ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT

INTENTIONAL RADIATOR CERTIFICATION TO FCC PART 15 SUBPART E REQUIREMENT

OF

Applicant:	Barco NV President Kennedypark 35 8500 Kortrijk Belgium
Product Name:	ClickShare
Brand Name:	Barco
Model No.:	R9861600D01C
Model Difference:	N/A
FCC ID:	2AAED-R9861600D01
Report Number:	T190521W02-RP2
FCC Rule Part:	§15.407, Cat: NII
Issue Date:	Aug. 14, 2019
Date of Test:	May 21, 2019 ~ Jul. 24, 2019
Date of EUT Received:	May 21, 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

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: Peter Weng

Peter Weng / Engineer

Approved By: Kevin Tsai

Kevin Tsai / Deputy Manager

Testing Laboratory
1309

Revision History

Report Number	Revision	Description	Effected Page	Issue Date	Revised By
T190521W02-RP2	Rev.00	Initial creation of document	All	Aug. 05, 2019	Violetta Tang
T190521W02-RP2	Rev.01	Add statement of test mode on section 4.2	12	Aug. 14, 2019	Violetta Tang

Contents

1 GENERAL INFORMATION

1.1 Product Description

Product Name:	ClickShare
Brand Name:	Barco
Model No.:	R9861600D01C
Model Difference:	N/A
Hardware Version:	DVT
Software Version:	4.5.23.1 (SX-2.03)
Power Supply:	5Vdc from USB Port

Wi-Fi 802.11	Frequency Range	Channels	Rated Power (Avg.) (dBm)	Modulation Technology
a	5150~5250	4	13.97	OFDM
	5250~5350	4	13.94	
	5470~5725	12	12.95	
	5725-5850	5	13.98	
n_HT ac_VHT 20M	5150~5250	4	HT: 13.93 (Worst case)	OFDM
	5250~5350	4	HT: 12.94 (Worst case)	
	5470~5725	11	HT: 12.95 (Worst case)	
	5725-5850	5	HT: 13.95 (Worst case)	
n_HT ac_VHT 40M	5150~5250	2	HT: 13.82 (Worst case)	OFDM
	5250~5350	2	HT: 13.87 (Worst case)	
	5470~5725	5	HT: 12.88 (Worst case)	
	5725-5850	2	HT: 14.97 (Worst case)	
ac_VHT 80M	5150~5250	1	9.67	OFDM
	5250~5350	1	8.99	
	5470~5725	2	12.83	
	5725~5850	1	13.88	
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 – 72.2Mbps 802.11 n_40MHz: 13.5 – 150.0Mbps 802.11 ac_20MHz: 6.5 – 86.Mbps 802.11 ac_40MHz: 13.5 – 200.0Mbps 802.11 ac_80MHz: 29.3 – 433.3Mbps			

1.2 Antenna Designation

Antenna Type	Supplier	Antenna Part No.	Freq. (MHz)	Peak Antenna Gain (dBi)
Ceramic Chip	Pulse Electronics	W3078	5150 – 5250	4.3
Ceramic Chip	Pulse Electronics	W3078	5250 – 5350	4.3
Ceramic Chip	Pulse Electronics	W3078	5470 – 5725	4.3
Ceramic Chip	Pulse Electronics	W3078	5725 – 5850	4.3

1.3 Test Methodology of Applied Standards

FCC Part 15, Subpart E §15.407

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10:2013

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

1.4 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

1.5 Special Accessories

There are no special accessories used while test was conducted.

1.6 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 Example

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.

Note:

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.
Following shows an offset computation example.

2.5 Configuration of Tested System

Fig. 2-1 Conducted & Radiated Emission 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
2	Notebook	Lenovo	T420	S0012407	N/A	N/A

3 SUMMARY OF TEST RESULT

FCC Rules	Description Of Test	Result
§15.207	AC Power Line Conducted Emission	Compliant
§15.403(i) §15.407(e)	26 dB & 6dB & 99% Emission Bandwidth	Compliant
§15.407(a)	Maximum Conducted Output Power	Compliant
§15.407(a)	Power Spectral Density	Compliant
§15.205 §15.209 §15.407(b)	Undesirable Radiated Emissions	Compliant
§15.407(c)	Transmission in case of Absence of Information	Compliant
§15.407(g)	Frequency Stability	Compliant
§15.203 §15.407(a)	Antenna Requirement	Compliant

4 DESCRIPTION OF TEST MODES

4.1 Operated in U-NII Bands

Operated band in 5150 MHz ~5250 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode	
Channel	Frequency
36	5180
40	5200
44	5220
48	5240

802.11 n HT40 Mode, 802.11ac VHT40 Mode	
channel	Frequency
38	5190
46	5230

802.11ac VHT80 Mode	
channel	Frequency
42	5210

Operated band in 5250 MHz ~5350 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode	
channel	Frequency
52	5260
56	5280
60	5300
64	5320

802.11 n HT40 Mode, 802.11ac VHT40 Mode	
channel	Frequency
54	5270
62	5310

802.11ac VHT80 Mode	
Channel	Frequency
58	5290

Operated band in 5500 MHz ~5700 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode	
Channel	Frequency
100	5500
104	5520
108	5540
112	5560
116	5580
120	5600
124	5620
128	5640
132	5660
136	5680
140	5700

802.11 n HT40 Mode, 802.11ac VHT40 Mode	
channel	Frequency
102	5510
110	5550
118	5590
126	5630
134	5670

802.11ac VHT80 Mode	
channel	Frequency
106	5530
122	5610

Operated band in 5745 MHz ~5850 MHz:

802.11a / n HT20 Mode, 802.11ac VHT20 Mode	
Channel	Frequency
149	5745
153	5765
157	5785
161	5805
165	5825

802.11 n HT40 Mode, 802.11ac VHT40 Mode	
channel	Frequency
151	5755
159	5795

802.11ac VHT80 Mode	
channel	Frequency
155	5775

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. The given UE is pre-scanned among below modes.

Modulation	Transmission Chain				Multiple Transmission Spatial
☒ 802.11 a	☒ Ch0	☒ Ch1	☐ Ch2	☐ Ch3	☐ 2TX
☒ 802.11 n	☒ Ch0	☒ Ch1	☐ Ch2	☐ Ch3	☐ MIMO
☒ 802.11 ac	☒ Ch0	☒ Ch1	☐ Ch2	☐ Ch3	☐ MIMO

Note: The device didn't support MIMO mode.

4. Therefore, below summary is the modes of test configuration that yield the highest reading and generate the highest emission chosen to carry out the relevantly mandatory test items.

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	Ch1
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	Ch1
802.11a	5500~5720	100 to 140	100,116,140	OFDM	6	Ch1
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	Ch1
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	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS0	Ch1
802.11ac_VHT80	5210	42	42	OFDM	MCS0	Ch1
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0	Ch1
802.11ac_VHT80	5290	58	58	OFDM	MCS0	Ch1

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	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5510~5710	102 to 142	102,110,134	OFDM	MCS0	Ch1
802.11ac_VHT80	5530~5610	106 to 122	106,122	OFDM	MCS0	Ch1
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS0	Ch1
802.11ac_VHT80	5775	155	155	OFDM	MCS0	Ch1

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 E2 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	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5190~5230	38 to 46	38,46	OFDM	MCS0	Ch1
802.11ac_VHT80	5210	42	42	OFDM	MCS0	Ch1
802.11a	5260~5320	52 to 64	52,60,64	OFDM	6	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5270~5310	54 to 62	54,62	OFDM	MCS0	Ch1
802.11ac_VHT80	5290	58	58	OFDM	MCS0	Ch1
802.11a	5500~5700	100 to 140	100,116,140	OFDM	6	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5510~5670	102 to 134	102,110,134	OFDM	MCS0	Ch1
802.11ac_VHT80	5530~5610	106 to 122	106,122	OFDM	MCS0	Ch1
802.11a	5745~5825	149 to 165	149,157,165	OFDM	6	Ch1
802.11n_HT20				OFDM	MCS0	Ch1
802.11n_HT40	5755~5795	151 to 159	151,159	OFDM	MCS0	Ch1
802.11ac_VHT80	5775	155	155	OFDM	MCS0	Ch1

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.		

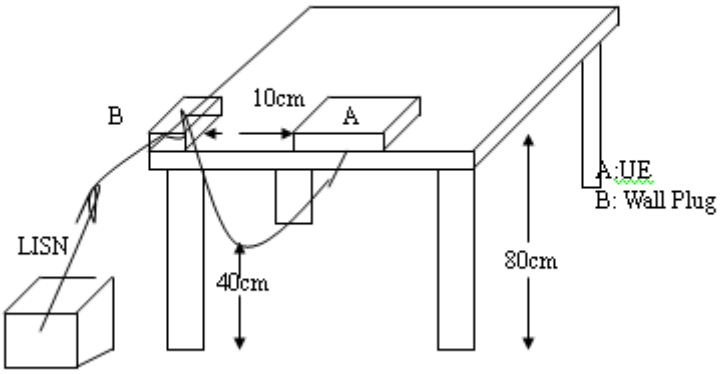
6.2 Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
CABLE	EMCI	CFD300-NL	CERF	06/29/2019	06/28/2020
EMI Test Receiver	R&S	ESCI	100064	07/24/2018	07/23/2019
LISN	SCHWARZ-BECK	NSLK 8127	8127-541	01/31/2019	01/30/2020
LISN	SCHAFFNER	NNB 41	03/10013	02/13/2019	02/12/2020
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

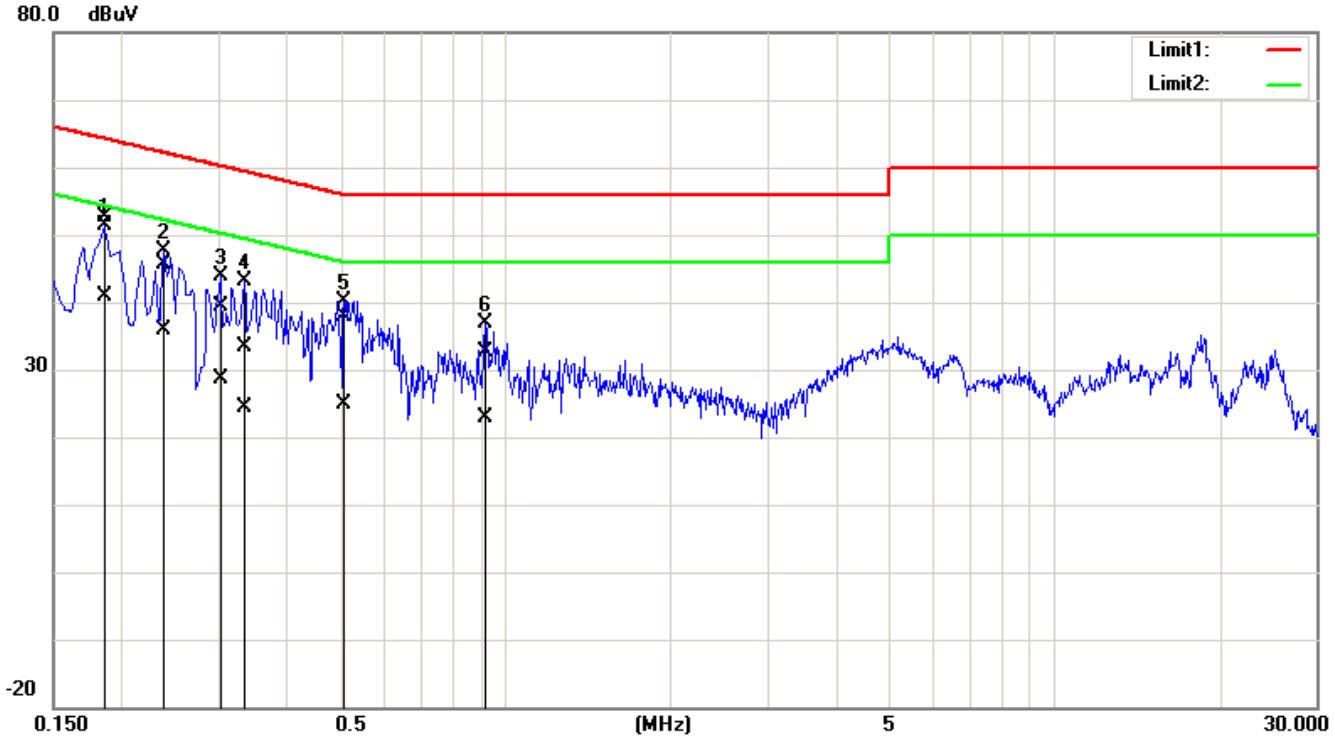
1. The EUT was placed on a table which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all phases of power being supplied by given UE are completed.

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.

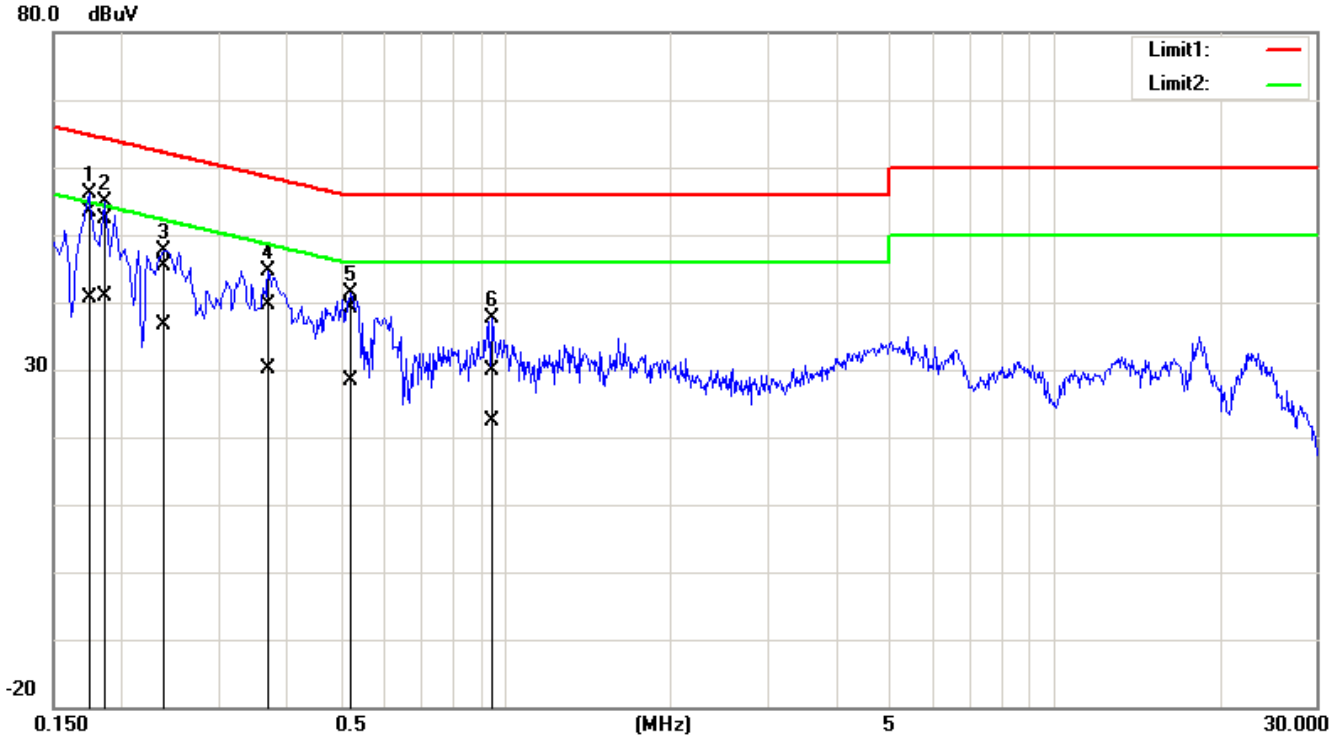
AC POWER LINE CONDUCTED EMISSION TEST DATA

Description:	**Operation**	**Date:**	**2019/7/11**
Line:	**L1**	**Temp.(℃)/Hum.(%):**	**24.2(℃)/65%**
Test Voltage:	**AC 120V/60Hz**	**Test By:**	**Gary**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Re-mark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1860	42.39	30.72	10.13	52.52	40.85	64.21	54.21	-11.69	-13.36	Pass
2	0.2380	35.57	25.82	10.13	45.70	35.95	62.17	52.17	-16.47	-16.22	Pass
3	0.3020	29.12	18.43	10.14	39.26	28.57	60.19	50.19	-20.93	-21.62	Pass
4	0.3340	23.29	14.34	10.14	33.43	24.48	59.35	49.35	-25.92	-24.87	Pass
5	0.5100	27.79	14.83	10.14	37.93	24.97	56.00	46.00	-18.07	-21.03	Pass
6	0.9220	22.38	12.69	10.17	32.55	22.86	56.00	46.00	-23.45	-23.14	Pass

Description:	**Operation**	**Date:**	**2019/7/11**
Line:	**N**	**Temp.(℃)/Hum.(%):**	**24.2(℃)/65%**
Test Voltage:	**AC 120V/60Hz**	**Test By:**	**Gary**



No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin	Re-mark
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1*	0.1740	43.37	30.71	10.02	53.39	40.73	64.76	54.77	-11.37	-14.04	Pass
2	0.1860	42.34	30.94	10.02	52.36	40.96	64.21	54.21	-11.85	-13.25	Pass
3	0.2380	35.36	26.58	10.02	45.38	36.60	62.16	52.17	-16.78	-15.57	Pass
4	0.3700	29.60	20.05	10.03	39.63	30.08	58.50	48.50	-18.87	-18.42	Pass
5	0.5220	29.03	18.31	10.03	39.06	28.34	56.00	46.00	-16.94	-17.66	Pass
6	0.9460	19.96	12.26	10.04	30.00	22.30	56.00	46.00	-26.00	-23.70	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

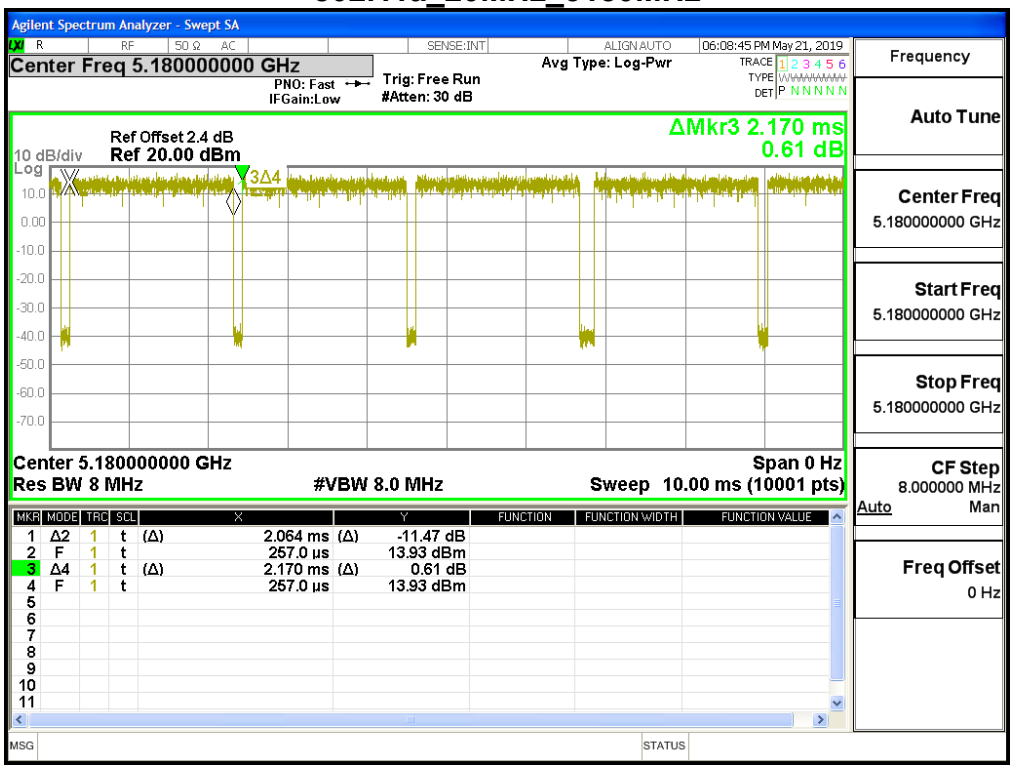
Duty Cycle:

Mode	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	95.12	0.22	0.48	1.00
802.11n_20	94.20	0.26	0.58	1.00
802.11n_40	88.17	0.55	1.17	2.00
802.11ac_80	81.31	0.90	2.37	3.00

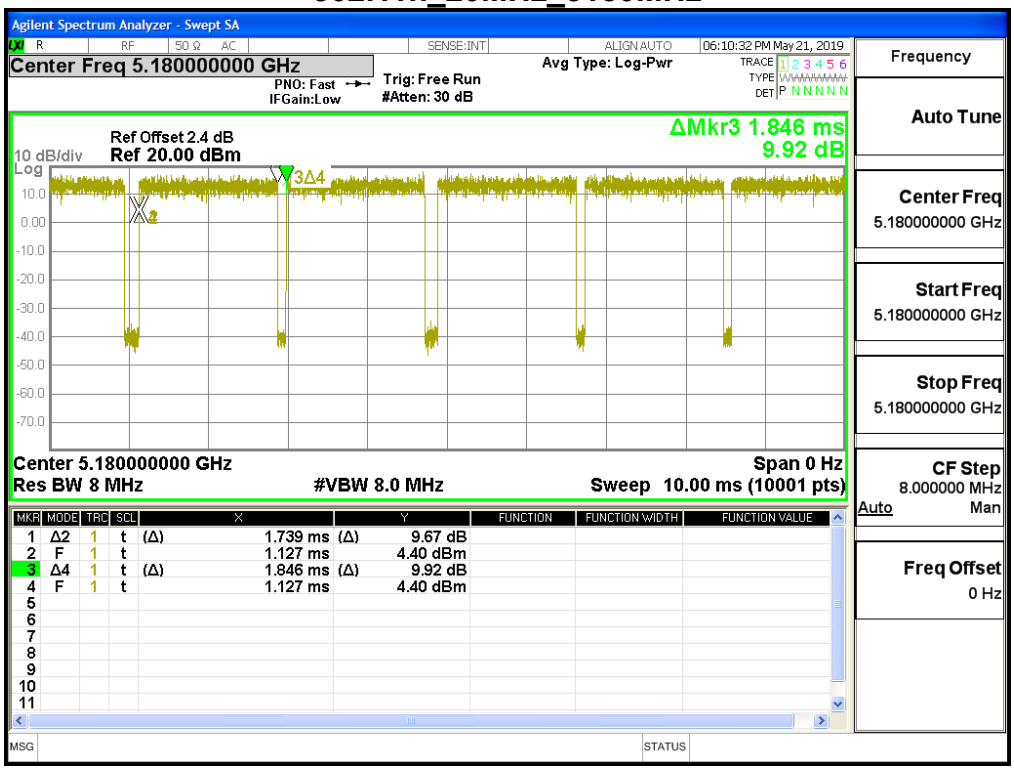
Duty Cycle Factor: 10 * log(1/0.9512) = 0.22
Duty Cycle Factor: 10 * log(1/0.942) = 0.26
Duty Cycle Factor: 10 * log(1/0.8817) = 0.55
Duty Cycle Factor: 10 * log(1/0.8131) = 0.9

DUTY CYCLE TEST SIGNAL MEASUREMENT RESULT

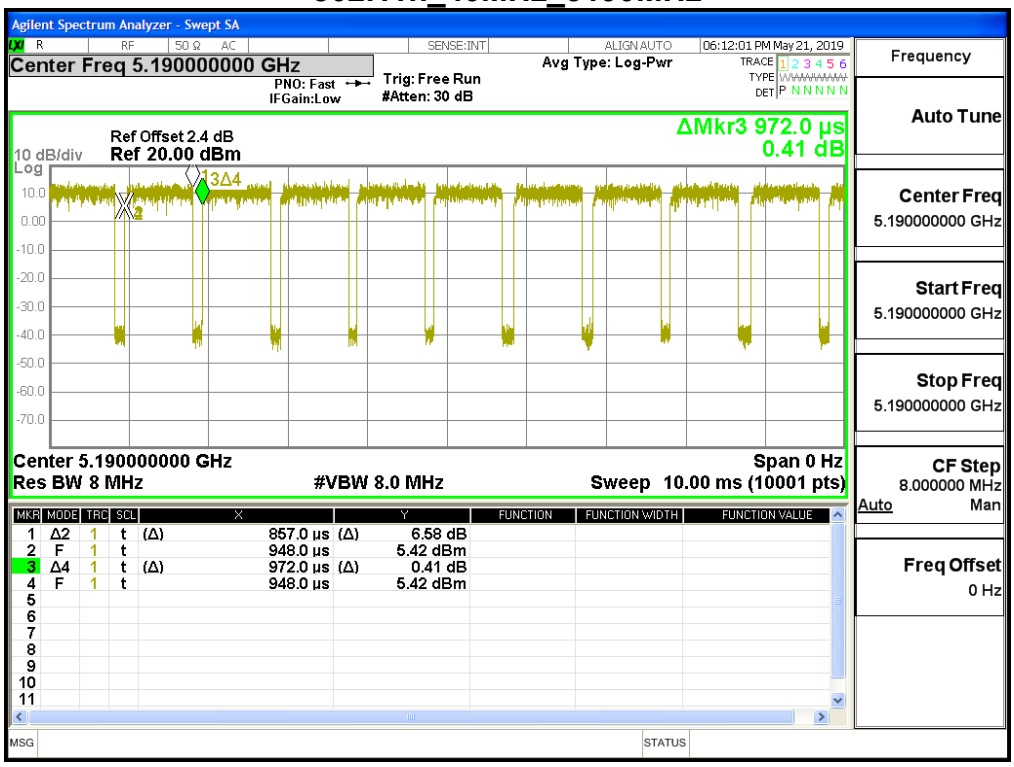
802.11a_20MHz_5180MHz



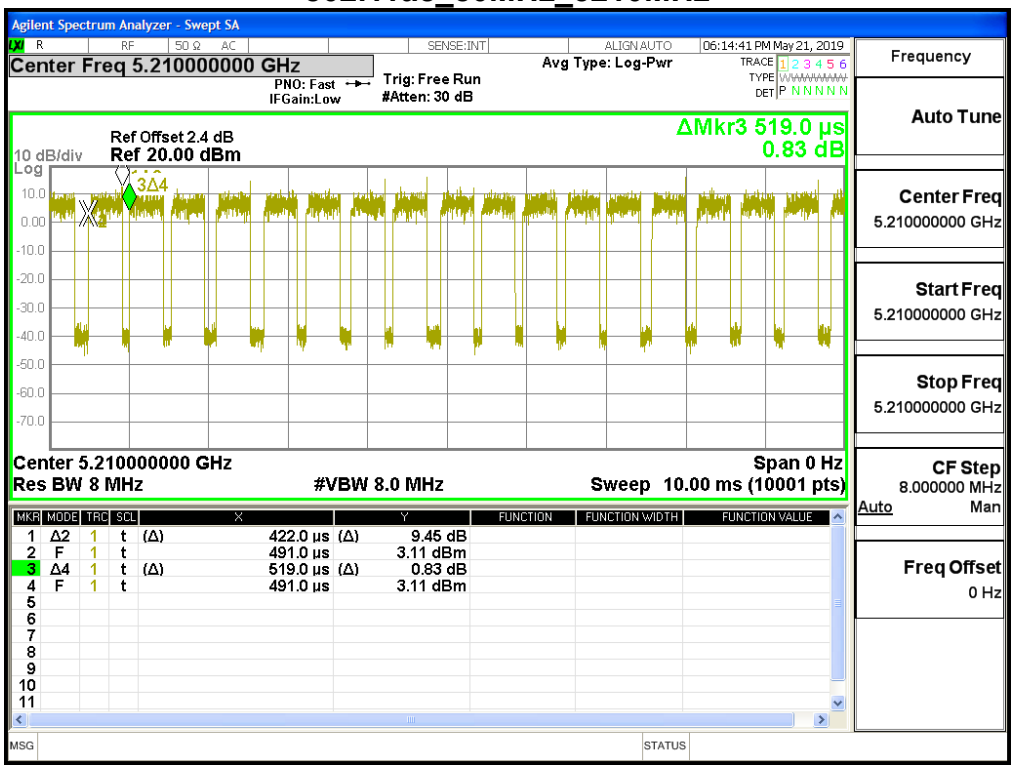
802.11n_20MHz_5180MHz



802.11n_40MHz_5190MHz



802.11ac_80MHz_5210MHz



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

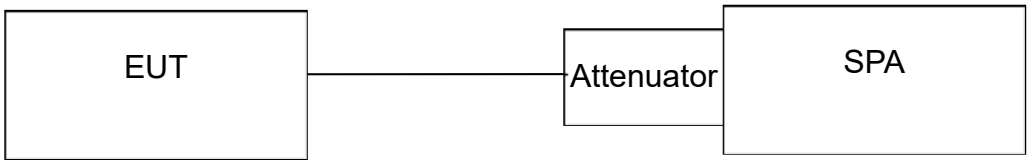
8.2 Measurement Procedure

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 frequency of interest measured was complete.

8.3 Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	02/13/2019	02/12/2020
DC Block	Mini-Circuits	BLK-18-S+	31129(1)	02/26/2019	02/25/2020
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020

8.4 Test Set-up



8.5 Measurement Result

26dB Bandwidth

802.11a_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.431	13.103
5220	24.323	13.860
5240	25.66	14.093
5260	25.165	14.008
5300	28.435	14.539
5320	20.341	13.084
5500	18.697	12.718
5580	26.053	14.159
5700	18.735	12.727

802.11n_HT20_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.518	13.121
5220	29.045	14.631
5240	27.806	14.441
5260	27.735	14.430
5300	27.126	14.334
5320	20.795	13.180
5500	19.808	12.968
5580	28.53	14.553
5700	20.387	13.094

802.11n _HT40_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	41.263	16.156
5230	50	16.990
5270	50	16.990
5310	42.46	16.280
5510	40.777	16.104
5550	50	16.990
5670	40.943	16.122

802.11ac _VHT80_Ch1

Frequency (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	81.97	19.137
5290	82.712	19.176
5530	82.031	19.140
5610	100	20.000

6dB Bandwidth (5725 MHz~ 5850 MHz) measure with Peak detector for FCC

802.11a_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	15.139	11.801
5785	15.148	11.804
5825	15.164	11.808

802.11n_HT20_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	15.156	11.806
5785	14.286	11.549
5825	15.489	11.900

802.11n_HT40_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	35.122	15.456
5795	35.035	15.445

802.11ac _VHT80_Ch1

Frequency (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	75.141	18.759

99% BW verification for DFS Function

802.11a_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.40	< 5250
5745	5736.87	> 5725

802.11n_HT20_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5240	5248.91	< 5250
5745	5736.21	> 5725

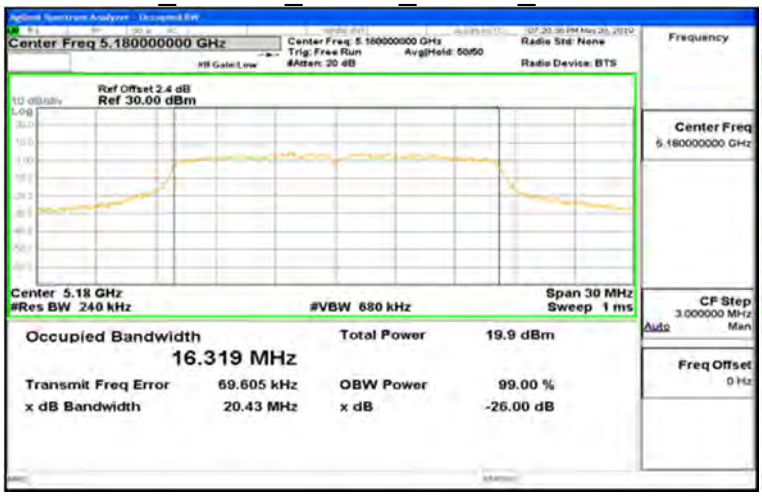
802.11n _HT40_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5230	5248.25	< 5250
5755	5737.00	> 5725

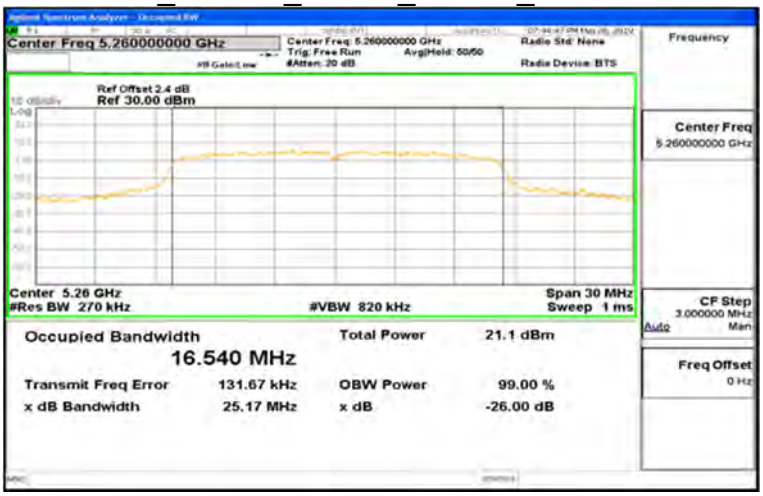
802.11n _HT80_Ch1

Frequency (MHz)	Measured Frequency (MHz)	Limit (MHz)
5210	5247.50	< 5250
5775	5737.10	> 5725

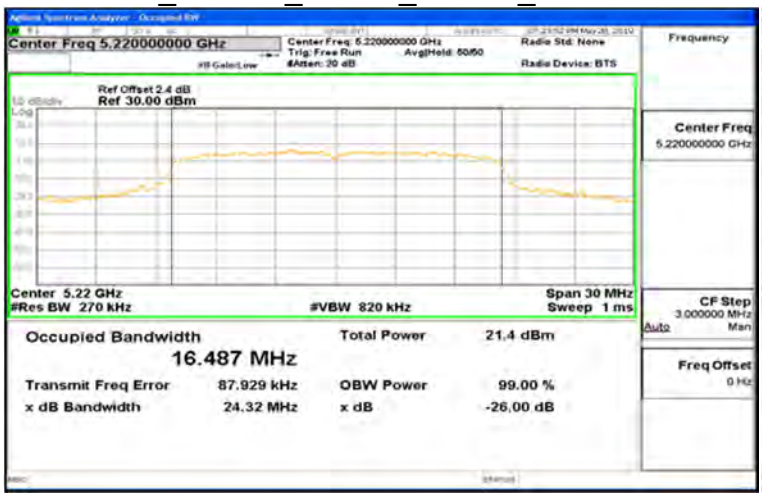
FCC_802.11a_20MHz_Chain1_5180MHz



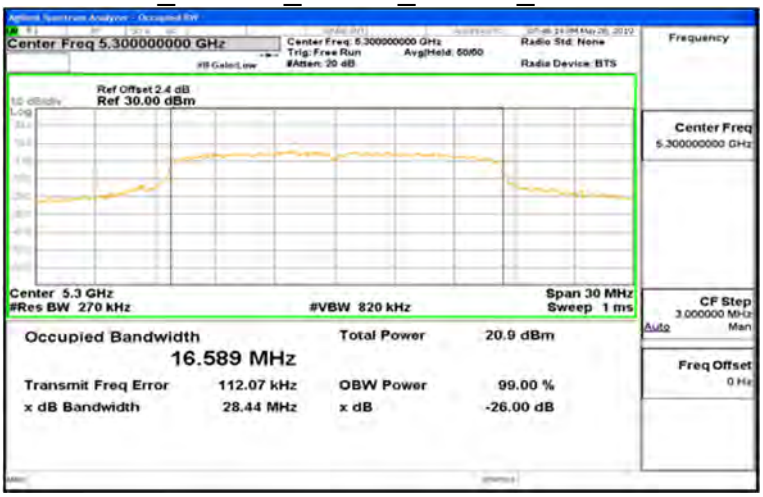
FCC_802.11a_20MHz_Chain1_5260MHz



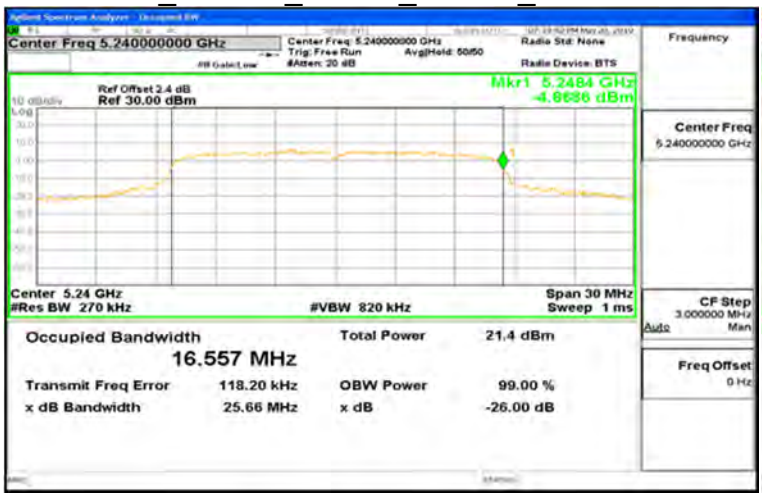
FCC_802.11a_20MHz_Chain1_5220MHz



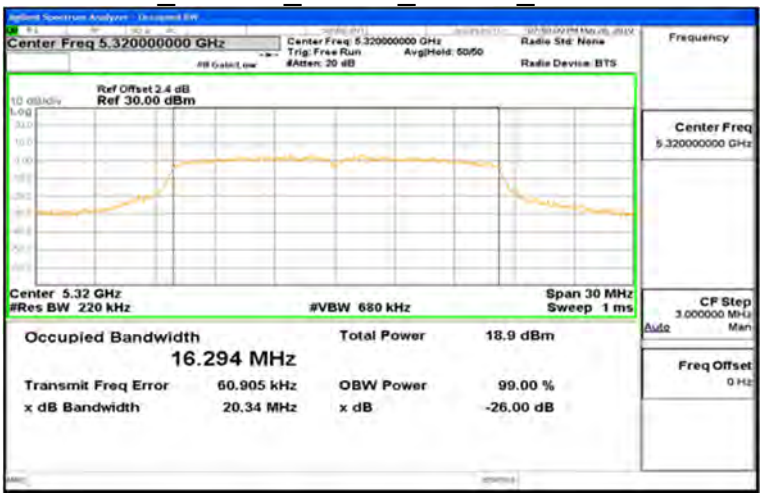
FCC_802.11a_20MHz_Chain1_5300MHz



FCC_802.11a_20MHz_Chain1_5240MHz

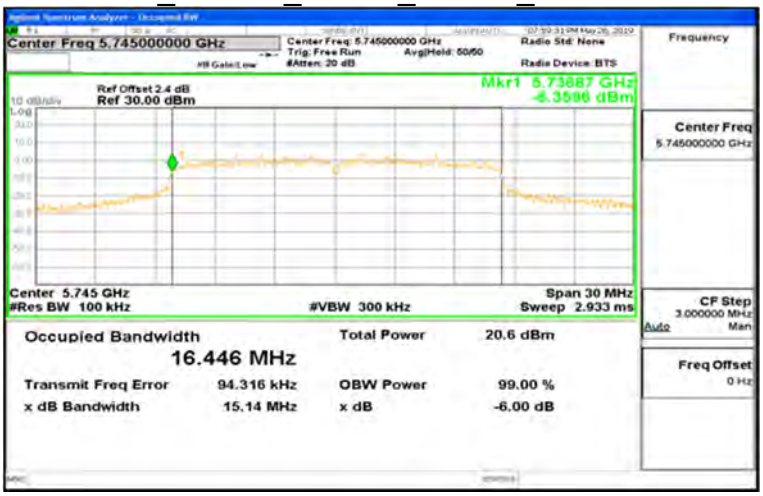


FCC_802.11a_20MHz_Chain1_5320MHz

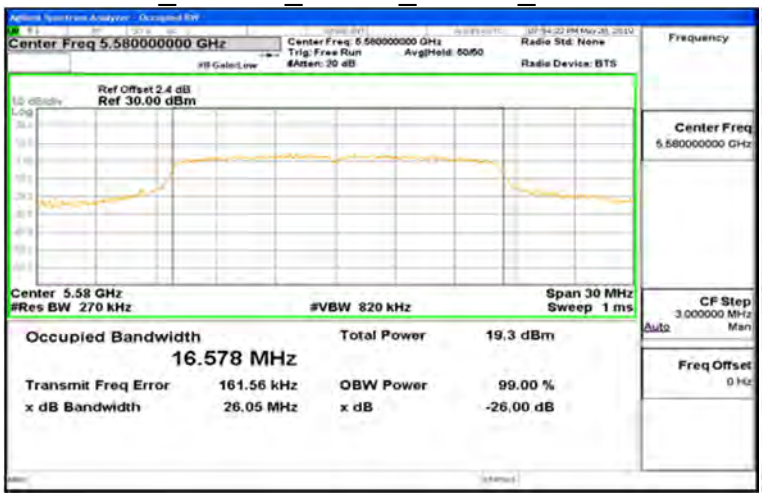


FCC_802.11a_20MHz_Chain1_5500MHz

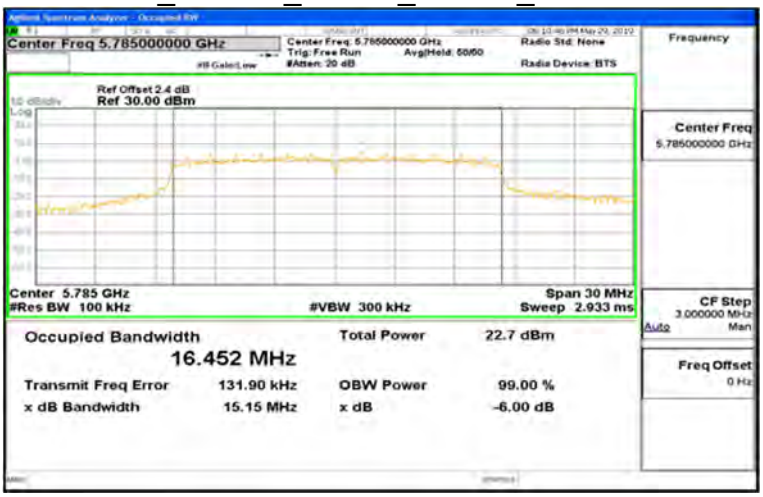
FCC_802.11a_20MHz_Chain1_5745MHz



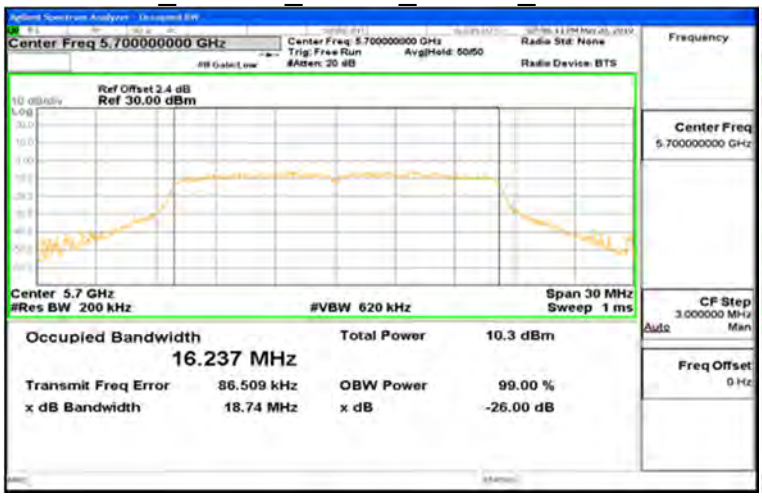
FCC_802.11a_20MHz_Chain1_5580MHz



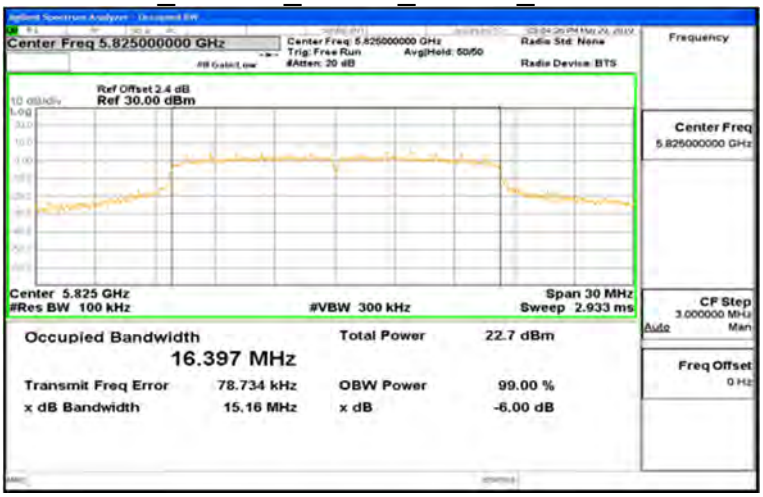
FCC_802.11a_20MHz_Chain1_5785MHz



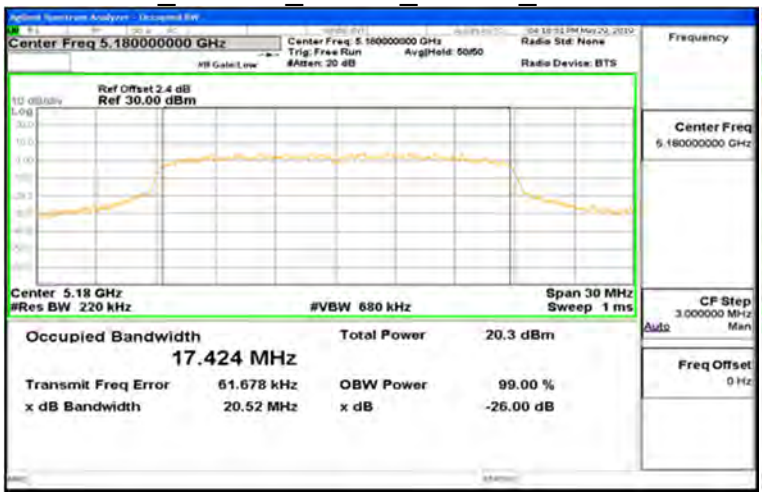
FCC_802.11a_20MHz_Chain1_5700MHz



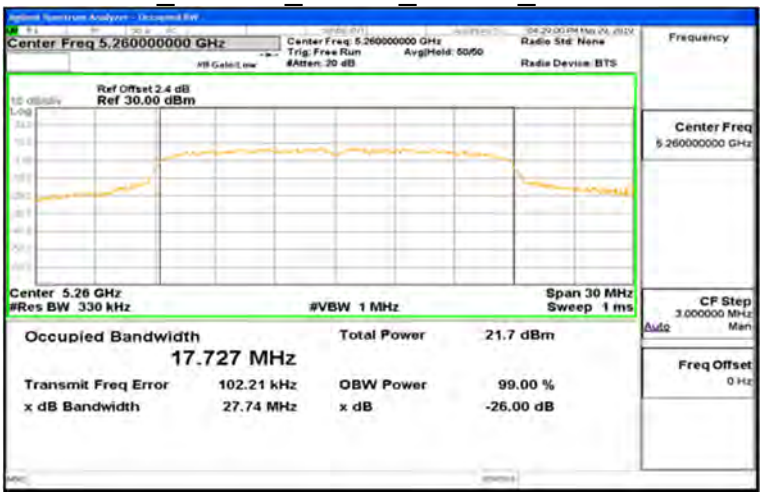
FCC_802.11a_20MHz_Chain1_5825MHz



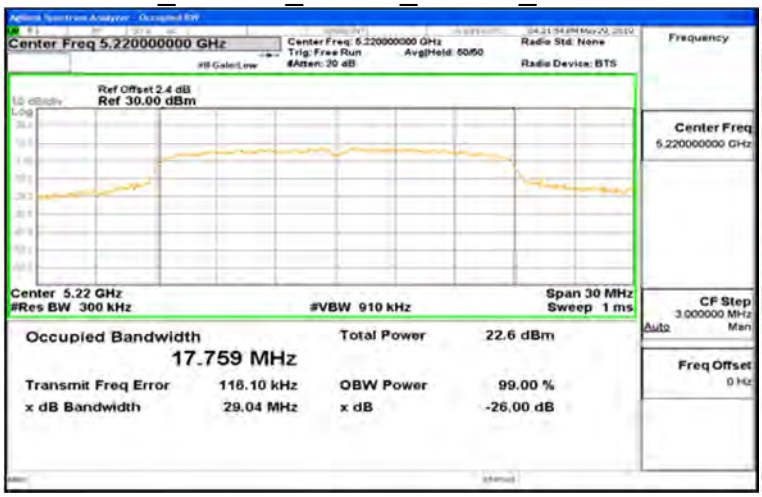
FCC_802.11n_20MHz_Chain1_5180MHz



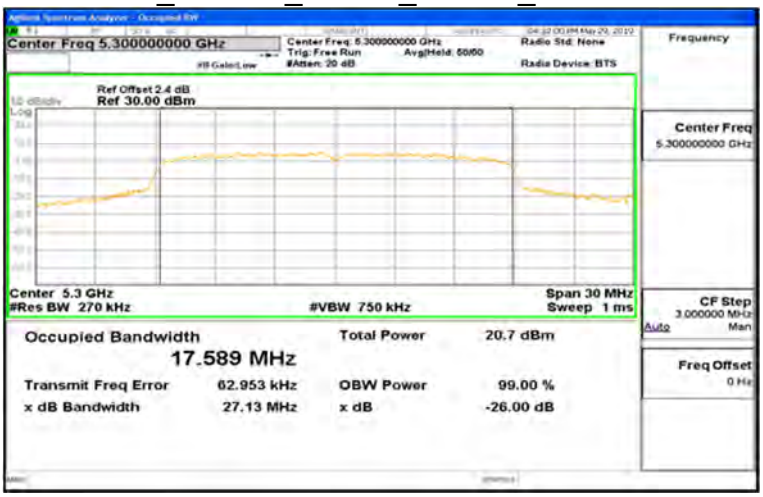
FCC_802.11n_20MHz_Chain1_5260MHz



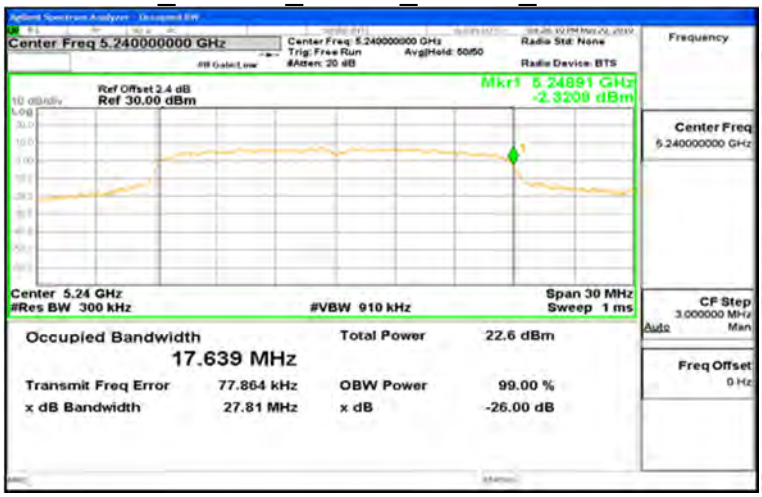
FCC_802.11n_20MHz_Chain1_5220MHz



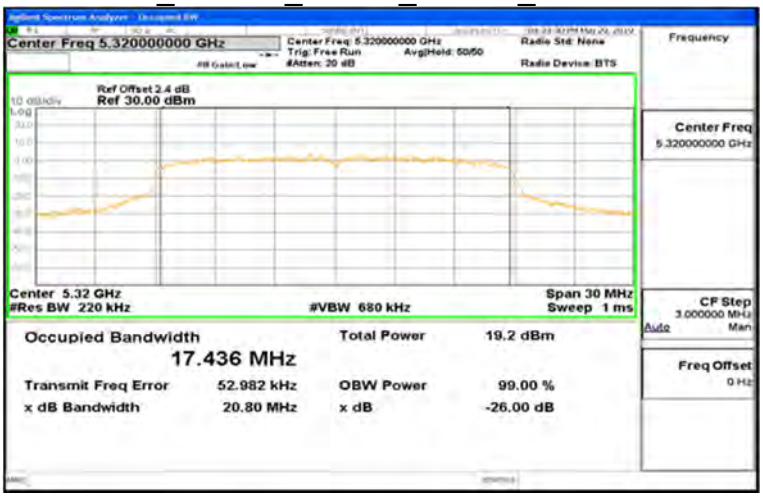
FCC_802.11n_20MHz_Chain1_5300MHz



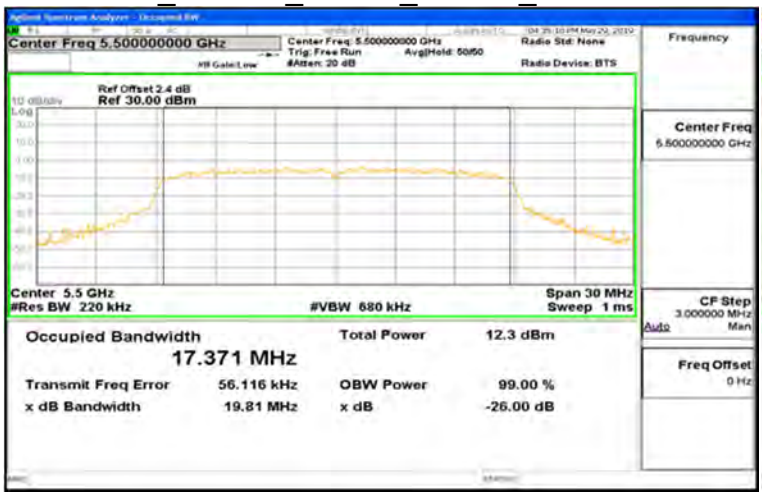
FCC_802.11n_20MHz_Chain1_5240MHz



FCC_802.11n_20MHz_Chain1_5320MHz

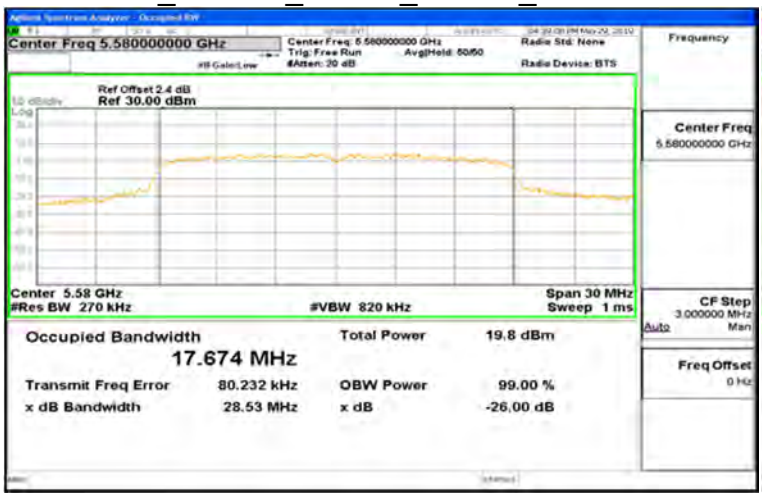


FCC_802.11n_20MHz_Chain1_5500MHz

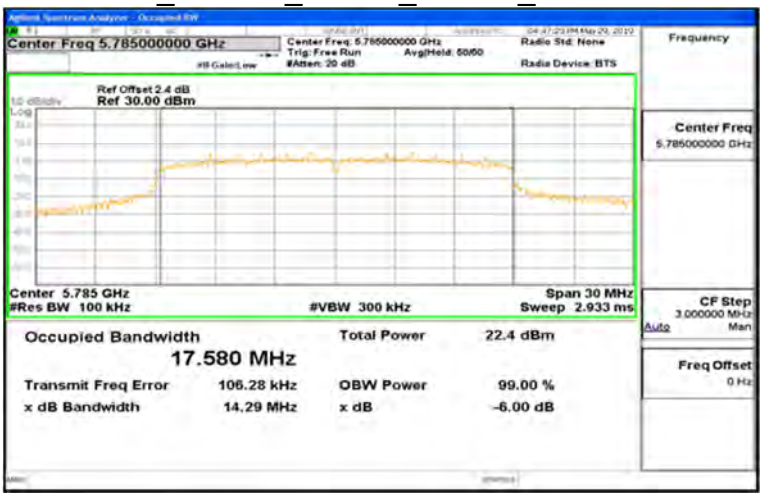


FCC_802.11n_20MHz_Chain1_5745MHz

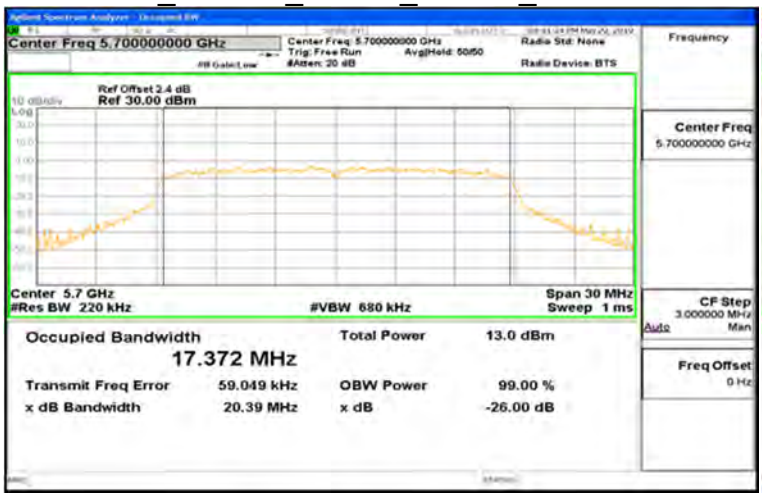
FCC_802.11n_20MHz_Chain1_5580MHz



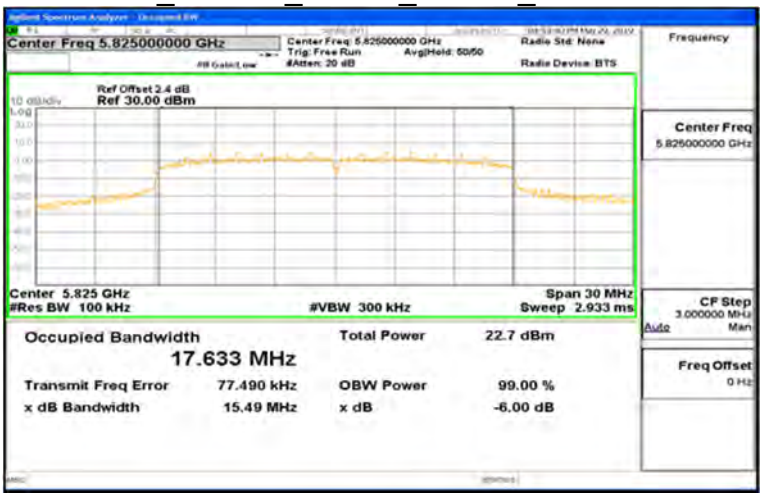
FCC_802.11n_20MHz_Chain1_5785MHz



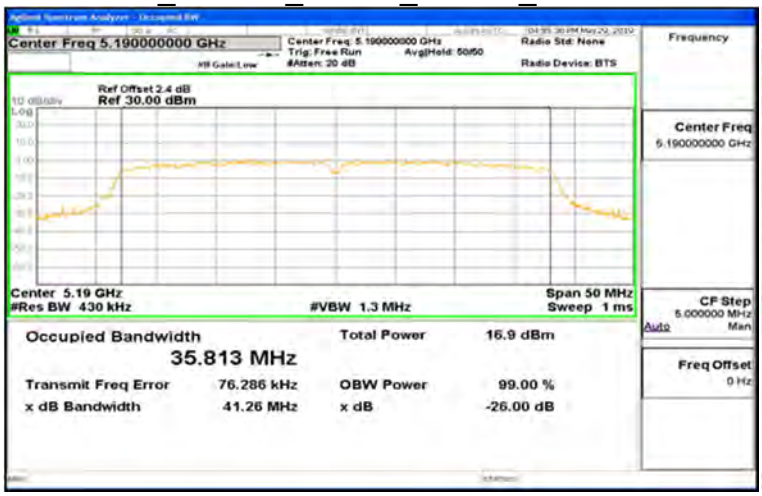
FCC_802.11n_20MHz_Chain1_5700MHz



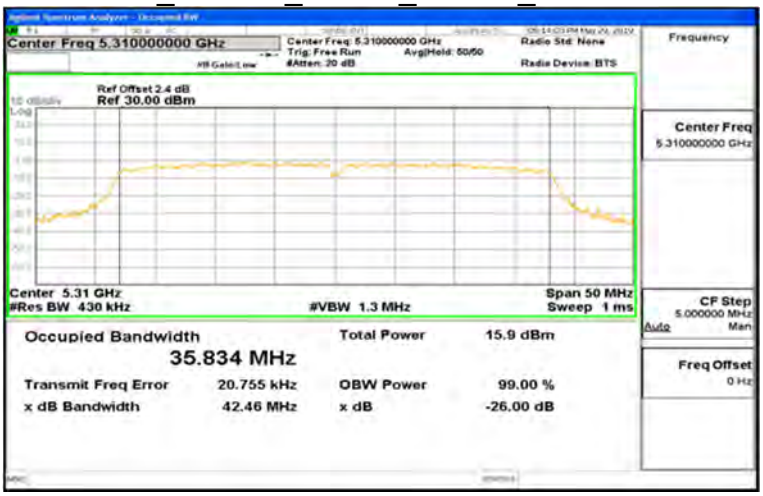
FCC_802.11n_20MHz_Chain1_5825MHz



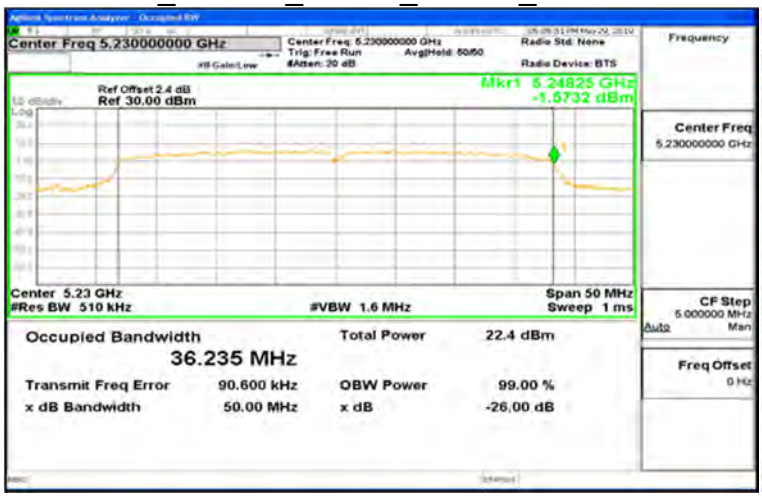
FCC_802.11n_40MHz_Chain1_5190MHz



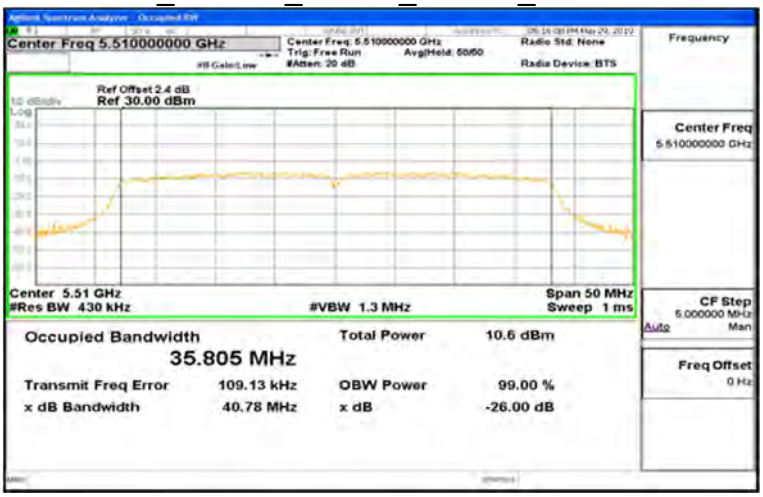
FCC_802.11n_40MHz_Chain1_5310MHz



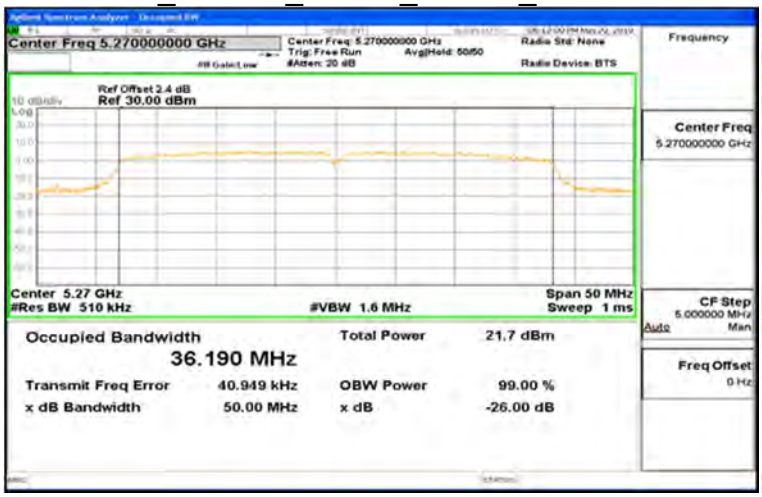
FCC_802.11n_40MHz_Chain1_5230MHz



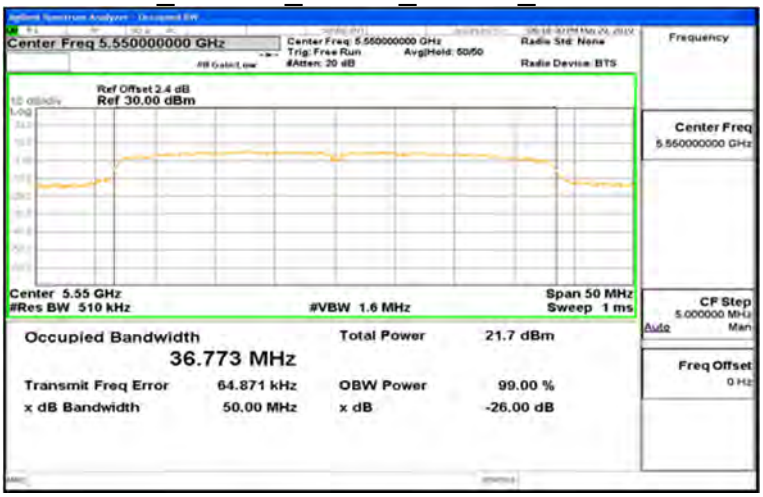
FCC_802.11n_40MHz_Chain1_5510MHz



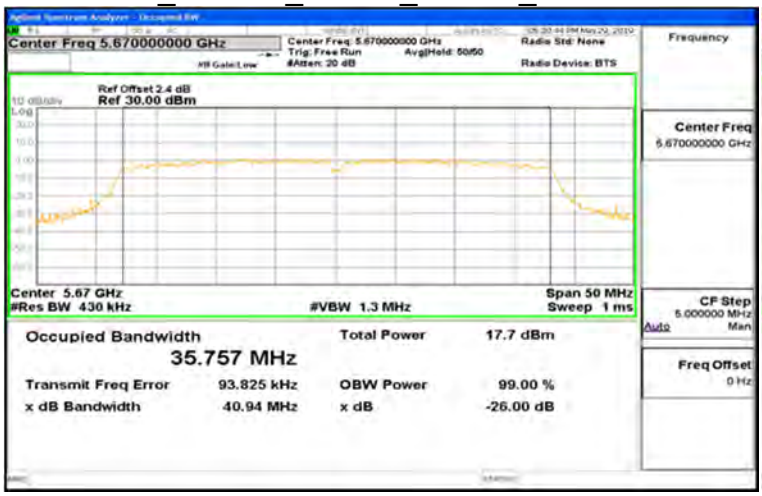
FCC_802.11n_40MHz_Chain1_5270MHz



FCC_802.11n_40MHz_Chain1_5550MHz

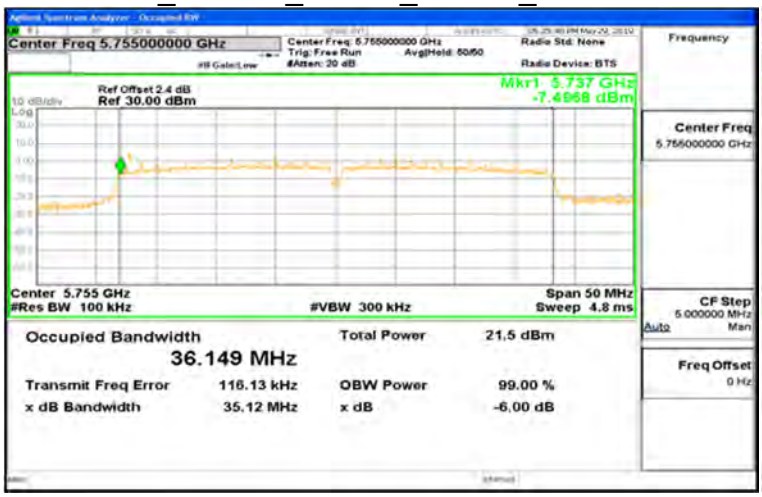


FCC_802.11n_40MHz_Chain1_5670MHz

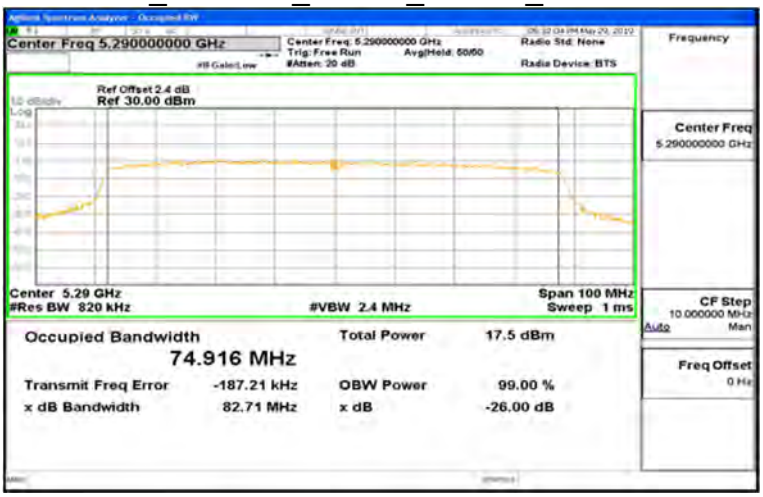


FCC_802.11ac_80MHz_Chain1_5210MHz

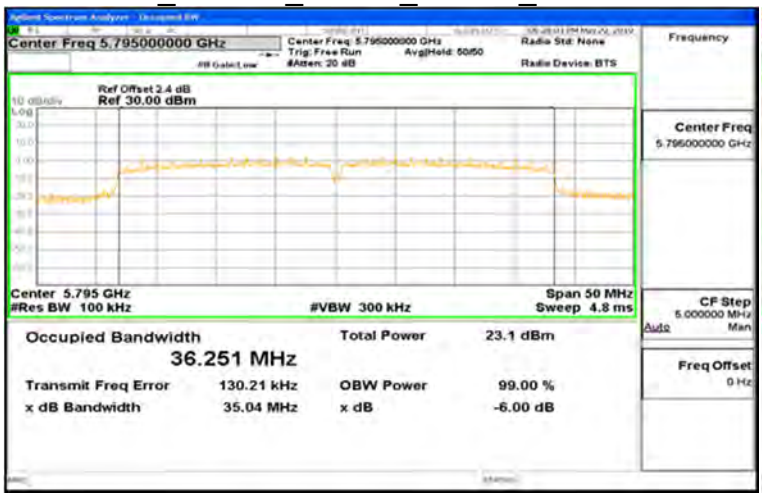
FCC_802.11n_40MHz_Chain1_5755MHz



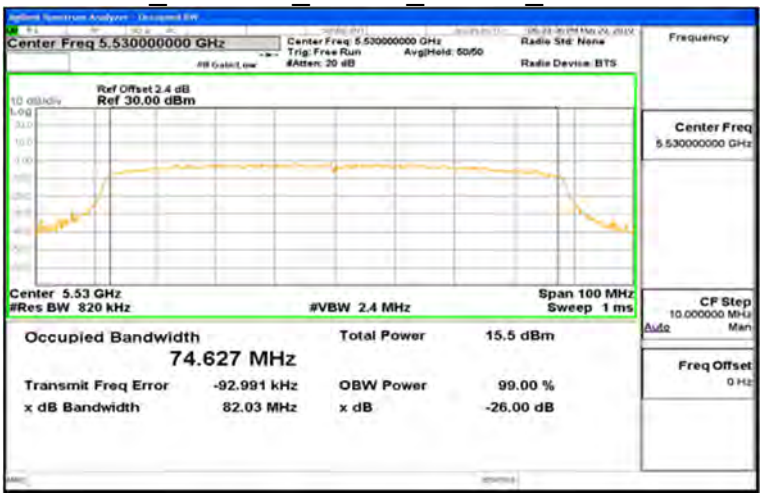
FCC_802.11ac_80MHz_Chain1_5290MHz



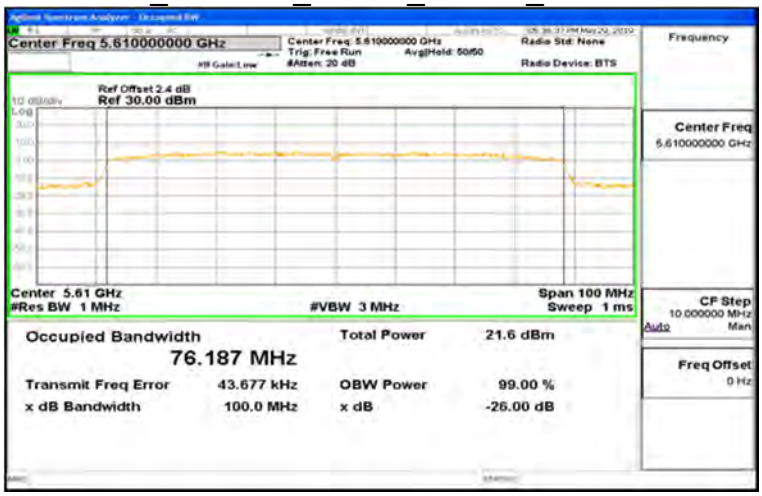
FCC_802.11n_40MHz_Chain1_5795MHz



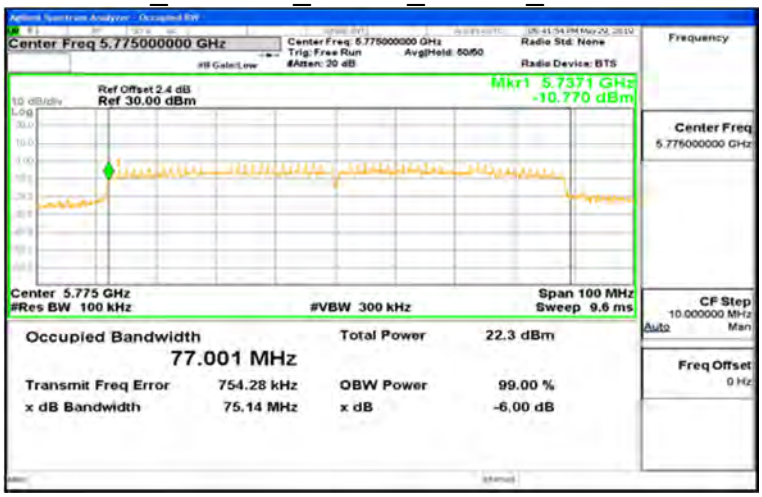
FCC_802.11ac_80MHz_Chain1_5530MHz



FCC_802.11ac_80MHz_Chain1_5610MHz



FCC_802.11ac_80MHz_Chain1_5775MHz



9 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

9.1 Standard Applicable

OPERZTION Band	EUT CATEGORY		LIMIT
U-NII-1		Access Point (Master device)	1 Watt(30dBm)
		Fixed point-to-point Access Ponit	1 Watt(30dBm)
	√	Mobile and portable client 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.			

The antenna gain is not grater than 6 dBi. Therefore, reduction of power is not required.

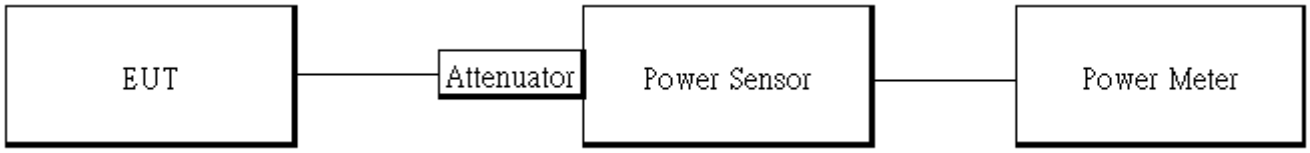
9.2 Measurement Procedure

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 SISOiliary 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

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
Power Meter	Anritsu	ML2496A	1242004	10/23/2018	10/22/2019
Power Sensor	Anritsu	MA2411B	1207365	10/23/2018	10/22/2019
Power Sensor	Anritsu	MA2411B	1207368	10/24/2018	10/23/2019
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020

9.4 Test Set-up



9.5 Measurement Result

Conducted output power (FCC)

802.11a_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	12.76	18.868	23.98	PASS
44	5220	6	13.87	24.363	23.98	PASS
48	5240	6	**13.97**	24.930	23.98	PASS
52	5260	6	13.85	24.251	23.98 or 11+10log(B) = 25.01	PASS
60	5300	6	**13.94**	24.759	23.98 or 11+10log(B) = 25.54	PASS
64	5320	6	11.43	13.891	23.98 or 11+10log(B) = 24.08	PASS
100	5500	6	6.19	4.157	23.98 or 11+10log(B) = 23.72	PASS
116	5580	6	**12.95**	19.712	23.98 or 11+10log(B) = 25.16	PASS
140	5700	6	4.75	2.984	23.98 or 11+10log(B) = 23.73	PASS
149	5745	6	13.79	23.918	30	PASS
157	5785	6	**13.98**	24.988	30	PASS
165	5825	6	13.94	24.759	30	PASS

802.11n_HT20_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	MCS0	12.48	17.699	23.98	PASS
44	5220	MCS0	13.91	24.601	23.98	PASS
48	5240	MCS0	**13.93**	24.714	23.98	PASS
52	5260	MCS0	**12.94**	19.677	23.98 or 11+10log(B) = 25.43	PASS
60	5300	MCS0	12.85	19.273	23.98 or 11+10log(B) = 25.33	PASS
64	5320	MCS0	12.02	15.920	23.98 or 11+10log(B) = 24.18	PASS
100	5500	MCS0	6.17	4.140	23.98 or 11+10log(B) = 23.97	PASS
116	5580	MCS0	**12.95**	19.722	23.98 or 11+10log(B) = 25.55	PASS
140	5700	MCS0	4.20	2.630	23.98 or 11+10log(B) = 24.09	PASS
149	5745	MCS0	**13.95**	24.828	30	PASS
157	5785	MCS0	13.78	23.875	30	PASS
165	5825	MCS0	13.87	24.375	30	PASS

802.11n_HT40_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	MCS0	9.76	9.455	23.98	PASS
46	5230	MCS0	**13.82**	24.081	23.98	PASS
54	5270	MCS0	**13.87**	24.360	23.98 or 11+10log(B) = 27.99	PASS
62	5310	MCS0	8.89	7.739	23.98 or 11+10log(B) = 27.28	PASS
102	5510	MCS0	4.38	2.740	23.98 or 11+10log(B) = 27.10	PASS
110	5550	MCS0	**12.88**	19.395	23.98 or 11+10log(B) = 27.99	PASS
134	5670	MCS0	10.44	11.058	23.98 or 11+10log(B) = 27.12	PASS
151	5755	MCS0	13.82	24.081	23.98	PASS
159	5795	MCS0	**14.97**	31.382	30	PASS

802.11ac_VHT80_Ch1

CH	Frequency (MHz)	Data Rate	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	MCS0	**9.67**	9.265	23.98	PASS
58	5290	MCS0	**8.99**	7.922	23.98 or 11+10log(B) = 30.18	PASS
106	5530	MCS0	7.57	5.713	23.98 or 11+10log(B) = 30.14	PASS
122	5610	MCS0	**12.83**	19.180	23.98 or 11+10log(B) = 31.00	PASS
155	5775	MCS0	**13.88**	24.426	23.98	PASS

10 MAXIMUM POWER SPECTRAL DENSITY

10.1 Standard Applicable

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.			

The antenna gain is not grater than 6 dBi. Therefore, reduction of power is not required.

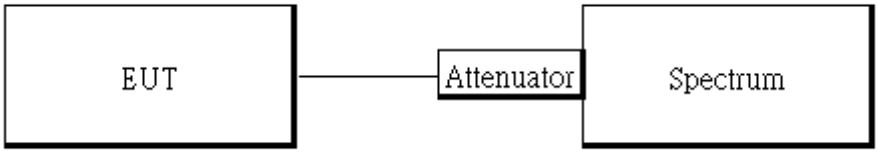
10.2 Measurement Procedure

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.

10.3 Measurement Equipment Used

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	02/13/2019	02/12/2020
DC Block	Mini-Circuits	BLK-18-S+	31129(1)	02/26/2019	02/25/2020
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020

10.4 Test Set-up



10.5 Measurement Result

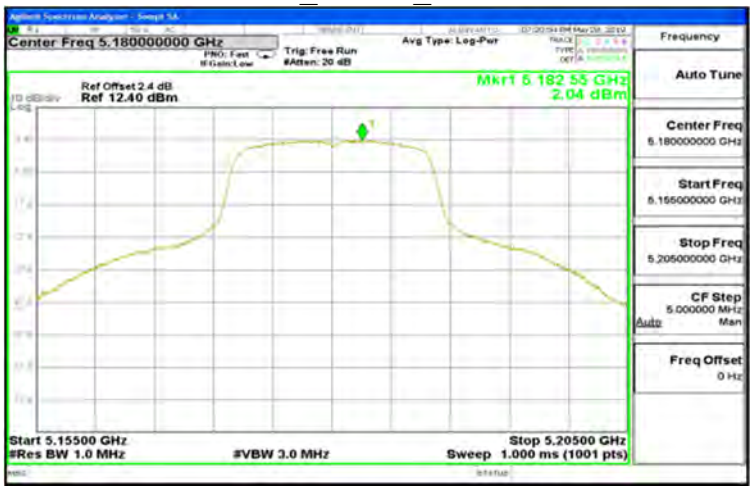
POWER DENSITY 802.11a MODE_Ch0					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5180	2.04	0.22	2.26	11	-8.74
5220	1.40	0.22	1.62	11	-9.38
5240	2.03	0.22	2.25	11	-8.75
5260	1.92	0.22	2.14	11	-8.86
5300	2.03	0.22	2.25	11	-8.75
5320	1.55	0.22	1.77	11	-9.23
5500	-6.84	0.22	-6.62	11	-17.62
5580	1.52	0.22	1.74	11	-9.26
5700	-7.42	0.22	-7.20	11	-18.20
5745	-0.71	-	-0.71	30	-30.71
5785	-1.63	-	-1.63	30	-31.63
5825	-2.28	-	-2.28	30	-32.28

POWER DENSITY 802.11n HT20 MODE_Ch0					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5180	2.37	0.26	2.63	11	-8.37
5220	2.06	0.26	2.32	11	-8.68
5240	1.42	0.26	1.68	11	-9.32
5260	0.78	0.26	1.04	11	-9.96
5300	0.31	0.26	0.57	11	-10.43
5320	1.30	0.26	1.56	11	-9.44
5500	-5.55	0.26	-5.29	11	-16.29
5580	1.24	0.26	1.50	11	-9.50
5700	-4.65	0.26	-4.39	11	-15.39
5745	-0.33	-	-0.33	30	-30.33
5785	-2.44	-	-2.44	30	-32.44
5825	-2.49	-	-2.49	30	-32.49

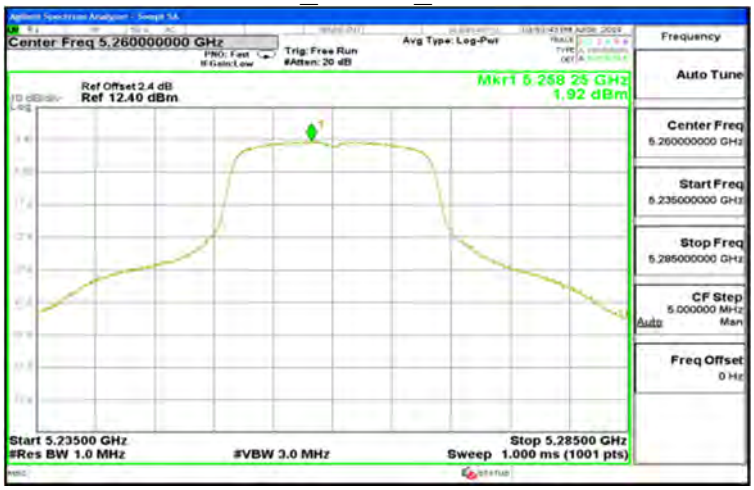
POWER DENSITY 802.11n HT40 MODE_Ch0					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5190	-4.13	0.55	-3.58	11	-14.58
5230	-2.31	0.55	-1.76	11	-12.76
5270	-1.5	0.55	-0.95	11	-11.95
5310	-5.14	0.55	-4.59	11	-15.59
5510	-10.3	0.55	-9.75	11	-20.75
5550	-2.86	0.55	-2.31	11	-13.31
5670	-3.77	0.55	-3.22	11	-14.22
5755	-4.06	-	-4.06	30	-34.06
5795	-4.46	-	-4.46	30	-34.46

POWER DENSITY 802.11ac VHT80 MODE_Ch0					
Frequency (MHz)	PSD W/O Duty Factor (dBm)	Duty Factor	PSD With Duty Factor (dBm)	Limit (dBm)	Margin (dB)
5210	-7.84	0.90	-6.94	11	-17.94
5290	-7.91	0.90	-7.01	11	-18.01
5530	-9.98	0.90	-9.08	11	-20.08
5610	-5.63	0.90	-4.73	11	-15.73
5775	-7.69	-	-7.69	30	-37.69

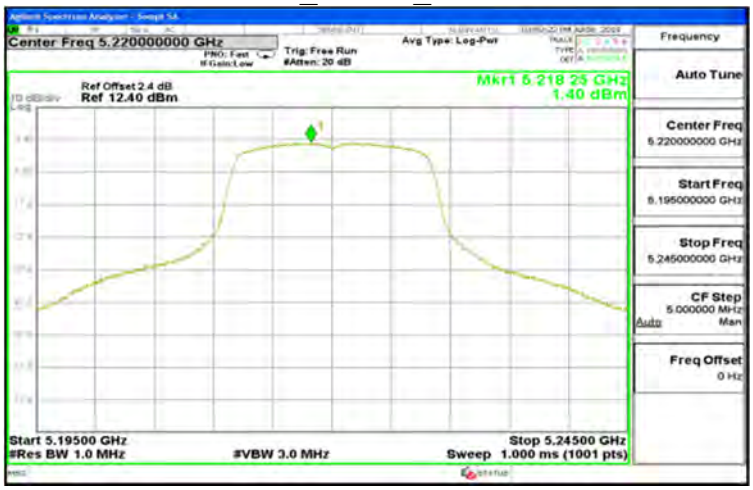
802.11a_20MHz_5180MHz



802.11a_20MHz_5260MHz

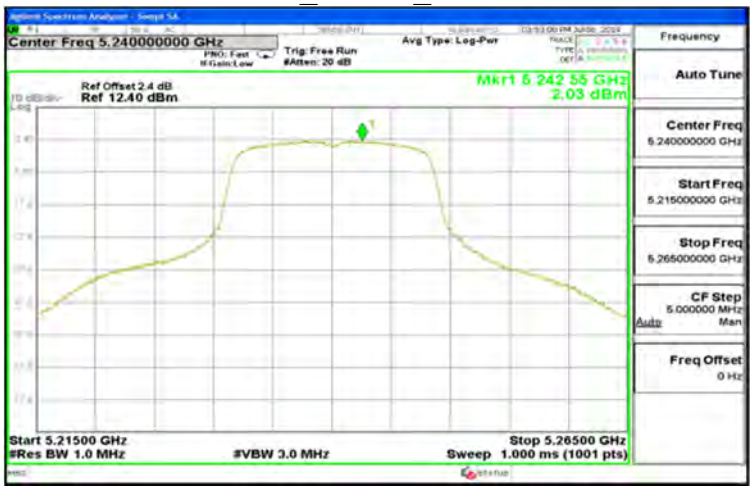


802.11a_20MHz_5220MHz



802.11a_20MHz_5300MHz

802.11a_20MHz_5240MHz



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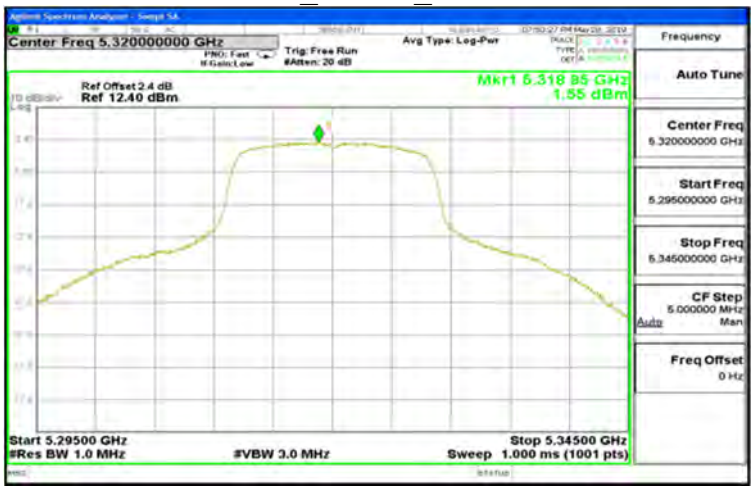
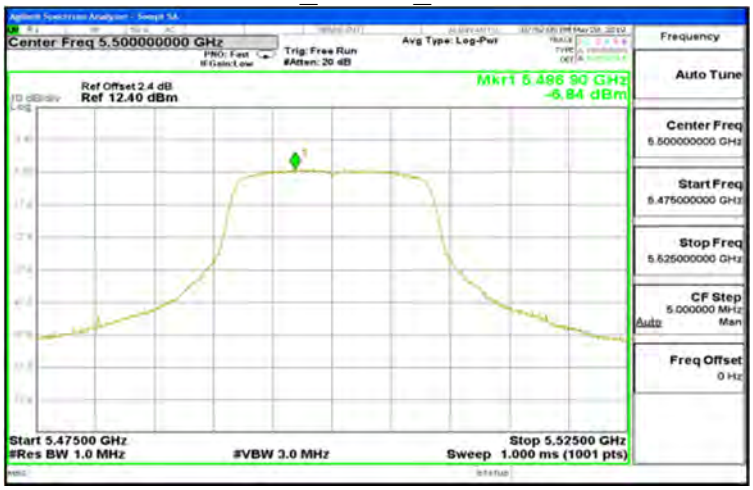
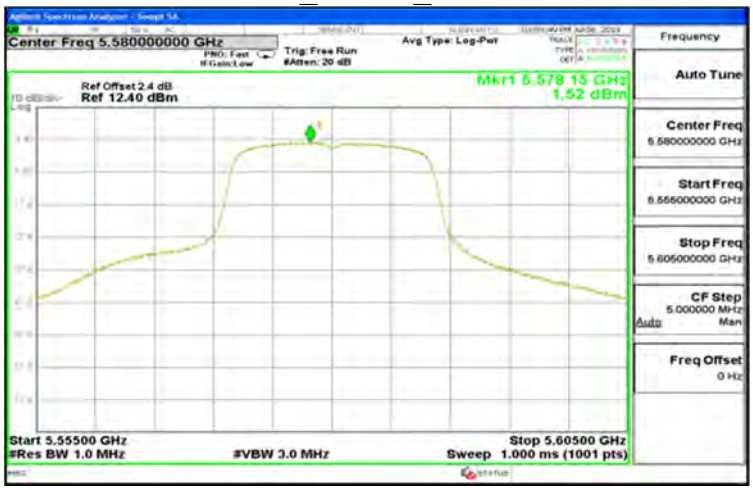


802.11a_20MHz_5500MHz

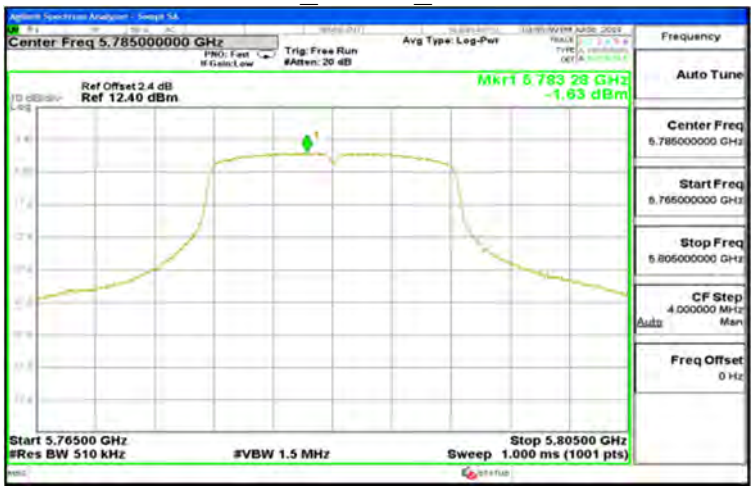


802.11a_20MHz_5745MHz

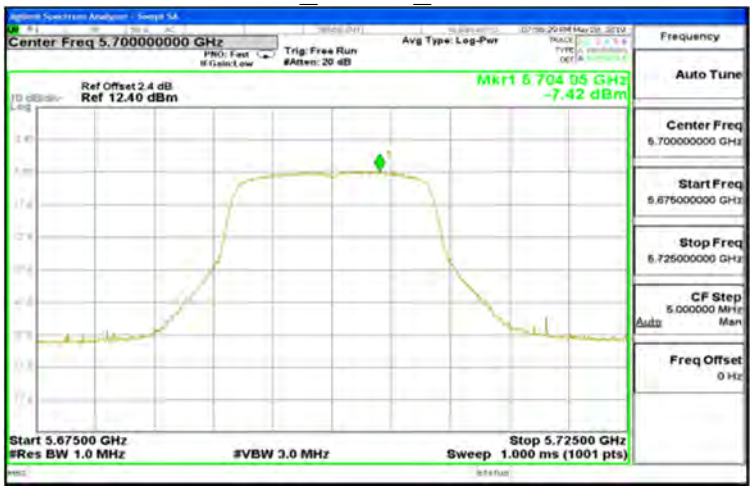
802.11a_20MHz_5580MHz



802.11a_20MHz_5785MHz

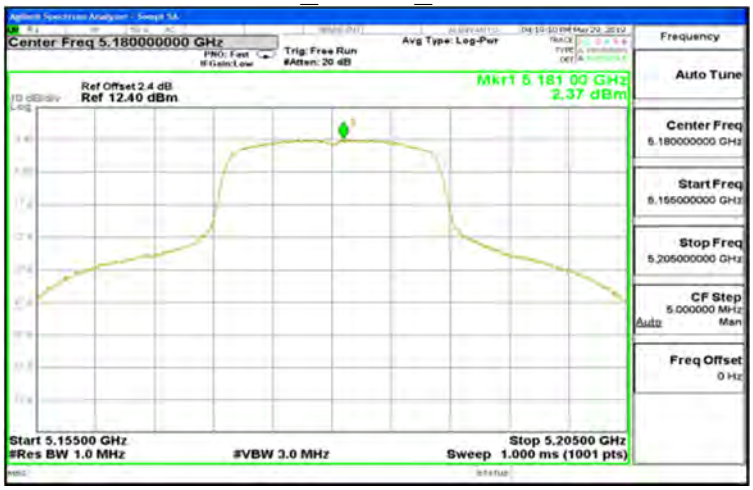


802.11a_20MHz_5700MHz

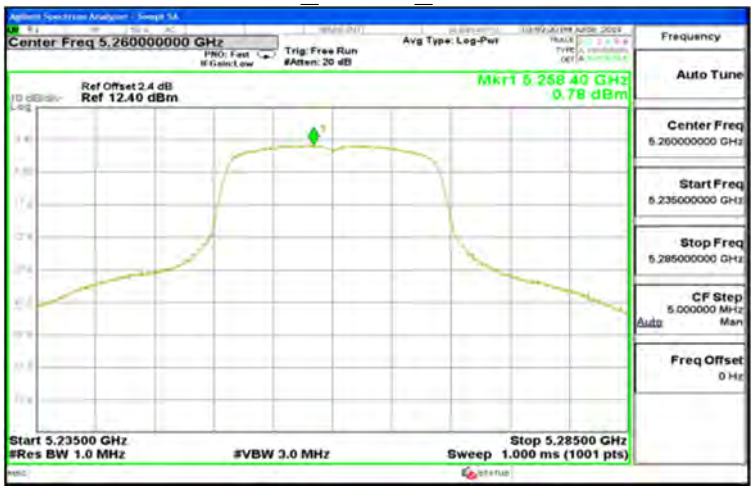


802.11a_20MHz_5825MHz

802.11n_20MHz_5180MHz

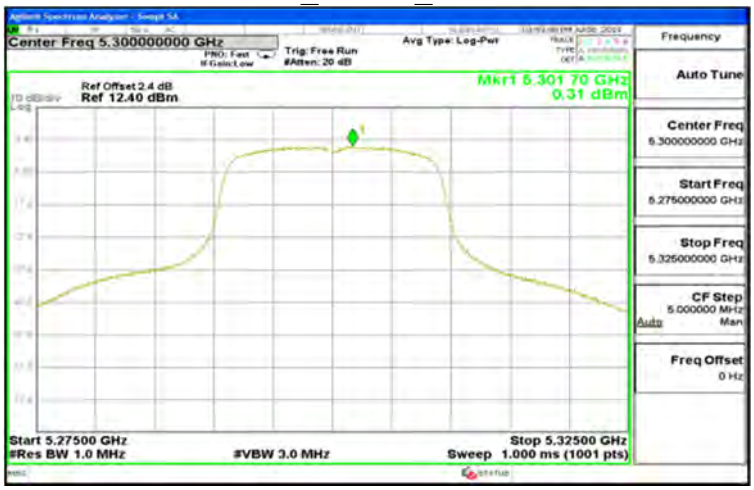


802.11n_20MHz_5260MHz

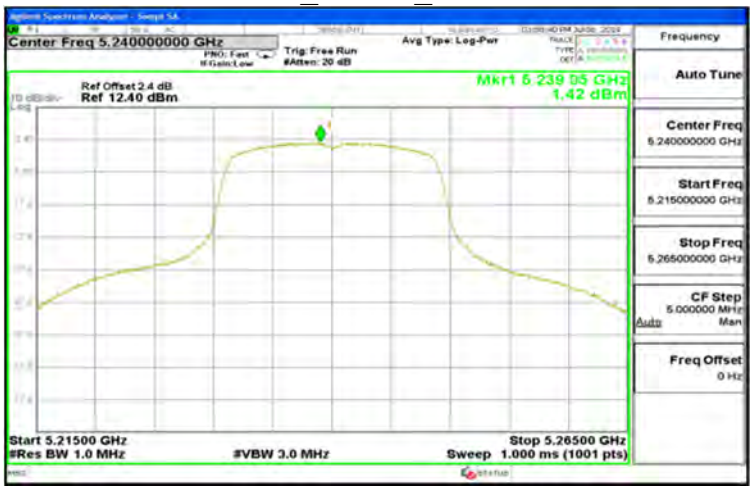


802.11n_20MHz_5220MHz

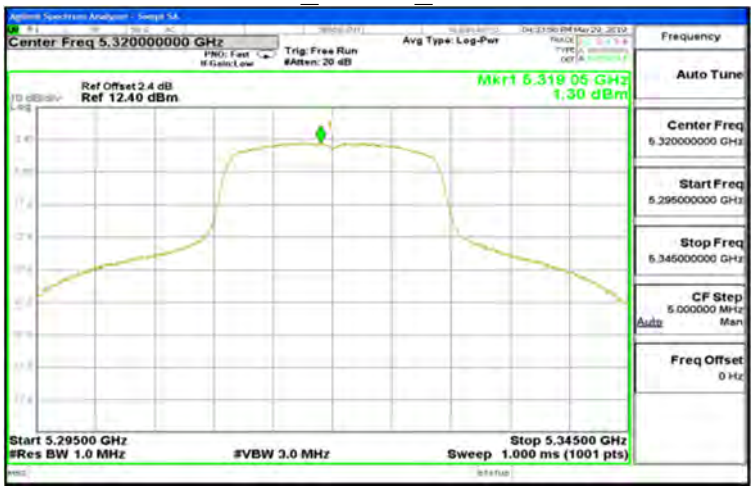
802.11n_20MHz_5300MHz



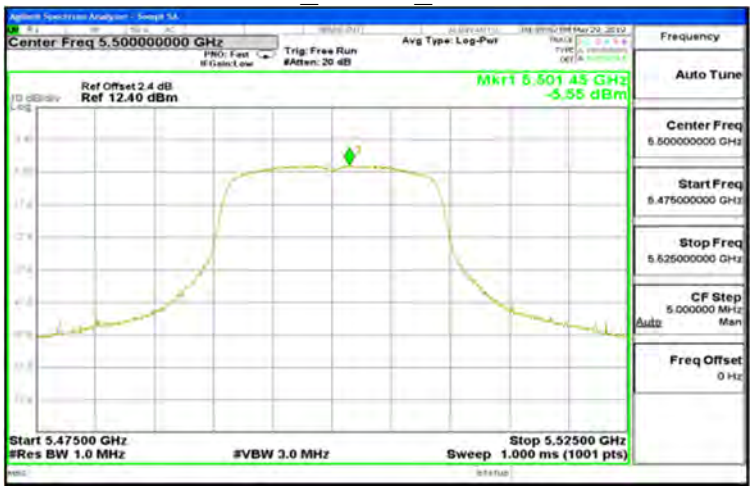
802.11n_20MHz_5240MHz



802.11n_20MHz_5320MHz

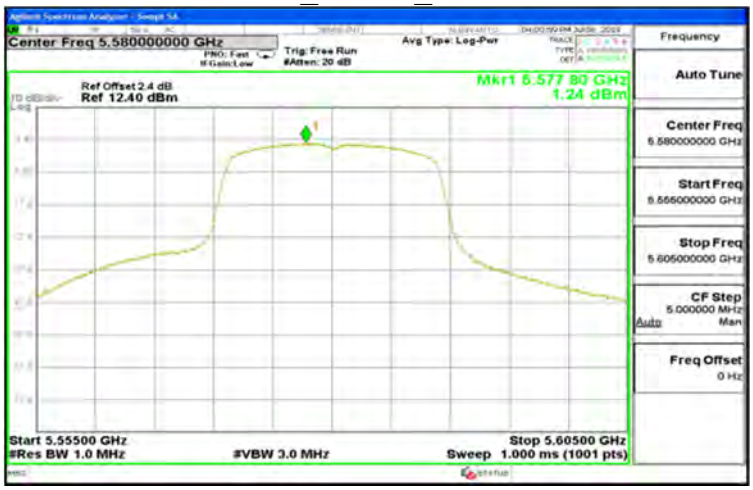


802.11n_20MHz_5500MHz



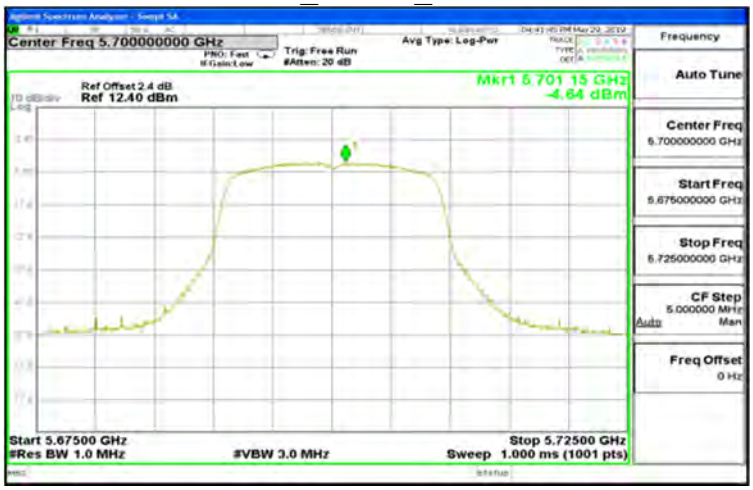
802.11n_20MHz_5745MHz

802.11n_20MHz_5580MHz

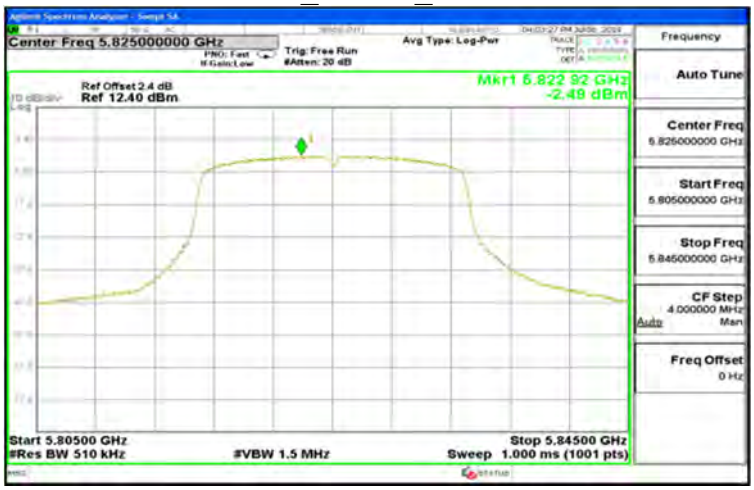


802.11n_20MHz_5785MHz

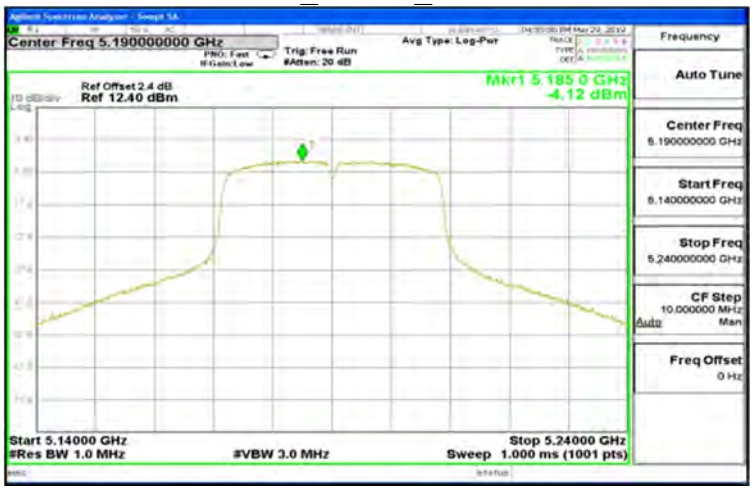
802.11n_20MHz_5700MHz



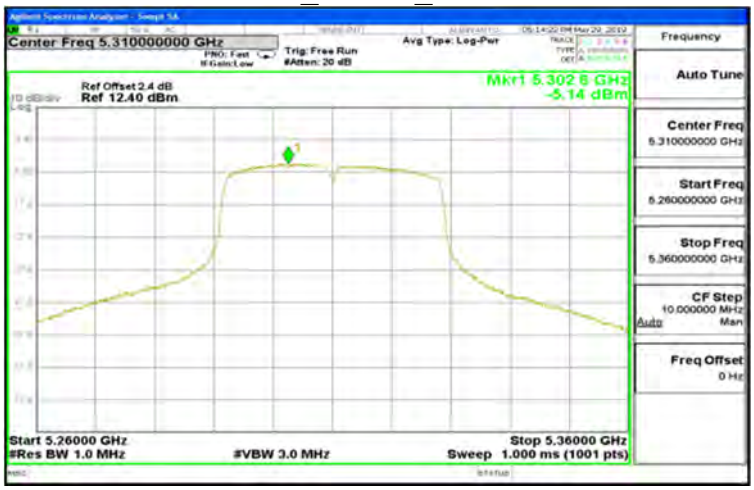
802.11n_20MHz_5825MHz



802.11n_40MHz_5190MHz

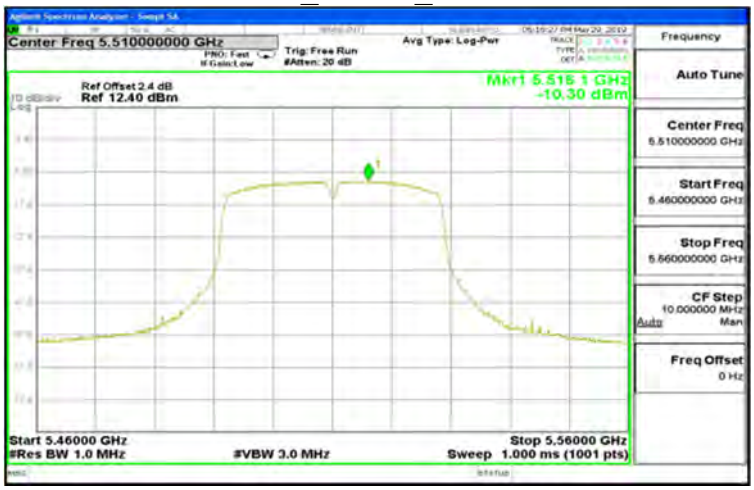


802.11n_40MHz_5310MHz

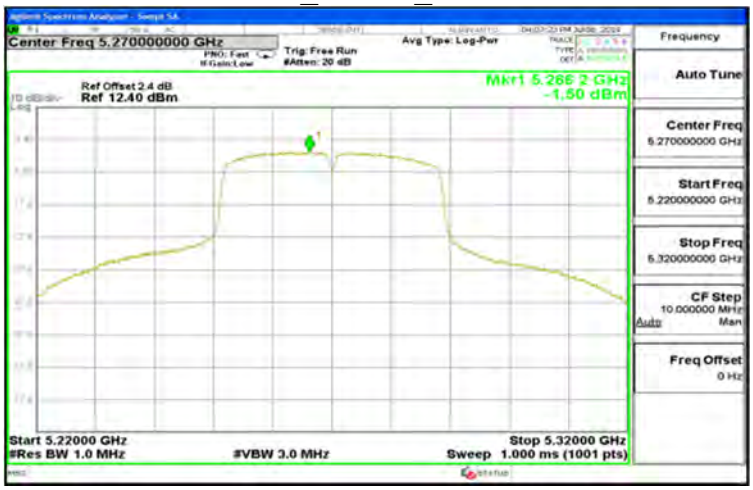


802.11n_40MHz_5230MHz

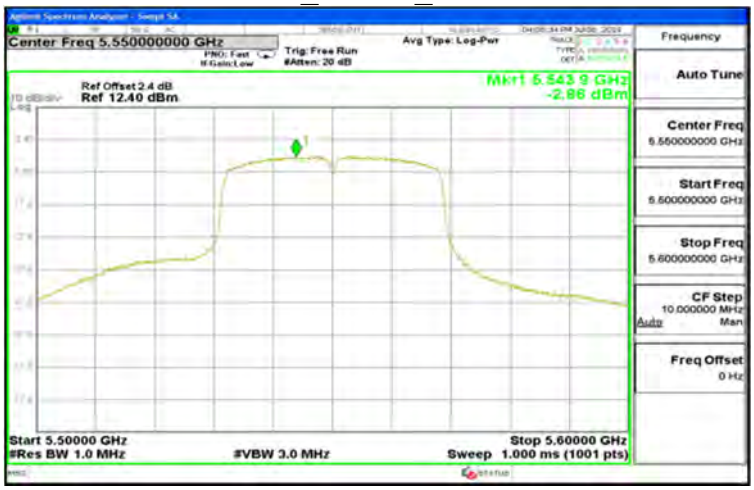
802.11n_40MHz_5510MHz



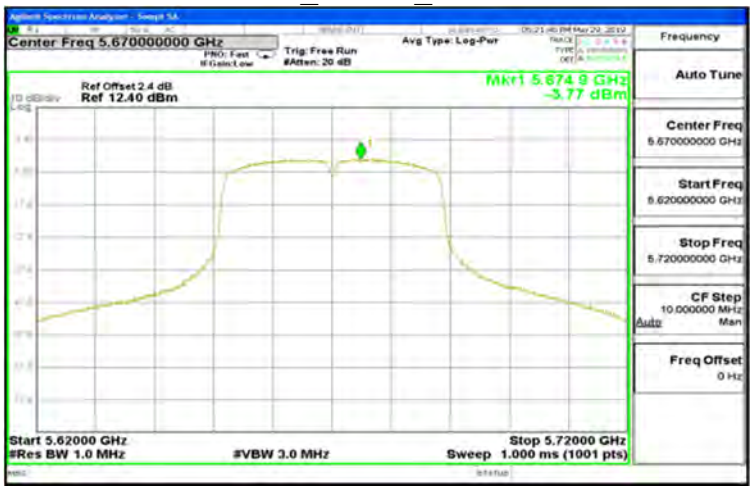
802.11n_40MHz_5270MHz



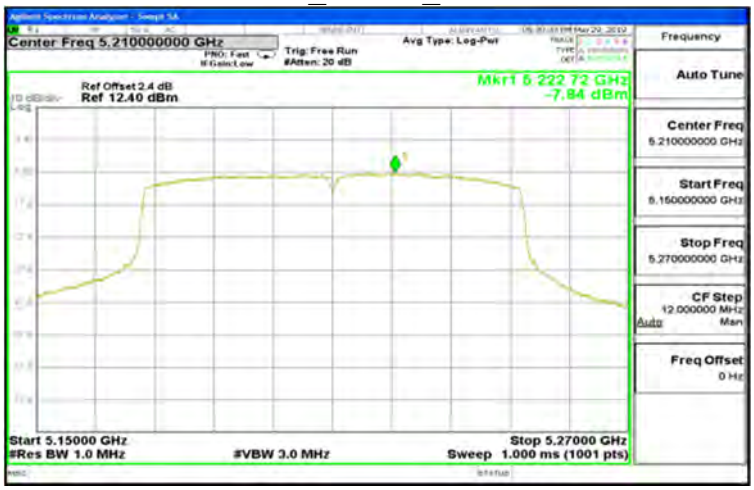
802.11n_40MHz_5550MHz



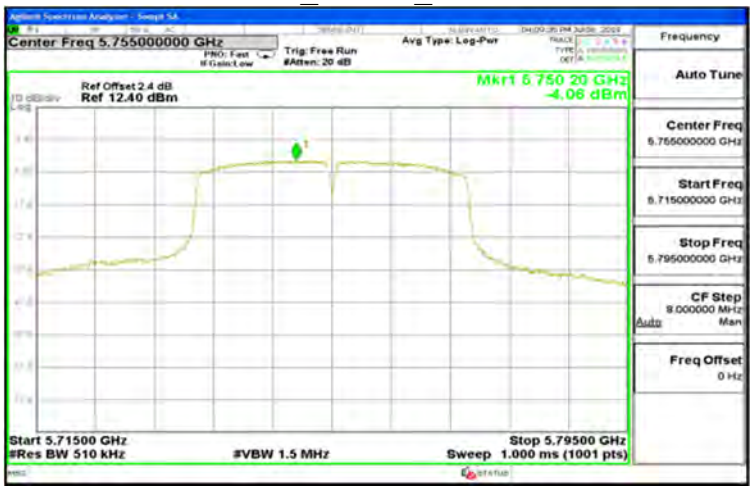
802.11n_40MHz_5670MHz



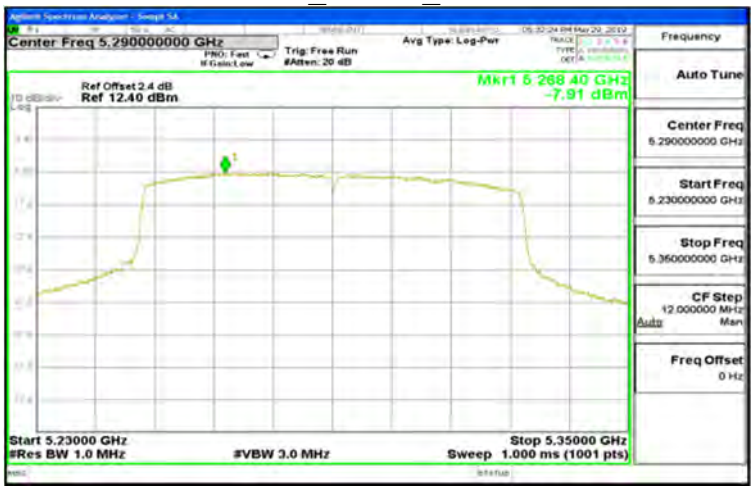
802.11ac_80MHz_5210MHz



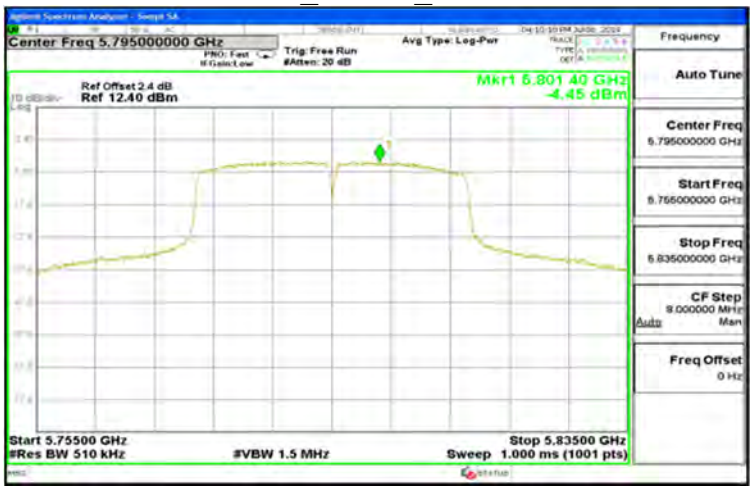
802.11n_40MHz_5755MHz



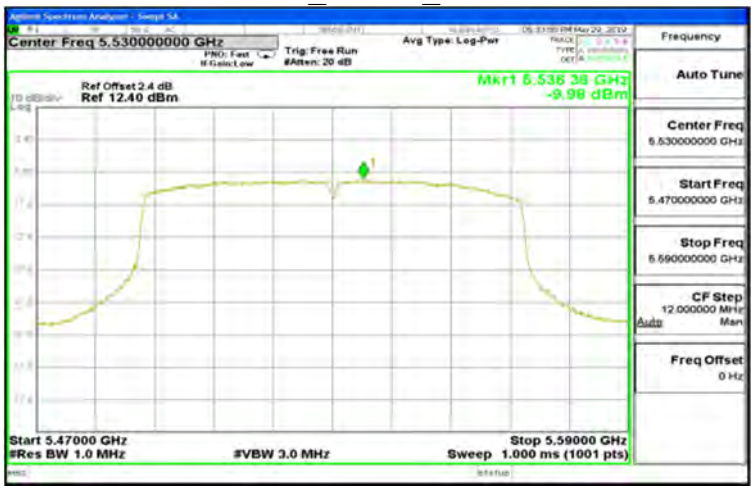
802.11ac_80MHz_5290MHz



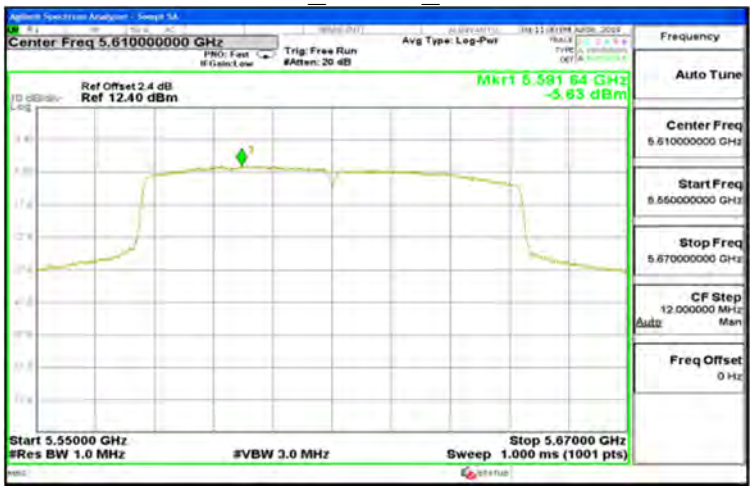
802.11n_40MHz_5795MHz



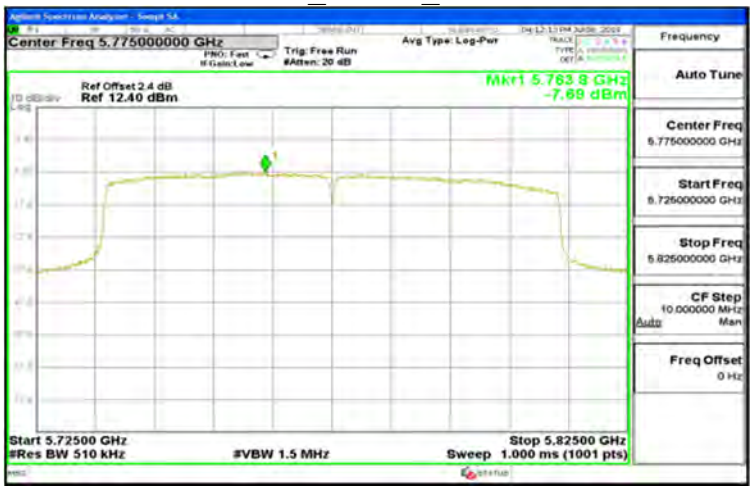
802.11ac_80MHz_5530MHz



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)	PK: -27 (dBm/MHz)	PK: 68.3 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)(i)	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)

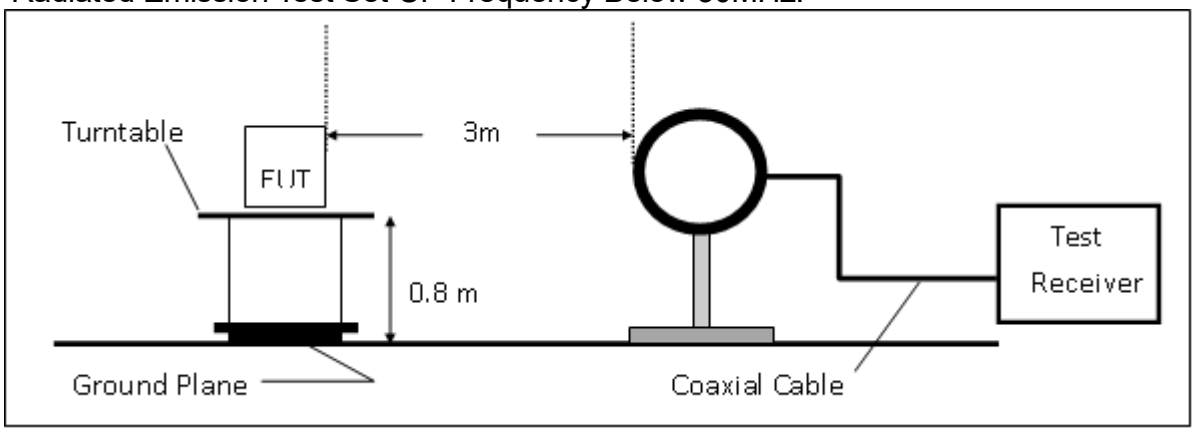
11.2 Measurement Equipment Used

966A Chamber					
EQUIPMENT TYPE	**MFR**	**MODEL NUMBER**	**SERIAL NUMBER**	**LAST CAL.**	**CAL DUE.**
Bilog Antenna	Sunol Sciences	JB1	A052609	03/06/2019	03/05/2020
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	02/26/2019	02/25/2020
Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/26/2019	02/25/2020
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/30/2019	01/29/2020
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/20/2018	08/19/2019
Low Pass Filter	EWT	EWT-56-0019	RF46	02/26/2019	02/25/2020
High Pass Filter	WI	WHKX7.0/18G-8SS	45	02/26/2019	02/25/2020
Horn Antenna	ETS LINDGREN	3116	00026370	12/26/2018	12/25/2019
Loop Antenna	COM-POWER	AL-130	121051	03/22/2019	03/21/2020
Pre-Amplifier	EMEC	EM330	060609	02/26/2019	02/25/2020
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	02/26/2019	02/25/2020
Pre-Amplifier	HP	8449B	3008A00965	02/26/2019	02/25/2020
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	05/29/2019	05/28/2020
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				

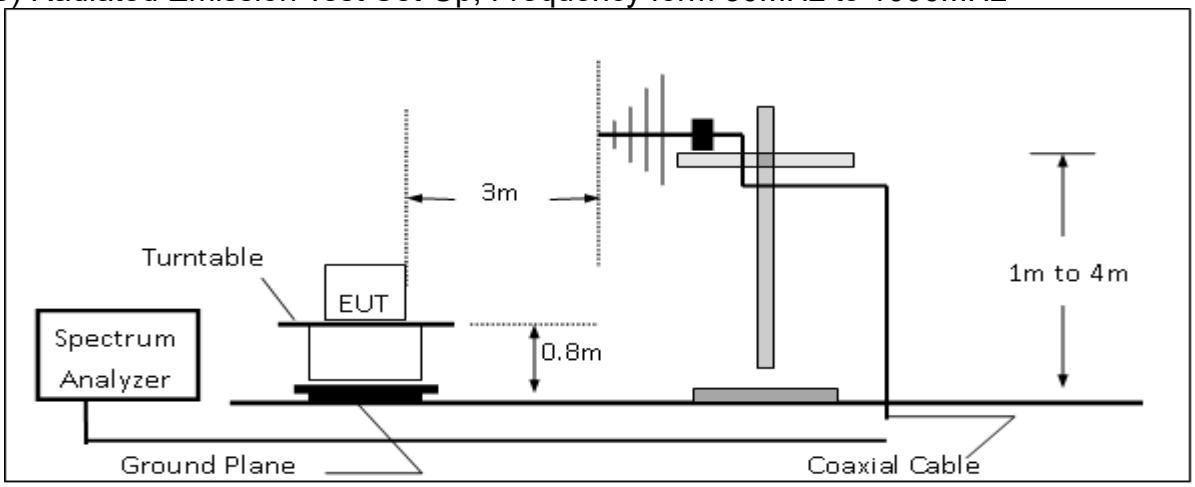
NOTE: N.C.R refers to Not Calibrated Required.

11.3 Test SET-UP

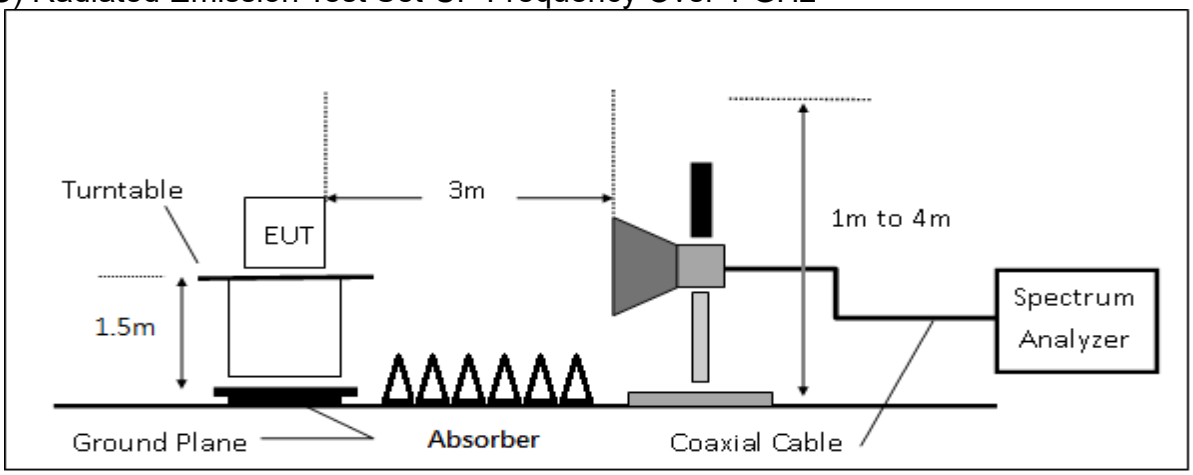
(A) Radiated Emission Test Set-UP Frequency Below 30MHz.



(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)

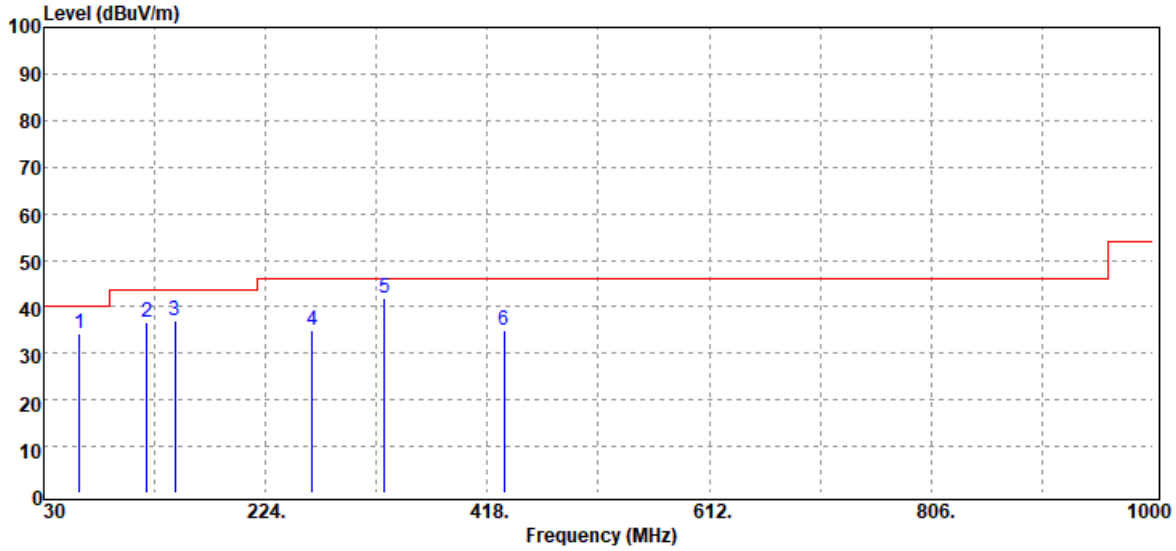
11.6 Test Results of Radiated Spurious Emissions form 9 kHz to 30 MHz

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) was not reported.

11.7 Measurement Result

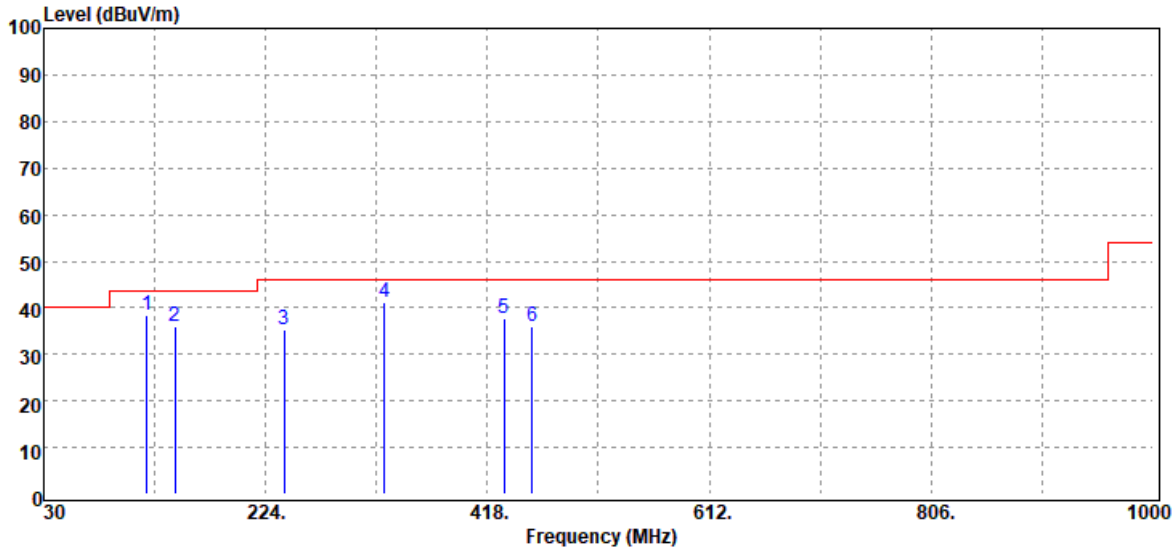
Radiated Spurious Emission Measurement Result
Below 1GHz Worst-Case Data:

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5220 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



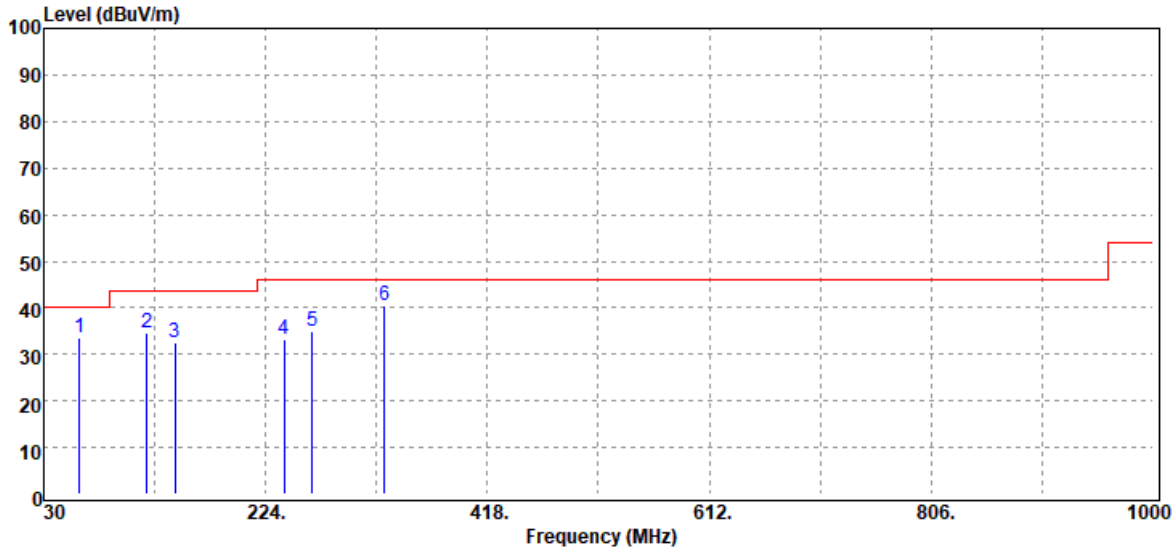
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
61.04	Peak	49.80	-15.64	34.16	40.00	-5.84
120.21	Peak	45.61	-8.88	36.73	43.50	-6.77
144.46	Peak	46.88	-9.92	36.96	43.50	-6.54
264.74	Peak	43.76	-8.95	34.81	46.00	-11.19
327.79	Peak	49.22	-7.25	41.97	46.00	-4.03
432.55	Peak	39.35	-4.32	35.03	46.00	-10.97

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5220 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



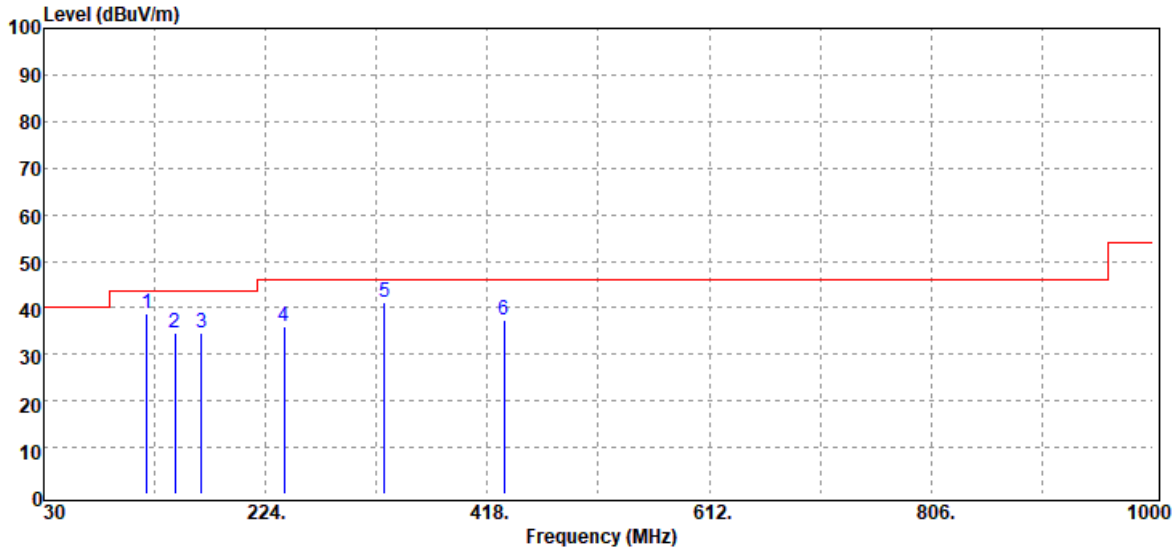
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
120.21	Peak	47.34	-8.88	38.46	43.50	-5.04
144.46	Peak	45.88	-9.92	35.96	43.50	-7.54
240.49	Peak	45.71	-10.25	35.46	46.00	-10.54
327.79	Peak	48.37	-7.25	41.12	46.00	-4.88
432.55	Peak	41.91	-4.32	37.59	46.00	-8.41
456.80	Peak	39.65	-3.76	35.89	46.00	-10.11

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5300 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



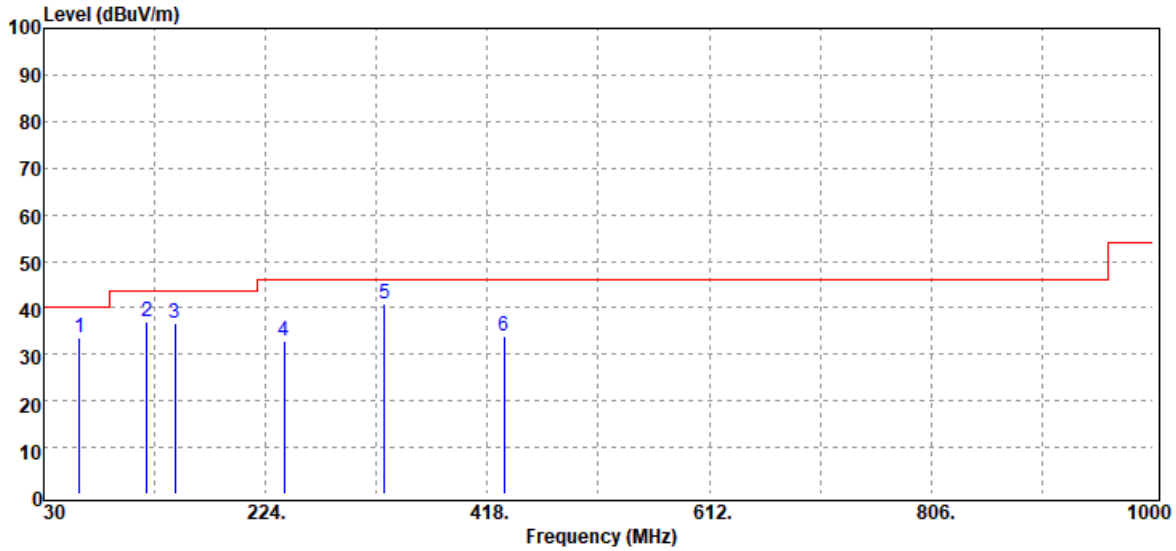
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
61.04	Peak	49.25	-15.64	33.61	40.00	-6.39
120.21	Peak	43.33	-8.88	34.45	43.50	-9.05
144.46	Peak	42.44	-9.92	32.52	43.50	-10.98
240.49	Peak	43.38	-10.25	33.13	46.00	-12.87
264.74	Peak	43.80	-8.95	34.85	46.00	-11.15
327.79	Peak	47.64	-7.25	40.39	46.00	-5.61

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5300 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



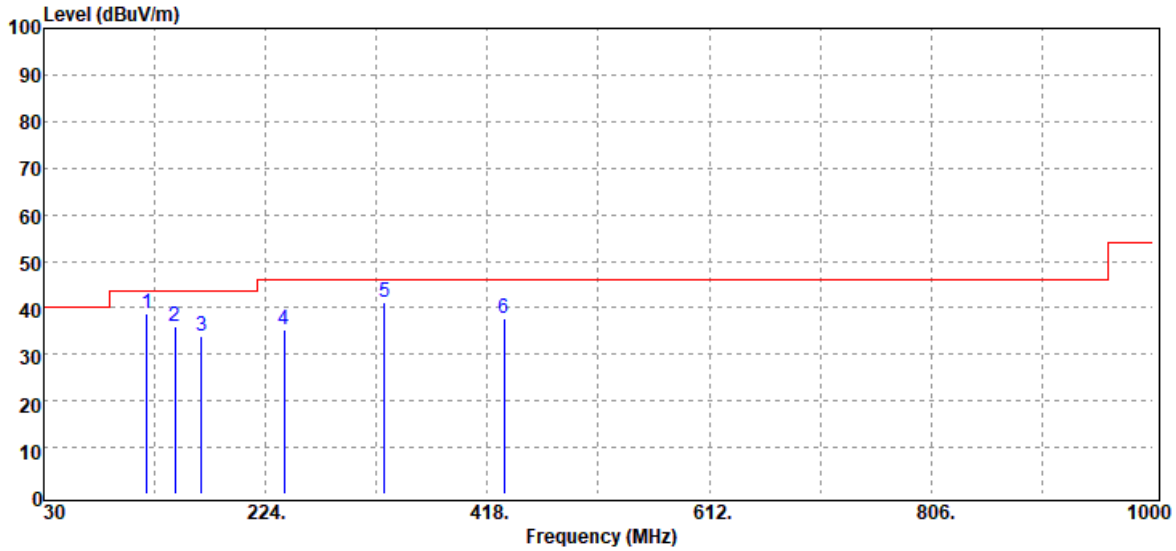
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
120.21	Peak	47.60	-8.88	38.72	43.50	-4.78
144.46	Peak	44.61	-9.92	34.69	43.50	-8.81
167.74	Peak	45.20	-10.56	34.64	43.50	-8.86
240.49	Peak	46.37	-10.25	36.12	46.00	-9.88
327.79	Peak	48.27	-7.25	41.02	46.00	-4.98
432.55	Peak	41.57	-4.32	37.25	46.00	-8.75

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5580 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



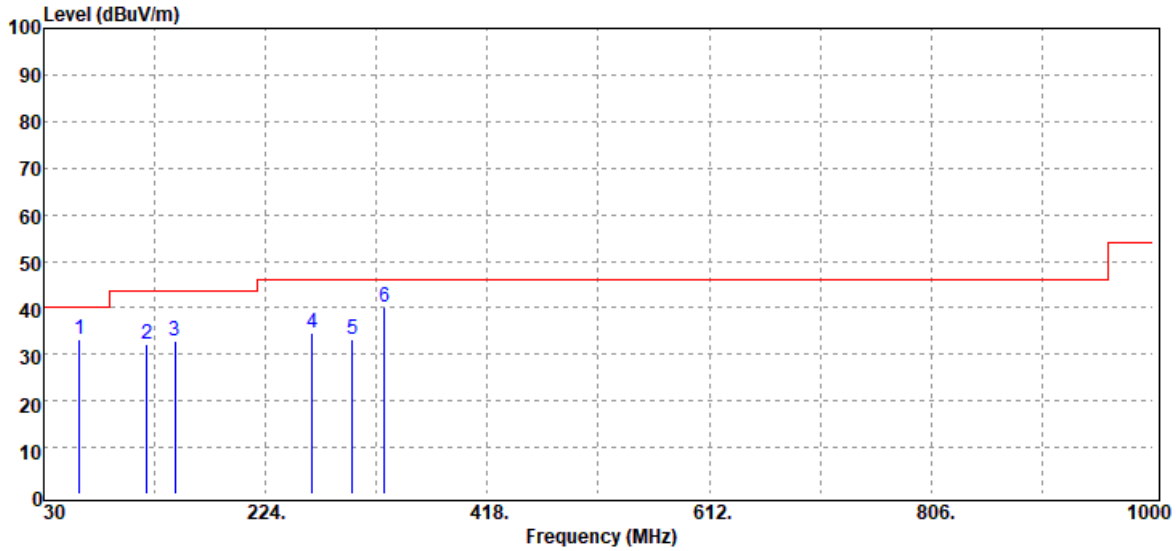
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
61.04	Peak	49.11	-15.64	33.47	40.00	-6.53
120.21	Peak	45.87	-8.88	36.99	43.50	-6.51
144.46	Peak	46.74	-9.92	36.82	43.50	-6.68
240.49	Peak	42.96	-10.25	32.71	46.00	-13.29
327.79	Peak	48.21	-7.25	40.96	46.00	-5.04
432.55	Peak	38.39	-4.32	34.07	46.00	-11.93

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5580 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



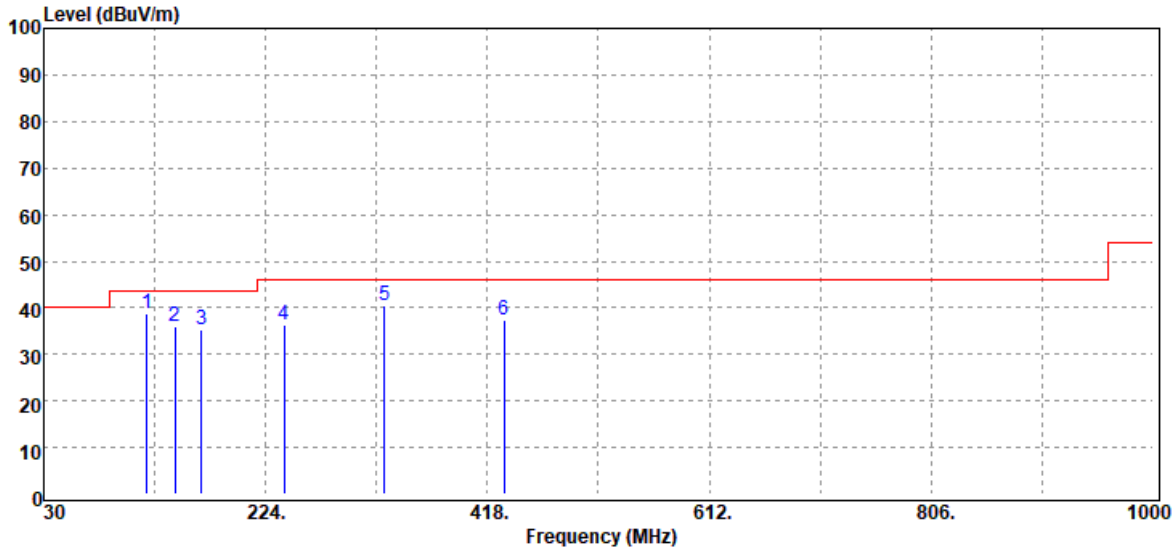
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
120.21	Peak	47.76	-8.88	38.88	43.50	-4.62
144.46	Peak	45.96	-9.92	36.04	43.50	-7.46
167.74	Peak	44.34	-10.56	33.78	43.50	-9.72
240.49	Peak	45.67	-10.25	35.42	46.00	-10.58
327.79	Peak	48.39	-7.25	41.14	46.00	-4.86
432.55	Peak	41.99	-4.32	37.67	46.00	-8.33

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5785 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
61.04	Peak	49.01	-15.64	33.37	40.00	-6.63
120.21	Peak	41.23	-8.88	32.35	43.50	-11.15
144.46	Peak	42.93	-9.92	33.01	43.50	-10.49
264.74	Peak	43.57	-8.95	34.62	46.00	-11.38
299.66	Peak	41.61	-8.25	33.36	46.00	-12.64
327.79	Peak	47.43	-7.25	40.18	46.00	-5.82

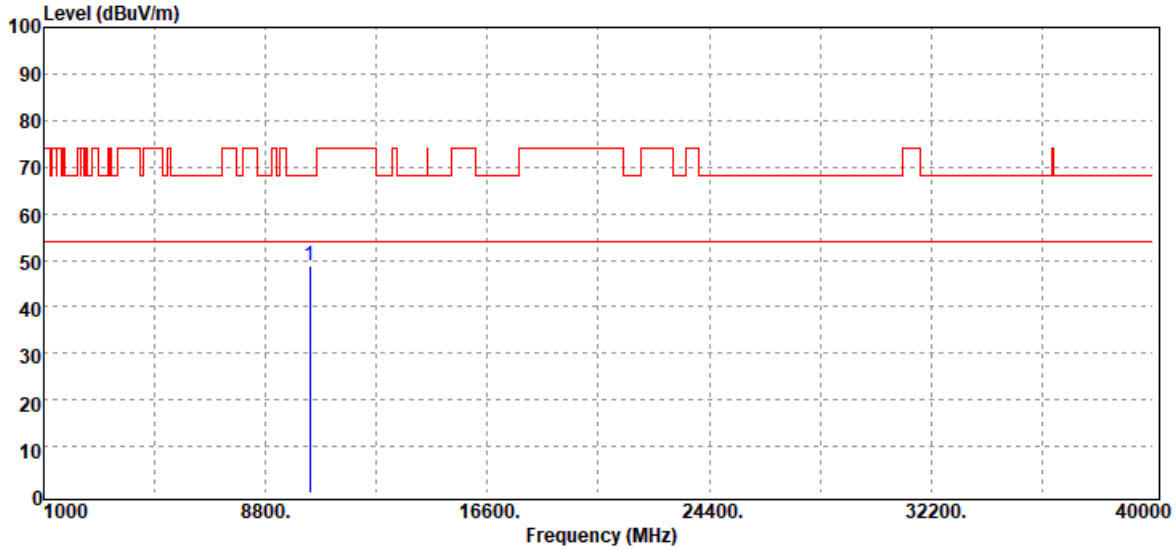
Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5785 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
120.21	Peak	47.48	-8.88	38.60	43.50	-4.90
144.46	Peak	45.89	-9.92	35.97	43.50	-7.53
167.74	Peak	45.69	-10.56	35.13	43.50	-8.37
240.49	Peak	46.43	-10.25	36.18	46.00	-9.82
327.79	Peak	47.90	-7.25	40.65	46.00	-5.35
432.55	Peak	41.71	-4.32	37.39	46.00	-8.61

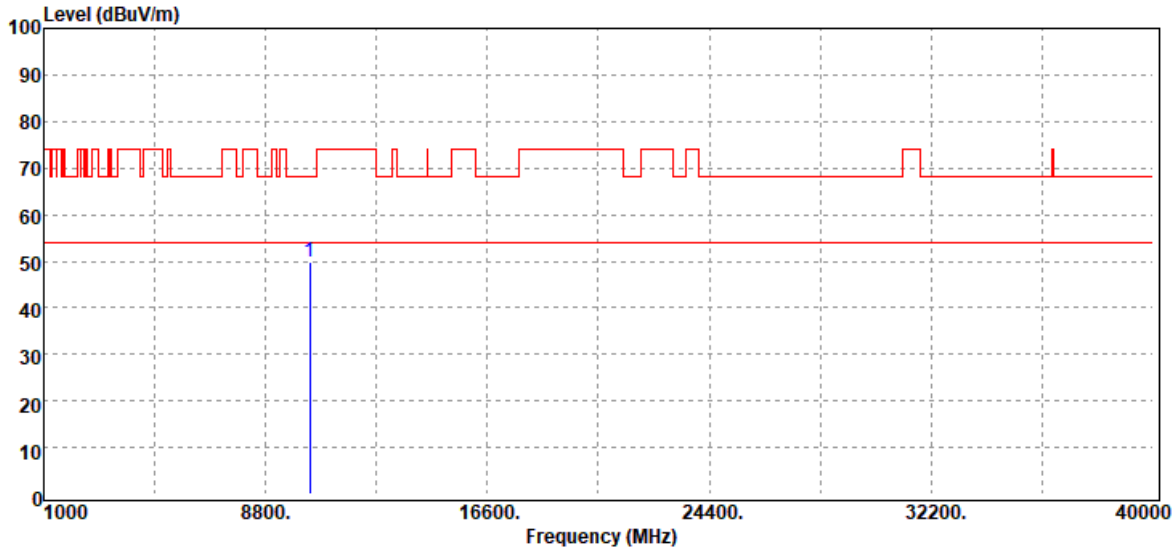
Above 1GHz Data:

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5180 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



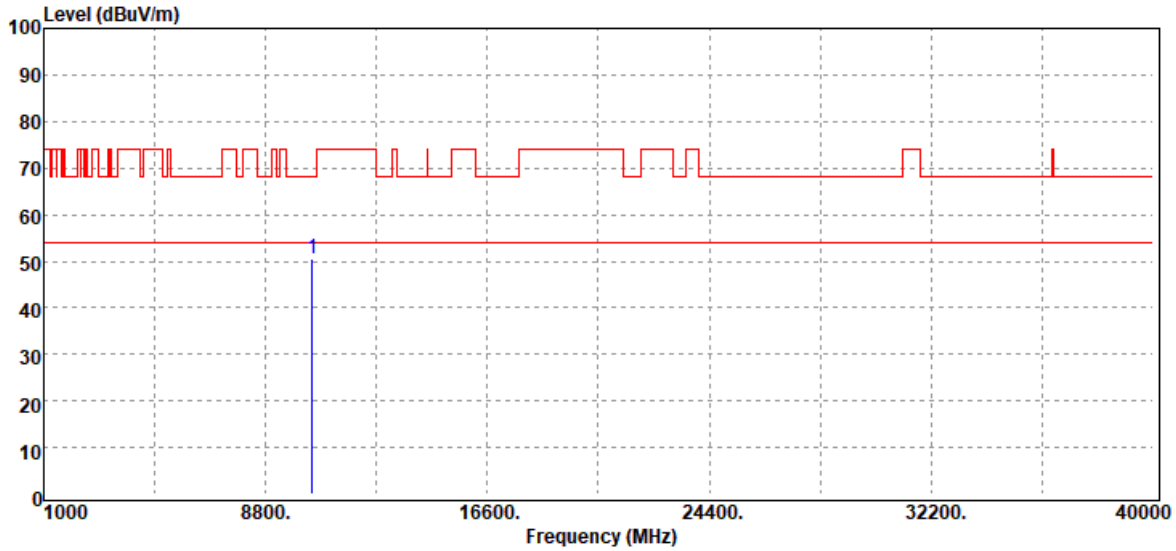
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	33.92	14.73	48.65	68.20	-19.55

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5180 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



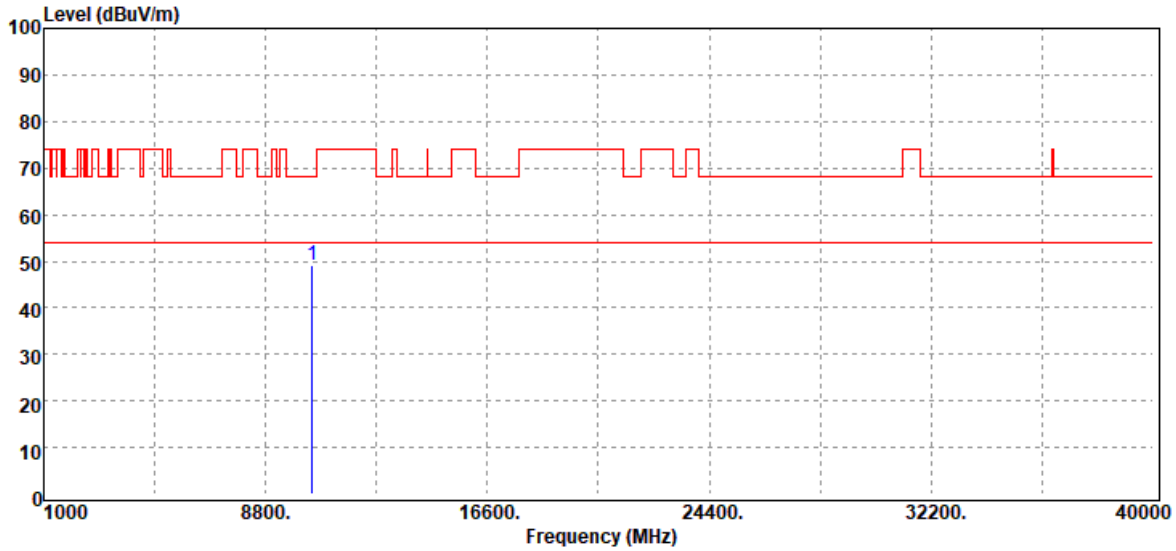
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	34.95	14.73	49.68	68.20	-18.52

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5220 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



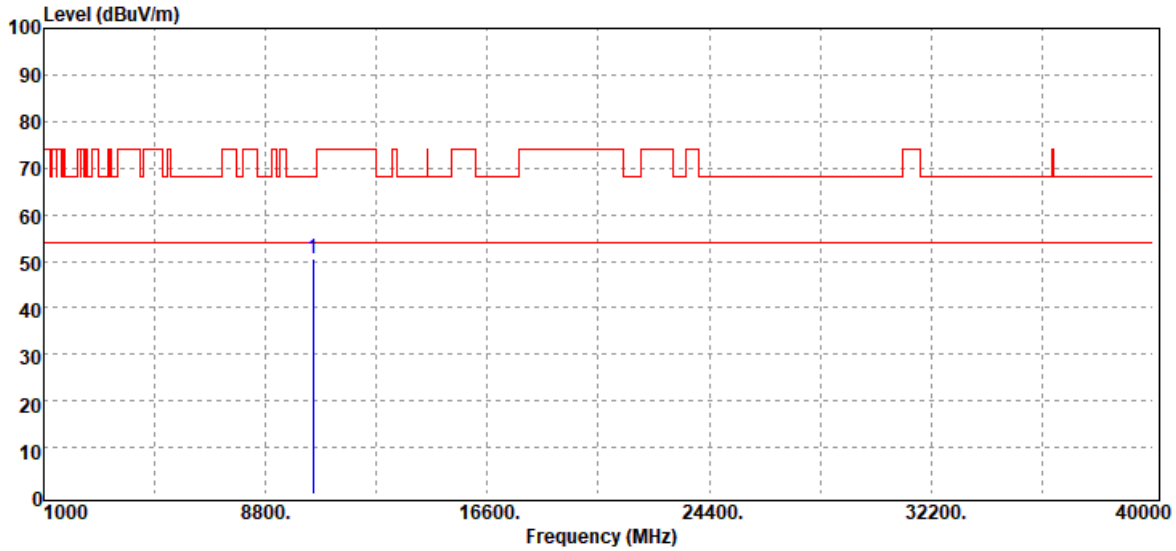
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	34.79	15.66	50.45	68.20	-17.75

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5220 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



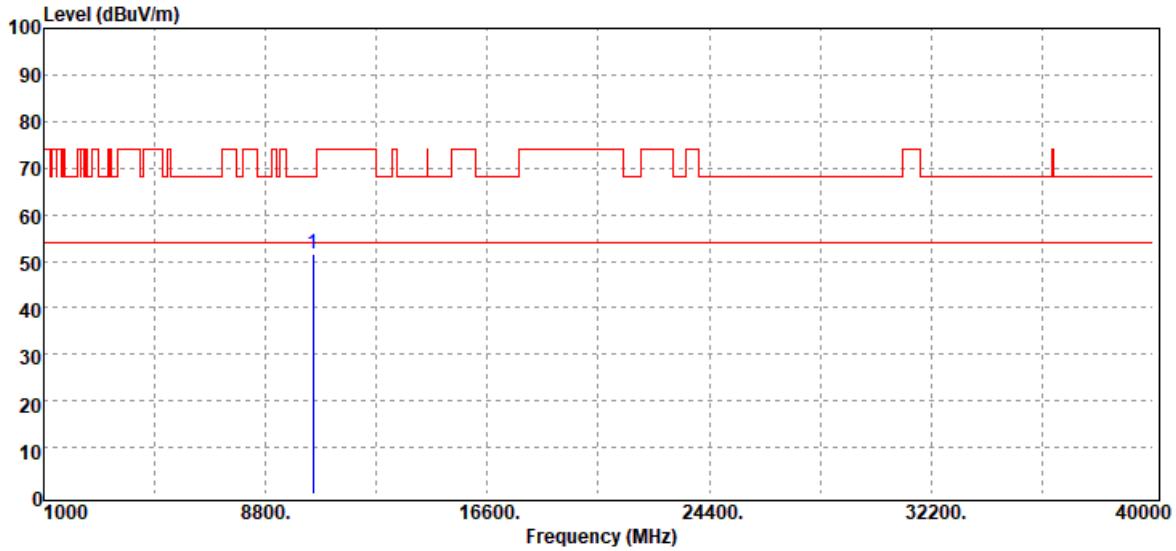
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	33.37	15.66	49.03	68.20	-19.17

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5240 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



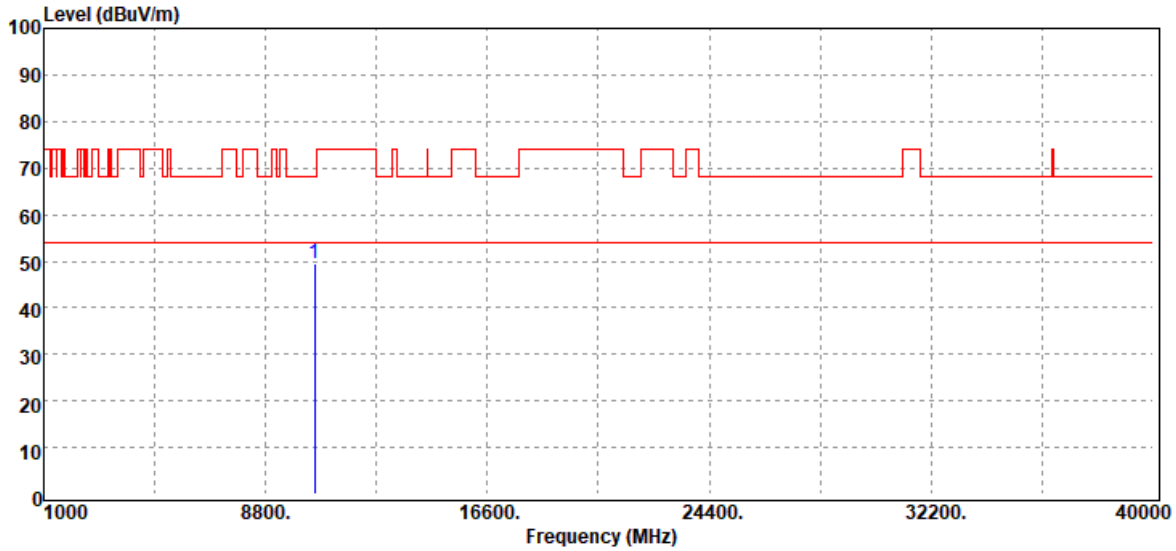
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	34.16	16.48	50.64	68.20	-17.56

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band1	Temp./Humi.	:21.8/45
Frequency	:5240 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



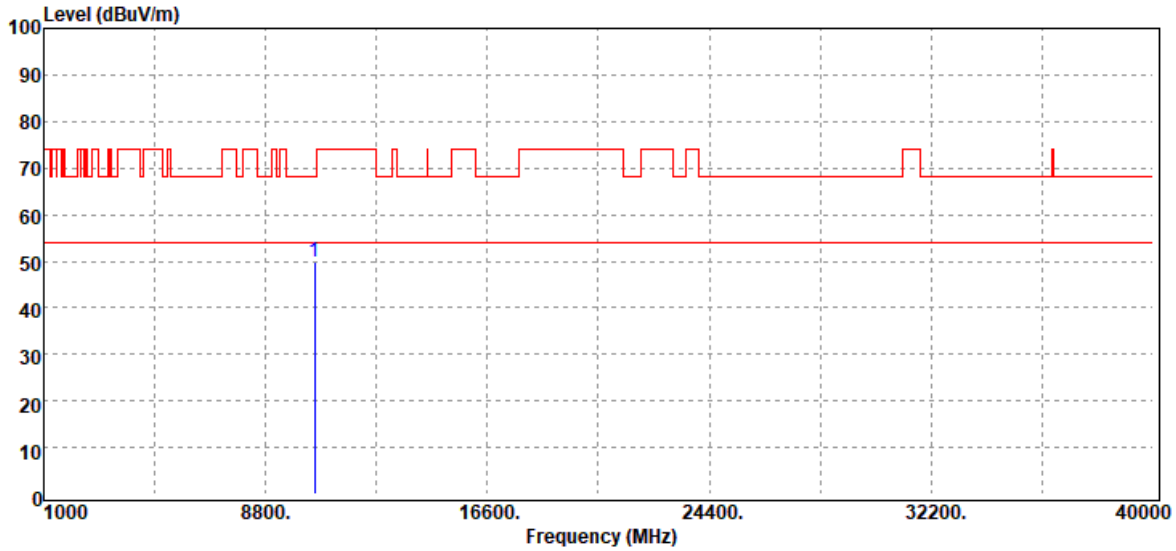
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	35.08	16.48	51.56	68.20	-16.64

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5260 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



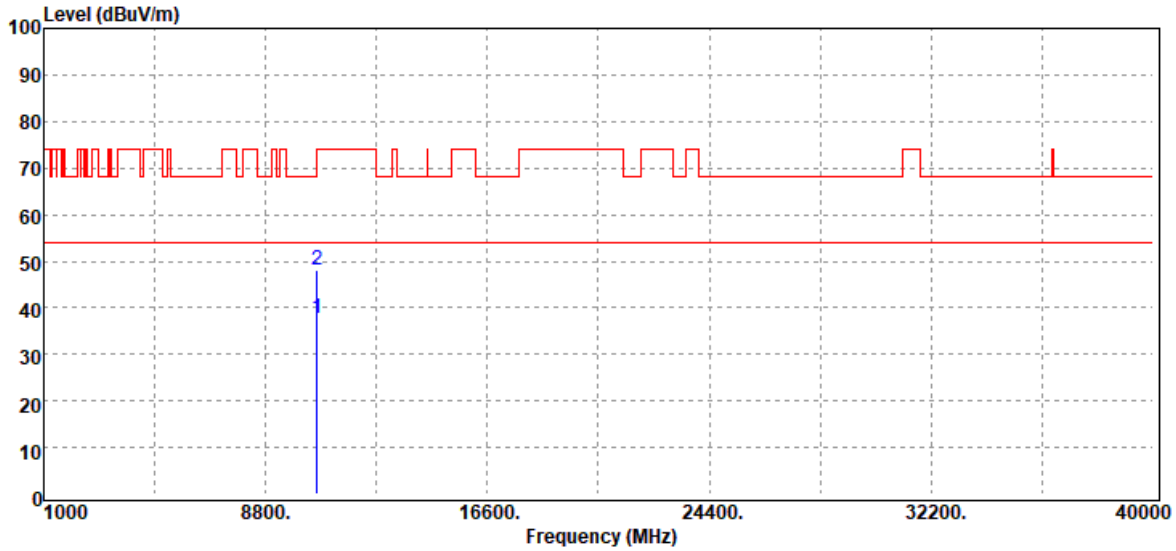
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	33.54	15.99	49.53	68.20	-18.67

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5260 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



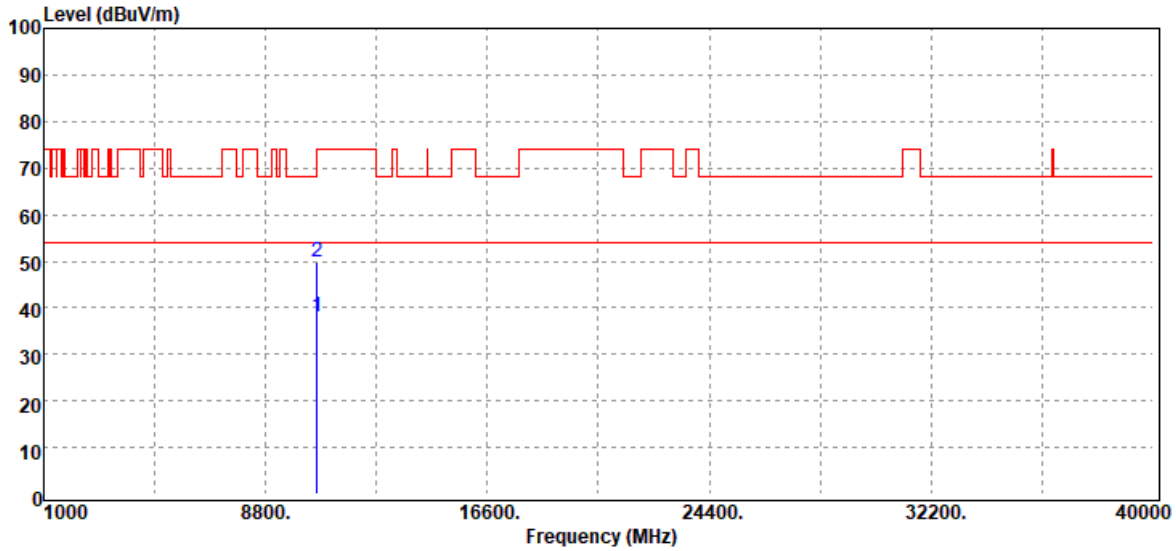
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	33.81	15.99	49.80	68.20	-18.40

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5300 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



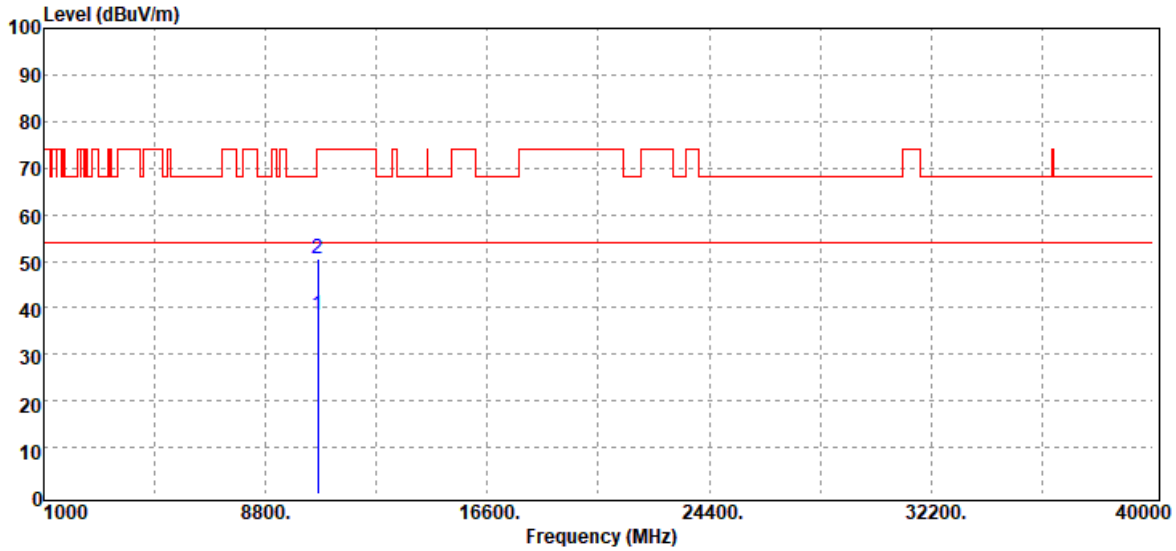
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	22.42	15.27	37.69	54.00	-16.31
10600.00	Peak	32.81	15.27	48.08	74.00	-25.92

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5300 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



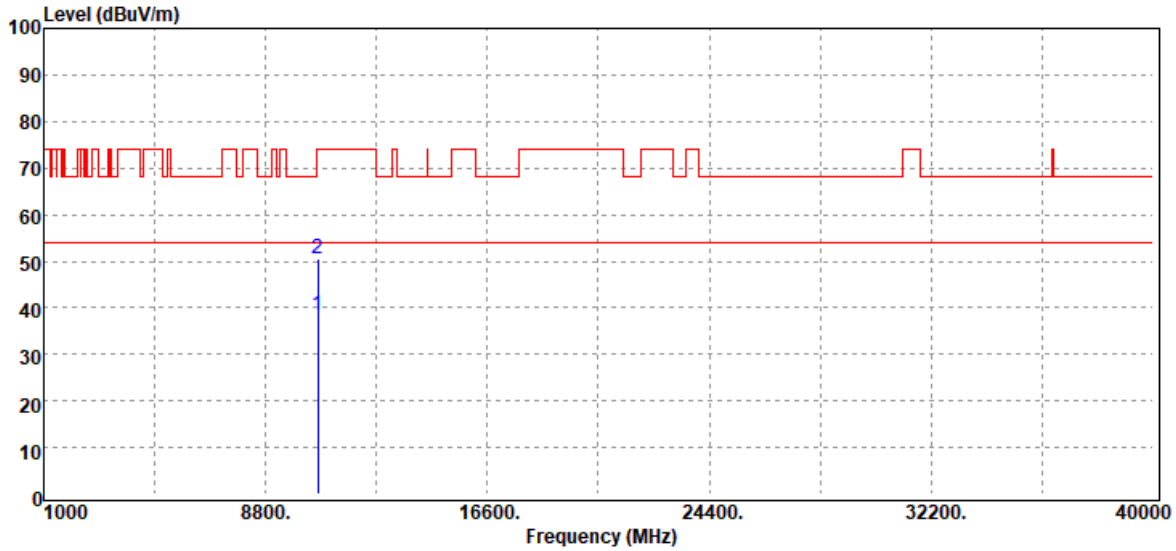
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	22.63	15.27	37.90	54.00	-16.10
10600.00	Peak	34.52	15.27	49.79	74.00	-24.21

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5320 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



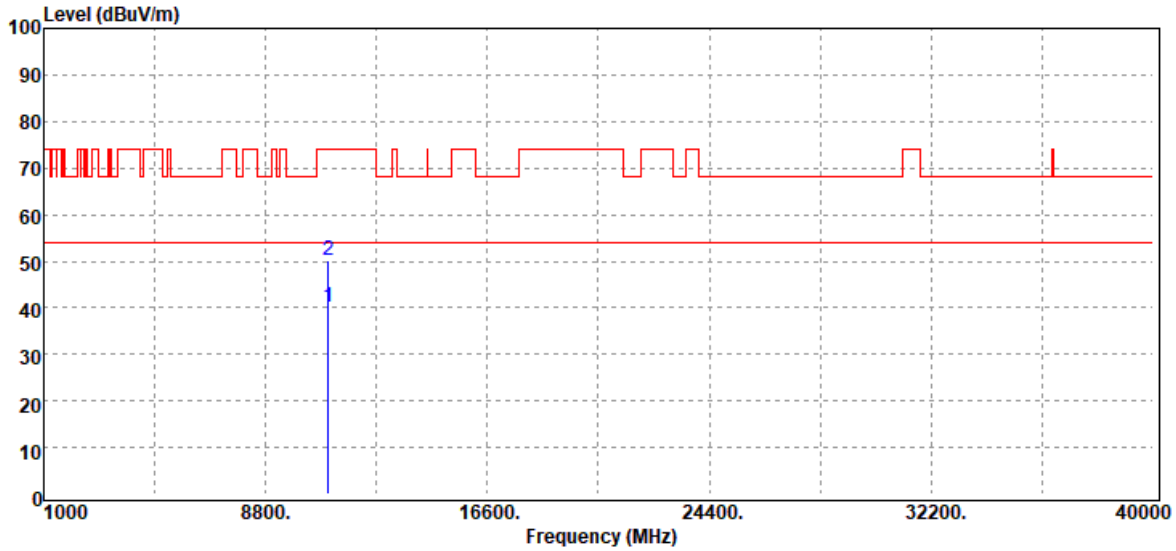
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	22.37	16.05	38.42	54.00	-15.58
10640.00	Peak	34.56	16.05	50.61	74.00	-23.39

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band2	Temp./Humi.	:21.8/45
Frequency	:5320 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



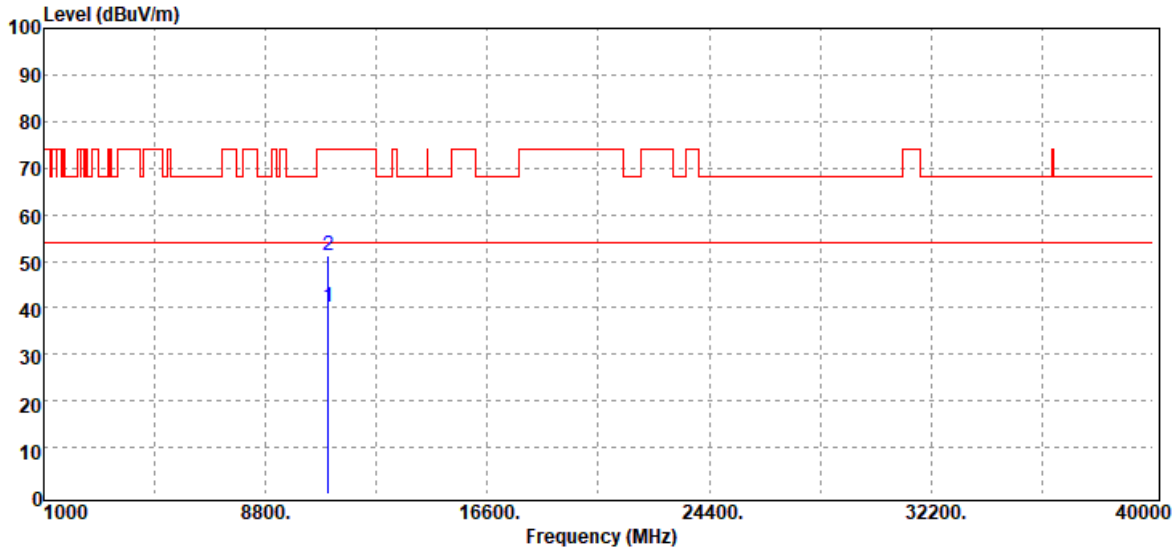
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	22.41	16.05	38.46	54.00	-15.54
10640.00	Peak	34.48	16.05	50.53	74.00	-23.47

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5500 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



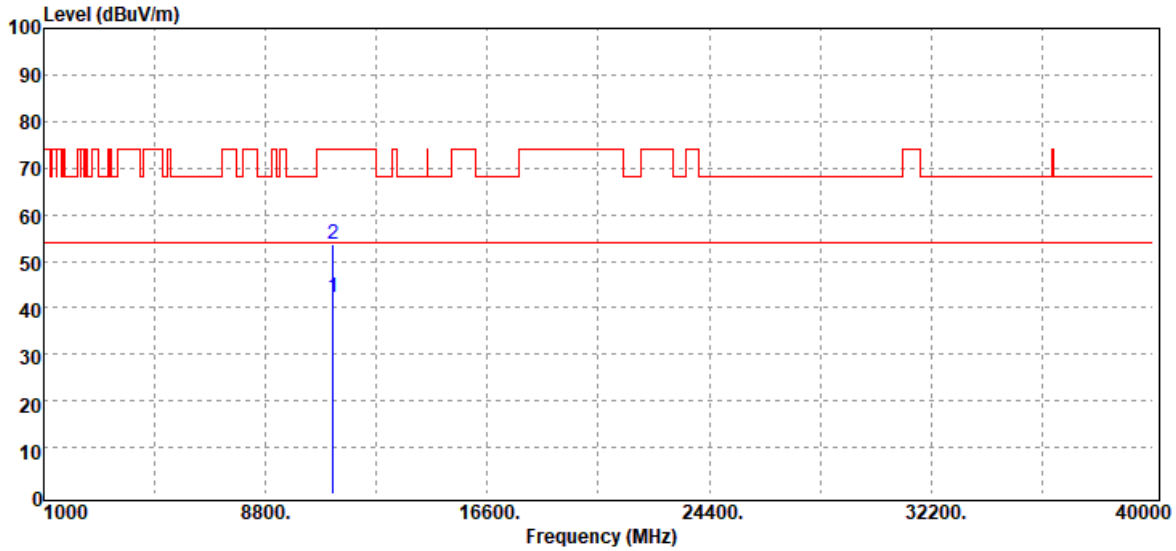
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	22.53	17.44	39.97	54.00	-14.03
11000.00	Peak	32.73	17.44	50.17	74.00	-23.83

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5500 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



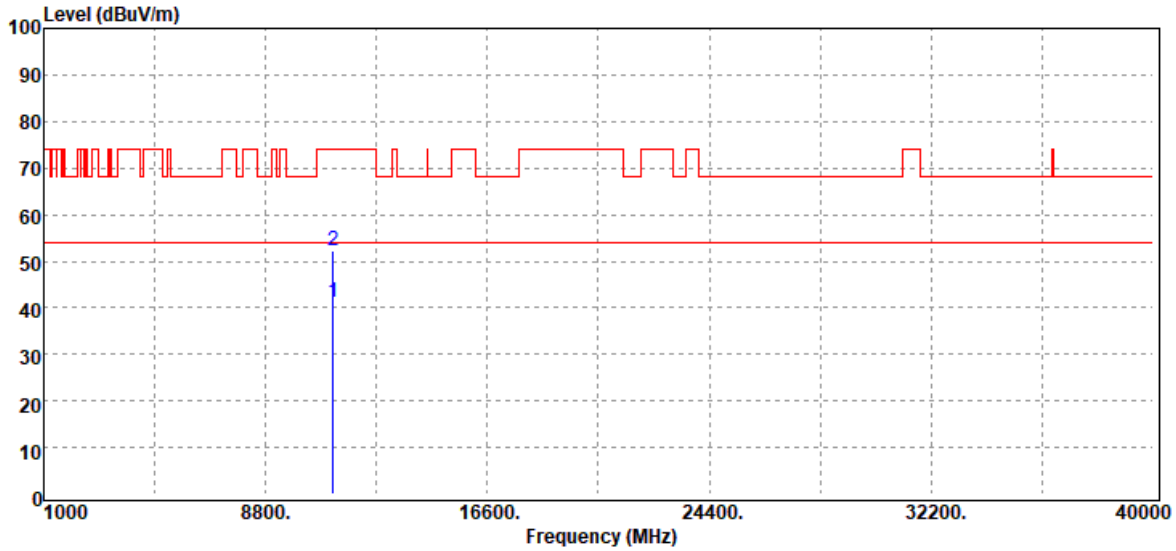
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	22.76	17.44	40.20	54.00	-13.80
11000.00	Peak	33.94	17.44	51.38	74.00	-22.62

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5580 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



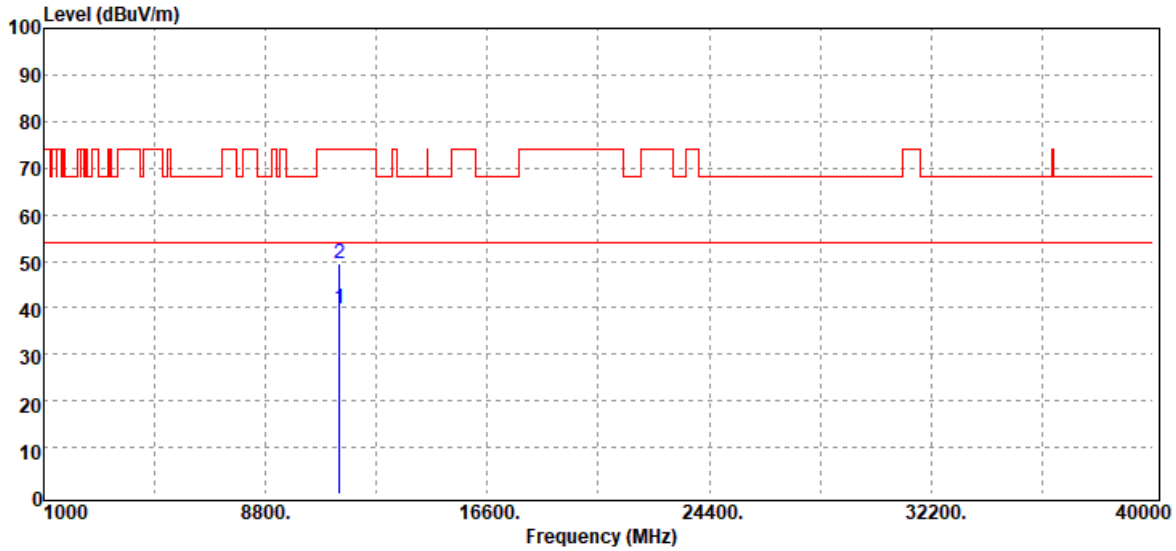
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	25.39	16.85	42.24	54.00	-11.76
11160.00	Peak	36.61	16.85	53.46	74.00	-20.54

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5580 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



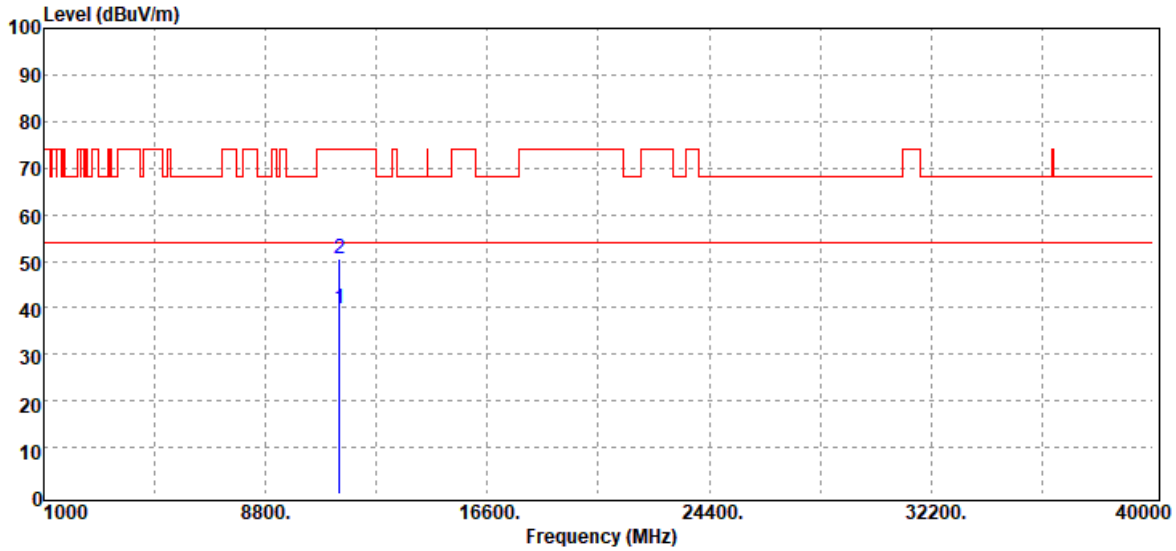
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	24.25	16.85	41.10	54.00	-12.90
11160.00	Peak	35.42	16.85	52.27	74.00	-21.73

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5700 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



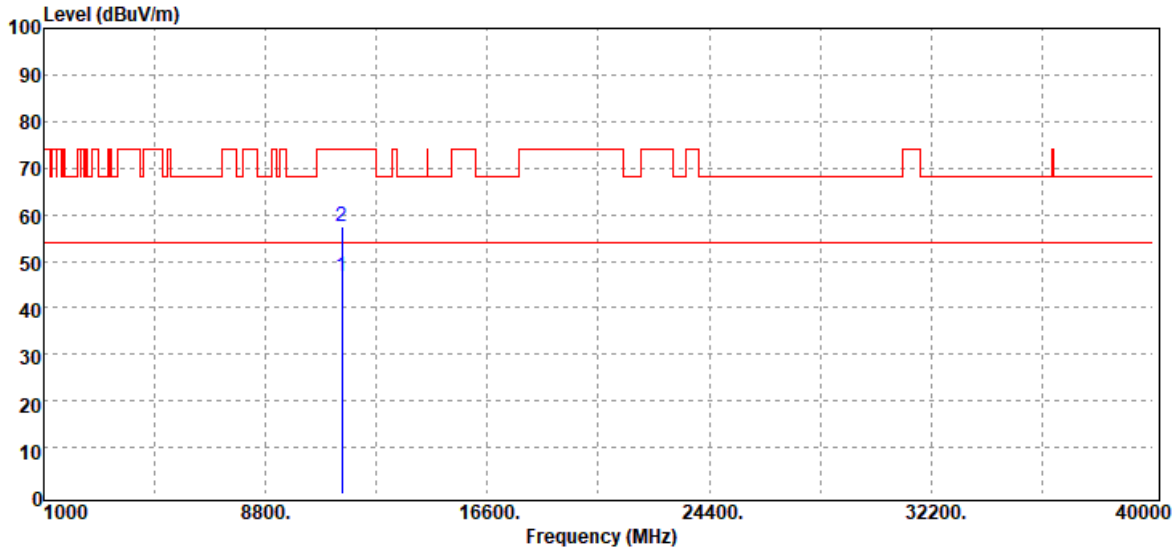
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	22.78	16.89	39.67	54.00	-14.33
11400.00	Peak	32.75	16.89	49.64	74.00	-24.36

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band3	Temp./Humi.	:21.8/45
Frequency	:5700 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



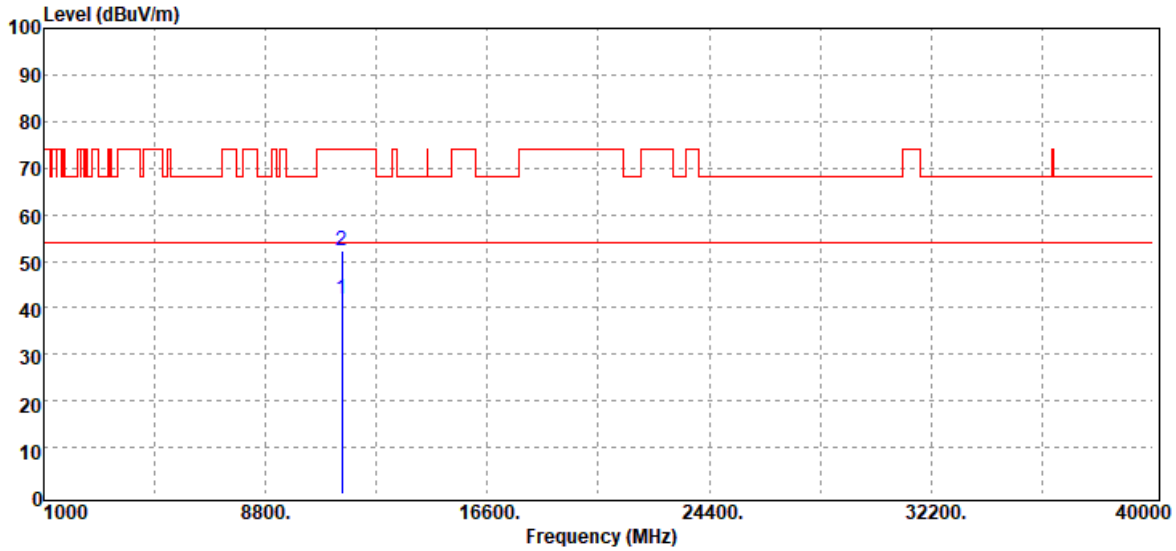
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	22.91	16.89	39.80	54.00	-14.20
11400.00	Peak	33.69	16.89	50.58	74.00	-23.42

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5745 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



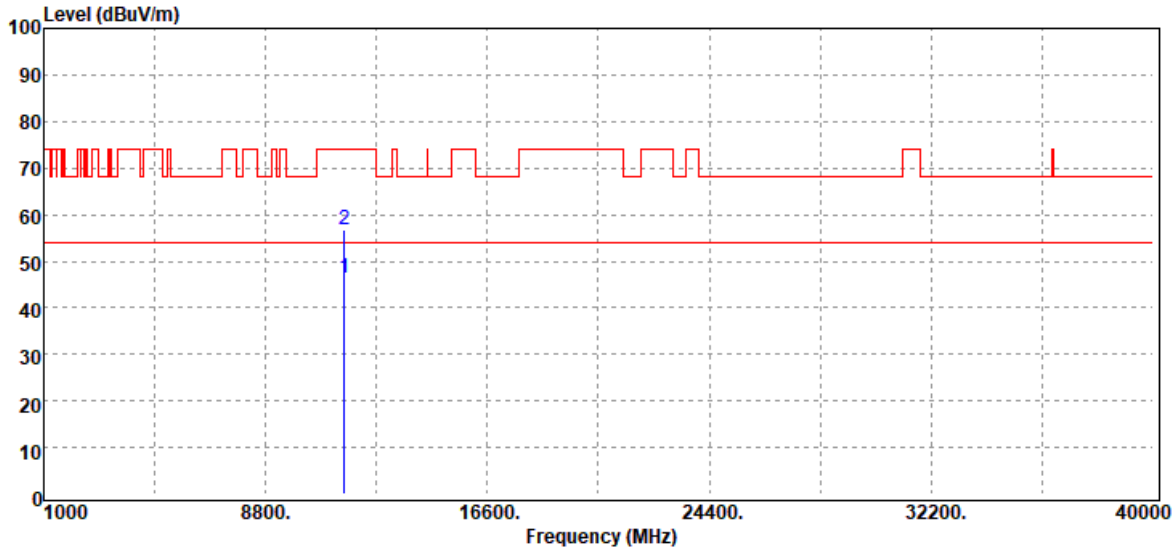
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	30.84	15.95	46.79	54.00	-7.21
11490.00	Peak	41.37	15.95	57.32	74.00	-16.68

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5745 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



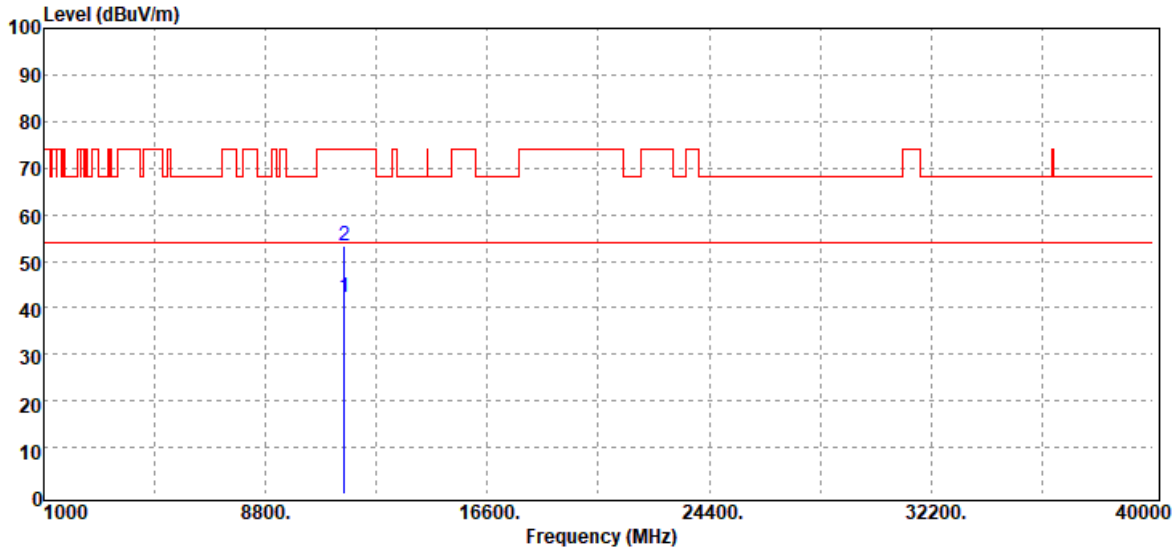
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	25.75	15.95	41.70	54.00	-12.30
11490.00	Peak	36.27	15.95	52.22	74.00	-21.78

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5785 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



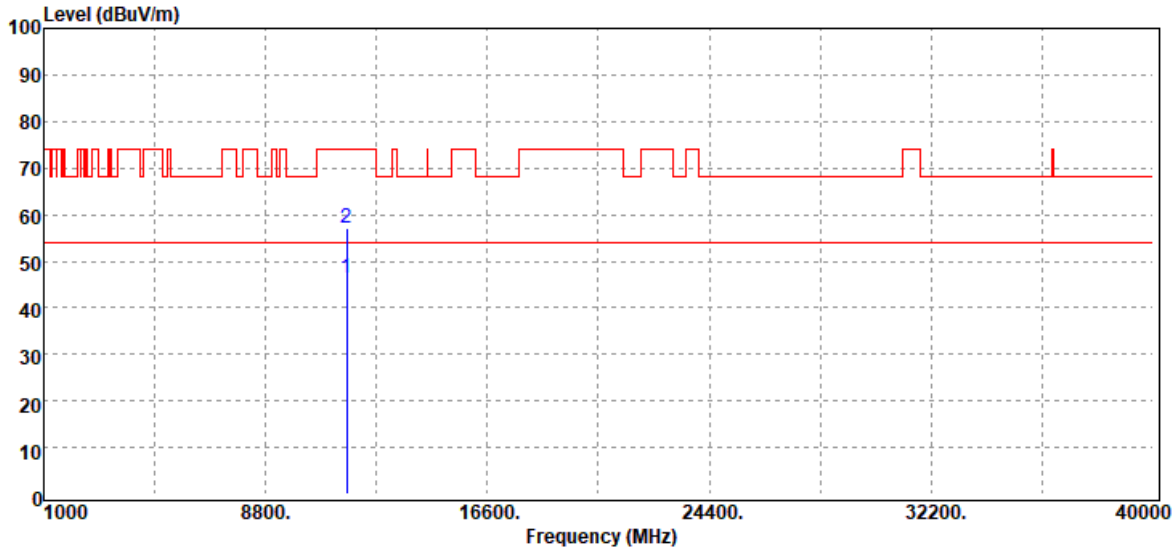
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	29.82	16.41	46.23	54.00	-7.77
11570.00	Peak	40.37	16.41	56.78	74.00	-17.22

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5785 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



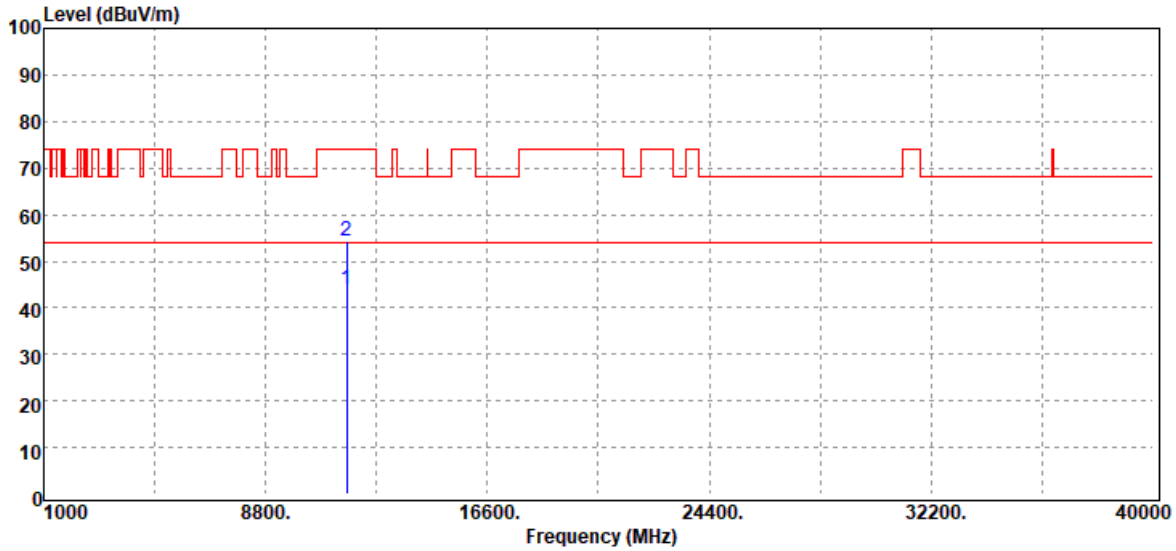
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	25.93	16.41	42.34	54.00	-11.66
11570.00	Peak	36.76	16.41	53.17	74.00	-20.83

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5825 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



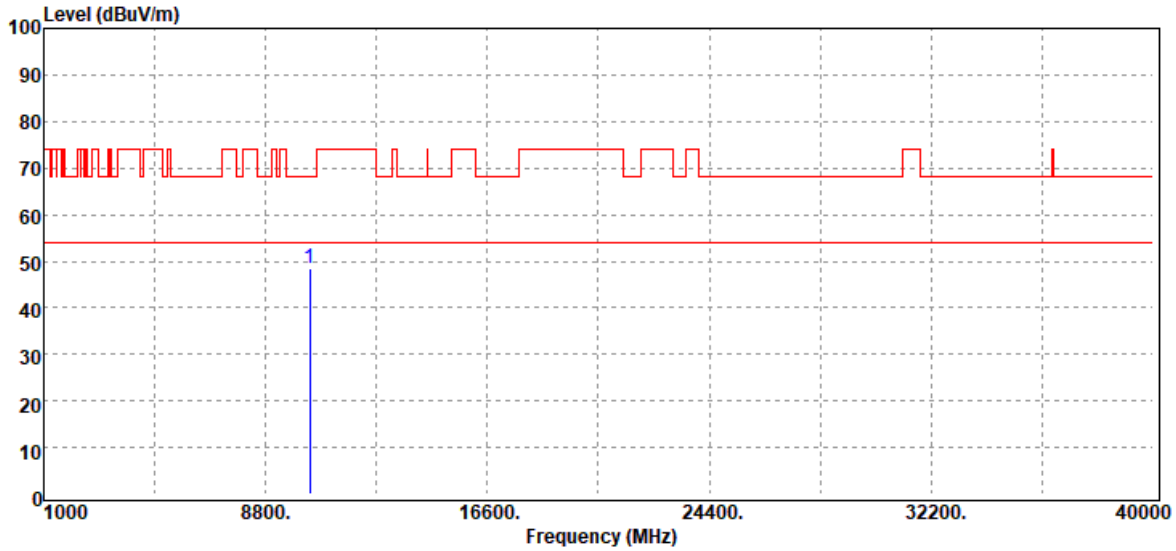
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	30.27	16.21	46.48	54.00	-7.52
11650.00	Peak	41.01	16.21	57.22	74.00	-16.78

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11a / Band4	Temp./Humi.	:21.8/45
Frequency	:5825 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



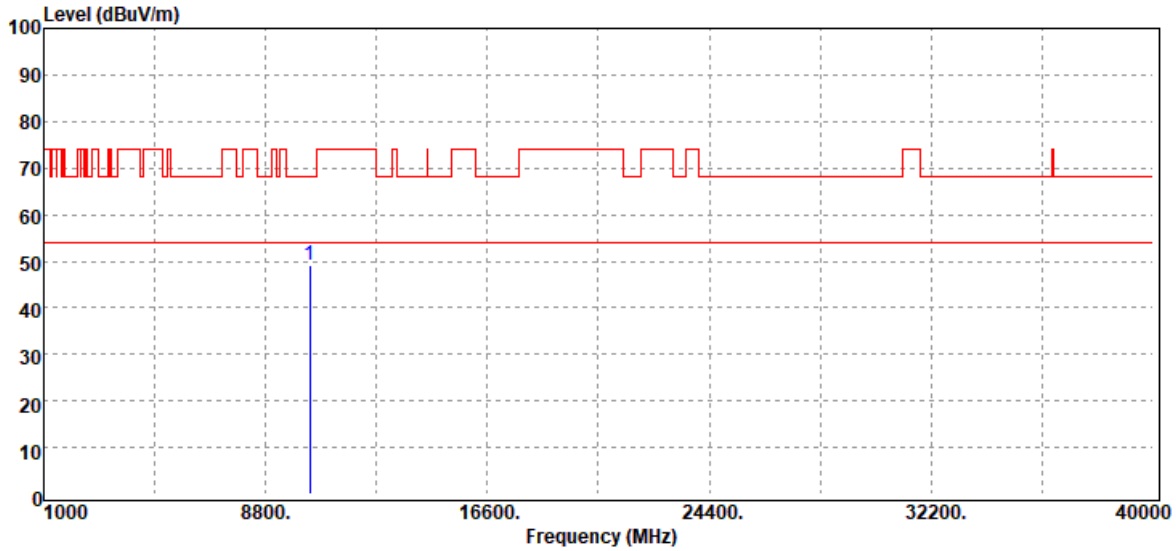
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	27.86	16.21	44.07	54.00	-9.93
11650.00	Peak	38.14	16.21	54.35	74.00	-19.65

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 1	Temp./Humi.	:21.8/45
Frequency	:5180 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



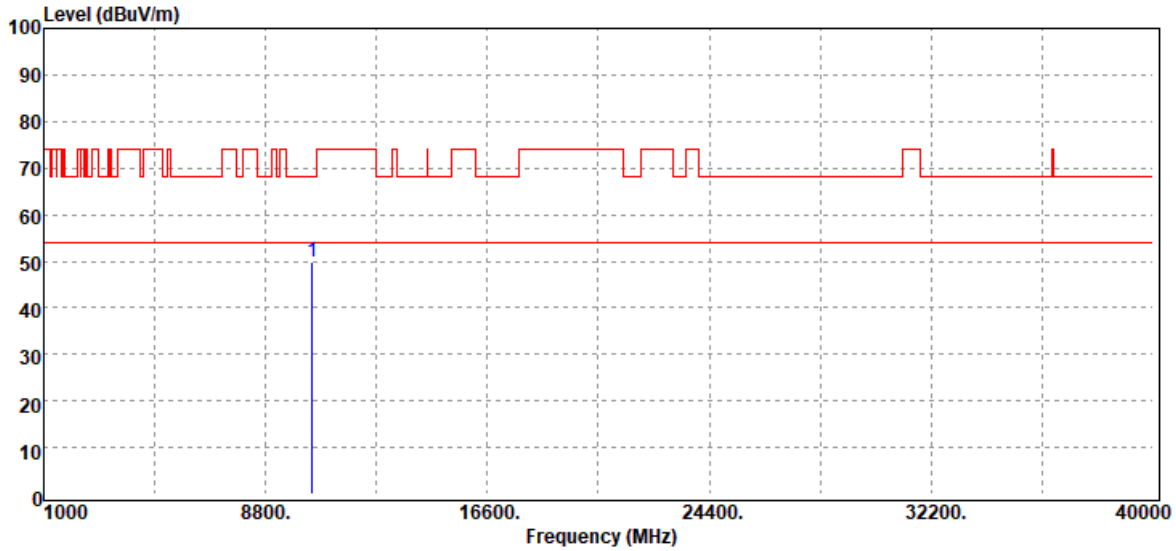
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	33.55	14.73	48.28	68.20	-19.92

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 1	Temp./Humi.	:21.8/45
Frequency	:5180 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



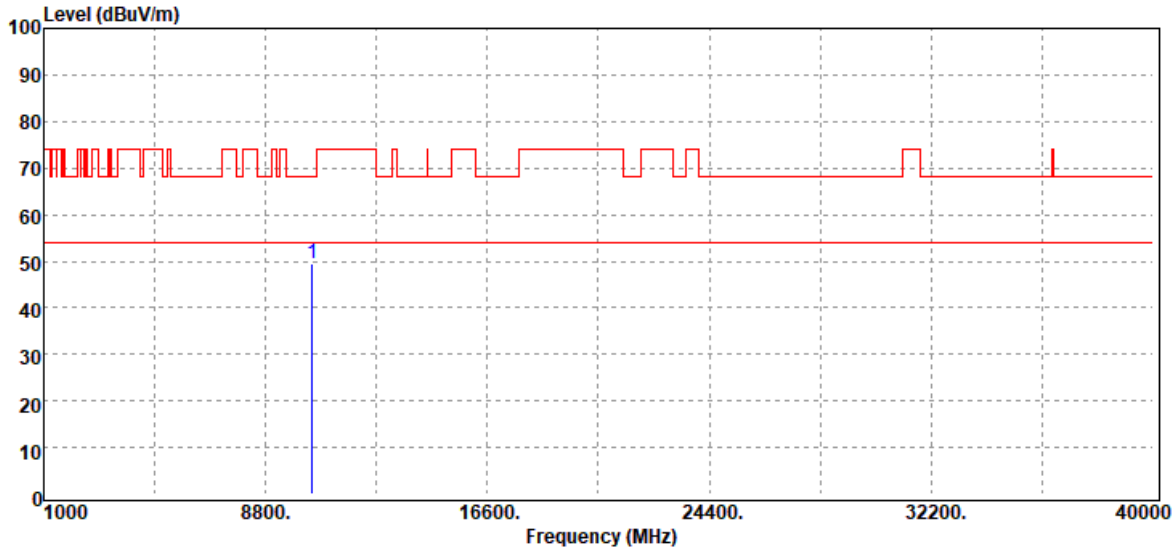
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10360.00	Peak	34.35	14.73	49.08	68.20	-19.12

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 1	Temp./Humi.	:21.8/45
Frequency	:5220 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



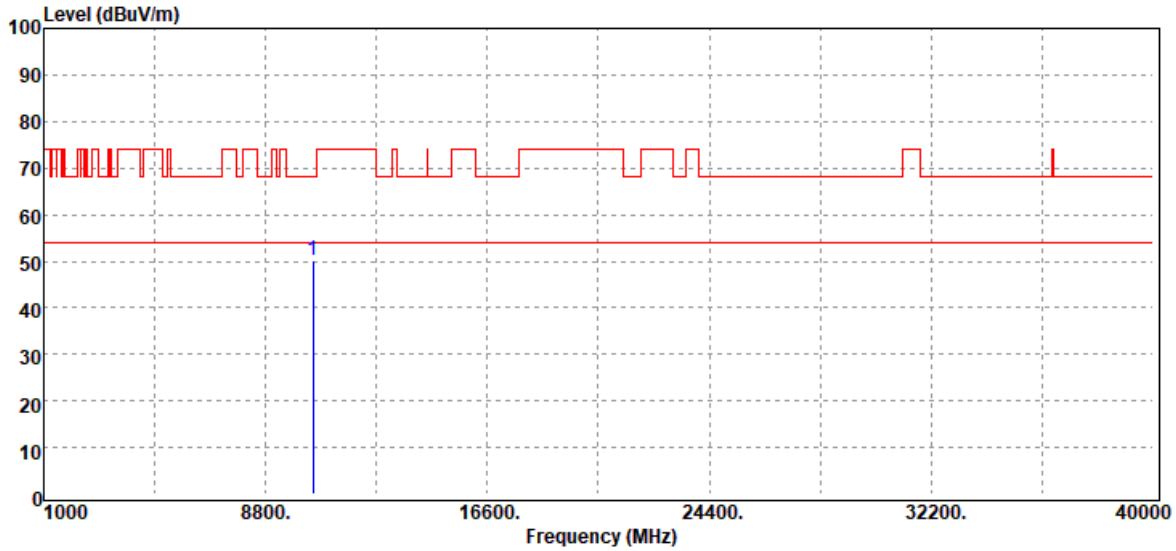
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	34.20	15.66	49.86	68.20	-18.34

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 1	Temp./Humi.	:21.8/45
Frequency	:5220 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



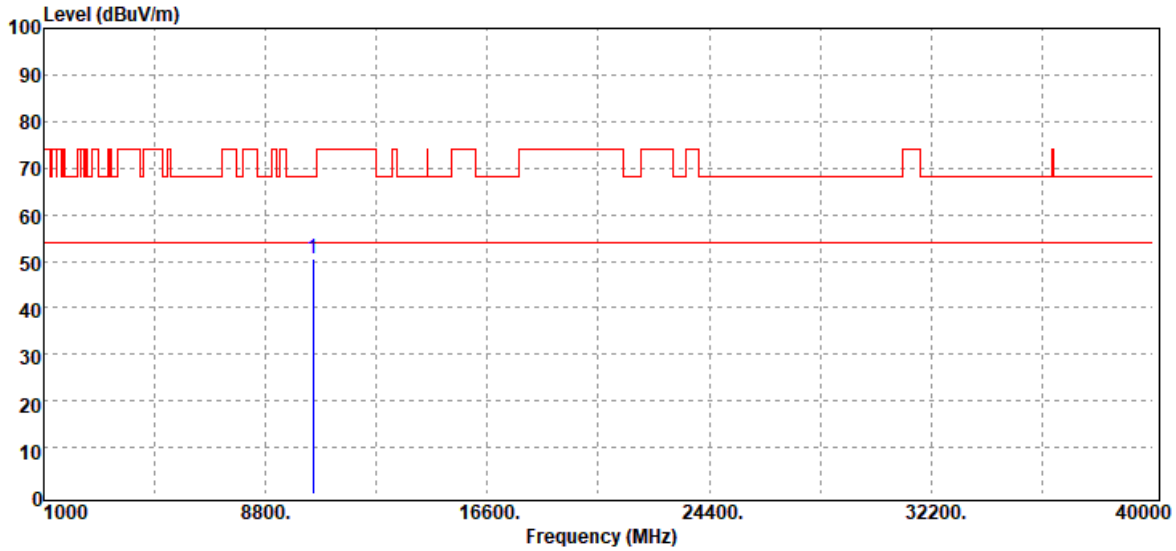
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10440.00	Peak	33.83	15.66	49.49	68.20	-18.71

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 1	Temp./Humi.	:21.8/45
Frequency	:5240 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



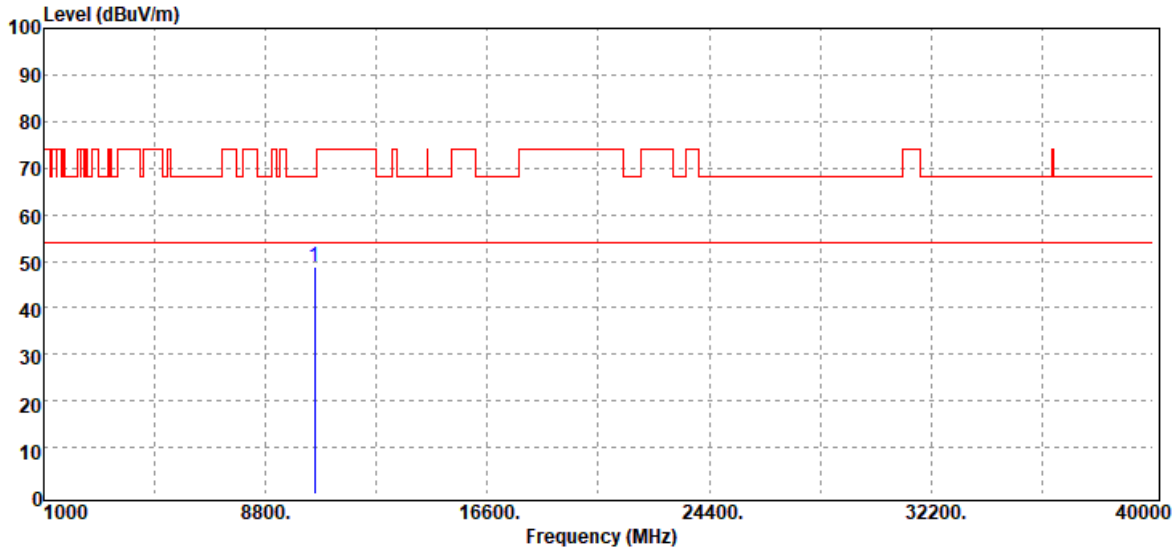
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	33.74	16.48	50.22	68.20	-17.98

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 1	Temp./Humi.	:21.8/45
Frequency	:5240 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



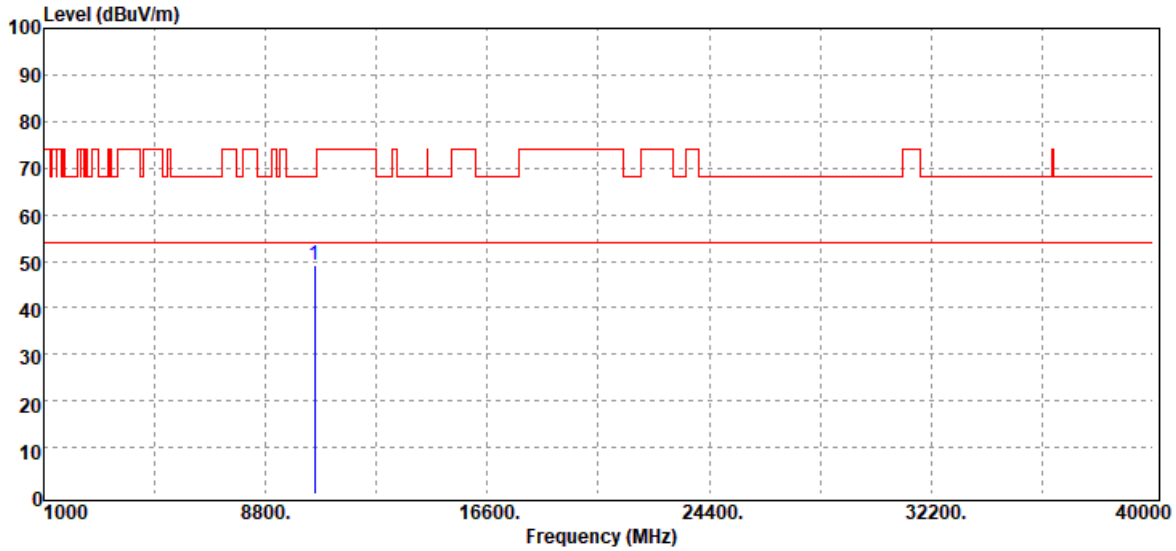
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10480.00	Peak	33.95	16.48	50.43	68.20	-17.77

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 2	Temp./Humi.	:21.8/45
Frequency	:5260 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



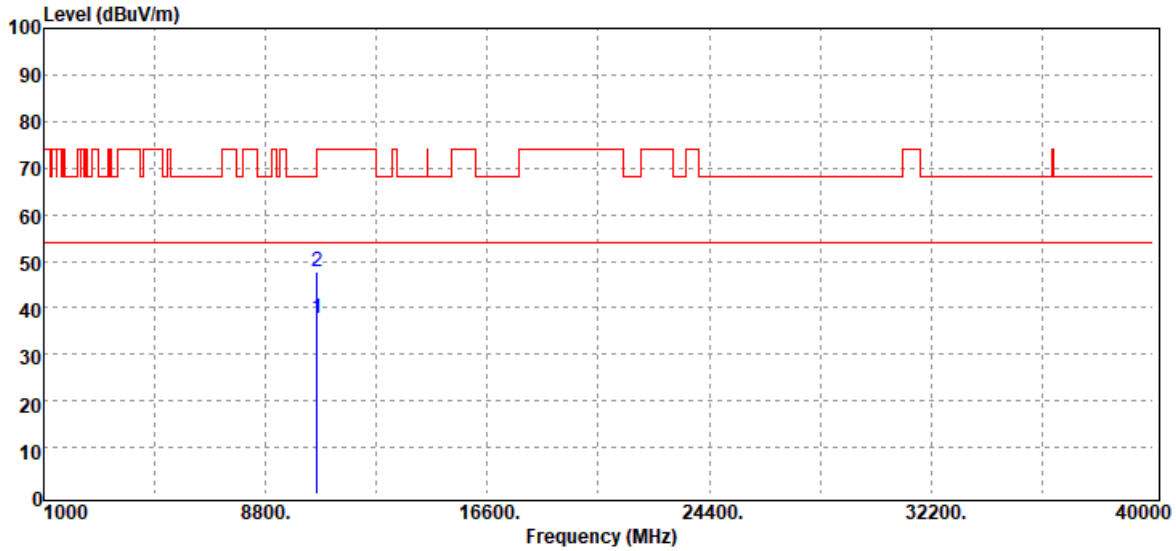
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	32.82	15.99	48.81	68.20	-19.39

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 2	Temp./Humi.	:21.8/45
Frequency	:5260 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



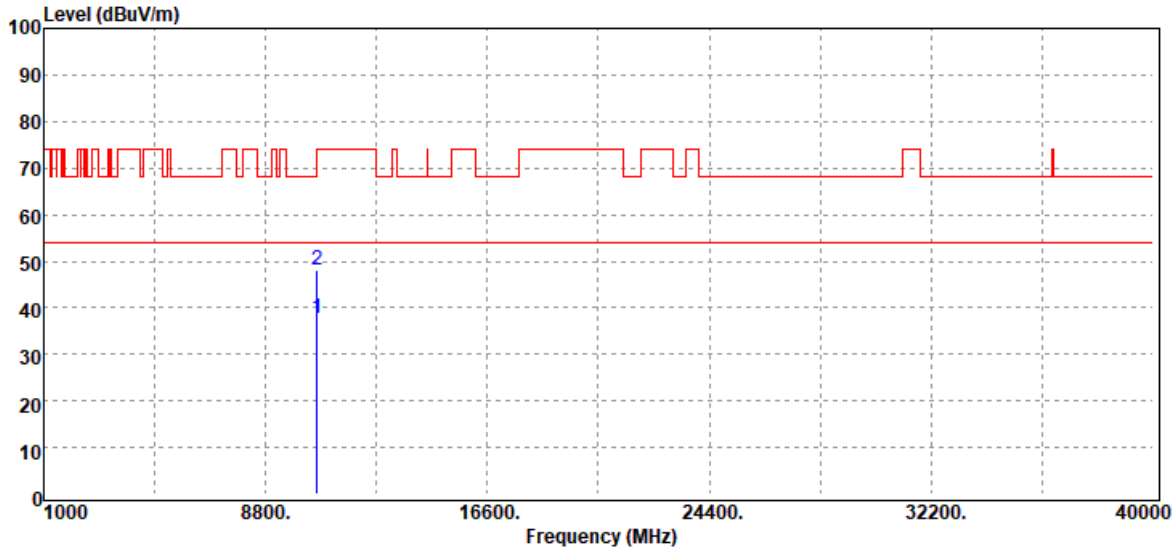
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10520.00	Peak	33.05	15.99	49.04	68.20	-19.16

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 2	Temp./Humi.	:21.8/45
Frequency	:5300 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



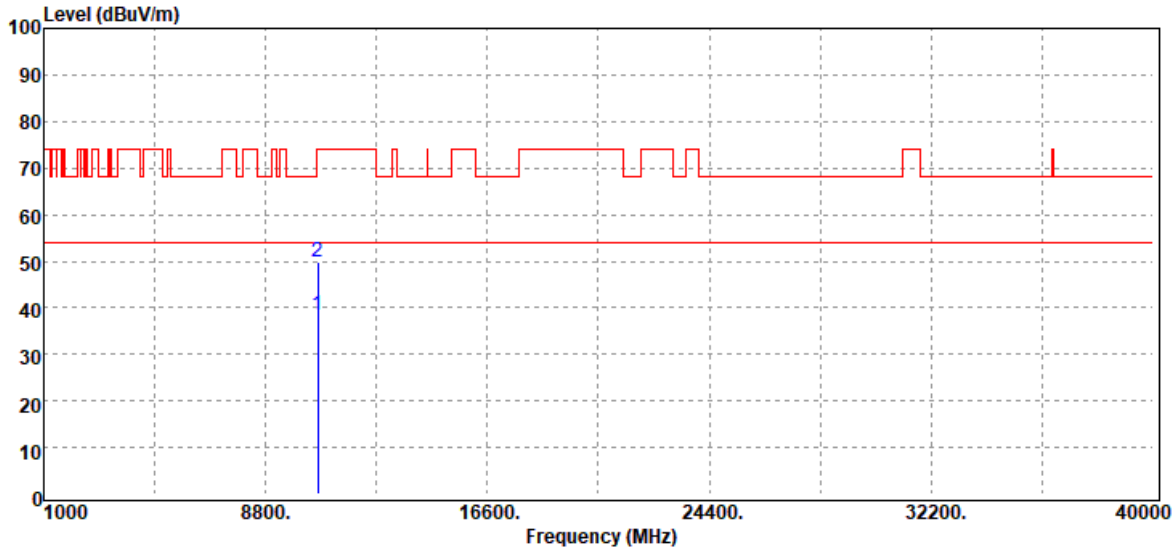
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	22.32	15.27	37.59	54.00	-16.41
10600.00	Peak	32.54	15.27	47.81	74.00	-26.19

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 2	Temp./Humi.	:21.8/45
Frequency	:5300 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



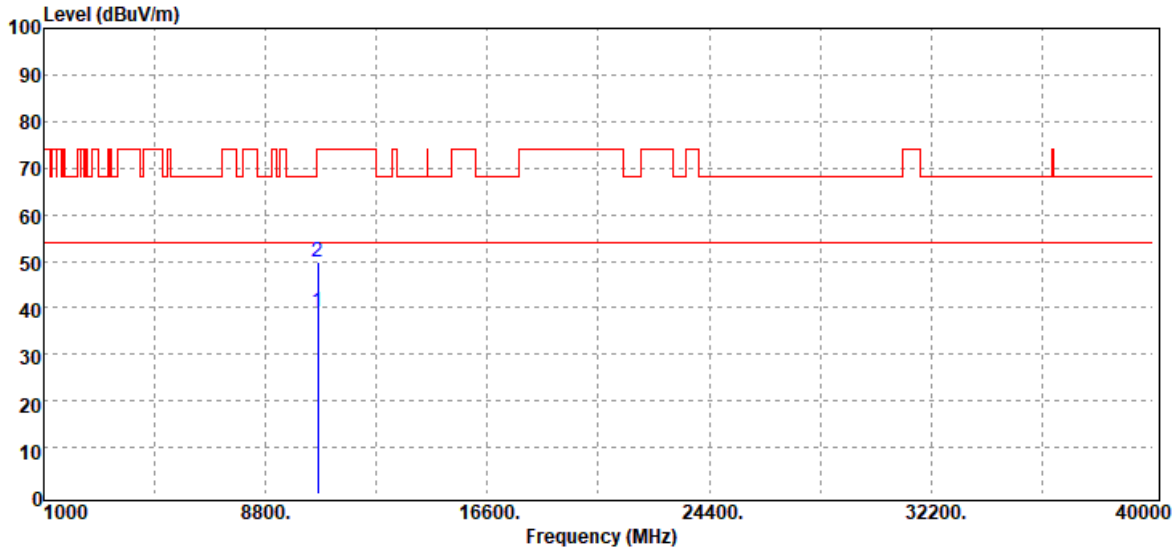
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10600.00	Average	22.48	15.27	37.75	54.00	-16.25
10600.00	Peak	32.78	15.27	48.05	74.00	-25.95

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 2	Temp./Humi.	:21.8/45
Frequency	:5320 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



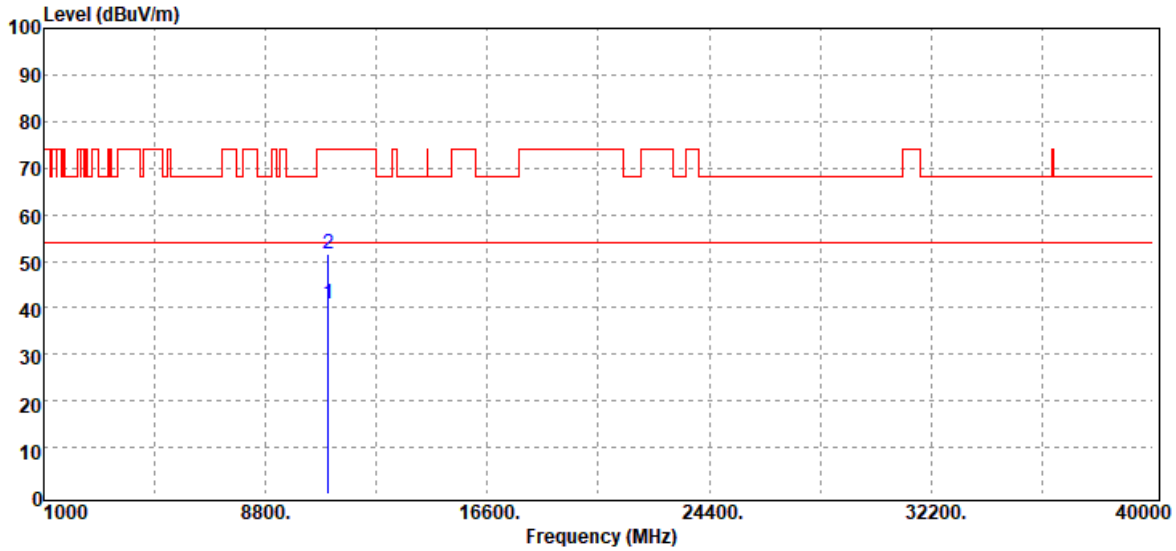
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	22.52	16.05	38.57	54.00	-15.43
10640.00	Peak	33.90	16.05	49.95	74.00	-24.05

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 2	Temp./Humi.	:21.8/45
Frequency	:5320 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



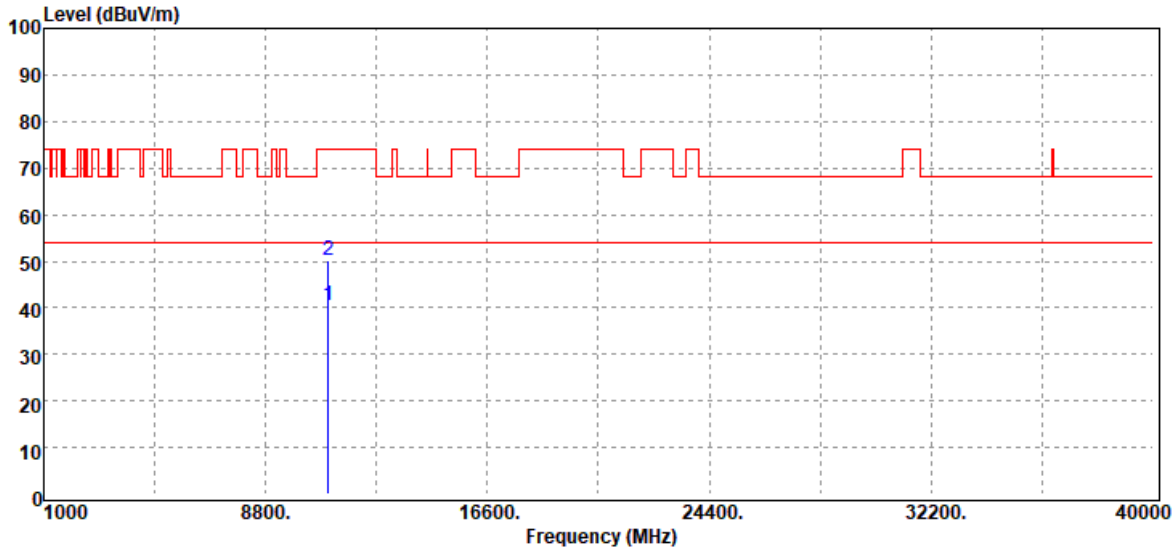
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10640.00	Average	22.88	16.05	38.93	54.00	-15.07
10640.00	Peak	33.62	16.05	49.67	74.00	-24.33

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 3	Temp./Humi.	:21.8/45
Frequency	:5500 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



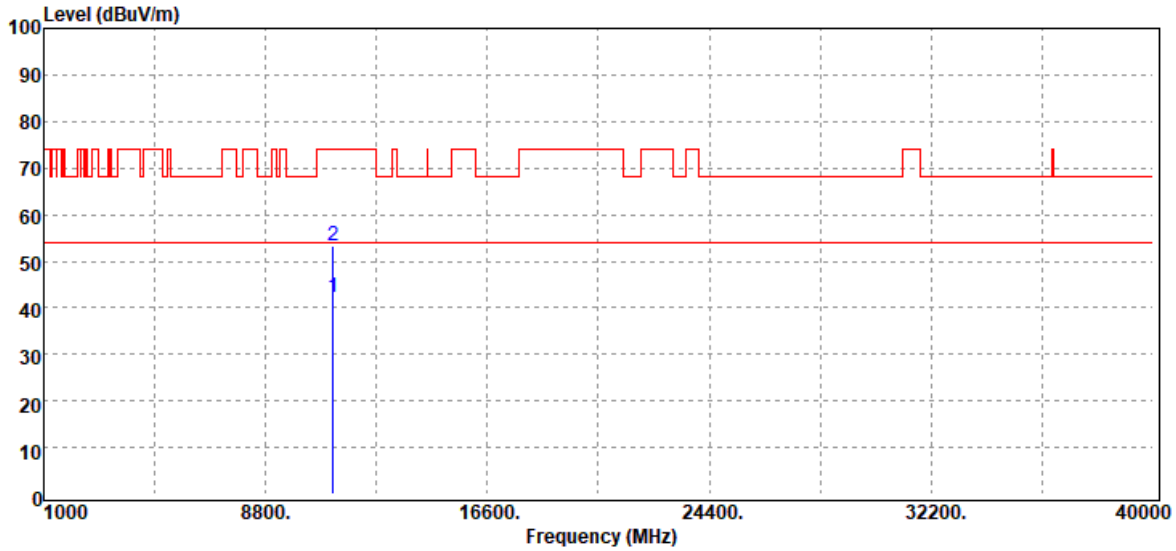
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	23.23	17.44	40.67	54.00	-13.33
11000.00	Peak	34.15	17.44	51.59	74.00	-22.41

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 3	Temp./Humi.	:21.8/45
Frequency	:5500 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



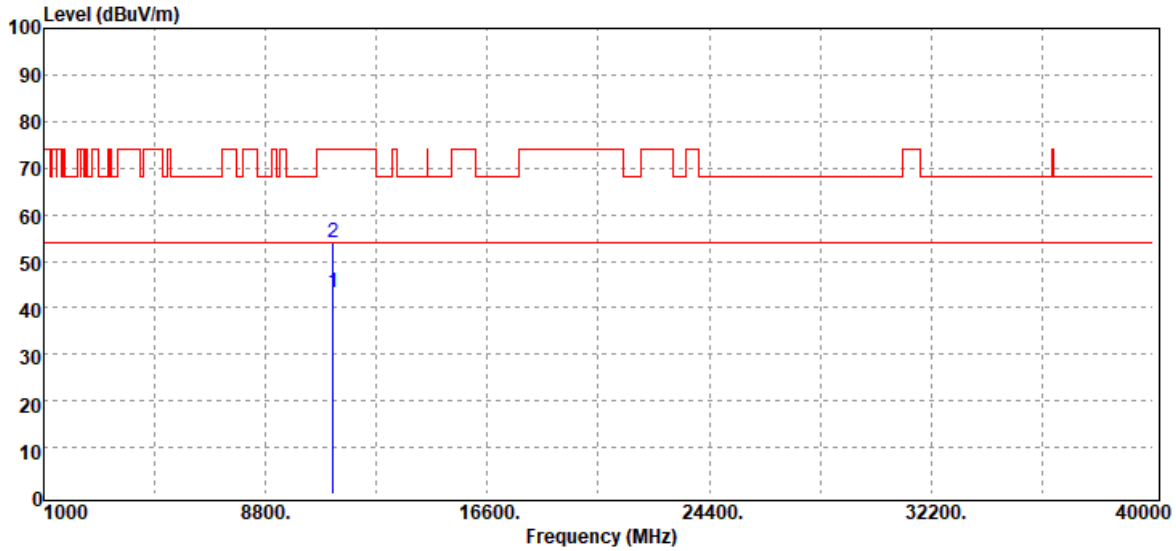
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11000.00	Average	23.17	17.44	40.61	54.00	-13.39
11000.00	Peak	32.75	17.44	50.19	74.00	-23.81

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 3	Temp./Humi.	:21.8/45
Frequency	:5580 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



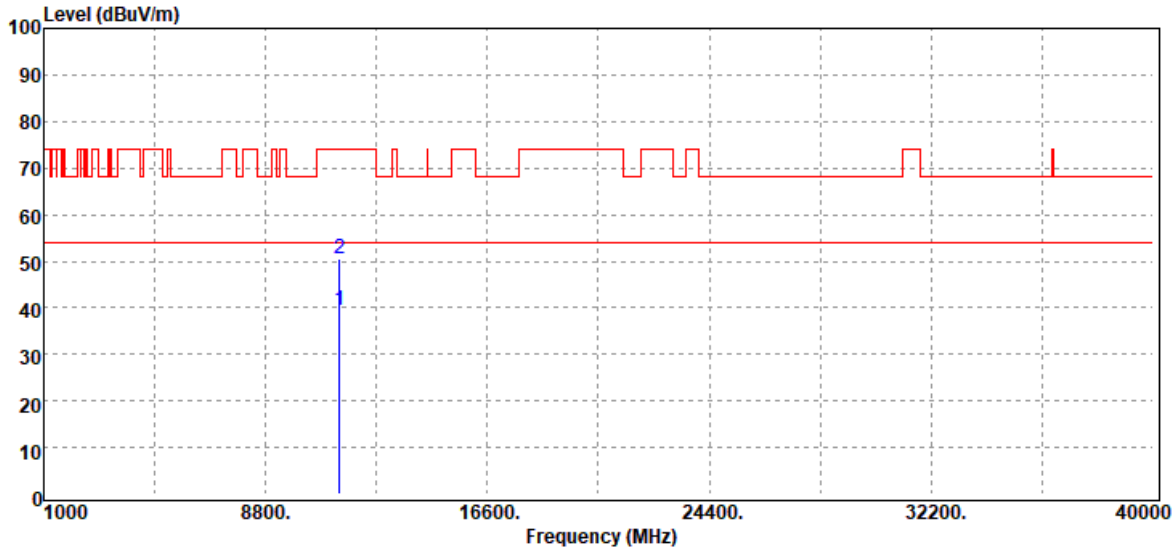
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	25.29	16.85	42.14	54.00	-11.86
11160.00	Peak	36.42	16.85	53.27	74.00	-20.73

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 3	Temp./Humi.	:21.8/45
Frequency	:5580 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



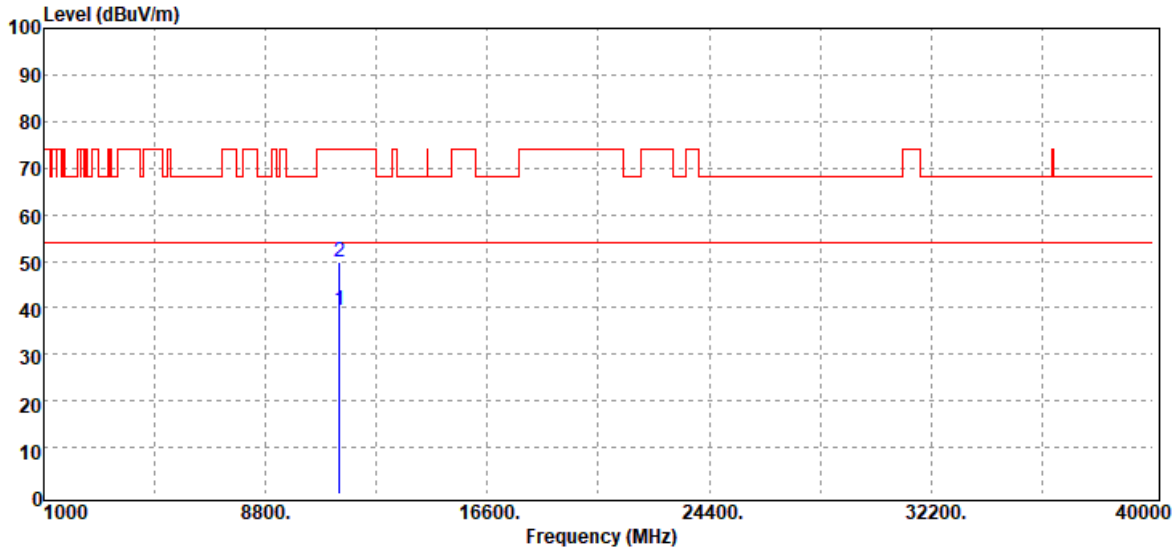
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11160.00	Average	26.51	16.85	43.36	54.00	-10.64
11160.00	Peak	37.21	16.85	54.06	74.00	-19.94

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 3	Temp./Humi.	:21.8/45
Frequency	:5700 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



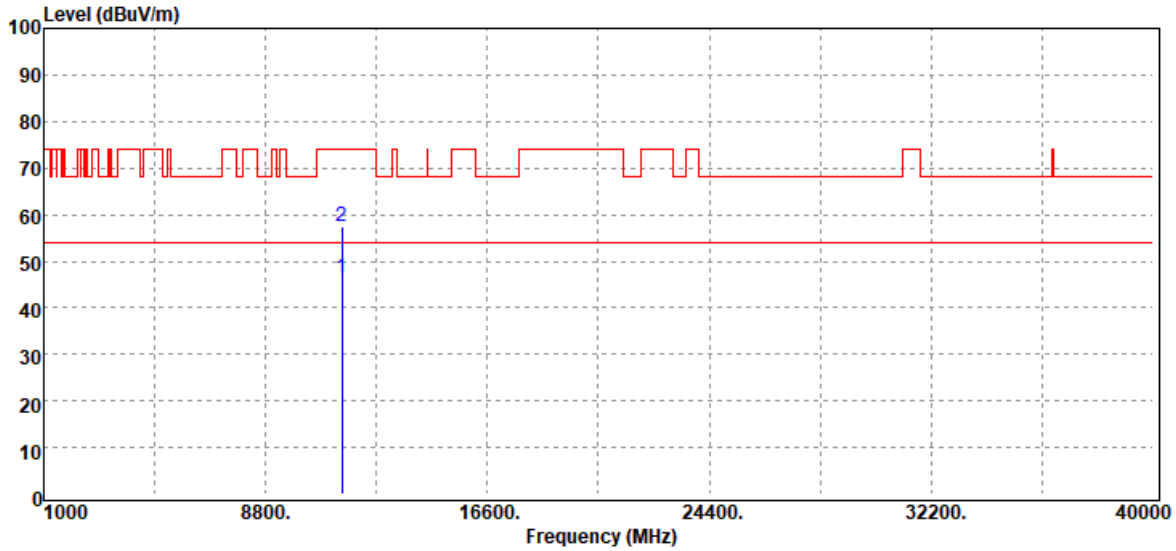
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	22.66	16.89	39.55	54.00	-14.45
11400.00	Peak	33.69	16.89	50.58	74.00	-23.42

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 3	Temp./Humi.	:21.8/45
Frequency	:5700 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



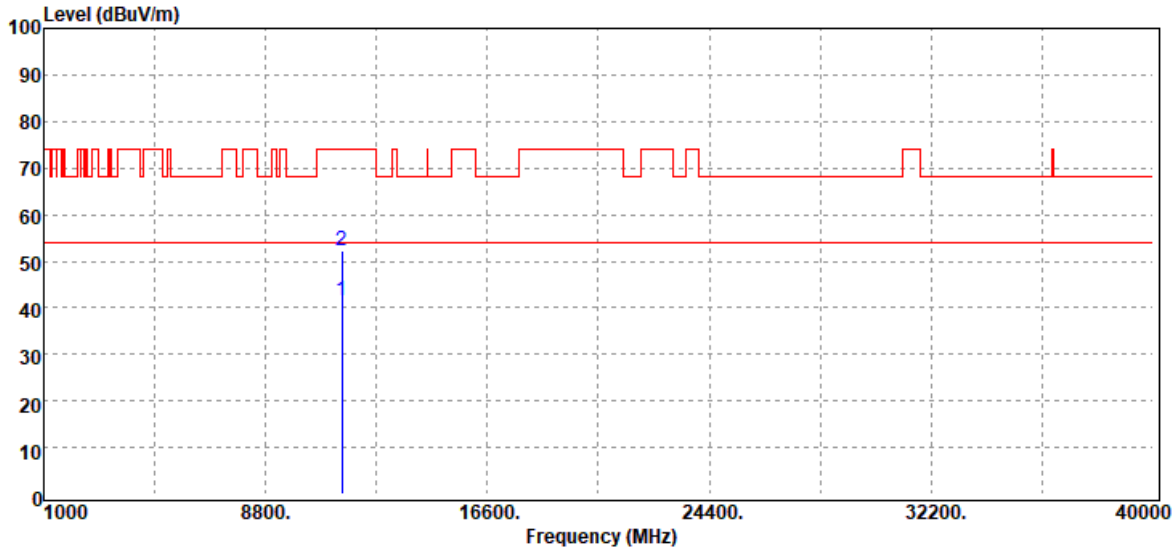
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11400.00	Average	22.69	16.89	39.58	54.00	-14.42
11400.00	Peak	32.96	16.89	49.85	74.00	-24.15

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 4	Temp./Humi.	:21.8/45
Frequency	:5745 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



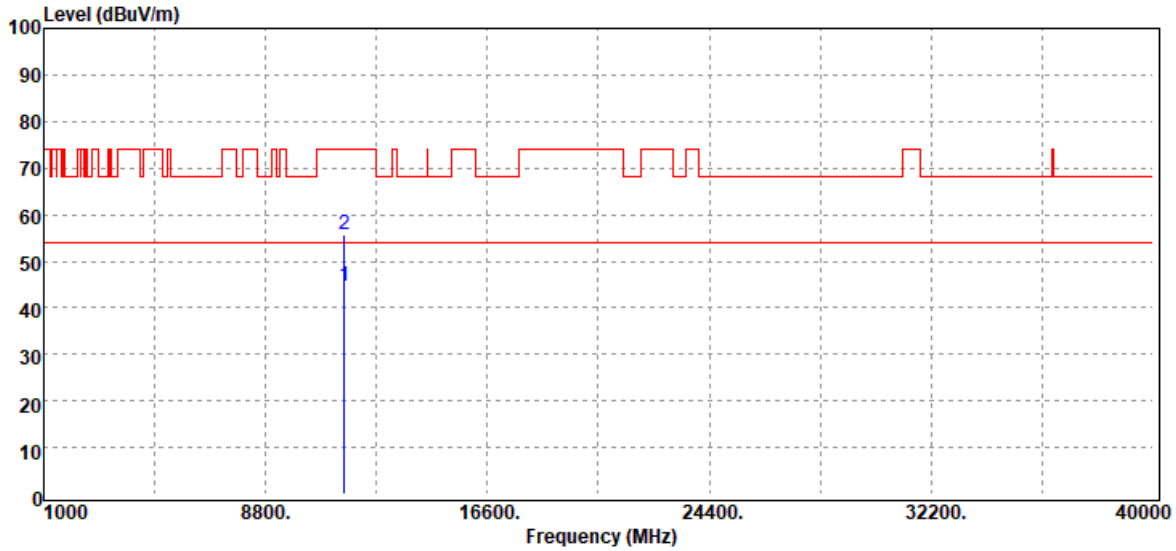
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	30.58	15.95	46.53	54.00	-7.47
11490.00	Peak	41.60	15.95	57.55	74.00	-16.45

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 4	Temp./Humi.	:21.8/45
Frequency	:5745 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



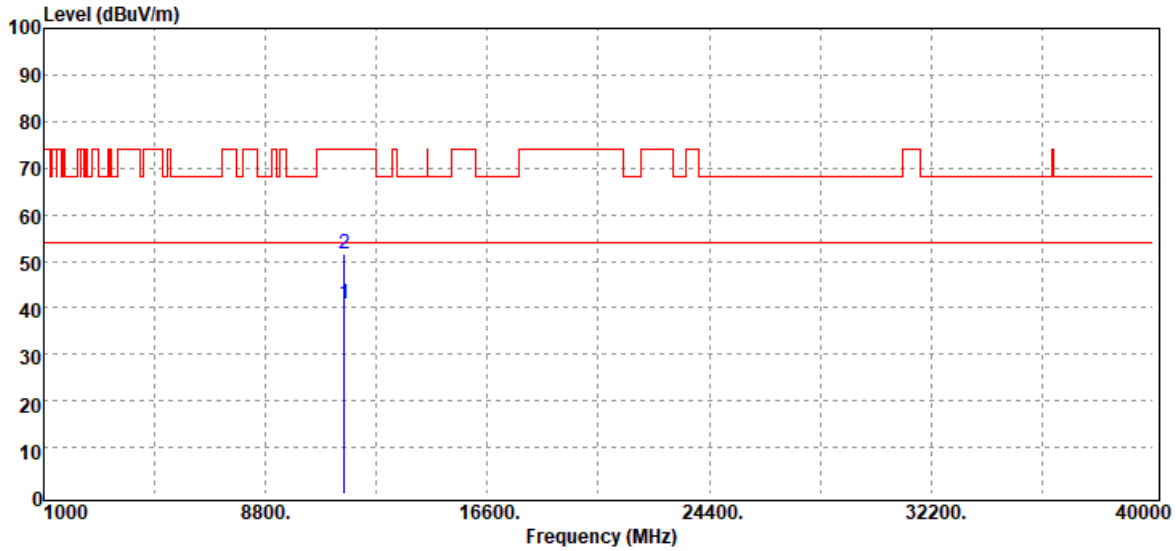
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11490.00	Average	25.71	15.95	41.66	54.00	-12.34
11490.00	Peak	36.39	15.95	52.34	74.00	-21.66

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 4	Temp./Humi.	:21.8/45
Frequency	:5785 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



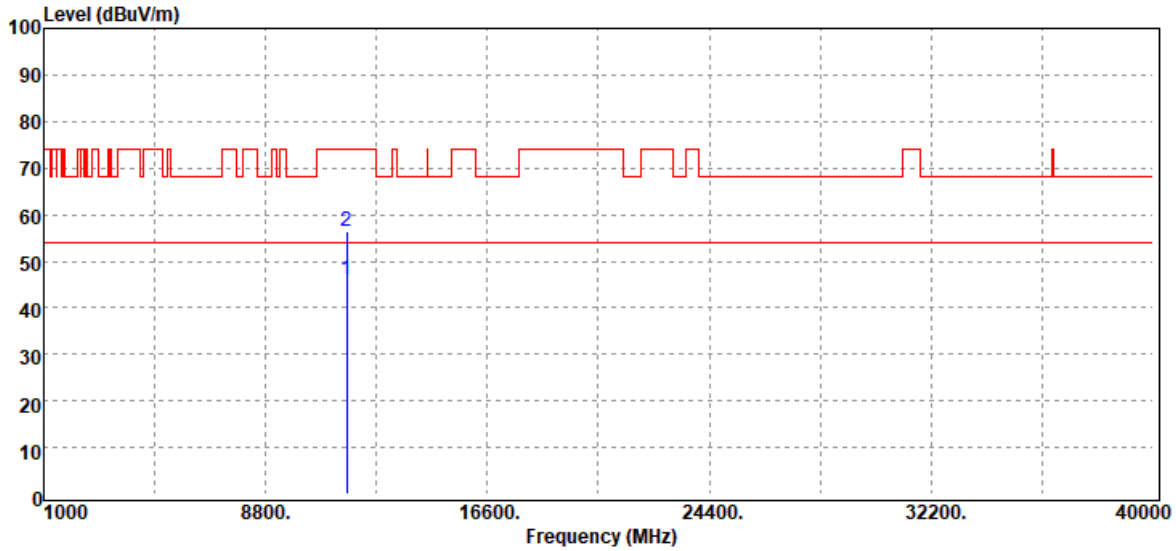
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	28.37	16.41	44.78	54.00	-9.22
11570.00	Peak	39.40	16.41	55.81	74.00	-18.19

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 4	Temp./Humi.	:21.8/45
Frequency	:5785 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



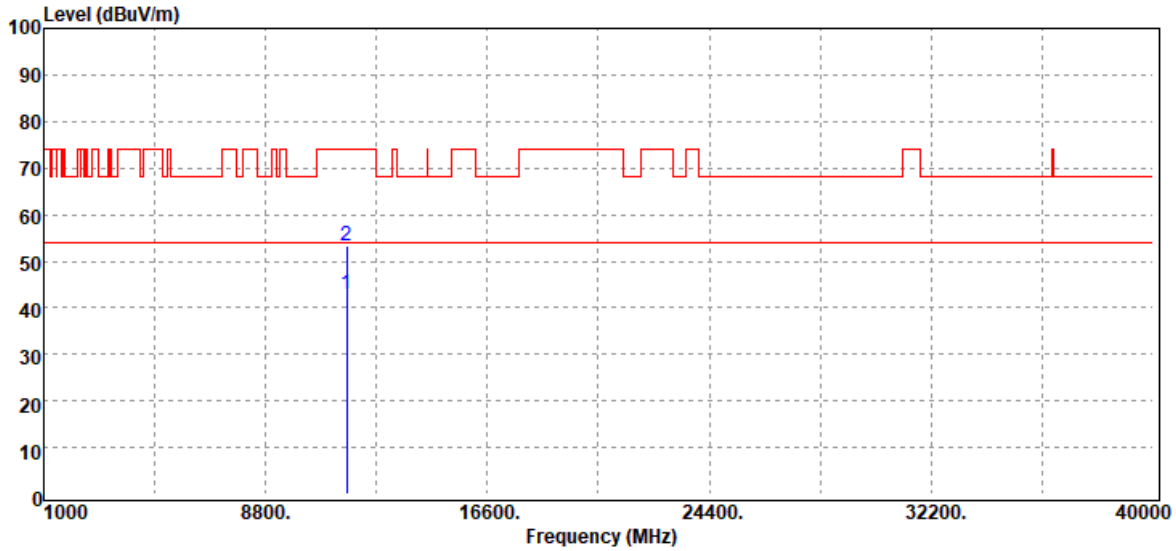
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11570.00	Average	24.38	16.41	40.79	54.00	-13.21
11570.00	Peak	35.18	16.41	51.59	74.00	-22.41

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 4	Temp./Humi.	:21.8/45
Frequency	:5825 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



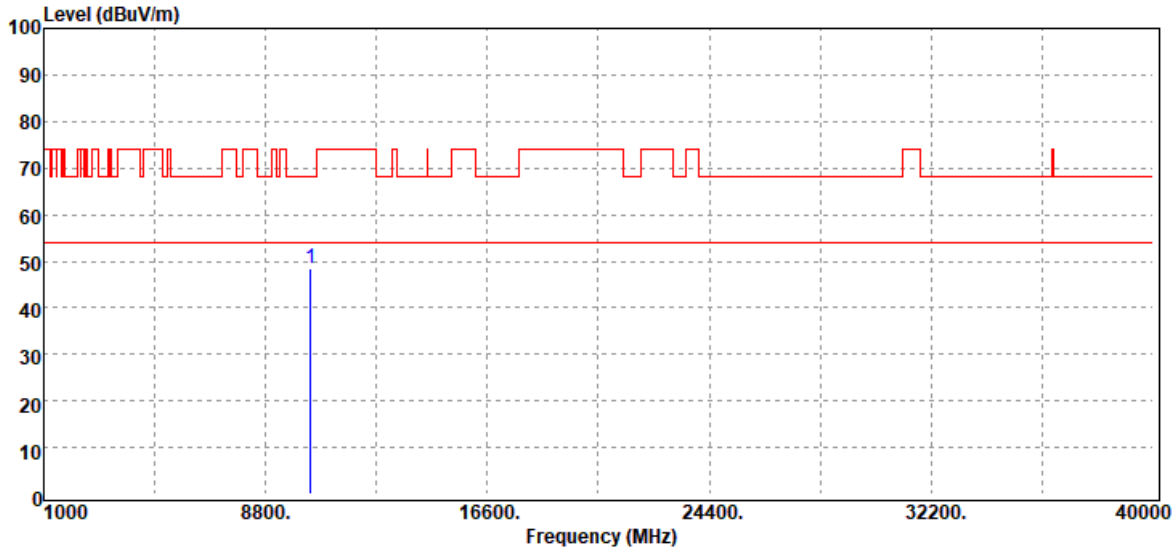
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	29.89	16.21	46.10	54.00	-7.90
11650.00	Peak	40.07	16.21	56.28	74.00	-17.72

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n20/Band 4	Temp./Humi.	:21.8/45
Frequency	:5825 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



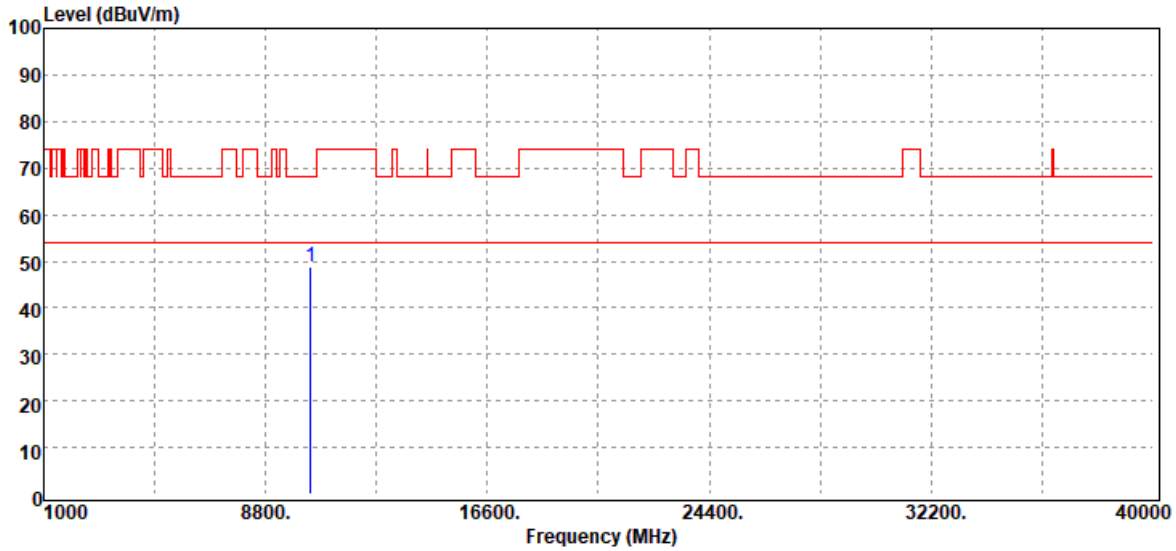
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11650.00	Average	26.72	16.21	42.93	54.00	-11.07
11650.00	Peak	37.23	16.21	53.44	74.00	-20.56

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band1	Temp./Humi.	:21.8/45
Frequency	:5190 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



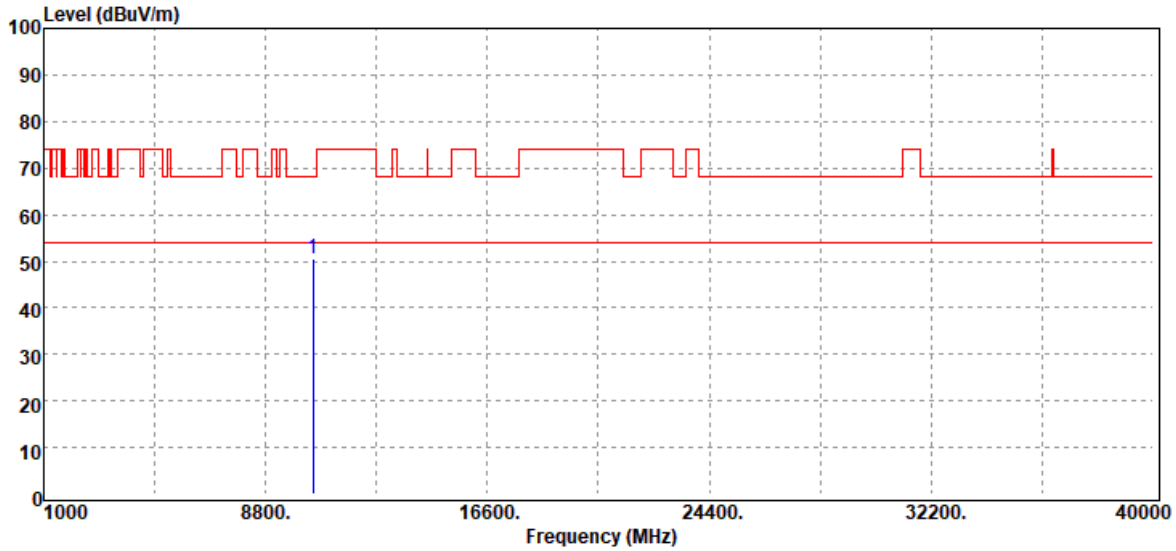
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10380.00	Peak	33.67	14.82	48.49	68.20	-19.71

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band1	Temp./Humi.	:21.8/45
Frequency	:5190 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



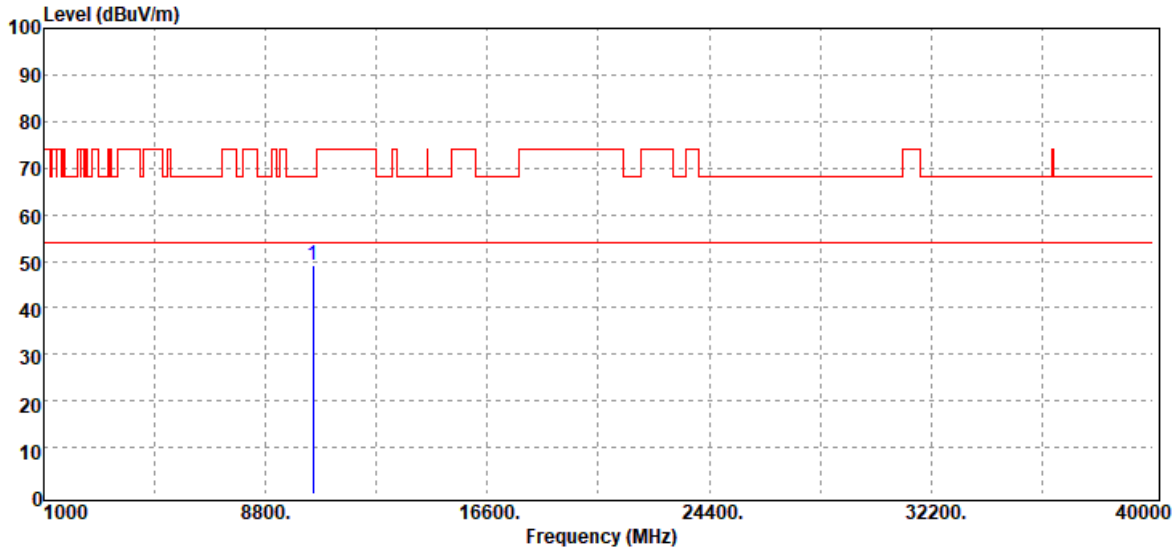
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10380.00	Peak	33.98	14.82	48.80	68.20	-19.40

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band1	Temp./Humi.	:21.8/45
Frequency	:5230 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



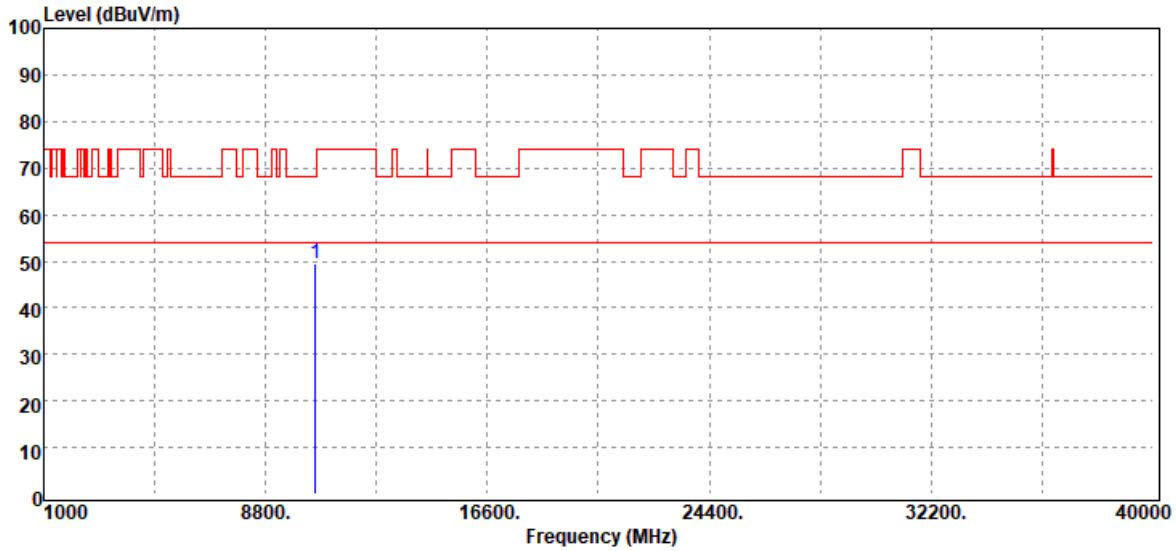
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10460.00	Peak	34.48	16.01	50.49	68.20	-17.71

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band1	Temp./Humi.	:21.8/45
Frequency	:5230 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



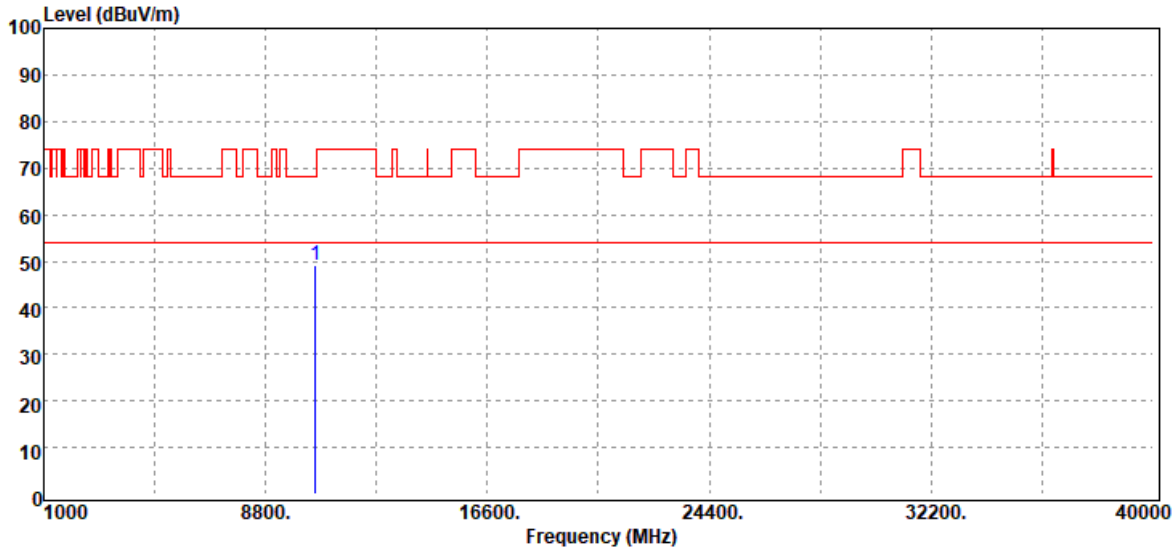
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10460.00	Peak	33.17	16.01	49.18	68.20	-19.02

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band2	Temp./Humi.	:21.8/45
Frequency	:5270 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



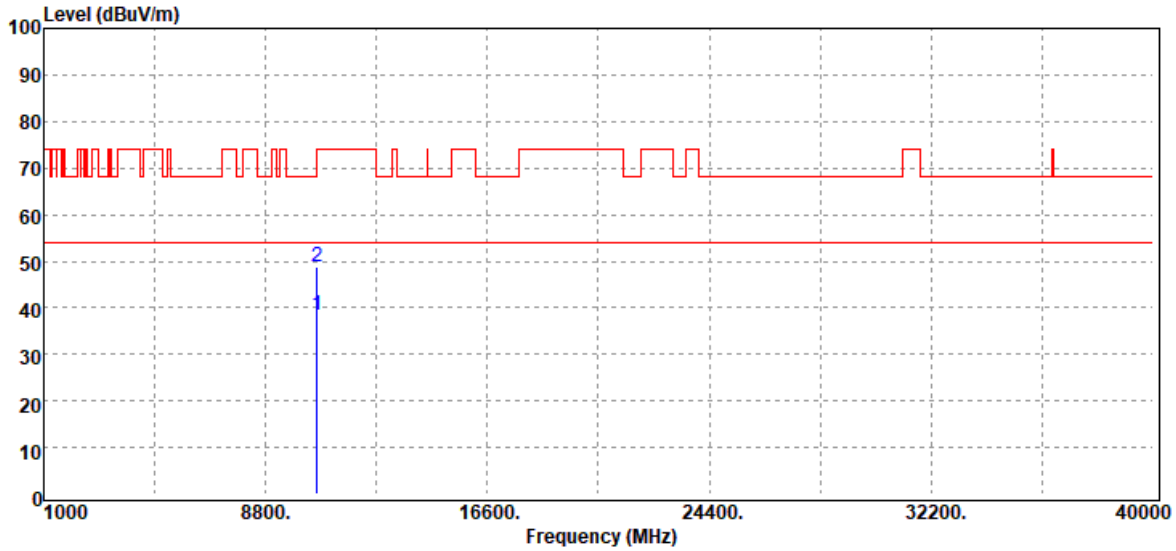
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10540.00	Peak	33.76	15.67	49.43	68.20	-18.77

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band2	Temp./Humi.	:21.8/45
Frequency	:5270 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



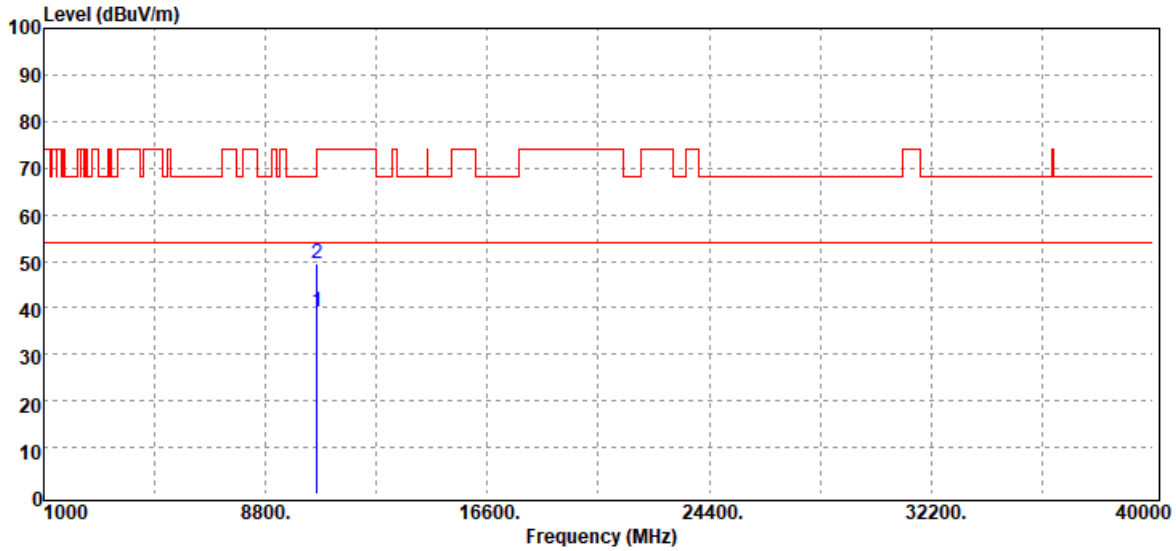
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10540.00	Peak	33.31	15.67	48.98	68.20	-19.22

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band2	Temp./Humi.	:21.8/45
Frequency	:5310 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



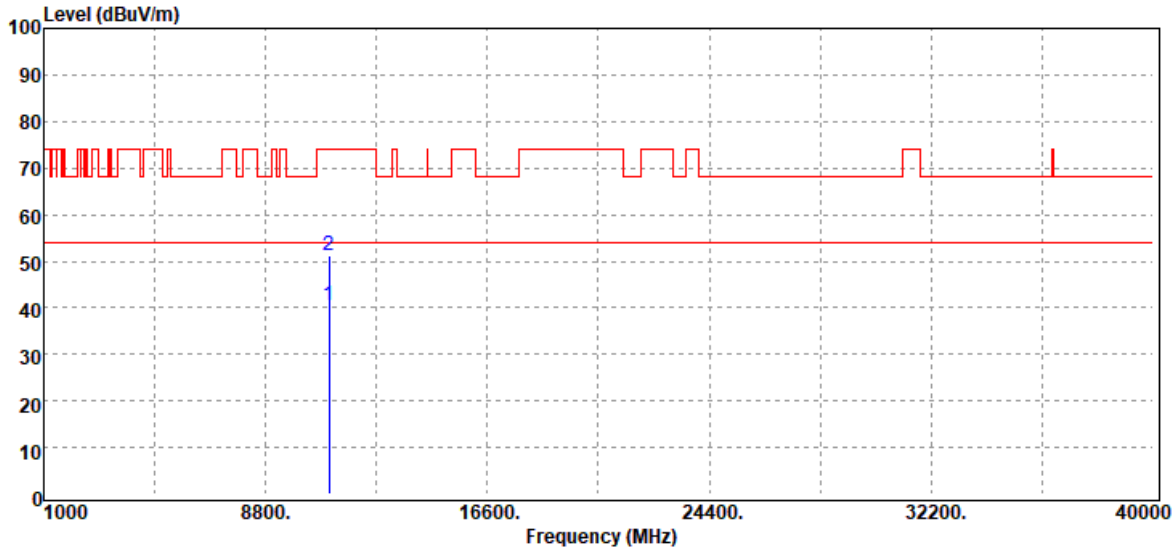
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10620.00	Average	22.87	15.66	38.53	54.00	-15.47
10620.00	Peak	33.25	15.66	48.91	74.00	-25.09

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band2	Temp./Humi.	:21.8/45
Frequency	:5310 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



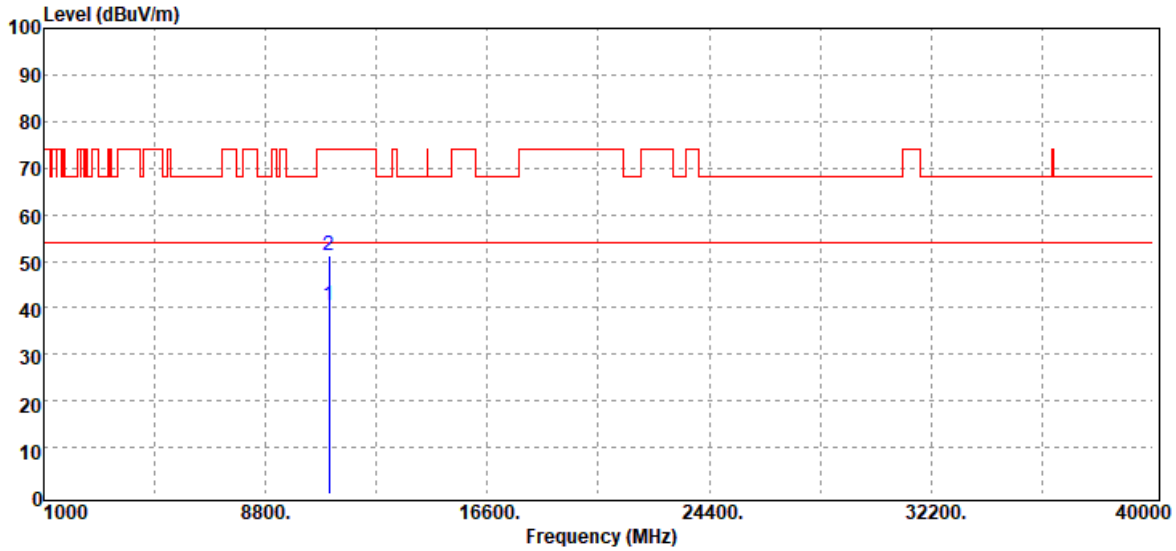
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10620.00	Average	23.59	15.66	39.25	54.00	-14.75
10620.00	Peak	33.72	15.66	49.38	74.00	-24.62

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band3	Temp./Humi.	:21.8/45
Frequency	:5510 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



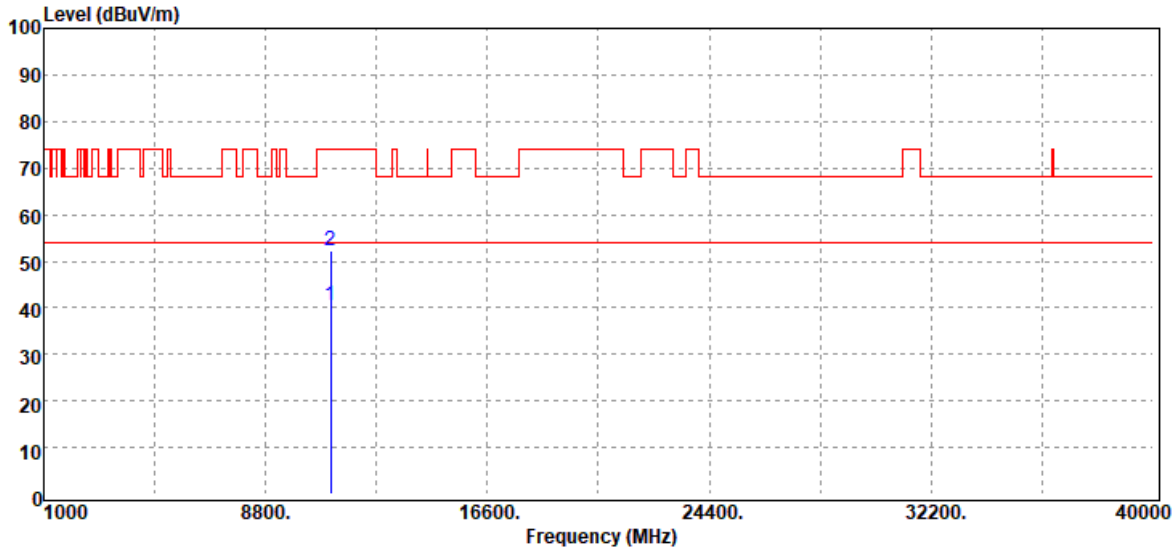
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11020.00	Average	22.91	17.69	40.60	54.00	-13.40
11020.00	Peak	33.41	17.69	51.10	74.00	-22.90

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band3	Temp./Humi.	:21.8/45
Frequency	:5510 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



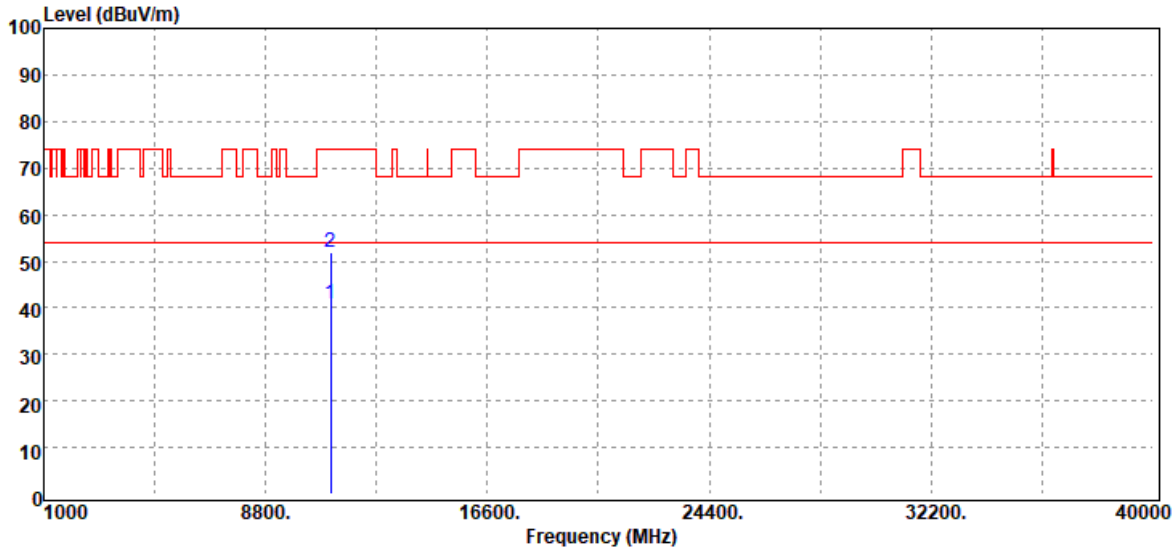
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11020.00	Average	22.64	17.69	40.33	54.00	-13.67
11020.00	Peak	33.65	17.69	51.34	74.00	-22.66

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band3	Temp./Humi.	:21.8/45
Frequency	:5550 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



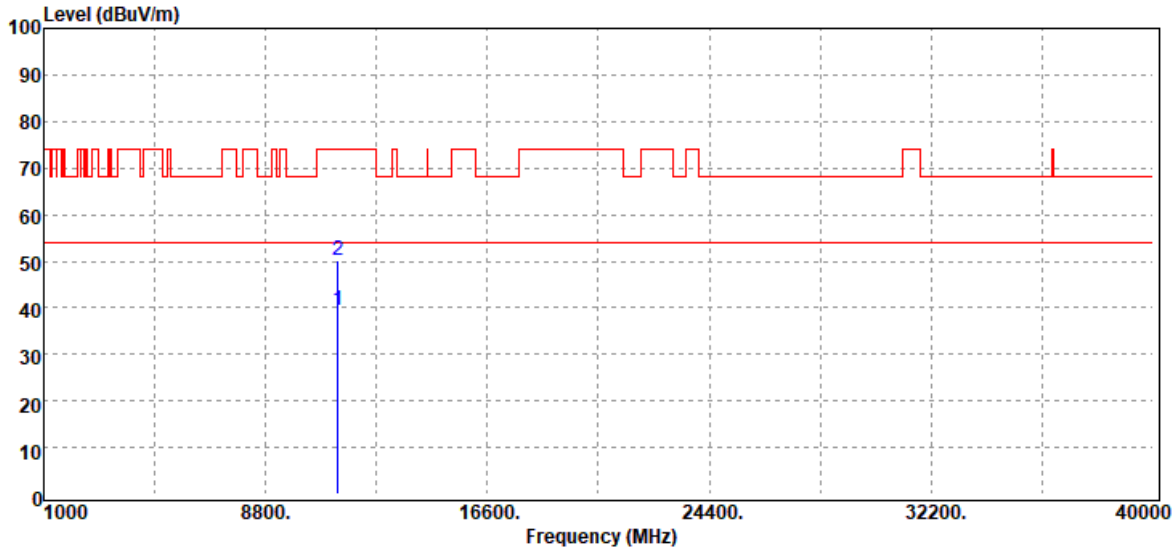
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	23.19	17.36	40.55	54.00	-13.45
11100.00	Peak	34.78	17.36	52.14	74.00	-21.86

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band3	Temp./Humi.	:21.8/45
Frequency	:5550 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



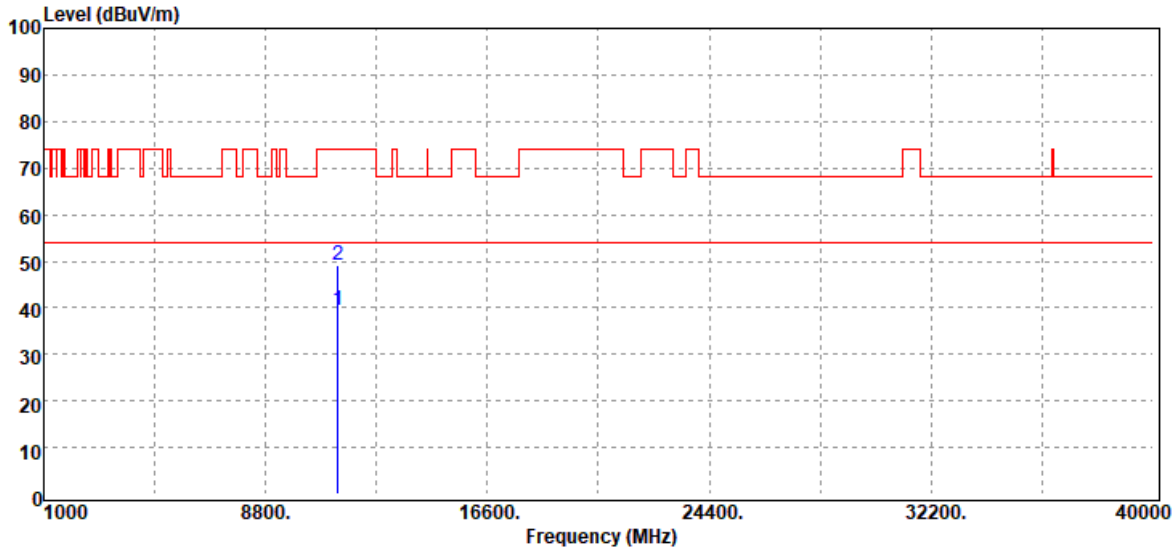
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11100.00	Average	23.43	17.36	40.79	54.00	-13.21
11100.00	Peak	34.39	17.36	51.75	74.00	-22.25

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band3	Temp./Humi.	:21.8/45
Frequency	:5670 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



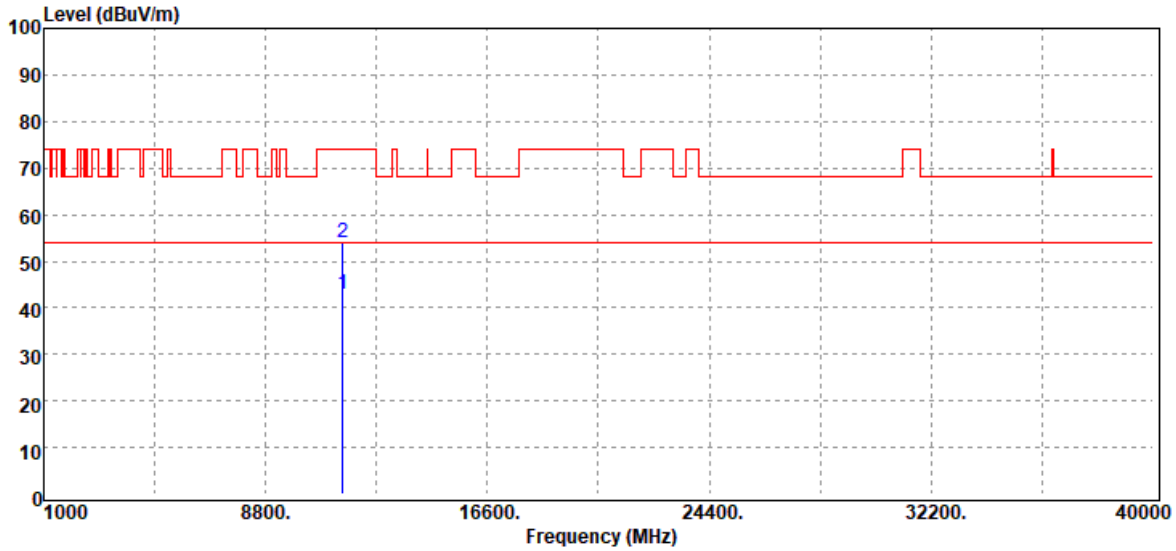
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11340.00	Average	23.17	16.32	39.49	54.00	-14.51
11340.00	Peak	33.84	16.32	50.16	74.00	-23.84

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band3	Temp./Humi.	:21.8/45
Frequency	:5670 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



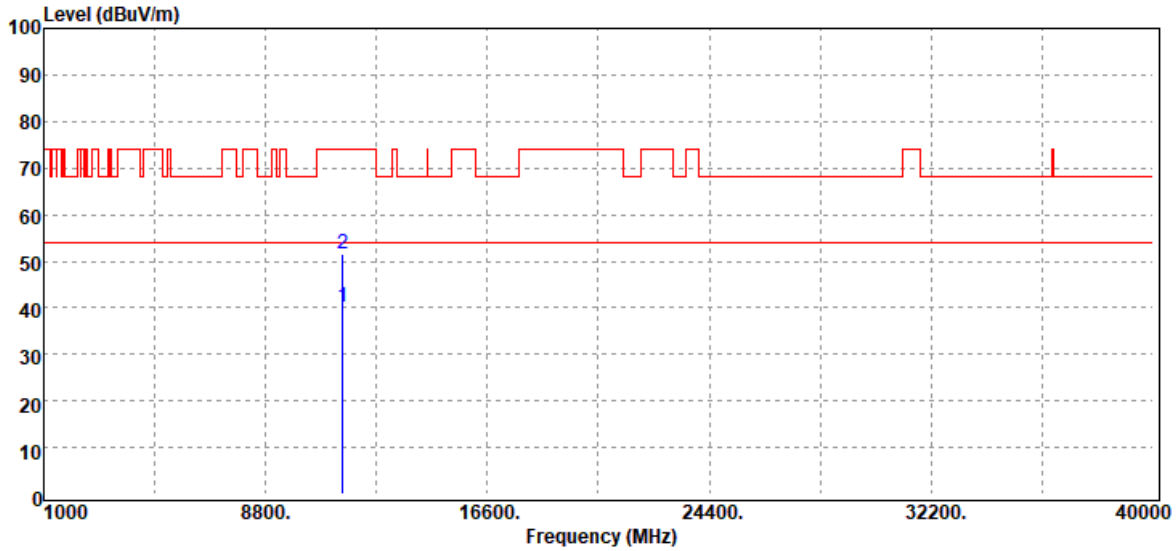
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11340.00	Average	22.97	16.32	39.29	54.00	-14.71
11340.00	Peak	32.88	16.32	49.20	74.00	-24.80

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band4	Temp./Humi.	:21.8/45
Frequency	:5755 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



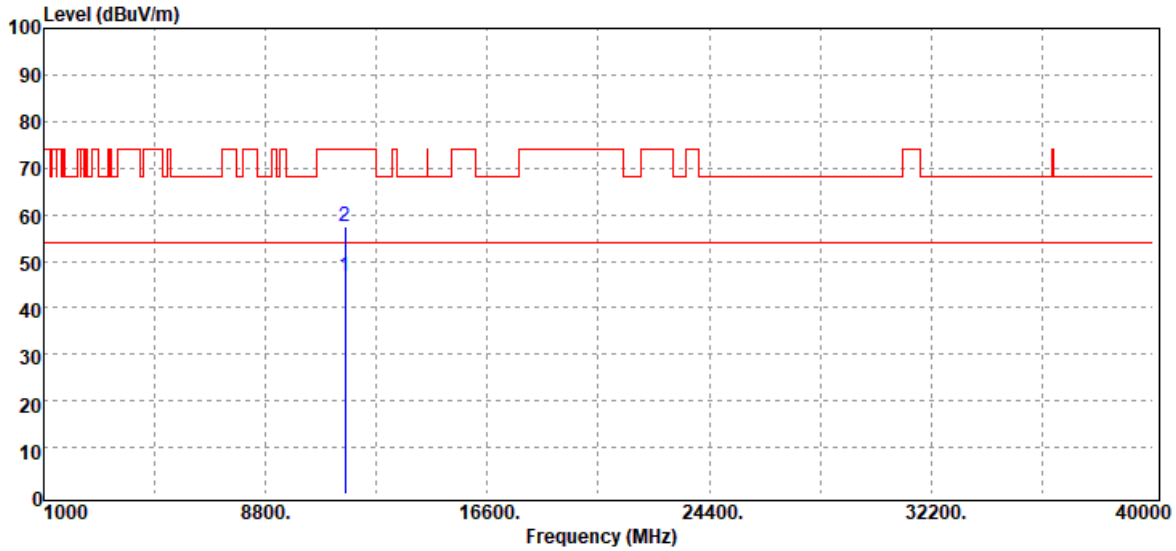
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	26.99	15.83	42.82	54.00	-11.18
11510.00	Peak	38.06	15.83	53.89	74.00	-20.11

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band4	Temp./Humi.	:21.8/45
Frequency	:5755 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



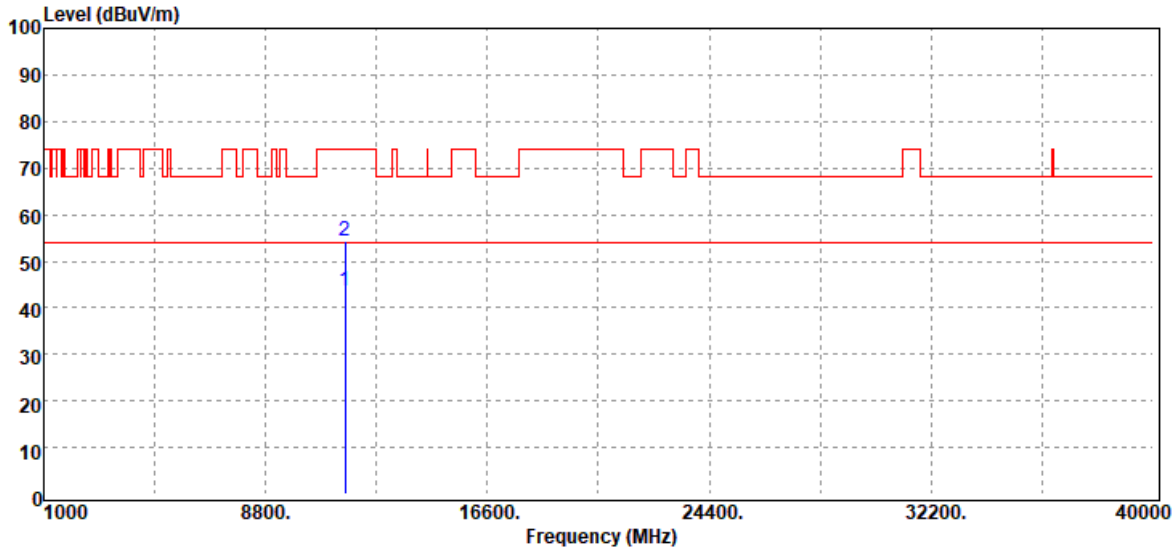
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11510.00	Average	24.23	15.83	40.06	54.00	-13.94
11510.00	Peak	35.64	15.83	51.47	74.00	-22.53

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band4	Temp./Humi.	:21.8/45
Frequency	:5795 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



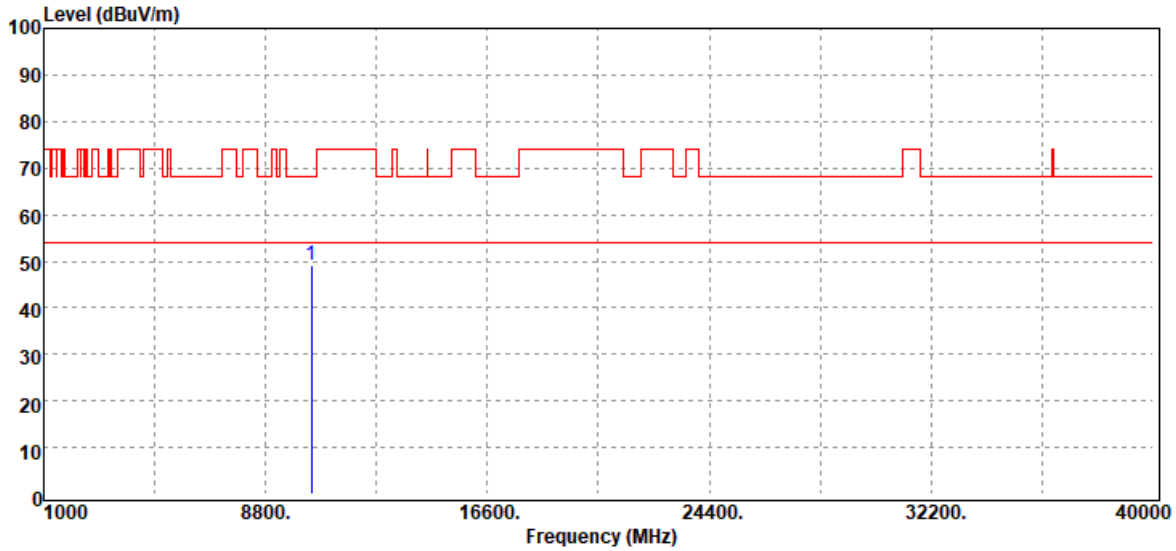
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11590.00	Average	30.13	16.74	46.87	54.00	-7.13
11590.00	Peak	40.61	16.74	57.35	74.00	-16.65

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11n40 / Band4	Temp./Humi.	:21.8/45
Frequency	:5795 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



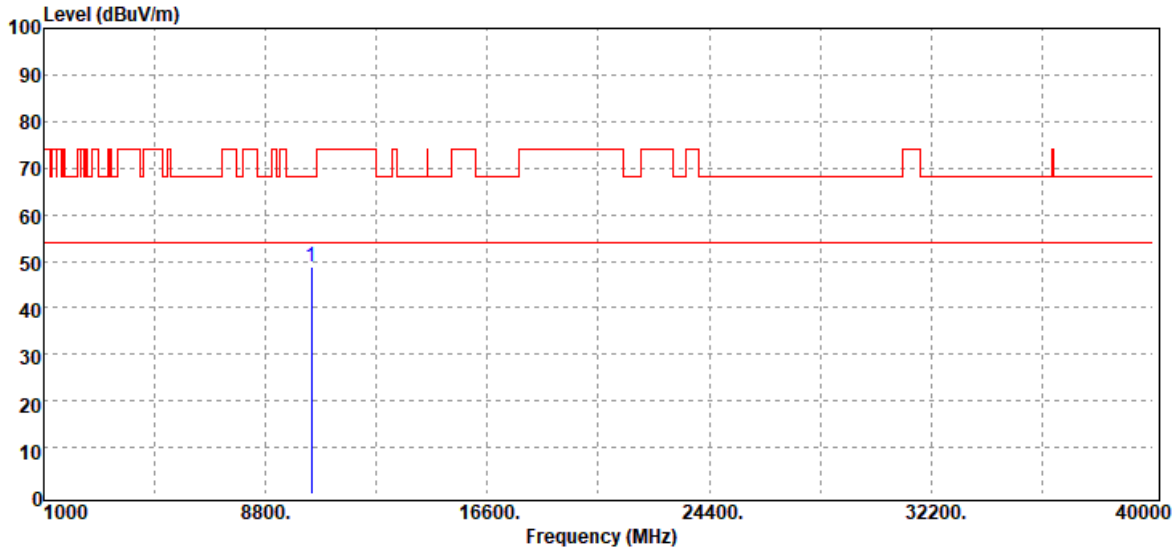
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11590.00	Average	26.94	16.74	43.68	54.00	-10.32
11590.00	Peak	37.50	16.74	54.24	74.00	-19.76

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band1	Temp./Humi.	:21.8/45
Frequency	:5210 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



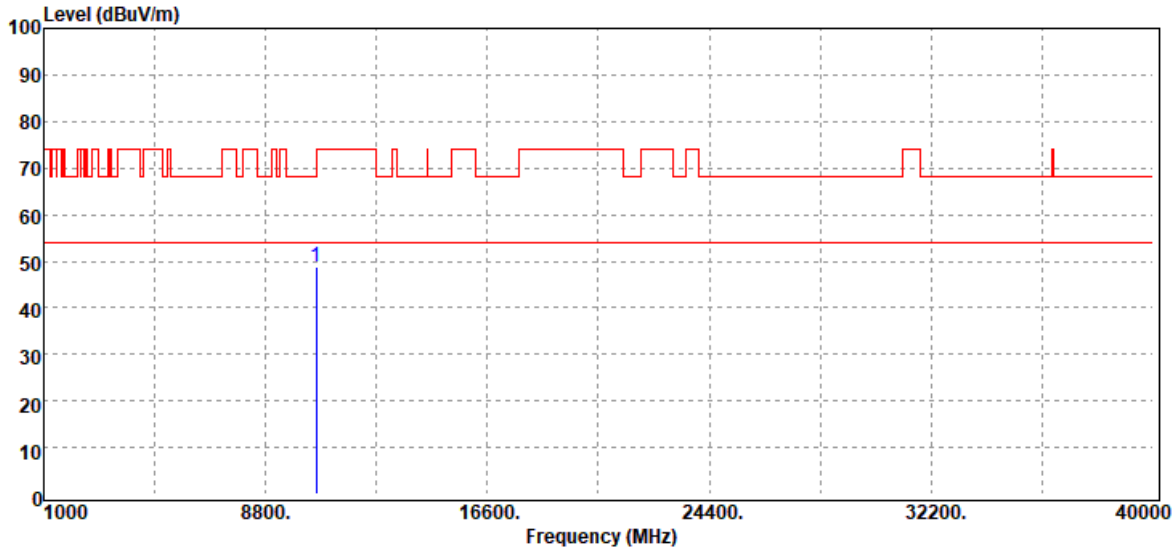
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10420.00	Peak	33.81	15.31	49.12	68.20	-19.08

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band1	Temp./Humi.	:21.8/45
Frequency	:5210 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



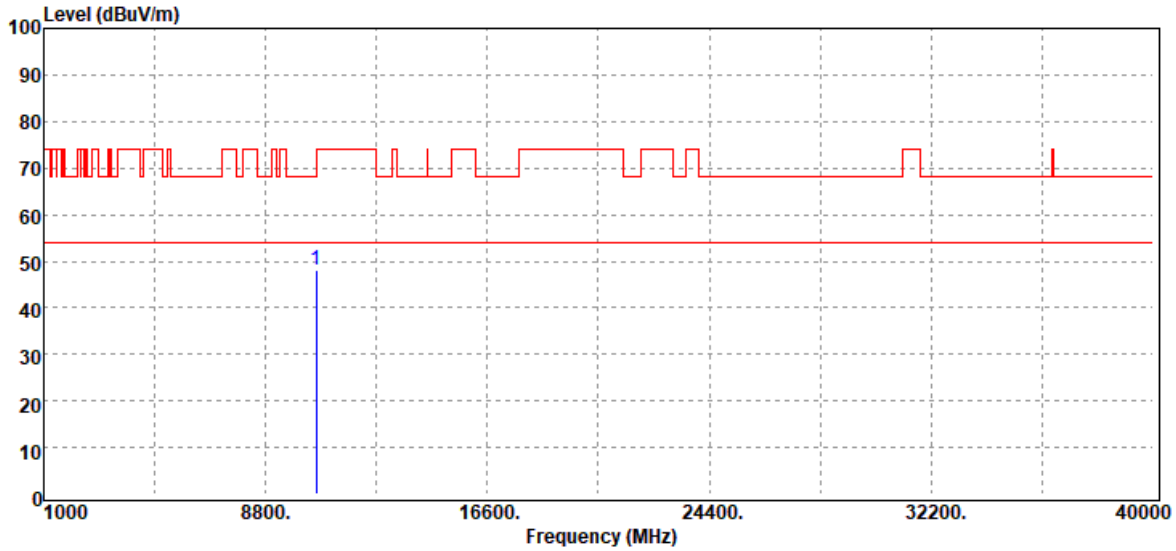
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10420.00	Peak	33.52	15.31	48.83	68.20	-19.37

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band2	Temp./Humi.	:21.8/45
Frequency	:5290 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



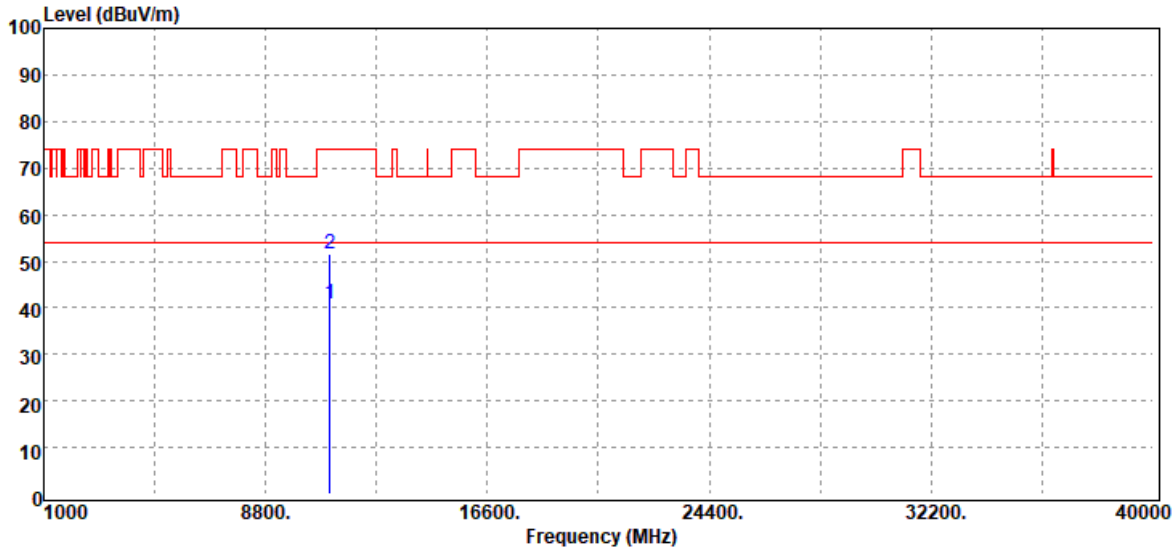
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10580.00	Peak	33.53	15.21	48.74	68.20	-19.46

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band2	Temp./Humi.	:21.8/45
Frequency	:5290 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



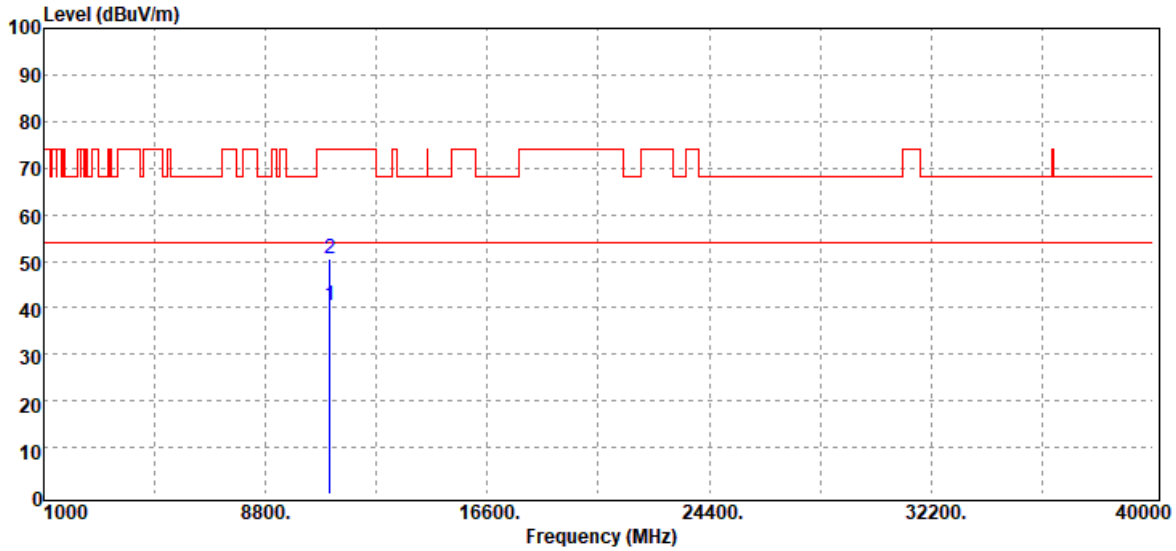
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
10580.00	Peak	32.79	15.21	48.00	68.20	-20.20

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band3	Temp./Humi.	:21.8/45
Frequency	:5530 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



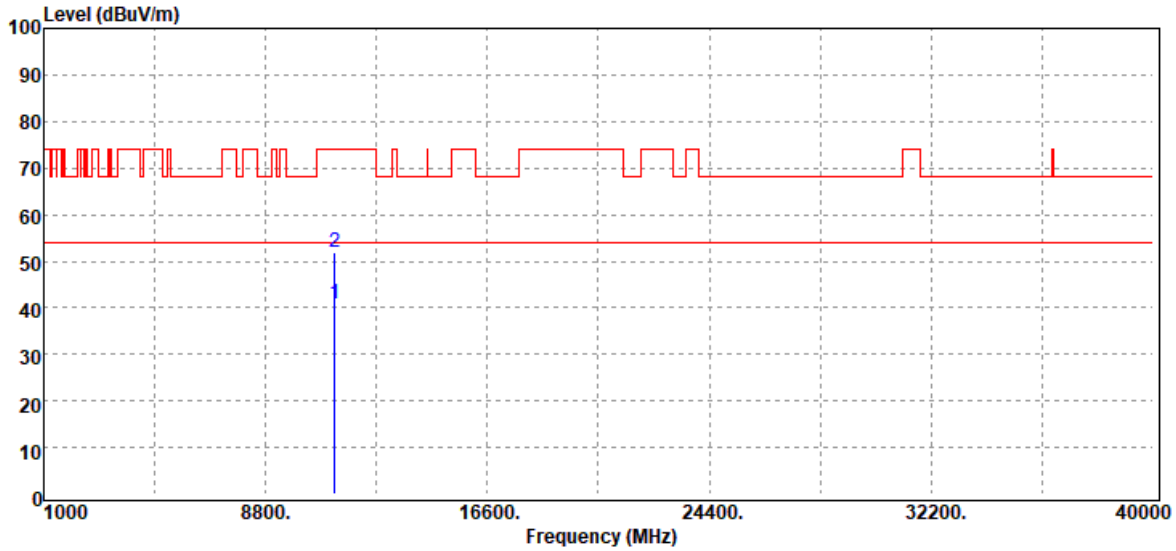
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11060.00	Average	23.40	17.46	40.86	54.00	-13.14
11060.00	Peak	34.07	17.46	51.53	74.00	-22.47

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band3	Temp./Humi.	:21.8/45
Frequency	:5530 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



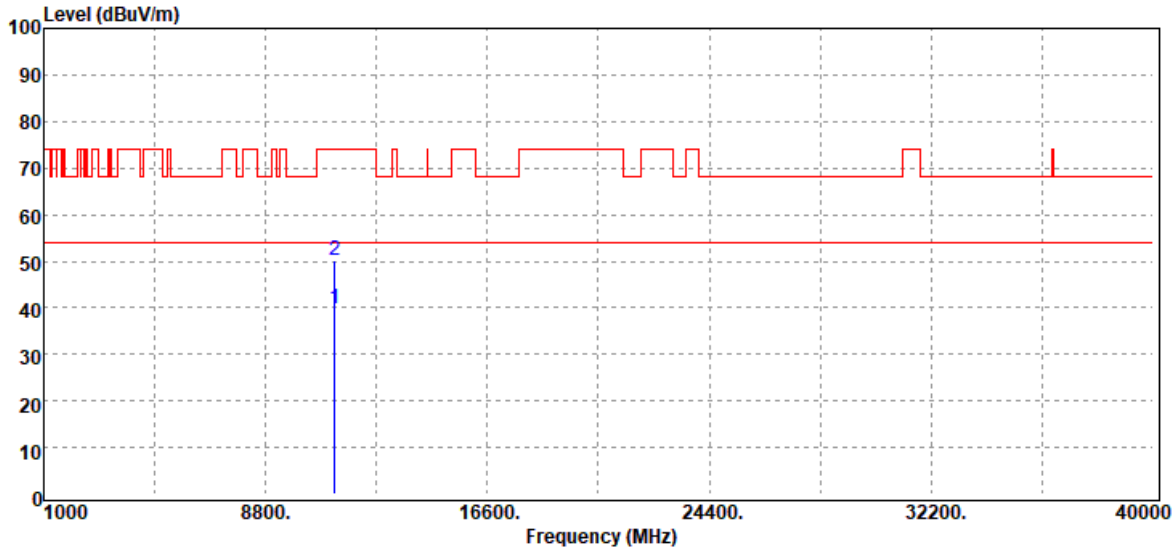
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11060.00	Average	23.14	17.46	40.60	54.00	-13.40
11060.00	Peak	33.11	17.46	50.57	74.00	-23.43

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band3	Temp./Humi.	:21.8/45
Frequency	:5610 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



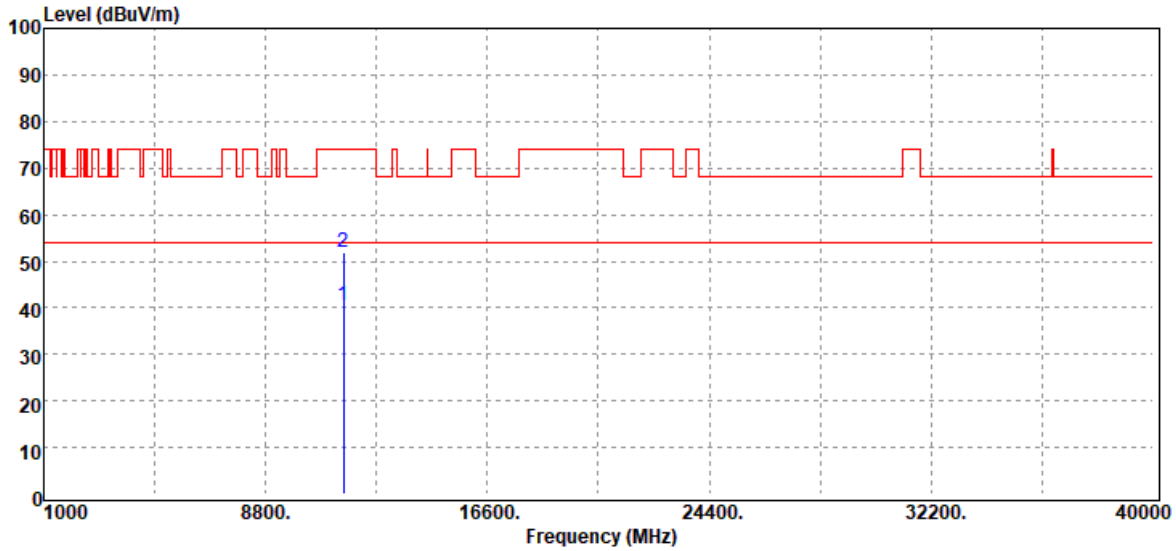
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	24.07	16.62	40.69	54.00	-13.31
11220.00	Peak	35.19	16.62	51.81	74.00	-22.19

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band3	Temp./Humi.	:21.8/45
Frequency	:5610 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Mid	Engineer	:Kane
EUT Pol.	:E2 Plan		



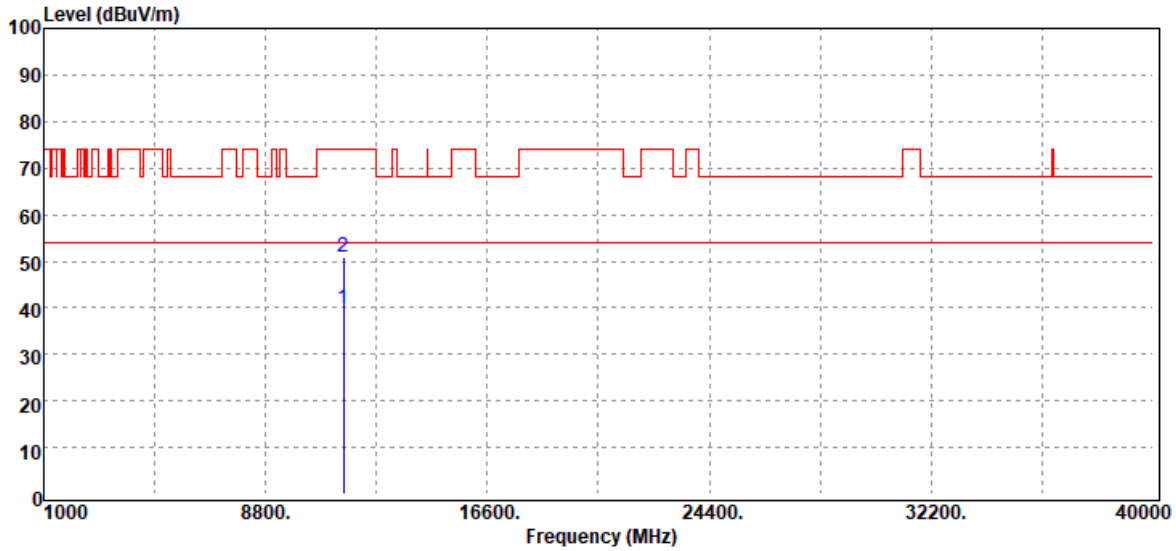
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
11220.00	Average	23.11	16.62	39.73	54.00	-14.27
11220.00	Peak	33.64	16.62	50.26	74.00	-23.74

Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band4	Temp./Humi.	:21.8/45
Frequency	:5775 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



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	24.28	16.09	40.37	54.00	-13.63
11550.00	Peak	35.65	16.09	51.74	74.00	-22.26

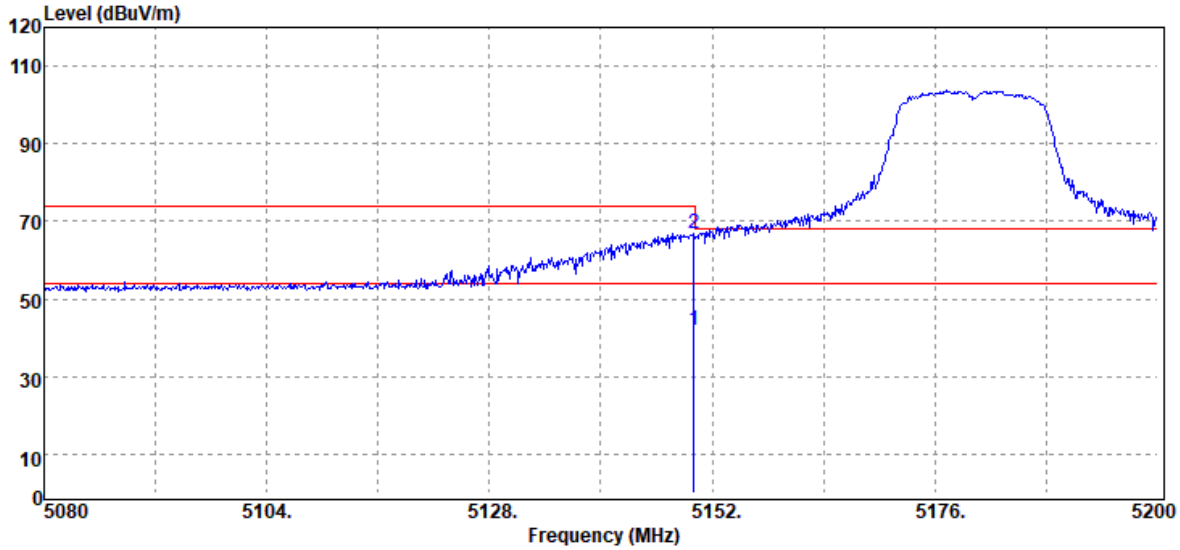
Report Number	:T190521W02	Test Date	:2019-07-23
Operation Band	:802.11ac80 / Band4	Temp./Humi.	:21.8/45
Frequency	:5775 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:Tx CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



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	23.86	16.09	39.95	54.00	-14.05
11550.00	Peak	34.73	16.09	50.82	74.00	-23.18

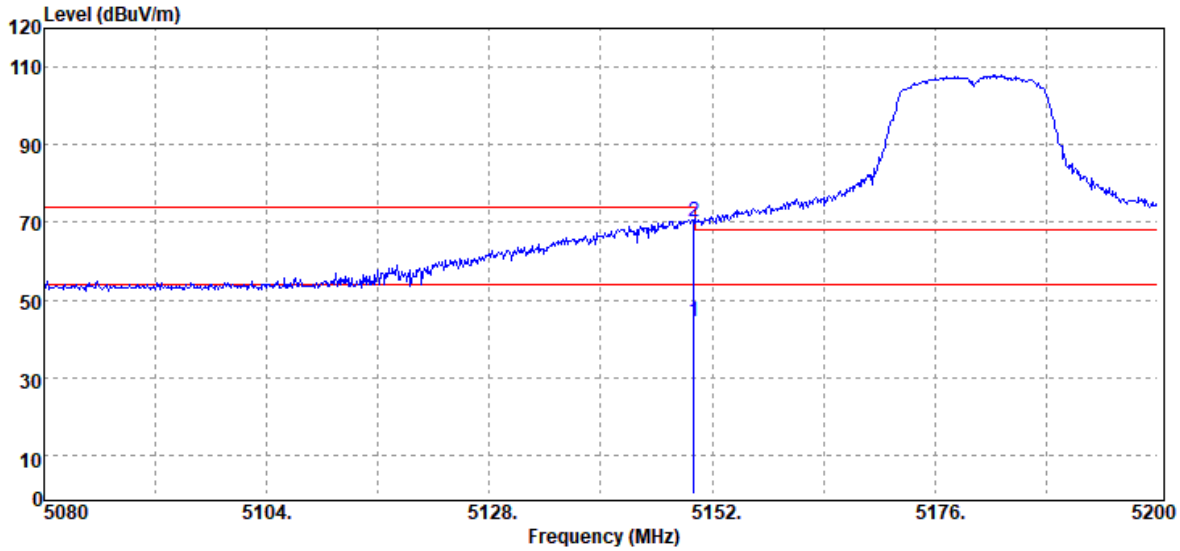
Radiated Band Edge Measurement Result

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band1	Temp./Humi.	:23.9/51
Frequency	:5180 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



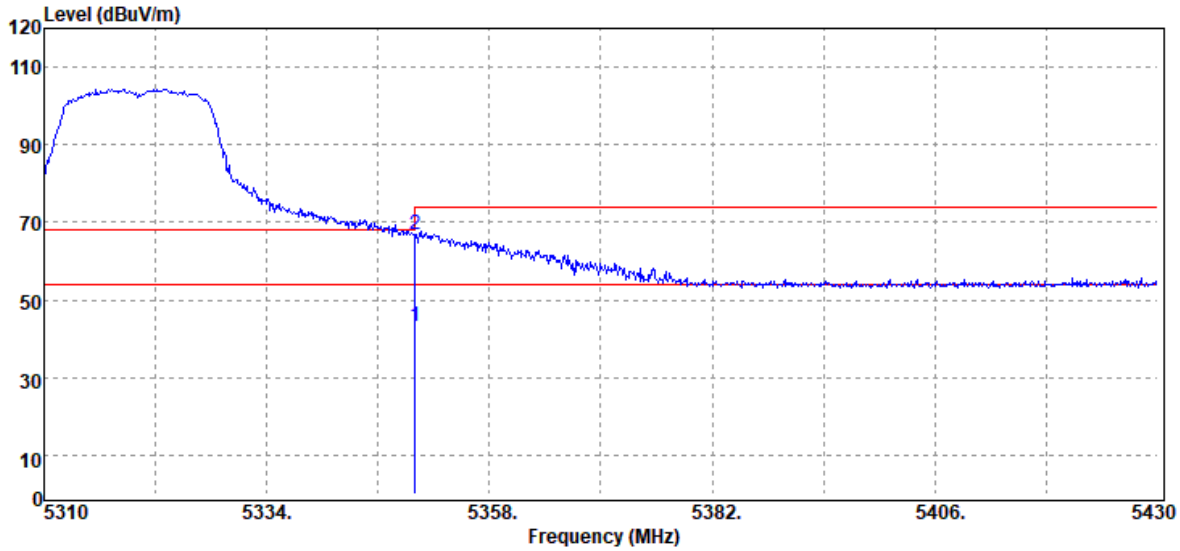
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5150.00	Average	37.15	4.92	42.07	54.00	-11.93
5150.00	Peak	62.06	4.92	66.98	74.00	-7.02

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band1	Temp./Humi.	:23.9/51
Frequency	:5180 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



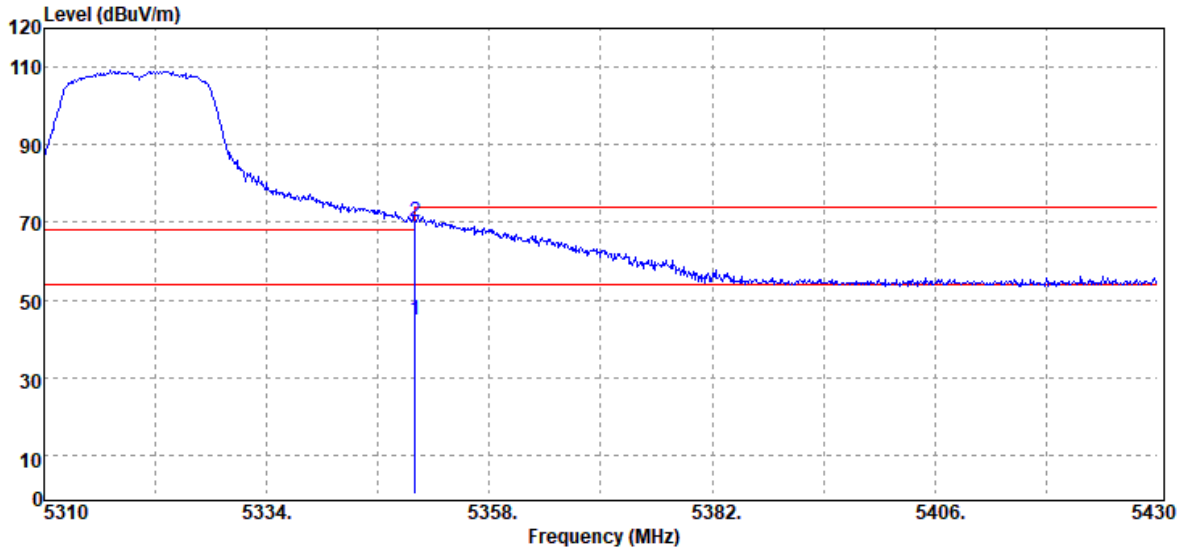
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5150.00	Average	39.61	4.92	44.53	54.00	-9.47
5150.00	Peak	65.42	4.92	70.34	74.00	-3.66

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band2	Temp./Humi.	:23.9/51
Frequency	:5320 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



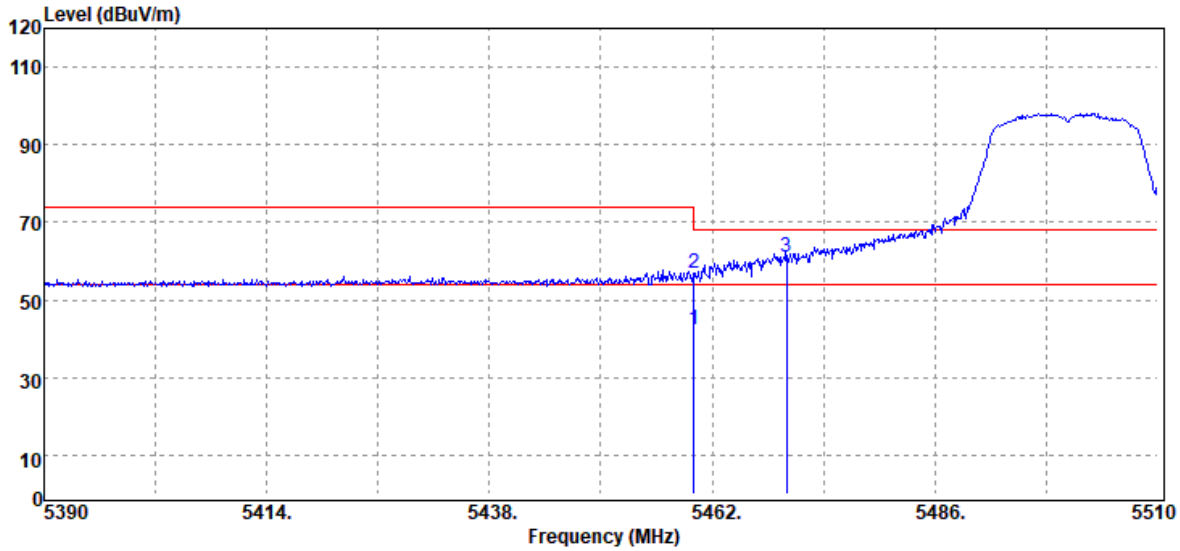
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	38.04	5.21	43.25	54.00	-10.75
5350.00	Peak	61.44	5.21	66.65	74.00	-7.35

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band2	Temp./Humi.	:23.9/51
Frequency	:5320 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



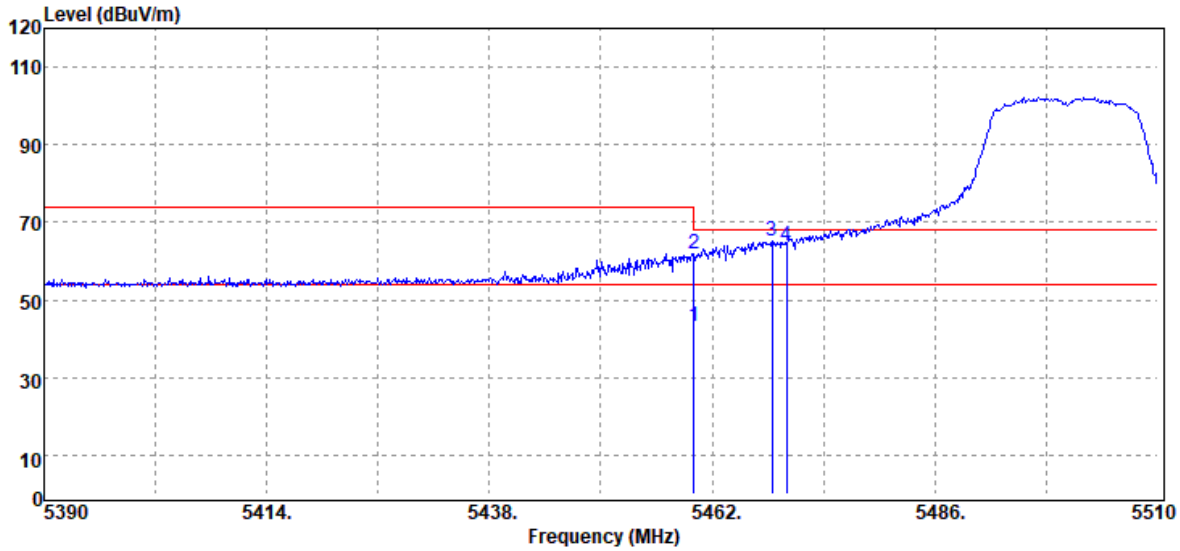
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	39.73	5.21	44.94	54.00	-9.06
5350.00	Peak	65.13	5.21	70.34	74.00	-3.66

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band3	Temp./Humi.	:23.9/51
Frequency	:5500 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



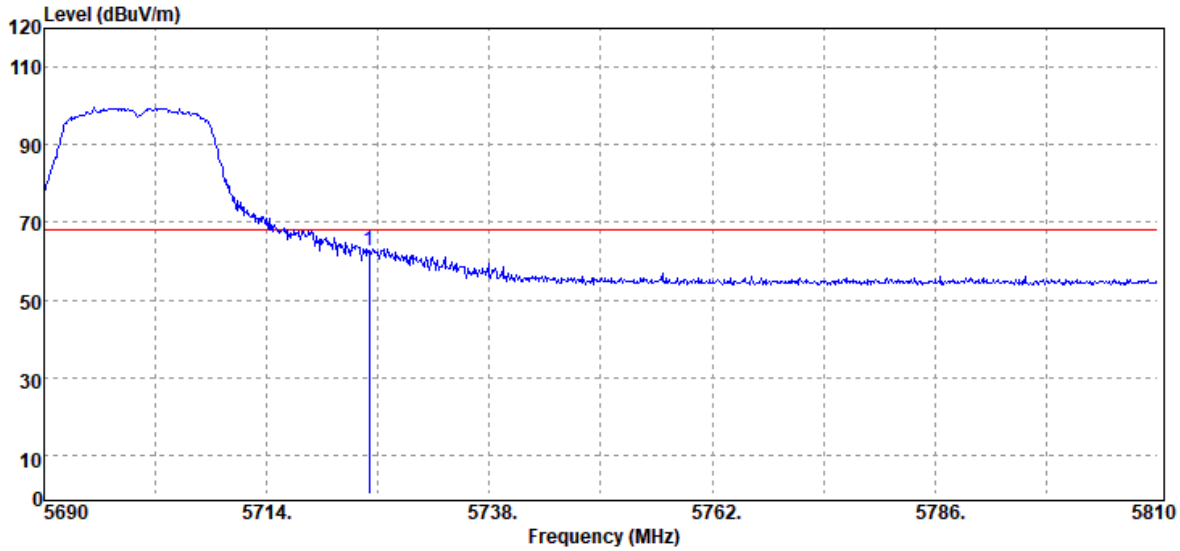
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.61	5.63	42.24	54.00	-11.76
5460.00	Peak	51.07	5.63	56.70	74.00	-17.30
5470.00	Peak	55.58	5.65	61.23	68.20	-6.97

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band3	Temp./Humi.	:23.9/51
Frequency	:5500 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



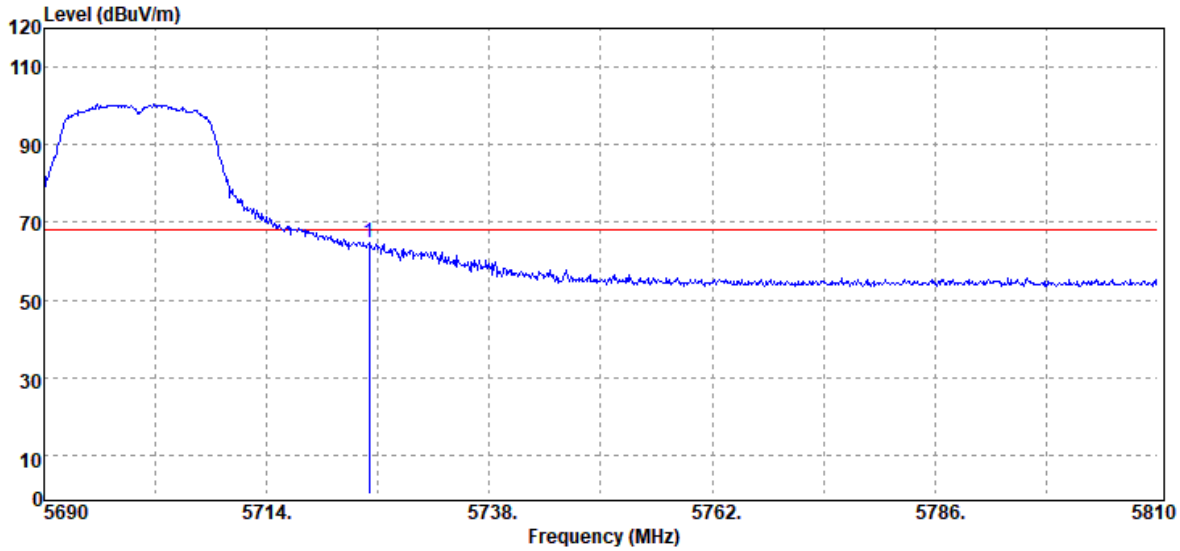
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5460.00	Average	37.38	5.63	43.01	54.00	-10.99
5460.00	Peak	56.28	5.63	61.91	74.00	-12.09
5468.48	Peak	59.47	5.64	65.11	68.20	-3.09
5470.00	Peak	58.38	5.65	64.03	68.20	-4.17

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band3	Temp./Humi.	:23.9/51
Frequency	:5700 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



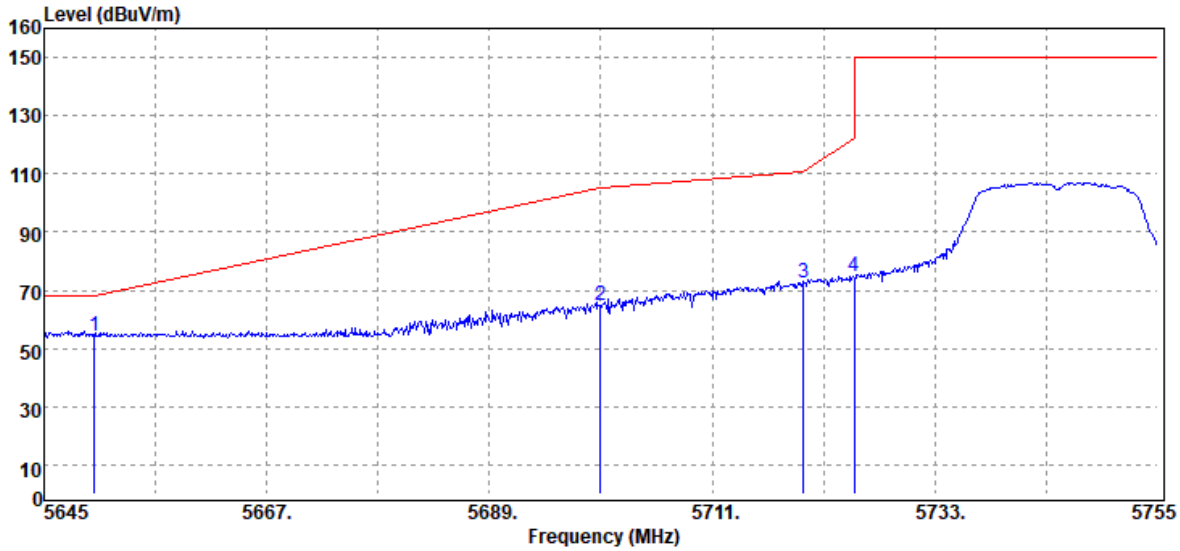
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	56.17	6.34	62.51	68.20	-5.69

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band3	Temp./Humi.	:23.9/51
Frequency	:5700 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



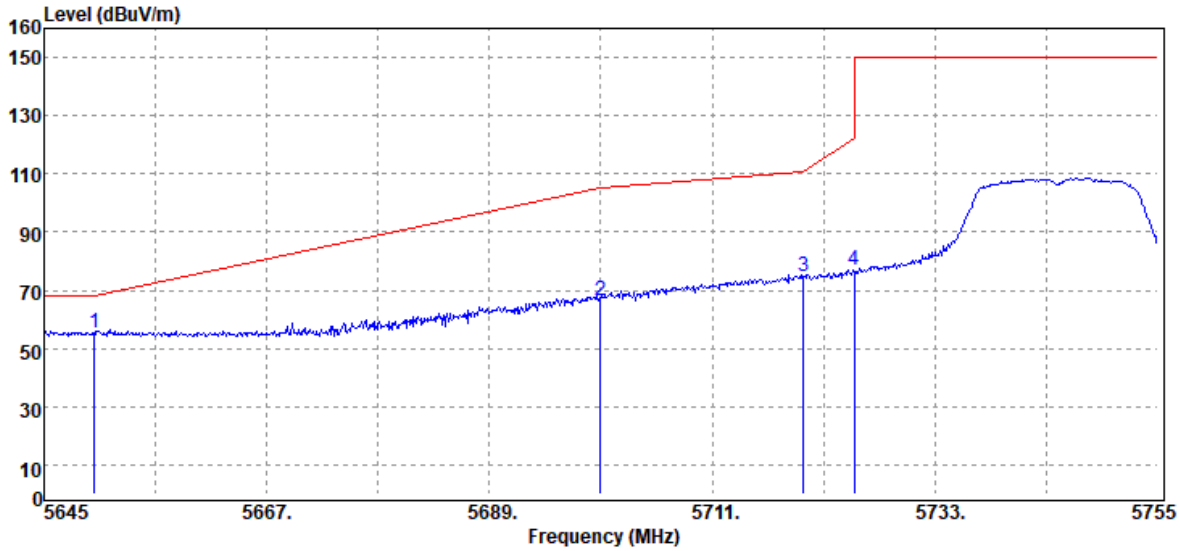
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	58.36	6.34	64.70	68.20	-3.50

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band4	Temp./Humi.	:23.9/51
Frequency	:5745 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



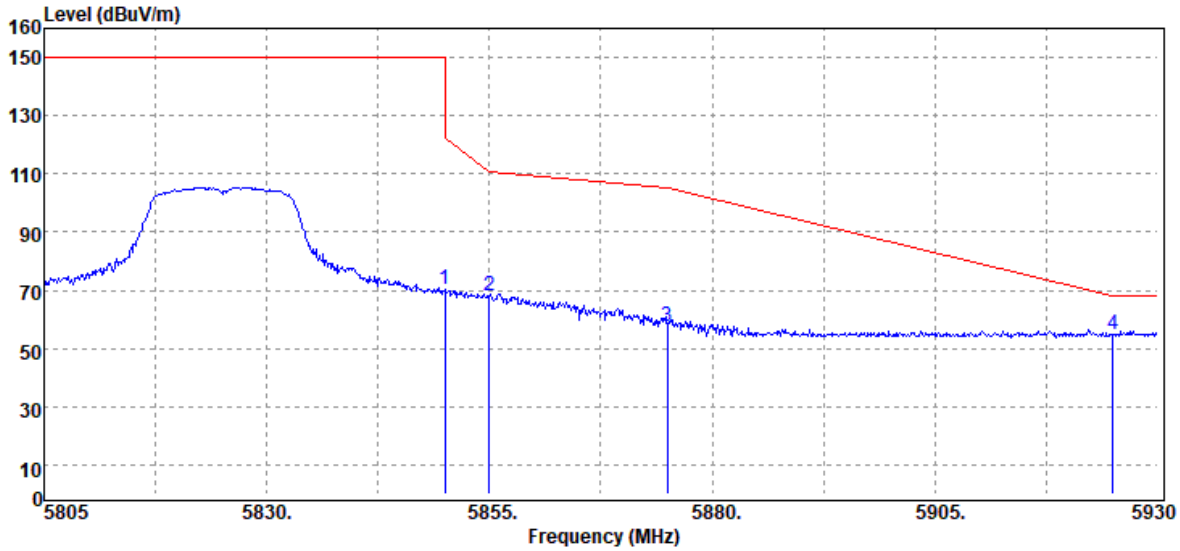
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	48.41	6.04	54.45	68.20	-13.75
5700.00	Peak	58.21	6.32	64.53	105.20	-40.67
5720.00	Peak	66.41	6.33	72.74	110.80	-38.06
5725.00	Peak	68.37	6.34	74.71	122.20	-47.49

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band4	Temp./Humi.	:23.9/51
Frequency	:5745 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



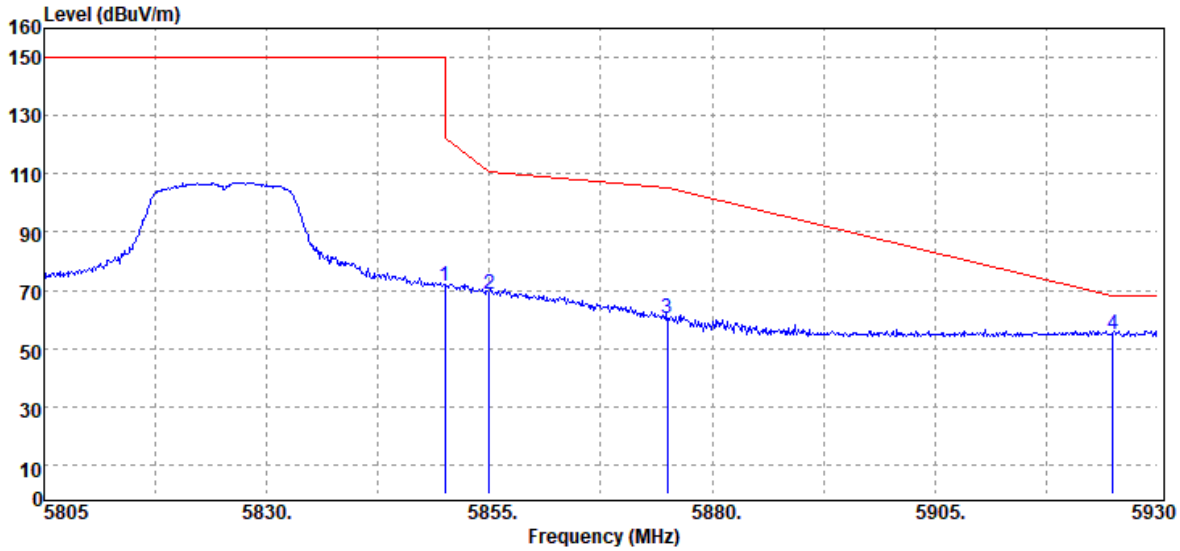
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	49.37	6.04	55.41	68.20	-12.79
5700.00	Peak	60.24	6.32	66.56	105.20	-38.64
5720.00	Peak	68.29	6.33	74.62	110.80	-36.18
5725.00	Peak	70.54	6.34	76.88	122.20	-45.32

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band4	Temp./Humi.	:23.9/51
Frequency	:5825 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



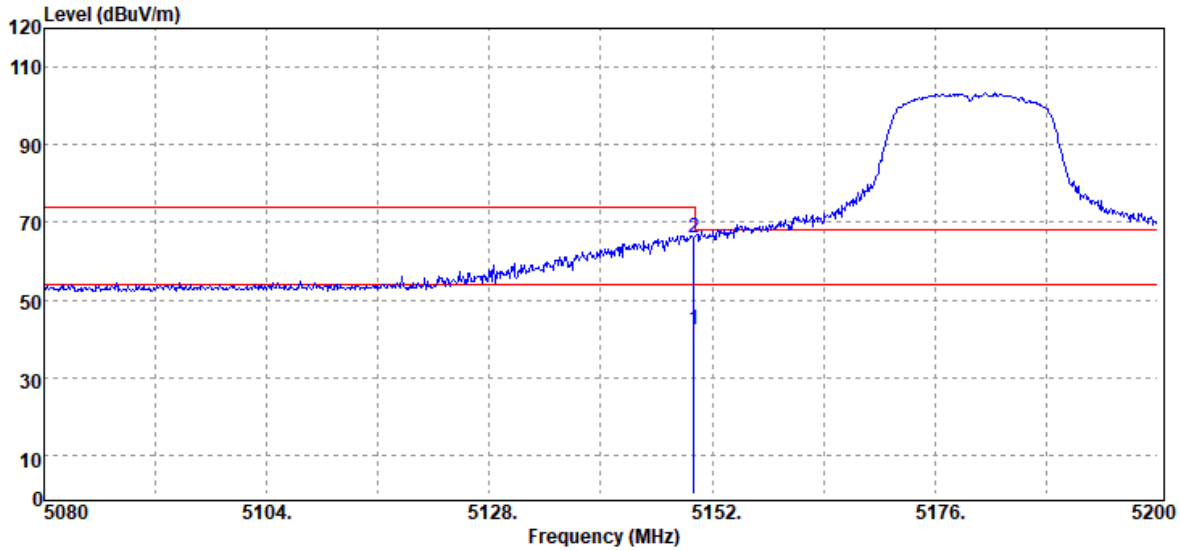
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5850.00	Peak	63.75	6.39	70.14	122.20	-52.06
5855.00	Peak	61.87	6.38	68.25	110.80	-42.55
5875.00	Peak	51.25	6.37	57.62	105.20	-47.58
5925.00	Peak	48.61	6.42	55.03	68.20	-13.17

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11a / Band4	Temp./Humi.	:23.9/51
Frequency	:5825 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



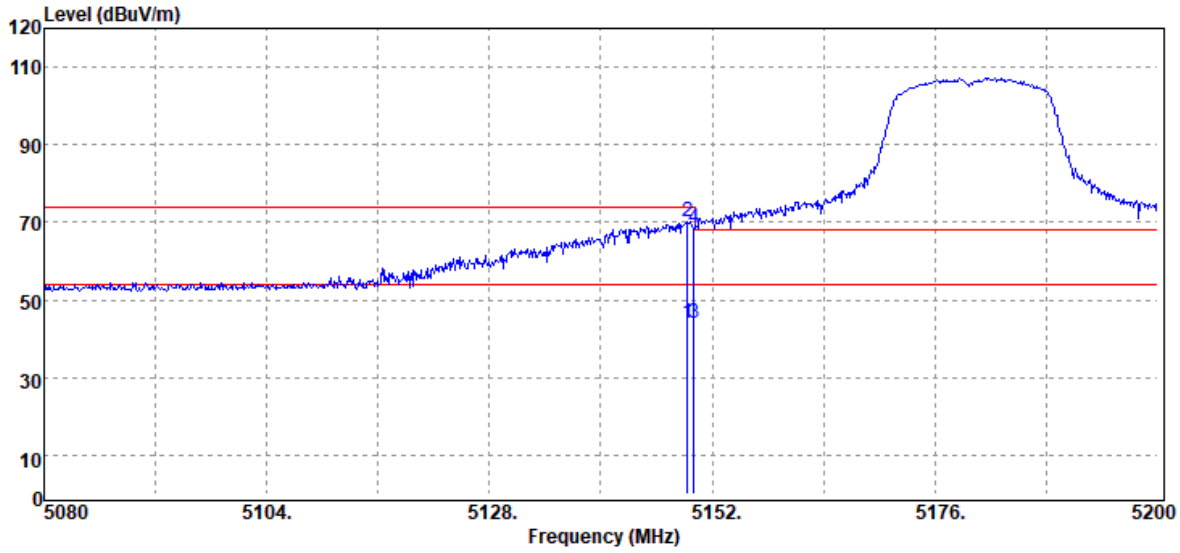
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5850.00	Peak	64.80	6.39	71.19	122.20	-51.01
5855.00	Peak	62.55	6.38	68.93	110.80	-41.87
5875.00	Peak	53.79	6.37	60.16	105.20	-45.04
5925.00	Peak	48.41	6.42	54.83	68.20	-13.37

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band1	Temp./Humi.	:23.9/51
Frequency	:5180 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



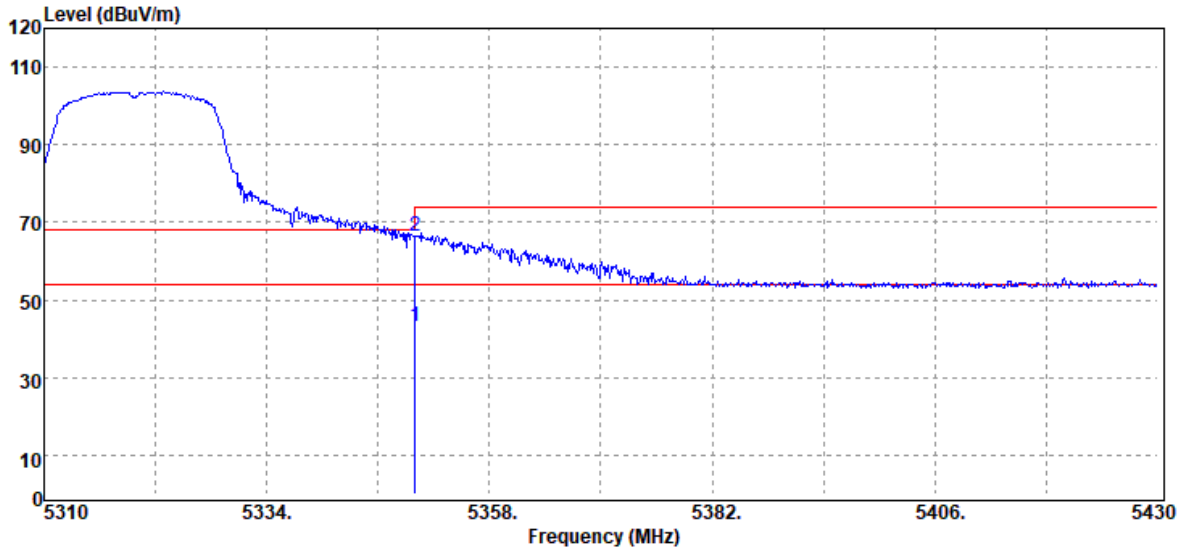
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5150.00	Average	37.41	4.92	42.33	54.00	-11.67
5150.00	Peak	61.24	4.92	66.16	74.00	-7.84

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band1	Temp./Humi.	:23.9/51
Frequency	:5180 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



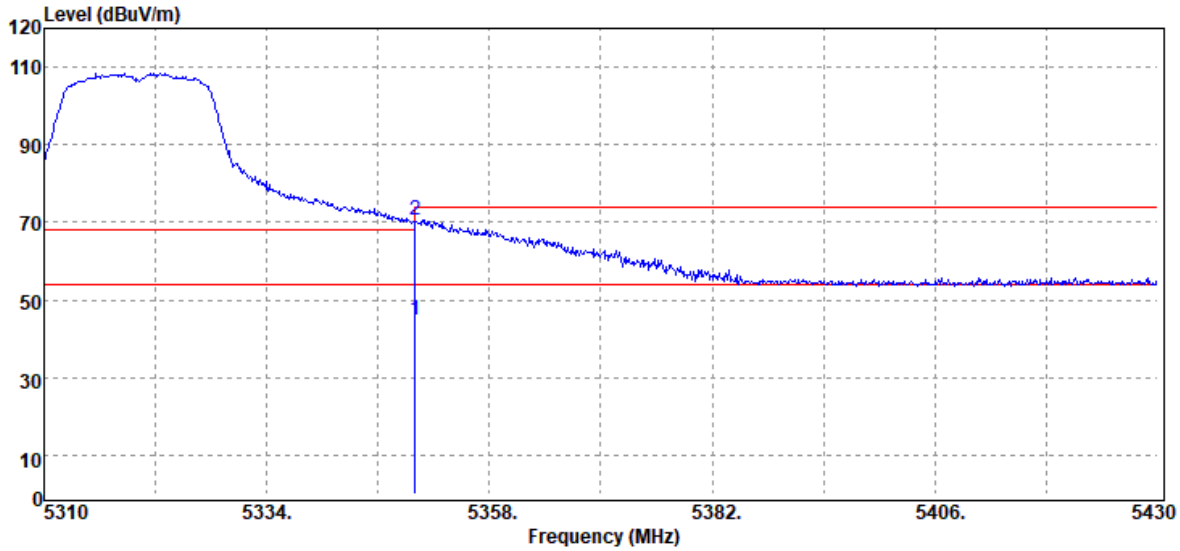
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5149.36	Average	38.97	4.92	43.89	54.00	-10.11
5149.36	Peak	65.34	4.92	70.26	74.00	-3.74
5150.00	Average	39.20	4.92	44.12	54.00	-9.88
5150.00	Peak	63.77	4.92	68.69	74.00	-5.31

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band2	Temp./Humi.	:23.9/51
Frequency	:5320 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



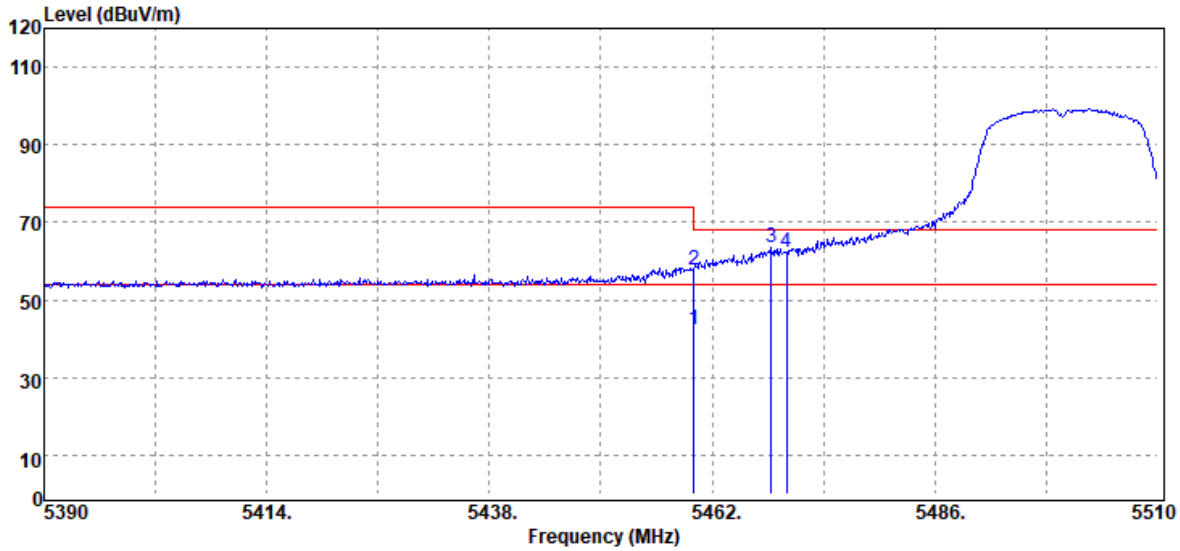
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	37.91	5.21	43.12	54.00	-10.88
5350.00	Peak	61.02	5.21	66.23	74.00	-7.77

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band2	Temp./Humi.	:23.9/51
Frequency	:5320 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



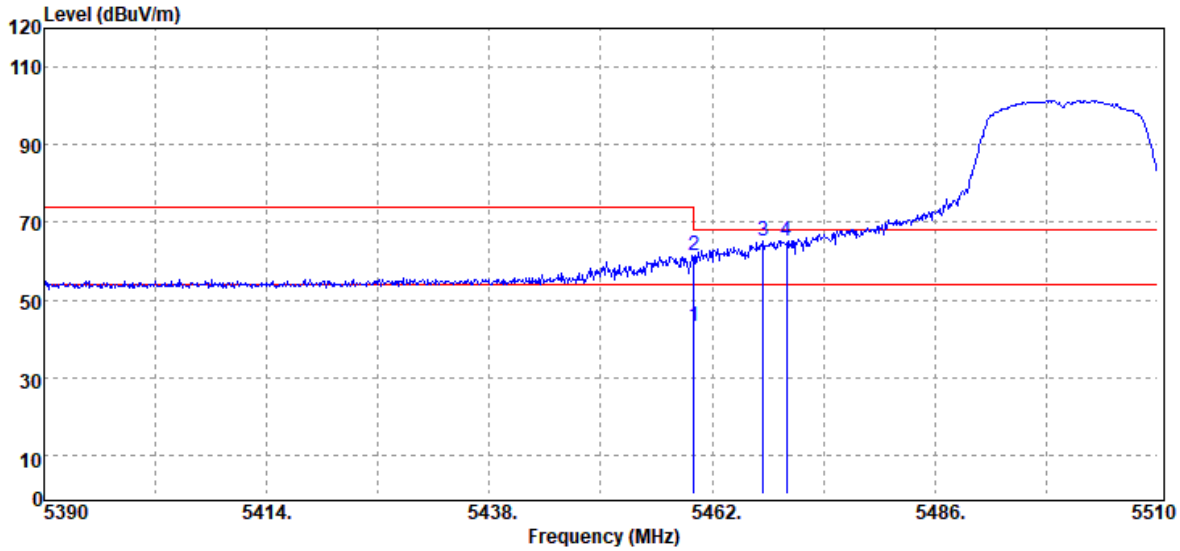
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	39.43	5.21	44.64	54.00	-9.36
5350.00	Peak	65.33	5.21	70.54	74.00	-3.46

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band3	Temp./Humi.	:23.9/51
Frequency	:5500 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



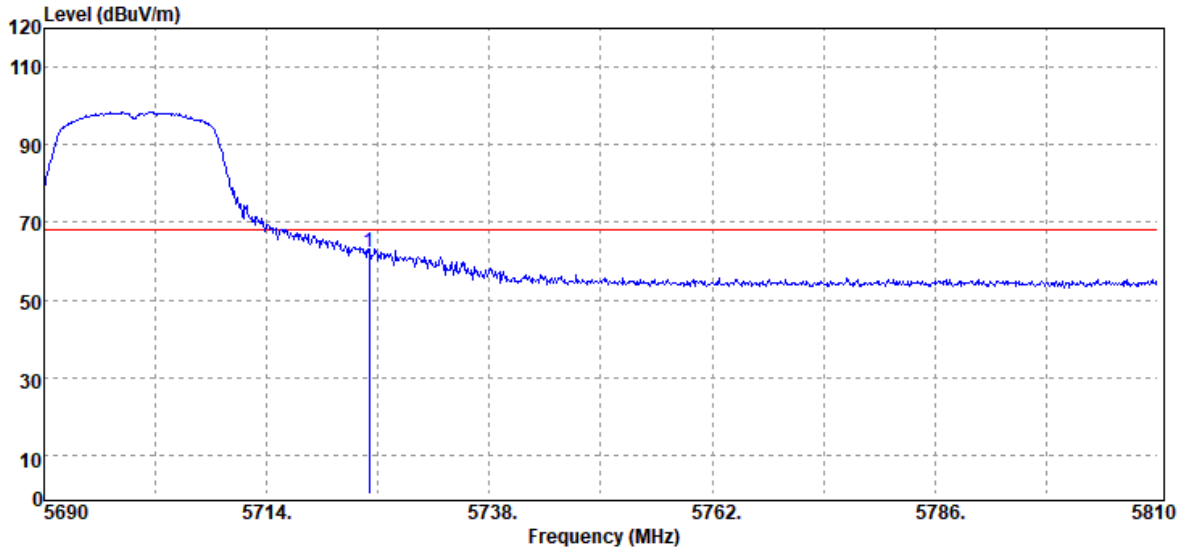
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5460.00	Average	36.61	5.63	42.24	54.00	-11.76
5460.00	Peak	52.11	5.63	57.74	74.00	-16.26
5468.36	Peak	57.94	5.64	63.58	68.20	-4.62
5470.00	Peak	56.47	5.65	62.12	68.20	-6.08

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band3	Temp./Humi.	:23.9/51
Frequency	:5500 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



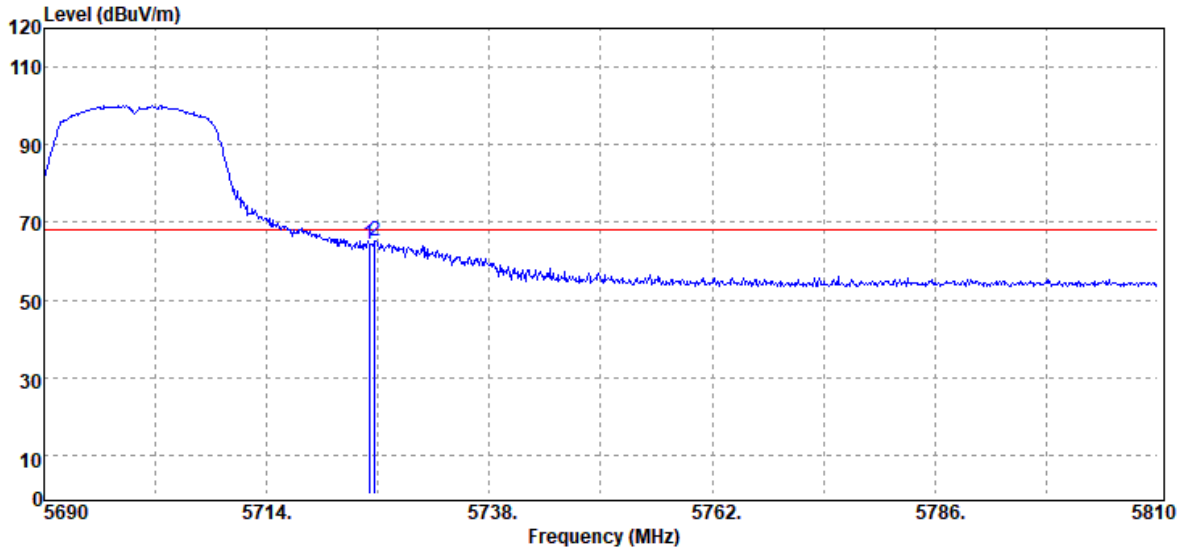
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	37.39	5.63	43.02	54.00	-10.98
5460.00	Peak	56.02	5.63	61.65	74.00	-12.35
5467.52	Peak	59.35	5.64	64.99	68.20	-3.21
5470.00	Peak	59.38	5.65	65.03	68.20	-3.17

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band3	Temp./Humi.	:23.9/51
Frequency	:5700 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



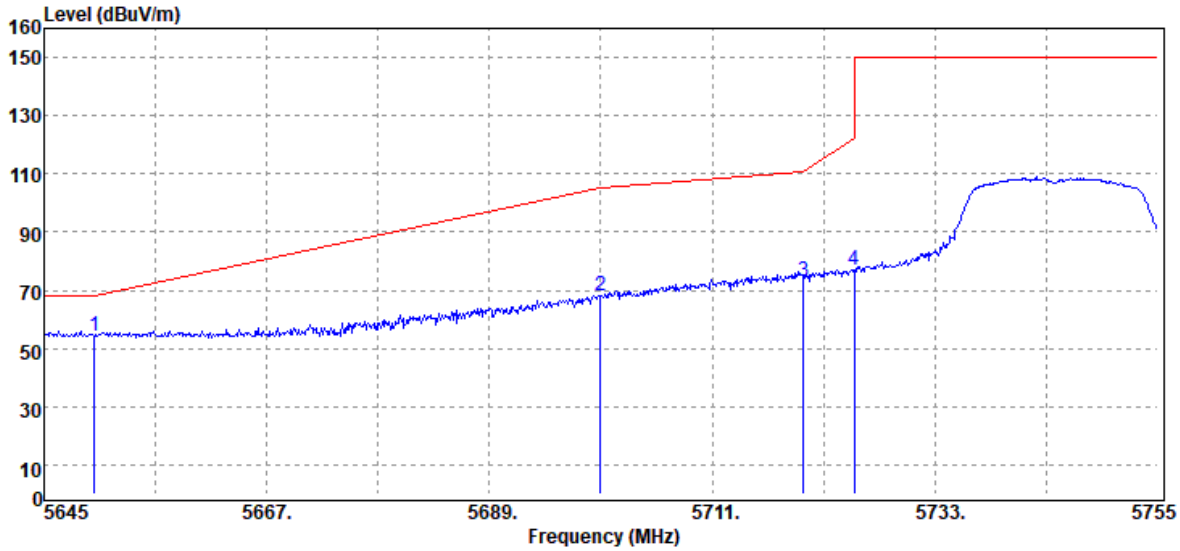
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	55.98	6.34	62.32	68.20	-5.88

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band3	Temp./Humi.	:23.9/51
Frequency	:5700 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



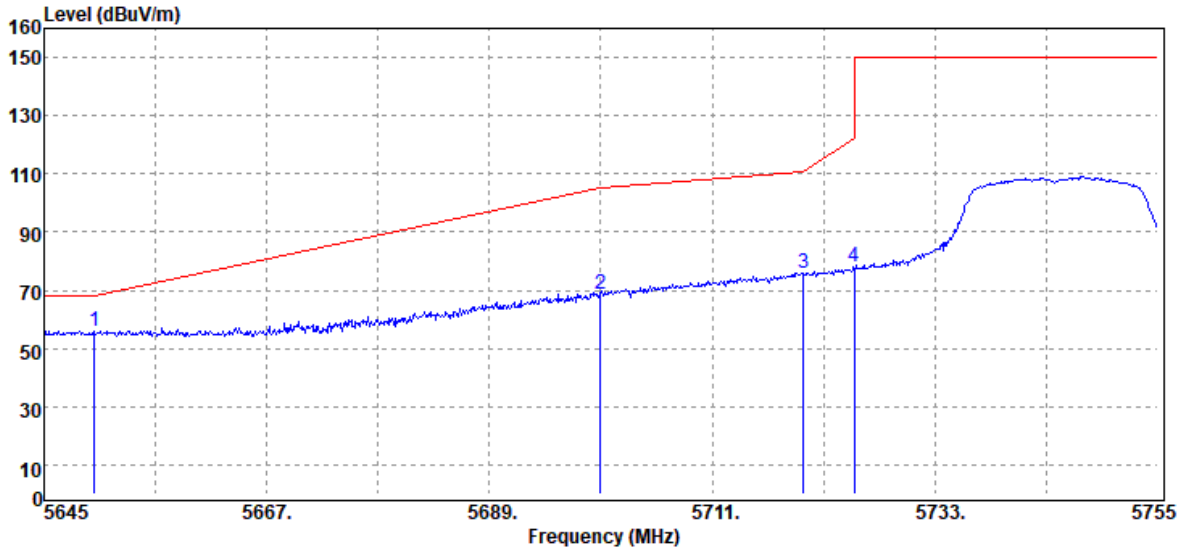
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	58.12	6.34	64.46	68.20	-3.74
5725.64	Peak	58.64	6.34	64.98	68.20	-3.22

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band4	Temp./Humi.	:23.9/51
Frequency	:5745 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



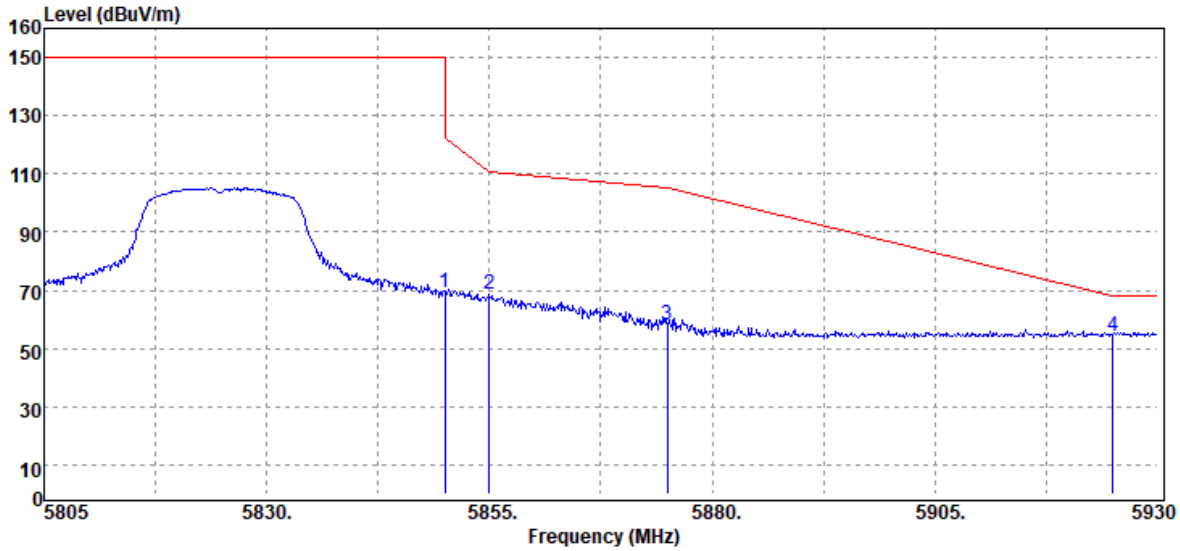
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5650.00	Peak	48.43	6.04	54.47	68.20	-13.73
5700.00	Peak	61.52	6.32	67.84	105.20	-37.36
5720.00	Peak	66.61	6.33	72.94	110.80	-37.86
5725.00	Peak	70.55	6.34	76.89	122.20	-45.31

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band4	Temp./Humi.	:23.9/51
Frequency	:5745 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



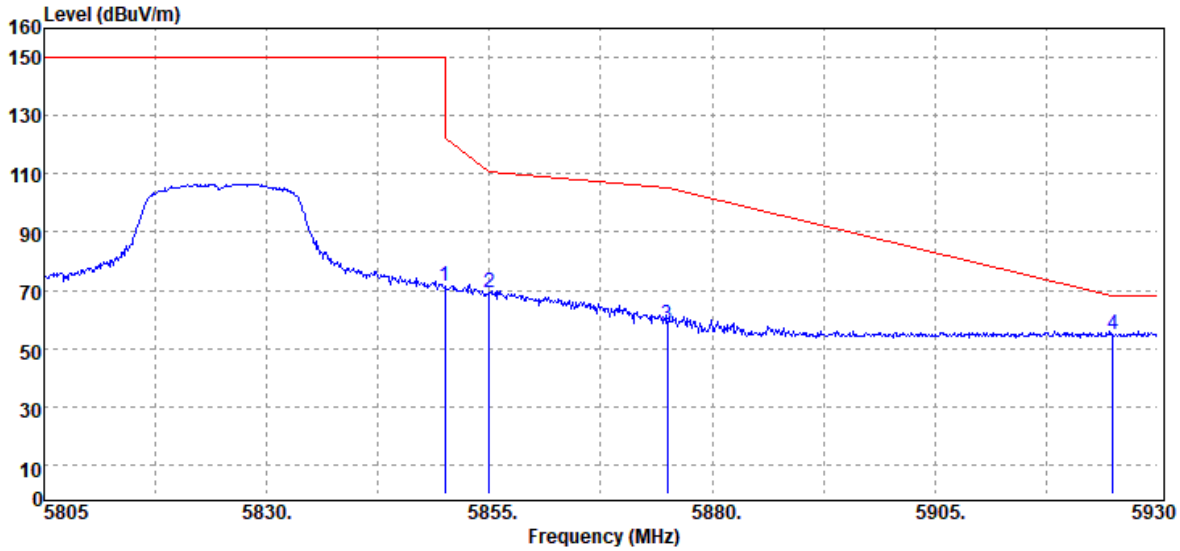
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	49.82	6.04	55.86	68.20	-12.34
5700.00	Peak	62.41	6.32	68.73	105.20	-36.47
5720.00	Peak	69.29	6.33	75.62	110.80	-35.18
5725.00	Peak	71.61	6.34	77.95	122.20	-44.25

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band4	Temp./Humi.	:23.9/51
Frequency	:5825 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



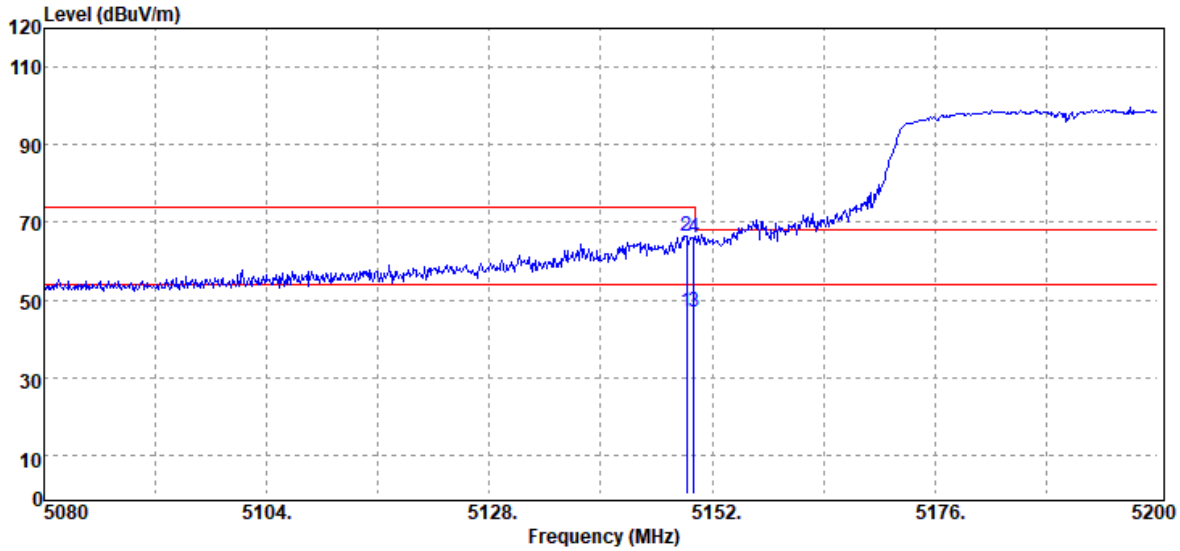
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5850.00	Peak	62.84	6.39	69.23	122.20	-52.97
5855.00	Peak	62.18	6.38	68.56	110.80	-42.24
5875.00	Peak	51.93	6.37	58.30	105.20	-46.90
5925.00	Peak	47.83	6.42	54.25	68.20	-13.95

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n20 / Band4	Temp./Humi.	:23.9/51
Frequency	:5825 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



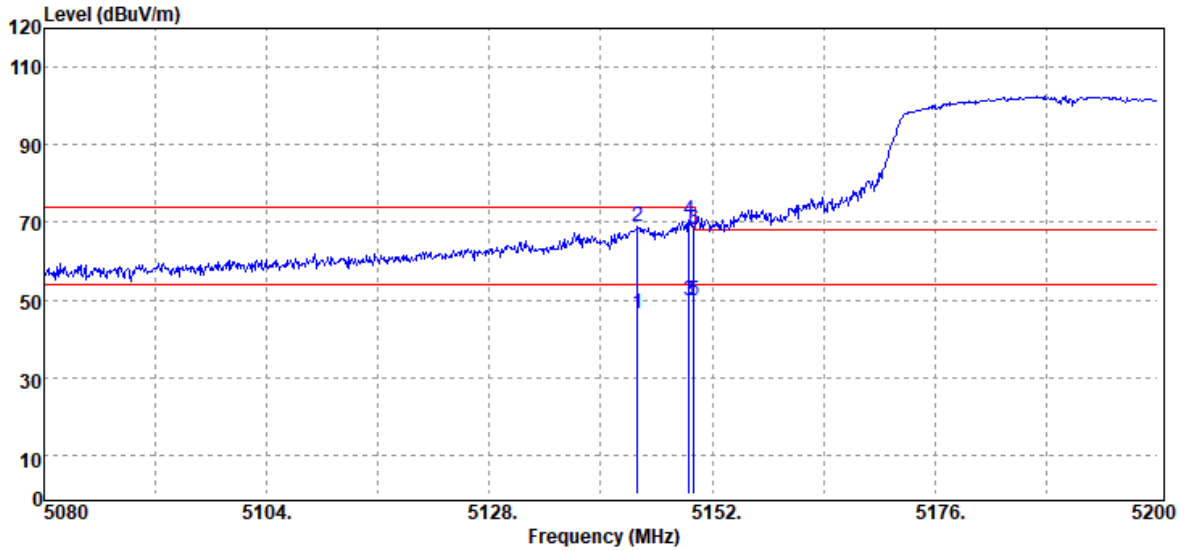
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5850.00	Peak	65.17	6.39	71.56	122.20	-50.64
5855.00	Peak	62.75	6.38	69.13	110.80	-41.67
5875.00	Peak	51.61	6.37	57.98	105.20	-47.22
5925.00	Peak	48.17	6.42	54.59	68.20	-13.61

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band1	Temp./Humi.	:23.9/51
Frequency	:5190 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



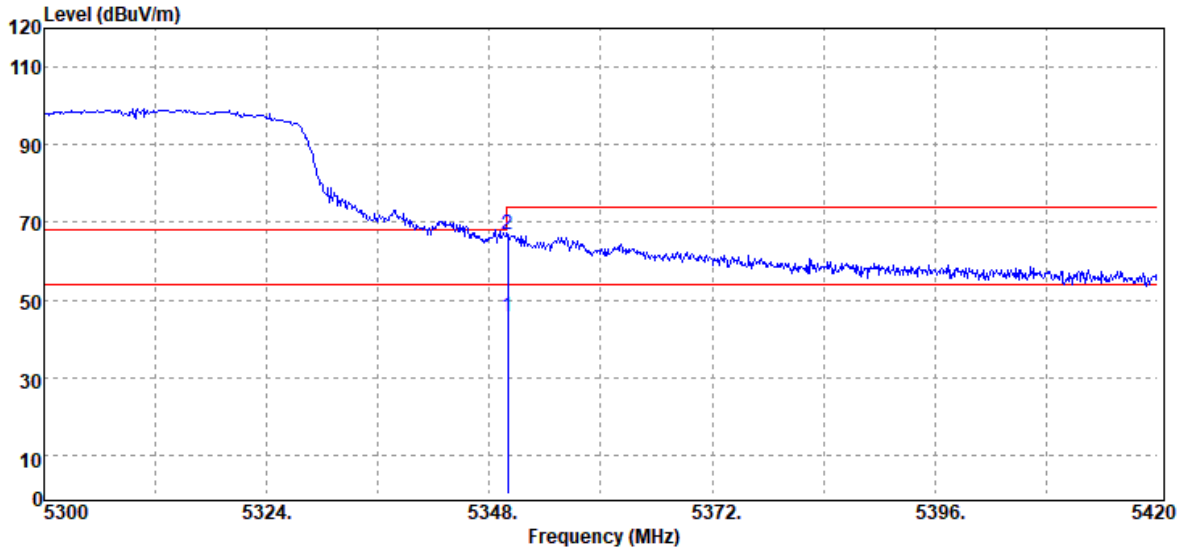
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5149.24	Average	41.83	4.92	46.75	54.00	-7.25
5149.24	Peak	61.60	4.92	66.52	74.00	-7.48
5150.00	Average	41.97	4.92	46.89	54.00	-7.11
5150.00	Peak	60.91	4.92	65.83	74.00	-8.17

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band1	Temp./Humi.	:23.9/51
Frequency	:5190 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



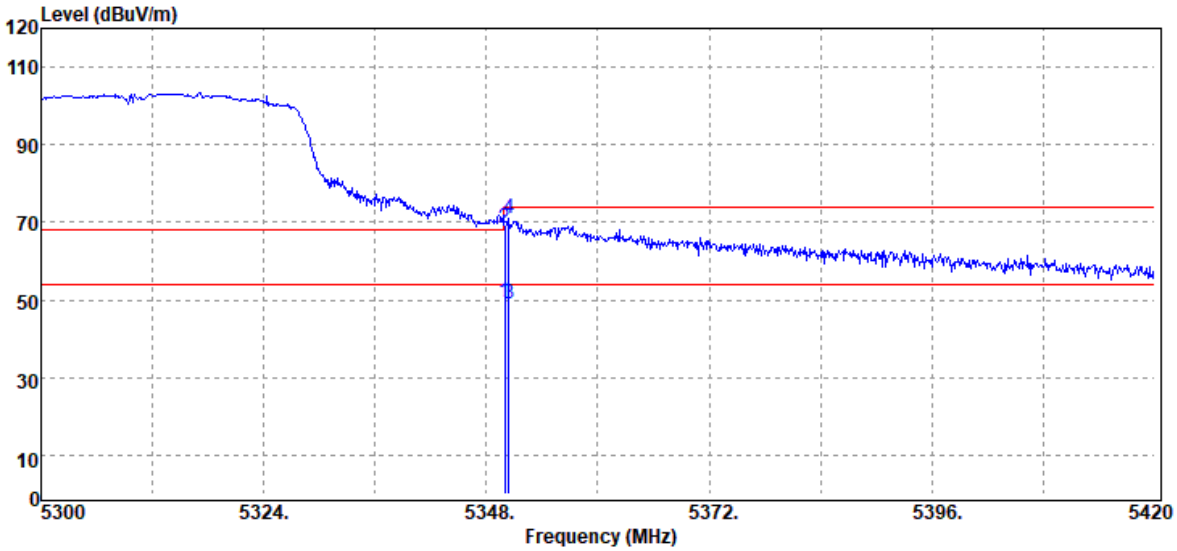
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5143.96	Average	41.69	4.92	46.61	54.00	-7.39
5143.96	Peak	63.83	4.92	68.75	74.00	-5.25
5149.48	Average	44.83	4.92	49.75	54.00	-4.25
5149.48	Peak	65.67	4.92	70.59	74.00	-3.41
5150.00	Average	45.11	4.92	50.03	54.00	-3.97
5150.00	Peak	62.99	4.92	67.91	74.00	-6.09

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band2	Temp./Humi.	:23.9/51
Frequency	:5310 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



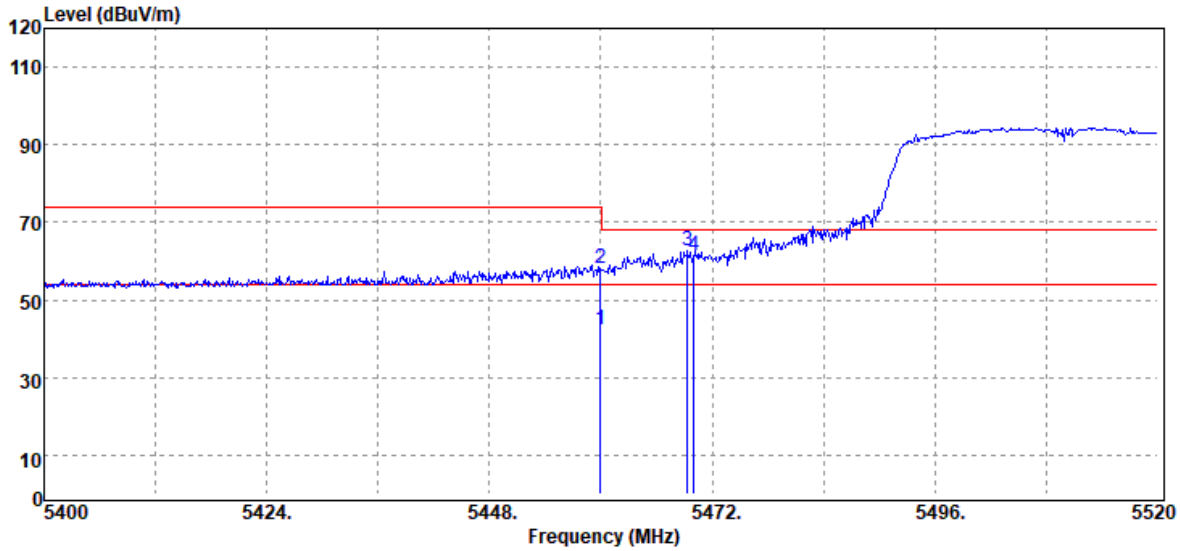
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	40.56	5.21	45.77	54.00	-8.23
5350.00	Peak	61.65	5.21	66.86	74.00	-7.14

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band2	Temp./Humi.	:23.9/51
Frequency	:5310 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



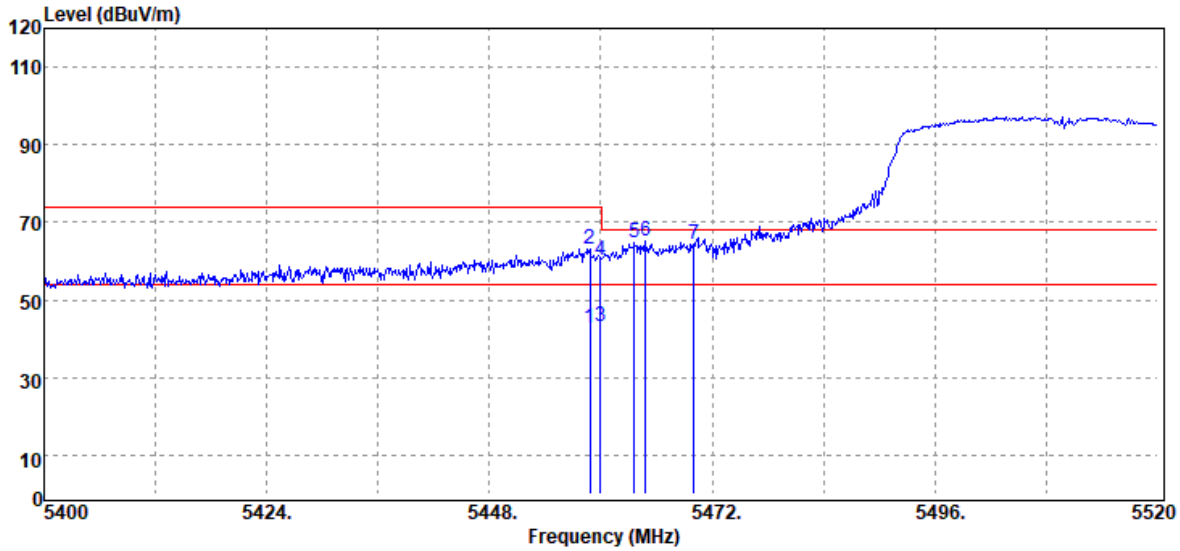
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	44.01	5.21	49.22	54.00	-4.78
5350.00	Peak	63.47	5.21	68.68	74.00	-5.32
5350.40	Average	43.91	5.22	49.13	54.00	-4.87
5350.40	Peak	65.58	5.22	70.80	74.00	-3.20

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band3	Temp./Humi.	:23.9/51
Frequency	:5510 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



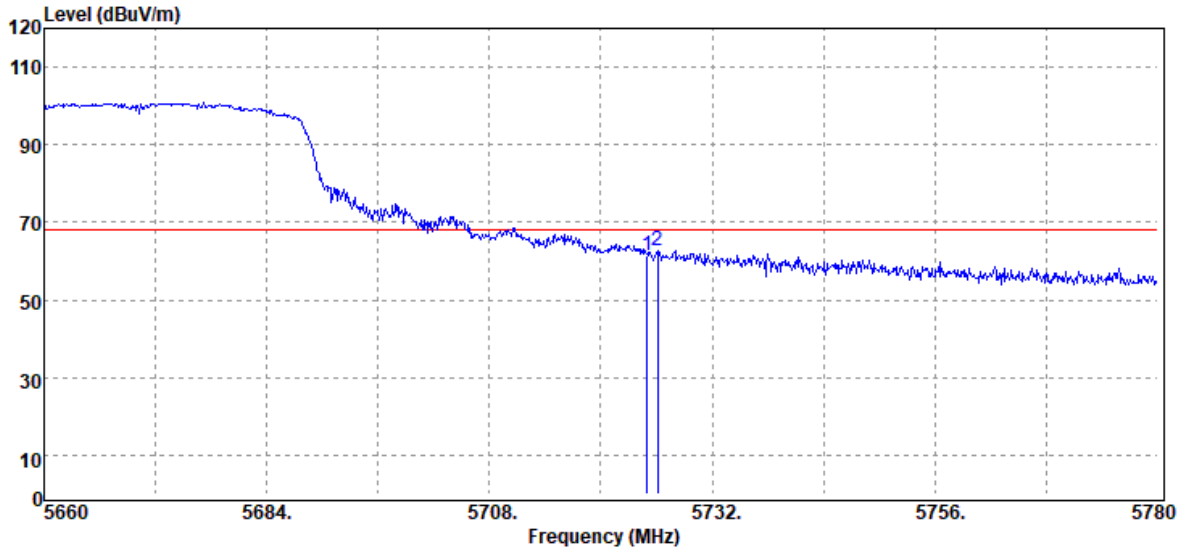
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	36.61	5.63	42.24	54.00	-11.76
5460.00	Peak	52.43	5.63	58.06	74.00	-15.94
5469.36	Peak	56.96	5.65	62.61	68.20	-5.59
5470.00	Peak	55.64	5.65	61.29	68.20	-6.91

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band3	Temp./Humi.	:23.9/51
Frequency	:5510 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



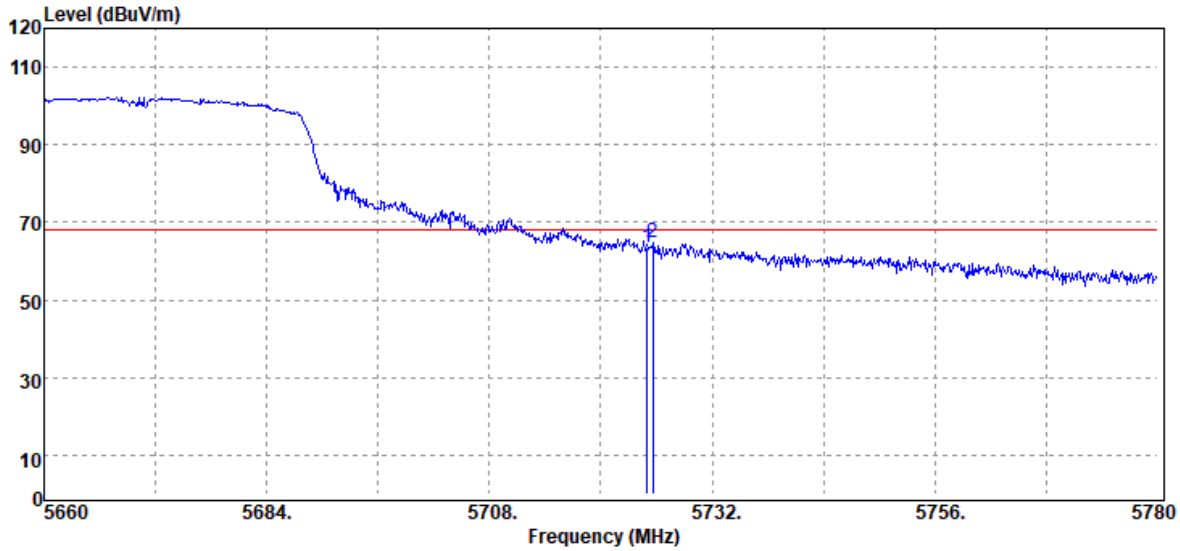
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5458.80	Average	37.26	5.63	42.89	54.00	-11.11
5458.80	Peak	57.67	5.63	63.30	74.00	-10.70
5460.00	Average	37.68	5.63	43.31	54.00	-10.69
5460.00	Peak	54.57	5.63	60.20	74.00	-13.80
5463.60	Peak	59.12	5.63	64.75	68.20	-3.45
5464.80	Peak	59.40	5.63	65.03	68.20	-3.17
5470.00	Peak	58.62	5.65	64.27	68.20	-3.93

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band3	Temp./Humi.	:23.9/51
Frequency	:5670 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



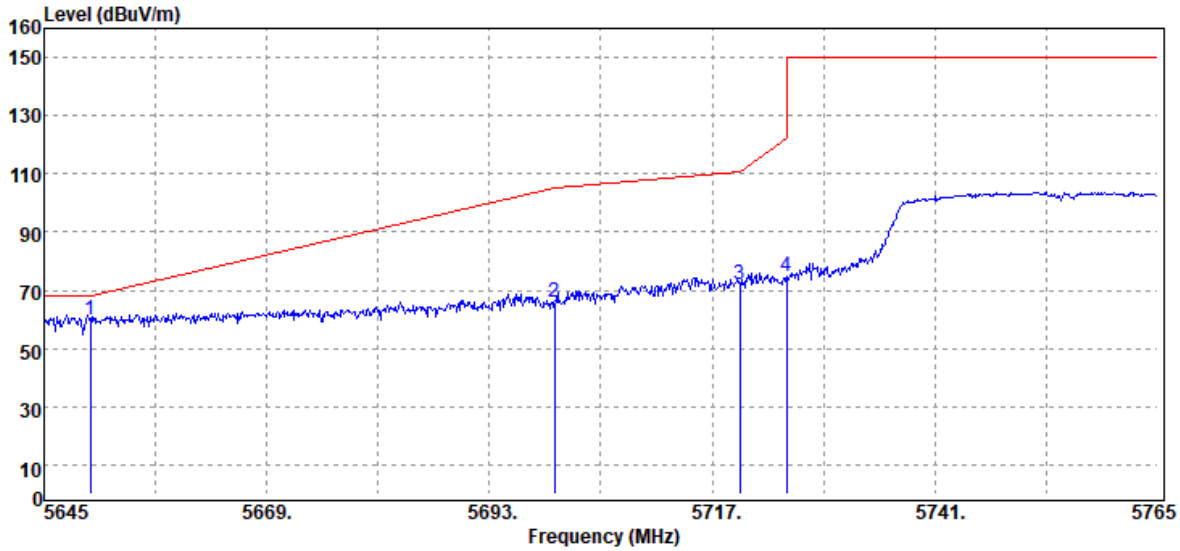
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	55.13	6.34	61.47	68.20	-6.73
5726.12	Peak	56.28	6.34	62.62	68.20	-5.58

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band3	Temp./Humi.	:23.9/51
Frequency	:5670 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



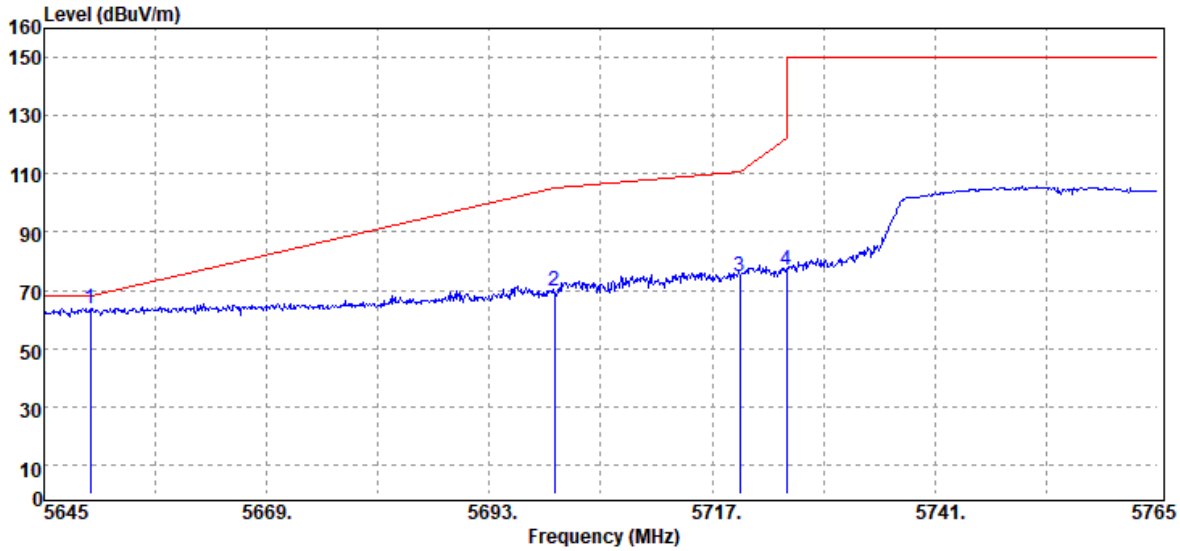
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5725.00	Peak	57.14	6.34	63.48	68.20	-4.72
5725.64	Peak	58.25	6.34	64.59	68.20	-3.61

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band4	Temp./Humi.	:23.9/51
Frequency	:5755 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



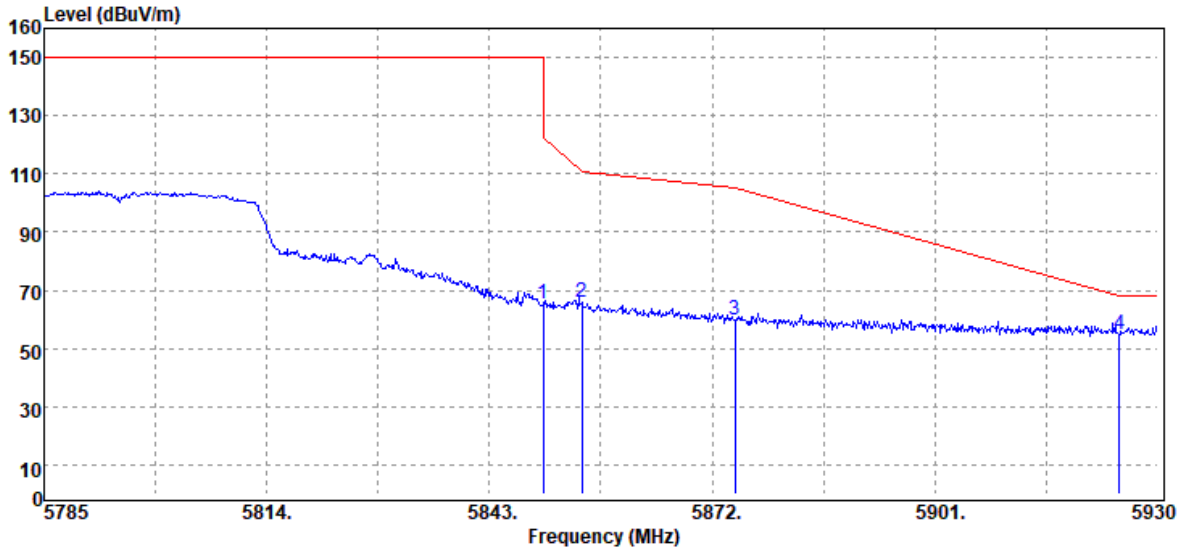
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	53.53	6.04	59.57	68.20	-8.63
5700.00	Peak	59.81	6.32	66.13	105.20	-39.07
5720.00	Peak	65.69	6.33	72.02	110.80	-38.78
5725.00	Peak	68.37	6.34	74.71	122.20	-47.49

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band4	Temp./Humi.	:23.9/51
Frequency	:5755 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



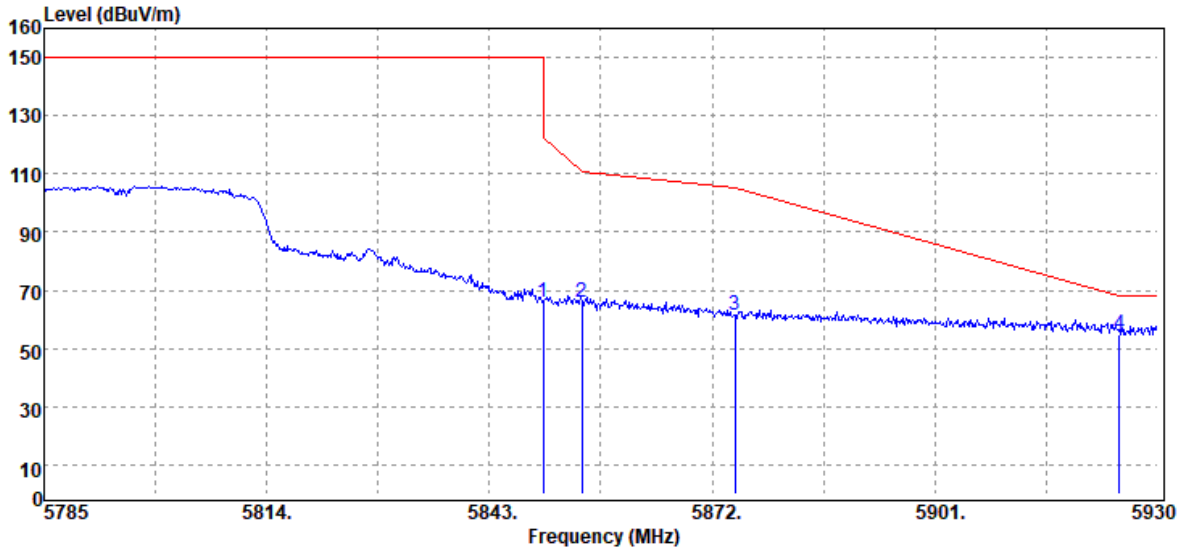
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	57.59	6.04	63.63	68.20	-4.57
5700.00	Peak	63.62	6.32	69.94	105.20	-35.26
5720.00	Peak	68.36	6.33	74.69	110.80	-36.11
5725.00	Peak	70.86	6.34	77.20	122.20	-45.00

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band4	Temp./Humi.	:23.9/51
Frequency	:5795 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



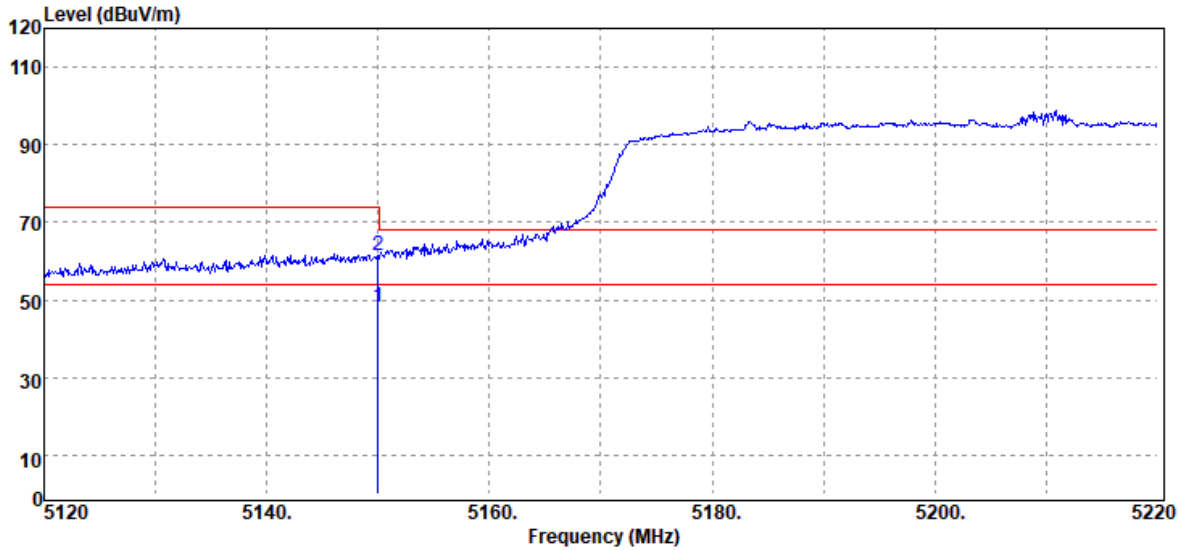
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5850.00	Peak	59.18	6.39	65.57	122.20	-56.63
5855.00	Peak	59.26	6.38	65.64	110.80	-45.16
5875.00	Peak	53.55	6.37	59.92	105.20	-45.28
5925.00	Peak	48.60	6.42	55.02	68.20	-13.18

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11n40 / Band4	Temp./Humi.	:23.9/51
Frequency	:5795 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



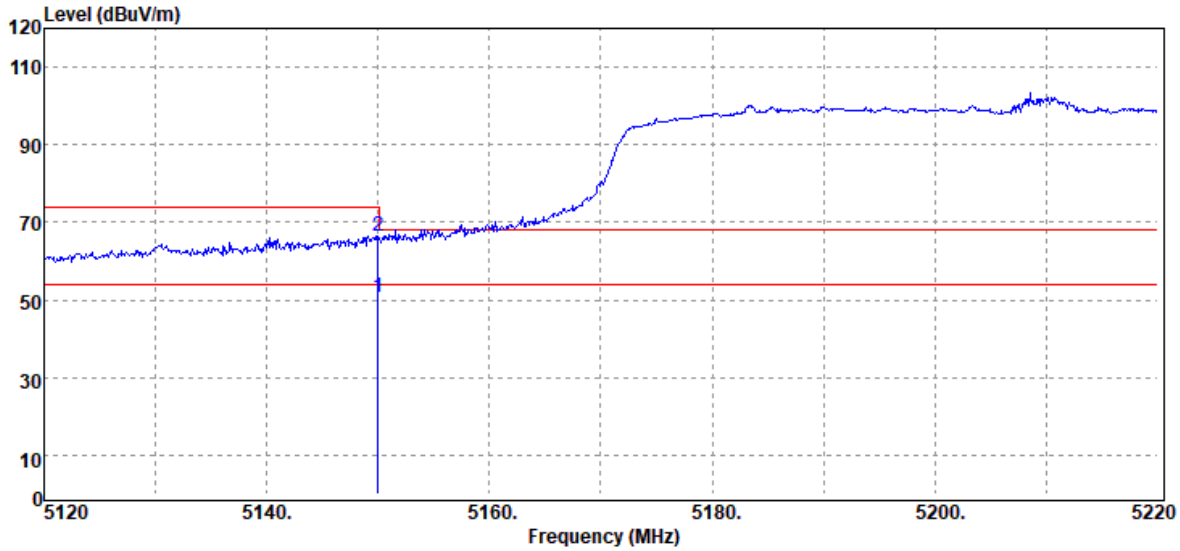
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5850.00	Peak	59.41	6.39	65.80	122.20	-56.40
5855.00	Peak	59.56	6.38	65.94	110.80	-44.86
5875.00	Peak	54.97	6.37	61.34	105.20	-43.86
5925.00	Peak	48.56	6.42	54.98	68.20	-13.22

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band1	Temp./Humi.	:23.9/51
Frequency	:5210 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



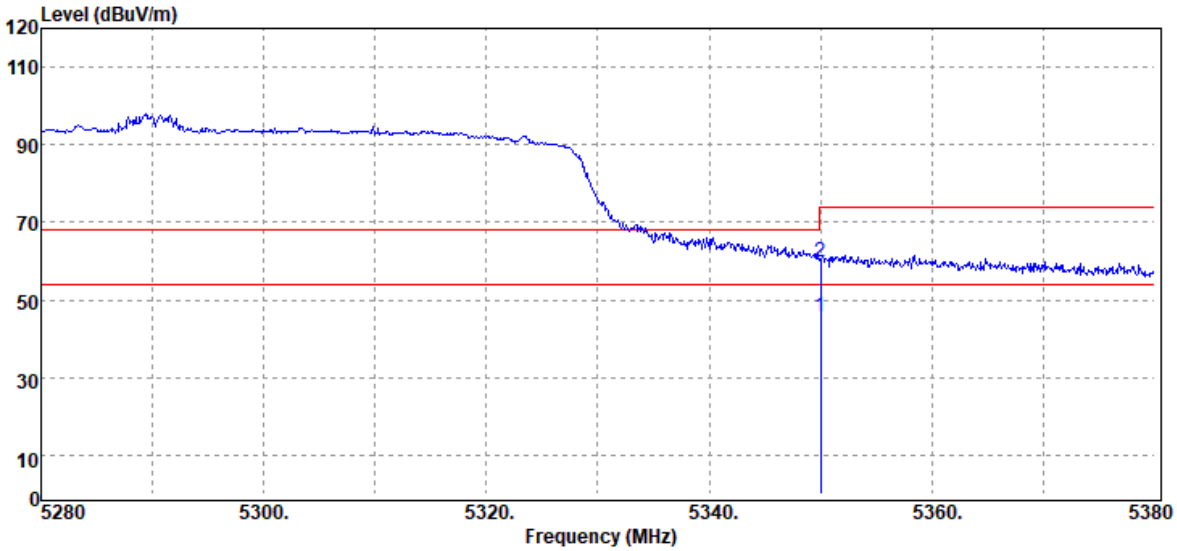
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5150.00	Average	43.25	4.92	48.17	54.00	-5.83
5150.00	Peak	56.37	4.92	61.29	74.00	-12.71

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band1	Temp./Humi.	:23.9/51
Frequency	:5210 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



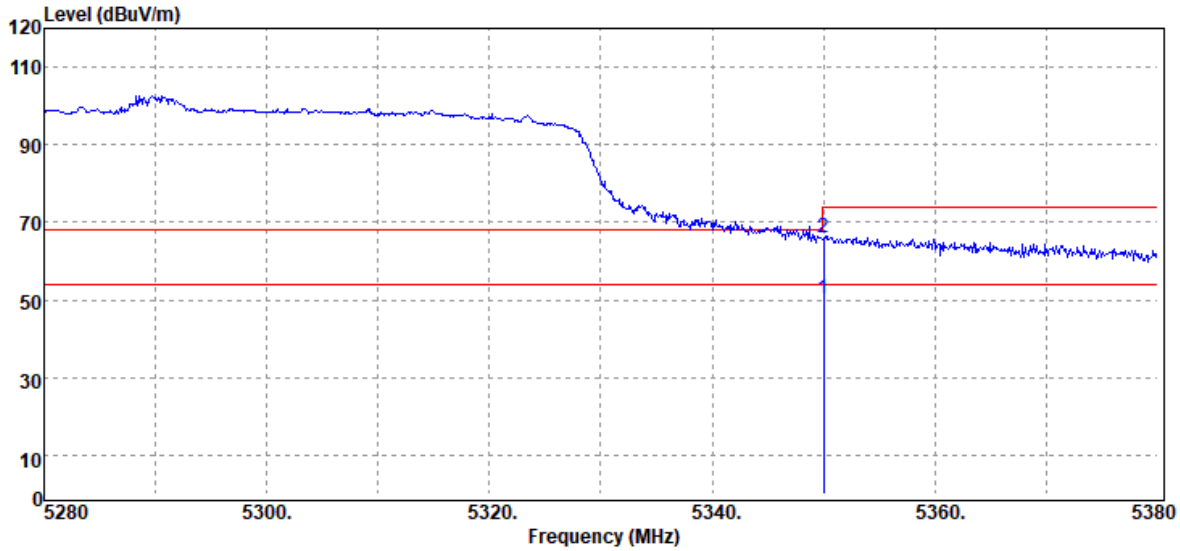
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5150.00	Average	45.90	4.92	50.82	54.00	-3.18
5150.00	Peak	61.54	4.92	66.46	74.00	-7.54

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band2	Temp./Humi.	:23.9/51
Frequency	:5290 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



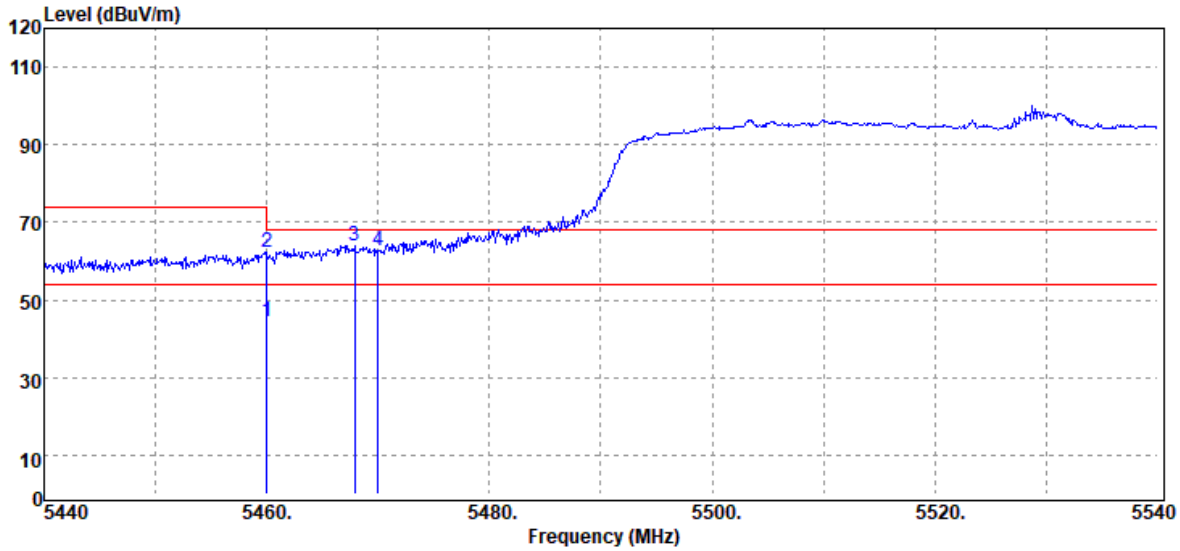
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	40.51	5.21	45.72	54.00	-8.28
5350.00	Peak	54.72	5.21	59.93	74.00	-14.07

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band2	Temp./Humi.	:23.9/51
Frequency	:5290 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



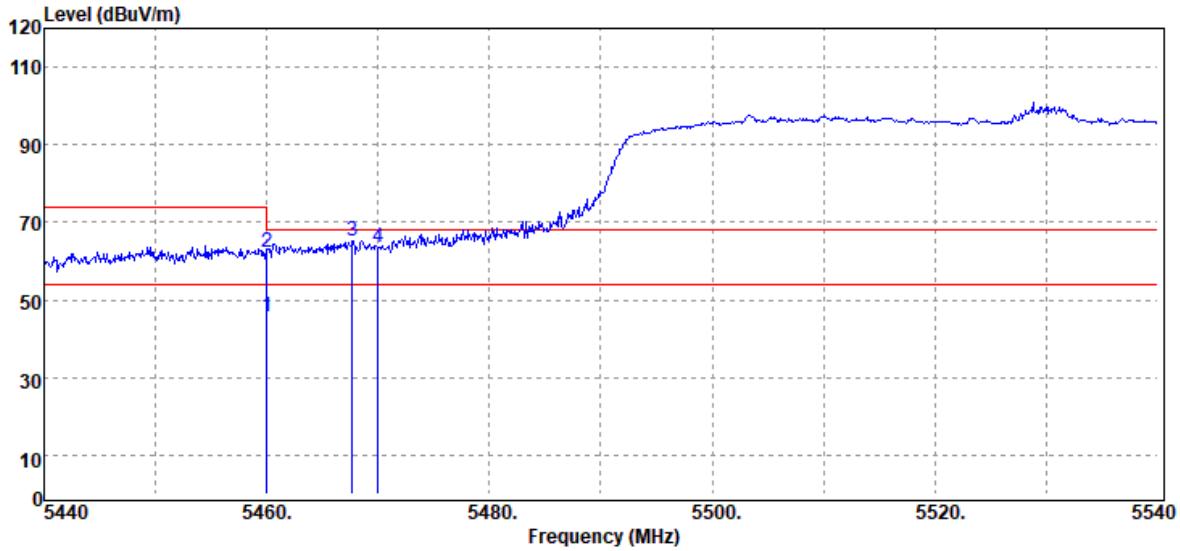
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5350.00	Average	45.03	5.21	50.24	54.00	-3.76
5350.00	Peak	60.78	5.21	65.99	74.00	-8.01

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band3	Temp./Humi.	:23.9/51
Frequency	:5530 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



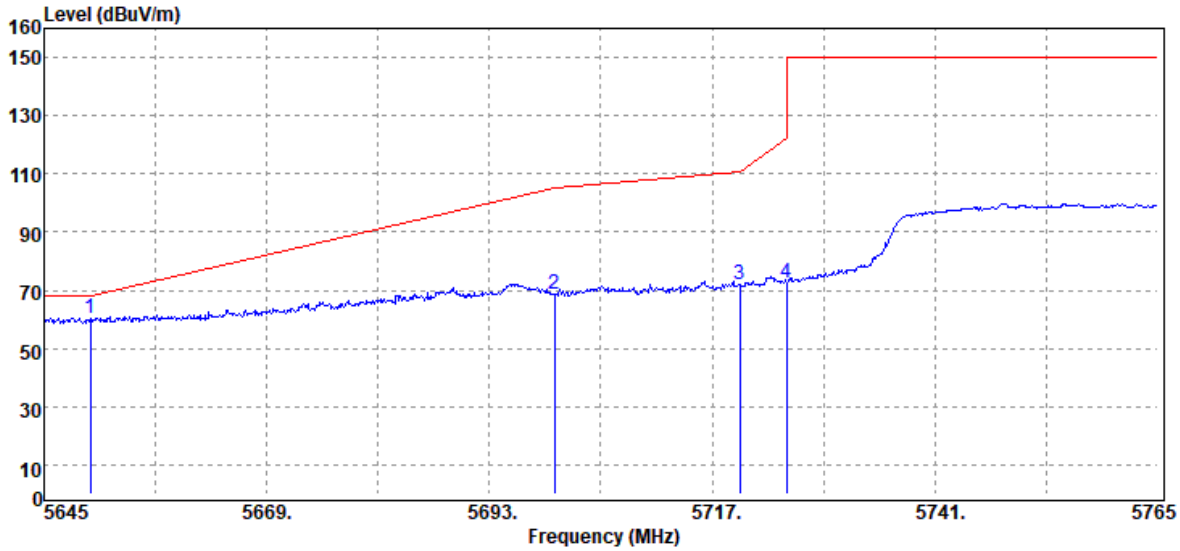
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	38.79	5.63	44.42	54.00	-9.58
5460.00	Peak	56.62	5.63	62.25	74.00	-11.75
5467.90	Peak	58.31	5.64	63.95	68.20	-4.25
5470.00	Peak	56.96	5.65	62.61	68.20	-5.59

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band3	Temp./Humi.	:23.9/51
Frequency	:5530 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



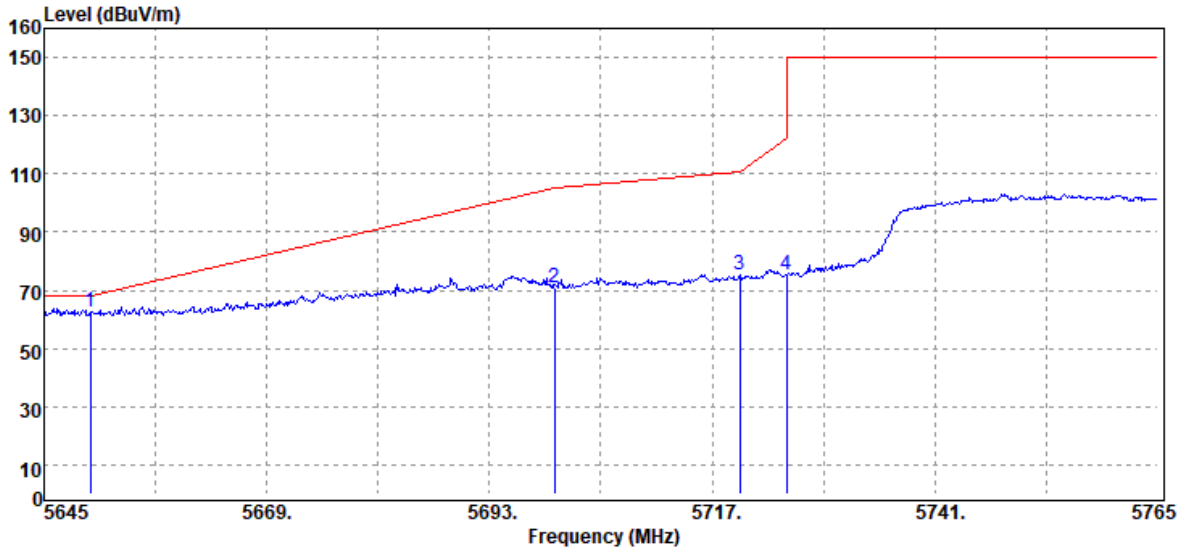
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5460.00	Average	40.16	5.63	45.79	54.00	-8.21
5460.00	Peak	56.46	5.63	62.09	74.00	-11.91
5467.70	Peak	59.53	5.64	65.17	68.20	-3.03
5470.00	Peak	57.99	5.65	63.64	68.20	-4.56

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band4	Temp./Humi.	:23.9/51
Frequency	:5775 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



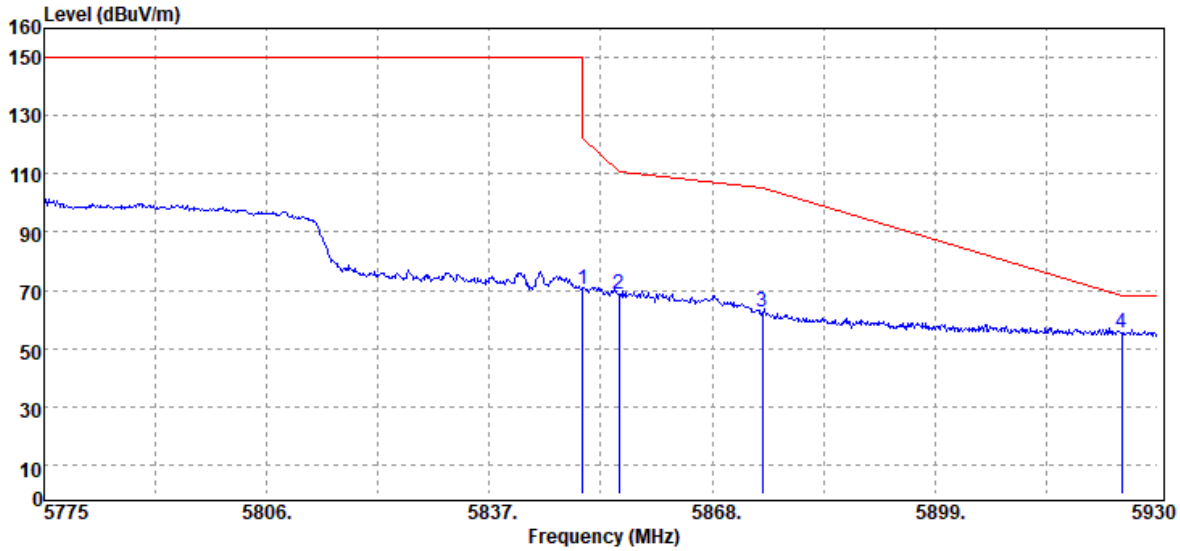
Freq.	Detector Mode	Spectrum Reading Level	Factor	Actual FS	Limit @3m	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV/m	dBµV/m	dB
5650.00	Peak	54.11	6.04	60.15	68.20	-8.05
5700.00	Peak	62.46	6.32	68.78	105.20	-36.42
5720.00	Peak	65.64	6.33	71.97	110.80	-38.83
5725.00	Peak	66.35	6.34	72.69	122.20	-49.51

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band4	Temp./Humi.	:23.9/51
Frequency	:5775 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH Low	Engineer	:Kane
EUT Pol.	:E2 Plan		



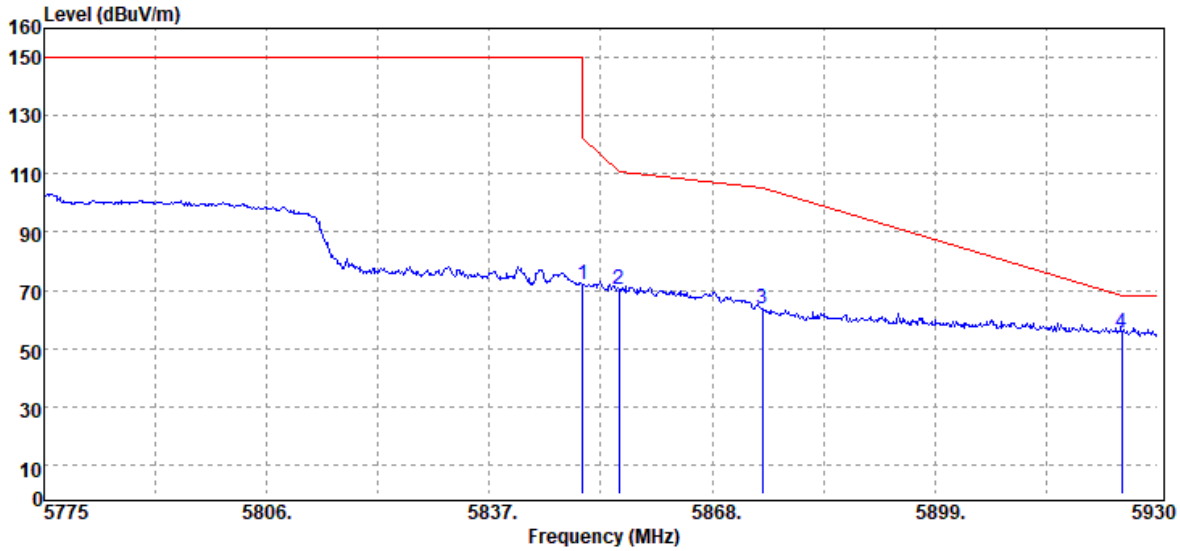
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
5650.00	Peak	56.50	6.04	62.54	68.20	-5.66
5700.00	Peak	64.67	6.32	70.99	105.20	-34.21
5720.00	Peak	68.82	6.33	75.15	110.80	-35.65
5725.00	Peak	68.70	6.34	75.04	122.20	-47.16

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band4	Temp./Humi.	:23.9/51
Frequency	:5775 MHz	Antenna Pol.	:VERTICAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



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	63.93	6.39	70.32	122.20	-51.88
5855.00	Peak	62.18	6.38	68.56	110.80	-42.24
5875.00	Peak	56.19	6.37	62.56	105.20	-42.64
5925.00	Peak	49.00	6.42	55.42	68.20	-12.78

Report Number	:T190521W02	Test Date	:2019-07-20
Operation Band	:802.11ac80 / Band4	Temp./Humi.	:23.9/51
Frequency	:5775 MHz	Antenna Pol.	:HORIZONTAL
Operation Mode	:BE CH High	Engineer	:Kane
EUT Pol.	:E2 Plan		



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	65.67	6.39	72.06	122.20	-50.14
5855.00	Peak	64.01	6.38	70.39	110.80	-40.41
5875.00	Peak	57.22	6.37	63.59	105.20	-41.61
5925.00	Peak	49.09	6.42	55.51	68.20	-12.69

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

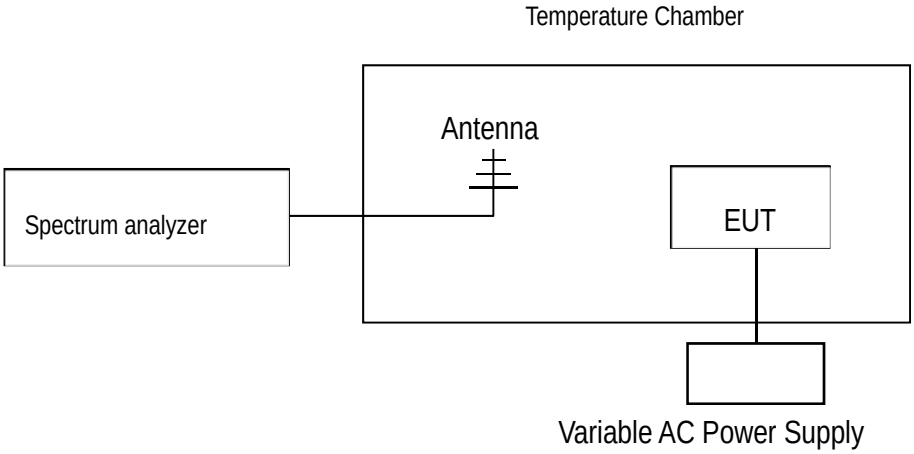
13.1 Standard Applicable

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:

EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL.	CAL DUE.
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY57120290	02/13/2019	02/12/2020
DC Block	Mini-Circuits	BLK-18-S+	31129(1)	02/26/2019	02/25/2020
Attenuator	Mini-Circuit	BW-S10W2+	1	02/26/2019	02/25/2020
Thermo-static/Hrgrosatic Chamber	TAICHY	MHG-150LF	930619	10/08/2018	10/07/2019

13.5 Measurement Result

Startup:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2℃	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	4.25	36	5180	5,179.91186	0.00001701
	5.75	36	5180	5,179.97016	0.00000576
25	5	36	5180	5,180.00108	-0.00000021
40	4.25	36	5180	5,179.93300	0.00001294
	5.75	36	5180	5,180.07016	-0.00001354

2 Minutes:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2℃	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	4.25	36	5180	5,180.06880	-0.00001328
	5.75	36	5180	5,179.91255	0.00001688
25	5	36	5180	5,179.93334	0.00001287
40	4.25	36	5180	5,179.92805	0.00001389
	5.75	36	5180	5,179.95100	0.00000946

5 Minutes:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2℃	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	4.25	36	5180	5,179.98538	0.00000282
	5.75	36	5180	5,179.89538	0.00002020
25	5	36	5180	5,180.07829	-0.00001511
40	4.25	36	5180	5,180.01055	-0.00000204
	5.75	36	5180	5,179.95948	0.00000782

10 Minutes:

Operation Mode	802.11 a	Test Date	05/29/2019
Temperature	: 25.2℃	Test By	Peter
Humidity	: 61%		

Test Temp.(℃)	Test Voltage(V)	Channel	Measured Frequency (MHz)	Spectrum Frequency (MHz)	ΔFrequency (MHz)
0	4.25	36	5180	5,179.93966	0.00001165
	5.75	36	5180	5,179.99831	0.00000033
25	5	36	5180	5,180.04266	-0.00000824
40	4.25	36	5180	5,179.99651	0.00000067
	5.75	36	5180	5,180.00769	-0.00000149

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 ~