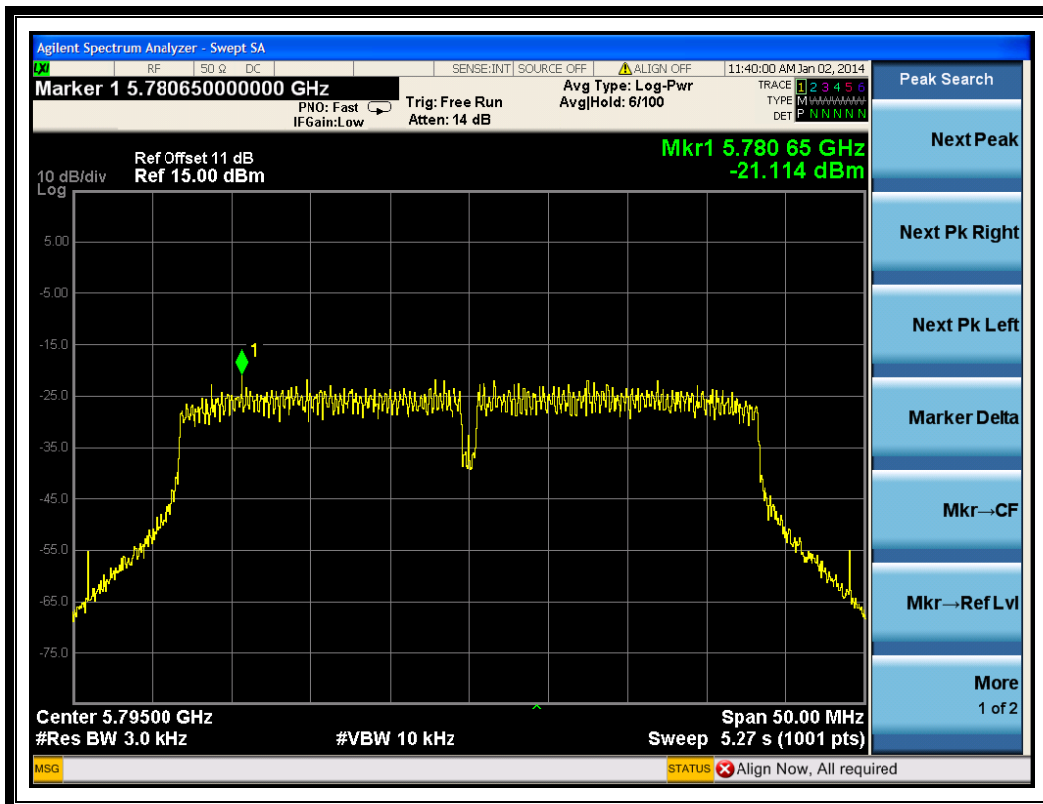


(Channel = 151 @ 802.11n-40MHz)



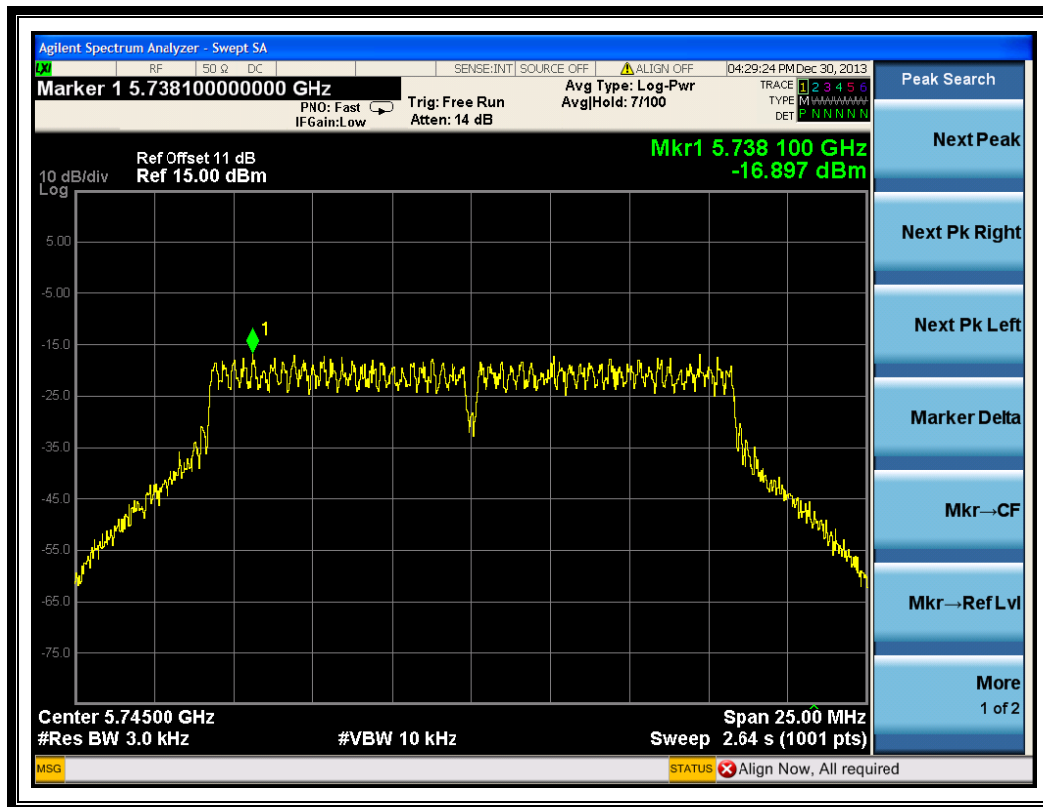
(Channel = 159 @ 802.11n-40MHz)

3.5.3.5. 802.11a Test mode

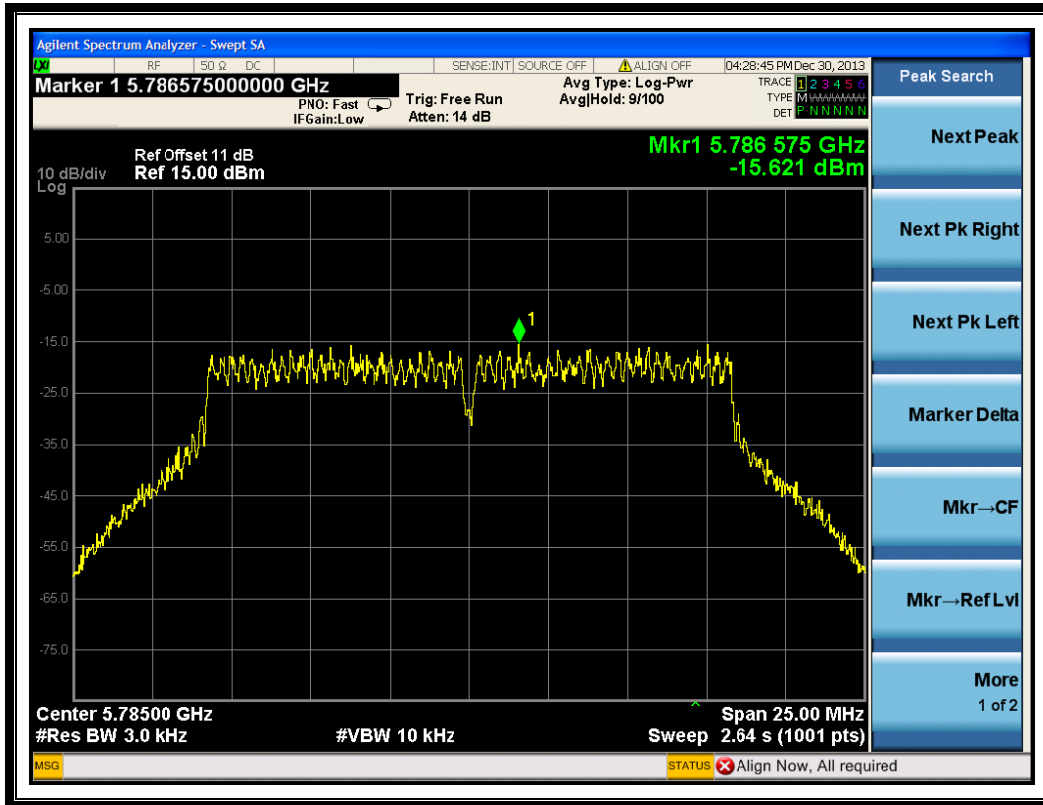
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
149	5745	-16.897	8	PASS
157	5785	-15.621	8	PASS
165	5825	-14.999	8	PASS
Measurement uncertainty: ±1.3dB				

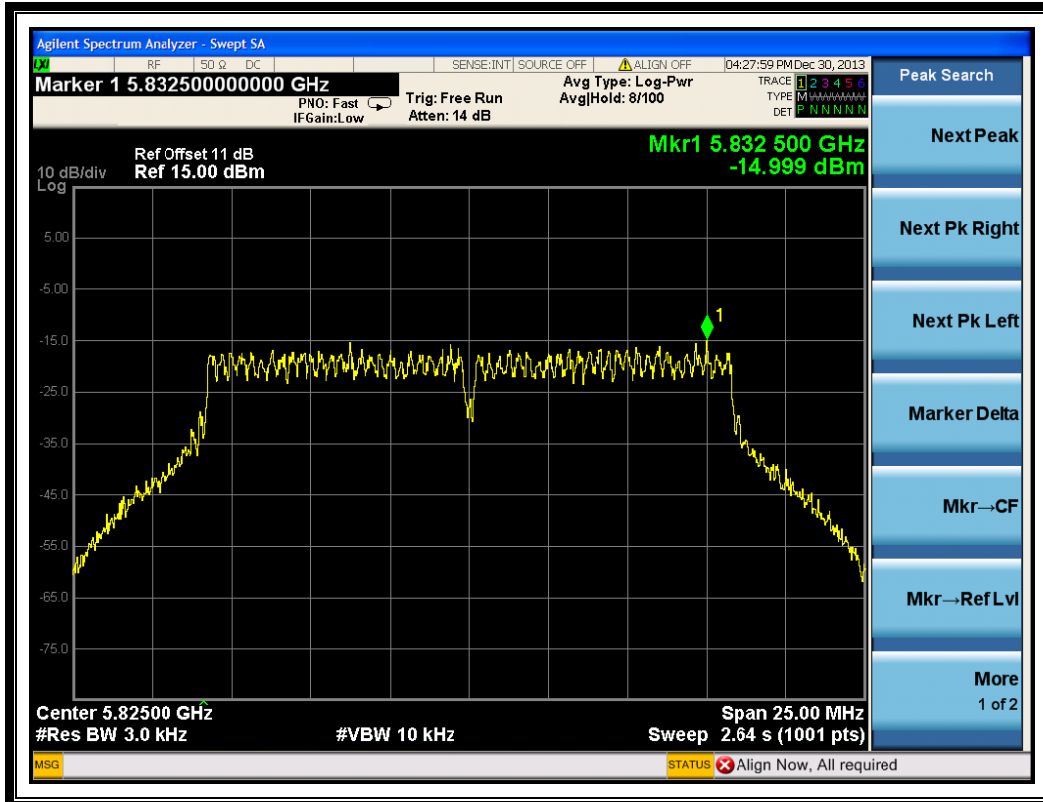
B. Test Plots:



(Channel = 149 @ 802.11a)



(Channel = 157 @ 802.11a)



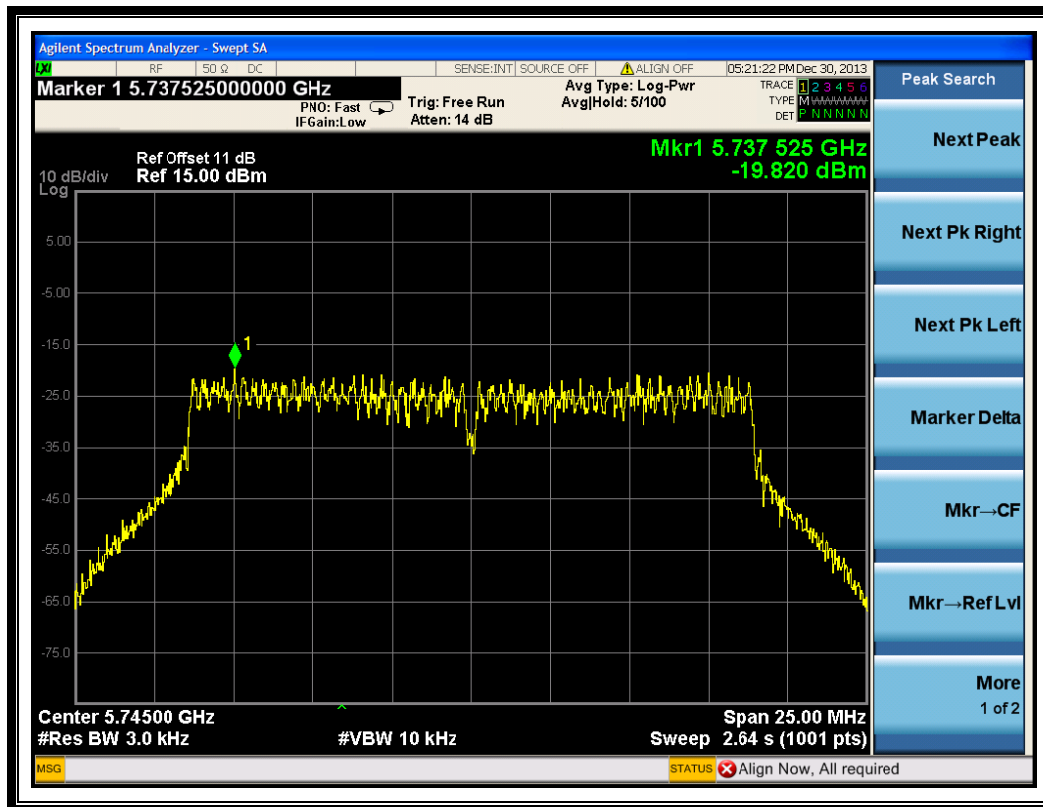
(Channel = 165 @ 802.11a)

3.5.3.6. 802.11ac-20MHz Test mode

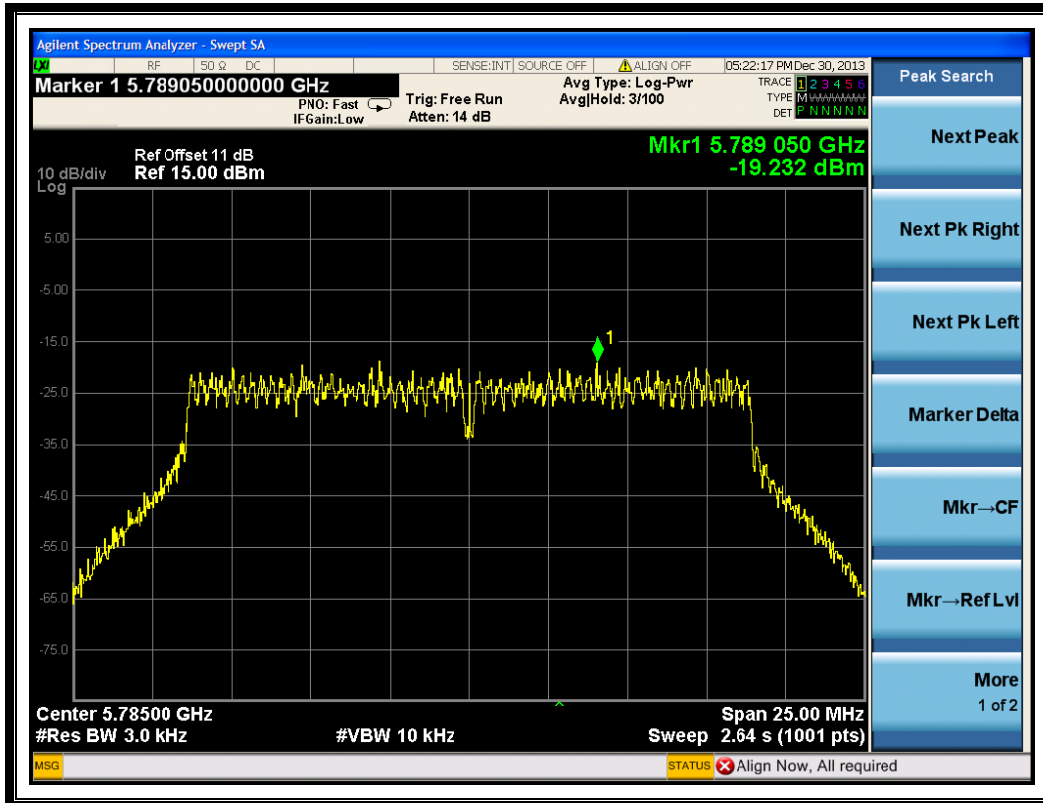
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
149	5745	-19.820	8	PASS
157	5785	-19.232	8	PASS
165	5825	-19.574	8	PASS
Measurement uncertainty: ± 1.3 dB				

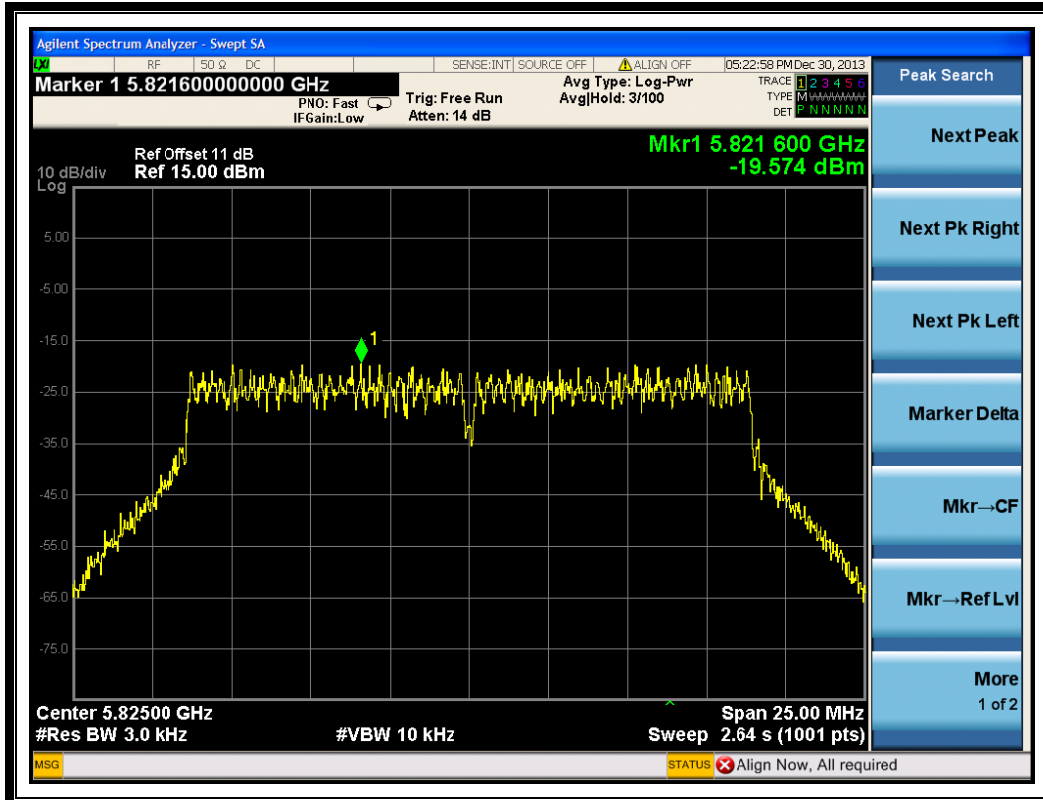
B. Test Plots:



(Channel = 149 @ 802.11 ac-20MHz)



(Channel = 157 @ 802.11 ac-20MHz)



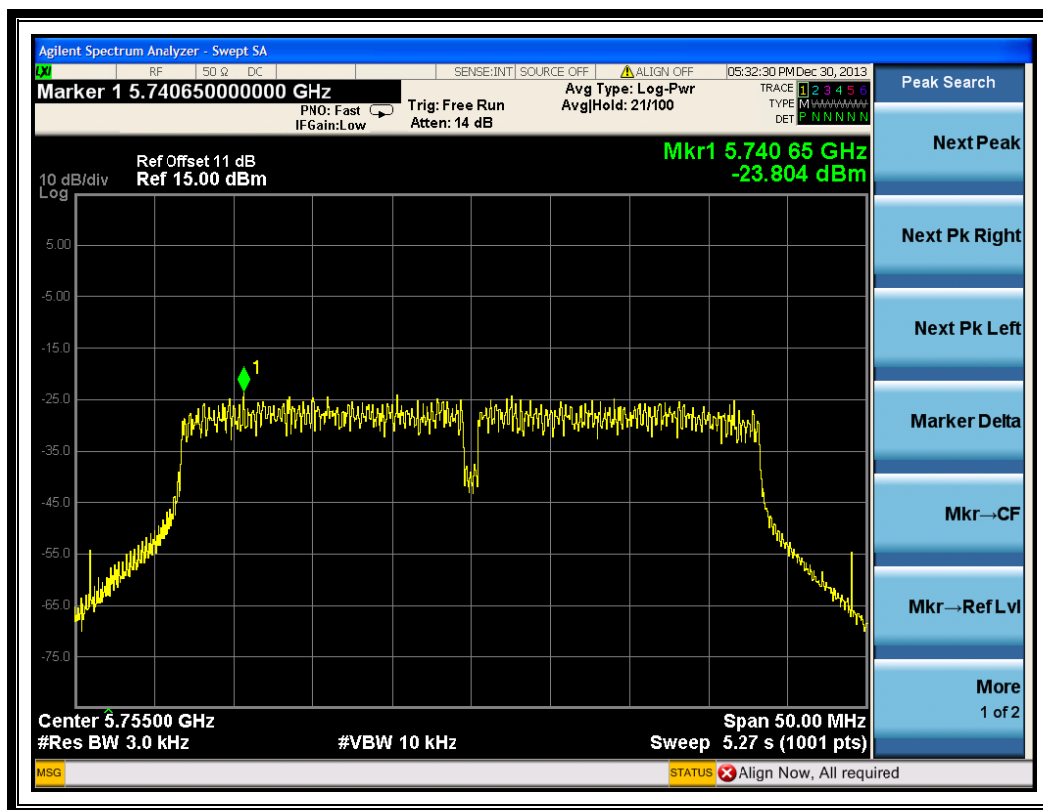
(Channel = 165 @ 802.11ac-20MHz)

3.5.3.7. 802.11ac-40MHz Test mode

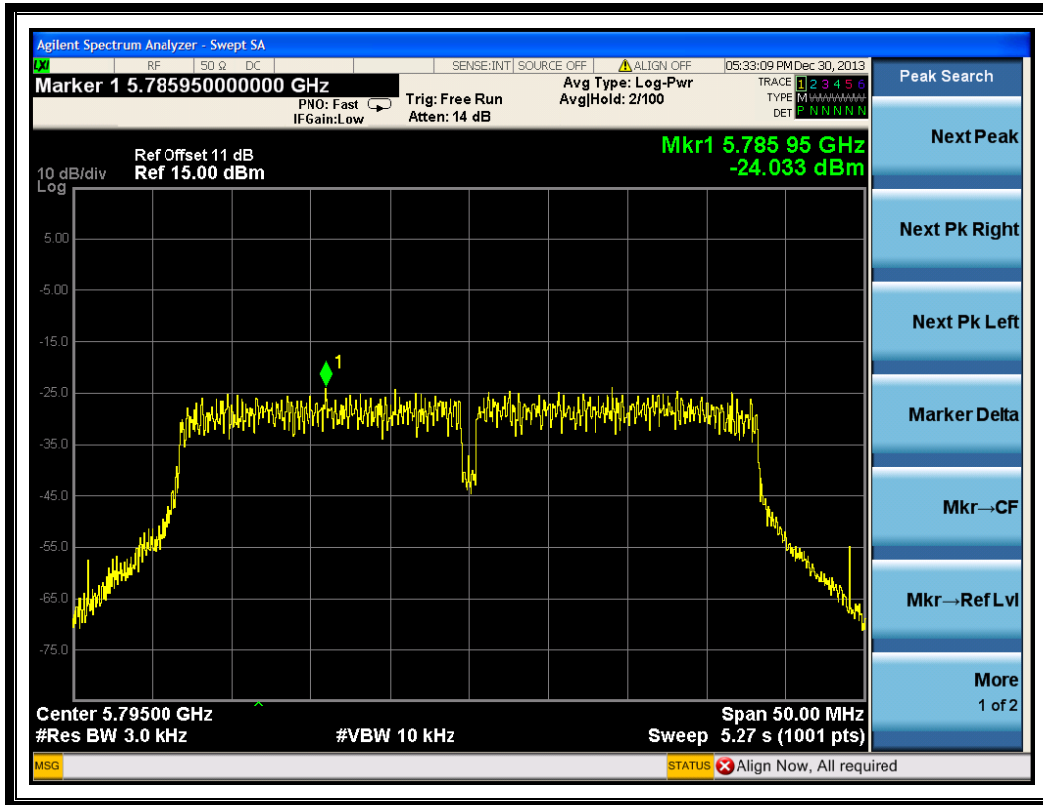
A. Test Verdict:

Spectral power density (dBm/3kHz)				
Channel	Frequency (MHz)	Measured PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
151	5755	-23.804	8	PASS
159	5795	-24.033	8	PASS
Measurement uncertainty: ±1.3dB				

B. Test Plots:



(Channel = 151 @ 802.11 ac-40MHz)



(Channel = 159 @ 802.11 ac-40MHz)

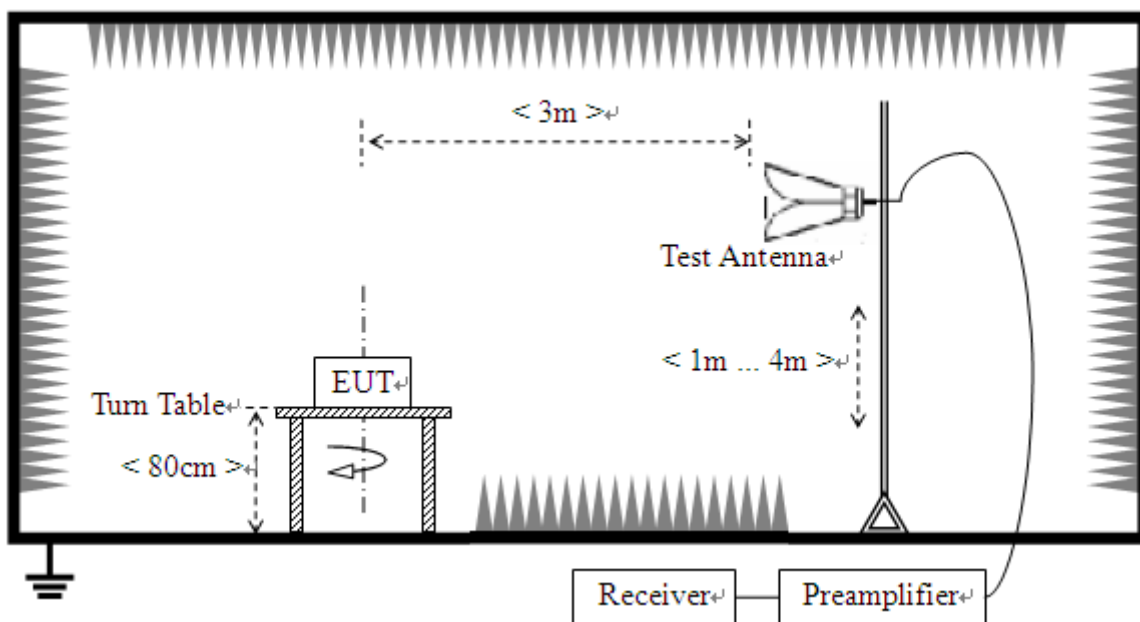
3.6. Restricted Frequency Bands

3.6.1. Requirement

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

3.6.2. Test Description

A. Test Setup



The Module 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.

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.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2013.05.12	2014.05.11
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2012.05.12	2014.05.11
Test Antenna - Horn	Schwarzbeck	BBHA 9120D	9120D-963	2013.05.12	2014.05.11

3.6.3. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.

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

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

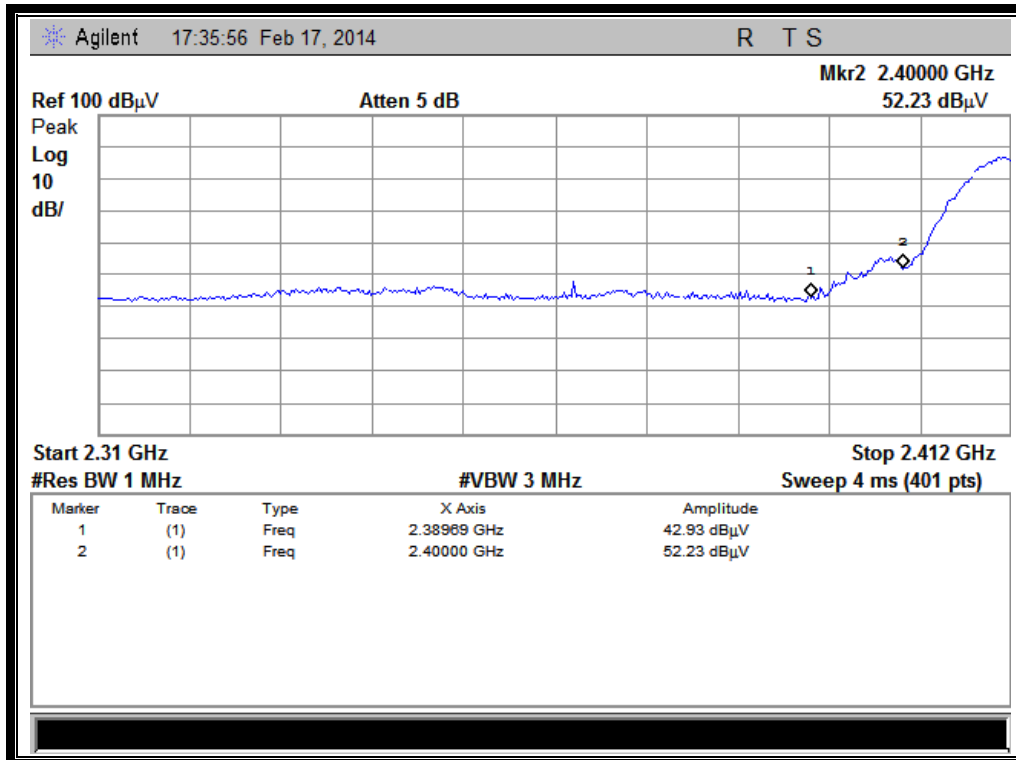
3.6.3.1. 802.11b Test mode

The lowest and highest channels are tested to verify the band edge emissions.

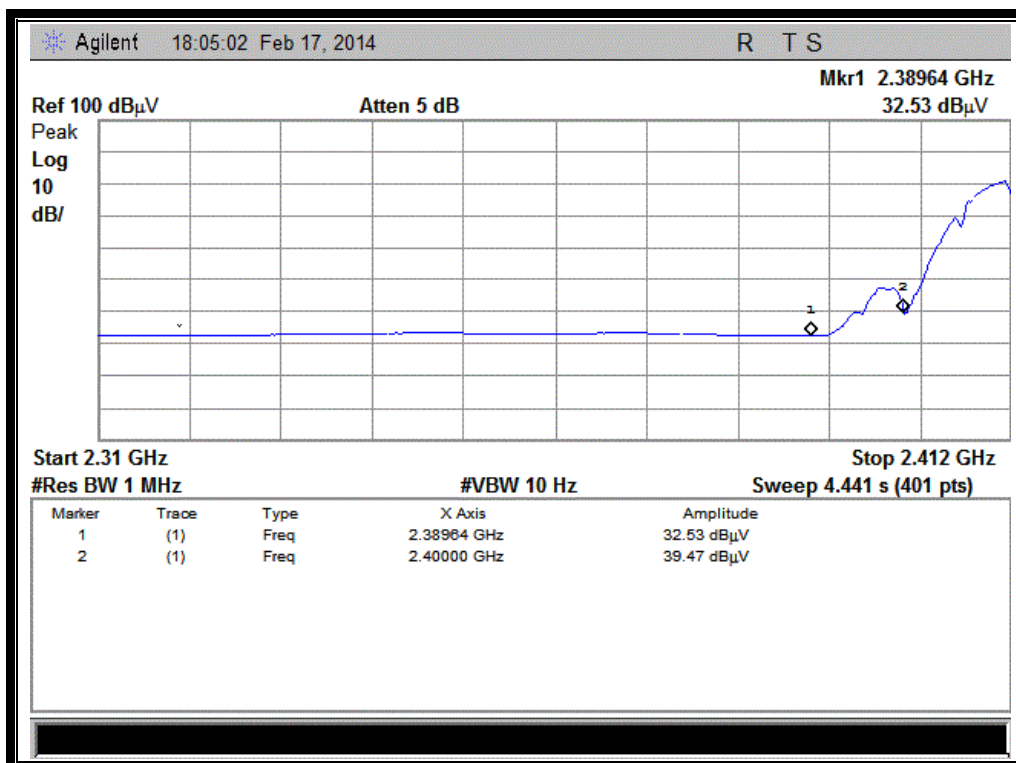
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2389.69	PK	42.93	-30.93	32.56	44.56	74	Pass
1	2389.64	AV	32.53	-30.93	32.56	34.16	54	Pass
11	2484.29	PK	46.13	-29.05	32.50	49.58	74	Pass
11	2483.50	AV	32.85	-29.05	32.50	36.30	54	Pass

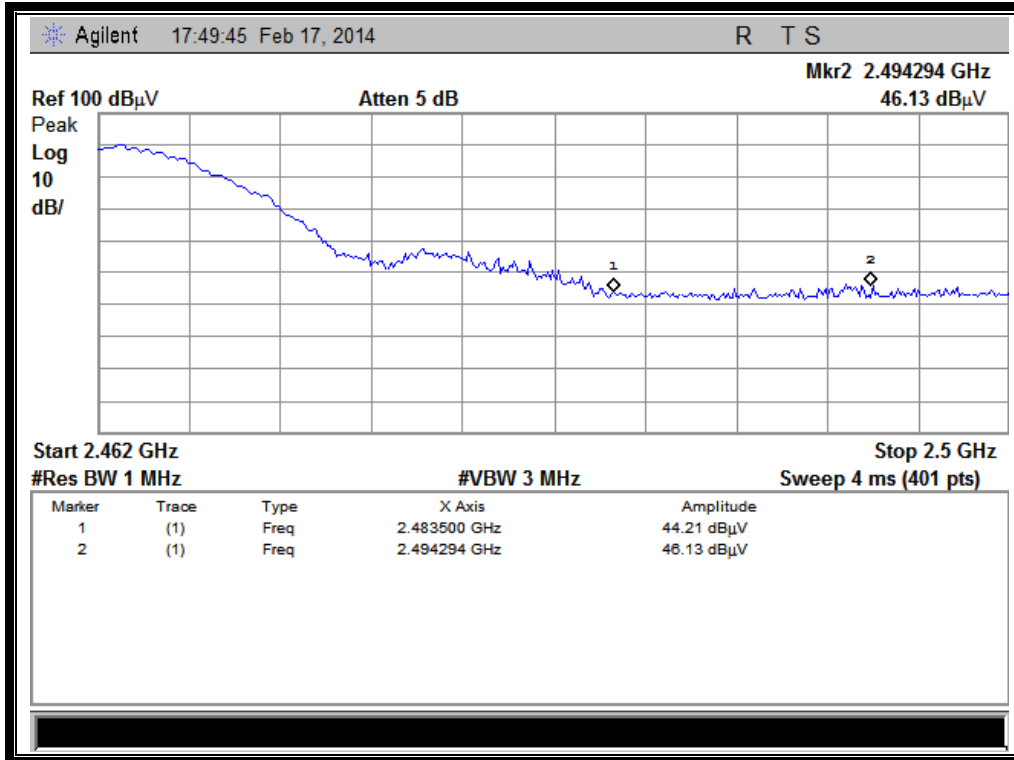
B. Test Plots:



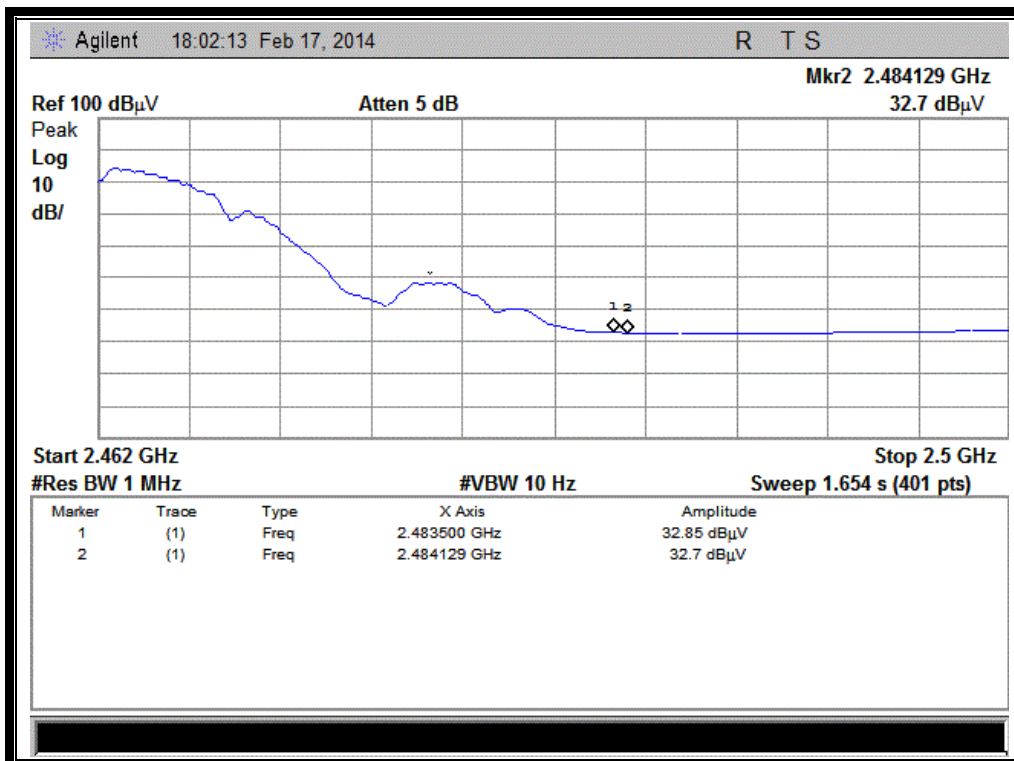
(Plot A1: Channel = 1 PEAK @ 802.11b)



(Plot A2: Channel = 1 AVG @ 802.11b)



(Plot B1: Channel = 11 PEAK @ 802.11b)



(Plot B2: Channel = 11 AVG @ 802.11b)

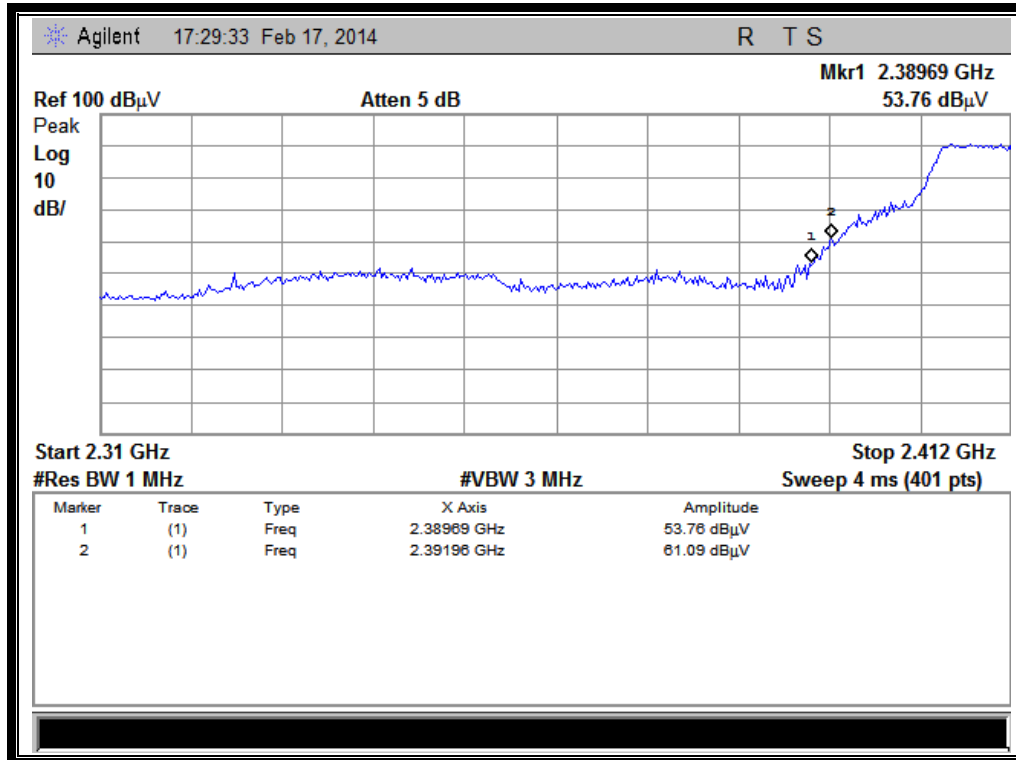
3.6.3.2. 802.11g Test mode

The lowest and highest channels are tested to verify the band edge emissions.

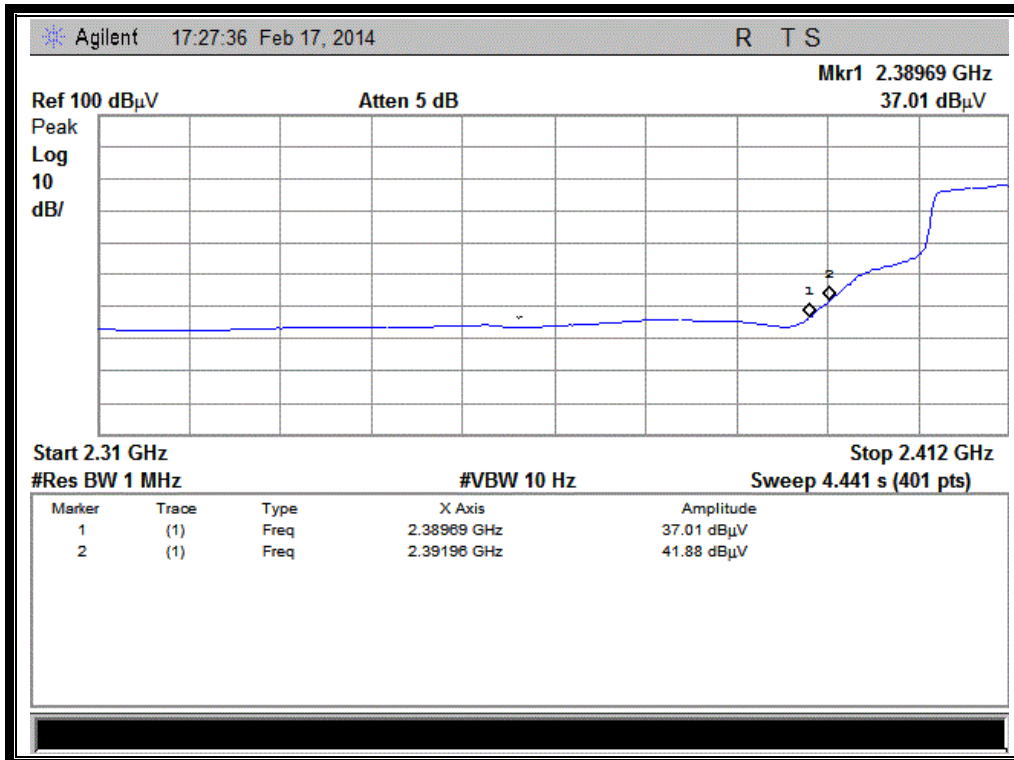
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
1	2389.69	PK	53.76	-30.93	32.56	55.39	74	Pass
1	2389.69	AV	37.01	-30.93	32.56	38.64	54	Pass
11	2484.22	PK	50.71	-29.05	32.50	54.16	74	Pass
11	2483.50	AV	36.54	-29.05	32.50	39.99	54	Pass

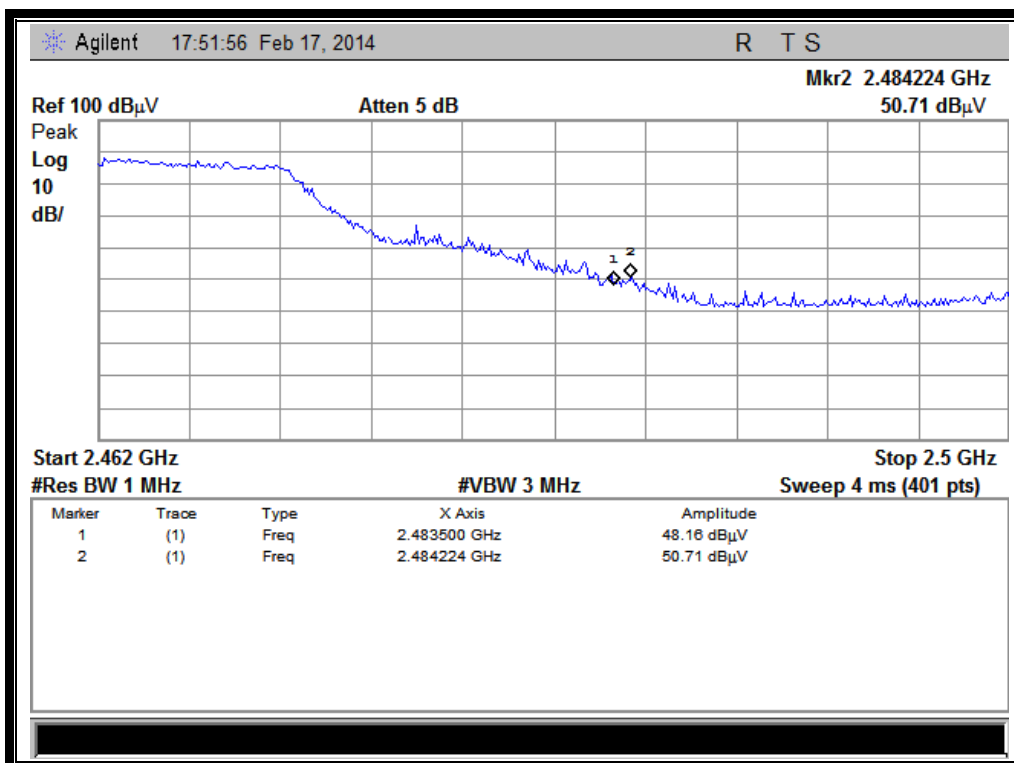
B. Test Plots:



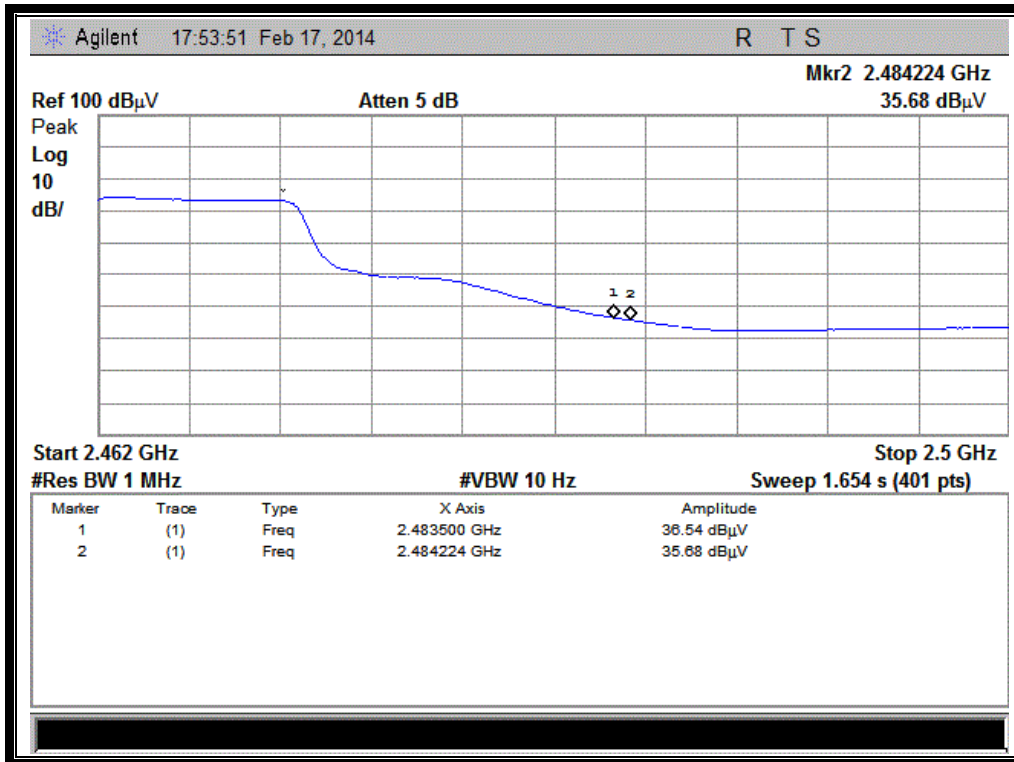
(Plot C1: Channel = 1 PEAK @ 802.11g)



(Plot C2: Channel = 1 AVG @ 802.11g)



(Plot D1: Channel = 11 PEAK @ 802.11g)



(Plot D2: Channel = 11 AVG @ 802.11g)

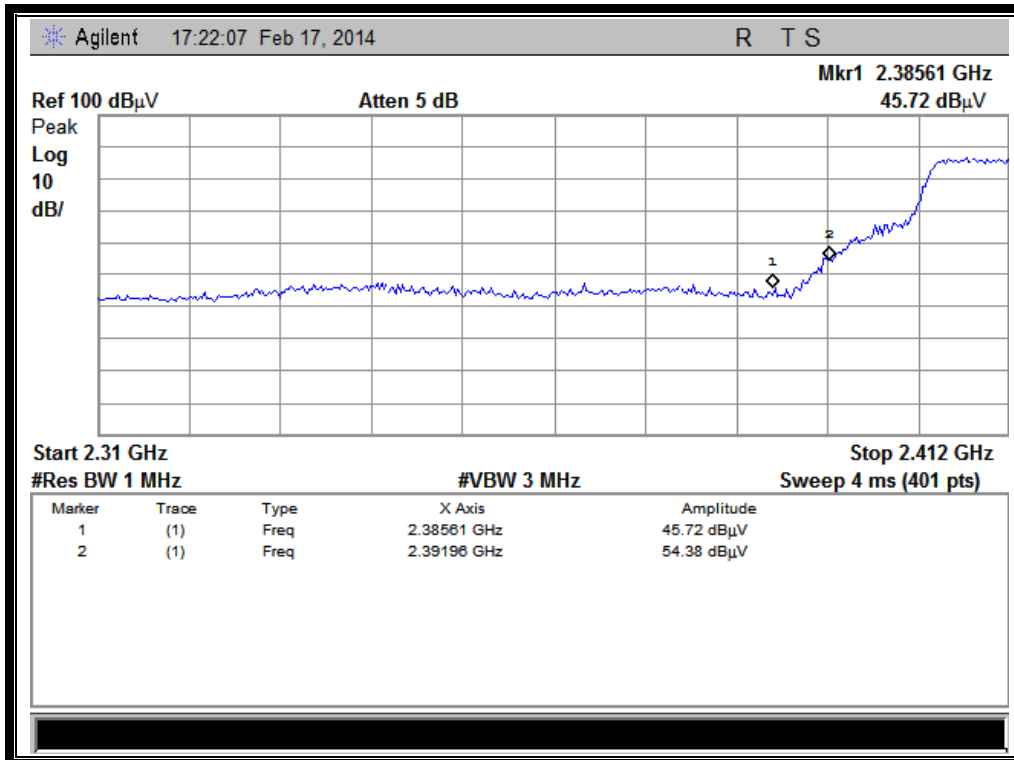
3.6.3.3. 802.11n-20MHz Test mode

The lowest and highest channels are tested to verify the band edge emissions.

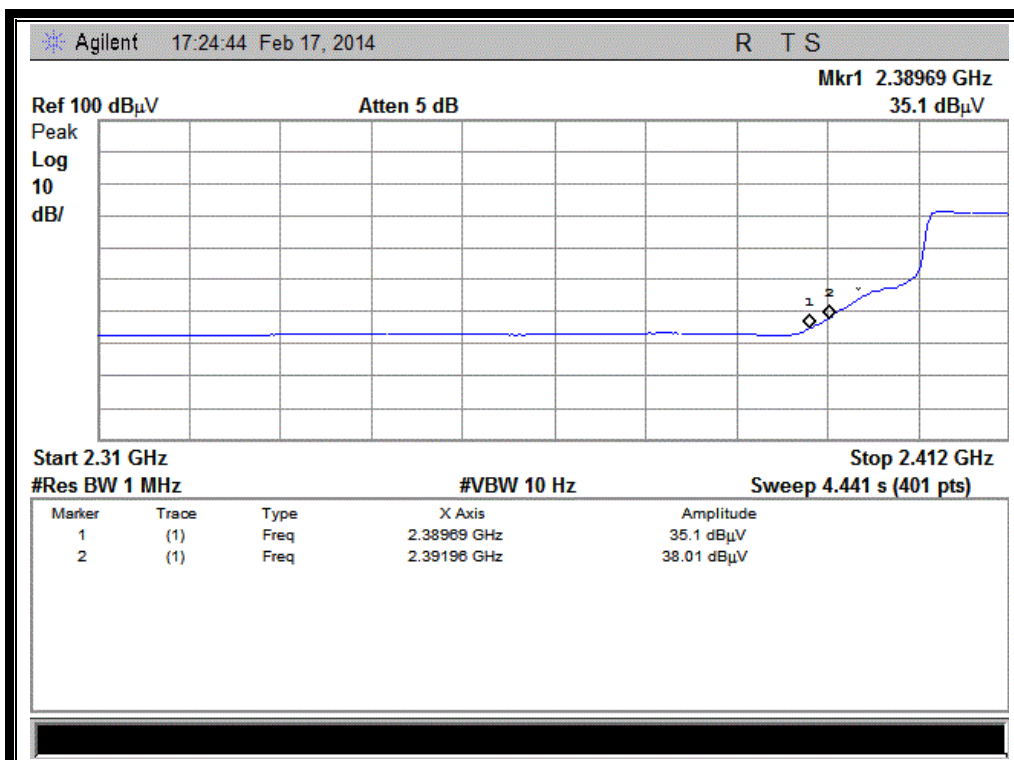
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading UR (dB μ V)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2385.61	PK	45.72	-30.93	32.56	47.35	74	Pass
1	2389.69	AV	35.10	-30.93	32.56	36.73	54	Pass
11	2483.94	PK	50.04	-29.05	32.50	53.49	74	Pass
11	2483.50	AV	36.35	-29.05	32.50	39.80	54	Pass

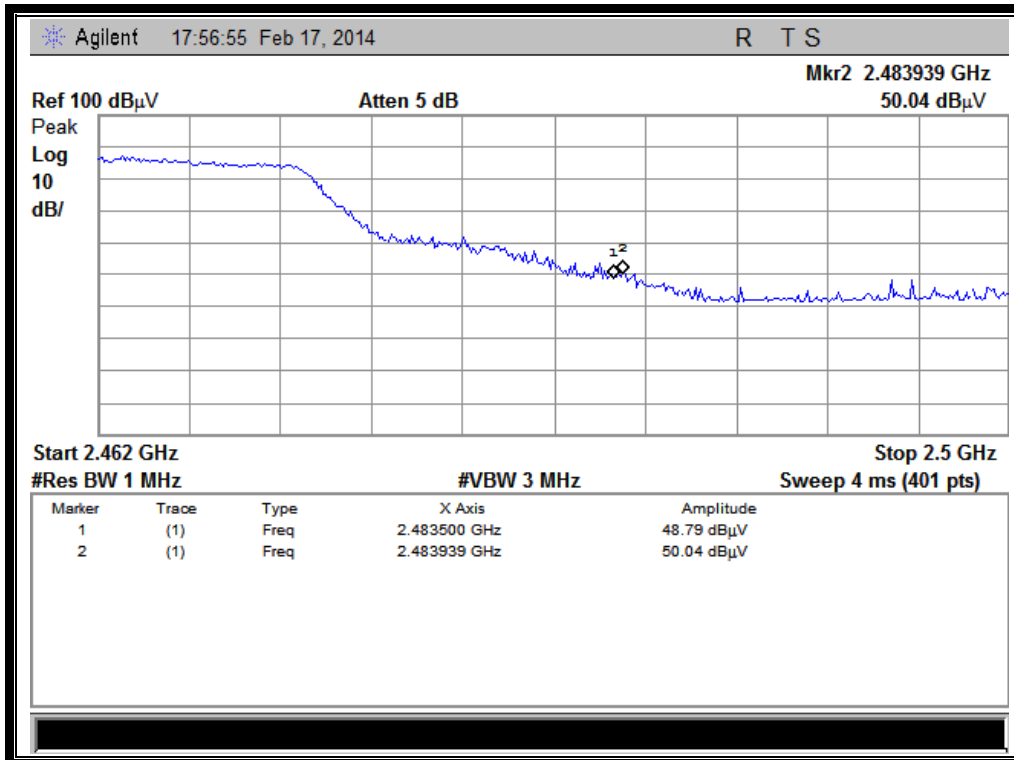
B. Test Plots:



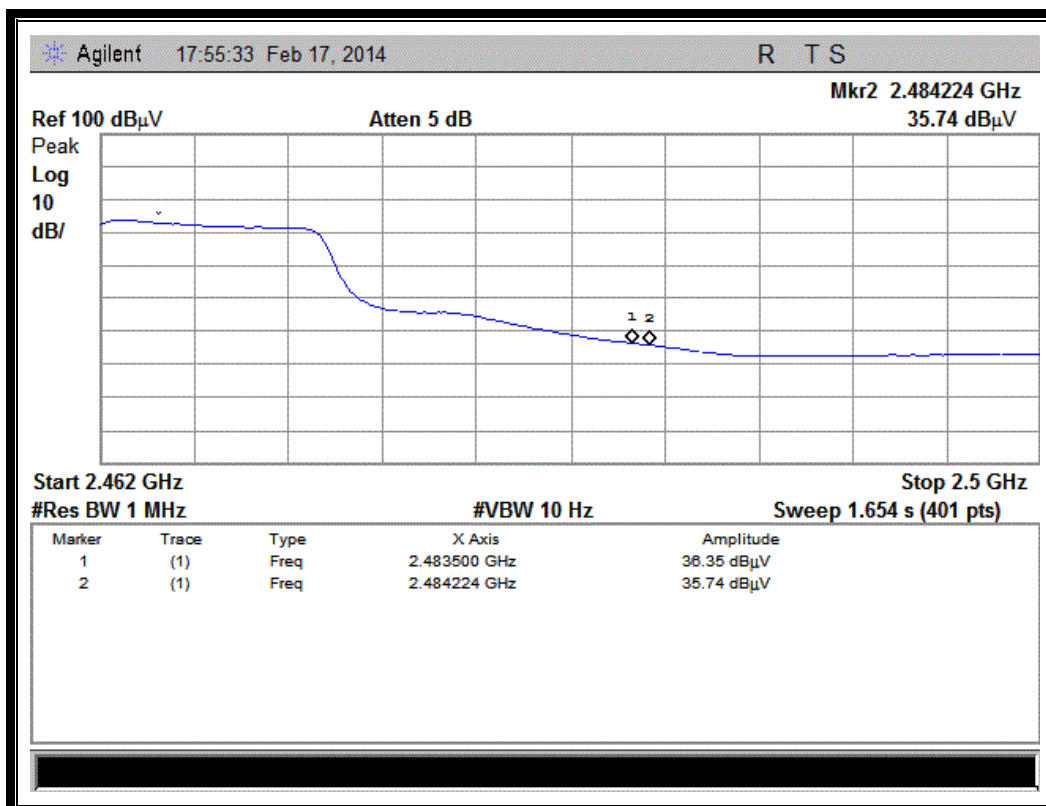
(Plot E1: Channel = 1 PEAK @ 802.11n-20)



(Plot E2: Channel = 1 AVG @ 802.11n-20)



(Plot F1: Channel = 11 PEAK @ 802.11n-20)



(Plot F2: Channel = 11 AVG @ 802.11n-20)

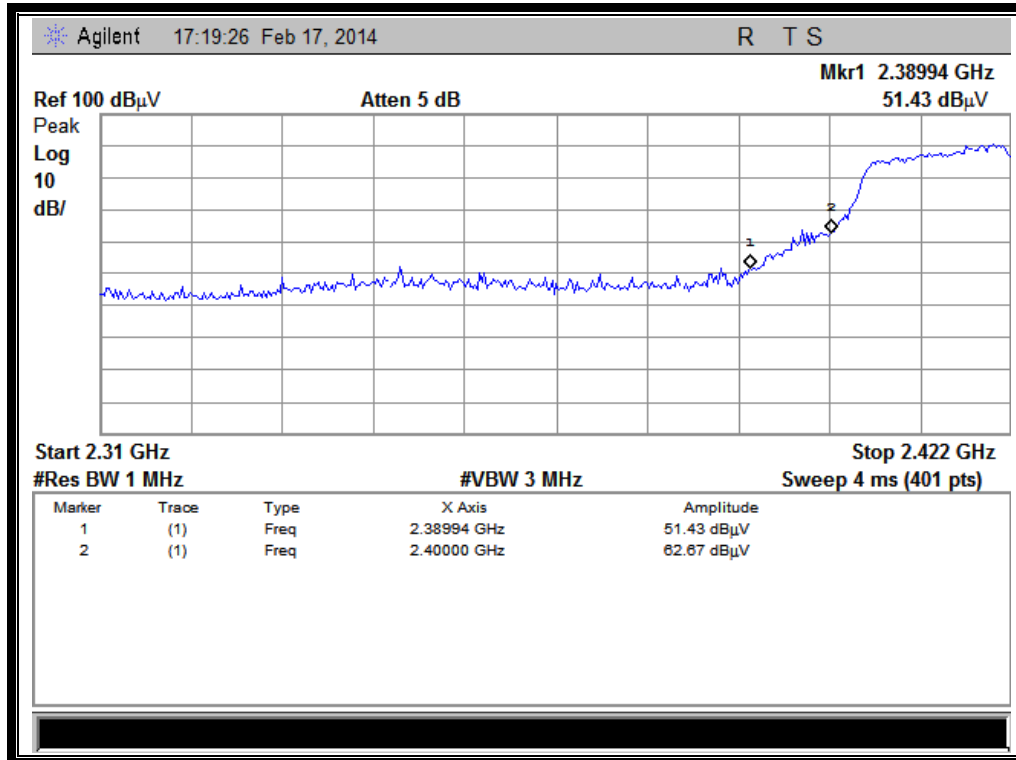
3.6.3.4. 802.11n-40MHz Test mode

The lowest and highest channels are tested to verify the band edge emissions.

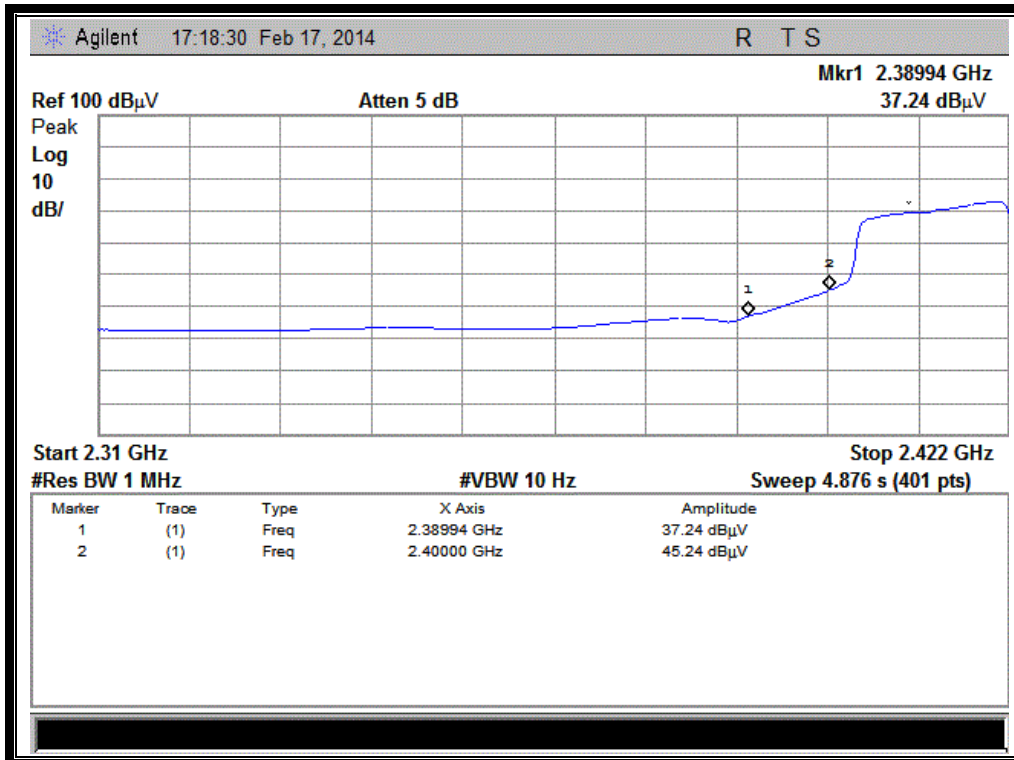
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading UR (dBuV)	AT (dB)	AFactor (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
3	2389.94	PK	51.43	-30.93	32.56	53.06	74	Pass
3	2389.94	AV	37.24	-30.93	32.56	38.87	54	Pass
9	2484.76	PK	53.97	-29.05	32.50	57.42	74	Pass
9	2483.50	AV	38.34	-29.05	32.50	41.79	54	Pass

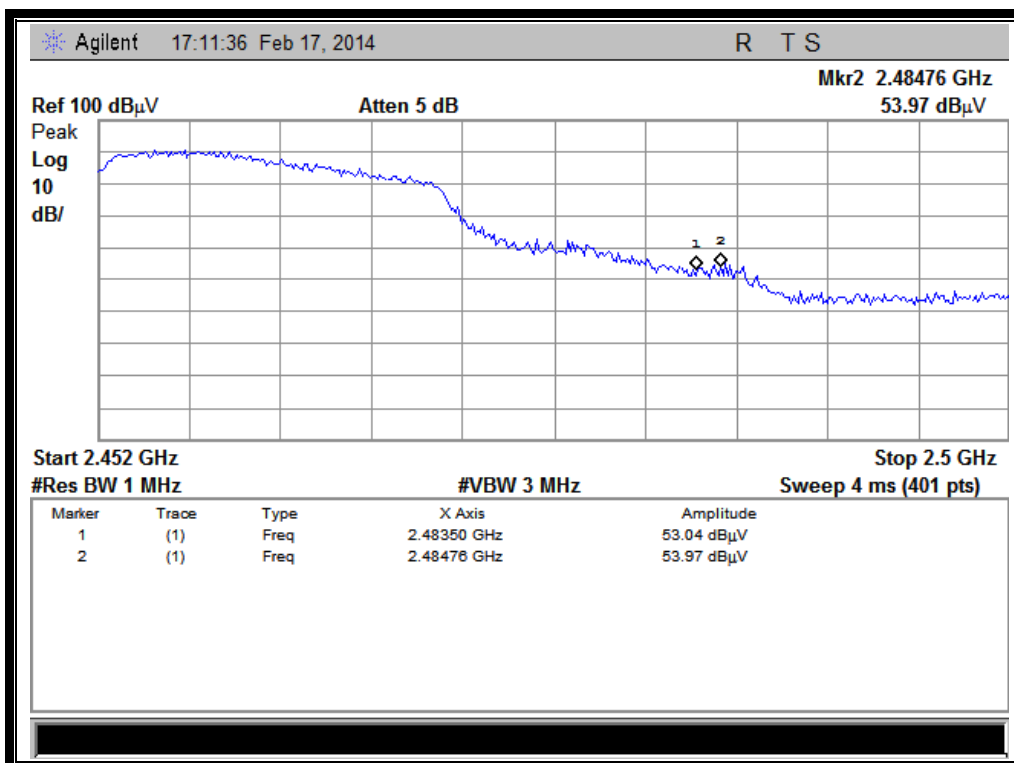
B. Test Plots:



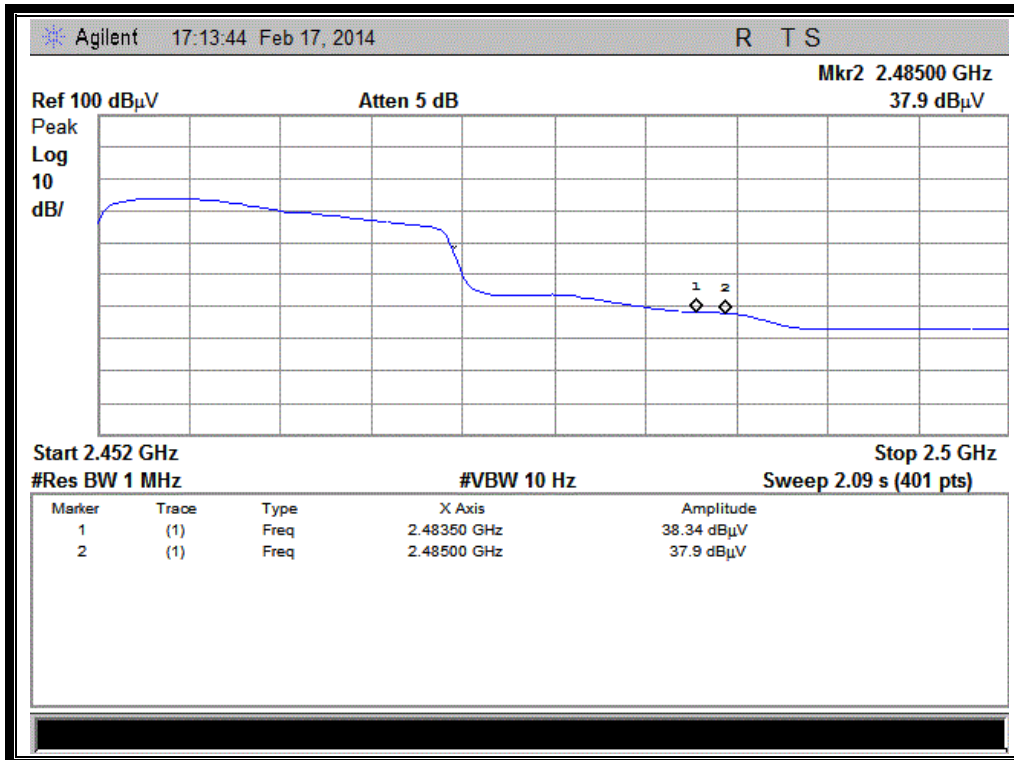
(Plot E1: Channel = 3 PEAK @ 802.11n-40)



(Plot E2: Channel = 3 AVG @ 802.11n-40)



(Plot F1: Channel = 9 PEAK @ 802.11n-40)



(Plot F2: Channel = 9 AVG @ 802.11n-40)

3.7. Conducted Emission

3.7.1. 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).

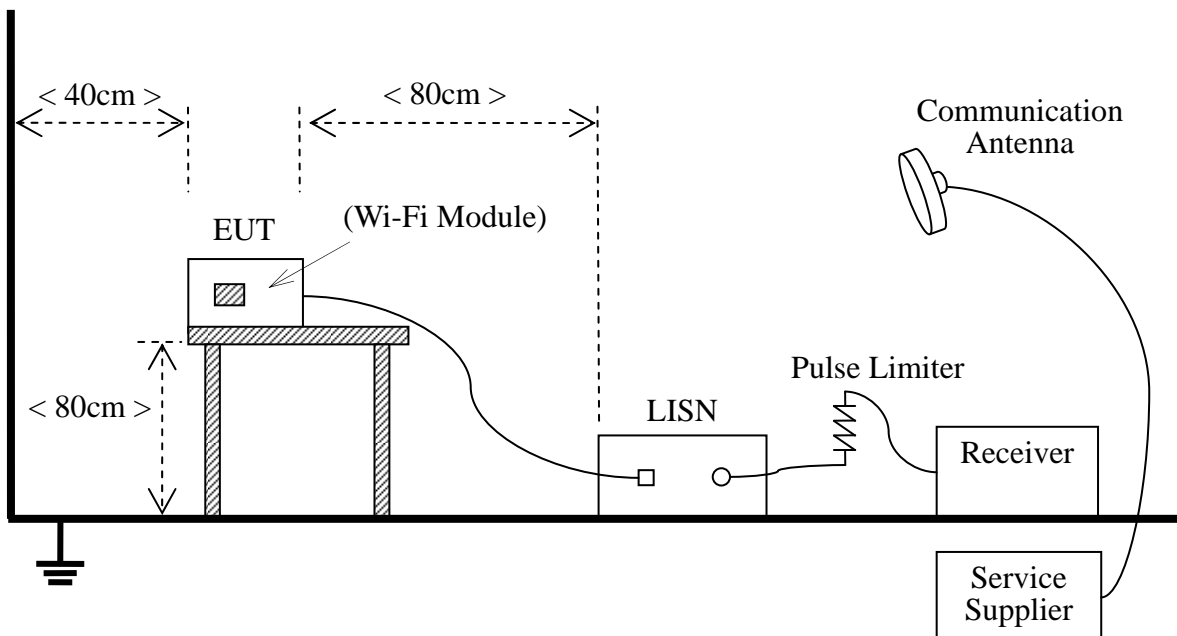
Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

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

3.7.2. Test Description

A. Test Setup:



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 C63.4:2009

The EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2013.05.12	2014.05.11
LISN	Schwarzbeck	NSLK 8127	812744	2013.05.12	2014.05.11
Service Supplier	R&S	CMU200	100448	2013.05.12	2014.05.11
Pulse Limiter (20dB)	Schwarzbeck	VTSD 9561-D	9391	(n.a.)	(n.a.)

3.7.3. Test Result

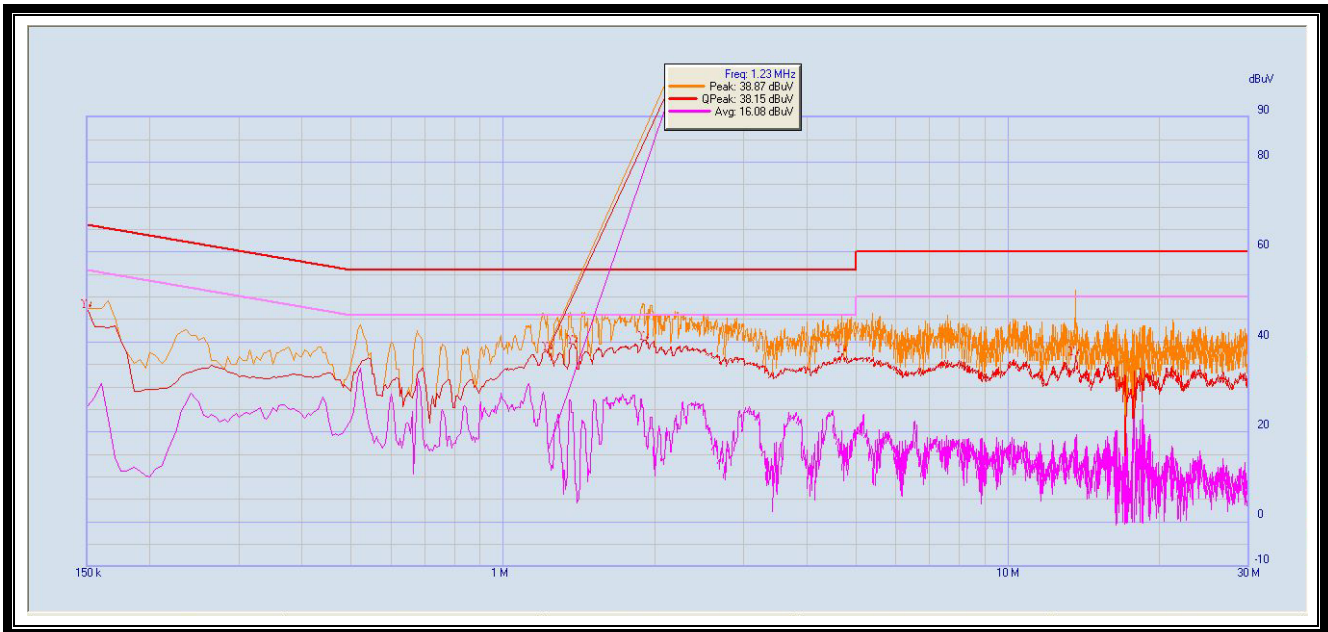
The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT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

Note: All test modes are performed, only the worst case is recorded in this report.

A. Test setup:

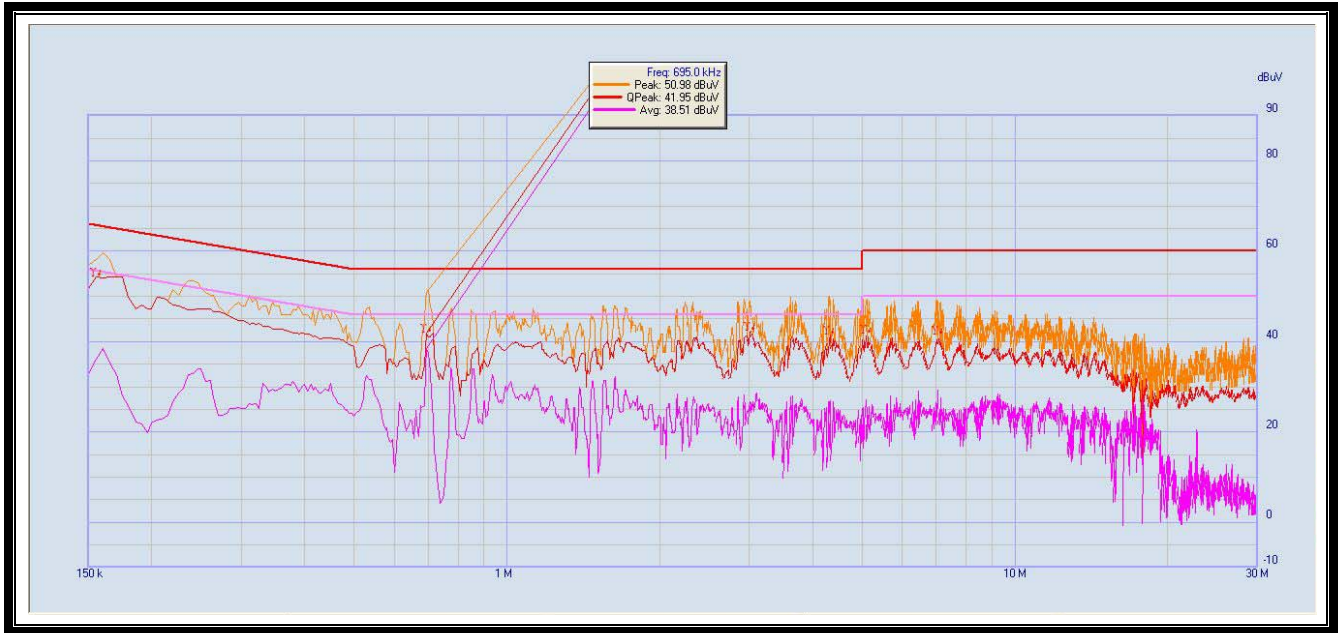
The EUT configuration of the emission tests is EUT + Link.

B. Test Plots:



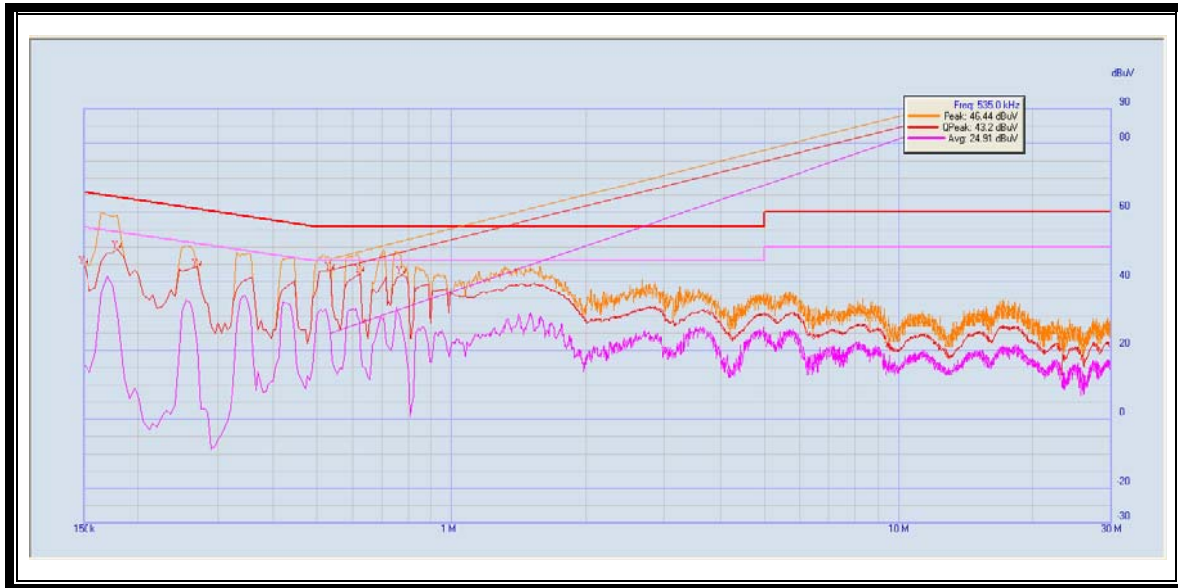
NO.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.150	47.41	25.70	66.00	56.00	Line	PASS
2	1.230	38.15	17.48	56.00	46.00		PASS
3	1.375	39.55	24.38	56.00	46.00		PASS
4	1.905	40.42	22.32	56.00	46.00		PASS
5	4.685	37.04	20.23	56.00	46.00		PASS
6	13.56	37.02	17.46	60.00	50.00		PASS

(Plot A: Adapter AK717, L Phase)



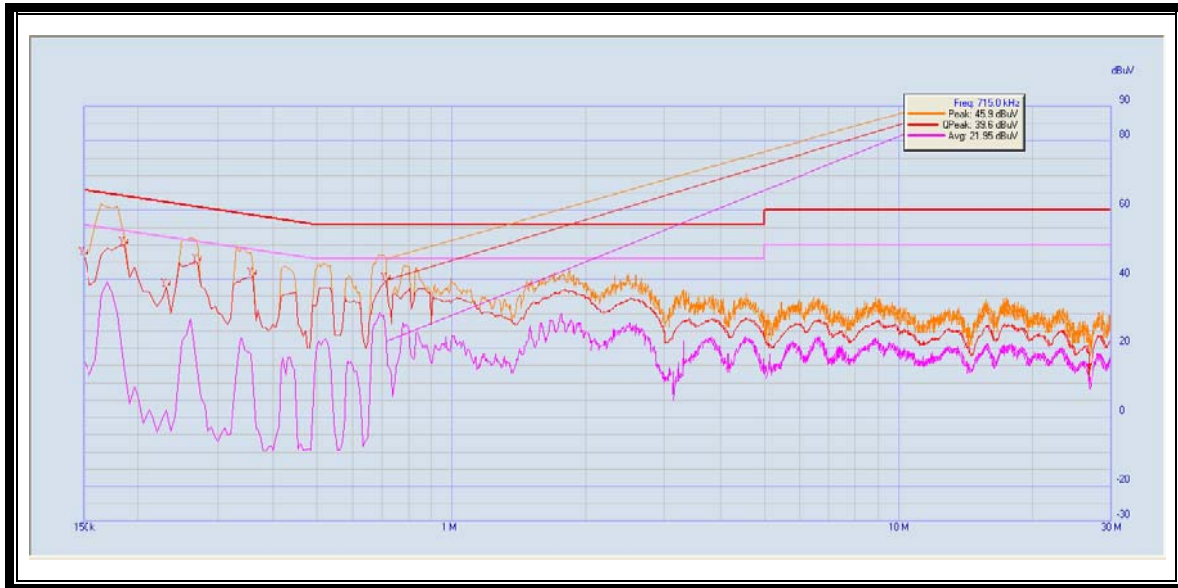
NO.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.155	54.39	36.10	66.00	56.00	Neutral	PASS
2	0.695	41.95	38.51	56.00	46.00		PASS
3	3.005	42.08	26.74	56.00	46.00		PASS
4	4.310	40.49	26.89	56.00	46.00		PASS
5	5.080	40.95	25.48	60.00	50.00		PASS
6	7.070	40.13	24.78	60.00	50.00		PASS

(Plot B: Adapter AK717, N Phase)



NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.15	44.93	41.58	66.00	56.00	Line	PASS
2	0.18	49.54	34.75	65.14	55.14		PASS
3	0.27	44.35	35.82	62.57	52.57		PASS
4	0.535	43.20	33.94	56.00	46.00		PASS
5	0.625	42.59	32.10	56.00	46.00		PASS
6	0.775	42.13	32.42	56.00	46.00		PASS

(Plot A: Adapter AK719, L Phase)



NO.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.15	46.87	39.27	66.00	56.00	Neutral	PASS
2	0.185	50.01	28.43	65.00	55.00		PASS
3	0.23	37.85	30.33	63.71	53.71		PASS
4	0.27	44.89	28.24	62.57	52.57		PASS
5	0.36	41.02	29.90	60.00	50.00		PASS
6	0.715	39.60	27.48	56.00	46.00		PASS

(Plot B: Adapter AK719, N Phase)

3.8. Radiated Emission

3.8.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

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 ($\mu\text{V}/\text{m}$)	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

Note:

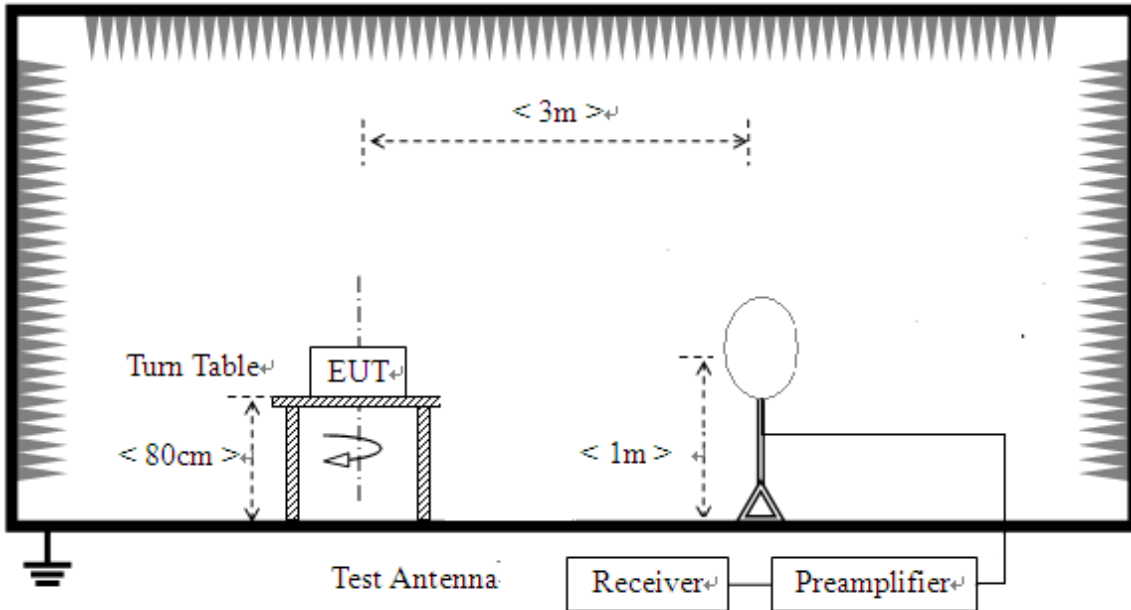
1. For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.
2. For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK)

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)

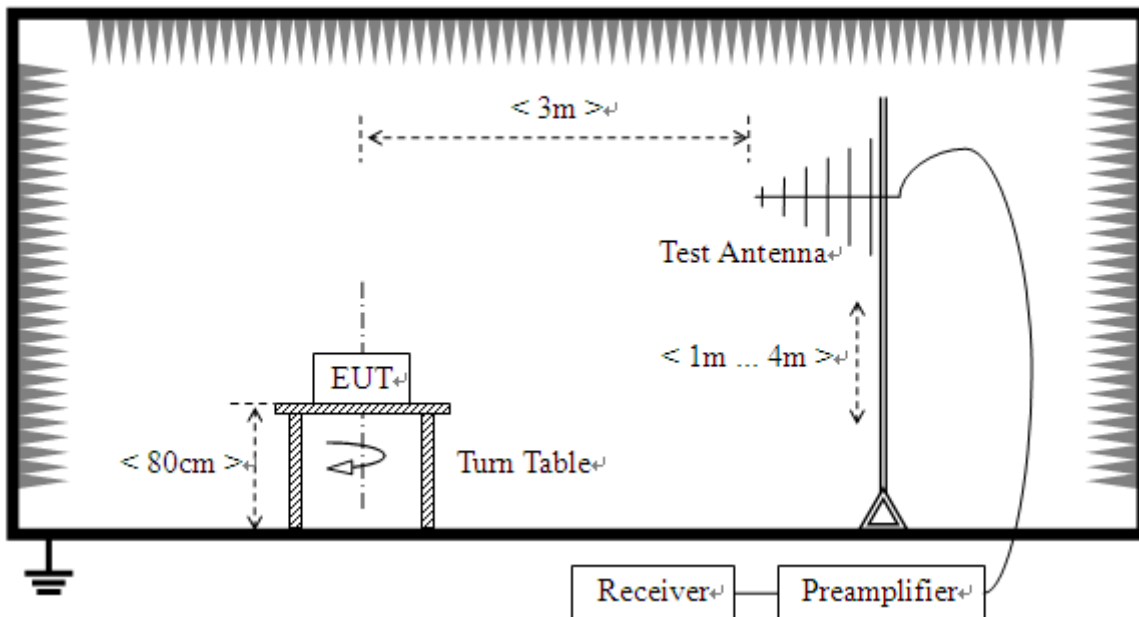
3.8.2. Test Description

A. Test Setup:

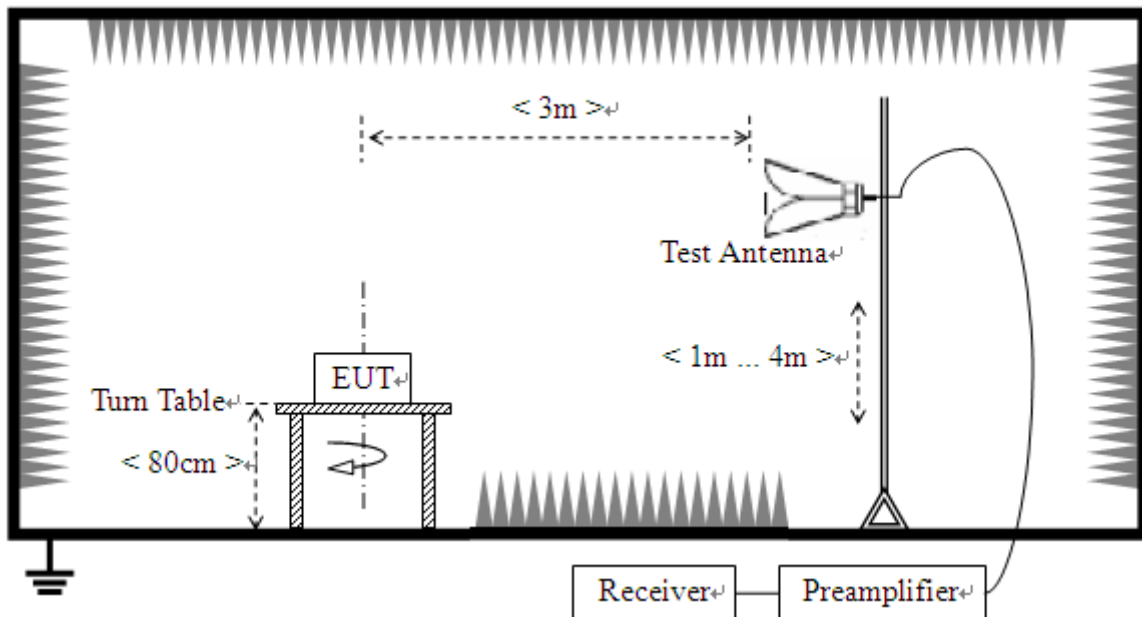
- 1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.4 (2009). The EUT was set-up on insulator 80cm above the Ground Plane. The set-up and test methods were according to ANSI C63.4.

The EUT of the EUT is powered by the Battery charged with the AC Adapter which is powered by 120V, 60Hz AC mains supply. The Module 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. During the measurement, the EUT is activated and controlled by the Wireless Router via a Common Antenna, and is set to operate under hopping-on test mode.

For the Test Antenna:

- (a) In the frequency range of 9kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.
- (b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 2GHz) and Horn Test Antenna (above 2GHz) are used. 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. The emission levels at both horizontal and vertical polarizations should be tested.

B. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Receiver	Agilent	E7405A	US44210471	2013.05.12	2014.05.11
EXA Signal Analyzer	Agilent	N9010A	MY51440152	2013.05.12	2014.05.11
Full-Anechoic Chamber	Albatross	9m*6m*6m	(n.a.)	2012.05.12	2014.05.11
Test Antenna - Bi-Log	Schwarzbeck	VULB 9163	9163-274	2013.05.12	2014.05.11
Test Antenna - Horn	Schwarzbeck	BBHA 9120D	9120D-963	2013.05.12	2014.05.11
Test Antenna - Horn	Schwarzbeck	BBHA9170	9170-872	2013.05.12	2014.05.11
Test Antenna - Horn	R&S	HL050S7	71688	2013.05.12	2014.05.11
Test Antenna -Loop	Schwarzbeck	FMZB 1519	1519-022	2013.05.12	2014.05.11

3.8.3. Test Result

According to ANSI C63.4 selection 4.2.2, 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 limit, it is unnecessary to perform a quasi-peak measurement.

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

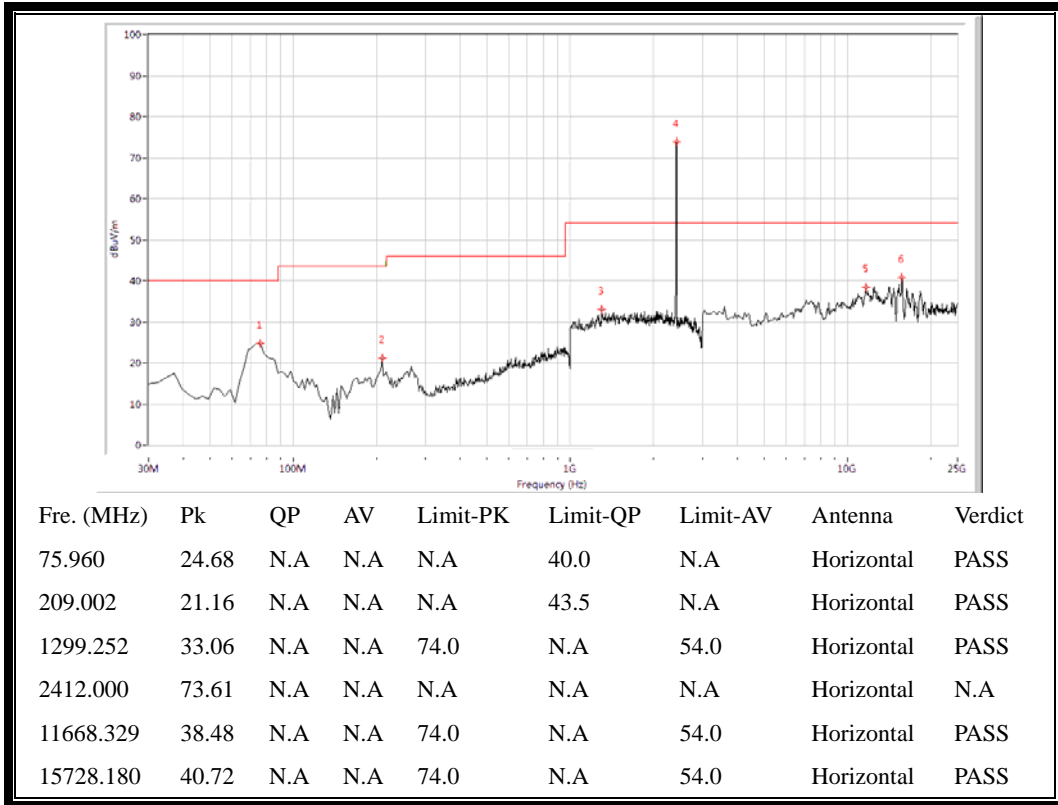
During the test, the total correction Factor A_T and A_{Factor} were built in test software.

Note: 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.

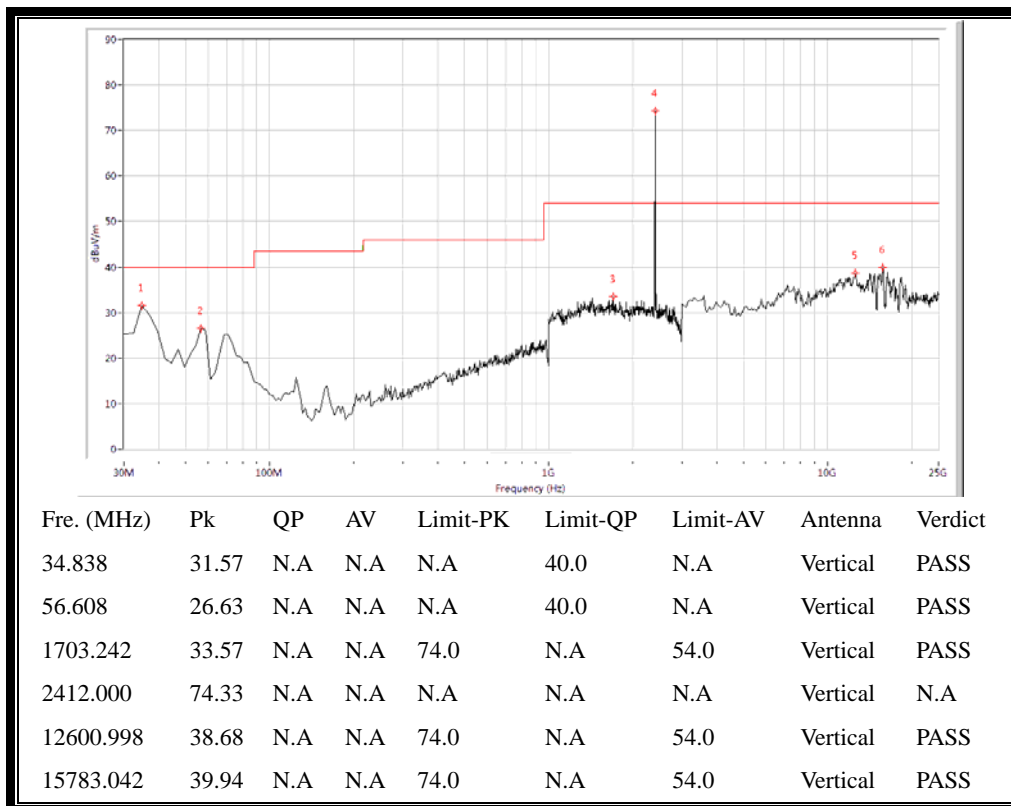
The low frequency, which started from 9KHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

3.8.3.1. 802.11b Test mode**A. Test Plots for the Whole Measurement Frequency Range:**

Plots for Channel = 1

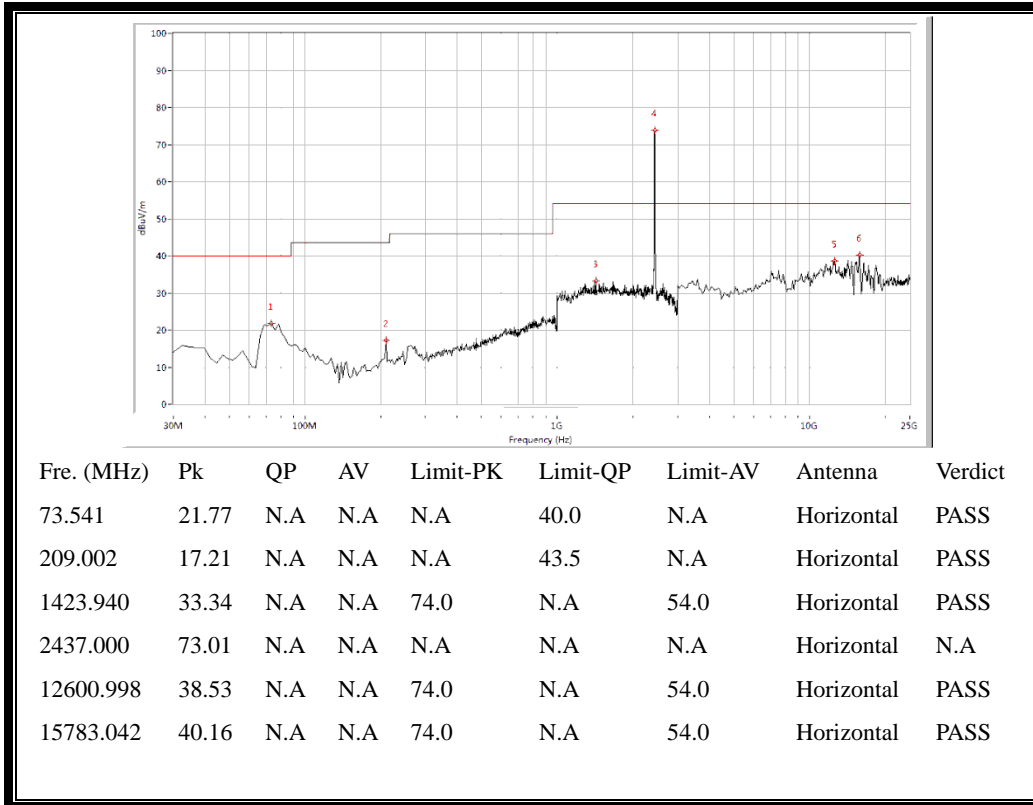


(Antenna Horizontal, 30MHz to 25GHz)

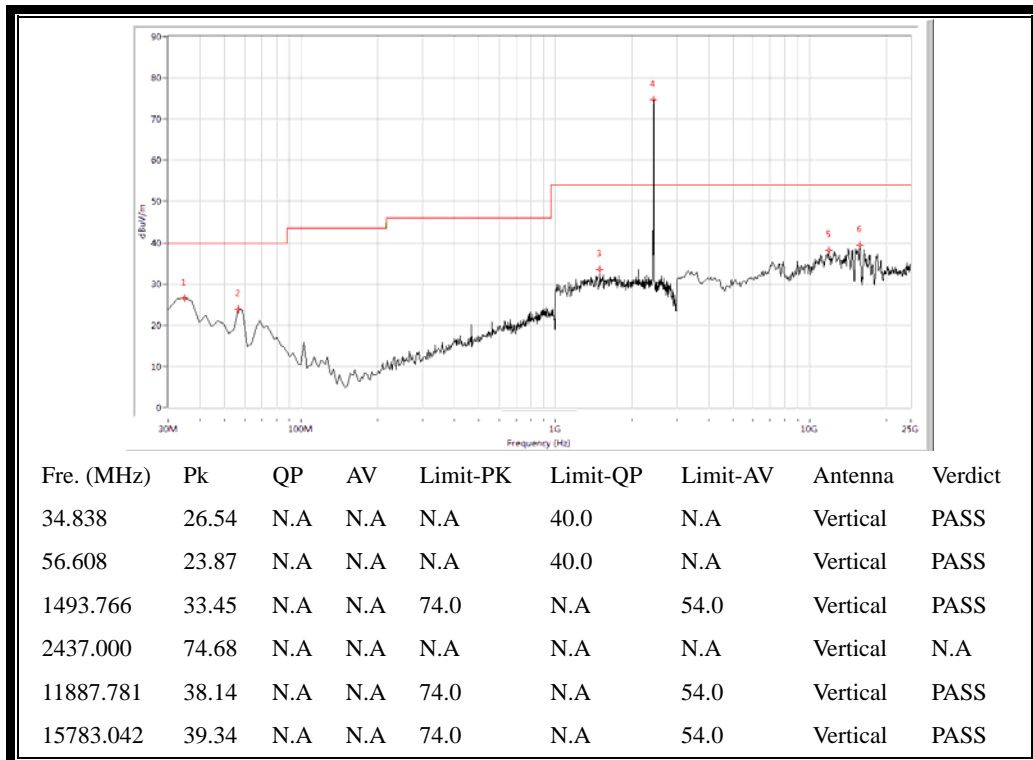


(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6

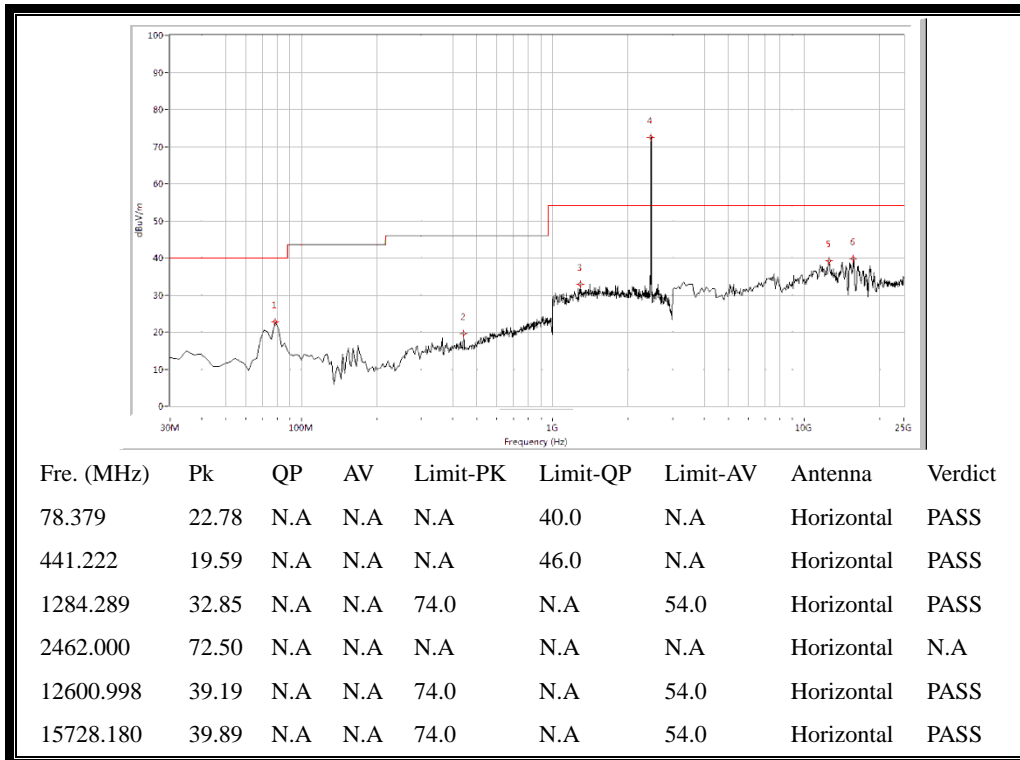


(Antenna Horizontal, 30MHz to 25GHz)

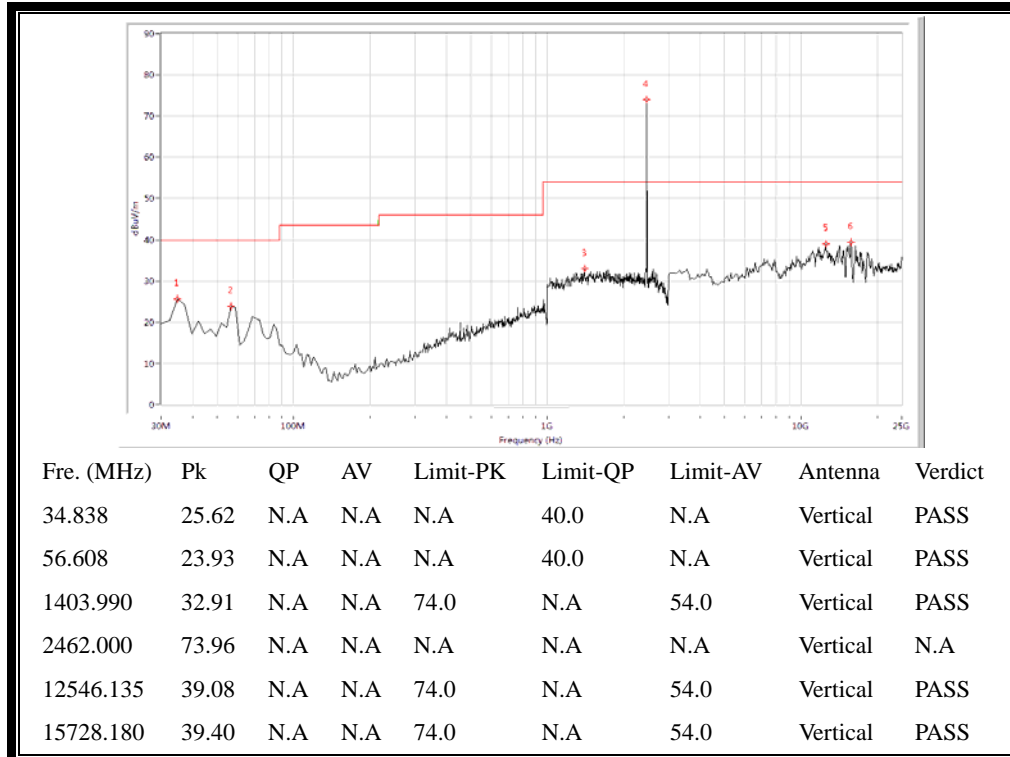


(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



(Antenna Horizontal, 30MHz to 25GHz)

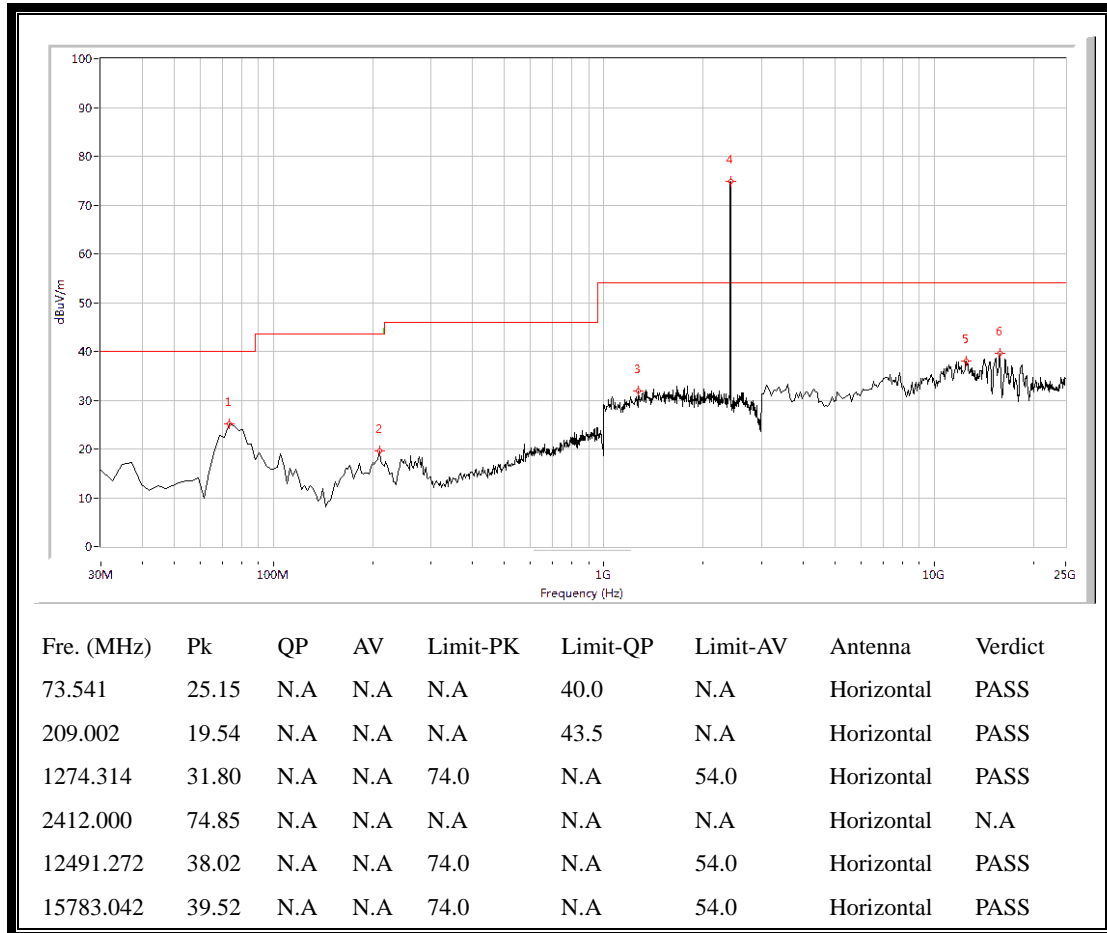


(Antenna Vertical, 30MHz to 25GHz)

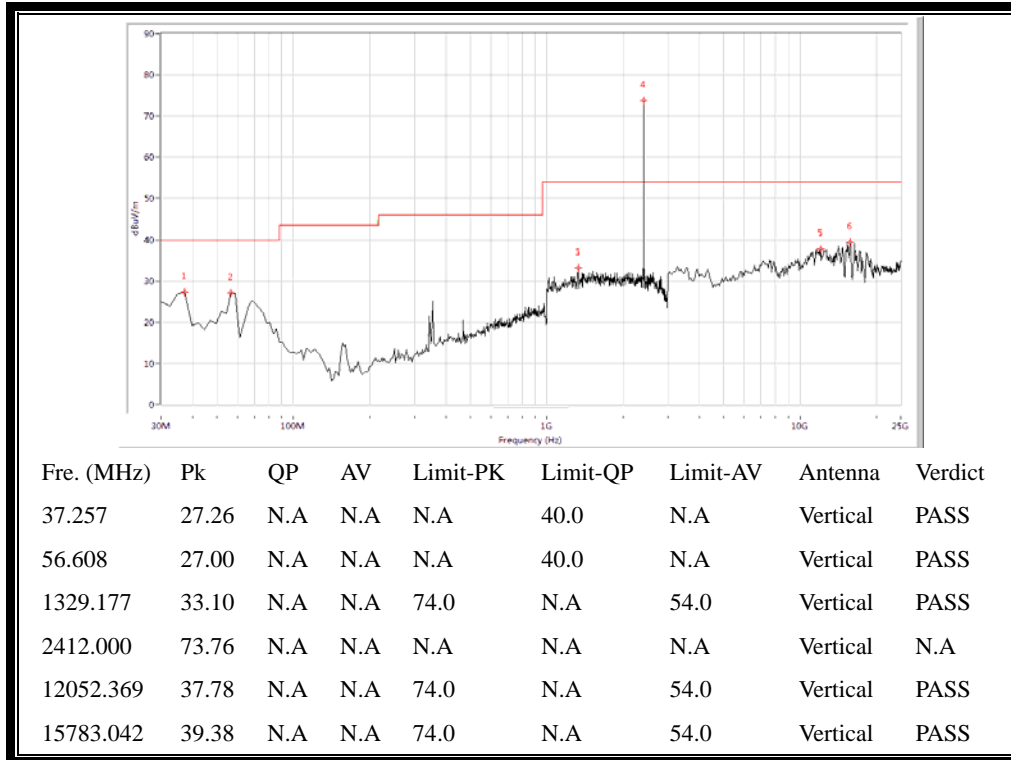
3.8.3.2. 802.11g Test mode

A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1

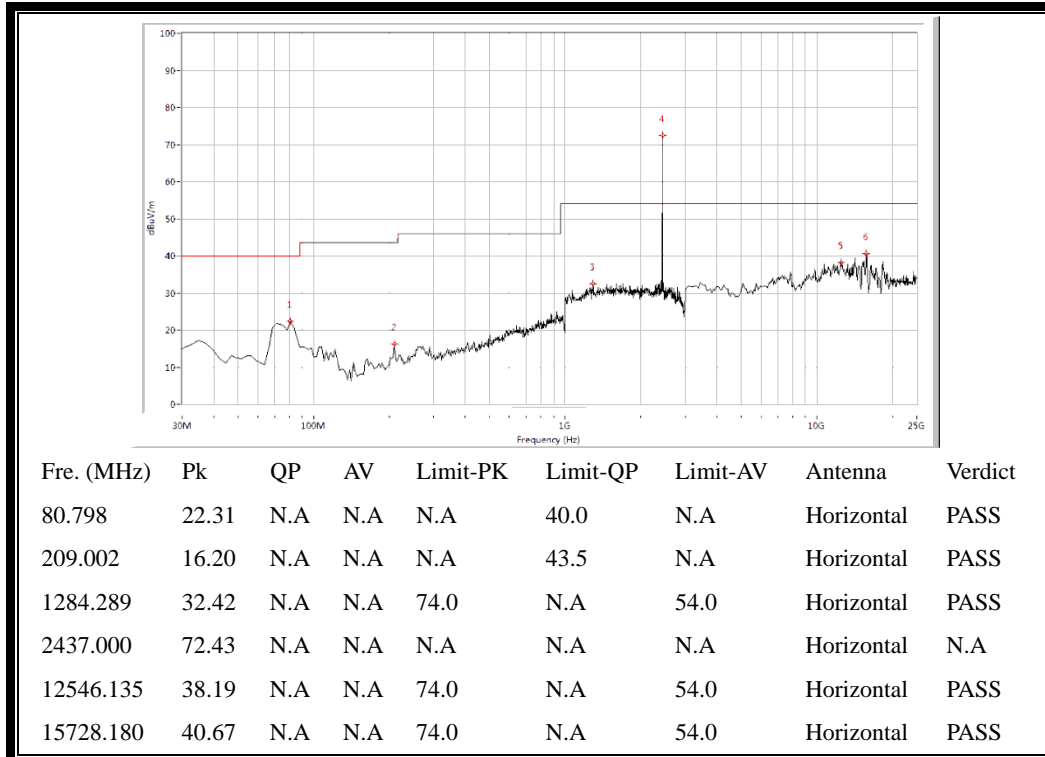


(Antenna Horizontal, 30MHz to 25GHz)

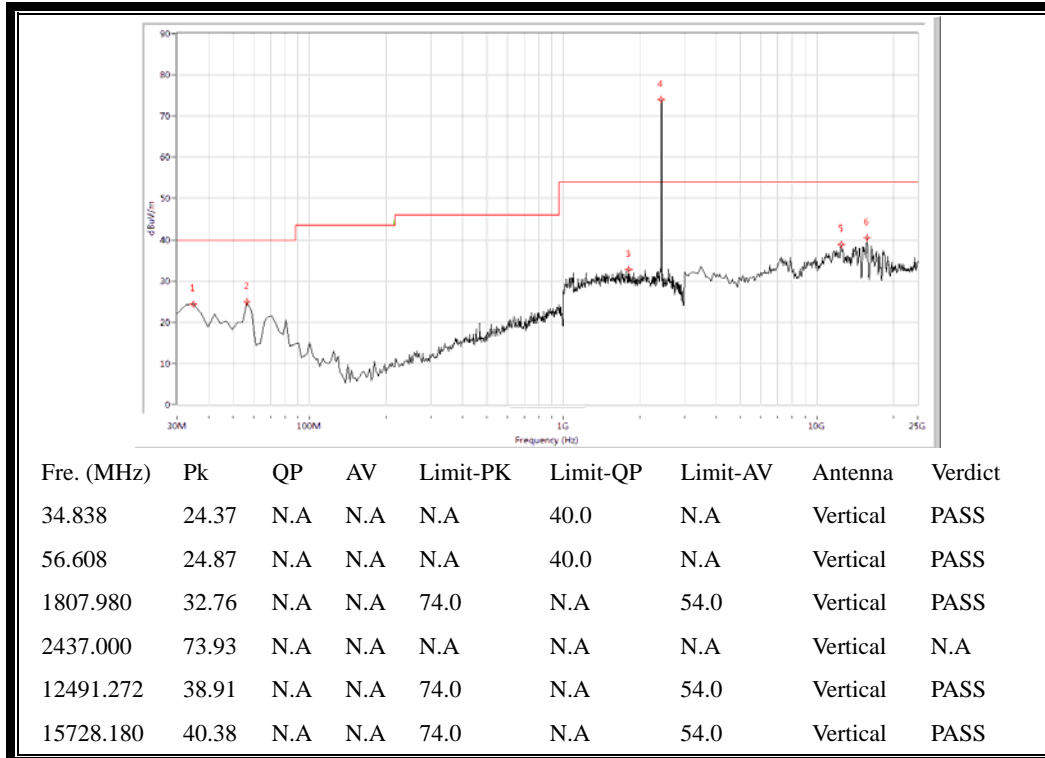


(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6

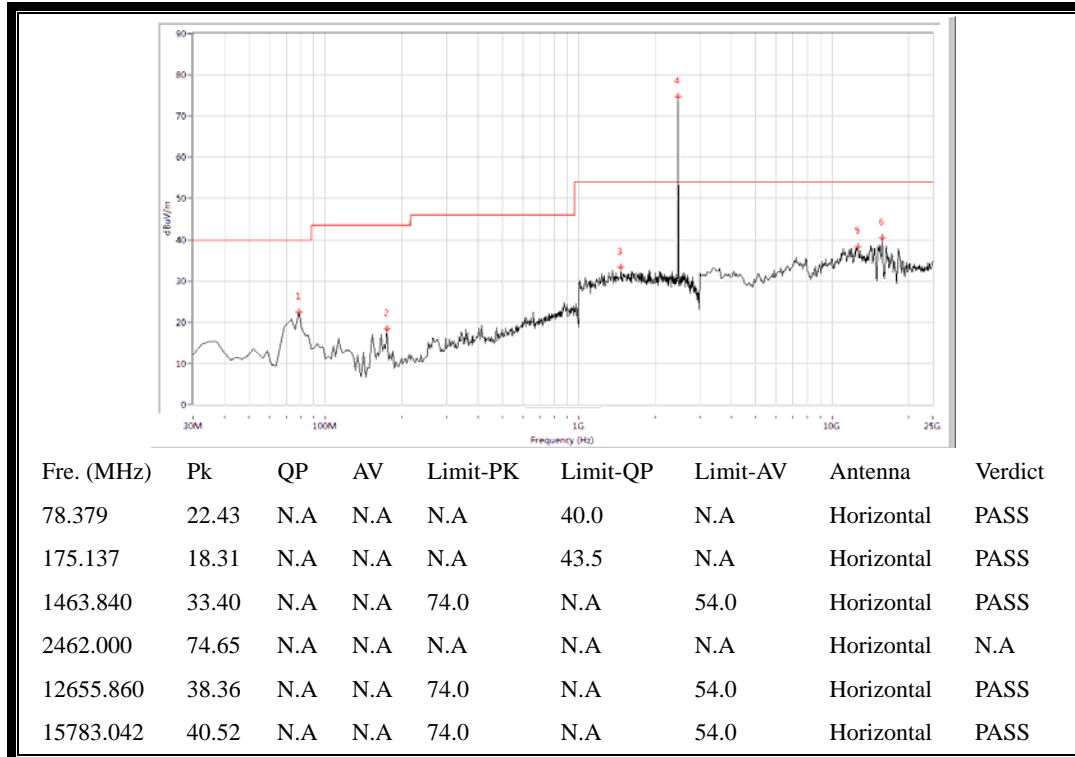


(Antenna Horizontal, 30MHz to 25GHz)

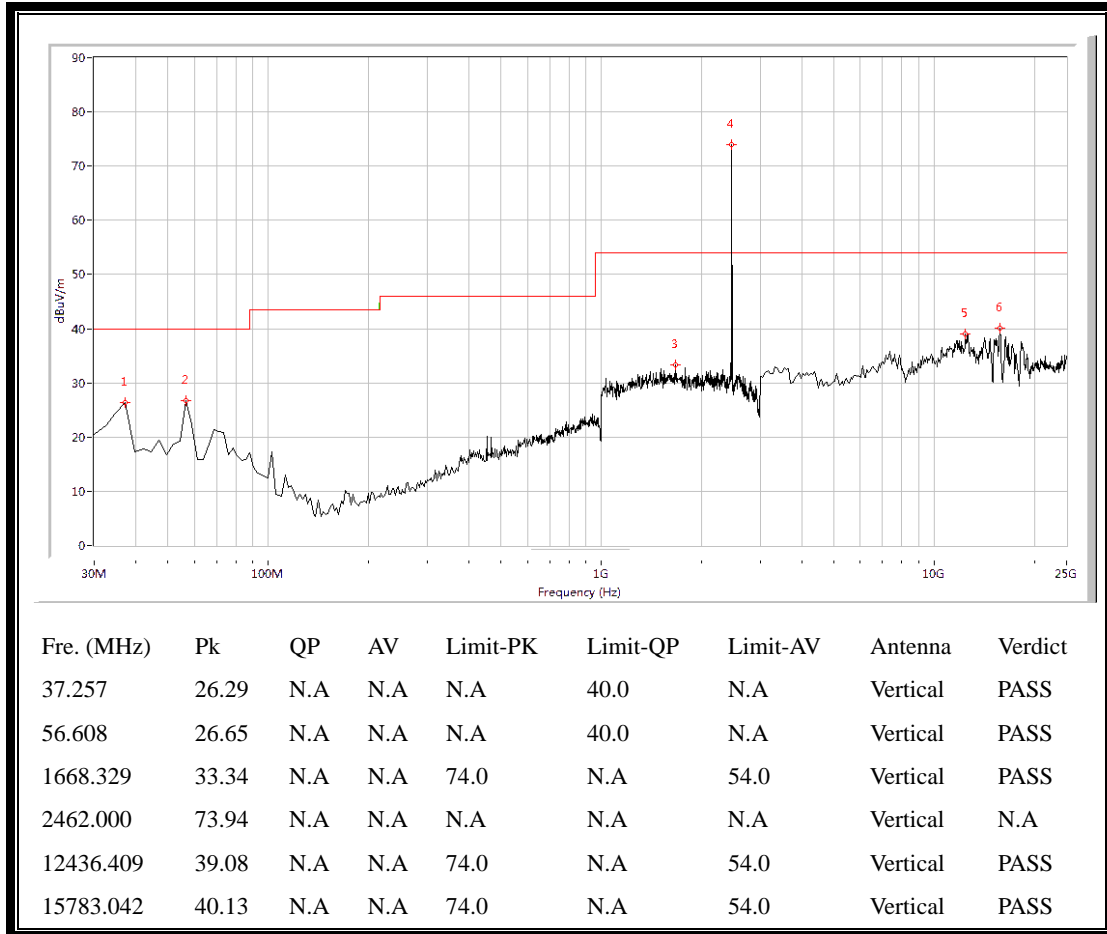


(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11



(Antenna Horizontal, 30MHz to 25GHz)

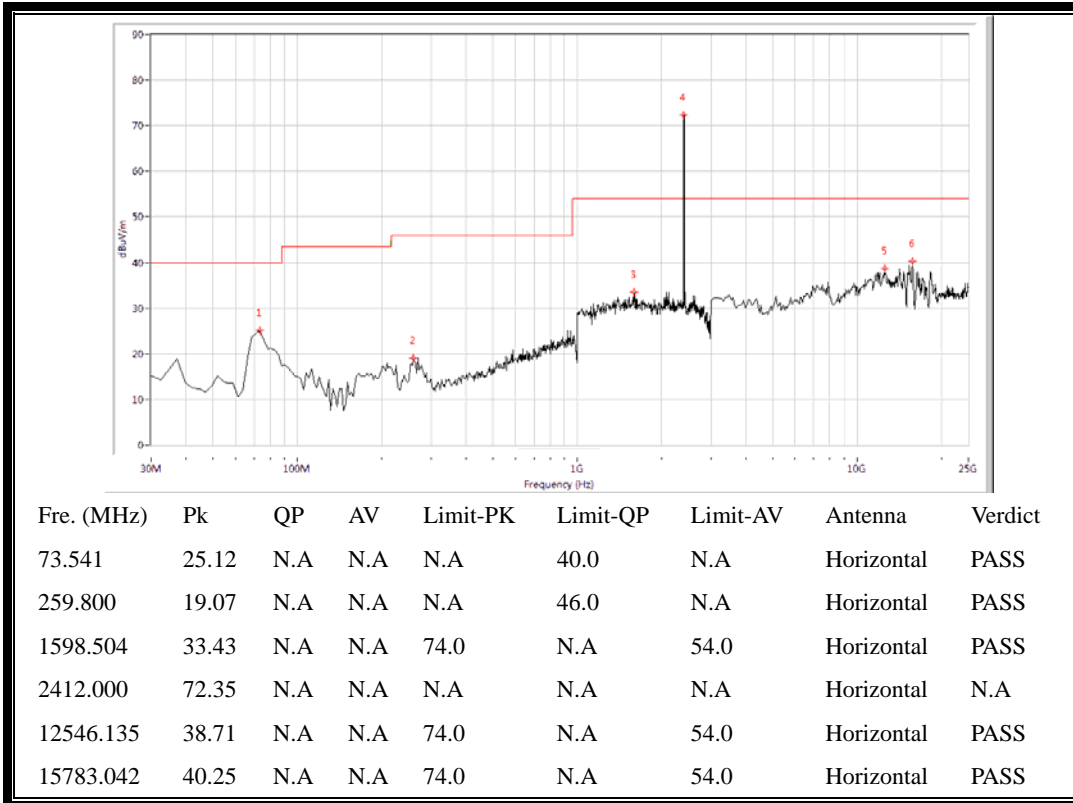


(Antenna Vertical, 30MHz to 25GHz)

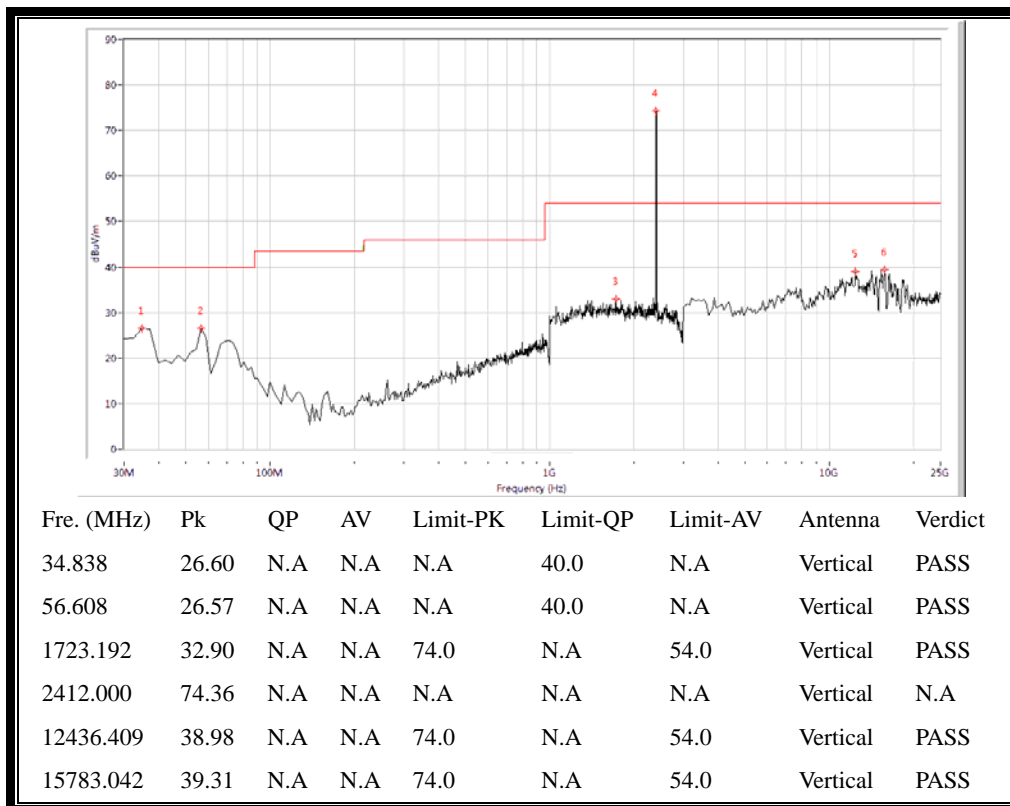
3.8.3.3. 802.11n-20MHz Test mode

A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 1

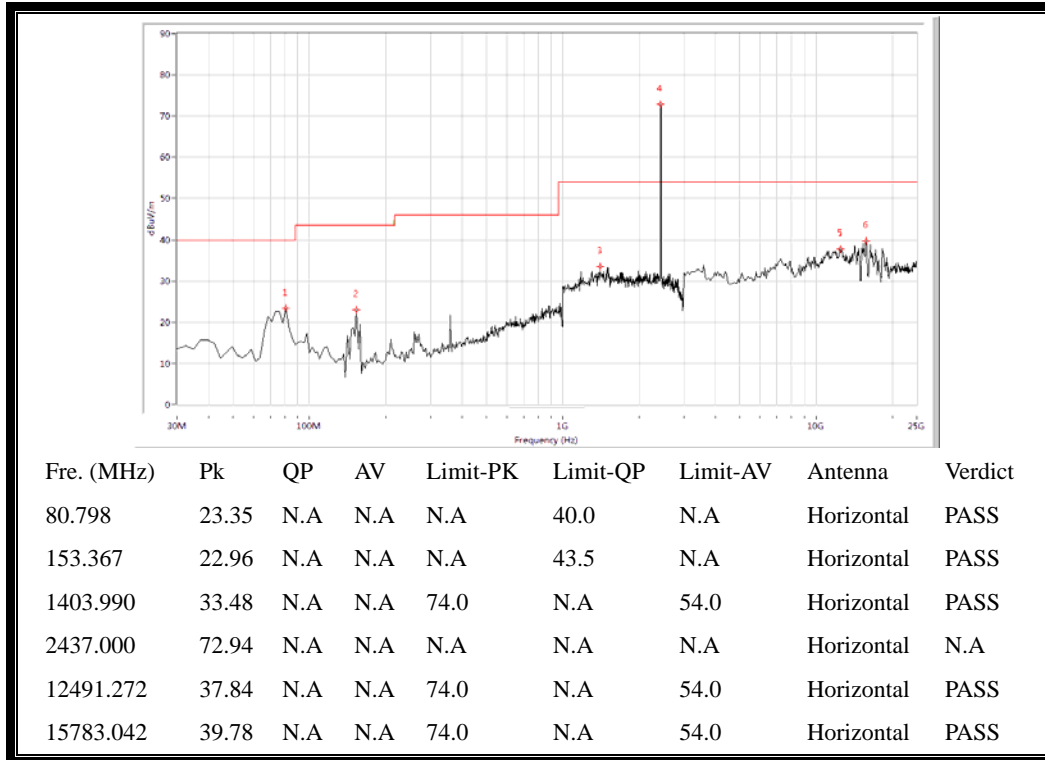


(Antenna Horizontal, 30MHz to 25GHz)

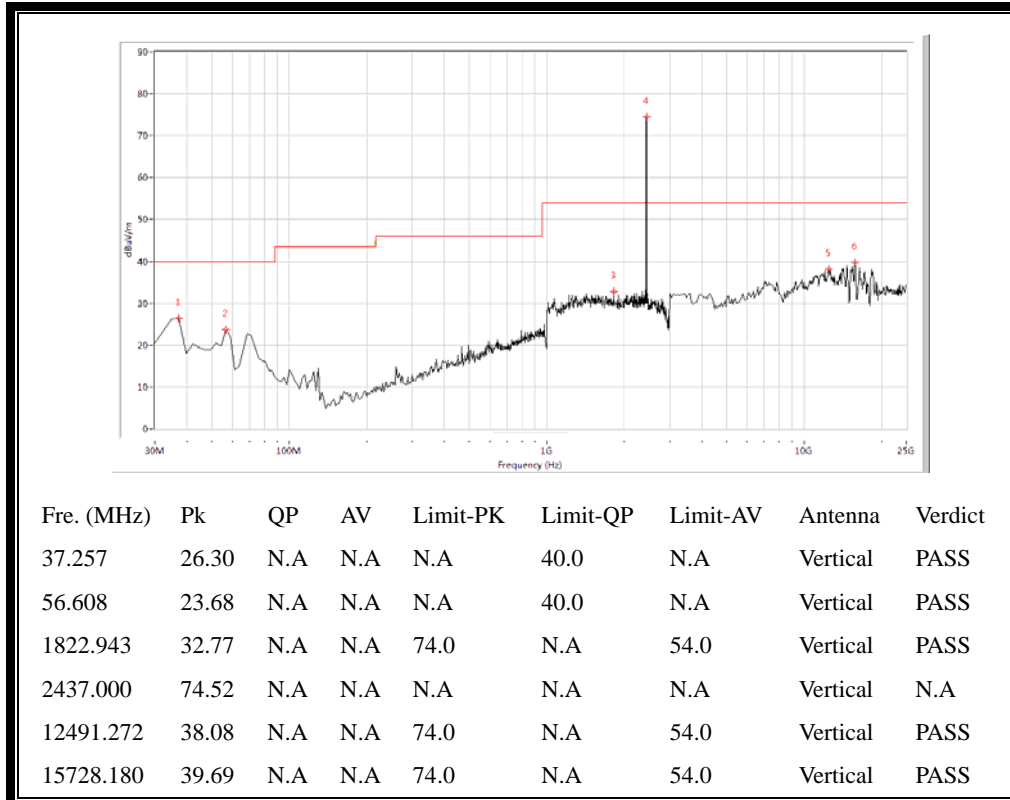


(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 6

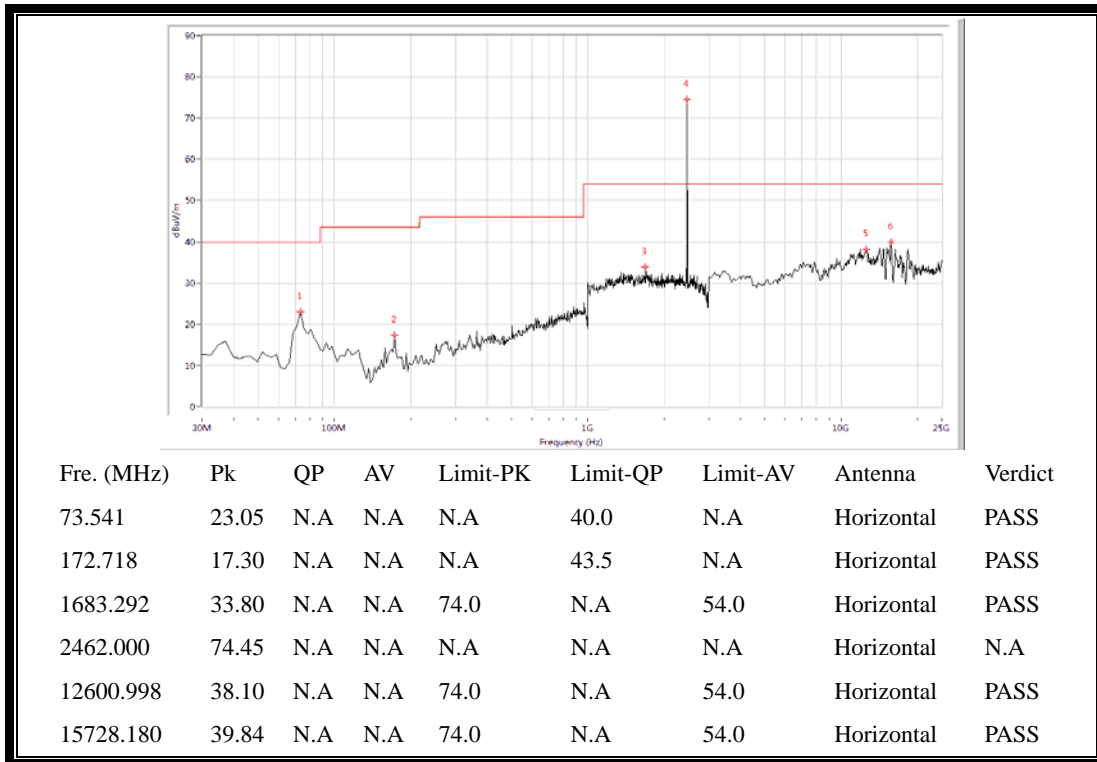


(Antenna Horizontal, 30MHz to 25GHz)

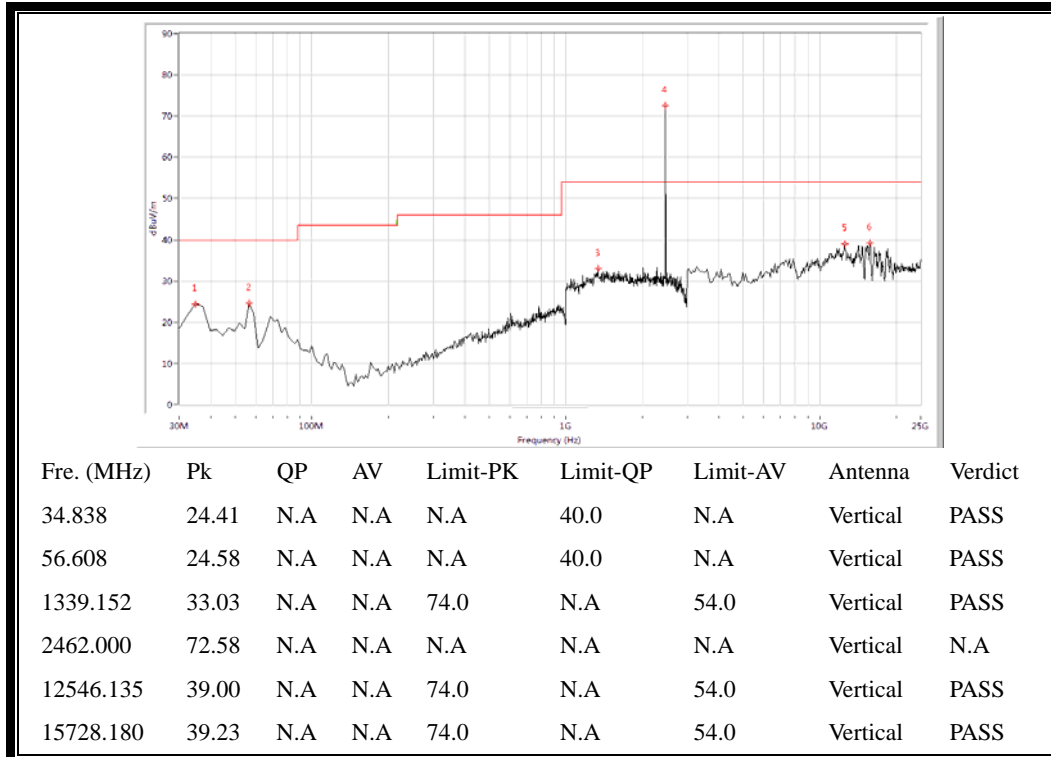


(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 11

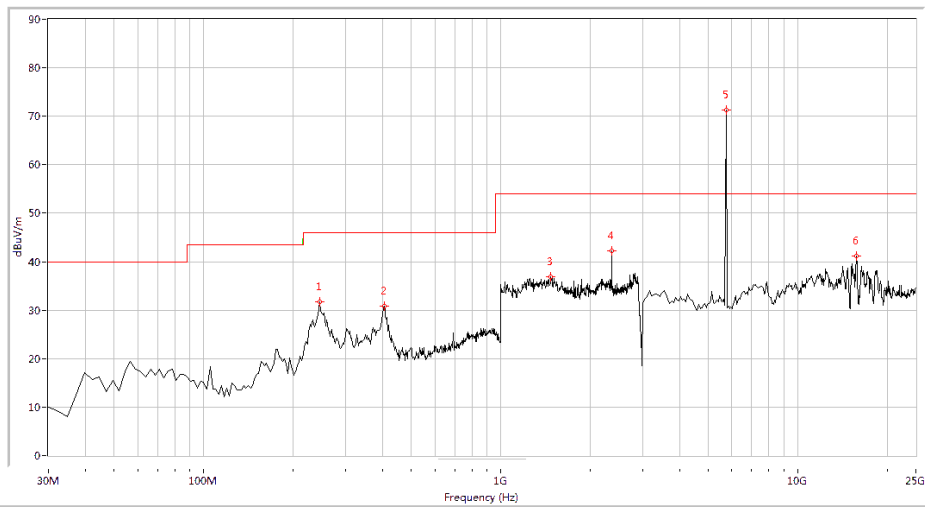


(Antenna Horizontal, 30MHz to 25GHz)

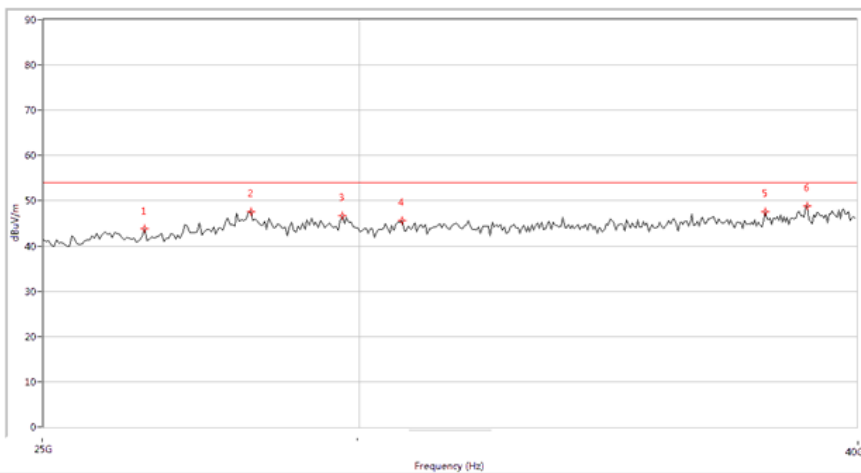


(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 149

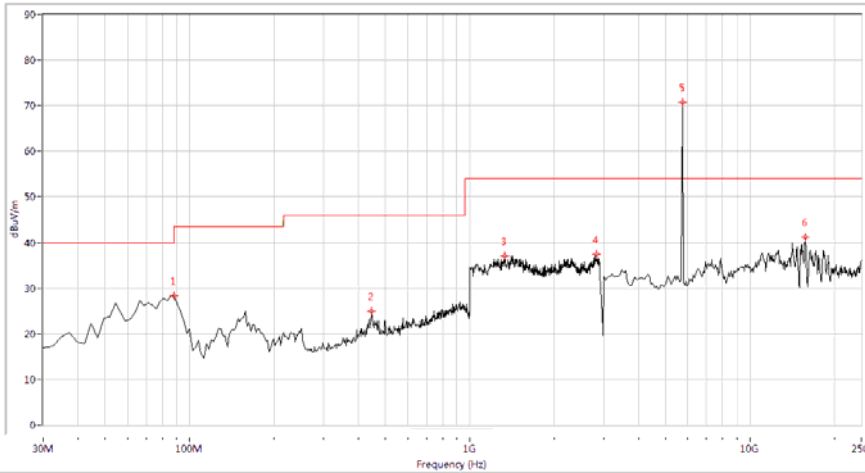


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
245.287	31.80	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
404.938	30.84	N.A	N.A	N.A	46.0	N.A	Horizontal	PASS
1473.815	36.83	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
2366.584	42.31	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5745.000	71.29	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	41.15	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

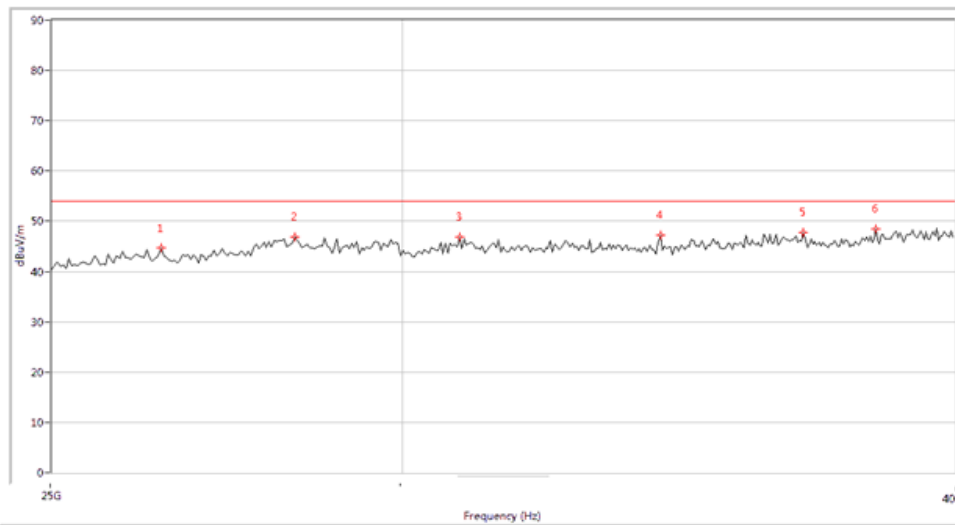


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26491.626	43.78	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
28174.955	47.53	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
29716.322	46.63	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
30764.060	45.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
37943.264	47.54	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
38870.781	48.76	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



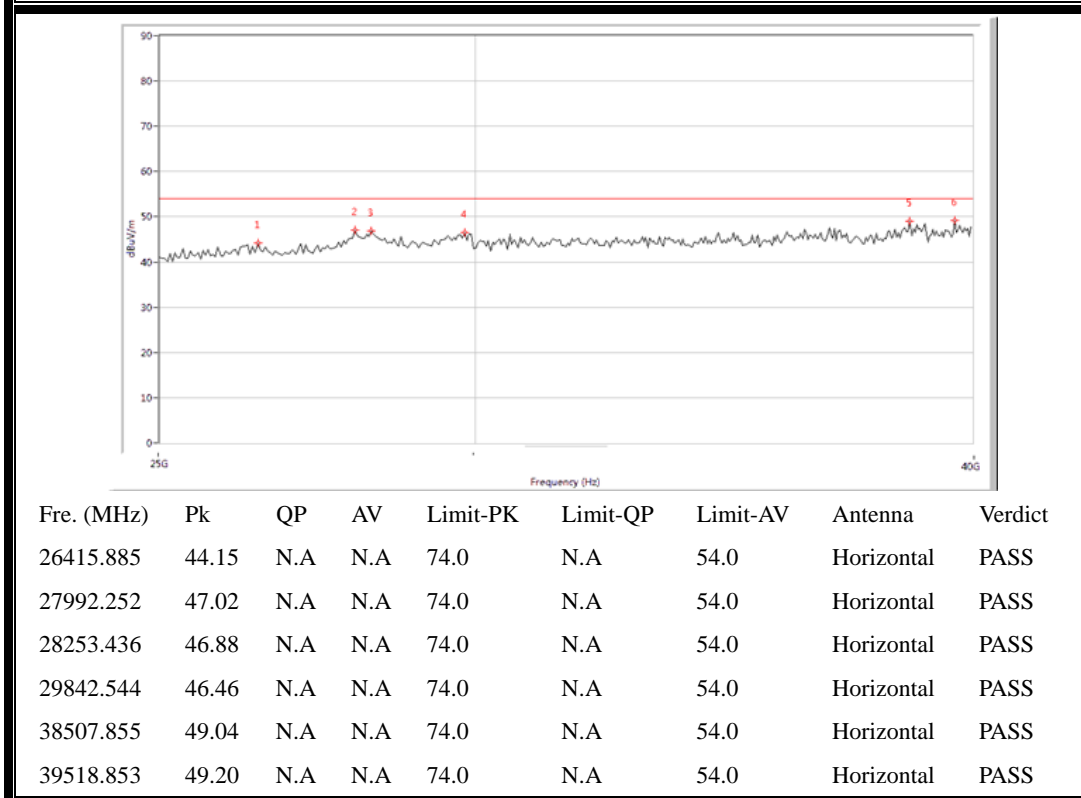
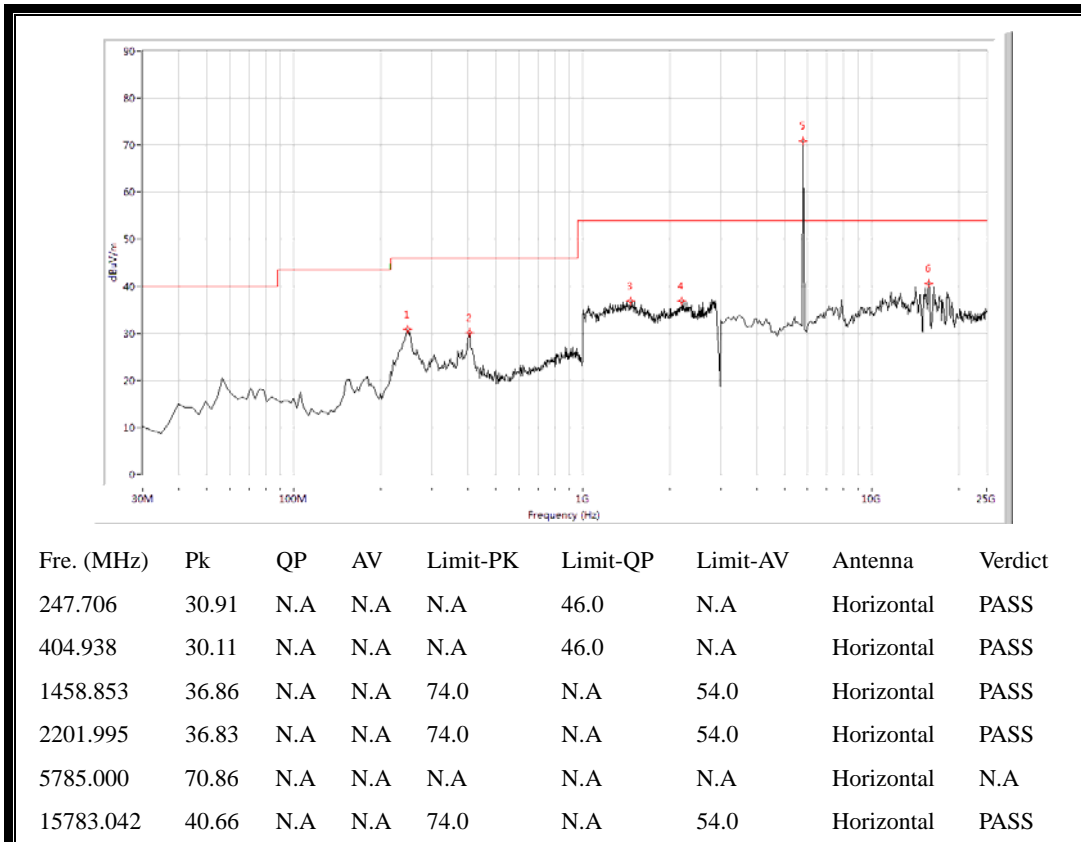
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
88.055	28.34	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
446.060	24.99	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
1334.165	37.10	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2835.411	37.38	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5745.000	70.79	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	41.16	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



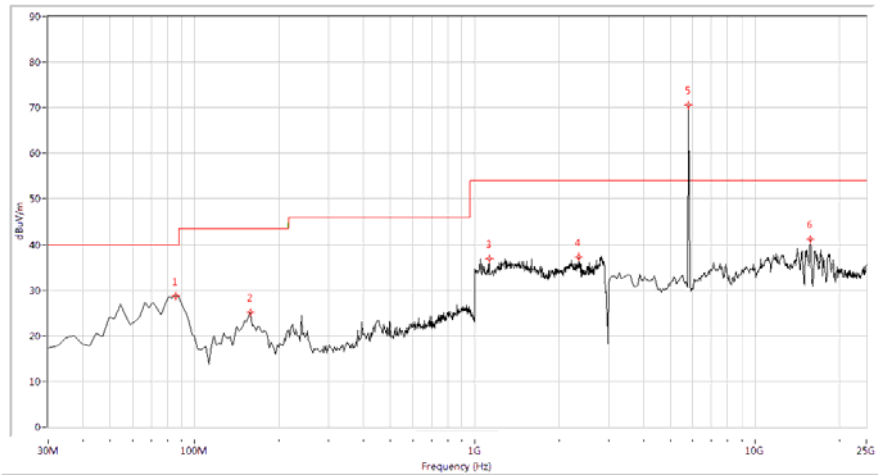
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26455.885	44.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28361.658	46.93	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30916.022	46.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
34315.421	47.22	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36977.007	47.84	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38393.152	48.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

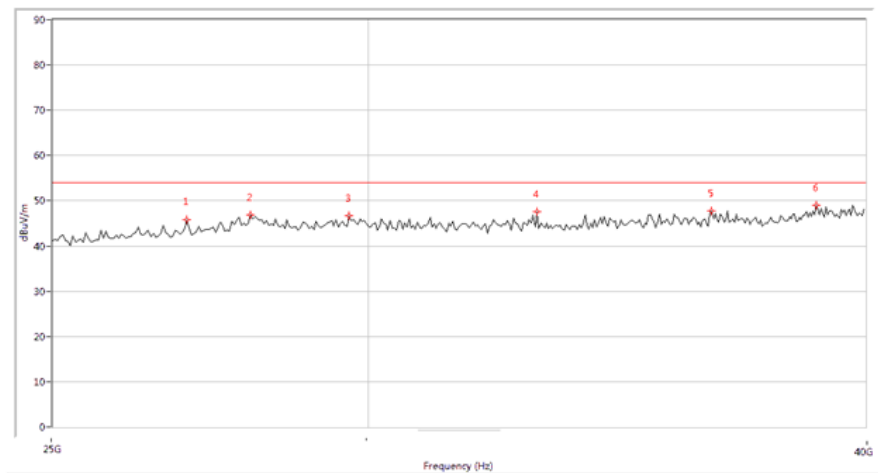
Plot for Channel = 157



(Antenna Horizontal, 30MHz to 40GHz)



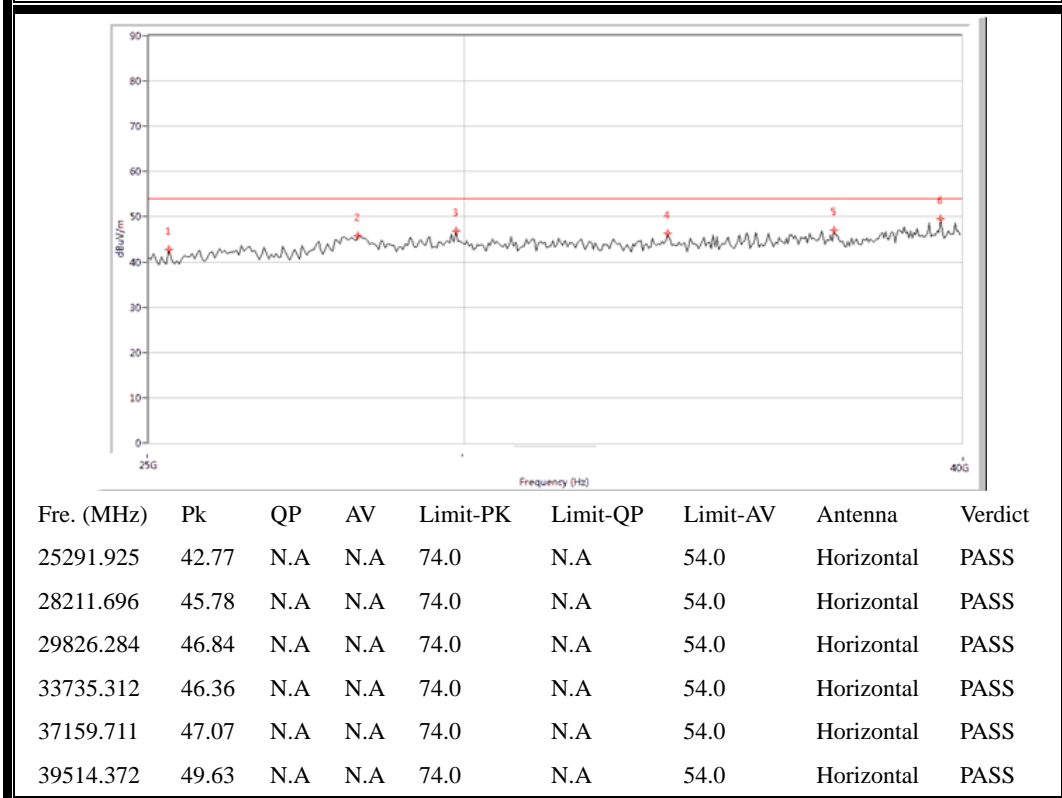
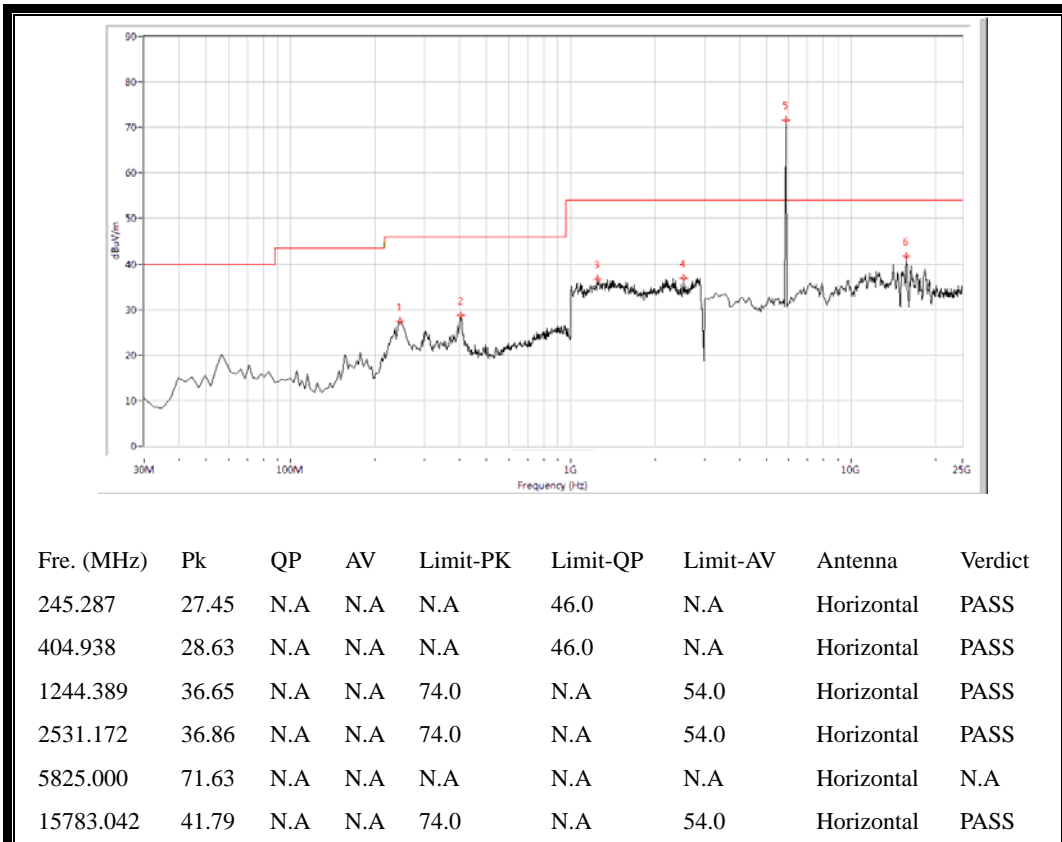
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.64	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
158.204	25.19	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1124.688	36.84	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2351.621	37.23	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5785.000	70.50	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	41.16	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



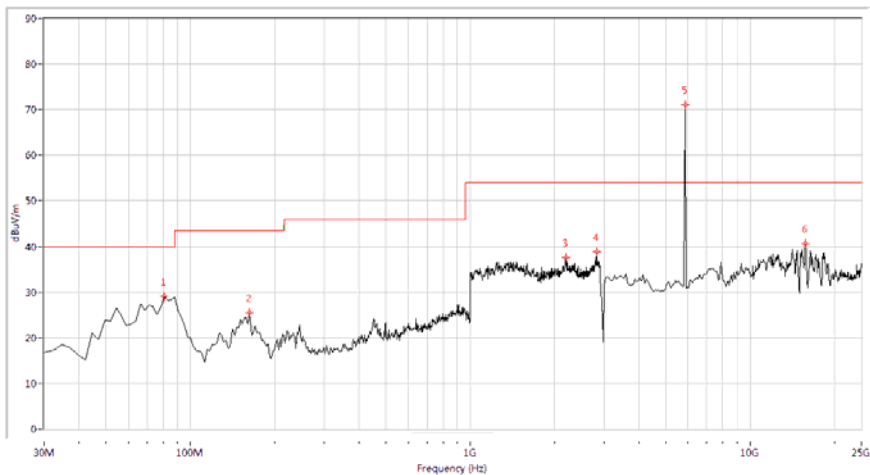
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27019.995	45.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28024.993	46.93	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29657.581	46.67	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33073.980	47.58	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36509.601	47.81	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38817.781	48.94	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

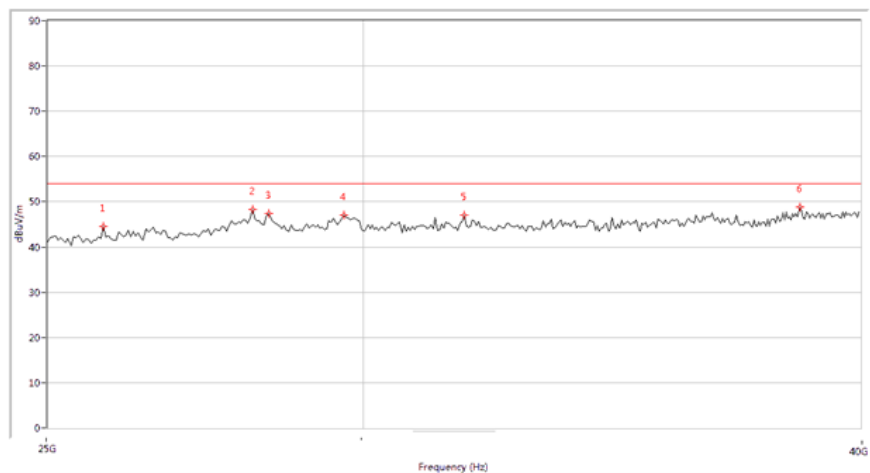
Plot for Channel = 165



(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
80.798	29.07	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
163.042	25.42	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2201.995	37.62	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2830.424	38.81	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5825.000	71.10	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	40.71	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



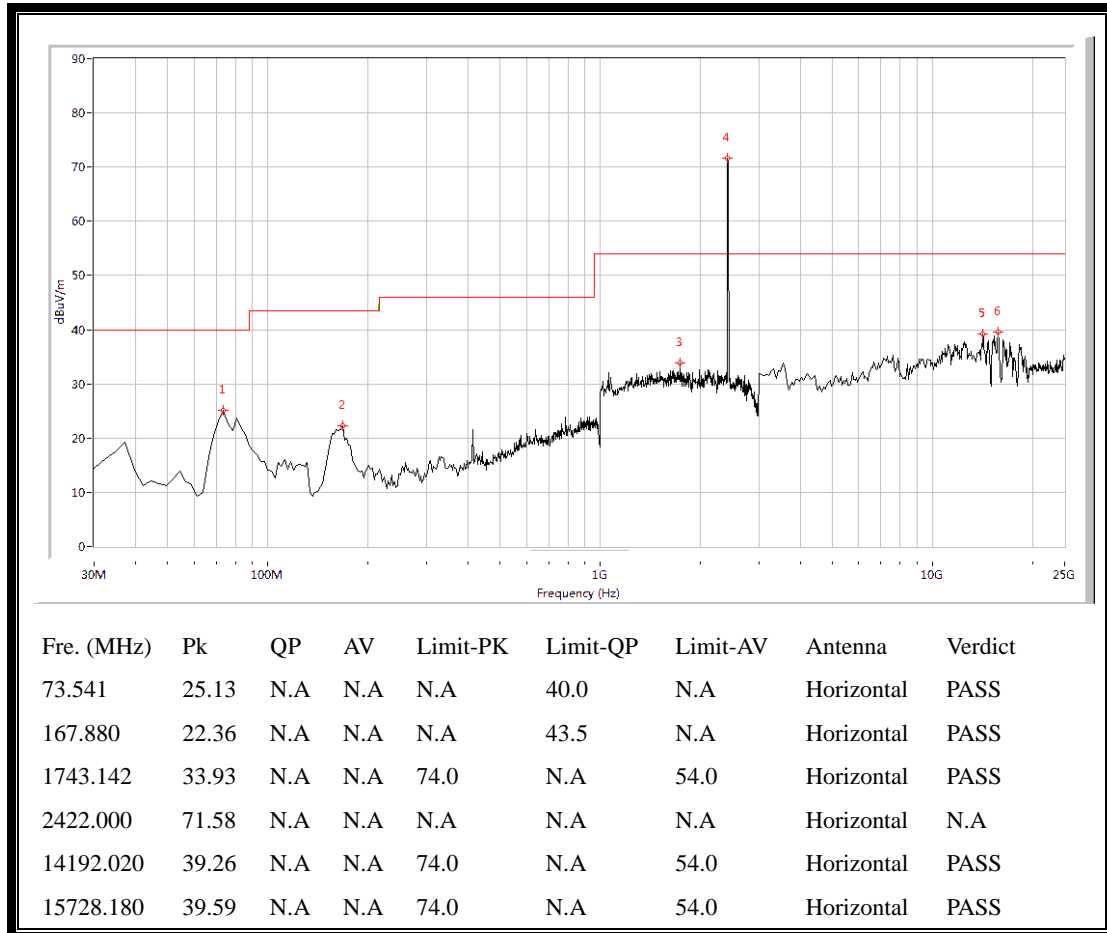
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25824.294	44.52	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28114.214	48.36	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28430.399	47.44	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29617.581	47.07	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31809.798	47.11	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38617.596	48.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

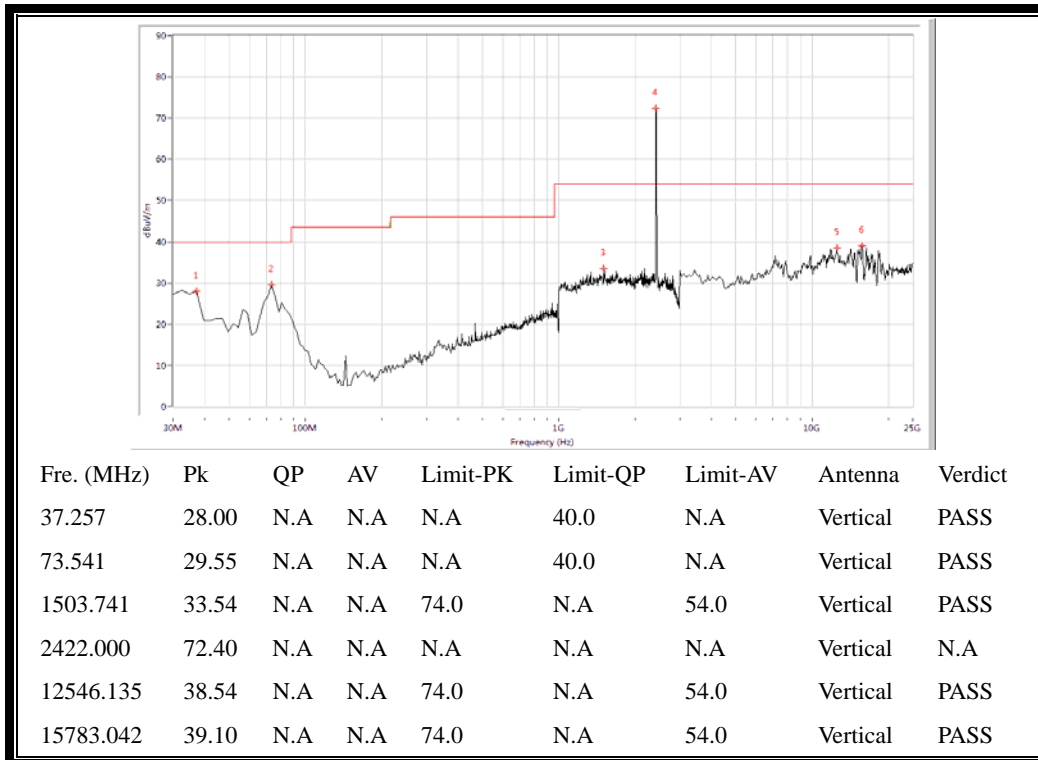
3.8.3.4. 802.11n-40MHz Test mode

A. Test Plots for the Whole Measurement Frequency Range:

Plots for Channel = 3

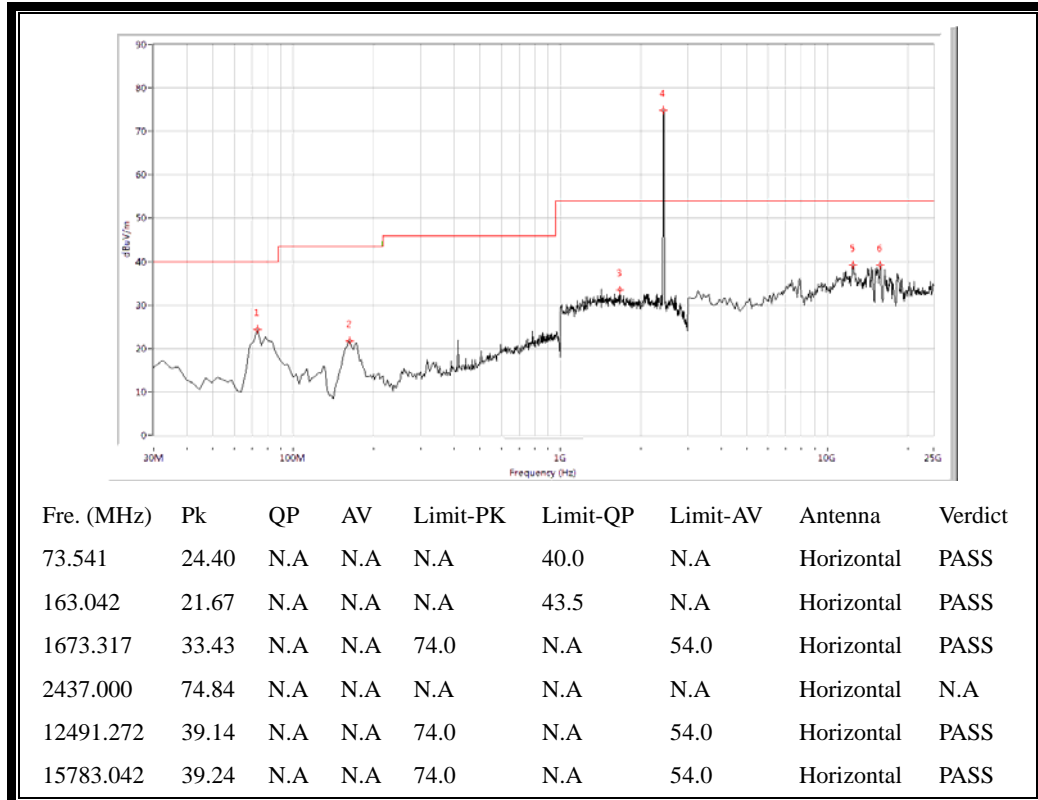


(Plot A.2: Antenna Horizontal, 30MHz to 25GHz)

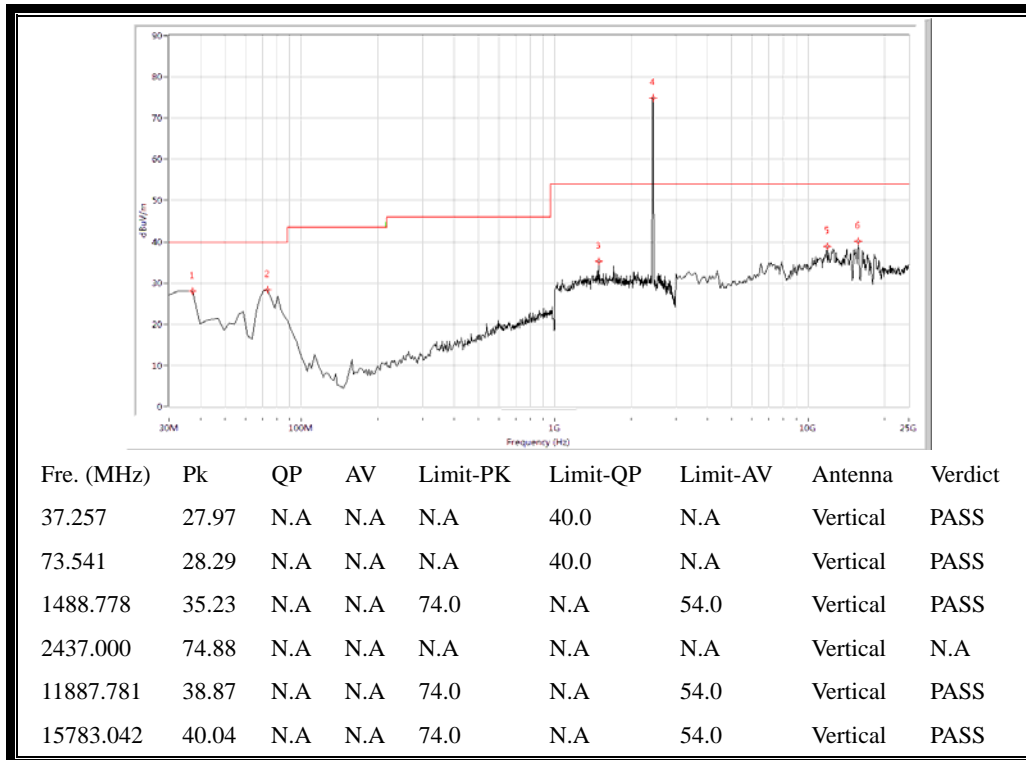


(Plot A.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 6

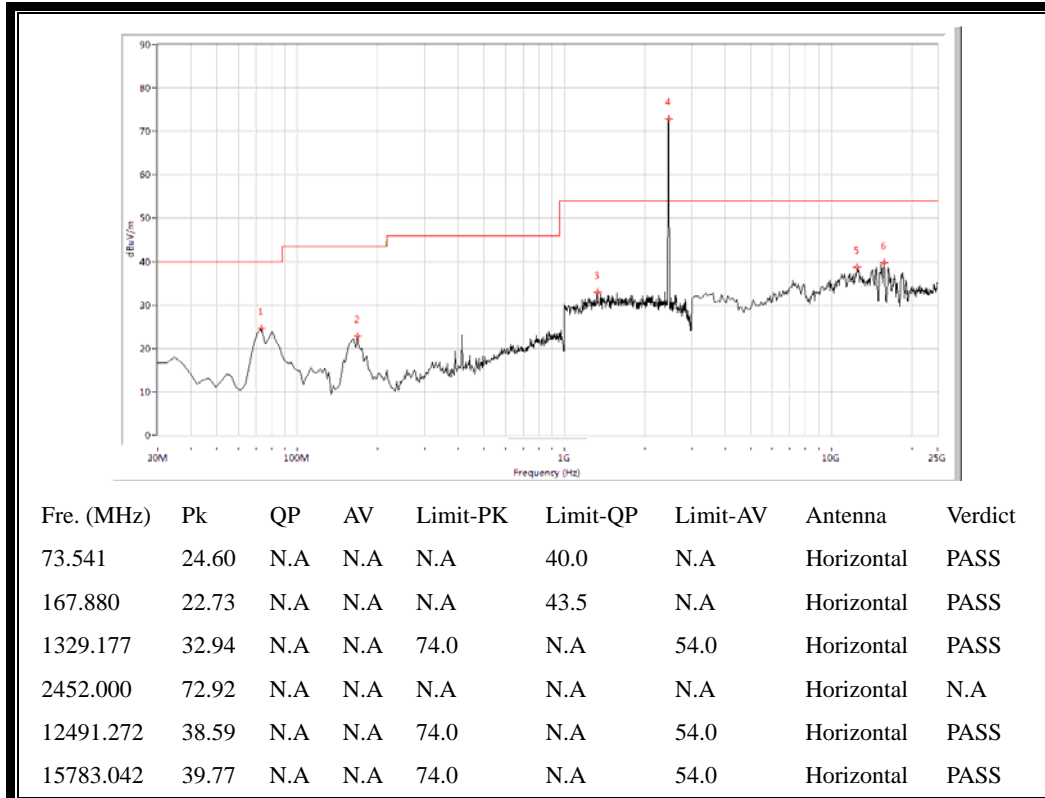


(Plot B.2: Antenna Horizontal, 30MHz to 25GHz)

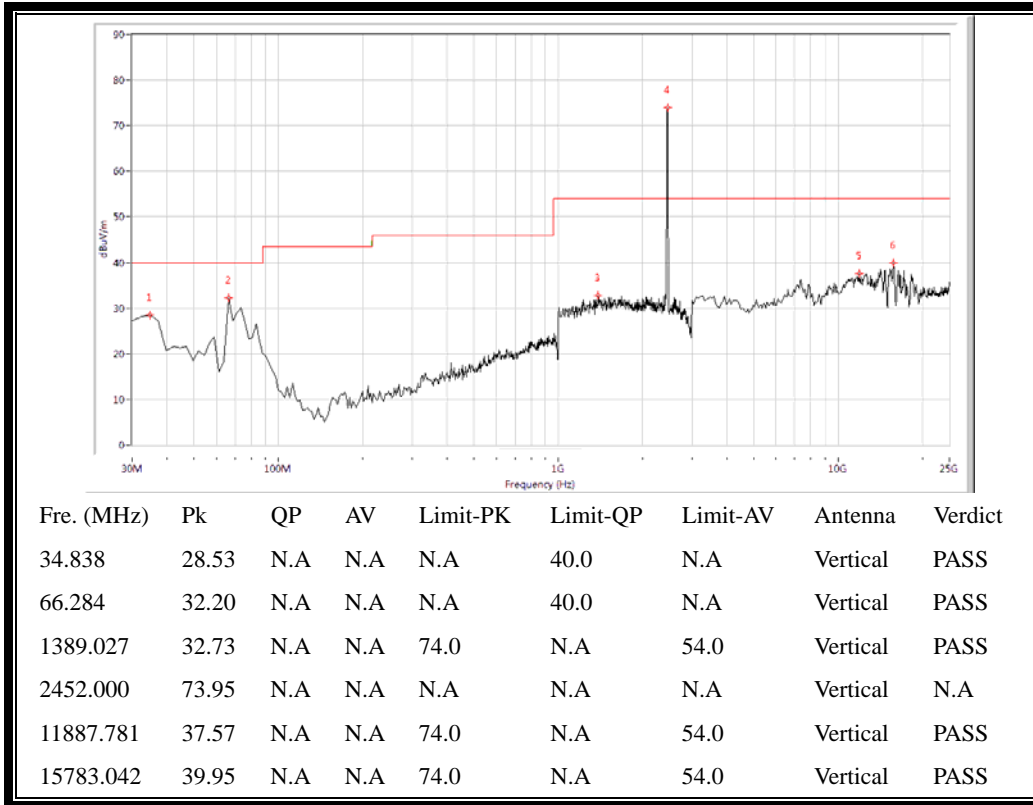


(Plot B.3: Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 9

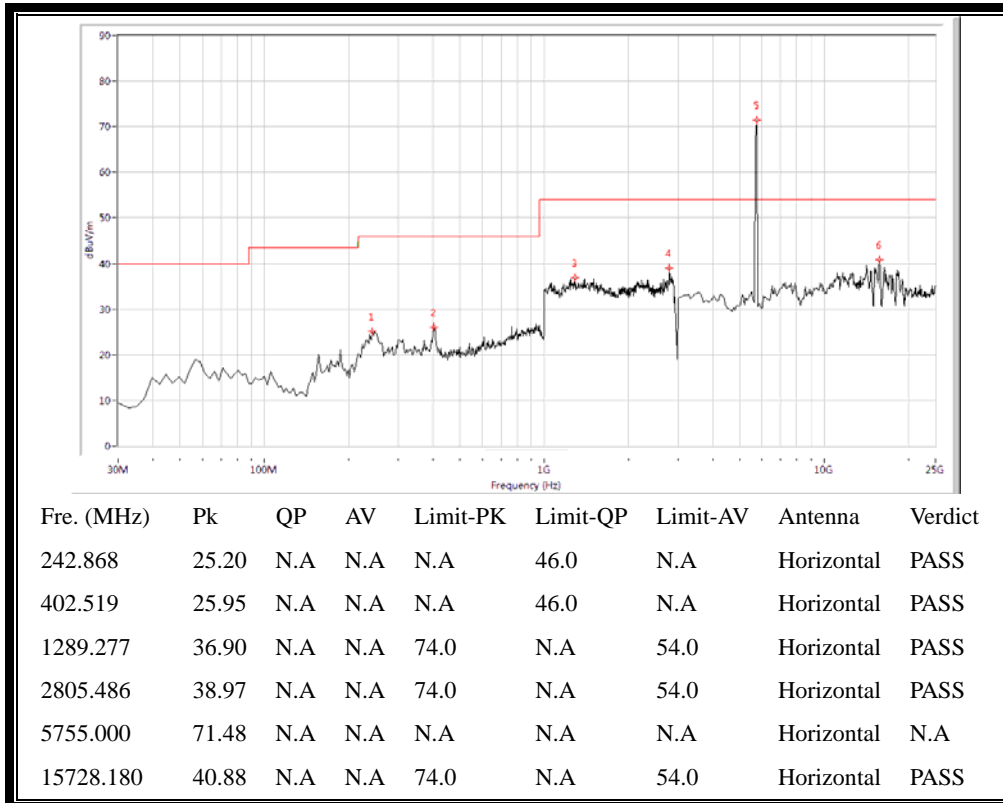


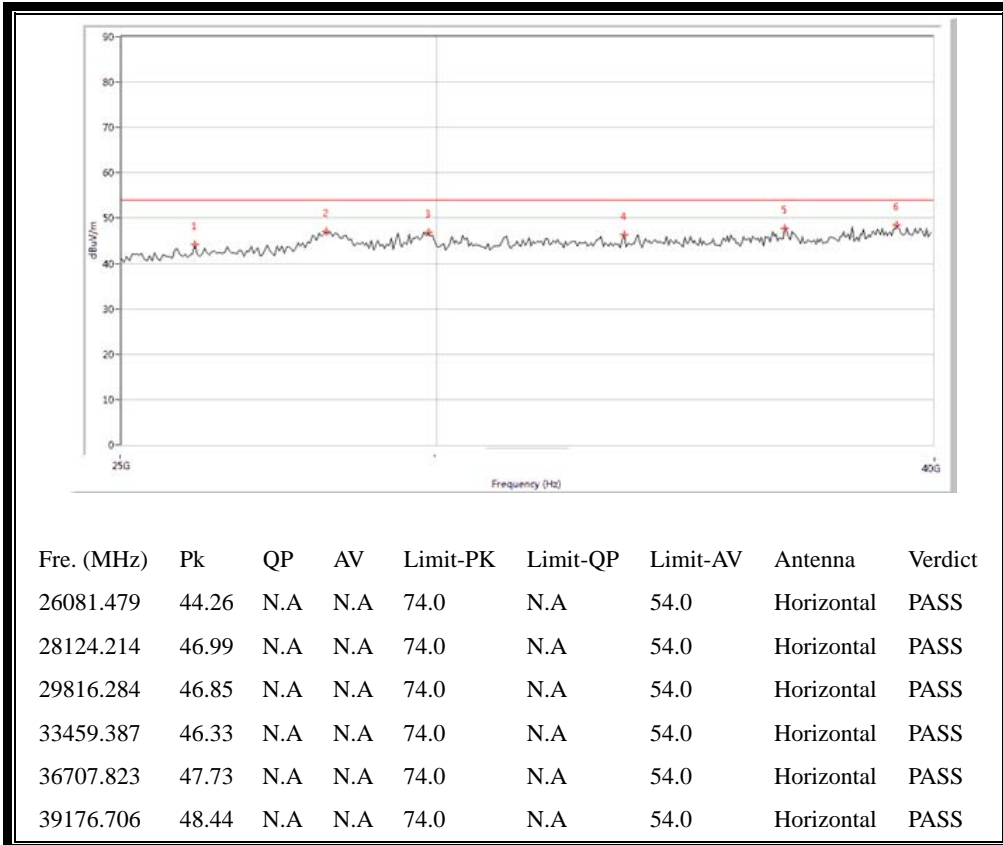
(Plot C.2: Antenna Horizontal, 30MHz to 25GHz)



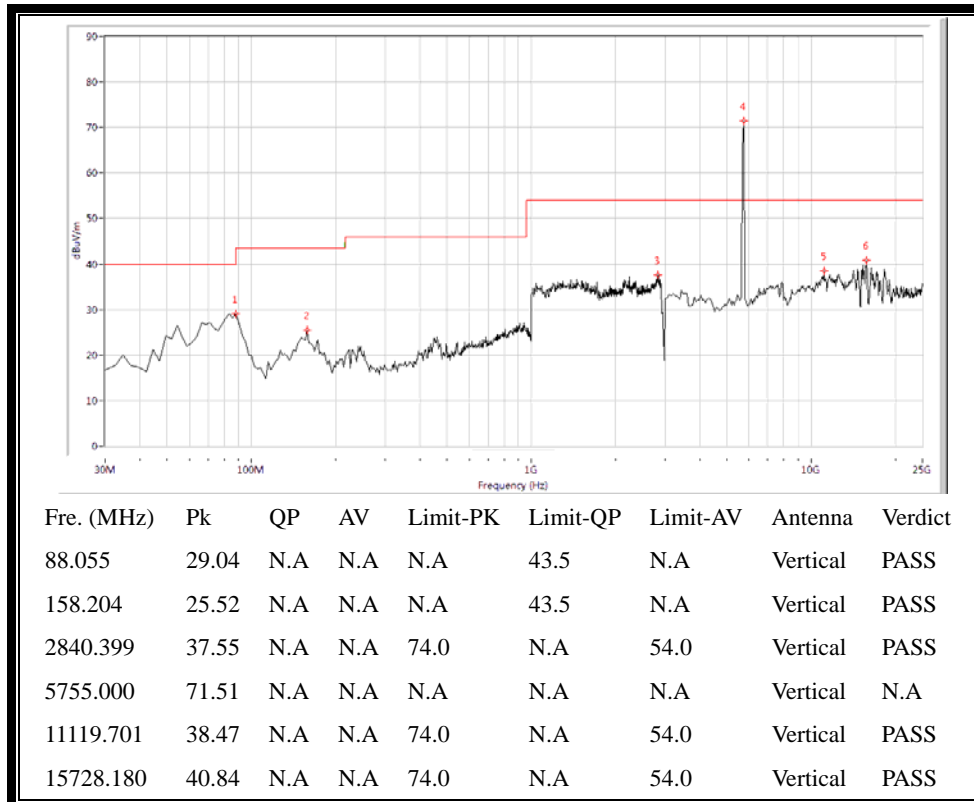
(Plot C.3: Antenna Vertical, 30MHz to 25GHz)

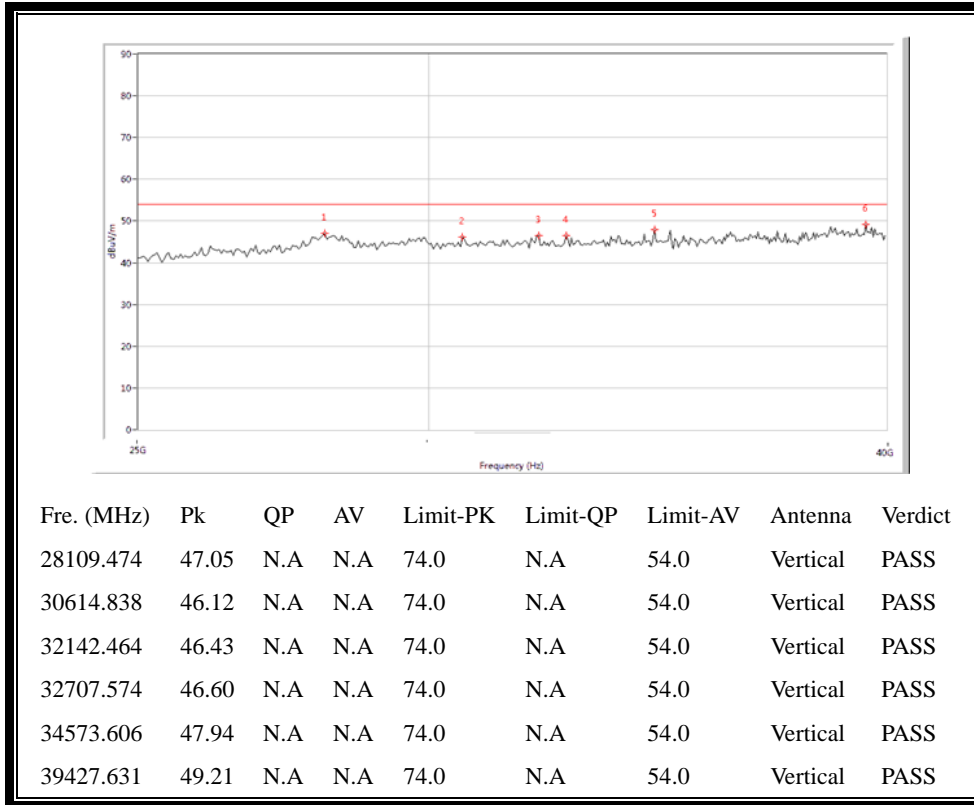
Plots for Channel = 151





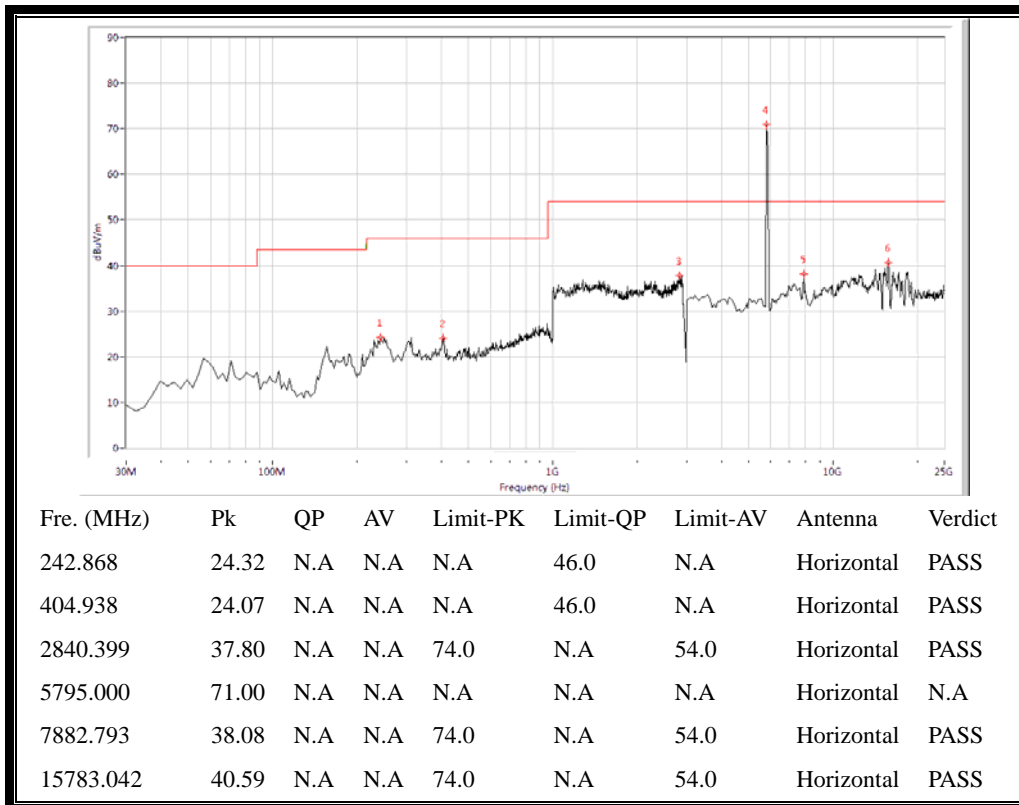
(Antenna Horizontal, 30MHz to 40GHz)

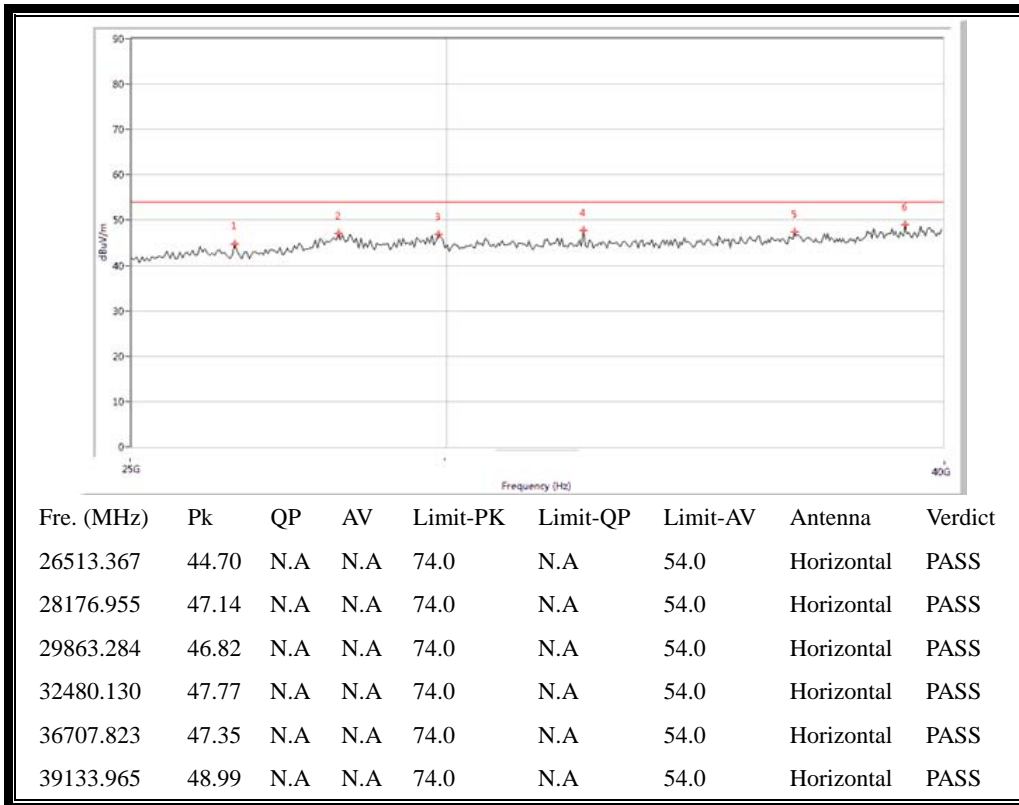




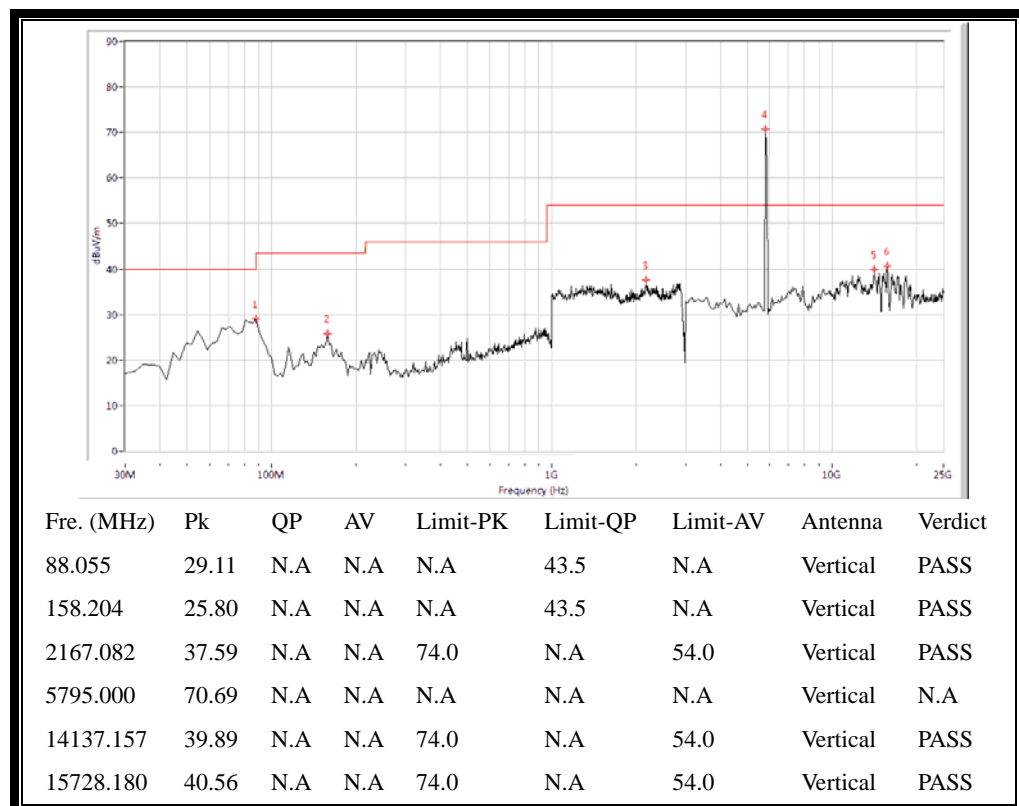
(Antenna Vertical, 30MHz to 40GHz)

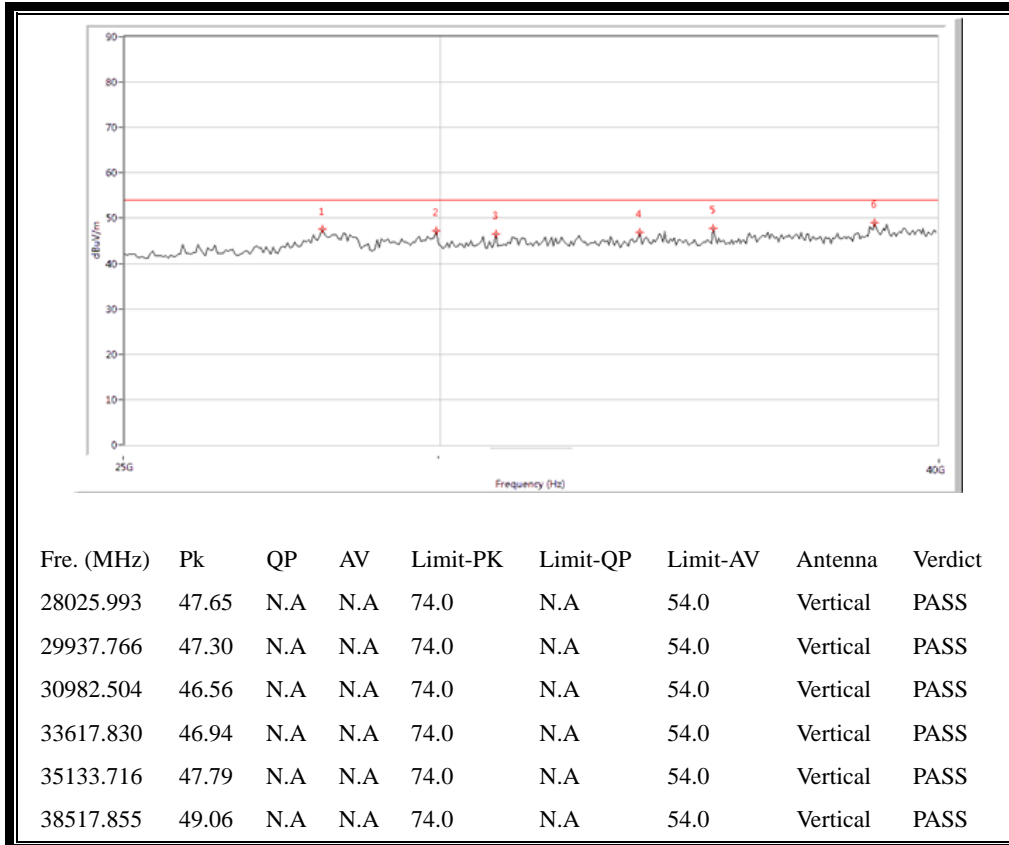
Plots for Channel = 159





(Antenna Horizontal, 30MHz to 40GHz)

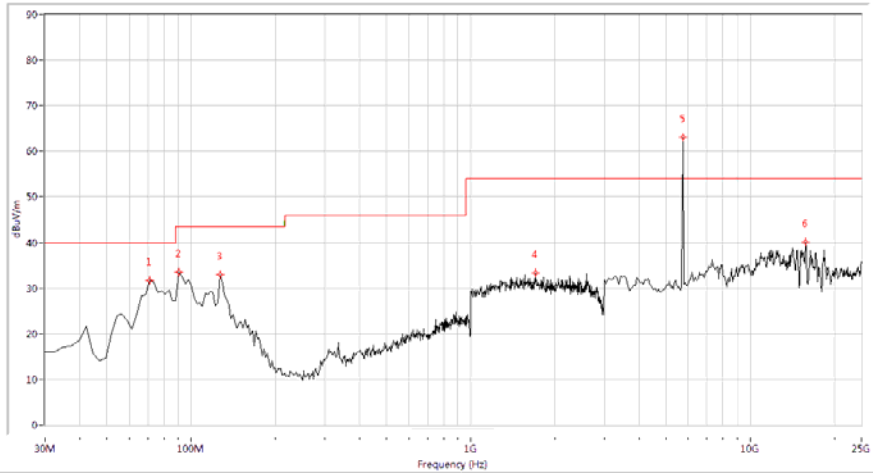




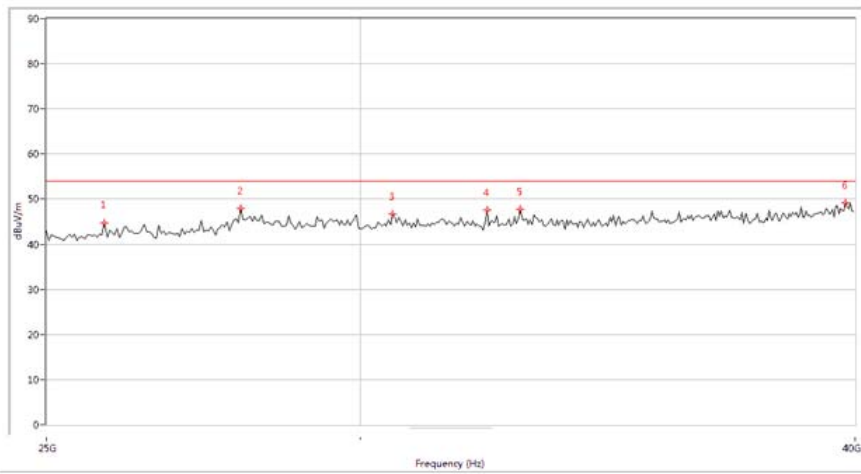
(Antenna Vertical, 30MHz to 40GHz)

3.8.3.5. 802.11a Test mode

Plots for Channel = 149

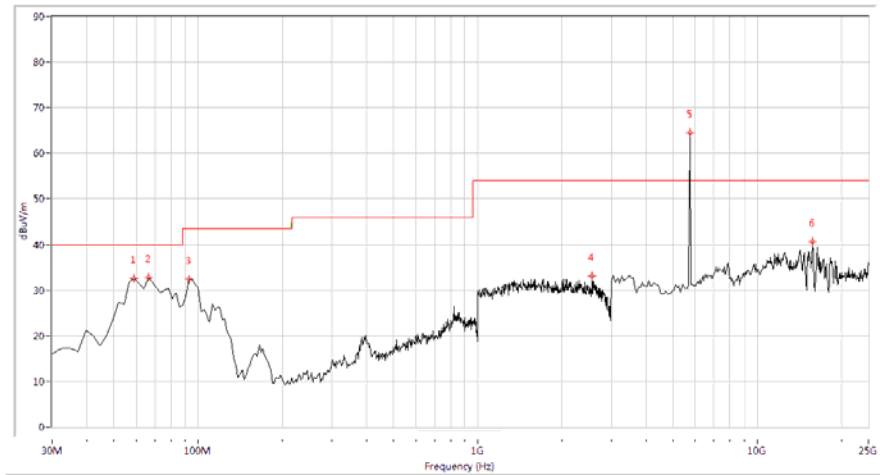


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
71.122	31.65	N.A	N.A	N.A	40.0	N.A	Horizontal	PASS
90.474	33.45	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
126.758	32.93	N.A	N.A	N.A	43.5	N.A	Horizontal	PASS
1703.242	33.25	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
5745.000	63.15	N.A	N.A	N.A	N.A	N.A	Horizontal	N.A
15783.042	40.06	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

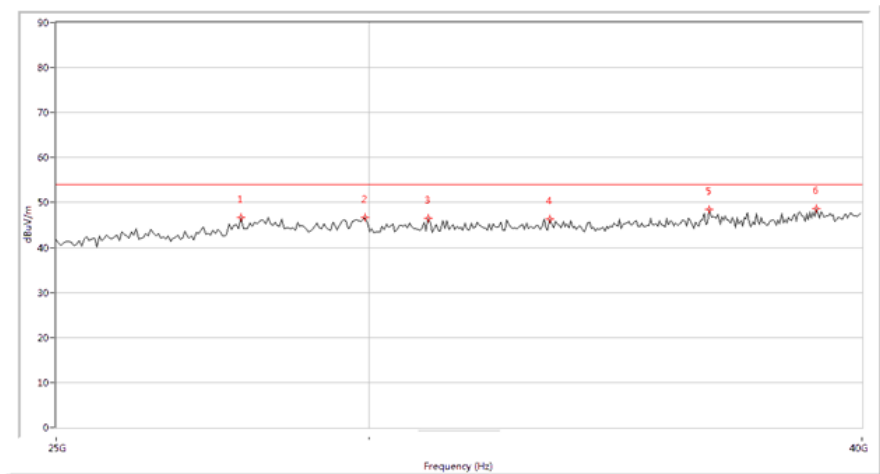


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
25860.035	44.67	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
27992.252	48.01	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
30574.357	46.75	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
32239.426	47.55	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
32903.017	47.70	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS
39778.556	49.20	N.A	N.A	74.0	N.A	54.0	Horizontal	PASS

(Antenna Horizontal, 30MHz to 40GHz)



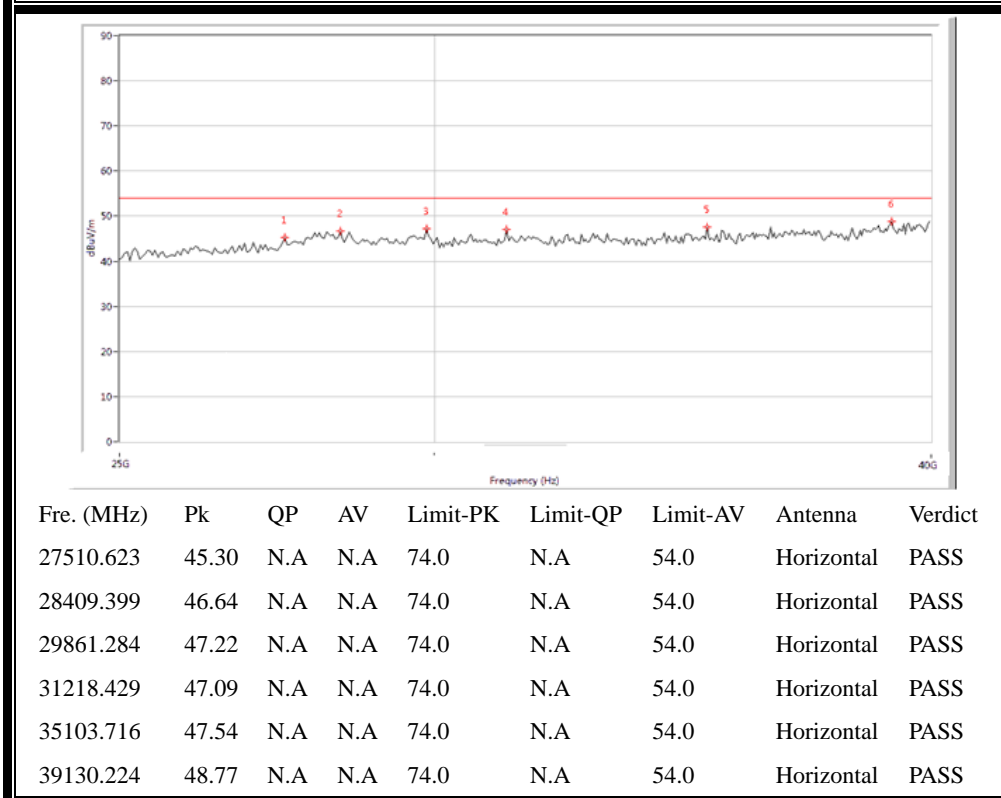
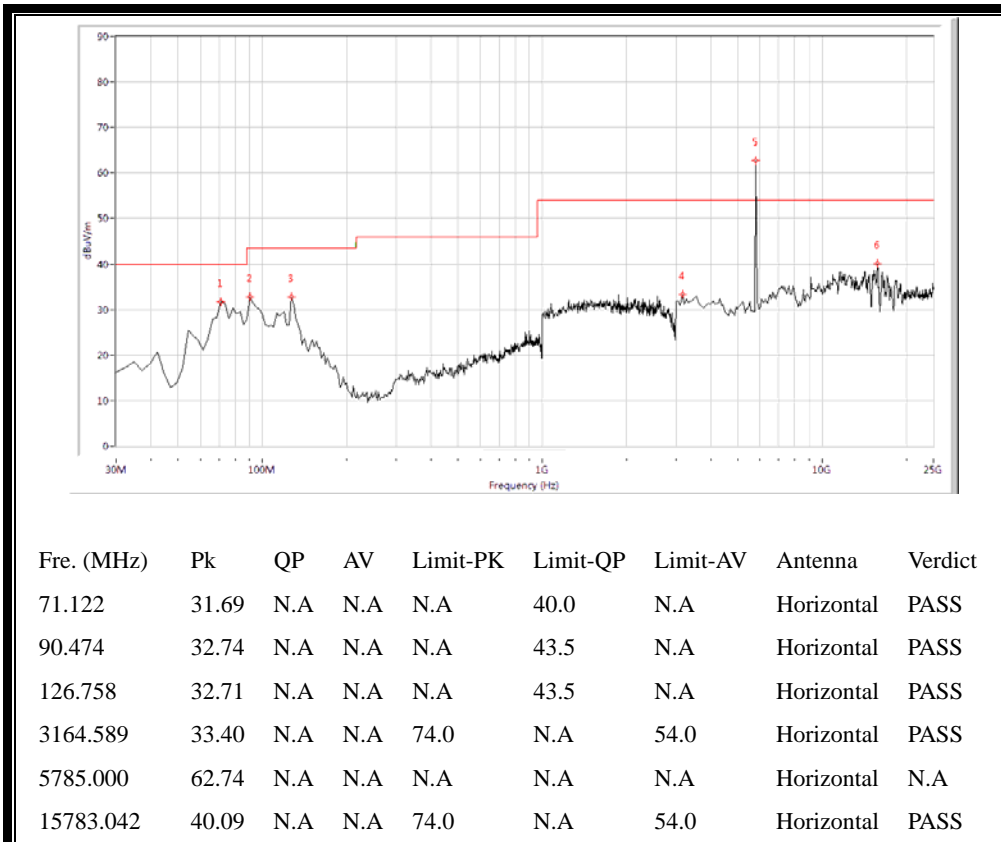
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
59.027	32.65	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
66.284	32.75	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
92.893	32.49	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2561.097	33.15	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5745.000	64.56	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	40.65	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



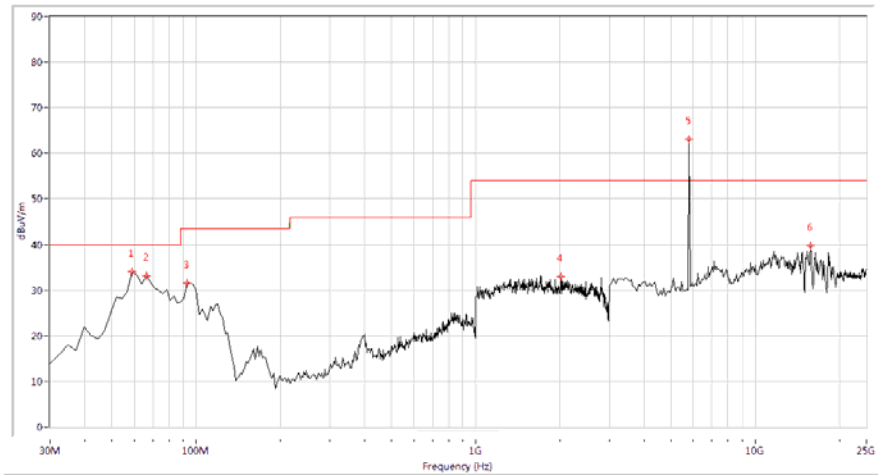
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27841.289	46.65	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29913.766	46.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31053.985	46.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33348.165	46.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36596.601	48.43	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
38957.262	48.63	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

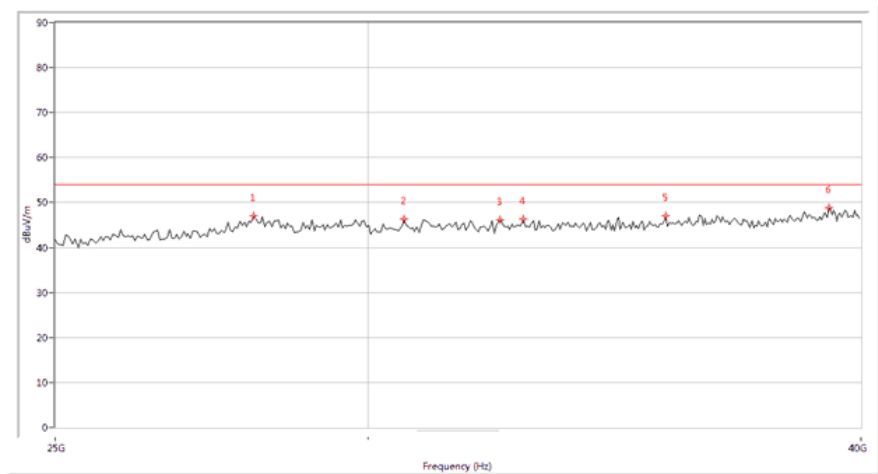
Plot for Channel = 157



(Antenna Horizontal, 30MHz to 40GHz)



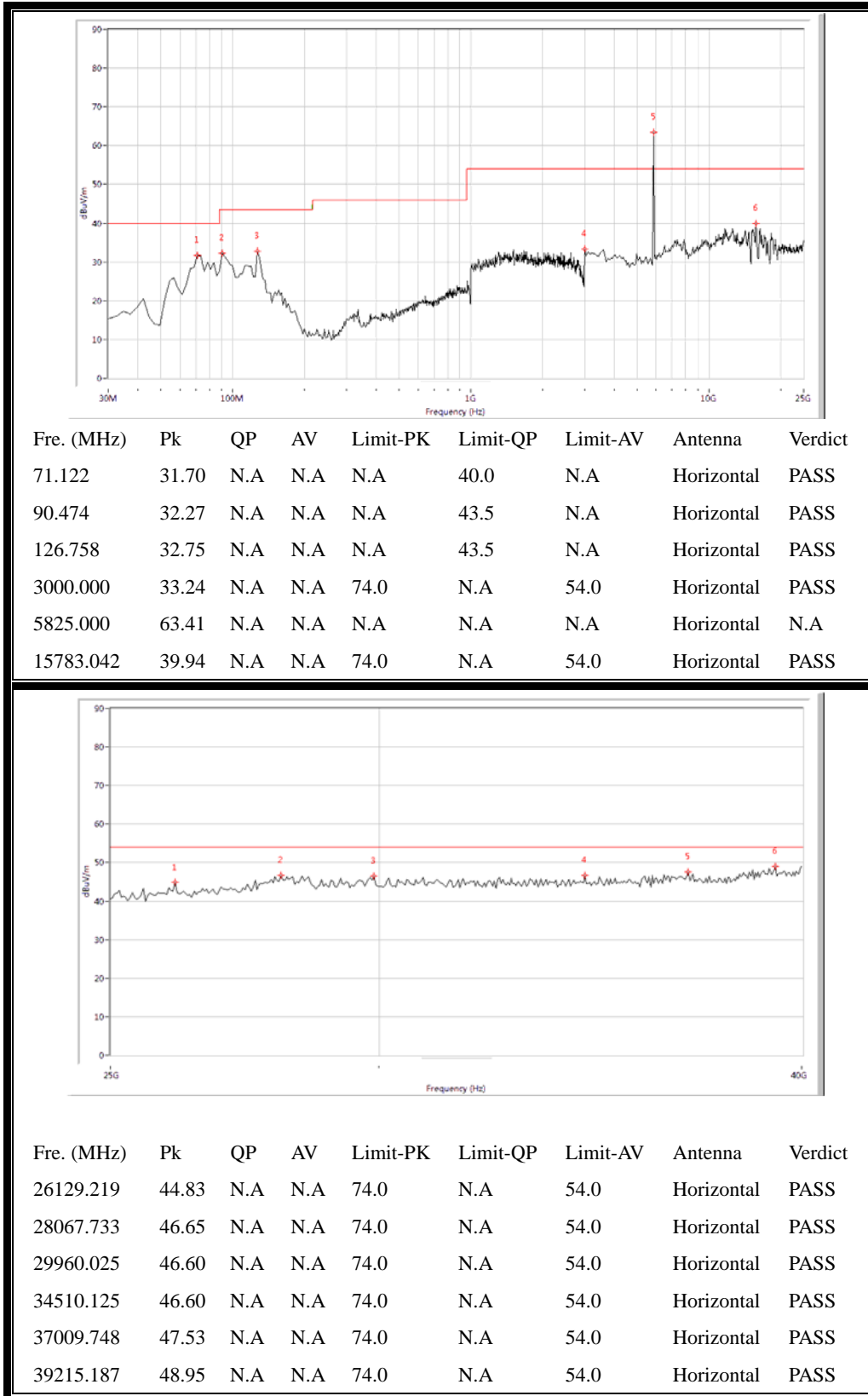
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
59.027	33.98	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
66.284	33.20	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
92.893	31.62	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2022.444	32.91	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5785.000	63.15	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	39.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



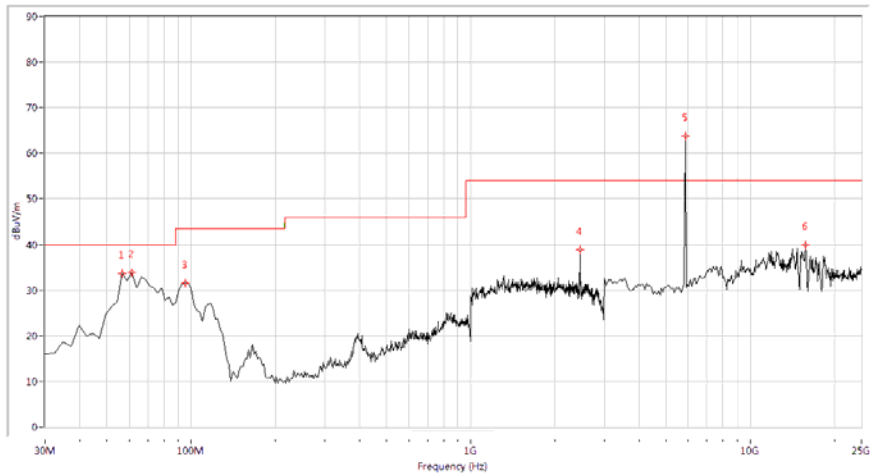
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28069.733	47.10	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30647.838	46.27	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32406.648	46.21	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32815.536	46.33	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35609.825	47.02	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39275.187	48.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

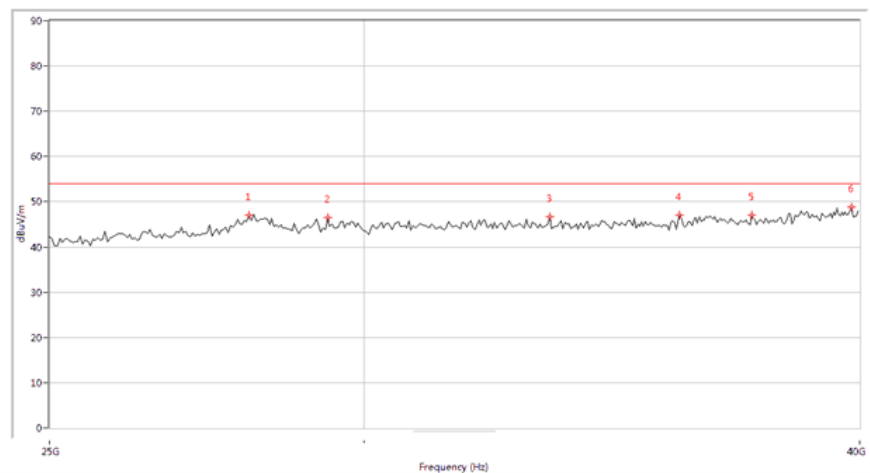
Plot for Channel = 165



(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
56.608	33.61	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
61.446	33.86	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
95.312	31.56	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
2461.347	38.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5825.000	63.87	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	39.85	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

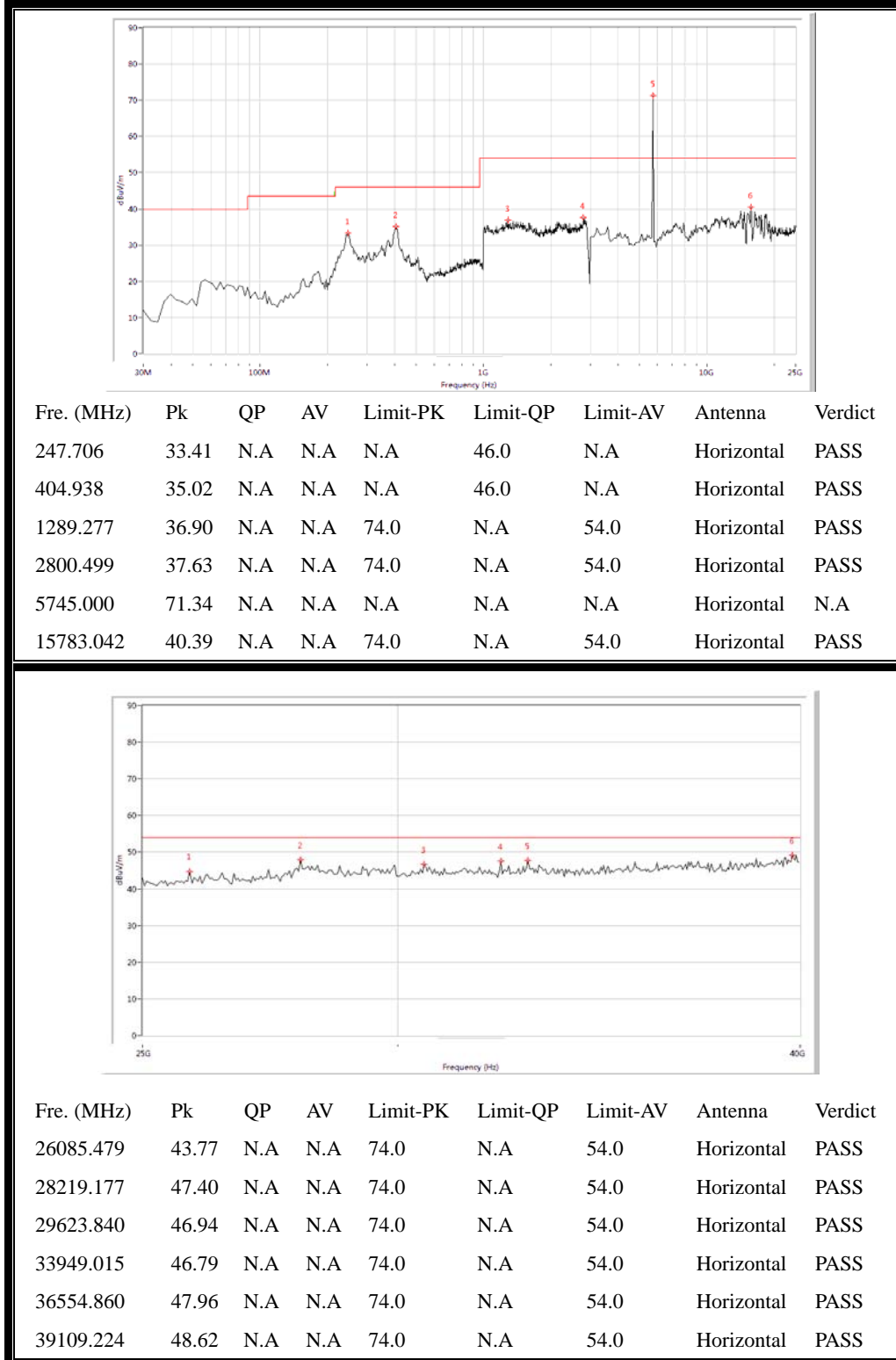


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28016.733	47.04	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29373.656	46.44	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33421.646	46.63	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
36037.491	46.98	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
37565.858	47.04	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39818.297	48.76	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

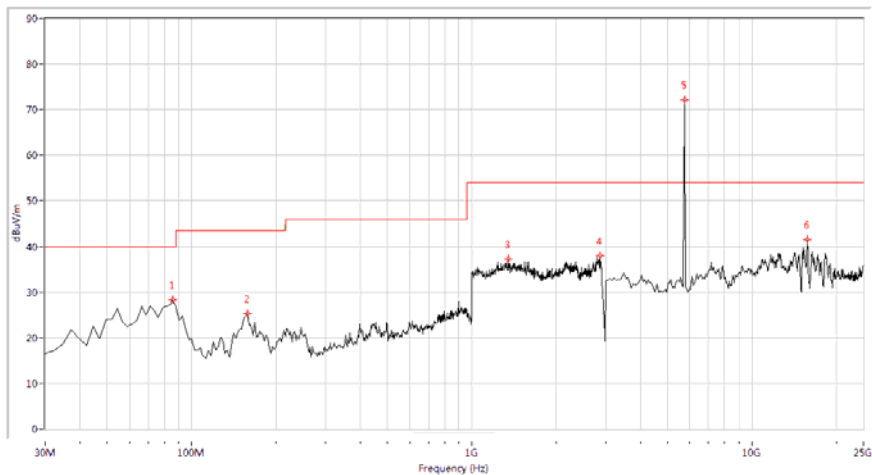
(Antenna Vertical, 30MHz to 40GHz)

3.8.3.6. 802.11ac-20MHz Test mode

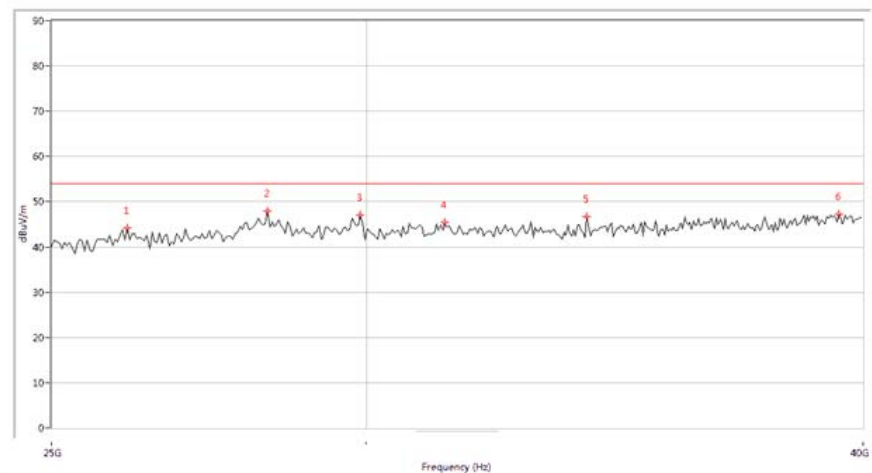
Plots for Channel = 149



(Antenna Horizontal, 30MHz to 40GHz)



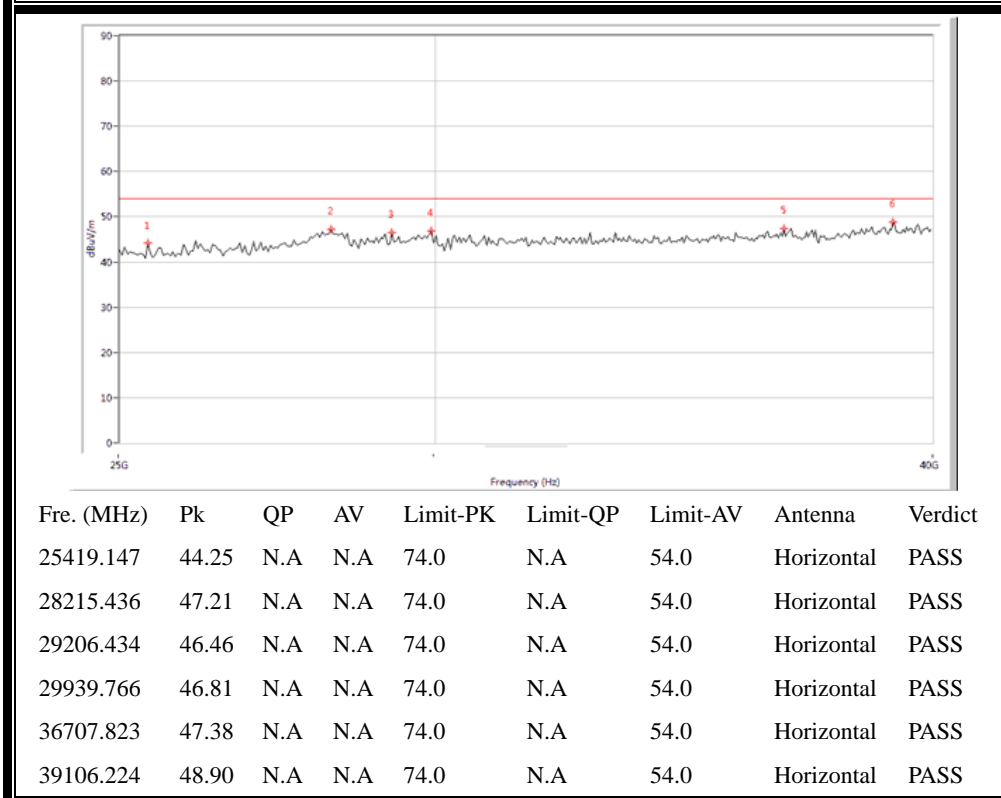
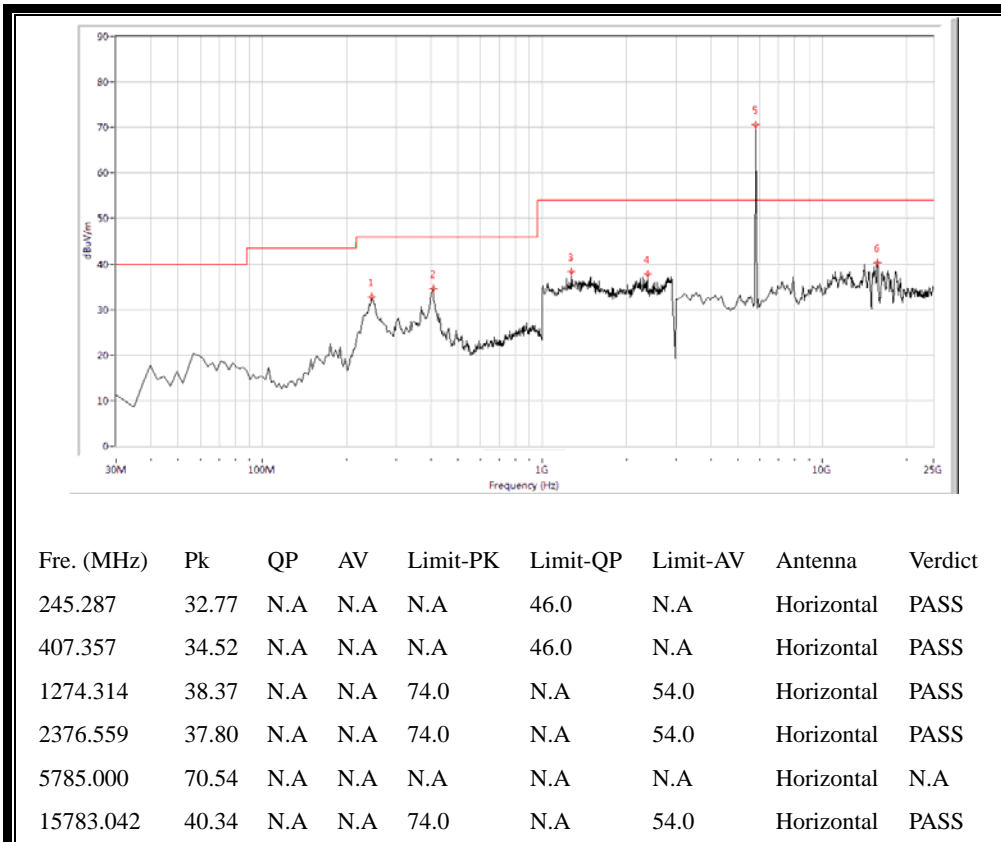
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.42	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
158.204	25.33	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1354.115	37.27	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2875.312	38.02	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5745.000	72.16	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	41.45	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



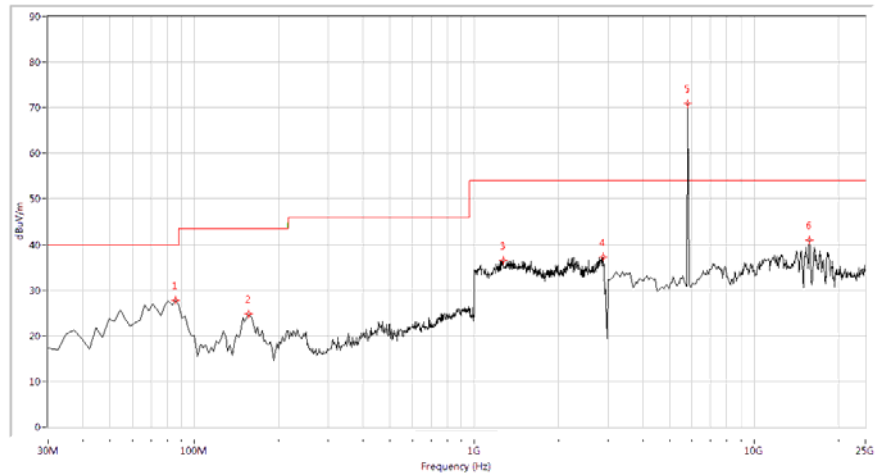
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26129.219	44.14	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28312.918	47.90	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29906.025	47.02	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31319.651	45.51	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
34008.978	46.70	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39439.890	47.14	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

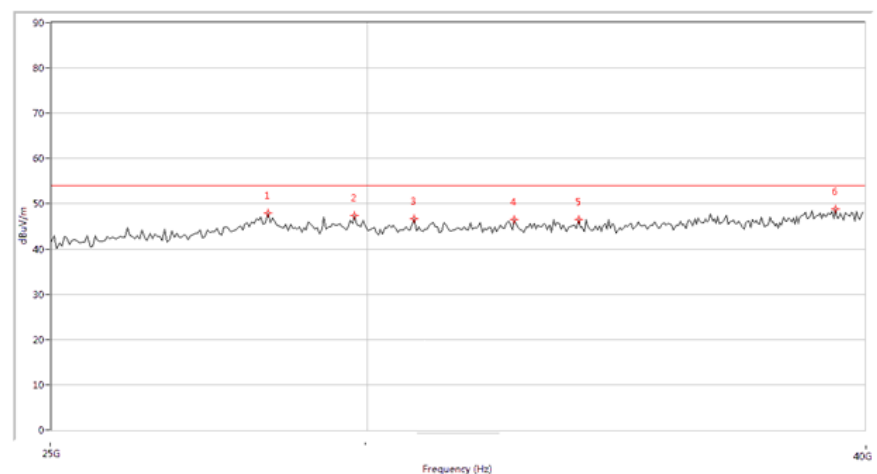
Plot for Channel = 157



(Antenna Horizontal, 30MHz to 40GHz)



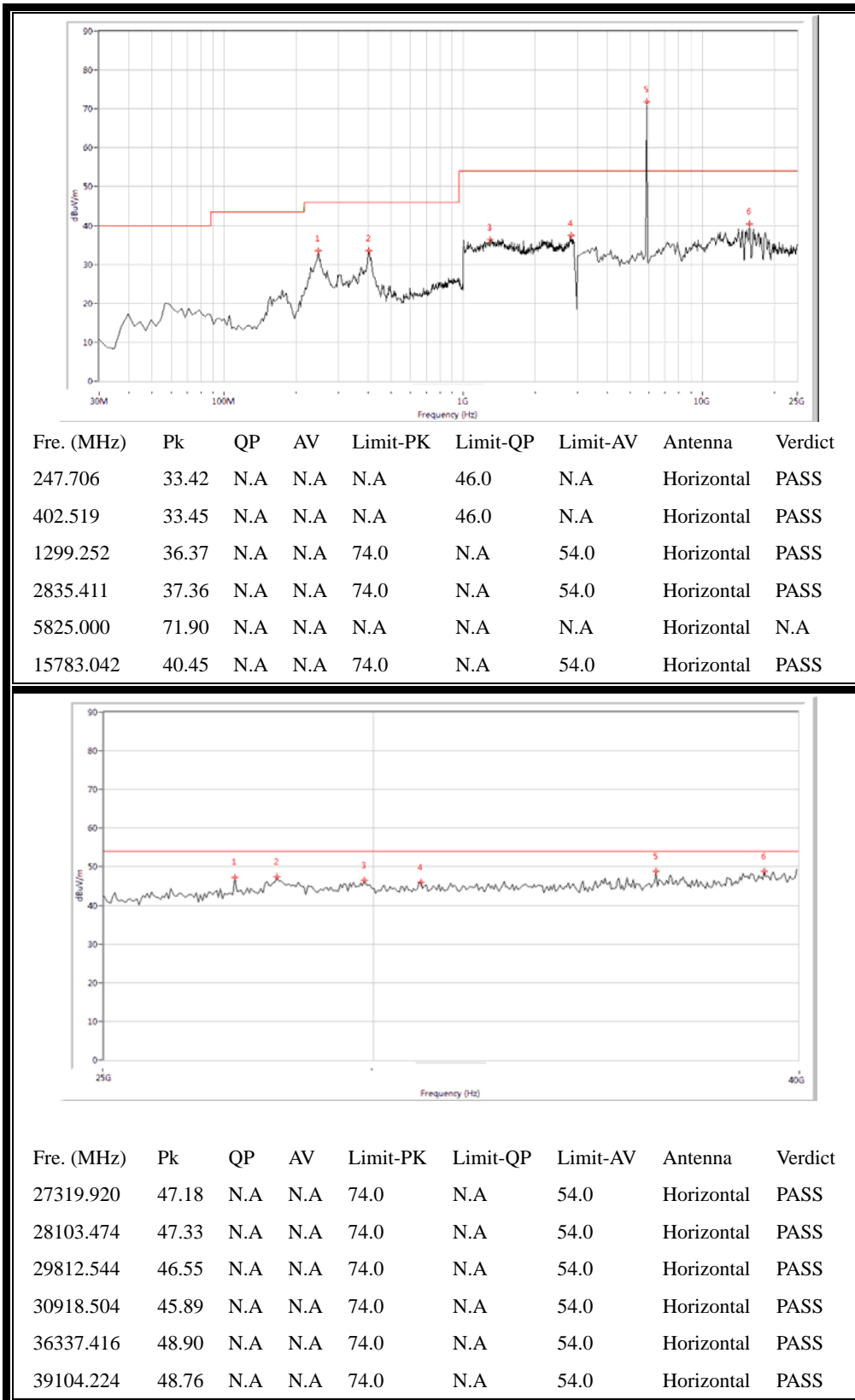
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	27.82	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
155.786	24.80	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1269.327	36.48	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2895.262	37.22	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5785.000	70.91	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	40.98	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



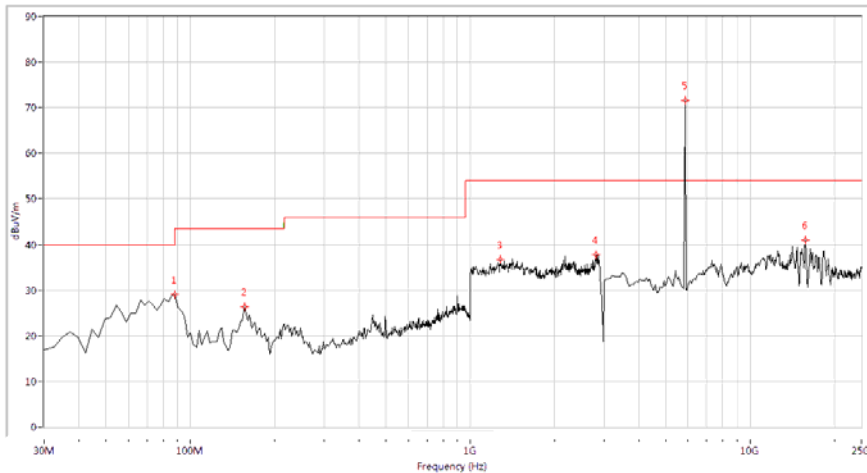
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28321.918	47.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29718.803	47.43	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30833.541	46.64	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32616.833	46.54	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
33903.274	46.49	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39324.668	48.82	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

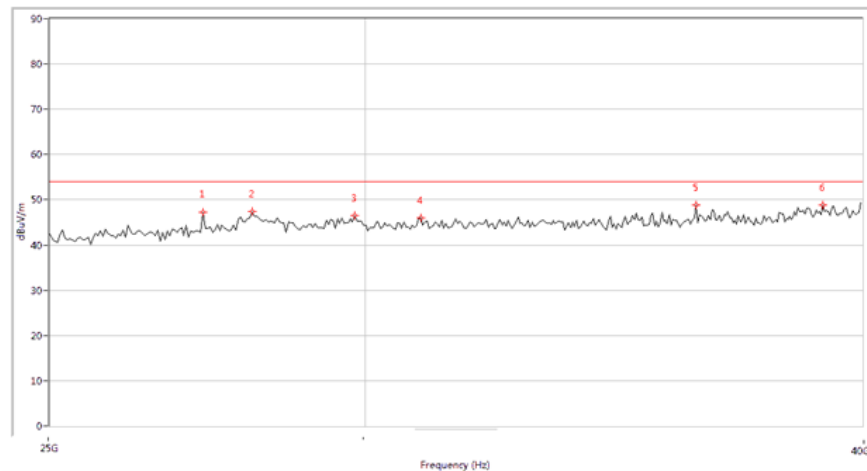
Plot for Channel = 165



(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
88.055	29.12	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
155.786	26.36	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1279.302	36.75	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2810.474	37.79	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5825.000	71.57	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15728.180	41.07	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

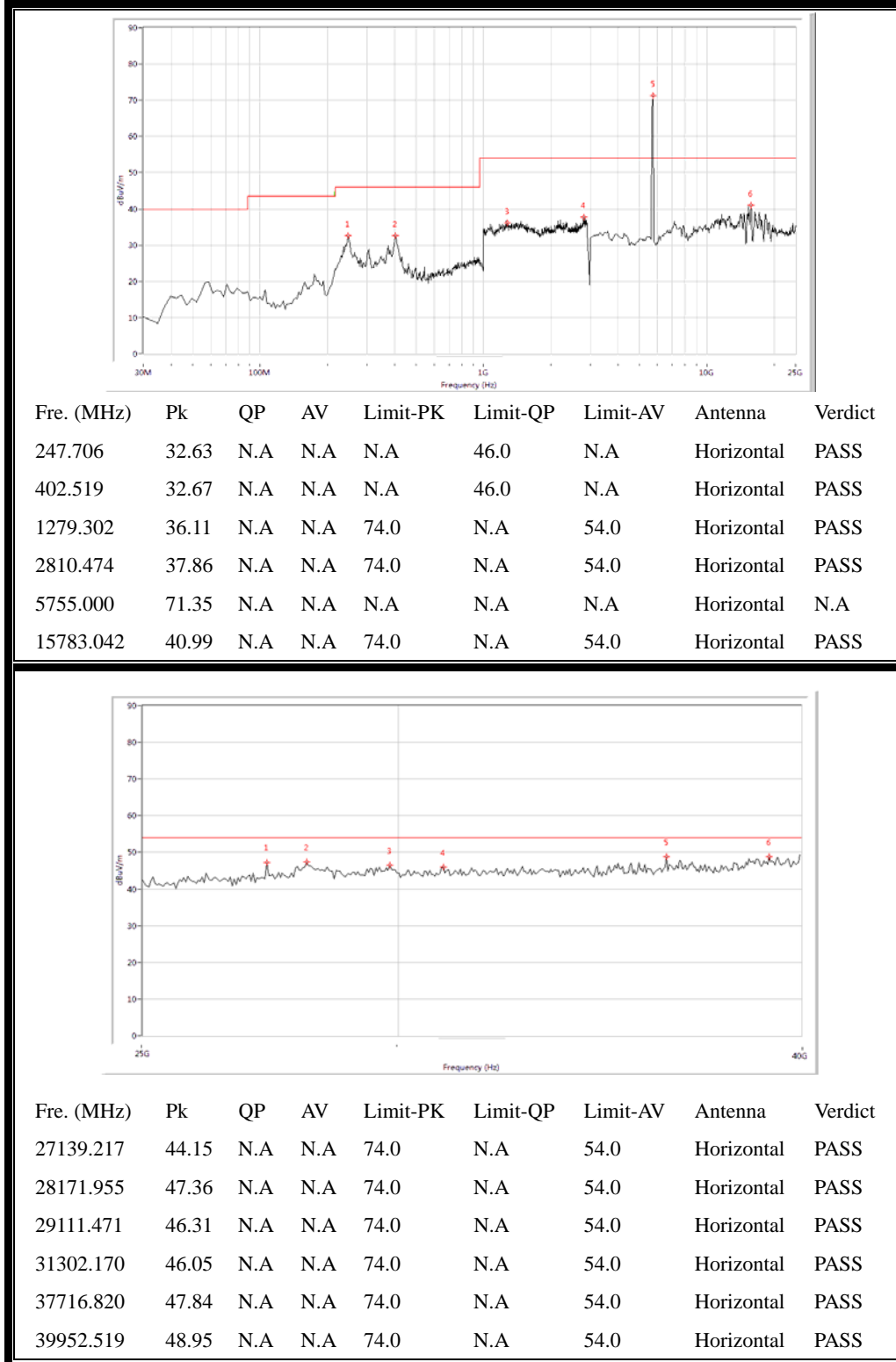


Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
26126.219	45.56	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
28404.140	47.32	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29787.803	46.11	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32811.796	46.28	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35504.863	46.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39028.743	48.53	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

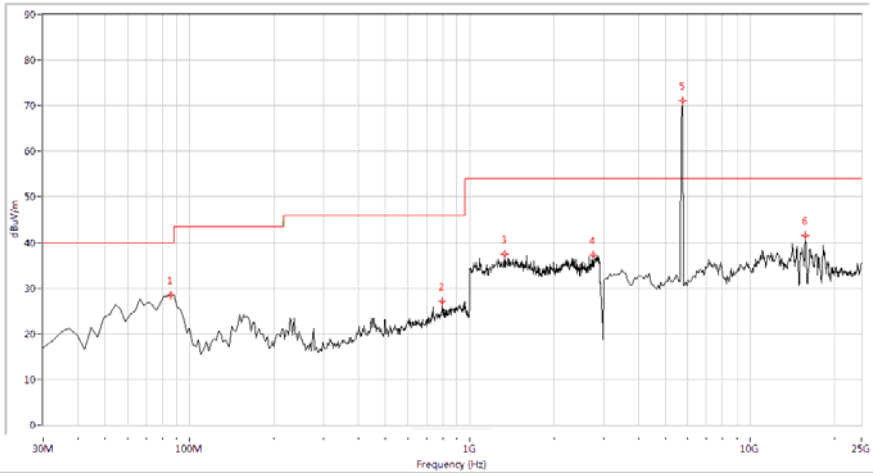
(Antenna Vertical, 30MHz to 40GHz)

3.8.3.7. 802.11ac-40MHz Test mode

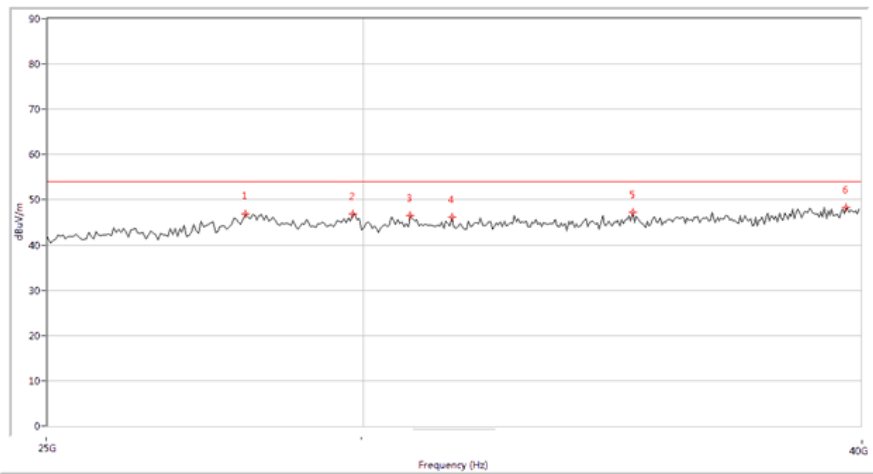
Plots for Channel = 151



(Antenna Horizontal, 30MHz to 40GHz)



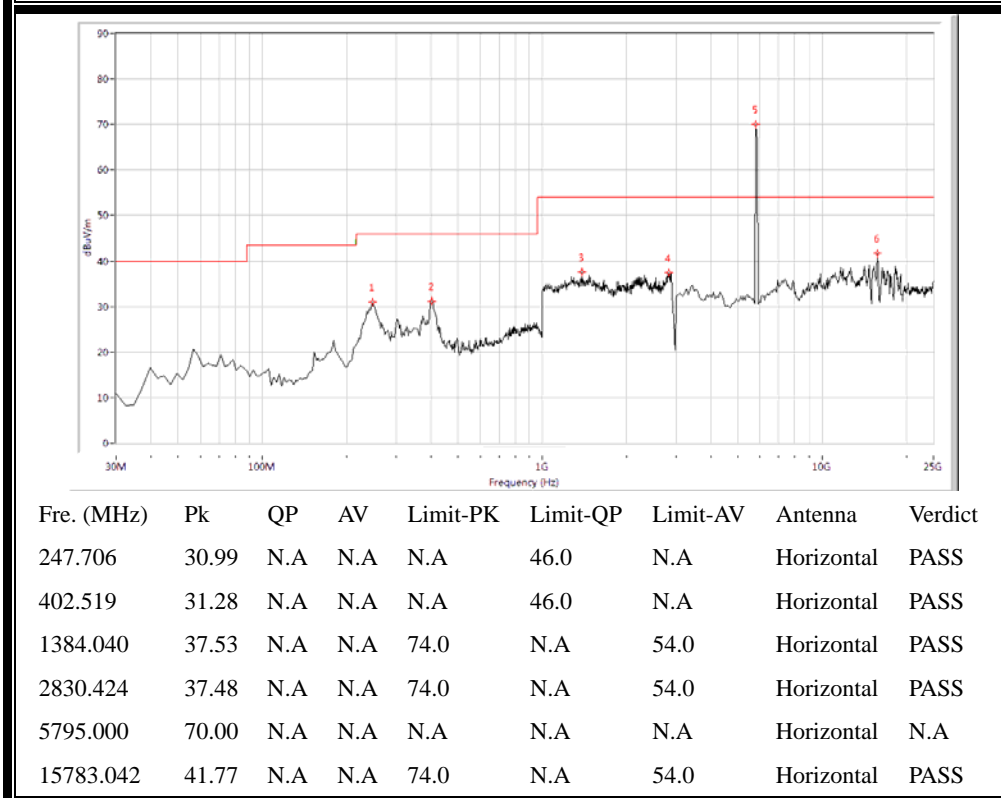
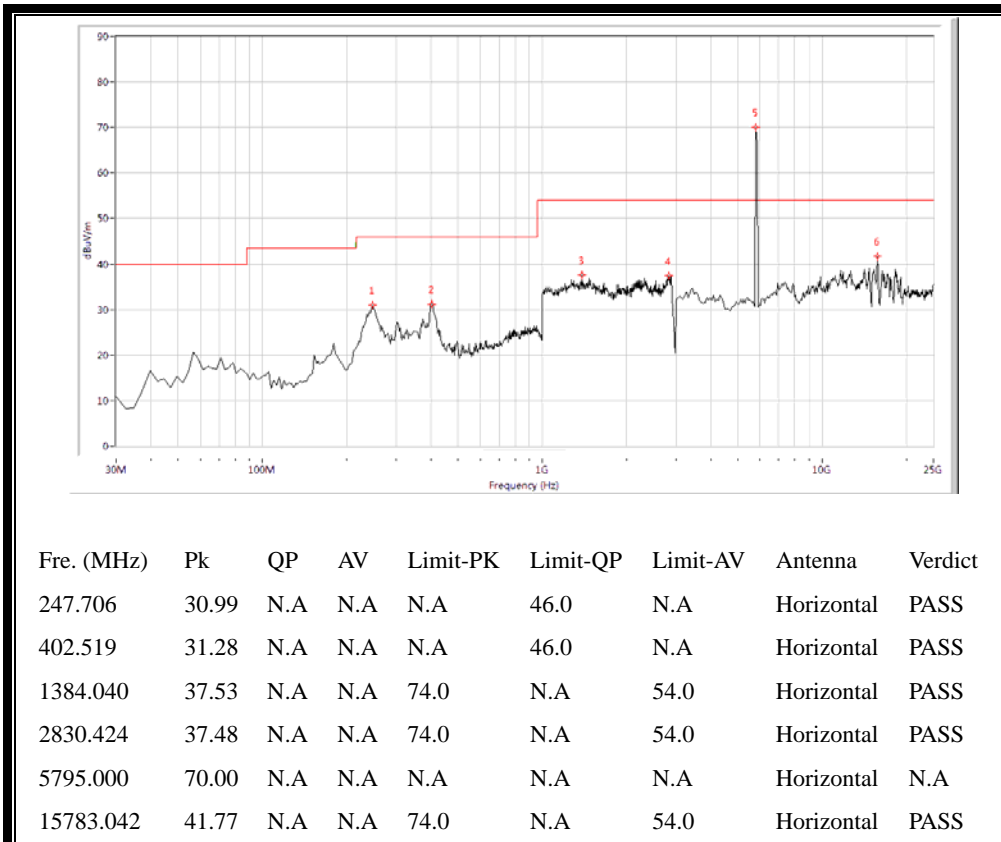
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.52	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
799.227	27.10	N.A	N.A	N.A	46.0	N.A	Vertical	PASS
1329.177	37.46	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2750.623	37.17	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5755.000	71.14	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	41.58	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



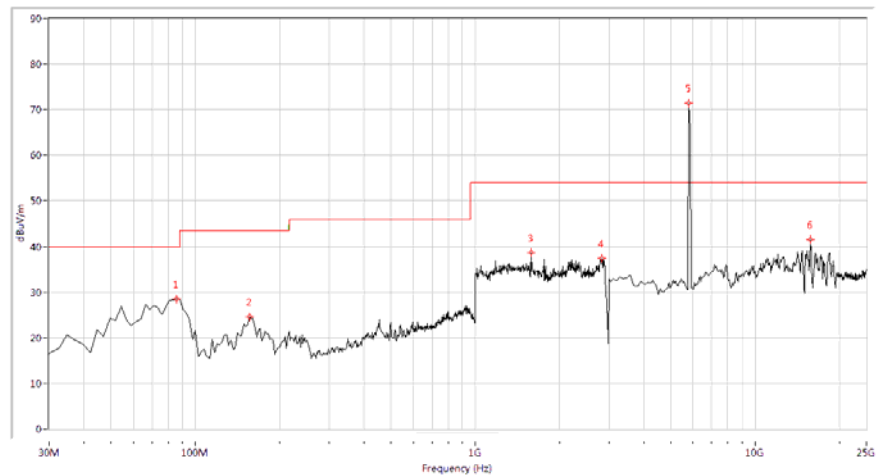
Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
28021.993	46.80	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29829.544	46.96	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30863.541	46.48	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
31581.354	46.19	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35036.234	47.15	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39606.334	48.35	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

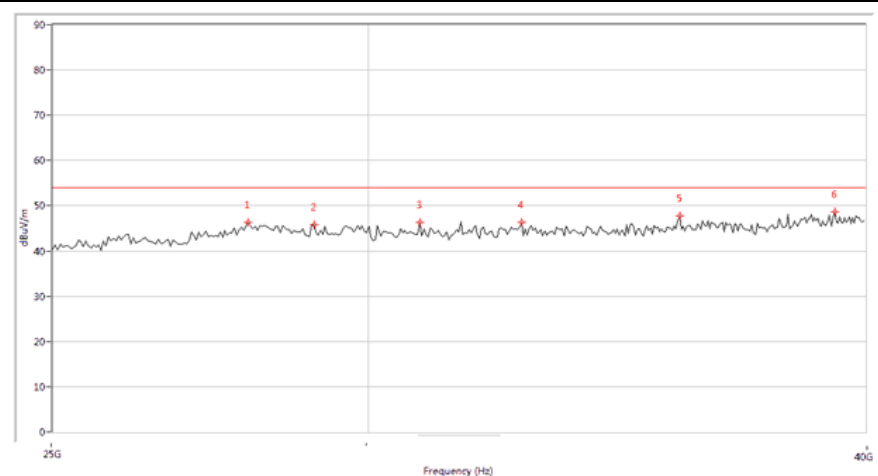
Plots for Channel = 159



(Antenna Horizontal, 30MHz to 40GHz)



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
85.636	28.52	N.A	N.A	N.A	40.0	N.A	Vertical	PASS
155.786	24.59	N.A	N.A	N.A	43.5	N.A	Vertical	PASS
1583.541	38.67	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
2840.399	37.48	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
5795.000	71.46	N.A	N.A	N.A	N.A	N.A	Vertical	N.A
15783.042	41.53	N.A	N.A	74.0	N.A	54.0	Vertical	PASS



Fre. (MHz)	Pk	QP	AV	Limit-PK	Limit-QP	Limit-AV	Antenna	Verdict
27909.252	46.29	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
29071.731	45.73	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
30931.022	46.28	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
32748.055	46.34	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
35920.269	47.71	N.A	N.A	74.0	N.A	54.0	Vertical	PASS
39283.928	48.64	N.A	N.A	74.0	N.A	54.0	Vertical	PASS

(Antenna Vertical, 30MHz to 40GHz)

3.9. RF exposure evaluation

3.9.1. Requirement

According to § 1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of Commission's guideline.

3.9.2. Result

Please refer to SAR report.

**** END OF REPORT ****