ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E AND INDUSTRY CANADA RSS 247 REQUIREMENT

OF

FCC Applicant:	Huawei Technologies Co., Ltd. Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China
IC Applicant:	Huawei Technologies Co., Ltd. Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China(Peoples Republic Of)
Product Name:	Notebook Computer
Brand Name:	HUAWEI, HONOR
FCC Model No.:	KPR-W19, KPR-W29, KPR-WXXXXX (X Can be 0-9, A-Z, a-z, blank or symbol "-")
IC Model No.:	KPR-W19, KPR-W29
Model Difference:	For the marketing purpose, only different model designations on the marking plate for different markets. No RF concern.
Report Number:	T190305W03-RP4
FCC ID:	QISKPR-WX9
IC:	6369A-KPRWX9
FCC Rule Part:	§15.407, Cat:NII
IC Rule:	RSS-247 issue 2 Feb. 2017
Issue Date:	Mar. 21, 2019
Date of Test:	Mar. 07, 2019 ~ Mar. 14, 2019
Date of EUT Received:	Mar. 07, 2019
Issued by	Compliance Certification Services Inc.Wugu Lab. No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.) service@ccsrf.com

Note: The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.
The test results of this report relate only to the tested sample (EUT) identified in this report.
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Wugu Laboratory).

Tested By: Henry Chiang

Henry Chiang / Engineer

Approved By: Kevin Tsai

Kevin Tsai / Deputy Manager

Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
T190305W03-RP4	Rev.00	Initial creation of document	All	Mar. 21, 2019	Violetta Tang

Contents

1 GENERAL INFORMATION

1.1 Product Description

Product Name:	Notebook Computer	
Brand Name:	HUAWEI, HONOR	
FCC Model No.:	KPR-W19, KPR-W29, KPR-WXXXXX (X Can be 0-9, A-Z, a-z, blank or symbol "-")	
IC Model No.:	KPR-W19, KPR-W29	
Model Difference:	For the marketing purpose, only different model designations on the marking plate for different markets. No RF concern.	
Product SW/HW version:	1809 (OS Build 17763.194) / B3A	
Radio SW/HW version:	Wi-Fi Component: 20 / Wi-Fi Component: 8265	
Test SW Version:	N/A	
RF power setting in TEST SW:	N/A	
Power Supply:	7.6Vdc from Rechargeable Li-ion Battery or 5Vdc / 9Vdc / 12Vdc / 15Vdc / 20Vdc from AC/DC Adapter.	
	Battery:	Model No.: HB4593R1ECW, Supplier: HUAWEI
	Adapter:	Model No.: HW-200325YYY (Y=0-9, A-Z or blank) Supplier: HUAWEI

FCC WLAN 5GHz:

Wi-Fi	Frequency Range	Channels	Avg. Power (dBm)	Modulation Technology
11a_20	5150~5250	4	13.95	OFDM
	5250~5350	4	13.96	
	5470~5725	12	13.00	
	5725~5850	5	12.98	
11n_HT / ac_VHT 20M	5150~5250	4	HT: 13.99	OFDM
	5250~5350	4	HT: 13.99	
	5470~5725	12	HT: 13.00	
	5725~5850	5	HT: 13.00	
11n_HT / ac_VHT 40M	5150~5250	2	HT: 13.95	OFDM
	5250~5350	2	HT: 13.93	
	5470~5725	6	HT: 12.94	
	5725~5850	2	HT: 12.95	
11ac VHT80M	5150~5250	1	11.00	OFDM
	5250~5350	1	10.99	
	5470~5725	3	12.99	
	5725~5850	1	13.00	
Antenna Designation:	PIFA Antenna, Main Antenna: 5150~5250MHz Peak Gain: 1.8dBi 5250~5350MHz Peak Gain: 1.8dBi 5470~5725MHz Peak Gain: 1.84dBi 5725~5850MHz Peak Gain: 1.84dBi Aux Antenna: 5150~5250MHz Peak Gain: -0.55dBi 5250~5350MHz Peak Gain: 1.34dBi 5470~5725MHz Peak Gain: 1.46dBi 5725~5850MHz Peak Gain: 1.46dBi			

IC WLAN 5GHz:

Wi-Fi	Frequency Range	Channels	Avg. or EIRP	Rated Power(dBm)	Modulation Technology
11a	5180~5240	4	EIRP	17.62	OFDM
	5260~5320	4	Avg.	13.96	
	5500~5580	5	Avg.	13.00	
	5660~5700	3	Avg.	11.94	
	5745~5825	5	Avg.	12.98	
11n_HT / ac_VHT 20M	5180~5240	4	EIRP	HT: 17.66	OFDM
	5260~5320	4	Avg.	HT: 13.99	
	5500~5580	5	Avg.	HT: 13.00	
	5660~5720	4	Avg.	HT: 12.00	
	5745~5825	5	Avg.	HT: 13.00	
11n_HT / ac_VHT 40M	5190~5230	2	EIRP	HT: 17.63	OFDM
	5270~5310	2	Avg.	HT: 13.93	
	5510~5550	2	Avg.	HT: 12.94	
	5670~5710	2	Avg.	HT: 12.94	
	5755~5795	2	Avg.	HT: 12.95	
11ac VHT80M	5210~5210	1	EIRP	14.64	OFDM
	5290~5290	1	Avg.	10.99	
	5530~5530	1	Avg.	11.00	
	5690~5690	1	Avg.	12.19	
	5775~5775	1	Avg.	13.00	
Modulation type		64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 802.11ac only			
Transition Rate:		802.11 a: 6/9/12/18/24/36/48/54 Mbps 802.11 n_20MHz: 6.5 – 144.4Mbps 802.11 n_40MHz: 13.5 - 300.0Mbps 802.11 ac_20MHz: 6.5 –144.4Mbps 802.11 ac_40MHz: 13.5 -300.0Mbps 802.11 ac_80MHz: 29.3 – 650Mbps			

1.2 Test Methodology of Applied Standards

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules

KDB 789033 D02 v01r04 General UNII Test Procedures New Rules

KDB 644545 D03 v01 Guidance for IEEE 802.11ac

RSS-247 issue 2 Feb. 2017

RSS-Gen. issue 5 Apr. 2018

ANSI C63.10:2013

Note: All test items have been performed and record as per the above standards.

1.3 Test Facility

Compliance Certification Services Inc. Wugu Lab. No.11, Wugong 6th Rd.,

Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.) (TAF code 1309)

FCC Designation number: TW1309

Canada Registration number: 2324G

1.4 Special Accessories

There are no special accessories used while test was conducted.

1.5 Equipment Modifications

There was no modification incorporated into the EUT.

2 SYSTEM TEST CONFIGURATION

2.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

2.3 Test Procedure

2.3.1 Conducted Emissions

The EUT is a placed on a table which is 0.8 m above ground plane. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz. The CISPR Quasi-Peak and Average detector mode is employed according to §15.207. The two LISNs provide 50uH/50 ohm of coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

2.3.2 Conducted Test (RF)

The active antenna port of the unlicensed wireless device is connected to the spectrum analyzer with attenuator to protect the instrumentation. If a second antenna port is available, it is tested at one operating frequency, with other port(s) appropriately terminated, to verify it has similar output characteristics as the fully tested port.

2.3.3 Radiated Emissions

The EUT is a placed on a turn table. For emissions testing at or below 1 GHz, the table height shall be 0.8 m above the reference ground plane. For emission measurements above 1 GHz, the table height shall be 1.5 m. The turn table shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this transmitter (EUT) was rotated through three orthogonal axes and measurement procedures for electric field radiated emissions above 1 GHz the EUT measurement is to be made “while keeping the antenna in the ‘cone of radiation’ from that area and pointed at the area both in azimuth and elevation, with polarization oriented for maximum response.” is still within the 3dB illumination BW of the measurement antenna.

2.4 Measurement Results Explanation

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

2.5 Configuration of Tested System

Fig. 2-1 Radiated Emission Configuration

Fig.2-3 Conducted Emission (Antenna Port) Configuration

Fig. 2-2 Conducted Emission (AC Power Line) Configuration

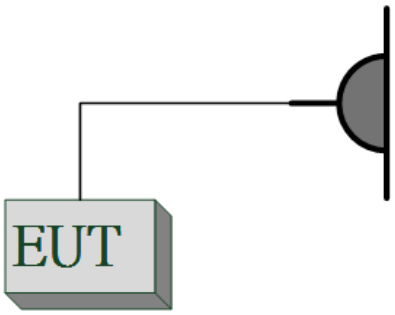


Table 2-1 Equipment Used in Tested System

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Data Cable	Power Cord
1.	WLAN Test Software	N/A	N/A	N/A	N/A	N/A

3 SUMMARY OF TEST RESULT

FCC Rules	IC Rules	Description Of Test	Result
§15.207	RSS-Gen §8.8	AC Power Line Conducted Emission	Compliant
§15.403(i) §15.407(e)	RSS-247 §6.2.1~ 4 (1) RSS-Gen §6.7	26 dB & 6dB & 99% Emission Bandwidth	Compliant
§15.407(a)	RSS-247 §6.2.1~ 4 (1)	Maximum Conducted Output Power	Compliant
§15.407(a)	RSS-247 §6.2.1~ 4 (1)	Power Spectral Density	Compliant
§15.205 §15.209 §15.407(b)	RSS-247 §6.2.1~ 4 (2)	Undesirable Radiated Emissions	Compliant
§15.407(c)	RSS-247 §6.4	Transmission in case of Absence of Information	Compliant
§15.407(g)	RSS-Gen §6.11	Frequency Stability	Compliant
§15.203 §15.407(a)	RSS- Gen §6.8	Antenna Requirement	Compliant

4 DESCRIPTION OF TEST MODES

4.1 Operated in U-NII Bands

Operated band in 5150 MHz ~5250 MHz:

4 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac_VHT80

CHANNEL	FREQUENCY
42	5210 MHz

Operated band in 5250 MHz ~5350 MHz:

4 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac_VHT80

CHANNEL	FREQUENCY
58	5290 MHz

Operated band in 5470 MHz ~5725 MHz:

11 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

5 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac_VHT80

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530 MHz	138	5690 MHz
122	5610 MHz		

Operated band in 5725 MHz ~5850 MHz:

5 channels are provided for 802.11a, 802.11n_HT20, 802.11ac_VHT20

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

2 channels are provided for 802.11n_HT40, 802.11ac_VHT40

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac_VHT80

CHANNEL	FREQUENCY
155	5775 MHz

4.2 The Worst Test Modes and Channel Details

1. The EUT has been tested under operating condition.
2. Test program used to control the EUT for staying in continuous transmitting mode is programmed.
3. Investigation has been done on all the possible configurations for searching the worst case.
4. The given UE is pre-scanned among 802.11n and ac modes, and 802.11n yields the highest reading that generates the highest emission.
5. The given UE is pre-scanned among SISO Main, SISO Aux and MIMO modes, and SISO Main mode yields the highest reading that generates the highest emission. Therefore, 802.11ac+SISO Main as the mode of radiated test configuration is chosen to carry out the relevantly mandatory test items.

AC POWER LINE CONDUCTED EMISSION TEST:

Test Condition	AC Power line conducted emission for line and neutral
Worst Case	Operation in normal mode

RADIATED EMISSION TEST:

RADIATED EMISSION TEST (BELOW 1 GHz)						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	MAIN
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	MAIN
802.11a	5500~5720	100 to 140	100,116,140	OFDM	6	MAIN
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	MAIN
802.11ac_VHT80	5210	42	42	OFDM	MCS8	MAIN
802.11ac_VHT80	5290	58	58	OFDM	MCS8	MAIN
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS8	MAIN
802.11ac_VHT80	5775	155	155	OFDM	MCS8	MAIN
RADIATED EMISSION TEST (ABOVE 1 GHz)						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	MAIN
802.11n_HT20				OFDM	MCS8	MAIN
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS8	MAIN
802.11ac_VHT80	5210	42	42	OFDM	MCS8	MAIN
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	MAIN
802.11n_HT20				OFDM	MCS8	MAIN
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS8	MAIN
802.11ac_VHT80	5290	58	58	OFDM	MCS8	MAIN

MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5500~5720	100 to 144	100,116,140	OFDM	6	MAIN
802.11n_HT20				OFDM	MCS8	MAIN
802.11n_HT40	5510~5710	102 to 142	102,110,134	OFDM	MCS8	MAIN
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS8	MAIN
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	MAIN
802.11n_HT20				OFDM	MCS8	MAIN
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS8	MAIN
802.11ac_VHT80	5775	155	155	OFDM	MCS8	MAIN

Note:
The field strength of radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for 802.11a/n/ac WLAN Transmitter for channel Low, Mid and High, the worst case H position was reported.

ANTENNA PORT CONDUCTED MEASUREMENT:

CONDUCTED TEST						
MODE	FREQUENCY BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11a	5180~5240	36 to 48	36,44,48	OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20				OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5190~5230	38 to 46	38,46	OFDM	MCS8	MAIN
802.11ac_VHT80	5210	42	42	OFDM	MCS8	MAIN
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20				OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5270~5310	54 to 62	54,62	OFDM	MCS8	MAIN
802.11ac_VHT80	5290	58	58	OFDM	MCS8	MAIN
802.11a	5500~5720	100 to 144	100,116,140,144	OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20				OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5510~5710	102 to 142	102,110,134,142	OFDM	MCS8	MAIN
802.11ac_VHT80	5530~5690	106 to 138	106,122,138	OFDM	MCS8	MAIN
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	MAIN
802.11n_HT20 802.11ac_VHT20				OFDM	MCS8	MAIN
802.11n_HT40 802.11ac_VHT40	5755~5795	151 to 159	151,159	OFDM	MCS8	MAIN
802.11ac_VHT80	5775	155	155	OFDM	MCS8	MAIN

5 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575 dB
26dB & 6dB Emission Bandwidth	+/- 147.256 Hz
The Maximum Output Power	+/- 1.924 dB
Peak Power Spectral Density	+/- 2.038 dB
Frequency Stability	+/- 147.256 Hz
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12 dB
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68 dB
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18 dB
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47 dB
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81 dB
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87 dB

Note:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.
3. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

6 CONDUCTED EMISSION TEST

6.1 Standard Applicable

Frequency range within 150 kHz to 30 MHz shall not exceed the Limit table as below.

Frequency range MHz	Limits dB(uV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
Note 1.The lower limit shall apply at the transition frequencies 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.		

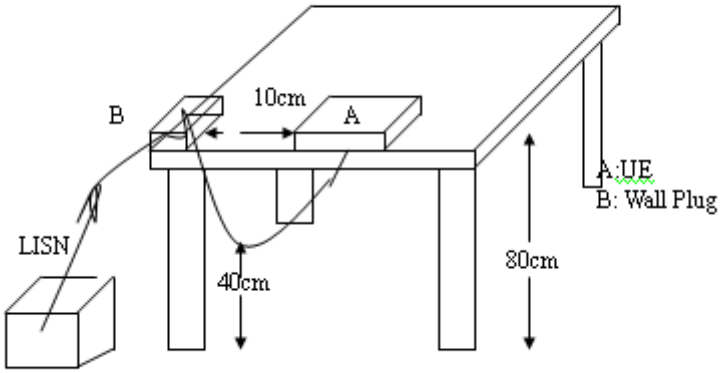
6.2 Measurement Equipment Used

Conducted Emission Test Site					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
CABLE	EMCI	CFD300-NL	CERF	2018/06/29	2019/06/28
EMI Test Receiver	R&S	ESCI	100064	2018/07/24	2019/07/23
LISN	SCHWARZBECK	NSLK 8127	8127-541	2019/01/31	2020/01/30
LISN	SCHAFFNER	NNB 41	03/10013	2019/02/13	2020/02/12
Software	EZ-EMC(CCS-3A1-CE)				

6.3 EUT Setup

1. The conducted emission tests were performed in the test site, using the setup in accordance with the ANSI C63.10:2013.
2. The AC/DC Power adaptor of EUT was plug-in LISN. The rear of the EUT and peripherals were placed flushed with the rear of the tabletop.
3. The LISN was connected with 120Vac/60Hz power source.

6.4 Test SET-UP



6.5 Measurement Procedure

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all phases of power being supplied by given UE are completed.

6.6 Measurement Result

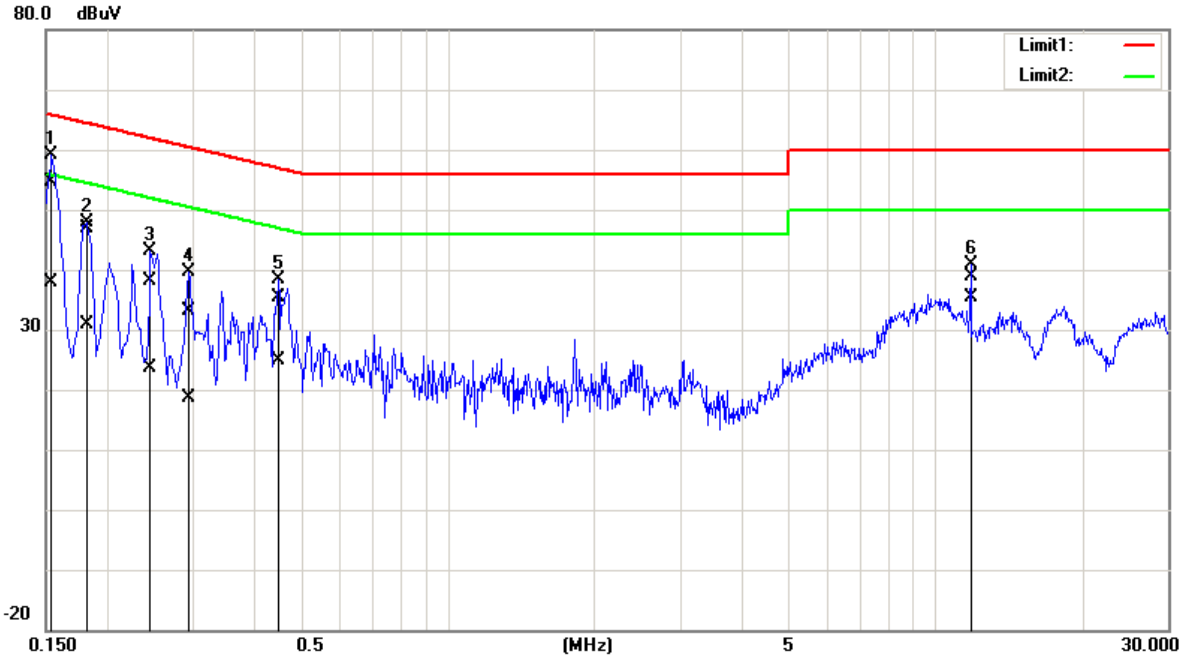
Note: Refer to next page for measurement data and plots.

Note2: The * reveals the worst-case results that closet to the limit.

AC POWER LINE CONDUCTED EMISSION TEST DATA

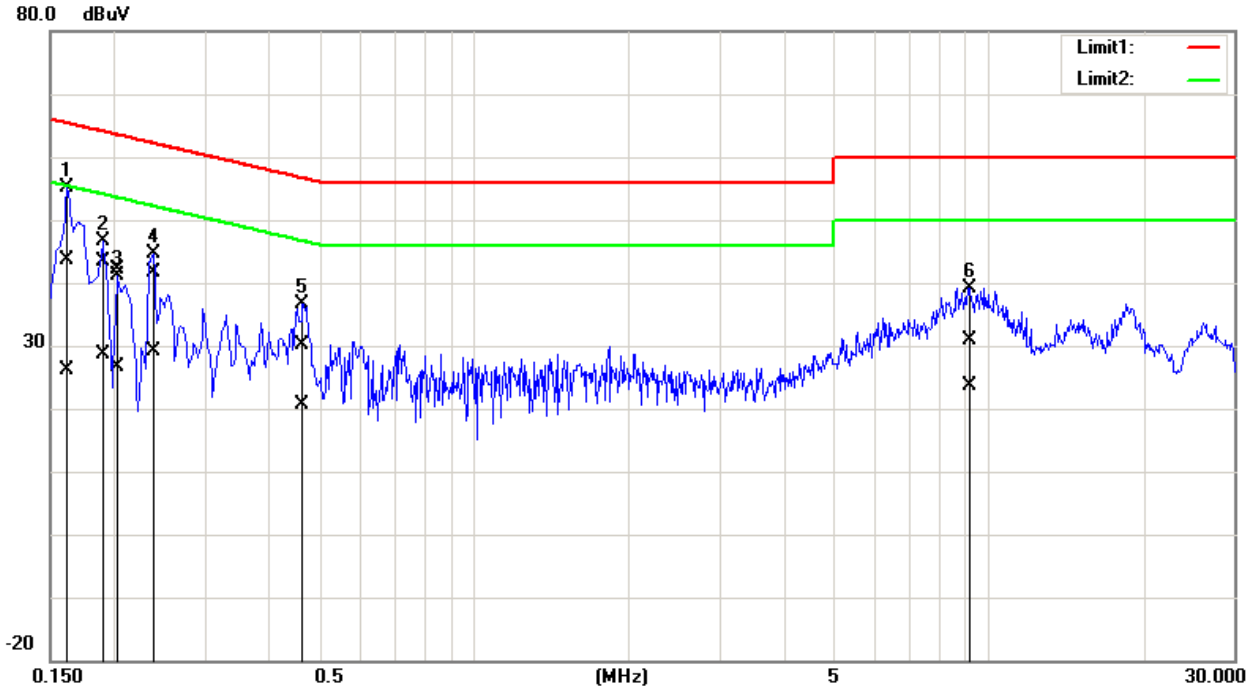
Job No.:	**T190305W03-RP4**	**Date:**	**2019/3/12**
Company:	**Huawei Technologies Co., Ltd.**	**Time:**	**05:48:49 PM**
Standard:	**FCC/IC QP**	**Temp.(℃)/Hum.(%):**	**25(℃)/60%**
Test item:	**Conduction test**	**Test By:**	**Henry**
Line:	**L1**	**Test Voltage:**	**AC 120V/60Hz**
Model:	**KPR-W19, KPR-WXXXXX, KPR-W19**		

Description: **Operation**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1539	54.59	37.70	0.16	54.75	37.86	65.78	55.79	-11.03	-17.93	Pass
2	0.1819	46.70	30.79	0.15	46.85	30.94	64.39	54.40	-17.54	-23.46	Pass
3	0.2460	37.95	23.42	0.15	38.10	23.57	61.89	51.89	-23.79	-28.32	Pass
4	0.2940	32.89	18.59	0.15	33.04	18.74	60.41	50.41	-27.37	-31.67	Pass
5	0.4500	35.17	24.61	0.16	35.33	24.77	56.87	46.88	-21.54	-22.11	Pass
6	11.8139	38.48	34.98	0.51	38.99	35.49	60.00	50.00	-21.01	-14.51	Pass

Job No.:	**T190305W03-RP4**	**Date:**	**2019/3/12**
Company:	**Huawei Technologies Co., Ltd.**	**Time:**	**05:53:29 PM**
Standard:	**FCC/IC QP**	**Temp.(℃)/Hum.(%):**	**24(℃)/50%**
Test item:	**Conduction test**	**Test By:**	**Henry**
Line:	**N**	**Test Voltage:**	**AC 120V/60Hz**
Model:	**KPR-W19, KPR-WXXXXX, KPR-W19**		
Description:	**Operation**		



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Remark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1	0.1620	43.60	26.09	0.10	43.70	26.19	65.36	55.36	-21.66	-29.17	Pass
2	0.1900	43.34	28.43	0.10	43.44	28.53	64.03	54.04	-20.59	-25.51	Pass
3	0.2020	41.94	26.42	0.10	42.04	26.52	63.52	53.53	-21.48	-27.01	Pass
4*	0.2380	41.58	28.99	0.10	41.68	29.09	62.16	52.17	-20.48	-23.08	Pass
5	0.4660	30.13	20.60	0.11	30.24	20.71	56.58	46.58	-26.34	-25.87	Pass
6	9.1899	30.54	23.39	0.36	30.90	23.75	60.00	50.00	-29.10	-26.25	Pass

7 DUTY CYCLE TEST SIGNAL

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

Formula:

Duty Cycle = Ton / (Ton+Toff)

Measurement Procedure:

1. Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

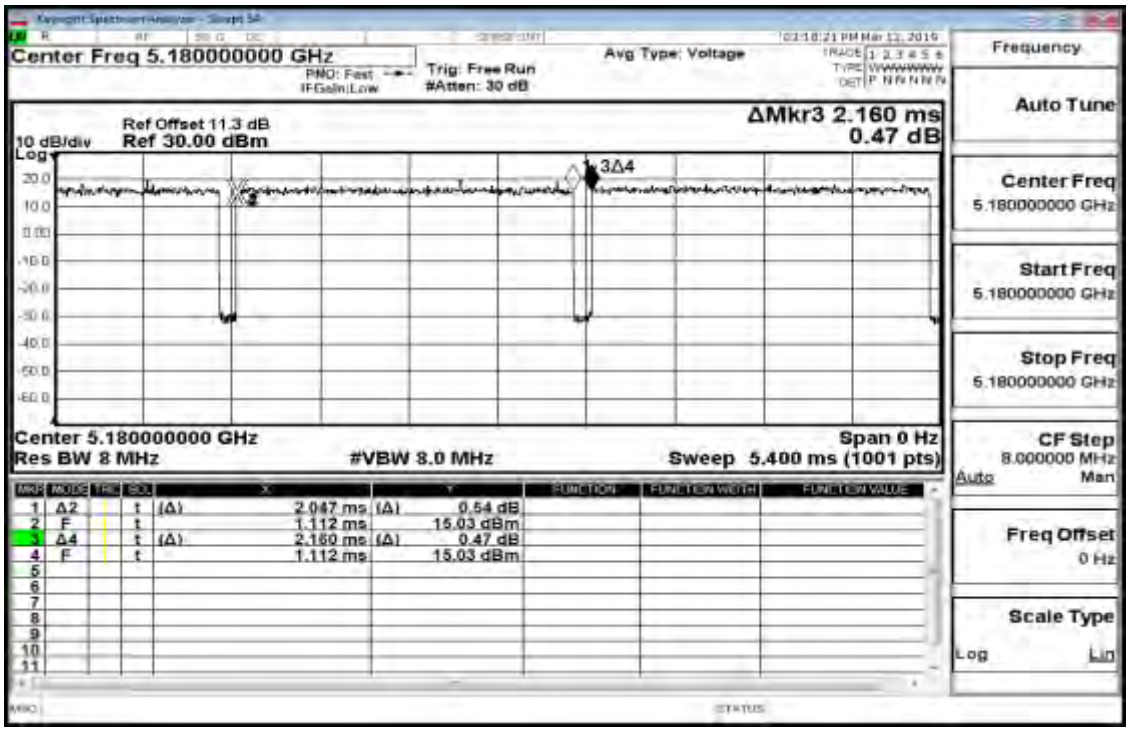
Duty Cycle:

Mode	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	94.75	0.23	0.49	1.00
802.11n_20	95.50	0.20	0.52	1.00
802.11n_40	84.42	0.74	1.07	2.00
802.11ac_80	83.93	0.76	2.17	3.00

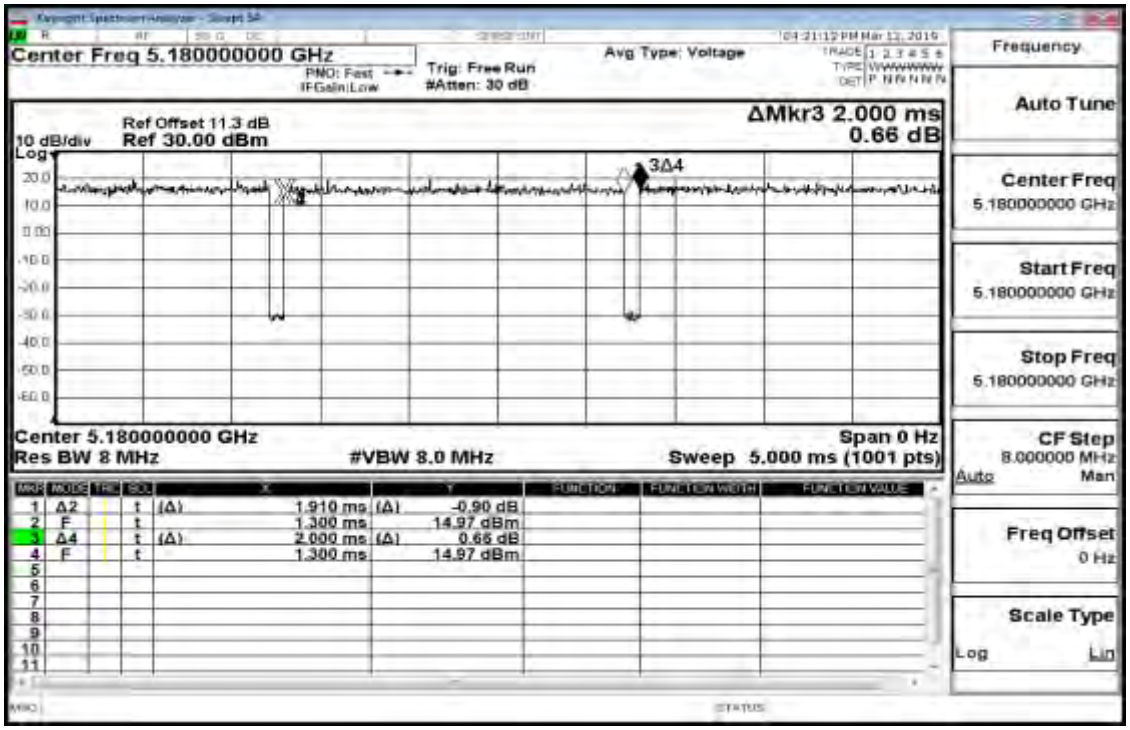
Duty Cycle Factor: 10 * log(1/0.9475) = 0.23
Duty Cycle Factor: 10 * log(1/0.955) = 0.2
Duty Cycle Factor: 10 * log(1/0.8442) = 0.74
Duty Cycle Factor: 10 * log(1/0.8393) = 0.76

DUTY CYCLE TEST SIGNAL Measurement Result

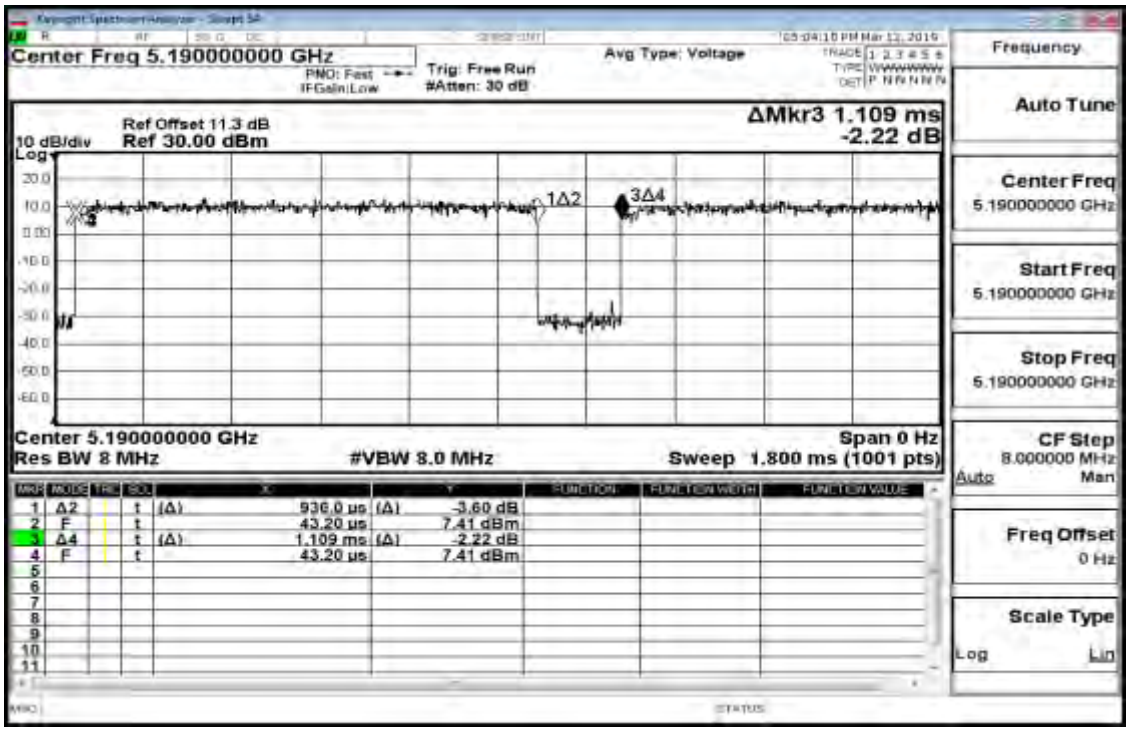
802.11a



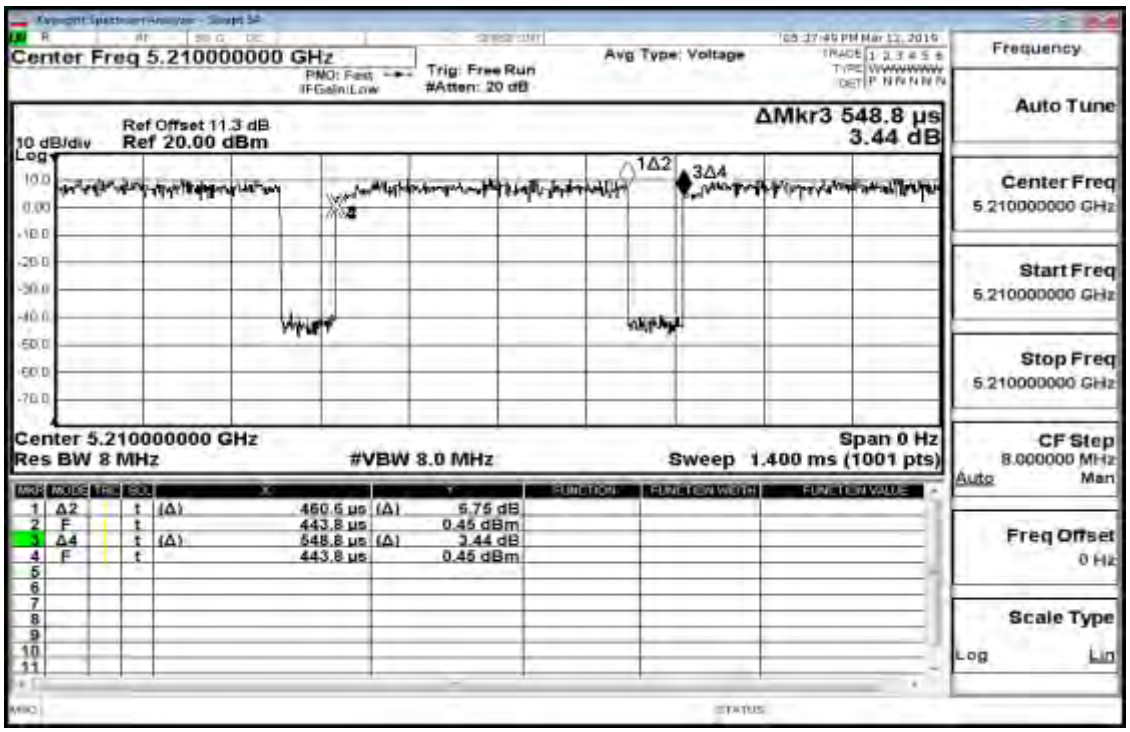
802.11n HT20



802.11n HT 40



802.11 ac VHT 80



8 26DB & 6DB EMISSION BANDWIDTH MEASUREMENT

8.1 Standard Applicable

There is no limit bandwidth for U-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB Bandwidth measurement is 0.5 MHz for U-NII-3

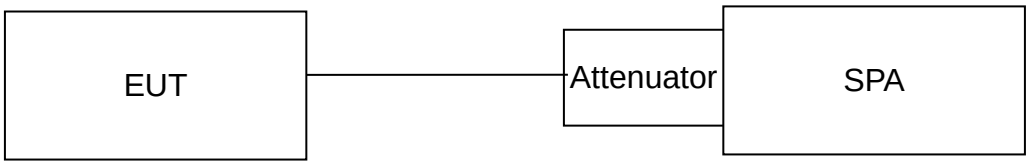
8.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
3. Remove the antenna from the EUT and then connect a low loss RF cable from the Antenna port to the spectrum analyzer.
   a. 26dB Band width Measurement: Set the spectrum analyzer as 1% of emission BW Sweep=auto, Detector = Peak, Trace Mode = Max Hold, Manually readjust RBW until the RBW/EBW ratio is 1% based on EBW as observed on the result of pre-sequence measurement.
   b. Mark the peak frequency and –26dB (upper and lower) frequency.
4. Repeat the procedures as list above until all test default channels (low, middle, and high) are completed.
5. Minimum Emission Bandwidth for the band 5.725-5.850GHz.
   a. Set the spectrum analyzer as RBW = 100 kHz, VBW = 3*RBW, Span = 30M/50MHz, Detector=Peak,
   Sweep=auto
   b. Mark the peak frequency and –6dB (upper and lower) frequency.
6. Repeat above procedures until all test default channel measured were complete.

8.3 Measurement Equipment Used

SGS Conducted Room					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum Analyzer	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25
DC Block	PASTERNACK	PE8210	RF81	2019/02/26	2020/02/25
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25

8.4 Test Set-up



8.5 Measurement Result

26dB and 6dB Bandwidth

802.11a_Ch0 **802.11a_Ch1**

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.18	13.049	5180	19.71	12.946
5220	20.54	13.127	5220	20.29	13.073
5240	19.98	13.006	5240	19.70	12.945
5260	19.53	12.907	5260	20.77	13.175
5300	20.00	13.010	5300	19.42	12.882
5320	19.78	12.963	5320	19.71	12.947
5500	20.20	13.053	5500	20.28	13.071
5580	20.32	13.079	5580	20.03	13.017
5700	19.42	12.882	5700	19.51	12.901
5720(U-NII 2C)	16.00	12.041	5720(U-NII 2C)	16.92	12.284
5720 (U-NII 3)	5.96	7.752	5720 (U-NII 3)	4.84	6.848

802.11a_Ch0 **802.11a_Ch1**

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	13.80	11.398	5745	12.57	10.995
5785	16.34	12.133	5785	15.12	11.795
5825	14.82	11.707	5825	11.78	10.711

802.11n_HT20_Ch0 **802.11n_HT20_Ch1**

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.48	13.113	5180	20.52	13.123
5220	20.46	13.109	5220	20.17	13.047
5240	20.53	13.125	5240	19.33	12.862
5260	20.40	13.097	5260	21.62	13.349
5300	19.91	12.991	5300	21.04	13.231
5320	19.42	12.882	5320	20.45	13.107
5500	20.50	13.118	5500	20.63	13.145
5580	20.46	13.109	5580	20.48	13.114
5700	20.00	13.011	5700	20.48	13.113
5720(U-NII 2C)	17.00	12.304	5720(U-NII 2C)	16.24	12.106
5720 (U-NII 3)	6.04	7.810	5720 (U-NII 3)	5.52	7.419

802.11n_HT20_Ch0 **802.11n_HT20_Ch1**

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.92	12.284	5745	13.20	11.206
5785	12.91	11.111	5785	12.68	11.031
5825	15.11	11.793	5825	17.33	12.388

802.11n _HT40_Ch0 **802.11n _HT40_Ch1**

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	42.88	16.322	5190	42.17	16.250
5230	42.61	16.295	5230	45.06	16.538
5270	41.45	16.175	5270	42.82	16.316
5310	39.12	15.924	5310	44.20	16.454
5510	42.23	16.257	5510	43.84	16.419
5550	**43.54**	16.389	5550	**42.59**	16.293
5670	42.26	16.259	5670	43.86	16.421
5710 (U-NII 2C)	**37.08**	15.691	5710 (U-NII 2C)	**36.92**	15.673
5710 (U-NII 3)	7.48	8.739	5710 (U-NII 3)	6.04	7.810

802.11n_HT40_Ch0 **802.11n_HT40_Ch1**

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	33.86	15.297	5755	33.83	15.293
5795	35.07	15.449	5795	31.39	14.968

802.11ac _VHT80_Ch0 **802.11ac _VHT80_Ch1**

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	80.35	19.050	5210	80.42	19.054
5290	81.30	19.101	5290	79.35	18.995
5530	80.42	19.054	5530	81.24	19.098
5610	80.12	19.037	5610	80.34	19.049
5690 (U-NII 2C)	75.64	18.788	5690 (U-NII 2C)	77.08	18.869
5690 (U-NII 3)	5.00	6.990	5690 (U-NII 3)	6.44	8.089

802.11ac _VHT80_Ch0 **802.11ac _VHT80_Ch1**

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)	Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	72.57	18.608	5775	72.65	18.613

99% Bandwidth

802.11a_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.583	12.197
5220	16.523	12.181
5240	16.567	12.192
5260	16.622	12.207
5300	16.597	12.200
5320	16.597	12.200
5500	16.558	12.190
5580	16.487	12.171
5700	16.529	12.182
5720(U-NII 2C)	13.269	11.228
5720 (U-NII 3)	3.269	5.144

802.11a_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.585	12.197
5220	16.544	12.186
5240	16.537	12.185
5260	16.484	12.171
5300	16.502	12.175
5320	16.534	12.184
5500	16.531	12.183
5580	16.554	12.189
5700	16.540	12.185
5720(U-NII 2C)	13.287	11.234
5720 (U-NII 3)	3.287	5.168

802.11n_HT20_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.717	12.484
5220	17.739	12.489
5240	17.761	12.495
5260	17.733	12.488
5300	17.713	12.483
5320	17.739	12.489
5500	17.731	12.487
5580	17.697	12.479
5700	17.750	12.492
5720(U-NII 2C)	13.864	11.419
5720 (U-NII 3)	3.864	5.870

802.11n_HT20_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.759	12.494
5220	17.737	12.489
5240	17.736	12.489
5260	17.759	12.494
5300	17.815	12.508
5320	17.749	12.492
5500	17.738	12.489
5580	17.742	12.490
5700	17.745	12.491
5720(U-NII 2C)	13.853	11.415
5720 (U-NII 3)	3.852	5.857

802.11n _HT40_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.009	15.564
5230	36.044	15.568
5270	36.045	15.568
5310	36.030	15.567
5510	36.058	15.570
5550	36.111	15.576
5670	36.047	15.569
5710(U-NII 2C)	33.020	15.188
5710 (U-NII 3)	3.020	4.800

802.11n _HT40_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.016	15.565
5230	35.992	15.562
5270	36.032	15.567
5310	36.052	15.569
5510	36.048	15.569
5550	36.050	15.569
5670	36.070	15.571
5710(U-NII 2C)	33.031	15.189
5710 (U-NII 3)	3.031	4.816

802.11ac _VHT80_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	75.036	18.753
5290	74.939	18.747
5530	75.283	18.767
5610	74.940	18.747
5690(U-NII 2C)	72.470	18.602
5690 (U-NII 3)	2.470	3.927

802.11ac _VHT80_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	75.049	18.753
5290	74.893	18.744
5530	74.997	18.750
5610	75.007	18.751
5690(U-NII 2C)	72.510	18.604
5690 (U-NII 3)	2.510	3.997

802.11a_Ch0

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.07	12.059
5785	15.97	12.033
5825	16.13	12.076

802.11a_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.22	12.101
5785	16.15	12.081
5825	16.10	12.068

802.11n_HT20_Ch0

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	17.43	12.413
5785	17.08	12.325
5825	17.29	12.378

802.11n_HT20_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	17.26	12.369
5785	17.36	12.394
5825	17.36	12.395

802.11n _HT40_Ch0

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	35.90	15.551
5795	35.98	15.560

802.11n _HT40_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	36.18	15.585
5795	35.64	15.519

802.11ac _VHT80_Ch0

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	75.25	18.765

802.11ac _VHT80_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	73.55	18.666

802.11a_Ch0

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.16	< 5250
5745	5736.81	> 5725

802.11a_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.10	< 5250
5745	5736.78	> 5725

802.11n_HT20_Ch0

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.73	< 5250
5745	5736.09	> 5725

802.11n_HT20_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.73	< 5250
5745	5736.09	> 5725

802.11n _HT40_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5230	5248.10	< 5250
5755	5736.85	> 5725

802.11n _HT40_Ch0

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5230	5248.05	< 5250
5755	5736.90	> 5725

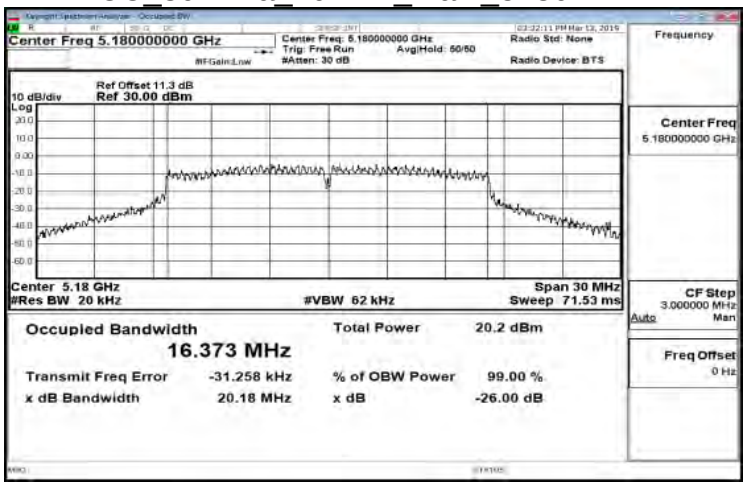
802.11ac _VHT80_Ch0

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5210	5247.50	< 5250
5775	5737.50	> 5725

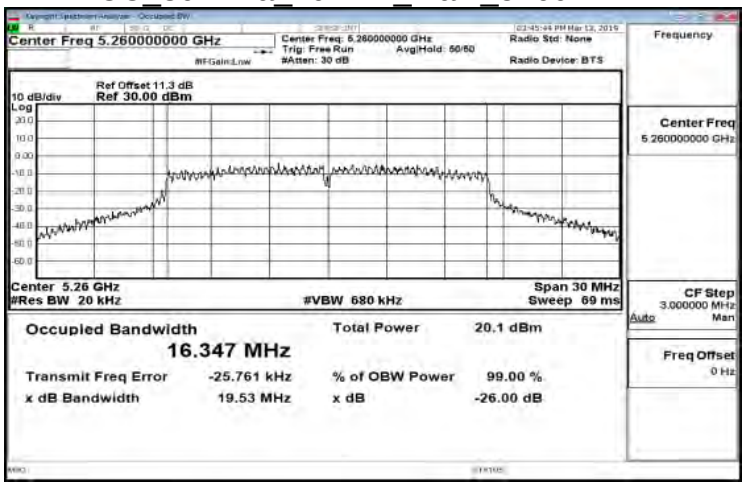
802.11n _HT80_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5210	5247.40	< 5250
5775	5737.40	> 5725

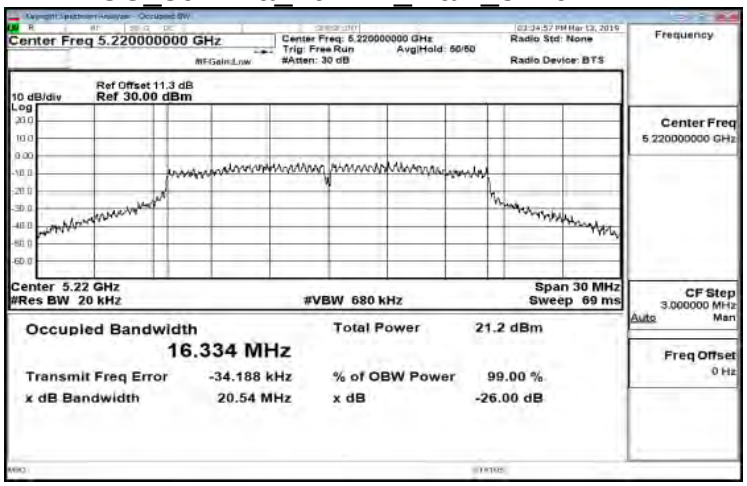
FCC_802.11a_20MHz_Main_5180MHz



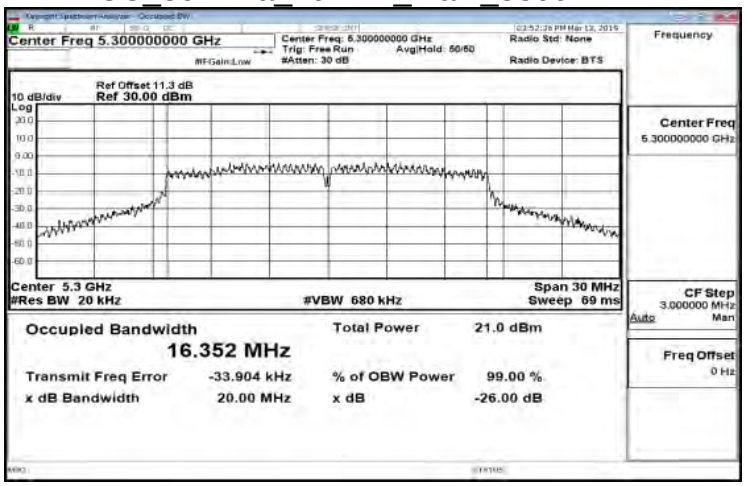
FCC_802.11a_20MHz_Main_5260MHz



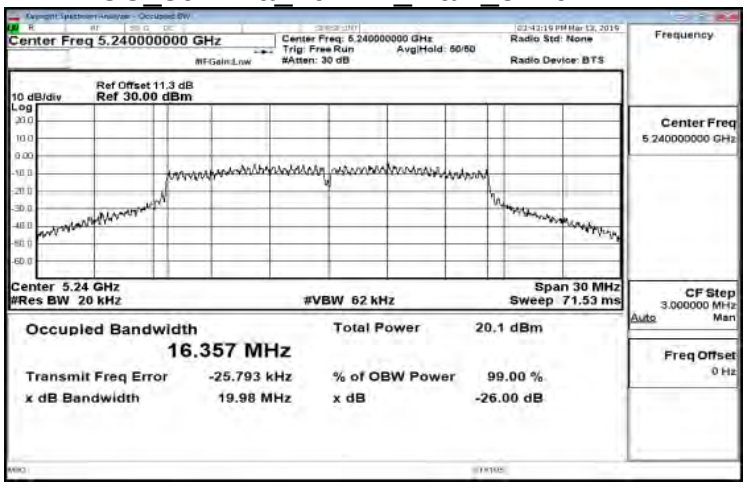
FCC_802.11a_20MHz_Main_5220MHz



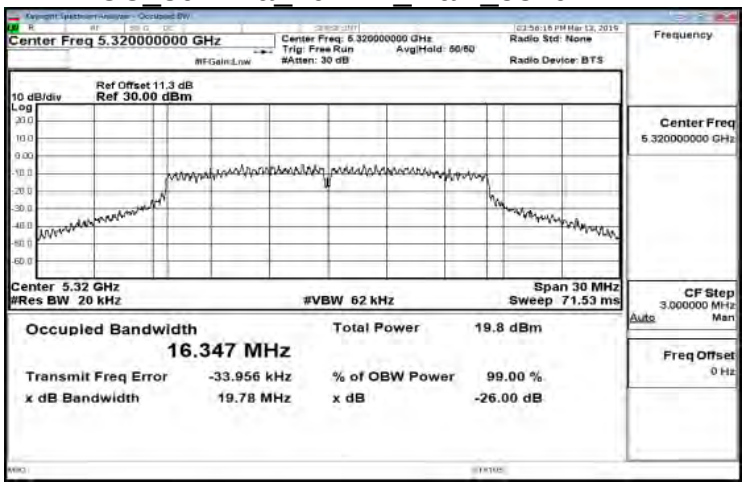
FCC_802.11a_20MHz_Main_5300MHz



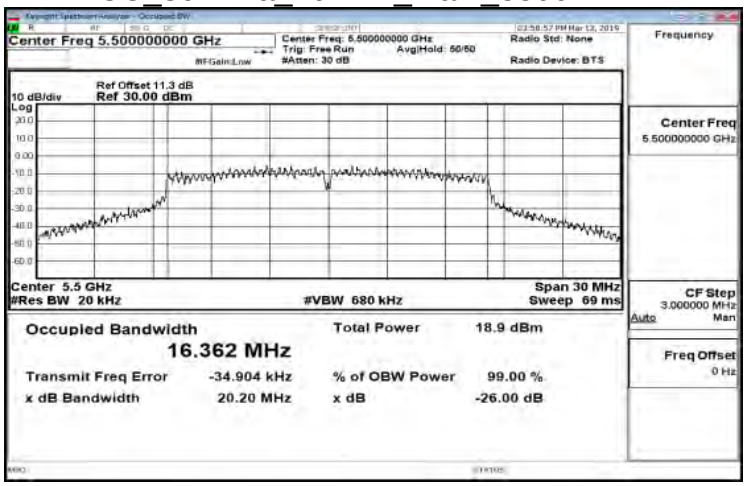
FCC_802.11a_20MHz_Main_5240MHz



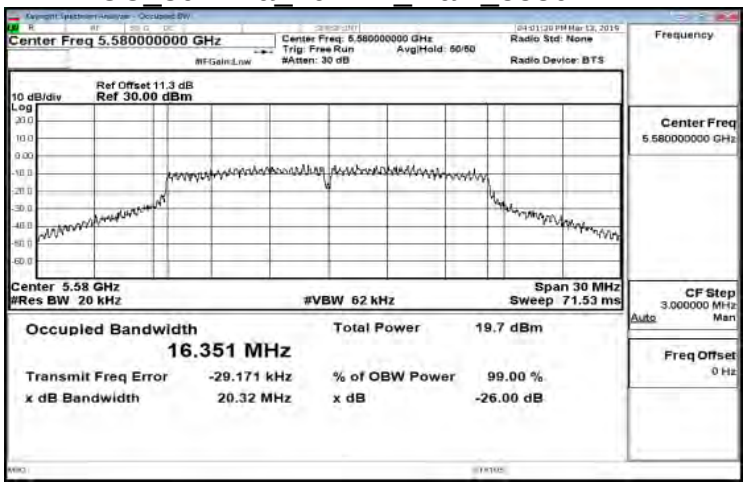
FCC_802.11a_20MHz_Main_5320MHz



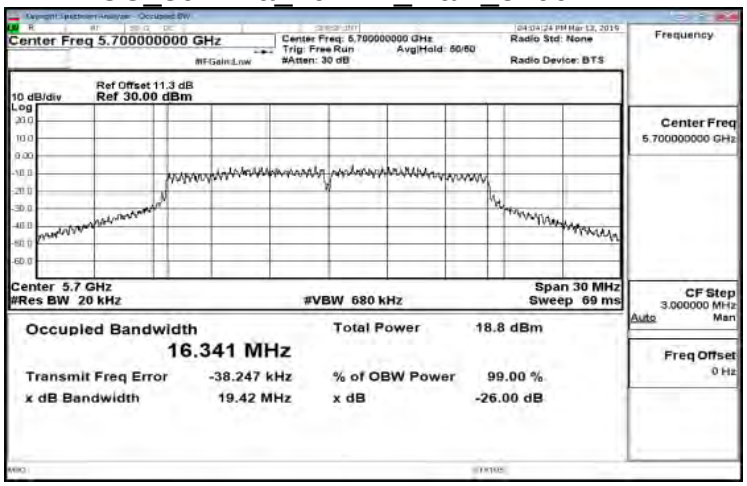
FCC_802.11a_20MHz_Main_5500MHz



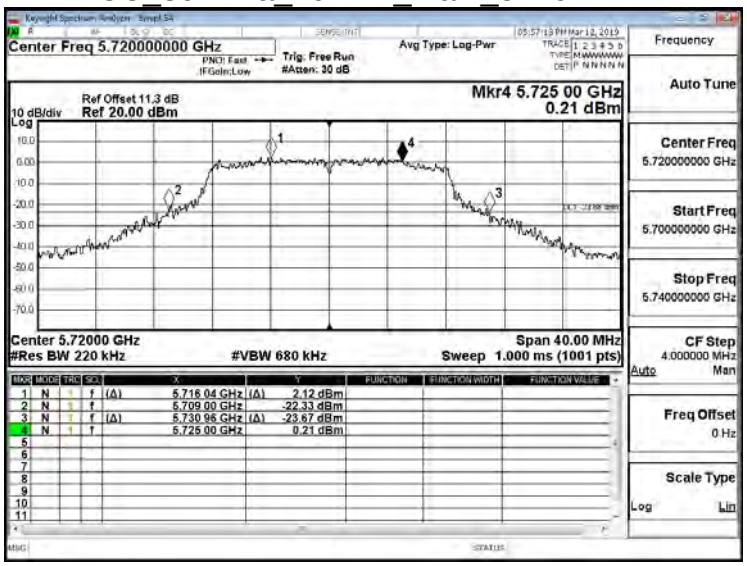
FCC_802.11a_20MHz_Main_5580MHz



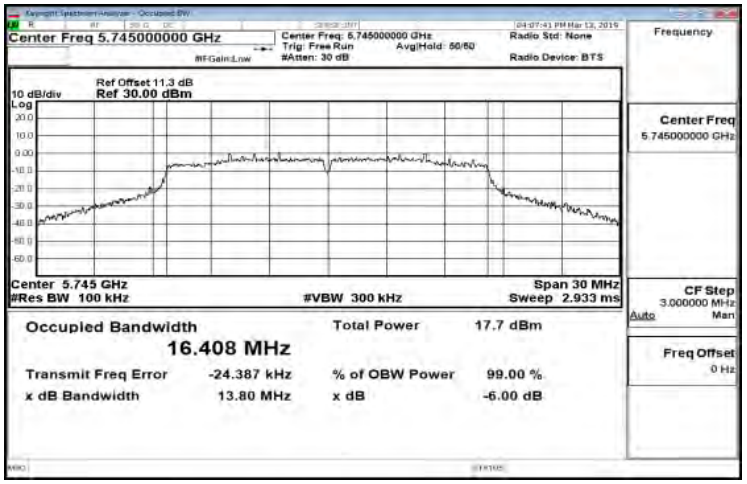
FCC_802.11a_20MHz_Main_5700MHz



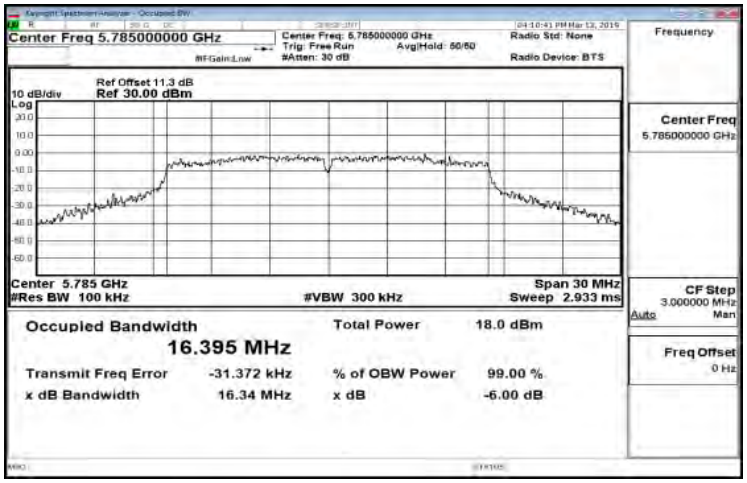
FCC_802.11a_20MHz_Main_5720MHz



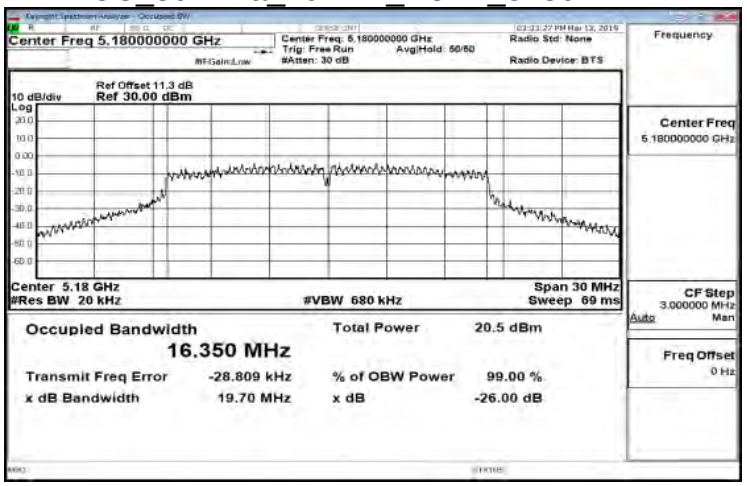
FCC_802.11a_20MHz_Main_5745MHz



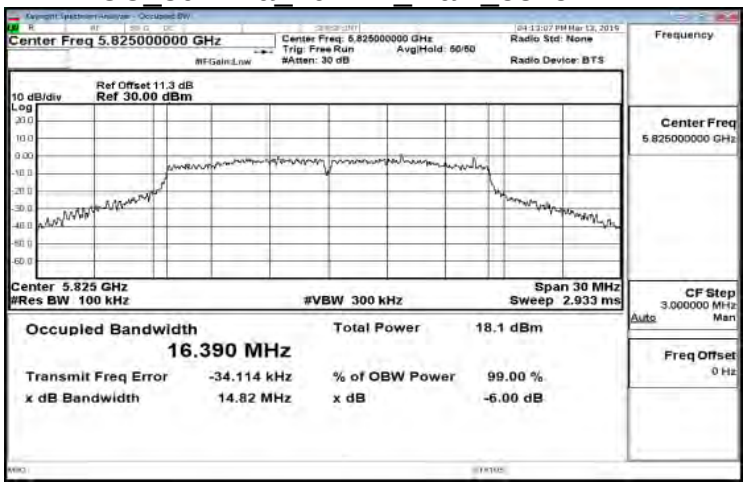
FCC_802.11a_20MHz_Main_5785MHz



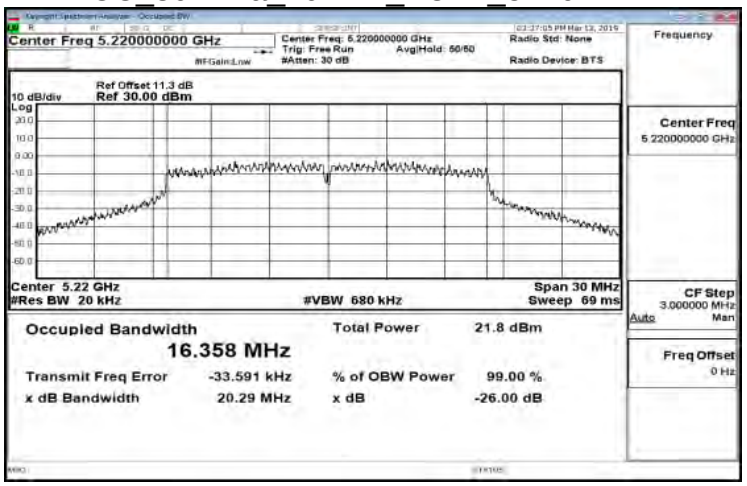
FCC_802.11a_20MHz_AUX1_5180MHz



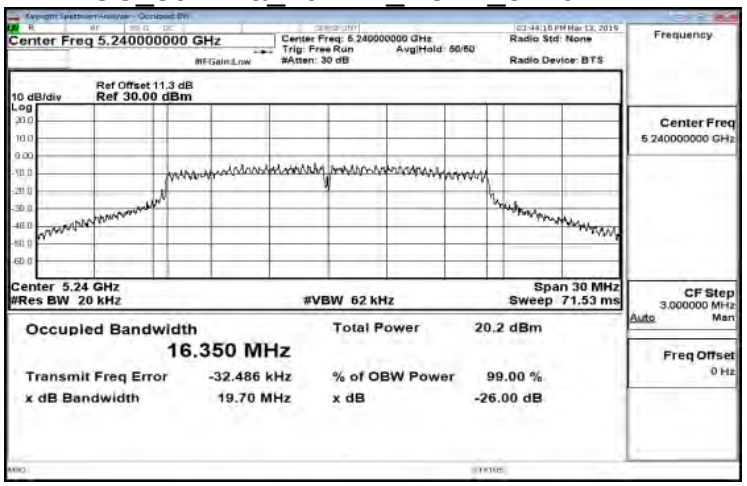
FCC_802.11a_20MHz_Main_5825MHz



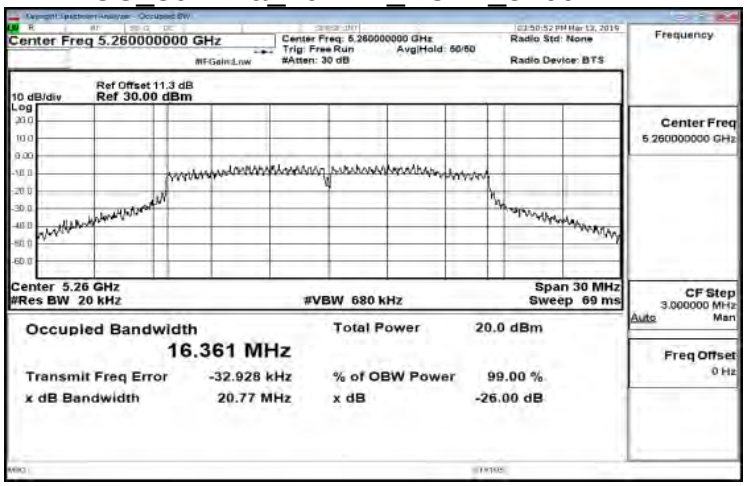
FCC_802.11a_20MHz_AUX1_5220MHz



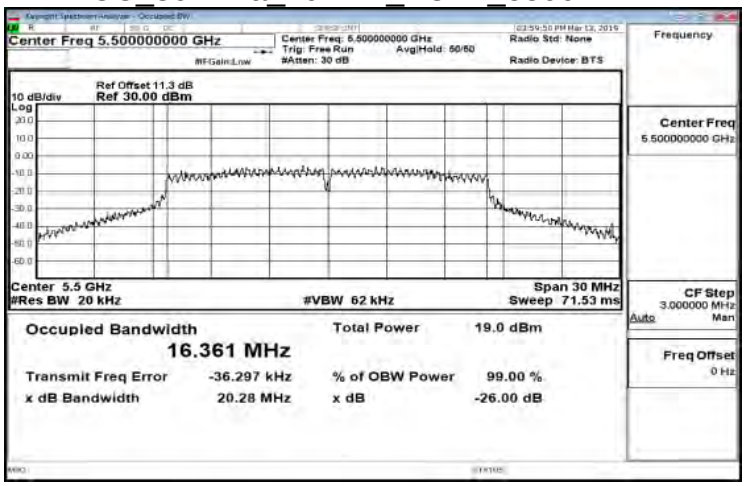
FCC_802.11a_20MHz_AUX1_5240MHz



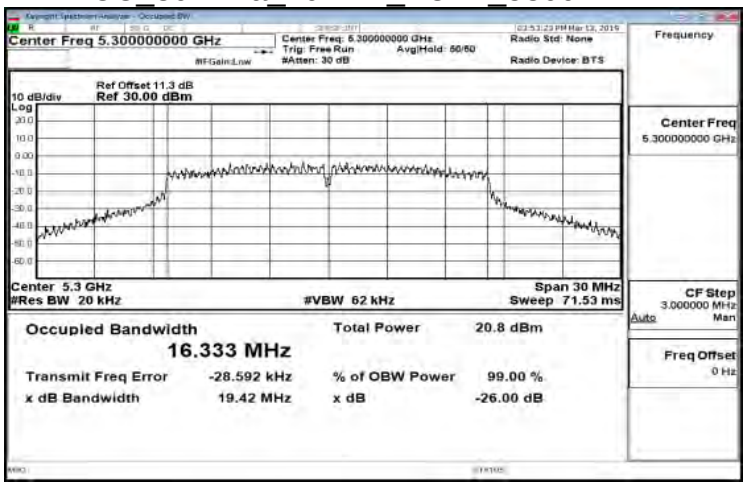
FCC_802.11a_20MHz_AUX1_5260MHz



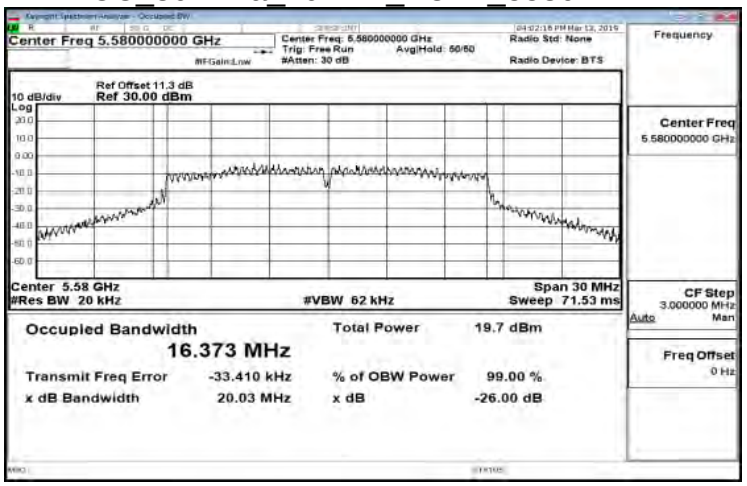
FCC_802.11a_20MHz_AUX1_5500MHz



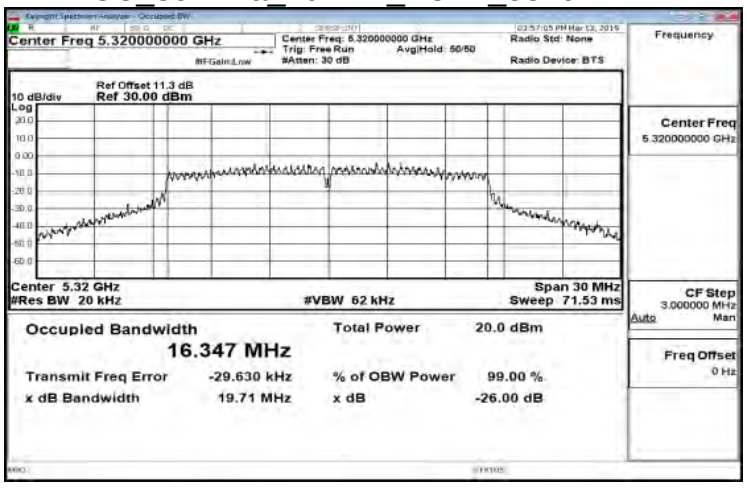
FCC_802.11a_20MHz_AUX1_5300MHz



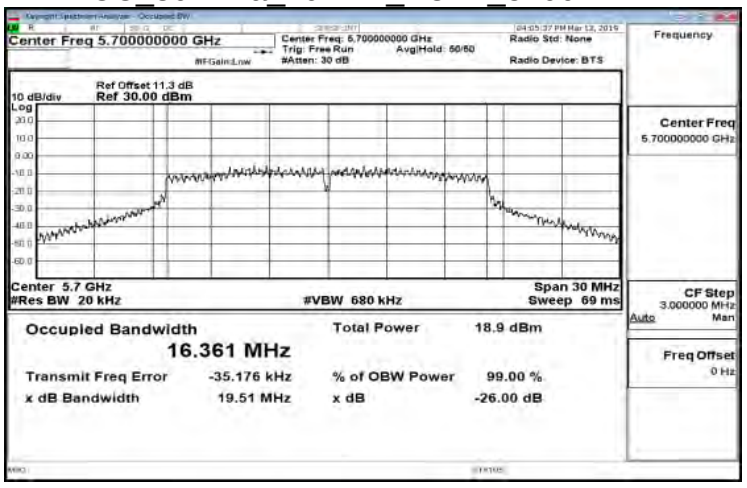
FCC_802.11a_20MHz_AUX1_5580MHz



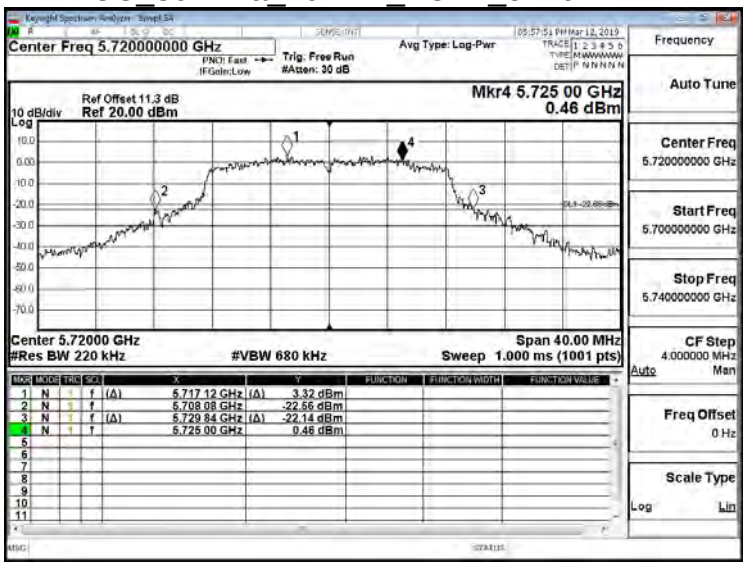
FCC_802.11a_20MHz_AUX1_5320MHz



FCC_802.11a_20MHz_AUX1_5700MHz



FCC_802.11a_20MHz_AUX1_5720MHz



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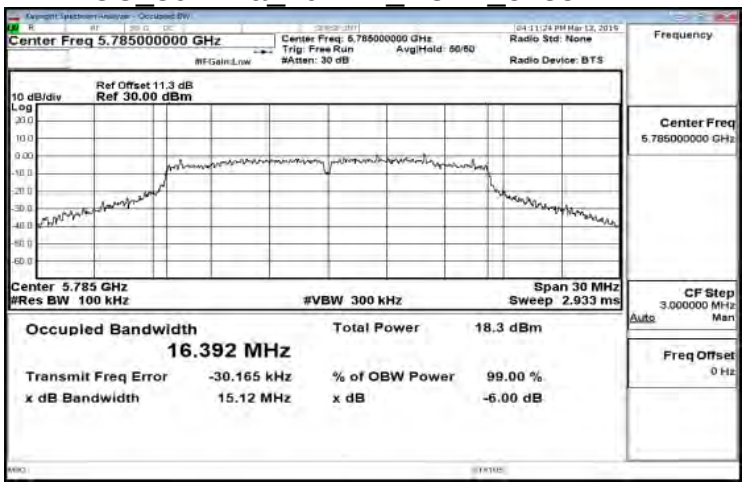
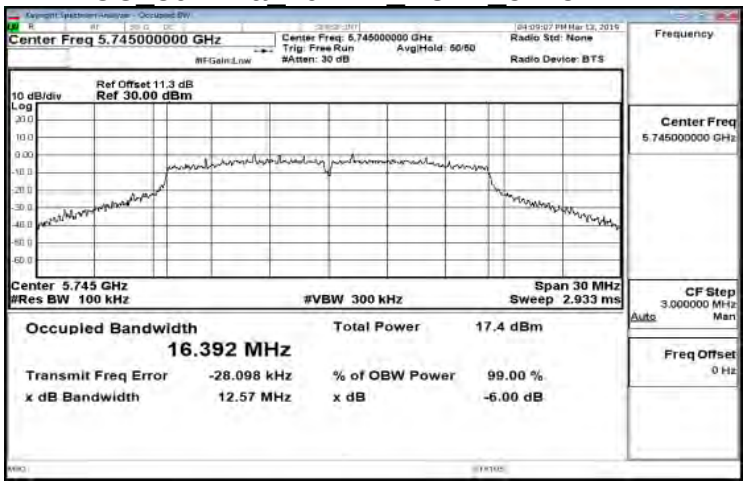
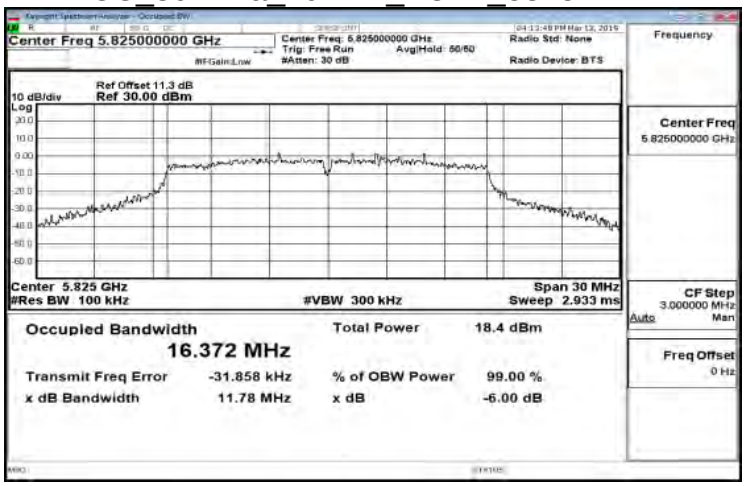


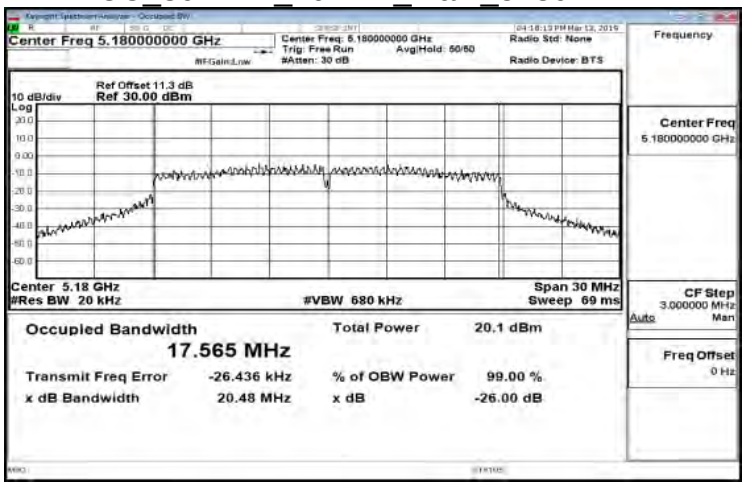
FCC_802.11a_20MHz_AUX1_5745MHz



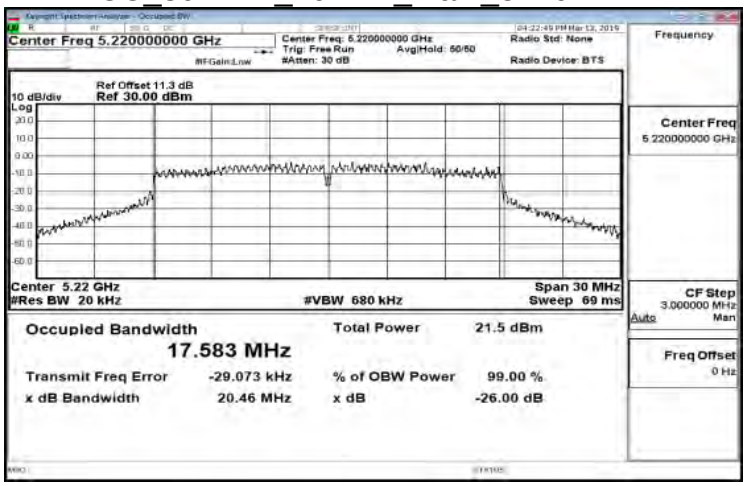
FCC_802.11a_20MHz_AUX1_5825MHz



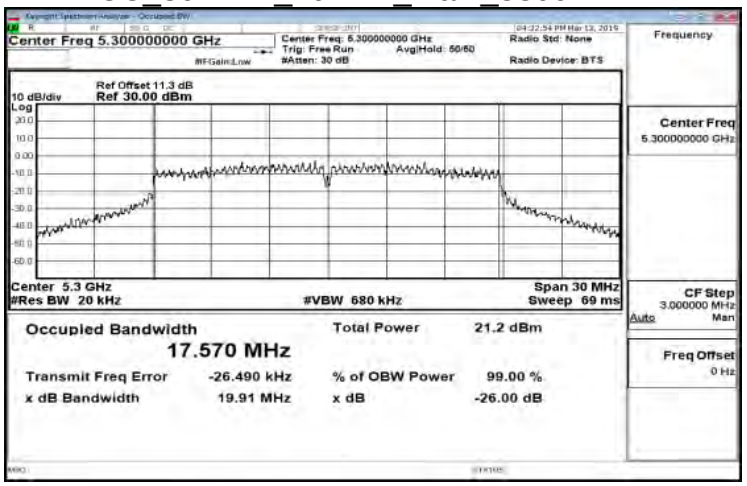
FCC_802.11n_20MHz_Main_5180MHz



FCC_802.11n_20MHz_Main_5220MHz



FCC_802.11n_20MHz_Main_5300MHz



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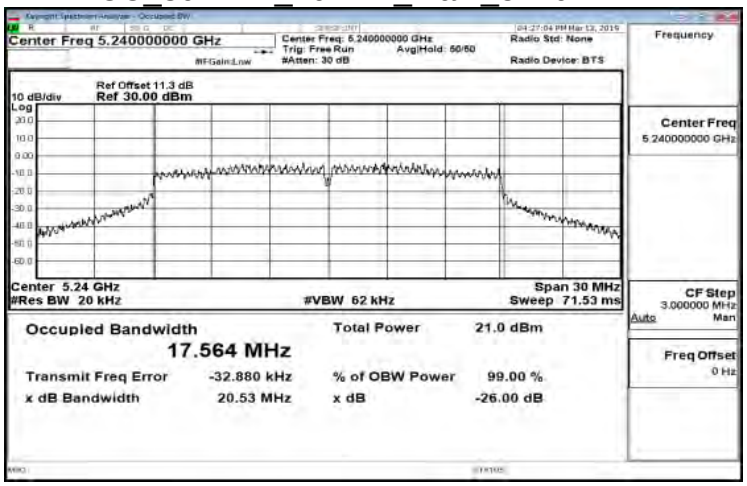
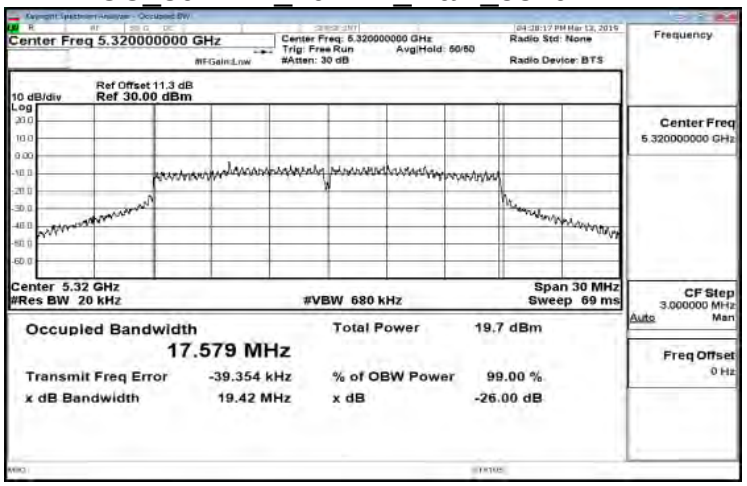
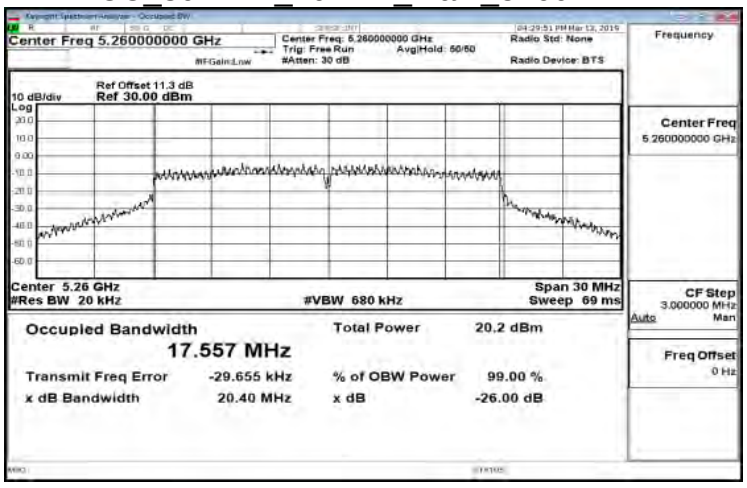


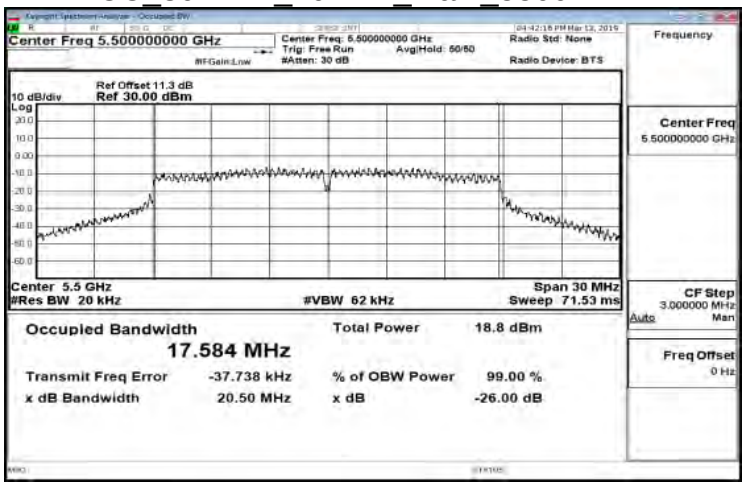
FCC_802.11n_20MHz_Main_5320MHz



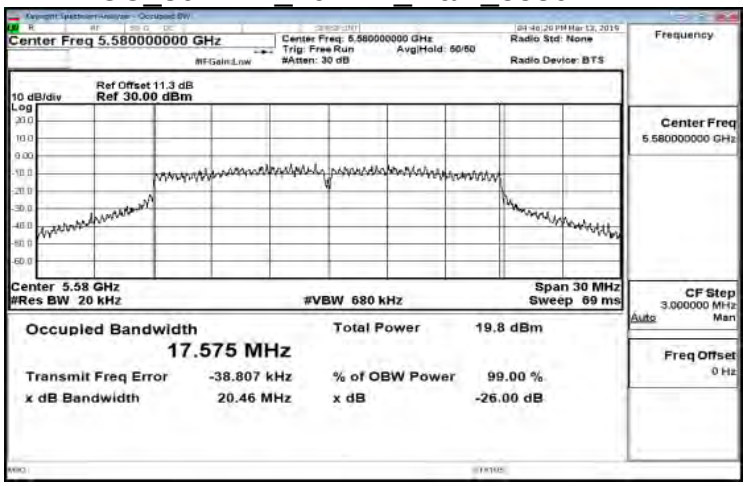
FCC_802.11n_20MHz_Main_5260MHz



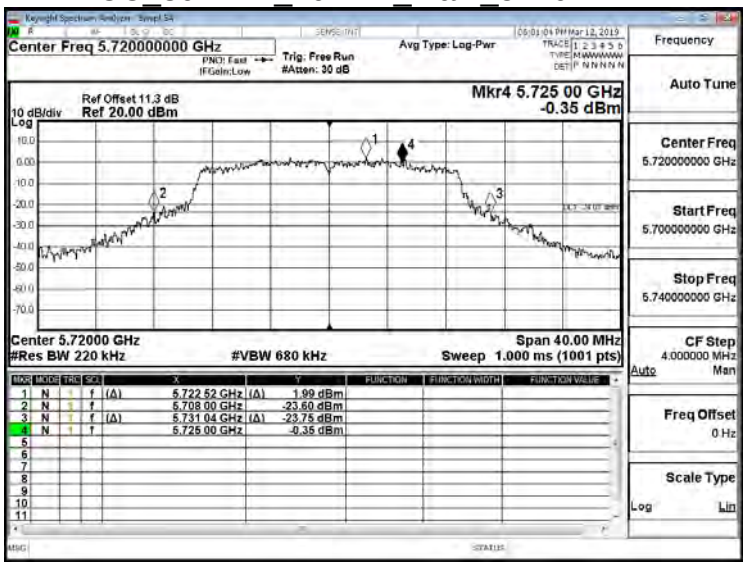
FCC_802.11n_20MHz_Main_5500MHz



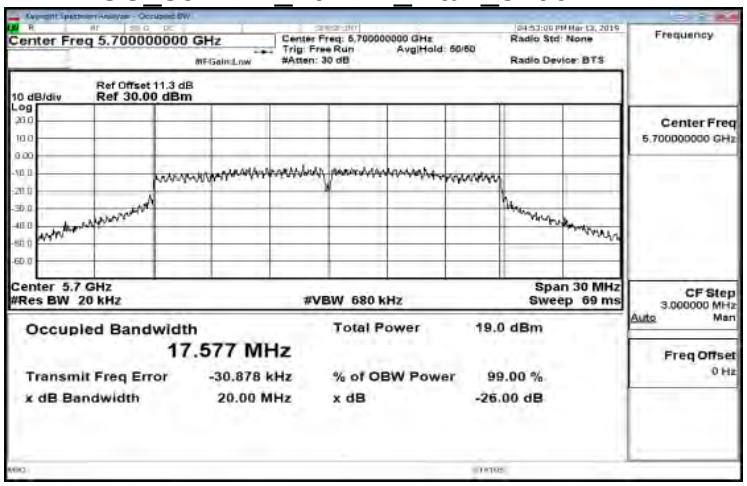
FCC_802.11n_20MHz_Main_5580MHz



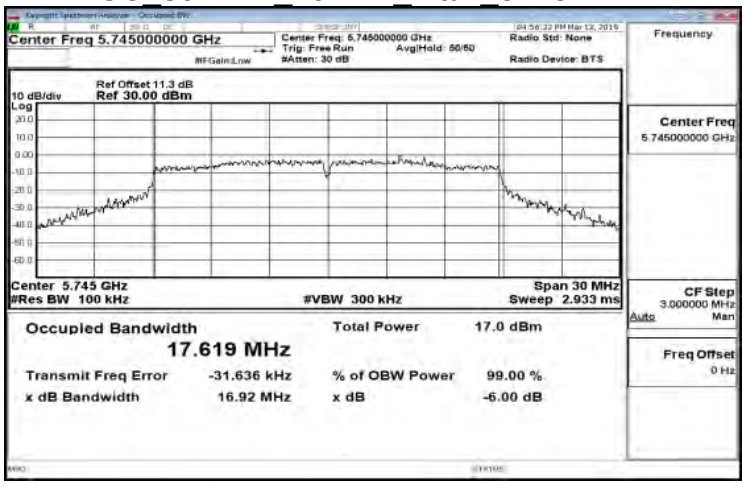
FCC_802.11n_20MHz_Main_5720MHz



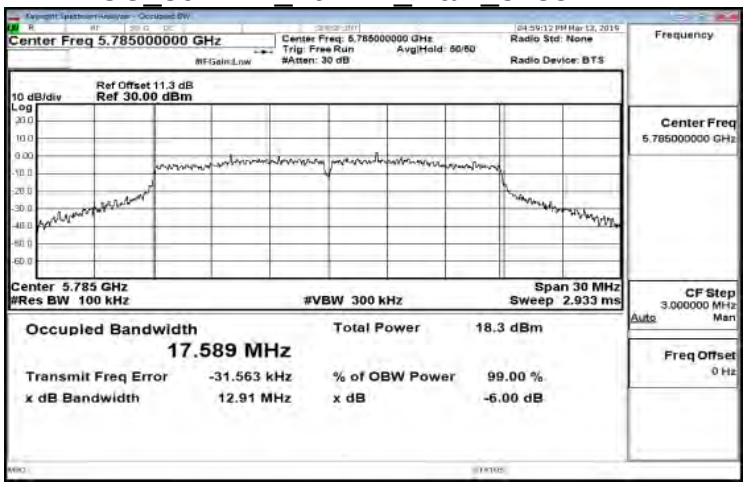
FCC_802.11n_20MHz_Main_5700MHz



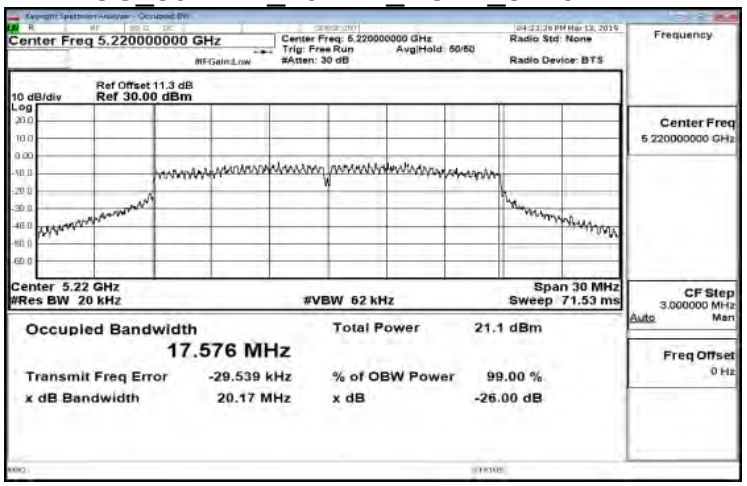
FCC_802.11n_20MHz_Main_5745MHz



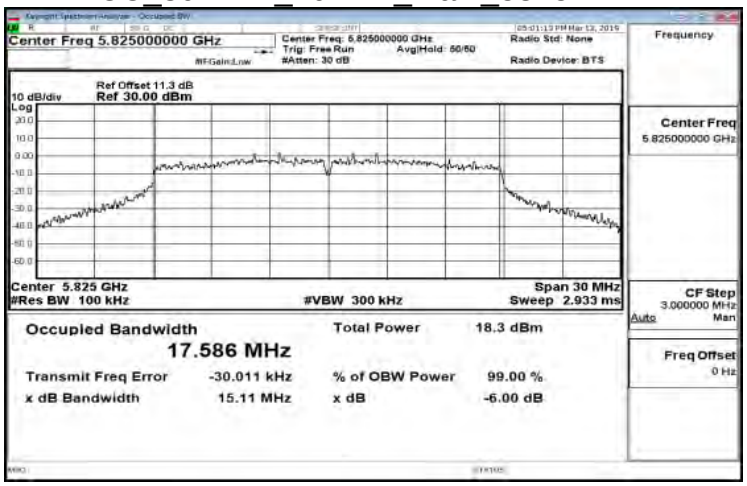
FCC_802.11n_20MHz_Main_5785MHz



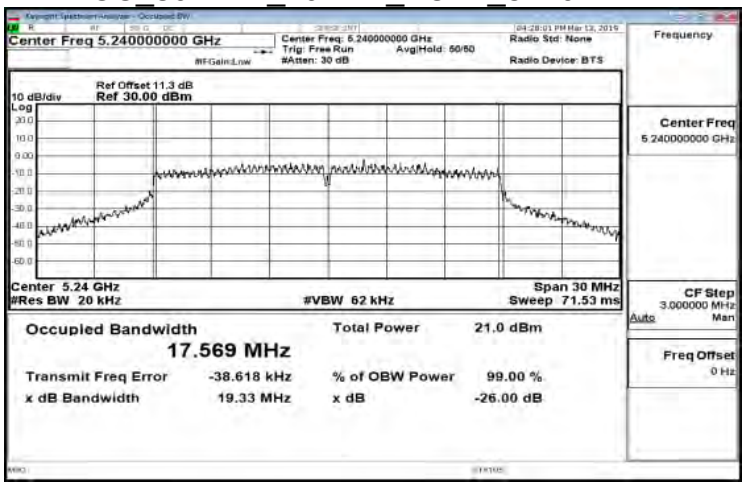
FCC_802.11n_20MHz_AUX1_5220MHz



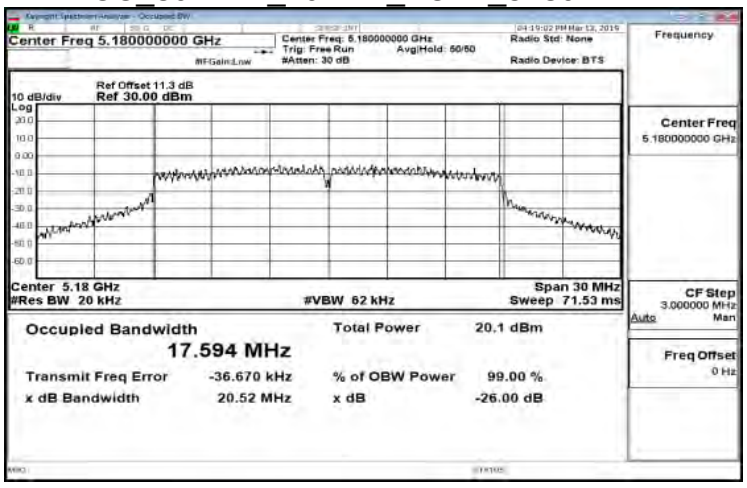
FCC_802.11n_20MHz_Main_5825MHz



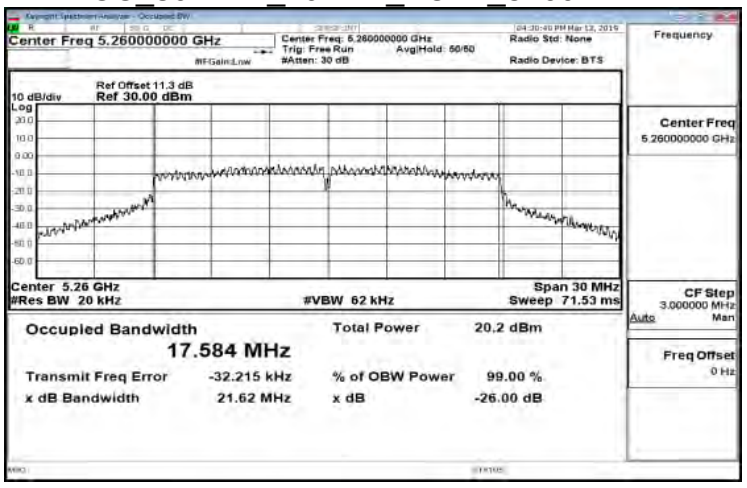
FCC_802.11n_20MHz_AUX1_5240MHz



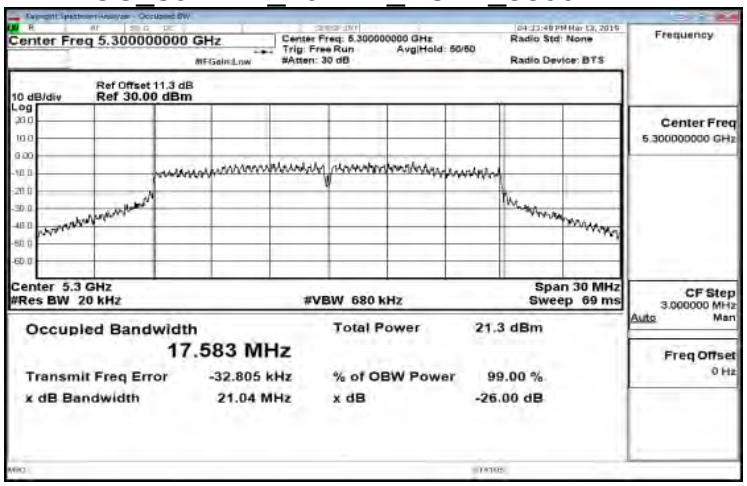
FCC_802.11n_20MHz_AUX1_5180MHz



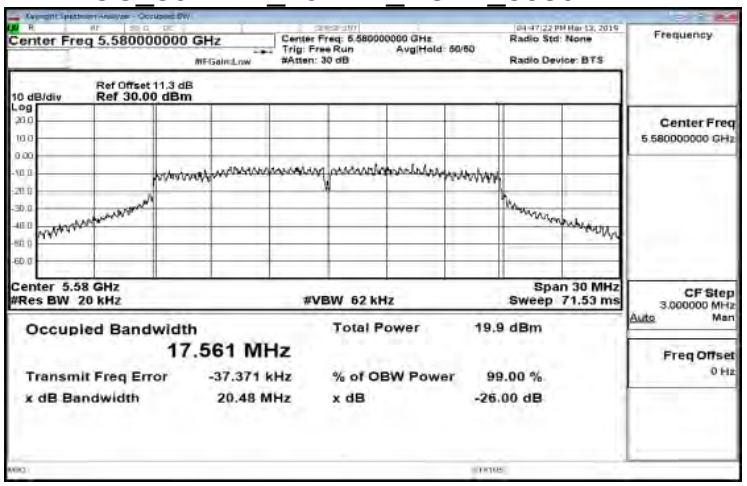
FCC_802.11n_20MHz_AUX1_5260MHz



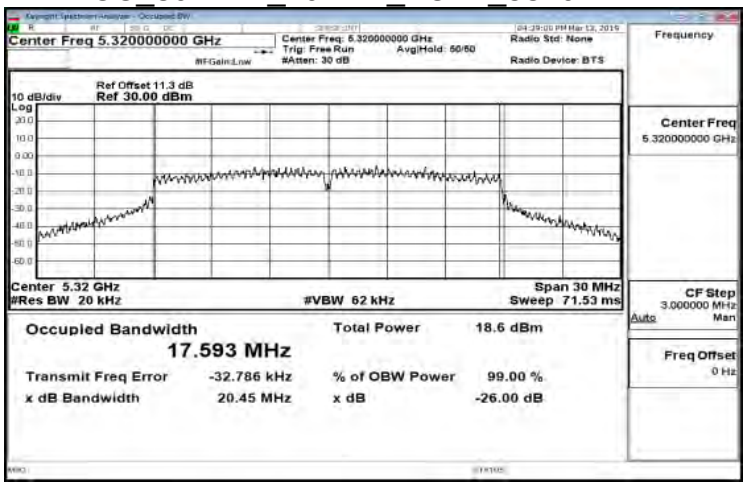
FCC_802.11n_20MHz_AUX1_5300MHz



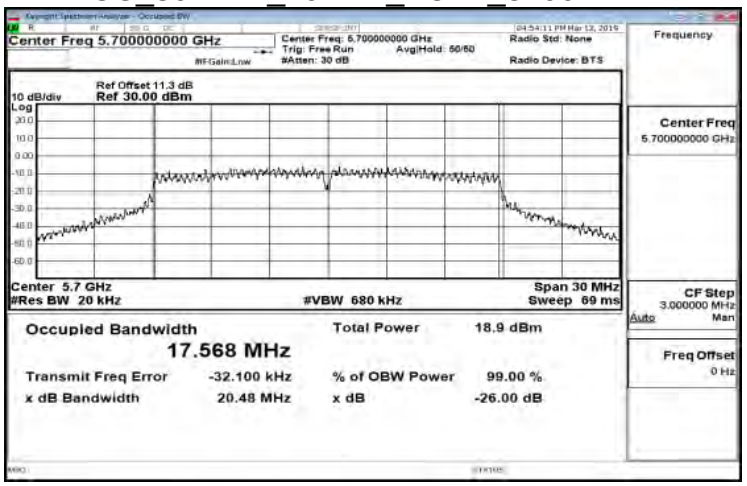
FCC_802.11n_20MHz_AUX1_5580MHz



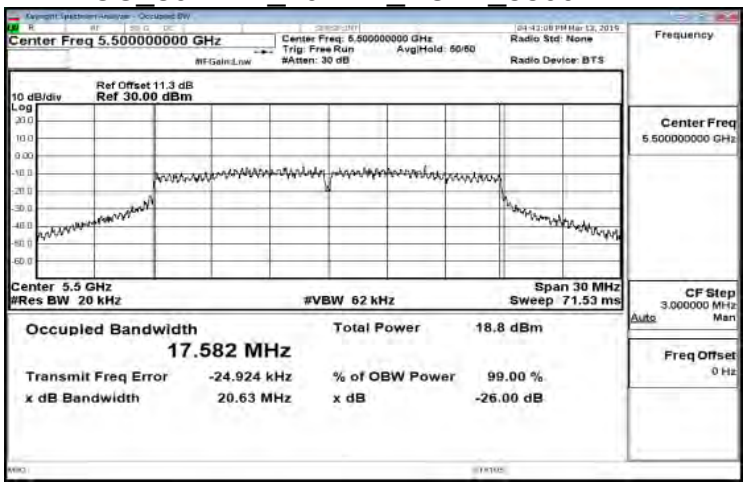
FCC_802.11n_20MHz_AUX1_5320MHz



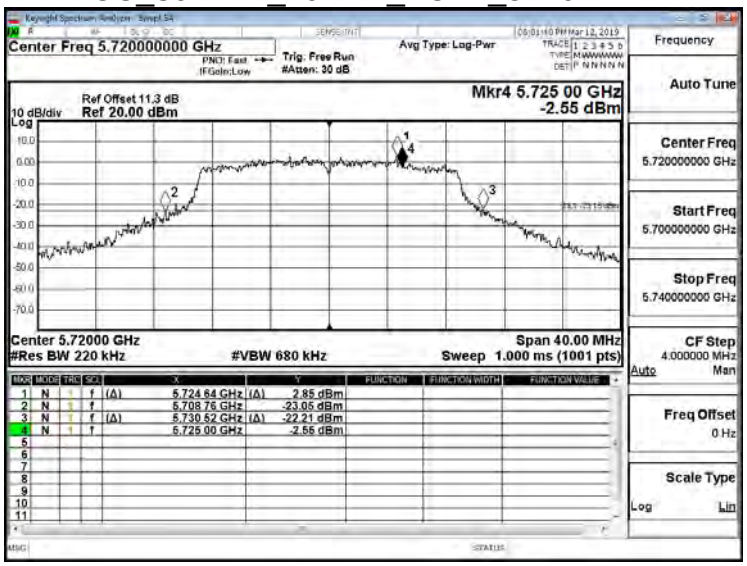
FCC_802.11n_20MHz_AUX1_5700MHz



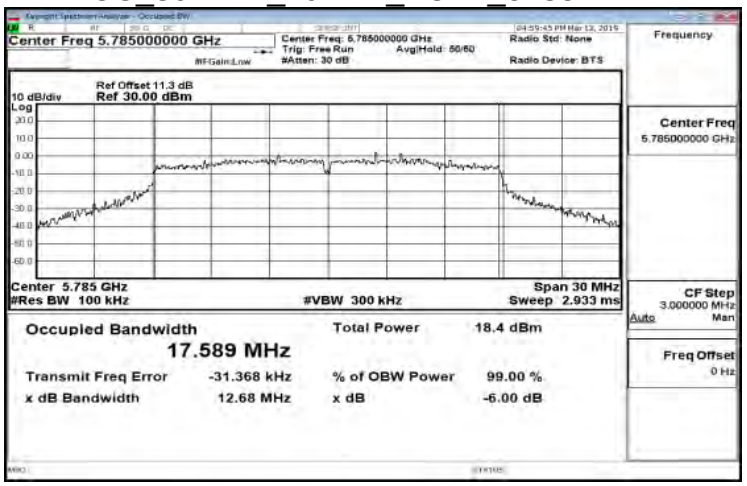
FCC_802.11n_20MHz_AUX1_5500MHz



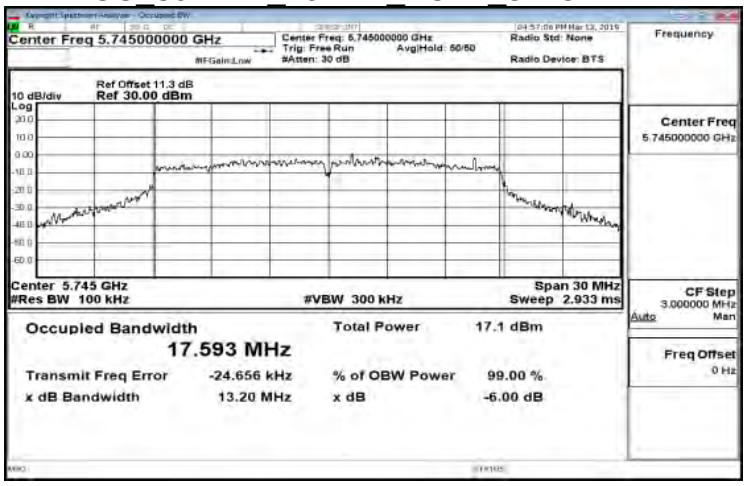
FCC_802.11n_20MHz_AUX1_5720MHz



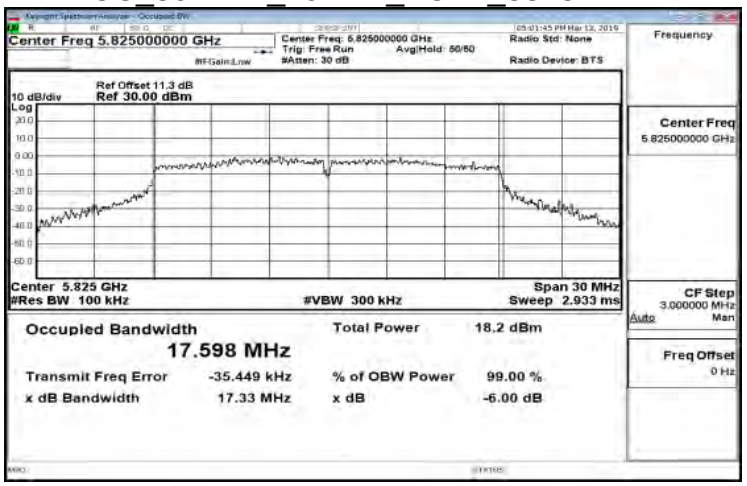
FCC_802.11n_20MHz_AUX1_5785MHz



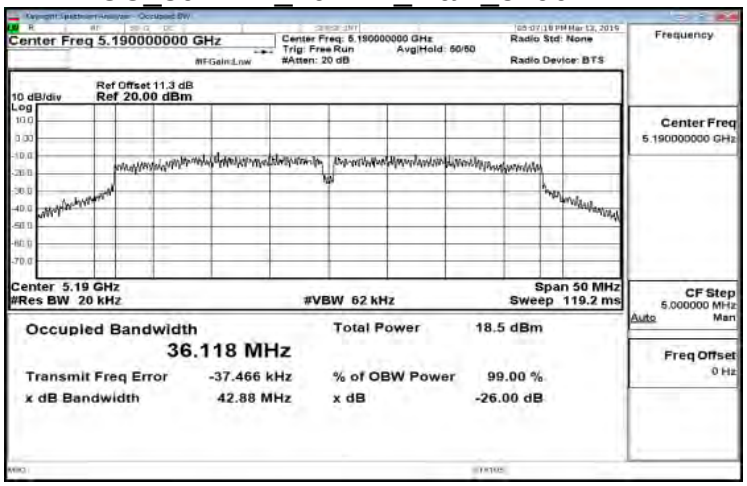
FCC_802.11n_20MHz_AUX1_5745MHz



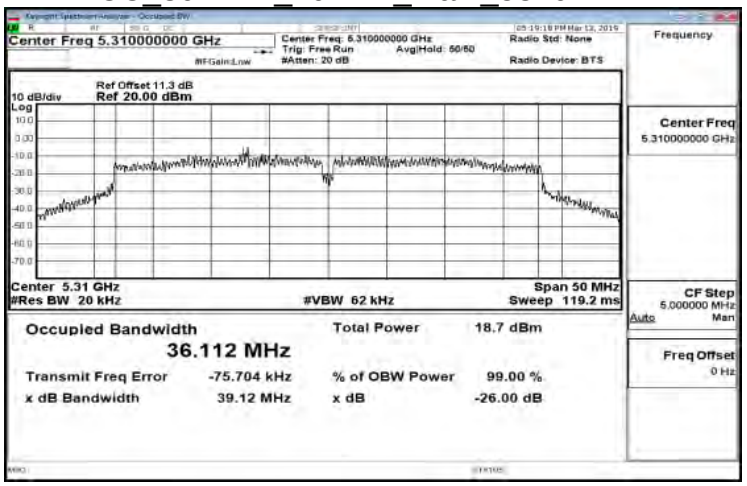
FCC_802.11n_20MHz_AUX1_5825MHz



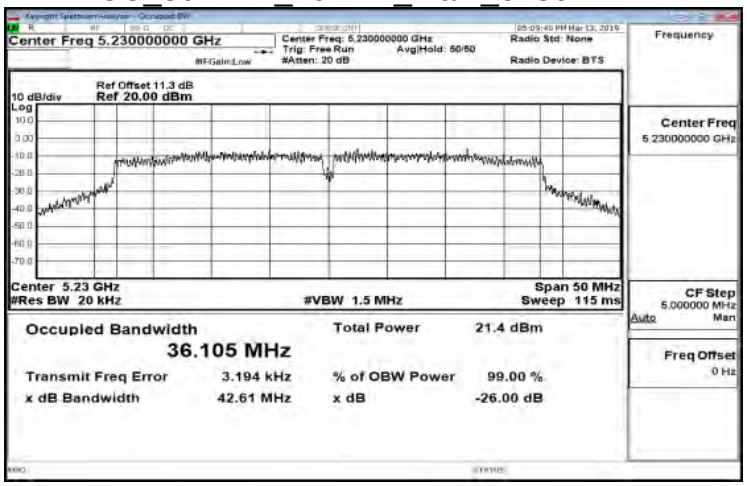
FCC_802.11n_40MHz_Main_5190MHz



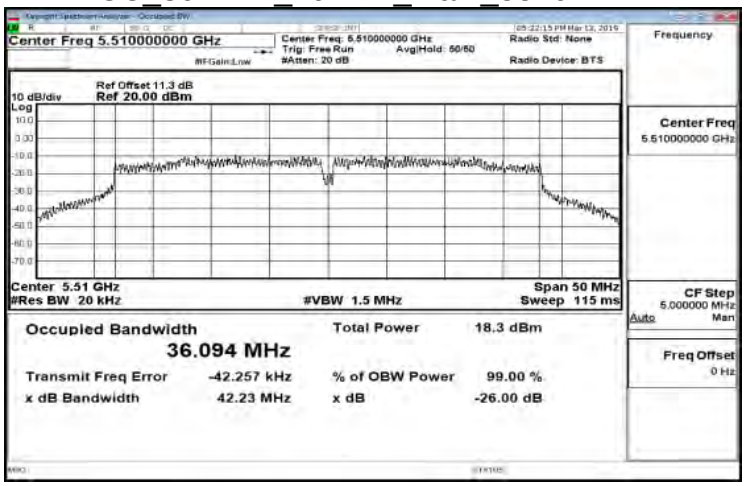
FCC_802.11n_40MHz_Main_5310MHz



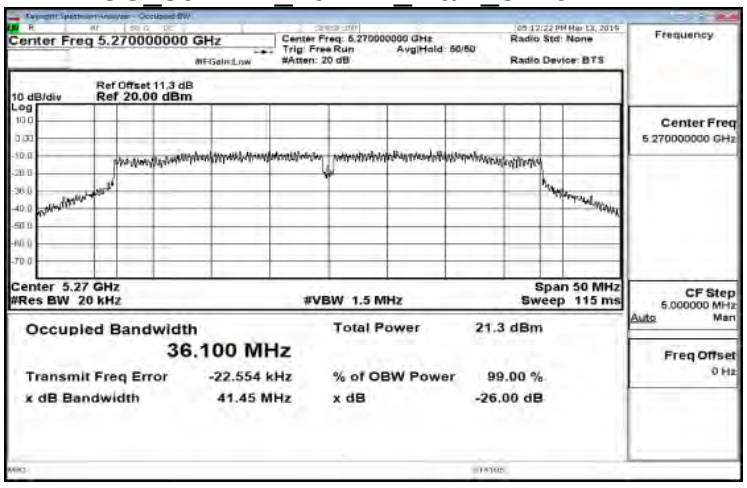
FCC_802.11n_40MHz_Main_5230MHz



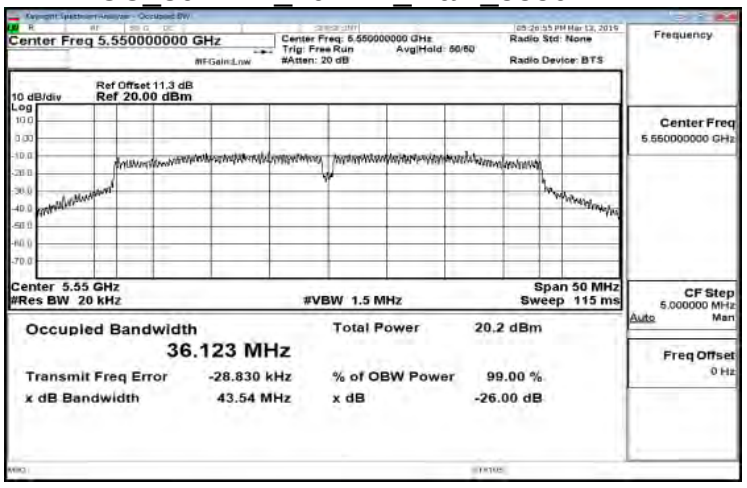
FCC_802.11n_40MHz_Main_5510MHz



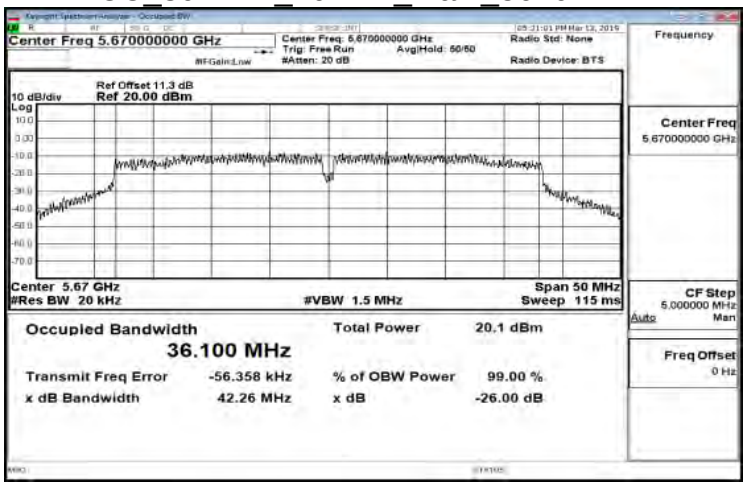
FCC_802.11n_40MHz_Main_5270MHz



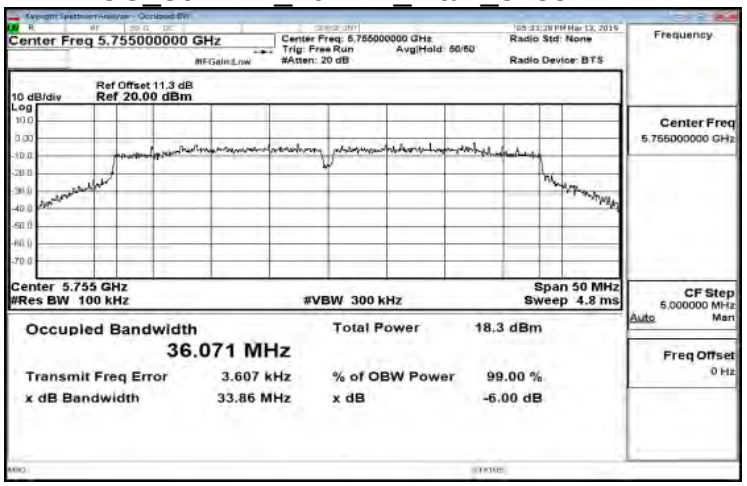
FCC_802.11n_40MHz_Main_5550MHz



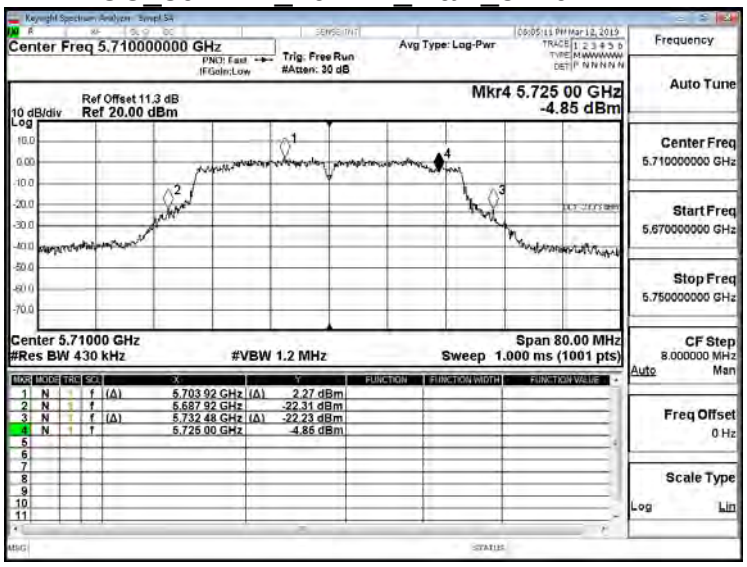
FCC_802.11n_40MHz_Main_5670MHz



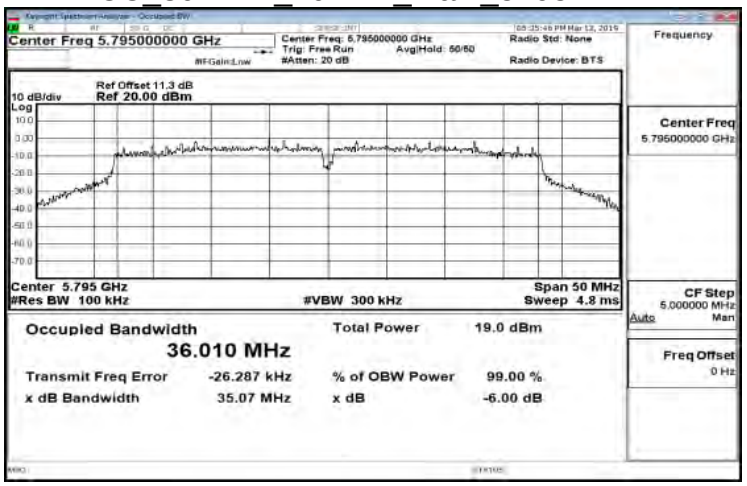
FCC_802.11n_40MHz_Main_5755MHz



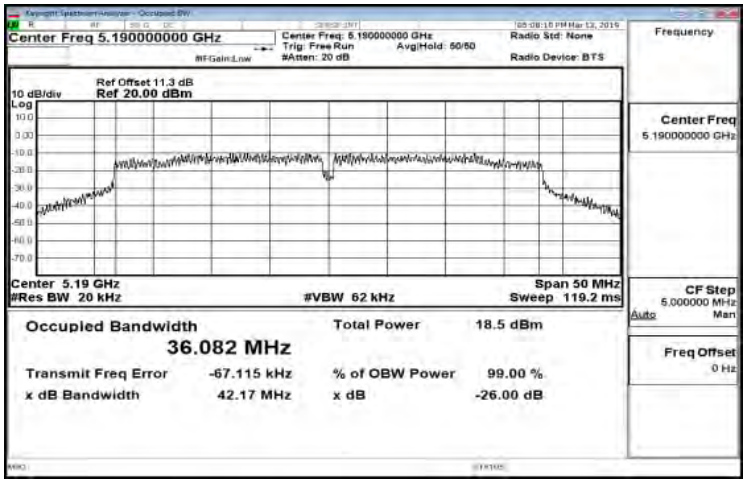
FCC_802.11n_40MHz_Main_5710MHz



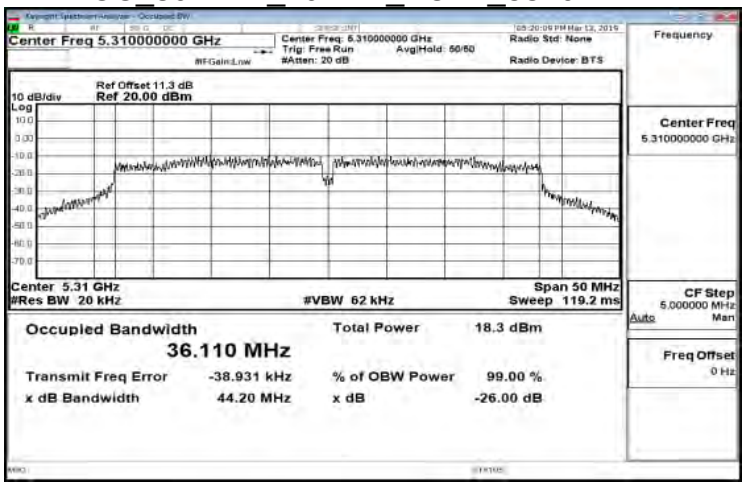
FCC_802.11n_40MHz_Main_5795MHz



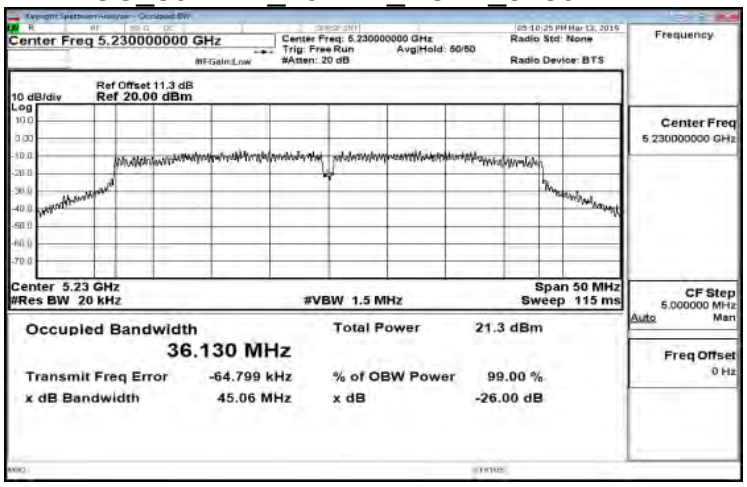
FCC_802.11n_40MHz_AUX1_5190MHz



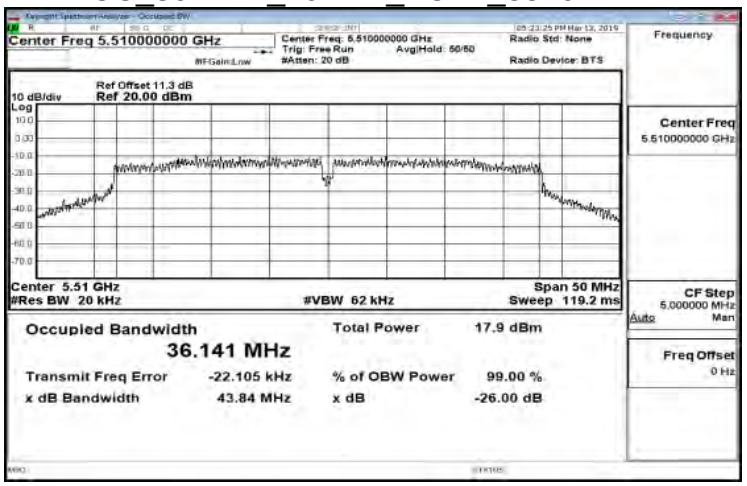
FCC_802.11n_40MHz_AUX1_5310MHz



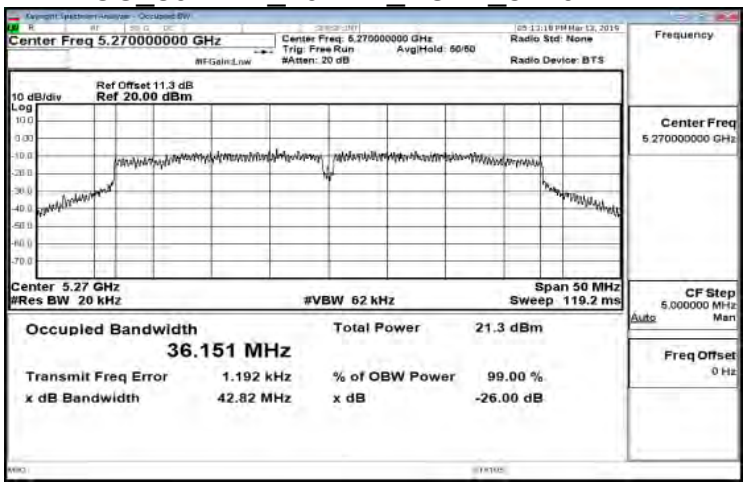
FCC_802.11n_40MHz_AUX1_5230MHz



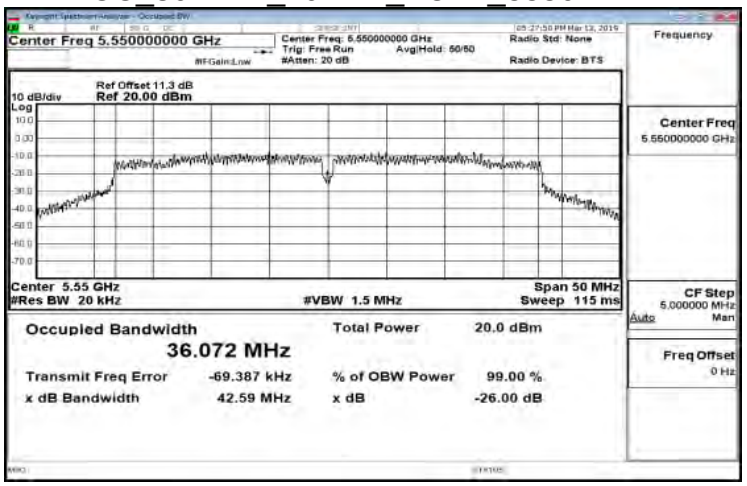
FCC_802.11n_40MHz_AUX1_5510MHz



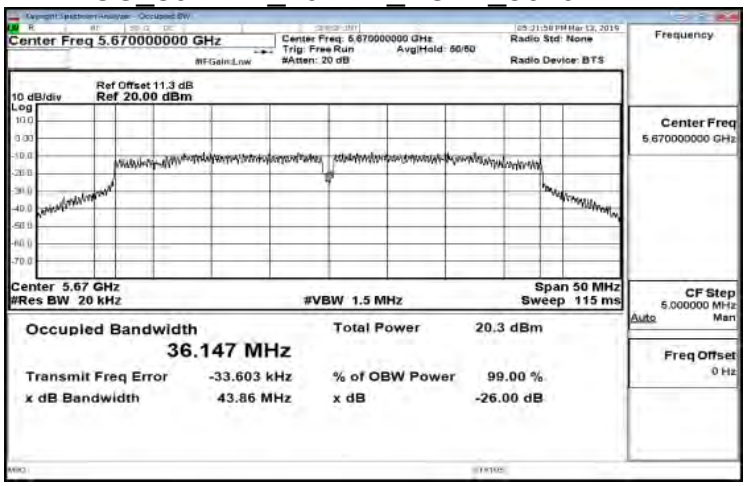
FCC_802.11n_40MHz_AUX1_5270MHz



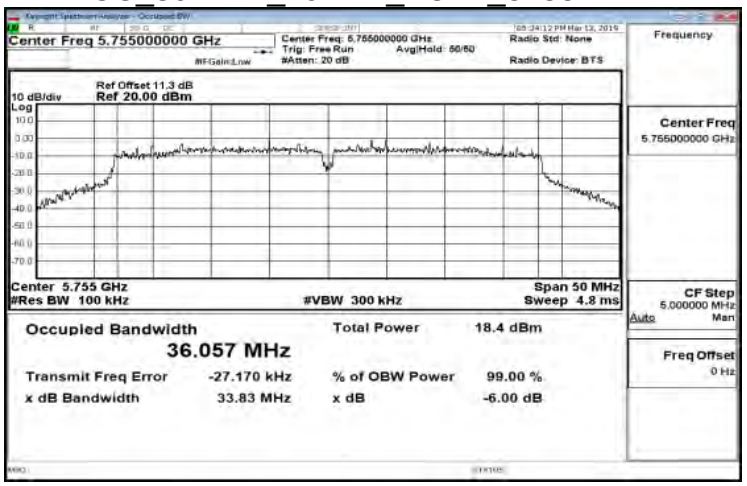
FCC_802.11n_40MHz_AUX1_5550MHz



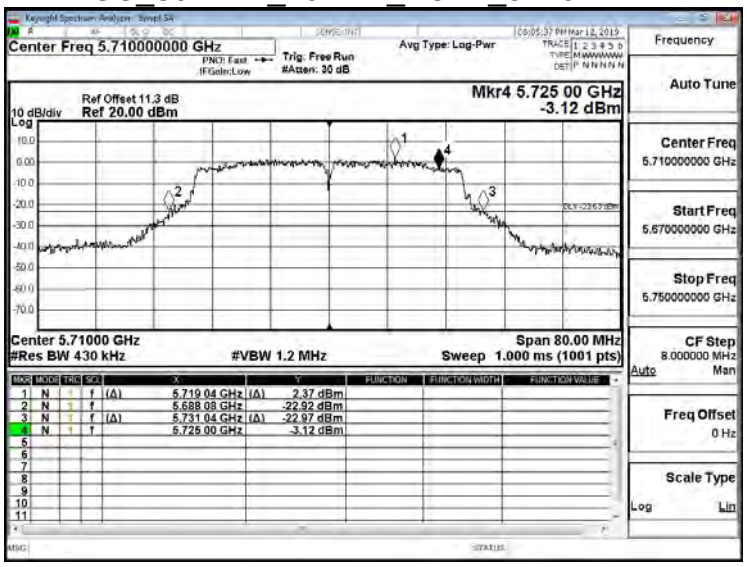
FCC_802.11n_40MHz_AUX1_5670MHz



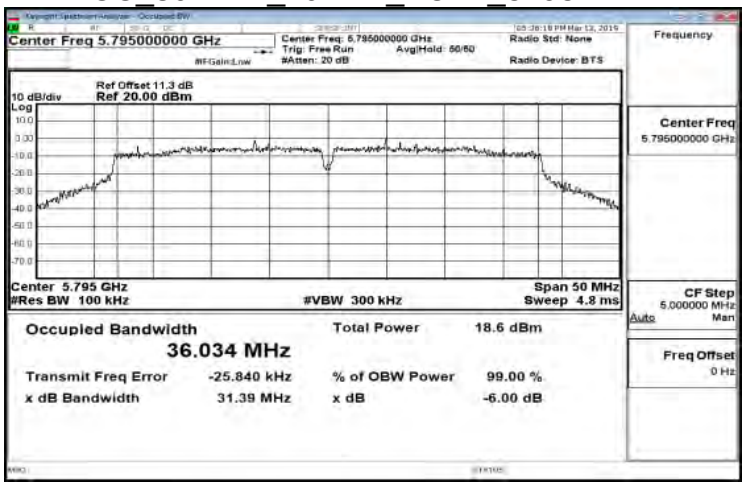
FCC_802.11n_40MHz_AUX1_5755MHz



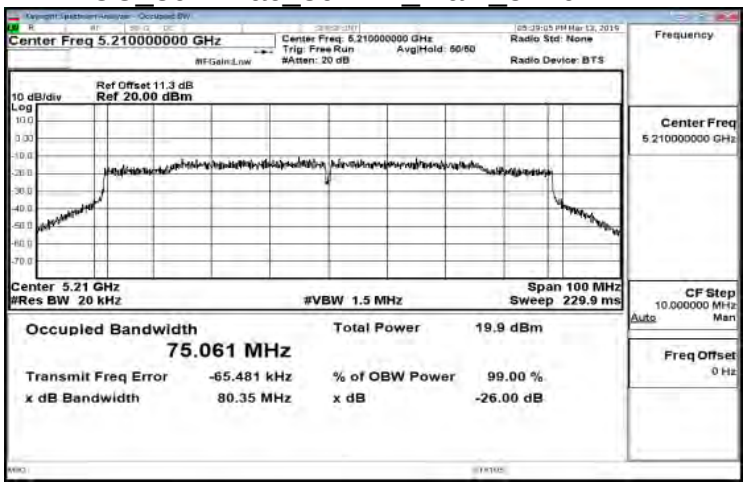
FCC_802.11n_40MHz_AUX1_5710MHz



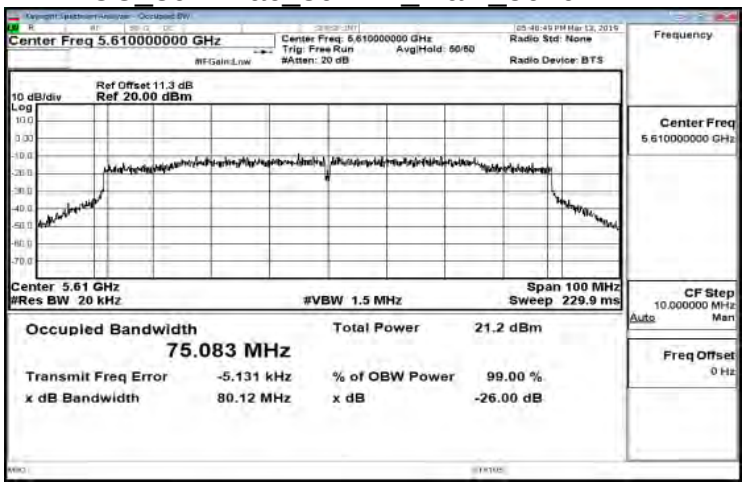
FCC_802.11n_40MHz_AUX1_5795MHz



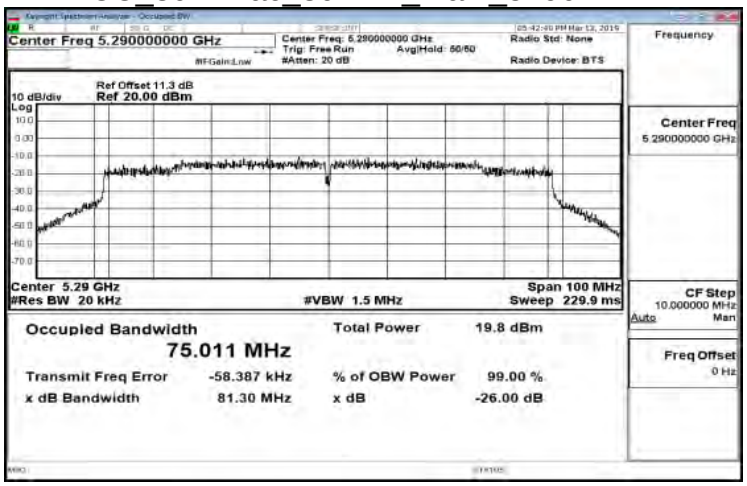
FCC_802.11ac_80MHz_Main_5210MHz



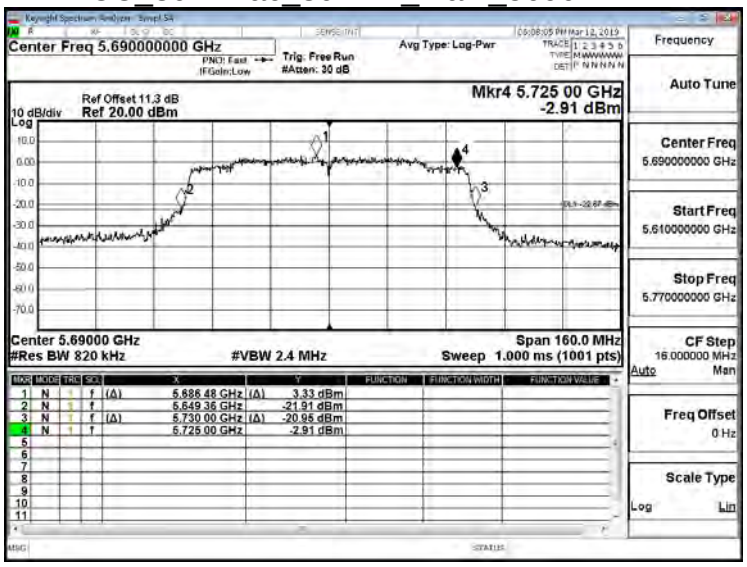
FCC_802.11ac_80MHz_Main_5610MHz



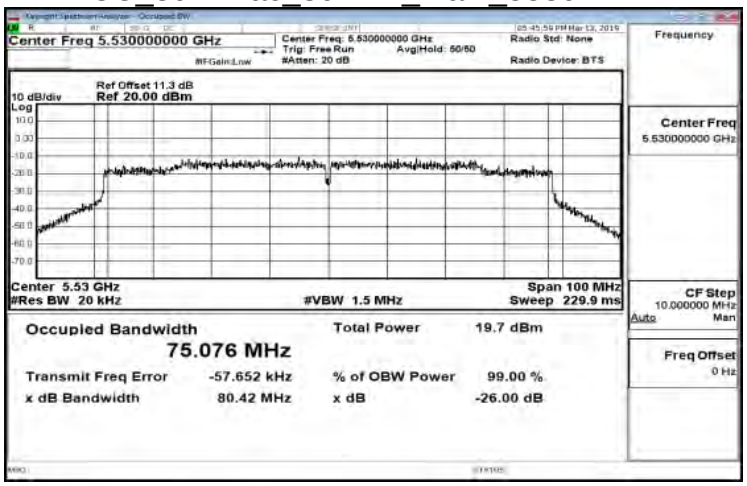
FCC_802.11ac_80MHz_Main_5290MHz



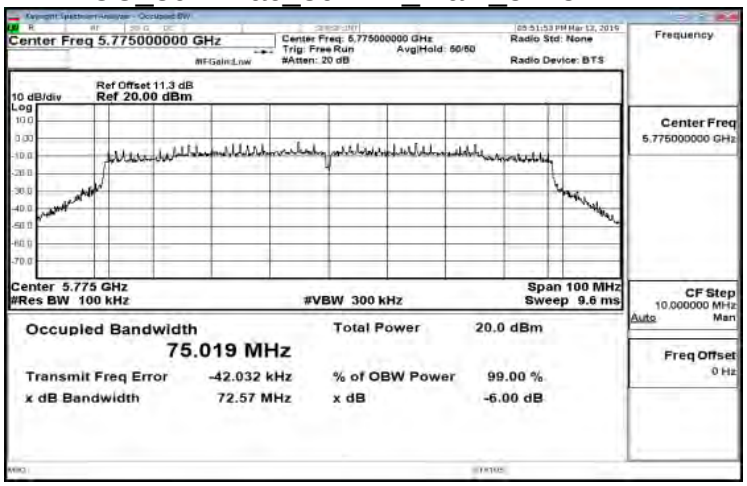
FCC_802.11ac_80MHz_Main_5690MHz



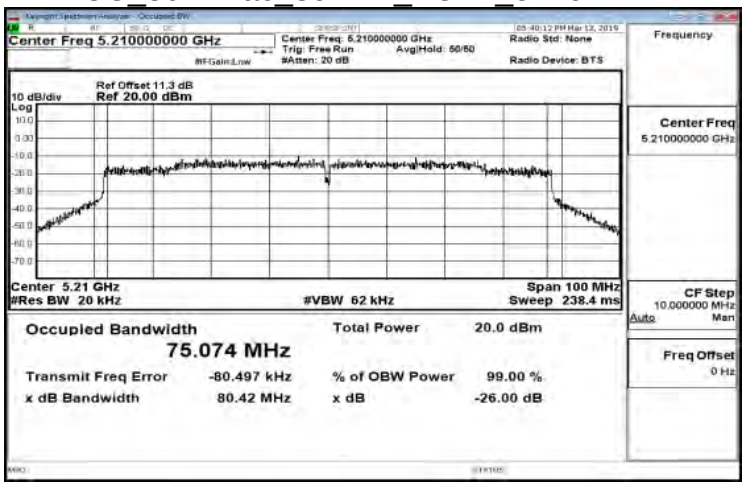
FCC_802.11ac_80MHz_Main_5530MHz



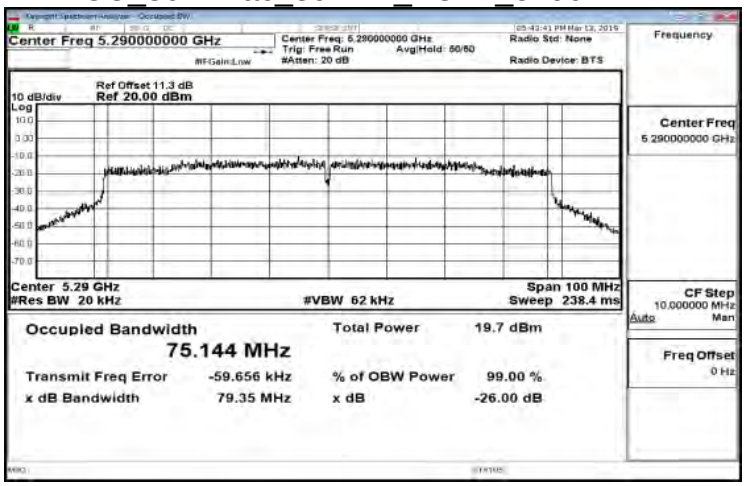
FCC_802.11ac_80MHz_Main_5775MHz



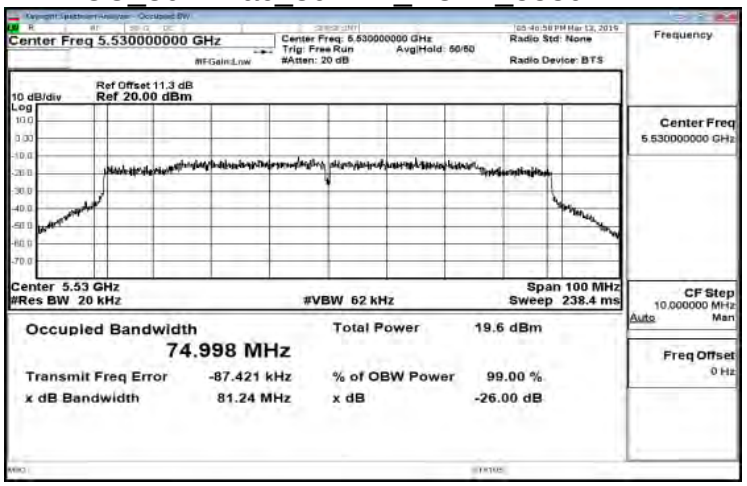
FCC_802.11ac_80MHz_AUX1_5210MHz



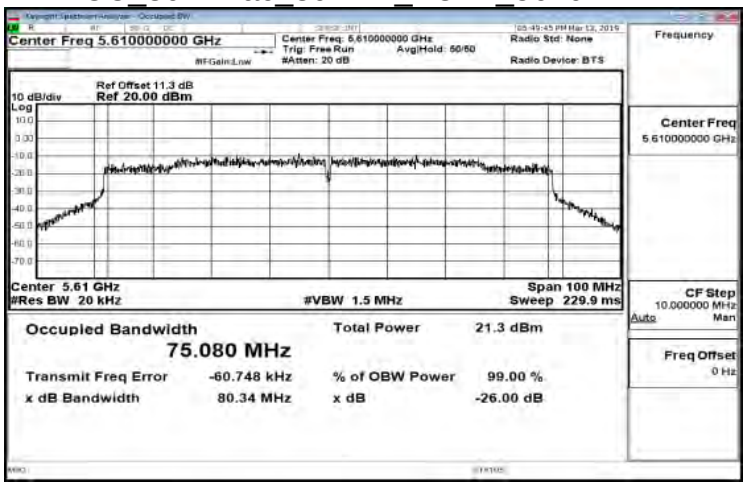
FCC_802.11ac_80MHz_AUX1_5290MHz



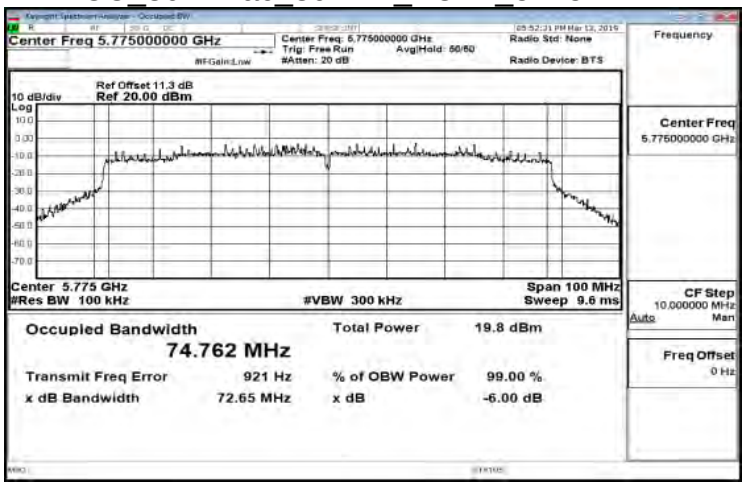
FCC_802.11ac_80MHz_AUX1_5530MHz



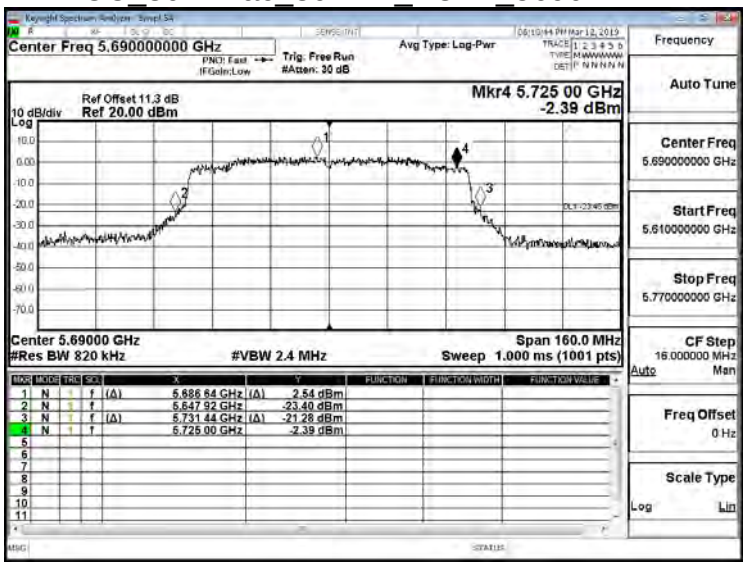
FCC_802.11ac_80MHz_AUX1_5610MHz



FCC_802.11ac_80MHz_AUX1_5775MHz

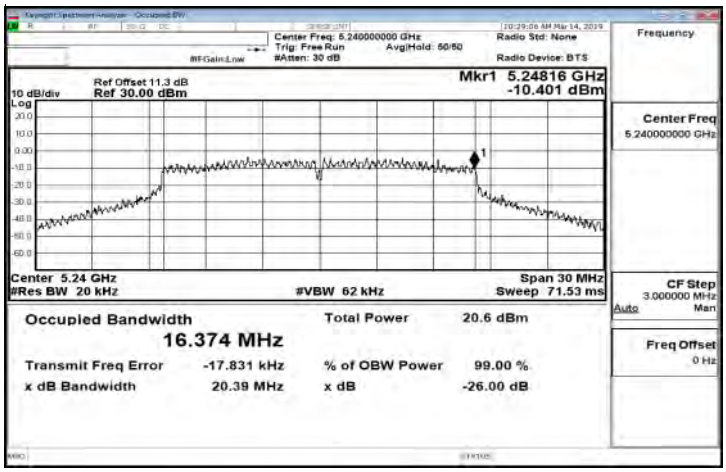


FCC_802.11ac_80MHz_AUX1_5690MHz

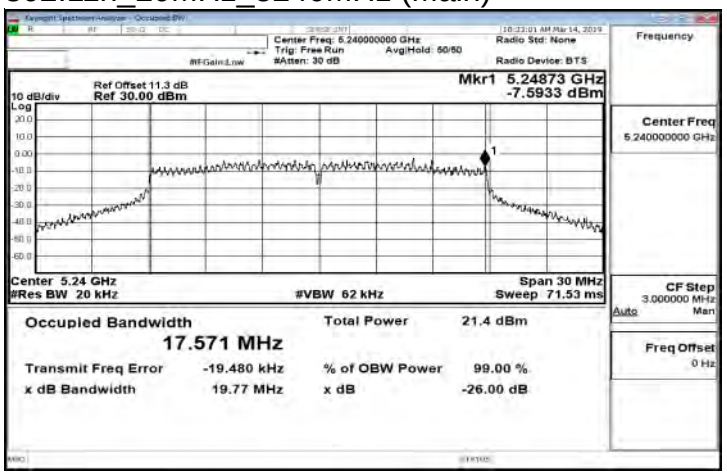


99% BW to prove that all signals in band I is no over band U-NII-1

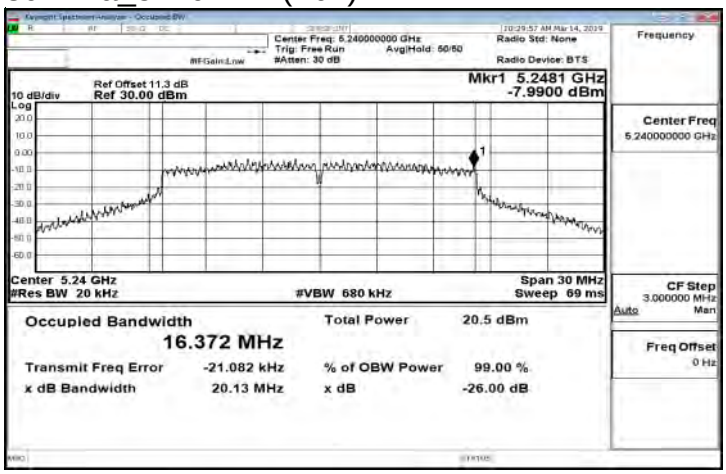
802.11a_5240MHz (Main)



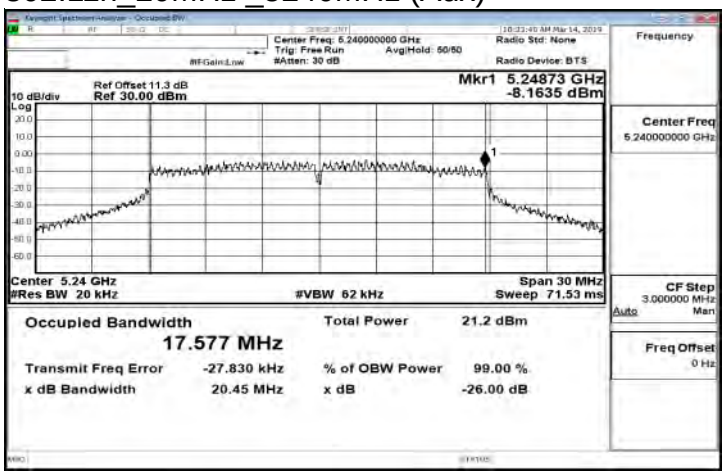
802.11n_20MHz_5240MHz (Main)



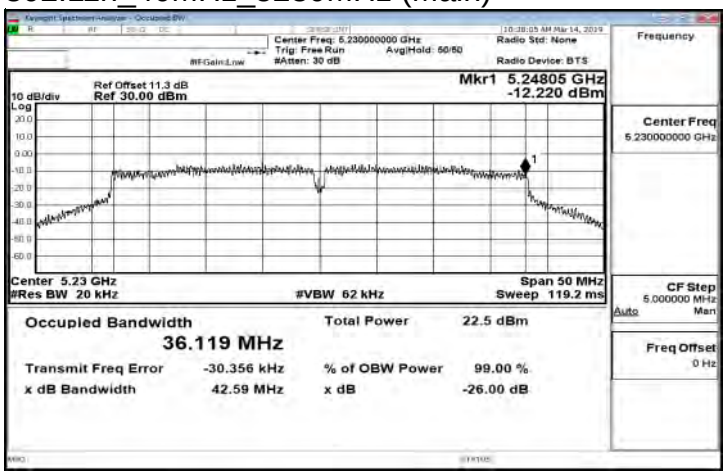
802.11a_5240MHz (Aux)



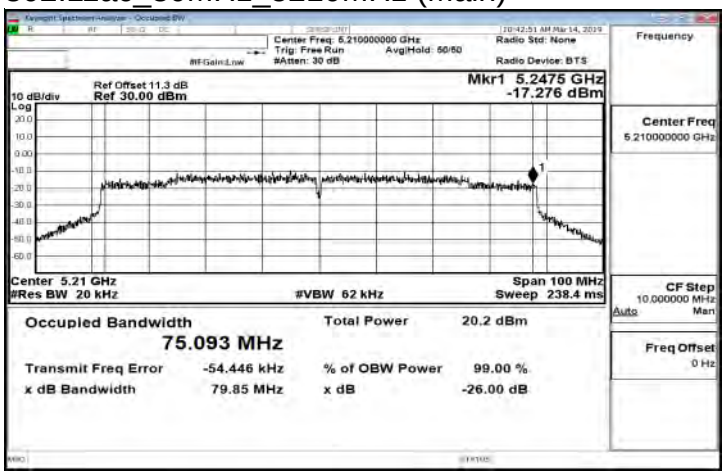
802.11n_20MHz _5240MHz (Aux)



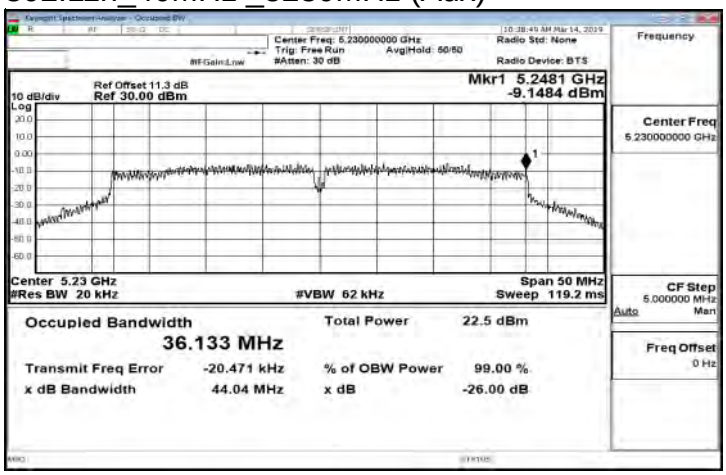
802.11n_40MHz_5230MHz (Main)



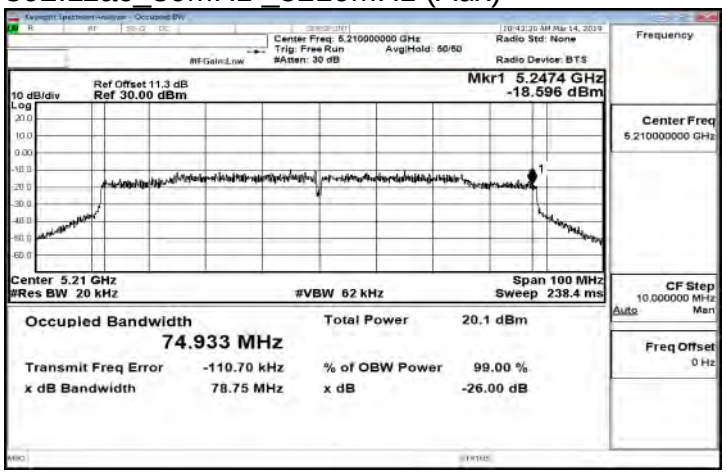
802.11ac_80MHz_5210MHz (Main)



802.11n_40MHz _5230MHz (Aux)

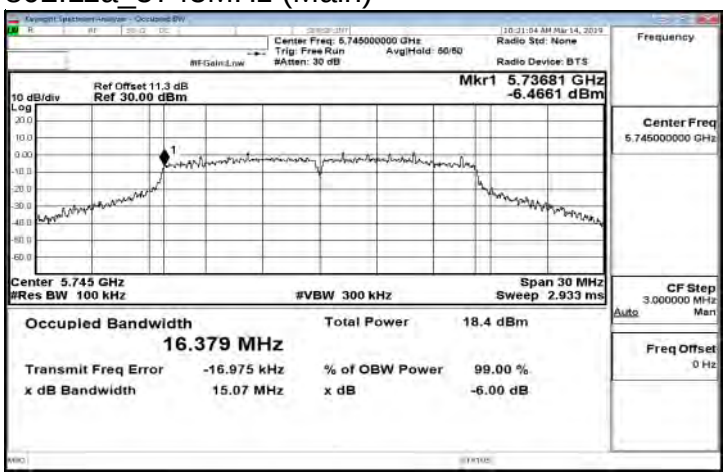


802.11ac_80MHz _5210MHz (Aux)

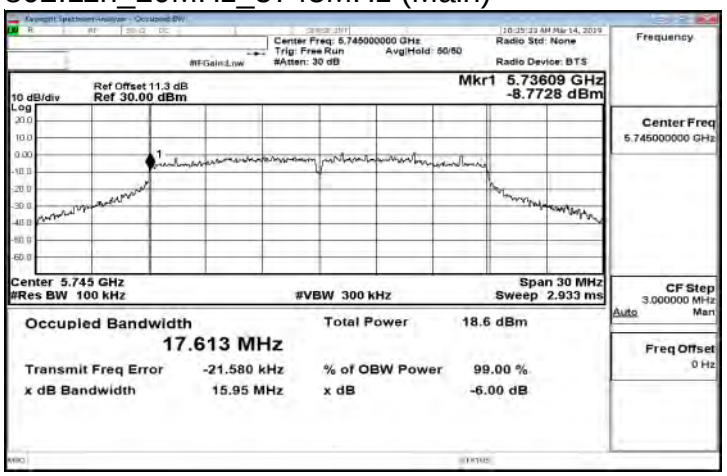


99% BW to prove that all signals in band I is no over band U-NII-3

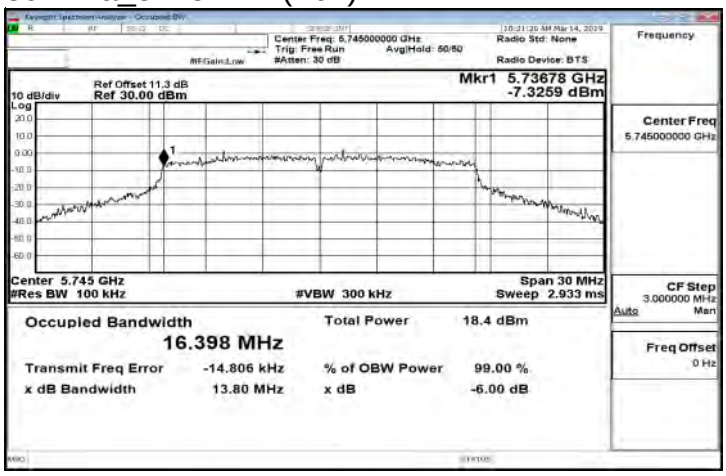
802.11a_5745MHz (Main)



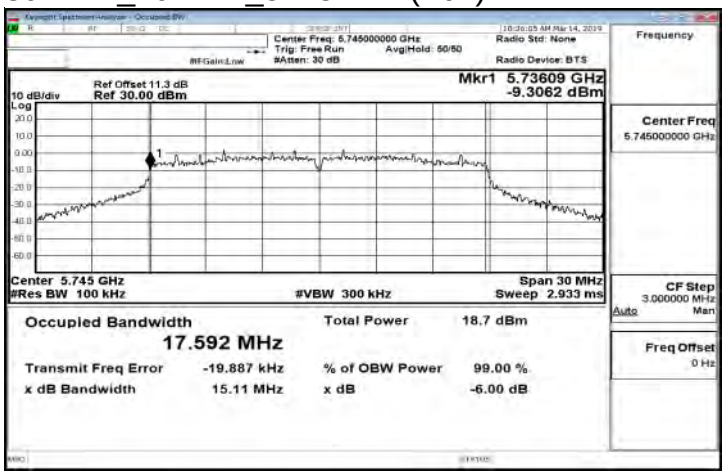
802.11n_20MHz_5745MHz (Main)



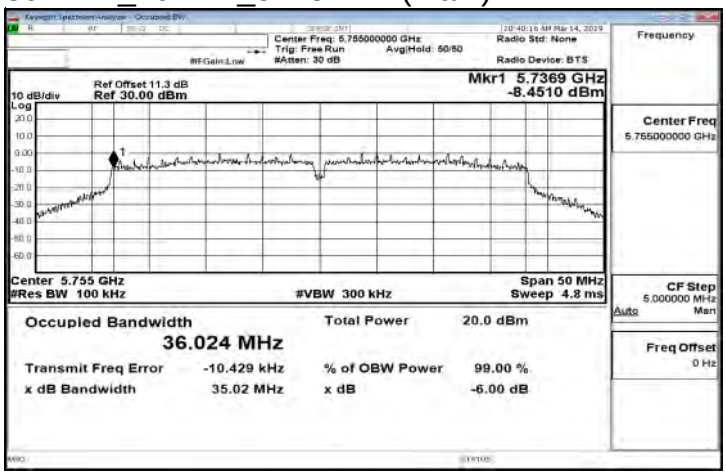
802.11a_5745MHz (Aux)



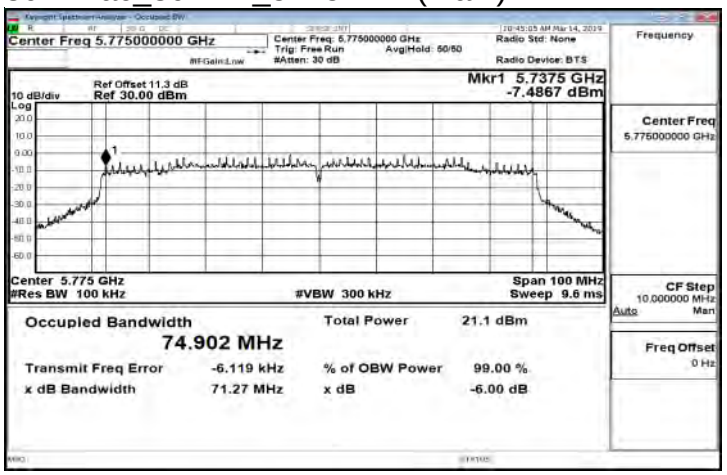
802.11n_20MHz _5745MHz (Aux)



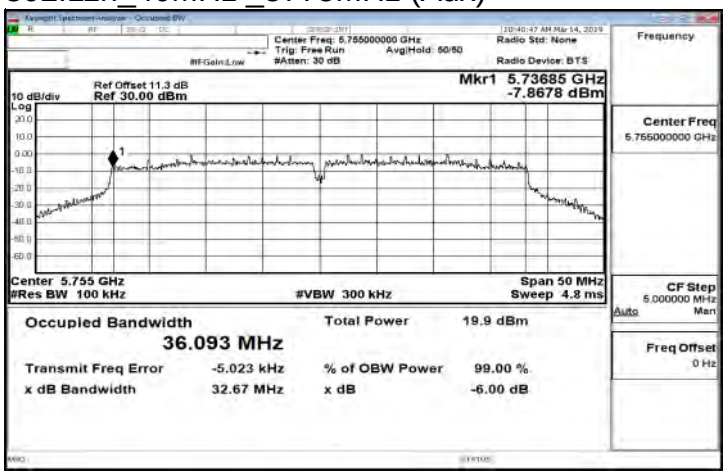
802.11n_40MHz_5775MHz (Main)



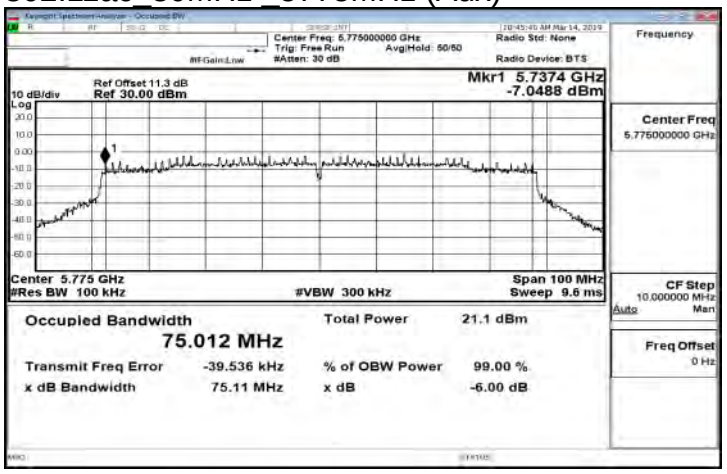
802.11ac_80MHz_5775MHz (Main)



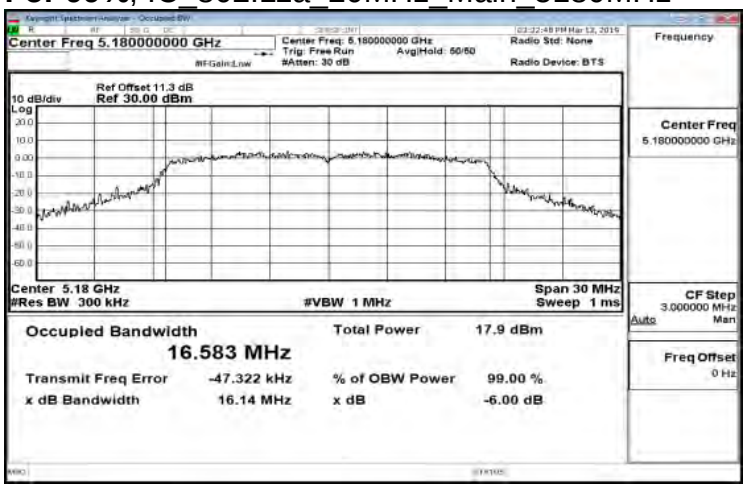
802.11n_40MHz _5775MHz (Aux)



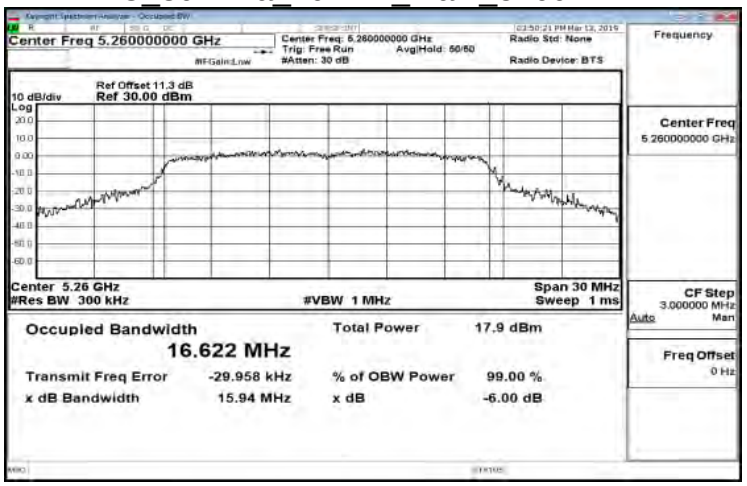
802.11ac_80MHz _5775MHz (Aux)



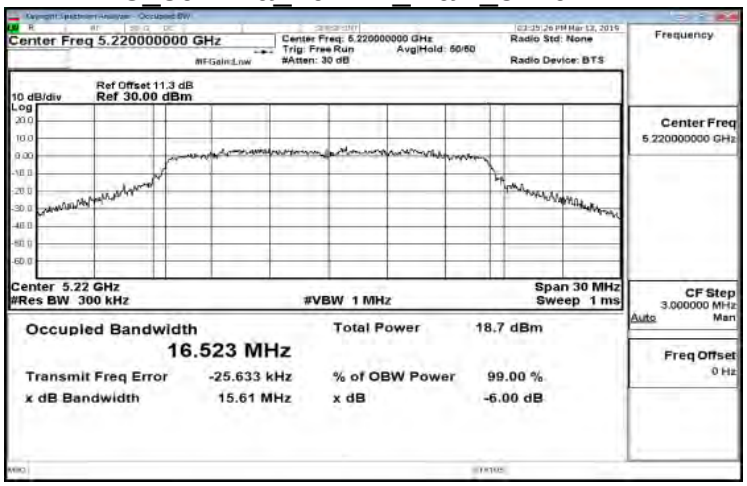
For 99%, IC_802.11a_20MHz_Main_5180MHz



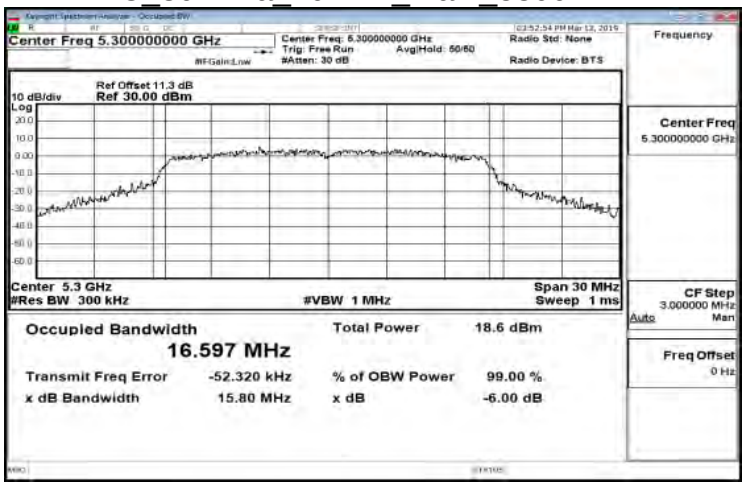
IC_802.11a_20MHz_Main_5260MHz



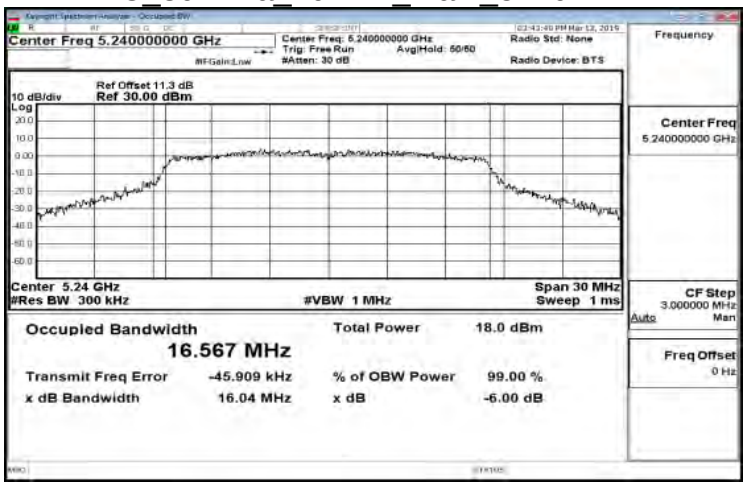
IC_802.11a_20MHz_Main_5220MHz



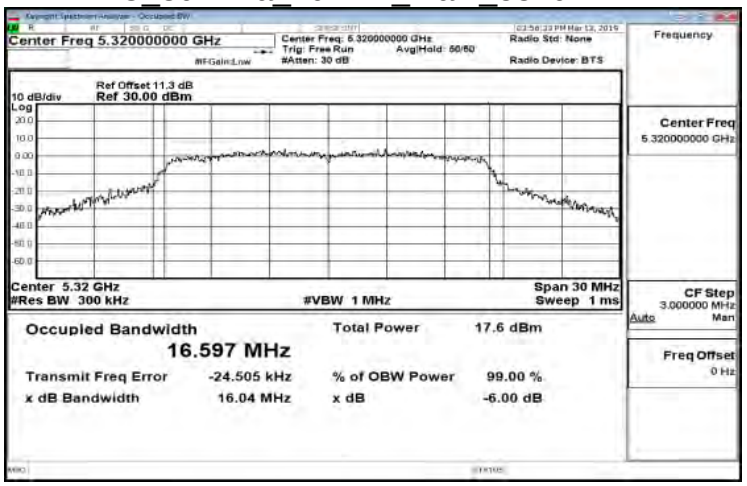
IC_802.11a_20MHz_Main_5300MHz



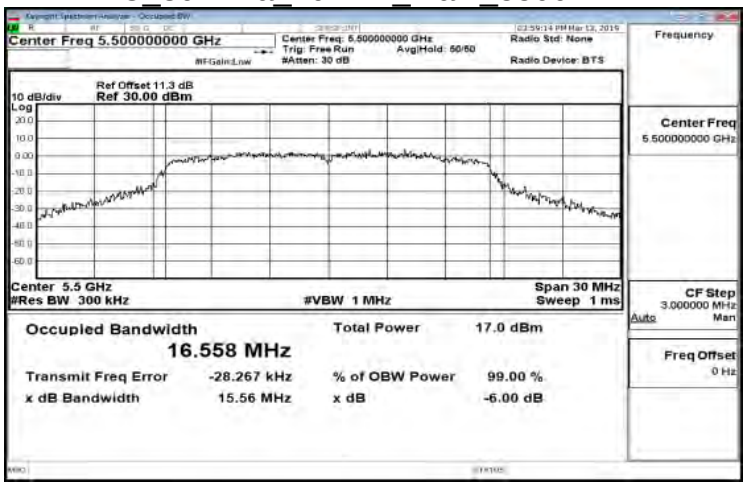
IC_802.11a_20MHz_Main_5240MHz



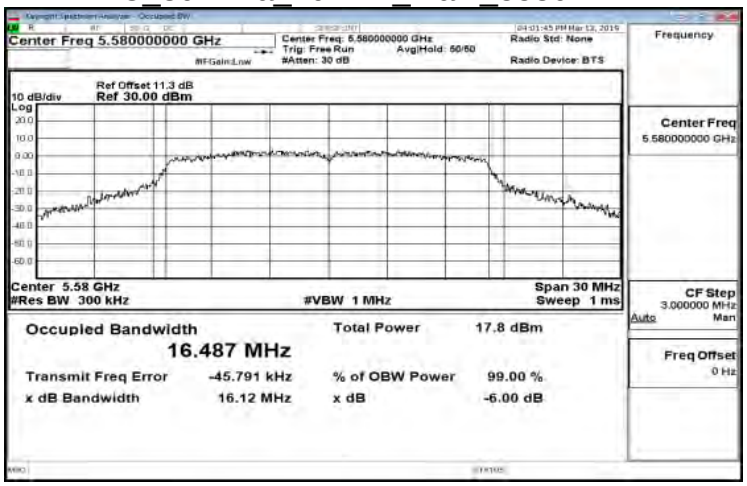
IC_802.11a_20MHz_Main_5320MHz



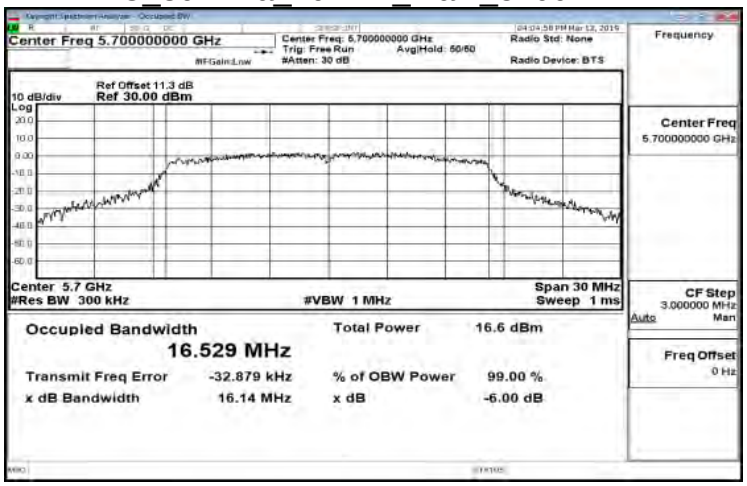
IC_802.11a_20MHz_Main_5500MHz



IC_802.11a_20MHz_Main_5580MHz

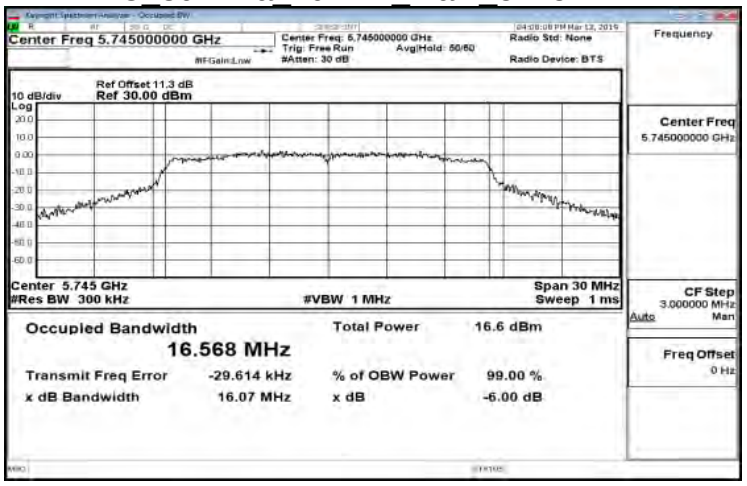


IC_802.11a_20MHz_Main_5700MHz

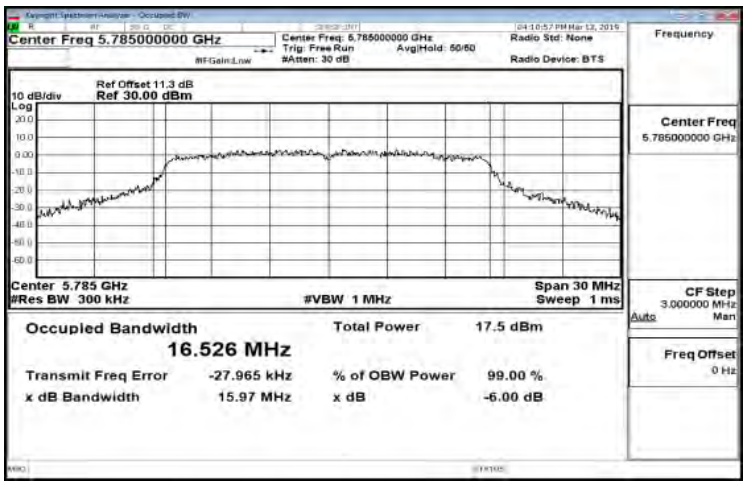


IC_802.11a_20MHz_Main_5720MHz

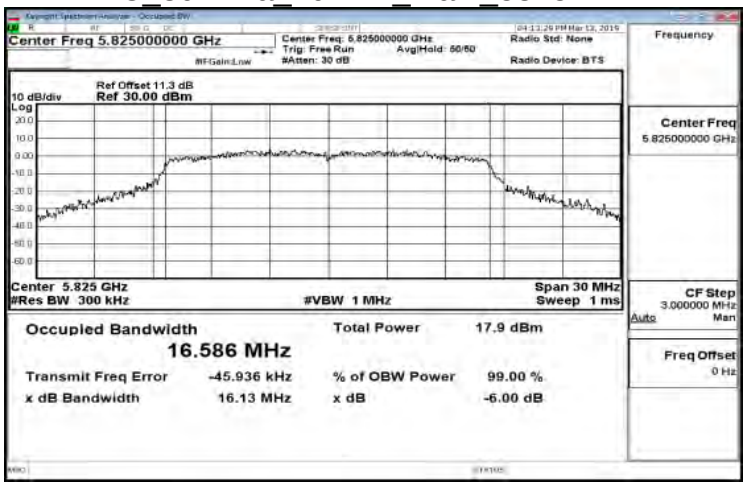
IC_802.11a_20MHz_Main_5745MHz



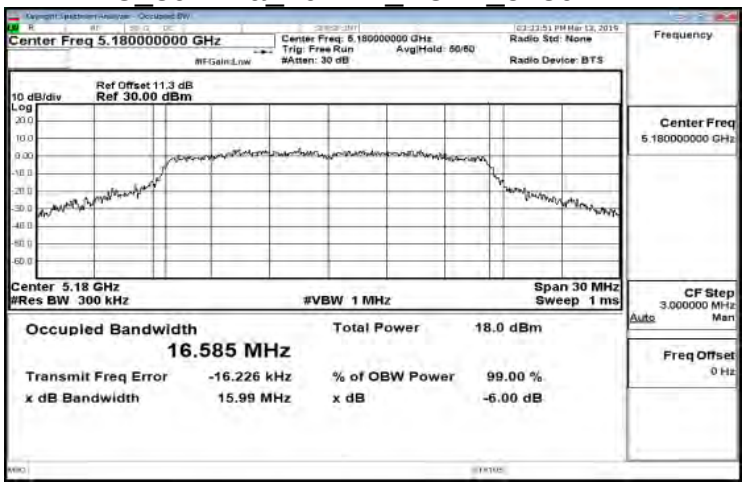
IC_802.11a_20MHz_Main_5785MHz



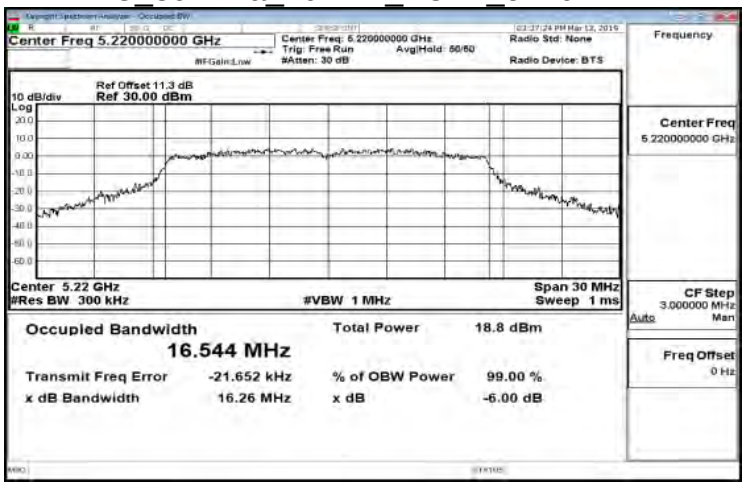
IC_802.11a_20MHz_Main_5825MHz



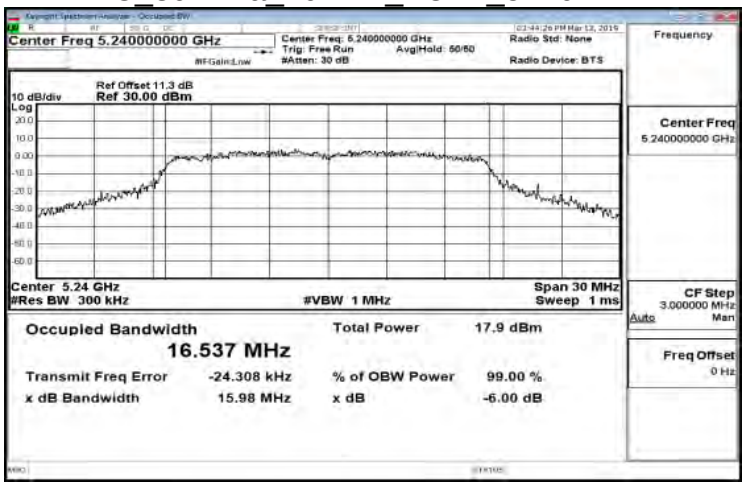
IC_802.11a_20MHz_AUX1_5180MHz



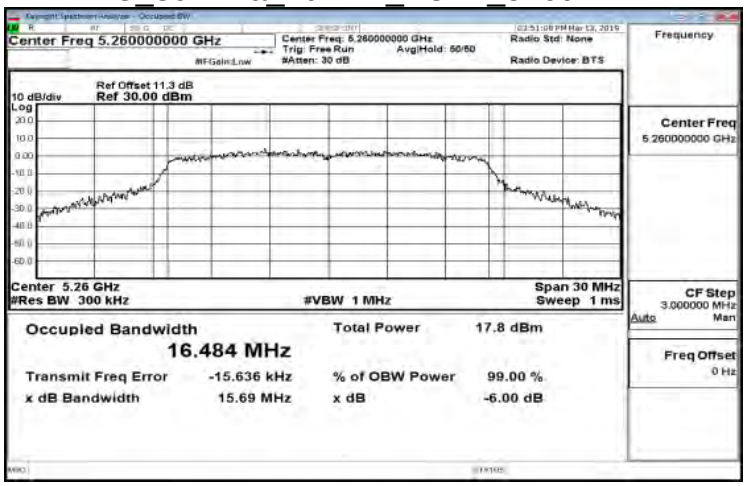
IC_802.11a_20MHz_AUX1_5220MHz



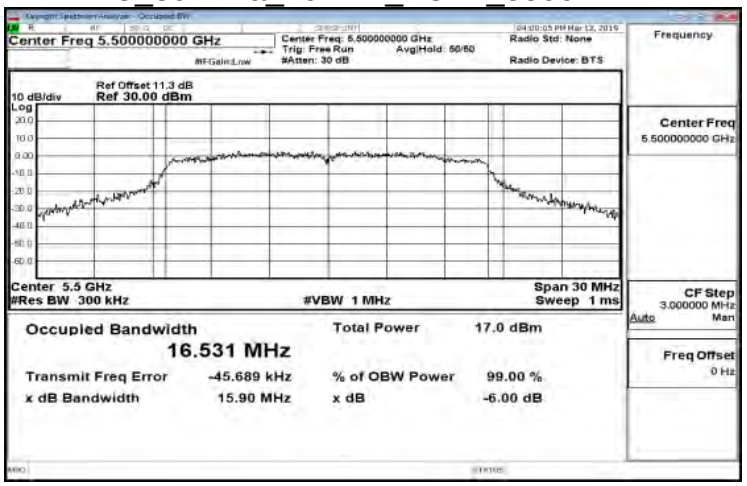
IC_802.11a_20MHz_AUX1_5240MHz



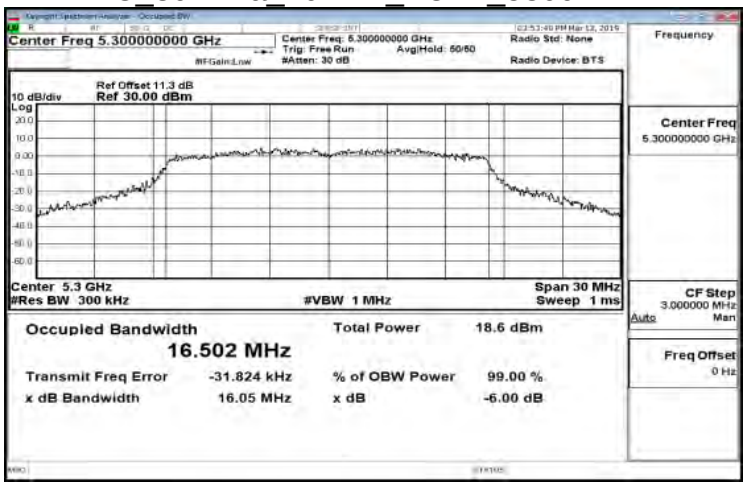
IC_802.11a_20MHz_AUX1_5260MHz



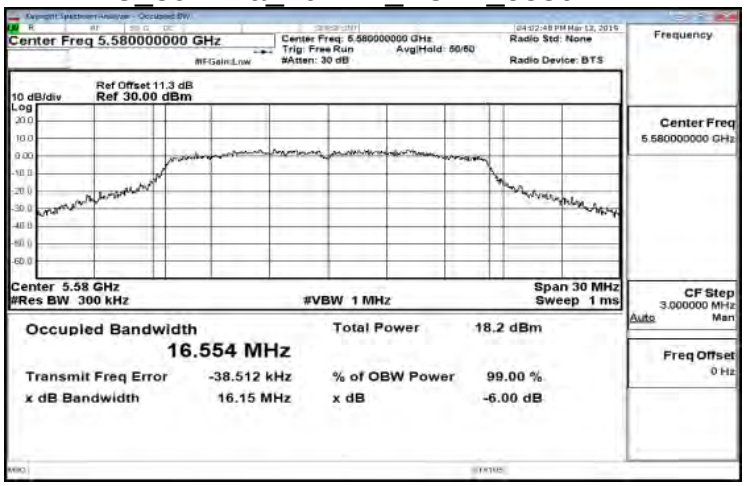
IC_802.11a_20MHz_AUX1_5500MHz



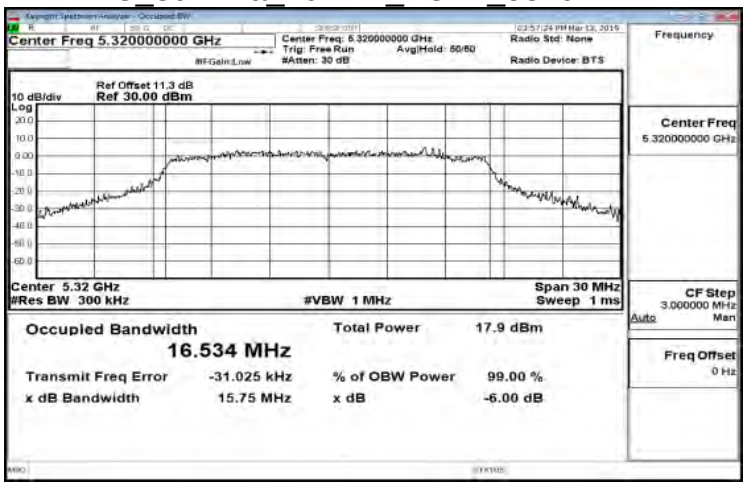
IC_802.11a_20MHz_AUX1_5300MHz



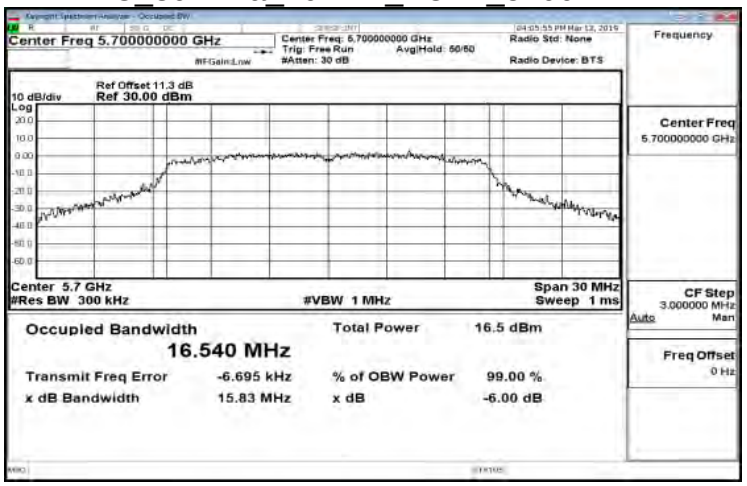
IC_802.11a_20MHz_AUX1_5580MHz



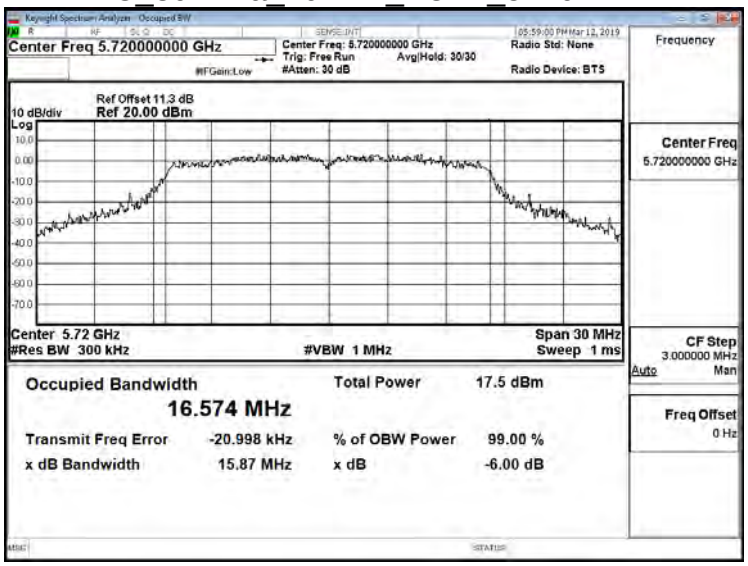
IC_802.11a_20MHz_AUX1_5320MHz



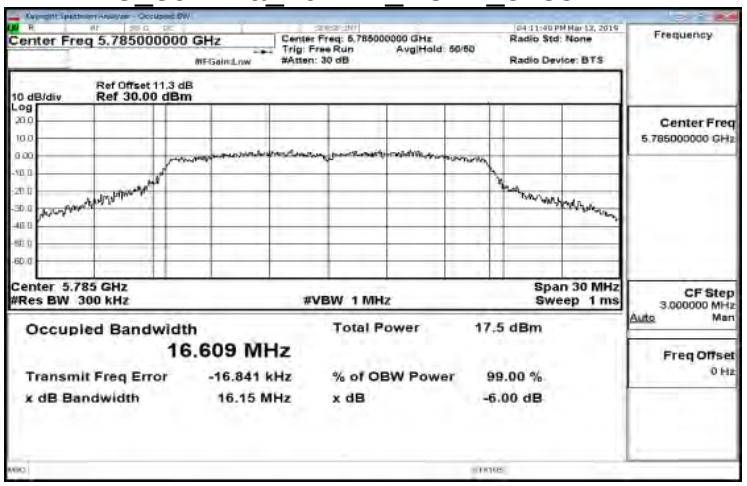
IC_802.11a_20MHz_AUX1_5700MHz



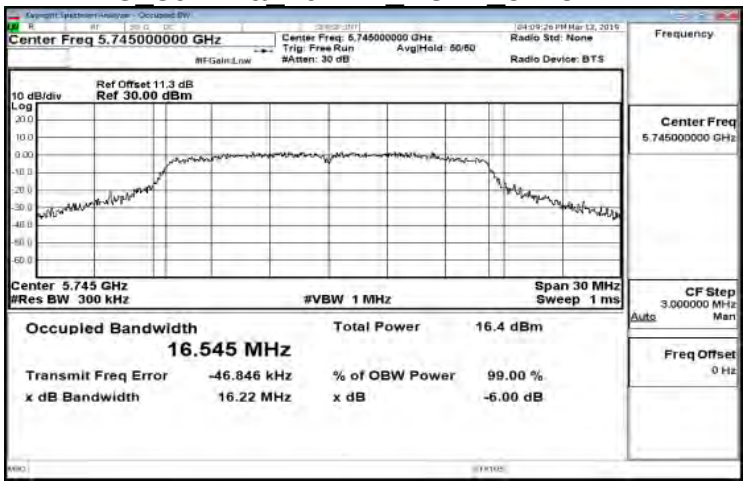
IC_802.11a_20MHz_AUX1_5720MHz



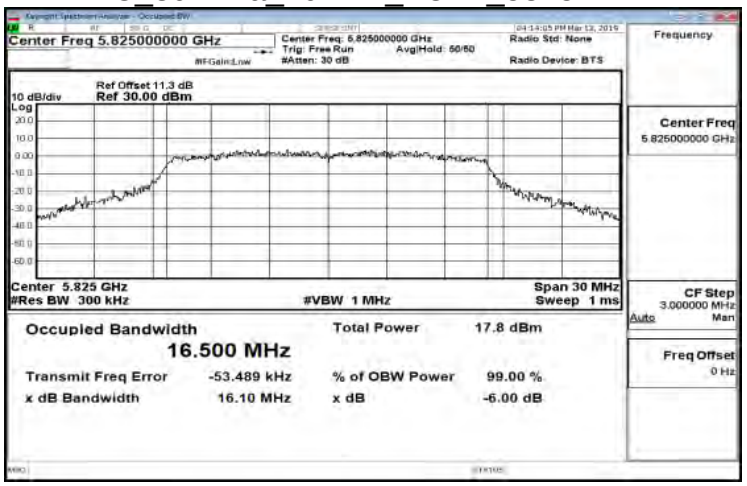
IC_802.11a_20MHz_AUX1_5785MHz



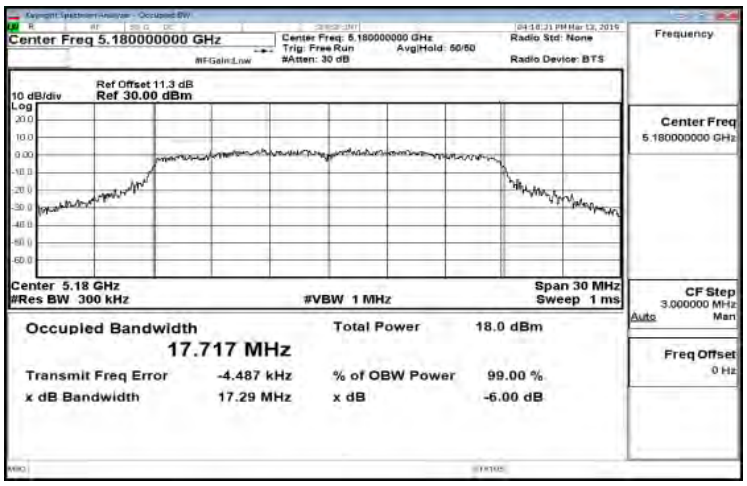
IC_802.11a_20MHz_AUX1_5745MHz



IC_802.11a_20MHz_AUX1_5825MHz



IC_802.11n_20MHz_Main_5180MHz



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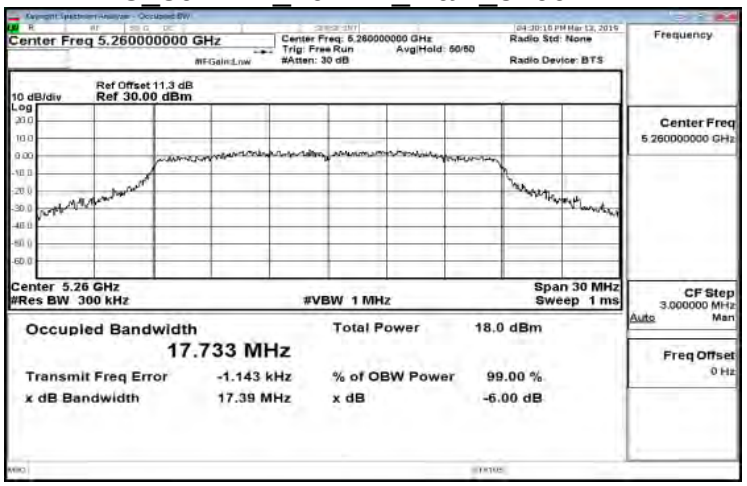

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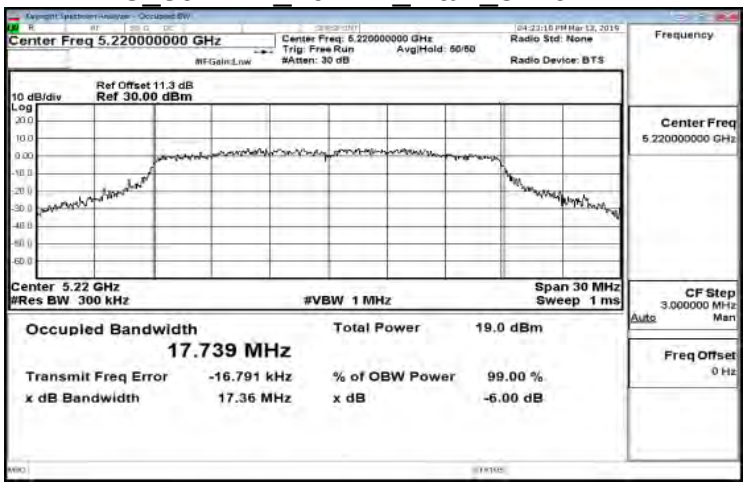
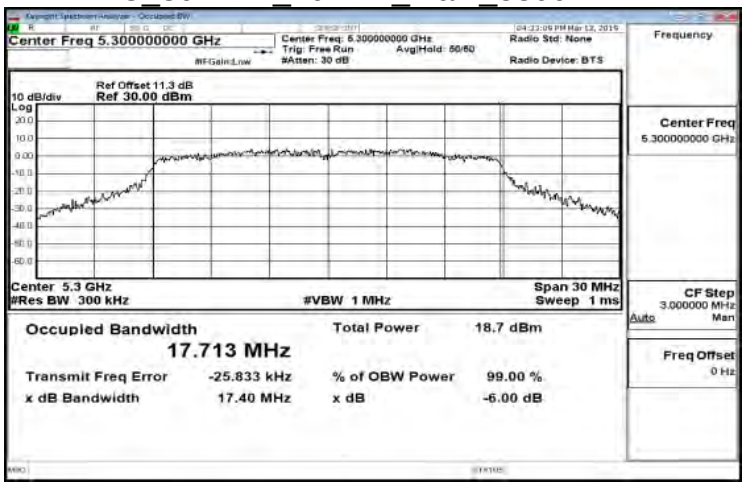


IC_802.11n_20MHz_Main_5300MHz



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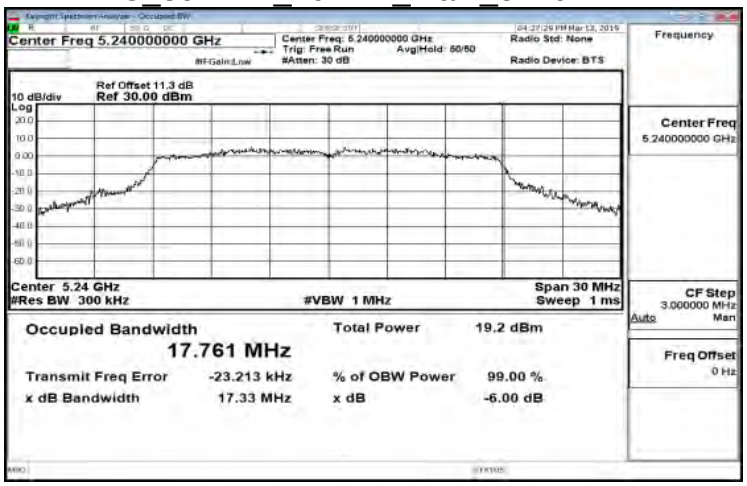
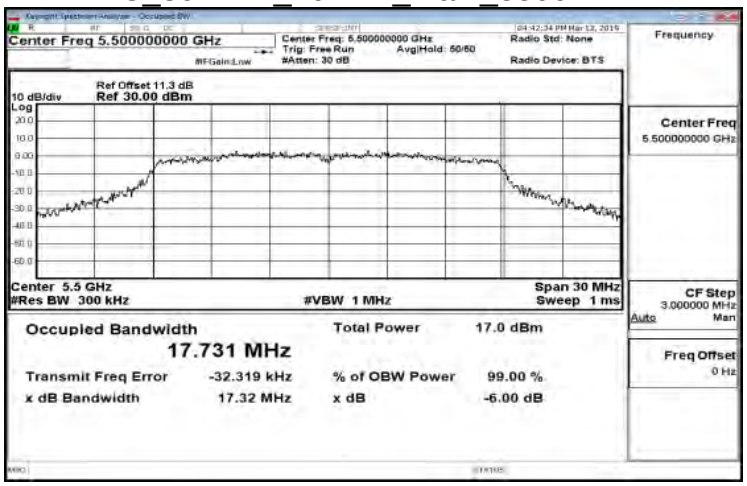
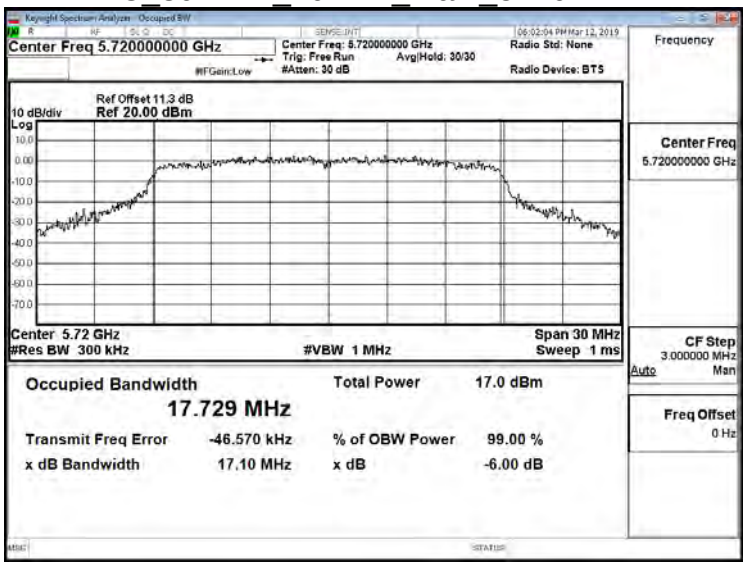


IC_802.11n_20MHz_Main_5320MHz

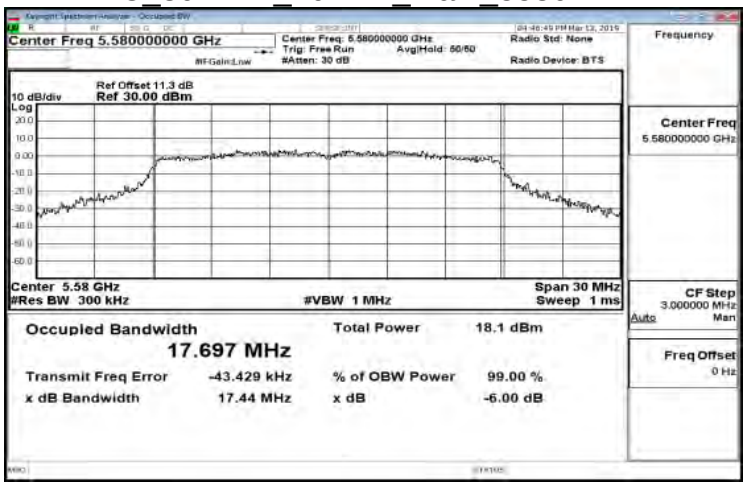
IC_802.11n_20MHz_Main_5500MHz



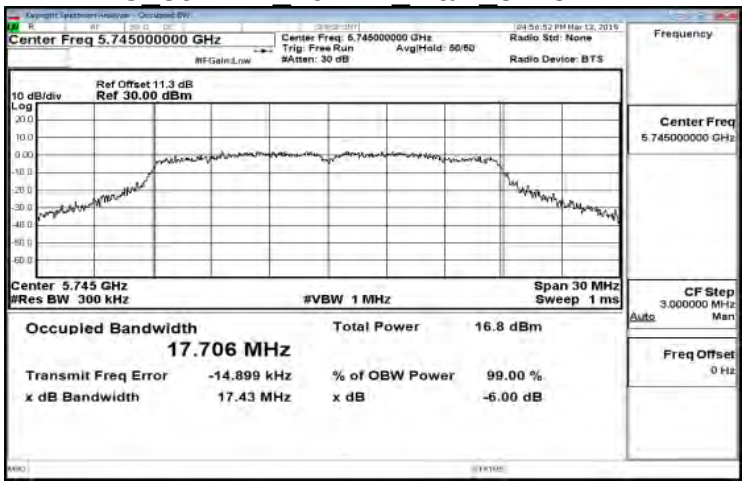
IC_802.11n_20MHz_Main_5720MHz



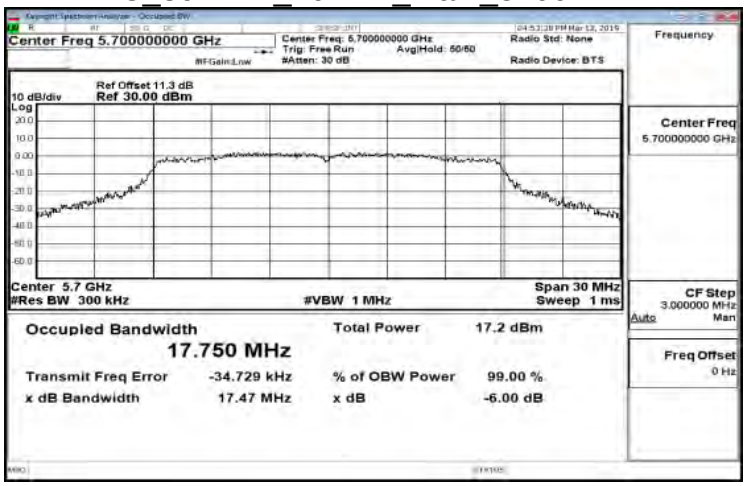
IC_802.11n_20MHz_Main_5580MHz



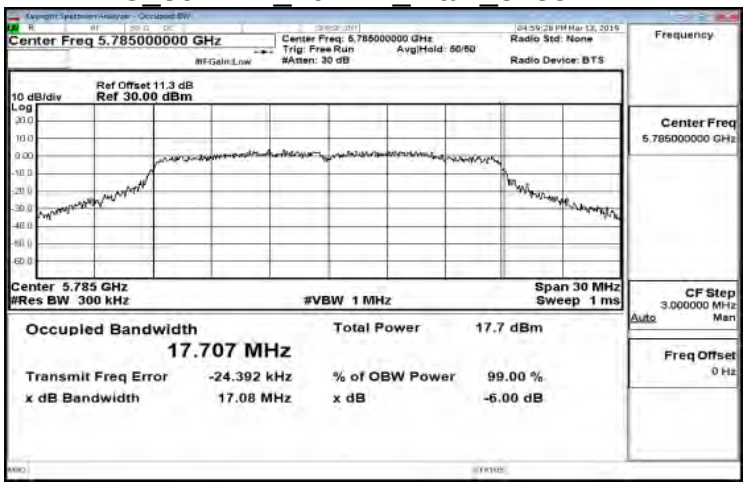
IC_802.11n_20MHz_Main_5745MHz



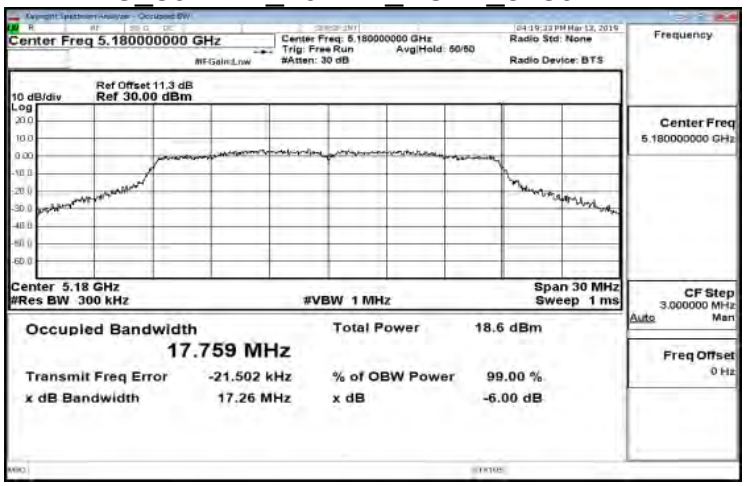
IC_802.11n_20MHz_Main_5700MHz



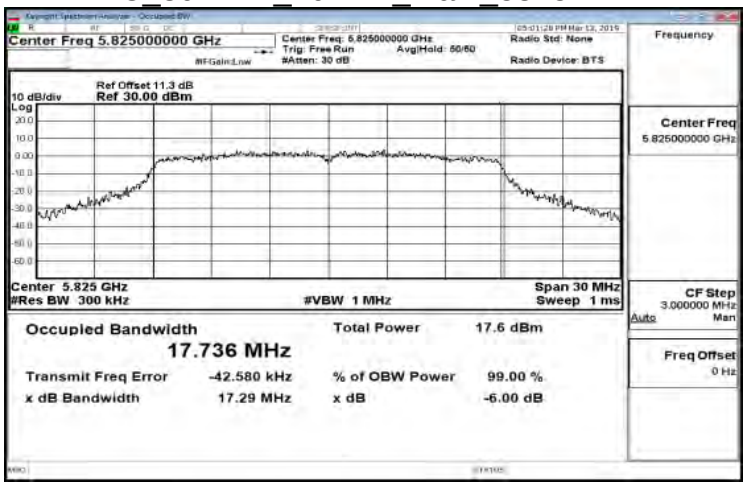
IC_802.11n_20MHz_Main_5785MHz



IC_802.11n_20MHz_AUX1_5180MHz

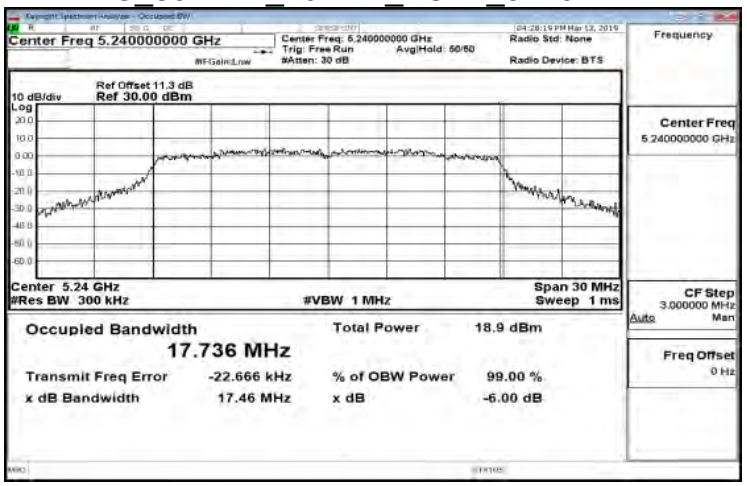


IC_802.11n_20MHz_Main_5825MHz

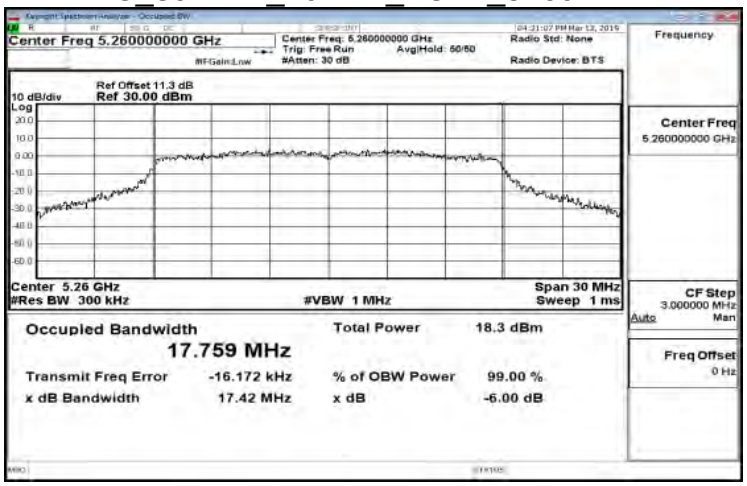


IC_802.11n_20MHz_AUX1_5220MHz

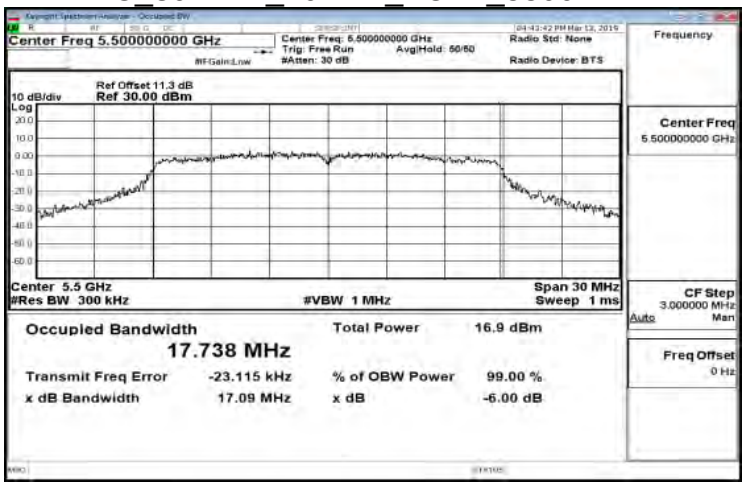
IC_802.11n_20MHz_AUX1_5240MHz



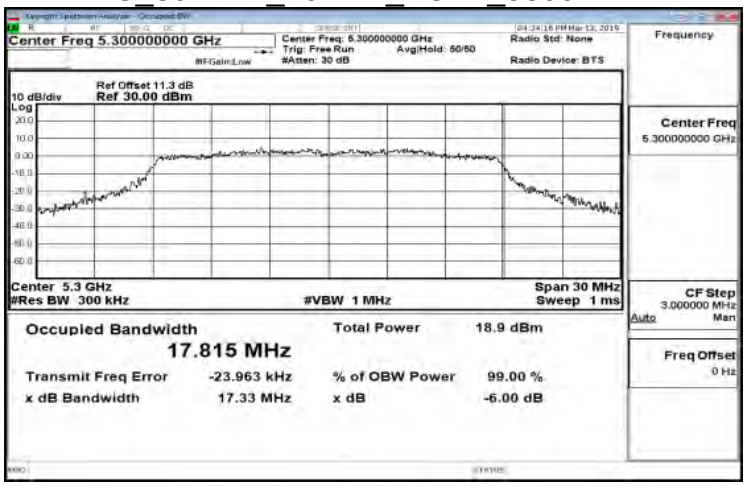
IC_802.11n_20MHz_AUX1_5260MHz



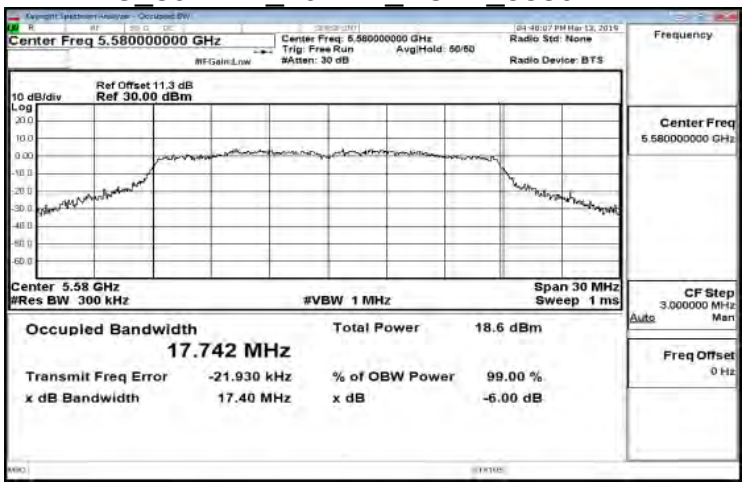
IC_802.11n_20MHz_AUX1_5500MHz



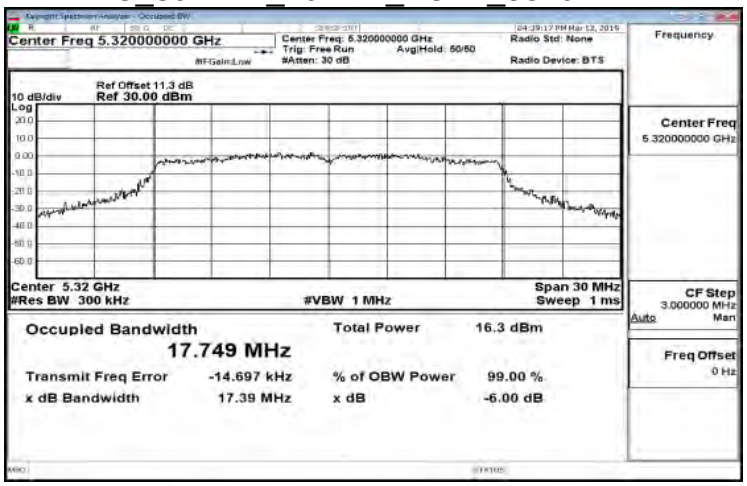
IC_802.11n_20MHz_AUX1_5300MHz



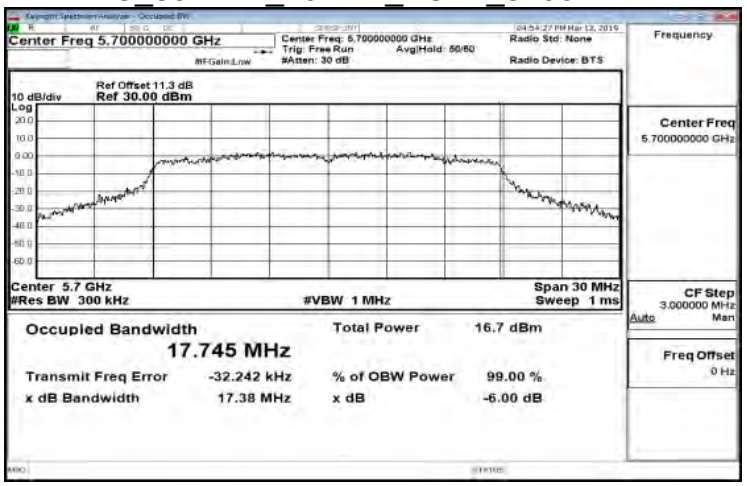
IC_802.11n_20MHz_AUX1_5580MHz



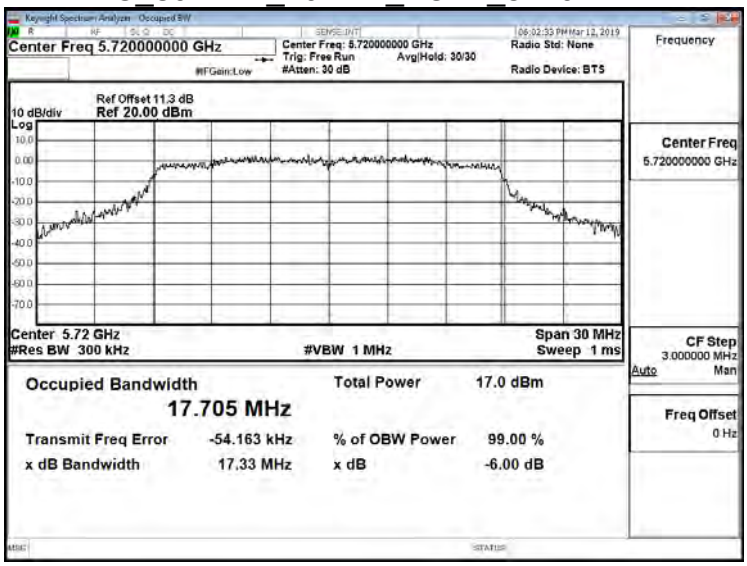
IC_802.11n_20MHz_AUX1_5320MHz



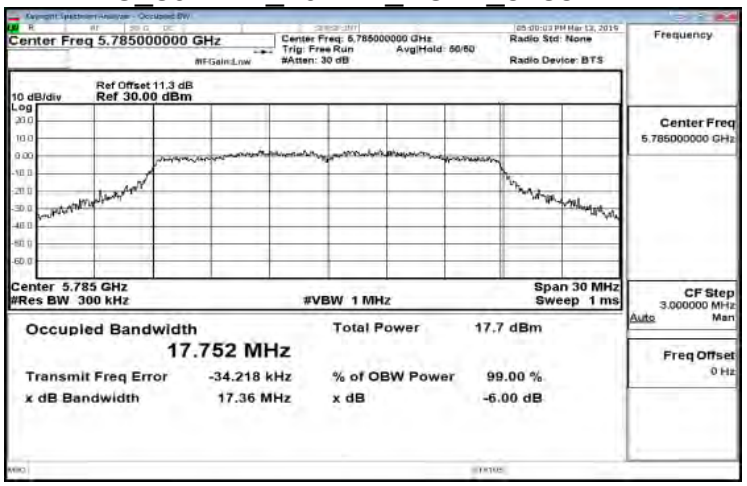
IC_802.11n_20MHz_AUX1_5700MHz



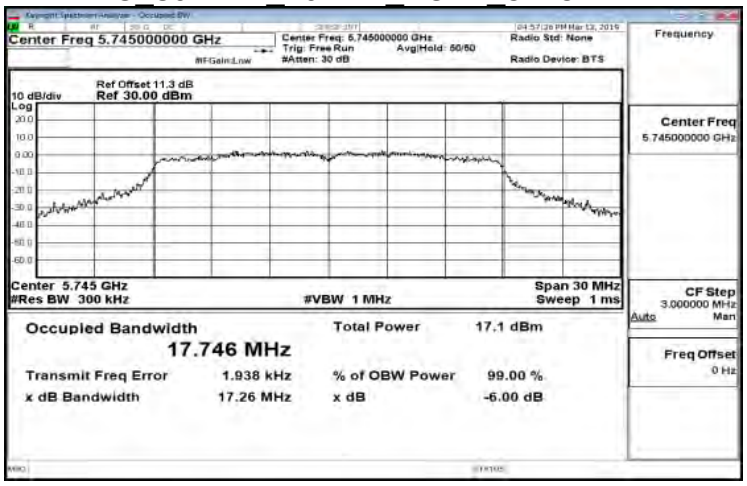
IC_802.11n_20MHz_AUX1_5720MHz



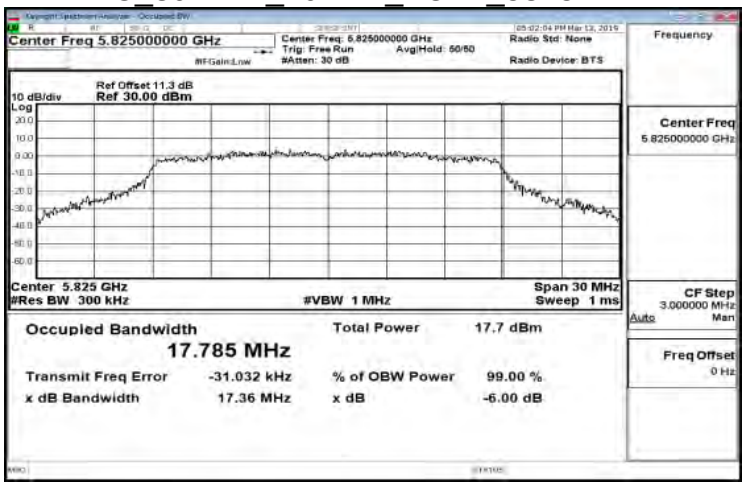
IC_802.11n_20MHz_AUX1_5785MHz



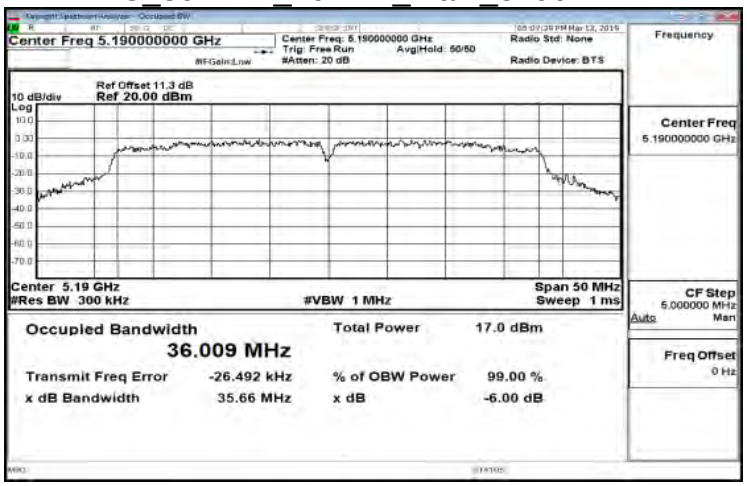
IC_802.11n_20MHz_AUX1_5745MHz



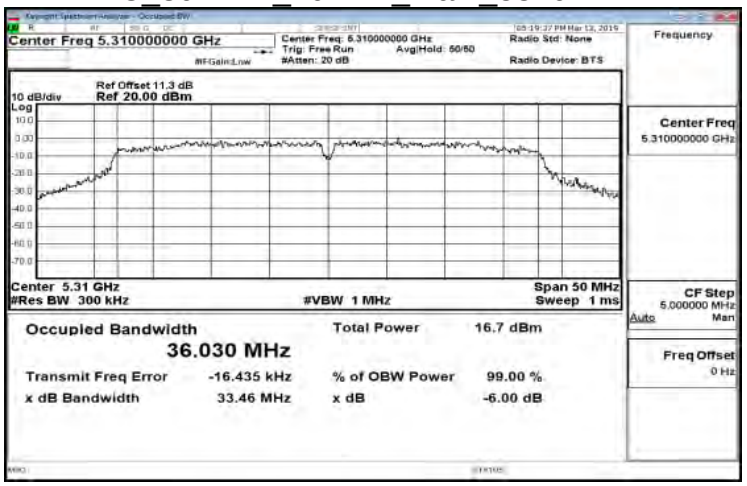
IC_802.11n_20MHz_AUX1_5825MHz



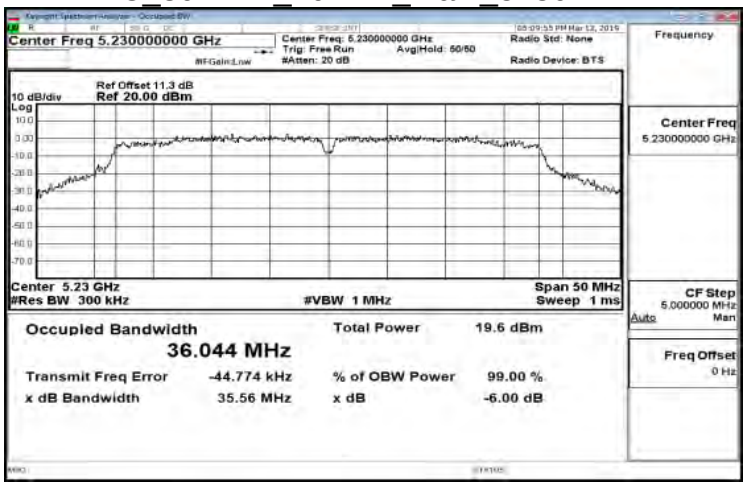
IC_802.11n_40MHz_Main_5190MHz



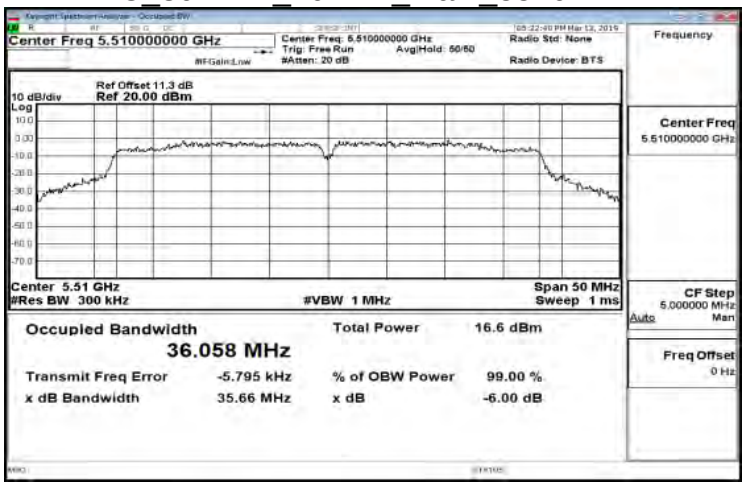
IC_802.11n_40MHz_Main_5310MHz



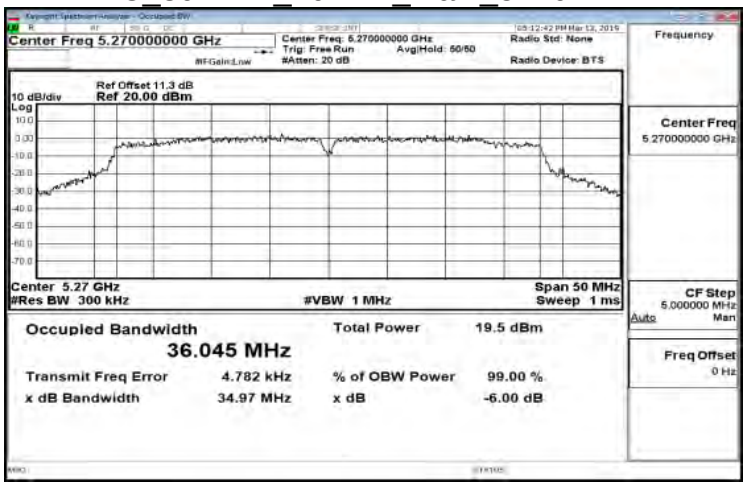
IC_802.11n_40MHz_Main_5230MHz



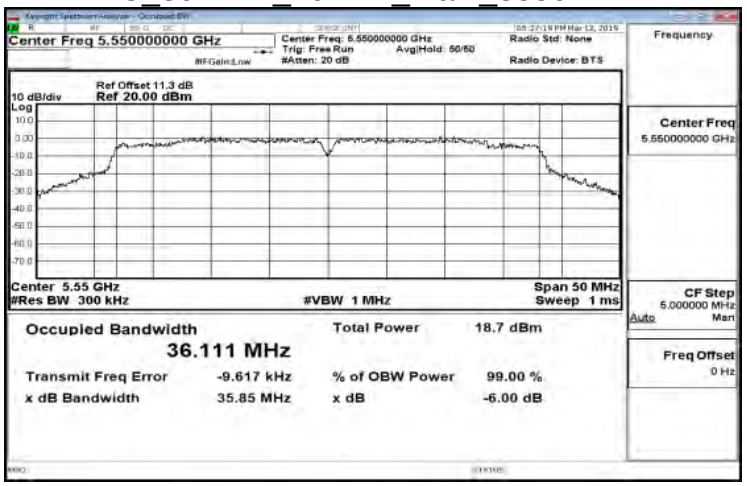
IC_802.11n_40MHz_Main_5510MHz



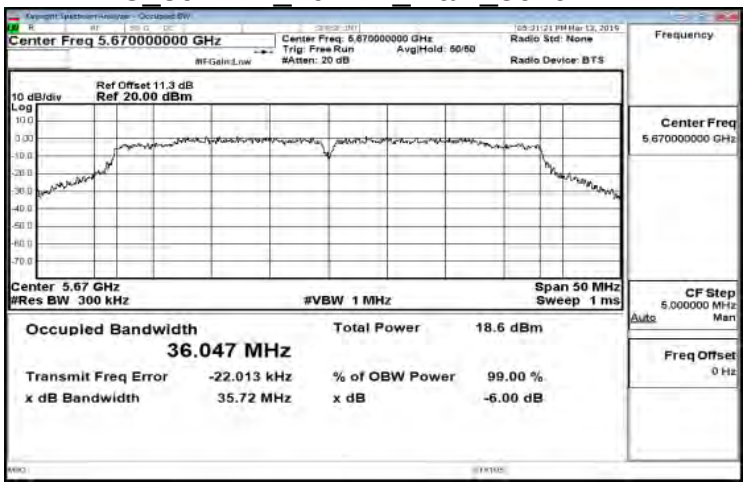
IC_802.11n_40MHz_Main_5270MHz



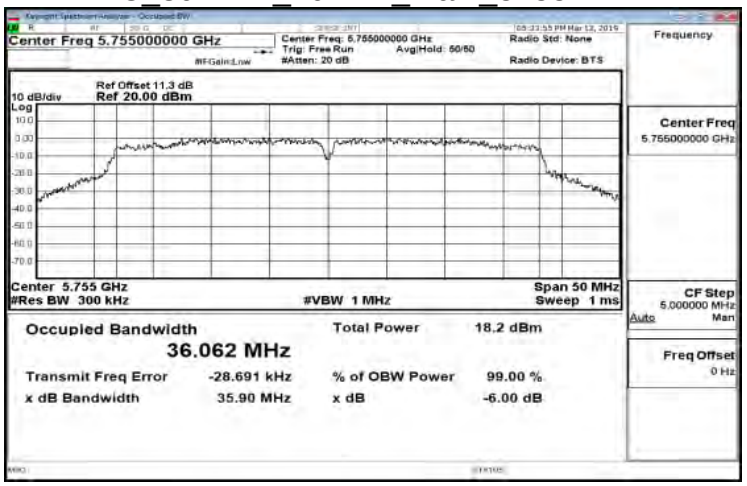
IC_802.11n_40MHz_Main_5550MHz



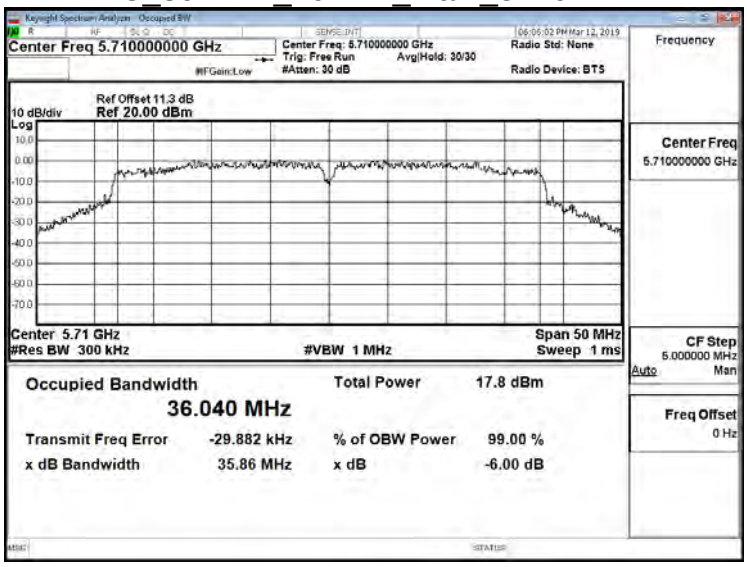
IC_802.11n_40MHz_Main_5670MHz



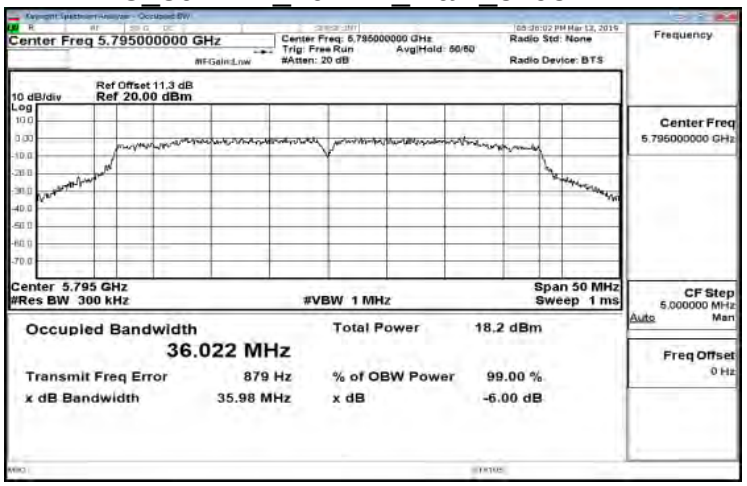
IC_802.11n_40MHz_Main_5755MHz



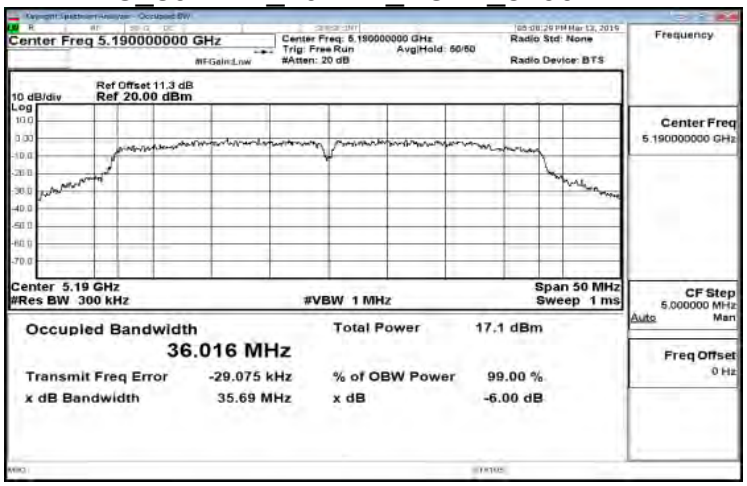
IC_802.11n_40MHz_Main_5710MHz



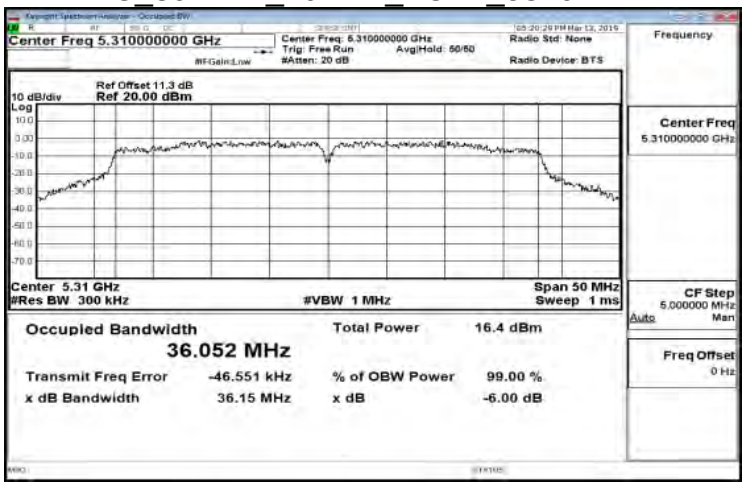
IC_802.11n_40MHz_Main_5795MHz



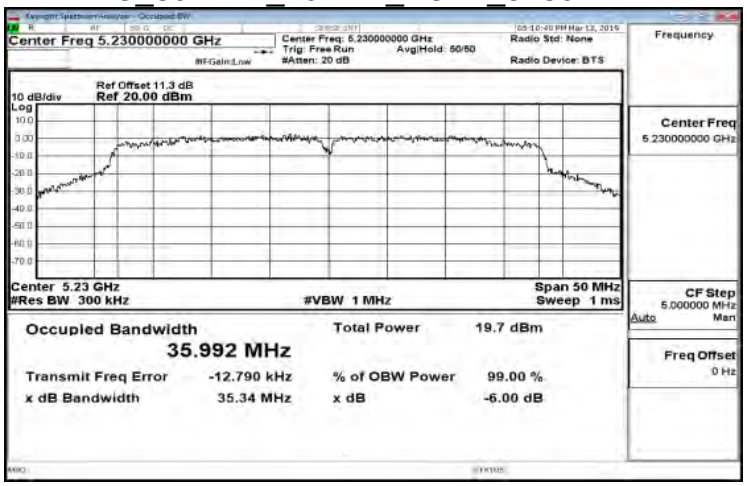
IC_802.11n_40MHz_AUX1_5190MHz



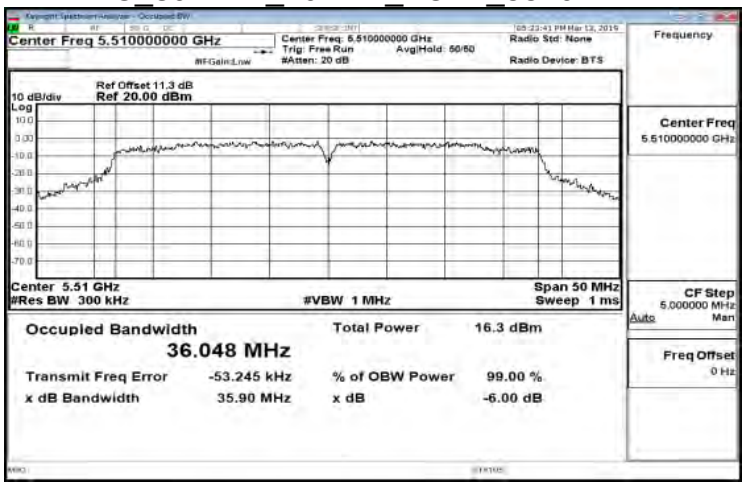
IC_802.11n_40MHz_AUX1_5310MHz



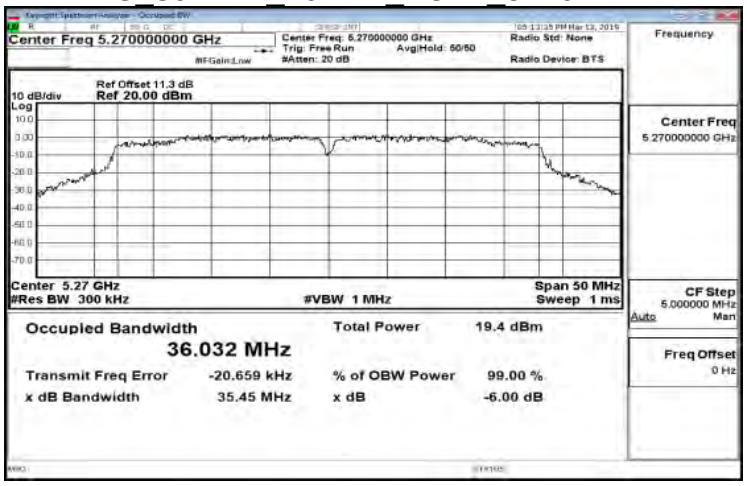
IC_802.11n_40MHz_AUX1_5230MHz



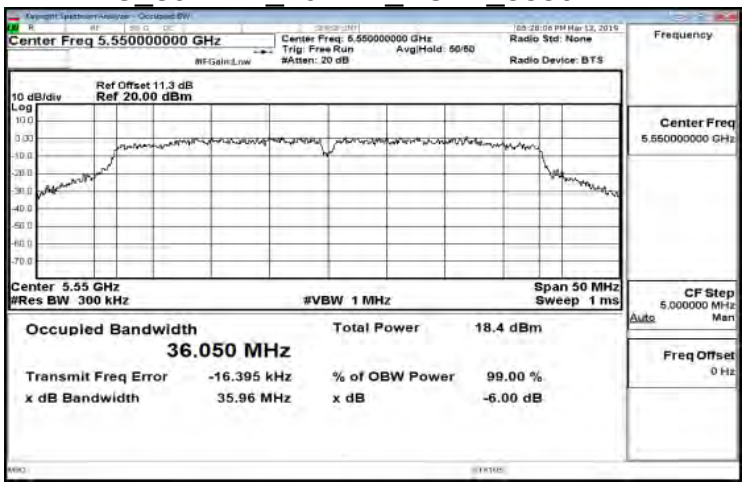
IC_802.11n_40MHz_AUX1_5510MHz



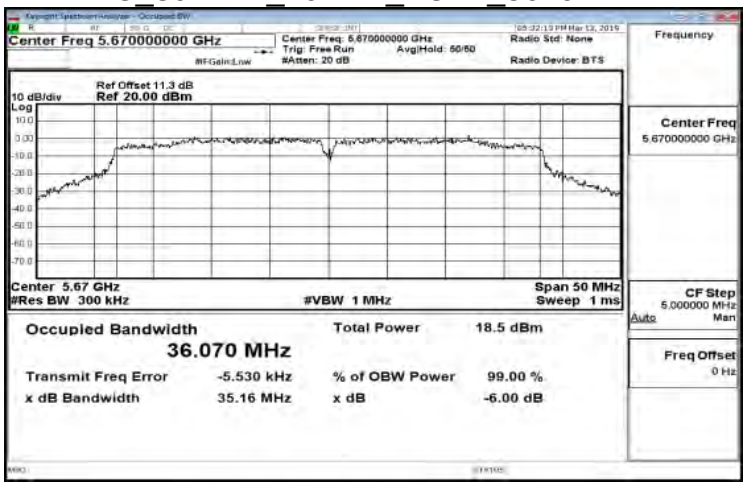
IC_802.11n_40MHz_AUX1_5270MHz



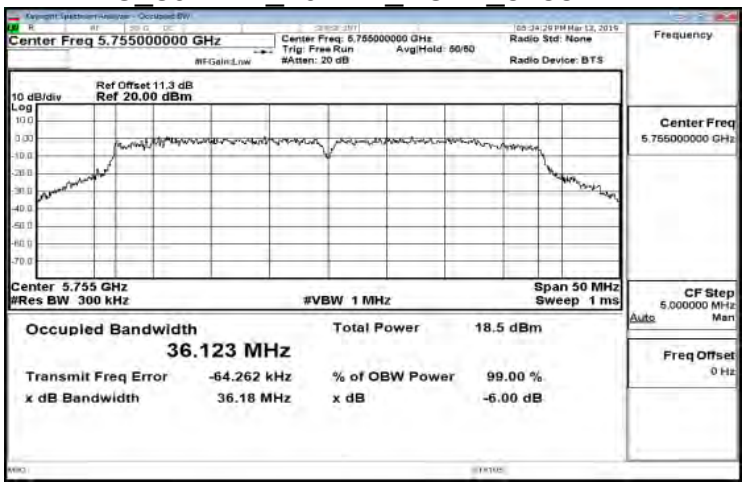
IC_802.11n_40MHz_AUX1_5550MHz



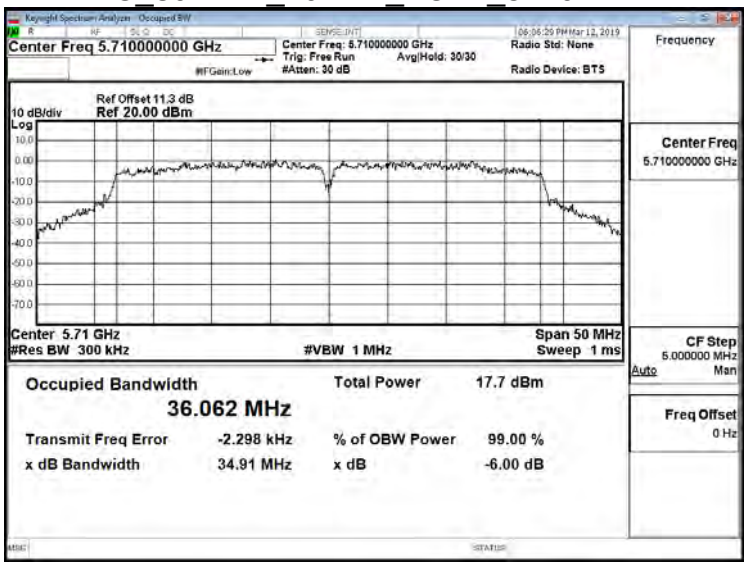
IC_802.11n_40MHz_AUX1_5670MHz



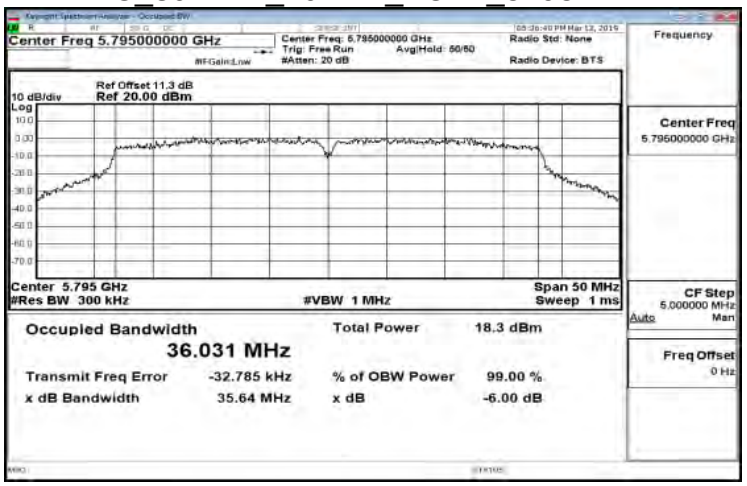
IC_802.11n_40MHz_AUX1_5755MHz



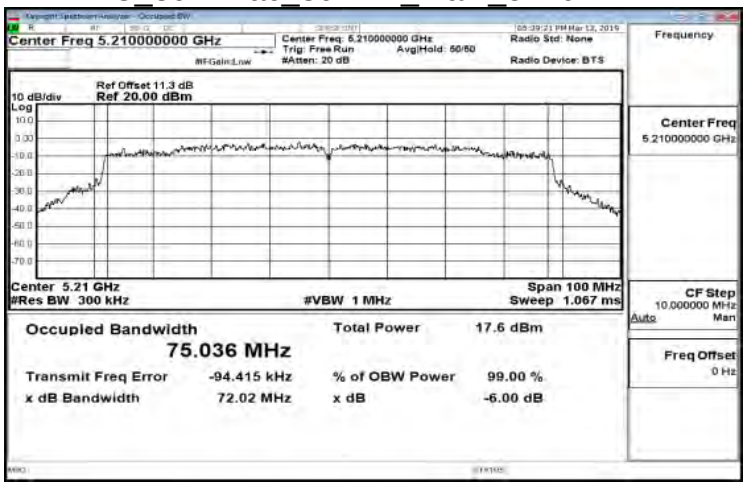
IC_802.11n_40MHz_AUX1_5710MHz



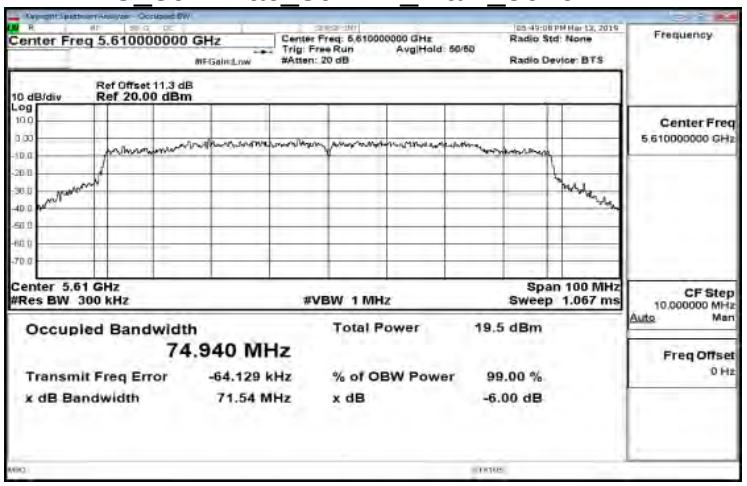
IC_802.11n_40MHz_AUX1_5795MHz



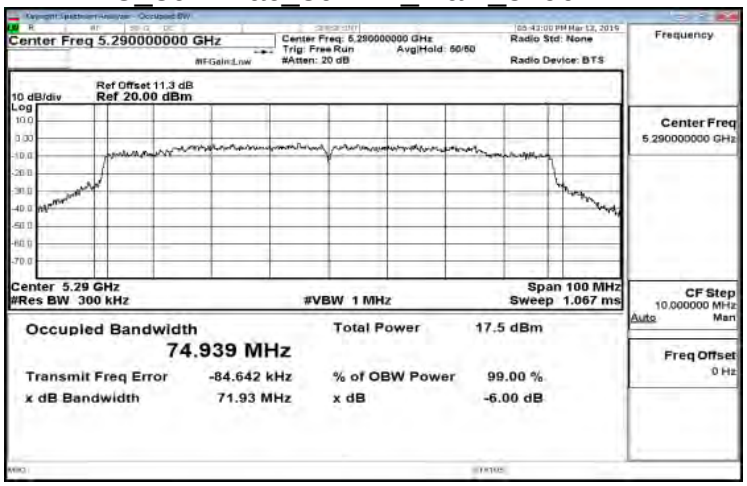
IC_802.11ac_80MHz_Main_5210MHz



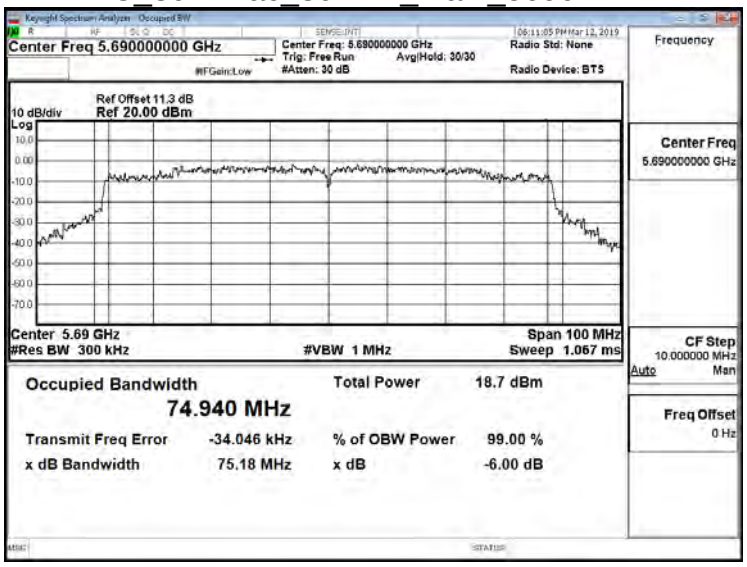
IC_802.11ac_80MHz_Main_5610MHz



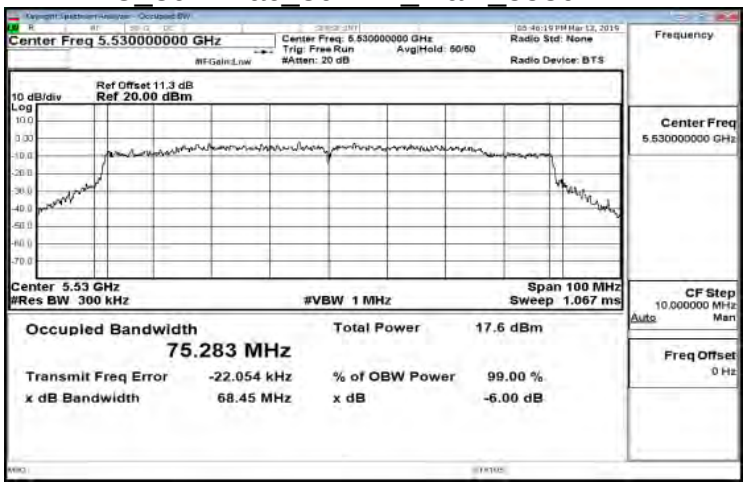
IC_802.11ac_80MHz_Main_5290MHz



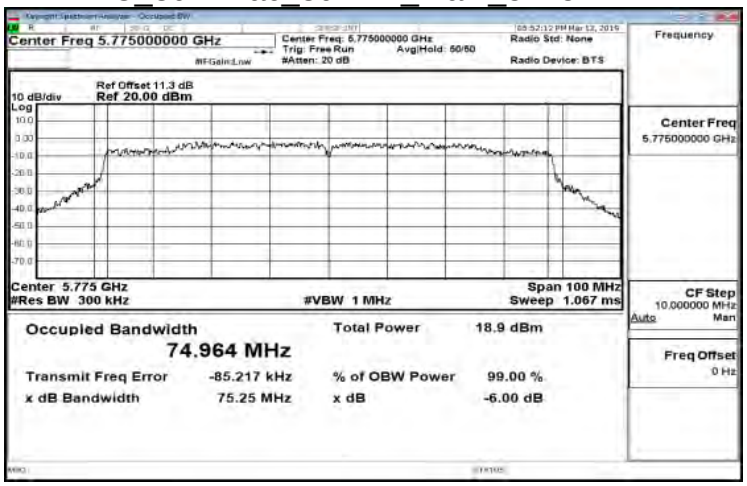
IC_802.11ac_80MHz_Main_5690MHz



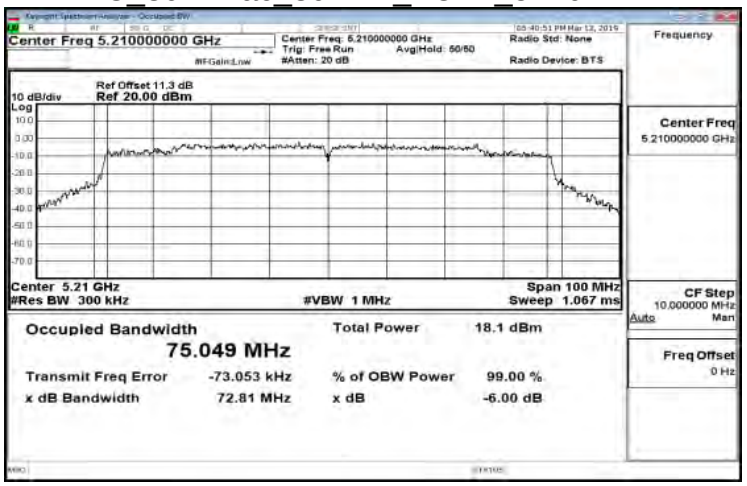
IC_802.11ac_80MHz_Main_5530MHz



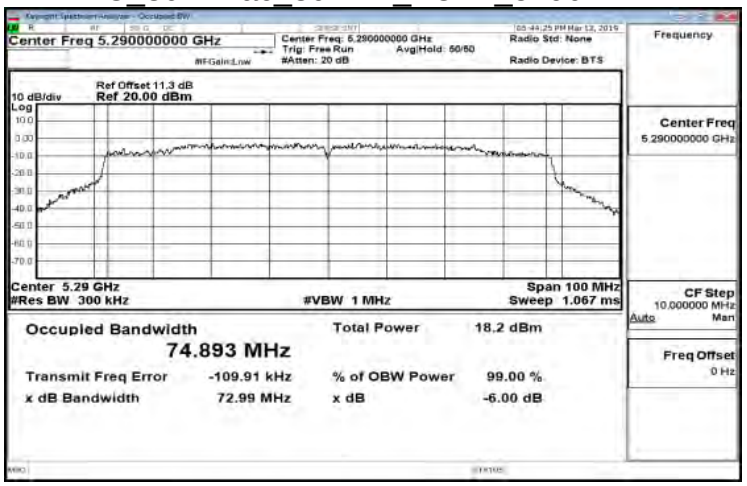
IC_802.11ac_80MHz_Main_5775MHz



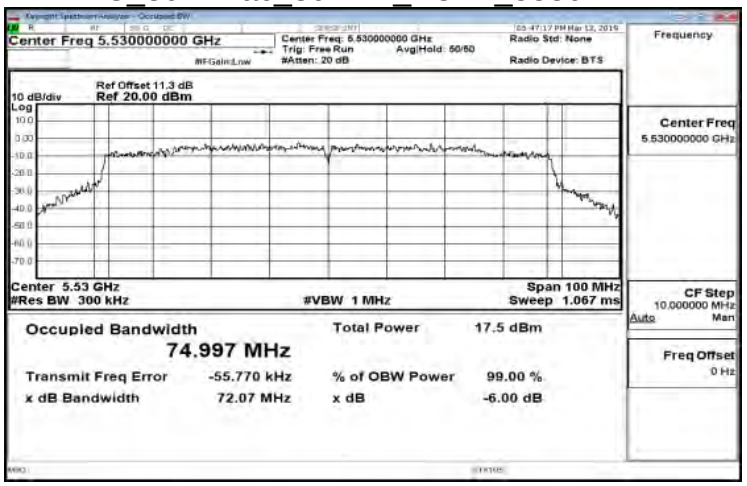
IC_802.11ac_80MHz_AUX1_5210MHz



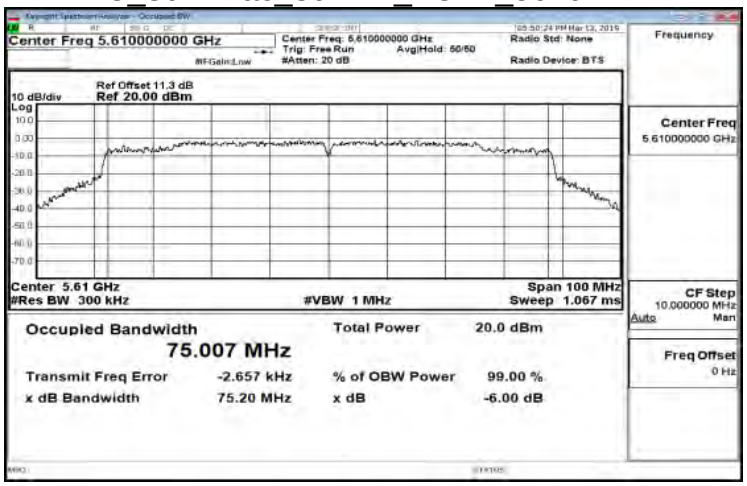
IC_802.11ac_80MHz_AUX1_5290MHz



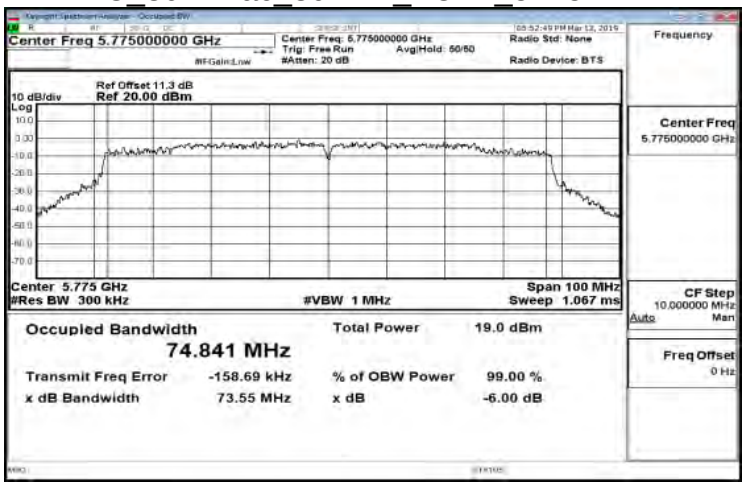
IC_802.11ac_80MHz_AUX1_5530MHz



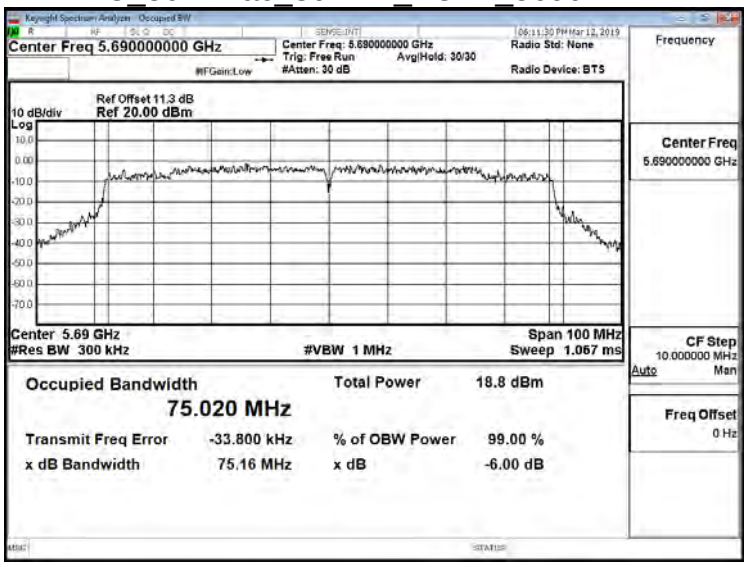
IC_802.11ac_80MHz_AUX1_5610MHz



IC_802.11ac_80MHz_AUX1_5775MHz



IC_802.11ac_80MHz_AUX1_5690MHz



9 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

9.1 Standard Applicable

FCC

OPERZTION Band	EUT CATEGORY		LIMIT
U-NII-1		Access Point (Mater device)	1 Watt(30dBm)
		Fixed point-to-point Acess Ponit	1 Watt(30dBm)
	√	Mobile and portable clinet device	250mW(23.98dBm)
U-NII-2A	√		250mW(23.98dBm) or 11dBm+10 log B
U-NII-2C	√		250mW(23.98dBm) or 11dBm+10 log B
U-NII-3	√		1 Watt(30dBm)
If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum transmit power shall be reduced by the amount in dB that the direction-al gain of the antenna exceeds 6 dBi.			

ISED

OPERZTION FREQUENCY BAND	LIMIT
5150~5250 MHz	EIRP shall not exceed 200 mW or 10 + 10 $\log_{10}$B, dBm
5250~5350 MHz	Conducted output power shall not exceed 250 mW or 11 +10 $\log_{10}$B EIRP shall not exceed 1.0 W or 17 + 10 $\log_{10}$B, dBm
5470-5600 MHz and 5650-5725 MHz	Conducted output power shall not exceed 250 mW or 11 +10 $\log_{10}$ B EIRP shall not exceed 1.0 W or 17 + 10 $\log_{10}$B, dBm
5725~5850 MHz	Conducted output power shall not exceed 1 W
For equipment operating in the band ***5725-5850*** MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum transmit power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	

Note:

As per FCC KDB 662911 D01

Unequal antenna gains, with equal transmit powers. For antenna gains given by G1, G2, …, GN dBi.

(i) If transmit signals are correlated, then Directional gain

= 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}$] dBi

[Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

Note: 5.15-5.25G
Antenna1 Gain: 1.8 dBi
Antenna2 Gain: -0.55 dBi
Number Antenna: 2 pcs
Directional gain = gain of antenna element + 10 log (# of TX antenna elements)
Effective Legacy Gain (dBi) = 4.81 dBi
Limit: 23.98dBm

Note: 5.25-5.35G
Antenna1 Gain: 1.8 dBi
Antenna2 Gain: 1.34 dBi
Number Antenna: 2 pcs
Directional gain = gain of antenna element + 10 log (# of TX antenna elements)
Effective Legacy Gain (dBi) = 4.81 dBi
Limit: 23.98dBm

Note: 5.47-5.725G
Antenna1 Gain: 1.84 dBi
Antenna2 Gain: 1.46 dBi
Number Antenna: 2 pcs
Directional gain = gain of antenna element + 10 log (# of TX antenna elements)
Effective Legacy Gain (dBi) = 4.85 dBi
Limit: 23.968dBm

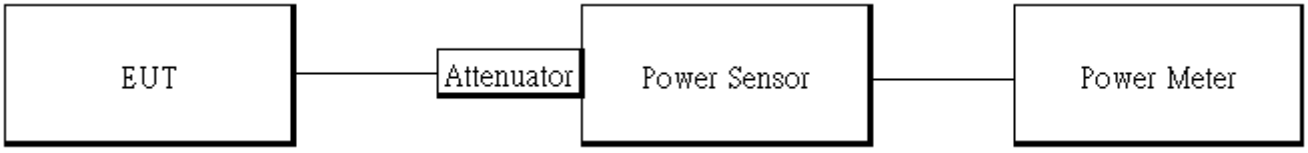
9.2 Measurement Procedure

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power meter
4. Power Meter is used as the auxiliary test equipment to conduct the output power measurement.
5. Record the max. reading and add 10 log(1/duty cycle).
6. Repeat above procedures until all frequency (low, middle, and high channel) measured were complete.

9.3 Measurement Equipment Used

SGS Conducted Room					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Power Meter	Anritsu	ML2496A	1242004	2018/10/23	2019/10/22
Power Sensor	Anritsu	MA2411B	1207365	2018/10/23	2019/10/22
Power Sensor	Anritsu	MA2411B	1207368	2018/10/24	2019/10/23
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25

9.4 Test Set-up



9.5 Measurement Result

Conducted output power (FCC)

802.11a_Ch0

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	12.94	19.698	23.98	PASS
44	5220	6	**13.95**	24.855	23.98	PASS
48	5240	6	12.98	19.880	23.98	PASS
52	5260	6	12.97	19.834	23.98 or 11+10log(B) = 23.91	PASS
60	5300	6	**13.96**	24.913	23.98 or 11+10log(B) = 24.01	PASS
64	5320	6	12.99	19.926	23.98 or 11+10log(B) = 23.96	PASS
100	5500	6	11.97	15.755	23.98 or 11+10log(B) = 24.05	PASS
116	5580	6	**13.00**	19.972	23.98 or 11+10log(B) = 24.08	PASS
140	5700	6	11.94	15.647	23.98 or 11+10log(B) = 23.88	PASS
149	5745	6	11.99	15.828	30	PASS
157	5785	6	**12.98**	19.880	30	PASS
165	5825	6	12.96	19.789	30	PASS

802.11a_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	12.93	19.653	23.98	PASS
44	5220	6	**13.92**	24.684	23.98	PASS
48	5240	6	12.93	19.653	23.98	PASS
52	5260	6	12.92	19.607	23.98 or 11+10log(B) = 24.18	PASS
60	5300	6	**13.93**	24.741	23.98 or 11+10log(B) = 23.88	PASS
64	5320	6	12.98	19.880	23.98 or 11+10log(B) = 23.95	PASS
100	5500	6	11.96	15.719	23.98 or 11+10log(B) = 24.07	PASS
116	5580	6	**12.97**	19.834	23.98 or 11+10log(B) = 24.02	PASS
140	5700	6	11.93	15.611	23.98 or 11+10log(B) = 23.90	PASS
149	5745	6	11.94	15.647	30	PASS
157	5785	6	**12.96**	19.789	30	PASS
165	5825	6	12.94	19.698	30	PASS

802.11a_2Tx

CH	Frequency (MHz)	Data Rate	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			CH 0	CH 1				
36	5180	6	10.1	9.16	12.91	19.548	23.98	PASS
44	5220	6	11.2	10.1	**13.90**	24.561	23.98	PASS
48	5240	6	10.1	9.25	12.92	19.606	23.98	PASS
52	5260	6	9.91	9.3	12.86	19.321	23.98 or 11+10log(B) = 23.91	PASS
60	5300	6	11	10.4	**13.93**	24.737	23.98 or 11+10log(B) = 23.88	PASS
64	5320	6	10	9.4	12.96	19.771	23.98 or 11+10log(B) = 23.95	PASS
100	5500	6	9.06	8.17	11.88	15.425	23.98 or 11+10log(B) = 24.05	PASS
116	5580	6	10.1	9.24	**12.94**	19.685	23.98 or 11+10log(B) = 24.02	PASS
140	5700	6	9.13	8.1	11.89	15.452	23.98 or 11+10log(B) = 23.88	PASS
149	5745	6	9.23	8.04	11.92	15.560	30	PASS
157	5785	6	10	9.3	**12.91**	19.561	30	PASS
165	5825	6	10	9.23	12.88	19.418	30	PASS

802.11n_HT20_Ch0

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	12.99	19.907	23.98	PASS
44	5220	MCS0	**13.99**	25.061	23.98	PASS
48	5240	MCS0	12.97	19.815	23.98	PASS
52	5260	MCS0	13.00	19.952	23.98 or 11+10log(B) = 24.10	PASS
60	5300	MCS0	**13.99**	25.061	23.98 or 11+10log(B) = 23.99	PASS
64	5320	MCS0	13.00	19.952	23.98 or 11+10log(B) = 23.88	PASS
100	5500	MCS0	11.99	15.812	23.98 or 11+10log(B) = 24.12	PASS
116	5580	MCS0	**13.00**	19.952	23.98 or 11+10log(B) = 24.11	PASS
140	5700	MCS0	12.00	15.849	23.98 or 11+10log(B) = 24.01	PASS
144	5720(U-NII 2C)	MCS0	9.58	9.088	23.98 or 11+10log(B) = 23.30	PASS
144	5720 (U-NII 3)	MCS0	3.41	2.190	30	PASS
149	5745	MCS0	12.00	15.849	30	PASS
157	5785	MCS0	**13.00**	19.952	30	PASS
165	5825	MCS0	12.99	19.907	30	PASS

802.11n_HT20_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	12.98	19.861	23.98	PASS
44	5220	MCS0	**13.95**	24.831	23.98	PASS
48	5240	MCS0	12.96	19.770	23.98	PASS
52	5260	MCS0	12.98	19.861	23.98 or 11+10log(B) = 24.35	PASS
60	5300	MCS0	**13.98**	25.003	23.98 or 11+10log(B) = 24.23	PASS
64	5320	MCS0	12.99	19.907	23.98 or 11+10log(B) = 24.11	PASS
100	5500	MCS0	11.98	15.776	23.98 or 11+10log(B) = 24.14	PASS
116	5580	MCS0	**12.98**	19.861	23.98 or 11+10log(B) = 24.11	PASS
140	5700	MCS0	11.97	15.740	23.98 or 11+10log(B) = 24.11	PASS
144	5720(U-NII 2C)	MCS0	9.68	9.289	23.98 or 11+10log(B) = 23.11	PASS
144	5720 (U-NII 3)	MCS0	3.29	2.133	30	PASS
149	5745	MCS0	11.97	15.740	30	PASS
157	5785	MCS0	12.97	19.815	30	PASS
165	5825	MCS0	**12.98**	19.861	30	PASS

802.11n_HT20_MIMO

CH	Frequency (MHz)	Data Rate	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			CH 0	CH 1				
36	5180	MCS8	10.2	9.1	12.90	19.476	23.98	PASS
44	5220	MCS8	11.2	10.2	**13.94**	24.800	23.98	PASS
48	5240	MCS8	10	9.4	12.92	19.591	23.98	PASS
52	5260	MCS8	9.93	9.5	12.93	19.636	23.98 or 11+10log(B) = 24.10	PASS
60	5300	MCS8	11	10.5	**13.94**	24.797	23.98 or 11+10log(B) = 23.99	PASS
64	5320	MCS8	10	9.5	12.97	19.804	23.98 or 11+10log(B) = 23.88	PASS
100	5500	MCS8	9.1	8.35	11.95	15.673	23.98 or 11+10log(B) = 24.12	PASS
116	5580	MCS8	10	9.35	**12.90**	19.487	23.98 or 11+10log(B) = 24.11	PASS
140	5700	MCS8	9.15	8.3	11.96	15.689	23.98 or 11+10log(B) = 24.01	PASS
144	5720(U-NII 2C)	MCS8	7.47	6.96	9.56	9.031	23.98 or 11+10log(B) = 23.11	PASS
144	5720 (U-NII 3)	MCS8	2.65	2.37	3.40	2.186	30	PASS
149	5745	MCS8	9.22	8.2	11.95	15.668	30	PASS
157	5785	MCS8	10	9.48	**12.96**	19.761	30	PASS
165	5825	MCS8	10	9.43	12.93	19.654	30	PASS

802.11n_HT40_Ch0

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	10.94	12.404	23.98	PASS
46	5230	MCS0	**13.95**	24.806	23.98	PASS
54	5270	MCS0	**13.93**	24.692	23.98 or 11+10log(B) = 27.18	PASS
62	5310	MCS0	10.94	12.404	23.98 or 11+10log(B) = 26.92	PASS
102	5510	MCS0	10.95	12.432	23.98 or 11+10log(B) = 27.26	PASS
110	5550	MCS0	**12.94**	19.659	23.98 or 11+10log(B) = 27.39	PASS
134	5670	MCS0	**12.94**	19.659	23.98 or 11+10log(B) = 27.26	PASS
142	5710(U-NII 2C)	MCS0	10.79	11.993	23.98 or 11+10log(B) = 26.69	PASS
142	5710 (U-NII 3)	MCS0	2.18	1.651	30	PASS
151	5755	MCS0	**12.95**	19.704	30	PASS
159	5795	MCS0	12.93	19.613	30	PASS

802.11n_HT40_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	10.93	12.375	23.98	PASS
46	5230	MCS0	**13.94**	24.749	23.98	PASS
54	5270	MCS0	**13.92**	24.635	23.98 or 11+10log(B) = 27.32	PASS
62	5310	MCS0	10.93	12.375	23.98 or 11+10log(B) = 27.45	PASS
102	5510	MCS0	10.93	12.375	23.98 or 11+10log(B) = 27.42	PASS
110	5550	MCS0	12.92	19.568	23.98 or 11+10log(B) = 27.29	PASS
134	5670	MCS0	**12.93**	19.613	23.98 or 11+10log(B) = 27.42	PASS
142	5710(U-NII 2C)	MCS0	11.13	12.984	23.98 or 11+10log(B) = 26.67	PASS
142	5710 (U-NII 3)	MCS0	1.82	1.521	23.98	PASS
151	5755	MCS0	**12.93**	19.613	23.98	PASS
159	5795	MCS0	12.91	19.523	30	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	Data Rate	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			CH 0	CH 1				
38	5190	MCS8	7.84	6.35	10.90	12.315	23.98	PASS
46	5230	MCS8	10.9	9.37	**13.92**	24.652	23.98	PASS
54	5270	MCS8	10.4	9.88	**13.90**	24.571	23.98 or 11+10log(B) = 27.18	PASS
62	5310	MCS8	7.5	6.78	10.90	12.305	23.98 or 11+10log(B) = 26.92	PASS
102	5510	MCS8	7.68	6.57	10.91	12.320	23.98 or 11+10log(B) = 27.26	PASS
110	5550	MCS8	9.5	8.79	**12.91**	19.522	23.98 or 11+10log(B) = 27.29	PASS
134	5670	MCS8	9.63	8.63	12.90	19.519	23.98 or 11+10log(B) = 27.26	PASS
142	5710(U-NII 2C)	MCS8	7.93	7.58	10.76	11.923	23.98 or 11+10log(B) = 26.67	PASS
142	5720 (U-NII 3)	MCS8	1.6	1.24	2.17	1.649	30	PASS
151	5755	MCS8	9.72	8.55	**12.92**	19.589	30	PASS
159	5795	MCS8	9.63	8.62	12.90	19.499	30	PASS

802.11ac_VHT80_Ch0

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	MCS0	**11.00**	12.598	23.98	PASS
58	5290	MCS0	**10.99**	12.569	23.98 or 11+10log(B) = 30.10	PASS
106	5530	MCS0	11.00	12.598	23.98 or 11+10log(B) = 30.05	PASS
122	5610	MCS0	**12.99**	19.921	23.98 or 11+10log(B) = 30.04	PASS
138	5690(U-NII 2C)	MCS0	12.19	16.548	23.98 or 11+10log(B) = 29.79	PASS
138	5690 (U-NII 3)	MCS0	0.81	1.204	30	PASS
155	5775	MCS0	**13.00**	19.967	30	PASS

802.11ac_VHT80_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	MCS0	**10.98**	12.540	23.98	PASS
58	5290	MCS0	**10.98**	12.540	23.98 or 11+10log(B) = 30.00	PASS
106	5530	MCS0	10.99	12.569	23.98 or 11+10log(B) = 30.10	PASS
122	5610	MCS0	**12.98**	19.875	23.98 or 11+10log(B) = 30.05	PASS
138	5690(U-NII 2C)	MCS0	11.98	15.783	23.98 or 11+10log(B) = 29.87	PASS
138	5690 (U-NII 3)	MCS0	1.00	1.259	23.98	PASS
155	5775	MCS0	**12.99**	19.921	23.98	PASS

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	Data Rate	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
			CH 0	CH 1				
42	5210	MCS0	7.44	6.84	**10.92**	12.370	23.98	PASS
58	5290	MCS0	7.04	7.19	**10.89**	12.272	23.98 or 11+10log(B) = 30.00	PASS
106	5530	MCS0	7.24	6.99	10.89	12.275	23.98 or 11+10log(B) = 30.05	PASS
122	5610	MCS0	9.27	8.95	**12.89**	19.437	23.98 or 11+10log(B) = 30.04	PASS
138	5690(U-NII 2C)	MCS0	9.04	7.97	12.14	16.367	23.98 or 11+10log(B) = 29.79	PASS
138	5690 (U-NII 3)	MCS0	0.6	0.67	0.80	1.203	30	PASS
155	5775	MCS0	9.44	8.74	**12.88**	19.397	30	PASS

Conducted output power (IC)

802.11a_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	12.97	19.834	23.98 or 11+10log(B) = 23.21	PASS
60	5300	**13.96**	**24.913**	23.98 or 11+10log(B) = 23.20	PASS
64	5320	12.99	19.926	23.98 or 11+10log(B) = 23.20	PASS
100	5500	11.97	15.755	23.98 or 11+10log(B) = 23.19	PASS
116	5580	13.00	**19.972**	23.98 or 11+10log(B) = 23.17	PASS
140	5700	11.94	**15.647**	23.98 or 11+10log(B) = 23.18	PASS
149	5745	11.99	15.828	30	PASS
157	5785	12.98	**19.880**	30	PASS
165	5825	12.96	19.789	30	PASS

802.11a_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	12.92	19.607	23.98 or 11+10log(B) = 23.17	PASS
60	5300	**13.93**	**24.741**	23.98 or 11+10log(B) = 23.18	PASS
64	5320	12.98	19.880	23.98 or 11+10log(B) = 23.18	PASS
100	5500	11.96	15.719	23.98 or 11+10log(B) = 23.18	PASS
116	5580	**12.97**	**19.834**	23.98 or 11+10log(B) = 23.19	PASS
140	5700	**11.93**	**15.611**	23.98 or 11+10log(B) = 23.19	PASS
149	5745	11.94	15.647	30	PASS
157	5785	**12.96**	**19.789**	30	PASS
165	5825	12.94	19.698	30	PASS

802.11a_2Tx

CH	Frequency (MHz)	AVERAGE POWER		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
52	5260	9.91	9.3	12.86	19.321	23.98 or 11+10log(B) = 23.17	PASS
60	5300	10.96	10.4	**13.93**	**24.737**	23.98 or 11+10log(B) = 23.18	PASS
64	5320	10.01	9.4	12.96	19.771	23.98 or 11+10log(B) = 23.18	PASS
100	5500	9.06	8.17	11.88	15.425	23.98 or 11+10log(B) = 23.18	PASS
116	5580	10.11	9.24	12.94	**19.685**	23.98 or 11+10log(B) = 23.17	PASS
140	5700	9.13	8.1	11.89	**15.452**	23.98 or 11+10log(B) = 23.18	PASS
149	5745	9.23	8.04	11.92	15.560	30	PASS
157	5785	10.01	9.3	12.91	**19.561**	30	PASS
165	5825	10.01	9.23	12.88	19.418	30	PASS

802.11n_HT20_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	13.00	19.952	23.98 or 11+10log(B) = 23.49	PASS
60	5300	**13.99**	**25.061**	23.98 or 11+10log(B) = 23.48	PASS
64	5320	13.00	19.952	23.98 or 11+10log(B) = 23.49	PASS
100	5500	11.99	15.812	23.98 or 11+10log(B) = 23.49	PASS
116	5580	**13.00**	**19.952**	23.98 or 11+10log(B) = 23.48	PASS
140	5700	**12.00**	**15.849**	23.98 or 11+10log(B) = 23.49	PASS
144	5720(U-NII 2C)	9.58	9.088	23.98 or 11+11log(B) = 22.42	PASS
144	5720 (U-NII 3)	3.41	2.190	30	PASS
149	5745	12.00	15.849	30	PASS
157	5785	**13.00**	**19.952**	30	PASS
165	5825	12.99	19.907	30	PASS

802.11n_HT20_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
52	5260	12.98	19.861	23.98 or 11+10log(B) = 23.49	PASS
60	5300	**13.98**	**25.003**	23.98 or 11+10log(B) = 23.51	PASS
64	5320	12.99	19.907	23.98 or 11+10log(B) = 23.49	PASS
100	5500	11.98	15.776	23.98 or 11+10log(B) = 23.49	PASS
116	5580	**12.98**	**19.861**	23.98 or 11+10log(B) = 23.49	PASS
140	5700	**11.97**	**15.740**	23.98 or 11+10log(B) = 23.49	PASS
144	5720(U-NII 2C)	9.68	9.289	23.98 or 11+10log(B) = 22.42	PASS
144	5720 (U-NII 3)	3.29	2.133	30	PASS
149	5745	11.97	15.740	30	PASS
157	5785	12.97	19.815	30	PASS
165	5825	**12.98**	**19.861**	30	PASS

802.11n_HT20_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
52	5260	9.93	9.5	12.93	19.636	23.98 or 11+10log(B) = 23.49	PASS
60	5300	11	10.45	**13.94**	**24.797**	23.98 or 11+10log(B) = 23.48	PASS
64	5320	10	9.5	12.97	19.804	23.98 or 11+10log(B) = 23.49	PASS
100	5500	9.1	8.35	11.95	15.673	23.98 or 11+10log(B) = 23.49	PASS
116	5580	10	9.35	**12.90**	**19.487**	23.98 or 11+10log(B) = 23.48	PASS
140	5700	9.15	8.3	**11.96**	**15.689**	23.98 or 11+10log(B) = 23.49	PASS
144	5720(U-NII 2C)	7.467	6.963	9.56	9.031	23.98 or 11+10log(B) = 22.42	PASS
144	5720 (U-NII 3)	2.653	2.367	3.40	2.186	30	PASS
149	5745	9.22	8.2	11.95	15.668	30	PASS
157	5785	10	9.48	**12.96**	**19.761**	30	PASS
165	5825	10	9.43	12.93	19.654	30	PASS

802.11n_HT40_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	**13.93**	**24.692**	23.98 or 11+10log(B) = 26.57	PASS
62	5310	10.94	12.404	23.98 or 11+10log(B) = 26.57	PASS
102	5510	10.95	12.432	23.98 or 11+10log(B) = 26.57	PASS
110	5550	**12.94**	**19.659**	23.98 or 11+10log(B) = 26.58	PASS
134	5670	**12.94**	**19.659**	23.98 or 11+10log(B) = 26.57	PASS
142	5710(U-NII 2C)	10.79	11.993	23.98 or 11+11log(B) = 26.19	PASS
142	5710 (U-NII 3)	2.18	1.651	30	PASS
151	5755	**12.95**	**19.704**	30	PASS
159	5795	12.93	19.613	30	PASS

802.11n_HT40_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
54	5270	**13.92**	**24.635**	23.98 or 11+10log(B) = 26.57	PASS
62	5310	10.93	12.375	23.98 or 11+10log(B) = 26.57	PASS
102	5510	10.93	12.375	23.98 or 11+10log(B) = 26.57	PASS
110	5550	**12.92**	**19.568**	23.98 or 11+10log(B) = 26.57	PASS
134	5670	**12.93**	**19.613**	23.98 or 11+10log(B) = 26.57	PASS
142	5710(U-NII 2C)	11.13	12.984	23.98 or 11+10log(B) = 26.19	PASS
142	5710 (U-NII 3)	1.82	1.521	30	PASS
151	5755	**12.93**	**19.613**	30	PASS
159	5795	12.91	19.523	30	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
54	5270	10.42	9.88	**13.90**	**24.571**	23.98 or 11+10log(B) = 26.57	PASS
62	5310	7.5	6.78	10.90	12.305	23.98 or 11+10log(B) = 26.57	PASS
102	5510	7.68	6.57	10.91	12.320	23.98 or 11+10log(B) = 26.57	PASS
110	5550	9.5	8.79	**12.91**	**19.522**	23.98 or 11+10log(B) = 26.57	PASS
134	5670	9.63	8.63	**12.90**	**19.519**	23.98 or 11+10log(B) = 26.57	PASS
142	5710(U-NII 2C)	7.93	7.58	10.76	11.923	23.98 or 11+10log(B) = 26.19	PASS
142	5710 (U-NII 3)	1.6	1.24	2.17	1.649	30	PASS
151	5755	9.72	8.55	**12.92**	**19.589**	30	PASS
159	5795	9.63	8.62	12.90	19.499	30	PASS

802.11ac_VHT80_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	**10.99**	12.569	23.98 or 11+10log(B) = 29.75	PASS
106	5530	11.00	12.598	23.98 or 11+10log(B) = 29.77	PASS
122	5610	**12.99**	**19.921**	23.98 or 11+11log(B) = 29.75	PASS
138	5690(U-NII 2C)	12.19	16.548	23.98 or 11+12log(B) = 29.60	PASS
138	5690 (U-NII 3)	0.81	1.204	30	PASS
155	5775	**13.00**	**19.967**	30	PASS

802.11ac_VHT80_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
58	5290	**10.98**	12.540	23.98 or 11+10log(B) = 29.74	PASS
106	5530	10.99	12.569	23.98 or 11+10log(B) = 29.75	PASS
122	5610	**12.98**	**19.875**	23.98 or 11+10log(B) = 29.75	PASS
138	5690(U-NII 2C)	11.98	15.783	23.98 or 11+10log(B) = 29.60	PASS
138	5690 (U-NII 3)	1.00	1.259	30	PASS
155	5775	**12.99**	**19.921**	30	PASS

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
58	5290	7.04	7.19	**10.89**	12.272	23.98 or 11+10log(B) = 29.74	PASS
106	5530	7.24	6.99	10.89	12.275	23.98 or 11+10log(B) = 29.75	PASS
122	5610	9.27	8.95	**12.89**	**19.437**	23.98 or 11+10log(B) = 29.75	PASS
138	5690(U-NII 2C)	9.042	7.974	12.14	16.367	23.98 or 11+10log(B) = 29.60	PASS
138	5690 (U-NII 3)	0.598	0.666	0.80	1.203	30	PASS
155	5775	9.44	8.74	**12.88**	**19.397**	30	PASS

EIRP

802.11a_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
36	5180	12.94	1.800	14.74	29.814	23.01	or 10+10log(B)=	22.20	PASS
44	5220	**13.95**	1.800	**15.75**	**37.620**	23.01	or 10+10log(B)=	22.18	PASS
48	5240	12.98	1.800	14.78	30.090	23.01	or 10+10log(B)=	22.19	PASS
52	5260	12.97	1.800	14.77	30.021	30	or 17+10log(B)=	29.21	PASS
60	5300	**13.96**	1.800	**15.76**	**37.707**	30	or 17+10log(B)=	29.20	PASS
64	5320	12.99	1.800	14.79	30.159	30	or 17+10log(B)=	29.20	PASS
100	5500	11.97	1.840	13.81	24.067	30	or 17+10log(B)=	29.19	PASS
116	5580	**13.00**	1.840	**14.84**	**30.508**	30	or 17+10log(B)=	29.17	PASS
140	5700	**11.94**	1.840	**13.78**	**23.901**	30	or 17+10log(B)=	29.18	PASS

802.11a_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
36	5180	12.93	-0.550	12.38	17.315	23.01	or 10+10log(B)=	22.20	PASS
44	5220	**13.92**	-0.550	**13.37**	**21.748**	23.01	or 10+10log(B)=	22.19	PASS
48	5240	12.93	-0.550	12.38	17.315	23.01	or 10+10log(B)=	22.18	PASS
52	5260	12.92	1.340	14.26	26.694	30	or 17+10log(B)=	29.17	PASS
60	5300	**13.93**	1.340	**15.27**	**33.684**	30	or 17+10log(B)=	29.18	PASS
64	5320	12.98	1.340	14.32	27.066	30	or 17+10log(B)=	29.18	PASS
100	5500	11.96	1.460	13.42	22.000	30	or 17+10log(B)=	29.18	PASS
116	5580	**12.97**	1.460	**14.43**	**27.760**	30	or 17+10log(B)=	29.19	PASS
140	5700	**11.93**	1.460	**13.39**	**21.848**	30	or 17+10log(B)=	29.19	PASS

802.11a_2Tx

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
36	5180	12.91	3.715	16.63	45.978	23.01	or 10+10log(B)=	22.20	PASS
44	5220	**13.90**	3.715	**17.62**	**57.769**	23.01	or 10+10log(B)=	22.18	PASS
48	5240	12.92	3.715	16.64	46.114	23.01	or 10+10log(B)=	22.18	PASS
52	5260	12.86	4.583	17.44	55.508	30	or 17+10log(B)=	29.17	PASS
60	5300	**13.93**	4.583	**18.52**	**71.070**	30	or 17+10log(B)=	29.18	PASS
64	5320	12.96	4.583	17.54	56.801	30	or 17+10log(B)=	29.18	PASS
100	5500	11.88	4.662	16.54	45.130	30	or 17+10log(B)=	29.18	PASS
116	5580	**12.94**	4.662	**17.60**	**57.592**	30	or 17+10log(B)=	29.17	PASS
140	5700	**11.89**	4.662	**16.55**	**45.210**	30	or 17+10log(B)=	29.18	PASS

802.11n_HT20_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
36	5180	12.99	1.800	14.79	30.130	23.01	or 10+10log(B)=	22.48	PASS
44	5220	**13.99**	1.800	**15.79**	**37.931**	23.01	or 10+10log(B)=	22.49	PASS
48	5240	12.97	1.800	14.77	29.991	23.01	or 10+10log(B)=	22.49	PASS
52	5260	13.00	1.800	14.80	30.199	30	or 17+10log(B)=	29.49	PASS
60	5300	**13.99**	1.800	**15.79**	**37.931**	30	or 17+10log(B)=	29.48	PASS
64	5320	13.00	1.800	14.80	30.199	30	or 17+10log(B)=	29.49	PASS
100	5500	11.99	1.840	13.83	24.154	30	or 17+10log(B)=	29.49	PASS
116	5580	**13.00**	1.840	**14.84**	**30.479**	30	or 17+10log(B)=	29.48	PASS
140	5700	**12.00**	1.840	**13.84**	**24.210**	30	or 17+10log(B)=	29.49	PASS

802.11n_HT20_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
36	5180	12.98	-0.550	12.43	17.498	23.01	or 10+10log(B)=	22.49	PASS
44	5220	**13.95**	-0.550	**13.40**	**21.877**	23.01	or 10+10log(B)=	22.49	PASS
48	5240	12.96	-0.550	12.41	17.418	23.01	or 10+10log(B)=	22.49	PASS
52	5260	12.98	1.340	14.32	27.039	30	or 17+10log(B)=	29.49	PASS
60	5300	**13.98**	1.340	**15.32**	**34.041**	30	or 17+10log(B)=	29.51	PASS
64	5320	12.99	1.340	14.33	27.102	30	or 17+10log(B)=	29.49	PASS
100	5500	11.98	1.460	13.44	22.080	30	or 17+10log(B)=	29.49	PASS
116	5580	**12.98**	1.460	**14.44**	**27.797**	30	or 17+10log(B)=	29.49	PASS
140	5700	**11.97**	1.460	**13.43**	**22.029**	30	or 17+10log(B)=	29.49	PASS

802.11n_HT20_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
36	5180	12.90	3.715	16.61	45.809	23.01	or 10+10log(B)=	22.48	PASS
44	5220	**13.94**	3.715	**17.66**	**58.332**	23.01	or 10+10log(B)=	22.49	PASS
48	5240	12.92	3.715	16.64	46.080	23.01	or 10+10log(B)=	22.49	PASS
52	5260	12.93	4.583	17.51	56.415	30	or 17+10log(B)=	29.49	PASS
60	5300	**13.94**	4.583	**18.53**	**71.241**	30	or 17+10log(B)=	29.48	PASS
64	5320	12.97	4.583	17.55	56.896	30	or 17+10log(B)=	29.49	PASS
100	5500	11.95	4.662	16.61	45.854	30	or 17+10log(B)=	29.49	PASS
116	5580	**12.90**	4.662	**17.56**	**57.014**	30	or 17+10log(B)=	29.48	PASS
140	5700	**11.96**	4.662	**16.62**	**45.903**	30	or 17+10log(B)=	29.49	PASS

802.11n_HT40_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
38	5190	10.94	1.800	12.74	18.774	23.01	or 10+10log(B)=	25.56	PASS
46	5230	**13.95**	1.800	**15.75**	**37.545**	23.01	or 10+10log(B)=	25.57	PASS
54	5270	**13.93**	1.800	**15.73**	**37.373**	30	or 17+10log(B)=	32.57	PASS
62	5310	10.94	1.800	12.74	18.774	30	or 17+10log(B)=	32.57	PASS
102	5510	10.95	1.840	12.79	18.991	30	or 17+10log(B)=	32.57	PASS
110	5550	**12.94**	1.840	**14.78**	**30.030**	30	or 17+10log(B)=	32.58	PASS
134	5670	**12.94**	1.840	**14.78**	**30.030**	30	or 17+10log(B)=	32.57	PASS

802.11n_HT40_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
38	5190	10.93	-0.550	10.38	10.903	23.01	or 10+10log(B)=	25.56	PASS
46	5230	**13.94**	-0.550	**13.39**	**21.805**	23.01	or 10+10log(B)=	25.56	PASS
54	5270	**13.92**	1.340	**15.26**	**33.539**	30	or 17+10log(B)=	32.57	PASS
62	5310	10.93	1.340	12.27	16.848	30	or 17+10log(B)=	32.57	PASS
102	5510	10.93	1.460	12.39	17.320	30	or 17+10log(B)=	32.57	PASS
110	5550	**12.92**	1.460	**14.38**	**27.388**	30	or 17+10log(B)=	32.57	PASS
134	5670	**12.93**	1.460	**14.39**	**27.451**	30	or 17+10log(B)=	32.57	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
38	5190	10.90	3.715	14.62	28.967	23.01	or 10+10log(B)=	25.56	PASS
46	5230	**13.92**	3.715	**17.63**	**57.985**	23.01	or 10+10log(B)=	25.56	PASS
54	5270	**13.90**	4.583	**18.49**	**70.592**	30	or 17+10log(B)=	32.57	PASS
62	5310	10.90	4.583	15.48	35.352	30	or 17+10log(B)=	32.57	PASS
102	5510	10.91	4.662	15.57	36.046	30	or 17+10log(B)=	32.57	PASS
110	5550	**12.91**	4.662	**17.57**	**57.118**	30	or 17+10log(B)=	32.57	PASS
134	5670	**12.90**	4.662	**17.57**	**57.108**	30	or 17+10log(B)=	32.57	PASS

802.11ac_VHT80_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
42	5210	**11.00**	1.800	**12.80**	**19.068**	23.01	or 10+10log(B)=	28.75	PASS
58	5290	**10.99**	1.800	**12.79**	**19.024**	30	or 17+10log(B)=	35.75	PASS
106	5530	**11.00**	1.840	**12.84**	**19.244**	30	or 17+10log(B)=	35.77	PASS

802.11ac_VHT80_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
42	5210	**10.98**	-0.550	**10.43**	**11.049**	23.01	or 10+10log(B)=	28.75	PASS
58	5290	**10.98**	1.340	**12.32**	**17.073**	30	or 17+10log(B)=	35.74	PASS
106	5530	**10.99**	1.460	**12.45**	**17.592**	30	or 17+10log(B)=	35.75	PASS

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)			RESULT
42	5210	**10.92**	3.715	**14.64**	**29.095**	23.01	or 10+10log(B)=	28.75	PASS
58	5290	**10.89**	4.583	**15.47**	**35.256**	30	or 17+10log(B)=	35.74	PASS
106	5530	**10.89**	4.662	**15.55**	**35.913**	30	or 17+10log(B)=	35.75	PASS

10 MAXIMUM POWER SPECTRAL DENSITY

10.1 Standard Applicable

FCC

OPERZTION Band	EUT CATEGORY		LIMIT
U-NII-1		Access Point (Master device)	17dBm/ MHz
		Fixed point-to-point Access Ponit	
	√	Mobile and portable client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz
If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.			

ISED

OPERZTION FREQUENCY BAND	LIMIT
5150~5250 MHz	EIRP spectral density 10 dBm / MHz
5250~5350 MHz	11dBm / MHz
5470-5600 MHz and 5650-5725 MHz	11dBm / MHz
5725~5850 MHz	30dBm / 500 kHz
For equipment operating in the band ***5725-5850*** MHz, If transmitting antennas of directional gain greater than 6 dBi are used, the Maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.	

Note:

As per FCC KDB 662911 D01

Unequal antenna gains, with equal transmit powers. For antenna gains given by G1, G2, …, GN dBi.

(i) If transmit signals are correlated, then Directional gain

$= 10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$ dBi

[Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

	Effective Legacy Gain (dBi)	PSD Limit	
UNII-1	1.80	11.00	dBm/MHz
UNII-2A	1.80	11.00	dBm/MHz
U-NII-2C	1.84	11.00	dBm/MHz
U-NII-3	1.84	30.00	dBm/500 kHz

10.2 Measurement Procedure

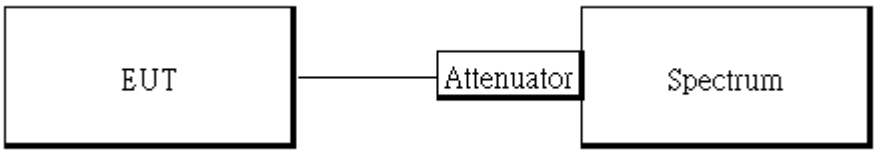
1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
4. **For U-NII1, U-NII-2A, U-NII-2C Band**:
   Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
   For U-NII-3 Band:
   Set RBW=500 kHz, VBW≥ 3RBW, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)
5. User the cursor on spectrum to peak search the highest level of trace
6. Record the max. reading and add 10 log(1/duty cycle).
7. Repeat above procedures until all default test channel (low, middle, and high) was complete.

Note: For the test of PSD at MIMO mode, the highest emission of worst case employing Measure and add 10 log (N) technical is reported on this report after the comparison between Main Antenna at single transmitting mode and Aux that yields the higher value. The MIMO transmitting mode produces higher value of outcome

10.3 Measurement Equipment Used

SGS Conducted Room					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Spectrum Analyzer	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25
DC Block	PASTERNACK	PE8210	RF81	2019/02/26	2020/02/25
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25

10.4 Test Set-up



10.5 Measurement Result

POWER DENSITY 802.11a MODE					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5180	3.29	0.23	3.52	11	-7.48
5220	-0.56	0.23	-0.33	11	-11.33
5240	1.26	0.23	1.49	11	-9.51
5260	-0.17	0.23	0.06	11	-10.94
5300	1.31	0.23	1.54	11	-9.46
5320	-0.61	0.23	-0.38	11	-11.38
5500	-0.55	0.23	-0.32	11	-11.32
5580	-1.17	0.23	-0.94	11	-11.94
5700	-1.66	0.23	-1.43	11	-12.43
5720 (U-NII 2C)	0.28	0.23	0.51	11	-10.49
5720 (U-NII 3)	-0.95	0.23	-0.72	30	-30.72
5745	-2.70	-	-2.70	30	-32.70
5785	-1.80	-	-1.80	30	-31.80
5825	-4.82	-	-4.82	30	-34.82

POWER DENSITY 802.11n HT20 MODE					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5180	-0.85	0.20	-0.65	11	-11.65
5220	-1.06	0.20	-0.86	11	-11.86
5240	1.96	0.20	2.16	11	-8.84
5260	1.49	0.20	1.69	11	-9.31
5300	2.20	0.20	2.40	11	-8.60
5320	-2.19	0.20	-1.99	11	-12.99
5500	-2.99	0.20	-2.79	11	-13.79
5580	1.39	0.20	1.59	11	-9.41
5700	-0.10	0.20	0.10	11	-10.90
5720 (U-NII 2C)	-0.52	0.20	-0.32	11	-11.32
5720 (U-NII 3)	-2.01	0.20	-1.81	30	-31.81
5745	-3.00	-	-3.00	30	-33.00
5785	-2.01	-	-2.01	30	-32.01
5825	-3.47	-	-3.47	30	-33.47

POWER DENSITY 802.11n HT40 MODE					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5190	-9.23	0.74	-8.49	11	-19.49
5230	-4.13	0.74	-3.39	11	-14.39
5270	-8.45	0.74	-7.71	11	-18.71
5310	-7.65	0.74	-6.91	11	-17.91
5510	-9.69	0.74	-8.95	11	-19.95
5550	-8.85	0.74	-8.11	11	-19.11
5670	-8.08	0.74	-7.34	11	-18.34
5710 (U-NII 2C)	-8.03	0.74	-7.29	11	-18.29
5710 (U-NII 3)	10.56	0.74	11.30	30	-18.70
5755	-12.00	-	-12.00	30	-42.00
5795	-10.42	-	-10.42	30	-40.42

POWER DENSITY 802.11ac VHT80 MODE					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5210	-10.78	0.76	-10.02	11	-21.02
5290	-10.78	0.76	-10.02	11	-21.02
5530	-10.89	0.76	-10.13	11	-21.13
5610	-10.37	0.76	-9.61	11	-20.61
5690 (U-NII 2C)	-7.28	0.76	-6.52	11	-17.52
5690 (U-NII 3)	-14.30	0.76	-13.54	30	-43.54
5775	-11.67	-	-11.67	30	-41.67

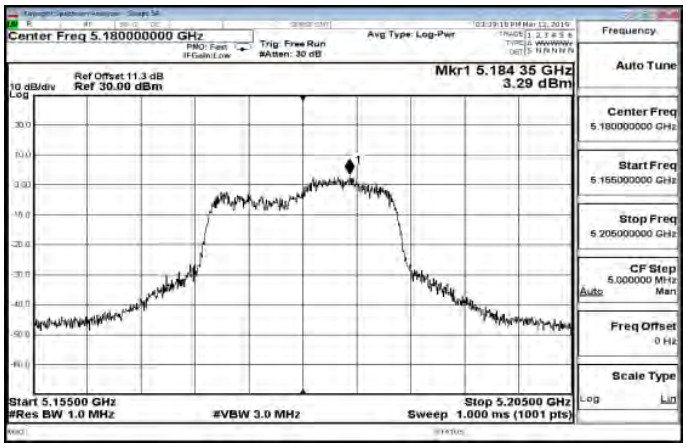
EIRP spectral density 802.11a MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)
5180	3.52	1.80	5.32	10	-4.68
5220	-0.33	1.80	1.47	10	-8.53
5240	1.49	1.80	3.29	10	-6.71

EIRP spectral density 802.11n HT20 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)
5180	-0.65	1.80	1.15	10	-8.85
5220	-0.86	1.80	0.94	10	-9.06
5240	2.16	1.80	3.96	10	-6.04

EIRP spectral density 802.11n HT40 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)
5180	-8.49	1.80	-6.69	10	-16.69
5220	-3.39	1.80	-1.59	10	-11.59

EIRP spectral density 802.11ac VHT80 MODE					
Freq. (MHz)	PSD (dBm)	Ant. Gain (dBi)	EIRP SD (dBm)	Limit (dBm)	Margin (dB)
5210	-10.02	1.80	-8.22	10	-18.22

802.11a_20MHz_5180MHz



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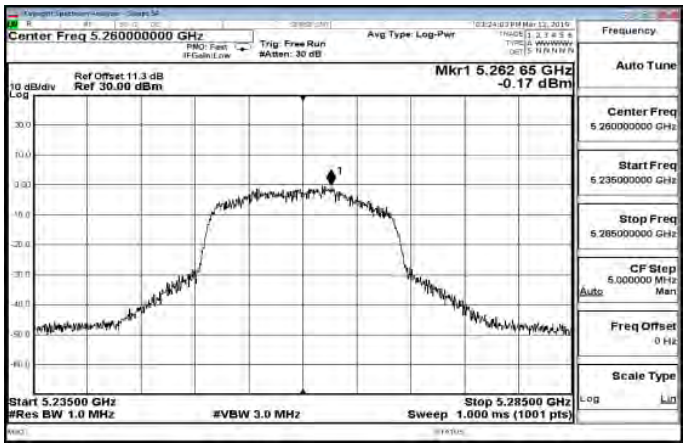

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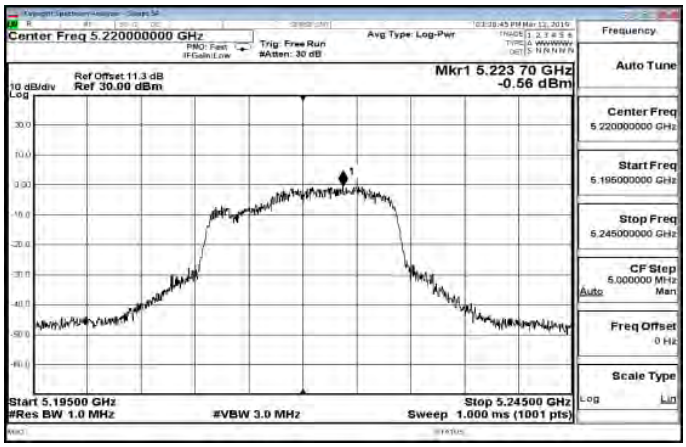

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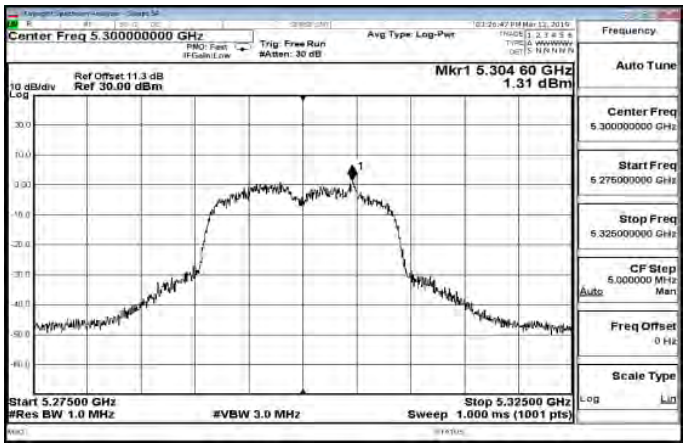

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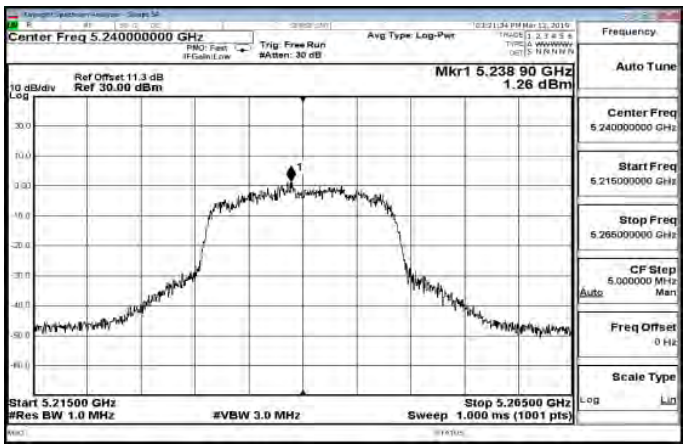

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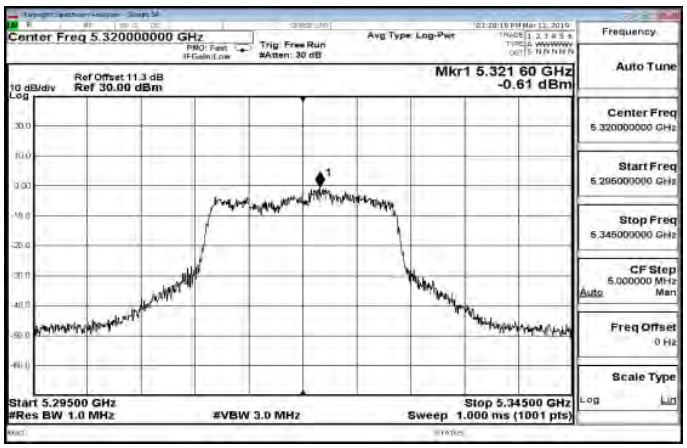

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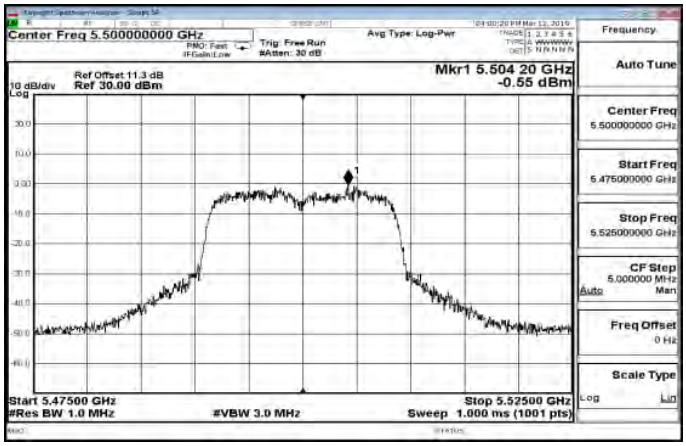

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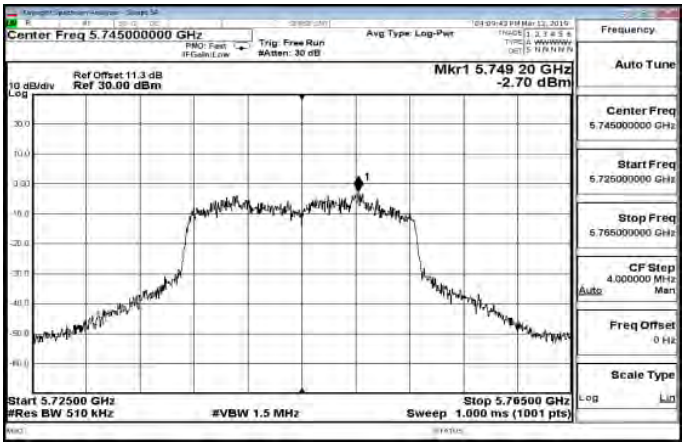

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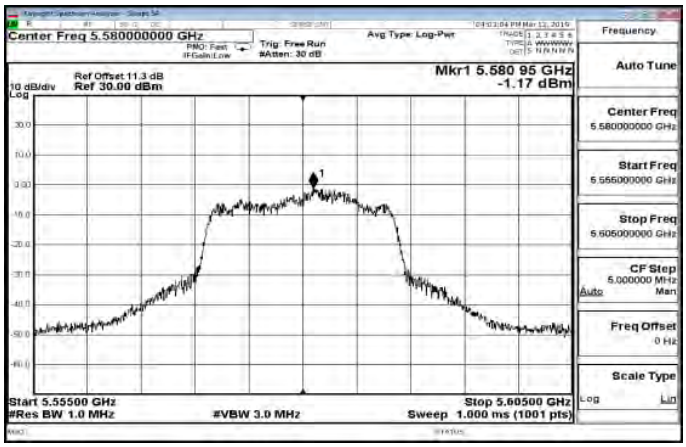

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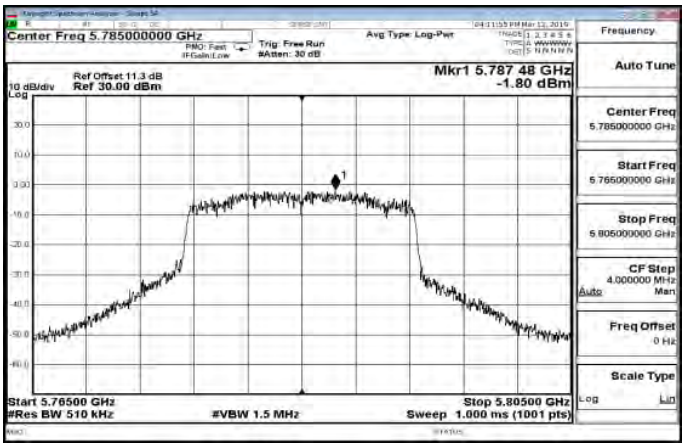

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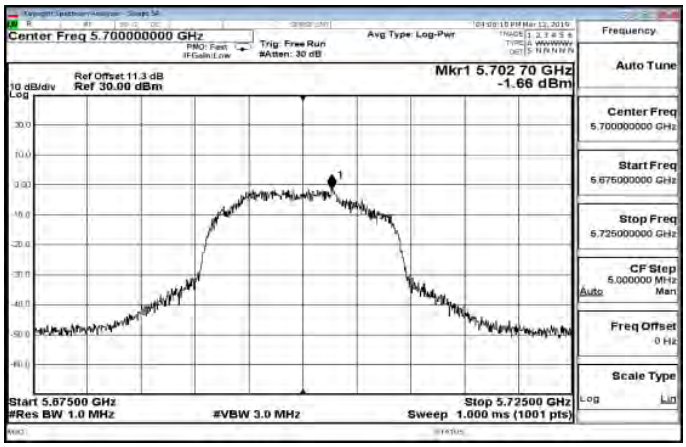

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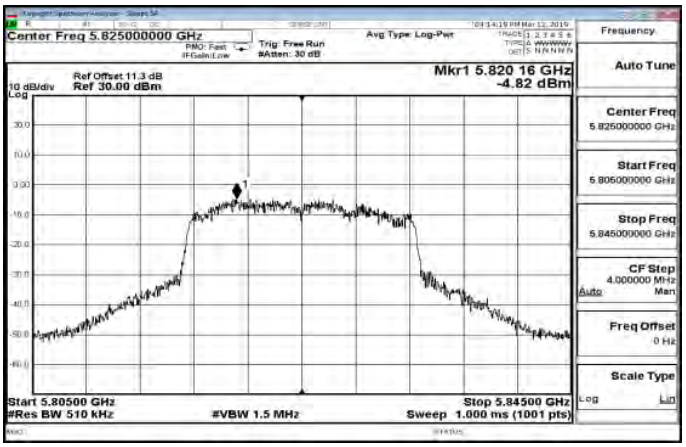

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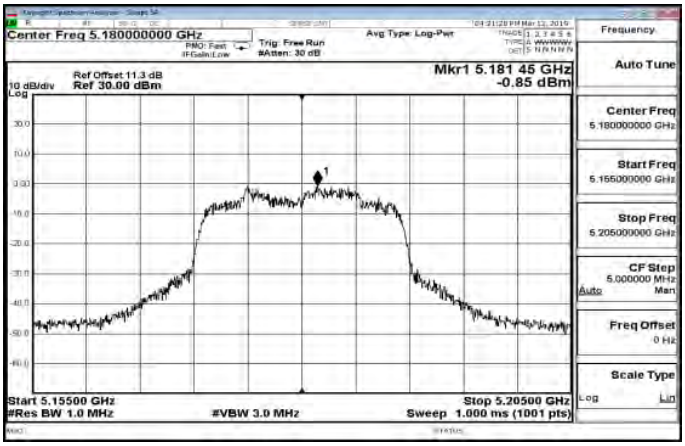

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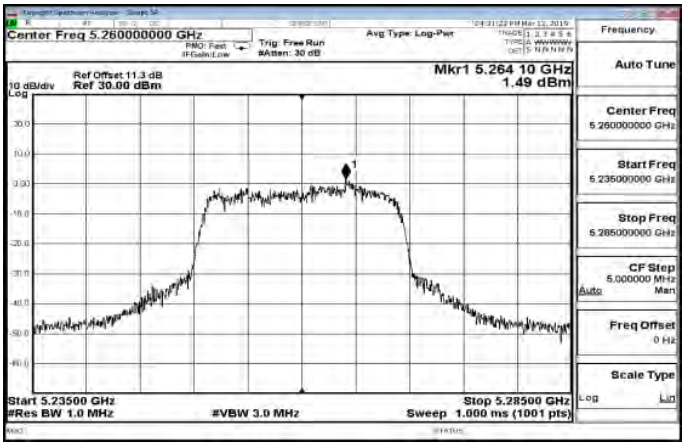
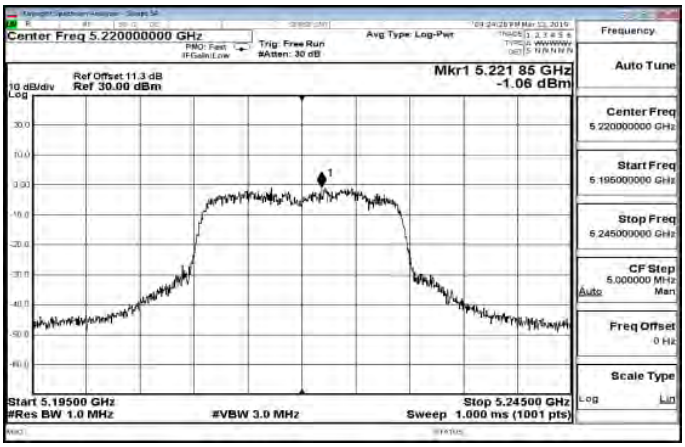
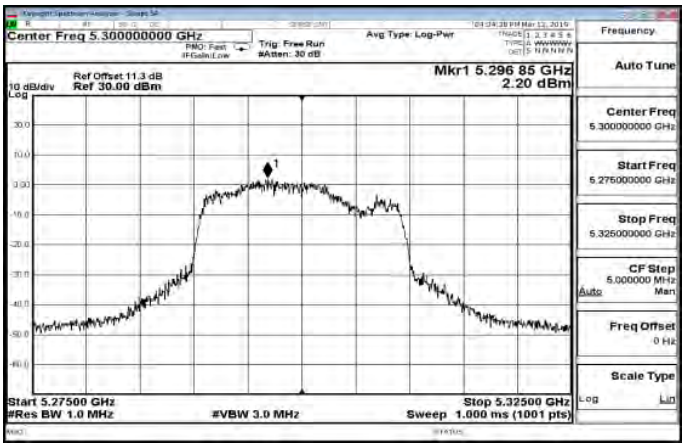


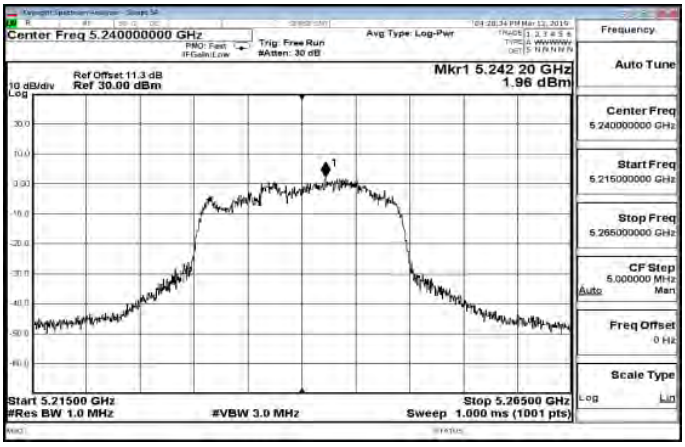
802.11n_20MHz_5220MHz



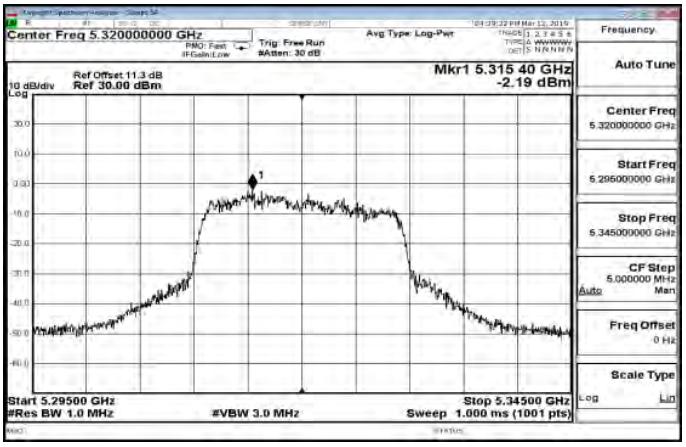
802.11n_20MHz_5300MHz



802.11n_20MHz_5240MHz



802.11n_20MHz_5320MHz



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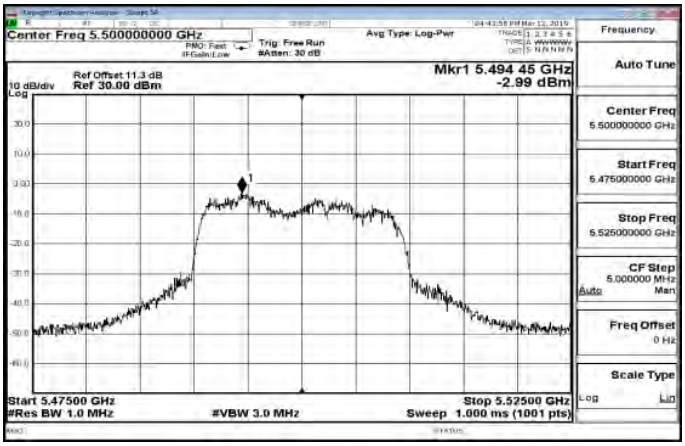

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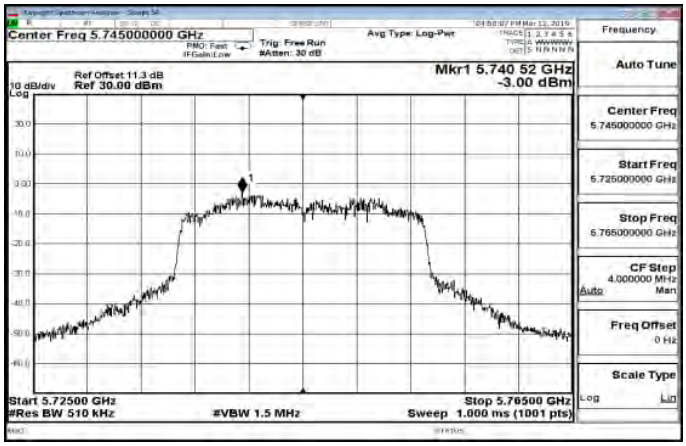

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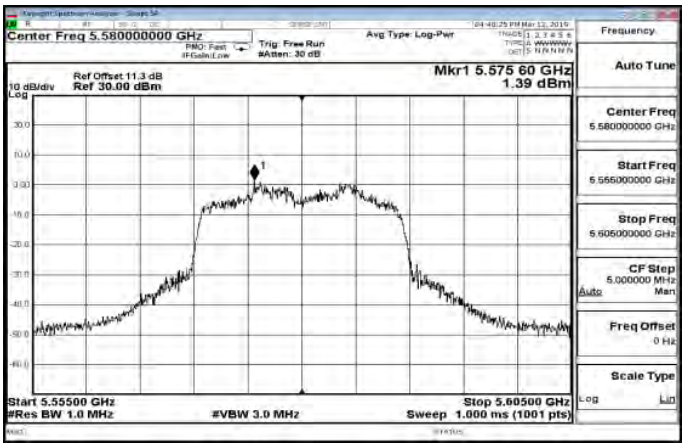

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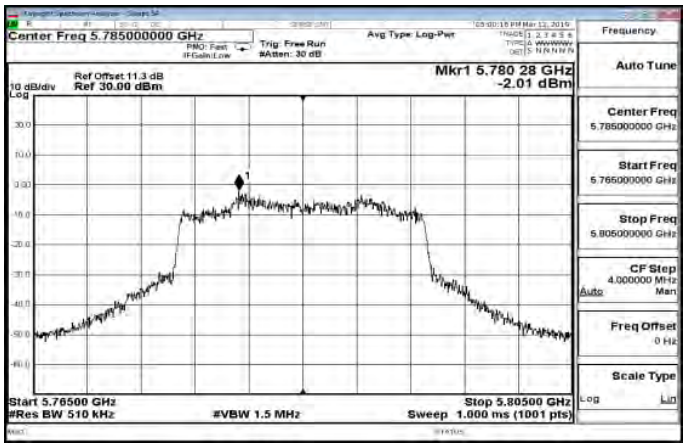

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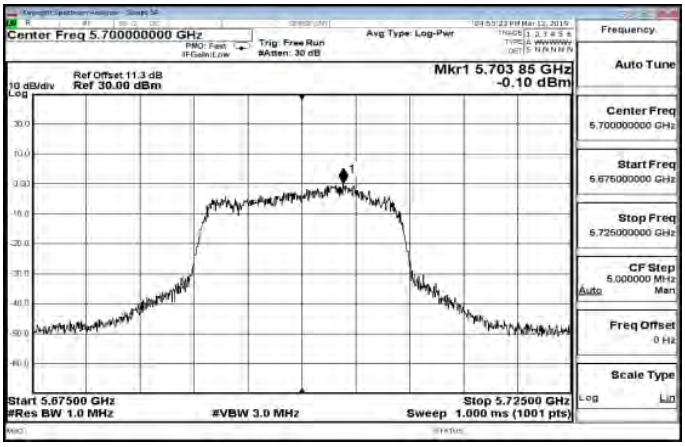

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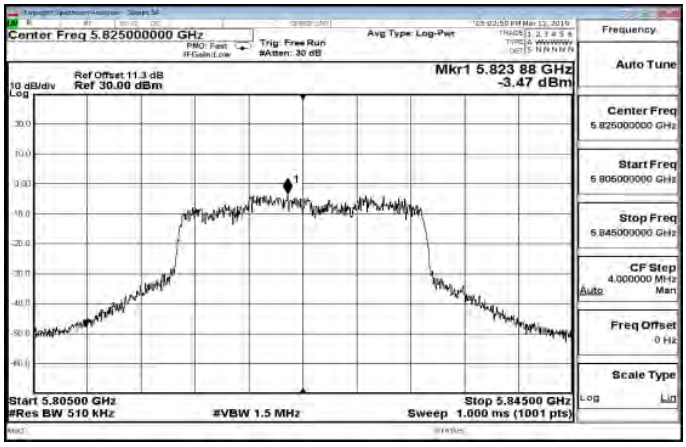

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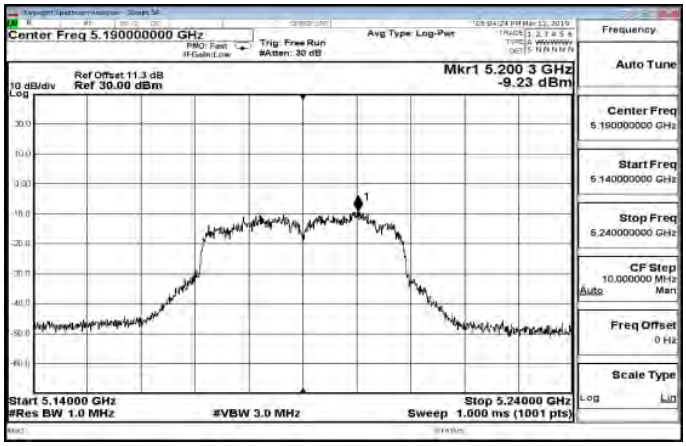

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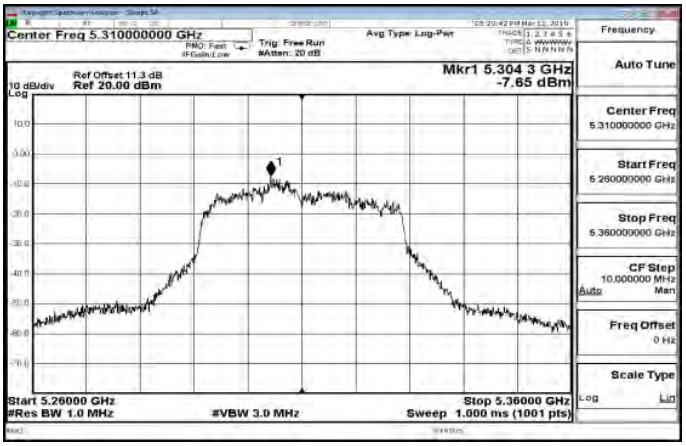

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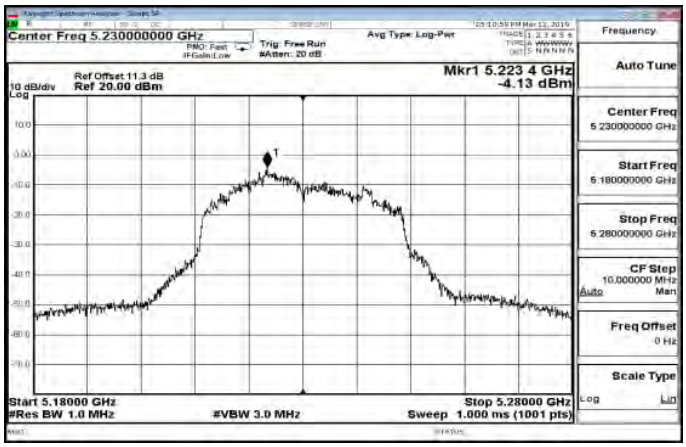

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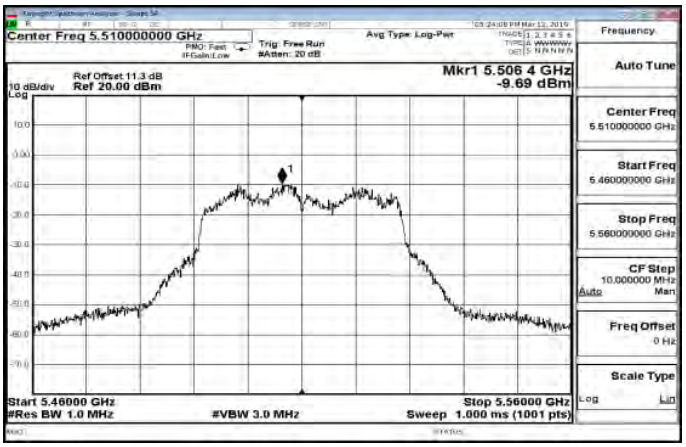

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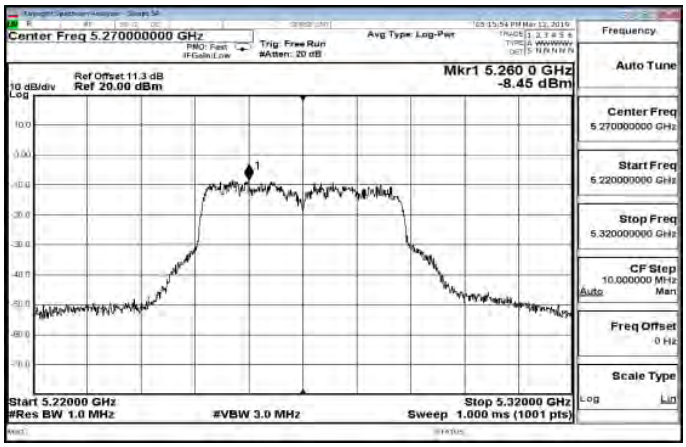
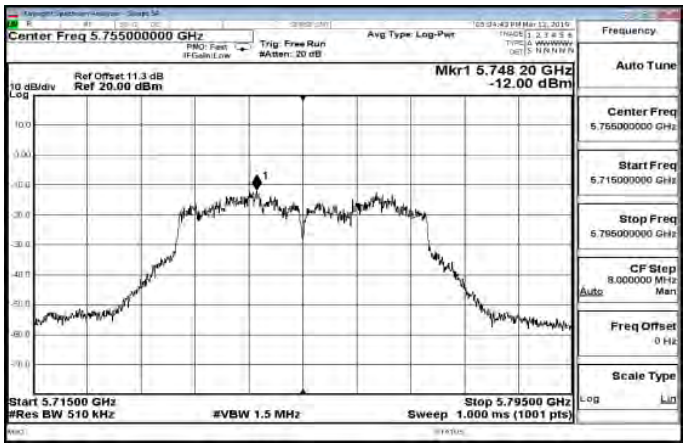


802.11n_40MHz_5550MHz

802.11n_40MHz_5670MHz

802.11ac_80MHz_5210MHz

802.11n_40MHz_5755MHz



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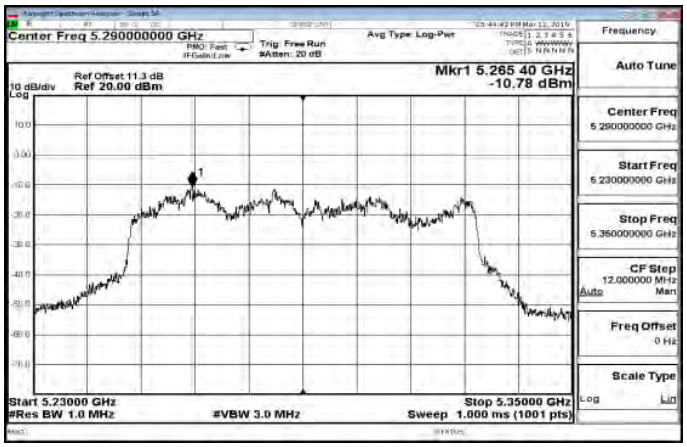
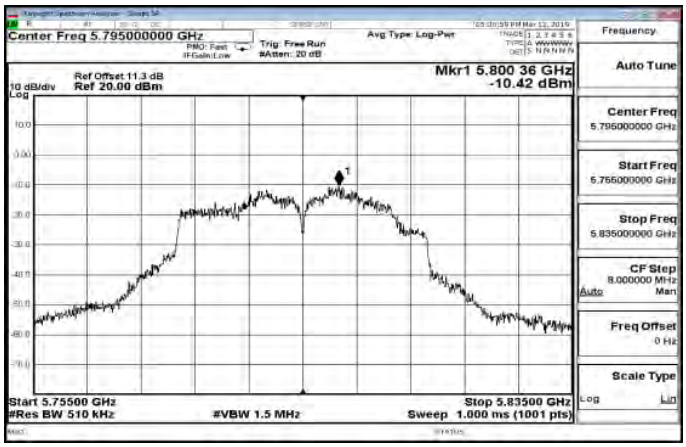


802.11n_40MHz_5795MHz



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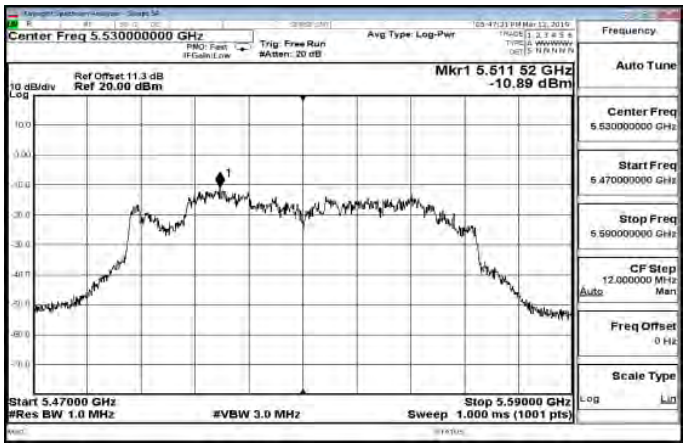
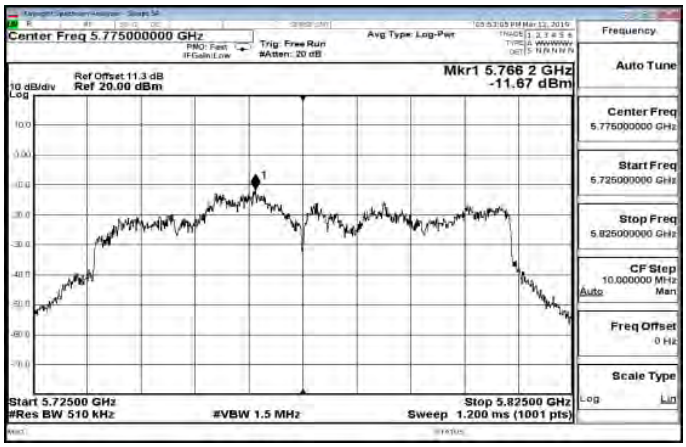


802.11ac_80MHz_5610MHz

802.11ac_80MHz_5775MHz



11 UNDESIRABLE RADIATED EMISSION MEASUREMENT

11.1 Standard Applicable

The maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

1. For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

2. For transmitters operating in the 5.725-5.85 GHz band: 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.

APPLICABLE TO	LIMIT	
FCC KDB 789033 D02 General UNII Test Procedures New Rules	FIELD STRENGTH AT 3m	
	PK: 74 (dBμV/m)	AV 54 (dBμV/m)
APPLICABLE TO	**EIRP LIMIT**	**FIELD STRENGTH AT 3m**
15.407(b)(1) RSS-247 6.2.1.2	PK: -27 (dBm/MHz)	PK: 68.3 (dBμV/m)
15.407(b)(2) RSS-247 6.2.2.2		
15.407(b)(3) RSS-247 6.2.3.2		
15.407(b)(4)(i) RSS-247 6.2.4.2	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4
*1 beyond 75 MHz or more above of the bandedge. *2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. *3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above. *4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.		

EIRP = ((E*d)^2) / 30, where E is the field in V/m, d is the measurement distance (3m), EIRP is the equivalent isotropically radiated power in Watts.

Unwanted spurious emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

Frequency (MHz)	Field strength (microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(KHz)	300
0.490-1.705	24000/F(KHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note:

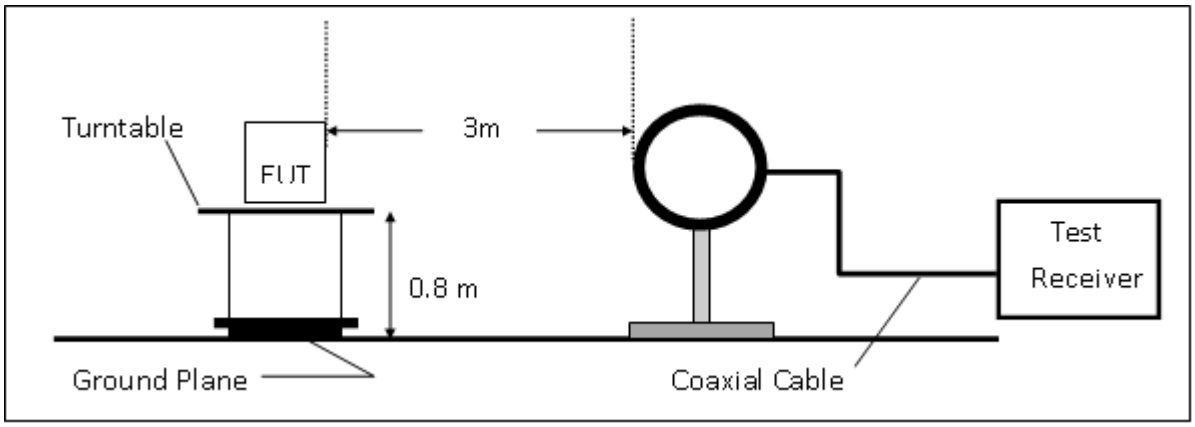
1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBμV/m) = 20 log Emission level (dBμV/m)

11.2 Measurement Equipment Used

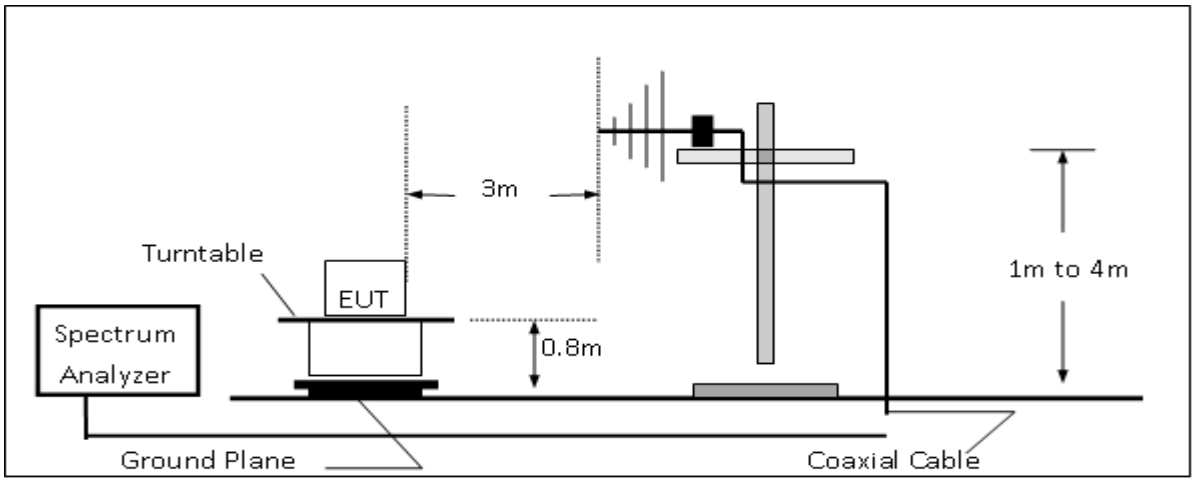
966A Chamber					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Bilog Antenna	Sunol Sciences	JB3	A030105	2018/07/13	2019/07/12
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	2019/02/26	2020/02/25
Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	2019/02/26	2020/02/25
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	2019/01/30	2020/01/29
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	2018/08/20	2019/08/19
High Pass Filters	WI	WHKX7.0/18G-8SS	45	2019/02/26	2020/02/25
Horn Antenna	ETS LINDGREN	3116	00026370	2018/12/26	2019/12/25
Loop Ant	ETS.LINDGREN	6502	148045	2018/10/08	2019/10/07
Pre-Amplifier	EMEC	EM330	060609	2019/02/26	2020/02/25
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	2019/02/26	2020/02/25
Pre-Amplifier	HP	8449B	3008A00965	2019/02/26	2020/02/25
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	2018/05/31	2019/05/30
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 V6.11-20180413				

11.3 Test SET-UP

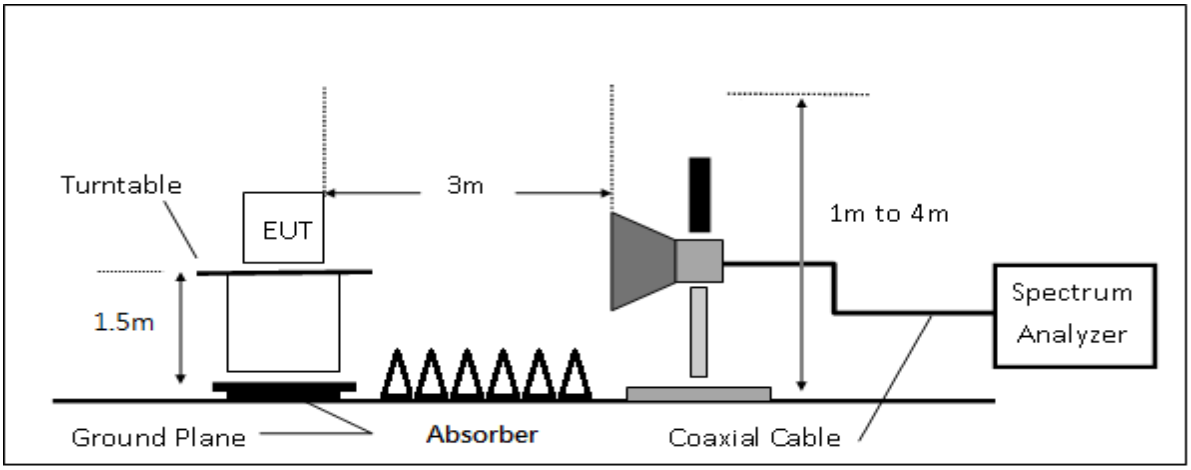
(A) Radiated Emission Test Set-UP Frequency Below 30MHz.



(B) Radiated Emission Test Set-Up, Frequency form 30MHz to 1000MHz



(C) Radiated Emission Test Set-UP Frequency Over 1 GHz



11.4 Measurement Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules .
3. The EUT was placed on a turn table with 0.8m for frequency< 1GHz and 1.5m for frequency> 1GHz above ground plane.
4. The turn table shall rotate 360 degrees to determine the position of maximum emission level.
5. EUT is set 3m away from the receiving antenna which varied from 1m to 4m to find out the highest emissions.
6. Set the spectrum analyzer as RBW=120 kHz and VBW=300 kHz for Peak Detector (PK) and Quasi-peak (QP) at frequency below 1 GHz.
7. Set the spectrum analyzer as RBW=1 MHz, VBW=3 MHz for Peak Detector at frequency above 1 GHz.
8. Set the spectrum analyzer as RBW=1 MHz, VBW=10 Hz (Duty cycle > 98%) or VBW ≥ 1/T (Duty cycle < 98%) for Average Detector at frequency above 1 GHz.
9. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
10. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
11. Repeat above procedures until all frequency measured were complete.

11.5 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CL - AG

Where	FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
	RA = Reading Amplitude	AG = Amplifier Gain
	AF = Antenna Factor	

Actual FS(dBμV/m) = SPA. Reading level(dBμV) + Factor(dB)

Factor(dB) = Antenna Factor(dBμV/m) + Cable Loss(dB) – Pre_Amplifier Gain(dB)

11.6 Test Results of Radiated Spurious Emissions form 9 KHz to 30 MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

Pre-scanned was done at frequency 5.47 GHz and 5.85 GHz for bandedge measurement of straddle channels 138, 142 and 144 which was 20dB lower than the limit per 15.31(o) & RSS-GEN §6.13.2 was not reported.

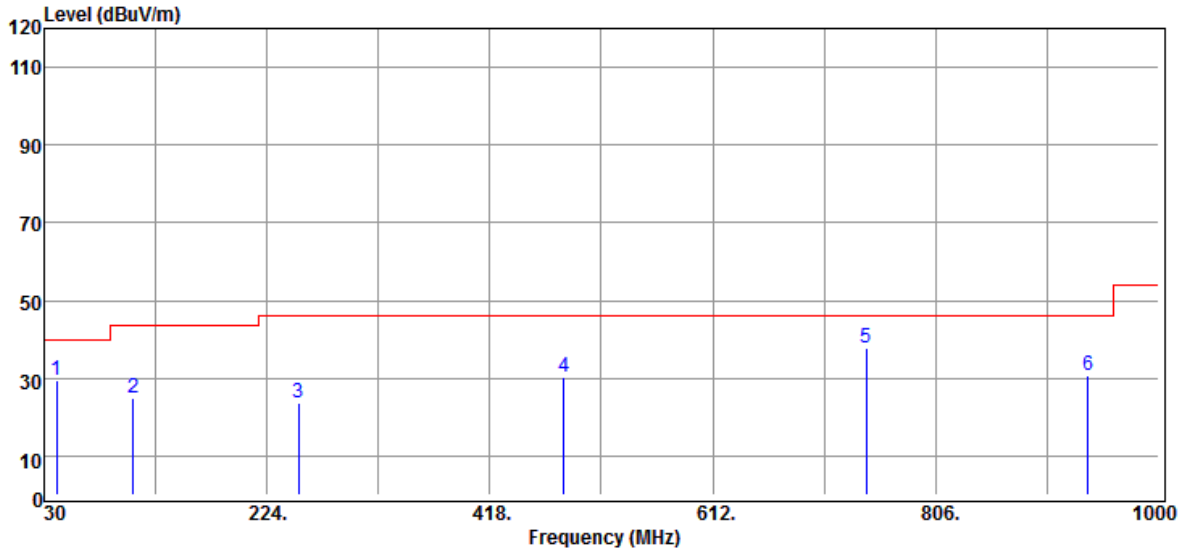
11.7 Measurement Result

Radiated Spurious Emission Measurement Result

Below 1GHz Worst-Case Data:

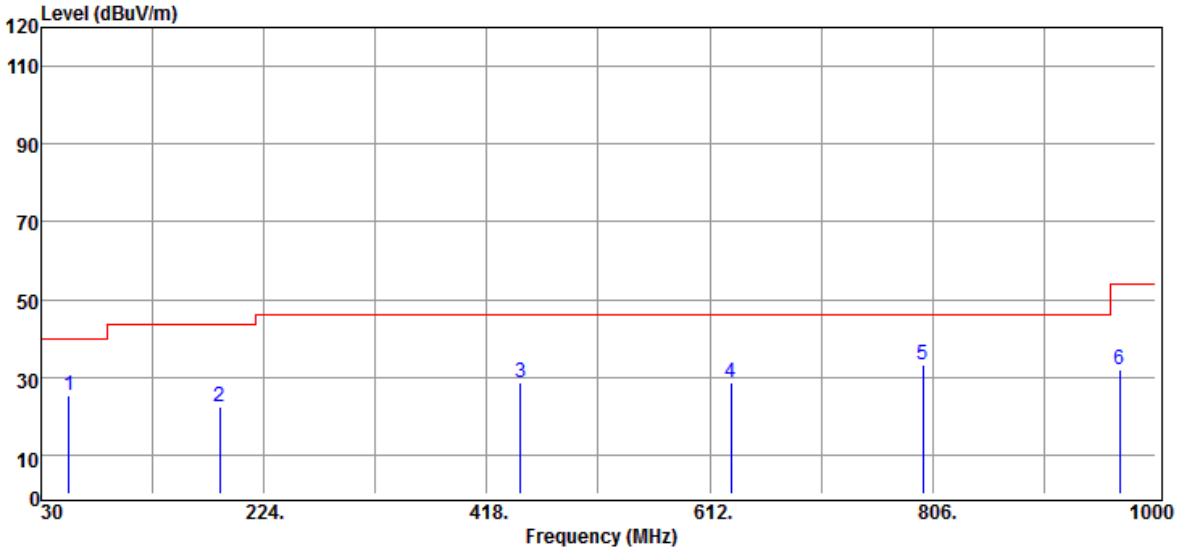
802.11a 5150~5250 MHz

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5220 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
40.67	Peak	38.91	-9.47	29.44	40.00	-10.56
107.60	Peak	35.08	-10.12	24.96	43.50	-18.54
251.16	Peak	33.33	-9.79	23.54	46.00	-22.46
482.02	Peak	32.31	-2.03	30.28	46.00	-15.72
745.86	Peak	35.37	2.32	37.69	46.00	-8.31
938.89	Peak	25.60	5.04	30.64	46.00	-15.36

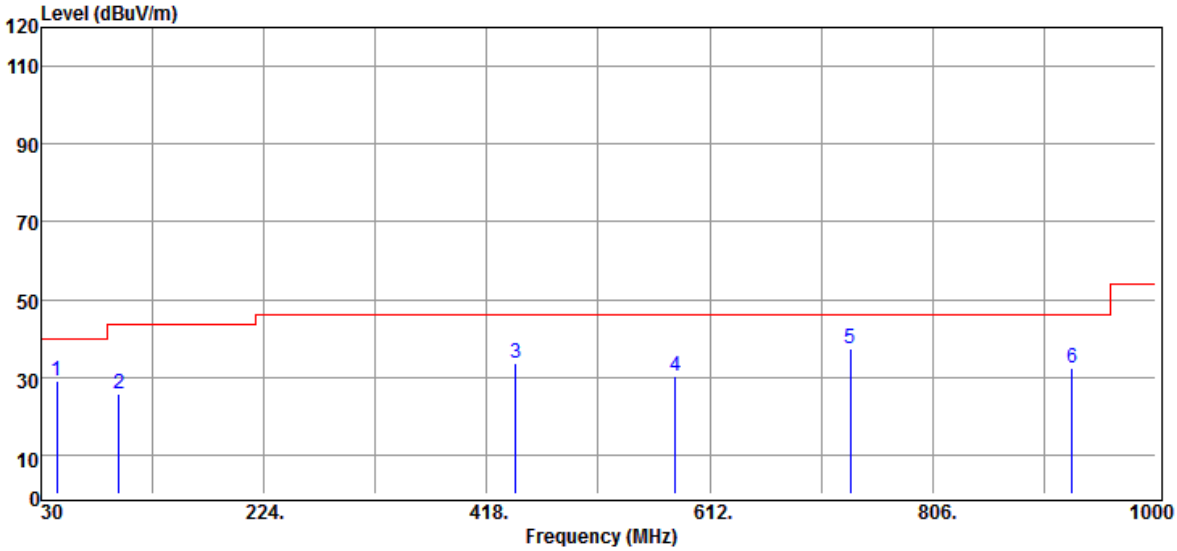
Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5220 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
54.25	Peak	40.81	-15.33	25.48	40.00	-14.52
185.20	Peak	32.84	-10.50	22.34	43.50	-21.16
447.10	Peak	31.82	-3.12	28.70	46.00	-17.30
630.43	Peak	27.87	0.86	28.73	46.00	-17.27
797.27	Peak	30.61	2.74	33.35	46.00	-12.65
968.96	Peak	25.63	6.55	32.18	54.00	-21.82

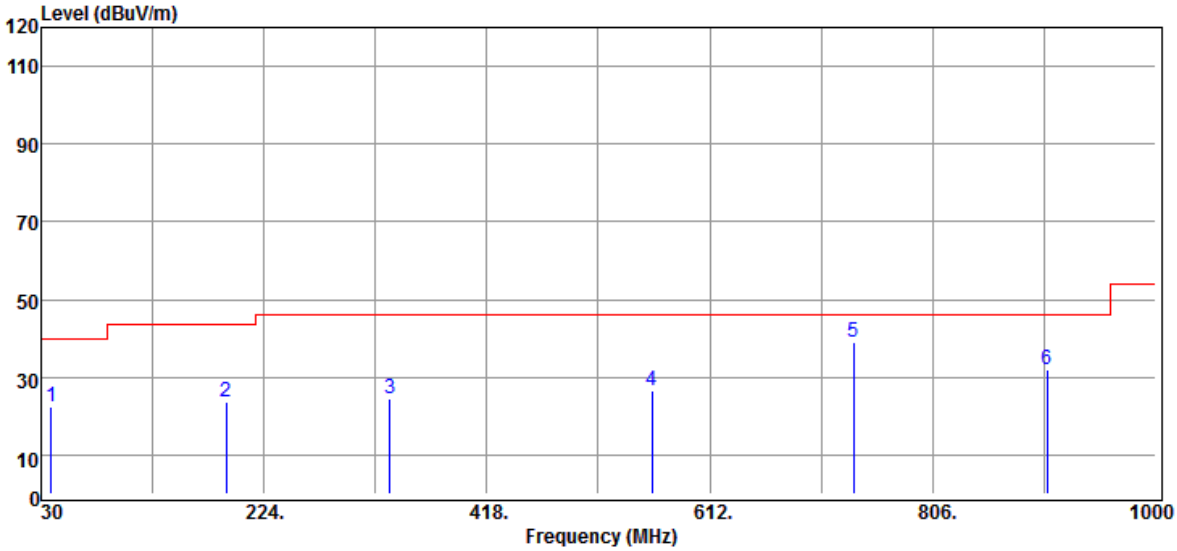
802.11a 5250~5350 MHz

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5300 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
43.58	Peak	40.65	-11.40	29.25	40.00	-10.75
97.90	Peak	38.47	-12.68	25.79	43.50	-17.71
443.22	Peak	36.82	-3.23	33.59	46.00	-12.41
581.93	Peak	31.70	-1.47	30.23	46.00	-15.77
734.22	Peak	35.80	1.72	37.52	46.00	-8.48
927.25	Peak	27.46	4.96	32.42	46.00	-13.58

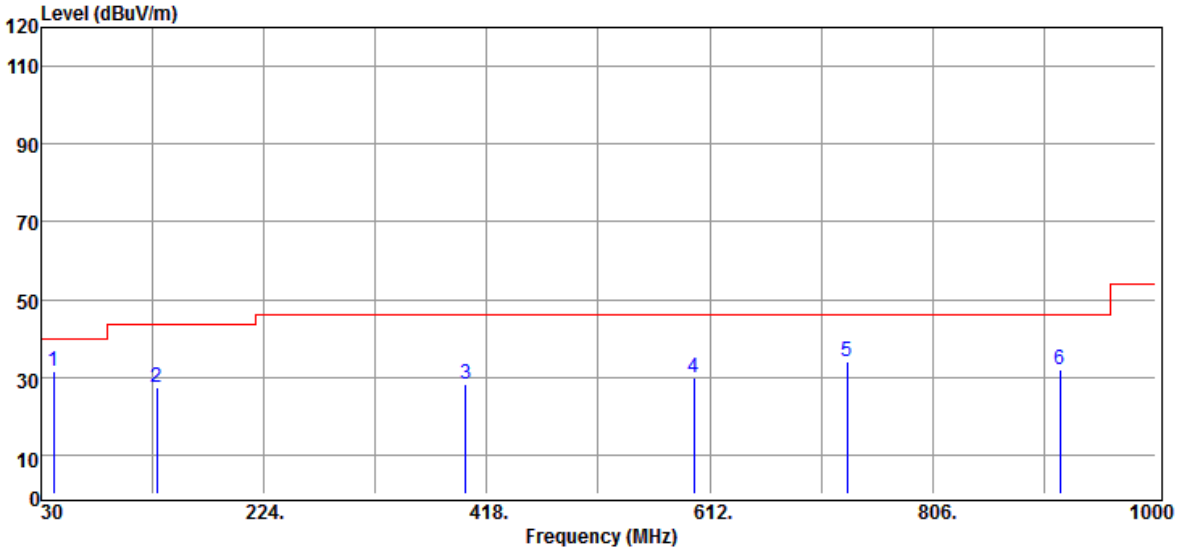
Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5300 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
38.73	Peak	30.32	-7.88	22.44	40.00	-17.56
191.02	Peak	33.58	-10.04	23.54	43.50	-19.96
333.61	Peak	30.95	-6.43	24.52	46.00	-21.48
561.56	Peak	28.16	-1.50	26.66	46.00	-19.34
737.13	Peak	36.93	1.90	38.83	46.00	-7.17
905.91	Peak	27.13	4.82	31.95	46.00	-14.05

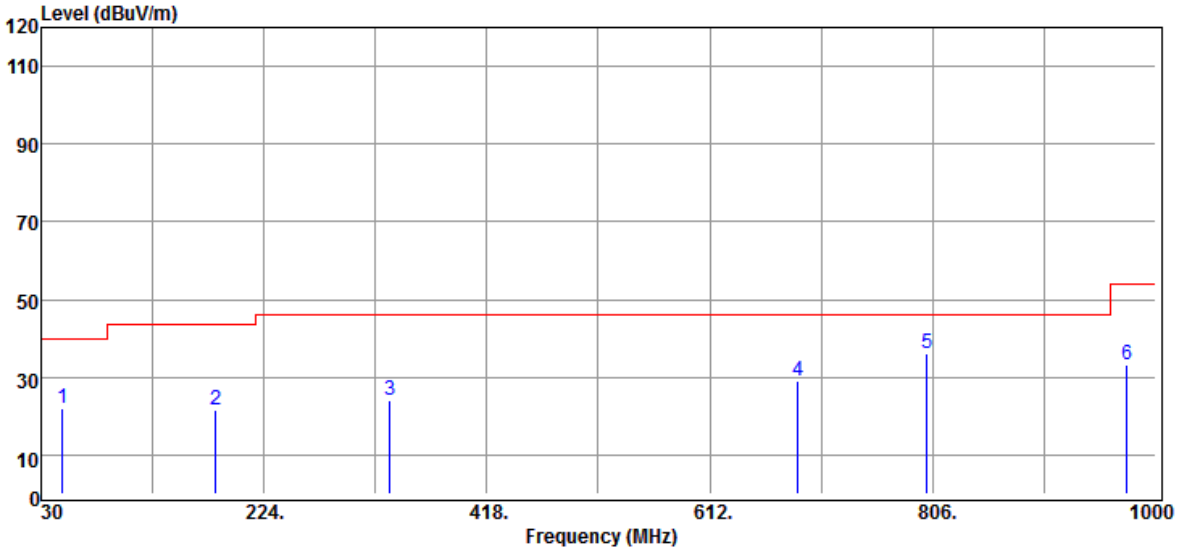
802.11a, 5470~5725 MHz

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5580 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
40.67	Peak	40.89	-9.47	31.42	40.00	-8.58
130.88	Peak	35.91	-8.52	27.39	43.50	-16.11
399.57	Peak	32.92	-4.67	28.25	46.00	-17.75
598.42	Peak	30.68	-0.91	29.77	46.00	-16.23
731.31	Peak	32.59	1.58	34.17	46.00	-11.83
916.58	Peak	27.09	4.83	31.92	46.00	-14.08

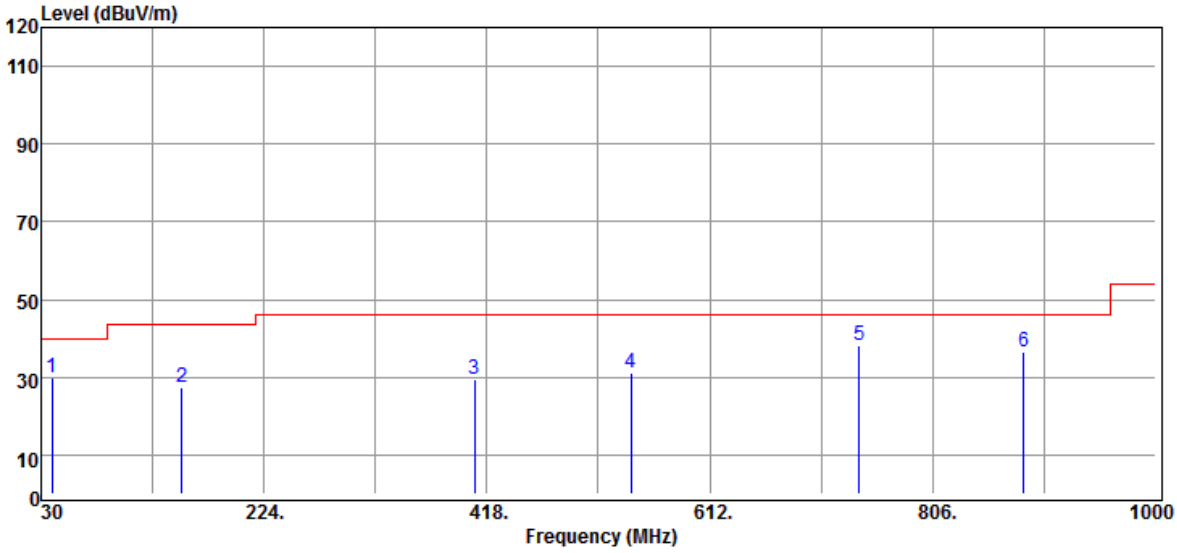
Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5580 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
48.43	Peak	35.93	-13.97	21.96	40.00	-18.04
182.29	Peak	32.33	-10.64	21.69	43.50	-21.81
333.61	Peak	30.58	-6.43	24.15	46.00	-21.85
688.63	Peak	28.11	1.00	29.11	46.00	-16.89
801.15	Peak	33.20	2.99	36.19	46.00	-9.81
974.78	Peak	26.61	6.64	33.25	54.00	-20.75

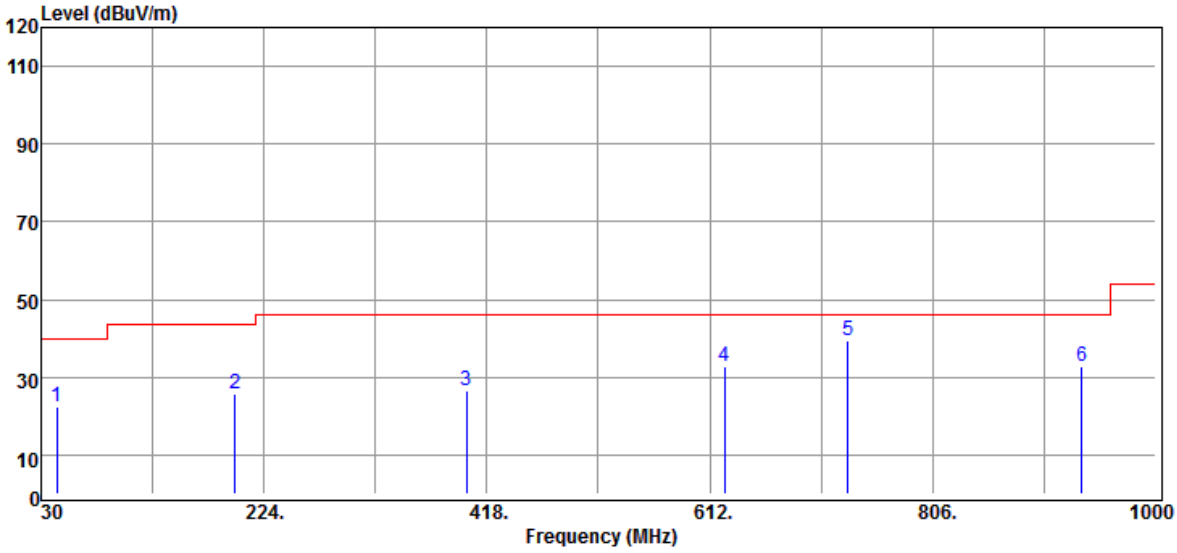
802.11a, 5725~5850 MHz

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5785 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
39.70	Peak	38.34	-8.62	29.72	40.00	-10.28
152.22	Peak	37.01	-9.40	27.61	43.50	-15.89
407.33	Peak	33.85	-4.54	29.31	46.00	-16.69
543.13	Peak	32.52	-1.17	31.35	46.00	-14.65
741.98	Peak	35.86	2.16	38.02	46.00	-7.98
885.54	Peak	32.12	4.39	36.51	46.00	-9.49

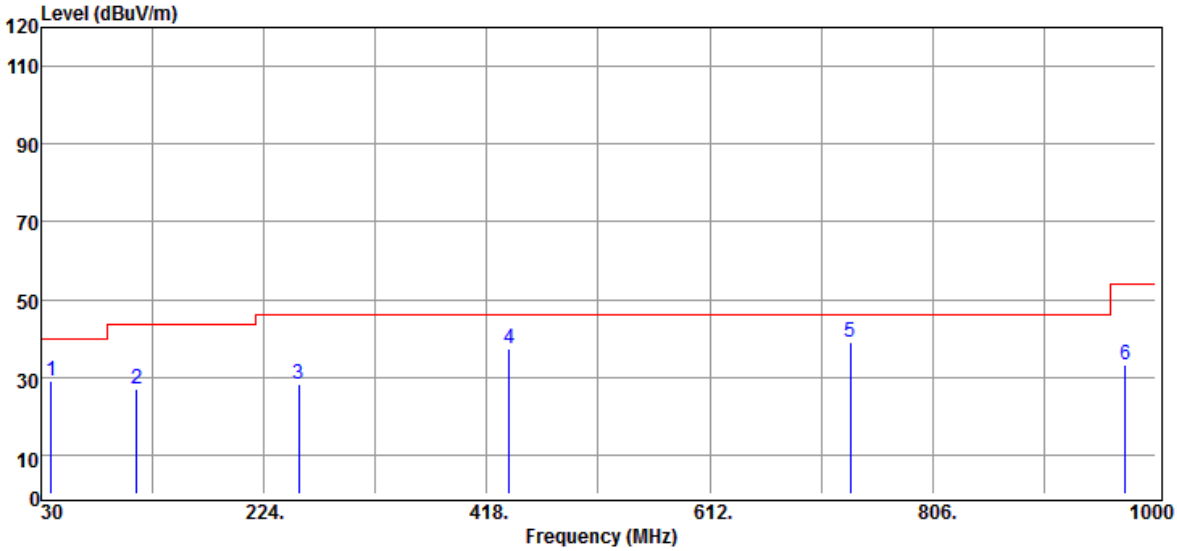
Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5785 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
43.58	Peak	33.63	-11.40	22.23	40.00	-17.77
198.78	Peak	34.30	-8.64	25.66	43.50	-17.84
400.54	Peak	31.41	-4.64	26.77	46.00	-19.23
624.61	Peak	32.23	0.62	32.85	46.00	-13.15
732.28	Peak	37.89	1.63	39.52	46.00	-6.48
935.98	Peak	27.65	5.06	32.71	46.00	-13.29

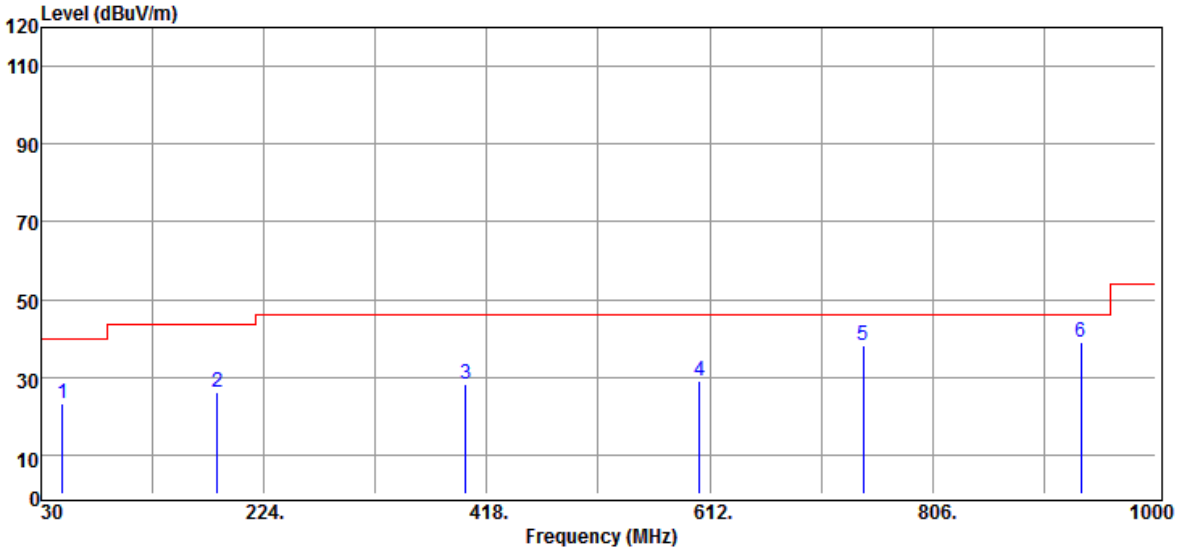
802.11ac VHT80, 5150~5250 MHz

Operation Mode	:802.11ac80 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5210 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
38.73	Peak	37.03	-7.88	29.15	40.00	-10.85
113.42	Peak	36.11	-8.98	27.13	43.50	-16.37
254.07	Peak	37.90	-9.68	28.22	46.00	-17.78
437.40	Peak	41.00	-3.48	37.52	46.00	-8.48
734.22	Peak	37.44	1.72	39.16	46.00	-6.84
973.81	Peak	26.65	6.64	33.29	54.00	-20.71

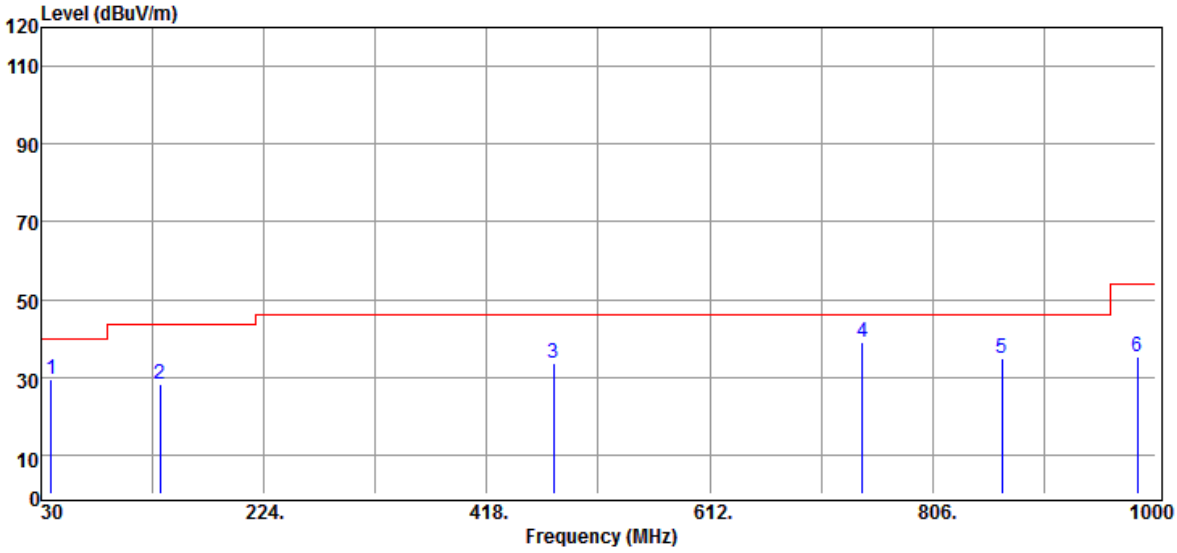
Operation Mode	:802.11ac80 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5210 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
48.43	Peak	37.16	-13.97	23.19	40.00	-16.81
183.26	Peak	36.74	-10.62	26.12	43.50	-17.38
399.57	Peak	32.98	-4.67	28.31	46.00	-17.69
603.27	Peak	29.83	-0.59	29.24	46.00	-16.76
745.86	Peak	36.08	2.32	38.40	46.00	-7.60
935.01	Peak	33.93	5.06	38.99	46.00	-7.01

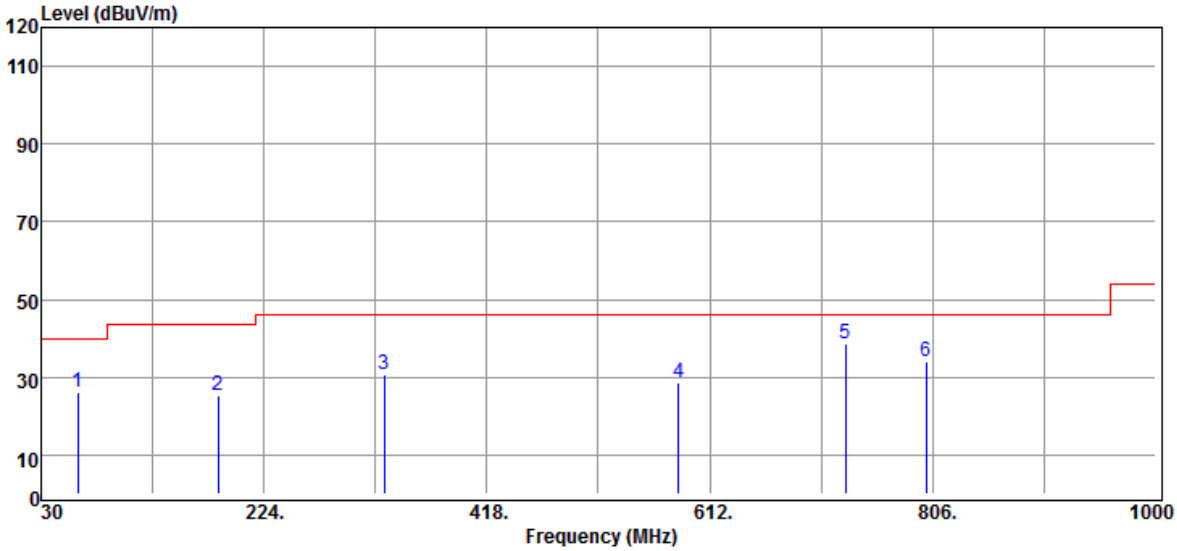
802.11ac VHT80, 5250~5350 MHz

Operation Mode	:802.11ac80 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5290 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
38.73	Peak	37.32	-7.88	29.44	40.00	-10.56
133.79	Peak	36.89	-8.67	28.22	43.50	-15.28
476.20	Peak	35.92	-2.12	33.80	46.00	-12.20
744.89	Peak	36.73	2.26	38.99	46.00	-7.01
866.14	Peak	30.72	3.99	34.71	46.00	-11.29
984.48	Peak	28.82	6.45	35.27	54.00	-18.73

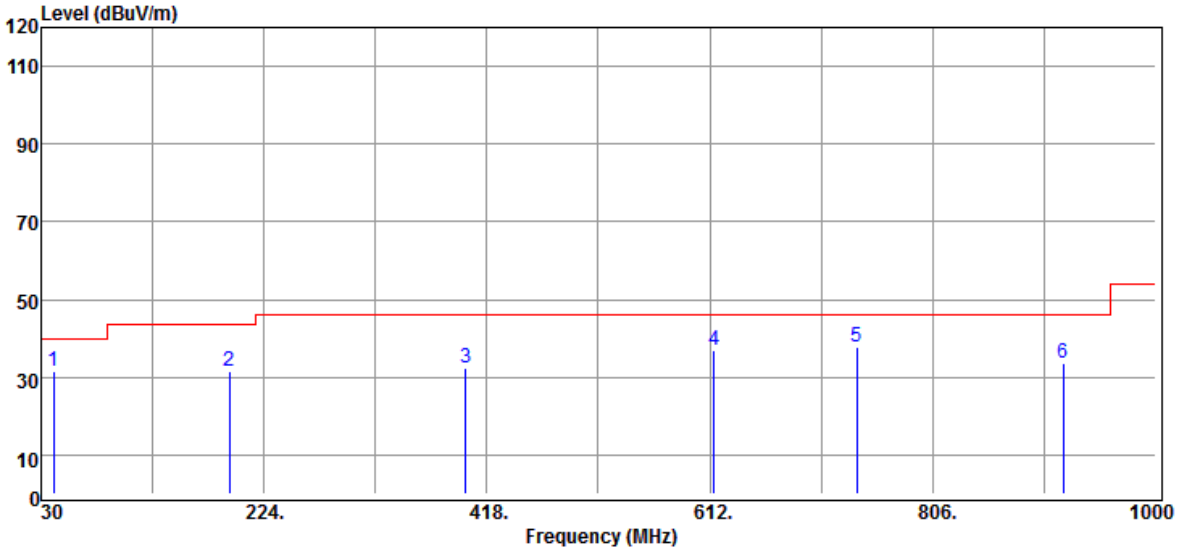
Operation Mode	:802.11ac80 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5290 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
62.01	Peak	41.18	-15.05	26.13	40.00	-13.87
184.23	Peak	35.91	-10.59	25.32	43.50	-18.18
328.76	Peak	37.00	-6.37	30.63	46.00	-15.37
584.84	Peak	30.06	-1.42	28.64	46.00	-17.36
730.34	Peak	37.27	1.53	38.80	46.00	-7.20
800.18	Peak	31.11	2.93	34.04	46.00	-11.96

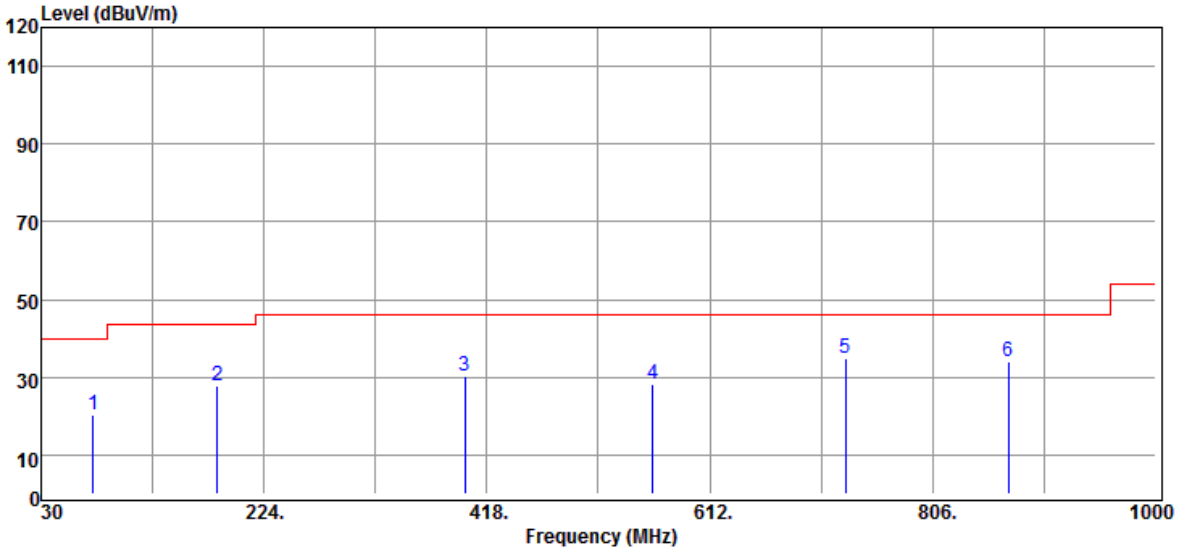
802.11ac VHT80, 5470~5725 MHz

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/57
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5610 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
40.67	Peak	40.86	-9.47	31.39	40.00	-8.61
193.93	Peak	41.26	-9.64	31.62	43.50	-11.88
399.57	Peak	37.09	-4.67	32.42	46.00	-13.58
615.88	Peak	36.90	0.07	36.97	46.00	-9.03
740.04	Peak	35.51	2.10	37.61	46.00	-8.39
919.49	Peak	28.55	4.91	33.46	46.00	-12.54

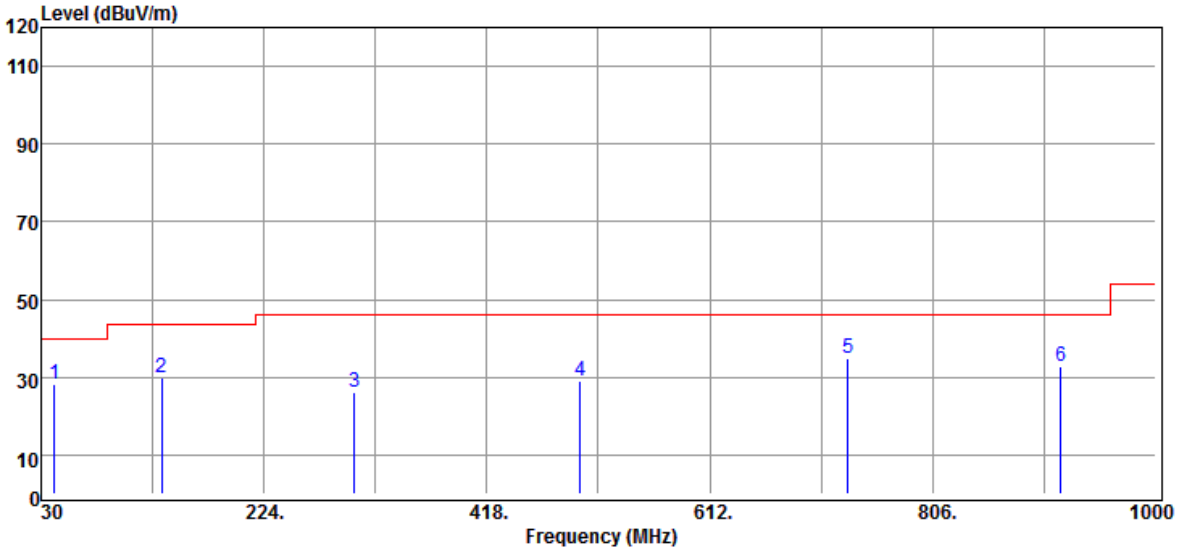
Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/57
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5610 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
75.59	Peak	34.48	-14.31	20.17	40.00	-19.83
183.26	Peak	38.27	-10.62	27.65	43.50	-15.85
398.60	Peak	34.99	-4.71	30.28	46.00	-15.72
562.53	Peak	29.61	-1.49	28.12	46.00	-17.88
730.34	Peak	33.49	1.53	35.02	46.00	-10.98
871.96	Peak	30.27	3.97	34.24	46.00	-11.76

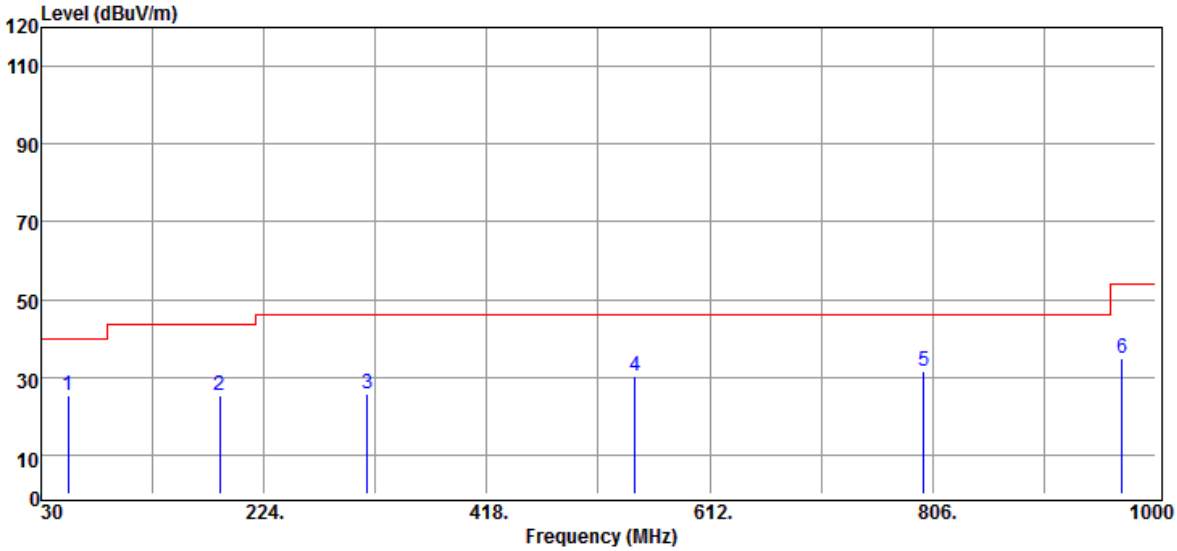
802.11ac VHT80, 5725~5850 MHz

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/57
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5775 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
41.64	Peak	38.42	-10.03	28.39	40.00	-11.61
134.76	Peak	38.71	-8.73	29.98	43.50	-13.52
302.57	Peak	33.84	-7.48	26.36	46.00	-19.64
499.48	Peak	31.07	-2.10	28.97	46.00	-17.03
732.28	Peak	33.24	1.63	34.87	46.00	-11.13
917.55	Peak	27.91	4.85	32.76	46.00	-13.24

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/57
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5775 MHz	Engineer	:Jerry

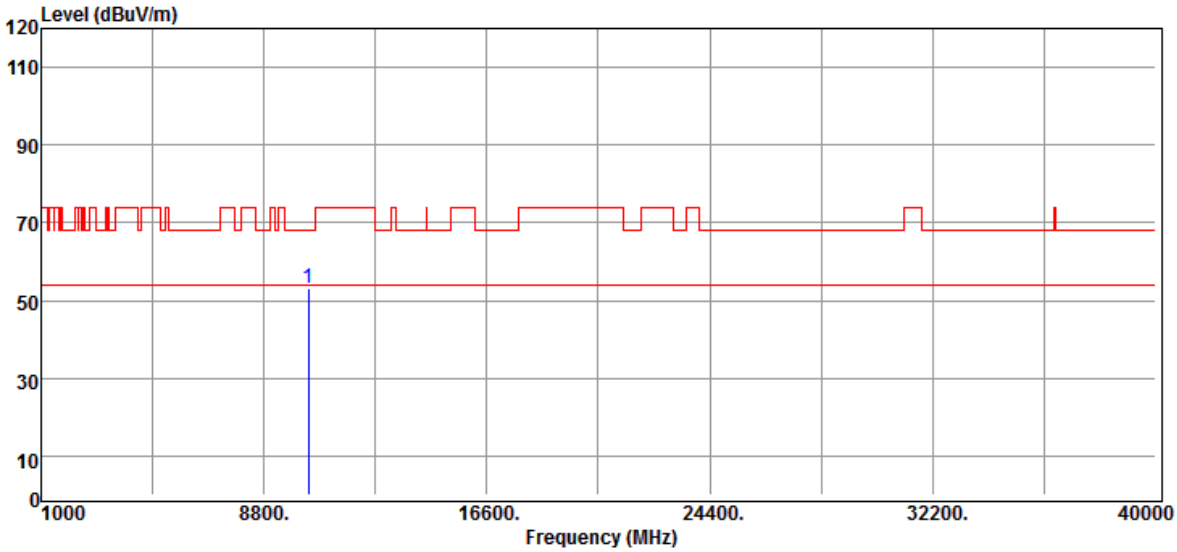


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
53.28	Peak	40.54	-15.17	25.37	40.00	-14.63
185.20	Peak	35.94	-10.50	25.44	43.50	-18.06
314.21	Peak	32.54	-6.99	25.55	46.00	-20.45
547.01	Peak	31.41	-1.25	30.16	46.00	-15.84
798.24	Peak	28.65	2.81	31.46	46.00	-14.54
970.90	Peak	28.15	6.65	34.80	54.00	-19.20

Above 1GHz Worst-Case Data:

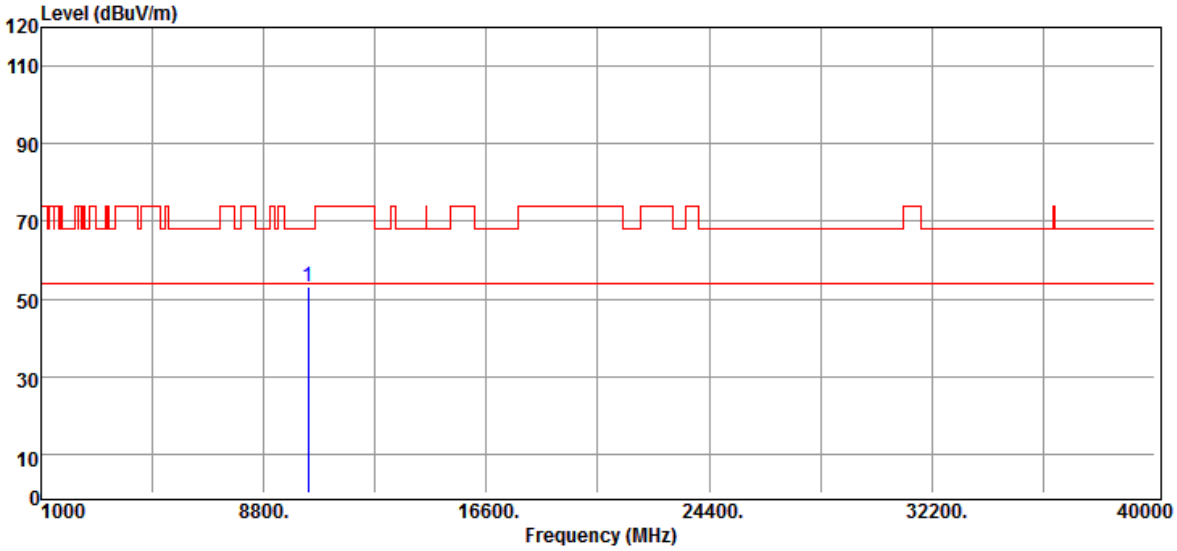
Radiated Spurious Emission Measurement Result 802.11a, 5150~5250 MHz

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5180 MHz	Engineer	:Jerry



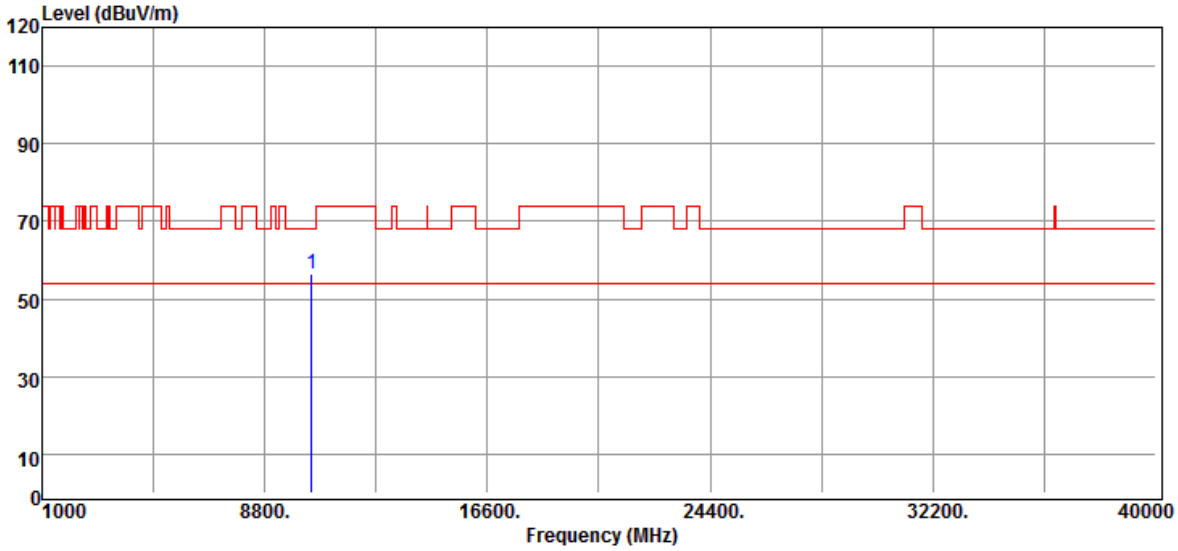
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	38.78	14.41	53.19	68.20	-15.01

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5180 MHz	Engineer	:Jerry



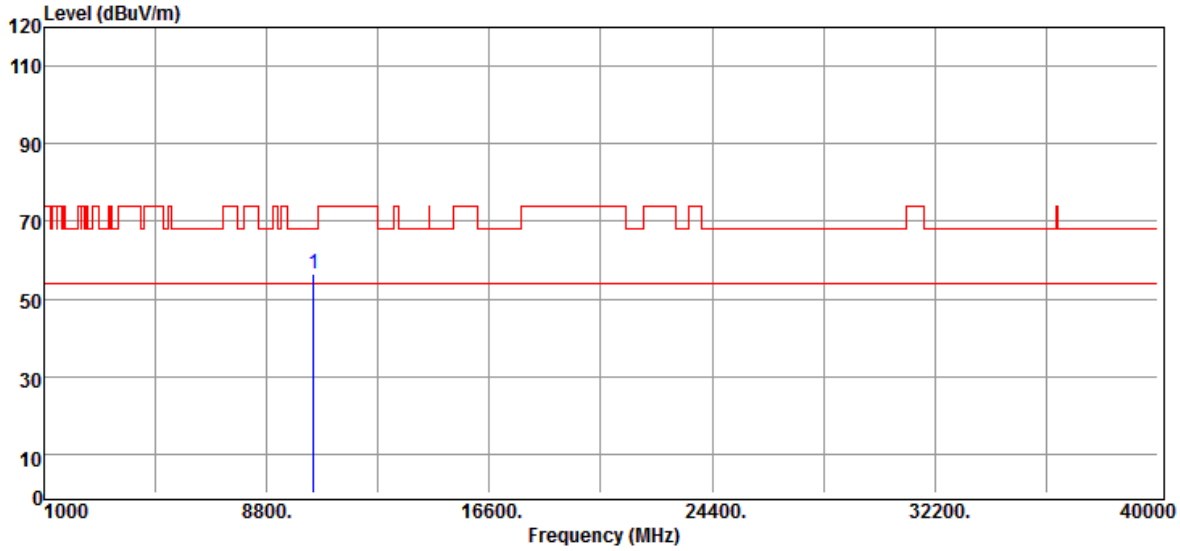
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	38.92	14.41	53.33	68.20	-14.87

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5220 MHz	Engineer	:Jerry



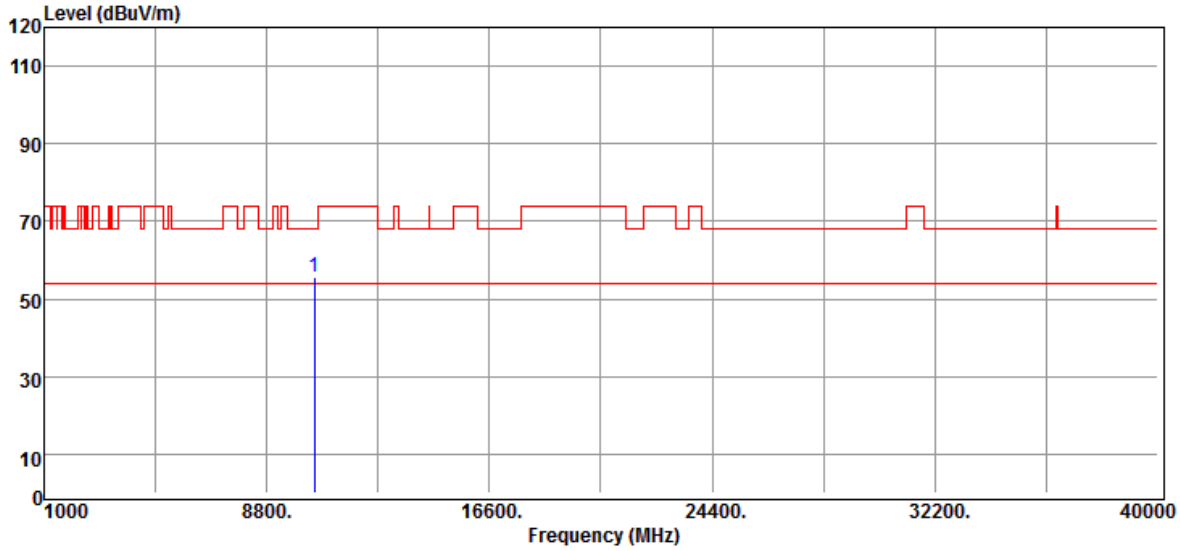
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	41.09	15.58	56.67	68.20	-11.53

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5220 MHz	Engineer	:Jerry



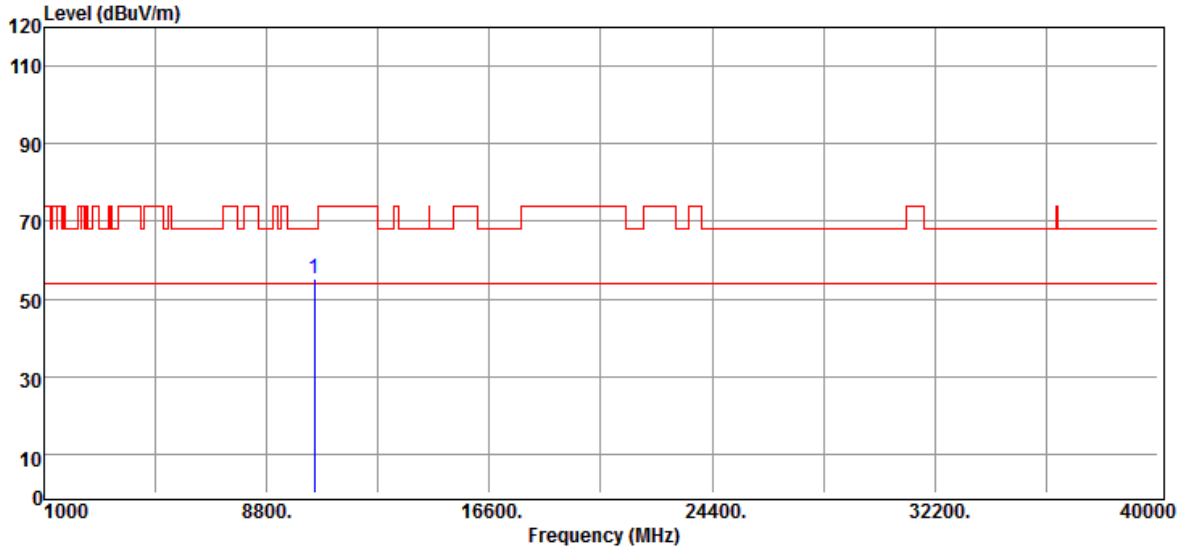
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	40.99	15.58	56.57	68.20	-11.63

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5240 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	39.09	16.48	55.57	68.20	-12.63

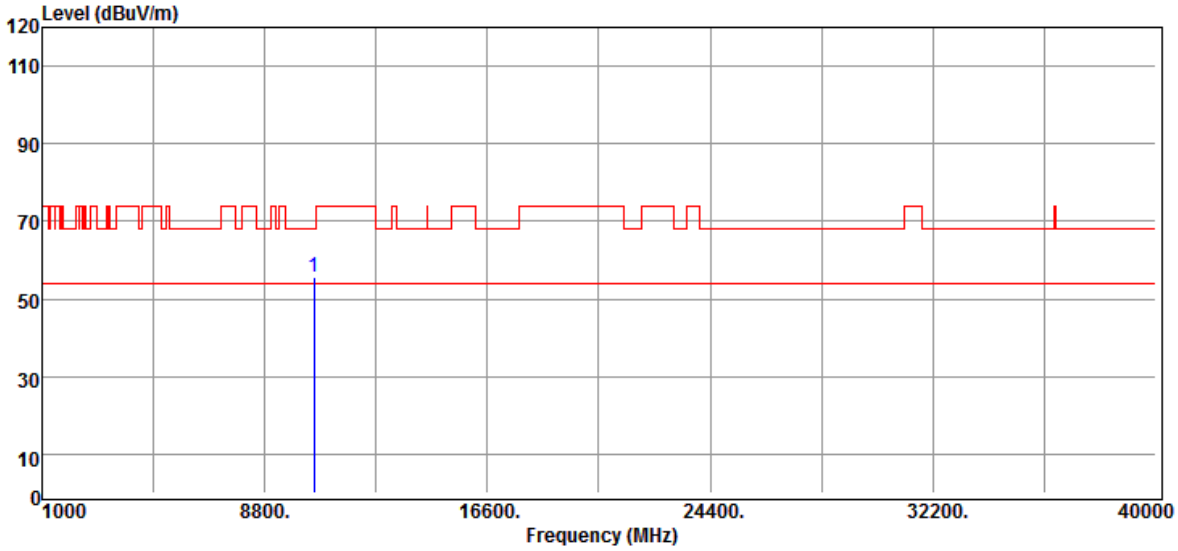
Operation Mode	:802.11a / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5240 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	38.82	16.48	55.30	68.20	-12.90

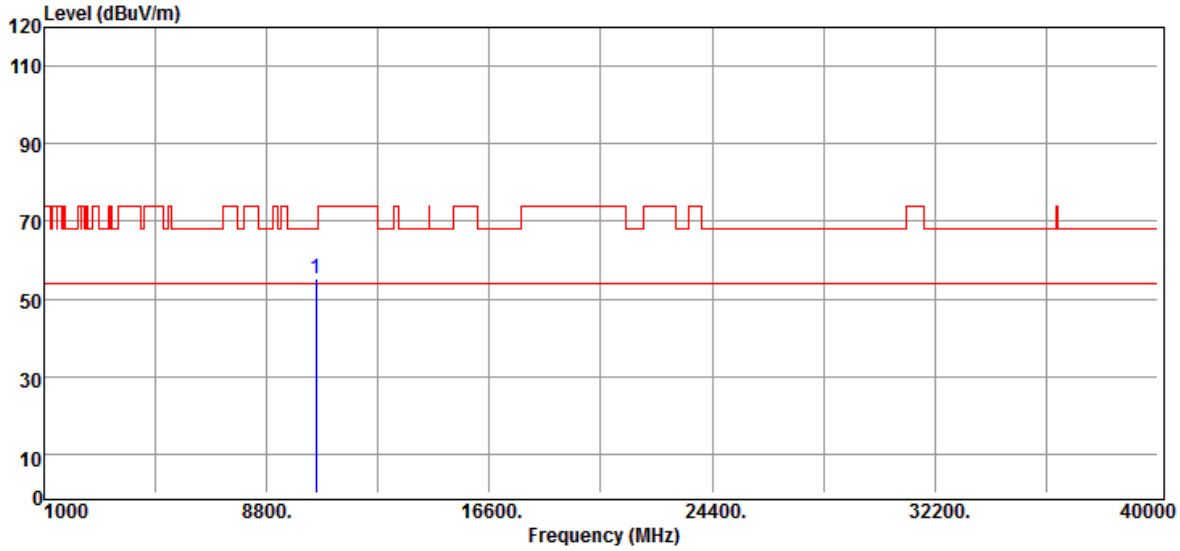
Radiated Spurious Emission Measurement Result 802.11a, 5250MHz-5350MHz

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5260 MHz	Engineer	:Jerry



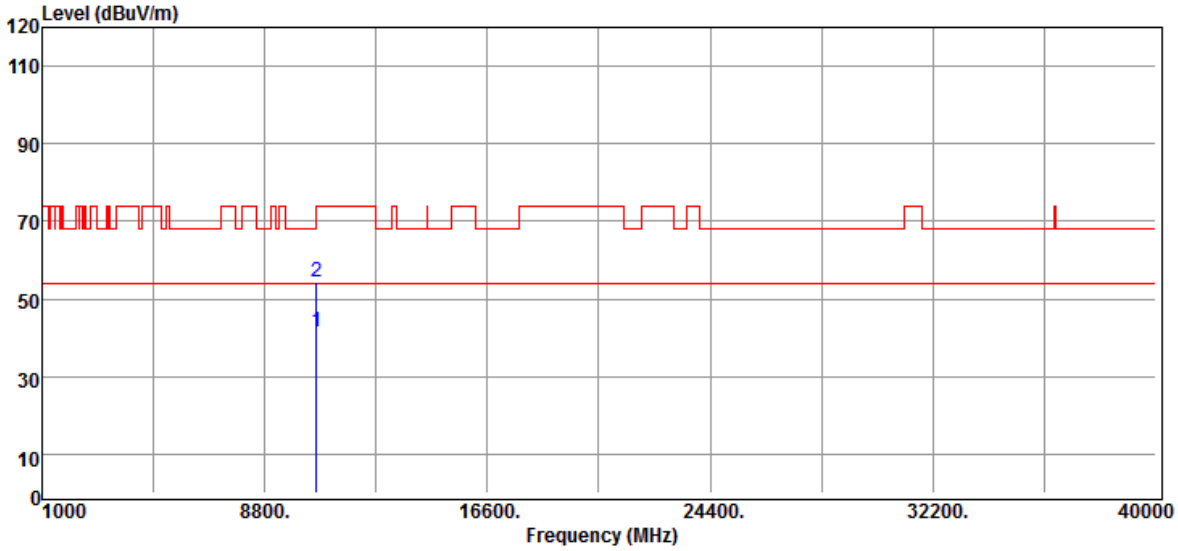
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	40.13	15.57	55.70	68.20	-12.50

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5260 MHz	Engineer	:Jerry



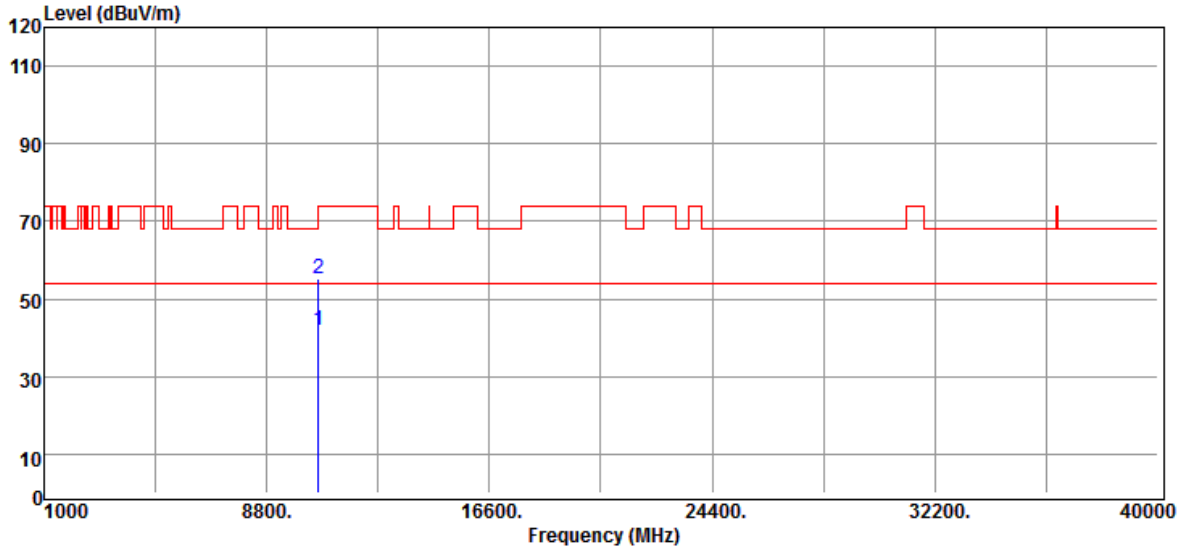
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	39.70	15.57	55.27	68.20	-12.93

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5300 MHz	Engineer	:Jerry



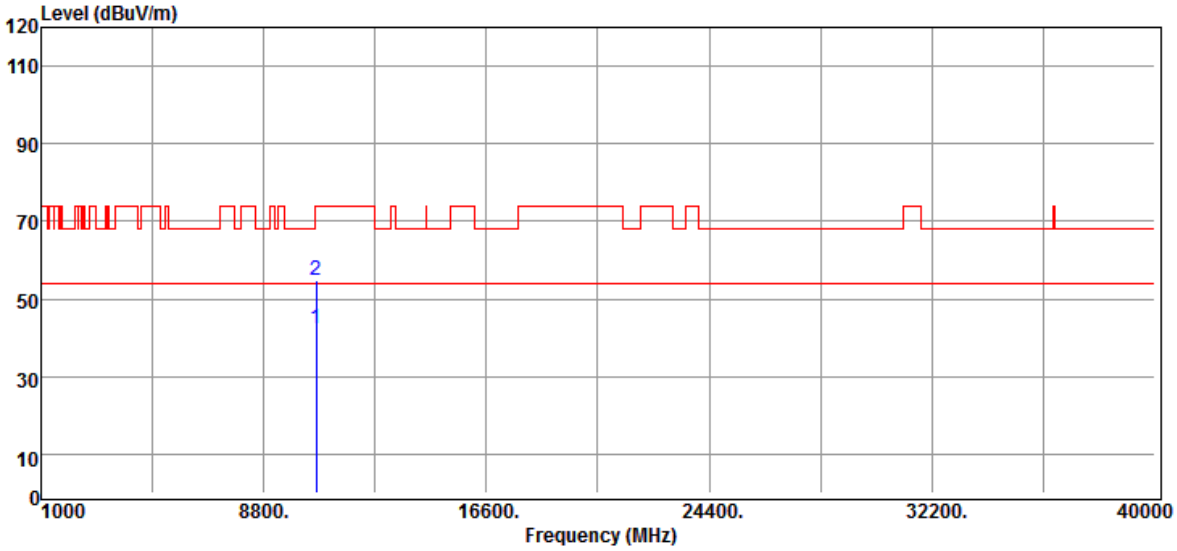
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	25.97	15.47	41.44	54.00	-12.56
10600.00	Peak	39.04	15.47	54.51	68.20	-13.69

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5300 MHz	Engineer	:Jerry



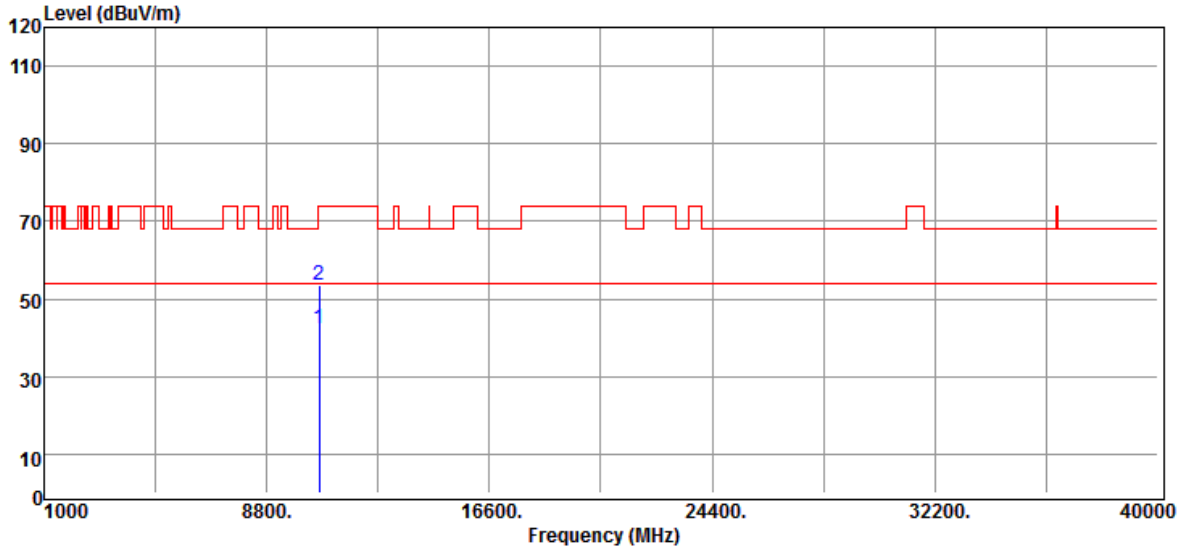
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	26.53	15.47	42.00	54.00	-12.00
10600.00	Peak	39.57	15.47	55.04	68.20	-13.16

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/57
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5320 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	26.26	16.12	42.38	54.00	-11.62
10640.00	Peak	38.59	16.12	54.71	74.00	-19.29

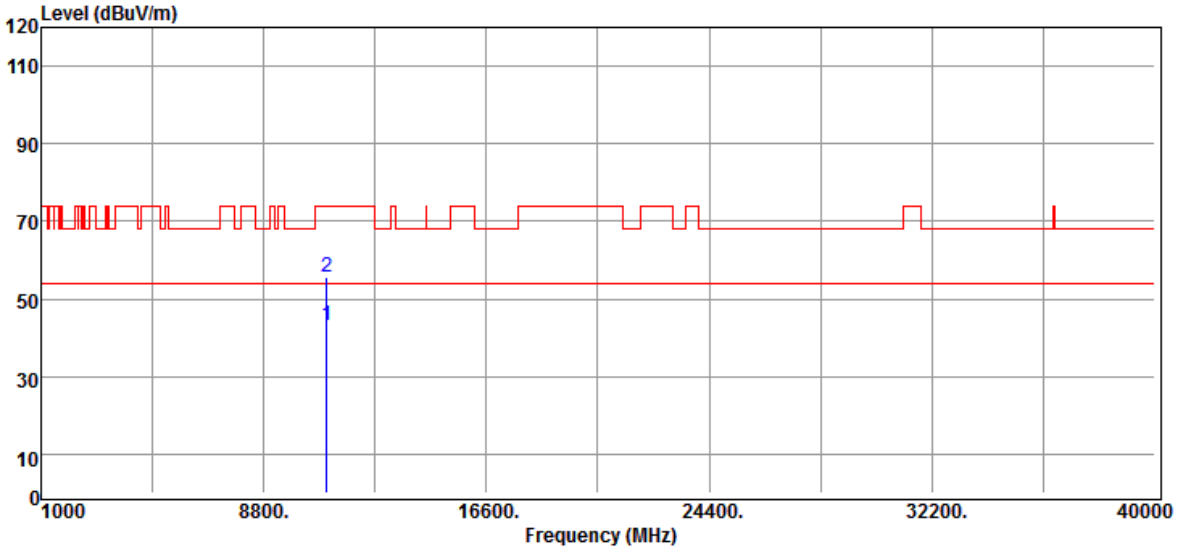
Operation Mode	:802.11a / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/57
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5320 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	26.35	16.12	42.47	54.00	-11.53
10640.00	Peak	37.44	16.12	53.56	74.00	-20.44

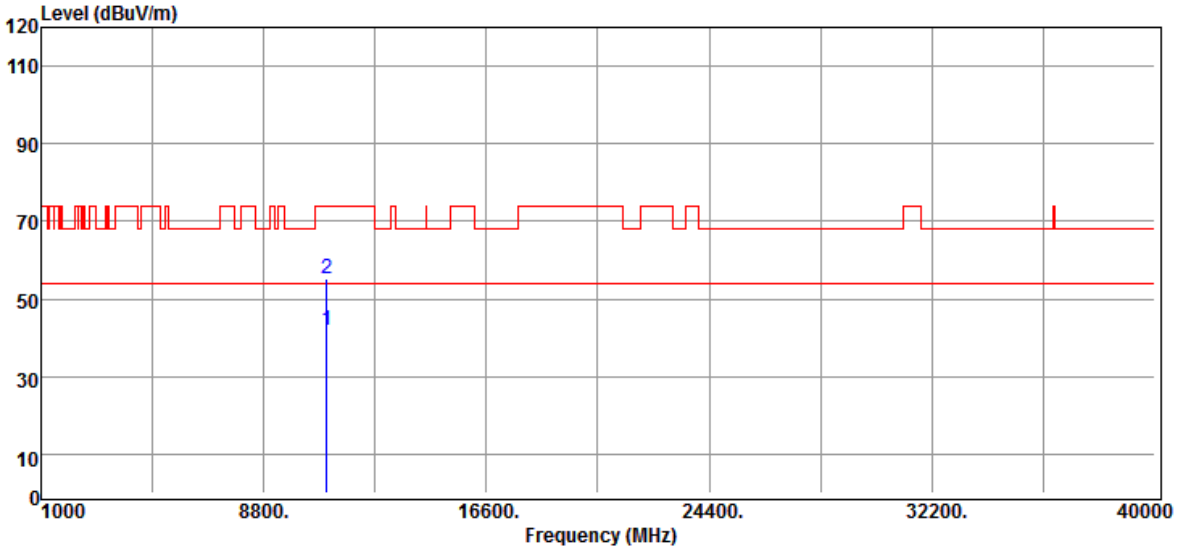
Radiated Spurious Emission Measurement Result 802.11a, 5470~5725 MHz

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5500 MHz	Engineer	:Jerry



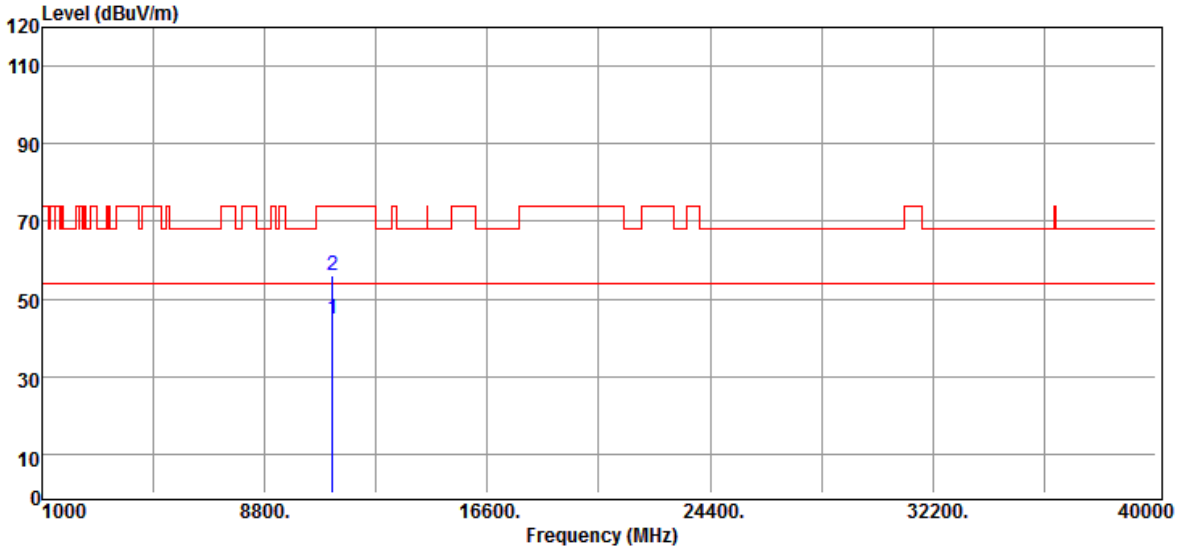
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	25.30	17.75	43.05	54.00	-10.95
11000.00	Peak	37.97	17.75	55.72	74.00	-18.28

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5500 MHz	Engineer	:Jerry



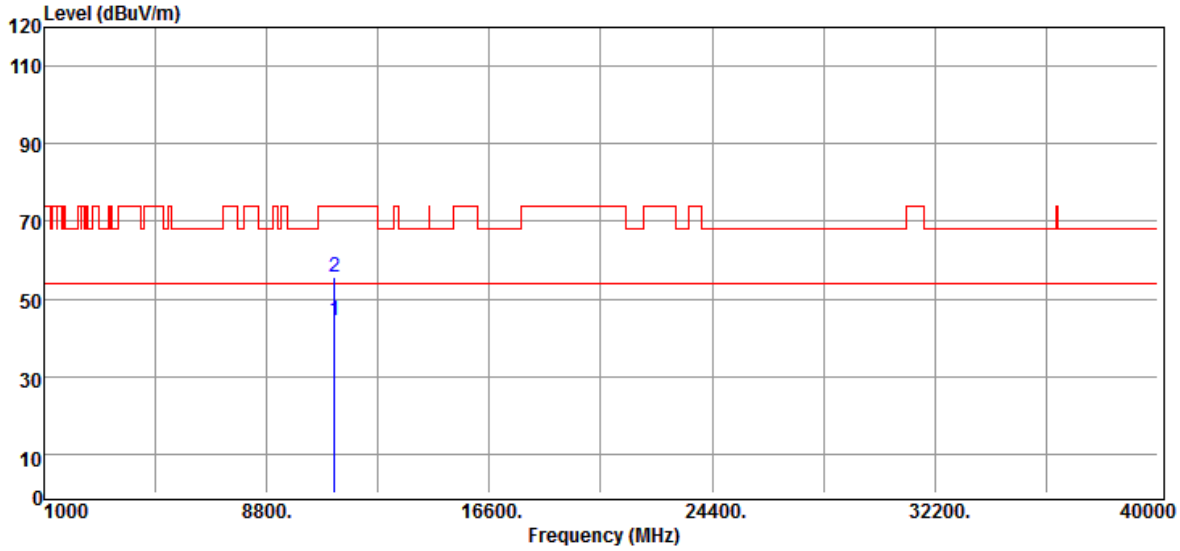
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	24.33	17.75	42.08	54.00	-11.92
11000.00	Peak	37.43	17.75	55.18	74.00	-18.82

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5580 MHz	Engineer	:Jerry



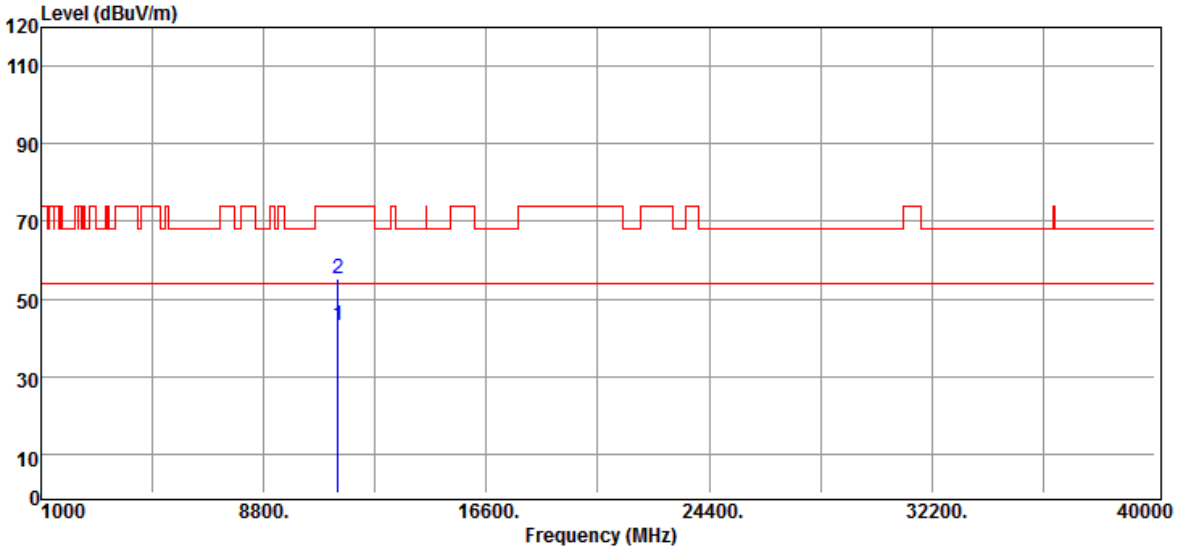
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	28.37	16.53	44.90	54.00	-9.10
11160.00	Peak	39.37	16.53	55.90	74.00	-18.10

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5580 MHz	Engineer	:Jerry



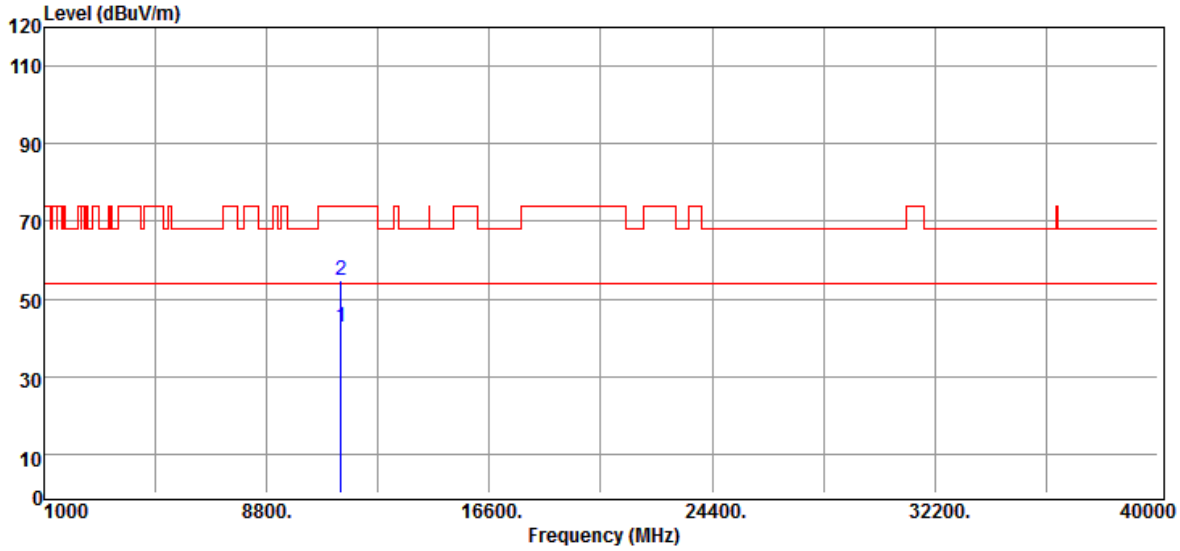
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	27.78	16.53	44.31	54.00	-9.69
11160.00	Peak	38.95	16.53	55.48	74.00	-18.52

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5700 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	26.61	16.48	43.09	54.00	-10.91
11400.00	Peak	38.72	16.48	55.20	74.00	-18.80

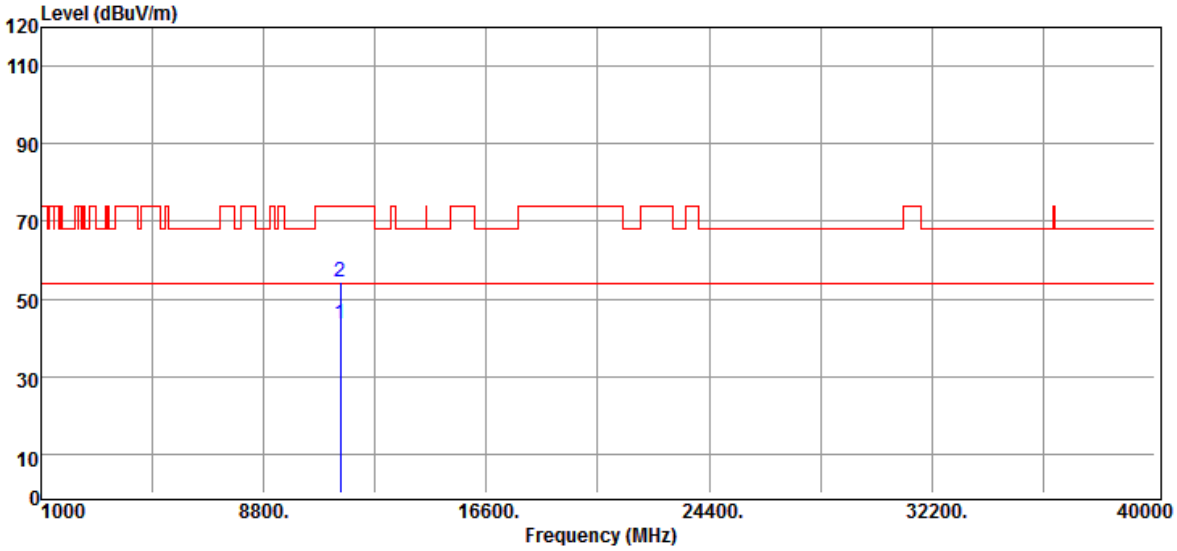
Operation Mode	:802.11a / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5700 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	26.09	16.48	42.57	54.00	-11.43
11400.00	Peak	38.39	16.48	54.87	74.00	-19.13

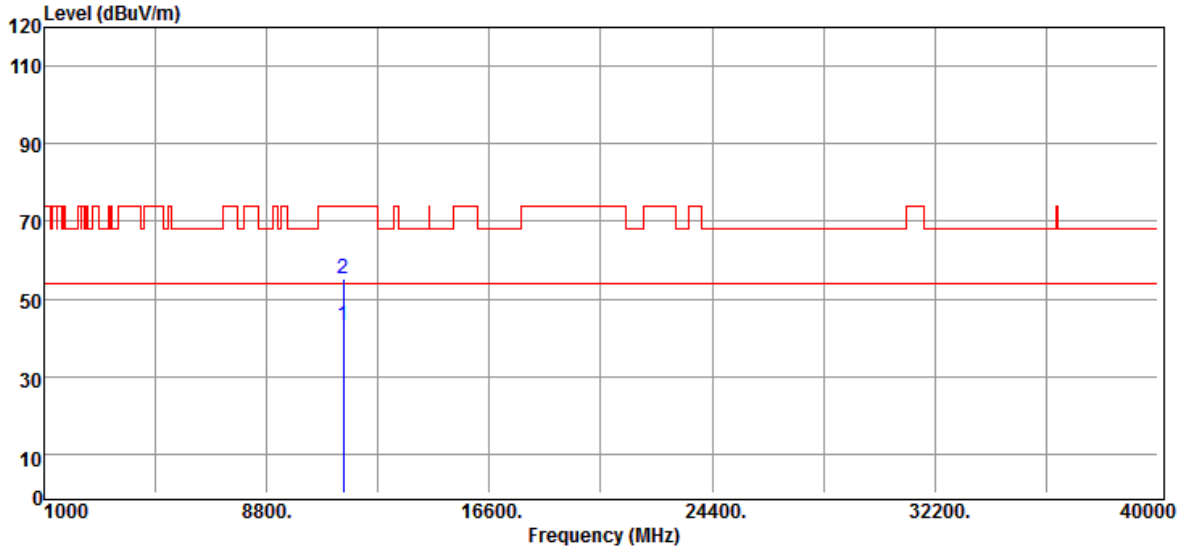
Radiated Spurious Emission Measurement Result 802.11a, 5725~5850 MHz

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5745 MHz	Engineer	:Jerry



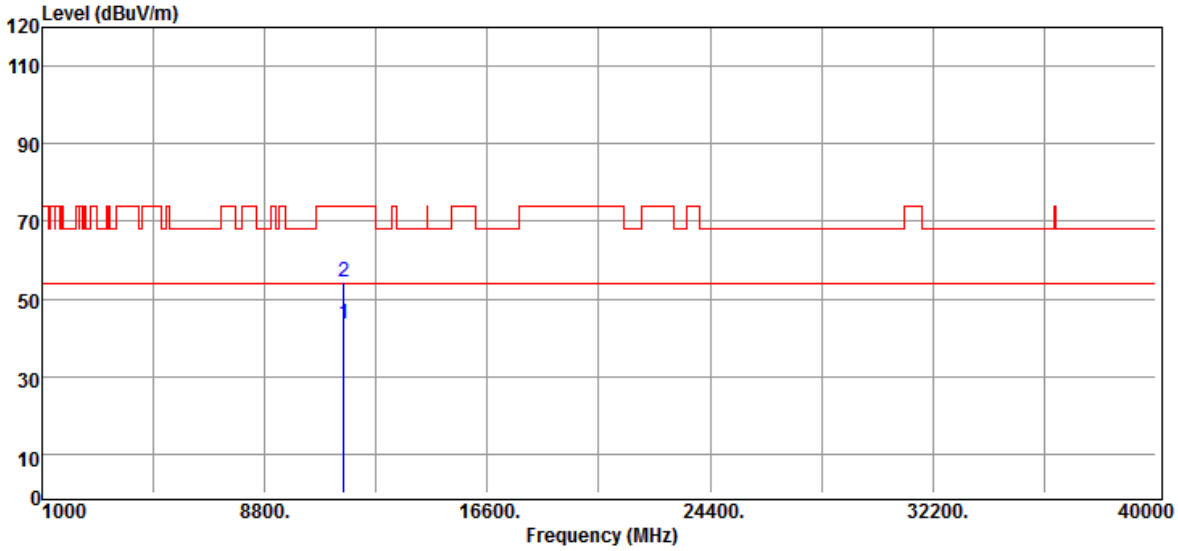
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	27.68	15.85	43.53	54.00	-10.47
11490.00	Peak	38.64	15.85	54.49	74.00	-19.51

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5745 MHz	Engineer	:Jerry



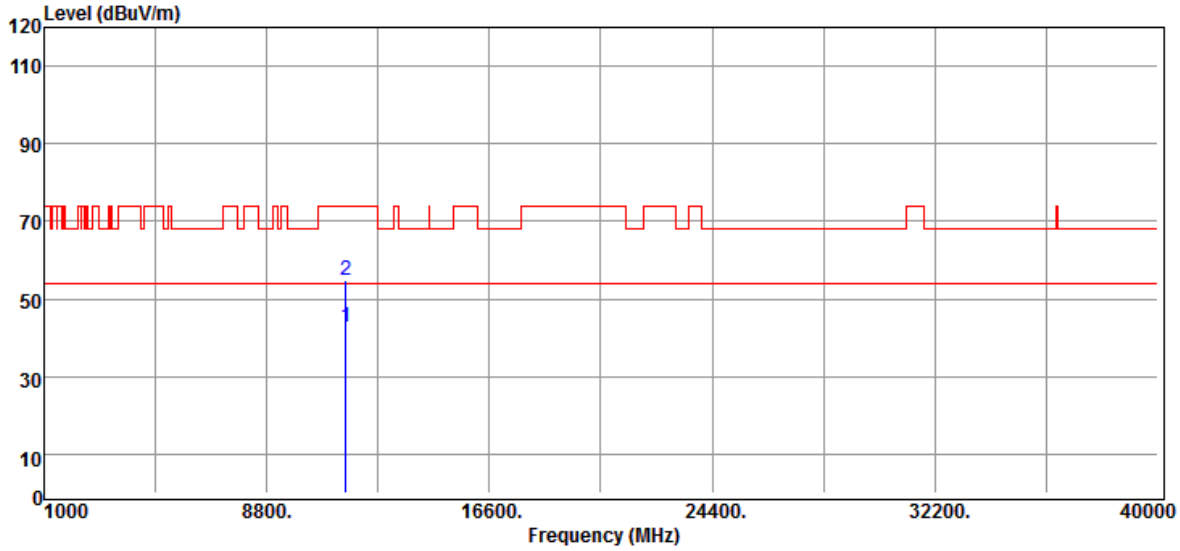
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	27.42	15.85	43.27	54.00	-10.73
11490.00	Peak	39.32	15.85	55.17	74.00	-18.83

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5785 MHz	Engineer	:Jerry



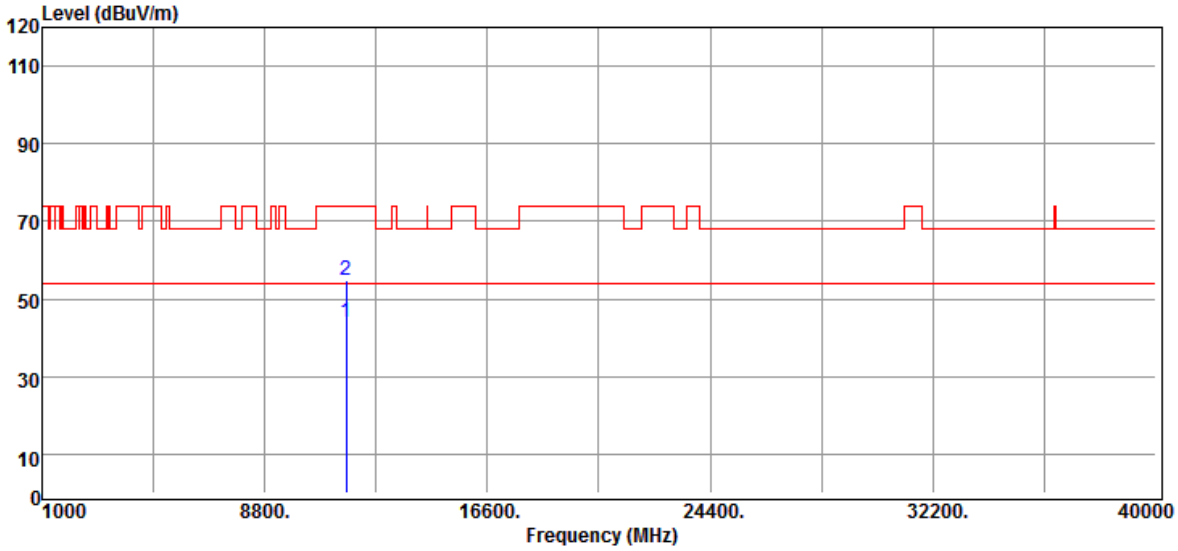
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	27.45	16.29	43.74	54.00	-10.26
11570.00	Peak	38.22	16.29	54.51	74.00	-19.49

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5785 MHz	Engineer	:Jerry



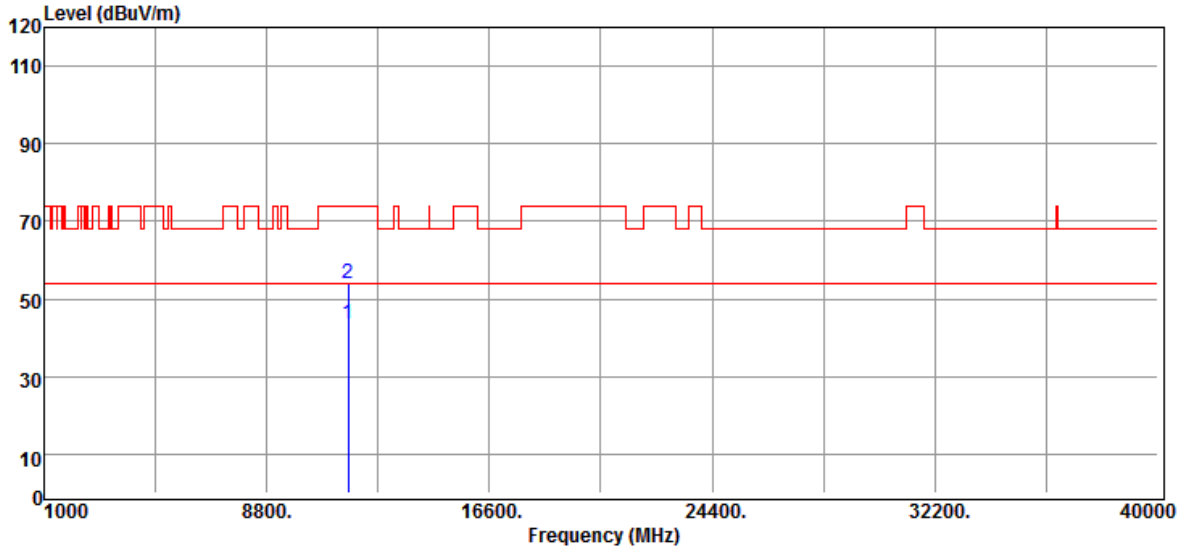
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	26.68	16.29	42.97	54.00	-11.03
11570.00	Peak	38.65	16.29	54.94	74.00	-19.06

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/59
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	27.21	16.61	43.82	54.00	-10.18
11650.00	Peak	38.13	16.61	54.74	74.00	-19.26

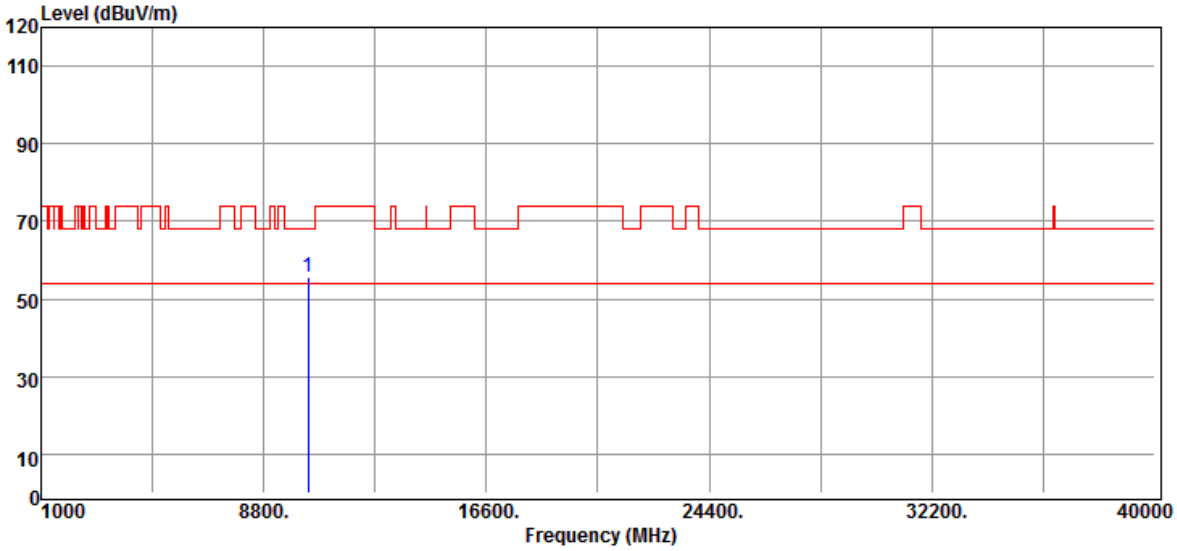
Operation Mode	:802.11a / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/59
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.96	16.61	43.57	54.00	-10.43
11650.00	Peak	37.45	16.61	54.06	74.00	-19.94

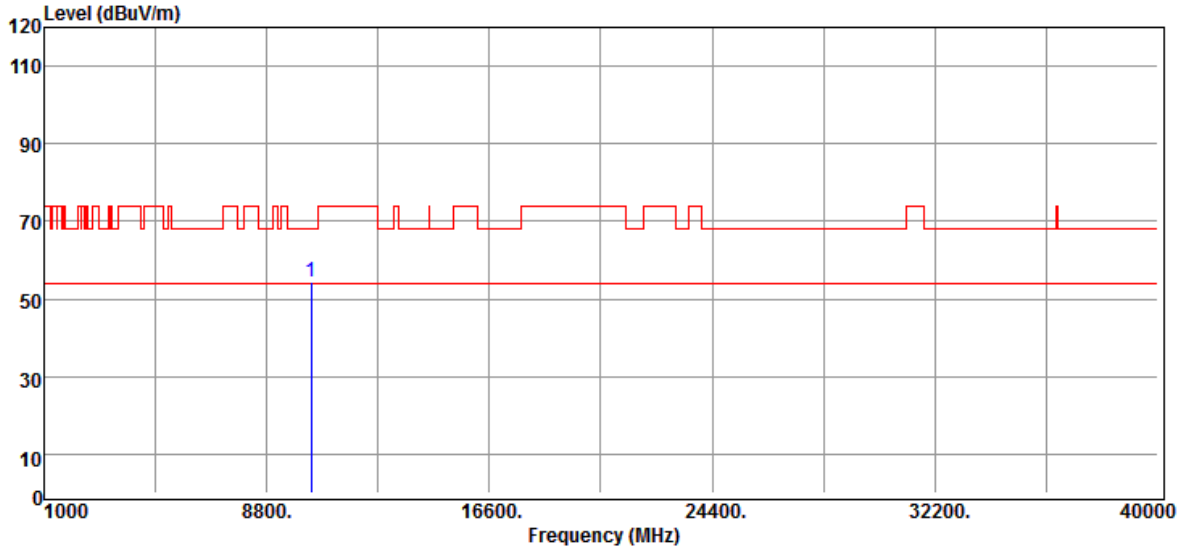
Radiated Spurious Emission Measurement Result 802.11n HT20, 5150~5250 MHz

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5180 MHz	Engineer	:Jerry



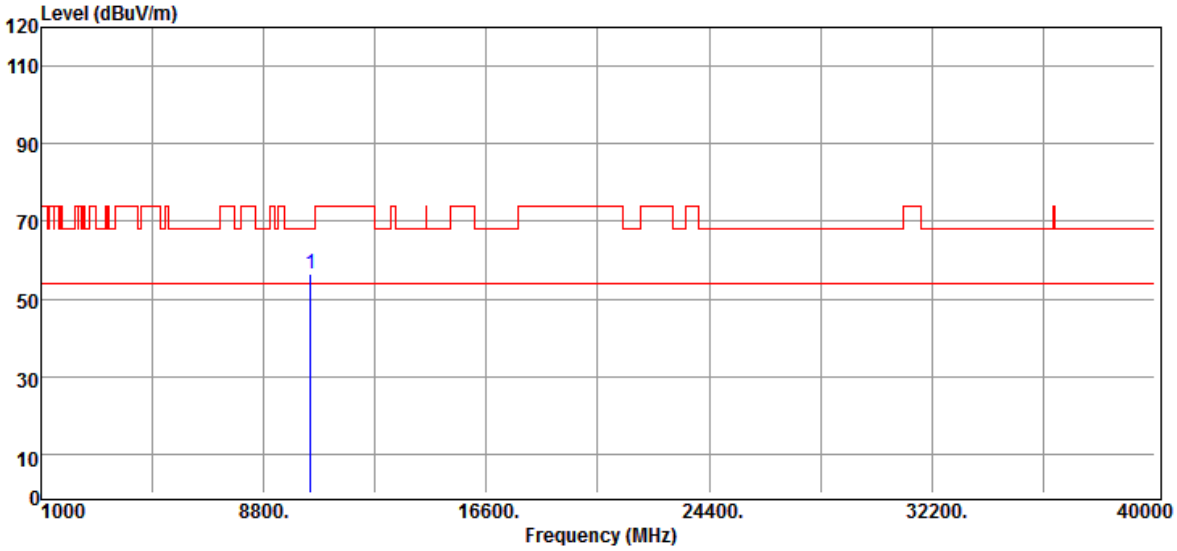
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	41.31	14.41	55.72	68.20	-12.48

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5180 MHz	Engineer	:Jerry



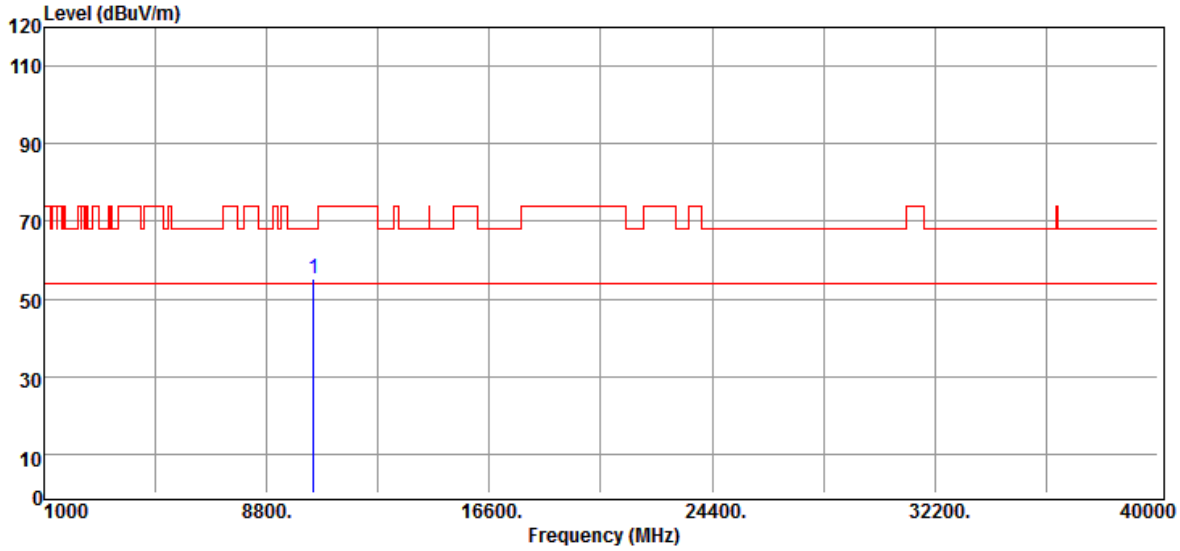
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	39.98	14.41	54.39	68.20	-13.81

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5220 MHz	Engineer	:Jerry



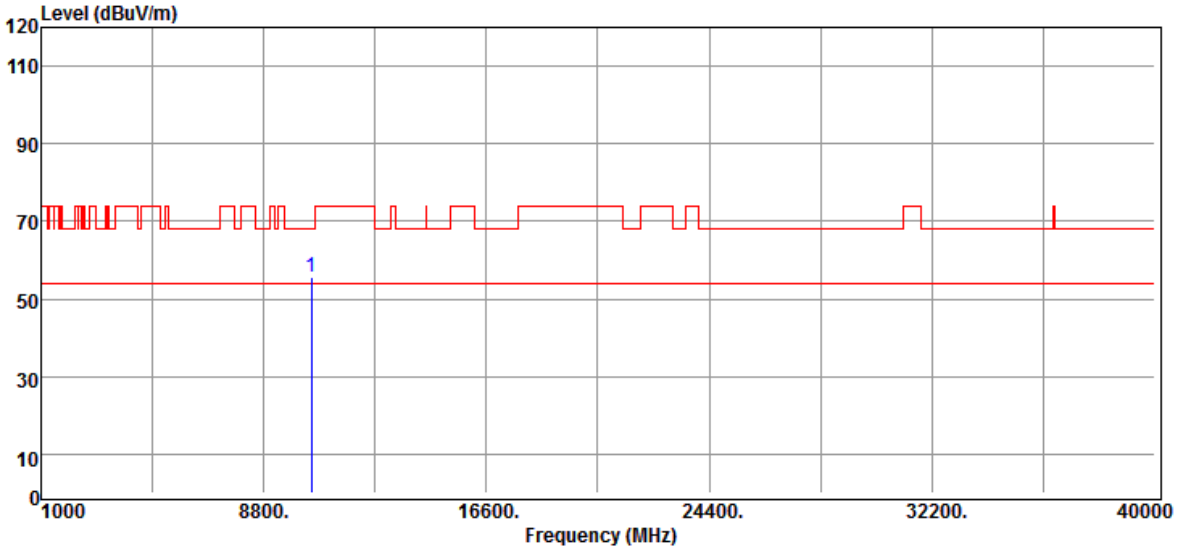
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	40.76	15.58	56.34	68.20	-11.86

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5220 MHz	Engineer	:Jerry



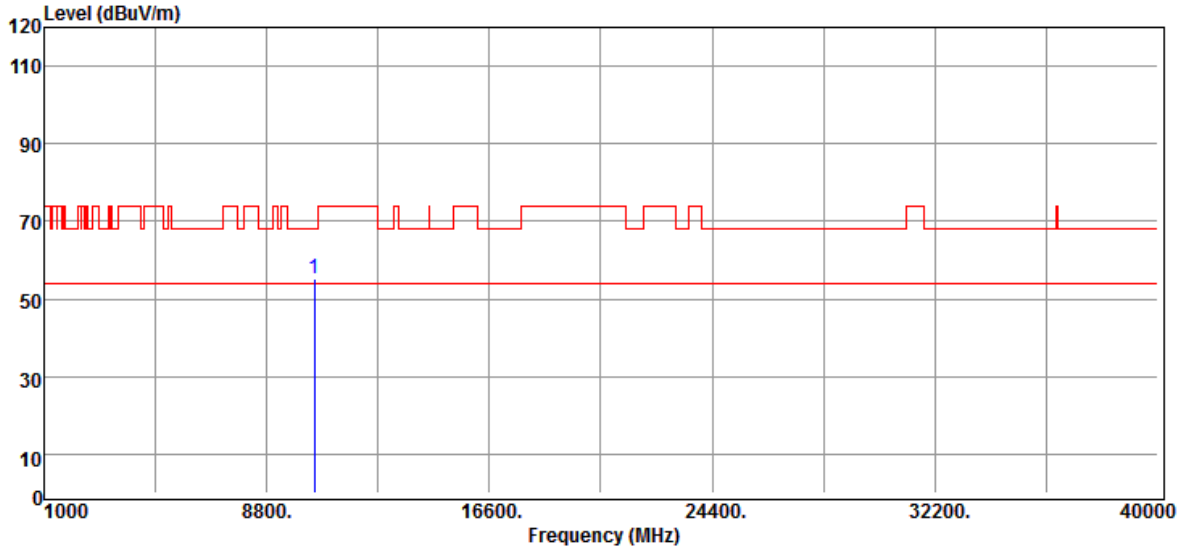
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	39.82	15.58	55.40	68.20	-12.80

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5240 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	39.26	16.48	55.74	68.20	-12.46

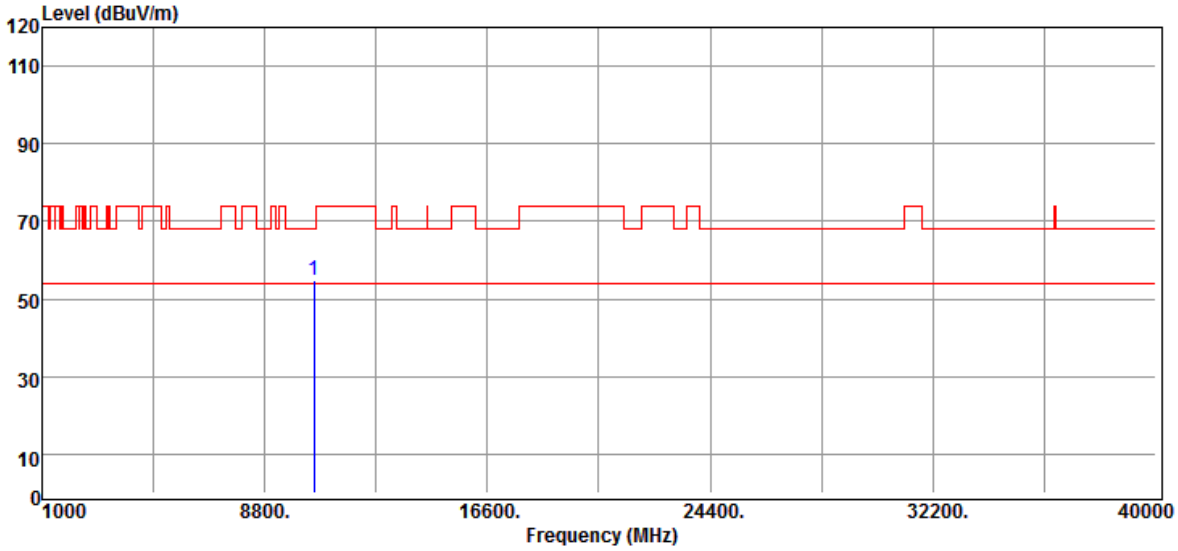
Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5240 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	38.72	16.48	55.20	68.20	-13.00

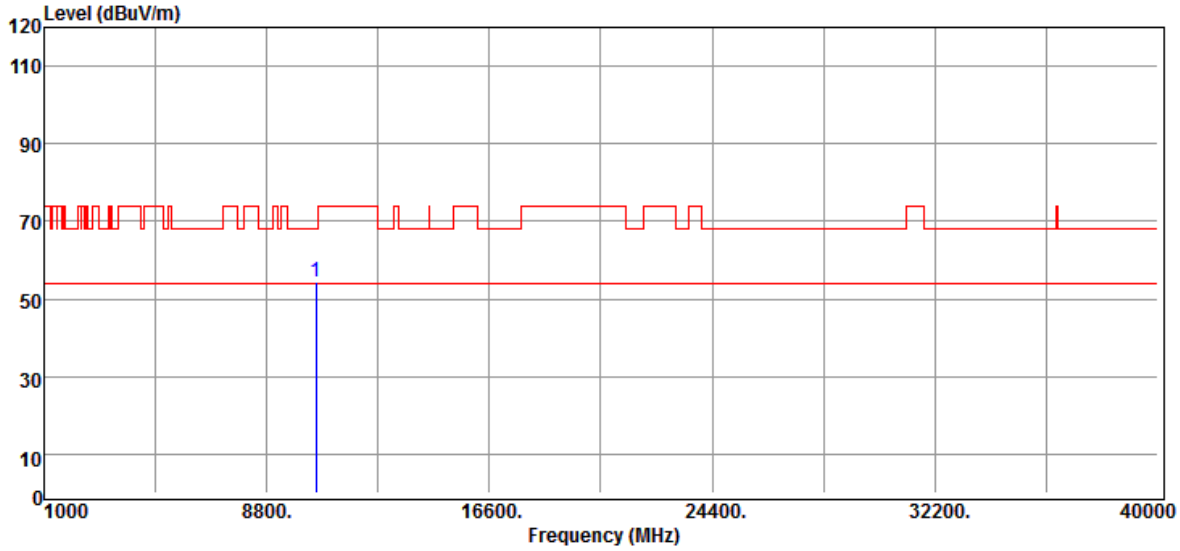
Radiated Spurious Emission Measurement Result 802.11n HT20, 5250~5350 MHz

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5260 MHz	Engineer	:Jerry



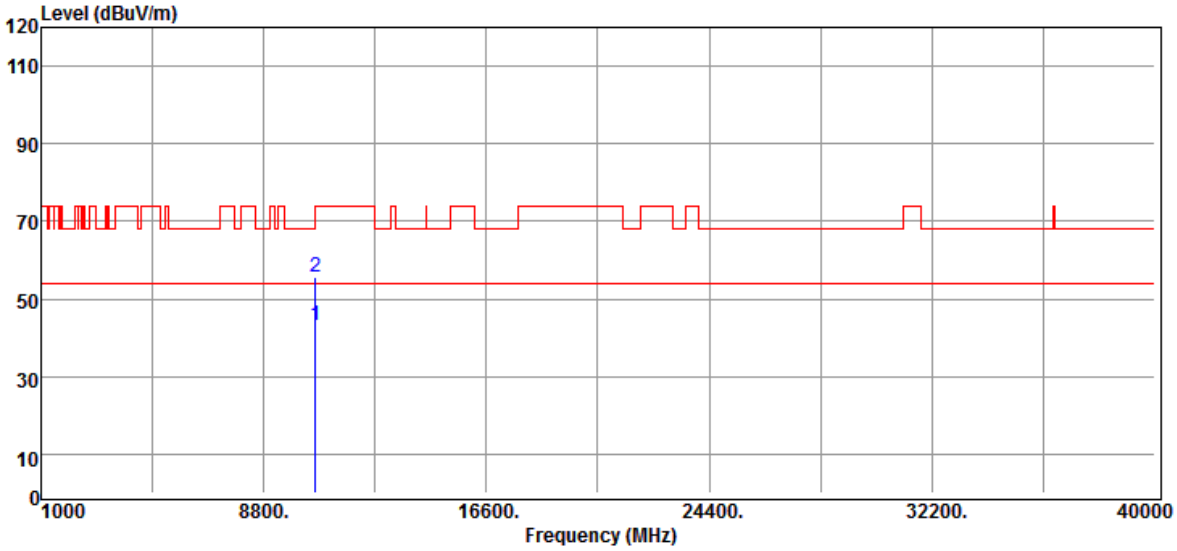
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	39.22	15.57	54.79	68.20	-13.41

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5260 MHz	Engineer	:Jerry



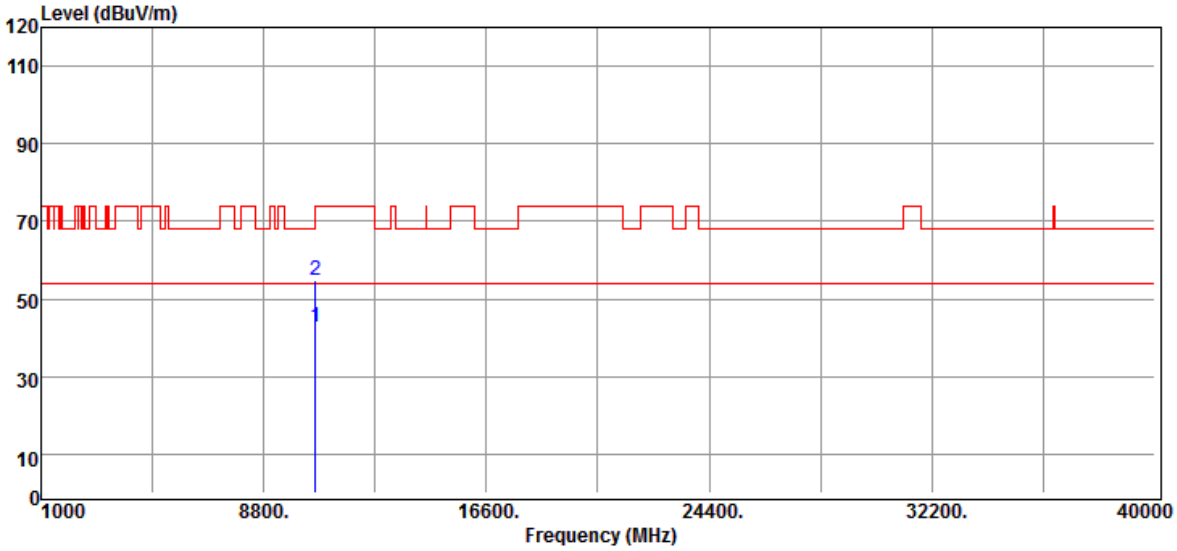
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	38.76	15.57	54.33	68.20	-13.87

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5300 MHz	Engineer	:Jerry



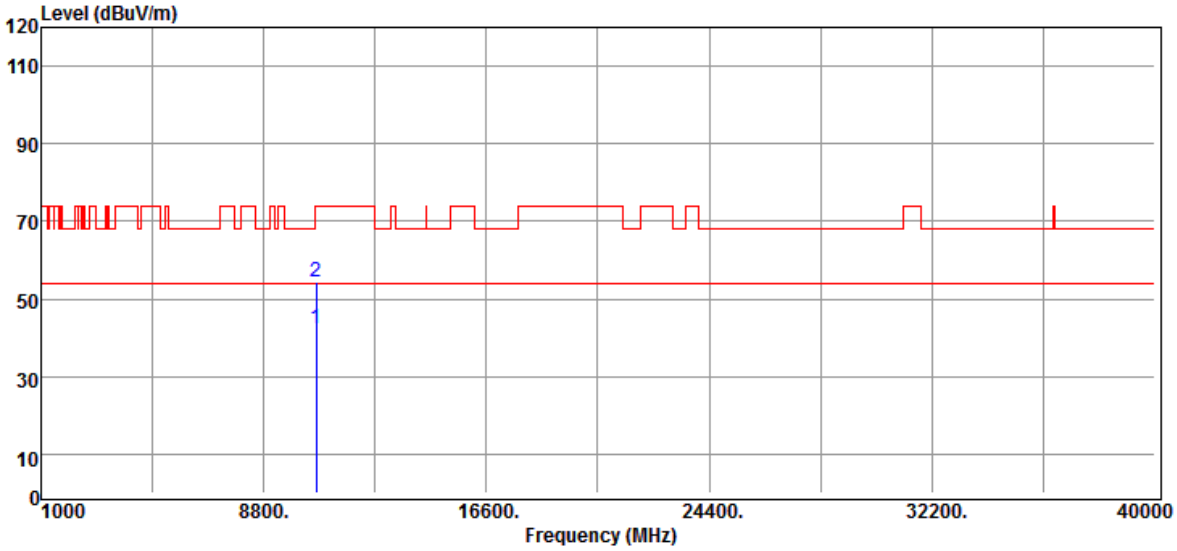
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	27.67	15.47	43.14	54.00	-10.86
10600.00	Peak	40.04	15.47	55.51	68.20	-12.69

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5300 MHz	Engineer	:Jerry



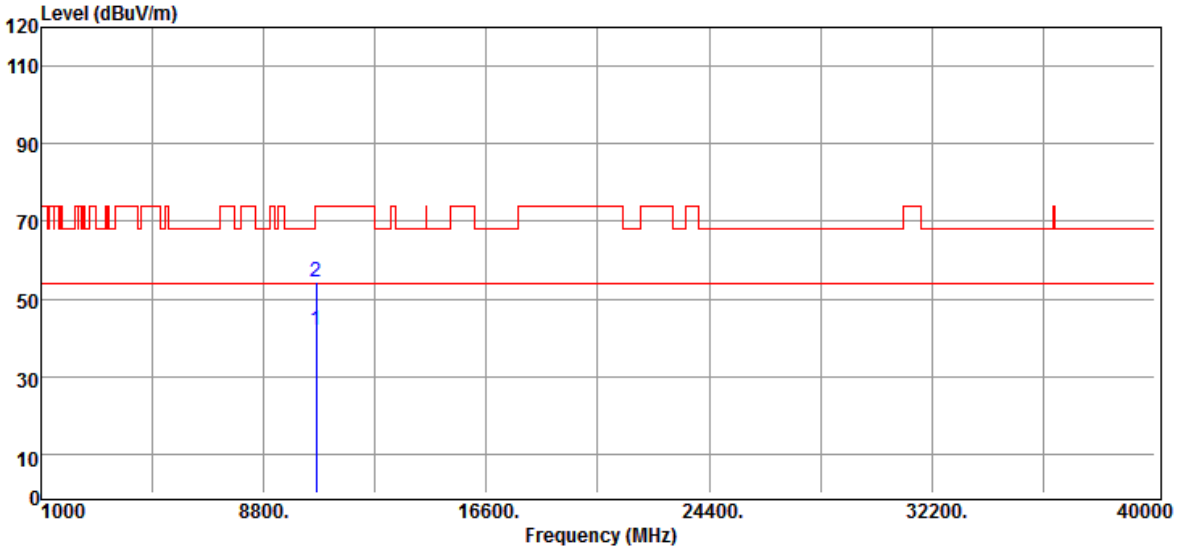
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	27.34	15.47	42.81	54.00	-11.19
10600.00	Peak	39.34	15.47	54.81	68.20	-13.39

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5320 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	26.21	16.12	42.33	54.00	-11.67
10640.00	Peak	38.42	16.12	54.54	74.00	-19.46

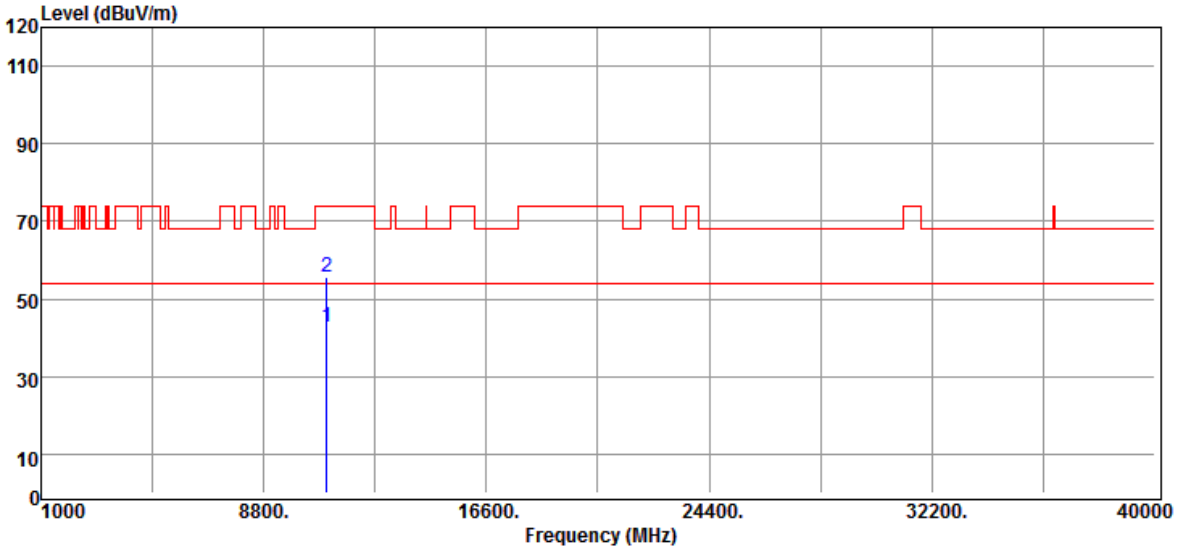
Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5320 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	25.95	16.12	42.07	54.00	-11.93
10640.00	Peak	38.10	16.12	54.22	74.00	-19.78

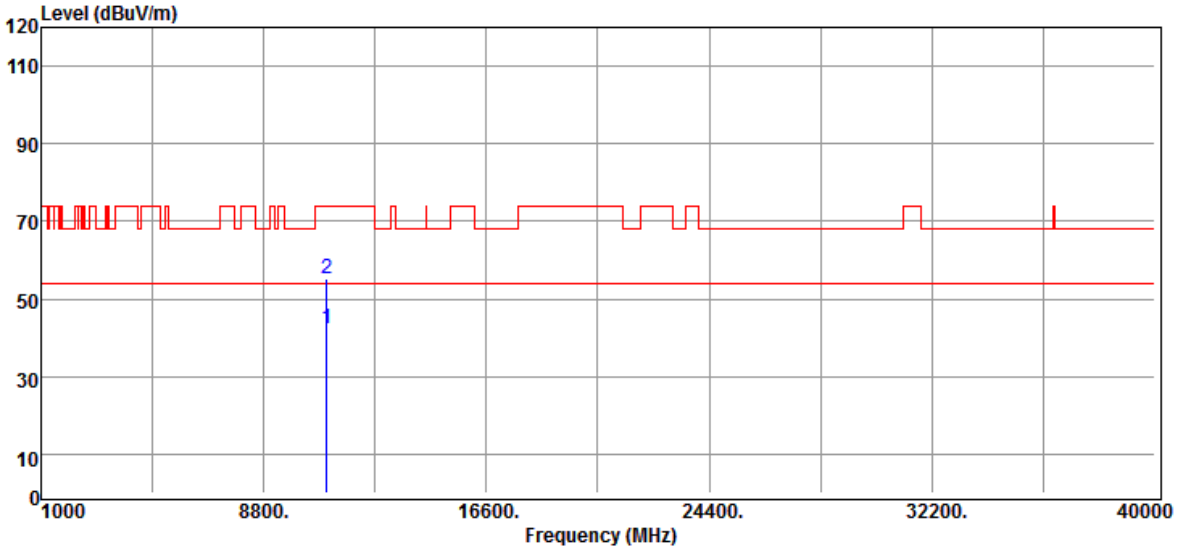
Radiated Spurious Emission Measurement Result 802.11n HT20, 5470~5725 MHz

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5500 MHz	Engineer	:Jerry



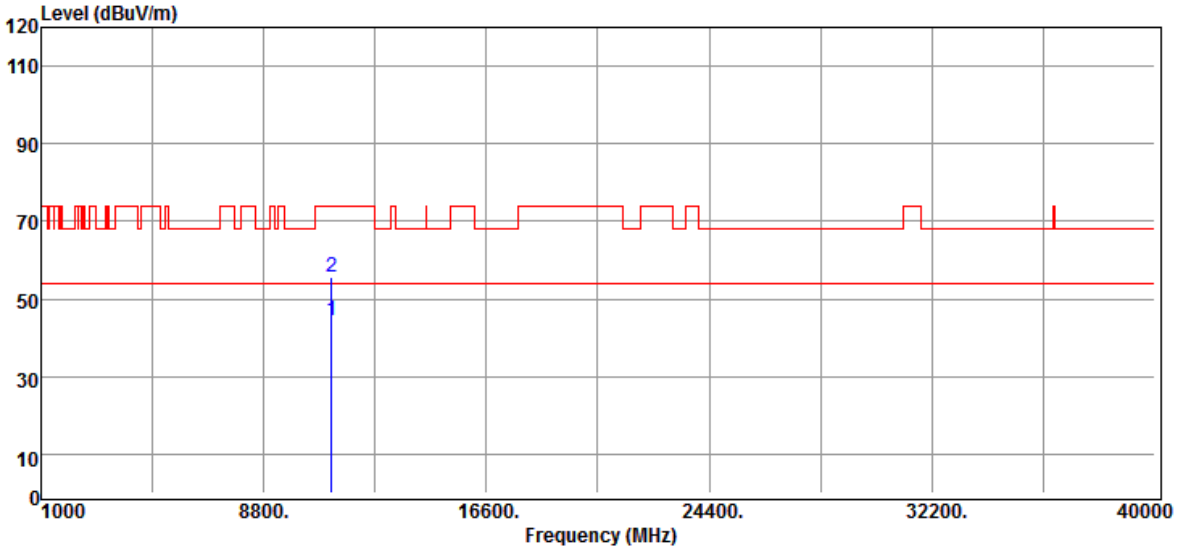
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	25.16	17.75	42.91	54.00	-11.09
11000.00	Peak	37.97	17.75	55.72	74.00	-18.28

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5500 MHz	Engineer	:Jerry



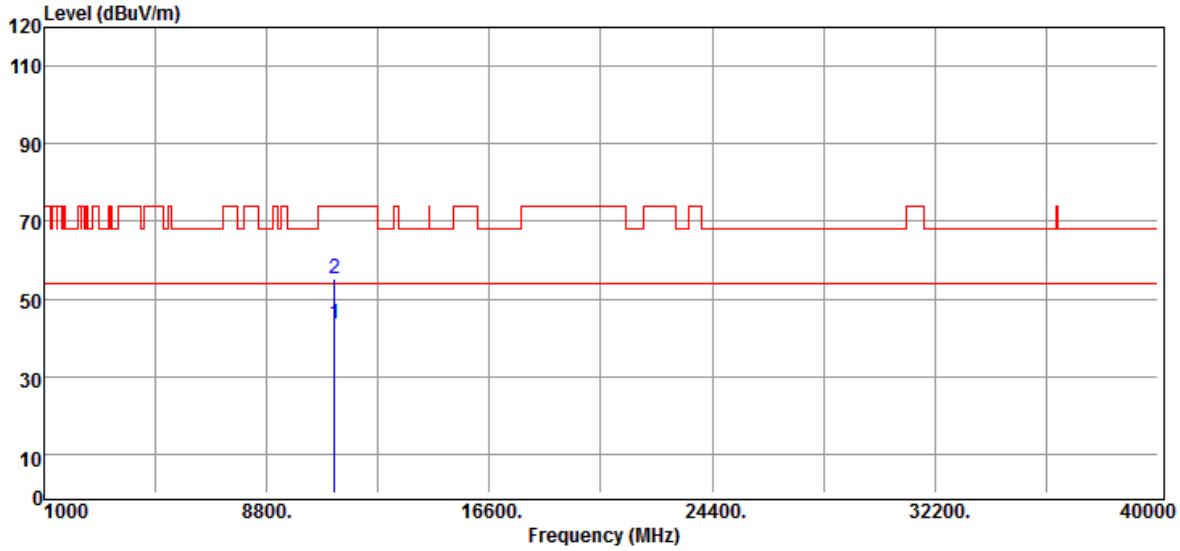
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	24.52	17.75	42.27	54.00	-11.73
11000.00	Peak	37.63	17.75	55.38	74.00	-18.62

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5580 MHz	Engineer	:Jerry



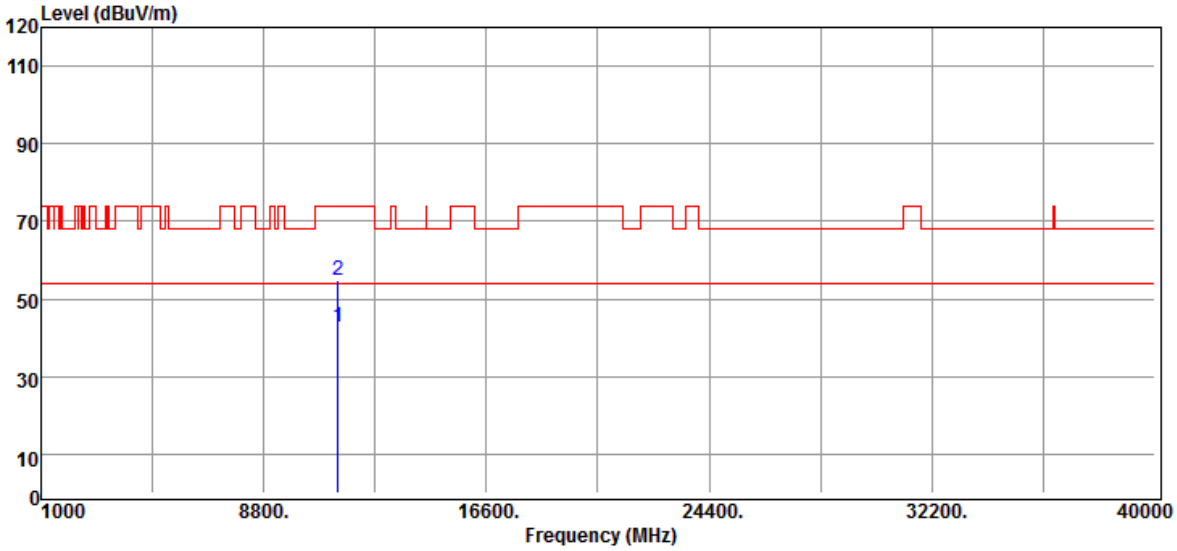
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	27.79	16.53	44.32	54.00	-9.68
11160.00	Peak	39.14	16.53	55.67	74.00	-18.33

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5580 MHz	Engineer	:Jerry



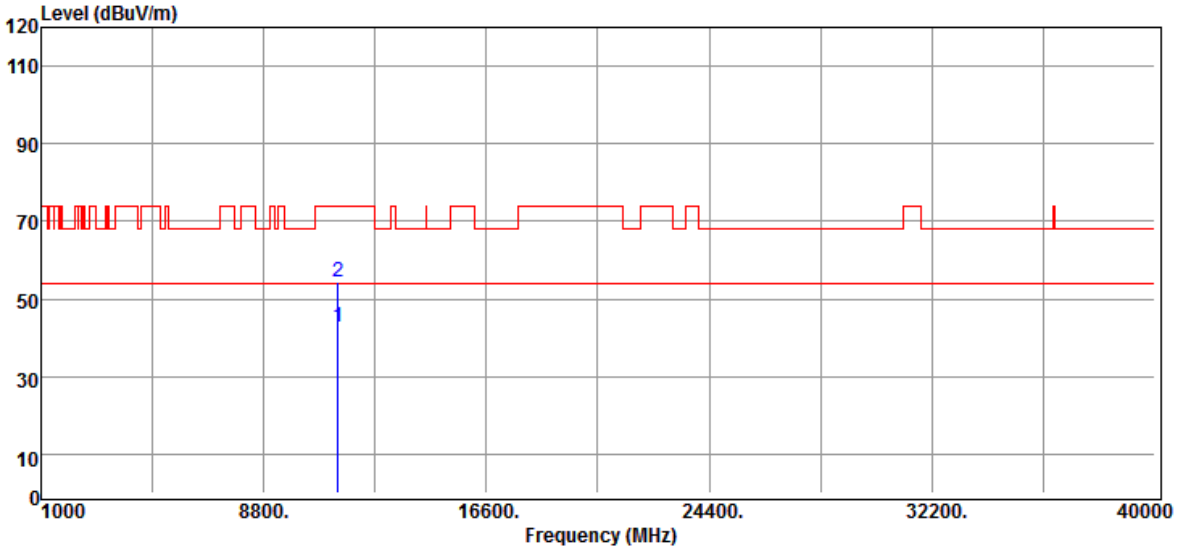
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	27.14	16.53	43.67	54.00	-10.33
11160.00	Peak	38.72	16.53	55.25	74.00	-18.75

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5700 MHz	Engineer	:Jerry



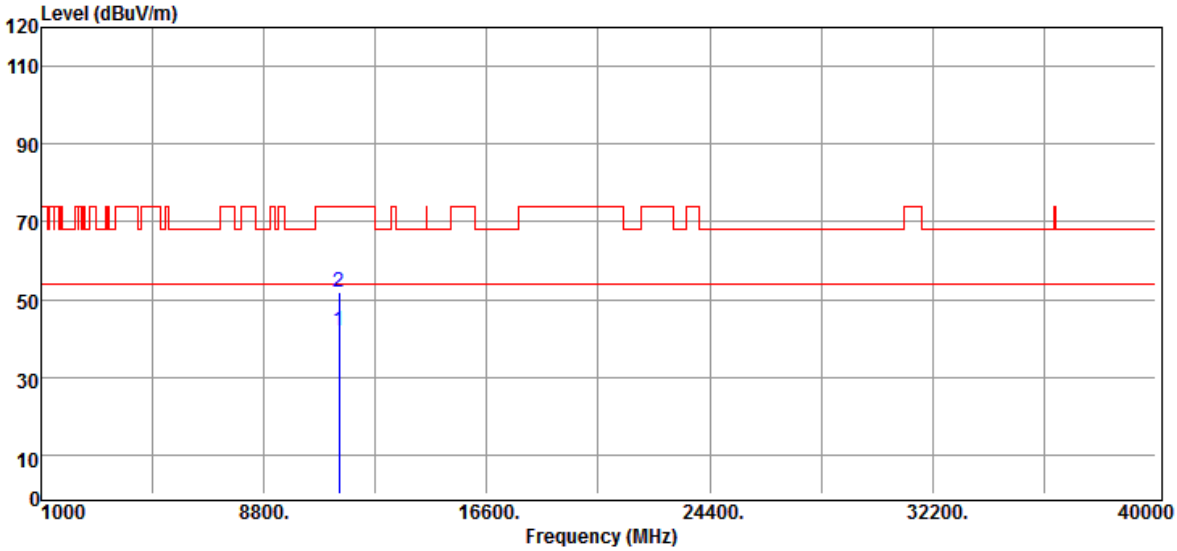
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	26.42	16.48	42.90	54.00	-11.10
11400.00	Peak	38.48	16.48	54.96	74.00	-19.04

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5700 MHz	Engineer	:Jerry



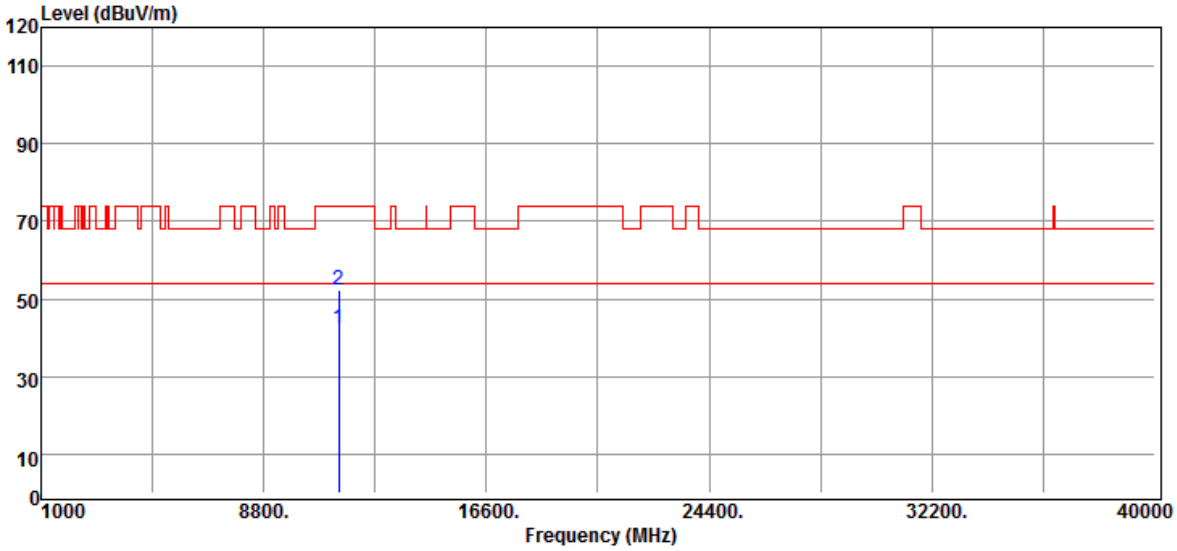
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	26.46	16.48	42.94	54.00	-11.06
11400.00	Peak	38.02	16.48	54.50	74.00	-19.50

Operation Mode	:802.11n20 / Band 3-4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:20/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5720 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11440.00	Average	24.89	17.09	41.98	54.00	-12.02
11440.00	Peak	34.93	17.09	52.02	74.00	-21.98

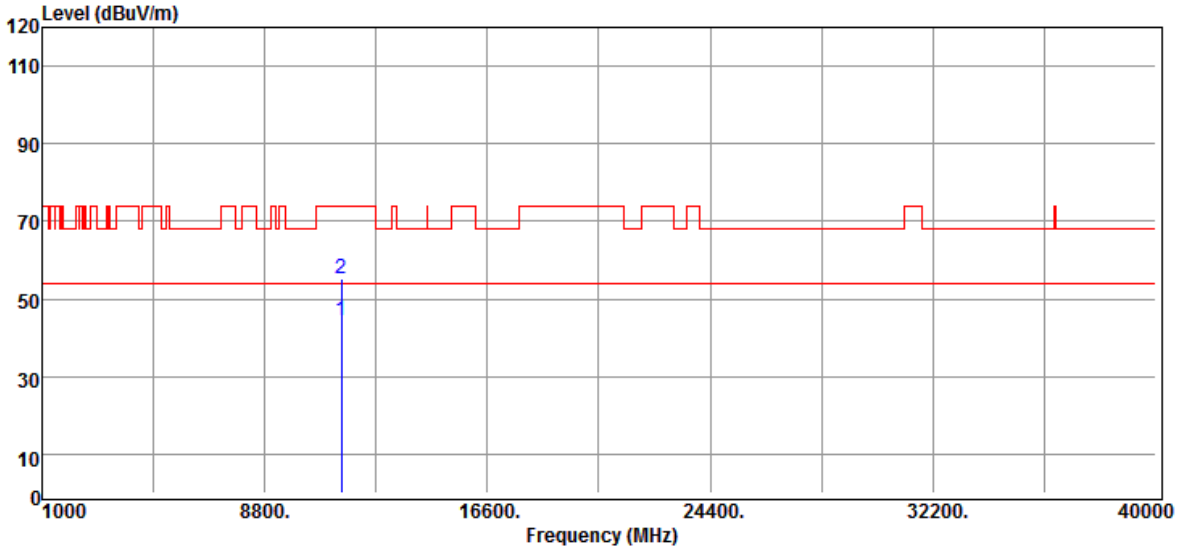
Operation Mode	:802.11n20 / Band 3-4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:20/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5720 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11440.00	Average	25.14	17.09	42.23	54.00	-11.77
11440.00	Peak	35.37	17.09	52.46	74.00	-21.54

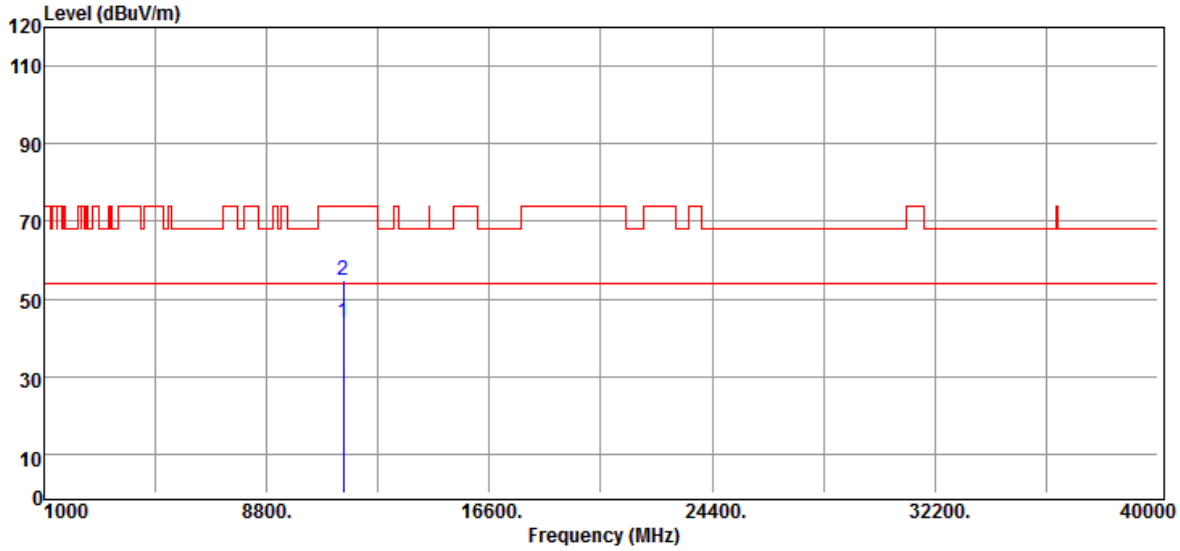
Radiated Spurious Emission Measurement Result 802.11n HT20, 5725~5850 MHz

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5745 MHz	Engineer	:Jerry



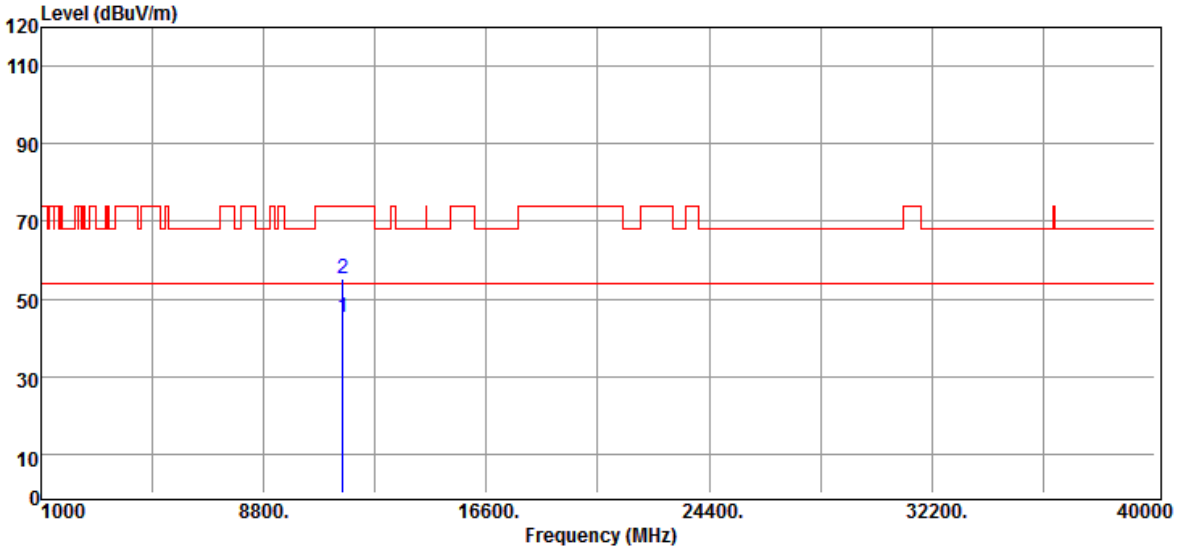
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	28.60	15.85	44.45	54.00	-9.55
11490.00	Peak	39.32	15.85	55.17	74.00	-18.83

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5745 MHz	Engineer	:Jerry



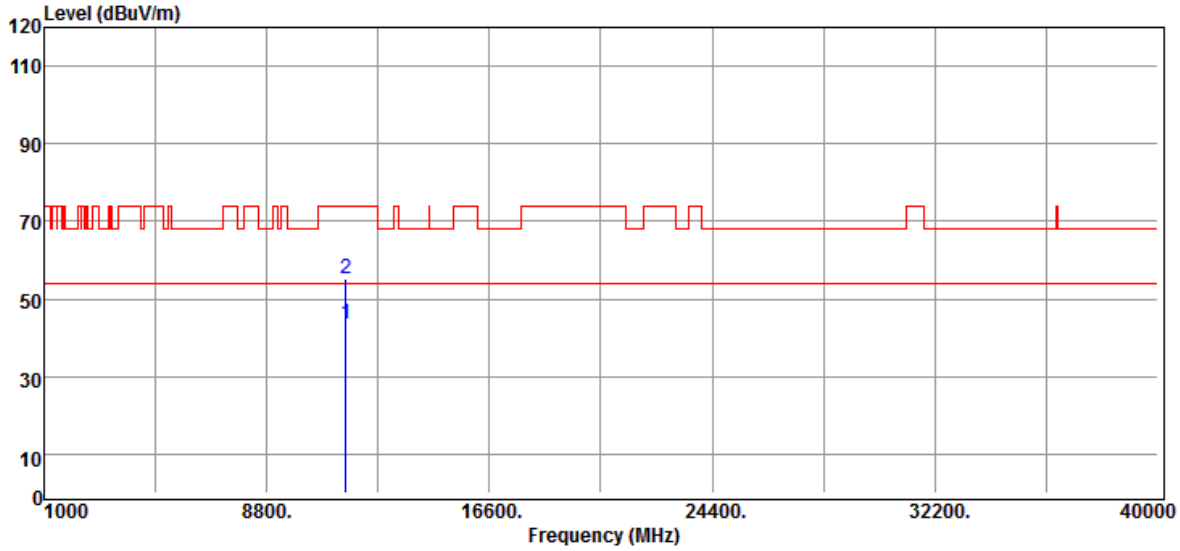
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	28.12	15.85	43.97	54.00	-10.03
11490.00	Peak	38.89	15.85	54.74	74.00	-19.26

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5785 MHz	Engineer	:Jerry



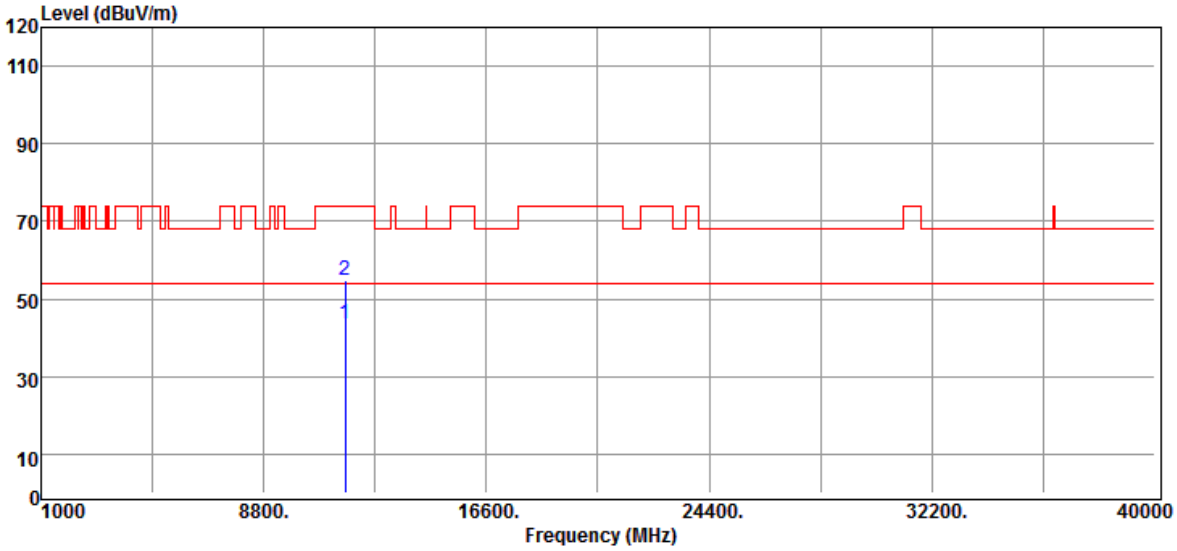
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	28.80	16.29	45.09	54.00	-8.91
11570.00	Peak	38.80	16.29	55.09	74.00	-18.91

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:24/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5785 MHz	Engineer	:Jerry



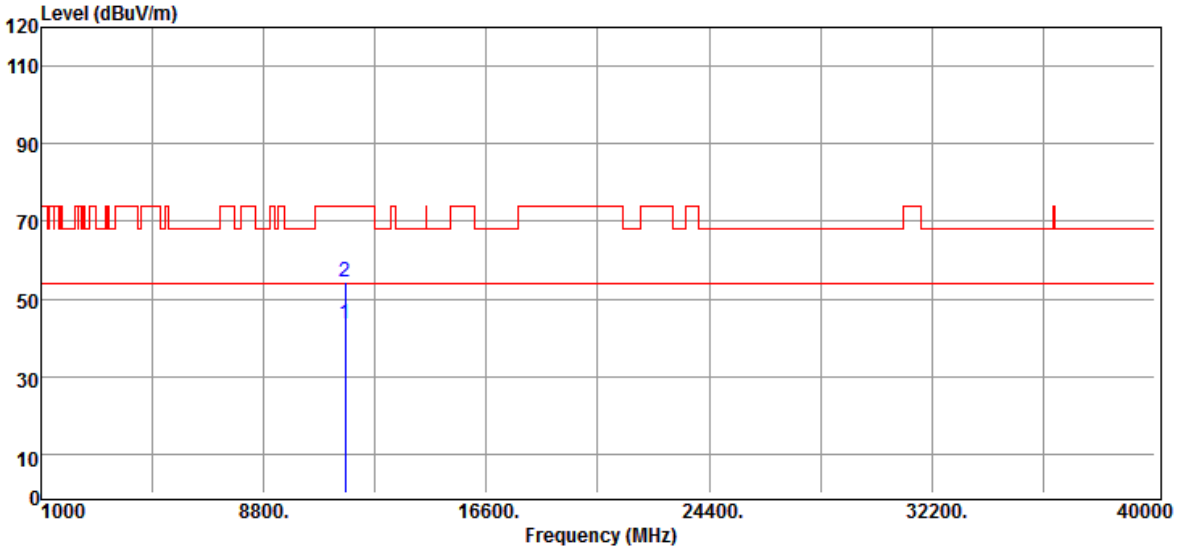
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	27.25	16.29	43.54	54.00	-10.46
11570.00	Peak	38.87	16.29	55.16	74.00	-18.84

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/57
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.96	16.61	43.57	54.00	-10.43
11650.00	Peak	38.28	16.61	54.89	74.00	-19.11

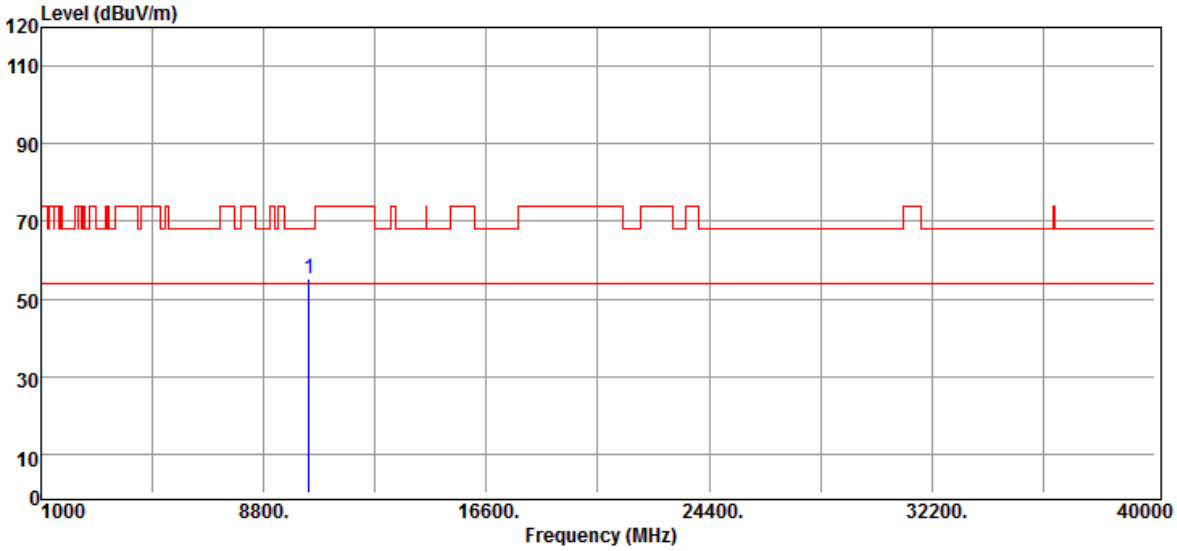
Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:23/57
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.96	16.61	43.57	54.00	-10.43
11650.00	Peak	37.75	16.61	54.36	74.00	-19.64

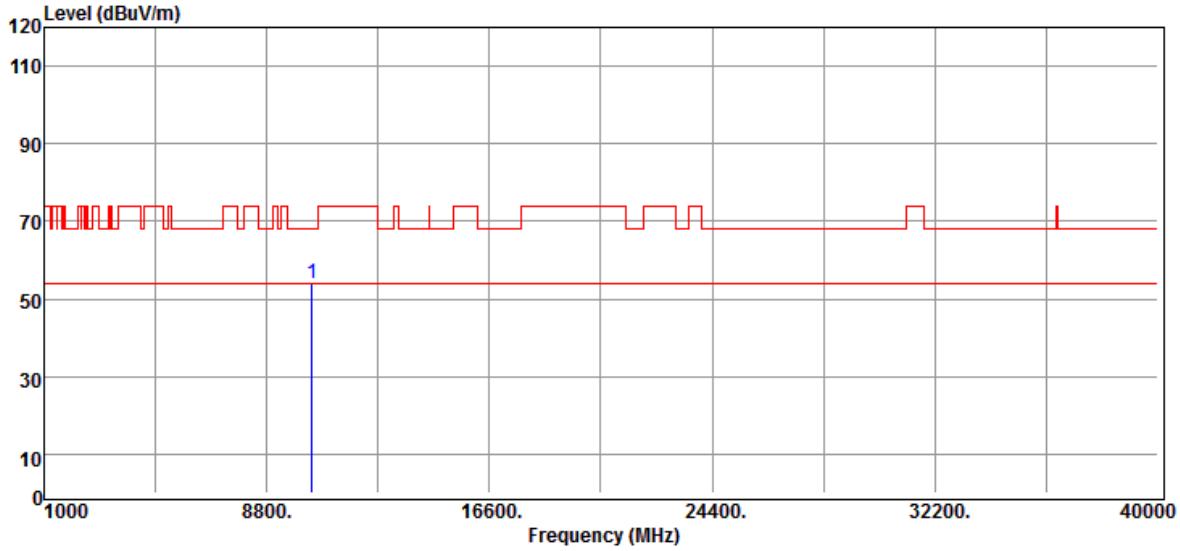
Radiated Spurious Emission Measurement Result 802.11n HT40, 5150~5250 MHz

Operation Mode	:802.11n40 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/59
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5190 MHz	Engineer	:Jerry



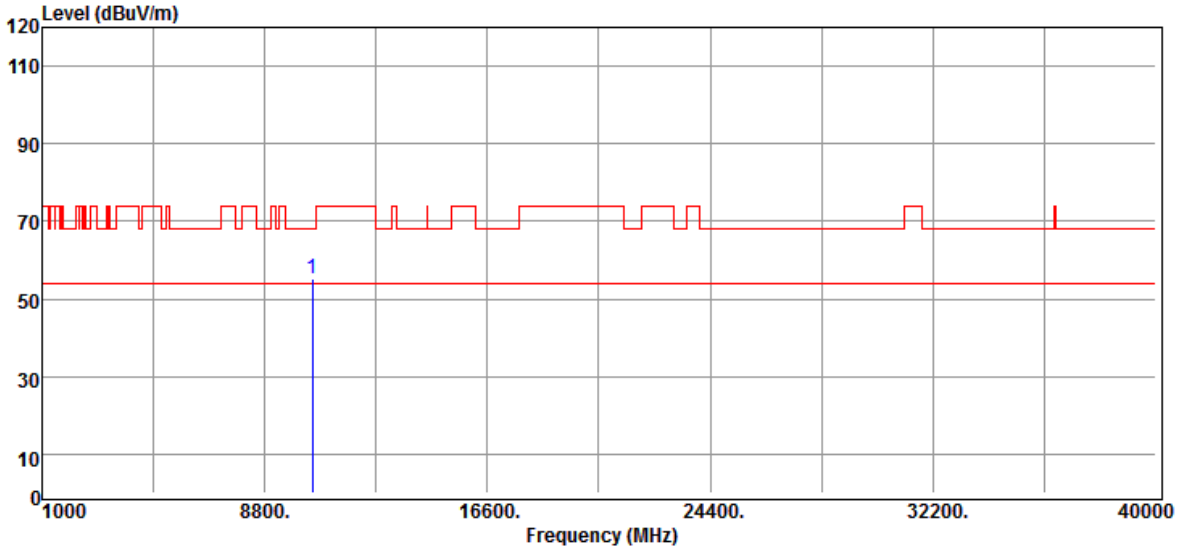
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10380.00	Peak	40.45	14.58	55.03	68.20	-13.17

Operation Mode	:802.11n40 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:23/59
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5190 MHz	Engineer	:Jerry



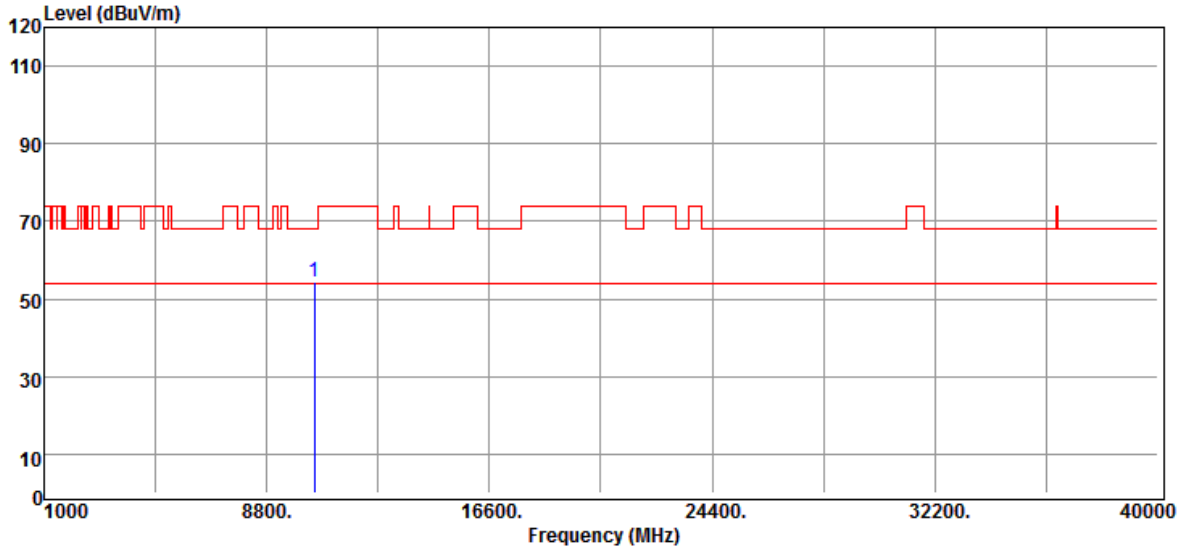
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10380.00	Peak	39.51	14.58	54.09	68.20	-14.11

Operation Mode	:802.11n40 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:22/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5230 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10460.00	Peak	39.22	15.97	55.19	68.20	-13.01

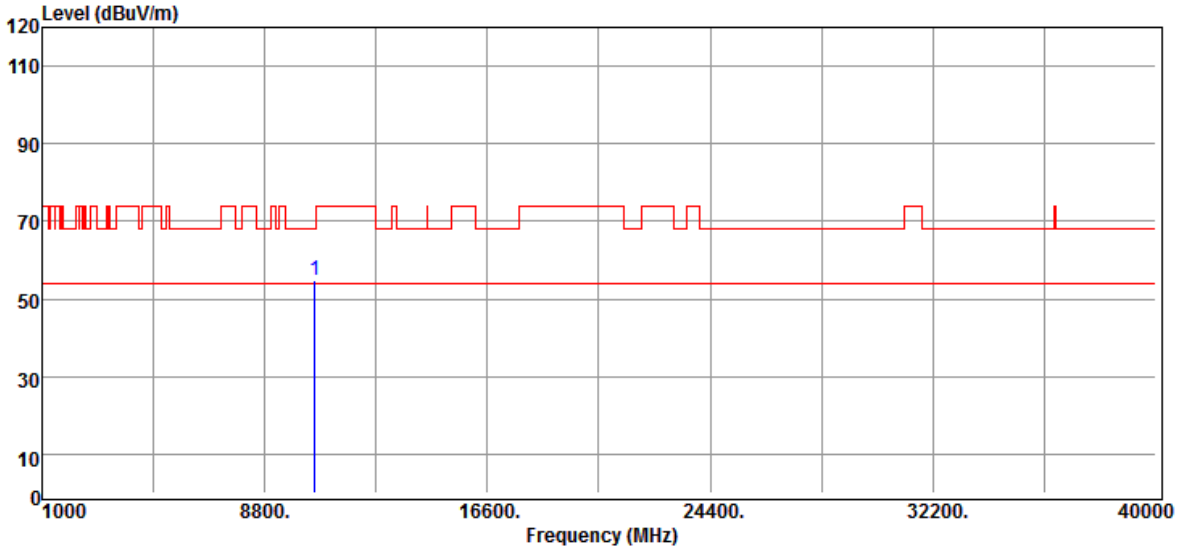
Operation Mode	:802.11n40 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:22/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5230 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10460.00	Peak	38.51	15.97	54.48	68.20	-13.72

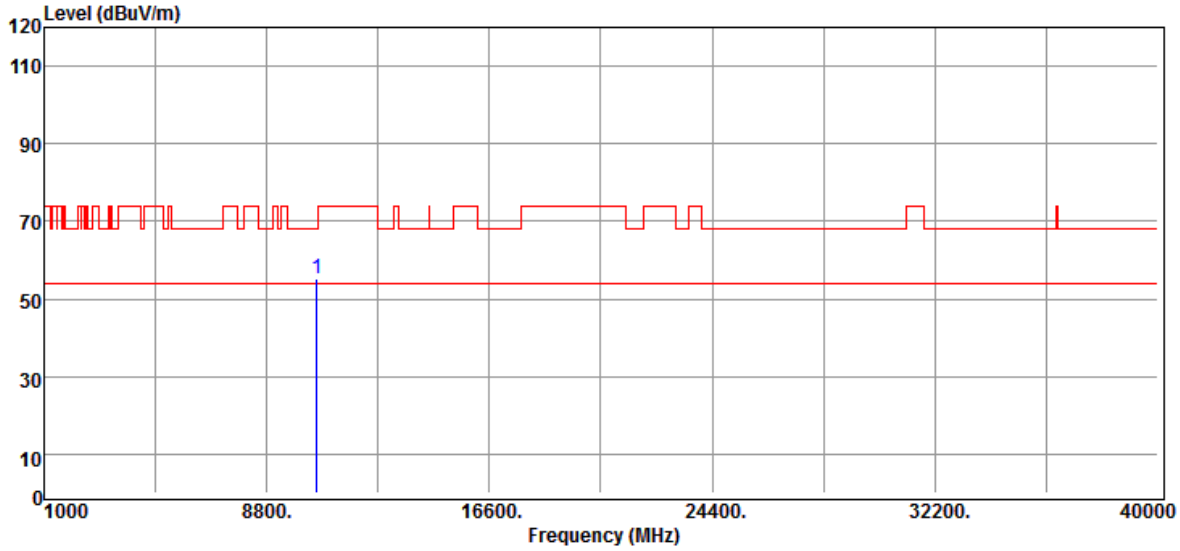
Radiated Spurious Emission Measurement Result 802.11n HT40, 5250~5350 MHz

Operation Mode	:802.11n40 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/58
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5270 MHz	Engineer	:Jerry



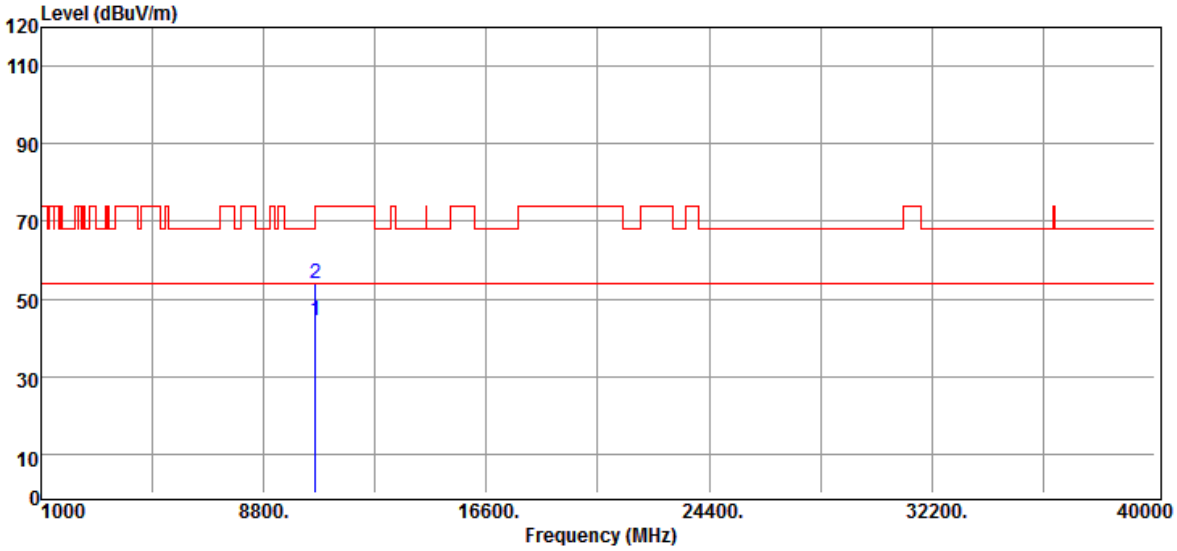
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10540.00	Peak	39.07	15.67	54.74	68.20	-13.46

Operation Mode	:802.11n40 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/58
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5270 MHz	Engineer	:Jerry



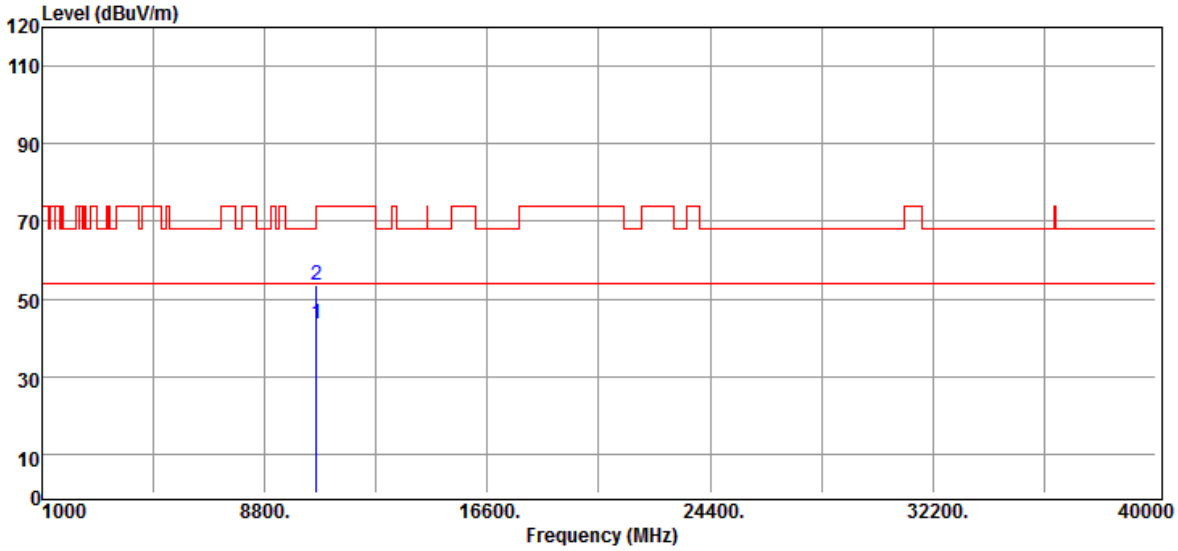
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10540.00	Peak	39.63	15.67	55.30	68.20	-12.90

Operation Mode	:802.11n40 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5310 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10620.00	Average	28.52	15.78	44.30	54.00	-9.70
10620.00	Peak	38.12	15.78	53.90	74.00	-20.10

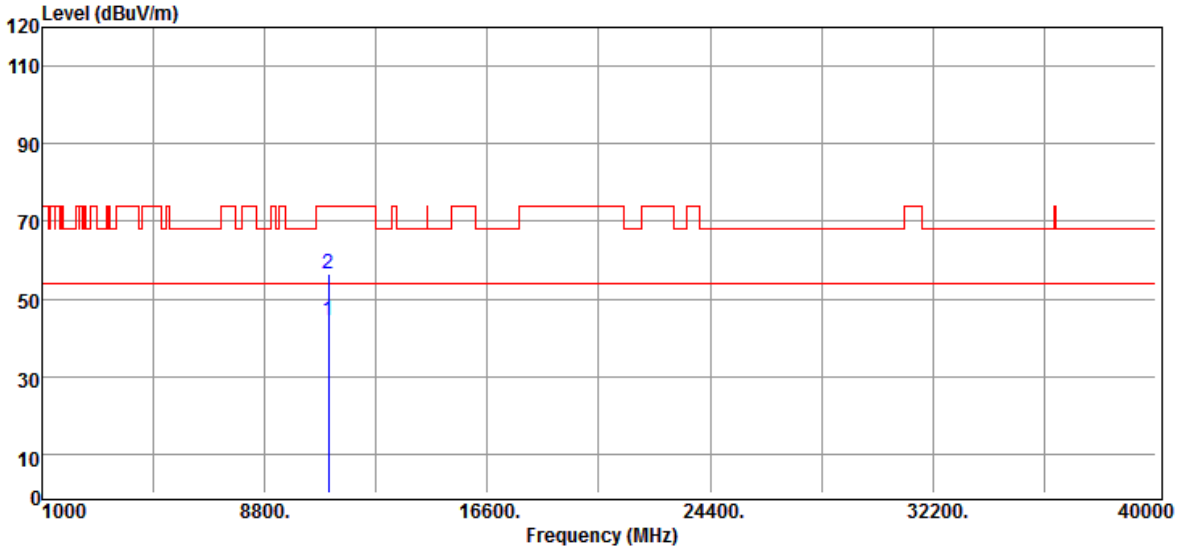
Operation Mode	:802.11n40 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5310 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10620.00	Average	27.77	15.78	43.55	54.00	-10.45
10620.00	Peak	37.60	15.78	53.38	74.00	-20.62

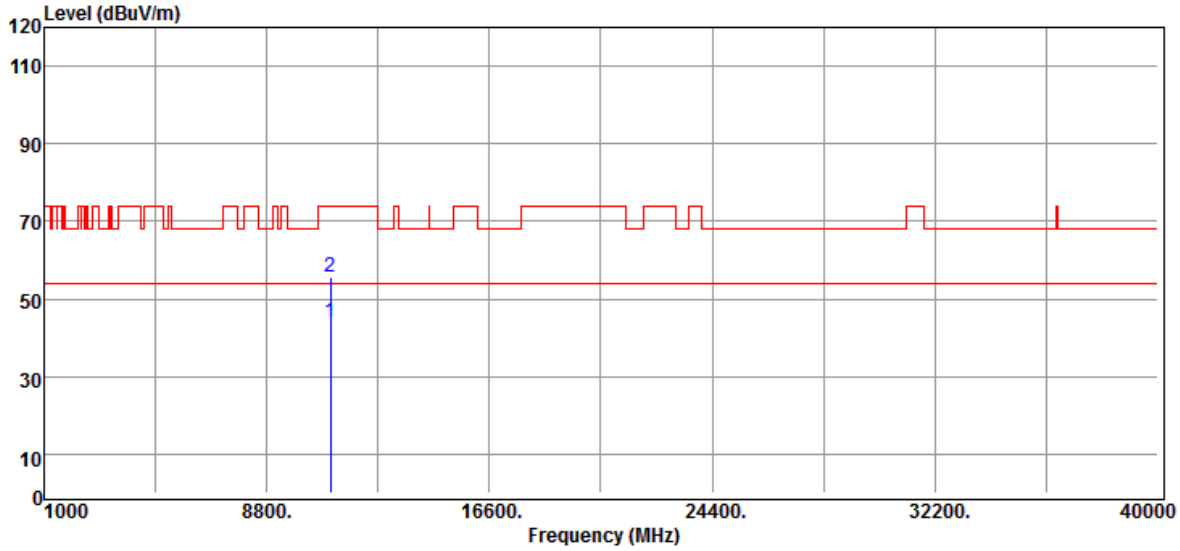
Radiated Spurious Emission Measurement Result 802.11n HT40, 5470~5725 MHz

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5510 MHz	Engineer	:Jerry



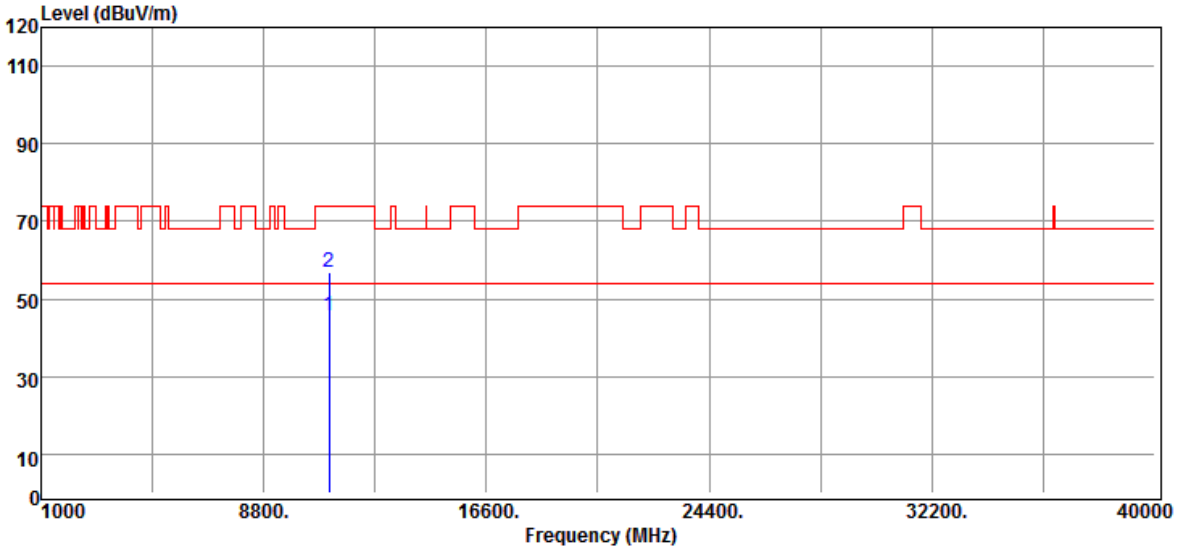
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11020.00	Average	26.53	17.87	44.40	54.00	-9.60
11020.00	Peak	38.54	17.87	56.41	74.00	-17.59

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5510 MHz	Engineer	:Jerry



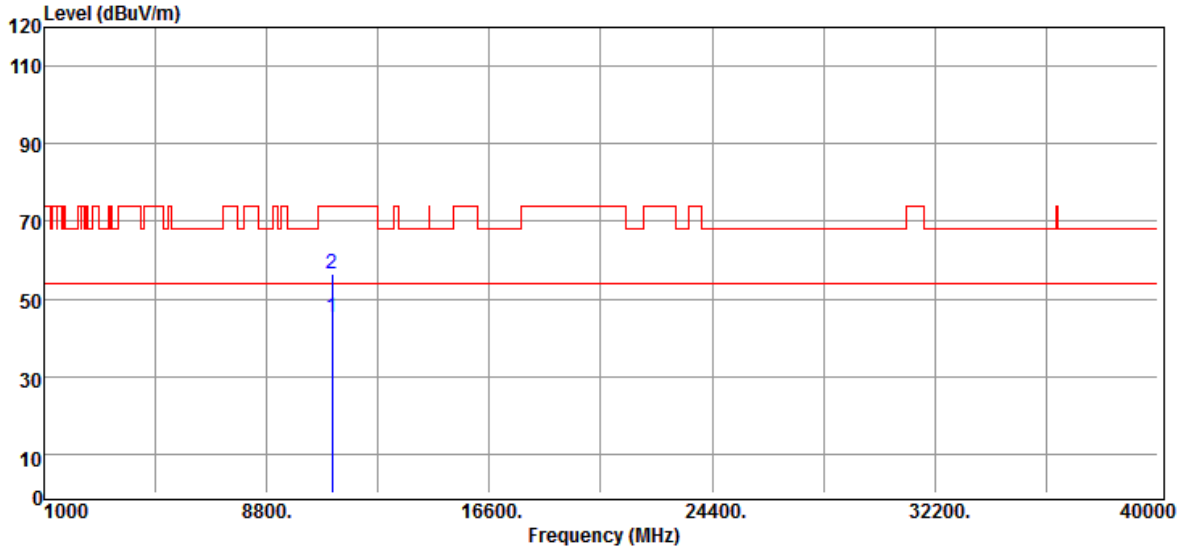
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11020.00	Average	26.01	17.87	43.88	54.00	-10.12
11020.00	Peak	37.91	17.87	55.78	74.00	-18.22

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:21/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5550 MHz	Engineer	:Jerry



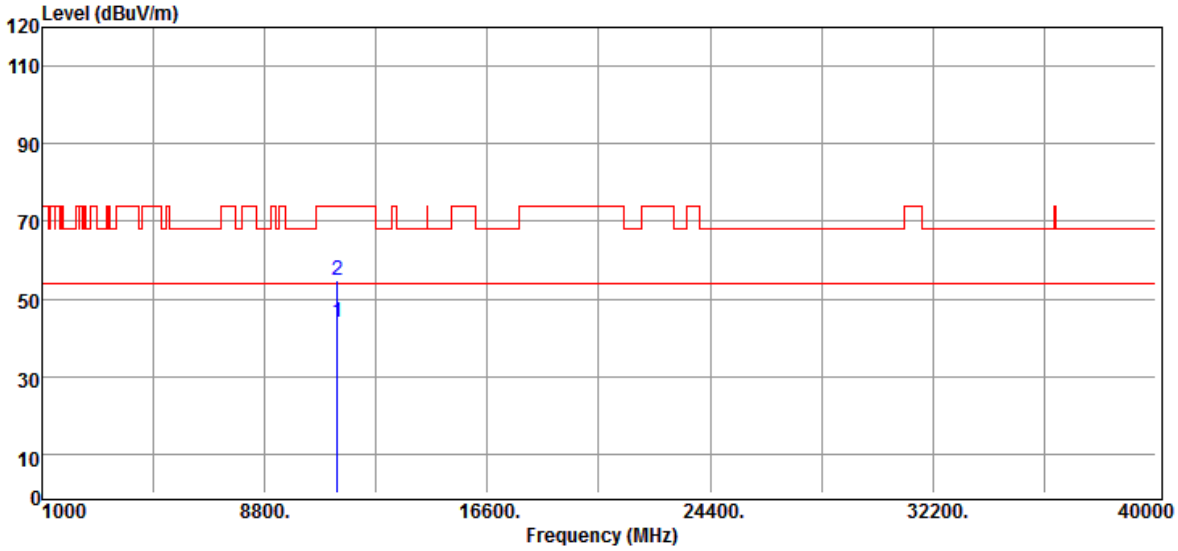
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	28.44	17.25	45.69	54.00	-8.31
11100.00	Peak	39.49	17.25	56.74	74.00	-17.26

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:21/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5550 MHz	Engineer	:Jerry



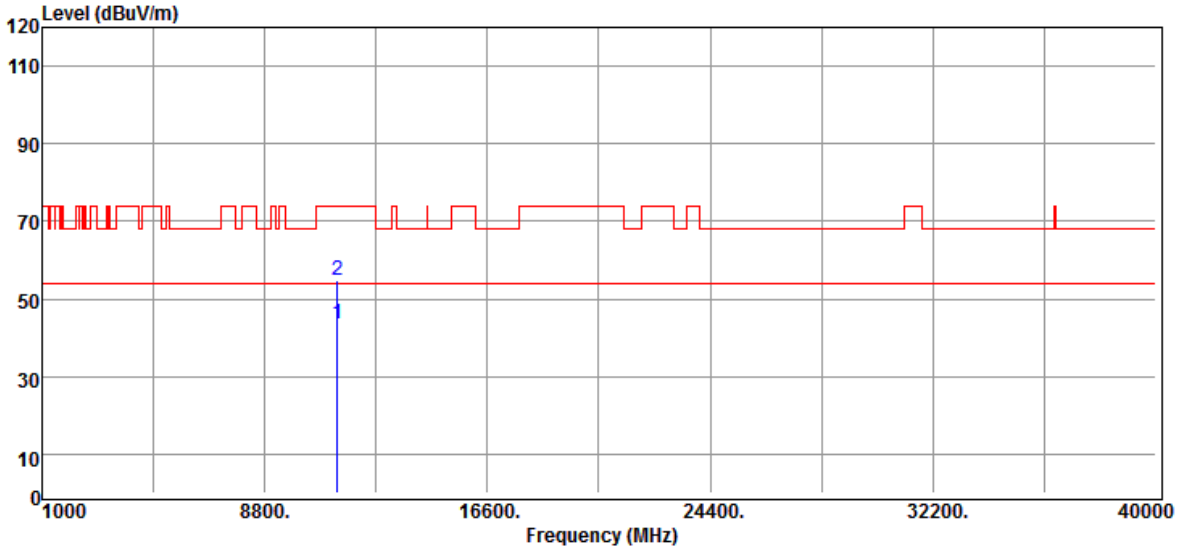
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	28.01	17.25	45.26	54.00	-8.74
11100.00	Peak	39.14	17.25	56.39	74.00	-17.61

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:21/53
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5670 MHz	Engineer	:Jerry



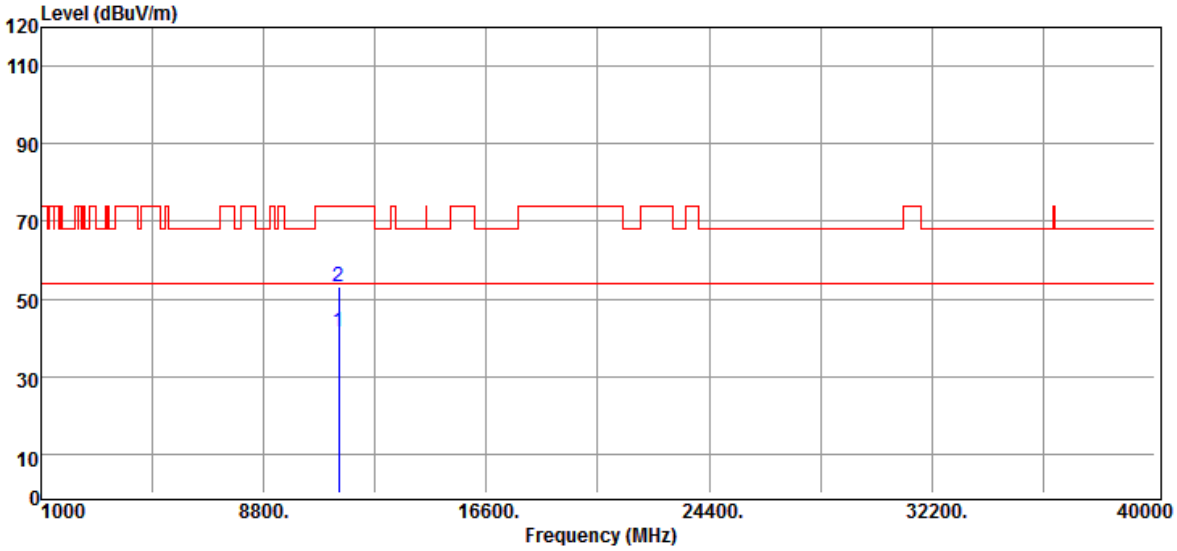
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11340.00	Average	27.59	16.36	43.95	54.00	-10.05
11340.00	Peak	38.25	16.36	54.61	74.00	-19.39

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:21/53
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5670 MHz	Engineer	:Jerry



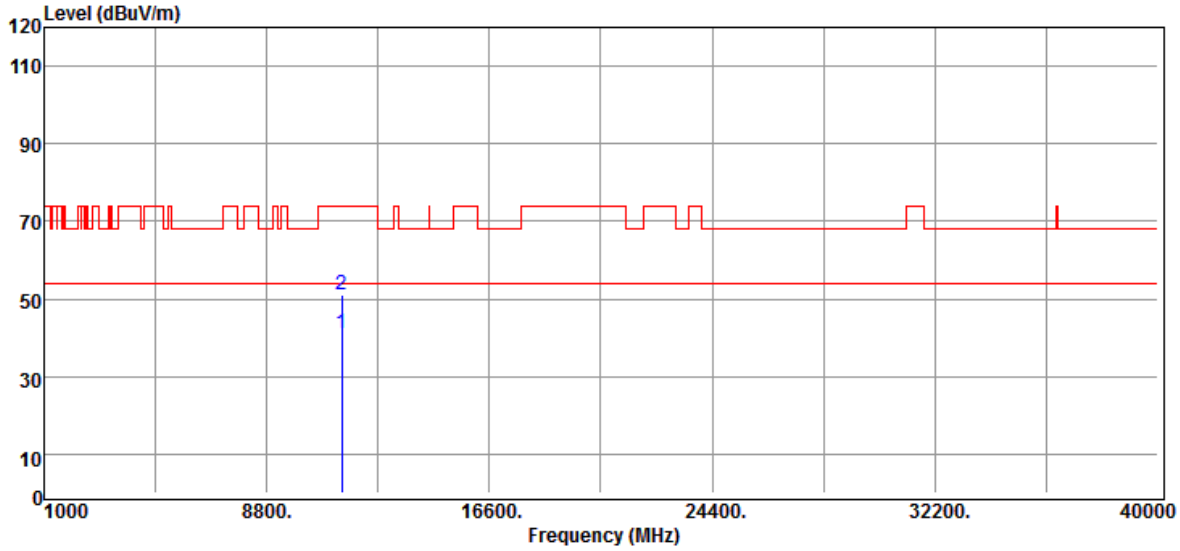
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11340.00	Average	27.19	16.36	43.55	54.00	-10.45
11340.00	Peak	38.42	16.36	54.78	74.00	-19.22

Operation Mode	:802.11n40 / Band 3-4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:20/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5710 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11420.00	Average	24.79	16.87	41.66	54.00	-12.34
11420.00	Peak	36.13	16.87	53.00	74.00	-21.00

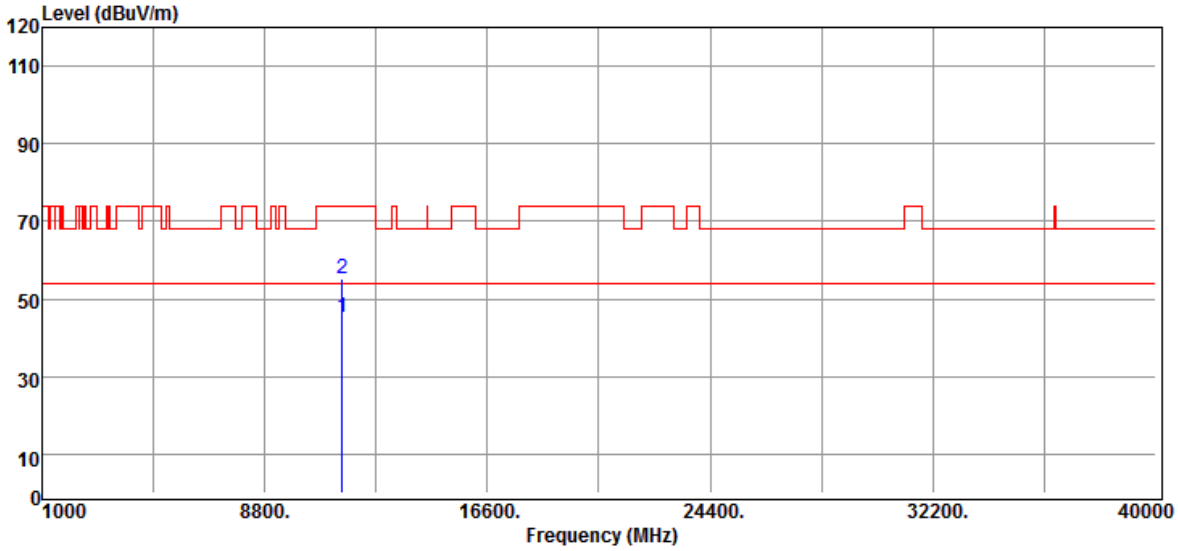
Operation Mode	:802.11n40 / Band 3-4	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:20/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5710 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11420.00	Average	24.17	16.87	41.04	54.00	-12.96
11420.00	Peak	34.29	16.87	51.16	74.00	-22.84

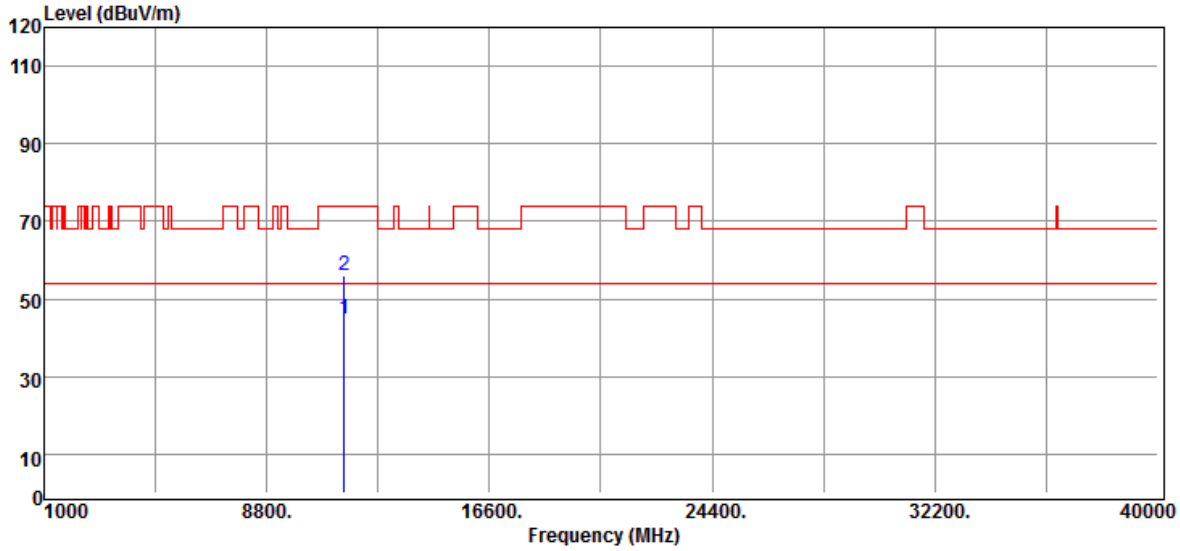
Radiated Spurious Emission Measurement Result 802.11n HT40, 5725~5850 MHz

Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:21/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5755 MHz	Engineer	:Jerry



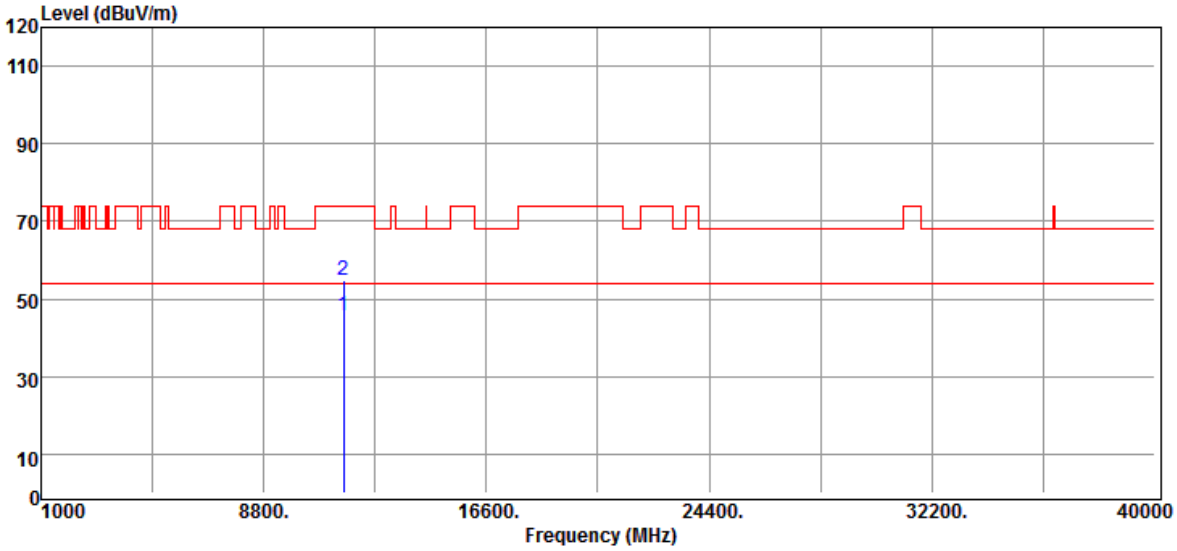
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	30.03	15.41	45.44	54.00	-8.56
11510.00	Peak	39.69	15.41	55.10	74.00	-18.90

Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:21/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5755 MHz	Engineer	:Jerry



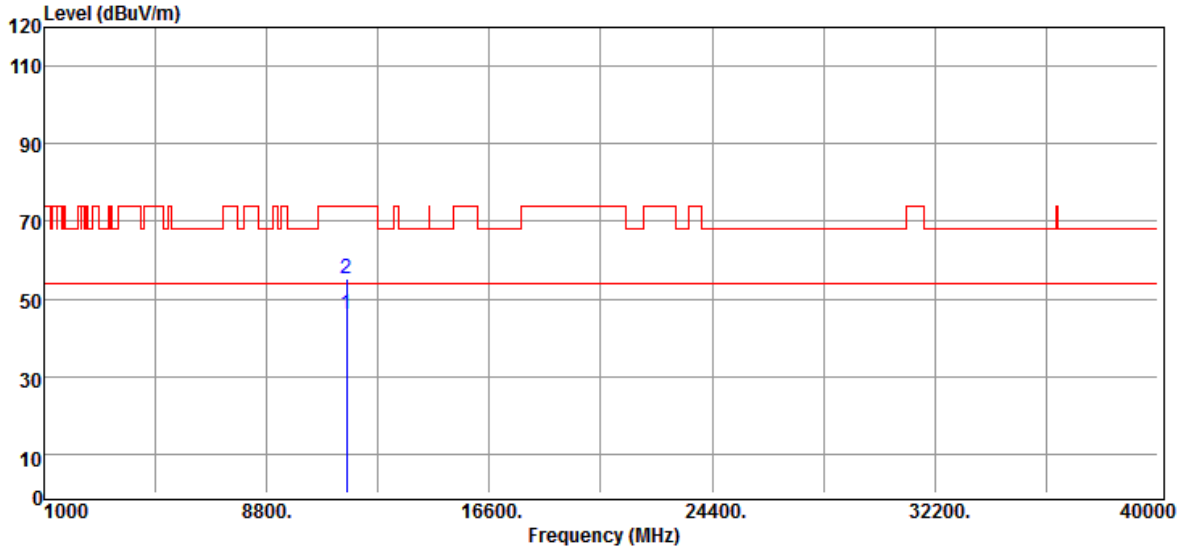
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	29.52	15.41	44.93	54.00	-9.07
11510.00	Peak	40.47	15.41	55.88	74.00	-18.12

Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:21/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5795 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11590.00	Average	28.73	16.81	45.54	54.00	-8.46
11590.00	Peak	37.96	16.81	54.77	74.00	-19.23

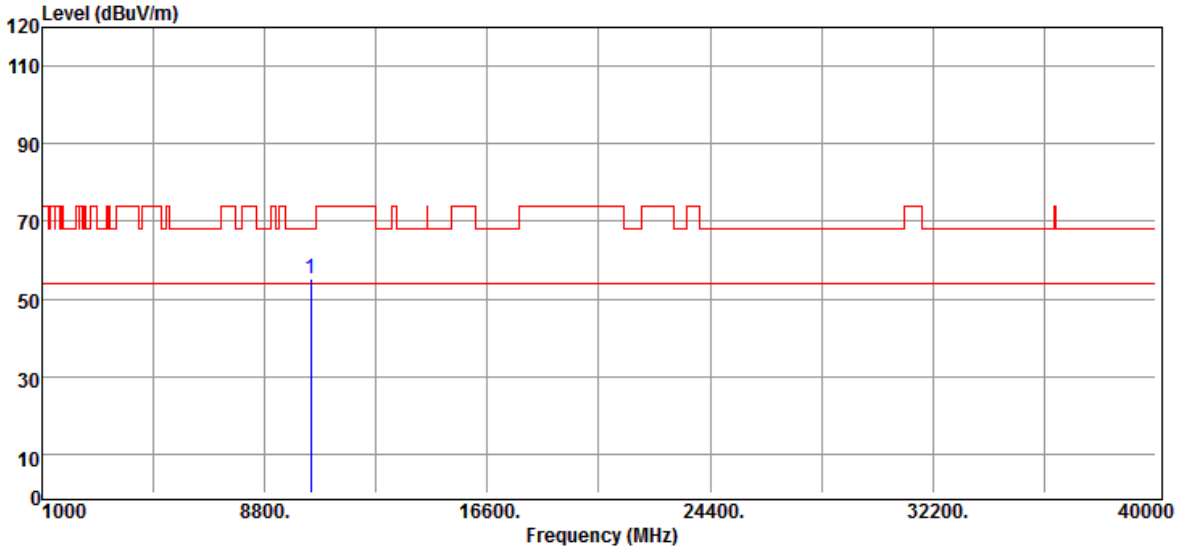
Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:21/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5795 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11590.00	Average	29.42	16.81	46.23	54.00	-7.77
11590.00	Peak	38.57	16.81	55.38	74.00	-18.62

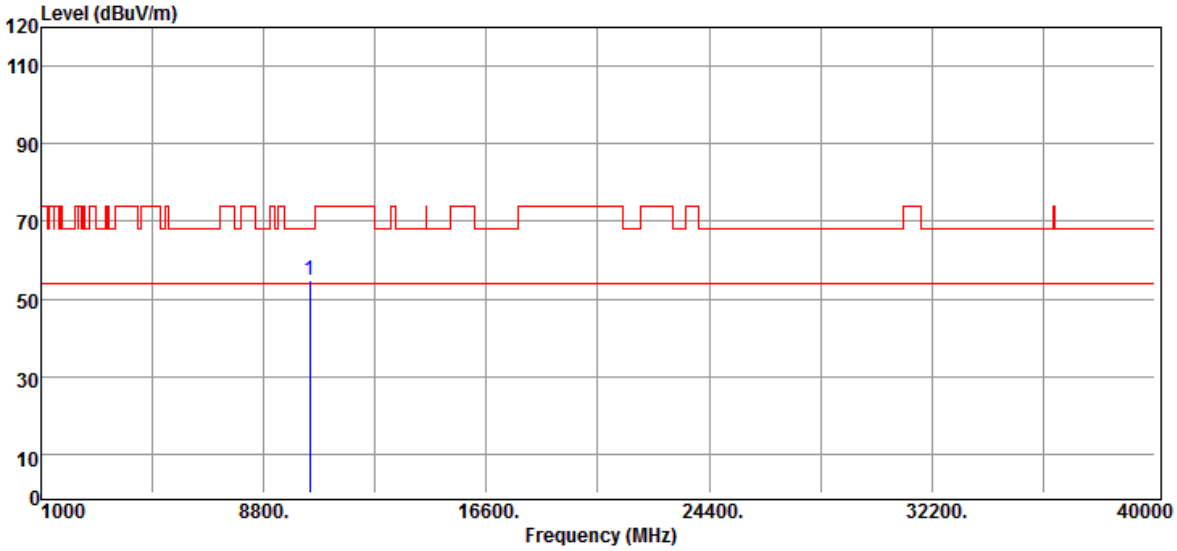
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5150~5250 MHz

Operation Mode	:802.11ac80 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5210 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10420.00	Peak	40.00	15.12	55.12	68.20	-13.08

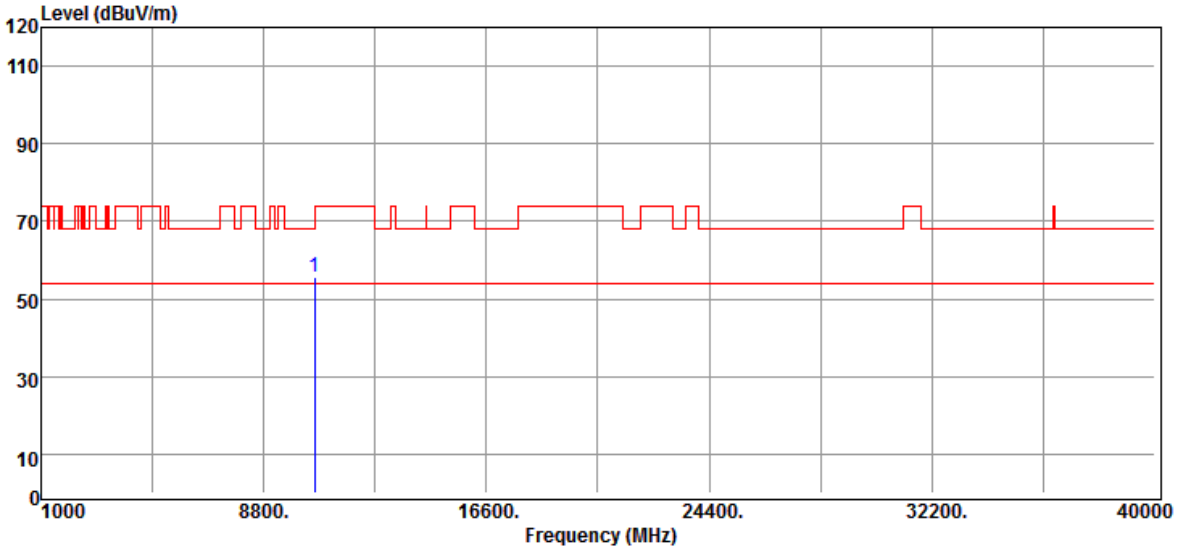
Operation Mode	:802.11ac80 / Band 1	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5210 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10420.00	Peak	39.86	15.12	54.98	68.20	-13.22

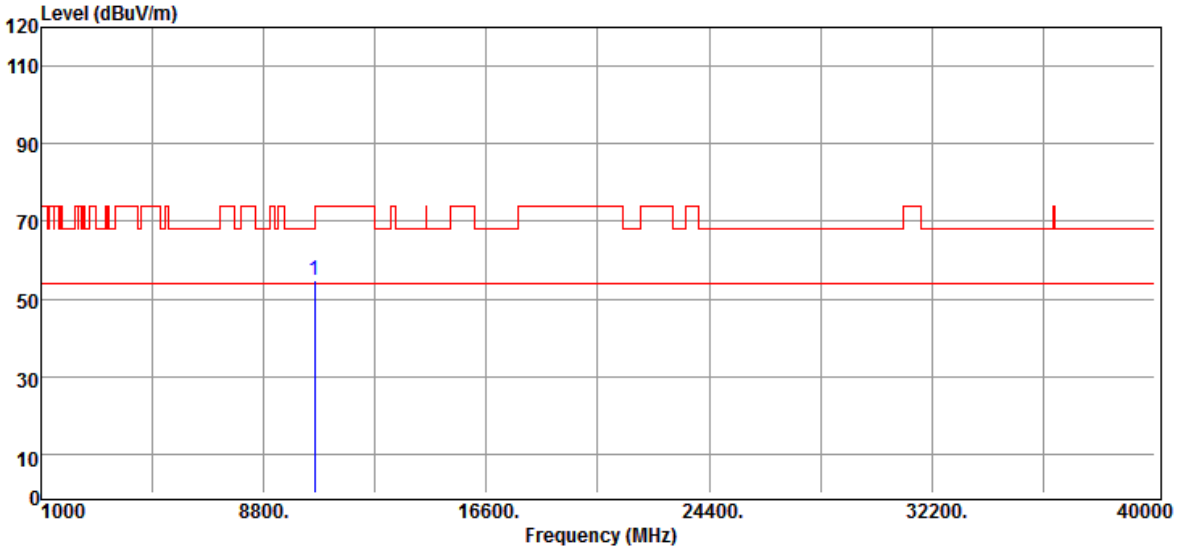
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5250~5350 MHz

Operation Mode	:802.11ac80 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5290 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10580.00	Peak	40.27	15.43	55.70	68.20	-12.50

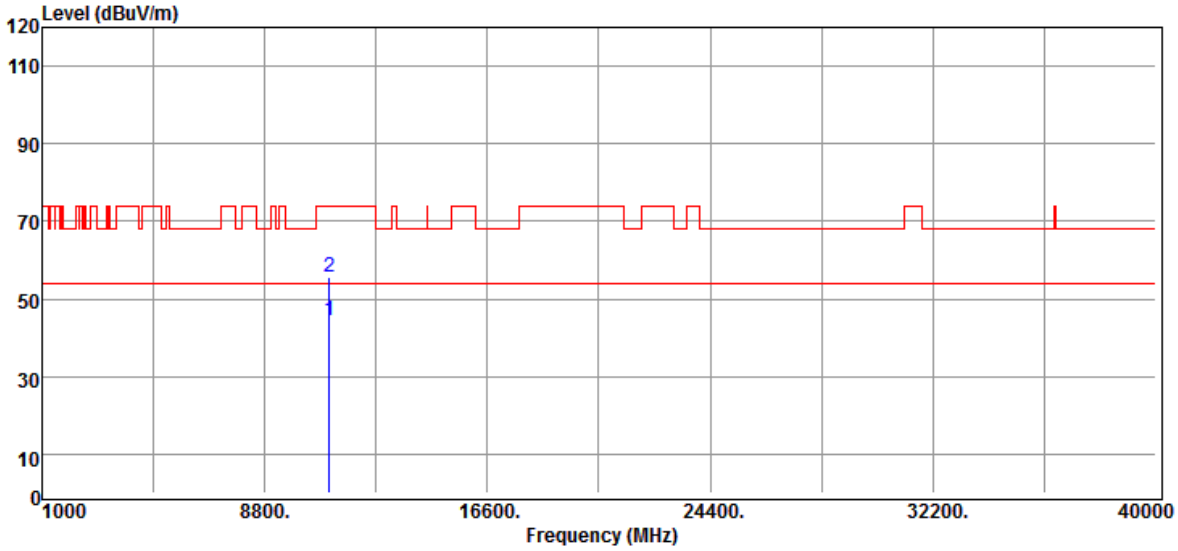
Operation Mode	:802.11ac80 / Band 2	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5290 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10580.00	Peak	39.50	15.43	54.93	68.20	-13.27

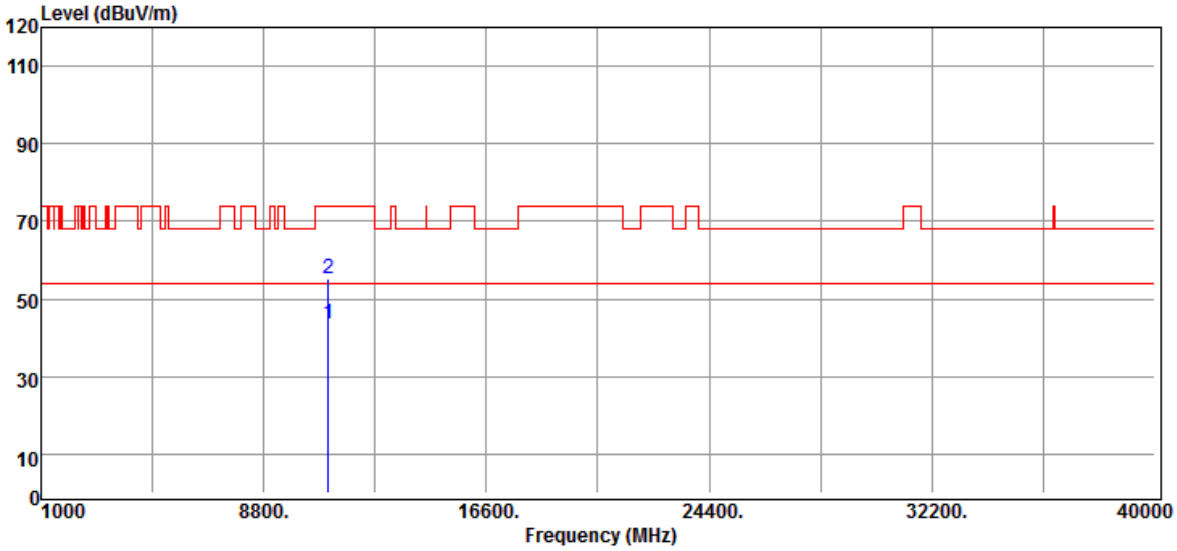
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5470~5725 MHz

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5530 MHz	Engineer	:Jerry



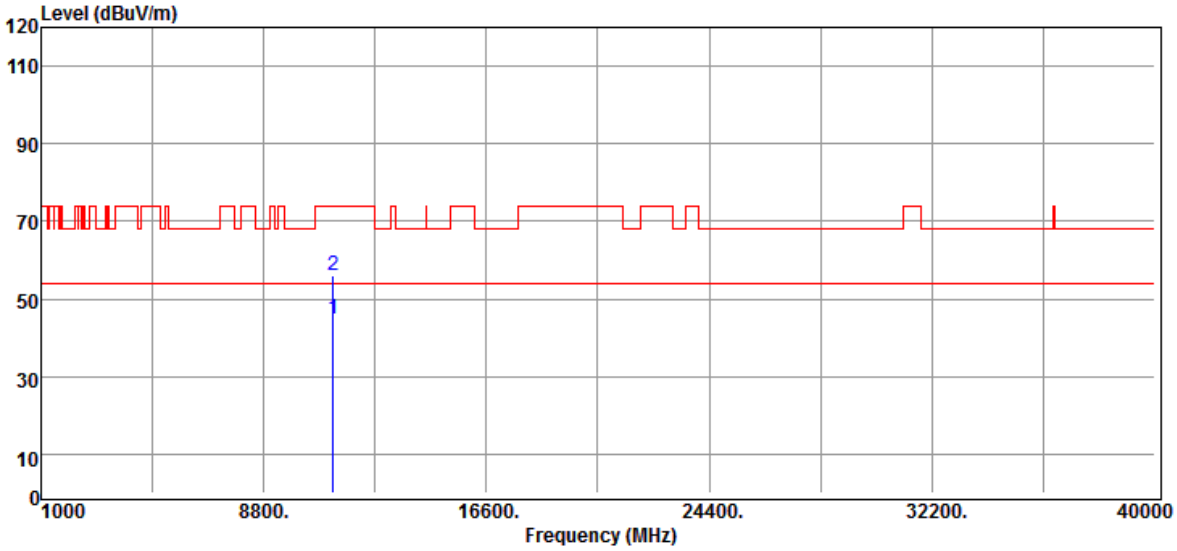
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11060.00	Average	26.92	17.50	44.42	54.00	-9.58
11060.00	Peak	38.28	17.50	55.78	74.00	-18.22

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5530 MHz	Engineer	:Jerry



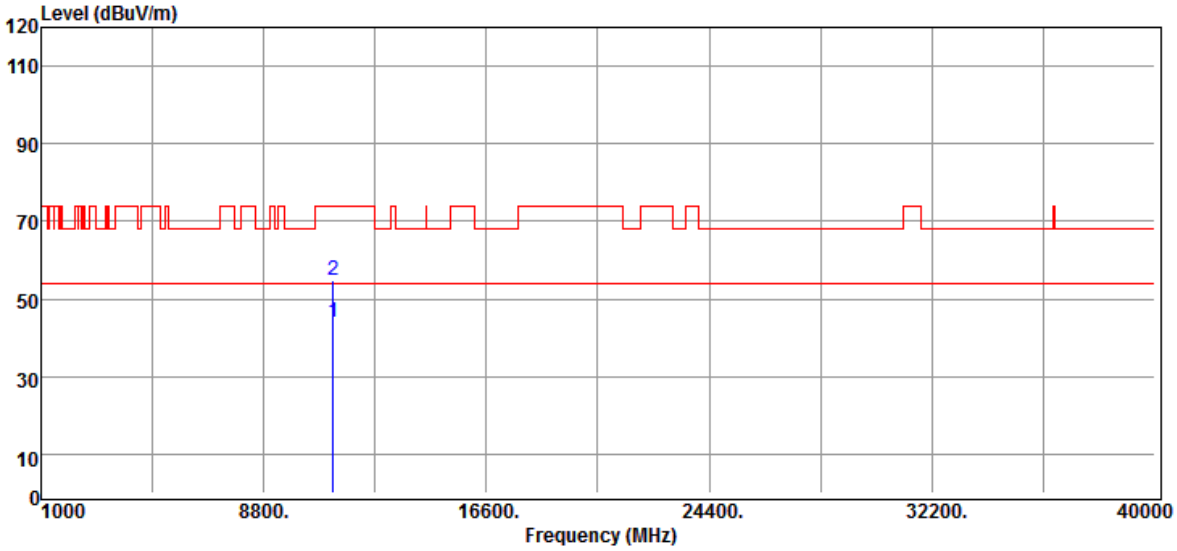
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11060.00	Average	26.12	17.50	43.62	54.00	-10.38
11060.00	Peak	37.71	17.50	55.21	74.00	-18.79

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5610 MHz	Engineer	:Jerry



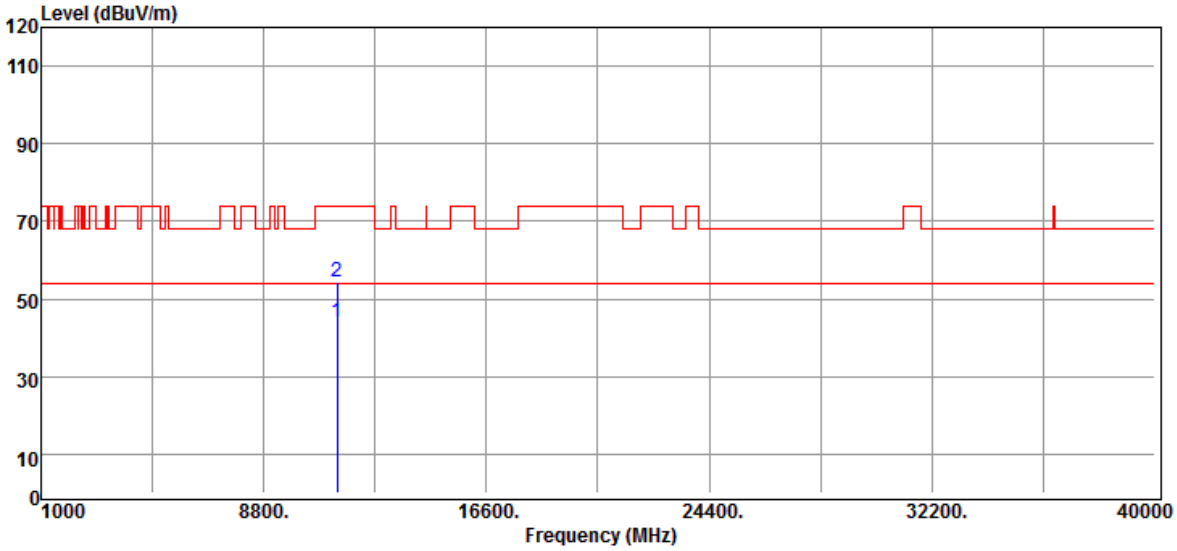
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	28.44	16.53	44.97	54.00	-9.03
11220.00	Peak	39.42	16.53	55.95	74.00	-18.05

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH MID	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5610 MHz	Engineer	:Jerry



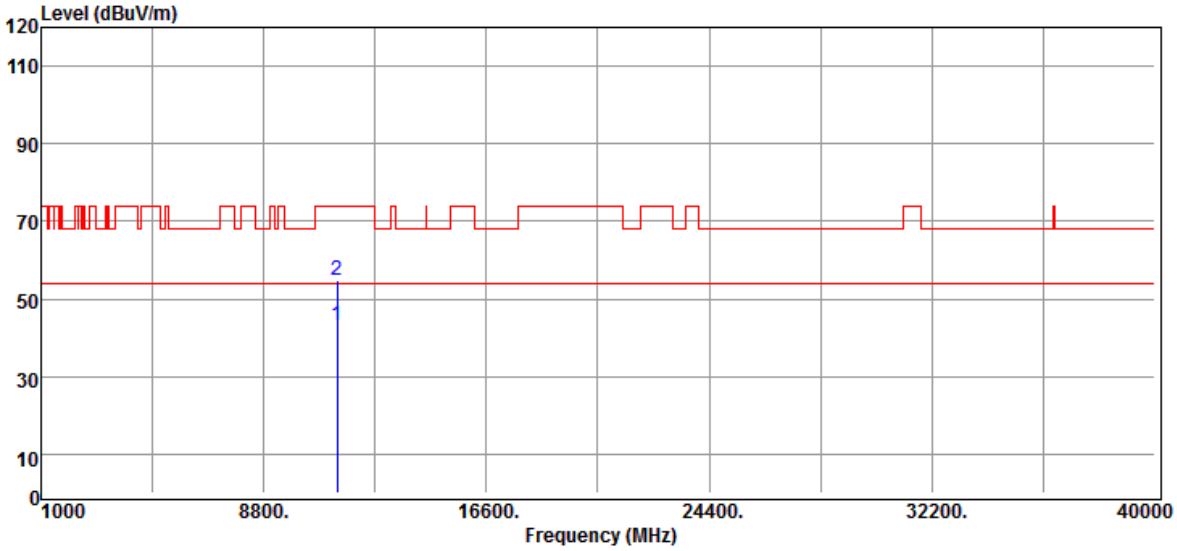
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	27.59	16.53	44.12	54.00	-9.88
11220.00	Peak	38.31	16.53	54.84	74.00	-19.16

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:21/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5690 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11380.00	Average	27.43	16.48	43.91	54.00	-10.09
11380.00	Peak	38.02	16.48	54.50	74.00	-19.50

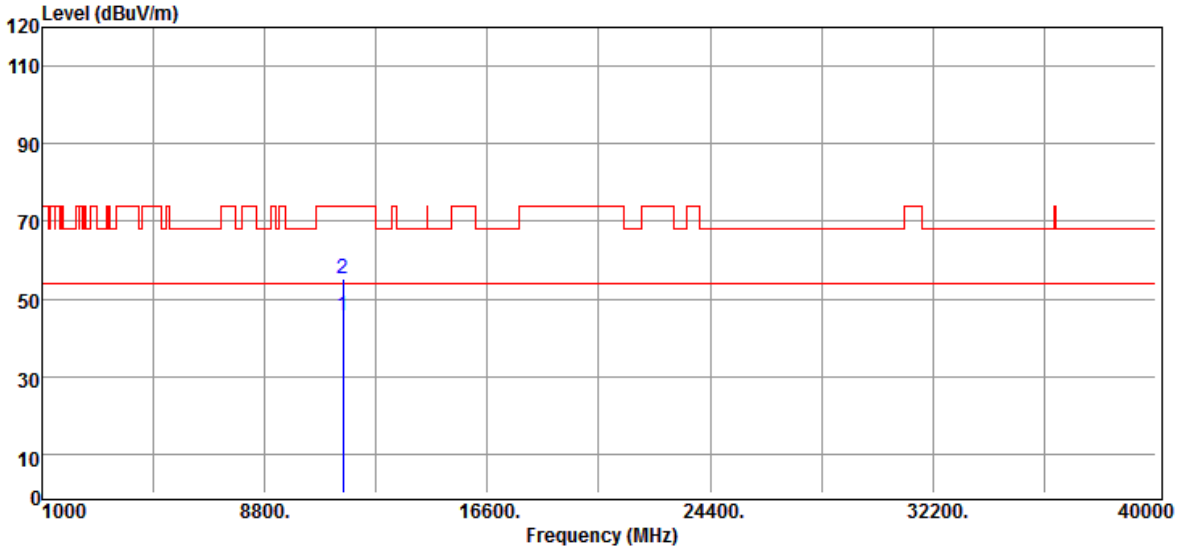
Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-12
Test Mode	:TX CH HIGH	Temp./Humi.	:21/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5690 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11380.00	Average	26.57	16.48	43.05	54.00	-10.95
11380.00	Peak	38.34	16.48	54.82	74.00	-19.18

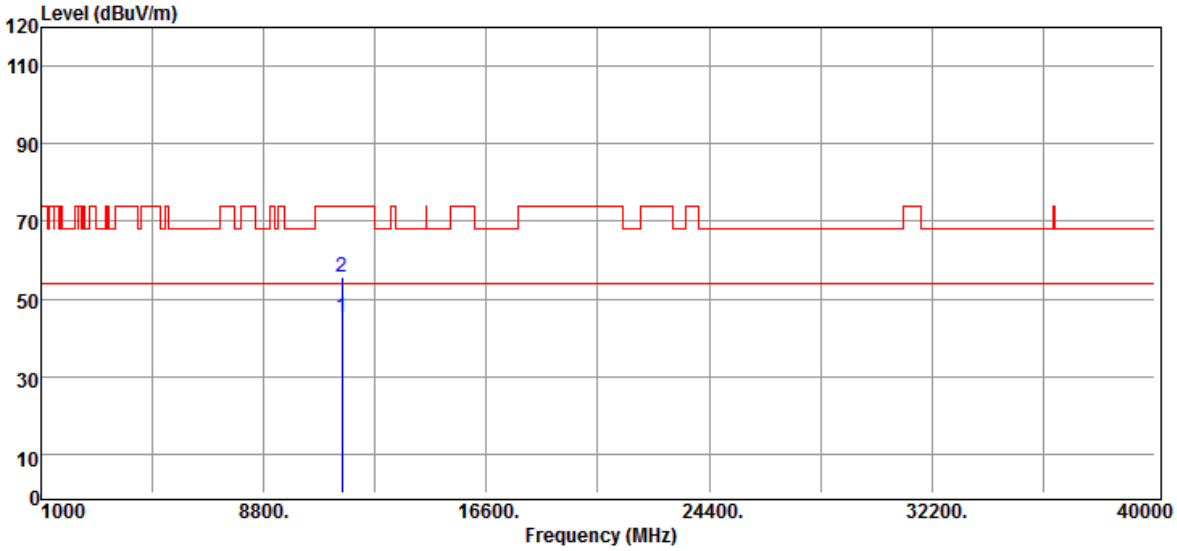
Radiated Spurious Emission Measurement Result 802.11ac VHT80, 5725~5850 MHz

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/57
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5775 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11550.00	Average	29.91	15.82	45.73	54.00	-8.27
11550.00	Peak	39.45	15.82	55.27	74.00	-18.73

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-12
Test Mode	:TX CH LOW	Temp./Humi.	:22/57
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5775 MHz	Engineer	:Jerry

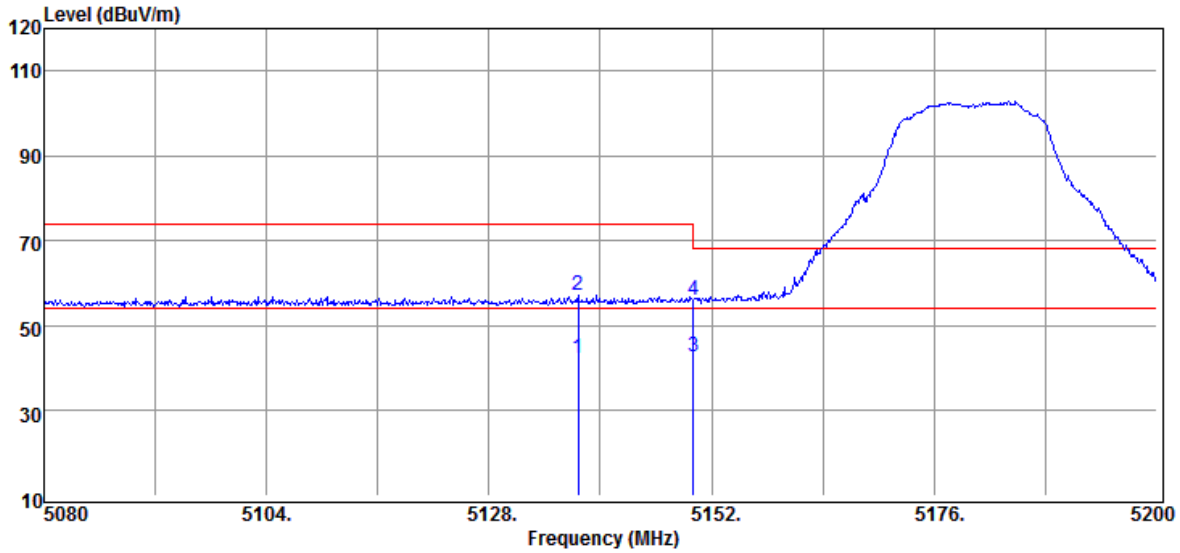


Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11550.00	Average	29.25	15.82	45.07	54.00	-8.93
11550.00	Peak	39.98	15.82	55.80	74.00	-18.20

Band edge falling to restricted band

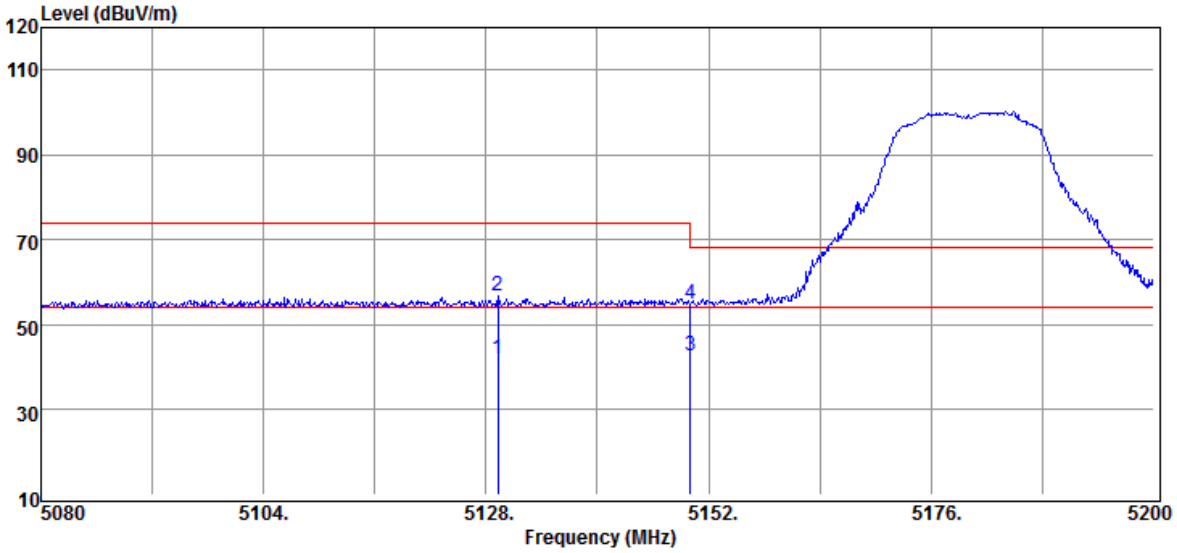
802.11a mode

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-09
Test Mode	:BE CH LOW	Temp./Humi.	:25/70
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5180 MHz	Engineer	:Enzo



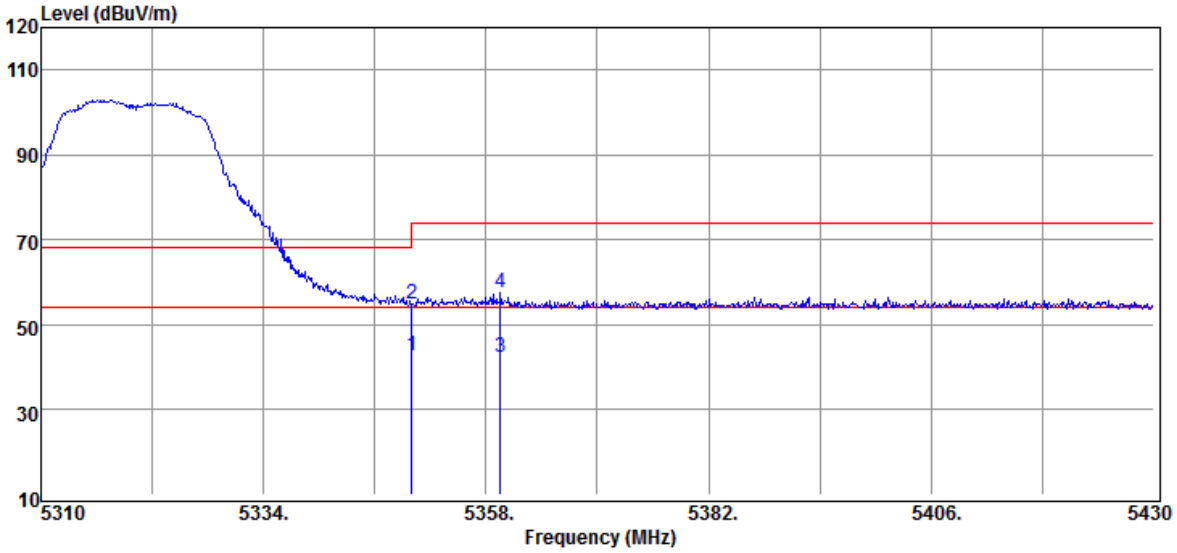
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5137.60	Average	37.67	4.58	42.25	54.00	-11.75
5137.60	Peak	52.77	4.58	57.35	74.00	-16.65
5150.00	Average	38.07	4.55	42.62	54.00	-11.38
5150.00	Peak	51.34	4.55	55.89	68.20	-12.31

Operation Mode	:802.11a / Band 1	Test Date	:2019-03-09
Test Mode	:BE CH LOW	Temp./Humi.	:25/70
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5180 MHz	Engineer	:Enzo



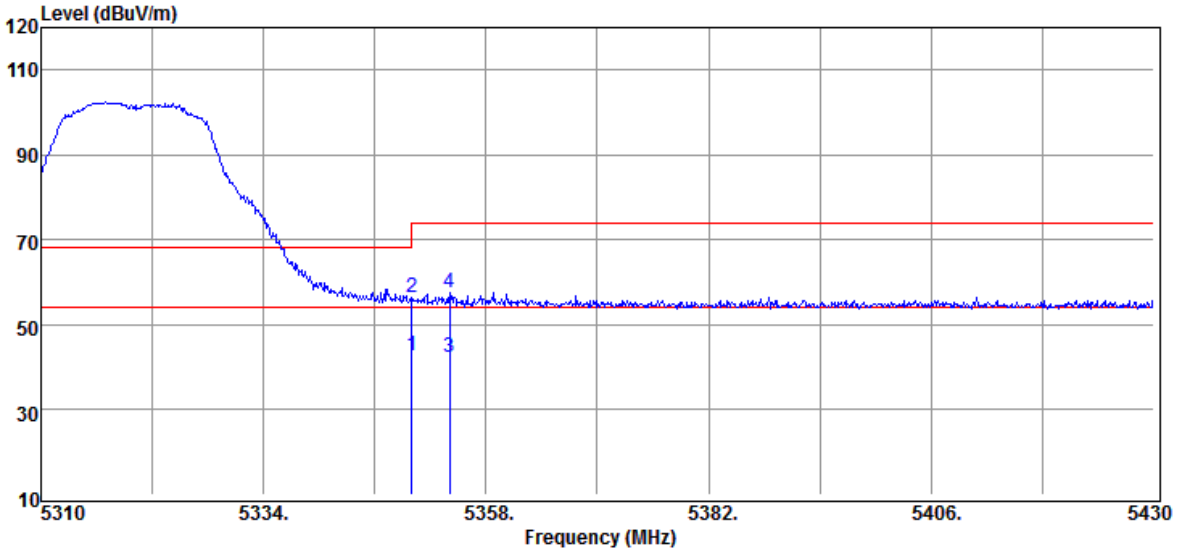
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5129.32	Average	37.27	4.65	41.92	54.00	-12.08
5129.32	Peak	52.05	4.65	56.70	74.00	-17.30
5150.00	Average	38.33	4.55	42.88	54.00	-11.12
5150.00	Peak	50.18	4.55	54.73	68.20	-13.47

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-09
Test Mode	:BE CH HIGH	Temp./Humi.	:25/70
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5320 MHz	Engineer	:Enzo



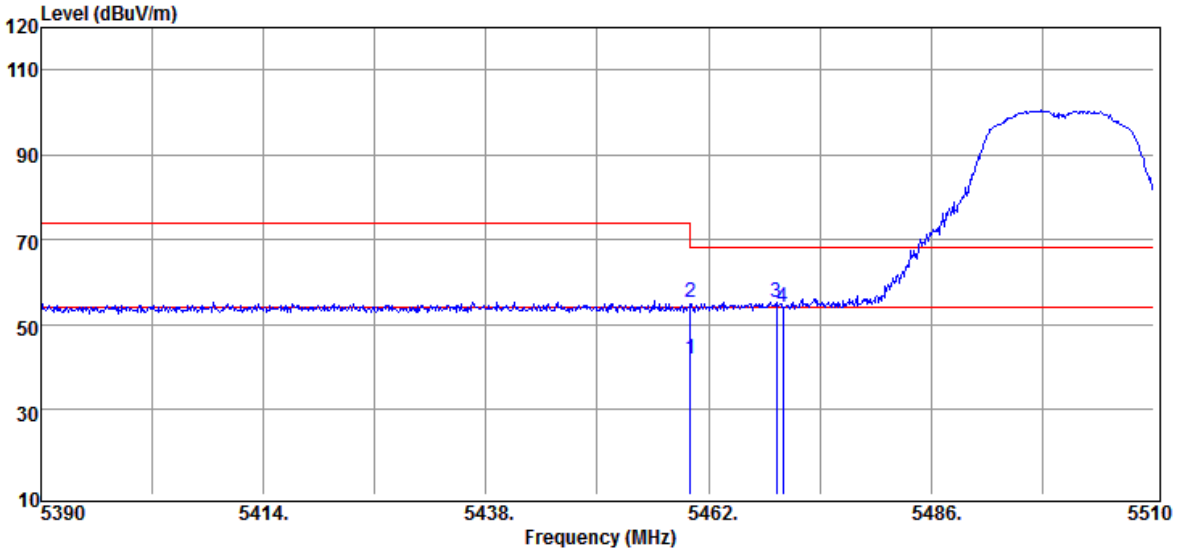
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	37.52	5.19	42.71	54.00	-11.29
5350.00	Peak	49.69	5.19	54.88	68.20	-13.32
5359.56	Average	37.05	5.22	42.27	54.00	-11.73
5359.56	Peak	52.24	5.22	57.46	74.00	-16.54

Operation Mode	:802.11a / Band 2	Test Date	:2019-03-09
Test Mode	:BE CH HIGH	Temp./Humi.	:25/70
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5320 MHz	Engineer	:Enzo



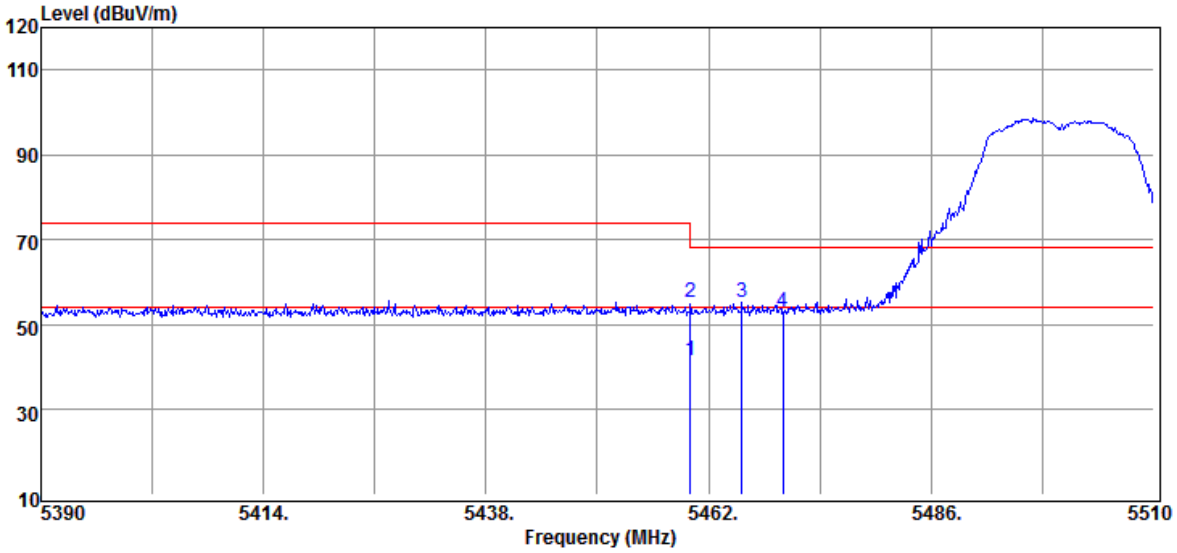
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	37.61	5.19	42.80	54.00	-11.20
5350.00	Peak	51.09	5.19	56.28	68.20	-11.92
5354.04	Average	37.25	5.20	42.45	54.00	-11.55
5354.04	Peak	52.50	5.20	57.70	74.00	-16.30

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5500 MHz	Engineer	:Jerry



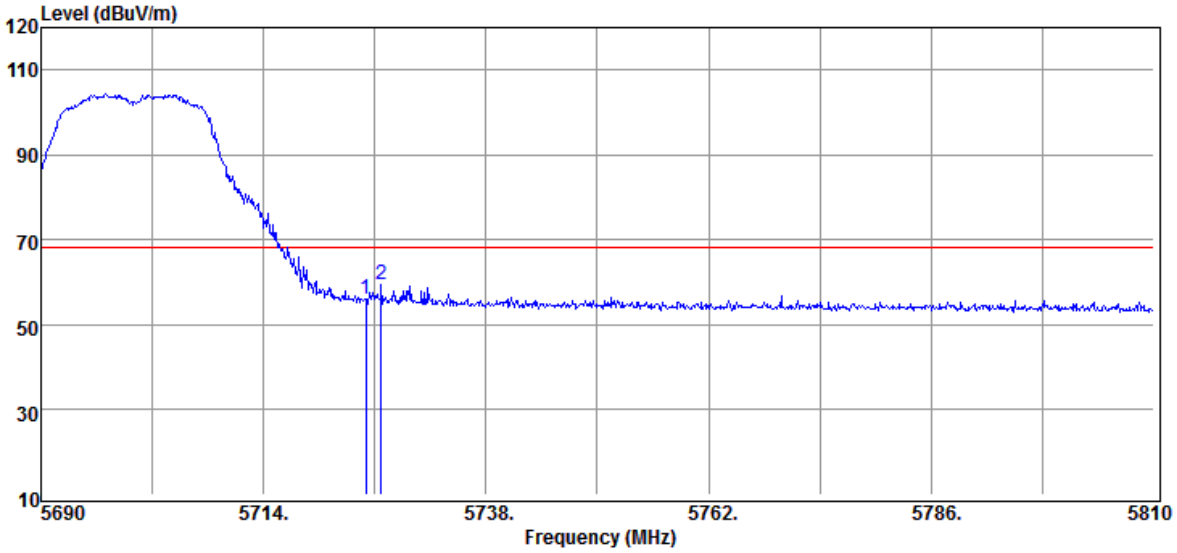
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.62	5.54	42.16	54.00	-11.84
5460.00	Peak	49.70	5.54	55.24	68.20	-12.96
5469.32	Peak	49.92	5.52	55.44	68.20	-12.76
5470.00	Peak	48.73	5.52	54.25	68.20	-13.95

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5500 MHz	Engineer	:Jerry



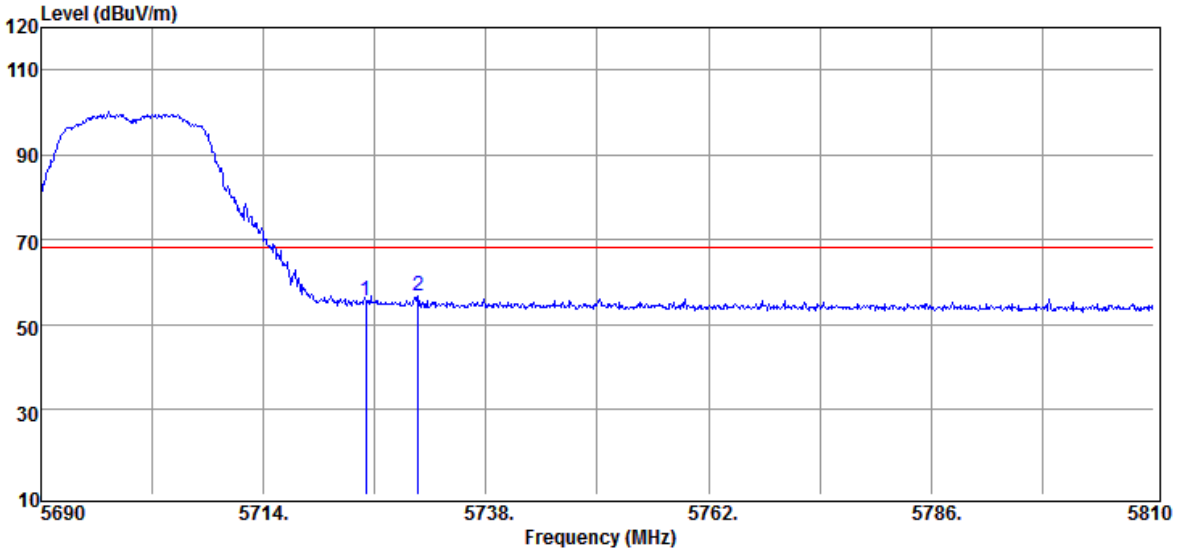
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.13	5.54	41.67	54.00	-12.33
5460.00	Peak	49.88	5.54	55.42	68.20	-12.78
5465.60	Peak	49.85	5.52	55.37	68.20	-12.83
5470.00	Peak	47.52	5.52	53.04	68.20	-15.16

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5700 MHz	Engineer	:Jerry



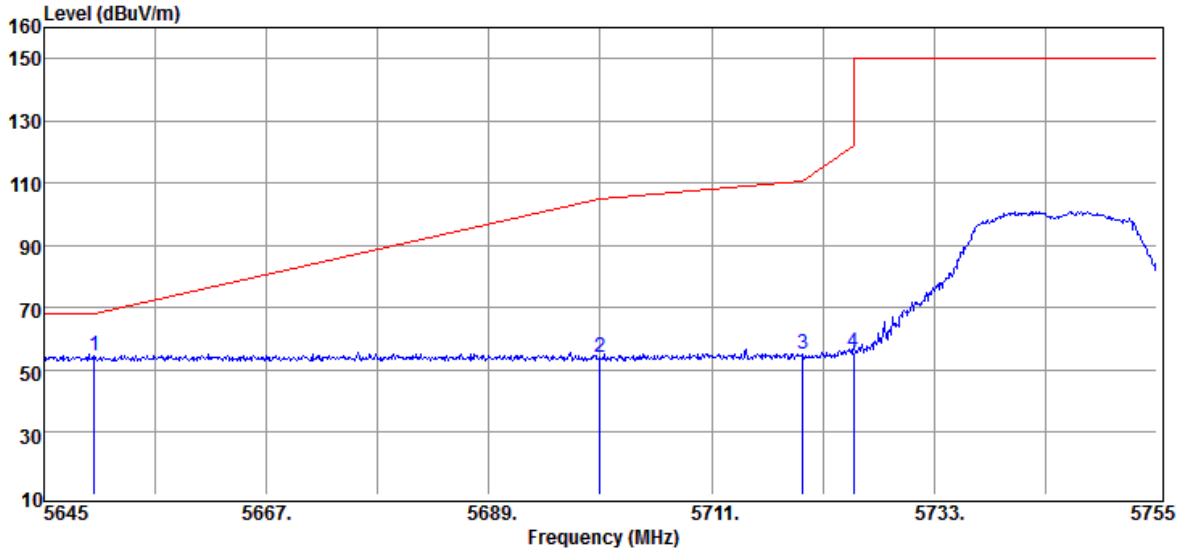
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	49.37	6.55	55.92	68.20	-12.28
5726.72	Peak	52.78	6.54	59.32	68.20	-8.88

Operation Mode	:802.11a / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5700 MHz	Engineer	:Jerry



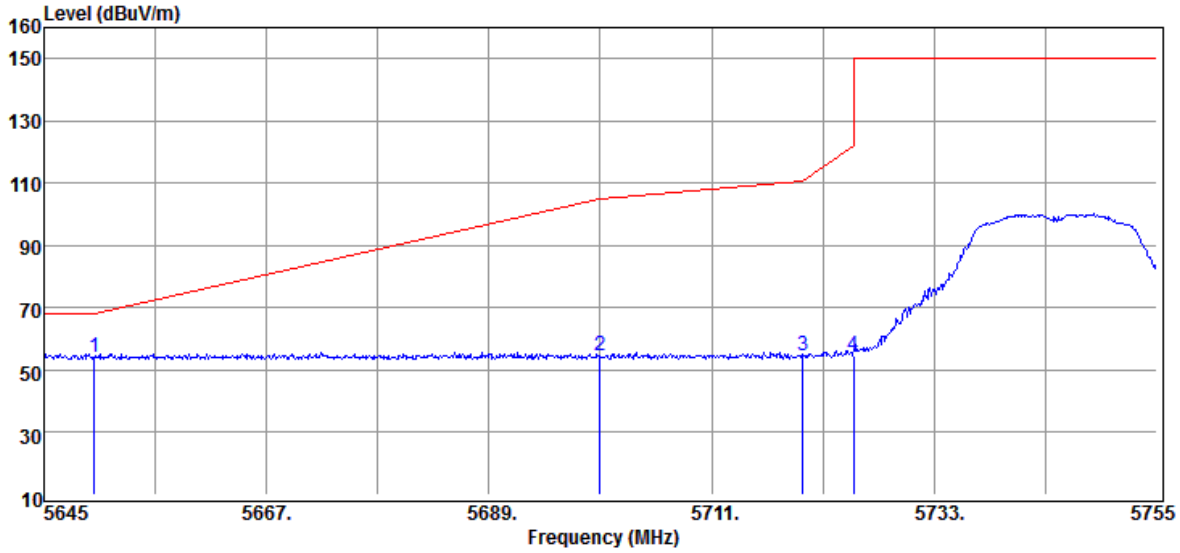
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	49.20	6.55	55.75	68.20	-12.45
5730.68	Peak	50.38	6.53	56.91	68.20	-11.29

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5745 MHz	Engineer	:Jerry



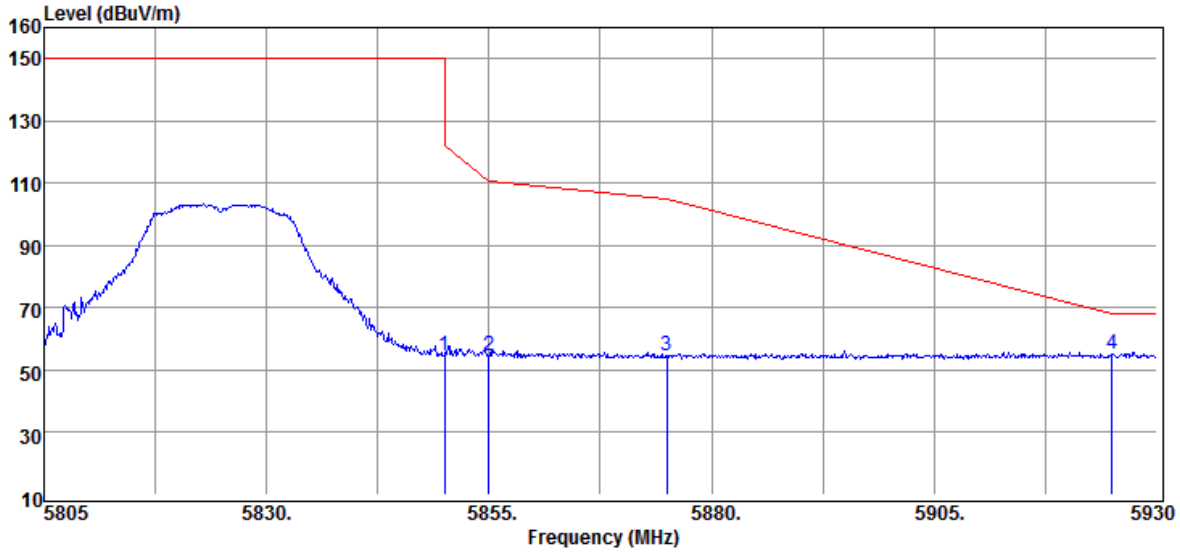
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.80	5.91	54.71	68.20	-13.49
5700.00	Peak	47.66	6.43	54.09	105.20	-51.11
5720.00	Peak	48.58	6.55	55.13	110.80	-55.67
5725.00	Peak	49.27	6.55	55.82	122.20	-66.38

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5745 MHz	Engineer	:Jerry



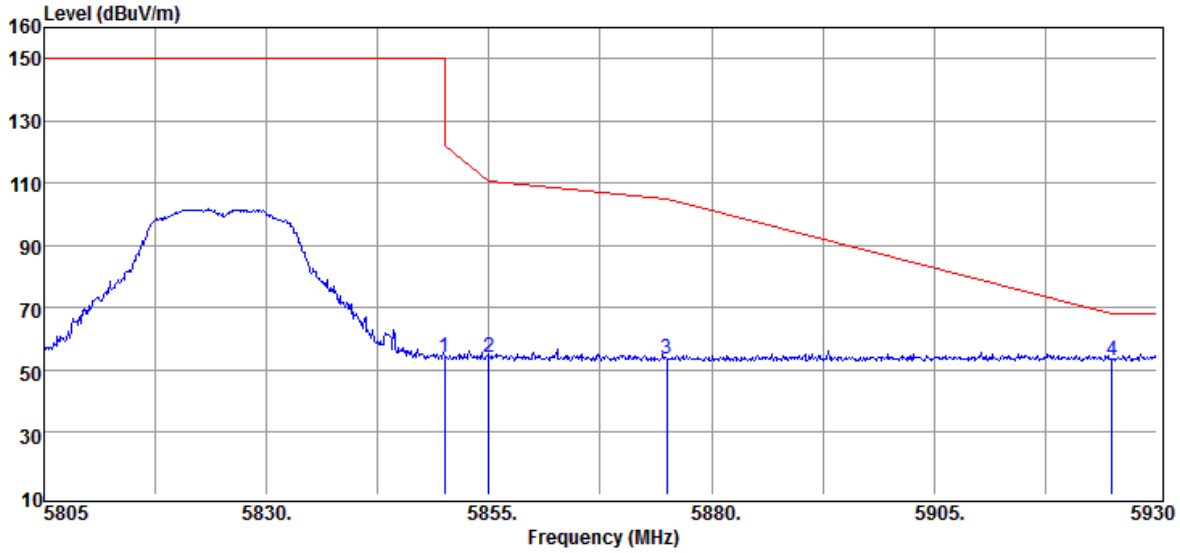
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.21	5.91	54.12	68.20	-14.08
5700.00	Peak	48.37	6.43	54.80	105.20	-50.40
5720.00	Peak	48.12	6.55	54.67	110.80	-56.13
5725.00	Peak	48.25	6.55	54.80	122.20	-67.40

Operation Mode	:802.11a / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	48.47	6.41	54.88	122.20	-67.32
5855.00	Peak	48.38	6.43	54.81	110.80	-55.99
5875.00	Peak	47.95	6.49	54.44	105.20	-50.76
5925.00	Peak	48.53	6.44	54.97	68.20	-13.23

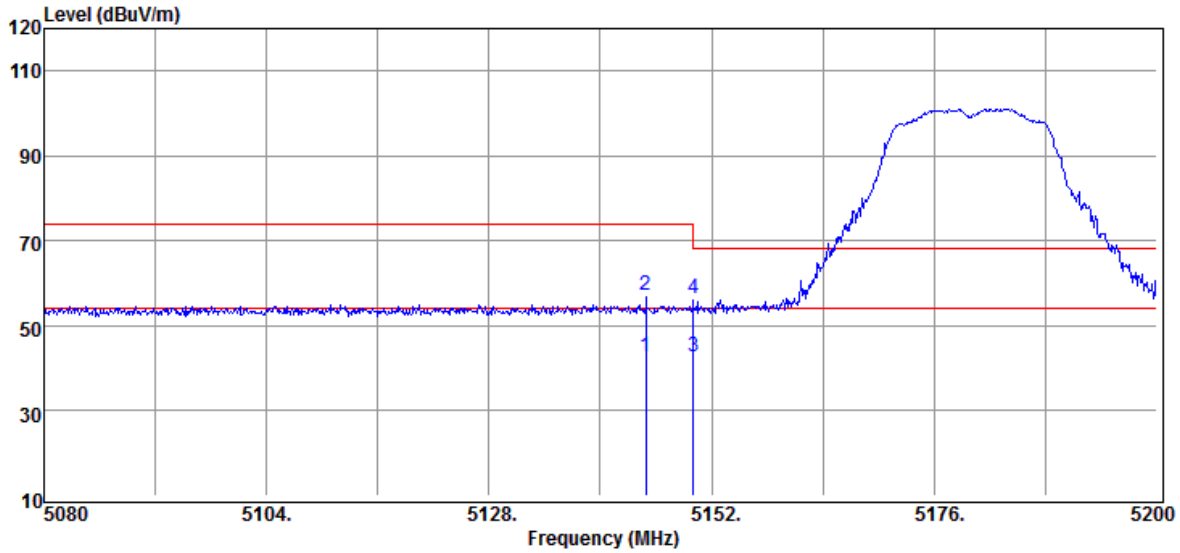
Operation Mode	:802.11a / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5850.00	Peak	47.61	6.41	54.02	122.20	-68.18
5855.00	Peak	47.79	6.43	54.22	110.80	-56.58
5875.00	Peak	47.23	6.49	53.72	105.20	-51.48
5925.00	Peak	46.79	6.44	53.23	68.20	-14.97

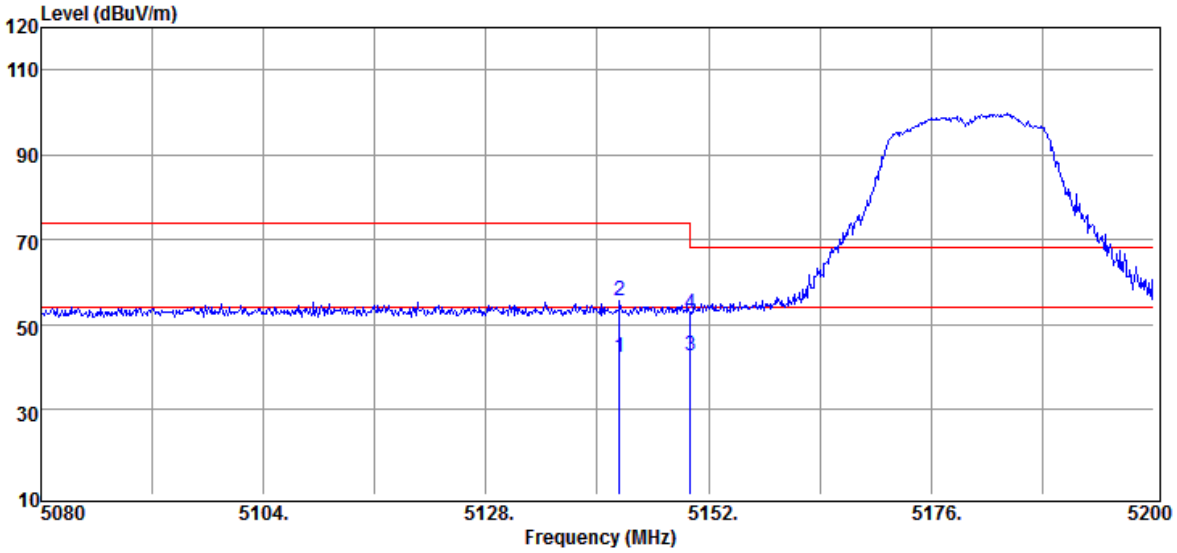
802.11n20 mode

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5180 MHz	Engineer	:Jerry



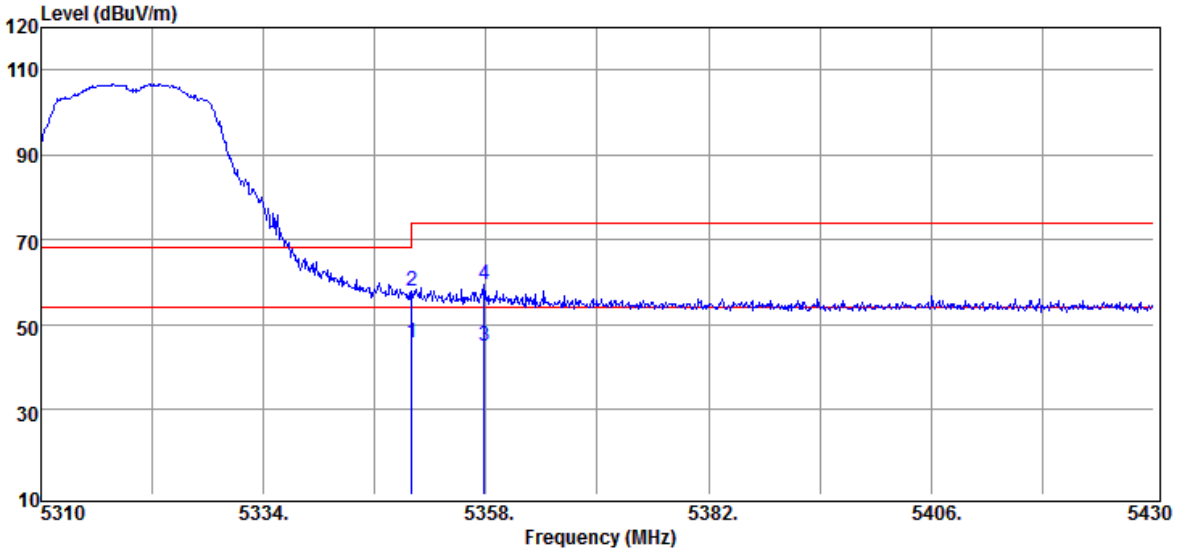
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5144.92	Average	38.11	4.55	42.66	54.00	-11.34
5144.92	Peak	52.77	4.55	57.32	74.00	-16.68
5150.00	Average	38.18	4.55	42.73	54.00	-11.27
5150.00	Peak	51.95	4.55	56.50	68.20	-11.70

Operation Mode	:802.11n20 / Band 1	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5180 MHz	Engineer	:Jerry



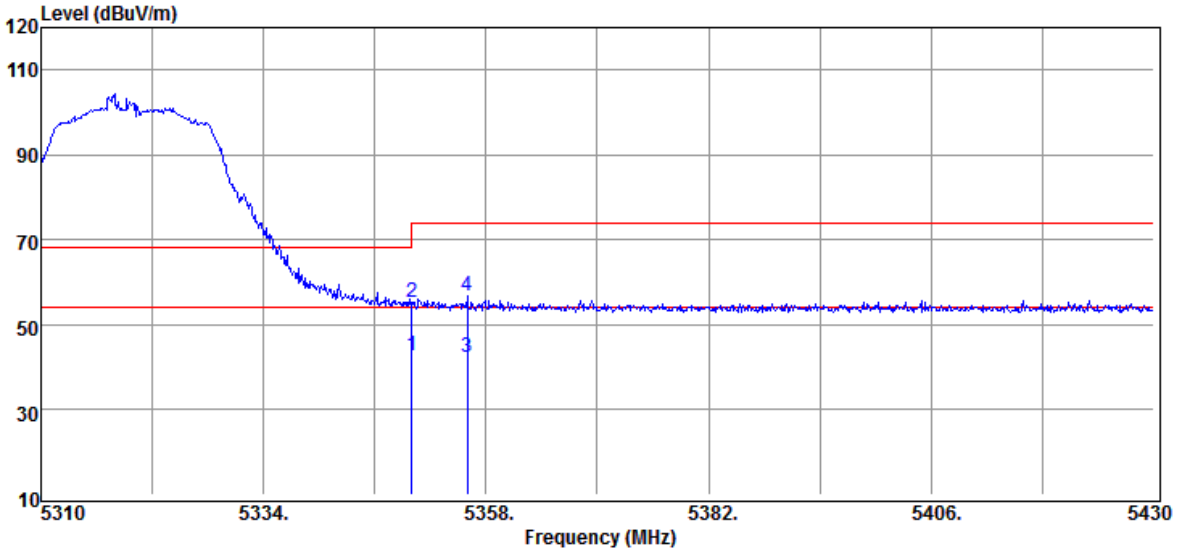
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5142.40	Average	37.82	4.55	42.37	54.00	-11.63
5142.40	Peak	51.14	4.55	55.69	74.00	-18.31
5150.00	Average	38.05	4.55	42.60	54.00	-11.40
5150.00	Peak	48.13	4.55	52.68	68.20	-15.52

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/53
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5320 MHz	Engineer	:Jerry



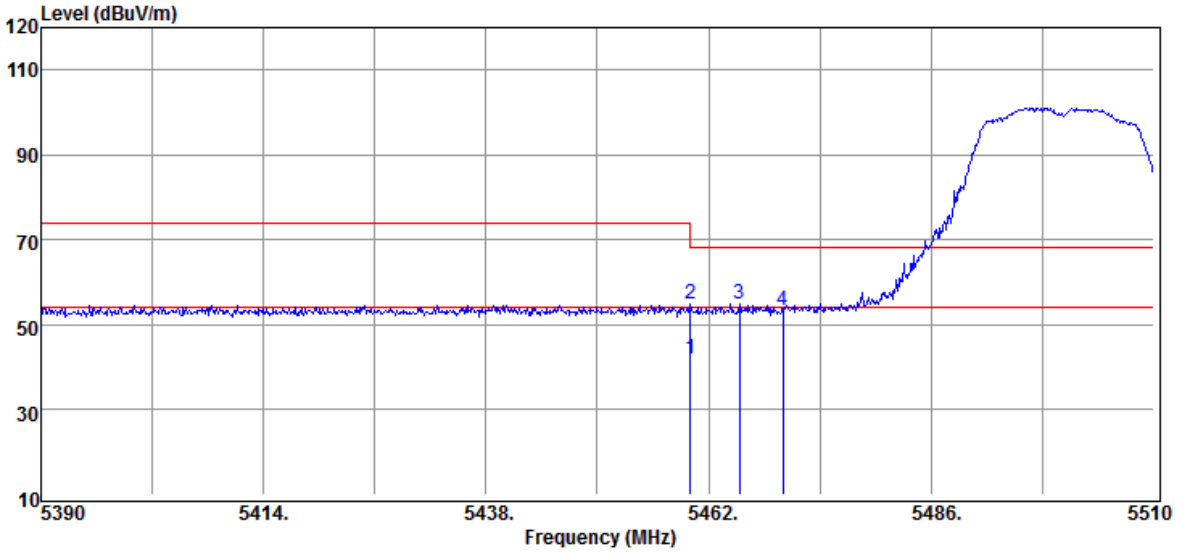
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	40.51	5.19	45.70	54.00	-8.30
5350.00	Peak	52.89	5.19	58.08	68.20	-10.12
5357.76	Average	39.99	5.21	45.20	54.00	-8.80
5357.76	Peak	54.35	5.21	59.56	74.00	-14.44

Operation Mode	:802.11n20 / Band 2	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/53
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5320 MHz	Engineer	:Jerry



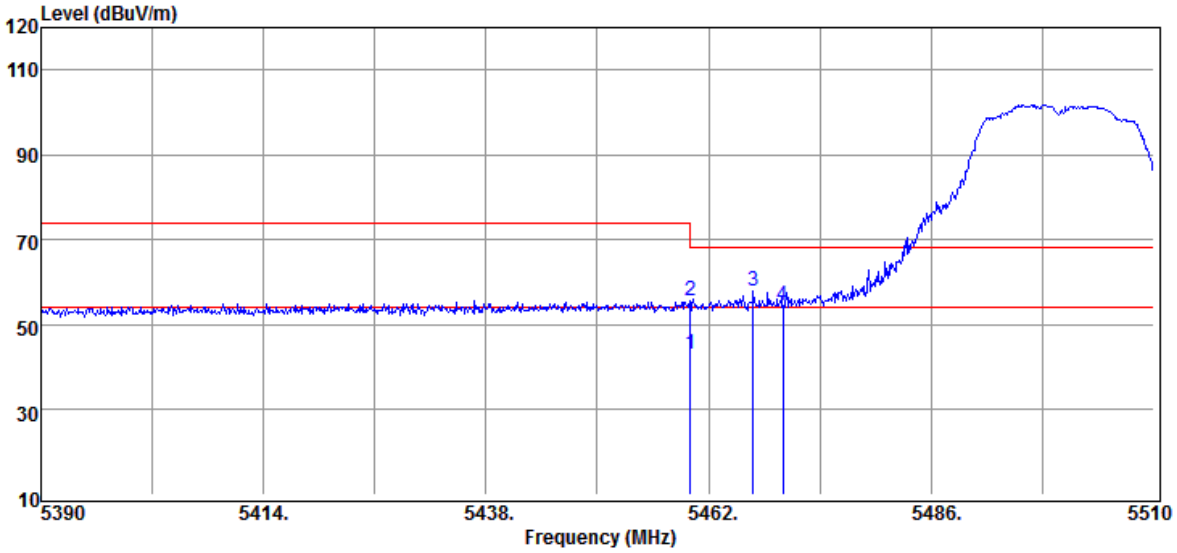
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	37.51	5.19	42.70	54.00	-11.30
5350.00	Peak	49.92	5.19	55.11	68.20	-13.09
5355.96	Average	37.25	5.21	42.46	54.00	-11.54
5355.96	Peak	51.72	5.21	56.93	74.00	-17.07

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5500 MHz	Engineer	:Jerry



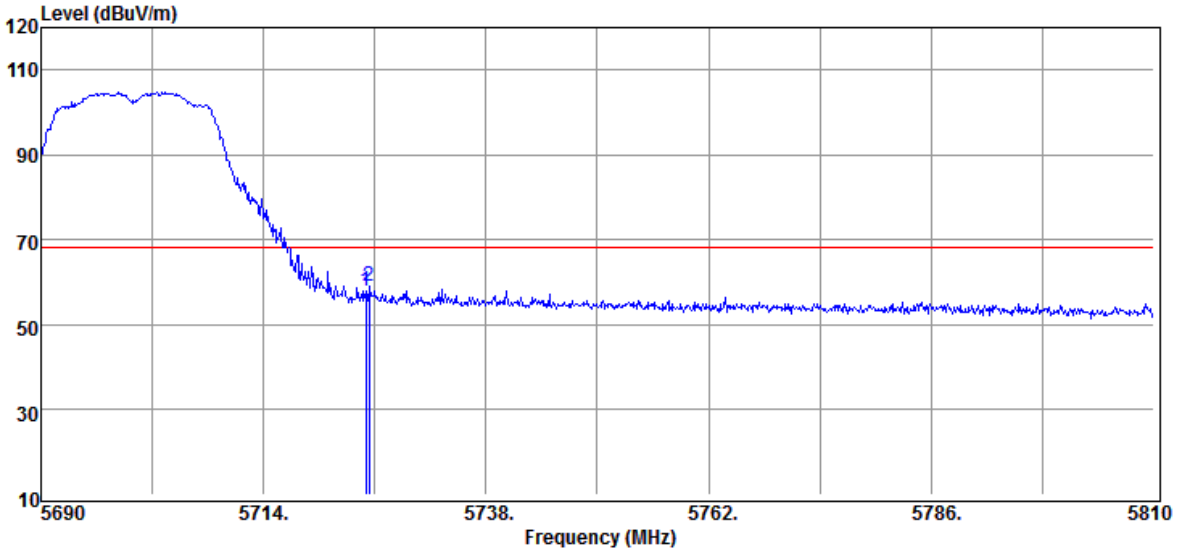
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.40	5.54	41.94	54.00	-12.06
5460.00	Peak	49.29	5.54	54.83	68.20	-13.37
5465.36	Peak	49.42	5.52	54.94	68.20	-13.26
5470.00	Peak	47.97	5.52	53.49	68.20	-14.71

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5500 MHz	Engineer	:Jerry



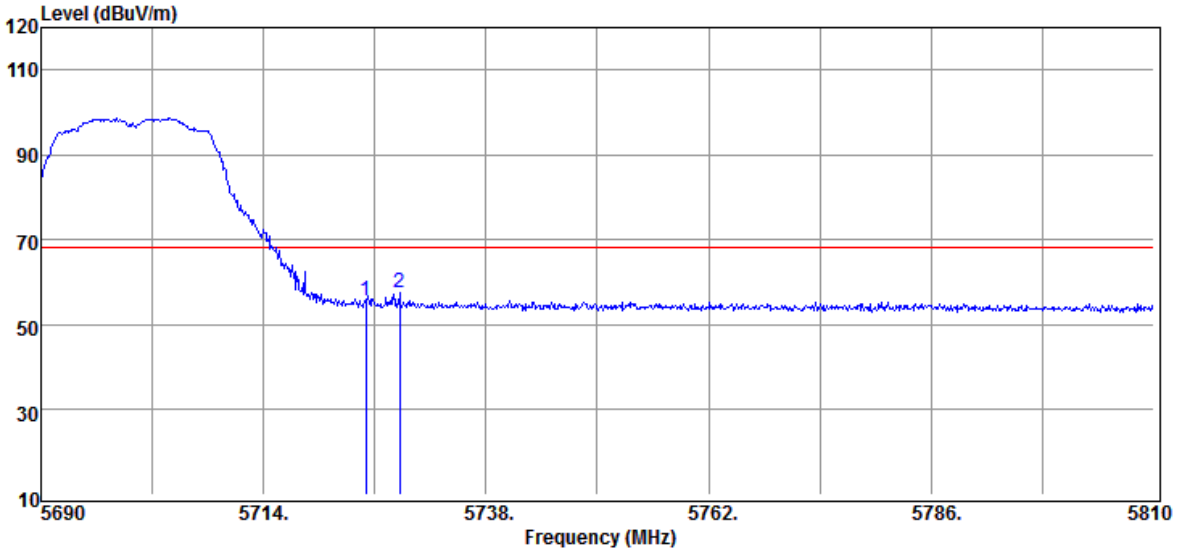
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	37.47	5.54	43.01	54.00	-10.99
5460.00	Peak	50.25	5.54	55.79	68.20	-12.41
5466.80	Peak	52.37	5.53	57.90	68.20	-10.30
5470.00	Peak	48.91	5.52	54.43	68.20	-13.77

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5700 MHz	Engineer	:Jerry



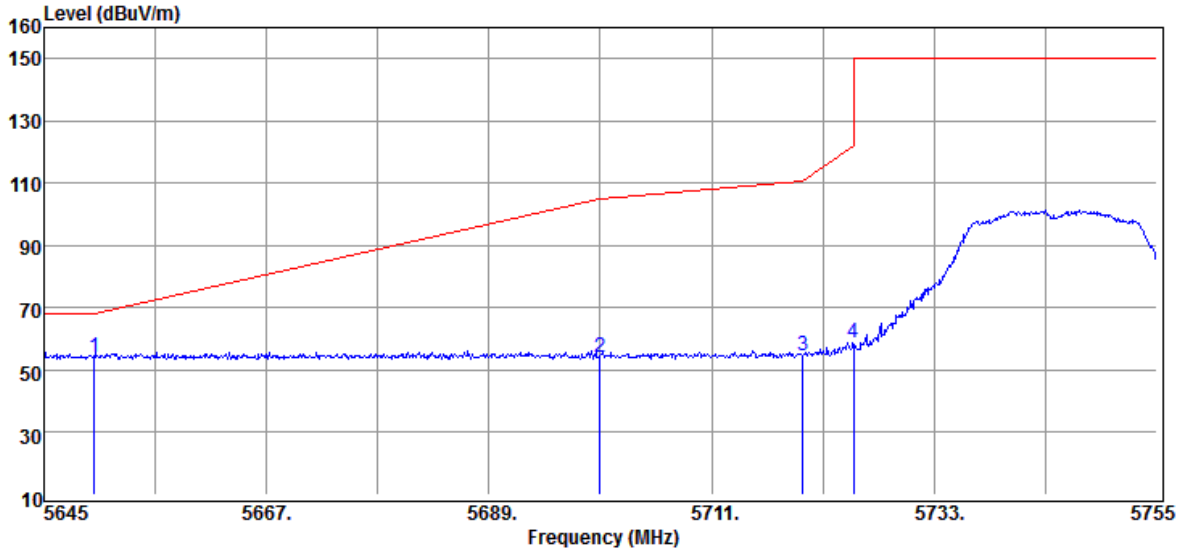
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	51.50	6.55	58.05	68.20	-10.15
5725.40	Peak	52.57	6.55	59.12	68.20	-9.08

Operation Mode	:802.11n20 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5700 MHz	Engineer	:Jerry



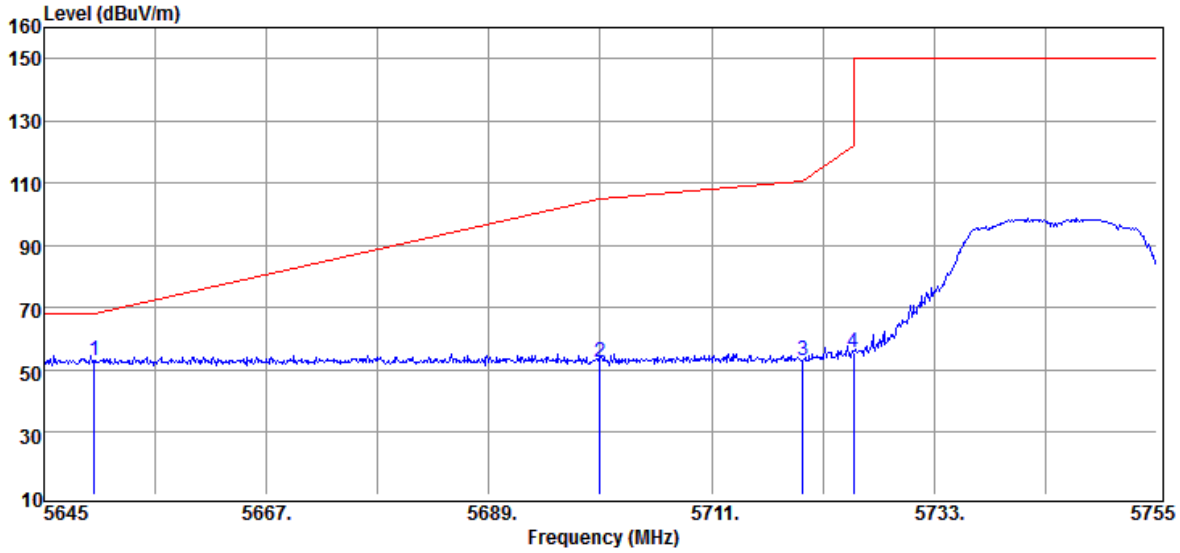
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	49.17	6.55	55.72	68.20	-12.48
5728.64	Peak	51.00	6.54	57.54	68.20	-10.66

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5745 MHz	Engineer	:Jerry



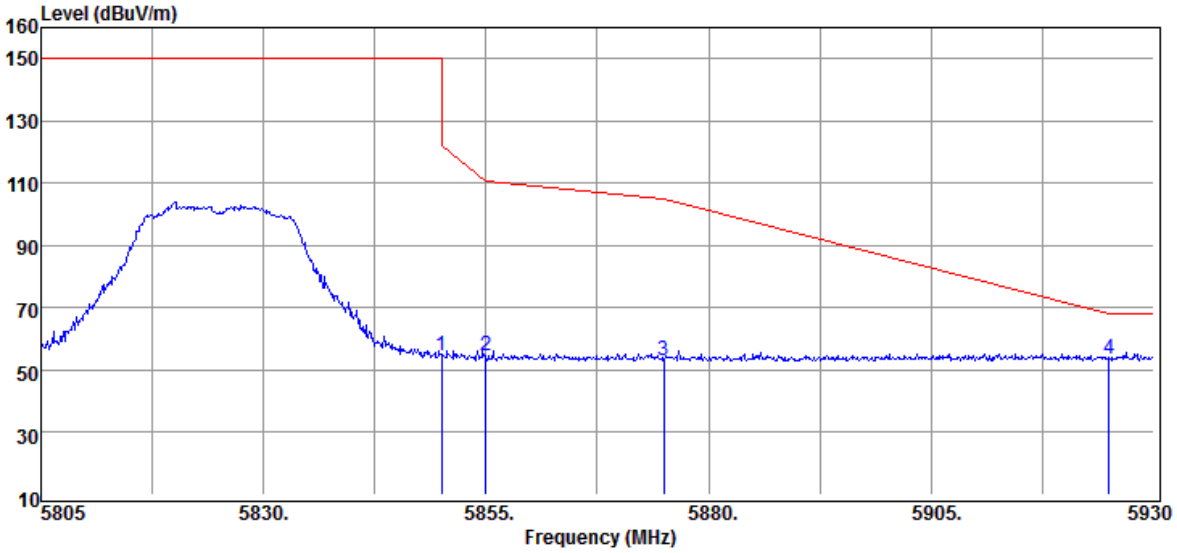
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.41	5.91	54.32	68.20	-13.88
5700.00	Peak	47.88	6.43	54.31	105.20	-50.89
5720.00	Peak	48.18	6.55	54.73	110.80	-56.07
5725.00	Peak	52.09	6.55	58.64	122.20	-63.56

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5745 MHz	Engineer	:Jerry



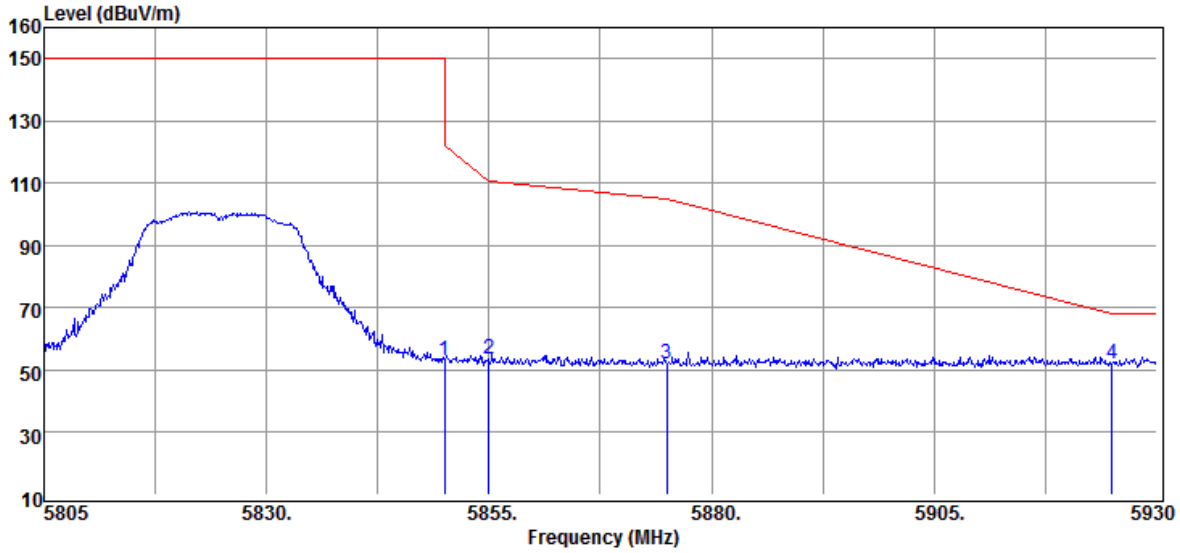
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	47.05	5.91	52.96	68.20	-15.24
5700.00	Peak	46.31	6.43	52.74	105.20	-52.46
5720.00	Peak	46.60	6.55	53.15	110.80	-57.65
5725.00	Peak	49.33	6.55	55.88	122.20	-66.32

Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	48.10	6.41	54.51	122.20	-67.69
5855.00	Peak	48.09	6.43	54.52	110.80	-56.28
5875.00	Peak	46.83	6.49	53.32	105.20	-51.88
5925.00	Peak	47.40	6.44	53.84	68.20	-14.36

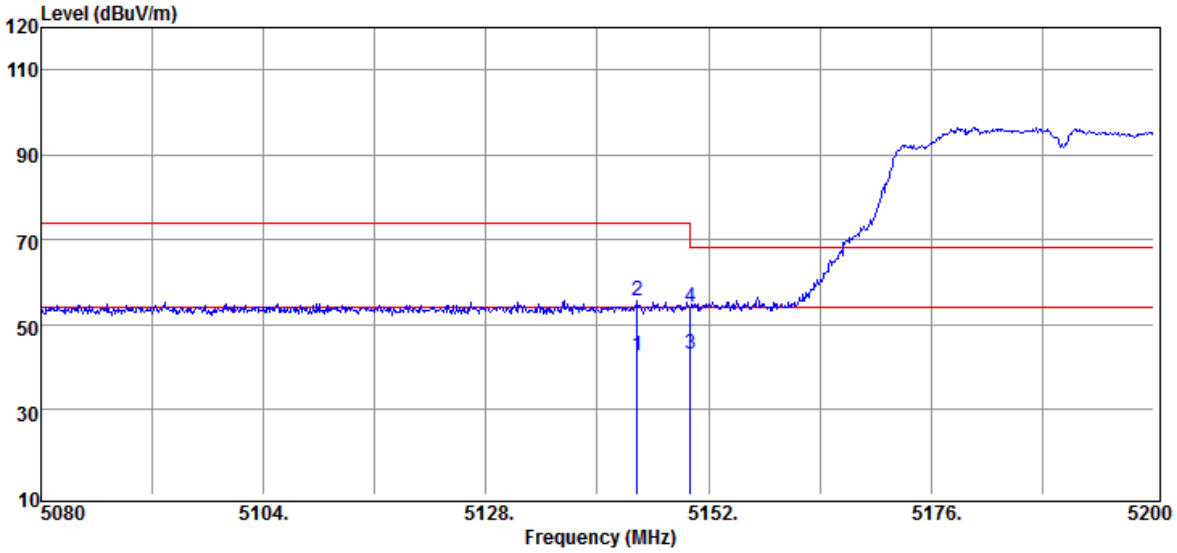
Operation Mode	:802.11n20 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/54
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5825 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	46.77	6.41	53.18	122.20	-69.02
5855.00	Peak	47.42	6.43	53.85	110.80	-56.95
5875.00	Peak	45.32	6.49	51.81	105.20	-53.39
5925.00	Peak	45.49	6.44	51.93	68.20	-16.27

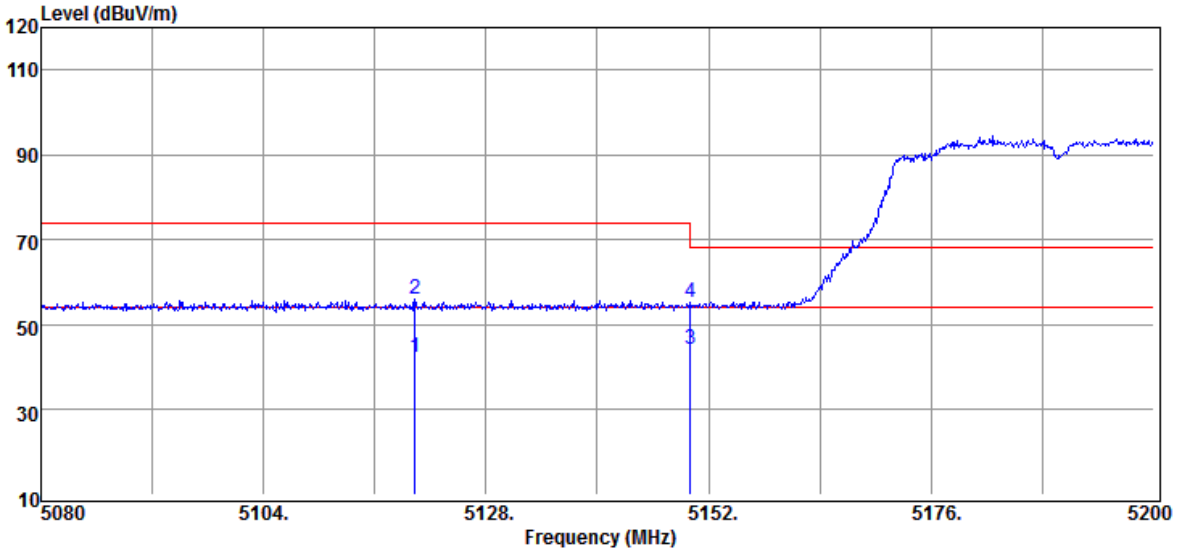
802.11n40 mode

Operation Mode	:802.11n40 / Band 1	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/53
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5190 MHz	Engineer	:Jerry



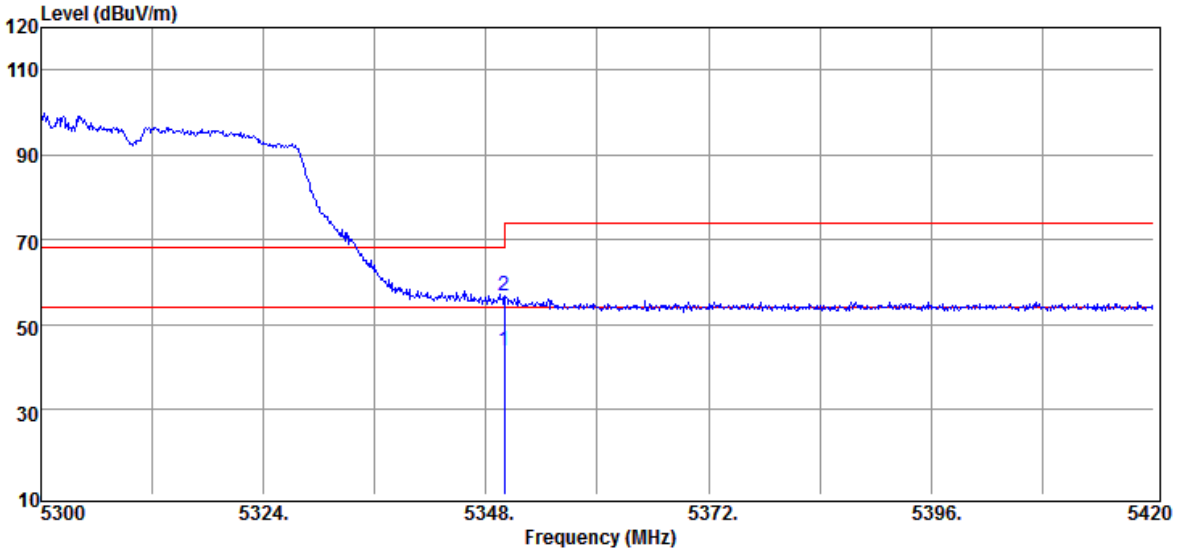
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5144.32	Average	38.18	4.55	42.73	54.00	-11.27
5144.32	Peak	51.19	4.55	55.74	74.00	-18.26
5150.00	Average	38.60	4.55	43.15	54.00	-10.85
5150.00	Peak	49.56	4.55	54.11	68.20	-14.09

Operation Mode	:802.11n40 / Band 1	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/53
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5190 MHz	Engineer	:Jerry



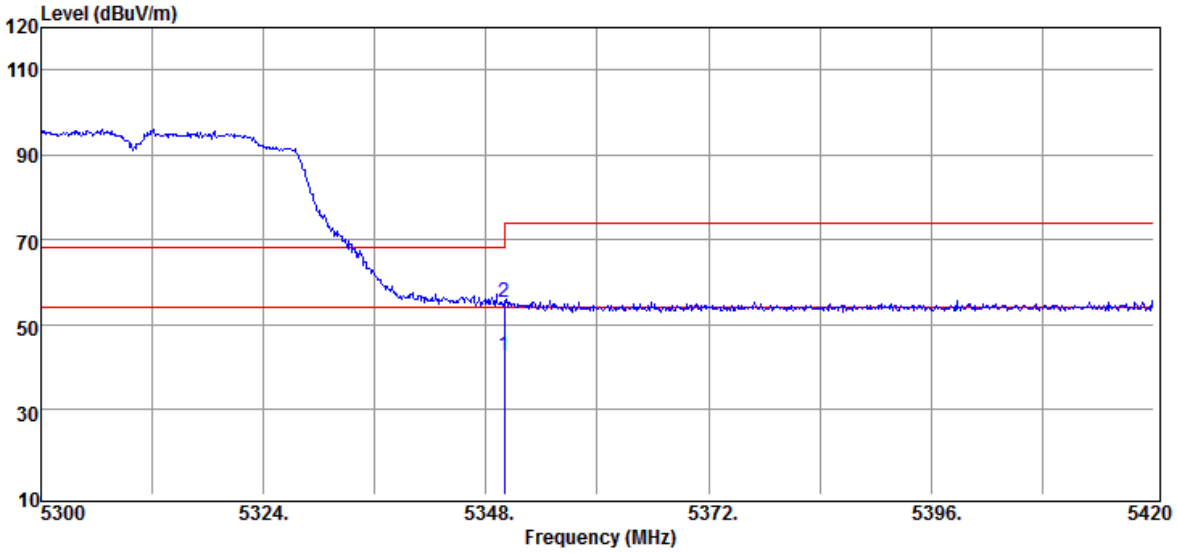
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5120.32	Average	37.70	4.74	42.44	54.00	-11.56
5120.32	Peak	51.42	4.74	56.16	74.00	-17.84
5150.00	Average	39.59	4.55	44.14	54.00	-9.86
5150.00	Peak	50.64	4.55	55.19	68.20	-13.01

Operation Mode	:802.11n40 / Band 2	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5310 MHz	Engineer	:Jerry



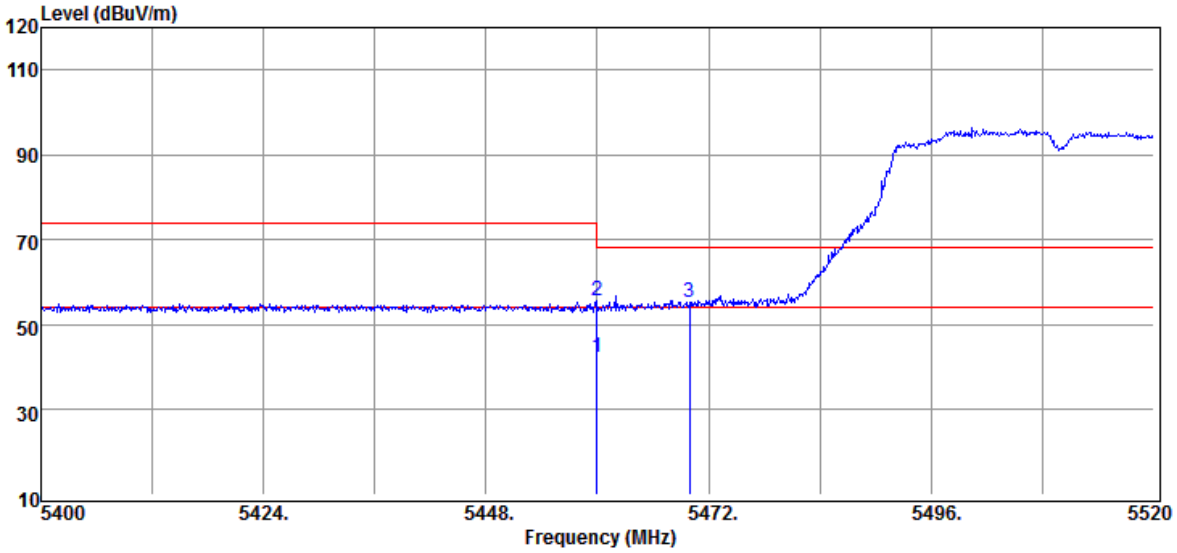
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	38.81	5.19	44.00	54.00	-10.00
5350.00	Peak	51.66	5.19	56.85	68.20	-11.35

Operation Mode	:802.11n40 / Band 2	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5310 MHz	Engineer	:Jerry



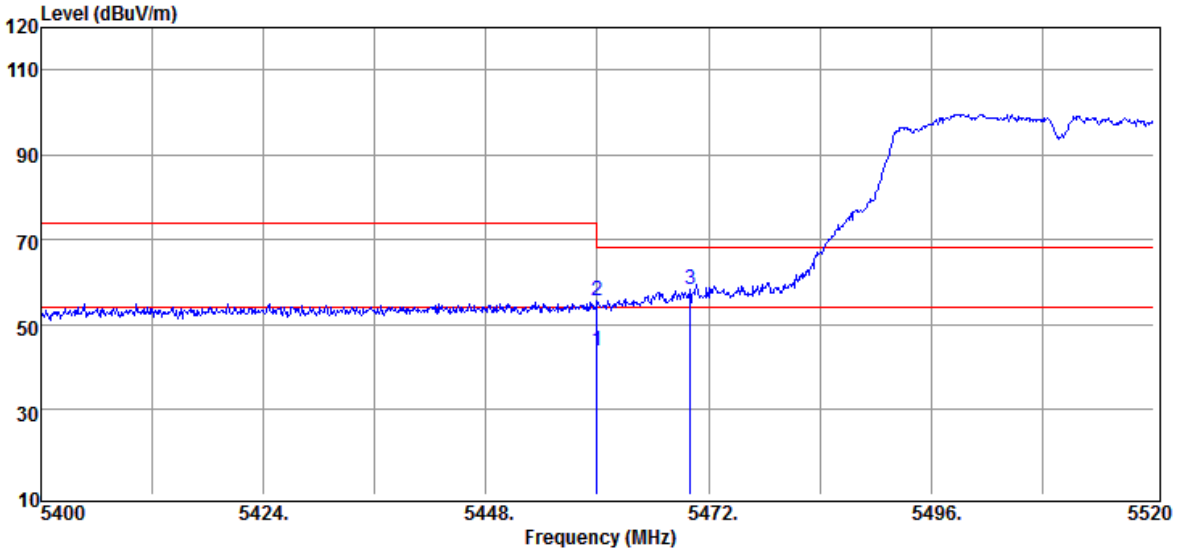
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	37.56	5.19	42.75	54.00	-11.25
5350.00	Peak	50.20	5.19	55.39	68.20	-12.81

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5510 MHz	Engineer	:Jerry



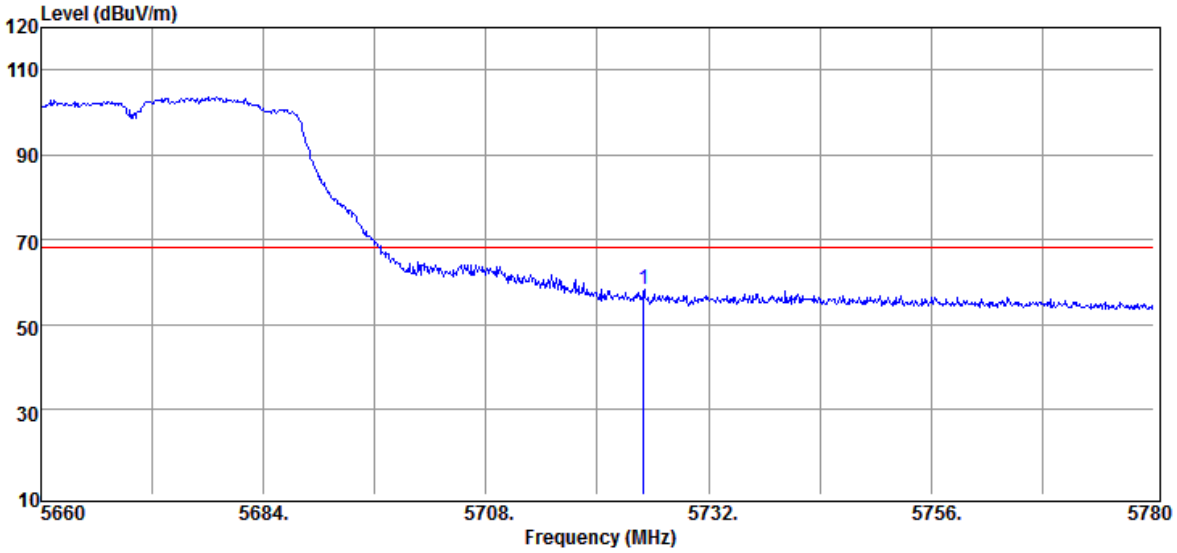
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.74	5.54	42.28	54.00	-11.72
5460.00	Peak	50.03	5.54	55.57	68.20	-12.63
5469.96	Peak	49.70	5.52	55.22	68.20	-12.98

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5510 MHz	Engineer	:Jerry



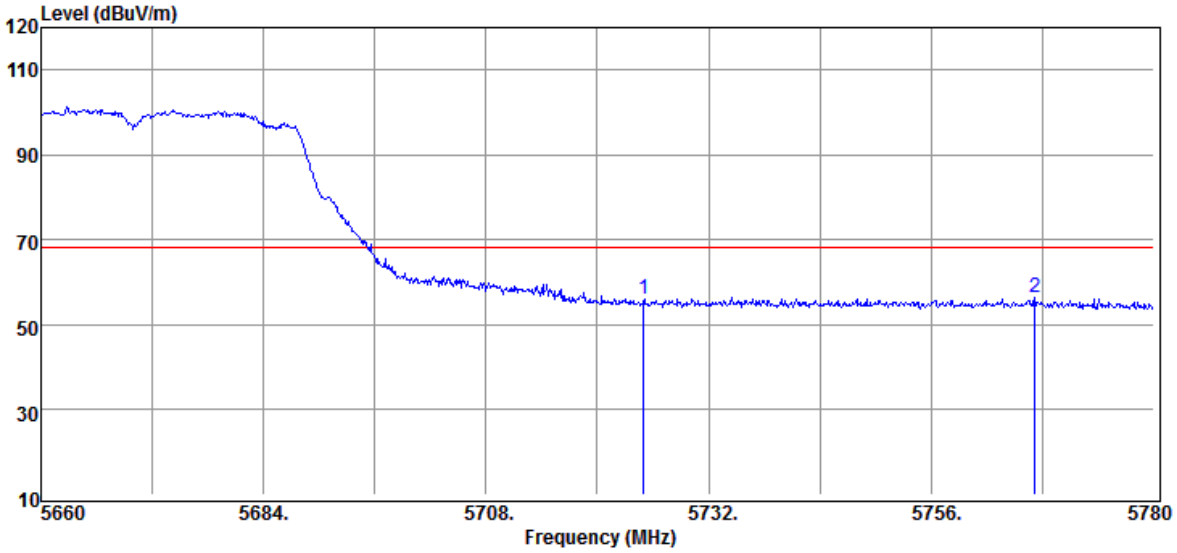
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	38.23	5.54	43.77	54.00	-10.23
5460.00	Peak	50.25	5.54	55.79	68.20	-12.41
5470.00	Peak	52.96	5.52	58.48	68.20	-9.72

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5670 MHz	Engineer	:Jerry



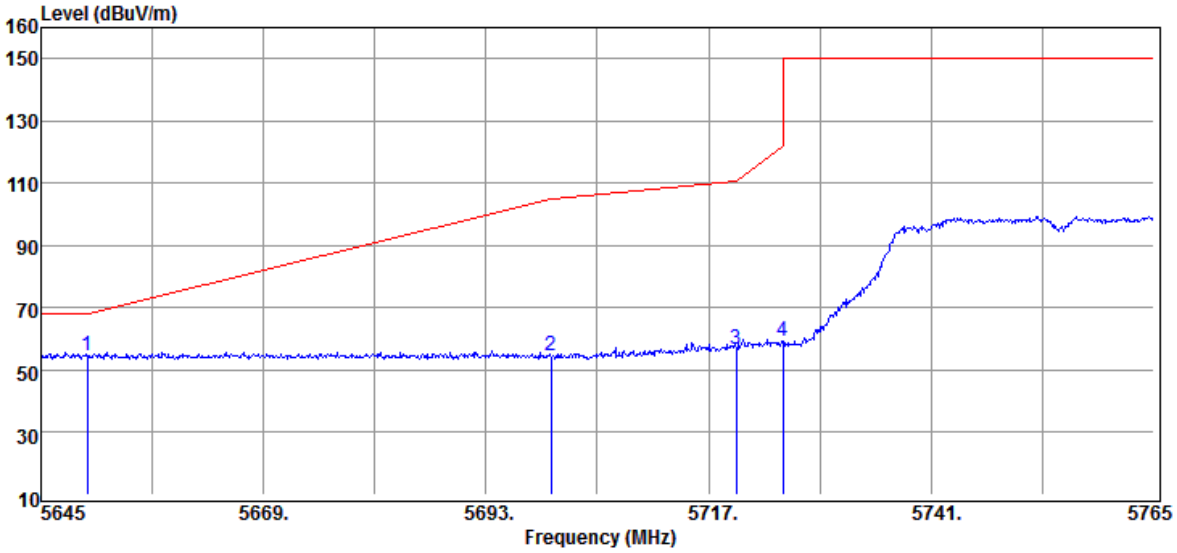
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	51.83	6.55	58.38	68.20	-9.82

Operation Mode	:802.11n40 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5670 MHz	Engineer	:Jerry



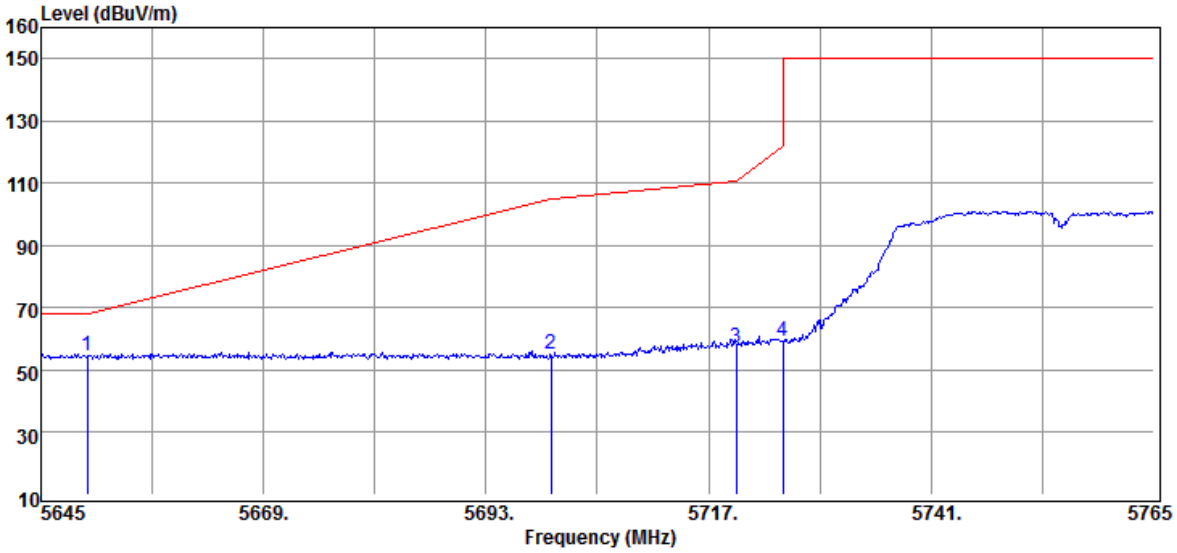
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	49.50	6.55	56.05	68.20	-12.15
5767.16	Peak	49.88	6.39	56.27	68.20	-11.93

Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5755 MHz	Engineer	:Jerry



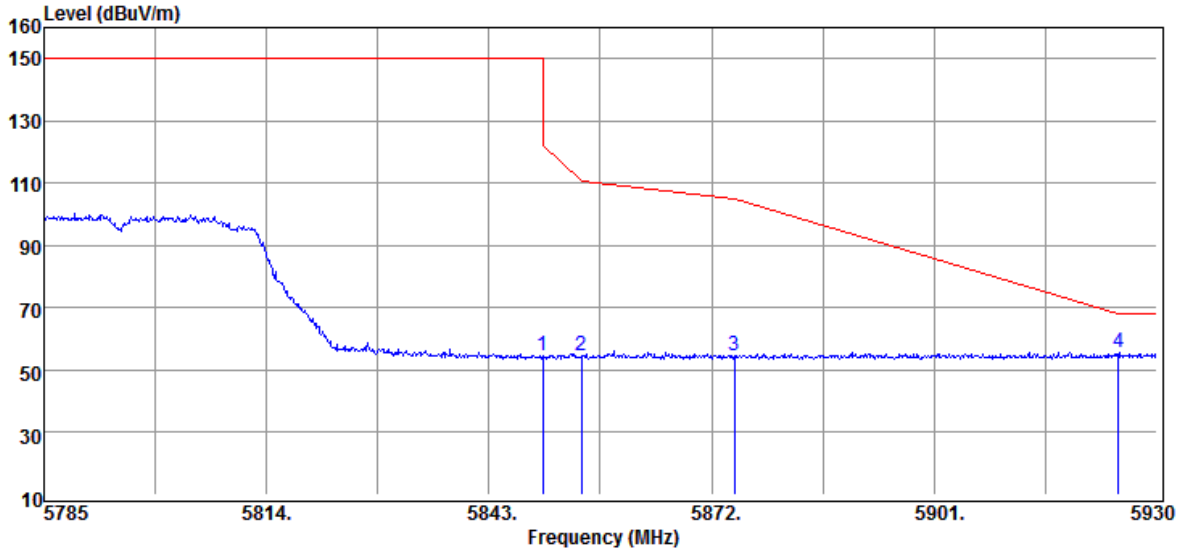
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.99	5.91	54.90	68.20	-13.30
5700.00	Peak	48.27	6.43	54.70	105.20	-50.50
5720.00	Peak	50.37	6.55	56.92	110.80	-53.88
5725.00	Peak	52.67	6.55	59.22	122.20	-62.98

Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5755 MHz	Engineer	:Jerry



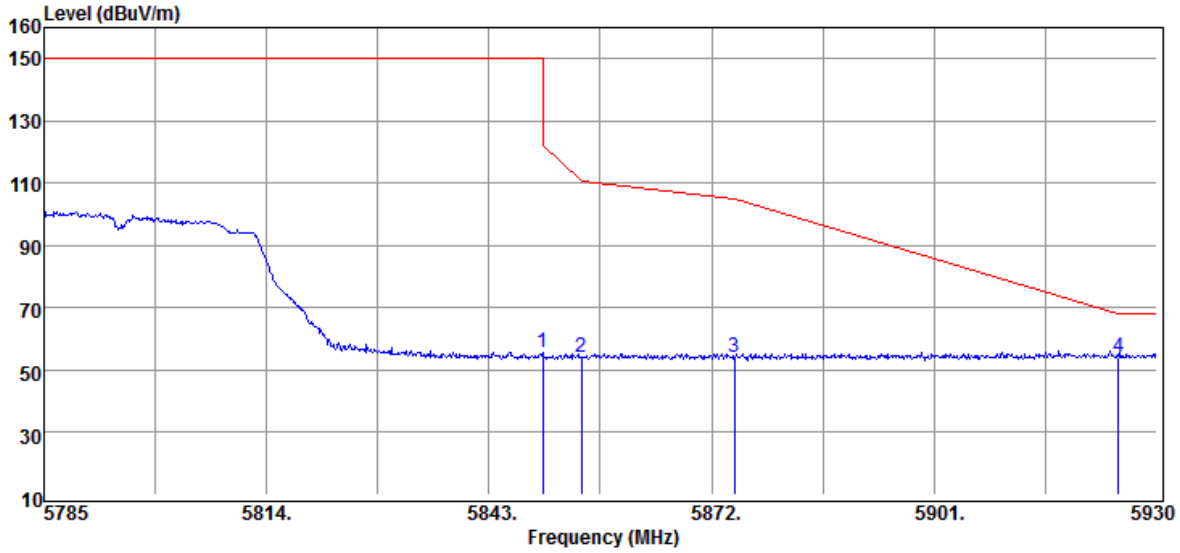
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.58	5.91	54.49	68.20	-13.71
5700.00	Peak	48.60	6.43	55.03	105.20	-50.17
5720.00	Peak	50.86	6.55	57.41	110.80	-53.39
5725.00	Peak	52.52	6.55	59.07	122.20	-63.13

Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5795 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	48.02	6.41	54.43	122.20	-67.77
5855.00	Peak	48.09	6.43	54.52	110.80	-56.28
5875.00	Peak	48.03	6.49	54.52	105.20	-50.68
5925.00	Peak	49.09	6.44	55.53	68.20	-12.67

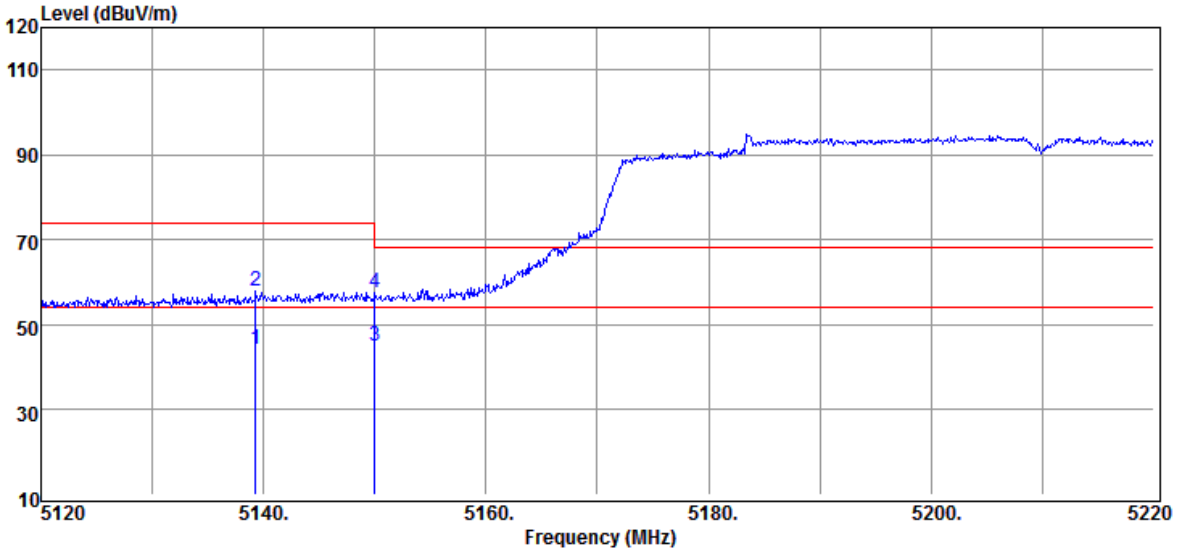
Operation Mode	:802.11n40 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:22/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5795 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	49.15	6.41	55.56	122.20	-66.64
5855.00	Peak	47.86	6.43	54.29	110.80	-56.51
5875.00	Peak	47.45	6.49	53.94	105.20	-51.26
5925.00	Peak	47.82	6.44	54.26	68.20	-13.94

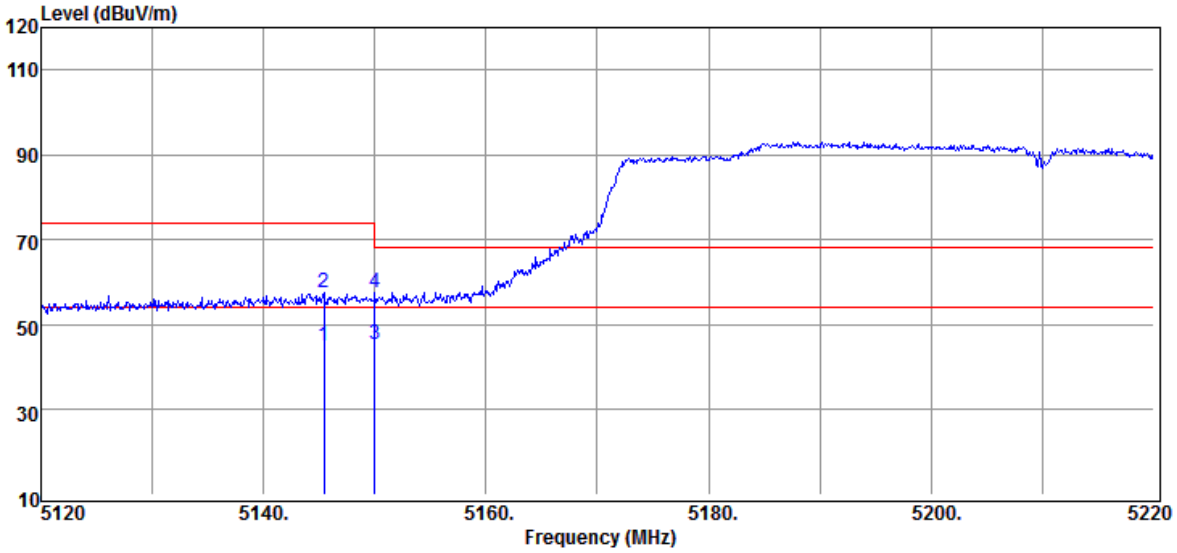
802.11ac80 mode

Operation Mode	:802.11ac80 / Band 1	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5210 MHz	Engineer	:Jerry



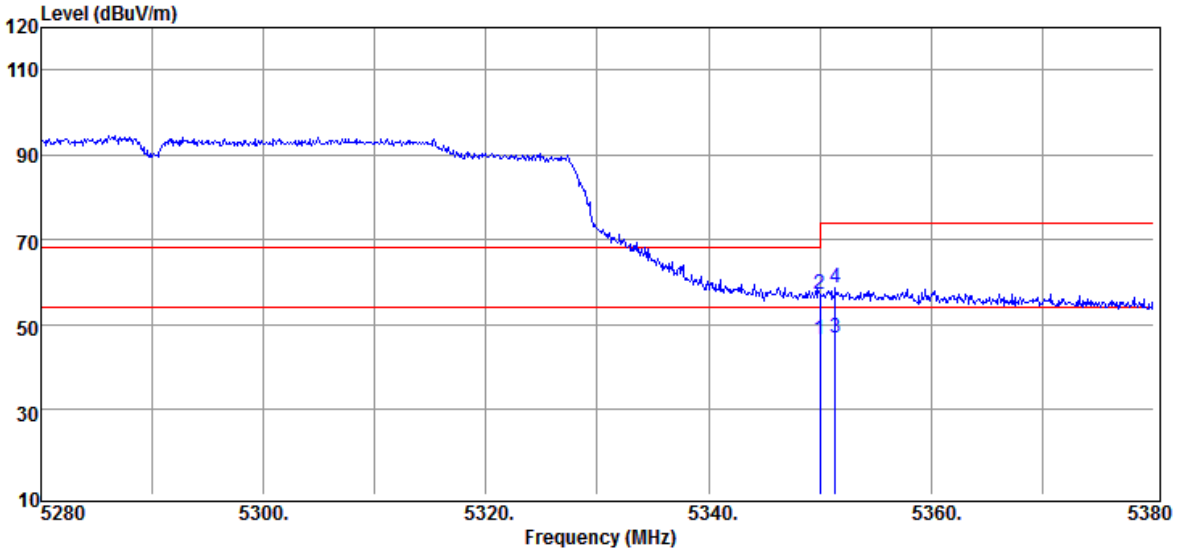
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5139.30	Average	39.72	4.56	44.28	54.00	-9.72
5139.30	Peak	53.52	4.56	58.08	74.00	-15.92
5150.00	Average	40.59	4.55	45.14	54.00	-8.86
5150.00	Peak	52.96	4.55	57.51	68.20	-10.69

Operation Mode	:802.11ac80 / Band 1	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5210 MHz	Engineer	:Jerry



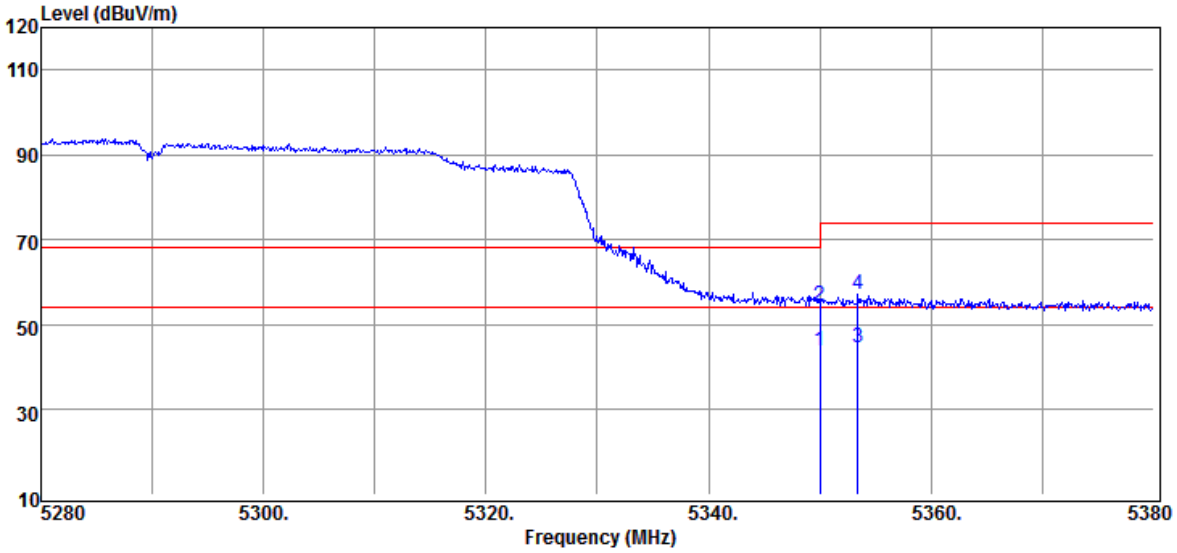
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5145.40	Average	40.53	4.55	45.08	54.00	-8.92
5145.40	Peak	52.94	4.55	57.49	74.00	-16.51
5150.00	Average	40.67	4.55	45.22	54.00	-8.78
5150.00	Peak	52.89	4.55	57.44	68.20	-10.76

Operation Mode	:802.11ac80 / Band 2	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5290 MHz	Engineer	:Jerry



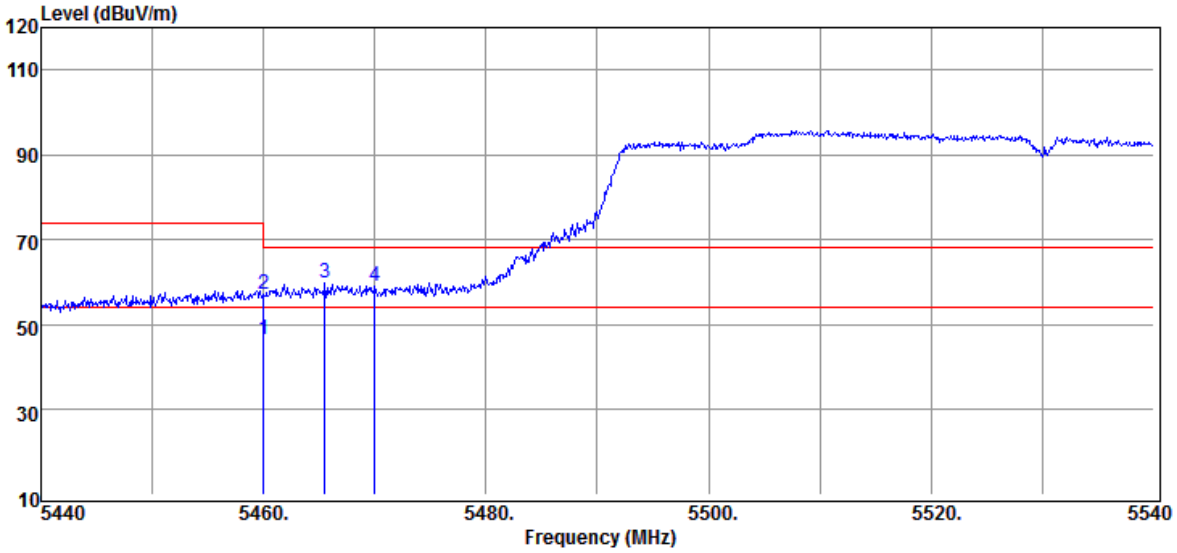
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	41.49	5.19	46.68	54.00	-7.32
5350.00	Peak	52.11	5.19	57.30	68.20	-10.90
5351.40	Average	41.86	5.20	47.06	54.00	-6.94
5351.40	Peak	53.42	5.20	58.62	74.00	-15.38

Operation Mode	:802.11ac80 / Band 2	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5290 MHz	Engineer	:Jerry



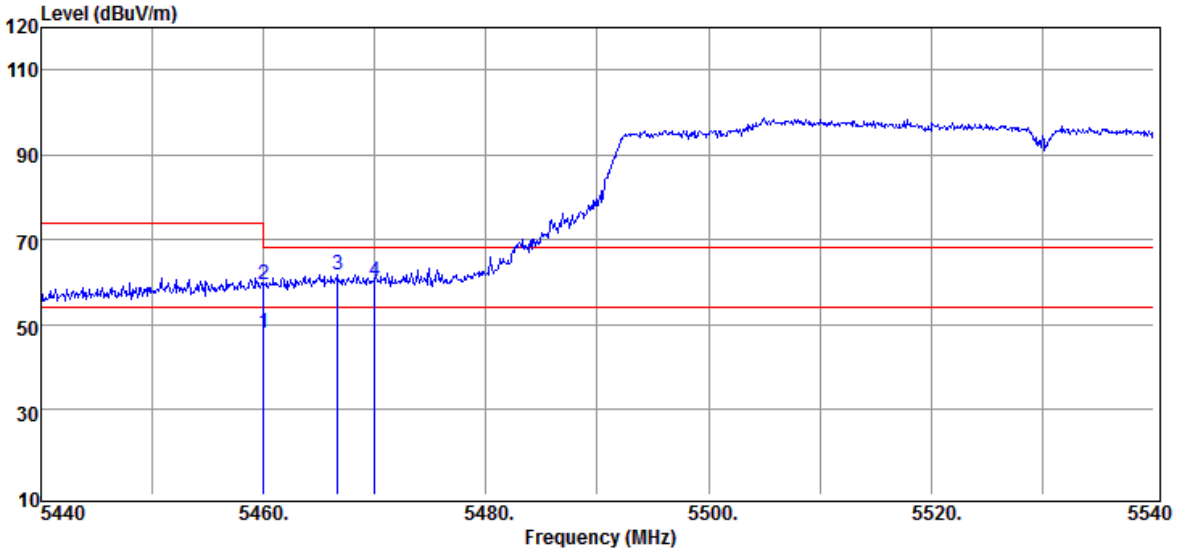
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	38.84	5.19	44.03	54.00	-9.97
5350.00	Peak	49.28	5.19	54.47	68.20	-13.73
5353.40	Average	39.40	5.20	44.60	54.00	-9.40
5353.40	Peak	51.83	5.20	57.03	74.00	-16.97

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5530 MHz	Engineer	:Jerry



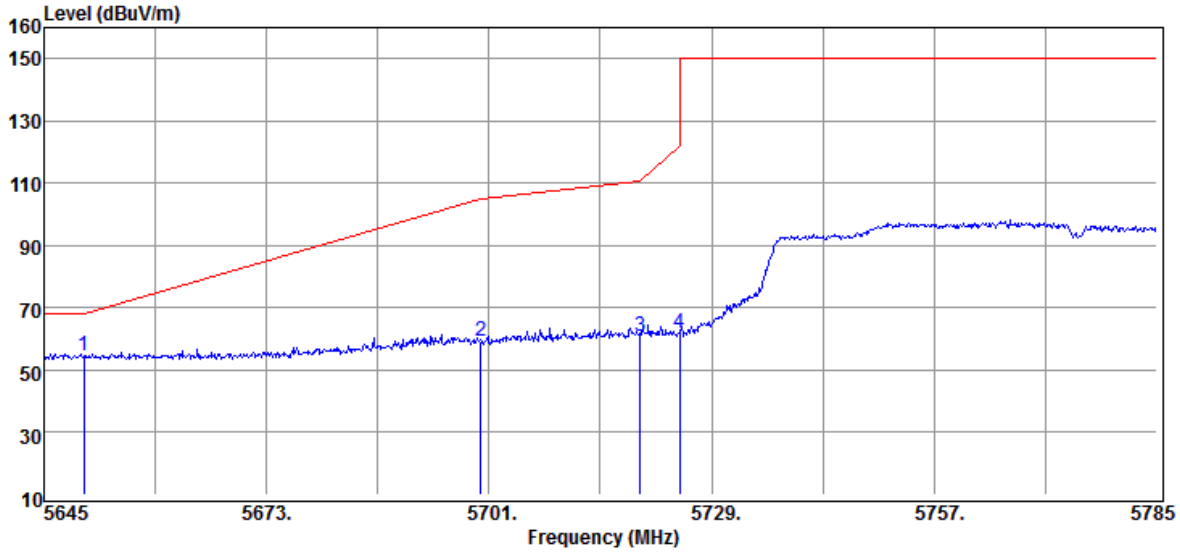
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	41.00	5.54	46.54	54.00	-7.46
5460.00	Peak	51.75	5.54	57.29	68.20	-10.91
5465.50	Peak	54.26	5.52	59.78	68.20	-8.42
5470.00	Peak	53.45	5.52	58.97	68.20	-9.23

Operation Mode	:802.11ac80 / Band 3	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5530 MHz	Engineer	:Jerry



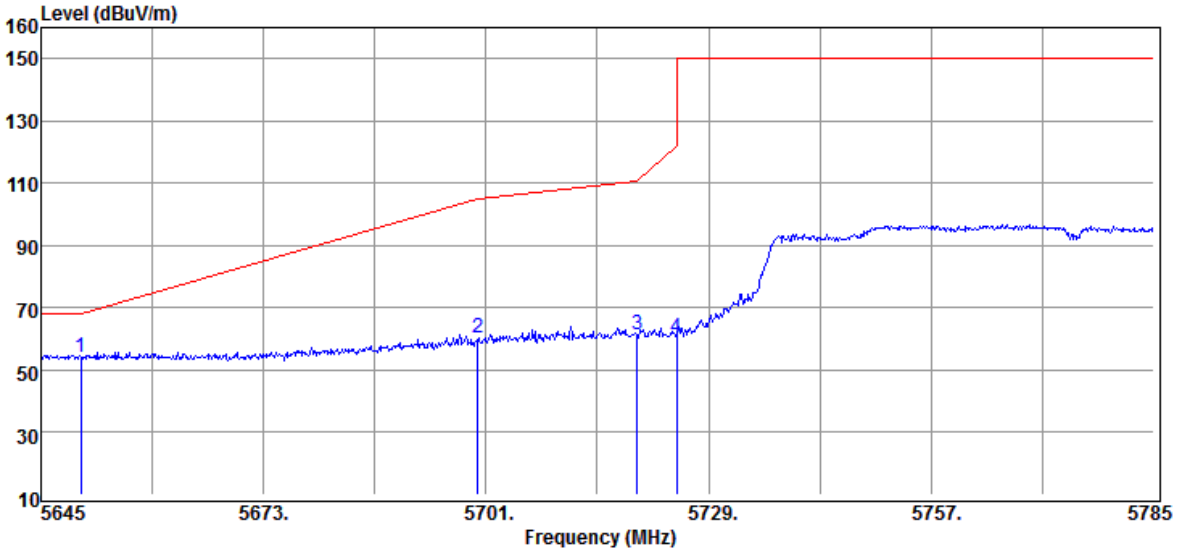
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	42.44	5.54	47.98	54.00	-6.02
5460.00	Peak	54.06	5.54	59.60	68.20	-8.60
5466.70	Peak	56.29	5.53	61.82	68.20	-6.38
5470.00	Peak	54.53	5.52	60.05	68.20	-8.15

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5775 MHz	Engineer	:Jerry



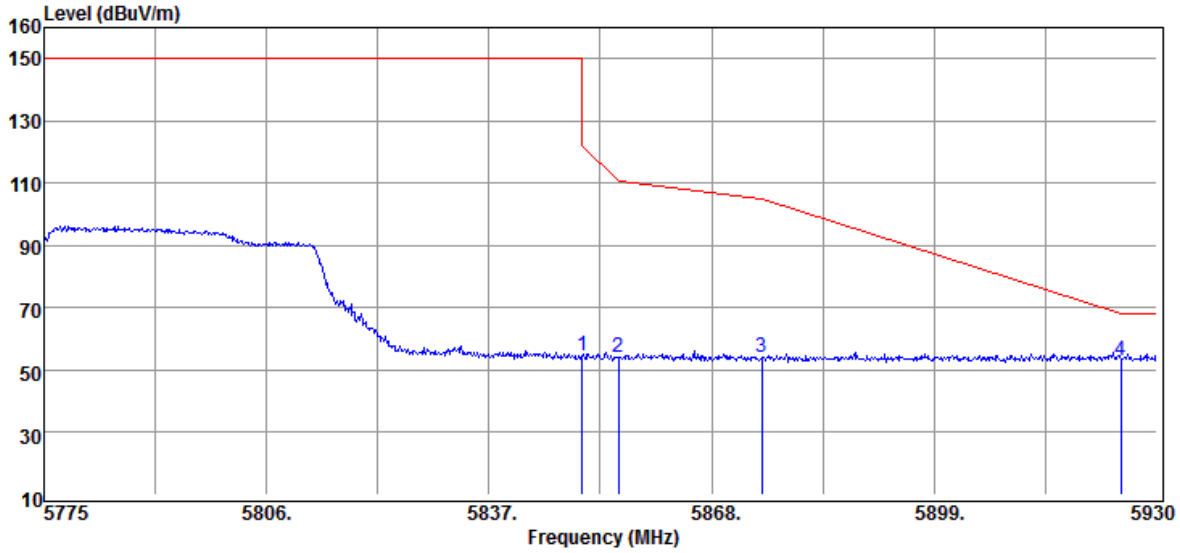
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.53	5.91	54.44	68.20	-13.76
5700.00	Peak	53.02	6.43	59.45	105.20	-45.75
5720.00	Peak	54.06	6.55	60.61	110.80	-50.19
5725.00	Peak	55.51	6.55	62.06	122.20	-60.14

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH LOW	Temp./Humi.	:23/55
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5775 MHz	Engineer	:Jerry



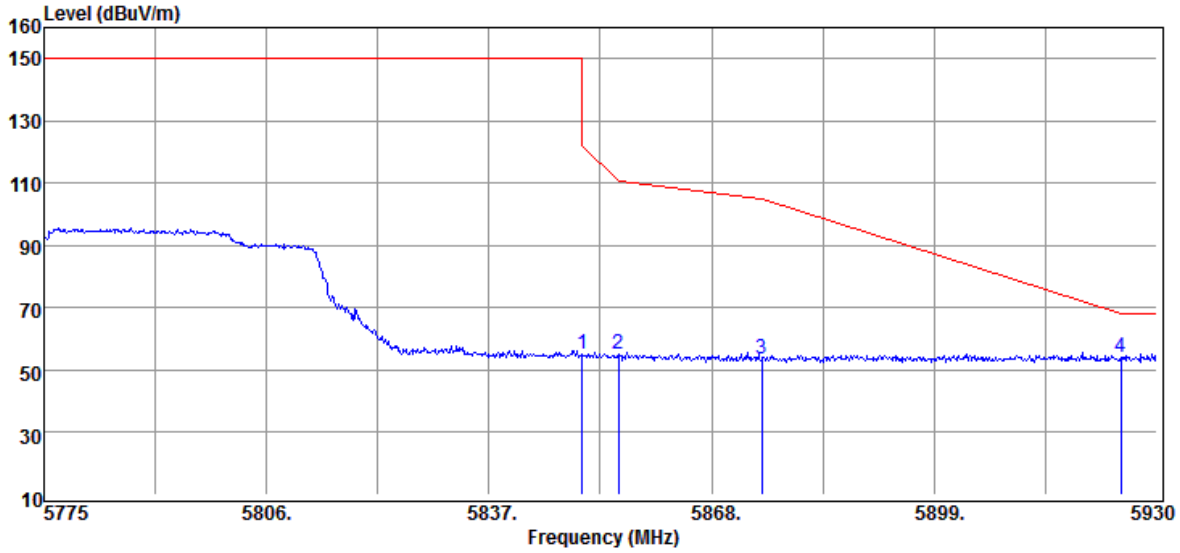
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.45	5.91	54.36	68.20	-13.84
5700.00	Peak	53.78	6.43	60.21	105.20	-44.99
5720.00	Peak	54.77	6.55	61.32	110.80	-49.48
5725.00	Peak	54.00	6.55	60.55	122.20	-61.65

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:VERTICAL
Test Channel	:5775 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	48.28	6.41	54.69	122.20	-67.51
5855.00	Peak	47.48	6.43	53.91	110.80	-56.89
5875.00	Peak	47.63	6.49	54.12	105.20	-51.08
5925.00	Peak	46.78	6.44	53.22	68.20	-14.98

Operation Mode	:802.11ac80 / Band 4	Test Date	:2019-03-11
Test Mode	:BE CH HIGH	Temp./Humi.	:23/56
EUT Pol	:H Plan	Antenna Pol.	:HORIZONTAL
Test Channel	:5775 MHz	Engineer	:Jerry



Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	48.52	6.41	54.93	122.20	-67.27
5855.00	Peak	48.54	6.43	54.97	110.80	-55.83
5875.00	Peak	47.08	6.49	53.57	105.20	-51.63
5925.00	Peak	47.67	6.44	54.11	68.20	-14.09

12 TRANSMISSION IN THE ABSENCE OF DATA

12.1 Standard Applicable

According to §15.407(c)

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

12.2 Result

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

13 FREQUENCY STABILITY

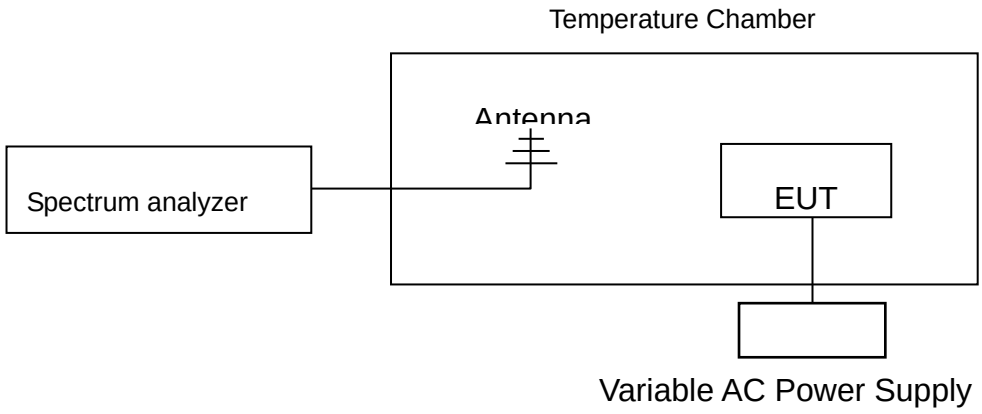
13.1 Standard Applicable

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

13.2 Measurement Procedure

1. The EUT was placed inside temperature chamber and powered and powered by nominal DC voltage.
2. Set EUT as normal operation.
3. Turn the EUT on and couple its output to spectrum.
4. Turn the EUT off and set the chamber to the highest temperature specified.
5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT and measure the operating frequency.
6. Repeat step with the temperature chamber set to the lowest temperature.

13.3 Test SET-UP



13.4 Measurement Equipment Used:

SGS Conducted Room					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Spectrum Analyzer	Agilent	N9010A	MY51440113	2018/06/20	2019/06/19
Attenuator	Marvelous	MVE2213-10	RF31	2019/02/26	2020/02/25
DC Block	PASTERNACK	PE8210	RF81	2019/02/26	2020/02/25
Coaxial Cables	Woken	00100A1F1A185C	RF229	2019/02/26	2020/02/25

13.5 Measurement Result

Startup:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 ℃	Test By	Henry
Humidity	: 51%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	8.74	36	5180	5,179.99320	0.00000131
	6.46	36	5180	5,179.99490	0.00000098
25	7.6	36	5180	5,179.99420	0.00000112
35	8.74	36	5180	5,179.99270	0.00000141
	6.46	36	5180	5,179.99990	0.00000002

2 Minutes:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 ℃	Test By	Henry
Humidity	: 51%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	8.74	36	5180	5,179.99380	0.00000120
	6.46	36	5180	5,179.99650	0.00000068
25	7.6	36	5180	5,179.99180	0.00000158
35	8.74	36	5180	5,179.99330	0.00000129
	6.46	36	5180	5,179.99290	0.00000137

5 Minutes:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 ℃	Test By	Henry
Humidity	: 51%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	8.74	36	5180	5,179.99130	0.00000168
	6.46	36	5180	5,179.99800	0.00000039
25	7.6	36	5180	5,179.99320	0.00000131
35	8.74	36	5180	5,179.99600	0.00000077
	6.46	36	5180	5,179.99380	0.00000120

10 Minutes:

Operation Mode	802.11 a	Test Date	2019.03.12
Temperature	:23.1 ℃	Test By	Henry
Humidity	: 51%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	8.74	36	5180	5,179.99810	0.00000037
	6.46	36	5180	5,179.99560	0.00000085
25	7.6	36	5180	5,179.99870	0.00000025
35	8.74	36	5180	5,179.99850	0.00000029
	6.46	36	5180	5,179.99610	0.00000075

14 ANTENNA REQUIREMENT

14.1 Standard Applicable

According to §15.203, an intentional radiator shall be designed to ensure that no antenna other than furnished by the responsible party shall be used with the device.

According to §15.407, If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

14.2 Antenna Connected Construction

The antenna is designed as permanently attached and no consideration of replacement. Please see EUT photo for details.

~ End of Report ~