

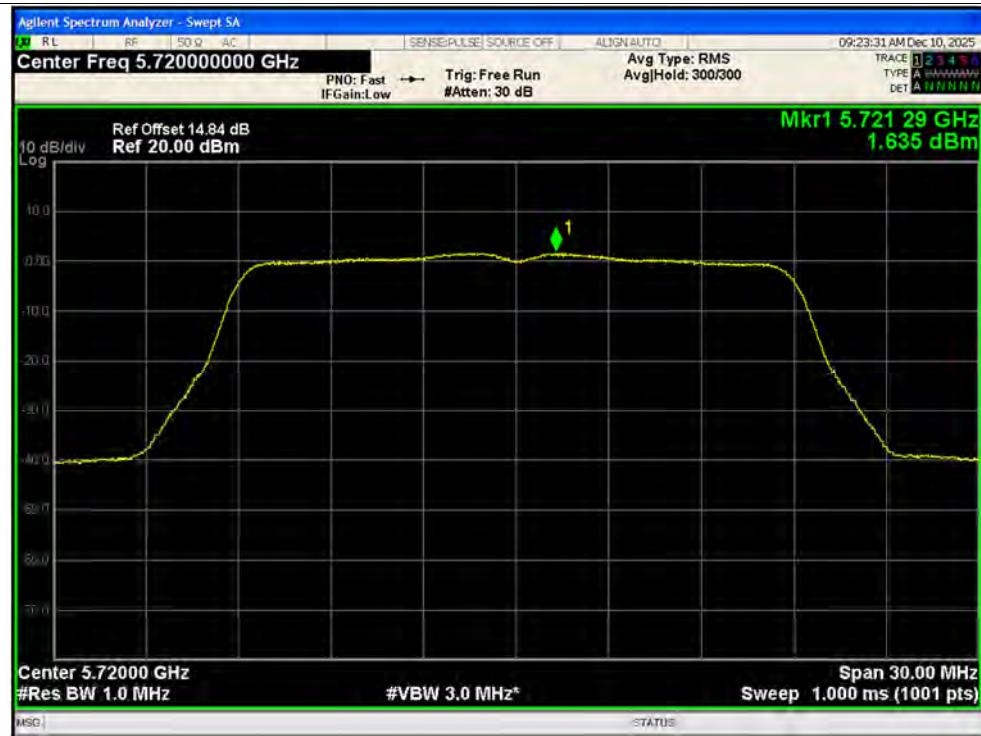
PSD NVNT n20 5500MHz Ant1



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
25C 3.5V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
25C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
25C 4.35V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
-30C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
-20C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
-10C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
0C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
10C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
20C 3.8V	CW	5180	Ant1	5180.021	21000	4.05	25	Pass
30C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
40C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
50C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
60C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
70C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
75C 3.8V	CW	5180	Ant1	5180.02	20000	3.86	25	Pass
25C 3.5V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
25C 3.8V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
25C 4.35V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
-30C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
-20C 3.8V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
-10C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
0C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
10C 3.8V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
20C 3.8V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
30C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
40C 3.8V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
50C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
60C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
70C 3.8V	CW	5260	Ant1	5260.021	21000	3.99	25	Pass
75C 3.8V	CW	5260	Ant1	5260.02	20000	3.8	25	Pass
25C 3.5V	CW	5500	Ant1	5500.022	22000	4	25	Pass
25C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
25C 4.35V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
-30C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass



-20C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
-10C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
0C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
10C 3.8V	CW	5500	Ant1	5500.022	22000	4	25	Pass
20C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
30C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
40C 3.8V	CW	5500	Ant1	5500.022	22000	4	25	Pass
50C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
60C 3.8V	CW	5500	Ant1	5500.022	22000	4	25	Pass
70C 3.8V	CW	5500	Ant1	5500.022	22000	4	25	Pass
75C 3.8V	CW	5500	Ant1	5500.021	21000	3.82	25	Pass
25C 3.5V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
25C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
25C 4.35V	CW	5745	Ant1	5745.023	23000	4	25	Pass
-30C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
-20C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
-10C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
0C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
10C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
20C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
30C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
40C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
50C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
60C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
70C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass
75C 3.8V	CW	5745	Ant1	5745.022	22000	3.83	25	Pass

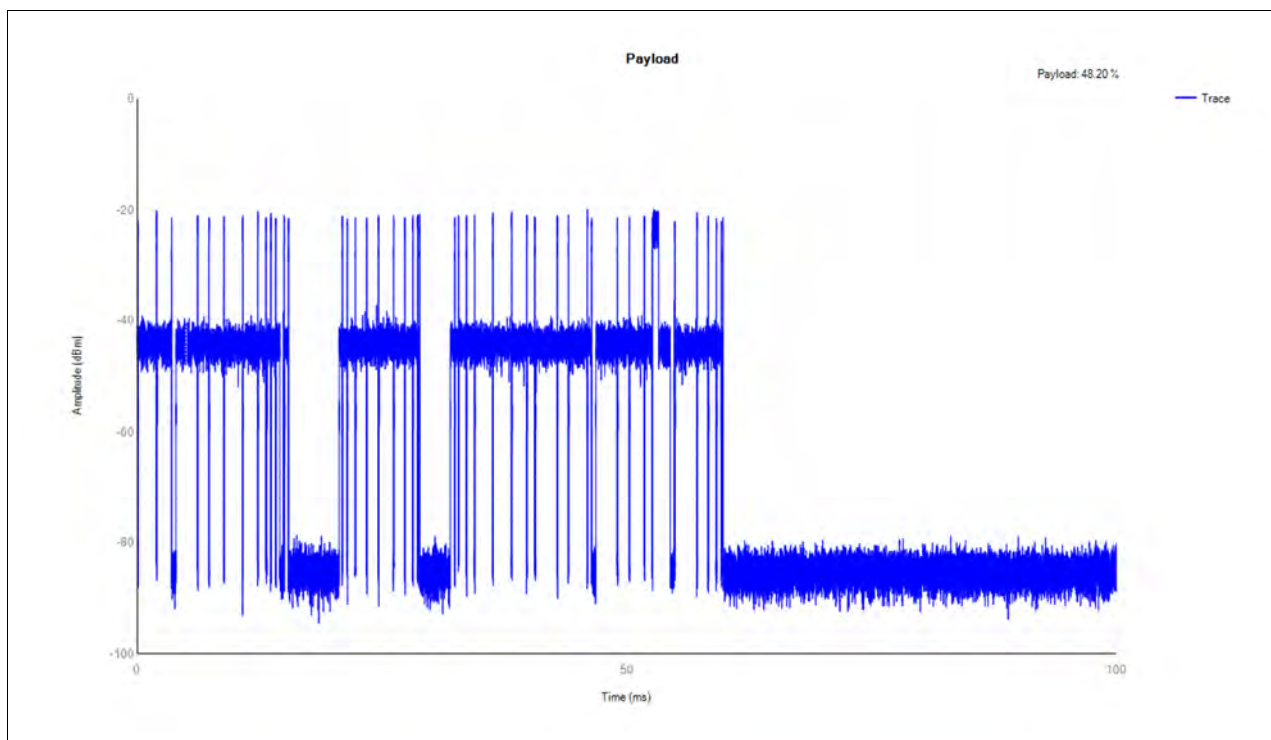


REPORT No.: SZ25110347W04

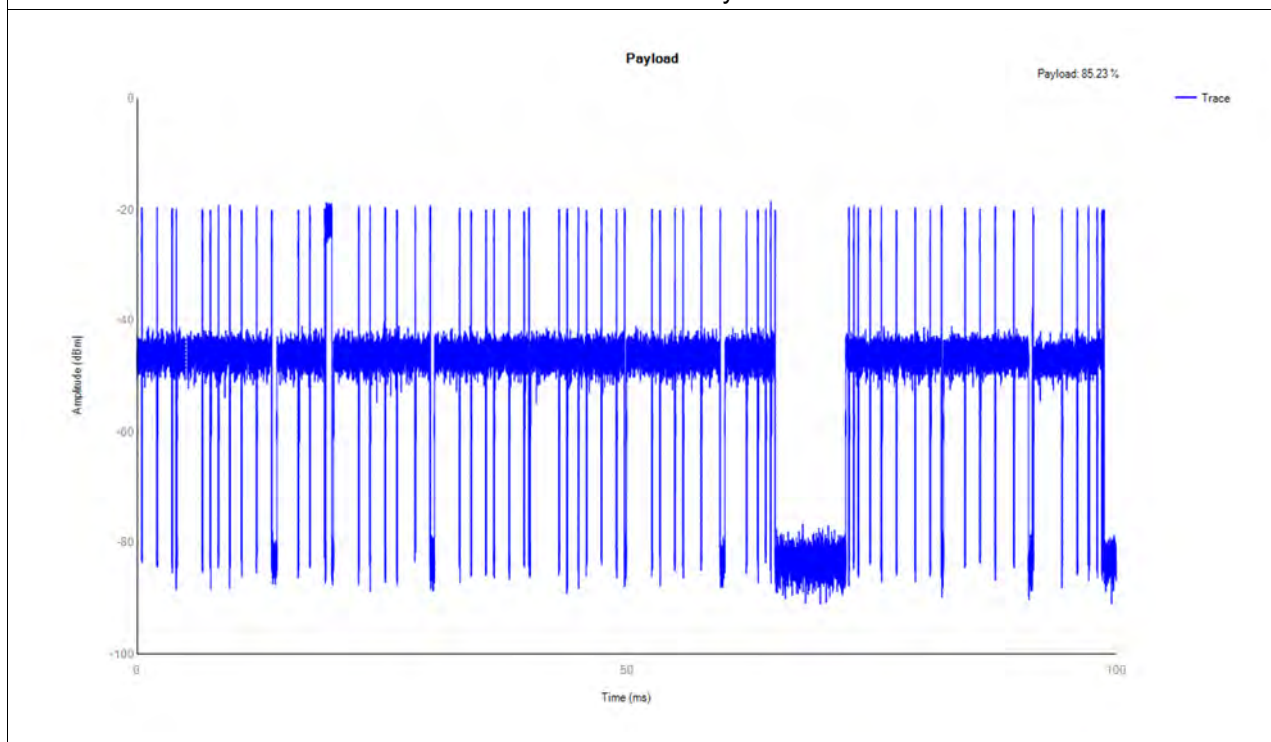
A.6. Dynamic Frequency Selection

Payload

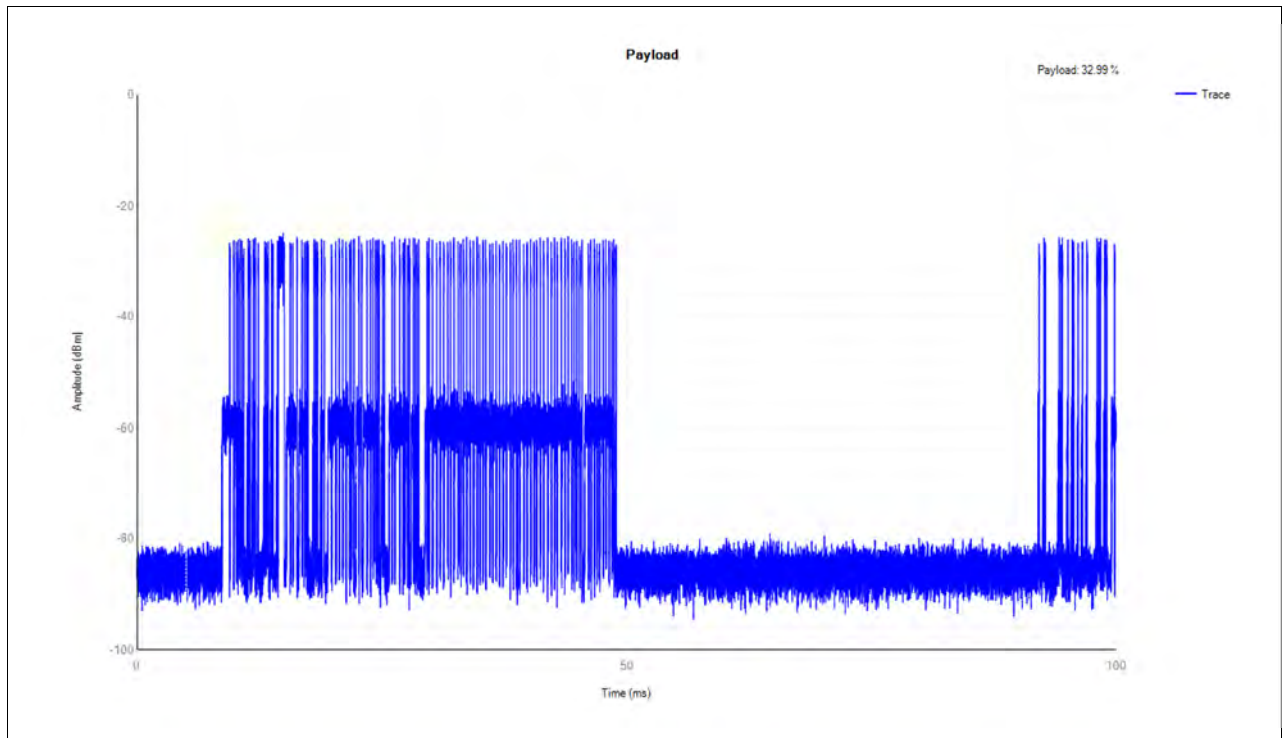
Mode	Frequency (MHz)	Result	Verdict
ac20	5320	48.2	Pass
ac20	5500	85.23	Pass
ac80	5290	32.99	Pass
ac80	5530	87.42	Pass



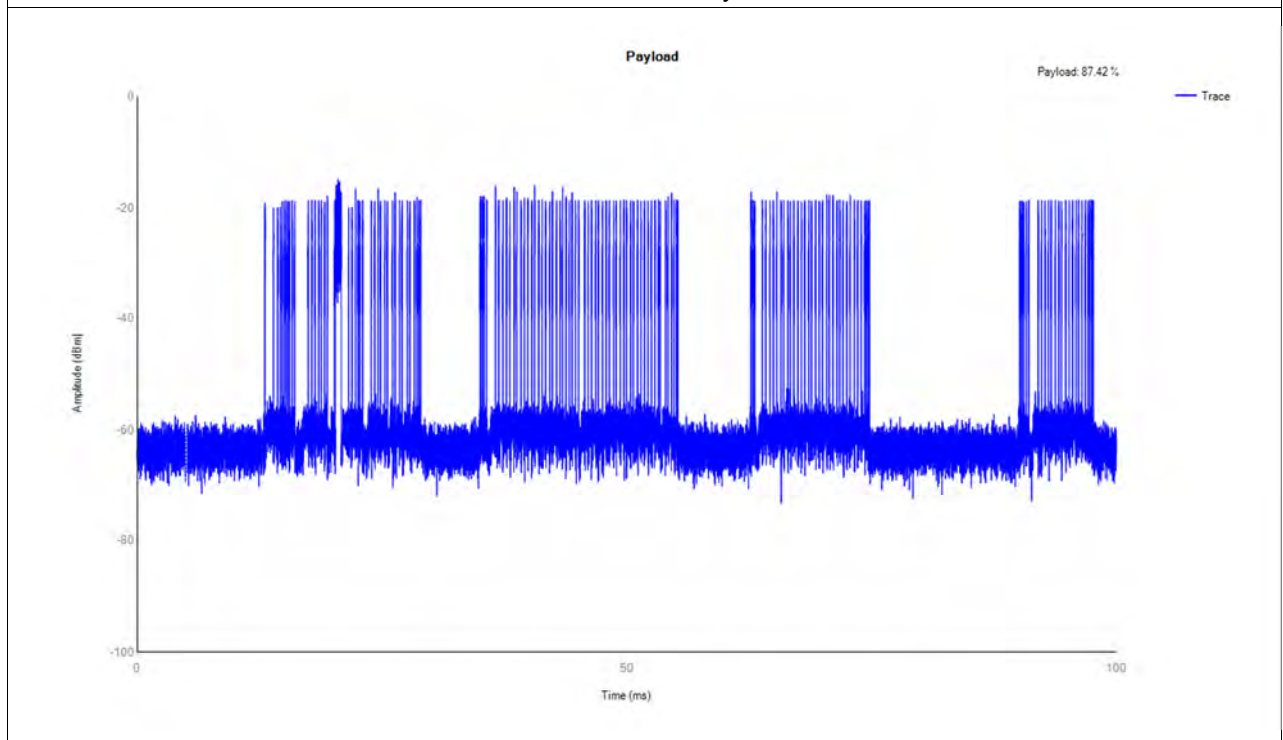
ac20 5320MHz Payload



ac20 5500MHz Payload



ac80 5290MHz Payload



ac80 5530MHz Payload



REPORT No.: SZ25110347W04

Detection Thresholds

Mode	Frequency (MHz)	Type	Result	Verdict
ac20	5320	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

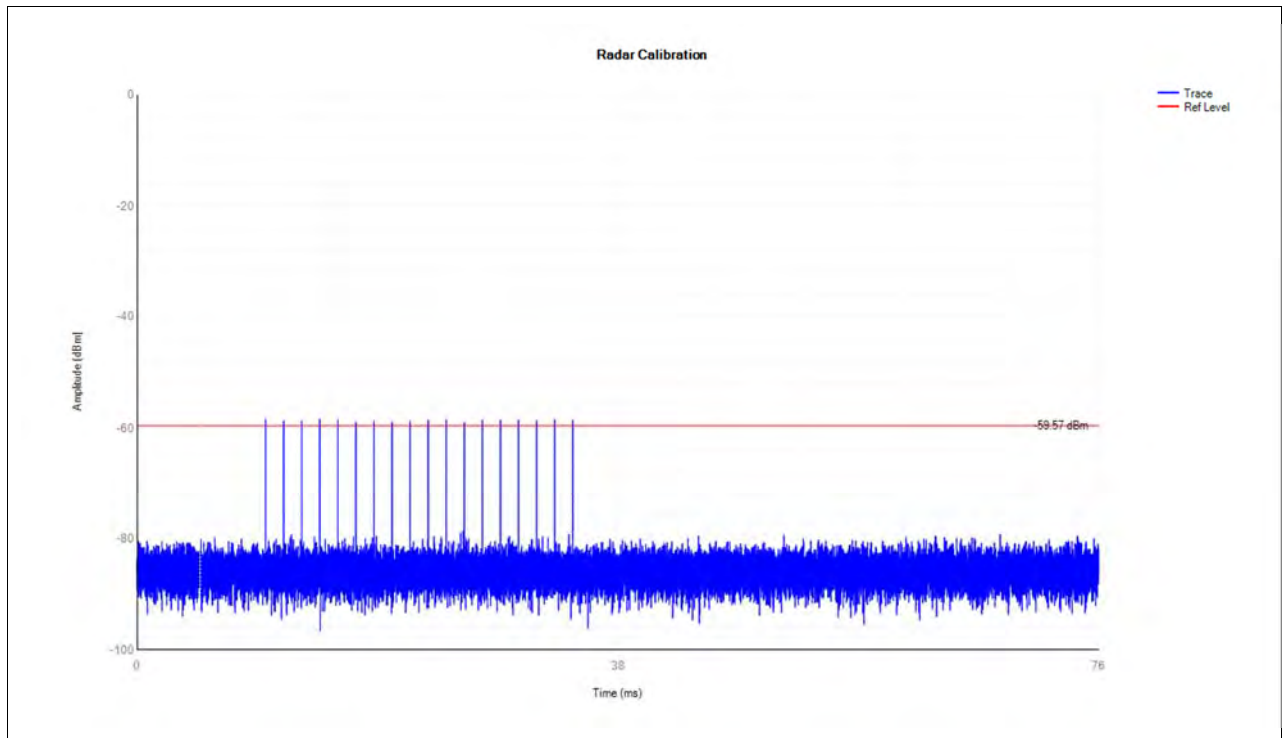
Spectrum analyzer settings:

Span: Zero

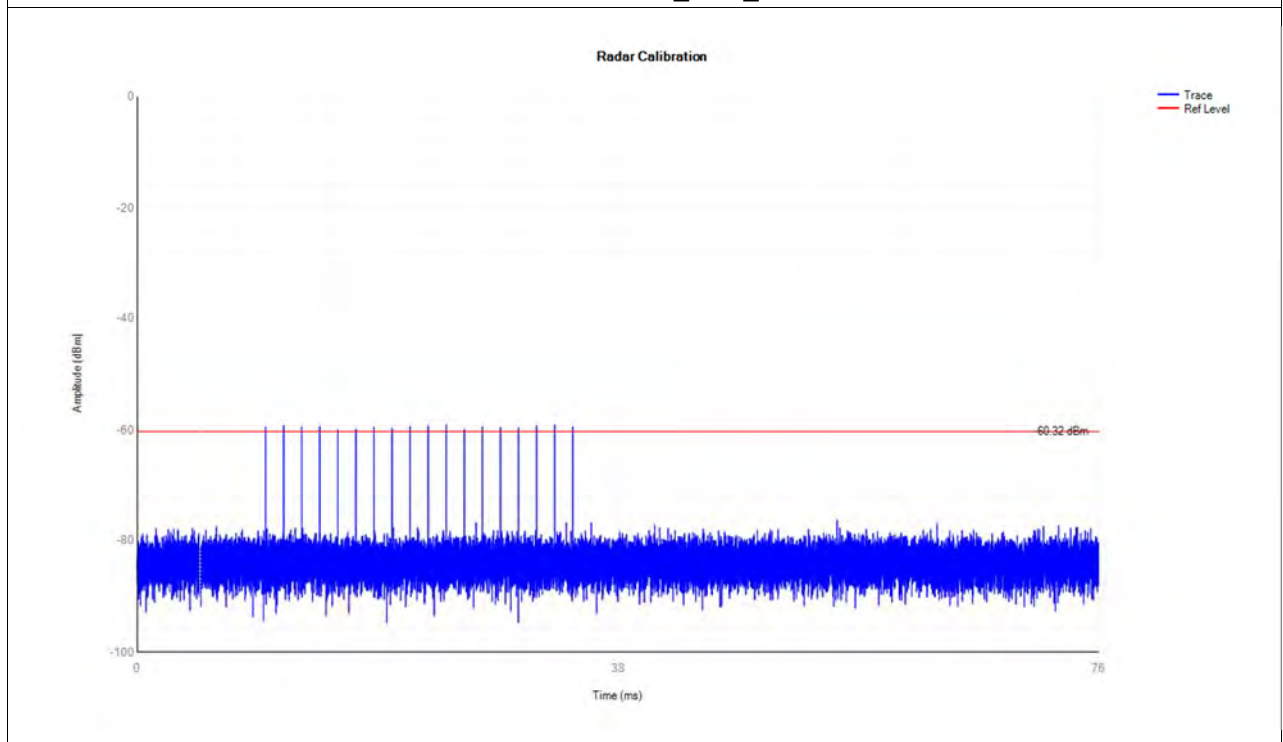
Detector Type: Peak

RBW: 3MHz

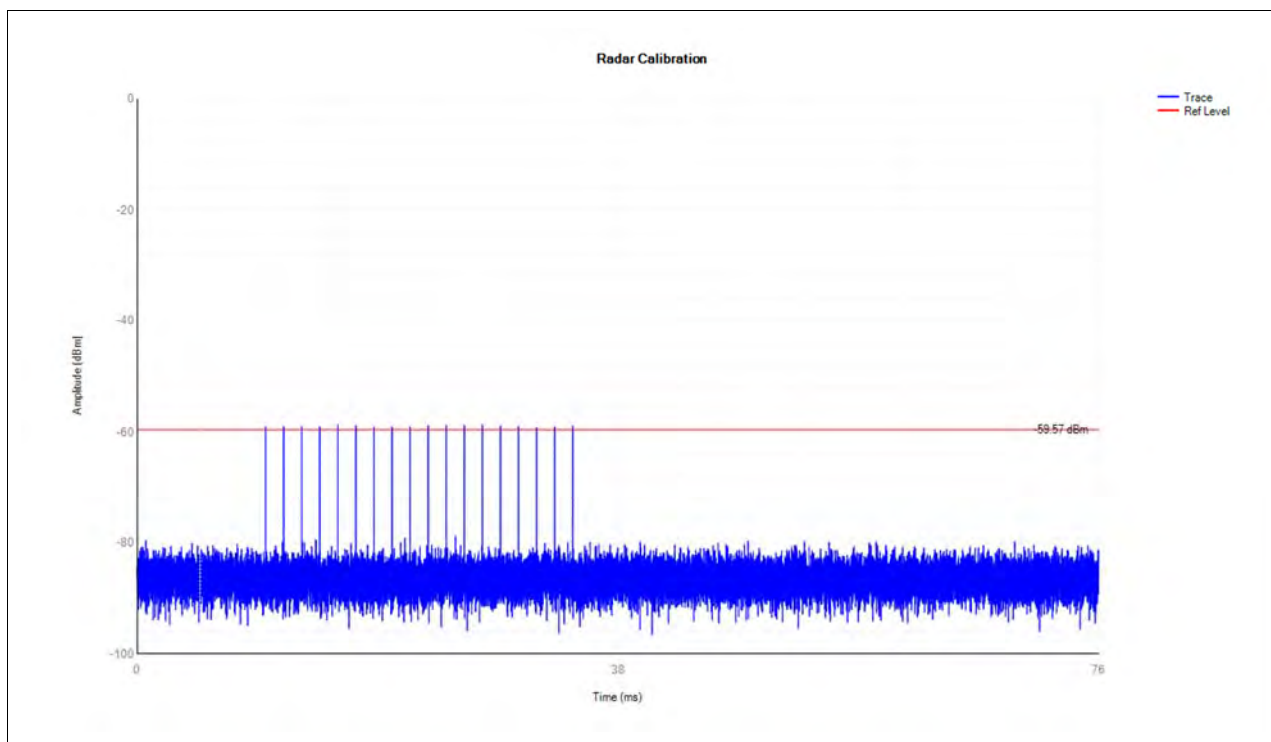
VBW: 3MHz



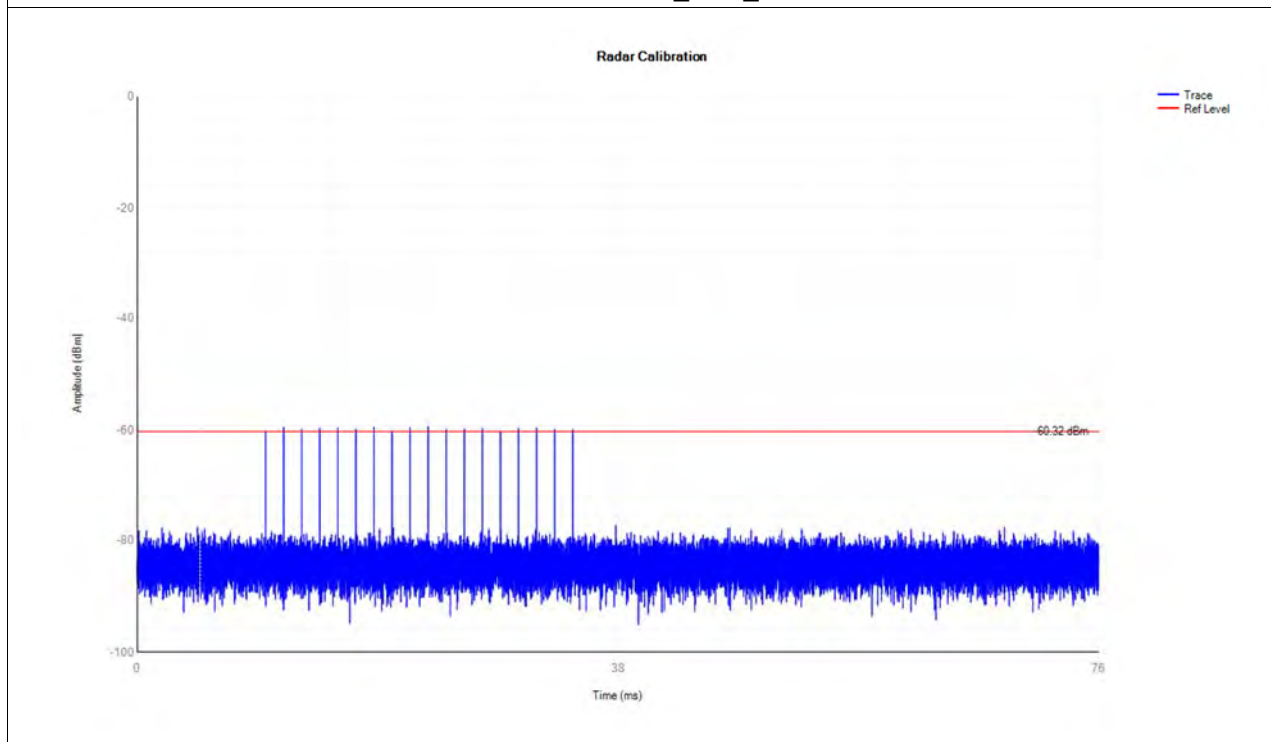
5320MHz DFS_FCC_T0



5500MHz DFS_FCC_T0



5290MHz DFS_FCC_T0



5530MHz DFS_FCC_T0



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	5320	0.916	10	0.026	0.26	0.009	0.06	Pass
ac20	5500	0.711	10	0.009	0.26	0.007	0.06	Pass
ac80	5290	6.286	10	0.015	0.26	0.01	0.06	Pass
ac80	5530	0.754	10	0.017	0.26	0.008	0.06	Pass

Spectrum analyzer settings:

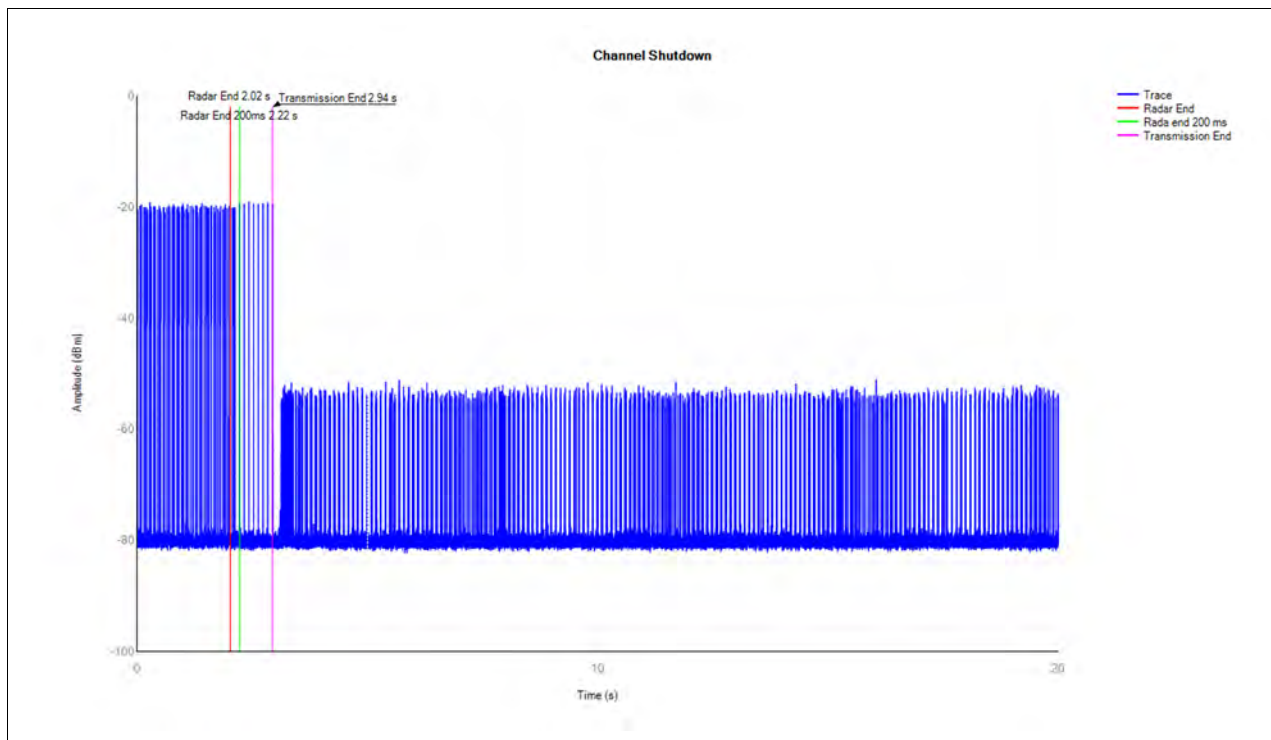
Span: Zero

Detector type: Peak

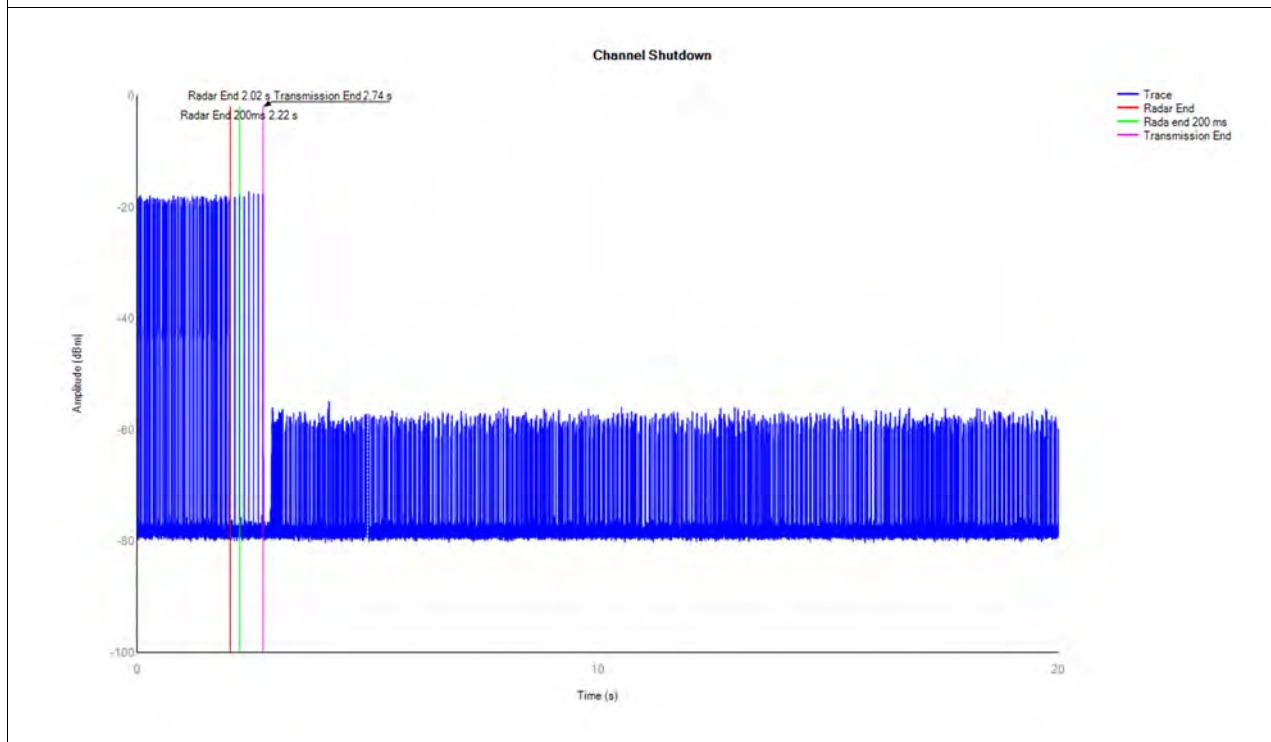
RBW: 3MHz

VBW: 3MHz

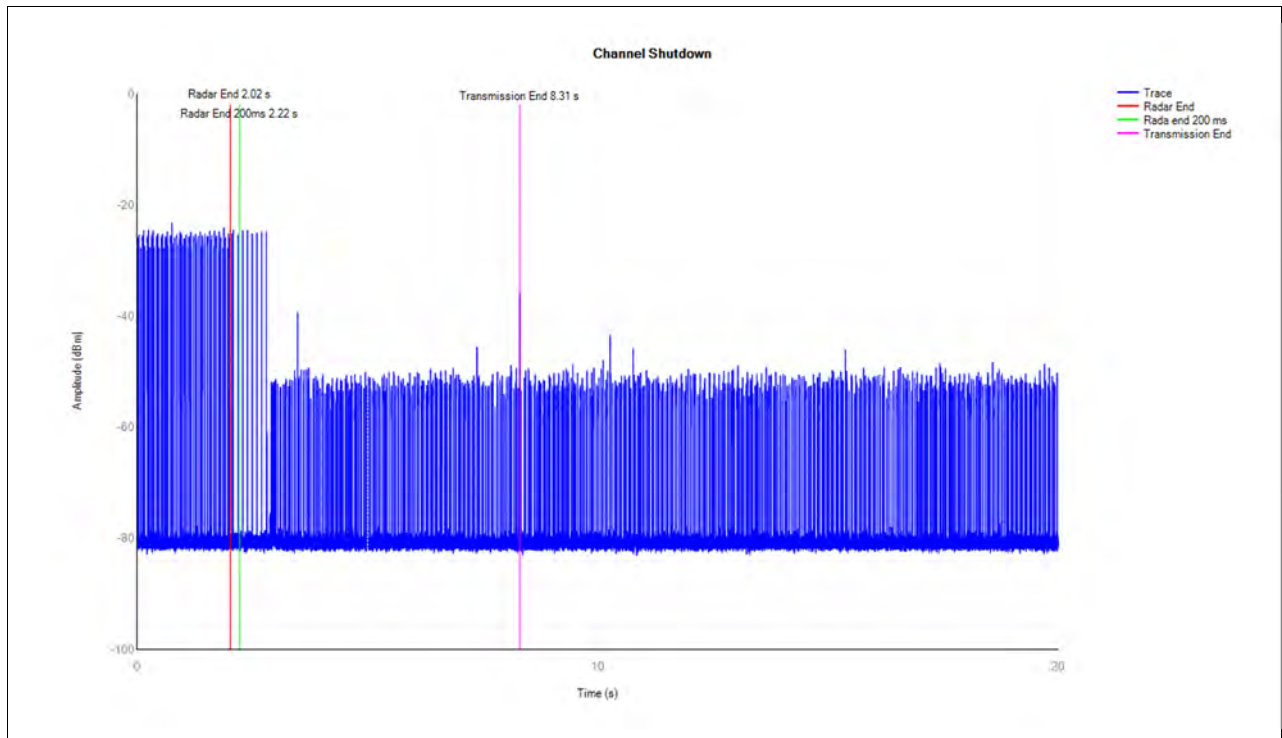
Sweep time: 20s



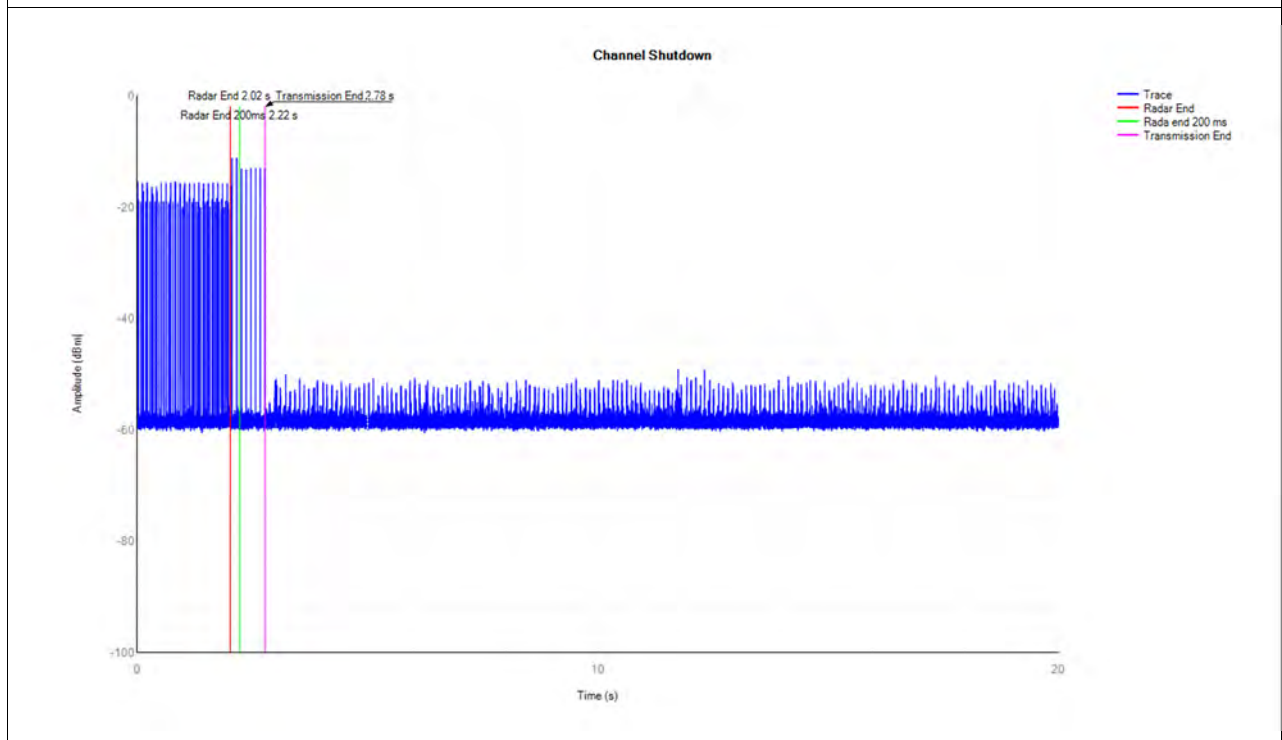
ac20 5320MHz Shutdown



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.



REPORT No.: SZ25110347W04

Non-Occupancy Period

Mode	Frequency (MHz)	Result	Verdict
ac20	5320	See test Graph	Pass
ac20	5500	See test Graph	Pass

Spectrum analyzer settings:

Span: Zero

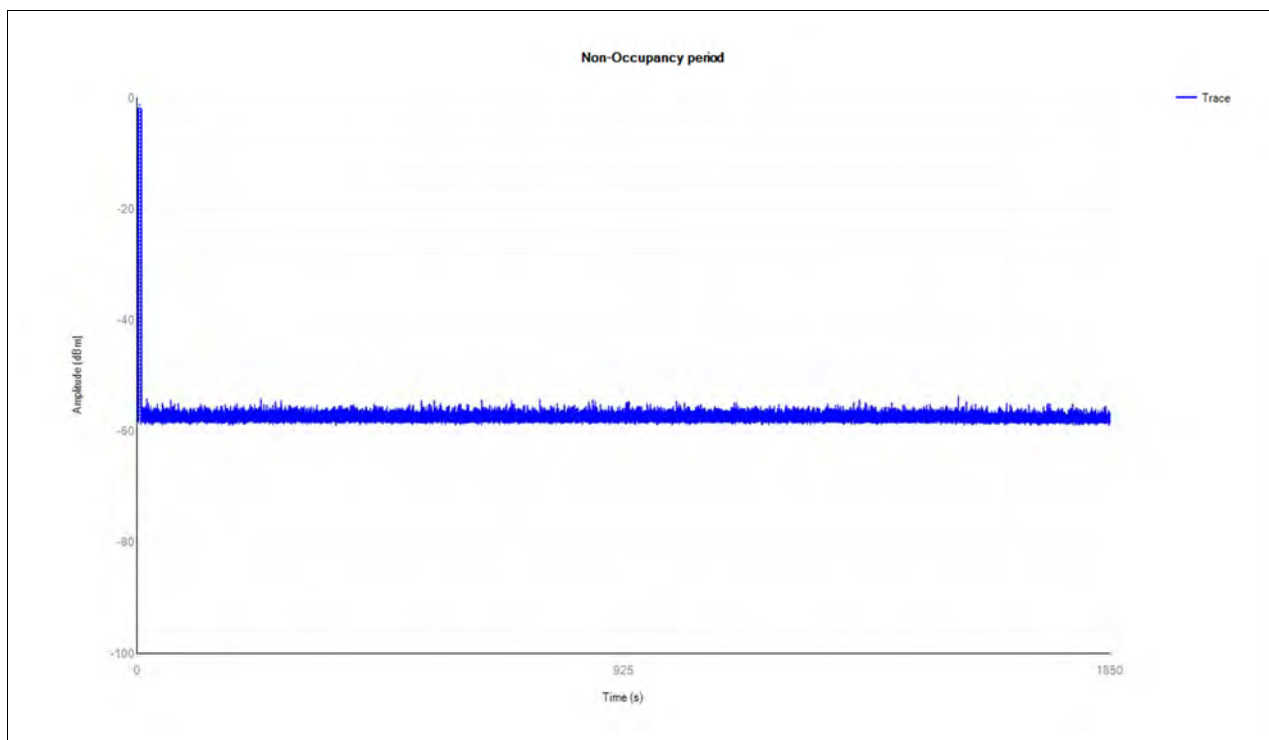
Detector type: Peak

RBW: 3MHz

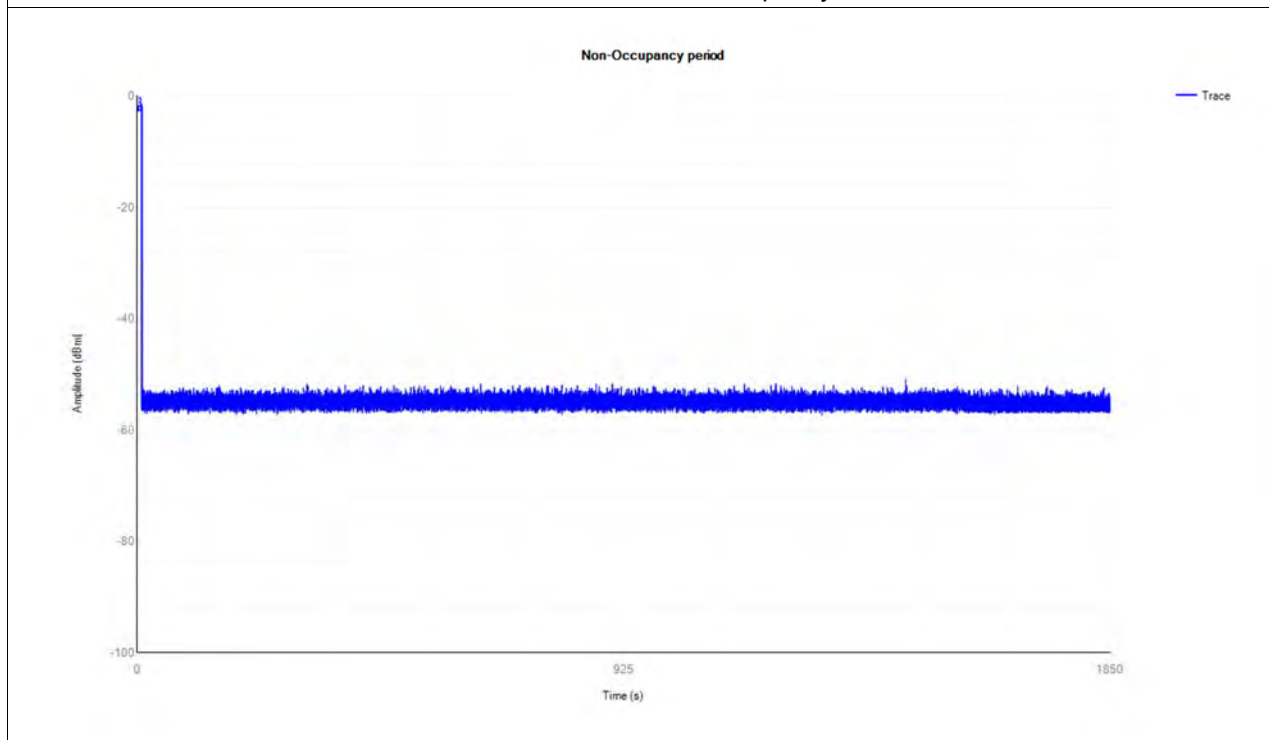
VBW: 3MHz

Sweep time: 1850s





ac20 5320MHz 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+DC source+Notebook+Notebook adapter+USB Cable+WIFI TX

Test voltage: AC 120V/60Hz

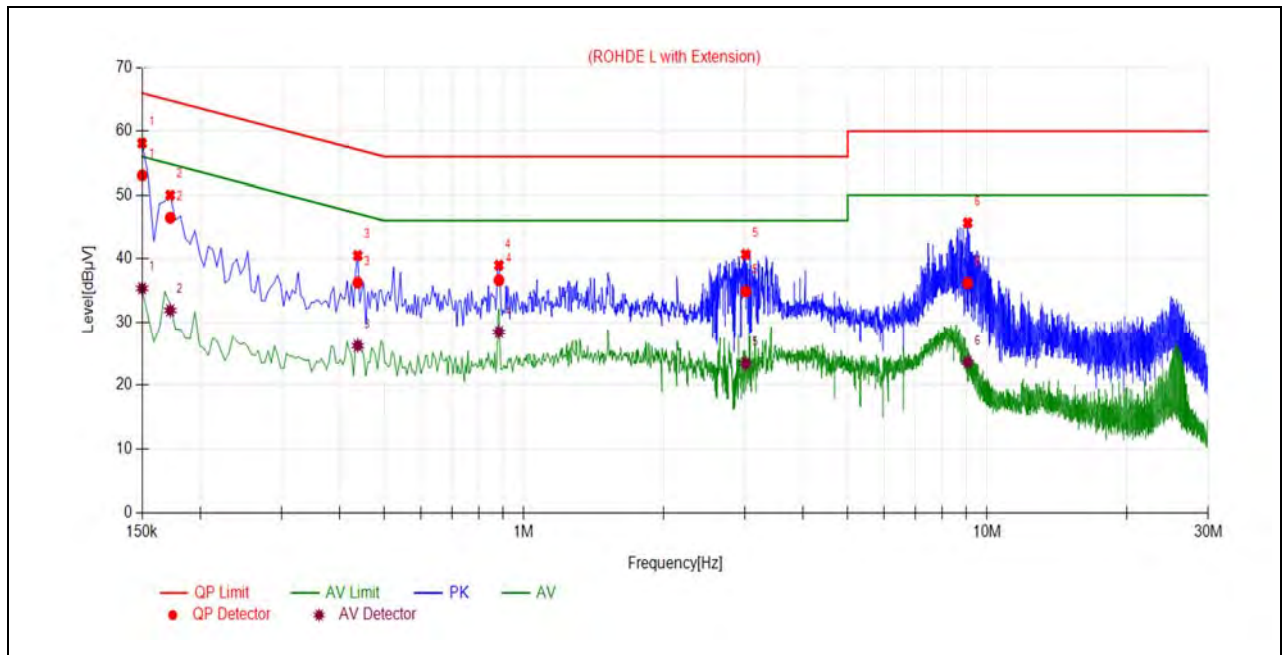
The measurement results are obtained as below:

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

U_R : Receiver Reading

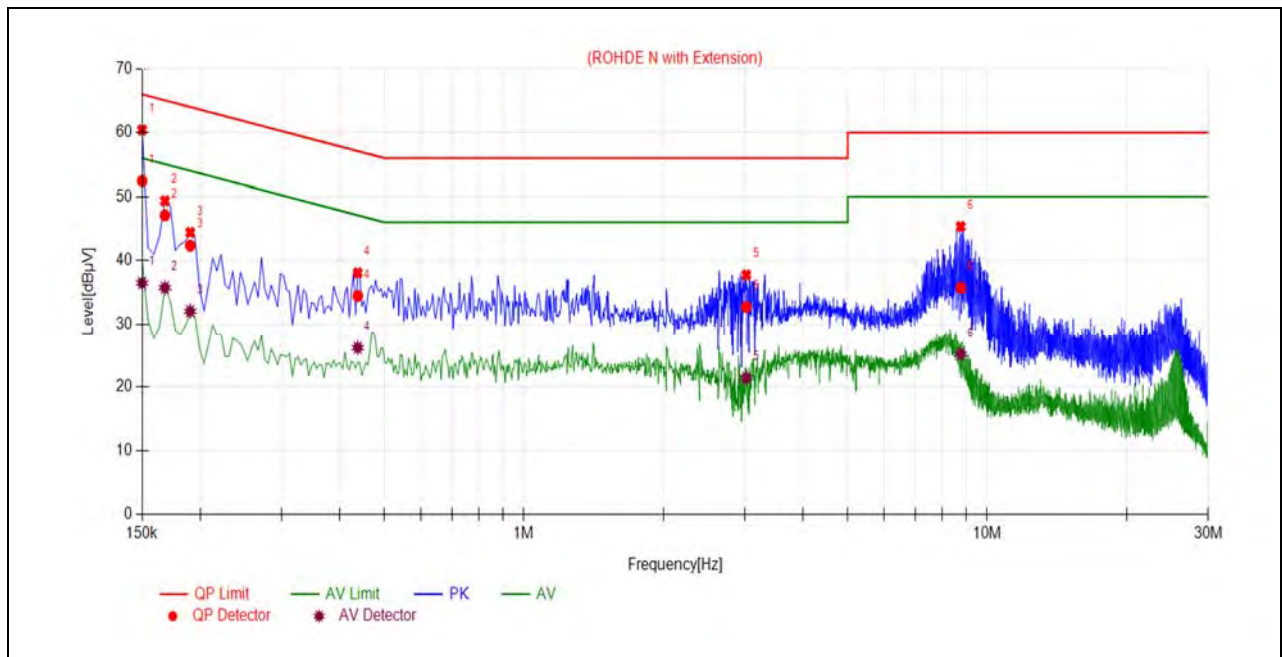
A_{Factor} : Voltage division factor of LISN

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	53.04	35.33	66.00	56.00	Line	PASS
2	0.1725	46.47	31.87	64.84	54.84		PASS
3	0.4380	36.25	26.19	57.10	47.10		PASS
4	0.8836	36.62	28.41	56.00	46.00		PASS
5	3.0122	34.84	23.36	56.00	46.00		PASS
6	9.0780	36.17	23.59	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	0.1500	52.43	36.48	66.00	56.00	Neutral	PASS
2	0.1680	47.10	35.75	65.06	55.06		PASS
3	0.1905	42.35	32.05	64.01	54.01		PASS
4	0.4380	34.45	26.18	57.10	47.10		PASS
5	3.0207	32.70	21.42	56.00	46.00		PASS
6	8.7672	35.73	25.19	60.00	50.00		PASS

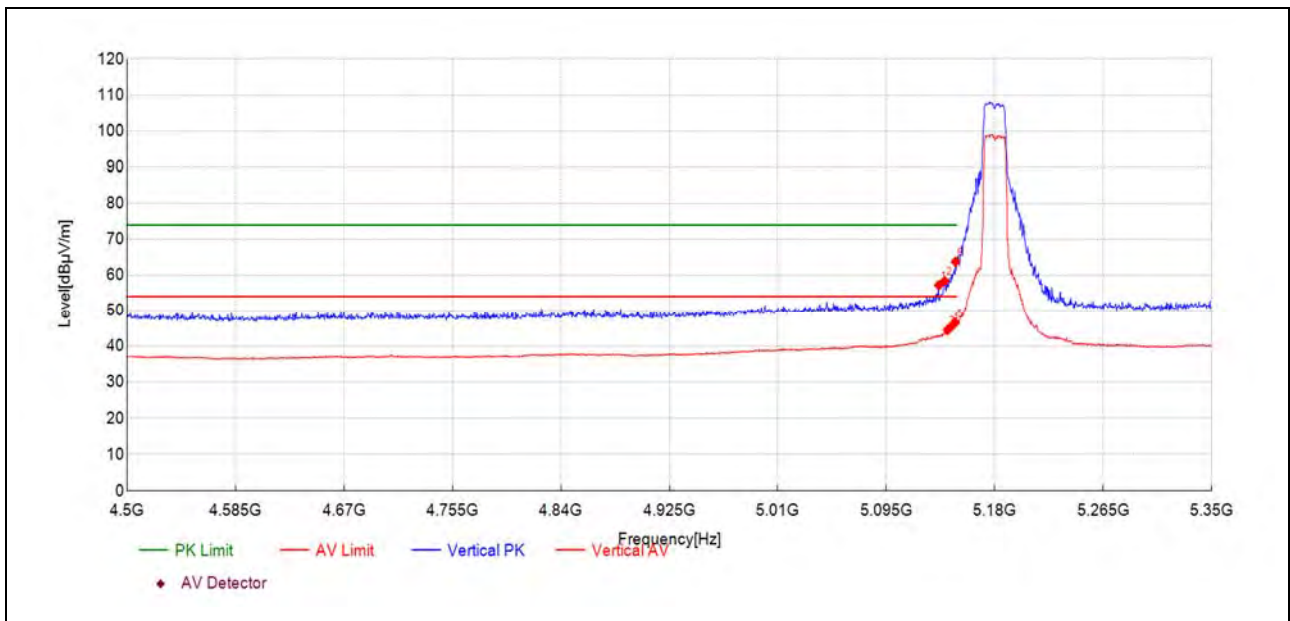
A.8. Restricted Frequency Bands

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition 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.

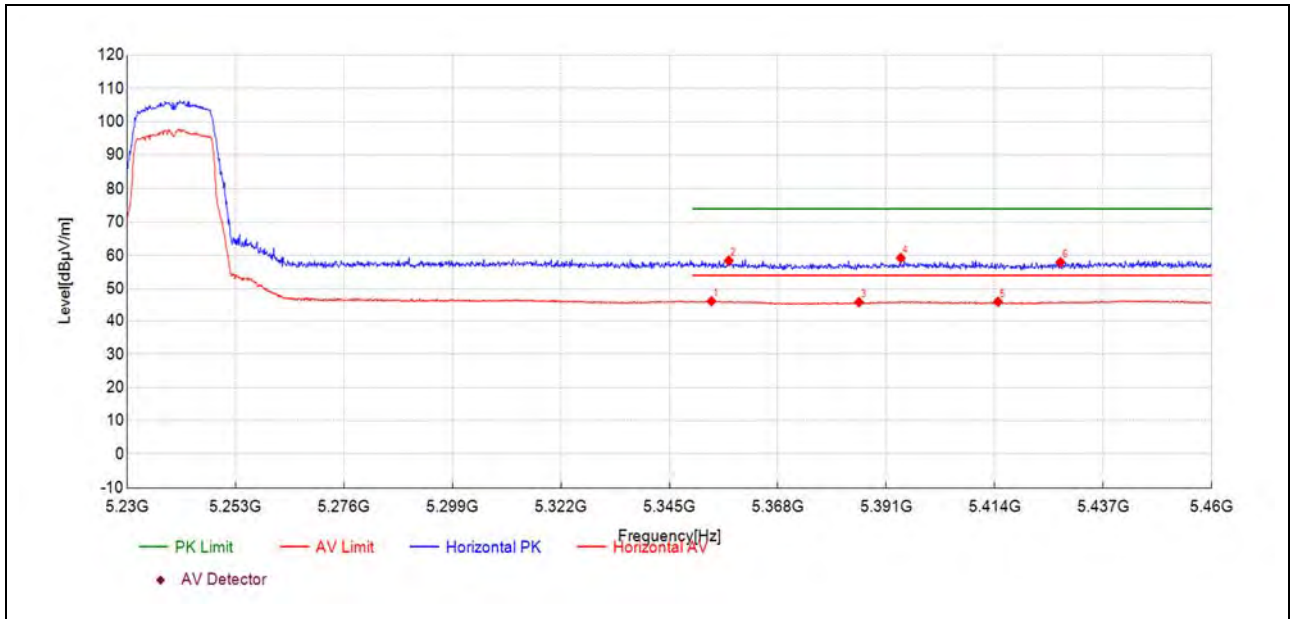
802.11a Mode

Plot for Channel 36



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4899.40	26.6	46.83	20.260	54.00	7.17	150	0	AV	PASS
4925.81	39.1	59.12	20.040	74.00	14.88	150	5	PK	PASS
5000.25	27.1	46.98	19.880	54.00	7.02	150	268	AV	PASS
5107.50	38.6	59.10	20.480	74.00	14.90	150	175	PK	PASS
5144.32	27.3	47.61	20.340	54.00	6.39	150	299	AV	PASS
5147.52	39.1	59.37	20.320	74.00	14.63	150	319	PK	PASS

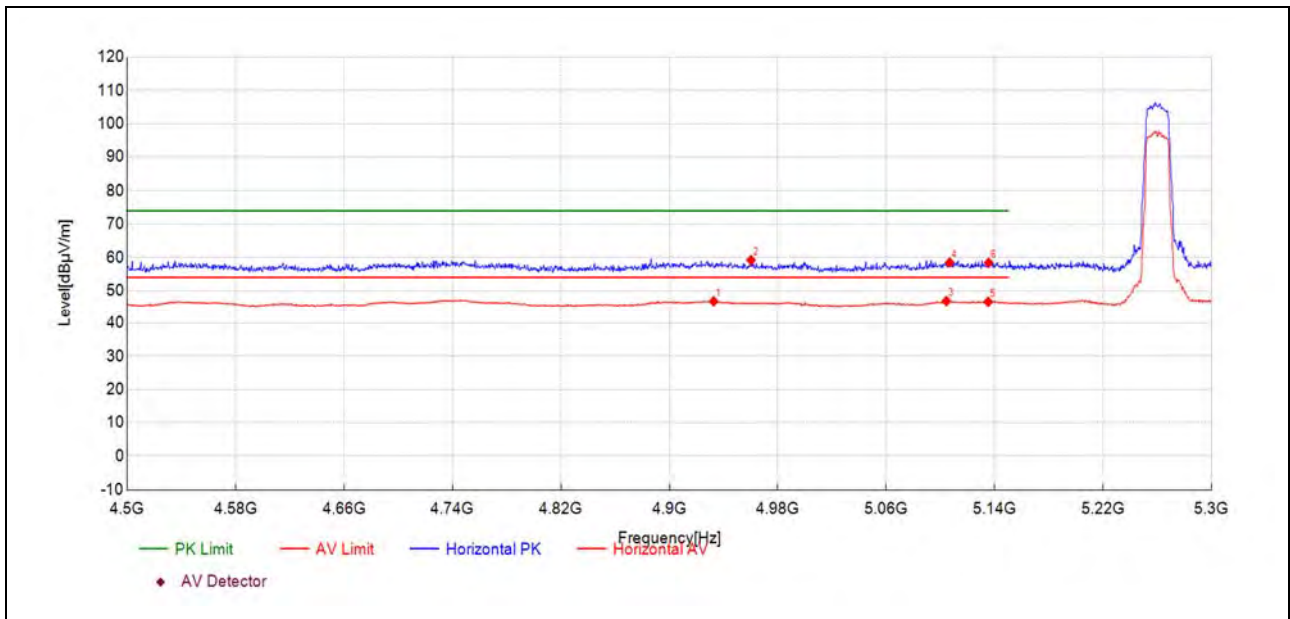
Plot for Channel 48



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5353.92	26.3	46.24	19.930	54.00	7.76	150	100	AV	PASS
5357.60	38.5	58.46	19.920	74.00	15.54	150	204	PK	PASS
5385.21	26.1	45.96	19.860	54.00	8.04	150	122	AV	PASS
5394.07	39.4	59.24	19.840	74.00	14.76	150	360	PK	PASS
5414.67	26.1	46.09	20.020	54.00	7.91	150	9	AV	PASS
5427.90	37.8	57.95	20.180	74.00	16.05	150	40	PK	PASS

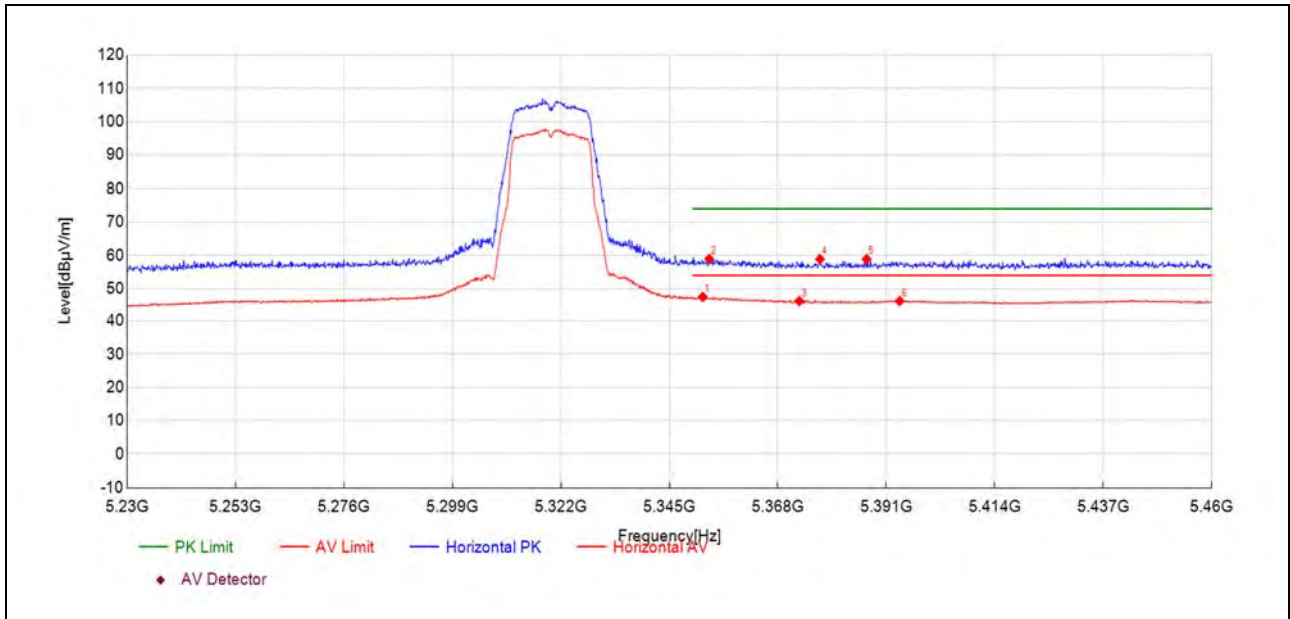


Plot for Channel 52



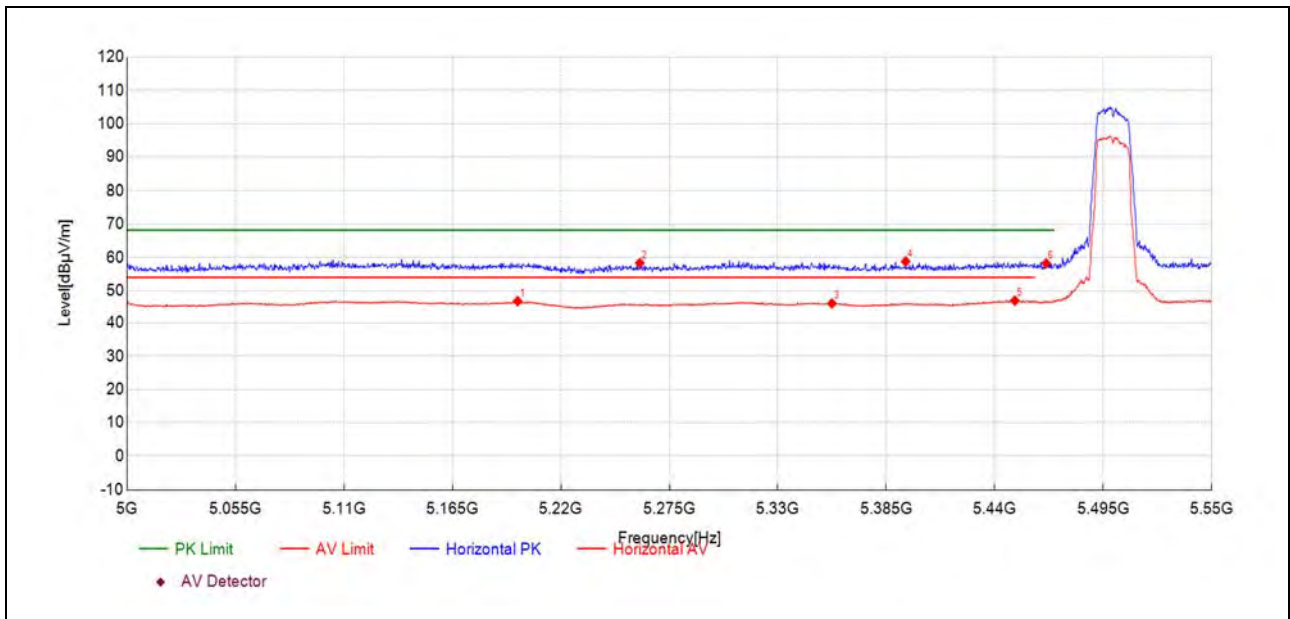
Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4932.62	26.8	46.81	19.980	54.00	7.19	150	103	AV	PASS
4960.23	39.4	59.20	19.840	74.00	14.80	150	42	PK	PASS
5104.30	26.4	46.90	20.500	54.00	7.10	150	310	AV	PASS
5106.70	38.0	58.48	20.500	74.00	15.52	150	258	PK	PASS
5135.12	26.3	46.66	20.380	54.00	7.34	150	145	AV	PASS
5135.52	38.0	58.39	20.380	74.00	15.61	150	83	PK	PASS

Plot for Channel 64



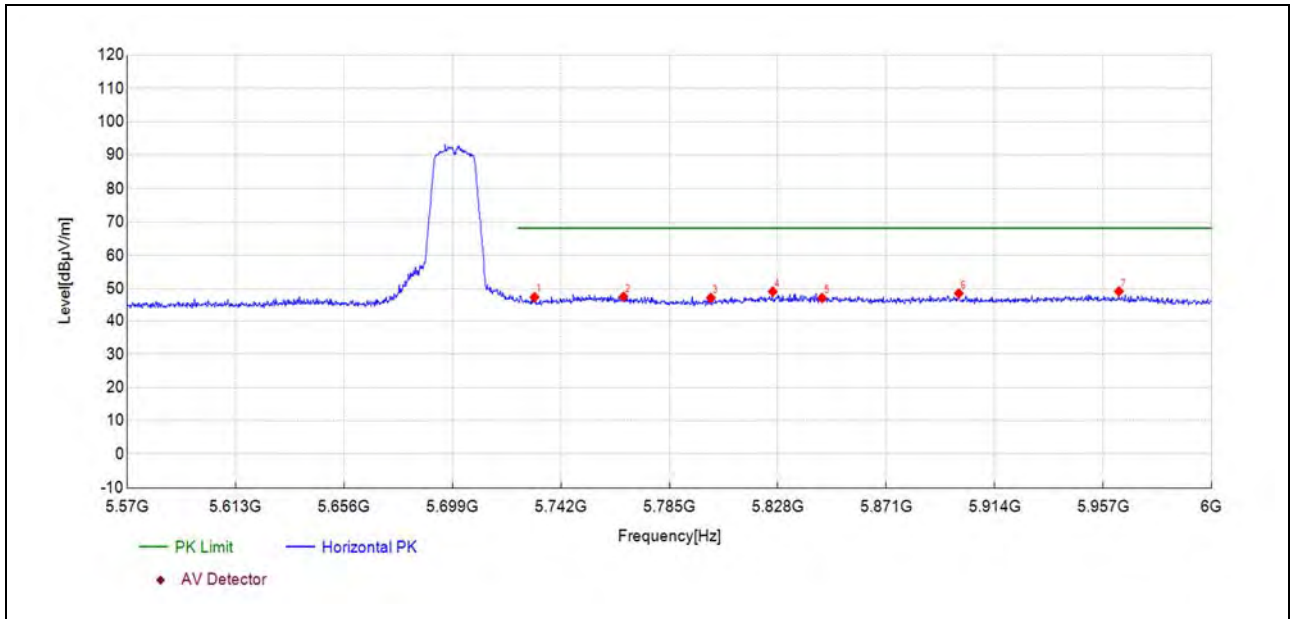
Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5352.08	27.6	47.55	19.940	54.00	6.45	150	300	AV	PASS
5353.46	39.1	58.98	19.930	74.00	15.02	150	347	PK	PASS
5372.56	26.4	46.30	19.890	54.00	7.70	150	289	AV	PASS
5376.93	39.0	58.90	19.880	74.00	15.10	150	340	PK	PASS
5386.82	39.0	58.90	19.860	74.00	15.10	150	310	PK	PASS
5393.84	26.5	46.30	19.840	54.00	7.70	150	310	AV	PASS

Plot for Channel 100



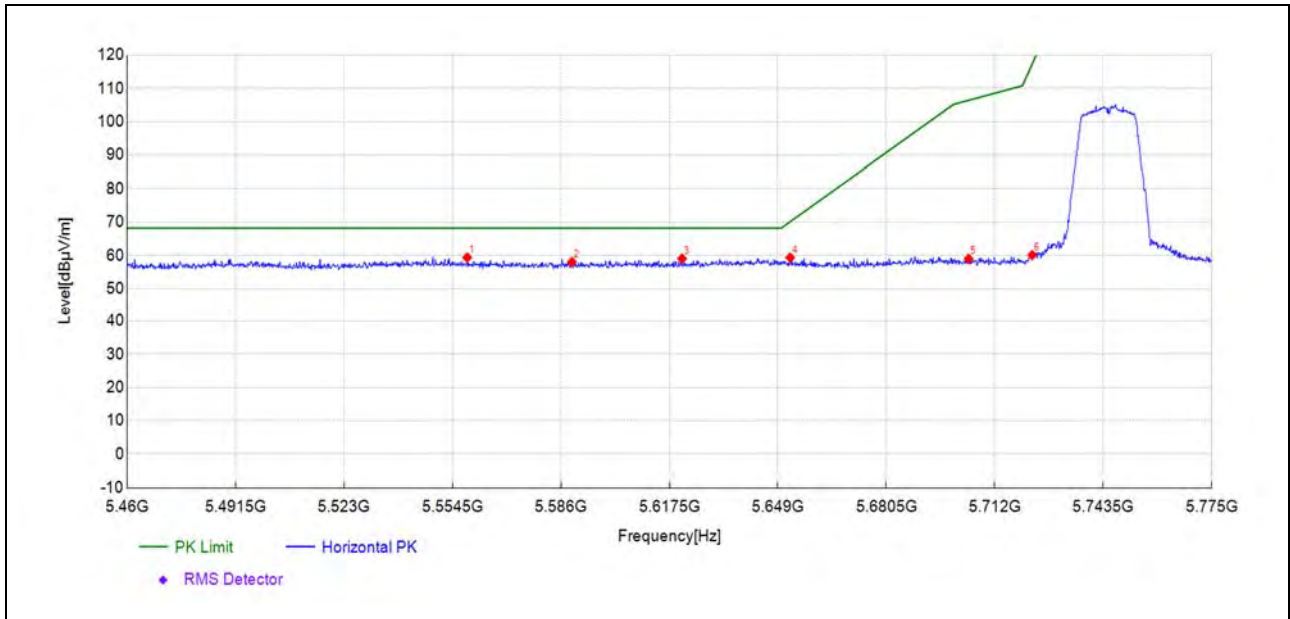
Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5198.10	26.4	46.85	20.410	54.00	7.15	150	0	AV	PASS
5260.01	38.4	58.33	19.920	68.23	9.90	150	320	PK	PASS
5357.40	26.3	46.18	19.930	54.00	7.82	150	14	AV	PASS
5394.82	39.0	58.79	19.840	68.23	9.44	150	207	PK	PASS
5450.13	26.6	47.02	20.470	54.00	6.98	150	350	AV	PASS
5466.08	37.9	58.23	20.380	68.23	10.00	150	1	PK	PASS

Plot for Channel 140



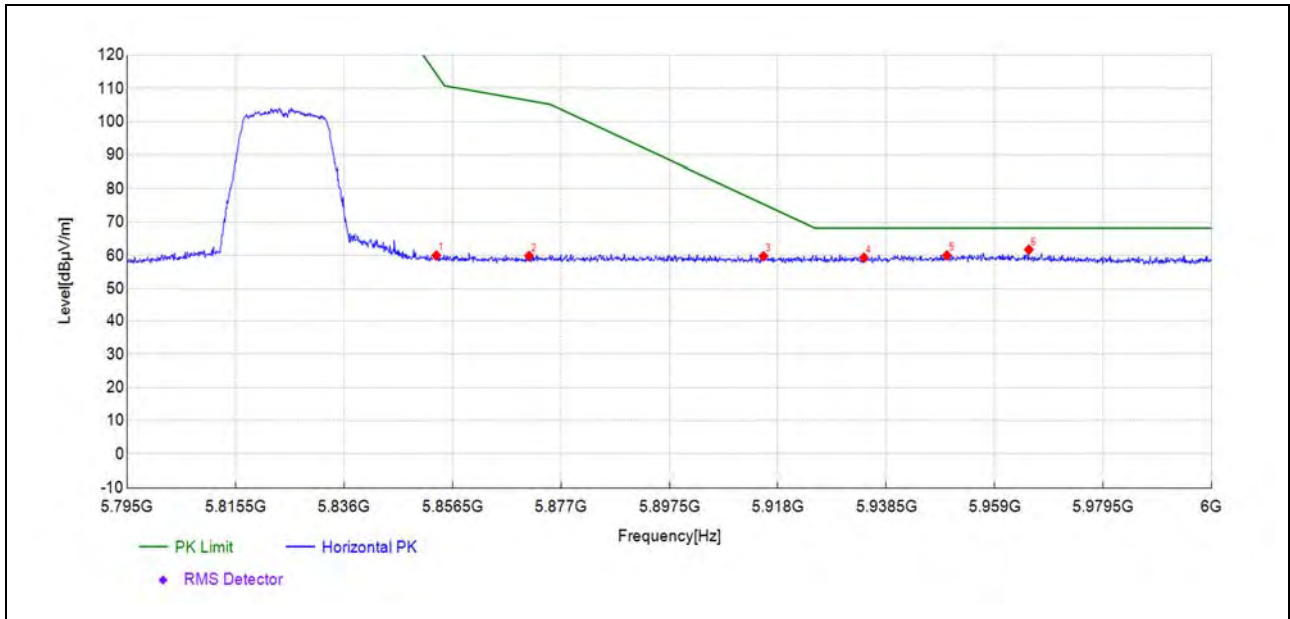
Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5731.55	38.1	47.45	9.360	68.23	20.78	150	123	PK	PASS
5766.82	38.0	47.61	9.660	68.23	20.62	150	10	PK	PASS
5801.46	37.5	47.23	9.720	68.23	21.00	150	340	PK	PASS
5825.98	39.0	49.14	10.100	68.23	19.09	150	133	PK	PASS
5845.55	36.8	47.21	10.390	68.23	21.02	150	29	PK	PASS
5899.76	38.9	48.60	9.720	68.23	19.63	150	257	PK	PASS
5963.22	39.2	49.22	10.020	68.23	19.01	150	340	PK	PASS

Plot for Channel 149



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5558.80	39.1	59.38	20.240	68.23	8.85	150	74	PK	PASS
5589.21	37.9	58.03	20.160	68.23	10.20	150	356	PK	PASS
5621.20	38.6	59.06	20.500	68.23	9.17	150	141	PK	PASS
5652.56	38.4	59.35	20.990	70.13	10.78	150	47	PK	PASS
5704.40	38.1	59.02	20.950	106.46	47.44	150	47	PK	PASS
5722.84	38.9	60.12	21.230	117.31	57.19	150	302	PK	PASS

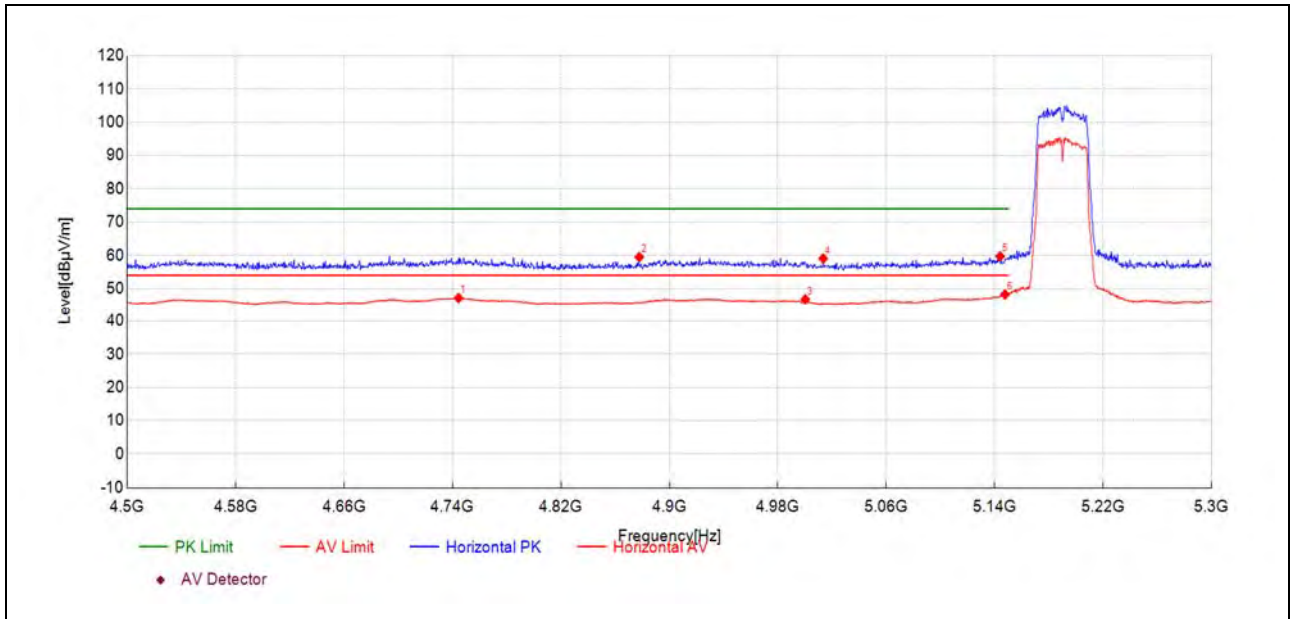
Plot for Channel 165



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5853.45	37.6	60.02	22.410	114.35	54.33	150	360	PK	PASS
5870.99	37.7	59.86	22.150	106.35	46.49	150	285	PK	PASS
5915.29	37.9	59.75	21.840	75.41	15.66	150	266	PK	PASS
5934.26	37.3	59.34	22.000	68.23	8.89	150	360	PK	PASS
5949.95	37.9	60.00	22.120	68.23	8.23	150	123	PK	PASS
5965.44	39.8	61.75	22.000	68.23	6.48	150	48	PK	PASS

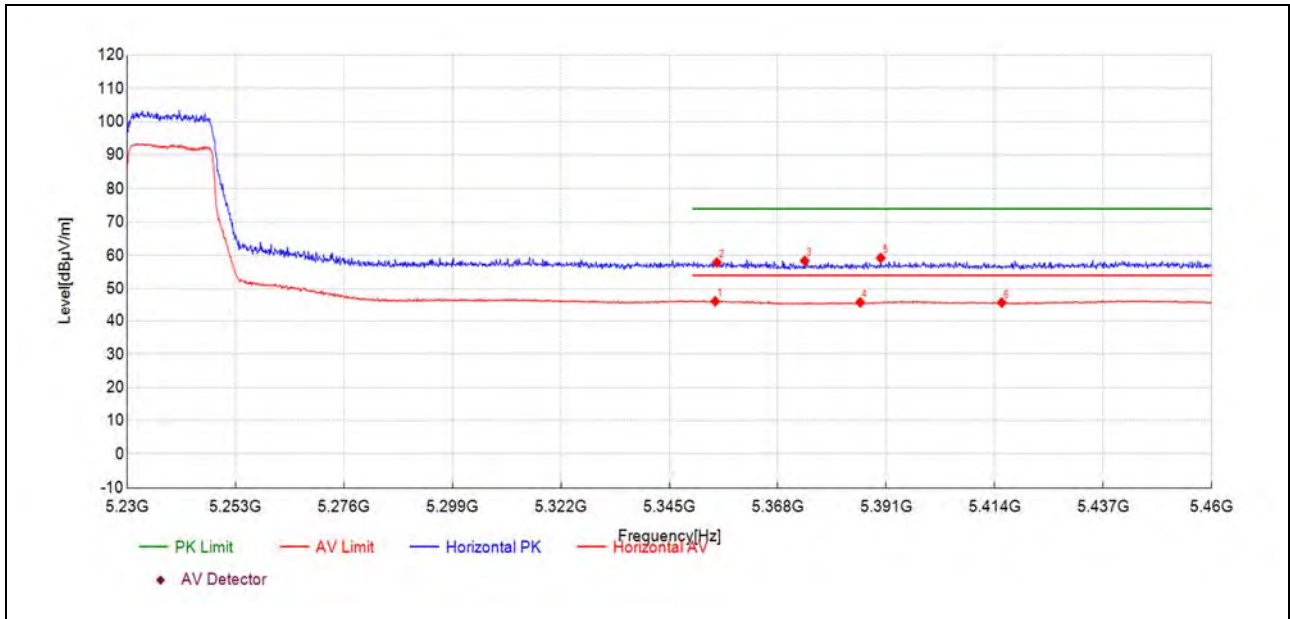
**802.11n (HT40) Mode**

Plot for Channel 38



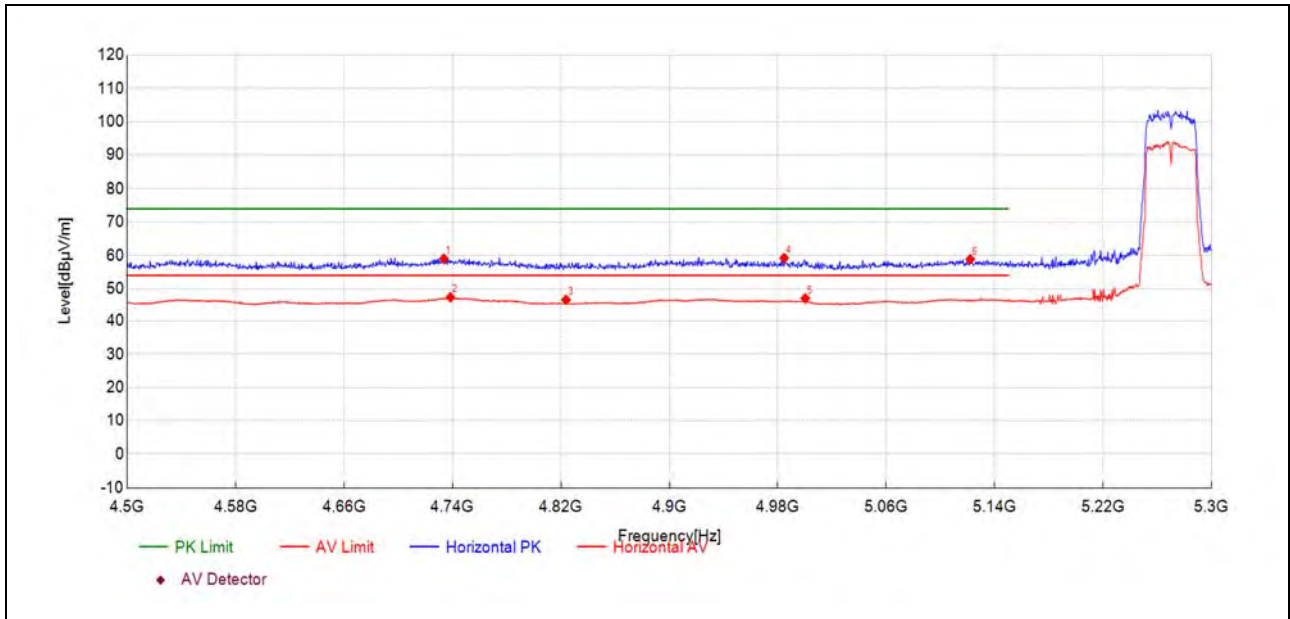
Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4744.52	26.8	47.16	20.320	54.00	6.84	150	356	AV	PASS
4877.79	39.4	59.49	20.070	74.00	14.51	150	53	PK	PASS
5000.25	26.9	46.81	19.880	54.00	7.19	150	360	AV	PASS
5013.46	39.1	59.06	19.960	74.00	14.94	150	22	PK	PASS
5143.92	39.4	59.72	20.340	74.00	14.28	150	299	PK	PASS
5147.52	27.9	48.26	20.320	54.00	5.74	150	299	AV	PASS

Plot for Channel 46



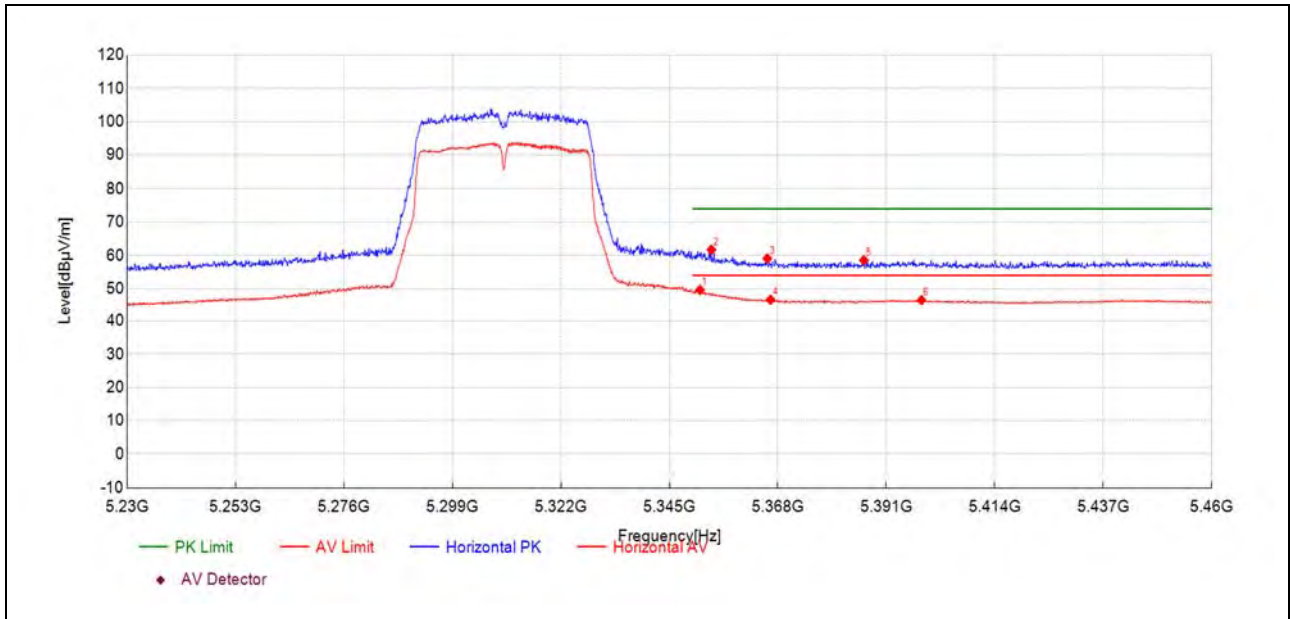
Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5354.72	26.3	46.21	19.930	54.00	7.79	150	165	AV	PASS
5355.07	37.9	57.86	19.930	74.00	16.14	150	42	PK	PASS
5373.71	38.5	58.37	19.890	74.00	15.63	150	0	PK	PASS
5385.44	26.1	45.93	19.860	54.00	8.07	150	93	AV	PASS
5389.81	39.4	59.25	19.850	74.00	14.75	150	124	PK	PASS
5415.47	25.8	45.83	20.030	54.00	8.17	150	319	AV	PASS

Plot for Channel 54



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4733.72	38.7	59.00	20.310	74.00	15.00	150	356	PK	PASS
4738.52	27.1	47.43	20.310	54.00	6.57	150	288	AV	PASS
4823.76	27.0	46.66	19.620	54.00	7.34	150	2	AV	PASS
4984.64	39.4	59.22	19.860	74.00	14.78	150	237	PK	PASS
5000.25	27.2	47.11	19.880	54.00	6.89	150	0	AV	PASS
5121.91	38.4	58.87	20.440	74.00	15.13	150	258	PK	PASS

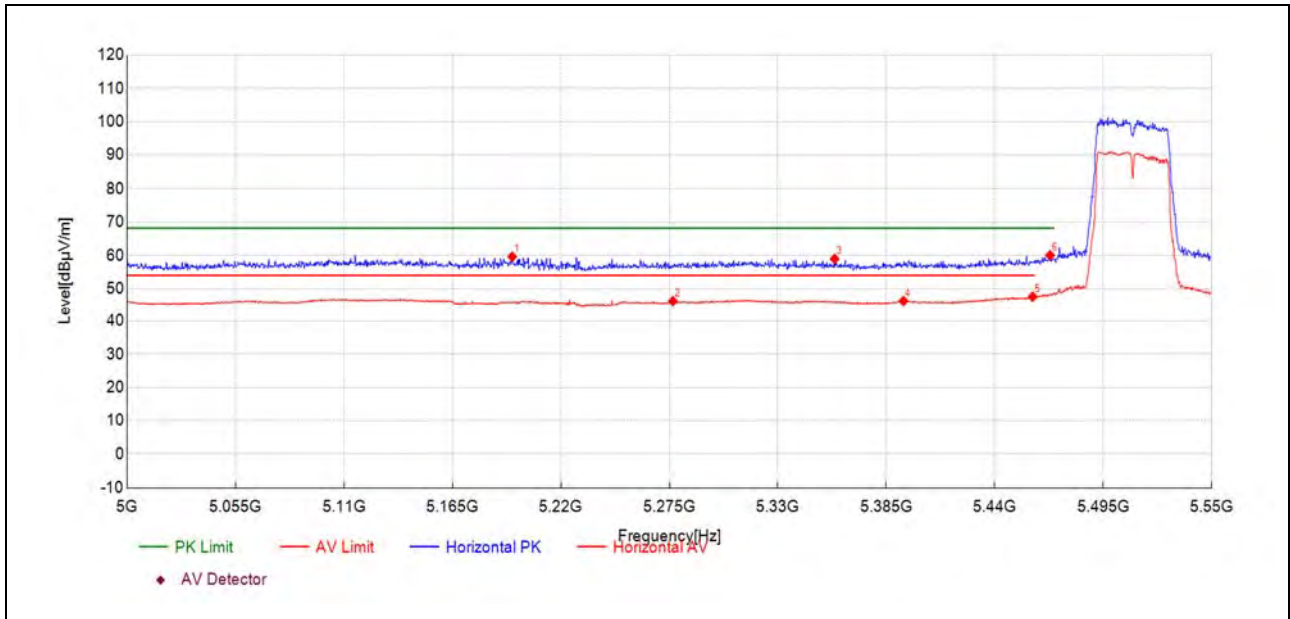
Plot for Channel 62



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.50	29.7	49.64	19.940	54.00	4.36	150	296	AV	PASS
5353.92	41.8	61.70	19.930	74.00	12.30	150	317	PK	PASS
5365.77	39.2	59.06	19.910	74.00	14.94	150	173	PK	PASS
5366.46	26.8	46.68	19.910	54.00	7.32	150	296	AV	PASS
5386.25	38.7	58.56	19.860	74.00	15.44	150	360	PK	PASS
5398.44	26.7	46.56	19.830	54.00	7.44	150	296	AV	PASS



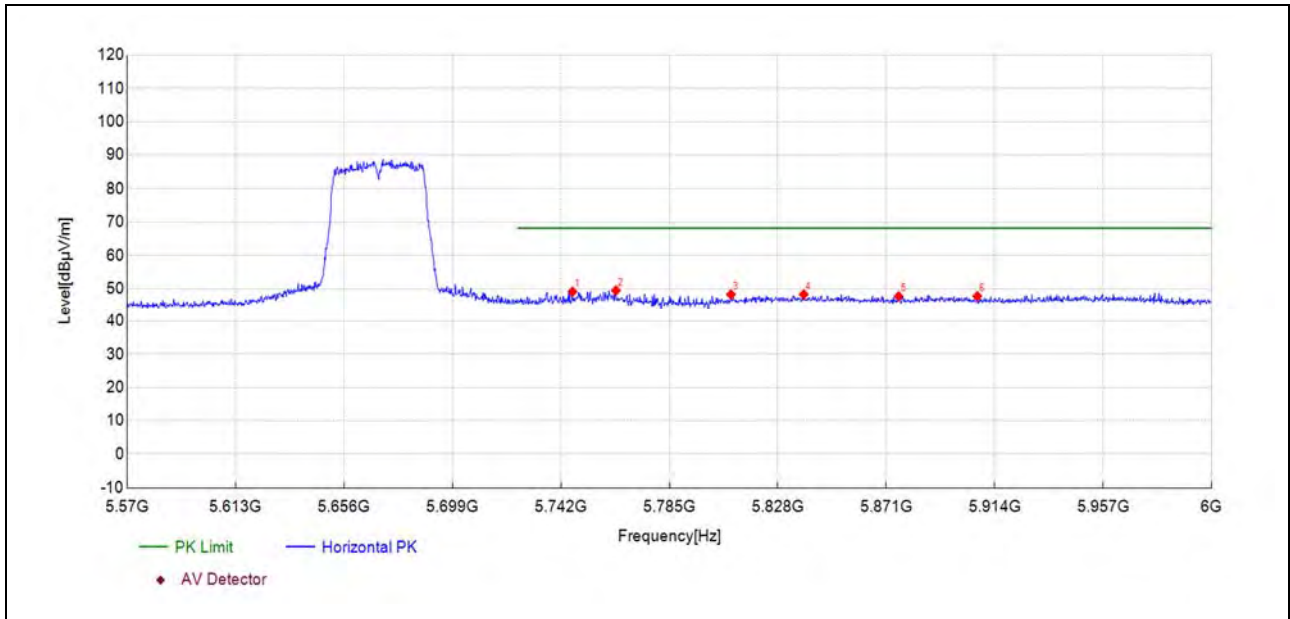
Plot for Channel 102



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5195.35	39.2	59.62	20.410	68.23	8.61	150	112	PK	PASS
5276.79	26.2	46.27	20.050	54.00	7.73	150	352	AV	PASS
5358.78	39.1	58.98	19.920	68.23	9.25	150	360	PK	PASS
5393.72	26.5	46.30	19.840	54.00	7.70	150	204	AV	PASS
5459.20	27.2	47.60	20.420	54.00	6.40	150	355	AV	PASS
5468.01	39.7	60.04	20.370	68.23	8.19	150	355	PK	PASS

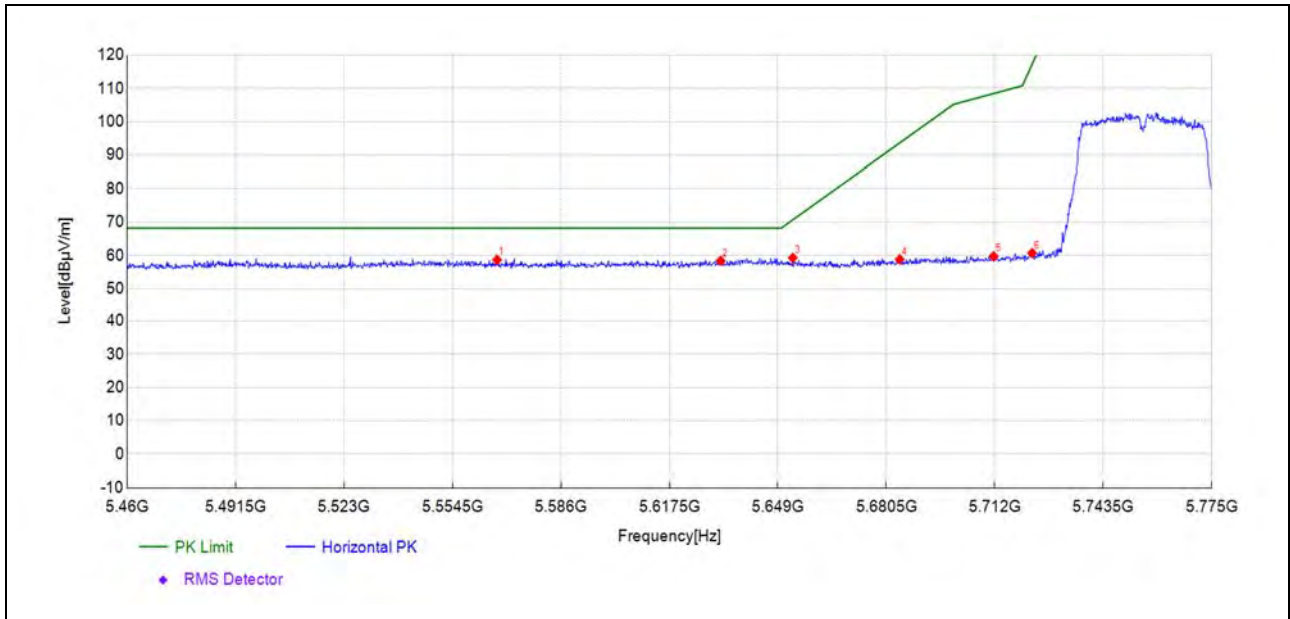


Plot for Channel 134



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5746.60	39.5	49.12	9.590	68.23	19.11	150	123	PK	PASS
5763.81	39.8	49.46	9.660	68.23	18.77	150	341	PK	PASS
5809.41	38.4	48.26	9.840	68.23	19.97	150	95	PK	PASS
5838.24	38.0	48.26	10.280	68.23	19.97	150	303	PK	PASS
5875.88	37.6	47.72	10.080	68.23	20.51	150	133	PK	PASS
5907.07	38.0	47.75	9.770	68.23	20.48	150	356	PK	PASS

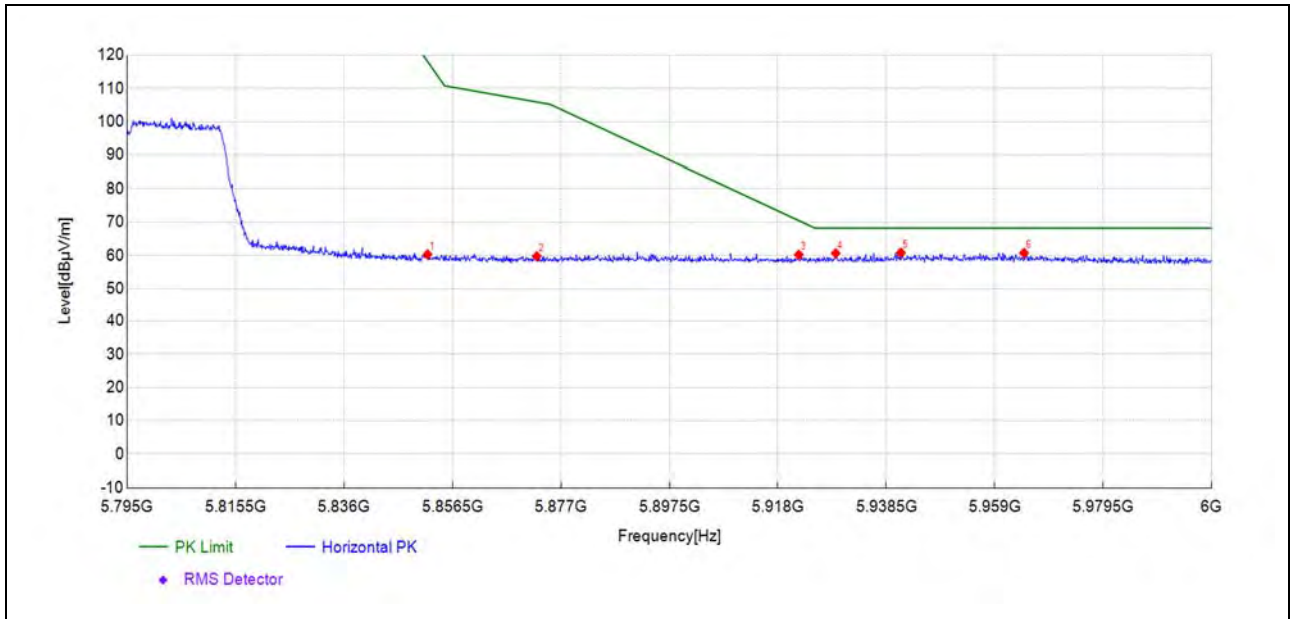
Plot for Channel 151



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5567.47	38.5	58.69	20.230	68.23	9.54	150	4	PK	PASS
5632.39	37.7	58.36	20.690	68.23	9.87	150	115	PK	PASS
5653.35	38.3	59.28	21.000	70.71	11.43	150	359	PK	PASS
5684.39	37.9	58.84	20.920	93.68	34.84	150	359	PK	PASS
5711.65	38.7	59.74	21.050	108.49	48.75	150	302	PK	PASS
5722.84	39.5	60.71	21.230	117.31	56.60	150	294	PK	PASS



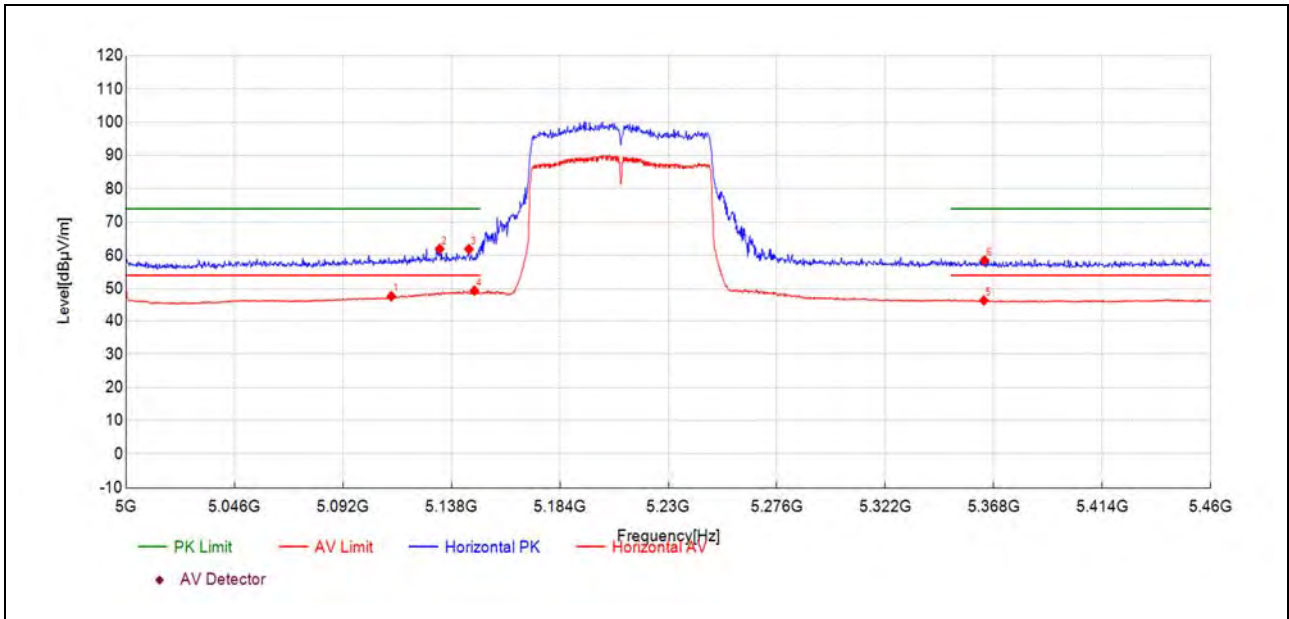
Plot for Channel 159



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5851.81	37.9	60.32	22.430	118.10	57.78	150	182	PK	PASS
5872.43	37.6	59.75	22.130	105.95	46.20	150	5	PK	PASS
5921.96	38.3	60.21	21.890	70.48	10.27	150	0	PK	PASS
5928.93	38.7	60.65	21.950	68.23	7.58	150	315	PK	PASS
5941.24	38.8	60.81	22.050	68.23	7.42	150	276	PK	PASS
5964.52	38.7	60.73	22.000	68.23	7.50	150	49	PK	PASS

**802.11ac (VHT80) Mode**

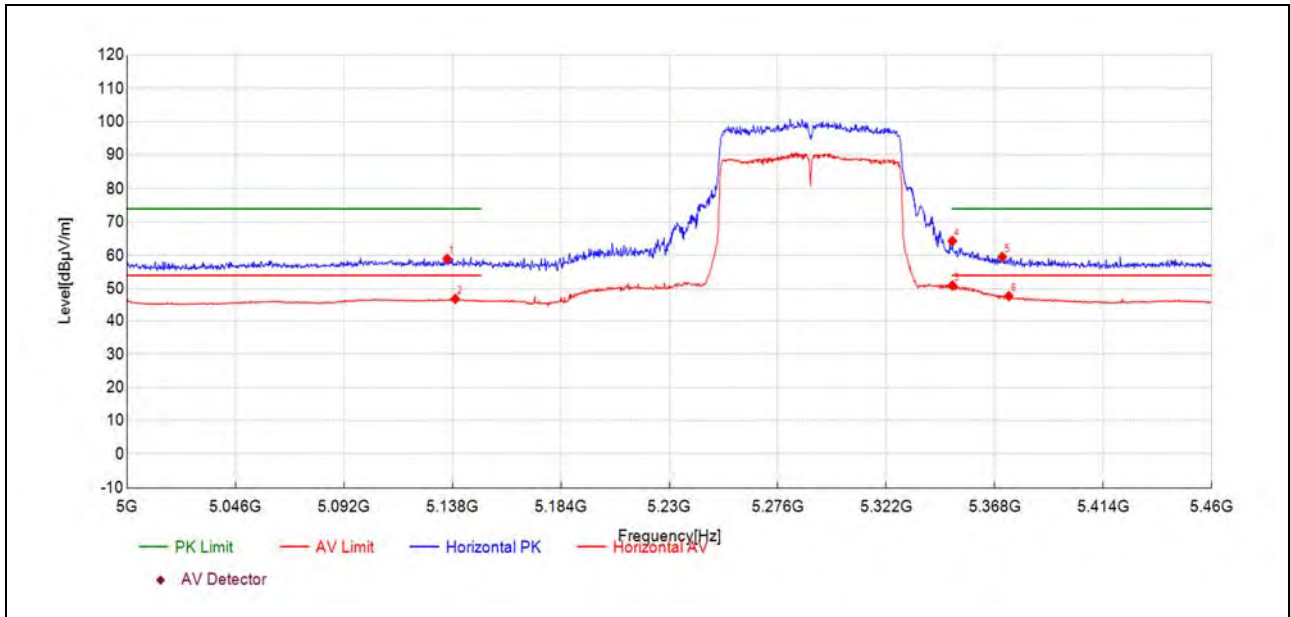
Plot for Channel 42



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5112.53	27.3	47.72	20.460	54.00	6.28	150	298	AV	PASS
5133.01	41.6	61.94	20.380	74.00	12.06	150	298	PK	PASS
5145.43	41.5	61.88	20.340	74.00	12.12	150	298	PK	PASS
5147.73	29.1	49.40	20.320	54.00	4.60	150	286	AV	PASS
5363.81	26.5	46.45	19.910	54.00	7.55	150	91	AV	PASS
5364.04	38.6	58.48	19.910	74.00	15.52	150	286	PK	PASS



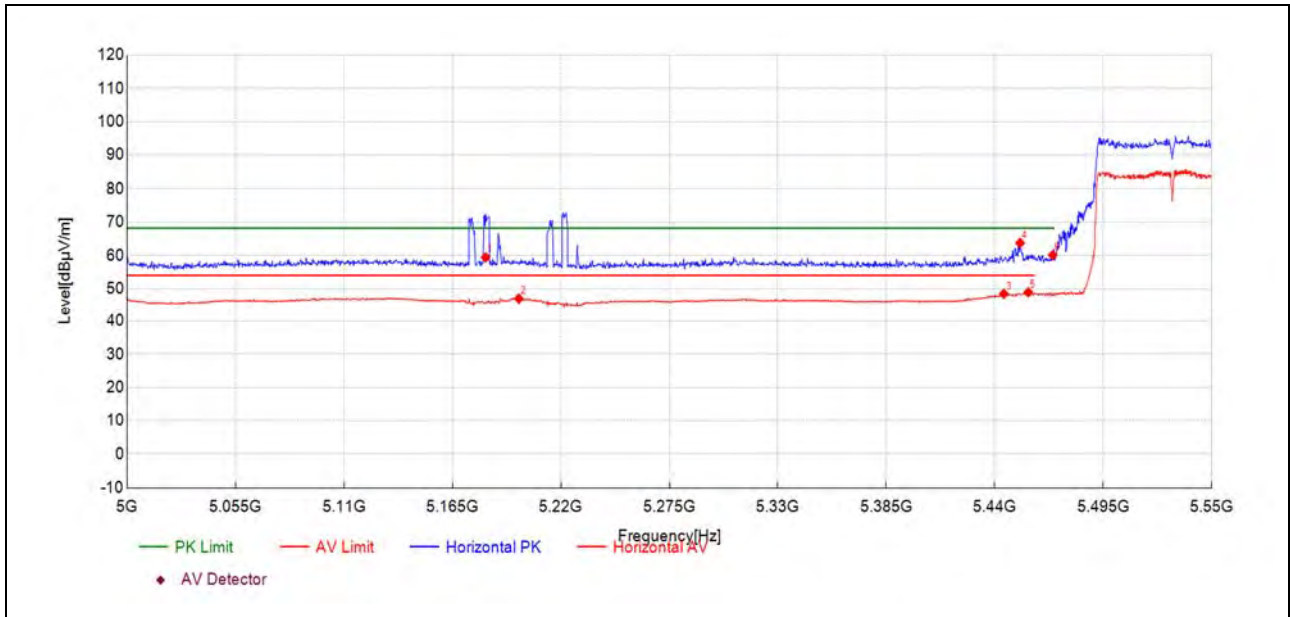
Plot for Channel 58



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5135.77	38.6	59.00	20.380	74.00	15.00	150	329	PK	PASS
5139.22	26.6	46.95	20.360	54.00	7.05	150	62	AV	PASS
5350.01	31.0	50.95	19.940	54.00	3.05	150	288	AV	PASS
5350.01	44.4	64.37	19.940	74.00	9.63	150	278	PK	PASS
5371.18	39.7	59.57	19.900	74.00	14.43	150	349	PK	PASS
5373.94	27.9	47.79	19.890	54.00	6.21	150	288	AV	PASS



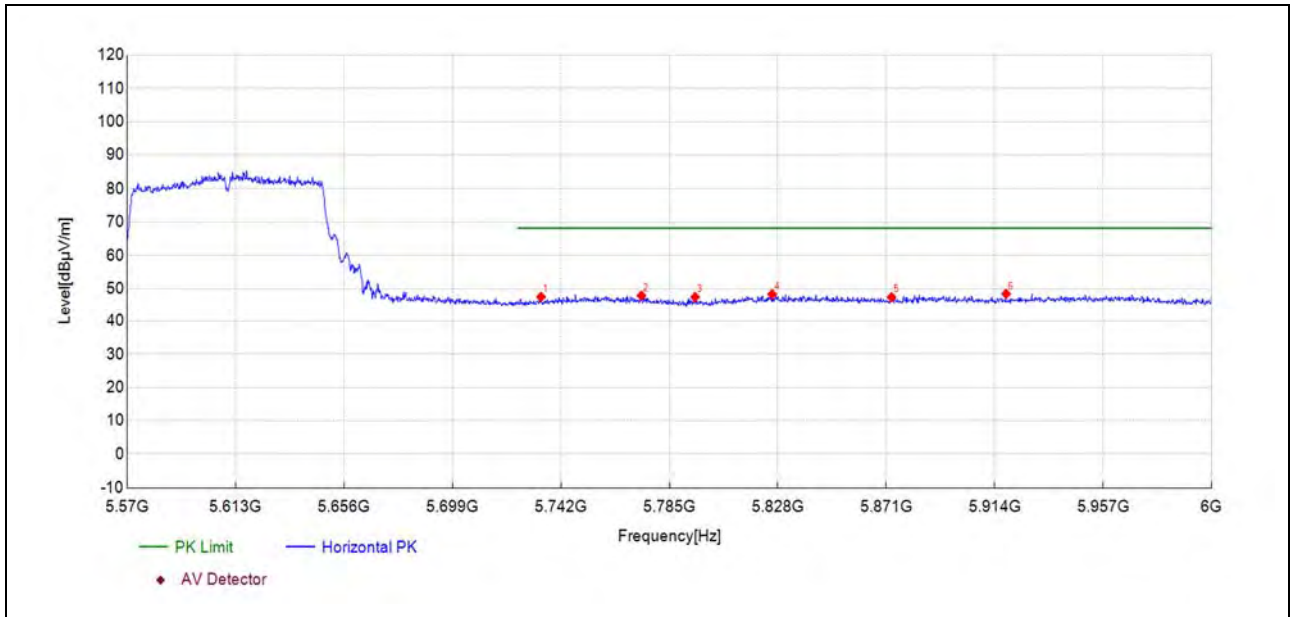
Plot for Channel 106



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5181.87	39.0	59.42	20.390	68.23	8.81	150	359	PK	PASS
5198.65	26.6	47.01	20.410	54.00	6.99	150	183	AV	PASS
5444.62	28.0	48.45	20.410	54.00	5.55	150	350	AV	PASS
5452.88	43.3	63.75	20.450	68.23	4.48	150	350	PK	PASS
5457.00	28.5	48.91	20.440	54.00	5.09	150	350	AV	PASS
5469.38	39.7	60.10	20.370	68.23	8.13	150	294	PK	PASS

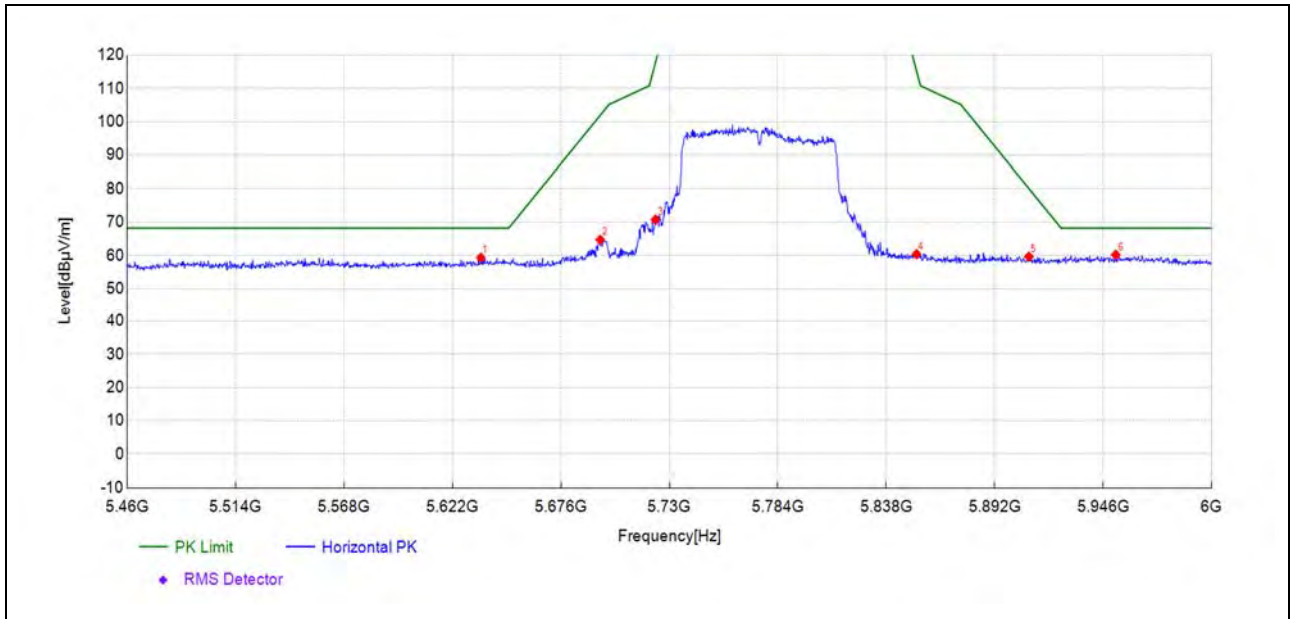


Plot for Channel 122



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5734.13	38.1	47.53	9.400	68.23	20.70	150	350	PK	PASS
5773.92	38.2	47.88	9.670	68.23	20.35	150	350	PK	PASS
5795.22	37.8	47.48	9.690	68.23	20.75	150	341	PK	PASS
5825.76	38.3	48.34	10.090	68.23	19.89	150	189	PK	PASS
5873.09	37.3	47.42	10.120	68.23	20.81	150	123	PK	PASS
5918.47	38.6	48.44	9.870	68.23	19.79	150	2	PK	PASS

Plot for Channel 155



Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5636.13	38.5	59.30	20.770	68.23	8.93	150	359	PK	PASS
5695.56	43.8	64.72	20.890	101.94	37.22	150	304	PK	PASS
5723.11	49.5	70.76	21.230	117.92	47.16	150	38	PK	PASS
5853.05	38.0	60.38	22.420	115.28	54.90	150	256	PK	PASS
5908.96	37.8	59.62	21.790	80.10	20.48	150	219	PK	PASS
5952.19	38.1	60.17	22.100	68.23	8.06	150	86	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.

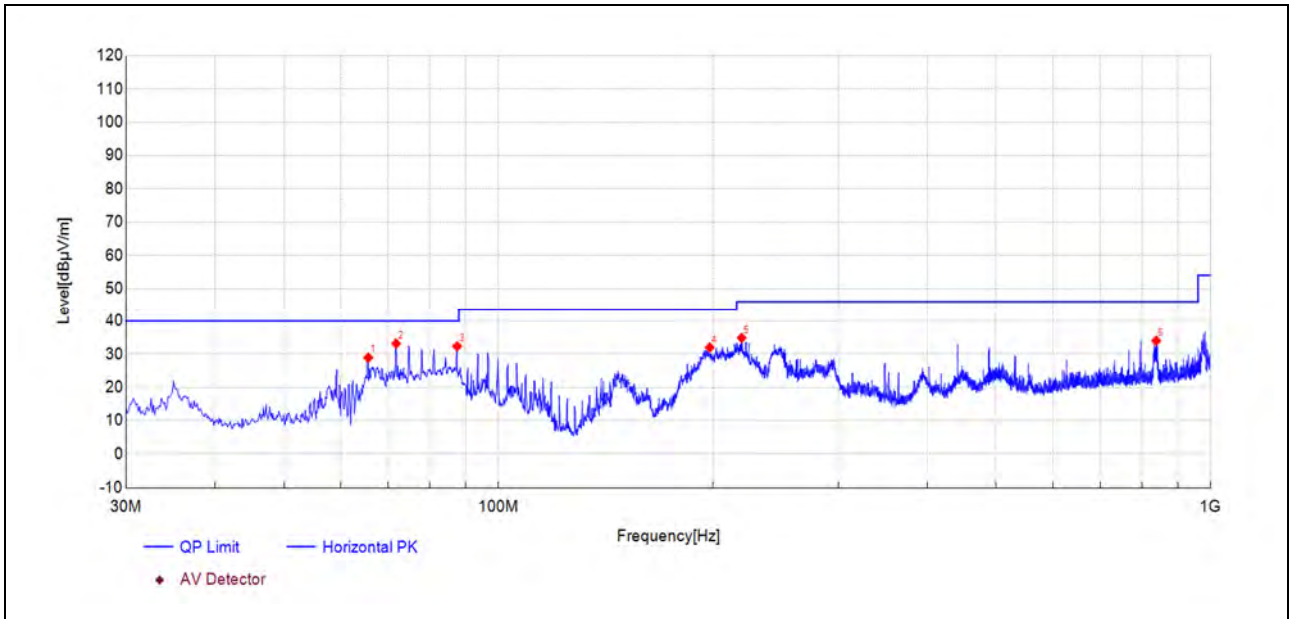
Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

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.

Note4: All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

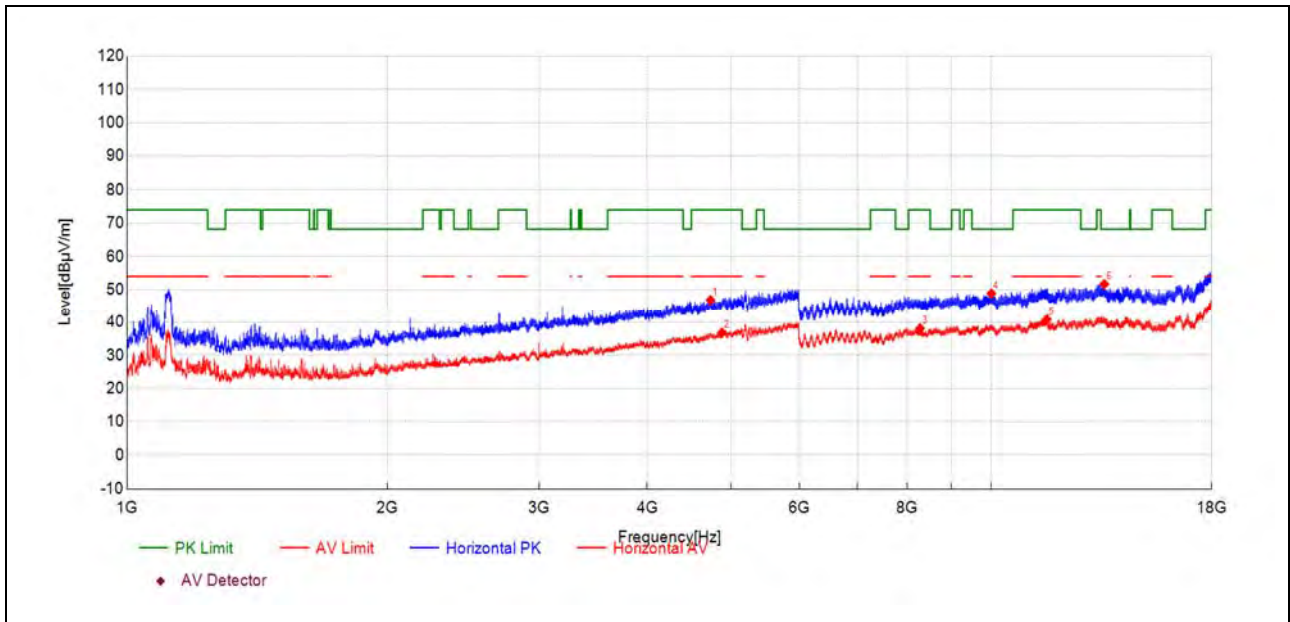
**802.11a Mode**

Plot for Channel 44



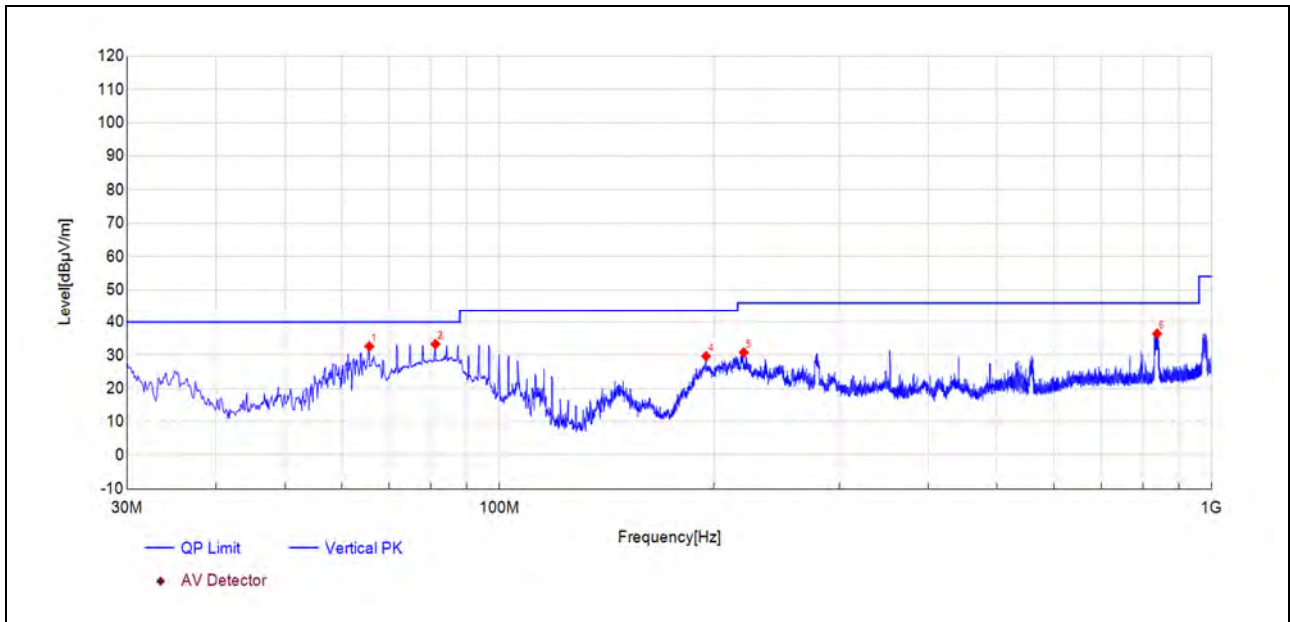
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
65.65	61.8	28.95	-32.890	40.00	11.05	150	296	PK	PASS
71.84	68.0	33.17	-34.830	40.00	6.83	150	329	PK	PASS
87.48	65.3	32.36	-32.960	40.00	7.64	150	120	PK	PASS
197.95	61.9	32.01	-29.910	43.50	11.49	150	0	PK	PASS
219.54	64.1	34.88	-29.250	46.00	11.12	150	153	PK	PASS
838.35	49.9	34.05	-15.840	46.00	11.95	150	141	PK	PASS



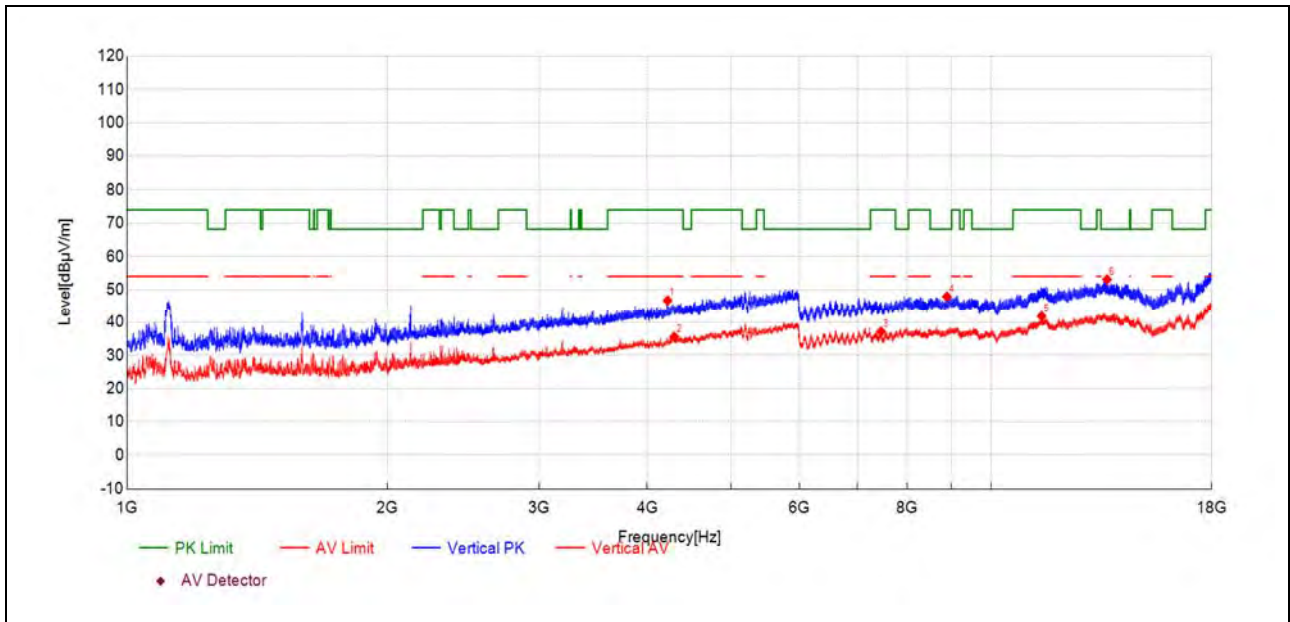
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4734.55	38.2	46.84	8.640	74.00	27.16	150	66	PK	PASS
4879.56	27.7	36.78	9.050	54.00	17.22	150	338	AV	PASS
8273.51	40.8	38.07	-2.680	54.00	15.93	150	6	AV	PASS
10006.40	49.3	48.82	-0.510	68.23	19.41	150	228	PK	PASS
11600.68	37.9	40.86	2.990	54.00	13.14	150	192	AV	PASS
13519.58	46.6	51.67	5.120	68.23	16.56	150	138	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
65.65	65.6	32.66	-32.890	40.00	7.34	150	219	PK	PASS
81.30	68.4	33.38	-34.990	40.00	6.62	150	339	PK	PASS
81.30	68.4	33.38	-34.990	40.00	6.12	150	339	PK	PASS
195.04	59.3	29.71	-29.610	43.50	13.79	150	185	PK	PASS
220.27	60.0	30.84	-29.200	46.00	15.16	150	130	PK	PASS
838.35	52.3	36.49	-15.840	46.00	9.51	150	207	PK	PASS

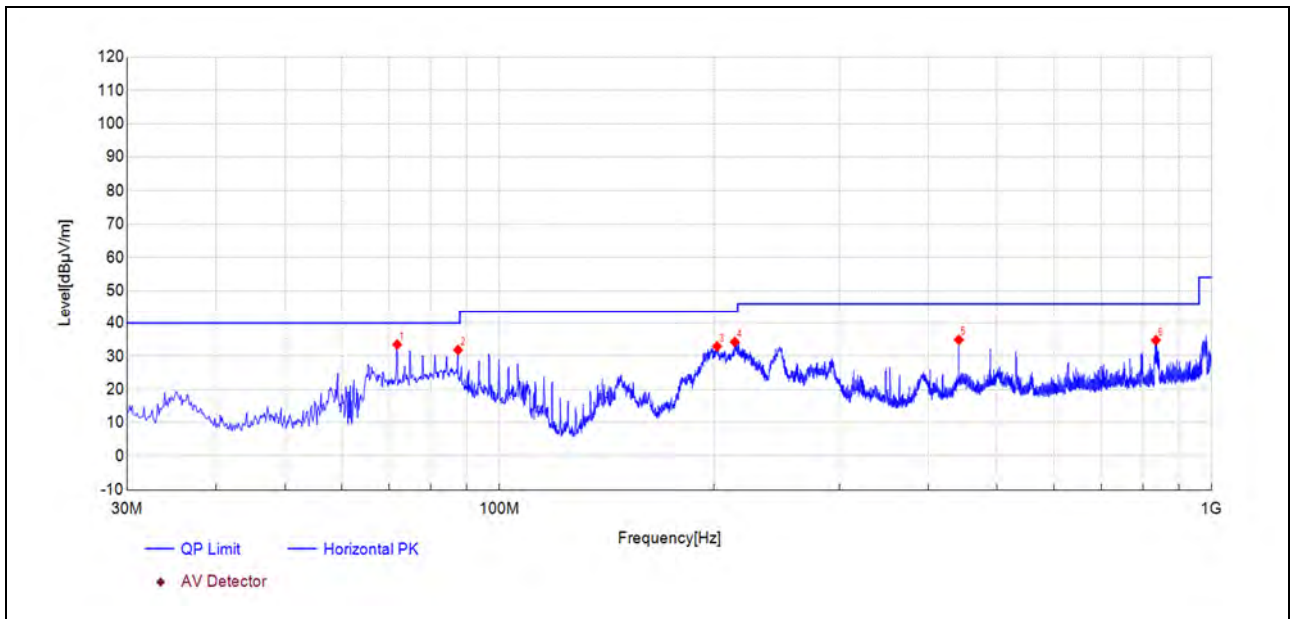


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4222.73	40.1	46.76	6.650	74.00	27.24	150	70	PK	PASS
4299.52	28.5	35.61	7.100	54.00	18.39	150	196	AV	PASS
7458.67	40.6	37.14	-3.460	54.00	16.86	150	173	AV	PASS
8888.54	50.0	47.91	-2.040	68.23	20.32	150	190	PK	PASS
11440.47	38.9	41.83	2.920	54.00	12.17	150	304	AV	PASS
13619.78	48.1	53.07	4.980	68.23	15.16	150	78	PK	PASS

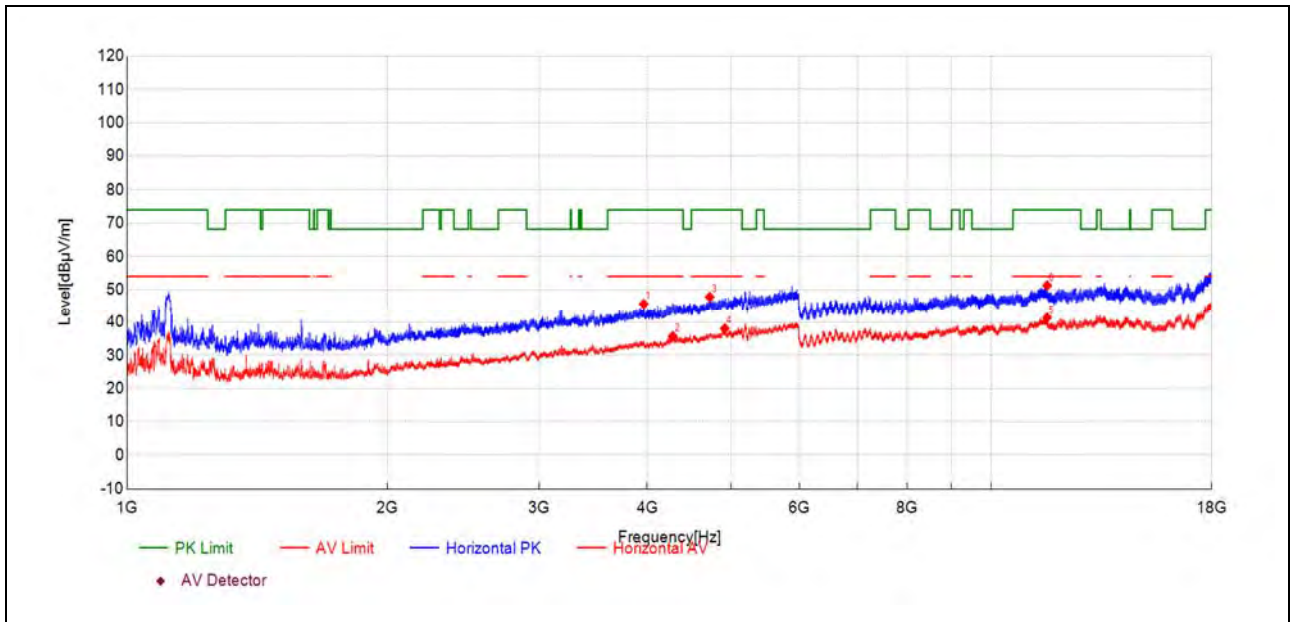


Plot for Channel 60



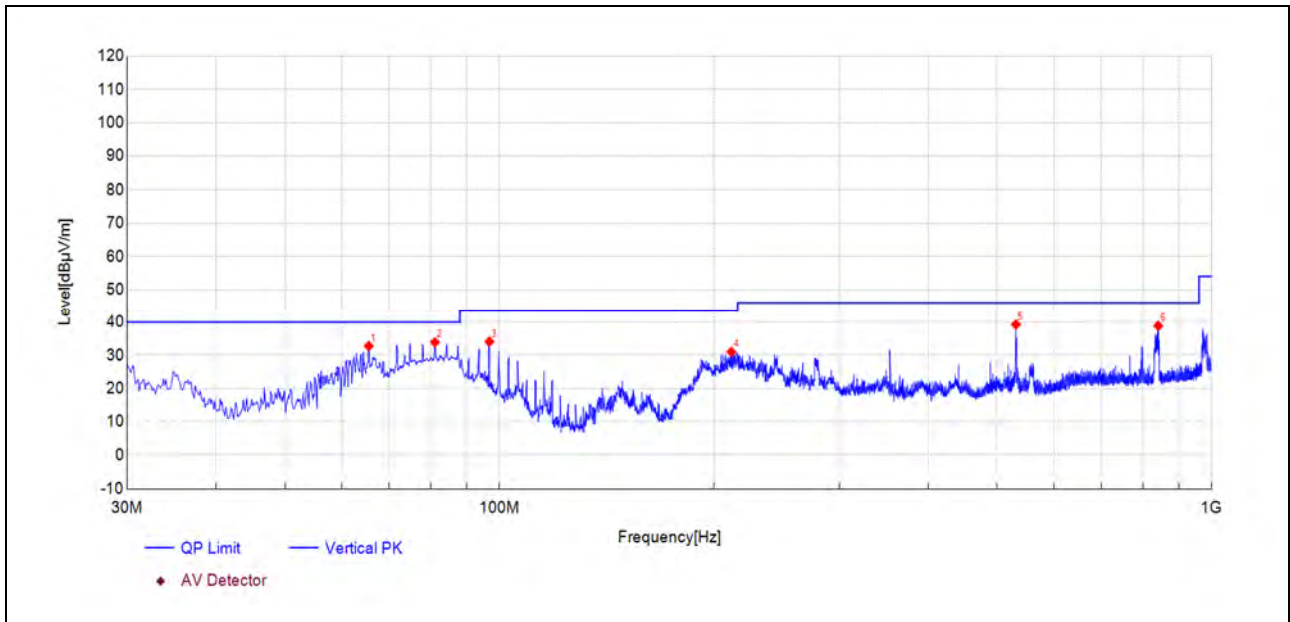
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
71.84	68.4	33.53	-34.830	40.00	6.47	150	305	PK	PASS
87.48	64.9	31.89	-32.960	40.00	8.11	150	120	PK	PASS
202.08	63.2	32.97	-30.210	43.50	10.53	150	75	PK	PASS
213.96	63.9	34.29	-29.620	43.50	9.21	150	141	PK	PASS
441.57	58.2	34.94	-23.300	46.00	11.06	150	54	PK	PASS
834.72	50.7	34.83	-15.910	46.00	11.17	150	141	PK	PASS



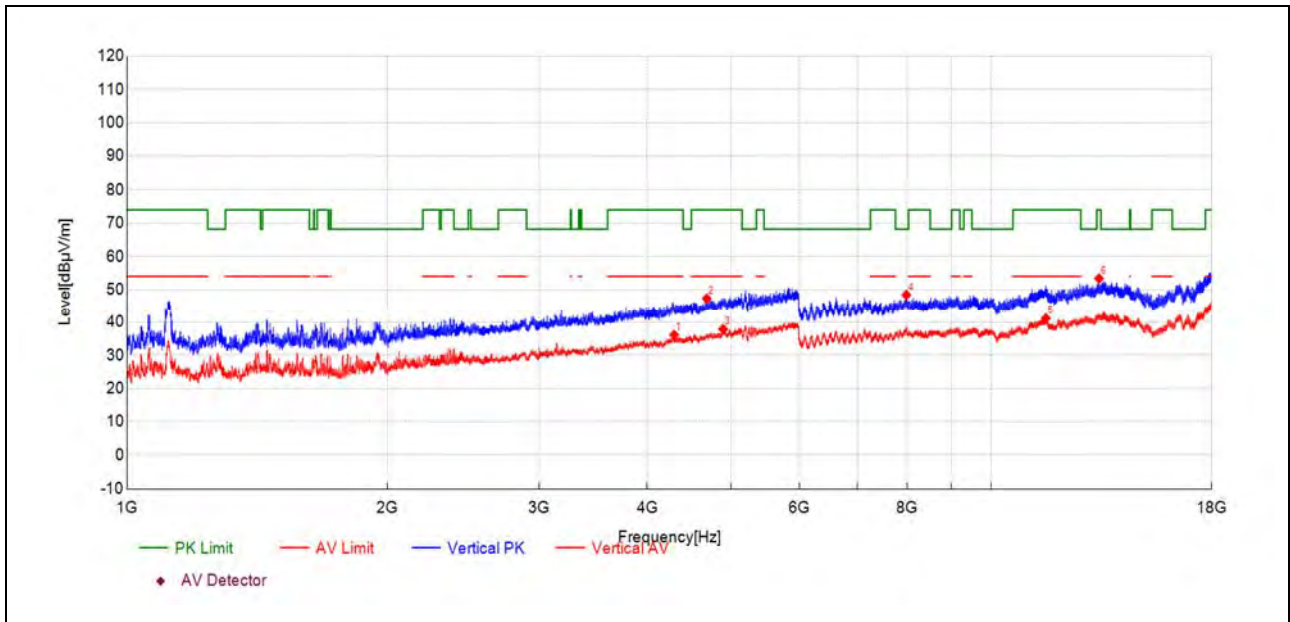
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
3962.00	39.6	45.64	6.020	74.00	28.36	150	165	PK	PASS
4280.95	28.7	35.75	7.060	54.00	18.25	150	293	AV	PASS
4723.84	39.2	47.75	8.540	74.00	26.25	150	354	PK	PASS
4917.78	28.9	38.09	9.170	54.00	15.91	150	354	AV	PASS
11607.88	38.5	41.40	2.880	54.00	12.60	150	360	AV	PASS
11608.48	48.4	51.25	2.880	74.00	22.75	150	78	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
65.53	65.6	32.78	-32.850	40.00	7.22	150	204	PK	PASS
81.17	68.9	33.90	-35.020	40.00	6.10	150	271	PK	PASS
96.82	64.5	34.10	-30.410	43.50	9.40	150	10	PK	PASS
211.66	60.8	31.02	-29.730	43.50	12.48	150	128	PK	PASS
531.07	60.7	39.28	-21.400	46.00	6.72	150	204	PK	PASS
841.26	54.6	38.88	-15.760	46.00	7.12	150	204	PK	PASS

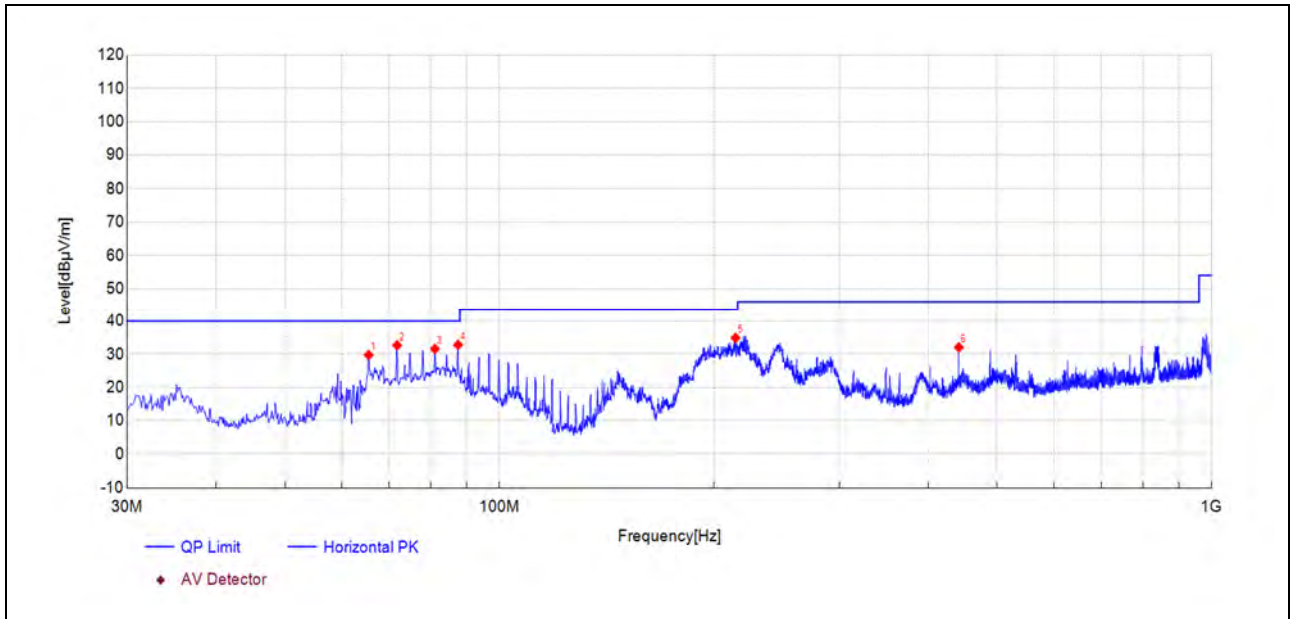


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4296.66	29.1	36.18	7.090	54.00	17.82	150	354	AV	PASS
4687.76	39.0	47.30	8.300	74.00	26.70	150	84	PK	PASS
4896.71	28.6	37.87	9.230	54.00	16.13	150	53	AV	PASS
7977.10	50.8	48.41	-2.400	68.23	19.82	150	155	PK	PASS
11574.28	38.2	41.16	2.970	54.00	12.84	150	358	AV	PASS
13331.77	48.0	53.35	5.370	74.00	20.65	150	42	PK	PASS

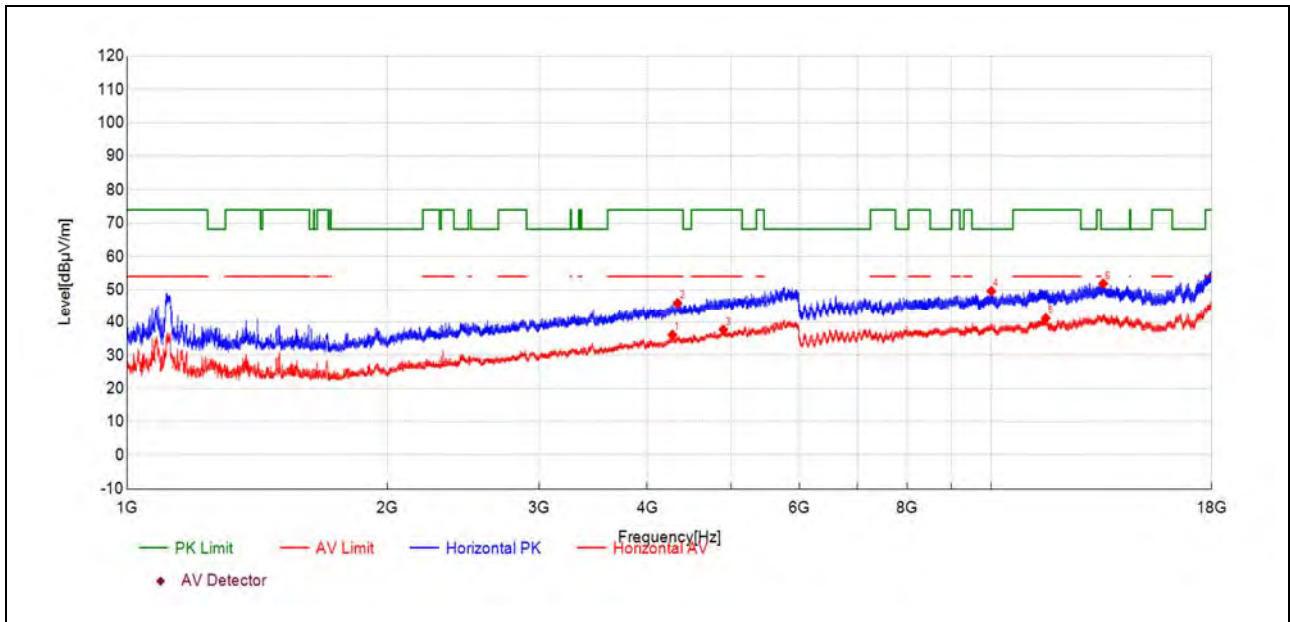


Plot for Channel 120



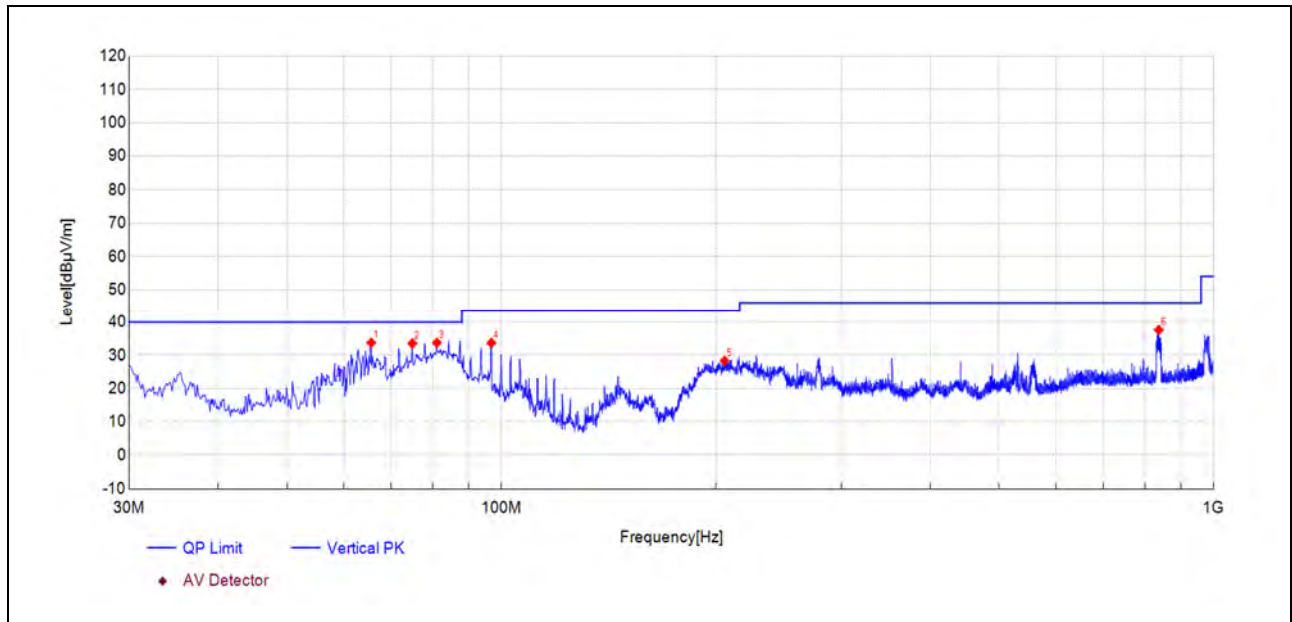
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
65.53	62.6	29.77	-32.850	40.00	10.23	150	328	PK	PASS
71.84	67.5	32.67	-34.830	40.00	7.33	150	317	PK	PASS
81.17	66.6	31.62	-35.020	40.00	8.38	150	130	PK	PASS
87.48	65.8	32.82	-32.960	40.00	7.18	150	108	PK	PASS
214.44	64.5	34.93	-29.590	43.50	8.57	150	152	PK	PASS
441.57	55.4	32.08	-23.300	46.00	13.92	150	42	PK	PASS



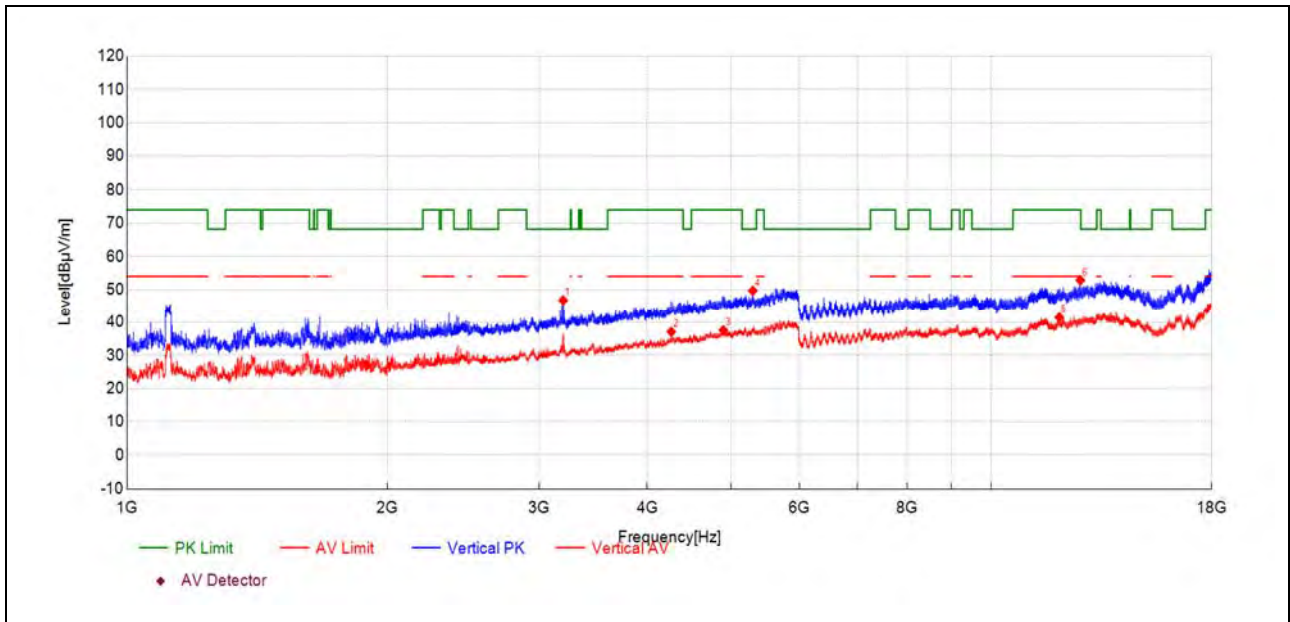
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4277.38	29.2	36.16	6.980	54.00	17.84	150	107	AV	PASS
4335.95	38.8	45.96	7.190	74.00	28.04	150	325	PK	PASS
4898.85	28.6	37.73	9.160	54.00	16.27	150	169	AV	PASS
10005.80	50.1	49.57	-0.510	68.23	18.66	150	352	PK	PASS
11566.48	38.2	41.16	2.960	54.00	12.84	150	358	AV	PASS
13480.57	46.8	51.84	5.070	68.23	16.39	150	360	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
65.65	66.7	33.78	-32.890	40.00	6.22	150	239	PK	PASS
74.99	68.7	33.57	-35.150	40.00	6.43	150	11	PK	PASS
81.17	68.8	33.76	-35.020	40.00	6.24	150	352	PK	PASS
96.82	64.1	33.71	-30.410	43.50	9.79	150	345	PK	PASS
205.71	58.5	28.32	-30.130	43.50	15.18	150	132	PK	PASS
837.26	53.5	37.62	-15.860	46.00	8.38	150	206	PK	PASS

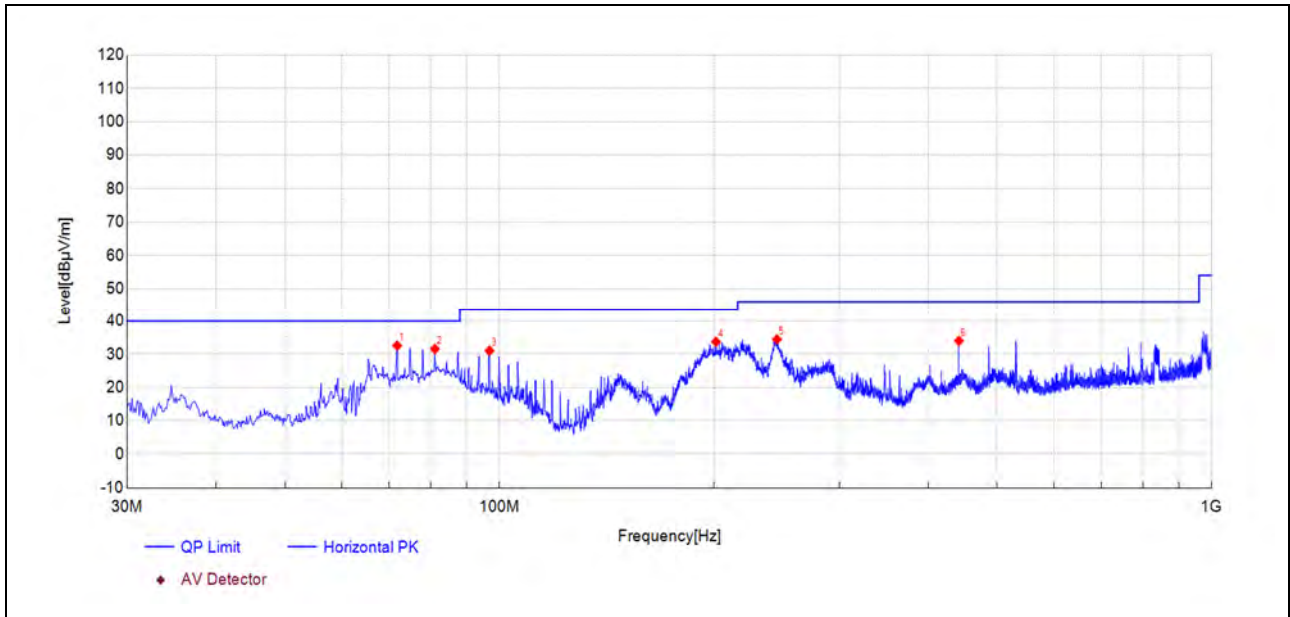


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
3196.94	43.6	46.79	3.230	68.23	21.44	150	244	PK	PASS
4264.88	30.1	37.08	6.960	54.00	16.92	150	0	AV	PASS
4898.14	28.4	37.58	9.150	54.00	16.42	150	340	AV	PASS
5299.24	39.6	49.68	10.090	68.23	18.55	150	13	PK	PASS
11993.10	38.9	41.45	2.570	54.00	12.55	150	190	AV	PASS
12681.93	49.1	52.87	3.800	74.00	21.13	150	248	PK	PASS



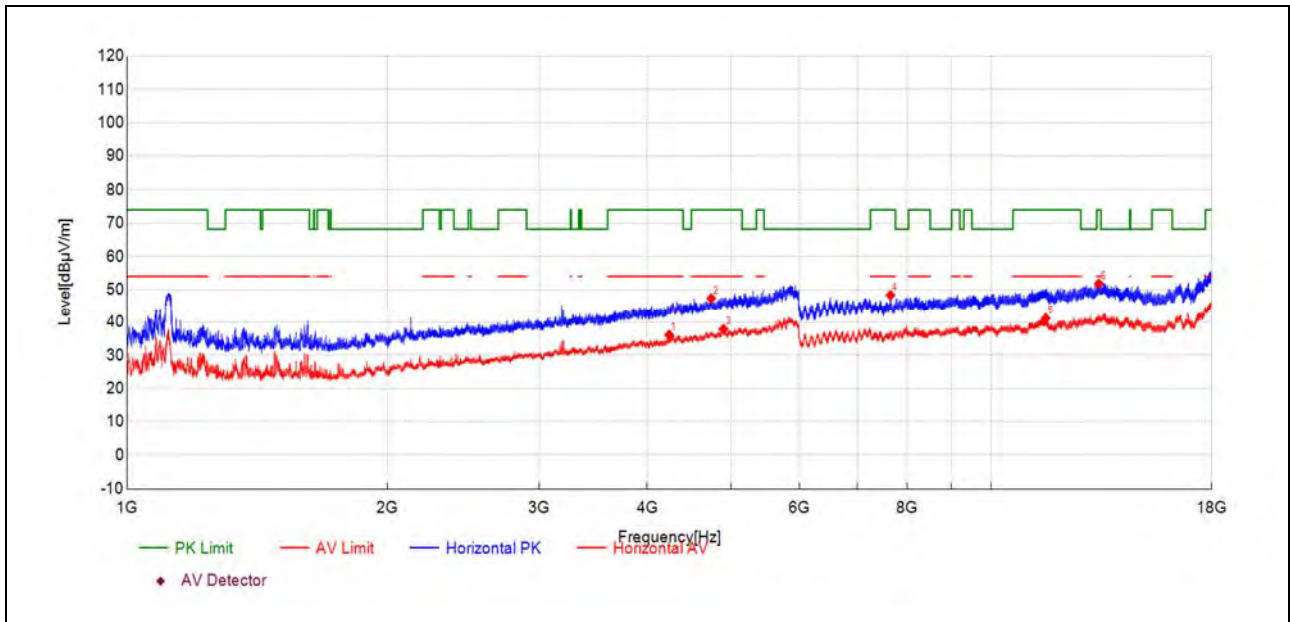
Plot for Channel 157



(Antenna Horizontal, 30MHz to 1GHz)

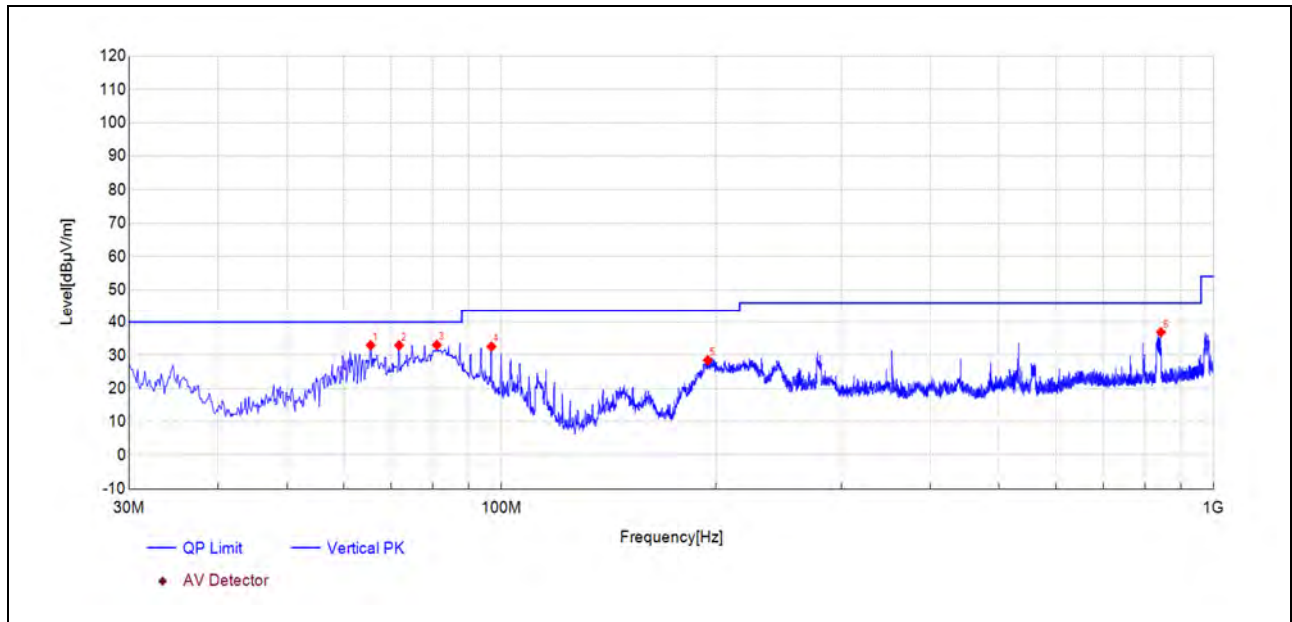
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
71.84	67.4	32.58	-34.830	40.00	7.42	150	317	PK	PASS
81.17	66.6	31.59	-35.020	40.00	8.41	150	121	PK	PASS
96.82	61.5	31.07	-30.410	43.50	12.43	150	121	PK	PASS
201.35	64.0	33.73	-30.220	43.50	9.77	150	121	PK	PASS
245.25	62.8	34.51	-28.270	46.00	11.49	150	350	PK	PASS
441.57	57.3	34.02	-23.300	46.00	11.98	150	55	PK	PASS





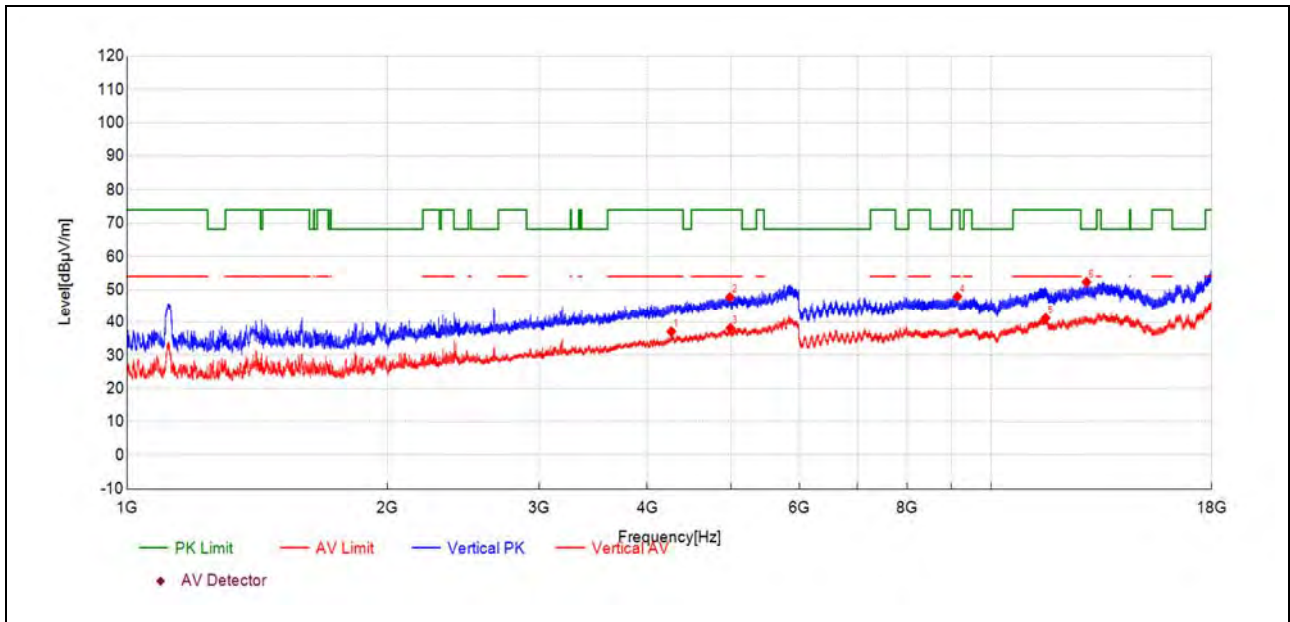
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4240.59	29.1	36.14	7.040	54.00	17.86	150	70	AV	PASS
4743.48	38.4	47.33	8.920	74.00	26.67	150	355	PK	PASS
4899.92	28.5	37.87	9.400	54.00	16.13	150	5	AV	PASS
7646.48	51.5	48.32	-3.180	74.00	25.68	150	25	PK	PASS
11568.28	38.3	41.21	2.960	54.00	12.79	150	173	AV	PASS
13323.97	46.4	51.80	5.440	74.00	22.20	150	154	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
65.53	65.9	33.04	-32.850	40.00	6.96	150	197	PK	PASS
71.84	67.8	32.98	-34.830	40.00	7.02	150	273	PK	PASS
81.17	68.1	33.09	-35.020	40.00	6.91	150	352	PK	PASS
96.82	63.1	32.64	-30.410	43.50	10.86	150	34	PK	PASS
194.80	58.1	28.50	-29.590	43.50	15.00	150	339	PK	PASS
843.20	52.6	36.95	-15.690	46.00	9.05	150	207	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
4264.88	30.0	37.16	7.170	54.00	16.84	150	1	AV	PASS
4986.71	38.4	47.74	9.360	74.00	26.26	150	71	PK	PASS
4991.71	28.8	38.19	9.380	54.00	15.81	150	0	AV	PASS
9141.76	49.6	47.93	-1.680	74.00	26.07	150	6	PK	PASS
11563.48	38.3	41.20	2.950	54.00	12.80	150	6	AV	PASS
12893.14	48.2	52.31	4.110	68.23	15.92	150	286	PK	PASS

— END OF REPORT —