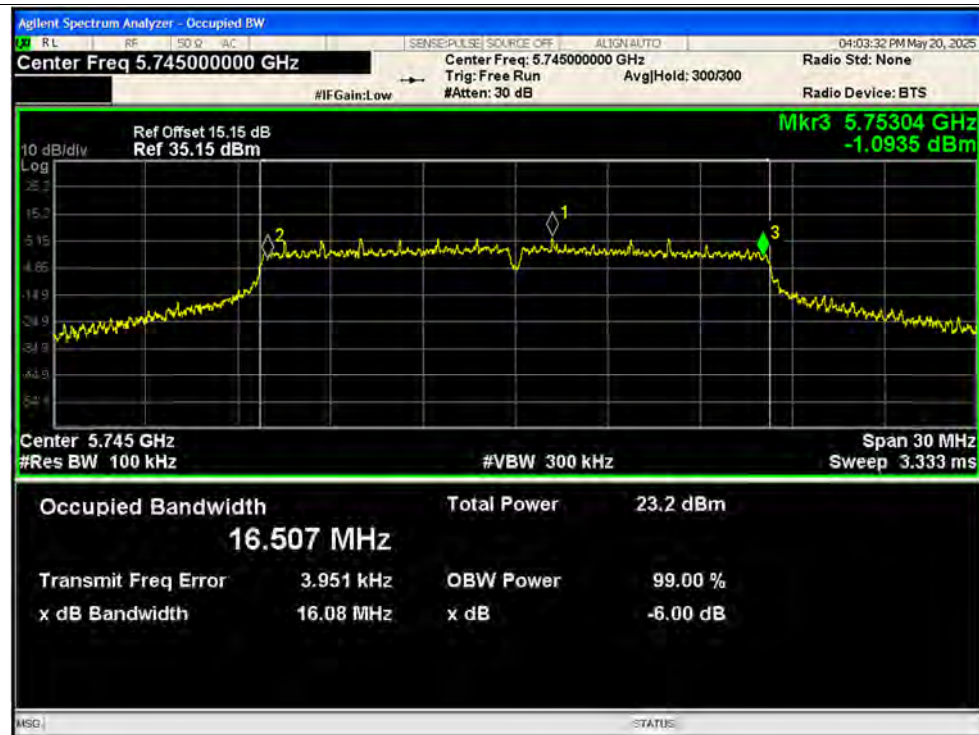




Test Graphs

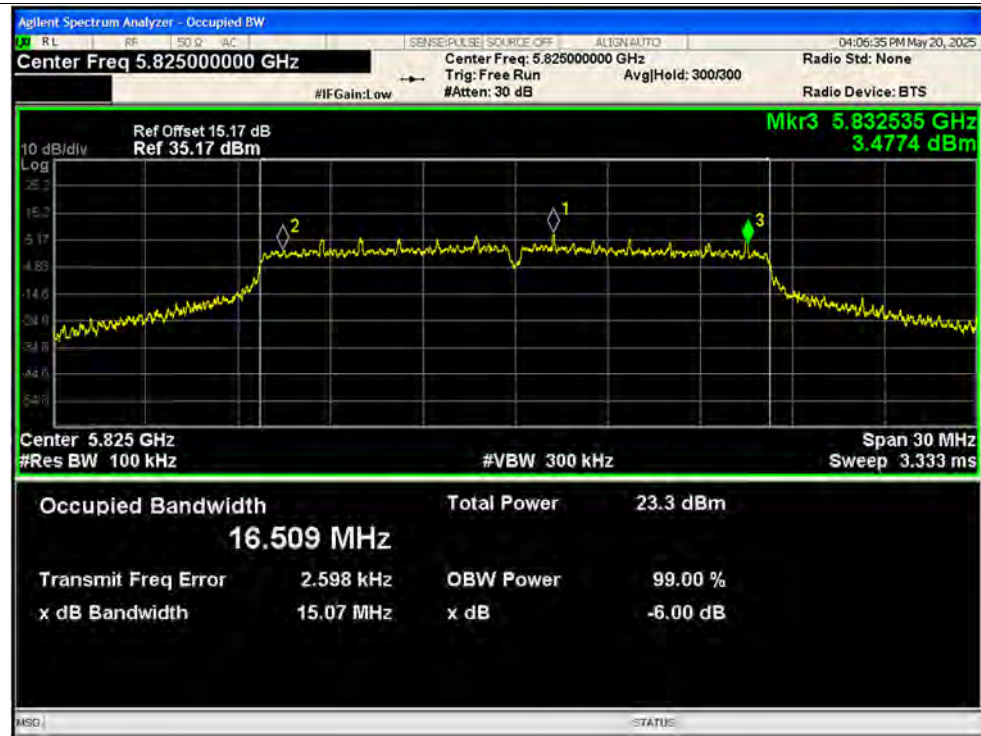
-6dB Bandwidth NVNT a 5745MHz Ant1



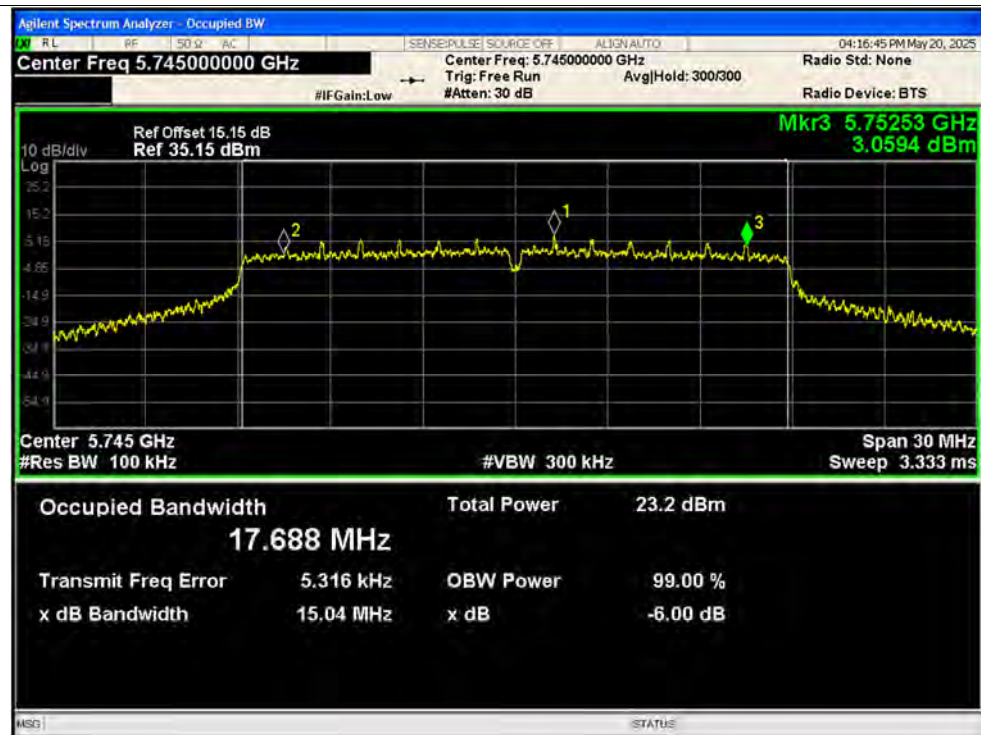
-6dB Bandwidth NVNT a 5785MHz Ant1



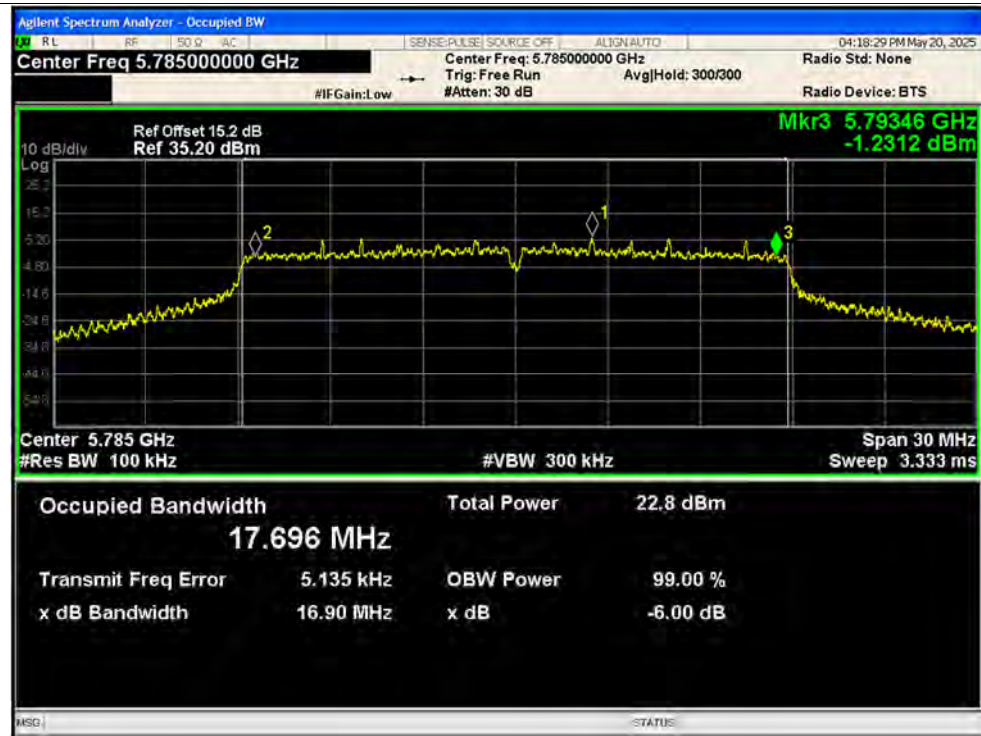
-6dB Bandwidth NVNT a 5825MHz Ant1



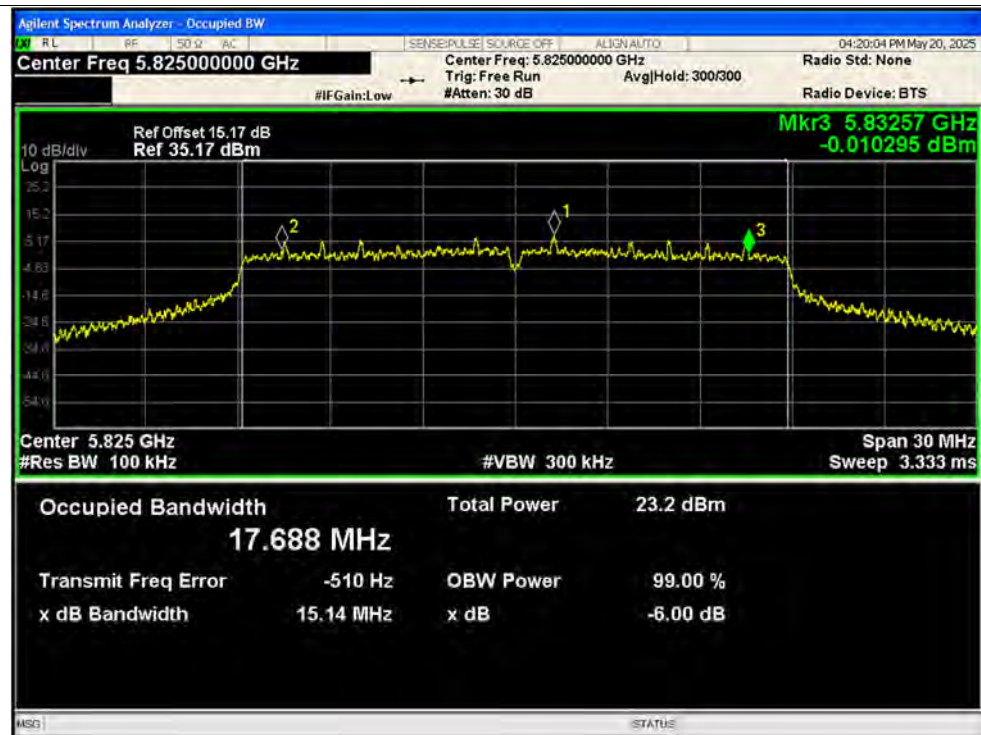
-6dB Bandwidth NVNT n20 5745MHz Ant1



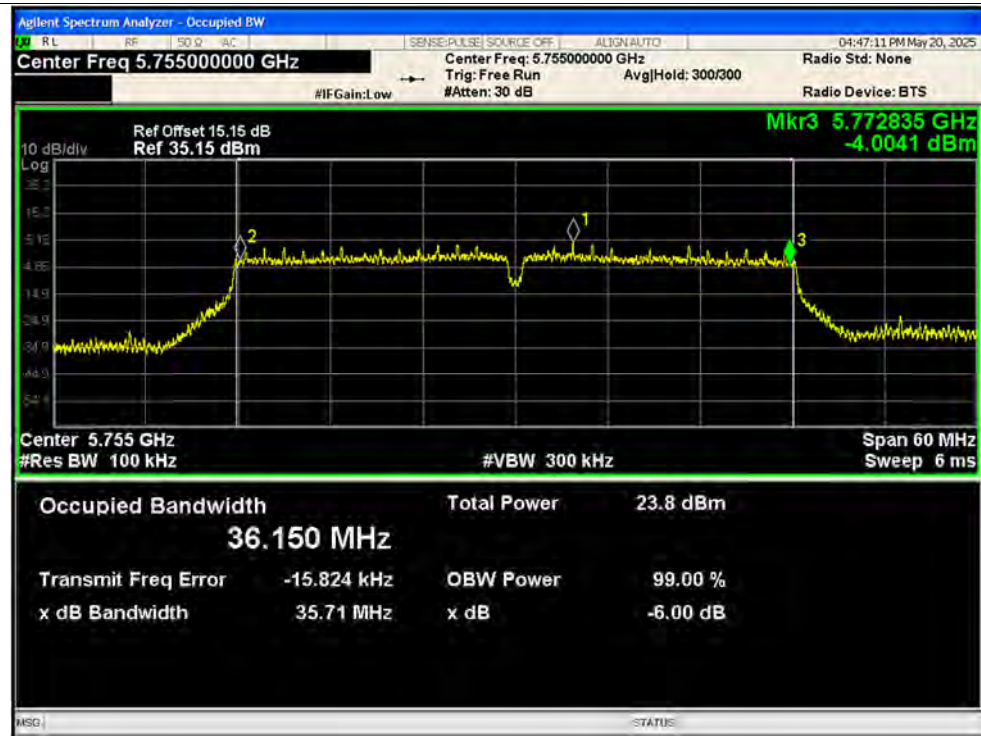
-6dB Bandwidth NVNT n20 5785MHz Ant1



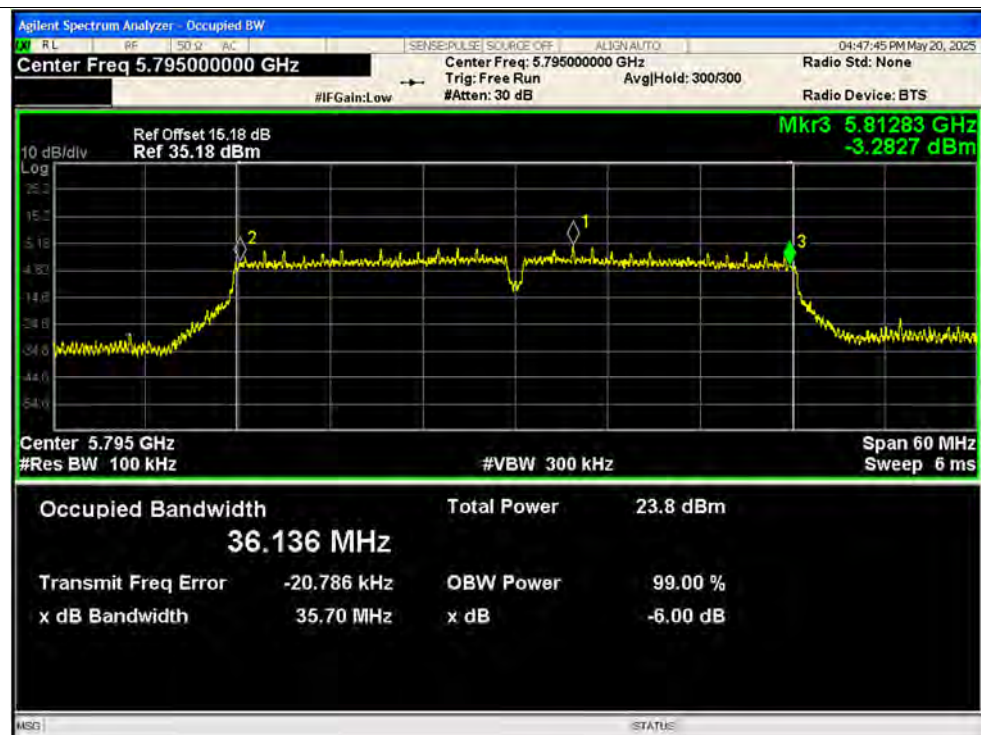
-6dB Bandwidth NVNT n20 5825MHz Ant1



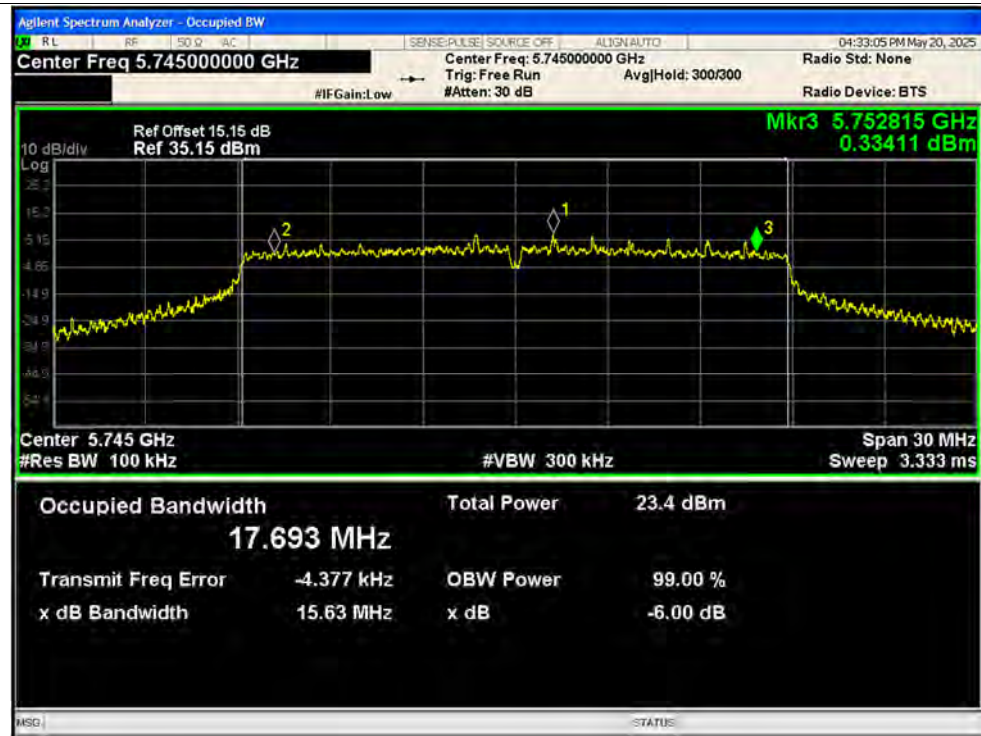
-6dB Bandwidth NVNT n40 5755MHz Ant1



-6dB Bandwidth NVNT n40 5795MHz Ant1



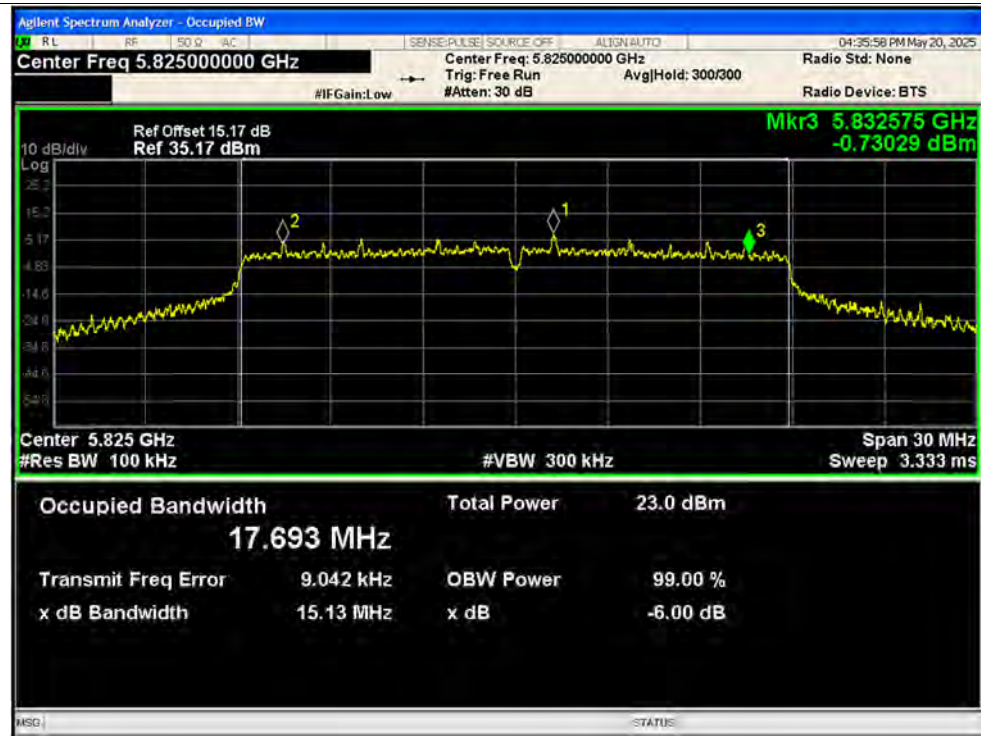
-6dB Bandwidth NVNT ac20 5745MHz Ant1



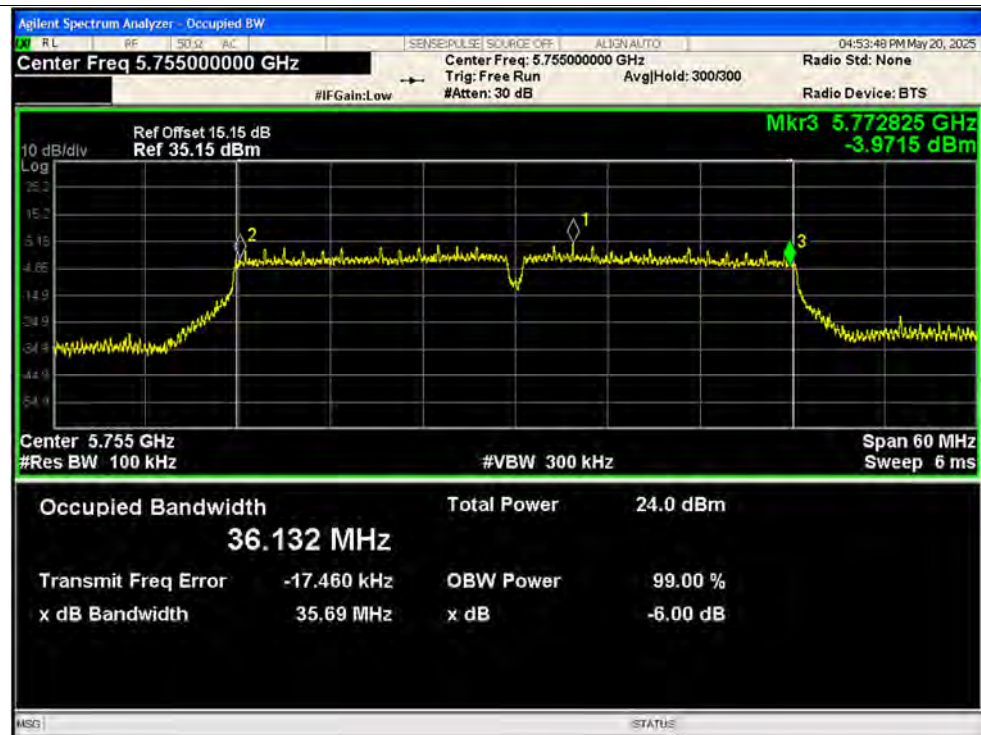
-6dB Bandwidth NVNT ac20 5785MHz Ant1



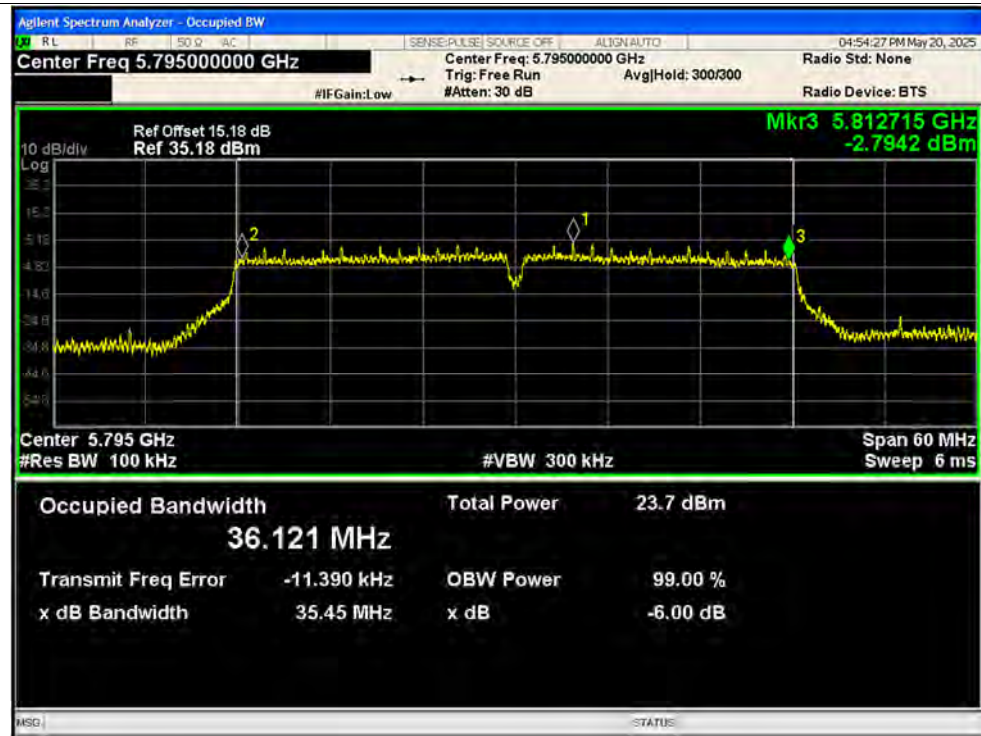
-6dB Bandwidth NVNT ac20 5825MHz Ant1



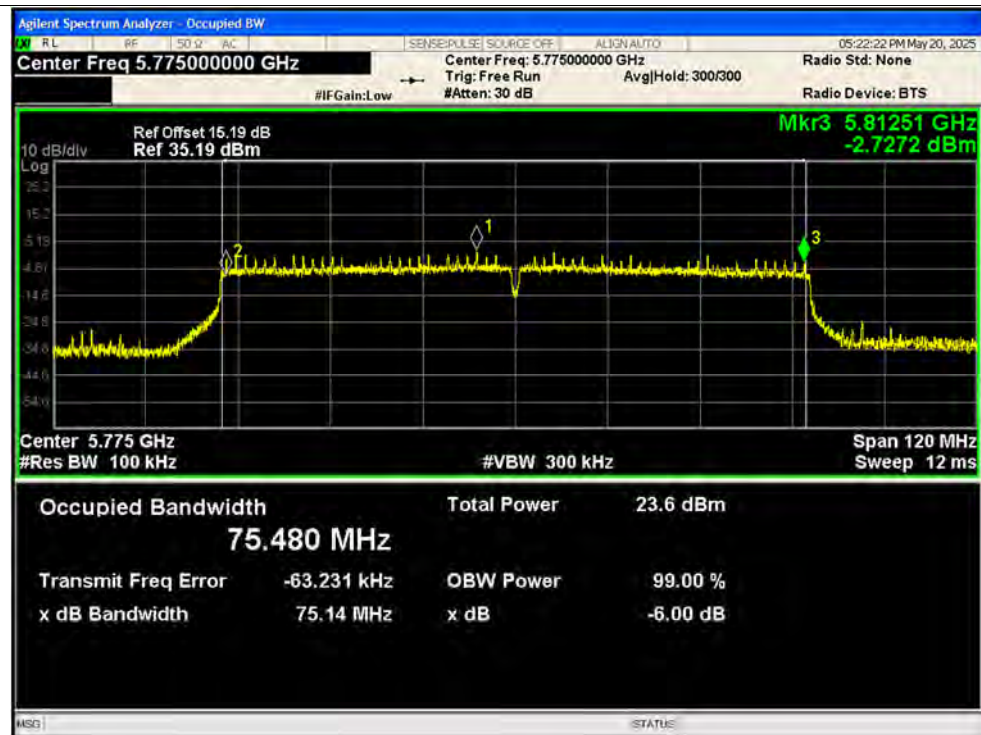
-6dB Bandwidth NVNT ac40 5755MHz Ant1



-6dB Bandwidth NVNT ac40 5795MHz Ant1



-6dB Bandwidth NVNT ac80 5775MHz Ant1



**A.4. Peak Power Spectral Density**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm)	Duty Factor (dB)	Total Conducted PSD (dBm)	Limit Conducted (dBm)	Verdict
NVNT	a	5180	Ant1	5.13	0.08	5.21	11	Pass
NVNT	a	5220	Ant1	5.27	0.08	5.35	11	Pass
NVNT	a	5240	Ant1	5.37	0.06	5.43	11	Pass
NVNT	a	5260	Ant1	5.52	0.06	5.58	11	Pass
NVNT	a	5300	Ant1	5.45	0.08	5.53	11	Pass
NVNT	a	5320	Ant1	5.49	0.08	5.57	11	Pass
NVNT	a	5500	Ant1	5.95	0.08	6.03	11	Pass
NVNT	a	5580	Ant1	6.13	0.06	6.19	11	Pass
NVNT	a	5720	Ant1	6.06	0.06	6.12	11	Pass
NVNT	a	5745	Ant1	3.19	0.08	3.27	30	Pass
NVNT	a	5785	Ant1	3.21	0.08	3.29	30	Pass
NVNT	a	5825	Ant1	3.24	0.08	3.32	30	Pass
NVNT	n20	5180	Ant1	4.45	0.07	4.52	11	Pass
NVNT	n20	5220	Ant1	4.72	0.07	4.79	11	Pass
NVNT	n20	5240	Ant1	4.91	0.07	4.98	11	Pass
NVNT	n20	5260	Ant1	4.78	0.07	4.85	11	Pass
NVNT	n20	5300	Ant1	5.05	0.07	5.12	11	Pass
NVNT	n20	5320	Ant1	4.98	0.07	5.05	11	Pass
NVNT	n20	5500	Ant1	5.62	0.09	5.71	11	Pass
NVNT	n20	5580	Ant1	5.65	0.07	5.72	11	Pass
NVNT	n20	5720	Ant1	5.64	0.07	5.71	11	Pass
NVNT	n20	5745	Ant1	2.68	0.09	2.77	30	Pass
NVNT	n20	5785	Ant1	2.75	0.09	2.84	30	Pass
NVNT	n20	5825	Ant1	2.68	0.09	2.77	30	Pass
NVNT	n40	5190	Ant1	1.69	0.14	1.83	11	Pass
NVNT	n40	5230	Ant1	1.88	0.18	2.06	11	Pass
NVNT	n40	5270	Ant1	2.23	0.18	2.41	11	Pass
NVNT	n40	5310	Ant1	2.29	0.18	2.47	11	Pass
NVNT	n40	5510	Ant1	2.66	0.14	2.8	11	Pass
NVNT	n40	5550	Ant1	2.77	0.18	2.95	11	Pass
NVNT	n40	5710	Ant1	2.89	0.18	3.07	11	Pass
NVNT	n40	5755	Ant1	-0.05	0.18	0.13	30	Pass
NVNT	n40	5795	Ant1	-0.07	0.14	0.07	30	Pass
NVNT	ac20	5180	Ant1	4.49	0.09	4.58	11	Pass



NVNT	ac20	5220	Ant1	4.68	0.07	4.76	11	Pass
NVNT	ac20	5240	Ant1	4.55	0.09	4.64	11	Pass
NVNT	ac20	5260	Ant1	4.66	0.07	4.73	11	Pass
NVNT	ac20	5300	Ant1	4.75	0.09	4.84	11	Pass
NVNT	ac20	5320	Ant1	4.82	0.09	4.91	11	Pass
NVNT	ac20	5500	Ant1	5.45	0.07	5.52	11	Pass
NVNT	ac20	5580	Ant1	5.61	0.09	5.7	11	Pass
NVNT	ac20	5720	Ant1	5.51	0.09	5.6	11	Pass
NVNT	ac20	5745	Ant1	2.55	0.09	2.64	30	Pass
NVNT	ac20	5785	Ant1	2.77	0.09	2.86	30	Pass
NVNT	ac20	5825	Ant1	2.66	0.09	2.75	30	Pass
NVNT	ac40	5190	Ant1	1.66	0.18	1.84	11	Pass
NVNT	ac40	5230	Ant1	1.96	0.14	2.1	11	Pass
NVNT	ac40	5270	Ant1	2.1	0.14	2.24	11	Pass
NVNT	ac40	5310	Ant1	2.25	0.14	2.39	11	Pass
NVNT	ac40	5510	Ant1	2.72	0.18	2.9	11	Pass
NVNT	ac40	5550	Ant1	2.84	0.14	2.98	11	Pass
NVNT	ac40	5710	Ant1	2.94	0.14	3.08	11	Pass
NVNT	ac40	5755	Ant1	-0.09	0.18	0.09	30	Pass
NVNT	ac40	5795	Ant1	0.09	0.18	0.27	30	Pass
NVNT	ac80	5210	Ant1	-1.51	0.27	-1.24	11	Pass
NVNT	ac80	5290	Ant1	-1.17	0.27	-0.9	11	Pass
NVNT	ac80	5530	Ant1	-0.45	0.27	-0.18	11	Pass
NVNT	ac80	5610	Ant1	-0.41	0.36	-0.05	11	Pass
NVNT	ac80	5690	Ant1	-0.27	0.36	0.09	11	Pass
NVNT	ac80	5775	Ant1	-3.02	0.27	-2.75	30	Pass

Test Graphs

PSD NVNT a 5180MHz Ant1



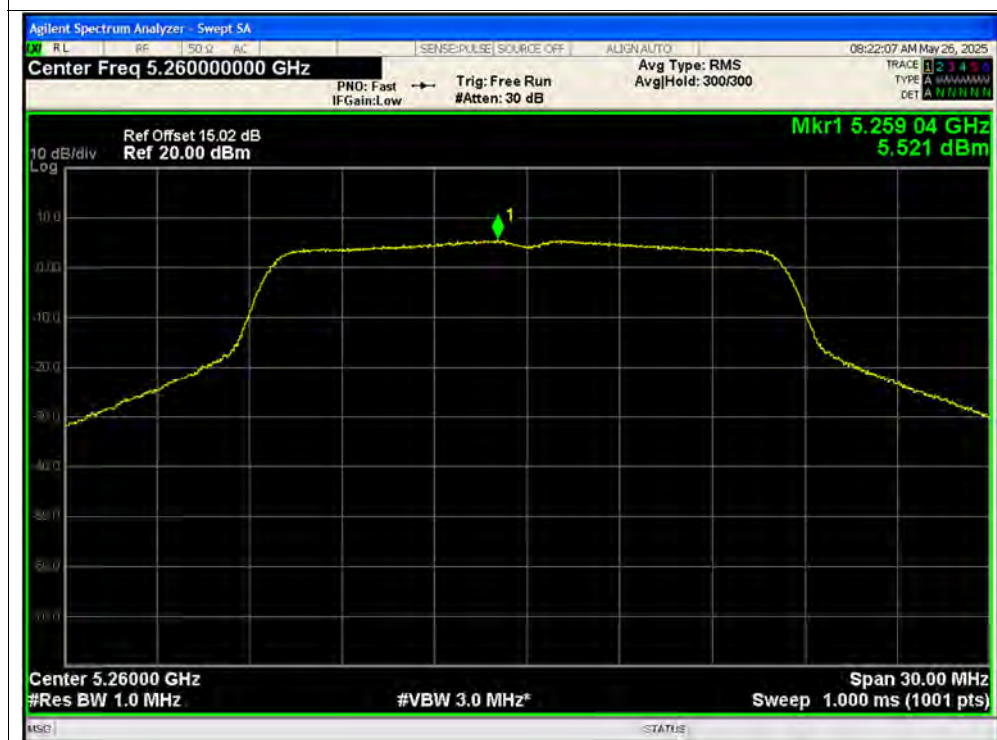
PSD NVNT a 5220MHz Ant1



PSD NVNT a 5240MHz Ant1



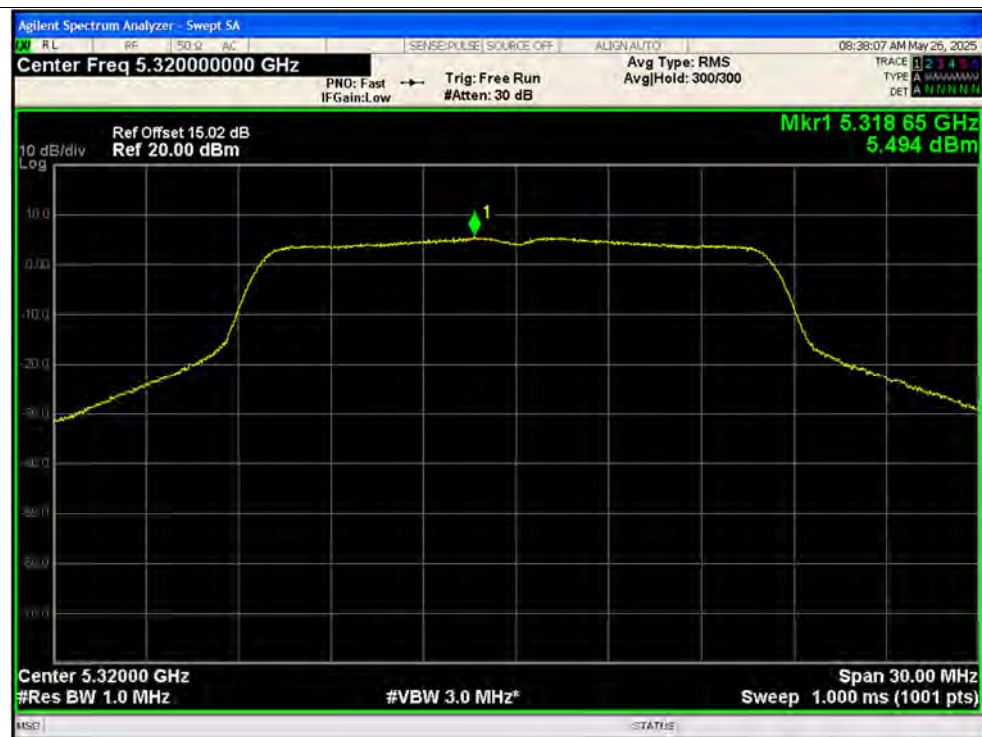
PSD NVNT a 5260MHz Ant1



PSD NVNT a 5300MHz Ant1



PSD NVNT a 5320MHz Ant1



PSD NVNT a 5500MHz Ant1



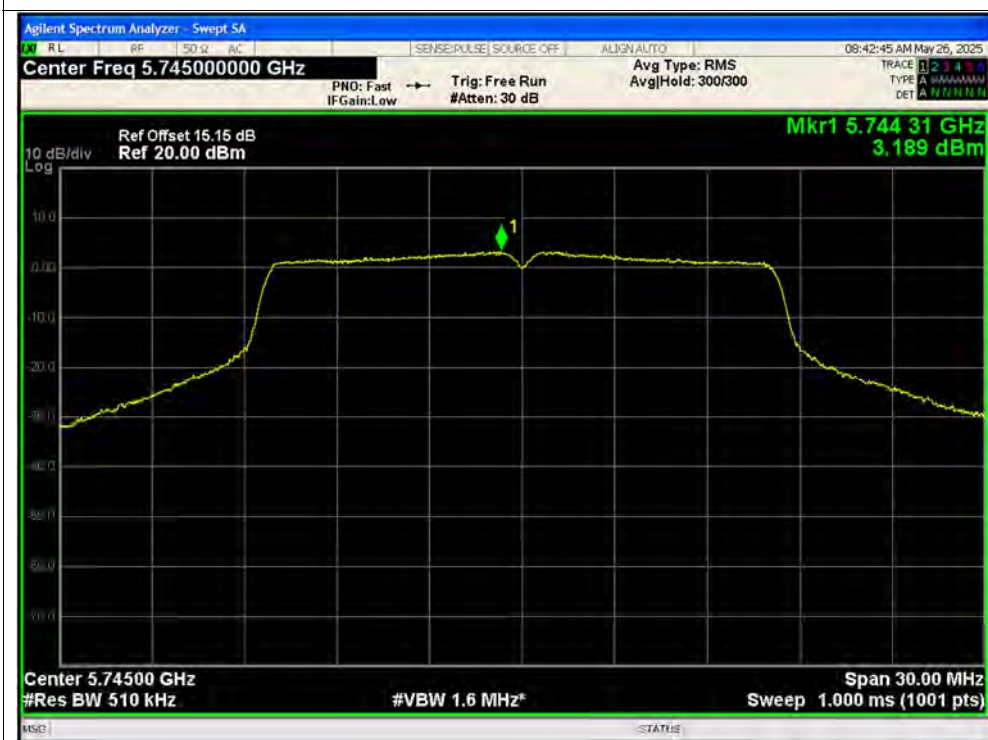
PSD NVNT a 5580MHz Ant1



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



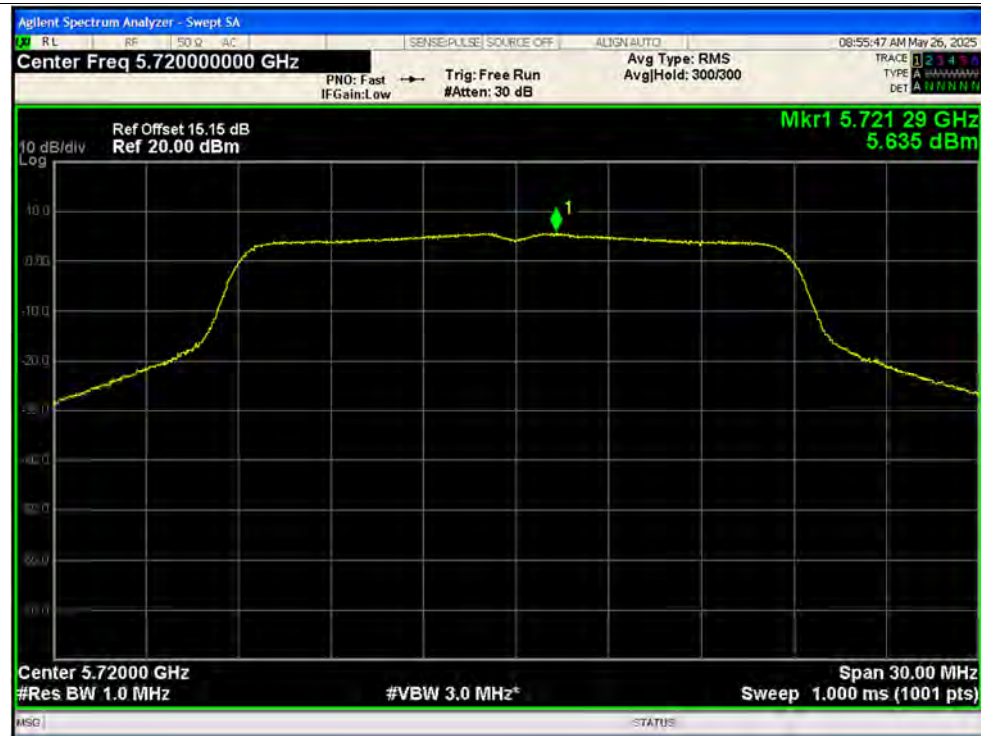
PSD NVNT n20 5500MHz Ant1



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



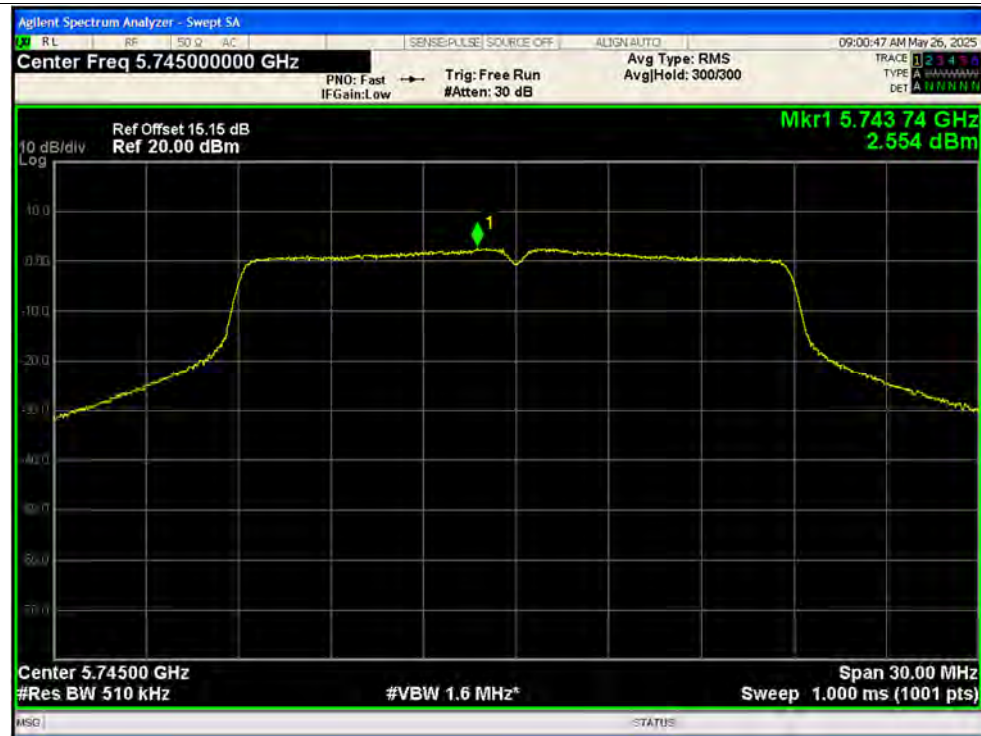
PSD NVNT ac20 5580MHz Ant1



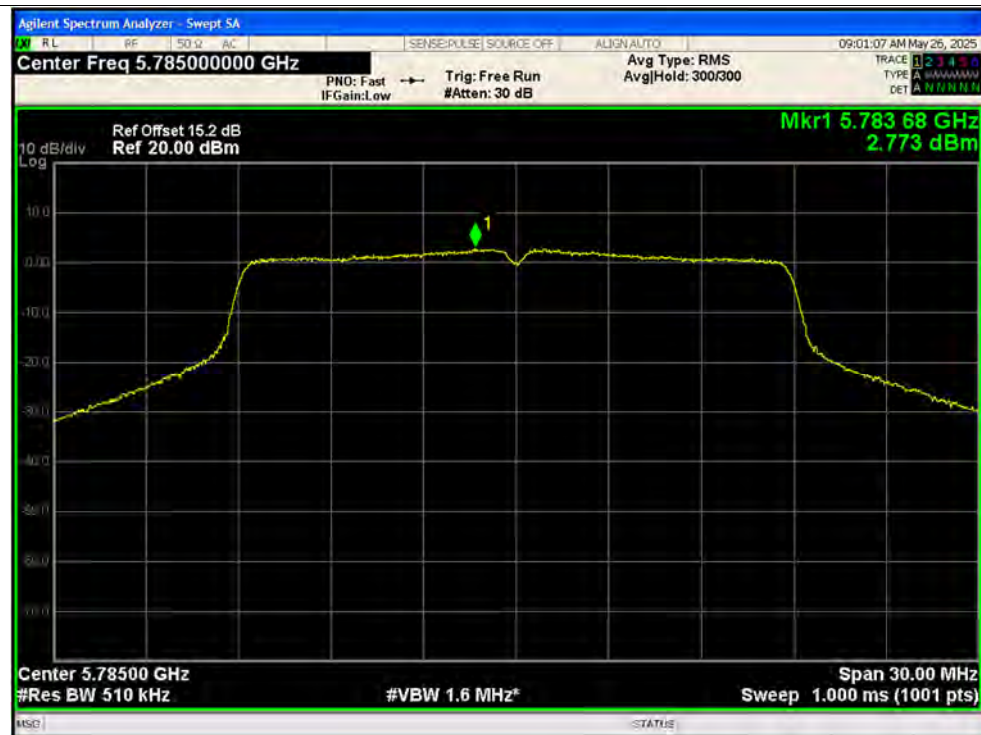
PSD NVNT ac20 5720MHz Ant1



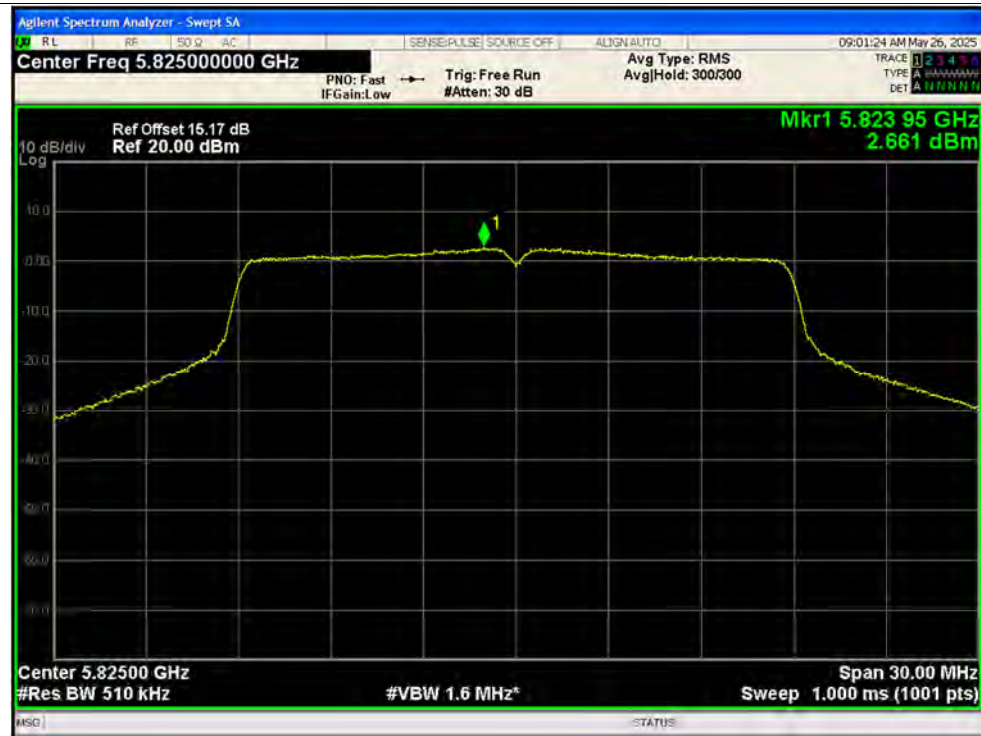
PSD NVNT ac20 5745MHz Ant1



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



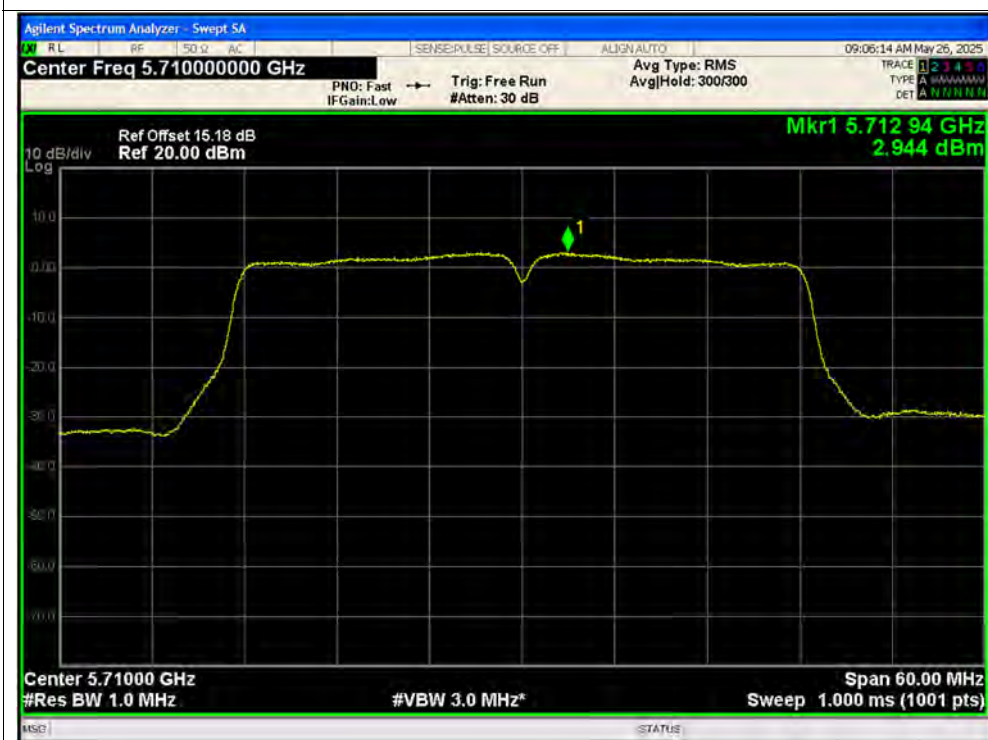
PSD NVNT ac40 5510MHz Ant1



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 3.6V	CW	5180	Ant1	5179.984	-16000	-3.09	25	Pass
20C 3.85V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
20C 4.4V	CW	5180	Ant1	5179.984	-16000	-3.09	25	Pass
0C 3.85V	CW	5180	Ant1	5179.984	-16000	-3.09	25	Pass
10C 3.85V	CW	5180	Ant1	5179.984	-16000	-3.09	25	Pass
30C 3.85V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
40C 3.85V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
49C 3.85V	CW	5180	Ant1	5179.983	-17000	-3.28	25	Pass
20C 3.6V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
20C 3.85V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
20C 4.4V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
0C 3.85V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
10C 3.85V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
30C 3.85V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
40C 3.85V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
49C 3.85V	CW	5260	Ant1	5259.984	-16000	-3.04	25	Pass
20C 3.6V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
20C 3.85V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
20C 4.4V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
0C 3.85V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
10C 3.85V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
30C 3.85V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
40C 3.85V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
49C 3.85V	CW	5500	Ant1	5499.984	-16000	-2.91	25	Pass
20C 3.6V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
20C 3.85V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
20C 4.4V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
0C 3.85V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
10C 3.85V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
30C 3.85V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
40C 3.85V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass
49C 3.85V	CW	5745	Ant1	5744.984	-16000	-2.79	25	Pass



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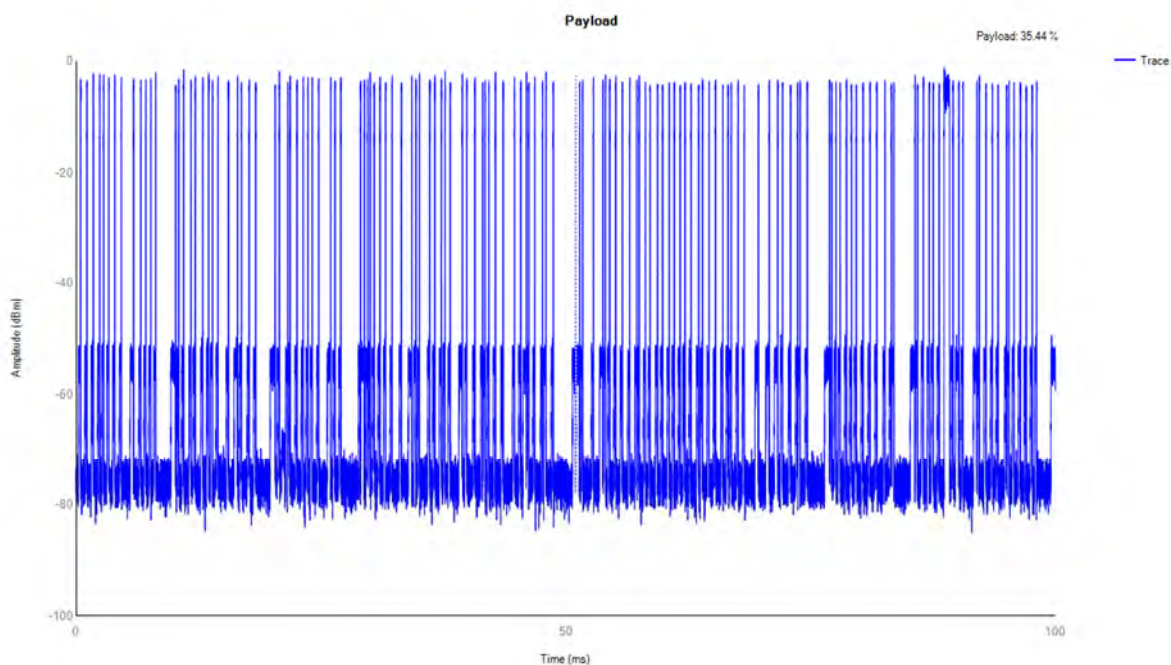
A.6. Dynamic Frequency Selection

Payload

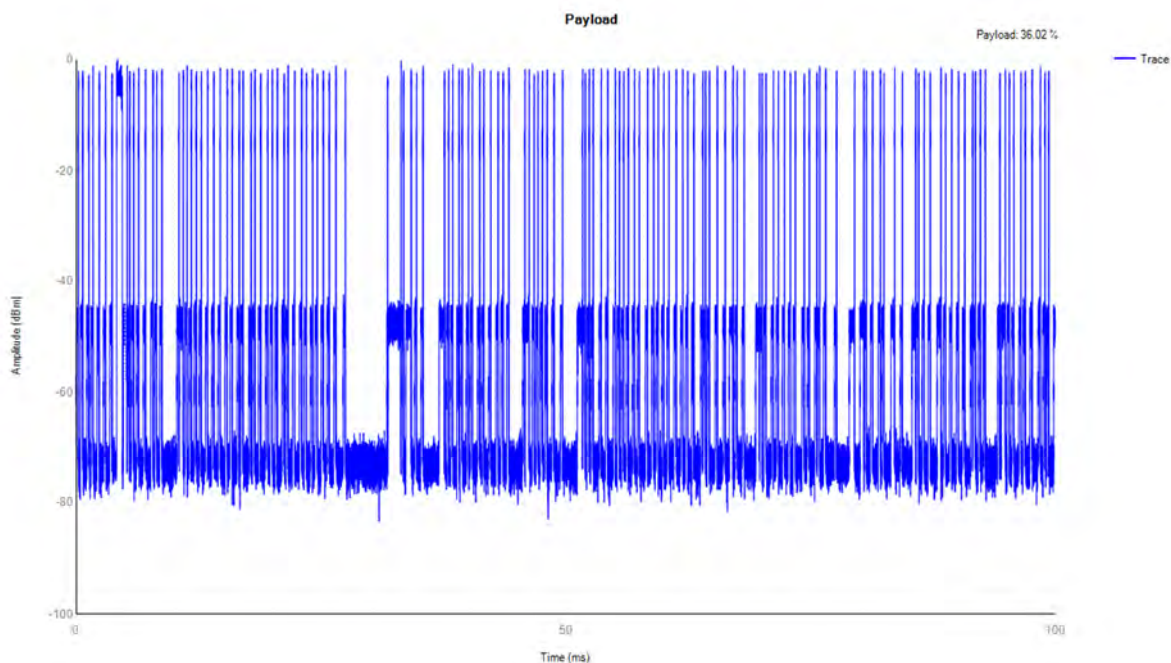
Mode	Frequency (MHz)	Result	Verdict
ac20	5260	35.44	Pass
ac20	5500	36.02	Pass
ac80	5290	31.33	Pass
ac80	5530	35.34	Pass

Test Graphs

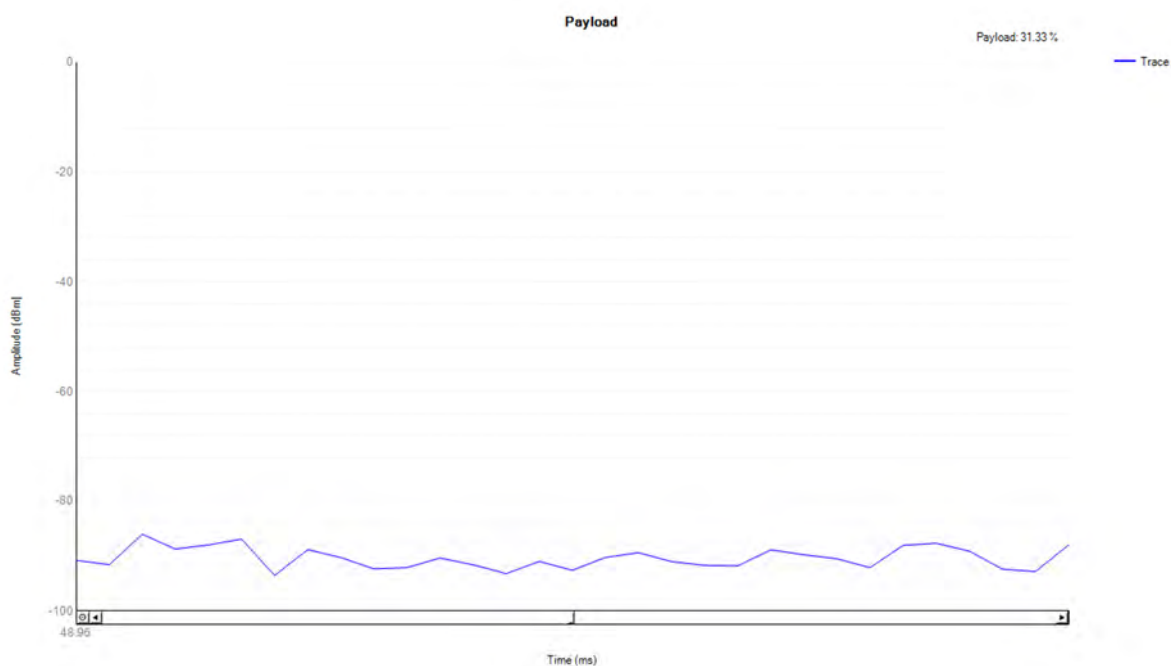
ac20 5260MHz Payload



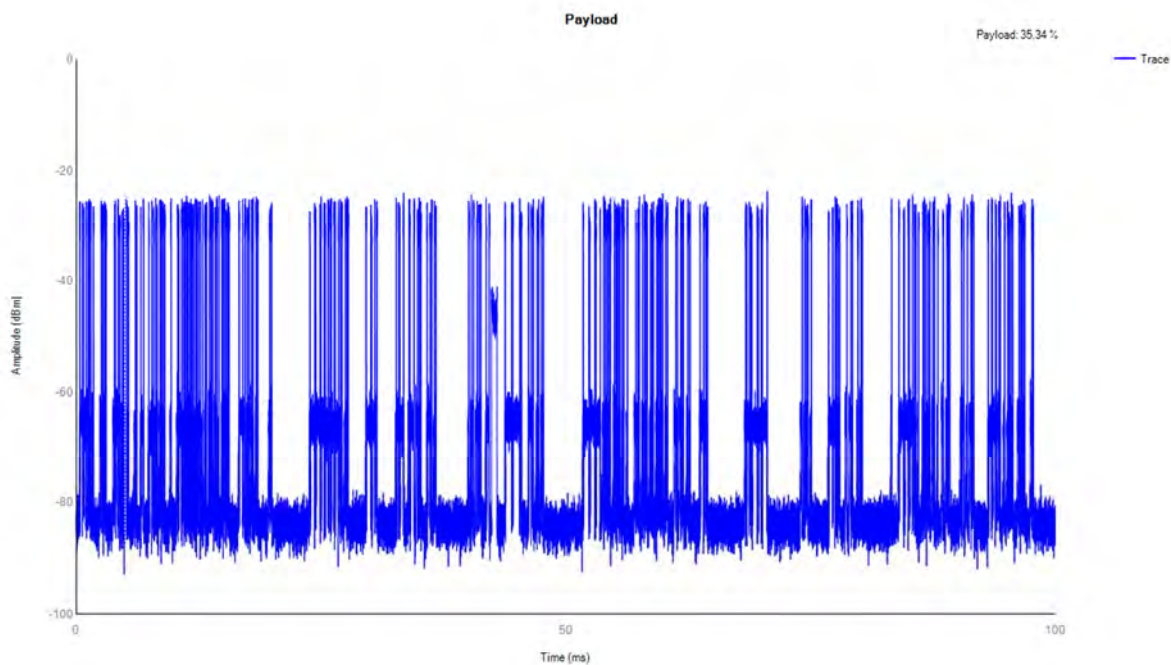
ac20 5500MHz Payload



ac80 5290MHz Payload



ac80 5530MHz Payload





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

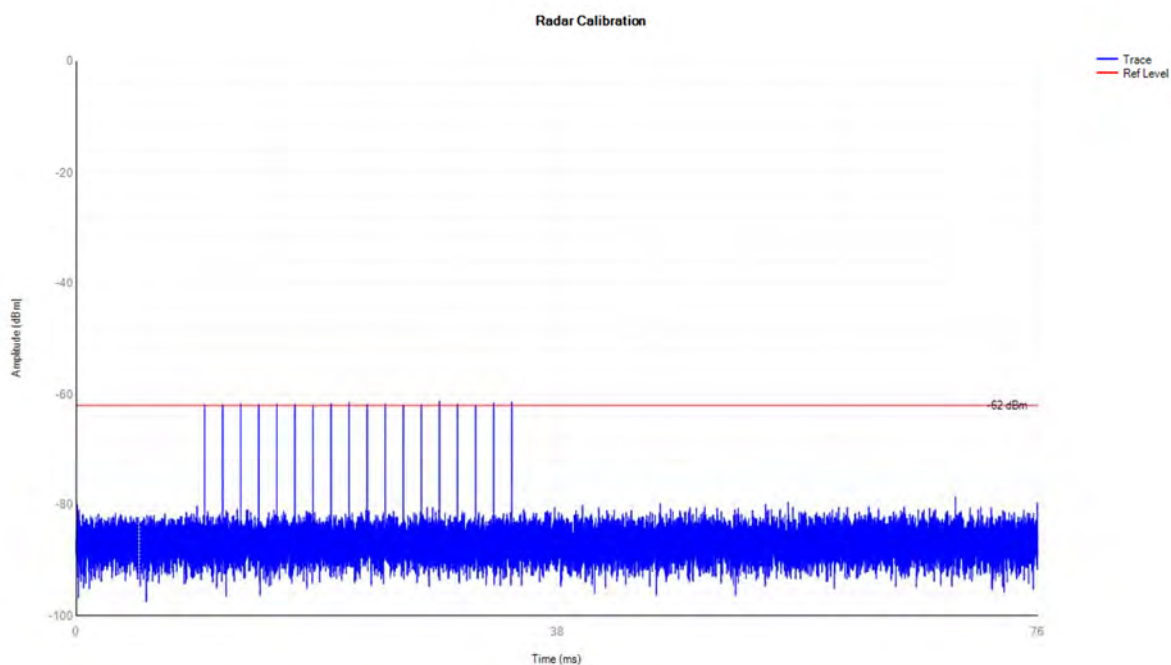
Detector Type: Peak

RBW: 3MHz

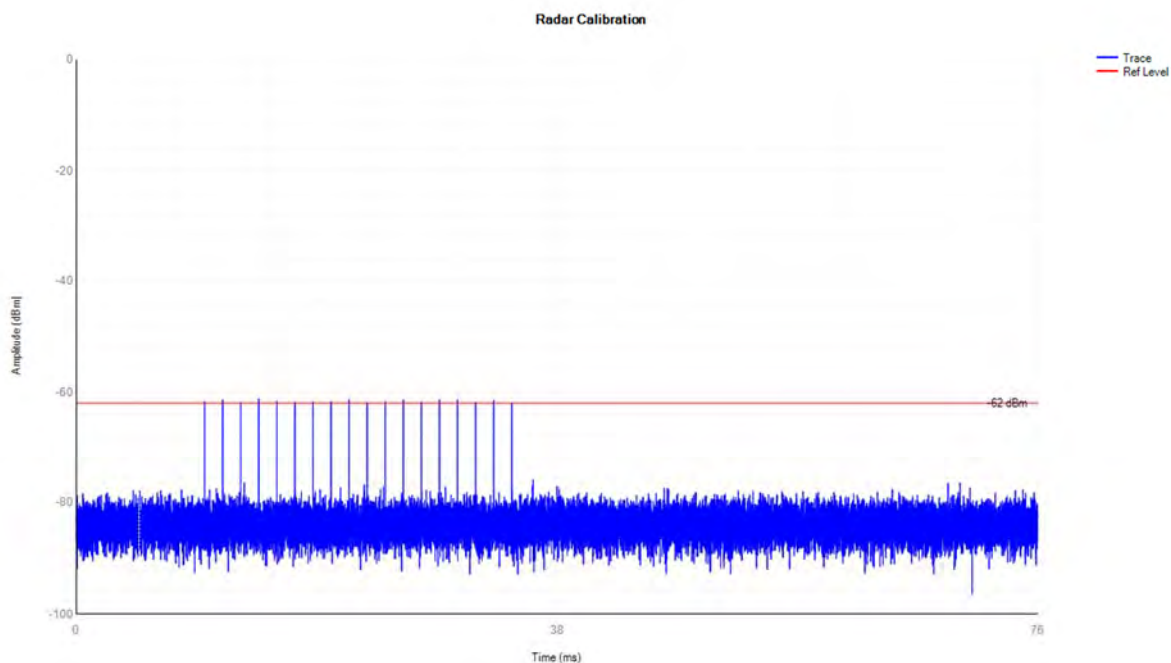
VBW: 3MHz

Test Graphs

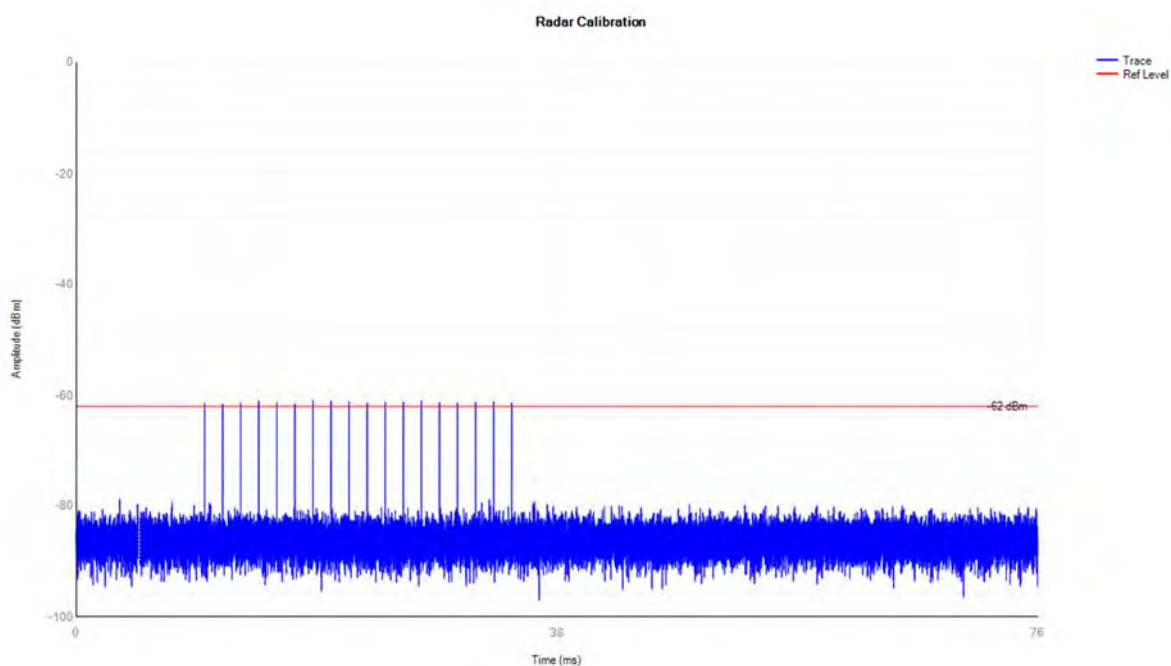
5260MHz DFS_FCC_T0



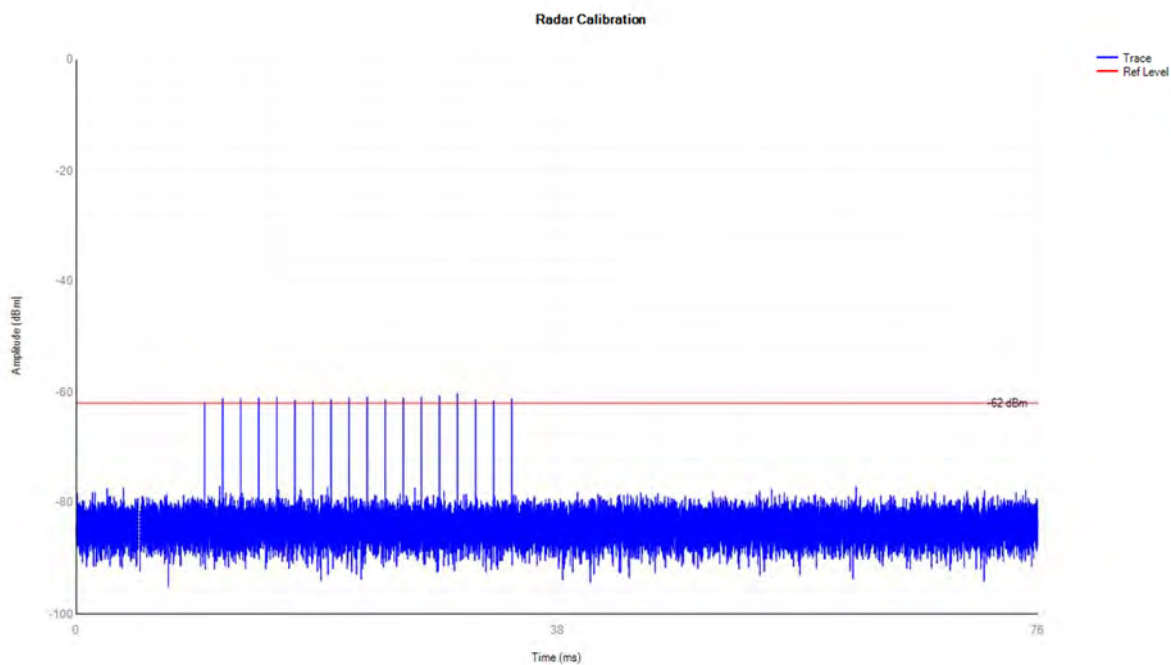
5500MHz DFS_FCC_T0



5290MHz DFS_FCC_T0



5530MHz DFS_FCC_T0





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	0.826	10	0.049	0.26	0.01	0.06	Pass
ac20	5500	0.717	10	0.017	0.26	0.014	0.06	Pass
ac80	5290	0.872	10	0.091	0.26	0.009	0.06	Pass
ac80	5530	0.756	10	0.048	0.26	0.013	0.06	Pass

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

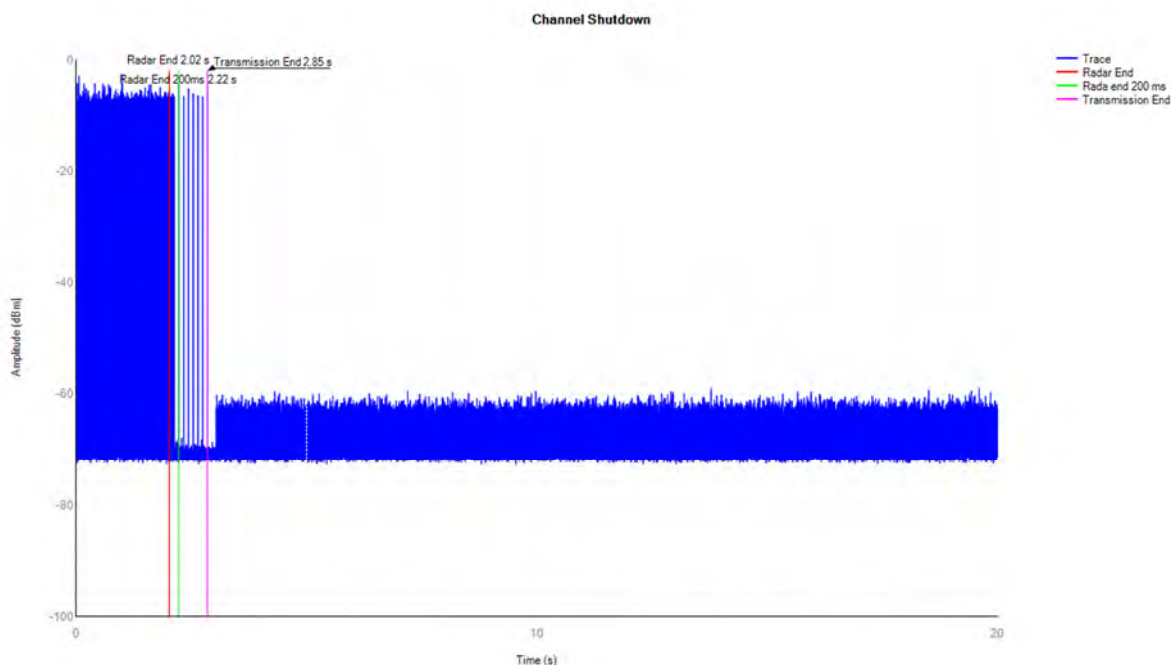
RBW: 3MHz

VBW: 3MHz

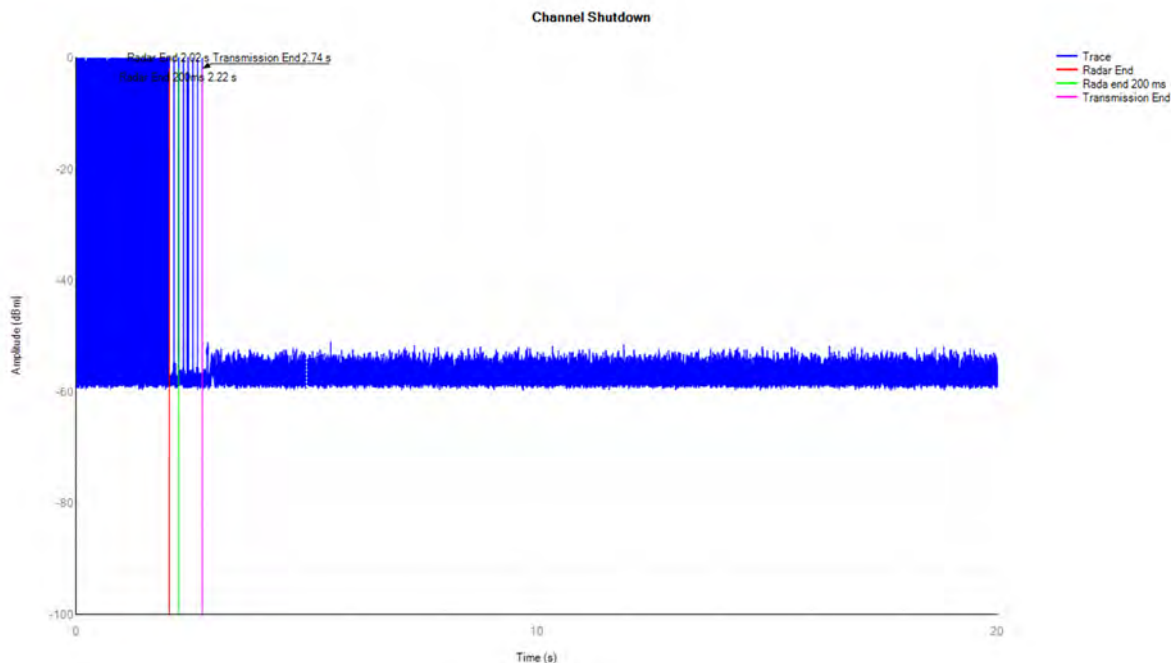
Sweep time: 20s

Test Graphs

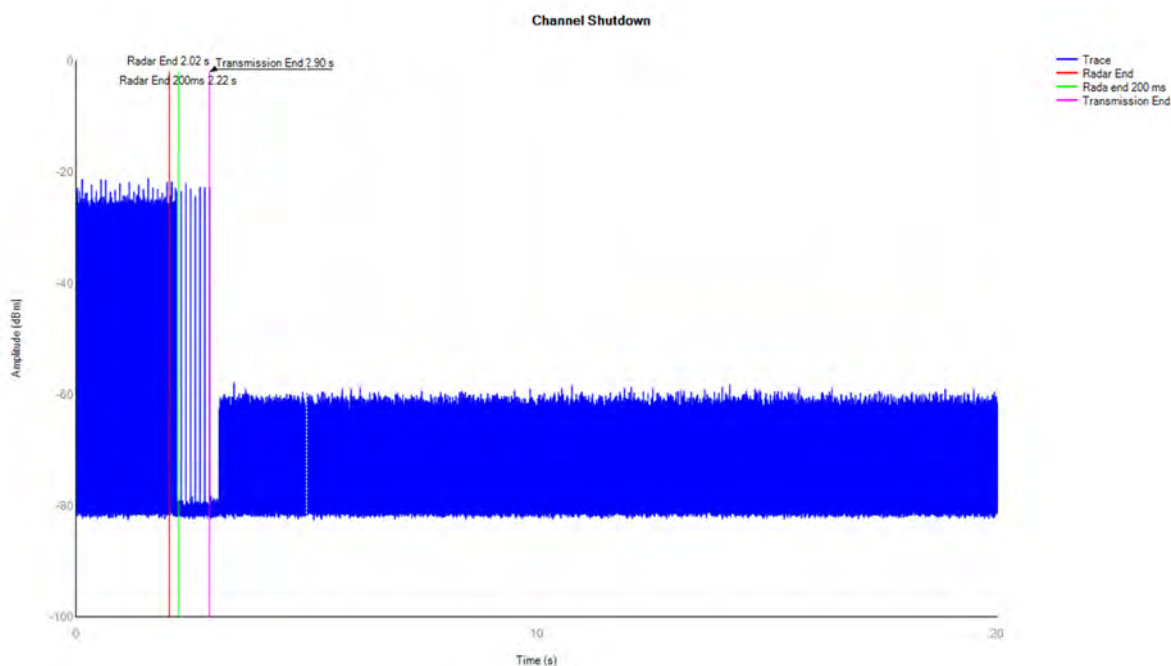
ac20 5260MHz Shutdown



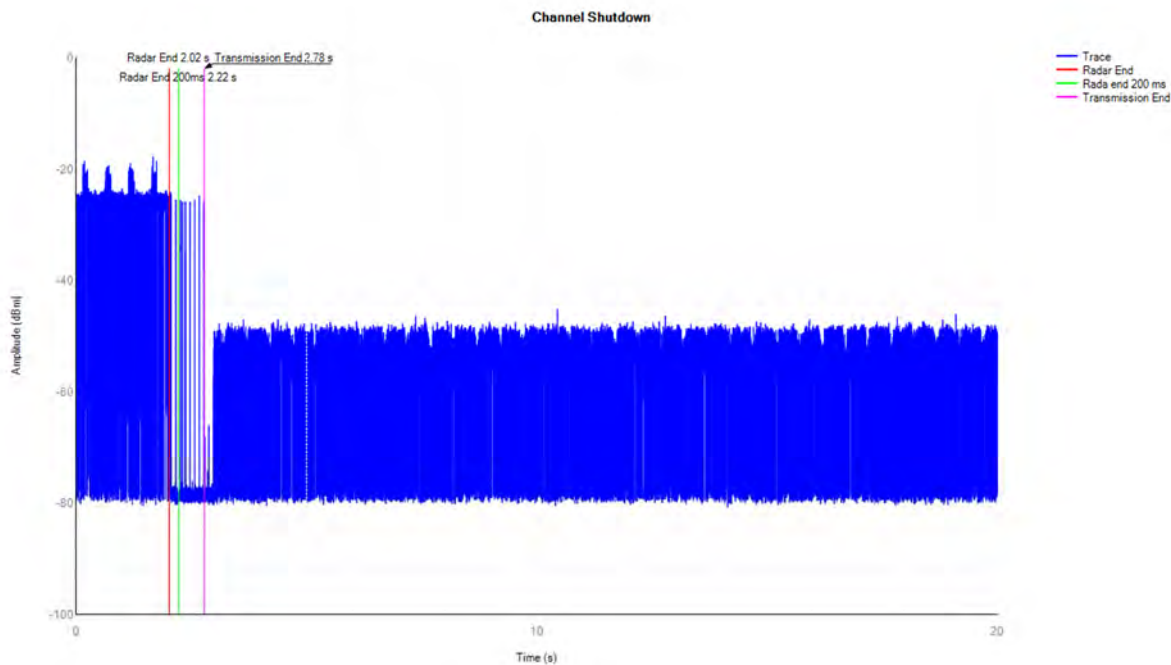
ac20 5500MHz Shutdown



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.



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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

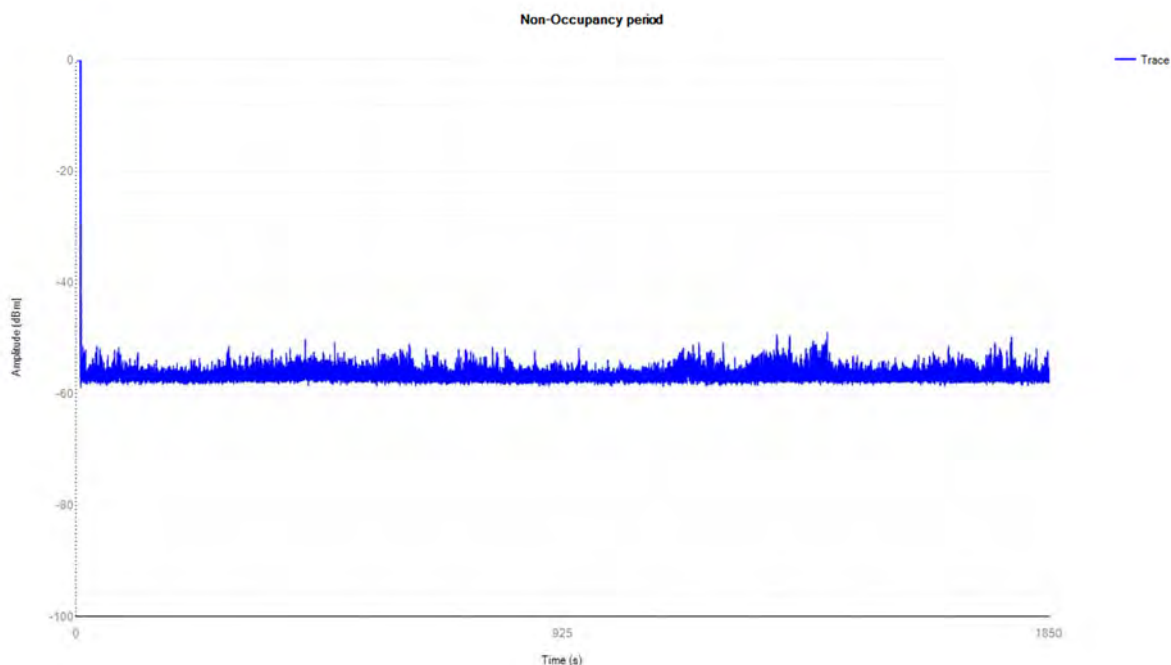
VBW: 3MHz

Sweep time: 1850s

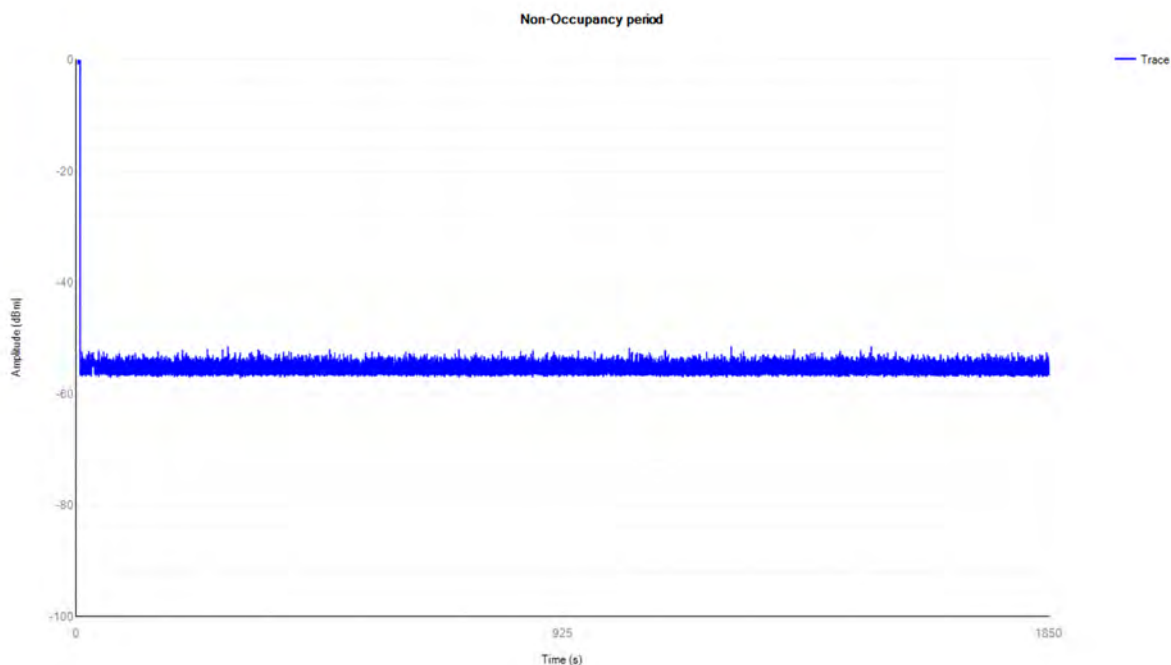


Test Graphs

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 + Earphone + WIFI TX

Test voltage: AC 120V/60Hz

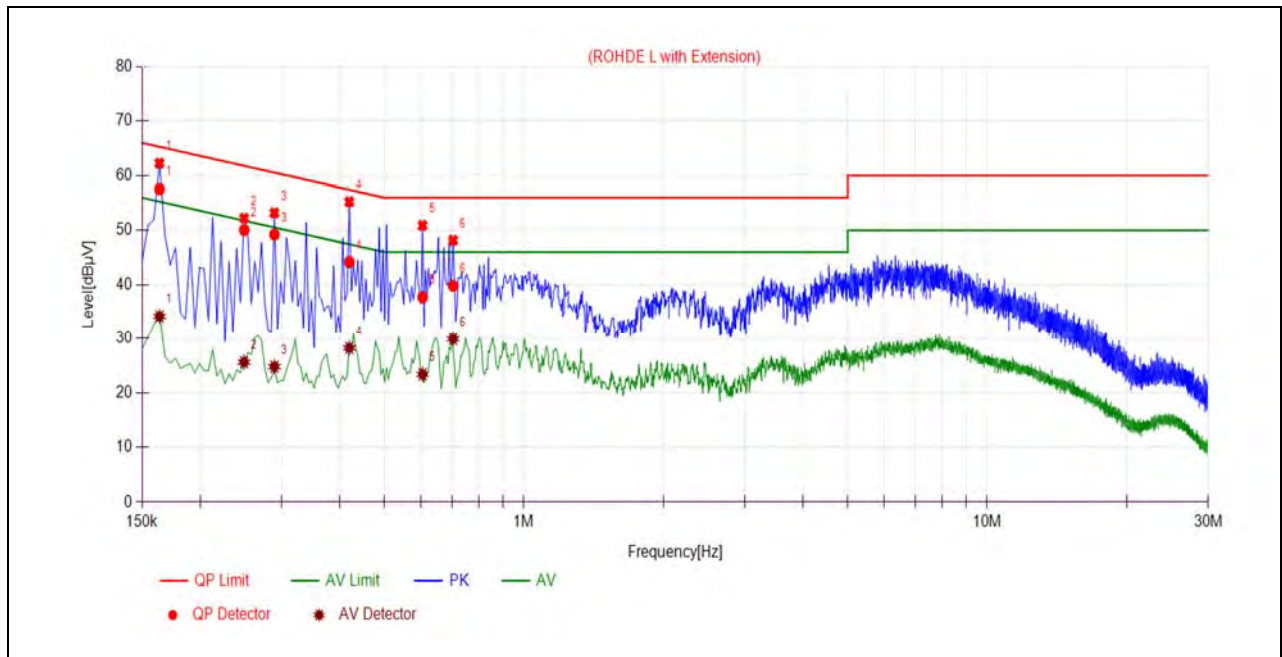
The measurement results are obtained as below:

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

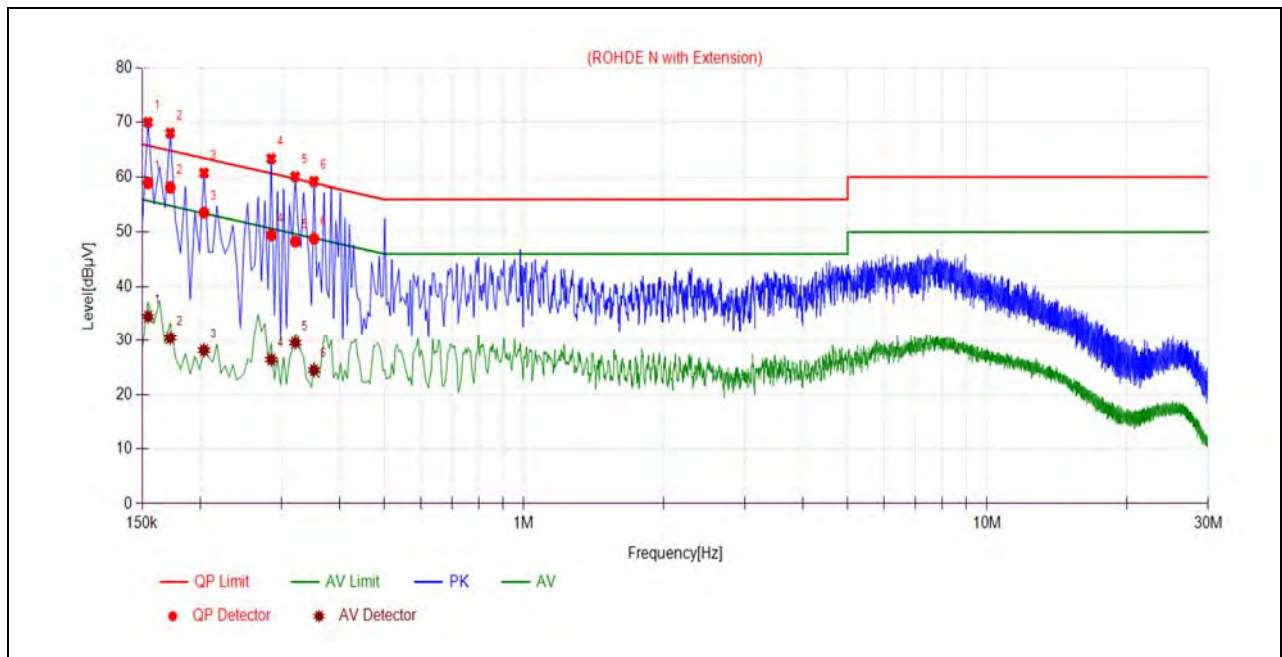
U_R : Receiver Reading

A_{Factor} : Voltage division factor of LISN

B. Test Plot:



No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1635	57.56	34.16	65.28	55.28	Line	PASS
2	0.2490	50.06	25.60	61.79	51.79		PASS
3	0.2895	49.24	24.75	60.54	50.54		PASS
4	0.4200	44.19	28.23	57.45	47.45		PASS
5	0.6045	37.71	23.36	56.00	46.00		PASS
6	0.7035	39.80	29.91	56.00	46.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	58.96	34.49	65.76	55.76	Neutral	PASS
2	0.1725	58.15	30.42	64.84	54.84		PASS
3	0.2040	53.58	28.15	63.45	53.45		PASS
4	0.2850	49.44	26.42	60.67	50.67		PASS
5	0.3210	48.25	29.55	59.68	49.68		PASS
6	0.3525	48.79	24.50	58.90	48.90		PASS

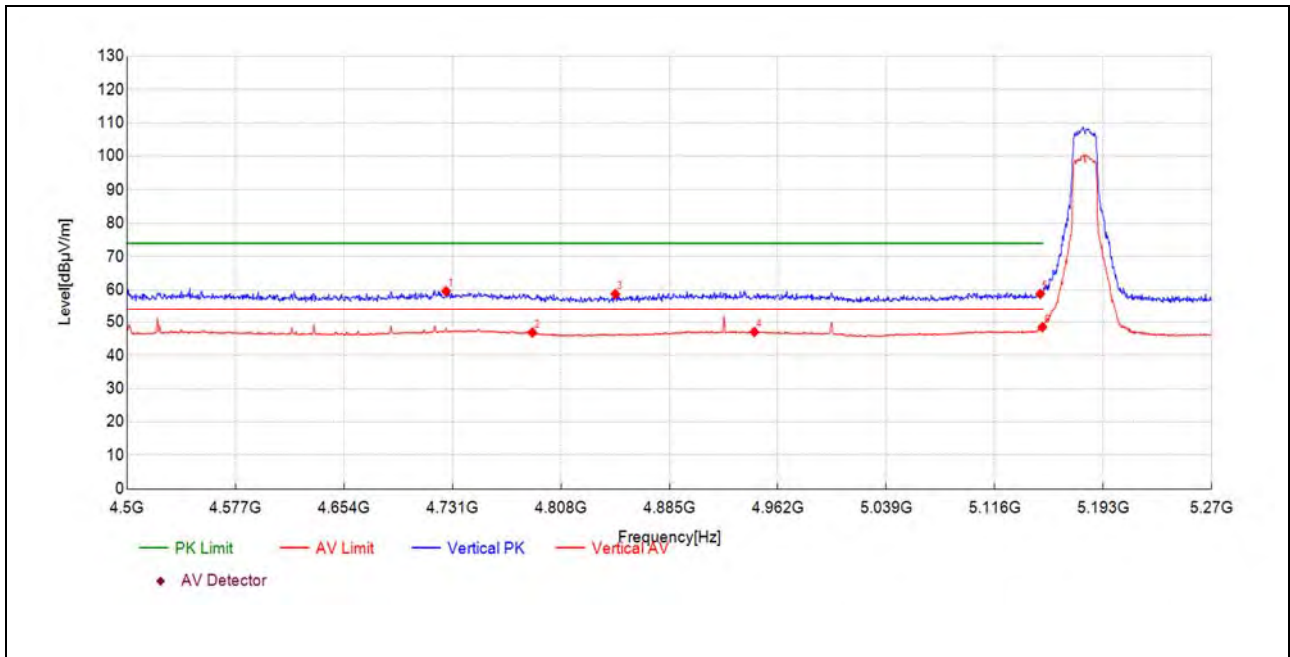
A.8. Restricted Frequency Bands

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

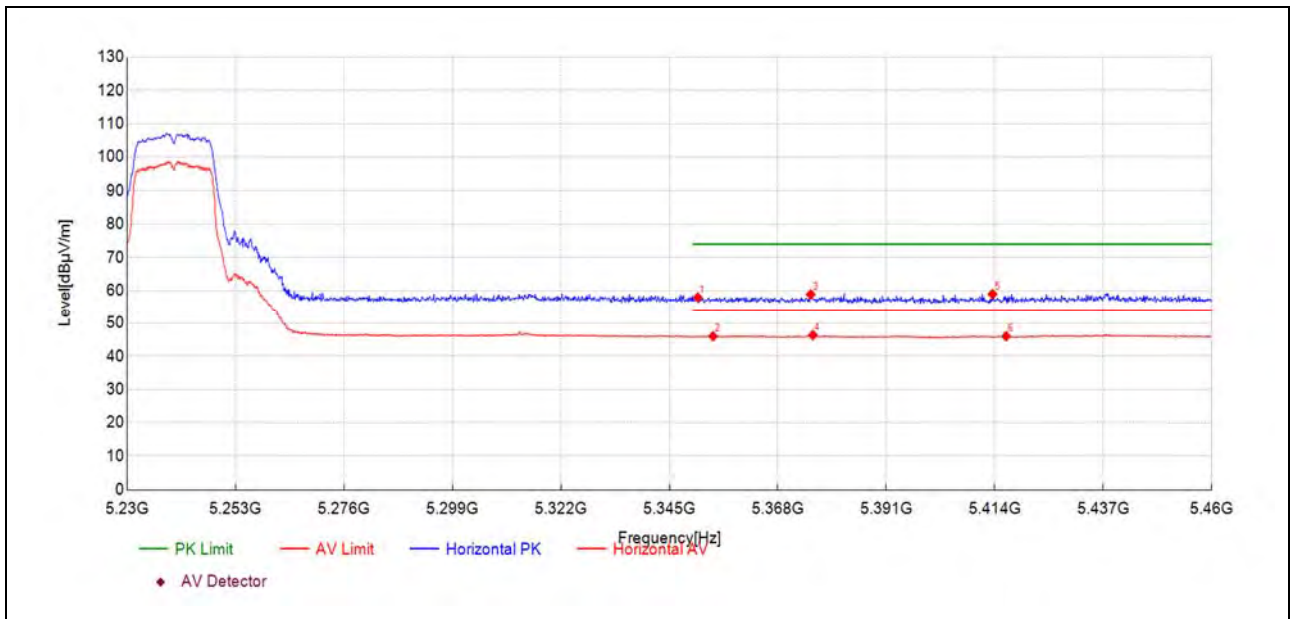
802.11a Mode

Plot for Channel 36



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4726.49	39.3	59.59	20.300	74.00	14.41	150	91	PK	PASS
4787.74	27.2	46.84	19.660	54.00	7.16	150	163	AV	PASS
4846.67	38.9	58.72	19.780	74.00	15.28	150	132	PK	PASS
4945.28	27.2	47.02	19.870	54.00	6.98	150	81	AV	PASS
5148.28	38.4	58.76	20.320	74.00	15.24	150	172	PK	PASS
5149.82	28.2	48.49	20.320	54.00	5.51	150	172	AV	PASS

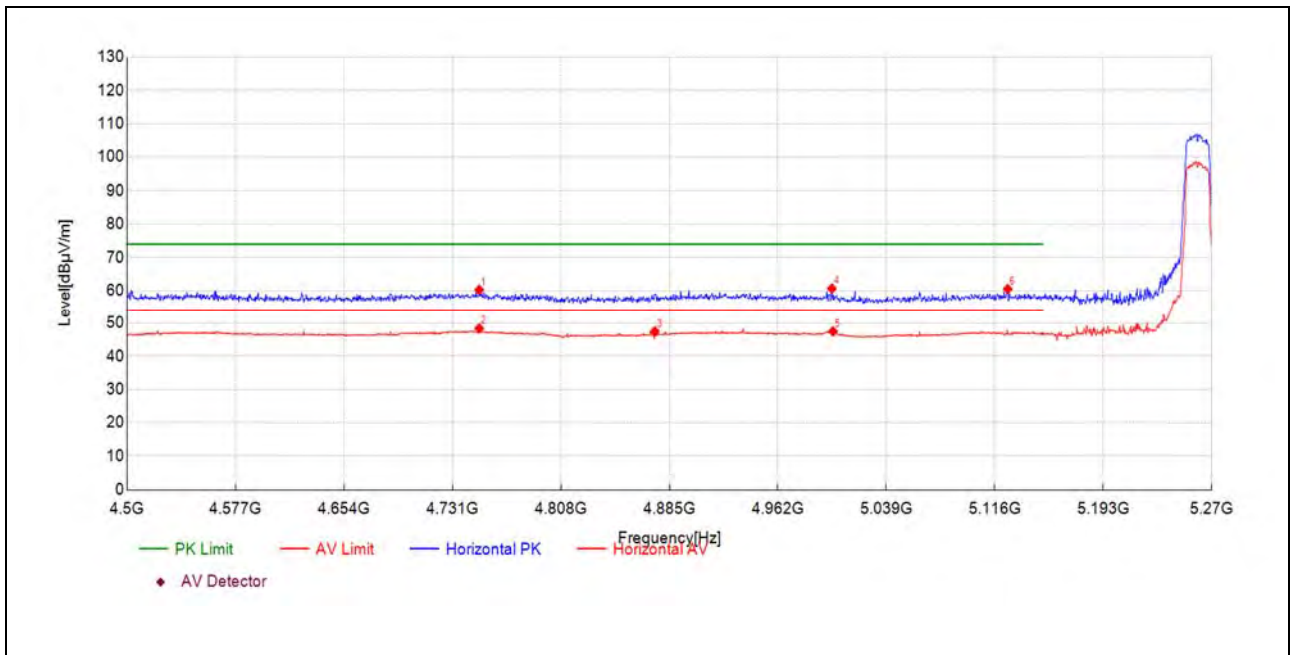
Plot for Channel 48



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.04	38.0	57.92	19.940	74.00	16.08	150	0	PK	PASS
5354.26	26.1	46.02	19.930	54.00	7.98	150	1	AV	PASS
5374.97	39.0	58.86	19.890	74.00	15.14	150	199	PK	PASS
5375.43	26.5	46.38	19.880	54.00	7.62	150	218	AV	PASS
5413.52	39.0	58.95	20.000	74.00	15.05	150	199	PK	PASS
5416.39	26.0	46.03	20.040	54.00	7.97	150	199	AV	PASS



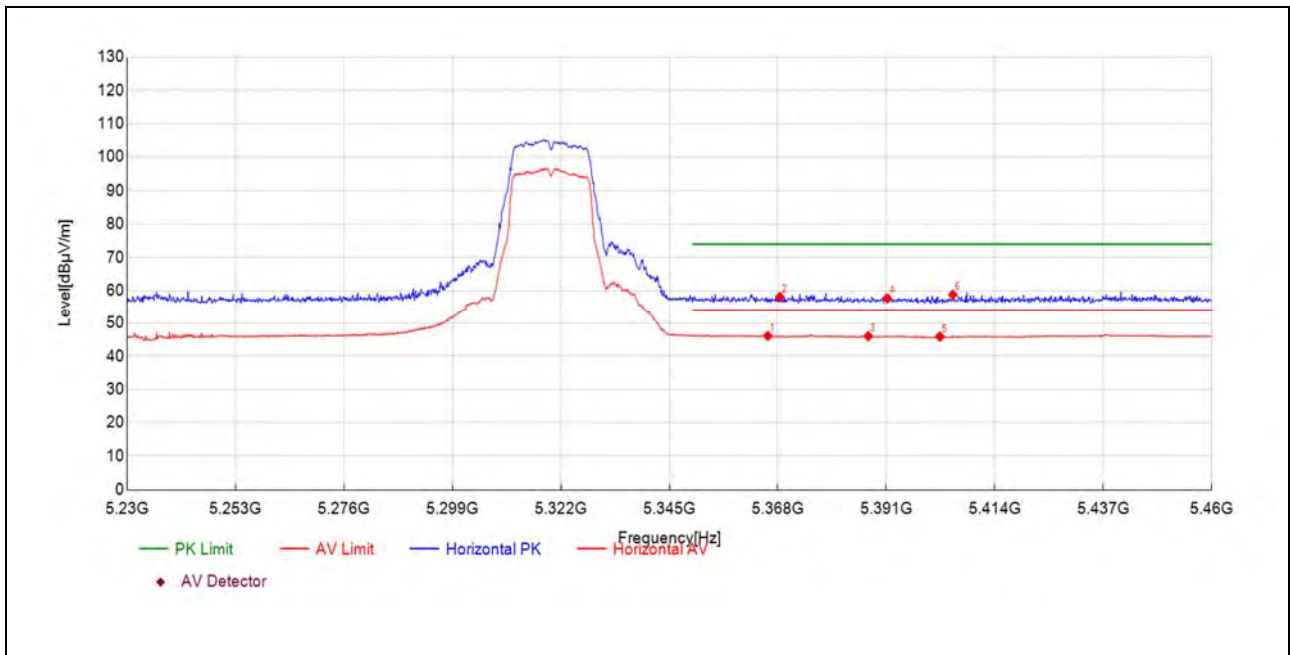
Plot for Channel 52



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4749.99	39.9	60.24	20.320	74.00	13.76	150	92	PK	PASS
4749.99	28.1	48.37	20.320	54.00	5.63	150	360	AV	PASS
4874.79	27.5	47.50	20.040	54.00	6.50	150	3	AV	PASS
5000.37	40.8	60.63	19.880	74.00	13.37	150	256	PK	PASS
5001.14	27.6	47.50	19.880	54.00	6.50	150	336	AV	PASS
5125.17	40.1	60.50	20.420	74.00	13.50	150	40	PK	PASS

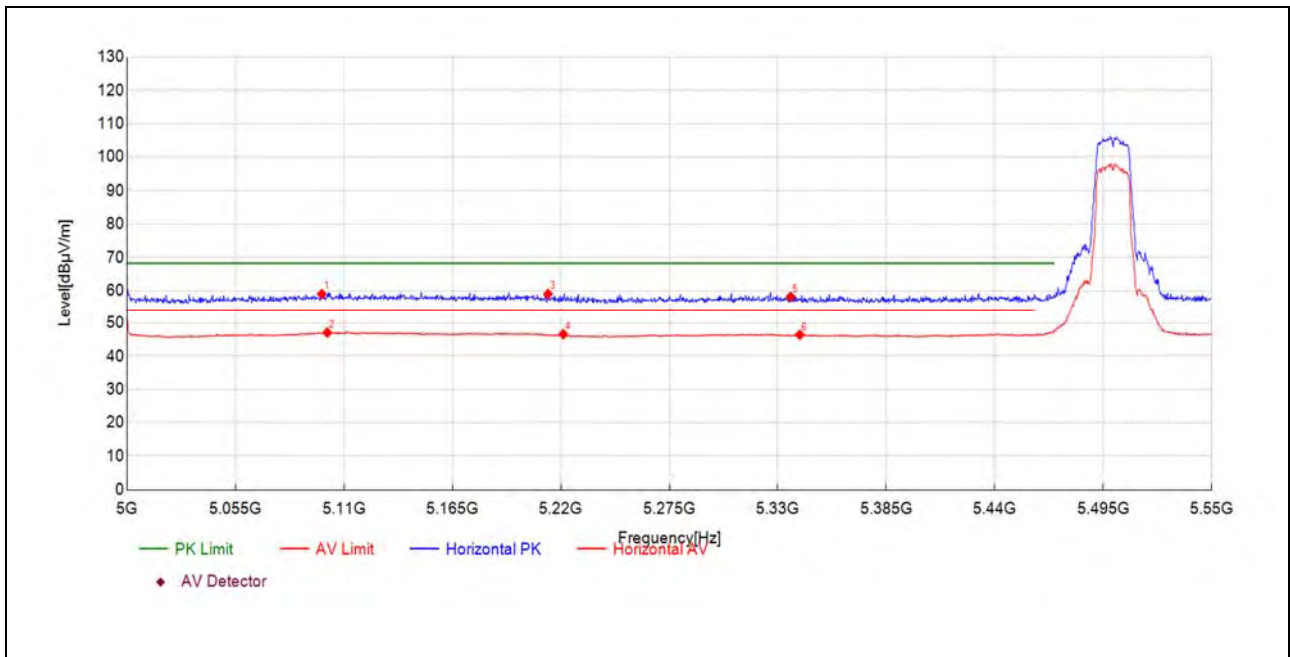


Plot for Channel 64



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5365.88	26.2	46.12	19.910	54.00	7.88	150	158	AV	PASS
5368.41	38.2	58.12	19.900	74.00	15.88	150	351	PK	PASS
5387.17	26.2	46.04	19.860	54.00	7.96	150	220	AV	PASS
5391.20	37.9	57.73	19.850	74.00	16.27	150	16	PK	PASS
5402.36	26.1	45.92	19.860	54.00	8.08	150	292	AV	PASS
5405.12	38.9	58.79	19.890	74.00	15.21	150	199	PK	PASS

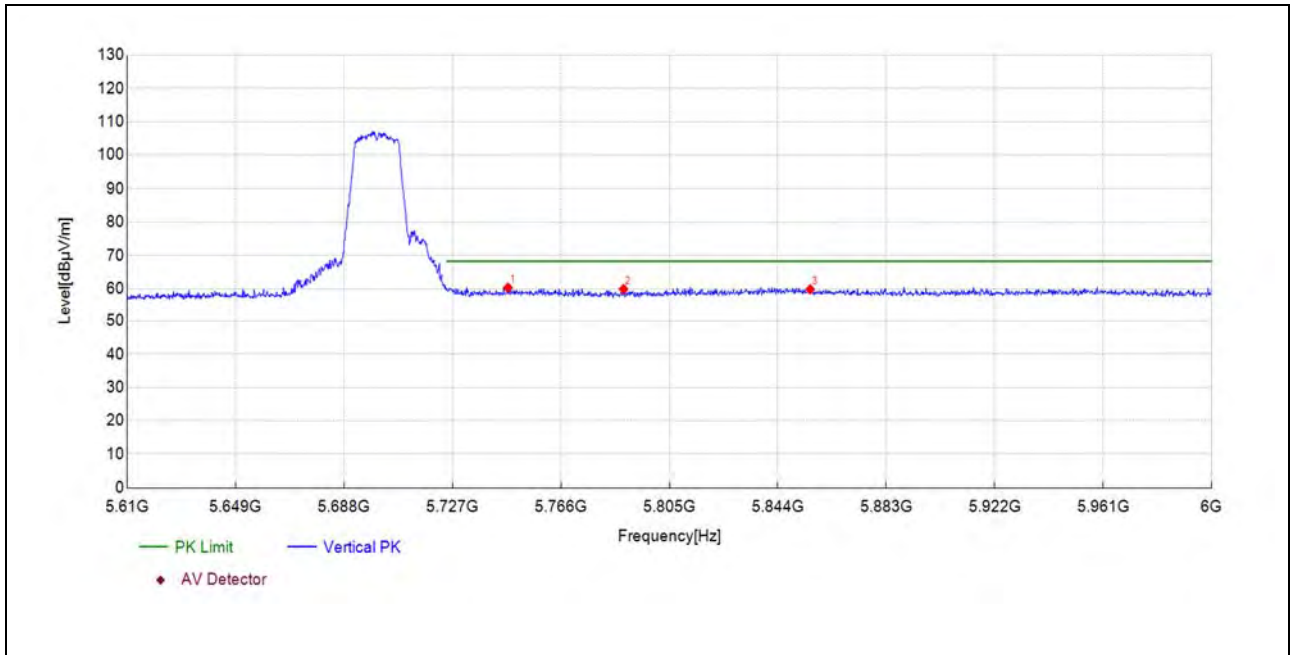
Plot for Channel 100



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5098.77	38.5	58.99	20.520	68.23	9.24	150	360	PK	PASS
5101.53	26.6	47.11	20.520	54.00	6.89	150	359	AV	PASS
5213.51	38.7	59.00	20.260	68.23	9.23	150	50	PK	PASS
5221.21	26.5	46.63	20.180	54.00	7.37	150	332	AV	PASS
5336.49	38.2	58.17	20.020	68.23	10.06	150	160	PK	PASS
5341.17	26.5	46.45	19.990	54.00	7.55	150	29	AV	PASS

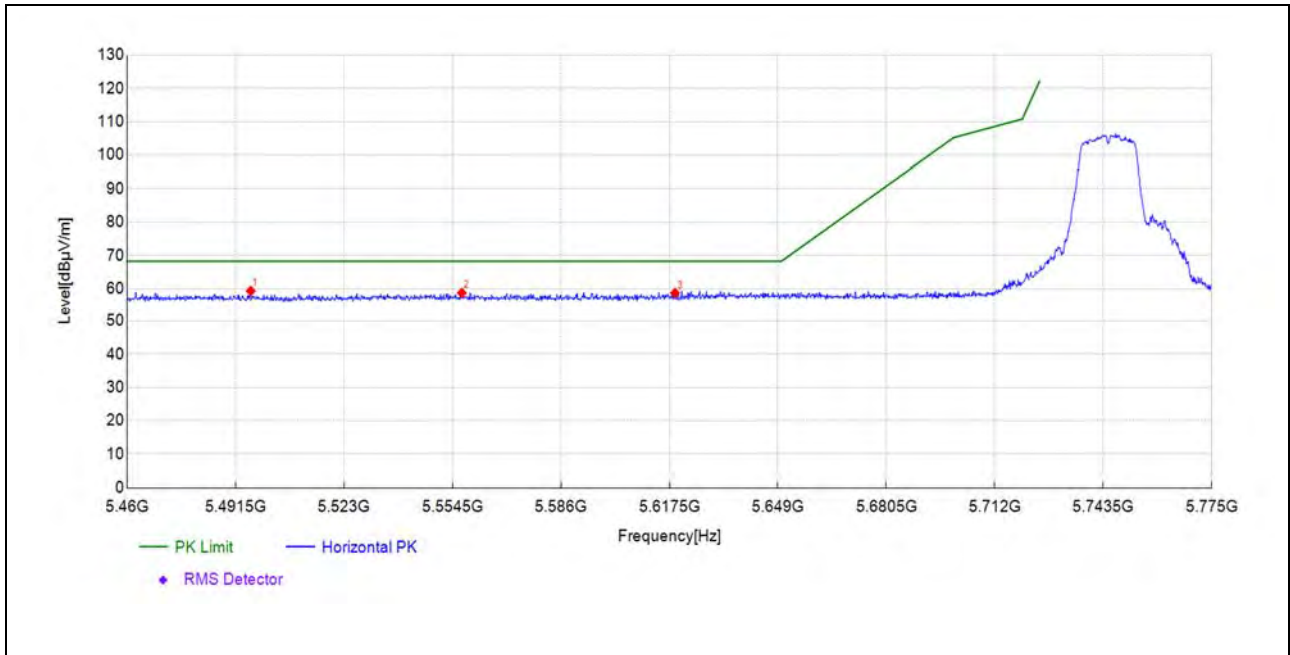


Plot for Channel 140



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5746.96	38.7	60.31	21.600	68.23	7.92	150	190	PK	PASS
5788.51	38.2	59.88	21.690	68.23	8.35	150	144	PK	PASS
5855.63	37.4	59.80	22.380	68.23	8.43	150	331	PK	PASS

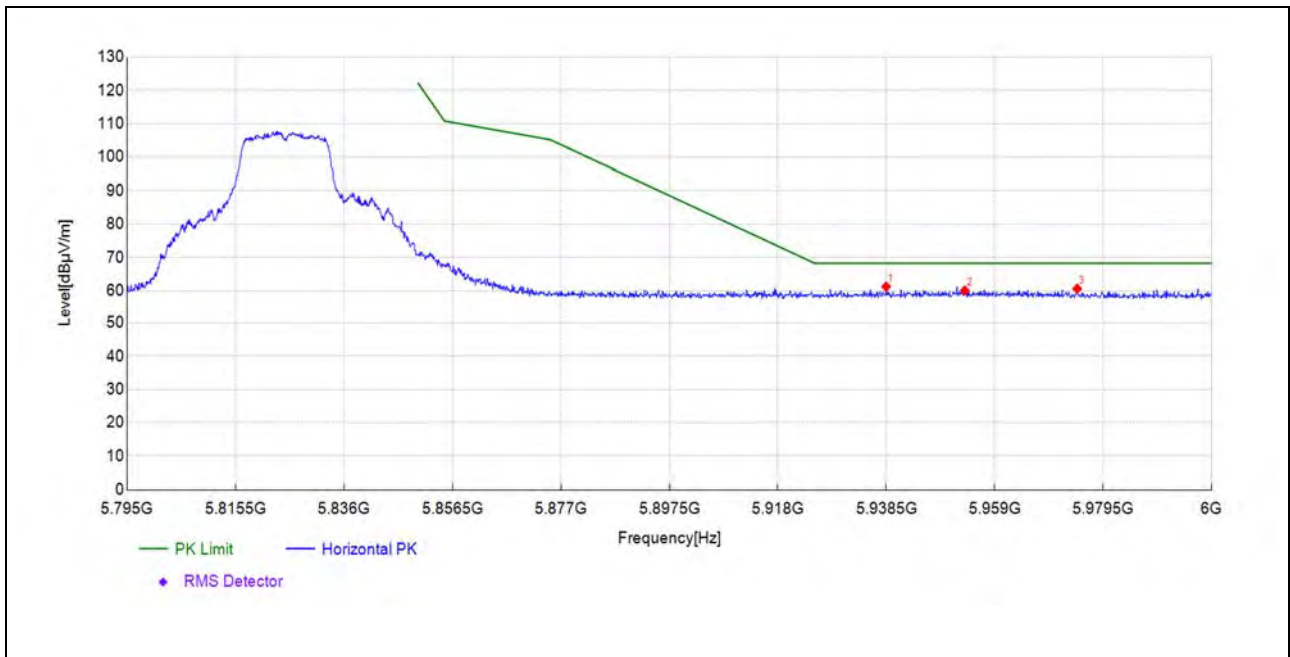
Plot for Channel 149



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5495.93	39.1	59.32	20.230	68.23	8.91	150	357	PK	PASS
5557.23	38.5	58.74	20.250	68.23	9.49	150	0	PK	PASS
5619.15	38.2	58.71	20.470	68.23	9.52	150	230	PK	PASS



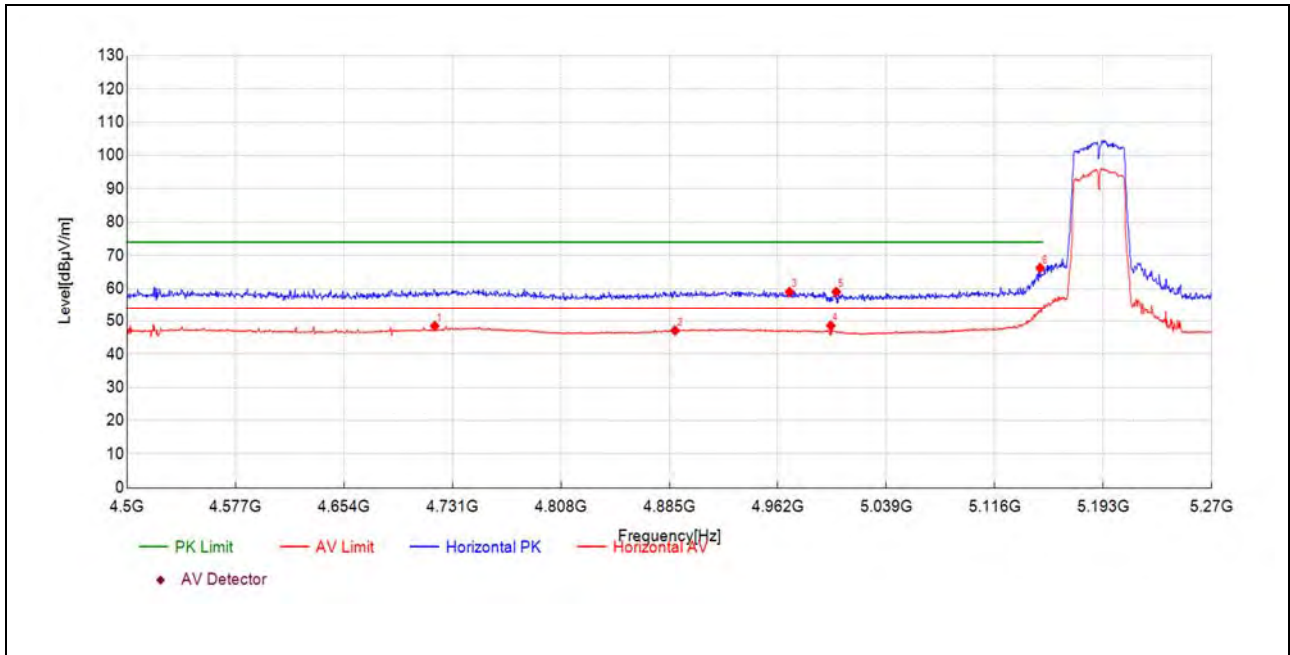
Plot for Channel 165



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5938.47	39.2	61.23	22.030	68.23	7.00	150	66	PK	PASS
5953.34	37.9	60.04	22.100	68.23	8.19	150	301	PK	PASS
5974.57	38.7	60.60	21.920	68.23	7.63	150	28	PK	PASS

**802.11n (HT40) Mode**

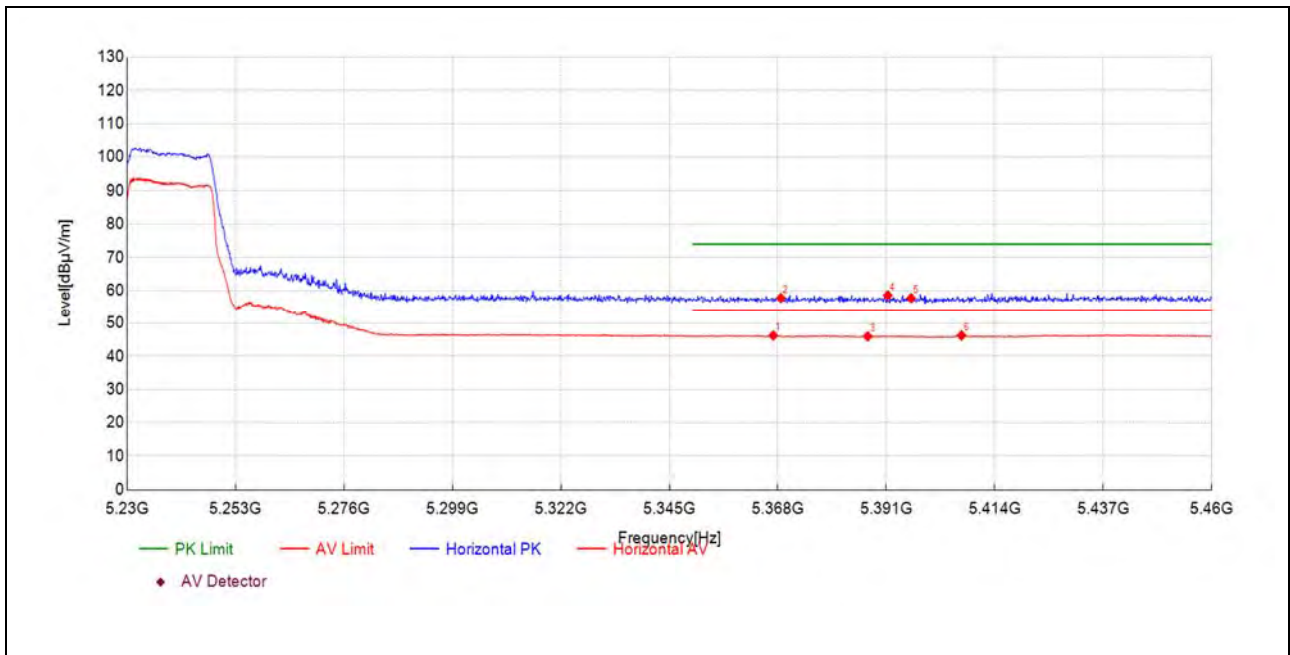
Plot for Channel 38



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4718.40	28.2	48.47	20.300	54.00	5.53	150	206	AV	PASS
4889.04	26.9	47.11	20.170	54.00	6.89	150	329	AV	PASS
4970.32	39.2	59.00	19.850	74.00	15.00	150	112	PK	PASS
4999.59	28.7	48.58	19.880	54.00	5.42	150	226	AV	PASS
5003.45	39.1	59.02	19.900	74.00	14.98	150	267	PK	PASS
5148.28	45.9	66.23	20.320	74.00	7.77	150	52	PK	PASS

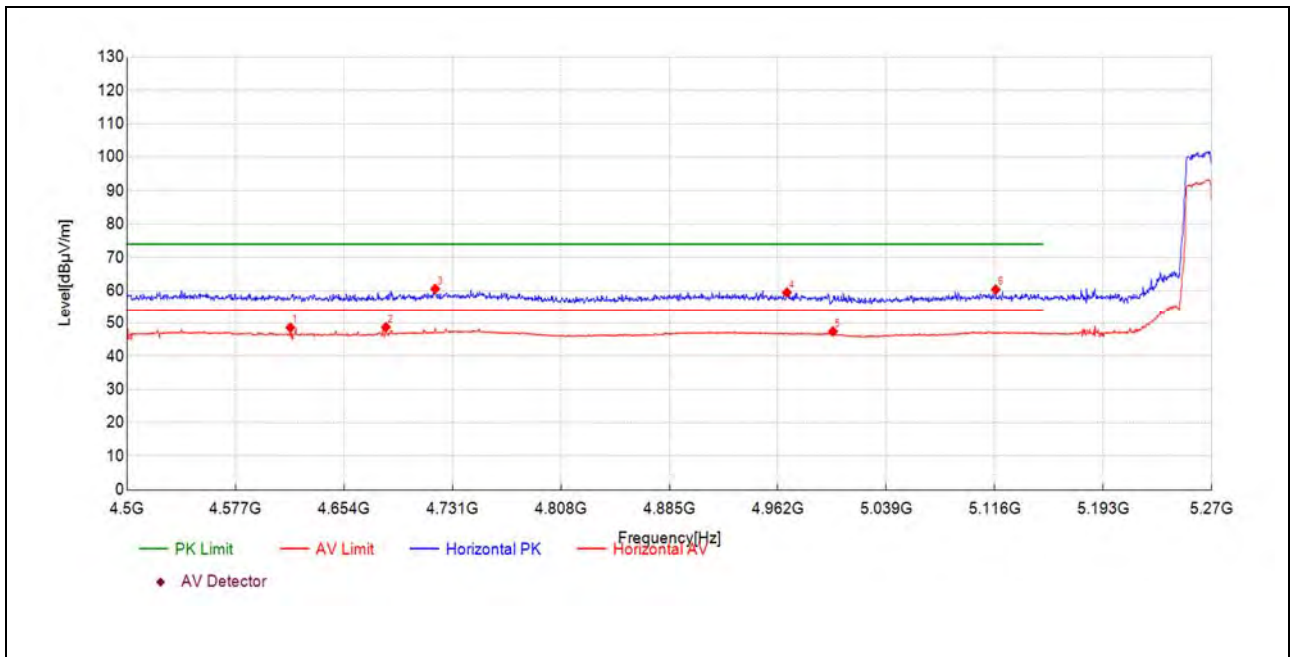


Plot for Channel 46



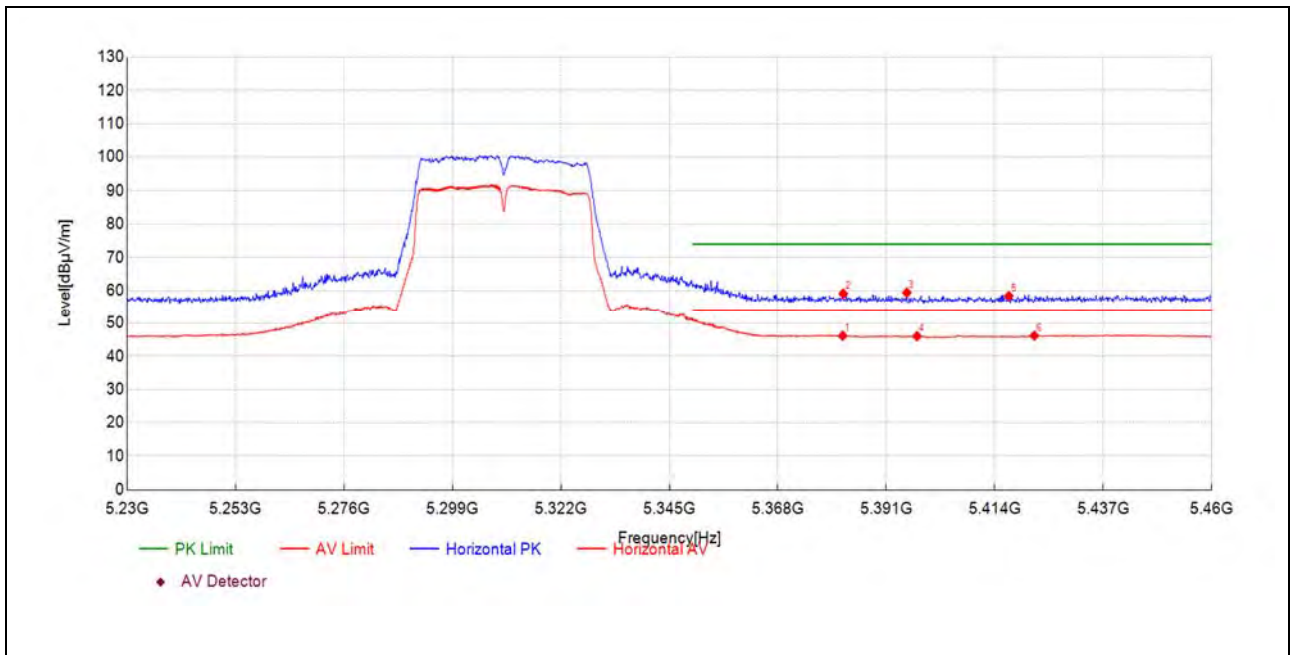
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5367.03	26.3	46.25	19.910	54.00	7.75	150	338	AV	PASS
5368.64	37.9	57.76	19.900	74.00	16.24	150	2	PK	PASS
5387.05	26.1	46.00	19.860	54.00	8.00	150	124	AV	PASS
5391.31	38.7	58.56	19.850	74.00	15.44	150	8	PK	PASS
5396.26	37.9	57.73	19.840	74.00	16.27	150	237	PK	PASS
5406.96	26.3	46.26	19.920	54.00	7.74	150	104	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
4615.94	28.7	48.61	19.920	54.00	5.39	150	324	AV	PASS
4683.74	28.5	48.75	20.240	54.00	5.25	150	343	AV	PASS
4718.79	40.2	60.54	20.300	74.00	13.46	150	30	PK	PASS
4968.39	39.6	59.45	19.850	74.00	14.55	150	360	PK	PASS
5001.14	27.6	47.49	19.880	54.00	6.51	150	360	AV	PASS
5116.69	39.9	60.36	20.460	74.00	13.64	150	312	PK	PASS

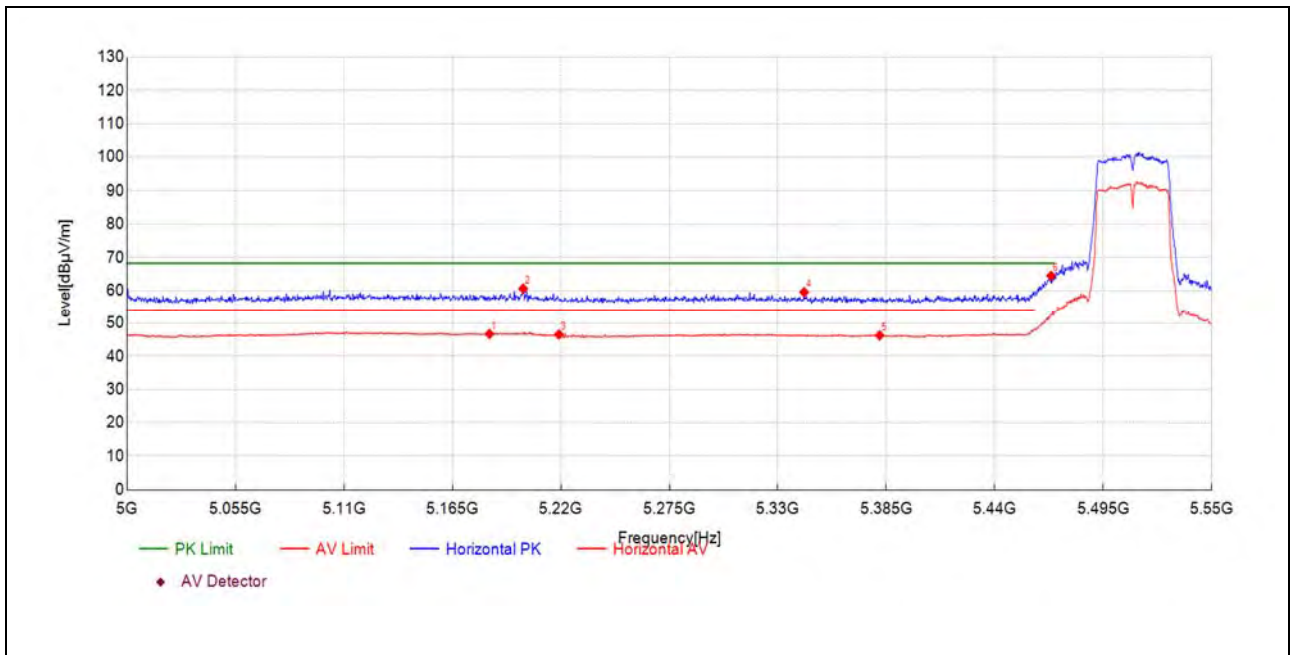
Plot for Channel 62



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5381.76	26.3	46.13	19.870	54.00	7.87	150	330	AV	PASS
5381.88	39.2	59.08	19.870	74.00	14.92	150	62	PK	PASS
5395.34	39.6	59.39	19.840	74.00	14.61	150	238	PK	PASS
5397.52	26.2	46.03	19.830	54.00	7.97	150	260	AV	PASS
5416.97	38.3	58.38	20.040	74.00	15.62	150	136	PK	PASS
5422.38	26.1	46.17	20.120	54.00	7.83	150	53	AV	PASS



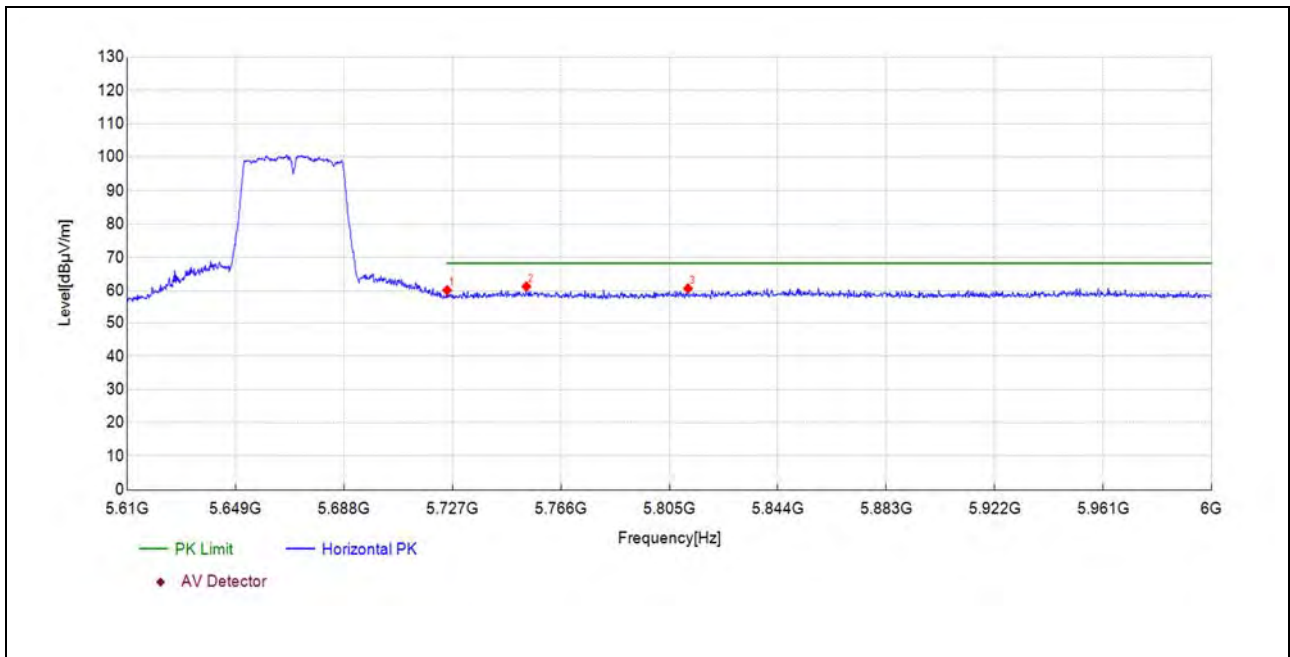
Plot for Channel 102



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5183.79	26.3	46.71	20.390	54.00	7.29	150	3	AV	PASS
5200.85	40.2	60.61	20.410	68.23	7.62	150	305	PK	PASS
5219.01	26.4	46.56	20.200	54.00	7.44	150	141	AV	PASS
5343.37	39.6	59.55	19.980	68.23	8.68	150	50	PK	PASS
5381.62	26.4	46.27	19.870	54.00	7.73	150	360	AV	PASS
5468.56	44.1	64.47	20.370	68.23	3.76	150	71	PK	PASS

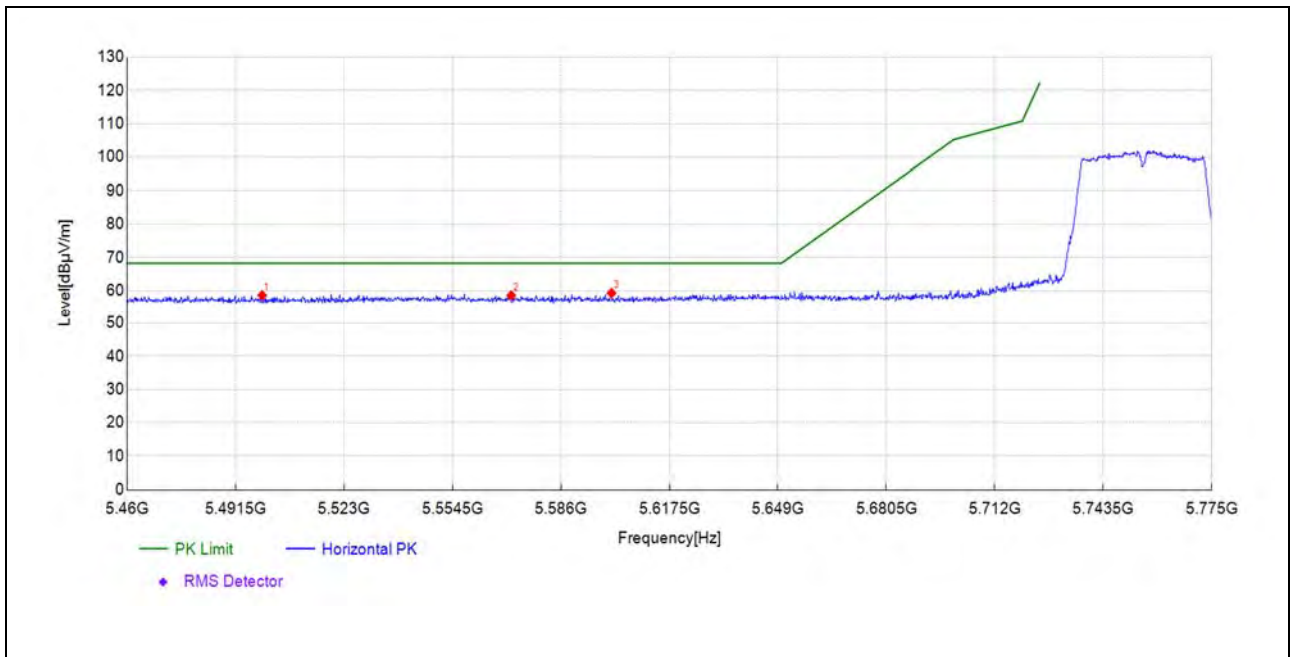


Plot for Channel 134



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5725.11	38.9	60.13	21.260	68.23	8.10	150	10	PK	PASS
5753.59	39.6	61.26	21.640	68.23	6.97	150	0	PK	PASS
5811.73	38.8	60.68	21.880	68.23	7.55	150	128	PK	PASS

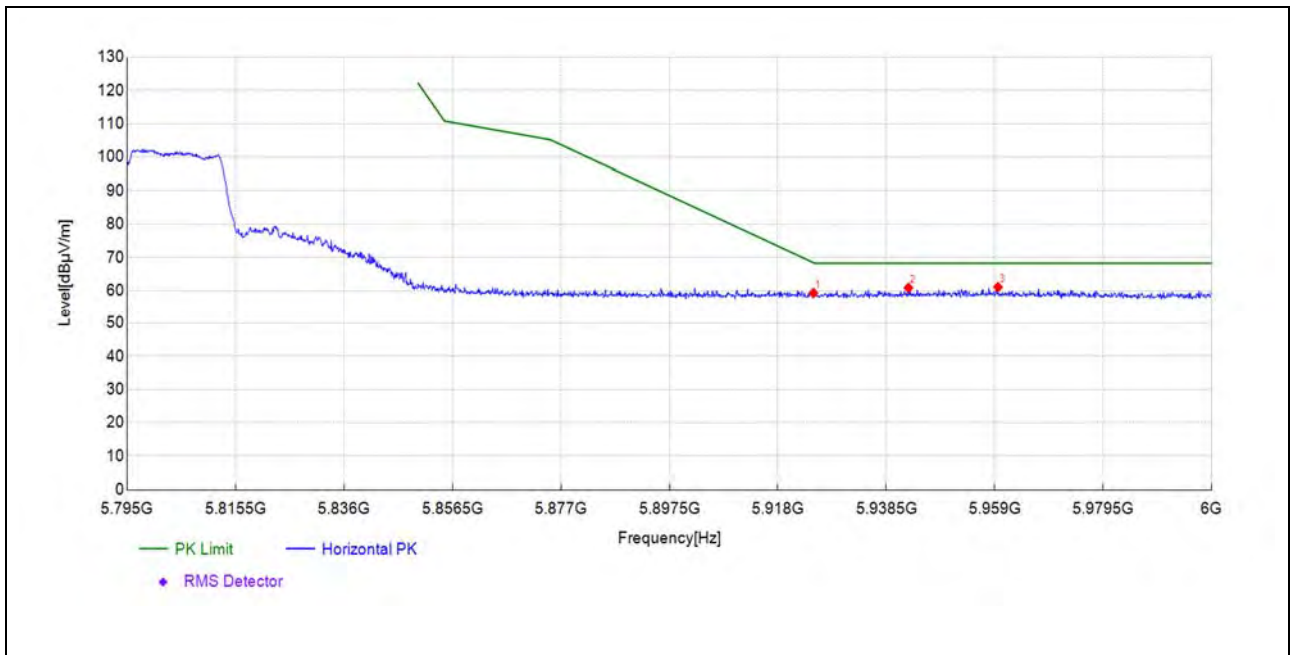
Plot for Channel 151



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5499.24	38.4	58.60	20.210	68.23	9.63	150	3	PK	PASS
5571.57	38.4	58.57	20.210	68.23	9.66	150	18	PK	PASS
5600.72	39.1	59.28	20.140	68.23	8.95	150	319	PK	PASS



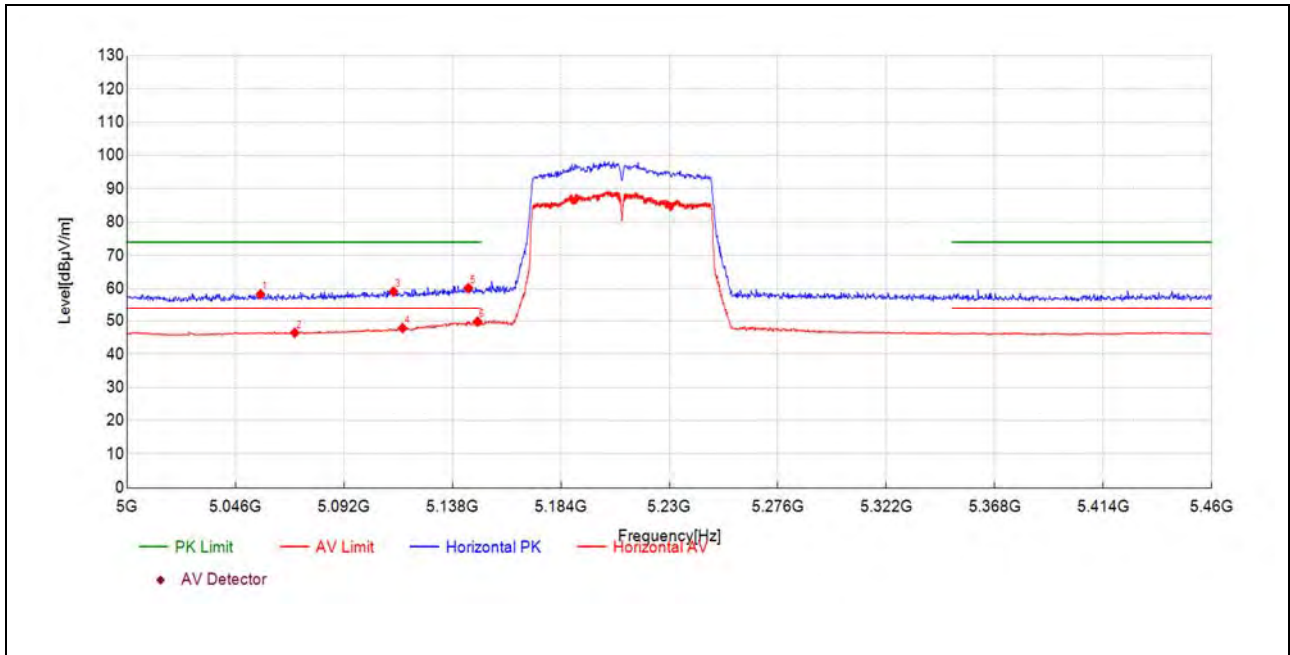
Plot for Channel 159



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5924.73	37.4	59.30	21.920	68.43	9.13	150	356	PK	PASS
5942.67	38.8	60.86	22.070	68.23	7.37	150	1	PK	PASS
5959.59	39.1	61.09	22.040	68.23	7.14	150	162	PK	PASS

**802.11ac (VHT80) Mode**

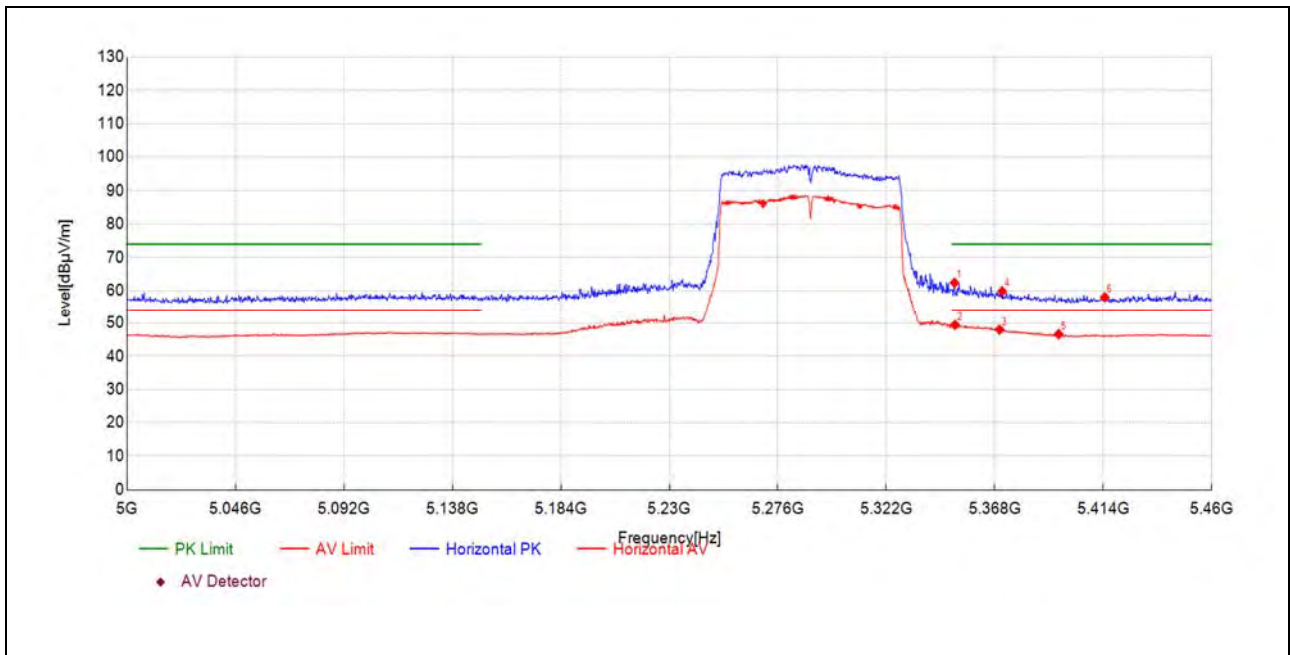
Plot for Channel 42



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5056.61	38.1	58.31	20.250	74.00	15.69	150	288	PK	PASS
5071.11	26.1	46.42	20.330	54.00	7.58	150	146	AV	PASS
5112.99	38.7	59.11	20.460	74.00	14.89	150	9	PK	PASS
5116.90	27.4	47.82	20.460	54.00	6.18	150	53	AV	PASS
5144.74	39.8	60.17	20.340	74.00	13.83	150	43	PK	PASS
5148.65	29.5	49.79	20.320	54.00	4.21	150	53	AV	PASS



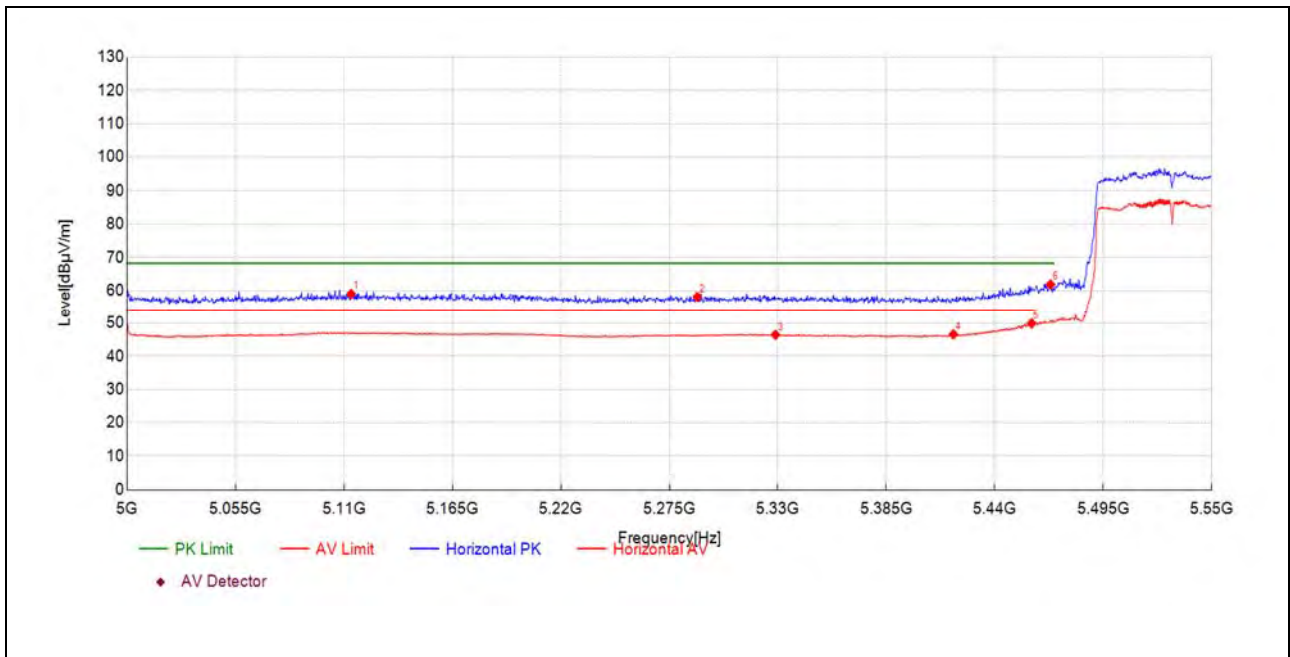
Plot for Channel 58



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.93	42.4	62.38	19.940	74.00	11.62	150	41	PK	PASS
5351.16	29.5	49.45	19.940	54.00	4.55	150	295	AV	PASS
5370.03	28.1	47.99	19.900	54.00	6.01	150	295	AV	PASS
5371.18	39.9	59.79	19.900	74.00	14.21	150	20	PK	PASS
5395.11	26.8	46.64	19.840	54.00	7.36	150	133	AV	PASS
5414.67	38.0	58.01	20.020	74.00	15.99	150	255	PK	PASS

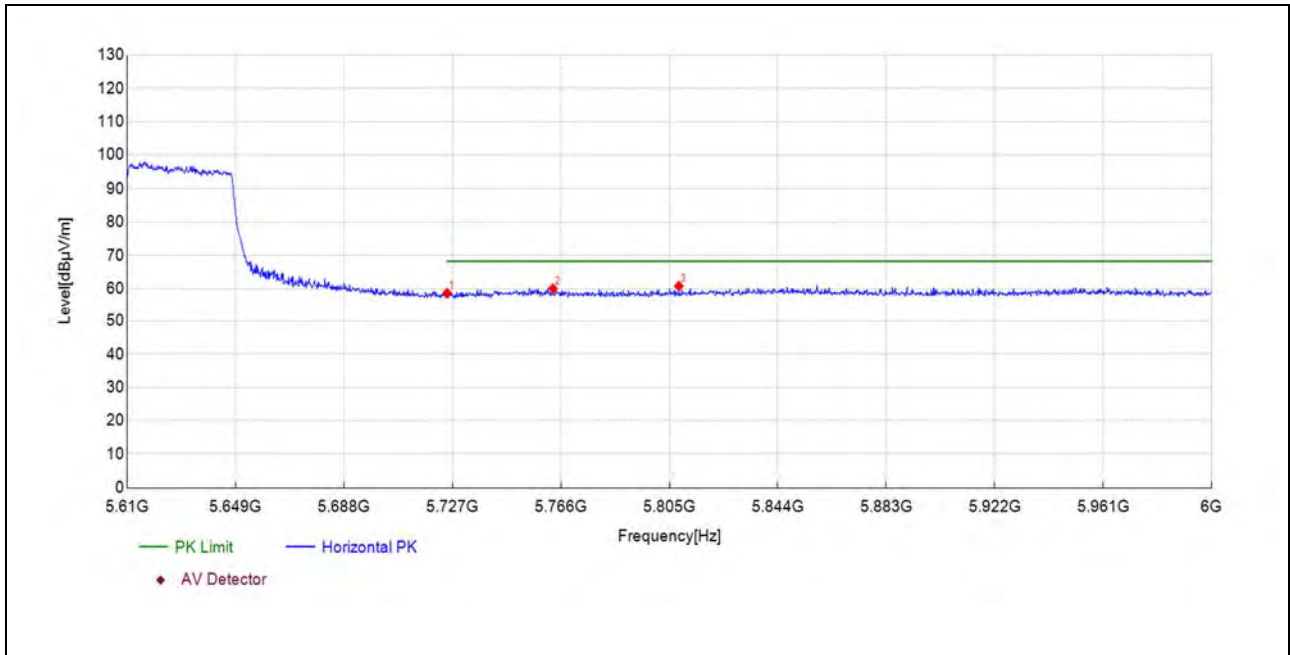


Plot for Channel 106



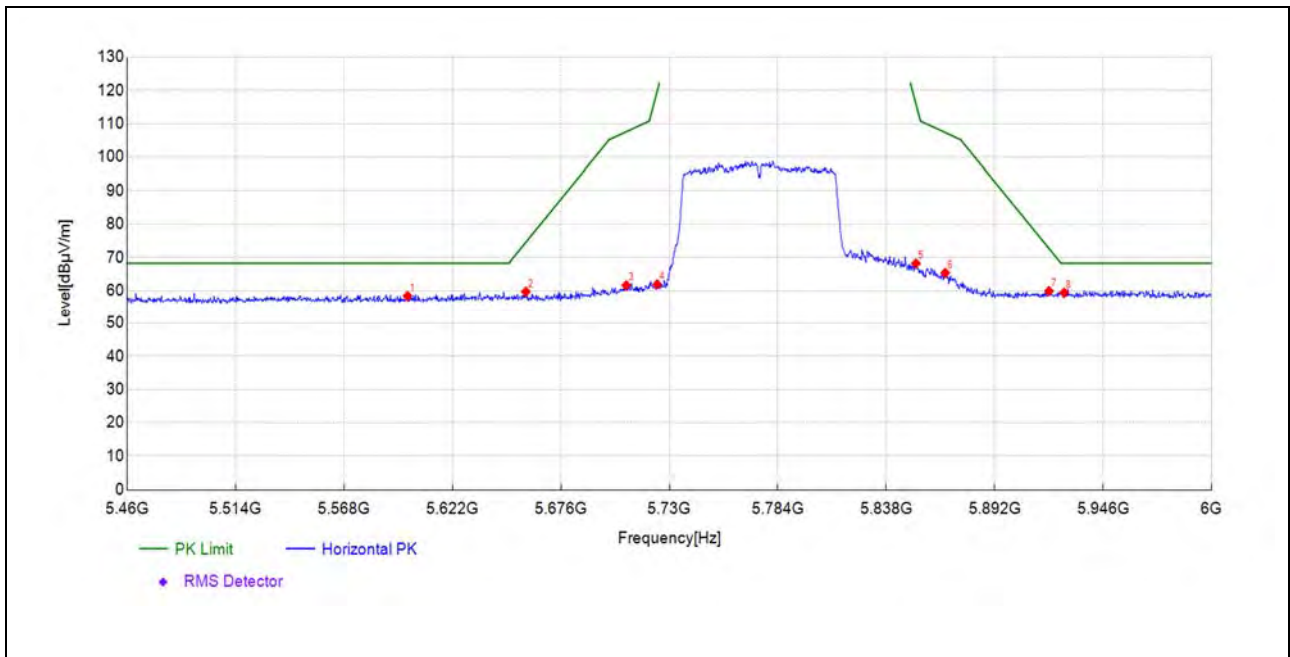
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5113.63	38.6	59.01	20.460	68.23	9.22	150	0	PK	PASS
5289.17	38.0	58.11	20.160	68.23	10.12	150	1	PK	PASS
5328.79	26.4	46.46	20.070	54.00	7.54	150	310	AV	PASS
5419.03	26.5	46.59	20.080	54.00	7.41	150	300	AV	PASS
5458.65	29.5	49.90	20.430	54.00	4.10	150	36	AV	PASS
5468.28	41.5	61.86	20.370	68.23	6.37	150	65	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
5725.11	37.4	58.67	21.260	68.23	9.56	150	142	PK	PASS
5763.15	38.4	60.02	21.660	68.23	8.21	150	142	PK	PASS
5808.41	39.0	60.79	21.820	68.23	7.44	150	356	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
5599.66	38.3	58.41	20.130	68.23	9.82	150	360	PK	PASS
5658.55	38.7	59.69	20.980	74.56	14.87	150	160	PK	PASS
5708.52	40.6	61.61	21.010	107.62	46.01	150	93	PK	PASS
5723.92	40.7	61.89	21.240	119.77	57.88	150	103	PK	PASS
5852.78	45.8	68.19	22.420	115.90	47.71	150	9	PK	PASS
5867.36	43.2	65.37	22.210	107.37	42.00	150	74	PK	PASS
5918.96	38.0	59.86	21.870	72.70	12.84	150	18	PK	PASS
5926.52	37.5	59.40	21.930	68.23	8.83	150	360	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.

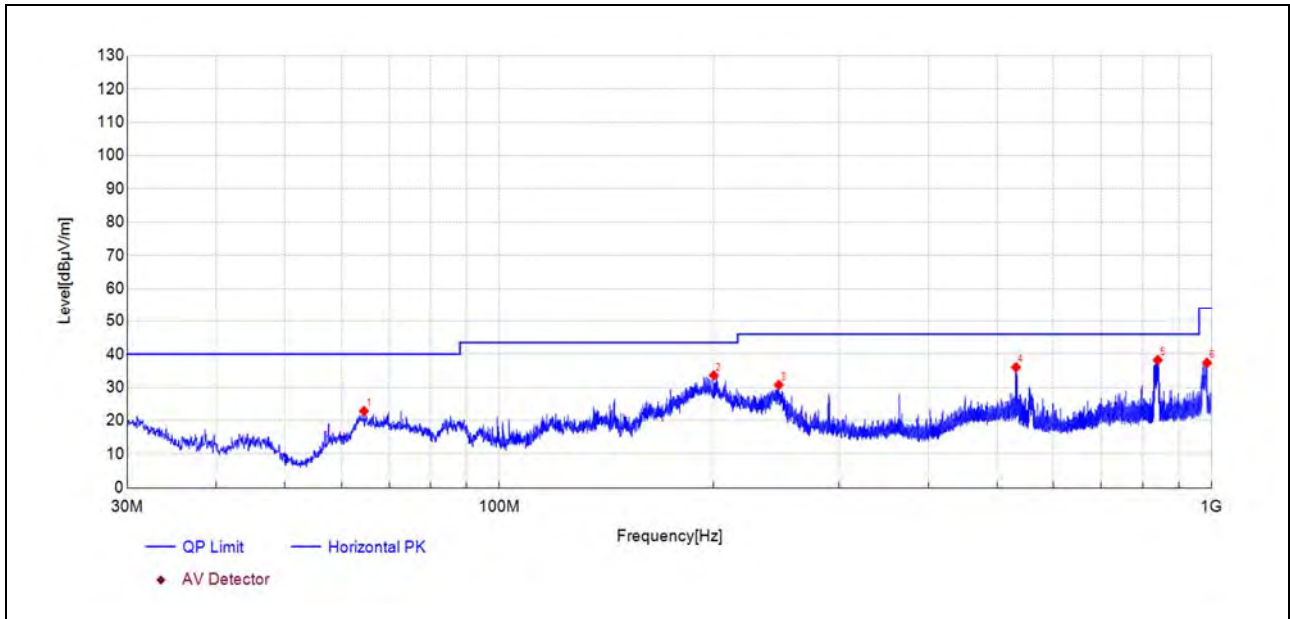
Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

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.

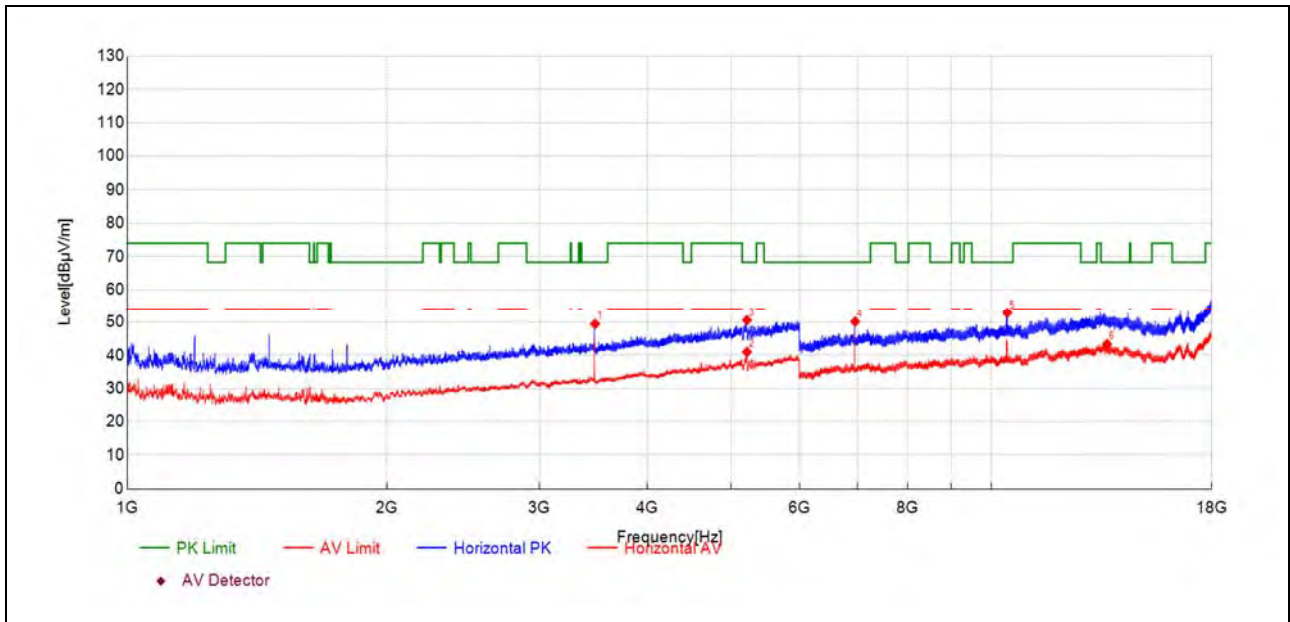
**802.11a Mode**

Plot for Channel 44



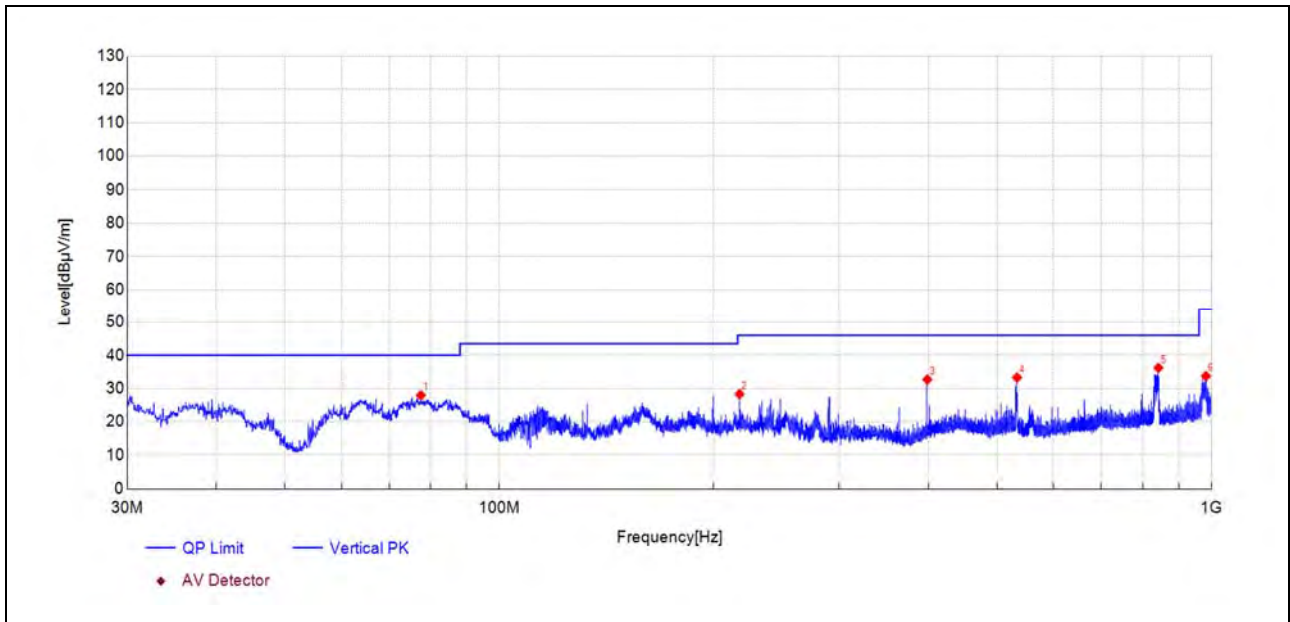
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
64.53	55.4	22.88	-32.510	40.00	17.12	150	10	PK	PASS
200.00	63.9	33.63	-30.230	43.50	9.87	150	238	PK	PASS
246.76	58.9	30.73	-28.210	46.00	15.27	150	177	PK	PASS
531.08	57.5	36.06	-21.400	46.00	9.94	150	288	PK	PASS
840.09	54.0	38.21	-15.810	46.00	7.79	150	248	PK	PASS
984.96	50.8	37.38	-13.410	54.00	16.62	150	137	PK	PASS



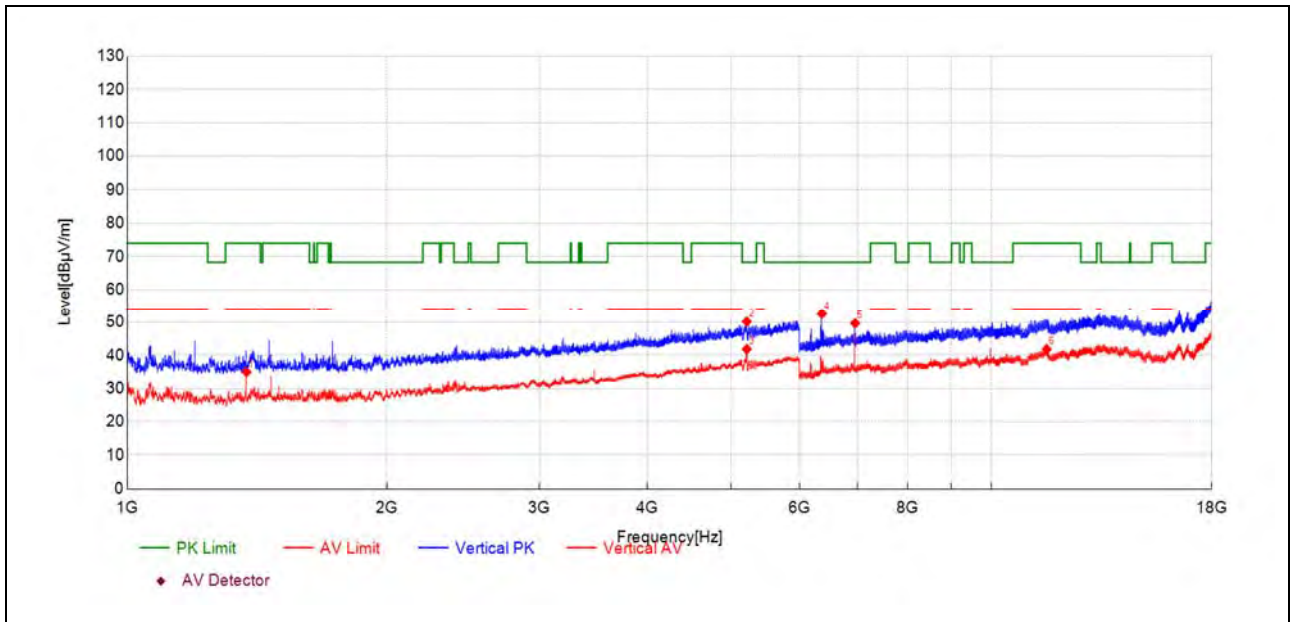
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
3480.25	45.6	49.45	3.820	68.23	18.78	150	25	PK	PASS
5216.42	30.8	40.99	10.160	-	-	150	55	AV	N/A
5217.42	40.5	50.62	10.150	68.23	17.61	150	45	PK	N/A
6960.04	54.7	50.15	-4.570	68.23	18.08	150	22	PK	PASS
10440.19	53.4	52.87	-0.550	68.23	15.36	150	36	PK	PASS
13619.82	38.5	43.38	4.880	-	-	150	360	AV	N/A



(Antenna Vertical, 30MHz to 1GHz)

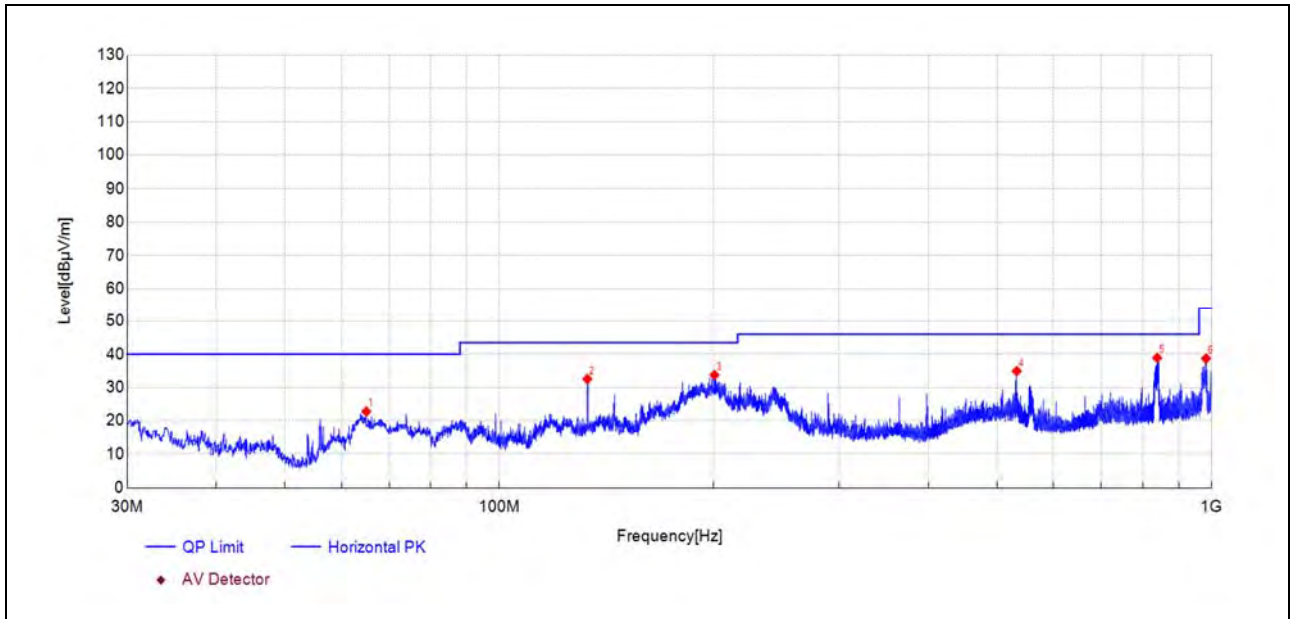
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
77.58	63.3	27.96	-35.310	40.00	12.04	150	92	PK	PASS
217.27	57.7	28.34	-29.400	46.00	17.66	150	358	PK	PASS
398.81	56.9	32.71	-24.170	46.00	13.29	150	92	PK	PASS
532.92	54.7	33.32	-21.390	46.00	12.68	150	253	PK	PASS
841.79	52.0	36.22	-15.740	46.00	9.78	150	253	PK	PASS
981.52	47.3	33.76	-13.530	54.00	20.24	150	181	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

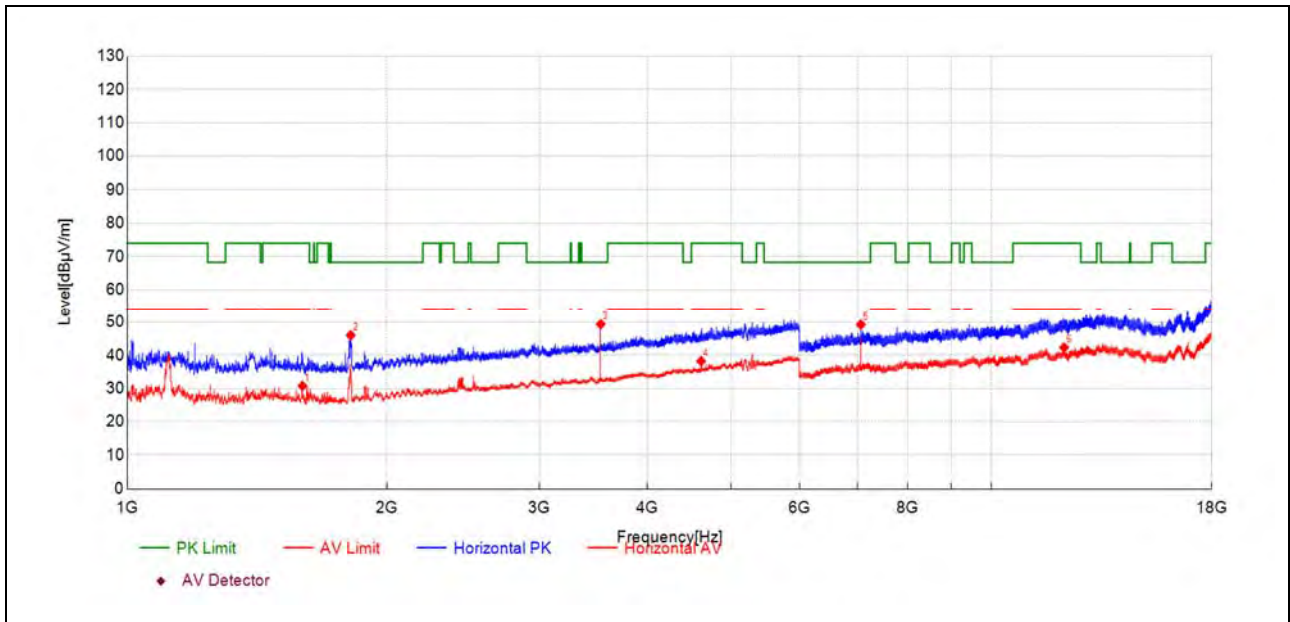
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1375.04	40.0	34.96	-5.000	54.00	19.04	150	332	AV	PASS
5214.92	40.0	50.16	10.180	68.23	18.07	150	165	PK	N/A
5214.92	31.7	41.83	10.180	-	-	150	176	AV	N/A
6371.52	58.1	52.54	-5.520	68.23	15.69	150	250	PK	PASS
6959.54	54.2	49.67	-4.570	68.23	18.56	150	360	PK	PASS
11596.73	38.7	41.81	3.160	54.00	12.19	150	297	AV	PASS

Plot for Channel 60



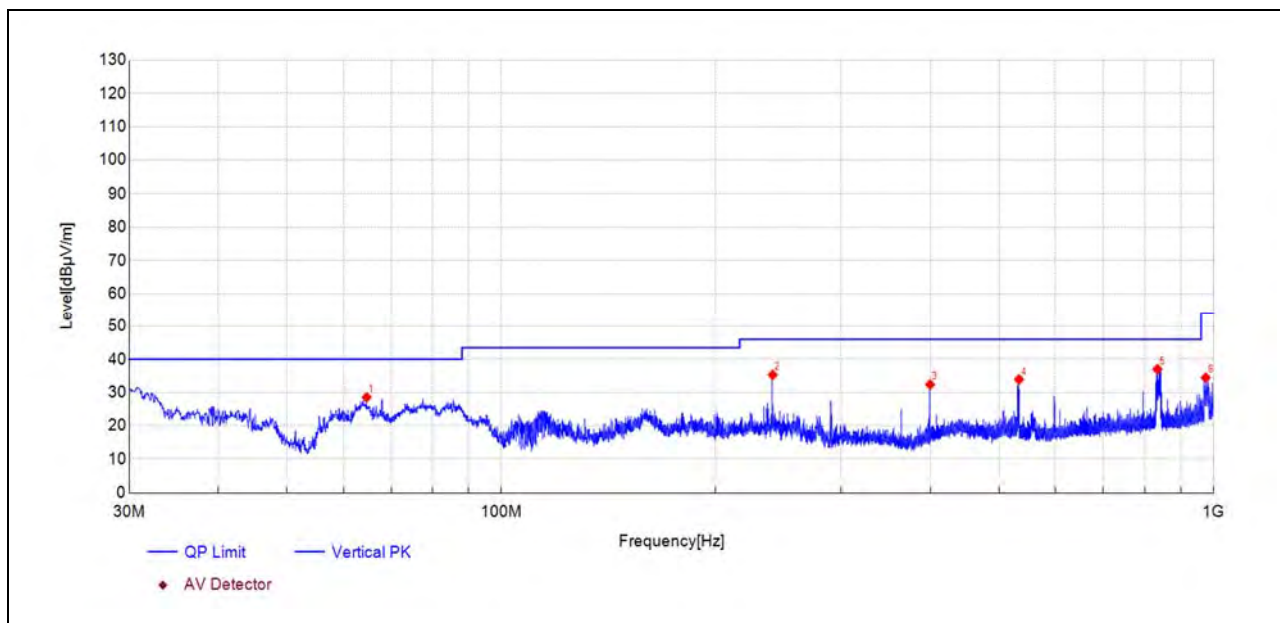
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
65.02	55.5	22.79	-32.700	40.00	17.21	150	212	PK	PASS
132.87	66.0	32.52	-33.440	43.50	10.98	150	101	PK	PASS
200.39	64.0	33.77	-30.230	43.50	9.73	150	201	PK	PASS
532.49	56.3	34.94	-21.390	46.00	11.06	150	313	PK	PASS
838.34	54.8	38.93	-15.840	46.00	7.07	150	252	PK	PASS
982.05	52.2	38.71	-13.510	54.00	15.29	150	142	PK	PASS



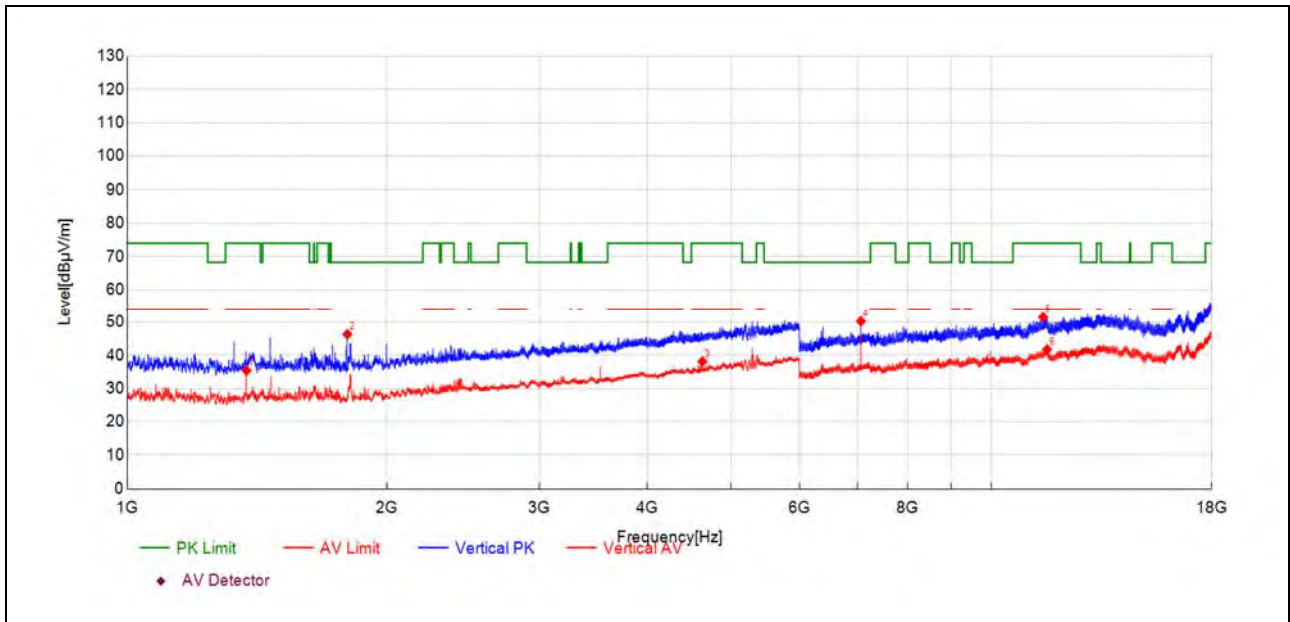
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1596.06	35.1	30.79	-4.310	54.00	23.21	150	260	AV	PASS
1814.58	49.7	46.03	-3.670	68.23	22.20	150	0	PK	PASS
3533.25	45.4	49.36	3.920	68.23	18.87	150	28	PK	PASS
4617.36	30.3	38.25	7.940	54.00	15.75	150	333	AV	PASS
7066.54	53.4	49.24	-4.150	68.23	18.99	150	334	PK	PASS
12146.76	39.4	42.35	2.950	54.00	11.65	150	356	AV	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
64.68	61.1	28.56	-32.570	40.00	11.44	150	260	PK	PASS
240.36	63.7	35.31	-28.400	46.00	10.69	150	138	PK	PASS
399.78	56.6	32.40	-24.150	46.00	13.60	150	98	PK	PASS
532.92	55.3	33.94	-21.390	46.00	12.06	150	0	PK	PASS
833.73	52.9	37.02	-15.920	46.00	8.98	150	219	PK	PASS
974.63	48.1	34.48	-13.660	54.00	19.52	150	179	PK	PASS

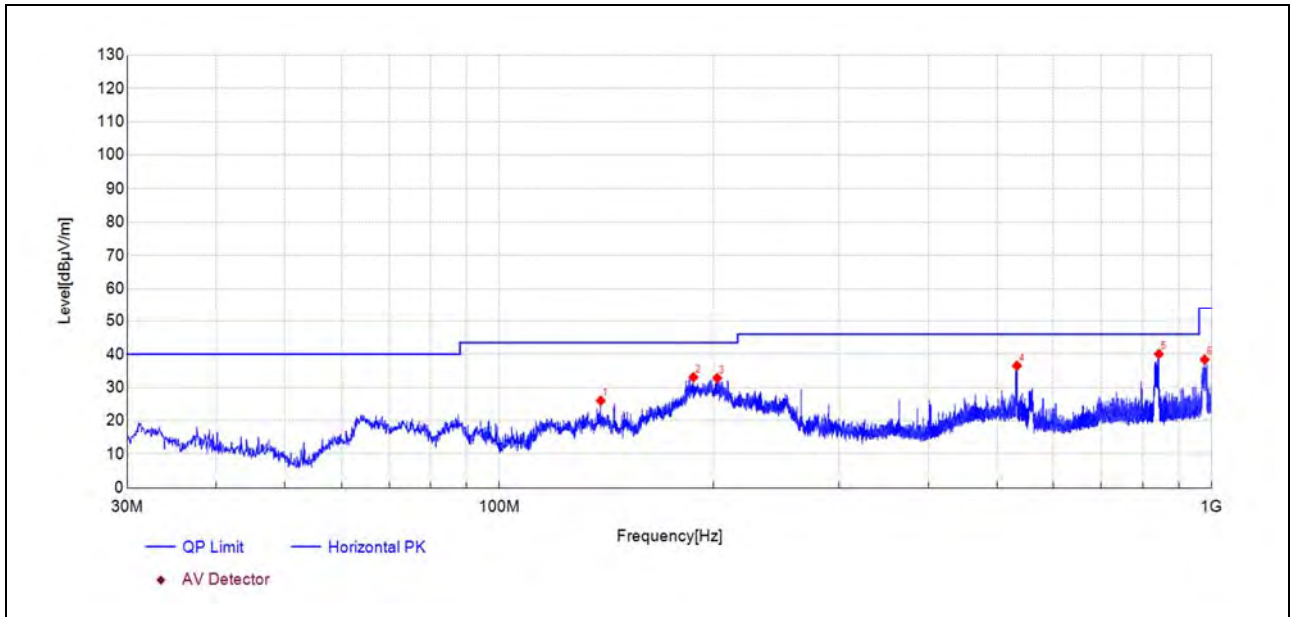


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1375.04	40.4	35.40	-5.000	54.00	18.60	150	291	AV	PASS
1798.58	50.2	46.33	-3.870	68.23	21.90	150	10	PK	PASS
4633.36	30.1	38.12	8.060	54.00	15.88	150	197	AV	PASS
7066.04	54.4	50.25	-4.150	68.23	17.98	150	354	PK	PASS
11487.23	49.1	51.49	2.410	74.00	22.51	150	22	PK	PASS
11608.73	38.7	41.71	3.050	54.00	12.29	150	206	AV	PASS

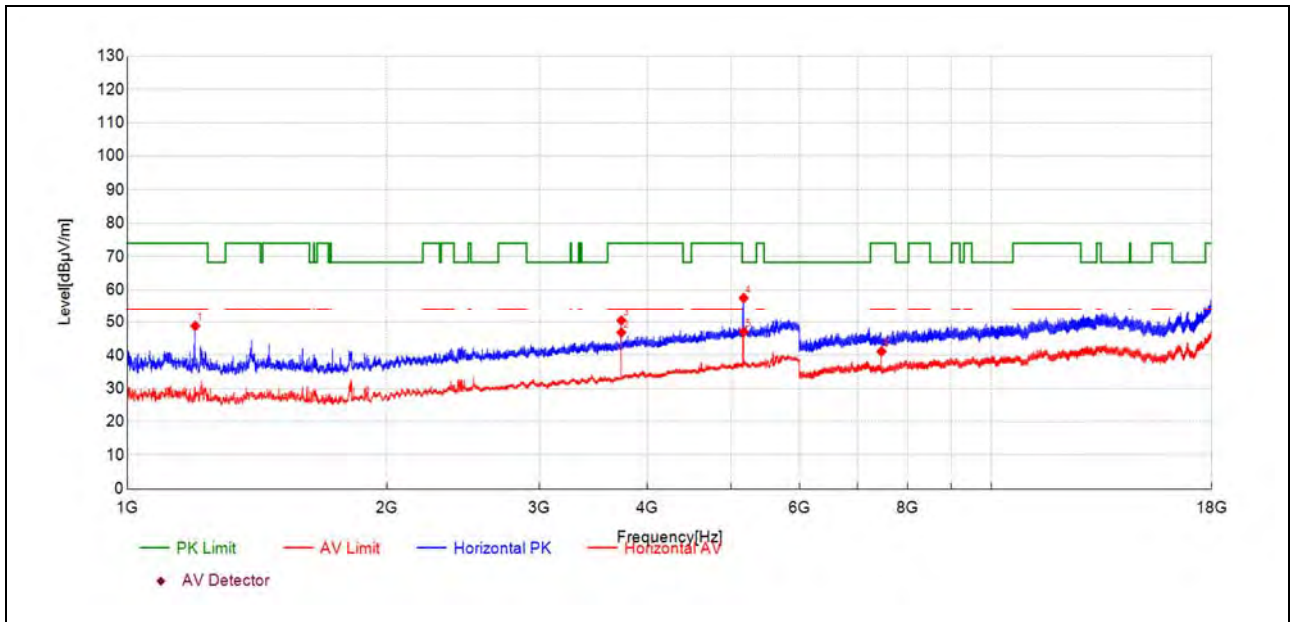


Plot for Channel 120



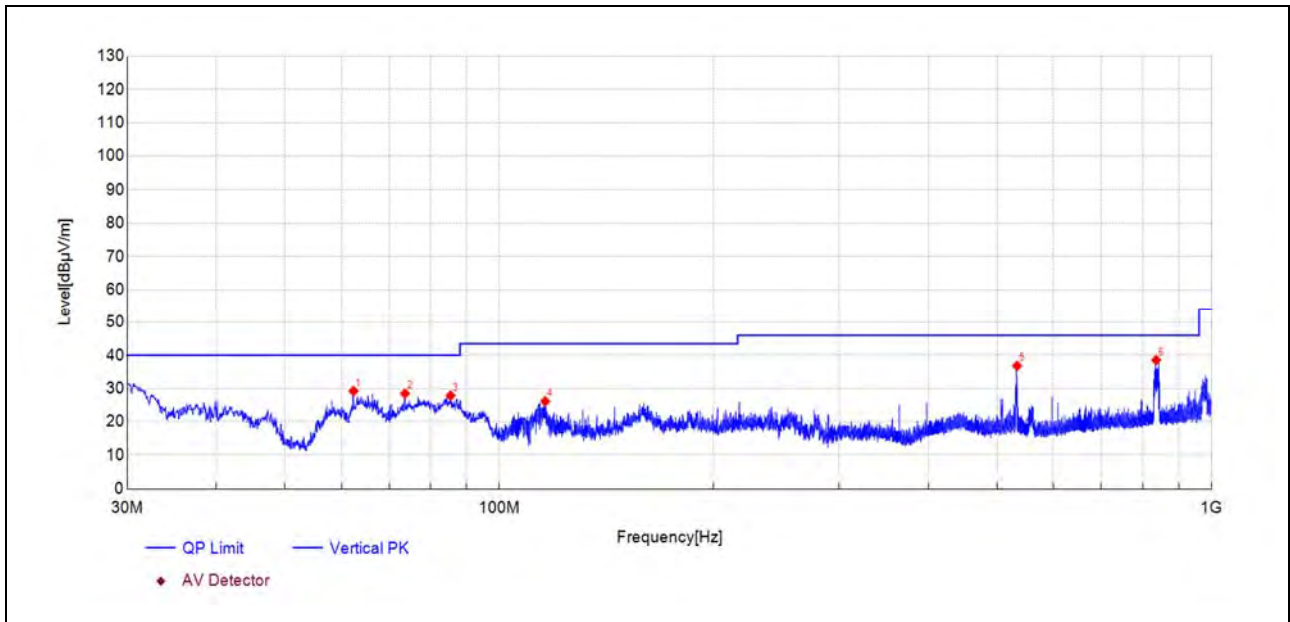
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
138.74	59.6	26.04	-33.600	43.50	17.46	150	228	PK	PASS
187.20	63.6	33.07	-30.540	43.50	10.43	150	219	PK	PASS
202.14	63.1	32.84	-30.210	43.50	10.66	150	207	PK	PASS
532.87	57.9	36.53	-21.390	46.00	9.47	150	248	PK	PASS
843.14	55.8	40.06	-15.690	46.00	5.94	150	258	PK	PASS
977.49	52.0	38.39	-13.610	54.00	15.61	150	138	PK	PASS



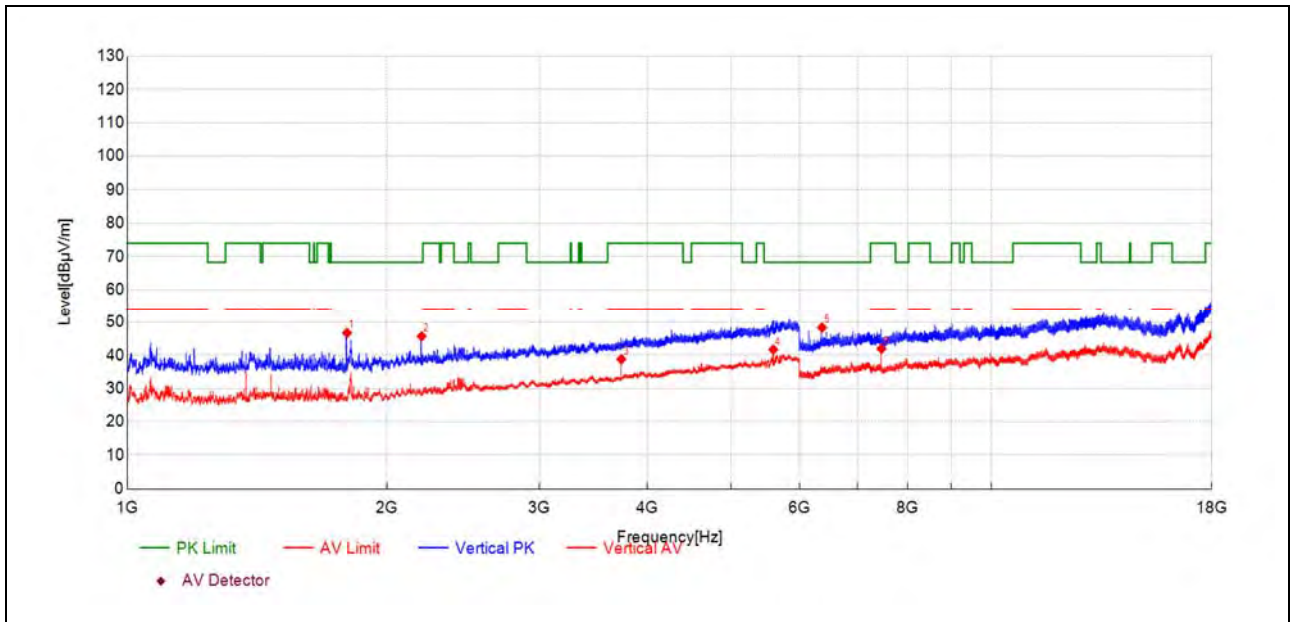
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1199.52	54.3	48.82	-5.490	74.00	25.18	150	144	PK	PASS
3733.27	41.9	46.85	4.980	54.00	7.15	150	39	AV	PASS
3733.27	45.5	50.44	4.980	74.00	23.56	150	18	PK	PASS
5171.92	47.6	57.51	9.960	68.23	10.72	150	80	PK	PASS
5171.92	37.1	47.07	9.960	-	-	150	80	AV	N/A
7466.56	45.7	41.15	-4.570	54.00	12.85	150	6	AV	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
62.40	61.0	29.25	-31.770	40.00	10.75	150	359	PK	PASS
73.70	63.5	28.49	-35.030	40.00	11.51	150	232	PK	PASS
85.39	61.7	27.86	-33.820	40.00	12.14	150	293	PK	PASS
115.95	57.7	26.13	-31.560	43.50	17.37	150	201	PK	PASS
533.12	58.2	36.83	-21.390	46.00	9.17	150	212	PK	PASS
835.77	54.5	38.56	-15.890	46.00	7.44	150	242	PK	PASS

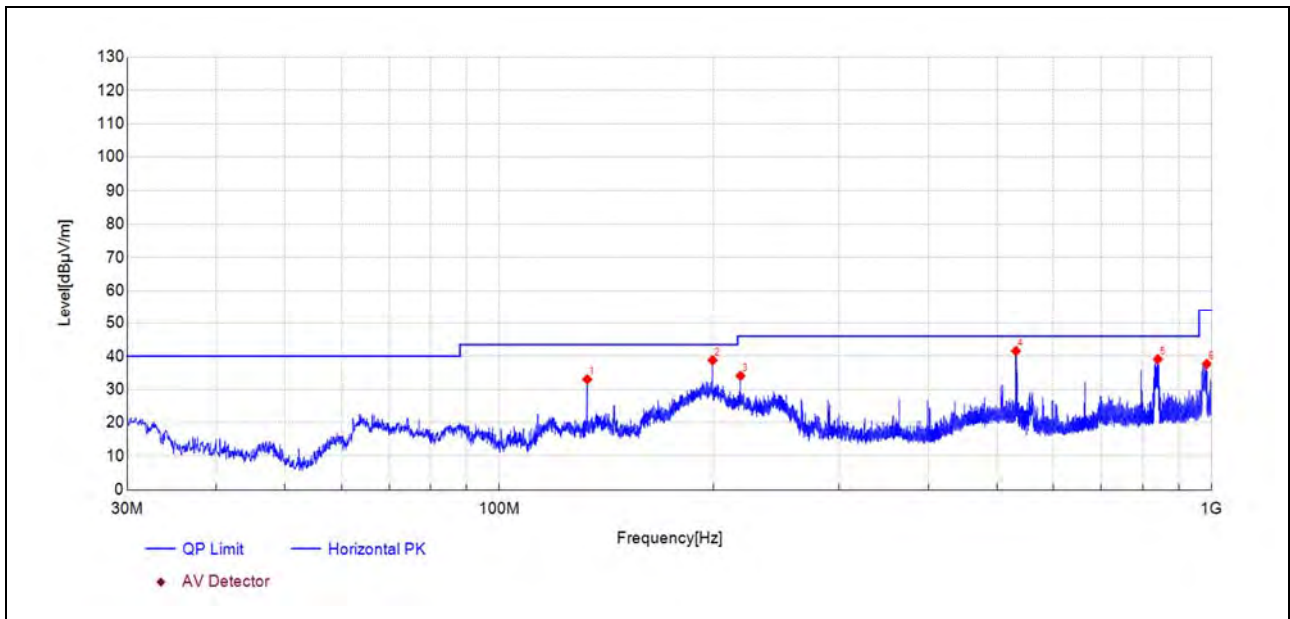


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1797.08	50.6	46.73	-3.860	68.23	21.50	150	188	PK	PASS
2192.62	46.7	45.71	-1.020	68.23	22.52	150	94	PK	PASS
3733.27	33.8	38.82	4.980	54.00	15.18	150	281	AV	PASS
5596.46	30.7	41.68	11.020	-	-	150	178	AV	N/A
6373.02	53.8	48.34	-5.500	68.23	19.89	150	129	PK	PASS
7466.56	46.6	41.98	-4.570	54.00	12.02	150	207	AV	PASS

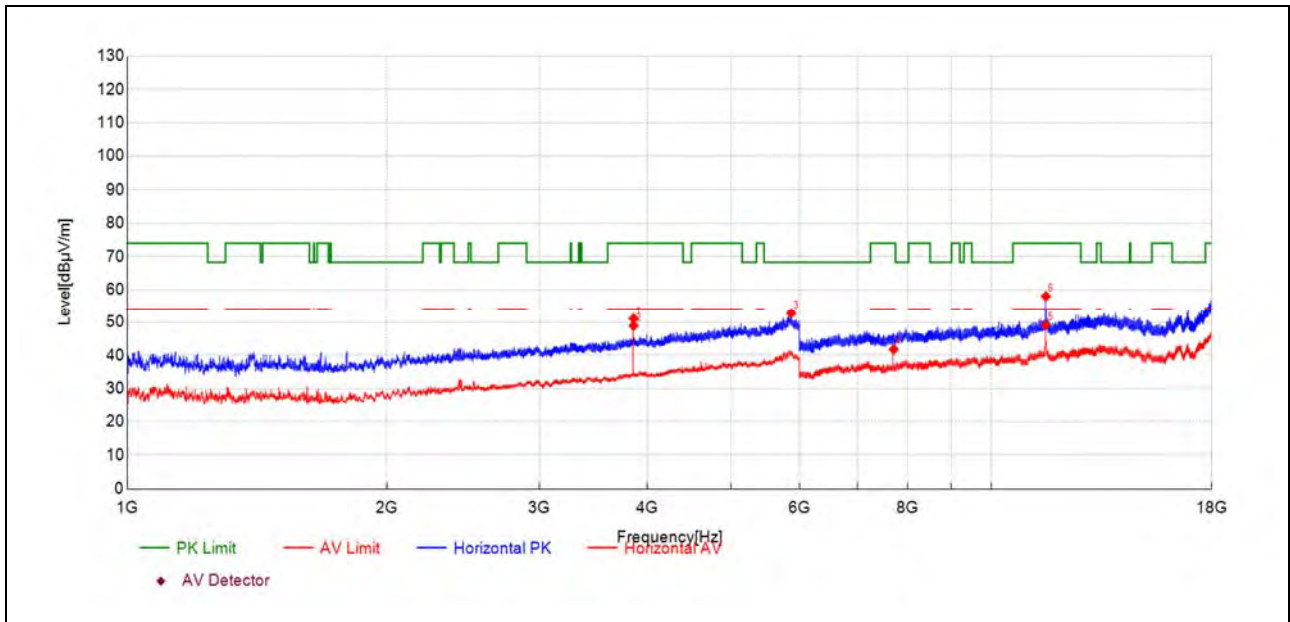


Plot for Channel 157



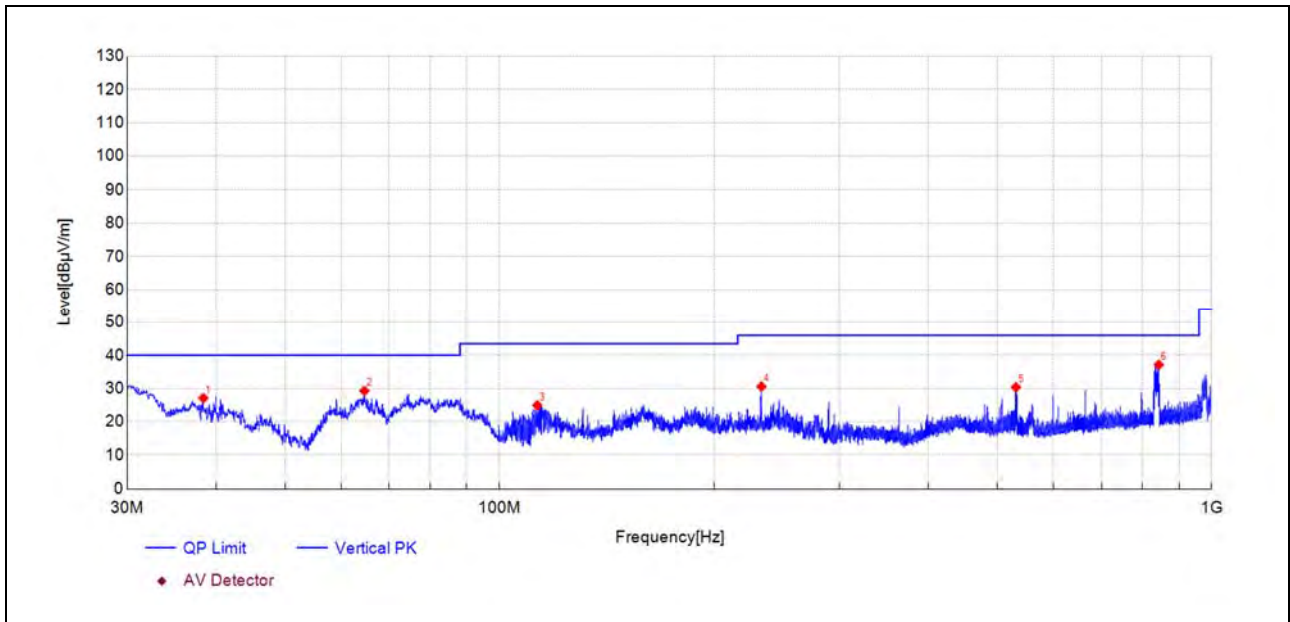
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
132.83	66.5	33.03	-33.430	43.50	10.47	150	41	PK	PASS
199.18	68.9	38.80	-30.070	43.50	4.70	150	264	PK	PASS
218.00	63.5	34.10	-29.360	46.00	11.90	150	264	PK	PASS
531.08	63.0	41.58	-21.400	46.00	4.42	150	243	PK	PASS
840.23	54.9	39.10	-15.810	46.00	6.90	150	264	PK	PASS
983.90	51.1	37.67	-13.450	54.00	16.33	150	143	PK	PASS



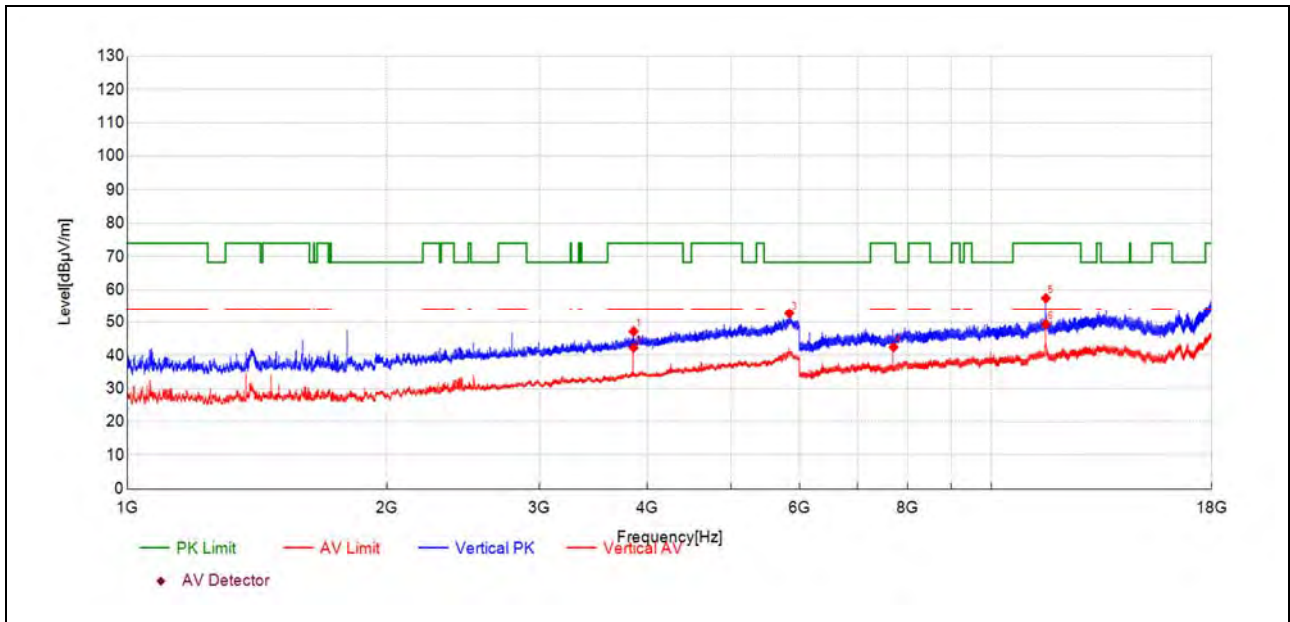
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
3856.79	45.3	51.12	5.830	74.00	22.88	150	344	PK	PASS
3856.79	43.1	48.94	5.830	54.00	5.06	150	13	AV	PASS
5869.99	38.9	52.73	13.860	68.23	15.50	150	34	PK	PASS
7713.07	45.9	41.79	-4.080	54.00	12.21	150	22	AV	PASS
11568.23	46.2	49.13	2.940	54.00	4.87	150	83	AV	PASS
11571.23	55.0	57.98	2.960	74.00	16.02	150	97	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
38.39	56.7	27.09	-29.600	40.00	12.91	150	189	PK	PASS
64.63	61.8	29.28	-32.550	40.00	10.72	150	249	PK	PASS
113.04	56.2	24.97	-31.190	43.50	18.53	150	239	PK	PASS
233.27	59.2	30.60	-28.550	46.00	15.40	150	340	PK	PASS
531.08	51.8	30.39	-21.400	46.00	15.61	150	249	PK	PASS
842.71	52.9	37.15	-15.710	46.00	8.85	150	229	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
3856.79	41.3	47.17	5.830	74.00	26.83	150	250	PK	PASS
3856.79	36.4	42.26	5.830	54.00	11.74	150	261	AV	PASS
5839.98	38.8	52.69	13.860	68.23	15.54	150	355	PK	PASS
7713.07	46.5	42.44	-4.080	54.00	11.56	150	37	AV	PASS
11570.23	54.5	57.43	2.950	74.00	16.57	150	177	PK	PASS
11572.23	46.4	49.38	2.960	54.00	4.62	150	177	AV	PASS

END OF REPORT