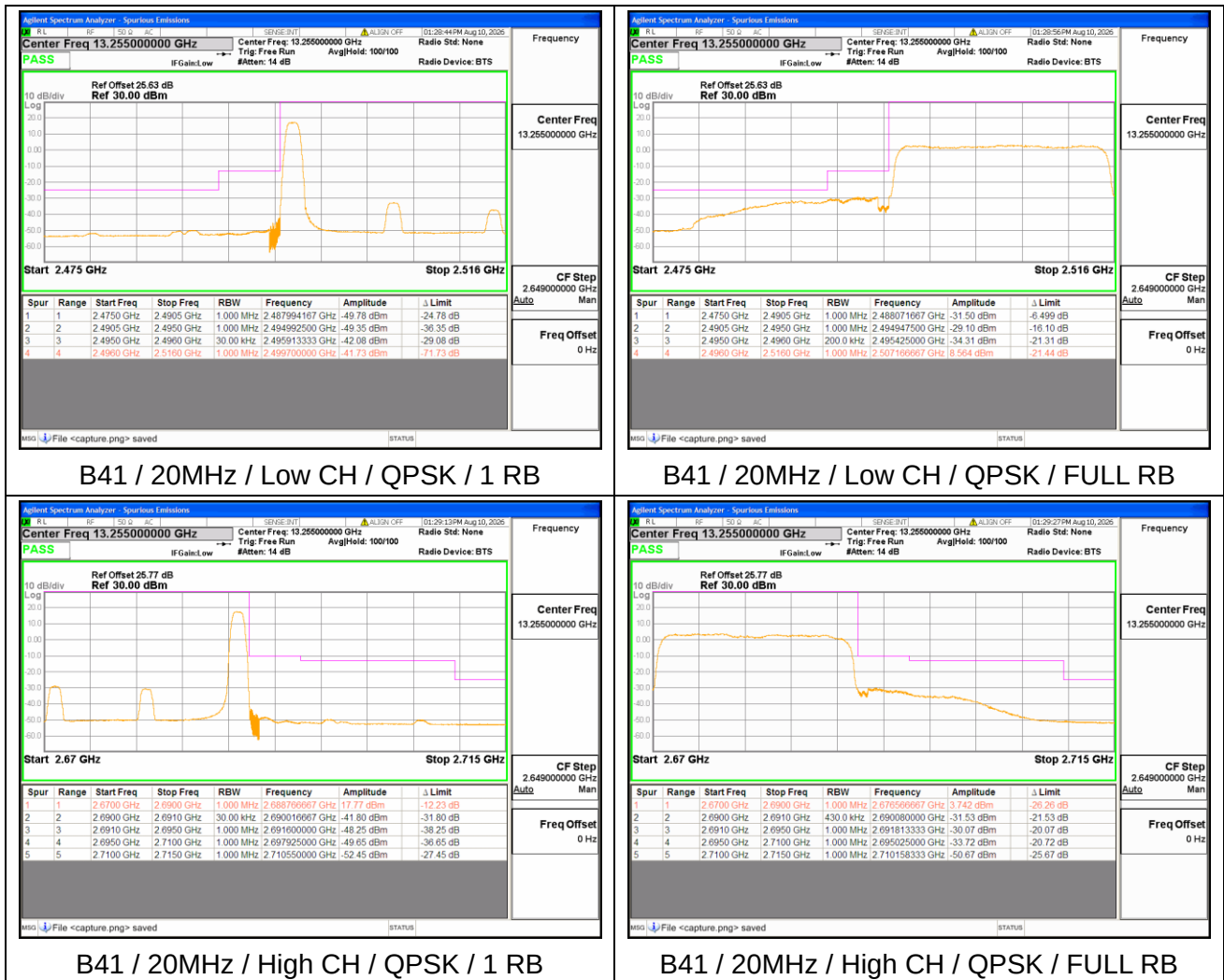
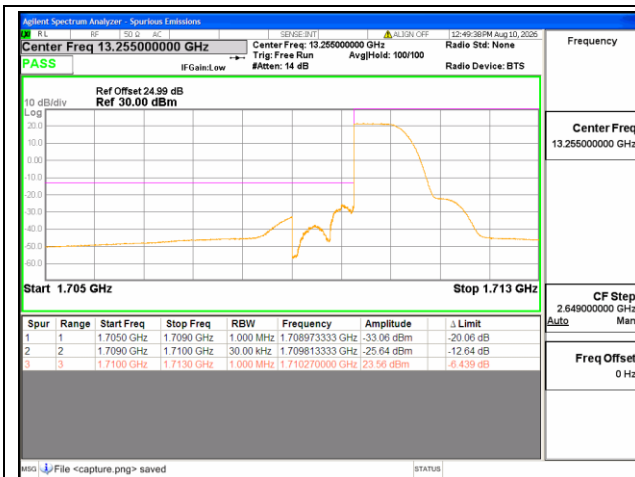
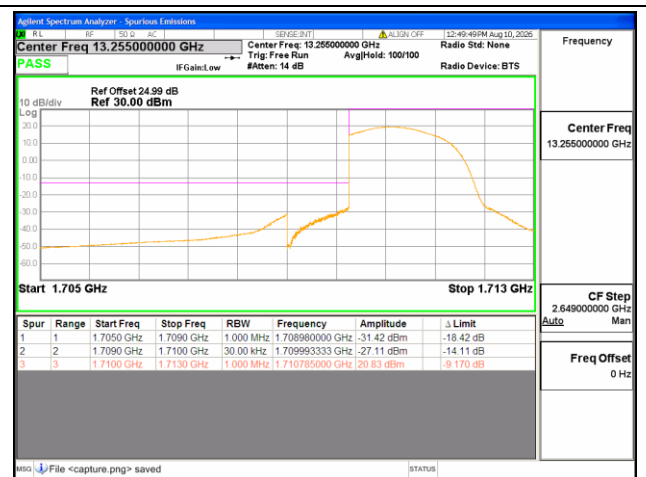


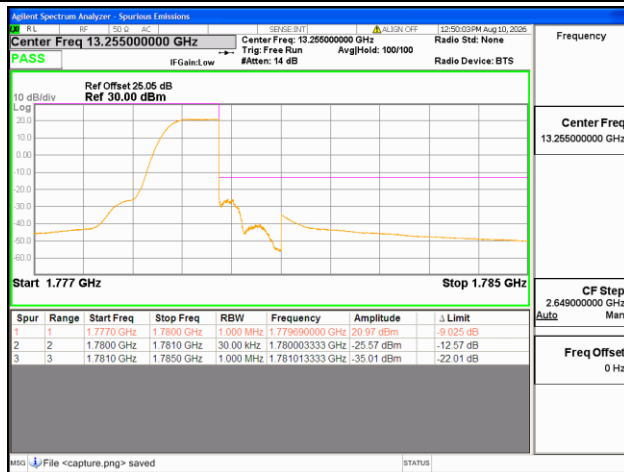




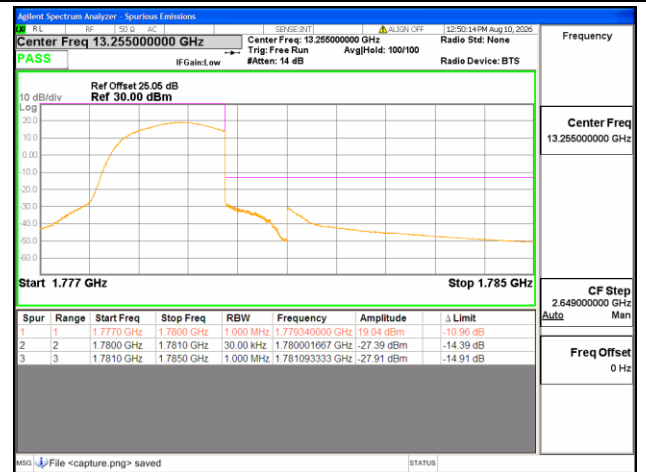
B66 / 1.4MHz / Low CH / QPSK / 1 RB



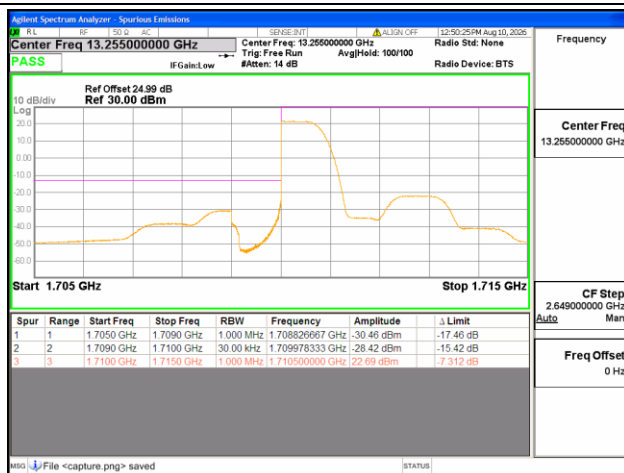
B66 / 1.4MHz / Low CH / QPSK / FULL RB



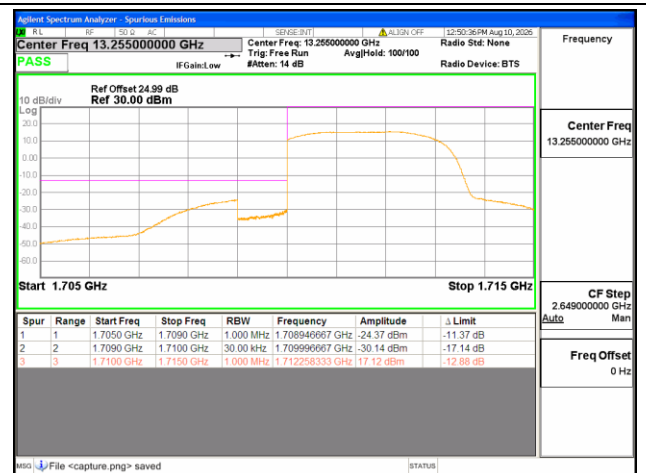
B66 / 1.4MHz / High CH / QPSK / 1 RB



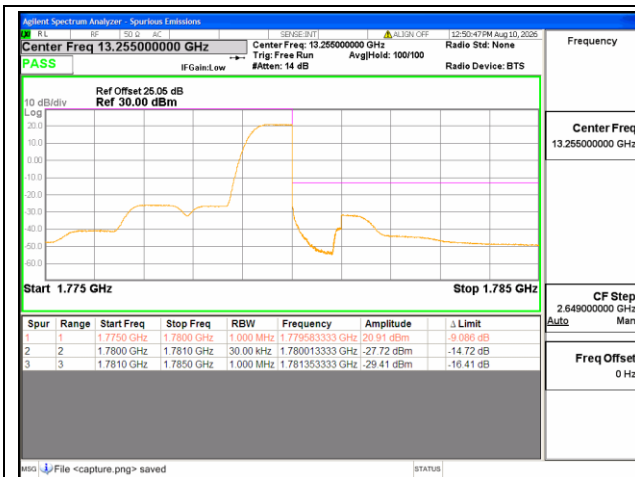
B66 / 1.4MHz / High CH / QPSK / FULL RB



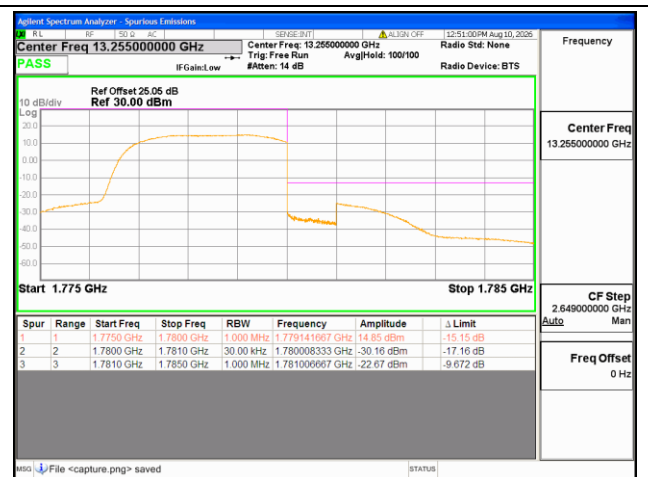
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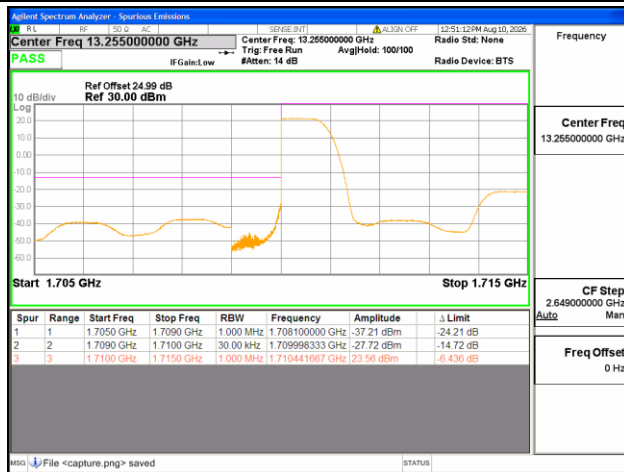
B66 / 3MHz / Low CH / QPSK / FULL RB



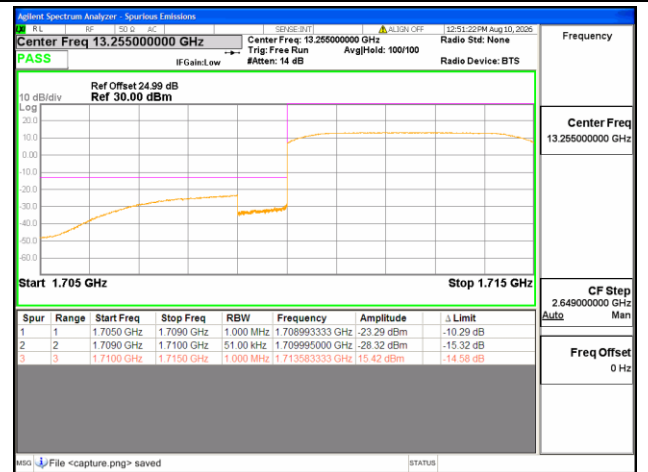
B66 / 3MHz / High CH / QPSK / 1 RB



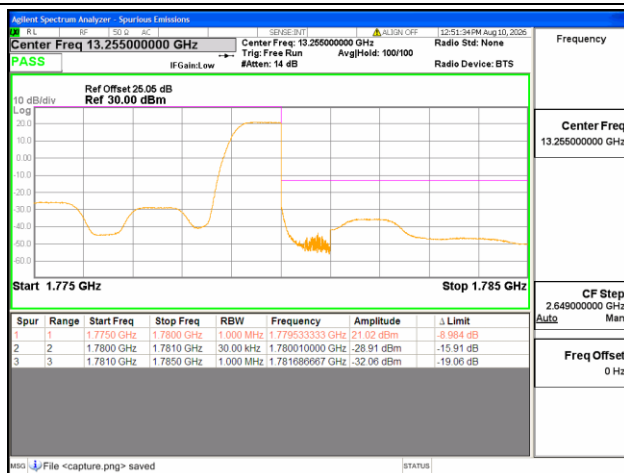
B66 / 3MHz / High CH / QPSK / FULL RB



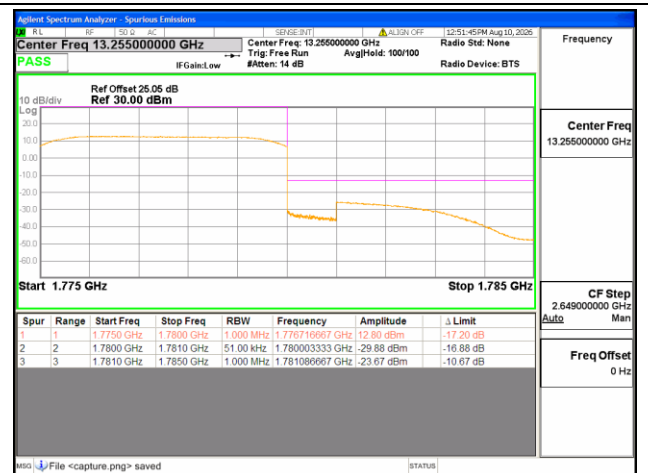
B66 / 5MHz / Low CH / QPSK / 1 RB



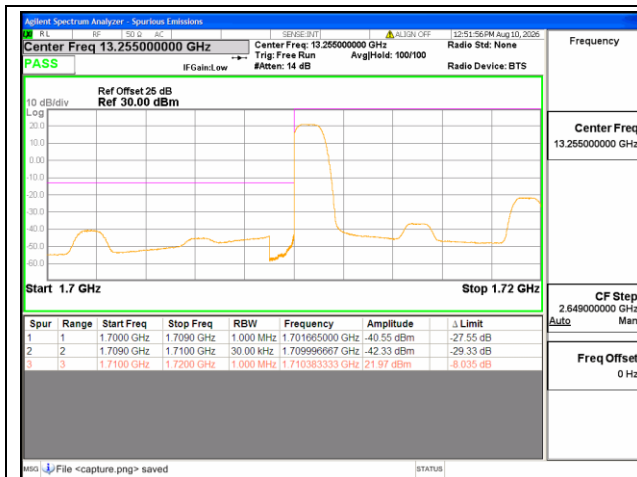
B66 / 5MHz / Low CH / QPSK / FULL RB



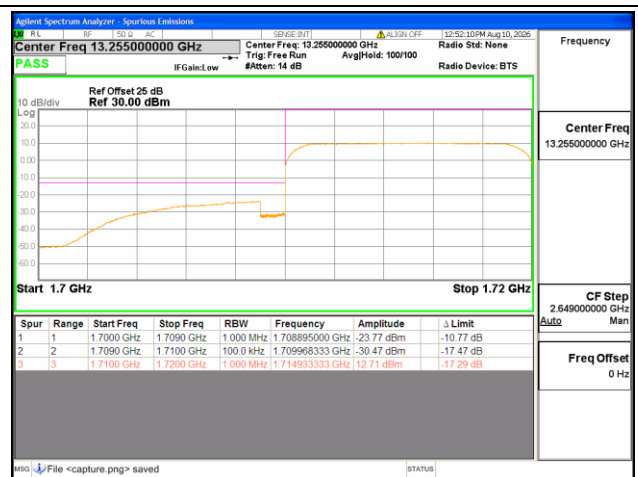
B66 / 5MHz / High CH / QPSK / 1 RB



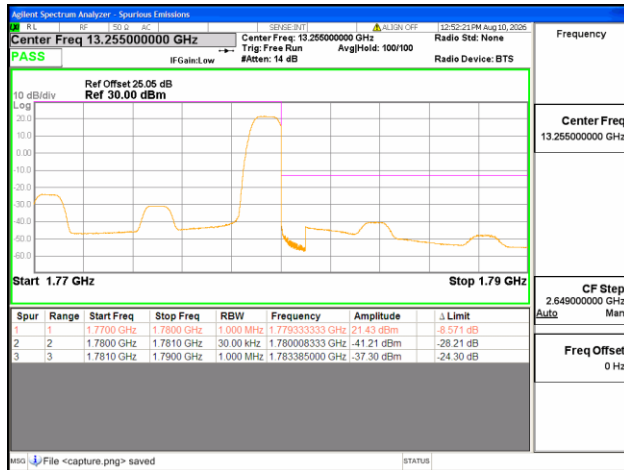
B66 / 5MHz / High CH / QPSK / FULL RB



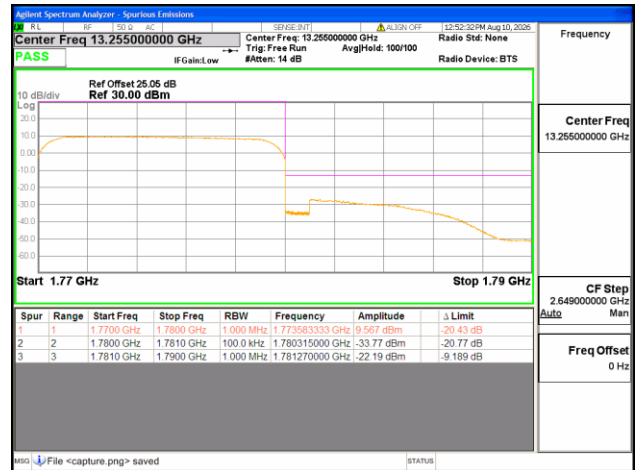
B66 / 10MHz / Low CH / QPSK / 1 RB



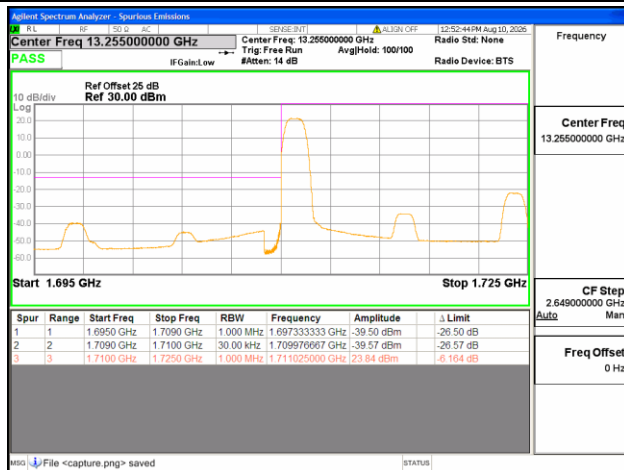
B66 / 10MHz / Low CH / QPSK / FULL RB



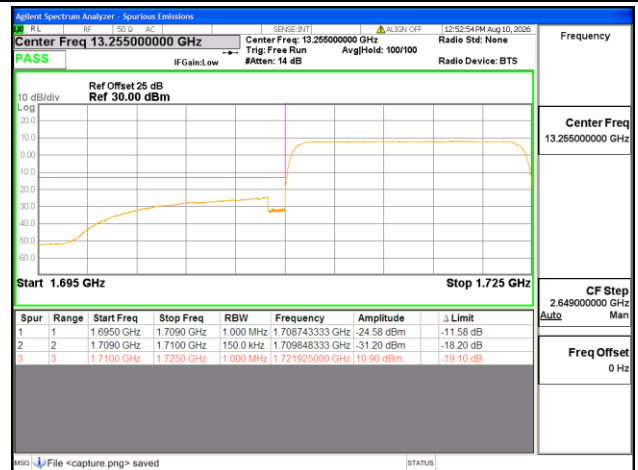
B66 / 10MHz / High CH / QPSK / 1 RB



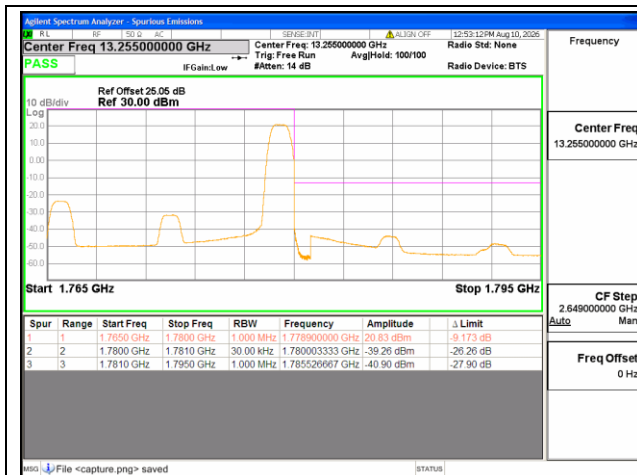
B66 / 10MHz / High CH / QPSK / FULL RB



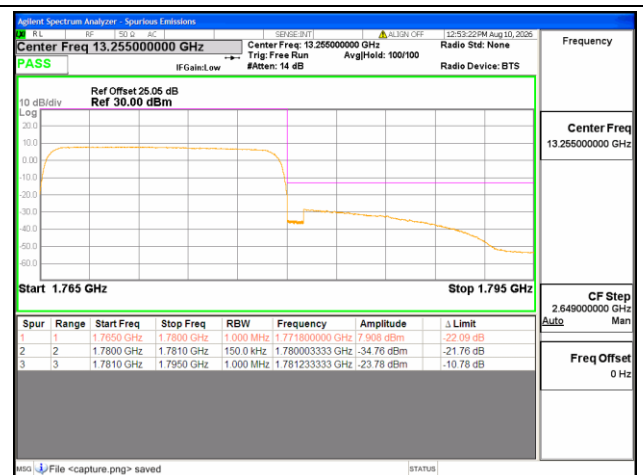
B66 / 15MHz / Low CH / QPSK / 1 RB



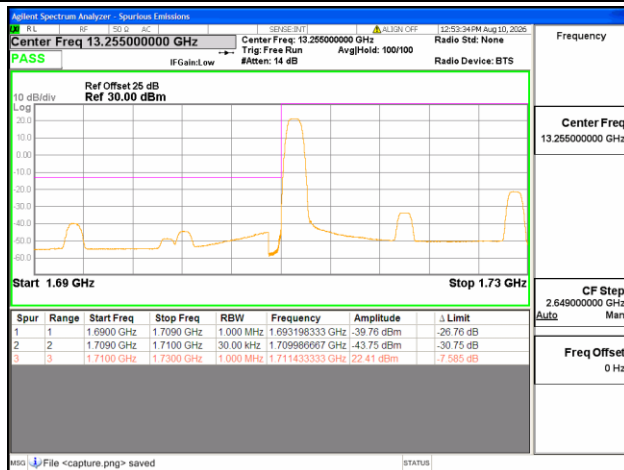
B66 / 15MHz / Low CH / QPSK / FULL RB



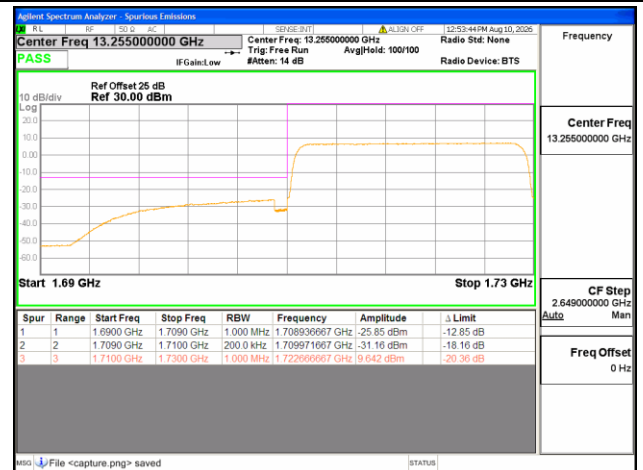
B66 / 15MHz / High CH / QPSK / 1 RB



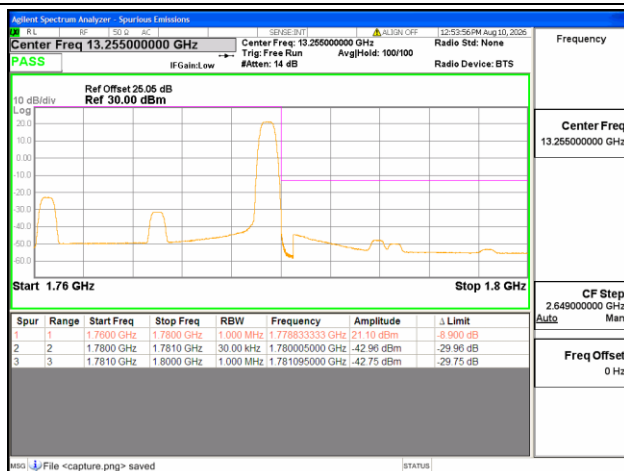
B66 / 15MHz / High CH / QPSK / FULL RB



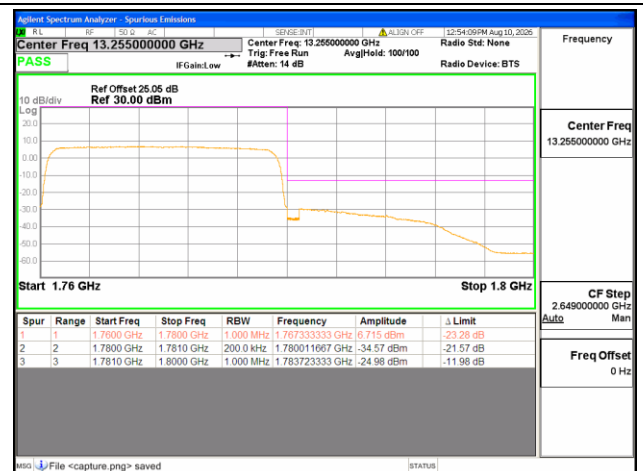
B66 / 20MHz / Low CH / QPSK / 1 RB



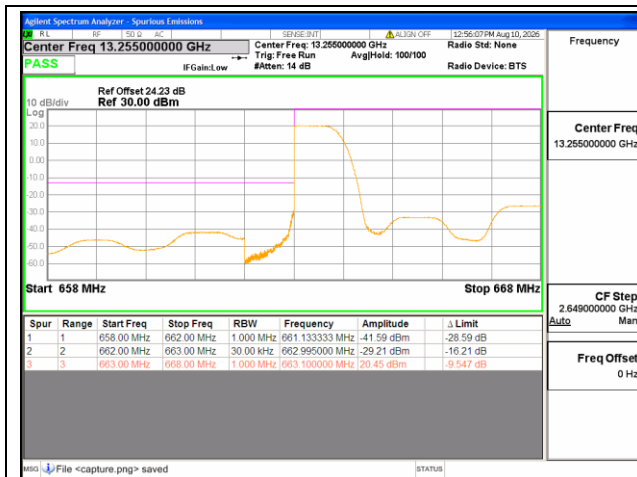
B66 / 20MHz / Low CH / QPSK / FULL RB



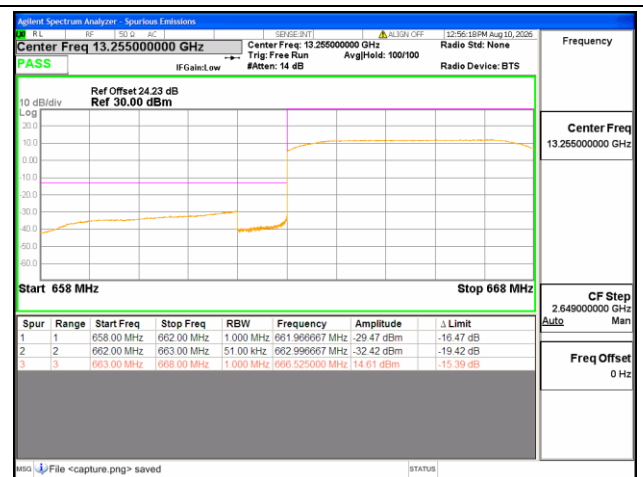
B66 / 20MHz / High CH / QPSK / 1 RB



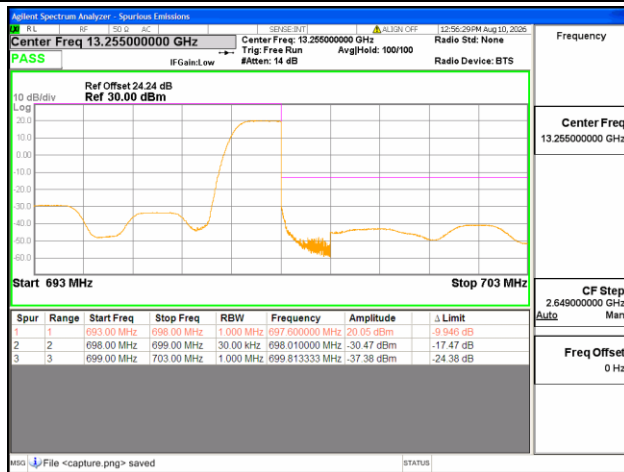
B66 / 20MHz / High CH / QPSK / FULL RB



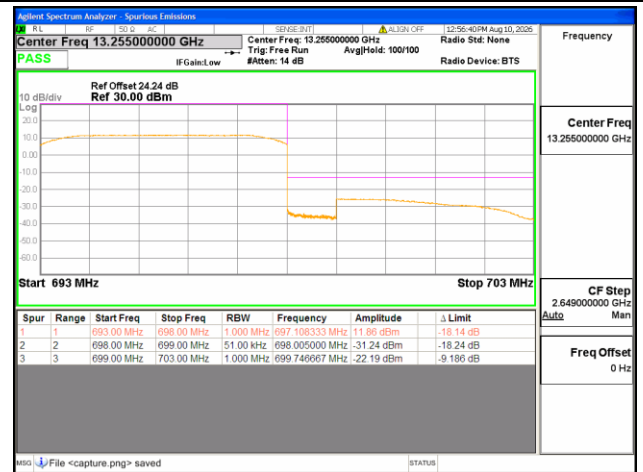
B71 / 5MHz / Low CH / QPSK / 1 RB



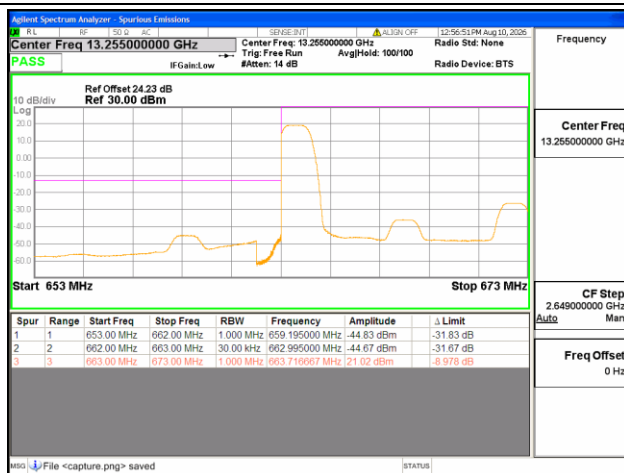
B71 / 5MHz / Low CH / QPSK / FULL RB



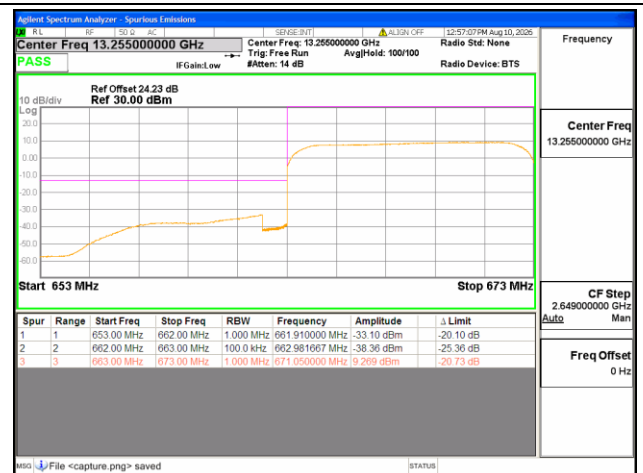
B71 / 5MHz / High CH / QPSK / 1 RB



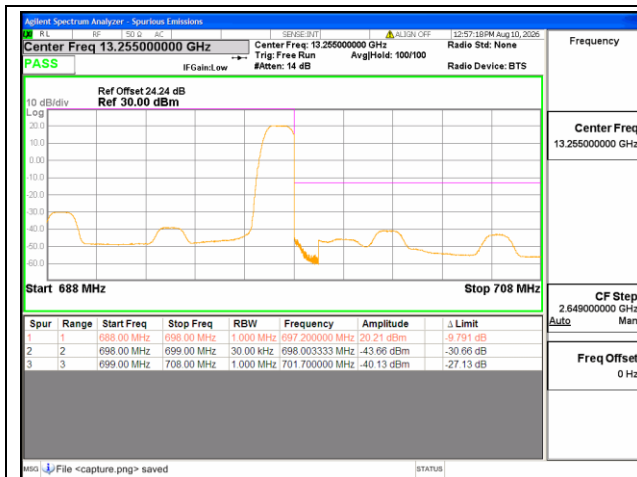
B71 / 5MHz / High CH / QPSK / FULL RB



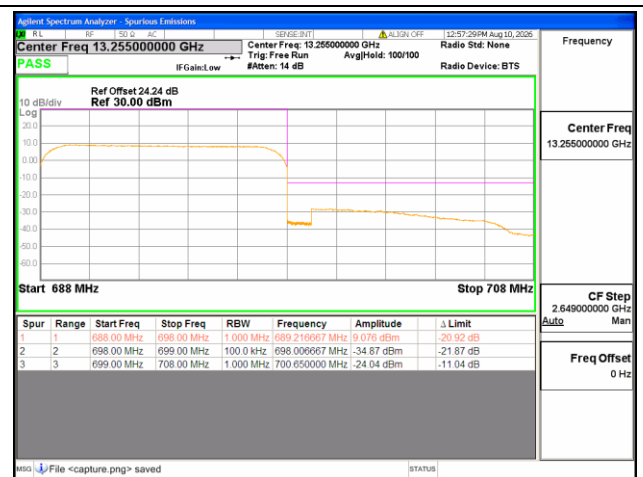
B71 / 10MHz / Low CH / QPSK / 1 RB



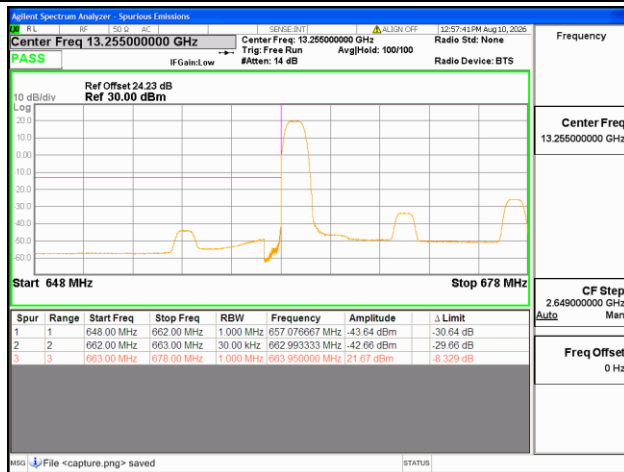
B71 / 10MHz / Low CH / QPSK / FULL RB



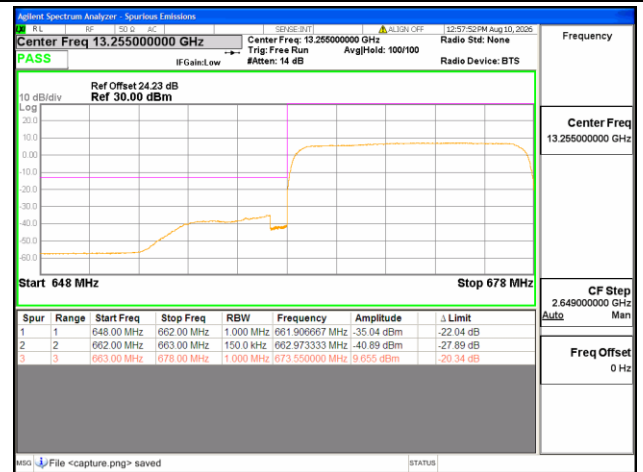
B71 / 10MHz / High CH / QPSK / 1 RB



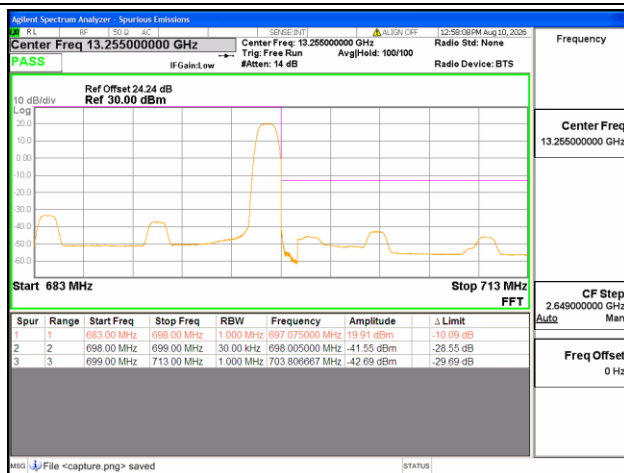
B71 / 10MHz / High CH / QPSK / FULL RB



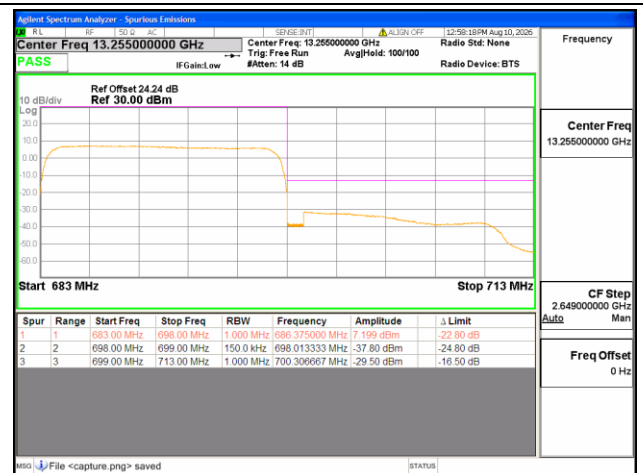
B71 / 15MHz / Low CH / QPSK / 1 RB



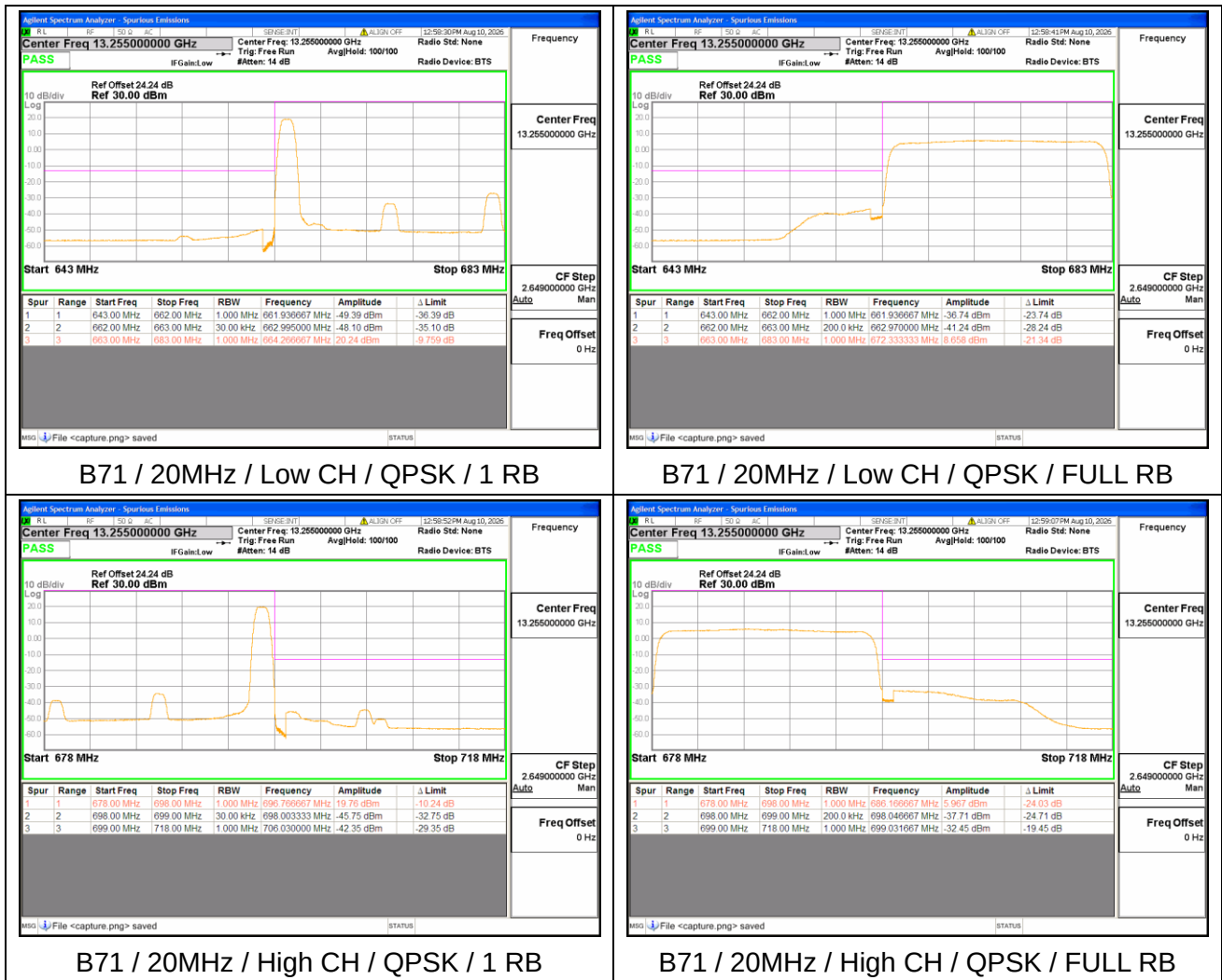
B71 / 15MHz / Low CH / QPSK / FULL RB



B71 / 15MHz / High CH / QPSK / 1 RB



B71 / 15MHz / High CH / QPSK / FULL RB





2.7. Radiated Spurious Emissions

2.7.1. 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 7, 41

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 $55 + 10 \log(P)$ dB. This calculated to be -25dBm.

Additional requirement for Band 13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (E.I.R.P.) for wideband signals, and -80 dBW E.I.R.P. for discrete emissions of less than 700 Hz bandwidth. This calculated to be -40dBm.

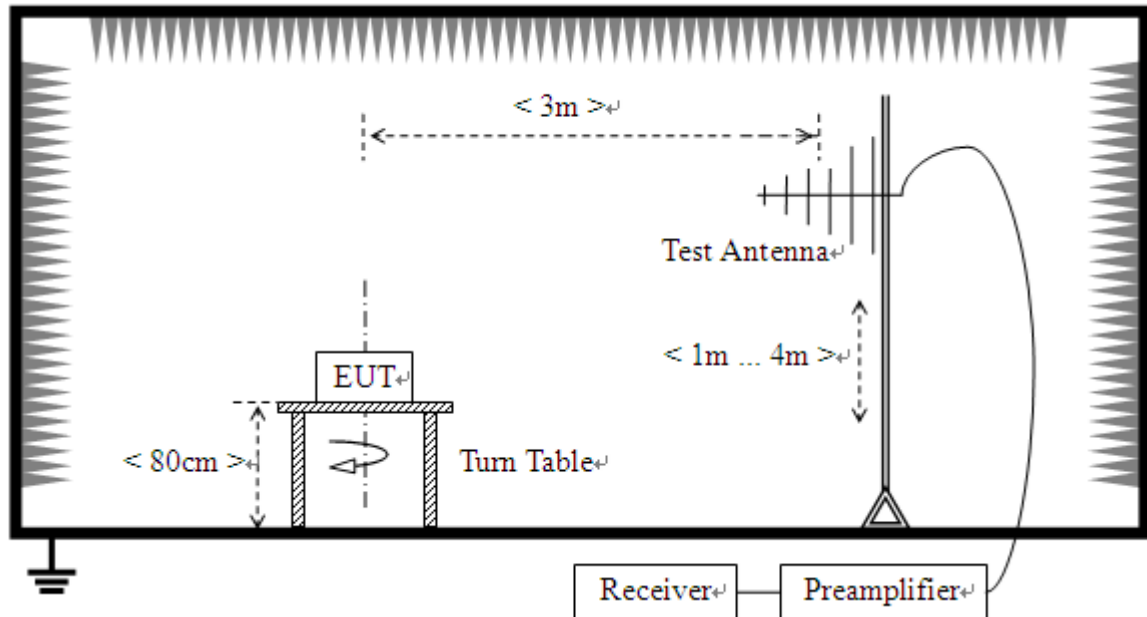
Additional requirement for Band 14

Any frequency outside of the frequency ranges covered by the ACP tables in this section, the power of any emission must be reduced below the mean output power (P) by at least $43 + 10 \log(P)$ dB measured in a 100 kHz bandwidth for frequencies less than 1 GHz, and in a 1 MHz bandwidth for frequencies greater than 1 GHz.

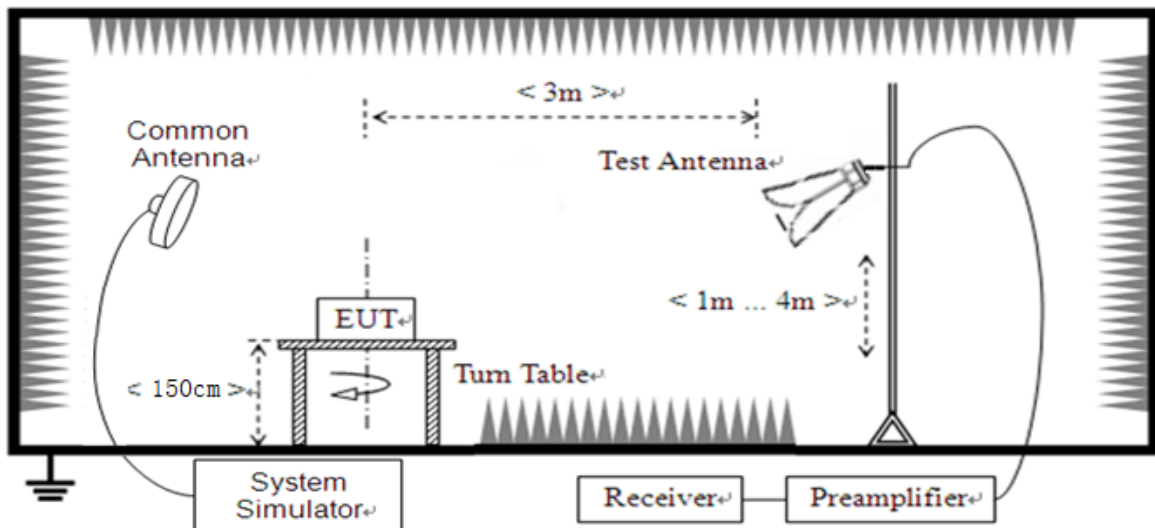
Additional requirement for LTE Band 30/40

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $70 + 10 \log(P)$ dB. This calculated to be -40dBm.

2.7.2. Test Description



(For the test frequency from 30MHz to 1GHz)



(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.

2.7.3. Test Procedure

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

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements.

For measurements above 1GHz (exclude 1559-1610 MHz) the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements.

2.7.4. 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:

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

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

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

$P_{\text{SUBST_TX}}$ is signal generator level,

$P_{\text{SUBST_RX}}$ is receiver level,

$L_{\text{SUBST_CABLES}}$ is cable losses including TX cable,

$G_{\text{SUBST_TX_ANT}}$ is substitution antenna gain.

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

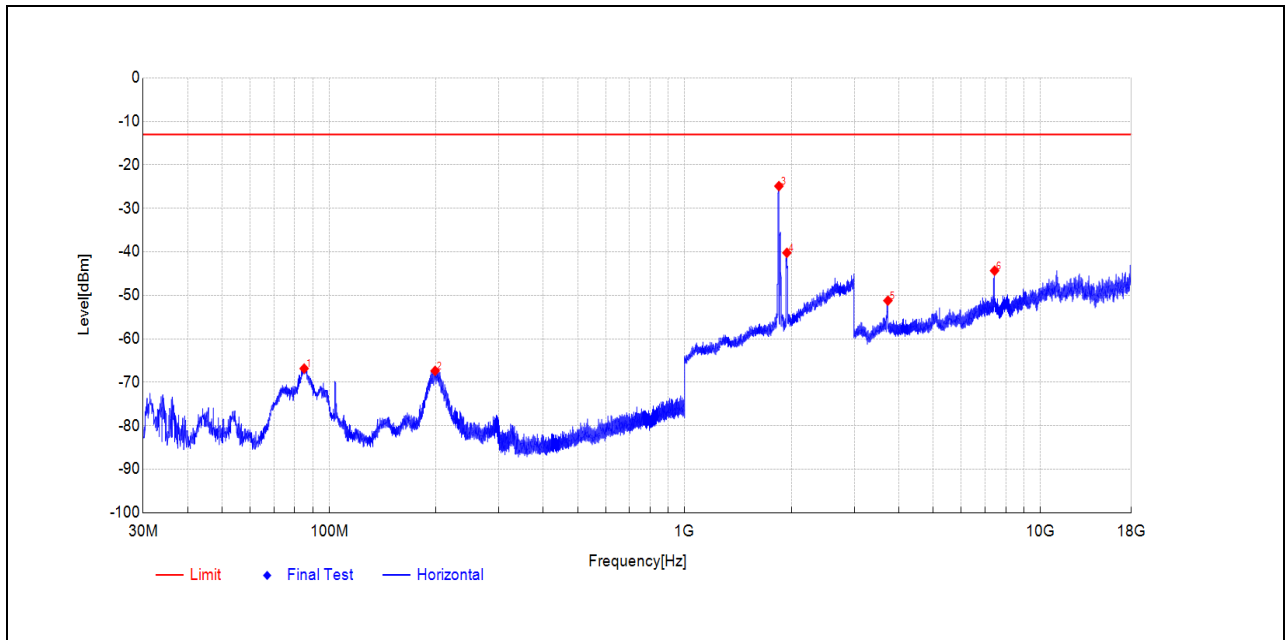
During the test, the data of A_{TOT} was added in the test spectrum analyze, so spectrum analyze reading is the final values which contain the data of A_{TOT} .

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.

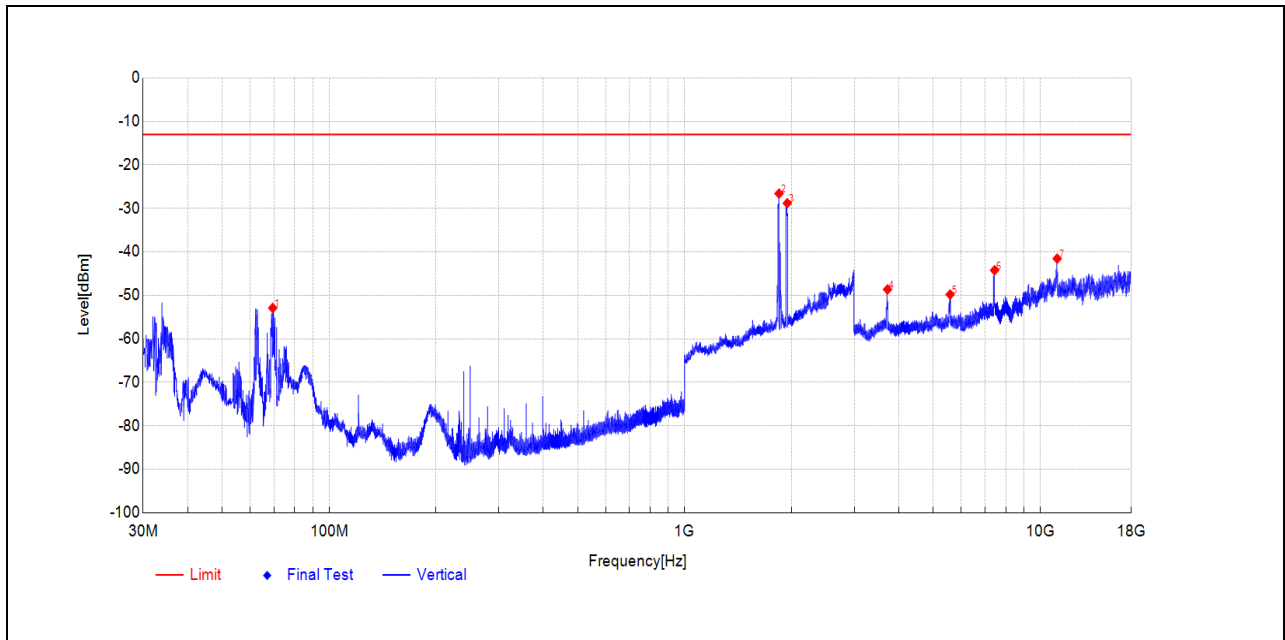
Note 4: N/A means the frequency is the basic frequency or the base station frequency, they are no need to verdict.



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	85.0988	-43.20	-66.83	-23.6	-13.0	53.8	Horizontal	PK	5	PASS
2	198.6914	-49.32	-67.37	-18.1	-13.0	54.4	Horizontal	PK	360	PASS
3	1840.9682	-29.10	-24.87	4.2	-	-	Horizontal	PK	209	NA
4	1938.5877	-44.31	-40.21	4.1	-	-	Horizontal	PK	102	NA
5	3728.6755	-52.71	-51.21	1.5	-13.0	38.2	Horizontal	PK	348	PASS
6	7440.0576	-56.63	-44.33	12.3	-13.0	31.3	Horizontal	PK	40	PASS

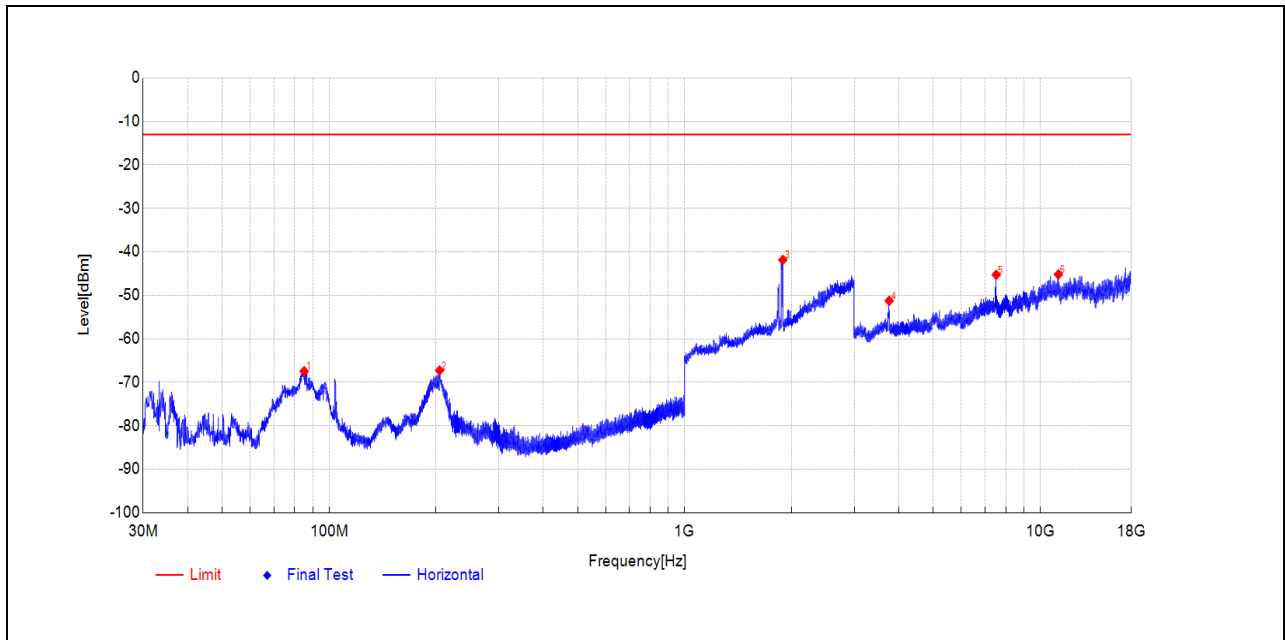
RSE_H_LTE_B2_LOW 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	69.4325	-32.28	-52.89	-20.6	-13.0	39.9	Vertical	PK	144	PASS
2	1842.5685	-31.10	-26.59	4.5	-	-	Vertical	PK	334	NA
3	1943.3887	-32.75	-28.80	4.0	-	-	Vertical	PK	186	NA
4	3720.1029	-50.18	-48.64	1.5	-13.0	35.6	Vertical	PK	144	PASS
5	5577.7968	-56.39	-49.80	6.6	-13.0	36.8	Vertical	PK	188	PASS
6	7440.0576	-55.90	-44.23	11.7	-13.0	31.2	Vertical	PK	17	PASS
7	11160.2064	-63.17	-41.55	21.6	-13.0	28.6	Vertical	PK	80	PASS

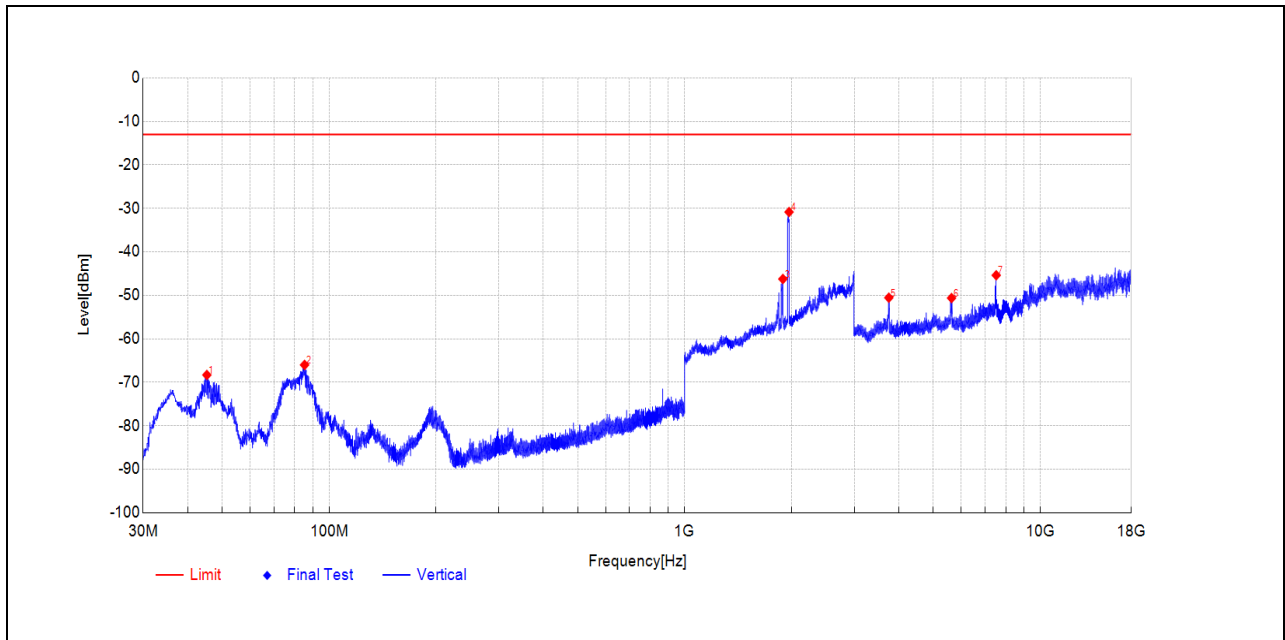
RSE_V_LTE_B2_LOW 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	85.0988	-43.82	-67.45	-23.6	-13.0	54.5	Horizontal	PK	5	PASS
2	204.5117	-50.18	-67.27	-17.1	-13.0	54.3	Horizontal	PK	5	PASS
3	1888.1776	-46.81	-41.84	5.0	-	-	Horizontal	PK	226	NA
4	3760.3943	-52.41	-51.24	1.2	-13.0	38.2	Horizontal	PK	360	PASS
5	7520.2208	-57.47	-45.26	12.2	-13.0	32.3	Horizontal	PK	38	PASS
6	11247.5699	-65.35	-45.19	20.2	-13.0	32.2	Horizontal	PK	120	PASS

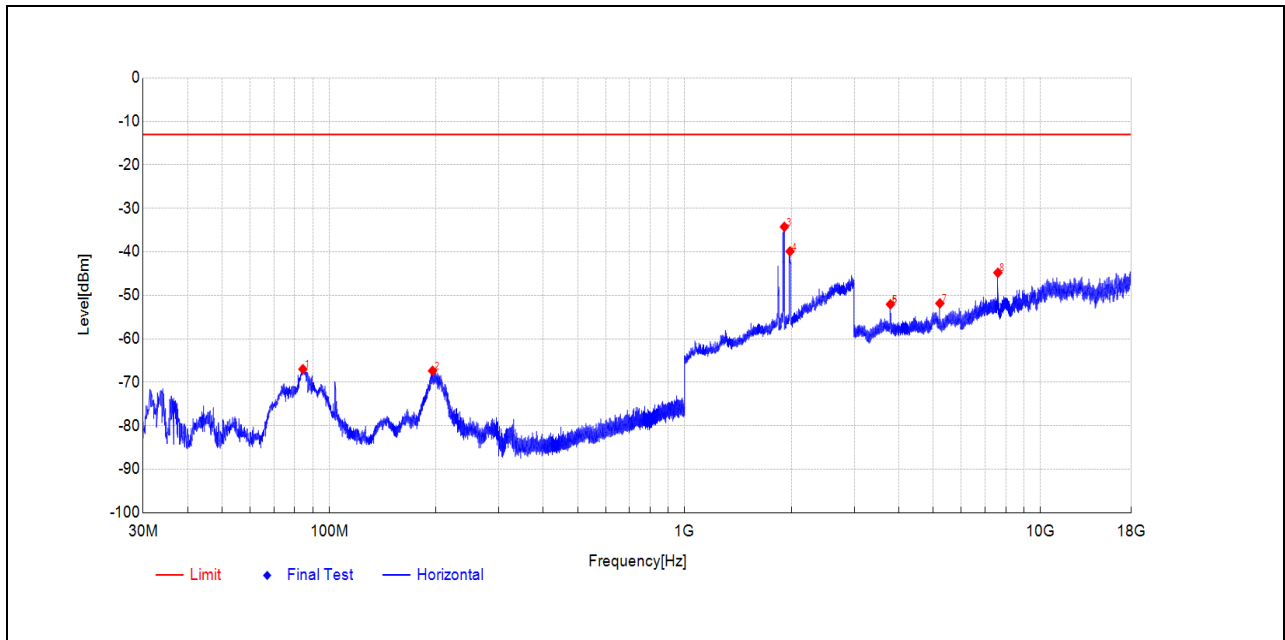
RSE_H_LTE_B2_MID 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	45.3268	-48.18	-68.31	-20.1	-13.0	55.3	Vertical	PK	5	PASS
2	85.3413	-43.25	-66.00	-22.8	-13.0	53.0	Vertical	PK	88	PASS
3	1888.9778	-51.34	-46.24	5.1	-	-	Vertical	PK	123	NA
4	1966.1932	-35.22	-30.82	4.4	-13.0	17.8	Vertical	PK	103	PASS
5	3750.9644	-51.73	-50.54	1.2	-13.0	37.5	Vertical	PK	319	PASS
6	5630.9473	-57.34	-50.62	6.7	-13.0	37.6	Vertical	PK	360	PASS
7	7520.2208	-57.16	-45.37	11.8	-13.0	32.4	Vertical	PK	81	PASS

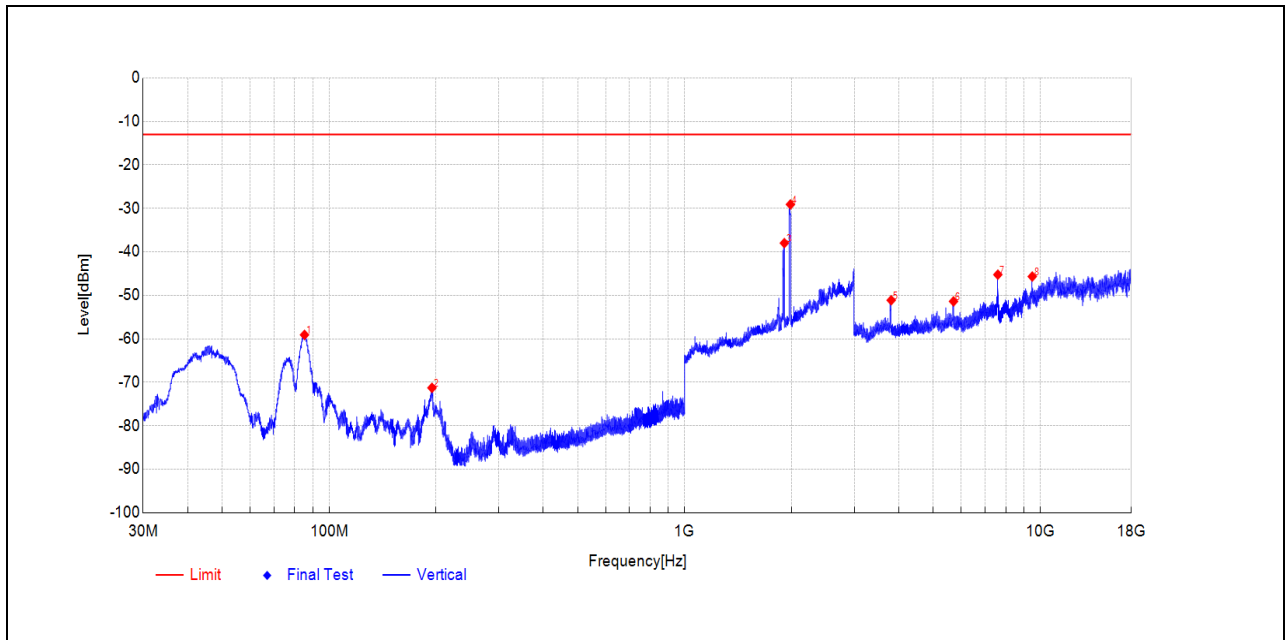
RSE_V_LTE_B2_MID 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	84.4197	-43.31	-66.98	-23.7	-13.0	54.0	Horizontal	PK	356	PASS
2	195.4418	-48.74	-67.36	-18.6	-13.0	54.4	Horizontal	PK	360	PASS
3	1907.3815	-38.50	-34.23	4.3	-	-	Horizontal	PK	229	NA
4	1978.5957	-44.53	-39.89	4.6	-	-	Horizontal	PK	101	NA
5	3790.8273	-52.92	-52.05	0.9	-13.0	39.1	Horizontal	PK	88	PASS
6	3790.8273	-52.92	-52.05	0.9	-13.0	39.1	Horizontal	PK	88	PASS
7	5220.7458	-57.02	-51.83	5.2	-13.0	38.8	Horizontal	PK	194	PASS
8	7599.904	-56.53	-44.80	11.7	-13.0	31.8	Horizontal	PK	37	PASS

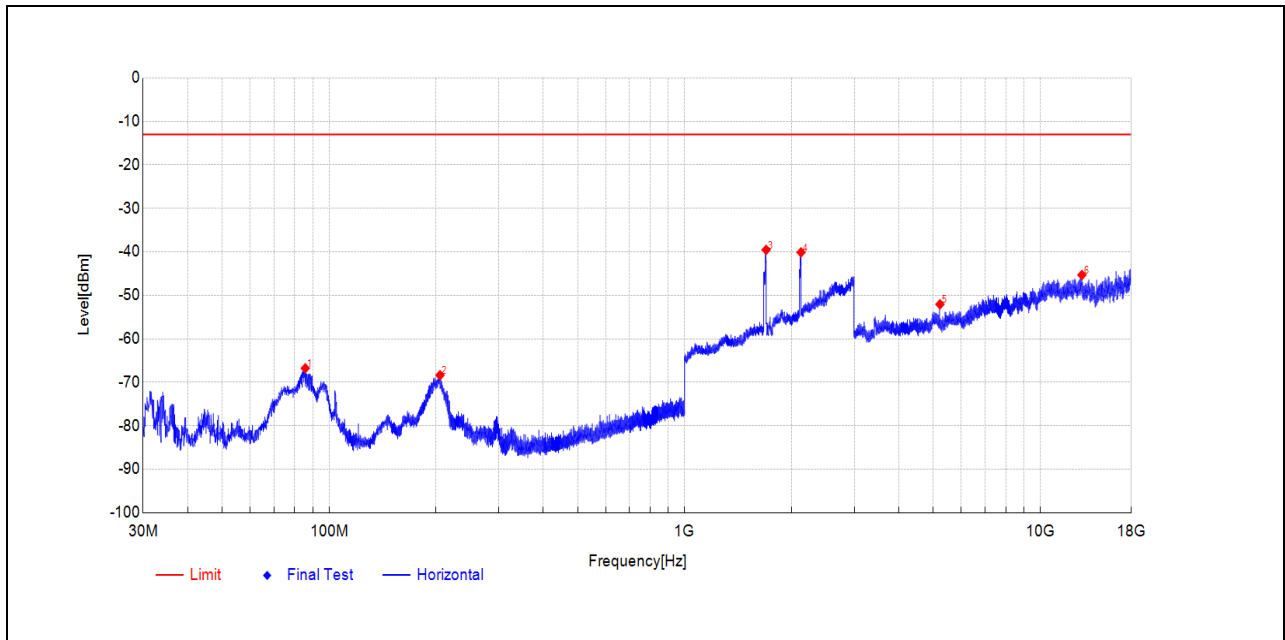
RSE_H_LTE_B2_HIGH 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	85.2928	-36.33	-59.09	-22.8	-13.0	46.1	Vertical	PK	69	PASS
2	194.7142	-49.45	-71.27	-21.8	-13.0	58.3	Vertical	PK	5	PASS
3	1906.9814	-42.97	-37.98	5.0	-	-	Vertical	PK	101	NA
4	1983.7968	-33.75	-29.08	4.7	-13.0	16.1	Vertical	PK	355	PASS
5	3808.8298	-51.79	-51.12	0.7	-13.0	38.1	Vertical	PK	110	PASS
6	5702.9576	-57.95	-51.39	6.6	-13.0	38.4	Vertical	PK	5	PASS
7	7599.904	-56.34	-45.23	11.1	-13.0	32.2	Vertical	PK	79	PASS
8	9495.9798	-62.68	-45.67	17.0	-13.0	32.7	Vertical	PK	334	PASS

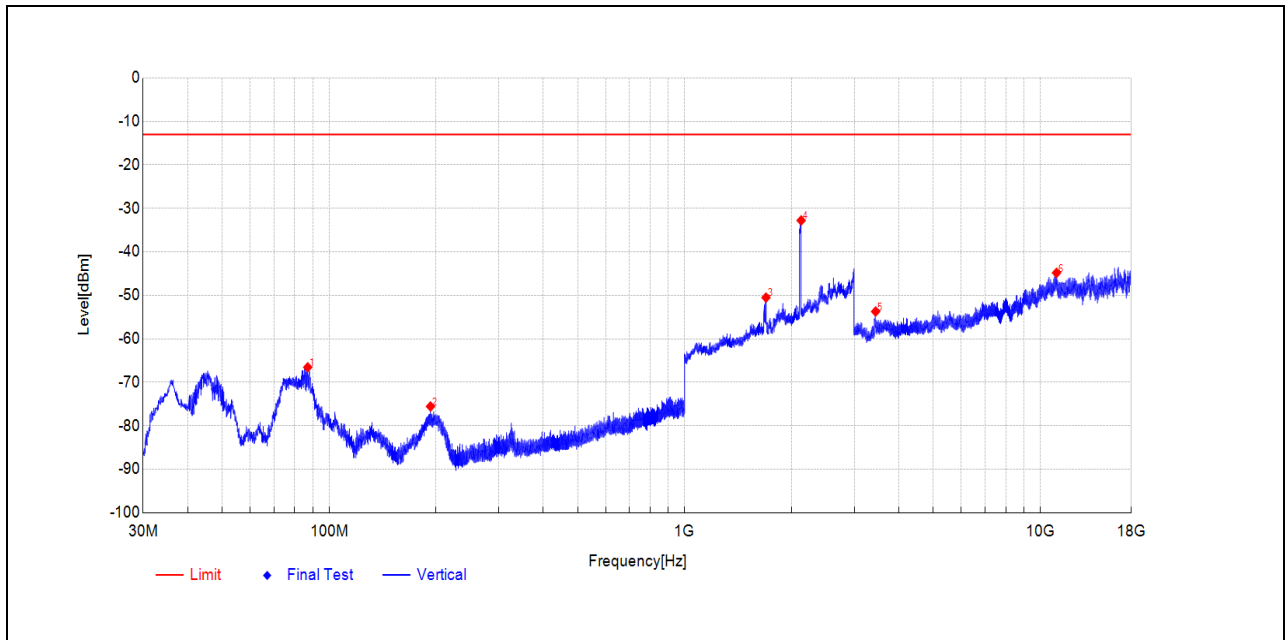
RSE_V_LTE_B2_HIGH 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	85.7293	-43.19	-66.76	-23.6	-13.0	53.8	Horizontal	PK	5	PASS
2	205.0938	-51.41	-68.37	-17.0	-13.0	55.4	Horizontal	PK	5	PASS
3	1694.5389	-42.53	-39.53	3.0	-	-	Horizontal	PK	226	NA
4	2124.2248	-46.06	-40.11	6.0	-	-	Horizontal	PK	269	NA
5	5222.889	-57.25	-52.06	5.2	-13.0	39.1	Horizontal	PK	128	PASS
6	13099.004	-69.49	-45.31	24.2	-13.0	32.3	Horizontal	PK	226	PASS

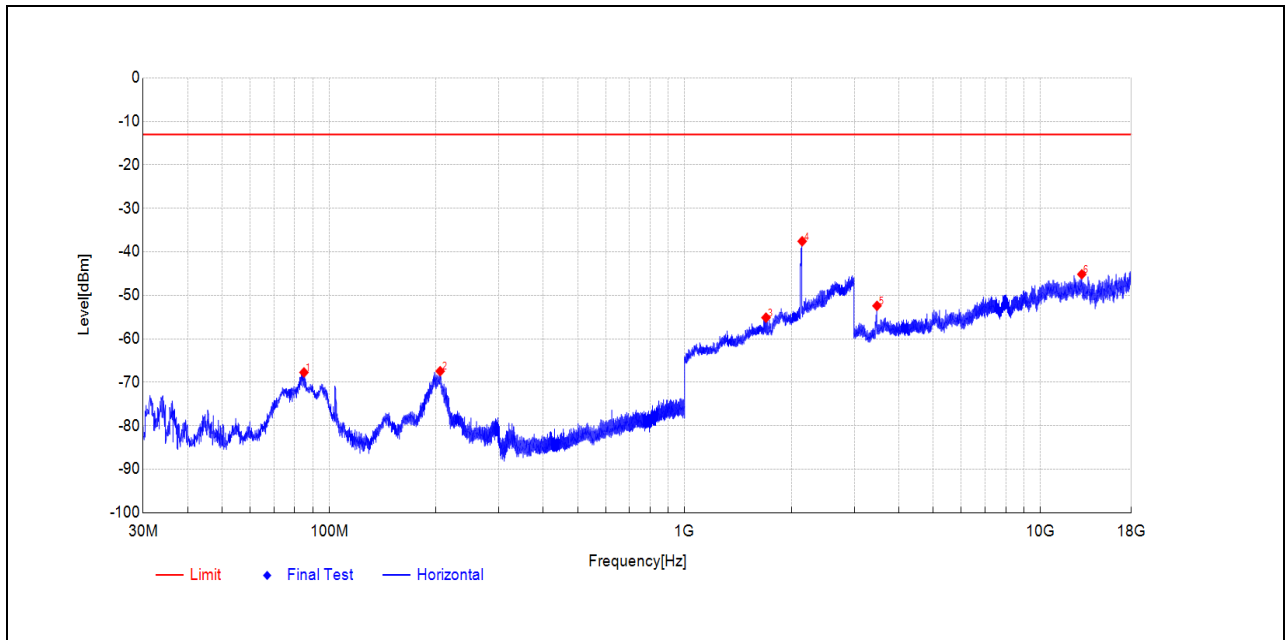
RSE_H_LTE_B4_LOW 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	87.0874	-43.98	-66.54	-22.6	-13.0	53.5	Vertical	PK	90	PASS
2	192.8711	-53.67	-75.56	-21.9	-13.0	62.6	Vertical	PK	5	PASS
3	1693.3387	-53.65	-50.50	3.2	-13.0	37.5	Vertical	PK	207	PASS
4	2126.2252	-38.71	-32.77	5.9	-	-	Vertical	PK	146	NA
5	3444.4921	-54.48	-53.72	0.8	-13.0	40.7	Vertical	PK	315	PASS
6	11115.0846	-66.69	-44.82	21.9	-13.0	31.8	Vertical	PK	334	PASS

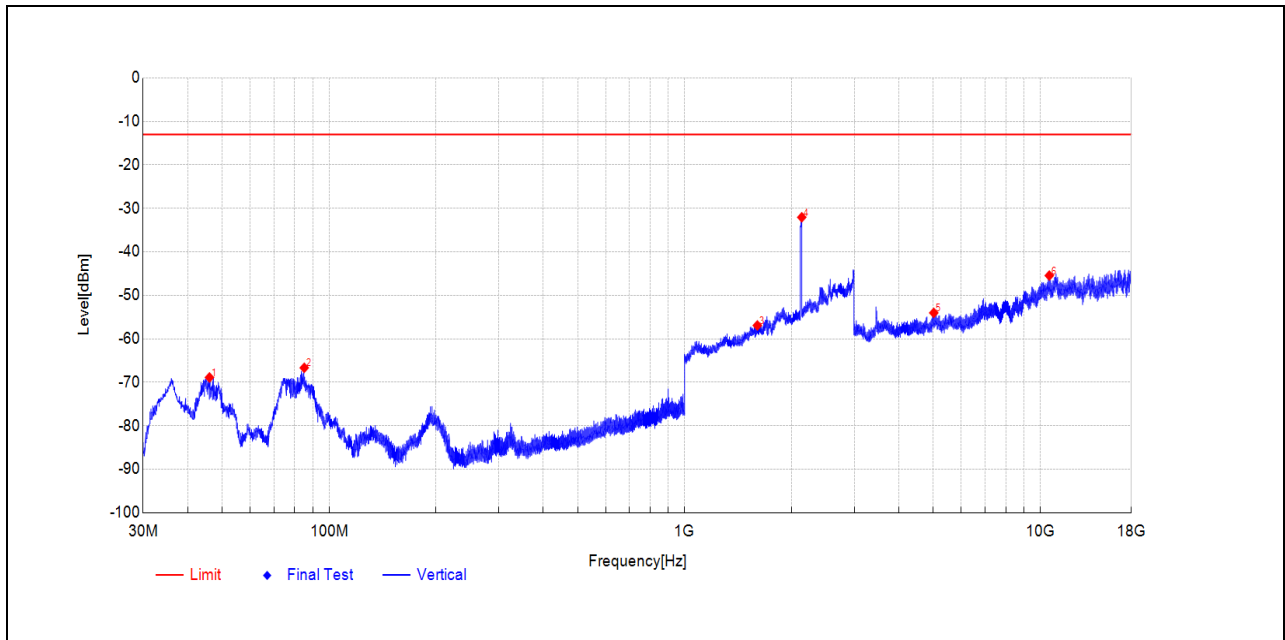
RSE_V_LTE_B4_LOW 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	85.0018	-44.12	-67.73	-23.6	-13.0	54.7	Horizontal	PK	149	PASS
2	205.3363	-50.50	-67.45	-17.0	-13.0	54.5	Horizontal	PK	149	PASS
3	1692.9386	-58.02	-55.12	2.9	-13.0	42.1	Horizontal	PK	226	PASS
4	2140.228	-43.58	-37.56	6.0	-	-	Horizontal	PK	100	NA
5	3474.0677	-53.24	-52.41	0.8	-13.0	39.4	Horizontal	PK	336	PASS
6	13087.4835	-69.14	-45.15	24.0	-13.0	32.2	Horizontal	PK	186	PASS

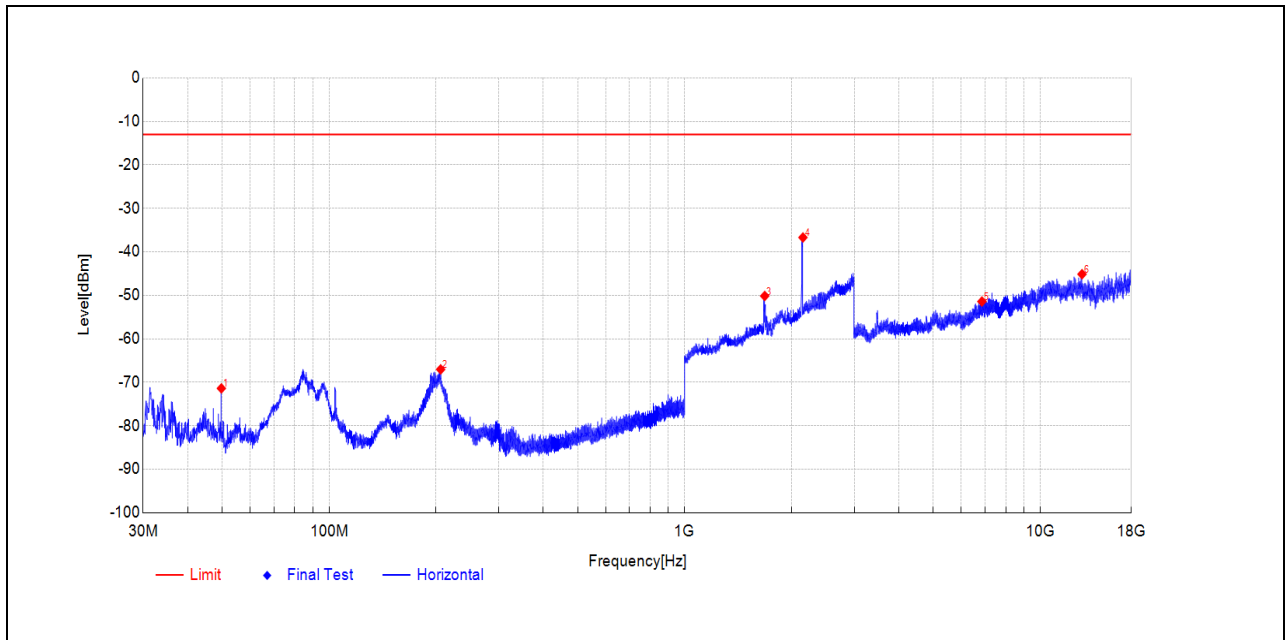
RSE_H_LTE_B4_MID 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	46.1028	-49.04	-68.88	-19.8	-13.0	55.9	Vertical	PK	150	PASS
2	85.1473	-43.92	-66.66	-22.7	-13.0	53.7	Vertical	PK	109	PASS
3	1600.9202	-58.78	-56.92	1.9	-13.0	43.9	Vertical	PK	292	PASS
4	2134.6269	-38.00	-32.04	6.0	-	-	Vertical	PK	355	NA
5	5018.8598	-59.54	-54.02	5.5	-13.0	41.0	Vertical	PK	150	PASS
6	10604.3442	-65.51	-45.45	20.1	-13.0	32.5	Vertical	PK	121	PASS

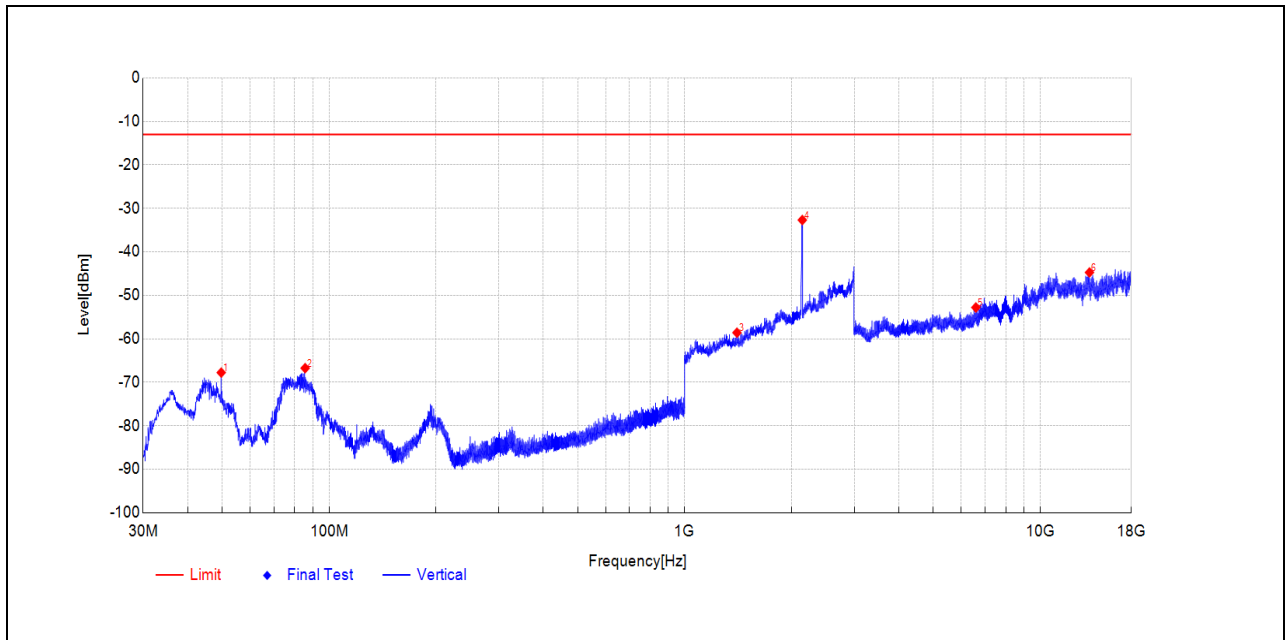
RSE_V_LTE_B4_MID 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	49.789	-56.02	-71.39	-15.4	-13.0	58.4	Horizontal	PK	5	PASS
2	205.9668	-50.12	-67.03	-16.9	-13.0	54.0	Horizontal	PK	150	PASS
3	1679.3359	-52.21	-50.14	2.1	-13.0	37.1	Horizontal	PK	230	PASS
4	2151.0302	-42.71	-36.69	6.0	-	-	Horizontal	PK	102	NA
5	6854.4342	-62.93	-51.41	11.5	-13.0	38.4	Horizontal	PK	0	PASS
6	13107.1643	-69.15	-45.13	24.0	-13.0	32.1	Horizontal	PK	208	PASS

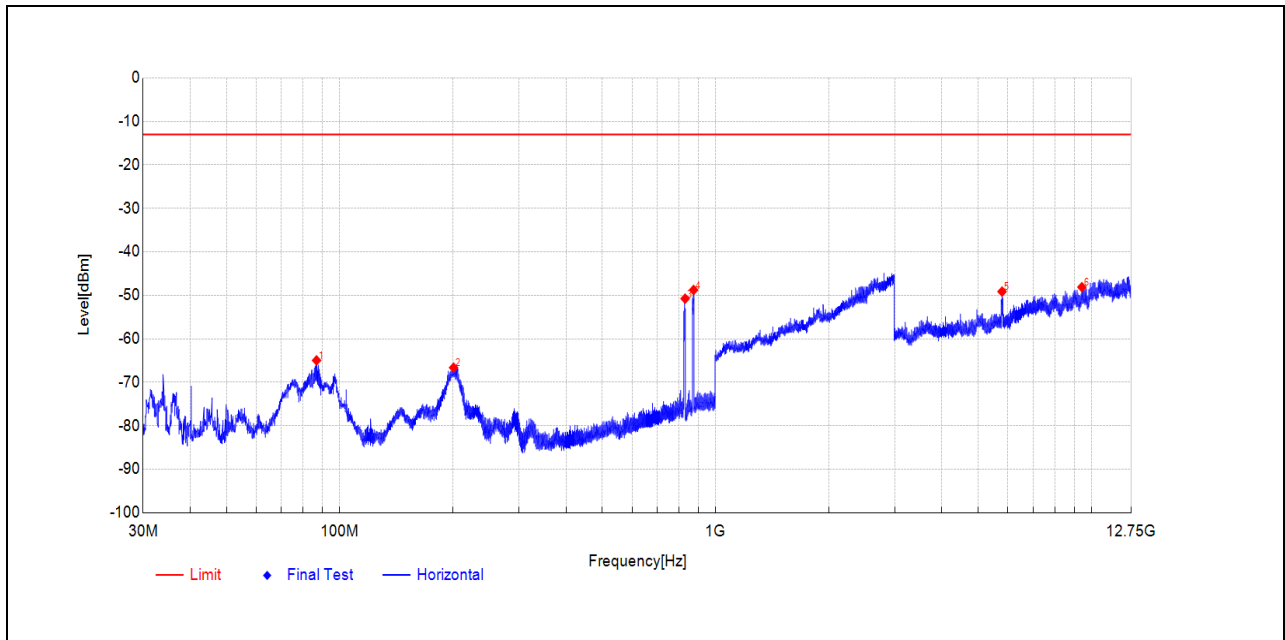
RSE_H_LTE_B4_HIGH 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	49.7405	-49.13	-67.76	-18.6	-13.0	54.8	Vertical	PK	5	PASS
2	85.6323	-44.05	-66.74	-22.7	-13.0	53.7	Vertical	PK	91	PASS
3	1403.2807	-58.22	-58.59	-0.4	-13.0	45.6	Vertical	PK	355	PASS
4	2142.2284	-38.52	-32.67	5.9	-	-	Vertical	PK	83	NA
5	6591.3837	-62.89	-52.78	10.1	-13.0	39.8	Vertical	PK	355	PASS
6	13754.7102	-68.94	-44.73	24.2	-13.0	31.7	Vertical	PK	145	PASS

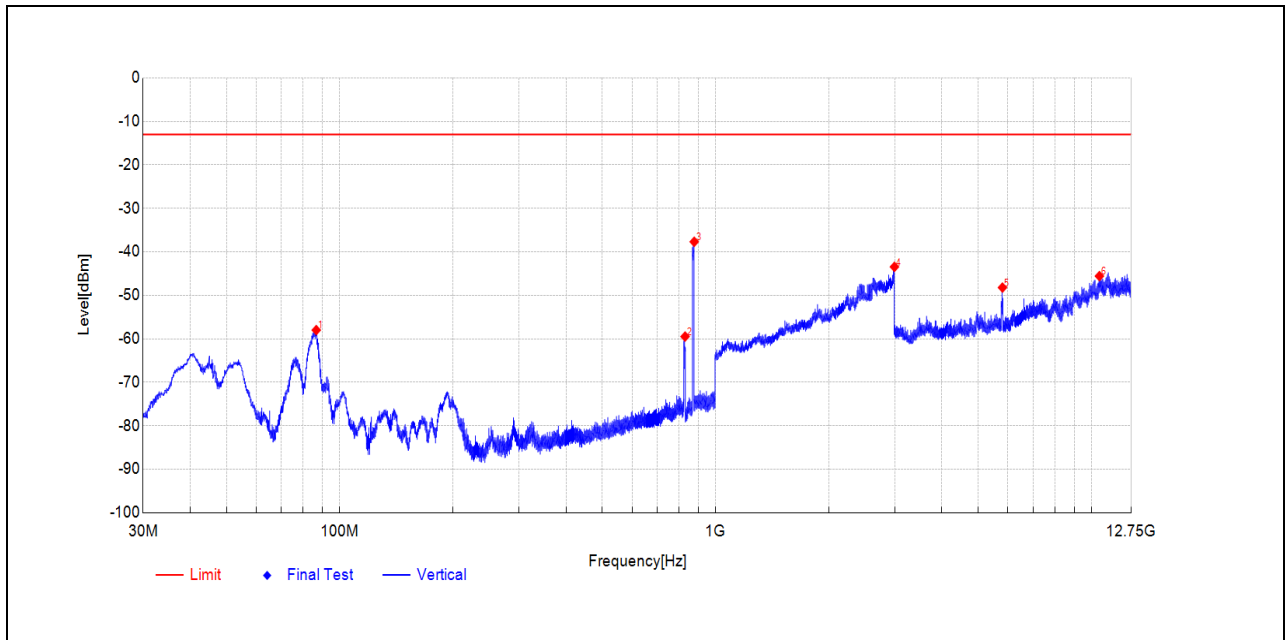
RSE_V_LTE_B4_HIGH 20M_30M-18G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	86.7963	-41.56	-64.95	-23.4	-13.0	52.0	Horizontal	PK	6	PASS
2	200.9225	-49.15	-66.62	-17.5	-13.0	53.6	Horizontal	PK	360	PASS
3	830.096	-45.05	-50.76	-5.7	-	-	Horizontal	PK	217	NA
4	874.2332	-43.95	-48.76	-4.8	-	-	Horizontal	PK	132	NA
5	5785.7143	-56.48	-49.13	7.4	-13.0	36.1	Horizontal	PK	217	PASS
6	9437.2719	-64.64	-48.11	16.5	-13.0	35.1	Horizontal	PK	342	PASS

RSE_H_LTE_B5_LOW_10M_30M-12.75G



Data List

No.	Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Angle [°]	Verdict
1	86.6508	-35.52	-57.99	-22.5	-13.0	45.0	Vertical	PK	70	PASS
2	829.805	-53.49	-59.47	-6.0	-	-	Vertical	PK	5	NA
3	877.4829	-33.10	-37.67	-4.6	-	-	Vertical	PK	91	NA
4	2992.3985	-59.86	-43.44	16.4	-13.0	30.4	Vertical	PK	355	PASS
5	5800.34	-54.75	-48.21	6.5	-13.0	35.2	Vertical	PK	237	PASS
6	10506.4128	-65.70	-45.57	20.1	-13.0	32.6	Vertical	PK	48	PASS

RSE_V_LTE_B5_LOW_10M_30M-12.75G