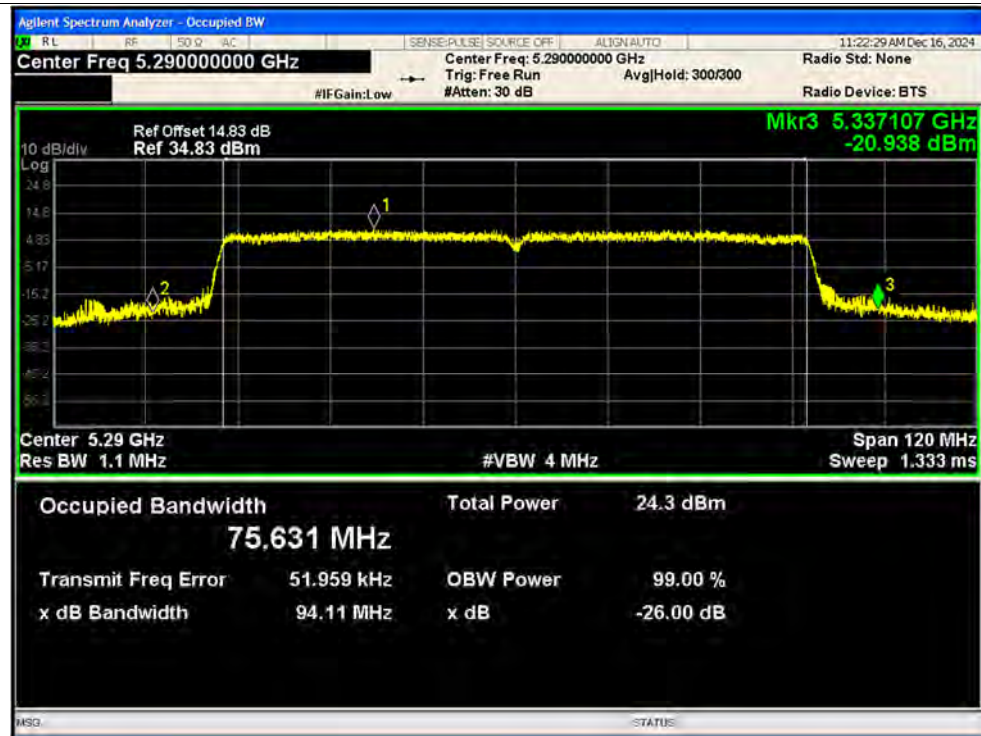
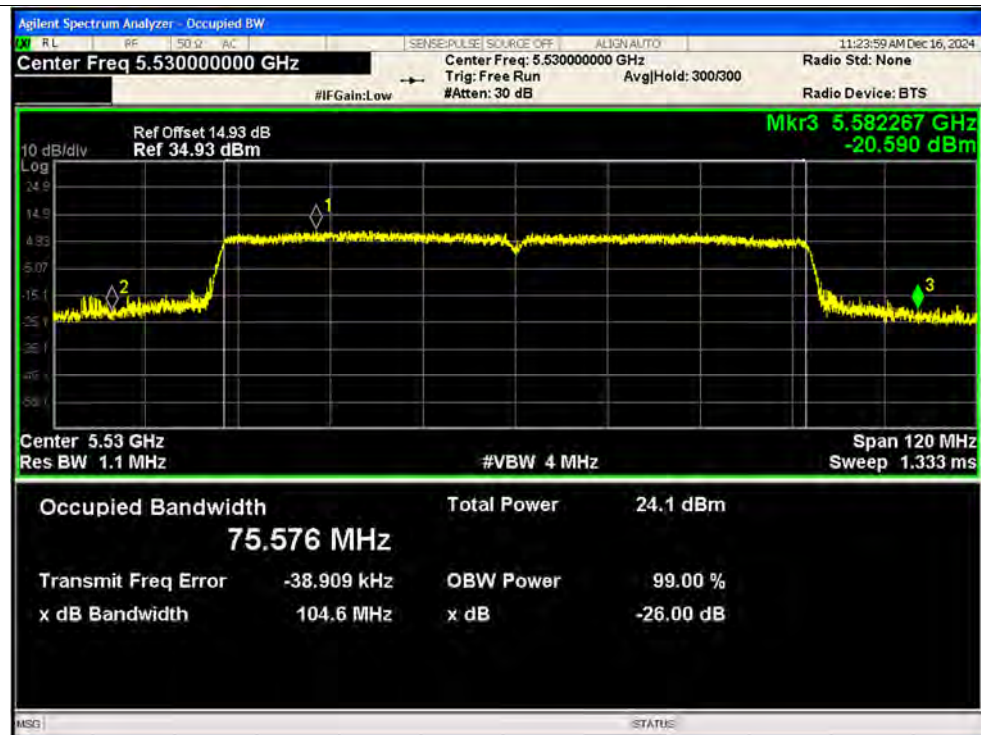
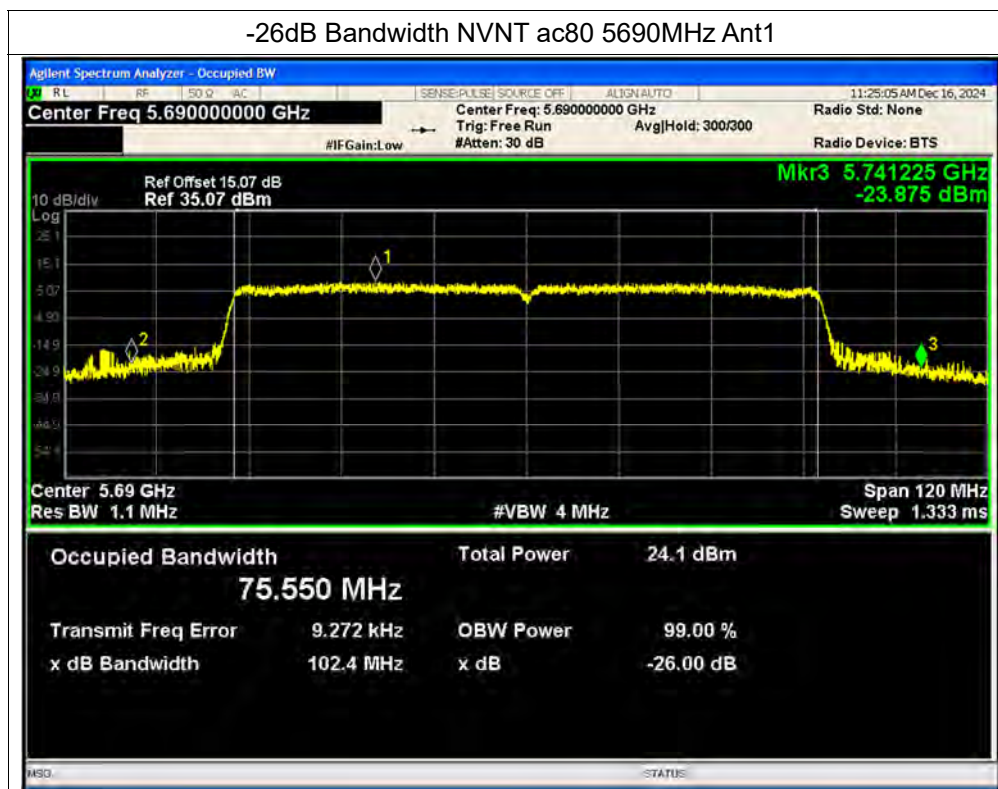


-26dB Bandwidth NVNT ac80 5290MHz Ant1



-26dB Bandwidth NVNT ac80 5530MHz Ant1

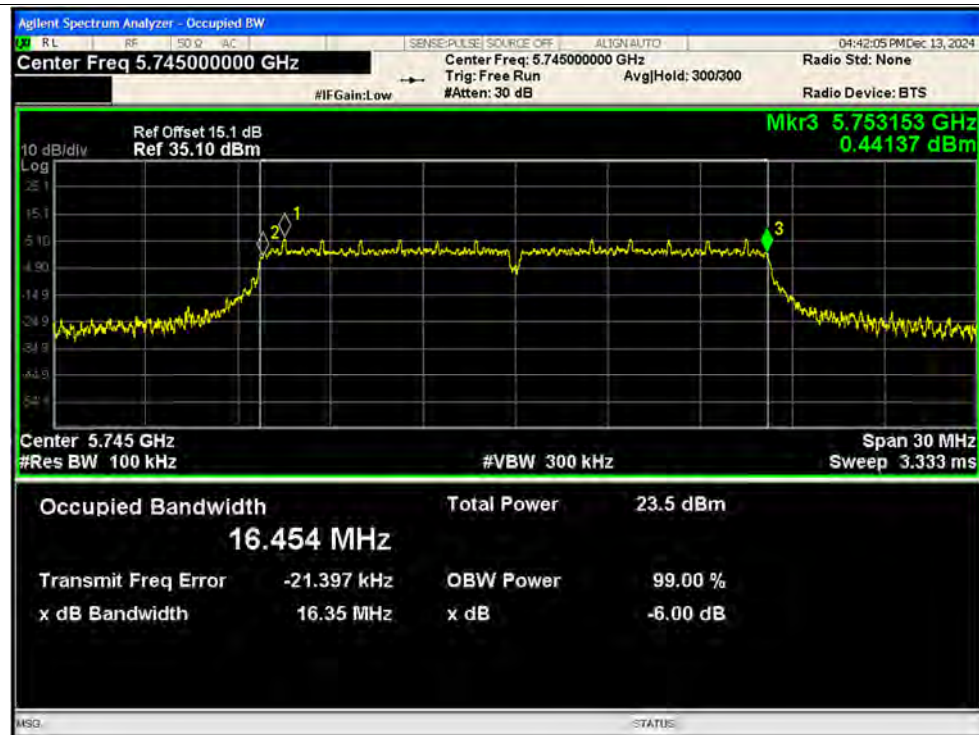




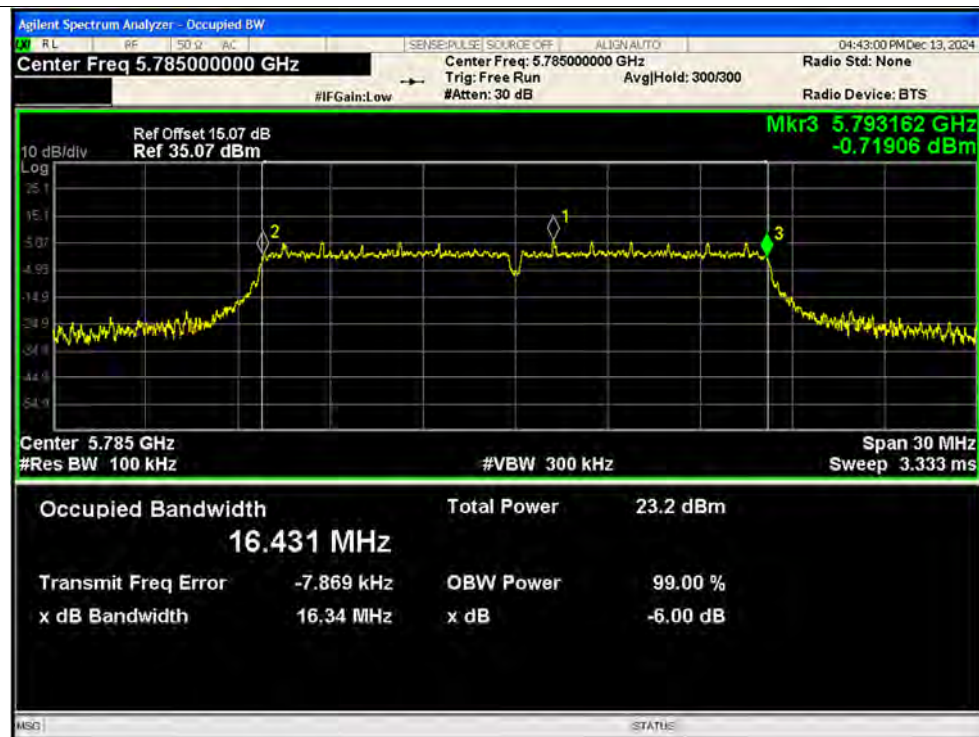


Test Graphs

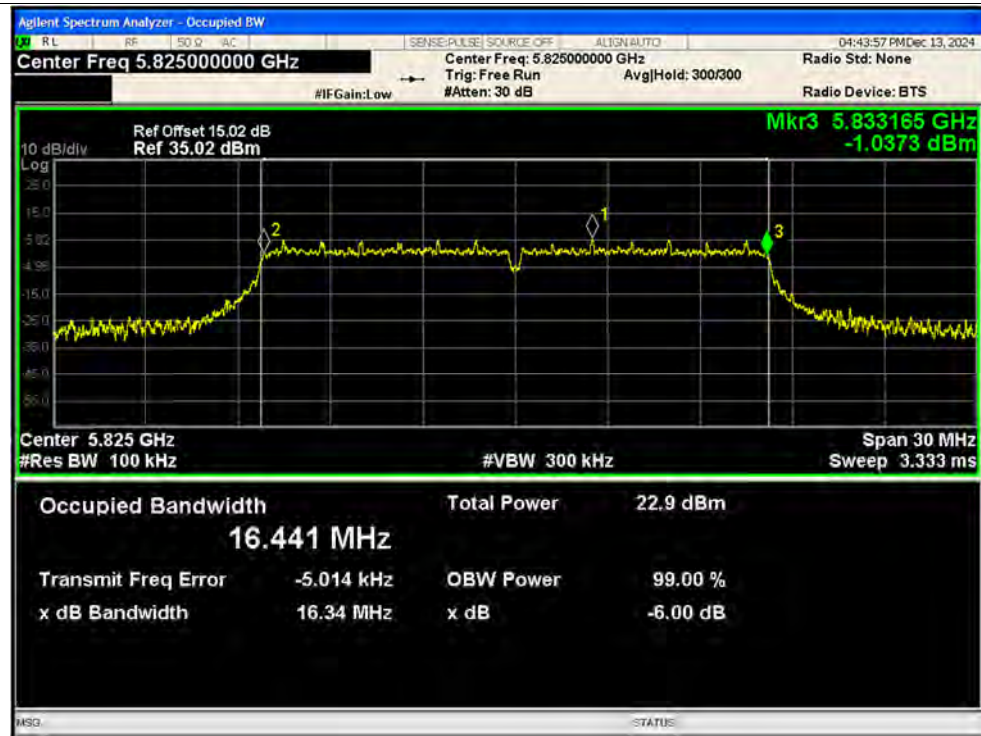
-6dB Bandwidth NVNT a 5745MHz Ant1



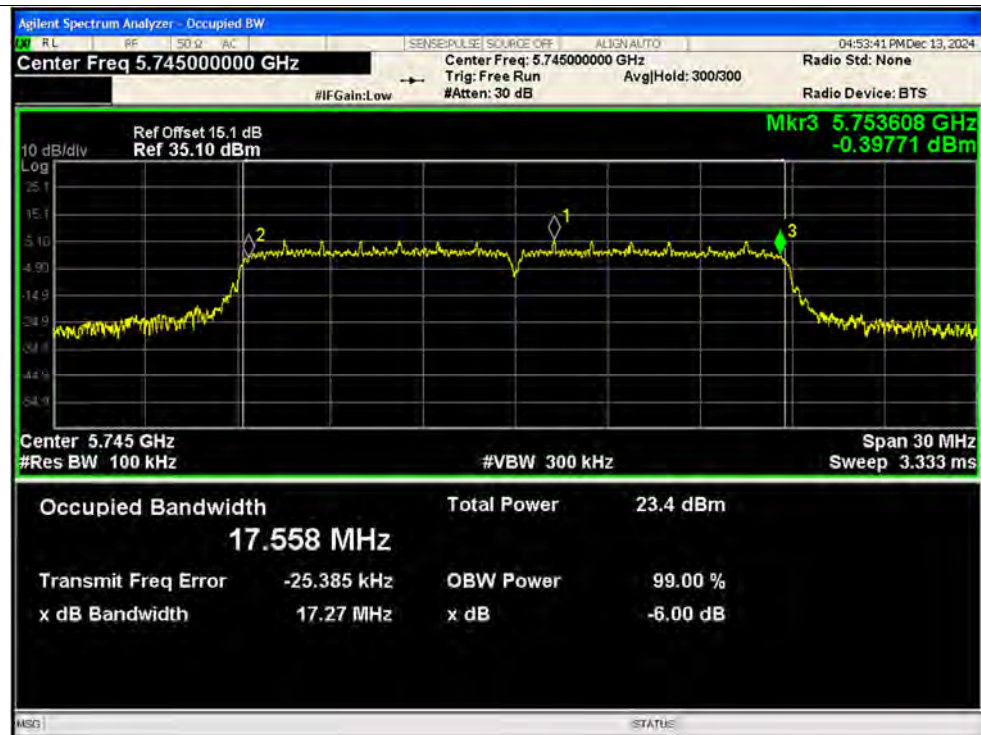
-6dB Bandwidth NVNT a 5785MHz Ant1



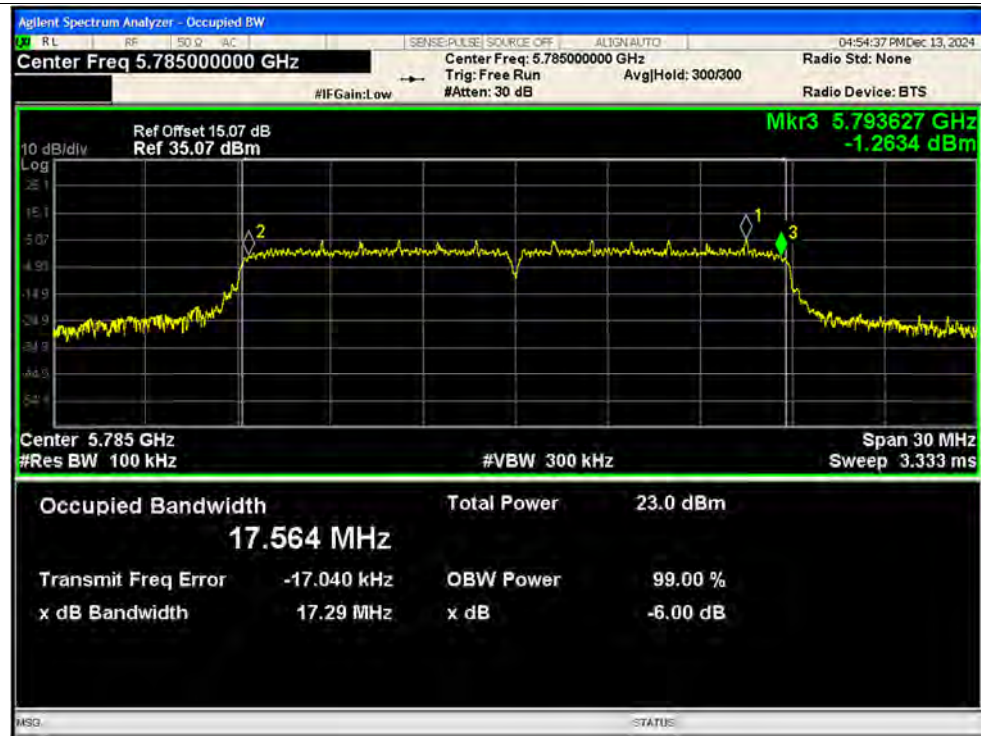
-6dB Bandwidth NVNT a 5825MHz Ant1



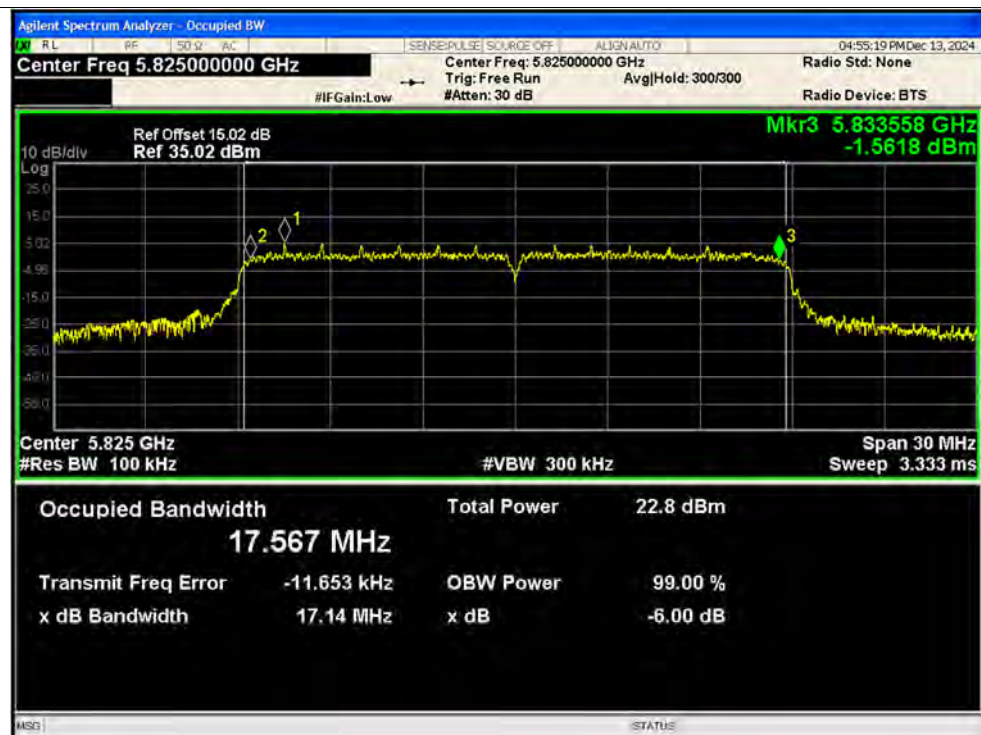
-6dB Bandwidth NVNT n20 5745MHz Ant1



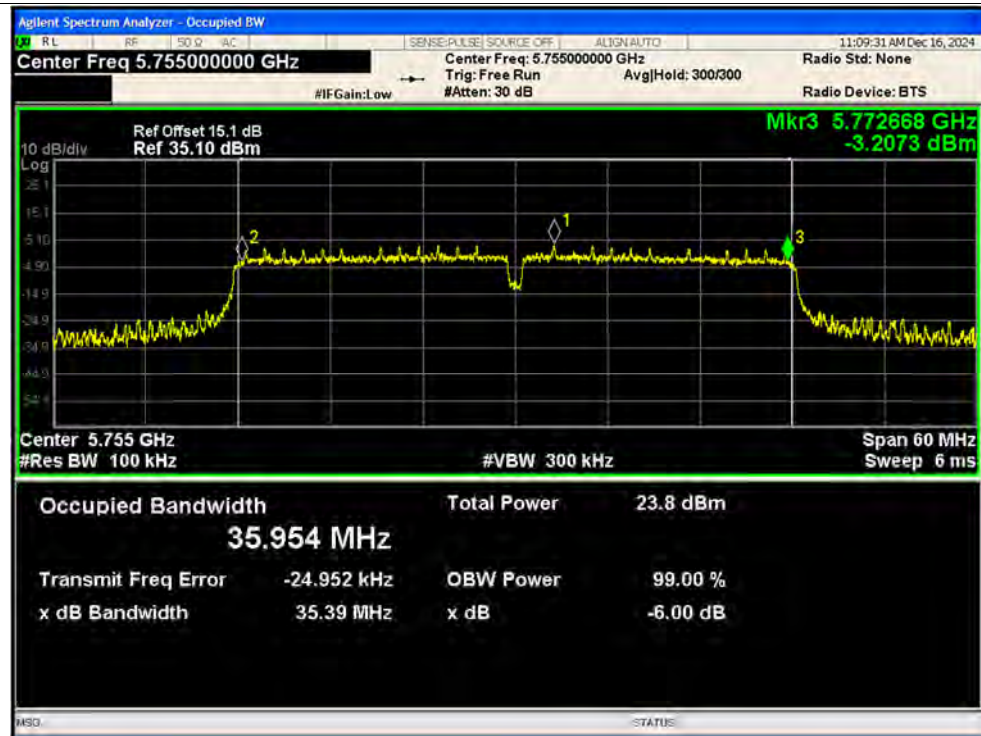
-6dB Bandwidth NVNT n20 5785MHz Ant1



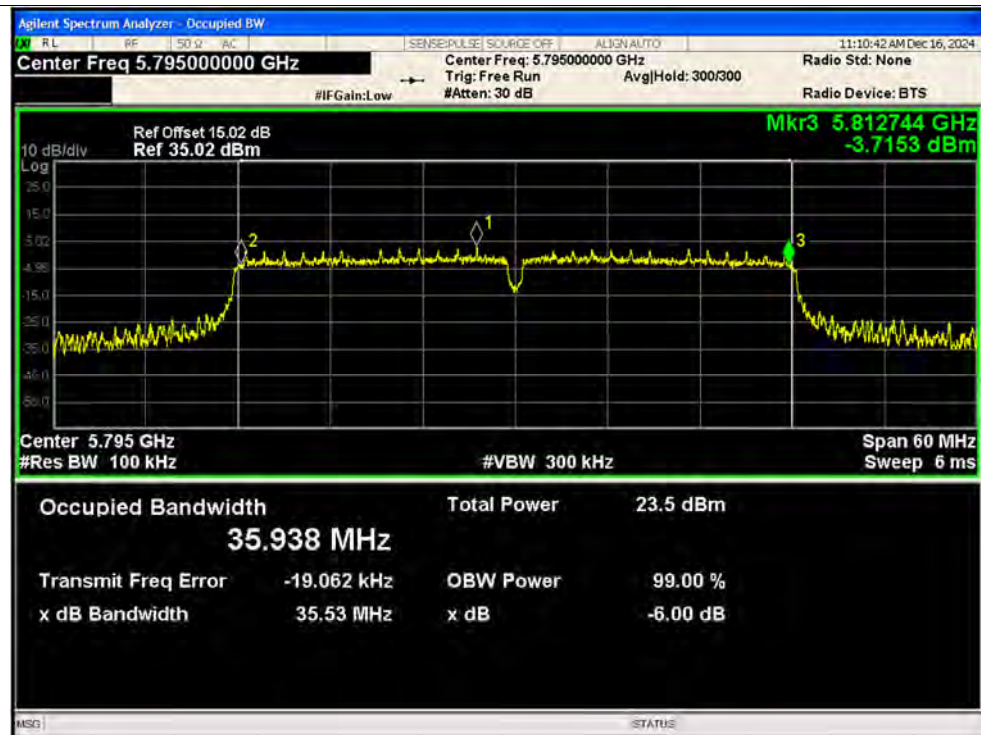
-6dB Bandwidth NVNT n20 5825MHz Ant1



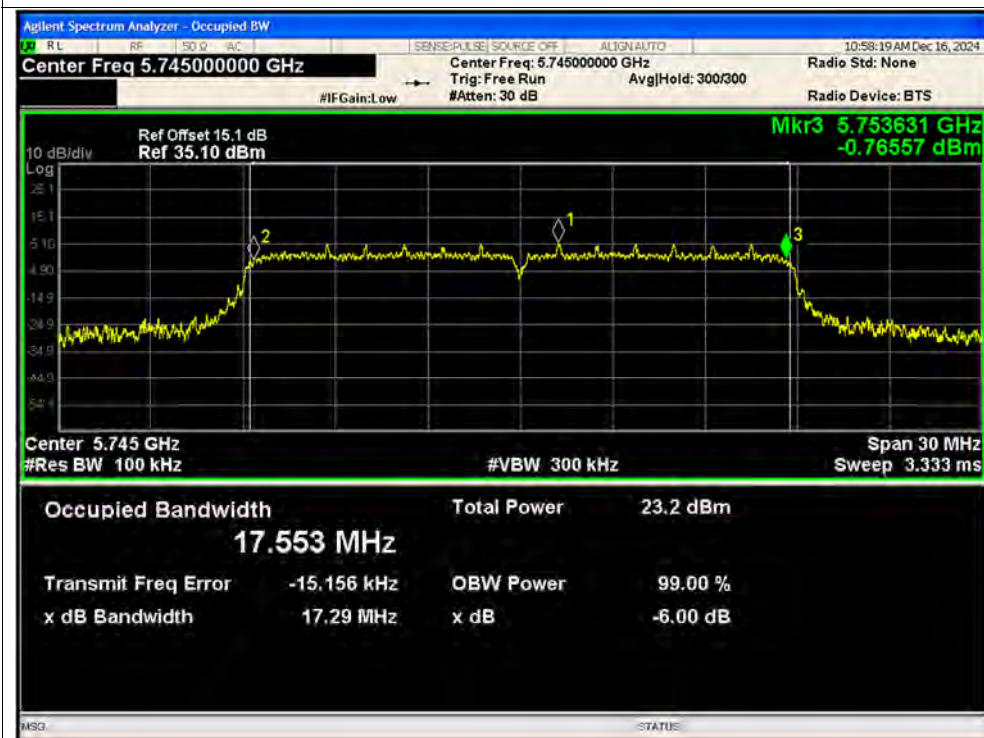
-6dB Bandwidth NVNT n40 5755MHz Ant1



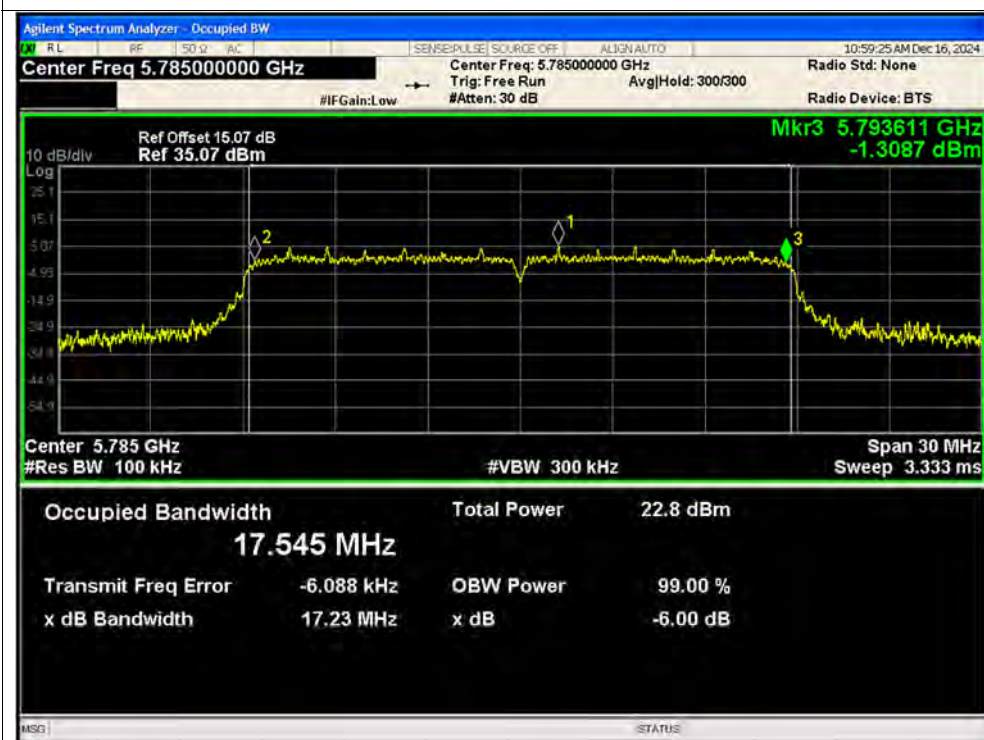
-6dB Bandwidth NVNT n40 5795MHz Ant1



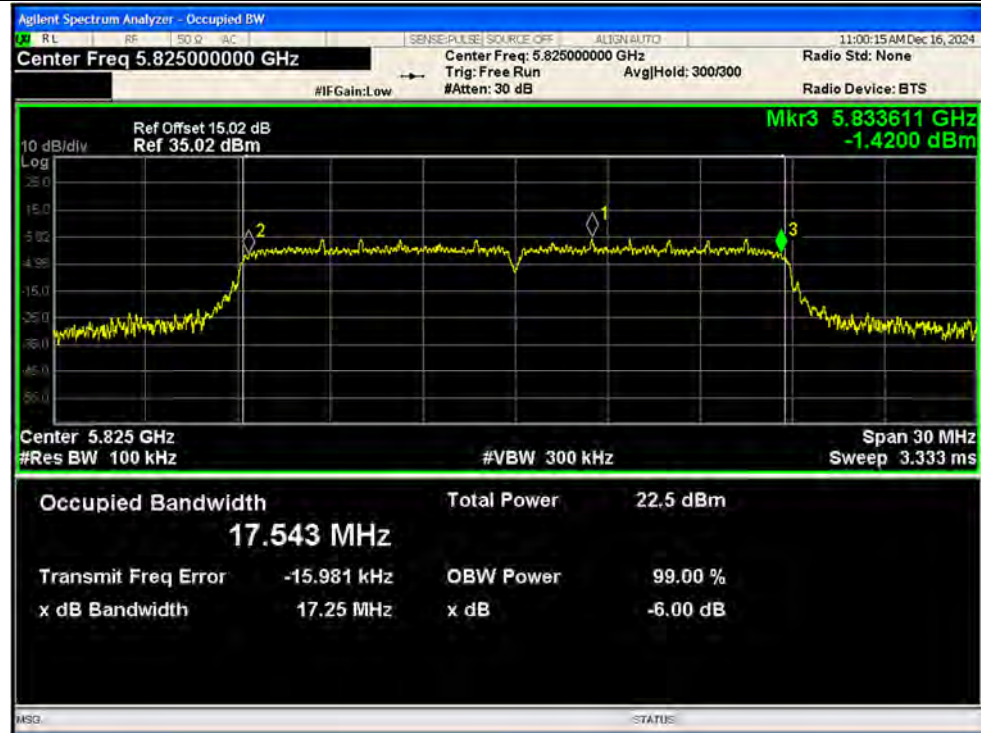
-6dB Bandwidth NVNT ac20 5745MHz Ant1



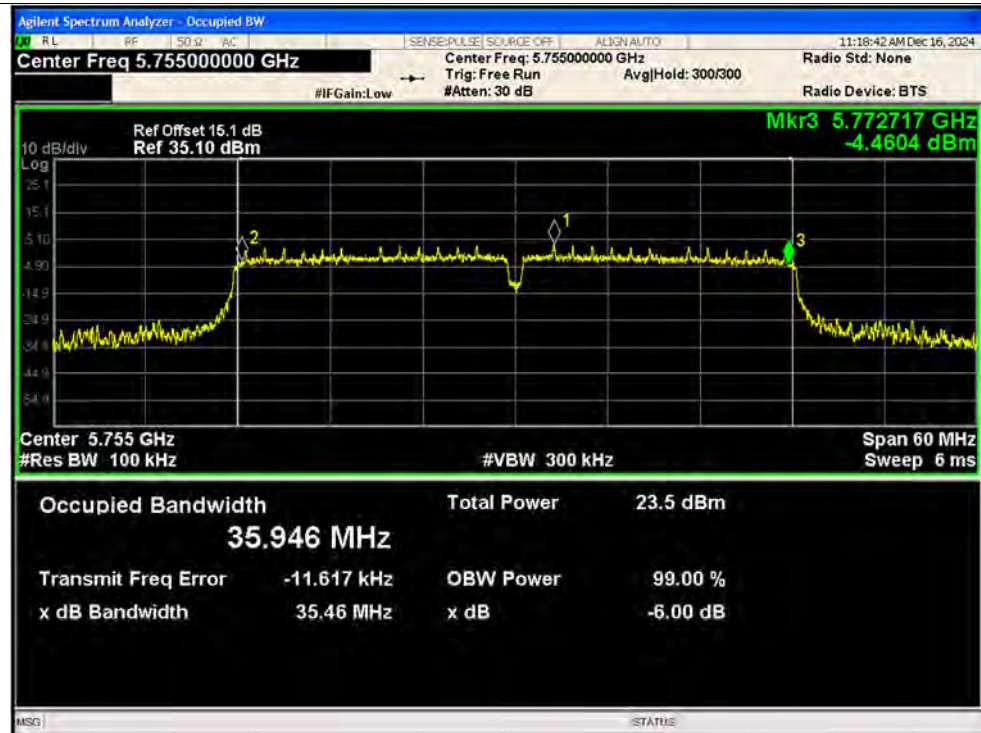
-6dB Bandwidth NVNT ac20 5785MHz Ant1



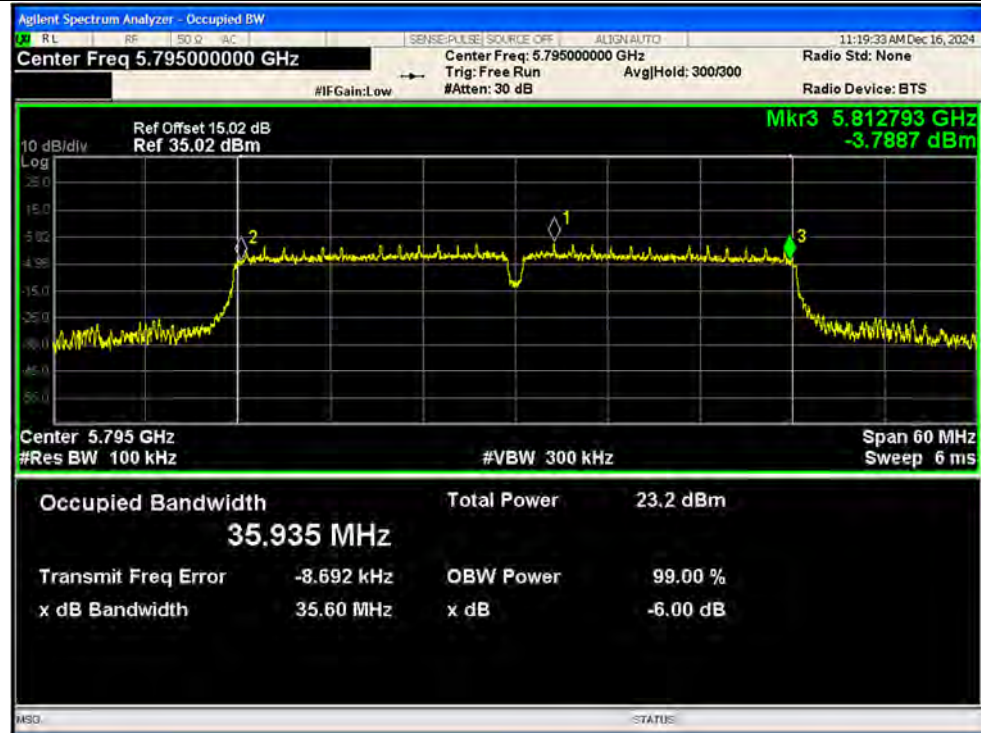
-6dB Bandwidth NVNT ac20 5825MHz Ant1



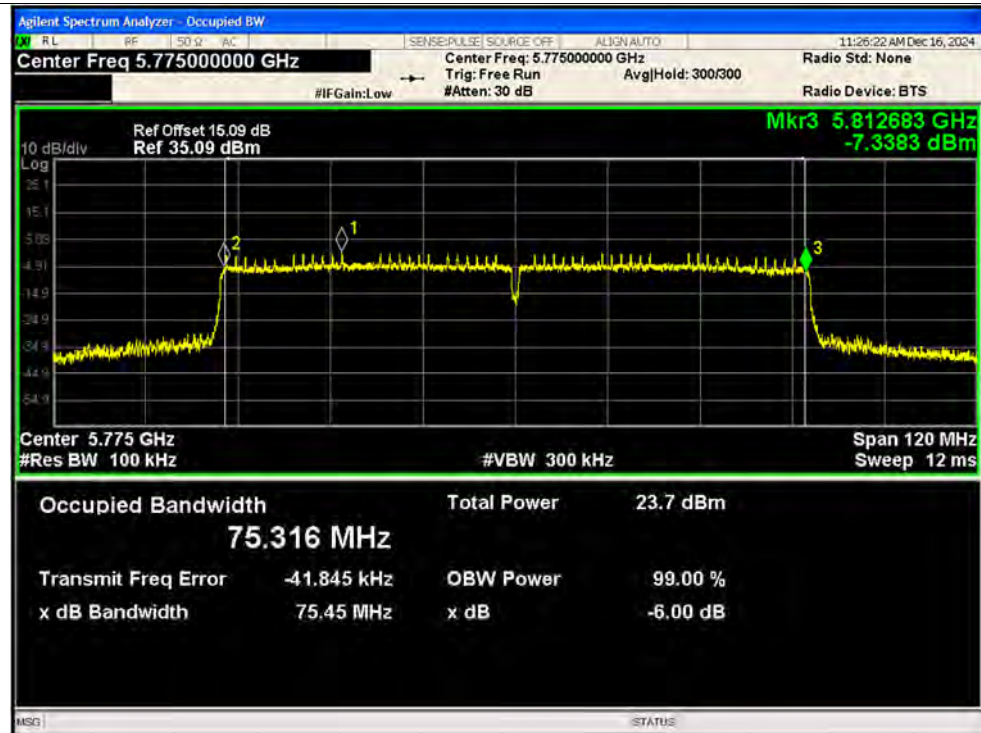
-6dB Bandwidth NVNT ac40 5755MHz Ant1



-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/MHz) (dBm/500kHz @U-NII-3)	Duty Factor (dB)	Total Conducted PSD (dBm/MHz) (dBm/500kHz @ U-NII-3)	Total Conducted PSD (dBm/MHz) (dBm/500kHz @ U-NII-3)	Verdict
NVNT	a	5180	Ant1	6.52	0.5	7.02	11	Pass
NVNT	a	5220	Ant1	6.16	0.53	6.69	11	Pass
NVNT	a	5240	Ant1	5.94	0.53	6.47	11	Pass
NVNT	a	5260	Ant1	5.97	0.53	6.5	11	Pass
NVNT	a	5300	Ant1	5.38	0.64	6.02	11	Pass
NVNT	a	5320	Ant1	5.4	0.5	5.9	11	Pass
NVNT	a	5500	Ant1	5.27	0.53	5.8	11	Pass
NVNT	a	5580	Ant1	4.97	0.72	5.69	11	Pass
NVNT	a	5700	Ant1	5.07	0.53	5.6	11	Pass
NVNT	a	5745	Ant1	2.6	0.53	3.13	30	Pass
NVNT	a	5785	Ant1	2.19	0.69	2.88	30	Pass
NVNT	a	5825	Ant1	1.92	0.53	2.45	30	Pass
NVNT	n20	5180	Ant1	5.4	0.62	6.02	11	Pass
NVNT	n20	5220	Ant1	5.15	0.83	5.98	11	Pass
NVNT	n20	5240	Ant1	5.11	0.62	5.73	11	Pass
NVNT	n20	5260	Ant1	4.85	0.62	5.47	11	Pass
NVNT	n20	5300	Ant1	4.7	0.59	5.29	11	Pass
NVNT	n20	5320	Ant1	4.71	0.62	5.33	11	Pass
NVNT	n20	5500	Ant1	4.35	0.62	4.97	11	Pass
NVNT	n20	5580	Ant1	4.32	0.62	4.94	11	Pass
NVNT	n20	5700	Ant1	4.28	0.62	4.9	11	Pass
NVNT	n20	5745	Ant1	1.61	0.62	2.23	30	Pass
NVNT	n20	5785	Ant1	1.27	0.62	1.89	30	Pass
NVNT	n20	5825	Ant1	1.05	0.62	1.67	30	Pass
NVNT	n40	5190	Ant1	2.46	1.16	3.62	11	Pass
NVNT	n40	5230	Ant1	2.34	1.17	3.51	11	Pass
NVNT	n40	5270	Ant1	1.94	1.21	3.15	11	Pass
NVNT	n40	5310	Ant1	1.4	1.32	2.72	11	Pass
NVNT	n40	5510	Ant1	1.74	1.53	3.27	11	Pass
NVNT	n40	5550	Ant1	1.1	1.53	2.63	11	Pass
NVNT	n40	5670	Ant1	1.4	1.34	2.74	11	Pass



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NVNT	n40	5755	Ant1	-0.94	1.16	0.22	30	Pass
NVNT	n40	5795	Ant1	-1.34	1.53	0.19	30	Pass
NVNT	ac20	5180	Ant1	5.6	0.61	6.21	11	Pass
NVNT	ac20	5220	Ant1	5.43	0.58	6.01	11	Pass
NVNT	ac20	5240	Ant1	4.98	0.62	5.6	11	Pass
NVNT	ac20	5260	Ant1	4.86	0.61	5.47	11	Pass
NVNT	ac20	5300	Ant1	4.57	0.58	5.15	11	Pass
NVNT	ac20	5320	Ant1	4.11	0.58	4.69	11	Pass
NVNT	ac20	5500	Ant1	4.26	0.58	4.84	11	Pass
NVNT	ac20	5580	Ant1	4.08	0.62	4.7	11	Pass
NVNT	ac20	5700	Ant1	4.23	0.61	4.84	11	Pass
NVNT	ac20	5745	Ant1	1.53	0.62	2.15	30	Pass
NVNT	ac20	5785	Ant1	1.05	0.58	1.63	30	Pass
NVNT	ac20	5825	Ant1	0.87	0.62	1.49	30	Pass
NVNT	ac40	5190	Ant1	2.25	1.59	3.84	11	Pass
NVNT	ac40	5230	Ant1	1.62	1.16	2.78	11	Pass
NVNT	ac40	5270	Ant1	1.71	1.66	3.37	11	Pass
NVNT	ac40	5310	Ant1	1.24	1.1	2.34	11	Pass
NVNT	ac40	5510	Ant1	1.49	1.14	2.63	11	Pass
NVNT	ac40	5550	Ant1	0.92	1.27	2.19	11	Pass
NVNT	ac40	5670	Ant1	1.19	1.59	2.78	11	Pass
NVNT	ac40	5755	Ant1	-1.54	1.32	-0.22	30	Pass
NVNT	ac40	5795	Ant1	-1.83	1.53	-0.3	30	Pass
NVNT	ac80	5210	Ant1	-1.71	2.1	0.39	11	Pass
NVNT	ac80	5290	Ant1	-2.17	2.22	0.05	11	Pass
NVNT	ac80	5530	Ant1	-1.74	2	0.26	11	Pass
NVNT	ac80	5690	Ant1	-1.96	1.95	-0.01	11	Pass
NVNT	ac80	5775	Ant1	-5.09	2	-3.09	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 5700MHz Ant1



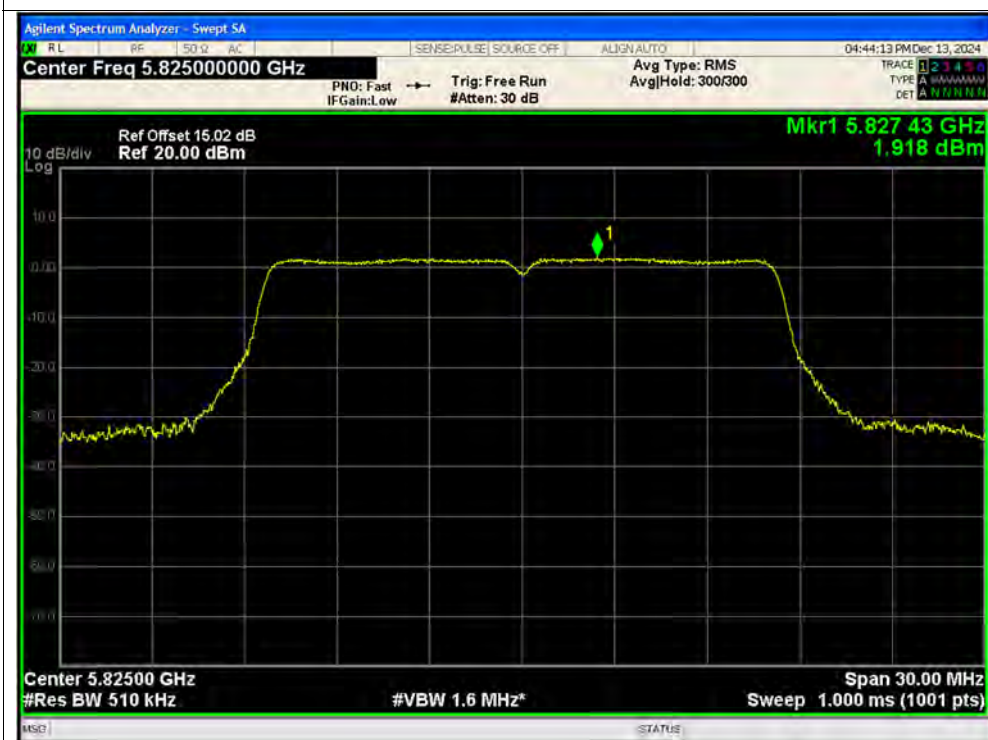
PSD NVNT a 5745MHz Ant1



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 5700MHz Ant1



PSD NVNT n20 5745MHz Ant1



PSD NVNT n20 5785MHz Ant1



PSD NVNT n20 5825MHz Ant1



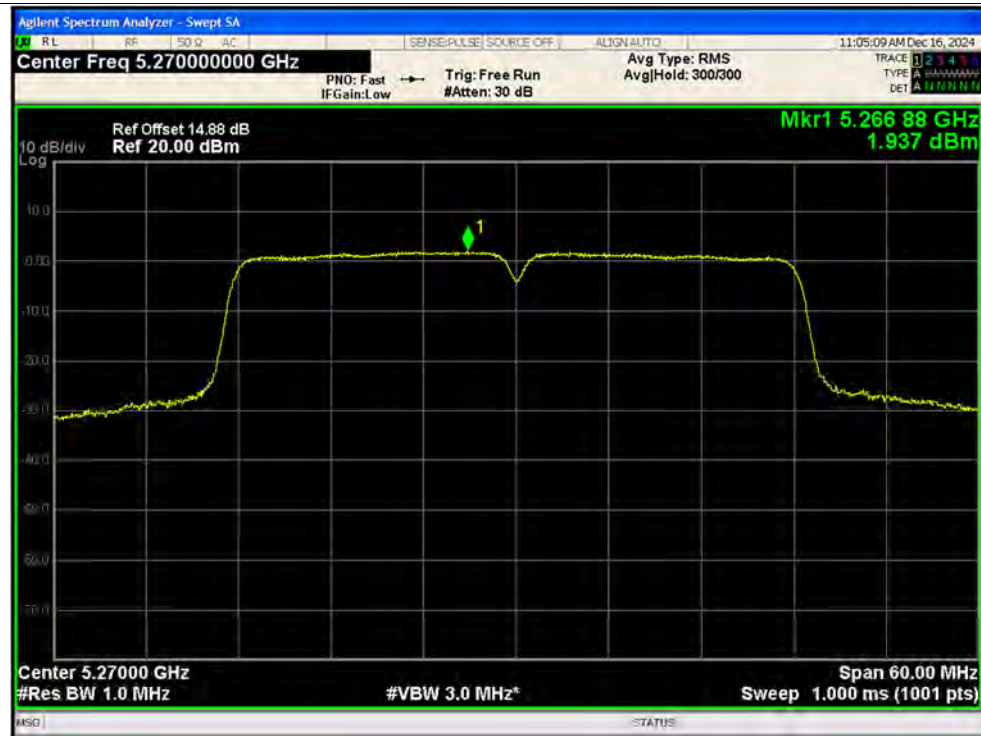
PSD NVNT n40 5190MHz Ant1



PSD NVNT n40 5230MHz Ant1



PSD NVNT n40 5270MHz Ant1

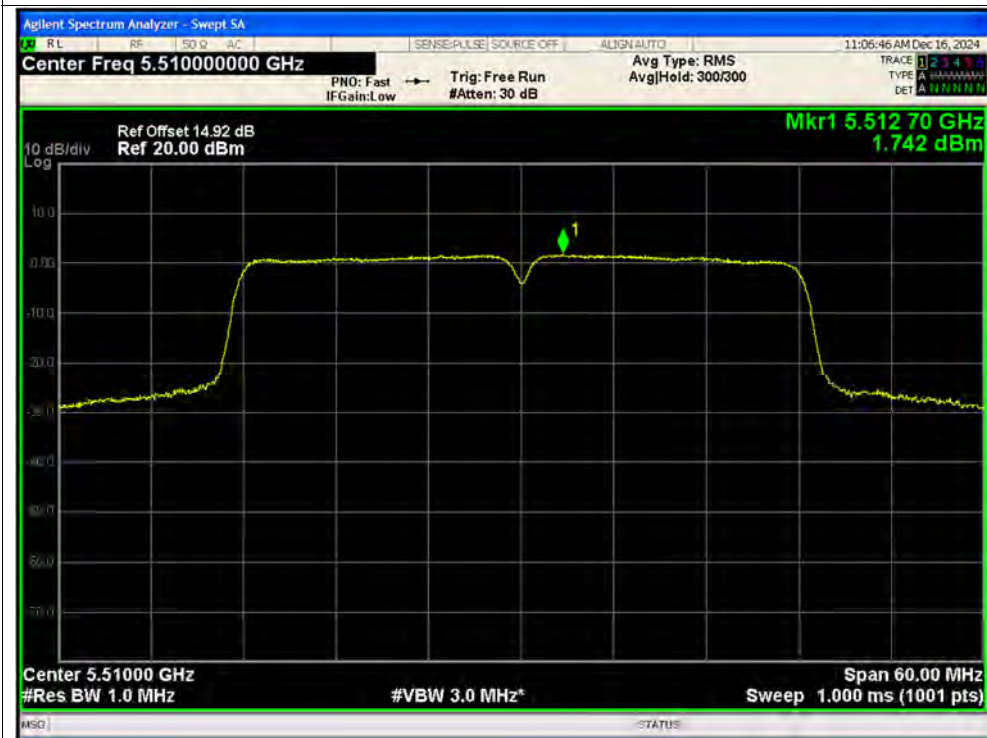


PSD NVNT n40 5310MHz Ant1





PSD NVNT n40 5510MHz Ant1



PSD NVNT n40 5550MHz Ant1



PSD NVNT n40 5670MHz 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 5700MHz 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 5670MHz 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

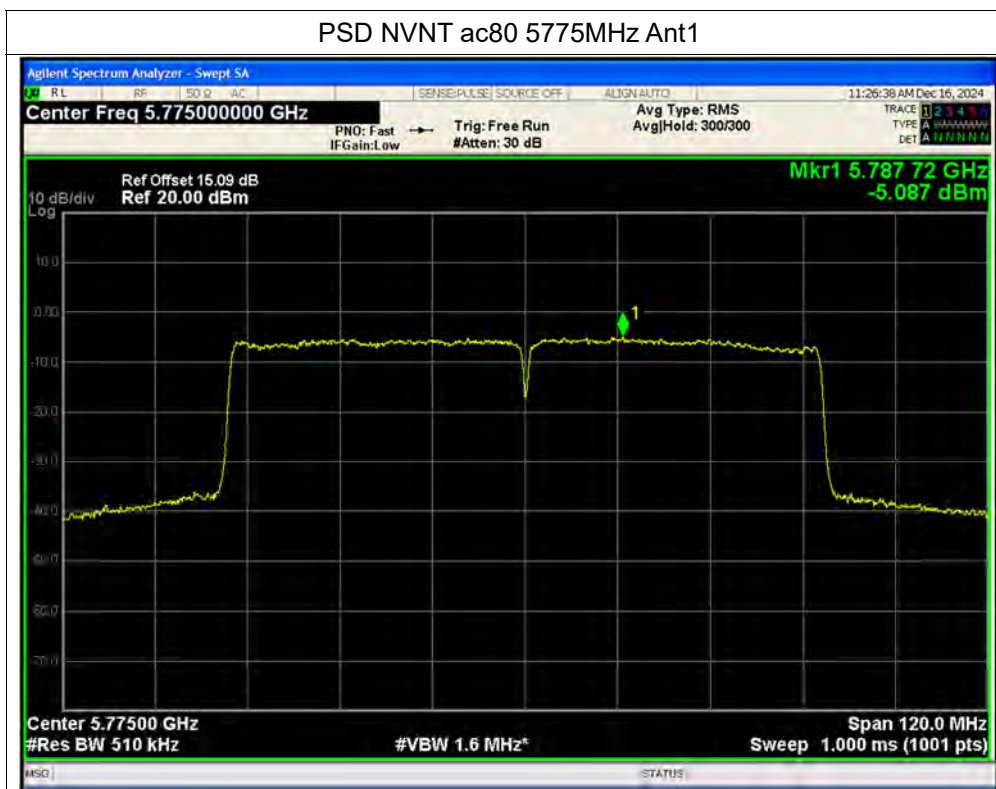


PSD NVNT ac80 5690MHz Ant1





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	5179.977	-23000	-4.44	25	Pass
20C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
20C 4.45V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
-10C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
0C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
10C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
30C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
40C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
50C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
55C 3.87V	CW	5180	Ant1	5179.977	-23000	-4.44	25	Pass
20C 3.6V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
20C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
20C 4.45V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
-10C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
0C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
10C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
30C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
40C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
50C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
55C 3.87V	CW	5260	Ant1	5259.976	-24000	-4.56	25	Pass
20C 3.6V	CW	5500	Ant1	5499.975	-25000	-4.55	25	Pass
20C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
20C 4.45V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
-10C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
0C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
10C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
30C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
40C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
50C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
55C 3.87V	CW	5500	Ant1	5499.974	-26000	-4.73	25	Pass
NVNT	CW	5745	Ant1	5744.974	-26000	-4.53	25	Pass



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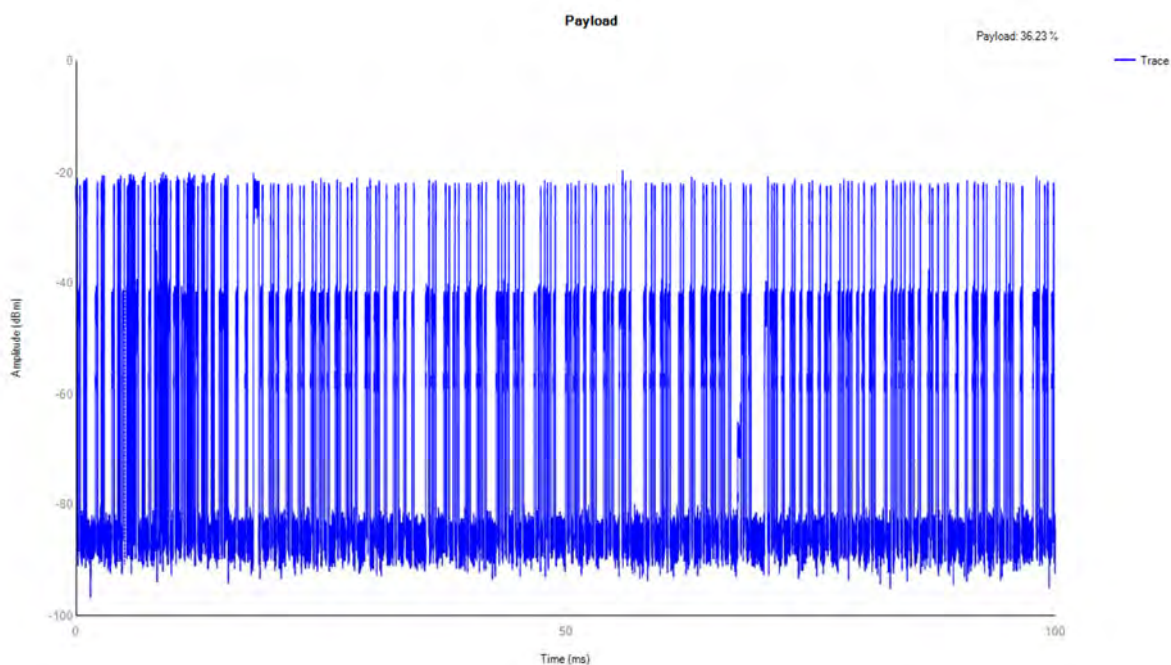
A.6. Dynamic Frequency Selection

Payload

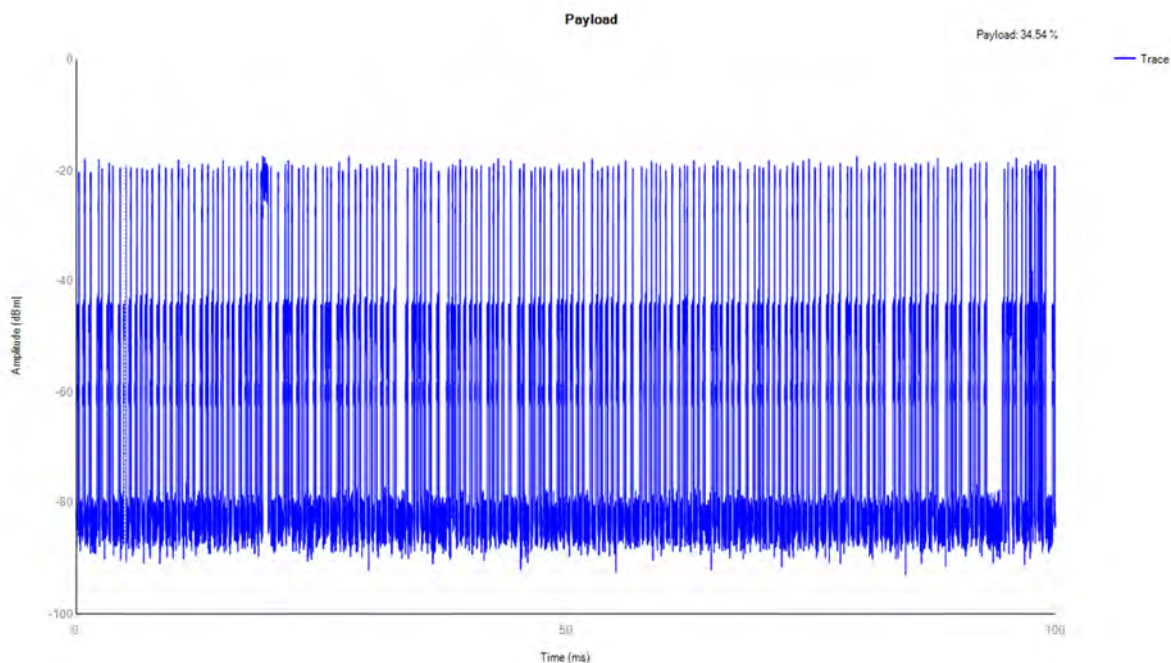
Mode	Frequency (MHz)	Result	Verdict
ac20	5260	36.23	Pass
ac20	5500	34.54	Pass
ac80	5290	42.47	Pass
ac80	5530	42.91	Pass

Test Graphs

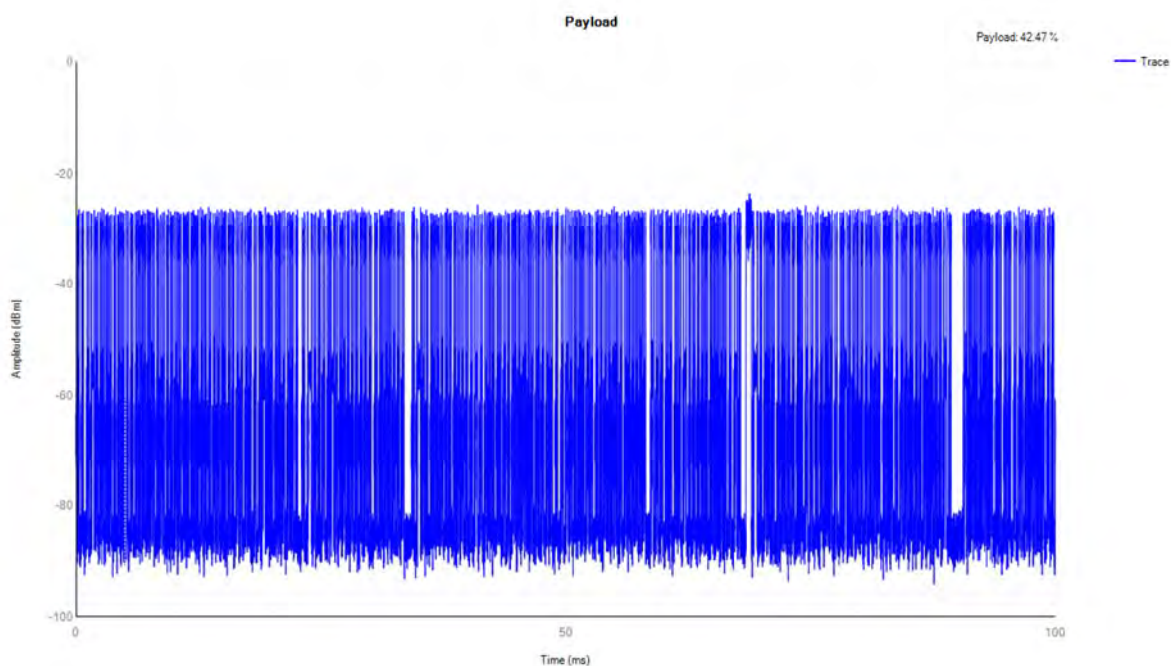
ac20 5260MHz Payload



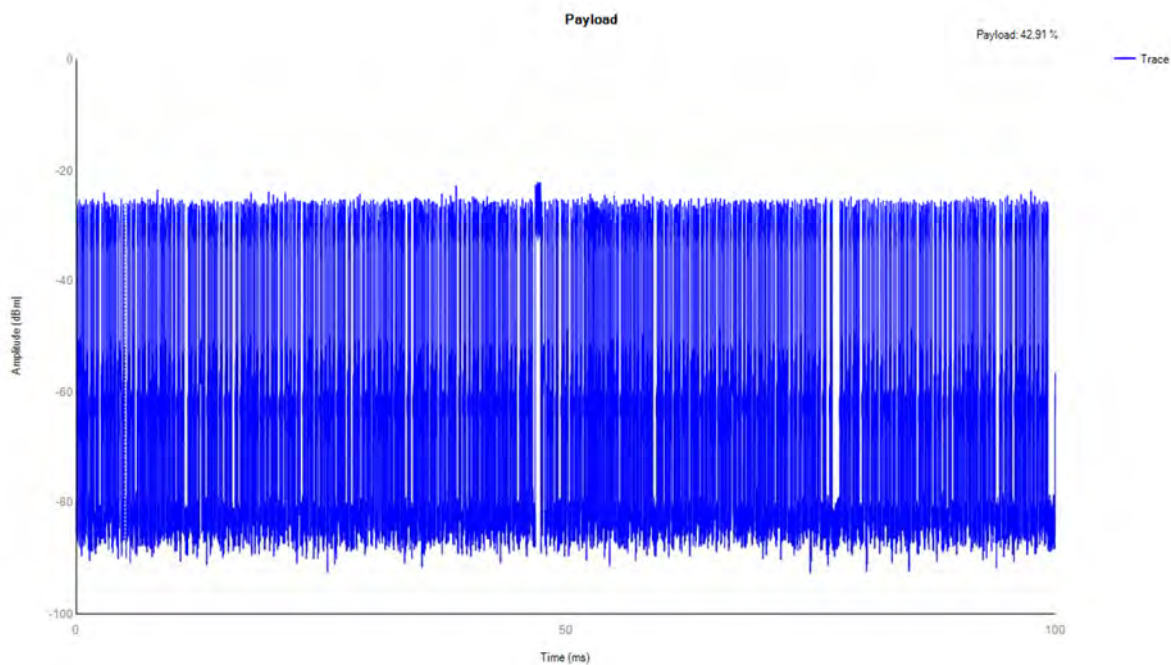
ac20 5500MHz Payload



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

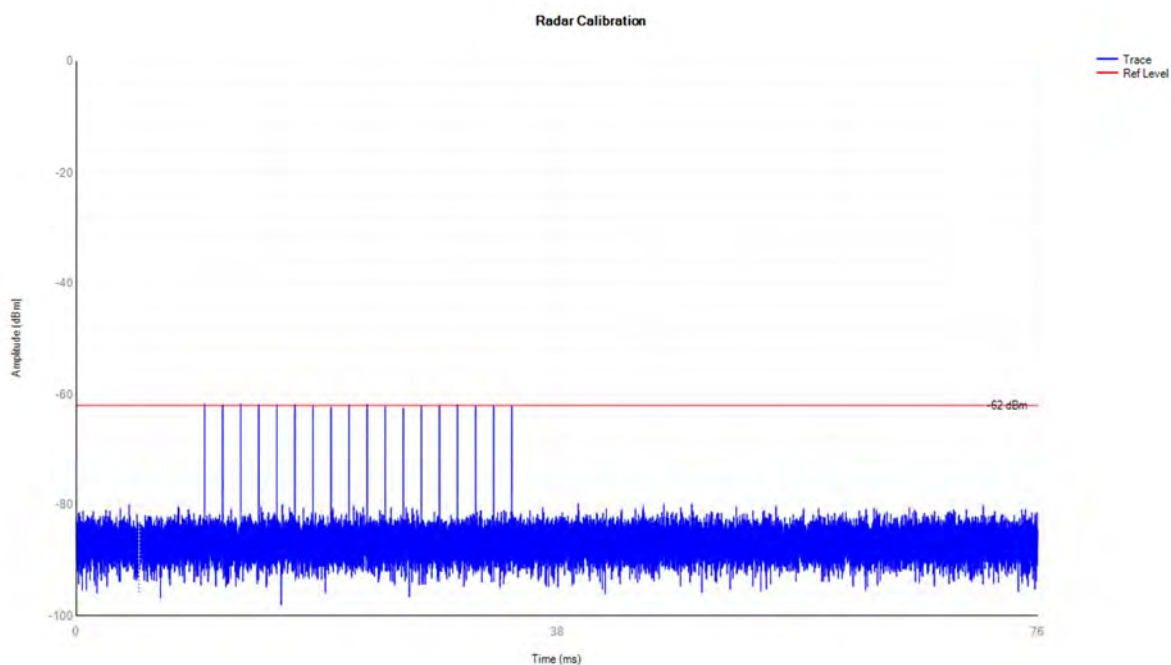
Detector Type: Peak

RBW: 3MHz

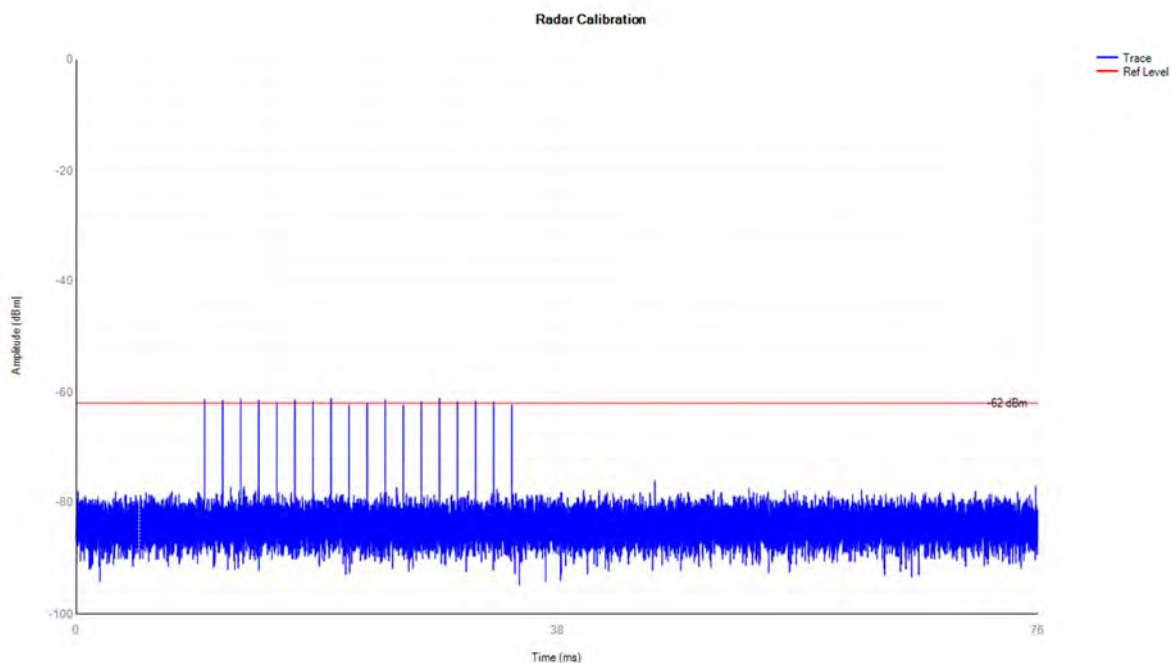
VBW: 3MHz

Test Graphs

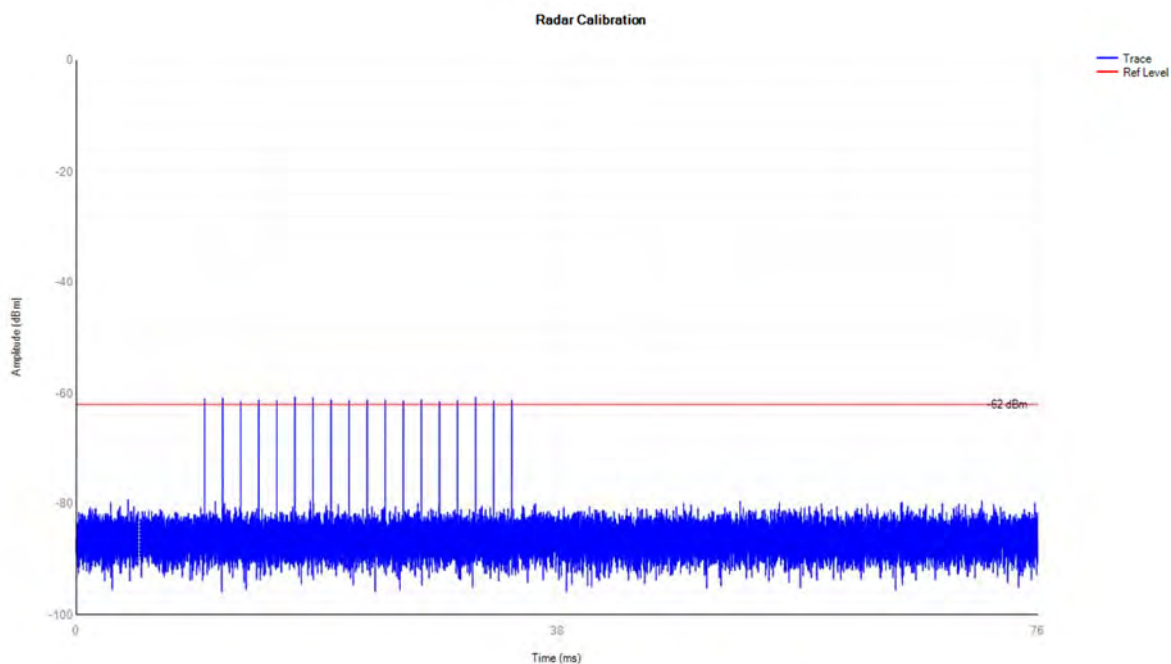
5260MHz DFS_FCC_T0



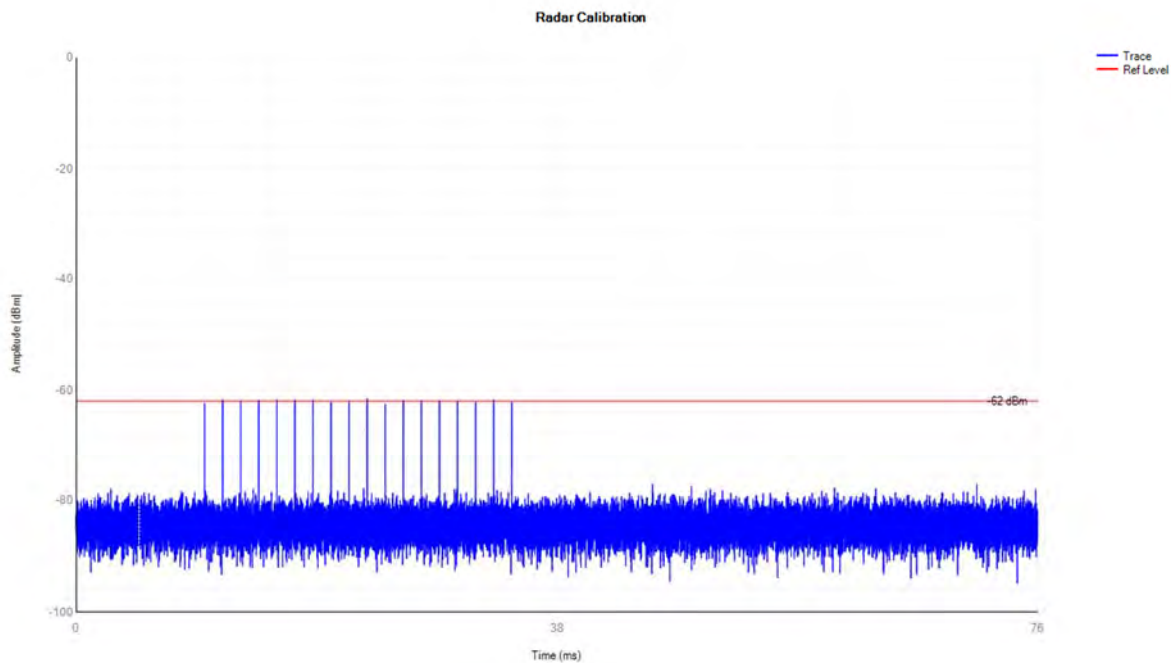
5500MHz DFS_FCC_T0



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	0.88	10	0.075	0.26	0.009	0.06	Pass
ac20	5500	0.872	10	0.136	0.26	0.009	0.06	Pass
ac80	5290	0.892	10	0.053	0.26	0.009	0.06	Pass
ac80	5530	0.742	10	0.011	0.26	0.008	0.06	Pass

Spectrum analyzer settings:

Span: Zero

Detector type: Peak

RBW: 3MHz

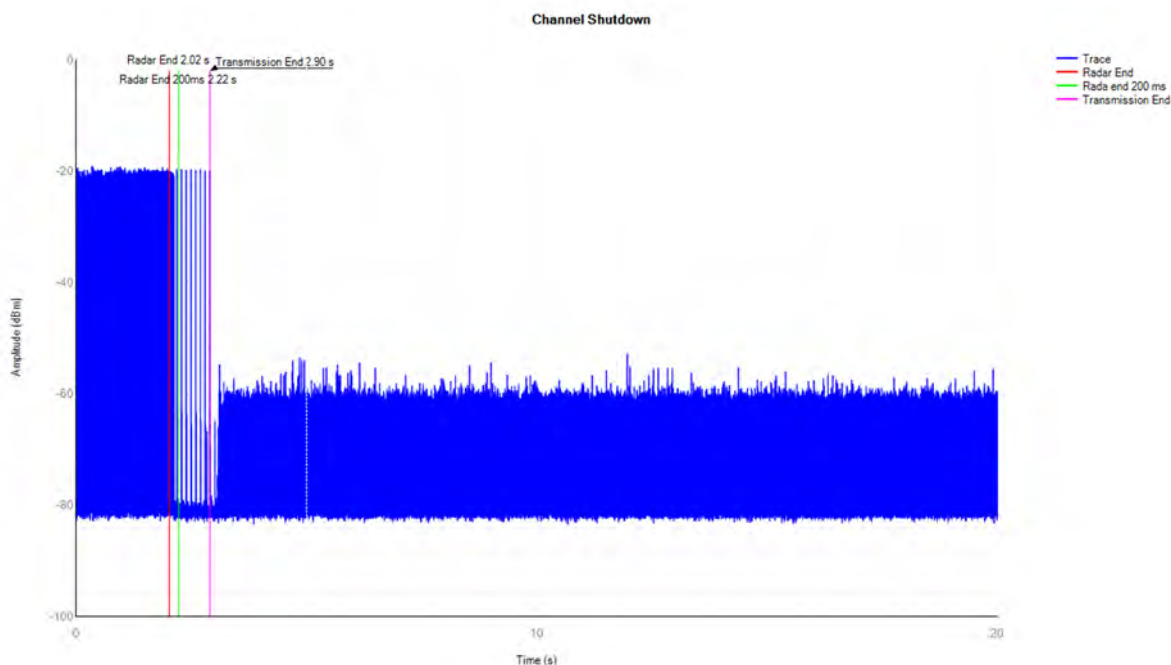
VBW: 3MHz

Sweep time: 20s

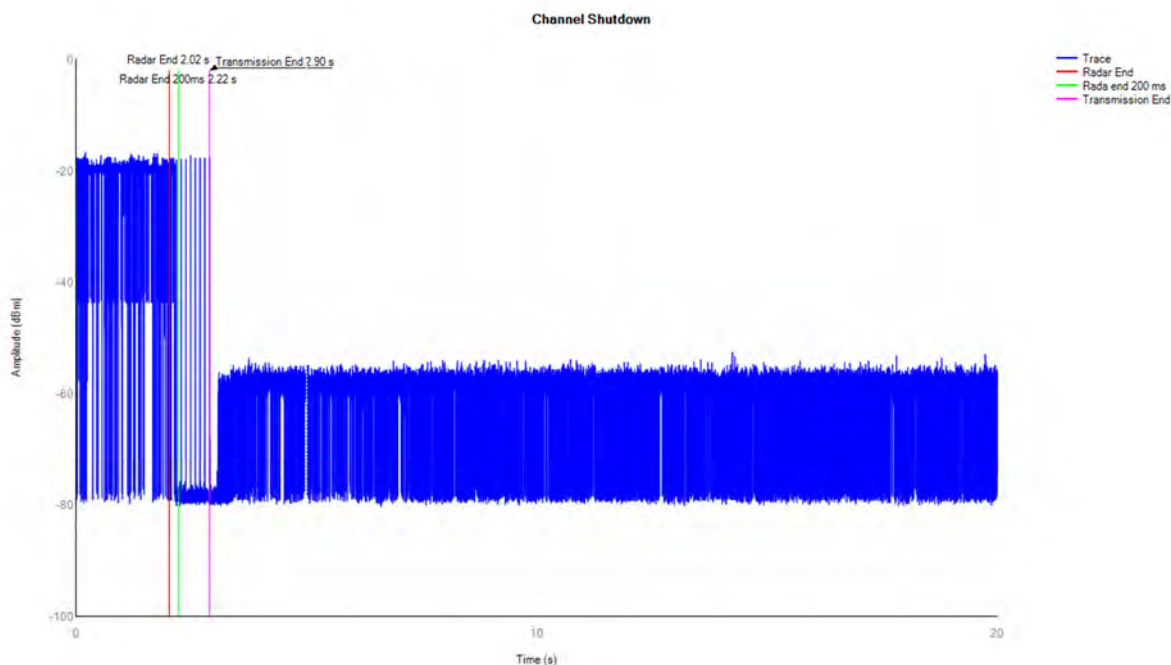


Test Graphs

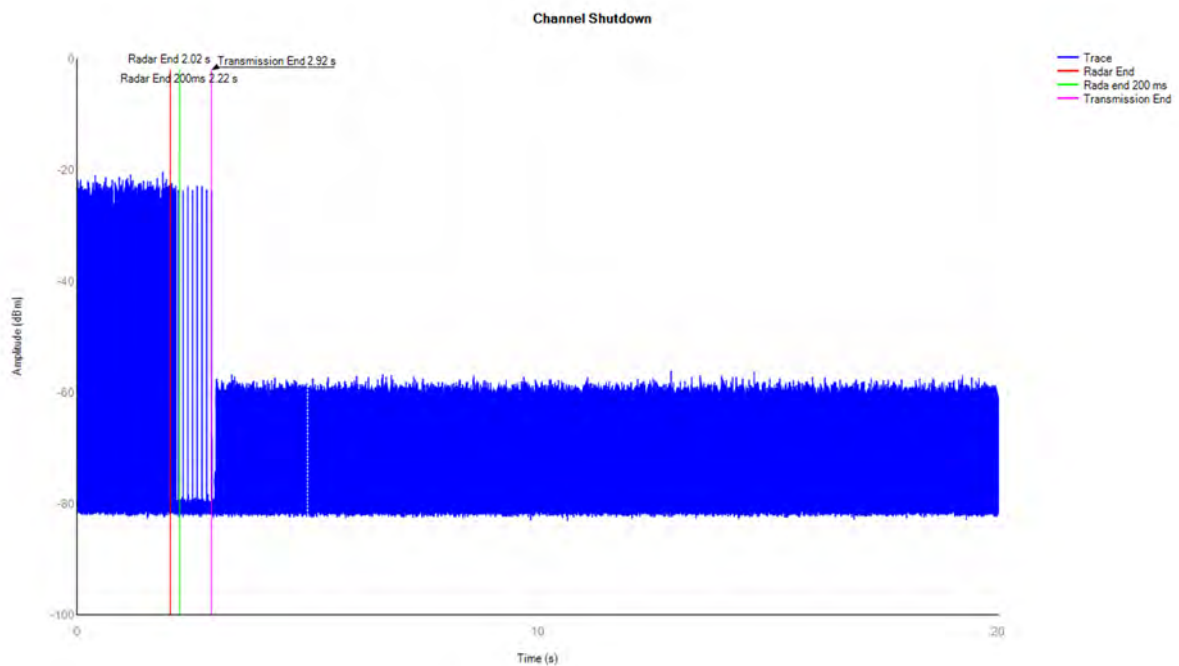
ac20 5260MHz Shutdown



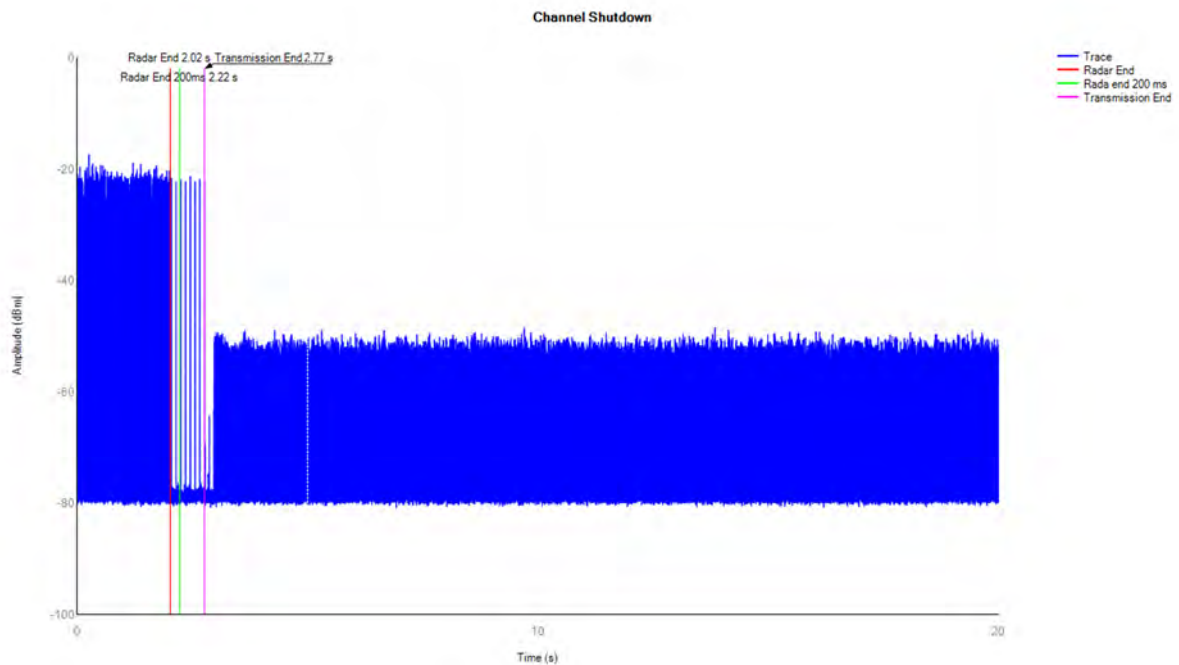
ac20 5500MHz Shutdown



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

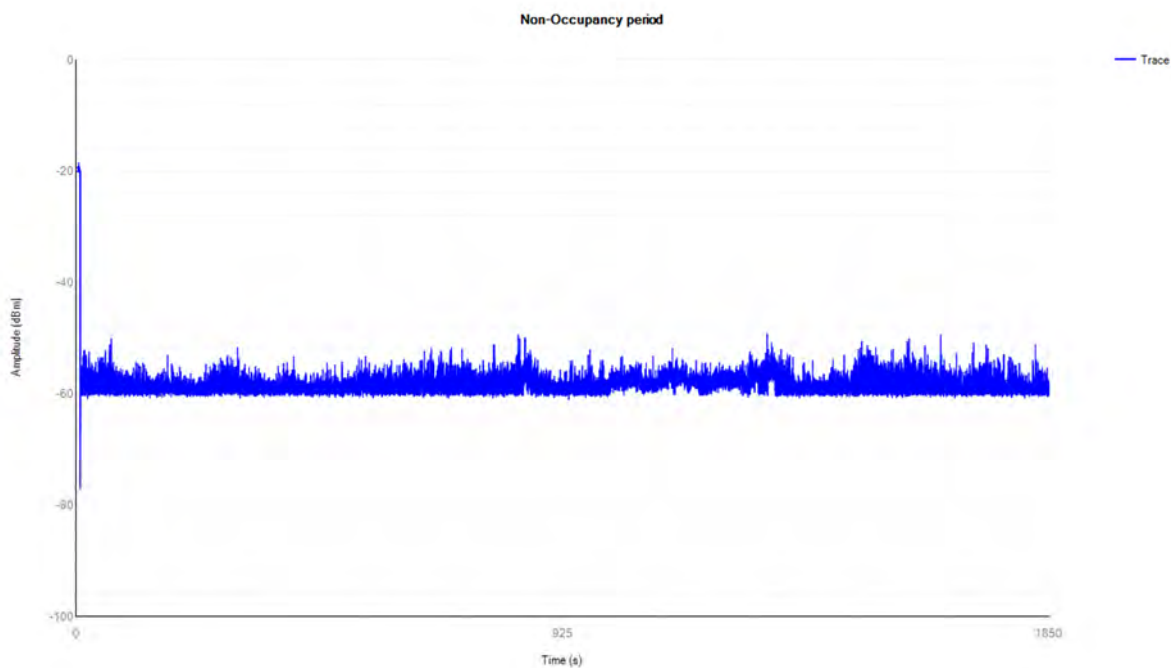
VBW: 3MHz

Sweep time: 1850s

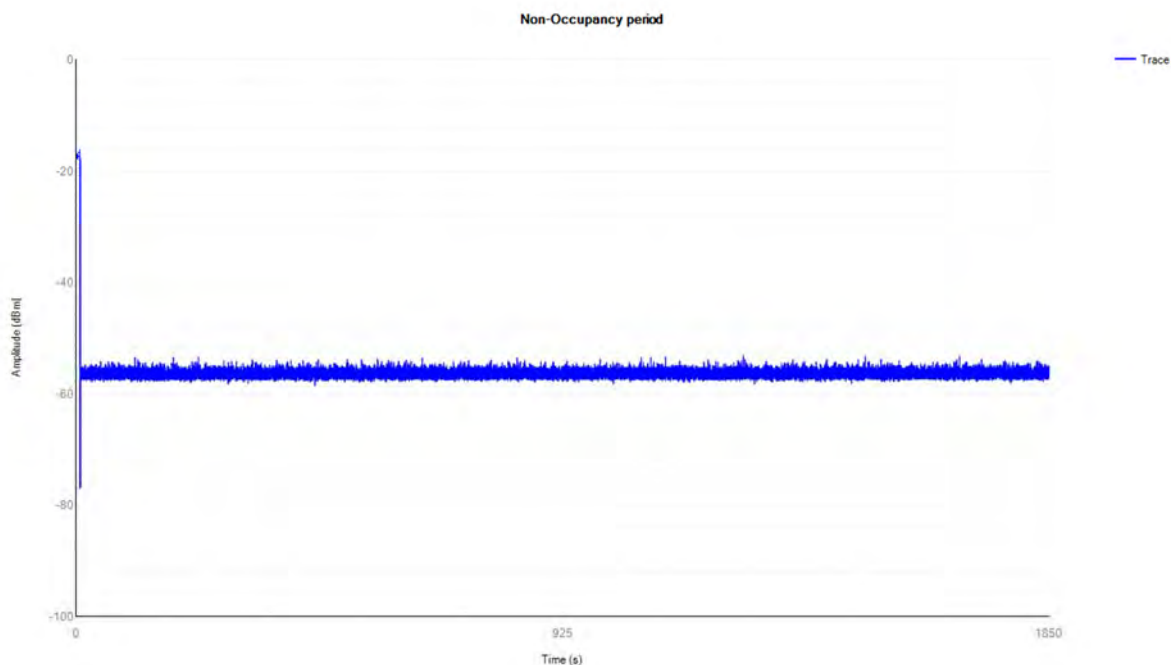


Test Graphs

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 + Data Cable + Earphone + WIFI TX

Test voltage: AC 120V/60Hz

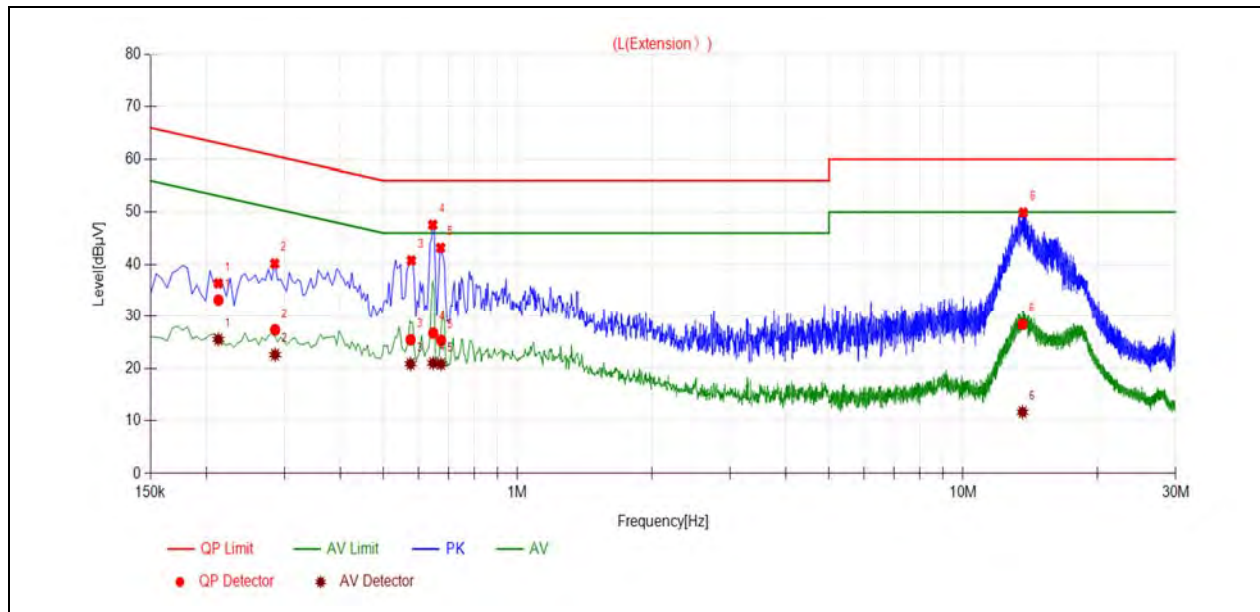
The measurement results are obtained as below:

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

U_R : Receiver Reading

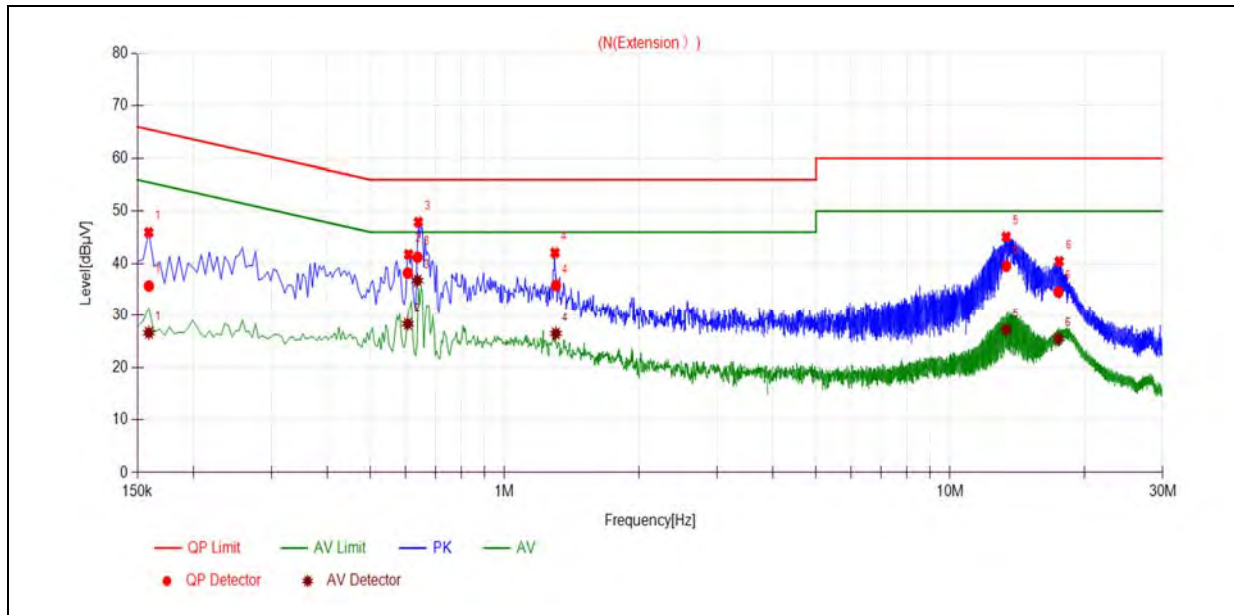
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.2131	33.20	25.52	63.08	53.08	Line	PASS
2	0.2856	27.35	22.59	60.65	50.65		PASS
3	0.5752	25.45	20.83	56.00	46.00		PASS
4	0.6466	26.73	20.99	56.00	46.00		PASS
5	0.6734	25.32	20.81	56.00	46.00		PASS
6	13.5928	28.42	11.63	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	0.1591	35.71	26.60	65.51	55.51	Neutral	PASS
2	0.6064	38.18	28.34	56.00	46.00		PASS
3	0.6378	41.22	36.76	56.00	46.00		PASS
4	1.3038	35.82	26.47	56.00	46.00		PASS
5	13.3577	39.49	27.21	60.00	50.00		PASS
6	17.4985	34.55	25.49	60.00	50.00		PASS

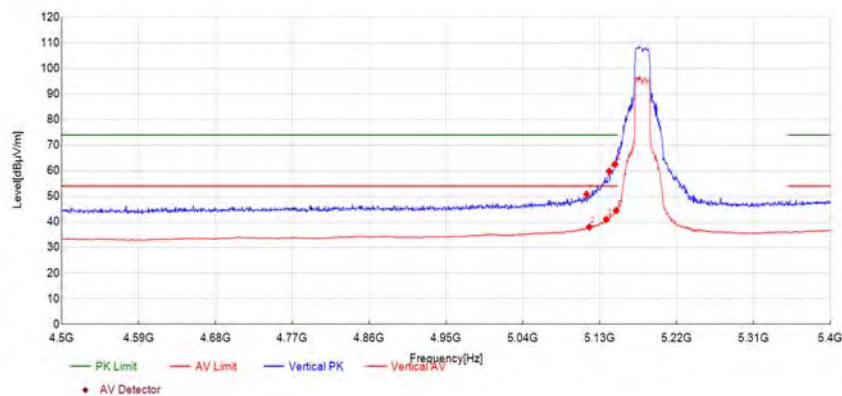
A.8. Restricted Frequency Bands

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

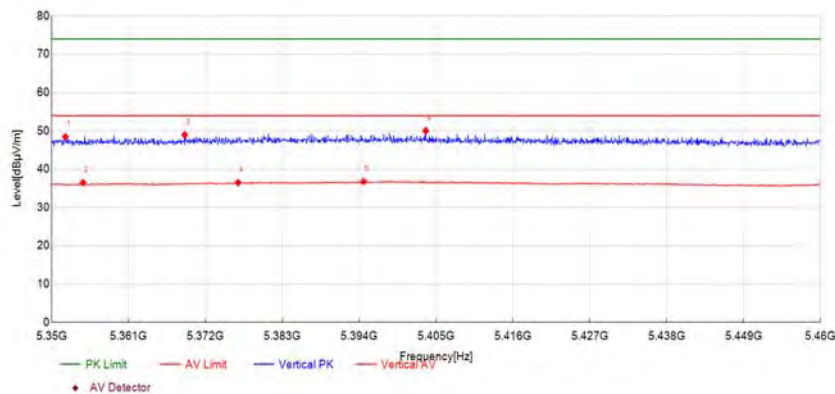
Plot for Channel 36



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5114.56	36.9	50.82	13.940	74.00	23.18	150	205	PK	PASS
5117.71	24.0	37.99	14.000	54.00	16.01	150	205	AV	PASS
5137.52	26.7	41.03	14.370	54.00	12.97	150	192	AV	PASS
5141.12	45.3	59.75	14.430	74.00	14.25	150	196	PK	PASS
5147.87	48.0	62.56	14.550	74.00	11.44	150	209	PK	PASS
5149.22	29.9	44.46	14.580	54.00	9.54	150	183	AV	PASS
5114.56	36.9	50.82	13.940	74.00	23.18	150	205	PK	PASS

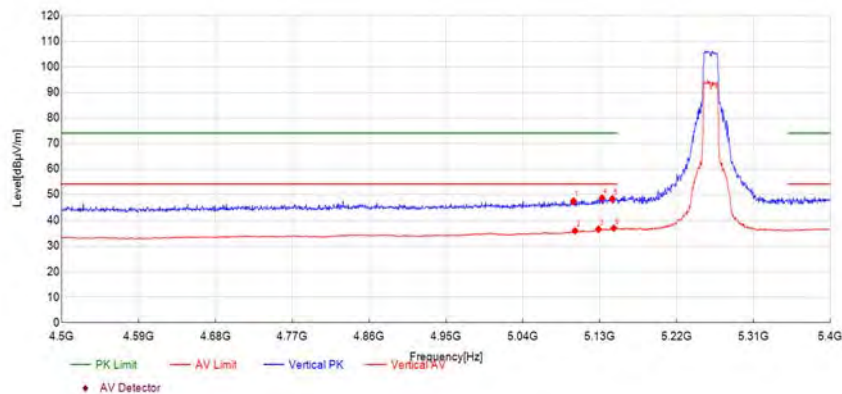


Plot for Channel 48



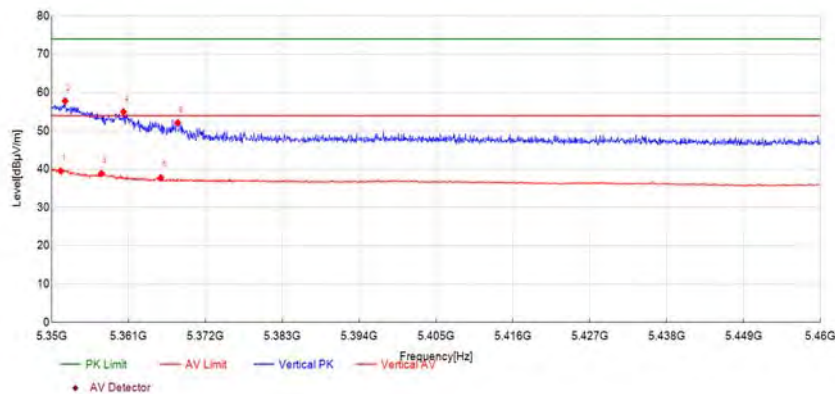
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.98	33.4	48.44	15.010	74.00	25.56	150	195	PK	PASS
5354.51	21.4	36.47	15.040	54.00	17.53	150	104	AV	PASS
5369.04	33.7	48.98	15.250	74.00	25.02	150	200	PK	PASS
5376.69	21.1	36.48	15.350	54.00	17.52	150	96	AV	PASS
5394.63	21.2	36.80	15.600	54.00	17.20	150	360	AV	PASS
5403.54	34.4	50.02	15.630	74.00	23.98	150	282	PK	PASS

Plot for Channel 52



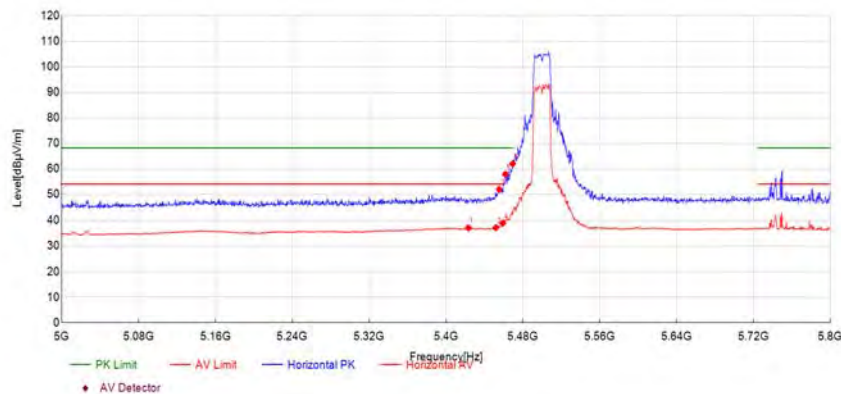
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5099.25	33.7	47.40	13.680	74.00	26.60	150	174	PK	PASS
5101.05	22.3	35.98	13.700	54.00	18.02	150	196	AV	PASS
5128.51	22.4	36.60	14.200	54.00	17.40	150	200	AV	PASS
5132.57	34.3	48.62	14.280	74.00	25.38	150	178	PK	PASS
5144.72	33.8	48.26	14.500	74.00	25.74	150	187	PK	PASS
5146.52	22.5	37.04	14.530	54.00	16.96	150	183	AV	PASS

Plot for Channel 64



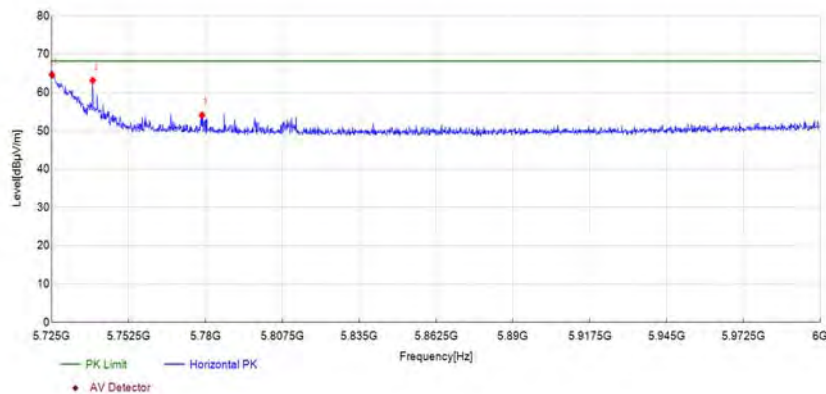
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5351.32	24.6	39.56	15.000	54.00	14.44	150	100	AV	PASS
5351.93	42.8	57.78	15.010	74.00	16.22	150	178	PK	PASS
5357.15	23.8	38.89	15.080	54.00	15.11	150	104	AV	PASS
5360.29	39.9	54.99	15.120	74.00	19.01	150	100	PK	PASS
5365.63	22.6	37.76	15.200	54.00	16.24	150	104	AV	PASS
5368.05	36.9	52.14	15.230	74.00	21.86	150	100	PK	PASS

Plot for Channel 100



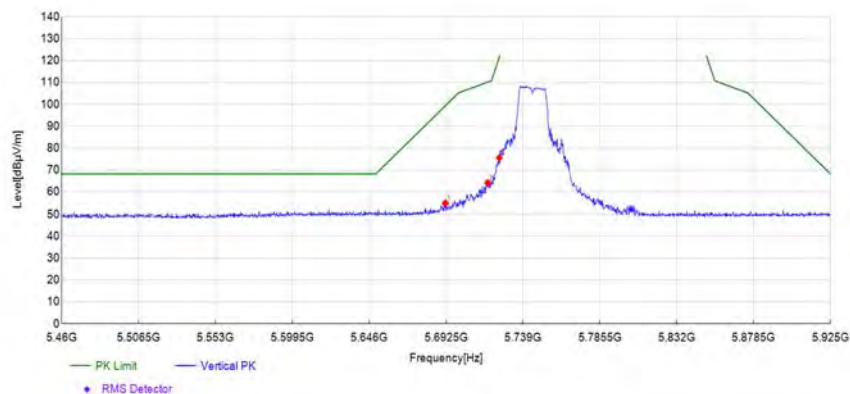
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5423.41	21.8	37.15	15.400	54.00	16.85	150	104	AV	PASS
5451.83	22.1	37.22	15.080	54.00	16.78	150	104	AV	PASS
5455.43	36.9	52.01	15.090	68.23	16.22	150	100	PK	PASS
5459.03	23.9	38.99	15.100	54.00	15.01	150	100	AV	PASS
5461.83	42.7	57.85	15.110	68.23	10.38	150	96	PK	PASS
5469.43	46.9	62.04	15.140	68.23	6.19	150	303	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
5725.14	48.4	64.64	16.250	68.23	3.59	150	121	PK	PASS
5739.72	46.9	63.18	16.270	68.23	5.05	150	321	PK	PASS
5778.79	38.0	54.14	16.120	68.23	14.09	150	101	PK	PASS

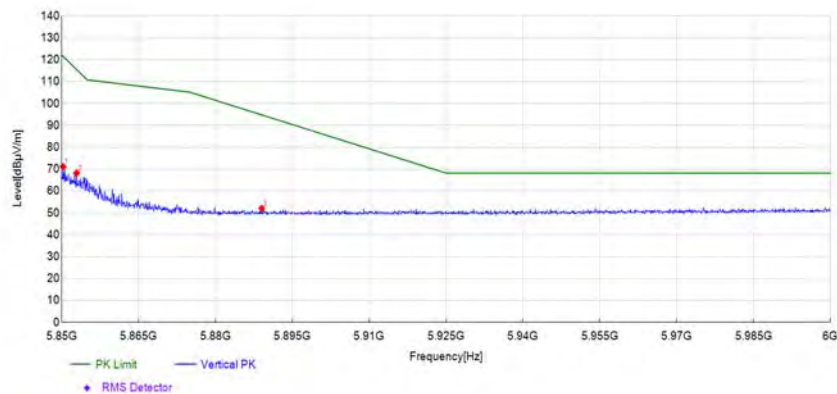
Plot for Channel 149



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5692.15	38.8	54.95	16.140	99.44	44.49	150	94	PK	PASS
5717.74	47.9	64.16	16.230	110.20	46.04	150	106	PK	PASS
5724.72	59.3	75.53	16.250	121.59	46.06	150	98	PK	PASS



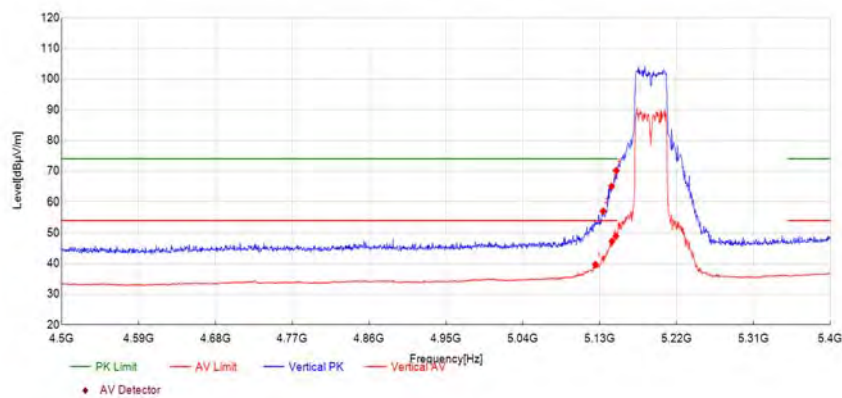
Plot for Channel 149



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5850.30	55.2	71.15	15.970	121.55	50.40	150	113	PK	PASS
5852.93	52.2	68.17	15.980	115.56	47.39	150	109	PK	PASS
5889.02	36.0	52.06	16.110	94.82	42.76	150	346	PK	PASS

802.11n (HT40) Mode

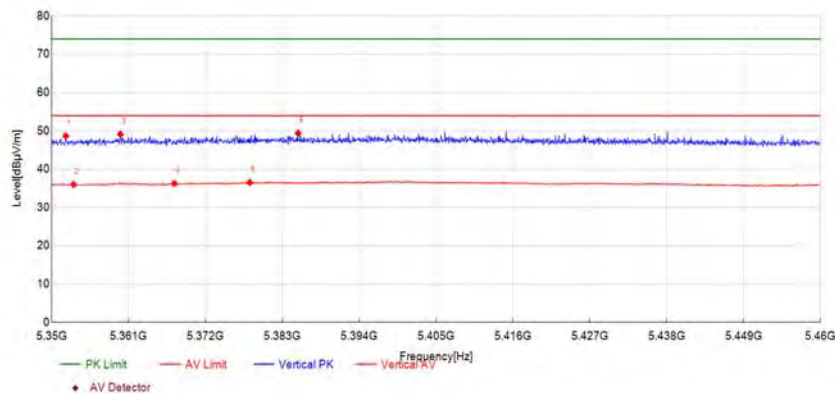
Plot for Channel 38



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5124.91	25.6	39.71	14.130	54.00	14.29	150	222	AV	PASS
5133.92	42.8	57.10	14.300	74.00	16.90	150	190	PK	PASS
5143.82	50.5	65.00	14.480	74.00	9.00	150	195	PK	PASS
5144.27	32.8	47.26	14.490	54.00	6.74	150	186	AV	PASS
5148.77	34.4	48.92	14.570	54.00	5.08	150	182	AV	PASS
5149.22	55.6	70.16	14.580	74.00	3.84	150	222	PK	PASS

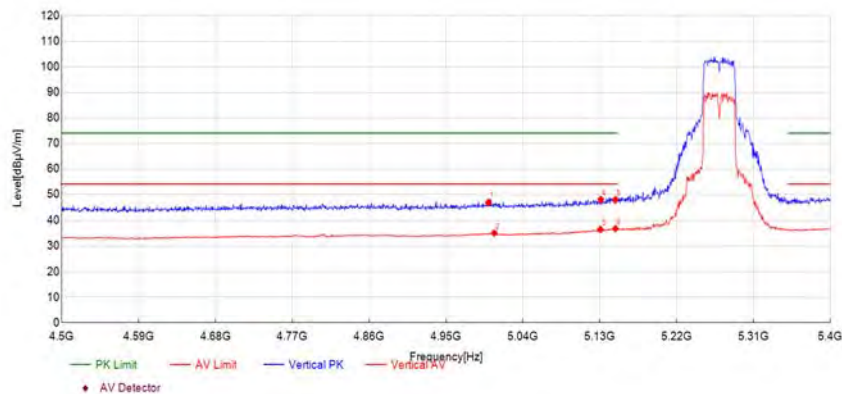


Plot for Channel 46



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5352.04	33.7	48.71	15.010	74.00	25.29	150	104	PK	PASS
5353.14	21.0	36.02	15.020	54.00	17.98	150	139	AV	PASS
5359.85	34.0	49.14	15.120	74.00	24.86	150	96	PK	PASS
5367.55	21.0	36.27	15.230	54.00	17.73	150	186	AV	PASS
5378.34	21.2	36.55	15.380	54.00	17.45	150	238	AV	PASS
5385.27	33.9	49.41	15.470	74.00	24.59	150	290	PK	PASS

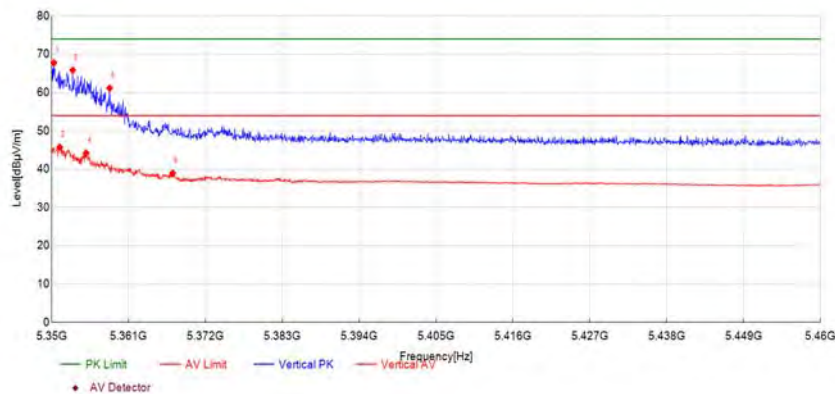
Plot for Channel 54



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
4999.75	34.0	46.94	12.990	74.00	27.06	150	221	PK	PASS
5006.50	22.1	35.11	13.050	54.00	18.89	150	91	AV	PASS
5130.77	22.3	36.54	14.240	54.00	17.46	150	199	AV	PASS
5131.22	33.8	48.03	14.250	74.00	25.97	150	195	PK	PASS
5148.32	33.5	48.01	14.560	74.00	25.99	150	177	PK	PASS
5148.32	22.3	36.86	14.560	54.00	17.14	150	203	AV	PASS

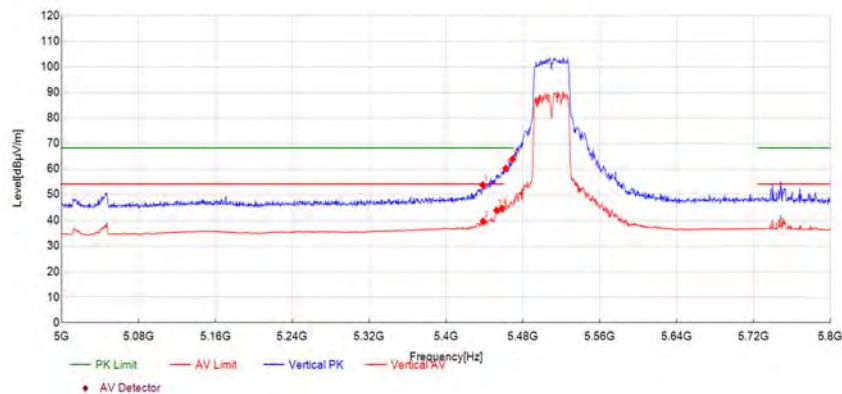


Plot for Channel 62



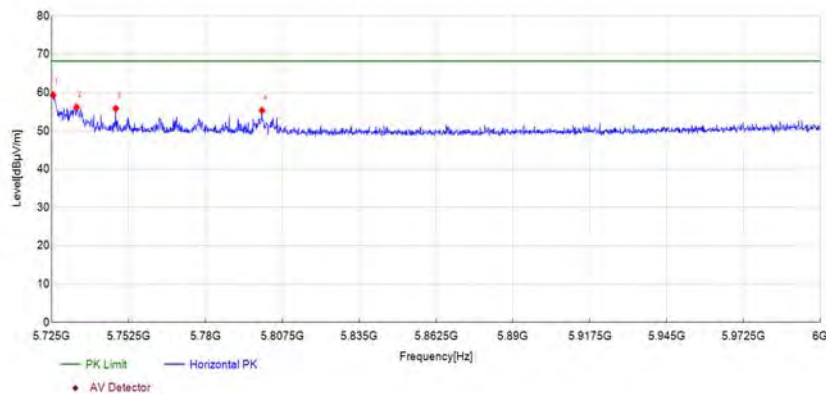
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5350.33	52.8	67.81	14.980	74.00	6.19	150	173	PK	PASS
5351.16	30.7	45.74	15.000	54.00	8.26	150	91	AV	PASS
5353.03	50.8	65.85	15.020	74.00	8.15	150	95	PK	PASS
5354.95	29.2	44.22	15.050	54.00	9.78	150	91	AV	PASS
5358.31	46.1	61.15	15.100	74.00	12.85	150	100	PK	PASS
5367.33	23.8	38.98	15.220	54.00	15.02	150	87	AV	PASS

Plot for Channel 102



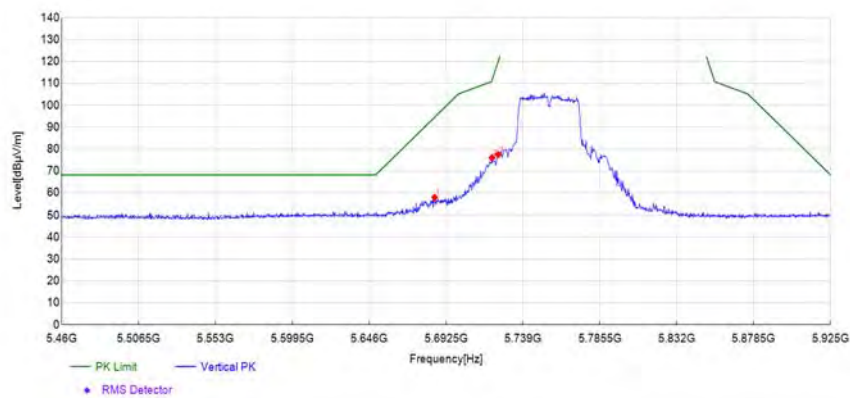
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5438.22	38.5	53.67	15.220	68.23	14.56	150	91	PK	PASS
5438.62	24.5	39.75	15.210	54.00	14.25	150	113	AV	PASS
5452.63	28.9	43.97	15.080	54.00	10.03	150	113	AV	PASS
5458.23	29.7	44.76	15.100	54.00	9.24	150	100	AV	PASS
5462.23	45.1	60.23	15.120	68.23	8.00	150	96	PK	PASS
5469.43	48.7	63.83	15.140	68.23	4.40	150	96	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
5725.55	43.1	59.36	16.250	68.23	8.87	150	114	PK	PASS
5733.94	39.9	56.18	16.260	68.23	12.05	150	110	PK	PASS
5747.97	39.6	55.85	16.290	68.23	12.38	150	210	PK	PASS
5800.25	39.4	55.34	15.990	68.23	12.89	150	162	PK	PASS

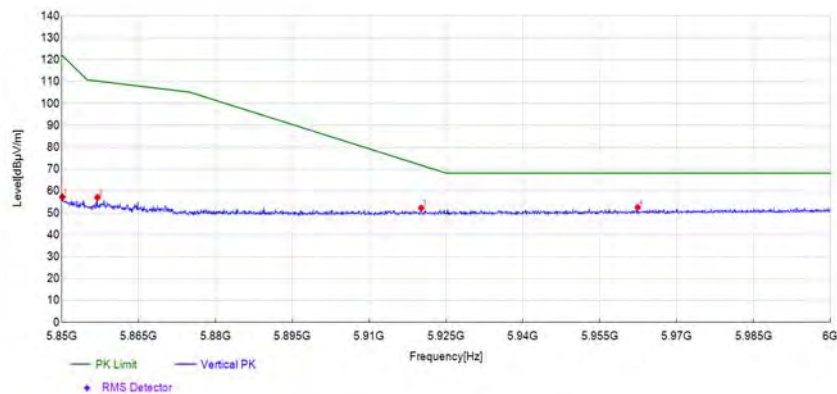
Plot for Channel 151



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5685.64	41.9	57.93	16.080	94.63	36.70	150	114	PK	PASS
5720.30	59.8	76.04	16.240	111.51	35.47	150	106	PK	PASS
5724.02	61.2	77.48	16.240	120.00	42.52	150	110	PK	PASS



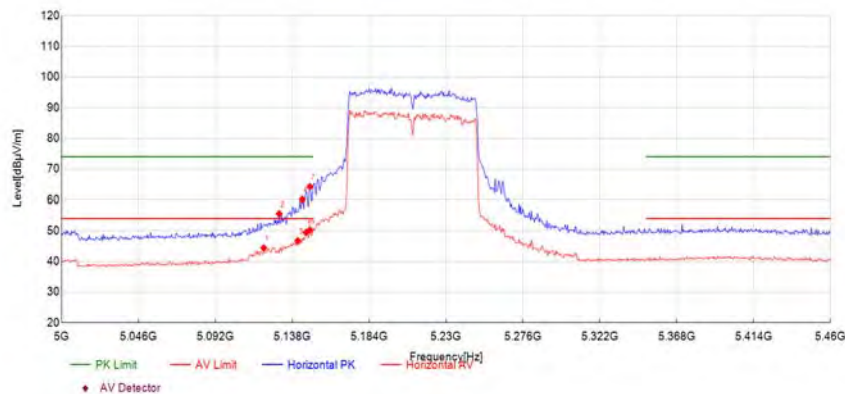
Plot for Channel 159



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5850.15	41.3	57.27	15.970	121.89	64.62	150	118	PK	PASS
5856.98	41.1	57.05	16.000	110.28	53.23	150	118	PK	PASS
5920.16	35.9	52.22	16.310	71.80	19.58	150	22	PK	PASS
5962.41	35.9	52.54	16.690	68.23	15.69	150	48	PK	PASS

802.11ac (VHT80) Mode

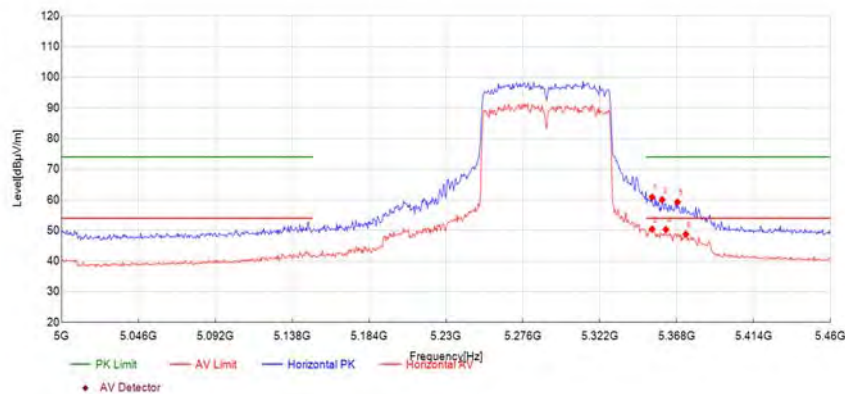
Plot for Channel 42



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5120.98	30.4	44.44	14.060	54.00	9.56	150	177	AV	PASS
5130.18	41.3	55.57	14.230	74.00	18.43	150	202	PK	PASS
5141.22	32.4	46.79	14.430	54.00	7.21	150	173	AV	PASS
5143.98	45.6	60.10	14.480	74.00	13.90	150	193	PK	PASS
5146.28	35.0	49.49	14.520	54.00	4.51	150	177	AV	PASS
5148.58	35.7	50.25	14.560	54.00	3.75	150	198	AV	PASS
5148.58	49.7	64.23	14.560	74.00	9.77	150	177	PK	PASS

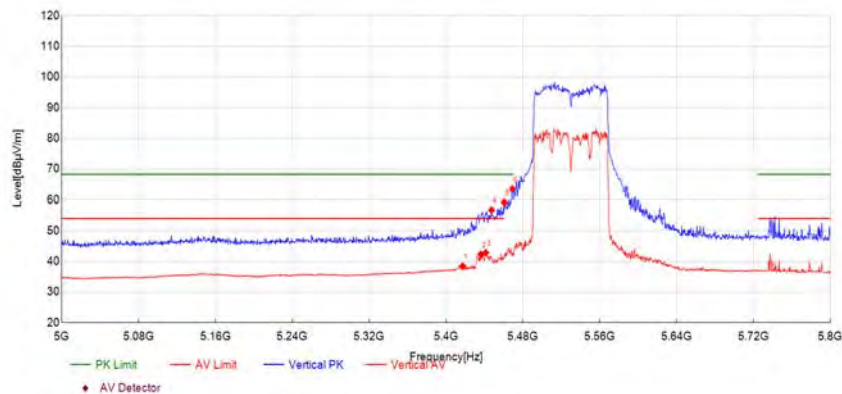


Plot for Channel 58



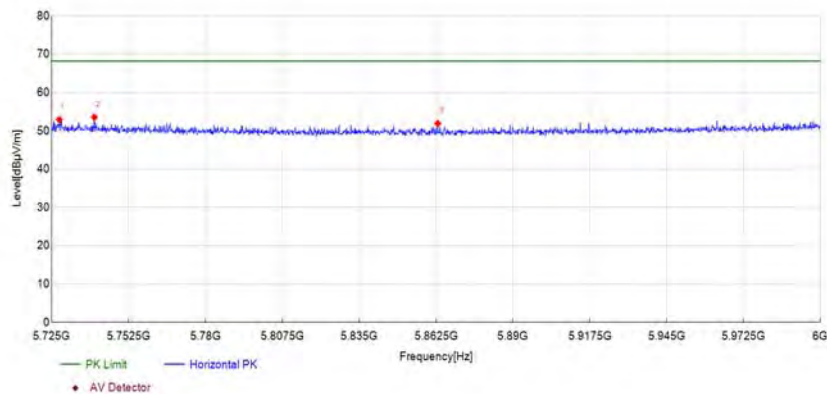
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5353.28	45.9	60.89	15.030	74.00	13.11	150	101	PK	PASS
5353.28	35.4	50.44	15.030	54.00	3.56	150	101	AV	PASS
5359.26	44.9	60.01	15.110	74.00	13.99	150	182	PK	PASS
5361.56	35.2	50.31	15.140	54.00	3.69	150	182	AV	PASS
5368.46	44.0	59.26	15.240	74.00	14.74	150	113	PK	PASS
5373.52	33.5	48.78	15.310	54.00	5.22	150	109	AV	PASS

Plot for Channel 106



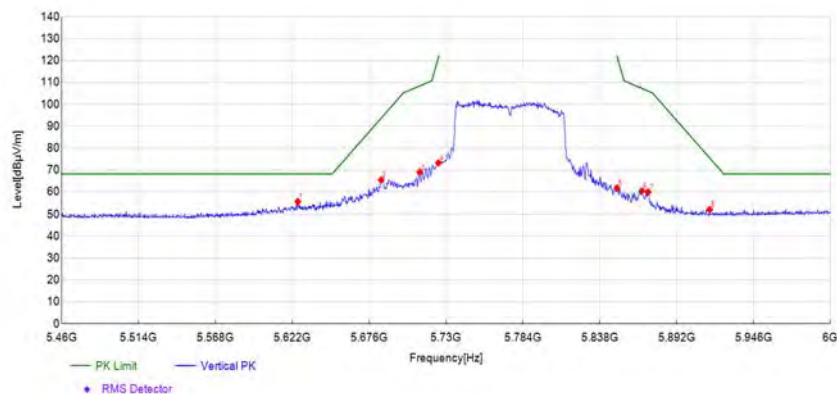
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
5417.41	23.0	38.48	15.470	54.00	15.52	150	107	AV	PASS
5436.22	27.1	42.35	15.240	54.00	11.65	150	103	AV	PASS
5441.42	27.6	42.82	15.180	54.00	11.18	150	103	AV	PASS
5447.42	41.6	56.74	15.100	68.23	11.49	150	99	PK	PASS
5460.63	44.1	59.18	15.110	68.23	9.05	150	103	PK	PASS
5469.03	48.3	63.45	15.140	68.23	4.78	150	107	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
5727.75	36.7	52.96	16.250	68.23	15.27	150	106	PK	PASS
5740.27	37.3	53.59	16.280	68.23	14.64	150	82	PK	PASS
5863.12	35.9	51.91	16.010	68.23	16.32	150	82	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
5625.86	39.8	55.61	15.860	68.23	12.62	150	105	PK	PASS
5684.48	49.4	65.48	16.080	93.78	28.30	150	114	PK	PASS
5711.50	52.9	69.09	16.220	108.45	39.36	150	105	PK	PASS
5724.73	57.1	73.30	16.250	121.62	48.32	150	114	PK	PASS
5850.08	45.8	61.77	15.970	122.06	60.29	150	118	PK	PASS
5867.63	44.5	60.50	16.030	107.29	46.79	150	118	PK	PASS
5871.96	43.9	59.95	16.050	106.08	46.13	150	118	PK	PASS
5915.18	35.9	52.18	16.270	75.47	23.29	150	138	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.

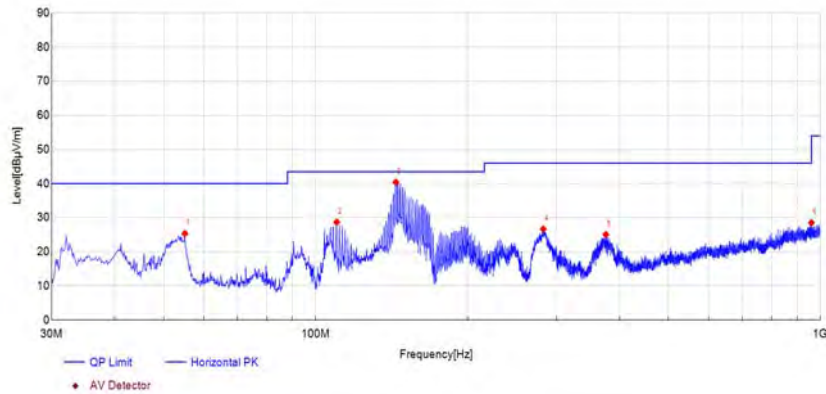
Field strength of fundamental:

Frequency (MHz)	Reading [dB μ V]	Level [dB μ V/m]	Factor [dB/m]	Detector	Antenna Polarity
5788.86	91.3	107.32	16.060	PK	Horizontal

The field strength (the lowest) of fundamenta is more than 20dB higher than the unwanted emissions, in accordance with FCC part 15.215(b).

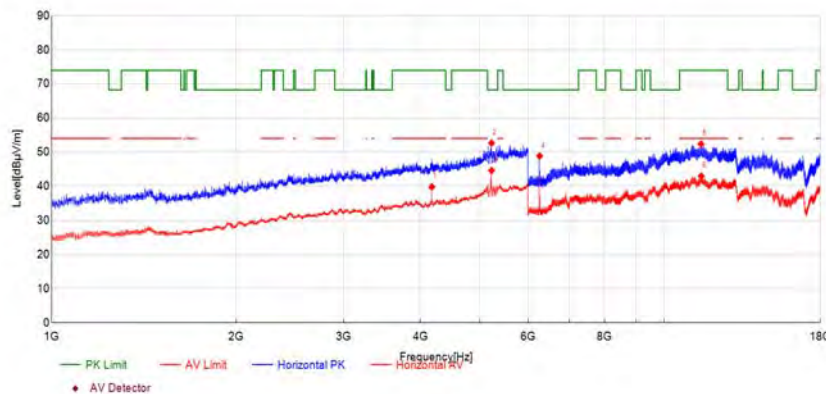
802.11a Mode

Plot for Channel 44



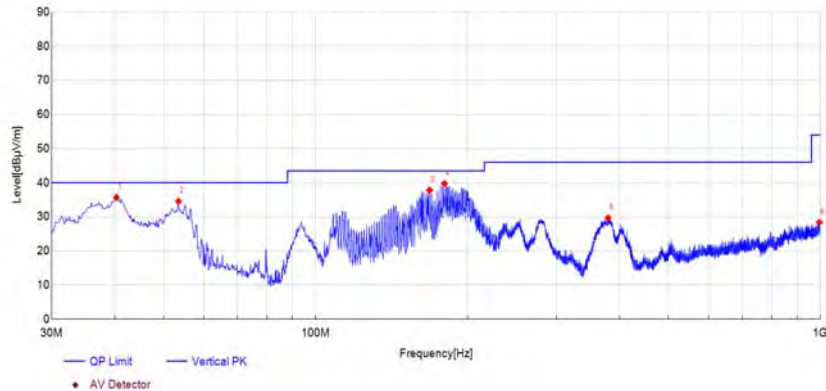
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
55.10	25.37	-27.790	40.00	Horizontal	PASS
110.15	28.70	-28.750	43.50	Horizontal	PASS
144.22	40.42	-31.300	43.50	Horizontal	PASS
282.44	26.66	-26.310	46.00	Horizontal	PASS
375.81	25.07	-23.310	46.00	Horizontal	PASS
959.87	28.56	-11.340	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



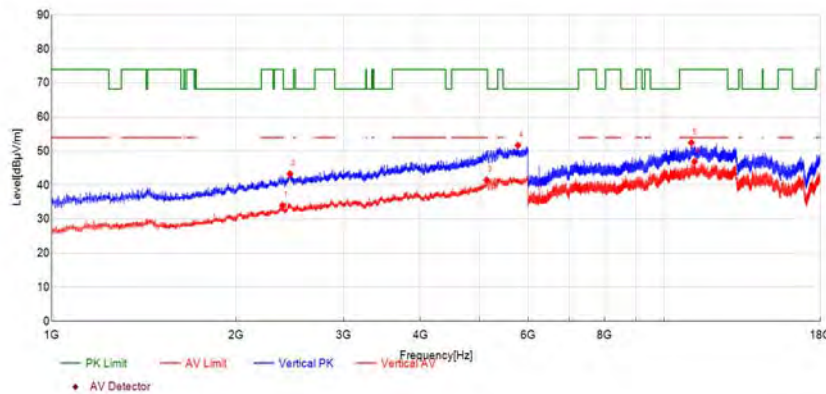
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
4175.87	39.78	11.670	54.00	Horizontal	PASS
5226.80	52.65	16.500	68.23	Horizontal	N/A
5227.57	44.56	16.510	-	Horizontal	N/A
6263.53	48.82	0.580	68.23	Horizontal	PASS
11483.74	52.35	14.280	74.00	Horizontal	PASS
11498.14	42.91	14.310	54.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
40.31	35.71	-28.720	40.00	Vertical	PASS
53.52	34.56	-27.660	40.00	Vertical	PASS
168.23	37.80	-31.020	43.50	Vertical	PASS
179.99	39.71	-30.350	43.50	Vertical	PASS
379.69	29.65	-23.300	46.00	Vertical	PASS
995.27	28.38	-10.470	54.00	Vertical	PASS

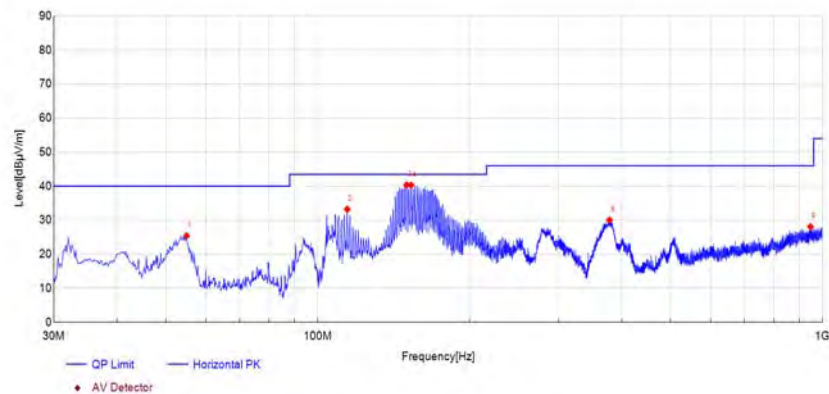
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
2381.75	33.97	5.290	54.00	Vertical	PASS
2450.22	43.28	6.190	68.23	Vertical	PASS
5132.17	41.48	16.690	54.00	Vertical	PASS
5772.27	51.70	18.360	68.23	Vertical	PASS
11078.60	52.46	13.370	74.00	Vertical	PASS
11214.45	46.88	13.770	54.00	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

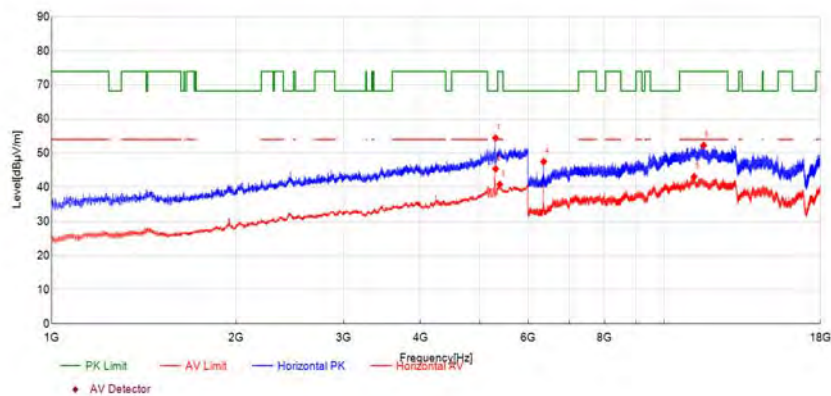
Plot for Channel 60



C.

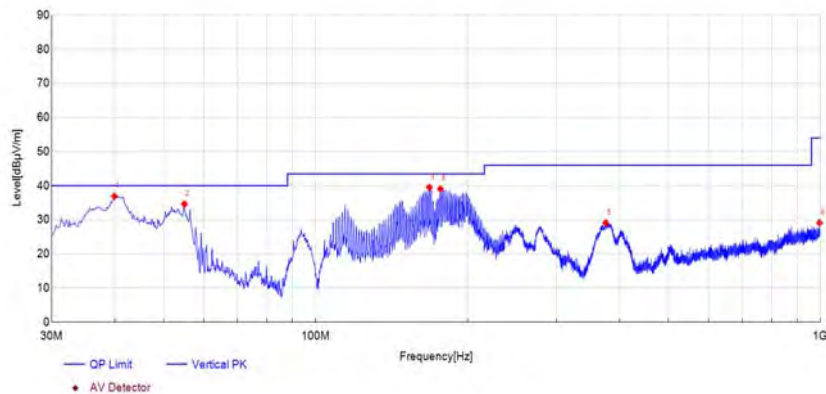
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
54.98	25.45	-27.760	40.00	Horizontal	PASS
114.39	33.23	-29.800	43.50	Horizontal	PASS
150.04	40.39	-31.480	43.50	Horizontal	PASS
153.07	40.29	-32.280	43.50	Horizontal	PASS
378.47	30.04	-23.300	46.00	Horizontal	PASS
946.53	28.09	-11.060	46.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



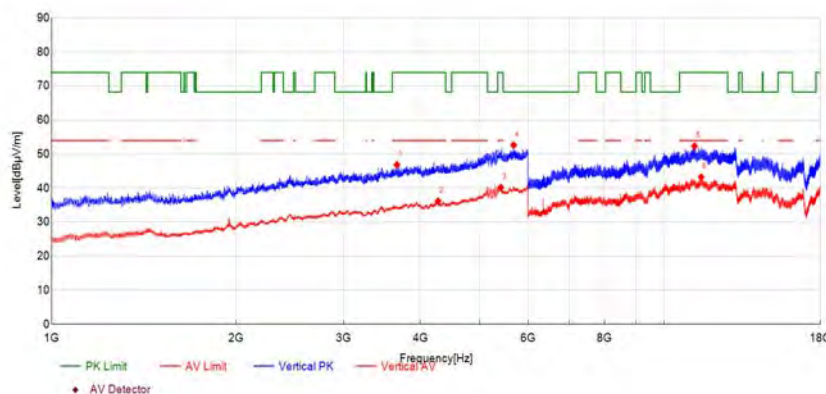
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
5305.28	54.41	16.870	68.23	Horizontal	N/A
5307.59	45.35	16.910	-	Horizontal	N/A
5392.21	40.79	18.070	54.00	Horizontal	PASS
6359.53	47.48	0.880	68.23	Horizontal	PASS
11196.69	43.04	13.880	54.00	Horizontal	PASS
11602.30	52.25	14.040	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
39.94	36.95	-28.650	40.00	Vertical	PASS
54.98	34.61	-27.760	40.00	Vertical	PASS
167.98	39.55	-30.900	43.50	Vertical	PASS
176.83	39.04	-30.470	43.50	Vertical	PASS
375.68	29.10	-23.310	46.00	Vertical	PASS
995.88	29.12	-10.510	54.00	Vertical	PASS

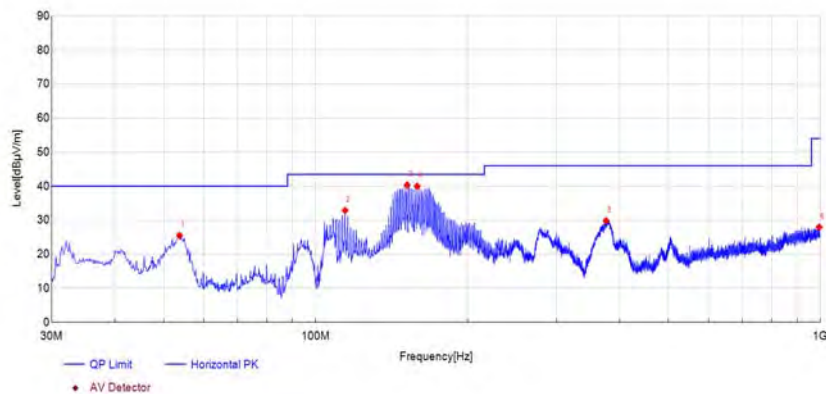
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
3662.72	46.84	10.450	74.00	Vertical	PASS
4275.12	36.21	12.140	54.00	Vertical	PASS
5412.22	40.19	18.020	54.00	Vertical	PASS
5679.95	52.65	18.370	68.23	Vertical	PASS
11213.01	52.36	13.790	74.00	Vertical	PASS
11493.82	43.26	14.300	54.00	Vertical	PASS

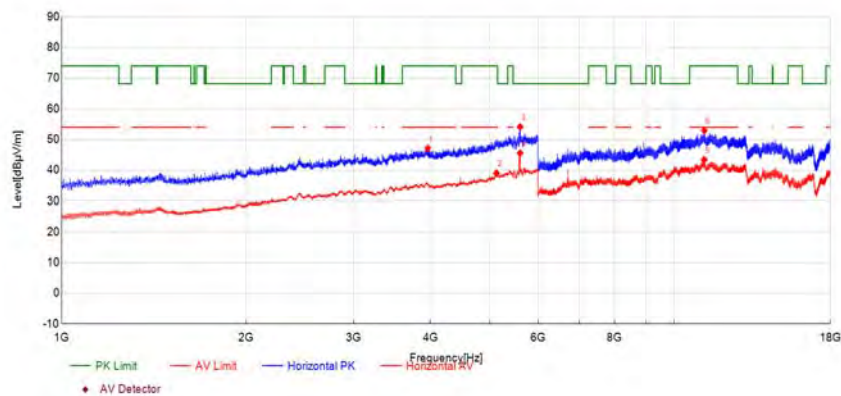
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 120



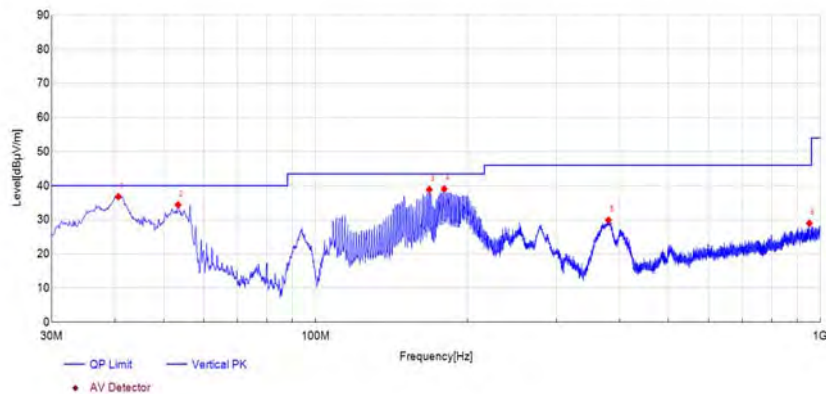
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
53.77	25.53	-27.610	40.00	Horizontal	PASS
114.39	32.87	-29.800	43.50	Horizontal	PASS
151.86	40.34	-32.040	43.50	Horizontal	PASS
159.01	40.00	-31.070	43.50	Horizontal	PASS
376.29	29.84	-23.310	46.00	Horizontal	PASS
994.42	27.97	-10.460	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



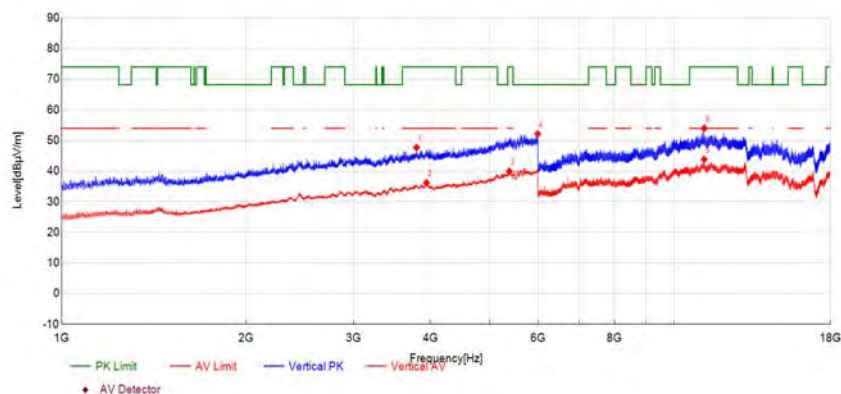
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
3961.99	47.08	11.860	74.00	Horizontal	PASS
5127.56	39.01	16.160	54.00	Horizontal	PASS
5605.32	54.11	18.130	68.23	Horizontal	N/A
5606.09	45.53	18.140	-	Horizontal	N/A
11197.65	43.37	13.880	54.00	Horizontal	PASS
11203.41	52.92	13.870	74.00	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
40.67	36.80	-28.860	40.00	Vertical	PASS
53.40	34.41	-27.690	40.00	Vertical	PASS
167.98	38.85	-30.900	43.50	Vertical	PASS
179.74	39.07	-30.360	43.50	Vertical	PASS
380.29	29.93	-23.260	46.00	Vertical	PASS
950.53	28.98	-10.990	46.00	Vertical	PASS

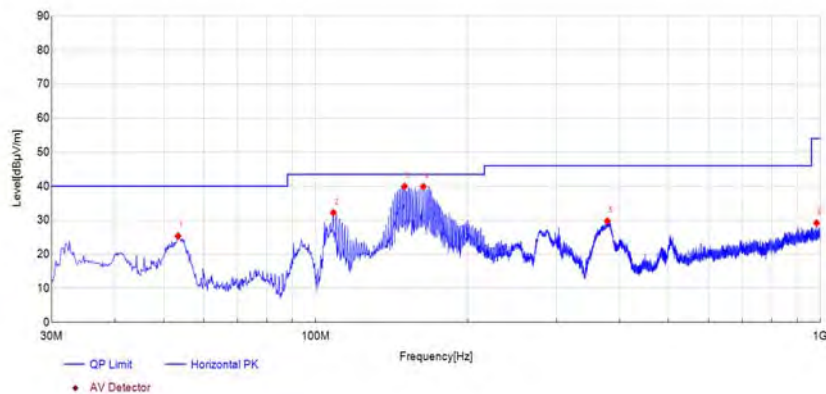
(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
3797.35	47.70	11.290	74.00	Vertical	PASS
3941.22	36.20	11.880	54.00	Vertical	PASS
5382.98	39.93	17.560	54.00	Vertical	PASS
5988.46	52.12	19.270	68.23	Vertical	PASS
11196.69	43.82	13.880	54.00	Vertical	PASS
11199.09	53.98	13.890	74.00	Vertical	PASS

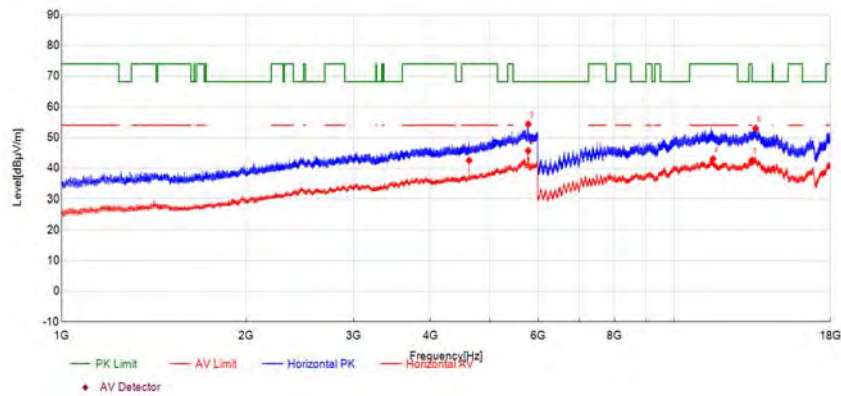
(Antenna Vertical, 1GHz to 18GHz)

Plot for Channel 157



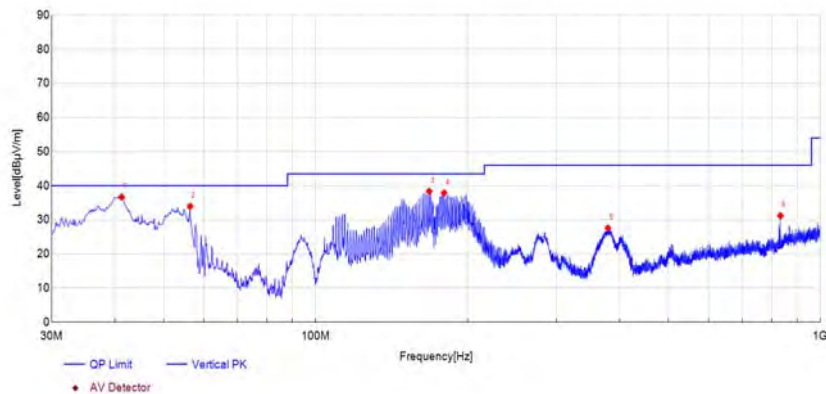
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
53.40	25.35	-27.690	40.00	Horizontal	PASS
108.45	32.23	-28.820	43.50	Horizontal	PASS
150.04	39.96	-31.480	43.50	Horizontal	PASS
163.50	39.90	-31.130	43.50	Horizontal	PASS
378.47	29.75	-23.300	46.00	Horizontal	PASS
982.42	29.19	-11.210	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 1GHz)



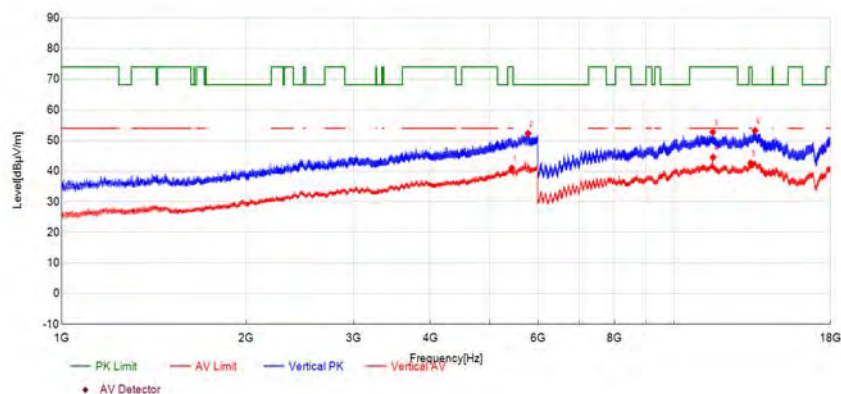
Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
4628.12	42.48	13.360	54.00	Horizontal	PASS
5777.84	45.63	19.100	-	Horizontal	N/A
5778.91	54.36	19.090	68.23	Horizontal	N/A
11573.08	42.98	14.280	54.00	Horizontal	PASS
13391.77	42.55	16.400	54.00	Horizontal	PASS
13587.38	52.98	17.110	68.23	Horizontal	PASS

(Antenna Horizontal, 1GHz to 18GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
41.28	36.69	-28.900	40.00	Vertical	PASS
56.43	33.94	-28.010	40.00	Vertical	PASS
167.86	38.39	-30.960	43.50	Vertical	PASS
179.74	37.88	-30.360	43.50	Vertical	PASS
379.32	27.58	-23.300	46.00	Vertical	PASS
833.16	31.20	-14.030	46.00	Vertical	PASS

(Antenna Vertical, 30MHz to 1GHz)



Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Antenna	Verdict
5435.32	40.96	17.640	54.00	Vertical	PASS
5775.34	52.30	19.130	68.23	Vertical	PASS
11566.48	52.71	14.270	74.00	Vertical	PASS
11574.88	44.51	14.280	54.00	Vertical	PASS
13334.17	42.64	16.480	54.00	Vertical	PASS
13556.78	53.22	17.100	68.23	Vertical	PASS

(Antenna Vertical, 1GHz to 18GHz)

END OF REPORT