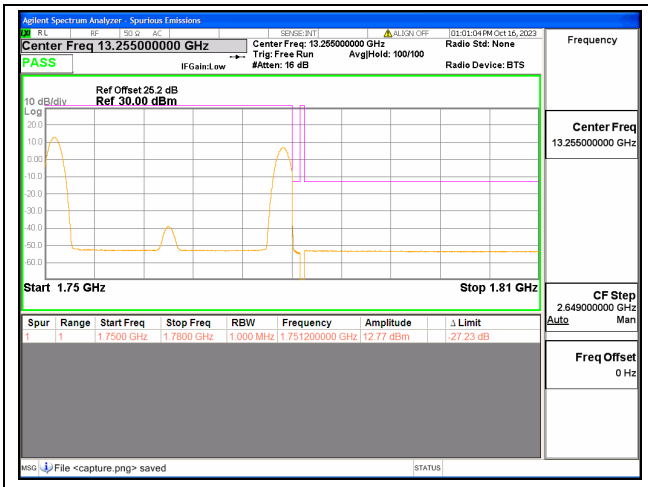
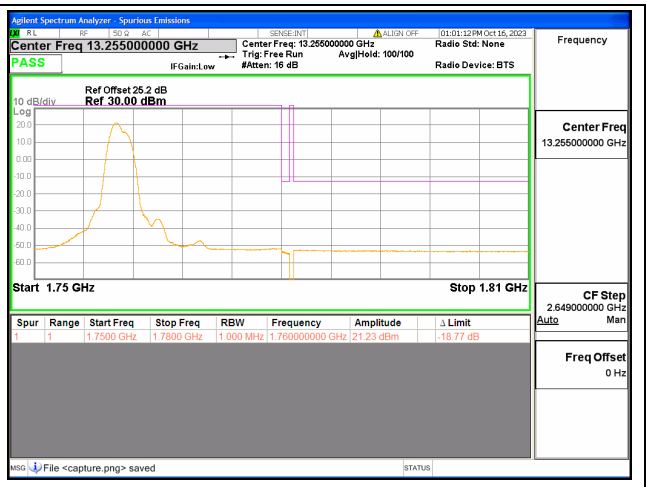
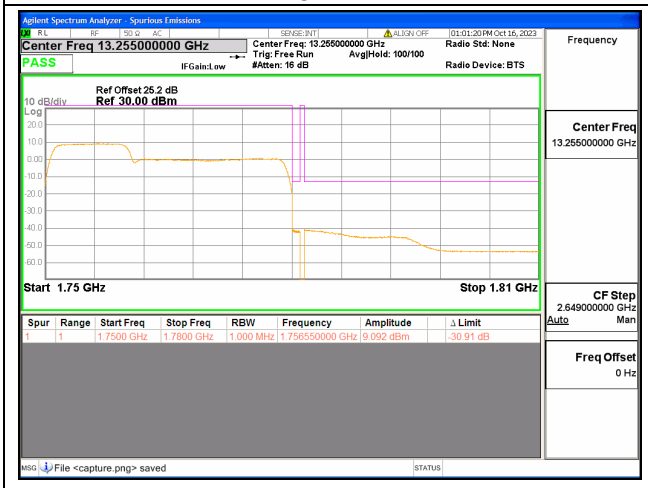


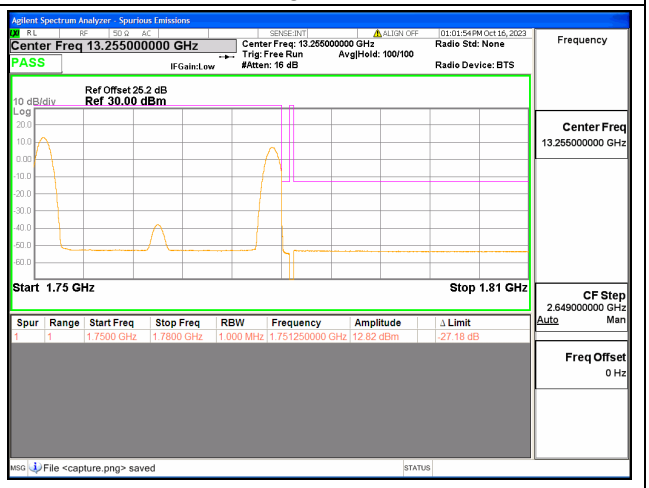
66C / 10+20MHz / High CH / QPSK / 1#0-1#99



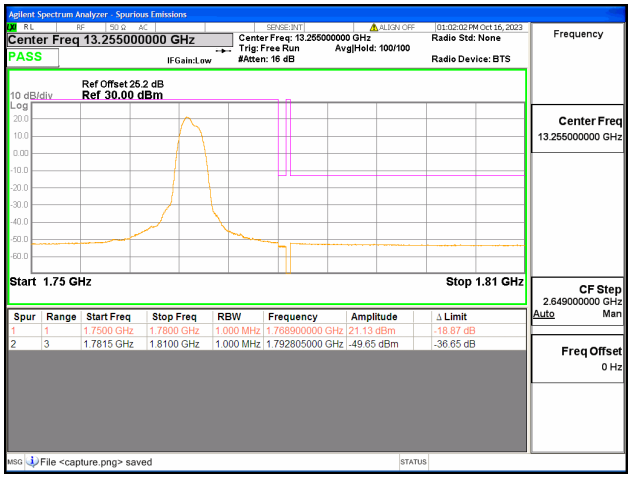
66C / 10+20MHz / High CH / QPSK / 1#49-1#0



66C / 10+20MHz / High CH / QPSK / 50#0-100#0



66C / 20+10MHz / High CH / QPSK / 1#0-1#49



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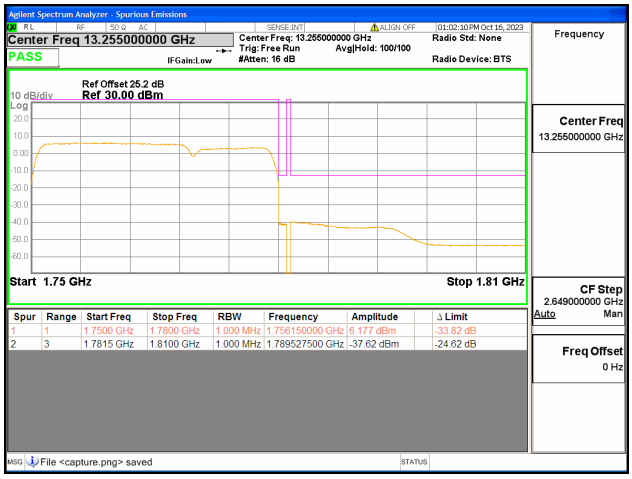

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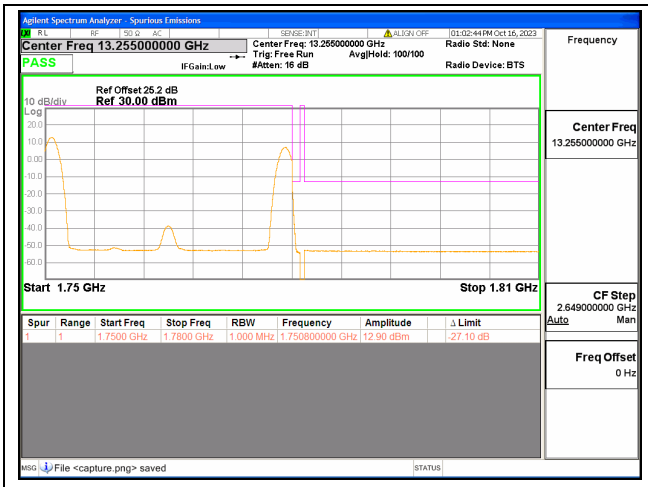
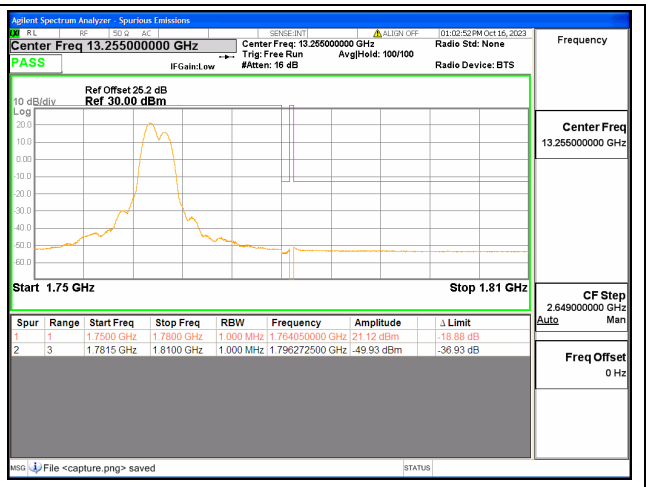
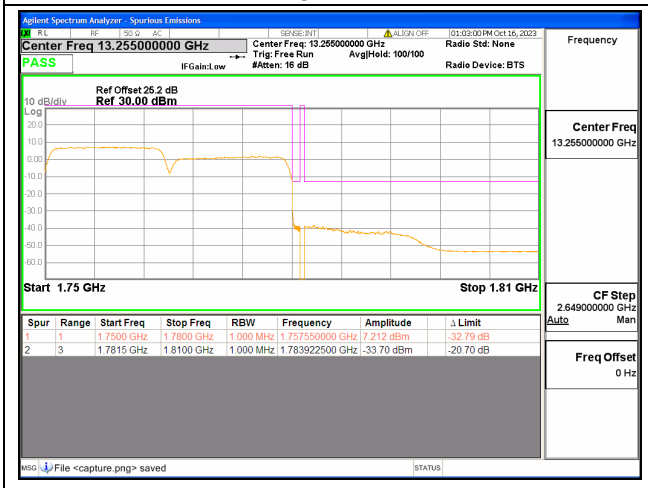


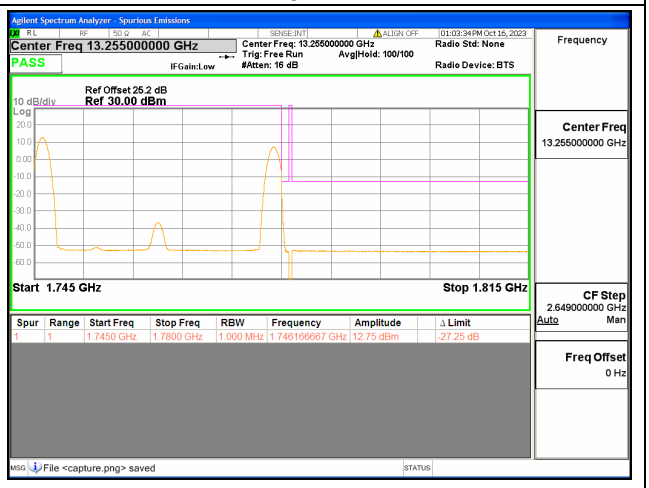
66C / 15+15MHz / High CH / QPSK / 1#0-1#74



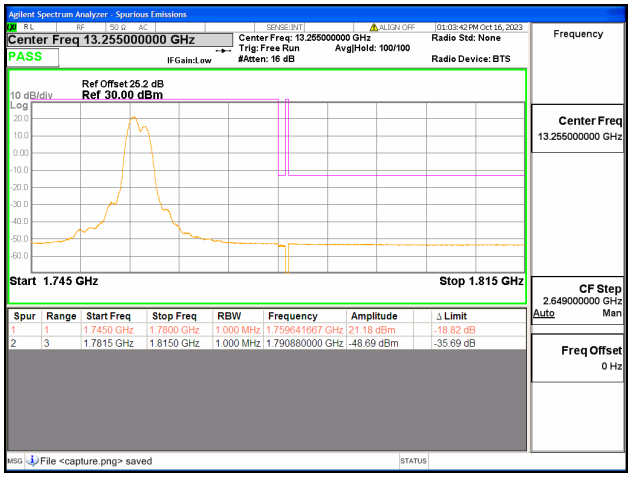
66C / 15+15MHz / High CH / QPSK / 1#74-1#0



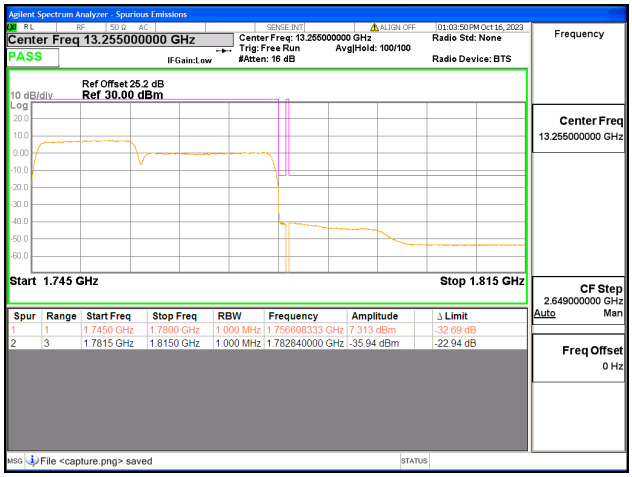
66C / 15+15MHz / High CH / QPSK / 75#0-75#0



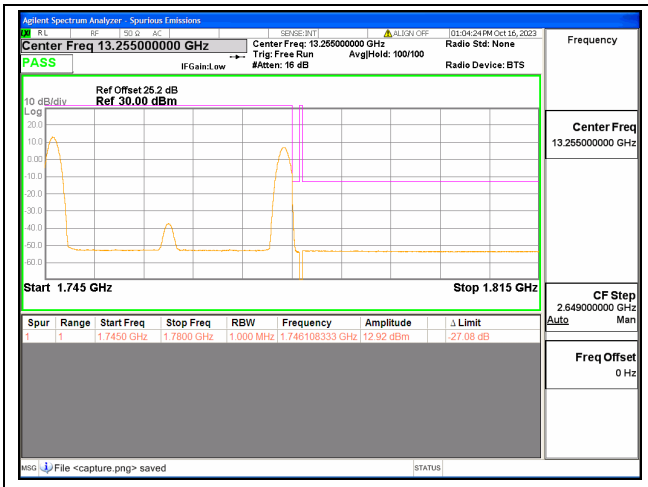
66C / 15+20MHz / High CH / QPSK / 1#0-1#99



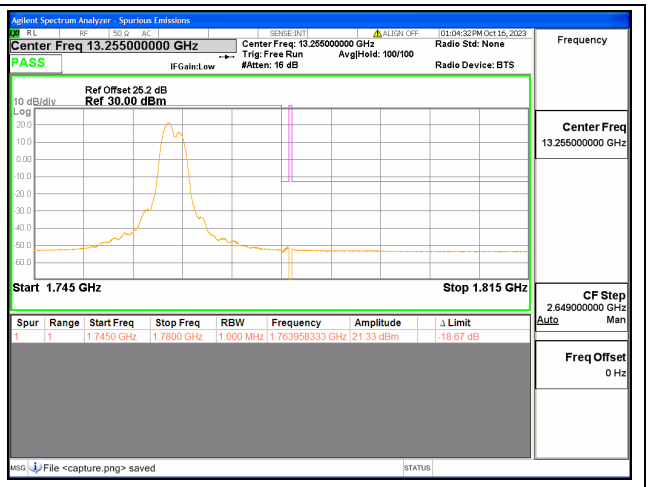
66C / 15+20MHz / High CH / QPSK / 1#74-1#0



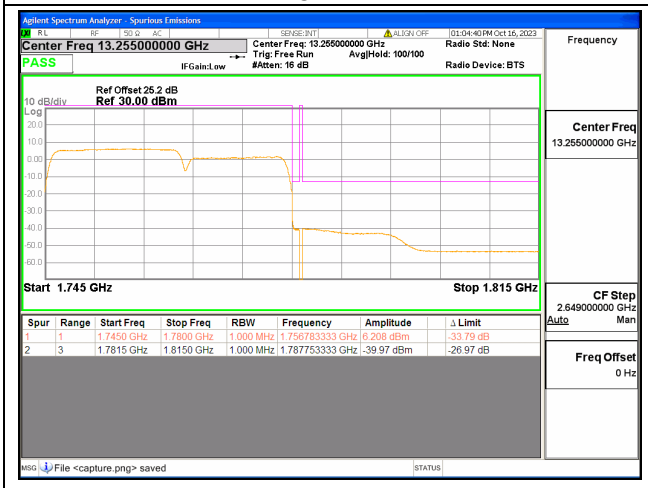
66C / 15+20MHz / High CH / QPSK / 75#0-100#0



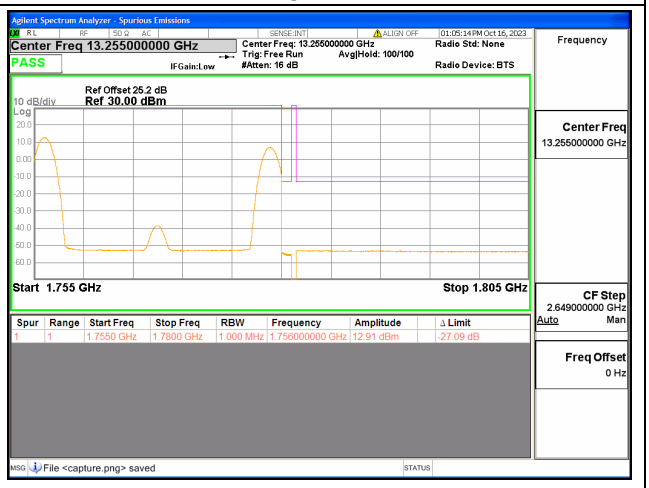
66C / 20+15MHz / High CH / QPSK / 1#0-1#74



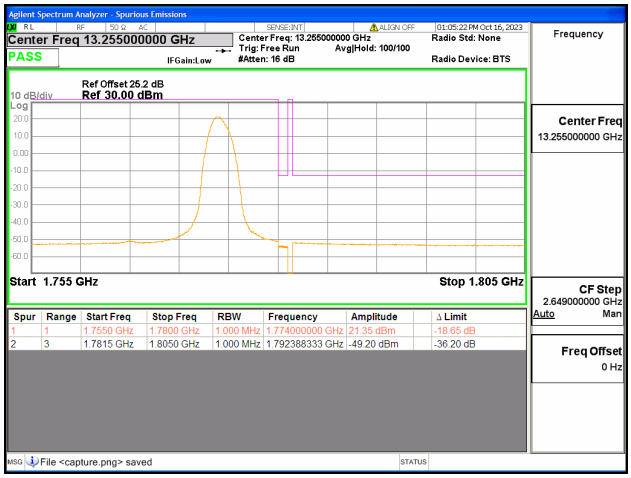
66C / 20+15MHz / High CH / QPSK / 1#99-1#0



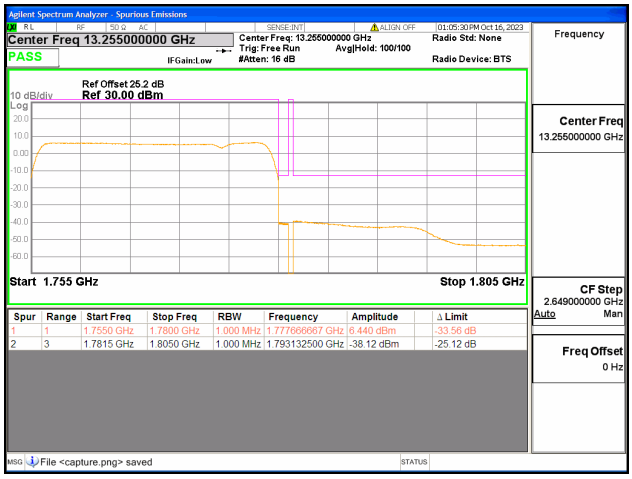
66C / 20+15MHz / High CH / QPSK / 100#0-75#0



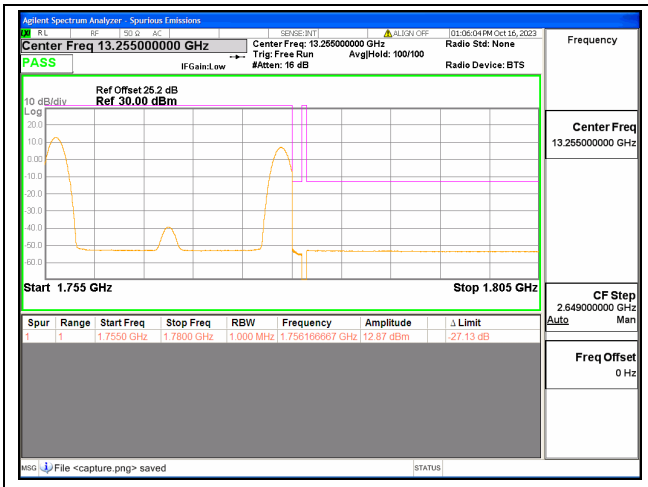
66C / 20+5MHz / High CH / QPSK / 1#0-1#24



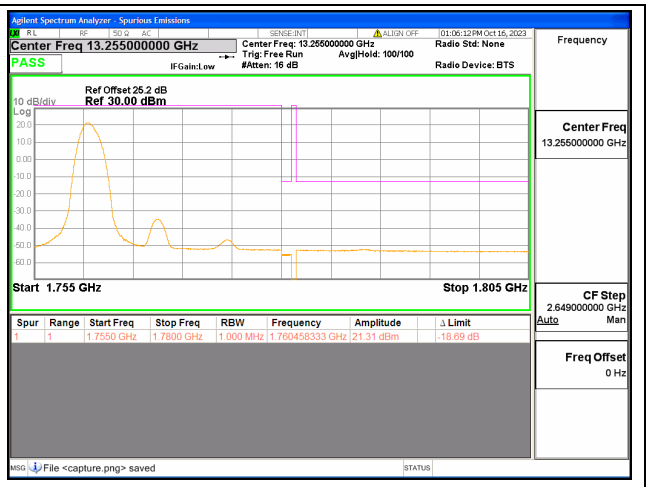
66C / 20+5MHz / High CH / QPSK / 1#99-1#0



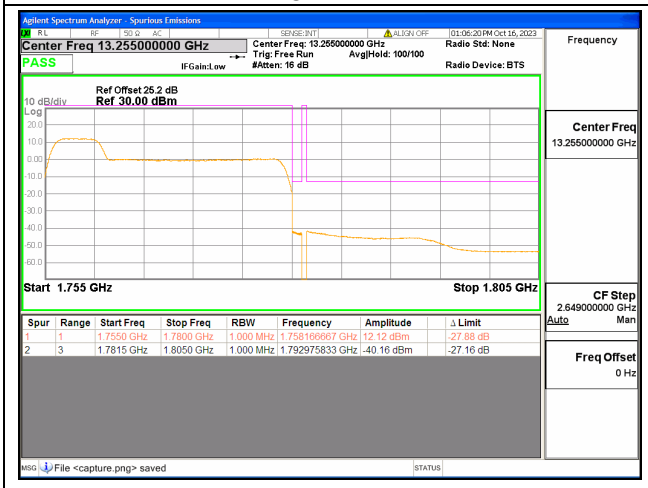
66C / 20+5MHz / High CH / QPSK / 100#0-25#0



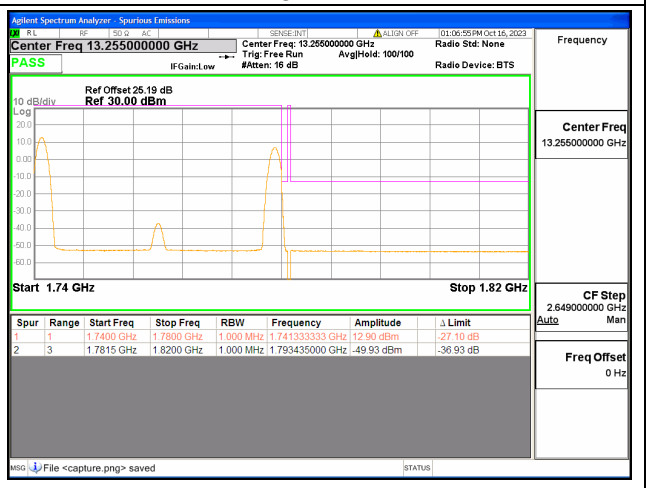
66C / 5+20MHz / High CH / QPSK / 1#0-1#99



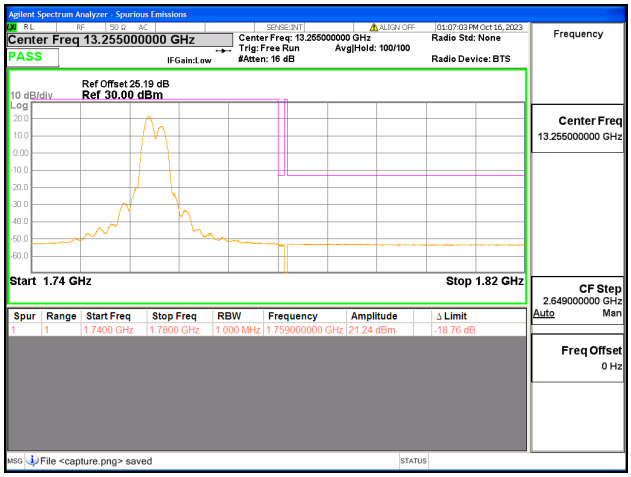
66C / 5+20MHz / High CH / QPSK / 1#24-1#0



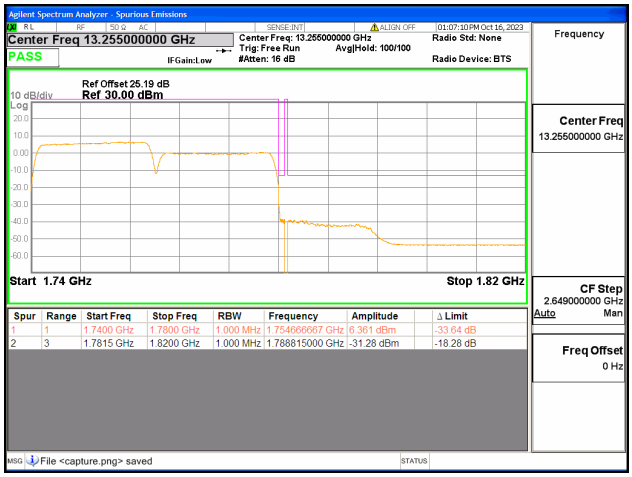
66C / 5+20MHz / High CH / QPSK / 25#0-100#0



66C / 20+20MHz / High CH / QPSK / 1#0-1#99



66C / 20+20MHz / High CH / QPSK / 1#99-1#0



66C / 20+20MHz / High CH / QPSK / 100#0-100#0

2.6. Radiated Spurious Emissions

2.6.1. Requirement

According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

Additional requirement for LTE Band 2:
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. This calculated to be -13dBm.

Additional requirement for LTE Band 4/66:
The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB. This calculated to be -13dBm.

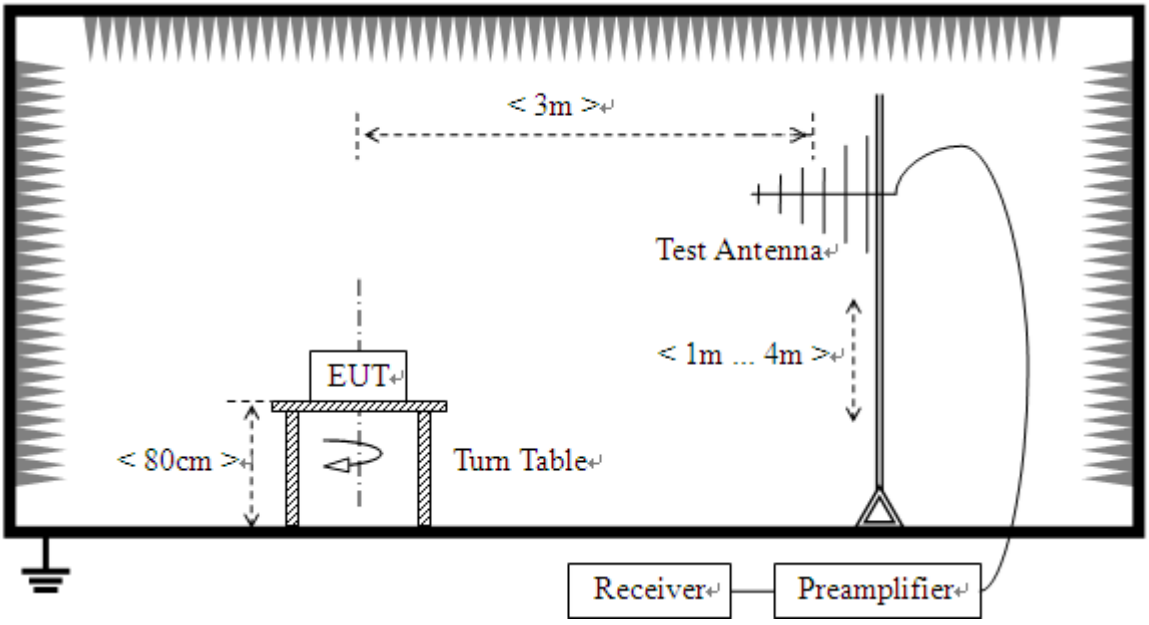
Additional requirement for LTE Band 5:
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. This calculated to be -13dBm.

Additional requirement for LTE Band 12:
For operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. This calculated to be -13dBm

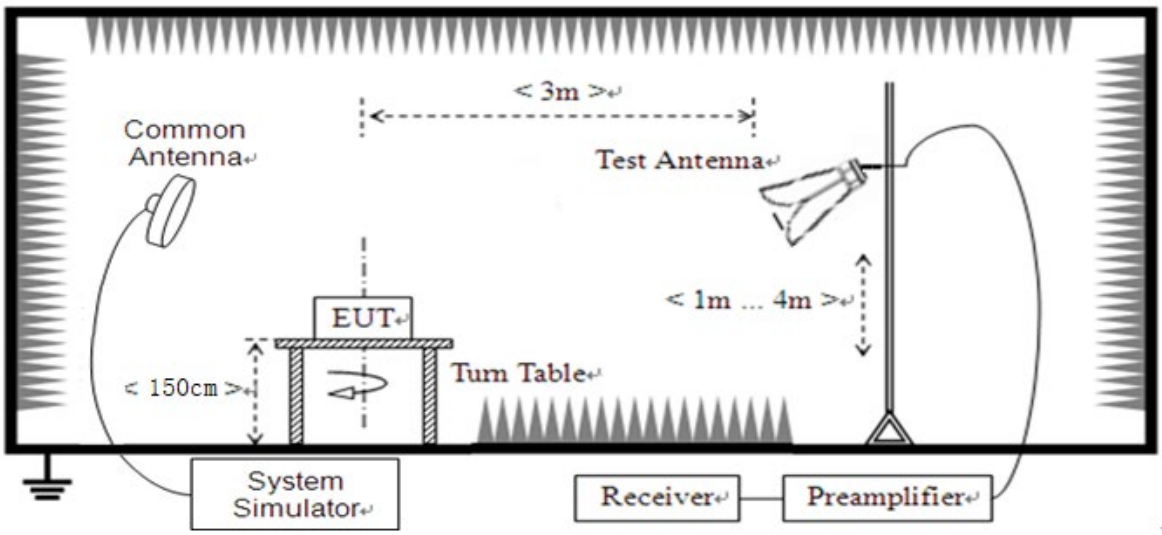
Additional requirement for LTE Band 13
According to FCC section 27.53(c)(2), any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB in a 100kHz bandwidth. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed. This calculated to be -13dBm.

Additional requirement for LTE Band 48:
According to FCC section 96.41(e), the conducted power of emissions below 3530 MHz or above 3720 MHz shall not exceed −40dBm/MHz.

2.6.2. Test Description



(For the test frequency from 30MHz to1GHz)



(For the test frequency above 1GHz)

The EUT is located in a 3m Full-Anechoic Chamber, the cable loss, air loss and so on of the site as factors are pre-calibrated using the "Substitution" method, and calculated to correct the reading.

A call is established between the EUT and the SS via a Common Antenna. The EUT is commanded by the SS to operate at the maximum and minimum output power, and only the test result of the maximum output power was recorded.

In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test

Antenna (above 1GHz) are used. Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground and the Turn Table is actuated to turn from 0° to 360°to determine the maximum value of the radiated power. The emission levels at both horizontal and vertical polarizations should be tested. The Filters consists of Notch Filters and High Pass Filter.

Note: When doing measurements above 1GHz, the EUT has been within the 3dB cone width of the horn antenna during horizontal antenna.

2.6.3. Test Procedure

KDB 971168 D01v03 Section 5.8and ANSI/TIA-603-E-2016.

2.6.4. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. The lowest, middle and highest channels are tested to verify the out of band emissions.

The substitution corrections are obtained as described below:

$A_{SUBST} = P_{SUBST_TX} - P_{SUBST_RX} - L_{SUBST_CABLES} + G_{SUBST_TX_ANT}$

$A_{TOT} = L_{CABLES} + A_{SUBST}$

Where A_{SUBST} is the final substitution correction including receive antenna gain.

P_{SUBST_TX} is signal generator level,

P_{SUBST_RX} is receiver level,

L_{SUBST_CABLES} is cable losses including TX cable,

$G_{SUBST_TX_ANT}$ is substitution antenna gain.

A_{TOT} is total correction factor including cable loss and substitution correction

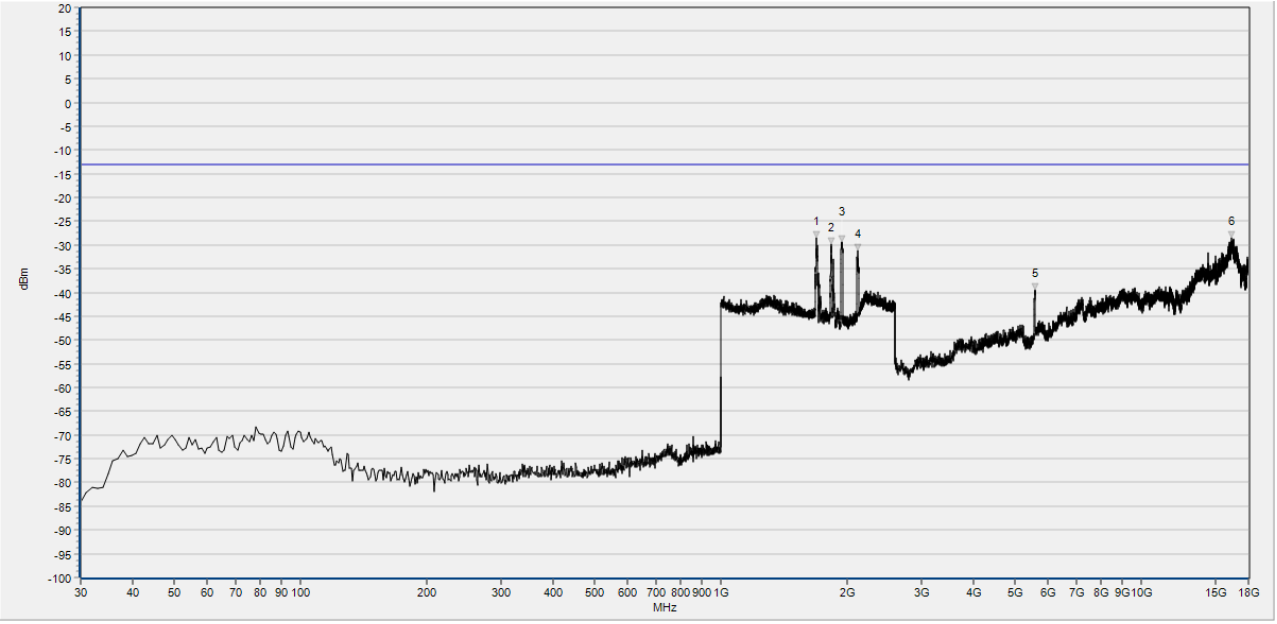
During the test, the data of A_{TOT} was added in the test spectrum analyze, so spectrum analyze reading is the final values which contain the data of A_{TOT}.

Note1: The power of the EUT transmitting frequency should be ignored.

Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

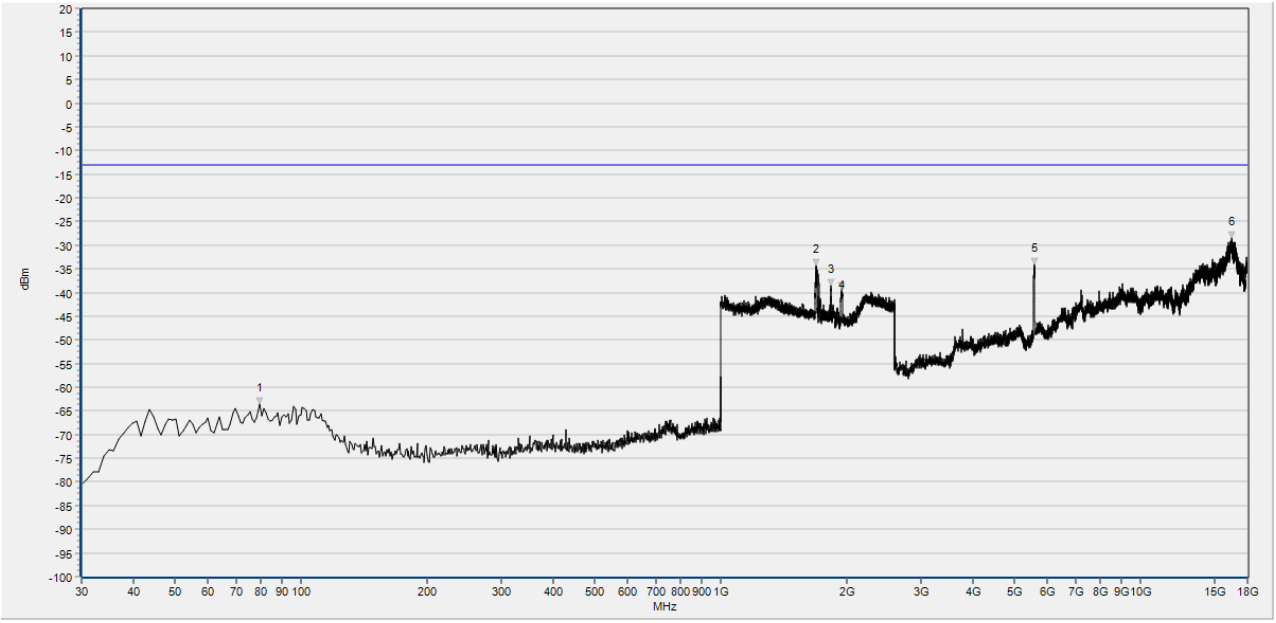
Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band; only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.

Note 4: N/A means the frequency is the basic frequency or the base station frequency; they are no need to verdict.



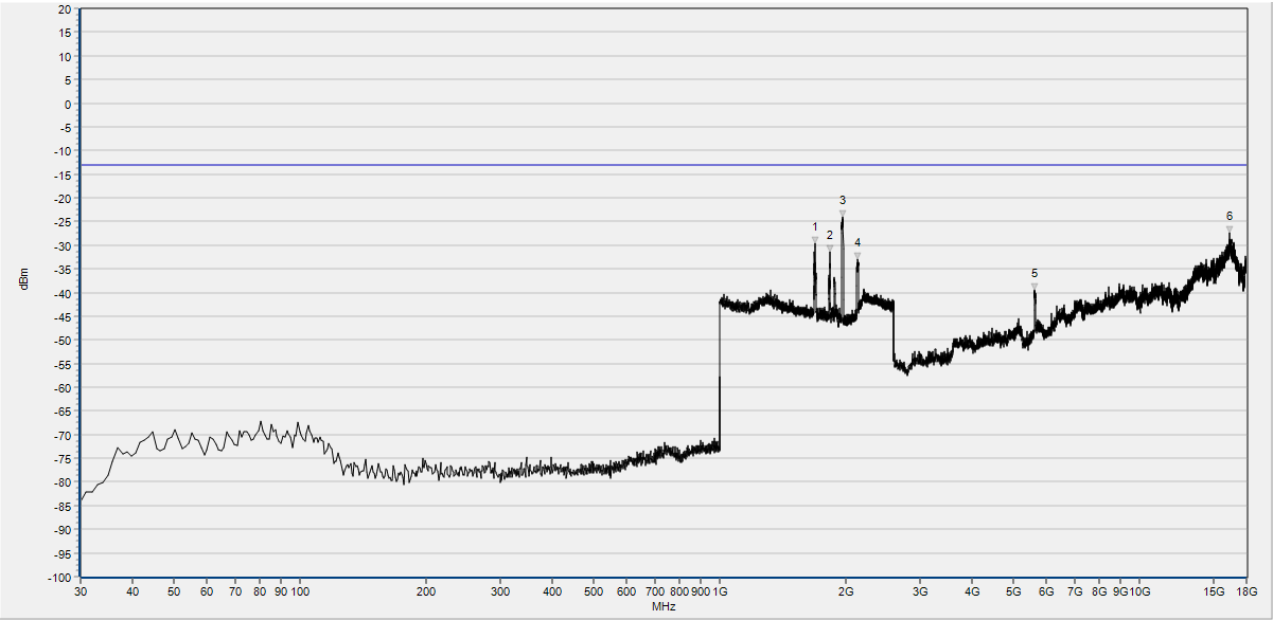
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1691.477	-28.43	-13.00	355.6	H	NA
2	1830.412	-29.88	-13.00	114.9	H	NA
3	1937.335	-29.41	-13.00	3.6	H	NA
4	2117.247	-31.11	-13.00	220.7	H	NA
5	5582.542	-39.51	-13.00	105.9	H	PASS
6	16398.109	-28.41	-13.00	345.0	H	PASS

2A-4A Low 30M-18G H



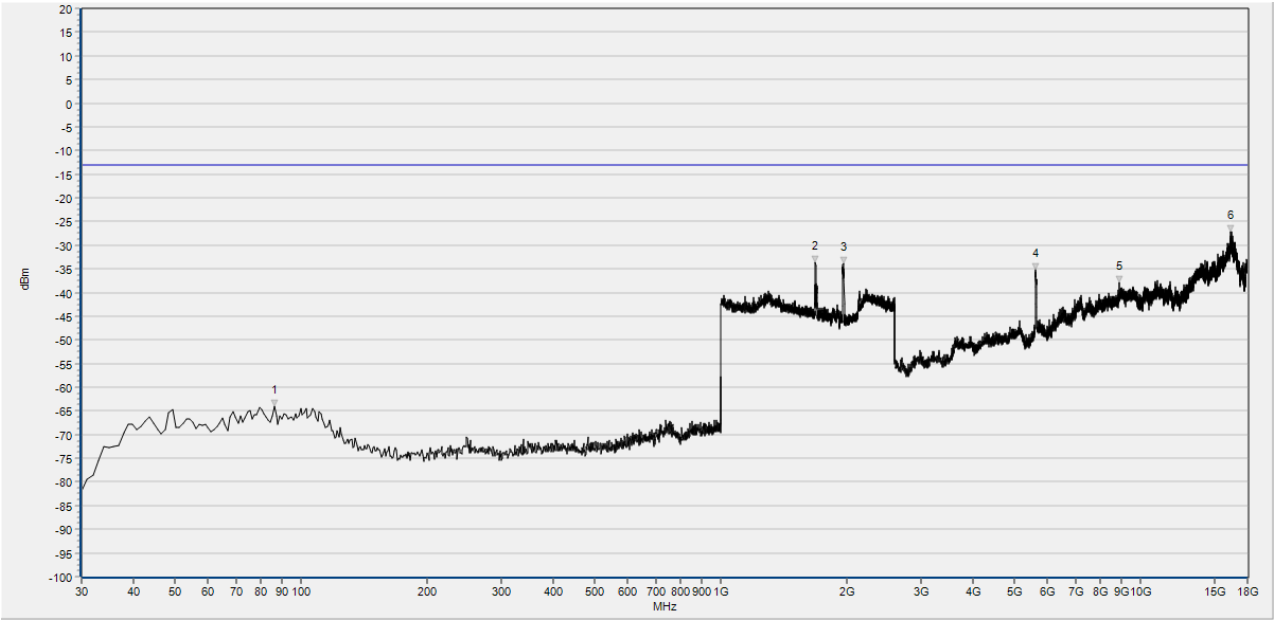
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	79.470	-63.49	-13.00	360.0	V	PASS
2	1692.757	-34.23	-13.00	304.0	V	NA
3	1829.132	-38.63	-13.00	65.5	V	NA
4	1945.658	-39.25	-13.00	93.7	V	NA
5	5593.744	-34.01	-13.00	360.0	V	PASS
6	16543.735	-28.54	-13.00	70.4	V	PASS

2A-4A Low 30M-18G V



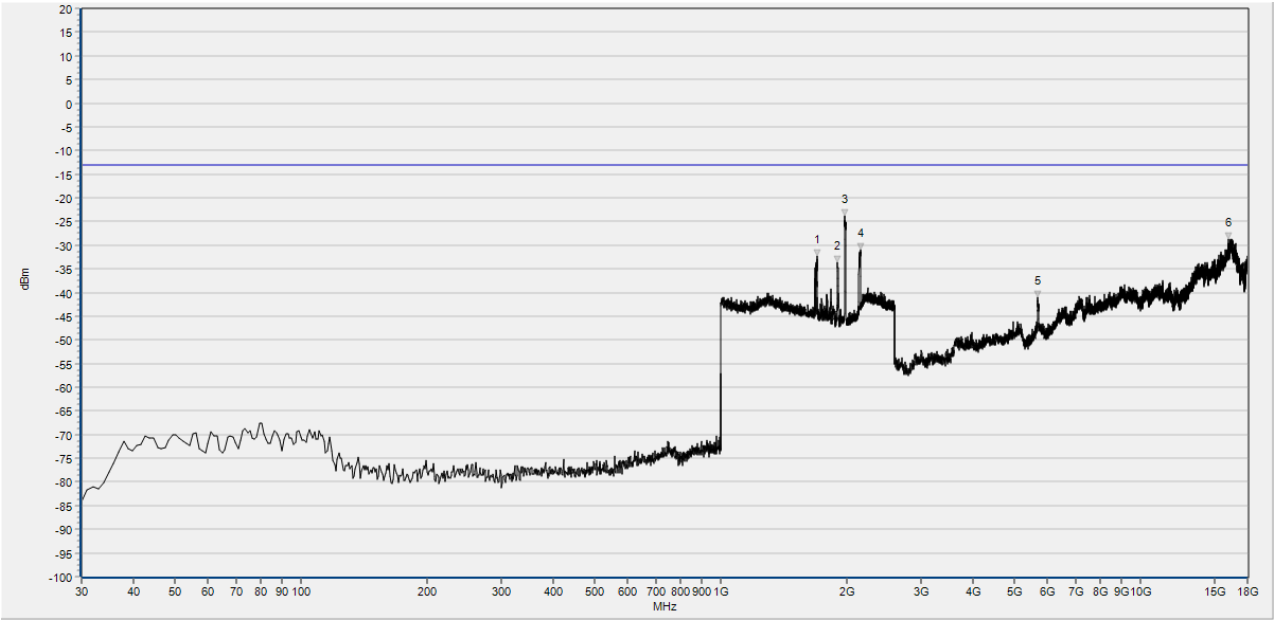
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1683.794	-29.67	-13.00	1.4	H	NA
2	1829.772	-31.41	-13.00	298.4	H	PASS
3	1964.226	-24.01	-13.00	214.4	H	NA
4	2135.814	-32.88	-13.00	1.4	H	NA
5	5624.550	-39.34	-13.00	112.2	H	PASS
6	16414.912	-27.42	-13.00	112.2	H	PASS

2A-4A Mid 30M-18G H



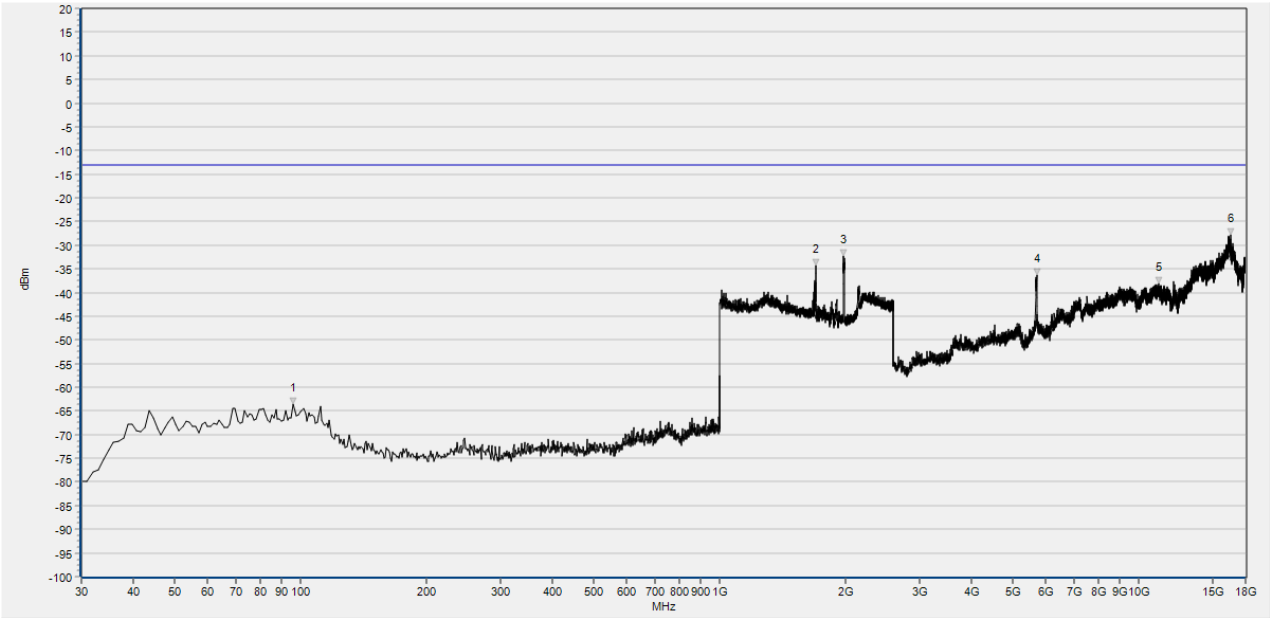
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	86.260	-63.92	-13.00	0.0	V	PASS
2	1682.513	-33.73	-13.00	100.5	V	NA
3	1957.823	-33.85	-13.00	78.1	V	NA
4	5627.350	-35.21	-13.00	341.3	V	PASS
5	8920.749	-37.99	-13.00	56.1	V	PASS
6	16445.717	-27.21	-13.00	230.4	V	PASS

2A-4A Mid 30M-18G V



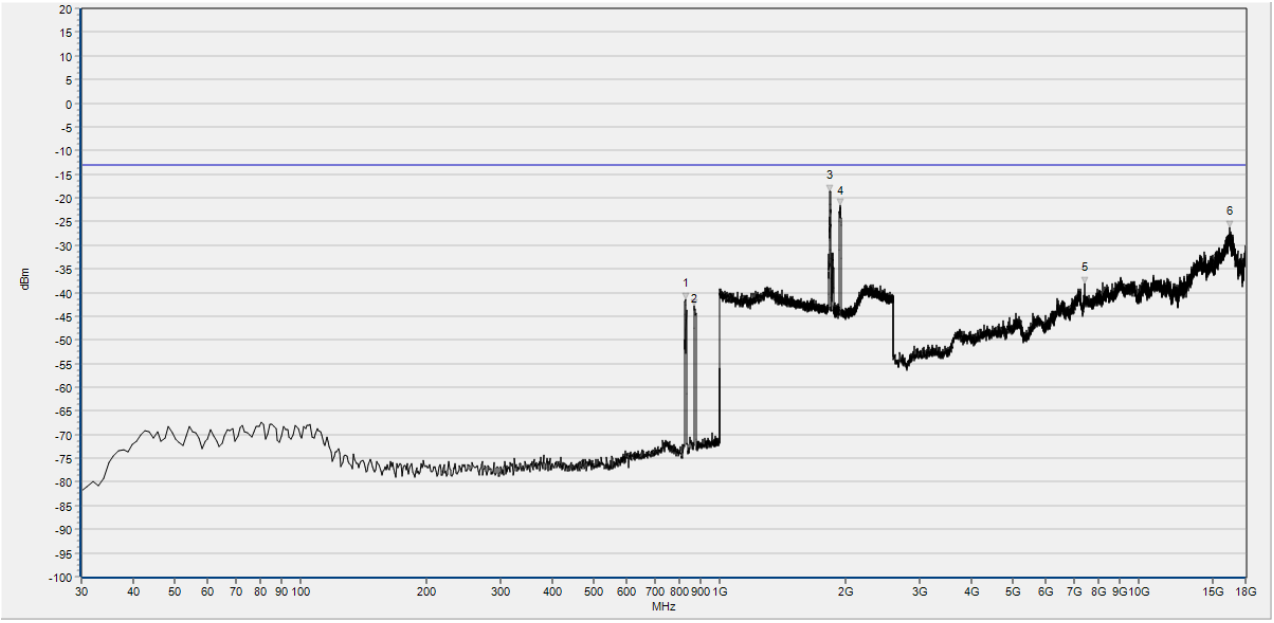
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1695.318	-32.20	-13.00	102.2	H	NA
2	1900.200	-33.58	-13.00	293.6	H	NA
3	1973.189	-23.81	-13.00	293.6	H	NA
4	2151.180	-31.05	-13.00	353.6	H	NA
5	5694.563	-40.97	-13.00	137.8	H	PASS
6	16188.071	-28.68	-13.00	2.6	H	PASS

2A-4A High 30M-18G H



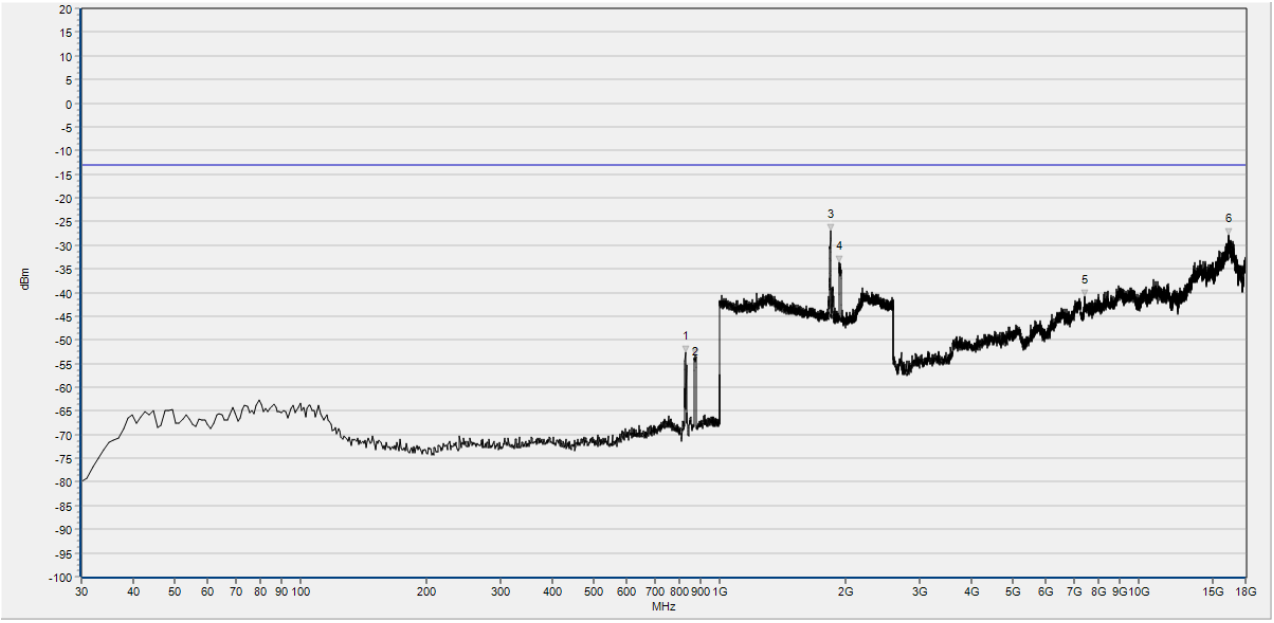
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	95.960	-63.50	-13.00	0.0	V	PASS
2	1695.318	-34.39	-13.00	316.7	V	NA
3	1977.671	-32.34	-13.00	78.3	V	NA
4	5708.565	-36.23	-13.00	237.8	V	PASS
5	11141.553	-38.07	-13.00	228.9	V	PASS
6	16557.738	-27.83	-13.00	94.2	V	PASS

2A-4A High 30M-18G V



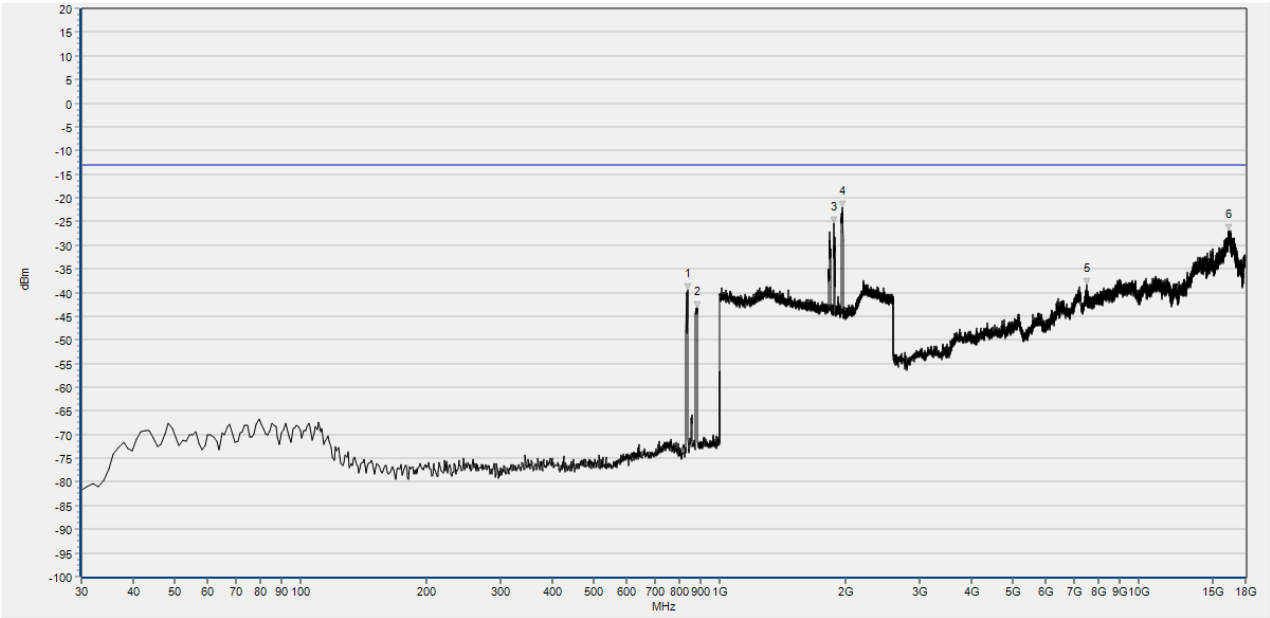
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	828.310	-41.45	-13.00	1.0	H	NA
2	870.020	-42.80	-13.00	296.6	H	NA
3	1836.174	-18.65	-13.00	1.6	H	NA
4	1937.335	-21.50	-13.00	310.6	H	NA
5	7439.280	-38.19	-13.00	276.4	H	PASS
6	16512.930	-26.23	-13.00	27.1	H	PASS

2A-5A Low 30M-18G H



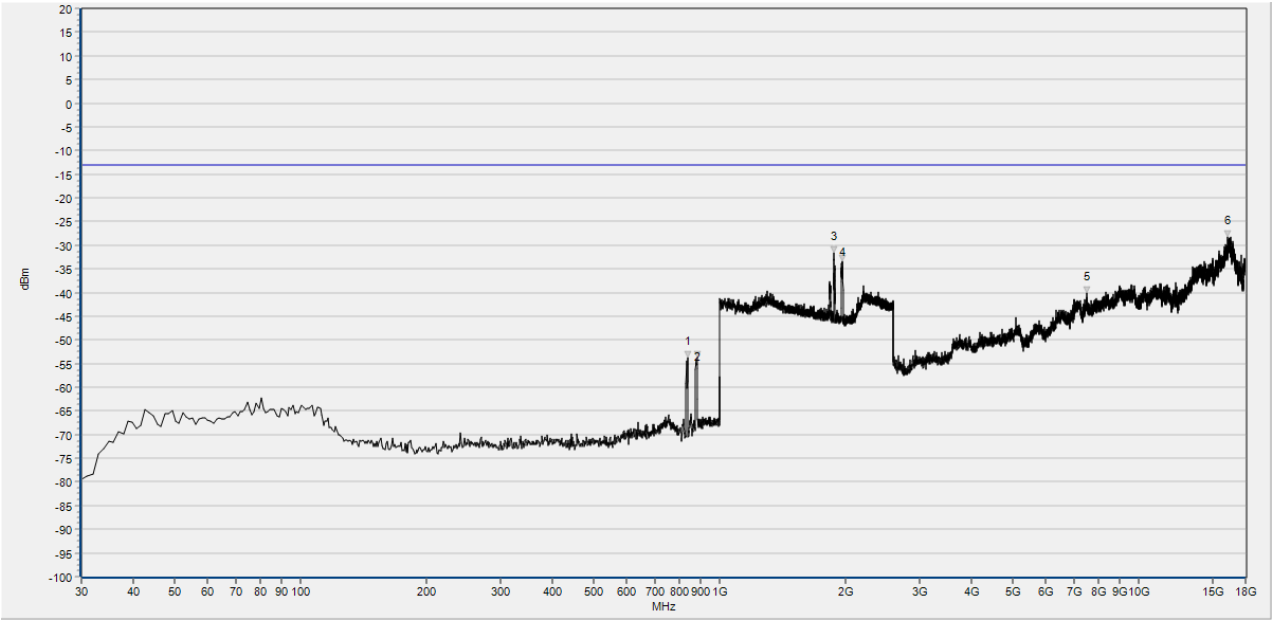
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	828.310	-52.73	-13.00	360.0	V	NA
2	874.870	-53.24	-13.00	101.0	V	NA
3	1837.455	-27.02	-13.00	20.2	V	NA
4	1931.573	-33.54	-13.00	105.3	V	NA
5	7439.280	-40.80	-13.00	296.6	V	PASS
6	16384.106	-27.89	-13.00	296.6	V	PASS

2A-5A Low 30M-18G V



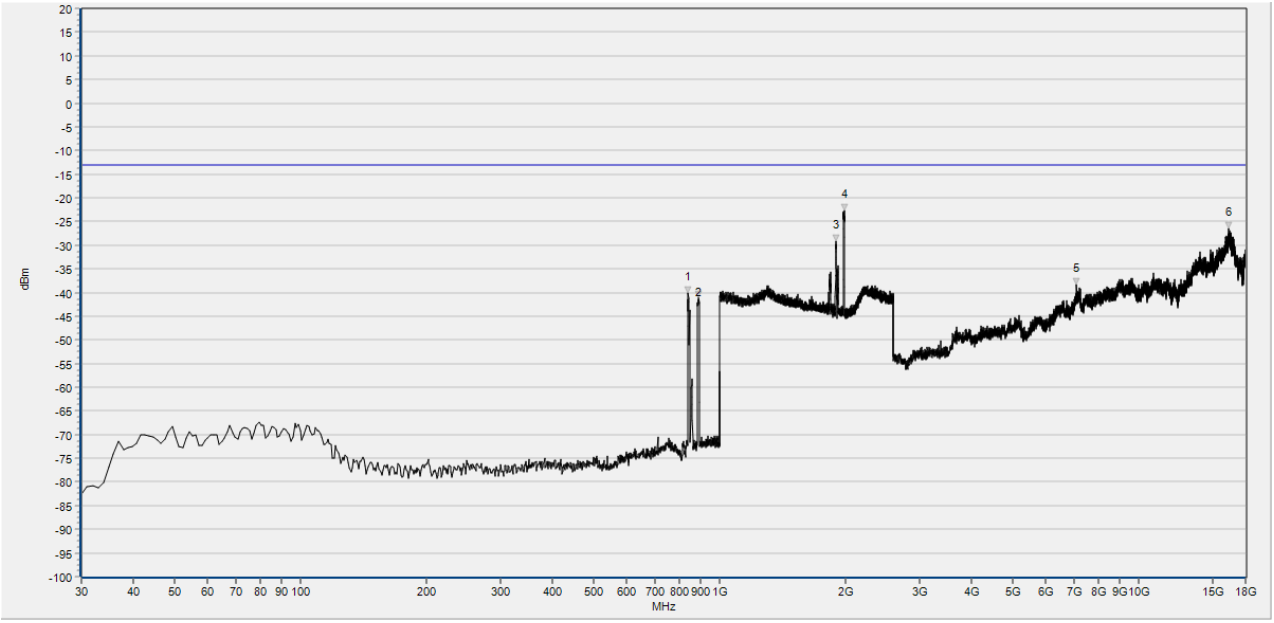
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	838.980	-39.51	-13.00	359.0	H	NA
2	883.600	-43.24	-13.00	320.1	H	NA
3	1872.669	-25.31	-13.00	117.8	H	NA
4	1963.585	-21.93	-13.00	212.3	H	NA
5	7520.495	-38.35	-13.00	255.1	H	PASS
6	16372.904	-27.04	-13.00	228.6	H	PASS

2A-5A Mid 30M-18G H



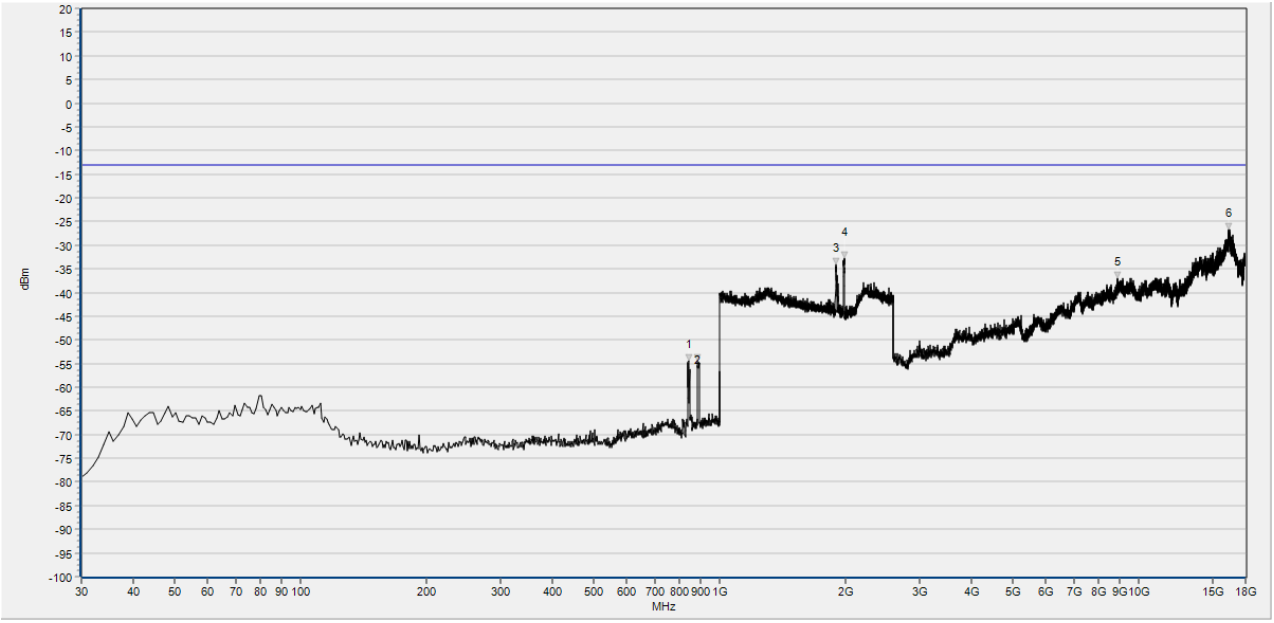
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	838.980	-53.65	-13.00	0.4	V	NA
2	882.630	-53.84	-13.00	149.0	V	NA
3	1872.669	-31.69	-13.00	95.1	V	NA
4	1963.585	-33.51	-13.00	76.3	V	NA
5	7520.495	-40.19	-13.00	350.9	V	PASS
6	16314.093	-28.36	-13.00	101.6	V	PASS

2A-5A Mid 30M-18G V



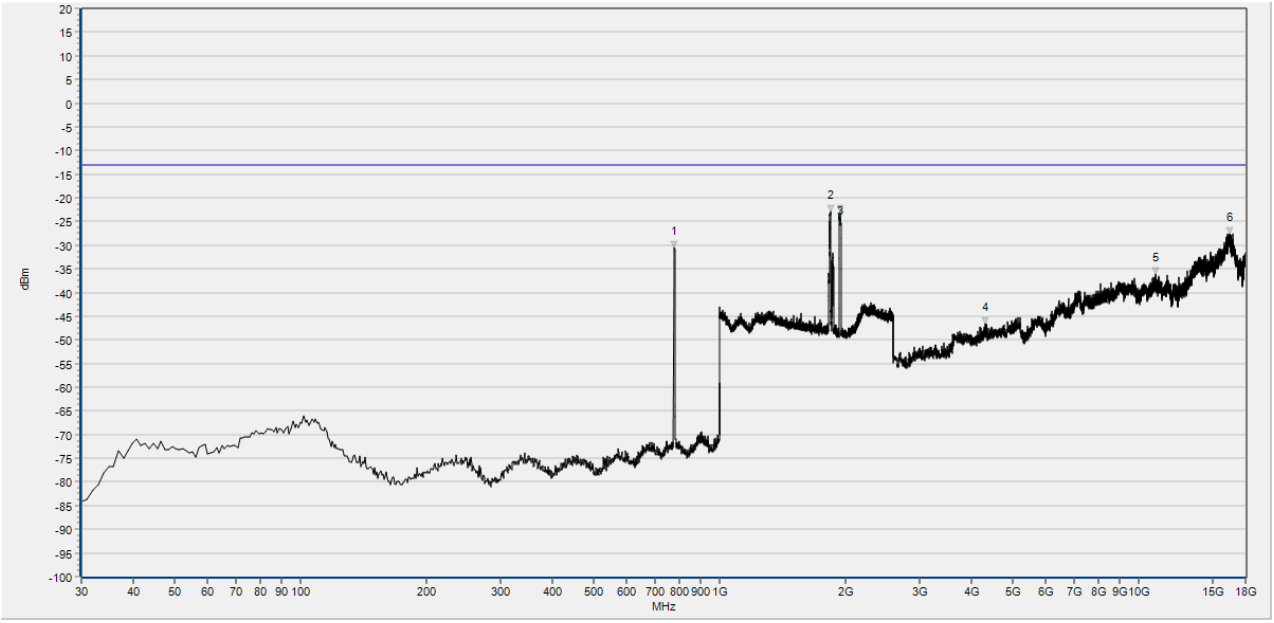
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	841.890	-40.09	-13.00	5.3	H	NA
2	892.330	-41.11	-13.00	52.1	H	NA
3	1896.359	-29.08	-13.00	104.3	H	NA
4	1983.433	-22.66	-13.00	201.4	H	NA
5	7117.221	-38.34	-13.00	335.0	H	PASS
6	16442.917	-26.51	-13.00	53.8	H	PASS

2A-5A High 30M-18G H



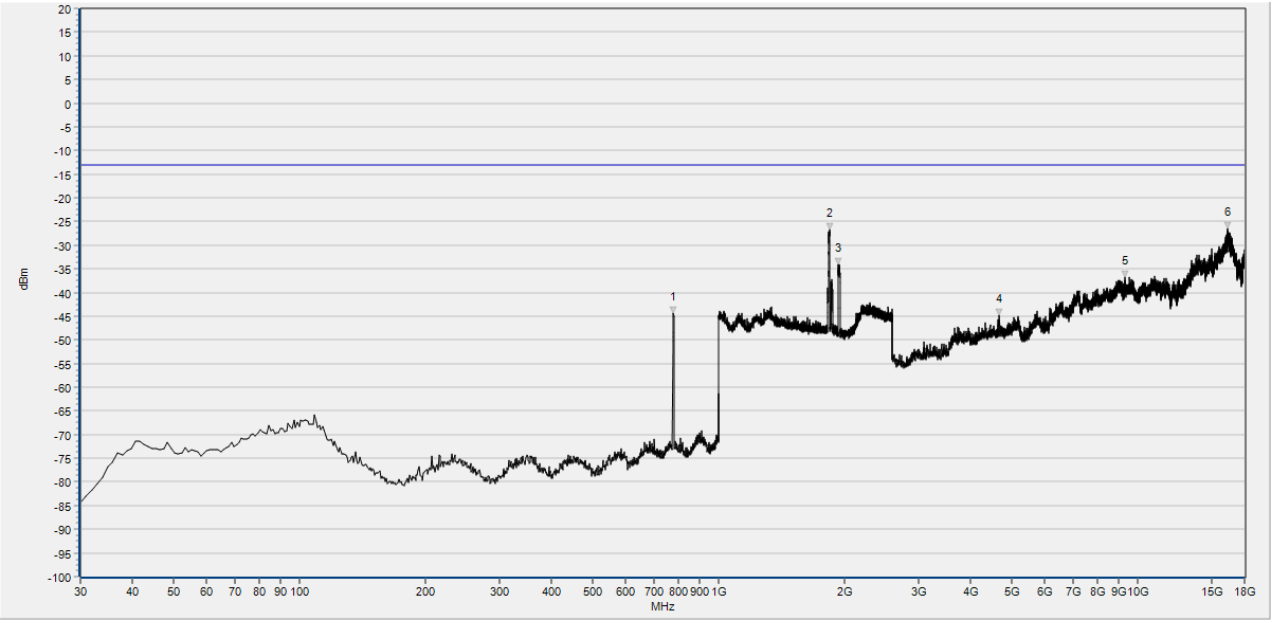
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	842.860	-54.43	-13.00	350.2	V	NA
2	886.510	-54.36	-13.00	234.5	V	NA
3	1894.438	-34.18	-13.00	99.6	V	NA
4	1984.074	-32.63	-13.00	48.9	V	NA
5	8906.747	-37.05	-13.00	342.3	V	PASS
6	16389.707	-26.81	-13.00	8.4	V	PASS

2A-5A High 30M-18G V



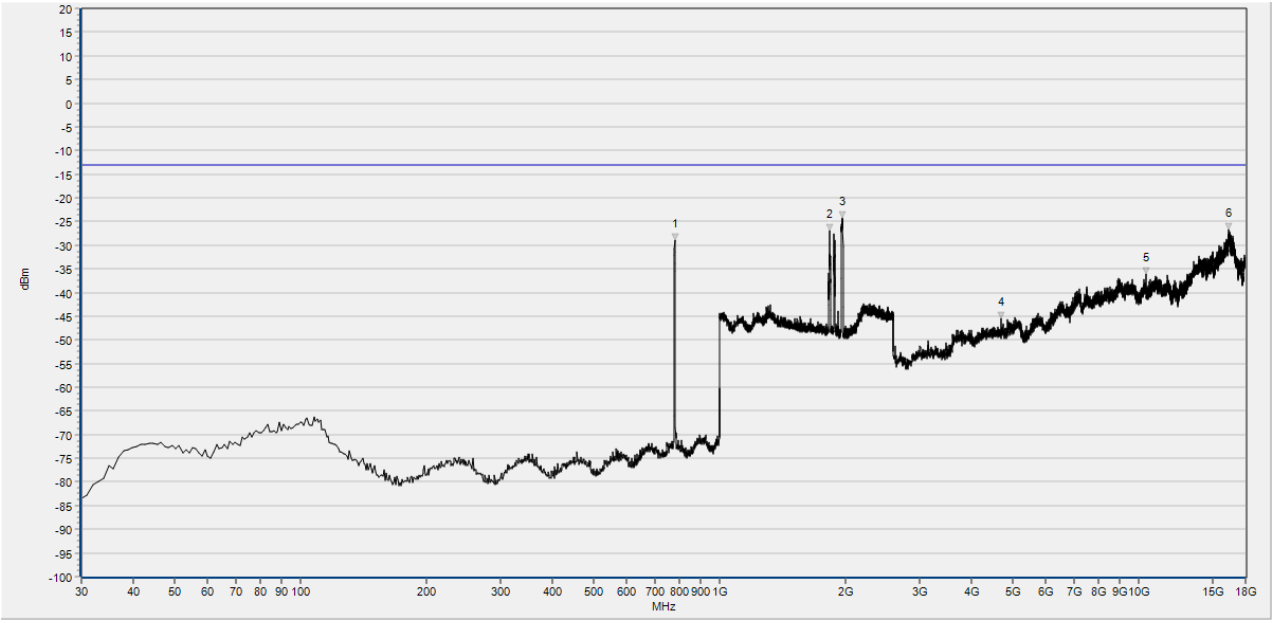
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	780.780	-30.41	-13.00	0.1	H	NA
2	1838.095	-22.88	-13.00	1.4	H	NA
3	1940.536	-22.84	-13.00	56.5	H	NA
4	4297.109	-46.59	-13.00	168.1	H	PASS
5	10965.121	-36.12	-13.00	124.6	H	PASS
6	16543.735	-27.50	-13.00	159.4	H	PASS

2A-13A Low 30M-18G H



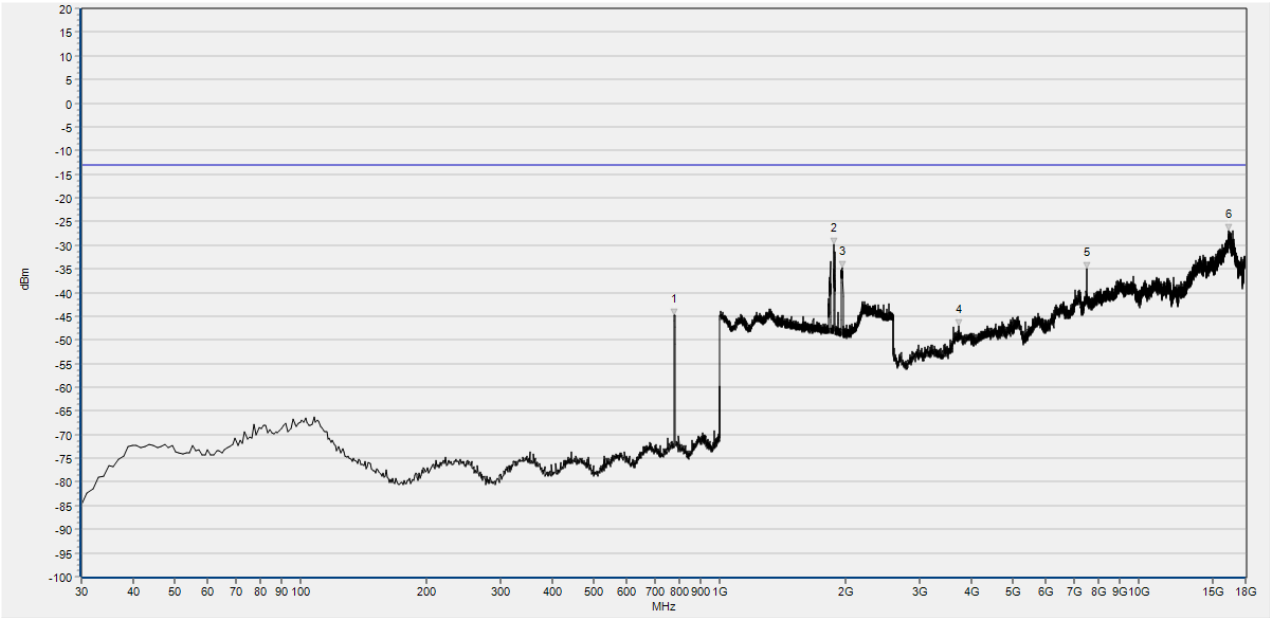
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	780.780	-44.37	-13.00	45.9	V	NA
2	1838.095	-26.78	-13.00	70.9	V	NA
3	1932.213	-34.16	-13.00	111.4	V	NA
4	4683.579	-44.82	-13.00	294.2	V	PASS
5	9326.823	-36.70	-13.00	242.3	V	PASS
6	16428.914	-26.45	-13.00	181.8	V	PASS

2A-13A Low 30M-18G V



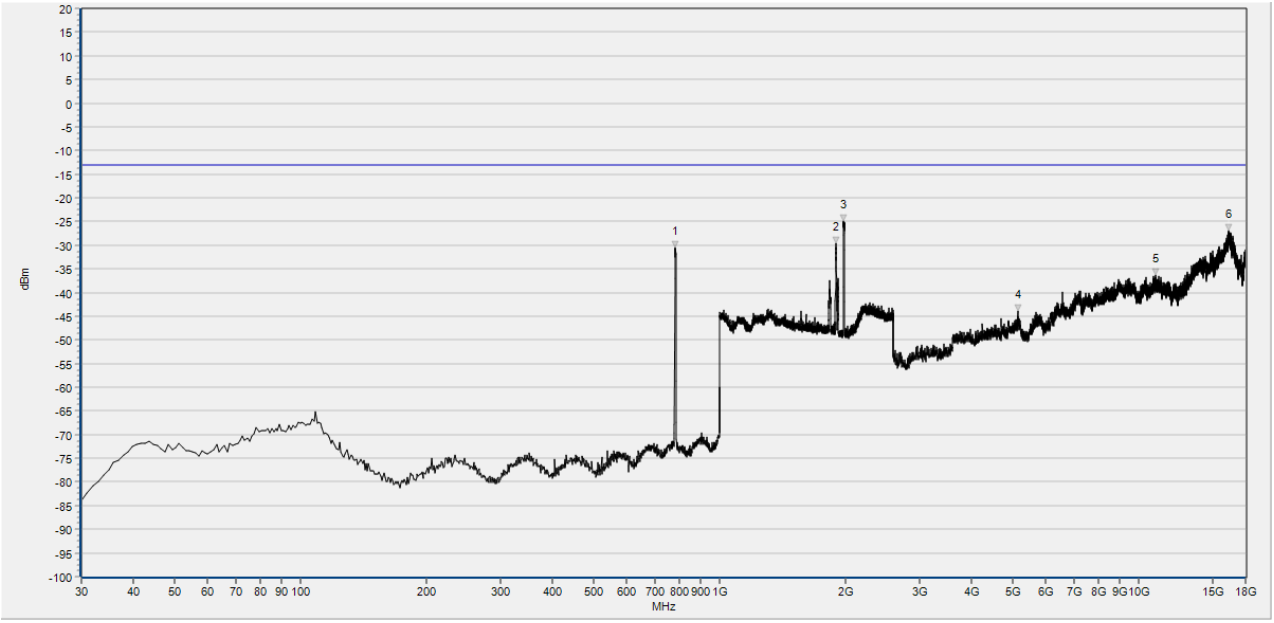
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	781.750	-29.04	-13.00	353.6	H	NA
2	1834.254	-26.85	-13.00	358.6	H	NA
3	1964.866	-24.32	-13.00	205.4	H	NA
4	4691.980	-45.53	-13.00	347.8	H	PASS
5	10416.221	-36.04	-13.00	8.6	H	PASS
6	16392.508	-26.62	-13.00	63.7	H	PASS

2A-13A Mid 30M-18G H



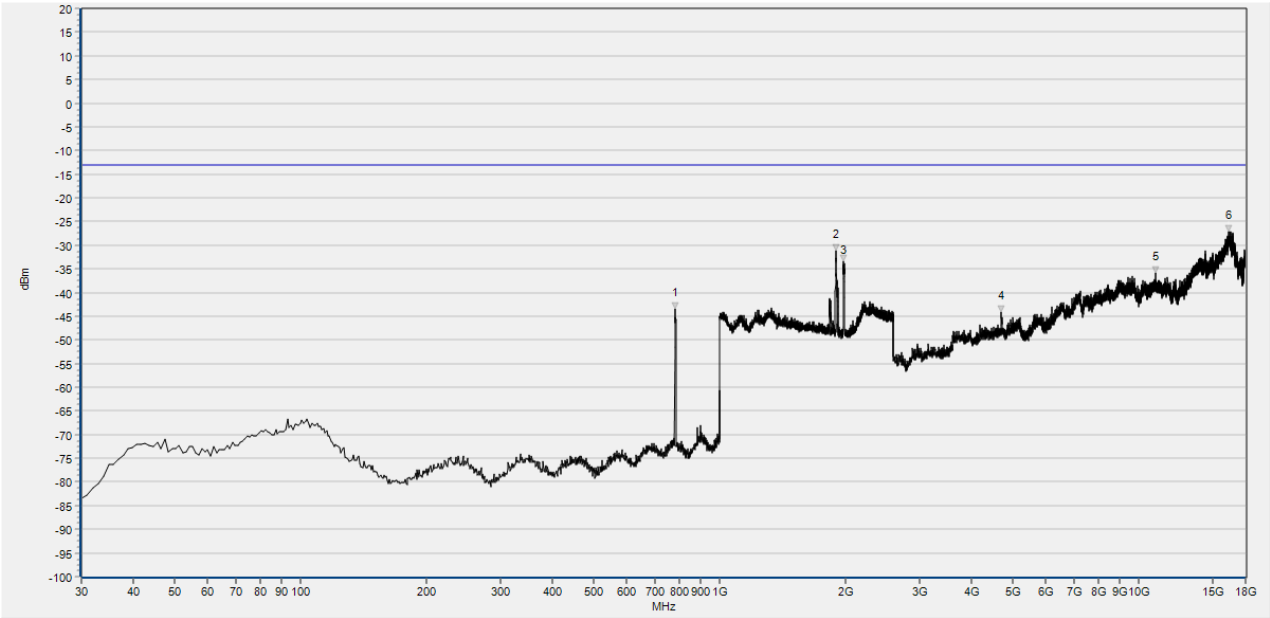
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	780.780	-44.73	-13.00	32.8	V	NA
2	1872.669	-29.83	-13.00	79.8	V	NA
3	1957.823	-34.85	-13.00	143.0	V	NA
4	3725.805	-47.04	-13.00	64.8	V	PASS
5	7520.495	-35.04	-13.00	274.6	V	PASS
6	16395.308	-26.86	-13.00	351.4	V	PASS

2A-13A Mid 30M-18G V



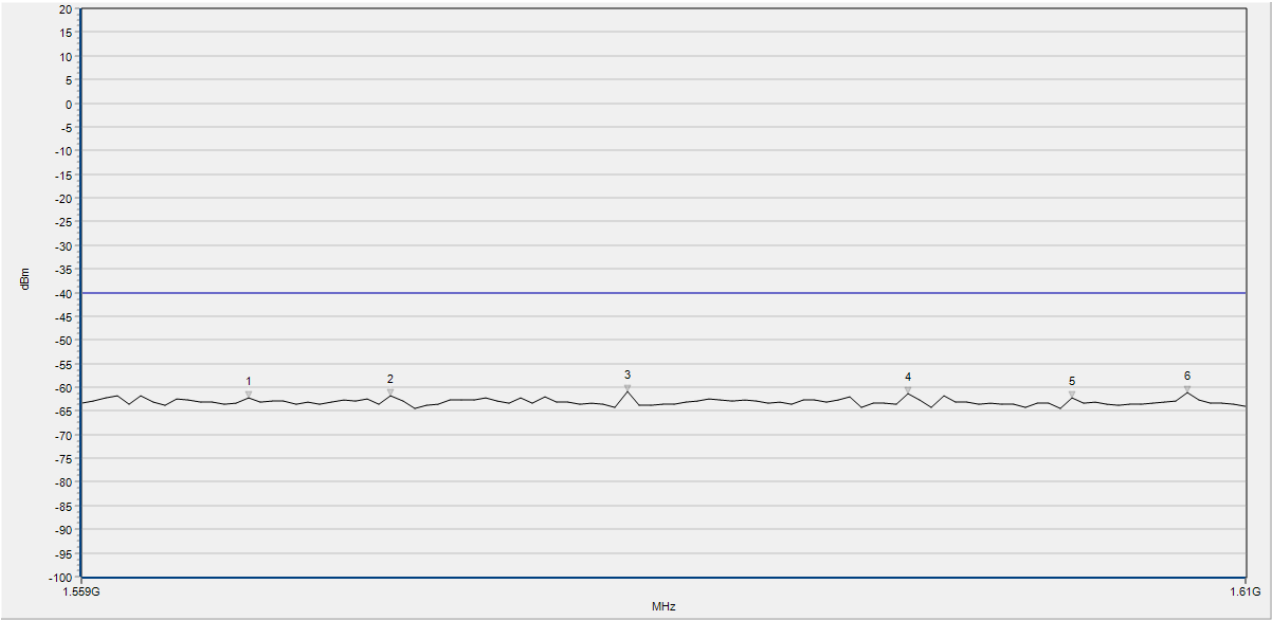
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	782.720	-30.55	-13.00	357.3	H	NA
2	1898.920	-29.50	-13.00	95.6	H	NA
3	1975.110	-24.97	-13.00	58.3	H	NA
4	5142.862	-43.93	-13.00	211.1	H	PASS
5	10965.121	-36.28	-13.00	81.3	H	PASS
6	16440.116	-26.98	-13.00	168.1	H	PASS

2A-13A High 30M-18G H



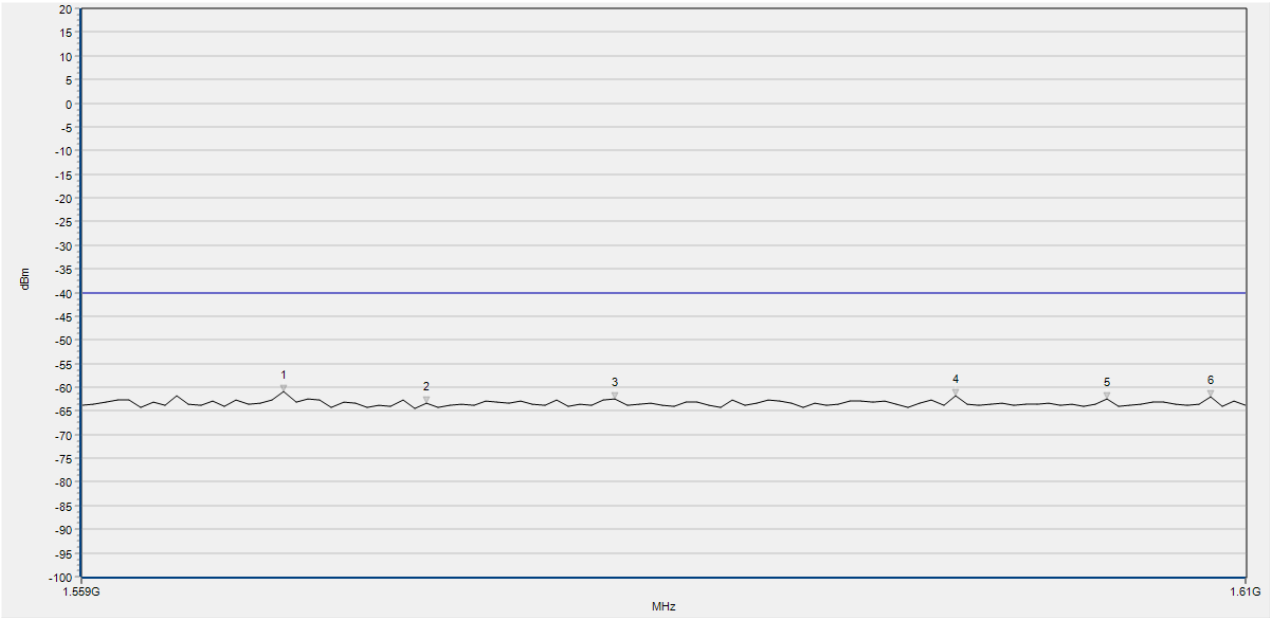
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	782.720	-43.39	-13.00	5.3	V	NA
2	1897.639	-31.25	-13.00	77.9	V	NA
3	1978.311	-33.32	-13.00	130.5	V	NA
4	4705.983	-44.18	-13.00	309.2	V	PASS
5	10981.924	-35.97	-13.00	107.9	V	PASS
6	16414.912	-27.20	-13.00	145.5	V	PASS

2A-13A High 30M-18G V



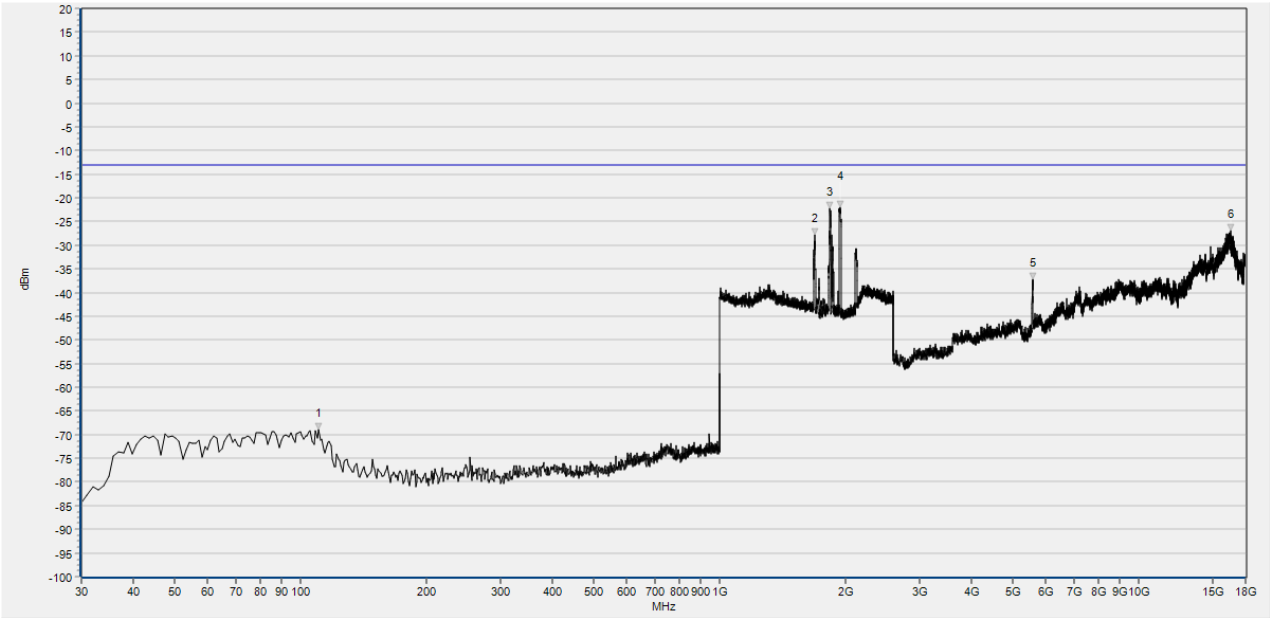
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1566.212	-62.31	-40.00	337.4	H	PASS
2	1572.394	-61.68	-40.00	219.9	H	PASS
3	1582.697	-60.90	-40.00	298.4	H	PASS
4	1595.061	-61.37	-40.00	127.3	H	PASS
5	1602.273	-62.23	-40.00	227.1	H	PASS
6	1607.424	-61.19	-40.00	180.7	H	PASS

2A-13A 1559-1610MHz H



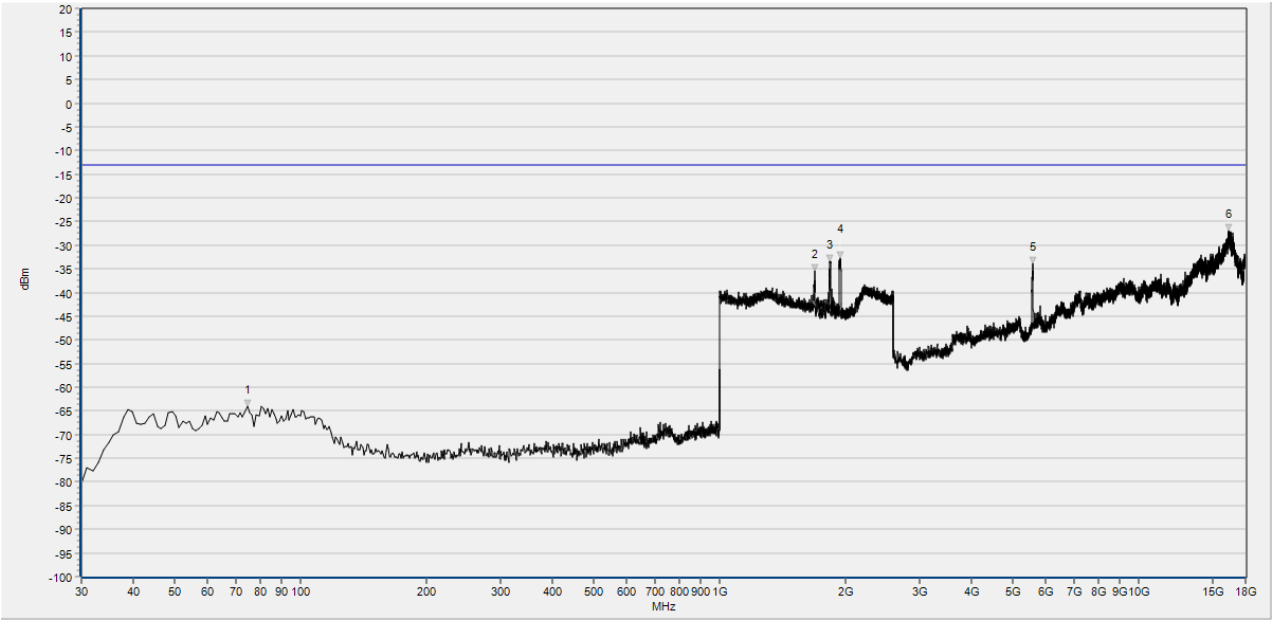
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1567.758	-60.90	-40.00	185.7	V	PASS
2	1573.939	-63.36	-40.00	32.8	V	PASS
3	1582.182	-62.54	-40.00	326.0	V	PASS
4	1597.121	-61.71	-40.00	179.4	V	PASS
5	1603.818	-62.46	-40.00	332.3	V	PASS
6	1608.455	-61.97	-40.00	332.3	V	PASS

2A-13A 1559-1610MHz V



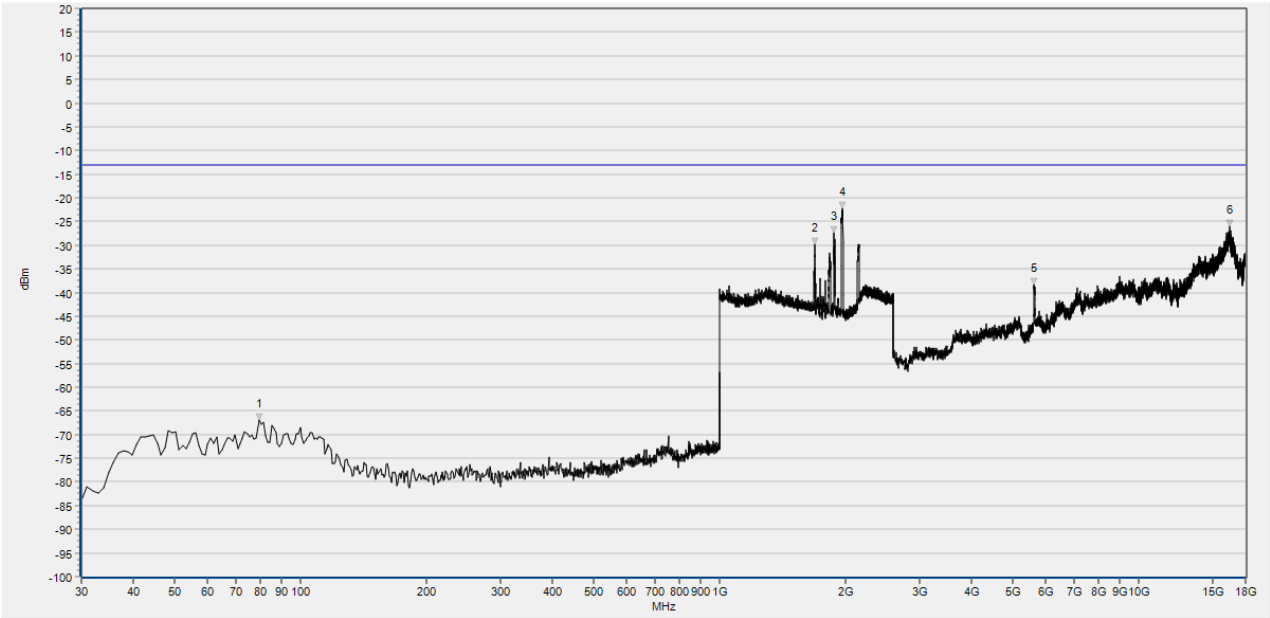
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	110.510	-68.97	-13.00	360.0	H	PASS
2	1687.635	-27.72	-13.00	358.6	H	NA
3	1836.174	-22.25	-13.00	294.1	H	NA
4	1935.414	-22.01	-13.00	275.9	H	NA
5	5590.944	-37.29	-13.00	118.5	H	PASS
6	16554.937	-26.83	-13.00	83.0	H	PASS

2A-66A Low 30M-18G H



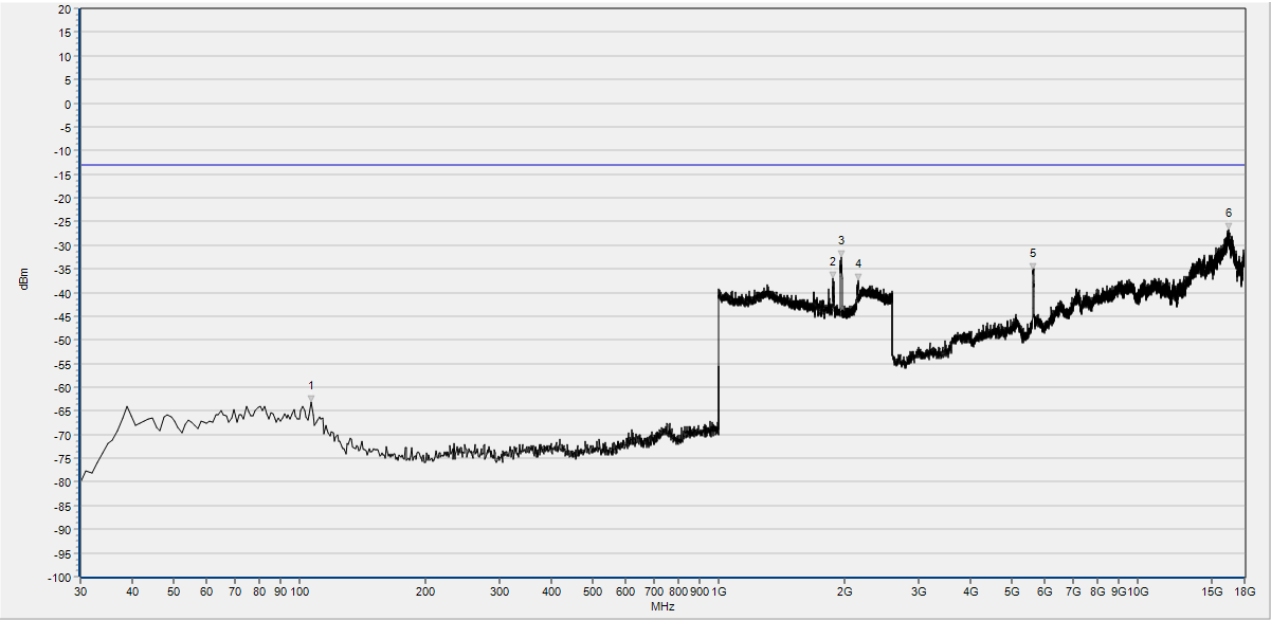
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	74.620	-63.97	-13.00	360.0	V	PASS
2	1688.916	-35.35	-13.00	95.4	V	NA
3	1834.894	-33.51	-13.00	59.6	V	NA
4	1936.054	-32.71	-13.00	131.5	V	NA
5	5588.143	-33.82	-13.00	243.3	V	PASS
6	16409.311	-27.04	-13.00	252.0	V	PASS

2A-66A Low 30M-18G V



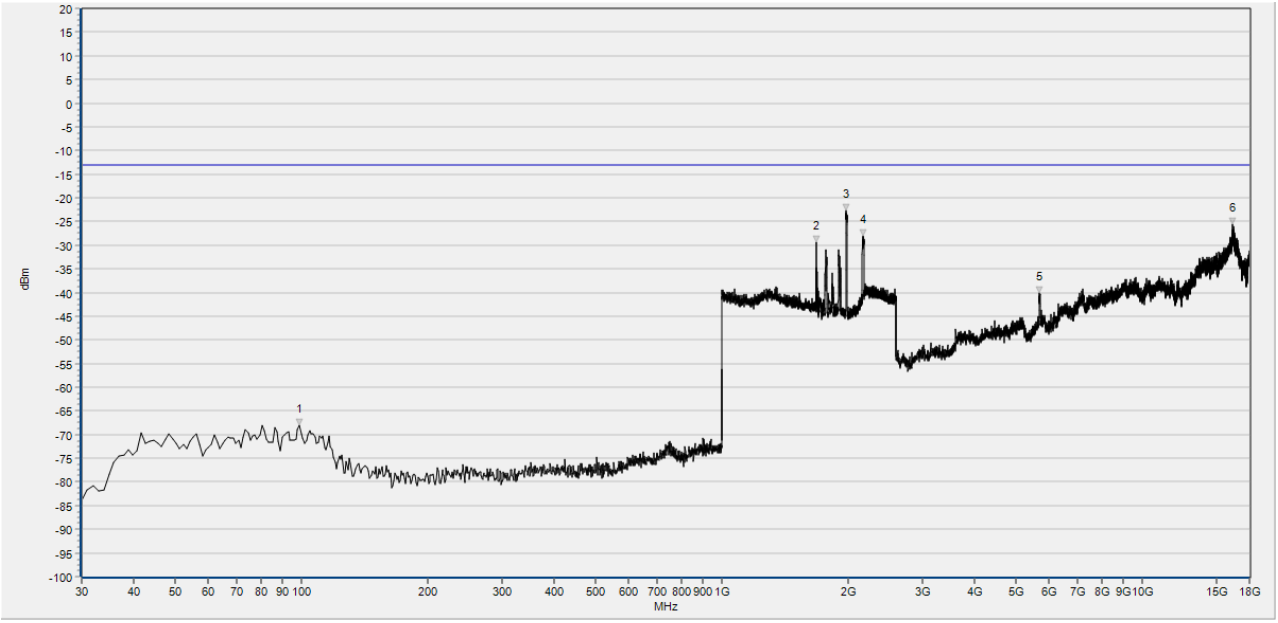
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	79.470	-66.96	-13.00	360.0	H	PASS
2	1686.995	-29.91	-13.00	32.6	H	PASS
3	1872.669	-27.39	-13.00	127.5	H	NA
4	1966.146	-22.26	-13.00	208.1	H	NA
5	5627.350	-38.43	-13.00	43.9	H	PASS
6	16510.129	-26.11	-13.00	17.0	H	PASS

2A-66A Mid 30M-18G H



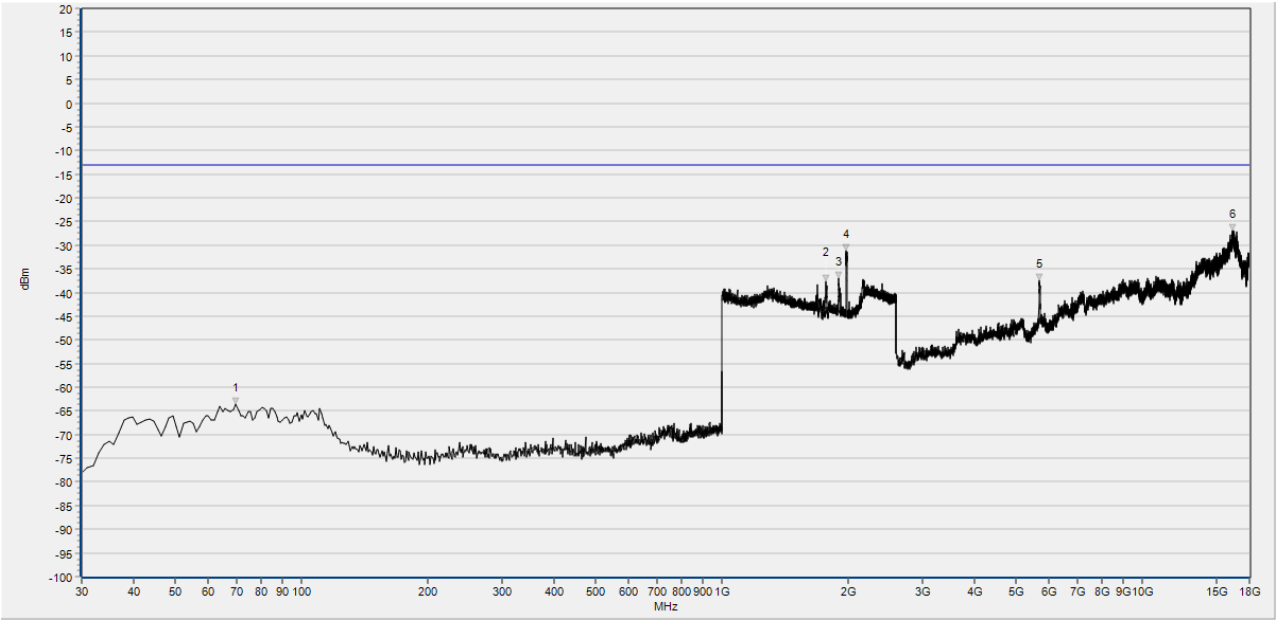
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	106.630	-63.14	-13.00	360.0	V	PASS
2	1872.029	-37.01	-13.00	22.2	V	NA
3	1959.744	-32.61	-13.00	334.1	V	NA
4	2149.900	-37.33	-13.00	234.0	V	NA
5	5627.350	-35.11	-13.00	226.8	V	PASS
6	16479.324	-26.77	-13.00	332.2	V	PASS

2A-66A Mid 30M-18G V



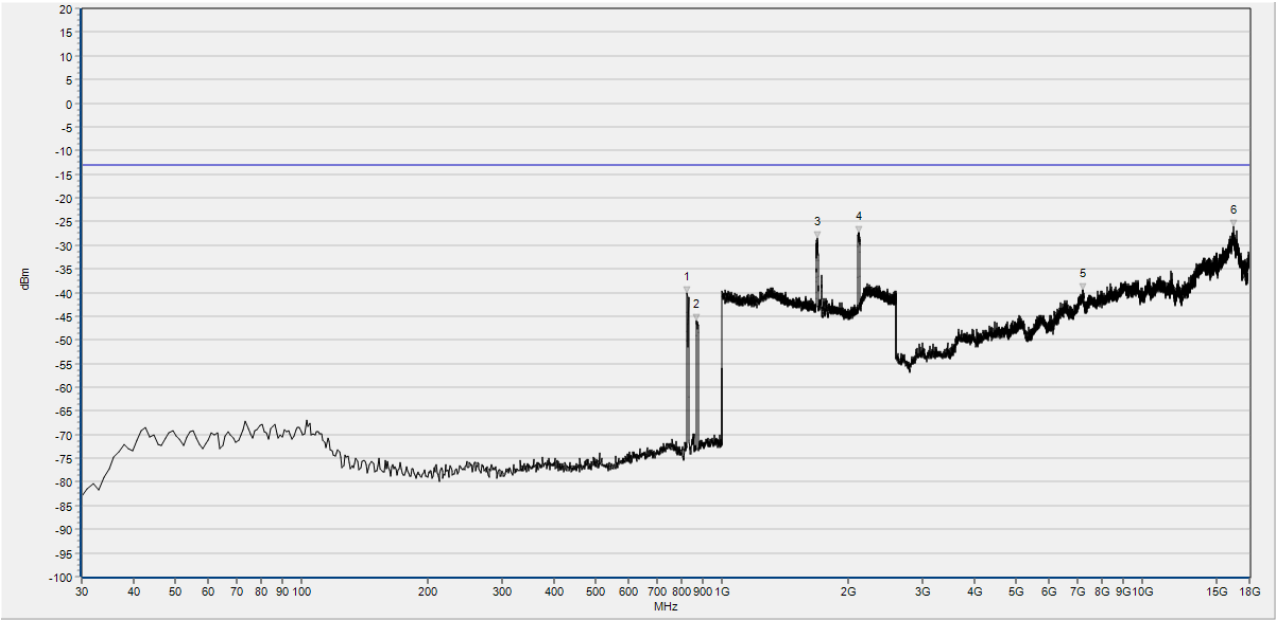
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	98.870	-67.95	-13.00	360.0	H	PASS
2	1678.671	-29.48	-13.00	358.6	H	PASS
3	1971.269	-22.71	-13.00	157.2	H	NA
4	2173.589	-28.10	-13.00	193.5	H	NA
5	5700.164	-40.16	-13.00	209.0	H	PASS
6	16392.508	-25.57	-13.00	294.6	H	PASS

2A-66A High 30M-18G H



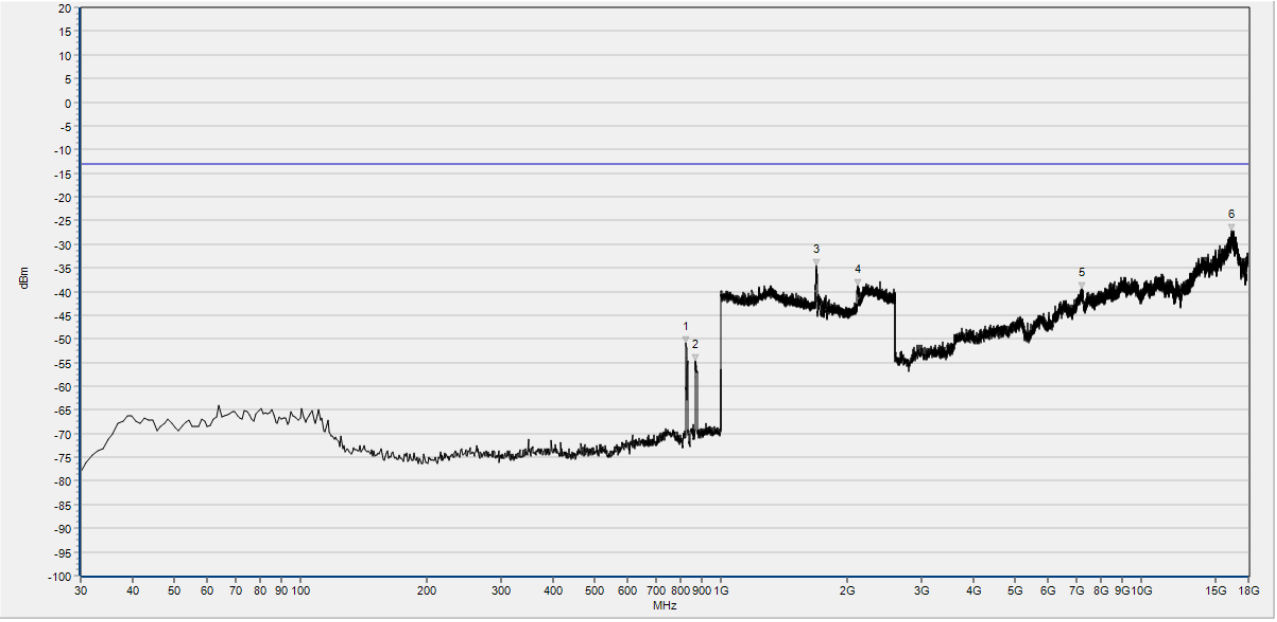
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	69.770	-63.60	-13.00	360.0	V	PASS
2	1767.667	-37.67	-13.00	78.2	V	NA
3	1900.840	-36.95	-13.00	315.3	V	NA
4	1973.830	-31.25	-13.00	123.4	V	NA
5	5688.962	-37.37	-13.00	263.8	V	PASS
6	16445.717	-26.89	-13.00	150.4	V	PASS

2A-66A High30M-18G V



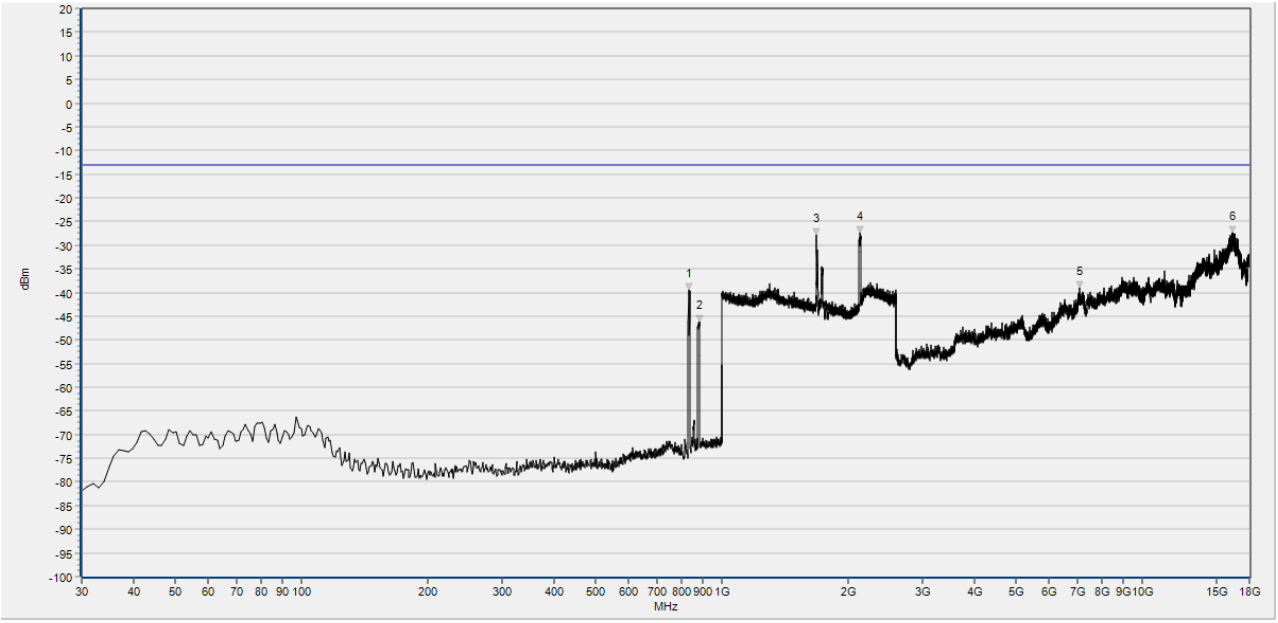
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	827.340	-40.00	-13.00	3.7	H	NA
2	870.020	-46.00	-13.00	87.6	H	NA
3	1685.074	-28.38	-13.00	15.8	H	NA
4	2114.046	-27.42	-13.00	100.2	H	NA
5	7220.840	-39.35	-13.00	263.4	H	PASS
6	16468.121	-25.96	-13.00	11.1	H	PASS

4A-5A Low 30M-18G H



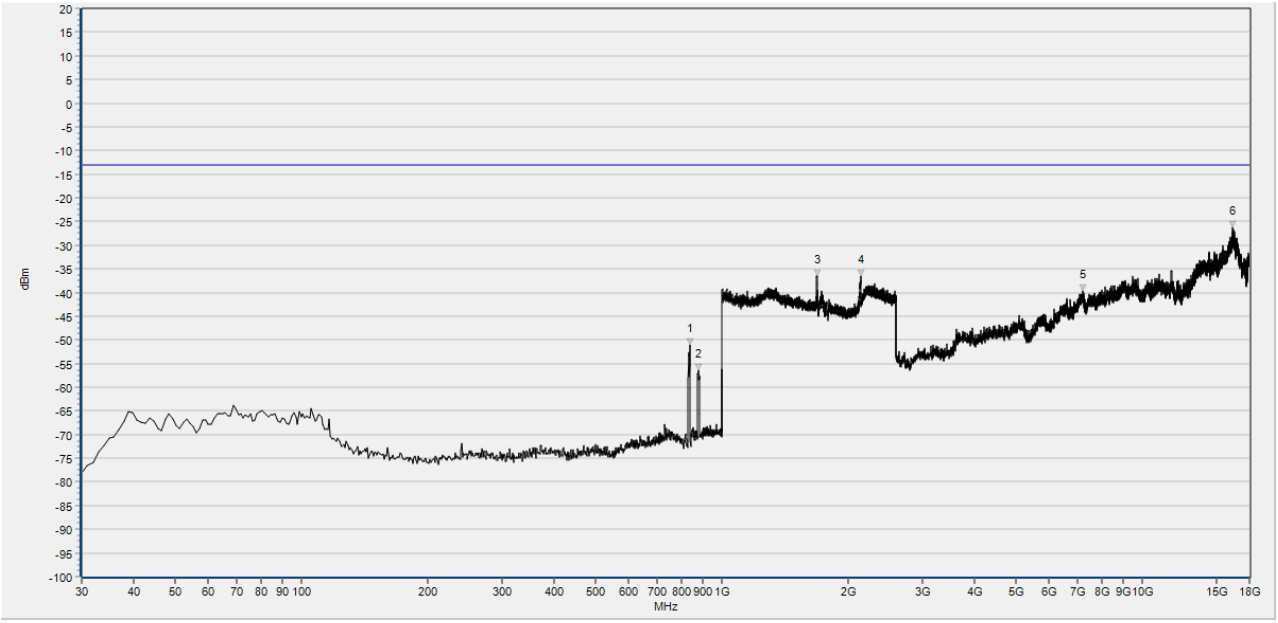
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	826.370	-50.79	-13.00	21.7	V	NA
2	870.020	-54.61	-13.00	231.2	V	NA
3	1686.355	-34.57	-13.00	150.8	V	NA
4	2123.009	-38.80	-13.00	55.4	V	NA
5	7218.040	-39.45	-13.00	86.7	V	PASS
6	16400.909	-27.19	-13.00	16.8	V	PASS

4A-5A Low 30M-18G V



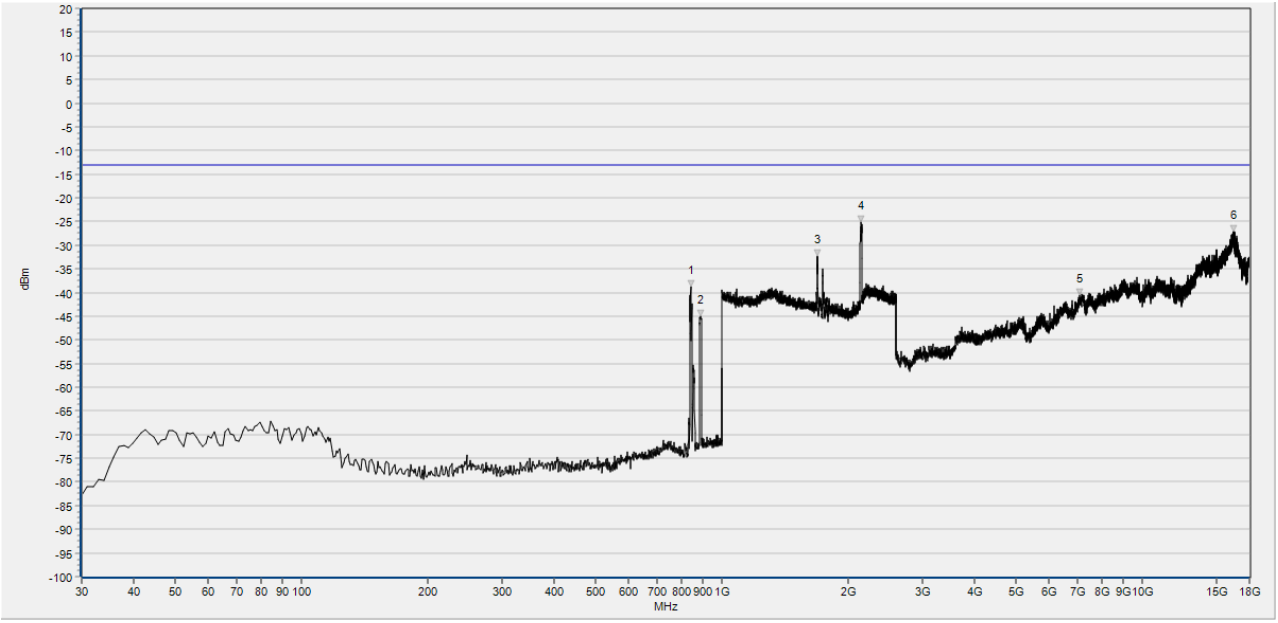
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	834.130	-39.45	-13.00	359.0	H	NA
2	882.630	-46.12	-13.00	95.7	H	NA
3	1681.873	-27.78	-13.00	0.0	H	NA
4	2135.814	-27.33	-13.00	94.6	H	NA
5	7103.219	-39.04	-13.00	259.9	H	PASS
6	16389.707	-27.41	-13.00	57.5	H	PASS

4A-5A Mid 30M-18G H



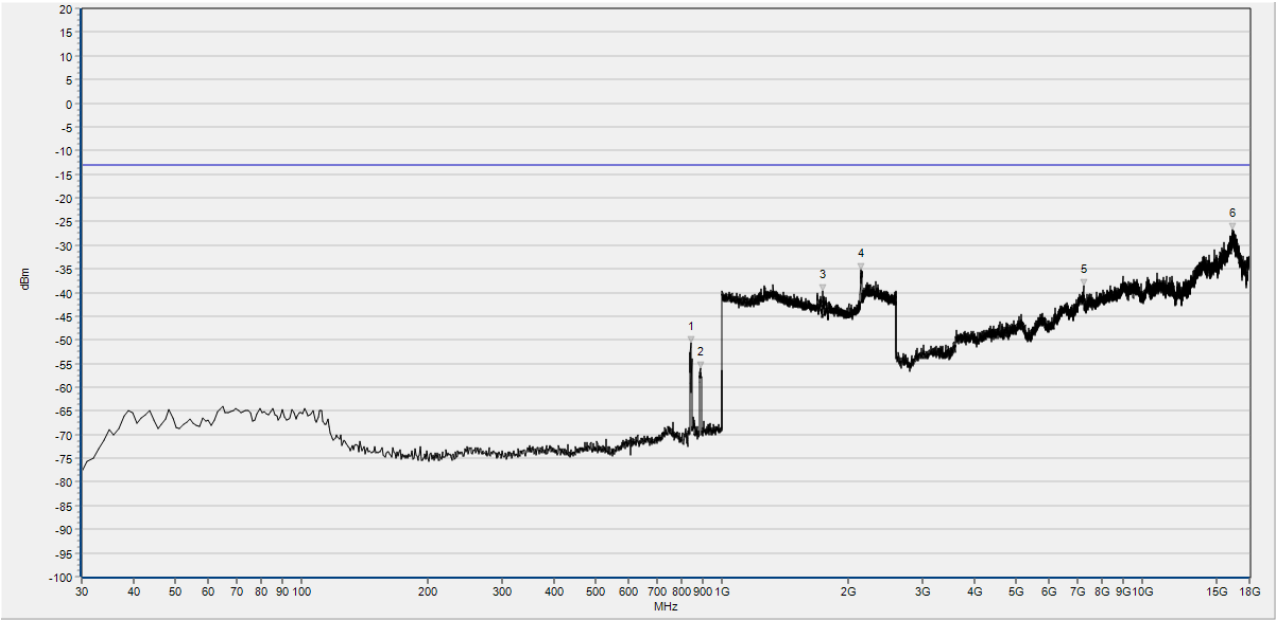
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	838.980	-51.10	-13.00	10.7	V	NA
2	879.720	-56.53	-13.00	233.0	V	NA
3	1683.153	-36.61	-13.00	158.6	V	NA
4	2139.016	-36.56	-13.00	73.8	V	NA
5	7237.643	-39.70	-13.00	21.7	V	PASS
6	16445.717	-26.22	-13.00	57.0	V	PASS

4A-5A Mid 30M-18G V



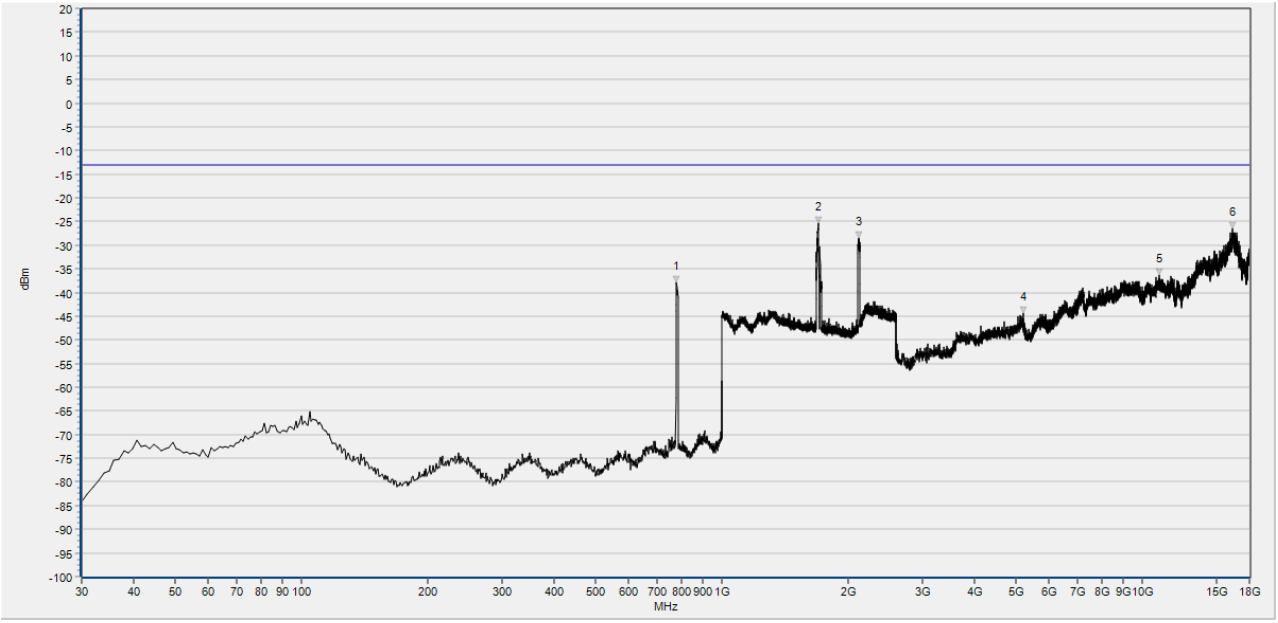
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	842.860	-38.84	-13.00	344.7	H	NA
2	889.420	-45.13	-13.00	42.1	H	NA
3	1686.995	-32.35	-13.00	20.2	H	PASS
4	2148.619	-25.12	-13.00	341.4	H	NA
5	7108.820	-40.49	-13.00	164.6	H	PASS
6	16448.518	-27.26	-13.00	190.3	H	PASS

4A-5A High 30M-18G H



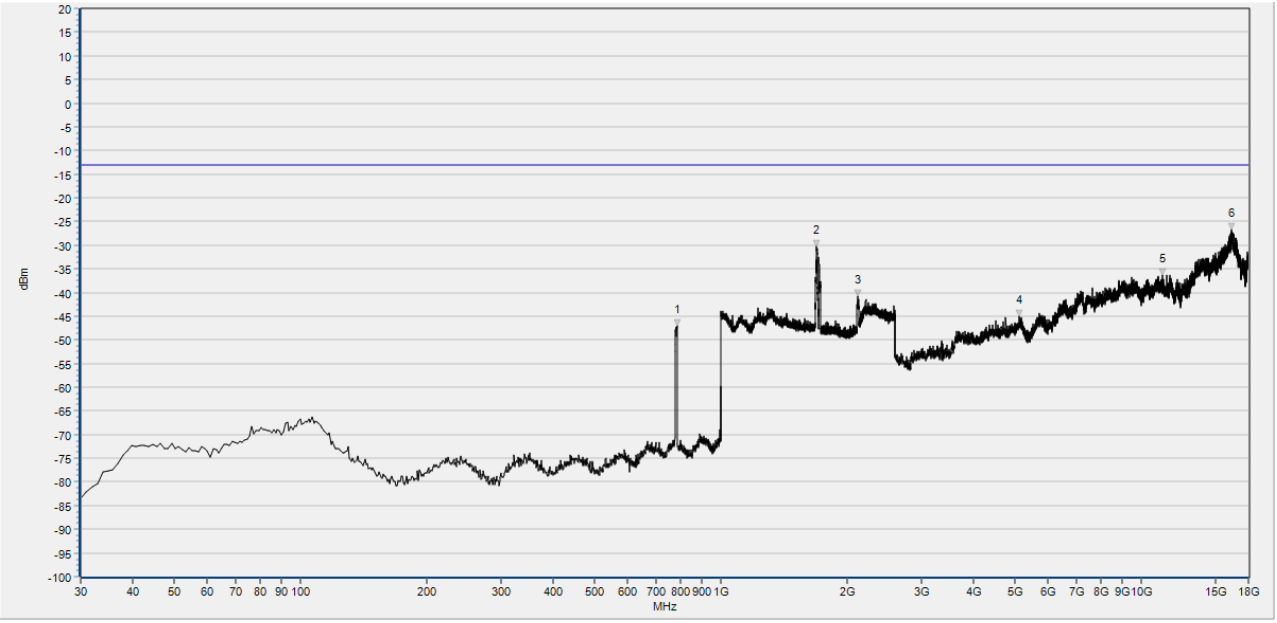
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	842.860	-50.67	-13.00	40.3	V	NA
2	888.450	-56.02	-13.00	238.2	V	NA
3	1736.935	-39.72	-13.00	16.5	V	NA
4	2146.699	-35.30	-13.00	34.8	V	NA
5	7246.045	-38.62	-13.00	295.2	V	PASS
6	16414.912	-26.64	-13.00	121.3	V	PASS

4A-5A High 30M-18G V



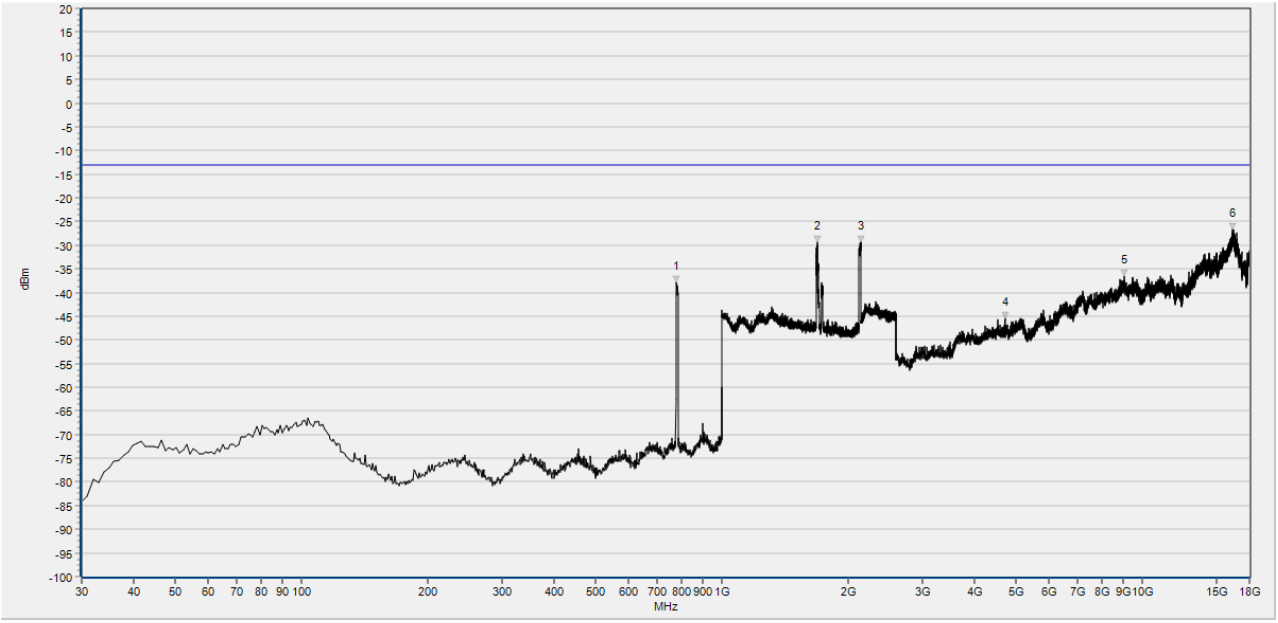
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	780.780	-37.79	-13.00	170.1	H	NA
2	1694.038	-25.30	-13.00	0.8	H	NA
3	2119.168	-28.57	-13.00	91.2	H	NA
4	5201.673	-44.46	-13.00	61.5	H	PASS
5	10976.323	-36.38	-13.00	17.3	H	PASS
6	16400.909	-26.48	-13.00	357.0	H	PASS

4A-13A Low 30M-18G H



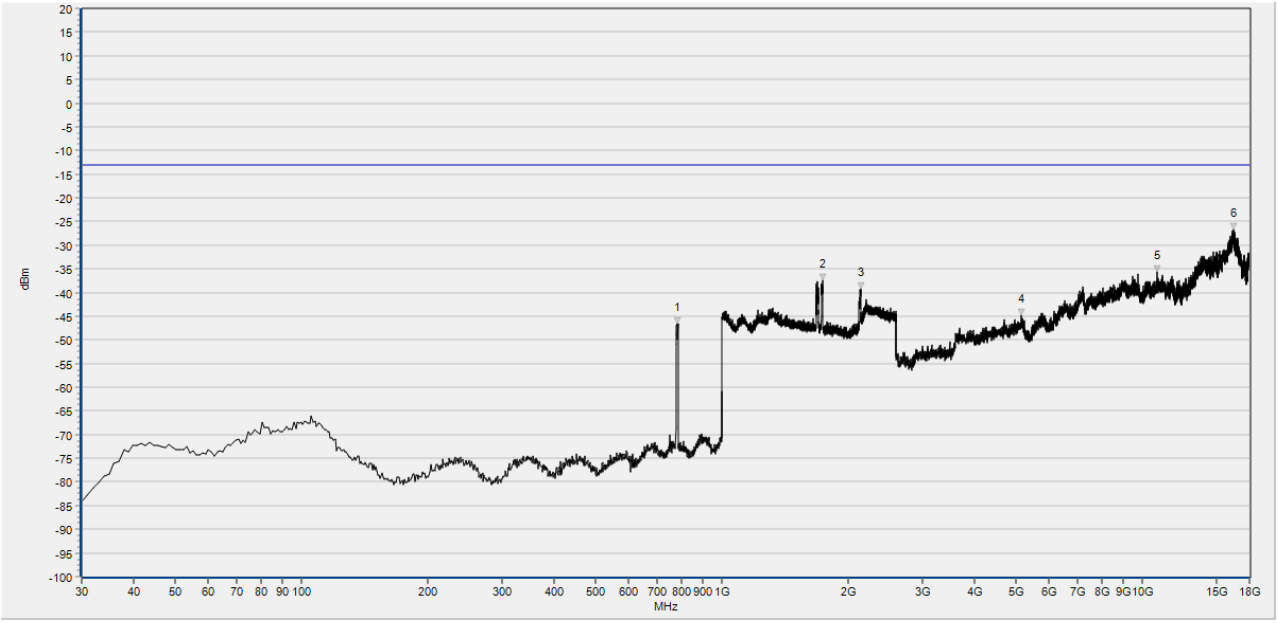
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	786.600	-47.13	-13.00	42.4	V	NA
2	1692.117	-30.18	-13.00	349.6	V	NA
3	2117.247	-40.68	-13.00	11.6	V	NA
4	5134.461	-45.08	-13.00	272.6	V	PASS
5	11211.566	-36.32	-13.00	17.8	V	PASS
6	16392.508	-26.63	-13.00	88.4	V	PASS

4A-13A Low 30M-18G V



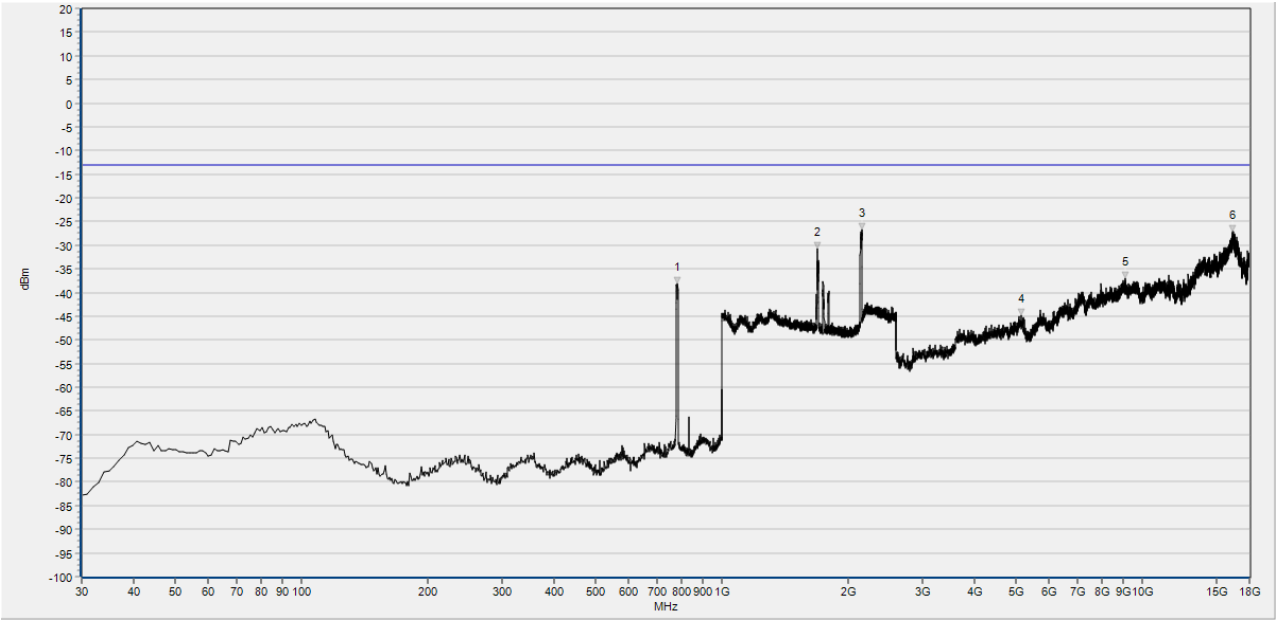
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	779.810	-37.91	-13.00	172.4	H	NA
2	1683.153	-29.37	-13.00	20.4	H	NA
3	2136.455	-29.41	-13.00	102.2	H	NA
4	4711.584	-45.57	-13.00	151.6	H	PASS
5	9088.780	-36.50	-13.00	316.1	H	PASS
6	16437.316	-26.74	-13.00	3.8	H	PASS

4A-13A Mid 30M-18G H



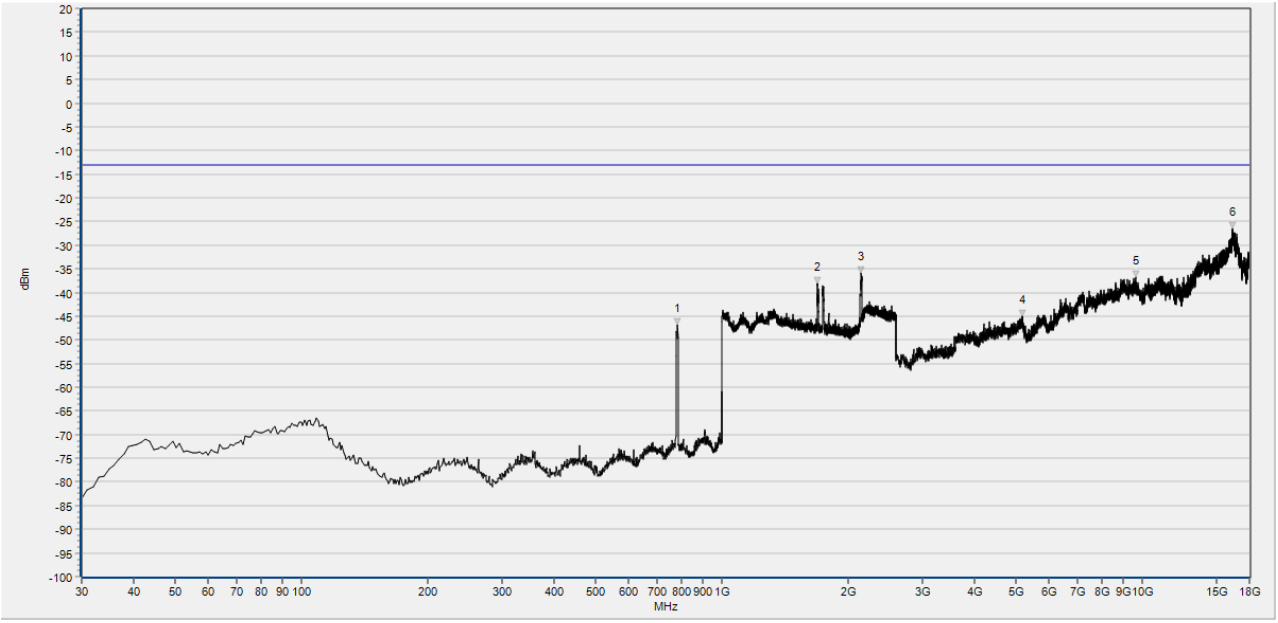
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	781.750	-46.70	-13.00	52.8	V	NA
2	1735.654	-37.49	-13.00	39.0	V	NA
3	2138.375	-39.31	-13.00	142.4	V	NA
4	5156.865	-44.74	-13.00	342.1	V	PASS
5	10839.098	-35.66	-13.00	104.5	V	PASS
6	16540.935	-26.64	-13.00	280.6	V	PASS

4A-13A Mid 30M-18G V



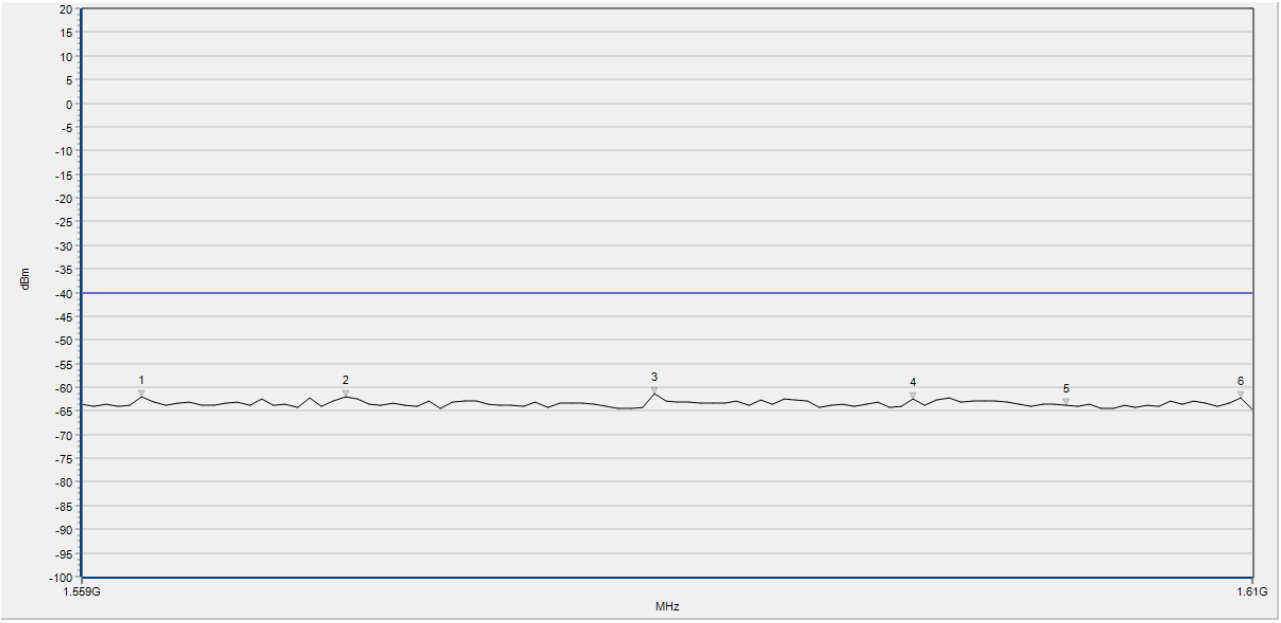
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	785.630	-38.03	-13.00	180.2	H	NA
2	1685.714	-30.62	-13.00	27.2	H	PASS
3	2151.180	-26.69	-13.00	339.3	H	NA
4	5145.663	-44.71	-13.00	264.8	H	PASS
5	9108.383	-36.94	-13.00	237.6	H	PASS
6	16445.717	-27.24	-13.00	17.0	H	PASS

4A-13A High 30M-18G H



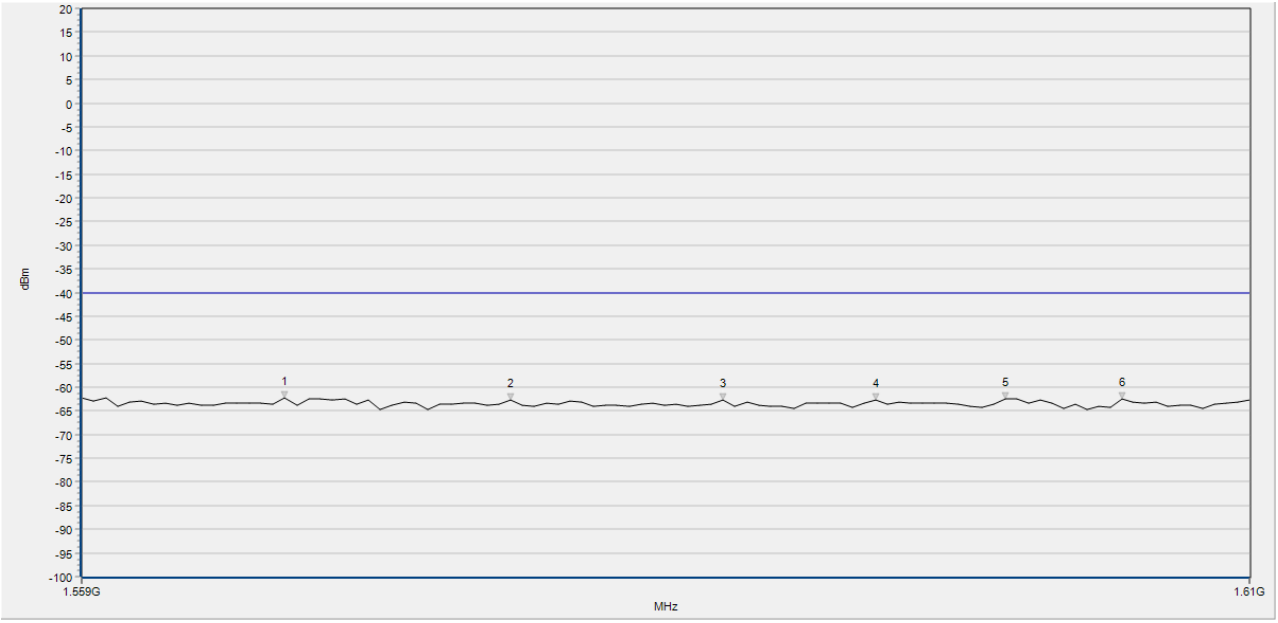
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	785.630	-46.92	-13.00	45.4	V	NA
2	1689.556	-38.13	-13.00	169.0	V	PASS
3	2148.619	-35.97	-13.00	11.6	V	NA
4	5184.870	-45.13	-13.00	168.8	V	PASS
5	9634.879	-36.84	-13.00	30.2	V	PASS
6	16420.513	-26.43	-13.00	238.0	V	PASS

4A-13A High 30M-18G V



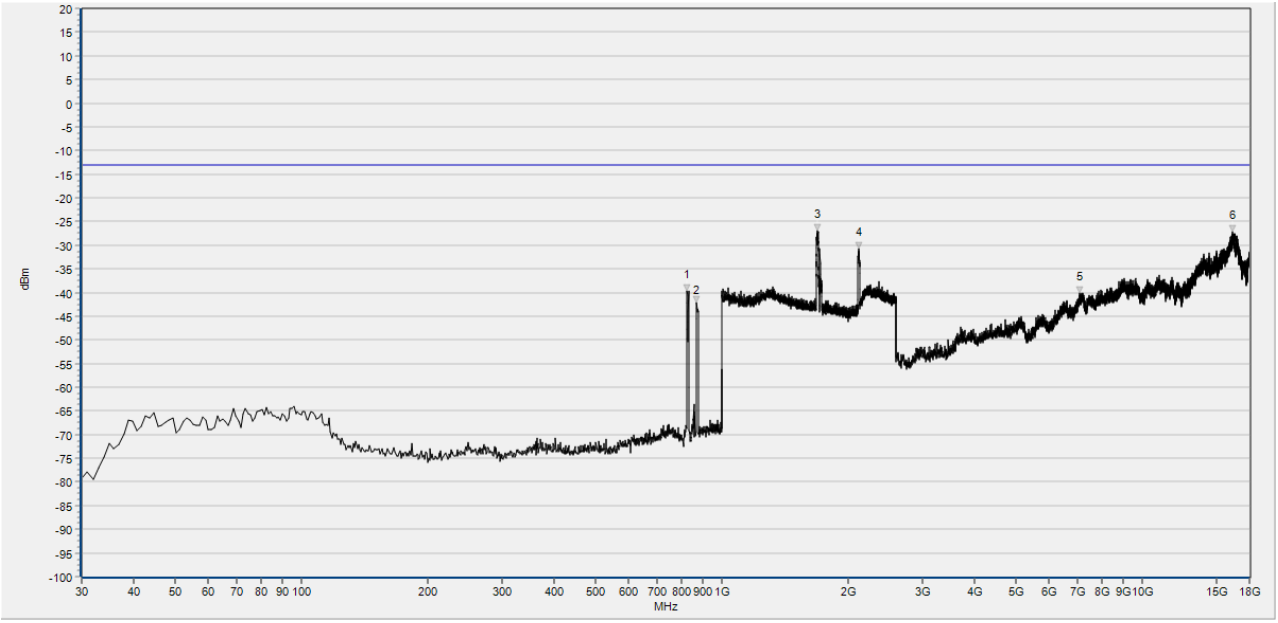
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1561.576	-61.95	-40.00	301.8	H	PASS
2	1570.333	-62.07	-40.00	143.0	H	PASS
3	1583.727	-61.27	-40.00	360.0	H	PASS
4	1595.061	-62.36	-40.00	2.4	H	PASS
5	1601.758	-63.73	-40.00	360.0	H	PASS
6	1609.485	-62.33	-40.00	210.3	H	PASS

4A-13A 1559-1610MHz H



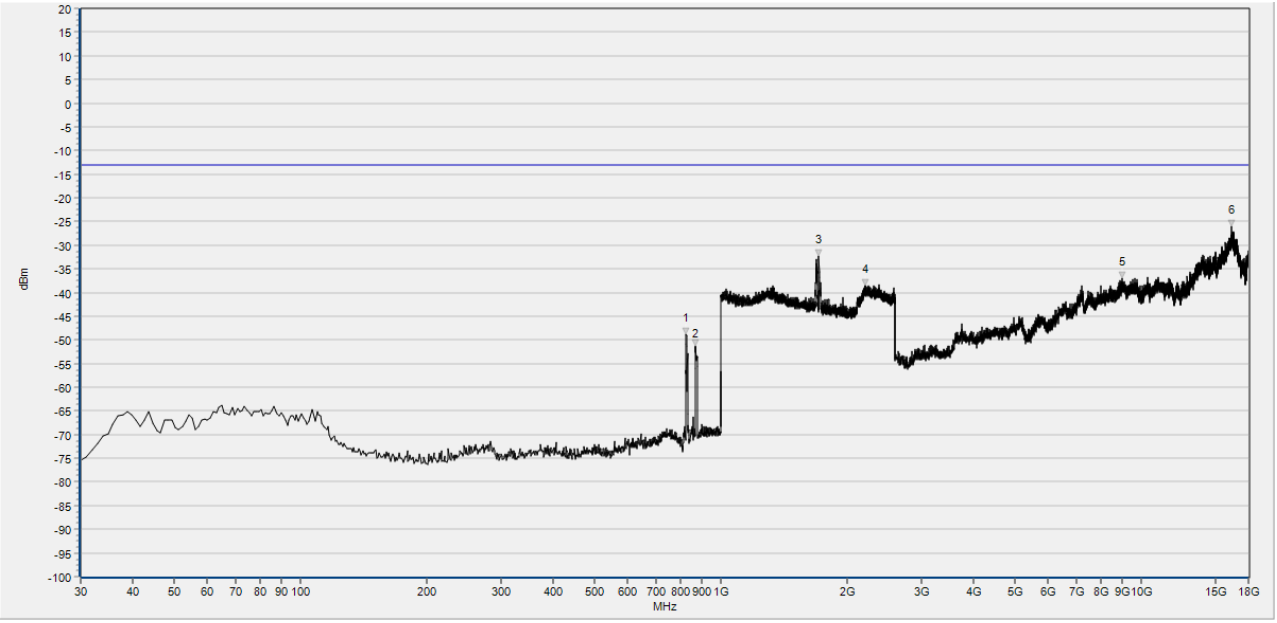
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1567.758	-62.21	-40.00	174.2	V	PASS
2	1577.545	-62.57	-40.00	4.9	V	PASS
3	1586.818	-62.70	-40.00	320.8	V	PASS
4	1593.515	-62.66	-40.00	0.0	V	PASS
5	1599.182	-62.50	-40.00	241.2	V	PASS
6	1604.333	-62.47	-40.00	253.5	V	PASS

4A-13A 1559-1610MHz V



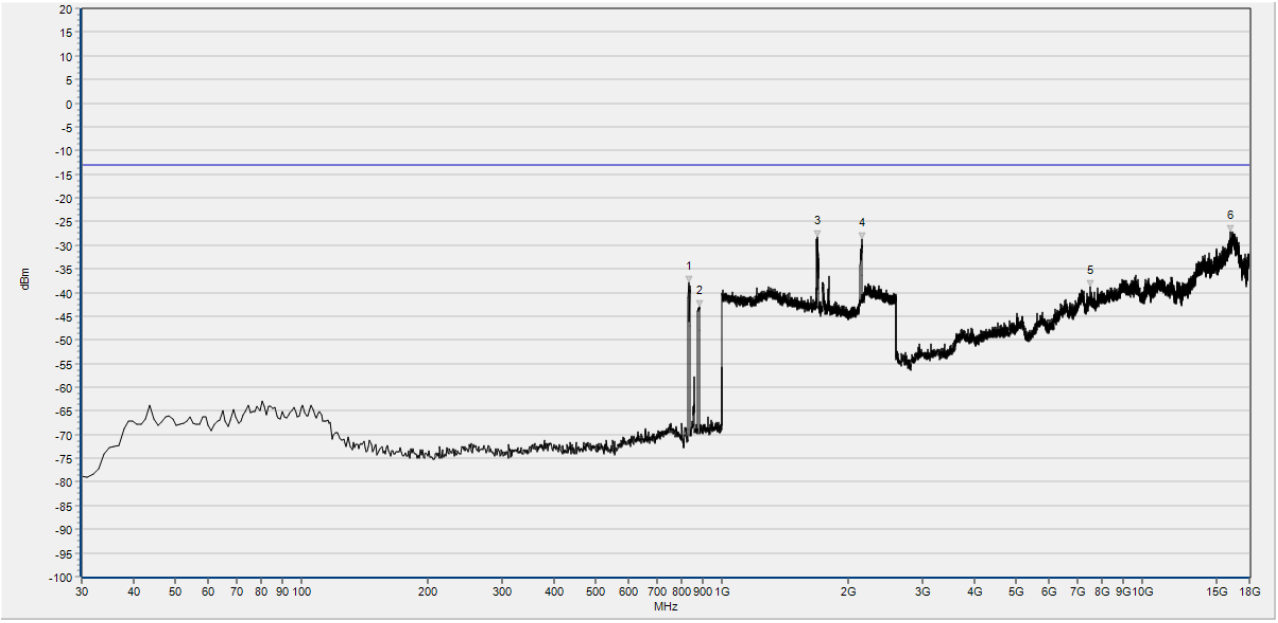
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	827.340	-39.69	-13.00	7.7	H	NA
2	871.960	-42.03	-13.00	288.5	H	NA
3	1686.355	-26.83	-13.00	35.5	H	NA
4	2121.088	-30.83	-13.00	169.5	H	NA
5	7103.219	-40.17	-13.00	300.0	H	PASS
6	16409.311	-27.09	-13.00	67.7	H	PASS

5A-66A Low 30M-18G H



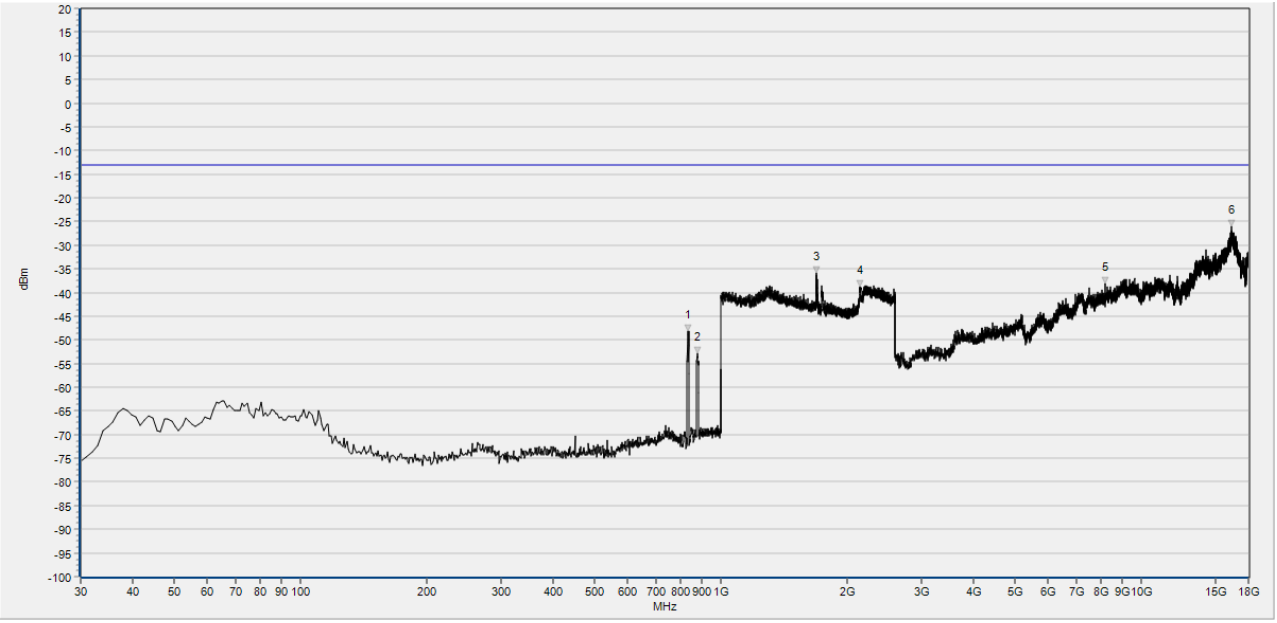
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	827.340	-48.72	-13.00	27.6	V	NA
2	871.960	-51.27	-13.00	21.7	V	NA
3	1711.965	-32.29	-13.00	25.7	V	NA
4	2206.883	-38.65	-13.00	64.7	V	PASS
5	8990.762	-37.03	-13.00	182.8	V	PASS
6	16403.710	-26.02	-13.00	279.2	V	PASS

5A-66A Low 30M-18G V



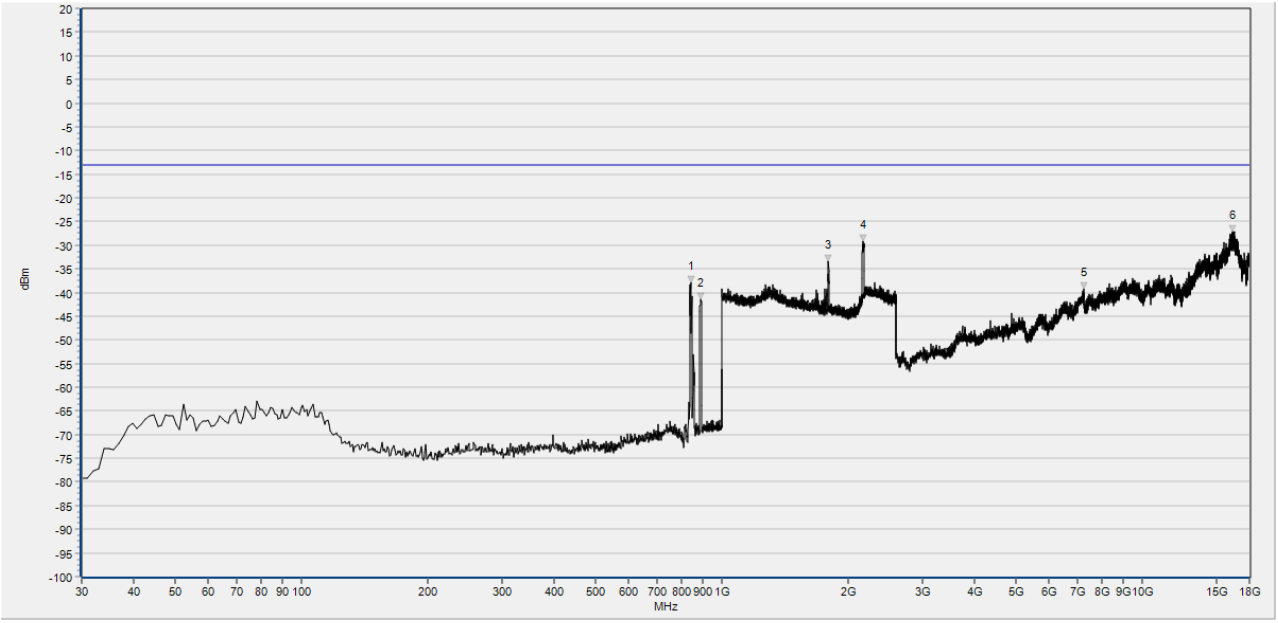
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	833.160	-37.84	-13.00	9.5	H	NA
2	882.630	-42.91	-13.00	193.2	H	NA
3	1686.995	-28.24	-13.00	18.0	H	PASS
4	2152.461	-28.73	-13.00	208.3	H	NA
5	7528.896	-38.73	-13.00	250.9	H	PASS
6	16224.477	-27.10	-13.00	233.7	H	PASS

5A-66A Mid 30M-18G H



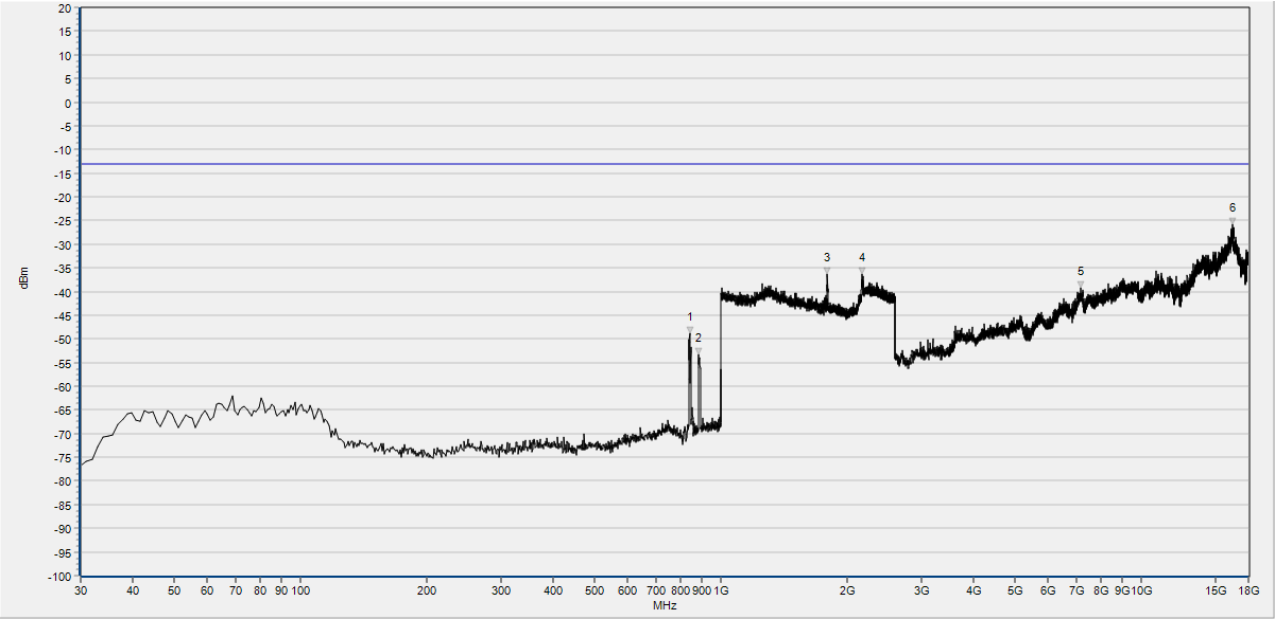
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	835.100	-48.22	-13.00	4.4	V	NA
2	880.690	-52.91	-13.00	271.4	V	NA
3	1686.995	-35.87	-13.00	134.1	V	PASS
4	2147.979	-38.87	-13.00	228.2	V	NA
5	8226.223	-38.15	-13.00	84.8	V	PASS
6	16437.316	-26.00	-13.00	230.1	V	PASS

5A-66A Mid 30M-18G V



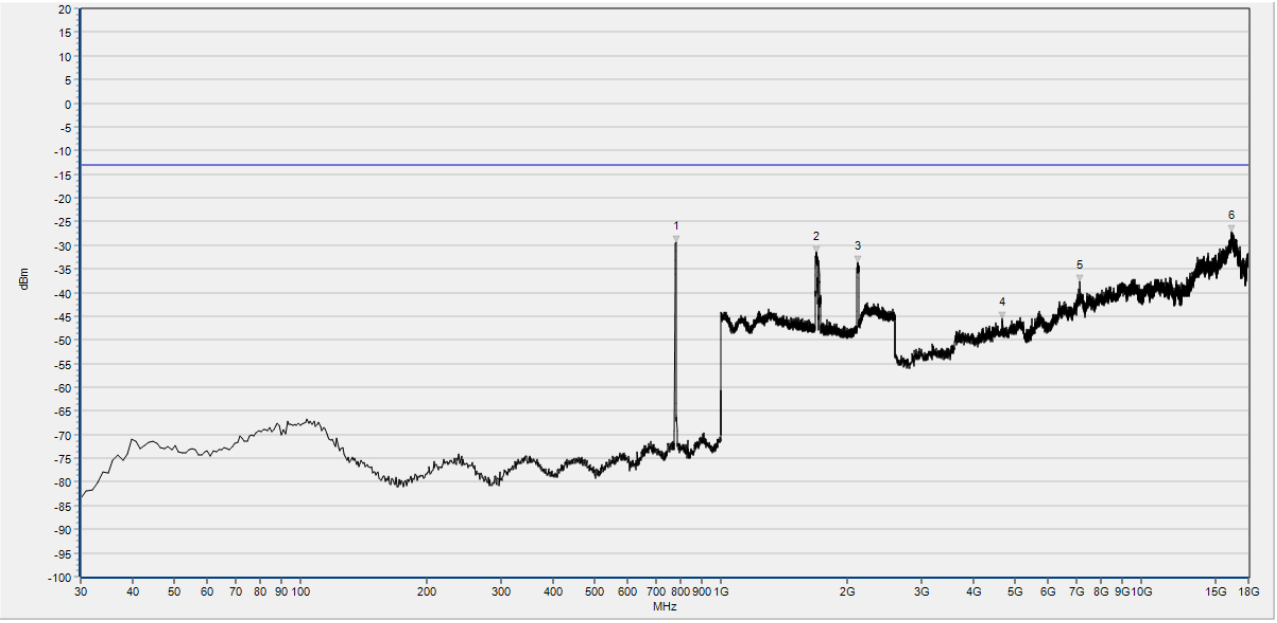
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	842.860	-37.84	-13.00	0.0	H	NA
2	892.330	-41.37	-13.00	326.1	H	NA
3	1793.277	-33.49	-13.00	11.1	H	NA
4	2169.108	-29.23	-13.00	11.1	H	NA
5	7262.848	-39.15	-13.00	0.0	H	PASS
6	16445.717	-27.22	-13.00	63.8	H	PASS

5A-66A High 30M-18G H



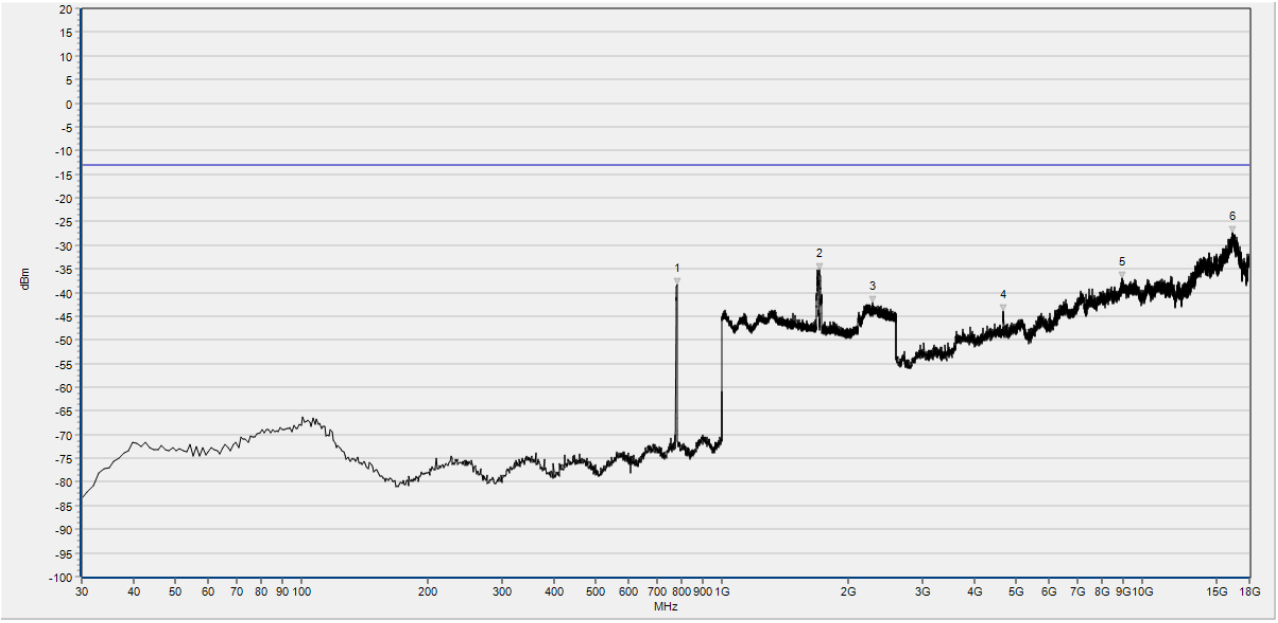
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	842.860	-48.90	-13.00	52.9	V	NA
2	886.510	-53.38	-13.00	286.6	V	NA
3	1793.918	-36.24	-13.00	57.8	V	NA
4	2171.028	-36.33	-13.00	49.1	V	NA
5	7181.633	-39.23	-13.00	64.9	V	PASS
6	16462.520	-25.79	-13.00	350.7	V	PASS

5A-66A High 30M-18G V



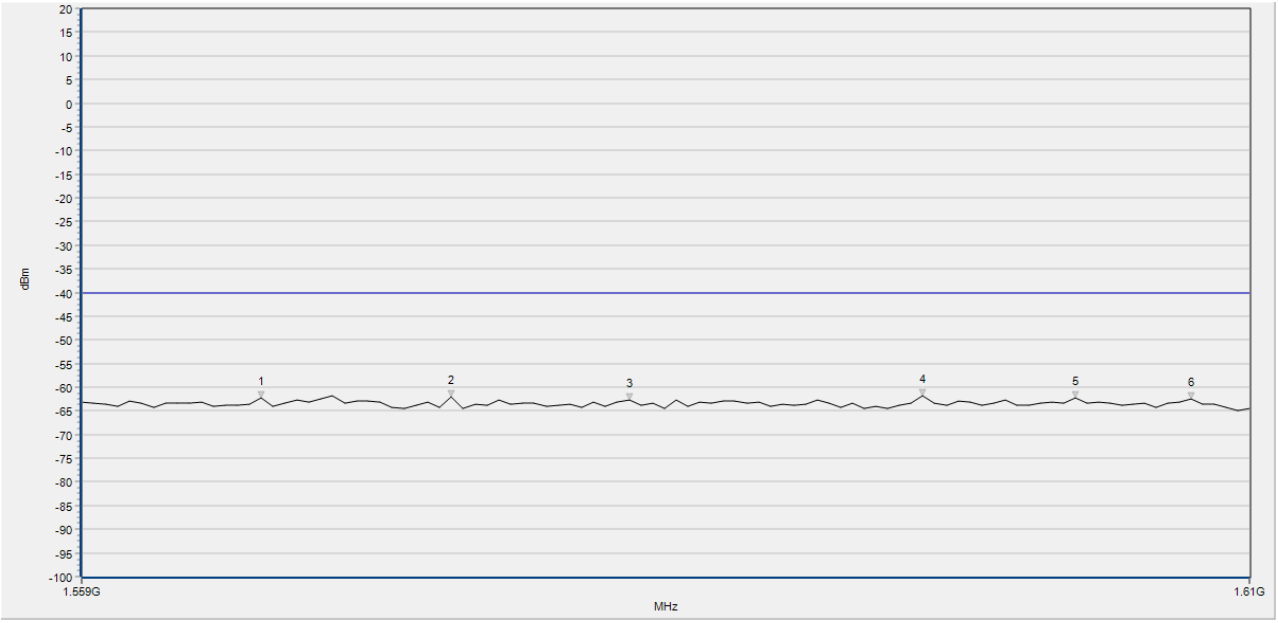
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	781.750	-29.47	-13.00	339.0	H	NA
2	1688.916	-31.67	-13.00	0.2	H	NA
3	2118.527	-33.54	-13.00	12.3	H	NA
4	4677.978	-45.51	-13.00	351.0	H	PASS
5	7159.229	-37.68	-13.00	111.4	H	PASS
6	16389.707	-27.23	-13.00	221.8	H	PASS

13A-66A Low 30M-18G H



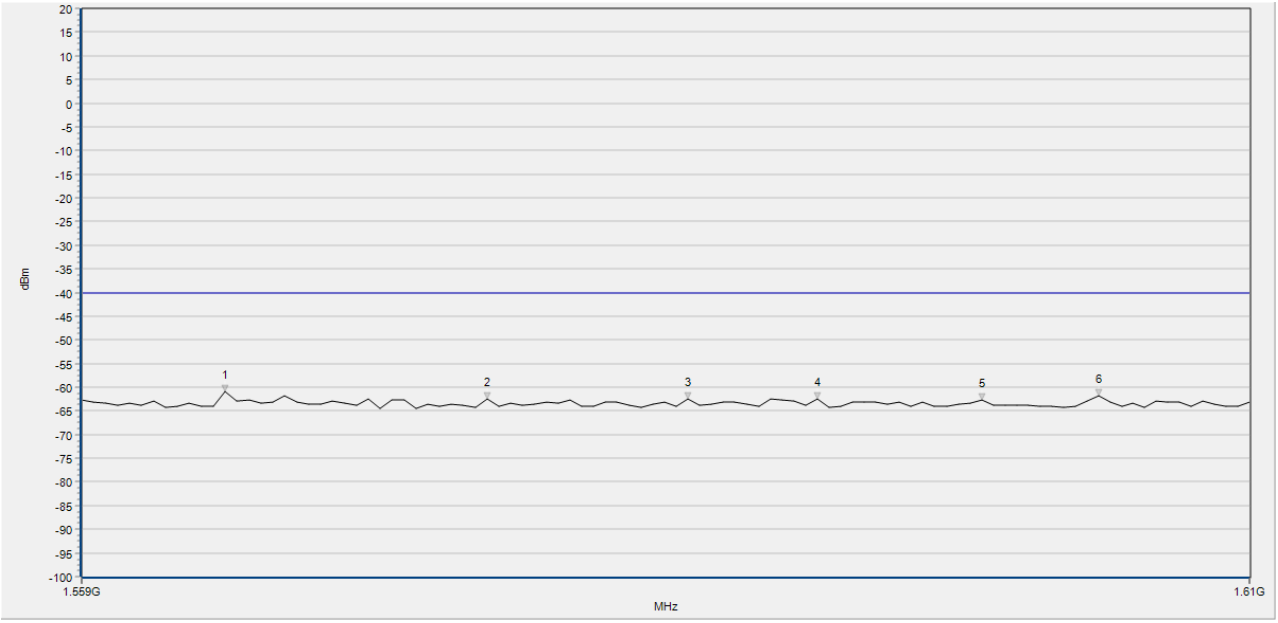
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	781.750	-38.28	-13.00	3.4	V	NA
2	1711.325	-35.22	-13.00	20.7	V	NA
3	2281.793	-42.18	-13.00	277.8	V	PASS
4	4677.978	-43.98	-13.00	272.9	V	PASS
5	8945.954	-37.09	-13.00	238.0	V	PASS
6	16395.308	-27.36	-13.00	177.3	V	PASS

13A-66A Low 30M-18G V



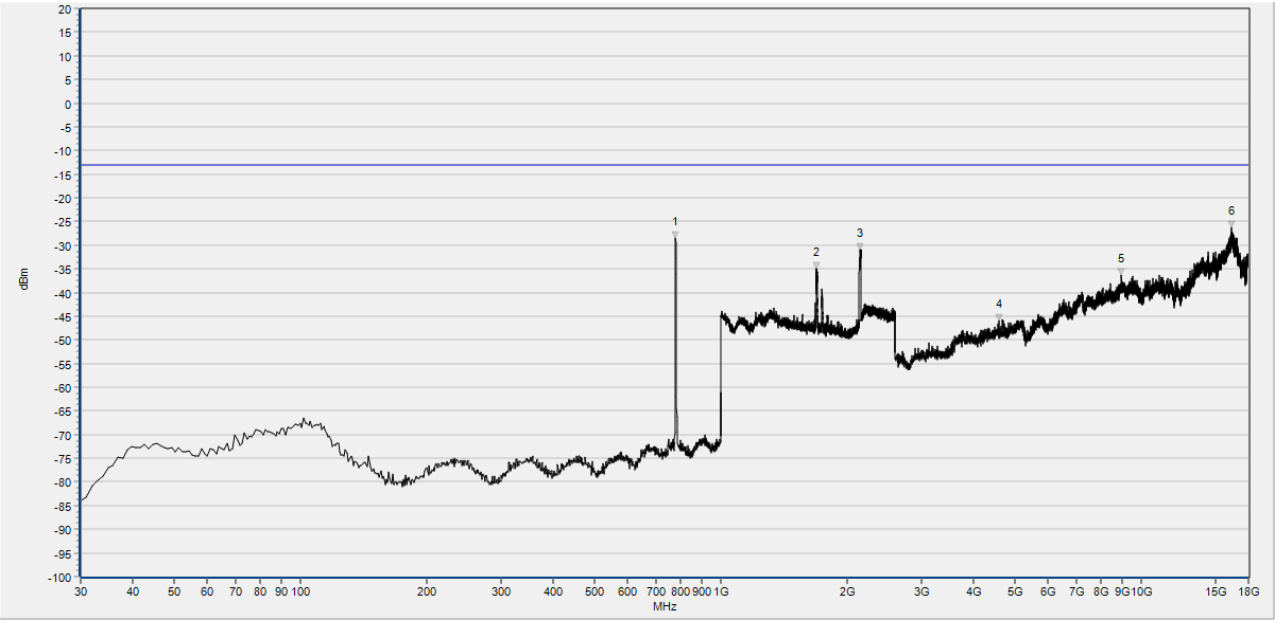
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1566.727	-62.24	-40.00	52.1	H	PASS
2	1574.970	-61.94	-40.00	82.6	H	PASS
3	1582.697	-62.79	-40.00	174.2	H	PASS
4	1595.576	-61.82	-40.00	320.8	H	PASS
5	1602.273	-62.12	-40.00	314.9	H	PASS
6	1607.424	-62.43	-40.00	333.1	H	PASS

13A-66A 1559-1610MHz H



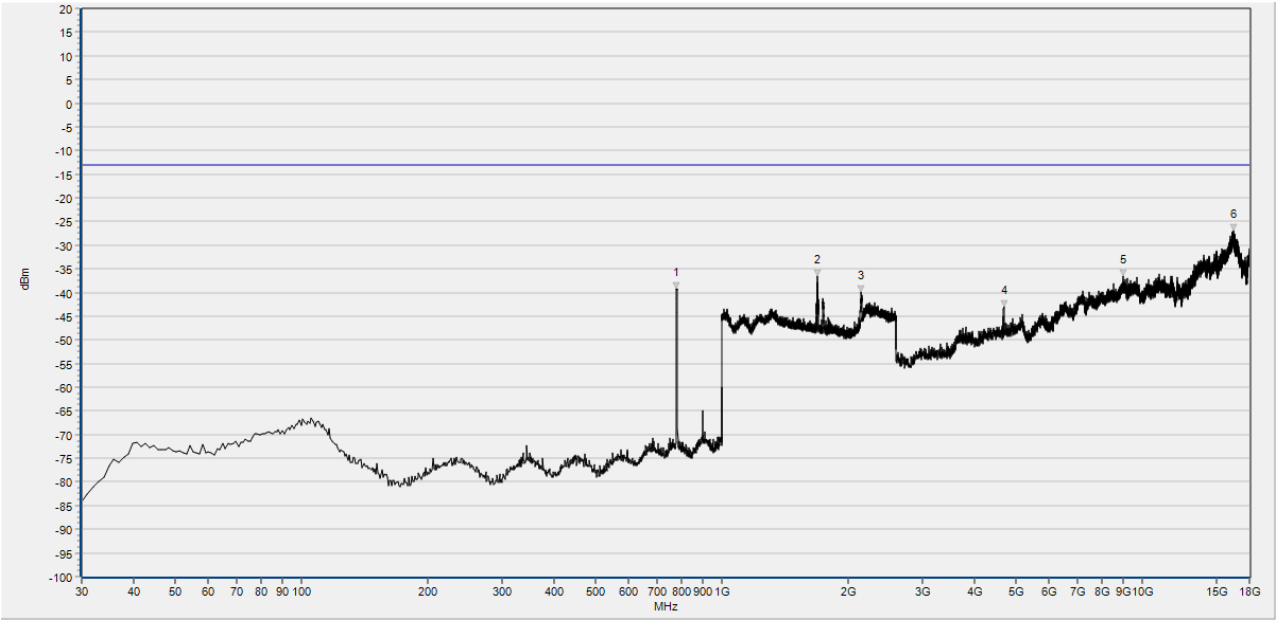
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1565.182	-60.93	-40.00	4.9	V	PASS
2	1576.515	-62.39	-40.00	216.2	V	PASS
3	1585.273	-62.54	-40.00	344.5	V	PASS
4	1590.939	-62.48	-40.00	161.1	V	PASS
5	1598.152	-62.74	-40.00	130.7	V	PASS
6	1603.303	-61.79	-40.00	14.6	V	PASS

13A-66A 1559-1610MHz V



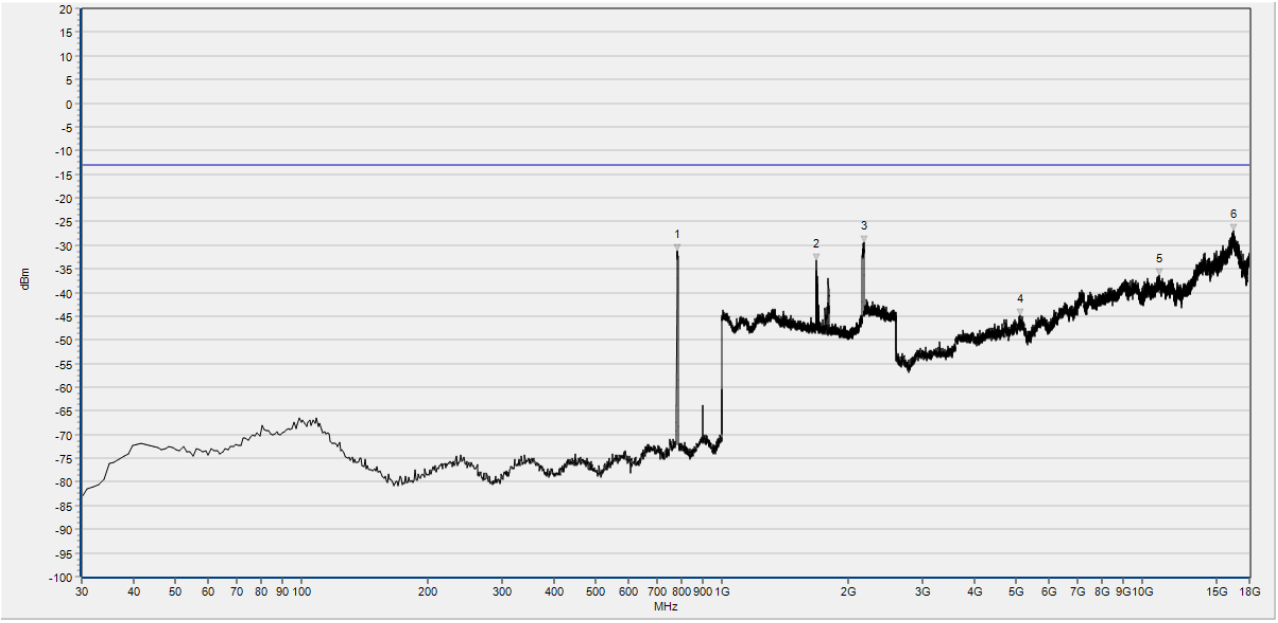
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	780.780	-28.55	-13.00	354.9	H	NA
2	1687.635	-34.95	-13.00	11.3	H	PASS
3	2148.619	-30.91	-13.00	358.6	H	NA
4	4596.763	-45.89	-13.00	264.9	H	PASS
5	8982.360	-36.41	-13.00	282.2	H	PASS
6	16392.508	-26.22	-13.00	13.8	H	PASS

13A-66A Mid 30M-18G H



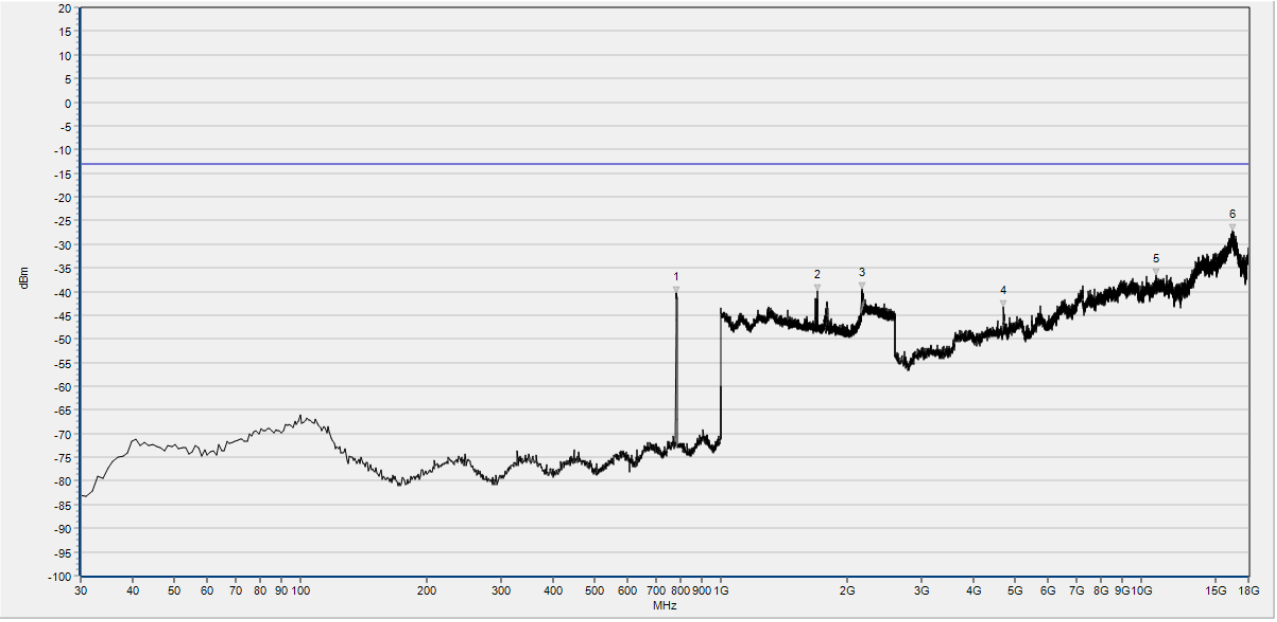
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	780.780	-39.31	-13.00	360.0	V	NA
2	1686.355	-36.57	-13.00	130.5	V	PASS
3	2148.619	-39.86	-13.00	266.9	V	NA
4	4686.379	-43.10	-13.00	295.7	V	PASS
5	9004.765	-36.57	-13.00	156.4	V	PASS
6	16451.318	-26.97	-13.00	199.3	V	PASS

13A-66A Mid 30M-18G V



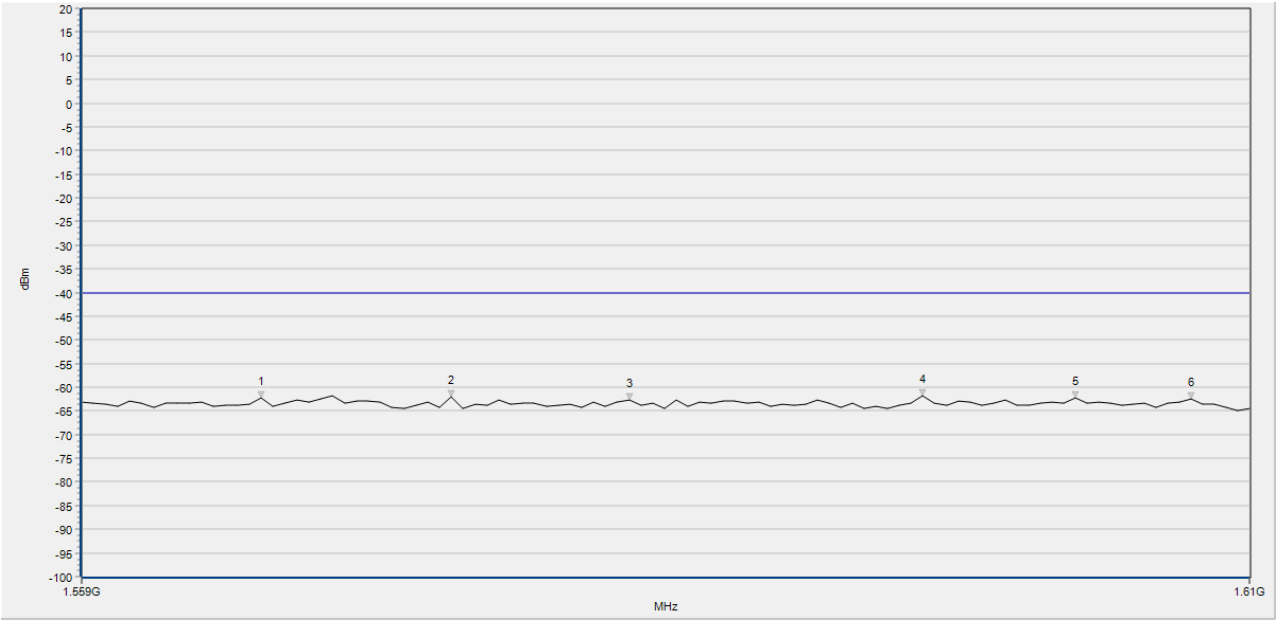
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	782.720	-31.18	-13.00	355.6	H	NA
2	1679.952	-33.14	-13.00	356.3	H	PASS
3	2178.071	-29.39	-13.00	358.6	H	NA
4	5128.860	-44.77	-13.00	78.3	H	PASS
5	10990.326	-36.42	-13.00	257.1	H	PASS
6	16524.132	-27.03	-13.00	358.6	H	PASS

13A-66A High 30M-18G H



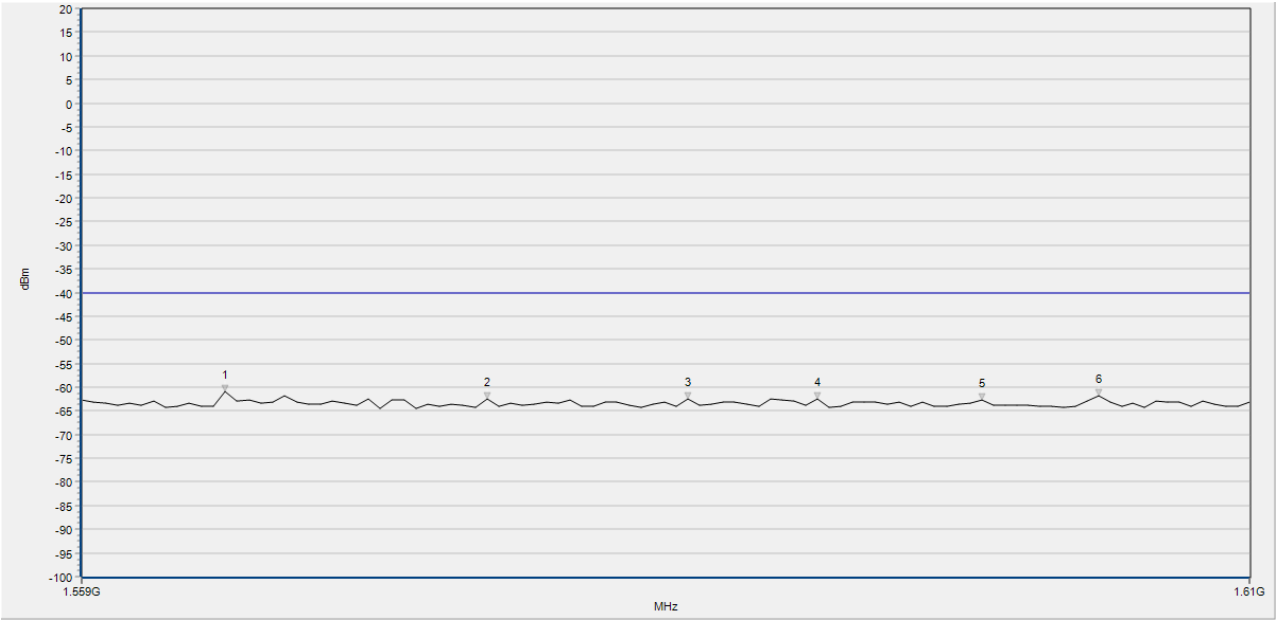
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	782.720	-40.33	-13.00	23.1	V	NA
2	1695.958	-39.86	-13.00	133.2	V	PASS
3	2162.705	-39.41	-13.00	227.3	V	NA
4	4705.983	-43.14	-13.00	272.6	V	PASS
5	10864.303	-36.46	-13.00	107.7	V	PASS
6	16540.935	-27.25	-13.00	212.5	V	PASS

13A-66A High 30M-18G V



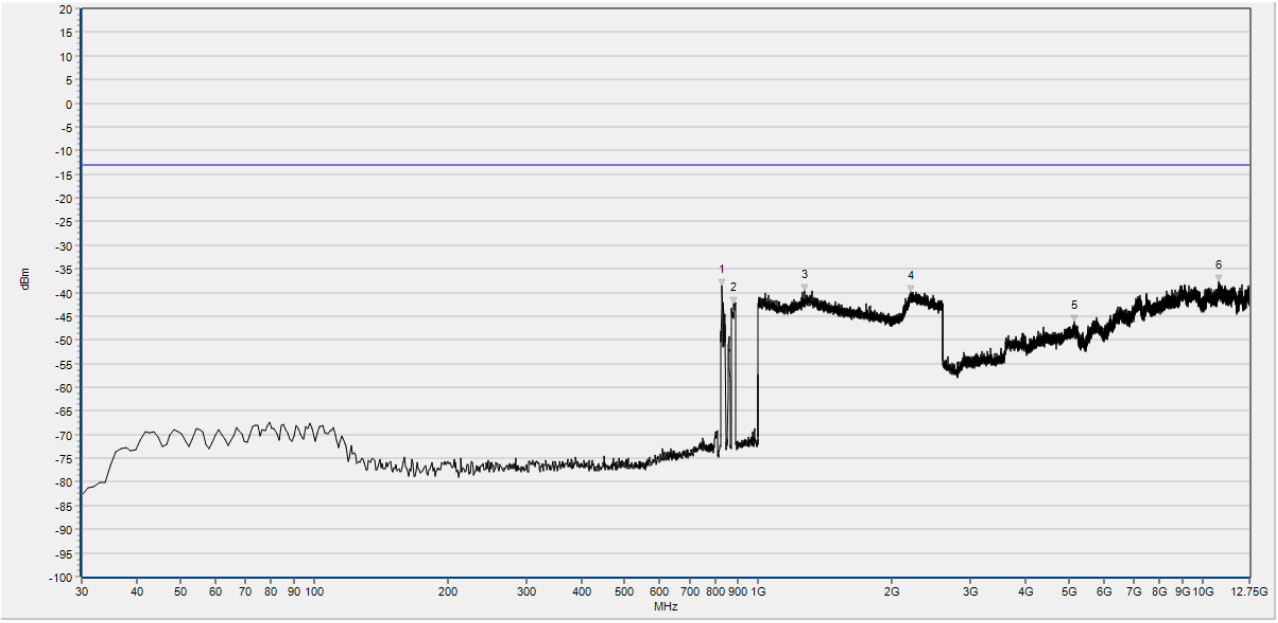
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1566.727	-62.24	-40.00	52.1	H	PASS
2	1574.970	-61.94	-40.00	82.6	H	PASS
3	1582.697	-62.79	-40.00	174.2	H	PASS
4	1595.576	-61.82	-40.00	320.8	H	PASS
5	1602.273	-62.12	-40.00	314.9	H	PASS
6	1607.424	-62.43	-40.00	333.1	H	PASS

13A-66A 1559-1610 MHz H



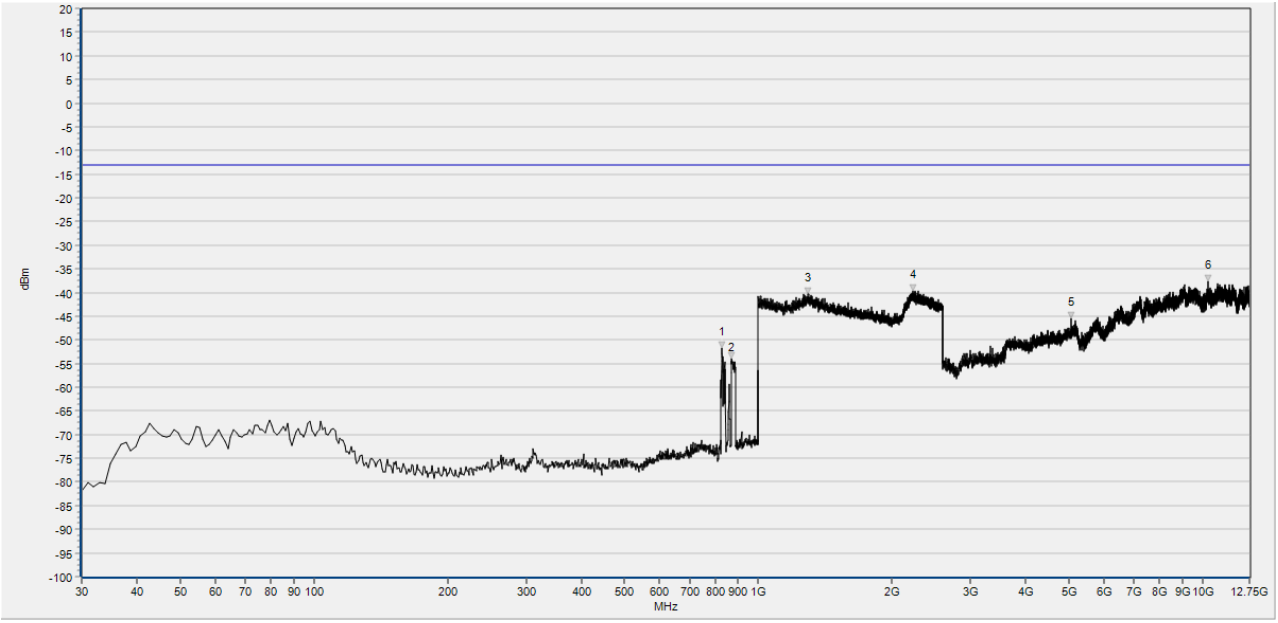
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	1565.182	-60.93	-40.00	4.9	V	PASS
2	1576.515	-62.39	-40.00	216.2	V	PASS
3	1585.273	-62.54	-40.00	344.5	V	PASS
4	1590.939	-62.48	-40.00	161.1	V	PASS
5	1598.152	-62.74	-40.00	130.7	V	PASS
6	1603.303	-61.79	-40.00	14.6	V	PASS

13A-66A 1559-1610MHz V



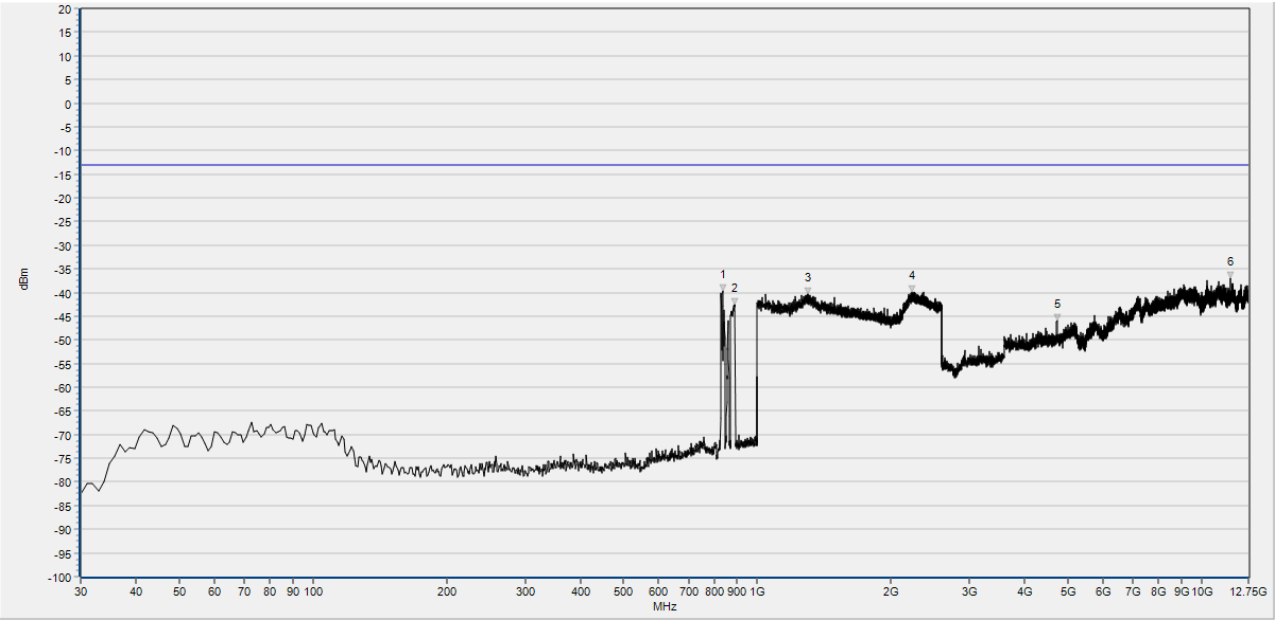
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	827.340	-38.49	-13.00	357.3	H	NA
2	881.660	-42.37	-13.00	51.1	H	NA
3	1273.389	-39.72	-13.00	63.7	H	PASS
4	2202.401	-39.96	-13.00	7.4	H	PASS
5	5134.270	-46.13	-13.00	168.6	H	PASS
6	10872.831	-37.58	-13.00	142.9	H	PASS

5B Low 30M-12.75G H



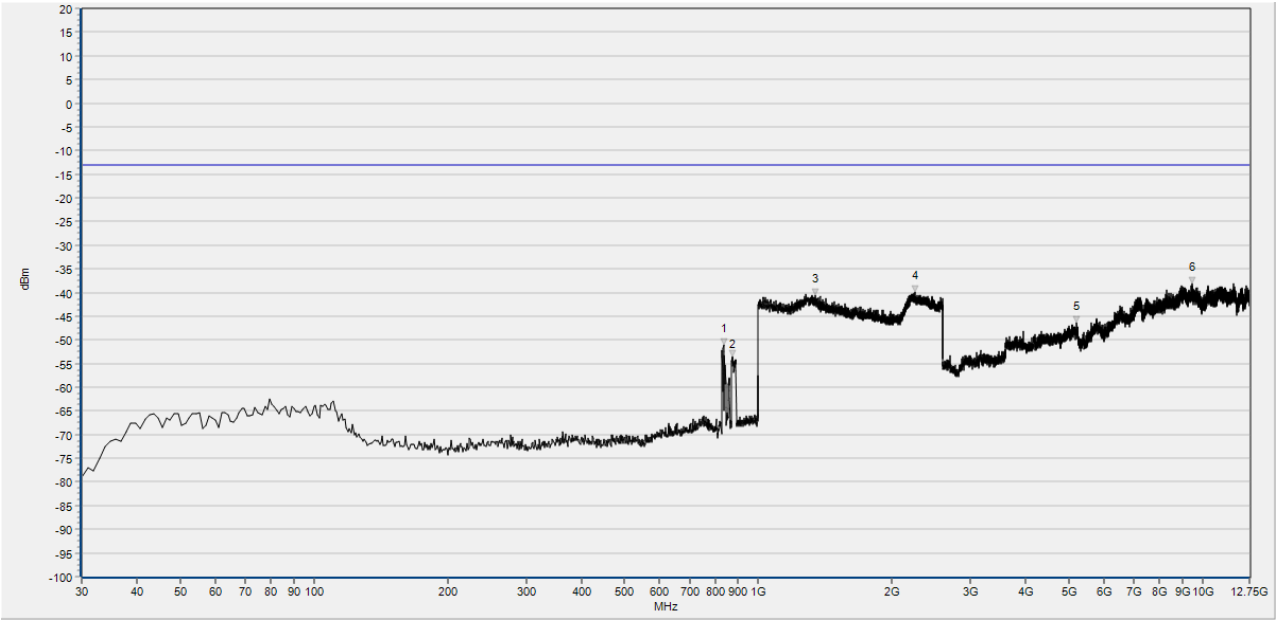
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	828.310	-51.64	-13.00	15.4	V	NA
2	871.960	-54.04	-13.00	284.3	V	NA
3	1295.798	-40.33	-13.00	237.8	V	PASS
4	2232.493	-39.77	-13.00	160.2	V	PASS
5	5064.130	-45.48	-13.00	184.3	V	PASS
6	10272.950	-37.71	-13.00	97.6	V	PASS

5B Low 30M-12.75G V



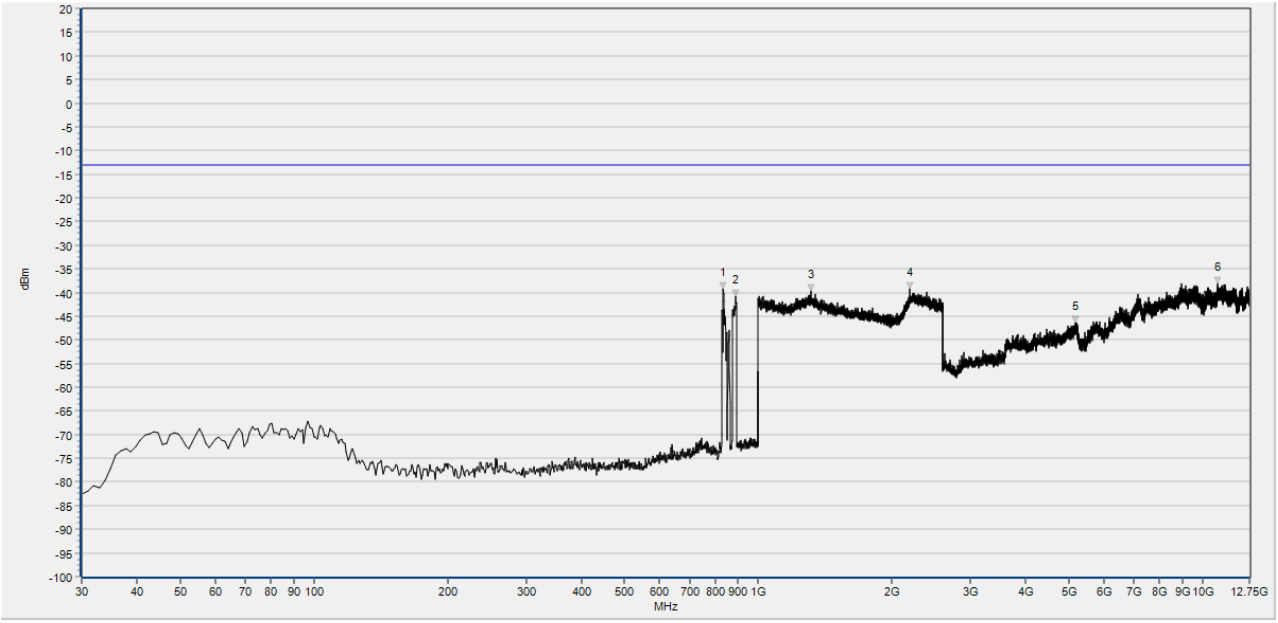
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	835.100	-39.67	-13.00	5.3	H	NA
2	888.450	-42.66	-13.00	327.5	H	NA
3	1296.439	-40.36	-13.00	287.4	H	PASS
4	2226.090	-39.90	-13.00	273.3	H	PASS
5	4724.504	-45.93	-13.00	69.1	H	PASS
6	11601.919	-37.05	-13.00	285.6	H	PASS

5B Mid 30M-12.75G H



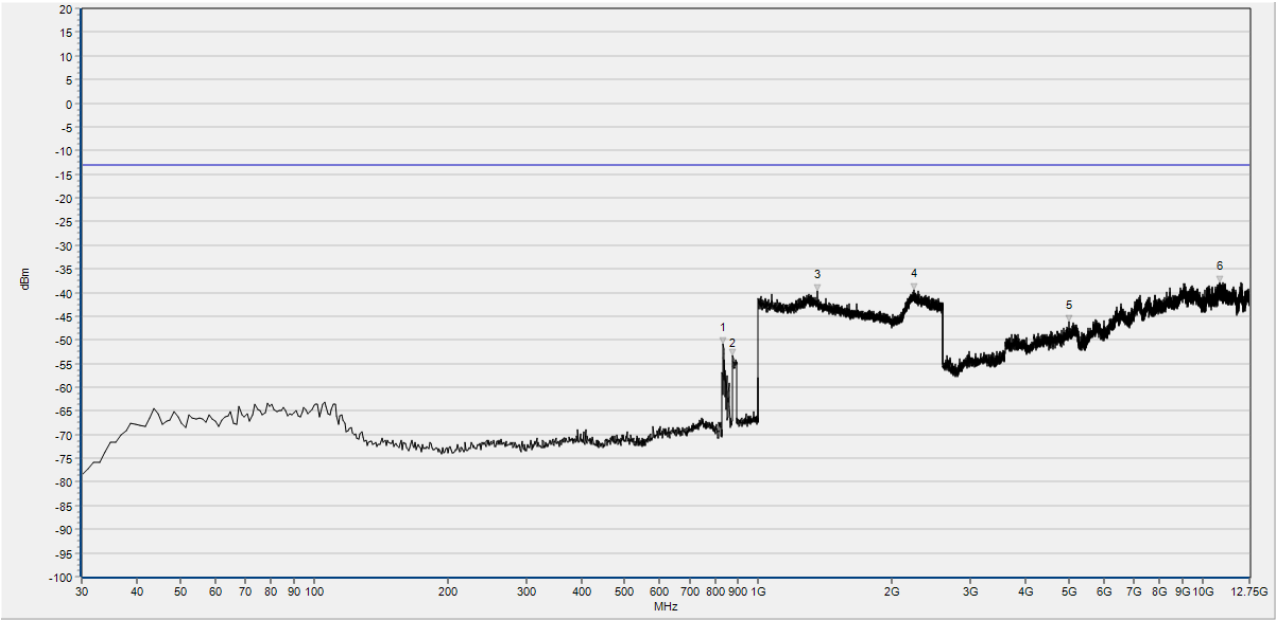
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	835.100	-51.09	-13.00	2.0	V	NA
2	875.840	-53.58	-13.00	308.2	V	NA
3	1346.379	-40.60	-13.00	47.6	V	PASS
4	2254.262	-39.94	-13.00	149.2	V	PASS
5	5213.639	-46.47	-13.00	166.1	V	PASS
6	9473.722	-38.09	-13.00	65.5	V	PASS

5B Mid 30M-12.75G V



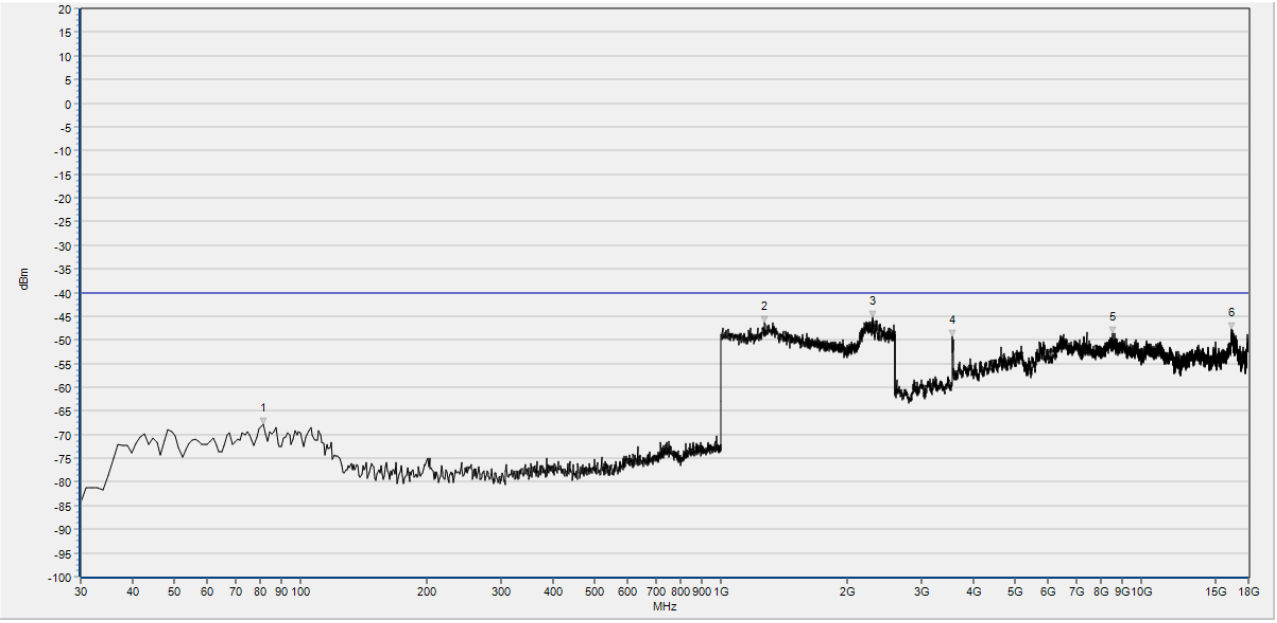
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	834.130	-39.20	-13.00	338.3	H	NA
2	889.420	-40.79	-13.00	117.3	H	NA
3	1313.725	-39.62	-13.00	30.3	H	PASS
4	2192.797	-39.21	-13.00	108.7	H	PASS
5	5178.569	-46.29	-13.00	184.8	H	PASS
6	10822.995	-38.14	-13.00	255.6	H	PASS

5B High 30M-12.75G H



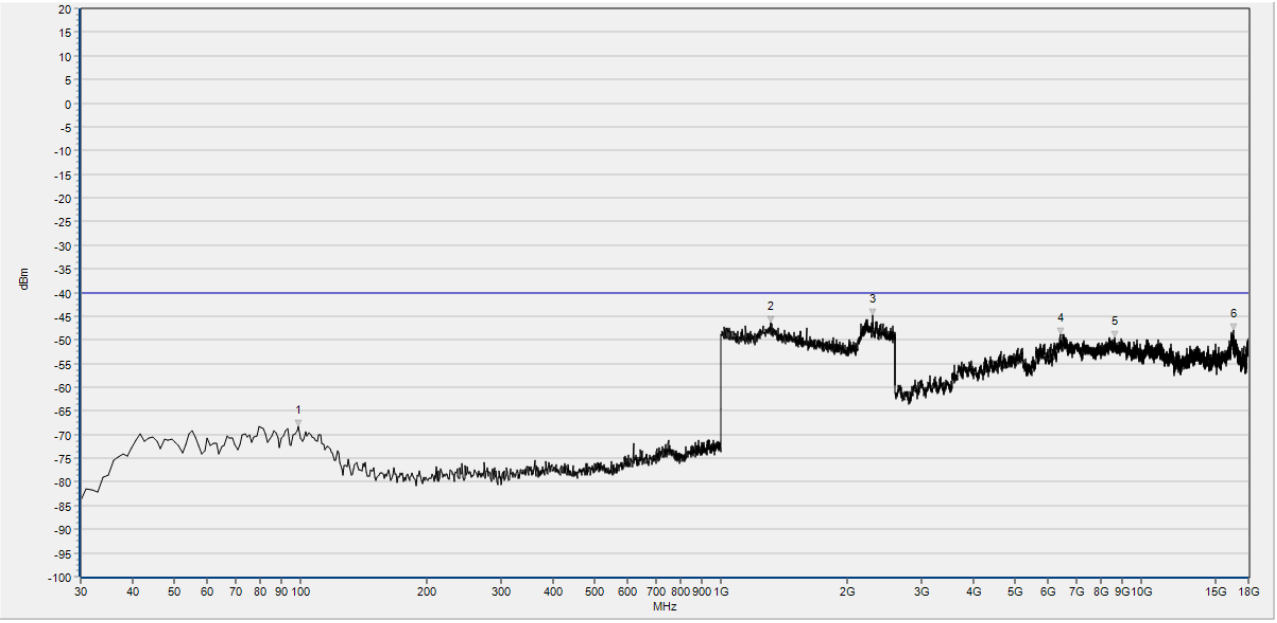
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	834.130	-50.94	-13.00	21.3	V	NA
2	876.810	-53.36	-13.00	229.7	V	NA
3	1359.184	-39.70	-13.00	356.5	V	PASS
4	2240.816	-39.55	-13.00	243.7	V	PASS
5	5010.602	-46.10	-13.00	113.1	V	PASS
6	10948.509	-37.93	-13.00	34.6	V	PASS

5B High 30M-12.75G H



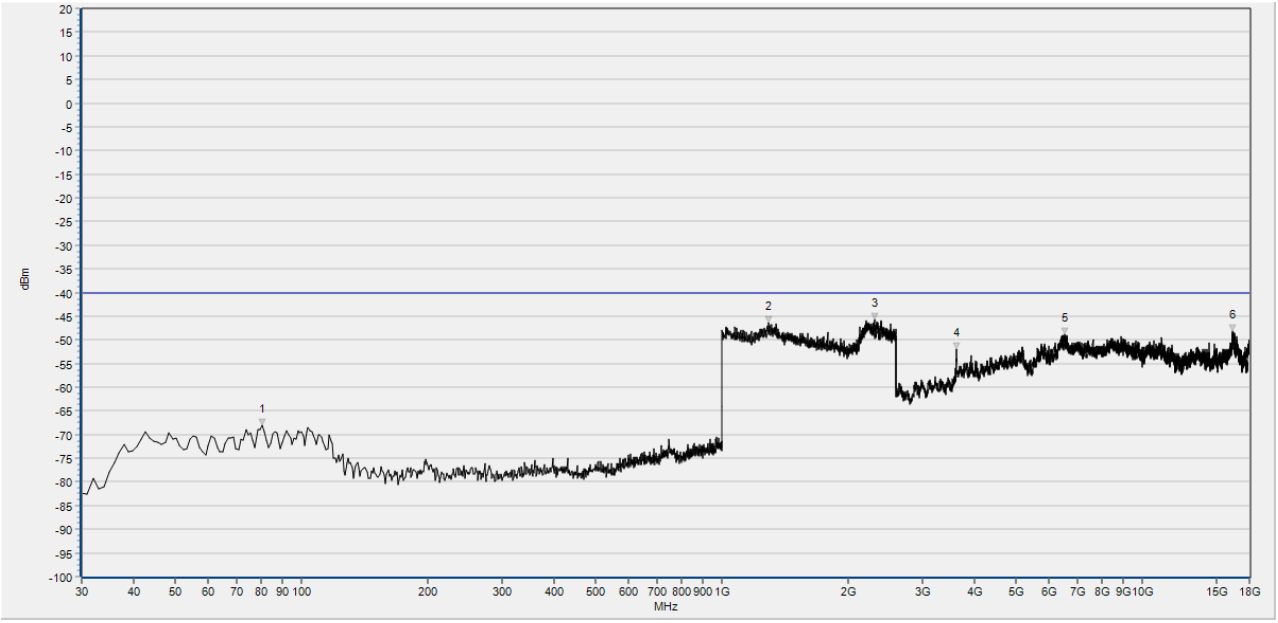
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	81.461	-67.78	-40.00	360.0	H	PASS
2	1272.272	-46.27	-40.00	173.5	H	PASS
3	2298.899	-45.25	-40.00	91.4	H	PASS
4	3558.072	-49.37	-40.00	112.2	H	NA
5	8557.912	-48.68	-40.00	202.2	H	PASS
6	16438.128	-47.76	-40.00	271.5	H	PASS

48C Low 30M-18G H



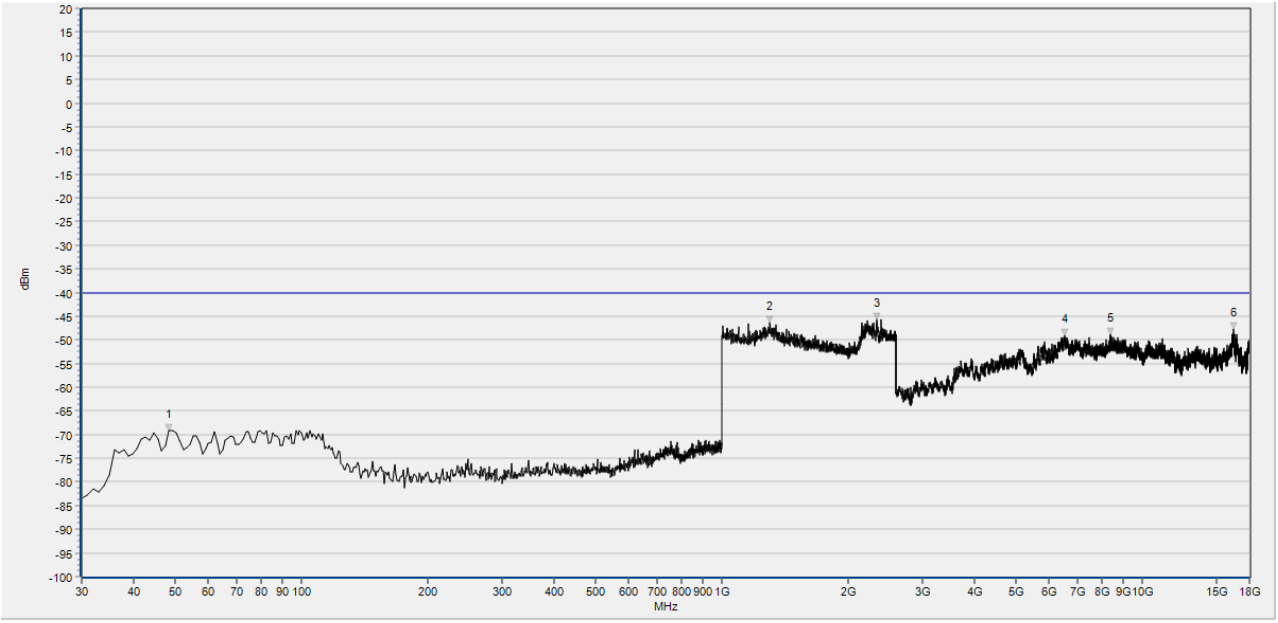
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	98.939	-68.29	-40.00	0.0	V	PASS
2	1310.711	-46.47	-40.00	281.7	V	PASS
3	2292.492	-44.88	-40.00	84.2	V	PASS
4	6413.803	-48.78	-40.00	354.6	V	PASS
5	8650.330	-49.50	-40.00	292.2	V	PASS
6	16545.949	-47.87	-40.00	167.0	V	PASS

48C Low 30M-18G V



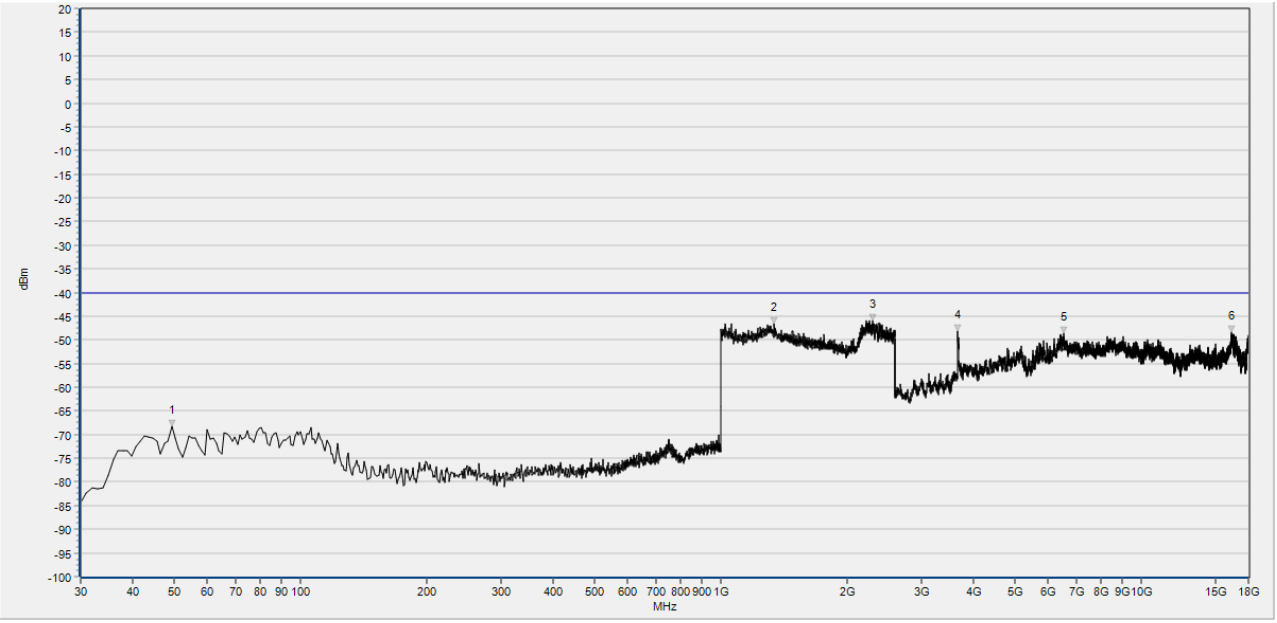
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	80.490	-68.00	-40.00	0.0	H	PASS
2	1289.890	-46.41	-40.00	240.6	H	PASS
3	2305.305	-45.77	-40.00	84.2	H	PASS
4	3610.442	-52.03	-40.00	137.5	H	NA
5	6540.108	-48.86	-40.00	186.4	H	PASS
6	16394.999	-48.09	-40.00	50.4	H	PASS

48C Mid 30M-18G H



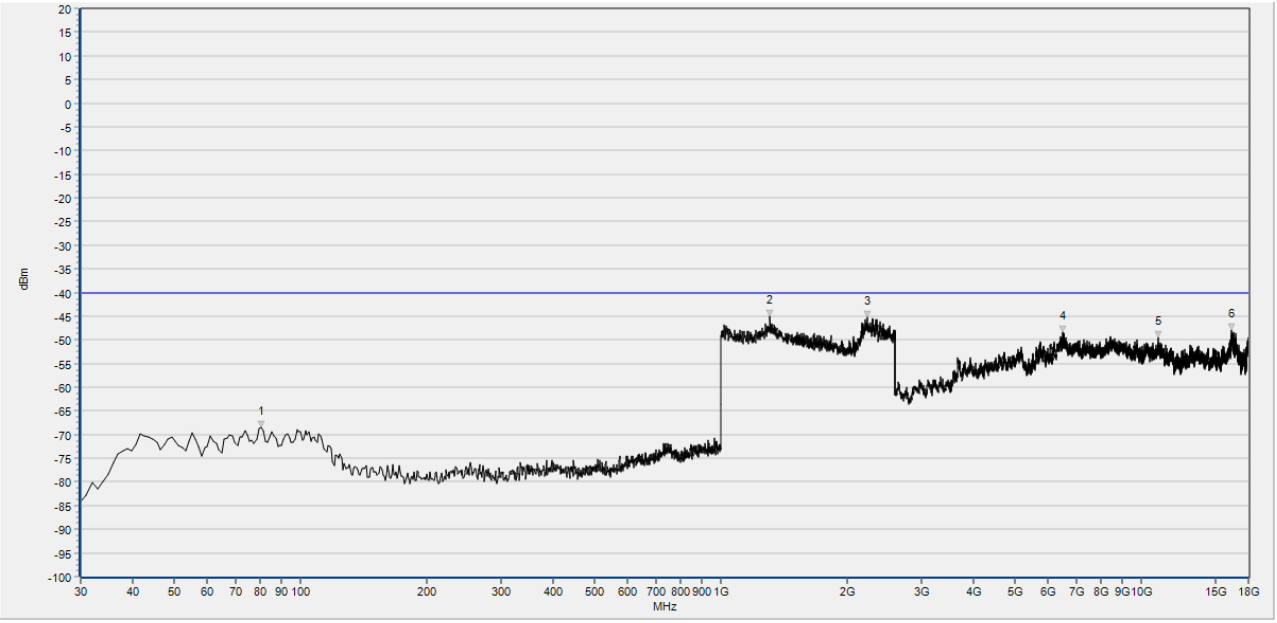
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	48.448	-69.23	-40.00	360.0	V	PASS
2	1302.703	-46.47	-40.00	275.2	V	PASS
3	2340.541	-45.71	-40.00	146.5	V	PASS
4	6530.866	-49.13	-40.00	290.1	V	PASS
5	8419.284	-48.81	-40.00	74.2	V	PASS
6	16518.224	-47.64	-40.00	337.8	V	PASS

48C Mid 30M-18G V



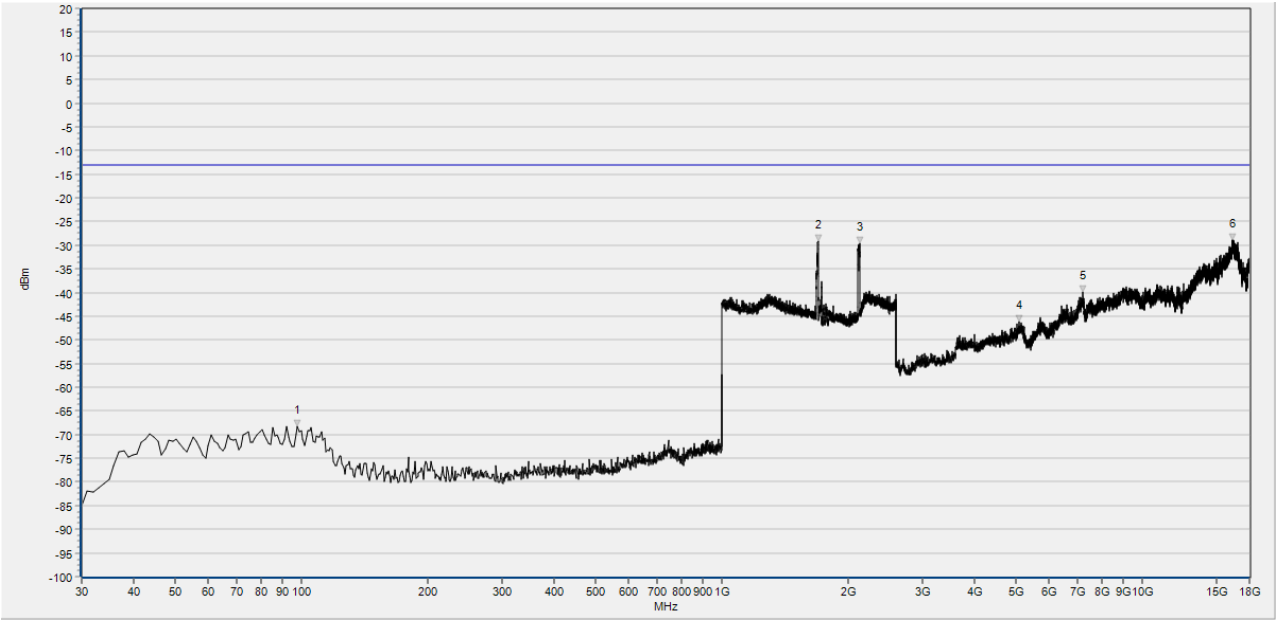
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	49.419	-68.34	-40.00	360.0	H	PASS
2	1341.141	-46.58	-40.00	64.9	H	PASS
3	2297.297	-45.92	-40.00	205.1	H	PASS
4	3662.813	-48.19	-40.00	123.0	H	NA
5	6546.269	-48.50	-40.00	1.5	H	PASS
6	16438.128	-48.45	-40.00	13.5	H	PASS

48C High 30M-18G H



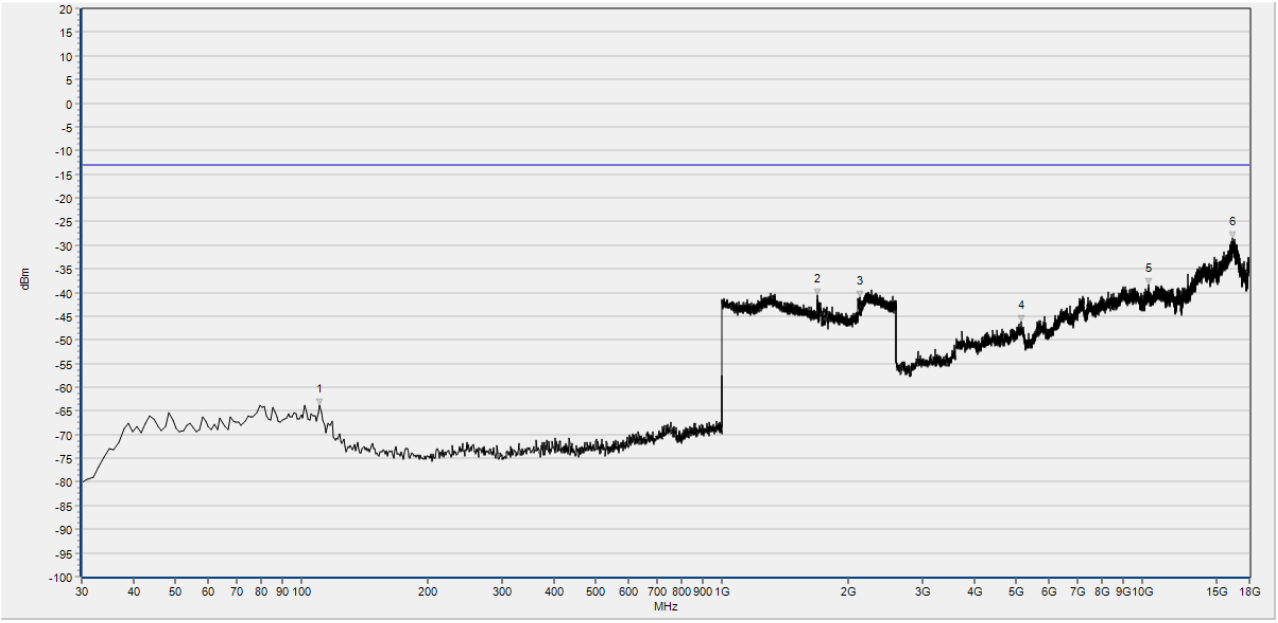
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	80.490	-68.42	-40.00	0.0	V	PASS
2	1309.109	-45.04	-40.00	64.2	V	PASS
3	2230.030	-45.27	-40.00	96.8	V	PASS
4	6518.544	-48.30	-40.00	277.5	V	PASS
5	10991.598	-49.49	-40.00	124.9	V	PASS
6	16407.321	-47.85	-40.00	79.0	V	PASS

48C High 30M-18G V



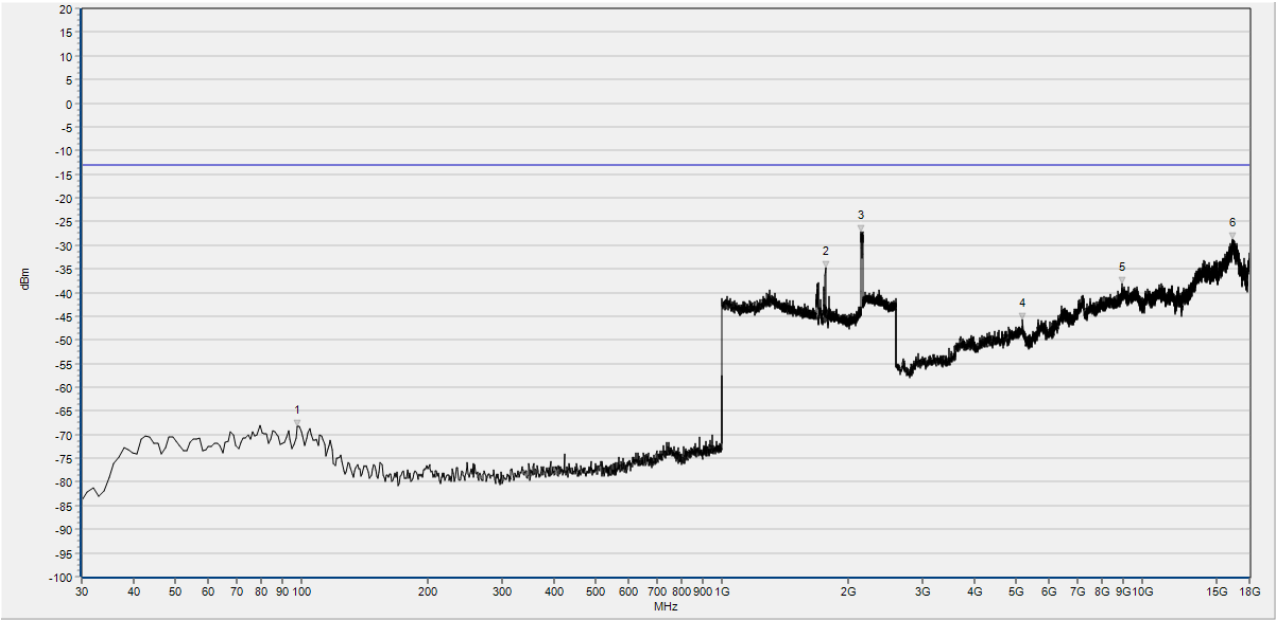
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	97.900	-68.34	-13.00	0.0	H	PASS
2	1693.397	-29.11	-13.00	330.0	H	NA
3	2126.851	-29.71	-13.00	228.5	H	NA
4	5106.456	-46.05	-13.00	33.1	H	PASS
5	7237.643	-39.99	-13.00	263.7	H	PASS
6	16392.508	-28.90	-13.00	5.7	H	PASS

66B Low 30M-18G H



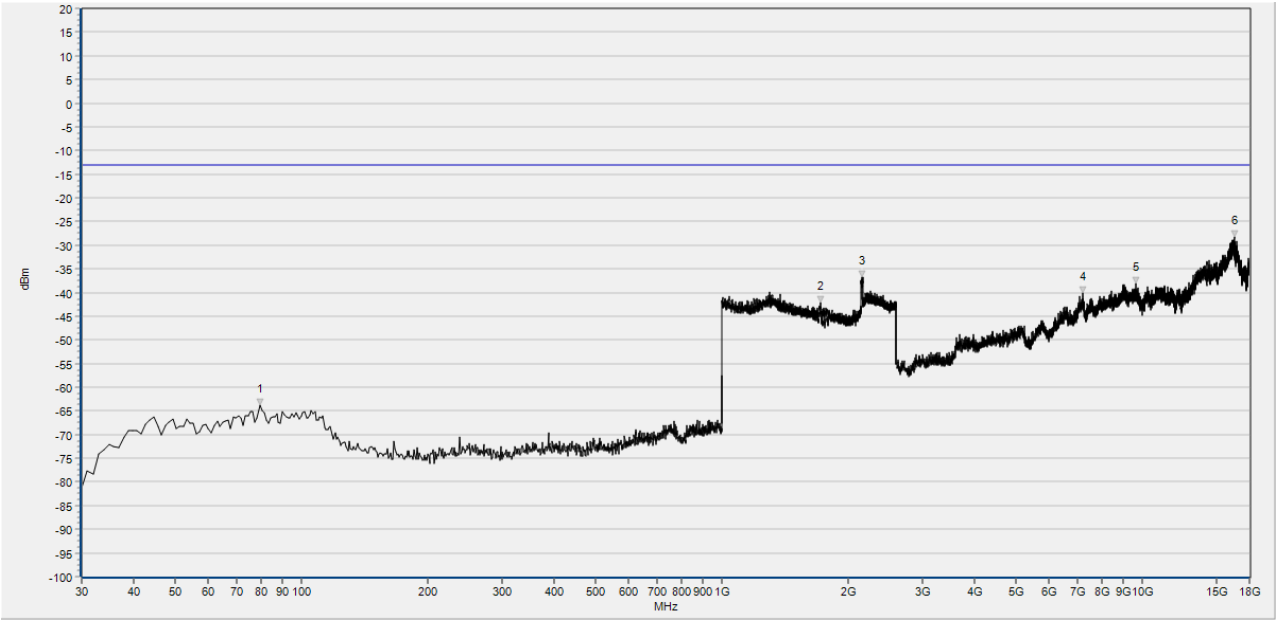
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	110.510	-63.84	-13.00	360.0	V	PASS
2	1691.477	-40.54	-13.00	293.6	V	NA
3	2125.570	-40.95	-13.00	353.4	V	NA
4	5159.665	-46.12	-13.00	140.8	V	PASS
5	10337.807	-38.23	-13.00	59.0	V	PASS
6	16392.508	-28.47	-13.00	59.0	V	PASS

66B Low 30M-18G V



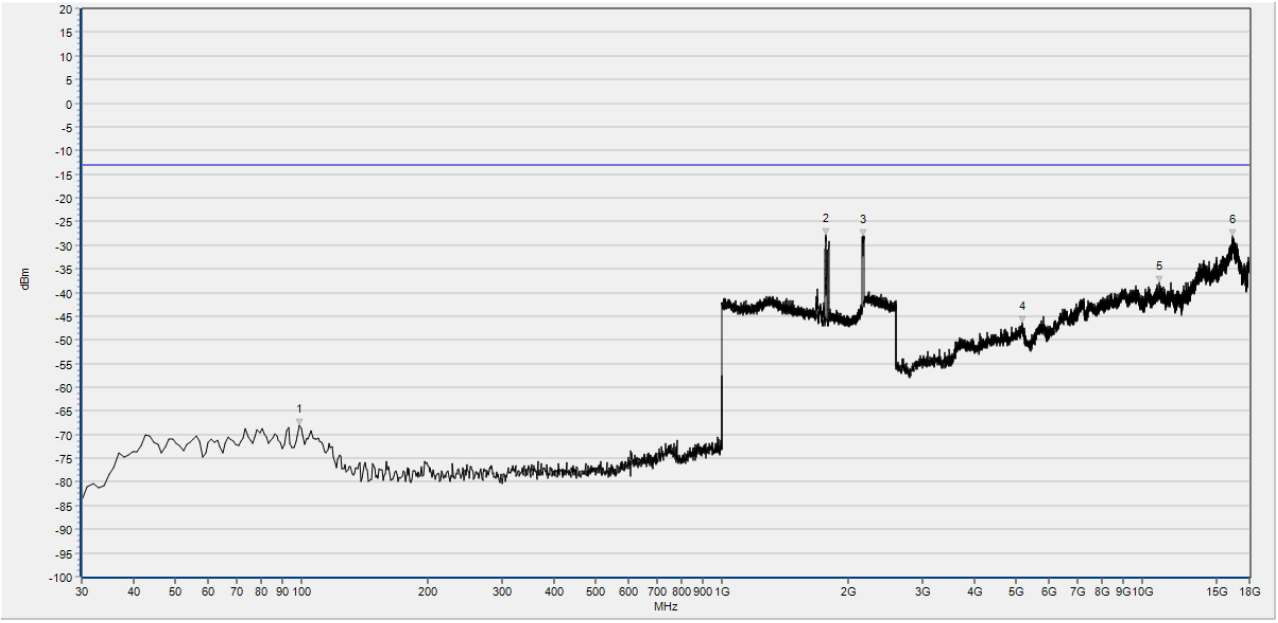
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	97.900	-68.17	-13.00	360.0	H	PASS
2	1763.826	-34.80	-13.00	298.3	H	NA
3	2146.699	-27.24	-13.00	218.7	H	NA
4	5198.873	-45.71	-13.00	259.6	H	PASS
5	8965.557	-38.17	-13.00	70.3	H	PASS
6	16445.717	-28.79	-13.00	242.1	H	PASS

66B Mid 30M-18G H



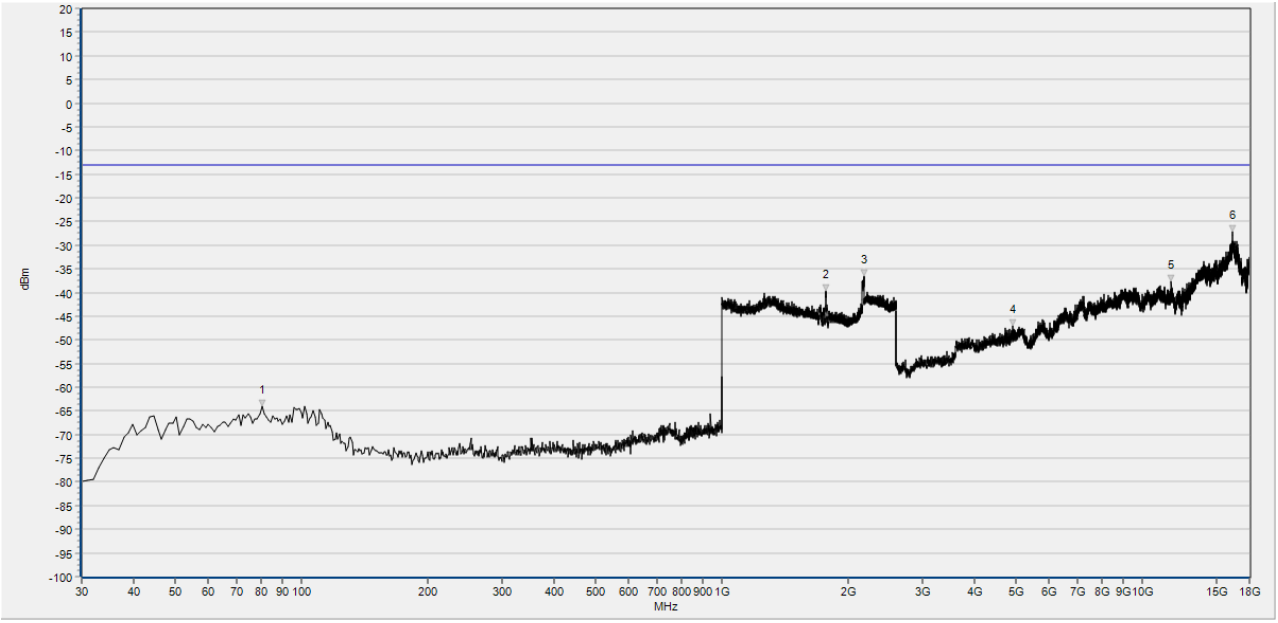
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	79.470	-63.90	-13.00	360.0	V	PASS
2	1715.166	-42.19	-13.00	342.0	V	PASS
3	2152.461	-36.75	-13.00	60.6	V	NA
4	7237.643	-40.16	-13.00	226.2	V	PASS
5	9676.887	-38.18	-13.00	117.8	V	PASS
6	16546.536	-28.37	-13.00	188.2	V	PASS

66B Mid 30M-18G V



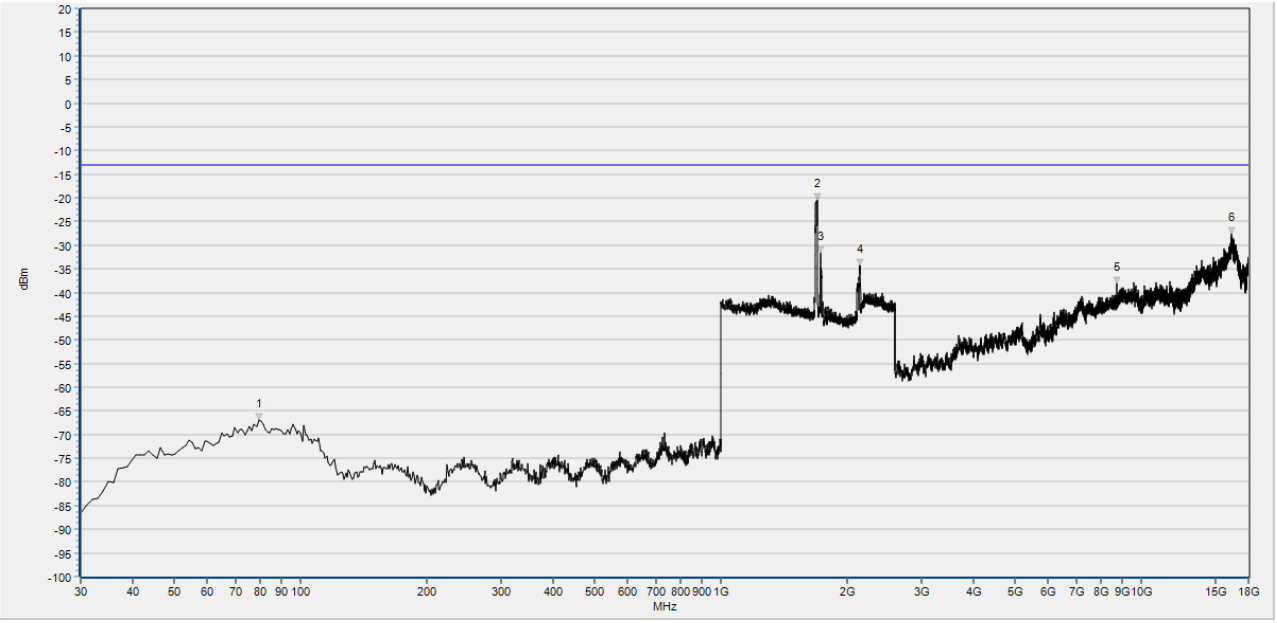
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	98.870	-68.15	-13.00	360.0	H	PASS
2	1767.027	-27.85	-13.00	285.9	H	NA
3	2163.345	-28.10	-13.00	87.2	H	NA
4	5176.468	-46.38	-13.00	220.6	H	PASS
5	10979.123	-37.85	-13.00	149.4	H	PASS
6	16412.111	-28.08	-13.00	18.5	H	PASS

66B High 30M-18G H



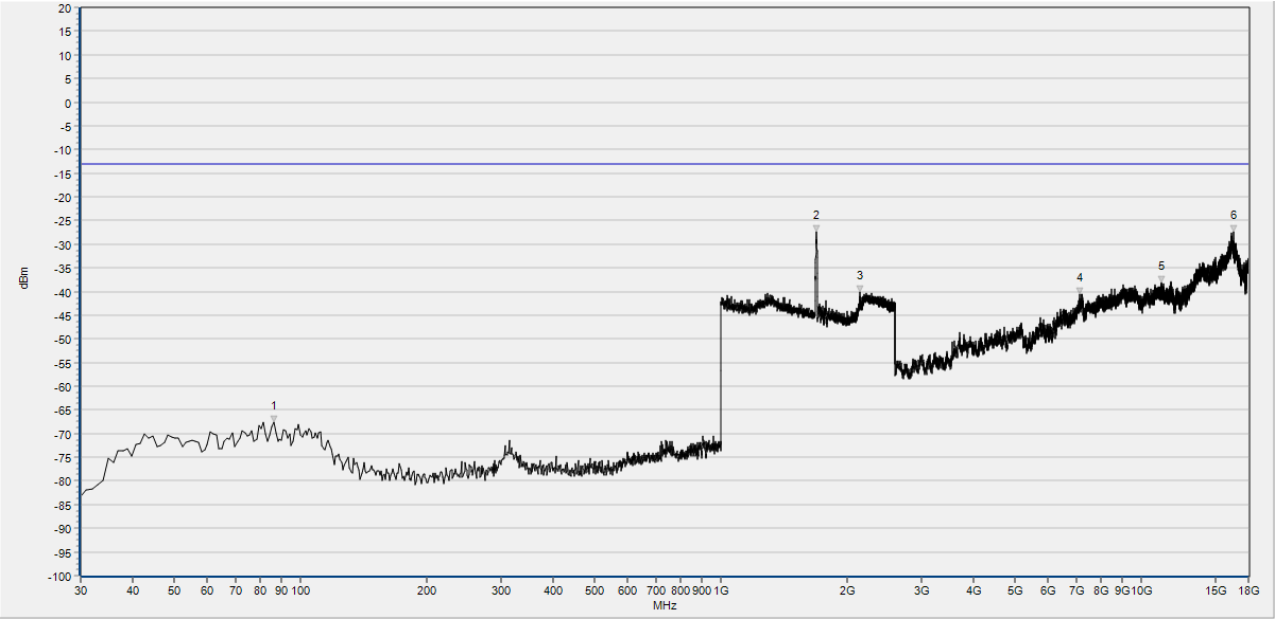
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	80.440	-64.10	-13.00	360.0	V	PASS
2	1766.387	-39.72	-13.00	27.2	V	NA
3	2174.230	-36.42	-13.00	300.2	V	NA
4	4918.822	-47.07	-13.00	133.4	V	PASS
5	11738.061	-37.67	-13.00	98.5	V	PASS
6	16386.907	-27.10	-13.00	142.3	V	PASS

66B High 30M-18G V



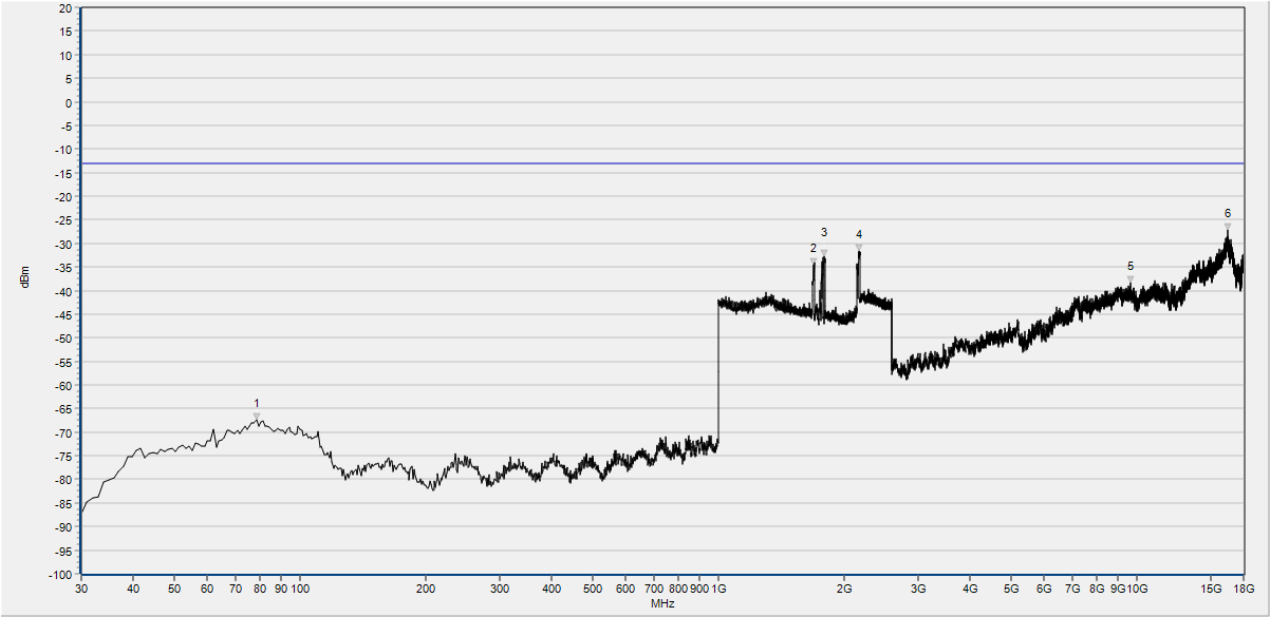
Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	79.520	-67.00	-13.00	318.2	H	PASS
2	1694.747	-20.34	-13.00	302.4	H	NA
3	1728.364	-31.59	-13.00	290.5	H	NA
4	2140.570	-34.30	-13.00	79.3	H	NA
5	8771.295	-38.12	-13.00	171.3	H	PASS
6	16423.804	-27.66	-13.00	263.6	H	PASS

66C Low 30M-18G H



Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	86.316	-67.62	-13.00	0.1	V	PASS
2	1685.943	-27.40	-13.00	65.1	V	NA
3	2138.169	-40.01	-13.00	168.9	V	PASS
4	7156.593	-40.57	-13.00	154.2	V	PASS
5	11148.425	-38.14	-13.00	225.6	V	PASS
6	16549.592	-27.40	-13.00	0.0	V	PASS

66C Low 30M-18G V



Num	Freq(MHz)	PK	limit PK	Degree	Antenna	Verdict
1	78.549	-67.35	-13.00	307.6	H	PASS
2	1688.344	-34.58	-13.00	296.0	H	PASS
3	1793.997	-32.70	-13.00	148.8	H	NA
4	2173.387	-31.59	-13.00	264.8	H	NA
5	9646.674	-38.27	-13.00	264.0	H	PASS
6	16516.219	-27.22	-13.00	207.7	H	PASS

66C Low 30M-18G V

Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test Items	Uncertainty
Output Power	±2.22 dB
Bandwidth	±5%
Conducted Spurious Emission	±2.77 dB
Band Edge	±2.77 dB
Equivalent Isotropic Radiated Power	±2.22 dB
Radiated Spurious Emissions	±6 dB

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

Laboratory Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Laboratory Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
Telephone:	+86 755 36698555
Facsimile:	+86 755 36698525

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.

4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Power Splitter	NW521	1506A	Weinschel	N/A	N/A
Attenuator 1	(N/A.)	10dB	Resnet	N/A	N/A
EXA Signal Analyzer	MY51511149	N9020A	Agilent	2023.06.21	2024.06.20
EXA Signal Analyzer	MY54170556	N9030A	Keysight	2023.10.07	2024.10.06
System Simulator	6261830572	MT8821C	Anritsu	2023.02.09	2024.02.08
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Computer	T430i	Think Pad	Lenovo	N/A	N/A

4.2 List of Software Used

Description	Manufacturer	Software Version
Morlab FCC LTE Test System	MORLAB	V6.45
MORLAB EMCR	MORLAB	V1.2

4.3 Radiated Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Loop Antenna	00131	FMZB 1519B	SCHWARZBECK	2023.10.10	2024.10.9
Bi-Log Antenna	9163-274	VULB 9163	SCHWARZBECK	2023.6.27	2024.6.26
Horn Antenna	9120D-963	BBHA 9120D	SCHWARZBECK	2023.6.27	2024.6.26
Receiver	MY54130016	N9038A	Agilent	2023.6.21	2024.6.20
6db Attenuator	E191001	BW-N6W5+	Mini-circuits	2023.9.19	2024.9.18
Preamplifier（2GHz-18GHz）	61171/61172	S020180L3203	LUCIX CORP.	2023.6.27	2024.6.26
Preamplifier（10MHz-6GHz）	46732	S10M100L3802	LUCIX CORP.	2023.6.27	2024.6.26
System Simulator	152038	CMW500	R&S	2023.9.19	2024.9.18
System Simulator	MY48364176	8960-E5515C	Agilent	2023.2.27	2024.2.26
System Simulator	6262148249	MT8000A	anritsu	2023.6.27	2024.6.26
System Simulator	6261830572	MT8821C	anritsu	2023.2.9	2024.2.8
RF Coaxial Cable（DC-18GHz）	MRE001	PE330	Pasternack	2023.6.27	2024.6.26
RF Coaxial Cable（DC-18GHz）	MRE002	CLU18	Pasternack	2023.6.27	2024.6.26
RF Coaxial Cable（DC-18GHz）	MRE003	CLU18	Pasternack	2023.6.27	2024.6.26

END OF REPORT