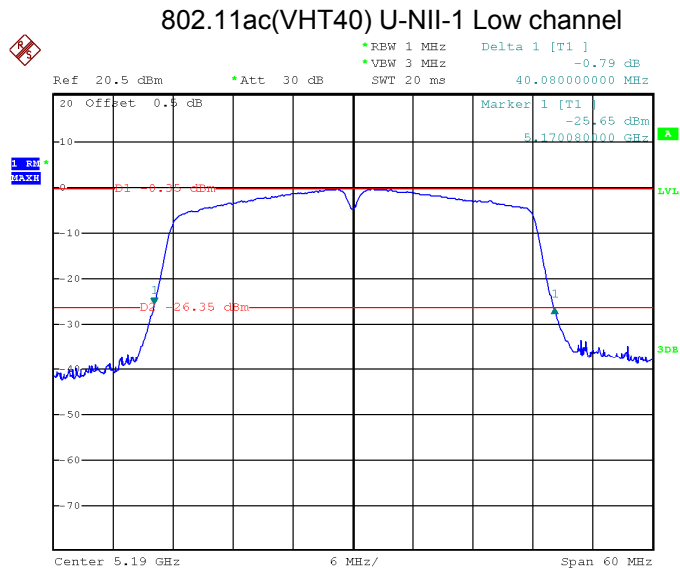
Date: 25.APR.2023 16:08:16



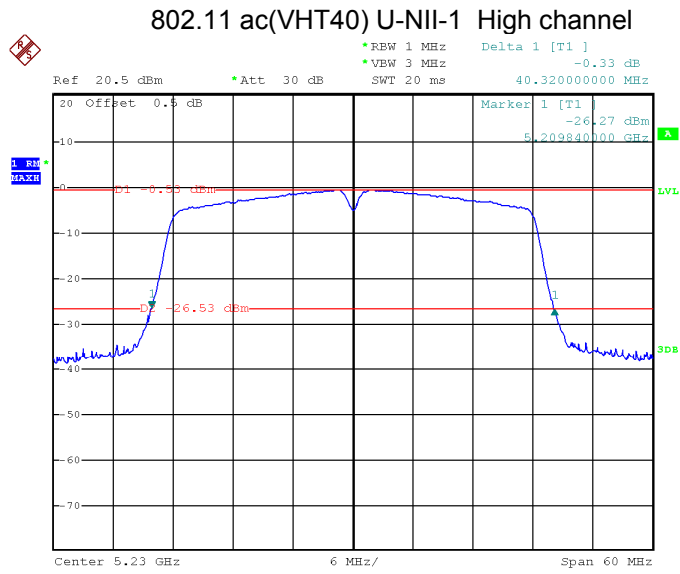
Date: 25.APR.2023 16:09:13



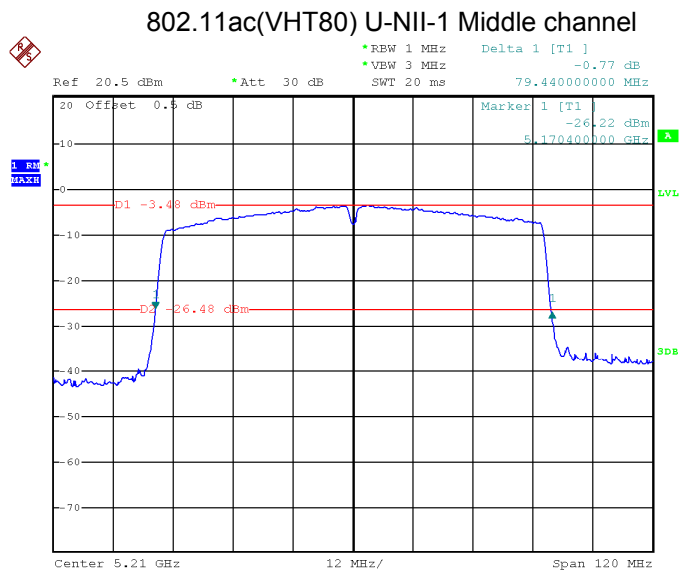
Date: 25.APR.2023 16:10:39



Date: 25.APR.2023 16:24:22

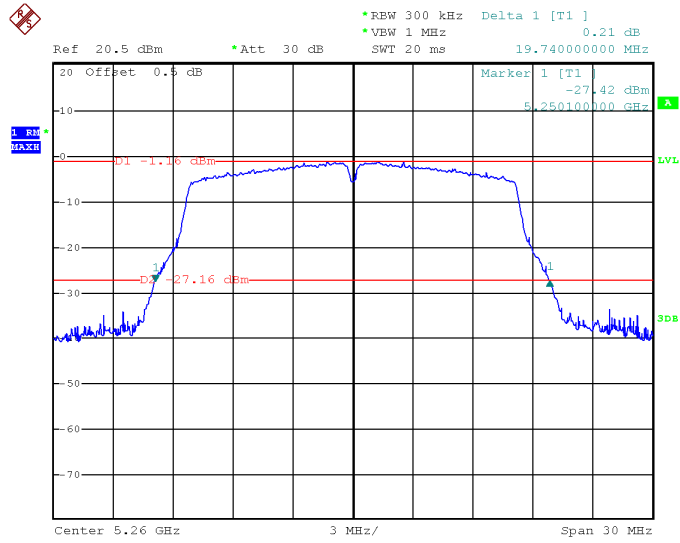


Date: 25.APR.2023 16:25:28



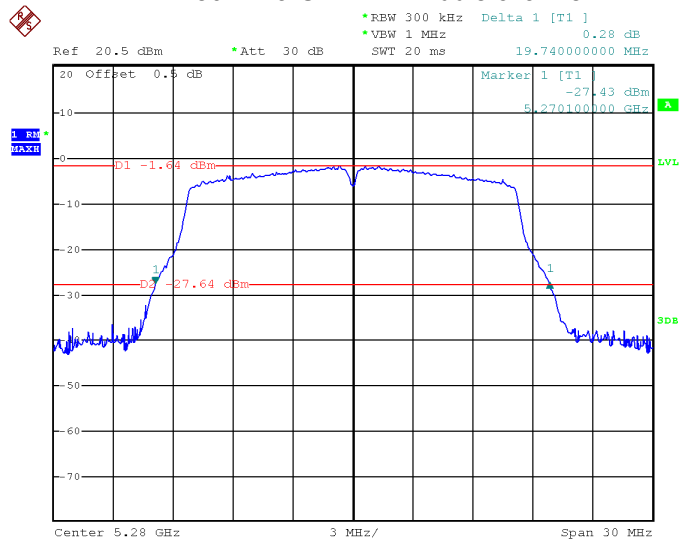
Date: 25.APR.2023 16:28:01

802.11a U-NII-2A Low channel

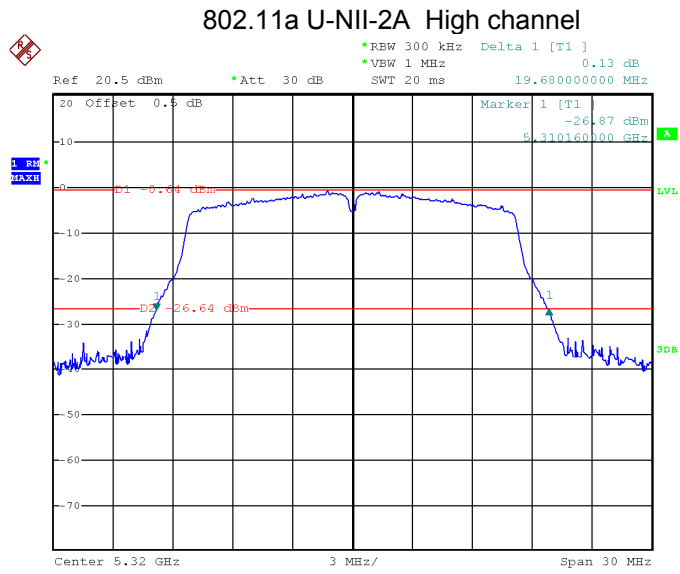


Date: 25.APR.2023 16:30:10

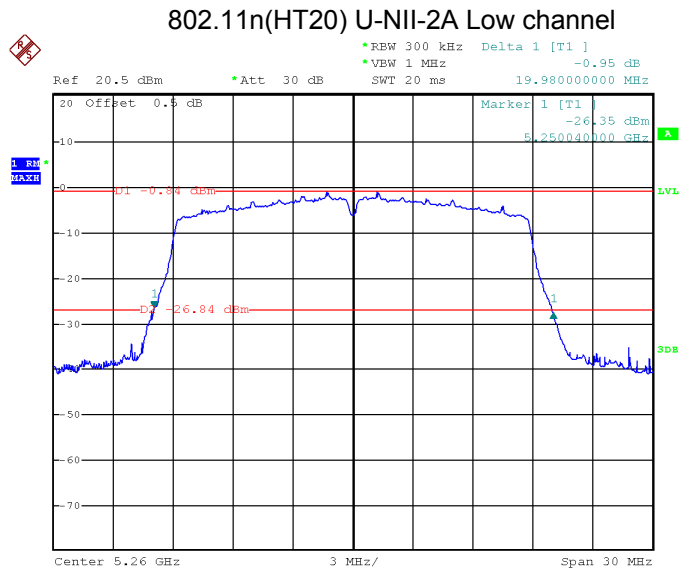
802.11a U-NII-2A Middle channel



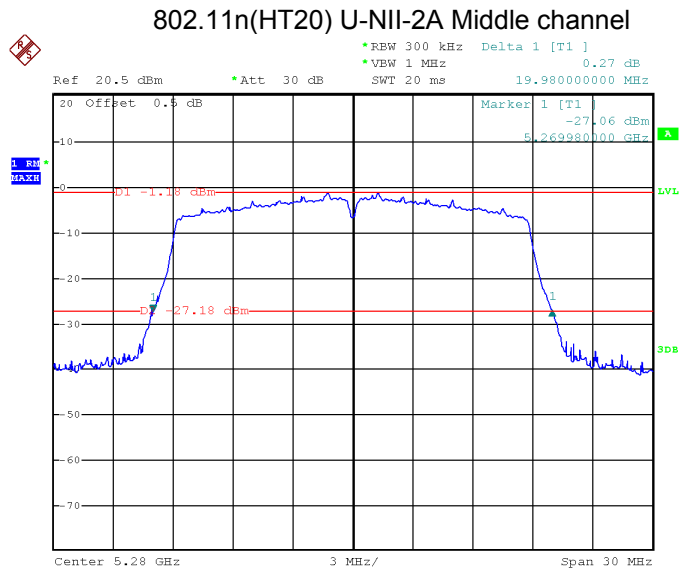
Date: 25.APR.2023 16:31:33



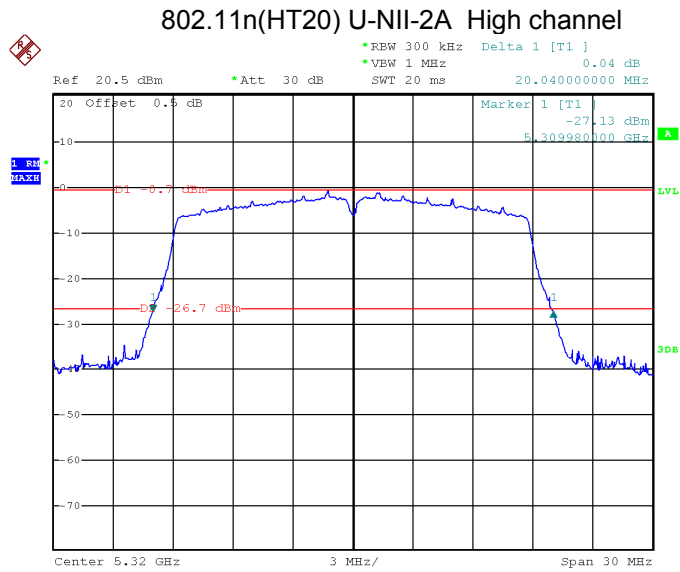
Date: 25.APR.2023 16:33:40



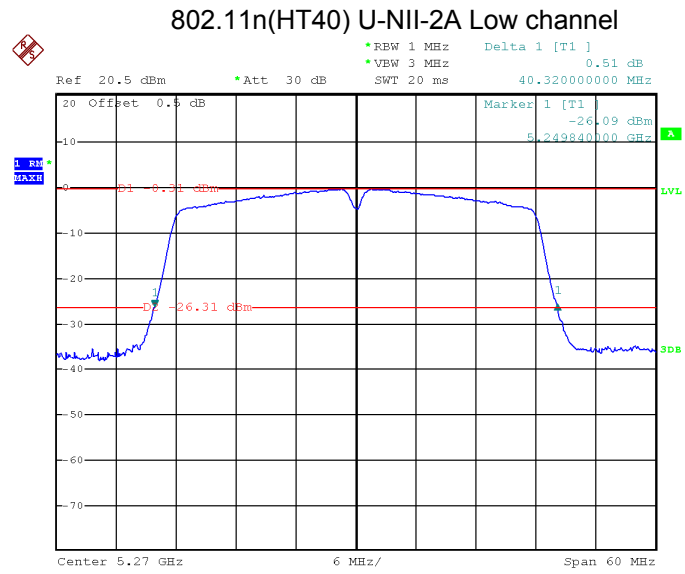
Date: 25.APR.2023 16:38:08



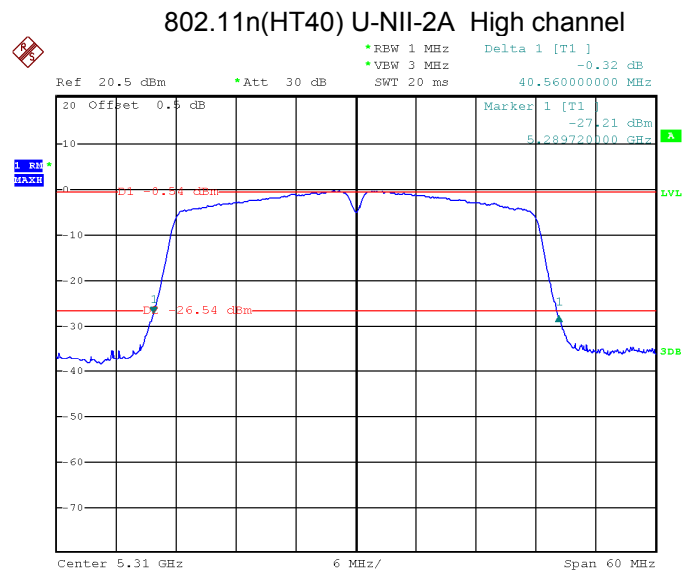
Date: 25.APR.2023 16:39:53



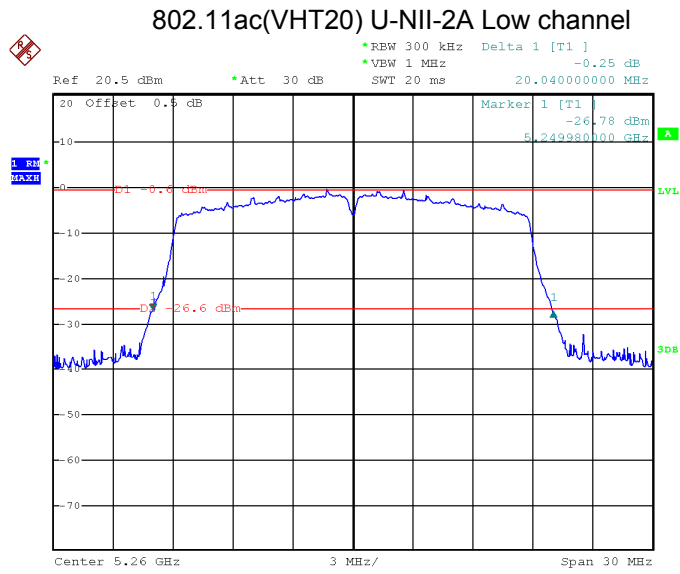
Date: 25.APR.2023 16:41:34



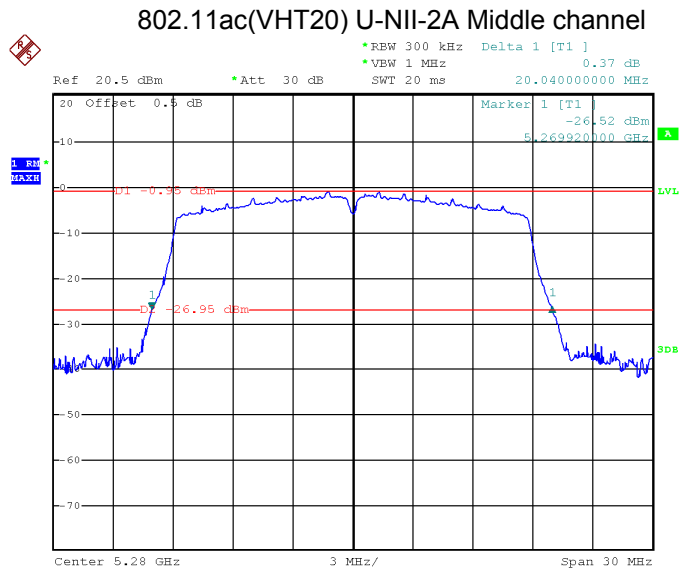
Date: 25.APR.2023 16:46:37



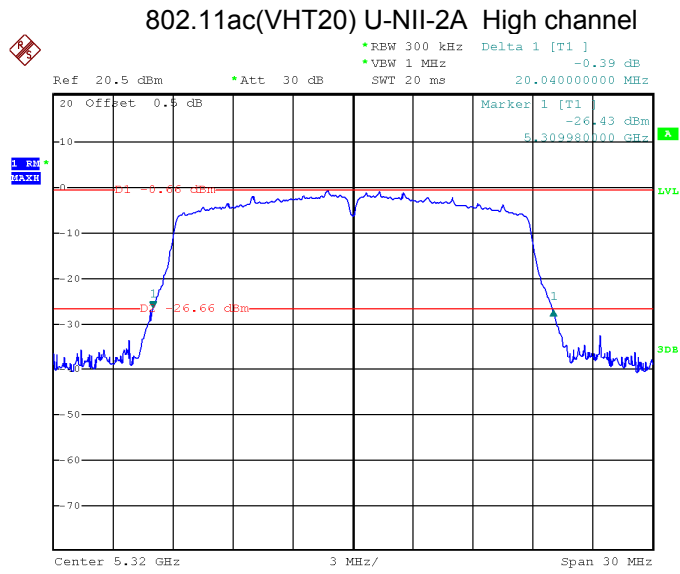
Date: 25.APR.2023 16:47:36



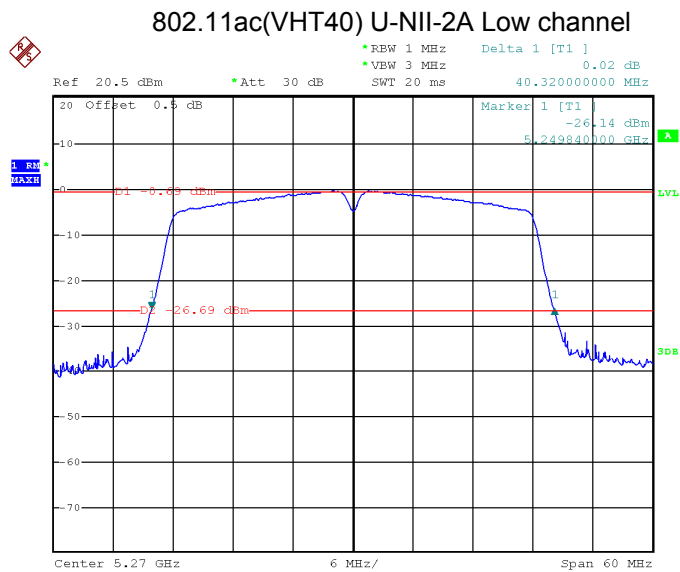
Date: 25.APR.2023 16:34:42



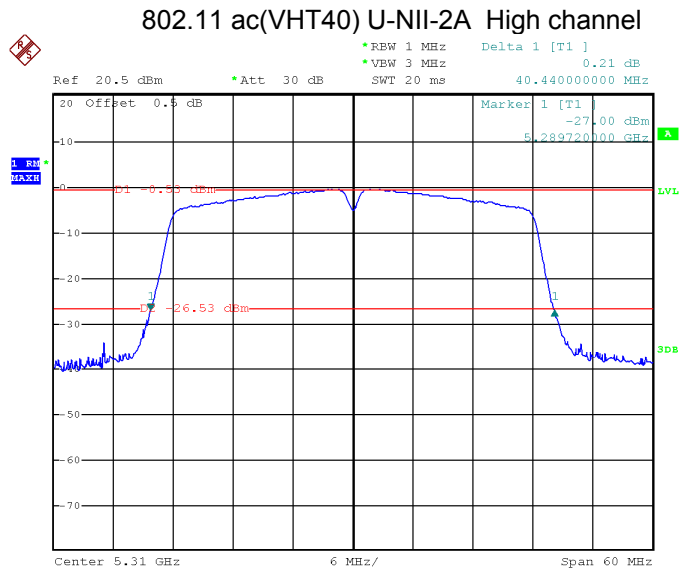
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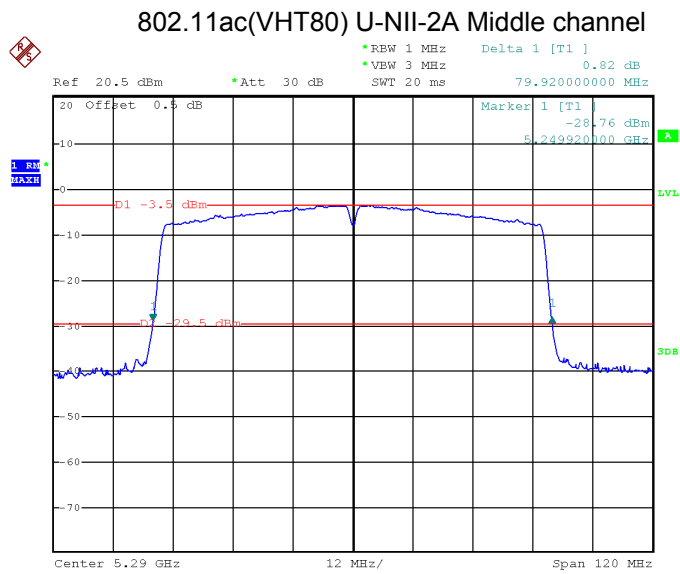
Date: 25.APR.2023 16:37:04



Date: 25.APR.2023 16:48:58

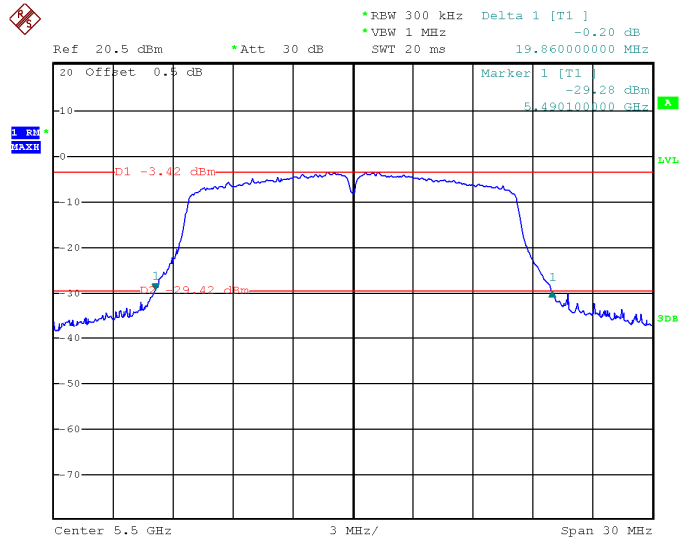


Date: 25.APR.2023 16:49:55



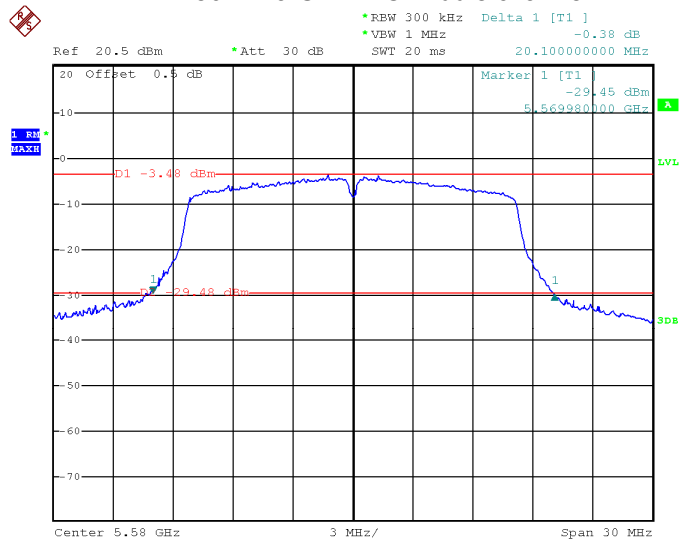
Date: 25.APR.2023 16:51:05

802.11a U-NII-2C Low channel

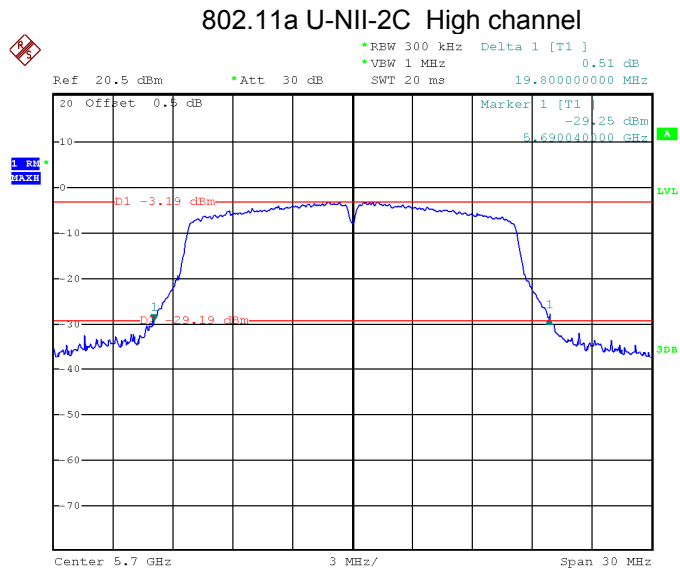


Date: 25.APR.2023 17:40:54

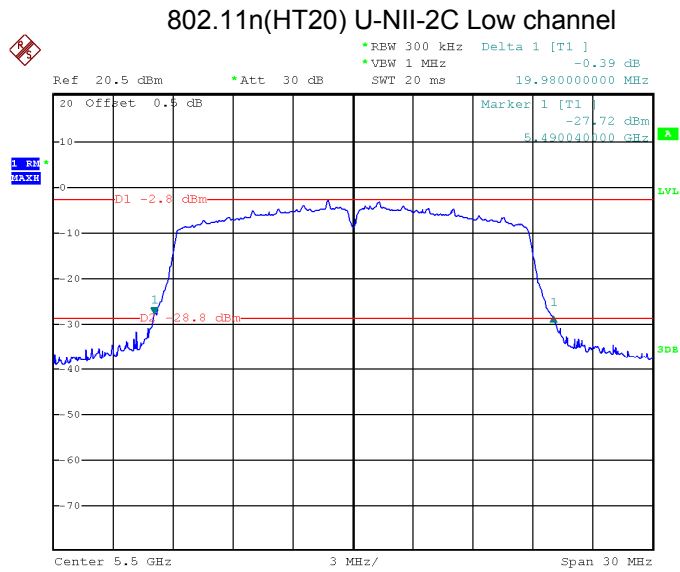
802.11a U-NII-2C Middle channel



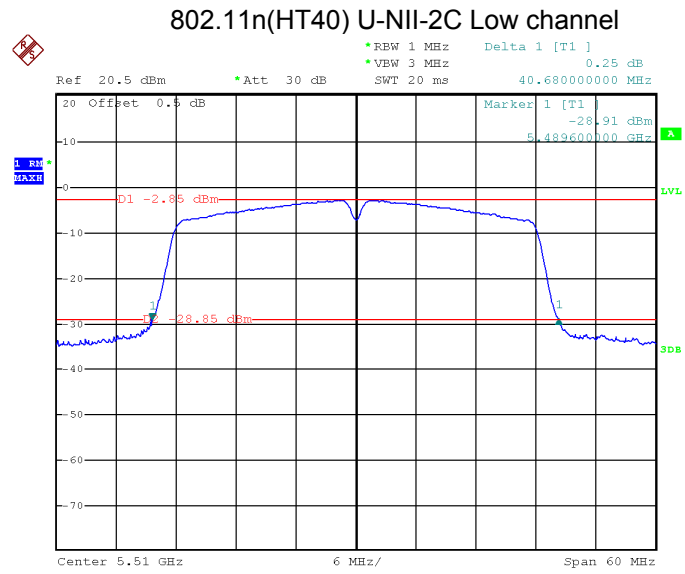
Date: 25.APR.2023 17:42:59



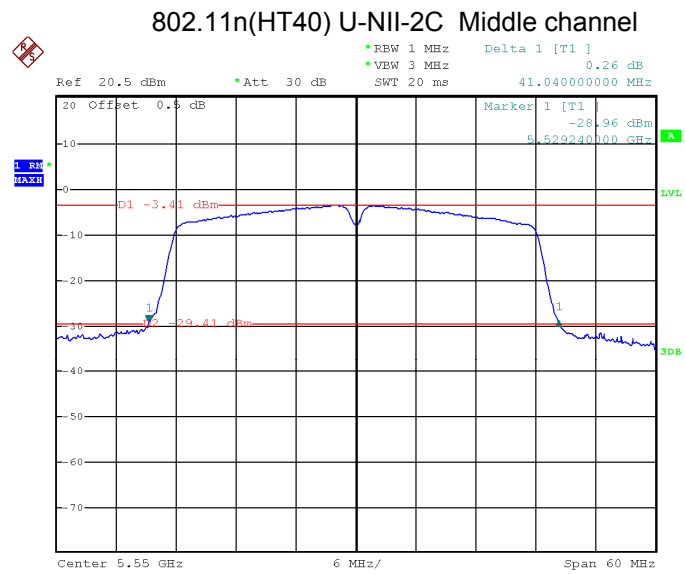
Date: 25.APR.2023 17:44:12



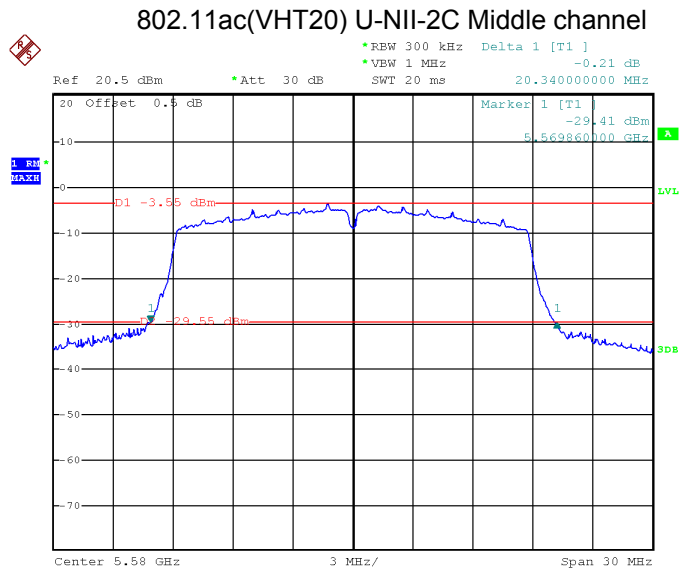
Date: 26.APR.2023 15:31:03



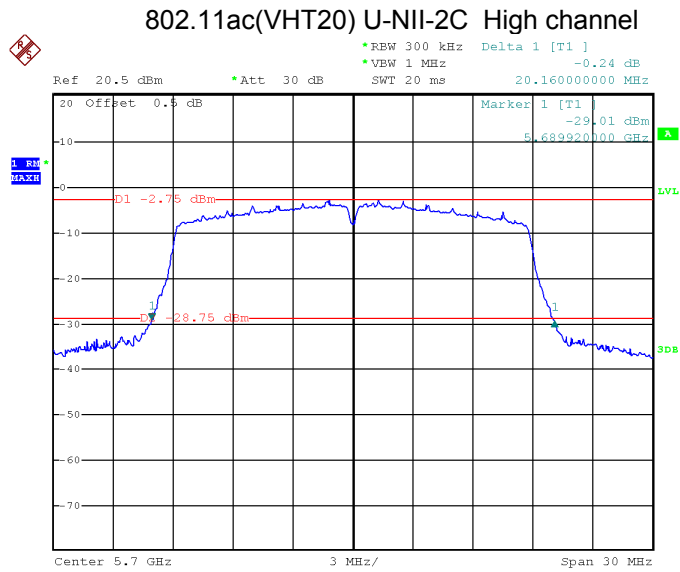
Date: 25.APR.2023 17:53:17



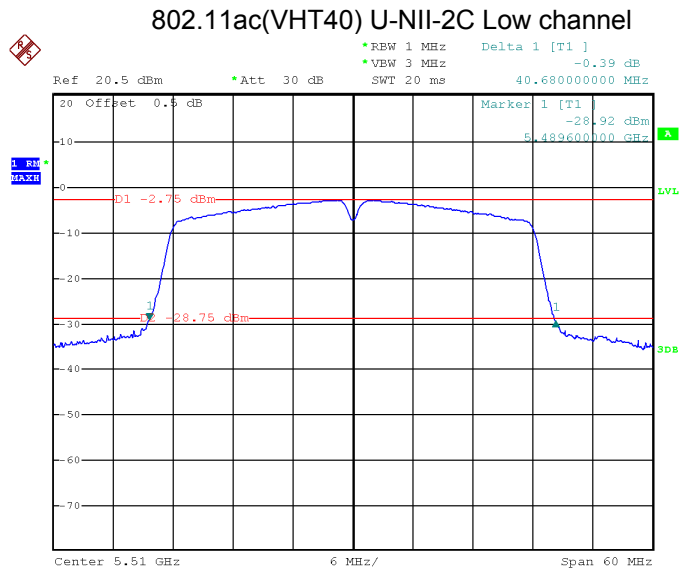
Date: 25.APR.2023 17:54:25



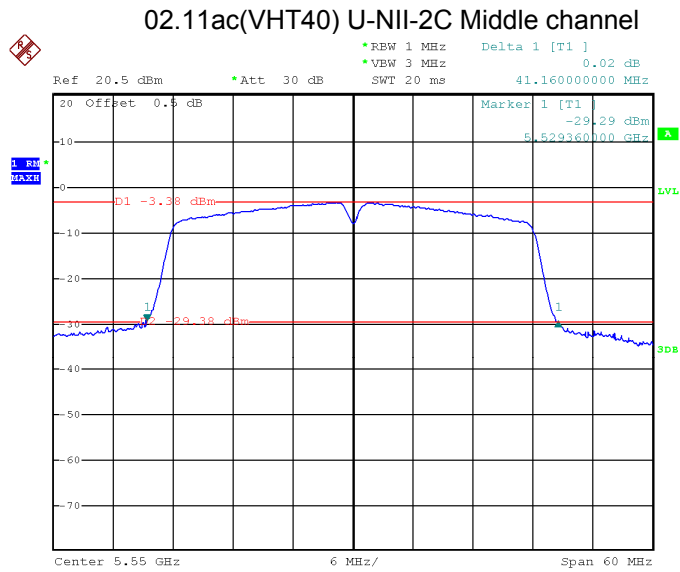
Date: 25.APR.2023 17:46:37



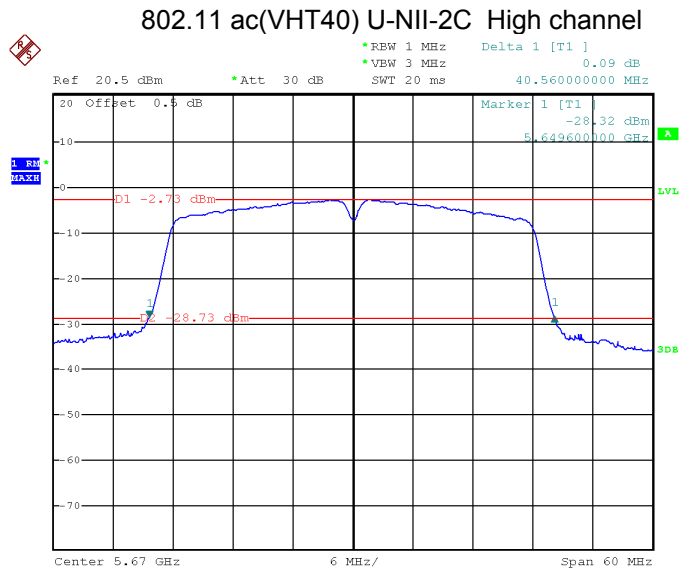
Date: 25.APR.2023 17:47:55



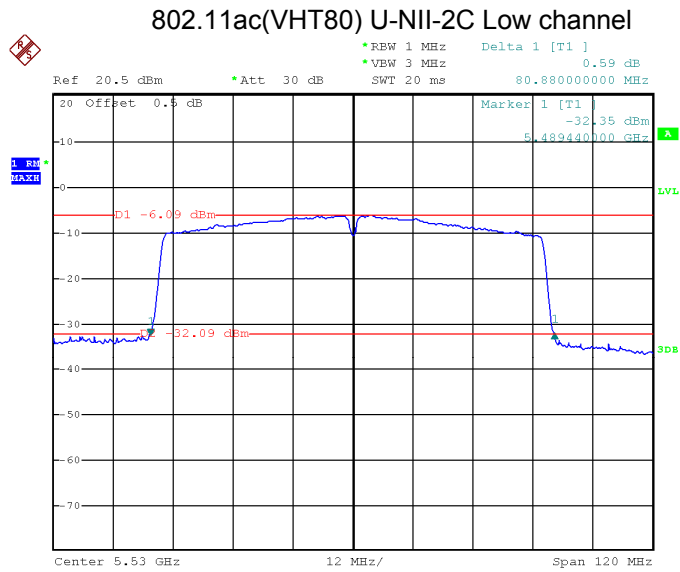
Date: 25.APR.2023 17:56:48



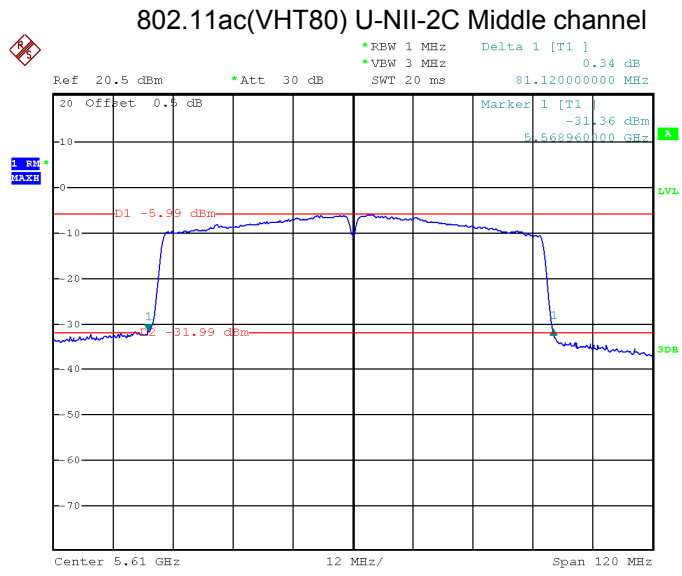
Date: 25.APR.2023 17:58:43



Date: 25.APR.2023 17:59:44



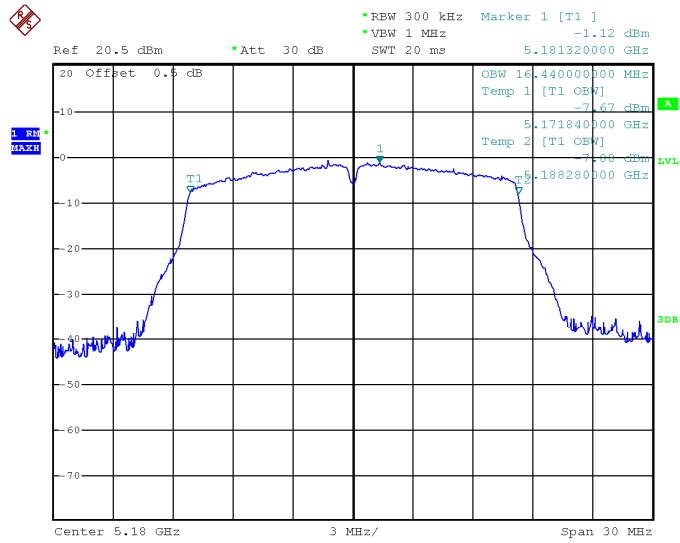
Date: 25.APR.2023 18:01:24



Date: 25.APR.2023 18:02:46

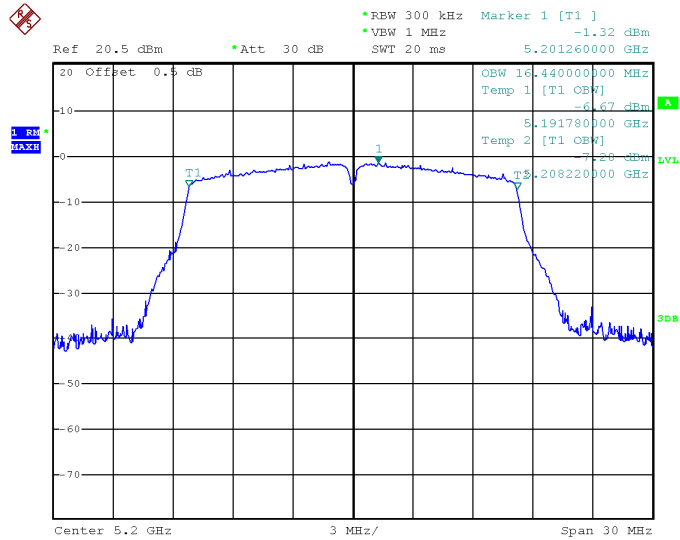
99% Occupied Bandwidth

802.11a U-NII-1 Low channel



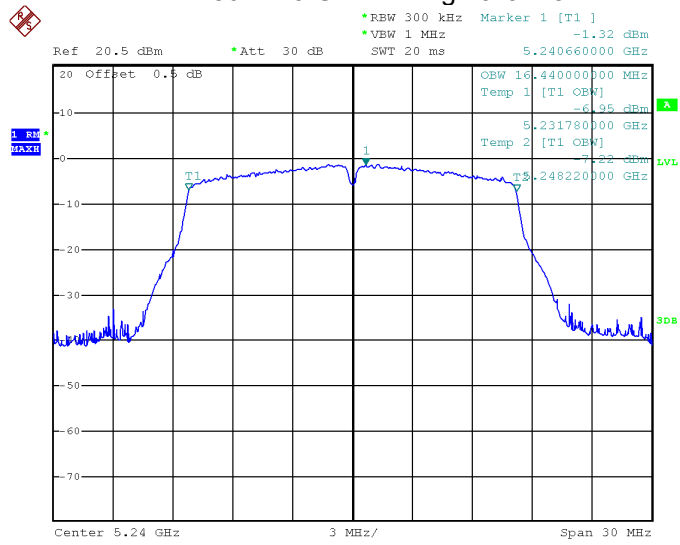
Date: 6.APR.2023 18:08:44

802.11a U-NII-1 Middle channel



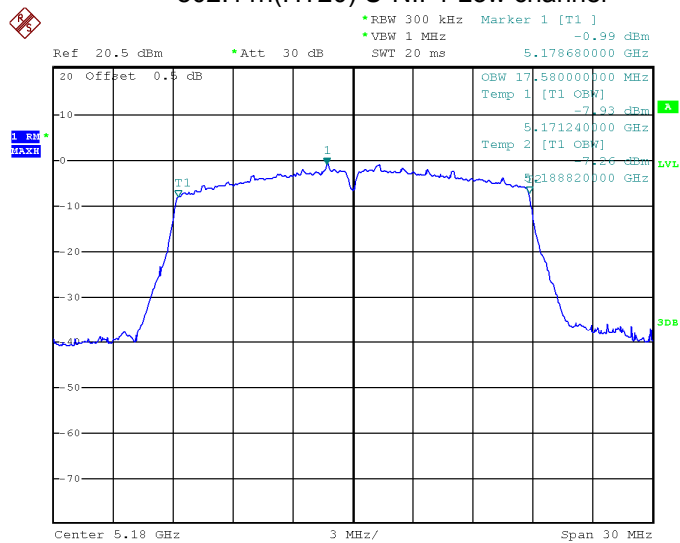
Date: 6.APR.2023 18:09:11

802.11a U-NII-1 High channel



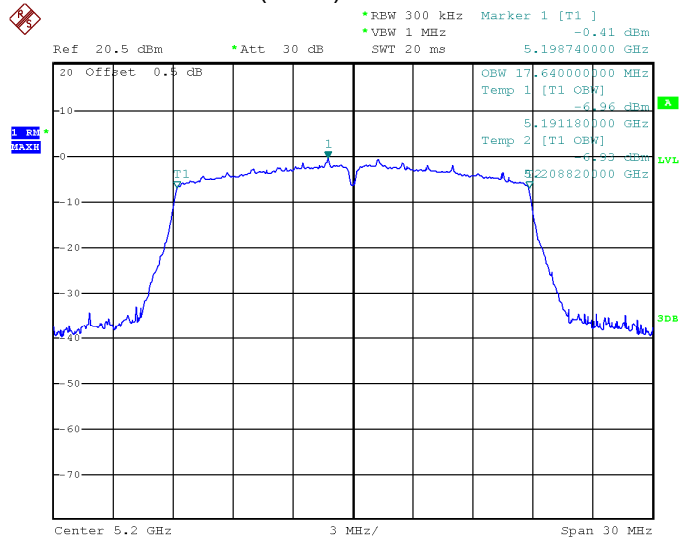
Date: 6.APR.2023 18:09:47

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



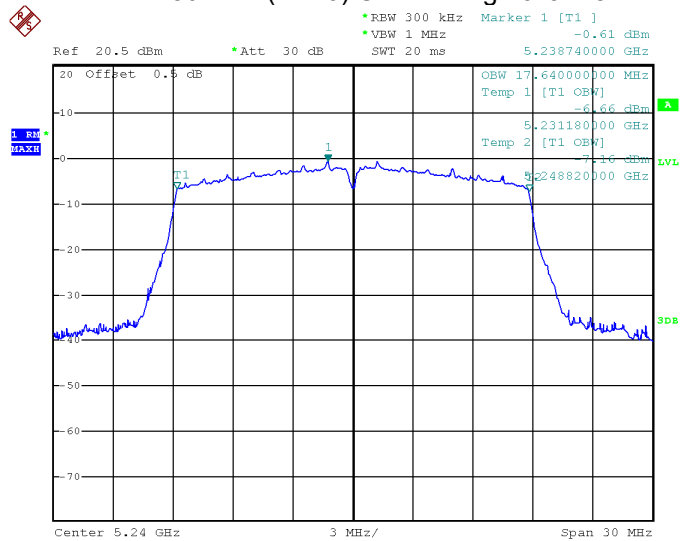
Date: 6.APR.2023 18:12:06

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



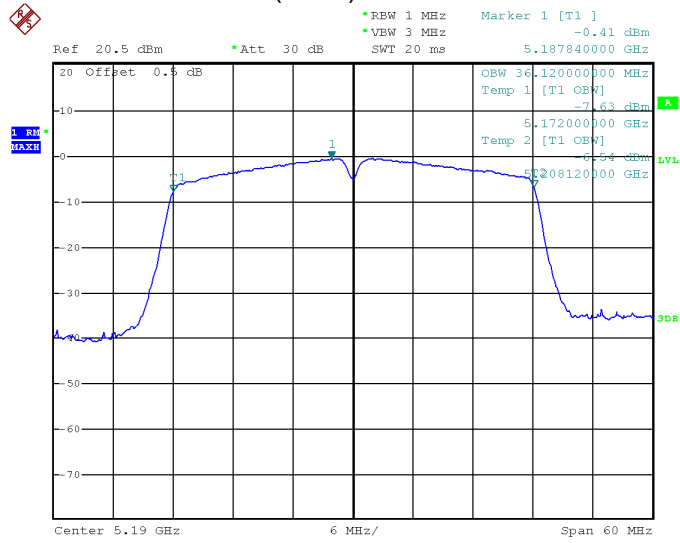
Date: 6.APR.2023 18:13:08

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



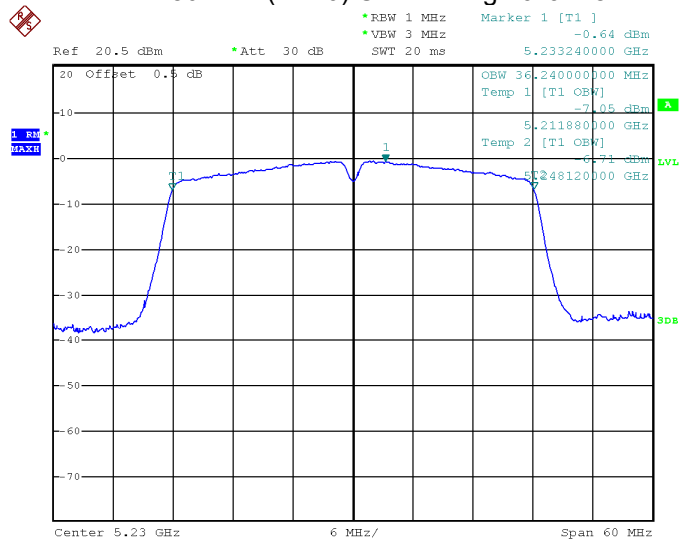
Date: 6.APR.2023 18:13:31

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



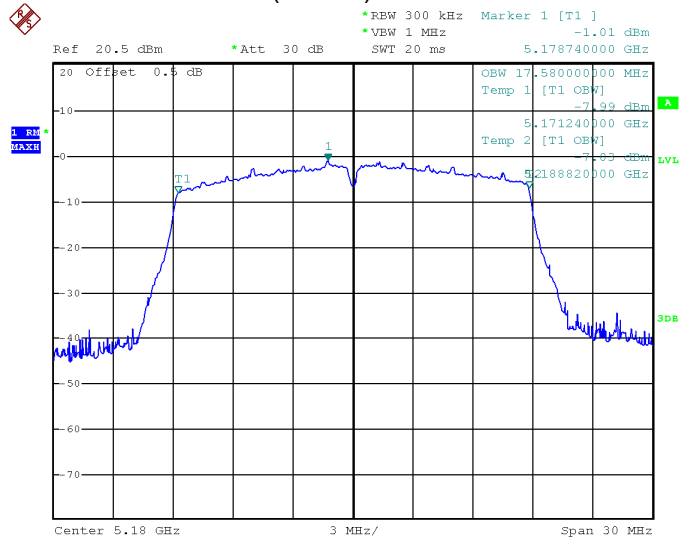
Date: 6.APR.2023 18:14:16

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



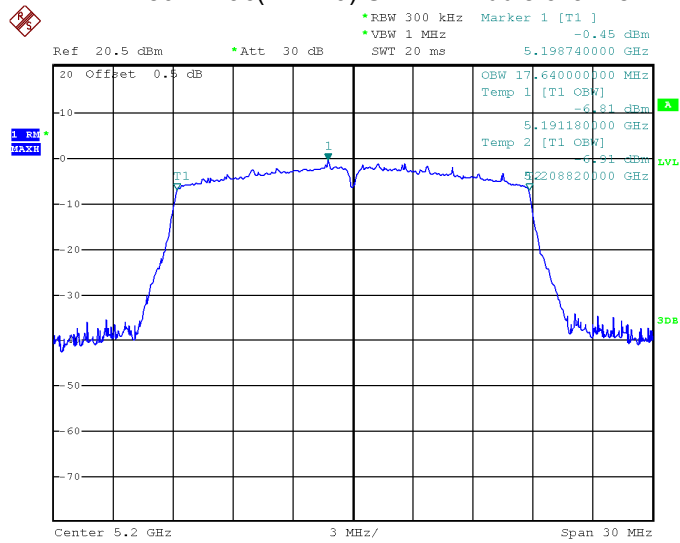
Date: 6.APR.2023 18:14:39

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

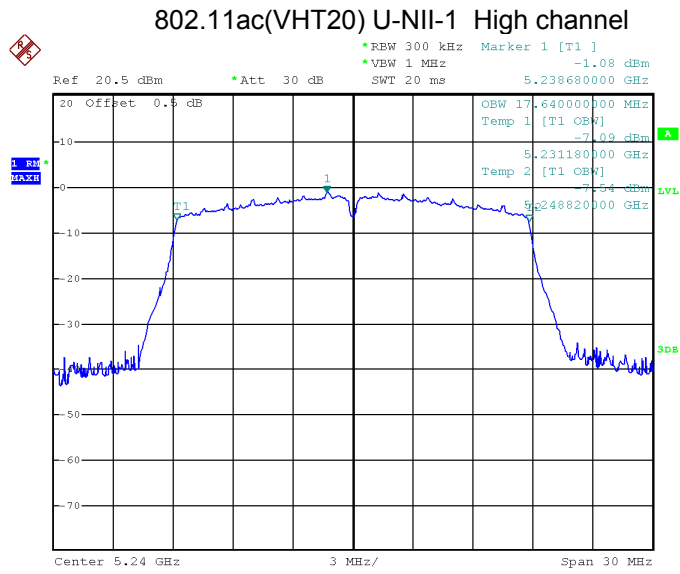


Date: 6.APR.2023 18:10:18

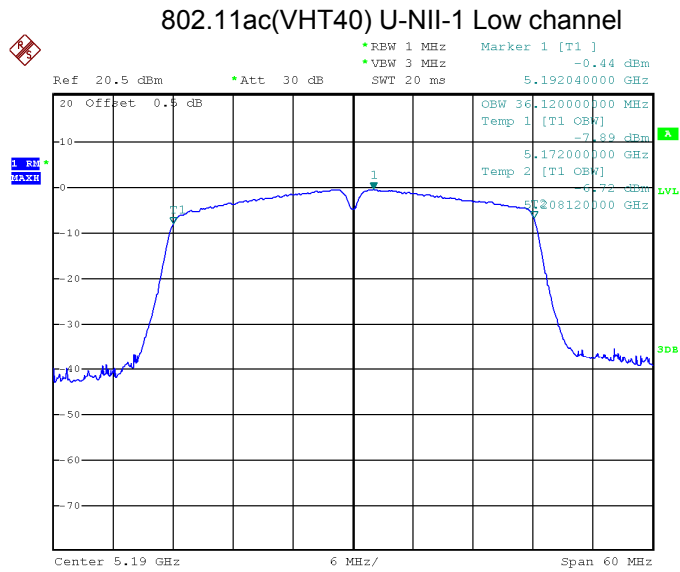
802.11ac(VHT20) U-NII-1 Middle channel



Date: 6.APR.2023 18:10:44

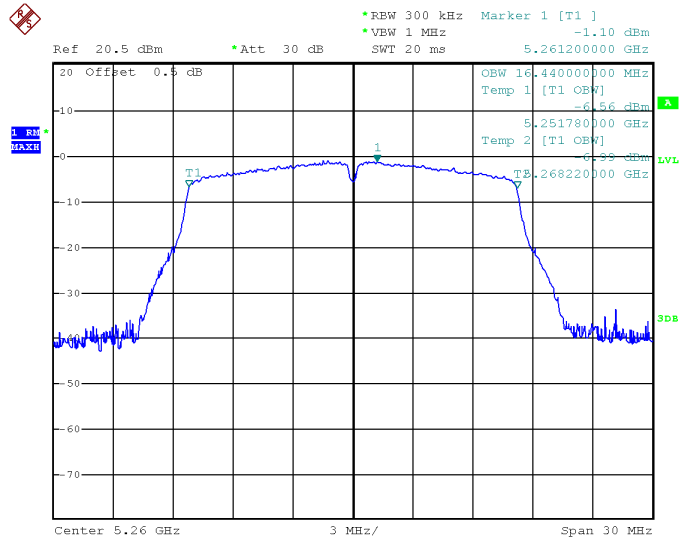


Date: 6.APR.2023 18:11:12



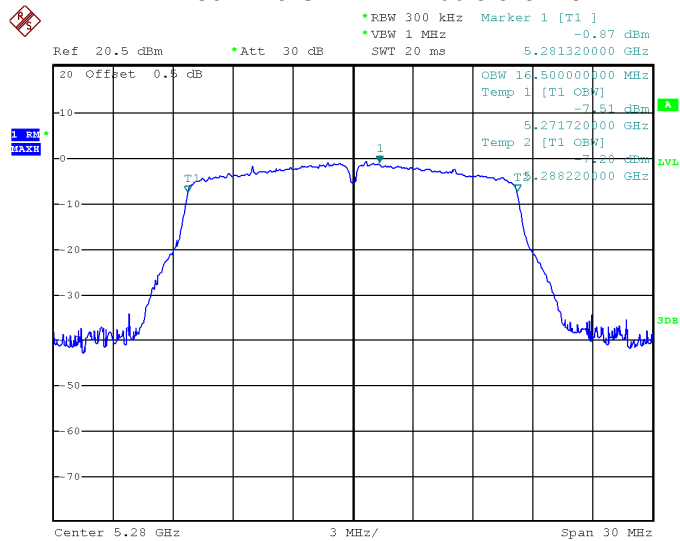
Date: 6.APR.2023 18:15:21

802.11a U-NII-2A Low channel



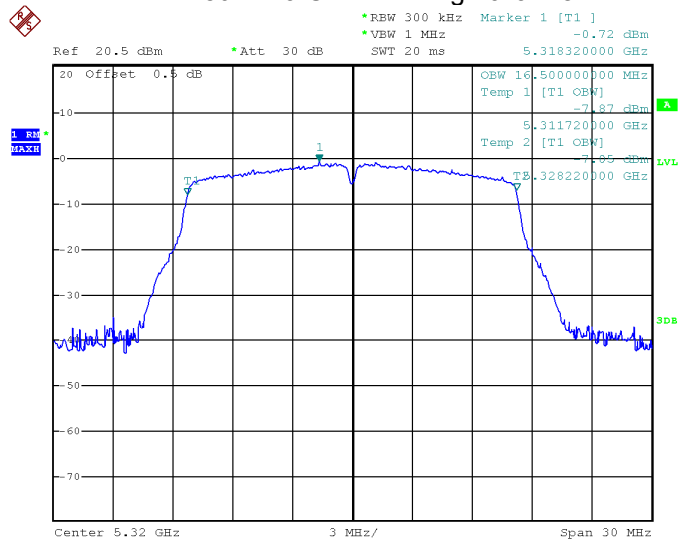
Date: 7.APR.2023 10:53:46

802.11a U-NII-2A Middle channel



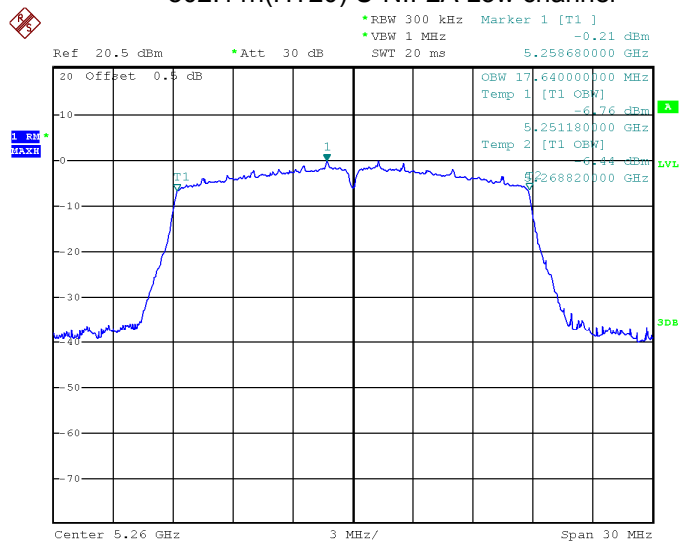
Date: 7.APR.2023 10:54:11

802.11a U-NII-2A High channel



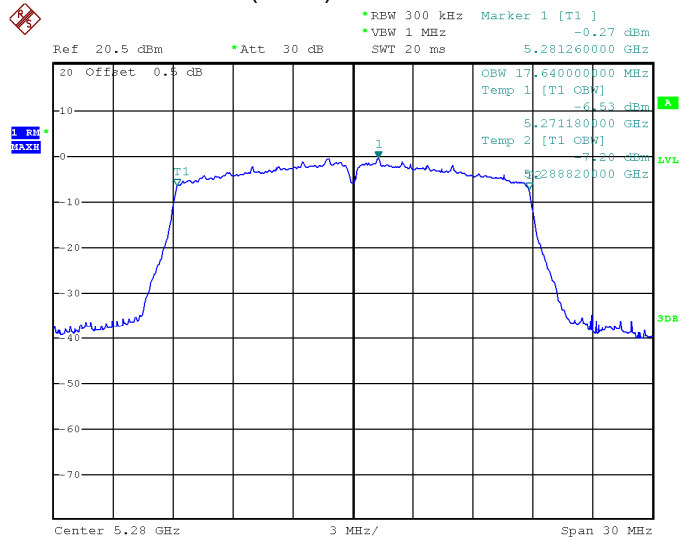
Date: 7.APR.2023 10:54:33

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



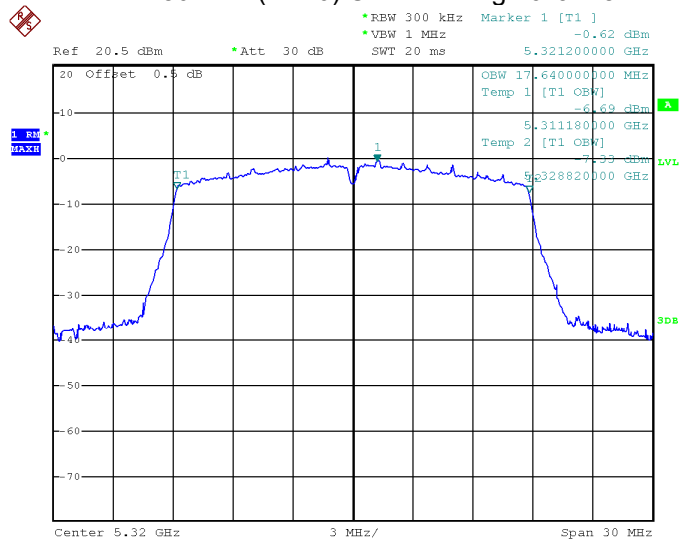
Date: 7.APR.2023 10:56:25

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

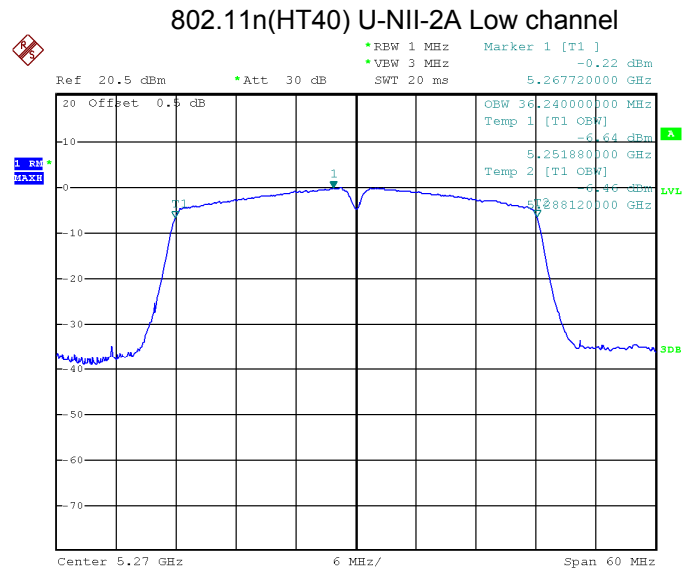


Date: 7.APR.2023 10:56:53

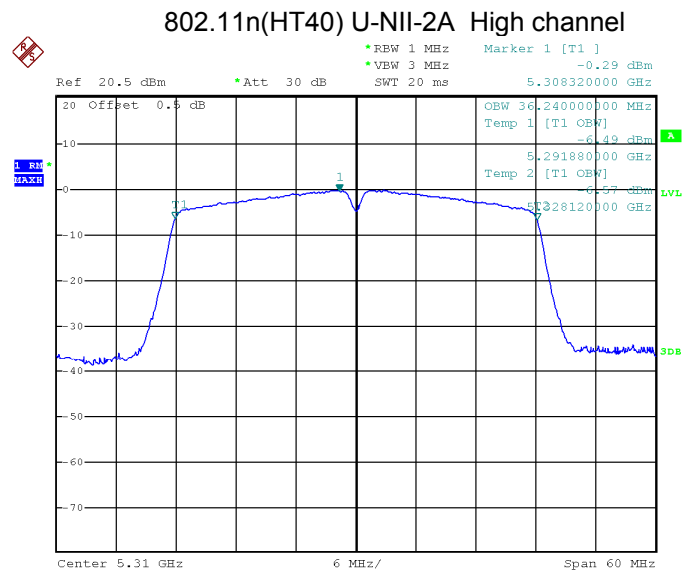
802.11n(HT20) U-NII-2A High channel



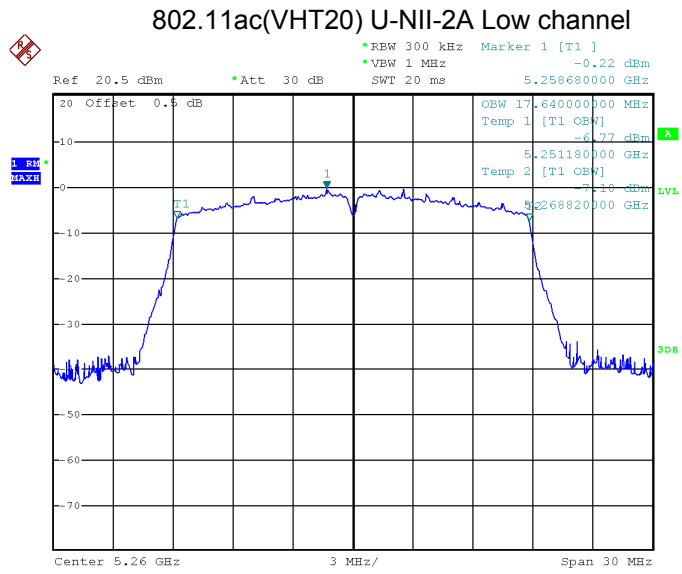
Date: 7.APR.2023 10:57:14



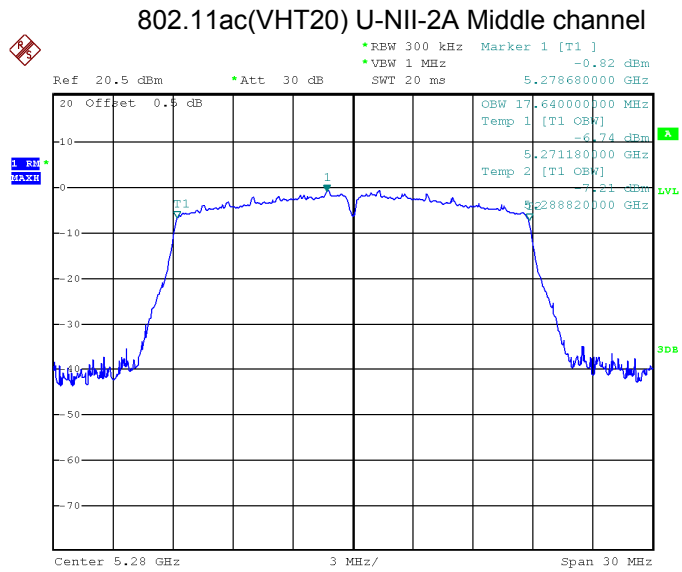
Date: 7.APR.2023 10:58:32



Date: 7.APR.2023 10:59:03

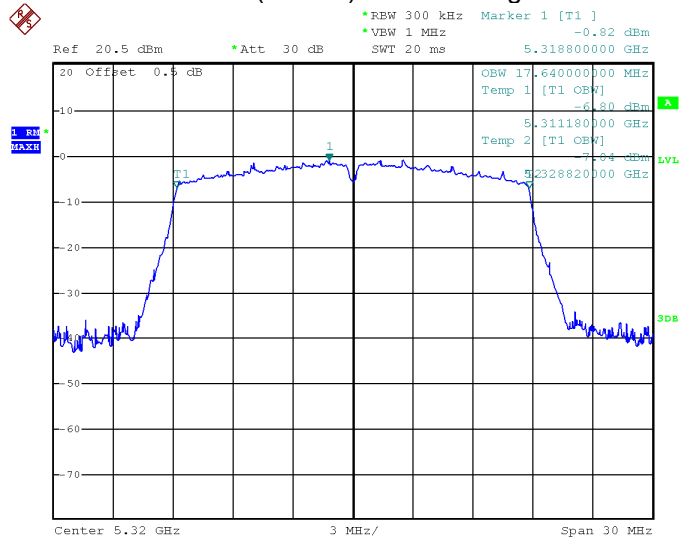


Date: 7.APR.2023 10:55:06



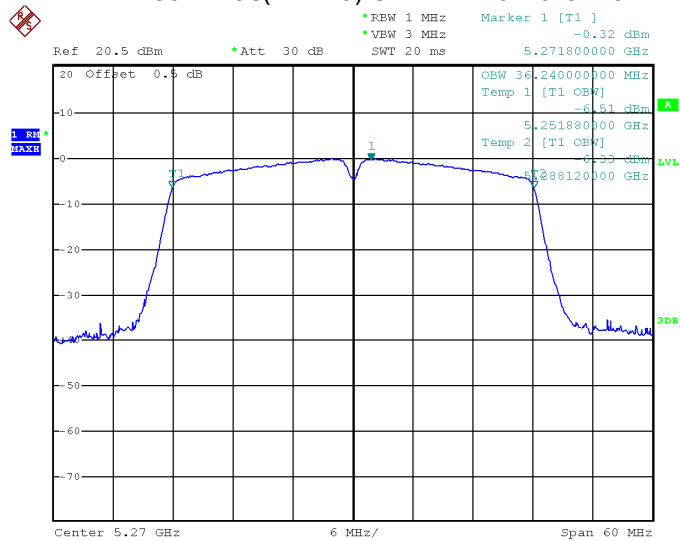
Date: 7.APR.2023 10:55:29

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

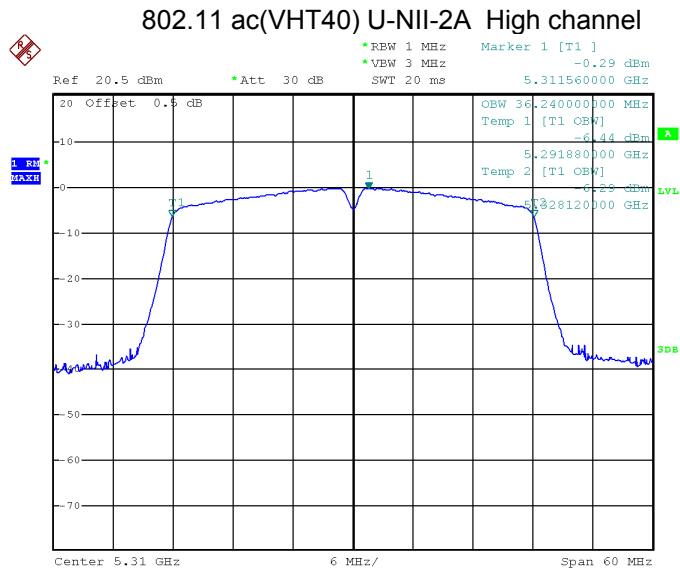


Date: 7.APR.2023 10:55:54

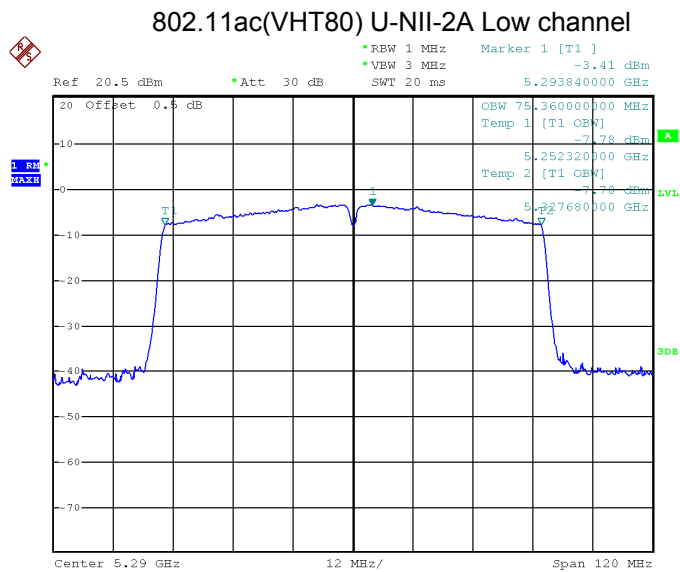
802.11ac(VHT40) U-NII-2A Low channel



Date: 7.APR.2023 10:59:32

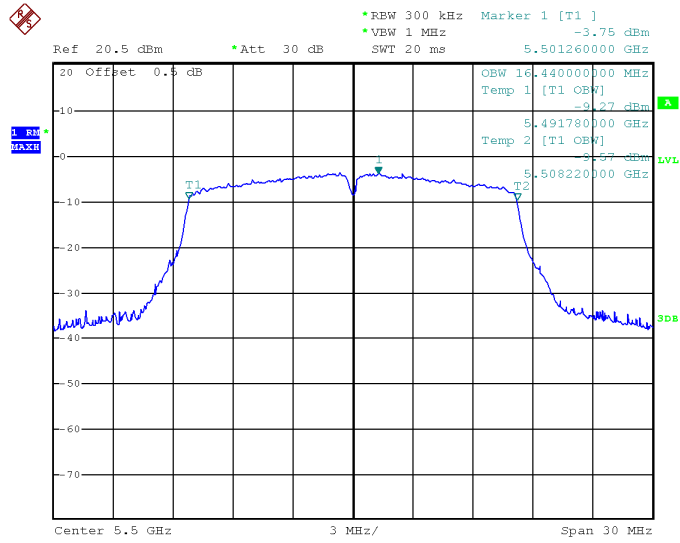


Date: 7.APR.2023 10:59:53



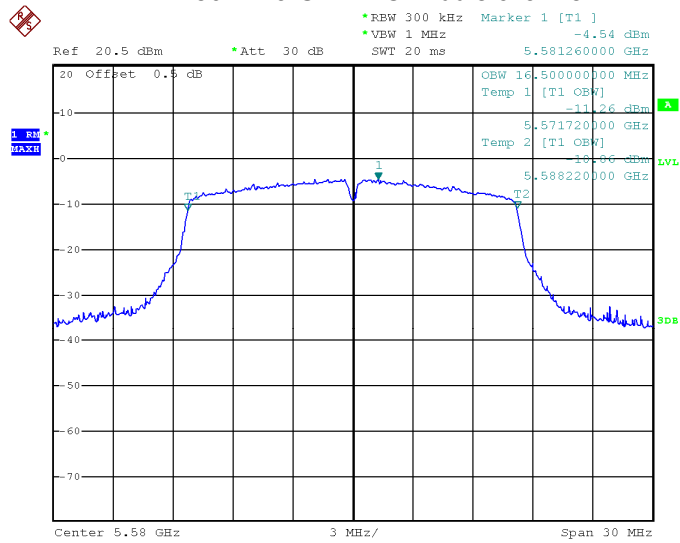
Date: 7.APR.2023 11:00:27

802.11a U-NII-2C Low channel



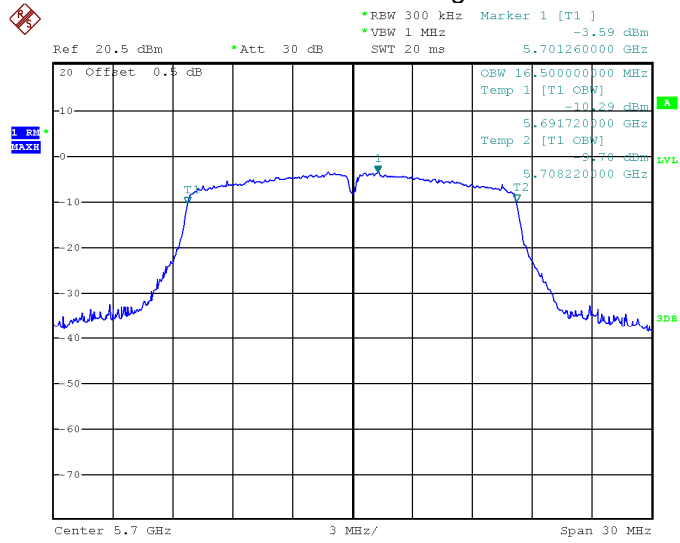
Date: 7.APR.2023 11:51:03

802.11a U-NII-2C Middle channel



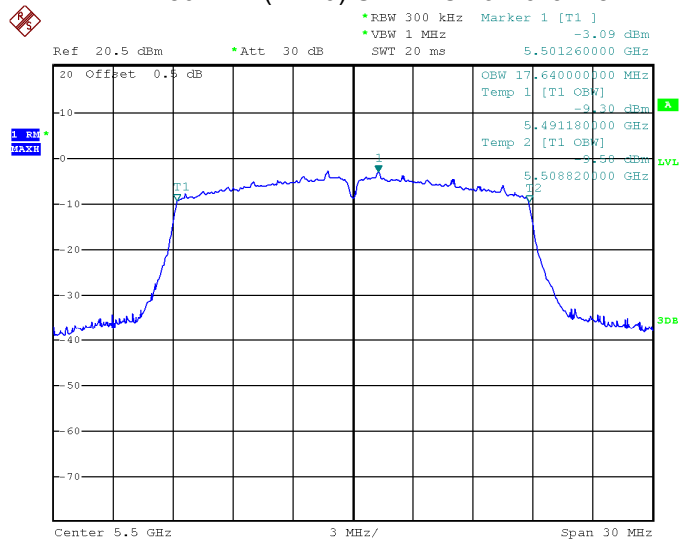
Date: 7.APR.2023 11:51:29

802.11a U-NII-2C High channel



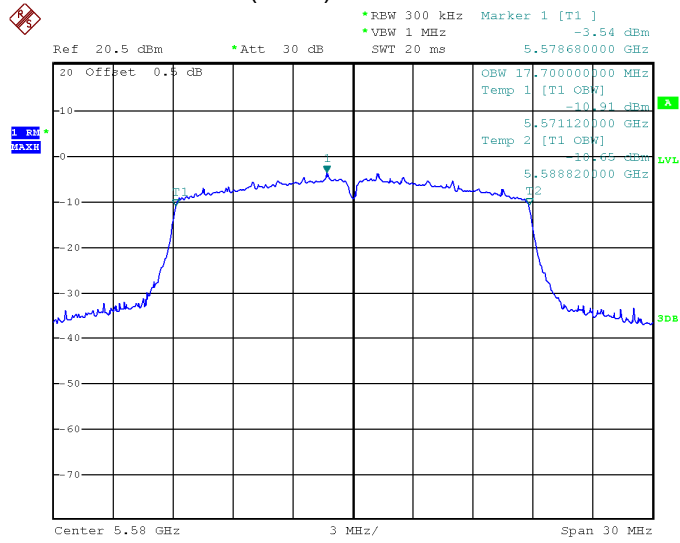
Date: 7.APR.2023 11:51:56

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



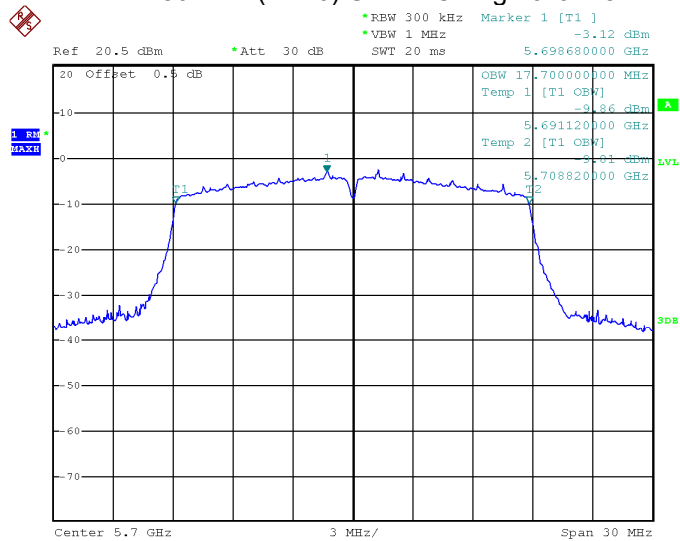
Date: 7.APR.2023 11:54:06

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

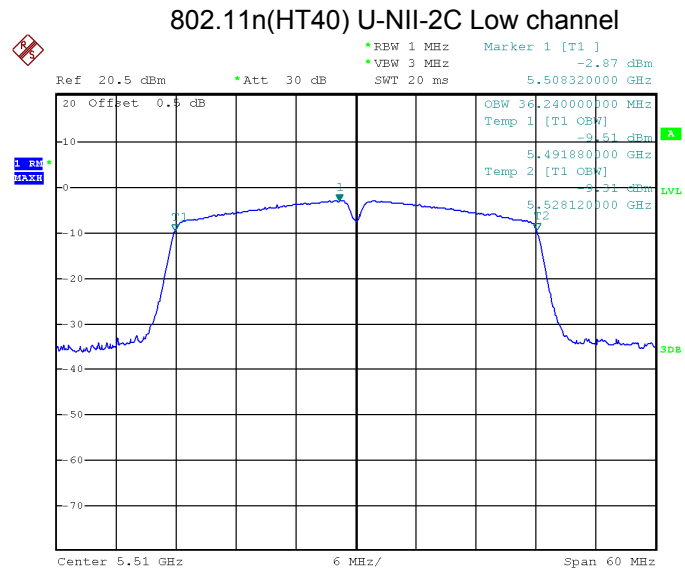


Date: 7.APR.2023 11:54:25

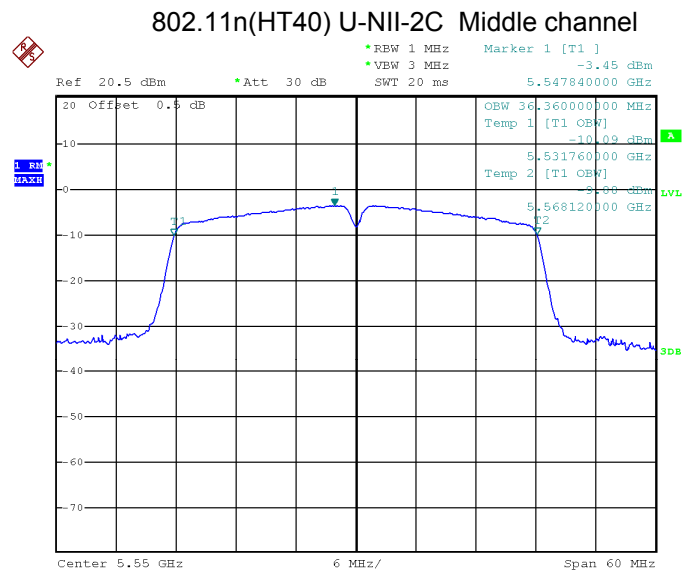
802.11n(HT20) U-NII-2C High channel



Date: 7.APR.2023 11:54:45

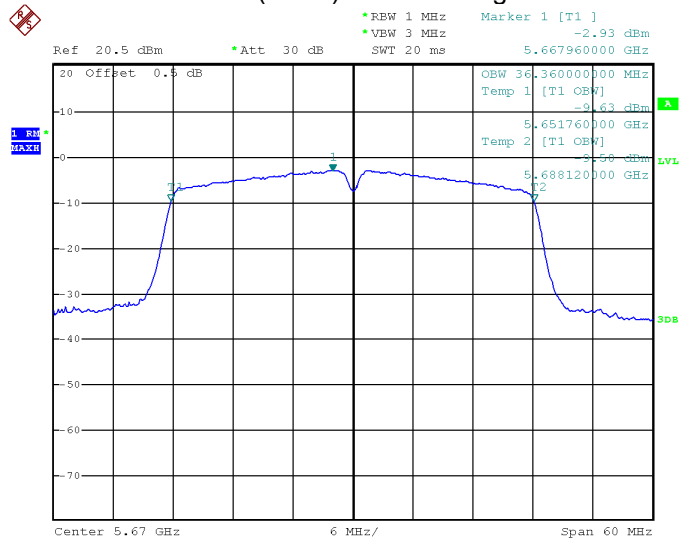


Date: 7.APR.2023 11:56:28



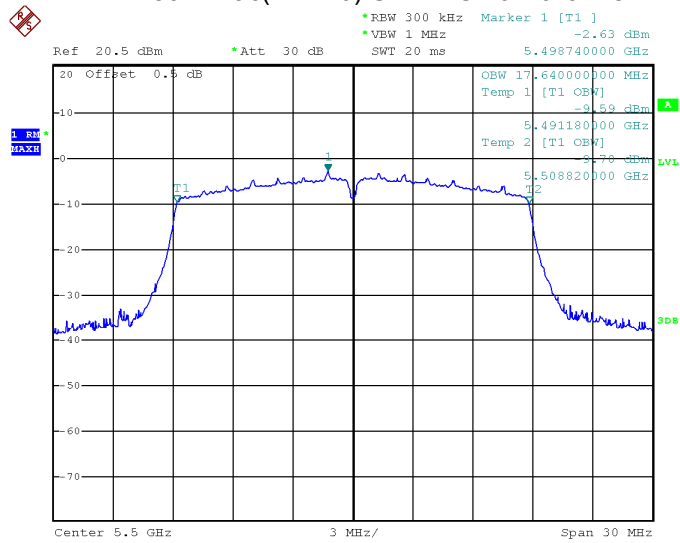
Date: 7.APR.2023 11:56:10

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

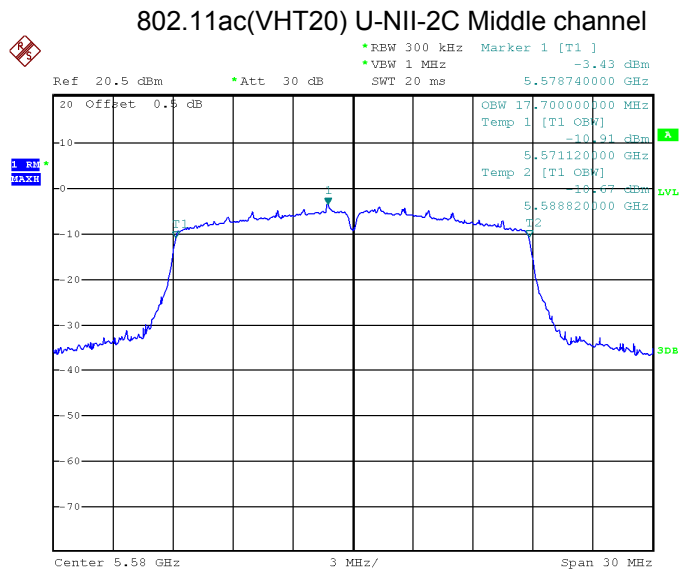


Date: 7.APR.2023 11:56:55

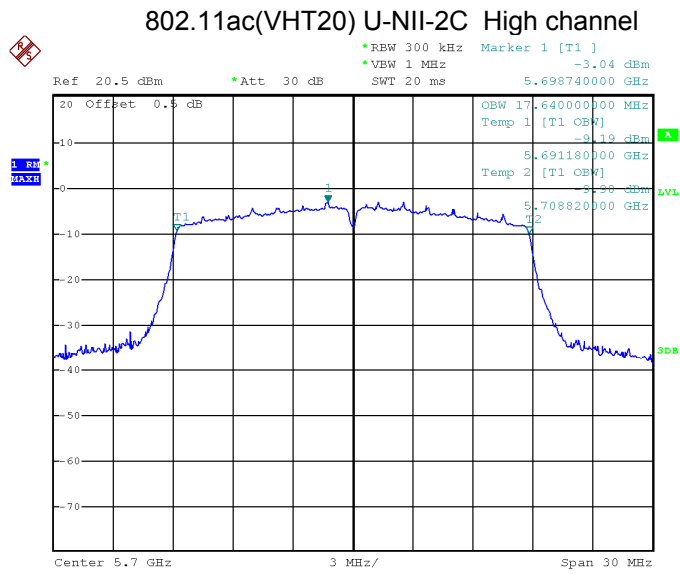
802.11ac(VHT20) U-NII-2C Low channel



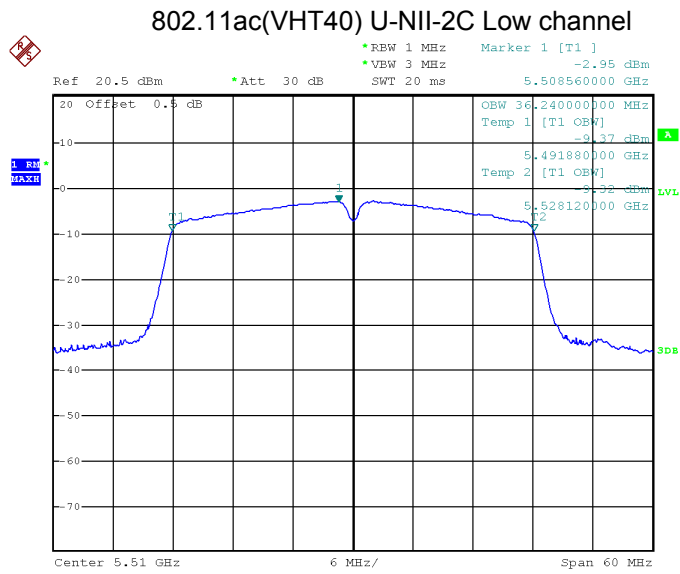
Date: 7.APR.2023 11:52:32



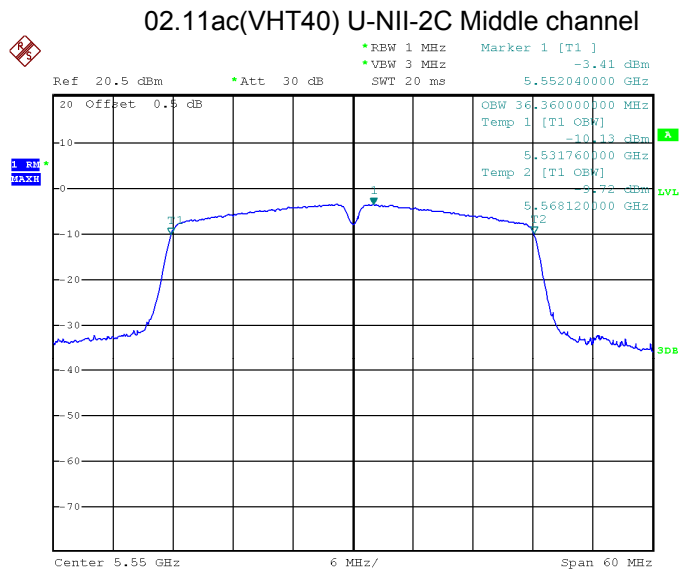
Date: 7.APR.2023 11:52:58



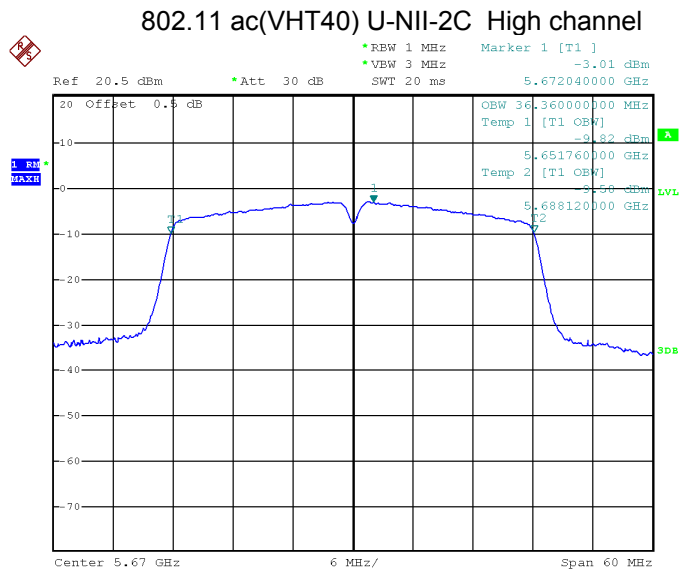
Date: 7.APR.2023 11:53:31



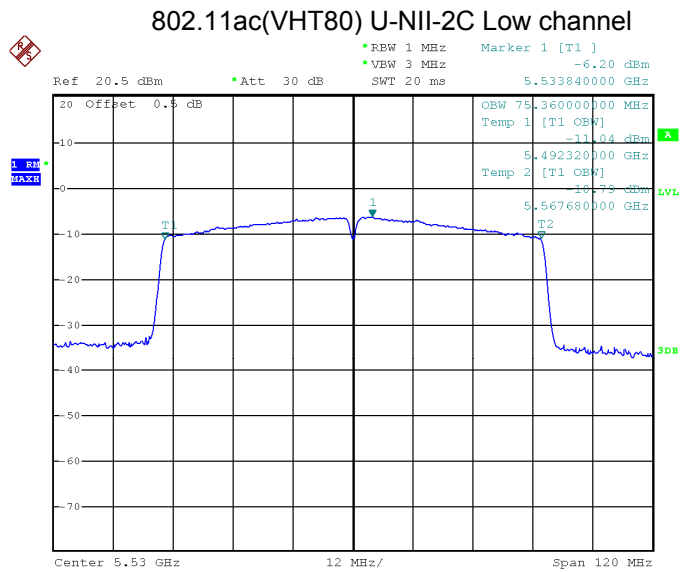
Date: 7.APR.2023 11:57:39



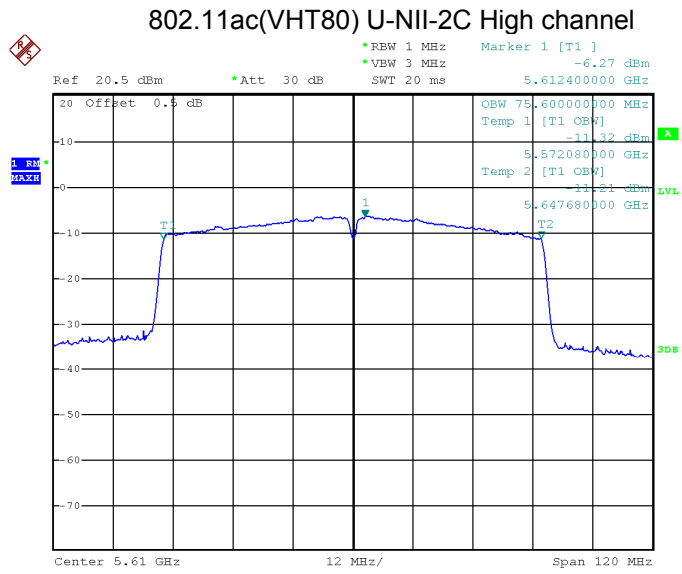
Date: 7.APR.2023 11:58:07



Date: 7.APR.2023 11:58:39

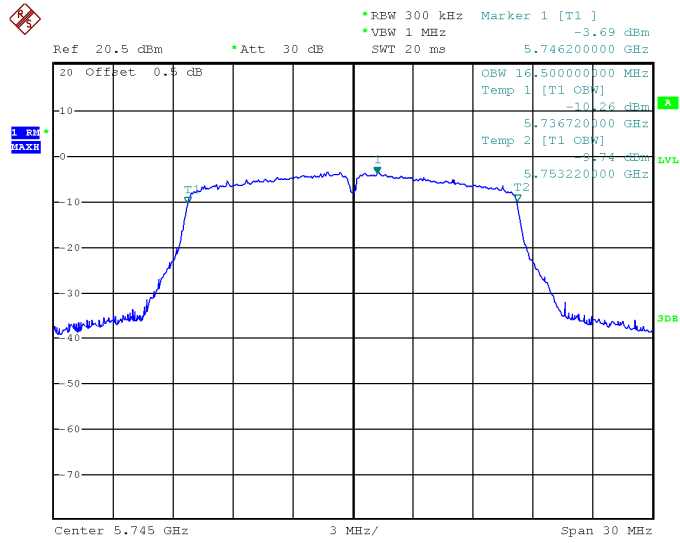


Date: 7.APR.2023 12:03:10



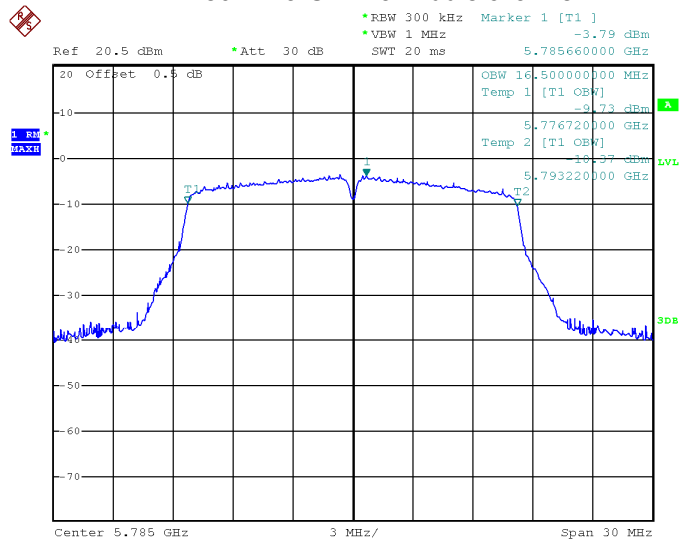
Date: 7.APR.2023 12:03:38

802.11a U-NII-3 Low channel



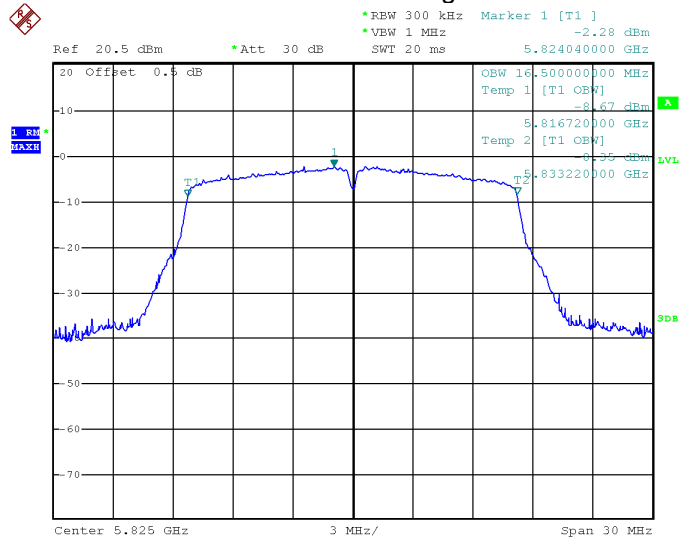
Date: 7.APR.2023 15:27:31

802.11a U-NII-3 Middle channel



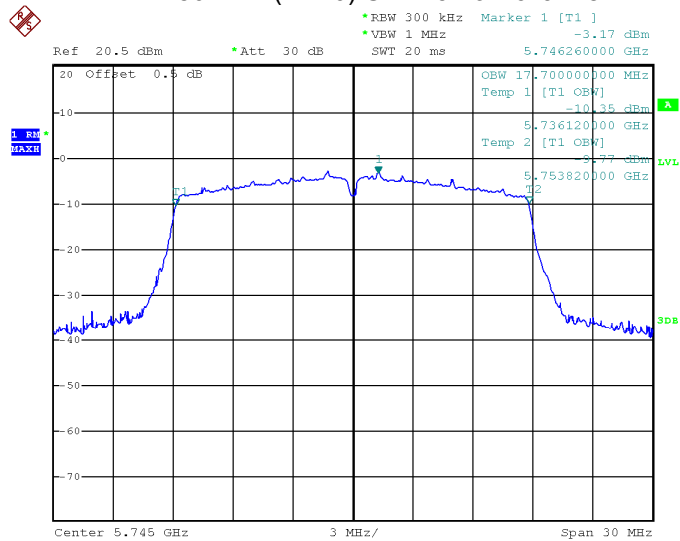
Date: 7.APR.2023 15:27:57

802.11a U-NII-3 High channel



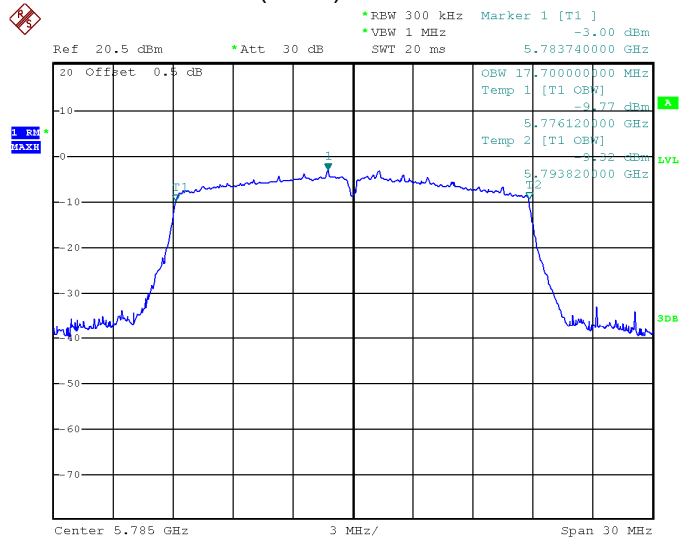
Date: 7.APR.2023 15:28:20

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



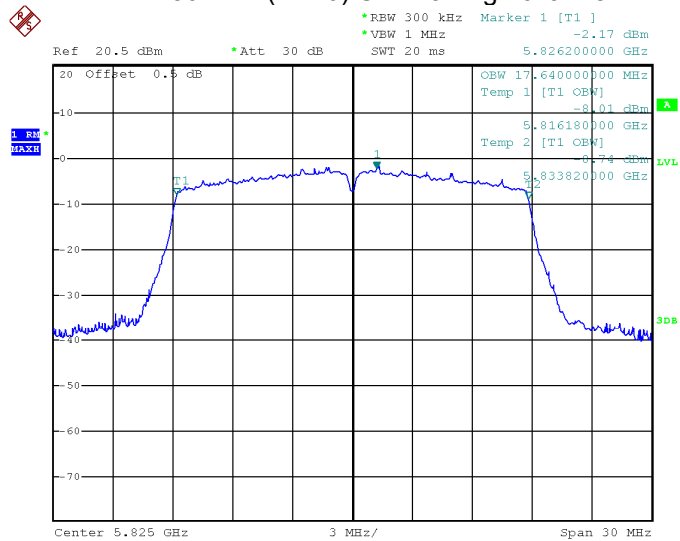
Date: 7.APR.2023 15:31:11

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



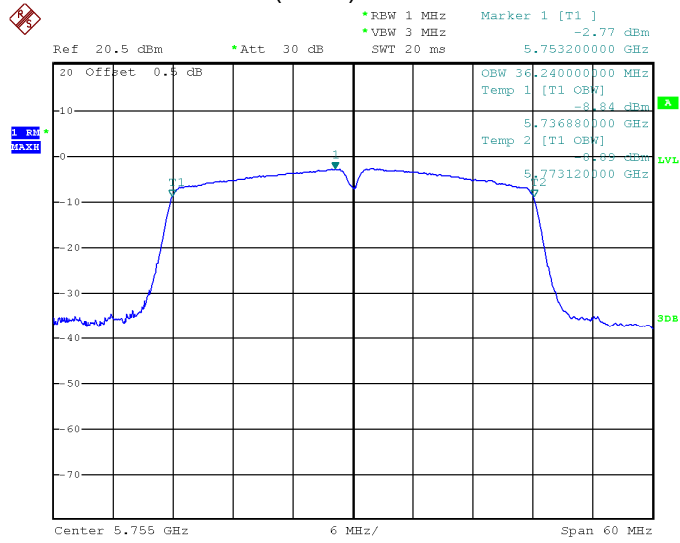
Date: 7.APR.2023 15:31:34

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



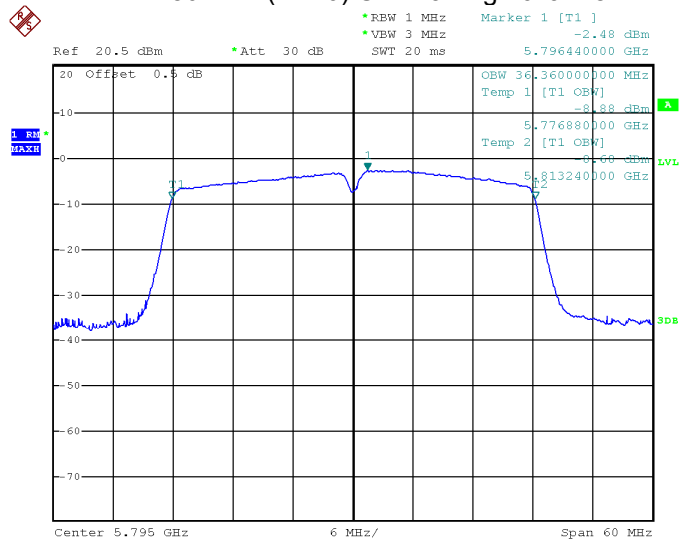
Date: 7.APR.2023 15:32:04

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



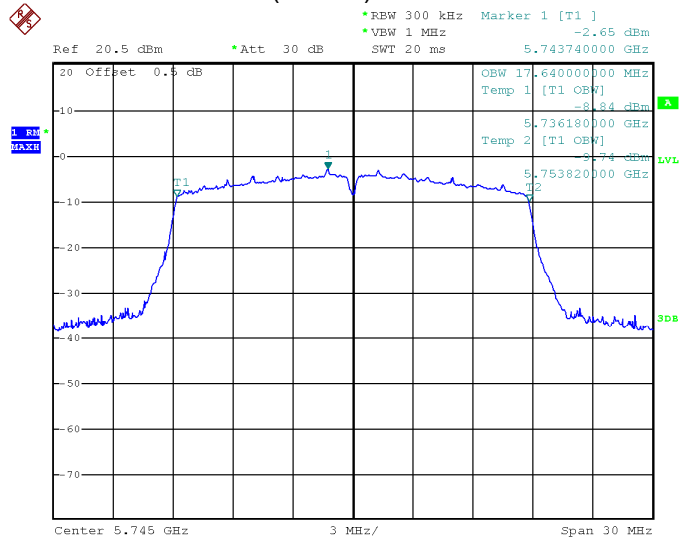
Date: 7.APR.2023 15:32:51

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



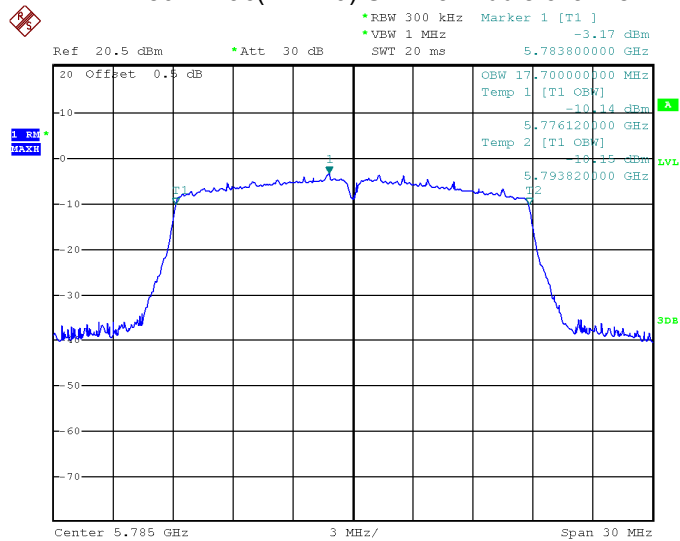
Date: 7.APR.2023 15:33:13

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



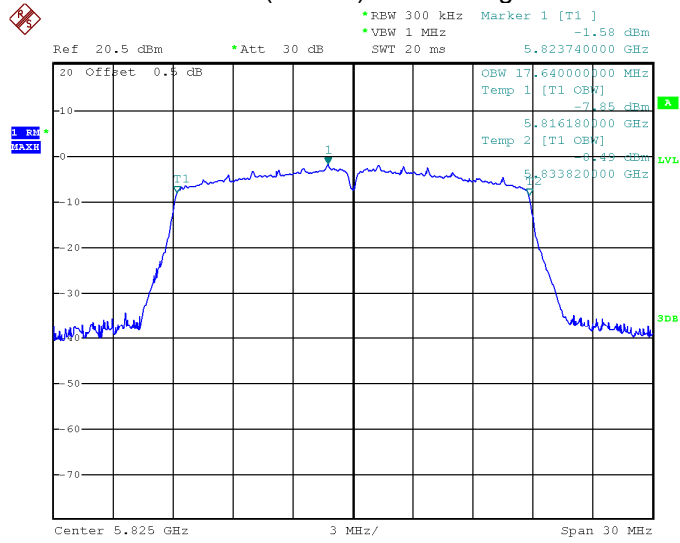
Date: 7.APR.2023 15:29:48

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



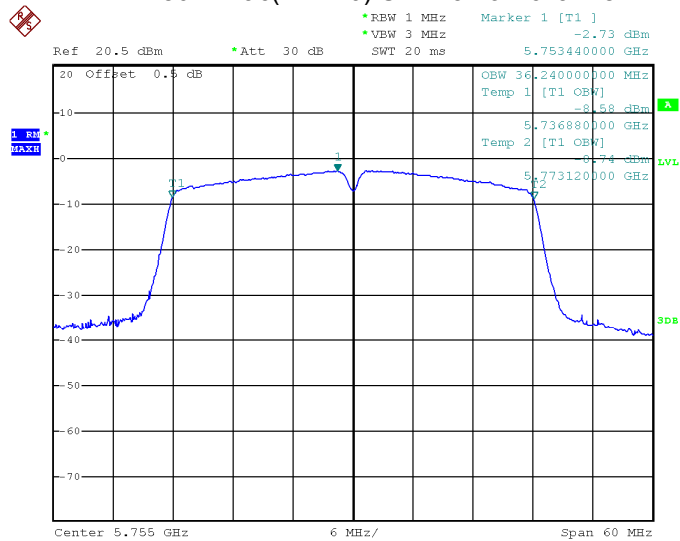
Date: 7.APR.2023 15:30:12

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

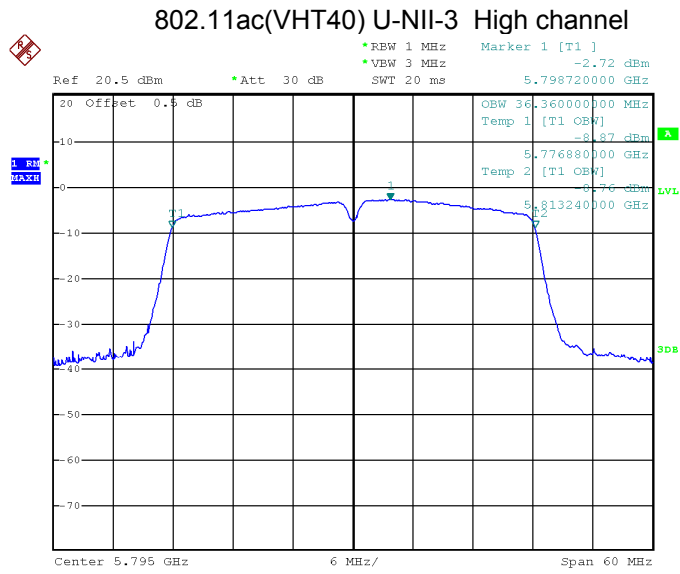


Date: 7.APR.2023 15:30:37

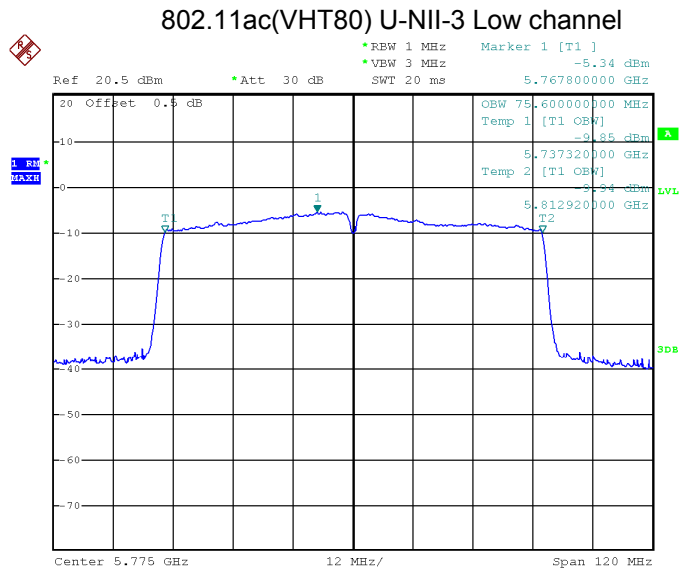
802.11ac(VHT40) U-NII-3 Low channel



Date: 7.APR.2023 15:33:42



Date: 7.APR.2023 15:34:03



Date: 7.APR.2023 15:34:35

12 Conducted Output Power

Test Requirement:	FCC 47CFR Part 15 Section 15.407(a) KDB662911 D01 Multiple Transmitter Output v02r01
Test Method:	KDB789033 D02 General U-NII Test Procedures New Rules v02r01 Section E
Test Limit:	U-NII-1 250mW(24dBm) U-NII-2A 250mW(24dBm) U-NII-2C 250mW(24dBm) U-NII-3 1W(30dBm)
Test Result:	PASS Conducted output power= measurement power+10log(1/x)
Remark:	X is duty cycle=1, so 10log(1/1)=0 Conducted output power= measurement power

12.1 Test Procedure

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Set the spectrum analyzer: RBW = 1 MHz. VBW = 3 MHz. Sweep = auto; Detector Function = Peak, Set the span to fully encompass the DTS bandwidth.
3. Keep the EUT in transmitting at lowest, medium and highest channel individually. Record the max value.

12.2 Test Result

Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-1	802.11a	9.56	9.83	10.48
	802.11n(HT20)	9.57	9.69	10.28
	802.11n(HT40)	9.70	/	10.01
	802.11ac(VHT20)	9.53	9.74	10.32
	802.11ac(VHT40)	9.67	/	10.07
	802.11ac(VHT80)	/	9.84	/

Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-2A	802.11a	10.71	10.65	10.56
	802.11n(HT20)	10.51	10.50	10.36
	802.11n(HT40)	10.47	/	10.50
	802.11ac(VHT20)	10.22	10.56	10.46
	802.11ac(VHT40)	10.46	10.63	10.51
	802.11ac(VHT80)	/	10.63	/

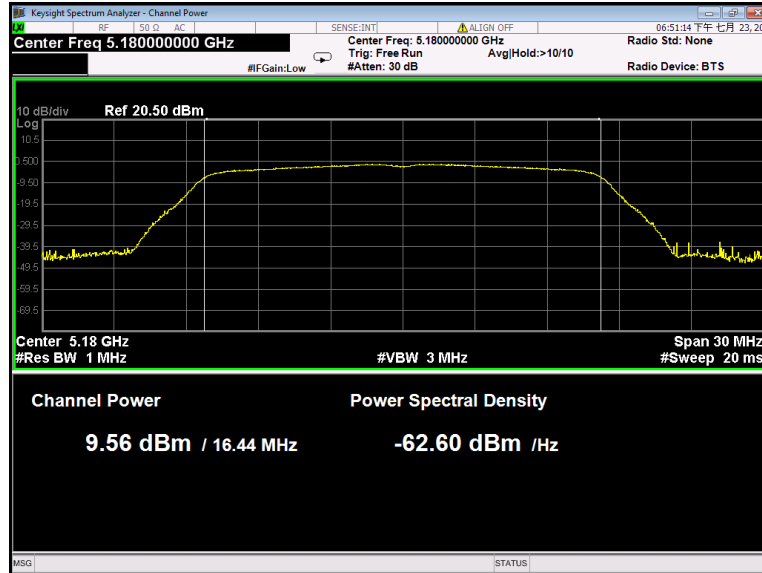
Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-2C	802.11a	8.59	8.21	7.68
	802.11n(HT20)	8.19	7.37	7.12
	802.11n(HT40)	7.74	7.65	7.21
	802.11ac(VHT20)	8.31	7.92	7.68
	802.11ac(VHT40)	7.69	7.61	7.19
	802.11ac(VHT80)	7.79	7.61	/

Band	Operation mode	Conducted Output Power (dBm)		
		Low	Middle	High
U-NII-3	802.11a	8.10	9.01	9.37
	802.11n(HT20)	8.02	8.74	9.11
	802.11n(HT40)	8.31	/	8.86
	802.11ac(VHT20)	7.99	8.72	9.17
	802.11ac(VHT40)	8.15	/	8.87
	802.11ac(VHT80)	8.68	/	/

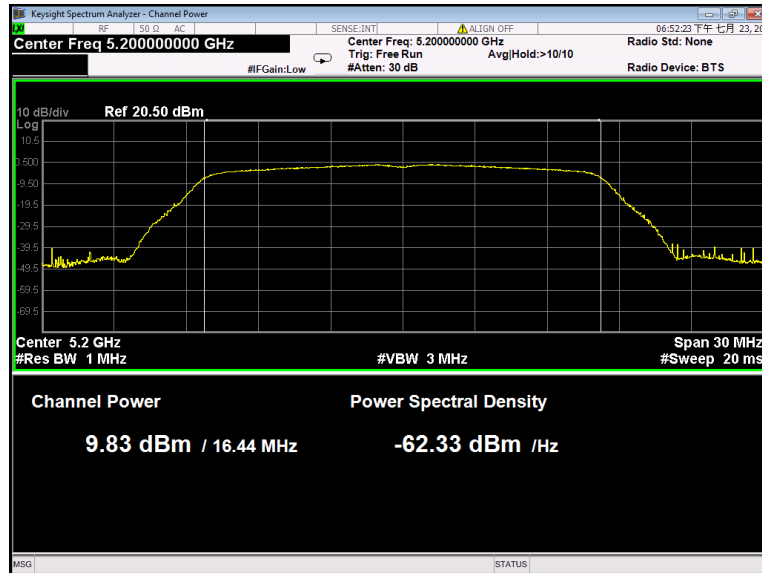
* All transmit signals are completely uncorrelated with each other, Directional gain = G_{ANT} which is less than 6dBi. So the limit does not be reduced.

Test result plots shown as follows:

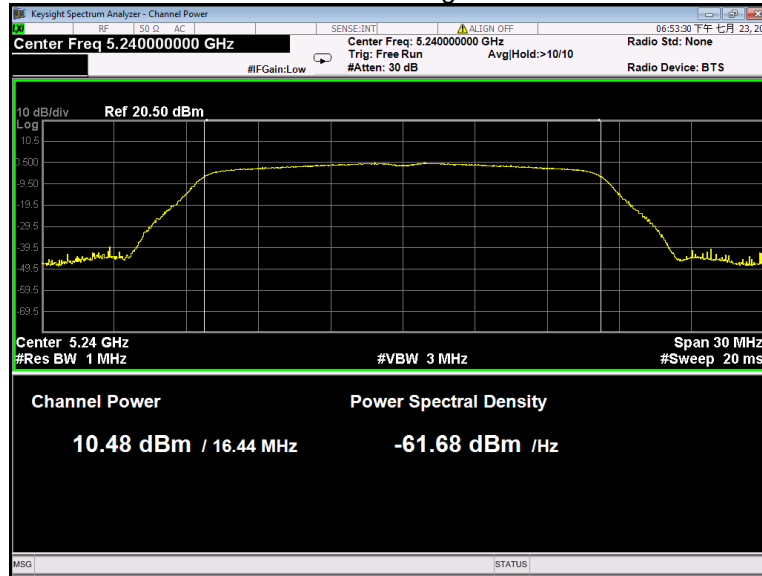
802.11a U-NII-1 Low channel



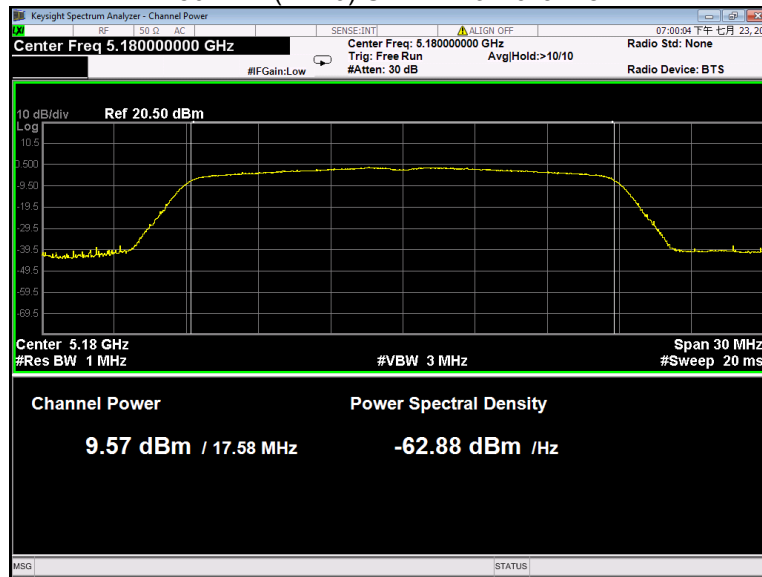
802.11a U-NII-1 Middle channel



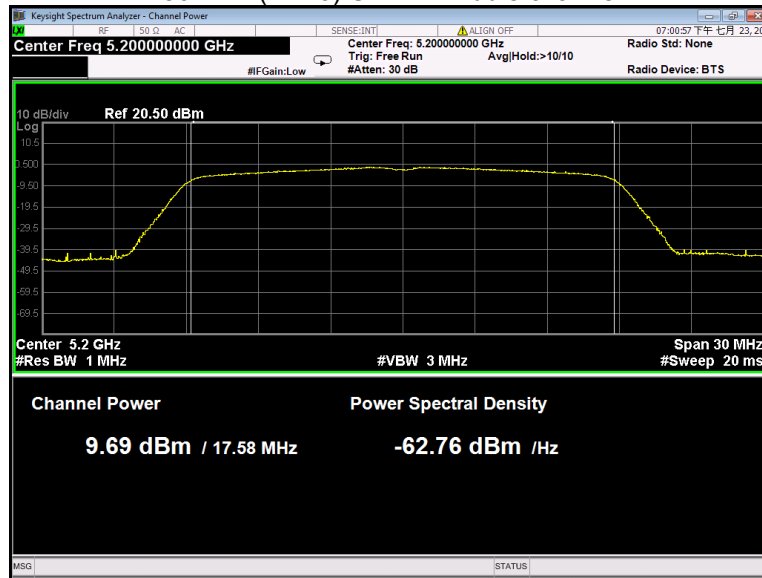
802.11a U-NII-1 High channel



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



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



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

