

TEST REPORT

Application No.: KSCR2412002452AT
FCC ID: M82-UTK3000
IC: 9404A-UTK3000
Applicant: Advantech Co., Ltd.
Address of Applicant: No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan
Manufacturer: Advantech Co., Ltd.
Address of Manufacturer: No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan
Equipment Under Test (EUT):
EUT Name: Self-service terminal
Model No.: UTK-3000,UTK-3XXXXXXXXXXXXXXXXX,
UTK3XXXXXXXX XXXXXXXX(X=0-9, a-z, "-" or black, indicating different sales regions, the change of X not affect the safety performance and EMC performance of the product) ♣
For IC Model No.: UTK-3000
♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.
Standard(s) : 47 CFR Part 15, Subpart E 15.407
RSS-247 Issue 3, August 2023
RSS-Gen Issue 5 Amendment 2 (February 2021)
Date of Receipt: 2024-12-02
Date of Test: 2024-12-06 to 2025-01-04
Date of Issue: 2025-01-07

Test Result:	Pass*
---------------------	--------------

* In the configuration tested, the EUT complied with the standards specified above.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Revision Record			
Version	Description	Date	Remark
00	Original	2025-01-07	/

Authorized for issue by:			
Tested By		Maker Qi	
		Maker Qi /Project Engineer	
Approved By		Terry Hou	
		Terry Hou /Reviewer	

2 Test Summary

Radio Spectrum Technical Requirement				
Item	FCC Requirement	IC Requirement	Method	Result
Antenna Requirement	47 CFR Part 15, Subpart C 15.203	RSS-Gen Clause 6.8	N/A	Customer Declaration
Transmission in the Absence of Data	47 CFR Part 15, Subpart E 15.407 (c)	RSS-247 Section 6.4(a)	N/A	Pass

N/A: Not applicable

Radio Spectrum Matter Part				
Item	FCC Requirement	IC Requirement	Method	Result
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(6)	RSS-Gen Section 8.8	ANSI C63.10 (2013) Section 6.2	Pass
Radiated Emissions	47 CFR Part 15, Subpart C 15.209 & 15.407(b)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	KDB 789033 D02 II G	Pass
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)	RSS-247 Section 3.3 & RSS-Gen Section 8.9	KDB 789033 D02 II G	Pass

Note1: There are series models mentioned in this report, and they are identical in electrical and electronic characters. Only the model UTK-3000 was tested since their differences were the model number and appearance.

Note2: The RF module RTL8822CE has been certified, Issued by Bureau Veritas Consumer Products Services (H.K.) Ltd. Taoyuan Branch, FCC Report No. RF180816E04-1, IC Report No. IC180816E04-1. So, we only evaluate Conducted Emissions at AC Power Line (150kHz-30MHz), Radiated Emissions which fall in the restricted bands and Receiver spurious emissions test of this sample, other test data please refer to module test report.

3 Contents

	Page
1 COVER PAGE	1
2 Test Summary	3
3 Contents.....	4
4 General Information.....	5
4.1 Details of E.U.T.	5
4.2 Description of Support Units	6
4.3 Power level setting using in test.....	6
4.4 Measurement Uncertainty	7
4.5 Test Location	8
4.6 Test Facility	8
4.7 Deviation from Standards.....	8
4.8 Abnormalities from Standard Conditions.....	8
5 Equipment List	9
6 Radio Spectrum Technical Requirement.....	10
6.1 Antenna Requirement	10
6.2 Transmission in the Absence of Data	11
7 Radio Spectrum Matter Test Results	12
7.1 Conducted Emissions at AC Power Line (150kHz-30MHz).....	12
7.2 Radiated Emissions (Below 1GHz)	16
7.3 Radiated Emissions (Above 1GHz).....	20
7.4 Radiated Emissions which fall in the restricted bands	99
8 Test Setup Photo	168
9 EUT Constructional Details (EUT Photos).....	168

4 General Information

4.1 Details of E.U.T.

Power supply:	Host Adapter: FSP120-AHAN3 Input: 100-240V~ 50/60Hz 2.0A Output: 12.0V 10.0A 120.0W Printer Adapter1: GM60-240250-F Input: 100-240V~ 50/60Hz 2.0A Output: 24.0V 2.5A 60.0W Printer Adapter2: AP152G-240200 Input: 100-240V~ 50/60Hz 2.0A Max Output: 24.0V 2.0A 48.0W Printer Adapter3: GM53-240200-F Input: 100-240V~ 50/60Hz 2.0A Output: 24.0V 2.0A 48.0W
S/N:	KSA7062996
Firmware Version:	RTLWlanE_WindowsDriver_2024.0.10.130_Drv_3.00.0036_Win10.L
Test Voltage:	AC 120V/60Hz (Pre-test AC 230V/50Hz&AC 110V/60Hz then choose the AC 120V/60Hz as worst case)
Operation Frequency/Number of channels (20MHz):	5180-5240MHz (4 Channels); U-NII-2A: 5260-5320MHz (4 Channels); U-NII-2C: 5500-5720MHz (12 Channels); U-NII-3: 5745-5825MHz (5 Channels)
Operation Frequency/Number of channels/(40MHz):	5190-5230MHz (2 Channels); U-NII-2A: 5270-5310MHz (2 Channels); U-NII-2C: 5510-5710MHz (6 Channels); U-NII-3: 5755-5795MHz (2 Channels)
Operation Frequency/Number of channels (80MHz):	5210MHz (1 Channel); U-NII-2A: 5290MHz (1 Channels); U-NII-2C: 5530-5690MHz (3 Channels); U-NII-3: 5775MHz (1 Channel)
Modulation Type:	802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM)
Channel Spacing:	802.11a/n/ac 20: 20MHz; 802.11n/ac 40: 40MHz; 802.11ac 80: 80MHz
DFS Function:	Slave without Radar detection
TPC Function:	Support TPC function
Antenna Type:	Dipole Antenna
Antenna Gain:	2.79dBi (Provided by the manufacturer)

Note1: EUT has three different types of adapters: Adapter 1 (GM60-240250-F), Adapter 2 (AP152G-240200), and Adapter 3 (GM53-240200-F), all of which are pre-tested. Adapter1 is identified as the worst-case scenario, and only the worst-case results are reflected in the report.

Note2: The EUT comes with three different display sizes: Display 1 (UTK-3241KP), Display 2 (UTK-3321KP), and Display 3 (GUTK-3271KP), all of which are pre-tested. The display1 is identified as worst-case and only worst-case results are reflected in the report.

4.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
The EUT has been tested as an independent unit.			

4.3 Power level setting using in test

Channel	11a		11ac(VHT20)	
	ANT1	ANT2	ANT1	ANT2
36	90	90	92	92
40	88	88	88	88
48	86	86	86	86
52	94	94	92	92
60	90	90	88	88
64	90	90	88	88
100	85	85	82	82
116	88	88	87	87
140	86	86	82	82
149	108	108	108	108
157	108	108	110	110
165	110	110	110	110
Channel	11ac(VHT40)			
	ANT1	ANT2		
38	87	87		
46	98	98		
54	100	100		
62	80	80		
102	78	78		
110	100	100		
134	96	96		
151	104	104		
159	104	104		
Channel	11ac(VHT80)			
	ANT1	ANT2		
42	80	80		
58	76	76		
106	81	81		
122	90	90		
155	88	88		

4.4 Measurement Uncertainty

No.	Item	Measurement Uncertainty
1	Radio Frequency	8.4×10^{-8}
2	Timeout	2s
3	Duty Cycle	0.37%
4	Occupied Bandwidth	3%
5	RF Conducted Power	0.6dB
6	RF Power Density	2.9dB
7	Conducted Spurious Emissions	0.75dB
8	RF Radiated Power	5.2dB (Below 1GHz)
		5.9dB (Above 1GHz)
9	Radiated Spurious Emission Test	4.2dB (Below 30MHz)
		4.5dB (30MHz-1GHz)
		5.1dB (1GHz-18GHz)
		5.4dB (Above 18GHz)
10	Temperature Test	1°C
11	Humidity Test	3%
12	Supply Voltages	1.5%
13	Time	3%
Note: The measurement uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

4.5 Test Location

SGS-CSTC Standards Technical Services (Suzhou) Co., Ltd.

South of No. 6 Plant, No. 1, Runsheng Road, Suzhou Industrial Park, Suzhou Area, China (Jiangsu)
Pilot Free Trade Zone

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).
3. Sample source: sent by customer.

4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **A2LA (Certificate No. 6336.01)**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 6336.01.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0120.

IC#: 27594.

- **FCC –Designation Number: CN1312**

SGS-CSTC STANDARDS TECHNICAL SERVICES (SUZHOU) CO., LTD. has been recognized as an accredited testing laboratory.

Designation Number: CN1312.

Test Firm Registration Number: 717327

4.7 Deviation from Standards

None

4.8 Abnormalities from Standard Conditions

None

5 Equipment List

9*6*6 Test Equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Semi-Anechoic Chamber	Brilliant-emc	N/A	SUWI-04-02-02	25/11/2024	24/11/2027
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-13	2/8/2024	2/7/2025
Signal Analyzer	ROHDE&SCHWARZ	FSW43	SUWI-01-02-04	5/8/2024	5/7/2025
Signal Analyzer	KEYSIGHT	N9020A	SUWI-01-02-06	11/21/2024	11/20/2025
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2/1/2024	1/31/2025
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	VULB 9168	SUWI-01-11-04	11/24/2024	11/23/2025
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9120D	SUWI-01-11-05	11/24/2024	11/23/2025
Receiving antenna	SCHWRZBECK MESS- ELEKTRONIK	BBHA 9170	SUWI-01-11-03	5/12/2023	5/11/2025
Active Loop Antenna	SCHWRZBECK MESS- ELEKTRONIK	FMZB 1519B	SUWI-01-21-01	5/13/2023	5/12/2025
Amplifier	Tonscend	TAP9K3G32	SUWI-01-14-06	11/19/2024	11/24/2025
Amplifier	Tonscend	TAP01018050	SUWI-01-14-04	11/19/2024	11/24/2025
Amplifier	Tonscend	TAP30M7G30	SUWI-01-14-05	11/19/2024	11/24/2025
Measurement Software	Tonscend	JS32-RE	SUWI-02-09-04	NCR	NCR
		V4.0.0.0			
Measurement Software	Tonscend	JS32-RSE	SUWI-02-09-06	NCR	NCR
		4.0.0.1			

Conduction Test Equipment					
Equipment	Manufacturer	Model No.	Inventory No.	Cal Date	Cal Due Date
Test receiver	ROHDE&SCHWARZ	ESR7	SUWI-01-10-01	2/1/2024	1/31/2025
Temperature and humidity meter	MingGao	TH101B	SUWI-01-01-06	2/8/2024	2/7/2025
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-03	2/4/2024	2/3/2025
Artificial network	ROHDE&SCHWARZ	ENV216	SUWI-01-19-04	2/4/2024	2/3/2025
Measurement Software	Tonscend	JS32-CE	SUWI-02-09-05	NCR	NCR

6 Radio Spectrum Technical Requirement

6.1 Antenna Requirement

6.1.1 Test Requirement:

47 CFR Part 15, Subpart C 15.203

6.1.2 Conclusion

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is Dipole Antenna and no consideration of replacement. The best case gain of the antenna is 2.79dBi.

Antenna location: Refer to External photo.

6.2 Transmission in the Absence of Data

6.2.1 Test Requirement:

47 CFR Part 15, Subpart E 15.407 (c)

6.2.2 Conclusion

Conclusion

Standard Requirement:

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 signalling 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.

EUT Details:

WIFI chip support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.

7 Radio Spectrum Matter Test Results

7.1 Conducted Emissions at AC Power Line (150kHz-30MHz)

Test Requirement 47 CFR Part 15, Subpart C 15.207 & Subpart E 15.407 b(9)

Test Method: ANSI C63.10 (2013) Section 6.2

Limit:

Frequency of emission(MHz)	Conducted limit(dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

7.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C

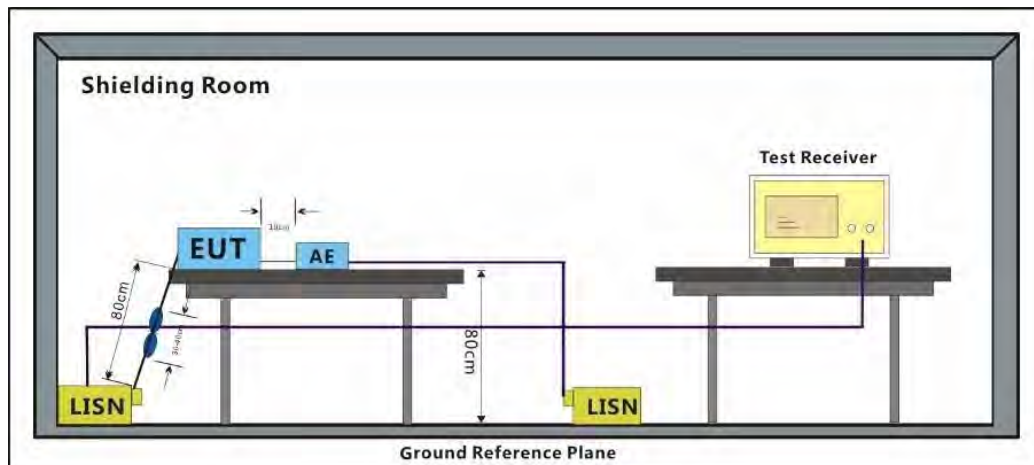
Humidity: 46.8 % RH

Atmospheric Pressure: 1010 mbar

7.1.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

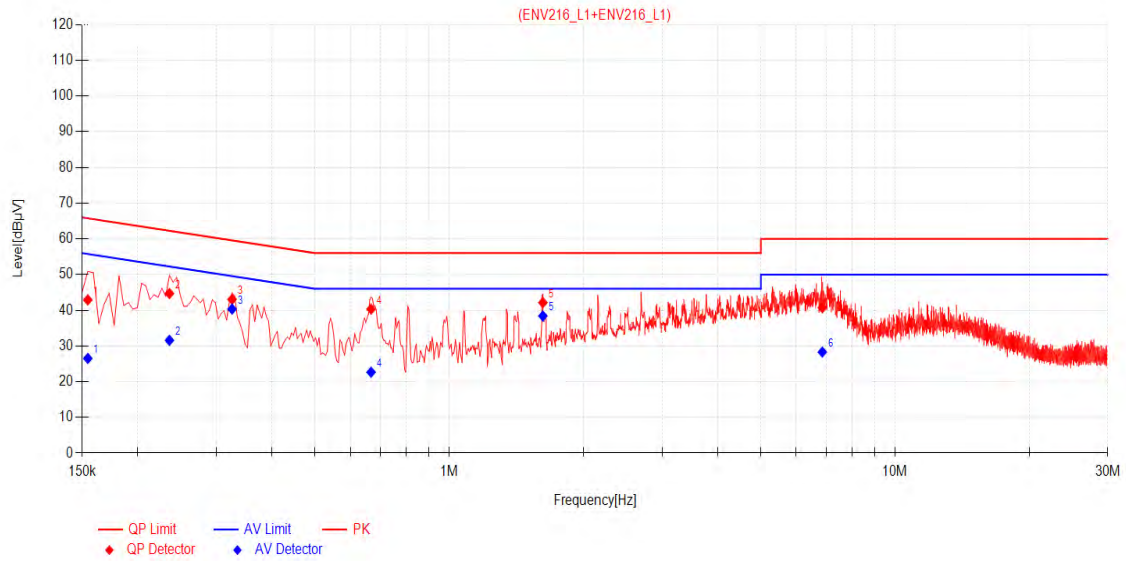
7.1.3 Test Setup Diagram



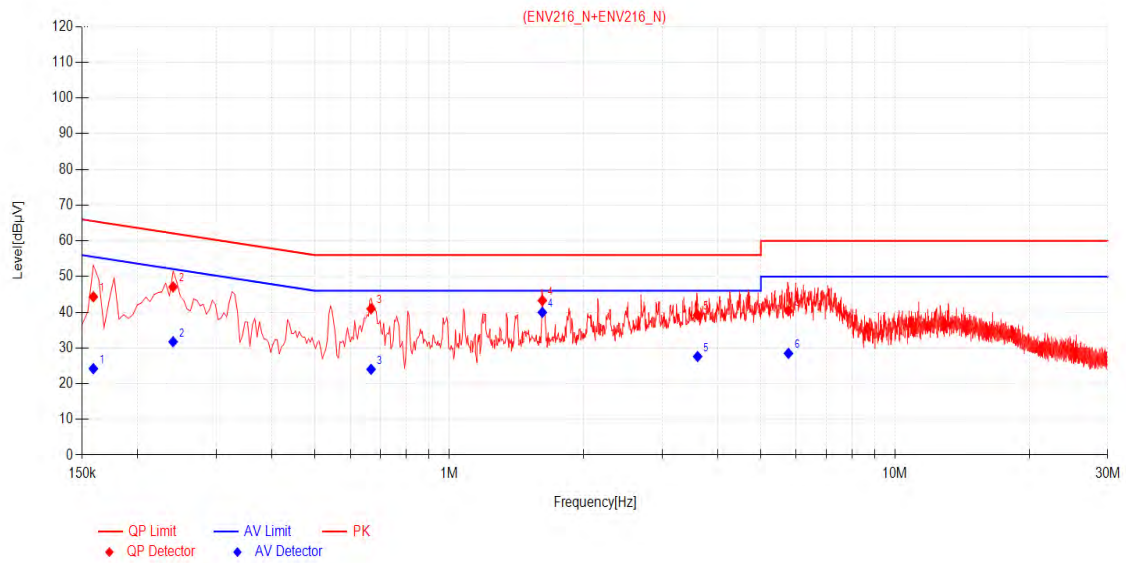
7.1.4 Measurement Procedure and Data

- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50μH + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: Level=Read Level+ Cable Loss+ LISN Factor



Final Data List											
NO	Frequency [MHz]	Factor [dB]	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1545	10.20	32.71	42.91	65.75	22.84	16.32	26.52	55.75	29.23	PASS
2	0.2355	10.16	34.52	44.68	62.25	17.57	21.42	31.58	52.25	20.67	PASS
3	0.3255	10.16	32.91	43.07	59.57	16.50	30.17	40.33	49.57	9.24	PASS
4	0.6675	10.21	30.11	40.32	56.00	15.68	12.44	22.65	46.00	23.35	PASS
5	1.6215	10.08	32.08	42.16	56.00	13.84	28.32	38.40	46.00	7.60	PASS
6	6.8685	10.09	30.62	40.71	60.00	19.29	18.20	28.29	50.00	21.71	PASS



Final Data List

NO	Frequency [MHz]	Factor [dB]	QP Reading [dBμV]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Reading [dBμV]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Verdict
1	0.1590	10.20	34.14	44.34	65.52	21.18	14.01	24.21	55.52	31.31	PASS
2	0.2400	10.16	36.93	47.09	62.10	15.01	21.58	31.74	52.10	20.36	PASS
3	0.6675	10.22	30.76	40.98	56.00	15.02	13.81	24.03	46.00	21.97	PASS
4	1.6170	10.13	33.17	43.30	56.00	12.70	29.84	39.97	46.00	6.03	PASS
5	3.6060	10.14	29.09	39.23	56.00	16.77	17.47	27.61	46.00	18.39	PASS
6	5.7660	10.11	30.27	40.38	60.00	19.62	18.37	28.48	50.00	21.52	PASS

7.2 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: ANSI C63.10 (2013) Section 6.4,6.5

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.2.1 E.U.T. Operation

Operating Environment:

Temperature: 23.8 °C

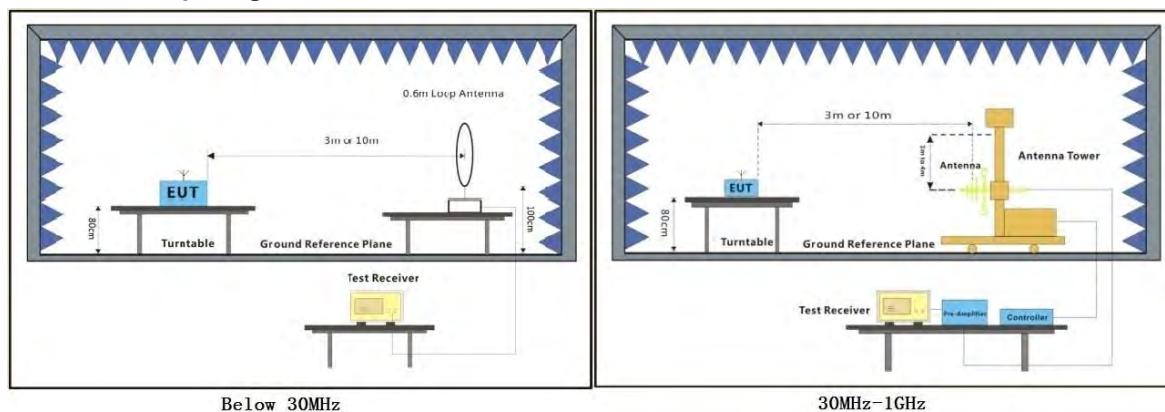
Humidity: 43.2 % RH

Atmospheric Pressure: 1010 mbar

7.2.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	03	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.

7.2.3 Test Setup Diagram



7.2.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

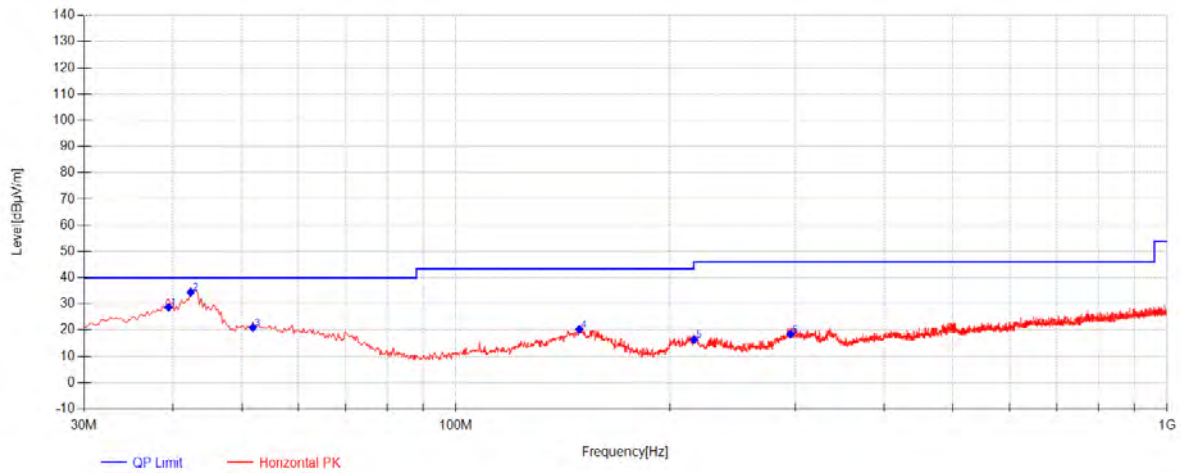
1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



Report No.: KSCR241200245204

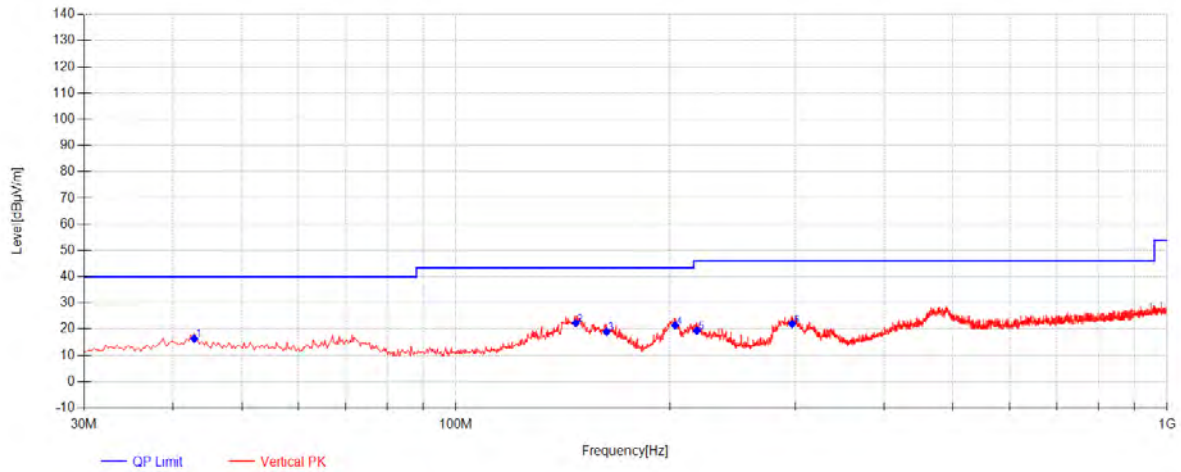
Page: 18 of 168

11ac40_Channel 140 WORSE



Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	39.4575	52.29	-42.23	18.69	28.75	40.00	11.25	Horizontal
2	42.3675	57.95	-42.21	18.74	34.48	40.00	5.52	Horizontal
3	51.825	44.68	-42.12	18.42	20.98	40.00	19.02	Horizontal
4	149.0675	42.14	-40.75	18.91	20.31	43.50	23.19	Horizontal
5	216.24	41.34	-40.60	15.65	16.39	46.00	29.61	Horizontal
6	295.5375	40.25	-39.86	18.12	18.51	46.00	27.49	Horizontal

11ac40_Channel 140 WORSE



Final Data List								
NO.	Frequency [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	QP Value [dBμV/m]	QP Limit [dBμV/m]	QP Margin [dB]	Polarity
1	42.8525	39.81	-42.21	18.79	16.39	40.00	23.61	Vertical
2	147.37	44.11	-40.80	18.99	22.30	43.50	21.20	Vertical
3	162.89	40.83	-40.69	18.83	18.98	43.50	24.52	Vertical
4	203.3875	46.75	-40.63	15.30	21.41	43.50	22.09	Vertical
5	218.18	44.26	-40.59	15.73	19.40	46.00	26.60	Vertical
6	296.9925	43.64	-39.86	18.18	21.96	46.00	24.04	Vertical

7.3 Radiated Emissions (Above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: ANSI C63.10 (2013) Section 6.6

Measurement Distance: 3M

7.3.1 E.U.T. Operation

Operating Environment:

Temperature: 23.2 °C

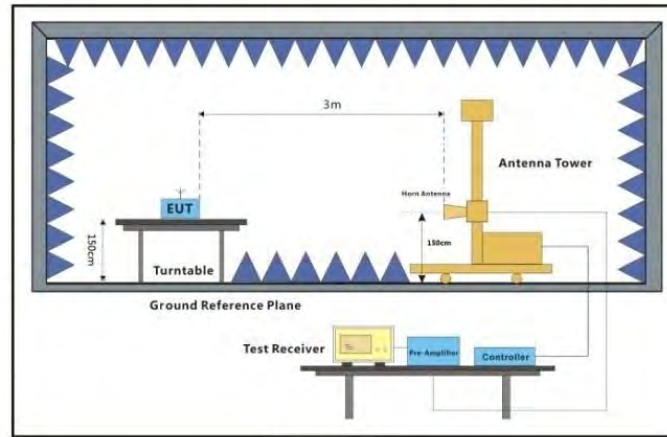
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

7.3.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	02	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n 20/40/80, Only the data of worst case is recorded in the report.

7.3.3 Test Setup Diagram



Above 1GHz

7.3.4 Measurement Procedure and Data

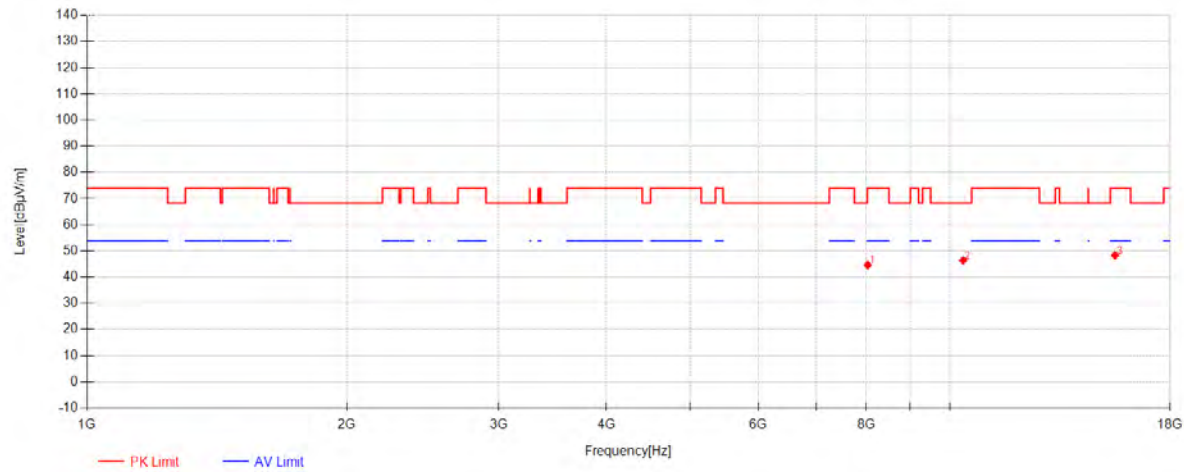
- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$
2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.
4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
5. For devices with multiple operating modes, measurements on the middle channel is used to determine the worst-case mode(s). Only the worst case mode with the highest output power and the mode with the highest output power spectral density for each modulation family (e.g., OFDM and direct sequence spread spectrum) is recorded in the test report.
6. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.
7. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.



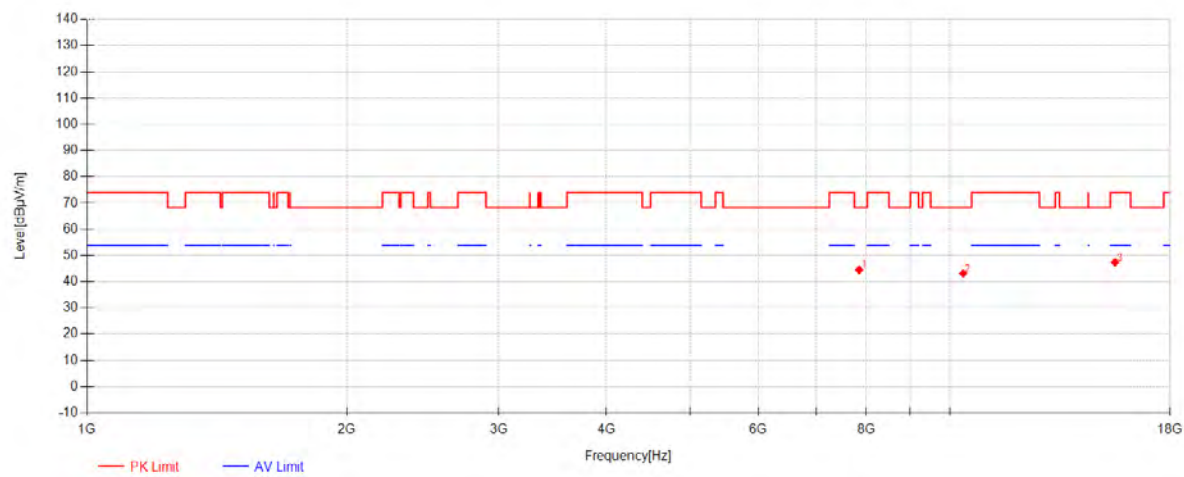
802.11ac20_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8032.375	49.50	37.08	-41.87	44.71	74.00	29.29	Horizontal
2	10360.0000	46.75	38.54	-38.82	46.47	68.30	21.83	Horizontal
3	15540.0000	42.65	40.47	-34.81	48.30	74.00	25.70	Horizontal



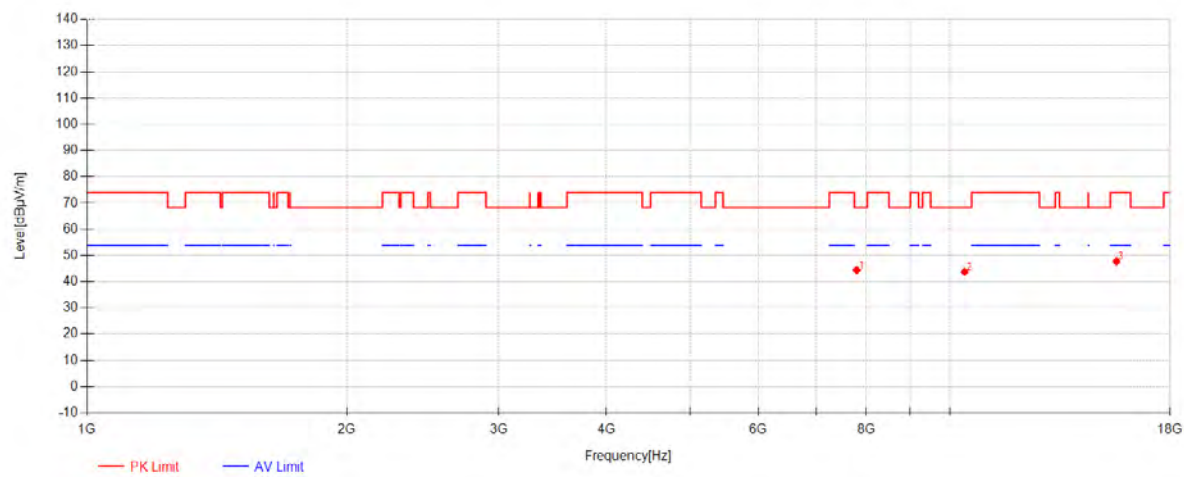
802.11ac20_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7850.2917	50.33	36.89	-42.66	44.56	68.30	23.74	Vertical
2	10360.0000	43.43	38.54	-38.82	43.15	68.30	25.15	Vertical
3	15540.0000	41.75	40.47	-34.81	47.40	74.00	26.60	Vertical



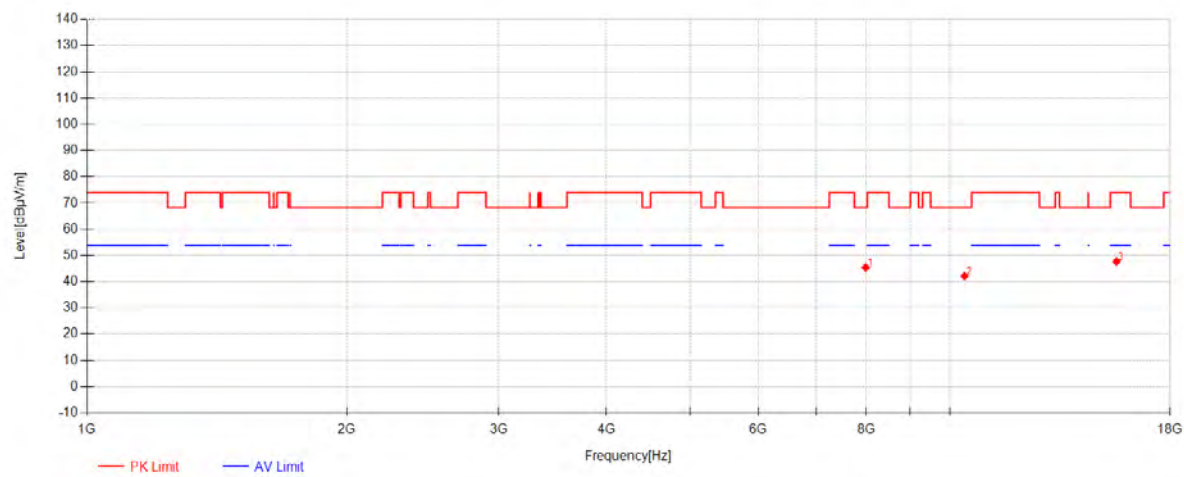
802.11ac20_Channel 44



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7798.5417	50.26	36.82	-42.59	44.49	68.30	23.81	Horizontal
2	10400.0000	43.97	38.54	-38.72	43.79	68.30	24.51	Horizontal
3	15600.0000	41.80	40.34	-34.37	47.77	74.00	26.23	Horizontal



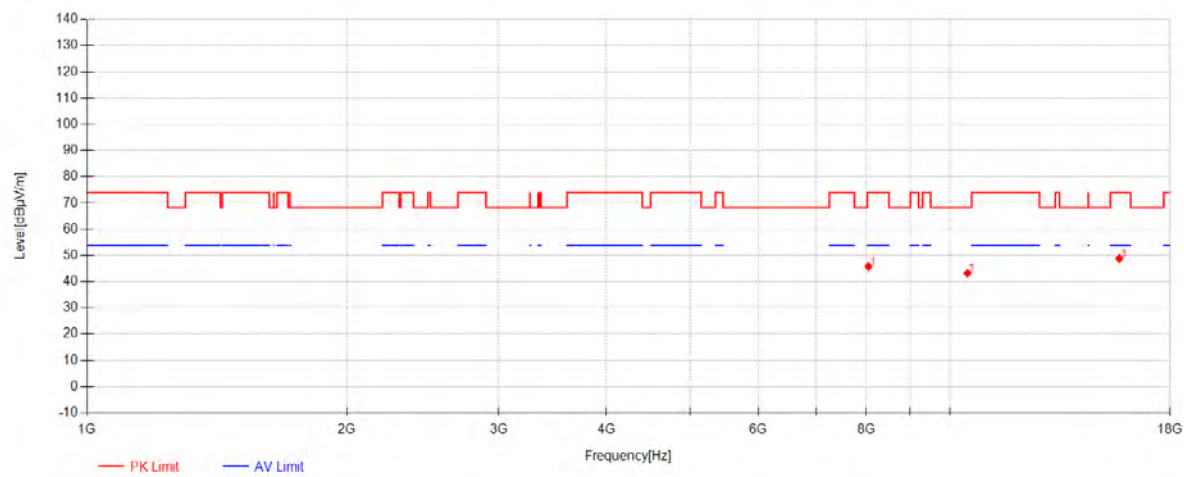
802.11ac20_Channel 44



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7988.2917	50.60	37.08	-42.20	45.48	68.30	22.82	Vertical
2	10400.0000	42.36	38.54	-38.72	42.18	68.30	26.12	Vertical
3	15600.0000	41.73	40.34	-34.37	47.70	74.00	26.30	Vertical



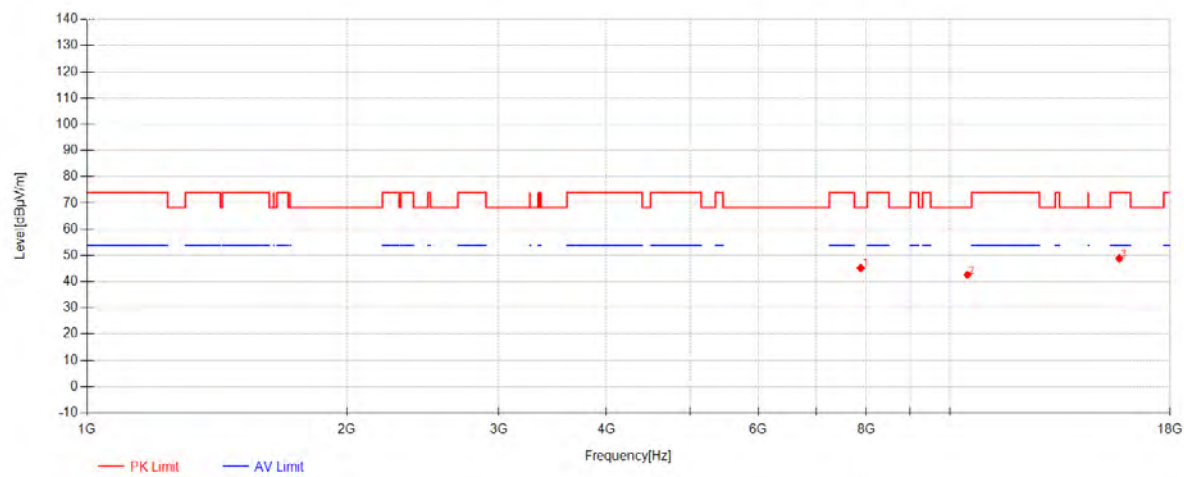
802.11ac20_Channel 48



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8048.1875	50.51	37.07	-41.75	45.83	74.00	28.17	Horizontal
2	10480.0000	43.42	38.55	-38.75	43.22	68.30	25.08	Horizontal
3	15720.0000	41.95	40.09	-33.22	48.82	74.00	25.18	Horizontal



802.11ac20_Channel 48



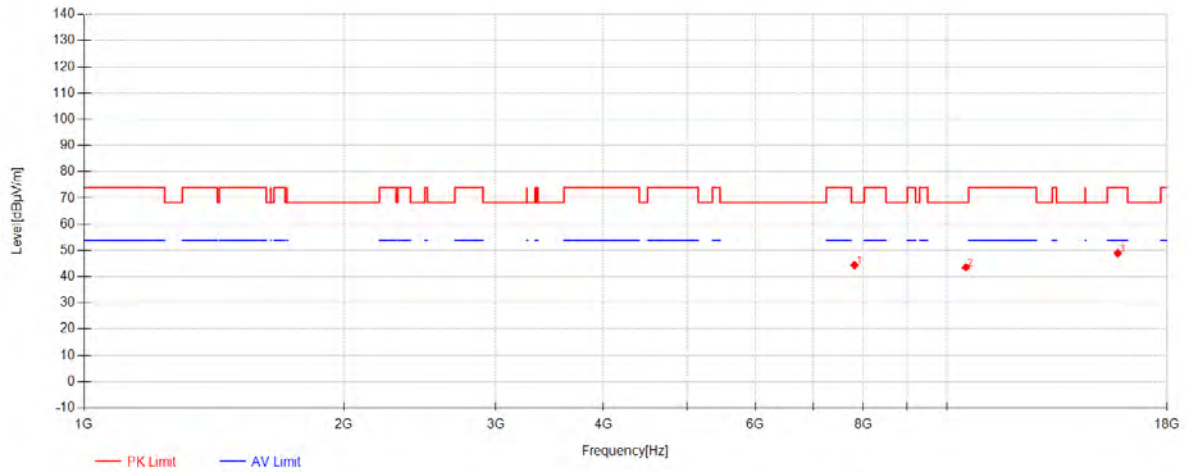
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7884.7917	51.03	36.94	-42.72	45.25	68.30	23.05	Vertical
2	10480.0000	42.81	38.55	-38.75	42.61	68.30	25.69	Vertical
3	15720.0000	41.97	40.09	-33.22	48.84	74.00	25.16	Vertical



Report No.: KSCR241200245204

Page: 29 of 168

802.11ac20_Channel 52



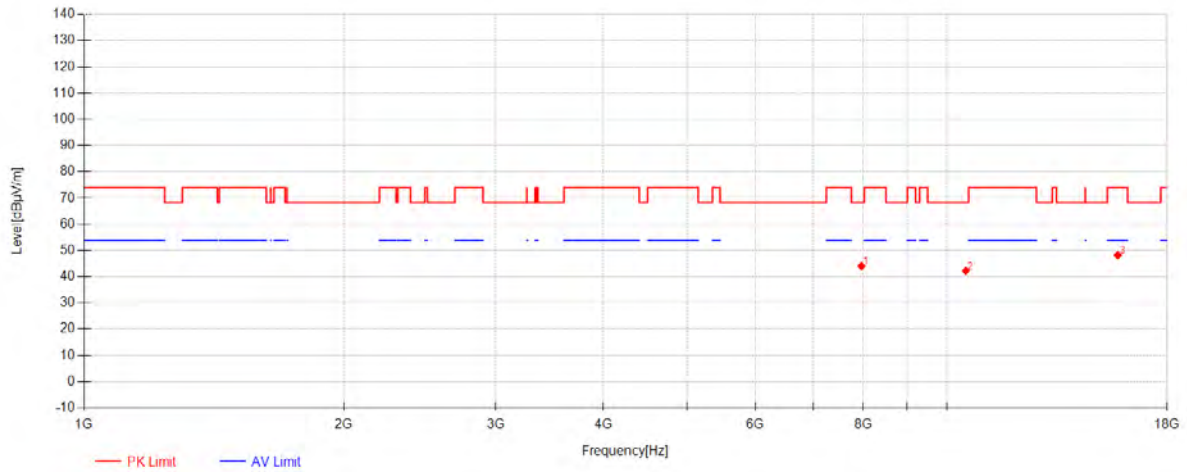
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7816.2708	50.25	36.84	-42.61	44.49	68.30	23.81	Horizontal
2	10520.0000	43.62	38.55	-38.61	43.56	68.30	24.74	Horizontal
3	15780.0000	42.03	39.96	-33.10	48.89	74.00	25.11	Horizontal



Report No.: KSCR241200245204

Page: 30 of 168

802.11ac20_Channel 52



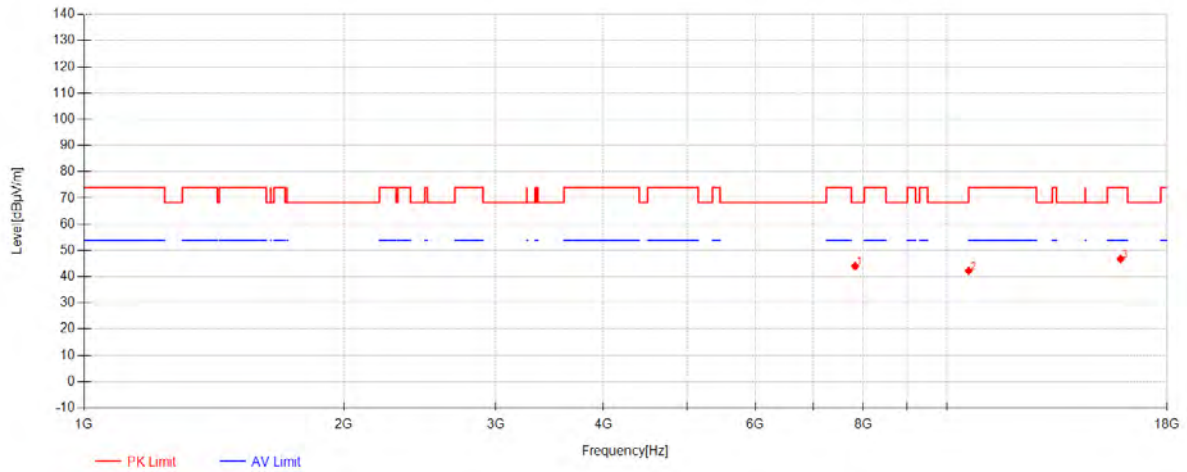
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7962.8958	49.40	37.05	-42.36	44.09	68.30	24.21	Vertical
2	10520.0000	42.34	38.55	-38.61	42.28	68.30	26.02	Vertical
3	15780.0000	41.34	39.96	-33.10	48.20	74.00	25.80	Vertical



Report No.: KSCR241200245204

Page: 31 of 168

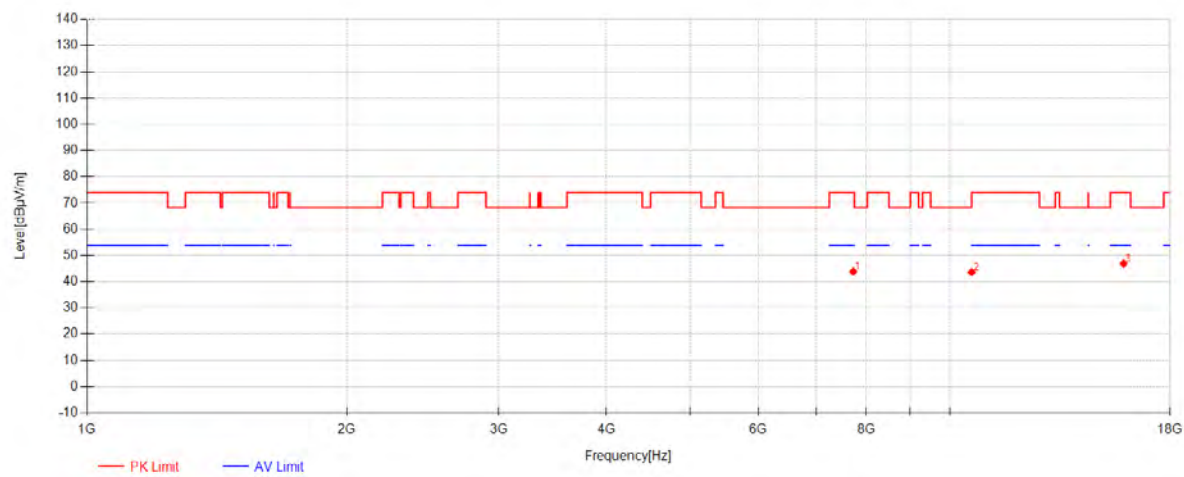
802.11ac20_Channel 60



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7829.6875	49.86	36.86	-42.63	44.09	68.30	24.21	Horizontal
2	10600.0000	41.74	38.56	-38.01	42.29	74.00	31.71	Horizontal
3	15900.0000	41.21	39.71	-34.13	46.79	74.00	27.21	Horizontal



802.11ac20_Channel 60



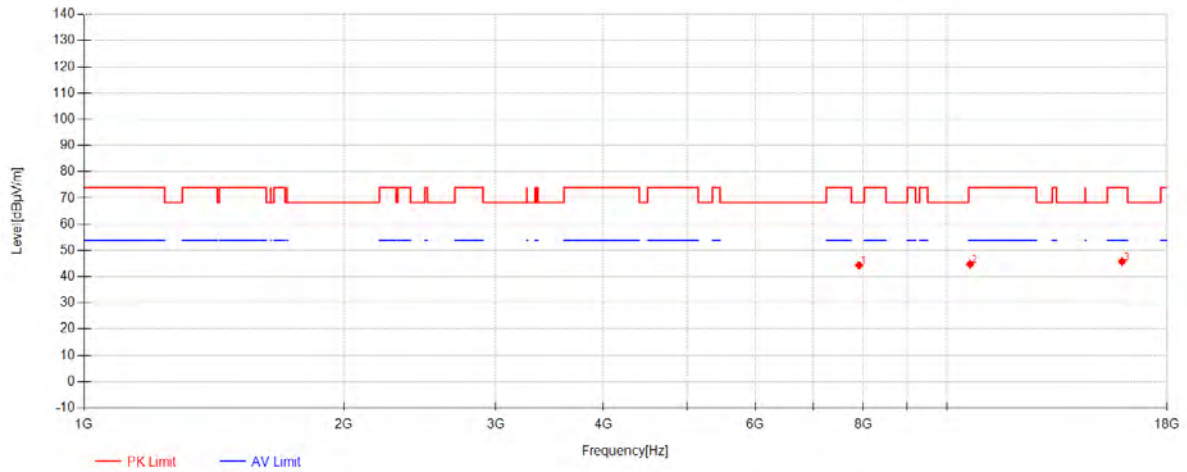
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7728.1042	50.05	36.72	-42.85	43.92	74.00	30.08	Vertical
2	10600.0000	43.12	38.56	-38.01	43.67	74.00	30.33	Vertical
3	15900.0000	41.30	39.71	-34.13	46.88	74.00	27.12	Vertical



Report No.: KSCR241200245204

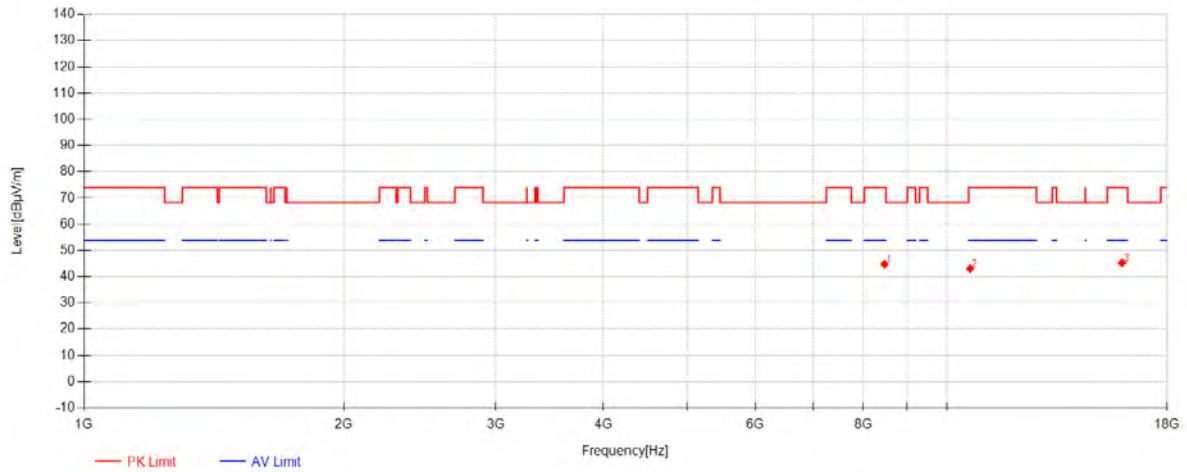
Page: 33 of 168

802.11ac20_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7912.1042	50.12	36.98	-42.67	44.43	68.30	23.87	Horizontal
2	10640.0000	44.04	38.56	-37.80	44.80	74.00	29.20	Horizontal
3	15960.0000	40.86	39.58	-34.63	45.81	74.00	28.19	Horizontal

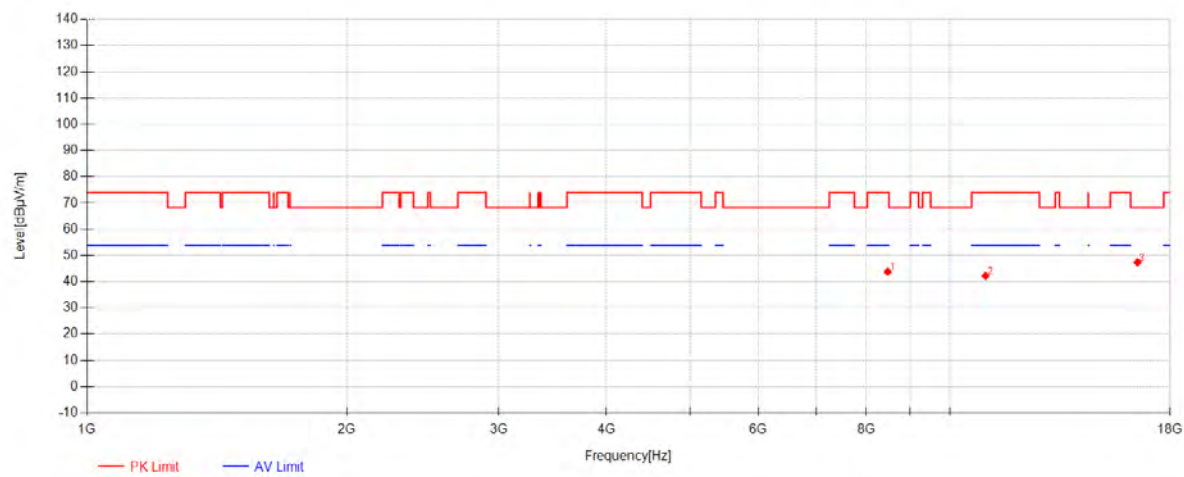
802.11ac20_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8468.4167	49.67	36.82	-41.66	44.82	74.00	29.18	Vertical
2	10640.0000	42.30	38.56	-37.80	43.06	74.00	30.94	Vertical
3	15960.0000	40.38	39.58	-34.63	45.33	74.00	28.67	Vertical



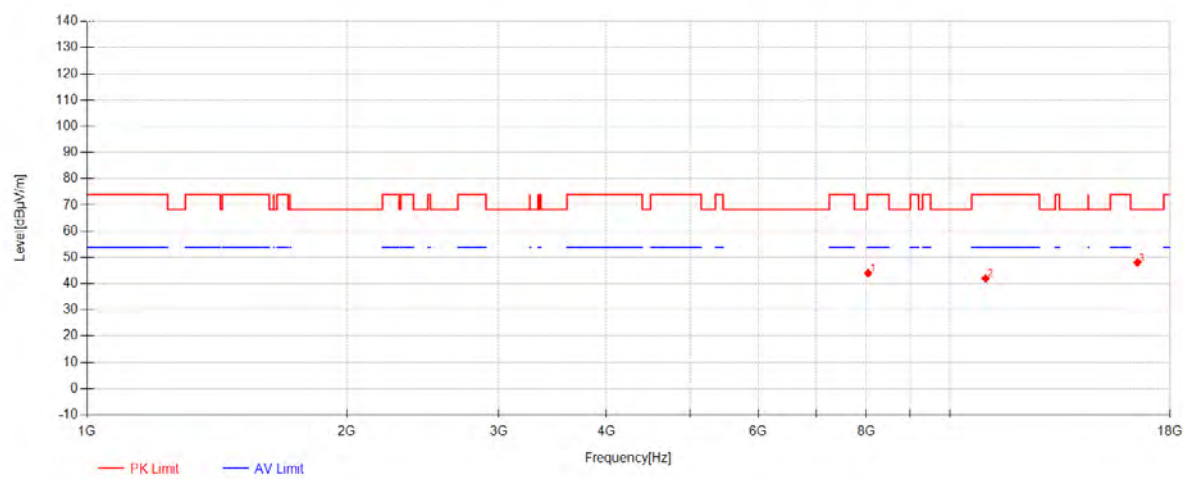
802.11ac20_Channel 100



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8473.2083	48.71	36.82	-41.68	43.84	74.00	30.16	Horizontal
2	11000.0000	41.25	38.60	-37.59	42.26	74.00	31.74	Horizontal
3	16500.0000	40.91	40.80	-34.28	47.43	68.30	20.87	Horizontal

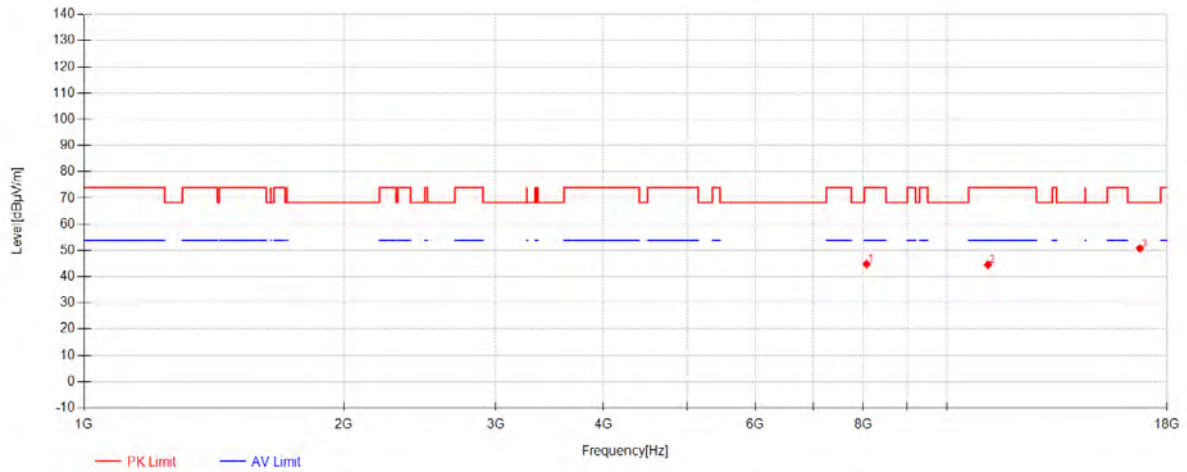


802.11ac20_Channel 100



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8040.5208	48.79	37.08	-41.81	44.06	74.00	29.94	Vertical
2	11000.0000	41.00	38.60	-37.59	42.01	74.00	31.99	Vertical
3	16500.0000	41.53	40.80	-34.28	48.05	68.30	20.25	Vertical

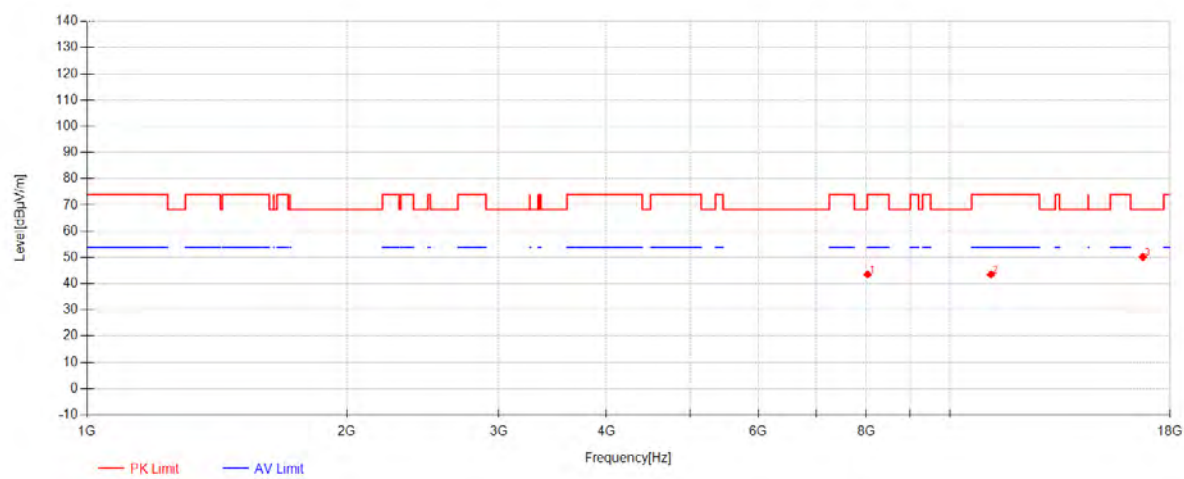
802.11ac20_Channel 116



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8072.1458	49.37	37.06	-41.56	44.87	74.00	29.13	Horizontal
2	11160.0000	43.05	38.68	-37.06	44.67	74.00	29.33	Horizontal
3	16740.0000	44.13	41.42	-34.77	50.79	68.30	17.51	Horizontal



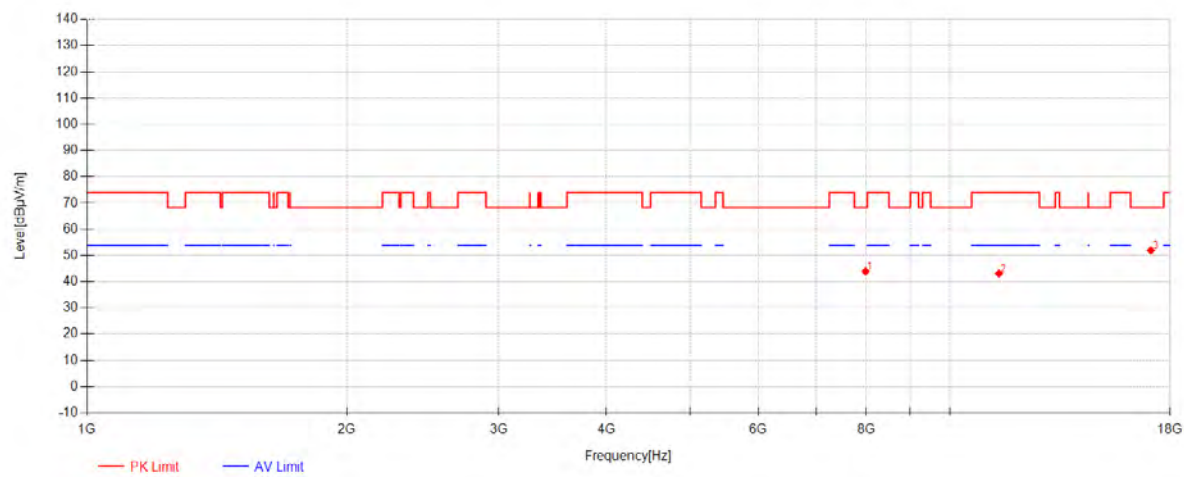
802.11ac20_Channel 116



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8029.9792	48.38	37.08	-41.89	43.57	74.00	30.43	Vertical
2	11160.0000	41.93	38.68	-37.06	43.55	74.00	30.45	Vertical
3	16740.0000	43.48	41.42	-34.77	50.14	68.30	18.16	Vertical



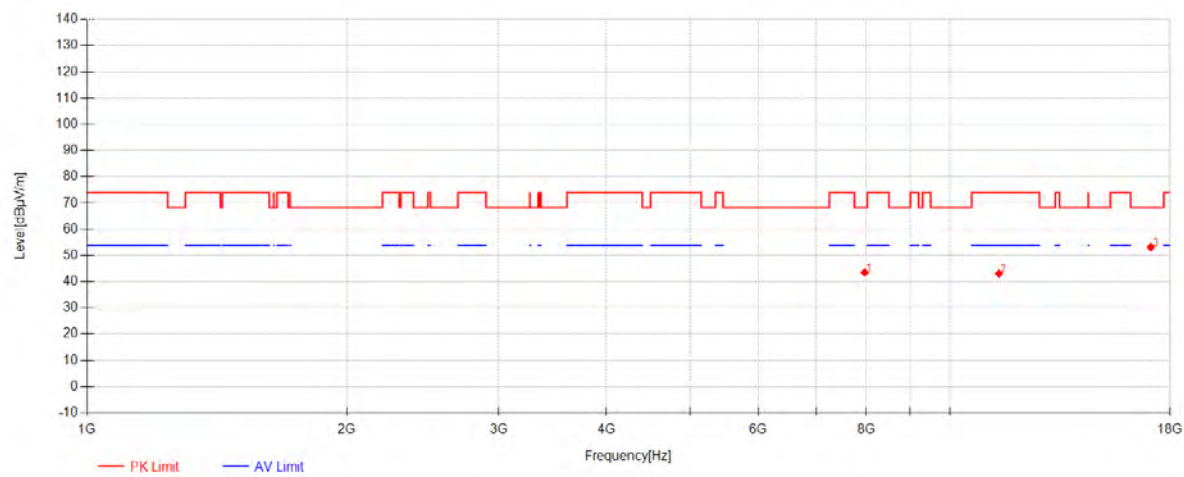
802.11ac20_Channel 140



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7986.8542	49.10	37.08	-42.21	43.97	68.30	24.33	Horizontal
2	11400.0000	41.84	38.80	-37.51	43.13	74.00	30.87	Horizontal
3	17100.0000	43.16	42.54	-33.74	51.96	68.30	16.34	Horizontal



802.11ac20_Channel 140



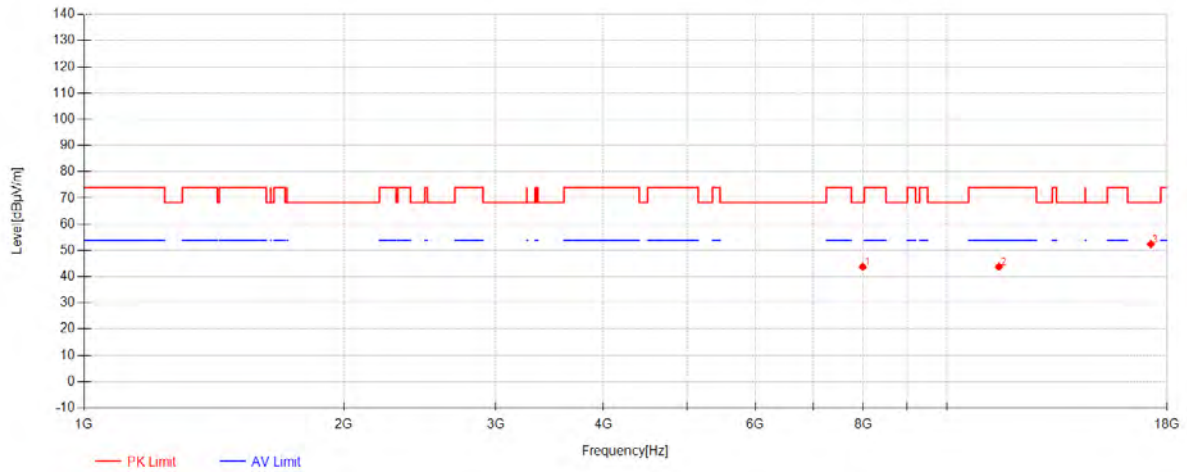
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7968.6458	48.83	37.06	-42.32	43.56	68.30	24.74	Vertical
2	11400.0000	41.78	38.80	-37.51	43.07	74.00	30.93	Vertical
3	17100.0000	44.40	42.54	-33.74	53.20	68.30	15.10	Vertical



Report No.: KSCR241200245204

Page: 41 of 168

802.11ac20_Channel 149



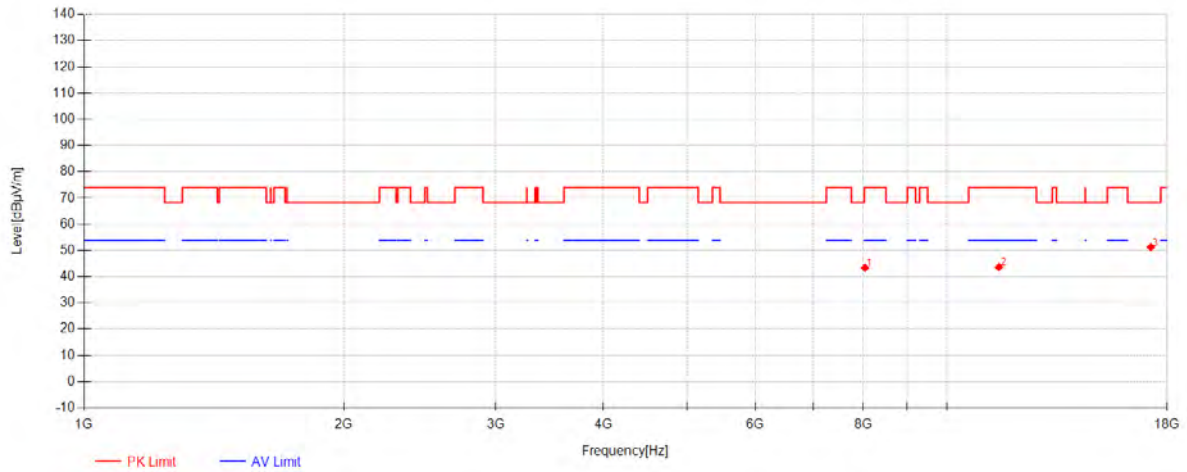
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7990.6875	48.92	37.09	-42.19	43.82	68.30	24.48	Horizontal
2	11490.0000	41.61	38.85	-36.61	43.85	74.00	30.15	Horizontal
3	17235.0000	44.25	43.14	-34.96	52.43	68.30	15.87	Horizontal



Report No.: KSCR241200245204

Page: 42 of 168

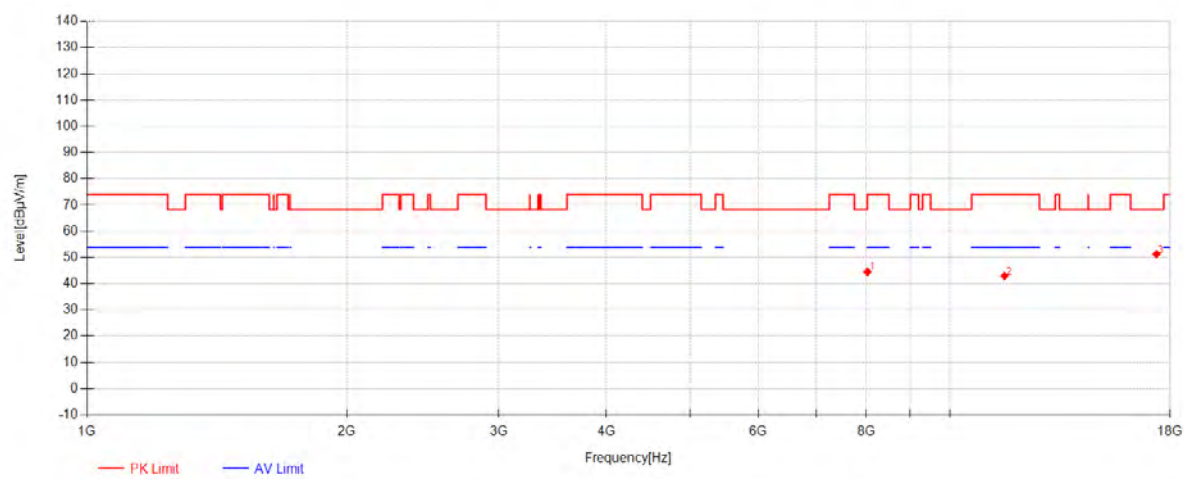
802.11ac20_Channel 149



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8037.6458	48.21	37.08	-41.83	43.45	74.00	30.55	Vertical
2	11490.0000	41.46	38.85	-36.61	43.70	74.00	30.30	Vertical
3	17235.0000	43.10	43.14	-34.96	51.28	68.30	17.02	Vertical



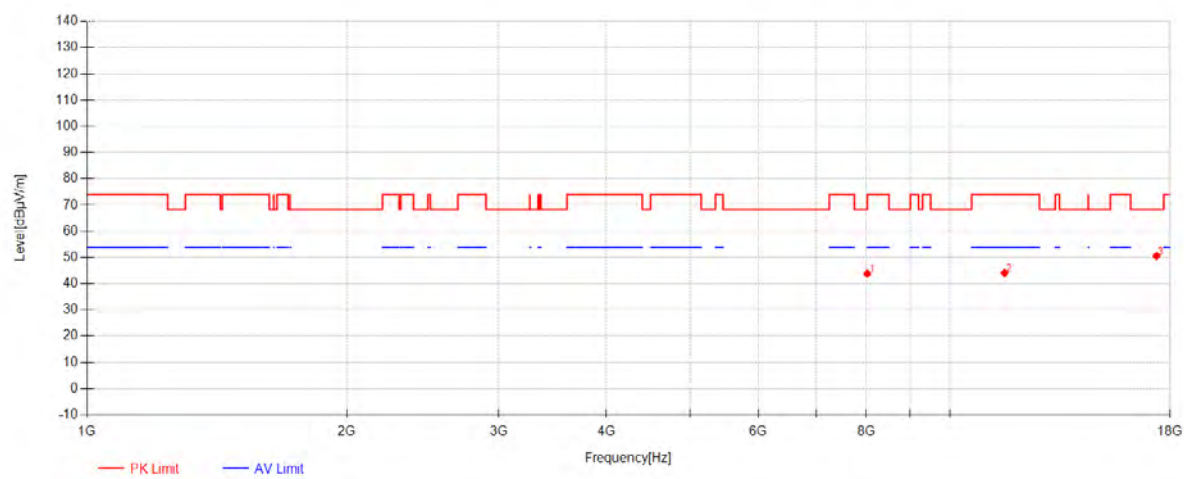
802.11ac20_Channel 157



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8025.1875	49.44	37.08	-41.93	44.59	74.00	29.41	Horizontal
2	11570.0000	40.89	38.89	-36.84	42.94	74.00	31.06	Horizontal
3	17355.0000	42.58	43.66	-35.00	51.24	68.30	17.06	Horizontal



802.11ac20_Channel 157



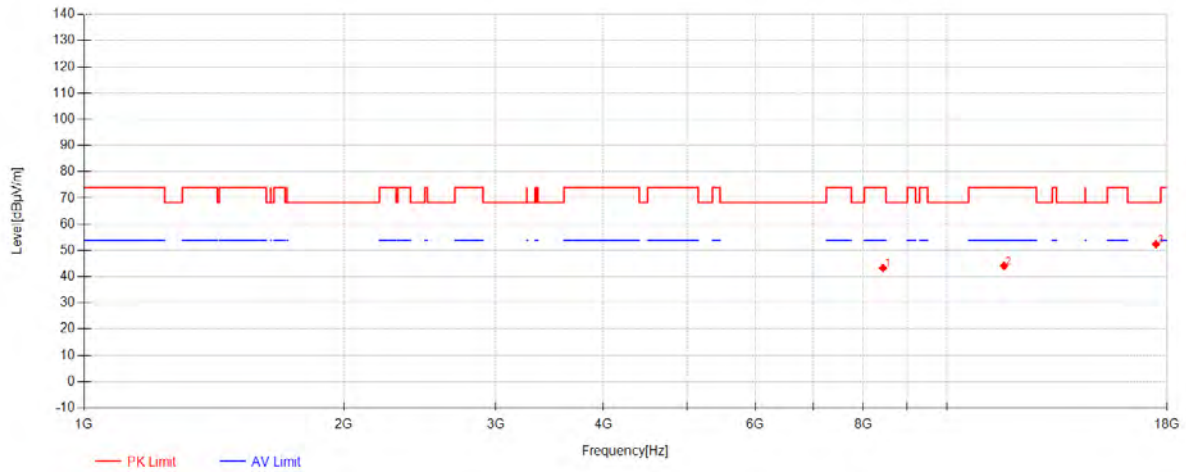
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8022.3125	48.77	37.09	-41.95	43.90	68.30	24.40	Vertical
2	11570.0000	42.10	38.89	-36.84	44.15	74.00	29.85	Vertical
3	17355.0000	41.91	43.66	-35.00	50.57	68.30	17.73	Vertical



Report No.: KSCR241200245204

Page: 45 of 168

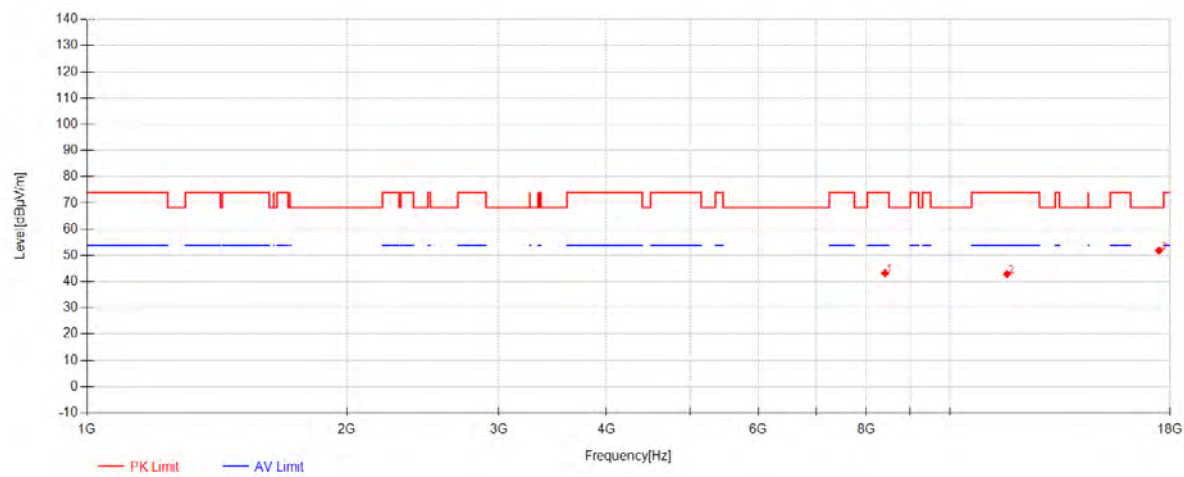
802.11ac20_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8433.9167	48.01	36.84	-41.52	43.33	74.00	30.67	Horizontal
2	11650.0000	41.79	38.93	-36.53	44.18	74.00	29.82	Horizontal
3	17475.0000	42.27	44.19	-34.07	52.39	68.30	15.91	Horizontal



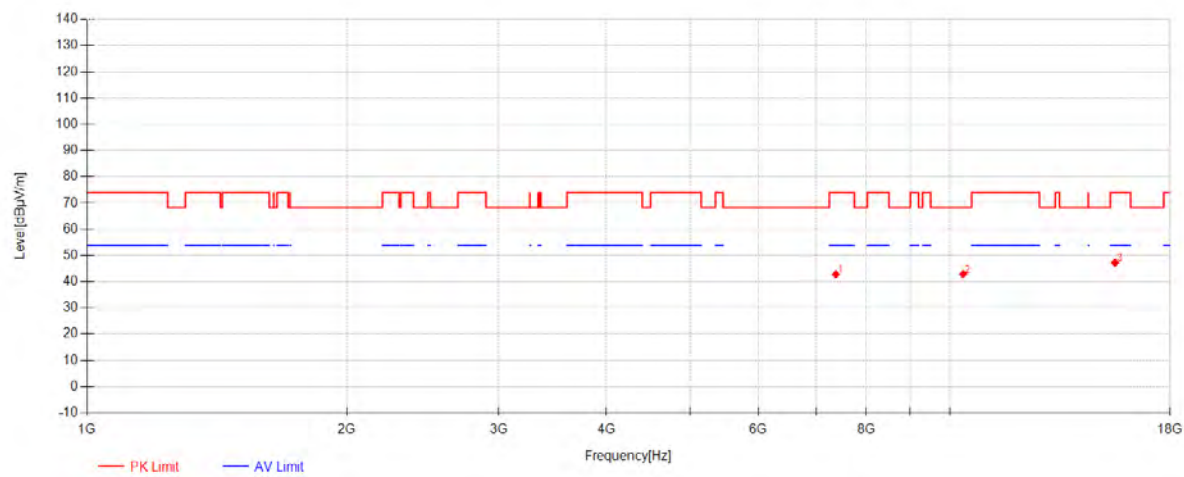
802.11ac20_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8412.3542	47.81	36.85	-41.42	43.24	74.00	30.76	Vertical
2	11650.0000	40.50	38.93	-36.53	42.89	74.00	31.11	Vertical
3	17475.0000	41.76	44.19	-34.07	51.88	68.30	16.42	Vertical



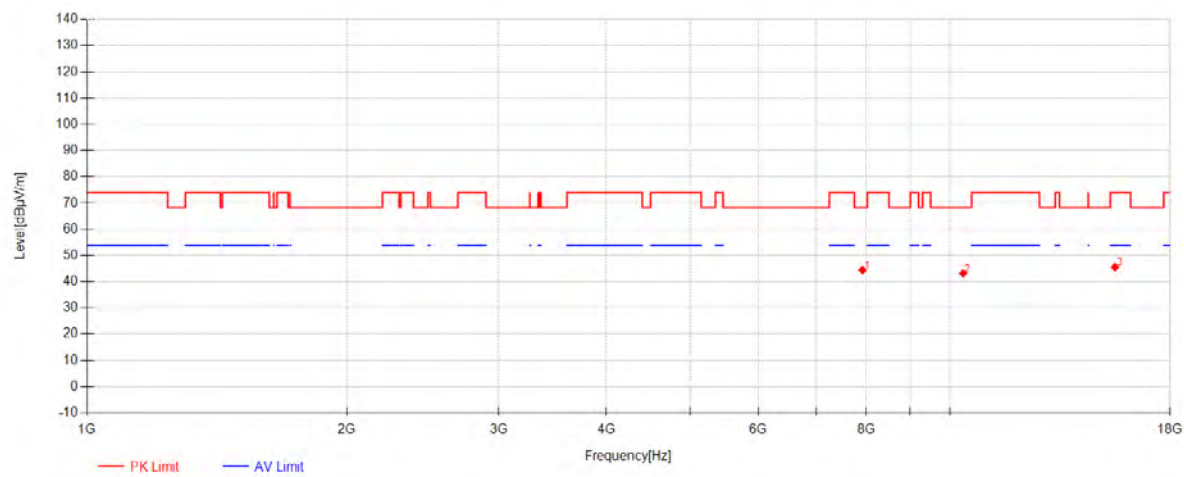
802.11a_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7375.9167	49.68	36.05	-42.92	42.81	74.00	31.19	Horizontal
2	10360.0000	43.18	38.54	-38.82	42.90	68.30	25.40	Horizontal
3	15540.0000	41.60	40.47	-34.81	47.25	74.00	26.75	Horizontal

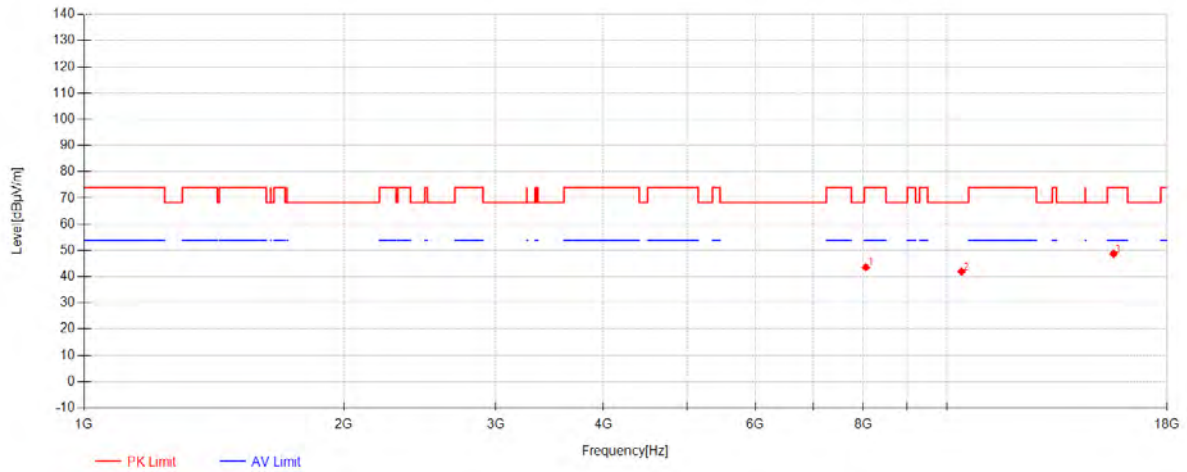


802.11a_Channel 36



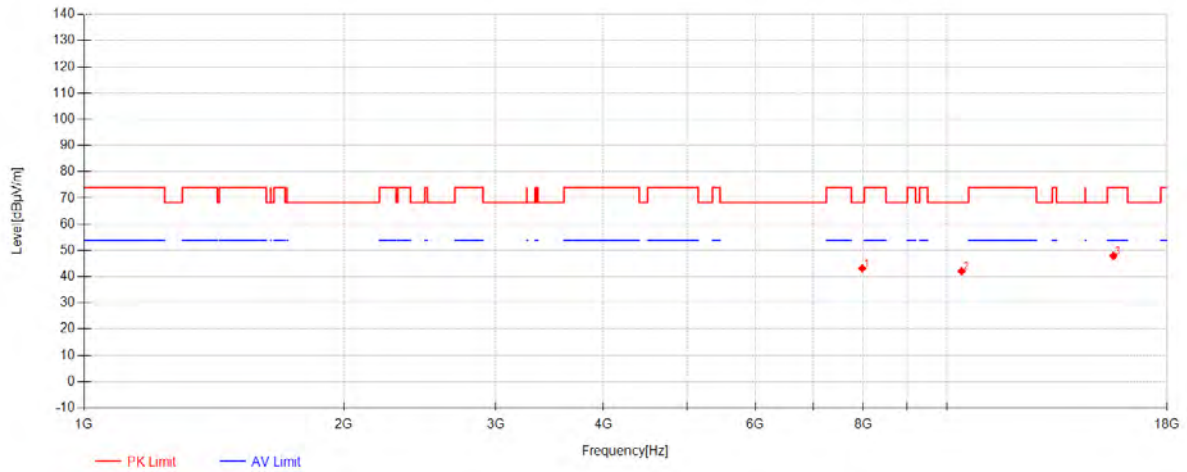
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7920.7292	50.13	36.99	-42.61	44.51	68.30	23.79	Vertical
2	10360.0000	43.47	38.54	-38.82	43.19	68.30	25.11	Vertical
3	15540.0000	39.98	40.47	-34.81	45.63	74.00	28.37	Vertical

802.11a_Channel 40



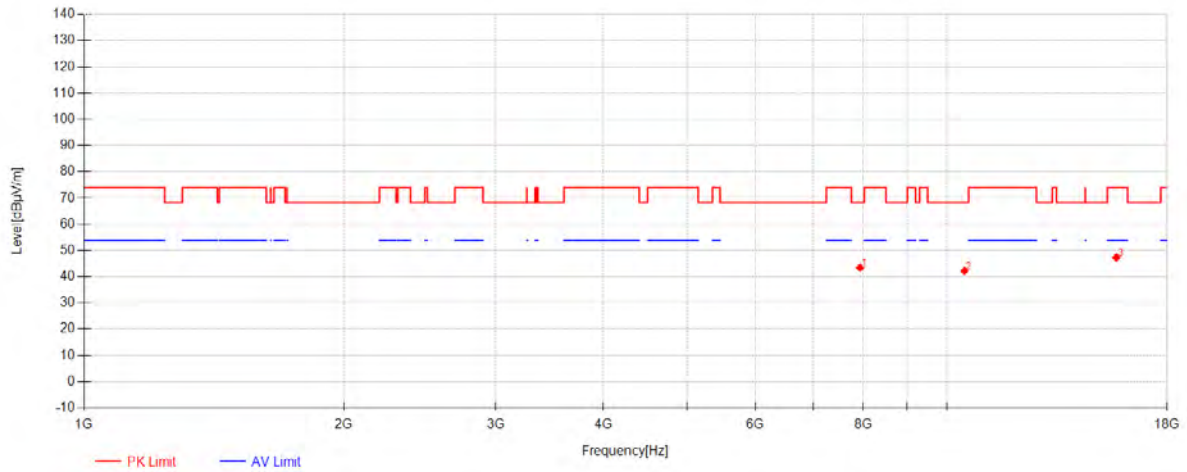
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8056.8125	48.22	37.07	-41.68	43.60	74.00	30.40	Horizontal
2	10400.0000	42.13	38.54	-38.72	41.95	68.30	26.35	Horizontal
3	15600.0000	42.73	40.34	-34.37	48.70	74.00	25.30	Horizontal

802.11a_Channel 40



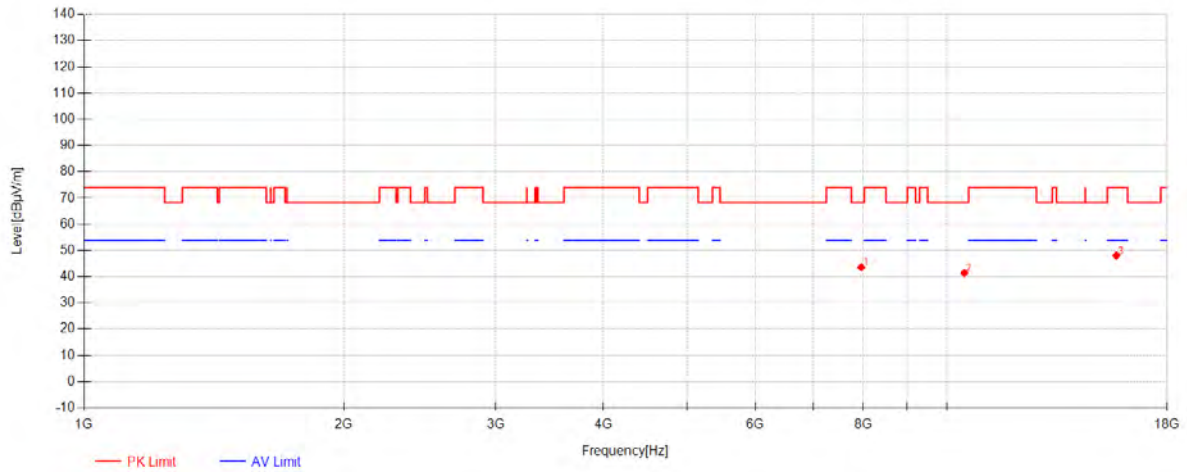
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7979.1875	48.37	37.07	-42.26	43.18	68.30	25.12	Vertical
2	10400.0000	42.26	38.54	-38.72	42.08	68.30	26.22	Vertical
3	15600.0000	41.95	40.34	-34.37	47.92	74.00	26.08	Vertical

802.11a_Channel 48



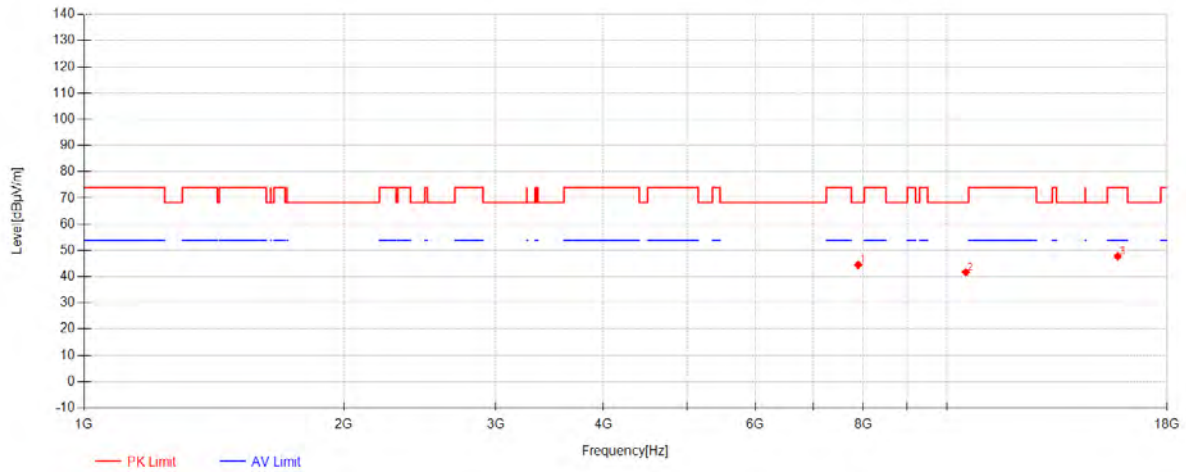
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7931.2708	49.04	37.00	-42.55	43.49	68.30	24.81	Horizontal
2	10480.0000	42.45	38.55	-38.75	42.25	68.30	26.05	Horizontal
3	15720.0000	40.47	40.09	-33.22	47.34	74.00	26.66	Horizontal

802.11a_Channel 48



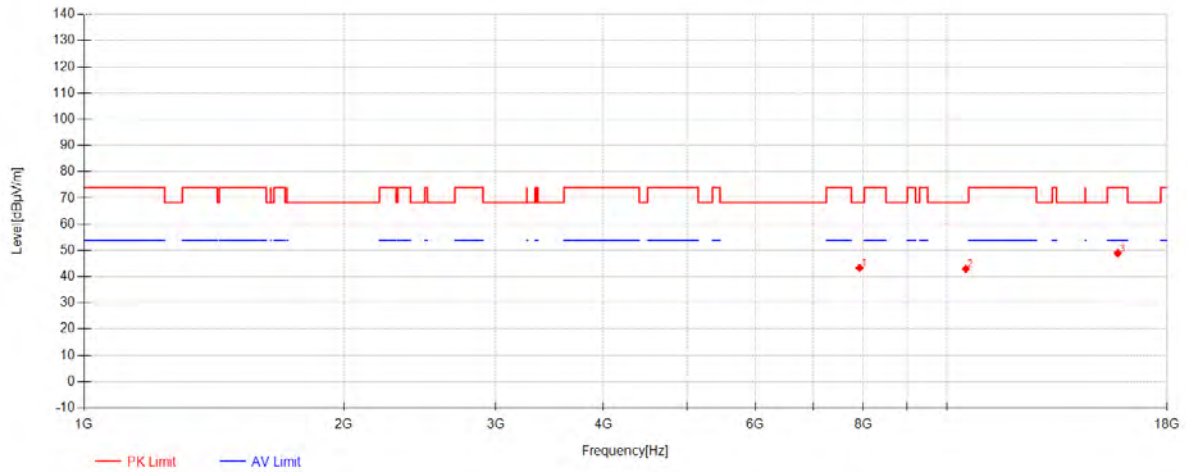
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7958.1042	48.97	37.04	-42.39	43.63	68.30	24.67	Vertical
2	10480.0000	41.61	38.55	-38.75	41.41	68.30	26.89	Vertical
3	15720.0000	41.18	40.09	-33.22	48.05	74.00	25.95	Vertical

802.11a_Channel 52



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7892.9375	50.35	36.95	-42.73	44.57	68.30	23.73	Horizontal
2	10520.0000	41.76	38.55	-38.61	41.70	68.30	26.60	Horizontal
3	15780.0000	40.90	39.96	-33.10	47.76	74.00	26.24	Horizontal

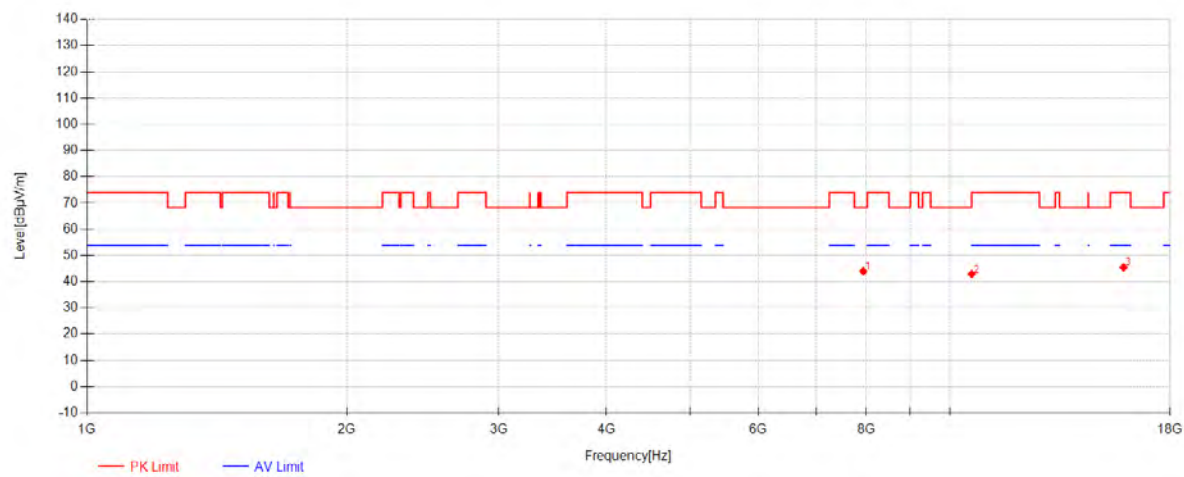
802.11a_Channel 52



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7922.1667	48.98	36.99	-42.60	43.37	68.30	24.93	Vertical
2	10520.0000	43.01	38.55	-38.61	42.95	68.30	25.35	Vertical
3	15780.0000	42.06	39.96	-33.10	48.92	74.00	25.08	Vertical



802.11a_Channel 60



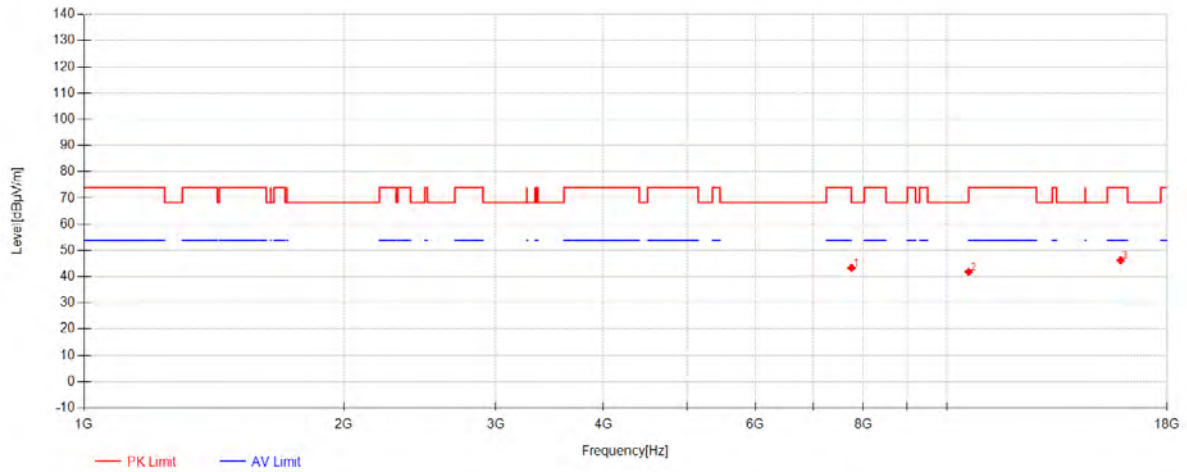
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7937.5	49.54	37.01	-42.51	44.04	68.30	24.26	Horizontal
2	10600.0000	42.37	38.56	-38.01	42.92	74.00	31.08	Horizontal
3	15900.0000	39.96	39.71	-34.13	45.54	74.00	28.46	Horizontal



Report No.: KSCR241200245204

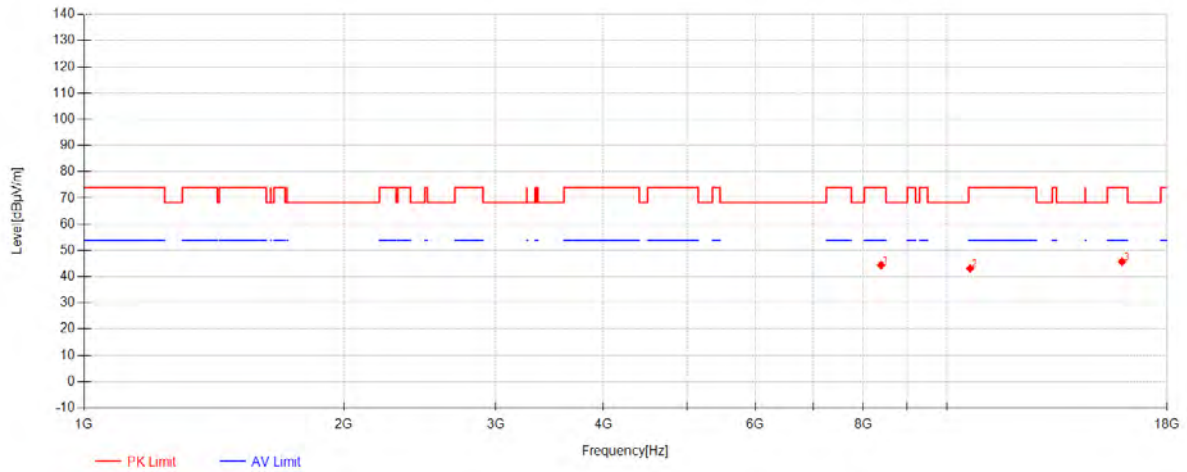
Page: 56 of 168

802.11a_Channel 60



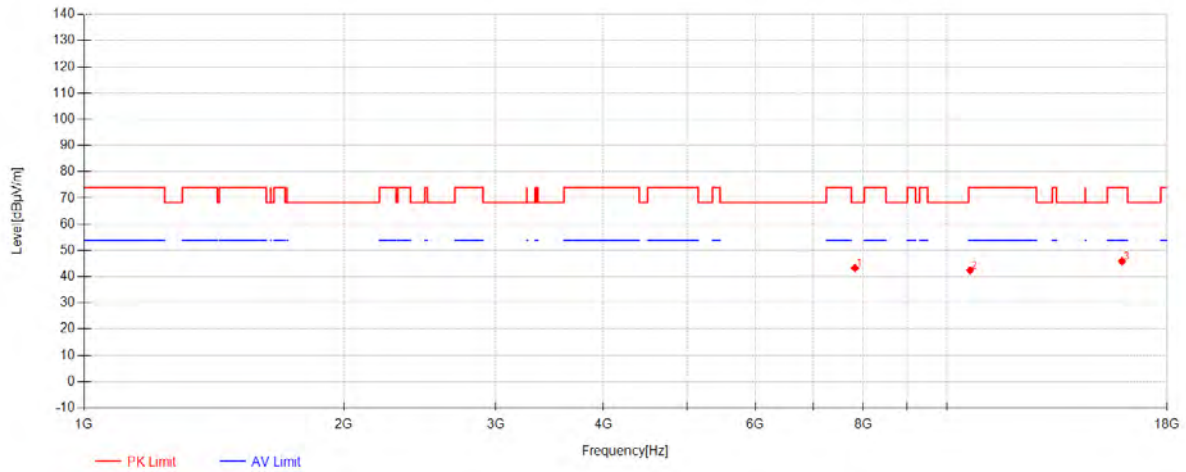
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7754.9375	49.36	36.76	-42.75	43.37	68.30	24.93	Vertical
2	10600.0000	41.30	38.56	-38.01	41.85	74.00	32.15	Vertical
3	15900.0000	40.66	39.71	-34.13	46.24	74.00	27.76	Vertical

802.11a_Channel 64



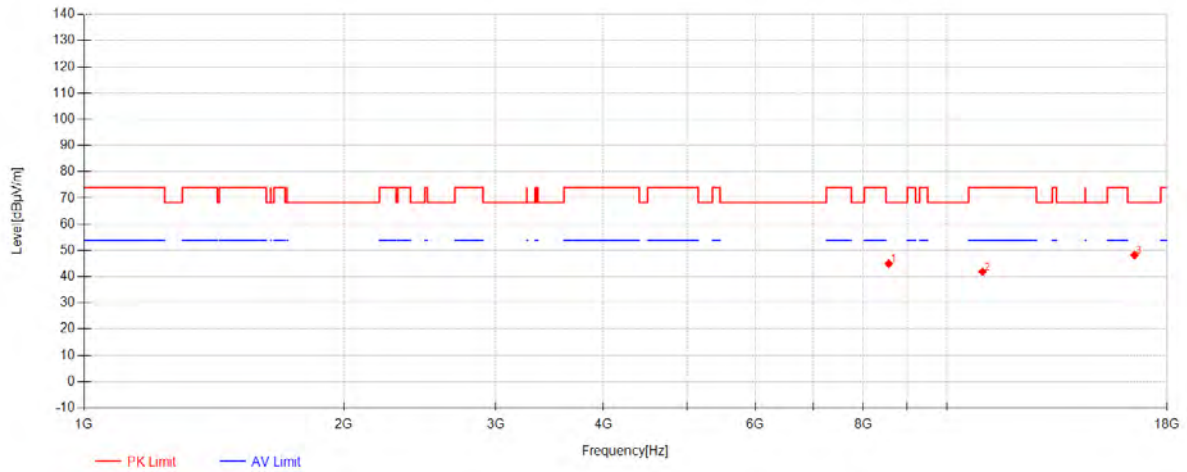
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8392.7083	49.02	36.86	-41.41	44.48	74.00	29.52	Horizontal
2	10640.0000	42.36	38.56	-37.80	43.12	74.00	30.88	Horizontal
3	15960.0000	40.81	39.58	-34.63	45.76	74.00	28.24	Horizontal

802.11a_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7825.8542	49.09	36.86	-42.62	43.32	68.30	24.98	Vertical
2	10640.0000	41.67	38.56	-37.80	42.43	74.00	31.57	Vertical
3	15960.0000	40.97	39.58	-34.63	45.92	74.00	28.08	Vertical

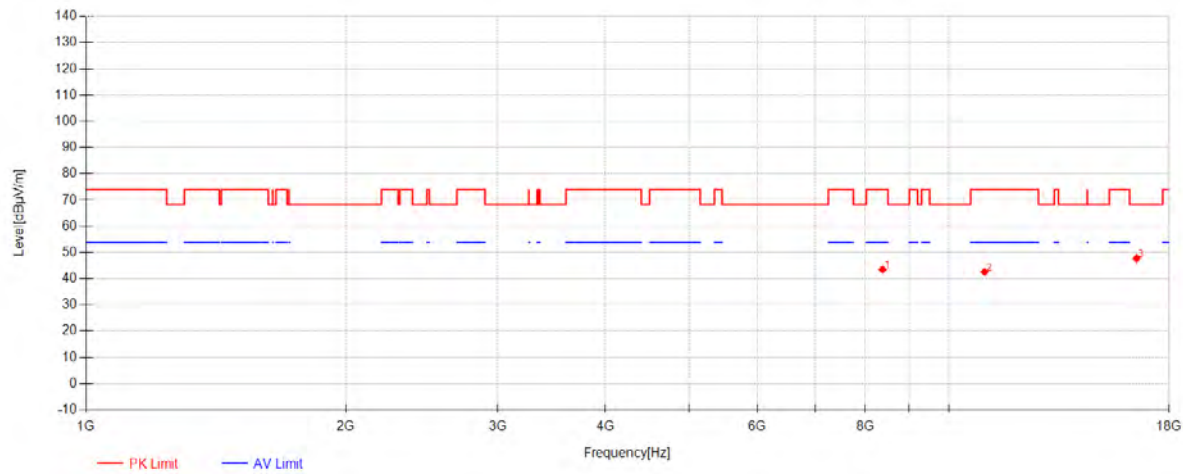
802.11a_Channel 100



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8562.8125	49.48	36.76	-41.23	45.01	68.30	23.29	Horizontal
2	11000.0000	40.91	38.60	-37.59	41.92	74.00	32.08	Horizontal
3	16500.0000	41.69	40.80	-34.28	48.21	68.30	20.09	Horizontal

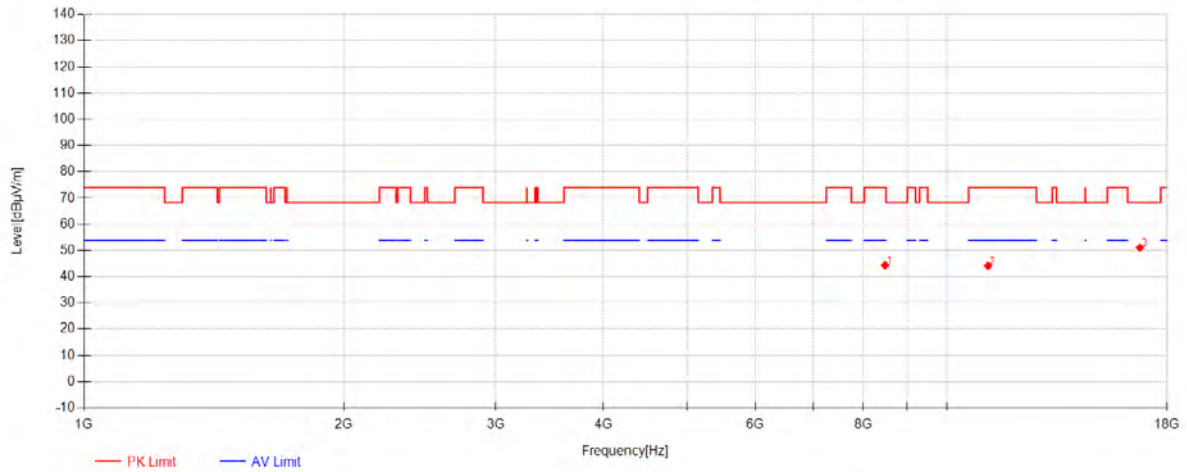


802.11a_Channel 100



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8380.7292	48.14	36.87	-41.47	43.55	74.00	30.45	Vertical
2	11000.0000	41.61	38.60	-37.59	42.62	74.00	31.38	Vertical
3	16500.0000	41.21	40.80	-34.28	47.73	68.30	20.57	Vertical

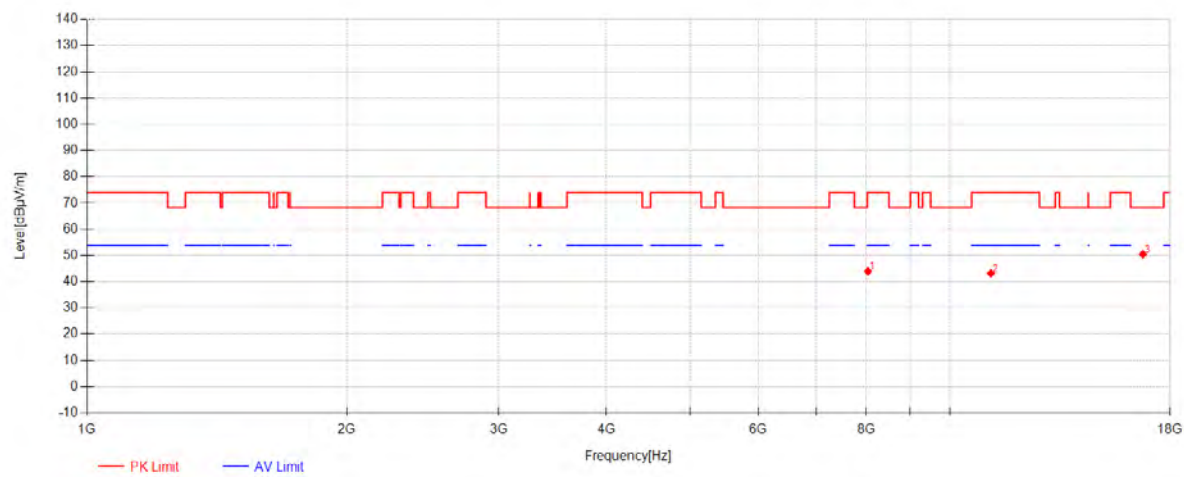
802.11a_Channel 116



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8480.875	49.34	36.81	-41.72	44.43	74.00	29.57	Horizontal
2	11160.0000	42.57	38.68	-37.06	44.19	74.00	29.81	Horizontal
3	16740.0000	44.39	41.42	-34.77	51.05	68.30	17.25	Horizontal

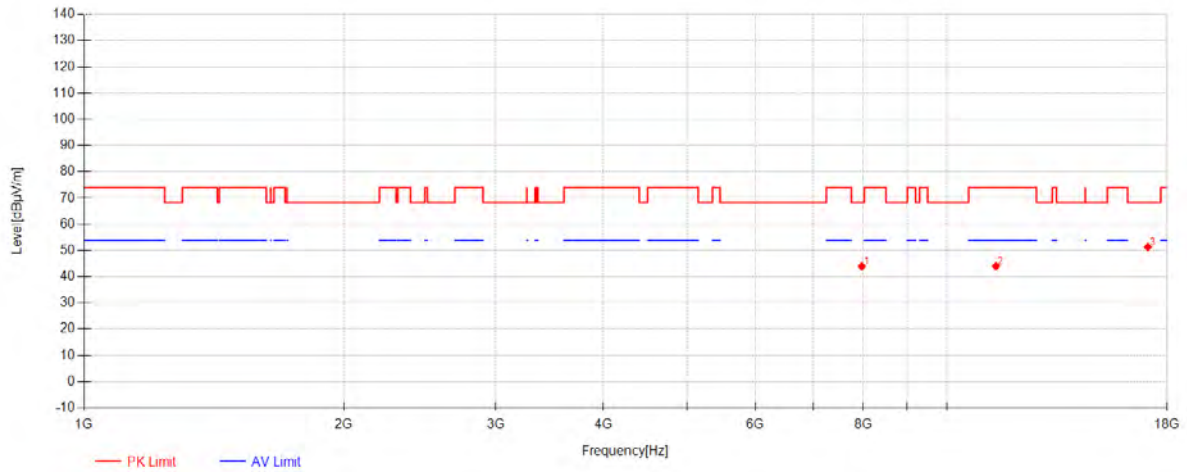


802.11a_Channel 116



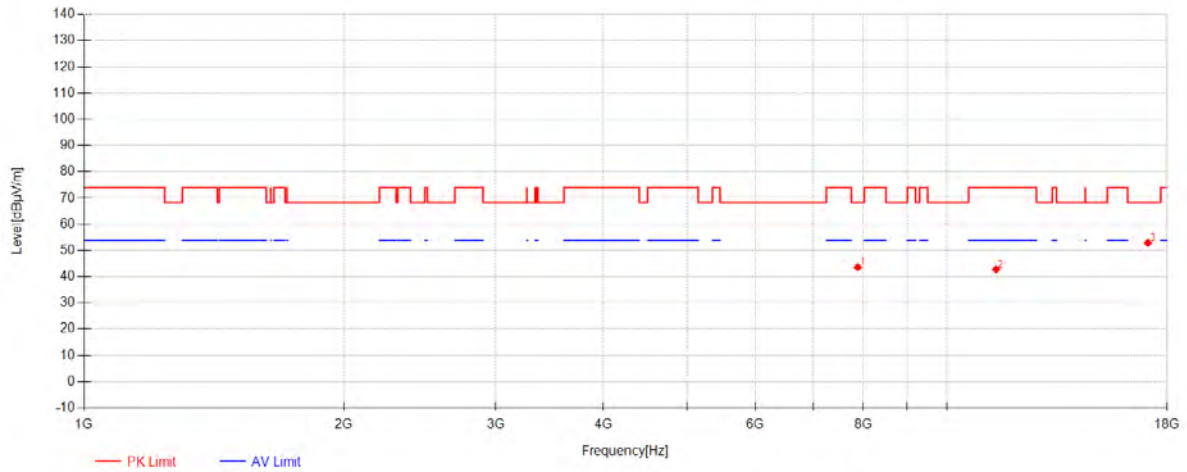
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8036.6875	48.76	37.08	-41.84	44.00	74.00	30.00	Vertical
2	11160.0000	41.57	38.68	-37.06	43.19	74.00	30.81	Vertical
3	16740.0000	43.81	41.42	-34.77	50.47	68.30	17.83	Vertical

802.11a_Channel 140



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7971.0417	49.26	37.06	-42.31	44.01	68.30	24.29	Horizontal
2	11400.0000	42.78	38.80	-37.51	44.07	74.00	29.93	Horizontal
3	17100.0000	42.52	42.54	-33.74	51.32	68.30	16.98	Horizontal

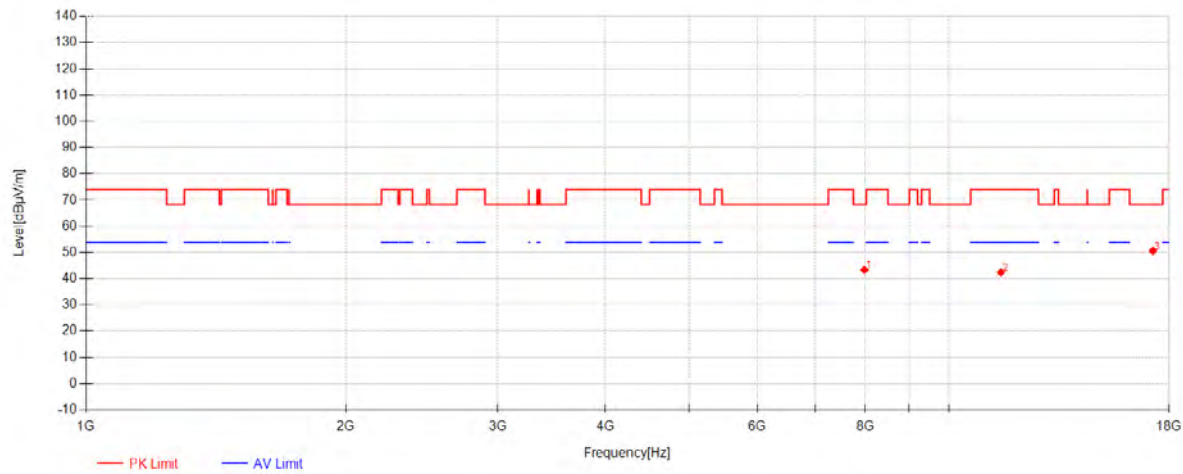
802.11a_Channel 140



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7884.3125	49.43	36.94	-42.71	43.65	68.30	24.65	Vertical
2	11400.0000	41.51	38.80	-37.51	42.80	74.00	31.20	Vertical
3	17100.0000	44.15	42.54	-33.74	52.95	68.30	15.35	Vertical



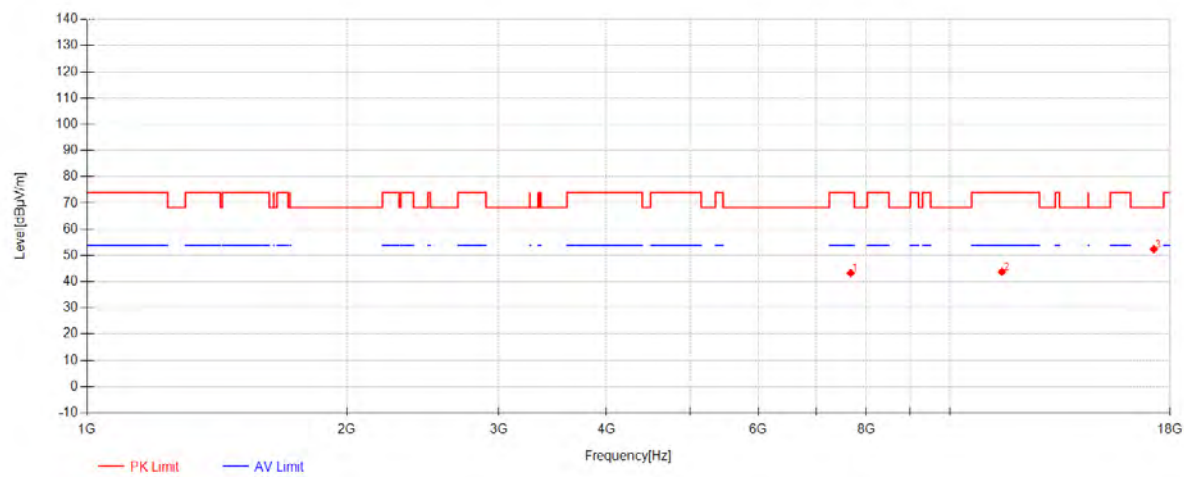
802.11a_Channel 149



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7983.5	48.53	37.08	-42.23	43.38	68.30	24.92	Horizontal
2	11490.0000	40.15	38.85	-36.61	42.39	74.00	31.61	Horizontal
3	17235.0000	42.42	43.14	-34.96	50.60	68.30	17.70	Horizontal



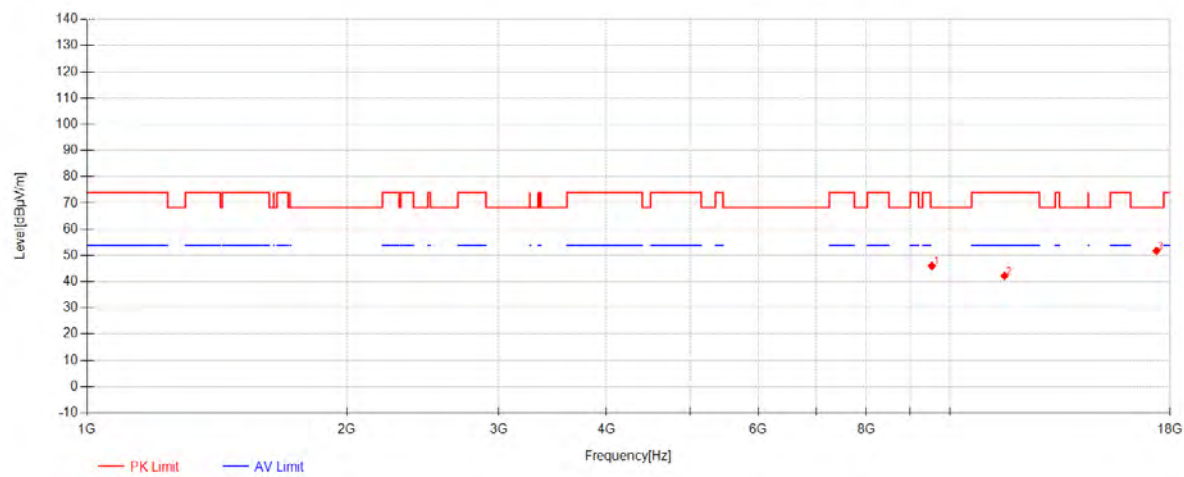
802.11a_Channel 149



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7675.3958	49.57	36.65	-42.90	43.32	74.00	30.68	Vertical
2	11490.0000	41.58	38.85	-36.61	43.82	74.00	30.18	Vertical
3	17235.0000	44.23	43.14	-34.96	52.41	68.30	15.89	Vertical



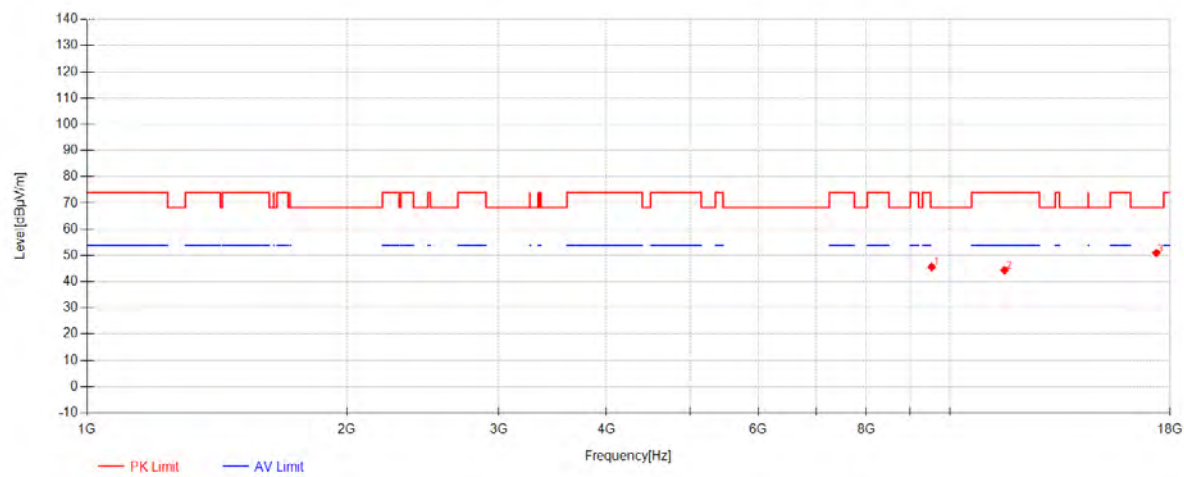
802.11a_Channel 157



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9532.1667	48.19	37.56	-39.72	46.04	68.30	22.26	Horizontal
2	11570.0000	40.18	38.89	-36.84	42.23	74.00	31.77	Horizontal
3	17355.0000	43.09	43.66	-35.00	51.75	68.30	16.55	Horizontal



802.11a_Channel 157



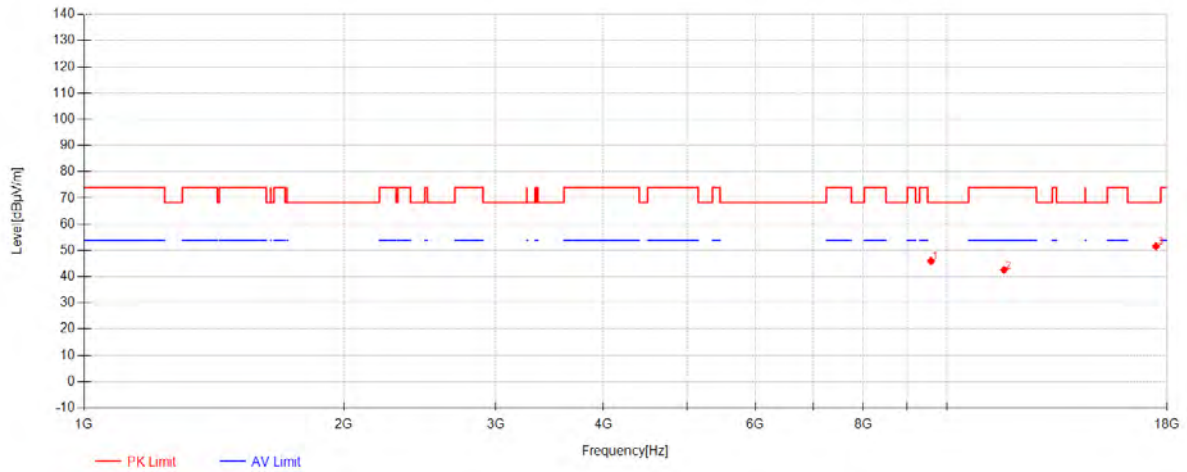
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9527.375	47.88	37.55	-39.75	45.68	68.30	22.62	Vertical
2	11570.0000	42.37	38.89	-36.84	44.42	74.00	29.58	Vertical
3	17355.0000	42.29	43.66	-35.00	50.95	68.30	17.35	Vertical



Report No.: KSCR241200245204

Page: 69 of 168

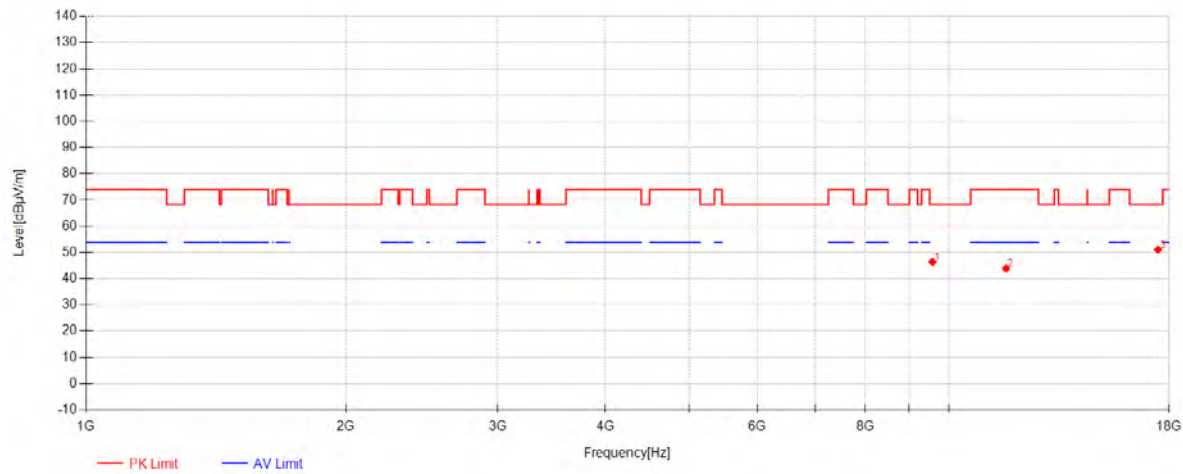
802.11a_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9587.2708	47.63	37.67	-39.30	46.01	68.30	22.29	Horizontal
2	11650.0000	40.21	38.93	-36.53	42.60	74.00	31.40	Horizontal
3	17475.0000	41.50	44.19	-34.07	51.62	68.30	16.68	Horizontal



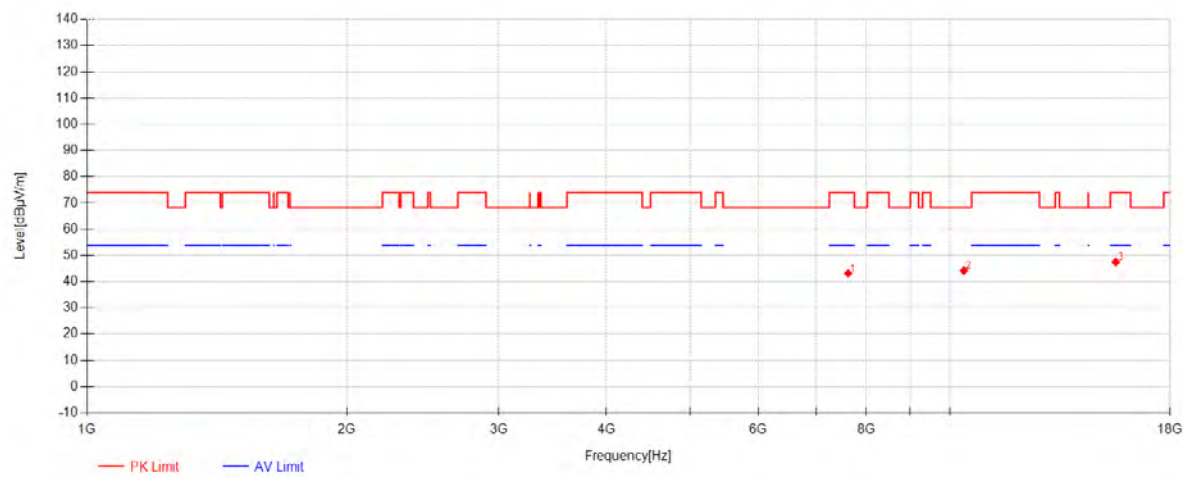
802.11a_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9571.9375	48.21	37.64	-39.41	46.44	68.30	21.86	Vertical
2	11650.0000	41.58	38.93	-36.53	43.97	74.00	30.03	Vertical
3	17475.0000	40.94	44.19	-34.07	51.06	68.30	17.24	Vertical



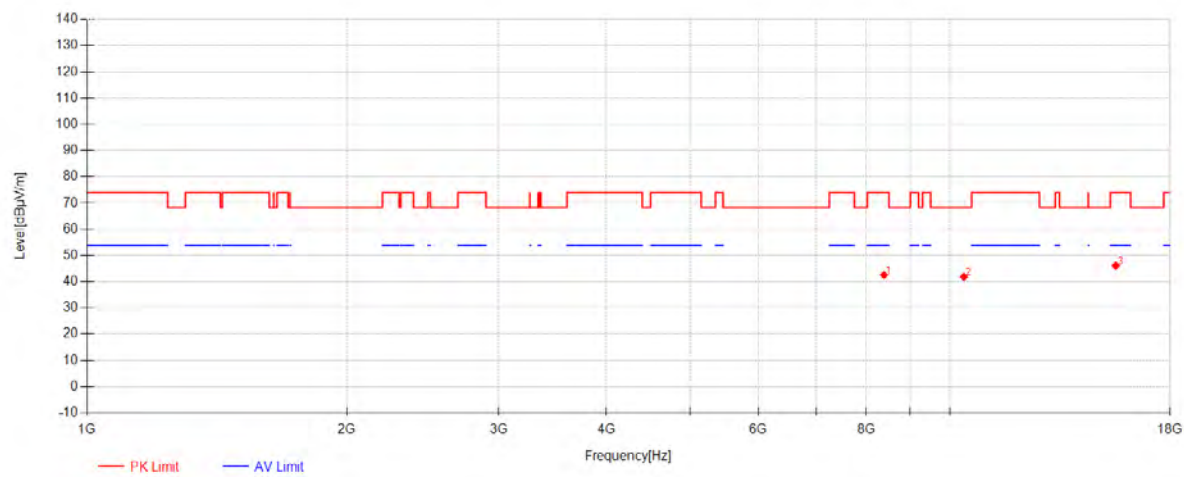
802.11ac40_Channel 38



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7623.6458	49.42	36.57	-42.79	43.20	74.00	30.80	Horizontal
2	10380.0000	44.50	38.54	-38.77	44.27	68.30	24.03	Horizontal
3	15570.0000	41.72	40.40	-34.59	47.53	74.00	26.47	Horizontal



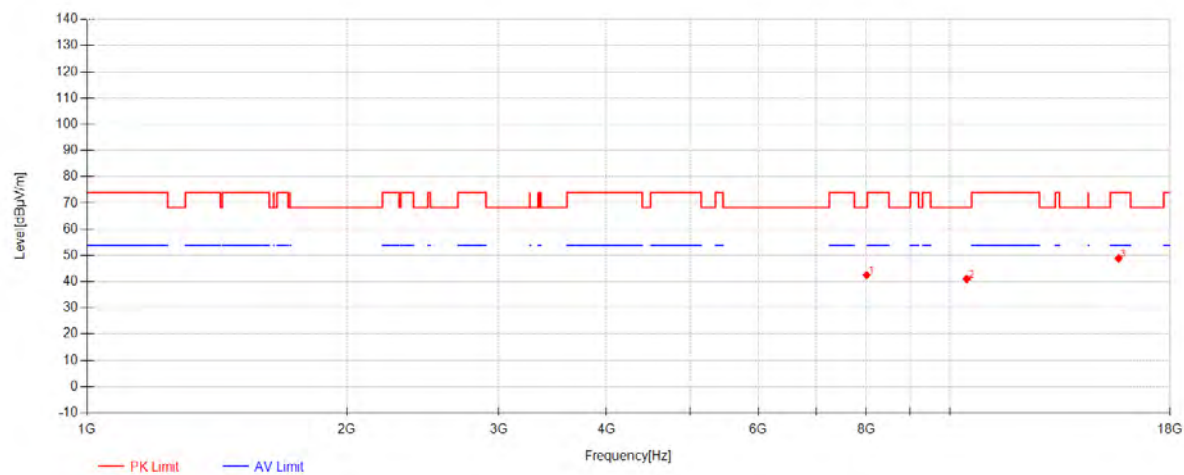
802.11ac40_Channel 38



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8389.8333	47.13	36.87	-41.42	42.58	74.00	31.42	Vertical
2	10380.0000	42.05	38.54	-38.77	41.82	68.30	26.48	Vertical
3	15570.0000	40.30	40.40	-34.59	46.11	74.00	27.89	Vertical



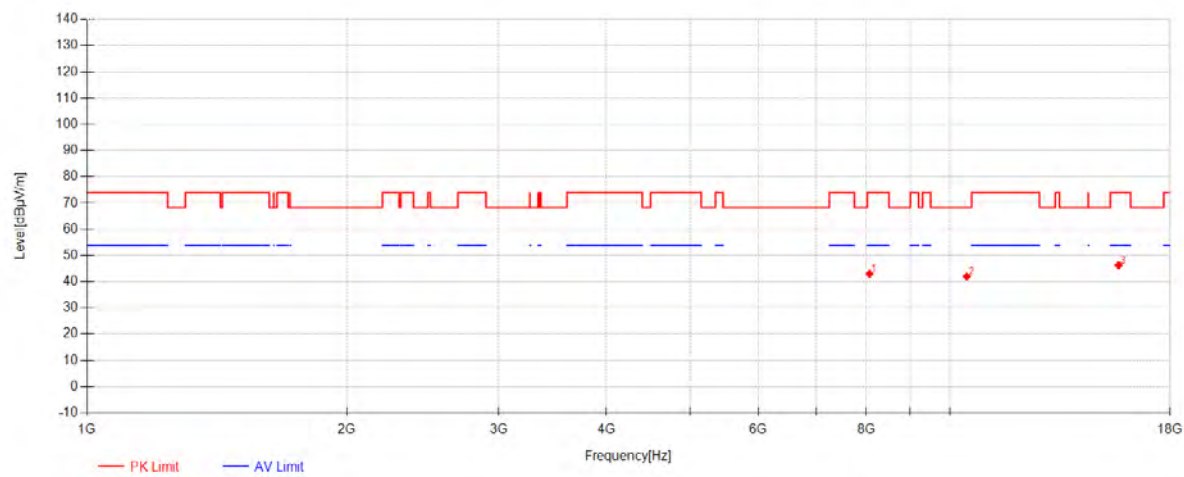
802.11ac40_Channel 46



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8008.4167	47.49	37.09	-42.06	42.52	68.30	25.78	Horizontal
2	10460.0000	41.18	38.55	-38.74	40.98	68.30	27.32	Horizontal
3	15690.0000	42.05	40.15	-33.37	48.83	74.00	25.17	Horizontal



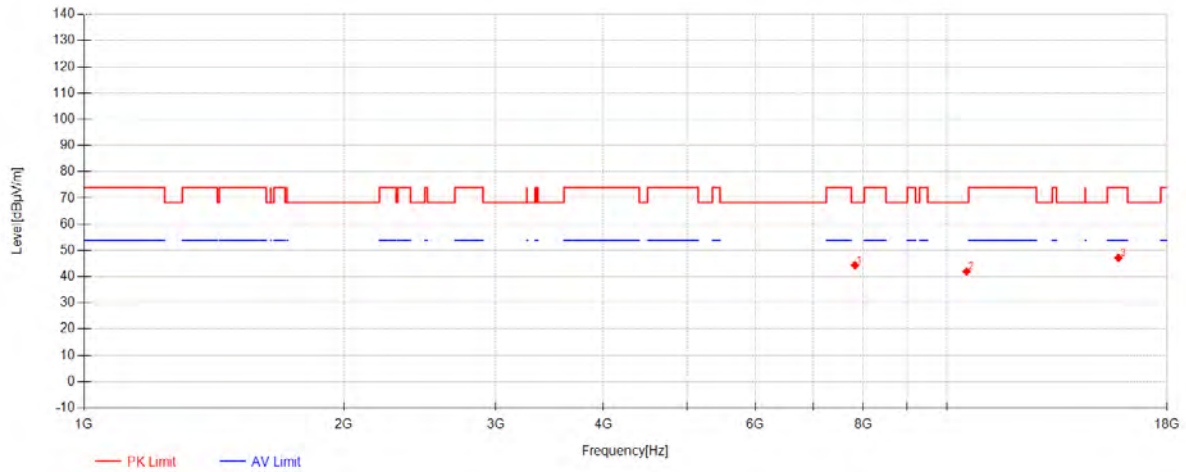
802.11ac40_Channel 46



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8071.1875	47.50	37.06	-41.57	42.99	74.00	31.01	Vertical
2	10460.0000	42.19	38.55	-38.74	41.99	68.30	26.31	Vertical
3	15690.0000	39.53	40.15	-33.37	46.31	74.00	27.69	Vertical



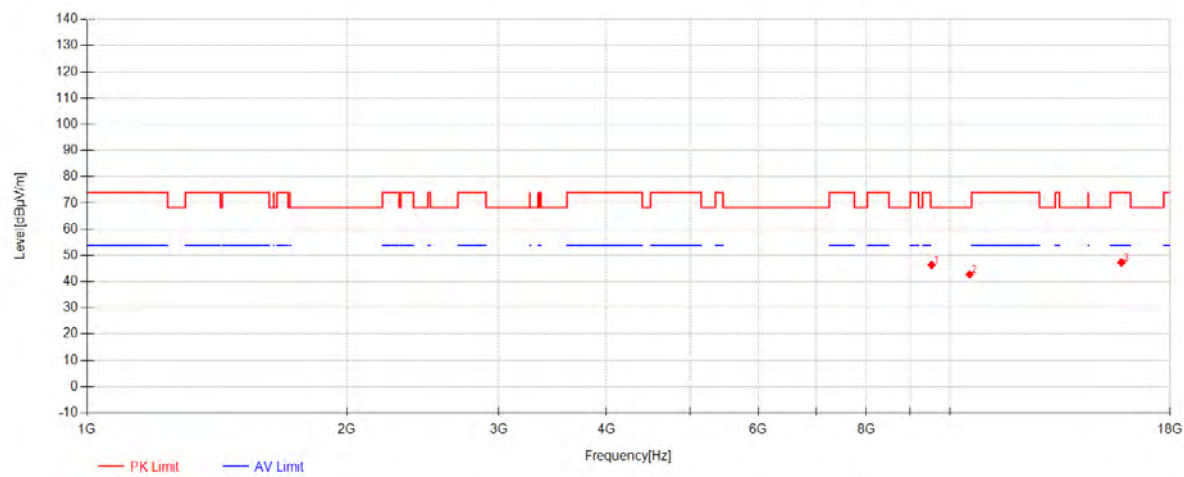
802.11ac40_Channel 54



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7825.375	50.24	36.86	-42.62	44.47	68.30	23.83	Horizontal
2	10540.0000	41.90	38.55	-38.46	42.00	68.30	26.30	Horizontal
3	15810.0000	40.47	39.90	-33.17	47.20	74.00	26.80	Horizontal



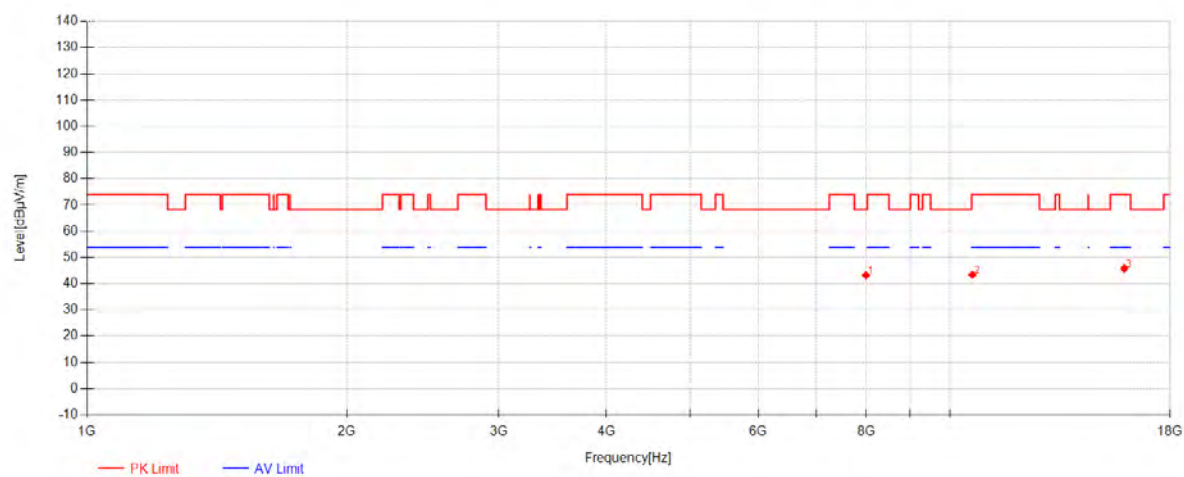
802.11ac40_Channel 54



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9525.9375	48.65	37.55	-39.76	46.44	68.30	21.86	Vertical
2	10540.0000	42.66	38.55	-38.46	42.76	68.30	25.54	Vertical
3	15810.0000	40.61	39.90	-33.17	47.34	74.00	26.66	Vertical



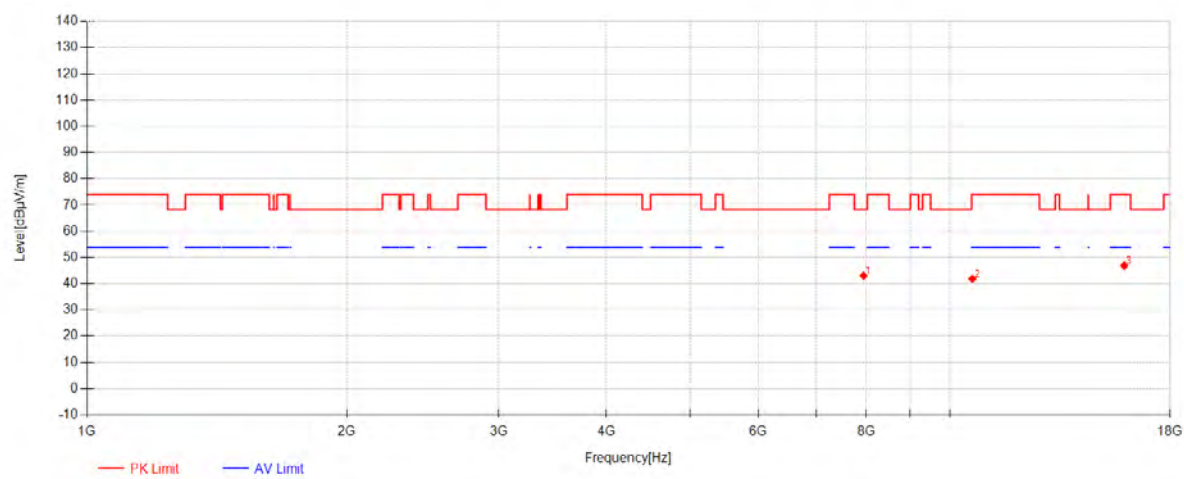
802.11ac40_Channel 62



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7994.5208	48.31	37.09	-42.16	43.24	68.30	25.06	Horizontal
2	10620.0000	42.77	38.56	-37.90	43.43	74.00	30.57	Horizontal
3	15930.0000	40.56	39.65	-34.38	45.83	74.00	28.17	Horizontal



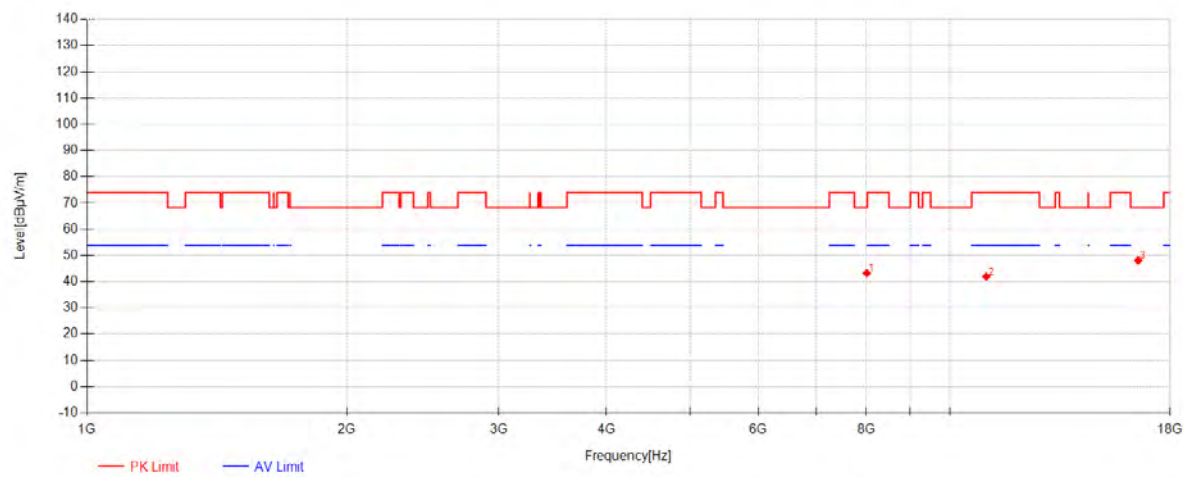
802.11ac40_Channel 62



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7944.2083	48.48	37.02	-42.47	43.03	68.30	25.27	Vertical
2	10620.0000	41.18	38.56	-37.90	41.84	74.00	32.16	Vertical
3	15930.0000	41.62	39.65	-34.38	46.89	74.00	27.11	Vertical



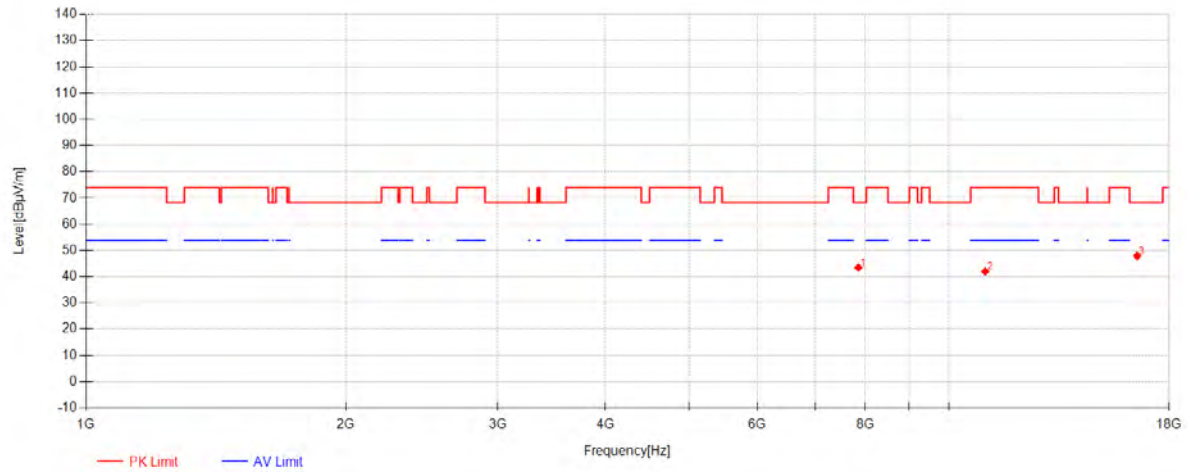
802.11ac40_Channel 102



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8011.2917	48.23	37.09	-42.04	43.28	68.30	25.02	Horizontal
2	11020.0000	40.97	38.61	-37.62	41.96	74.00	32.04	Horizontal
3	16530.0000	41.56	40.88	-34.35	48.09	68.30	20.21	Horizontal

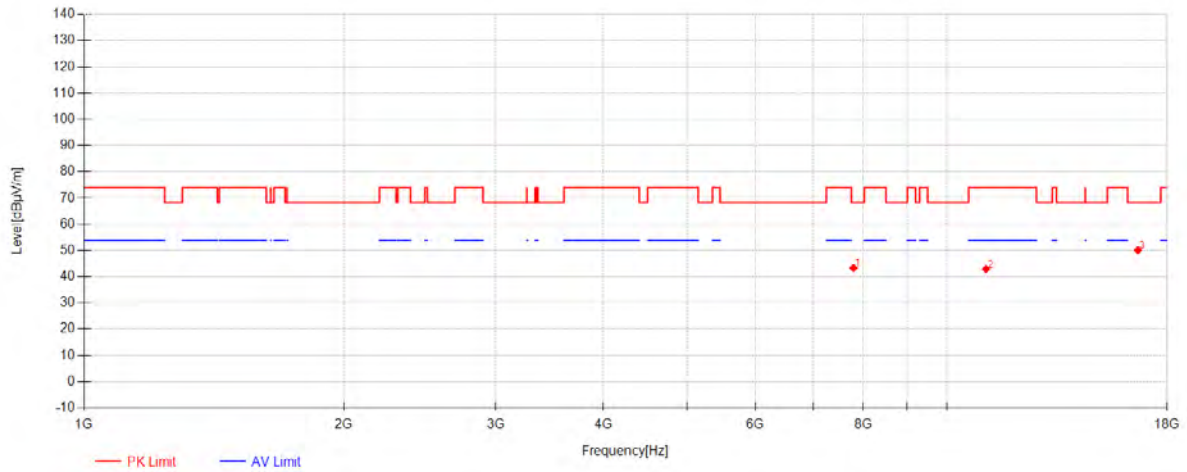


802.11ac40_Channel 102



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7855.5625	49.29	36.90	-42.67	43.52	68.30	24.78	Vertical
2	11020.0000	41.03	38.61	-37.62	42.02	74.00	31.98	Vertical
3	16530.0000	41.37	40.88	-34.35	47.90	68.30	20.40	Vertical

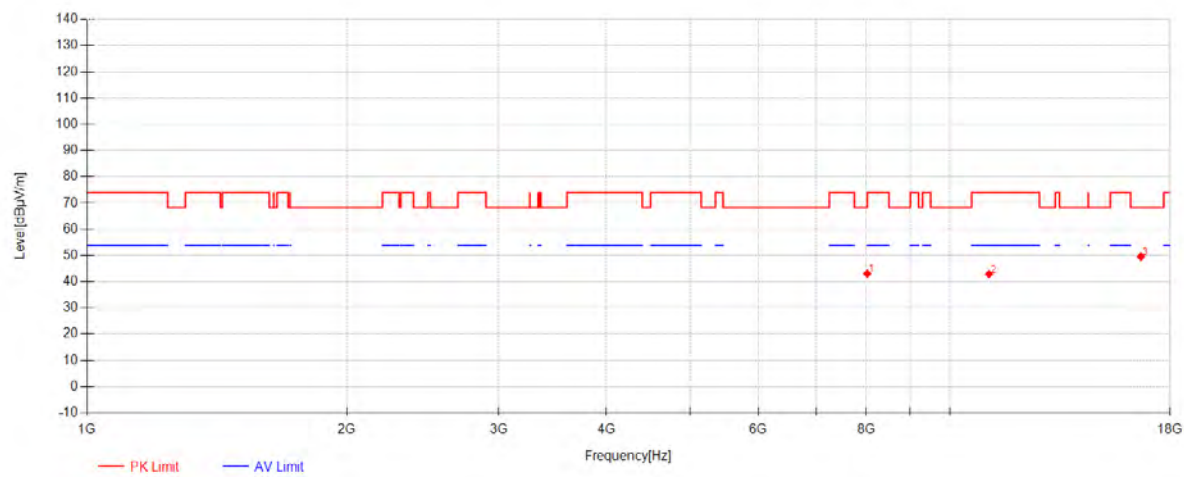
802.11ac40_Channel 110



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7794.7083	49.16	36.81	-42.60	43.37	68.30	24.93	Horizontal
2	11100.0000	42.00	38.65	-37.75	42.90	74.00	31.10	Horizontal
3	16650.0000	43.56	41.19	-34.68	50.07	68.30	18.23	Horizontal



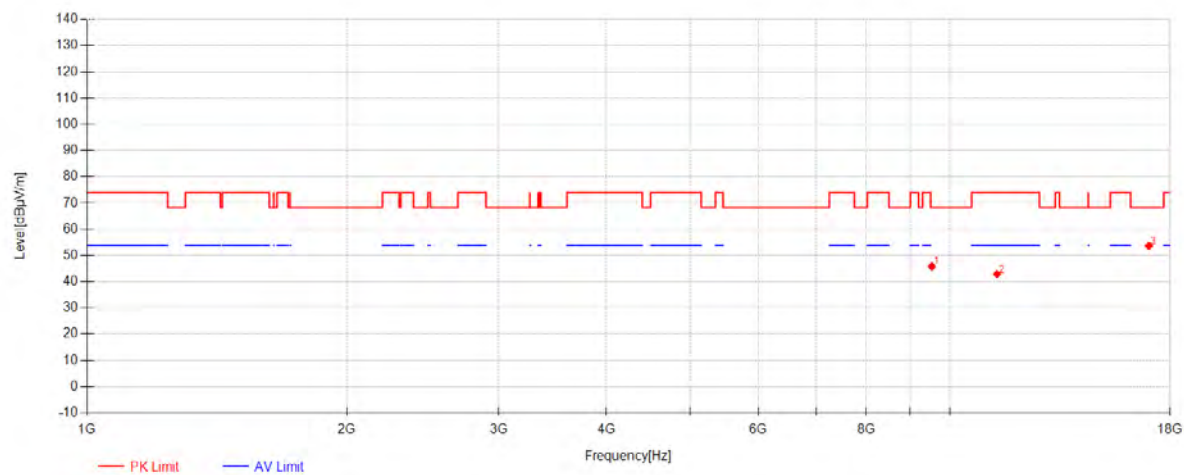
802.11ac40_Channel 110



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8021.8333	47.94	37.09	-41.96	43.07	68.30	25.23	Vertical
2	11100.0000	41.98	38.65	-37.75	42.88	74.00	31.12	Vertical
3	16650.0000	43.05	41.19	-34.68	49.56	68.30	18.74	Vertical



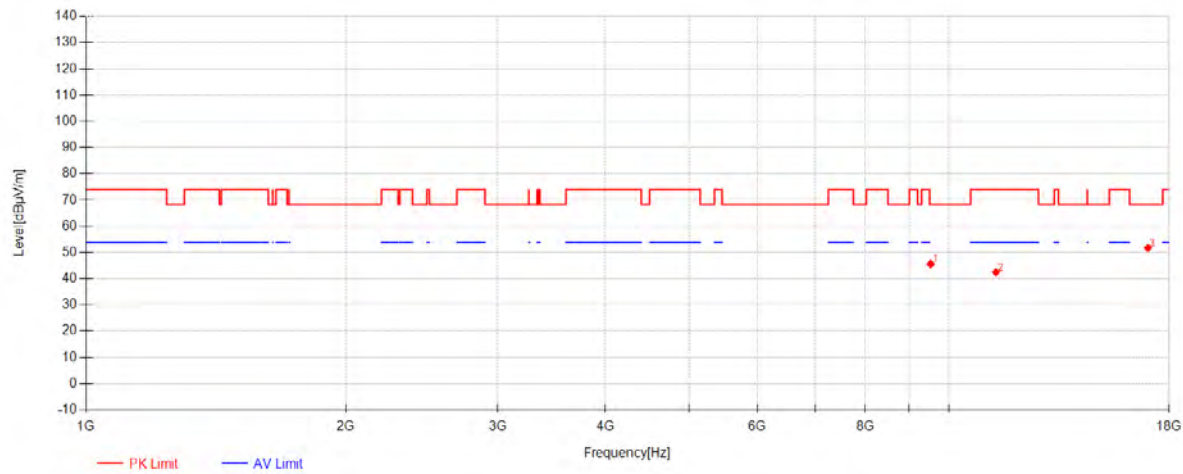
802.11ac40_Channel 134



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9532.1667	48.00	37.56	-39.72	45.85	68.30	22.45	Horizontal
2	11340.0000	41.46	38.77	-37.34	42.89	74.00	31.11	Horizontal
3	17010.0000	45.30	42.14	-33.70	53.74	68.30	14.56	Horizontal



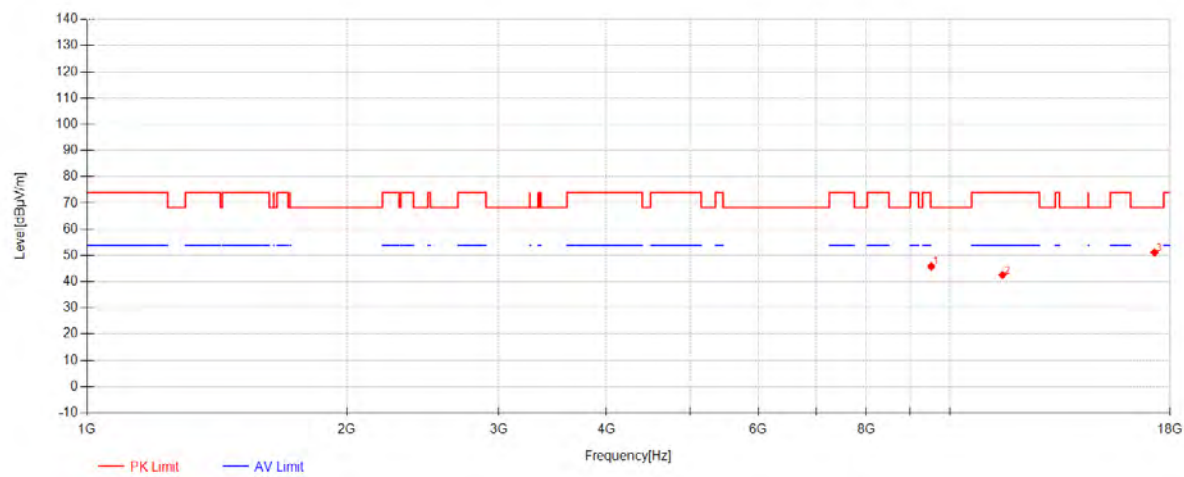
802.11ac40_Channel 134



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9528.3333	47.86	37.56	-39.74	45.67	68.30	22.63	Vertical
2	11340.0000	41.03	38.77	-37.34	42.46	74.00	31.54	Vertical
3	17010.0000	43.29	42.14	-33.70	51.73	68.30	16.57	Vertical



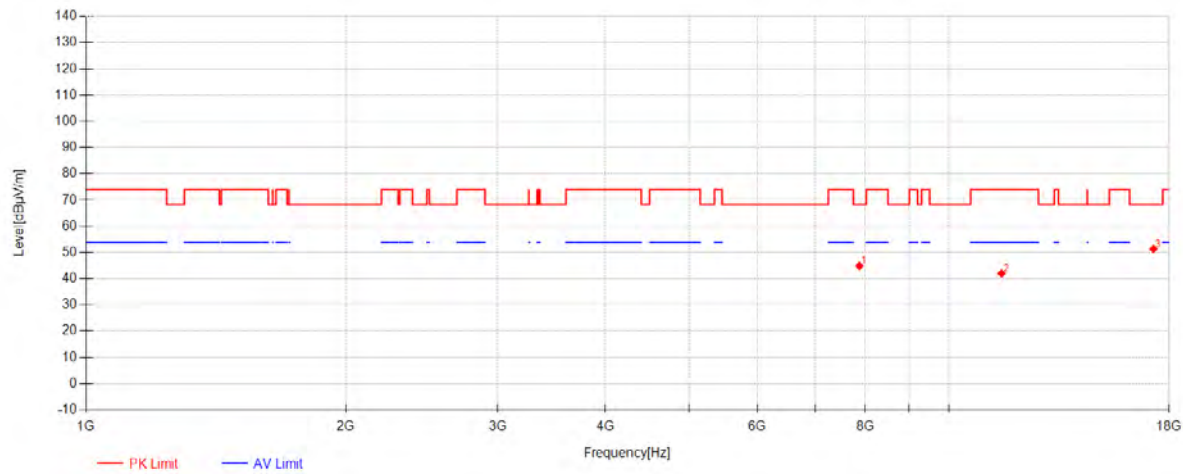
802.11ac40_Channel 151



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9517.3125	48.14	37.53	-39.83	45.85	68.30	22.45	Horizontal
2	11510.0000	40.26	38.86	-36.56	42.56	74.00	31.44	Horizontal
3	17265.0000	42.98	43.27	-35.11	51.14	68.30	17.16	Horizontal



802.11ac40_Channel 151



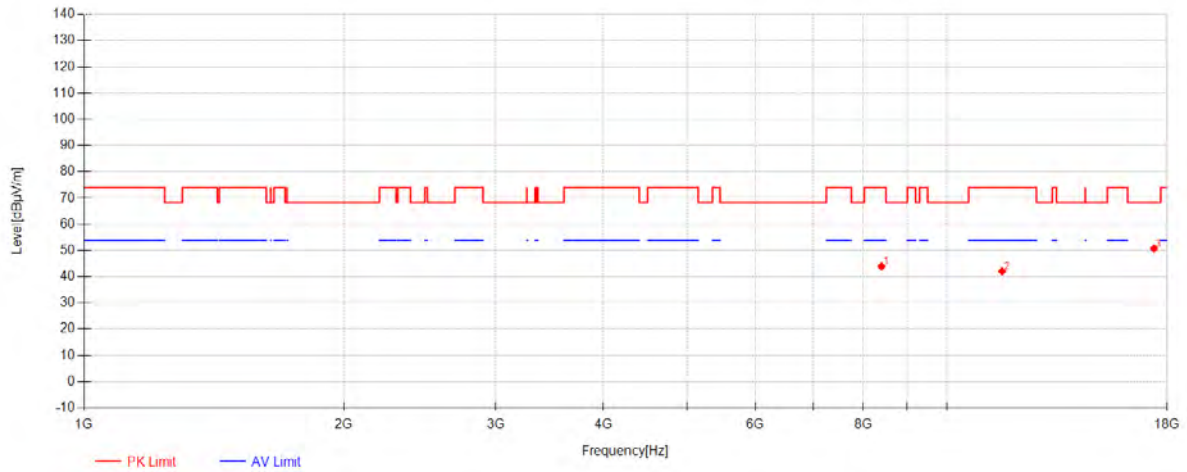
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7876.1667	50.68	36.93	-42.70	44.90	68.30	23.40	Vertical
2	11510.0000	39.70	38.86	-36.56	42.00	74.00	32.00	Vertical
3	17265.0000	43.20	43.27	-35.11	51.36	68.30	16.94	Vertical



Report No.: KSCR241200245204

Page: 87 of 168

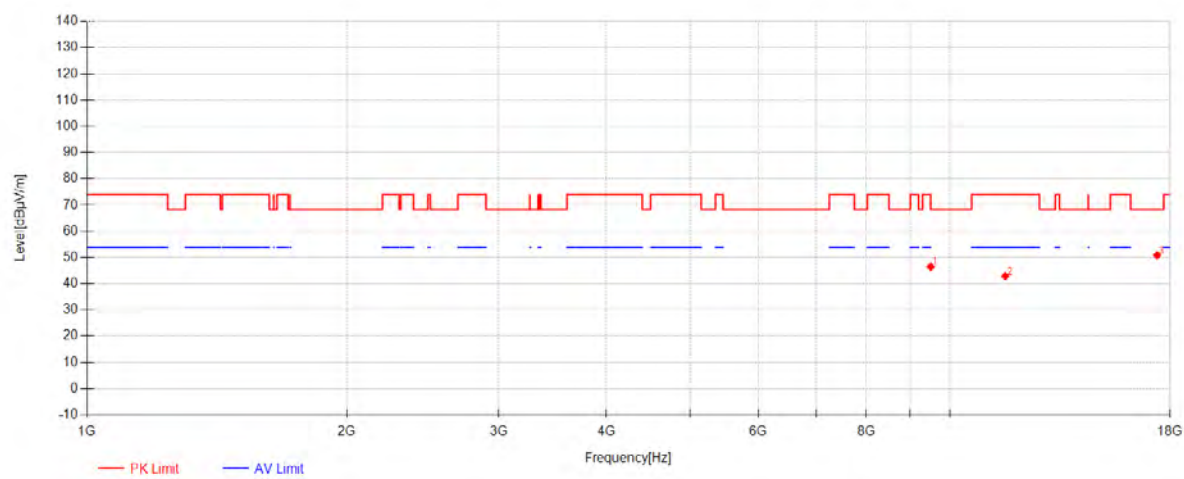
802.11ac40_Channel 159



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8400.8542	48.49	36.86	-41.37	43.98	74.00	30.02	Horizontal
2	11590.0000	40.11	38.90	-36.93	42.07	74.00	31.93	Horizontal
3	17385.0000	41.79	43.80	-34.85	50.74	68.30	17.56	Horizontal



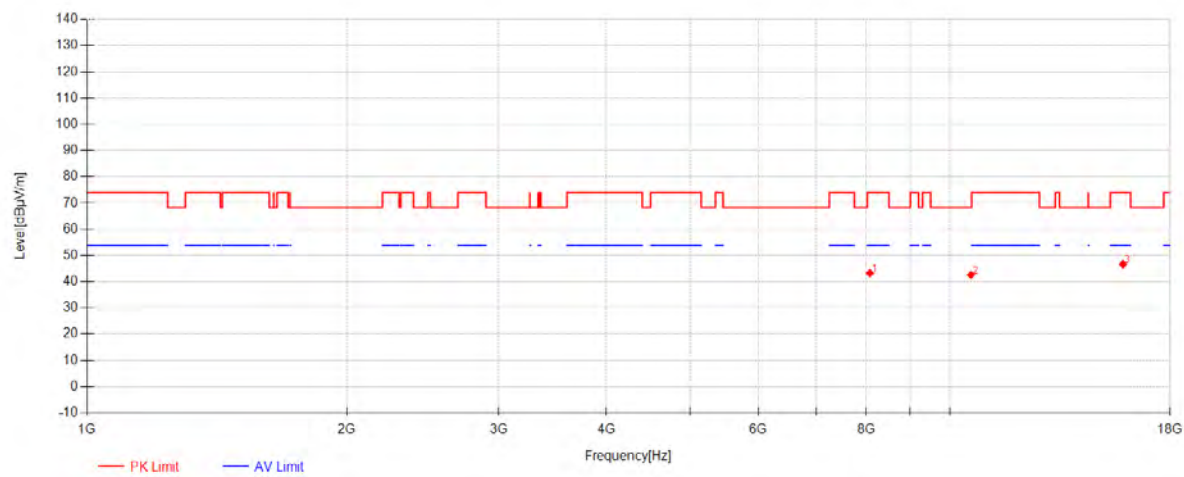
802.11ac40_Channel 159



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9502.4583	48.94	37.50	-39.94	46.50	68.30	21.80	Vertical
2	11590.0000	40.91	38.90	-36.93	42.87	74.00	31.13	Vertical
3	17385.0000	41.90	43.80	-34.85	50.85	68.30	17.45	Vertical



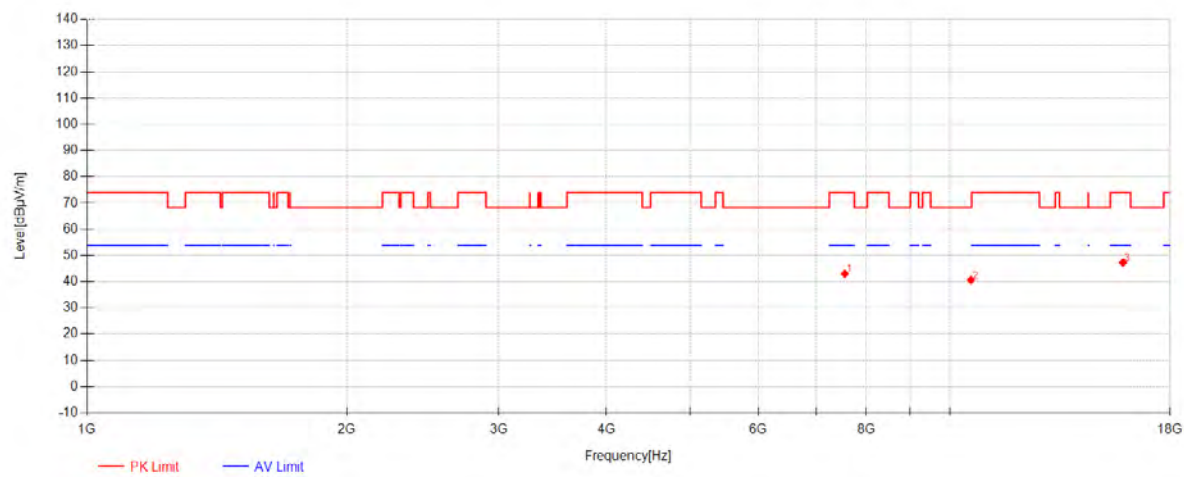
802.11ac80_Channel 42



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8078.8542	47.71	37.05	-41.51	43.26	74.00	30.74	Horizontal
2	10580.0000	42.19	38.56	-38.16	42.59	68.30	25.71	Horizontal
3	15870.0000	40.76	39.77	-33.81	46.72	74.00	27.28	Horizontal



802.11ac80_Channel 42



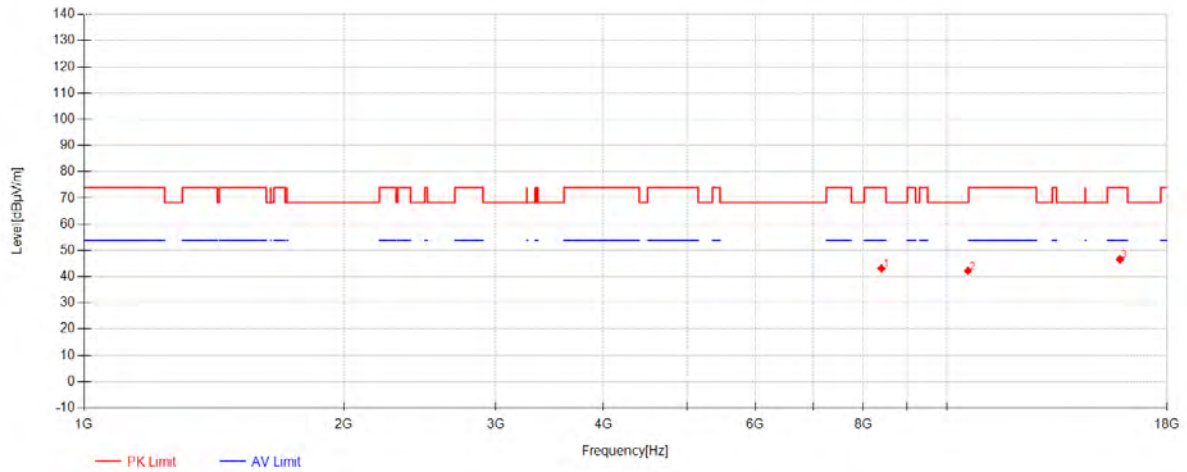
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	7555.125	49.47	36.48	-42.93	43.01	74.00	30.99	Vertical
2	10580.0000	40.19	38.56	-38.16	40.59	68.30	27.71	Vertical
3	15870.0000	41.36	39.77	-33.81	47.32	74.00	26.68	Vertical



Report No.: KSCR241200245204

Page: 91 of 168

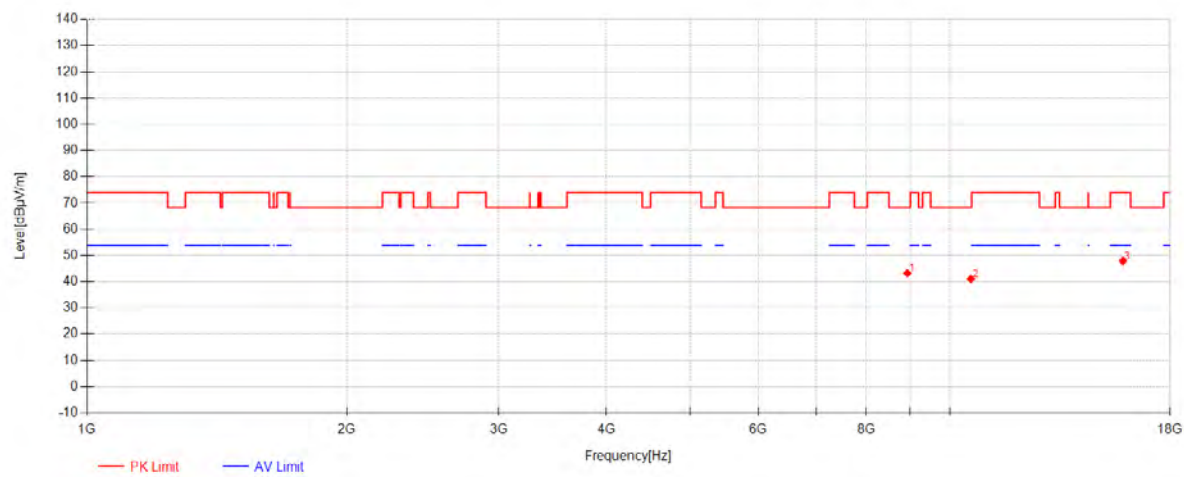
802.11ac80_Channel 58



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8398.9375	47.66	36.86	-41.38	43.15	74.00	30.85	Horizontal
2	10580.0000	41.87	38.56	-38.16	42.27	68.30	26.03	Horizontal
3	15870.0000	40.69	39.77	-33.81	46.65	74.00	27.35	Horizontal



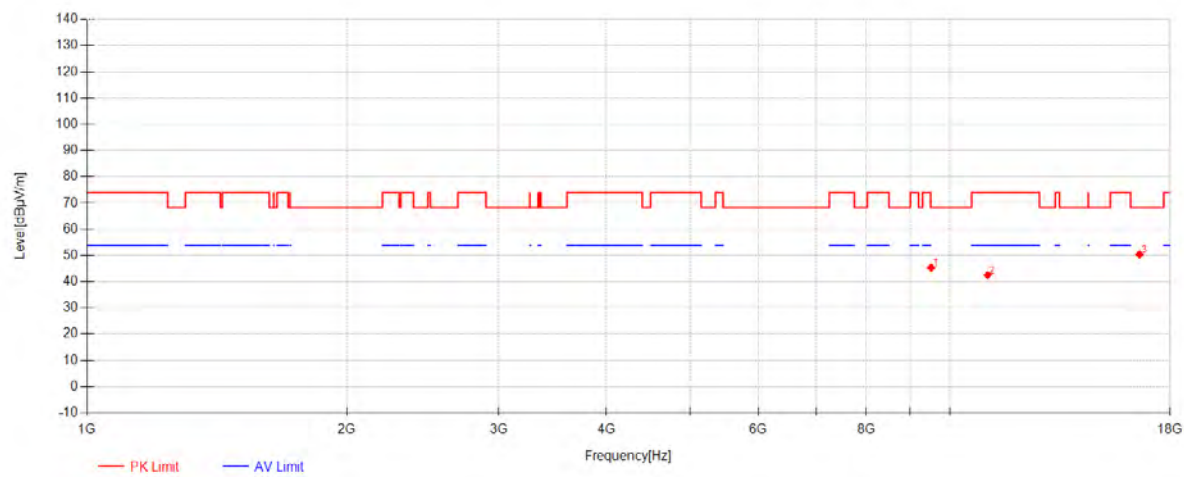
802.11ac80_Channel 58



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8926.5	47.63	36.54	-40.90	43.27	68.30	25.03	Vertical
2	10580.0000	40.65	38.56	-38.16	41.05	68.30	27.25	Vertical
3	15870.0000	41.94	39.77	-33.81	47.90	74.00	26.10	Vertical



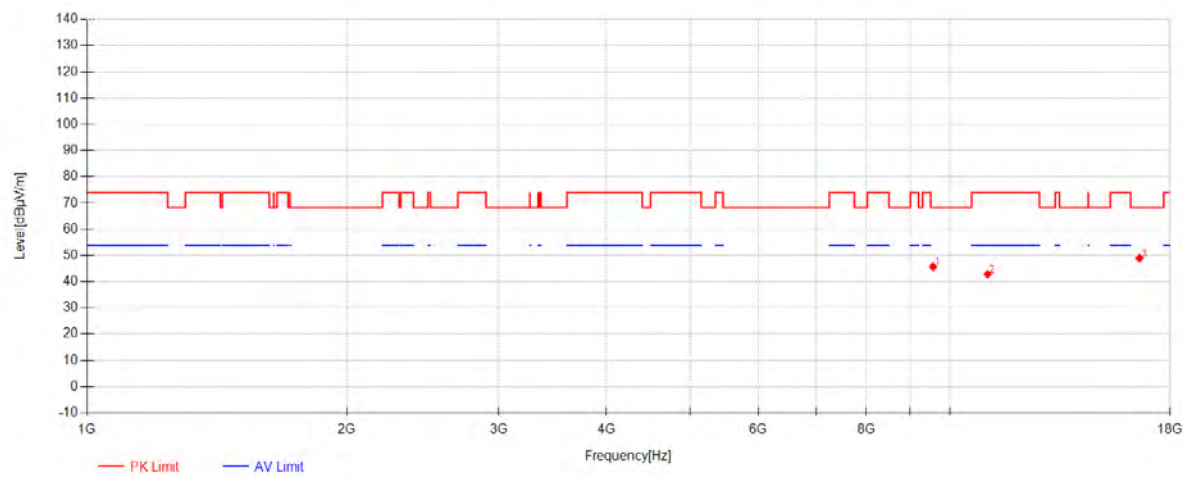
802.11ac80_Channel 106



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9511.5625	47.74	37.52	-39.87	45.39	68.30	22.91	Horizontal
2	11060.0000	41.62	38.63	-37.69	42.56	74.00	31.44	Horizontal
3	16590.0000	43.85	41.03	-34.50	50.39	68.30	17.91	Horizontal



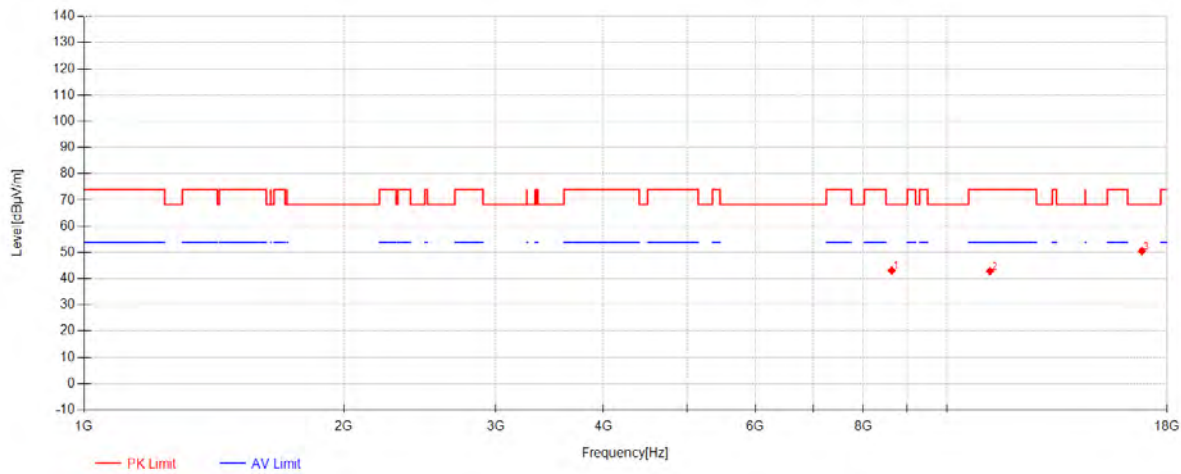
802.11ac80_Channel 106



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9561.875	47.62	37.62	-39.49	45.75	68.30	22.55	Vertical
2	11060.0000	41.92	38.63	-37.69	42.86	74.00	31.14	Vertical
3	16590.0000	42.39	41.03	-34.50	48.93	68.30	19.37	Vertical



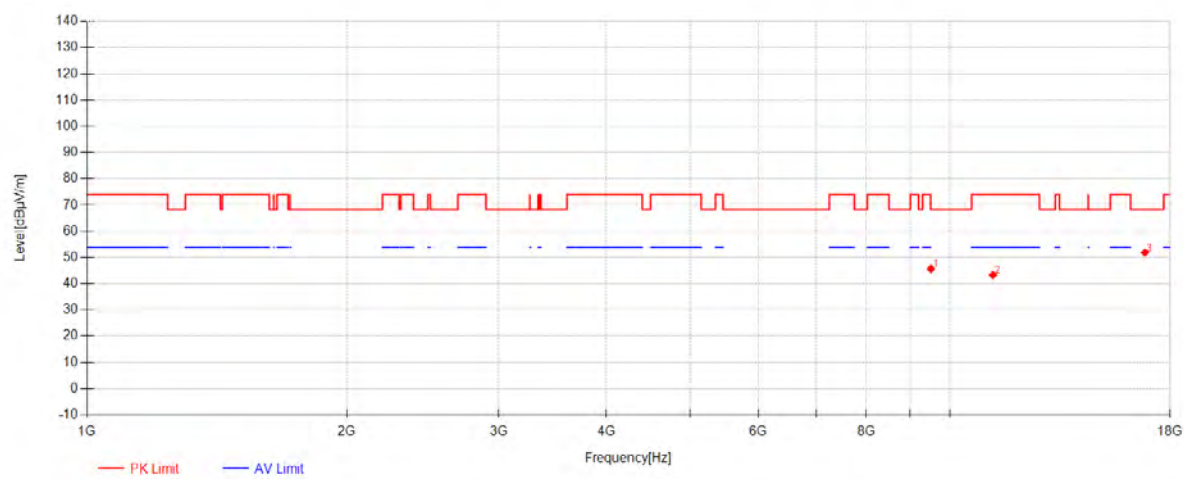
802.11ac80_Channel 122



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8631.8125	47.43	36.72	-41.03	43.12	68.30	25.18	Horizontal
2	11220.0000	40.89	38.71	-36.73	42.87	74.00	31.13	Horizontal
3	16830.0000	43.34	41.66	-34.47	50.53	68.30	17.77	Horizontal



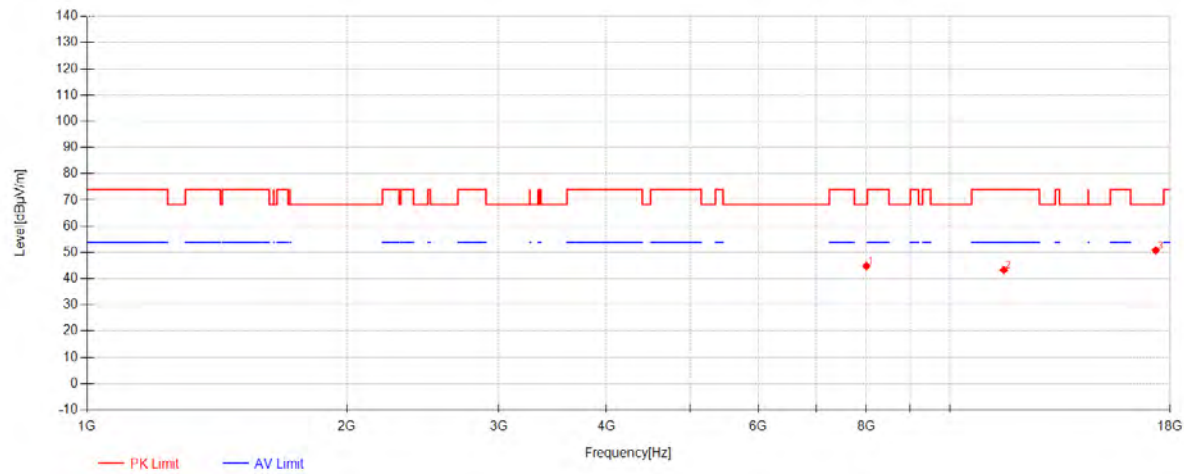
802.11ac80_Channel 122



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	9508.6875	48.10	37.52	-39.89	45.72	68.30	22.58	Vertical
2	11220.0000	41.35	38.71	-36.73	43.33	74.00	30.67	Vertical
3	16830.0000	44.69	41.66	-34.47	51.88	68.30	16.42	Vertical



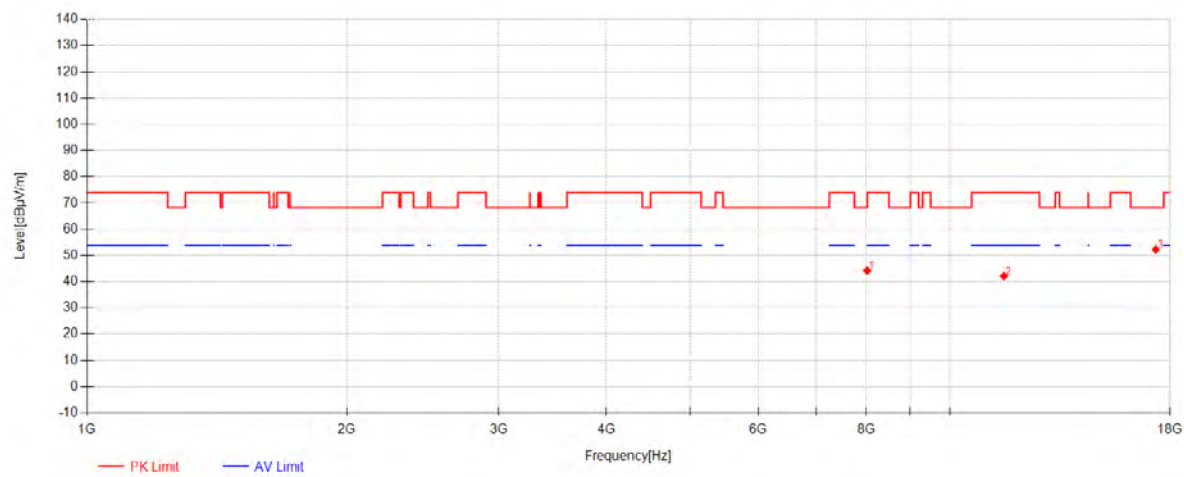
802.11ac80_Channel 155



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8004.1042	49.86	37.10	-42.10	44.86	68.30	23.44	Horizontal
2	11550.0000	41.18	38.88	-36.75	43.31	74.00	30.69	Horizontal
3	17325.0000	42.42	43.53	-35.15	50.80	68.30	17.50	Horizontal



802.11ac80_Channel 155



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	8019.9167	49.15	37.09	-41.97	44.27	68.30	24.03	Vertical
2	11550.0000	40.03	38.88	-36.75	42.16	74.00	31.84	Vertical
3	17325.0000	43.89	43.53	-35.15	52.27	68.30	16.03	Vertical

7.4 Radiated Emissions which fall in the restricted bands

Test Requirement 47 CFR Part 15, Subpart C 15.209 & Subpart E 15.407(b)

Test Method: ANSI C63.10 (2013) Section 6.10.5

Measurement Distance: 3M

Limit:

Frequency(MHz)	Field strength(microvolts/meter)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

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

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

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.4.1 E.U.T. Operation

Operating Environment:

Temperature: 24 °C

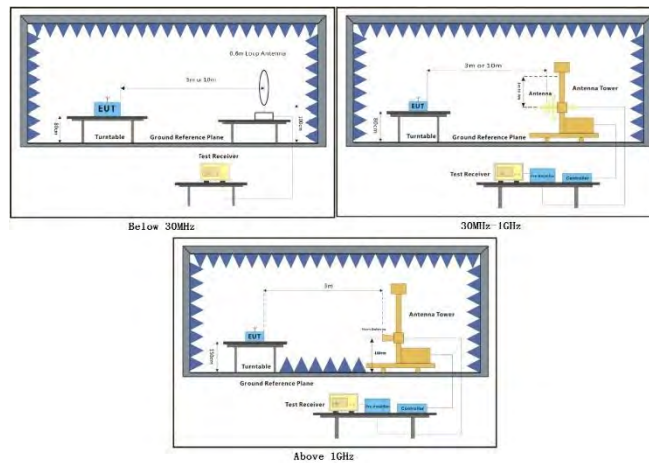
Humidity: 48.3 % RH

Atmospheric Pressure: 1010 mbar

7.4.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	02	TX mode (U-NII-2A) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	03	TX mode (U-NII-2C) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n/ac 20/40/80, Only the data of worst case is recorded in the report.
Final test	04	TX mode (U-NII-3) _Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n 20/40/80, Only the data of worst case is recorded in the report.

7.4.3 Test Setup Diagram



7.4.4 Measurement Procedure and Data

- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- j. Repeat above procedures until all frequencies measured was complete.

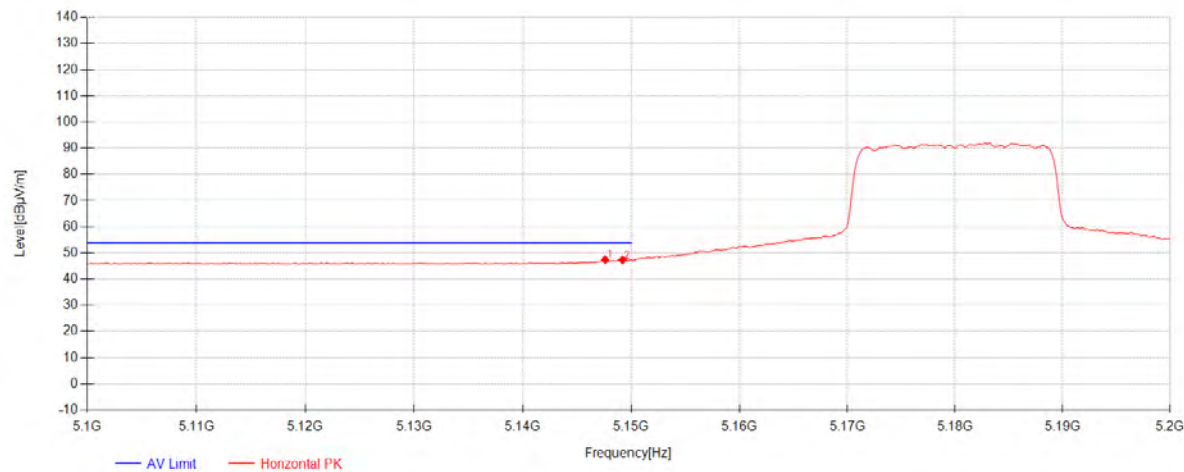
Remark 1: $\text{Level} = \text{Read Level} + \text{Cable Loss} + \text{Antenna Factor} - \text{Preamp Factor}$

Remark 2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.

Remark 3. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.



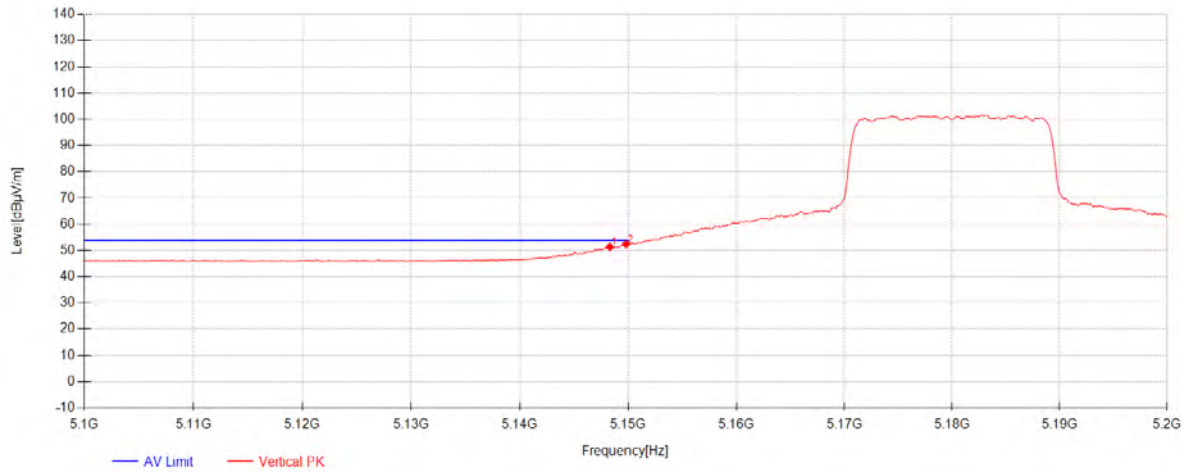
802.11ac20_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5147.6	34.94	31.67	-19.15	47.46	54.00	6.54	Horizontal
2	5149.2	34.81	31.67	-19.14	47.34	54.00	6.66	Horizontal

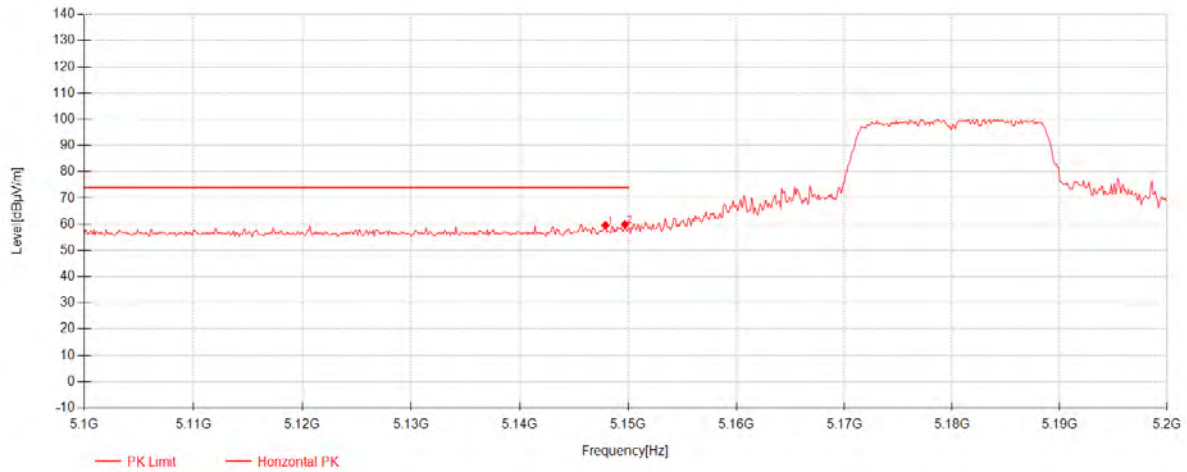


802.11ac20_Channel 36



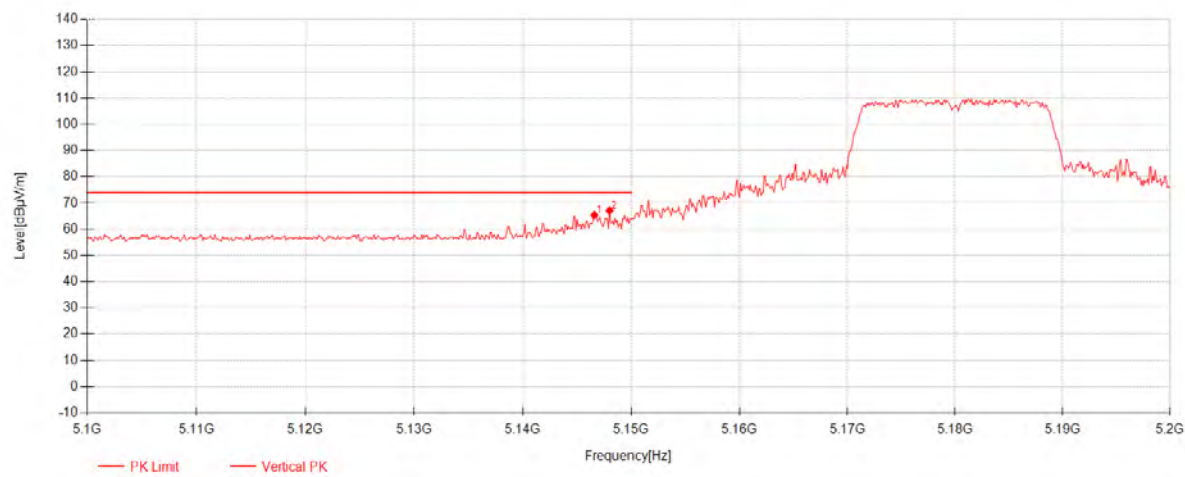
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5148.3	38.85	31.67	-19.14	51.37	54.00	2.63	Vertical
2	5149.8	39.92	31.67	-19.14	52.45	54.00	1.55	Vertical

802.11ac20_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5147.9	47.05	31.67	-19.15	59.57	74.00	14.43	Horizontal
2	5149.7	47.37	31.67	-19.14	59.90	74.00	14.10	Horizontal

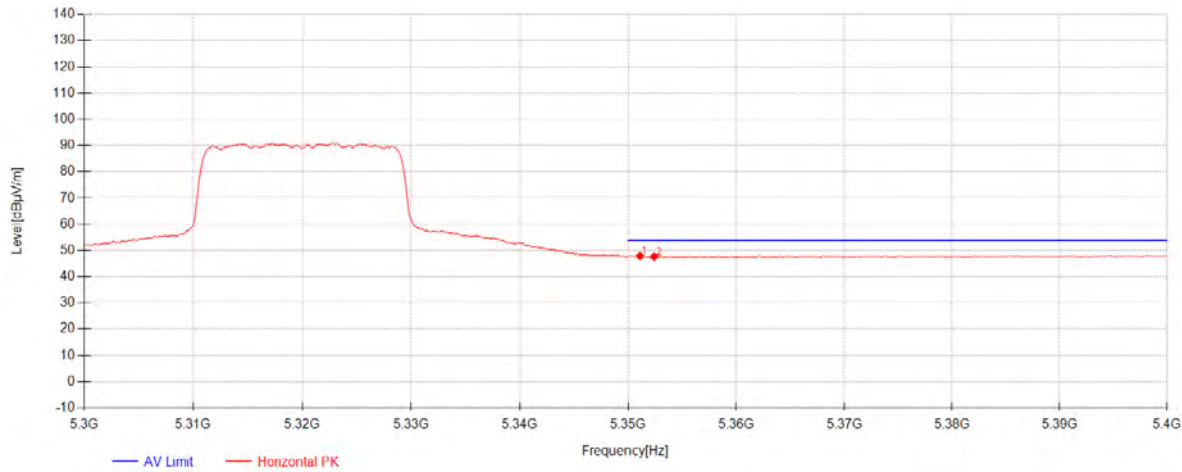
802.11ac20_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5146.6	52.88	31.66	-19.15	65.40	74.00	8.60	Vertical
2	5148	54.59	31.67	-19.14	67.11	74.00	6.89	Vertical



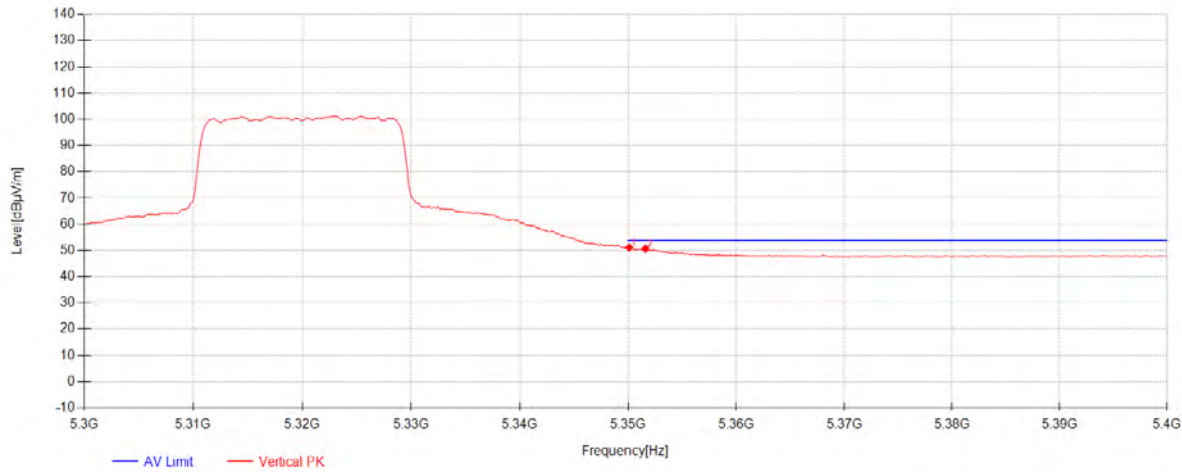
802.11ac20_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5351.1	34.77	32.03	-18.90	47.90	54.00	6.10	Horizontal
2	5352.4	34.52	32.03	-18.91	47.65	54.00	6.35	Horizontal

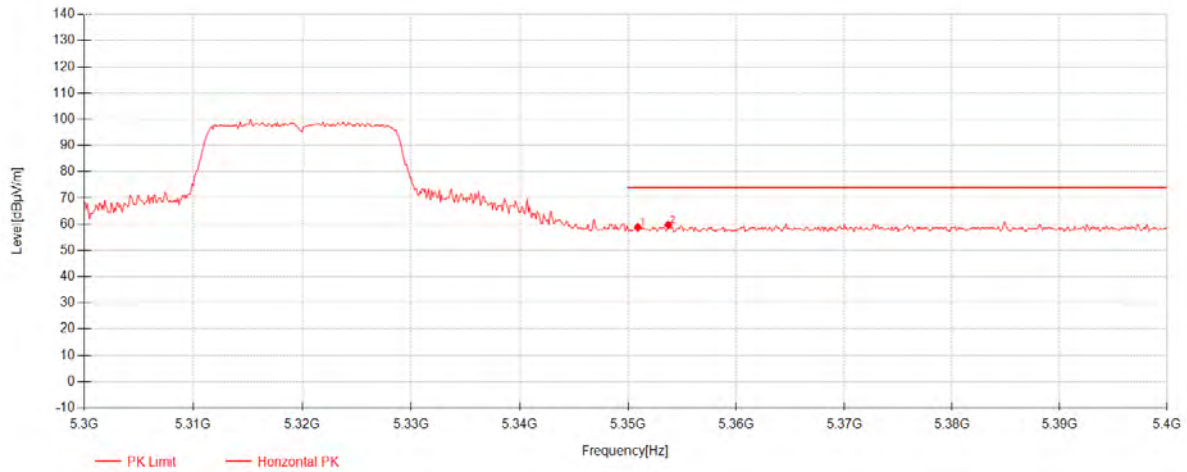


802.11ac20_Channel 64



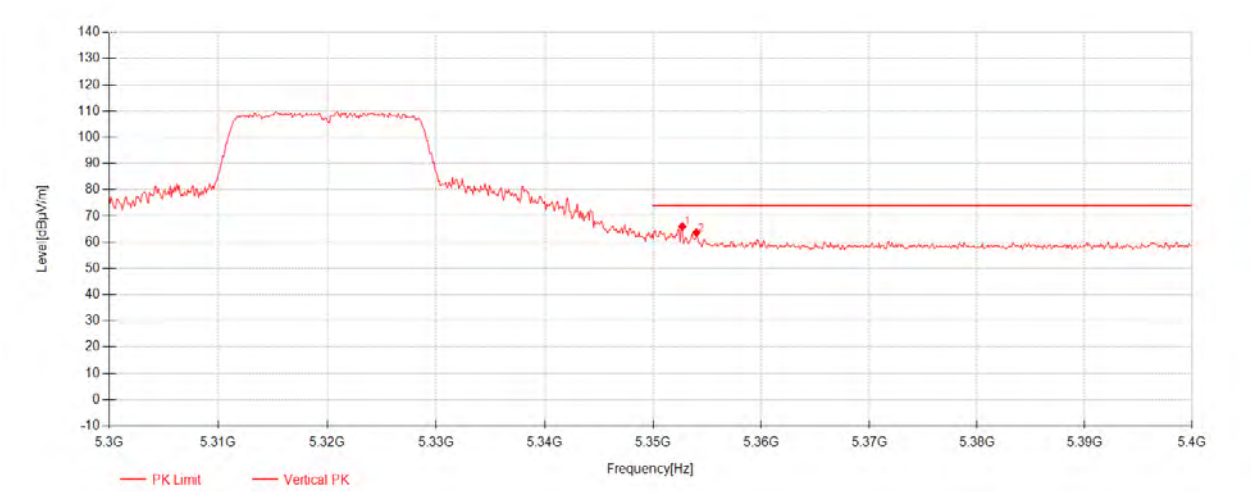
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5350.1	37.99	32.03	-18.90	51.12	54.00	2.88	Vertical
2	5351.6	37.55	32.03	-18.90	50.68	54.00	3.32	Vertical

802.11ac20_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5350.9	45.71	32.03	-18.90	58.84	74.00	15.16	Horizontal
2	5353.7	46.58	32.04	-18.91	59.71	74.00	14.29	Horizontal

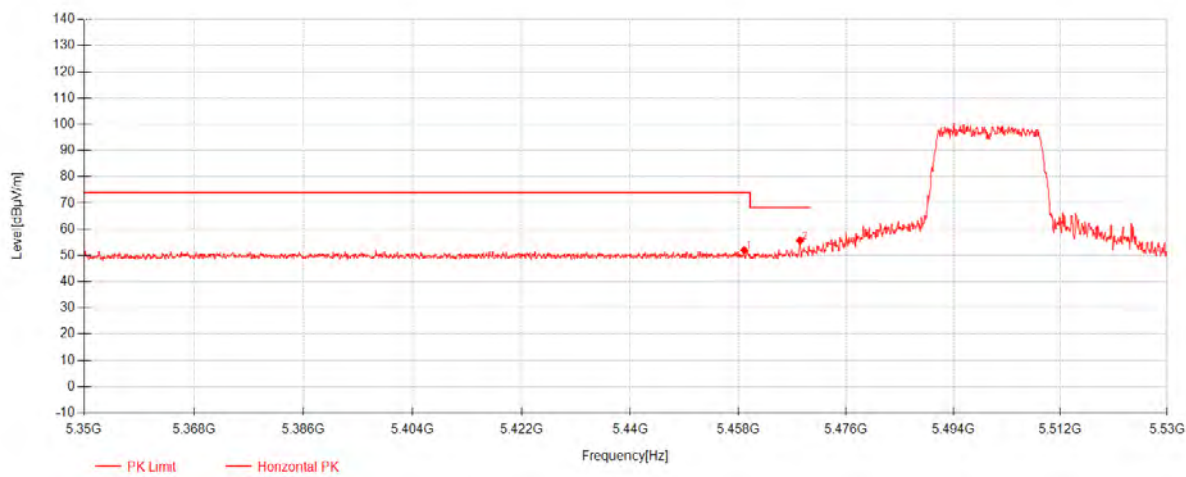
802.11ac20_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5352.7	52.91	32.03	-18.91	66.04	74.00	7.96	Vertical
2	5354	50.58	32.04	-18.91	63.71	74.00	10.29	Vertical



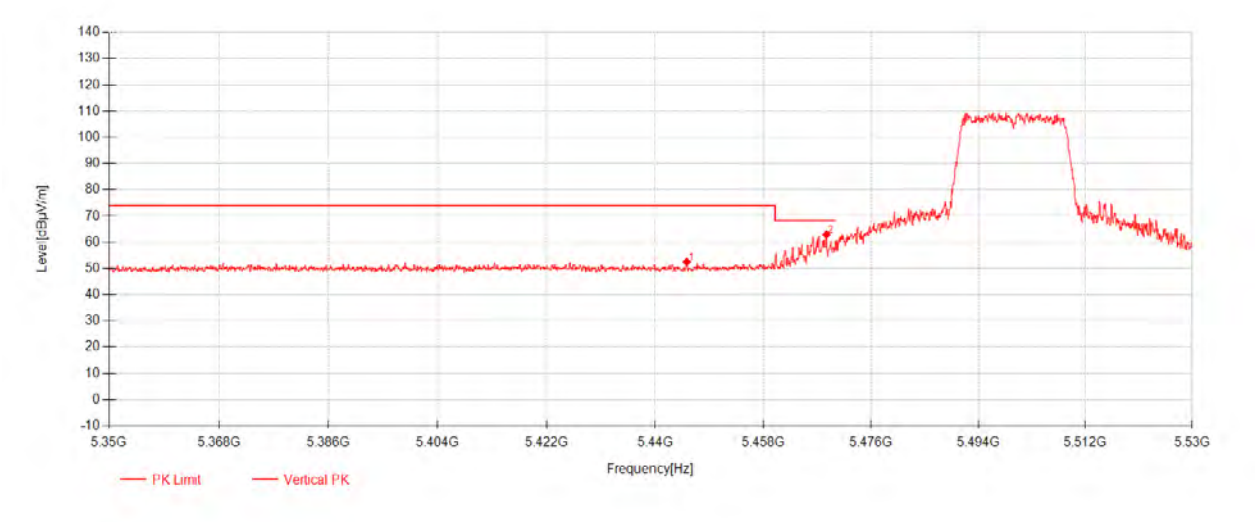
802.11ac20_Channel 100



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5459.02	38.96	32.23	-19.11	52.07	74.00	21.93	Horizontal
2	5468.32	42.62	32.24	-19.13	55.73	68.30	12.57	Horizontal



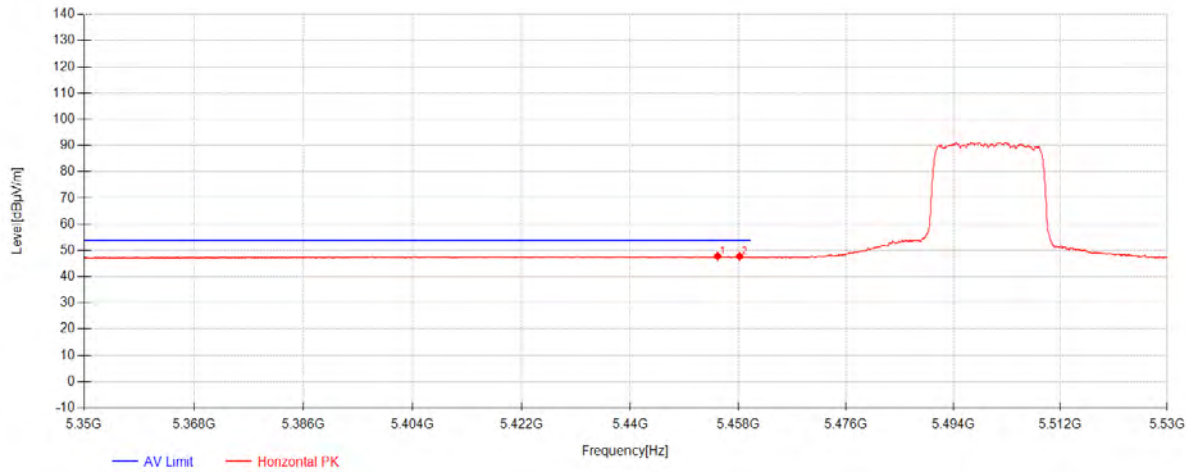
802.11ac20_Channel 100



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5445.28	39.44	32.20	-19.09	52.55	74.00	21.45	Vertical
2	5468.56	49.83	32.24	-19.13	62.94	68.30	5.36	Vertical

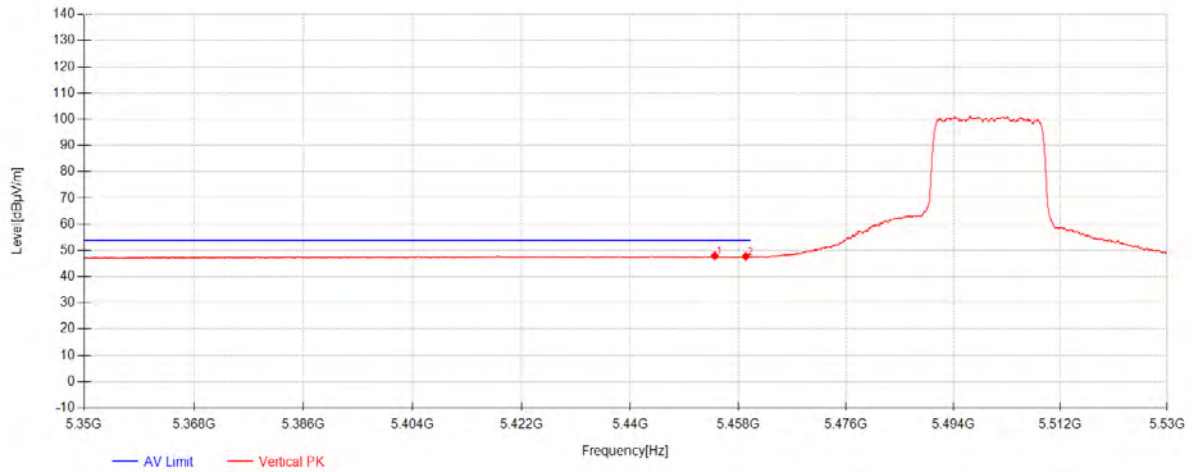


802.11ac20_Channel 100



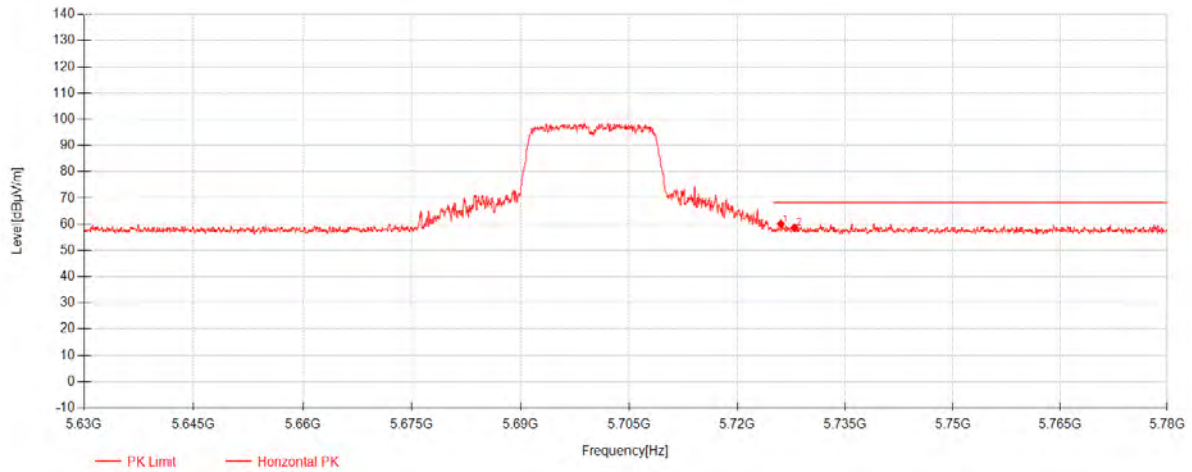
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5454.58	34.71	32.22	-19.11	47.82	54.00	6.18	Horizontal
2	5458.24	34.66	32.22	-19.11	47.77	54.00	6.23	Horizontal

802.11ac20_Channel 100



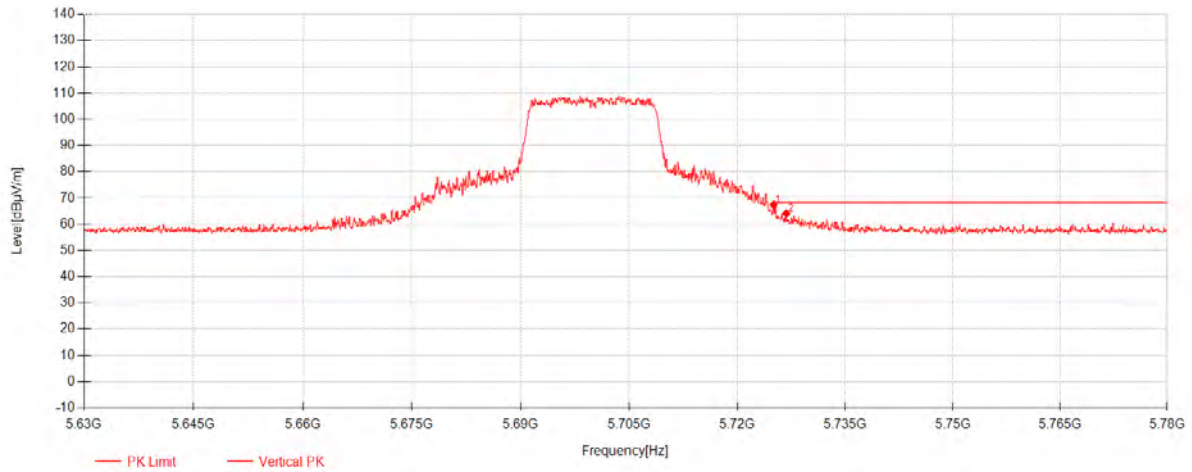
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5454.1	34.84	32.22	-19.11	47.95	54.00	6.05	Vertical
2	5459.26	34.63	32.23	-19.11	47.74	54.00	6.26	Vertical

802.11ac20_Channel 140



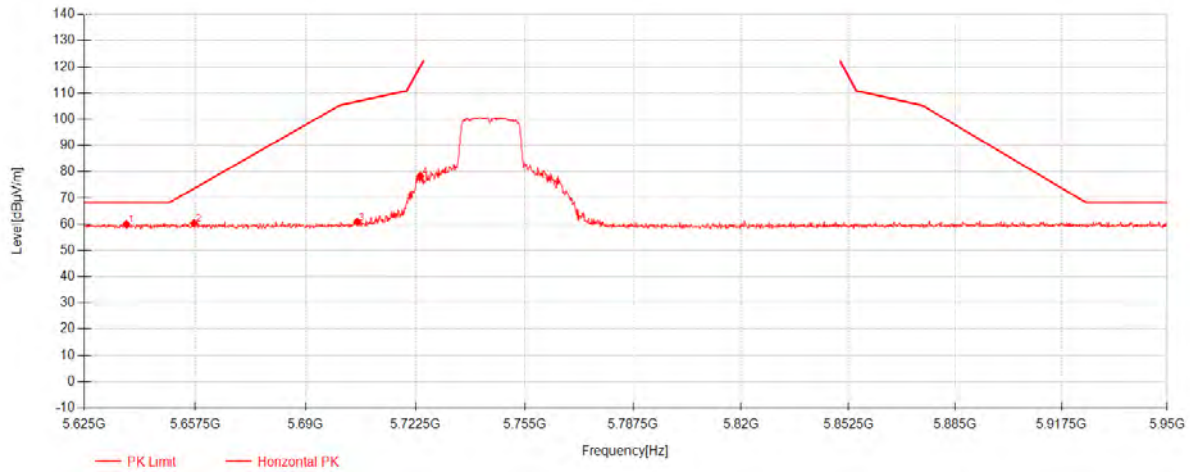
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5726.05	46.51	32.35	-18.81	60.05	68.30	8.25	Horizontal
2	5727.95	45.13	32.35	-18.81	58.66	68.30	9.64	Horizontal

802.11ac20_Channel 140



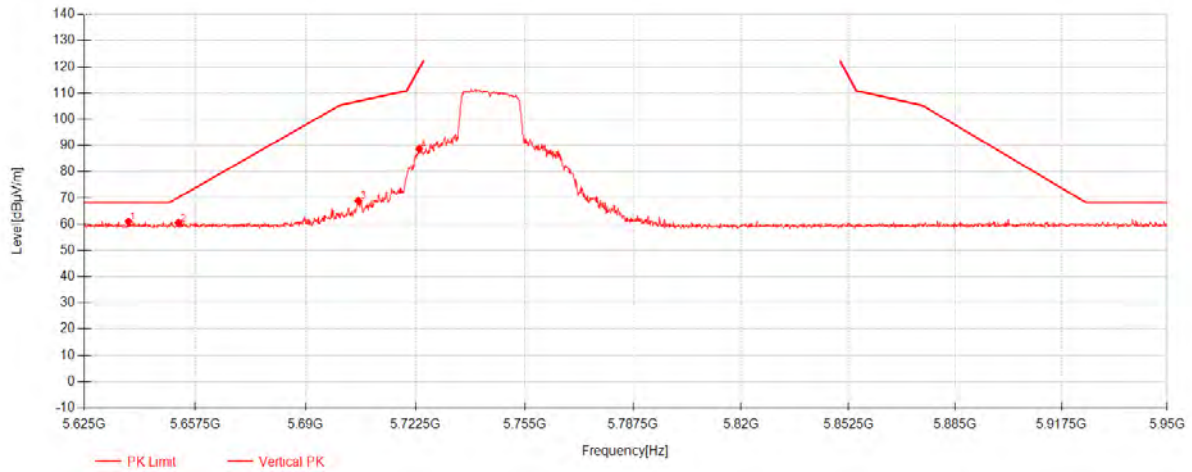
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5725.05	53.86	32.35	-18.81	67.40	68.30	0.90	Vertical
2	5726.8	50.63	32.35	-18.81	64.16	68.30	4.14	Vertical

802.11ac20_Channel 149



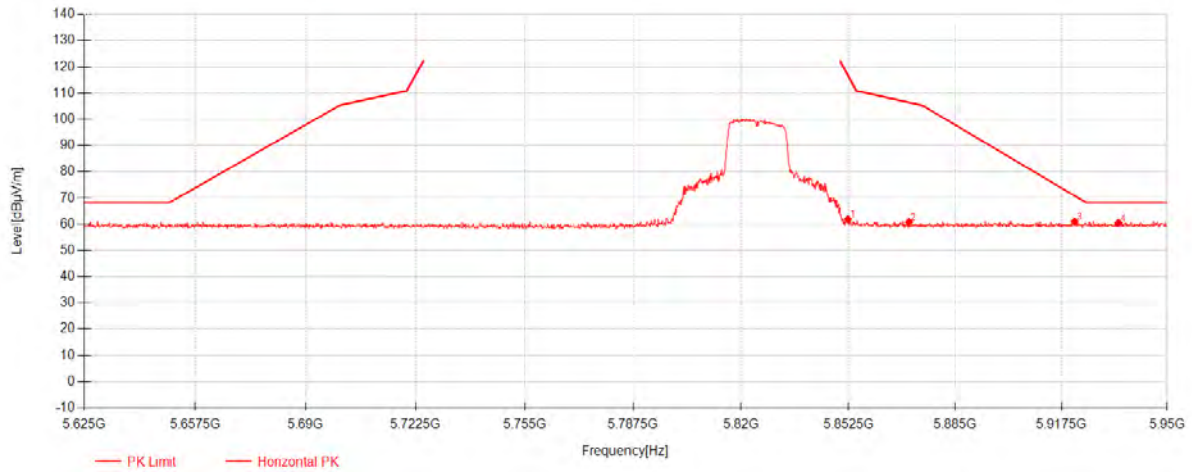
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5637.35	46.36	32.33	-18.72	59.96	68.30	8.34	Horizontal
2	5657.175	46.69	32.33	-18.73	60.30	73.63	13.33	Horizontal
3	5705.275	47.29	32.34	-18.75	60.89	106.78	45.89	Horizontal
4	5723.9625	64.86	32.34	-18.80	78.40	119.94	41.54	Horizontal

802.11ac20_Channel 149



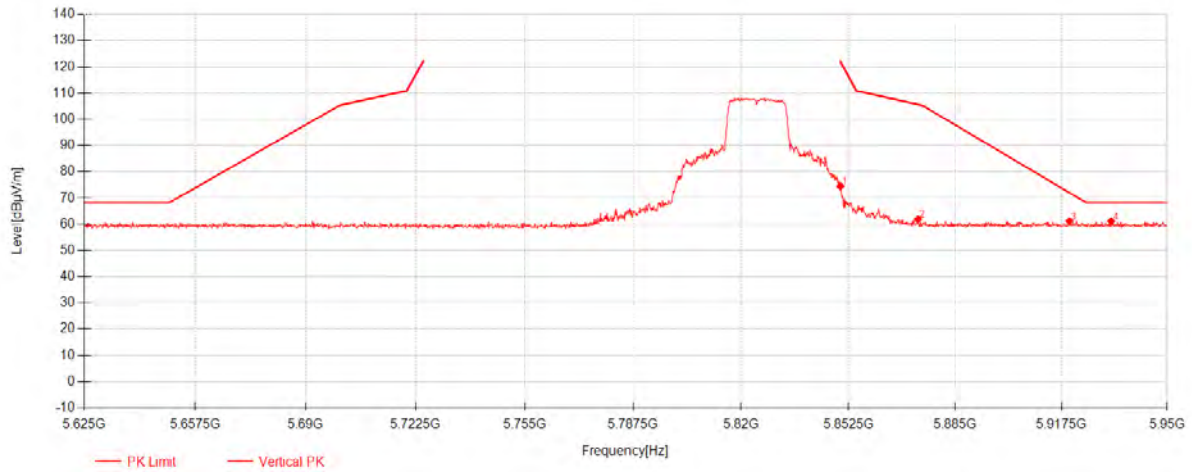
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5638	47.40	32.33	-18.72	61.00	68.30	7.30	Vertical
2	5652.625	46.93	32.33	-18.73	60.54	70.25	9.71	Vertical
3	5705.6	55.34	32.34	-18.75	68.93	106.87	37.94	Vertical
4	5723.6375	75.22	32.34	-18.80	88.76	119.19	30.43	Vertical

802.11ac20_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5852.3375	48.42	32.37	-18.88	61.91	116.97	55.06	Horizontal
2	5870.8625	47.25	32.37	-18.82	60.80	106.46	45.66	Horizontal
3	5921.5625	47.37	32.38	-18.79	60.97	70.83	9.86	Horizontal
4	5935.05	46.94	32.39	-18.81	60.51	68.30	7.79	Horizontal

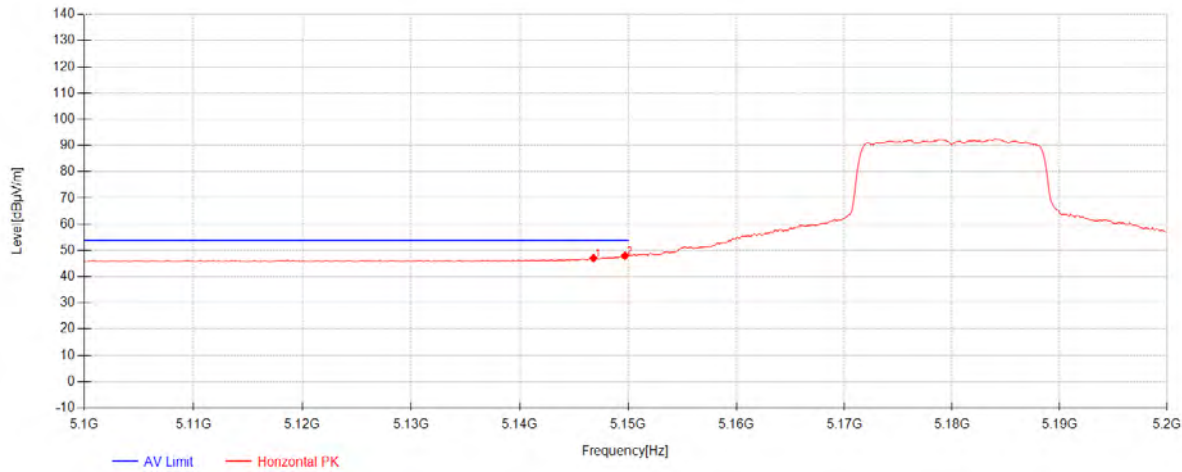
802.11ac20_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5850.0625	61.06	32.37	-18.88	74.55	122.16	47.61	Vertical
2	5873.625	48.33	32.37	-18.82	61.89	105.68	43.79	Vertical
3	5919.9375	47.53	32.38	-18.78	61.13	72.03	10.90	Vertical
4	5932.775	47.51	32.39	-18.81	61.09	68.30	7.21	Vertical



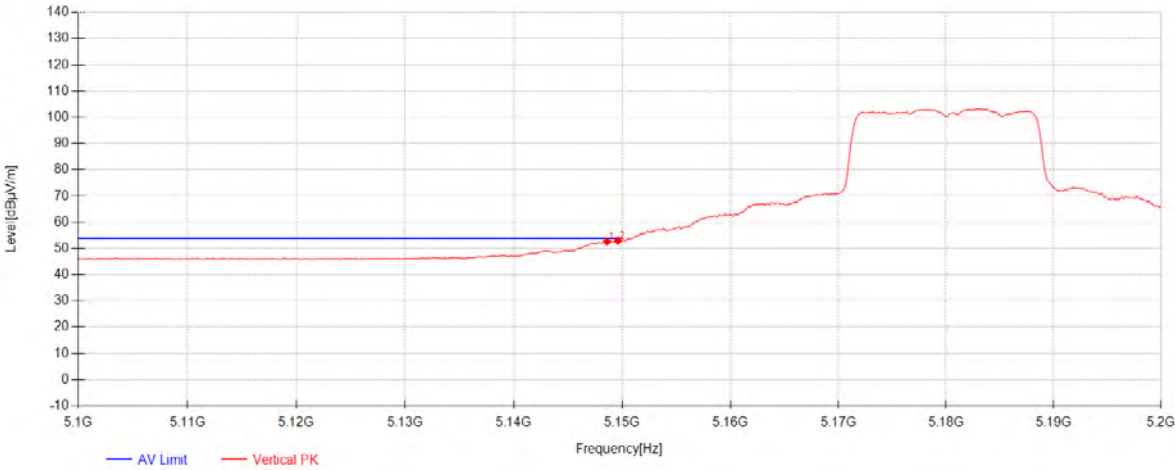
802.11a_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5146.8	34.57	31.66	-19.15	47.09	54.00	6.91	Horizontal
2	5149.7	35.46	31.67	-19.14	47.99	54.00	6.01	Horizontal



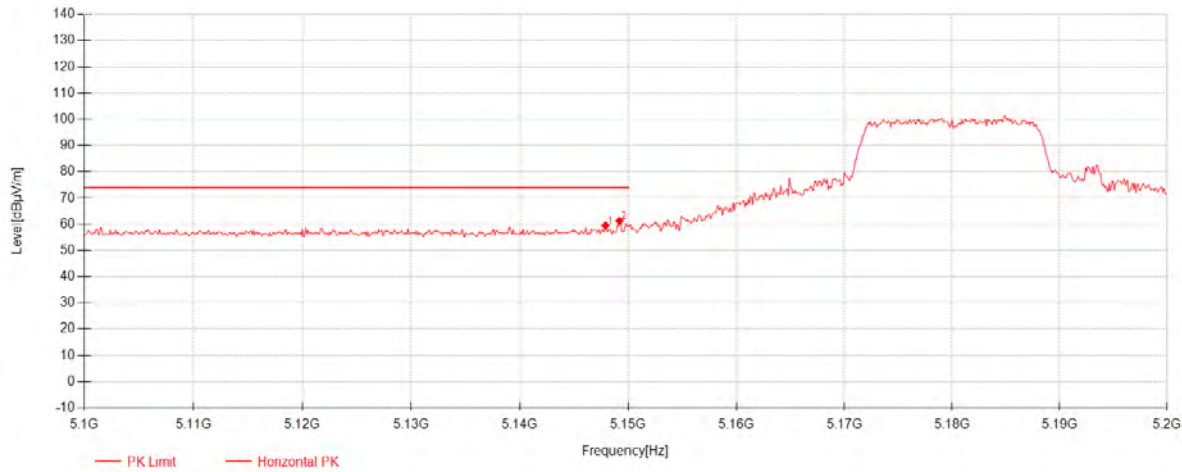
802.11a_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5148.6	40.16	31.67	-19.14	52.68	54.00	1.32	Vertical
2	5149.6	40.53	31.67	-19.14	53.06	54.00	0.94	Vertical



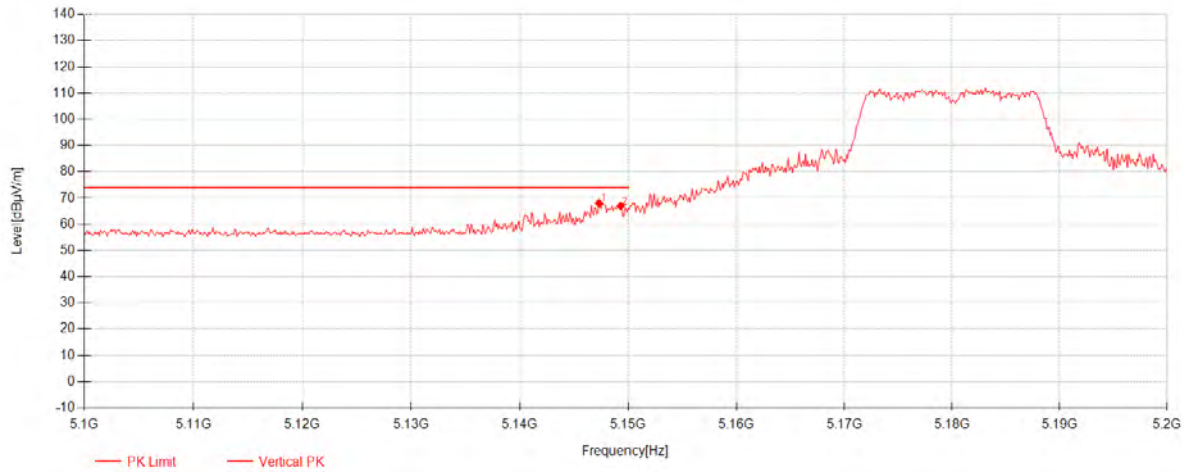
802.11a_Channel 36



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5147.9	46.95	31.67	-19.15	59.47	74.00	14.53	Horizontal
2	5149.2	48.70	31.67	-19.14	61.23	74.00	12.77	Horizontal

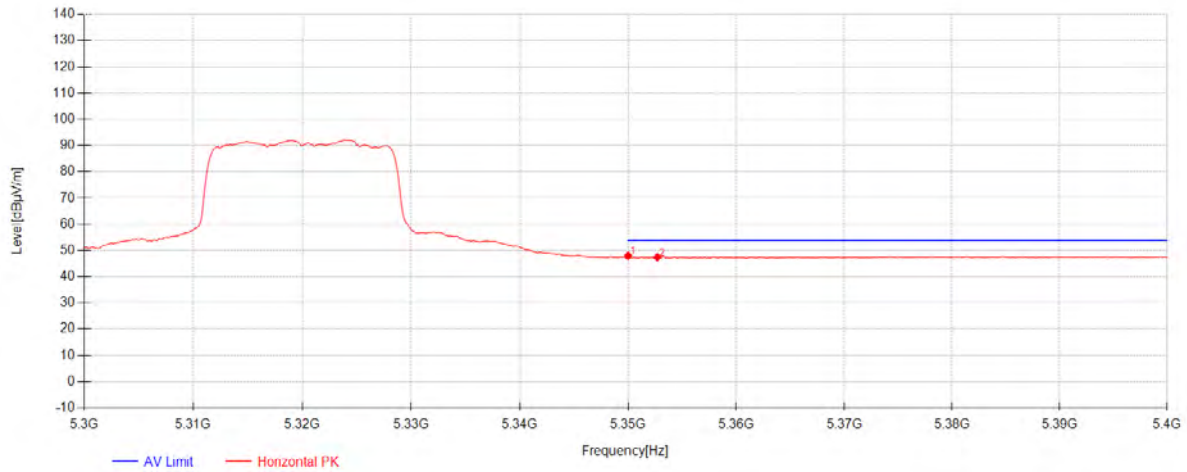


802.11a_Channel 36



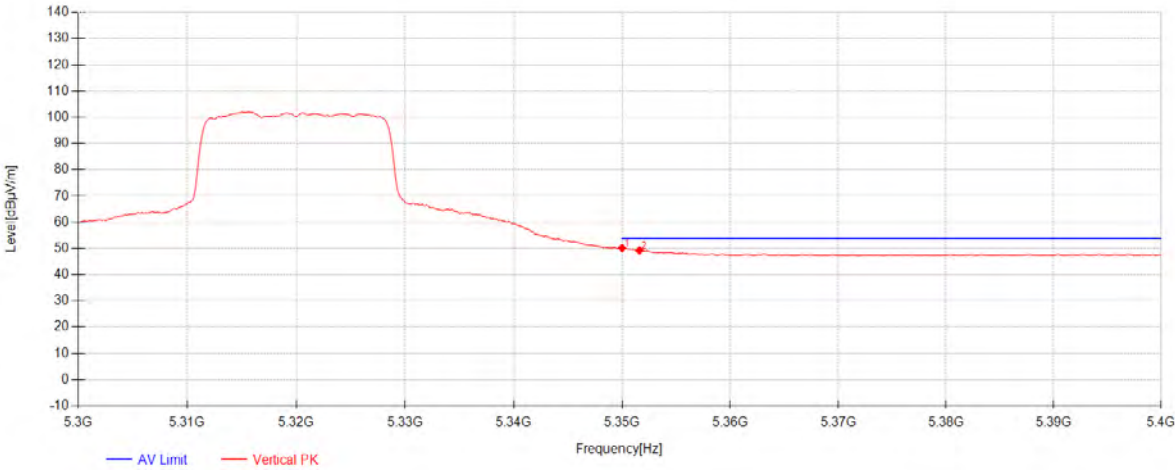
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5147.3	55.53	31.67	-19.15	68.05	74.00	5.95	Vertical
2	5149.3	54.43	31.67	-19.14	66.96	74.00	7.04	Vertical

802.11a_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5350	34.85	32.03	-18.90	47.98	54.00	6.02	Horizontal
2	5352.7	34.30	32.03	-18.91	47.43	54.00	6.57	Horizontal

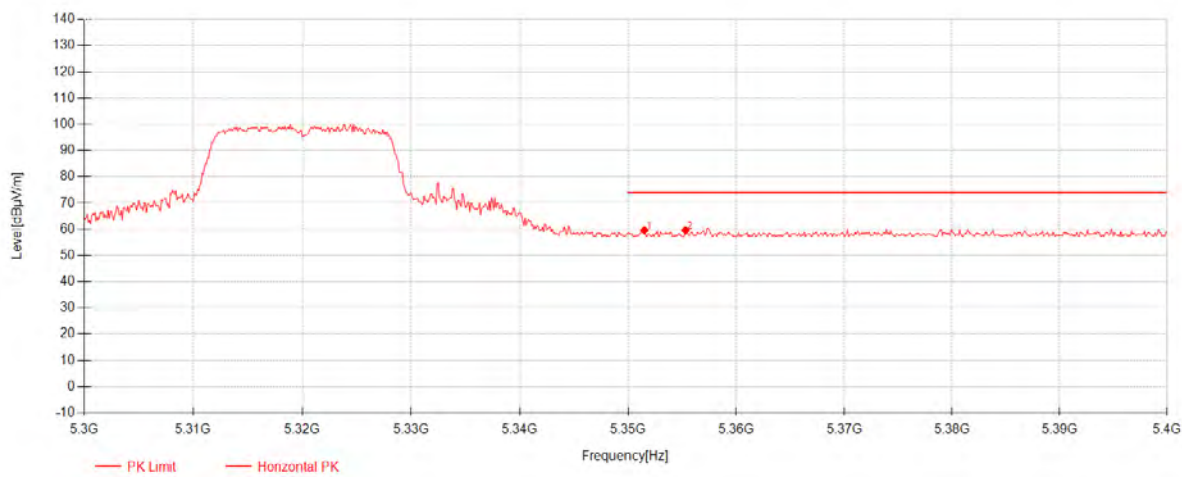
802.11a_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5350	36.99	32.03	-18.90	50.12	54.00	3.88	Vertical
2	5351.6	36.09	32.03	-18.90	49.22	54.00	4.78	Vertical

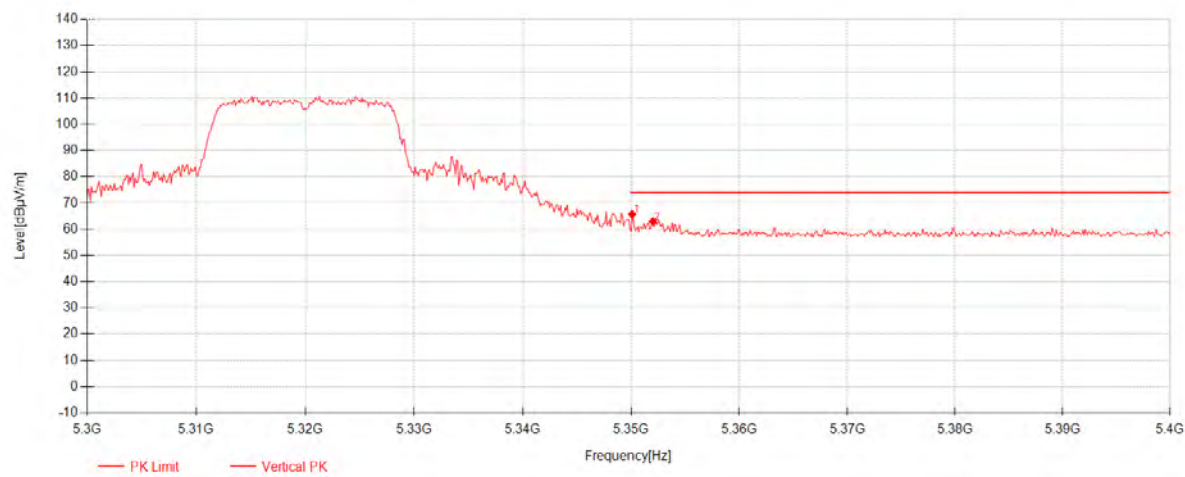


802.11a_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5351.5	46.45	32.03	-18.90	59.58	74.00	14.42	Horizontal
2	5355.3	46.45	32.04	-18.91	59.58	74.00	14.42	Horizontal

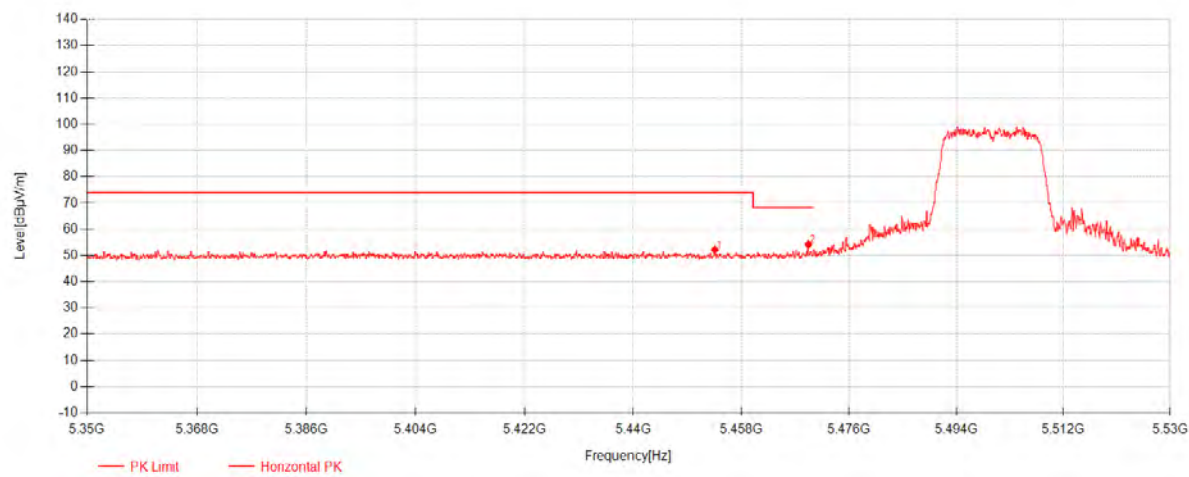
802.11a_Channel 64



Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	5350.1	52.60	32.03	-18.90	65.73	74.00	8.27	Vertical
2	5352	49.91	32.03	-18.90	63.04	74.00	10.96	Vertical

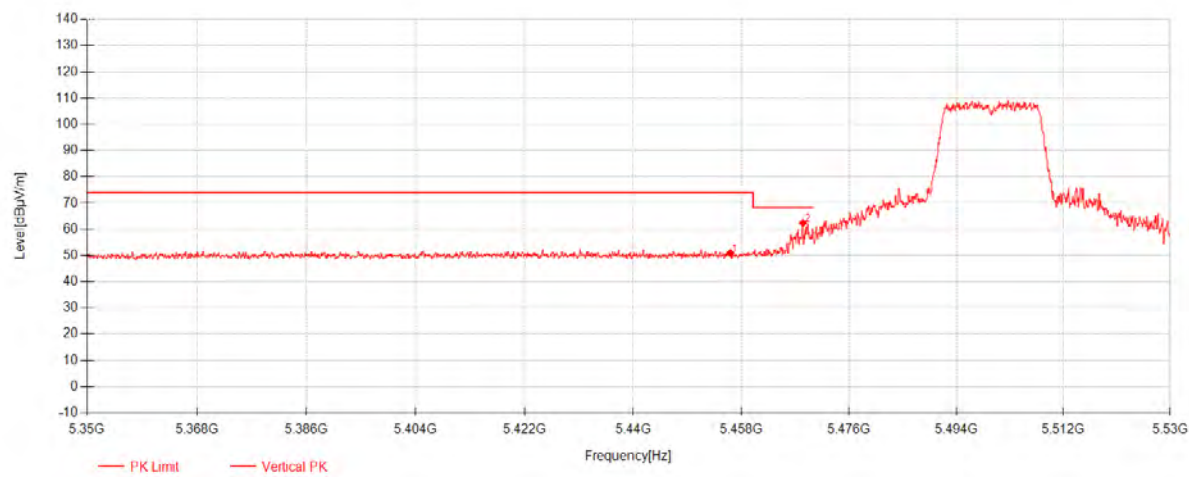


802.11a_Channel 100



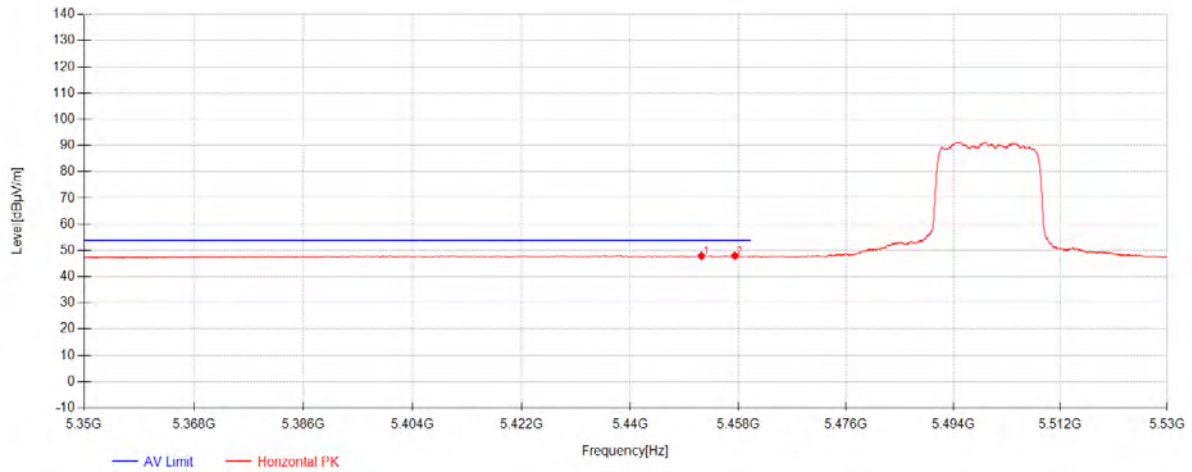
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5453.62	39.11	32.22	-19.11	52.22	74.00	21.78	Horizontal
2	5469.22	41.16	32.24	-19.13	54.27	68.30	14.03	Horizontal

802.11a_Channel 100



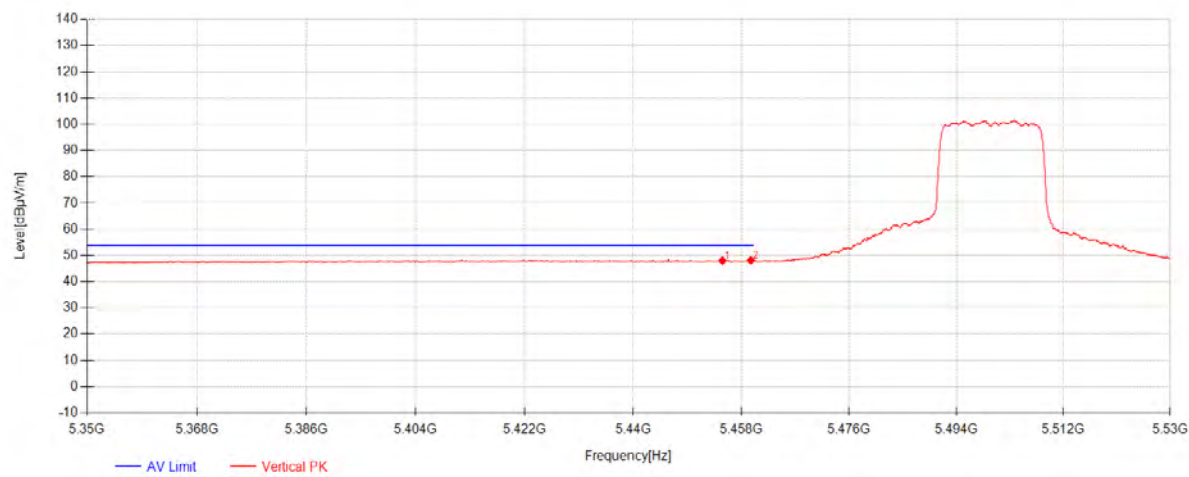
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5456.2	37.84	32.22	-19.11	50.95	74.00	23.05	Vertical
2	5468.32	49.30	32.24	-19.13	62.41	68.30	5.89	Vertical

802.11a_Channel 100



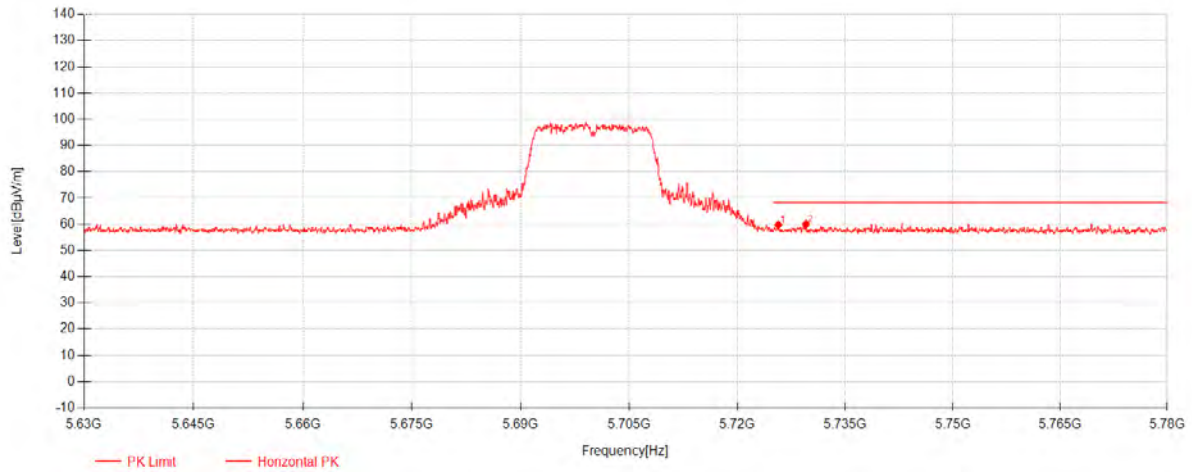
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5451.88	34.80	32.21	-19.10	47.91	54.00	6.09	Horizontal
2	5457.46	34.86	32.22	-19.11	47.97	54.00	6.03	Horizontal

802.11a_Channel 100



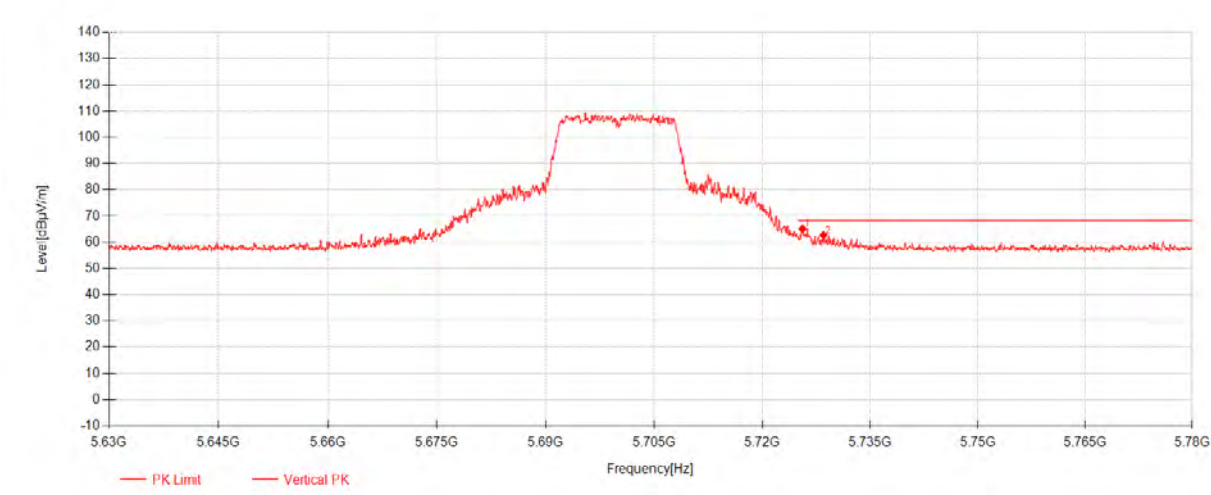
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5454.88	34.89	32.22	-19.11	48.00	54.00	6.00	Vertical
2	5459.62	35.01	32.23	-19.12	48.12	54.00	5.88	Vertical

802.11a_Channel 140



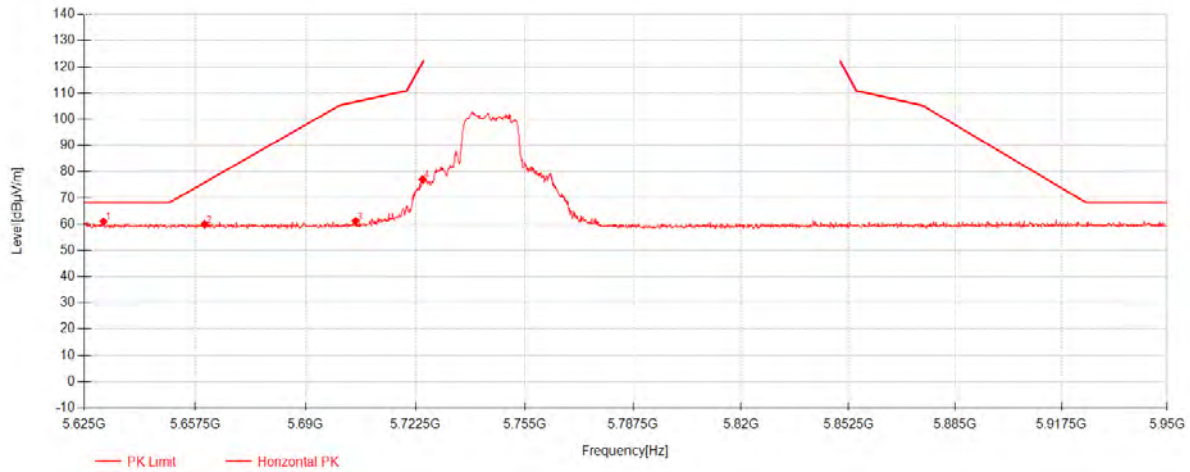
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5725.7	46.19	32.35	-18.81	59.73	68.30	8.57	Horizontal
2	5729.55	46.46	32.35	-18.82	59.99	68.30	8.31	Horizontal

802.11a_Channel 140



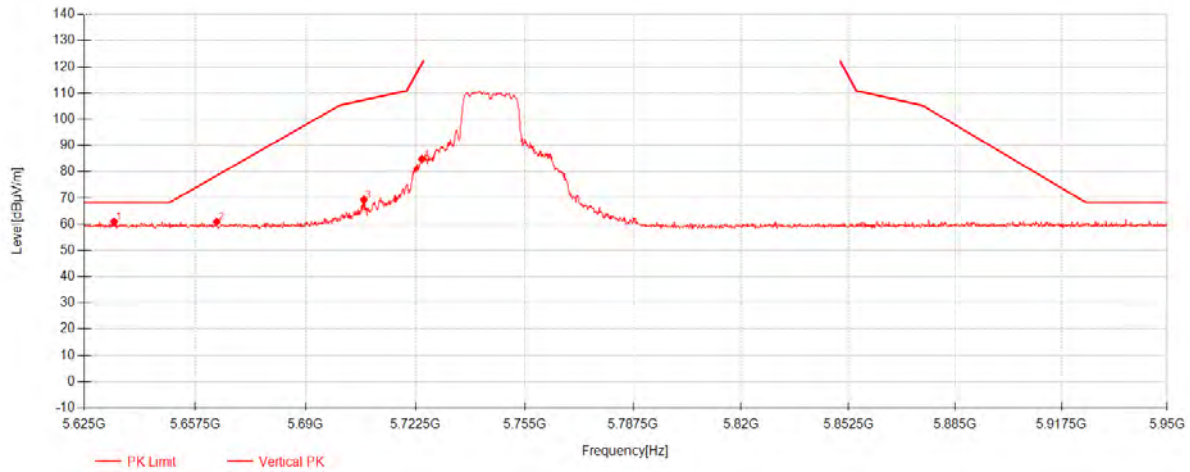
Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	5725.6	51.62	32.35	-18.81	65.16	68.30	3.14	Vertical
2	5728.5	49.18	32.35	-18.82	62.71	68.30	5.59	Vertical

802.11a_Channel 149



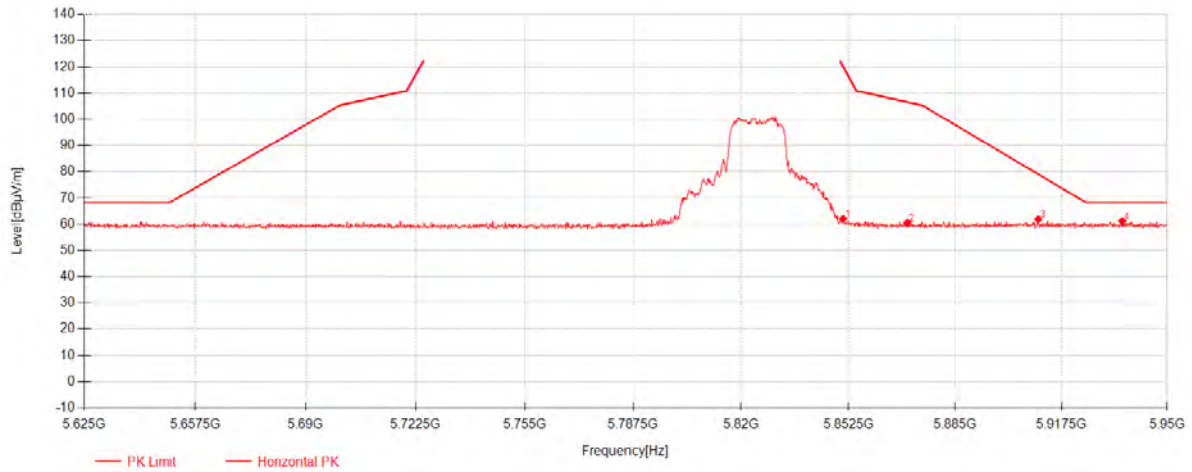
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5630.6875	47.40	32.33	-18.72	61.00	68.30	7.30	Horizontal
2	5660.2625	46.31	32.33	-18.73	59.92	75.92	16.00	Horizontal
3	5704.7875	47.61	32.34	-18.74	61.21	106.64	45.43	Horizontal
4	5724.6125	63.53	32.34	-18.80	77.07	121.42	44.35	Horizontal

802.11a_Channel 149



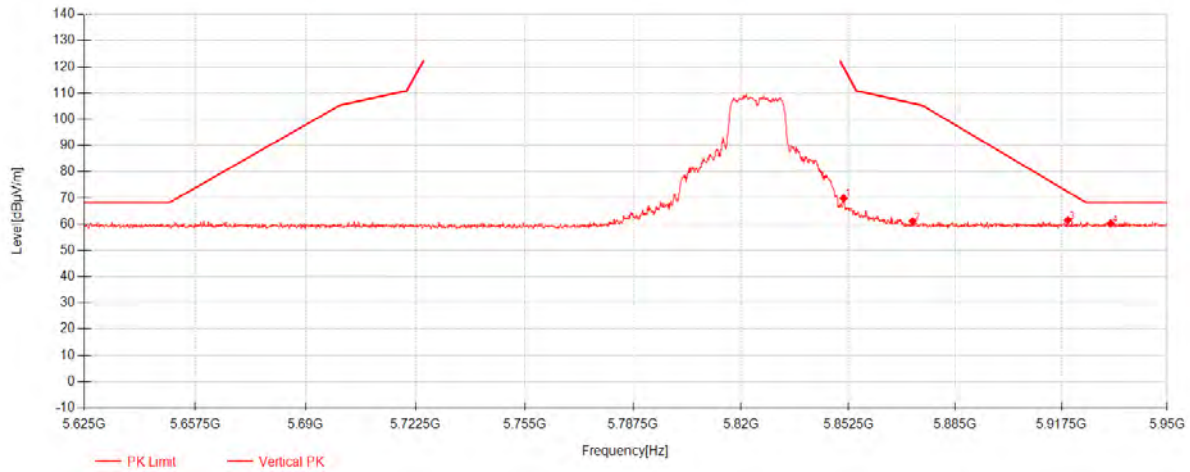
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5633.775	47.35	32.33	-18.72	60.95	68.30	7.35	Vertical
2	5663.8375	47.31	32.33	-18.73	60.92	78.57	17.65	Vertical
3	5707.225	55.72	32.34	-18.75	69.31	107.33	38.02	Vertical
4	5724.45	71.33	32.34	-18.80	84.87	121.05	36.18	Vertical

802.11a_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5850.875	48.63	32.37	-18.88	62.12	120.30	58.18	Horizontal
2	5870.375	46.88	32.37	-18.83	60.43	106.59	46.16	Horizontal
3	5910.35	48.26	32.38	-18.76	61.88	79.11	17.23	Horizontal
4	5936.1875	47.61	32.39	-18.82	61.18	68.30	7.12	Horizontal

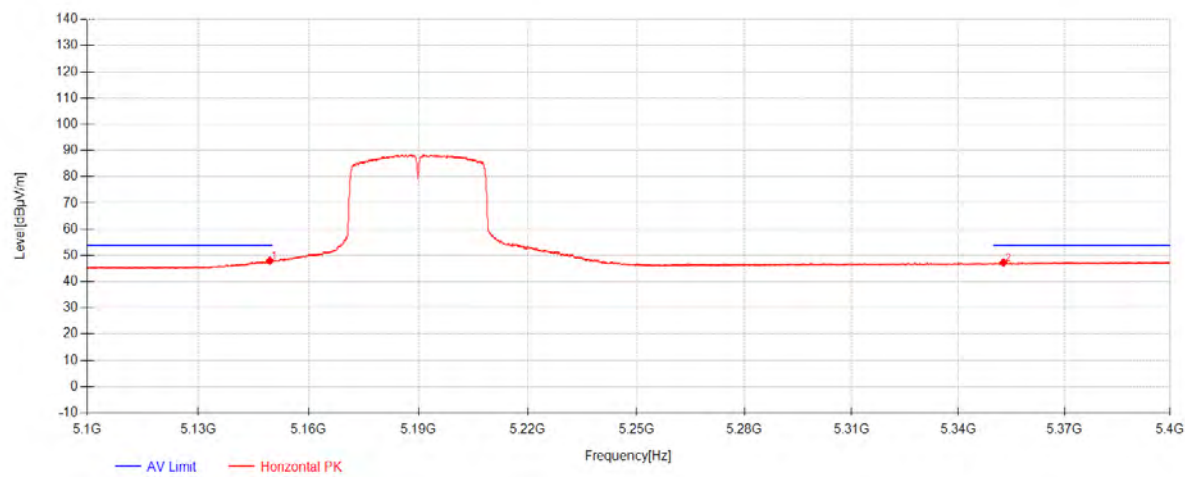
802.11a_Channel 165



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5851.0375	56.41	32.37	-18.88	69.90	119.93	50.03	Vertical
2	5872	47.56	32.37	-18.82	61.11	106.14	45.03	Vertical
3	5919.45	47.93	32.38	-18.78	61.53	72.39	10.86	Vertical
4	5932.6125	46.66	32.39	-18.81	60.24	68.30	8.06	Vertical



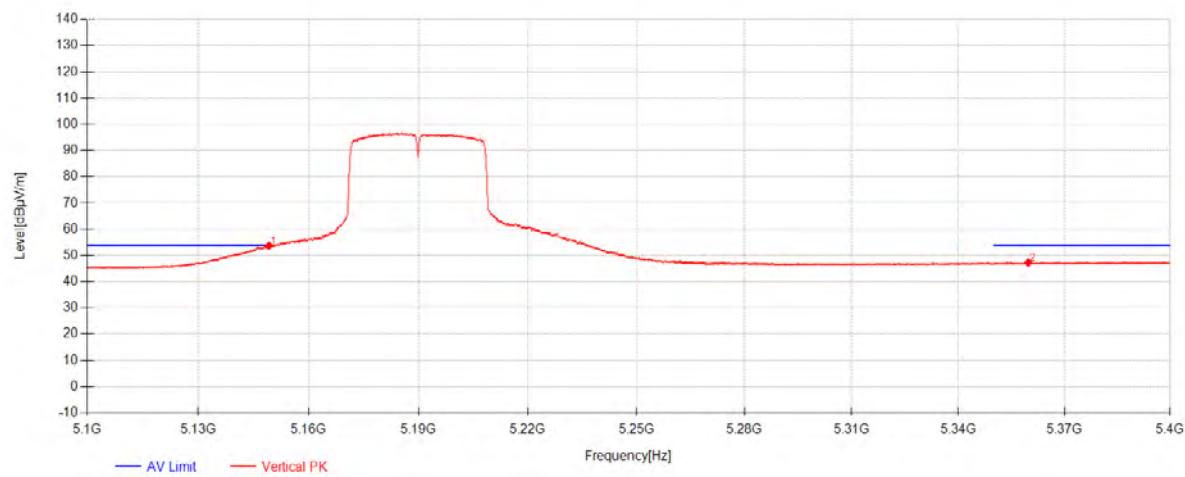
802.11ac40_Channel 38



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5149.44	35.46	31.67	-19.14	47.99	54.00	6.01	Horizontal
2	5352.715	34.21	32.03	-18.91	47.34	54.00	6.66	Horizontal



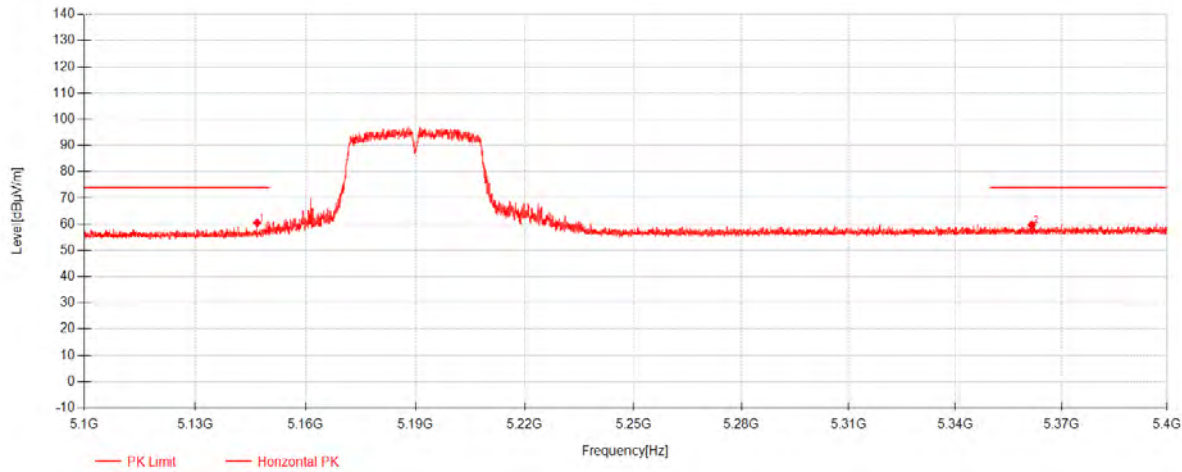
802.11ac40_Channel 38



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5149.2267	41.31	31.67	-19.14	53.84	54.00	0.16	Vertical
2	5359.6975	34.16	32.05	-18.92	47.28	54.00	6.72	Vertical

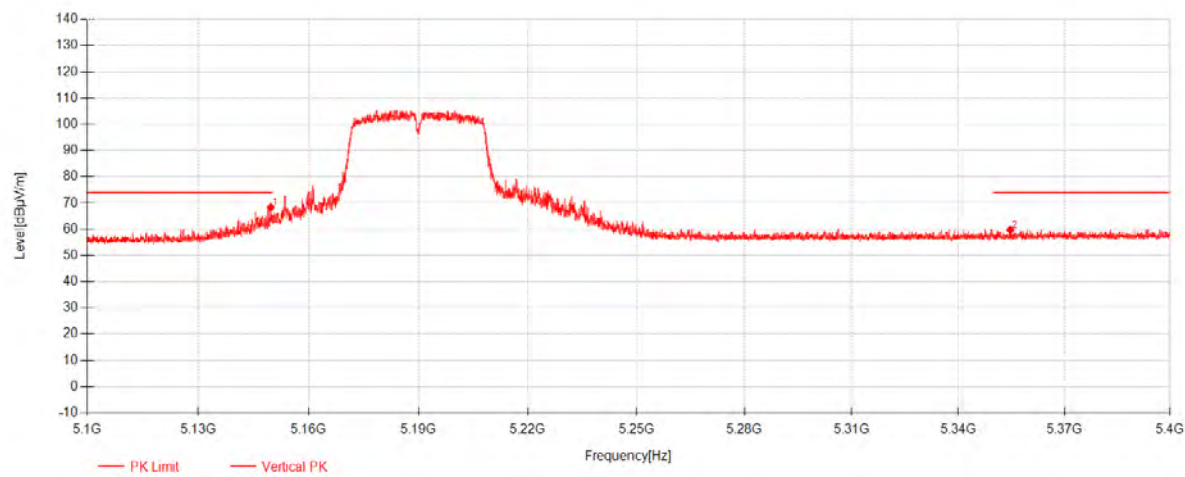


802.11ac40_Channel 38



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5146.82	47.99	31.66	-19.15	60.51	74.00	13.49	Horizontal
2	5361.535	46.61	32.05	-18.93	59.73	74.00	14.27	Horizontal

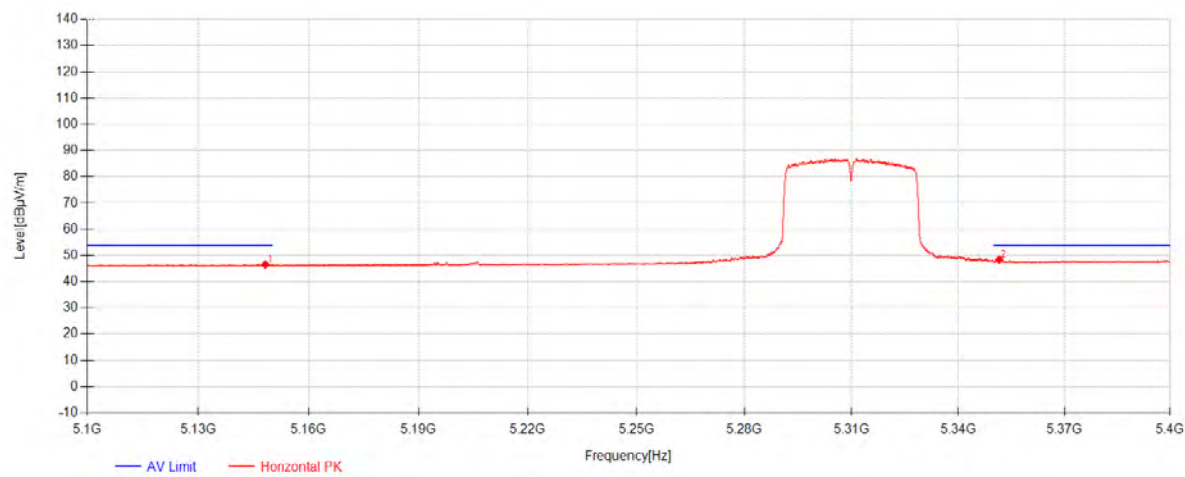
802.11ac40_Channel 38



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5149.7	55.79	31.67	-19.14	68.32	74.00	5.68	Vertical
2	5354.6575	46.58	32.04	-18.91	59.71	74.00	14.29	Vertical



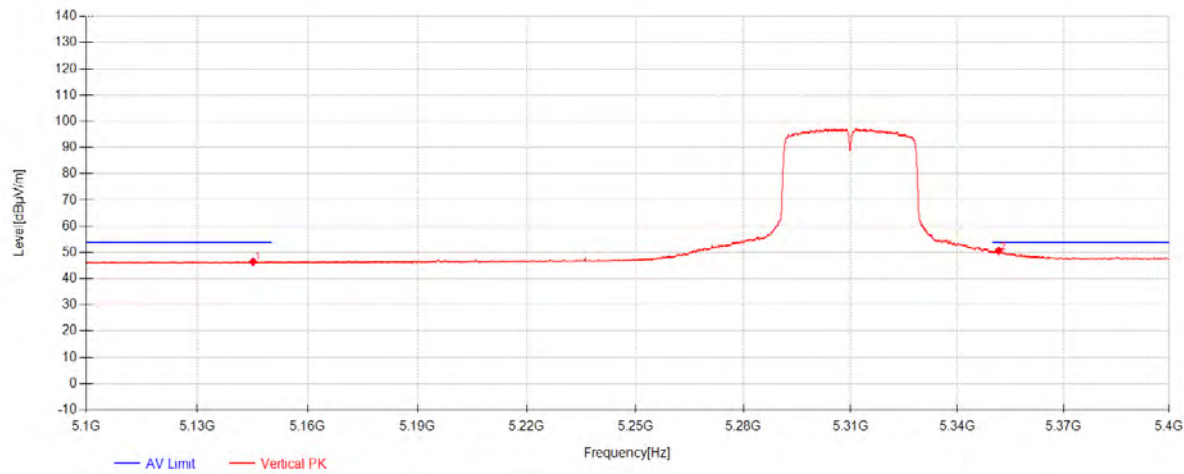
802.11ac40_Channel 62



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5148.2	34.06	31.67	-19.14	46.58	54.00	7.42	Horizontal
2	5351.5	35.30	32.03	-18.90	48.43	54.00	5.57	Horizontal

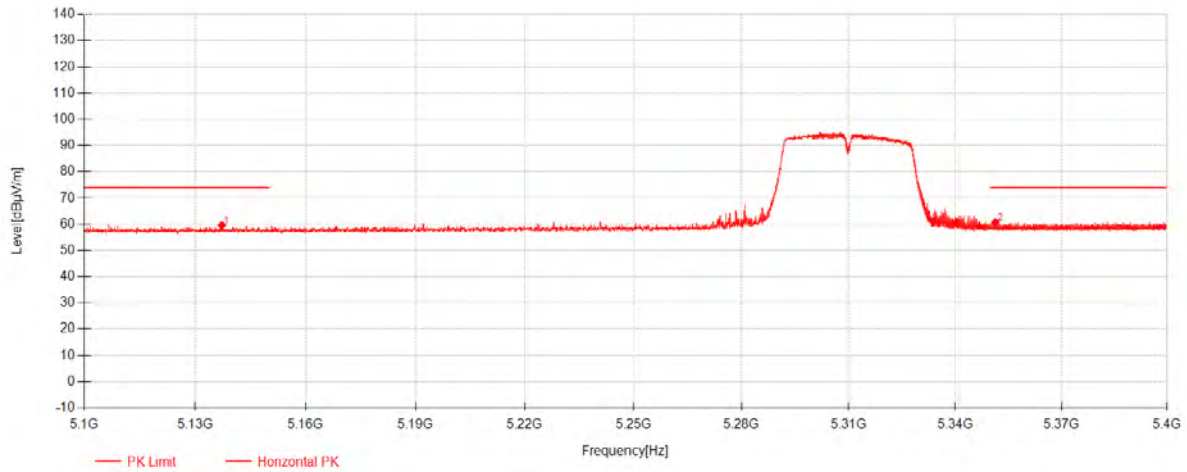


802.11ac40_Channel 62



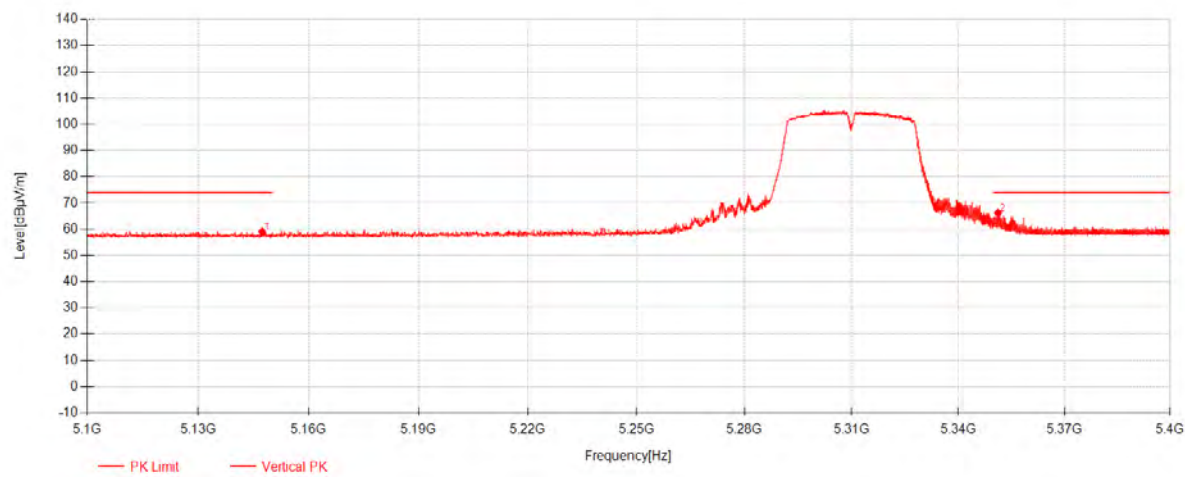
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5145.15	33.98	31.66	-19.15	46.49	54.00	7.51	Vertical
2	5351.625	37.51	32.03	-18.90	50.64	54.00	3.36	Vertical

802.11ac40_Channel 62



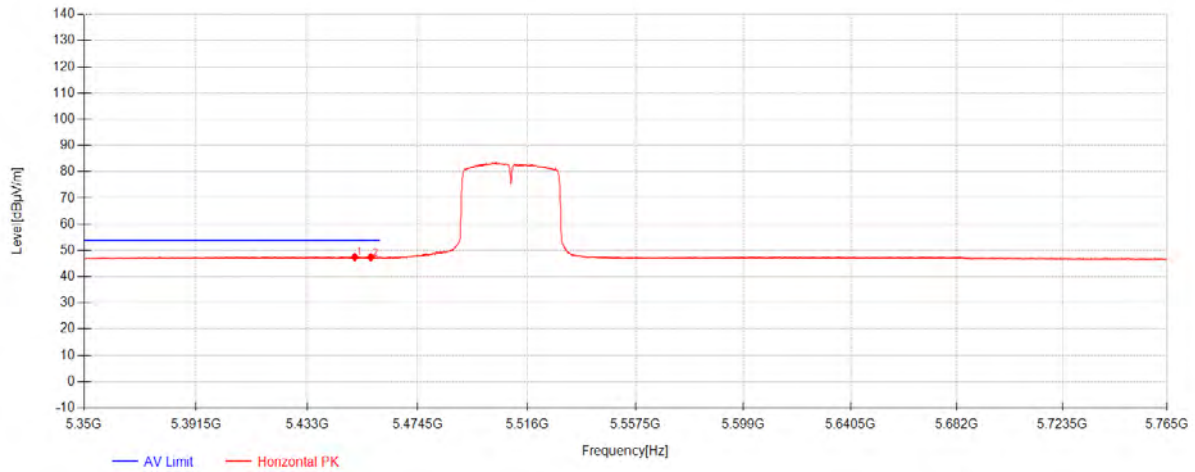
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5137.2667	47.13	31.65	-19.17	59.61	74.00	14.39	Horizontal
2	5351.3125	47.65	32.03	-18.90	60.78	74.00	13.22	Horizontal

802.11ac40_Channel 62



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5147.3333	46.49	31.67	-19.15	59.01	74.00	14.99	Vertical
2	5351.1875	53.15	32.03	-18.90	66.28	74.00	7.72	Vertical

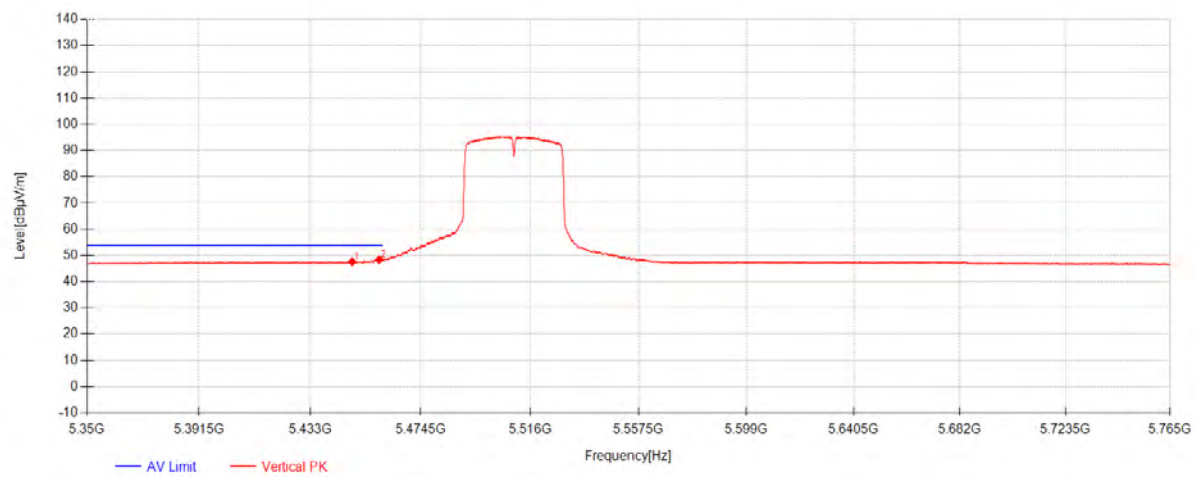
802.11ac40_Channel 102



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5450.835	34.36	32.21	-19.10	47.47	54.00	6.53	Horizontal
2	5456.865	34.30	32.22	-19.11	47.41	54.00	6.59	Horizontal



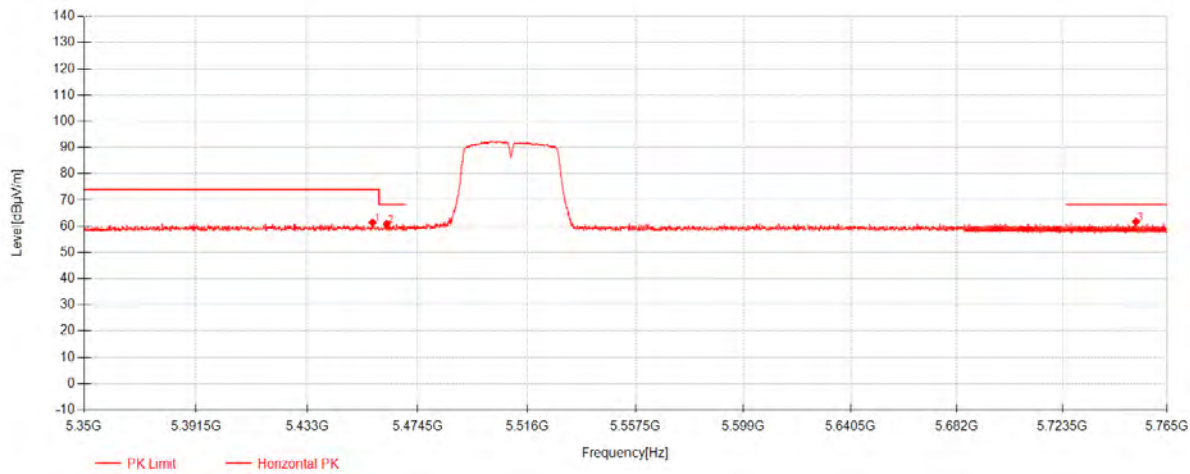
802.11ac40_Channel 102



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5448.7133	34.50	32.21	-19.10	47.61	54.00	6.39	Vertical
2	5458.875	35.30	32.23	-19.11	48.41	54.00	5.59	Vertical



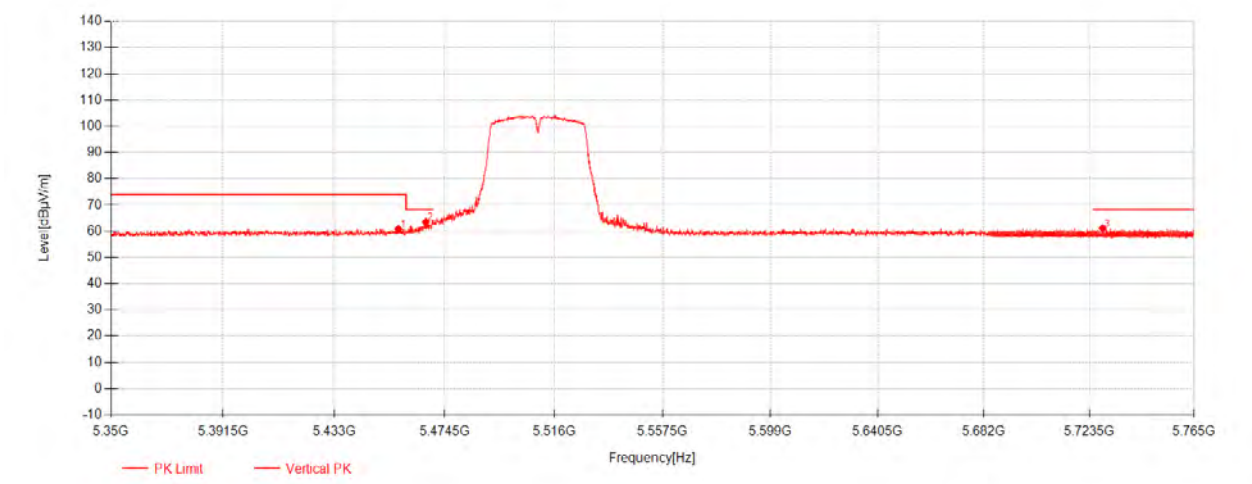
802.11ac40_Channel 102



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5457.535	48.27	32.22	-19.11	61.38	74.00	12.62	Horizontal
2	5462.895	47.74	32.23	-19.12	60.85	68.30	7.45	Horizontal
3	5752.63	48.29	32.35	-18.89	61.75	68.30	6.55	Horizontal



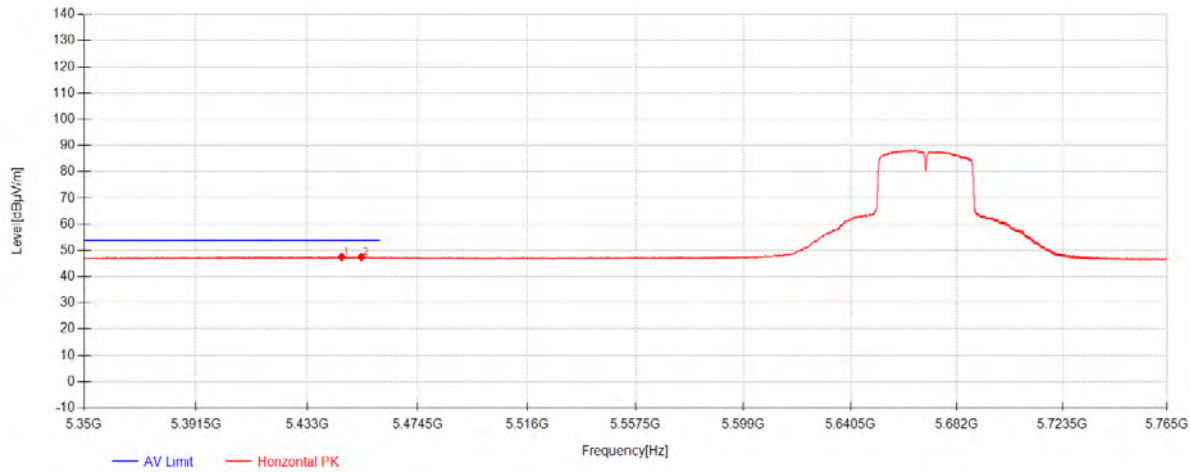
802.11ac40_Channel 102



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5457.0883	47.73	32.22	-19.11	60.84	74.00	13.16	Vertical
2	5467.4733	50.43	32.24	-19.13	63.54	68.30	4.76	Vertical
3	5728.74	47.59	32.35	-18.82	61.12	68.30	7.18	Vertical



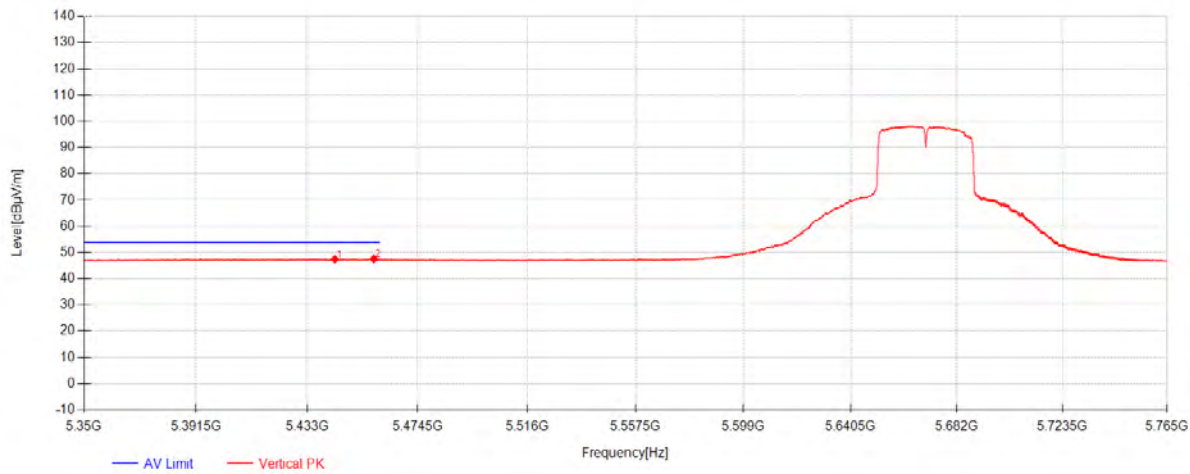
802.11ac40_Channel 134



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5445.9217	34.43	32.20	-19.09	47.54	54.00	6.46	Horizontal
2	5453.2917	34.39	32.22	-19.11	47.50	54.00	6.50	Horizontal

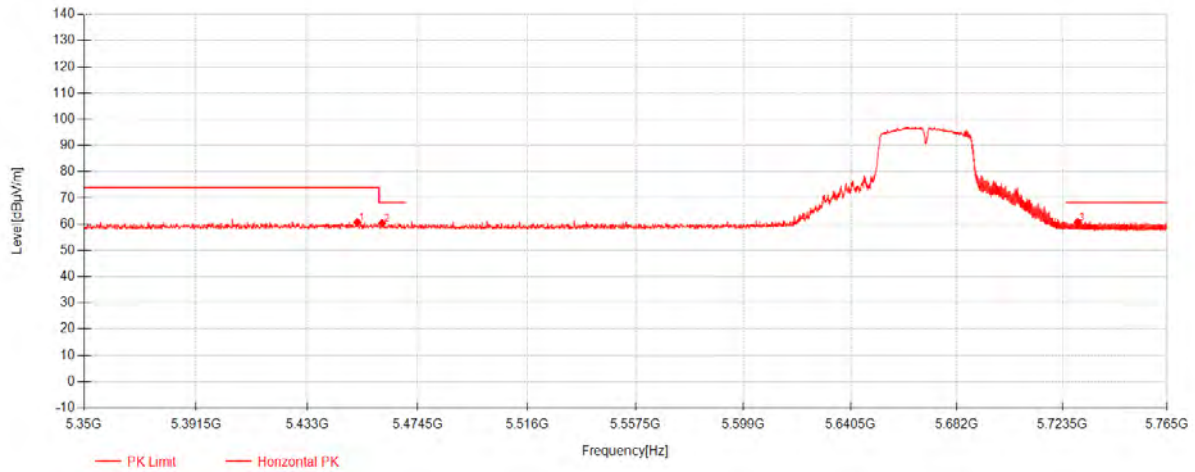


802.11ac40_Channel 134



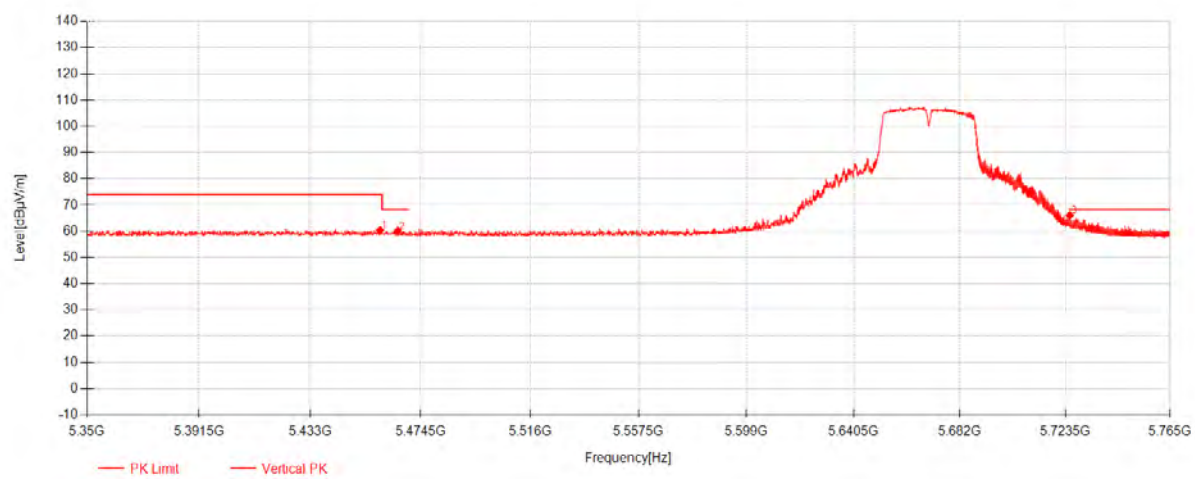
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5443.3533	34.32	32.20	-19.09	47.43	54.00	6.57	Vertical
2	5457.9817	34.45	32.22	-19.11	47.56	54.00	6.44	Vertical

802.11ac40_Channel 134



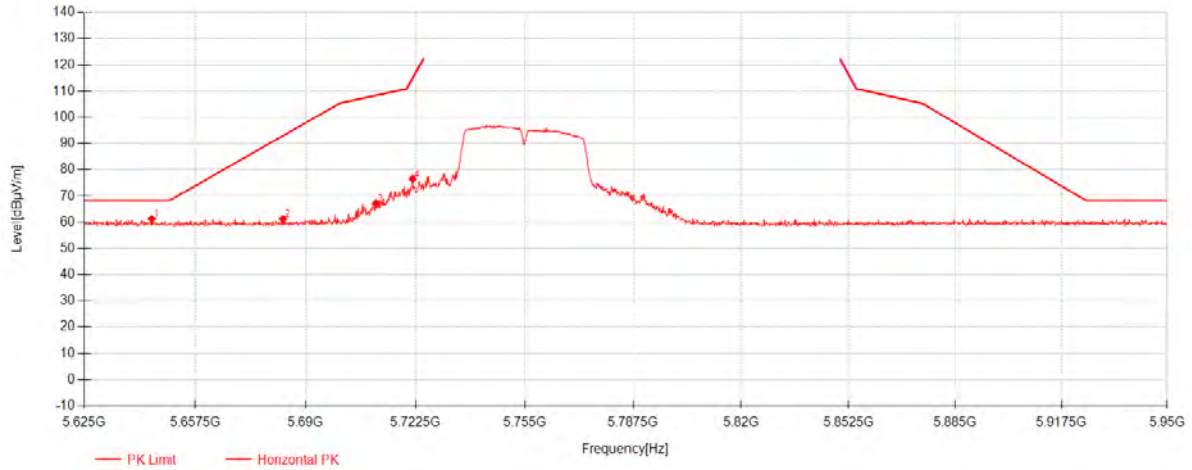
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5451.84	47.61	32.21	-19.10	60.72	74.00	13.28	Horizontal
2	5461.1083	47.21	32.23	-19.12	60.32	68.30	7.98	Horizontal
3	5729.55	47.24	32.35	-18.82	60.77	68.30	7.53	Horizontal

802.11ac40_Channel 134



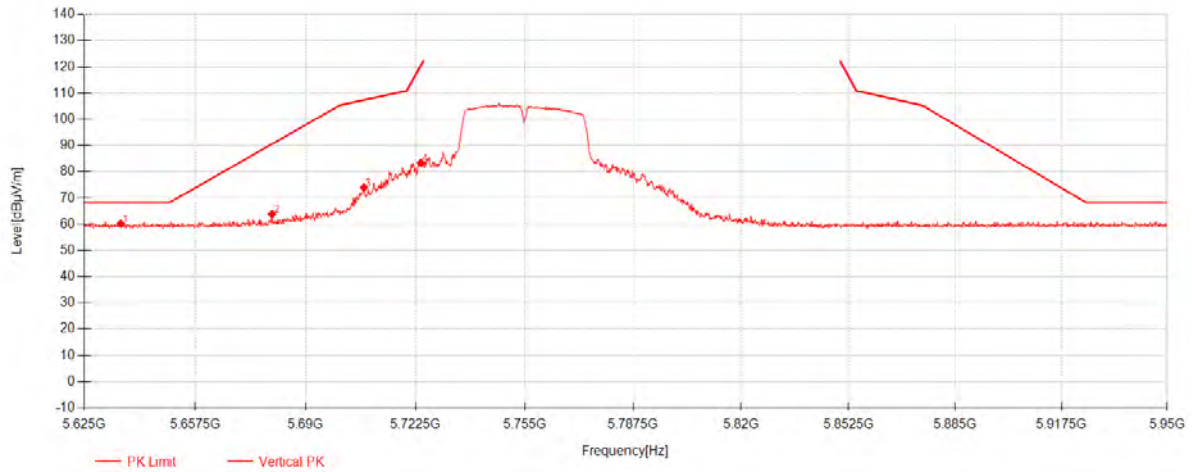
Data List								
NO.	Frequency [MHz]	Reading [dBµV]	AF [dB/m]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity
1	5459.21	47.24	32.23	-19.11	60.35	74.00	13.65	Vertical
2	5465.91	46.96	32.24	-19.13	60.07	68.30	8.23	Vertical
3	5725.24	52.55	32.35	-18.81	66.09	68.30	2.21	Vertical

802.11ac40_Channel 151



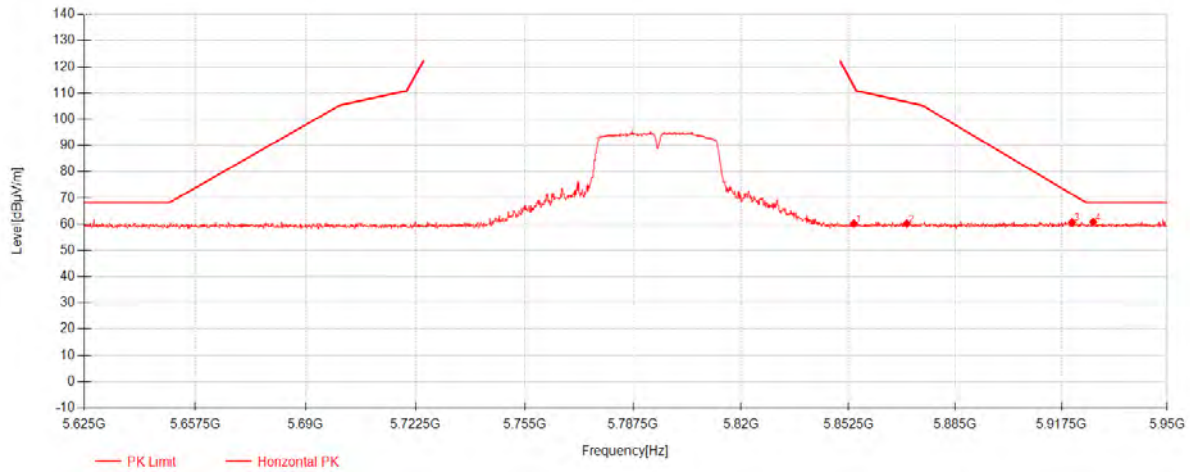
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5644.825	47.64	32.33	-18.72	61.24	68.30	7.06	Horizontal
2	5683.3375	47.62	32.34	-18.73	61.23	93.01	31.78	Horizontal
3	5710.8	53.57	32.34	-18.76	67.15	108.33	41.18	Horizontal
4	5721.6875	62.99	32.34	-18.80	76.54	114.75	38.21	Horizontal

802.11ac40_Channel 151



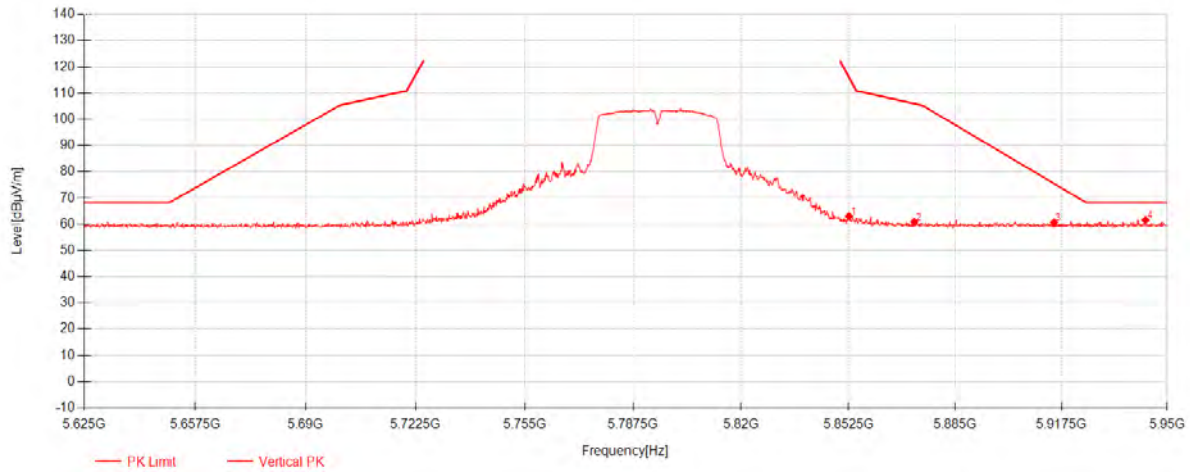
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5635.725	46.59	32.33	-18.72	60.19	68.30	8.11	Vertical
2	5680.0875	50.30	32.34	-18.73	63.91	90.60	26.69	Vertical
3	5707.225	60.42	32.34	-18.75	74.01	107.33	33.32	Vertical
4	5724.125	69.94	32.34	-18.80	83.48	120.31	36.83	Vertical

802.11ac40_Channel 159



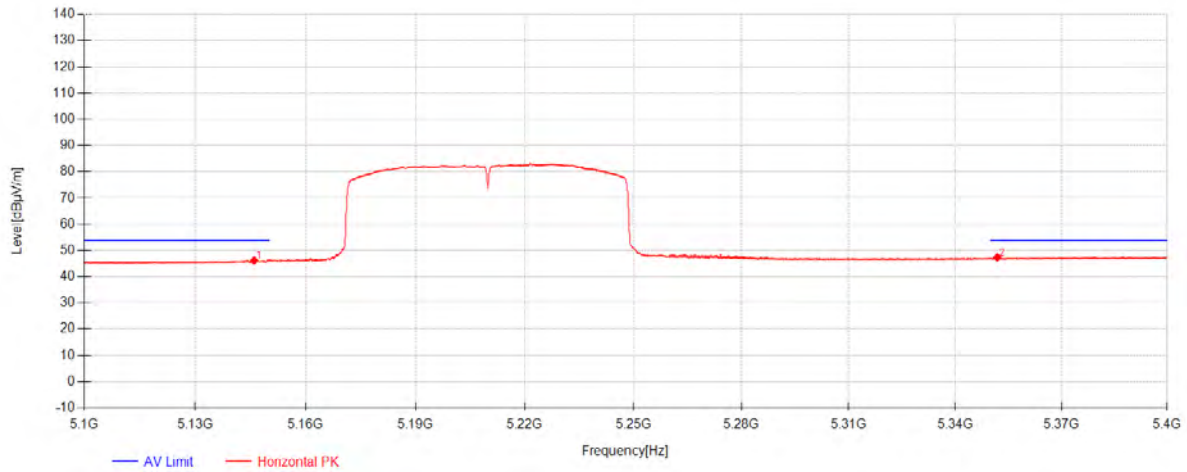
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5854.125	46.74	32.37	-18.87	60.24	112.89	52.65	Horizontal
2	5870.2125	46.62	32.37	-18.83	60.17	106.64	46.47	Horizontal
3	5920.75	47.14	32.38	-18.78	60.74	71.43	10.69	Horizontal
4	5927.25	47.26	32.39	-18.80	60.85	68.30	7.45	Horizontal

802.11ac40_Channel 159



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5852.6625	49.62	32.37	-18.88	63.11	116.23	53.12	Vertical
2	5872.4875	47.31	32.37	-18.82	60.86	106.00	45.14	Vertical
3	5915.225	47.04	32.38	-18.77	60.65	75.51	14.86	Vertical
4	5943.3375	48.02	32.39	-18.83	61.58	68.30	6.72	Vertical

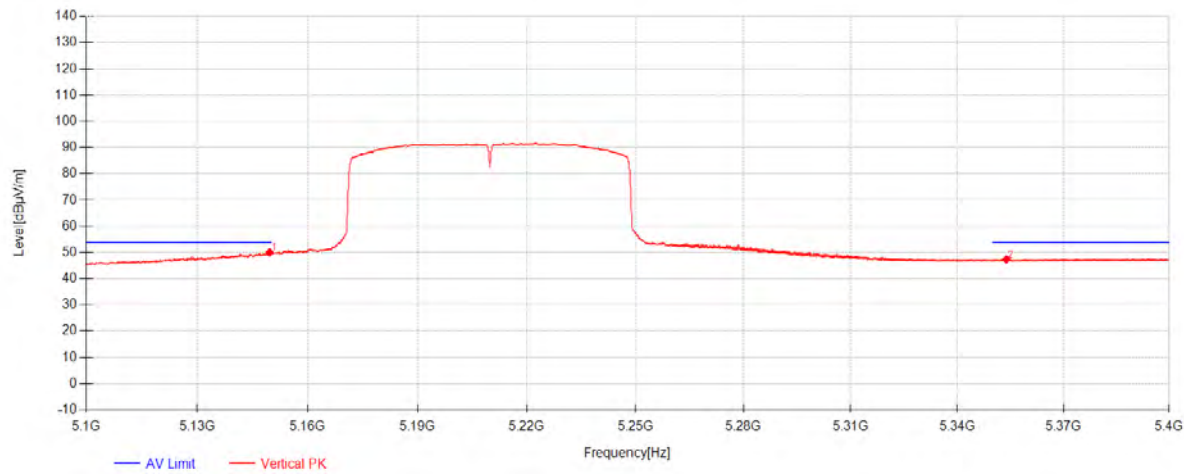
802.11ac80_Channel 42



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5145.9733	33.69	31.66	-19.15	46.20	54.00	7.80	Horizontal
2	5351.8225	34.30	32.03	-18.90	47.43	54.00	6.57	Horizontal



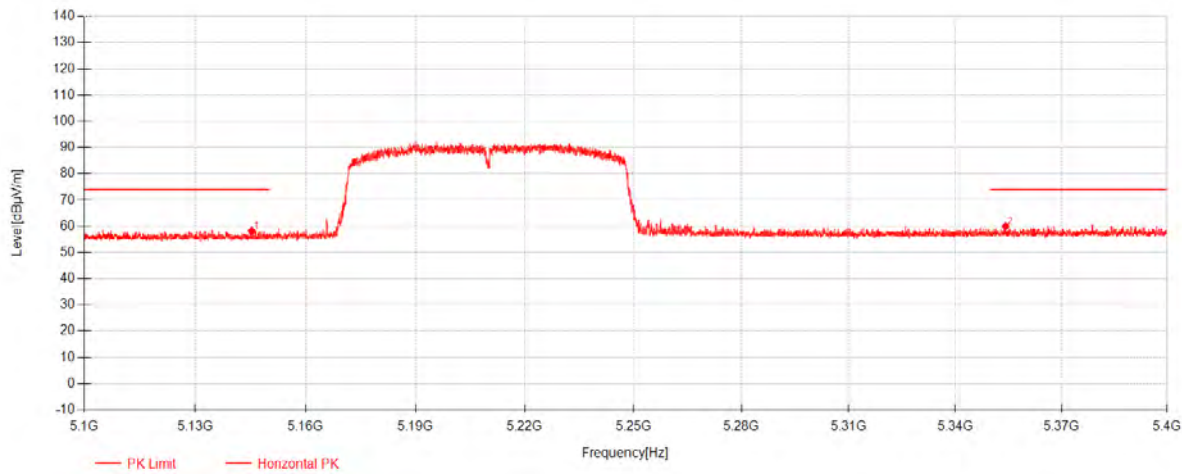
802.11ac80_Channel 42



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5149.6533	37.49	31.67	-19.14	50.02	54.00	3.98	Vertical
2	5353.8	34.22	32.04	-18.91	47.35	54.00	6.65	Vertical

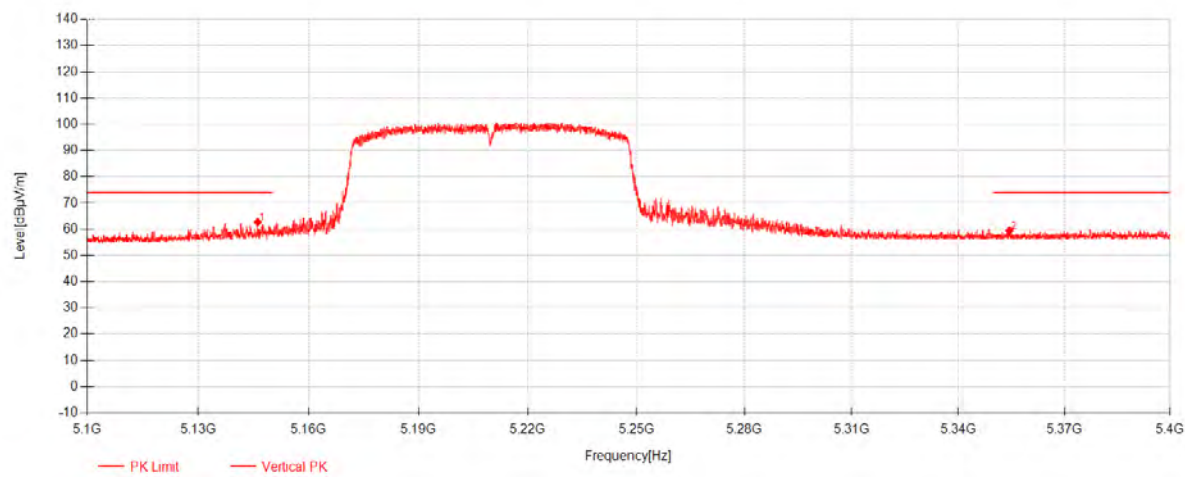


802.11ac80_Channel 42



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5145.34	45.68	31.66	-19.15	58.19	74.00	15.81	Horizontal
2	5354.185	46.82	32.04	-18.91	59.95	74.00	14.05	Horizontal

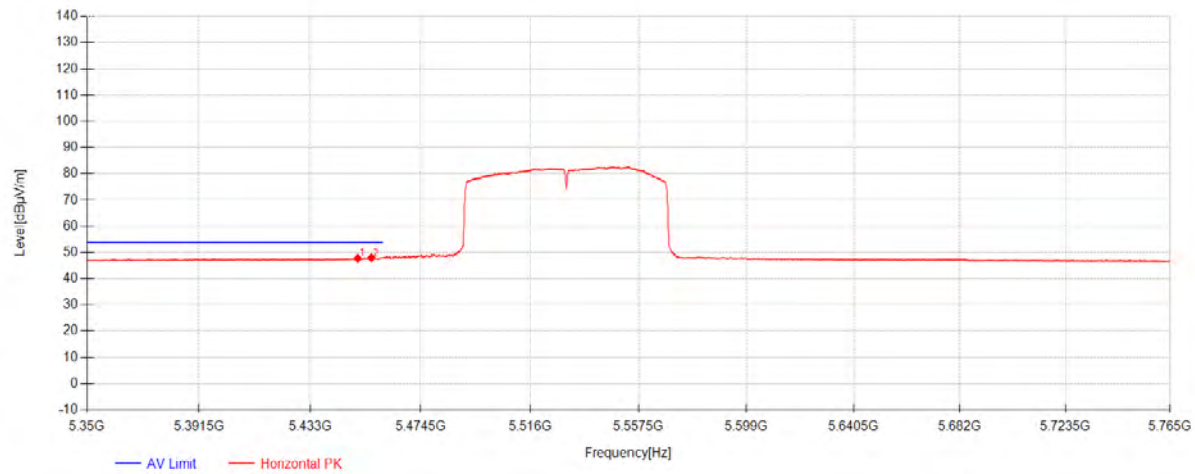
802.11ac80_Channel 42



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5146.14	50.24	31.66	-19.15	62.75	74.00	11.25	Vertical
2	5354.4125	46.30	32.04	-18.91	59.43	74.00	14.57	Vertical

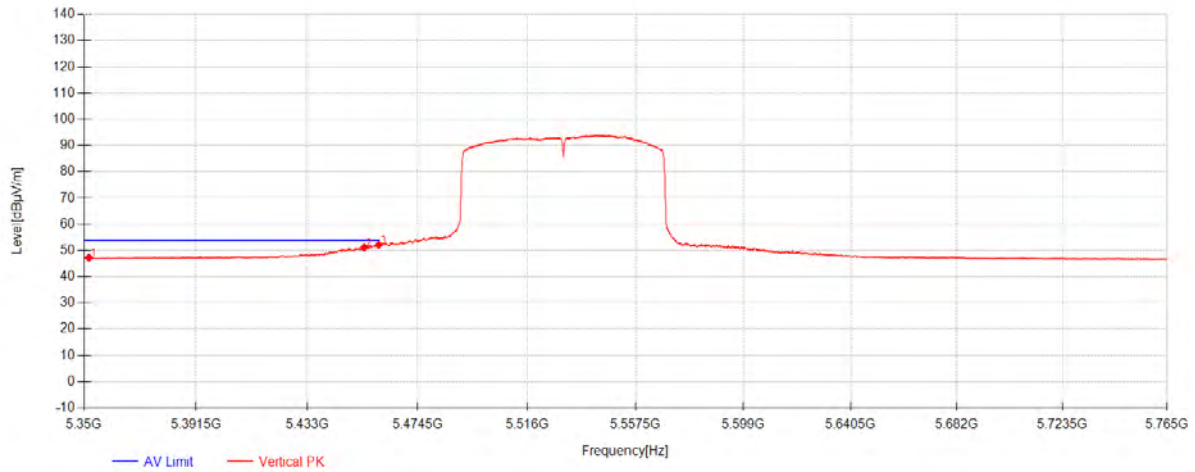


802.11ac80_Channel 106



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5450.835	34.65	32.21	-19.10	47.76	54.00	6.24	Horizontal
2	5455.9717	34.88	32.22	-19.11	47.99	54.00	6.01	Horizontal

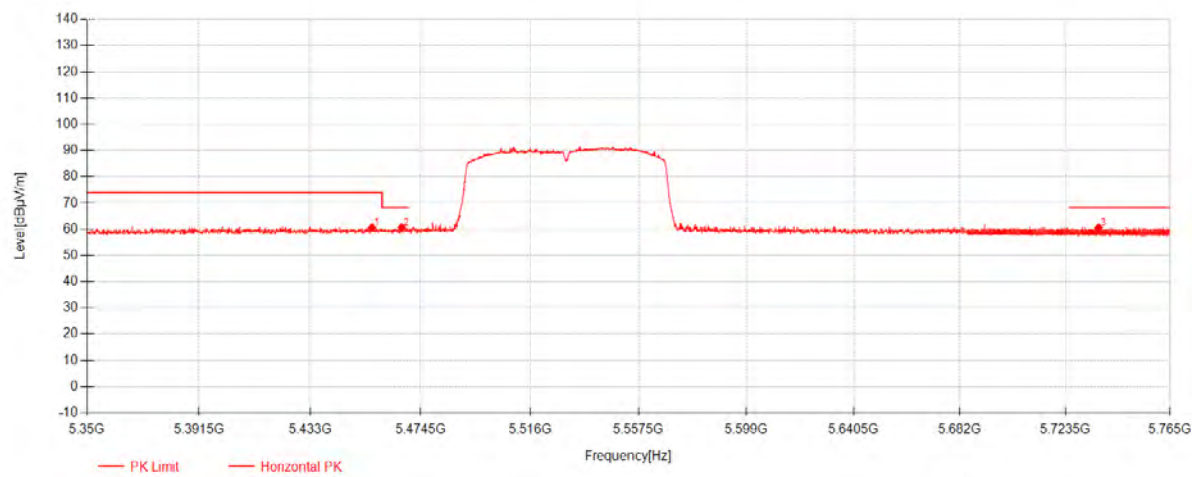
802.11ac80_Channel 106



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5351.7867	34.12	32.03	-18.90	47.25	54.00	6.75	Vertical
2	5454.4083	38.11	32.22	-19.11	51.22	54.00	2.78	Vertical
3	5459.88	39.06	32.23	-19.12	52.17	54.00	1.83	Vertical



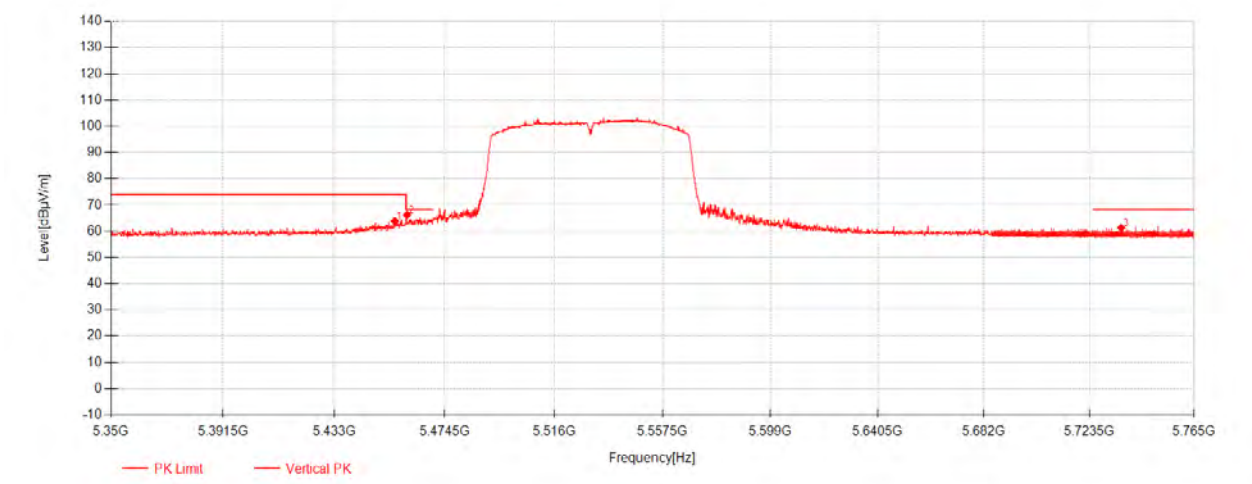
802.11ac80_Channel 106



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5456.195	47.54	32.22	-19.11	60.65	74.00	13.35	Horizontal
2	5467.3617	47.61	32.24	-19.13	60.72	68.30	7.58	Horizontal
3	5736.68	47.12	32.35	-18.84	60.63	68.30	7.67	Horizontal

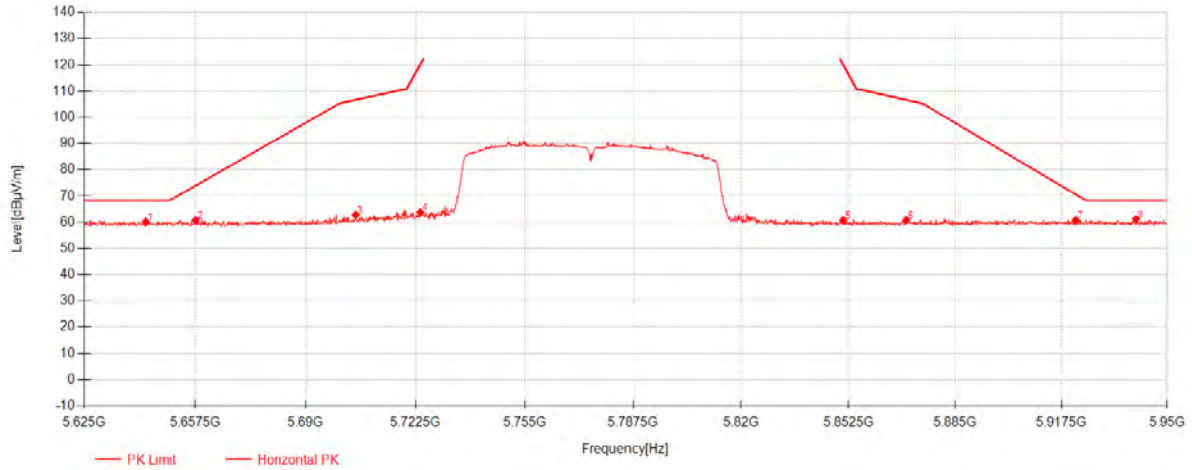


802.11ac80_Channel 106



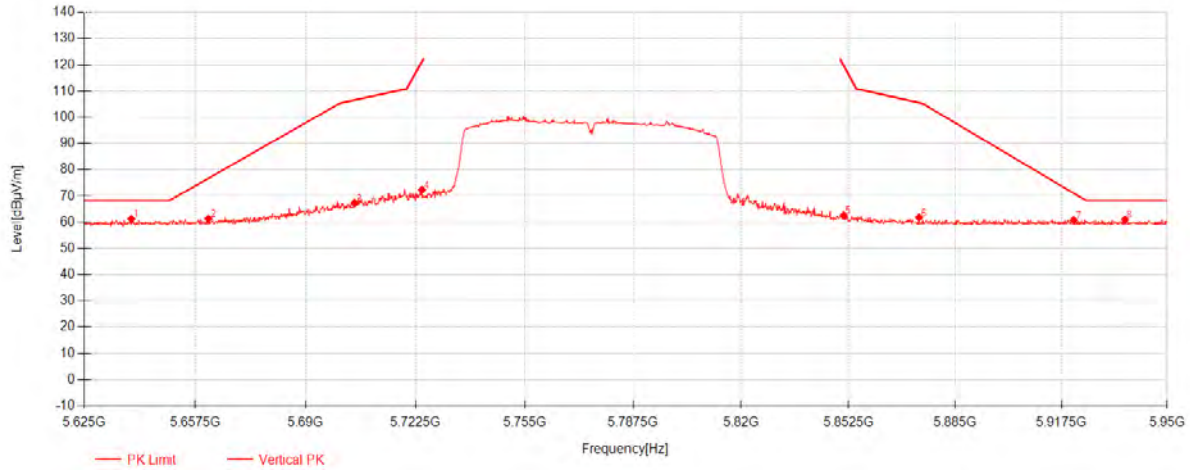
Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5455.7483	50.81	32.22	-19.11	63.92	74.00	10.08	Vertical
2	5460.3267	53.14	32.23	-19.12	66.25	68.30	2.05	Vertical
3	5736.07	47.74	32.35	-18.84	61.25	68.30	7.05	Vertical

802.11ac80_Channel 155



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5643.0375	46.51	32.33	-18.72	60.11	68.30	8.19	Horizontal
2	5657.6625	47.18	32.33	-18.73	60.79	73.99	13.20	Horizontal
3	5704.7875	49.18	32.34	-18.74	62.78	106.64	43.86	Horizontal
4	5723.9625	50.27	32.34	-18.80	63.81	119.94	56.13	Horizontal
5	5850.875	47.30	32.37	-18.88	60.79	120.30	59.51	Horizontal
6	5870.05	47.22	32.37	-18.83	60.77	106.68	45.91	Horizontal
7	5921.8875	47.16	32.38	-18.79	60.76	70.59	9.83	Horizontal
8	5940.4125	47.62	32.39	-18.82	61.18	68.30	7.12	Horizontal

802.11ac80_Channel 155



Data List								
NO.	Frequency [MHz]	Reading [dBμV]	AF [dB/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Polarity
1	5638.8125	47.64	32.33	-18.72	61.24	68.30	7.06	Vertical
2	5661.4	47.71	32.33	-18.73	61.32	76.76	15.44	Vertical
3	5704.4625	53.68	32.34	-18.74	67.28	106.55	39.27	Vertical
4	5724.45	58.88	32.34	-18.80	72.42	121.05	48.63	Vertical
5	5851.0375	49.14	32.37	-18.88	62.63	119.93	57.30	Vertical
6	5873.95	48.27	32.37	-18.82	61.83	105.59	43.76	Vertical
7	5921.2375	47.17	32.38	-18.78	60.77	71.07	10.30	Vertical
8	5937	47.36	32.39	-18.82	60.93	68.30	7.37	Vertical



Report No.: KSCR241200245204

Page: 168 of 168

8 Test Setup Photo

Refer to Appendix - Test Setup Photo for KSCR2412002452AT

9 EUT Constructional Details (EUT Photos)

Refer to Appendix_Photographs of EUT Constructional Details for KSCR2412002452AT

- End of the Report -