



REPORT No.: SZ25020263W04

TEST REPORT

APPLICANT : Linkplay Technology Inc.

PRODUCT NAME : WiiM Amp Ultra

MODEL NAME : AMP003

BRAND NAME : WiiM

FCC ID : 2BABF-AMP003

STANDARD(S) : 47 CFR Part 15 Subpart E

RECEIPT DATE : 2025-03-19

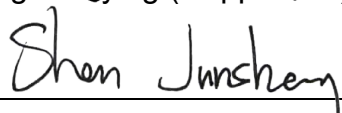
TEST DATE : 2025-04-15 to 2025-05-09

ISSUE DATE : 2025-05-19

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DIRECTORY

1. Summary of Test Result	3
1.1. Testing Applied Standards	4
1.2. Test Equipment List	5
1.3. Measurement Uncertainty	7
1.4. Testing Laboratory	7
2. General Description	8
2.1. Information of Applicant and Manufacturer	8
2.2. Information of EUT	8
2.3. Channel List of EUT	9
2.4. Test Configuration of EUT	10
2.5. Test Conditions	10
2.6. Test Setup Layout Diagram	11
3. Test Results	14
3.1. Conducted Emission	14
3.2. Restricted Frequency Bands	15
3.3. Radiated Emission	17
Annex A Test Data and Result	19

Change History		
Version	Date	Reason for change
1.0	2025-05-19	First edition



1. Summary of Test Result

No.	Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
1	15.203	Antenna Requirement	N/A	N/A	N/A _{Note1}	N/A
2	ANSI C63.10	Duty Cycle of the Test Signal	N/A	N/A	N/A _{Note1}	N/A
3	15.407(a)	Maximum Conducted Output Power	N/A	N/A	N/A _{Note1}	N/A
4	15.407(a)(e)	Emission Bandwidth	N/A	N/A	N/A _{Note1}	N/A
5	15.407(a)	Peak Power Spectral Density	N/A	N/A	N/A _{Note1}	N/A
6	15.407(g)	Frequency Stability	N/A	N/A	N/A _{Note1}	N/A
7	15.407(h)	DFS	N/A	N/A	N/A _{Note1}	N/A
8	15.207	Conducted Emission	May 09, 2025	Fan Shengquan	PASS	No deviation
9	15.407(b)	Restricted Frequency Bands	Apr. 11, 2025	Gao Jianrou	PASS	No deviation
10	15.407(b)	Radiated Emission	Apr. 23, 2025	Gao Jianrou	PASS	No deviation

Note 1: The test results of all conducted test items please refer to the module FCC test report (Report No.: SZ24040154W04), which issued on Jul. 26, 2024.

Note 2: The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.102013.

Note 3: These RF tests were performed according to the method of measurements prescribed in KDB 789033 D02 v02r01.

Note 4: These RF tests were performed according to the method of measurements prescribed in KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02.

Note 5: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.



Note 6: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

1.1. Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 15 Subpart E Radio Frequency Devices



1.2. Test Equipment List

1.2.1 Conducted Emission Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2025.01.06	2026.01.05
LISN	8127449	NSLK 8127	Schwarzbeck	2025.01.09	2026.01.08
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2024.05.30	2025.05.29
RF Coaxial Cable (DC-100MHz)	BNC	MRE04	Qualwave	2024.07.02	2025.07.01

1.2.2 List of Software Used

Description	Manufacturer	Software Version
JS32-RE	Tonscend	5.0.0
TS+ -[JS32-CE]	Tonscend	2.5.0.0

**1.2.3 Radiated Test Equipment**

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Signal Analyzer	MY56060145	N9020A	Agilent	2024.05.30	2025.05.29
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2024.06.22	2025.06.21
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2024.06.03	2025.06.02
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2024.06.22	2025.06.21
Test Antenna – Horn	BBHA9170 #773	BBHA9170	Schwarzbeck	2024.06.22	2025.06.21
Preamplifier (10MHz-6GHz)	46732	S10M100L38 02	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (2GHz-18GHz)	61171/61172	S020180L32 03	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-K K-0.5	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-K KF-2	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-18GHz)	22120181	QA500-18-N N-5	Qualwave	2024.07.03	2025.07.02
Anechoic Chamber	N/A	9m*6m*6m	CRT	2025.04.19	2028.04.18
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.11.30	2025.11.29



1.3. Measurement Uncertainty

Test Items	Uncertainty	Remark
Restricted Frequency Bands	±5%	Confidence levels of 95%
Radiated Emission	±2.95dB	Confidence levels of 95%
Conducted Emission	±2.44dB	Confidence levels of 95%

1.4. Testing Laboratory

Laboratory Name	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone	+86 755 36698555
Facsimile	+86 755 36698525
FCC Designation Number	CN1192
FCC Test Firm Registration Number	226174



2. General Description

2.1. Information of Applicant and Manufacturer

Applicant	Linkplay Technology Inc.
Applicant Address	8000 Jarvis Avenue Suite #130, Newark, CA 94560
Manufacturer	Linkplay Technology Inc.
Manufacturer Address	8000 Jarvis Avenue Suite #130, Newark, CA 94560

2.2. Information of EUT

Product Name:	WiiM Amp Ultra
Sample No.:	4#, 25#
Hardware Version:	A98D V02+Main Board V02
Software Version:	Linkplay.5.2.708867
Modulation Technology:	OFDM, OFDMA
Modulation Mode:	802.11a, 802.11n (HT20), 802.11n (HT40) 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80) 802.11ax (HEW20), 802.11ax (HEW40), 802.11ax (HEW80)
Operating Frequency Range:	5180MHz-5240MHz; 5260MHz-5320MHz; 5500MHz-5720MHz; 5745MHz-5825MHz
Antenna Type:	PIFA Antenna
Antenna Gain:	ANT1: 2.67dBi; ANT2: 2.67dBi

Note 1: The test results of all conducted test items please refer to the module FCC test report (Report No.: SZ24040154W04), which issued on Jul. 26, 2024. We only recorded the radiated test result in this report.

Note 2: The EUT has two antennas that cannot transmit simultaneously. Both of the two antennas were evaluated separately, only the worst test result (ANT1) were recorded in the test report.

Note 3: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

2.3.Channel List of EUT

(U-NII-1) 5180MHz-5240MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	36	5180	40	5200
	44	5220	48	5240
40MHz	38	5190	46	5230
80MHz	42	5210		
(U-NII-2A) 5260MHz-5320MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	52	5260	56	5280
	60	5300	64	5320
40MHz	54	5270	62	5310
80MHz	58	5290		
(U-NII-2C) 5500MHz-5720MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	100	5500	105	5520
	108	5540	112	5560
	116	5580	120	5600
	124	5620	128	5640
	132	5660	136	5680
	140	5700	144	5720
40MHz	102	5510	110	5550
	118	5590	126	5630
	134	5670	142	5710
80MHz	106	5530	122	5610
	138	5690		
(U-NII-3) 5745MHz-5825MHz				
Bandwidth	Channel	Frequency (MHz)	Channel	Frequency (MHz)
20MHz	149	5745	153	5765
	157	5785	161	5805
	165	5825		
40MHz	151	5755	159	5795
80MHz	155	5775		

Note 1: The black bold channels were selected for test.

2.4. Test Configuration of EUT

2.4.1. Modulation Type and Data Rate of EUT

Mode	Bandwidth (MHz)	Modulation Technology	Modulation Type	Data Rate	RU Size
802.11a	20	OFDM	BPSK	6/9/12/18/24/36/48/54Mbps	N/A
			QPSK		
			16QAM		
			64QAM		
802.11n	20/40 (HT20/40)	OFDM	BPSK	MCS0~MCS7	N/A
			QPSK		
			16QAM		
			64QAM		
802.11ac	20/40/80 (VHT20/40/80)	OFDM	BPSK	MCS0~MCS9	N/A
			QPSK		
			16QAM		
			64QAM		
			256QAM		
802.11ax	20/40/80 (HEW20/40/80)	OFDM/ OFDMA	BPSK	MCS0~MCS11	26/52/106/242/484
			QPSK		
			16QAM		
			64QAM		
			256QAM		
			1024QAM		

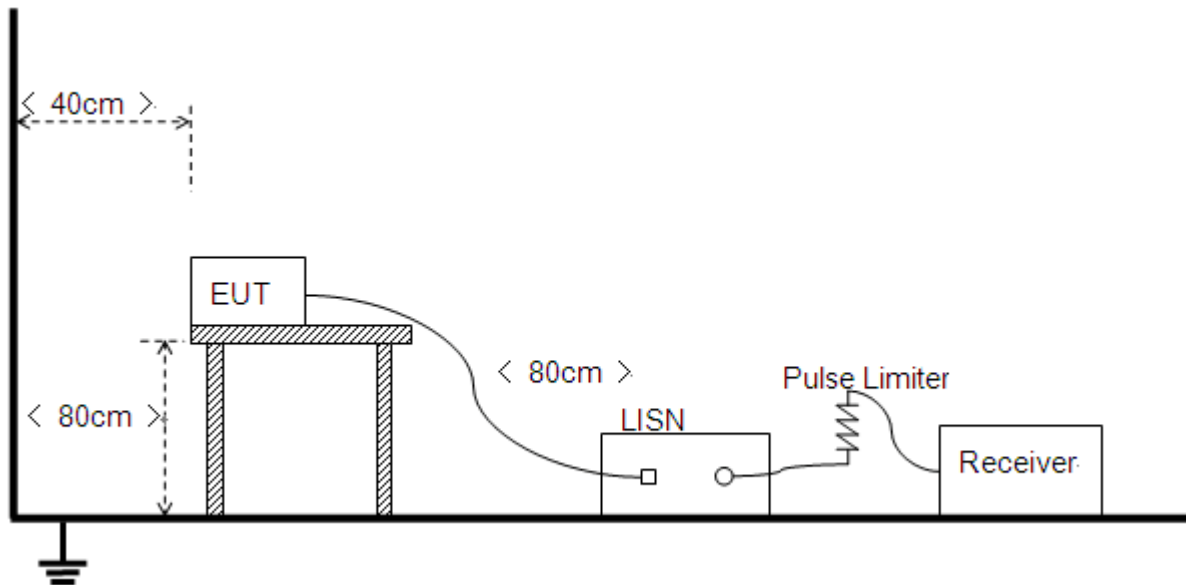
Note1: The worst-case mode (bold face) in all data rates has been determined during the pre-scan, only the test data of the worst-case were recorded in this report.

2.5. Test Conditions

Temperature (°C)	15–35
Relative Humidity (%)	30–60
Atmospheric Pressure (kPa)	86–106

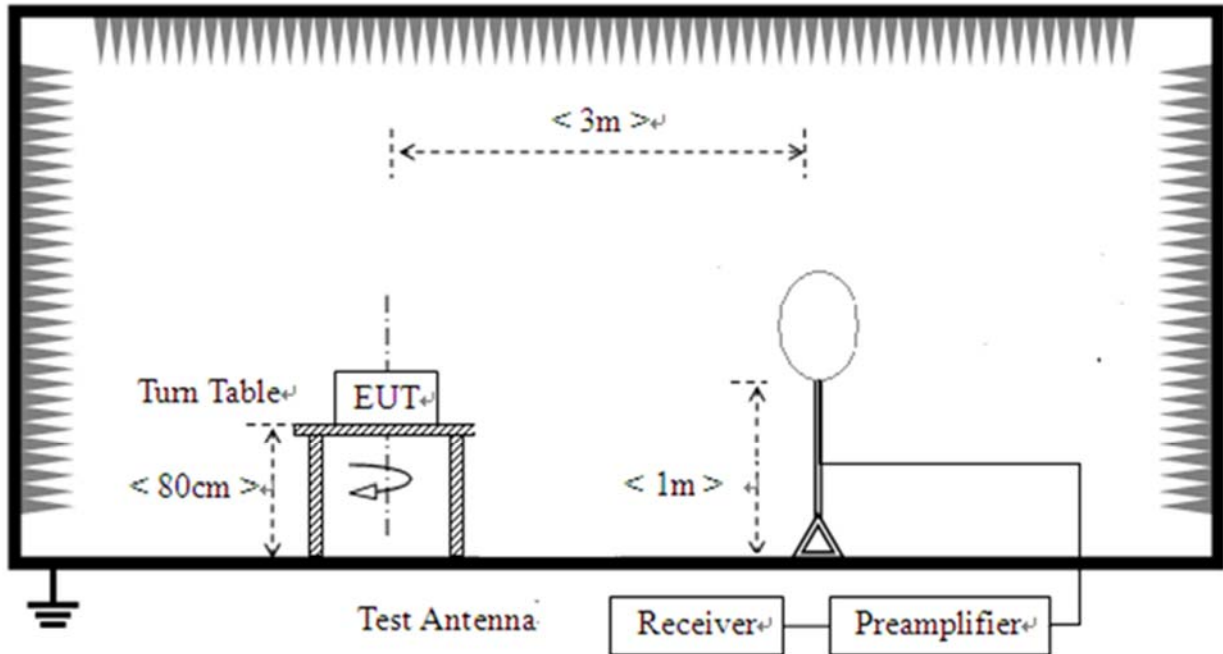
2.6. Test Setup Layout Diagram

2.6.1. Conducted Emission Measurement

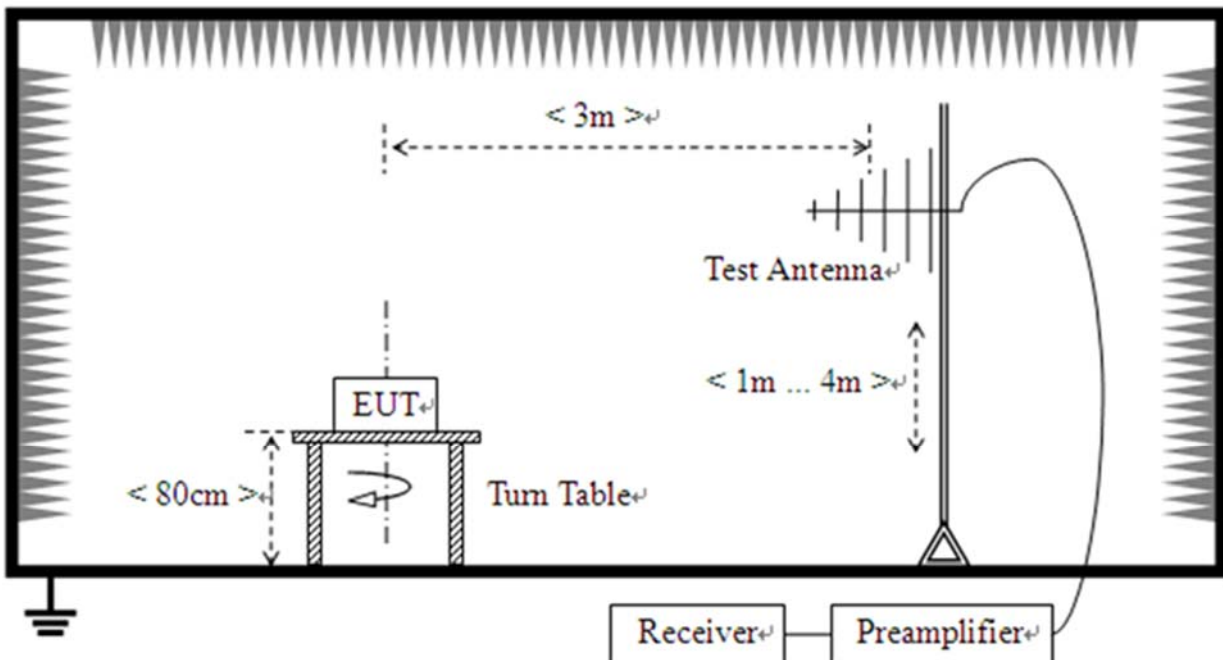


2.6.2.Radiation Measurement

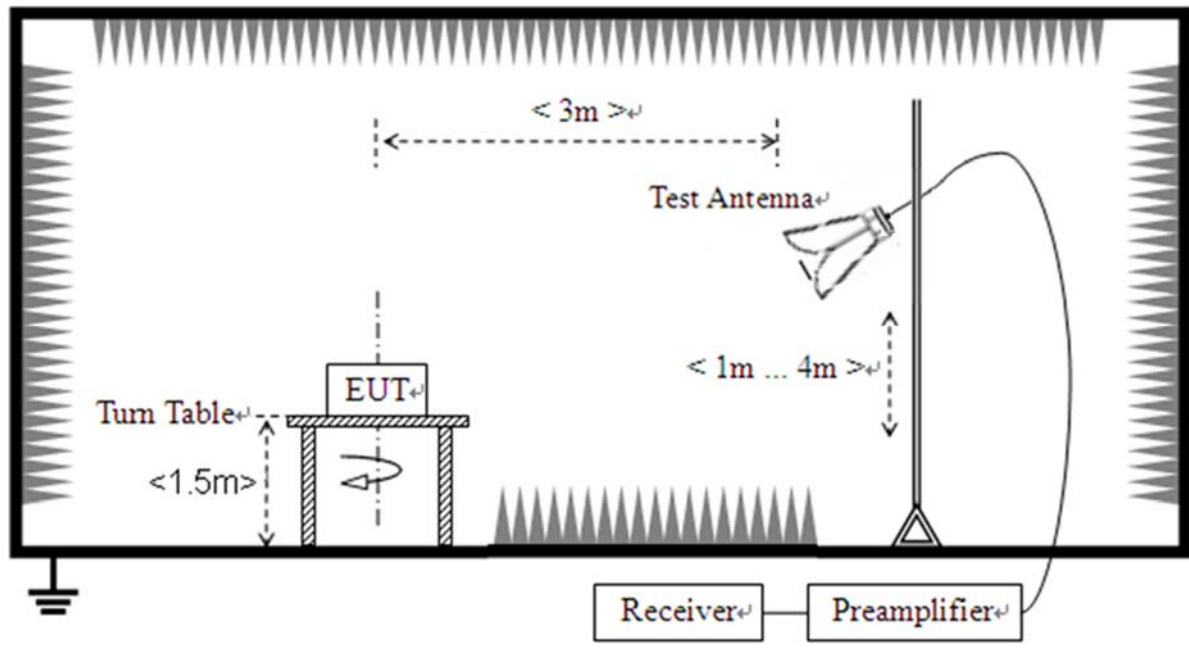
1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



3. Test Results

3.1. Conducted Emission

3.1.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 Ω line impedance stabilization network (LISN).

Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

Note:

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

3.1.2. Test Procedures

The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.

3.1.3. Test Setup Layout

Refer to chapter 2.6.2 in this report.

3.1.4. Test Result

Refer to Annex A.1 in this report.

3.2. Restricted Frequency Bands

3.2.1. Requirement

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

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/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 EIRP of -27dBm/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 EIRP of -27dBm/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.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m



Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
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

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.2.2.Test Procedures

The EUT is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

KDB 789033 Section H) 3)5)6(d)) was used in order to prove compliance

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

3.2.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.2.4.Test Result

Refer to Annex A.2 in this report.

3.3. Radiated Emission

3.3.1. Requirement

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

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/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 EIRP of -27dBm/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 EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
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



For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

3.3.2.Test Procedures

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

3.3.3.Test Setup Layout

Refer to chapter 2.6.3 in this report.

3.3.4.Test Result

Refer to Annex A.3 in this report.



Annex A Test Data and Result

A.1. Conducted Emission

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT+TV+HDMI cable+Load+Fiber box+Mobile phone+Audio+U disk+WIFI TX

Test voltage: AC 120V/60Hz

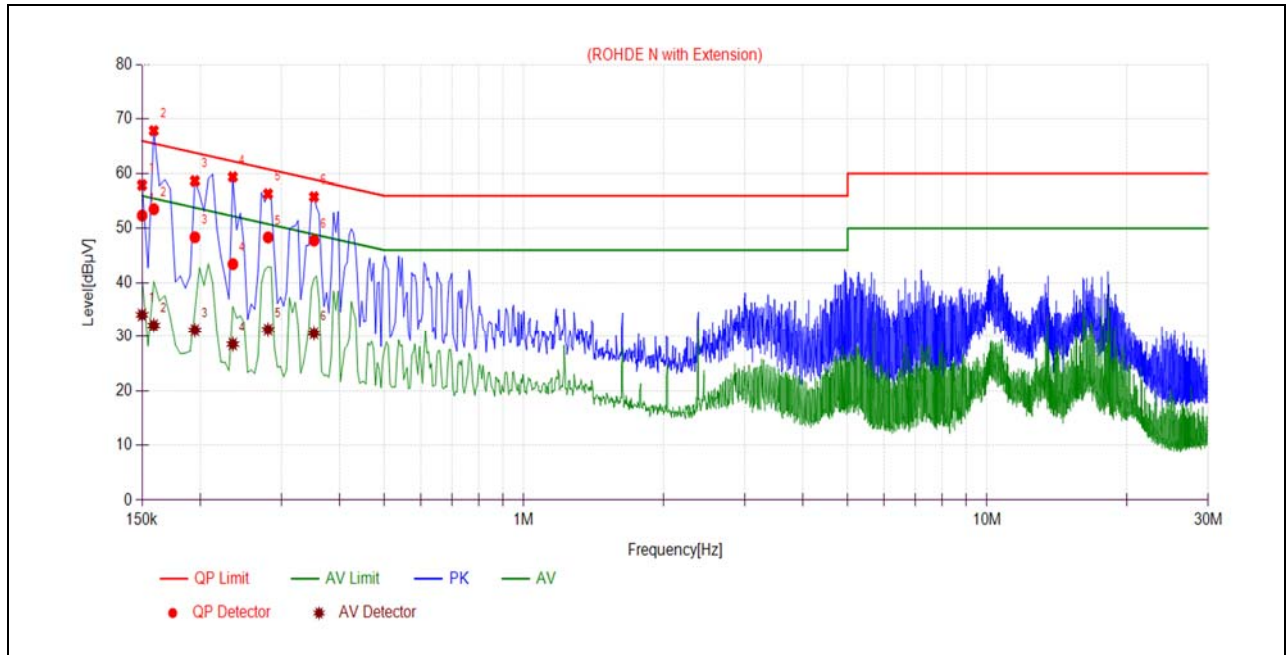
The measurement results are obtained as below:

$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}}$$

U_R : Receiver Reading

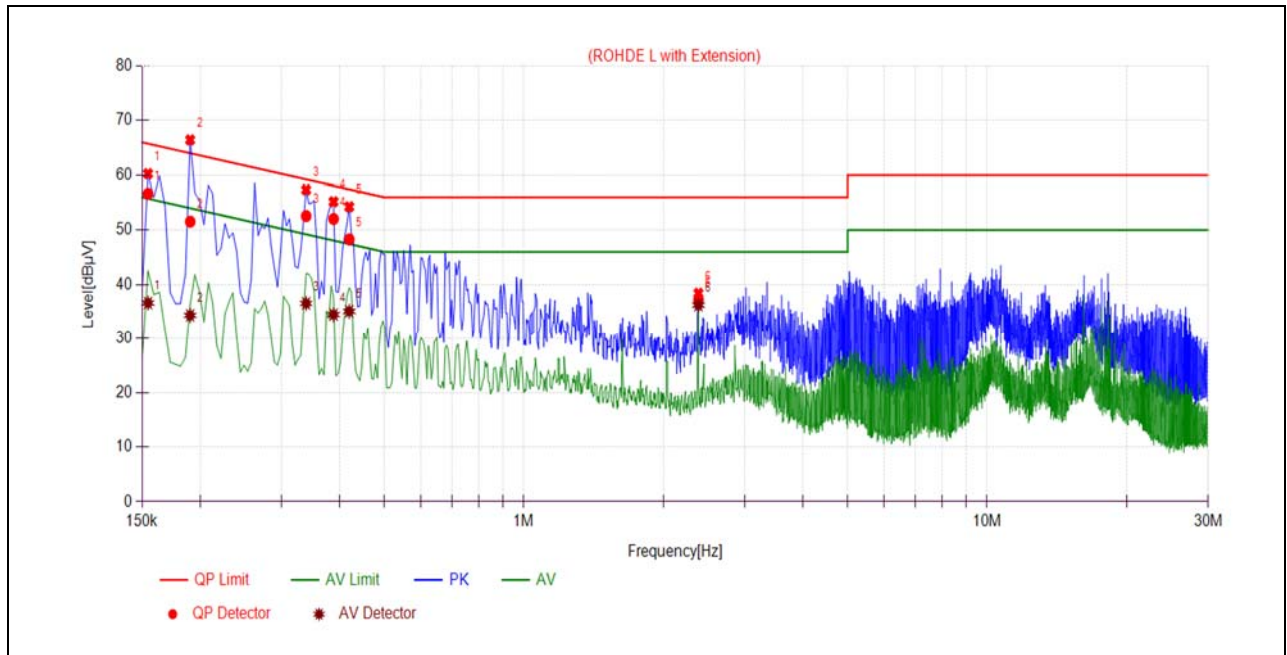
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1500	52.37	34.08	66.00	56.00	Line	PASS
2	0.1590	53.54	32.11	65.52	55.52		PASS
3	0.1950	48.38	31.19	63.82	53.82		PASS
4	0.2355	43.43	28.54	62.25	52.25		PASS
5	0.2805	48.35	31.28	60.80	50.80		PASS
6	0.3525	47.78	30.61	58.90	48.90		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	56.66	36.63	65.75	55.75	Neutral	PASS
2	0.1905	51.55	34.35	64.02	54.02		PASS
3	0.3390	52.58	36.55	59.23	49.23		PASS
4	0.3885	52.06	34.49	58.10	48.10		PASS
5	0.4200	48.30	35.09	57.45	47.45		PASS
6	2.3822	37.22	36.23	56.00	46.00		PASS

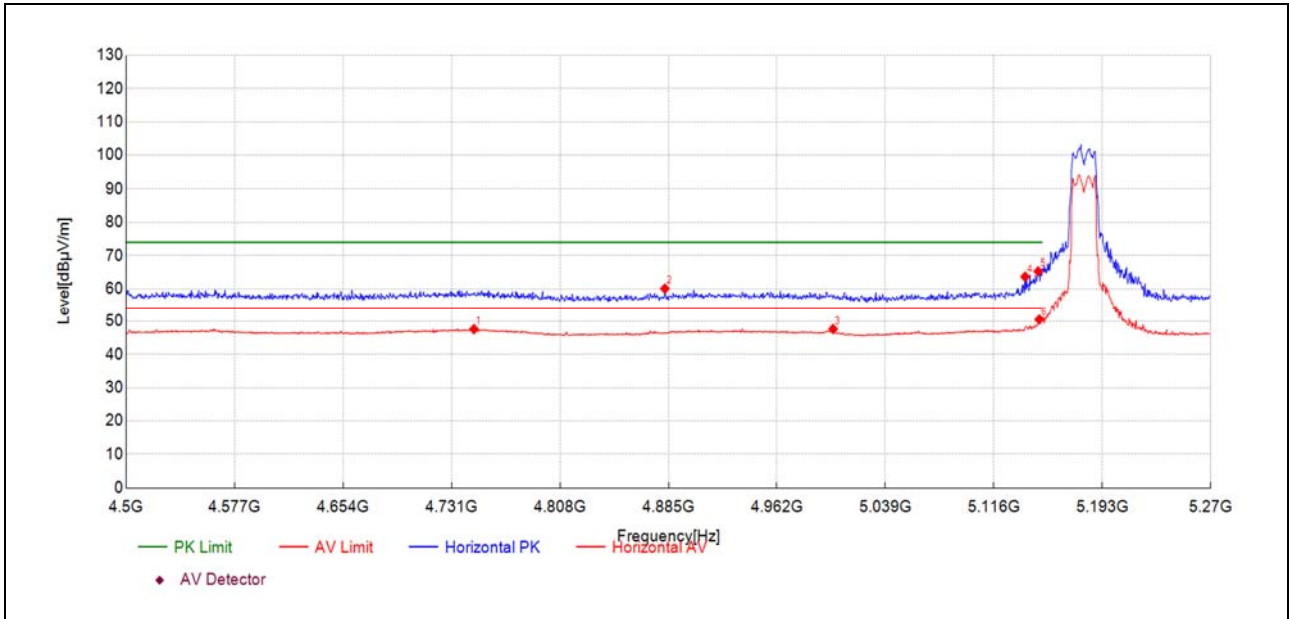
A.2. Restricted Frequency Bands

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (Horizontal) was recorded in this test report.

Note 2 All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

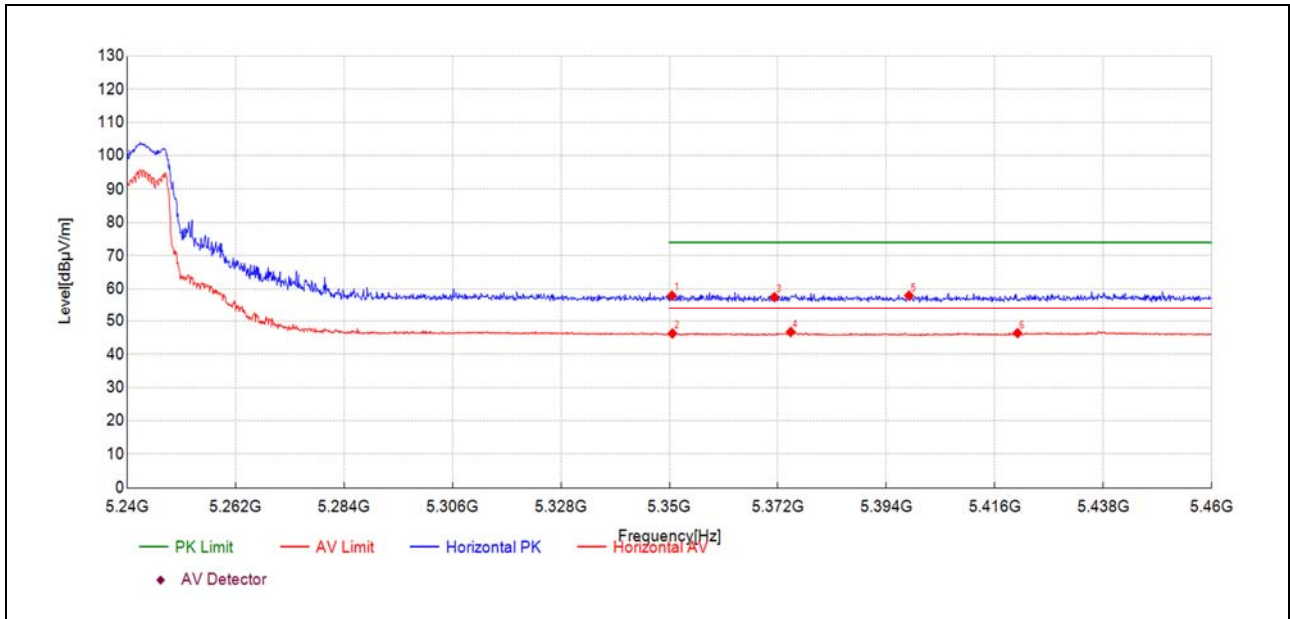
802.11a Mode

Plot for Channel 36



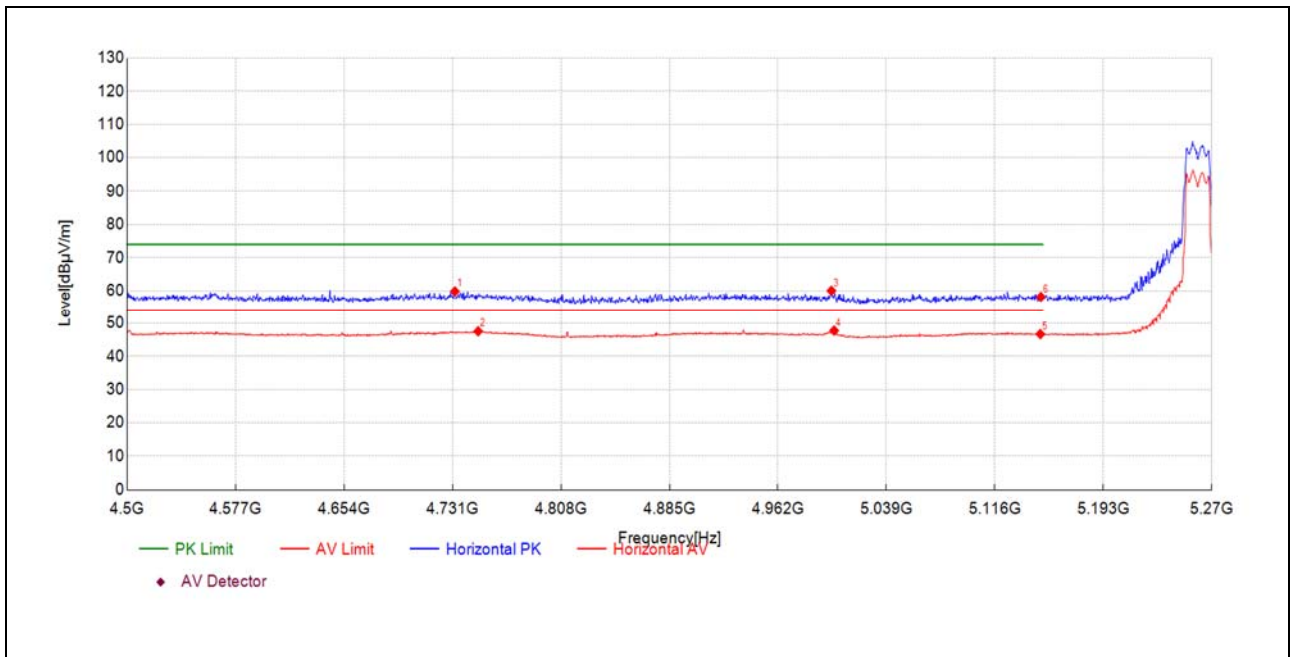
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4746.91	27.3	47.59	20.320	54.00	6.41	150	54	AV	PASS
4882.50	40.0	60.06	20.100	74.00	13.94	150	290	PK	PASS
5001.91	27.7	47.63	19.890	54.00	6.87	150	356	AV	PASS
5138.26	43.3	63.63	20.360	74.00	10.37	150	268	PK	PASS
5147.51	44.9	65.25	20.320	74.00	8.75	150	207	PK	PASS
5148.28	30.2	50.50	20.320	54.00	3.50	150	207	AV	PASS

Plot for Channel 48



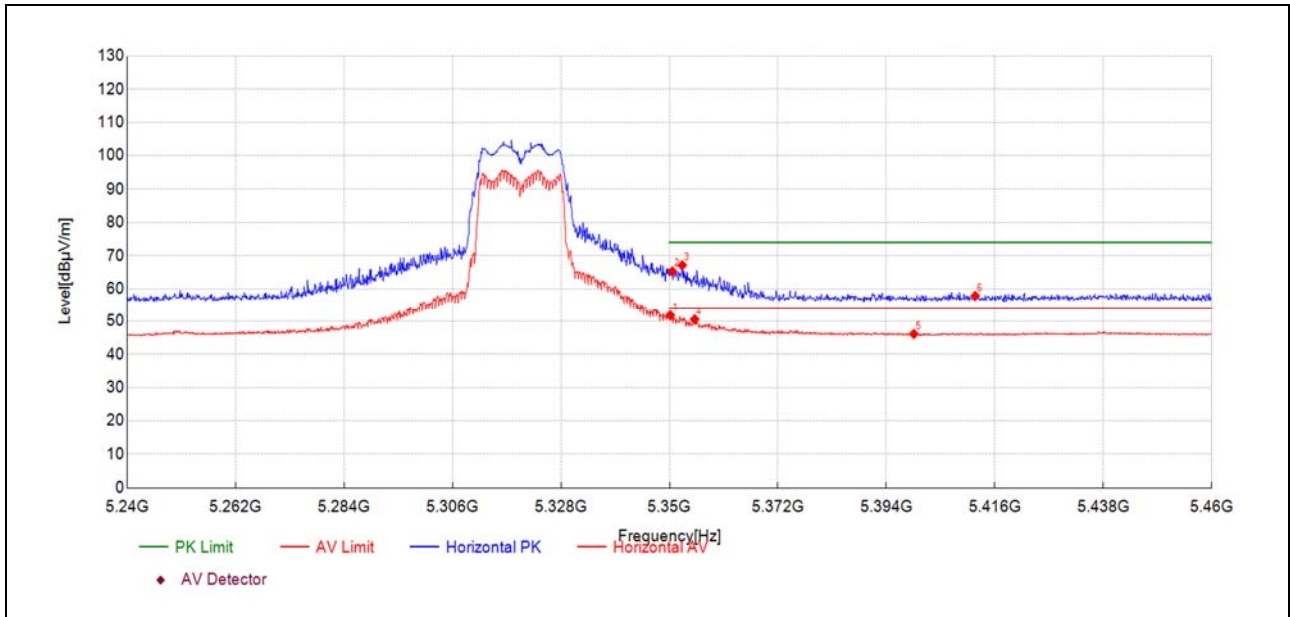
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.50	38.0	57.94	19.940	74.00	16.06	150	85	PK	PASS
5350.61	26.3	46.23	19.940	54.00	7.77	150	0	AV	PASS
5371.30	37.6	57.51	19.900	74.00	16.49	150	189	PK	PASS
5374.60	26.8	46.71	19.890	54.00	7.29	150	230	AV	PASS
5398.59	38.1	57.93	19.830	74.00	16.07	150	320	PK	PASS
5420.60	26.3	46.36	20.100	54.00	7.64	150	0	AV	PASS

Plot for Channel 52



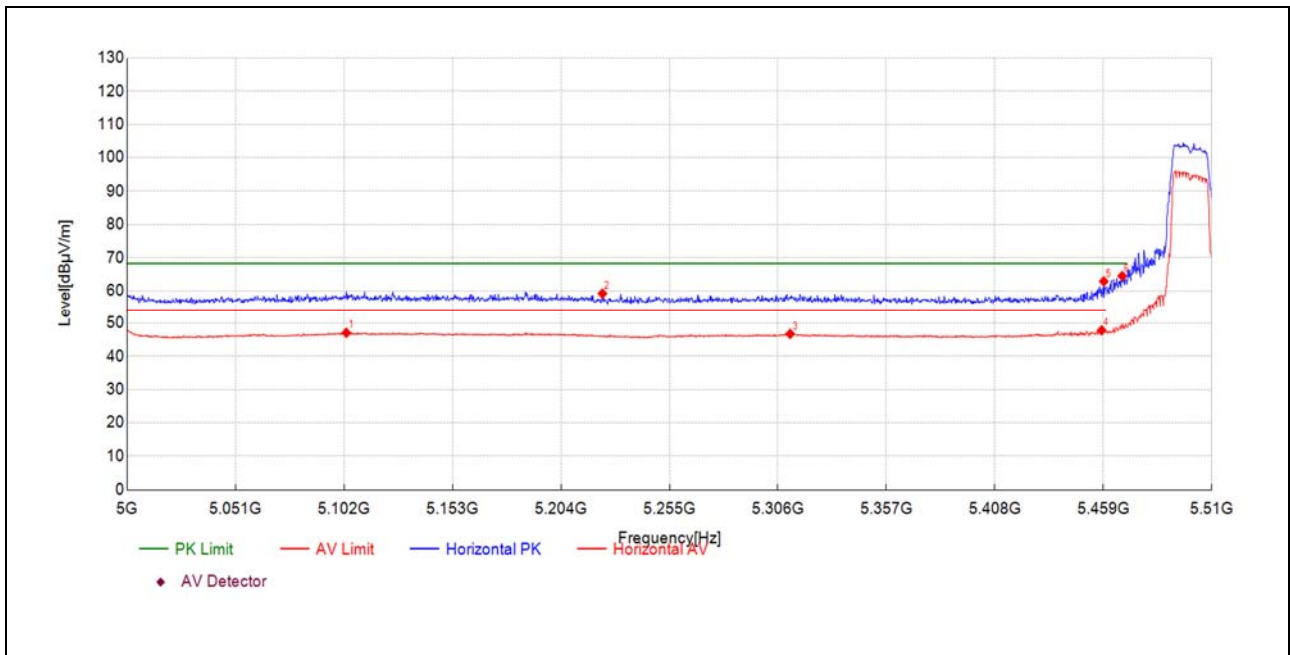
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4732.66	39.5	59.80	20.310	74.00	14.20	150	208	PK	PASS
4749.22	27.2	47.51	20.320	54.00	6.49	150	139	AV	PASS
4999.98	40.1	59.99	19.880	74.00	14.01	150	230	PK	PASS
5001.91	27.8	47.72	19.890	54.00	6.28	150	10	AV	PASS
5148.28	26.4	46.67	20.320	54.00	7.33	150	148	AV	PASS
5148.66	37.8	58.14	20.320	74.00	15.86	150	1	PK	PASS

Plot for Channel 64



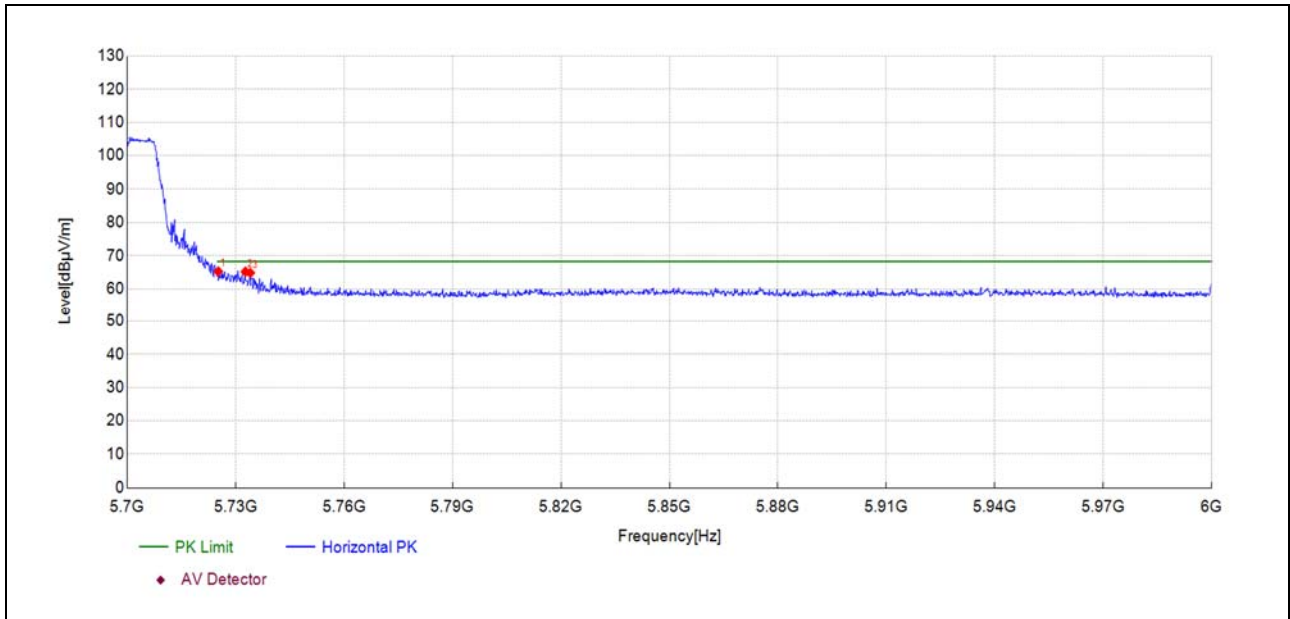
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.17	31.8	51.75	19.940	54.00	2.25	150	213	AV	PASS
5350.61	45.3	65.24	19.940	74.00	8.76	150	213	PK	PASS
5352.59	47.2	67.11	19.930	74.00	6.89	150	213	PK	PASS
5355.12	30.6	50.54	19.930	54.00	3.46	150	213	AV	PASS
5399.58	26.3	46.11	19.830	54.00	7.89	150	360	AV	PASS
5412.02	37.8	57.82	19.980	74.00	16.18	150	192	PK	PASS

Plot for Channel 100



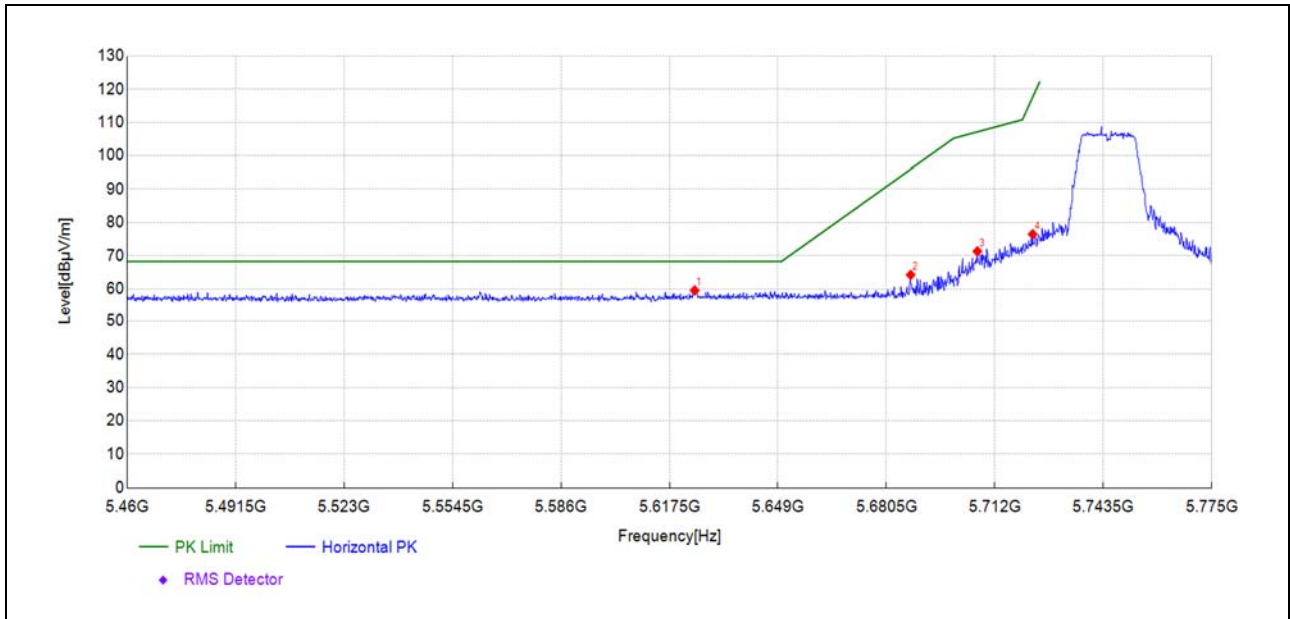
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5103.07	26.6	47.05	20.500	54.00	6.95	150	340	AV	PASS
5223.49	39.0	59.15	20.150	68.23	9.08	150	43	PK	PASS
5311.77	26.5	46.72	20.180	54.00	7.28	150	0	AV	PASS
5458.21	27.4	47.80	20.430	54.00	6.20	150	208	AV	PASS
5459.23	42.4	62.86	20.420	68.23	5.37	150	208	PK	PASS
5467.90	44.1	64.44	20.370	68.23	3.79	150	208	PK	PASS

Plot for Channel 140



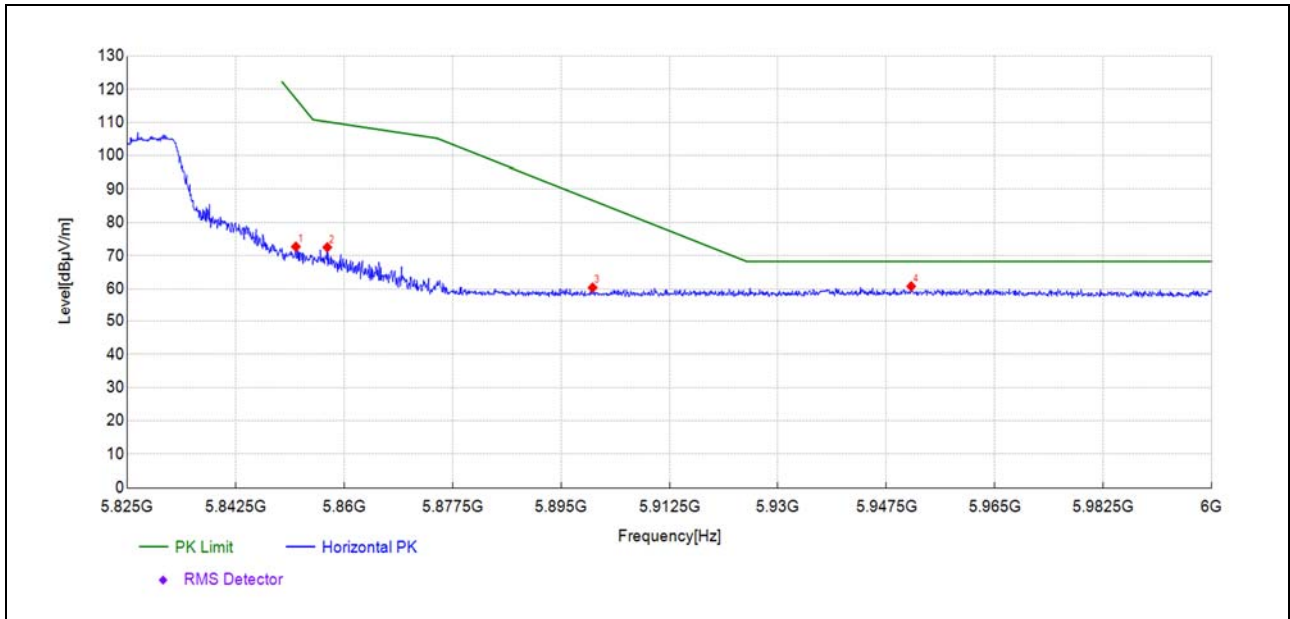
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5725.21	44.0	65.24	21.260	68.23	2.99	150	216	PK	PASS
5732.72	43.8	65.16	21.380	68.23	3.07	150	216	PK	PASS
5734.07	43.4	64.80	21.400	68.23	3.43	150	216	PK	PASS

Plot for Channel 149



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5624.83	38.9	59.51	20.570	68.23	8.72	150	0	PK	PASS
5687.54	43.3	64.21	20.910	96.01	31.80	150	220	PK	PASS
5706.93	50.3	71.30	20.990	107.17	35.87	150	220	PK	PASS
5723.00	55.2	76.47	21.230	117.67	41.20	150	220	PK	PASS

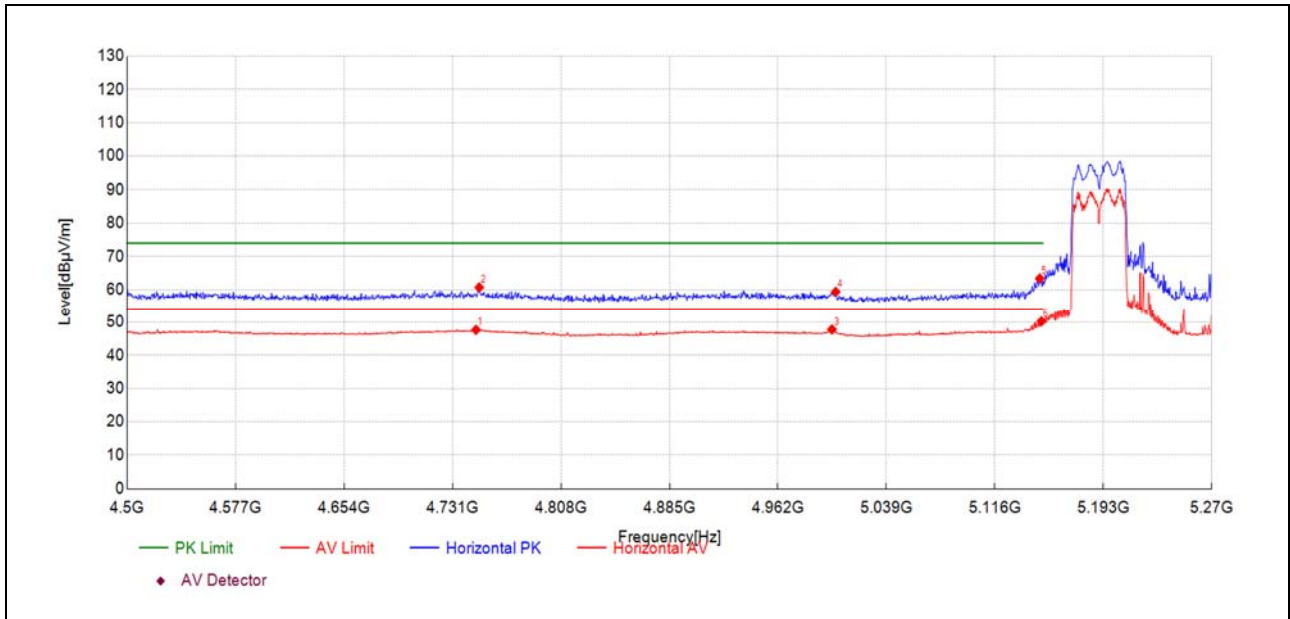
Plot for Channel 165



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5852.23	50.3	72.71	22.430	117.15	44.44	150	216	PK	PASS
5857.30	50.2	72.51	22.350	110.18	37.67	150	216	PK	PASS
5900.11	38.6	60.36	21.720	86.65	26.29	150	37	PK	PASS
5951.50	38.7	60.76	22.100	68.23	7.47	150	272	PK	PASS

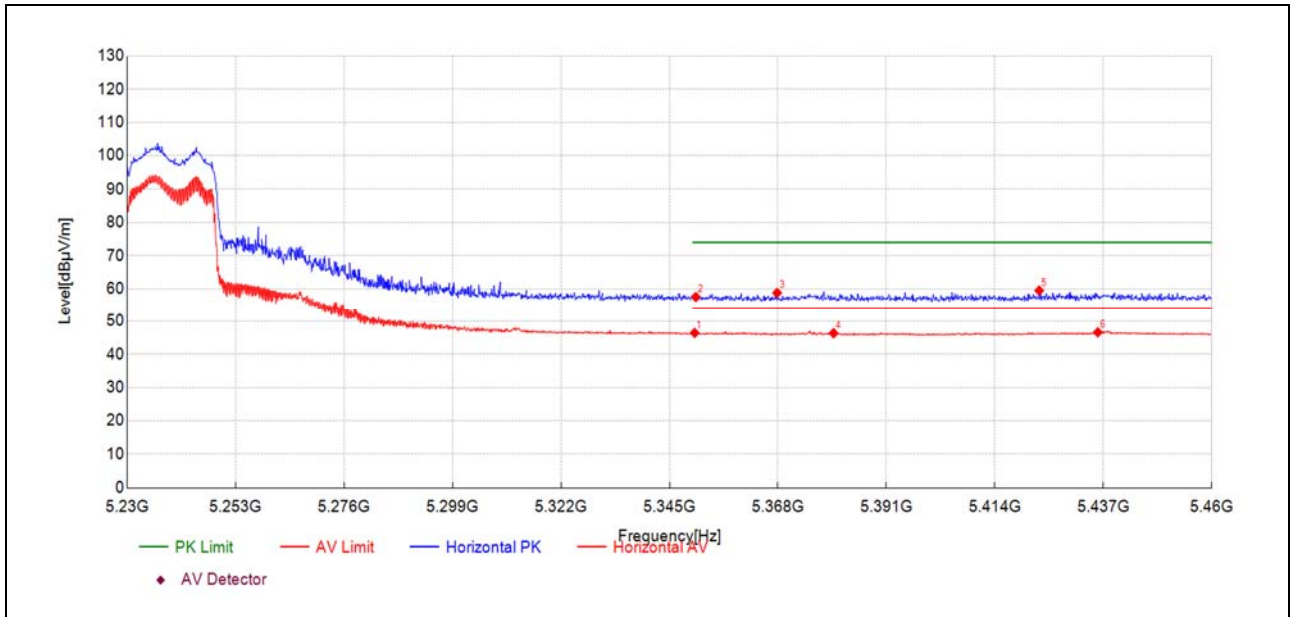
**802.11n (HT40) Mode**

Plot for Channel 38



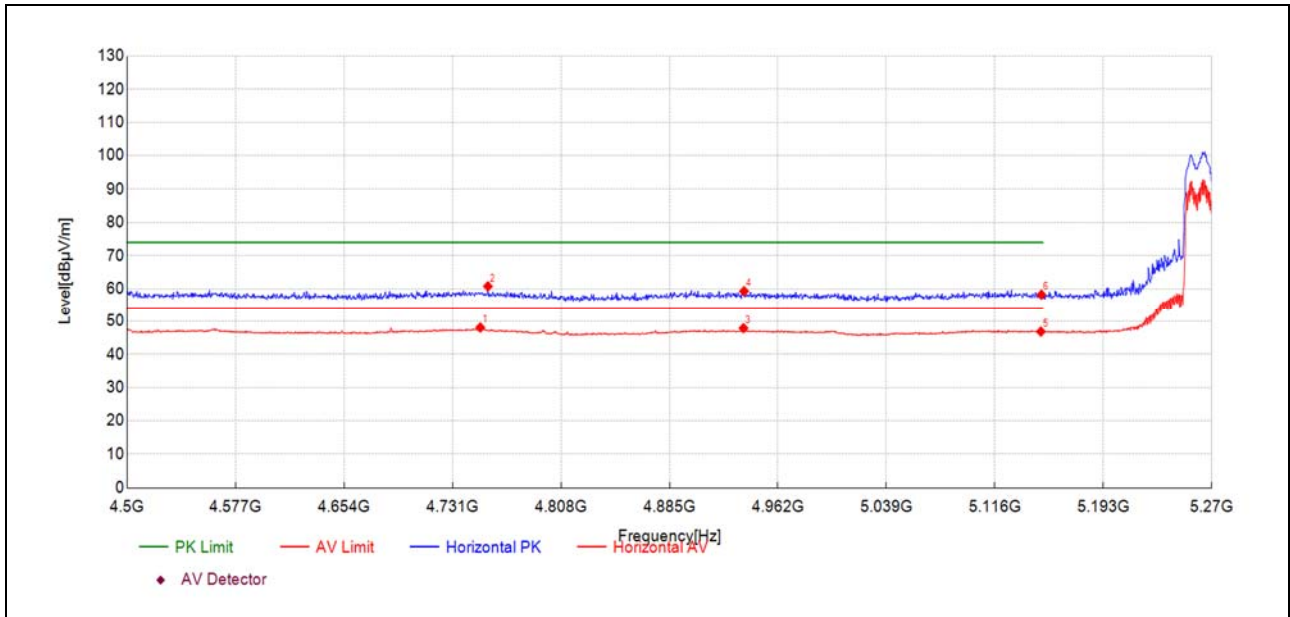
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4747.68	27.3	47.64	20.320	54.00	6.36	150	0	AV	PASS
4749.99	40.4	60.69	20.320	74.00	13.31	150	1	PK	PASS
5000.37	27.9	47.76	19.880	54.00	6.24	150	0	AV	PASS
5003.06	39.4	59.34	19.900	74.00	14.66	150	93	PK	PASS
5147.89	43.0	63.36	20.320	74.00	10.64	150	207	PK	PASS
5149.05	29.9	50.21	20.320	54.00	3.79	150	207	AV	PASS

Plot for Channel 46



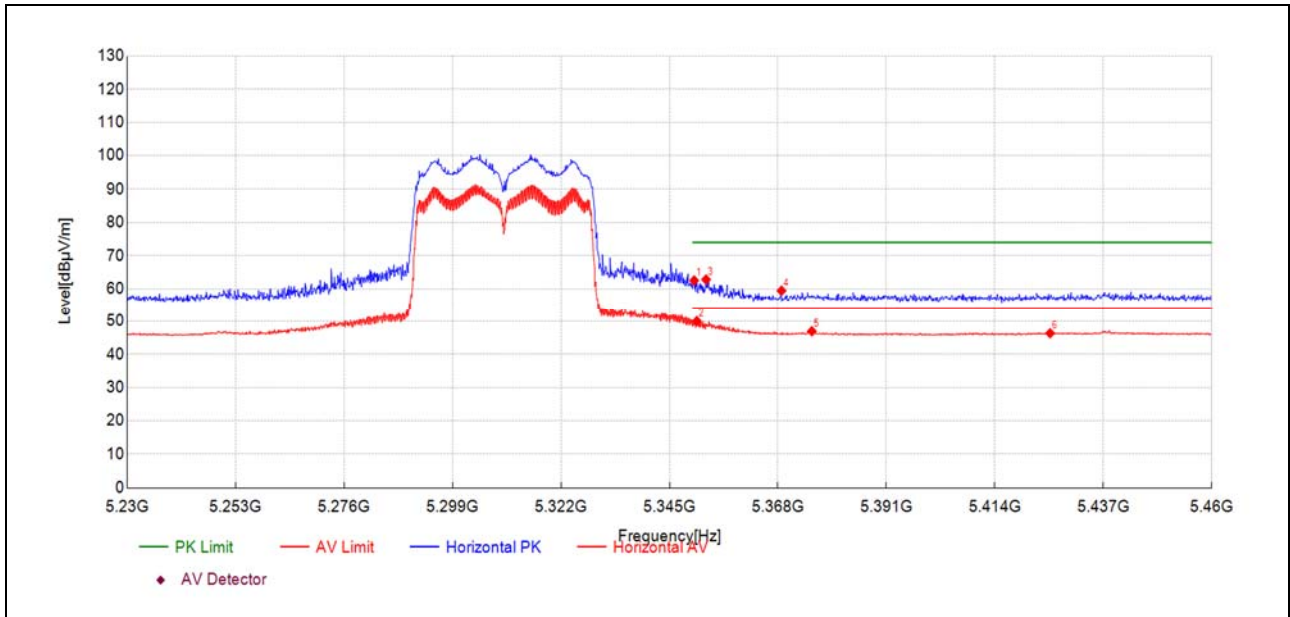
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.35	26.5	46.42	19.940	54.00	7.58	150	207	AV	PASS
5350.58	37.6	57.52	19.940	74.00	16.48	150	319	PK	PASS
5367.84	38.9	58.75	19.900	74.00	15.25	150	2	PK	PASS
5379.80	26.5	46.34	19.870	54.00	7.66	150	309	AV	PASS
5423.41	39.3	59.47	20.130	74.00	14.53	150	176	PK	PASS
5435.84	26.3	46.62	20.290	54.00	7.38	150	23	AV	PASS

Plot for Channel 54



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4750.76	27.8	48.06	20.300	54.00	5.94	150	350	AV	PASS
4756.15	40.5	60.75	20.210	74.00	13.25	150	358	PK	PASS
4937.58	27.9	47.85	19.940	54.00	6.15	150	306	AV	PASS
4937.96	39.3	59.27	19.940	74.00	14.73	150	171	PK	PASS
5148.66	26.5	46.82	20.320	54.00	7.18	150	225	AV	PASS
5149.05	37.9	58.21	20.320	74.00	15.79	150	337	PK	PASS

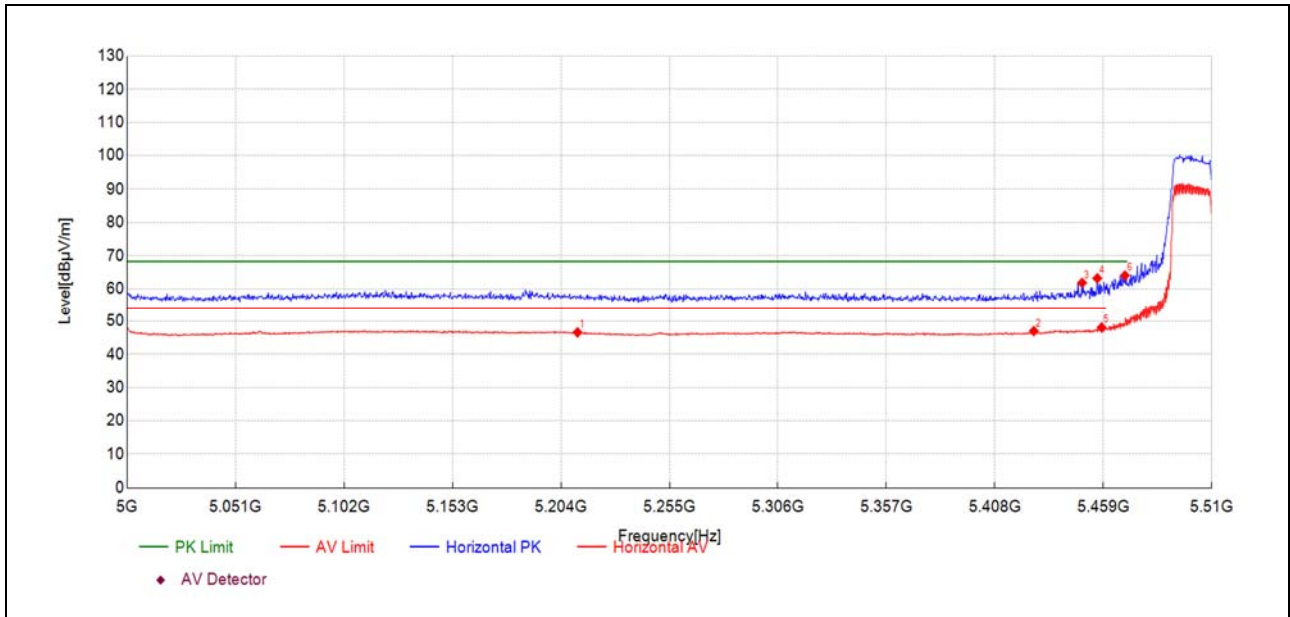
Plot for Channel 62



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.24	42.6	62.50	19.940	74.00	11.50	150	215	PK	PASS
5350.81	30.1	49.99	19.940	54.00	4.01	150	215	AV	PASS
5352.77	42.9	62.80	19.930	74.00	11.20	150	215	PK	PASS
5368.76	39.5	59.43	19.900	74.00	14.57	150	215	PK	PASS
5375.20	27.0	46.91	19.880	54.00	7.09	150	215	AV	PASS
5425.71	26.2	46.33	20.160	54.00	7.67	150	184	AV	PASS

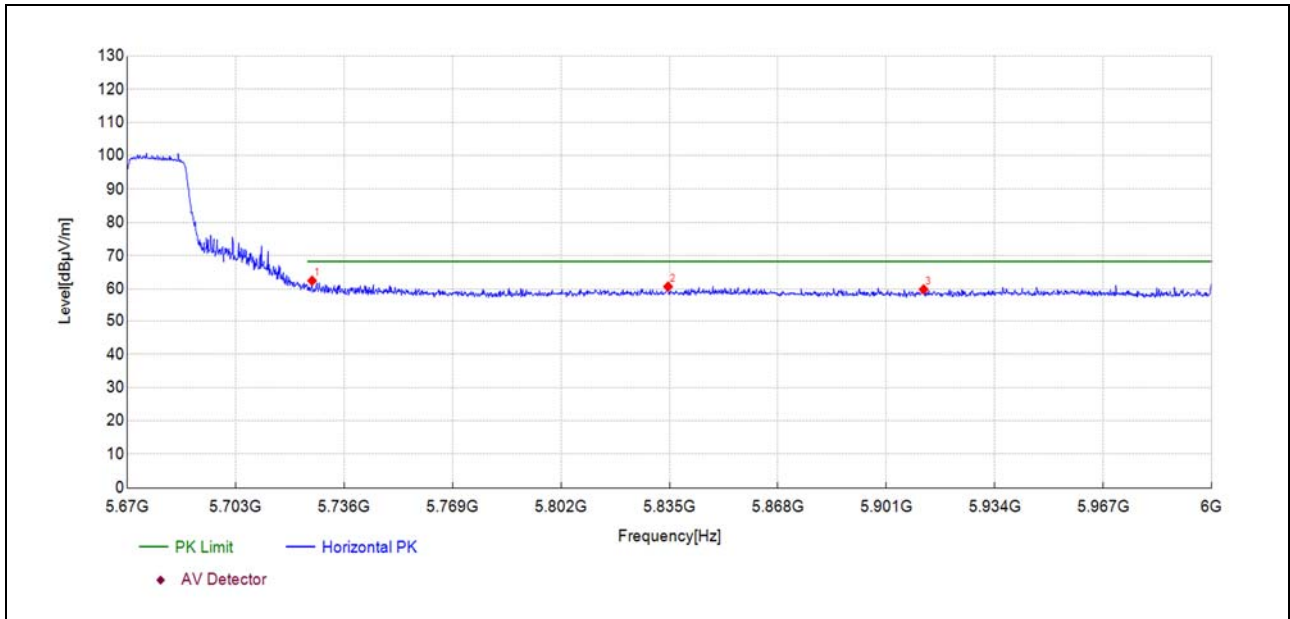


Plot for Channel 102



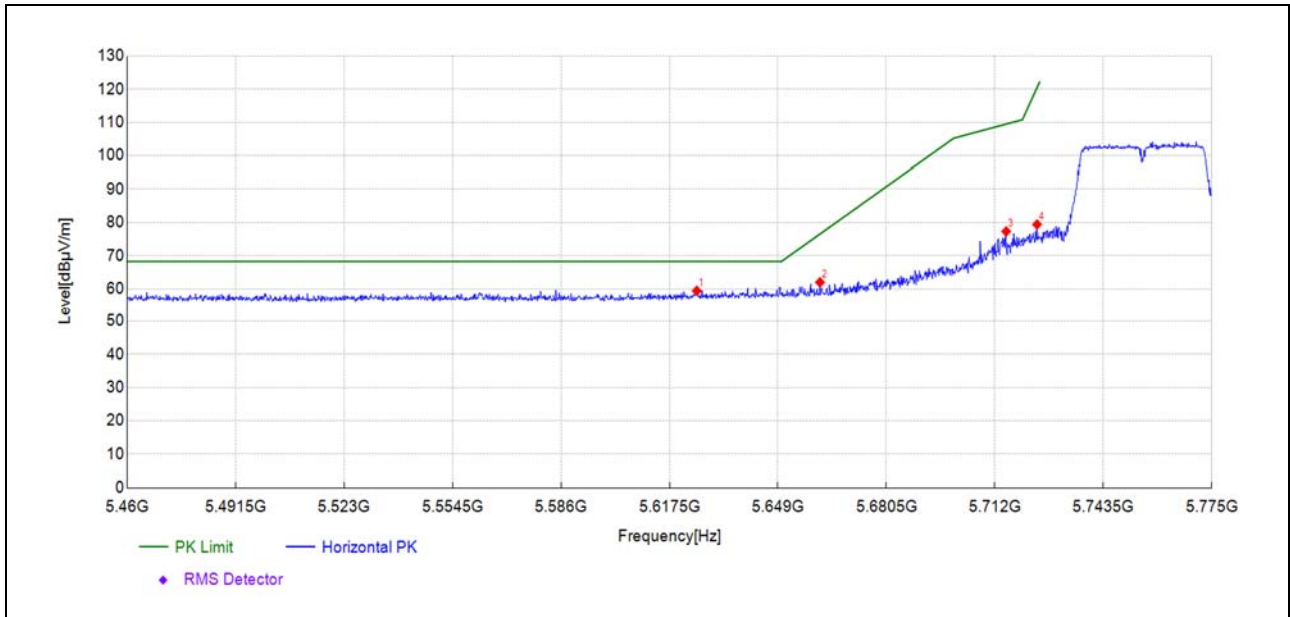
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5211.76	26.3	46.58	20.280	54.00	7.42	150	3	AV	PASS
5426.32	26.8	46.98	20.170	54.00	7.02	150	213	AV	PASS
5449.02	41.3	61.80	20.460	68.23	6.43	150	213	PK	PASS
5456.17	42.7	63.16	20.430	68.23	5.07	150	202	PK	PASS
5458.21	27.6	48.05	20.430	54.00	5.95	150	202	AV	PASS
5469.18	43.6	64.00	20.370	68.23	4.23	150	213	PK	PASS

Plot for Channel 134



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5726.29	41.2	62.44	21.280	68.23	5.79	150	218	PK	PASS
5834.59	38.5	60.67	22.220	68.23	7.56	150	152	PK	PASS
5912.34	38.0	59.82	21.810	68.23	8.41	150	237	PK	PASS

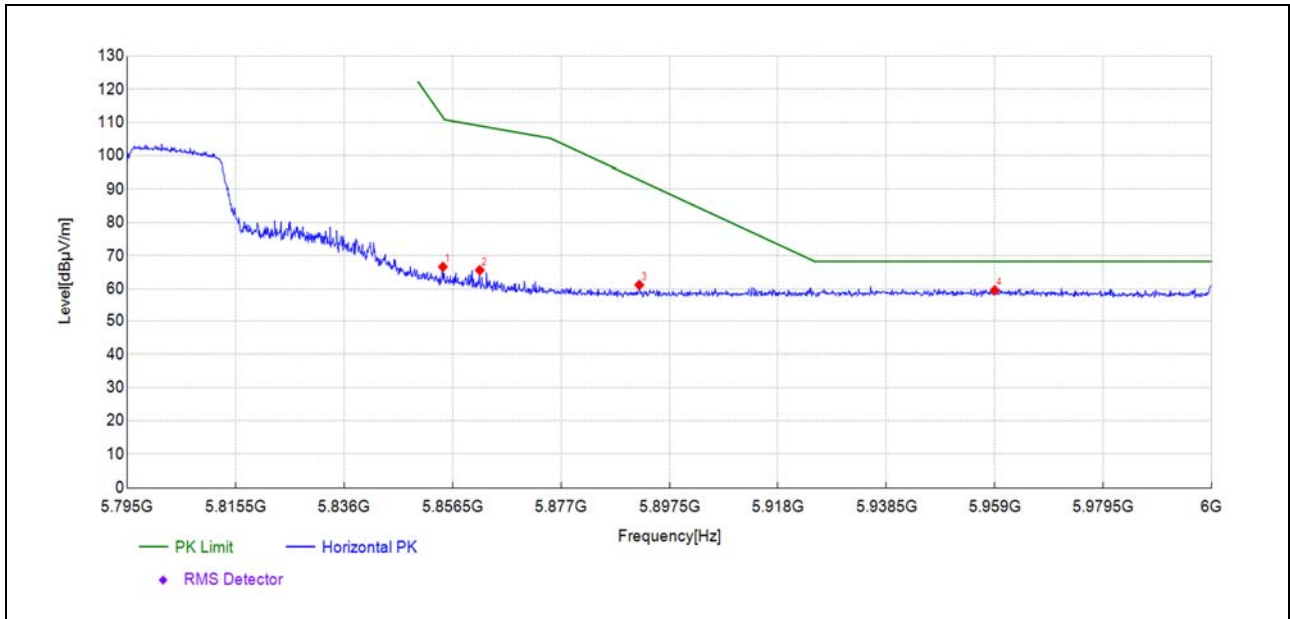
Plot for Channel 151



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5625.46	38.8	59.40	20.580	68.23	8.83	150	103	PK	PASS
5661.23	41.0	61.96	20.970	76.54	14.58	150	206	PK	PASS
5715.28	56.2	77.32	21.110	109.51	32.19	150	206	PK	PASS
5724.26	58.2	79.41	21.250	120.54	41.13	150	216	PK	PASS



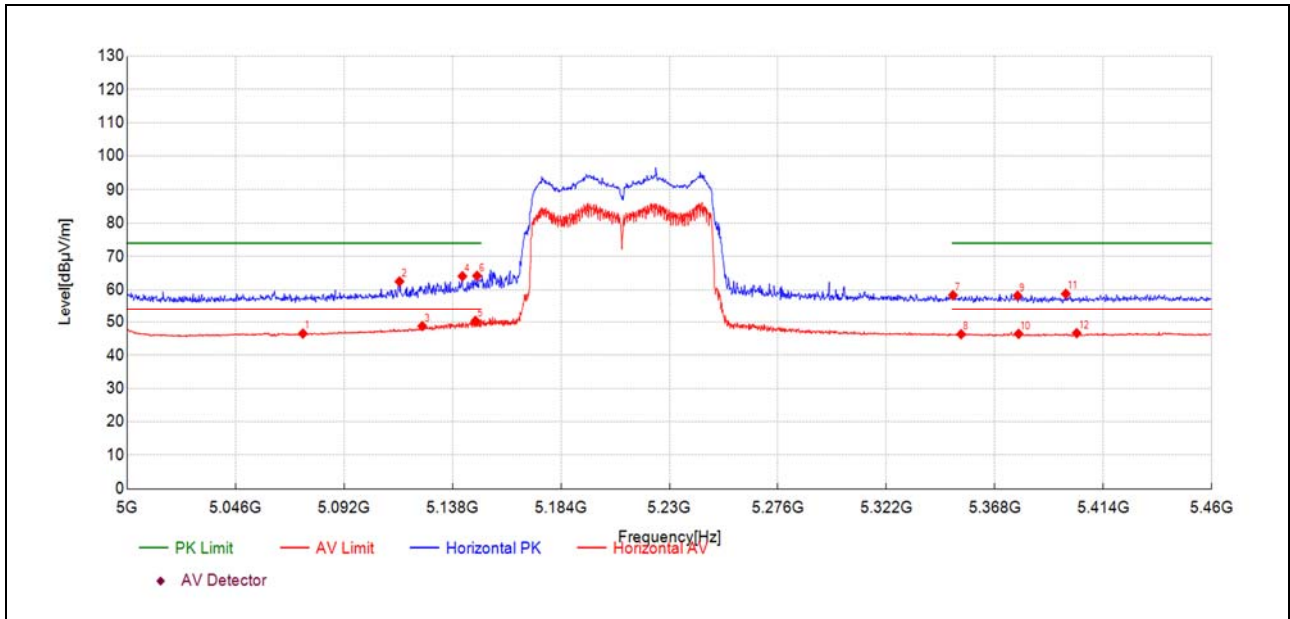
Plot for Channel 159



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5854.68	44.2	66.61	22.390	111.55	44.94	150	200	PK	PASS
5861.66	43.3	65.61	22.290	108.97	43.36	150	238	PK	PASS
5891.81	39.3	61.16	21.840	92.79	31.63	150	21	PK	PASS
5958.98	37.5	59.55	22.050	68.23	8.68	150	0	PK	PASS

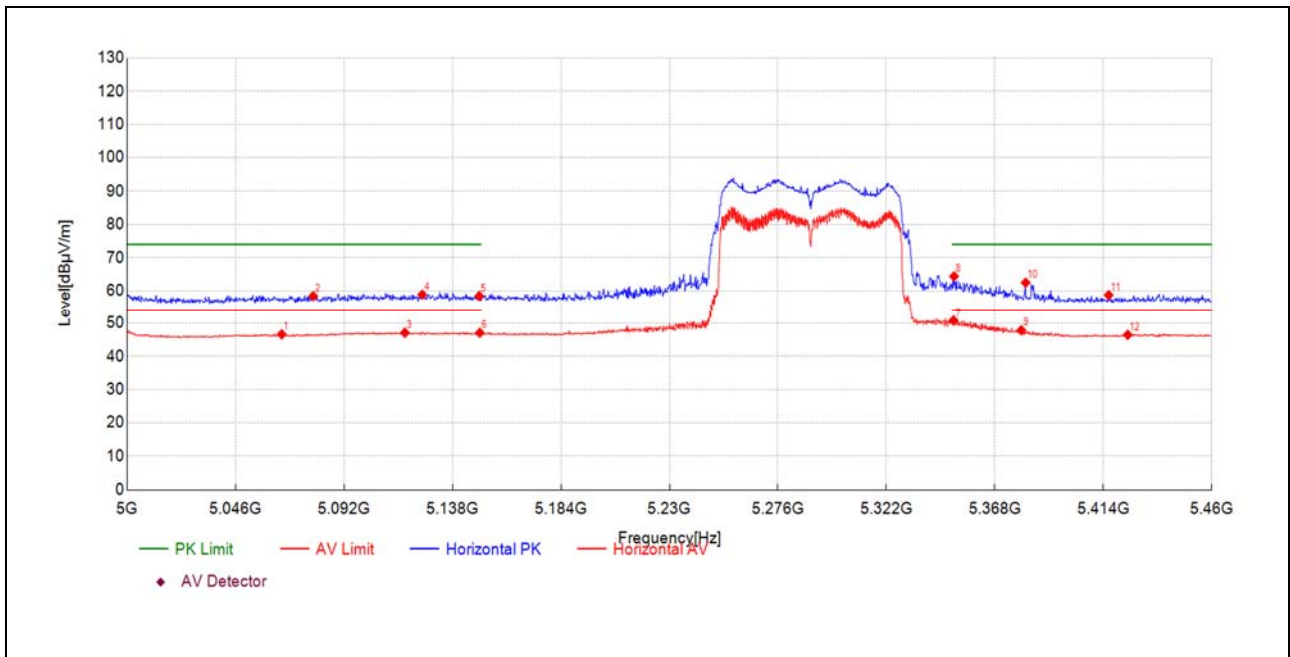
**802.11ac (VHT80) Mode**

Plot for Channel 42



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5074.56	26.1	46.49	20.360	54.00	7.51	150	299	AV	PASS
5115.52	42.0	62.47	20.460	74.00	11.53	150	207	PK	PASS
5125.18	28.3	48.76	20.420	54.00	5.24	150	4	AV	PASS
5142.21	43.7	64.04	20.360	74.00	9.96	150	207	PK	PASS
5147.73	30.0	50.33	20.320	54.00	3.67	150	207	AV	PASS
5148.42	43.9	64.18	20.320	74.00	9.82	150	207	PK	PASS
5350.24	38.4	58.32	19.940	74.00	15.68	150	166	PK	PASS
5353.69	26.4	46.31	19.930	54.00	7.69	150	31	AV	PASS
5377.62	38.3	58.18	19.870	74.00	15.82	150	0	PK	PASS
5378.08	26.5	46.41	19.870	54.00	7.59	150	207	AV	PASS
5398.10	38.9	58.75	19.830	74.00	15.25	150	341	PK	PASS
5402.70	26.8	46.63	19.860	54.00	7.37	150	207	AV	PASS

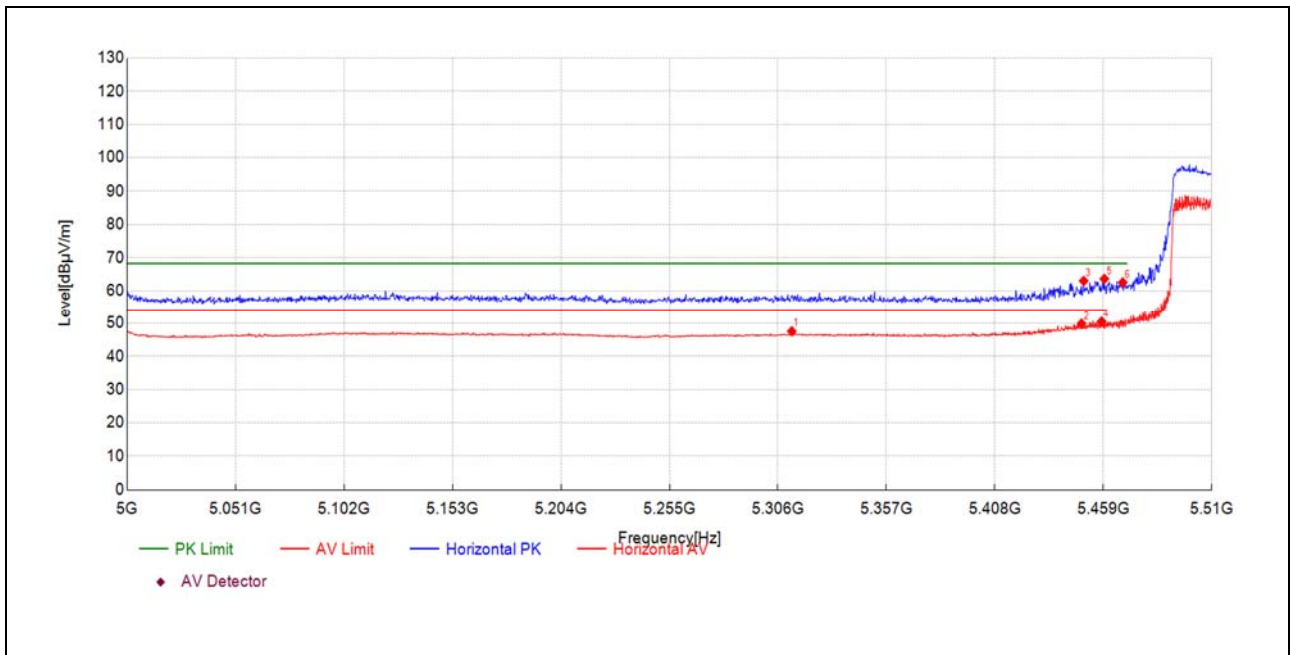
Plot for Channel 58



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5065.58	26.3	46.62	20.300	54.00	7.38	150	326	AV	PASS
5078.93	38.0	58.37	20.390	74.00	15.63	150	255	PK	PASS
5117.82	26.6	47.07	20.440	54.00	6.93	150	265	AV	PASS
5125.18	38.4	58.82	20.420	74.00	15.18	150	30	PK	PASS
5149.34	38.1	58.40	20.320	74.00	15.60	150	360	PK	PASS
5149.57	26.7	47.06	20.320	54.00	6.94	150	214	AV	PASS
5350.47	30.9	50.81	19.940	54.00	3.19	150	214	AV	PASS
5350.70	44.4	64.35	19.940	74.00	9.65	150	202	PK	PASS
5379.23	28.0	47.82	19.870	54.00	6.18	150	202	AV	PASS
5381.07	42.6	62.44	19.870	74.00	11.56	150	202	PK	PASS
5416.28	38.7	58.69	20.040	74.00	15.31	150	202	PK	PASS
5424.33	26.3	46.44	20.140	54.00	7.56	150	255	AV	PASS



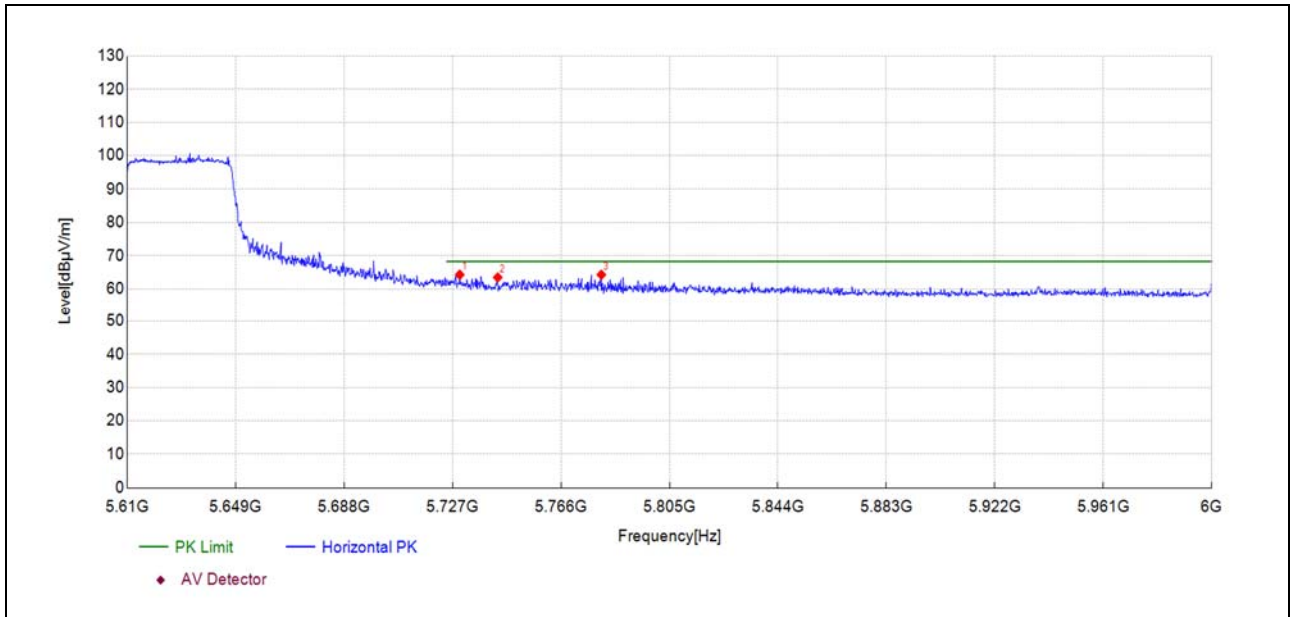
Plot for Channel 106



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5312.53	27.4	47.52	20.170	54.00	6.48	150	1	AV	PASS
5448.77	29.4	49.83	20.460	54.00	4.17	150	206	AV	PASS
5449.79	42.5	62.99	20.470	68.23	5.24	150	206	PK	PASS
5458.21	30.0	50.47	20.430	54.00	3.53	150	206	AV	PASS
5459.48	43.2	63.60	20.420	68.23	4.63	150	206	PK	PASS
5468.16	42.2	62.52	20.370	68.23	5.71	150	216	PK	PASS

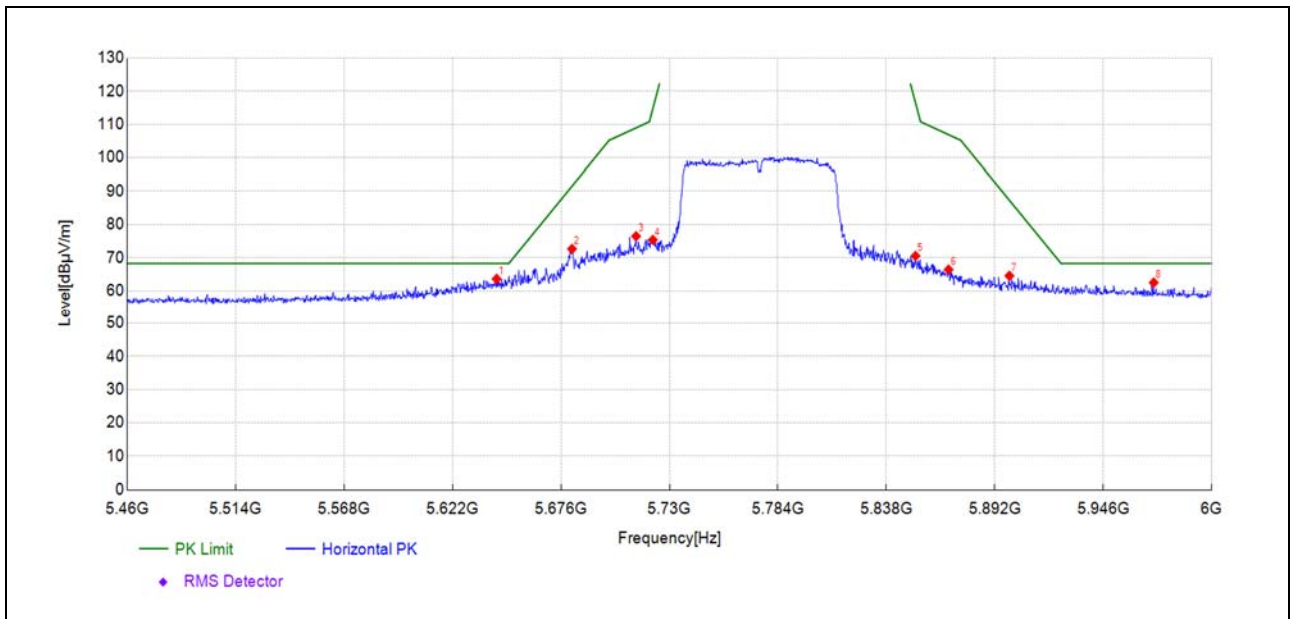


Plot for Channel 122



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5729.59	42.9	64.26	21.330	68.23	3.97	150	219	PK	PASS
5743.25	41.9	63.44	21.540	68.23	4.79	150	219	PK	PASS
5780.52	42.6	64.24	21.680	68.23	3.99	150	219	PK	PASS

Plot for Channel 155

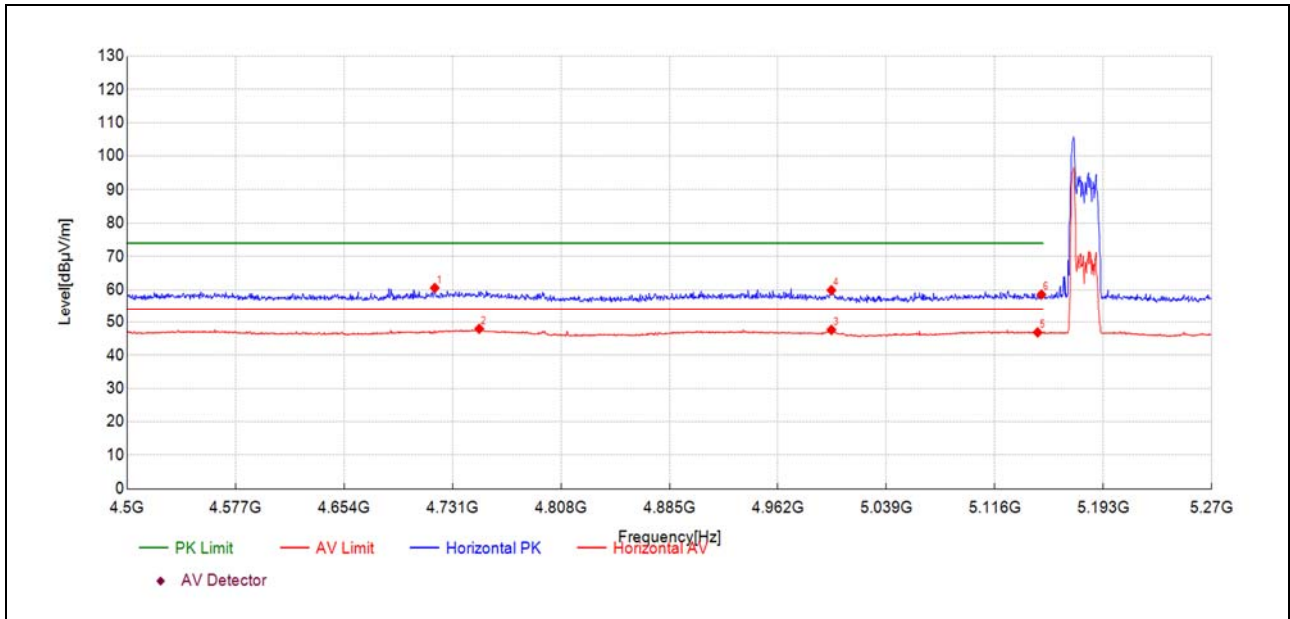


Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5643.96	42.7	63.61	20.900	68.23	4.62	150	216	PK	PASS
5681.51	51.7	72.63	20.930	91.55	18.92	150	216	PK	PASS
5713.39	55.4	76.46	21.090	108.98	32.52	150	216	PK	PASS
5721.76	54.2	75.37	21.210	114.84	39.47	150	216	PK	PASS
5852.51	48.1	70.52	22.420	116.52	46.00	150	245	PK	PASS
5868.98	44.2	66.40	22.170	106.91	40.51	150	245	PK	PASS
5899.24	42.8	64.53	21.730	87.29	22.76	150	216	PK	PASS
5971.10	40.5	62.48	21.950	68.23	5.75	150	216	PK	PASS



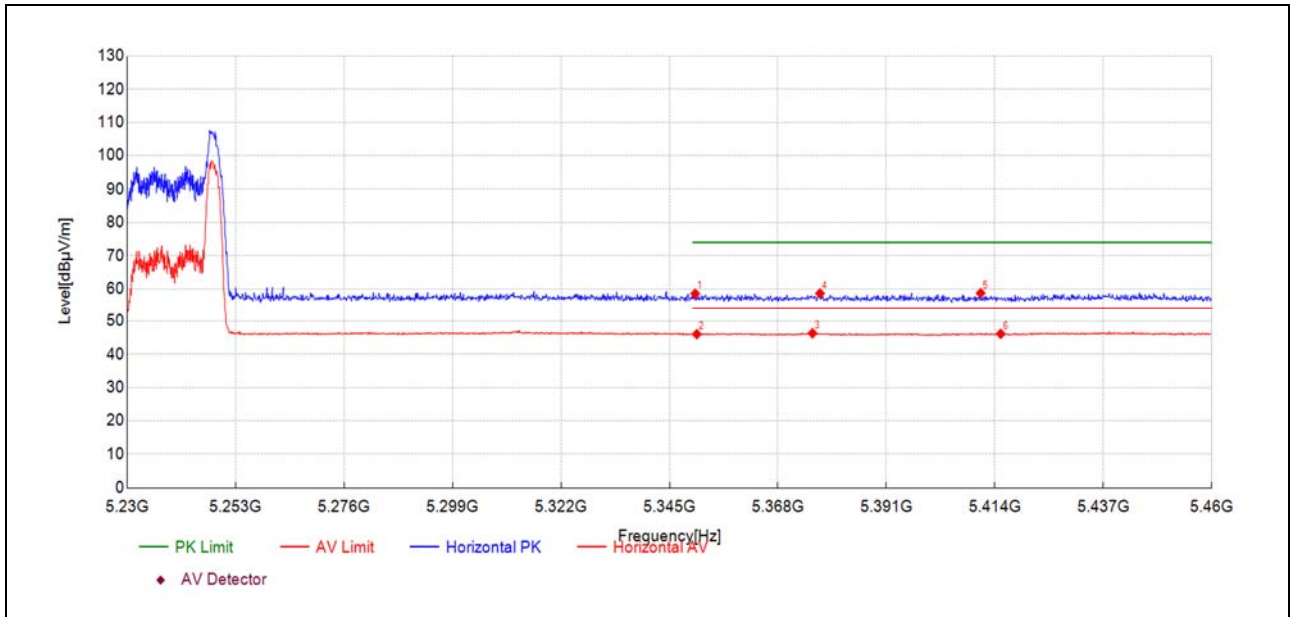
802.11ax (HEW20) RU26 Mode

Plot for Channel 36



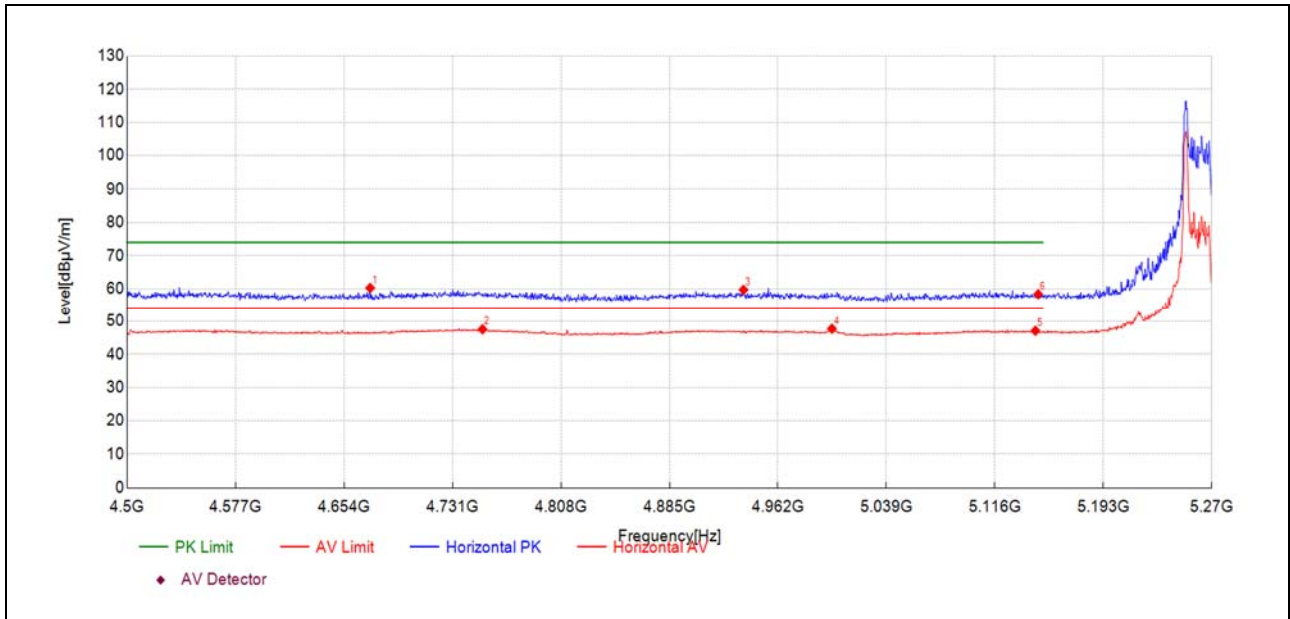
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4718.40	40.2	60.54	20.300	74.00	13.46	150	349	PK	PASS
4749.99	27.6	47.94	20.320	54.00	6.06	150	338	AV	PASS
4999.98	27.7	47.62	19.880	54.00	6.38	150	356	AV	PASS
4999.98	40.0	59.84	19.880	74.00	14.16	150	356	PK	PASS
5146.35	26.5	46.84	20.340	54.00	7.16	150	206	AV	PASS
5149.05	38.2	58.54	20.320	74.00	15.46	150	4	PK	PASS

Plot for Channel 48



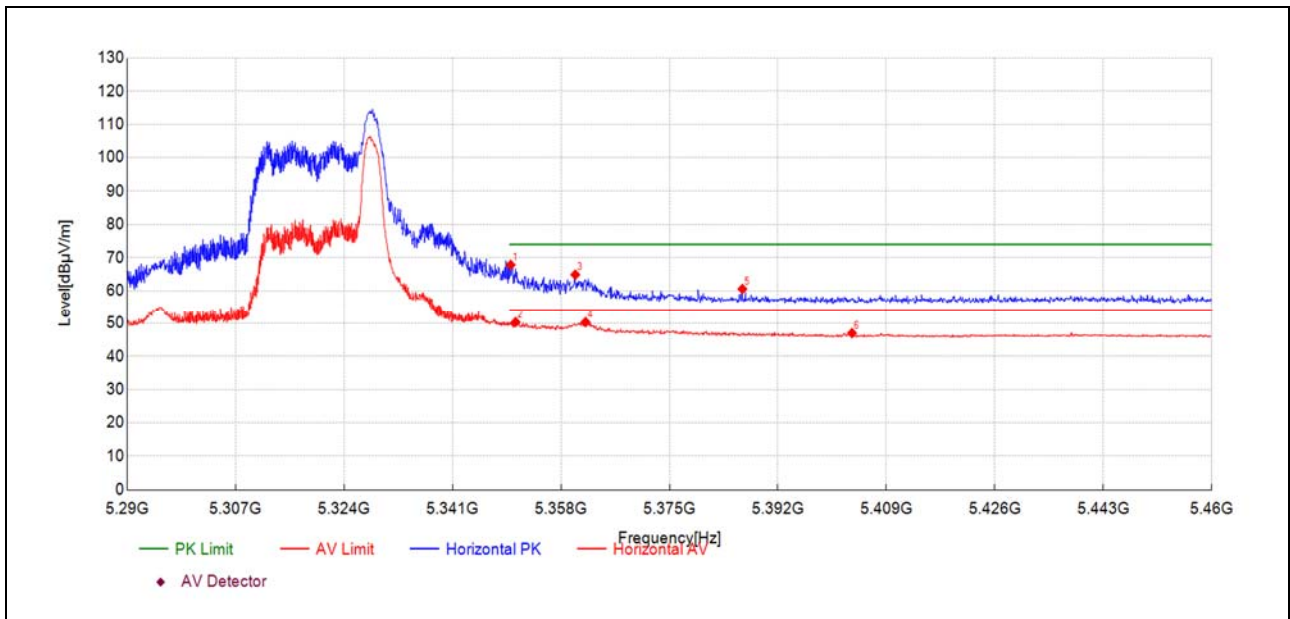
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.47	38.6	58.52	19.940	74.00	15.48	150	10	PK	PASS
5350.81	26.1	46.05	19.940	54.00	7.95	150	2	AV	PASS
5375.32	26.4	46.31	19.880	54.00	7.69	150	66	AV	PASS
5376.93	38.7	58.60	19.880	74.00	15.40	150	96	PK	PASS
5410.99	38.7	58.68	19.970	74.00	15.32	150	1	PK	PASS
5415.24	26.1	46.14	20.020	54.00	7.86	150	357	AV	PASS

Plot for Channel 52



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4672.57	40.0	60.24	20.210	74.00	13.76	150	6	PK	PASS
4752.30	27.2	47.51	20.280	54.00	6.49	150	269	AV	PASS
4937.58	39.7	59.67	19.940	74.00	14.33	150	0	PK	PASS
5000.37	27.8	47.68	19.880	54.00	6.32	150	309	AV	PASS
5144.81	26.7	47.08	20.340	54.00	6.92	150	349	AV	PASS
5146.74	38.0	58.34	20.340	74.00	15.66	150	197	PK	PASS

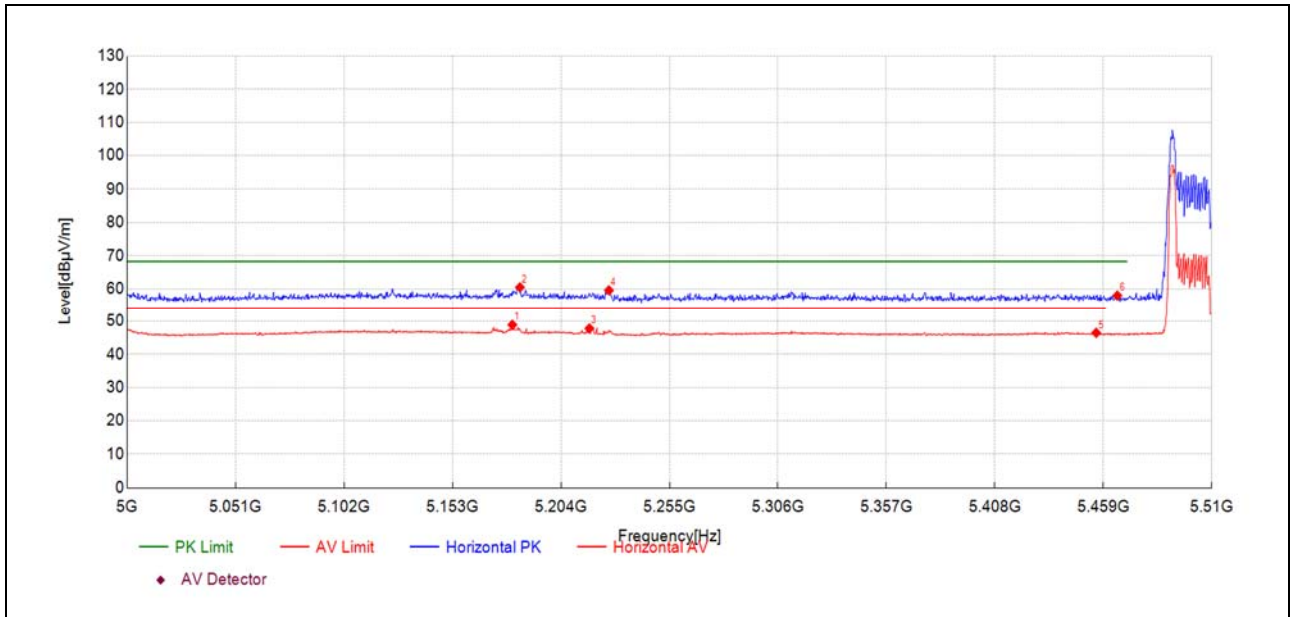
Plot for Channel 64



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.13	47.9	67.81	19.940	74.00	6.19	150	206	PK	PASS
5350.89	30.4	50.30	19.940	54.00	3.70	150	206	AV	PASS
5360.25	44.9	64.85	19.920	74.00	9.15	150	206	PK	PASS
5361.86	30.4	50.30	19.920	54.00	3.70	150	206	AV	PASS
5386.44	40.7	60.53	19.860	74.00	13.47	150	206	PK	PASS
5403.62	27.1	46.97	19.870	54.00	7.03	150	206	AV	PASS

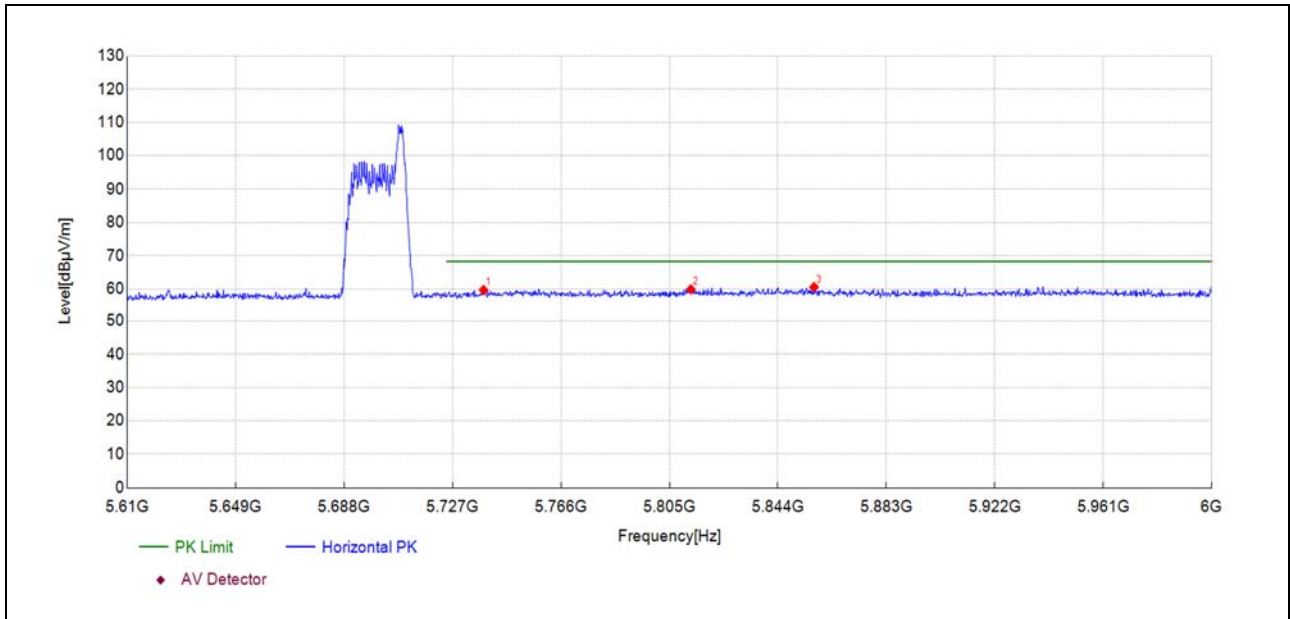


Plot for Channel 100



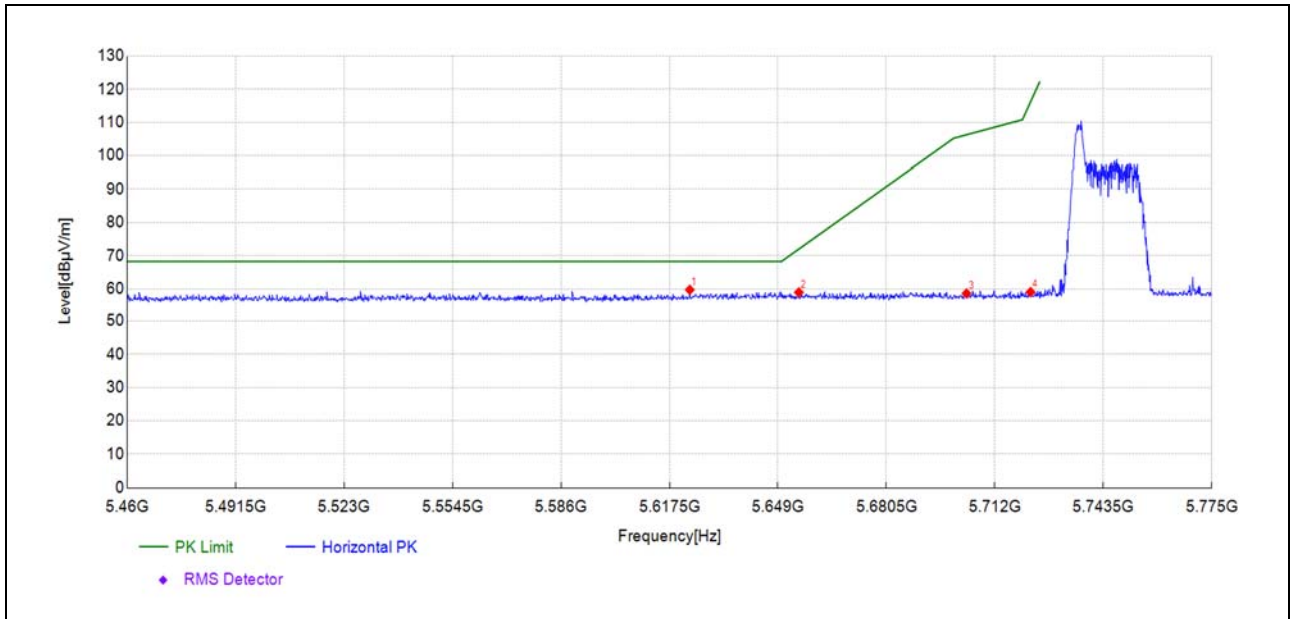
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5181.14	28.5	48.85	20.380	54.00	5.15	150	358	AV	PASS
5184.71	40.0	60.43	20.390	68.23	7.80	150	224	PK	PASS
5217.37	27.6	47.77	20.220	54.00	6.23	150	354	AV	PASS
5226.55	39.4	59.53	20.110	68.23	8.70	150	265	PK	PASS
5455.66	26.0	46.45	20.440	54.00	7.55	150	358	AV	PASS
5465.61	37.6	57.94	20.390	68.23	10.29	150	71	PK	PASS

Plot for Channel 140



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5738.18	38.2	59.62	21.460	68.23	8.61	150	190	PK	PASS
5812.71	37.9	59.83	21.890	68.23	8.40	150	0	PK	PASS
5856.99	38.2	60.52	22.350	68.23	7.71	150	304	PK	PASS

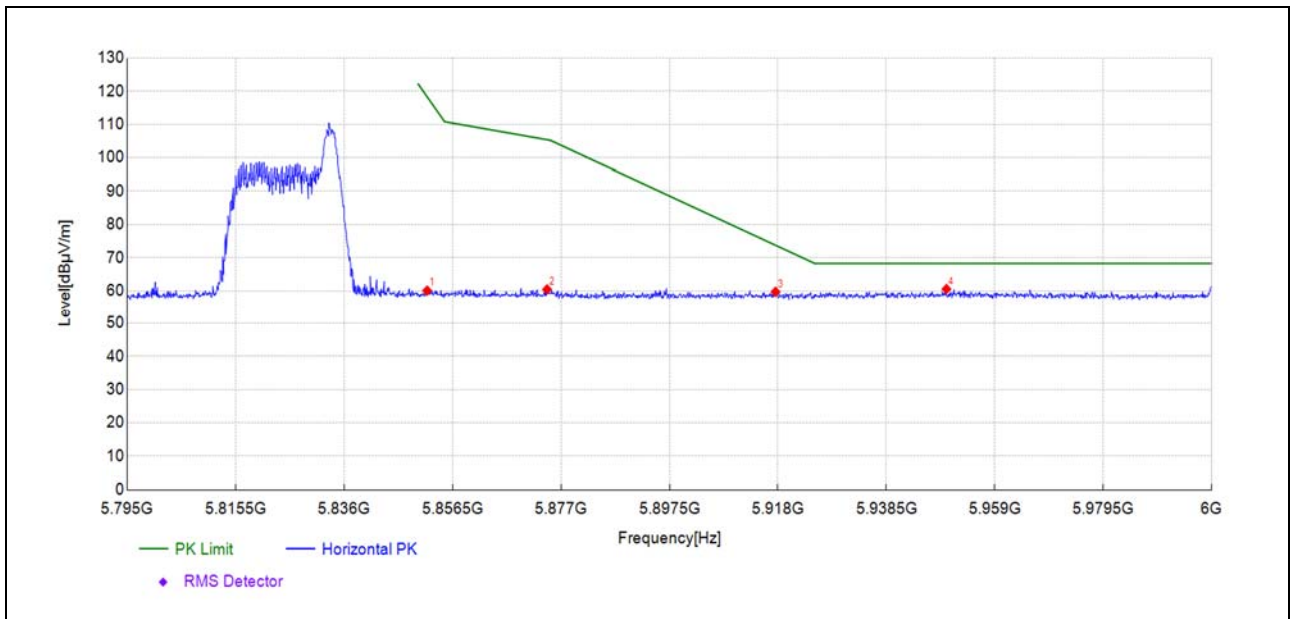
Plot for Channel 149



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5623.41	39.2	59.70	20.540	68.23	8.53	150	351	PK	PASS
5655.08	37.9	58.92	20.990	71.99	13.07	150	231	PK	PASS
5703.77	37.7	58.60	20.930	106.29	47.69	150	202	PK	PASS
5722.37	37.8	59.00	21.220	116.23	57.23	150	1	PK	PASS



Plot for Channel 165



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5851.71	37.6	60.05	22.440	118.33	58.28	150	236	PK	PASS
5874.37	38.3	60.43	22.100	105.41	44.98	150	255	PK	PASS
5917.55	37.8	59.71	21.870	73.74	14.03	150	56	PK	PASS
5949.85	38.4	60.52	22.120	68.23	7.71	150	132	PK	PASS



A.3. Radiated Emission

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$$E [\text{dB}\mu\text{V/m}] = U_R + A_T + A_{\text{Factor}} [\text{dB}]; A_T = L_{\text{Cable loss}} [\text{dB}] - G_{\text{preamp}} [\text{dB}]$$

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

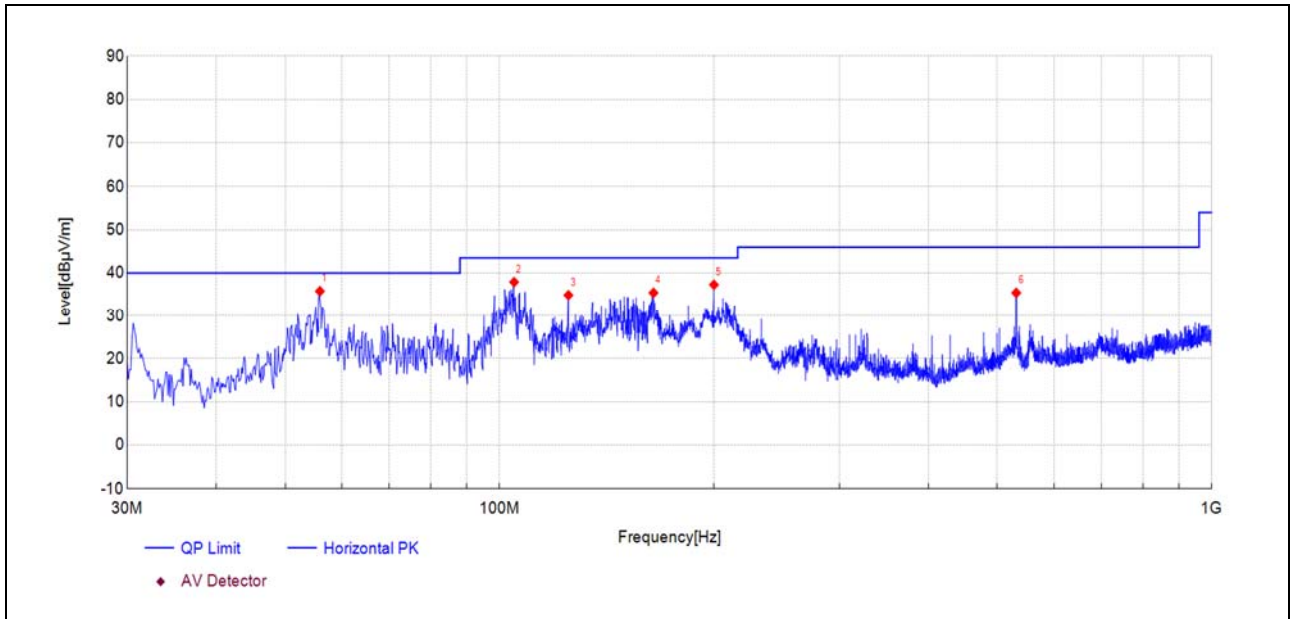
Note3: For the frequency, which started from 18GHz to 40GHz harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note 4: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded.



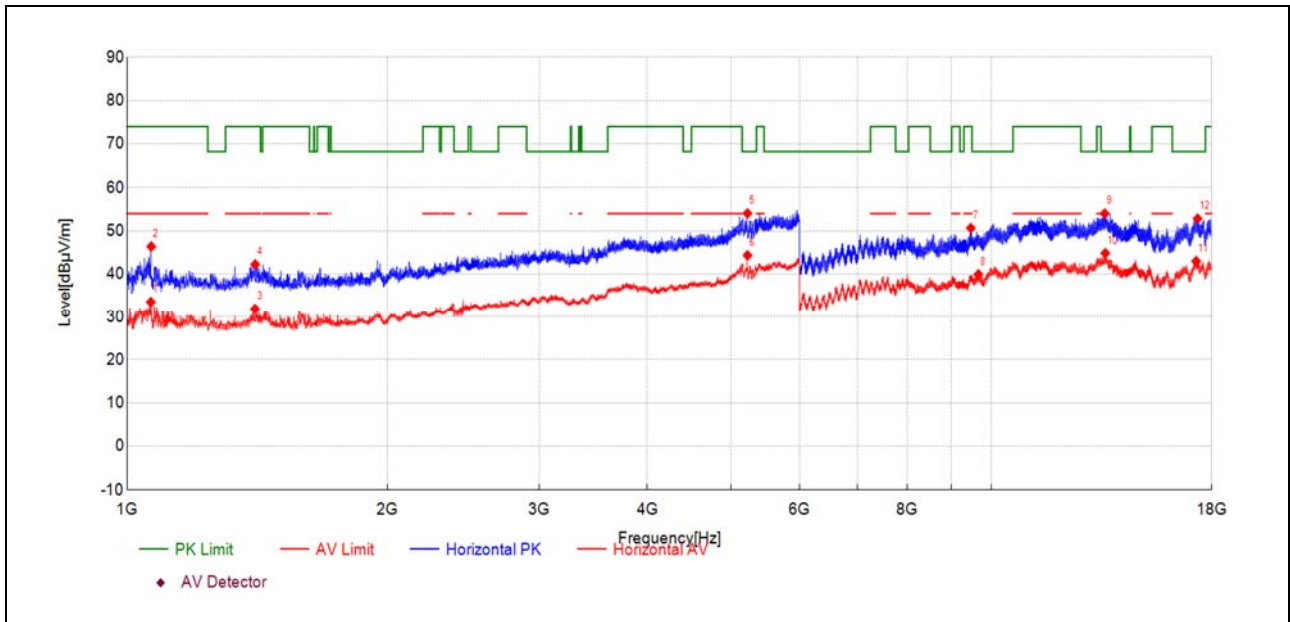
802.11a Mode

Plot for Channel 44



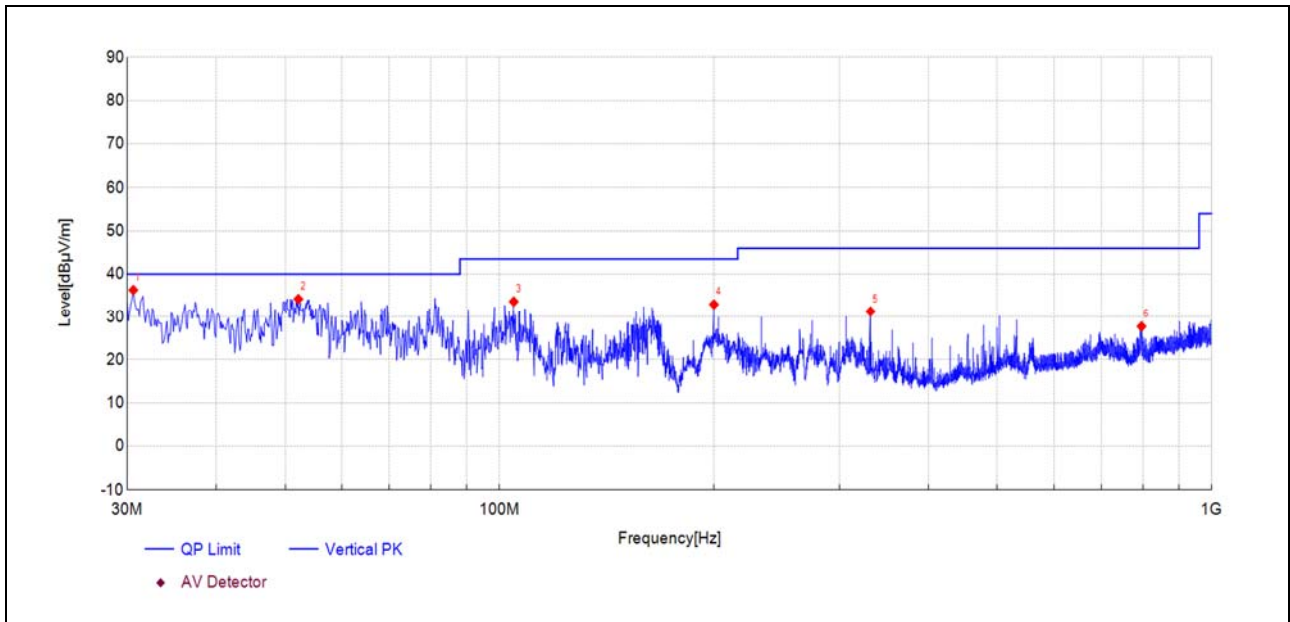
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
55.95	63.8	35.79	-28.040	40.00	4.21	150	9	PK	PASS
104.82	67.2	37.90	-29.260	43.50	5.60	150	346	PK	PASS
124.95	66.0	34.86	-31.160	43.50	8.64	150	206	PK	PASS
164.48	66.6	35.41	-31.210	43.50	8.09	150	220	PK	PASS
200.01	66.1	37.28	-28.780	43.50	6.22	150	76	PK	PASS
531.43	54.4	35.40	-18.950	46.00	10.60	150	195	PK	PASS



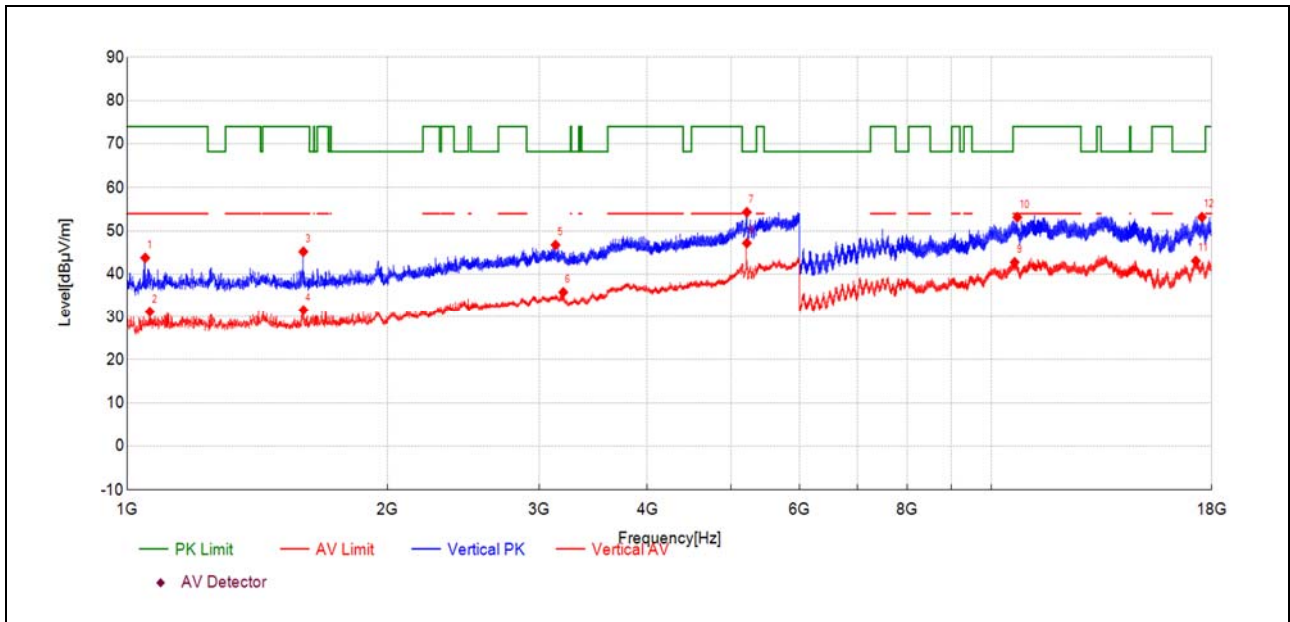
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1065.51	36.0	33.51	-2.470	54.00	20.49	150	5	AV	PASS
1066.51	48.8	46.39	-2.450	74.00	27.61	150	12	PK	PASS
1406.04	31.9	31.89	-0.050	54.00	22.11	150	129	AV	PASS
1407.04	42.3	42.24	-0.050	74.00	31.76	150	129	PK	PASS
5223.42	37.6	54.06	16.450	68.23	14.17	150	120	PK	PASS
5223.92	27.9	44.35	16.460	-	-	150	120	AV	NA
9471.64	42.2	50.66	8.440	74.00	23.34	150	329	PK	PASS
9665.65	30.5	39.95	9.480	-	-	150	275	AV	NA
13534.31	36.9	54.02	17.090	68.23	14.21	150	2	PK	PASS
13554.31	27.8	44.85	17.090	-	-	150	302	AV	NA
17266.47	27.6	43.01	15.380	-	-	150	288	AV	NA
17331.47	37.5	52.84	15.320	68.23	15.39	150	247	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

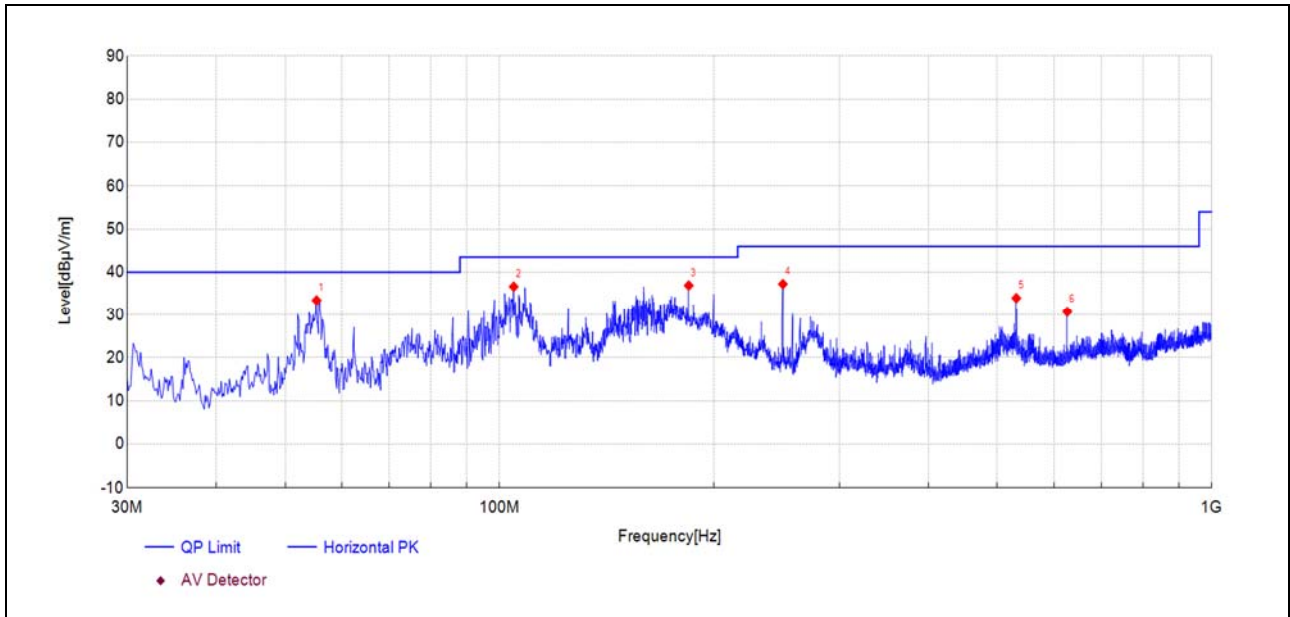
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
30.61	67.1	36.31	-30.750	40.00	3.69	150	231	PK	PASS
52.19	62.1	34.20	-27.930	40.00	5.80	150	100	PK	PASS
104.70	62.9	33.61	-29.320	43.50	9.89	150	94	PK	PASS
200.01	61.7	32.94	-28.780	43.50	10.56	150	52	PK	PASS
331.83	55.6	31.25	-24.390	46.00	14.75	150	316	PK	PASS
796.76	42.0	27.73	-14.310	46.00	18.27	150	46	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

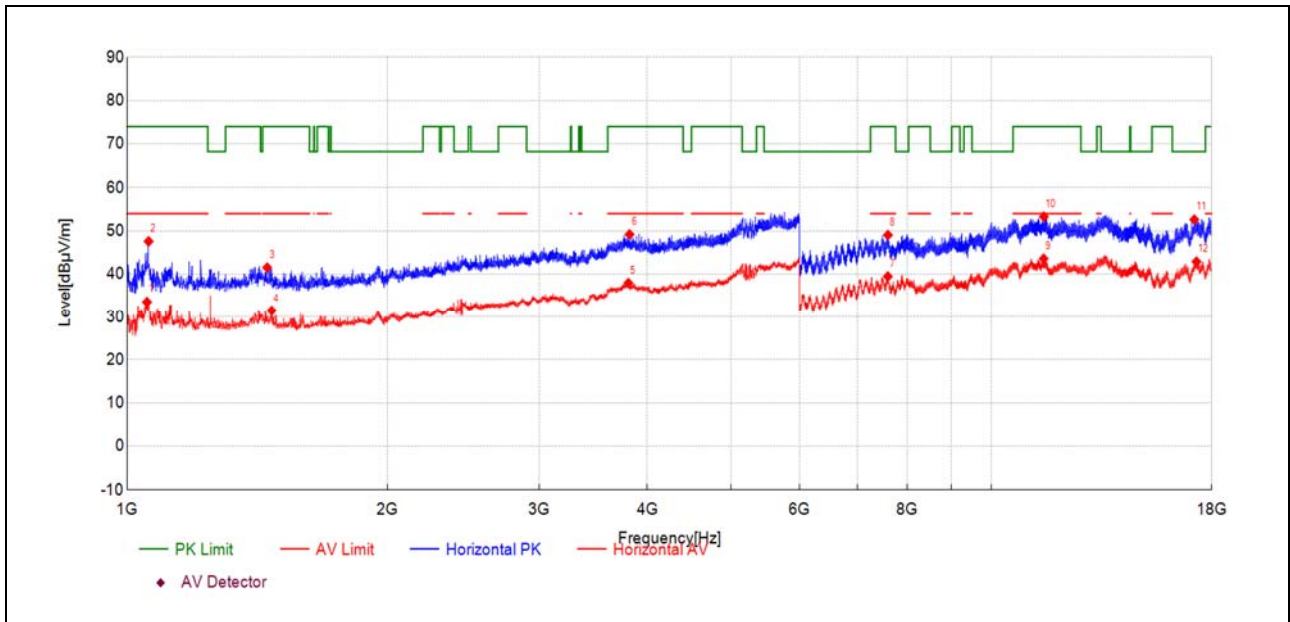
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1049.50	46.4	43.78	-2.600	74.00	30.22	150	84	PK	PASS
1062.51	33.7	31.20	-2.490	54.00	22.80	150	48	AV	PASS
1599.56	45.6	45.20	-0.380	74.00	28.80	150	156	PK	PASS
1600.06	31.9	31.57	-0.370	54.00	22.43	150	156	AV	PASS
3132.21	38.1	46.74	8.600	68.23	21.49	150	120	PK	PASS
3197.22	27.5	35.82	8.320	-	-	150	137	AV	NA
5213.92	38.0	54.34	16.330	68.23	13.89	150	309	PK	PASS
5214.42	30.9	47.18	16.330	-	-	150	309	AV	NA
10644.69	30.5	42.75	12.280	54.00	11.25	150	316	AV	PASS
10721.20	40.9	53.16	12.310	74.00	20.84	150	50	PK	PASS
17250.47	27.5	43.06	15.540	-	-	150	78	AV	NA
17531.98	36.2	53.20	17.020	68.23	15.03	150	24	PK	PASS

Plot for Channel 60



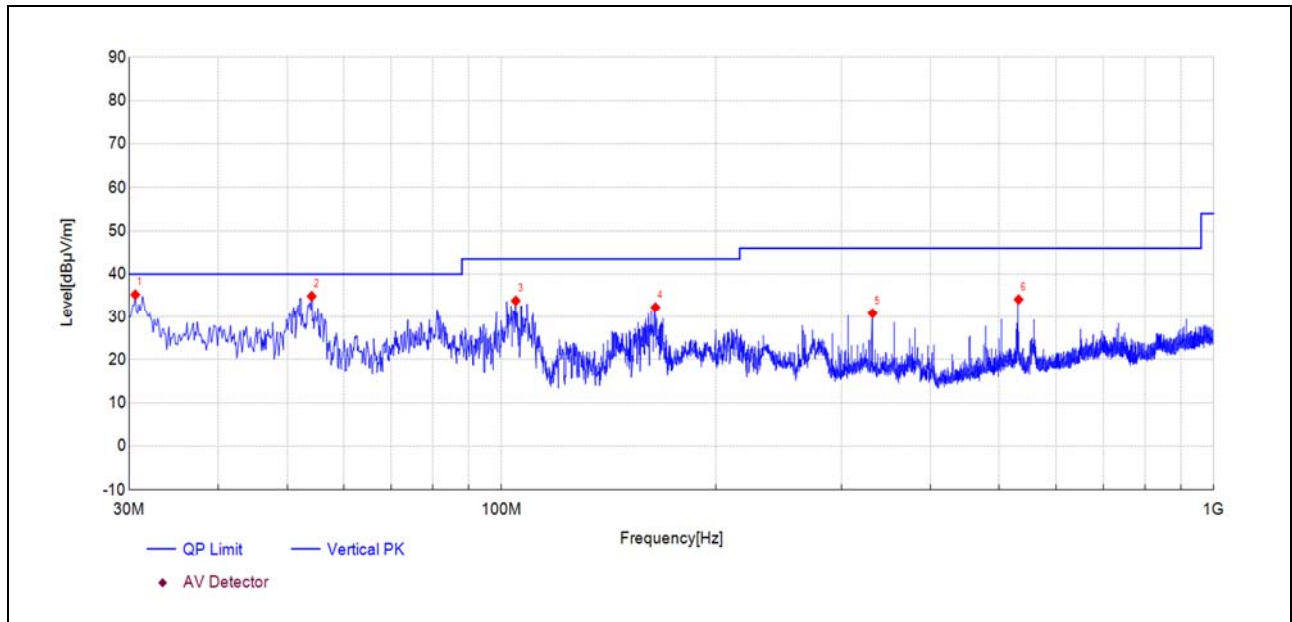
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
55.34	61.3	33.42	-27.860	40.00	6.58	150	9	PK	PASS
104.70	65.9	36.62	-29.320	43.50	6.88	150	57	PK	PASS
184.37	67.0	36.90	-30.100	43.50	6.60	150	212	PK	PASS
249.97	64.7	37.23	-27.490	46.00	8.77	150	51	PK	PASS
531.55	52.9	33.95	-18.950	46.00	12.05	150	69	PK	PASS
626.75	48.0	30.69	-17.310	46.00	15.31	150	87	PK	PASS



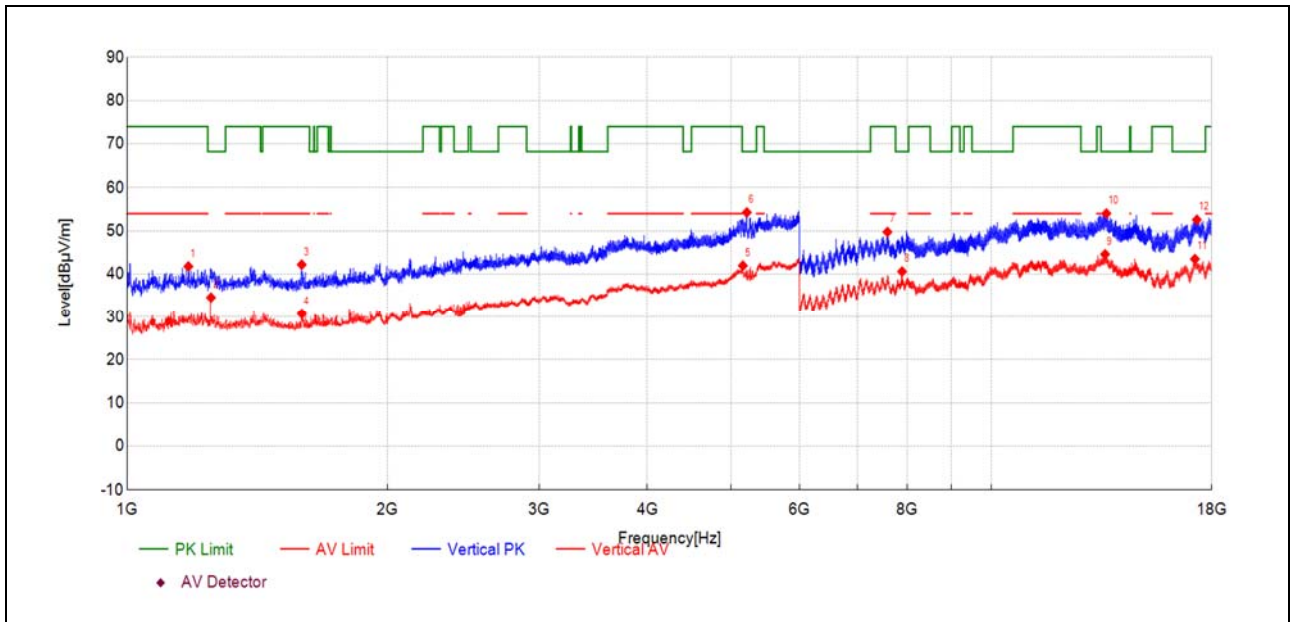
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1054.51	36.1	33.51	-2.560	54.00	20.49	150	351	AV	PASS
1059.01	50.1	47.59	-2.520	74.00	26.41	150	351	PK	PASS
1452.55	41.3	41.53	0.250	74.00	32.47	150	51	PK	PASS
1470.05	31.4	31.44	0.000	54.00	22.56	150	51	AV	PASS
3802.78	26.6	37.93	11.320	54.00	16.07	150	125	AV	PASS
3815.28	37.9	49.20	11.310	74.00	24.80	150	188	PK	PASS
7592.57	33.9	39.46	5.530	54.00	14.54	150	130	AV	PASS
7594.57	43.5	49.05	5.550	74.00	24.95	150	285	PK	PASS
11499.73	29.3	43.57	14.270	54.00	10.43	150	103	AV	PASS
11504.23	39.0	53.30	14.270	74.00	20.70	150	314	PK	PASS
17180.97	36.7	52.64	15.900	68.23	15.59	150	60	PK	PASS
17280.47	27.7	42.89	15.240	-	-	150	44	AV	NA



(Antenna Vertical, 30MHz to 1GHz)

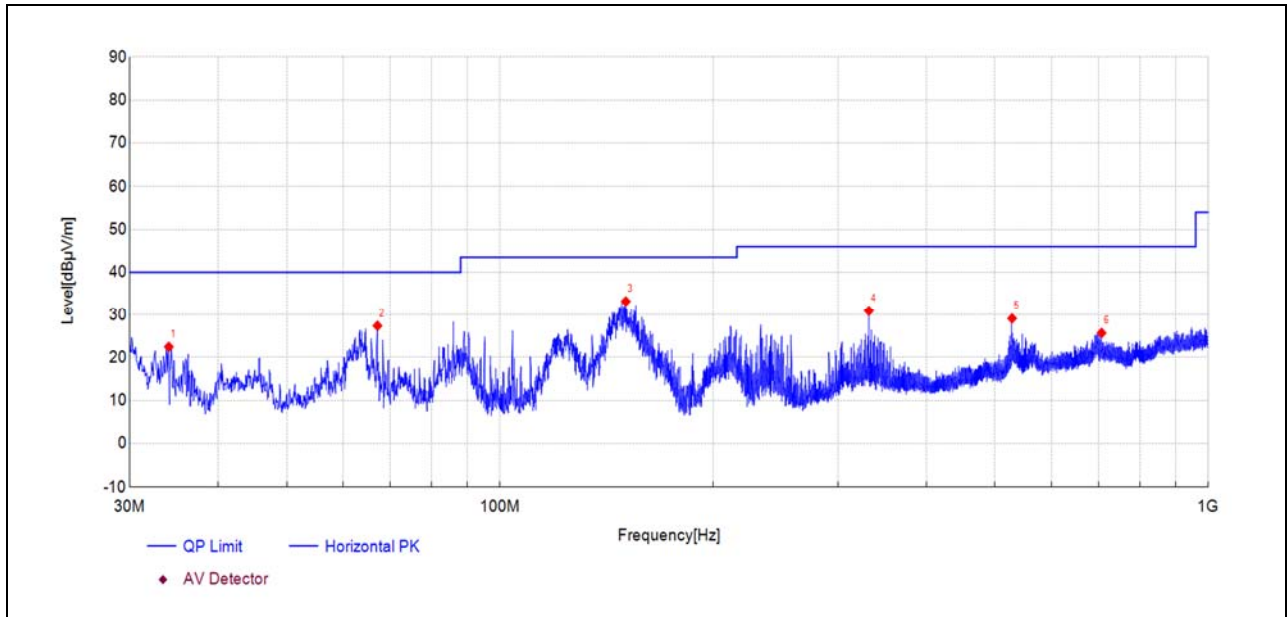
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
30.61	66.0	35.22	-30.750	40.00	4.78	150	166	PK	PASS
54.13	62.5	34.88	-27.590	40.00	5.12	150	255	PK	PASS
104.70	63.1	33.79	-29.320	43.50	9.71	150	136	PK	PASS
164.48	63.4	32.23	-31.210	43.50	11.27	150	202	PK	PASS
331.83	55.2	30.80	-24.390	46.00	15.20	150	172	PK	PASS
532.04	53.1	34.10	-18.970	46.00	11.90	150	249	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

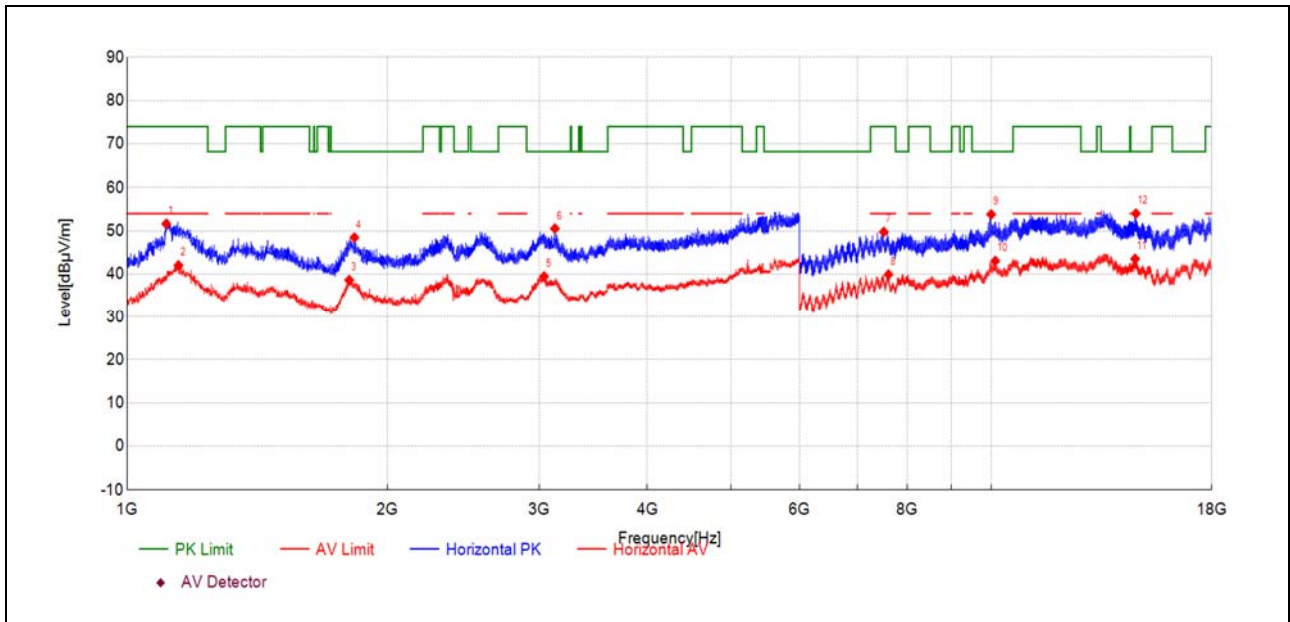
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1177.52	43.1	41.78	-1.340	74.00	32.22	150	94	PK	PASS
1250.53	35.9	34.55	-1.380	-	-	150	228	AV	NA
1592.56	42.6	42.19	-0.450	74.00	31.81	150	30	PK	PASS
1593.06	31.2	30.72	-0.440	54.00	23.28	150	30	AV	PASS
5159.92	25.1	41.97	16.860	-	-	150	183	AV	NA
5213.92	38.0	54.28	16.330	68.23	13.95	150	157	PK	PASS
7584.07	44.3	49.76	5.450	74.00	24.24	150	82	PK	PASS
7886.08	34.9	40.61	5.750	-	-	150	123	AV	NA
13545.31	27.5	44.60	17.090	-	-	150	219	AV	NA
13592.32	36.9	54.03	17.110	68.23	14.20	150	123	PK	PASS
17208.97	27.5	43.49	15.950	-	-	150	247	AV	NA
17296.97	37.5	52.58	15.080	68.23	15.65	150	136	PK	PASS

Plot for Channel 116



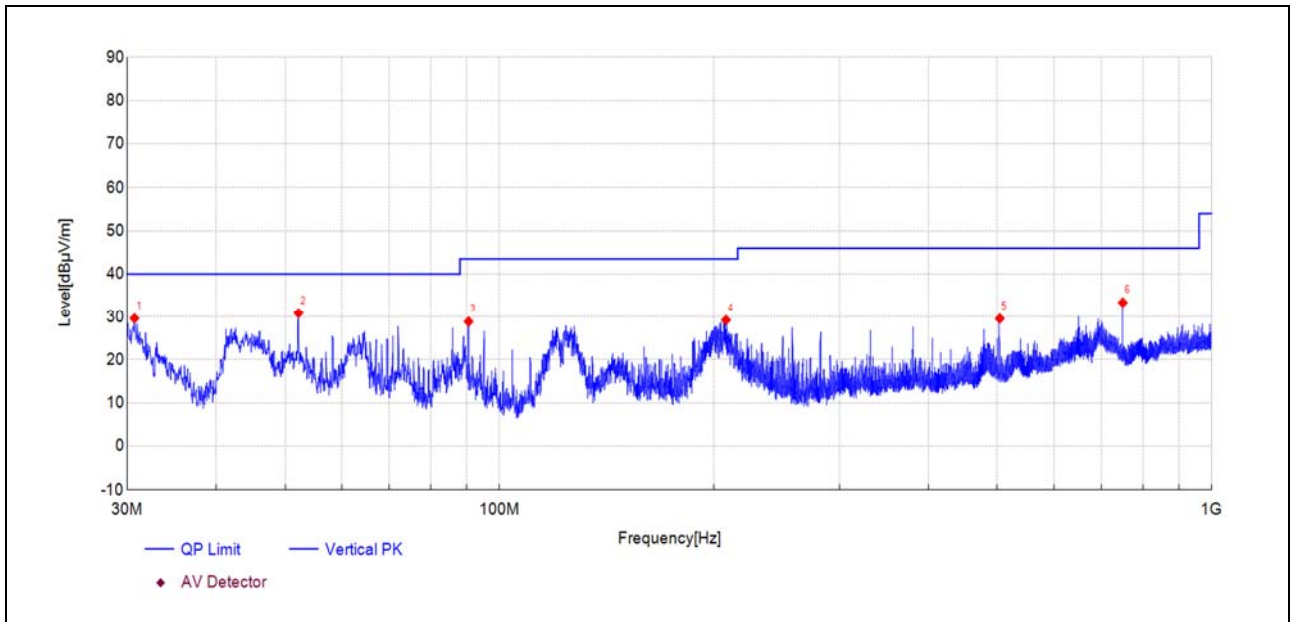
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
34.07	52.3	22.46	-29.850	40.00	17.54	150	126	PK	PASS
67.15	58.4	27.36	-31.020	40.00	12.64	150	126	PK	PASS
150.53	65.0	33.18	-31.770	43.50	10.32	150	238	PK	PASS
331.78	55.3	30.91	-24.390	46.00	15.09	150	310	PK	PASS
528.41	48.3	29.09	-19.200	46.00	16.91	150	45	PK	PASS
706.85	41.4	25.69	-15.680	46.00	20.31	150	167	PK	PASS



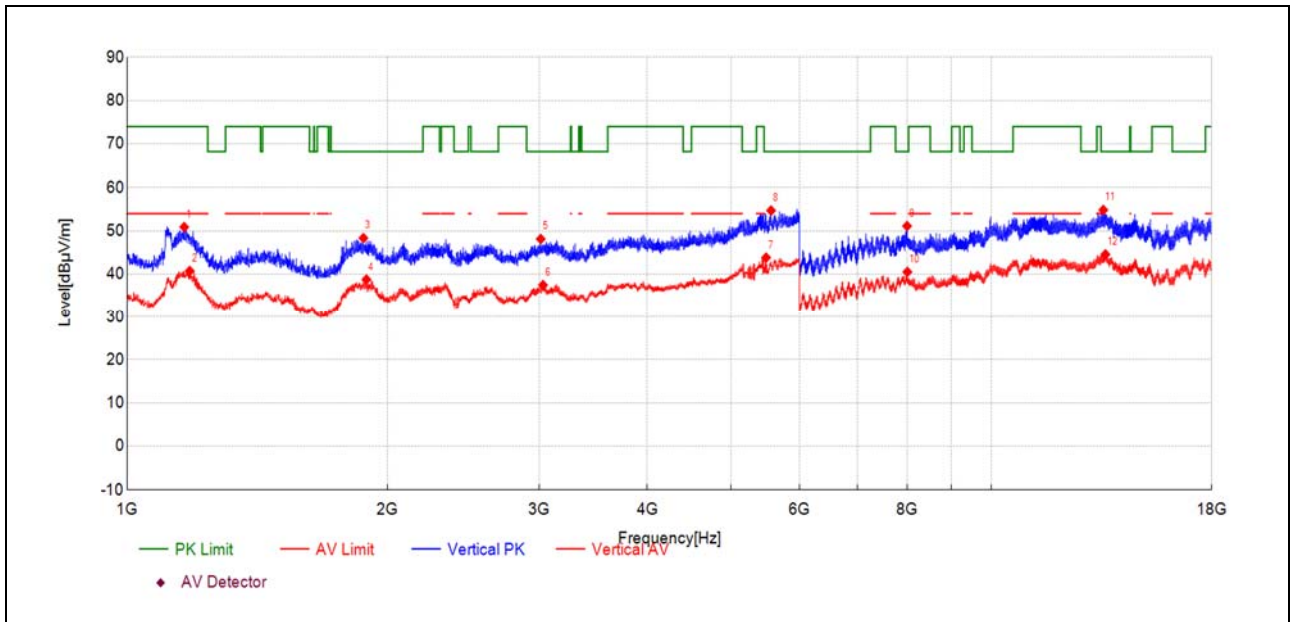
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1110.01	53.8	51.65	-2.180	74.00	22.35	150	173	PK	PASS
1146.51	43.9	42.03	-1.900	54.00	11.97	150	65	AV	PASS
1807.58	37.5	38.63	1.180	-	-	150	120	AV	NA
1832.58	47.1	48.47	1.370	68.23	19.76	150	120	PK	PASS
3038.20	31.2	39.49	8.280	-	-	150	357	AV	NA
3126.71	41.9	50.54	8.640	68.23	17.69	150	5	PK	PASS
7511.56	44.3	49.76	5.460	74.00	24.24	150	234	PK	PASS
7605.57	34.3	39.91	5.570	54.00	14.09	150	275	AV	PASS
9999.17	43.5	53.82	10.370	68.23	14.41	150	3	PK	PASS
10109.67	32.2	43.05	10.860	-	-	150	288	AV	NA
14674.36	26.6	43.53	16.900	-	-	150	164	AV	NA
14705.36	37.1	54.02	16.940	68.23	14.21	150	329	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

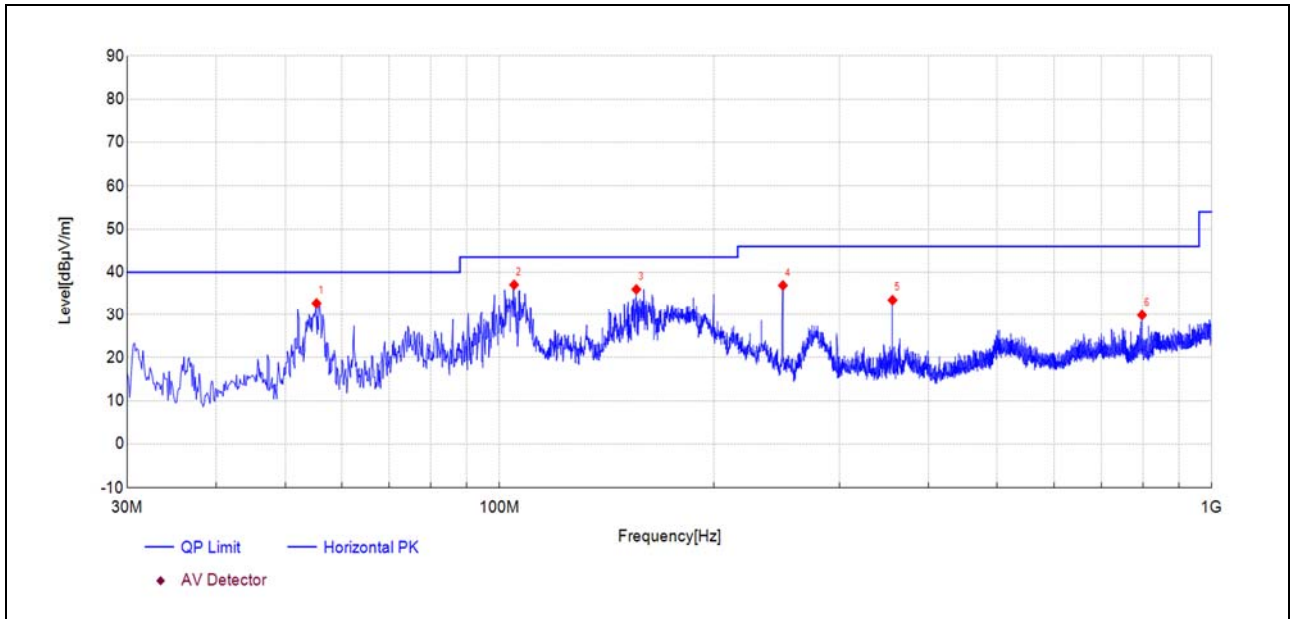
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
30.73	60.3	29.60	-30.740	40.00	10.40	150	92	PK	PASS
52.21	58.8	30.84	-27.930	40.00	9.16	150	153	PK	PASS
90.48	60.3	28.85	-31.470	43.50	14.65	150	77	PK	PASS
207.91	58.7	29.21	-29.470	43.50	14.29	150	351	PK	PASS
503.82	50.0	29.56	-20.470	46.00	16.44	150	259	PK	PASS
750.02	48.2	33.36	-14.840	46.00	12.64	150	36	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

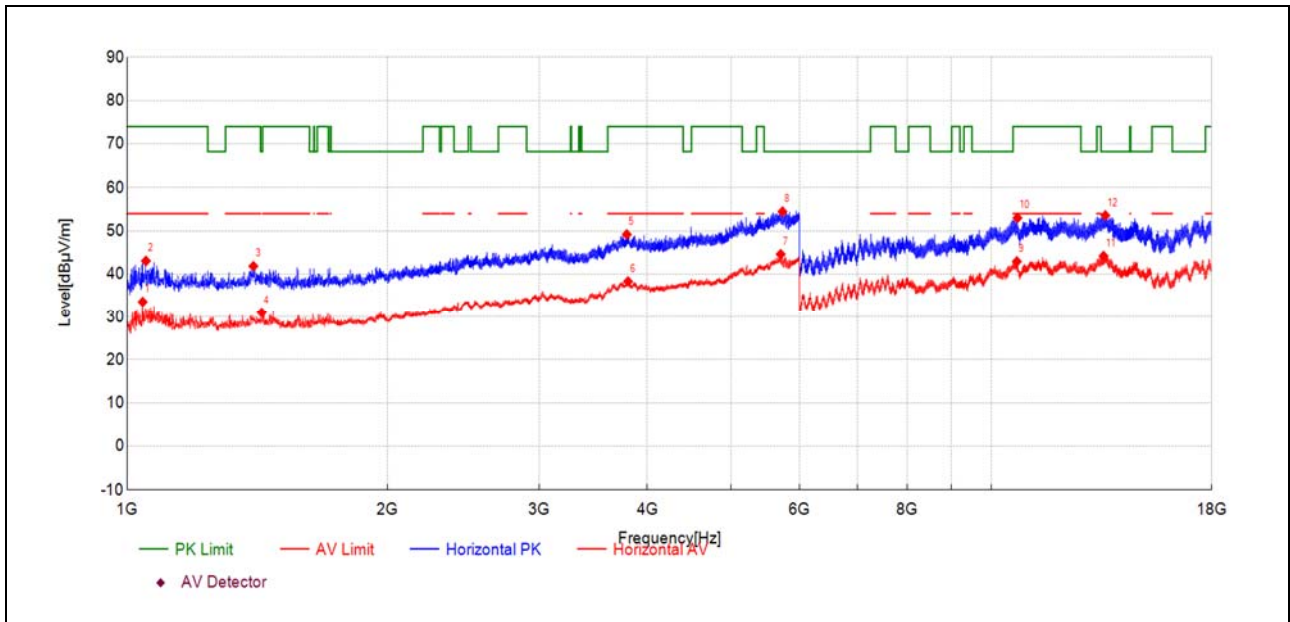
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1164.52	52.5	50.89	-1.610	74.00	23.11	150	264	PK	PASS
1181.52	42.0	40.74	-1.300	54.00	13.26	150	110	AV	PASS
1877.09	46.6	48.34	1.710	68.23	19.89	150	146	PK	PASS
1892.09	36.9	38.75	1.820	-	-	150	146	AV	NA
3010.70	39.9	48.13	8.240	68.23	20.10	150	30	PK	PASS
3029.20	29.2	37.46	8.270	-	-	150	5	AV	NA
5488.95	26.5	43.82	17.280	-	-	150	65	AV	NA
5561.96	37.4	54.71	17.330	68.23	13.52	150	5	PK	PASS
7991.08	45.3	51.13	5.810	68.23	17.10	150	78	PK	PASS
7997.08	34.6	40.51	5.900	-	-	150	355	AV	NA
13482.81	37.9	54.84	16.950	68.23	13.39	150	217	PK	PASS
13557.31	27.5	44.57	17.090	-	-	150	204	AV	NA

Plot for Channel 157



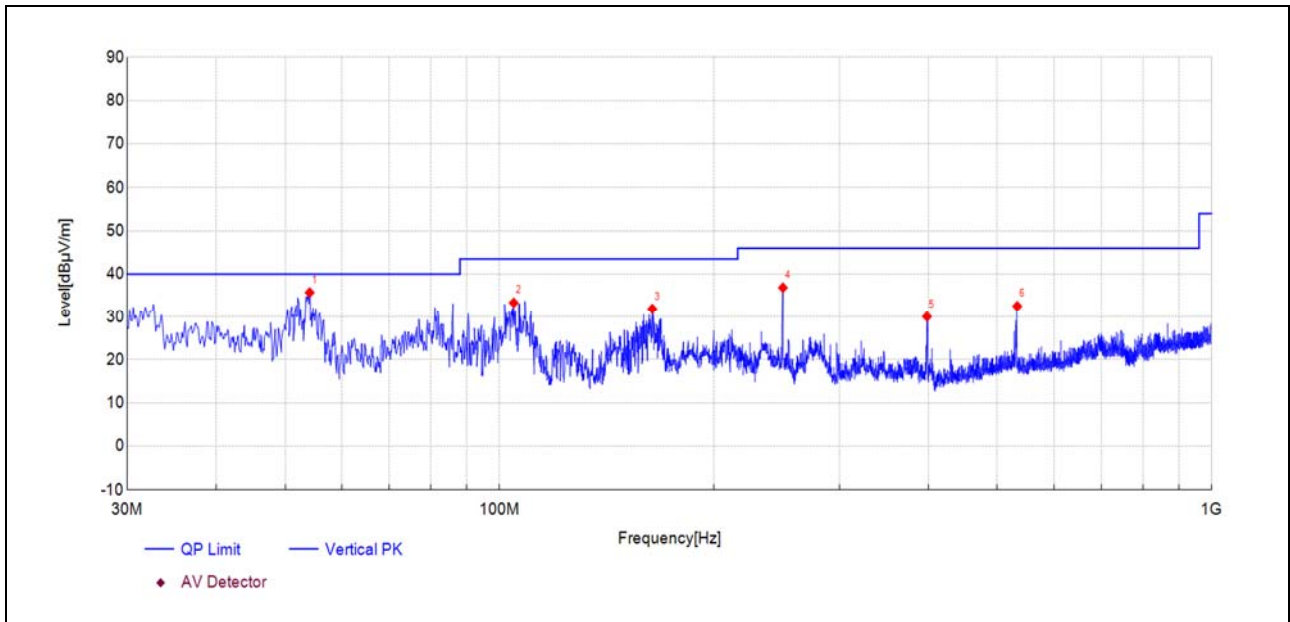
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
55.34	60.6	32.77	-27.860	40.00	7.23	150	357	PK	PASS
104.82	66.3	37.08	-29.260	43.50	6.42	150	57	PK	PASS
155.63	67.8	36.03	-31.760	43.50	7.47	150	62	PK	PASS
249.97	64.4	36.93	-27.490	46.00	9.07	150	62	PK	PASS
356.32	57.1	33.51	-23.570	46.00	12.49	150	146	PK	PASS
798.09	44.4	29.86	-14.510	46.00	16.14	150	134	PK	PASS



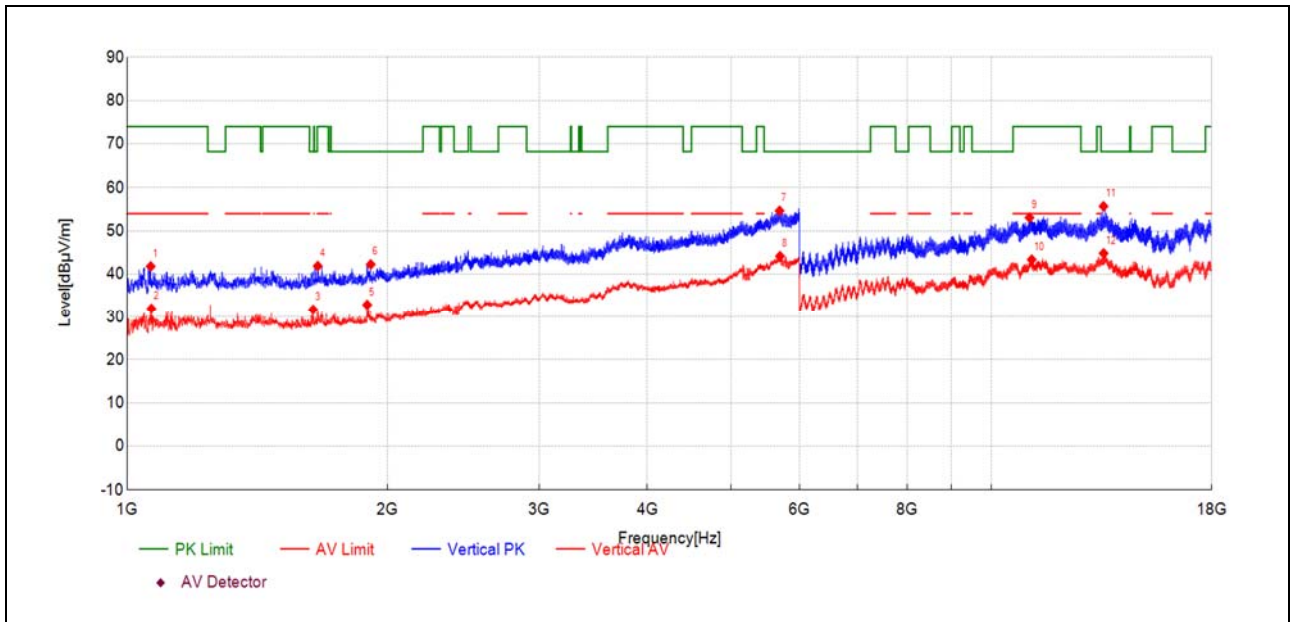
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1042.50	36.1	33.55	-2.590	54.00	20.45	150	21	AV	PASS
1051.51	45.6	43.06	-2.520	74.00	30.94	150	352	PK	PASS
1400.04	41.8	41.84	0.030	74.00	32.16	150	208	PK	PASS
1431.54	30.7	30.98	0.300	-	-	150	57	AV	NA
3786.78	37.6	49.19	11.610	74.00	24.81	150	48	PK	PASS
3799.78	26.6	38.29	11.680	54.00	15.71	150	48	AV	PASS
5706.47	25.1	44.59	19.480	-	-	150	325	AV	NA
5733.97	35.1	54.47	19.410	68.23	13.76	150	102	PK	PASS
10707.20	30.5	42.93	12.440	54.00	11.07	150	122	AV	PASS
10724.70	40.7	53.01	12.280	74.00	20.99	150	342	PK	PASS
13491.31	27.2	44.19	17.010	-	-	150	259	AV	NA
13555.31	36.5	53.58	17.090	68.23	14.65	150	163	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
54.13	63.3	35.71	-27.590	40.00	4.29	150	249	PK	PASS
104.70	62.6	33.32	-29.320	43.50	10.18	150	124	PK	PASS
163.88	62.9	31.87	-31.050	43.50	11.63	150	232	PK	PASS
249.97	64.3	36.85	-27.490	46.00	9.15	150	23	PK	PASS
398.28	52.6	30.03	-22.520	46.00	15.97	150	190	PK	PASS
533.13	51.6	32.53	-19.020	46.00	13.47	150	23	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1065.01	44.2	41.79	-2.430	74.00	32.21	150	75	PK	PASS
1067.01	34.4	31.94	-2.410	54.00	22.06	150	66	AV	PASS
1641.56	31.5	31.69	0.160	-	-	150	157	AV	NA
1662.07	41.6	41.87	0.310	74.00	32.13	150	138	PK	PASS
1896.09	30.9	32.85	1.990	-	-	150	102	AV	NA
1914.09	40.1	42.25	2.150	68.23	25.98	150	102	PK	PASS
5688.97	35.3	54.65	19.330	68.23	13.58	150	183	PK	PASS
5696.97	24.7	44.15	19.450	-	-	150	353	AV	NA
11075.21	39.8	53.08	13.330	74.00	20.92	150	80	PK	PASS
11141.21	29.8	43.36	13.520	54.00	10.64	150	10	AV	PASS
13489.81	38.7	55.70	17.000	68.23	12.53	150	247	PK	PASS
13492.31	27.8	44.82	17.020	-	-	150	260	AV	NA

END OF REPORT