



NVNT	n40	5755	Ant1	-1.46	0.26	-1.2	30	Pass
NVNT	n40	5795	Ant1	-1.47	0.26	-1.21	30	Pass
NVNT	ac20	5180	Ant1	4.21	0.13	4.34	11	Pass
NVNT	ac20	5220	Ant1	4.26	0.06	4.32	11	Pass
NVNT	ac20	5240	Ant1	4.18	0.13	4.31	11	Pass
NVNT	ac20	5260	Ant1	4.35	0.13	4.48	11	Pass
NVNT	ac20	5300	Ant1	4.39	0.13	4.52	11	Pass
NVNT	ac20	5320	Ant1	4.05	0.13	4.18	11	Pass
NVNT	ac20	5500	Ant1	4.76	0.13	4.89	11	Pass
NVNT	ac20	5580	Ant1	4.41	0.13	4.54	11	Pass
NVNT	ac20	5720	Ant1	4.4	0.13	4.53	11	Pass
NVNT	ac20	5745	Ant1	1.63	0.06	1.69	30	Pass
NVNT	ac20	5785	Ant1	2.14	0.13	2.27	30	Pass
NVNT	ac20	5825	Ant1	1.86	0.13	1.99	30	Pass
NVNT	ac40	5190	Ant1	1.18	0.26	1.44	11	Pass
NVNT	ac40	5230	Ant1	1.81	0.13	1.94	11	Pass
NVNT	ac40	5270	Ant1	1.45	0.26	1.71	11	Pass
NVNT	ac40	5310	Ant1	1.23	0.26	1.49	11	Pass
NVNT	ac40	5510	Ant1	1.72	0.13	1.85	11	Pass
NVNT	ac40	5550	Ant1	1.26	0.26	1.52	11	Pass
NVNT	ac40	5710	Ant1	2.17	0.26	2.43	11	Pass
NVNT	ac40	5755	Ant1	-1.42	0.26	-1.16	30	Pass
NVNT	ac40	5795	Ant1	-1.35	0.26	-1.09	30	Pass
NVNT	ac80	5210	Ant1	-2.18	0.51	-1.67	11	Pass
NVNT	ac80	5290	Ant1	-2.33	0.51	-1.82	11	Pass
NVNT	ac80	5530	Ant1	-2.12	0.51	-1.61	11	Pass
NVNT	ac80	5610	Ant1	-2.07	0.51	-1.56	11	Pass
NVNT	ac80	5690	Ant1	-1.58	0.51	-1.07	11	Pass
NVNT	ac80	5775	Ant1	-4.39	0.51	-3.88	30	Pass

Test Graphs

PSD NVNT a 5180MHz Ant1



PSD NVNT a 5220MHz Ant1



PSD NVNT a 5240MHz Ant1



PSD NVNT a 5260MHz Ant1





PSD NVNT a 5300MHz Ant1



PSD NVNT a 5320MHz Ant1



PSD NVNT a 5500MHz Ant1



PSD NVNT a 5580MHz Ant1



PSD NVNT a 5720MHz Ant1



PSD NVNT a 5745MHz Ant1



PSD NVNT a 5785MHz Ant1



PSD NVNT a 5825MHz Ant1



PSD NVNT n20 5180MHz Ant1



PSD NVNT n20 5220MHz Ant1



PSD NVNT n20 5240MHz Ant1



PSD NVNT n20 5260MHz Ant1





PSD NVNT n20 5300MHz Ant1



PSD NVNT n20 5320MHz Ant1



PSD NVNT n20 5500MHz Ant1



PSD NVNT n20 5580MHz Ant1



PSD NVNT n20 5720MHz Ant1



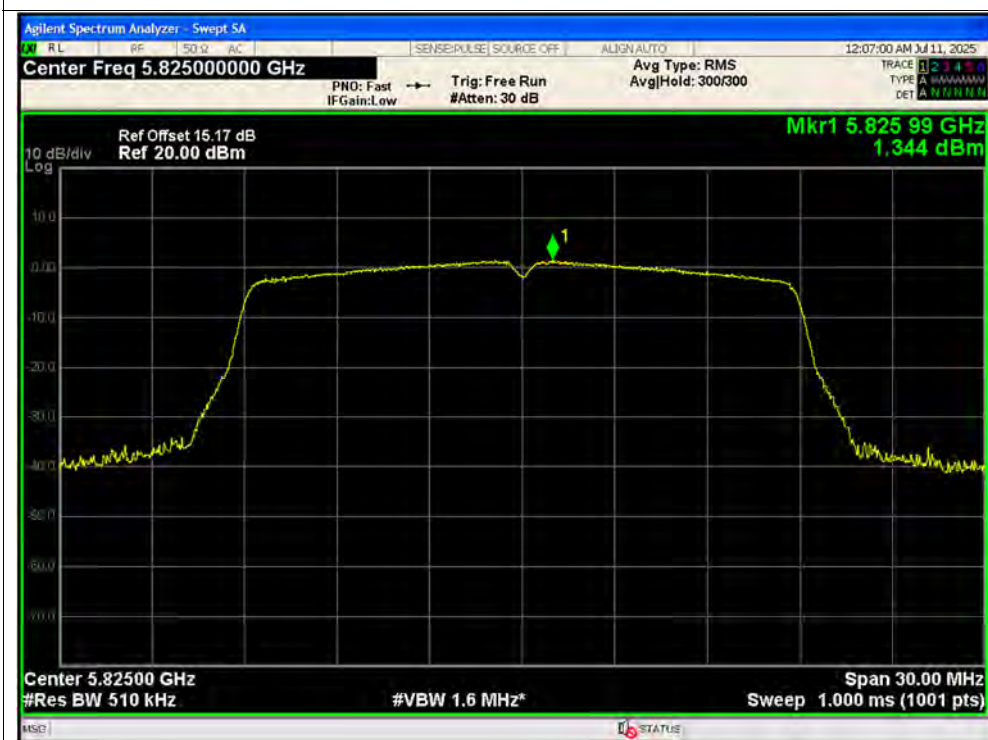
PSD NVNT n20 5745MHz Ant1



PSD NVNT n20 5785MHz Ant1



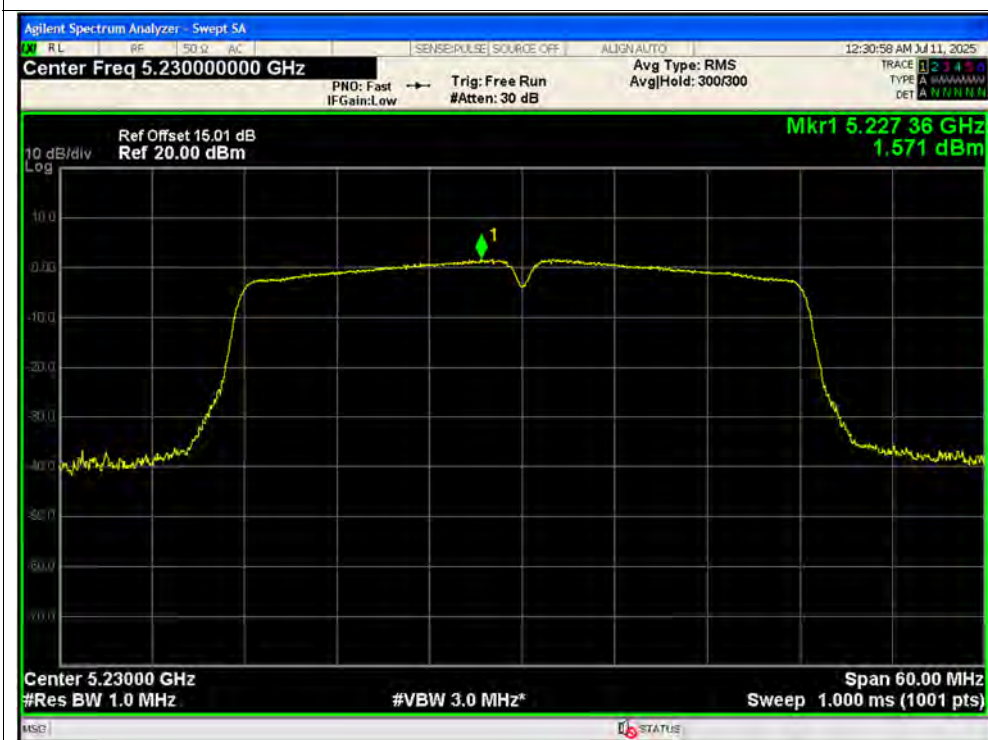
PSD NVNT n20 5825MHz Ant1



PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1



PSD NVNT n40 5270MHz Ant1



PSD NVNT n40 5310MHz Ant1



PSD NVNT n40 5510MHz Ant1



PSD NVNT n40 5550MHz Ant1



PSD NVNT n40 5710MHz Ant1



PSD NVNT n40 5755MHz Ant1



PSD NVNT n40 5795MHz Ant1



PSD NVNT ac20 5180MHz Ant1



PSD NVNT ac20 5220MHz Ant1



PSD NVNT ac20 5240MHz Ant1





PSD NVNT ac20 5260MHz Ant1



PSD NVNT ac20 5300MHz Ant1



PSD NVNT ac20 5320MHz Ant1



PSD NVNT ac20 5500MHz Ant1



PSD NVNT ac20 5580MHz Ant1



PSD NVNT ac20 5720MHz Ant1



PSD NVNT ac20 5745MHz Ant1



PSD NVNT ac20 5785MHz Ant1



PSD NVNT ac20 5825MHz Ant1



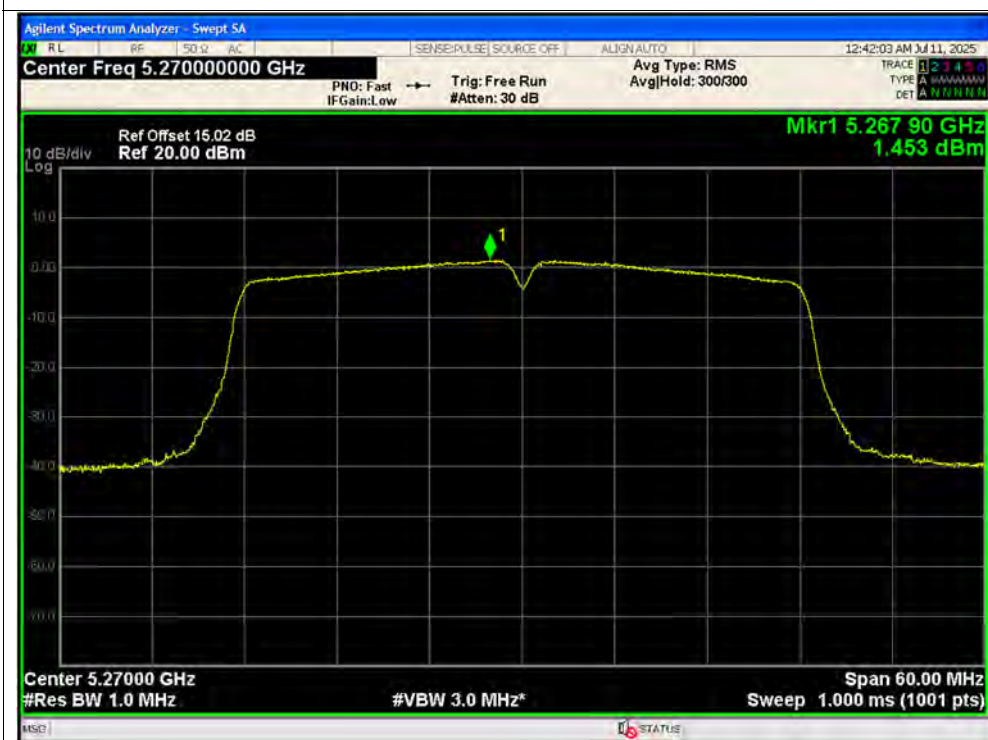
PSD NVNT ac40 5190MHz Ant1



PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac40 5270MHz Ant1



PSD NVNT ac40 5310MHz Ant1



PSD NVNT ac40 5510MHz Ant1





PSD NVNT ac40 5550MHz Ant1



PSD NVNT ac40 5710MHz Ant1



PSD NVNT ac40 5755MHz Ant1



PSD NVNT ac40 5795MHz Ant1



PSD NVNT ac80 5210MHz Ant1



PSD NVNT ac80 5290MHz Ant1



PSD NVNT ac80 5530MHz Ant1



PSD NVNT ac80 5610MHz Ant1





PSD NVNT ac80 5690MHz Ant1



PSD NVNT ac80 5775MHz Ant1



**A.5. Frequency Stability**

Condition	Mode	Frequency (MHz)	Antenna	Measured Frequency (MHz)	Frequency Error (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
20C 3.4V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
20C 3.87V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
20C 4.45V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
-20C 3.87V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
-10C 3.87V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
0C 3.87V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
10C 3.87V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
30C 3.87V	CW	5180	Ant1	5179.982	-18000	-3.47	25	Pass
40C 3.87V	CW	5180	Ant1	5179.982	-18000	-3.47	25	Pass
50C 3.87V	CW	5180	Ant1	5179.982	-18000	-3.47	25	Pass
60C 3.87V	CW	5180	Ant1	5179.982	-18000	-3.47	25	Pass
20C 3.4V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
20C 3.87V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
20C 4.45V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
-20C 3.87V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
-10C 3.87V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
0C 3.87V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
10C 3.87V	CW	5260	Ant1	5259.98	-20000	-3.8	25	Pass
30C 3.87V	CW	5260	Ant1	5259.979	-21000	-3.99	25	Pass
40C 3.87V	CW	5260	Ant1	5259.979	-21000	-3.99	25	Pass
50C 3.87V	CW	5260	Ant1	5259.979	-21000	-3.99	25	Pass
60C 3.87V	CW	5260	Ant1	5259.979	-21000	-3.99	25	Pass
20C 3.4V	CW	5500	Ant1	5499.981	-19000	-3.45	25	Pass
20C 3.87V	CW	5500	Ant1	5499.977	-23000	-4.18	25	Pass
20C 4.45V	CW	5500	Ant1	5499.979	-21000	-3.82	25	Pass
-20C 3.87V	CW	5500	Ant1	5499.978	-22000	-4	25	Pass
-10C 3.87V	CW	5500	Ant1	5499.978	-22000	-4	25	Pass
0C 3.87V	CW	5500	Ant1	5499.977	-23000	-4.18	25	Pass
10C 3.87V	CW	5500	Ant1	5499.977	-23000	-4.18	25	Pass
30C 3.87V	CW	5500	Ant1	5499.976	-24000	-4.36	25	Pass
40C 3.87V	CW	5500	Ant1	5499.976	-24000	-4.36	25	Pass
50C 3.87V	CW	5500	Ant1	5499.976	-24000	-4.36	25	Pass
60C 3.87V	CW	5500	Ant1	5499.976	-24000	-4.36	25	Pass
20C 3.4V	CW	5745	Ant1	5744.982	-18000	-3.13	25	Pass



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20C 3.87V	CW	5745	Ant1	5744.979	-21000	-3.66	25	Pass
20C 4.45V	CW	5745	Ant1	5744.981	-19000	-3.31	25	Pass
-20C 3.87V	CW	5745	Ant1	5744.98	-20000	-3.48	25	Pass
-10C 3.87V	CW	5745	Ant1	5744.98	-20000	-3.48	25	Pass
0C 3.87V	CW	5745	Ant1	5744.979	-21000	-3.66	25	Pass
10C 3.87V	CW	5745	Ant1	5744.979	-21000	-3.66	25	Pass
30C 3.87V	CW	5745	Ant1	5744.979	-21000	-3.66	25	Pass
40C 3.87V	CW	5745	Ant1	5744.979	-21000	-3.66	25	Pass
50C 3.87V	CW	5745	Ant1	5744.978	-22000	-3.83	25	Pass
60C 3.87V	CW	5745	Ant1	5744.978	-22000	-3.83	25	Pass



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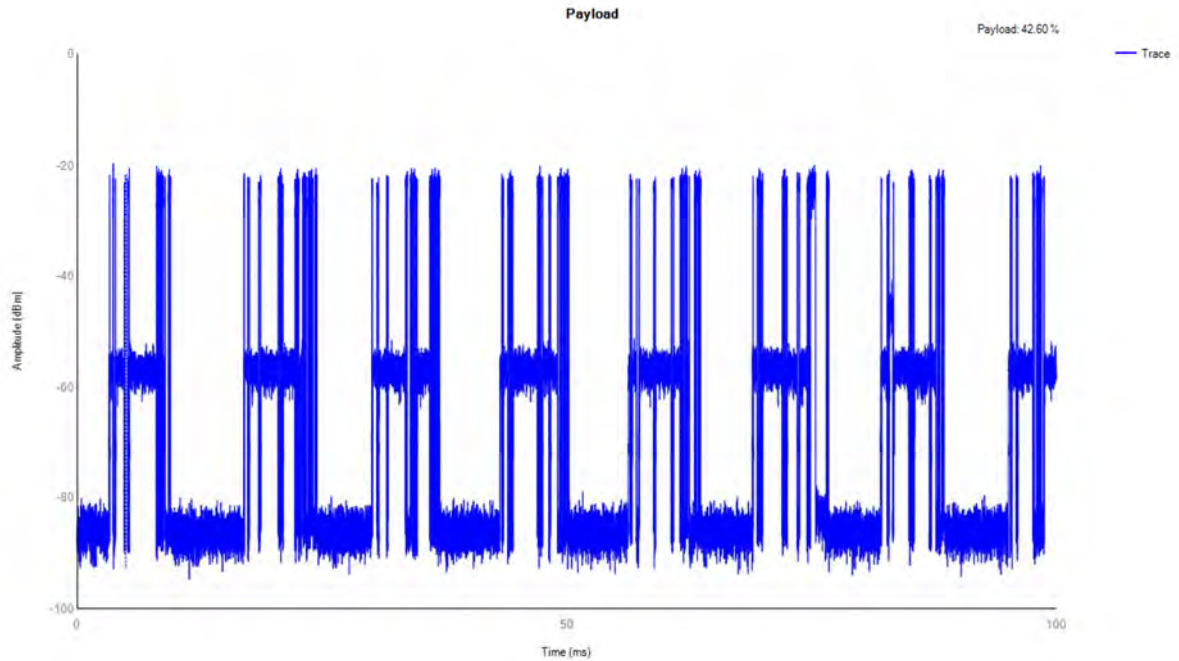
A.6. Dynamic Frequency Selection

A. Payload

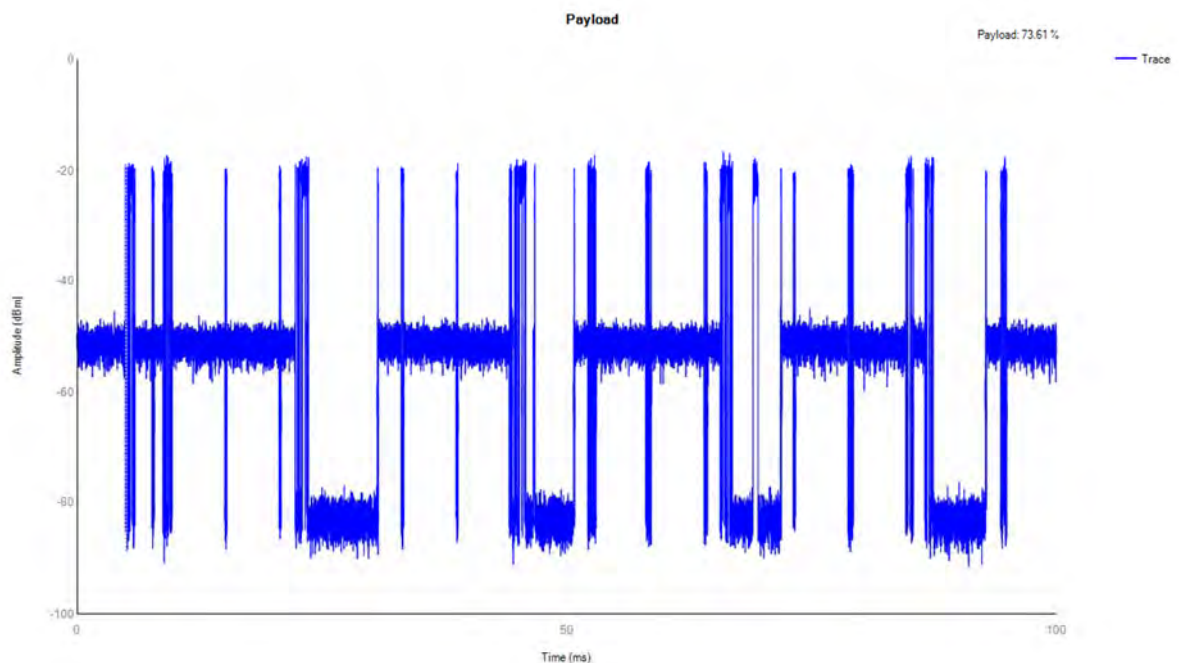
Mode	Frequency (MHz)	Result	Verdict
ac20	5260	42.6	Pass
ac20	5500	73.61	Pass
ac80	5290	42.02	Pass
ac80	5530	30.03	Pass

Test Graphs

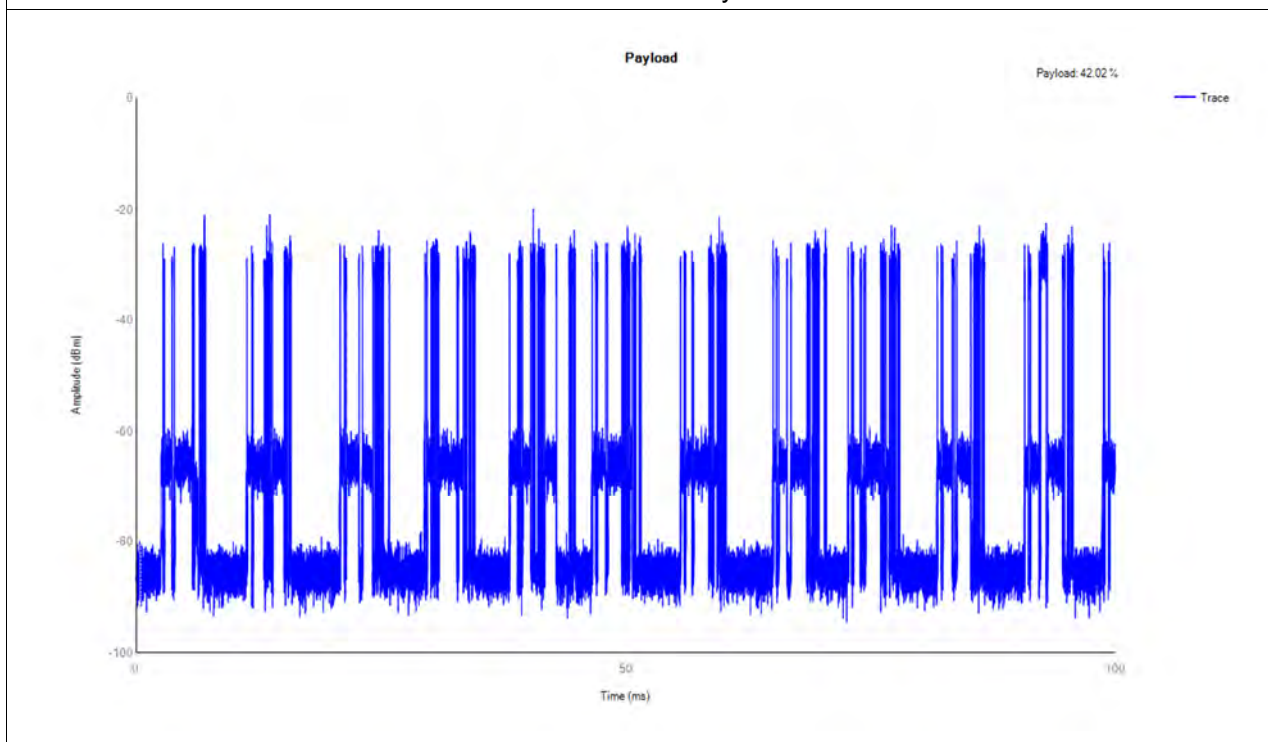
ac20 5260MHz Payload



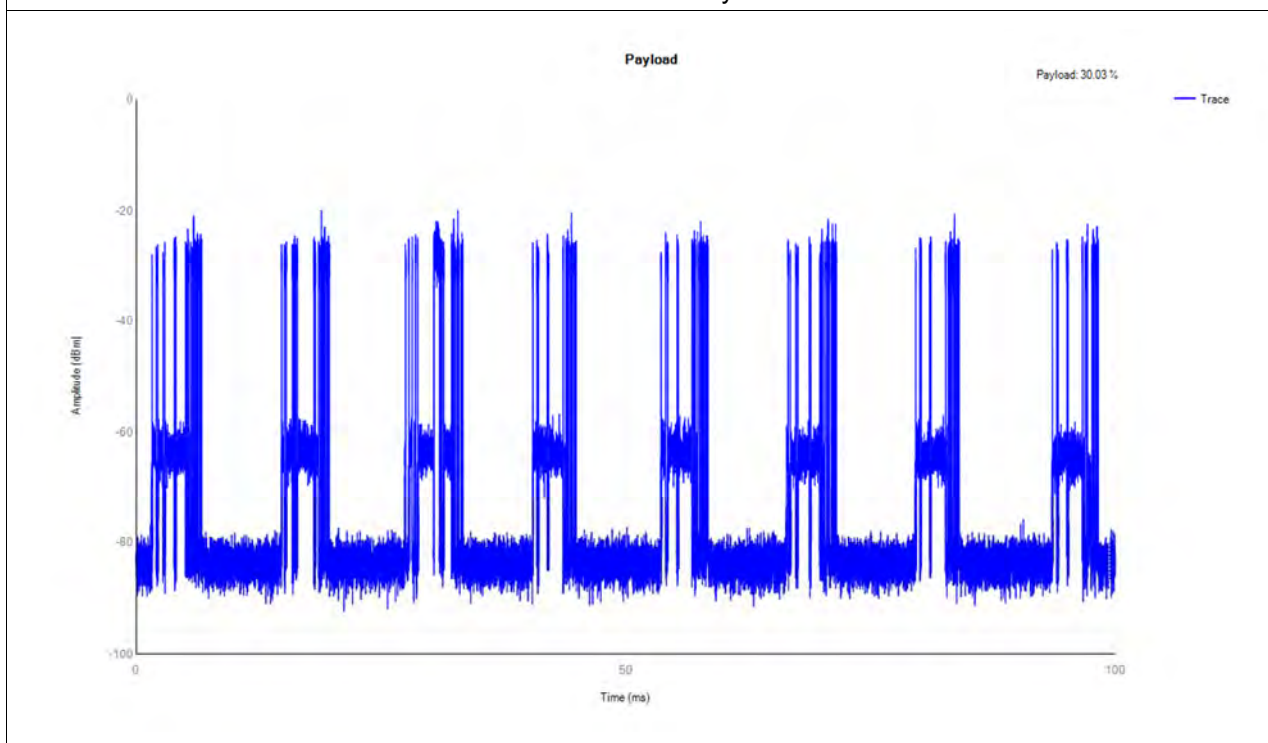
ac20 5500MHz Payload



ac80 5290MHz Payload



ac80 5530MHz Payload



**B. Detection Thresholds**

Mode	Frequency (MHz)	Type	Result	Verdict
ac20	5260	DFS_FCC_T0	See test Graph	Pass
ac20	5500	DFS_FCC_T0	See test Graph	Pass
ac80	5290	DFS_FCC_T0	See test Graph	Pass
ac80	5530	DFS_FCC_T0	See test Graph	Pass

Spectrum analyzer settings:

Span: Zero

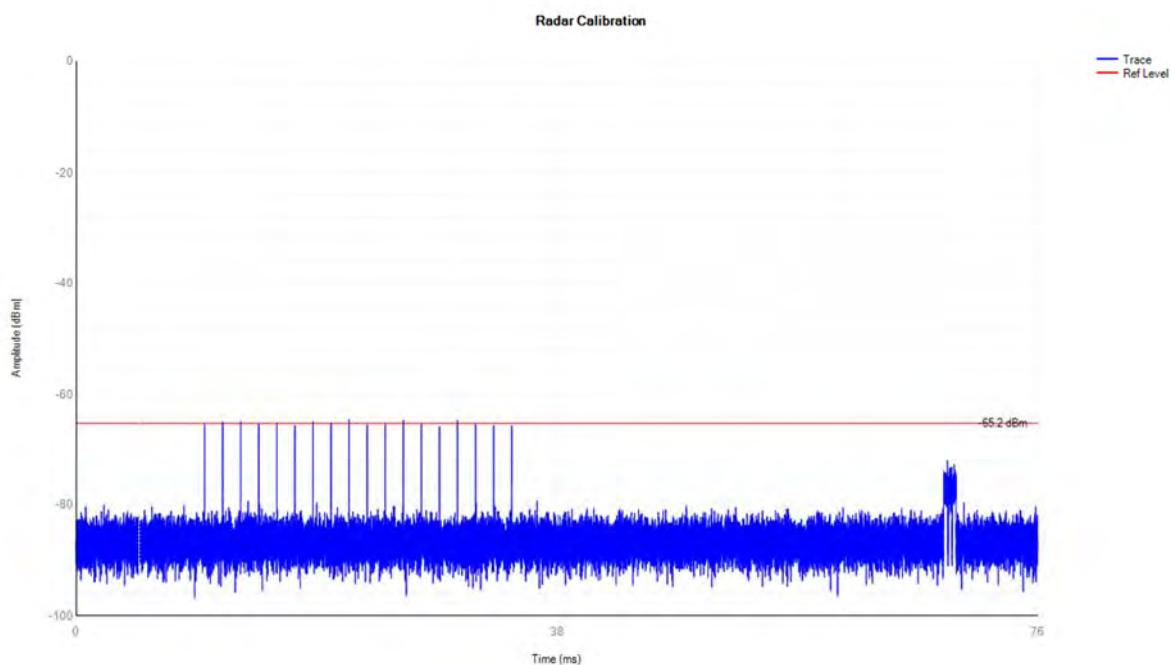
Detector Type: Peak

RBW: 3MHz

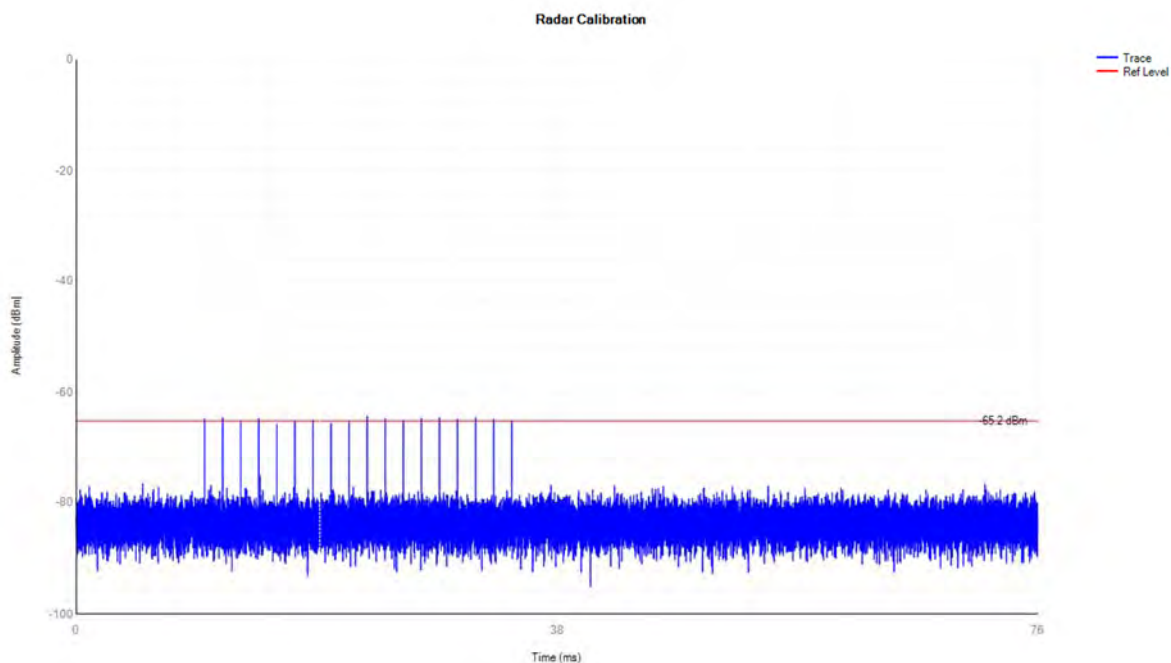
VBW: 3MHz

Test Graphs

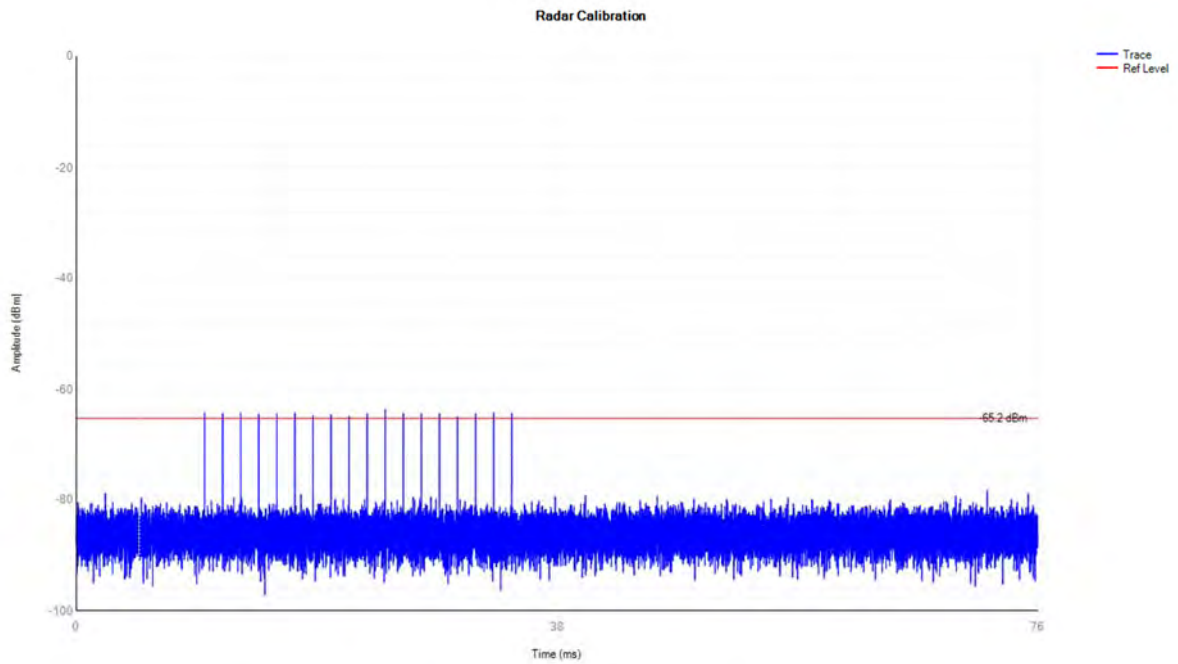
5260MHz DFS_FCC_T0



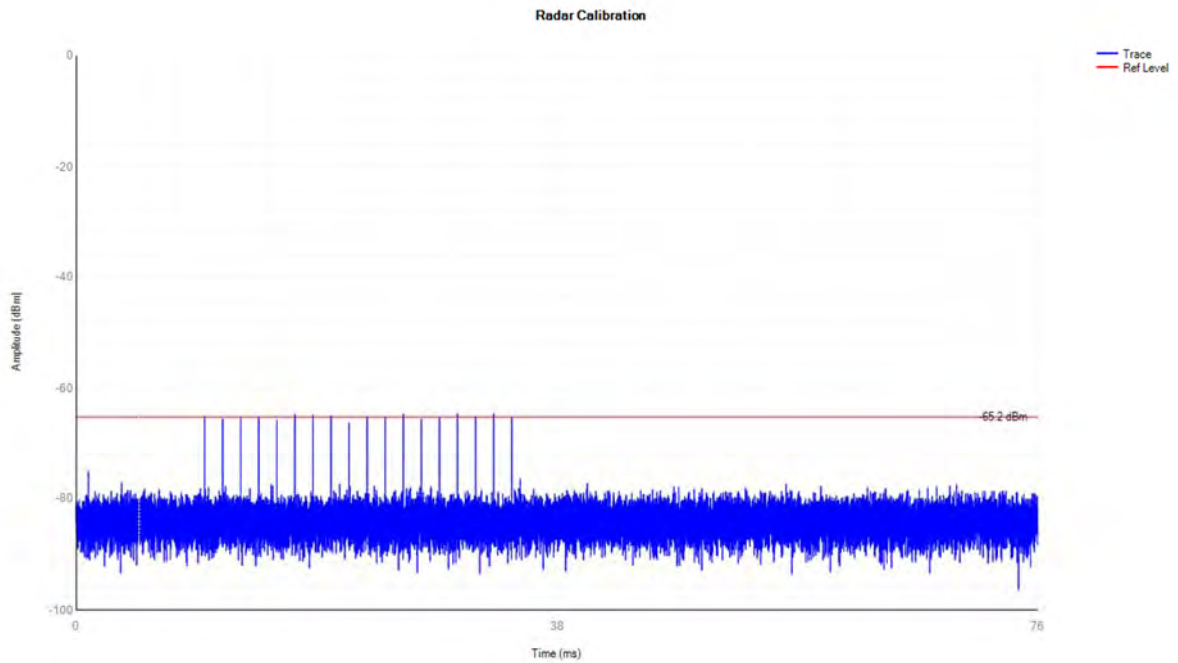
5500MHz DFS_FCC_T0



5290MHz DFS_FCC_T0



5530MHz DFS_FCC_T0



**C. Channel Move Time and Channel Closing Transmission Time**

Mode	Frequency (MHz)	Channel Move Time (s)	Limit Channel Move Time (s)	Close Transmission Time (s)	Limit Close Transmission Time (s)	Close Transmission Time after 200ms(s)	Limit Close Transmission Time after 200ms (s)	Verdict
ac20	5260	0.831	10	0.024	0.26	0.016	0.06	Pass
ac20	5500	0.788	10	0.022	0.26	0.013	0.06	Pass
ac80	5290	0.742	10	0.018	0.26	0.012	0.06	Pass
ac80	5530	0.818	10	0.017	0.26	0.015	0.06	Pass

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

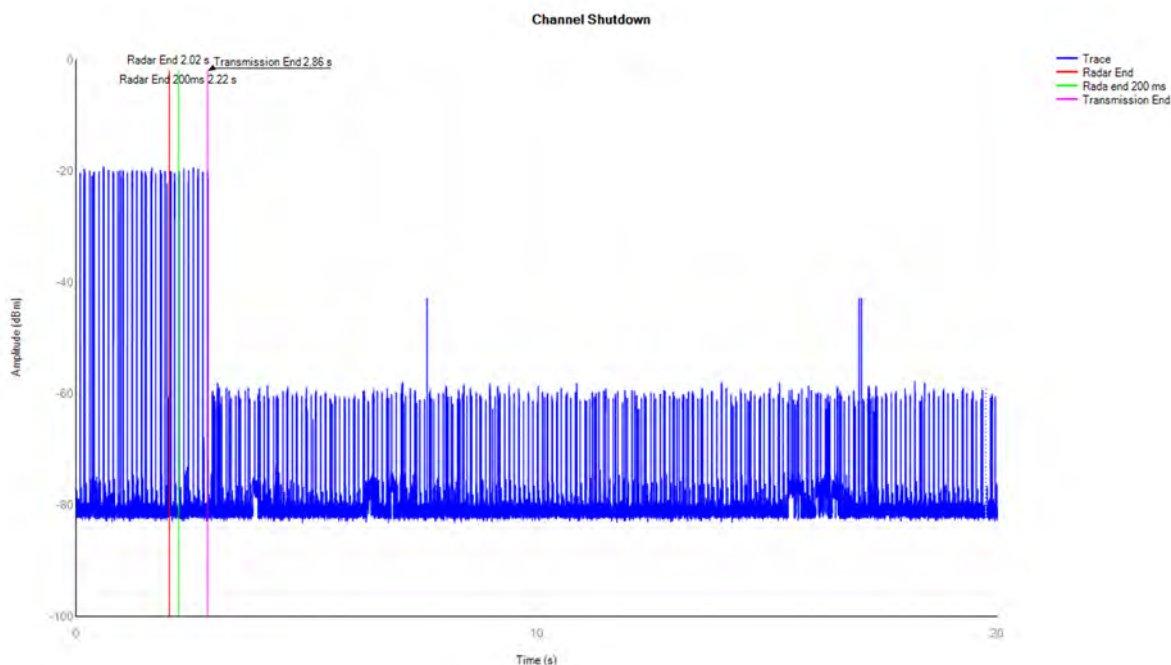
RBW: 3MHz

VBW: 3MHz

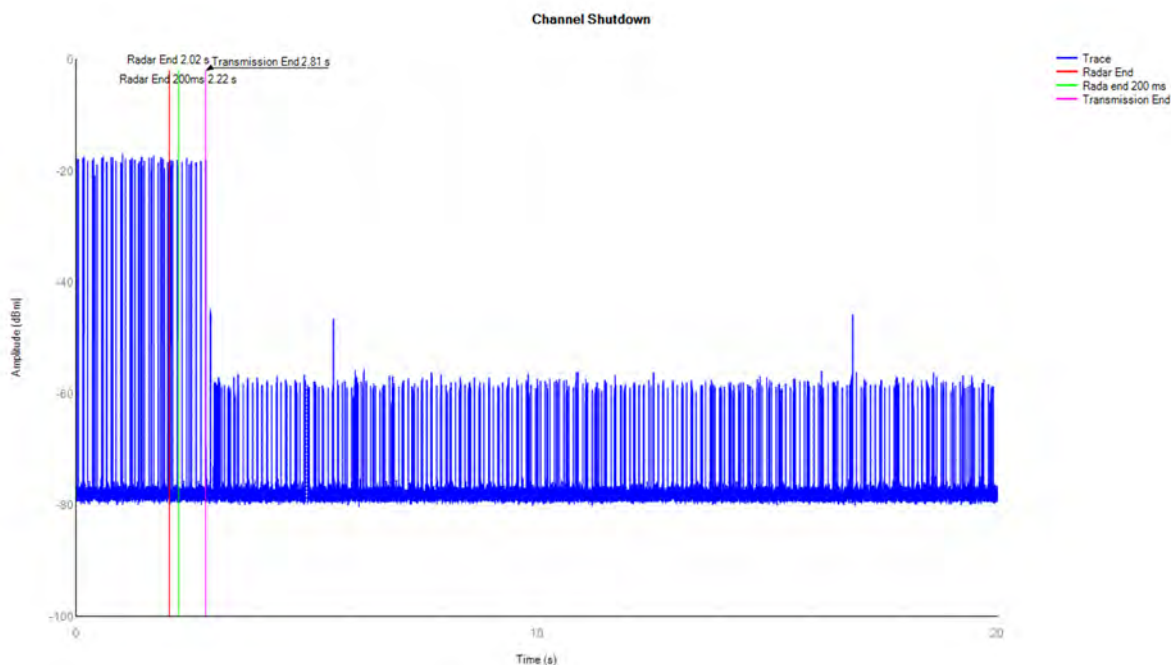
Sweep time: 20s

Test Graphs

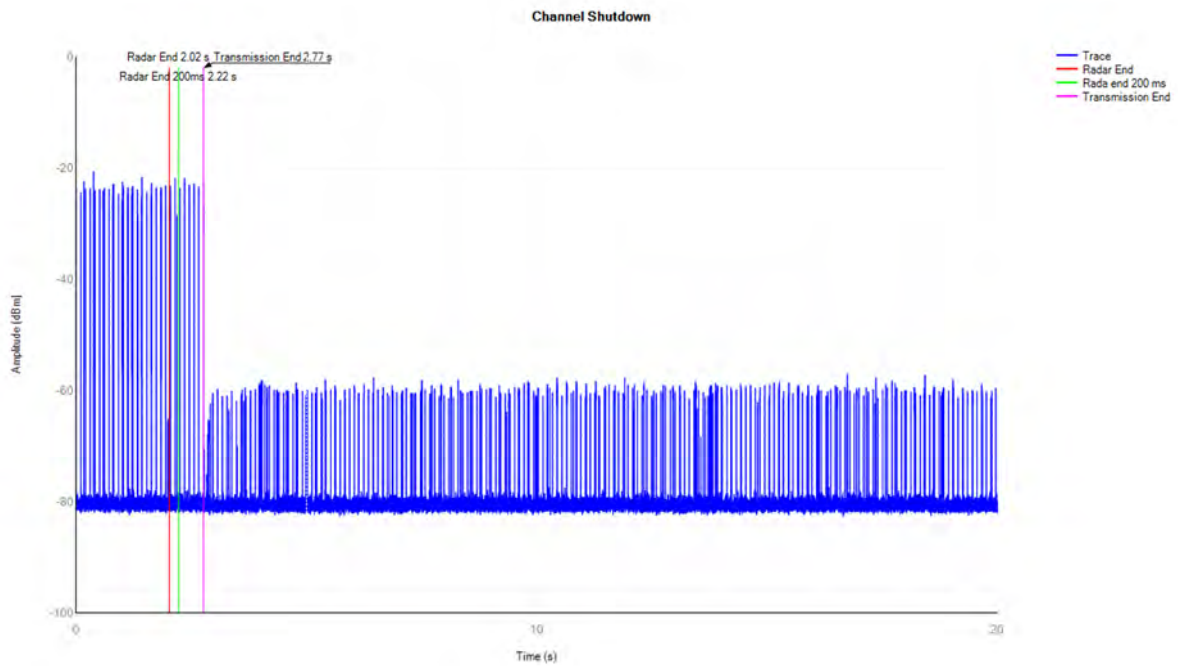
ac20 5260MHz Shutdown



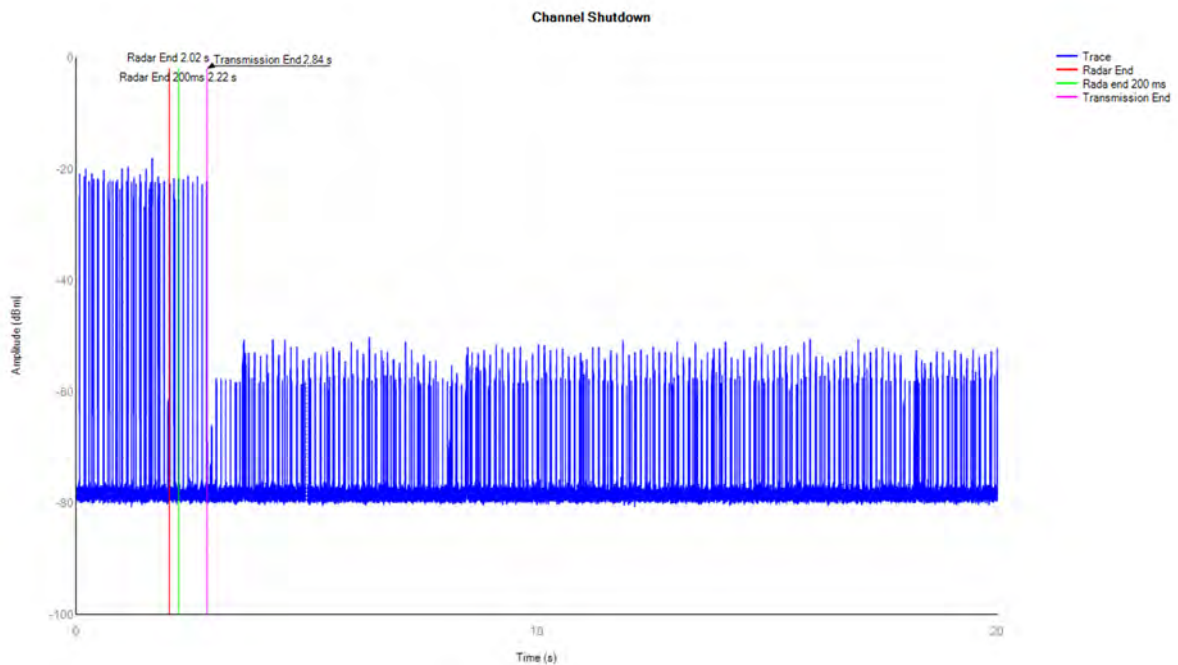
ac20 5500MHz Shutdown



ac80 5290MHz Shutdown



ac80 5530MHz Shutdown



Note: The signal above the noise floor after the radar signal ends is the signal which leaked from other channels that have been moved following the Master device.

**D. Non-Occupancy Period**

Mode	Frequency (MHz)	Result	Verdict
ac20	5260	See test Graph	Pass
ac20	5500	See test Graph	Pass

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

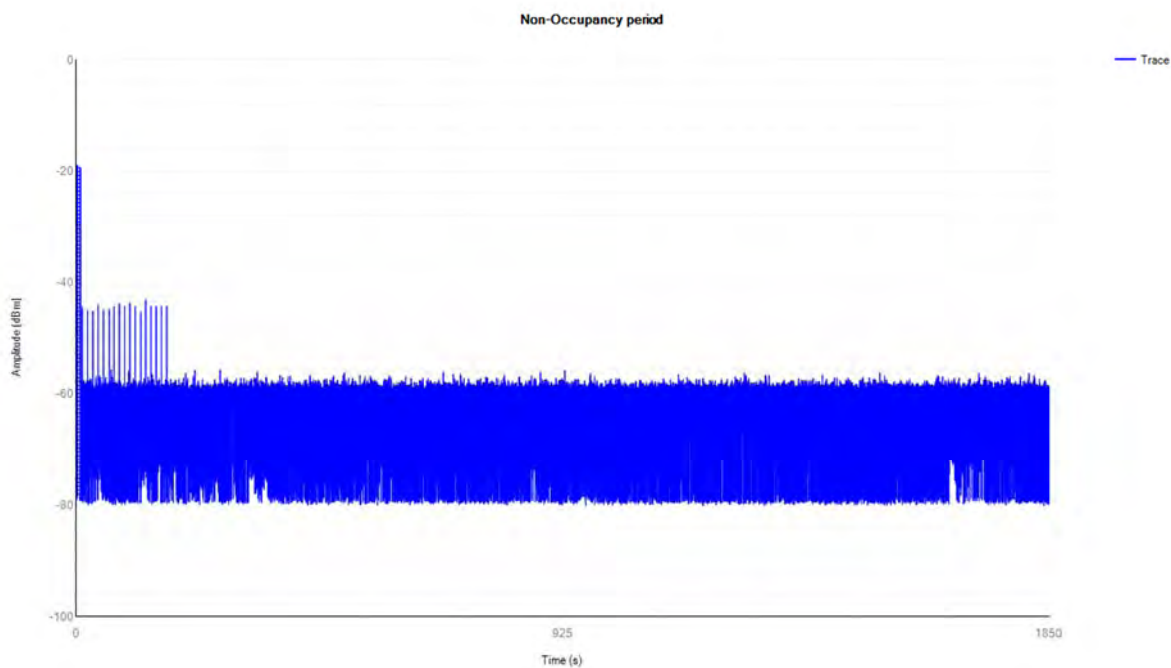
RBW: 3MHz

VBW: 3MHz

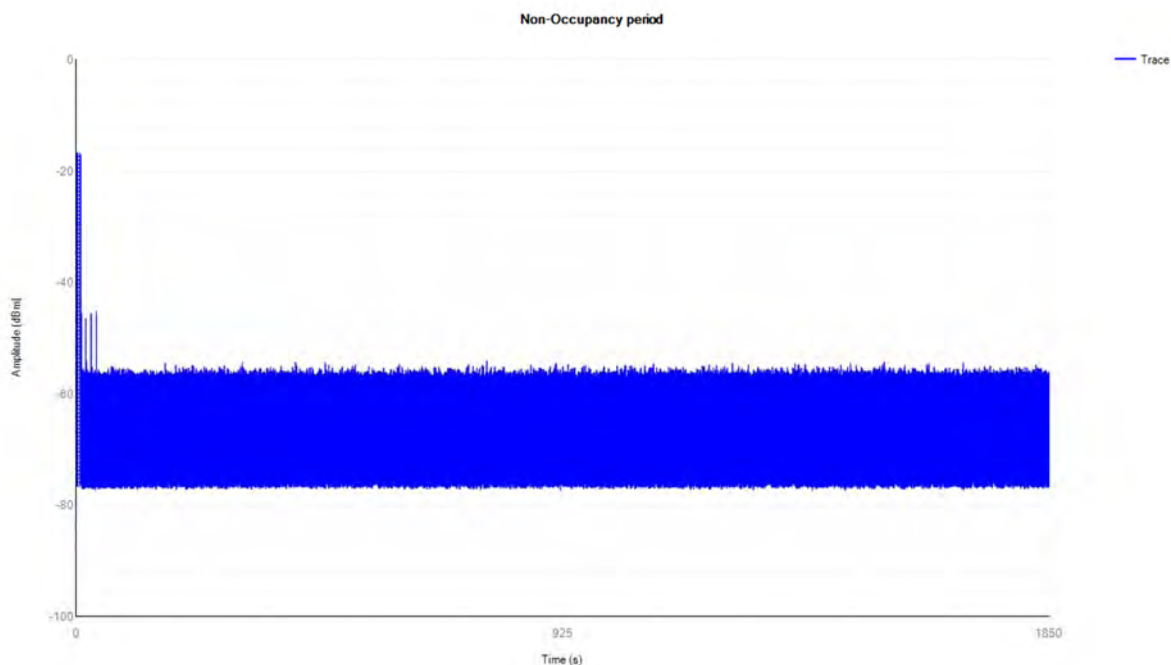
Sweep time: 1850s

Test Graphs

ac20 5260MHz Non-Occupancy



ac20 5500MHz Non-Occupancy





A.7. 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+Adapter+DATA cable+WIFI TX

Test voltage: AC 120V/60Hz

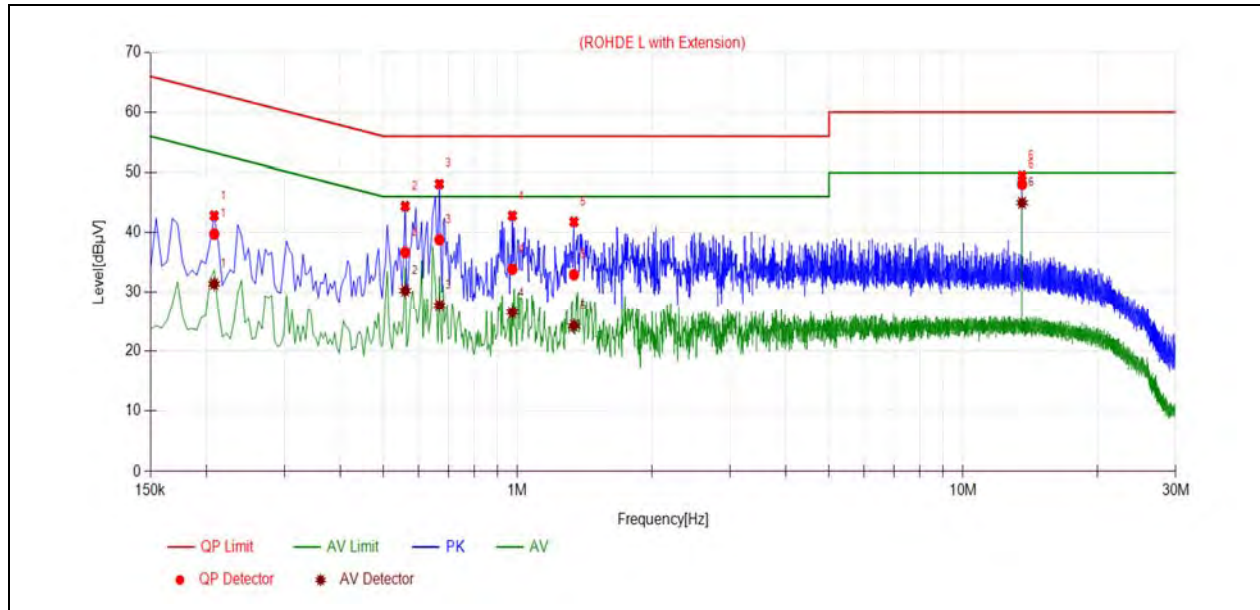
The measurement results are obtained as below:

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

U_R : Receiver Reading

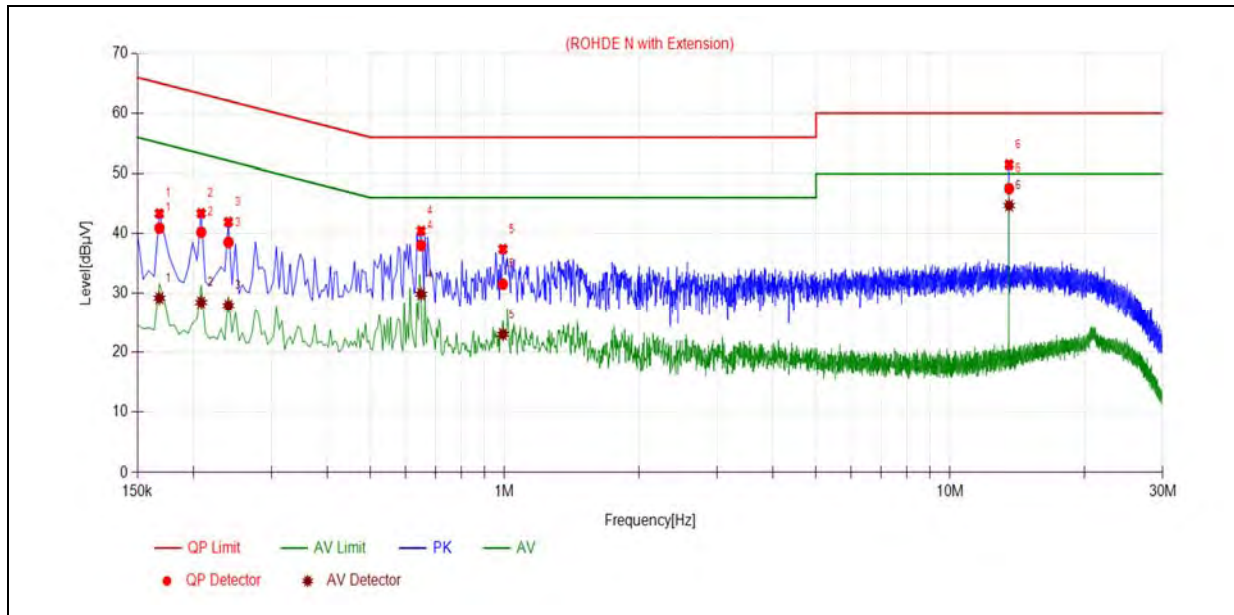
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.2085	39.76	31.42	63.27	53.27	Line	PASS
2	0.5595	36.70	30.28	56.00	46.00		PASS
3	0.6675	38.80	27.80	56.00	46.00		PASS
4	0.9735	33.87	26.58	56.00	46.00		PASS
5	1.3379	32.97	24.28	56.00	46.00		PASS
6	13.5603	48.07	44.99	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1680	40.92	29.21	65.06	55.06	Neutral	PASS
2	0.2085	40.23	28.49	63.27	53.27		PASS
3	0.2400	38.54	27.97	62.10	52.10		PASS
4	0.6495	38.02	29.88	56.00	46.00		PASS
5	0.9915	31.55	23.02	56.00	46.00		PASS
6	13.5605	47.52	44.71	60.00	50.00		PASS

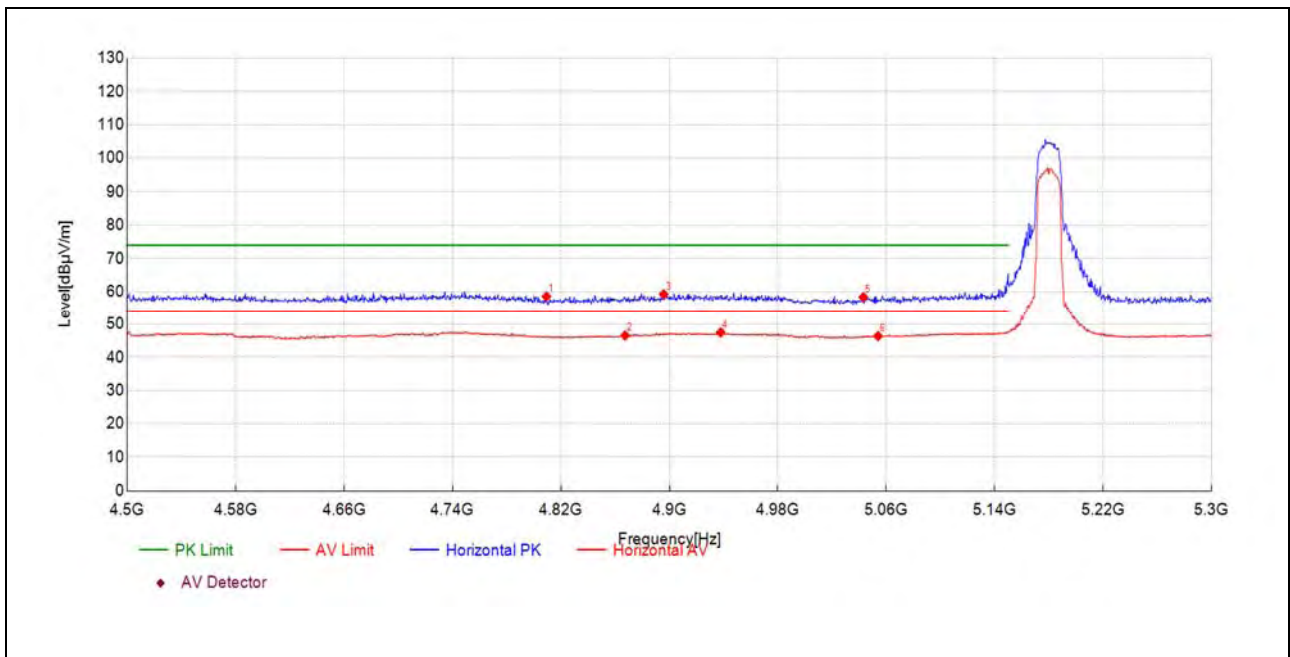
A.8. Restricted Frequency Bands

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.

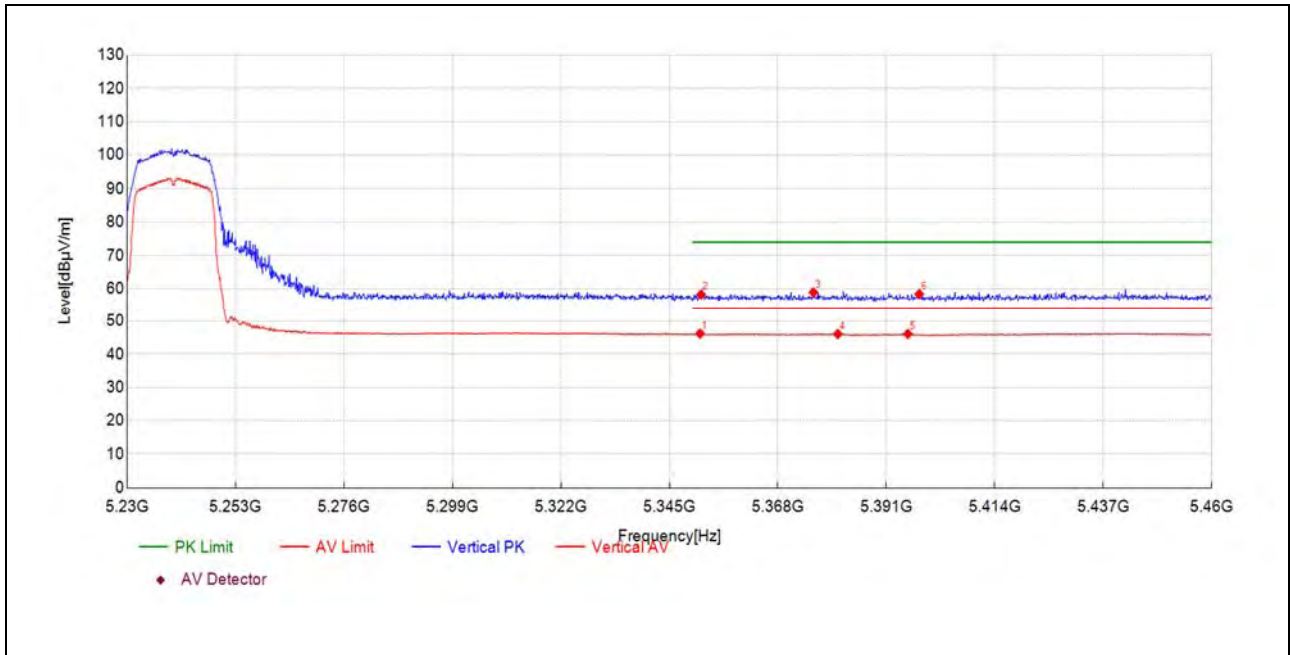
802.11a Mode

Plot for Channel 36



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4809.35	39.0	58.55	19.510	74.00	15.45	150	3	PK	PASS
4867.38	26.6	46.53	19.970	54.00	7.47	150	63	AV	PASS
4895.80	39.0	59.22	20.230	74.00	14.78	150	146	PK	PASS
4937.82	27.5	47.46	19.940	54.00	6.54	150	176	AV	PASS
5043.07	38.2	58.33	20.150	74.00	15.67	150	63	PK	PASS
5053.88	26.1	46.37	20.230	54.00	7.63	150	305	AV	PASS

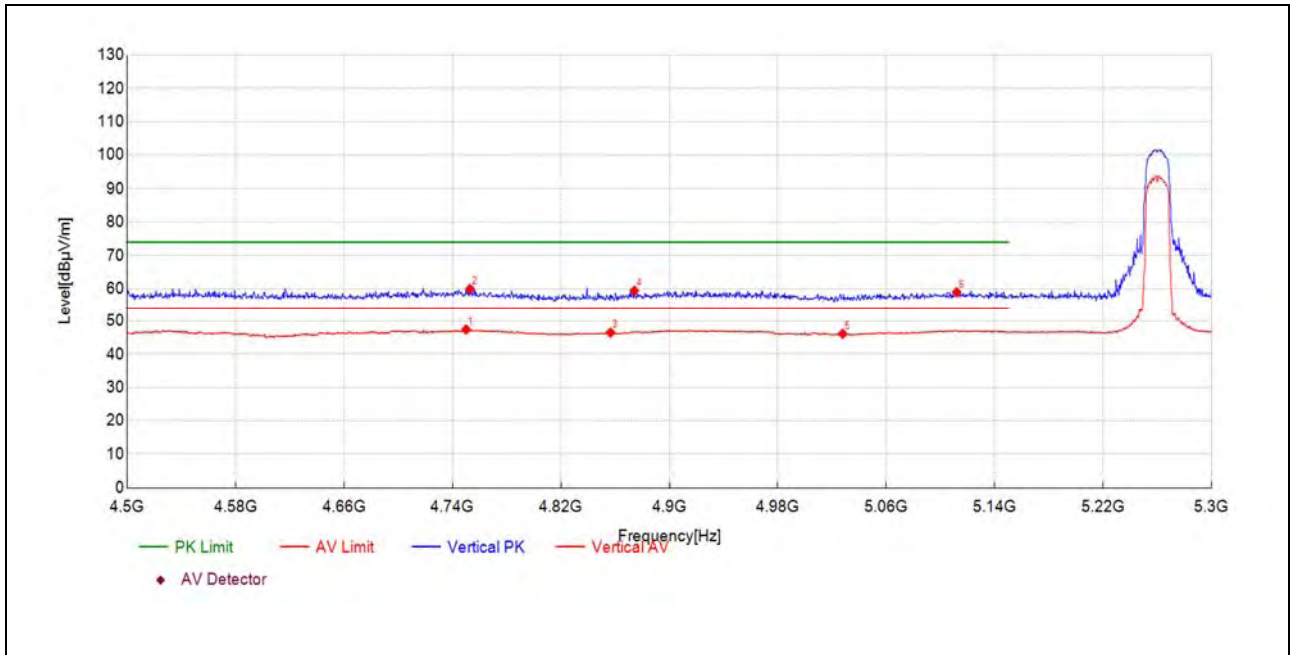
Plot for Channel 48



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.50	26.3	46.20	19.940	54.00	7.80	150	137	AV	PASS
5351.73	38.3	58.22	19.940	74.00	15.78	150	82	PK	PASS
5375.55	39.0	58.86	19.880	74.00	15.14	150	333	PK	PASS
5380.73	26.2	46.08	19.870	54.00	7.92	150	348	AV	PASS
5395.57	26.2	46.08	19.840	54.00	7.92	150	340	AV	PASS
5397.98	38.6	58.38	19.830	74.00	15.62	150	182	PK	PASS

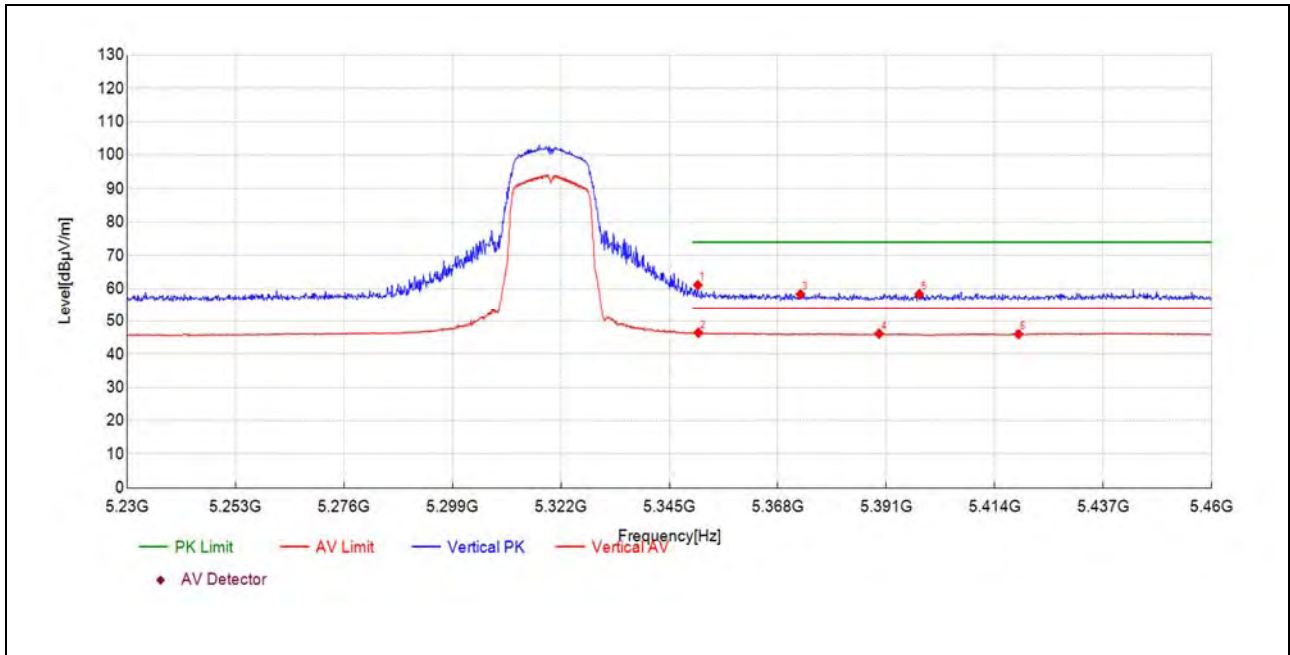


Plot for Channel 52



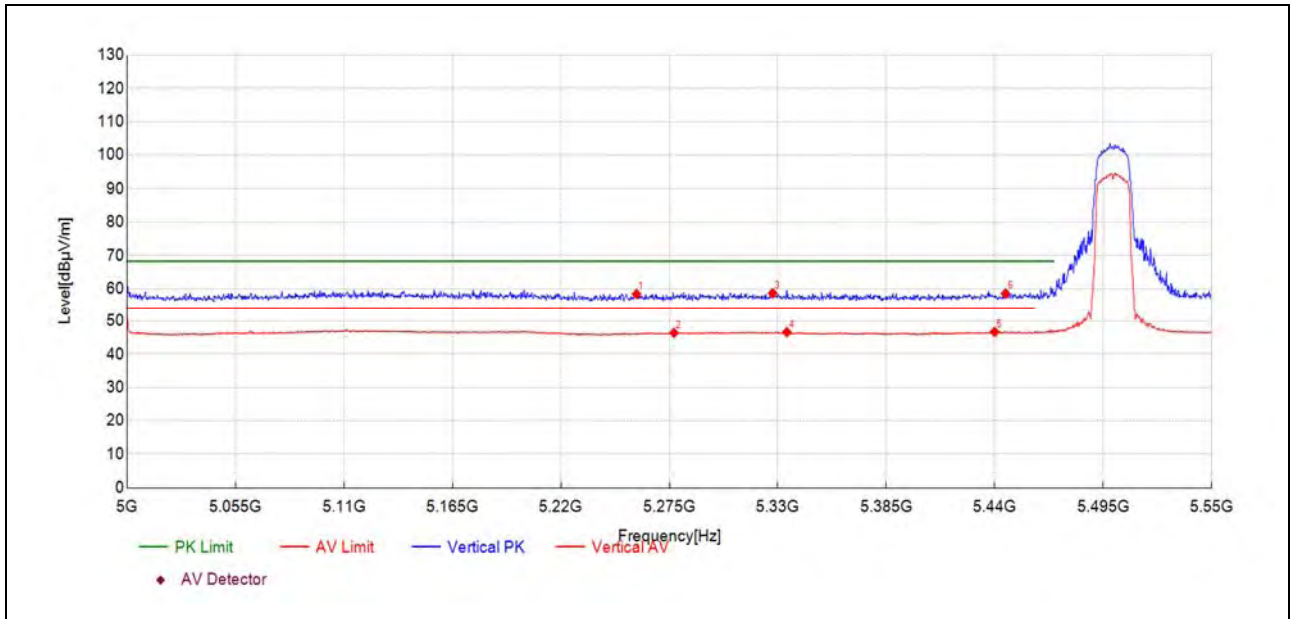
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4750.13	27.1	47.43	20.320	54.00	6.57	150	249	AV	PASS
4752.93	39.6	59.91	20.270	74.00	14.09	150	180	PK	PASS
4856.58	26.6	46.51	19.870	54.00	7.49	150	334	AV	PASS
4874.19	39.4	59.39	20.030	74.00	14.61	150	358	PK	PASS
5027.86	26.1	46.14	20.060	54.00	7.86	150	151	AV	PASS
5111.91	38.4	58.91	20.480	74.00	15.09	150	360	PK	PASS

Plot for Channel 64



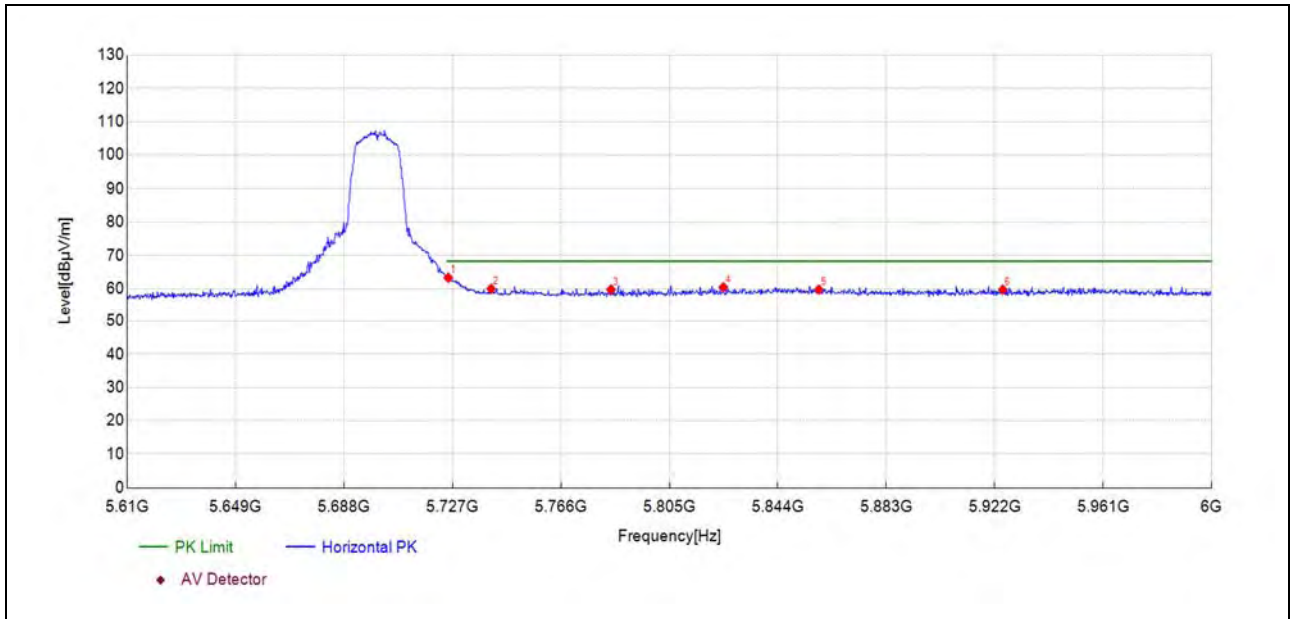
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.04	41.1	61.08	19.940	74.00	12.92	150	52	PK	PASS
5351.16	26.5	46.46	19.940	54.00	7.54	150	128	AV	PASS
5372.79	38.4	58.30	19.890	74.00	15.70	150	6	PK	PASS
5389.47	26.3	46.16	19.850	54.00	7.84	150	335	AV	PASS
5397.98	38.6	58.38	19.830	74.00	15.62	150	356	PK	PASS
5419.04	26.0	46.05	20.080	54.00	7.95	150	0	AV	PASS

Plot for Channel 100



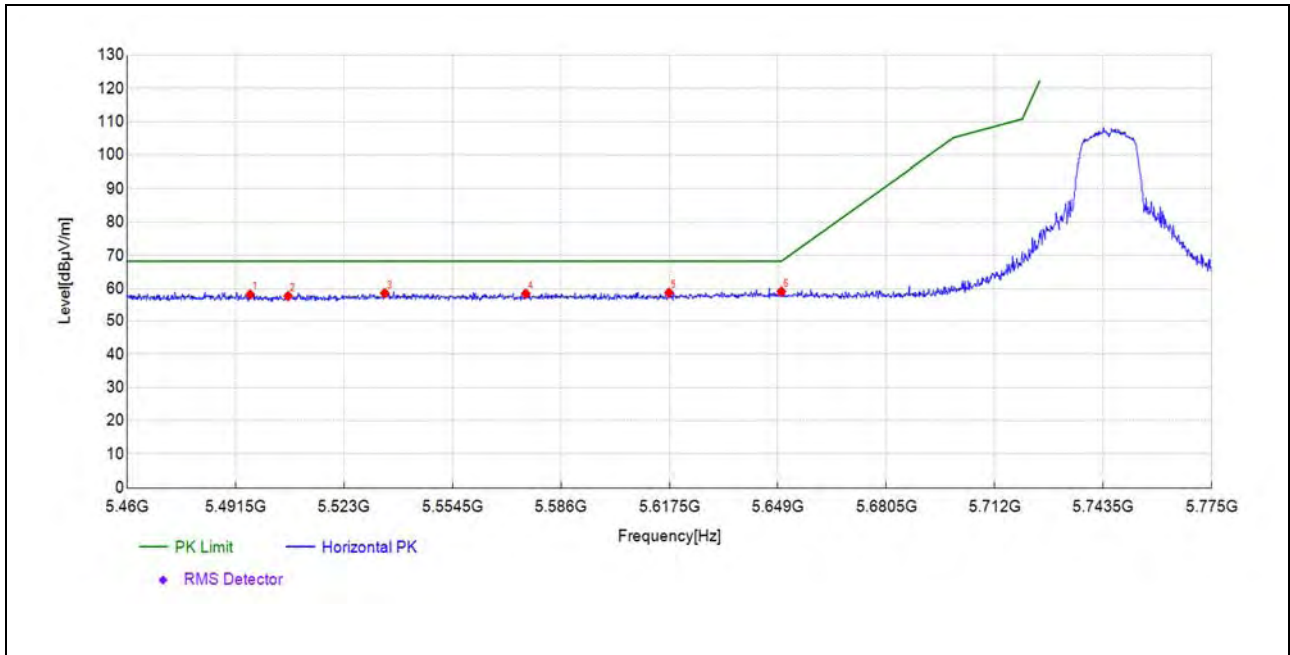
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5258.35	38.5	58.38	19.910	68.23	9.85	150	230	PK	PASS
5277.34	26.4	46.42	20.060	54.00	7.58	150	214	AV	PASS
5327.41	38.6	58.63	20.080	68.23	9.60	150	115	PK	PASS
5334.57	26.6	46.63	20.030	54.00	7.37	150	14	AV	PASS
5439.94	26.4	46.71	20.340	54.00	7.29	150	8	AV	PASS
5445.45	38.1	58.53	20.420	68.23	9.70	150	169	PK	PASS

Plot for Channel 140



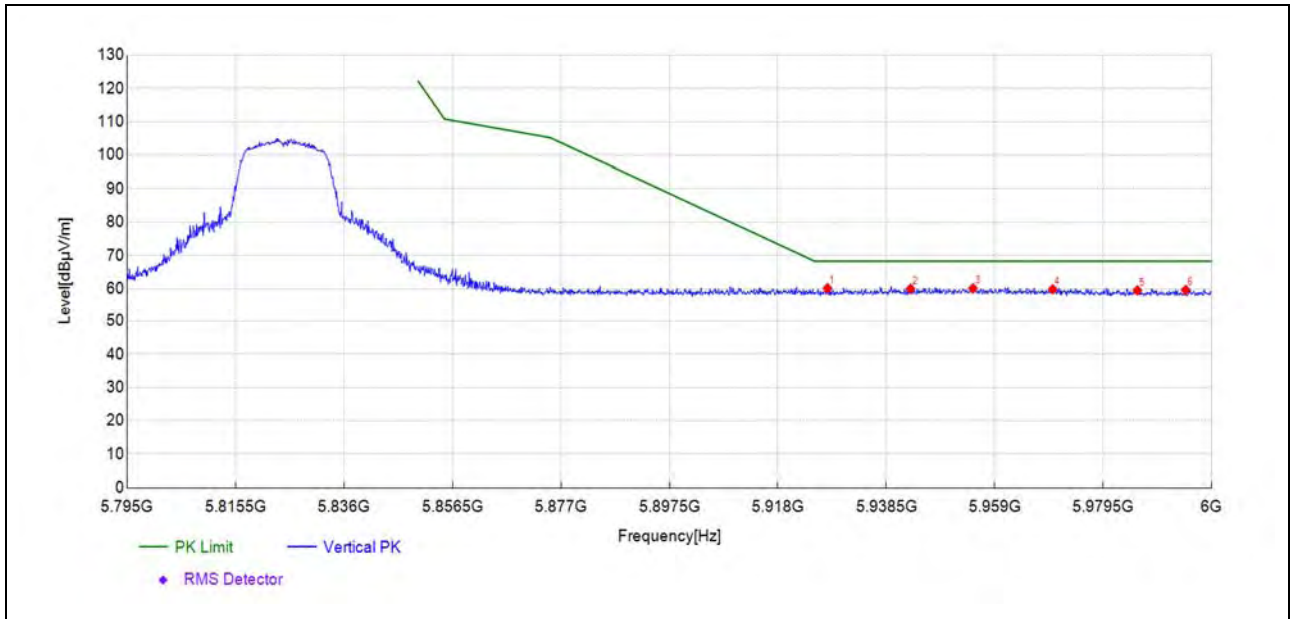
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5725.50	42.0	63.28	21.270	68.23	4.95	150	157	PK	PASS
5740.91	38.5	59.97	21.500	68.23	8.26	150	313	PK	PASS
5784.03	38.1	59.74	21.680	68.23	8.49	150	0	PK	PASS
5824.41	38.4	60.42	22.070	68.23	7.81	150	1	PK	PASS
5858.75	37.4	59.74	22.330	68.23	8.49	150	320	PK	PASS
5924.89	37.8	59.70	21.920	68.23	8.53	150	115	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
5495.77	38.0	58.23	20.240	68.23	10.00	150	360	PK	PASS
5506.80	37.6	57.78	20.210	68.23	10.45	150	358	PK	PASS
5534.85	38.4	58.64	20.250	68.23	9.59	150	299	PK	PASS
5575.82	38.3	58.52	20.200	68.23	9.71	150	74	PK	PASS
5617.42	38.4	58.79	20.430	68.23	9.44	150	32	PK	PASS
5650.04	38.1	59.14	21.010	68.26	9.12	150	58	PK	PASS

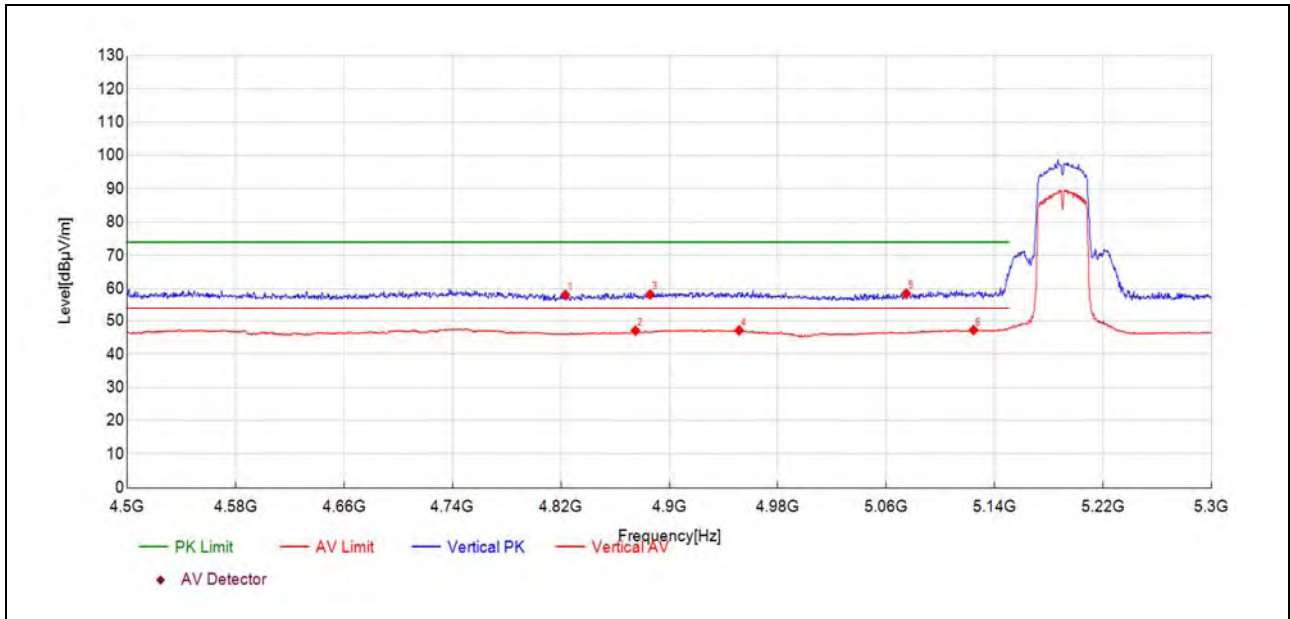
Plot for Channel 165



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5927.39	38.2	60.11	21.930	68.23	8.12	150	147	PK	PASS
5943.08	37.9	59.97	22.070	68.23	8.26	150	273	PK	PASS
5954.88	38.0	60.08	22.080	68.23	8.15	150	34	PK	PASS
5969.95	37.9	59.83	21.960	68.23	8.40	150	26	PK	PASS
5985.95	37.6	59.47	21.830	68.23	8.76	150	9	PK	PASS
5995.08	37.9	59.61	21.760	68.23	8.62	150	0	PK	PASS

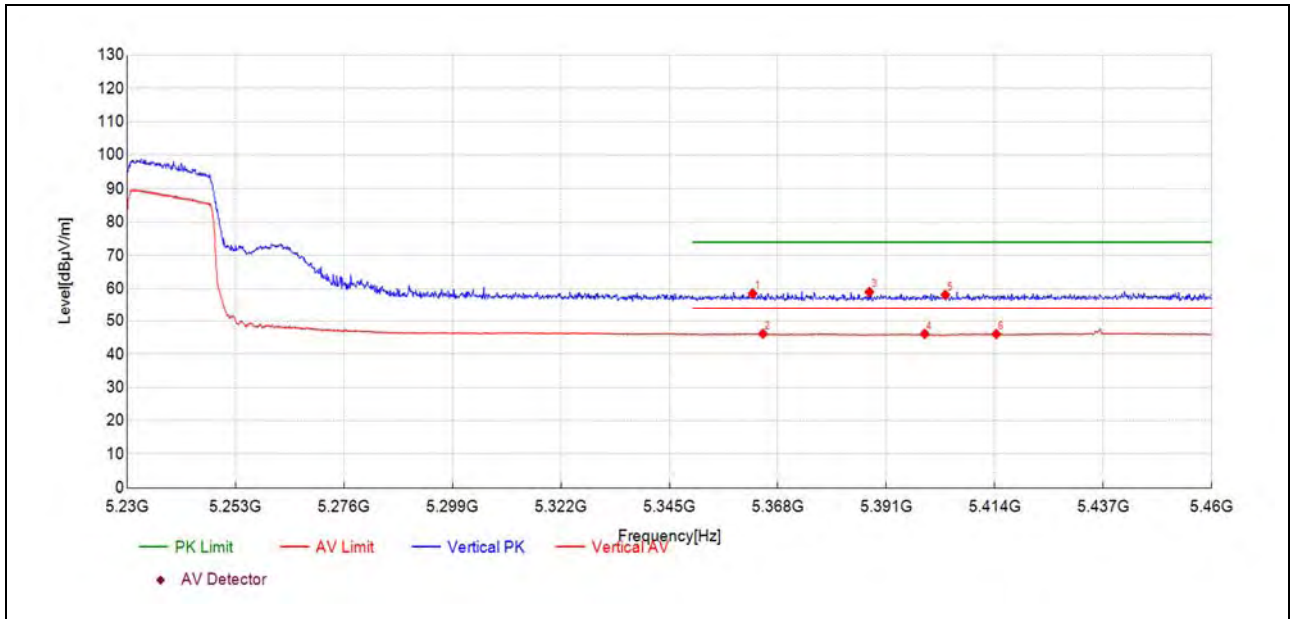
**802.11n (HT40) Mode**

Plot for Channel 38



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4823.36	38.5	58.13	19.620	74.00	15.87	150	0	PK	PASS
4874.99	27.0	47.04	20.040	54.00	6.96	150	161	AV	PASS
4885.79	38.1	58.23	20.140	74.00	15.77	150	9	PK	PASS
4951.43	27.3	47.14	19.820	54.00	6.86	150	251	AV	PASS
5074.69	38.1	58.49	20.360	74.00	15.51	150	190	PK	PASS
5124.31	26.8	47.22	20.420	54.00	6.78	150	251	AV	PASS

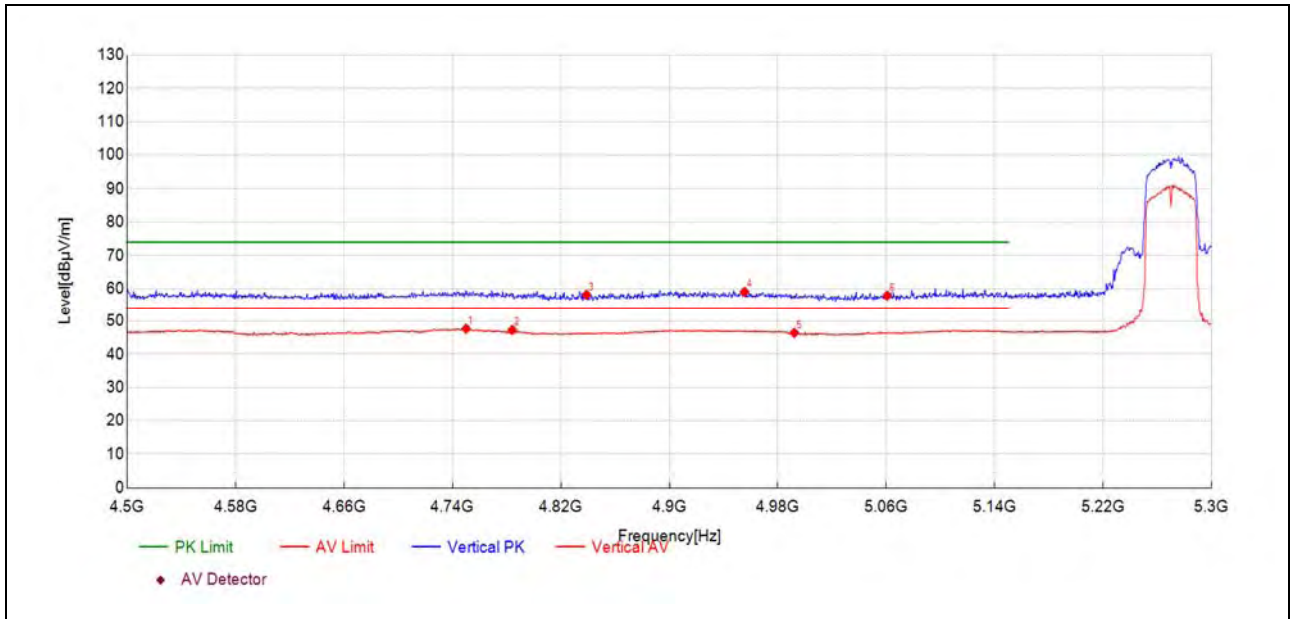
Plot for Channel 46



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5362.66	38.6	58.55	19.910	74.00	15.45	150	200	PK	PASS
5364.85	26.2	46.15	19.910	54.00	7.85	150	321	AV	PASS
5387.40	39.1	58.99	19.860	74.00	15.01	150	200	PK	PASS
5399.13	26.3	46.12	19.830	54.00	7.88	150	10	AV	PASS
5403.51	38.3	58.15	19.870	74.00	15.85	150	275	PK	PASS
5414.32	26.1	46.06	20.010	54.00	7.94	150	307	AV	PASS

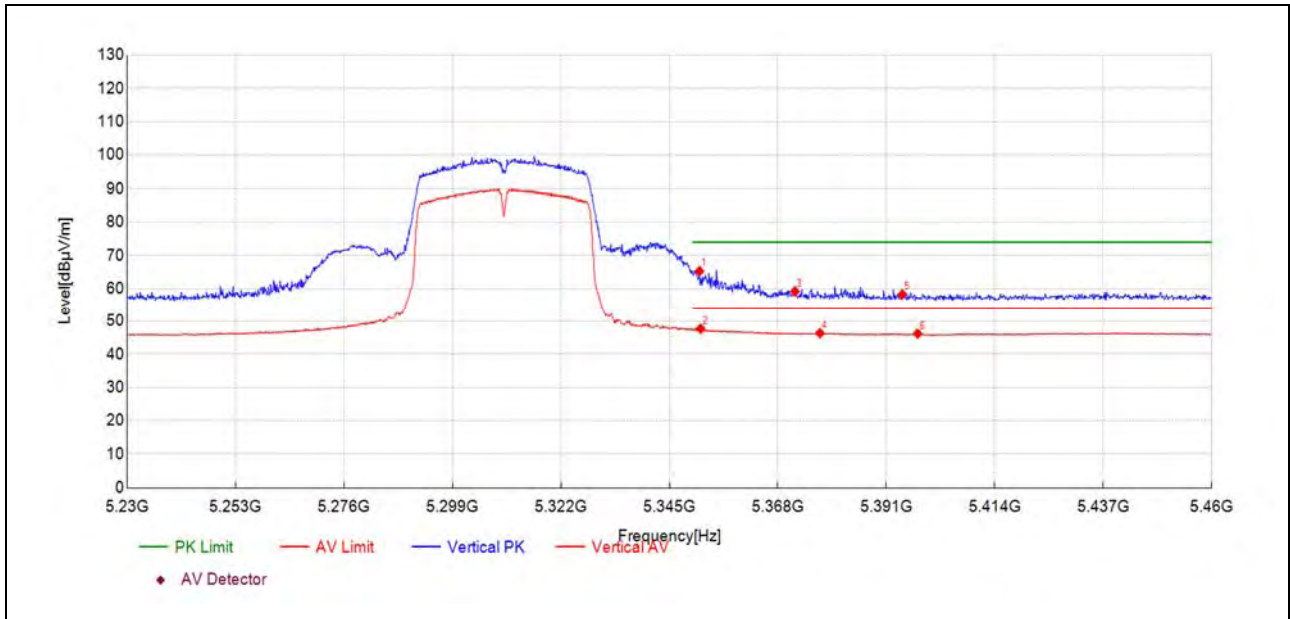


Plot for Channel 54



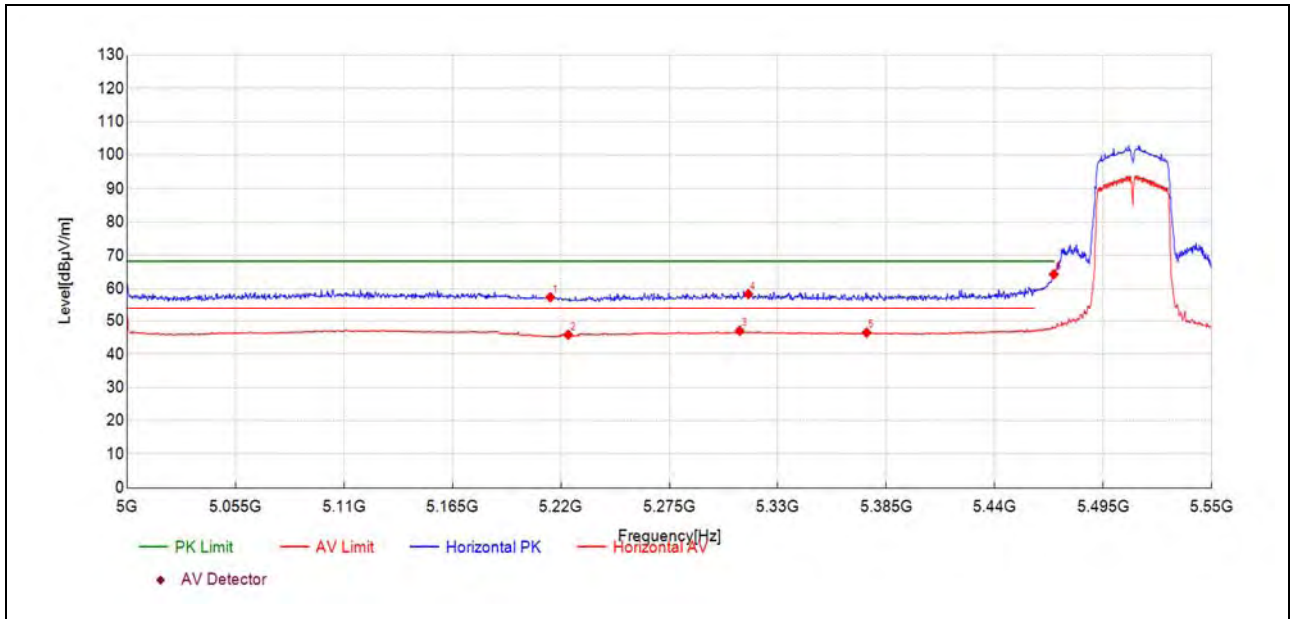
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4750.13	27.4	47.67	20.320	54.00	6.33	150	328	AV	PASS
4784.14	27.6	47.30	19.730	54.00	6.70	150	299	AV	PASS
4838.97	38.4	58.15	19.730	74.00	15.85	150	360	PK	PASS
4955.43	39.2	59.02	19.830	74.00	14.98	150	115	PK	PASS
4992.25	26.6	46.44	19.870	54.00	7.56	150	184	AV	PASS
5060.68	37.6	57.89	20.270	74.00	16.11	150	62	PK	PASS

Plot for Channel 62



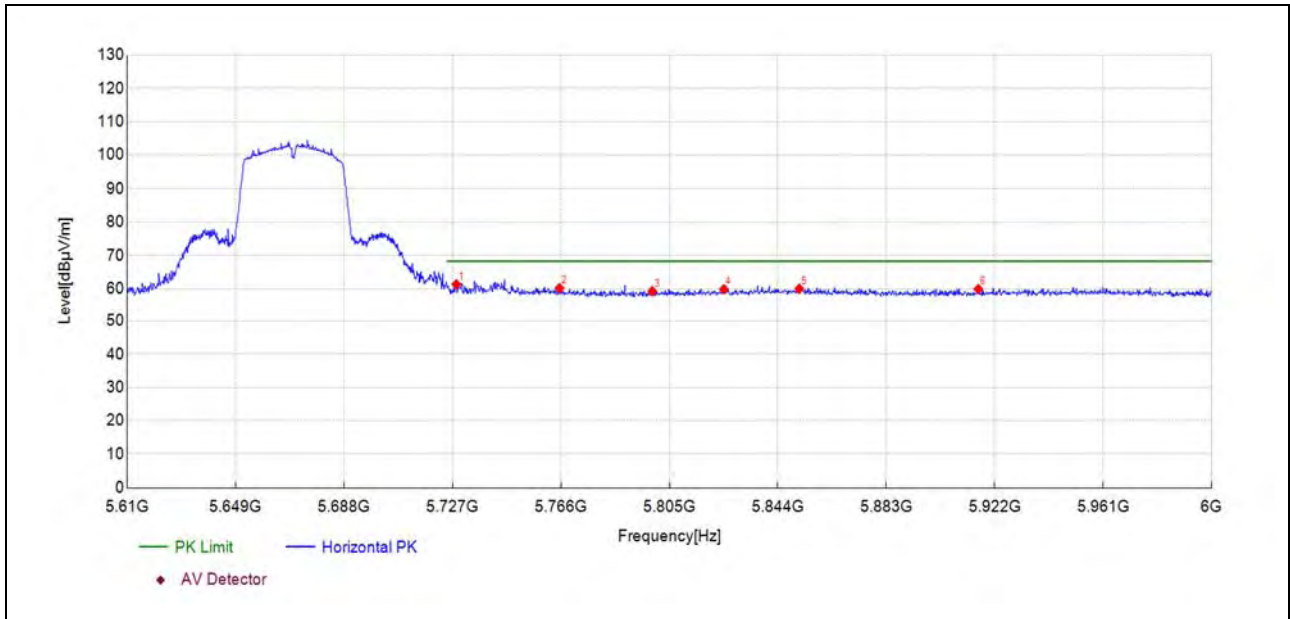
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.39	45.3	65.28	19.940	74.00	8.72	150	53	PK	PASS
5351.62	27.7	47.66	19.940	54.00	6.34	150	53	AV	PASS
5371.64	39.3	59.16	19.900	74.00	14.84	150	60	PK	PASS
5376.93	26.5	46.33	19.880	54.00	7.67	150	343	AV	PASS
5394.42	38.4	58.28	19.840	74.00	15.72	150	144	PK	PASS
5397.64	26.4	46.19	19.830	54.00	7.81	150	311	AV	PASS

Plot for Channel 102



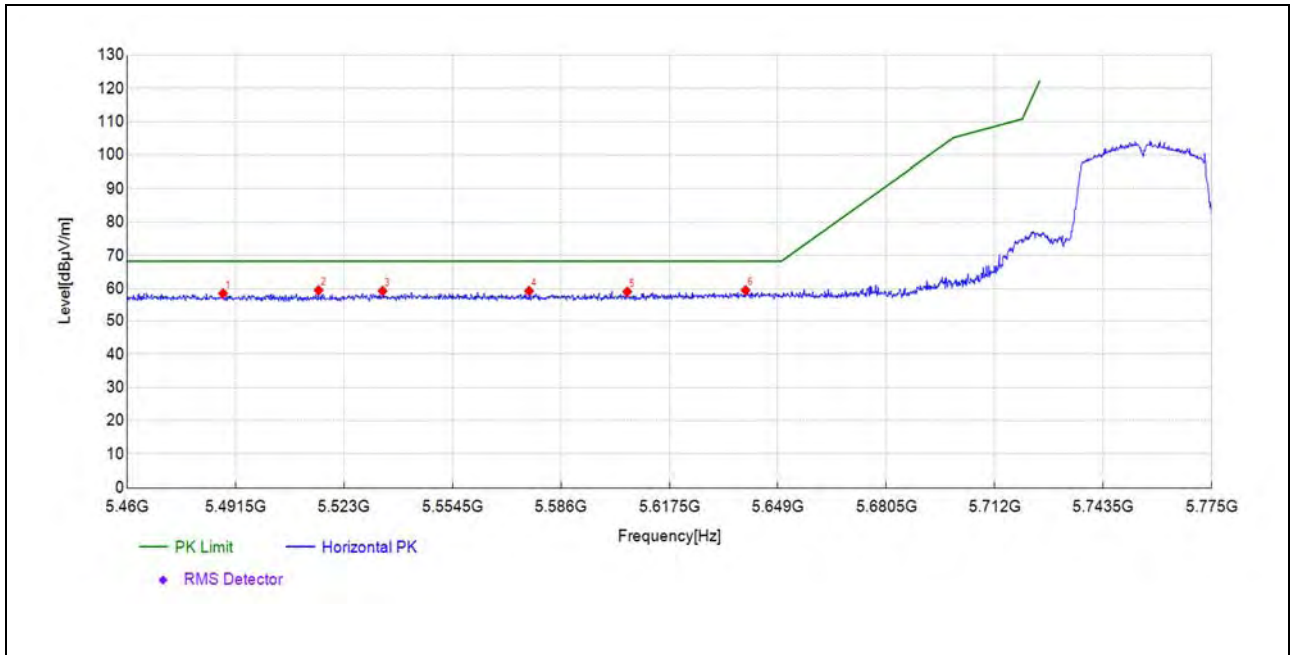
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5214.61	37.2	57.41	20.240	68.23	10.82	150	2	PK	PASS
5223.69	25.7	45.83	20.150	54.00	8.17	150	0	AV	PASS
5310.63	26.8	47.03	20.190	54.00	6.97	150	181	AV	PASS
5315.03	38.2	58.39	20.160	68.23	9.84	150	310	PK	PASS
5375.01	26.6	46.49	19.880	54.00	7.51	150	325	AV	PASS
5469.93	44.0	64.32	20.370	68.23	3.91	150	150	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
5728.42	40.0	61.30	21.310	68.23	6.93	150	167	PK	PASS
5765.49	38.5	60.15	21.660	68.23	8.08	150	10	PK	PASS
5798.85	37.5	59.23	21.700	68.23	9.00	150	167	PK	PASS
5824.61	37.8	59.83	22.070	68.23	8.40	150	293	PK	PASS
5851.73	37.6	60.00	22.440	68.23	8.23	150	16	PK	PASS
5916.11	38.0	59.88	21.850	68.23	8.35	150	124	PK	PASS

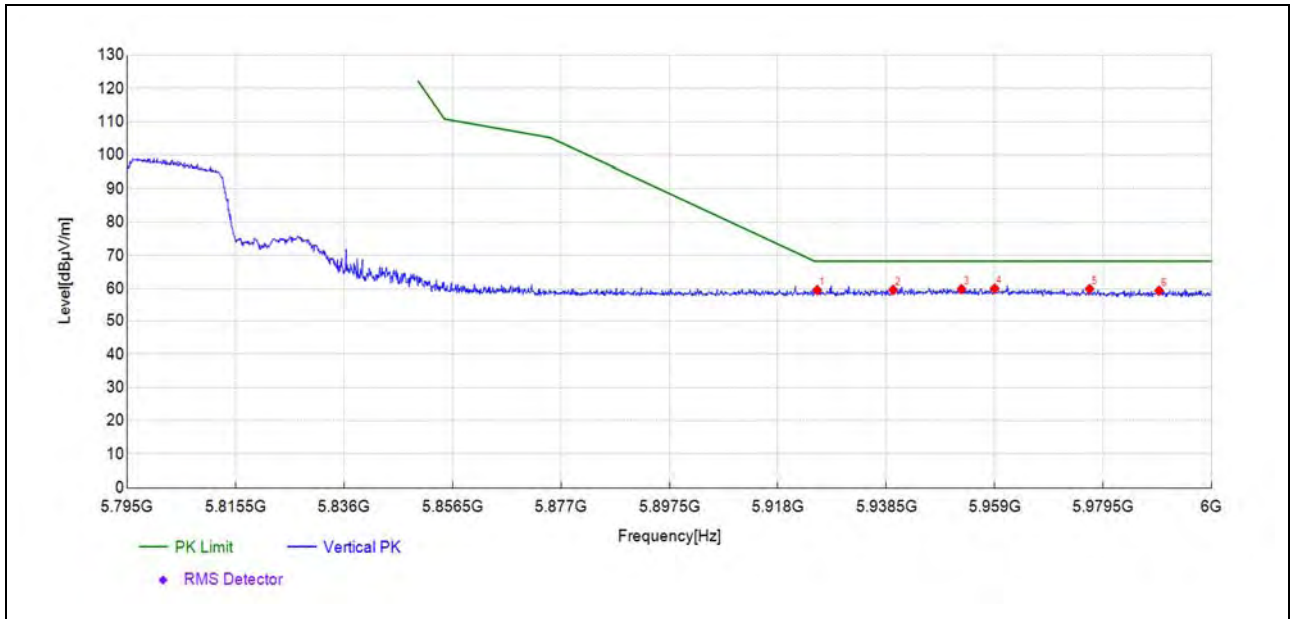
Plot for Channel 151



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5487.89	38.3	58.56	20.270	68.23	9.67	150	96	PK	PASS
5515.63	39.3	59.51	20.230	68.23	8.72	150	260	PK	PASS
5534.22	39.0	59.28	20.250	68.23	8.95	150	5	PK	PASS
5576.77	39.1	59.30	20.200	68.23	8.93	150	91	PK	PASS
5605.29	38.8	59.06	20.220	68.23	9.17	150	3	PK	PASS
5639.64	38.7	59.50	20.820	68.23	8.73	150	169	PK	PASS



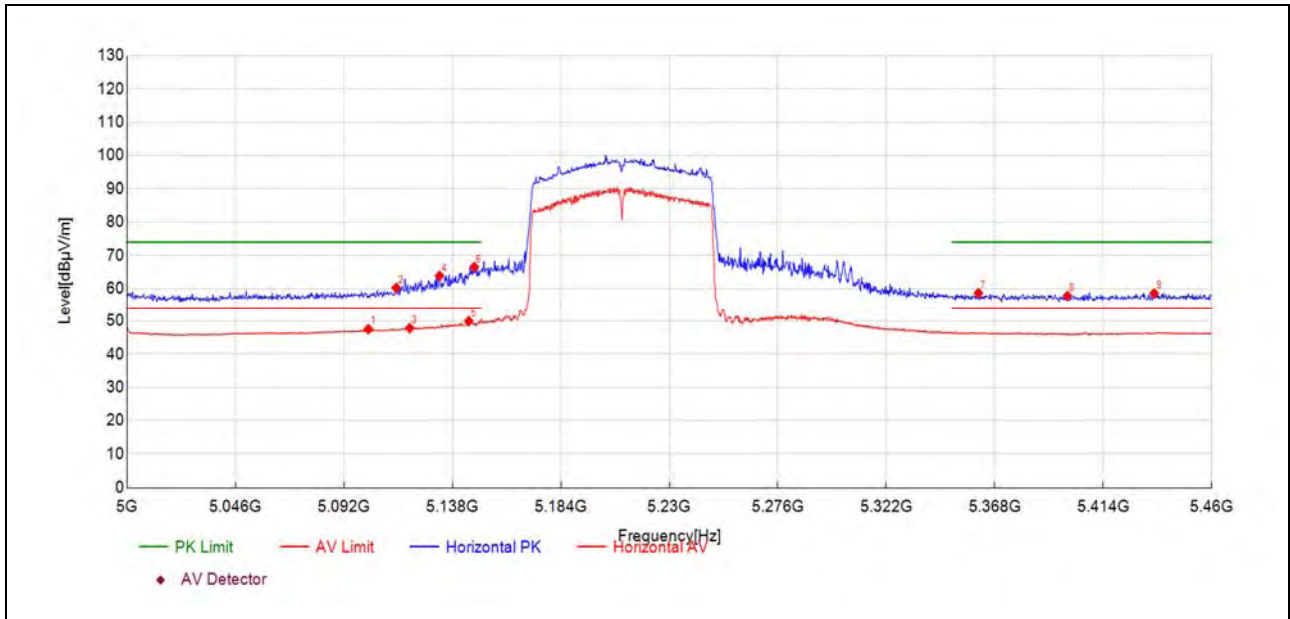
Plot for Channel 159



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5925.45	37.6	59.56	21.920	68.23	8.67	150	326	PK	PASS
5939.80	37.6	59.62	22.040	68.23	8.61	150	306	PK	PASS
5952.72	37.8	59.86	22.100	68.23	8.37	150	360	PK	PASS
5958.98	38.0	60.06	22.050	68.23	8.17	150	257	PK	PASS
5976.93	38.0	59.91	21.900	68.23	8.32	150	262	PK	PASS
5990.05	37.6	59.38	21.800	68.23	8.85	150	16	PK	PASS

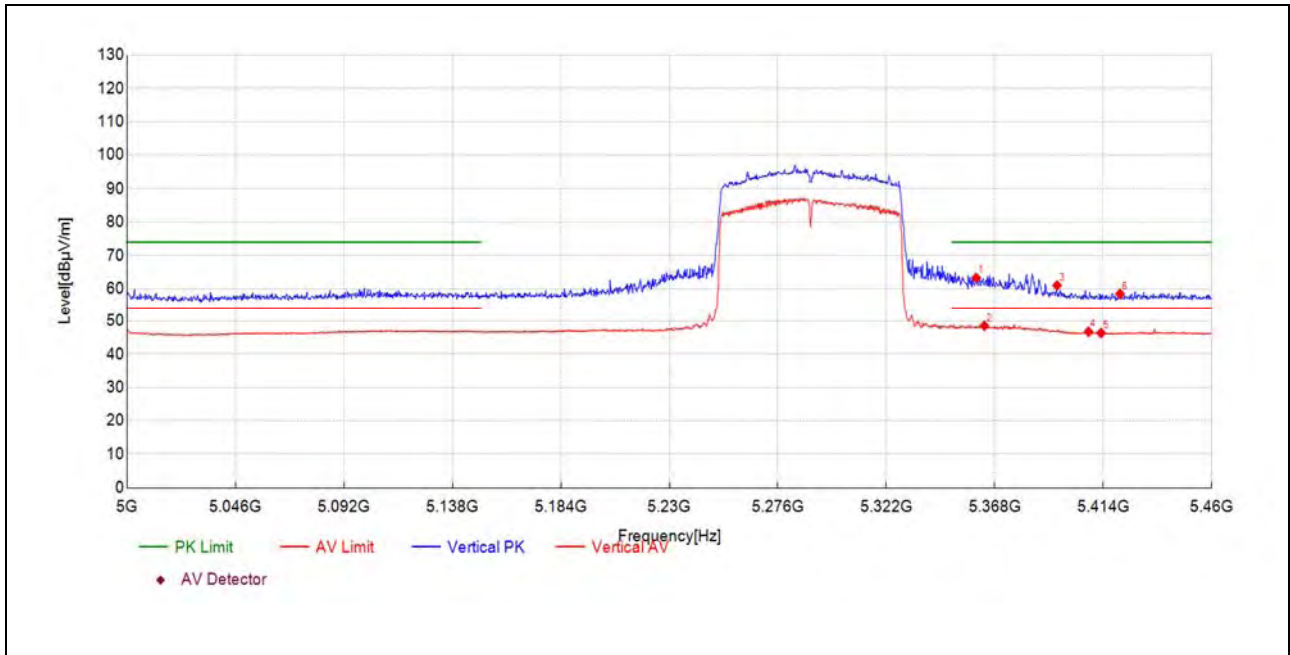
**802.11ac (VHT80) Mode**

Plot for Channel 42



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5102.40	27.0	47.53	20.520	54.00	6.47	150	357	AV	PASS
5114.14	39.8	60.23	20.460	74.00	13.77	150	161	PK	PASS
5119.89	27.4	47.81	20.440	54.00	6.19	150	32	AV	PASS
5132.55	43.5	63.86	20.380	74.00	10.14	150	1	PK	PASS
5144.97	29.6	49.94	20.340	54.00	4.06	150	32	AV	PASS
5147.27	46.2	66.49	20.340	74.00	7.51	150	343	PK	PASS
5361.05	38.7	58.62	19.920	74.00	15.38	150	47	PK	PASS
5398.79	37.9	57.77	19.830	74.00	16.23	150	267	PK	PASS
5435.61	38.3	58.57	20.290	74.00	15.43	150	131	PK	PASS

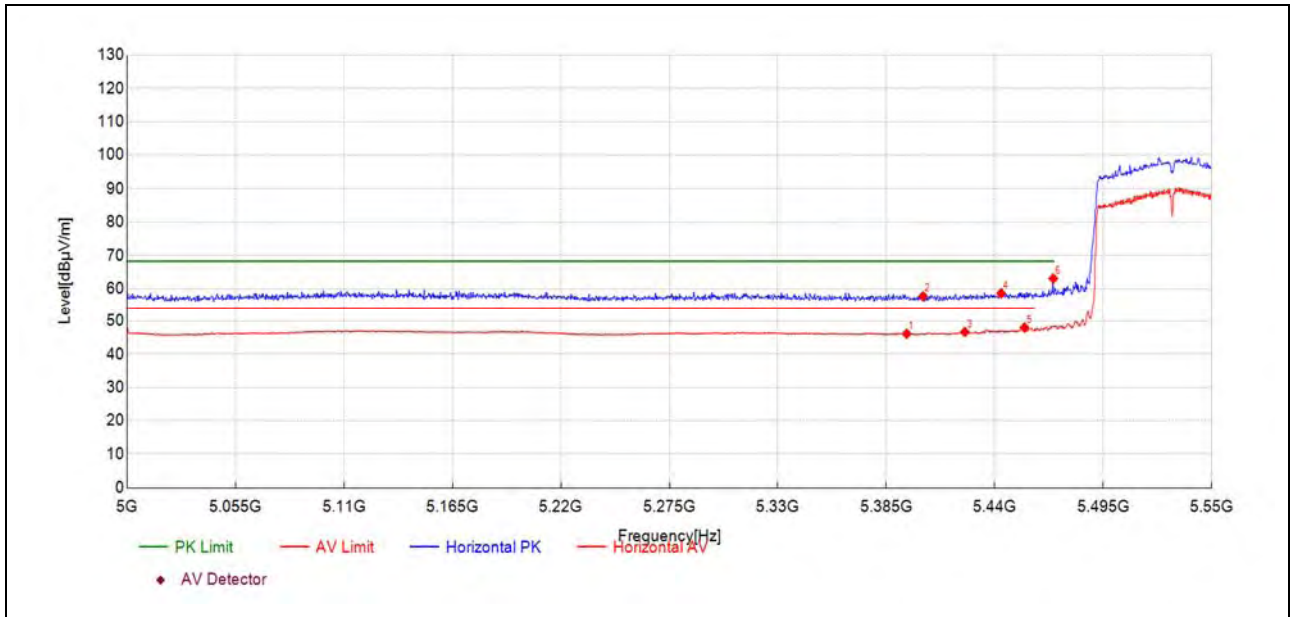
Plot for Channel 58



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5360.13	43.3	63.24	19.920	74.00	10.76	150	58	PK	PASS
5363.58	28.6	48.53	19.910	54.00	5.47	150	338	AV	PASS
5394.42	41.1	60.96	19.840	74.00	13.04	150	58	PK	PASS
5407.76	26.8	46.75	19.930	54.00	7.25	150	127	AV	PASS
5413.06	26.4	46.37	20.000	54.00	7.63	150	345	AV	PASS
5421.11	38.4	58.45	20.100	74.00	15.55	150	360	PK	PASS



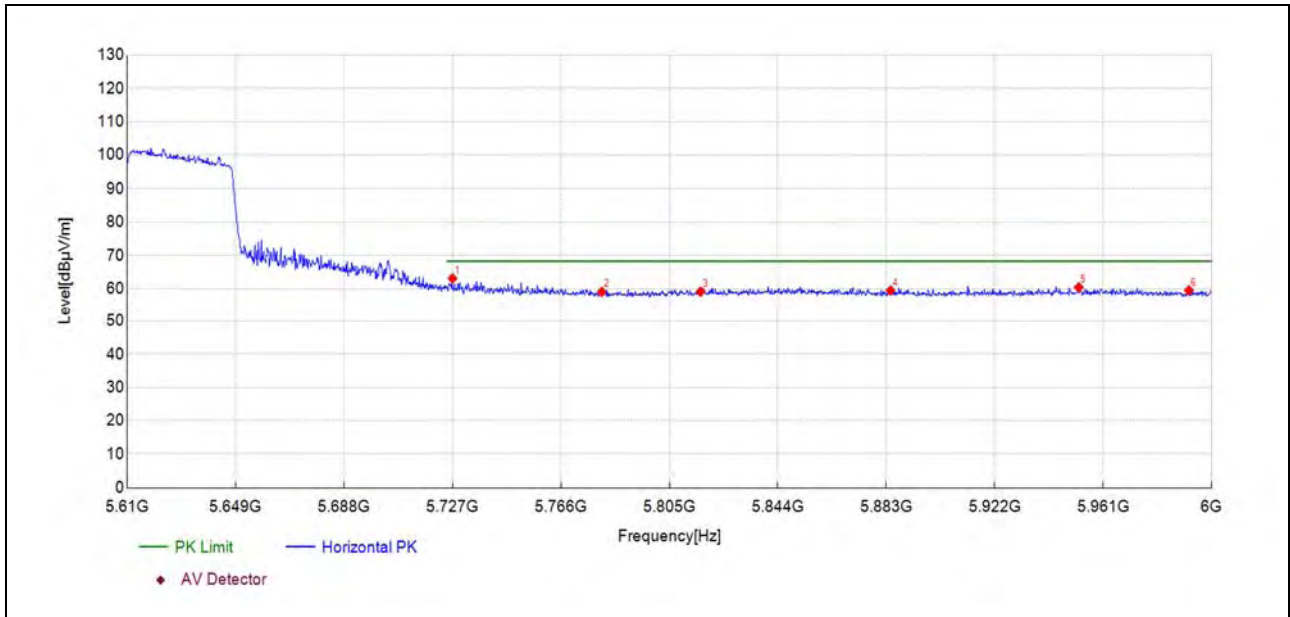
Plot for Channel 106



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5395.37	26.3	46.14	19.840	54.00	7.86	150	310	AV	PASS
5403.63	37.8	57.70	19.870	68.23	10.53	150	280	PK	PASS
5424.81	26.5	46.67	20.150	54.00	7.33	150	81	AV	PASS
5443.25	38.2	58.58	20.380	68.23	9.65	150	150	PK	PASS
5455.08	27.6	48.02	20.440	54.00	5.98	150	150	AV	PASS
5469.66	42.7	63.05	20.370	68.23	5.18	150	51	PK	PASS

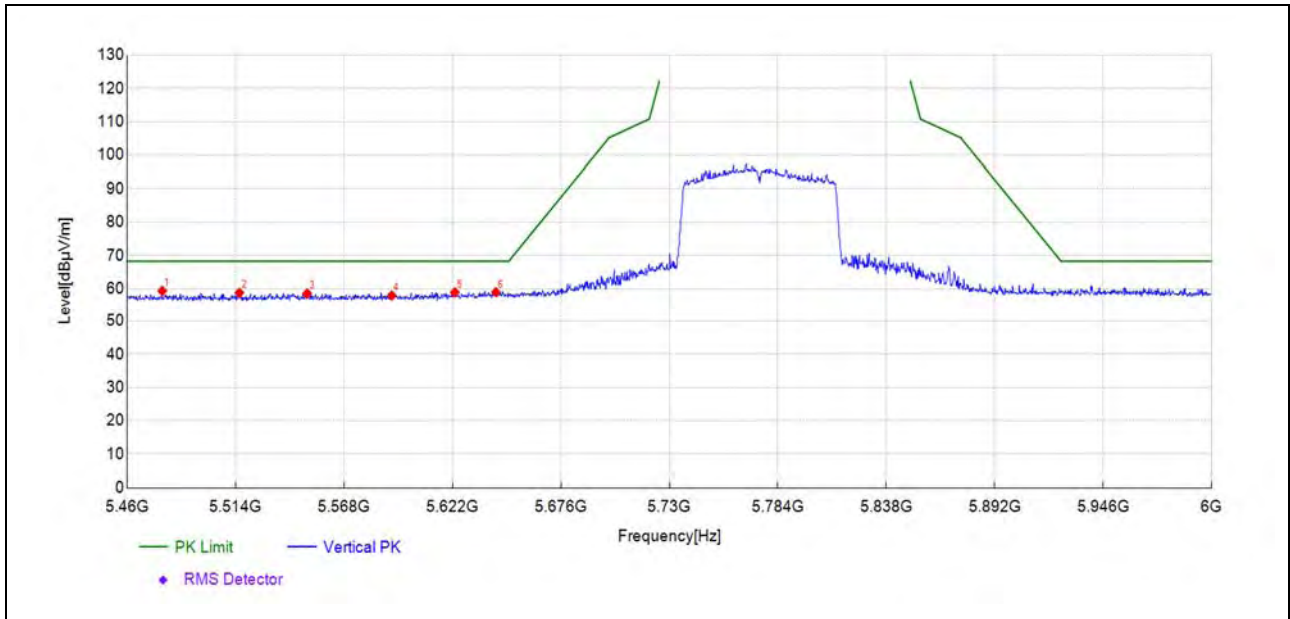


Plot for Channel 122



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5727.06	41.8	63.10	21.290	68.23	5.13	150	157	PK	PASS
5780.71	37.4	59.05	21.680	68.23	9.18	150	79	PK	PASS
5816.22	37.1	59.09	21.950	68.23	9.14	150	333	PK	PASS
5884.50	37.5	59.45	21.950	68.23	8.78	150	358	PK	PASS
5952.20	38.3	60.39	22.100	68.23	7.84	150	9	PK	PASS
5991.81	37.7	59.48	21.780	68.23	8.75	150	164	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
5477.56	39.0	59.31	20.320	68.23	8.92	150	196	PK	PASS
5515.92	38.5	58.73	20.230	68.23	9.50	150	69	PK	PASS
5549.68	38.3	58.54	20.270	68.23	9.69	150	357	PK	PASS
5591.83	37.8	57.94	20.160	68.23	10.29	150	182	PK	PASS
5623.16	38.4	58.89	20.530	68.23	9.34	150	182	PK	PASS
5643.69	38.0	58.93	20.890	68.23	9.30	150	139	PK	PASS



A.9. 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.

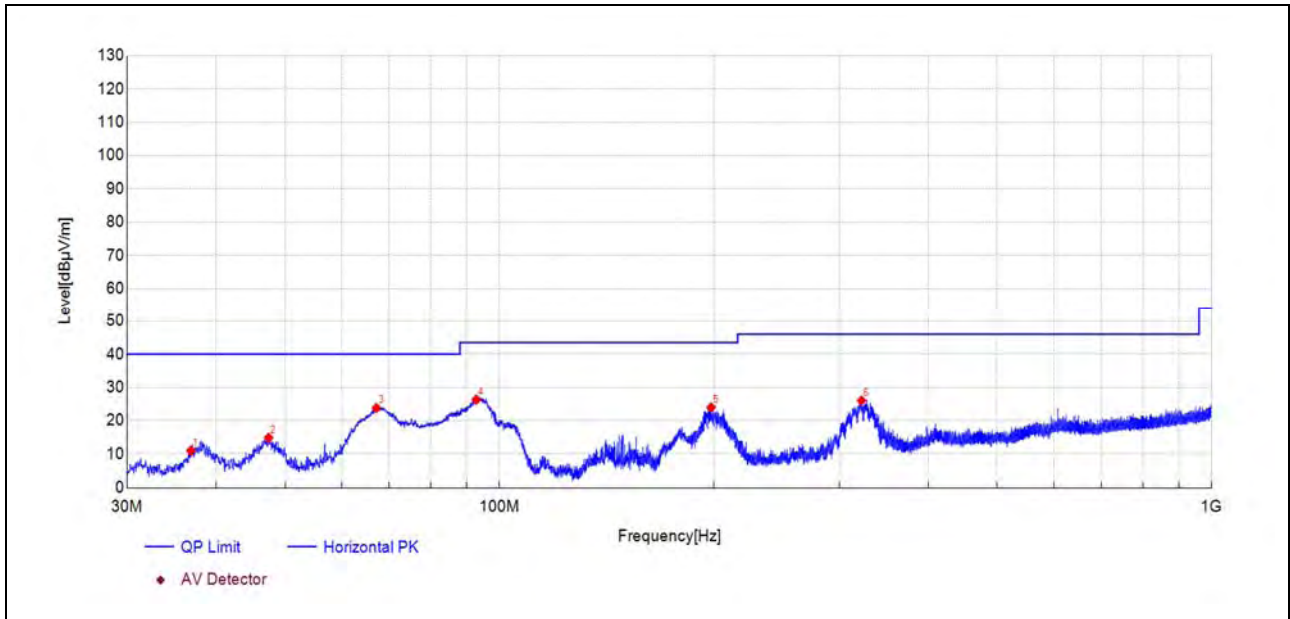
Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

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 for each bandwidth.

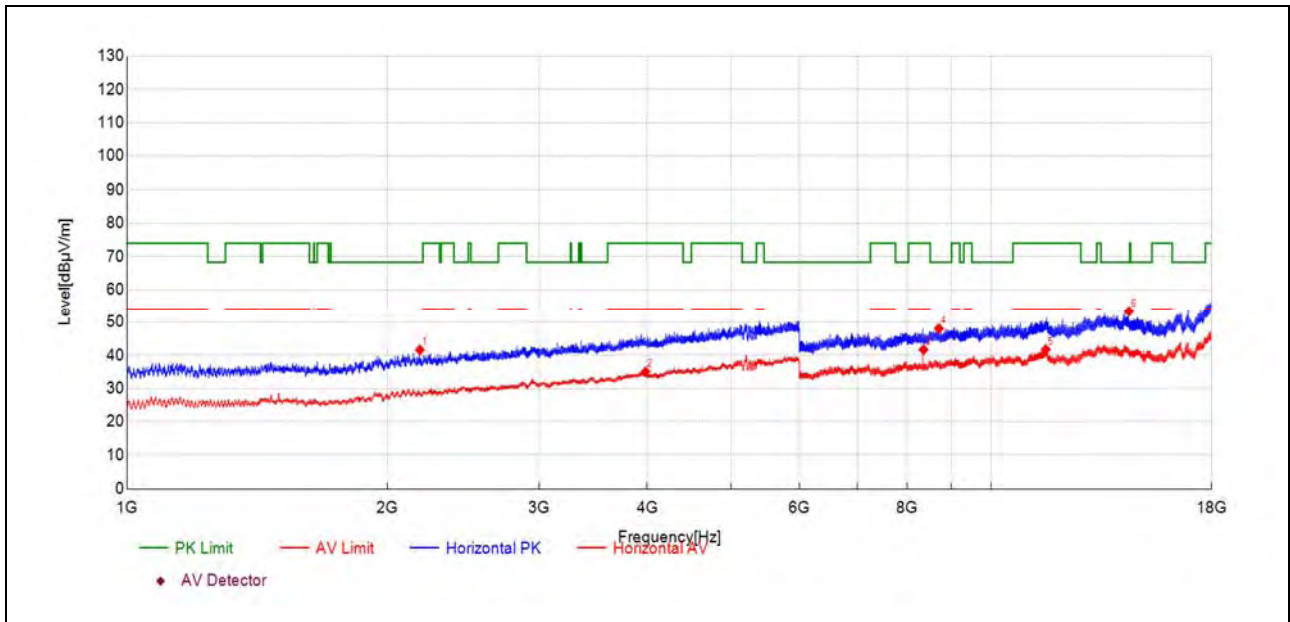
**802.11a Mode**

Plot for Channel 44



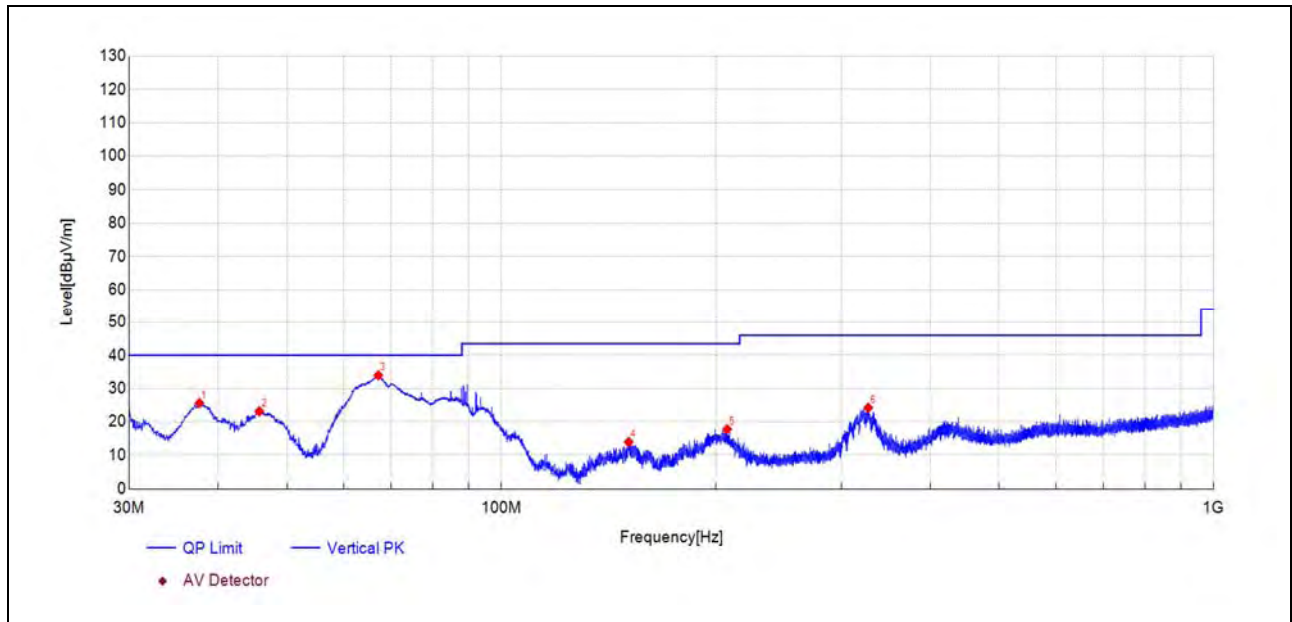
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
36.89	41.1	11.00	-30.100	40.00	29.00	150	132	PK	PASS
47.41	43.2	14.85	-28.300	40.00	25.15	150	186	PK	PASS
67.20	57.3	23.83	-33.460	40.00	16.17	150	280	PK	PASS
92.81	57.4	26.31	-31.120	43.50	17.19	150	186	PK	PASS
198.25	53.9	23.95	-29.950	43.50	19.55	150	280	PK	PASS
322.47	52.3	26.05	-26.250	46.00	19.95	150	280	PK	PASS



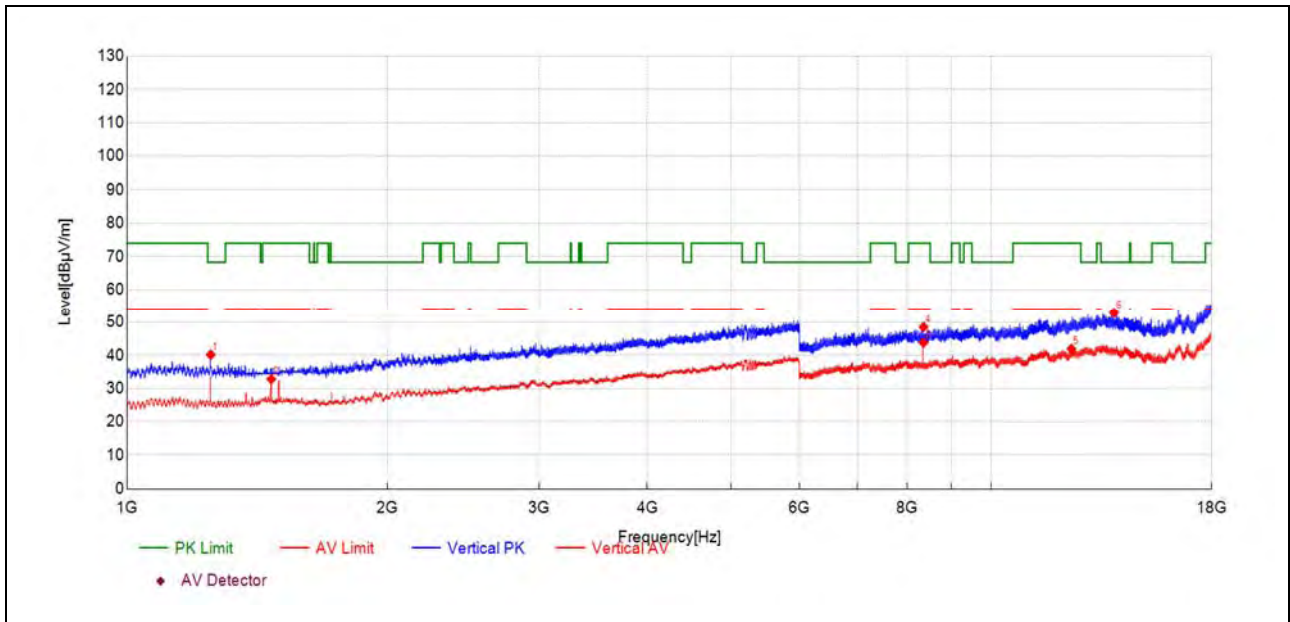
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2182.12	42.7	41.58	-1.080	68.23	26.65	150	295	PK	PASS
3982.80	29.2	35.09	5.940	54.00	18.91	150	102	AV	PASS
8351.60	45.0	41.68	-3.350	54.00	12.32	150	30	AV	PASS
8702.11	50.4	48.04	-2.380	68.23	20.19	150	0	PK	PASS
11570.23	38.8	41.76	2.950	54.00	12.24	150	234	AV	PASS
14438.85	48.9	53.35	4.410	68.23	14.88	150	0	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
37.66	55.4	25.60	-29.830	40.00	14.40	150	215	PK	PASS
45.71	51.5	23.14	-28.320	40.00	16.86	150	176	PK	PASS
67.15	67.4	33.96	-33.440	40.00	6.04	150	202	PK	PASS
150.87	47.2	13.90	-33.290	43.50	29.60	150	0	PK	PASS
207.37	47.7	17.73	-30.010	43.50	25.77	150	295	PK	PASS
327.32	50.2	24.18	-25.980	46.00	21.82	150	150	PK	PASS

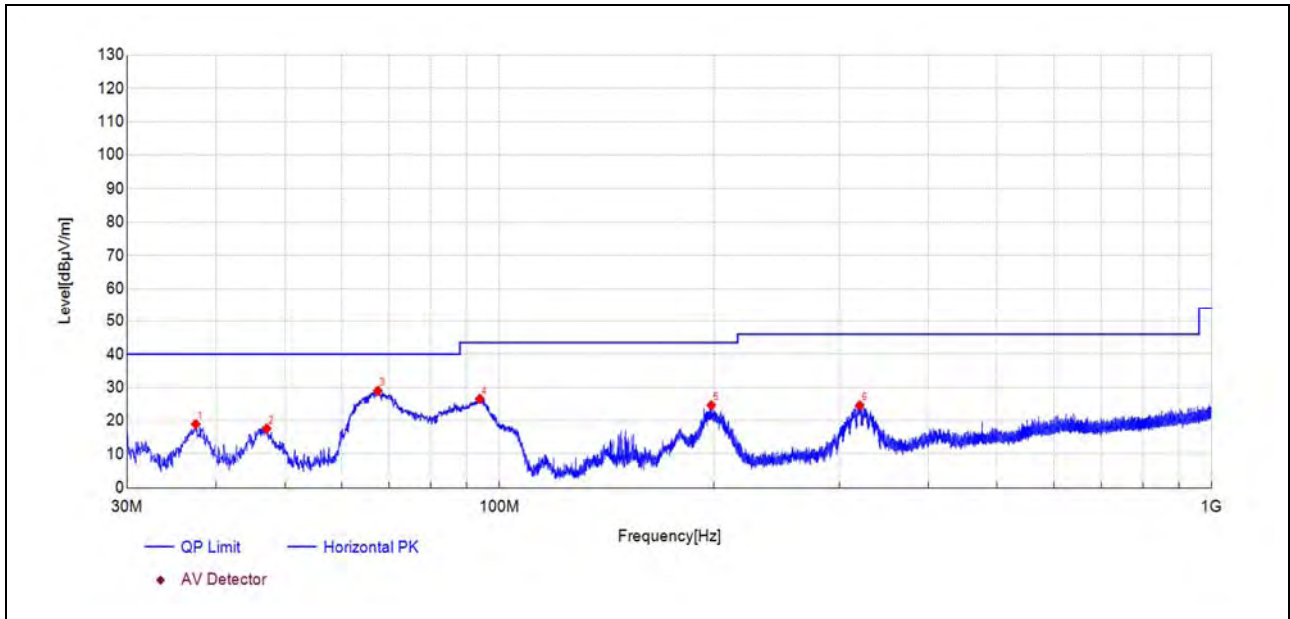


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1250.03	45.5	40.16	-5.290	68.23	28.07	150	360	PK	PASS
1468.55	36.9	32.84	-4.060	54.00	21.16	150	128	AV	PASS
8351.60	47.1	43.78	-3.350	54.00	10.22	150	89	AV	PASS
8351.60	51.9	48.52	-3.350	74.00	25.48	150	89	PK	PASS
12385.77	38.8	41.92	3.090	54.00	12.08	150	193	AV	PASS
13875.83	48.1	52.91	4.780	68.23	15.32	150	233	PK	PASS

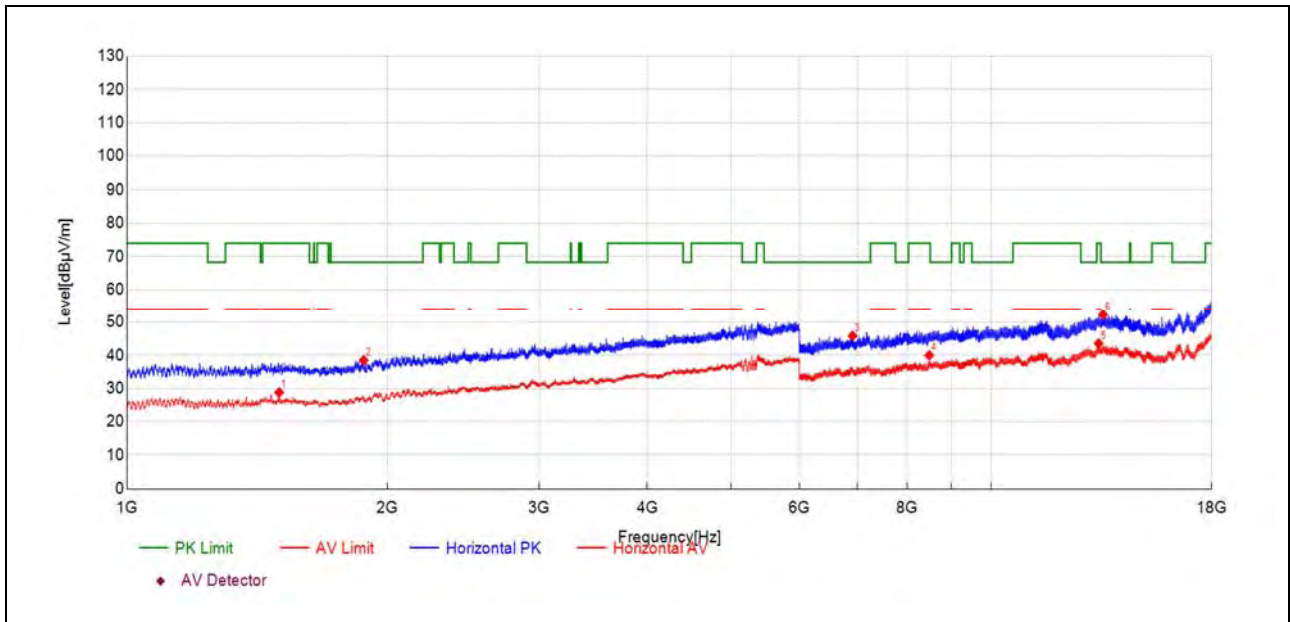


Plot for Channel 60



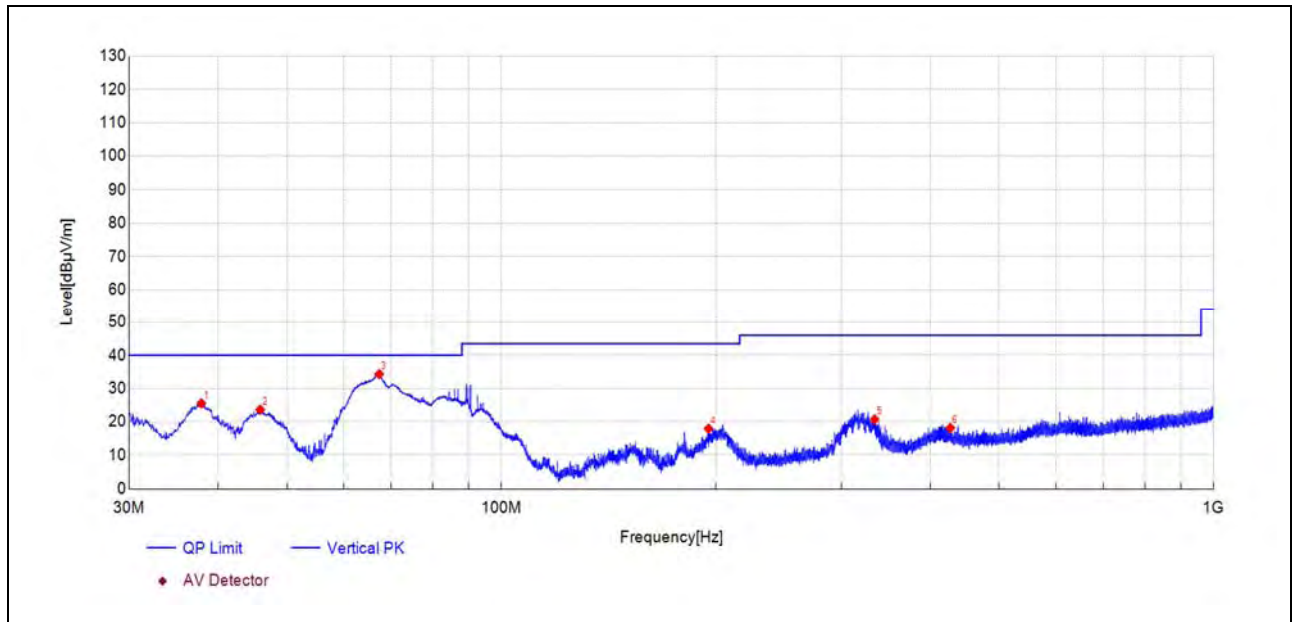
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
37.47	48.9	18.97	-29.900	40.00	21.03	150	351	PK	PASS
47.12	45.9	17.63	-28.300	40.00	22.37	150	351	PK	PASS
67.49	62.6	29.00	-33.580	40.00	11.00	150	351	PK	PASS
93.83	57.4	26.57	-30.870	43.50	16.93	150	135	PK	PASS
198.35	54.6	24.62	-29.960	43.50	18.88	150	109	PK	PASS
320.53	50.9	24.58	-26.340	46.00	21.42	150	256	PK	PASS



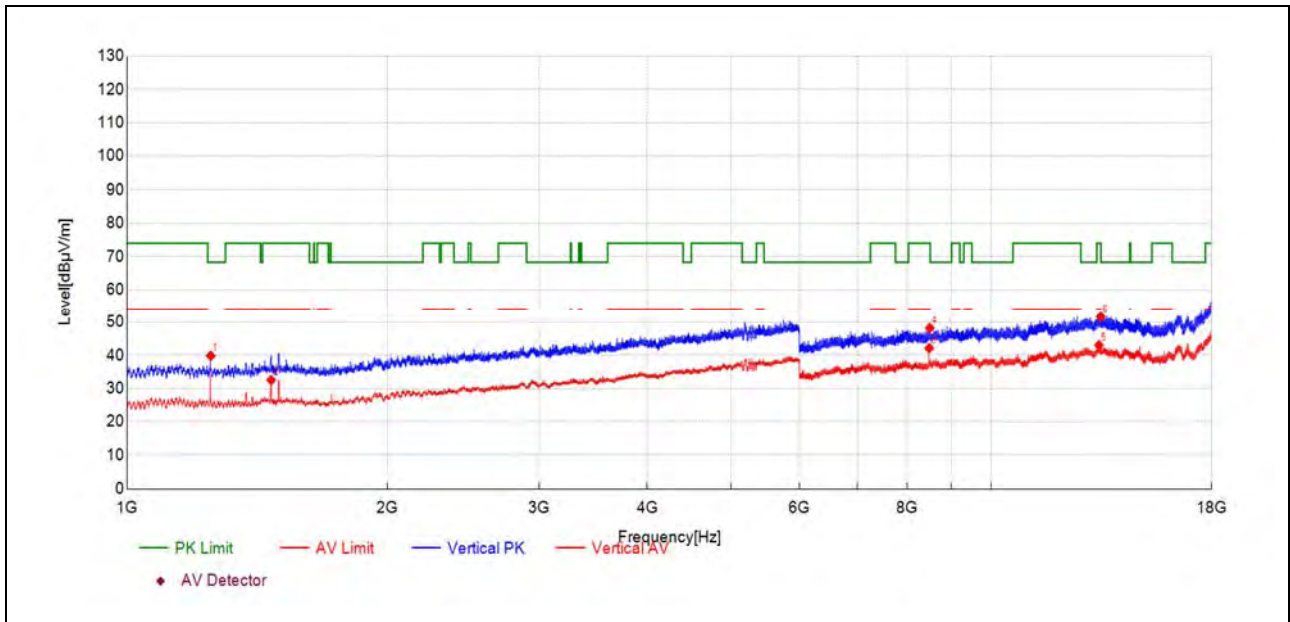
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1500.05	32.9	28.81	-4.070	54.00	25.19	150	7	AV	PASS
1878.59	41.5	38.50	-3.020	68.23	29.73	150	359	PK	PASS
6913.04	49.9	45.84	-4.020	68.23	22.39	150	3	PK	PASS
8479.60	42.7	40.00	-2.650	54.00	14.00	150	30	AV	PASS
13318.80	38.2	43.56	5.390	54.00	10.44	150	130	AV	PASS
13472.31	47.5	52.29	4.800	68.23	15.94	150	294	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

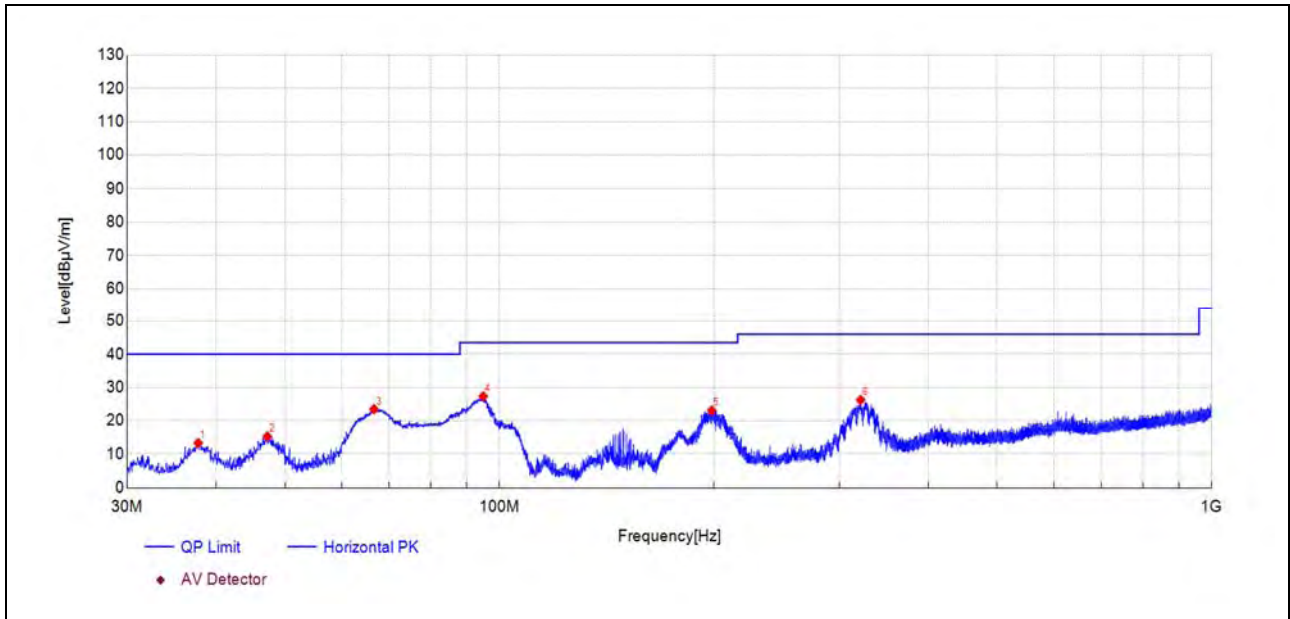
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
37.91	55.3	25.52	-29.760	40.00	14.48	150	280	PK	PASS
45.86	52.0	23.64	-28.320	40.00	16.36	150	238	PK	PASS
67.35	67.8	34.31	-33.520	40.00	5.69	150	238	PK	PASS
195.30	47.5	17.91	-29.610	43.50	25.59	150	171	PK	PASS
334.16	46.1	20.67	-25.430	46.00	25.33	150	212	PK	PASS
426.75	41.4	18.17	-23.210	46.00	27.83	150	212	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

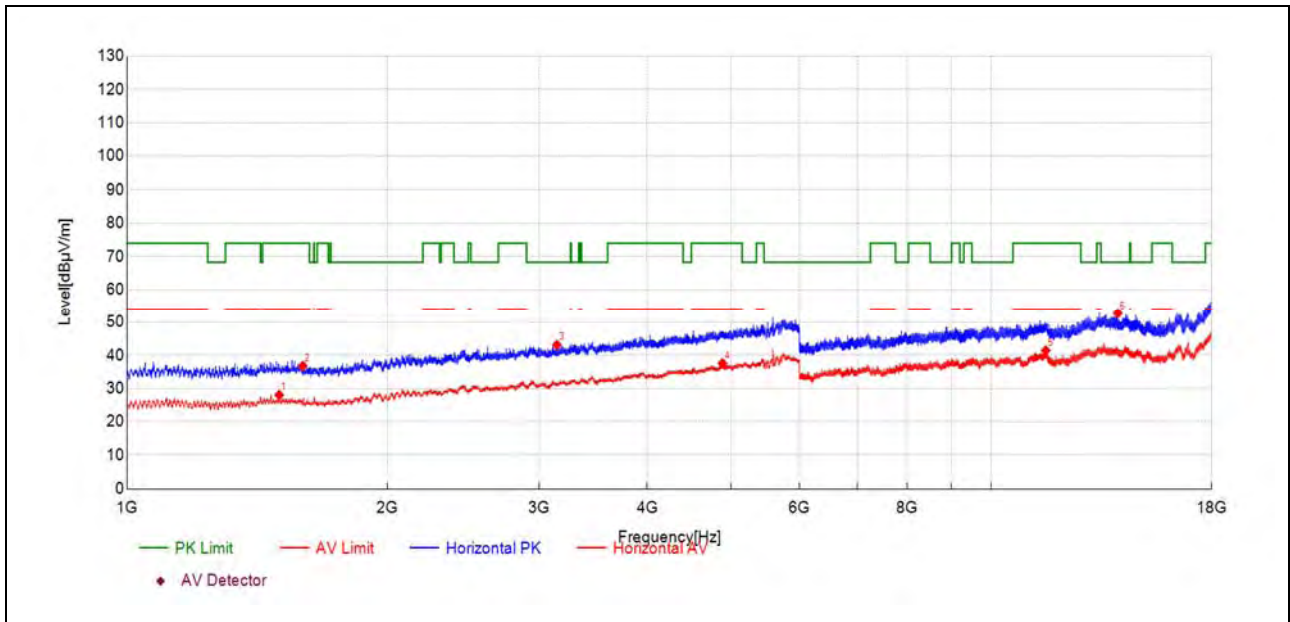
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1250.03	45.1	39.82	-5.290	68.23	28.41	150	360	PK	PASS
1468.55	36.6	32.54	-4.060	54.00	21.46	150	46	AV	PASS
8479.60	44.8	42.14	-2.650	54.00	11.86	150	71	AV	PASS
8493.10	50.7	48.22	-2.460	74.00	25.78	150	233	PK	PASS
13329.31	37.8	43.04	5.290	54.00	10.96	150	13	AV	PASS
13392.81	47.0	51.66	4.650	74.00	22.34	150	0	PK	PASS

Plot for Channel 120



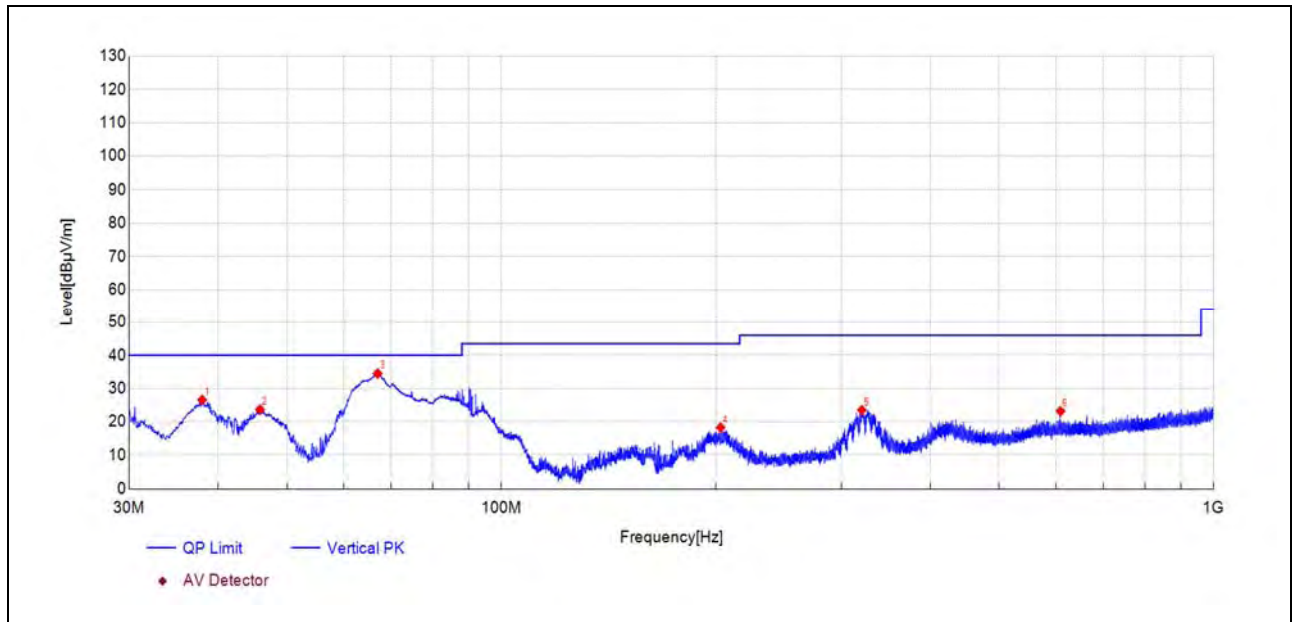
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
37.76	43.1	13.28	-29.800	40.00	26.72	150	171	PK	PASS
47.22	43.6	15.27	-28.300	40.00	24.73	150	146	PK	PASS
66.67	56.7	23.48	-33.260	40.00	16.52	150	307	PK	PASS
94.90	58.1	27.33	-30.730	43.50	16.17	150	159	PK	PASS
198.64	53.0	23.02	-29.980	43.50	20.48	150	118	PK	PASS
321.45	52.5	26.23	-26.300	46.00	19.77	150	279	PK	PASS



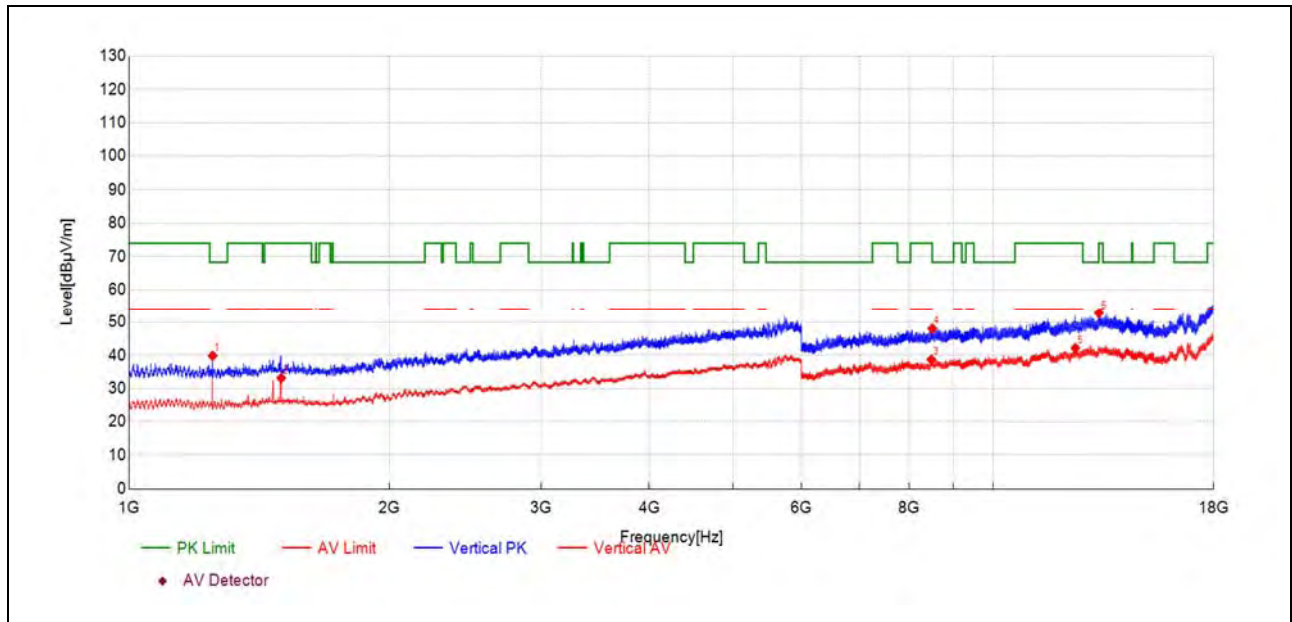
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1500.05	32.2	28.06	-4.100	54.00	25.94	150	7	AV	PASS
1597.56	41.1	36.76	-4.320	74.00	37.24	150	268	PK	PASS
3144.21	40.1	43.12	3.060	68.23	25.11	150	308	PK	PASS
4887.89	28.5	37.57	9.060	54.00	16.43	150	239	AV	PASS
11566.23	38.5	41.42	2.920	54.00	12.58	150	276	AV	PASS
14015.33	47.9	52.70	4.840	68.23	15.53	150	130	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

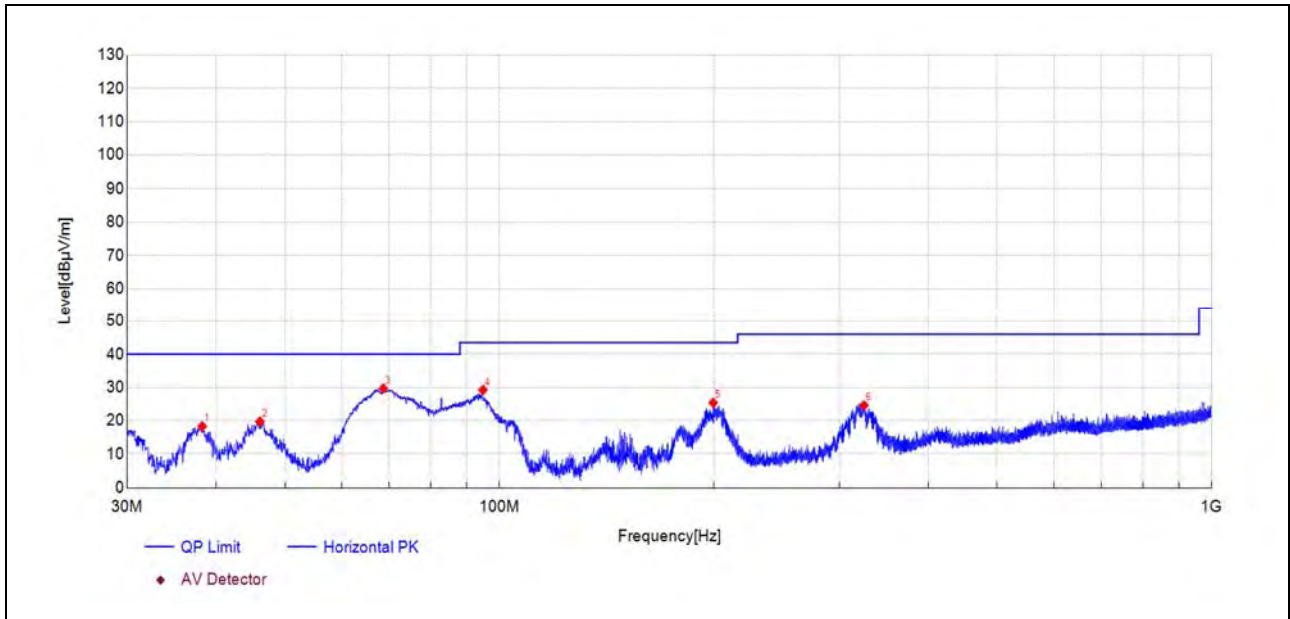
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
38.00	56.3	26.57	-29.730	40.00	13.43	150	255	PK	PASS
45.81	52.0	23.68	-28.320	40.00	16.32	150	175	PK	PASS
67.01	67.9	34.50	-33.390	40.00	5.50	150	189	PK	PASS
203.06	48.5	18.28	-30.200	43.50	25.22	150	349	PK	PASS
320.63	49.8	23.51	-26.330	46.00	22.49	150	162	PK	PASS
609.41	42.8	23.17	-19.630	46.00	22.83	150	121	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

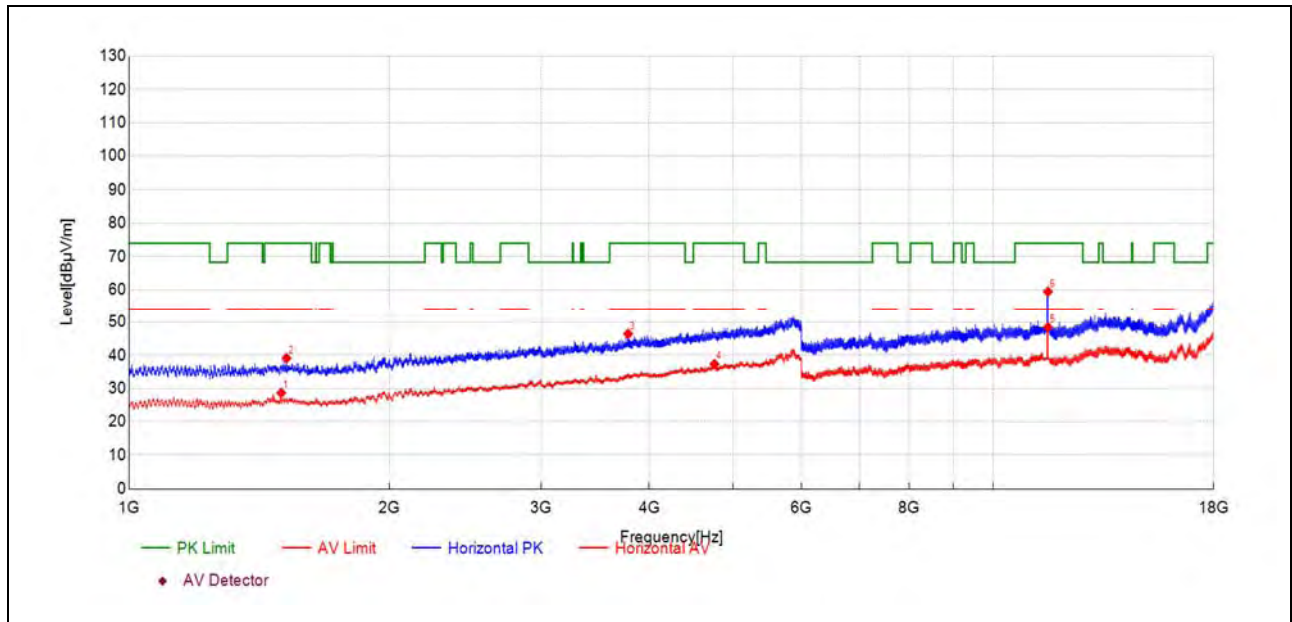
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1249.52	45.4	39.86	-5.510	68.23	28.37	150	345	PK	PASS
1500.05	37.2	33.12	-4.100	54.00	20.88	150	357	AV	PASS
8481.10	41.3	38.69	-2.640	54.00	15.31	150	1	AV	PASS
8505.10	50.4	48.04	-2.400	68.23	20.19	150	170	PK	PASS
12450.27	38.8	42.19	3.390	54.00	11.81	150	232	AV	PASS
13256.80	47.7	52.77	5.110	74.00	21.23	150	0	PK	PASS

Plot for Channel 157



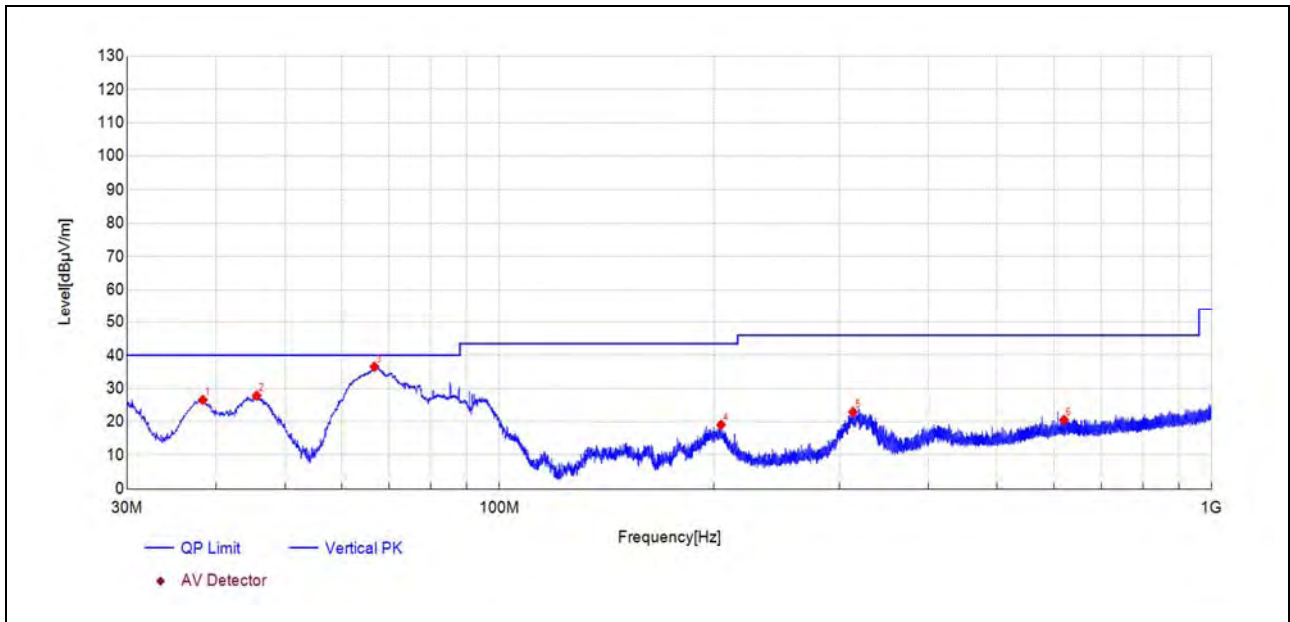
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
38.25	48.0	18.32	-29.650	40.00	21.68	150	350	PK	PASS
46.10	48.0	19.71	-28.310	40.00	20.29	150	350	PK	PASS
68.70	63.7	29.68	-33.990	40.00	10.32	150	350	PK	PASS
94.80	60.0	29.22	-30.750	43.50	14.28	150	135	PK	PASS
199.56	55.5	25.39	-30.140	43.50	18.11	150	95	PK	PASS
324.94	50.8	24.62	-26.140	46.00	21.38	150	255	PK	PASS



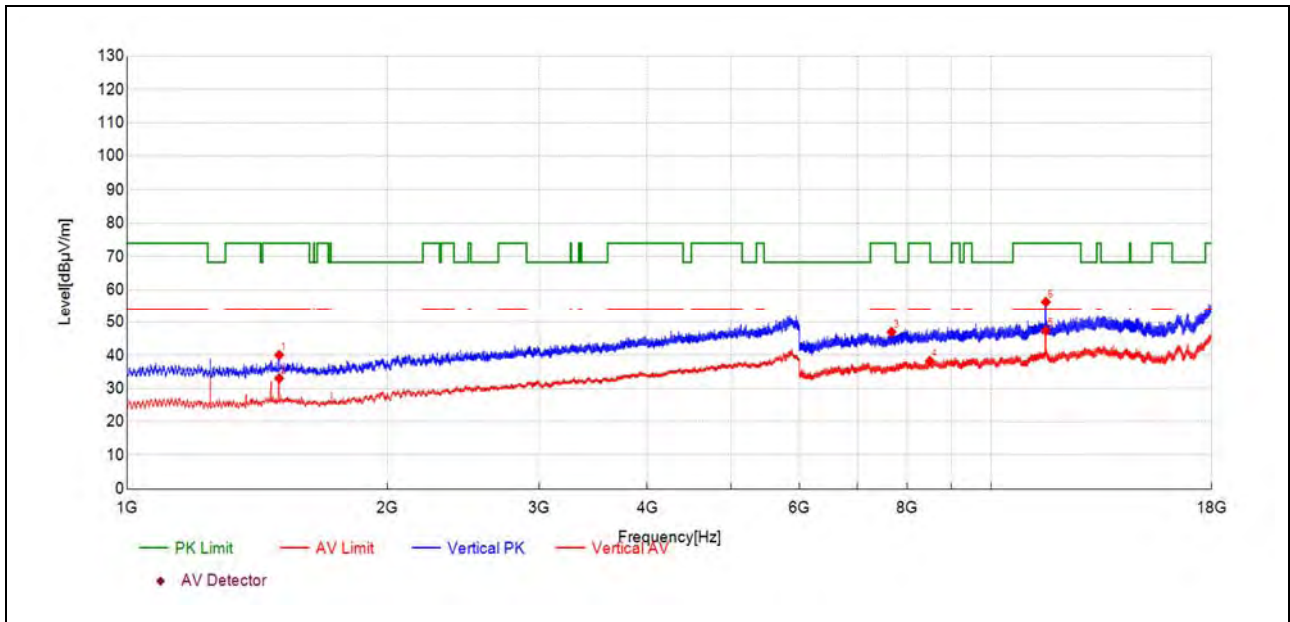
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1500.05	32.6	28.65	-3.920	54.00	25.35	150	6	AV	PASS
1521.55	43.0	39.13	-3.900	74.00	34.87	150	212	PK	PASS
3780.28	40.9	46.43	5.560	74.00	27.57	150	74	PK	PASS
4758.88	28.5	37.34	8.880	54.00	16.66	150	280	AV	PASS
11571.73	45.5	48.46	2.960	54.00	5.54	150	151	AV	PASS
11574.23	56.4	59.41	2.980	74.00	14.59	150	151	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
38.34	56.2	26.58	-29.620	40.00	13.42	150	225	PK	PASS
45.62	56.2	27.85	-28.320	40.00	12.15	150	210	PK	PASS
66.76	69.9	36.55	-33.300	40.00	3.45	150	210	PK	PASS
204.71	49.3	19.07	-30.180	43.50	24.43	150	360	PK	PASS
313.55	49.6	22.92	-26.630	46.00	23.08	150	225	PK	PASS
620.27	40.0	20.57	-19.450	46.00	25.43	150	210	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
1500.05	44.0	40.07	-3.920	74.00	33.93	150	7	PK	PASS
1500.05	37.0	33.06	-3.920	54.00	20.94	150	360	AV	PASS
7669.57	51.2	46.97	-4.220	74.00	27.03	150	30	PK	PASS
8492.60	40.7	38.26	-2.470	54.00	15.74	150	90	AV	PASS
11569.23	44.4	47.37	2.940	54.00	6.63	150	30	AV	PASS
11572.23	53.3	56.30	2.960	74.00	17.70	150	316	PK	PASS

END OF REPORT